## BROADCASTERS GENERAL STORE



Reference Catalòg 2001

# WWohler PANORAMA बtv DIG।TALVIDEOSOLUTIONS In-Rack Audio \& Video Monitoring 

## Wohler Speaker Systems

AMP1A


The unit that started the In-Rack speaker revolution. Compact (1U) and convenient quality audio monitoring direct from your rack. We offer models for all applications \& budgets.

## AMP2-VSDA

Top of the line speaker system accepts SDI and AES digital inputs together with analog. Features powerful 104 dB high quality output, four level meters and phase indication. Decodes and/or demuxes digital signals.


## Wohler Level Meters

## LM106-6



6 channels of 106-segment, ultra-high resolution tri-color LED bargraphs. Mounted horizontally in 1 U chassis. Also Available with Dolby® Digital Decoder.


## PANORAMAdtv LCD Video Monitors



## VAMP-24

Excellent unit for monitoring both audio and video directly from the rack. High quality color LCD video monitor offers confidence monitoring from either of two composite analog video inputs, auto-sense NTSC/PAL Audio features internal or external speaker switch - no need for separate amplifier. 4 channel input selection and 4 high resolution 53 segment tricolor level meters.

VAMP-2SDI
Same features as the VAMP- 24 analog unit with the added capability of accepting SDI and AES digital inputs. Converts SDI to analog composite video and offers output for use with larger external video monitors. All this in only 2 U of rackspace.


MON4-3
Quad LCD color monitor in only $3 U$ of rackspace. 4 High quality and very bright LCD monitors. Features adjustable viewing angle, full picture control, auto-sensing for NTSC / PAL and mix \& match analog and digital video inputs. Perfect for confidence monitoring of multiple video feeds for mobile trucks, news and control room applications.

## Table of Contents



## Broadcasters General Store

2480 S.E. 52nd Street • Ocala, FL 34480-7574

Welcome to Broadcasters General Store Reference Catalog. We hope this will serve as a handy tool in your planning process. Remember to get more information on an item, we would be happy to fax or mail more information. Quicker yet --- log onto our Web Site and you can be hotlinked to any of the manufactures sites for the most current and detailed information!

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| Monday thru Fnday |
| B:30AM to GPM EST |

## Amplifiers • Distribution Amps



| Audio Distribution Amplifiers | Configuration | Input Connector | Output Connector | Meters | Level Adjust | Headphone Jack | Rack Mount | Power Supply | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aphex 120A | 1×4 | XLR | XLR | - | Yes | - | Opt 1U \$29.95 | 120-240V | \$319.00 |
| ATI DA1008-2 | $1 \times 8$ | Barrier Strip | Barrier Strip | Yes | Yes | Yes | 1 U | 117 V | \$849.00 |
| ATI DA2016-2 | Dual 1x8 | Barrier Strip | Barrier Strip | Yes | Yes | Yes | 1 U | 117 V | \$1,169.00 |
| ATI DA1000-1 | $1 \times 8$ | Barrier Strip | Barrier Strip | - | Yes | Yes | Opt 10 \$25-\$28 | 117 V | \$379.00 |
| ATI DA2008-1 | Dual 1×4 | Barrier Strip | Barrier Strip | - | Yes | Yes | Opt 1U\$25-\$28 | 117 V | \$399.00 |
| ATI DA206 | Dual $1 \times 3$ | XLR | XLR | - | Yes | - | 1 U | 115 V | \$479.00 |
| ATI DA412 | Quad 1×3 | Barrier Strip | Barrier Strip | - | Yes | - | Opt 1U \$25-\$28 | 115 V | \$679.00 |
| ATI DA208 | Dual $1 \times 4$ | Barrier Strip | Barrier Strip | - | Yes | - | Opt \$25-\$28 | 115-240V | \$389.00 |
| ATI DA416 | Quad 1×4 | Barrier Strip | Barrier Strip | - | Yes | - | Opt 1U \$25-\$28 | 115-240V | \$569.00 |
| ATI DDA106-XLR | $1 \times 6$ | XLR | XLR | - | Yes | - | 1 U | 115-240V | \$799.00 |
| ATI DDA112-XLR | 1×12 | XLR | XLR | - | Yes | - | 1 U | 115-240V | \$959.00 |
| ATI DDA206-XLR | Dual $1 \times 6$ | XLR | XLR | - | Yes | - | 10 | 115-240V | \$1,199.00 |
| ATI DDA112-BNC | 1×12 | Barrier Strip | Barrier Strip | - | Yes | - | 1 U | 115-240V | \$759.00 |
| ATI DDA124-BNC | 1×24 | Barrier Strip | Barrier Strip | - | Yes | - | 1 U | 115-240V | \$899.00 |
| ATI DDA212-BNC | Dual 1×12 | Barrier Strip | Barrier Strip | - | Yes | - | 1 U | 115-240V | \$1,089.00 |


|  | U.S.11.A. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Audio Distribution Amplifiers | Configuration | Input Connector | Output Connector | Meters | Level Adjust | Headphone Jack | Rack Mount | Power Supply | Price |
| AUDIOARTS SDA-8400 | Stereo $1 \times 8$ or $2 \times 4$ or Mono $1 \times 16,2 \times 8$ or $4 \times 4$ | 3-Pin Molex | 3-Pin Molex | - | Yes | - | 1 U | 120 V | \$524.00 |
| Benchmark IFA-9 | 1×6 | DB-25 | DB-25 | - | Yes | - | Opt 1U\$25 | Opt 16V PS-1 \$35 | \$225.00 |
| ESE ES217 | 1×4 | Barrier Strip | Barrier Strip | - | Yes | - | - | 117 V | \$195.00 |
| ESE ES217XLR | $1 \times 4$ | XLR | XLR | - | Yes | - | - | 117 V | \$320.00 |
| ESE PC217 | $1 \times 4$ |  |  | Computer | Card / PC | Compat | tible |  | \$95.00 |
| ESE ES246 | Quad 1x6 | Barrier Strip | Barrier Strip | - | Yes | - | 14 | 117 V | \$395.00 |
| ESE ES246XLR | Quad 1x6 | XLR | XLR | - | Yes | - | 14 | 117 V | \$695.00 |
| Graham Patten DA-14A | $1 \times 4$ | XLR | XLR | - | - | - | Opt RT-2 hold 3 \$449 | Opt 115V PS-3A \$20 | \$399.00 |
| Graham Patten DA-14B | $1 \times 4$ | BNC | BNC | - | - | - | Opt RT-2 hold $3 \$ 449$ | Opt 115V PS-3A \$20 | \$399.00 |
| Henry Englneering U.S.D.A. | 2x4 | Barrier Strip | Barrier Strip | - | Yes | - | - | 115 V | \$195.00 |
| Oxmoor MDA16 | $1 \times 6$ | XLR | XLR | - | Yes | - | 1 U | $110-220 \mathrm{~V}$ | \$525.00 |
| Oxmoor MDA26 | $2 \times 6$ | XLR | XLR | - | Yes | - | 1 U | 110-220V | \$559.00 |
| Radło Design Labs ST-DA3 | $1 \times 3$ | Screw Terminal Block | Screw Terminal Block | - | Yes | - | Opt \$127 holds 12 | Opt 24Vdc PS24A \$31 | \$134.00 |
| Radio Design Labs STM-DA3 | $1 \times 3$ (mic level) | Screw Terminal Block | Screw Terminal Block | - | Yes | - | Opt $\$ 127$ holds 12 | Opt 24Vdc PS24A \$31 | \$134.00 |
| Radio Design Labs RU-AED4 | $1 \times 4$ | XLR | XLR | - | - | - | Opt RU-RA3 \$31 | Opt 24Vdc PS24U2 \$68 | \$599.00 |
| Radio Design Labs RU-BDA3 | $1 \times 3$ | XLR | XLR | - | Yes | - | Opt 1U RU-BR1 \$27 | Opt 24Vdc PS24A \$31 | \$237.0n |
| Radio Design Labs RU-DA4D | $2 \times 4$ | Barrier Strip | Barrier Strip | - | Yes | - | Opt 1U RU-BR1 \$27 | Opt 24Vdc PS24A \$31 | \$245.00 |
| Radio Design Labs RU-SPD4 | $1 \times 4$ | BNC/Phono | BNC/Phono | - | - | - | Opt RU-RA3 \$31 | Opt 24Vdc PS24U2 \$68 | \$745.00 |



AT DA 10000 wanmon
The ATI System 10,000 Modular Amplifiers mix interchangeable distribution, microphone or line amplifier modules into one rack frame. Each 3 U rack holds up to ten amplifier modules and two redundant plug-in power supplies. Features include: Headphone jacks on all modules allow a quick signal check. • Backup, alarmed, load sharing power supply modules with separate fusing and regulation in each amplifier module minimize localized heat buildup and yield the highest system reliability. • Barrier blocks with pre-wireable strips or punch blocks make instaliation a snap!

3U Rack Frame Assembly
$\$ 399.00$
Pleasse call for
PS- $100 \ldots$
Power Supply, $115 / 230 \mathrm{Vac}$ in, $\pm 17 \mathrm{Vdc}$ our, diode isolated ourputs for redundant operation, power failure alarm output and indicators.
$\$ 365.00$
information
Modular Distribution Amplifiers Range in Price from $\$ 269$ to $\$ 495.00$
and pricing!
Modular Line Amplifiers.
Range in Price from $\$ 249$ to $\$ 399.00$
Modular Microphone Amplifiers
Range in Price from $\$ 259$ to $\$ 429.00$

## Benchmark Systems 1000

 System 1000 module daughter-boards place the power of remote gain or monol stereo mode control at your fingertips.
MF-300
3U 12-Module Frame $\$ 495.00$
MF-300MLX.. 12-Module Frame w/latching Molex connectors $\$ 645.00$

Power Supplies Range in Price from
$\$ 930$ to $\$ 1,{ }^{7} 60.00$
Line Level DA Modules Range in Price from
Mic Pre/DA ModulesRange in Price from
Utility Modules Range in Price from
 sbsFlexDA packs four inputs, sixteen outputs and a flexible routing system into 1 U . It's designed to disribute audio sources to multiple loads, each of which may be balanced, unbalanced, mono or stereo. The four inputs have individual frort panel gain controks, and drive "audio present" LEDs for at-a-glance monitoring of signal status. Each ourput may be individually assigned to any of the inputs, or to one of two internal mix busses which carry a user-defined combination of the input signals and an be used for simple mono mixes, or more complex applications. The FlexDA is packaged in a novel IU case with moveable rack ears which allow the unit to be mounted with the connectors facing either direction within a 19 inch rack; alternatively, the ears may be rotated through 90 degrees for screw-down or screw-under mounting. When the screw-down or screw-unde-mounting method is used, an extra pair of rack ears is recommended to support the rear of the unit. Five year warranty.

FlexDA
Routing DA
$\$ 549.00$
Additional Rack Ear Kit
$\$ 7.00$

## Amplifiers • Power Amps



EIA chassis. Other features include: front panel LED's and a headphone jack for status


Mafler


## Audio Processing • Air

## Aphex FM Pro 2020



With the Aphex FM Pro 2020 you can literally design the sound of a radio station to generate a highly competitive on-air sound unique and effective for your marker and format. The 2020 is upgradeable and modular - has sixteen user programmable readwrite presets • eight read-only presers optimized for a variety of radio progrann fornats • an internal clock/calendar facilitates an extensive day-part automation capability • menu driven controls permit easy front panel operation while a PC and modem or RS232 cable can control and monitor every parameter - password security • front panel realtime indicators of all major processes • and fail-safe operation is assured by a power-off internal relay bypass and fast program recovery after shut down. All processing is accomplished in the analog domain and the basic unit has analog stereo I/O's. 2 U \& 15 lbs .
2020 ............... FM Pro Basic Unit .................................................... \$4,995.00
2020-1 ............ AES/EBU digital I/O ..................................................... $\$ 500.00$
2020-2 ............ Pre-emphasis limiter .................................................... $\$ 500.00$
2020-3 ............ Stereo generator \& pre-emphasis limiter ...................... \$2,000.00

## CRL AM Amigo



The CRL Amigo AM is a complete, self contained processor for AM stereo or mono applications. It contains wide range multi-band AGC, exclusive matrix limiting with full mono gain support and stereo soundfield enhancement circuitry. Fasy to set up and use. IU
Amigo AM
\$2,150.00


The CRL Amigo is an FM stereo processing system designed for smaill marker and educational stations. It is a stand alone system, needing no pre or post processing. The Amigo has a wide range input AGC, multi-band limiter and digitally synthesized stereo generator. User selectable options such as AGC gain reduction level, stereo sound field enhancement and limit/dip priority are included. The unit is extremely easy to set up and use.
Amigo FM .
$\$ 2,150.00$

## CRL Millennium

플
The CRL Millennium is based on a 32-bit lloating point, 40 MHz DSP platform, with LCD touch screen programming. It uses a fifth order Delta Sigma 18-Bit resolution A/D converter and eight imes over sampling $D / A$ converters, hence providing unparalleled dynamic range. All normal controls can be changed with a touch of the screen and are changed in real time. You can customize your Millennium with just a few key strokes or use one of the numerous factory presers. The $100 \%$ digital architecture includes a wide-band AGC, 5 band compressor, tri-band limiting, final fast limiter, and stereo generator. Analog, AES/EBU, and Toslink fiber optic inputs and Analog, AES/EBU, Toslink, and two independent composite outputs are standard. Full remore control and easy to upgrade fuure software packages.
Millennium
$\$ 10,950.00$

## See more Generators on Pages 158-162....

CRL MBL-100 AM News/Tall
 alone processor designed for AM news/ralk and sports formats. By combining 7.5 kHz filtering with powerful multi-band limiting, very high levels of average modulation density are achieved, therefore, intelligibility of speech is improved as is signal coverage area.
MBL-100
$\$ 3,895.00$
CRL BAP-2000 Audio Processor for Mono Fht or TV $\overline{-2} \overline{0}$ alone audio processor for mono FM or TV consisting of a two band AGC, limiter and built-in dynafex ${ }^{\circledR}$ noise reduction. For TV applications an Fh filter is included. Grear for non-stereo TV transmitters.
BAP-2000 ..
$\$ 1,950.00$
CRL TVS.3001 StevenTV Tramano Noct


Designed for Stereo-TV, the CRLTVS-3001 is a two-channel tri-band $A G C$ having a capability of up to 30 dB of gain reduction. Integral Fh filters are also included as is an exclusive CRL/CBS loudness controller that "tames" loudness problems. The TVS-3001 also senses and corrects phase reversal problems on program material. The TVS-3001 is placed at the studio and prevents audio overload of the STL/telco feeds.
TVS-3001 ...... Stereo 3 Band AGC/Loudness Controller
TVS-3010 ...... TVS-3001 combined with stereo sound field enhancer, advance pre-emphasis limiter \& 15 kHz LP filters.
$\$ 6,395.00$
CRL TVS-3003 MTS Steruo Gtmentutur 8
UndioLimitar


The CRL IVS-
3003 is an MTS-stereo generator and audio limiter. The TVS-3003 also has a wideband AGC providing up to 20dB of gain reduction. The stereo generator portion of the unit is digitally synthesized and therefore is driff free. Limiting is handled by a two stage "variable transfer function" limiter which smoothly handles peak transients without generating distortion products. A "stereo enhance" feature dramatically improves your viewer's received stereo effect.
TVS-3003 ...... Stereo MTS Generator \& AGC/Limiter ....................... \$8,795.00 CRL TVS-3004 PRO Gonerator
 3004 is a digitally synthesized subcarrier generator for pro channel or non-public SAP use. Features integrated audio input limiter, data and/or telemerry input ports.
TVS-3004 ...... Professional Channel (PRO) Generator
$\$ 2,295.00$
CRL TVS-3005 Audio Pichtain (Sap) Ganemotor
 for conventional SAP and non-public broadcast applications. It has a rock stable modulator section, auto carrier mute, full remote control capability, PRO channel input port, and low impedance output will drive long cable lengths!
TVS-3005 ...... Secondary Audio Program (SAP) Generator ................ \$3,395.00
TVS-3005 ...... with BAP-2000 ........................................................ \$4,995.00

## Audio Processing • Air

IDT DVP @ FM (Digital Virtual Processor) is the first processor working on FFT which allows the ability to process without breaking the signal up into bands. Features include: One Advanced Point Processing and eliminates the cascade of functions ${ }^{\bullet}$ processes at 96 kHz with a 40 -bit floating point $\bullet$ intelligently analyses your signal before processing • measures the effect of processing • monitors the effect of processing • has full femote contro access • upgrades from 10 to 66 DSPs • and has a complete list of factory presers for a quick start.

Inovonics 222 AM Processor

The Inovonics 222 is an audio processor specifically intended for AM broadcasting. It incorporates an "adaptive" pre-emphasis characteristic to enhance signal intelligibility and "presence," and a sharp cut-off, low-pass function to eliminate adjacent channel interference. Ir also has feed-forward PWM control and a built-in peak limiter.
222-00
AM Processor 10 kHz cutoff NRSC
$\$ 720.00$
Inovonics 235
AM Processor/AGC/Compressor/Limiter/NRSC


The Inovonics 235 is a full-featured audio processor for mono AM broadcasting. It fearures "gain-riding" $\mathrm{AGC}, 3$ bands of compression and EQ , and an asymmerrical limiter/clipper. The 235 is NRSC compliant and AMAX certified. A built--in RS232 port enables optional computer control.

235
. AM Processor/AGC/Compressor/Limiter/NRSC .
$\$ 1,800.00$
Inovonics WebCaster


The Inovonics WebCaster provides optimum audio preprocessing for Internet "streaming audio." AGC, 3 -band compression, EQ , limiting and low-pass filering tailor full range program sources for the restricted bandwidth of Web audio.
WebCaster
$\$ 1,850.00$
Inovonics David-II FM Processor/Generator


The Inovonics David-II is an integrated FM-Stereo processor/generator. If fearures digital synthesis of the composite multiplex signal for best separation and stable operation and internal combining for SCA or RDS subcarriers. Feedforward Pulse Width Modulation (PWM) audio processing imparts loudness and fullness to the program signal with negligible arrifacts and without sacrificing brilliance. A unique "bass-enhance" faature optionally suppresses subaudible program components while augmenting legitimate "bottom-end".
716-00 $\qquad$ David-II FM Processor/Generator
\$2,000.00

$$
\text { Inovonics } 708 \text { Digital-Synthesis FM Stereo Generator }
$$



The Inovonics 708 Digital-Synthesis FM Stereo Generator includes accurate frontpanel merering, adjustable pre-pilor Composite Processing, and internal combining for RDS and SCA subcarriers. New digital synchesis techniques and linear-phase filtering ensure outstanding performance, and a clean oupput spectrum protects lowinjection digital and analog subcarriers. If your fundamental need is for a simple, yet fully-featured "basic" FM Stereo Generator, the 708 deserves your consideration. IU

## Modulation Science CP-803 composite Processor



Modulation Sciences' CP-803 Composite Processor keeps your FM station loud, clean and legal. Use it with any combination of conventional audio processing to provide up to 6 dB of additional loudness.

CP-803
........... Composite Processor
$\$ 1,495.00$

## Modulation Sciences MYB-2

## StereoMaxx Stereo Expansion Processor

## 

With the Modulation Sciences StereoMaxx Stereo Expansion Processor in your air chain, your station will sound punchier and livelier. Stereo actually sounds wider than the speakers. Music takes on a bigger, deeper, dynamic quality that's especially apparent on car stereos, portables and walk radios. Limiters, dippers or ocher dynamic processors don't affectStereo Maxx adversely because it operates in the spatial domain, nor the amplitude domain.
MYB-2
$\$ 2,889.00$

## Modulation Sciences STV-784

TV Encoder \& Baseband Stereo Generator


The Modulation Sciences TV encoder and baseband stereo generator provides excellent stereo separation and great performance specifications. It accepts composite video for unconditional lock to horizontal sync and complies with the BTSC standards. TSG includes operational monitoring and integral television audio processor with gating control and interleave protection circuit specifically designed for intricate multichannel television sound requirements.
STV-784WB .. TSG, Stereo TV generator w/audio processor \& balanced outputs
$\$ 13,100.00$
STV-784NA ... TSG, Stereo TV generator without audio processor ........ \$9,875.00
STV-784AO ... TSG, Audio processor for STV 784 only .................... \$3,125.00 CLD-2503B ... Balanced Composite Line Receiver for STV-784WB ..... $\$ 900.00$
NiCOM POSEIDON Broadcast Digital Audio Processor - anicom


The NiCOM Poseidon is a 5 band digital processor with 30 pre-programmed equalization curves, offering 10 additional equalization curves that can be personalized. The personalized equalization curves can be easily saved and recalled. Each editable parameter is user friendly, allowing even inexperienced technicians to operate sound changes. Poseidon is totally remote controllable through serial ports directly by PC or via satellite. Poseidon features two independent serial ports uncoupled by optoisolators. This assures maximum immunity from other equipment noise. Digital input is optional. Standard features include: stereo enhancer, digital stereo generator MPX and digital modulator RDS.

Poseidon
Broadcast Digital Audio Processor
$\$ 3,790.00$

## Audio Processing • Air

## Omnia.fm Digital Audio Processor

The original Onniai.fm has become the world's standard for audio processing power and flexibility. Omnia.fm is an all digital FM audio processor using 48 kHz sampling with four bands of AGC and limiting. Proven DSP algorithms produce loud, crystal-clear audio that's free of digital aliasing artifacts. Omnia.fm features include: a user-friendly LCD-screen interface with expert and basic controls - Wideband AGC • Four band, phase-linear, dynamically flat time-aligned crossover - Multiband AGC • Four-band dynamic peak limiter - Non-aliasing, distortion-controlled final limiter Digital stereo generator with Precision Digital Dynamics clipper and composite filter • Thunder Boost bass EQ with up to 12 dB of bass hoost - Two PCM/CIA slots for easy PC-card setting storage, software upgrades and

included modem card - Remote control via RS-232 or modem with included Windows communications software - Standard analog and AES/EBU I/O • DAB ready. Omnia.fm: 3U, 32lbs.


Omnia.fm
Omnia-6fm
Omnia.fm.SPACE.EFX
Onnia.fm.HOT
Omnia.fm.HOT.SPACE-EFX
Omnia.fm.VERIS
Omnia fm VERIS SPACE-EFX
Onmia.sg
\#4500-1000.
\#4700-1000
\#4503-2000
\#4503-1000 \#4503-3000 \#4500-4000 \#4503-4000 \#4600-1000 Stereo Generator
$\$ 9,860.00$
$\$ 10,900.00$
$\$ 11,560.00$
$\$ 12,760.00$
$\$ 13,760.00$
$\$ 11,560.00$
\$12,760.00
$\$ 2,321.00$

## Omnia. 6



It's no secret that Omnia is the processor of choice for leading broadcasters in the world's top markers. In fact, 5 of the 6 most listened-to radio stations in the U.S. use Omnia. And once again, Omnia has set new standards of excellence with the Omnia-Gfm Digital Audio Processor.

The Omnia-6fm is the audio processor for FM broadcasters who demand the ultimate in loudness and audio purity. Omnia-6fm dramatically increases the processing power available to broadcasters, providing 96 kHz sampling with 24-bit resolution, five bands of AGC and six bands of limiting. The result is clean, clear digital audio that's also the ultimate in competitive loudness - with never a hint of digital aliasing.
Omnia-6fm features include: A unique plug-in software architecrure that provides the flexibility to precisely sculpt your station's signature sound • two intelligent, friendly full-color displays for easy set-up and intuitive operations - Selectable "split-channel" processing mode - Wideband and multi-band AGC • Six-band dynamic peak limiere •

Fully adjustable crossover nerwork - Integrated selectable composite and Predictive Analysis clippers • Alldigital stereo generator • Selectable plase rotator • Two I'CM/CIA slots to store, retrieve and share custom settings - Remote control access via modem, RS-232 or TCP/IP and included Windows ${ }^{\circledR}$ communication software - User configurable Bass Management EQ • Selectable Space-EFX Stereo Enhancement - Composite high-pass filter $\bullet$ Standard AES/EBU and analog I/O.
Like all Omnia processors, Onnina-6fm is DAB ready, compatible with all Fureka-147 transmissions and current IBOC proposals, and is easily soffware upgradeable for compliance with future standards. Omnia-6fm: 3U, 32lbs.


Omnia Software Plug-In Modules allow you to further tailor the power of your Onnia.fm. The Omnia.fm.HOT plugin has a unique distributed multiband architecture combined with special limiter algorithnis and optimized FM pre-emphasis that makes your audio sound full, rich and extremely "fat". All the detail and clarity of the music is retained, without
any of the artifacts normally associated with aggressive processing. It'sclean, loud and in-your-face - - perfect for Rock, CHR, Urban, Dance and Rap formats.
The Omnia.fm. VERIS Plug-In Module is designed for Classical, Fine Arts and Jazz programming. The VERIS Plug-In actually improves the sonic quality of wide dynamic range material using an algorithm that preserves the natural tonal quality of recorded material, while improving the overall on-air presence. VERIS does away with clipping altogether, instead maintaining precise peak control using Omnia's pioneering Distributed Look-Ahead Limiter, which predicts when peaks will occur and reduces gain at precisely the right moment to prevent overmodulation.

The Omnia.fm.SPACE-EFX Plug-In Module improves the stereo sound field, bur does it withour the annoying side effects normally found in lesser stereo enhancement tools. With Space-EFX, there's never a "hole" in center-stage, or an exaggerated stereo image. But your listeners will notice a "fuller" mix, with more up-front vocals and more detail in the music. The Space-EFX plug-in is available by itself, or along companions with the HOT or Veris Plug-In Modules.


FM, AM or the Internet. And each Om-nia-3 model includes standard features like: 48 kHz sampling $\bullet$ multi-band processing $\bullet$ digital audio inputs and outputs • integrated composite clipper • a removable PC card that simplifies software changes. Omnia.3: 2U, 32lbs.

The Omnia-3am includes: NRSC low pass filtering - selectable narrow-band filters for News/Talk formats - an EQ adjustment specifically for plate modulated transmitters • daypart automation.

The Omnia-3net has algorithms designed to optimize bit-reduced streaming audio.
All Omnia-3 processors include analog and AES/ EBU I/O standard, and are DAB-ready. Remote control is available with an optional PCM/CIA modem card and Windows(r)-based software.
The Omnia-3fnı also includes an all-digital stereo generator and daypart automation.


## Audio Processing - Air

## Orban Optimod 8200 Deythal FM Auana Procenvor



The Orban Optimod 8200/ U is a true digital FM Audio Processor. The audio and all control functions are digital. It's fully digital audio processing improves the quality and clarity of the successful "Optimod Sound" while adding changeable processing structures, programmability, expandability and PC interface capability for control from your studio, home or car. Orban's RAM-based Digital Hadamard Transform Baseband Encoder ${ }^{\text {TM }}$ produces an extremely well-controlled spectrum, with indiscernibly-low noise and distortion and outstanding separation. $4 \mathrm{U} \& 41 \mathrm{lbs}$.
8200 ............... As above w/multi-band processing .............................. \$9,250.00
8200D/SRC ... Digital I/O card, w/sample rate converter $\$ 1,450.00$
CIT25 ............ Composite Isolation Transformer (eliminates ground loops in longer composite cable runs)
$\$ 250.00$

## Orban Optimod-FM 8200ST

Studio classikt tor Optimbd.FM 8200


The Orban Optimod-FM 8200ST is installed before your STL at the transmitter to protect it from peak and high frequency overload. The 8200ST also controls average levels on the link to maximize its dynamic range, translating to improved signal quality at the receiver. $1 \mathrm{U} \& 12 \mathrm{lbs}$.
8200ST/U $\qquad$ ... Studio chassis for Optimod-FM 8200
$\$ 1,400.00$

Orban 8218 Stereo Degital Encodiat/Genvomtor w/Limilet

The Orban 8218 perfectly complements the 8200 in an all-digital transmission system. All digital encoding accepts either analog or AES/EBU digital inputs. The built-in patented, peak-overshoot limiter controls peak overshoots caused by data compression or phase non-linearities in the transmission system berween studio and transmitter. It also allows automatic or remote controlled switching of pre-emphasis and/or J. 17 (NICAM) de-emphasis. It is equipped with electronically balanced inputs for analog (XLR), transformer-balanced inputs for AES/FBU digital (XLR), a subcarrier inpur (BNC), two floating stereo encoder composite outpurs (BNC), a remote interface (DB25) and switchable $50 \mu$ or $75 \mu$ s pre-emphasis. IU \& 13lbs.
8218 $\qquad$ Stereo Digital Encoder/Generator w/Limiter
\$1,975.00

## Orban 275 A Automatic Strmeo Synthescer



The Orban 275A is designed to be placed permanently in-line to automatically generate stereo from one mono channel and allow true stereo to pass through unhindered. The 275A will noiselessly cross-fade berween synthesized and true stereo material. For remote operation the optional $275 \mathrm{~A} / \mathrm{RC}$ remote panel duplicates all the front panel controls. IU \& 12 lbs .
275A... $\qquad$ Automatic Stereo Synthesizer $\$ 2,400.00$
275A/RC . Remote panel, IU \& 4lbs. $\$ 275.00$

## Ortian Optimod 9100B2 Simpo Am Aeace Processx



The Orban Optimod 9100B2 is an analog audio processing system for AM broadcast CQUAM stereo-LW or MW. It provides you with automatic gain control to ride levels, high-frequency boost that compensates for the roll-off in receivers (giving you a brighter sound), a six-band limiter with distortion-canceling clipper for a very loud and clean sound and switchable low-pass filters (NRSC or CCIR/EBU standard). It also provides compensation for the LF tilt and HF overshoot that cause over-modulation in less-than-perfect transmitters and antennas. The result is noticeably more loudness. $4 \mathrm{U} \& 34 \mathrm{lbs}$.


## Orban Optimod 9200 Destes Frogamimite Phoossor

 Orban Optimod 9200 is a completely redesigned, $100 \%$ digital, fully programmable processor offering conventional remote control or Windows-based PC (386 4 Mb RAM minimum) control. The 9200 U has analog I/O's, and can be upgraded to include 20-bit AES digital I/O with automatic sample rate selection for $32,44.1$ or 48 kHz . The 9200 comes with eight factory presers (can't be erased) and eight user presets (stored in non-volatile memory). Features include: Gated AGC keeps a consistent level into the multi-band compressor and limiter and can be defeated in software (defeat when AGC is applied at the studio). • Receiver HF EQ has 21 selectable curve shapes, amount of ultimate boost adjustable $0-22 \mathrm{~dB}$, plus NRSC-standard modified $75 \mu \mathrm{~s}$ pre-emphasis. - Multi-band Compression and Limiting: Five bands. • Absolute Peak Control: Controls peak output with less than $2 \%$ overshoor under all processing conditions. - LESS-MORE Control: One knob to adjust the amount of processing without having to understand how the processing controls function. - FULL Control: Pernits individual adjustment of processing controls: AGC on/off, AGC Drive, AGC Release, Gate Threshold, Bass Coupling, Multiband Drive, Multiband Release, Multihand Clip, Downward Expander Threshold, HF Clipping. • EXPERT Control: Permits fine-tuning adjustments of more advanced parameters that affect spectral balanceBand 1-5 input drive, Band $1-5$ output mix, final clip drive. •EQ Control: "Basic EQ allows adjustment of high frequency receiver equalization, and relative spectral balance by gain control of low and mid-bands. "Expert EQ" adds two bands of parametric EQ (low and mid-frequencies). 2U \& 19lbs.


The Otban 2200 has all the features of the 8100 A analog Optimod FM: rwo-band processing, analog inputs and stereo composite output. Other features include: AGC, Bass EQ, and HF enhancing • Protection limiter • Analog outputs $\bullet$ Factory presets $\bullet$ User-programmable presets - Built-in tone generator • bypass switch - Remote swirching of presets • True digital DSP processing and stereo encoding (stereo generator) $\bullet$ and is easy to install. $1 \mathrm{U} \& 17 \mathrm{lbs}$.

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## Audio Processing • Air

## Orban Optimod 8400 Digtat Optimod FM



The Orban 8400 provides numerous important advances over the digital signal processing in Orban's popular 8200. By devoting over five times the DSP processing power to the problem, the 8400 reduces bass distortion, opens up high frequency response, and prevents audible clipping distortion on difficult program material. Added stereo enhancement, high frequency enhancement, and composite peak control complement the basic processing improvements, together providing the most powerful and effective on-air FM processing system that Orban has ever created. 8400
$\$ 10,700.00$

## Orban Optimod 6200 Das, Dry and Welleasthe



The Orban Optimod 6200 offers digital twoband or five-band processing and a transparent "look-ahead" limiter for absolute protection against digital clipping. Features include LESS/MORE control; user-defined presers; remote control and computer control via modem. Variable bandwidth capabilities let you match the 6200 to your needs from 4 kHz to 20 kHz full fidelity. Inpur sample rates automatically selected: $32,44.1,48 \mathrm{kHz}$. Inputs: AES/EBU (20-bit resolution). AES/EBU sync, and electronically balanced stereo analog (XLR). Output sample rates, software selectable: $32,44.1,48 \mathrm{kHz}$. Outputs: AES/EBU and analog stereo monitor (XLR). 2 U \& 13.5lbs.
6200 ............... for DAB, DTV, and Webcasting .
$\$ 5,950.00$
Orban 222A spastal Eiriancet


The Orban 222A augments your stations spatial image to give you a more listenable sound. It expands the stereo sound stage without adding harmonic distortion or unnatural coloration. $1 \mathrm{U} \& 10 \mathrm{lbs}$.
222A
Spacial Enhancer
$\$ 975.00$

## QE1 710 A Diatal STereo Giencratar



The QEI 710A Digital Stereo Generator is a true 24 -bit numeric digital signal processing system. It is completely digital from the input oversampling, finite-impulse response filters to the proprietary second generation digital composite firmware and 18 -bit DAC. It is designed for ease-of-operation with familiar control functions and remote stereo/mono mode control. Includes Q-Chain digital and analog inputs and outpurs. The 710 A can also be used as a digital sampling device: the digital signal can then be sent to external processing via Q-Chain and back again to the 710 A for creation of the composite signal in the digital domain.
710A ............ Digital Stereo Generator with AES/EBU digital input, 1U .... \$2,595.00
slos MaXim Pronessor \& MPX5 Steren Gnnmzator


## t.c. electronics DBMAX aiphal Bromenst Mmomerer



The t.c. electronics DBMAX will maximize your audio footprint and get the impact you need. As a transmission processor you get: transparent 5 band, on-air, dynamics processing • presets available for $\mathrm{DAB}, \mathrm{FM}$ and AM transmission are all preprogrammed • simultaneous AGC, compressor, limiter \& soft clipper ${ }^{\bullet}$ and expansion of the broadcast coverage area. As a Radio, TV \& Film Post Optimizer you get: the ultimate mastering processor - 5 band EQ , dynamic filtering of pot/rouble frequencies, 0 or 90 degree mono summing, MS-decoder, etc. • AES/EBU I/O and sync-input as well as 24 -bit A/D-D/A converters • full 24 kHz audio bandwidth at 48 kHz sampling frequency.
DBMAX......... Five Band Digital Broadcast Maximizer .
$\$ 3,995.00$
See more Generators on Pages 158-162....

## Audio Processing • Compressor/Limiter



## Audio Processing • Compressor/Limiter

| Mulli-typumitic Processom |  |
| :---: | :---: |
| Aphex 108 ........................ 2-channel Easyrider ${ }^{\text {TM }}$ Auto compressor, 1U, TRS ................ \$299.00 |  |
| Behringer MDX4400 .......... 4-channel Compressor/Limiter, IU, XLR \& TRS ........................ \$229.99 |  |
| Rane DC-24 ..................... w/Gate \& fourth-order active crossover, IU, XLR \& TRS ........ \$599.00 |  |
| Symerrix 421 M ................... Mono, AGC leveler, limiter, w/speech curve filter, IU, TRS \& XLR ..... $\$ 619.00$ |  |
| Symetrix 422 .................... Stereo, AGC leveler, IU, XLR \& TRS ................................. \$619.00 |  |
| t.c. electronics DBMAX ...... 1U, RCA \& XLR ....................................................... \$3,995.00 |  |
| t.c. electronics Finalizer ....... IU, RCA \& XLR ............................................................ \$1,599.00 |  |
| t.c. electronics Final96K ...... IU, RCA \& XLR ......................................................... \$2,995.00 |  |
| Shrmebote |  |
| Aphex 105 $\qquad$ 4-channel, Logic Assisted Gate, IU, TRS $\qquad$ $\$ 449.00$ <br> Behringer XR2000 $\qquad$ 2-channel, IU, \& XLR $\qquad$ \$249.00 |  |
|  |  |
| Dual Lamprambor Exameter |  |
| dbx 266XL ...........................w/Gate, IU, TRS \&XLR ............................................ \$189.95 |  |
| Klark Teknik DN510 ....... 2-channel, IU, XLR (transformer balanced ourputs \$1567) ............ \$1,395.00 |  |
| Klark Teknik DN514 ....... 4-channel, IU, XLR (transformer balanced outputs \$1559) ............ \$1,215.00 |  |
| Symetrix565E ......................... 1U, TRS \& XLR ..................................................... \$399.00 |  |
| Valley 433 ............................... Dynamite 3, w/gate, IU, TRS ........................................ $\$ 685.00$ |  |
| Dum Compenserilumb |  |
| Alesis NanoCornp ................... w/RMS Peak, IU-1/3RW, TRS |  |
| Alesis 3630 ........................... w/Noise Gate \& Peak RMS detection, 1U, TS ................. \$199.00 |  |
| Aphex 320A .......................... Compellor, IU, XLR .................................................. \$1,350.00 |  |
| ART 212 .............................. 2 U, TRS \& XLR ...................................................... $\$ 679.00$ |  |
|  |  |
| Ashly CLX-52 ........................Stereo Dual Peak, 1U, TRS ......................................... $\$ 539.00$ |  |
| Behringer MDX1400 ...............w/Expander/Enhancer, IU, Jack \& XI.R ......................... \$179.00 |  |
| Behringer MDX2200 $\qquad$ w/Expander, IU, Jack \& XLR . $\qquad$ $\$ 219.00$ dbx 166XL $\qquad$ w/Gate, IU, TRS \& XLR. \$329.95 |  |
|  |  |
| dbx 566 ............................... Tube Compressor, 2U, XI.R \& TRS ............................... \$999.95 |  |
| dbx 1066 .............................. w/Gate \& side chain insert, IU, TRS \& XLR ................... $\$ 549.95$ |  |
| dbx 1046 ........ 4 channel compressor for use as 2 independent st. comp.,IU, XLR \& TRS ................ $\$ 649.95$ |  |
| DODSR866 .........................w/Gate, side chain insert, 1/4" \& RCA I/O ..................... \$279.95 |  |
| Furman LC6 ......................... 1U, TS ..................................................................... $\$ 439.00$ |  |
| Furman LC6B ....................... IU, TS \& XLR......................................................... $\$ 507.00$ |  |
| JoeMeek SC2 ......................... 2U, TRS \& XLR ................................................... \$1,999.99 |  |
| JoeMeek SC4 ........................ 2U, TRS \& XLR ..................................................... \$1,999.99 |  |
| JoeMeek C2 .......................... IU-1/2RW, TRS ....................................................... $\$ 399.99$ |  |
| JoeMeek SC2.2 ...................... 2U, XLR .................................................................. $\$ 799.99$ |  |
| Klark Teknik DN504 ................. Quad Comp/imiter, IU, XIR (cansformer bal. ouquul)\$1597) .......... \$1,495.00 |  |
| Rane MC22 $\qquad$ IU, XLR \& TRS $\qquad$ $\$ 299.00$ <br> sbs Lim-IT $\qquad$ Woodwork Mount (Opt. IU Rack Kit \$35), XLR .............. $\$ 269.00$ <br> Yamaha GC2020C $\qquad$ Dual-mono selectable IU, XLR \& TRS $\qquad$ $\$ 469.00$ |  |
|  |  |
|  |  |



## Audio Processing • Delays

## Eventide BD-500urgtai Eronatist Detiay <br> 

The Eventide BD-500 Digital Broadcast Delay comes standard with 8.5 seconds of stereo delay, and additional delay can be added in the field. The user divides the total available delay time into not one or even two, but several discrete segments (the user decides how many). Each time the DUMP button is pressed only the one segment is dumped. You still have delay protection right away. A sneeze button momentarily "edits" audio entering the delay allowing the host to sneeze or make a comment without being heard on air and without dead air. The unit shows an exact digital read-out of delay time and has a "quick read" bargraph which instantly confirms "you're safe" at a glance. It comes with analog XLR type I/O or optional AES/ EBU I/O. All front panel switches (except configure) can be remoted (both RS-232 and dry contacts are provided). Status indicators can be remoted as well. IU
BD-500-000 ............ Stereo Digital Broadcast Delay .
\$3,395.00
BD-500-100 ............ with AES/EBU I/O .
$\$ 4,690.00$
 obscenity protection. Both feature a delete function, $5-20 \mathrm{KHz}$ audio frequency, 16 -bit resolution, a 44.1 kHz sampling rate, and balanced analog I/O's.
BD941-6 .................. Mono, 6 seconds fixed delay.
BD941-12 ................ Mono, 12 seconds fixed delay
$\qquad$ \$1,795.00 \$2,195.00
BD942-3 ................. Stereo, 3 seconds fixed delay
$\$ 1,995.00$
BD942-6 ................. Stereo, 6 seconds fixed delay.
\$2,395.00

## Eventude BD1020 Difth Yiak Dilis

 The Eventide BD1020 Digital Video Delay is available in a variety of memory configurations, for delay times ranging from 1.1 to 20 seconds. Additional memory for units shipped with less than 20 can be added in the field. BD1020 features include: integrated video and stereo audio delay • NTSC, PAL and SECAM compatible • two independently adjustable video delay outputs • headphone output allow simultaneous monitoring live and delayed audio for precise muting - LCD readout and dynamically-labeled softkeys for easy control • remore mute switch $\cdot$ and RS-422 remote control. Minimum system 8 -bit video, 16 MB memory, maximum system 10 -bit video, 320 MB memory, 2 U .

## Prime Image CASH

Combe Adthonn Comा


With Prime Image CASH, radio broadcasters can create additional commercial time which creates additional revenue. CASH doesn't reduce program content. It allows broadcasters to add commercial time without artifacts, affecting pitch or creating a chipmunk effect. Some of the features include: real-time on-air operation • creates up to an extra 4 minutes of commercial time in 1 hour of program time $\cdot 48 \mathrm{kHz}$ sampling at 16 -bits with no data compression $\bullet$ and is available in mono or stereo. The audio connections are balanced or unbalanced XLR I/Os. IU \& 20 lbs .
CASH
$\$ 12,000.00$
RA .......................... Rackmount Remote
\$1,250.00

## Prime Image Time Machine

Pledios Fegeam litue
 The Prime Image Time Machine is a technological breakthrough product, which reduces program time, to create commercial time, and requires no data compression. A maximum of 30 seconds of video and two channels for time reduction audio is available. The Time Machine features include: edit down long programs • emergency news break with no program loss • adjustable time reduction - fully digital and solid state. The time Machine has BNC video composite, 4 pin Y/C (7 pin available) and Y/U/V or Y/R/B 6 pin mini DIN to 3 BNC I/Os. $3 \mathrm{U} \& 42 \mathrm{lbs}$.
TM ................ Main Frame TV NTSC, PAL or PAL-M
$\$ 10,900.00$
TRS ................ Each second of "Time Reduction"
add $\$ 2,750.00$
Video plus 2 channels of audio is available in 10,20 or 30 second intervals.
Rarie AD 22d omitulaution Deloy


The Rane AD 22d Digital Audio Delay is a fully balanced, two input, two output alignment delay providing a delay range of 0.011 to 327.68 milliseconds on each output. The delay of each output is independently adjustable in 10 microsecond or 1 millisecond increments. Features: 1-Bit Dolby ${ }^{\mathrm{TM}}$ Time Link Conversion • Terminal strip inputs and outputs • Independent remote memory recall interface on rear $\bullet$ Two EPROM memories per channel • Sensitivity control • Signal present and clip indicators - Front panel lockout switch on rear • Delay display in mSEC, feet or meters • 5 digit LED display $\cdot$ Fail-safe bypass for each channel $\cdot 1 \mathrm{U}$.
AD 22d .......... Digital Audio Delay w/Balanced XLR I/O connectors .... $\$ 849.00$

# Broadcasters General Store 1-352-622-7700 

## Audio Processing • Delays


#### Abstract

Rane AVA 220. Aunio/viden Annoment UEIV Eiold \& Rianvo inctomembe

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The Rane AVA 22d Audio/Video Alignment Delay is a fully balanced two input, two output alignment delay providing a range of 0.0 to 9.5 NTSC frames ( $8.0 \mathrm{PAL} /$ SECAM frames) on each output. The delay of each output is independently adjustable in field (half-frame) increments. Features: 1-bit Dolby ${ }^{\text {M }}$ Time Link Conversion • front panel lockout switch on rear • independent remote memory recall interface on rear • active balanced XLR inputs \& outputs • wwo EPROM memories per channel, no batteries $\cdot$ fail-safe bypass for each channel $\cdot I U$.

AVA 22d ......... Audio/Video Alignment Delay
$\$ 899.00$
Symetrix 402 Dum Gutur Deray

The Symertix 402 Dual Output Delay is a 1 input, 2 output digital audio room delay intended for acoustical alignment of distant speaker systems. The 402 allows you to delay the remote speakers to match the time it takes for the signal coming from the main speakers to reach the listener positioned near the remote speakers. Features: 19 -bit $\mathrm{A} / \mathrm{D}, 18$-bit $\mathrm{D} / \mathrm{A}$ 's for $>100 \mathrm{~dB}$ dynamic range - Two independently adjustable outputs - Simple user interface - Delay setting stored in nonvolatile memory, no battery to replace - Automatic hard wire bypass in case of power loss • Front panel lockout • Barrier terminal, XLR, and $1 / 4$ " phone connectors.

$$
402 .
$$

......................... Dual Output Delay.
$\$ 769.00$

Symetrix 610 Bronacast Ausio thatay.


The Symerrix 610 Broadcast Audio Delay can unobtrusively "stretch out" the program until 7.5 seconds of 15 kHz bandwidth stereo audio is stored in memory. Once the "DUMP profanity" button is pressed the 610 automatically begins to stretch the program audio again until the full 7.5 second delay is attained. It can be set up so that only half of the 7.5 second memory is deleted the first time the button is pushed, thereby maintaining a 3.75 second reserve. This allows the host to bring another caller on air right away without having to wait for the menory to build up from scratch. A "COUGH" button allows the host to make impromptu interruptions of the program for up to 7.5 seconds while keeping the audience unaware of the break. The 610 has remote control of all functions and active balanced XLR I/Os. IU


610 ............... Broadcast Audio Delay .....................................................695.00
RC-610........ Broadcast Delay Remote Control ......................... $\$ 199.00$
tc Electronic D22 oughe smadisast Deiay


The t.c. electronic D22 Digiral Broadcast Delay is ideal for on-air situations (Satellite Downlink Compensation) and TV stations with a need to synchronize picture and sound (Lip sync). It is a dedicated two in/wwo out digital delay that provides seamless "on the fly" delay-updating without audio clicks, pitch changes or other unwanted sonic artifacts. The resolution of the delay can be displayed in frames, sub-frames as well as milliseconds and sub-nilliseconds, allocated individually to each of the two delay time controls. The Tap control features a Preview as well as an Instant mode. The Preview Tap enables preview of the tapped delay time before it is inserted in the actual Audio chain, while the Instant Tap inserts the tapped delay time immediately. The User Interface also has a "Set and Forgee" lock function for a more fixed environment. The D22 can be remote controlled via RS-485 (Input only) for recall and GPI which allows external control of Tap Tempo as well as Master Fader output. The D22 is equipped with 24bit AES/EBU and S/PDIF digital interface, 24-bit A/D-D/A converters and Wordclock BNC 75 .

D22 ............... Digital Broadcast Delay \$1,999.00

## Yamaha 05000 Drgite covin

 Delay's audio quality is achieved through the use of 20-bit A/D-D/A converters and 50 kHz sampling, overall circuit design, component selection and layout. It can operate in the dual mode with three independently programmable delays per channel or in the single mode with six independently programmable delays. In the dual mode the D5000 can be used either as a stereo-in/stereo-out or mono-in/stereo-out delay system. The A and B channels also feature independently programmable output levels and low pass filters. The D5000 display lets you delay in milliseconds, distance, musical tempo, or SMPTE frames ( 30,35 , or 24 frame modes). Yamaha has put in up to 100 complete delay setups - dual or single mode which can be stored in the internal RAM memory for recill as needed. The rear panel offers both balanced XLR \& $1 / 4^{\prime \prime}$ jack I/Os as well as a footswitch trigger jack that compliments the trigger switch on the front panel. The MIDI interface provides: MIDI IN and switchable MIDI OUT THRU. IU \& 10.51 lss .
DS000 ............ Digital Delay
$\$ 1,499.00$

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## Audio Processing • Effects

Alesis MidiVerb"4 Dual chatuel Parallet Proaessor


The Alesis MidiVerb* 4 is perfect for projects that require a fully programmable reverb and multi-effect processor. The MidiVerb 4 provides MIDI controller routing and an assignable footswitch input, offering excellent creative effects control during live performance. Features include: 256 programs ( 128 preset/ 128 user storable) Auto Level Sensing ${ }^{\text {TM }}$ automatically sets optimum input level - easy user interface with built-in help pages $\cdot 18$-bit digital conversion ( 24 -bit internal processing) with 48 kHz sample rate e unbalanced $1 / 4^{\prime \prime}$ stereo $\mathrm{I} / \mathrm{O} \cdot 1 \mathrm{U} \& 4.5 \mathrm{lbs}$.

MidiVerb 4
Dual Channel Parallel Processor. $\qquad$ $\$ 329.00$

## Alesis NanoVerbTM Beit Diftum Ethects Processor



The Alesis NanoVerb ${ }^{\text {TM }}$ gives you sixteen of Alesis' best preset effects algorithms in a compact, easy-to-use and affordable package. Features include: 16 programs $\cdot$ stereo operation - one adjustable parameter in each prograrn $w /$ front panel control $\cdot 24$-bit internal processor $\cdot 18$-bit A/D-D/A converters • unbalanced $1 / 4^{\prime \prime}$ stereo I/O's. $1 / 3$ RU \& 1.25 lbs .

NanoVerb ....... 18-Bit Digital Effects Processor
$\$ 135.00$

## Alesis MicroVerb"4




The Alesis MicroVerb®4 is designed to provide a wide variety of great-sounding, easy-to-use effects. To custornize your programs, two front panel knobs allow for quick user-storable edits. Features include: 200 programs ( 100 presets/ 100 userstorable) - multi-effect and dual-send configurations • MIDI modulation and program changes • 24 -bit internal processor • 18 -bit A/D-D/A converters • unlaalanced $1 / 4^{\prime \prime}$ stereo I/O's. $1 \mathrm{U} \& 2.6 \mathrm{lbs}$.

MicroVerb ...... Preset/Programmable 18-bit Signal Processor
$\$ 249.00$


The ART DMV-Pro is a Dual, True-Stereo effects processor. The DMV-Pro offers all of the parameters: editing, MIDI capability and programnability of two full-fearured effects processors. Independent editing interfaces give you immediate access to both stereo processors and its two LCDs, which provide clear, visual feedback to each channel's parameters. Specialized 24-bit processing, combined with ART's proprietary Dynamic Engine Allocation software give you control over a multitude of stunning stereo effects. IU \& 6lbs.

## BOSS (Roland) VT-1B


The BOSS (Roland) VT-1B is a unique device designed for altering and effecting the human voice or any other audio signal. It can provide everything from a slight detuning for voice "thickening", to a full $\pm$ octave pitch shiff, enabling one person to sing a duet with himself. Unlike tape-speed adjustments or a conventional pitch shifter, the VT-1B affords
 separate control of pitch and format so the user's voice can be altered without the "chipmunk" effect. There is also a feature specifically designed to produce "robot-like" talking. Four preser memory locations and four user memory locations.
VT-1B ..................... (and a basic digital reverb)
$\$ 395.00$

## DigTrech Quad4 Muitiettents Processor



The DigiTech Quad4 has four multi-effect processors in one unit. If features four completely independent inputs and outputs that give you the power of four independent mono processors or two true stereo processors. Check out the Quad4 with its simple user interface, large custom display and potent S-DISCII technology. The Quad4 is capable of eliminating the need for multiple, expensive, single purpose processing units. Other features: full MIDI implementation • full bandwidth effects • 20-bit A/ D-D/A converter with $1 / 4^{\prime \prime}$ unbalanced inputs(4) \& outputs(4). $1 \mathrm{U} \& 7.5 \mathrm{lbs}$.
Quad 4 $\qquad$ Multi-effects Processor $\$ 479.95$

## Digitech Studio Series S100 \& S200

Multithecte Proorvons

 $\square$
) $\square$

SIII

The DigiTech Studio Series $\$ 100$ multi-effects processor has a dual engine processor that allows you to use any one of seven different effects-routing configurations. The S 100 is also MIDI-in and Footswitch controllabie, so program changes can be done on-the-fly. The 20-bit A/D-D/A conversion he'ps keep the $S 100$ ultra quiet. This unit comes with 100 factory presets and 100 user sets. Stereo $1 / 4^{\prime \prime}$, TS, unbalanced input; $1 / 4^{\prime \prime}$, TRS balanced output. $1 \mathrm{U} \& 4.2 \mathrm{lbs}$.
The S200 has the same features as the S 100 , plus and LCD screen, internal power supply, 4 parameter MIDI control and a preview effects sample button. Stereo 1/ $4^{\prime \prime}$, TS, unbalanced input; $1 / 4^{\prime \prime}$, TRS balanced output. IU $\& 4.2 \mathrm{lbs}$.
S100.
20-Bit, Dual Engine, True Stereo .
$\$ 219.95$

S200 ............... 20-Bit, Custom Display, Dual Engine, Stereo .. $\$ 339.95$

DMV-Pro ........ Stereo Effects Processor .................................................. $\$ 525.00$

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## Audio Processing • Effects

## Eventide $1+3000-8$ Gmitamentiar



The Eventide H3000 is an entire production department in a single box! This digital audio processor offers all the effects you need, without sacrificing any quality, convenience or effectiveness. The H 3000 fearures 16 Algorithms, including TimeSquecze ${ }^{(B)}$, Stutter and Patch Factory; 184 Factory Presets for spontaneous on-air use and a full complement of production-oriented reverts, delays and digitally-generated sound effects. The Soft Keys give one-burton access to key parameters, making programs quick and easy to use.
H3000-D/SE ... Dynamic Srudio Enhanced Ulra-Harmonizer w/3-D Presers .. $\$ 2,695.00$
H3500-DFX/E ....... Dynamic Ultra-Harmonizer w/95 second internal
$\begin{gathered}\text { Sampler Board ............................................535 } \$ 95.00\end{gathered}$
HS395 ............ 95 second internal Sampler Board for H3000's ............ $\$ 9950$

## Eventide DSP4000B \&DSP4500


powerful DSP4000, but it has a unique set of soffware programs created especially for radio, TV and post-production by sound designer Jay Rose. The DSP4000B offers Timesqueeze $\left.{ }^{( }\right)$ stereo time-compression and expansion with higher qualiry than ever before. It's perfect for fast-paced "Morning Zoo" type radio shows. A six line graphic LCD screen lets you choose the effect you want in seconds. They're conveniendy organized into logical groupings. Every effect features a wide variety of user-adjustable parameters, and the LCD screen leads you quickly through the process, explaining how the various paramerers affect the sound. In addition to saving presets you create in the DSP 4000 B 's internal memory, you can also store them on a removable PCM-CIA memory card for convenience, added capaciry and protection for your unique sounds from use by others. The DSP4000B comes standard with balanced analog inputs and ourputs, with audio bandwidth extending to 22 kHz . Optional is a digital I/O module that provides 24-hit AES/EBU and S/PIIIF I/O.
The Eventide DSP4500 comes standard with every program preset found in the DSP4000, GTR 40000 and DSP4000B and then some. It's Alchemy 101, a brand new collection of 225 presets from Scott Gilfix. Alchemy 101 will be available to DSP4000 owners as a $\$ 495$ PC card. You get over 1000 program presets in all. The DSP4500 includes an 87 -second internal sampler.

| DSP4000 ........ w/Digital I/O \& Memory Card | \$3,995.00 |
| :---: | :---: |
| DSP4000B .... w/Custom Broadcast/Production Presets | \$3,495.00 |
| DSP4500 ........ w/Sampler, Digital I/O \& Memory Card | \$4,995.00 |
| HS487 ........... 87 second internal sampler board | \$995.00 |
| HS4174 ......... 174 second internal sampler board | \$1,495.00 |

## Lexicon MPX-500




The Lexicon MPX-500 is a true stereo 24-bit dual-channel processor with balanced XL.R \&TRS $1 / 4$ " connectors. S/PDIF Digital I/O via coaxial RCA connector. Powered by Lexicon's proprietary Lexichip, ${ }^{\text {TM }}$ the MPX-500 has 240 presets with classic, true stereo reverb programs such as Ambience, Plate, Chamber and Inverse, as well as Tremolo, Rotary, Chorus, Flange, Pirch, Detune, 5.5 second Delay and Echo. Dual-channel processing gives you completely independent effects on the left and right channels.

MPX-500
$\$ 599.00$
Lexicon MPX-100 than chanine Procmenat


The Lexicon MPX-100 is a true stereo, dual-channel processor with 24 -bit internal processing, 20-bit A/D-D/A and S/PIDIF digital ourput and unbalanced analog RCA I/O's. It has 240 presets and 16 program versions. Features include: assign front panel bypass button as input mute or bypass • enable or disable learned parches - mure or bypass during program loads • wet or dry digital output • MIDI out or thru $\bullet$ enable or disable MIDI program change $\bullet$ enable or disable MIDI clock •global or program specific tempo $\bullet$ MIDI dumps for the current program, all 16 user prograns or system mode setring. $1 \mathrm{U} \& 2.2 \mathrm{lbs}$.
MPX-100 ....... Dual channel Processor
$\$ 299.00$
Lexicon MPX-1 Sterev Nhittiotructs Procusbar


The Lexicon MPX-1 Multiple Processor FX technology stereo effects processor is a full strength reverb all the time with up to 5 effects at once. You can expect: a "goof proof" system for quickly fine tuning any program without having to enter an in-depth editing mode visual feedback with on-board help guides - 56 pitch, chorus, EQ , modulation, delay and world class reverb effects • 200 presets with database sorting to let you find exactly what you want and more. Operating levels from -10 dBv to +44 dBu . Analog I/O has balanced XLR and TRS $1 / 4$ " connectors, a coaxial S/PDIF $1 / \mathrm{O}$. IU $\& 6.2 \mathrm{ibs}$.

MPX-1 ........... Stereo Multieffects Processor
$\$ 899.00$
Lexicon PCM-91 \& PCM-81 Dipmil Erbets Procumo


Lexicon's PCM-91 and PCM-81 have a unique, dual DSP plafform which enables the PCM-91 the highest qualiry reverberation availablewhile allowing the PCM-81 to combine reverb with powerful, flexible effects. Both the PCM-81 and PCM-91 allow RAM card storage of your presets and setups. In addition, the PCM-81 continues to accept plug-in cards designed for the PCM-80, allowing you to increase from 300 presets to nearly 800 while increasing the number of algorithms to more than 40 . The PCM- 91 includes 450 new presets, with 50 keyword search to easily locate your chosen preset. Both are equipped with AES/EBU digital audio I/O format, S/PDIF digital audio I/O, S/PDIF coaxial and AES/ EBU XLR output that can be used simultaneously - doubling your digital audio output.

> | > PCM-81 $\ldots . . . . . .$. Digital Effects Processor .................................................... $\$ 2,995.00$ |
| :--- |
| > PCM-91 |
| > |

Optional PC (PCMCIA) cards for specialized industry effects programs.
FX Card .......... Post and Music
$\$ 199.00$
FX Card .......... Dual, Pitch, Vocal, \& Dual Reverb
$\$ 249.00$

## Audio Processing • Effects



The Sony DPS-V55 has a DSP engine backed with 45 easy, dial up algorithms. This digital signal processor also has: 20 -bit A/D-D/A converters, large memory featuring 200 factory presets and 200 storable slots. Connectors are: MIDI I/O, 4 mono or 2 stereo unbalanced $1 / 4^{\prime \prime}$ I/Os with consumer or professional level controls. Effects such as reverbs, chorus, doppler, delay, reflection, limiter, ping pong, gate, stereo panner, de-esser and combinations. $2 \mathrm{U} \& 9.6 \mathrm{lbs}$.

DPS-V55 ................. Digital Signal Processor
$\$ 600.00$

## t.c. electronic Wizard M3000

Stutho fimerb Frncessor


The t.c. electronic Wizard M3000 studio reverb processor will modify the shape, size, decay and direction to create unparalleled realism - from the ultra-natural to the supernatural. Features include: dual engine processing - 250 factory preset algorithms • 200 user presets • intuitive user interface w/instant preset recall $\bullet$ soft compressor • advanced expander and dynamic EQ • de-esser • chorus/flanger • tremolo • phaser • pitch shift • 5 band parametric EQ • analog balanced I/O or digitally via AES/EBU, S/PDIF, ADAT or Toslink (all outputs can be used simultaneously). IU \& 5.2lbs.

M3000 ....................Studio Reverb Processor
$\$ 2,495.00$

## t.c. electronic FIREWORX <br> Mrftelfect Stuntio PTpcentor



The t.c. electronic FIREWORX multi-effect studio processor with work clock creates an infinite number of effects for any style of music or sound design with endless routing possibilities and more than eight internal and nine external modifiers. features 24bit A/D-D/A converter, AES/EBU, S/PDIF and ADAT I/O's. $1 \mathrm{U} \& 5.2 \mathrm{lbs}$.

FIREWORX ............ Multieffect Studio Processor ............................... \$2,195.00

Yamaha REV 100 Eigtai Revarteratoon Unu


The Yamaha REV 100 is basically a no-fuss signal processor - all you have to do is select one of its 99 preset effects and play. The three most critical parameters for all effect programs are adjustable via rotary panel controls - just rotate the appropriate controls until the sound is right. REV 100 effect categories include: reverb, true stereo reverb, gate reverb, delay, delay/reverb, and reverb/modulation. It has 16-bit A/D-D/A converters and a 44.1 kHz sampling rate. Other important features include: advanced MIDI features • 1/4" TS I/Os • easy-to-read 2-digit LED display • and peak LEDs make it easy to set the optimum input level. IU $\& 5.5 \mathrm{lbs}$.
REV 100
. Digital Reverberation Unit
$\$ 299.00$

Yamaha REV500 gigital Reventaration Unit


Yamaha REV500 is a great sounding, yet affordable reverberation unit with DSP3 engine and 20-bit A/D-D/A converter. This true stereo processor with independent left and right channels has 100 user programs which are divided into four categories: Hall, Room, Plate and Special. It has snare and rim shot samples built-in so programs and edits can be auditioned from the front panel. Balanced XLR and TRS phone jack connections allow simple hook up to professional and semiprofessional gear. $1 \mathrm{U} \& 7.7 \mathrm{lbs}$.

REV500 $\qquad$ . Digital Reverberation Unit
$\$ 499.00$

## Yamaha PROR3 thinai Revorterstion Litut



The Yamaha PROR 3 is a 32-bit DSP, high performance, 20-bit linear A/DD/A converter digital signal reverberator. This dual stereo reverb has a MIDI interface, large 24 character $\times 2$-line backlit LCD display, 99 presers and 99 user memory locations. It has XLR and $1 / 4^{\prime \prime}$ phone jacks and true stereo reverb processing available. In addition, 6 preset early reflection types and 4 user types can be created for customized early refraction precision. Three "patches" are provided: series echo to reverb, series reverb to echo and parallel echo with reverb. These programs combine the reverb sound with chorus, symphonic and flange type modulation respectively, making it easy to add a subtle touch of animation to the reverb sound or produce wild "jer reverb" effects. $2 \mathrm{U} \& 12.1 \mathrm{lbs}$.

PROR3 ........... Digital Reverberation Unit
\$1,299.00

## Yamaha SPX-990 mutr-Effect Processor



The Yamaha SPX-990 is a true stereo-in stereo-out multieffects processor that has a 3 band paramerric EQ, compressor and harmonic driver, 100 user memory locations, optional plug-in memory card that stores up to 100 additional programs each, and 20 -bit $A / D-D / A$ converters. It has 36 main effects including reverb, delay, echo, pitch change, pan, freeze, modulation and a combination of the above. Connectors are balanced XLR I/O and unbalanced 1/4" I/O. IU \& 10.2 lbs .

SPX-990
Multi-effect Processor $\qquad$

## Yamaha SPX-1000

Thetul Multztect Procesison
Yamaha SPX-1000 is a fully equipped effects studio at your fingertips. Features include: totally natural rever-
beration • an echo room in which you can instantly change any room dimensions $\bullet$ fully programmable early reflection $\bullet$ a full range of modulation effects $\bullet$ freeze programs that let you replay sound snap-shors • multi-effect programs that combine up to 5 different, fully programmable effects 0 pitch change, compression, expansion, distortion, rotary panning and much more! The SPX- 1000 has a 44.1 kHz sampling frequency, MIDI implementation; A/D-D/A are 16-bit, Yamaha-format digital I/O and unbalanced $1 / 4^{\prime \prime} \mathrm{TS}$ analog I/O connectors. IU \& 8.31bs.
SPX-1000
. Digital Multi-effect Processor
$\$ 1,829.00$

## Built on Tradition. Built for the Future. Built to Last.



OPTIMOD-FM 8400


OPTIMOD.DAB 6200
OPTIMOD-FM 2200: Big Sound. Little Price.

OPTIMOD-DAB 6200: Dptimized for Digital Radio.

OPTIMOD 6200S: Webcasting with the DPTIMOD Sound.

OPTIMOD-AM 9200: Day or Night-The Peak of Perfection.

> Combining Technology and Innovation with Tradition.

# Make sure your audience hears you loud and clear with the CRL Amigo Series Audio Processors 



Grab your listeners by their ears! Whether you're a radio or TV broadcaster, CRL's Amigo Series Audio Processors give you high-quality audio at very affordable prices - and gives your audience the loud, clear, consistent sound that will keep them listening to your station.

The Amigo FM Stereo processor offers a complete array of high-quallty FM processing features usually available only on much more expensive units, including a digital stereo encoder. Your audience will immediately notice the difference!

The Amigo AM Stereo/Mono Processor makes the most of your AM signal. It is the perfect processor for mono stations thinking of going stereo since the Amigo AM can drive two mono transmitters or a main stereo transmitter plus a mono standby.

The Amigo TV Mono Processor automatically monitors and adjusts audio levels, ensuring consistent loudness across diverse program material creating a clear, natural sound.T

## Maximizing your sound while minimizing your cost. CRL Amigo Series Processors

Circuit Research Labs, Inc. 2522 West Geneva Drive Tempe, AZ 85282-3192 USA

Ph: +1 (602) 438-0888
Fax: +1 (602) 438-8227

E-mail: crl@crlsystems.com Website: www.crlsystems.com

## Audio Processing • Enhancements

Aphex 104 Aurni Exciterme Type C - Beig Buttarn


The Aphex 104 has two processing types to enhance both ends of the spectrum. The 104 has increased presence and clarity with switch-select for normal or high harmonics. Virtually noise free, the Big Bottom ${ }^{\text {TM }}$ bass enhancer increases bass sustain, density and loudness. Operates at -10 dBv or +4 dBu with $1 / 4^{\prime \prime}$ TRS phone jack for I/O. IU \& 4lbs.

104
Aural Exciter® Type C - Big Bottom .
$\$ 299.00$

## Aphex 250 Aural Expitere Type ill



The Aphex Type III is a fully professional Aural Exciter loaded with powerful processing features and improved circuitry. Features include: adjustable harmonics mixing • two modes of noise reduction • SPR ${ }^{\text {TM }}$ Spectral Phase Refractor • servo balanced I/O on XLR type connectors • Aphex VCA 1001 • and null fill. It operates with I/O levels from +8 dBu to $-10 \mathrm{dBm} \bullet$ balanced or unbalanced automatically - with all user settings externally accessed • RF filtered AC power input • direct relay bypass with remote control of bypass • solo function • and switches I.ED are indicated. Noise and distortion are virtually eliminated in the Type III circuitry, while the new special features now make enhancement possible while actually erasing noise from noisy sources.
250 ................. Aural Exciter ${ }^{\circledR}$ Type III
$\$ 995.00$

Aphex 9000 Mfodular Processirut System


The Aphex 9000 Modular Processing System is a space saving way to install some of the more popular Aphex products.
9000R ............ 11 position, 3 U unpowered (ships 30lbs. pkg. wt) .......... $\$ 379.00$
9000PS ........... 9000 power supply, 2U Aphex modules only (ships 30 lbs . pkg. wt) $\$ 499.00$
9001 PS ........... same as 9000PS for added DBX® compatibility ............ $\$ 599.00$
9005PS ........... 9000PS, 5 amp power supply, 3U, Aphex only ............... $\$ 699.00$
9251 ............... Aural Exciter module, single channel, 2lbs. ..................... $\$ 449.00$
9301A ............. Compellor module, single channel, 2lbs. ....................... $\$ 549.00$
9621 ............... Logic assisted gate module, single channel, 2lbs. ............. $\$ 499.00$
9651 ............... Expressor module, single channel, 2 lbs. .......................... $\$ 499.00$
9721 ............... Dominator II, single channel, 2lbs................................. $\$ 595.00$
9901A............. Parametric EQ, single channel, 2lbs. .............................. $\$ 449.00$
9000BP .......... Blank panel, single position, .Slbs. .................................... $\$ 19.00$

BBE 482 \& 882 Prasse Correction Alyontums


BBE 482 \& 882 apply different phase correction algorithms to three separate frequency bands. The variable front panel control allows the user to adjust the amount of processing desired. $\mathrm{BBE} ®$ is used to increase the clarity and intelligibility of program material and does not add any extra noise or harmonics to the sound.
$\qquad$ Dual channels \& controis, 1/4" and RCA unbalanced connectors, line level operation.
$\$ 349.00$
882 ................. Dual channels \& controls. 1/4" and XLR balanced connectors, +4 dBu level operation.
$\$ 599.00$

## dbx 900 Series Mouffer Stgun Procussing Sytaem

The dbx 900 Series is a modular signalprocessing system that eliminates redundant packaging,
 saves rack space and provides exceptional flexibility and serviceability.

|  | 9-Channel nainframe, 3U....................................... $\$ 599.95$ |
| :---: | :---: |
| FS900 | 2-Channel horizontal mini-frame 1U ........................ $\$ 399.95$ |
|  | De-esser module .................................................... $\$ 299.95$ |
| 903 | Over Easy Compression module ................................ $\$ 299.95$ |
|  | Noise Gate rodule ................................................. \$299.95 |
| 905. | 3-Band Paramerric/Notch Equalizer module ................. $\$ 499.95$ |
| 911. | Type 1 NR Encode/Decode module ........................... $\$ 239.95$ |
| 929 | 2 Channel single ended NR module ........................... $\$ 399.95$ |
| 941 A... | 2 Channel Type II Encode module ............................. $\$ 259.95$ |
| 942A... | 2 Channel Type II Decode module ............................. $\$ 269.95$ |
| BP-900 | Blank panel ........................................................... $\$ 12.95$ |
| 900/EX | Extender card ......................................................... \$99.95 |

## cbx Quantum



The New dbx Quantum is the first studio mastering tool that offers sampling rates up to 96 kHz , with a true 48 bit digital signal path. The patent-pending dbx TYPE IVTM Conversion System allows you to retain the warmth and body you want in your signal while adding punch and depth, giving you the "big market" sound you want. Features include: $96 \mathrm{kHz}, 24$ bit A/D, D/A, and Digital I/O on AES/EBU or S/PDIF • 4 band stereo compressor-gate-limiter $\cdot 5$ band EQ - Hi and Lo shelves, 3 band filly parametric - Normalizer - lets you control overall signal dynamics • stereo adjust - control your stereo image - Sync I/O using dbx's own proprietary clock chips for extremely low jitter sync • dither outputs to 16,20 , or 24 birs • sample rate conversion • software updated via Internet and MIDI $\cdot$ and 4 and crossover with variable slopes.
Quantum.
$\$ 1,995.95$

# Broadcasters General Store Hotlinks to Vendors @ ww.b.gsticom Www.broadcastdealer.com 

## Audio Processing • Equalizers



|  |  |
| :---: | :---: |
|  |  |
| ART 342 ............................. 15 Band, 2U, XLR, TRS \& RCA ................................................... $\$ 389.00$ |  |
| ART 343 .............................. 15 Band, IU XLR, TRS \& RCA ................................................... $\$ 159.00$ |  |
| Ashly GQX-1502 ................... 15 Band, 2U, TRS, XLR \& BS ....................................................... $\$ 529.99$ |  |
| dbx 1215 ............................. 15 Band, 2U, Balanced XLR, TRS \& BS ......................................... \$569.95 |  |
| dbx 2215 .............................. 15 Band, 3U, TRS, XLR \& BS, w/limiter \& type III NR .................... \$349.95 |  |
| dbx 3215 .............................. 15 Band, 2U, XLR, BS \& TRS .......................................................... \$749.95 |  |
| DOD SR430QX .................... 15 Band, 1U, XLR, Balanced I/O ...................................................... $\$ 254.95$ |  |
| DOD SR830QX ................... 15 Band, 2U, XLR, \& 1/4" TRS ................................................ $\$ 254.95$ |  |
| Electro-Voice EQ-215 ............. 15 Band, 1U, XLR \& TRS ............................................................. $\$ 558.00$ |  |
| Furman Q-152 ..................... 15 Band, 2U, XLR \& TRS ........................................................ $\$ 489.00$ |  |
| Klark Teknik DN332 .............. 16 Band, 2U, XLR......................................................................... \$1,215.00 |  |
| Klark Teknik DN320 .............. 16 Band, 1U, XLR................................................................... $\$ 875.00$ |  |
| Rane GE215 ......................... 15 Band, 2U, XLR \& Euroblock ................................................ $\$ 559.00$ |  |
| Rane ME15B ........................ 15 Band, IU, MicroGraphic, TRS \& XLR ...................................... \$439.00 |  |
| Rolls REQ215 ...................... 15 Band, IU, XLR, TRS \& RCA .................................................. \$250.00 |  |
| Samson E30 |  |
| White 4675 ........................ 14 Band, 2U, XLR ............................................................... \$1,250.00 |  |
| Yamaha GQ2015A ................ 15 Band, IU, TRS \& XLR |  |
| SurroGmenc |  |
| lesis M-EQ230 |  |
| ART 355 .......................... 31 Band, 2U, TRS \& XIR ................................................... \$389.00 |  |
| Ashly GQX-3102 ................. 31 Band, 3U, TRS, XLR \& BS ................................................... \$1,149.99 |  |
| Behringer DSP-8024 $\qquad$ 31 Band, 2U, XLR, TRS $\qquad$ $\$ 699.99$ <br> dbx 1231 $\qquad$ 30 Band, 3U, Balanced XLR, TRS, BS $\qquad$ $\$ 469.95$ |  |
| dbx 1231 ........................... |  |
| dbx 2231 ............................... 31 Band, 2U, TRS, XLR \& BS, w/limiter \& rype III NR ..................... $\$ 799.95$ |  |
| dbx 3231L ........................... 31 Band, 3U, TRS, XLR \& BS .................................................. \$1,199.95 |  |
| DOD SR231QX ................... 31 Band, 2U, XLR \& TRS .......................................................... $\$ 376.95$ |  |
| Electro-Voice EQ-231 ............ 31 Band, 2U, XLR \& TRS ........................................................... $\$ 858.00$ |  |
| Klark Teknik DN-360 ........... 30 Band, 3U, XLR (transformer bal. output \$1922) ......................... \$1,750.00 |  |
| Rane GE60 ......................... 30 Band, XLR, BS \& TRS ......................................................... \$899.00 |  |
| Rane ME60 ......................... 30 Band MicroGraphic, 2U, XLR, TRS \& RCA ............................... $\$ 699.00$ |  |
| Rane MQ302S ..................... 30 Band, 1U, XLR \& TRS ............................................................ $\$ 429.00$ |  |
| Rane MQ302L ..................... Same as MQ302S w/single set of 45 mm faders for L\&R channels, 2U ... $\$ 599.00$ |  |
| Rolls REQ231 ...................... 31 Band, 2U, XLR, TRS \& RCA .................................................. \$525.00 |  |
| Sabine GRQ-3102 ................ 31 Band, 2U, TRS \& XLR ...................................................... \$1,299.95 |  |
| Sabine GRQ-3102S .............. Slave, IU, TRS \& XLR ........................................................... \$1,099.95 |  |
| Samson E62 ......................... 31 Band, 2U, XLR \& TRS ............................................................ \$379.99 |  |
| Symetrix 532E ....................... 31 Band Dual, short throw, 2U, TRS \& XLR .................................. $\$ 749.00$ |  |
| Symetrix 533E ...................... 31 Band Dual, long throw, 3U, TRS \& XLR ................................... \$949.00 |  |
| White 4856 ......................... 31 Band, 3U, XLR \& TS ............................................................. \$1,835.00 |  |
| Yamaha Q2031B ................... 31 Band, 2U, XLR \& TRS ......................................................... \$749.00 |  |

## INHITMETHITGONSERTONS

1-352-622-7700

## Audio Processing • Equalizers

## Manc Grattic 1/3 Dame




## Hotlinks to Vendors @ <br> www.bgsfl.com www.broadcastdealer.com



## Audio Processing • Feedback

## Behringer DSP1100P Foodback Destroper

 The Behringer DSP1100P Feedback Destroyer Pro detects feedback frequencies and sets extremely narrow, $1 / 60$-octave filters which leave the program material practically unaffected. The result is solid sound without feedback or headaches. Features include: digital 2 channel feedback destroyer - parametric EQ on a high performance 24-bit DSP • 20-bit A/D-D/A converters with 64/128x oversampling • 24 fully programmable parametric filters that can be adjusted manually or via MIDI $\cdot$ single shot auto or manual mode selectable for each individual filter • 24 -bit internal processing and professional 48 kHz sampling rate, servo-balanced inputs and outputs with XLR and $1 / 4^{\prime \prime}$ TRS connectors. $1 \mathrm{U} \& 7 \mathrm{lbs}$.

DSP1100P $\qquad$ . Feedback Destroyer
$\$ 199.00$


## Goldline FD- 23 Feemben Eliminiator

The Goldline FD-23, used with any equalizer, is a fast and effective way to eliminate feedback. The FD-23 makes use of the same filters used in expensive $1 / 3$ octave analyzers. You can simply and quickly ring-out any room by raising the level of the sound system until feedback occurs. The LED display of the FD-23 will indicate which frequency to cut allowing the minimum cut necessary to keep the music while eliminating the feedback. It is a rugged, portable instrument with built-in microphone and is powered by AA batteries or a 12 volt DC supply. $120 z ., 3-1 / 4^{\prime \prime} \times 8^{\prime \prime} \times 2-1 / 4^{\prime \prime}$

FD-23
$\$ 259.95$

## Sabine FBX-1020 Plus \& FBX-2020 Plus Froethich Boernititis, Soude or DUu Chantel



The Sabine FBX-1020Plus automatically detects and eliminates feedback without damaging your sound. Features include: 20 -bit digital resolution • 12 FBX filters ${ }^{\bullet}$ ClipGuard Adaptive Clip Level control which allows the FBX-1020Plus to accept input signals up to 26 dBv without clipping and increase the effective dynamic range to $105 \mathrm{~dB} \cdot$ Turbo Setup Mode • internal power supply $\bullet$ more gain before feedback - eliminated feedback during program • and switchable filter widths: $1 / 10$ or $1 / 5$ octave $\cdot$ Constant-Q, filter tracking • and XLR-3 and 1/4" TRS I/O connectors. The FBX-2020Plus Dual Feedback Exterminator features 24 FBX filters (12 per channel). IU \& 8 lbs .
FBX1020Plus .......... Feedback Exterminator, single channel ................... $\$ 599.95$ FBX2020Plus .......... Feedback Exterminator, dual channel .................. \$1,099.95

Sabine POWER-Q rex Fuedback Extermuntor paus


The Sabine POWER-Q combines the functions of seven separate products into one easy to use package. The POWER-Q has unparalleled audio quality and flexibility with its 24 -bit A/D processing and Analog Devices new SHARC floating-point processor. Some of the features include: 12 band parametric equalizer, 31 band graphic equalizer, 12 band FBX feedback exterminator, real time analyzer, compressor/limiter, noise gate/expander, digital delay, automatic room equalizing, ClipGuard adaptive clip level control and Power View interface. Store up to 99 user-defined configurations and load programs locally or via serial/MIDI remote control options. The POWER-Q is available in the following configurations to meet your specific requirements: standard analog I/O, digital I/O (with or w/o the analog), serial/ MIDI interface for remote control via your I'C and a blank front panel version for slaving to other POWER-Qs. 2U \& 9lbs.
POWER-Q..... 2-Channel FBX Feedback Exterminator PLUS ............ \$1,799.95
AIDF-4SLU ..... 2-Channel Slave Unit ................................................ \$1,549.95
DA-I/O .......... Digital I/O Option ....................................................... $\$ 409.95$
SMR-I/O ........ Serial Remote control I/O Option ................................. \$149.95


Like all the FBX Feedback Exterminators, the Sabine FBX-SOLO does what no other audio product can do - it automatically detects and eliminates feedback while leaving the sound crystal clear. The FBX-SOLO targets feedback without taking a big chunk out of your sound. Digital FBX filters are 10 times narrower than graphic EQ filters. You get back over $90 \%$ of the power you lose with a graphic EQ. The single channel SL-820 features increased headroom, a programmable noise gate and switchable I/O levels for more versatility. The SL-820 line level has 1/4" TRS I/O connectors. The SM-820 mic level has XLR 3-pin balanced I/O connectors. 9oz.
SL-820 ............ Feedback Exterminator with 1/4" I/O ............................ $\$ 324.95$
SM-820 .......... Feedback Exterminator with XI.R I/O ............................ $\$ 349.95$
SL6Rack ......... Rack Tray - holds up to six SOLOS ................................. \$44.95
SPSU-1 ........... SOLO Replacement power supply ................................... \$19.00

## Audio Processing • Noise Reduction

## Behringer Dumolser

 ended noise reduction units with a cut-of frequency active over a range from 800 Hz to 20 kHz . They grealy reduce system noise in radio and TV productions, recording studios, tape duplication facilities, cutting rooms and project suites. The active ingredients in Behringer's Denoisers reside in a side-chain, not in the way of the main signal path. This elegant "negative feedback" design offers minimal disturbance to your valuable signal, giving you a very clean, transparent audio pathway.
SNR2000 ... 2-Ch., Multi-band Denoiser ... $\$ 289.00$

## dbx 140X and 150x

Nolsat feabolkil


The dbx 140 X and 150 X provide more than 40 dB of extra dynamic range. The 140 X is ideal for cart machines, telco lines, videotape audio tracks, STL's, etc. The 150X is ideal for open-reel tape machines, full-landwidth digital recorders, etc. Units are half/ rack, 1 U .

> 140X .......... Type II Noise Reduction, 2 Channel ............................ $\$ 319.95$ 150X …...... Type I Noise Reduction, 2 Channel ........................ $\$ 319.95$

## Dolby Model 363 <br> Wonte Reductunt



The Dolby Model 363 provides two channels of Dolby SR and/or Type-A noise reduction. Features include automatic record/play change-over, built-in Dolby noise/tone generators, auto compare test facility and active balanced input and output circuitry.

|  | \#300 switchable Dolby SR <br> and Type-A module $\qquad$ \$2,9 |
| :---: | :---: |
| 363 SR ........... Two-channel unit with \#350 |  |
|  |  |

\#300 switchable Dolby SR and Type-A module

Two-channel unit with \#350
Dolby SR only modules ... $\$ 2,655.00$

## Fiber Optics • Fiber Optics

## LSI Fibox Systems

The LSI Fibox system is useful for permanent or temporary applications. On the transmit end, the FBAI-M module offers: two XLR mic/line inputs with high-quality mic pre-amp, gain trim, overload LED and phantom power - 20 bit delta-sigma A/D converters, 48 kHz sampling and 64 x oversampling $\cdot$ and a $1,310 \mathrm{~nm}$ fiber-optic output driver. At the receive end, the FBAO-M module includes: a fiber-optic receiver • 20 -hit co-linear $\mathrm{D} / \mathrm{A}$ converters $\cdot$ and +4 dBu balanced analog outputs on XLRs. Overall dynamic range is specified at 108 dB through the system, and transmission distances of up to 4 km are possible using multimode fiber. Up to five 2-channel slave modules can be added to each end and linked via multipair cable to the master modules, allowing a single fiber to carry up to 12 channels of 20 -bit digital audio. Alternative output modules offer AES/EBU digital output (on XL.R or BNC), with frontpanel selectable output sampling rates of $32,44.056,44.1$ and 48 kHz , or synchronization to an external source.

FBAI-M .......... Master 2-channel, Analog input .................................... $\$ 925.00$
FBAO-M ........ Master 2-channel, Analog output ................................... $\$ 980.00$
FBAI-SL ......... Slave 2-channel, Analog input ....................................... $\$ 797.00$
FBAO-SL ....... Slave 2-channel, Analog output ..................................... $\$ 821.00$
FBDO-M ....... Master 2-channel, AES digital output ............................ $\$ 995.00$
IMS-Tx .......... 8-Channel AES digital audio transmitter plus 1-channel SMPTE digital video transmitter. \$1,797.00
IMS-Rx .......... 8-Channel AES digital audio receiver plus
DATI-SI ........ RS-232/422/485/MIDI/SMPTE/Slave xmtr .................. $\$ 725.00$
DATO-SL....... RS-232/422/485/MIDI/SMP「E/Slave rcvr ................... $\$ 750.00$
VFL300/T ...... Video Transmitter Module ......................................... \$1,183.00
VFL300/R ...... Video Receiver Module .............................................. \$1,183.00
LKI-6 ............. Linking cable for up to 5 slaves, input ............................ $\$ 105.00$
LKO-6 ............ Linking cable for up to 5 slaves, output ......................... $\$ 105.00$
RMK .............. Rackmount kit for 1, 2 or 3 units .................................... $\$ 56.00$
ST-ST ............. Simplex 2 meter fiber patch cable .................................... $\$ 42.00$


## Fiber Optics • Fiber Optics

## Telecast Fiber Optic Systems

Telecast is the leader in fiber optic systems for television broadcast production. Applications include portable field production such as news, sports and entertainment and fixed installations such as STLs, sports venues, campus and metropolitan infrastructure. Telecast is the primary provider of fiber systems for all the U.S. TV networks, as well as many stations. They are also the leader in fiber systems for DTV and HDTV production.

## Telecast Adderw bugnal Audio/intercom -Snake



Telecast Adder ${ }^{\text {TM }}$ is a full function digital audio/intercom "snake". The Adder preamplifies, digitizes, multiplexes, and splits up to 64 audio channels on one lightweight fiber optic cable. The 162 and 332 systems are identical except for the number of audio channels that can be multiplexed onto a single optical fiber: 32 and 64 channels respectively. Both systems are modular, permitring combinations of line or microphone source channels and return drive lines. Both systems include up to six intercom channels, four high speed data lines, and two bi-directional switch closure interfaces, all on one optical fiber conductor. Adder features: 2-way, return audio capability (e.g., $32 \times 32 ; 48 \times 16$ or $56 \times 8) \cdot 12 \mathrm{lb} / 1,000 \mathrm{ft}$. cable saves $99 \%$ weight $\&$ labor • built-in microphone preamps and phantom BIAS power (a few millivolts power --. cannot power large shotguns) - 20 km range, no repeaters or amplifiers • includes 6 intercom channels ( 4 -wire, RTS or ClearCom) • dual, redundant LED outputs, plus coax I/O • automatic switchover protection of dual redundant detectors • two optical splits for courtesy feeds, recording trucks, etc. • built-in tone generator \& signal analyzer. Complete systems from $\$ 25,000$ to $\$ 40,000$.

## Other Telecast Adders

Other Telecast Adders include: Adder-161 one way 16 -channel audio plus 2 data and 4 switch closures on 1 fiber -Adder-882 two way multiplexer, 8 audio each direction +8 two way data +4 closures . Adder-882i intercom/ Dats multiplexer; up to 8 modular intercoms (4 dual RTS, 8 ClearCom) +2 fixed duplex 4 -wire intercoms +82 -way data (RS232, RS422, Sony CCU) +4 bi-directional switch closures for tally, call, etc. all on one fiber (or 2 coax).


Telecast Cobra:
 most popelar triaxial based camera systems, converts triaxial camera interface to fiber optics for long distances and precabling of venues and facilities for most standard and wideband camera models from Ikegami, Philips and Sonv. Consists of (1) Camera end unit, (1) Base station end unit, and interchangeable personality modules for various camera rypes. Price range from $\$ 18,000$ to $\$ 22,000$ for a complete system. Extra personality module sets for different camera types from $\$ 5,000$.

## Telecast Python

Multebinnol Fiber Outic Systom


The Telecast Python ${ }^{\mathrm{TM}}$ is a low cost, multichannel fiber optic system for all Serial digital Video formars, up to 1.5 Gbps uncompressed. The Python combines eight channels of fiber optic converters in a single rack frame. Select a transmitter and a receiver frame for eight channels in one direction; select two transceiver frames for four channels in both directions; or use miniature single channel transmitter or receiver units in conjunction with the Python frame to distribute signals to and from several locations simultaneously. Each channel's receiver provides you with two outputs and each transmitter channel has two inputs. One input equalizes your incoming coaxial signal, up to 540 Mbps while the orher is a direct input for rates up to 1.5 Gbps . The unique front panel BNC monitor output lets you monitor any transmit or receive channel. The Python is ideal for use as a router or other high density applications (Python is not a nultiplexer).
Python
Each end \$5,995

Telecast Viper ${ }^{04}$


The Telecast Viper ${ }^{1 M}$ is your solution to the size, weight and transmission problems of copper cable. Your reach is extended, so now you can cover those previously impossible shots. Fiber also minimizes your need for microwave links and problems of line of sight and frequency allocation. Viper features: modular "Mussel Shells" or rackmount 8 -module rackmount for up to 4 video, 8 audio +2 channels of intercom ( 4 -wire or ClearCom) or one dual channel RTS intercom •
$70+\mathrm{dB}$ NTSC video • $270 \mathrm{Mbps} 601 / \mathrm{SMPTE}-259 \mathrm{M}$ serial digital $\cdot 1.5 \mathrm{Gbps}$ uncompressed SMPTE-292M HDTV • multiplexed analog audio ( $95+\mathrm{dB} \mathrm{S} / \mathrm{N}$ ) or AES/EBL digital audio. The modular Viper system can be configured in portable "Mussel Shell" and/or 2U enclosures and includes uninterruptible power supply. Prices range from $\$ 950$ to $\$ 1,150$ per enclosures plus modules.


Z fickenm [RND Moxtin Srts:
TX/RX103-P .. NTSC/PAL Analog Video Module Set, FM based. RS250-C-SH $\qquad$ $\$ 1,775.00$
TX/RX259-L.. ITU-R 601 Serial Digital Video Interface
Module Set; 270Mbps .............................................. \$1,995.00
TX/RX292-L.. Wideband Serial Digital Video Interface; 19.4 Mbps to 1.5 Gbps $\qquad$ $\$ 2,495.00$
TX/RX280-P .. Dual 18-Bit Audio Module Set; mic/line analog in; line out; aux ready $\qquad$ $\$ 1,775.00$
TX/RX380 ..... Dual 18-Bit Expansion Modules augment TX/TX280; add up to 3 sets. $\qquad$ $\$ 995.00$
TR260-P ........ AES/EBC 2-way Transceiver Module;
Digital Audio I/O. $\qquad$ $\$ 1,095.00$

Telecast Viper II

The Telecast Viper II is a natural evolution of the Viper. The result is an easy to use, flexible system that provides your faciliry's video, audio and auxiliary communications, at an affordable price. The modular system can be expanded, starting out as simple, low cost links that expand into something much larger as video and audio communication needs increase. You can begin with economical "throw down" boxes where you need them and then, when you accumulate multiple boxes, consolidate them all into a single rack frame by using module conversion kits. The 3 U high, 19 -inch frame has 16 card slots for use by modules or power supplies. Power supplies occupy 2 slots --- 4 for redundancy --- that would leave only 12 or 14 slors respectively for modules. No additional power supplies are required with a 12 VDC source. Power them from 48 VDC with a single or dual redundant supplies or 90 to 240 VAC , with auto sensing, single or dual supplies. One rack frame can house up to 16 transmitter or receiver modules, with the ability to mix and match analog or digital, video or audio modules. Other features of the Viper II include serial digital video, including ITU-R 601 ( 270 Mbps ), SMPTE-292M (Hi-Def), Wideband studio qualiry NTSC/PAL video, RS250-C (SH), Mic/Line audio, 24bit, AES/EBU digital audio. Applications for studio and campus facilities, prefibered facilities such as sports venues, airports, malls, government buildings, etc. -Sudio-Transmitter Links • Mobile Field Production • News, Sports, Entertainment Vehicle to Camera - RF tower, • announce booth, stadium/arena - CATV/Telco Video Backhaul • Metropolitan Video Links. A Full Array of Function Modules are available: TX/RX5103-NTSC/PAL analog video module set; meets RS250-C-SH • TX/RX5259-ITU-R 601 serial digital video interface; 270 Mbps \& others • TX/ RX5292-HDTV serial digital video interface; 19.4 Mbps to $1.5 \mathrm{Gbps} \bullet$ TX/RX5285Four channels of 24 -bit audio; miclline analog in; line out • TX/RX5260-AES/ EBU module set; digital audio.


## Headphones • Headphones

AKG
AKG K240M
Deluxe monitor, fits around the ear, $15-20,000 \mathrm{~Hz}, 88 \mathrm{~dB} / \mathrm{mW}$, 600,9 '9" cable and std. ster eo plug Wt. 8.5oz.
AKG K240M. $\qquad$

AKG K240DF
Calibrated variation of the K 240 M monitor AKG K240DF $\qquad$
AKG K141M

Dynamic semi-closed, fits on top of the ear, high SPL, 20$20,000 \mathrm{~Hz}, 98 \mathrm{~dB} / \mathrm{mW}, 600,9{ }^{\prime} 9$ " cable and a std. ster eo phone plug. Wt. 8 oz .
AKG K141M
$\$ 150.00$

## AKG K55

Dynamic, sealed • $16-20,000 \mathrm{~Hz}$ audio bandwidch • 96 dB sensitivity $\cdot 200 \mathrm{~mW}$ Max. input power $\cdot 32$ impedance ${ }^{\bullet}$ 10 ft. cord $w / 18^{n}$ to $1 / 4^{\prime \prime}$ stereo adapter.


d$\$ 51.60$
AKGK55 $\qquad$

## AKG K66

Dynamic, semi-open • $18-22,000 \mathrm{~Hz}$ audio bnadwidth • 9 ddB sensitivity • 200 mW Max. input power • 32 impedance • 10 ft . cor d w/18" to $1 / 4^{\prime \prime}$ stereo adapter.

AKG K66 $\$ 61.80$

## audio-technica

audı-technıca ATH-D40fs
Enhanced-bass monitor headphones, $60,1 / 4^{\prime \prime}$ plug
ATH-D40fs
$\$ 150.00$

audio-technica ATH-M40fs
Extended-response monitor headphones, $60,1 / 4^{\prime \prime}$ plug
ATH-M40fs
$\$ 150.00$

## Beyer Dynamics

## Beyer DT131

Lightweight supra-aural open design $40,30-$ $18,000 \mathrm{~Hz}, 98 \mathrm{~dB}$ SPL, 25 ft . cord with $1 / 8^{\prime \prime}$ stereo plug and $1 / 4^{\prime \prime}$ stereo plug adapter DT131 $\qquad$

## Beyer Dynamics

## Beyer DT-770 PRO

The Beyer DT-770 PRO is an enclosed, high quality monitoring headphone for professionals who require a full bass sound as clinically accurate as the high and mid-range reproduction, equalized to meet diffuse field EQ requirements. Padded headband ensures long-term comfort. Circumaural, closed, $5-35 \mathrm{kHz}, 600$, w/10' cable and std. plug, 9.5 oz .

$\qquad$ $\$ 199.00$


## Beyer DT-990 PRO

The Beyer DT-990 PRO high quality monitoring headphone is of a circumaural open design, is equalized to meet diffuse field EQ, has a wide frequency response, fast transient response and is durable yet lightweight for long term wear. 600 .

DT-990 PRO

## Beyer Parts

407.003 .......... Replaceable ear pads for DT150, sold in pairs .................. \$19.00
426.660 .......... Replaceable ear pads for DT770, sold in pairs ........................ $\$ 28.00$
426.670 .......... Replaceable ear pads for DT990, sold in pairs ........................ \$28.00
101.753 .......... $10^{\prime}$ straight cable with $1 / 4^{\prime \prime}$ stereo plug ............................ \$36.00
101.826 .......... $10^{\prime}$ coiled cable with $1 / 4^{n}$ stereo plug .............................. $\$ 43.00$

## Fostex

The closed Fostex T20RP, patented Regulated Phase system, ensures very low distortion, high output and long term reliability. All parts and assemblies secured by screws, assuring a long and useful life of easy maintenance. $20-30 \mathrm{kHz}, 50,9^{\prime \prime} 8^{\prime \prime}$ cable. Wt. 10.60 z .
T20RP. $\qquad$ .$\$ 119.00$


## Koss

Koss headphones have a no questions asked, Manufacturer Lifetime warranty. Koss headphones come with comfort, reliability and outstanding sound. Made in the U.S.A.


Closed, $10-22 \mathrm{kHz}, 10^{\prime}$ Coiled cord

Stereo with closed ear cushion and adjustable headband TD80
Stereo with closed ear cushion and adjustable headband $\$ 49.99$

## Sennheiser

All of the current Sennheiser headphones use neodymium magnets. Sennheiser headphones are fully modular allowing you to maintain perfect sound and functionality for years. All headphones above come with $10^{\prime}$ replaceable stranded steel
 cable with mini plug. $1 / 4^{\prime \prime}$ stereo phone adapter included.
Most Sennheiser headphones carry a two year parts and labor warranty.

## HCR25/SP

Closed, supra-aural design, $16-22 \mathrm{kHz}(-10 \mathrm{~dB}), 70,5 \mathrm{oz}$. HD25/SP
$\$ 129.95$

## H0265

Closed linear, $10-30 \mathrm{kHz}, 150,7.50 \mathrm{z}$. HD265 $\qquad$ $\$ 249.95$


## H0565

Digitally Ready,"Duofol"(2-layer mem-
brane), $16-30 \mathrm{kHz} 150,8.9 \mathrm{oz}$.
HD565

H0ss0
Digitally Ready, "Duofol", $12-38 \mathrm{kHz}, 300,9.2 \mathrm{oz}$ HD580 $\qquad$

## IR2R 6

\$249.95


Universal volume control cable, interfaces with any $1 / 8$ " stereo headphone jack. Made of kevlar-reinforced oxygen-free copper, with stereo/mono switch and independent slider-type left/right volume controls. Length 21 feet
HZR 6.
$\$ 31.00$

## ART HPFX <br> Headphone Monitaring Systems with Effects



The ART HPFX solves a common problem with computer-based audio recording systems: It lets your performers locally monitor themselves through digital effects without hearing the crippling "latency" delay caused by a computer's soundcard. The HPFX also puts the performers in control of their monitor mixes of mic, effects, and backing tracks, while leaving the recorded signals untouched. Features included: two monitor mic preamps • four independent and adjustable headphone outputs - built-in stereo and dual digital effects - performer control of monitoring level, mix and effects • lightweight design for rack or mic stand mounting • FX adjust control • stereo or mono mix input • and can also be used as a "Traditional" headphone amp/splitter.

HPFX ............. Headphone Monitoring Systems with Effects $\qquad$ $\$ 299.00$

## Pro Co HJ-4P Headptione Junction Box

Pro $\mathrm{Co} \mathrm{HJ}-4 \mathrm{P}$ is a professional headphone junction box for splitting stereo amplifier output to 4 sets of headphones ( $150-600$ ); female XLR rype input with parallel male XLR type loop output; master left and right level controls; switches for mono/stereo and left/ right; 4 stereo $1 / 4^{\prime \prime}$ resistor isolated headphone outpurs.

HJ-4P
. $\$ 122.20$

## Sony



These Sony headphones feature: rugged closed ear design, folding construction, gold connectors and oxygen free cord.
han 7502
30 mm Driver Unit, $60-16 \mathrm{kHz}$, (does not fold) MDR-7502


MORTH06
40 mm Driver Unit, $10-20 \mathrm{kHz}$, carrying bag MDR-7506 $\$ 177.00$

## 

40 mm Driver Unit, $10-20 \mathrm{kHz}$, carrying bag MDR-7505
$\$ 135.00$


## 50 mm Driver Unit, $5-30 \mathrm{kHz}$, carrying bag

$\$ 260.00$


Pro Co HJ-6 headphone junction box is for splitting mono or stereo amplifier output to 6 sets of headphones ( $150-600$ ); 1/4" left/mono and right inputs and $1 / 4^{\prime \prime}$ stereo (TRS) input; 6 stereo $1 / 4^{\prime \prime}$ resistor isolated headphone outputs.

HJ-6
$\$ 122.20$

## RaXXes Headphone Hanker

A convenient way to hang headphones. The $\mathrm{HH}-1$ comes straight out of the rack while the $\mathrm{HH}-2$ projects out at a right angle, taking the place of any rack screw already in your rack. Screw it in until it is in the desired position and tighten up the nut. Constructed of a \#10 threaded rod, covered with a glossy black rubber rubing and terminated with a $3 / 4^{\prime \prime}$ black plastic ball. HH-2 $\qquad$ $\$ 8.95$


## Headphone - Amplifiers




## Headphone • Amplifiers



## Headphone • Headsets

## AKG

## 2he mictox

Single-sided communications headset with figure eight, noise carrceling condenser microphone. Frequency response optimized for speech. Placed in ear. Open cable ends.
HSC100
$\$ 44.30$


NWE HSO150
Single-sided communications headset with figure eight, noise canceling condenser microphone. Frequency response optimized for speech. Clips over ear. Open cable ends.
HSC150.
$\$ 64.20$

Lightweight, two-sided broadcast and communications headset with cardioid condenser microphone. Microphone has broad frequency response with adjustable EQ. Semi-open supra-aural headphones with self-adjusting headband. Microphone requires $9-52 \mathrm{~V}$ dc phantom power, terminated in XLR. Headphone terminated in $1 / 8^{\prime \prime}$ stereo plug with $1 / 4^{\prime \prime}$ adapter.


HSC200SR......................................................... $\$ 287.00$
mut h602005R/DC
Lightweight, two-sided communication headser with cardioid, noise canceling dynamic microphone. Frequency response optimized for speech. Semi-open supra-uura' headphones with self-adjusting headband. Open cable ends.

HSD200SR/OC
$\$ 243.00$


HT-1
$\$ 199.00$

## Headphone • Headsets

## audio-technica

The Audio-Technica COM Series headsets have neodymium dynamic microphones with a flexible mic boom and cushioned ear pads. Feaures include: 40 mm Driver - $30-20,000 \mathrm{~Hz}$ frequency response $\bullet 90 \mathrm{~dB}$ sensitivity $\cdot 50 \mathrm{~mW}$ maximum input power $\cdot$ and - 55 dB vat 94 dB SPI. microphone sensitivity.

Mono, single muff w/4.9' cable w/2 mono mini plugs, and 2 gold-plated $1 / 4^{\prime \prime}$ mono plug adapters, 2.5 oz . COM-1 ...

## 



Sterco, dual muff w/4.9' cable w/l stereo / 1 mono mini plug, and 1 stereo / 1 mono $1 / 4^{\prime \prime}$ gold plated pliug adipters, 3.5 oz .
COM-2
$\$ 59.95$

## Clear-Com Headsets

CC-26........Single muff lightweight, $\quad 4$-pin female XL.R.......... $\$ 149.00$
CC-95........ Single muff standard,


CC-95-R ........ RTS, single muff standard, 4-pin male XI_R ................... \$202.00
CC-260 .......... Double muff standard, 4-pin female XLR ....................... $\$ 238.00$
CC-260-R ...... RTS double muff standard, 4-pin male XI.R .................. \$245.00
CC-260-6 ....... Split ear double, 6-pin female XL.R ................................ \$246.00
CC-40 ............ Single ear economy, 4-pin fennale XI,R ........................... \$106.00
CC-60 ............ Doubte ear economy, 4-pin female XLR ......................... \$130.00
HS-6 ............... Telephone style handset, 4-pin fermale XLR .................... \$102.00
PTT-4 ............... Push-to-talk handheld mic, 4-pin female XI,R .................. $\$ 70.00$
ES-1 ............... Ear sock cover for all headsets, pair (not CC26) .................. $\$ 9.00$

## Beyer Dynamics

The Beyer DT 190 is excellent for long term wearing without fatigue. Double-sided broadcast headset. Impedance: 200/250 , , with a noise-canceling on-air mic, high SPI capability, studio quality monitor transducer, and is modular in design for easy servicing. DT' 190 ......... Dual muff, dark gray ........ $\$ 389.00$ DT $180 \ldots \ldots .$. Single muff, dark gray ........ $\$ 329.00$


## Beyer DT 290

The Beyer DT 290 is a double-sided, reference quality, closed ear monitor with hypercardioid, electret condenser microphone complete with K 190.00 cable, lighrweight, single exit, plug-in cable assembly: $8 \Omega$ DT 290-80 $\Omega$
$\$ 299.00$
DT290-250S2
$\$ 329.00$
Note: Beyer provides all of their headphones terminated to industry stundard connectors for a nominal increase in price.

The Beyer DT 280 is a single-sided lightweight headset with dynamic microphone complete with K 190.00 cable, low profile design, reference quality, closed ear monitors, hypercardioid, single exit, and plug-in cable assembly. $8 \Omega$
DT 280-80 $\Omega$
$\$ 259.00$

## Beyer DT 108 and DT 109

The Beyer [)T 108 and DT 109 dynamic headsers have a noisecanceling mic with a frequency range of $30-20000 \mathrm{~Hz}$. These rugged, field-serviceable headsets have headphone transducers that feature extended frequency response for clear, audible, speech transmission. The protective earcup attenuates up to
 20dB of ambient noise. Please specify headphone impedances of $50 \Omega$ (RTS), $400 \Omega 2$ (CC), or $600 \Omega$; mic impedance is $200 \Omega$, with color choice of black or gray. Comes supplied with a 5 ' open ended cable. These headsets are offered with a variety of standard connectors for camera, or Clearcom and RTS intercom systems.
DT 108
Single-muff
$\$ 289.00$
DT 109 $\qquad$ Dual-muff
$\$ 349.00$

WS-108/109 ..... Windscreen for DT 108/109 \#280.836 ........................ \$10.00
K 109.00.1.5m ... 5' Open ended cable for DT 100's \#101.907 .................. $\$ 30.00$
K $109.00 .30 \mathrm{~m} . . .1^{\prime} 0^{\prime}$ Open ended cable for DTT 100 's $\$ 127.949 \ldots . . . . . . . . . . . ~ \$ 33.00$
K 190.00.1.5m... 5' Straight open-ended cable for D'I
180/190/280/290 \#431.575
$\$ 43.00$
WK 109.00 ......... 10' Coiled open ended cable for DT 1 10 's \#198.900 ............ $\$ 43.00$
EP 100 ................ Earpacts sold in pairs for DT 108/109 \#407.003 .................. \$19.00
EP $150 / 190$.......... Eappads soid in pairs for IDT $150 / 190$ \# 431.532 ...................... $\$ 27.00$
EP8D' $525(-10) \ldots .$. Earpads (doth coveral) sold in pairs for I) [ 200 's $\# 442.704 \ldots \ldots . .$. . $\$ 17.00$


## Samson

Samson Headsers include P3 connector and PM4 phanton mic adaptor, condenser mic element, hypercardioid pattern, $50 \mathrm{~Hz}-18 \mathrm{kHz}$.


| QE. | Wired Headset Mic- Aerobics ................................... \$299.99 |
| :---: | :---: |
| Q ${ }^{\prime}$ | Wired Headser Mic- Vocal ....................................... \$299.99 |
|  | Phantom power adaptor, P3 in, XLR out, heltclip ........... $\$ 35.99$ |

## Shure

The Shure SM-2 is a professionat headset with a dynamic cardioid microphone designed for excellent rejection of noise. The SM-2 has large, pillow-soft ear pads for external noise isolation and a covered metal headband with a detachable cable that allows quick cable changes for mono, stereo or split feed headphone func tions. Unterminated.
SM-2
A120S
Universal Cough Switch
$\$ 373.63$


## Headphone • Headsets

## Sennheiser

The Sennheiser HMD25-1 is a supraaural dynamic, closed headphone with $30-16000 \mathrm{~Hz}$ response and a super-cardioid dynamic mic with $50-12000 \mathrm{~Hz}$ response. Sealed ear cushions and directional mic reduces surrounding noise. Microphone can be worn on either left or right side. Serviceability is assured by easy disassembly of all components. Comes supplied with a 6 stranded steel cable terminated in stripped and tinned leads. Weight 17 oz .
HMD25-1 ...... Supra-aural, closed headphone with a dynamic supercardioid boom mic. $\$ 450.00$
HMD25-XQ .. Supra-aural, closed headphone with a dynamic supercardioid boom mic w/XL.R \& $1 / 4$ "TRS $\$ 475.00$
HME25-1 $. . . . . . . ~ S a m e ~ a s ~ H M D ~ b u t ~ w / e l e c t r e t ~ o m n i d i r e c t i o n a l ~$

boom mic ............................................................................. $\$ 25.00$
Telex
The Lightweight Telex intercom headsets are terminated with A4F and A5F plugs to complement Telex audiocom or ClearCom Intercom systems. The same series also comes with A4M and A5M plugs for complete compatibility witTRS Intercom Systems. This professional series features durable construction, black finish and high quality dynamic earphone receivers and microphones.
PH-4 ....... Dual-sided monaural, $150 \Omega$ earphone, 6' cord, A4F plug ..... $\$ 155.00$
PH-4R..... As above with A4M plug ..... $\$ 155.00$
PH-5 ....... Dual-sided binaural, $300 \Omega /$ side earphone, 6 ' cord, A5F plug ..... $\$ 160.00$
PH-5R ..... As above with A5M plug ..... $\$ 160.00$
PH-8 ....... Single-sided monaural, $150 \Omega$ earphone, $6^{\prime}$ cord, A4F plug. ..... $\$ 145.00$
PH-8R..... As above with A4M plug ..... $\$ 145.00$
PH-8E ..... Single-sided monaural, $150 \Omega$ earphone, 12 ' coiled cord, A4F plug... ..... $\$ 160.00$

## Telex PH-24

The Telex PH-24 has a full studio quality elecret condenser microphone sound plus lightweight comfort. The PH-24 miniature noise canceling electret microphone provides an extremely flat frequency response with significantly attenuated background noises and comes with a push-to-cough switch. Earphones $150 \Omega$ with a $9{ }^{\prime}$ cord to pigtail.

PH-24
$\$ 290.00$


## Telex PH-25

The Telex PH-25 is much like the PH-24, but it is dynamic binaural, with $250 \Omega$ omnidirectional condenser mic. Earphones $300 \Omega /$ side with a 9 ' cord to $A 3 M / 1 / 4^{\prime \prime}$ plug.

## Sennheiser

The Sennheiser HMD410-6 is a supra-aural, open-aire, $600 \Omega$ head phone ( $20-18 \mathrm{kHz}$ ) with a dynamic supercardioid, $200 \Omega$ boom mic ( $50-12 \mathrm{kHz}$ ). Comes supplied with a 6 ' stranded steel cable terminated in stripped and tinned leads. Weight 18 oz.

HMD410-6
$\$ 325.00$


The Telex V-Series professional, high fidelity headsets and headphones are modular in design. Two microphone capsules and a wide variety of five foot cord sets that plug into the headset using self-locking "Hirose" connectors are available.
V-200 ............. Round, full cushion dual headphone ( $600 \Omega$ ) ................. \$145.00
V-210 ............. Single-sided with boom (150 ) .................................- \$125.00
V-220 ............. Double-sided with boom ( $150 \Omega$ std.or $75 \Omega$ mono) ...... $\$ 170.00$
MB-11 ............ Cardioid dynamic mic, $150 \Omega$........................................ $\$ 51.00$
MB-12 ............ Cardioid electret mic, $150 \Omega$........................................... 551.00
CA10 .............. XLR-3 male/1/4" w/PS and PTC switch for electret ...... \$155.00
CA-11 ............ XLR-3 male/1/4" w/PTC switch for dynamic mic ......... \$115.00
CA-20 ........... XLR-4 female .............................................................. $\$ 52.00$
CA-22 ............ XLR-4 male ................................................................. $\$ 52.00$
CA-30 ............ XLR-5 female ............................................................... \$67.00
CA-33 ............ XLR-5 male ................................................................. \$67.00
CA-40 ............ Sony 1/8" mini 4-conductor ........................................... $\$ 67.00$
CA-60 ............ Stereo 1/4" for headphones ........................................... $\$ 52.00$
CA-70 ............ 6-conductor, tinned ends .............................................. \$47.00


## Headsets - Earsets

## Telex Announcer Earsets

To provide optimum versatility, the Telex Announcer's Earset is nade up of interchangeable component parts which simply snap together. Depending on the conponent pieces selected, users can construct a version of the Announcer's Earset thar hest suits their particular need.
Telethin ${ }^{*}$ Drivers

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|  |  | Telex Announcer Earsets



## Eartips/Earcones/Earloops/Eartubes

F. ........ BT-4 ......... Large Earcones for use with ET-4 \& ET-5, bag of 5 ... $\$ 14.00$
G. ........ BT-3 .......... Medium Earcones for use with ET-4 \& ET-5, bag of $5 \ldots . . \$ 14.00$
H. ........ BT-2 .......... Small Earcones for use with ET-4 \& ET-5, hag of $5 \ldots \$ 14.00$
1........... ET-1 .......... Eartip, Flesh tip with plug..................................... $\$ 5.50$
J.......... BT-1 .......... Eartips for ET-1, Bag of 25 ................................... $\$ 35.00$
K. ........AEF-2 ....... Plastic covered metal earloop .................................. $\$ 5.00$
L. ......... AEF-3 ........ Nylon earloop fits eartip \& Telethin receivers ............. $\$ 5.00$
M. ....... ET-2 .......... Coiled acoustic eartube with clothing clip use w/earmold/tip. $\$ 19.00$
N........ ET-3 .......... Straight acoustic eartube with clothing clip use w/earmold/rip $\$ 19.00$
O. ........ET-4 .......... Coiled acoustic eartube with clothing clip, use w/earcones, comes w/1 ea. S, M \&L. earcones.... $\$ 24.00$


## High-flex Telethin ${ }^{\text {e cords }}$


P..... CMT-95 .. $5^{\prime}$ cord w/sub-miniature.097" phone plug, gray ............... $\$ 19.00$
Q... CMT-98 .. 5' cord w/straight miniature . 140" phone plug, heige ...... $\$ 19.00$
R. .. CMT-2 .... $5^{\prime}$ cord 1/4" phone plug, gray ......................................... $\$ 19.00$
S. ... CMT-92..5' cord $w /$ right angle miniature $140^{\prime \prime}$, beige ................... $\$ 19.00$
T. ... CCX-2 .... 5 ' coiled cord w/right angle miniature, gray ..................... \$21.00
U. .. CCT-2.... 5 ' coiled cord w/1/4" phone plug, gray .......................... $\$ 21.00$
V. ... VXT-3..... $5^{\prime}$ cord $w / 500 \Omega$ volume control \& $1 / 4^{\prime \prime}$ phone plug........ $\$ 45.00$
W... VYT-3 ..... $5^{\prime}$ cord w/2000 S volume control \& 1/4" phone plug..... $\$ 45.00$

1-352-622-7700


The Anchor PortaCom is a flexible, 2-channel wired intercon,. With two channels, you can have the advantage of extensive communications without getting tangled in crosstalk. PortaCom can operate on 6 D -cell batteries if no AC power is handy. You can start with a basic twoperson system and expand all the way to a 20 person system, all running from a single $A C$ power supply over standard mic cable. The small, lightweight aluminum belt pack has its own channel switch, volume control, call light and mic on/off buttons. Headsets are extremely comfortable and feature noise-canceling microphones which greatly reduce background noise for clearer communication. For remote locations, you can power the system with the optoonal lightweight battery pack. One 2-channel system includes: one PC- 100 power console, two $\mathrm{H}-200$ dual-earpiece headsets, two $\mathrm{BP}-200$ beit packs, two EX-50M $50^{\circ}$ extension cables and one CC-15 carrying case.

COM- 20
2 Headset, 2-Channel Intercom System
$\$ 944.00$
COM-40 ....... 4 Headser, 2-Channel Intercom System $\qquad$ \$1,596.00
COM-60 ........ 6 Headset, 2-Channel Intercom System ....................... \$2,378.00
COM-80 ........ 8 Headset, 2-Channel Intercom System ....................... \$3,230.00

## Anchor PortaCom MSS-100

Monaizi Scwinar Stibor
The Anchor PortaCom MSS100 Modular Speaker Station can be the control station of an ex-
 panded intercom system for sports, television remotes, studio productions, Electronic News Gathering (ENG), team training and theater productions. The MSS100 is boch a speaker station and a headset station.

MSS-100
Modular Speaker Station
$\$ 359.00$

## Anchor PortaCom PGM-100

Promanin/Autbouin Moiflly


The Anchor PortaCom PGM-100 Program-in/ Audio-out Module is a two channel, Program Insertion Station and is part of the PortaCom ${ }^{\text {TM }}$ intercom system. It is in a package similar to the B3-100 Branch Box. The PGM-100 provides a means to insert program audio onto the intercom line. A switch on the PGM-100 selects which channel the program audio is inserted onto (Ch.A or Ch.B). A level control sets the audio level on the intercom line. The PGM-100 also allows for audio-out/intercom-out operation.

PGM-100 ................ Program-in/Audio-out Module
$\$ 159.00$

## Broadcast Tools ICM-16 interconi Systerte

## (GD-IGConmalis



The Broadcast Tools ICM-16
 offers connectivity
for up to sixteen Intercom stations. Features include single, five station work group and all-call capabilities - inexpensive CAT $3,4,5$, cabling • active balanced send and receive audio • receive audio mute control $\bullet$ and station call indication. The controller handles up to eight intercom stations and may be expanded to sixteen by adding an additional controller. The one rack unit controller supports all audio and data routing functions. All send and receive talkback audio is switched with high quality analog switch arrays. Intercom stations are available in six versions: 1) The OEM version is for custom installations in the studio. 2) The DT/Desk-top version provides an ergonomically designed sloped front case. 3) The 3 U rackmount version of the intercom station is equipped with a powered speaker and level control, headphone jack, built-in electret condenser mic, front panel XLR connector for an external mic, CALL indicator and internal power supply. 4) The CM version was designed for insertion into most console modules. 5) The ToolBox-1 version was designed for projects requiring the interface of 2 -way radios, sub-carrier IFB, telco IFB, PA systems, etc. 6) The MHI version was designed to integrate a consoles monitor and headphone system directly to the ICN-16 (muting, dimming, $\mathrm{T} / \mathrm{B}$ insertion) etc.
ICM-16CNTRL ..... 8 Station Controller, order 2 for 16 stations ....... $\$ 629.00$
ICSH-1保h Kach Mam





ICM-16RM.
Rackmount version
$\$ 239.00$

ICM-16 .................. Specify DT or CM version .................................... $\$ 229.00$
ICM-160EM .......... OEM version $\$ 199.00$

ICM-16/MHI .................................................................................... $\$ 299.00$

## Intercoms

## ClearCom Party-Line Intercom Systems

ClearCom Party-Line Intercom is a full-duplex, distributed amplifier system, where all electronics are contained in each user station. This wide bandwidth system offers high level audio for your production whether it's large or small. A central power supply provides audio termination and short-circuit proof regulation for the system. The system can be designed from a host of user stations, power supplies and accessories. It can be one channel, or 12 channels and all components are compatible to allow for future system expansion.

## ClearCom MS-232 Main Statem



The ClearCom MS-232 Main Station is a feature laden, two channel intercom station It supports up to 60 headsets or 20 speaker stations with separate short-circuit protection and auto-reset for each channel. Optional plug-in gooseneck microphone. IU
MS-232
9 " gooseneck mic
$\$ 995.00$
GM9
18 gooseneck mic
$\$ 155.00$
GM18
$\$ 165.00$

CtearCom Cs 222 Fartiale Main Statoon
The ClearConn CS-222 Portable Main Station is a rugged, lightweight, twochannel intercom station. It supports up to 30 headset stations. Operator can talk or listen on either channel, com-

bine them, or access them separately without trying both channels together.
CS-222
RK-101 .......... Rackmount kit for CS-222, 2U ....................................... $\$ 80.00$

## ClinivCom HS 001 SugleChamrel Belfpach

The ClearCom RS-501 beltpack is a single-channel beltpack with volume control, mic on/off switch, signal button and indicator, side tone adjust, 4 -pin headset male connector, helt clip, and a 3 -pin intercom and loop-through connectors. Surface-mount adapter included. RS-501
$\$ 238.00$


Cleaffion fis 502 Tmo Crianiel, Dual Listen Sution
The ClearCom RS-502 beltpack is a two channel, duallisten station, with monaural output. Programmable switching lets the user listen to both channels simultaneously and select which channel to talk on. It includes individual volume control for each channel, mic on/off, call signal button and indicators, side tone adjust, 4 -pin headset male connector, and a 6 -pin loop-through intercom connector.

RS-502


## Chercom PS 522 TroCn mel Eetipack

The ClearCom RS- 522 beltpack is a two channel unit that allows simultaneous listening and talking on two intercom channels. The headphone output operates in a "split-feed" stereo mode, feeding each channel into a separate ear of a double-muff headset. It includes individual volume control for each channel, mic on/off, call signal button and indicators, side tone adjust, 6 -pin headset and intercom connector. (To be used with CC-250/6 headser)

## PL-Pro Party Line Intercom



ClearCom PL-Pro Party Line Intercom is designed specifically for the demanding world of broadcast and video production, including multiple built-in IFBs, intuitive front panel controls with big, easy-to-use buttons and bright illuminated call signaling. All stations come standard with controllable logic that allows them to be configured with a variery of controls and features.


## ClearCom Matrix-Plus Digital Intercom

 group, and party-line communications. They seamlessly interface with telephones, two-way radios, parry-line intercom and other communications systems. Widely used in TV/broadcast, aerospace, and industrial applications, Matrix Plus 3 systems are available in 8 -, $16-, 24$ - 72 -, and 200 -port (channel) versions. Please call for individual piece pricing and further information on larger systems.
MueraMafix Smilitis
MMX-8 .................. 8-port digital intercom, 2U(expands to 24) ......... \$4,195.00
MMX-16 ................. 16-port digital intercom, 2U(expands to 24) ....... \$5,770.00
MMX-24 ................. 24-port digital intercom, 2U .............................. \$7,345.00

RS-522 $\$ 366.00$

## © Symetrix



## Go change the oil in the station van.

## 506E Features

- Internal power supply
- 6 direct ins and 6 direct outs
- Assignable LCR mono cue input
- Proprietary high voltage drive technology
- Crystal clear, low distortion for reduced listening fatigue
- Optional 4-way mounting HR-1 Remote with audio loop thru for daisy chaining

You've got better things to do with your time than worry about your station's audio... change light bulbs, fix the PD's radar detector, figure out where all the new batteries went.

The New 506E HEADPHONE AMP
has everything you need to make your monitoring setup a snap.

The 506E features an internal power supply (no wall wart or line lump), LCR assignable cue input for IFB or producer talkback, and the Symetrix name.

Call your favorite broadcast equipment dealer to get yours today.

Then you can think about the more important things.


## ClearCom On-Air Announcer's Console

The ClearCon AB-100 On-Air Announcer's Console is a compact desktop unit designed specifically for sports, live event broadcasting, and voice-over work. The AB-100 integrates all of the inpurs, outputs and controls necessary at the announce position, including intercom "Talkback," IFB receiver, and a silent "Mute" button that provides noise-free "Cough" and "Mic on/off" switching. It includes an adjustable mic preamp and high-output line amplifier for

20 to 20 kHz frequency response and 0 dB output with +20 dB headroom. A stereo headphone amplifier guarantees talent can always hear both program audio and "cues" from the control room. It plugs into and draws power directly from most intercom and IFB systems or can be powered with the supplied AC adapter. AB-100 .... Announcer's Console
$\$ 973.00$
$\mathrm{AB}-2 \mathrm{X} . . . . . . . . . \mathrm{AB}-100$ second party line channel upgrade kit.
$\$ 193.00$

## Intelix MZP




The MZP is a marriage of a marrix mixer, programmable remote controls and Windows based programming software. It is an integrated system for small to medium sized audio distribution and voice routing applications. Stock configurations include cross
 point level controlled mixer, power supply and user manual.

Please call for custom configurations from 8 inputs/outputs to 128 inputsloutputs.


## SAS Matrix intercom/ife or Mis-Minus \& \& 1 Fe S stems

The SAS Intercom Systems are built around SAS 32000 Series Switching and Mixing System components. One 3 U frame services up to 32 user stations. Software programmable features include full eight character alphanumeric subscriber designation, separate talk and listen capability, interruptible foldback (IFB) and programmable groups. Fully featured control panels include intuitive alphanumeric selection, "hot punch" programmable talk and listen push-buttons, conumunications mic and preanp, loudspeaker and amplifier. They are available in eight or sixteen button, rackmount and desktop configurations. Also available are single rack and console mount stations that provide control-only for locations with access to line/mic level signals and cue speakers relating to audio consoles or news desks.


#  

## Intercoms

## Studio Technologies . 50 iceniral contration



Studio Technologies Model 50 Central Controller with Model 51 Control Console is an advanced StudioComm system featuring seven stereo inputs, two control room outputs, studio monitoring, and three communications functions. It allows connection of


Model 50 with 51 $\qquad$ $\$ 1,799.00$

## Studio Technologies 55 oeritialicontmile

 Model 55 Central Controller with Model 56 Control Console is a reduced-feature version featuring four stereo inputs, one control room output, and two communications functions. It allows connection of up to four Model 35 or Model 38 Talent Amplifiers.

Model 55 with 56 $\qquad$ \$1,299.00

## Studio Technologies 35



Studio Technologies Model 35 Talent Amplifier is a portable talent amplifier that drives up to two pairs of headphones and connects to Models 40, 50 , and 55. It includes microphone stand mounting adapter.

Model 35
$\$ 159.00$

## Studlo Technologies 38

Datent Ampillint


Studio Technologies Model 38 Talent Amplifier is a portable talent amplifier with a stereo preamplifier section and allows creation of personal cue mix. It connects to Models 40, 50 and 55.

## Model 38

$\$ 249.00$

## 1-352-622-7700

## Studio Technologies IFB 2 contracamborer



Central Controller contains two independent IFB channels for ENG, SNG, and mobile production facilities. Each channel has a complete set of controls and indicators. Program source select switches allow one or more of the four program inputs, as well as incoming audio from the two telephone interfaces to be selected as program audio. Program level controls allow adjustment of the selected program sources. Channel audio level is displayed by 5 -segment LED meters. Channel interrupt activiry is displayed by LED indicator lights. Other features include: internal interrupt mic Voice operated, VOX, interrupt and monitor amplifier. IU

Model 2 $\$ 1,795.00$

M11 ........ Panel mounted electret 12" gooseneck mic for M22 .............. \$155.00
M25 ........ 19" Rack Adapter for M22 ................................................... \$48.00
M28 ........ Panel Adapter for mounting M22 \& M11 in an equipment console/desk $\$ 48.00$
M36 ........ Set of two brackets used for mounting M32 \& M33 underneath desk $\$ 27.00$
CA9/10 ... 10' Shielded Multi-conductor Interface cable for linking M2 \& M22 $\$ 19.00$
CA9/50 ... 50' of above Interface cable ............................................................ $\$ 58.00$

## Studio Technologies 22 Access Stafion



Acce - IFB - . . P . tional IFB origination locations for those that need to cue talent or related personnel. Up to four 22 s can be connected to and powered by a Model 2. Normally installed with an M1I Gooseneck Mic and either M25 or M28 mounting adapter.

M22
$\$ 205.00$
Studio Technologies 32 \& 33 Tabent Armilifern


The Studio Technologies Model 32 and 33 Talent Amplifiers are self-contained "belt pack" units that drive talent ear pieces or headsets. Any combination of up to four Talent Amplifiers can be supported by the Model 2's talent amplifier output. The model 32 is intended for use by on-air personnel, and contains a source switch, along with an output level control. Either IFB channel can be sent to the talent at the desired volume. The 33 is unique in that a "mix" of IFB channels 1 and 2 can be created. Two level controls, along with a source select switch, allow camera and production personnel to hear IFB cues from either or both channels. This allows IFB signals intended for both technician and
 talent to be simultaneously monitored.


The Telex Audiocom is a headset intercom system consisting of modular components that can be connected with conventional wiring to form a simple party line communication system or a more sophisticared network using "director controlled" multichannel configurations. Telex also offers Radiocom wireless intercom for professionals that require the added convenience of wireless operation. Radiocom products can be used in conjunction with wired systems, or separately as a stand alone system.

Call for further information and system pricing.

## TelOS Link Intercom-to-Telephone Interface

The Telos Link solves the problem of interconnecting production intercom systems with dial-up telephone lines. Anyone with access to a telephone, even a cel-
 lular phone, can instantly and automatically be connected with your intercom. Digital auto-nulling hybrids on both the telephone and intercom audio paths allows connections to be made without the usual gain and feedback problems while maintaining natural, full-duplex operation. Features include: a "wet" single-channel operation option is selectable from the front panel. In this mode, the Link provides power to one or two belt packs and functions as a stand-alone intercom system • an auto-answer/ auto-disconnect function is built-in • a function to alert listeners that a call is ringing in is standard - monitor output is provided to hear the communications from the phone line $\cdot$ and a loop-through connection is provided for a phone set.
Link.
Intercom-to-Telephone Interface $\qquad$ . $1,920.00$
IU Rackmount... ..... . 0801 for single, 0802 for dual . $\qquad$ $\$ 80.00$


## Interfaces • Digital

 Source Converter \& DATS-21

The AES digital audio standard calls for a balanced, 110 ohm signal over twisted pair wire up to 100 meters, but crosstalk and radiation can occur with poorly constructed input stages and output drivers. By treating this signal like a video signal, Graham-Patten's DATS-10 (Digital Audo Transmission System) converts the AES signal (balanced 3-10 volts) to an unbalanced, 1 Vpp DATS format through the use of tiny transformers within the XLR connector itself, up to 1500 feet over RG- 59 cable. The DATS20 then converts the DATS signal back to an AES signal.

DATS-10 (AES to DATS source converter) .......... $\$ 50$ DATS-21 (DATS to AES destination converter) .... $\$ 50$

## Z-Systems Sample Rate Converter



The Z-Systems z-2src is a rack-mount sample rate converter which features AES/EBU, S/PDIF, and optical inputs and outputs, the ability to generate $32 \mathrm{kHz}, 44.1 \mathrm{kHz}$, or 48 kHz outputs directly from precise crystal references, or generate any sample rate between 25 kHz and 55 kHz from an external reference. In addition to serving as a sample rate converter, the $z$-2sre can also be used as a format converter and features an audio bypass swirch which leaves the audio data intact, but still allows channel status bits to be manipulated. Input resolution is up to 20 -bits with output resolution 24 -bits. The $z$ - 3 src has the same features as the $z$ - 2 src, but can handle 24 -bit inputs from 32 kHz up to 96 kHz input and output sample rates. Go from 44.1 kHz to 96 kHz or 96 kHz to 44.1 kHz in a single pass. The $z-3$ src includes an output dither control which allows the user to output 16,20 or 24 -bits.

For those needing sample rate conversion only, Z-Systems has designed the z-link and the $z$-linkt, low-cost, compact, real-time sample rate converters. Both feature the same high quality audio path as the $z$-2stcsample rate converter in a hand-held package. The $z$-link+ adds an external synchronization loop, which allows it to have itsoutput sample ratelocked to an external AES/EBU or
 S/PDIF digital audio signal. Both feature a professional/ consumer output switch which allows the user to set
 the output channel status as desired. The audio specifications are identical to the z -2src. Input and output connectors are transformer isolated coaxial (RCA or BNC).
z-2stc ..... $\$ 1,200.00$
z-3src. ..... $\$ 1,500.00$
L. ..... $\$ 450.00$
L+.. ..... $\$ 599.00$

## Interfaces • Digital





## Interfaces • Patchbay

## ADC's Pro Patch ${ }^{\text {rh }}$ Mark IV Patchbays and Broadcast Jackfields



ADC's Pro l'atch ${ }^{\text {TM }}$ Mark IV patchbays and broadcast jackfields incorporate the exclusive, patented QCP IV split cylinder "punch down" termination system. With QCP, changes in normalling configurations or movement of the patch panel can be accomplished in minutes, and individual circuits can be changed more quickly than connectorized systems. At the heart of the Mark IV Series is the new QCP IV system which uses single 1x8 blocks that replace the individual insulators of the original QCP system. QCP IV $1 \times 8$ blocks are more robust than the individual blocks of the original QCP, but retain all of the benefits such as "gas tight" termination and 200 insertion/ withdrawals. The new block design is round which eliminates the necessity to orient the tool during punching. QCP IV $1 \times 8$ blocks easily terminate eight circuits of $22-26(.4 \mathrm{~mm}$ to .79 mm$)$ gauge stranded, or solid wire providing greater reliability and flexibility over time. The new QCP IV blocks are insulated on both sides of the panel providing a "dead front" for easier installation on the rear side, and elimination of short circuits. the new block design makes it easy to prelace wires prior to punching, for quicker, one-handed setups. In addition, up to three wires ( $24-26$ gauge) can be punched in the same contact, making circuit wiring simpler. Deeper channels berween the blocks accept up to four wires for superior strain relief and cable management. Blocks are also color-coded for easy identification. The non-oriented self-cutting punch down system terminates and cuts the excess wire in one easy punch. The new QB-4T punch tip can be used in existing QB-2 punch tools, and, because it does not require orientation before
punching, saves time! Pro Patch Mark IV patchbays incorporate QCP IV terminations while Pro Patch Mark II incorporate individual QCP terminations on the self-contained patchbay's backplane. In broadcast jackfields, QCP or QCP IV terminations are mounted to an Ultra Patch ${ }^{\text {TM }}$ panel at the end
 of a prewired umbilical cable. The Ultra latch panel can be mounted anywhere in the rack, allowing further flexibility in system access and configuration.
Pro Patch Mark IV patchbays and broadcast jackfields feature the new QCP IV punchdown system, drop down adjustable cable bars and white backplane making it easier to see circuits in dark racks. Each Pro Patch panel is loaded with the highest quality frame type jacks featuring ADC's "crossbar" self cleaning jacks. All Pro Patch panels are powder coated for exceptional durability and come with standard horizontal and vertical designation strips.


BJF107-4MKIV

$\$ 750.00$
BJF107-4MKII26* .................... $\$ 810.00$
*2x26 are not available in MKIV configuration

Use the tables below to find the product number.

| Panel Style/Height- Choose 1, 2, 3 or 4 for Slot \#1 |  | Length of Umbilical- Choose 4 or Custom Length for Slot \#3 |  |
| :---: | :---: | :---: | :---: |
| 1 | 1RU 1.75" (44mm) Longframe Jacks | 4 | Normals strapped at jacks to Stub End |
| 2 | 2RU $3.5^{\prime \prime}$ (88mm) Longframe Jacks | - | Specity custom length |
| 3 | 1RU 1.75" (44mm) Bantam Jacks | Panel Seres- Choose II or IV for Slot \#4 |  |
|  |  | 11 | Normals brought out to UP Panel <br> Normals strapped or hall normalled at jacks to UP Panel |
| 4 | 2RU 3.5 ${ }^{\text {c }}$ (88mm) Bantam Jacks | IV |  |
| Circuit Configuration- Choose 03, 07, 00 or 04 for Slot \#2 |  | Custom Conflgurations- Choose 26, BG, HN or SN for Stot \#5 |  |
| 03 | Normals brought out to UP Panel | 26 | 2x26 array of Longirame Jacks |
| 07 | Normals strapped or half normalled at jacks to UP Panel | BG | Bussed Grounds |
| 00 | Normals brought out to Stub End | HN | Half Normalled |
| 04 | Normals strapped at jacks to Stub End | SN | Sleeve Normals Out |

WWw.bgsfl.com www.broadcastdealer.com

## Broadcasters General Store

2840 S. E. 52nd Street
Ocala, Florida 34480-7500

## Interfaces • Patchbay



| Connector Type- Choose E, A or H for Slot \#5 |  |
| :---: | :--- |
| Leave <br> Blank | QCP |
| E | EDAC/ELCO Connector |
| A | AMP Connector |
| H | Header Pin Connector |
| Circuit Configuration- Choose NS, NO, HN or SN for Slot \#6 |  |
| NS | Normals Strapped |
| NO | Normals Out |
| HN | Half Normalled |
| SN | Sleeve Normals Out |
| Custom Configurations- Choose 26 or BG for Slot \#7 |  |
| 26 | 2x26 Array of Longframe Jacks |
| BG | Bussed grounds |

## ADC Pro Patoh Patchtays



Strown are some of the more common Patchbay Prices.

| PPA1-14MKIINO .................................. $\$ 900.00$ | PPA3-14MKII26INS* | \$815.00 | AKIVHN ............................ $\$ 1,250.00$ |
| :---: | :---: | :---: | :---: |
| PPA3-14MKIINO .................................. $\$ 900.00$ | PPA3-14MKIIANS | \$700.00 | PPB3-14MKILA: ${ }^{\text {a }}$............. .............. $\$ 1,200.00$ |
| PPA3-14MKII26NOBG* ......................... $\$ 985.00$ | PPB3-14MKIV'NS | \$1,250.00 | PPB3-14MKIII:HN ........................... $\$ 1,255.00$ |
| PPA3-18MKII26NO* ............................. $\$ 960.00$ | PPB1-14MKI1ENS | . \$1,255.00 | PPB3-14MKIIF.HN8BG ..................... $\$ 1,280.00$ |
| PPA3-18MKIV'NO ................................ $\$ 900.00$ | PPB3-14MKIIANS | \$1,200.00 | Ho formals |
| PPA3-14MKII263ENO* ......................... $\$ 965.00$ | PPB3-14MKIIENS | ....... $\$ 1,255.00$ | PPA1-14MKIVNN .............................. $\$ 650.00$ |
| PPA3-14MKII3ENO* ............................ $\$ 905.00$ | Nol |  | PPA1-14MKII24ENN .......................... $\$ 655.00$ |
| ל9mmbls Stmmoth | PPAI-14MKIVHN | \$750.00 | PPB3-14MKIVNN ........................... $\$ 1,100.00$ |
| Pl'Al-14MKIVNS ................................ $\$ 750.00$ | PPA1-14MKII26HN* | . $\$ 810.00$ |  |
| PPA1-14MKII26ENS* ........................... $\$ 815.00$ | PPA3-14MKIV'HN | \$750.00 | PPA3-14MKIIVSN ............................. $\$ 1,000.00$ |
| PPA3-14MKIVNS ................................... $\$ 750.00$ | PPA3-18MKIVHN | . $\$ 750.00$ | PPA3-14MKII26SN* ......................... $\$ 1,060.00$ |
| PPA3-1 8MKIVNS ................................... $\$ 750.00$ | PPA3-14MK1126EH | \$815.00 |  |
| PPA3-14MK1126NS* .............................. $\$ 810.00$ | PPB1-14MKIIEHN | . . $11,255.00$ | 2x26 are not available in MKIV configuration |
| ADC Patcilaay Kics |  |  |  |
| $\because \because 8200000000000000026$ |  | Urwir Publ nith |  |
|  |  | PPA1-HN-CG ......... with | normalled, ground common ................. \$245.00 |
| ADC Pro Parch Kits offer a cost-effective solution to fully wired panels. The Pro Parch Kits come with high quality bantam or longframe jacks pre-mounted in a $19^{\prime \prime}$ rack unit panel,ready for wiring. Fearures include: Jacks have self wiping action for reliability and easy maintenance - Longframe panels have offser ground lugs for easy bussing of grounds $\cdot$ Bantam panels have four removable inserts to allow easy access for wiring - Includes horizontal designation strips $\cdot$ Sturdy cable bar for strain relief and cable management. |  | PPA1-NS-CG .......... with | mals strapped, conmon ground ............. \$245.00 |
|  |  | P1'A1-26................ 1.75' | 6 Longframe jacks with solder lugs ...... \$250.00 |
|  |  | PPA1-26-HN-CG ... with | normalled,ground common ................ \$280.00 |
|  |  | PPA1-26-NS-CG ..... with | mals strapped,common ground ............ \$280.00 |
|  |  | PPA3 ................... 3.5"2 | Longframe jacks with solder lugs . ....... \$230.00 |
|  |  | PPA3-HN-CG......... with | normalled,ground common ................. \$245.00 |
|  |  | PPA3-NS-CG $\qquad$ with | mals strapped,common ground.......... ... \$245.00 |
|  |  | PPB1 .................... 1.75" | 8 Bantam jacks with solder lugs ........... $\$ 275.00$ |
| WWW.bgsfl.com <br> WWW.broadcastdealer.com |  | PP1-HN-CG ........ with half normalled, ground common ......... ....... \$295.00 |  |
|  |  | PPB1-NS-CG ........... with normais strapped, common ground ............... $\$ 250.00$PPB3 .................. $3.5^{n} 2 \times 48$ Bantam jacks with solder lugs ........... $\$ 275.00$ |  |
|  |  |  |  |
|  |  | PP133-HN-CG ........ with half normalled,ground common ................. \$295.00 |  |
|  |  | PPB3-NS-CG ......... with normals strapped,cornmon ground ............. \$280.00 |  |

## Interfaces • Patchbay

## ADC Digital Audio Jackfields



ADC's Digital Audio Jackfields are designed for patching AES/ EBU digital audio signals. The normals strapped or halfnormalled panels are used to patch AES digital audio signals up to a total circuit length of $300^{\prime}(91.5 \mathrm{~m})$. Precision $110 \Omega$ impedance, low capacitance, shielded twisted pair cable is used to meet stringent AES standards for digital audio transmission lines. All digital jackfields and the associated patch cords meet this requirement to ensure error free transfer of the digital data.

## Use the tables below to find the product number.

| Jack Type- Choose L or B for Slot \#1 |  |
| :---: | :--- |
| L | Longframe Audio Jacks |
| B | Bantam Audio Jacks |

Panel Height- Choose 1 or 3 for Slot \#2

| 1 | 1RU $1.75^{\prime \prime}(44 \mathrm{~mm})$ |
| :---: | :--- |
| 3 | $2 R U 3.5^{\prime \prime}(88 \mathrm{~mm})$ |

Chassis Depth- Choose 14 or 18 for Slot \#3

| 14 | $14^{\prime \prime}(350 \mathrm{~mm})$ |
| :--- | :--- |
| 18 | $18^{\prime \prime}(450 \mathrm{~mm})$ |

Panel Series- Choose II or IV for Slot \#4
H $\quad$ OCP Individual Insulators
IV QCP IV $1 \times 8$ Blocks


| Connector Type- Choose Blank, E, A or H for Slot \#5 |  |
| :---: | :--- |
| Leave <br> Blank | OCP Punchdown |
| E | EDAC/ELCO Connector |
| Circuit Configuration- Choose NS, HN or NO for Slot \#6 |  |
| NS | Normanl Strapped |
| HN | Half Normalled |
| NO | Normals Out |
| Custom Configurations- Choose $\mathbf{2 6}$ or BG for Slot \#7 |  |
| 26 | $2 \times 26$ Array of Longframe Jacks (OCP MKII Only) |
| GB | Bussed Grounds |

## Shown are some of the more common Jackfield Prices.

## Plo Patth Bathliolds

DAB1-14MKIVNN148
$\$ 880.00$
DAB3-14MKIIENS \$1,355.00
DAB3-14MKIVHN ............................................. \$1,350.00
DAB3-14MKIVNS \$1,350.00

DAL1-14MKII26ENS* $\$ 865.00$
DAL3-14MKIVHN $\$ 800.00$
DAL3-14MKIVNS $\$ 800.00$

Begatcast Jackitile
DAL107-4MKIVHN
$\$ 800.00$
DAL107-4MKIV................................................ $\$ 800.00$
DAB307-4MKIV ............................................. \$1,350.00
DAL207-4MKIV ................................................ $\$ 800.00$
DAB407-4MKIV $\qquad$ $\$ 1,375.00$

## ADC POP Pull-out Panel

ADC C's exclusive pull-out version of the popular Pro Patch ${ }^{\mathrm{TM}}$ audio panel is designed for truck and studio applications where front access to terminations is needed. The panei slides the jacks and termination's forward, out from the front of the rack, providing access to the QCP termination's mounted to the bottom of the panel tray. Rear cable management options have
been included to allow for either center, left or right side mult installations. The chassis is make of heavy-duty $.090^{\prime \prime}$ steel and includes an access hole to the bottom of the QCP termination's for easy changes and maintenance. Rear rack support bars are included for extra stability when the panel slides forward.

## Use th ta. as b. w. w. 'tes the produt number.

|  mon $\qquad$ . |  |
| :---: | :---: |
| Jack Type-Choose B or L for Slot \#1 |  |
| B | Bantam Audio Jacks |
| L | Longrame Audio Jacks |
| Panel Height- Choose 1 or 2 for Slot \#2 |  |
| 1 | 1RU 1.75" (44mm) |
| 2 | $2 R \cup 3.5{ }^{\prime \prime}$ ( 88 mm ) |


| Termination Type- Choose E or <br> blank for Slot \#3 |  |
| :---: | :--- |
| E | Bantam Audio Jacks |
| Leave <br> Blank | Longframe Audio Jacks |
| Circuit Configuration- Choose <br> HN, NS, NO, SN or NN for Slot \#4 |  |
| HN | Half Normalled |
| NS | Normals Strapped |
| NO | Normals Out |
| SN | Sleeve Normals |
| NN | No Normals |

$$
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$$

Shown are some of the more common Panel Prices.

BPOP1-ENO ........... \$1,605.00 LPOP2-NO ............ \$1,100.00
BPOPI-HNBG ........ $\$ 1,425.00$ LPOP2-NS ................... $\$ 950.00$
BPOP1-NO ............. \$1,600.00 BPOP2-HN .............. \$1,425.00
BPOP1-NS ............... \$1,425.00 BPOP2-NO .............. \$1,600.00 LPOP2-HN ................ $\$ 950.00$ BPOP2-NS ................ \$1,425.00

## 1-352-622-7700

## Interfaces • Patchbay

## ADC I.C.O.N. Rack

## Mount System

ADC I.C.O.N. Rack Mount System is an audio cable management system engineered for broadcast, production, recording and professional audio applications. The I.C.O.N. is used as the central termination and
distribution poinı for the cabling in an audio system. All audio equipment cabling is terminated on the I.C.O.N. and signal routing is accomplished by crossconnecting cable terminations at this central point


## ADC. Icon


rather than point to point interconnections. This saves time and cable, and allows for signal path changes and equipment additions to be made quickly and easily.

There are four types of ICON: "Thel-96 is a rack mount system, and the I-W and I-WS systems are designed for wall mounting. Both feature, $\mathrm{QCP}, \mathrm{ADC}$-s proven punch down cable termination system. Connectorized versions of ICON panels are also availablie. All ICON systems include cable management hardware engineered to ensure that all cabling is routed neatly and securely, and that cross-connects can be changed quickly and effieciently

## I-96 Rack Mount Sysytem

 (1)
1.0.016 196 System

1-96 ....... 96 circuit termination panel .............................................ane. $\$ 200.00$
1-96B ..... 96 circuit termination panel w/rear jumpers.......................... $\$ 254.00$
I-FPD .... Fanning Panel for routing cables horizontally .......................... $\$ 75.00$
I-HI ....... Vertical filler panel ............................................................. $\$ 50.00$
I-FPB ..... Fanning Panel for routing cables horizontally and vertically .... \$105.00
I-VR ..... Vertical ring bracket .......................................................... $\$ 31.00$
I-ET3 .... Horizontal express trough-3.5" .............................................. $\$ 70.00$
I-ET5 .... Horizontal express trough-5.25" .......................................... $\$ 70.00$
IC. Q. . . W. $\$ 5$ sysens
I-WS..... Terninates and cross connects 192 balanced audio circuits ....... $\$ 599.00$
I-WSET. Express trough ..................................................... $\$ 70.00$

## LC.O.N. HW Syseanlil

I-WA ..... Wall mount frame with 4 I-24A Blocks .................................... $\$ 680.00$
IWB ...... Wall mount frame with 4 l-2413 Blocks ................................... $\$ 660.00$
I-WFP ... Fanning Panel, to route cabling between above frames .............. $\$ 70.00$
I-24A ..... QCP Termination Block, terminates and cross-connects 24 balanced audio circuits; each circuit appears on two arrays (left and right) of QCP on each block and are jumpered on the rear of the hlock; shield terminals are multed together and brought out to an insulated terminal post on the side of the block to allow grounding of the system to a common point
1-24B ..... Same as above with floating shield terminals ........................... \$120.00
I-24C..... Same as ahove with floting shield terminals and no rear jumpers ....... \$110.00
I-24R ..... I-24 rack mounting rails .......................................................... \$30.00

ADC Video IGON


The ADC Video ICON makes installations of coaxial cable cleaner. The VI-24 is a central distribution panel with 24 high-quality, true $75 \Omega$ bulkhead feed-through conmectors mounted to a durable power-coated steel panel with a cabie trough.


## Broadcasters General Store Hotlinks to Vendors © <br> www.bgsfl.com www.broadcastdealer.com

## Interfaces • Patchbay



Shown are some of the more common Audio Patoh Cords Prices.

| Length | Red | Green | Blue | Black | Price |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1^{\prime}$ | R1 | G1 | B1 | BK1 | \$21.43 |
| 2 | R2 | G2 | B2 | BK2 | \$22.23 |
| $3 '$ | R3 | G3 | B3 | BK3 | \$23.04 |
| 4 | R4 | G4 | 134 | BK4 | \$23.84 |
| 6 | R6 | G6 | B6 | BK6 | \$25.46 |
| Long finmin flum |  |  |  |  |  |
| Length | Red | Green | Blue | Black | Price |
| $2^{\prime}$ | R22 | G22 | B22 | BK22 | \$46.30 |
| 3 | R32 | G32 | B32 | BK32 | \$47.11 |
| 4 | R42 | G42 | 1342 | BK42 | \$47.92 |
| 6 | R62 | G62 | B62 | BK62 | \$49.53 |
| Buinum sirgle |  |  |  |  |  |
| Length | Red | Green | Blue | Black | Price |
| $1^{\prime}$ | RIB | G1B | B1B | BK1B | \$16.90 |
| $2^{\prime}$ | R2B | G2B | B2B | BK2B | \$17.71 |
| 3' | R3B | G3B | B313 | BK3B | \$18.51 |
| 4 | R4B | G43 | B4, | BK4B | \$19.32 |
| $6^{\prime}$ | R6B | G6B | B6B | BK6B | \$20.94 |
|  |  |  |  |  |  |
| Length | Red | Green | Blue | Black | Price |
| 2 | R22B | G22B | B22B | BK22B | \$39.71 |
| 3 | R32B | G32B | B32B | BK 32B | \$40.52 |
| 4 | R42B | G42B | B42B | BK423 | \$41.33 |
| 6 | R62B | G62B | B62B | BK62B | \$42.94 |
| ADC Hlimburker |  |  |  |  |  |
| The ADC Humbucker eliminates $99.6 \%$ of a $10 \mathrm{Vp}-\mathrm{p}, 50 / 60 \mathrm{~Hz}$ ground induced hum in a $200^{\prime} \mathrm{RG} 59 \mathrm{~B} / \mathrm{U}$ coax run. The actual amount of hum reduction depends on cable length, cable type, ground loop potential and ground loop frequency. |  |  |  |  | $C$ |
| HUM-1 ......................................................... $\$ 147.00$ |  |  |  |  |  |



QCP Tools and Accessories
QCP Tools (QB-2 and QB-4 are identical, tips are different)
QB-2 .............. Impact Tool for MKII panels ......................................... $\$ 75.00$
QB-4 .............. Impact Tool for MKIV panels ........................................ $\$ 75.00$
QB-2T............ Replacement tip for QB-2 ............................................ $\$ 21.00$
QB-2LT .......... Longer replacement tip for QB-2 .................................. $\$ 21.00$
QB-4T ............ Replacement tip for QB-4/QB-2 .................................. $\$ 21.00$
Q-115............. Manual tool (no spring loaded mechanism) for MKII .... $\$ 27.00$
QIDF-114 ....... Manual tool for MKIV panels ....................................... $\$ 16.00$
QCP Replacement Kit
QRK-25 ......... 25 red, white \& black ACP housing; 12 blue and orange
. housing; 100 split cylinder contacts ............................. $\$ 30.00$
QRK-25-MKIV ....... 10 red, white, black, blue \& orange loaded $1 \times 8$ QCP IV housings and contacts
Sleeving Kit
SLVG-1 .......... includes 100 pieces of $2.5^{\prime \prime}$ pvc clear $\$ 3.00$


EDAC-90P-SHELL . I shell and 90 crimp type pins............................... $\$ 90.00$
EDAC-385-SHELL. 1 shell and 38 crimp type pins.............................. $\$ 50.00$
EDAC-3F-SHELL ... 1 shell and 3 crimp type pins .................................. $\$ 2.85$


PPH Holds up to 75 video or audio parch cords, RM or wall mt., $14^{\prime \prime} \times 3.5^{\prime \prime} \mathrm{D} . . . . . . . . . . \$ 25.00$


BT2000
. BNC Insertion/Removal Tool, $12.5^{\prime \prime}$ long
$\$ 55.00$
BT2000/24 .......... BNC Insertion/Removal Tool, 24 " long ............. $\$ 60.00$

## Interfaces • Patchbay



ADC High Definition Video Patch Cords Standard Patch Cords

| Length | Red | Green | Blue | Black | Price |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2^{\prime}$ | R2V-STS | G2V-STS | B2V-STS | BK2V-STS | $\$ 19.50$ |
| $3^{\prime}$ | R3V-STS | G3V-STS | B3V-STS | BK3V-STS | $\$ 20.00$ |
| $4^{\prime}$ | R4V-STS | G4V-STS | B4V-STS | BK4V-STS | $\$ 20.50$ |
| $6^{\prime}$ | R6V-STS | G6V-STS | B6V-STS | BK6V-STS | $\$ 21.00$ |


| Standard Patch/BNC Cords |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Length | Red | Green | Blue | Black | Price |
| $2^{\prime}$ | R2V-STS-B | G2V-STS-B | B2V-STS-B | BK2V-STS-B | $\$ 18.50$ |
| $3^{\prime}$ | R3V-STS-B | G3V-STS-B | B3V-STS-B | BK3V-STS-B | $\$ 19.00$ |
| $4^{\prime}$ | R4V-STS-B | G4V-STS-B | B4V-STS-B | BK4V-STS-B | $\$ 19.50$ |
| $6^{\prime}$ | R6V-STS-B | G6V-STS-B | B6V-STS-B | BK6V-STS-B | $\$ 20.00$ | Midsize Patch Cords


| Length | Red | Green | Blue | Black | Price |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2^{\prime}$ | R2V-STM | G2V-STM | B2V-STM | BK2V-STM | $\$ 20.50$ |
| $3^{\prime}$ | R3V-STM | G3V-STM | B3V-STM | BK3V-STM | $\$ 21.00$ |
| $4^{\prime}$ | R4V-STM | G4V-STM | B4V-STM | BK4V-STM | $\$ 21.50$ |
| $6^{\prime}$ | R6V-STM | G6V-STM | B6V-STM | BK6V-STM | $\$ 22.00$ |


| Midsize |  |  |  |  |  |  | Patch/BNC Cords |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Length | Red | Green | Blue | Black | Price |  |  |
| $2^{\prime}$ | R2V-STM-B | G2V-STM-B | B2V-STM-B | BK2V-STM-B | $\$ 19.50$ |  |  |
| $3^{\prime}$ | R3V-STM-B | G3V-STM-B | B3V-STM-B | BK3V-STM-B | $\$ 20.00$ |  |  |
| $4^{\prime}$ | R4V-STM-B | G4V-STM-B | B4V-STM-B | BK4V-STM-B | $\$ 20.50$ |  |  |
| G' $^{\prime}$ | R6V-STM-B | G6V-STM-B | B6V-STM-B | BK6V-STM-B | $\$ 21.00$ |  |  |

## ADC's ProAx ${ }^{m}$ Triaxial

Camera Connectors
ADC's ProAx ${ }^{\text {TM }}$ Triaxial Camera connectors have field repairable center conductors that eliminate the need to restrip, O-rings that provide superior sealing against moisture, and compatibility with the tools you already own (they can be assembled using off-the-shelf tools). Panel mounting kits and interior repair kits are available.

Use the tables below to find the product number.

| Jack Slze- Leave Blank or add M for Slot 1 |  |  | \#1 \#2 | \#3- \#4 | \#5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Leave Blank | Standard Size |  |  |  |  |
| M | Midsize |  |  | Plug Type-Choose V, V-B or V-B/B for Slot \#4 |  |
| Color- Choose R, G, B or BK for Slot \#2 |  | Cable Length- Choose for Slot \#3 |  | vx | $\begin{aligned} & \text { Coax to Coax } \\ & \text { Plug } \end{aligned}$ |
| R | Red | 2 | $2^{\prime}(.6 \mathrm{~m})$ |  | Coax Plug to BNC Connector |
| G | Green | 3 | $3^{\text {3 }}$ (.9m) | vX-B |  |
| B | Blue | 4 | $4^{\prime}(1.2 \mathrm{~m})$ |  |  |
| BK | Black | 6 | $6^{\prime}$ ( 1.8 m ) | V-B/B | BNC to BNC Connector |

Shown are some of the more common Video Patch Cords Prices.

## Video Patch Cords

| Length | Red | Green | Blue | Black | Price |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1^{\prime}$ | R1VX | G1VX | B1VX | BK1VX | $\$ 16.50$ |
| $2^{\prime}$ | R2VX | G2VX | B2VX | BK2VX | $\$ 17.00$ |
| $3^{\prime}$ | R3VX | G3VX | B3VX | BK3VX | $\$ 17.50$ |
| $4^{\prime}$ | R4VX | G4VX | B4VX | BK4VX | $\$ 18.00$ |
| $6^{\prime}$ | R6VX | G6VX | B6VX | BK6VX | $\$ 18.50$ |

Video to BNC Patch Cords

| Length | Red | Green | Blue | Black | Price |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2^{\prime}$ | R2VX-B | G2VX-B | B2VX-B | BK2VX-B | $\$ 16.00$ |
| $3^{\prime}$ | R3VX-B | G3VX-B | B3VX-B | BK3VX-B | $\$ 16.50$ |
| $4^{\prime}$ | R4VX-B | G4VX-B | B4VX-B | BK4VX-B | $\$ 17.00$ |
| $6^{\prime}$ | R6VX-B | G6VX-B | B6VX-B | BK6VX-B | $\$ 17.50$ |

BNC to BNC Patch Cords

| Length | Red | Green | Blue | Black | Price |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2^{\prime}$ | R2V-B/B | G2V-B/B | B2V-B/B | BK2V-B/B | $\$ 19.18$ |
| $3^{\prime}$ | R3V-B/B | G3V-B/B | B3V-B/B | BK3V-B/B | $\$ 19.86$ |
| $4^{\prime}$ | R4V-B/B | G4V-B/B | B4V-B/B | BK4V-B/B | $\$ 20.54$ |
| $6^{\prime}$ | R6V-B/B | G6V-B/B | B6V-B/B | BK6V-B/B | $\$ 21.90$ |


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## Interfaces • Patchbay

## ADC Unloaded Video Panels



ADC's complete line of unloaded video panels allows you to load a panel and video jack combination to meet your requirements. Pro Patch ${ }^{\text {'4 }}$ (PPI) paneis fearure a solid, milled and drilled aluminum face plare with a molded $A B S$ insulator backing plate for the jacks. Professional Video (PV) panels feature a steel chassis with insulared face plate, top cover, side brackets and cable tray that provides superior cable support
 and strain relief.

4믄
Emptr Unlolutind Vidion Pand Peites
PPII224RS1U, $2 \times 24$ standard size, gray$\$ 125.00$
PPII224RS-BK. 1U, $2 \times 24$ standard size, black ..... $\$ 125.00$
PPII226RS $1 \mathrm{U}, 2 \times 26$ standard size, gray ..... $\$ 125.00$
PPII226RS-BK $1 \mathrm{U}, 2 \times 26$ standard size, black ..... $\$ 125.00$
PPII232RS $1 \mathrm{U}, 2 \times 32$ midsize, gray. ..... $\$ 125.00$
PPII232RS-BK $1 \mathrm{U}, 2 \times 32$ midsize, black ..... $\$ 125.00$
PPI2224RS $2 \mathrm{U}, 2 \times 24$ standard size, gray ..... $\$ 125.00$
PPI 2224 RS-BK $2 \mathrm{U}, 2 \times 24$ standard size, black ..... $\$ 125.00$
PPI2226RS$2 \mathrm{U}, 2 \times 26$ standard size, gray.$\$ 125.00$$2 \mathrm{U}, 2 \times 26$ standard size, black$\$ 125.00$
PPI2232RS $2 \mathrm{U}, 2 \times 32$ midsize, gray. ..... $\$ 125.00$
PPI2232RS-BK 2U, $2 \times 32$ midsize, black ..... $\$ 125.00$
PV224G 2 U, $2 \times 24$ Professional Video Panel, gray ..... $\$ 125.00$
PV224B $2 \mathrm{U}, 2 \times 24$ Professional Video Panel, black ..... $\$ 125.00$
PV226G

$\qquad$
2U, $2 \times 26$ Professional Video Panel, gray ..... $\$ 125.00$
PV226B .2U, $2 \times 26$ Professional Video Panel, black $\$ 125.00$

## ADC Video Jacks

The new Superjack family of BNC self-normalling video jacks features performance matched for data rates up to and including HDTV in the full uncompressed 1.485 $\mathrm{Gbps} / \mathrm{sec}$ rate. The standard size SVJ combines the unique features of 2.4 GHz bandwidth, sealed switch, and a $75 \Omega$ impedance in the patched state when used with ADC's ST series high definition patch cords. The compact MVJ-3 midsize Superjack combines $3.0+\mathrm{GHz}$ bandwidth, sealed switch and "true" $75 \Omega$ impedance in either the normalled through or patched state. Both Superjacks are designed for use in high data rate applications including HDTV, L and $S$ band satellite, Dl digital video and all lower data rate video transmissions including analog base band video.

|  |  | Modine Super Viblent fick $=$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Minsue Vffen lichs |  |  |  |  |
| CJ3012N ........ Single Video Jack, Short Body .................................... \$22.00 |  |  |  |  |
| C.J4012N ........ Single Video Jack, Long Body ...................................... \$24.00 |  |  |  |  |
| C.J3011N-75 .. Single Video Jack, Slırt Body, $75 \Omega$ Terminated .............. \$27.00 |  |  |  |  |
| CJ4011N-75 .. Single Video Jack, Long Body, $75 \Omega$ Terminated .............. $\$ 29.00$ |  |  |  |  |
| MVJ-3 ........... Dual Self-Normalling Super Video Jack ........................ \$39.00 |  |  |  |  |
| MVJ-3\% ......... Dual Self-Normalling Super Video Jack, $75 \Omega$ Terminated .. $\$ 45.00$ |  |  |  |  |
| Stunend Stre Viden Jous |  |  |  |  |
| CJ2011N ........ Single Video Jack ..................................................... \$12.80 |  |  |  |  |
| SJ2000G; ........ Dual Self-Normalling Jack, gold plated body ..................... \$35.00 |  |  |  |  |
| SJ2000C -75 .... Dual Self-Normalling Jack, $75 \Omega$ Terminated, gold plated boxty .... $\$ 37.00$ |  |  |  |  |
| SJ2000N ......... Dual Self-Normalling Jack ............................................ \$30.00 |  |  |  |  |
| SJ2000N-75 .... Dual Seff-Normalling Jack, $75 \Omega$ Terminated ..................... \$32.00 |  |  |  |  |
| SVJ-2 ............. Super Video Jack ...................................................... \$38.00 |  |  |  |  |
| SVJ-2T .......... Super Video Jack, $75 \Omega$ Terminated ................................. $\$ 44.00$ |  |  |  |  |

## ADC C. A. P. S. Component Analog Patching System

ADC has developed CAPS to provide an error free, flexible parching system for component analog video environments. The CAPS will perform flawlessly in various types of component analog systems including RGB and Y, R-Y, B-Y. Choose from a wide selection of CAPS types: nodular patchbays for small systems $\bullet$ fully loaded patchbays for large systems $\cdot$ RGB Plus Sync $\cdot$ and terminated and non-terninated jacks.


## ADC Pro Patch Video Panels

The Professional Video (PV) panels feature a steel chassis with insulated face plate, top cover, side brackets, and cable tray that provides superior cable support and strain relief, as well as maximum jack protection. The IVV series also comes standard with vertical designation strips for additional labeling space. Each ADC Pro Patch Video (PPI) features a solid, milled and drilled aluminum faceplate (prevents the rack mounting ears from breaking off during handling) with a molder ABS insulator backing plate for the jacks. Standard Size IV and IPI panels are available with several jack choices including the SVJ-2 Super Jack rated to 2.4 Ghz , the SJ 2000 rated to 750 Mhz and the CJ2001 1 straight through single rated to 2Ghz. For midsize jacks, the midsize Pro Parch video panels feature rigid welded steel rack mount chassis with a molded ABS jack panel insert. A special adjustable rear cable support bar is provided with holed for tie-
 wraps to keep coaxial cables in place.

## Shown are some of the more Common Pro Patch Video Prices



PPI1224RS-N .................. $\$ 813.00$
PPI1224RS-NBK ............. $\$ 813.00$
PPI1226RS-N .............. $\$ 865.00$
PPI1226RS-NBK ............. $\$ 865.00$
PPI2224GS-N ................ $\$ 843.00$
PPI2224RS-G .................. $\$ 1.106 .00$
PPI2224RS-N ............... $\$ 813.00$
PPI2224RS-NBK ............ $\$ 813.00$
PPI2226RS-N .............. $\$ 865.00$
PPI2226RS-NBK ............ $\$ 865.00$
PPI3426RS-N ................. \$1,730.00



|  |  |
| :---: | :---: |
|  |  |
| N | PPII232RS-CJMID ......... \$1,430.00 |
| V224C-N ................... $\$ 813$ | PPII232RS-CJMID-BK .... $\$ 1,430.00$ |
| PV226B-N.................. $\$ 865.00$ | PPI2232RS-CJMID ........ \$1,430.00 |
| IVV226G-N..................... $\$ 865.00$ |  |
| Stepor-7 Eel hamber | Naw mosmid |
| . 883 | PPI2232RS-CJTMID ....... \$1,590.00 |
| 224G-75N.................. $\$ 835.0$ | [PI2232RS-CJTMID-BK . \$1,590.00 |
| PV226B-75N .................. $\$ 892.00$ |  |
| PV226Ci-75N ................ $\$ 892.00$ | ylar now lina |
|  | IPI1232RS-MV] ............. $\$ 1,400.00$ |
| Storevolsplar | PPI2232RS-MV] ............. \$1,400.00 |
| 224B-SVJ ................ \$1,06 | PPII232RS-MVJ-BK ....... \$1,400.00 |
| V224G-SVJ ................. \$1,060.00 | PPI2232RS-MVJ-BK ........ \$1,400.00 |
| PV226B-SVJ ................ $\$ 1,140.00$ |  |
| PV226G-SVJ ................ $\$ 1,140.00$ | nif |
|  | PPII232RS-MVJT ........... \$1,590.00 |
| PV224B- SVJT | PPII232RS-MVJT-BK ...... \$1,590.00 |
| PV224G-SVJT .............. $\$ 1,200.00$ | PPI2232RS-MVJT ........... \$1,590.00 |
| PV226B-SVJT ............. $\$ 1,290.00$ | PPI2232RS-MVJT-BK ...... \$1,590.00 |
| I'V226G-SVJT .............. \$1,290 |  |

## ADC VAMP

Vdeo /huifo Nocuin patmosa
The Video Autio Modulur Pacchbay (VAMPTM) chassis accommodates up to twenty modules of Longframe, Bantam, dual switching coax to BNC , single coax to BNC jacks, RGB and triax camera connector modules. The VAMP system is the perfect solution for small and medium-sized applications that do not need a single configuration audio or video panel, or where audio, video and data need to be in the same chassis.
VC-1


## Audla Modulle




## Interfaces • Patchbay

## A/VR Auclio Patching System



A/VR Audio Patching System ${ }^{\text {TM }}$ bayfronts are made of phenolic (non conductive) black thermoset material, with steel mounting brackets. Jacks are Tip-RingSleeve (TRS), with normals on the Tip and Ring connections. The cable is 22 gauge, stranded, twisted pair with shield and overall shield. Standard cables are 5' in length and exit the patch panel on the left as viewed from the rear. Beyond 5 ' cable, add $\$ 14.50$ per foot addtitional.

| \$525.00 | 52DR-TRS-BO-SP ............... \$882.00 |
| :---: | :---: |
| 24SR-TRS-BO-PU .............. \$432.00 | 52DR-TRS-BO-PU .............. \$803.00 |
| BO-FB .............. \$525.00 | 52DR-TRS BO-FB .............. \$882.00 |
| 48DR-TRS-AB-SP .............. \$603.00 | 52DR-TRS-TRB-SP ............. $\$ 616.00$ |
| 48DR-TRS-AB-PU ............. \$595.00 | 52DR-TRS-TRB-PU ............ $\$ 584.00$ |
| 48DR-TRS AB-FB .............. \$603.00 | 52DR-TRS TRB-FB............. $\$ 6$ |
| 48DR-TRS-BO-SP .............. \$819.00 | 96DR-TRS-AB-SP |
| 48DR-TRS-BO-PU ............. \$754.00 | 96 D |
| 48DR-TRS BO-FB ............. $\$ 819.00$ | 96DR-TRS AB-FB |
| 48DR-TRS-TRB-SP............ \$603.00 | 96DR-TRS-BO-SP............ \$1,530.00 |
| 48DR-TRS-TRB-PU........... \$595.00 | 96DR-TRS-BO-PU ........... \$1,457.00 |
| 48DR-TRS TRB-FB ............ $\$ 603.00$ | 96DR-TRS BO-FB ............ \$1,530.00 |
| 52DR-TRS-AB-SP .............. $\$ 607.00$ | 96DR-TRS-TRB-SP.......... \$1,102.00 |
| 52DR-TRS-AB-PU ............. $\$ 582.00$ | 96DR-TRS-TRB-PU .......... \$1,061.00 |
| 52DR-TRS AB-FB .............. \$607.00 | 96DR-TRS TRB-FB ........... \$1,102 |


| Normals |  |
| :---: | :---: |
| BO- | Normal Brought Out |
| AB | Normals Strapped at Bay |
| TRB- ........... | Row Normals are Bridged |
| Terminations |  |
| PU- | "66" Type Punch Block |
| FB- | .................. Multiflex |
| S110 | .... 110 Type |

A/VR Patching Systems Versapatch II
 A/VR Patching Systems Versapatch II is a 2 U , chassis-enclosed stereo patch panel. It contains 48 tip-ring-sleeve jacks offset in pairs, configured in two rows.

## Behringer Ultrapatch PRO PX2000



Behringer Ultrapatch PRO PX2000 is equipped with 48 phone jacks on the front and rear panels and has a switch for each channel ( 24 in all) on the top panel which can be used to adjust one of the four operating modes (parallel, half-normalized, normalized and open). The PX2000 gives you the utmost flexibility when configuring a well structured wiring scheme in the studio.

PX2000
Ultrapatch
69.00

## Canare $75 \Omega$ Digital Video Patchbays



The Canare Video Patchbay is a vital link in your signal distribution network scheme. Serial Digital Video (SDI) production equipment operates at super high data bit rates. Every interconnect component in the modern post facility must be checked for $75 \Omega$ matched impedance and have sufficient headroom to pass HDTV signals in excess of 720 MHz . Canare patchbays are designed for maximum reliability and will pass all Serial Digital signal formats with excellent Return Loss characteristics and very few signal reflections (VSWR).

$$
\text { 242U-DVJW .. } 2 \times 24,2 \mathrm{U} . . . . . . . \$ 856.38
$$

201U-DVJW .. $2 \times 20,1 \mathrm{U} . . . \mathrm{\$ 742.30}$ 262U-DVJW .. $2 \times 26,2 \mathrm{U} . . . . . . \$ 918.23$ $241 \mathrm{U}-$ DVJW .. $2 \times 24,1 \mathrm{U} . . . . \$ 851.38$ 244U-DVJW .. $2 \times 24,4 \mathrm{U} . . . \$ 2,583.95$ 261U-DVJW .. $2 \times 26,1 \mathrm{U} . .$. . $\$ 913.23$ 264U-DVJW .. $2 \times 26,4 \mathrm{U} . . . \$ 2,772.93$

## dbx PB-48 Patchbay



The dbx PB- 48 is for the studio where there is a need to frequently change cable routing and patching. It gives you 48 TRS I/O patchpoints that are necessary when patching balanced signals or send/return signals on insert jacks. Each vertical pair of jacks is easily configurable to allow half-normalled operation. IU \& 3lbs.

PB-48
$\$ 149.95$

## Fuiman PB-4.8 a 48 Paint Ratatitioy Sybtem



The Furman PB- 48 is a new 48 point patchbay system featuring all balanced $1 / 4^{\prime \prime}$ TRS phone jacks in front, and available with either TRS phone or D-Sub connectors on the rear. The D-Sub option is ideal for interfacing to multitrack recorders and mixers. PB-48's are very easy to customize for half-normal/non-normal configurations. The PB-48D provides plug-in jumpers for the ultimate in simplicity of configuration.
PB-48
$\$ 169.00$
PB-48D
w/Sub option
$\$ 229.00$
 lifetime insertions! The Easy Patch is delivered in a fully normalled configuration and each channel ground is separately connected with the corresponding cable shield. All $14^{\prime \prime}$ versions incorporate the ability to expand from $14^{\prime \prime}$ to $18^{\prime \prime}$ or any distance in between to fit your rack.


NPP-TB ......... Longframe 1/4" $2 \times 24$ programmable push terminals .. \$1,007.00

NPP-TB-14E.. Longframe $1 / 4^{\prime \prime} 2 \times 24$ programmable ELCO/EDAC, 14" Version..
$\$ 1,093.00$
NPP-T13-141 ${ }^{T}$ T Longframe $1 / 4^{\prime \prime} 2 \times 24$ programmable push terminals, 14"Version.
$\$ 1,259.70$
NPP-TT ......... Bantam $2 \times 48$, programmable push terminals
$\$ 1,064.00$

NPP-TB-HN .. Longframe 1/4" $2 \times 24$, half normalled, solder terminals .. $\$ 560.00$
NPP-TT-HN .. Bantam $2 \times 48$, half normalled, solder terminals .
.$\$ 551.25$NKTH05Longframe TB Plug 2', specify hlack or red$\$ 26.97$
NKTBI Longframe TB Plug $3^{\prime}$, specify black or red ..... $\$ 28.00$
NKITT03 NP3ITT-1 Plug 1', specify blk, red, ylw, grn, or blue . ..... $\$ 14.69$
NKTT03Au . NP3TTI-1 Gold Plug 1', specify black or red. ..... $\$ 17.39$
NKTT04 NP3TT-1 Plug 18", specify blk, red, ylw, grn, or blue . ..... $\$ 14.81$
NKT"T04Au NP3TTT-1 Gold Plug 18", specify black or red. ..... $\$ 17.58$
NKTIT0 NP3TT-1 Plug 2', specify blk, red, $y / w$, grn, or blue . ..... $\$ 15.08$
NKI"I05Au NP3TTT-1 Cold Plug 2', specify black or red. ..... $\$ 18.01$
NKTTI NP3'TT-1 Plug $3^{\prime}$, specify blk, red, ylw, gru, or blue ..... $\$ 15.73$
NKTTIAu. NP3 ${ }^{\prime}$ IT- 1 Gold Plug $3^{\prime}$, specity black or red.. ..... $\$ 18.56$
NKITTI2. . NP3ITT-1 Plug 4', specify blk, red, ylw, gru, or blue ..... $\$ 12.94$

## Re'an MA96 and XPM 96 Bantam Patchbays

The Re'an Ma96 and XI'M 96 Bantam Patchbays have been designed to accept stan dard Bantam Jack connec tors. The MA96 has a unique 2 row, $12 \times 8$ jack format in stereo pairs. The XPM 96 is a 2 row, $4 \times 24$ format, stereo paired. The connectors are $1 / 4^{\prime \prime}$ TRS, so it handles both balanced and unbalanced signals. Face Plate available in four colors: specify A for red, D) for thee, O for black and $S$ for silver.
MA96-1 .... Bantam 96 Point l'atch Bay
$\$ 418.60$

XPM-96 ... Bantan 96 Point Patch Bay (black or silver only) .................. $\$ 418.60$
I.B ............ Brass strain relief bar to support wire bundles ......................... $\$ 21.00$

MAC12 .... [1' quad cable, $1^{\prime}, A=$ red, $B=$ grn, $D=b l u e, ~ F=$ white or $\mathrm{O}=$ black .. $\$ 11.65$
MAC18 .... Tl" quad cable, 18", $A=$ red, $B=$ grn), $D=$ blue , $F=$ white or $\mathrm{O}=$ black $\$ 11.73$
MAC24 ... 'IT' quad cable, 2', $A=$ red, $B=$ grn, $\mathrm{D}=$ =blue , $\mathrm{F}=$ white or $\mathrm{O}=$ black .. $\$ 11.82$
MAC36 ... 'T'T' quad cable, 3 ', $\mathrm{A}=$ =ed, $\mathrm{B}=\mathrm{grn}$, $\mathrm{D}=$ blue , $\mathrm{F}=$ white or $\mathrm{O}=$ black .. $\$ 11.89$
MAC48 ..... 'IT1' quad cable, 4', $\mathrm{A}=$ recd, $\mathrm{B}=$ grrn, D -blue , $\mathrm{F}=$ white or $\mathrm{O}=$ black ....... $\$ 12.31$

## Interfaces • Patchbay

## Siemon



## Accessories

Siemon offers over 20 different size blocks configured from 2 pair up to 250 pair per block. There are two basic series for all 66 blocks the M Series and the B Series. The $M$ Series clips are closer together allowing for a greater packing density. The $M$ and $B$ series are endstackable, but the M series stacks without losing space between blocks. All the "plug-on" adapters and accessories are designed for use with the M series.

| Model | Pair Capaciry .............. Price |
| :---: | :---: |
| S66M1-25 |  |
| S66M1-50 | .... 50 .................... $\$ 12.65$ |
| S66M1-10 | ..... 100 ................... $\$ 28.45$ |
| S66B3-50 | .... 50 .................. $\$ 21.95$ |
| S66B3-75 |  |

## Tascam Patchbays



PB 32U Half-normal 1/4" Phone Front 1/4" Phone Back
$\$ 120.00$
P13-32H Half-normal, $1 / 4^{\prime \prime}$ Phone FrontRCA Back $\$ 117.50$
PB-32R....... Half-normal RCA Front, RCA Back
PB-32B....... Half-normal Balanced, $1 / 4^{\prime \prime}$ TRS Front $1 / 4^{\prime \prime}$ TRS Back.
$\$ 145.00$


## Interfaces • Problem Solvers

## Benchmark IFA-10 4xa Assigriable Mixct



Benchmark IFA-10 $4 \times 4$ assignable mixer may be used for aux mixing or the creation of mixminus feeds with telco or satellite communication. Features include: $20 \mathrm{k} \Omega$ balanced input - +27 dBu I/O clip points • CMRR=90dB @ $2 \mathrm{kHz}, 75 \mathrm{~dB} @ 20 \mathrm{kHz}$ typical • THD $=0.0009 \%$ (2kHz typical •-104dBu noise floor @unity gain • $60 \Omega$ balanced outputs • individual output gain range of unity to $-20 \mathrm{~dB} \cdot$ and mounts up to three units side by side using RM-1 $\$ 25$.

IFA-10
$\$ 265.00$

## Broadcast Tools Box of Switches

805, ROS. 5 日昭 24 Sertett 3 Buthot Patiels


Switch \& Button P'anels'The Broadcast Tools BOS (Box-OSwitches) offers 12 N.O. dry contact switches with status LEDs in a sloped-front desktop panel. The ROS is similar, but in a single-space rack unit. The PBB- 24 provides 24 momentary huttons that can be programmed with a nondedicated computer to output ASCII character strings on depression and release.
BOS ........... Box-O-Switches ............................................................... $\$ 199.00$
ROS ........ Rack-O-Switches, Remote Utiliy Panel, 12 Switches, 1 U... $\$ 199.00$
PBB-24 ...... Progranmable Buton Box w/24 Switches, RS-232 ......... $\$ 299.00$

## Comrex Mix-Minus Bridge



- Conırex Mix-Minus - Bridge is for those hroadcast facilitess using remote audio sources as part of their main programming. Mixing the remota audio in with the program audio at the studio is easily done by the studio console. However, managing the audio fed back to the remote sites can be quite difficult when you have more than one source. Each remote device requires a mix-minus feed (all program audio minus the audio from the field unit)
because remote hosts cannot tolerate the time delay associated with modern audio processing. The Mix-Minus Bridge makes this process simple by providing 5 separate mix-minus feeds, and studio consoles will not become maxed our. The five feeds can be preser and ready to go at any time and the Mix-Minus Bridge even has an IFB for sending producer cues to the field.

Mix-Minus Bridge
$\$ 1,200.00$

## "This is a tool that every serious jock should have at their disposal..."

## amict

The Morning Show To Go www.quicpix.com


Here's why QuicPix is "The Button Box Alternative":
$\square$ Easy playlists and hot keys

- Up to three overlapping audio cuts

ㅁ Sortable digital library lets you find audio fast
ㄱ Windows 95/98/NT
ㄱ Uses any Windows compatible sound card
] Portable - work at home and on air

## Got a problem? Wo Buria Solutions...

## Since 1982, Henry Engineefing's

 "blue boxes" have been solving your problemst- Audio Interface - Mixing
- Distribution
- Telephone Information
- Digital Audio Storage - Control Interface

Over 50,000 units in use worldwide.
How can we : Los cossucyurs
help you?

## An engineere dream...

 d 10
## Interfaces • Problem Solvers

## Furman IP-2 Iso-Patch and IP-28 Iso-Patch

The Furman IP-2 Iso-Patch temporarily or permanently isolates line level audio signals to break ground loops that cause buzz and hum. It features 2 Input/output channels fitted with $1 / 4^{\prime \prime}$ jacks.
IP-2
Dual Isolator, 2 channel, $1 / 4$ " TRS
$\$ 69.00$
IP-2B
Dual Isolator, 2 chamel, 1/4"TRS and XI.R
$\$ 99.00$

Henry MixMinus Pilus difmentua summurdeanpoluer


Henry MixAinus Plus is a differential summing amplifier designed to add a "Mix Minus" output to an audio console or teleconferencing system. This output is typically used to feed the send input of a telephone hybrid device. Mixi, Linus Plus subrracts the hybrid receive signal from the program output, to generate a program mix - minus the receive (caller) audio. The NUI IL adjustment will provide 40 dB caller audio rejection. It is also applicable to satellite audio systems, removing incoming audio from a return IF:B or cue feed to prevent echo and feedlback.

MixMinus Plus
$\$ 195.00$

## JK Audio Pureformer Hurt \& Noise Rechuner

The JK Audio Pureformer is a hum and noise reducer for sound cards and audio equipment. It removes ground loops and DC paths that cause hum and signal break-up. Just insert it between your sound card and your audio mixer or amplifier.
Pureformer...
$\$ 59.00$


IT'8A ............... Transformer Isolation Balancing Box ............ $\$ 444.33$
IT4A. Four outputs.
$\$ 333.22$

## Pro Co DE-4A

pand Firot हm


Pro Co DB-4A quad direct box optimized for balanced or unbalanced instrument level. Four chanuels of balanced mic level out.

## DB-4A .......... Quad Direct Box

$\$ 333.32$

## sbs FlexRack Modular Rack System

 sbs's imovative FlexRack offers an alternative to stacks of problemsolving boxes or dedicated rack units. It's a IU chassis with an integral mains power supply, capable of housing up to four further sub-modules. By choosing and fitting modules from an expanding list of functions, a variety of unique systems may be constructed in a tidy, compact and professional way. It is now possible to combine functions in ways that would never be found as a single integrated unit. Also, repeated functions such as multiple silence sensors may be implemented withour occupying large amounts of rack space. The FlexRack chassis incorporates moveable rack ears which allow the unit to be mounted with the connectors facing either direction within a 19 inch rack; alternatively, the ears may be rotated through 90 degrees for screw-down or screw-under table mounting. 5-Year WarrantyFurther modules will be added to the range below during the lifetime of this catalog contact BGS for an updated list. Alternatively sbs can provide a custom design service based on the FlexRack system for certain products, contact BCSS for more details.

FioSS Dull Sillinoe sutisor - $\$ 295.00$
A stereo/dual monoandio silence sensor that's capable of raising alarms directly or via a remore telemetry system and performing emergency signal changeover. Bandpass filters followed by separate dynamic range and static level detectors can disiem between oalid audio and fault conditions such as hum on a line. 'Thresholds, time clelay' and the period of valid audio required before alarms are cleared are all user adjustable. Instantaneous audio status and timeout alarms are available as well is from panel LEE I s, and an additional internal multipole relay can be used for audio changeover or further alarm sigialling.
Fr:DAC DIglad tu Atuilce Casertar. $\$ 295.00$
Ultra high quality professional conversion from AES/EBU digital audio to stereo balanced analog signals at 24-bit resolution and input sample rates up to 100 kHz . Status outputs indicate ralid incoming data and the audio may be externally muted.
FADS Arming to Encotal Comerter -mon= $\$ 395.00$
Ultra high qualiry professional conversion from stereo balanced audio to $\mathrm{AFS} / \mathrm{EBU}$ digital at 24 -bit resolution and selectable output sample rates up to 96 kHz . The master clock frequency may be externally applied or derived from internal high stability oscillator. Quality balanced input stages with gain trim are followed by swichable two stage prorective limiter for applications where the input level may not be well defined.

265.00

Six audio channels, with wide-range gain controls and balanced inputs and outputs. All may be individually unbalanced without loss of level. Hence, by selective unbalancing this module may be used for multiple balanced-to-unbalanced or unbalanced-to-balanced conversion at both professional and senipro ievels, as well as for simple gain adjustment.

## Fr SRal Senmit Rempte Montor/Conttcitifr

The FR-SRM encodes status information from FlexRack modules or other equipment ino a serial data stream suitable for transmission via an RS232 connection, such as is commonly provided by modern digital STL links, and decodes similar information arriving in the opposite direction. Tivo identical units situated at either end of a link can therefore be used to monitor conditions at a remore location and control the equipment situated there. Eight digital status signals and two $0-5 \mathrm{~V}$ analog voltages are passed in each direction, with error detection codes embedded in the signal to eliminate spurious outpus during corruption or disconnection of the link.

## Interfaces • Problem Solvers

## Radio Design Labs

The Radio Design Labs application specific modules perform a particular electronic function or do a specific job. Audio and video functions are broken down so a module does one job. Certain modules mix, others preamplify or amplify, others detect, others control while others distribute. A module is provided for each function and type of signal. Application specific modules do a single job or build a complete system or system subassembly. RDL modules are versaile, offer high performance and are a great value! All RackUp ${ }^{\text {TM }}$ Series \& Active Stick-On units require an external power supply.

$\$ 98.00$
D-BZR*
Piezo Alert Module, H4.1"xD1.6"xW1.3" $\$ 98.00$

Attenuators
$\qquad$ Video Attenuator 152.00

RU-VA2 ..........
FP-AVD4* ...... Audio/Video Distribution Amp ....................... $\$ 269.00$
RU-BDA3 ...... 3 Output audio DA .......................................... $\$ 237.00$
RU-DADA3 ...... 1x3 Mic DA ........................................................ $\$ 2440.00$
RU-UDA4 ...... 2x4 Stereo unbalanced DA ............................ $\$ 168.00$
ST-DA3* ........ Audio DA (1 in, 3 out line) ............................ $\$ 134.00$
STM-DA3 ...... Microphone DA ( $1 \mathrm{in}, 3$ out mic) .................. $\$ 134.00$
Audio Processing

RU-OSC4A .... Sequencing oscillator ..................................... $\$ 271.00$
ST-OSC2A ..... Oscillator, $1 \mathrm{~K} / 10 \mathrm{~K}, 2$ line out for each freq. ... $\$ 104.00$
ST-OSC2B ...... Oscillator, $100 \mathrm{~Hz} / 400 \mathrm{~Hz}$, 2 line out for each freq. . $\$ 104.00$
Crossovers \& Filters
ST-CXIF ........ Full range crossover, 100 Hz to 30 kHz ............ $\$ 119.00$
ST-CXIS ........ Subwoofer crossover, 22 Hz to 80 Hz ............... $\$ 119.00$
ST-CXW ........ Woofer crossover, 40 Hz to 165 Hz .................. $\$ 119.00$
ST-HP1 .......... 300 Hz High-Pass Filter ................................ $\$ 119.00$
ST-HP2* ......... 500 Hz High-Pass Filter

FP-DFC1* ...... Format Converter - SPDIF AES/EBU .............. $\$ 467.00$
RU-AEC1*.... D to A Converter $24 / 96$ AES/EBU ............. $\$ 443.00$
RU-AED4* ..... Digital Audio Distributor - AES/EBU ............ $\$ 599.00$
RU-AEX4 ....... Digital Audio Selector - AES/EBU ................. $\$ 665.00$
RU-SPC1 ....... D to A Converter - 24/96 SPDIF .................. $\$ 443.00$
RU-SPD4 ...... Digital Audio Distributor - SPDIF ................ \$745.00
RU-UDC1 ..... Universal Digital Converter ........................... $\$ 655.00$
Digital Interface
RU-SC2* ........ Serial Converter, Full duplex RS-232=RS-422
$\$ 185.00$

ST-FS
Transient Suppressor


FP-AVD4


ST-PH1 ........ Stereo phono preamp ........................................ \$134.00 Power Amplifier
RU-PA518 ... Audio Power Amplifier ..................................... \$227.00
ST-IC1 .......... Intercom Amplifier, (1 mic level input; 1@ $8 \Omega$ out) .. $\$ 128.00$
ST-MA2 ....... Muting Monitor Amp, Selectable attenuation ...... $\$ 83.00$
ST-PA2 ........ 2 Watt power amp mono .................................... \$68.00
ST-PA6 ........ 6 Watt power amp mono .................................... \$94.00
ST-SH1 ........ Stereo headphone amp .................................... \$121.00
TXIW* ........ Music on hold amplifier, 1 unbal in, 1 bal \&
1 unbal out, 1 watt
$\$ 68.00$
Power Supplies \& Accessories
FP-DCCl .... DC/DC Converter .......................................... \$209.00
CP-1 ............ Single cover plate in white, for use with WB-1 ....... $\$ 9.00$
CP-2 ............ Double cover plate in white, for use with the WB-2 $\$ 9.00$
PS-24A* ....... 24Vdc @ 400 mA power supply .......................... $\$ 19.00$
PS-24E ......... Continental Europe 24 Vdc @ 400 mA power supply ... $\$ 33.00$
PS-24K ........ 24Vdc @ 1000 mA power supply ......................... $\$ 28.00$
PS-24U2 ...... 24Vdc Switching power supply @ 2A .................. \$68.00
PS-24U2A ... 24Vdc Switching power supply @ 2A .................. \$71.00
RU-PSB1 ..... Mounting Kit for PS-24U2 Power Supply
(mts. in RU-RA3 opening
$\$ 36.00$
ST-PD5 ....... Linear Supply Distributor ..................................... $\$ 68.00$
ST-PD5U .... Switching Supply Distributor ............................. \$80.00
WH1 ........... Power supply mounting adapter, surface mts.
(mts. 6 supplies)
$\$ 69.00$
WH2 ........... Power supply mounting adapter, $19^{\prime \prime}$ RM
(mts. 6 supplies)

Radio Design Labs (commued)


STR-19B* ....... Racking System,
STR-19A* (19RM for up to 10 stick-ons at an angle) ................ \$155.00
System, (19 RM for up to 12 stick-ons) ...
MB-2 ............. Mounting kit, L bracket .......................................... $\$ 2.00$
DMK.............. Detachable mounting pads, (Kit of 5) ...................... $\$ 5.00$
LBL-1 ............. Label kit ........................
MSR-1 ............ Snap rail adapter .................................................... $\$ 12.00$
SMK-12 ......... Stick-on mounting strip......................................... \$25.00
SR-10 ............. Stick-on mounting rack (mts. 10) .............................. $\$ 62.00$
SR-12* ............ Stick-on mounting rack (mts. 12) .......................... \$62.00
DTB ............... Detachable terminal block ............................................... $\$ 6.00$

RU-SP1 ..... Monitor speaker, for use in RU-RA3, RC1U, or WDG .. $\$ 42.00$ Simbunin 4 Cantral
RC2-ST .......... R Series remote to control any $2 \times 1$ RDL "open collector" input module
$\$ 96.00$
RC4-RU ......... R Series remote to control RU-SX4A ............................. $\$ 96.00$
RC4-ST .......... R Series remote to control ST-SX4 ........................ $\$ 96.00$
RCS4 .............. Remote channel selector, for RU-SX4 .......................... $\$ 96.00$
RLC5K ........... Remote level control, for ST-VCA ......................... \$34.00
RLC10K ......... Remote level control, for ST-VCA1 ........................ $\$ 34.00$
RLC2 ............. Remote level control, for RU-VCA's \& ST-RG ..... \$128.00
RLC3 .............. Remote level control, for ST-VCA1 ........................ $\$ 133.00$
RT2 ................ R Series "ON/OFF" remote control,
( 2 LEDs, 2 buttons) ............................................. $\$ 96.00$
RU-SQ6* ........ Sequencing Controller .......................................... $\$ 233.00$
RU-SX4A ....... Balanced audio switch ......................................... \$264.00
SourceFlex ...... Flexible Audio Monitoring ..... Call for configuration/Pricing
ST-ACR1 ........ Audio ctrl. relay-release . 5 to 5.0 sec., line in .......... $\$ 96.00$
ST-ACR1M .... Audio crrl, relay-release . 5 to 5.0 sec ., mic in ........... $\$ 98.00$
ST-ACR2 ........ Audio ctrl. relay-release 5 to 50 sec , line in .............. $\$ 90.00$
ST-LCR1 ........ Logic ctrl. relay-momentary .................................... $\$ 74.00$
ST-LCR1H ..... Hi Power relay ....................................................... $\$ 109.00$
ST-LCR2 ........ Logic ctrl. relay-alternate action .............................. $\$ 109.00$
ST-RX2* ......... Audio Routing Switcher ...................................... \$104.00
ST-SSR1 .......... Solid state audio "relay", 2 line bal in \& 1 mic out ..... $\$ 104.00$


- Modules identified as ground-neferenced may be intermixed on the same power supply with other groundneferenced modules. - Modules identified as floating may be internixed on the same power supply with other floating modules. - Modules identified as ground-referenced may NOT be intermixed on the same power supply with floating modules. - Modules (TX series) which may be operated from ac or de power supplies may be intermixed on the same de power supply with RDL ground-referenced modules. When these modules are ac powered, they may be intermixed on the same ac power supply with other mamufacturers'ac powered products only if the other manufacturers' products are internally ground referenced.


## Interfaces • Problem Solvers




The Whirlwind MD-1 combines a high quality midline input stage with a transformer-isolated line driver and independent headphone amplifier. Ideal for boom, parabolic and interview mics, the MD1 provides phantom power, local monitoring and a line-level balanced output for noise immunity over long cable runs. The MD)1's input stage features a level control and up to 60 dB of gain, a midline input level switch, plus switchable 18 V phanrem power for condenser mics. Its output can be switch selected between the isolated gain stage and a straight loopthrough. The headphone volume control provides a 60 dB range of adjustment to the post-transformer input signal or to signals inserted at the headphone line in jack. The mix control allows the user to monitor a mix between the driver circuit and the direct line in. It's powered by two 9 V batteries.
MD -1
$\$ 399.95$

## Whirlwind

?
The HotBox is a totally transparent acrive direct box, powered by wo 9 V batteries or 48 V phantom power. It includes a ground lift switch and an IED on indicator.
HotBox
$\$ 170.80$
The Director: is a premium
versts a line, instrument or speaker level signal to a low impedance mic level.


IMP Pads are female to male
XI.R 3-pin inline low impedance fixed attenuaron devices. Input impedance: female XLR @ $1 \mathrm{k} \Omega$; Output impedance: male XLR @ $150 \Omega$
IMP PAD 10dB
$\$ 19.95$
IMP PAD 20dB
$\$ 19.95$
IMP PAD 30dB
$\$ 19.95$

Little IMP in-line impedance matching transformer with female XLR connector to male $1 / 4^{\prime \prime}$ connector Little $1 \mathrm{MP}^{2}$

The $I M P^{(i)} 2$ is an economical direct box that converts aline or instrument level unbalanced signal to a low impedance balanced mic level ( $20 \mathrm{k} \Omega$ input, $150 \mathrm{k} \Omega$ output)
IMP-2.
. $\$ 59.95$
The MicPower is a portable +12 to 18 Vdc phantom power supply for use with most electret condenser microphones. The unit operates on two 9 V batteries, and an LED sensing circuit indicates sufficient battery power. Input impedance $1 \mathrm{k} \Omega$; Output impedance $150 \Omega$; Battery life 50 hours @ 4mA current draw.
MicPower
$\$ 119.95$


$\equiv$The Lifter is a female to male XI.R 3-pin ground lift device which disconnects pin 1 between connectors.
Lifter
$\$ 19.95$
The Phase Reverse is a female to male XLR 3pin phase reversing device which reverses the connection of pin 2 and, pin 3 between connectors.
Phase Reverser
$\$ 19.95$

## Interfaces • Relays \& Logic

Broadcast Tools ConsoleController IIA


Broadcast Tools Console Controller IIA provides the solution for interfacing non-broadcast consoles or digital workstations to the broadcast studio. It offers three channels of insert switching to turn on or off console input channels or other source equipment. The user can program the switch indicators to cithe light steady or flash when in operation, and channel three may be configured to elithe mute or not mute the monitors when energized. The CC-IIA offers monitor amplifier mute control, front panel monitor level control and the ability to switch between internal or external
 (program/off-air) monitor input sources.

## CC-IIA $\$ 299.00$ <br> 1-352-622-7700

## Broadcast Tools Box-O-Relay

The Broadcast Tools Box-O-Relay, BOR4 provides the user with four independent 2PDT relays, eight opro-isolated and TIL/CMOS 5 volt compatible inputs. Each opto-isolated input may be configured for 5 to 24 Vdc wet or dry operaton. Each relay has a number of input
 control options. The first is the ability to ignore input pulses less than 100 milliseconds. The second is pulse stretching inputs 100 ms or longer into relay closures in 700 ms increments up to 108 minutes. The seven additional control functions are as follows: 1) Sustained input causes a relay closure 2) Toggling an input causes the relay to open and close on each transition 3) Sustained action with rising edge with pulse stretcher 4) Sustained action on both edges with pulse stretcher 5) Pulse input on falling edge with pulse stretcher 6) Pulse input on rising edge with pulse stretcher 7) Set/Reset (flip-flop) action. All latching functrons are stored in non-volatile memory during power outages. Features include: Precise programmable pulse stretch timing ( 700 ms to 108 minute) - multiple logic functions • opto-isolated inputs • TTI/CMOS 5 volt compatible inputs $\cdot 2$ PDT gold contact relays ${ }^{\bullet}$ 9 Vac power supply • screw terminals • aluminum chassis. IU
BOR -4
$\$ 139.00$

## Broadcast Tools Ul|-4II unwermai Intertace



The Broadcast Tools UI-4II universal interface creates an SPDT relay and open collector output from an optically isolated $5-28$ volt AC or $D C$ impur. Four channels of control are included and can operate independently, or nay be combined for larched and multiple relay contact operation. Internal IDIP switches allow the UI-4ll to be configured in dozens of different ways. The UI- 411 is supplied with a plastic bracker for easy mounting. A self contained power supply operates from 12 to 48 volts AC or 1)C.

$\$ 139.00$
RM11 or RN12 .......... hold 2 units (RM1-1, IU shelf), (RM-2, 3U shelf) .... $\$ 49.00$
thenty Engineering Logiconverter
The Henry Logiconverter is an interface unit that facilitates remote control of studio equipment. It solves the incompatibility prollems encountered when a broadcast console is used to provide remore start/stop control of peripheral equipment. Logiconverter convers TTT/ CMOS or open-collector console outputs to relay closures for remore interface that is compatible. reliable and isolated. The unit can be user progranmed via internal dip switches to generate either momentary or naintained outputs from various inputs, with 24 combinations possible.

Logiconverter
$\$ 195.00$


## Henry Engineering Superelay

The Henry Superelay is a quick and easy relay interface for use in any studio installation requiring multiple circuit control. Superelay provides six double-throw relay outputs for lowvoltage and audio switching. It can be controlled by any switch, momentary or maintained relay, or CMOS/TTI logic circuit. The AC output is switched with a solid-state synchronous relay for direct powering of "On Air" warning lights. Includes an internal flasher circuit and $12 \mathrm{Vdc} / 250$ m. uility power supply.

Superelay
$\$ 250.00$


Radio Design Labs ST-LCR1 and ST.LCR2 Logir, Controlleo reloys

The Radio Design Iabs ST-L.CRI and ST-ICR2 logic Controlled Relays provides double-pole, doublethrow dry switching contacts and I.EI) indicitors for relay closures. The S1-L.CR1 provides momentary operation and is ideally suired where additional switching contacts are needed to be added to nearly any type of control sigial. The SГ-I CR2 is usel where momentarv nulses must alternately toggle on/off switching contracts. Open-collecior slave output allows comnection of remote "on" indicator or an ST-LCR1 for additional relay contacts. "These relays are for anywhere you need: more contacts by adding a slave relay $\cdot$ activation from logic circuirs • DPIDT switching relay • open collector
 switching • and control from switch, button, or logic circuits.
ST-L.CRI
Momentary
$\$ 74.00$
ST-LCR2
Alternate-Áction Switching ...........
$\$ 109.00$

## Radio Design Labs ST-AcR Aunio Controlked Relay



The Radio I Design labs ST-ACR Audio Controlled \}elay can be used anywhere you need: control switchng from audio signal • switching from mic or line ignals • silence sensing • DPDT switching contracis - and open-collector (slave) output. The SI-ACR1 is lesigned to switch on line level sources. The STACRIM is designed to switch on low-level sources. The ACR-2 is designed to swith on line level sources with extended release delay (like silence sensor relay)

## Radio Design Labs TXver Video Controled Relay



The Radio Design I.abs TTX-V/CR Video Controlled Relay can be used to: detect vidoo presence - detect loss of video $\bullet$ bridging or terminated operation - detecion of NTSC or PAL signals • dry contact outputs • and for operation from AC or DC power. The TX-VCR is the ideal choice in installations where a control signal is needed based on the absence or presence of valid video signal.
TX-VCR .... Video Controlled Relay (1 video input with loop thru, SPI) "I) .... \$140.00

## sbs Pulsar Fader Starł/Skimmer Peeqomer Contmi Bonard



The stos Pulsar is a tiny ( $2^{\prime \prime} \times 1.5$ ") microprocessor-based module for adding remote/fader start or "skim" functions to standard record and replay equipment. An optional run-on ensures capture of the entire voice break and the slart of the next programme item. The Pulsar can automatically ser some recorders into recordpause mode at power up. Easily fitted (full instructions supplied), the P'ulsar draws its power from the unit being controlled. Either active high or closing contact signalling is accepted, with the control signal being internally debounced. Specifications: Supply voltage range $+3.3-5 \mathrm{~V}$ dc or $+7.5-18 \mathrm{Vdc} @ 15 \mathrm{~mA} \cdot$ Input signal (closing contact) Needs to sink 0.5 mA when on and block 5 V de when off • Input signal (active high) +5 to $18 \mathrm{Y}^{\prime} \mathrm{dc}$, input impedance $>4.7 \mathrm{k} \Omega$ • Outputs .. : Floating transistor, active on, max ratings $5 \mathrm{~mA}, 30 \mathrm{~V}$.
Pulsar .............. Fader Star/Skimmer Recorder Control Board
$\$ 49.00$

## Sine Systems DAl-2 chay Up Audio intertace <br>  DAI-2 was designed primarily to allow

 remote broadeasts at anattended stations, but, with the array of features included, its uses are unlimited. "The DAI-2 combines a telephone autocoupler, a DTMF tone operated controller, audio switching, alarm sensing and output relays into an extraordinarily flexible system. Now included, the new relay panel has one DPDP [ and seren SPIOT relays with LED indicators. The optional DB-I Delay Board can be used to eliminate the brief control tome bursts from teaching the air audio signal. Also, the Cl -1 Composite Insertion module is available for installations where discrete audio is not available.DAI-2
Dial-Up Audio Interface
$\$ 965.00$
DR-1 .............. Delay Board ...................................................................... \$135.00
CI-1 ................. Composite Insertion Module ..
\$135.00

## Interfaces • Routers/Switchers

## Broadcast Tools 6x1B abdio Swather/hione

The Broadcast Tools 6x1B Audio Switcher/Router passively switches or routes any one of six balanced stereo
 sources to one stereo ourput. It provides passive switching through gold contact relays. Front panel switches with LED's provide interlocked source selection and status. A rear panel 15 pin D connector allows for remote control and status. Remore control inputs may be momentary or maintained TTL/CMOS, open collector or contact closure and staus is an open collector. It provides loss of power bypass on input one and may be programmed to power-up on any one of the six inputs. Additional features include: step input for input sequencing • a mute input which
 mutes the stereo output when activated • programmable non-selected input termination •a second bridging outpur to allow monitoring of source material • removable screw terminals for I/O comnections - RS-232 serial port.
$6 \times 1$ $x 1$ Opions RM-1 \$49 \& FP-1 \$39.
$\$ 399.00$

Benchinark |FA-1.1 Fomalastacoo Miamosmalita


Benchmark IFA-1 1 Remote Stereo Mono Switch can provide stereo or mono output to both channels from a stereo device. Specification: $20 \mathrm{k} \Omega$ balanced input $\bullet+27 \mathrm{dBu}$ input clip point $\bullet$ CMRR=90dB @ 2 kHz , 75 dB (a 20kHz typical•THD) $=0.0009 \%$ @ 2 kHz typical •-104dBu noise floor (a unity gain • $60 \Omega$ balanced outputs • individual output gain range of unity to $-20 \mathrm{dI3}$ • mounts up to three units side by side using the RM-1 @\$25.

IFA-11 ........... Remote Stereo Mono Switch w/PS-1 power supply ... \$260.00

## Broadcast Toois SS2.1/TERM



The Broadcast Tools SS2.1/['ERM Stereo Audio Switcher provides passive switching/routing of any one of 2 stereo inputs to one stereo output or vice-versa. Features include: remote control/status • RS-232 multi-drop serial port - Last selected source memory • Pluggable screw terminal connectors for I/O connections.
SS2.1/Term.
.. Options RM-2 \$49 or RM-3 shelf \$49.
$\$ 159.00$

## Broadcast Tools 10x1 sleco Rede Sintedifuxin



The Broadcast Tools 10xI Stereo Audio Switcher/Router passively switches or roures any one of ten stereo sources. It provides passive switching through gold contact relays. Features include: front panel switching with LED indicators • full front panel remote control and status - programmable front panel enable • audio mute control • selective channel power-up programming • and a 2400 baud serial port.
 Comes with wall transformer, serial cable, with audio I/O connections via removable screw rerminals.

10x1
$\$ 529.00$

## 1-352-622-7700

## Broadcast Tools S\$2.1/BNC



The Broadcast Tools SS2.1/BNC AES/EBU Switcher/Router provides passive switching/routing of any one of 2 composite audio, video or AES-EBU inputs to 2 composite audio, video or AES-EBU outputs, or vice-versa. Features include: remote control/status • RS-232 multidrop serial port - Last selected source menory - BNC connectors.
SS2.1BNC ...... Options RM-2 \$49 or RM-3 shelf \$49 ........................ $\$ 159.00$


The Broadcast Tools SS3.1 Stereo Audio Switcher/Router passively switches or routes any one of three stereo inputs to one stereo output or vice-versa. The SS3.1 may also be configured to perform the functions of a $2 \times 1$ Switcher/Router, and may he programmed for momentary latching control. Includes RS-232 serial port. SS3. 1 $\qquad$ Options RM-2 \$49 or RM-3 shelf \$49
$\$ 169.00$

## Broadcast Tools S58.2

Grosamxurt Switchngrouting
The Broadcast Tools SS8.2 provides crosspoint switching/routing with 8 stereo inputs, 2 stereo plus 2 mono outpurs. The SS8.2 includes 3 switching modes, I/() trimmers, internal silence sensor, selectable headphone and powered speaker level controls and outputs. Features include: LEI) VU meters $\bullet 16$ input digital port $\bullet 8$ relays and 8 open collector ourputs $\cdot$ Nulti-drop RS-232 and RS485 serial ports • pluggable screw terminals • input expansion port. IU


[^1]$\$ 729.00$

## Interfaces • Routers/Switchers

## Broadcast Tools SS12.4 <br> Stimeo Crusspant Nado 5mitrem



The Broadcast Tools SS12.4 Stereo Crosspoint Switcher is designed to accommodate 12 stereo inputs and 4 stereo outputs. The front panel backlit 16 character $\times 2$-line LCD display provides user programmable source and destination selection. The operation is as simple as dialing the input and output via the encoder knob and pushing the "STORE" button. The SS12.4 may be configured for three different switching modes. The mix mode allows the mixing of any/or all inputs to any/or all outputs. The overlap mode provides the overlapping of any two inputs
SS 12.4
. $\$ 899.00$
SS12.4RC

## Broadicast Topls $3 \times 2$ Digitm Stema Acudo Switctet

The Broadcast Tools $3 \times 2$ is a 3 input dual output stereo audio switcher. It features: 3 balanced stereo inputs, assign-

able to either or both stereo outputs • multi-turn input trimmers • output level trimmers - front panel channel indicators • 2400 baud serial control port • two modes of parallel remote control, mode one is an on/off latcling mix mode, mode two is susained input mix mode compatible with the Scott Studios 8255 I/O control. All cables, adapter and wall transformer are supplied. Audio I/O connections via removable screw terminals.
to an output. The duration of the overlap may be set in increments of 10 ths of a second, with a maximum of 9.9 seconds. The interlock mode allows the switching on of the last selected input while turning off the first. Audio connections via removable screw terminals. The SS 12.4 may be controlled remotely (max 4) via an optional SS12.4RC, a look-alike remote panel, or a PC. The S $\$ 12.4$ may be addressed for multidrop control as well as configured to a 12 stereo input, 4 studio router. 1 U


3×2
Options RM-1 \$49 \& FP-1 \$39
$\$ 399.00$

## Broadcast Tools $8 \times 2$



The Broadcast Tools $8 \times 2$ Active Dual Stereo Audio Switcher is designed to accept 8 stereo inputs switchable to two stereo outputs via front panel switches with I.ED indicators. The inputs may be programmed to either overlap, mix, or interlock any source. Inputs are balance bridging and will accept either balanced or unbalanced sources. Rear panel input trimmers allow input adjustment
berween -10 and +8 dBm . Output level adjustment is also provided. Additional features include: Eprom programming for power-up input select • mute input - front panel switch disable - monaural outpurs - summing input for multiple unit cascading - \& outpur selectable silence sensor. Paralliel and RS-232 serial ports are also provided for remote control and status. Removable screw terminals. IU

$$
8 \times 2 \mathrm{D} / \mathrm{ev}
$$

.. Active Dual Stereo Audio Switcher
$\$ 649.00$
8x2D/SV ................. As above in Scott Version ...................................... \$649.00
Broadcast Tools 8x1DAS pevenado Smitule


The Broadcast Tools $8 \times 1$ DAS Digital Audio Switcher routes any one of eight AES/EBU digital inputs to three buffered outputs. Programmable or last selected source memory, safety lock out, output muting, remote control/status, multi-drop RS232 and RS485 serial ports. Two versions are available: $8 \times 1$ DAS/XI.R-with balanced 1102 with XLR connectors, or the $8 \times 1$ DAS/ $13 N C$ with unbalanced $75 \Omega \mathrm{BNC}$ connectors.

8×1DAS
Specify BNC or XLR
$\$ 479$


## 



The Broadcast Tools ACS 4.1 is a crosspoint switcher with four stereo inputs to one stereo output. Each transparent direct-coupled audio input may be switched between IHF and professional levels, while providing VLC (Virtual Level Control) for each channel. Each channel may be faded up or down, cross-faded between channels or simply turned on and off. The four LED VU meters provide reference input level display. Other features include; active servo-balanced circuitry; stereo silence sensor; 8 input PIP port; 4 status open collectors; Unbalanced gold RCA jacks and balanced removable screw terminals; I-U
ACS 4.1
Crosspoint Switcher
$\$ 599.00$

## Interfaces • Routers/Switchers

## Burk LX-1 stereo switcher



The Burk LX-1 Stereo Switcher is designed to improve your control room operation by reducing demands on your air console and eliminating the need to patch for alternate program sources. The LX-1 can connect to your remote control system for remote program switching • allows mixing of two studio sources, or lock-out of all audio sources ${ }^{\text {• tally }}$ indications are provided for each source e start/stop pulses are available for each source and it matches IHF or PRO inputs. 1U
IX-1 .............. Six input stereo selector ............................................. \$1,295.00
Conex AS-101
Audio Switcher
The Conex AS-101 Audio Switcher allows any one of 10 stereo
 sources to be switched
to the stereo output channel. Switching is accomplished by pressing one of the illuminated buttons on the front panel, or remorely, via the remore control connector on the rear panel. Several remote control devices may be connected in parallel, and all will indicate the selected channel. A compact rack-mount auxiliary unit houses a variety of optional boards including an RS232/422 interface, a relay board making possible tape deck control, and a system board allowing the AS-101 to be transformed into a simple automation system under the control of any PC. Features include connection via plug-in screw-clamp terminal blocks - Transformerless balanced inputs and outputs * and Front panel accessible input and output level controls.
AS-101 ........... Audio Switcher ............................................................. \$962.12
AS-401 ........... Remote control (10 channel) ........................................ \$161.25
AS-501 ........... Relay board ................................................................ \$317.12
AS-201 ........... RS-232 interface ................................................................. \$209.62
AS-44 ............. RS-232 serial interface .................................................. $\$ 119.00$
AS-202 ........... RS-232 expander board ................................................ \$150.00
AS-95 ............. Auxiliary chassis........................................................... \$115.00
AS-77 ............. AS-101 battery backup memory ..................................... $\$ 76.00$
Henry StereoSwitch Stereo Audio Switcher


The Henry StereoSwitch is a three-input stereo audio switcher for use as a studio switcher, line selector, or for automatic source selection under the control of a broadcast automation system. It accepts up to three stereo balanced audio sources, selecting one to be routed to the stereo balanced output. The unit can be controlled with any momentary or maintained contact closure, open collector, TTL/CMOS logic, or DC voltage from 5-24 volts. Internal power-up programming permits the user to determine which of the three inputs is automatically selected when AC is applied. Tally outputs are provided to drive remote status indicators. Inactive sources can be automatically terminated.

StereoSwitch
$\$ 250.00$

## Intelix M Series Matrix Mixer

Intelix's M series are sophisticated matrix mixers with VCAs at every cross point. M Series at
 a glance: VCA-based matrix mixer ${ }^{\circ}$ up to $128 \times 128$ inputs $\&$ outputs ${ }^{\bullet}$ crosspoint level control ( 0 to $0-100 \mathrm{~dB}$ ) • intuitive PC software included • externally controllable • AC or $[$ C power $\bullet 128$ user presets $\bullet$ over 250 custom configurations $\bullet 2 \mathrm{U}$ chassis for stock models. Applications include: show control, corporate $A / V$, boardroom $/$ mixminus, retail and city council/courtroom.
Prices range from
$\$ 2,499$ to $\$ 6,275$.

## Intelix Studio Psychologist

Monitor Mixing System
The Intelix Studio Psychologist is a remotely controlled monitor mixing system incorporating small remote controls. Psychologist at a glance: create up to 16 unique monitor mixes
 from one console $\bullet$ each mix is performer-controlled via remote ReO mini-mixers • available in mono or stereo * ideal for headphones, floor wedges and in-ear devices • build your own system. Applications include: live touring, houses of worship, studio tracking, surround sound 5.1 production, IFB broadcast monitoring and remote FOH level monitoring.
Prices range from $\qquad$ $\$ 3,999$ to $\$ 11,999$.

## Logitek MON-10 switcher/Meter/Monitor



The Logitek MON 10 Switcher/Meter/ Monitor is great for production rooms, edit suites, remote trucks or any audio test rack. It is a one by ten stereo switcher with a full size VU meter and a 6 W monitor amplifier. You can listen to right channel, left channel, $\mathrm{I}+\mathrm{R}$ (mono) or $\mathrm{L}-\mathrm{R}$ (out of phase check) on any of ten signal sources. The chosen signal also appears on the VU meter which has a six position meter range. The VU meter has a peak LED indicator, headphone jack as well as a front mounted monitor speaker. logitek offers a three year warranty.

MON-10 ........ Ten input Stereo selector/meter/monitor
$\$ 855.00$

## Logitek PRE-10 Input Expander

The I.ogitek PRE-10 is an input expander that will mechanically switch ten inpurs to either of two


## -9e9e9esee

 outputs or two inputs to 10 outputs. All inputs and outputs are XLR connectors

PRE-10M ....... 10 in 2 out mechanical mono switcher $\$ 515.00$
PRE-10S ......... 10 in 2 out mechanical stereo switcher $\$ 560.00$
PRE-6S ........... 6 in 1 out mechanical stereo switcher, desktop ................ $\$ 125.00$

## Interfaces • Routers/Switchers

## Radio Design Labs RU-SX4

Remote Controlled Audio Switching


The Radio Design L.abs RU-SX4 could be used anywhere you need remote controlled audio switching, multiple switching control points, 4 inpurs to 1 ourpur, line-level audio switching, balanced/unbalanced I/O, and gain trim on each source. The inputs are all bridging, allowing connection from either high or low impedance sources.

## RU-SX4A

$\$ 264.00$
Radio Design Labs 84 A \& B Audio Mixing Matrix
The Radio Design Labs 84 A \& B Audio


Mixing Marrix could be used anywhere you need studio quality audio routing and mixing. Features include: 8 in by 4 out with direct mix capability - pull-ro-ground or computer I/O card activation - stereo or mono models available. Application: 32 discrete 5 Vdc control lines provide manual or PC control of 8 input to 4 output audio mixing, switching and routing. Multiple audio channels may be summed or sof-switched with exceptional low distortion, low noise, frequency response and attenuation. IU
SYS84-A ......... Model A 8x4 Stereo Audio Mixing Marrix \$1,020.00 SYS84-B ......... Model B 8x4 Mono Audio Mixing Marrix Sierra Automated Systems (SAS) 16000
 Audio Routing Switcher The SAS 16000 Audio Routing Swircher is a high performance microprocessor based audio swirching system for use in profesional broadcast installations. The SAS 16000 brings SAS qualiry and reliability to the broadcast plant which requires $32 \times 16$ or $32 \times 32$ matrix, all ar a very atrractive price. The unit is housed in a nvo rack unit chassis, and provides alphanumeric controls on the front panel. The system comes complete with stereo partitioning PC soffware which allows any pair of sources and/or destinations to be programmed for stereo operation. Two units may be stacked to allow 32 X 32 stereo operation. The SAS 16000 is comparible with the completer range of SAS rack mounted and console conrrol panels, with full apphanumeric or push-button capability.

Please call Broadcasters General Store for more information and pricing.
SAS 64000 Audio Routing Switcher
The SAS 64000 Audio Routing Switcher is a high performance microprocessor controlled audio switching systenl designod for large-scale professional broadcas facilities. Implementaxion of the latest analog LSI technology has created an uncompromised level of performance and exceprionally high packaging densiry: 256 X 256 in one equipment frame; 256 X 256 all stereo in only two frames. It can be configured to operate as a mono, stereo or a mixed mono/stereo system. The control soffware allows adjacent inputs or outputs to be linked as stereo pairs and treated as one source or destination.
 Stereo linking provides a flexible and convenient solution for facilities which have boh stereo and mono sources and destinations to manage. The central frame is 14 U and houses all input and ouppur modules, frame controller and plug-in power supplies. Features incude: 118 dB enhanced dynamic range ${ }^{\bullet}+28 \mathrm{dBu}$ Maximum input/ outpur levels - Wide selection of control panel options • Multi-point RS-232 \& RS-422 interfaces inctuded $\bullet$ and Dual redundant modular power supplies.

## SAS 32000 <br> Stereo Automated Rcuting

## \& Mixing System



The SAS 32000 Stereo Automated Routing \& Mixing System Series sets the standard for audio routing in professional broadcast facilitics. The flexible system architecture and rugged design allow for use in a broad range of applications, even critical transmission path routing. The system is modular and easily expanded. The heart of the SAS 32000 is a 32 stereo input/ 16 stereo output switching subsystem housed in three rack units. Each frame houses all input amplifiers, crosspoint cards, output amplifiers and redundant power supplies as required for a complete system. For larger systerns these building blocks are simply connected together. SAS provides a comprehensive range of rack mount and vertical console mount control pancls. Each system
 comes complete with RS-232 ports for system programming and computer control. Complete $32 \times 16$ Stereo System including Central XY control and RS-232 approx.
$\$ 16,920.00$.
Weid be happy to provide complete information'
SAS GPI-1600 Salvo Sequence Generator


SAS GPI-1600 Salvo Sequence Generator is a compact general purpose automation system that can be integrated with the $S A S$ audio routing systems. It contains 16 form $C$ relays for general purpose machine control and $R S-2.32$ serial inpur for station time synchronization. Event programming is menu driven via an RS-232 bus connected to a PC/terminal. The unir stores up to 1000 events and provides a seven day programming schedule. The C.PI- 1600 is a useful tool for capturing news feeds, reel recording machines and other time-based events.

## Sine Systems ACU-1 Audio Control Unit

The Sine Systems ACU-1 is an eight balanced steren inpur by one stereo output audio switcher with level control capabilities via RS2.32 commands. Input selection can be programmed to interlock or mix. The system also incorporates silence sensors, parallel logic inpurs, multiplex ourpurs, control relays, a clock/calendar and an optional temperature sensor. While the switcher can be operated manually, the maximum power and flexibility is achieved lyy connecting one or more ACU-I's to a single serial data port of a host computer. The simple ASCII command structure allows for rapid development of very powerful "one-of" customized automation sysrems. Front panel indicators include left and right VU meters, channel sclection indicators and left and right silence alarm status indicators. Rear panel screw terminal connectors are mounted on removable connectors.

ACU-1. $\qquad$ .. Audio Control Unit $\$ 1,650.00$

Please call Broadcasters General Store for systems configurations and pricing!

## Interfaces • Routers/Switchers



## Wohler ARS



The Wohler ARS features a versatile, modular design that can be configured with up to twenty stereo inputs with two stereo outputs; or as a matrix switch with up to four stereo inputs and four stereo outputs. Normal outpur is balanced. An optional single pair of level meters or single phase/polarity indicator may be added to the Audio Routing Switcher. Rack mounted installation in a single rack space with simple rear connections by way of European style plug-in, screw-clamp terminal blocks. Also Nore: One PH-1 or pair of LV- 1 level meters may also be installed in an ARS chassis to monitor a selected source's phase/polarity or level. Please call for prices on these modules.
Analog Audio Routing Switchers (Source Selection)
ARS-11 ............. 5 stereo inputs to 1 stereo output ...................................... $\$ 525.00$
ARS-12 ............. Selects one of five 4-channel groups .................................. \$875.00
ARS-13 ............. Selects one of five 6-channel groups. .................................. $\$ 895.00$
ARS-14 ............. Selects one of five 8-channel groups. .................................. $\$ 885.00$
ARS-21A .......... 5 mono inputs to 2 independent outputs ............................ $\$ 560.00$
ARS-21B .......... 10 mono inputs to 1 stereo output .................................... $\$ 570.00$
ARS-21C .......... 2 independent groups of ( 5 mono ins to 1 mono out) .......... $\$ 580.00$
ARS-22A .......... 5 stereo inputs to 2 independent stereo outputs ................... $\$ 750.00$
ARS-22B .......... 10 stereo inputs to 1 stereo output ..................................... $\$ 770.00$
ARS-22C .......... 2 independent groups of ( 5 stereo ins to 1 stereo out) .......... $\$ 780.00$
ARS-42A .......... 5 mono inputs to 4 independent outputs ............................ $\$ 850.00$
ARS-42B .......... 10 mono inputs to 2 independent outputs .......................... $\$ 850.00$
ARS-42C ........... 2 independent groups of ( 5 mono ins to 2 independent outs) ...... $\$ 890.00$
ARS-42D .......... 20 mono inputs to 1 output ............................................... $\$ 890.00$
ARS-42E .......... 2 independent groups ( 10 mono in to 1 out each) ............ $\$ 1,095.00$
ARS-44A .......... 5 stereo inputs to 4 independent stereo outputs ................ \$1,095.00
ARS-44B .......... 10 stereo inputs to 2 independent stereo outputs .............. $\$ 1,160.00$
ARS-44C ........... 2 independent groups of ( 5 stereo ins to 2 ind. stereo outs) ....... \$1,050.00
ARS-44D .......... 20 stereo inputs to 1 stereo output .................................. \$1,250.00 AES/EBU Digital Audio Routing Switchers (Source Selection)
ARS-D81 ... 8 AES/EBU inputs to 1 AES/EBU output, BNC connectors std. ........ $\$ 825.00$
ARS-D82 ... 8 AES/EBU inputs to 2 AES/EBU output, BNC connectors std. ........ $\$ 975.00$
ARS-D161 .. 16 AES/EBU inpurs to 1 AES/EBU ourput, BNC connectors std. ... $\$ 1,260.00$

Ward-Beck POD2 6x1 Stereo Switcher
 The Ward-Beck POD2 isa unity gain six by one stereo audio switcher. Connections to POD2 are on the rear panel via two rows of screw terminal blocks. POD2 operates as either a one of six switchers or, in the SUM mode, as a selective multi-input mixer.

POD2.
$6 \times 1$ Stereo Switcher
$\$ 375.00$
Ward-Beck POD9 6x1 Video Switcher
The Ward-Beck POD9 is a six by one video selector with remote control capabilities. It can be used in conjunction with the POD2 (above) or the POD10 (below) for audio follow video applications.

POD9
$6 \times 1$ Video Switcher.


## Ward-Beck POD10 Digital 6×1 AES3 Switcher

 The Wand-Beck POD10 is a six by one interlocking digital audio switcher. Connections to POD10 are on the rear panel via screw terminal blocks or BNC connectors. These connections contain six transformer balanced inputs and two transformer balanced outpurs.POD10
Digtial $6 \times 1$ AES Switcher
$\$ 425.00$

## Z~Systems z8.8 Digital Detangler

The Z-Systems z8.8 Digital Detangler is a digital audio patchbay, router, distribution amplifier, and format converter all in one box. Z-Systems offers an inexpensive solution to digital audio integration for those who own more than a few
 pieces of digital audio gear and are tired of the tangles of cables, mismatched connectors, and plugging and unplugging to reconfigure their system. The z-8.8 can connect up to 8 digital audio sources and 8 digital audio destinations reconfiguring "who speaks to whom". The z-8.8 comes standard with 8 AES/EBU I/O ports, but custom configurations can be built to suit your needs (totaling 8, of course). The Z-16.16 digital detangler can be custom configured, just like the $z-8.8$, but has 16 input and output ports. The $z-16.16$ digital detangler can be controlled from both the front panel and a hardware remote control or computer control interface (Mac or PC)

## SWS.

## Z~Systems Digital Detangler Pro Series



The Z-Systems Digital Detangler Pro Series includes the z$8.8 \mathrm{r}, \mathrm{z}-16.16 \mathrm{r}$ and $\mathrm{z}-32.32 \mathrm{r}$. Each is an automated parchbay, an AES/EBU router, and a distribution amplifier all in one package. Once you hook up all of your digital audio I/O's, the connection pattern is then established by the touch of a few buttons on the 2 -rrc router remote
control or computer control interface (Mac and Windows available).

z-8.8 ............... Eight to eight switcher ................................................... $\$ 980.00$
2-8.8.............. Custom configurations $\$ 1,080$ to $\$ 1,325.00$
z-16.16 ........... 16 to 16 switcher.. $\$ 2,200.00$
z-8.8r ............. Pro Series, 8 stereo pairs in \& out ................................. $\$ 1,100.00$
z-16.16r ......... Pro Series, 16 stereo pairs in \& out .................................. $\$ 1,600.00$
${ }^{2}$-32.32r .......... Pro Series, 32 stereo pairs in $\&$ out, $2 \mathrm{U} . . . . . . . . . . . . . . . . . . . . . ~ \$ 5,000.00$
RM ................ Remote control for 8.8r, 16.16 r and $32.32 \mathrm{r} . . . . . . . . . . . . . . . . . . . \$ 495.00$
M1 ................. Router Mac/PC sofware/interface cable, single user ....... $\$ 210.00$

## Inovonics WebCaster

 dio." AGC, 3-band compression, EQ , limiting and low-pass filtering tailor full range program sources for the restricted bandwidth of Web audio.
WebCaster
$\$ 1,850.00$

## Omnia-3net



The New Omnia-3ner features: 48 kHz sanupling • multiband processing digital audio $1 /$ O's $^{\bullet}$ a removable PC card the simplifies soffware changes • algorithnis optimized for realime processing of coded audio - Ethernet and RS-232 ports • and processing presets thoughtfully designed to ensure spectral balance at common bitrates. Remote control is available with an optional PCMCIA modem card and Windows $®$-based sofware.
Omnia-3net .... \#4300-2000, See Page 7 for more information
$\$ 3,580.00$

## Orban Optimod 6200 dab, DTV, and Webbestings

 The Orban Optimod 6200 provides a unique multi-purpose plaform for the special demands of audio processing in the new era of digital transmission and distribution: DAB, Welcasting and two-channel DTV. The 6200 offers digital two-band or five-band processing and a transparent "look-ahead" limiter for absolute protection against digital clipping. Features include LESS/MORE control; user-defined presests; remote control and computer control via modem. Variable bandwidth capabilities let you match the 6200 to your needs from 4 kHz to 20 kHz full fideliyy. Input sample rates automatically sclected: $32,44.1,48 \mathrm{kHz}$. Inpurs: AES/EBU (20-bir resolution). AES/EBU sync, and electronically balanced sereo analog (XLR). Outpur sample rates, sofware selectable: $32,44.1,48 \mathrm{kHz}$. Outputs: $\mathrm{AES} / \mathrm{EBU}$ and analog monitor (XLR). $2 \mathrm{U} \& 13.5 \mathrm{fb}$ b.
6200
for DAB, DTV, and Webcasting.
\$5,950.00


## Telos Systems applies professional audio broadcasting standards to the Internet.......



The Audioactive Internet Audio Suite is a professional hardware and software system that makes it easy to provide both real-time and stored audio streams for Internet and Intranet applications. The Telos ISO MIEG Layer 3 based systems offer high fidelity encoding for the transmission of audio over digital nerworks. "elos is committed to open-standards, working cooperatively with the leading computer industry vendors to create solutions that combine our expertise in digital audio and broadcasting with state-of-the-art Internet and software technologies.

## Telos Audioactive MPEG Realtime Encoder

The Telos Audioactive MPEG Realtime Encoder features and benefits include: integration with Microsoff's NetShow Services and RealNerwork's RealSystem G2 - MP3 compression - professional equipment • audio encoding is not constrained by the processing limitations of a PC • best-possible quality at the conversion stage with a pro-grade 18 -bit analog-to-digital converter • balanced analog (XLR) or digital (AES/ EBU) inputs • audio outputs are via TCP/IP' or RS-232 • front panel L.CD) and LED input metering $\bullet$ adjust hitrates and setrings via front panel control or a dedicated RS-232 port • built-in soft-limiter circuit to prevent harsh audio clipping • multiple encoders can be connected to a single server $\bullet$ integrates with Audioactive Production Studio for realtime audio source-to-file MP3 compression • and included Audioactive NetSuite CD-ROM featuring the Multimedia Driver, Microsoft NetShow Services and the Audioactive Production Studio Software.
MPEG Realtime Encoder
$\$ 2,800.00$

## Telos Audioactive Production Studio Pro 2.0

The Telos Audioactive MP3 Production Studio features and benefirs include: automatic CD ripping • automated FTP file uploads• supports multiple file output formats such as MP3, ASF, Shockwave, or compressed WAV • very high-quality encoding op-
 tion, for when fidelity is more critical than speed, or fast encode option for when speed is most critical output bitrates from $8-256 \mathrm{khps}$ • convenient batch processing, with ability to set encoding properties universally or individually $\bullet$ resampling capability $\bullet$ encoding preview button - latest MPEG 2.5 extensions for low bitrate encoding • bitratedriven calculator tool to determine file size - MP3-to-WAV decoder tool to reconvert back to WAV • enables direct automation of encoding process via commandline or scripts • drag-and-drop capability to quickly add files to the encoding list • encodes background • and is available for Windows 95/NT.

MP3 Production Studio
$\$ 149.95$

Microphones



## Hotlinks to Vendors © <br> WWW.bgsfi.com www.broadcastdealer.com

Microphones


| Microphones | Item \# | Application | Transducer | Pattern | z- | Freq. Range | Sensitivity | Weight Length | Windscreen | Stand Adapter | Shock Mount | Other Accessorles | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | - Denotes Item Supplied with Mic |  |  |  |  |
| Electro-Voice RE20 | 15 | Studio | Dynamic | C | 150 | 45-18k | 1 mV | 26 oz | 20/421 | $320^{\circ}$ | 309A |  | \$748.00 |
| Electro-Voice RE27N/D | 18 | Studio | Dynarric | c | 150 | 45-20k | 3.1 mv | 27 oz | 20/421 | $320^{*}$ | 309 A |  | \$798.00 |
| Electro-Voice RE50/B | 1 | ENG/EFP | Dynamic | - | 150 | 80-13k | -55dB | 9.502. | 379 | $323 *$ | - |  | \$238.00 |
| Electro-Voice RE50N/D-B |  | ENG/EFP | Dynamic | $\bigcirc$ | 150 | 18-13k | $-51 \mathrm{~dB}$ | 9.5 oz. | 379 | 323s* | - |  | \$258.00 |
| Neumann KM184 | 17 | Studio | Conderiser | c | 50 | 20-20k | 11 mV | 2.75 oz | WNS $100^{\circ}$ | SG21/17* | EA2124A | Nickel Finish | \$729.00 |
| Neumann M147 | 14 | Studio | Condenser | C | 50 | 20-20k | 20 mV | 16.25 oz. | WS87 | SG1* | EA1 | Tube Microphone | \$1,995.00 |
| Neumann U87aiSet $Z$ |  | Voice/Studio | Condenser | O/C/8 | 200 | 20-20k | 28 mV | 17.5 oz . | WS87* | SG87 | EA87* | Cable*, Brietcase | \$3,200.00 |
| Neumann TLM103 | 13 | Studio | Condernser | c | 50 | 20-20k | 21 mv | 17.5 oz . | WS87 | SG1* | EA1 | Nickel Finish | \$995.00 |
| RODE NT1 |  | Studio | Condenser | c | 200 | 20-20k | 18 mV | 11.4 oz. | - | RM1* | SM1 |  | \$349.00 |
| RODE NT2 |  | Studio | Condenser | O/C | 200 | 20-20k | 16 mV | 19 oz . | Included | - | SM1* |  | \$649.00 |
| RODE Broadcaster |  | Studio | Condenser | C | 200 | 20-20k | 18 mV | 19 oz | - | VM1* | SM1 | "On Air" Indicator | \$599.00 |
| RODE Classic II |  | Studio | Condenser | All | 250 | 20-20k | 13 mv | 2.2 lbs . | - | Included | SM1 | Includes Flight Case \& P/S | \$1,999.00 |
| Sennhelser E825S | 2 | Performance | Dynamic | c | 350 | 80-15k | 1.5 mV | 11.8 oz. | - | MZO800* | - | On/Off Switch | \$129.00 |
| Sennhelser E835 | 3 | Performance | Dynamic | C | 350 | 40-16k | 2.7 mV | 11.8 oz | - | MZQ800 ${ }^{\circ}$ | - |  | \$159.00 |
| Sennhelser E855 | 4 | Periormance | Dynamic | HC | 350 | 40-18k | 1.8 mV | 11.8 oz. | - | MZQ800* | - |  | \$299.00 |
| Sennheiser MD42111 | 20 | Studio | Dynamic | c | 200 | 30-17k | 2 mv | 30 oz . | MZW421 | MZA421* | MZS421 |  | \$485.00 |
| Sennheiser MD441U | 19 | Studio | Dynamic | HC | 200 | 30-20k | 1.8 mv | 34 oz | MZW441 | MZA441 | MZS100 | MZQ441 Quick Disconnect 533 | \$895.00 |
| Sennheiser ME66/K6 |  | Shotgun | Condenser | HC/L | 200 | 50-20k | 35 mv | 8.7 Oz . | MZW66 | MZQ200 | MZS20-1 | M2W60-1 Blimp W/S \$280 | \$565.00 |
| Sennheiser ME67 |  | Shotgun | Condenser | HC/L | 200 | 50-20k | 35 mV | 13.5 oz . | MZH70-1 MZH200 MZO67 | MZS200 | $\begin{gathered} \text { MZS20-1 } \\ \text { MZS6 } \end{gathered}$ | MZW60-1 Blimp W/S \$280 | \$335.00 |
| Sennheiser MKE2-60 Gold | 6 | Laviler | Condenser | $\bigcirc$ | 200 | 20-20k | 10 mv | .3" | MZW102 | - | - |  | \$350.00 |
| Sennheiser MKE102-60 | 5 | Laviler | Condenser | $\bigcirc$ | 200 | 40-20k | 8 mV | $1{ }^{1 \prime}$ | MZW102 | - | - |  | \$357.00 |
| Sennheiser MKH70-P48 | 12 | Shotgun | Condenser | HC/ | 150 | 50-20k | 50 mV | $16^{\prime \prime}$ | MZW70-1 | - | MZS20-1 | MZH70-1 Wind Coat \$195 | \$1,850.00 |
| Sennheiser MKH416-P48U3 | 21 | Shotgun | Condenser | HC/ | 400 | 40-20k | 25 mV | 18 oz. | MZH60-1 MZH415 H816 | MZQ100 | MZS20-1 | MZW60-1 Blimp W/S 5280 | \$1,275.00 |
| Shure BG3.1 | 7 | Periormance | Dynamic | c | 150 | 60-14k | 1.78 mV | 11 oz. | A58WS | A25C* | A53HM |  | \$140.25 |
| Shure BG4. 1 | 8 | Periormance | Condenser | C | 600 | 40-18k | 4 mV | 902. | A3WS | A25C | A53HM | PS1A Phantom PS \$165 | \$280.50 |
| Shure BG5. 1 | 9 | Performance | Condenser | C | 600 | 70-16k | 3.5 mV | 9 oz | A85WS | A24C* | A53HM | PS1A Phantom PS \$165 | \$280.50 |
| Shure BETA57A | 10 | Periormance | Dynamic | HC | 150 | 70-16k | -72dB | 902. | A57AWS | A25C* | A55HM |  | \$237.95 |
| Shure BETA5BA |  | Performance | Dynamic | HC | 150 | 50-16k | -71.5dB | 902. | A58WS | A25C* | A55HM |  | \$288.85 |
| Shure BETA87A | 11 | Periormance | Condenser | HC | 150 | 50-16k | .74dB | 602. | A85WS | A25C* | A53HM | PS1A Phantom PS \$165 | \$445.08 |
| Shure KSM32/SL |  | Studio | Condenser | C | 150 | 20-20k | 16 mV | 17.3 oz | A32WS | A32M* | A32SM* | Includes Alum-Case | \$1,029.00 |
| Shure MX183 |  | Lavalier | Condenser | HC | 150 | 50-17k | -48dB | $1{ }^{\prime \prime}$ | RK183WS | - | - | RK183T2 Dual Mi, Tie Clip (Contains 1) $\$ 1538$ | \$266.00 |
| Key- |  |  | Note 1 - | Pattern: Note: | $\begin{aligned} & C=C a \\ & \text { Sensi } \end{aligned}$ | dioid ivity in | C=Hyperc B's or mV/ | rdiold a, where | $\begin{aligned} & =\text { Lobar } \quad 8=F \\ & \mathrm{~dB}=1 \mathrm{~V} / \mathrm{micr} \end{aligned}$ | igure 8 <br> bar \& 1 mV | $\begin{aligned} & \mathrm{S} / X Y=\text { Siere } \\ & \mathrm{Pa}=10 \mathrm{mB} / \prime \end{aligned}$ | - $\mathrm{O}=$ Omnidrectional icrobar |  |



| Microphones | Item \# | Application | Transducer | Note 1 <br> Pattern | 2- | Freq. Range | Sensitivity | Weight or Length | Windscreen | Stand Adapter <br> Item Suppl | Shock Mount <br> w/Mic | Other Accessories | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shure MX184 |  | Lavalier | Condenser | HC | 150 | 50-17k | -52.5dB | $1 "$ | RK183WS ${ }^{\circ}$ | - | - | RK183T1 Single Mt. Tie Clip (Contans 2) $\$ 18.23$ | \$296.00 |
| Shure MX393/C | 1 | Boundary Layer | Condenser | c | 150 | 50-17k | -47dB | 3"x4.25" | - | - | - | Includes $10^{\circ}$ Cable | \$336.00 |
| Shure M $\mathrm{X}_{412 / \mathrm{C}}$ | 4 | Gooseneck | Condenser | c | 150 | 50-17k | -63.5dB | 12" | A412MWS | - | Included | A412B Base $\$ 71.67$ | \$296.00 |
| Shure SM7A | 5 | Studio | Dynamic | C | 150 | 40-16k | -79dB | 27 oz . | RK345* | A25C* | C25B |  | \$595.68 |
| Shure SM11CN | 2 | Lavalier | Dynamic | C | 150 | 40-16k | -85dB | $1.5{ }^{\prime \prime}$ | RK184WS | - | - |  | \$142.60 |
| Shure SM57LC | 6 | Performance | Dynamic | C | 150 | 40-14k | -56.5dB | 10 oz . | A2WS | A25C* | A55M |  | \$146.00 |
| Shure SM58LC | 7 | Performance | Dynamic | C | 150 | 50-15k | -56dB | 10.5 oz | A58WS | A25C* | A55M |  | \$188.00 |
| Shure SM63L | 8 | ENGEFP | Dynamic | 0 | 150 | 50-20k | $-56.5 \mathrm{~dB}$ | 4.3 oz. | RK229WS* | AS57D* | A53M | 9-1/4" Long | \$216.34 |
| Shure SM87A | 9 | Performance | Condenser | HC | 150 | 50-18k | $-52.5 \mathrm{~dB}$ | 7 oz. | A85WS | A25C ${ }^{-}$ | A53M |  | \$357.71 |
| Shure SM89 | 3 | Shotgun | Condenser | L | 150 | 60-20k | -53dB | 6.9 oz . | RK257WS | A57E | A89SM |  | \$1,134.65 |
| Shure SM93 | 15 | Lavalier | Condenser | 0 | 150 | 80-30k | -63dB | .4" | 49A150* | - | - | OptDual Clip 90C4327 | \$238.68 |
| Shure VP64A | 10 | ENG/EFP | Dynamic | 0 | 330 | 50-12k | -52dB | 7-7/8" | 49C55* | A57E | A53M |  | \$120.36 |
| Shure VP64AL | 11 | ENG/EFP | Dynamic | 0 | 330 | 50-12k | -52dB | 9-5/8" | 49C55* | A57E | A53M |  | \$140.76 |
| Shure VP88 | 12 | Stereo | Condenser | MS | 150 | 40-20k | -66dB | 14.7 oz. | 9044163 | 90B4046* | A88SM |  | \$1,217.88 |
| Sony C48 | 13 | Studio | Condenser | O/C/8 | 250 | 30-16k | $-41 \mathrm{~dB}$ | 20 oz | - | - | - |  | \$1,550.00 |
| Sony C74 |  | Shotgun | Condenser | HC | 250 | 40-16k | -38dB | 12.8 oz. | AD-74 | - | - | GP5 Hand Grip \$174 | \$1,250.00 |
| Sony C76 | 14 | Shotgun | Condenser | HC | 250 | 40-16k | -38dB | 14.4 oz. | AD-76 | - | - | GP5 Hand Grip \$174 | \$1.450.00 |
| Sony ECM-44B | 18 | Lavalier | Condenser | 0 | 250 | 40-15k | -53dB | .6" | AD-R44 | - | - | SADH is a Horizontal Single Clip. Blk. (10) $\$ 75$ SADS is a Safety Pin Clip. Satin Nickel (6) \$88 SADW is a Horizontal Double Clip, Blk. (6) $\$ 75$ | \$255.00 |
| Sony ECM-55B | 17 | Lavalier | Condenser | 0 | 100 | 30-18 h | -52dB | .8" | AD-R55* | - | - |  | \$410.00 |
| Sony ECM-66B | 19 | Lavalier | Condensar | C | 100 | 70-14k | -50dB | .95" | AD-R66. | - | - |  | \$465.00 |
| Sony ECM-77B |  | Lavalier | Condenser | 0 | 150 | 40-20k | -50dB | . ${ }^{\prime \prime}$ | AD-R77* | - | - |  | \$465.00 |
| Sony ECM-510 |  | ENG/EFP | Condenser | 0 | 250 | 40-17k | 3.16 mV | 4.4 Oz. | X254201* | A450801* | N/A |  | \$465.00 |
| Sony ECM-MS5 | 16 | Stereo | Condenser | MS | 150 | 70-20k | -40dB | 7.602. | AD-72 | A450818A ${ }^{\circ}$ | N/A | OptDCM-M55 Pwr. Adapter | \$1,550.00 |
| Sony ECM-MS957 |  | Stereo | Condenser | MS | 600 | 50-18k | -42dB | 11.5 oz . | Included | Included | - |  | \$299.99 |
| Telex ELM-22S |  | Lavalier | Condenser | 0 | 150 | 20-20k | -35dB | .75" | WS-E | - | - |  | \$205.00 |
| Telex ELM-33S |  | Lavalier | Condenser | C | 150 | 20-20k | -35dB | .7" | WS-E | - | - |  | \$212.00 |
| Telex SE-60 |  | Studio | Condenser | C | 600 | 30-19k | -50dB | 8.8 oz | - | Included | - | ME-25 Cable \$37 | \$180.00 |
| Telex TD-22 |  | Performance | Dynamic | C | 250 | 35-19k | -71dB | 9.3 oz . | - | Included | - | ME-25 Cable \$37 | \$139.00 |
| Telex TD-26 |  | Performance | Dynamic | HC | 250 | 30-19x | -71dB | 9.5 oz . | - | Included | - | ME-25 Cable \$37 | \$155,00 |
| Key- |  | Note 1- Pattern: $C=$ Cardioid $H C=$ Hypercardioid L=Lobar $8=$ Figure $8 \quad M S / X Y=$ Stereo $O=$ Omnidirectional Note: Sensitlvity in dB 's or $\mathrm{mV} / \mathrm{Pa}$, where $0 \mathrm{~dB}=1 \mathrm{~V} / \mathrm{mlcrobar}$ \& $1 \mathrm{mV} / \mathrm{Pa}=10 \mathrm{mB} / \mathrm{m} \mid c r o b a r$ |  |  |  |  |  |  |  |  |  |  |  |

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Broadcasters Ceneral Store phone 352-622-7700

## Microphones • Accessories

## Big Ears

Big Ears" is a true parabolic reflector capable of picking up sounds from well over 200 feet avay. It is constructed from a patented plastic material, so that the integity of the shape is maintained as wlll as the thickness, which produces sonic consistency and also visual, see-through clarity for the opcrators. The Big Ears ${ }^{\text {TM }}$ uses a one piece foam vinyl covered grip bar that also acts as a support bar for freestanding use. The dish is shatter and break resistant, lightweight, and can easily be mounted permanently. $25-1 / 2^{\prime \prime} \times 26-1 / 2^{\prime \prime} \times 10^{\prime \prime}$ overall, parabolic $23^{\prime \prime}$, weighs 5 lbs. Colors: Yellow, orange, blue, green, bromze \& clear. All dishes are see-through.
BE-3
Big Ears ${ }^{\text {TM }}$
\$1,249.00
DS-1
Strap complete with pads $\$ 25.00$
RD-1
Targeting Sight $\$ 69.00$
WG-1
Silent Gloves. \$9.00
SC-1
Shipping Case $\$ 289.00$
CC-1 Carrying Case $\$ 149.00$

## BE-3K

BE-3 w/DS-1, RD-1, WG-1, SC-1 \& CC-1. $\$ 1.549 .00$

## Fishpoles

Beyer Fishpoles
MZA716 .. 4 piece elesescopic fiberglass bxom w/swivel, exeended length 10.5 ft .
$\$ 349.00$
MZA717 .. 2 picee lightweight aluminum loom, extends from 2 ff to 5 ft. ....... $\$ 135.00$
MZA718 .. 3 pisce lightweight aluminum bxom, exiends
from 3 ft to 10.5 ft .
$\$ 199.00$

$\qquad$
LTM Fishpoles
90A-613 .................. 20" to $63^{\prime \prime}, 9.5 \mathrm{oz}$. $\$ 286.00$
90A-614 ................. $31^{\prime \prime}$ to 9', 13.7 oz $\$ 419.00$
$90 \mathrm{~A}-615$................. $4^{\prime} 1^{\prime \prime}$ to $13^{\prime} 8^{\prime \prime}, 17.6$ oz. .............. $\$ 440.00$
90A-616 .................. $5^{\prime} 2^{\prime \prime}$ to $16^{\prime} 7^{\prime \prime}, 23$ 02. ................
$\$ 550.00$
ААソ(1)-062 ...........
Windscreen $\$ 590.00$
AA903-076 .............. Windscreen Muff ..................... $\$ 209.00$
AA-A64


1-352-622-7700

K-TEK Fishpoles
K-Tek professional poles are composed of a hybrid composite, high density graphite fiber selected for maximum strength and minimum weight. Fiber alignment selected for minimum bounce and weight with maximum strength. Eight layers of graphite precision ground to exact size, then burnished. Coupling designed for maxinum holding power with a minimum of torque applied. Coupling designed to be dust, dirt and sand proof. "Captive Collett" design makes coupling resistant to janıming. Non-reflective processing on their uniquely milled surface makes the collar much more durable than knurling or ribbing. It offers controlled gripping power and is gentle on your hands, even when wet. The unique pole top features cable retaining slots and a replaceable stainless steel threaded mounting stud. Standard "mushroom" base, cast in poly urethane, is engineered for maximum shock prorection. Accessory attachable base sections for internal wiring, internal 48 V phantom and 12 V "T" power supplies and extension sections are available.
K-102
2'2" to 8'9" Mic Boom
$\$ 435.00$


K-102CC ..... 2'2" to 8')" wired w/coil cord \& XLRF Bortom Connector ..... \$575.00 K-102CCR .. 2'2" to 8'9" wired w/coil cord \& XLRF Side Connector .......... \$605.00

Many other models of lengths available!

## Ac-cetera Goosenecks

R-10S .... 10" solid core black Rubber-neck w/std. mic threads ..... \$17.95 R-16S .... 16" solid core black Rubber-neck w/std. mic threads
R-20S .... $20^{\prime \prime}$ solid core black Rubber-neck w/std. mic threads
R-10H ... 10" hollow core black Rubber-neck w/std. mic threads
... \$18.95
R-16H ............ 16" hollow core black Rubber-neck w/std. mic threads ........ $\$ 20.95$
R-12X-1 ......... 12" wired XLR ends/male to female $\$ 53.95$
R-18X-1 ......... 18" wired XLR ends/male to female $\$ 53.95$


LGN13 ... $13^{\prime \prime}$ chrome gooseneck w/5/8" male \&
female threads ( $B$ for Black)

LGN19 ... 19" chrome gooseneck w/5/8" male \& female threads (B for Black)
LMF1 .... $5 / 8^{\prime \prime}$ male flange to surface mount the gooseneck (Note B for black)

## Shure Goosenecks

G12 ........... 12" chrome flexible gooseneck ............................................ \$14.28
G12CN ..... 12" chrome flexible gooseneck w/3-pin F XI.R connector .......... $\$ 25.76$
G18 ........... 18" chrome flexible gooseneck ............................................ \$15.56
G18CN ..... 18" chrome flexible gooseneck w/3-pin F XI.R connector .......... \$27.80
A12............ Std. 5/8"-27 external thread surface mounting flange ............. \$6.89
$\mathrm{A} 13 \mathrm{HI})$...... Heavy duty $5 / 8^{\prime \prime}-27$ external thread surface mounting flange .......... \$9.69

Introducing Omnia-3, the all-digital audio processor that offers all the clarity, punch and saw power of the original Omnia. At an amazingly aifordable price.

Omnia-3 includes standard features not found anywhere else-like 48 kliz sampling, three-band processing, digital audio inputs and outputs, integrated composite elipper, and a remowable PC card that simplifies software changes.

Impressive features aside, it's the sound that will hlow you away. No other audio processor sounds as good as Omnia. That's why leading broadcasters the world over choose Omnia to boos. ratings and crush the competition.

For this much power-on the dial and in the market-place-you'd expect to pay twice the price. But jow, you don't have to.

For the name of your Omnia dealer, centact us at
+1216.241 .3343 or visit iviww.omniaaudio.com.

With Omnia, you tead. And others follow.

नी पामि ह.ent का

## Digitial Power

# from the leader in porable recording for professionals 

> FjuDGee
> Soltd Stube fiecorder
> fiecord dightel audione broardotist yave or MPE files and avond downlead deleyls, PreRecord cache. Recard many/ioura onfa single flasti memory sard.

## PMD650

MiniDisc Recorder (not shown)
All the advantages of MiniDisc editing with a full complement of professional I/Os. Prerecord memory cache. Noise filters.

##  PROFFGSIONAL

For more than two decades
Marantz Professional portable recorders have set the standard for reliable periormance, rugged construction. and professional design.

If you are going digital, now you won"t have to settle for anything less than Marantz Professional. Learn more at www.superscope-marantzpro.com

## Mic Arms



## Luxo

LM-1 ........ 41" extension for 1 oz . to 1 lbs . (external springs) ......................... $\$ 74.00$

KM-1 ....... 41" extension for 3 to 4.5 lbs. (internal springs)
$\$ 90.00$

50001 ....... Clamp for horizontal
surface mount $\qquad$ $\$ 13.00$

50003 ....... Wall or vertical surface mount ..... $\$ 13.00$

50005 ....... Bench or counter-top permanent mount.

Available in oyster/off white(OW) or black (BK)

## OC White

M2MDU ........ Beige heavy duty mic arm only .... $\$ 120.97$
M2MDUB ...... Black heavy dury mic arm only .... $\$ 120.94$
M2MDUR ....... Beige heavy dury mic arm w/riser ..... \$186.05
M2MDURB ..... Black heavy dury mic arm w/riser .... \$186.05
M3MIJURU .... Double jointed mic arm w/riser ..... $\$ 220.94$
TMA $\qquad$
EB-1 $\qquad$ Beige tripłe mic arm indudes 1 riser ..
. $\$ 560.47$

EB-1B............. Black extension arm .................. $\$ 81.40$
11426 ............. Beige wall mount ...................... $\$ 35.72$
11426B ........... Black wall mount ..................... $\$ 35.72$
11427 ............. Beige benchmount .................... $\$ 40.48$
11427B ........... Black benchmount ................... $\$ 40.48$
14005 ............. Beige clamp mount ................... $\$ 39.54$
14005B ........... Black clamp nount ................. $\$ 39.54$
14100 ............. Beige riser only ........................ $\$ 81.40$
14100B .......... Black riser only ........................ $\$ 81.40$
RS .................. Heavy Replacement Springs/pr ...... \$13.96
 15-1/2"



Flex-Eze-3 ....... Flexible with $3^{\prime \prime}$ flexible center section .............................. $\$ 38.95$
Flex-Eze-5 ....... Flexible with 5 " flexible center section ............................. $\$ 38.95$
Max-Eze .......... Straight with 1-3/4" center section (Clamp Swivel is adj.) ......... $\$ 38.95$
Min-Eze .......... Short trapeze center section ............................................ $\$ 38.95$
Pig-E-Back ...... Mounts Mics to Mics ..................................................... \$38.9;
Porta 日lace
Mic Holsters ... Specify (MH-1) $8^{\prime \prime}$ or (MH-2) 10" lengths ....................... $\$ 46.00$
MH-3 ............. 15" for handheld mic w/Lectrosonics H185 transmitter ........... $\$ 48.00$
VB-10 ............. Optional Video Belt add on to mic holster ....................... $\$ 26.00$

## Audlo-Technica UniTools



UniMix ........... 2-ro-1 mic combiner with balance control ........................ \$70.00
UniGate .......... Voice-operated switch with adjustable threshold ............... \$75.00
UniSteep ......... 80 Hz mic Hi-pass filter .................................................. $\$ 50.00$
UniMute ......... Mic attenuator with user-definable switch function .......... \$70.00
UniTrap .......... Constant-Q mic notch filter with adjustable frequency ....... $\$ 80.10$
UniLim ........... Mic limiter with adjustable threshold ............................... $\$ 75.00$


## Microphones • Accessories

## Phantom Power Supplies

 PhiltoTmence:CP8506 .......... Four channel 48V DC phantom supply (AC powered)
AT8801 .......... Single channel 48V DC phantom supply ( AC powered).


## दrom

The Crown PH-1A is a single channel battery/phantom supply unit. It operates on two 9 V batteries or with the PS-24 AC to DC adapter. Use it with the Crown PCC-160, or any mic that will operate on 18 V or higher phantom.. Input-output connectors are XLR.
PH-1A.
A.... $\qquad$

$\$ 99.00$

PS-24 $\qquad$ $\$ 30.00$

## Com朋4日

The Crown PH-4B is a 48 V phantom supply: four in/four ont. It operates on 120 Vac Connectors are female 3 -pin in, and male 3-pin out.
$\qquad$
PH-4B $\$ 225.00$
RMPBKIT ...... 19" Rack mounting kit $\$ 30.00$


## Roill

Rolls PB224 Phantom Power Plus is a battery or AC powered phantom power adapter that delivers the power needed for any microphone.
PB224
$\$ 100.00$
Rolls PER2 ana Pe222
Rolls PB23 and PB223 provides power that condenser mics require. The PB223 is two adapter in one box. Both units have a DC loop through jack for powering another unit.
PB23
$\$ 60.00$
PB223
$\$ 75.00$


Sthere
The Shure PS-1A is a power supply that provides 21.5 Vdc of phantom power for one or two condenser microphones. Powered by $120 / 240 \mathrm{Vac}$.
PS-1A.
$\$ 168.30$

## Surwert

PM1 ... Single 48V Module, w/PS-1 $\qquad$ $\$ 93.00$
PM2 ... Dual 48V Module, w/PS-1 $\qquad$ ... $\$ 138.00$
PM4 ... Quad 48V Module, w/PS-1 $\qquad$BPS1 .. Single channel 48V Phantom Supply, Battery Powered .............

BPS1 .. Single channel 48V Phantom Supply, Battery Powered .............. \$119.00

The Whirlwind MicPower is a portable phantom power supply for use with most electret condenser mics. It supplies +12 to 18 V dc under nominal loads at the microphone input, and the output of the unit is AC coupled. The unit operates on two 9 V batteries, and an LED sensing circuit indicates sufficient battery power. MicPower $\$ 119.95$

## Desk Stands

Ultimate KM231/1 .. Collapsible tripod, chrome w/matt black fittings, $5 / 8 "-27$ thread .. $\$ 14.00$
Atlas DS-2 ....... Anti-vibration $4^{\prime \prime} \times 6^{\prime \prime}$ cast iron ebony base, $4^{\prime \prime}$ ht., wt. 2 lbs . ....... $\$ 47.00$ Atlas DS-5 ...... $5^{\prime \prime}$ diameter cast iron base, $4^{\prime \prime}$ ht., wt. 2lbs. ....................... $\$ 19.13$
Atlas DS-7 ....... $6^{\prime \prime}$ diameter cast iron ebony base, $8^{\prime \prime}$ to $13^{\prime \prime}$ ht., wt. 31 bs . .......... $\$ 30.68$
Atlas DS-7E ..... $6^{\prime \prime}$ diameter cast iron ebony base \& tube, $8^{\prime \prime}$ to $13^{\prime \prime}$ ht., wt. 3 lbs. $\$ 30.68$
Beyer ST300 ... Collapsible, made of plastic ............................................ $\$ 19.00$
Shure S39A ..... Effective vibration isolation desk stand ............................ \$77.78



## Floor Stands

Adas MSI2C ......... Low-profile, ebony base, 41 lbs . ..... $\$ 49.60$
Adlas MSI2CE ....... Low-profile, ebony base \& tube, 41 llbs . ..... $\$ 49.60$
Beyer GST400 ....... Adj. 35" - 65", fixed boom 33", black finish ..... $\$ 82.00$
Beyer GST500 ....... Heavy dury adj. stand $35^{\prime \prime}-65^{\prime \prime}$, adj.boom $18^{\prime \prime}$ - 30", black$\$ 102.00$
Beyer GST532 ...... Durable strength tripod stand, extends to $15^{\prime}$ ..... $\$ 199.00$
Beyer ST400 .......... Adj. 35" - 65", black finish ..... $\$ 59.00$
Quik Lok A114 ...... Telescopic Desk Stand, Adj. 16.5" to 23.5" ..... $\$ 59.95$Utimate MC07B ... $1 / 4$ turn clutch, weighted dove tail base allows carrying 6 standsin the foor print of one, $343 / 4^{\prime \prime}-64^{\prime \prime}$, wt. 9 lbs. (Come in 4 -pack) each $\$ 36.00$

## Microphones • Accessories

WindTech ${ }^{\mathrm{TM}}$ manufactures the highest quality foam windscreens avail able in 25 brilliant colors, and a variety of sizes and shapes to fit most popular mics. Using a proprietary non-heat manufacturing process, WindTech ${ }^{\mathrm{TM}}$ windscreens are constructed from a specially developed hypo-allergenic, open-cell foam called SonicFoam ${ }^{\text {TM }}$. The use of SonicFoam ${ }^{\mathrm{TM}}$ permirs the free passage of sound energy waves without affecting microphone frequency response. While remaining acoustically transparent, their windscreens are engineered to reduce wind velocity which eliminates wind noise, pop noises and breath sounds. Nothing protects an expensive mic from dust, dampness and physical damage like an external windscreen , and they're washable too!

 Pap Screer
SPS-1 ........ 5.0" OD 0.25" air space, 2 screens, black..... $\$ 22.00$
SG-200 ..... Fits. Sony BETACAM models B $\backslash W-200,300,400$ \& D600 .. $\$ 19.50$

$$
\$ 19.95
$$

STOP-8 $8^{\prime \prime}$ diameter pop filter ..... $\$ 22.95$
SPS-K . 5" Pop filter w/clamp \& gooseneck, Dual ..... $\$ 42.00$

## WindTech ${ }^{-1}$

## Mic Cables

Aldio-Teotitica Mils Catiles
A
A1

## Microphones • Preamps


$5 \cdot 4.0 .4 .0 .0 .5$


| Microphone <br> Preamps |
| :---: |



## Microphones • Processing

## AlRcorp Pro Announcer 500

The AIRcorp Pro Announcer 500 has front panel selection of input level from +4 to -50 dB , three section variable boost and cut equalization, phase rotators, compressor/expander combination, de-esser and simultaneous mic and line level outpurs. A front panel headphone jack permits set up without being on the air and a DB 25 connector allows remote control of most functions including "popless" insert point for effects.


$$
500 \mathrm{PH}
$$

Radio/Studio version*
$\$ 799.00$


[^2]
## ART 215 Pro Channel



ART 215 Pro Channel is a tube compressor/leveling amp and tube EQ. The Pro Channel allows you to select ART's optical/tube compressor or the Variable Mu circuit, a design made popular by the sound of the old broadcast limiter. Some of the features include: 4 band parametric EQ w/selectabie Q for two sweepable nidbands $\bullet$ balanced XLR and unbalanced $1 / 4^{\prime \prime} \mathrm{I} / \mathrm{Os} \bullet$ insert points between preamp and compressor and compressor and EQ • chree hand-selected vacuum tubes • professional signal processing for use with any analog or digital recording format processing channel for any line or instrument level signal • selectable level metering with large VU meter and tube character and gain reduction LED arrays $\bullet$ five year warranty. 2 U and 12 lbs .

## Microphones • Processing

## ART 259 Tube Channel



ART 259 Tube Channel provides a tube preamp, an optical compressor and tube parametric EQ for microphone processing. The tube-based preamp section provides 48 V phantom power and up to +60 dB of gain. The tube EQ section provides 4 bands of control, low shelf, low-mid sweep, high-mid sweep and high shelf, all with 12 dB of boost/cut. The compressor/limiter provides selectable release, adjustable threshold and output level controls. Gain reduction is displayed via a four segment LED array. Features: XLR and $1 / 4^{\prime \prime}$ I/O • two insert points (post preamp and post processor) • internal power supply * and a 3 Year Warranty.
259 ................. Tube Preamplifier, compressor \& EQ . $\qquad$ $\$ 525.00$
dbx 286A


The dbx 286A is a mic processor with preamp, compressor, de-esser, enhancer and expander/gate combined in an affordable, compact unit. The preamp accepts mic or line level inputs, offers phantom power, an $80 \mathrm{~Hz}, 18 \mathrm{~dB} /$ Oct high pass filter plus an input level meter. An additional $1 / 4^{\prime \prime}$ TRS phone jack can accept balanced/ unbalanced line signals and an insert jack between the 286A's mic preamp and signal processing sections can be used to "loop out" to external processors.
dbx 286A
$\$ 249.95$
dbx 1086

The dbx 1086 mic preprocessor features a premium high headroom mic pre with a custom VU meter, and a pre amp output on the rear panel. The processor section has switchable Hard-Knee/OverEasy ${ }^{\circledR}$ compressor, de-esser, and an expander/gate. The processor section may be accessed separately via a connector on the rear panel or may be fed by the output of the pre amp itself. The optional TYPE IVTM Conversion system output rounds out the comprehensive feature set of this unique processor.

$$
1086 \text {............... Mic/Pre Processor .. }
$$

. $\$ 749.95$

## Omnia ToolVox



The Cutting Edge Omnia ToolVox is a full-featured, all-digital microphone processor. The ToolVox includes phase rotation, AGC, compression, noise gating, adjustable shelf and bandpass filters, parametric EQ, de-esser, and Waves® TrueVerb. The mic preamp includes 24 -bit $\mathrm{A} / \mathrm{D}$ converter and phantom power. It is remote controllable via network and has digital and analog outpurs. $1 \mathrm{U} \& 11 \mathrm{lbs}$.
ToolVox .

Rane VP 12


The Rane VP 12 is a mic or line level voice processor incorporating a studio-grade microphone stage, low and hi cut filters, de-esser, gate/compressor, and two channels of parametric equalization. The microphone 3 -pin XLR input features switchable 48 V phantom power and an input gain control. A separate balanced line level input arrives from either screw terminals or a $1 / 4^{\prime \prime}$ TRS jack. A front panel switch selects whether the mic, line, or the sum of both inpurs will be processed by the VP 12 .
VP-12
$\$ 599.00$

## Symetrix 528E



The Symetrix 528E is a voice processor with an on-board preamp, compressor/ limiter, downward expander, parametric EQ/notch filter, de-esser, 48 V phantom power and individual bypass switches for each section. Includes clip LED's, output level and gain reduction metering. The 528 E allows you more control over vital EQ parameters and a greater range of compression adjustments than other analog voice processors. The 528 E offers 3 bands of variable frequency EQ , with variable bandwidth on each. The compressor section provides adjustable ratio control, and a downward expander that reduces studio equipment noises. The new phase rotator and selectable output level round out the features found on the 528 E .

## 528E ................................................................................................. <br> $\$ 749.00$

## Symetrix 628


The Symetrix 628 has all the 528E features with the following additions: digital output ( $32 \mathrm{kHz}, 44.1 \mathrm{kHz} \& 48 \mathrm{kHz}$ ), 117 user presets and 11 factory presets, front panel lock-out and an optional remote control to access 11 presers.
628
$\$ 1,249.00$

## Valley 401B



The Valley 401 B has a transformerless mic preamplifier, three band voice EQ , posteq patch point, compressor with interactive expander, and de-esser with "normal" and "heavy" settings. Includes LED gain reduction meter, switch selectable input/ output VU metering and an output gain control. The balanced output level is switch selectable from +4 dBu to -50 dBv for level matching to mic or line input circuits.

401 B
$\$ 680.00$

## Just a word on Wireless...

Due to the wide variety of wireless systems BGS sells, a little info on wireless systems in general is offered here to better help our customers determine the best system(s) for their project. A special thanks goes out to Tim Vear of Shure Bros. and his publication," Selection and Operation of Wireless Microphone Systems" for this valuable information and also Bruce C. Jones of Lectrosonics and his publication, "Wireless Microphone Systems...Operational Basics and Applications". U.S. wireless microphone frequencies reside in the upper portion of the VHF band berween $162-216 \mathrm{MHz}$ and in the low-band UHF $(450-806 \mathrm{MHz})$ as well as the highband UHF ( $900-952 \mathrm{MHz}$ ). The low-band VHF (49108 MHz ) is not used for serious wireless mic users since it is congested with primary users like TV channels 2-6 and the FM band as well as secondary users like cordless phones, walkie-talkies and radio controlled toys at the 49 MHz region and assistive listening systems at 72 MHz . The high-band VHF range is divided into two bands: $169-172 \mathrm{MHz}$ with 8 dedicated channels for the general public called "travelling frequencies" and 174 216 MHz whose primary users are TV channels $7-13$. Both bands allow from 12 kHz to 15 kHz FM deviation and power is limited to only 50 mw . $1 / 4$ wave antemas range from half a meter to less than 14 inches. Propogation loss is minimal due to the longer wavelengths involved. Line of sight is advised but propaga-
tion through porous wallis can be achieved. Operating distance is somewhere berween $100^{\prime}$ and 1000 ' depending on conditions. UHF systems range from $2 x$ to $10 x$ the cost of a VHF systen due to economies of scale, intricacies of design and manufacturing costs (higher end systems utilize multi-pair helical resonators instead of coils on the front end as well as multipole crystal IF filters instead of ceramic filters. The low-band UHF is really wo overlapping bands: $450-$ 536 MHz (primary users are land mobile radio and pagers) and $470-806 \mathrm{MHz}$ (primary users are TV channels 14-69). Due to the broad frequency spectrum multiple systems can be operated in proximity to each other without interference. Propagation is reduced due to the shorter wavelengths involved and hecause of these short wavelengths, multipath artifacts increase because they reflect off of smaller objects more so than with VHF wavelengths. Diversity systems are almost always a must with UHF! Greater transmitter power is allowed (up to 250 mw ) in the UHF band but is rarely offered due to decreased battery life. Generally 10 mw to 100 mw is offered. Antennas are now down to $4-7$ inches in the low-band UHF. 50 mw systems typically range up to 1000 ', line of sight only. System selection was easy due to the large spectrum available, but with the advent of HIDTV and the ever-changing spectrum allotments the spectrum is shrinking.

Fimally, it might be necessary to get a multi-channel system in the event there are unforseen conflicts with other systems in


## Microphones • Wireless




## Wicrophones • Wireless



## Mixers/Consoles • Microphone

## Audio-Technica AT-MX341 A.channel Smerthian' <br> Audio-Technica AT-MX34la is a four-channel SmartMixer ${ }^{\text {b }}$ that offers automatic input mixing with unique digital microprocessor control. <br> 

 Choose one channel at a time or any mix of moderator override, (a switchable manual mode overrides automatic funcrions). It has single threshold settings for all channels with individual grain controls for each channel. Any number of SmartMixers can be daisy-chained to control large conferences. The output and inputs are individually switchable berween mic and line-level, and the last nic on stays on so that ambient sound is never muted. It comes with rack mount adapter, and two can be mounted side-by-side in a single RU with an accessory joining plate.AT-MX341a
$\$ 699.00$
AT-MX351 ..... Four automatic mic/line/inputs, plus aux in ................... \$799.00
AT8628 .......... Double rack mount joining plate ....................................... \$30.00

## Edcor Q4100 \& Q8100 microphame Minen

The Edcor Q4100 \& Q8100 micro-
 phone mixers have 4 or 8 balanced XLR female microphone inpurs with phantom power. There are also 2 RCt auxiliary inputs with a single volume control bringing the units to 6 or 10 channel mixers. Each microphone input has individual volume control. Outputs are balanced XLR male connectors with 60052 line level and the auxiliary level output is unbalanced RCA type connectors with maximum output of 8 VRMS into $10,000 \Omega$ 's.
Q4100 $\ldots . . . . . . . . . . . . . . . . . . . ~$ 4 mic, 2 aux mixer ........................................................ $\$ 245.95$

## Intelix VC Series microuhone Mixers

All Intelix VC Series
microphone mixers combine superior audio quality with simple DC control, computer control
and on-board automation. All use VCAs to ramp the audio inputs and outputs independently. The Basic features include: Low cut input filter - Duck - manual (mute) • Remote control level \& mute • and Stereo line level input (one channel). The Enhanced features include the Basic features plus: Input clip I.ED • Signal present input LED • Bargraph output meter • Aphex ${ }^{\text {TM }}$ Aural Exciter • Limiter • Duck - Automatic (mute) - and is AMIX compatible.
4001/VC ........ 4 inpur by 1 ourput - Basic Features .............................. $\$ 569.00$ 4001/VCX ...... 4 input by 1 output - Enhanced Features ........................ $\$ 789.00$ 8001/VC ........ 8 input by 1 output - Basic Features ............................... $\$ 889.00$ 8001/VCX ...... 8 input by 1 output - Enhanced Features ..................... $\$ 1,049.00$ Please call for information and pricing on other connection devices.

## Hotlinks to Vendors @ www.bgsfl.com www.broadcastdealer.com

## Intellx MC Series



The Intelix MC Series, mic/line mixers feature: compressor/limiter • low cut filter • headphone out $\bullet$ phantom power $\bullet$ dual bus switching per channel $\bullet$ variable LED) metering $\bullet$ and $\mathrm{AC} / \mathrm{DC}$ power.


8002MCB ...... 8x2 mic/line mixer ........................................................ $\$ 649.00$
8002MCB-FP'. $8 \times 2$ mic/line mixer w/all controls on front panel $\$ 799.00$
Intelix AMIX Series:
hutomume hliscoohom ktime Whann
The Intelix AMIX Se-
ries, Autonatic micro-
phone \& line mixers fea-
ture: remote DC, ReO, or RS232
control $\cdot$ N.O.M. mixing 3 gating modes, low cut filter, phan-
tom power • and N.O.M. mode selection on a channel by channel basis.
AMIX4
. $4 \times 1$ automatic mic/line mixer
$\$ 1,109.00$
AMIX8
$8 \times 1$ automatic mic/line mixer
\$1,478.00

## Lectrosonios LECNET Automatic Mixer

## The Lectrosonics AM8

 Automatic Mixer is microprocessor controlled and an has adlaptive gain proportional algorithm that controls feedback which improves intelligibility and reduces background noise. LecNet ${ }^{\mathrm{TM}}$ components will operate as stand-alone devices, or interconnect to provide a multitude of functions in simple to use, cost effective, rack mounted assemblies. Features include: Eight balanced inputs - Single control knob for input gain and output level - Built-in compressor/leveller with adjustable threshold • Serial port for computer interface $\bullet$ Remote level control • supplied with MS-DOS® software on $3.5^{\prime \prime}$ disc and serial patch cable for monitoring internal activity via a computer.AM8
... Basic Version \$1,350.00

AM8-TC ........ W/tone control \$1,525.00
AM16 ............. 1x 12 Programmalle Matrix Mixer, 2U $\$ 3,750.00$

## Opilituol Eepiltation

AV62 ..... 2-channel mic mixer w/6-channel stereo line mixer ........................ \$1,380.00
EQ1 ...... 27 Band, $1 / 3$ octave, constant-Q, has L.CD) display ....................... \$1,197.00
EQ2 ...... As above, without display or pushhutrons, computer control only .... \$1,065.00
TH3 ..... Telephone Interface w/built in LecNet ${ }^{\mathrm{TM}}$ interface ....................... \$1,425.00
MM8 .... Matrix Mixer, 12 inpur, 8 ourpu w/LecNet ${ }^{\text {TM }}$ interface ................. $\$ 1,480.00$
PA8 ....... Multi-channel power amp for mix-minus reinforcement, 1U .......... \$1,275.00
TA1 ...... Line level adapter, connects any device to the AM8 mixer .................. \$385.00
VI24 ..... Logic interface, provides logic out signals from up to 3 AM8 mixers .... $\$ 425.00$

## Mixers/Gonsoles • Microphone



The Shure SCM810 is an eight-channel mixer with renovable header-type I/O connectors that provide fast and simple microphone connection. It includes adjustable EQ per channel, 48 V phanton power selectable for each channel, superior RF resistant chassis and circuitry, LED indication and I.ED outpur meter, peak-responding output limiter with selectable thresholds and LED indicator, and linking capabiliry for up to 32 microphones. $120 / 230$ Vac power.
SCM810 ................. 8 Channel Automatic Mixer.............................................. $\$ 1,683.00$
RKC800 $\qquad$ . XLR connector kit ..... .$\$ 229.50$

## Mixers/Consoles • On-Air

## Arrakis 1200 Series Console

The Arrakis 1200 Series Consoles are ideal for On Air, Production and News applications where ease of use and rugged reliability are the requirement. Features include: full VCA mixing - DC switching of audio $\cdot$ both stereo and mono outputs so you can feed stereo FM and mono AM the same program • P\&G faders • ITT long life switches • gas tight low noise connectors • Auto-cue © monitoring system, so jocks don't have to fiddle with monitor and cue controls (works in headphones and speakers) • includes talkback support for easy intercom between operator and other studios - telephone hybrid hook ups • source selector expander • remore start relays - two external monitor selector inputs so you can hear the audio out of the

board, after processing and off air (great to help isolate system (rouble)

- and installation tool. Options include: digital channels option to add AES inputs with auto sample rate conversion • personalized channel-on buttons, labeled to fit your station - and customized fader knob color for easy identification of the fader's function. One mic channel comes standard, please specify the number of mic channels when ordering. 2 Year Warranty

1200-5S .. 5 Channel, 10 Inputs, stereo output
\$2,295.00
1200-10S ........ 10 Channel, 20 Inputs, dual stereo output .................. $\$ 3,4,95.00$
1200-15S ........ 15 Channel, 25 Inputs.


The Arrakis 12000 Series Consoles are available in 8,18 , and 28 channel mainframes. Fully Hot-Plugable Modules allow hurry up repairs without shutting down with any module capable of leeing placed in any slot. The triple stereo and dual mono outputs allow you to feed stereo FM and mono AM the same high quality program audio for air, recording and telephone feed. A parch panel allows swapping the audio source to other mixers without shutting down the console power. Direct outs separate mixer outputs for skimming talent or feeds to other needs like Internet broadcasting, cue line,
music on hold, etc. Mixer patch points permit easy and quick installation of EQ's, reverb and other audio sweeteners. Module on/off remote control lets the announce booth or news desk turn their own audio mixer channel on and off. Other features include: full VCA mixing • dual telephone hybrid hook ups • real VU meters • P\&G faders • ITT long life switches • gas-tight, low noise comectors • crowbar power supply • Auto-cue (C) monitoring system, so talent will not have to fiddle with monitor and cue controls (works in headphones and speakers) - includes dual talkback support for easy intercom berween operator and other studios • two external monitor selector inputs - remote star relays table top or through table mount - and installation tool. Some of the options include: digital channels • Gemini Command Center Mounting for direct control of your DigiLink - 2nd studio monitor • expanded telephone features $\bullet$ source selector expander $\bullet$ personalized channel-on buttons • and customized fader knob colors. 2 Year Warranty
12K8-6 ...
.. 8 Channel MF, 1 Mic, 7 Line Modules .
$\$ 4,350.00$
12K 18-12
.. 18 Channel MF, 2 Mic, 10 Line Modules.
$\$ 7,075.00$
12K18018
18 Channel, 2 Mic, 16 Iin3 Modules.
$\$ 8,755.00$

Please call for custom configurations and pricing.

## Arrakis Revolution Series Digital Consoles



Arrakis Revolution Series Digital Consoles feature: THE DIGITAL ENGINE- which is rack mounted (3RU) and remote controlled from a Windows PC computer or Arrakis control console. The basic console engine features 12 stereo channels, 3 stereo output buses, 2 telephone mix minus buses, and stereo Monitor, Earphone, \& Cue system. Each channel has A/B inpur select with (A) Stereo Analog input, (B) Stereo AES-EBU digital input. 5 Mic preamps are included. For $18+$ channels, a 2 nd engine is added to the
system. b) ARRAKIS CONSOLE CONTROL OFTHE DIGITAL ENGINE- This is a 12000 series, 18 channel, mainframe configured for RS232 control of the Digital Engine. It is available in a 12 channel or 18 channel version. c) PC CONTROI. OF THE DICIITAL ENGINE- The PC computer is user supplied and must be Windows 95/98/NT compatible, a minimum $166 \mathrm{M} H z$ Pentium, 32 MB ram, 20 MB hard disk space, floppy drive, and RS232 serial port. Two serial ports may be required with a touchscreen. If PC control is used, an optional 8 channel control surface with channel faders and on/off switches is available from JL Cooper.
REV-12P ......... 12 Channel Digital Engine, PC Controlled (PC not included) ....... $\$ 3,995.00$
REV-12-C ...... 12 Channel Console, ( Engine \& 12000 frame) . $\$ 7,995.00$
REV-18-C ...... 18 Channel Console, ( Engine \& 12000 frame)
. $\$ 12,995.00$

## Mixers/Consoles • On-Air

## ATI Vanguard Series Audio proadrast Consoles

The ATI Vanguard Series Audio Broadcast Consoles are unique because most functions are controlled with raised, silent membrane switches for input selection and buss assignment. The legends are color graphics behind a tough polycarbonate overlay. The front panel hinges
 for access to the plug-in amplifier modules and punch block audio connections. Each console includes dual stereo program outputs, each with a mono mix dual VU meters which are switchable benveen program outputs. The 12 charnel model includes four VU meters which monitor program $1(\mathrm{~L}+\mathrm{R})$ and $2(\mathrm{~L}+\mathrm{R})$ simultaneously. Other features include: four input headphone amps • cue amp and speaker • balanced, bridging inputs - four input monitor drivers • nwo mic preamps • active balanced outpurs • external power module - and effective RF protection. Oprions include: input expander • mix-minus • stop/ start switches • additional mic inputs and dual mix-minus adapter.

| B | 6 Linear Faders, 10 Stereo Inputs | \$3,399.00 |
| :---: | :---: | :---: |
| BC6DSR | 6 Rotary Faders, 10 Stereo | \$3,399.00 |
| BC8DSI. | 8 Linear Faders, 12 Stereo Inputs | \$3,899.00 |
| BC12D | 12 I.inear Faders, 24 Stereo Inputs | \$5,499.00 |

## Audioarts RGO Ranno Ontair Consaw



The AudioArts R-60 Radio Console is designed for on-air applications. The console comes supplied with two stereo (program and audition) and one mono ourput buss. The mainframe comes supplied with 8,12 or 18 input modules (IN-60), a dual mono microphone preamplifier (DMP-60) assignable to any input module, a control room module (CR-60), a studio control module (SC-60), and 2 accessory/expansion positions. All module switching is LED illuminated. The console meter bridge houses 4 VU meters, a six switch preselector band ( $\mathrm{I} . \mathrm{S}-60$ ), digital timer and an internal cue speaker. The 18 frame version also contains a clock and can accommodate a second (optional) preselector bank. A rackmount power supply, technical manual, connector kit and connector tools are included. R-60-18 measures: $7-3 / 16^{\prime \prime} \mathrm{H} \times 21-1 / 2^{\prime \prime} \mathrm{D} \times 36-3 / 4^{\prime \prime} \mathrm{W}$. The R-60-12 measures 27-3/4"W.
R-60/18-18 ..... Has 2 blanks for inputs or accessories$\$ 10,743.00$
R-60/18-12 ..... Has 8 blanks for inputs or accessories ..... $\$ 7,966.00$
R-60/12-12 ..... Has 2 blanks for inpurs or accessories ..... \$7,850.00
R-60/12-8 Has 6 blanks for inputs or accessories ..... \$5,535.00
IN-60 Input Module ..... $\$ 585.00$
SP-60 Simple-Phone ${ }^{\text {TM }}$ Input module (only $1 /$ console) ..... $\$ 690.00$
CP60 Copy Stand, Please specify frame size 18 or 12 ..... $\$ 360.00$
OM-60 Spare Master Output Module ..... $\$ 690.00$
CR-60 Spare Control Room Module ..... $\$ 690.00$
SC-60 Spare Studio Outpur Module ..... $\$ 690.00$
DMP-60 . Dual Mic Preamp Card (for 2 mics) ..... $\$ 319.00$
LS-60 Six Stereo Source Line Selector ..... $\$ 319.00$
PK-60 Spare Parts Kit ..... $\$ 139.00$

## Audioarts R-17 Raifo OnAI/Proxution Consile



The AudioArss R-17 Console is designed for Radio on-air/procluction applications. The console will accept ten input modules and comes equipped with noo stereo oupputs (program and audition). Input nodules may be of two types: mono (mic) and stereo (line). These may be plugged into almost any combination within the ten input positions of the mainframe. Stereo line inputs have an automatic cue circuit that sends the module's signal to the console's cue buss and headphonc ourpurs whenever activated. The console includes rwo $\backslash$ U meters (swirchable berween PGM and AUD), a built in cue speaker and a headphone umplifier. An output modiule contains the consosle's cue, control room and headphone outpurs as well as a monitor source selector switchbank (PGM, AUI) and external line in). The consoles $1 / O$ connecrions are via 12 -pin comectors which are supplied with the unit. R-17 measures: 21.2"W $\mathrm{x} 7^{\prime \prime} \mathrm{H} \times 16.8^{\prime \prime} \mathrm{D}$.

| R-17. | 10 Inputs. | \$4,355.00 |
| :---: | :---: | :---: |
| R-17 | 6 Inputs | \$3,044.00 |
| SL- 17 | Spare Stere | \$436.00 |
| FF-1 | Full Functi | \$213.00 |
| SS-3 | Start/Stop | . $\$ 213.00$ |
| MM-17 | Spare Mic | \$436.00 |
| LS-17 | Stereo Line | . $\$ 301.00$ |
| PK-17 | Spare Parts | . $\$ 173.70$ |

Please call for a complete list of accessories and prices!

## Hotlinks to Vendors @ www.bgsfl.com www.broadcastdealer.com

## 

The AudioArts R-5 Audio Console is designed for on-air and production applications. The console comes supplied with rwo stereo outputs (program and audition) and one mono outpur. The mainframe comes fitted with two mono microphone channels and ten stereo line input channels.
Borth channel rypes have $A / B$ source select. Also included: simple phone channel, full function tape remote, a six-switch preselector bank and a "count up" digital timer. All switching is electronic and LED illuminated. The console meter bridge houses four VU meters, an internal cue speaker and all console input and output connections. A rackmount power supply, technical manual, connecior kit and connector tools are included. R-5 measures $31.5^{\prime \prime W} \times 7.75^{\prime \prime} \mathrm{H} \times 21.2^{\prime \prime} \mathrm{D}$.
R-S
13 Inputs
\$5,095.00
PG-5
$P \& G$ replacement faders
\$79.00/ea
CF-5
Color Fader Knobs
\$5.95/ea.
PK-5 ....................... Spare Parts Kit\# 052575 ............................... $\$ 194.28$

## Mixers/Consoles • On-Air

## Audioarts RD.12/20 Digral Audin Consolih



The AudioArts RD-12/20 Digital Audio Console is the control center for your digital studio. This deceptively simple looking console has the power of 32 -bit, floating point DSP proplex tasks that it performs. It can accept both analog and digital input signals, process them in the digital domain and then provide output signals from the console in both digital and analog formats. Your present analog equipment is not made obsolete, and the RD-12/20 can easily accommodate future digital equipment as it's acquired, so, your transition to digital can be orderly and painless. The control surface will be totally familiar to your talent, so you can avoid disastrous QWERTY keyboard "accidents". The RD-12/20 has three stereo program busses, input source selection, individual channel faders (digital level control) and, of course, channel/machine on/off switches. Audiarts innovated new technology for your talk segments, too; they've applied the power of microcontrollers and DSP's to this vital broadcast need. The RD-12/20 automatically generates a digital, error-free mix-minus signal from your selected buss and feeds it to up to four telephone callers. This console can simultaneously accept signals from several different data rates ( $48,44.1$, and 32 kHz ) and mix them without the dropout, noise bursts, or sonic malfunctions that threaten lesser technologies. The console can be set to output at any one of these standards and generate a sync output that can become your house sync.... an important requirement in designing a digital system
RD-12-8 ......... Digital Audio Console ..... \$10,420.00
RD12-12 ........ Digital Audio Console ..... $\$ 12,600.00$
RD-20-16 ....... Digital Audio Console ..... $\$ 16,100.00$
RD-20-20 Digital Audio Console ..... $\$ 18,280.00$
MMD-5 Mono mic input ..... $\$ 800.00$
SLD-5 Stereo line input, digital ..... $\$ 800.00$
SLA-5 ............. Stereo line input, analog ..... $\$ 800.00$
SPD-5 ............ Dual fader super phone input ..... \$1,250.00
SCD-5 ............ Studio monitor module ..... $\$ 650.00$
ISA-5 ............. Line selector, 7 stereo analog sources ..... $\$ 700.00$
ISD-5 ............ Line selector, 8 stereo digital sources ..... $\$ 1,895.00$
TRD-5/FF ...... Tape remote module ( 2 sets of 6 functions) ..... $\$ 495.00$
TRD-5/SS ...... Tape remote module ( 6 pairs of start/stop) ..... $\$ 495.00$
ICMD-5 ......... Intercom module . ..... $\$ 925.00$
BKD-5 ............ Blank Panel ..... $\$ 40.00$
EGD-5 ........... Custom engraved off buttons, 2 lines 5 chare/max ..... $\$ 20.00$
CF-5 Blue or gray color coded fader knobs ..... $\$ 6.00$


#### Abstract

Audloarts D-70 ofetal Rendio consolus The new Audioarts D-70 Digital Radio Console not only utilizes the latest in digital technology and chip sers, it comes standard with a serial interface that lers it integrate with automation and station routers - as well as the exclusive Wheatstone VDIP ${ }^{T M}$ software system which lets you handle setups onscreen with an external PC (no logic jumpers or dip-switches). Once configured the console runs stand-alone. Plug-in modules let you have any combination of mic, analog or digital line inputs, and the four stereo busses give you plenty of flexibility (each has both digital and analog outs). With sample rate conversion on all digital inputs and selectable console clock rates of $32,44.1$ or 48 KHz the D-70 fits right in with all your facility's present equipment. The modular rear connector system and compact, tabletop mount footprint make installation fast and easy. On the functional side, fullscale digital peak plus VU or PPM metering, LED illumination everywhere, built-in machine interface, automatic timer and clock (stand-alone or ESE slave) all come standard, along with seperate source selection for control room and studio and built-in talk-back. You can even order the D-70 with a Super-phone module to support two callers, and both digital and alalog line selector panels are available.


D-70 :2-12
. Digital Radio Console
\$8,369.00
D70 20-20 ............... Digital Radio Console
$\$ 10,469.00$
SPD-70 .................. Dual Fader Phone Module w/Mix-Minus .......... $\$ 470.00$
Analog Line Select
$\$ 399.00$
Digital Line Select
$\$ 399.00$

## Autogram's MiniMix 8A Autio Consom



Autogram's MiniMix 8A professional audio console features: - Aluminum case w/oak endbells $\cdot 2$ stereo output busses • mono ourput - 8 slide plug-in pots - 2 dedicated mic slide pots - 12 stereo inputs, 6 unbalanced stereo . 6 high level balanced pro-stereo inputs • all VCA operated • cue amplifier/ speaker - Made in the USA
MiniMix 8A ............ Dimensions 19 " $\times 15^{\prime \prime} \times 5^{\prime \prime}$
\$2,499.00
MiniMix 12A .......... Dimensions 27 "x15"x5"
\$3,499.00

## Mixers/Consoles • On-Air

## Autogram Pacemaker Audio Console



## Autogram Pacemaker II

The new Autogram Pacemaker II has modern styling and color with wood end bells. Some of the features include: exclusive bi-modular concept ${ }^{\text {all }} \mathrm{DC}$ con-

trol- easy replacement of front panel modules with no clicks or
pops • screw-type plug-in connectors • P\&G Pots • all LED illumination • selfresetting "poly-fuses" protect individual circuit boards • lighted meters • built-in cue speaker * and Autoclock.

Pacemaker 218 Mainframe, holds up to 14 modules/
up to 40 stereo inputs ..........................
$\$ 6,620.00-\$ 8,796.00$
Pacemaker 228 .......... Mainframe, holds up to 24 modules/ up to 60 stereo inputs.
$\$ 8,649.00-\$ 12,457.00$
DIM ......... Dual Input Module, 1 dual front panel \& dual amp/control bd. .... $\$ 300.00$
8LM .............. 8-Line Module, one 8-line front panel,
8 -line audio bd. \& 8 line control bd.
$\$ 500.00$
BFP ................ Blank Front Panel ........................................................... \$28.00

## Autogram R/TV-12 Televison Console

Autogram R/TV-12 has 8 dedicated pots and the R/TV-20 has 18 dedicated pots. These consoles have the following standard features: Penny \& Giles long throw slide pots •Shadow selector switches ${ }^{*}$ true API w/meters • screw-type plugable connectors $\bullet$ optional live assist interface card \& control box • up to 8 patchable mic preamps (quad mic preamp card) • electronic switching \& VCA level control - two mix-minus busses • all inputs have adjustable inputs $\bullet$ two watt, $8 \Omega$ cue amp ${ }^{\bullet}$ two watt, $8 \Omega$ headphone with selectable inputs. The $R /$ TV Live Assist Package allows complete random sequencing of all console channels plus remote control.
R/TV-12 ......... 12 Pots - 28 Stereo Inputs ......................................... \$11,353.00
R/TV-20 ......... 20 Pots - 34 Stereo Inputs ......................................... \$13,651.00
R/TV/LAP ...... Live Assist Package .................................................... $\$ 1,423.00$
LAPO ............. Live Assist Panel Only to add anocher operating position ........ \$638.00
All spare R/TV circuit cards. $\$ 230.00$

## Dixon SP16 Modular Console



The Dixon SP16 is a fully modular console with all inputs and outputs at the front of the console. Features include: line and mic inputs with insert points in each module • fully balanced stereo program and audition busses • built in talkback system with send to four locations • mono mix-minus buss (to phone system) • phantom power for condenser mics built-in - conductive plastic faders • versatile remote control (all solid state) • isolated start/stop switches • count up timer built in • third stereo master output for mix-minus sends (i.e. ISDN back-feeds) • 2 U heavy dury power supply * cue amp and speaker.


Dixon NM-250 Newsroom/Workstation Console
 Dixon NM-250 was designed specifically for newsroom/workstation operation. Features include: 2 mic inputs with on/off switch $\cdot 48 \mathrm{~V}$ phantom power $\cdot$ mono line input for telephone hybrid return • built in mix-minus buss for feeding telephone hybrid •I/O for computer sound card, -10 dBv Unbalanced RCAs $\bullet$ front panel jack input for unbalanced DAT or cassette $\cdot 2$ balanced +4 dBm line inputs ${ }^{\bullet}$ talkback system- 2 sends $\&$ receives • cue system with dimming $\cdot$ LED VU meter display ${ }^{\bullet}$ monitor select- mixer or off-air $\bullet$ and built in headphone amp.
NM-250
Newsroom/Workstation Console
\$1,195.00

## Dixon CT-22 Studio Turret (for any console)



The Dixon CT-22 Turret was designed to work with virtually any console. It controls two microphones, includes two stereo headphone amplifiers with their own volume control and has an input for talkback receive. All you need is +24 Vdc from your console and all controls are ground start. Connection via D-25 connector.

CT-22 ..................... Studio Turret ........................................................ \$358.00


## WWW.bgsfl.com <br> WWW.broadcastdealer.com

## Mixers/Consoles • On Air

## LPB/Fidelipac MXA Series



The LPB/ Fidelipac Dynamax MXA Series has a true modular design with ultra-reliable motherboard construction. Features include: active balanced line inpurs $\cdot$ active balanced main and monitor inputs $\bullet$ full monitoring/cueing facilities with VCA level control • built-in cue amp with speaker and amplified stereo $8 \Omega$ headphone output • independent level controls for each " $A$ " and " $B$ " inpur • independent remote start for each " A " and " B " input • opto-isolated remote module on/off • two inpurs per module, mic/line or line/line inpurs may be mono or stereo - four assignable outputs, two stereo plus two mono $\bullet$ sturdy all-steel construction • durable lexan overlay control surface..........From $\$ 2,595.00$.

## LPB/Fidelipac Dynamax MX Series


mamax MX Series full line of modular consoles wihh all the active circuitry on the modules, not the motherboard. Stereo program and audition outputs are assignable from the front panel and two programmable mono outputs are provided for mix minus and cue feed. Each input module features external logic switching for starting source equipment and has two inputs selectable berween mono or stereo, balanced, unbalanced, or mic. Dynamax MX consoles include a built-in cue amplifier, speaker and simplified headphone ourput thar can be jumpered for a variety of monitor mute/dim configurations. Two mic preamps (installed) and one technical manual are supplied with the corsole.
MX8L............ 8 channels, 16 inputs, $26^{\prime \prime}$ base
\$4,295.00
MX8R
8 channels, 16 inputs, $26^{\prime \prime}$ base, rotary faders
\$4,695.00
(the above represents just a sample of the full Dynamax MX line)

## LPB/Fidelipac MX/D. Digtom onair contum

 sole is equipped with up to eight interchangeable input board modules, each providing two channels with XLR inputs. Input boards are analog or digital and may be selected in any combination at the time of purchase. Analog modules have onboard $A / D$ and digital modules have onboard SRC to convert all signals to the DSP sample rate. Three digital plus three analog clannels are available for the MX/D output. Sirnultaneous analog and digital outputs support two stereo and one mono buss. Digital output is jumper selecrable to either 48 kHz or 32 kHz . Future flexibility is permitred through the interchangeable input modules which can be augmented and reconfigured with relative ease........From $\$ 7,995.00$.

## LPB/Fidelipac

 Ban20 Dejtalthrin Cosise LPB/Fidelipac's BA1230 has 12 channels with a total of 30 available inputs. Control surface includes: 12 channels with "A" and "B" inputs two $4 \times 1$ remote inputs . two separate air inputs • fader start/stop option • full outpur metering • two stereo and one mono outpur buss • time of day/event timer combination • phone and monitor source select and level controls $\bullet$ left, right or low profile meter bridges optional. Digital inputs feature: XLR connection - AES/EBU and S/PDIF formats • accepts sample frequencies from 24 kHz to $50 \mathrm{kHz} \bullet$ sample rate converter on each digital input. Analog inputs feature: individual analog level adjust for both " $A$ " and " $B$ " inpurs • 18 -bit $A / D$ ) converters • XLR connection • mic line jumper option.....From \$11,995.00.
## LPB 7000 On-Air Consoles



LPB's 7000 Series consoles incorporate sterco slide-faders and plug-in electronics behind a fixed front panel with gold contacts throughout. It features: 2 in puts per channel - 3 stereo output busses 3 mono outputs for monomixdown or mix-minus - 3 stereo tape outputs $\cdot$ and 3 mono tape ourpurs. The 7000 Series has remote starts for all inputs with blinking ready lights and programmable muting for cue plus 4 sets of monitor speakers. Channel stop and start can be controlled remorely and the timer can follow channel activation for either cumulative or event timing. Also included are headphone and cue amps, cue speaker, monitor driver and a rack mount power supply.
7012
12 channel stereo
\$6,995.00
7018 18 channel stereo \$9,295.00
MINUS-1 ....... Mix-minus plug-in card for single buss ........................... $\$ 125.00$
MM-
Mono-mixdown plug-in card for single buss
$\$ 150.00$

An industry first in RJ-45 connectivity, L.PB's new Blue 5 c console is ideal for remotes, L.PFM and Webcasters. It comes with 5 stereo channels, 10 stereo inputs, stereo program buss, stereo cue buss, mono telephone buss, remore starts, muting and transformer balancing for RF immunity. Other features include: 2 independent headphone amplifiers - heavy duty mil-spec switches • inpur follow muring - and input follow remote stants. $\qquad$


# Pigital Audio Routing and Mixing Made Simple 



Logitek takes the guesswork out of going digital. We start with the Logitek Digital Audio Engine, a centralized point for all audio inputs and outputs at your facility (analog and digital). The Audio Engine performs routing, mixing and equipment control functions. Multiple engines may be networked for maximum flexibility.

Next, you have your choice of several versatile console control surfaces. The ROC-10 (shown here) gives you ten fully assignable faders. Other choices include the modular Numix, with a range of 6 to 24 faders, the compact ROC-5 (five faders, ideal for a newsroom or announce booth), or you can go "virtual" with our Vmix PC-based control surface. Up to three control surfaces may be run from one Audio Engine. Only one cable is needed for connection of a surface to the Audio Engine.

With Logitek, you'll enjoy the benefits of great sounding audio, near-instant reconfiguration, and easy wiring. Join the worldwide group of Logitek Digital Console users todayl Call your Broadcasters General Store representative for more information.

Digital With a Better Difference
 two DSP audio processor cards, and up to two power supplies. The mic pre-amp unit is housed externally and offers four independent pre-amps with balanced I/O on XLR connectors. One mainframe can normally support two separate studio consoles and multiple mainframes can be interconnected to share audio sources. Any input to the Engine mainframe can be assigned to any fader on any console in the system. The Digital I/O card accepts AES/EBU or SPDIF digital formats and automatically adapts to the input sample rate. The analog I/O card converts to/from the digital domain via 20 -bit A/D/A converters. The DSP processor card comes standard with one Analog Devices SHARC, DSP, which can be upgraded to the Full House multi-DSP card. The master sample rate for the Engine is selectable ( $32 / 44$. $1 / 48 \mathrm{kHz}$ or an external clock). The Full House DSP card can also hold a standard DIMM memory card (availiale at your local computer store) for integrated audio profanity delay. The communications card has four serial ports and configurable banks of 16 relays and 16 switch inputs for machine control. The mainframe can house up to two hotswap power supplies. The mainframe is addressed by a PC/RS232 port for automation control or modem interfacing. The 9 -pin RS485 ports allow connection of any of several l.ogitek Console control surfaces. The ROC-10 lias ten faders, looks feels and sounds like a standard air console and its
 smaller sibling, the ROC-5, has 5 faders.
The ergonomic Nunix console The ergonomic Nunix console can feature from 6 to 42 faders and include profanity delay control and other audio processing functions and full computer automation interfacing via iss large LCD ) displays.


Radio System RS Millenium Consoles all feature 3 output busses, complete remore control and metering, a comprehensive monitor section with standard eight position selector and a clock/ timer. Models differ only in their channel count and meter overbridge. Other features include: soft touch rubber keypads • VCA technology and electronic switching • every remote, timer, muting, channel and remore control function is available and programmable by input via internal jumper straps with most being activated by console channel on/off switches • remore control is accessible on a 15 -pin $D$ connector for every channel, each selectable by $A / B$ input - 8 -position selector/switcher provides control to any external device $\cdot$ inpurs are fully level agile $\bullet$ mic cough button $\bullet$ selectable cue logic $\bullet$ and an exterual rack mount power supply.
RS-6A ..................... 6 Channel stereo console ......................... \$4,495.00
RS-12A.
12 Channel stereo console \$5,995.00
RS-18A
18 Channel stereo console
\$8,495.00
RS-24A
. 24 Channel stereo console
$\$ 12,995.00$


NW-F Fader Wedge
\$3,150.00 6 fully assignable P\&G faders per wedge • Hiall effect on/off pushbutons • all LED illumination • up to 4 fader wedges per console (SharcAtrack required for more chan 3 wedges)
NW-S Selector Wedge
$\$ 4,180.00$
Monitor \& Cue • 2 talkback switches • input select \& bus assign • 3 monitor sections $\cdot 2$ stereo VU \& peak LED meters ( 1 Selecror Wedge required per console)


AE32 Mainframe w/l DSP,
1 I/O card, mic pre \& PS
$\$ 2,850.00$
IO20A 20-bit analog I/O card ........................... $\$ 950.00$
IO4D Digital I/O card ..................................... $\$ 950.00$
IO8D Digital I/O card ................................... $\$ 1,499.00$
AE-NETA ..... 500 ch. network card, uses ! $1 /$ O slot $\ldots \$ 2,200.00$
LS-DSP ........ Additional DSP card w/ single DSP 1 reqd for 1 control surface/2 for more than


SA-DSP ........ Additional DSP for audio processing .......... $\$ 3,000.00$
AE-C2 ......... Redundant COMM/Control Card .......... $\$ 950.00$
AE-PS .......... Redundant Power Supply ........................ $\$ 399.00$
ROC-5 ........ 5 Fader Control Surface ........................ $\$ 2,699.00$
RSP\&G ....... P\&G Fader Option for ROC5 .................. $\$ 295.00$
ROC-10 ...... Ten Fader Control Surface .................... $\$ 4,699.00$
R10P\&G ..... P\&G Fader Option for ROC10 ............... $\$ 590.00$
Wood Frame kit for Roc Consoles ................................ $\$ 105.00$
Ward Beck R2K pundit Consoln Sutiou


The Ward Beck R2K Radio Console Series features: lighrweight, modular, all metal construction - RS422 serial port for turret or automation control - all connections via Phoenix pluggable screw terminals • A/B input select on all modules 4 stereo progran outputs standard $\mathbf{2}$ assignable mono mix busses $\bullet 6$ telephone clean-feeds $\bullet$ balanced inserts and direct outputs from each module $\bullet$ full featured control room and studıo monitoring • digital shaft encoder control room monitor level control • timer and clock (all time code standards supported) • and rackmount power supply frame offers dual redundancy.
R2K/8 .... Rack Mt. Console w/6 R201 input modules, 1 R202 program output module, I R203 CRM module, 1 R206 utility module \& 3 BP .... $\$ 4,700.00$
R2K/12 ... 12 R201 input modules, 1 R202 program output module, 1 R203 CRM module, 1 R204 studio monitor module, 1 R206 utiliry module, 1 MF251 pwr. supply mounting frame, \& 1 M8246 pwr. supply
$\$ 10,515 .(0)$
RSK/20 ... 16 R201 input modules, 1 R202 program output module, 1 R203 CRM module, 1 R204 studio monitor module, 1 R205 $8 \times 2$ stereo line selector 1 R206 utility module, 1 R209 clean feed module, 1 R2KBP blank panel, 1 MF251 pwr. supply mounting frame, \& 1 M8246 pwr. supply ......... \$14,015.00
RSK/28 ... 20 R201 inpur modules, 1 R202 program ourpur module, 1 R203 CRM module, 1 R204 studio monitor module, 1 R205 $8 \times 2$ stereo line selector, 1 R206 utility module, 1 R209 clean feed module, 6 R2KBP blank panels, 1 MF251 pwr. supply mounting fram, \& 1 M8246 pwr. supply

## Mixers/Gensoles • Powered

Electro-Voice PSX Series sturo Panered Mixms


The new EV family of PSX powered mixers was designed to provide double the power and double the effects processors, for professional-level performance and flexibility in a portable, easy-to-set-up system. Using technology derived from EV Precision Series ${ }^{\text {TM }}$ amplifiers, the PSX powered mixers deliver more watts per charnel (all the way from the $2 \times 300$ W PSX600 to the 2 s 700 W PSX 2200 (at $4 \Omega$ 's). In addition, the amplifiers have limiters that prevent them from going into destructive clipping, and protect against damage from short circuits and thermal overload. All the PSX models come equipped with two separate 18 -bit digital effects processors. Each processor is designed w.th 100 presers including reverb, echo, plate, delay, chorus, and flange effects. Operated by up/down keys and a large LED display. There are separate sends on each channel so that the effects can be routed to the monitor mix. Other extras include: stereo $\vec{i}$-band equalizer • vocal voicing filter on mono channels for increased vocal intelligibility • switchable, 80 Hz , low-cut filter reduces handling and stage noise $\bullet$ and locking metal cover and recessed handles make transportation easy and safe.
PSX600 .......... $2 \times 300 \mathrm{~W} @ 4 \Omega \Omega^{\prime} \mathrm{s}, 6 \mathrm{mic} \& 2$ stereo line inputs, 42 lbs
\$1,698.00
PSX 1000 ......... $2 \times 500 \mathrm{~W}$ @ $04 \Omega \mathrm{~L}^{\prime} \mathrm{s}, 10 \mathrm{mic} \& 4$ stereo line inputs, 42 lbs . $\$ 2,398.00$
PSXi600......... $2 \times 500 \mathrm{~W}$ @ $4 \Omega$ 's, 10 mic $\& 4$ stereo line inputs, 42 lbs.
$\$ 2,998.00$

JBL EON 15 PAK PA syatern


JBL EON 15PAK has an exclusive titanium compression driver instead of a piezo HF transducer. It delivers the most accurate high frequency response available. The EON 15PAK weighs in at just 40 pounds, the lightest in its class. The woofer has neodymium magnets that are more than ten times lighter than conventional magnet structures and much more powerful. The JBL EON 15PAK has an exclusive internal bi-amplifica-tion- a discrete 130 watt low frequency amplifier that works in conjunction with a 50 watt high frequency amplifier. Together, they give you the most accurate reproduction of every frequency in the spectrum. maximum performance, better reliability and greatly reduced distortion at high levels. It also includes 4-band equalization to help you avoid the midrange difficulties often encountered with standard bass and treble controls, and JBL's Thermomaster® Total Thermal Management System(B) to keep the amps cool no matter how hard you drive them (the louder you play them - the more they dissipate the heat). These monitors can be placed in the upright and monitor position without extra hardware. A built-in submixer eliminates the need for additional components. And you'll find two $1 / 4^{\prime \prime}$ line-level inputs with individual and master volume controls, one switchable XLR input, an effects loop and line-level output for direct connection to the console and a headphone jack.
EON 15 PAKBK ....... Compact Black P.A. System ..
$\$ 899.00$

Fender P.250 Passport


Fender P-250 Passport is a totally self-contained, selfprotected portable sound system. It can be picked up and carried as easily as a medium-sized suitcase, set up in minutes and operated by anyone. Some of the features include: 250 watts ( $2 \times 125$ w) , 2 stand or wall mountable speaker enclosures each with 4 full range, high efficiency drivers 4 balanced XLR/phone jack inputs for microphones, instruments or other devices plus 2 stereo/mono line inputs for cassette, $C D$, compurer audio, etc. $\cdot 2$ additional speaker jacks for extension and line outputs for Passport Powered Expander System - digital reverb, stereo record (RCA) outputs, effects send and reeurn jacks, priority/ducking feature on channel 1 • switchable stereo (leff/right) or mono (main/monitor) operation • switchable line voltage for worldw ide $A C$ operation $\bullet$ operates on 12 V battery with optional DC-DC Converter • and covered by a 5 Year Warranty. Complete package incluxdes: 250 W (stereo $2 \times 125 \mathrm{~W}$ ), 4 mic/line inputs plus two stereo input channels; 2 Fender $P$. 51 microphones, clips, cables and pouches; 2 speaker cables; power cable and a clear protective cover.
P-250..... Passport Porrable Sound System. $\$ 949.99$
P-150..... 150W (stereo $2 \times 75 \mathrm{~W}$, 3 mic/line plus one stereo input channel, 2 peaker enclosures,
1 mic and cable $\$ 699.99$


## Mixers/Consoles • Powered



The Samson S62 6-channel powered mixer has a portable design with tough reinforced corners and a carry handle with supplied rack ears. Features include: 6 balanced XLR mic/line inputs - power amp section produces 150 watts into $4 \Omega \cdot$ internal 3 -spring reverb • 1 aux/ reverb send $\cdot 1$ aux and 1 reverb return, each with front panel level controls $\cdot 5$-band master graphic $\mathrm{EQ} \cdot 2$-band EQ on each channel $\cdot 48 \mathrm{~V}$ phantom power for mic input connectors ${ }^{\bullet}$ master main level control • master protection, peak and power LEDs $\bullet$ and 2 speaker outputs. $2 \mathrm{U} \& 17.6 \mathrm{lbs}$.
S62
6-Channel Powered Mixer.

Samson S63 6-Channel Powered Mixer


The Samson S63 6-channel powered mixer has a portable design with tough reinforced corners and a carry handle with supplied rack ears. Features include: 6 balanced XLR miclline inputs $\bullet$ power amp section produces 200 watts into $4 \Omega$ • on-board reverb - 2 aux sends per channel $\cdot 2$ stereo returns with dedicated level controls for outboard effects $\cdot 3$-band EQ on each channel $\cdot 10$-band master graphic EQ on the main output * selectable 48 V phantom power $\bullet$ input trim control on each channel $\bullet$ master monitor and reverb level controls ${ }^{\bullet}$ protection relay circuit ${ }^{\bullet}$ rear panel amplifier input and preamp outpur. $4 \mathrm{U} \& 34.8 \mathrm{lbs}$.
S63
.. 6 -Channel Powered Mixer
$\$ 479.99$

## Samson S83 8-Channel Powered Mixer



The Samson S83 8-channel powered mixer has a portable design with tough reinforced corners and a carry handle with supplied rack ears. Features include: 8 balanced XLR mic/line inputs - power amp section produces 300 watts into $4 \Omega \cdot 3$-spring reverb $\cdot 2$ aux sends per channel $\cdot 4$ effects returns for outboard processing $\bullet$ mic input control on each channel - master monitor and reverb level controls - headphone amp with $1 / 4$ " stereo TRS connector with level control • front panel outpur level meter • 4 band EQ on each channel • 10 -band master graphic EQ on main output ${ }^{\circ}$ selectable 48 V phantom power $\bullet$ protection relay circuitry ${ }^{\bullet}$ rear panel amplifier input and preamp outpur. $4 \mathrm{U} \& 31 \mathrm{lbs}$.
S83
8-Channel Powered Mixer
599.99


## Hotlinks to Vendors @ www.bgsfl.com www.broadcastdealer.com

## Samson SD8 8-Channel Stereo Mixer



The Samson SD8 8-channel stereo powered mixer has a portable design with tough reinforced corners and a carry handle with supplied rack ears. Features include: up to 256 variations of Zoom digital reverb and delay effects with separate DSP level control - 8 balanced XLR mic/line inputs ${ }^{\circ}$ power amp produces 250 watts a side into $4 \Omega \cdot 3$-band EQ on each channel • master 10 -band graphic EQ on the main output ${ }^{\bullet}$ master monitor and DSP effects level controls $\cdot 2$ external aux sends and one internal aux send per channel - 2 stereo effects returns with front panel level controls • stereo headphone amp output with level control for isolated monitoring • global 48 V phantom power • mic input trim control on each channel • protection relay "muting" circuitry • and front panel output signal level meter. $4 \mathrm{U} \& 34.8 \mathrm{lbs}$.

SD8 $\qquad$ 8-Channel Stereo Powered Mixer
$\$ 929.99$

## Samson TM300 \& TM500 Powered Mixers

Samson's TM300 and TM500 powered mixers are easy-to-use table top or rack mount able mixers. Features include: dual 7 -band graphic $\mathrm{EQ} \cdot 3$-band EQ on mono channels $\cdot 2$-band EQ on stereo channels 2 aux sends per channel - 2 aux returns ${ }^{-}$and fan cooled bipolar design. The TM300 has 3 preset DSP effects; 6 mono mic/line channels; and the stereo power amp produces 150

watts per side into $4 \Omega \mathrm{~s}$. The TM500 has a built-in DSP section with up to 256 effects variations; 8 mono mic/ line channels; and the stereo power amp produces 250 watts per side into $4 \Omega$ s.
TM300 $\qquad$ . Powered Mixer, $8 \mathrm{U} \& 29.7 \mathrm{lbs}$. $\qquad$ $\$ 599.99$
TM500 $\qquad$ Powered Mixer, 8U \& 36lbs. $\qquad$ $\$ 839.99$

## Spirit PowerStation Powered Mixer



Spint PowerStation combines studio quality mixing and digiral effects with an audiophile power amp.... everyching you need between stage and speakers in a single rugged package. A few of the main features indude: 8 or 16 mono and 2 stereo inputchannels $\cdot 24$ inputs, induding tape and effects returns • UltraMic ${ }^{\text {TM }}$ pre-amp $\cdot 2 \times 300 \mathrm{~W}$ or $2 \times 600 \mathrm{~W} @ 4 \Omega \cdot$ built in Lexicon $®$ effects processor $\cdot$
PFL solo on all channeds • 3-band EQ, with swept mid frequency on mono channels $\cdot 3$ audiliaries for effects and foldback $\cdot 2 \times 7$ band dual graphic EQ w/EQ bypass - high pass filter on input channels $\cdot 40 \mathrm{~Hz}$ sub-sonic filter on outpurs to protect speaker cabinets - stereo return • 48 V phantom power • insers on mono channels and mix outs • separate power amp input to amplify external sources $\bullet$ dedicated record outs and tape returns • dedicated mono output $\bullet$ integral patchbay $\bullet$ and rugged steel chassis.
PowerStation 600 ..... 8 balanced mono mic/line inpurs \& 2 stereo ch. ..... \$1,649.95
PowerStation 1200 ... 16 balanced monomiclline inputs \& 2 stereo ch. .... \$1,999.95
RW5518 .................. Rack Kit for PowerStation 600.
$\$ 39.95$

## Mixers/Consoles • Powered



The Yamaha EMX620 and EMX660 powered mixershas $4 \&$ 6 input channels that accept either XLR or $1 / 4^{\prime \prime}$ inputs, 2 inputs chat accept Super Hi-Z inputs, and an RCA plug. Boch unirs indude a builtingraphicequalver. The main output on eh EMX620 has a 7band graphic EQ , while both the main and monitor outputs provide 7-band EQ on the EMX660. The amplifiers in both units are protected from darnage by built-in limiters that will aso protect connected speakers.
EMX620 ........ 6 Inputs, 3 Effects, 200W (x1) @ 4 2,28 lbs. ................ $\$ 499.00$ EMX660 ........ 10 Inputs, 8 Effects, $300 \mathrm{~W}(\times 2)$ @4 $\Omega, 35 \mathrm{lbs}$. $\qquad$ $\$ 649.00$
The Yamaha EMX860ST powered mixer has 8 input channels; $1-6$ with balanced XI.R and TRS phone jack inputs; 7-8 with balanced XI.R and unbalanced phone jack inputs. Features include: internal DSP provides a choice of three reverb effects • three internal 200 watt power amplifiers for stereo main and monitor speakers incorporating Yamaha's EEEngine technology for efficient operation $\cdot 48 \mathrm{~V}$ phantom power $\cdot 7$-band graphic $\mathrm{EQ} \cdot$ and 5 point LED meters.

## Yamana EMX2000

## 

The Yamaha EMX2000 12 channel mixer has 200 watts of built-in power that can be used for stereo naains or mains and monitors, 4 busses, a built-in digital reverb and echo processor and versatile signal routing capabilities for effects and monitors. The eight mono channels have balanced XLR and TRS phone jack inputs with phantom power. The two stereo channels have unbalanced phone jacks as well as RCA pin jacks. Built-in are 16 digital effects, 7 -band graphic equalizer and loaded with features for dozens of applications. 30.86 lbs .
EMX2000 ...... Stereo Powered Mixer with DSP, 200Wx2 @4

EMX860ST 10 Inputs 3 Effects, 200 Wx 3 @ $4 \Omega 37 \mathrm{lbs}$
$\$ 899.95$

## Mixers/Consoles • Production

## Alesis Studio 12R




The Alesis Studio 12R combines excellent audio quality, signal flow versatility and a space-saving compact design. Features: 12 channel rackmount design $\bullet$ eight hybrid/discrete mic preamps with low noise and high output $\cdot 2$-band shelving EQ at 12 kHz and $80 \mathrm{~Hz} \cdot 2$ aux sends (pre and post fader) for monitor returns and effeces $\bullet 8$ balanced XLR mic inputs $\cdot$ line inputs, aux sends and insert points on each channel $\cdot$ headphone jack in front $\cdot$ long-throw faders $\cdot 48 \mathrm{~V}$ phantom power - and versatile routing and interfacing. $3 \mathrm{U} \& \mathrm{c} 8 \mathrm{lbs}$.


Studio12R ...... Mixer/Microphone
Pre-amplifier
$\$ 449.00$

Alesis Studio 24
P-akindindCarsule whordin Mishlun


The Alesis Studio 24 offers eight input channels for mono audio sources, four stereo input channels for dual channel devices and two stereo aux returns for effects processors. Other fearures include: record and mix eight tracks without repatching $\cdot 3$ band EQ at 12 kHz and 80 Hz with sweepable midrange - two stereo groups for submixes - pan control, solo switch and peak indicator on each channel. The Studio 24's eight hybrid/discrete phantom powered mic preamplifiers are designed to meet the challenges of 20 -bit digital recording, and it provides eight individual XLR inputs, making it perfect for applications that require you to route multiple audio sources simultaneously. 14 lbs .


Studio24
$\$ 799.00$

## Mixers/Consoles • Production

## Allen \& Heath MixWizard


electronics -12 segment bargraph metering $\cdot 70 \mathrm{~dB}$ input ranges $\cdot$ channel-on switches and LEDs • +48 V switchable phantom power "AFL/PFL monitoring - and metal jack sockets. The WZ14:4:2+ has a pink noise generator while the other models have onboard FX. 10U.

WZ12:2DX
$\$ 1,099.00$
WZ16:2DX \$1,299.00
WZ14:4:2+ $\qquad$ \$1,499.00

Allen \& Heath's Mix Wizard WZ12:2DX, WZ16:2DX and WZ14:4:2+ feature: 4 band EQ with 2 sweepable mids $\cdot 100 \mathrm{~Hz}$ low cut filters $\bullet$ balanced miclline inputs - 6 auxes on individual pots $\cdot 100 \mathrm{~mm}$ dust protected smooth travel fader $\bullet$ QCC connectors for easy rack or desktop mounting $\cdot$ MSP- Minimum Signal Path design


## Alien \& Heath's GL2200



Allen \& Heath's GL2200 has four frame sizes, 12, 16, 24 or 32 channels, including two full-feature stereo channels and two further stereo returns. Further expansion is available through the Sys-Link ${ }^{\text {TM }}$ buss interconnection system. Features include: $\mathrm{FOH} /$ stage monitor dual functionality $\bullet 4$ groups, 6 auxes $\bullet$ groups, auxes and $L, R$ and $M$ outs $\cdot 2$ stereo line channels with mic capability $\cdot 2$ stereo returns with faders, EQ and aux sends • channel direct outs $\cdot 2$-track send and return $\cdot 4$-band EQ with swept mids and I/O switch • input metering on each channel • phantom 48 V , switchable on each channel • inserts on all nono inputs • inserts groups (auxes) and L-R outs • comprehensive AFL/PFL monitoring • pink noise generator for speaker setup • oscillator for equiprnent line up • talkback facility • internal power supply • built-in combiner for external power supply $\bullet$ and console lamp connector.
GI.2200-412. $\qquad$ 1,899.00
GL2200-416 ......................... 2,299.00
GL2200-432.
3,499.00
GL2200-424.
.. 2,999.00
GL22SYS-Link .349 .00

AudioArts KIR-40 auma dumalo


The AudioArts ${ }^{\circledR}$ MR-40 audio console is designed for 4-track radio production applications. It provides a unique combination of powerful production features and important broadcast logic functions all in a compact modular system, easy to install or interface. Features include 4 -track buss assign for multitrack recording and program assign for 2 direct-transfer or on-air use. Machine start/stop functions are included, as well as 3-band input EQ and a stereo effects send buss that follows stereo channel balance controls. Mono modules have both mic and line input (for both recording and track playback). The console's four subgroups provide fader control for record levels and also have a second track for playback path for quick session work. A complete on-air type monitor section provides control room, headphone, and studio outputs plus muting and tally functions. The console comes supplied with a cue function, complete with a built-in cue speaker and power amp. Exceptional performance characteristics make the MR-40 ideally suited for 4 -track analog and digital work stations and allow it to double as a back-up on-air board. The standard console comes supplied with 4 mono mic/line inputs, 8 stereo line inputs, 2 sub-master modules (housing four sub-master channels), a stereo master output module and a control room monitor module. Two accessory module positions are located at the right hand end of the mainframe. These can house stereo line selector and/or tape remote control panels. A meterbridge houses the four subgroup VU , left and right program master VU meters, and the built-in cue speaker. A separate rackmount power supply completes the system. MR-40 measures $26.9^{\prime \prime} \mathrm{W} \times 7.7^{\prime \prime} \mathrm{H} \times 22.2^{\prime \prime} \mathrm{D}$.
MR-40......... 4 mono mic/line modules and 8 stereo line modules
$\$ 9,235.00$
ML-40 .......... Spare Mono Mic/Line Module $\$ 487.00$
SL-40 ............ Spare Stereo Line Module ...................................... $\$ 487.00$
LS-40 ............ Stereo source selector ( $1 \times 5$ ) .................................... $\$ 317.00$
TR40FF ........ Tape remote, 1 set full-function .............................. $\$ 289.00$
TR40SS ........ Tape remote, 3 pair start/stop ................................ $\$ 289.00$
Please call for other options and prices!

## Mixers/Consoles • Production


(fixed) • and low cut filter.
MX802A
179.00

## Behringer MX1602A



Behringer's MX1602A has 4 mono channels/4 stereo channels (all with faders) • 2 aux sends (1 pre/post switching) • 3 band EQ (fixed) • and solo in place/PFL.
MX1602A
119.00

Behringer MX1804X


Behringer's MX1804X has 6 mono, 4 stereo channels, $2+2$ buss $\cdot 2$ aux sends $\cdot 7$-band graphic EQ $\cdot 3$-band EQ (swept mid) mono channels / 4 -band stereo channels • and internal 24 -bit DSP.
MX1804X
$\$ 499.00$
Behringer MX2642


Behringer's MX2642A has 8 mono channels/4 stereo channels (all with faders) • 3 -band EQ with mid sweep on mono channels • 4 assigrable buss outs $\bullet$ and 6 aux sends/4 stereo returns. 8 U

MX2642A
$\$ 499.00$

Behringer MX9000


Behringer's MX9000 is a 24 channel, inline, 8 buss recording console $\bullet 24$ tape monitor inputs with dedicated $\mathrm{EQ} \&$ mutes • expander port for linking consoles ${ }^{\bullet}$ comprehensive monitoring facilities $\bullet$ and integrated meterbridge.
MX9000
$\$ 2,599.00$
Fostex VM04
4-Channel Digital Mixer


Fostex's VM04 is a 4 channel digital mixer with DSP effects. With 24 -bit data processing the 4 input mixer ( 2 miclline, 2 line) features level, pan, 2-band shelving EQ, internal effects send: pre \& post effect type and parameter for each effect on each channel, with all settings being automated by means of the $20-\mathrm{mix}$ scene memory. Both stereo analog and digital (S/P-DIF) outputs are available with a headphone output for monitoring. Mix and effects information is clearly displayed on the custom designed LCD display.


VM04 ............. Digital Mini Mixer ............. $\$ 299.00$


1-352-622-7700

## Fostex VM200

Digital Recording Mixing Console


Fostex's VM200 is a $20 \times 8$ direct buss plus 8 flexible buss digital mixer. It offers 32-bit processing and mixing, digital effects with incredibly high audio specs. Each channel has a dedicated rotary pan control while a channel's entire EQ can be accessed via 12 rotary controls with interactive graphic on-screen representation of EQ patterns. Fearures such as analog input level, ADAT in, effects return, effect send, aux send, etc. can all be recalled on 60 mm moving faders. The VM200 can be totally controlled via MIDI, while the Auro indicate facility and self illuminating switches allow you to see the whole mixer at a glance... and the 100 mix scene memories and 50 EQ preset library mean that a great mix is just a button push away.


VM200 ..... Digital Recording Mixing Console ... \$1,499.00

## Graham Patten DMIX-41 4-Channel Digital Audio Mixer



The Graham Patten DMIX-41 combines up to four AES inputs transparently and cost-effectively onto a single AES output. Inpurs may be individually enabled or disabled remotely. When equipped with optional sample rate converters, the DMLX-41 can combine AES inpurs with different sample rates. Use the DMIX-41 to preselect and/or combine sources to expand the input capability of any digital audio console or recorder.


## DMIX-41/A0

$\$ 899.00$
DMIX-41/A2 ... with2 SRC inputs ......... \$1,099.00
DMIX-41/A4 ... with 4 SRC inputs ........ \$1,299.00
Also available with $B N C$ connector -
substitute $A$ with B; ie. DMIX-41/BO

## Mixers/Consoles • Production

## Mackie 1604VLZ PRO

Mackie 1604 VLZ PRO features include: ultra-low noise $\bullet 16 \mathrm{XDR}^{\mathrm{TM}}$ extended dynamic range premium studio grade mic preamps with: ultra wide $0-60 \mathrm{~dB}$ gain range, 130 dB dynamic range, +22 dBu line input handling and distortion under $0.0007 \%$ ( 20 Hz $20 \mathrm{kHz})$ • advanced DC pulse transformer RF rejection $\bullet 4$ subgroups with left \& right assigns and direct outs -16 high headroom line inputs, 16 channel inserts $\cdot 60 \mathrm{~mm}$ logarithmic taper faders $\bullet$ constant loudness pan controls $\bullet 6$ aux sends per channel with 15 dB gain above unity • aux 1 \& 2 pre/post • aux send $1-2$ master section with level controls, solo switches and

solo LEDs - level, pan; -20, solo \& OL LEDs on each channel - RUDE solo light doubles as a mini tanning booth -4 stereo aux returns, 8 direct outs -3 -band active EQ with sweepable midrange $\cdot 18 \mathrm{~dB} /$ oct. 75 Hz low cut filter on each channel control room/phones multi-input source matrix • RCA tape I/ Os $\cdot$ tape input level control and tape-to-main mix switch balanced $1 / 4^{\prime \prime} I / O$ s (except inserts) $\bullet$ switchable phantom power for condenser mics $\bullet 5$ physical configurations via rotating I/O pod • built-in power supply and 11 U rack mount included.
1604VLZ PRO
$16 \times 4 \times 2 \cdot 16$ XDR Mic Preamps.
$\$ 1,249.00$


## Mackie 1642VLZ PRO

The new Mackie $1642-1 / 27$. PRO is perfect for those that need a litde more flexibility than the 1202/1402 but does not need as much as the 1604-VLZ PRO. Feature set includes ten XDR ${ }^{T M}$ preamps • Mackie 3-band EQ wich sweepable midrange on mono channels (4-band EQ on stereo channels) • four aux sends • 60 mm log-taper faders • control room and phones
 multi-input source matrix • and expanded control room section.
1642-VLZ PRO
$\$ 999.00$

## Broadcast Tools Console Controller IIA



Broadcast Tools' Console ControllerIIA provides the solution for interfacing non-broadcast consoles or digital workstacions to the broadcast seudio. It effers three channels of insert switching to turn on or off console input channels or other source equipment as indicated by a bright red LED on each swich. Additionally, the CCILA offers monitor amplifier mute control, front panel monitor level control and
the ability to switch between intemal or external (program/off-air) monitor input sources. Audio connectors are TRS $1 / 4^{\prime \prime}$ jacks; front panel
 switches are SPST momentary with LED, and includes a DB-9 male remote control. Cascade multiple CCIIA's for more than three channel insers.

CCIIA .
$\$ 299.00$

## Mackie 1202-VLZ PRO and 1402-VLZ PRO

The Mackie 1202 -VLZ PRO and 1402 -VLZ PRO features include: ultra-low noise $\bullet$ XDR $^{\text {TM }}$ extended dynamic range premium studio grade mic preamps with: ultra wide $0-60 \mathrm{~dB}$ gain range, 130 dB dynamic range, +22 dBu line input handling and distortion under $0.0007 \%(20 \mathrm{~Hz}-20 \mathrm{kHz}) \cdot$ advanced DC pulse trans-
 former RF rejection • high headroom line inputs ( 1202 has $6 / 1402$ has 8 ) • separate RCA-type tape/CD inputs and tape outputs $\cdot 2$ aux sends with 15 dB of extra gain above unity ${ }^{\circ}$ constant loudness pan pots $\cdot$ PFL stereo in place solo on each channel $\cdot 2$ stereo aux returns w/EFX to monitor $\cdot$ aux 1 master w/monitor/post assign • 3 band active EQ $(80 \mathrm{~Hz}, 2.5 \mathrm{kHz}, 12 \mathrm{kHz}) \cdot 18 \mathrm{~dB} / \mathrm{oct} .75 \mathrm{~Hz}$ low cut filter eliminates stage rumble, wind noise, P-pops and low frequency recording studio room resonance • extra ALT 3-4 stereo buss for submixes, separate recording, monitor and "mix minus" feeds - control room/phones multiinput source matrix $\cdot 48 \mathrm{~V}$ phantom power ${ }^{\bullet}$ and built-in power supply. The 1402 -VLZ also includes AFL/PFL switching.
1202-VLZPRO ....... 12×2×1•4 XDR Mic Preamps
$\$ 459.00$
RM1202 ................. 7 U rack maunt for 1202-V1Z ......................... $\$ 12.00$
1402-VLZPRO ....... 14x2x1 • 6 XDR Mic Preamps ........................ \$629.00
RM1402
. 8 U rackmount for 1402-VLZ
$\$ 12.00$


## Mixers/Consoles • Production

Mackie $8 \bullet$ Bus Series mixing Consoles
The Mackie $8 \bullet$ Bus Series mixing consoles are truly designed for the digital age with extended dynamic range, more headroom and reduced noise floor. Features in-
 able headphone moni-
toring systems • Studio qualiry, discrete low noise, high headroom mic preamps on all channels (each providing +48 V phantom power) $\bullet$ EQ includes true parametric Hl MID with separate band center and "Q" controls, swept LO-MID, shelving HF and LF plus $18 \mathrm{~dB} /$ octave high-pass filter at 75 Hz • second (MIX-B) monitor/AUX section w/pan, level and source buttons $\cdot 6$ srereo, 6 assignable AUX returns $\bullet$ Assignable control room/studio functions • Built-in talk back system with microphone • Balanced XLR main L/R outputs.


Mackie SR40•8 Sound Reinforcement Mixing Console
 The Mackie SR $40 \cdot 8$ is a large format sound reinforcement mixing console. Features include: center master section - built-in meter bridge -8 subgroups $\cdot 4$-band EQ with swept mids • UltraMute ${ }^{\text {TM }}$ computerized system for group \& snapshot muting • $12 \times 4$ matrix mixer w/full complement of controls - 8 aux sends $\bullet 4$ stereo main aux return channels • 4 additional " B " aux returns $\bullet$ left, right \& center master faders fader link for L/R master faders - PFL/AFL choice for inputs \& outputs (global) • low cut filter with in/out switch ( $12 \mathrm{~dB} /$ oct., variable $30-800 \mathrm{~Hz}$ on mono chs.; 18 dB / oct. fixed at 150 Hz on stereo chs.) - ClearCom ${ }^{\text {TM }}$ compatible communications interface $\bullet 400 \mathrm{kHz}$ tone oscillator \& pink noise generator • and Mackie's famous mic preamps. Rear panel includes: channel inserts with separate send and return balanced XLR outputs for $1-R \& C$ masters, plus 8 subgroups and 4 matrices $\cdot$ submix inserts with separate send and return.
SR $40 \cdot 8$
Large-format Sound Reinforcement Mixing Console .
\$9,995.00
SR56•8 ............ 56 Channel version of the SR $40^{\bullet}$ with identical feaure set .. $\$ 13,595.00$

Mackie $24 \cdot 4-$ VLZ PRO $24 \times 4 \times 2 \times 1$ Audio Mixer



The Mackie SR24•4 is a 24 channel sound reinforcement console. Features include: 20 mic/line channels with 3-band EQ (sweepable mid) and 2 stereo/line channels (4band fixed EQ) $\bullet 4$ submix buses $\cdot$ Mackie's high headroom/low noise mic preamps on all mono channels - 6 aux sends $\bullet 4$ stereo aux returns - PFL/AFL (SIP), signal present and overload LEDs on every channel - low cut filter on mono channels ( 75 Hz @ $18 \mathrm{~dB} /$ octave) • double bussed sub suts for digital multitrack recording • very low impedance (VLZ) architecrure for super low noise operation • halanced inputs and outputs (except RCAs, phones and inserts) • and 3 Year Warranty.
24•4-VLZ PRO ....... $24 \times 4 \times 2 \times 1$ Audio Mixer
\$1,599.00
32•4-VLZ PRO ....... 32x4x2x1 Audio Mixer \$1,999.00

## Mackie LM3204 32x2

 Line Mixer w/2 Mic PreampsThe Mackie LM3204 Audio Mixer is a $32 \times 2$ line mixer with 2 mic preamps. Features include: 32 balanced/unbalanced line inpurs ( 16 stereo channels) - 4 aus sends/ch. - 4 stereo/8
 mono aux returns - 3band EQ on ali channels $(12 \mathrm{kHz}, 2.5 \mathrm{kHz}$ and 80 Hz$) \bullet-20 \mathrm{dBu}$ signal present and overload LEDs on all channels * mute/alt 3-4 function routes signals to an alternate stereo buss ${ }^{*}$ control room level and output functions ${ }^{\bullet}$ sealed potentiometer $\bullet$ built-in power supply $\bullet$ and 3 Year Limited Warranty.
LM3204 ...... 32×2 Line Mixer w/2 Mic Preamps $\qquad$ $\$ 999.00$
LM-3204E... 16 Stereo Channel Line Mixer Expander
$\$ 899.00$


# Broadcasters General Store 

2840 S. E. 52nd Street Ocala, Florida 34480-7500

## Mixers/Consoles • Production

## Mackie Digtal 80Bus



The Mackie Digital $8 \cdot$ Bus is a 56 input, 72 -channel, fully automated digital mixer. Features include: Dynamic and Scene (Snapshot) automation • motorized faders • 12 aux sends per channel - dedicated EQ, compressor and gate on 48 channels • Reverb, delay and chorus effects - Apogee Electronics' UV22 super CD encoding process • Automated surround sound mixing matrix for 5.1 and 7.1 surround formats, Built in meter bridge • 24 -bit ( 128 x oversampling) A/D and D/A converters - 32 -bit internal processing - Built in card cage for easy to install expansion cards • AES/EBU and S/PDIF Digital Master I/O • Connections for Ethernet, and optional SVGA moni-


Rear Pan Control via control surface or MIDI • Surround GUI update new 72 -channel overview - Triumphant Return of the Desktop - drag and drop file management between File windows - Enhanced, flexibly MIIDI I/O mapping for all channel strip parameters and/or effects modules Assignable MIDI commands on transport (REW, FF, STOP, PLAY, REC) and on the D8B master control section - Insert and patch point feature on channels - source either plug-ins, 8 aux sends, 8 buses or 72 channels (preDSP only) $\cdot 24$-bit plug-in inserts across Main L/R buses $\cdot$ Time offset (delay) on each channels $1-48$ with 255 samples $\bullet$ Cross-Patching assigns channel strip in various orders - Non-destructive Ungrouping • Oprional fader control of level to tape - direct out signal follows the source fader channel - Multiple direct outs per channel - MMC Auto Punch mode Snapshot Library • Paste Repeat for automation level looping and building rock-solid grooves • Pre/Post assignment of each aux send on each channel $\cdot$ Improved BBT resolution and clocking accuracy $\bullet$ Virtual group control extended to buses and MIDI faders
tor - Tape transport concrols • and more. What's new with 3.0 - Third-party plug-ins via the Mackie LiFX card • Enhanced dynamics • Input keying and EQ filter $\bullet$ Soft knee compression toggle $\cdot$ Linear and exponential option $\cdot 48$-channel averview screen • 999 levels of Un-Do • 24 -bir Alr I/O • Advanced Mix Editor features including • New , iew-sizing arrows • Auto-punch • Auro-loop SMPTE time code boxes • Loop-1n/loop-out, Punch In, Punch Out and Locate markers in the time bar - Contextual right mouse click for track parameters and time bars • Event Ausomation Track • Enhanced Surround Sound mixing environment with - Depth of Center Control - Surround LFE Gain Control for each channel - Surround-corrected bus/rack assignment - Surround Front-to-


## Roland VM-3100Pro \& VM-3100 V-Mixing Stations blumalnther



The Roland V'M-3100Pro and VM- 3100 VMixing Stations offer professional digital mixing capabilities and superb 24 -bit sound quality in compact and affordable desktop mixers. The VM-3100Pro is a full-featured 20 -chan-nel/8-buss digital mixer with two high qualiry onboard stereo effects processors derived from Roland's popular V-Studio workstations, as well as powerful Scene memory, MIDI mixer capabilities and an optional external ADAT/Tascam interface box. The straightforward VM-3100, on the other hand, gives users 12 channels of 24 -hit digital mixing with an onboard set reo effects peocessor and fill MIDI mixer capabilities at an incredibly affordable price. VM-3100Pro features: High-quality compact digital mixer with 20-channel/8-buss design and full 24 -bit resolution - Two stereo multi-effects processors offer compressinn, reveró, clsorus, delay, guirar/vocal/keyboard multi-effects, COSM M Mic Simulation and Speaker Modeling - Scene memory enables storing and recalling complex mixer settings and routings, including all effects parameters - Full MIDI compatibility with external sequencer, including switching Scenes, mixer and fader adjusturents, and MMC start/stop - Onboard $136 \times 32$ dot backlit graphic LCD ineludes helpful icons: self-luminous buttons allow speedy operation - Optional DIF-AT Interface Box adds ADAT/Tascam communication compatibility.
VM-3100 features: Affordable 12 -charnel/8-buss tabletop digital mixer $\bullet$ Onboard stereo effects processor with compression, reverb, chorus, delay, and guitar/keyboard vocal nulti-effects • Ferfert low-cost mixer for combining with MIDI musical instruments and sequencers or for adding inpurs to Roland VS workstation. Step Up to Powe-ful Digital Mixing Today.
VM3100Pro ...
Digital Mixer w/speaker modeling and digital I/O...
\$1,295.00
VM3100..
Digital Mixer.
$\$ 995.00$

## Panasonic WR-DA7 Digtal Moong Console



The Panasonic WR-IDA7's 32 inpurs with 8 busses (with moving faders) give you the flexibility you need, and 24 -bit A/D-D/Á converters (over 110 dB dynamic range) make sure it sounds great. It has a full 4 -band parametric EQ and dynamics located on every channel. Features include: a combination of 32 analog and digital inpurs plus 6 aux return inputs for a total of 38 inpurs, plus 8 busses - 21 moving faders - MIDI machine control (MMC) • RS-422/485 interface • automation sofware for Windows and Mac SMPTE timecode option • 50 -scene memory $\bullet 5.1$ surround sound mixing • and you can even operate 2 units in tandem with full bi-directional control. 51 lbs .
 WR-DA7 ............. Digital Mixing Console . \$5,495.00 WR-MTBR ......... Meter Bridge, 26 assignable I.ED bargraph, switchable VU or PPM, 10 lbs . \$1,070.00 PC-FCDA7 …...... Roadcase, ATA rype w/castors \& card/cable area, 45 lbs ...... $\$ 995.00$ WR-ADAT ..........ADAT Digital I/O card ................................................ $\$ 330.00$ WR-TDIF ...........TDIF Digital I/O card ................................................. $\$ 380.00$ WR-AESS ............AES/EBU/\& S/PDIF I/O card, WR-ADDA .......... 8 Channel AD/DA card ........................................... $\$ 875.00$ WR-TNDM ........ Tandem Connection card, (Req'd DA/DB-IDB 1M cable) $\$ 160$ $\$ 580.00$
WR-SMPT ..........SMIPTE \& V Sync card ................................................... $\$ 530.00$

WR-RC/M .......... Remote Control Software (Mac), (Req’d DA/DB-DIN 3M cable) $\$ 60$ $\$ 499.00$

## Mixers/Consoles • Production

## Samson PL 2404

The Samson PL 2404 rackmount mixer has 24 balanced line inputs ( 12 stereo). It features: 4 -buss mixer with 56 mm faders on buss outs - 3bands of EQ, 4 auxiliary sends on each channel - 4 stereo effects returns with assign switch • pre-fader listen - and more.


## PL2404

$\$ 599.99$

## Samson PL 1602

The Samson PL 1602 rackmount mixer has 16 balanced line inputs (8 stereo). It features: $2 \mathrm{XLR} / \mathrm{mic}$
 inputs (balanced) • 2 -band EQ on each channel $\cdot$
2 aux sends with 2 stereo effects returns ${ }^{\bullet}$ and master $L / R$ faders for balanced output.
PL1602


## Samson Mixpad 9

The Samson Mixpad 9 fearures 3 balanced mono mid line inpues and 3 stereo inpurs (for a total of 9); 2 aux sends per channel and 2 stereo effects remurns to the left and right main outputs. Independent 2 -band EQ ensures precise tonal control while mic input trims let the Mixpad be used with a variety of microphones. It also fearures constant level pan controls on the mono channels and balance controls on the stereo channels. Peak LEDs on the left and righe main ourputs and balanced stereo outs complete this versarile mixer. Only $9^{\prime \prime} \times 9.6^{\prime \prime} \times 2-1 / 2^{\prime \prime}$ at 3.38 lbs .
Mixpad 9
$\$ 269.99$

Samson Mixpad 12
The Samson Mixpad 12 is a great small but flexible 12 channel audio mixer. Features include: 6 balanced mono mielline channels and 3 stereo input channels ( 12 total) • independent $\mathrm{CD} /$ tape input with signal routed via last stereo channel $\bullet 2$ aux sends per channel (one pre-fader, one post) - 2 stereo effects returns with
 front panel level controls - independent 2 -band EQ on each channel with 15 dB of boost or cut * constant level pan control on each meno channel • leff/right balance control on each stereo channel • adjustable mic input trims $\bullet$ front panel stereo headphone output for private monitoring * peak LEDs on left and right main outputs * phantom powered XL.R mic input connectors * high headroom design with +27 dBu outpur for superior audio qualiry * and balanced stereo output.

Mixpad 12
$\$ 369.99$

Samson MPL1204 4-Buss Mixer


Samson's MPL1204 is a true 4-buss mixer, that features independent faders for each buss and stereo main and control room volume controls to give users compete flexibility in monitoring and routing. Other features include: 3band EQ on each channel • balanced outputs 2 aux sends per channel and 2 buss-assignable stereo effects returns $\bullet 12$ balanced XLR inputs • switchable PFL/ AFL (pre and post fader listen) monitoring and mute-buss $3 / 4$ switches on each channel for more mixing control $\cdot 56 \mathrm{~mm}$ faders on all 4 buss outputs ${ }^{\bullet}$ micline trims on each channel $\bullet$ global 48 V phantom power capability $\bullet$ front panel headphone output • 10 -segment LED VU meters ${ }^{\bullet}$ main and control room level controls • insert points on all channels ${ }^{\bullet}$ assignable sub groups for main and control room outputs. $5 \mathrm{U} \& 15.9 \mathrm{lbs}$.
MPL1204
$\$ 599.99$

Samson MPL 1502 Stereo Mixing Console


The Samson MPL 1502 is a 15 input stereo mixing console. It has $51 / 4^{\prime \prime}$ TRS stereo and 5 mono XLR mic/ line inputs, 3-band EQ on each channel, 2 aux sends and returns, and a built-in headphone amp. A flexible metering system allows the user to monitor levels of the stereo out, phantom power and on/ off status, while peak input LEDs for each channel indicate signal overload.

## MPL1502

$\$ 399.99$
Rack Mount Kit for MPL1 502 . $\$ 29.99$

## 1-352-622-7700

## Sony SRP-V110 12-Channel Mixer

The Sony SRP-V1 10 12-channel audio mixer features include: 10 mono input ( $1-8$ input has tape input connector of pin jack type) • monitor function (using aux 1-2) for $1-8$ mono input - 4 stereo input and 4 stereo sub input - 8 aux output (switchable knobs between 5-6 and 7-8) 8 subgroup output ( 4 stereo faders are equipped for master) and L/R master output $\cdot$ and 3 -band EQ for mono and stereo input. $9 \mathrm{U} \& 19.3 \mathrm{lbs}$.
SRP-V110 ............... 12 Channel Audio Mixer \$2,180.00
MU-110BK ............. Optional rackmount adapter . $\$ 100.00$

## Mixers/Consoles • Production

## Tascam TM-D4000A Digital Mixing Consoles

Tascam TM-D4000 features include: 4-band EQ on each channel • dynamics on each channel $\cdot 100 \mathrm{~mm}$ motorized faders on 16 channels $/ 2$ stereo inputs/master out $\cdot$ cascade I/O for system expansion • surround sound panning via buss $1-6 \cdot 24$-bit $\mathrm{AD} / \mathrm{DA}$ converters on analog I/Os $\cdot 24$-bit $\mathrm{D} / \mathrm{A}$ converters on stereo master outs and monitor outs * onboard stereo digital effects •MIDI in/out/thru • $320 \times 240$ large LCD display w/4 rotary encoders for parameter
control - full machine control including jog/shuttle dial and record function switches • GUI and dynamic automation with external host computer (Windows only) (EQ, dynamics, and snapshot library).

| . .......... Digial Mixer, 32x8x2 | 00 |
| :---: | :---: |
| IF-AD4000 ............. Additional 8 buss D-sub analog I/Os | \$599.00 |
| IF-TD4000 ............ TDIF-1 I/O card with DTRS remote connector | \$229.00 |
| IF-LP4000 .............. ADAT "lightpipe" I/O card with ADAT sync connector | \$229.00 |
| IF-AE4000 ............. AES/EBU card | \$399.00 |
| MU-4000 ............... Meter bridge | \$599.00 |
| PW-4000CS ........... Cascade cable | .. \$99.00 |

## Spirit Folio Notepad

The Spirit Folio Notepad achieves DAT quality audio as a result of its surfacemount design and use of components common to larger Spirit consoles. It's a versatile, portable mixer for both live and studio applications. Notepad offers the following features: 10 Inputs, (four miclline balanced inputs, two unbalanced stereo inputs) - Mic preamps with 50 dB of gain range - 2-Band EQ on every mono input - Post-fade aux send on every input - Dedicated stereo effects return $=+48 \mathrm{~V}$
Phantom power - Stereo inputs equipped with switchable RIAA preamps for turntables $\cdot 2$-Track return for playback of masters $\bullet$ Separate mix and monitor outputs - Peak and VU metering • and headphone output

Folio Notepad $\$ 299.95$
Folio PowerPad ........ 35 watts of power per side. $\$ 399.95$

## Studio Technologies M770 \& M750

Audio Mixers and IFB Controller


The Studio Technologies M750 audio mixer was designed for use in ENG, SNG, and specialized broadcast applications. Features include 4 mic/line inputs, 2 stereo line inputs, and 2 stereo output busses. The setup section provides voice identification storage and playback, along with a precision, computer-controlled tone generator. The extensive monitor section features analog VU-type meters. The M750 has all operator controls located on the front panel. Powered by $120 \mathrm{~V}, 50 / 60 \mathrm{~Hz}$, optional $220 / 240 \mathrm{~V} .2 \mathrm{U}$


Yamaha O3D Automated Digital Mixer

The Yamaha O3D is a self-contained, 26 input/ 18 -output fully automated digital mixing console. The O3D features an intuitive user interface, ease of operation and a long list of essential professional engineer's tools including: fast 32-bit internal digital audio processing $\bullet$ versatile analog and digital I/O configuration with 20 -bit A/D-D/As • 32 -bit onboard multi-effects processors with freeze (sampling) and guitar amp simulation effects * motorized fader, fader and mute grouping • surtound sound mixing • 50 -scene snapshot memories - onboard automation - MIDI remore capabilities $\bullet$ plus convenient cascading options which make it the ideal companion for an O2R or another O3D.

O3D
.............. Digital Mixing Console
$\$ 3,699.00$
O3D options listed w/O2R pricing, other options available, please call for pricing.


www.bgsfl.com www.broadcastdealer.com

## Mixers/Consoles • Production

## Yamaha PM3500

The Yamaha PM3500 Front of House console is available with $24,32,40$ or 48 inputs, and PM3500 monitor console with 44 or 52 inpurs. They are closely related, sharing the same body and virtually all of the same features. The only difference is their inputs. The PM3500's modules are switch assignable to the eight mix busses and the stereo buss, with eight auxiliary sends individually pre/post switchable.
In addition to these modules, the console includes four separate stereo input modules that can also be used as auxiliary returns. The PM3500 has digitally controlled scene memories. The input channels, auxiliary returns and output buss ON/OFF functions are electronically controlled via a central CPU. The consoles allow up to 128 patches or "scenes" to be stored in memory and recalled via a 10 -key pad on the front panel or an external MIDI device. Any of the 128 memories can be assigned to a group of eight "direct recall" switches to make them especially easy to access. External MIDI control can be used to individually turn inpur and ourpur channels on or off as required.
PM3500-24 .... 28 Ch ( 24 mono, 4 stereo) 8 group+st.,
8 aux, 128 mute scenes, \& 8 VCA groups ................ \$37,176.00
PM3500-32 $\ldots . .36 \mathrm{Ch}(32$ mono, 4 stereo $) 8$ group + st.,
8 aux, 128 mute scenes, $\& 8$ VCA groups, 4 band paramertic $\mathrm{EQ}, 4$ stereo marrix \& 4 mono marrix ..... $\$ 43,176.00$
PM $3500-40 \ldots . .44 \mathrm{Ch}$ ( 40 mono, 4 stereo) 8 group +5 t.. 8 aux, 128 mute scenes, \& 8 VCA groups, 4 band paramertic $\mathrm{EQ}, 4$ stereo matrix \& 4 mono matrix ..... $\$ 49,235.00$
PM $3500-48$.... 52 Ch ( 48 mono, 4 stereo) 8 group +5 t., 8 aux, 128 mute scenes, \& 8 VCA groups, 4 band parametric $\mathrm{EQ}, 4$ stereo matrix \& 4 mono marrix .... $\$ 55,295.00$ Please call us for a complete list of options and pricing!
 balanced L /mono and R phone jack inpurs $\cdot 3$-band equalization on all 12 inputs • internal digital signal processor provides high quality reverb effects - and 7 -band graphic equalizer on the stereo outputs.

Yamaha MX12/4 ... 12 input, 4 buss mixer with DSP $\$ 599.95$

## Yamaha 02R Digital 8-buss Recording Console

The Yamaha 02R has a total of 44 input channels, plus a full complement of features - all driven by RISC technology CPUs and Yamaha's latest 32-bit DSP chip. It brings powerful system control and full dynamic automation to the heart of your digital recording studio. It has 40 input channels and two full-featured stereo internal returns. There are 8 buss outputs and 8 aux sends plus 16 direct outputs. The 24 built-in analog input channels feature 20 -bit linear AD/DA conversion with oversampling. Thousands of parameters can be stored in a scene memory "snapshot" to be recalled in an instant. The 02R has a 4 -band fully parametric EQ and two internal effects units. EQ can be applied to each input channel and to the stereo outpur. The open architecture design allows you to insert up to four optional 8 -track digital I/O cards (for a maximum of 32 -tracks). With these

cards you can select from any of the currently used formats - ADAT®, Tascam TDIF-1, YAMAHA, or AES/EBU.

## Yamaha GF Series

The new Yamaha GF Series mixing consoles feature: 12 busses- 6 aux +4 group + stereo $\cdot 3$-band EQ on inpurs wih sweepable mids $\cdot$ inserts on all mono inpurs -4 large, 12 segment LED level meters ${ }^{-}$and
 is lighrweight, durable and compact in design.
GF12/12 ......... 12 inputs, 6 aux, 4 buss $\&$ stereo mixing console, 30.81 lbs . .... $\$ 999.95$
GF16/12 ......... 16 inputs, 6 aux, 4 buss \& stereo mixing console, 35.2lbs. .. \$1,199.95
GF24/12 ......... 24 inputs, 6 aux, 4 buss \& stereo mixing console, 44lbs. .... \$1,599.95

## Mixers/Consoles • Remote Mixers

## ATI MXS100\&MX200

Stereo Field Mixer
The ATI MXS100 is a full-featured stereo field mixer with three XLR switchable microphone/line low noise balanced inputs, +20 Vdc regulated phantom power ( 48 Vdc available as an option), pan pors switched low cut filters, slate microphone, stereo tape in and tape out jacks (new), and a test tone oscillator driving stereo, metered, low distortion servo XLR balanced switchable mic/line ourputs (new) with switchable peak lim-
 iting, and a stereo program/cue headphone output. Options include carry case. gel cell battery pack, power supply and rackmount adapters.
ATI MX200/MX200C Studio Stereo Mixers feature: three XLR switchable mic/line low noise inputs with pan pots and phantom power - balanced line level stereo outputs • independent headphone monitoring • bright LED bargraph VU meters. Options include
 input expanders, power supply and rack or desk top mount adaptors.
MXS100 ...... Field mixer, stereo out, three panned midline inputs ................. $\$ 949.00$
MX200 ....... Sudio mixer, stereo line out, 3 panned miclline inpus ............... $\$ 769.00$
MX200C ..... Same as MX200 but includes a peak limiter ............................ $\$ 789.00$
XPS100 ....... Expander, Stereo buss our, 4 panned mic inputs ...................... $\$ 399.00$
XPS200 ....... Expander, Stereo buss out, 2 stereo line level inpurs .................... $\$ 359.00$
WA100-1 ..... Wall mount power supply (UL), 24 Vdc @ .4amp, $115 \mathrm{Vad} / 60 \mathrm{~Hz}$... $\$ 15.00$
ABAG-1 ...... Carry case, with PROK-1, houses PPA-1 or DCA100-1 ............ $\$ 125.00$
PPA-1 ......... Rechargeable 4 hour bartery pack, indudes charger ................... $\$ 199.00$
DCA100-1 .. DCIDC assembly for operation with DC inputs from $10-32 \mathrm{Vdc} . \$ 139.00$
PROK-1 ...... Protection kit, has side plates to protect front panel controls and rear connectors from impact. $\$ 75.00$
BBU100-1 ... Battery pack houses four 9 V alkaline batreries for remore operation $\$ 95.00$

## ATI PB2X8 Press Box Distribution System

The ATI PB2X8 Press Box Mi-
crophone Distribution Am-
plifier eliminates the
usual press conference microphone clutter with just a single or back-up pair of microphones. Feed each of eight transformer isolared channels from either input or both miclline inputs mixed. Drive a high level XLR and medium or low level TRS line simulaneously from each output. Use as a $2 \times 8$ DA, stereo Ix4 or two input mixer. Studio grade performance, field proven ruggedness.
PB2X8
Press Box Distribution System
$\$ 1,299.00$


#### Abstract

ATI MX101 \&MX100

\section*{Mono Field Mixer}

The ATI MX101 is a mono field or sudio, threechanned, swichable microphone/line mixer with low noise balanoed inputs, +20 V dc regulared phantom powe ( 48 Vdc available as an option), switched low out filters, slate microphone, and a test tone oscillator diving a bright LEDVU meter and a low distorion servo balanced selectable line/ mic mono output with switchable peak limiting An in-  dependent adjustable headphone output monitors program or cue and program. The MX100 and MX100C are basic studio or fied three channel, selectable microphone/line mono mixers with low noise balanced inputs, phantom power, an adjustable headphone program ourput and a metered low distortion selectable balanced line/mic output. The MX100C asso indudes a swicchable peak limiter. Expand the input capability of the MX101 or MX100 with one or several XP100 expanders. Each XP100 adds four swithable microphone/line inputs and indudes all DC and audio interoonnecting cables for interfacing with the mixer. MX101 ........... Mono Mixer, three mic/line inputs $\$ 599.00$ MX100 ........... Studio Mixer, Mono line ourput, three miclline inputs ..... \$429.00 MX100C ........ Same as MX100 w/peak limiter ..................................... $\$ 479.00$ XP100 ............ Four input switchable mono micline expander .............. \$319.00 Options- WA100-1, ABAG-1, PPA100-1, DCA100-1, PROK-1 of BBU100-1 see MXSIOO.


CircuitWerkes RP-1 Mic \& Headphone Amp


The CircuitWerkes RP-1 combines a single channel mic amp with a headphone amp that's ideal for locker room reports and other extended remote broadcasts. The RP-1's features include: headphone amp with variable level, balanced inpur and adjustable sidetone for monitoring IFB and your program audio ${ }^{\circ}$ active, balanced mic preamp and auxiliary unbalanced line inputs with separate controls • built-in 1 kHz calibration oscillator • LED metering switchable to program output or cue input $\bullet$ standard XLR mic and program output connector, $1 / 4^{\prime \prime}$ stereo headphone/cue jack and 3.5 mm auxiliary jack - battery powered.

RP-1
$\$ 299.00$


> WWW.bgsth.com www.hroadcastdealer.com

## Mixers/Consoles • Remote Mixers

Comrex Cue System IFB Transmitter \& Receiver
 accepts two audio sources (program \& cue). The cue automatically overrides the program, with program remaining audible at a lower level. The LPQRA receiver has 6 kHz audio response for accurate program monitoring, ceramic filters for interference-free operation and high level output for intelligibility in noisy environments.
CTA
IFB Transmitter.
$\$ 1,350.00$
LPQRA
IFB Receiver
$\$ 625.00$
LPQRA-C
. 2nd crystal for LPQRA
$\$ 50.00$

## Electro-Voice ELX-1B

4-Channel Rackmount Mixer
 The ElectroVoice ELX-1B features four balanced mic/line inputs, phantom power, switchable output limiter, low cut filters, and is powered by AC or three 9 V batteries. Headphone output has a separate power amp and level control and will drive any type of headphones or a small speaker. Level setting is easy with the built-in tone oscillator. IU

ELX-1B ...
4 channel rackmount broadcast mixer
$\$ 770.00$

## JK Audio RemoteMix C+ Phone Line Hybrid/Mixer <br> The JK Audio RemoteMix C+ is a portable phone line hybrid/mixer for remore broadcast or line interviews. It works with conventional phone lines or your cellular telephone using a fax or modem adapter (available from your cellular dealer). The RemoteMix C+ has <br> 

 balanced XLR output and unbalanced RCA line I/O's, adjustable null feature, and two balanced XLR microphone inputs and two headphone jacks. It runs 36 hours on two 9 V batteries. An AC adapter is included.

RemoteMix C+

## JK Audio RemoteMix 3

Hybrid Micer \& Universal Handset Interface
The JK Audio RemoteMix 3 is a combined phone line hybrid mixer and universal handset interface in one. It can be used on analog phone lines with the RJ-11 jack,
 se it on digital PBX or multi-line phones by plugging the coily cord into the handser port. Features include: two mic inputs • tape in and out * two headphone jacks • VU meter * internal speaker and microphone for quick setup • XLR male out for IFB feed $\bullet$ battery and AC operation.

RemoteMix 3 $\$ 895.00$
RemoteMix 3M $\qquad$ $\$ 895.00$

JK AudioRemoteMix 3x4 Multi-Line Hybrid Mixer


The JK Audio RemoteMix $3 \times 4$ Multi-Line Hybrid Mixer gives you 3 mic/line inputs, 3 headphone outputs, and the ability to connect and hold 4 telephone lines. Broadcast down one line while you listen to a second line, or use the clean mixer output for your
 CODEC or satellite feed.
RemoteMix $3 \times 4$.

## Radio Design Labs RU-MX5 mic/Line Mixe



Radio Design Labs' RU-MX5 is the ideal choice in many applications where a combination of mic and/or line level signals need to be mixed with the ability for additional expansion. Four of the RU-MXS inputs can accept either mic or line inputs. The fifth input is for line level sources. Mic inputs are designed for low-impedance balanced microphones, although highimpedance unbalanced mics can be connected as well. A rear panel jumper can selectively connect an internally provided 24 V dc phantom volage to any or all of the mic inputs. See a more complete listing of RDL products on pages $50 \& 51$.
RU-MX5
$\$ 263.00$

## Mixers/Consoles • Remote Mixers

## Marti Cellcast RBS-400

Cellular Remote Broadcast Studio

The Marti Cellcast RBS-400 remote broadcasting studio eliminates line-ofsight requirements, phone line access, and antenna problems while reporting from the scene because the Cellcast is CELLULAR and battery oper-ated-just turn it on and go. Features include: 3 power options: AC , battery or 12 V (cigarette lighter) adapter $\cdot 2$ line, 16 segment back-lit LCD display $\cdot 3$ watt ana$\log$ cellular transceiver $\cdot \mathrm{RJ} 11 \mathrm{C}-6$ pin land line connector 4 channel mixer, program or cue, mic or line selectable e software selectable single line encoder (compatible with any major single line decoder) for improved audio frequency response $600 \Omega$ output $\cdot$ low battery indicator (audible alarm can only be heard by the operator) $\cdot$ lock function for all audio settings (software security code) • pulse or tone dial • pre-programmable cellular telephone number and functions - broadcast timer (count up or down) • and carry case. $5.5^{\prime H} \mathrm{Hx} 13.5^{\mathrm{FW}} \mathrm{Wx} 8.5^{\prime \prime} \mathrm{D}$ \& 8 lbs.
 \$2,950.00
RD ................ Rubber Duckie rt. angle antenna option (no longer standard) Cellcast supplied w/540-129 magnetic mount antenna ........ $\$ 45.00$
YC-870 $\qquad$ Cellcast Yagi antenna with tripod and bag $\qquad$ . $\$ 480.00$

## Marti GX-500 Remote Mixer



The Marti GX-500 remote mixer, has a new look. It has improvements in design to make it easier to operate and service. Marti added an analog cellphone adapter option. The adapters are "model specific" so you will need the model of the phone you have before you can order. Other features include: 4 mic channels and 2 aux inputs • 4 headphone jacks • peak limiter • squelch/mute switch $\bullet$ tone/pulse dialing and electronic ringer $\bullet$ rechargeable batteries for up to 10 hours use ${ }^{\bullet}$ second phone line capability $\bullet$ external AC supply $\bullet$ and plastic carrying case. 3lbs.
GX-500
Remote Mixer.
$\$ 1,295.00$

## Samson MixPad4 4-Channel Mixer

The Samson MixPad4 ultra-compact 4 channel mixer features: 2 miclline inputs and 1 stereo input 0 battery operation, $3-9 \mathrm{~V}$, and AC power supply $\bullet$ carry strap $\cdot 1$ aux send, pre-fader $\bullet 1$ stereo effects return $\cdot$ independent 3 band EQ on each channel with up to 15 dB of boost or cut • adjustable mic input trims • peak overload LEDs on left and right main output * constant level pan controls (mono channels) and balance control (stereo channel) • balanced stereo output $\cdot$ switchable phantom powered XLR mic input connectors ${ }^{\bullet}$ and 12 hour battery life. 1.85 lbs .
MixPad4
. $\$ 239.99$

## Shure FP42 4-Channel Stereo Portable Mixer

The Shure FP42 has all the fearures and ruggedness of the M267 plus full stereo capability which makes it perfect for stereo mixdown in editing suites. All four inputs are transformerbalanced miclline, with two stereo outputs. The FP42 has pull-pot mic
 cueing on all inputs for channel previewing $\bullet$ switchable limiter • dual VU meters ${ }^{\bullet}$ mix buss linking • tone oscillator $\bullet$ phantom power • battery (3-9V) or 120/230 Vac power.
FP42.
\$1,264.00
A16R Rack Mount $\$ 35.70$

## Shure FP33 Portable Stereo Mixer

Shure's FP33 is a 3 input, 2 outpur, portable stereo mixer specifically designed for remote audio recording. Features include: high precision-sealed rotary porentiometers $\bullet$ low self-noise and wide dynamic range (over 100 dB ) • LED indicators of input levels, output peaks, limiter ac
 tion, and low battery $\cdot$ pop-up pan pots $\bullet$ link switch to couple inputs 2 and 3 into stereo pair • mix buss to connect an additional FP33 or FP32A • up to eight hours of operation on 2-9V alkaline batteries, or power with 12 to 30 Vdc power supply (PS20/PS20E) • 12 and 48 V phantom power.
FP 33
$\$ 1,830.90$
Shure FP410 Portable Automatic Mixer


The Shure FP410 is a portable mixer that automatically keeps unused mics turned down and will only allow one mic to be activated for each source. When someone speaks the Noise Adaptive Threshold activares within 4 milliseconds for speech, not room noise. When no one is speaking, the last mic is kept on to assure a consistent background ambiance, until a new one is activated. The FP410 can control multiple wireless mics, work in the effects loop of a multi-channel consoie and switch to a redundant mic if the primary fails. Up to 25 FP410s can be linked for even greater versatility. The FP410 has four inputs and two outputs, all transformer balanced, mic or line switchable. Other features include: 48 V phantom power, tape output jack, low cut filters, 1 kHz tone oscillator, adjustable peak limiter with LED indicator, switchable peak VU meter, $1 / 4^{\prime \prime}$ and mini headphone jacks and a monitor in jack to connect an external source to the headphone amp. Powered with two 9 V batteries or $120 / 230$ Vac. 1 U
FP410, rack mount included
$\$ 1,683.00$

# Hotlinks to Vendors @ www.bgsfi.com www.broadcastdealer.com 

## Mixers/Consoles • Remote Mixers

## Shure M367 हmput Portable Miser

Shure M367 is the closest replacement of the M267. Features include: 25 dB quieter circuitry than the M267 • 6 balanced miclline inputs and two isolated outputs $\cdot 12$ and 48 V phantom power • input clipping LEDs and out-
 put peak/limter LED) $\cdot 2$ position mix buss • adjustable limiter threshold $\cdot$ headphone monitor circuit • battery (2-9V) or $120 / 230 \mathrm{Vac}$ power with detachable power cord.

M367 $\qquad$ 6-Input Portable Mixer w/Limiter/VU Meter
$\$ 810.90$

## Whirlwind PressPower 2 rctue Preas Box



The new Whirlwind PressPower 2 active press box features 2 mid line inputs with individual gain controls and 16 rransformer isolated outputs that are individually switch able for mic or line level operation. The PressPower 2 includes a 20 -segment LED level meter, an internal test tone generator, a built-in headphone monitor amp with volume control, high-pass filters, and phantom power. The input stage provides clean audio even in highRF environments. The unit can be powered by $115 / 230 \mathrm{VAC}-50 / 60 \mathrm{~Hz}$., by (4) 9 V internal batteries or with an external DC supply ( $12-36 \mathrm{VDC}$ ) connected via rear terminals. This allows the unit to be powered by a car battery, cigarette lighter, camera pack, etc. and the unit will automatically switch to DC back-up in the event of an $A C$ power interruption. Additional active midlline outpurs can be added with optional 16 channel PRESS2XP expander module, giving you up to 48 total active outputs. Additional mic outputs can be achieved by adding passive PB Series Press Boxes to outputs set to line level.
PressPower 2
$\$ 2,099.95$


The Whirlwind PressMite active press feed distribution box disributes 12 high-quality mic level signals and 2 line level signals with a high degree of isolation between outputs. It prowides a 60 dB gain adjustment for one mic or line input. The PressMite also features a builtin headphone amp. Two alkaline 9 V batteries provide power for typically more chan 8 hours of continuous operation, monitored by a Battery OK LED or use the included DC power adapter. In MIC input mode, 18 V phantom power is selectable. An LED headroom display speeds adjustment. If more outputs are needed, PB Series Press Boxes can be connected to the line outputs to provide up to 48 addirional mic outputs.

PressMite
$\$ 999.95$

## Whirfwind Medusa Pressbox

The Whirlwind Medusa Pressbox is a rugged, passive, transformer splitting device that takes a single line level signal and provides multiple low impedance feeds.
PB06
.... 1 -in, 6-out
$\$ 185.35$
1'B12
1 -in, 12-out
$\$ 297.64$
PB24
1-in, 24 -out
$\$ 497.67$

## Whirlwind MIX-44 Mitrix Moes



Whirlwind's MIX-44 is a unique 2 U product that allows the creation of four discrete mixes from four separate inputs. It accepts four separate balanced line level input signals, and applies them to four separate mixer sections where they are combined through volume controls to provide four separate output mixes. Each of the four mixer sections has four input volume controls, one for each of the input signals. These signals are combined through a master volume pot and exit via balanced line level XLR's. Switches are provided to enable the MIX44 to be used as two, four by two matrices. Inputs and outputs are balanced XLR's. A meter and headphone circuit monitor the four master outputs.

## MIX-44

$\$ 999.95$
Whirfwind MIX-5S sterso Mixer


The Whirlwind MIX-5S is designed as an all purpose mixer for sound contracting. It offers 4 input channels, each with XLR and $1 / 4$ TRS balanced connectors, suitable for mic or line level use. An LED readout provides a visual indication of levels, and phantom power is provided for operating condenser microphones. XLR and 1/ 4" TRS outputs are provided, with the XLR output mic or line level switchable. The outputs have their own drive circuit for isolation. An aux channel is provided with RCA input jacks for connecting a tuner, CD player, tape player, etc.
MIX-5S
$\$ 479.95$
MIX-5 ............ Same as the MIX-5S, except mono ................................ $\$ 419.95$
MIX-6 ............ 6 input stereo mixer • XLR/TRS/TR/RCA • mic/line $I / O \cdot$ defeatable $40 \mathrm{~dB} /$ meter .
$\$ 959.95$
MIX-8 ............ 8 input stereo line level mixer with split input ................ $\$ 699.95$

## Zercom MAX-Z 4Chamel Rentre Cuntole

The Zercom MAX-Z is a four channel mixer with both dedicated balanced and dial up phone line connections. Features include: clock, stopwarch/ timer, VU meter, low battery in-
 dicator, four headphone jacks with cues fed to the left channel, wide range audio inputs that will match mic to line levels, cue channel, phone line alarms, and tone or pulse memory dialing. Accessories supplied are carrying case, built-in rechargeable batteries and charger. Size 13 "x17" $\times 5^{\prime \prime}$ Weight 15 lbs .
Max-Z $\qquad$ 4-Channel Remote Console $\qquad$ \$1,286.00 RBP .... Remore Broadcast Package, Max-Z with Zercom Telephone Hybrid .. \$1,676.00 Zercom MAX-Z I| 2 Grummei femote sansole.

The Zercom MAX-Z II is an abbreviated version of the MAX-Z. High quality audio handling is maintained in the two channels of audio input. It is AC or DC powered with two headphone outputs, cue channel and case. Size $8^{\prime \prime} \times 9.5{ }^{\prime \prime}$ Weight 6 lbs.

Max-Z II ........ 2-Channel Remote Console
$\$ 797.00$

# Broadcast is a Contiact Sport 

Combining the great features of our original RemoteMix 3, with a third mic input, a third headphone output, and a host of other new goodies, our new RemoteMix Sport Hybrid Mixer is your best choice for professional sports broadcasting. Its compact design and combination phone line/universal handset connection provide unparalleled freedom and ease of use. Simply plog it into any analog line or a digital PBX or ISDN phone and begin the play-by-play.


## A World of Solutions from JK Audio:

JK Audio makes telco-to-audio to-telco simple and easy with an exceptionally wide range of interface solutions. Our innkeeper 1 Digital Hybrid is available in both rack and desk versions and provides the ultimate in affordable performance. Broadcusters' General Store offe's the entire JK Audio line, so give Broadcasters' General Sto - e a call to see how M Audio can help you.


JK Audio
REMOTE BRA OXAREAST GEA/B



## PUG N PLAY 150 EXCITER/TRANSMITTER.

The latest digital exciter/transmitter for value conscious operations. Accepts analog or digital input from your STL, ISDN, or direct feed and produces digital quality audio at a fraction of the cost. Inputs include Composite, L\&R, TOSLINK, AES/EBU, and / or SPDIF.

## SAME MARTI VALUE

## DIGTAL CELICAST.

Designed with the sportscaster in mind the new Digital Cellcast is easier to use, lighter and more rugged. Contact Broadcasters General Store for model availability for your cellular provider.

## ASK ABOUT OUR COMPLETE LINE OF REMOTE PICK-UP PRODUCTS AND STLS!



## RPT-30 REMOTE TRANSMIIIER.

- Frequency switch selects both frequency and deviation, eliminating error and interference
- Four balanced mic mixing inputs
- Compatible with MARTI mobile repeater, fixed auto. repeater and base station
- Frequency range $-140-220 \mathrm{MHz} / 45 \mathrm{~W} / 1 \mathrm{MHz}$
- Max. Power Output - 220-300 MHz/40W/2 MHz
- Power requirements $-110-125 \mathrm{VAC} .50 / 60 \mathrm{~Hz}$ (220 VAC option available)



## PF2 PORTABLE TRANSMMIIR.

- 2.5 watts continuous output
- Capable of one or two frequency operation
- Standard internal battery provides 2.5-3 hours of continuous operation
- Frequency range - $140-220 \mathrm{MHz} / 1 \mathrm{MHz}$; 200-300 MHz/2 MHz; 300-400 MHz/4 MHz; 400-500 MHz/5 MHz
- Power requirements - 110-125 VAC. $50 / 60 \mathrm{~Hz}$ (220 VAC option available)

Call Broadcasters General Store for more information 352-622-7700

## Mixers/Consoles • Utility/Sub Mixers

## Broadcast Tools SM-6 Ghinit Stereo Mxer



The Broadcast Tools SM-6 is a 6 input stereo mixer, equipped with 6 front panel push button type on/ off switches and stereo balanced inputs with 15 -turn input trimmers and single turn output trimmers. Ample gain is provided allowing use of unbalanced consumer level devices. The SM6 may also be configured for dual monaural output operation. Audio connections appear on the rear panel via removable screw wire captive terminals. Applications include: programmable mix-minus for telephone hybrids, selectable IFB feeds and additional console input expansion.
SM-6
. 6-lnput Sereo Mixer .
$\$ 349.00$

## DOD SR606 Line Muryr w/OA \& flattor Ame



The DOD SR606 is a line mixer, a distribution amp, and a buffer amp all in one. It includes leff/right stereo inpurs, 6 charnnel inpurs, 6 channel outputs, and leff/right stereo outpurs. Each channel has level and pan controls as well as independent level control for the stereo inputs and stereo outputs. Features include: three tools in one - stereo input distribution amp 06 channel distribution amp $\bullet 6$ channel buffer amp - stereo outputs ${ }^{\text {and }}$ IU.

SR606...........amesco.... Line Mixer w/DA \& Buffer Amp
$\$ 319.95$

## Henry Engineering MioroMixer

Henry Engineering's MicroMixer will accept up to four balanced or unbalanced line-level inputs and will mix them to a stereo outpur. A level control for each inpur provides adjustment from "off" to +10 dB of gain. "MicroAssign" switching permits each input to be assigned to the left, right, or both
 outputs in any combination. All circuirry is active and direct coupled for exceptional sonic accuracy.
Micromixer.
$\$ 195.00$

## Henry Engineering StereoMixer

The Henry Engineering's StereoMixer is an eight inpur, three ourput stereo line mixer for line-level sources. It lets you mix four stereo or eight mono sources or a combination of both. Each bridging inpur will accept a balanced or unbalanced source. A level control for each input provides adjustment from OFF to +10 dB of gain. Left and Right buss inputs allow multiple StereoMixers to be linked together to expand input capacity. All connections are via barrier strip terminals.

## Intellx 8002 MCB mia/tine Meor

## $0.01080 .06080 \cdot 080 \cdot 0 \cdot 0.0$ max

The Intelix 8002 MCB is an eight channel, dual buss microphone mixer designed for the broadcast, video field production, sound reinforcement and recording industries. It has: balanced inputs and outpurs • IU chassis • phantom power • level control $\cdot$ LED bargraph $\bullet$ limiter $\bullet$ front panel headphone output $\bullet$ dual busses - and can be AC or DC powered.

## 8002 MCB

$\$ 649.00$

## Rane MLM82a MisLLine Maur



The Rane MLM82a is an eight-input, two-output mic/line mixer. Inputs $1-4$ are mic/line level switchable, and inputs $5-8$ accommodate up to four stereo or mono line level sources. Features include: four stereo/mono balanced/unbalanced line inpurs ( $1 / 4^{\prime}$ TRS) • four mono balanced line inputs (XL.R) • outputs switchable to mic or line level • phantom power switch - trimless mic stage preamps • stereo/ mono swich • and bi-color signal present/overload LEDs.
MLM82a
$\$ 499.00$
Rane SM $26 B$ ubs Level Mixe


The Rane SM 26 B combine a 6 -in/2-out line level mixer and a 2 -in/ $/ 6$-our spliter distribution amplifier in a one rack unit package. It provides Mix/Pan and level concrols with 12 dB gain for level marching and can be used as a line boost amp, zone level controller, or in a combination of modes at once. Inputs and outpurs are balanced $1 / 4^{\prime \prime}$ TRS.
SM-26B

## Rane SM-82 Steteo Litite Level Muret



The Rane SM- 82 stereo line level mixer has 8 stereo or 16 mono unbalanced $1 / 4^{\prime \prime}$ TS line inputs. Each input clannel has a stereo rotary inpur level control, stereo aux send slider and a balance control slider. The aux return section and the outpur stage both include a rotary level control and a slide balance control.
SM-82
$\$ 599.00$


> WWW.bgsfl.com WWW.broadcastdealer.com



#### Abstract

The Stewart MM4-S is a four-channel active stereo outpur mixer in a half-rack chassis. Each of its four balanced mono inpurs are individually switchable between microphone and line level, with switchable +48 v phantom power. The MM4-5 features an individual gain and pan control for each channel, as well as master level control, and switchable balanced output operating levels. MM4-S .................. Two year warranty ................................................................................ $\$ 399.00$ RMK100 ................ Single rack ............................................................................................. \$20.00 RMK200 ................ Dual rack ............................................................................................. $\$ 30.00$


## Symetrix 450 . Dual Zone Prority. Mixer



The Symerrix 450 Dual Zone Priority Mixer has two mono mic/line inputs (with phantom power and low fiequency filters) and four stereo line inputs. Each input may be assigned to a sterec, output zone, a mono output zone or both. Its unique hierarchical Priority Override structure permits the two mic/line inputs and the first stereo line input to mute the other (lower priority) inputs assigned to the same zone. The 450 's flexibility and simplicity make it the perfect choice for a wide variety of systems. By accepting audio inputs from virtually any type of audio source and selectively routing to eithei the mono or stereo output zone the 450 can save you time and money in the design and installation of your next project.
450 .................................................................................................. $\$ 669.00$

## Monitoring • Meters

## ATI Microamp Series

 The ATI Microann Series VU800, VU600, VU401 and VU200 are your electronic security blankets. Give yourself that
 warm, secure, all-is-well feeling by displaying all your important signal lines simultaneously. Know ar a glance where your signals are (or are not). Display one, two, three or four atereo lines (eight channels) on bright, three color, sixteen segment, LED bargraphs with simultaneous $\backslash$ U and PPM indication. Balanced bridging inputs are switchable for 0 VU at $-10,+4$ and +8 dBm line levels. Wide range, backlit scale, 3-1/2" rack mount.
LU200
One Stereo Display
$\$ 579.00$
VU400 ....................Two Stereo Display .............................................. $\$ 799.00$
VU600 .......... ......... Three Stereo Display ......................................... \$1,049.00
VU800 Four Stereo Display
\$1,299.00

## Tascam M08 compant: Moxnt System



The Tascam M08 compact mixing system features: 12 -input ( 4 mono, 4 stereo) • 4 XLR inputs • 2 -band $E Q$ on all channels - 2 dedicared aux sends (pre and post) • 4 mono effects returns - mute and PFL on each input channel $\cdot$ dedicated 2-track input $\cdot$ and 60 mm linear master fader.

M08
$\$ 399.00$
RM08 .... Oprional rack mount kit ........ $\$ 17.00$

## ATI Nanoamp Series bu200 Dysull Monilor

The ATl DM200 Digital Monitor accepts loop-thru AES/EBU format digital studio data via $110 \Omega$ XLR and $75 \Omega$ BNC and RCA connectors. A $24-\mathrm{bit}_{8} 96 \mathrm{kHz} \mathrm{D}^{\prime} 4$ converter feeds stereo head phone drivers, balanced audio line outputs and a stereo LED) meter. Input sample rates of $32,44.1,48,82.2$ and 96 kHz are decoded and indicated with a front panel display. A data VAl.ID light indicates that there have been no data or transmission errors. Bright, stereo two color IED meters are switchable to the D/A converter output and indicate headroom down from OdBFS (the digital maxinnum output of the $\mathrm{D} / \mathrm{A}$ ) in ten 3 dB steps. The meters also read the balanced line output level with 0 dB midscale equal to +4 dBm output. Display ballistics are PPM for optimum indication of audible peaks.

## ATl Microamp Series VU1000 <br> 

The ATI Microamp Series VU1000 eight line switcher, meter and monitor amplifier is capable of many functions. Use the VU1000 as an input line selector to an audio or video re-
 corder, a remote line selector into your console and for general metering and monitoring of critical signals. Eight balanced bridging inputs are panel and remotely selectable to feed the LED bargraph meter with both VU and PPM ballistics plus a balanced line output and a headphone jack. A range switch sets the reference line output and 0 VU indications for five input levels from -10 to +18 dBm .
VU1000-1 ....... Drives $600 \Omega$ phones or external power amp such as MA1000 . $\$ 699.00$
VU1000-2 ....... Includes 6W power amp for Lo-Z phones or external speaker .. $\$ 799.00$
20209-501 ...... Stereo Interconnect Cable ............................................... \$15.00
20214-501 ...... Remote Control Scan Cable ........................................... \$12.00
 WA100-1 Wall mt. Power supply .. $\$ 15.00$

## Monitoring • Meters



ATI Nanoamp BGD200 \& BGD400 Series space. Remote, shared power supplies let you mount these bright three color VU or PPM meters directly under video monitors or critical audio circuits with no possibility of magnetic intefference. Available in two channel horizontal with and without phase indication and headphone monitor and also in four channel vertical configurations. Intense, multiple color, ten segment displays are visible even in loading in bright sunlight. VU models display -20 to +3 dBu , around 0 VU , PPM models cover -15 to +12 dBu . High impedance nonloading inputs accommodate balanced or unbalanced input signals. Two piece, quick release screw plug connector per input. Power supply, capable of driving multiple units, ordered separately.
BGD200-VU ............ Dual bargraph meter display VU Response $\$ 369.00$
BGD-200-VU-Ø ...... As above w/bi-polar LED phase indicator \& headphone monitor $\$ 399.00$
BGD200-PPM .......... Dual bargraph meter display PPM Response ............. $\$ 369.00$
BGD-200-PPM-Ø .... As above w/bi-polar LED phase indicator \& headphone monitor
$\$ 399.00$
BGD400-VU ............ Quad bargraph meter display VU Response ............... $\$ 459.00$
BGD400-PPM .......... Quad bargraph meter display PPM Response............ $\$ 459.00$
WA100-1 ................ Wall mount power supply, UL, 24Vdc@.4amp, $115 \mathrm{Vac} / 60 \mathrm{~Hz}$ $\$ 15.00$
20602-1 ................... DC power cable to loop throught the DC power, $13^{\prime \prime}$ DC plugs

$B \& B A M-1 B$ has a quality $\mathrm{X} / \mathrm{Y}$ scope with 2 VU meters and 2 peak LED's. This unit provides monitoring of stereo audio phase, program average and peak levels, plus SMPTE time code phase/genlock. It is ideal for television production and post production facilities. 3 U

AM-1B
$\$ 4,160.00$

## B\&B IM-1HR Imagescope

The B\&B Imagescope ${ }^{\mathrm{TM}}$ half-rack unit is the ideal tool for any stereo audio monitoring application. It displays the complex stereo audio signal, showing the dispersion of energy as it will sound in a typical listening environment. The Imagescope ${ }^{\mathrm{TM}}$ is used to position any track or tracks in the stereo image. At a transmission site the scope will show mono compatibility of stereo program material and
 allow you to observe the separation, balance and level of the stereo signal. 3 U
IM-IHR
$\$ 2,260.00$

B\&B AM-2 X/Y Scope


The $B \& B A M-2$ is similar to the $\mathrm{AM}-\mathrm{IB}$ in monitoring stereo audio phase and levels but without the features of SMPTE time code monitoring and channel selection for the CRT display. Designed for stereo radio facilities and recording studios. 3 U
AM-2 ........................................................
$\$ 3,560.00$
The $\mathrm{B} \& \mathrm{~B} A M-2 \mathrm{~B}$ is a compact version of the $\mathrm{AM}-2$, with identical functions, for use in limited rack space environments. 2 U

AM-2B
$\$ 2,960.00$

## B\&B AM-2HR X/Y scope



The B\&B AM-2HR is a half-rack unit with quality full size $\mathrm{X} / \mathrm{Y}$ scope, for visual "stereo" audio phase monitoring. Front panel control of line level outputs and amplified headphone/speaker outputs. Front panel selection of "stereo" or "L+R SUM" audio monitoring. 3 U

AM-2HR
$\$ 2,260.00$

B\&B AM-3B Real Time Visual \& Audible Monitor


The B\&B AM-3B is a real time visual and audible monitor of stereo audio. Phase, program VU levels, peak threshold, $(L+R)$ aux., internal power amplifier and two sets of three inputs make this unit perfect for any stereo audio application. 2 U
AM-3B
$\$ 3,400.00$
The $\mathrm{B} \& \mathrm{BAM}-3$ is a complete tool for stereo audio transmission applications. It provides monitoring of stereo audio phase, program average and peak levels, plus a third channel display selectable between left and right channel sum or SAP (second audio program). 4 U

AM-3.
. Special order only
$\$ 4,260.00$

## B\&B MP-2 \& MP2A Audio Meter Panel

The B\&B MP-2 Audio Meter Panel has two independent VU meters resistively buffered to meet E.I.A. standards. No calibration adjustments. 2U
MP-2
$\$ 620.00$
The B\&B MP-2A Audio Meter Panel has two buffered input channels configured as a stereo pair. The level of each channel is displayed on an independent SIFAM VU meter with calibration adjustments for each meter. 2 U
MP2A.
$\$ 1,725.00$
MP2A + .......... With phase indicating LED display
$\$ 1,975.00$

## Monitoring • Meters

B\&B MP-4 \& MP4A/B Audio Meter Panel


The B\&B MP-4 Audio Meter Panel has four independent buffered channels. The standard unit has two rear panel female XLR inputs. The left input is internally strapped between chamels one and two while the right input is internally strapped between channels three and four. The left and right inputs have one buffered VU meter and one buffered Pl'M meter each. The four channels allow for different calibration adjustments on each meter. 2U

MP-4
$\$ 1,800.00$
The B\&B MP-4A Audio Meter Panel has four independent buffered channels. The standard unit has four rear panel female XLR inputs. These four correspond to individual meters with independent calibration adjustments for each meter. 2 U
MP-4A ........... With VU Meters ........................................... $\$ 1,800.00$
MP-4A+ ......... With Phase I.ED ............................................. $\$ 2,050.00$
MP-4B ........... With PPM Meters .............................................. $\$ 1,800.00$

## Benchmark SPM Meter Systems


bs resolve the between using Peak or VU meters. These "online" systens use true VU meters, but are instantly switchable to a PPM mode. The SPM-220's Peak Hold can capture and retain the highest peaks for later review, even while monitoring in VU. Push button selection of Matrix stereo metering in both Peak and VU modes allows easy detection of polarity inversions, thus protecting the mono sum. The SPM-220 is a 2 U chassis with a built-in stereo headphone amp and a Peak indicating I.ED on each meter. Other features include: true VU volume indicators per ANSI spec • balanced $100 \mathrm{k} \Omega$ inpurs • BNC scope outpurs • and optional balanced outputs for monitoring. The SPM-320 has the same features as the SPM-220, plus a third meter that may be used with SCA or SAP, or internally assigned for continuous mono moni-
 toring.
SPM-220 ......... 2 Channel Audio Meter w/headphone amp ........... \$1,375.00
SPM-320 ......... 3 Channel Audio Meter w/headphone annp ........... $\$ 1,825.00$
RPM-1 ............ Kit to convert VU meter to VU \& PPM .................. \$175.00
VU-1 .............. Sifam R32AF VU Meter .................................... $\$ 130.00$
PPM-1 ............ PPM Card \& Meter Set ..................................... $\$ 360.00$

## 1-352-622-7700

## Dorrough Loudness Meters

The Dorrough Loudness meter eliminates the shortcomings of conventional VU or PPM meters. The VU meter is too slow to respond to peak
 excursions; it is known as a quasi-average reading device. While the PPM meter does display and hold the peak level of waveforms, the quasi-average

$\square$ program level is completely ignored. The Dorrough loudness monitor solves this. It displays, in an easy to read format, the actual energy content of the material, regardless of frequency, while still indicating the peak amplitude of the complex audio signal. This meter
 gives you more complete and more usable information than any combination of peak hold, VU and PPM indica-
 tors. All Dorrough second (2) generation meters have fully integrated peak-hold functions.
40-A2 Std loudness meter w/internal PS, 8-1/2"x2-7/8"x6-1/2" ..... $\$ 475.00$
40-B2 Relative loudness to peak modulation meter ..... $\$ 475.00$
40-C2 Scale differentiation of $40-\mathrm{A} 2$ with 20 dB headroom ..... $\$ 475.00$
$20-A / B / C 2$..... Straight line version of 40 series ..... $\$ 475.00$
10-A/B/C2 ..... Panel mount 5 "x2-1/2" w/external PS ..... $\$ 475.00$
12-A2 Dual version of the $10-\mathrm{A} 2,8-1 / 2^{\prime \prime} \times 3$ ..... $\$ 950.00$
40-S Rack mount for single 40 ..... $\$ 45.00$
40-D Rack mount for dual 40, 19"x3.5" ..... $\$ 45.00$
20-S Rack mount for single model 20 ..... $\$ 45.00$
20-D Dual model 20 19"x1.75" ..... $\$ 45.00$
10-S Single rack ..... $\$ 45.00$
10-D Dual rack .....  $\$ 45.00$
10-T

$\qquad$
Triple rack allows for a center ch. sum meter when wired for both right and left channels. ..... $\$ 45.00$
12-S Single rack ..... $\$ 45.00$
12-D Dual rack, allows for a total of four metering ch. ..... $\$ 45.00$
Explanation of Dorrough meter suffixes:
$40-A 2$ has a scale allowing $14 d B$ of headroom in $1 d B$ steps. $40-B 2$ is a scale differentiation of the 40-A2 and is calibrated in percent modulation, with the lower scale in dB from +3 to $-36 d B$. 40-C2 also a scale differentiation of the 40 A2 allowing 20dB of headroom.

Please call BGS for ordering details.

The Dorrough 40-P, parity of signals, both mono and stereo, can be seen on this meter as two indications starting at center scale. A null feature is also provided.

## Monitoring • Meters

## Dorrough Digital-Reading Meters 280-D



The Dorrough Digital-Reading Meters model 280-D and 380-D are $\mathrm{AES} / \mathrm{EBU}$ reading and feature display of both peak and average simultaneously, over indication, and selectable peak-hold. Conforms to all specifications of AES 3 1992. Console or panel mount; Euro block terminals; and uses external power ( $12-24 \mathrm{Vdc}, 0.5 \mathrm{~A}$ ).
380-D . $\qquad$ 40 dB , (Verrical mt.) $\$ 850.00$
280-D
40 dB , (Horizontal mt.)
t.) ...
60 dB , (Vertical mt.)
60 dB , (Horizontal mt.) $\qquad$ . $\$ 850.00$
380-E $\qquad$ $\$ 850.00$
280-E $\qquad$
$\qquad$ $\$ 850.00$

## Dorrough

280A

The Dorrough 280-A and 380 -A feature a single meter with two channels of audio. The meter measures $1-1 / 2^{\prime \prime} \times 5^{\prime \prime}$ and has an external power supply.
380A/B/C (V) ......... Analog model, vertical mount ........... \$850.00
280A/B/C (H) ......... Analog model, horizontal mount ....... $\$ 850.00$
280-S ...................... Single rack ........................................ \$45.00
280-D ..................... Dual rack .......................................... \$45.00
280-T ..................... Triple rack ........................................ \$45.00


## Dorrough 240-A2

Console Mount \& Surround Sound Loudness Meter
The Dorrough 240-A2 is a vertical single channel Loudness Meter designed for standard console mounting, $1 / 4^{\prime \prime}$ wide by $5^{\prime \prime}$ high. Also used for Surround Sound configurations.

240-A2
Loudness Meter
$\$ 475.00$

## Dorrough 400-A

Large Stage Work Loudness Meter
The Dorrough Loudness Meter 400-A is a large meter for stage work measuting $23^{\prime \prime} \times 8^{\prime \prime} \times 4^{\prime \prime}$. It is a stand alone unit and has an internal power supply. A and B scales available.

400-A


## Dorrough CATV Audio

Loudness/Video Level Test Set


The Dorrough model 1800 CATV Audio Loudness/ Video Level Test Set is designed for quick set-up of audio and video levels on multiple cable-television channels. Equal perceived loudness is adjusted with the Dorrough Loudness Meter, while accurate modulation/sync levels are set using the Video Luminance Meter. The loudness meter is the model $10-\mathrm{B}$ and the video luminance meter is model 40 $\mathrm{N}(\mathrm{P} / \mathrm{S})$ with a CATV cable converter.

1800
\$1,995.00

## Dorrough Video Luminance Meter



The Dorrough Video Luminance Meter Model 40$\mathrm{P} / \mathrm{S}$ is a PAL/SECAM version scaled in volts, displays average and peak luminance, sync level, and blanking.
40-P/S
$\$ 750.00$
The Dorrough Video Luminance Meter Model 40-N is an NTSC video level meter that displays the video signals of average and peak luminance, sync level, and setup violations. Sync range -50 to -32 IRE. Meter resolution 4 IRE per LED.
$40-\mathrm{N}$
$\$ 750.00$

## ESE Digital Audio Level Meters


ES214 ............. Digital, vertical mini-panel mount meter ..... $\$ 145.00$
ES215 ............. Digital, horizontal mini-panel mount meter ..... $\$ 145.00$
ES215P2......... Stereo or Dual Mono, 1U ..... $\$ 370.00$
ES215HP2 ..... Side by side (horizontal) version of 215P2 ..... $\$ 370.00$
ES215P3......... Triple (stereo/center) audio level indicator, 1U ..... $\$ 540.00$
ES215P4......... Dual Stereo, 1U ..... $\$ 685.00$
ES215P6......... Triple stereo audio level indicator, 1U ..... $\$ 975.00$
ES216 ............. Digital audio level indicator - meter ..... $\$ 69.00$
ES216P2......... Stereo or Dual Mono, 1U ..... $\$ 190.00$
ES216P3......... Triple (stereo/center) audio level indicator, 1U ..... \$260.00
ES216P4......... Dual Stereo, 1U ..... $\$ 330.00$

## Monitoring • Meters

Furman SRM-80 simpal Router/Mannor


The new Furman SRM-80 signal router/monitor provides a way to manage mixdown and dubbing in a single product. It offers signal routing and monitoring for four stereo devices (such as DAT, cassette, Mini Disc, CD-R, etc.) plus the main console output. The SRM-80 greatly simplifies mixdown and dubbing between different media types without tying up additional console channels. Multiple copies can all be made simultaneously through use of the SRM-80's "Source Select" switches. In addition, $\mathrm{A} / \mathrm{B} / \mathrm{C}$ listening comparisons can be made among three different speaker types, and all gains are front panel adjustable for equal loudness when switching berween speaker pairs. The SRM-80 also provides an internal, high-power headphone amp. Other features include: mono sum, DIM and mute. A high resolution ( 40 I.ED x 2) I./R meter is switchable berween VU and PPM modes, and has an automatic peak hold function. An optional remote unit that duplicates the SRM80 's front panel pushbuttons is also available, and comes with a 10 foot cable.

## -

SRM-80
Signal Router/Monitor
$\$ 499.00$
SRM-RU ........ Remore Control Unit
$\$ 79.00$

Furman VU-40 sterno shatem Montor


The Furman VU-40 is a convenient rack-mount, dual channel level monitor for use in any application where a quick visual check of system performance is desirable. It is comprised of two 20 L.ED bargraph meters, calibrated in dB like standard VU meters. You can set a front panel switch to read either peak or average response. Other features include • On/off transient muting function protects speakers • Line level/power out switch for each channel - Line level may be set to $-10,0$, or +4 dBu - Sixteen power out choices from 20 to 1260 W , also accommodates 25 volt and 70.7 volt lines • and ground lift, on/off switches.

VU-40 ........... Stereo Systenı Monitor
$\$ 249.00$
VU-40B ......... Includes XLR balanced line level I/O on each channel ............ \$299.00
InOvOniCS TVU Brotov Aumbilubel Mimating


The Inovonics TVU displays stereo audio level metering on the screen of a video monitor and is VU/PPM switchable. Applications include uses in television production, post-production, broadcast, cable $T$, and video duplicating facilities. 1 U
TVU-00
$\$ 620.00$
TVU-20
Rack mount panel option for 1 or 2 units
$\$ 40.00$




1-352-622-7700

## Monitoring • Meters

## McCurdy MTR-8 Bargraph Meter



The McCurdy MTR-8 LED bargraph meter has eight LED bargraph meters for four stereo or eight mono sources in one rack unit. Audio input to the unit is through rear panel mounted WECO type plugable barrier strip connectors. The inputs are fully balanced with optional AES/EBU ins. Available from $-10,0,+4,+8 \mathrm{dBu}$, please specify level when ordering.
MTR-8 $\$ 795.00$

## McCurdy VUP-4 Audio Level Meter



The McCurdy VUP-4 Quad VU/PPM audio level meter features: Taut-band high quality meters • accurate readings to 0.1 dB resolution • LED illumination • Balanced, bridging inputs - PPM, VU or both types •Four channel operation • Designation strip for user supplied IDs • and oprional AES/EBU inputs. Available for $-10,+4,+8$ dBu , please specify level when ordering.
VUP-4VPVP
\$1,195.00
VUP-4XXXX* ......... Any configuration of 4 meters ............................. \$1,195.00
VUP-4XNNX* ........ Any configuration of 2 meters ............................... $\$ 995.00$ *Specify $V, P$, or $N$ for $X$ to configure meter. $V=V U, P=P P M, \Varangle N=$ none

## Radio Design Labs RU-SM16



Dual Audio Meter
The Radio Design Labs RU-SM16 Dual Audio Meter is for anywhere you need audio level metering, digital string display indication, precise left/right meter tracking, individual channel calibration controls and selectable peak or average metering. It has two separate line level inputs. Each input permits the connection of either balanced or unbalanced, high or low impedance audio lines. All connections are made using full-size barrier block terminals. 1/3U for high density rack mounting. Each channel input has a write-on label area for identification of the source or function being monitored.
RU-SM16.
Dual Audio Meter
$\$ 226.00$

## Radio Design Labs RM-MP12

Audio Monitor Panel


The Radio Design Labs RM-MP12 Audio Monitor Panel is for anywhere you need: twelve individually selectable audio inputs • LED above each button to show selected source •VU Ballistic LED above the button for each audio input $\cdot$ calibrated front-panel meter display • front-panel speaker and head phone jack • digital attenuator for headphone \& speaker control • internal 4.5W RMS power amplfier and speaker $\bullet$ and audio inputs and outputs on plug-in terminal blocks. 1U.
RM-MP12.
Audio Monitor Panel
$\$ 768.00$

## Ward-Beck POD3 Stereo Level VU Meters



The Ward-Beck POD3 is astereo, extended range VU meter. Balanced, bridging inputs to POD3 are via two XLR3(F) connectors located on the rear panel. The left and right VU meter displays each comprise 25 LED segments and cover the range from -36 dBu to +25 dBu . The unit is factory calibrated for a nominal +4 dBu input signal (ie: $+4 \mathrm{dBu}=0 \mathrm{VU}$ ). POD 3 can be field calibrated by removing the top and adjusting R70 and R75, located on the main PCB.
POD3. $\qquad$ .... Stereo Level VU Meter
Ward-Beck POD 11 AES/EBU Digital Audio Monitor The Ward-Beck POD 11 is an AES/EBU digiral audio monitor. It fearures a dual channel, 20 segment LED level display along with 8 signal status LED indicators. Three unbalanced RCA phono jack analog audio outputs are provided to allow aural monitoring of the digital signal via headset
 or external power amplifier and speakers. LED status indicators display sampling frequency rate, $32,44.1$ or 48 kHz , signal lock, CRC error, confidence, consumer and phase error. a front panel headser jack with level control is provided.
POD11.................. $110 \Omega$ balanced input on an XLR3(F) .................... $\$ 525.00$
POD11/75 .............. $75 \Omega$ unbalanced input on a BNC .. $\$ 525.00$

## Ward-Beck M445 Meter/Monitor

The Ward-Beck M445 is a combination of racked and portable extended range metering and monitoring. Inits docked position, it serves as a stereo meter/monitor for plant levels. Undocked, the M445 functions as a precision portable stereo audio monitor, operating on ready-charged Nicad batteries.


M445 . Extended Range Merer/Monitor . $\$ 2,100.00$

## Ward-Beck MP Series custom Meter Panels



The Ward-Beck MP series of custom meter panels can contain up to four meters of your choice. All meters are LED illuminated, and all panels are supplied with a 115 V AC adapter. PPM Scale 6 is standard, unless otherwise specified. Please call for further information and pricing.

## Ward-Beck SMS4 4-Channel Stereo Metering System



The Ward-Beck SMS4 is a 4-Channel Stereo Metering System. Each stereo meter pair comprises two 18 segment LED level displays and a digital audio LOCK indicator. The SMS4 can be used to display the levels of any combination of four digital (AES/EBU) and/ or analog audio signals simultaneously. Connections to the SMS4 on the rear panel are via pluggable screw terminals for the stereo analog audio and $110 \Omega$ AES/EBU digital inpurs. The unit is also equipped with BNC connectors to accommodate $75 \Omega$ digital signal inputs.
SMS4 ............. 4-Channel Stereo Metering System .
$\$ 1,365.00$

## Monitoring • Meters

## Wohler Metering

High Resolution/Performance Level Meters



LM53-8 .......... 8 channels (four pair) of 53-segment, high resolution, tricolor bargraph analog or AES/EBU digital level meters, horizontally mounted 1U.............. $\$ 1,910.00$
LM53-24 ........ 24 channels of 53-segment, high resolution tri-color bargraph analog level meters mounted vertically in 2 U
$\$ 4,250.00$
LM60-2 .......... 2 channels of 60 -segment, ultra high res., tri-color, large format LED level meters, 1 U . $\qquad$ $\$ 895.00$


LM106-2 ........ 2 channels (one pair) of 106-segment, high resolution, tri-color bargraph analog or AES/EBU ....................... \$1,025.00
LM-106-4 ....... Same as LM106-2 except w/ four 106 segment meters ... \$1,625.00
LM106-4SDI ... Same as LM-106-4 w/SDI demux \& 1 reclocked SDI out .... \$2,475.00 LM-106-6 ....... Same as LM106-2 except w/six 106 segment meters ...... \$2,200.00 LM-106-6HR .......... LM-106-6 that fits in Tektronix $1 / 2$ tub ............... \$2,300.00 LM-106-6/AC3 ........ LM-106-6 w/one Dolby AC-3 input on BNC ...... \$3,350.00
When ordering AES/EBU level meters for LM Series above add suffix -D. Both analog and AES versions have Phoenix connectors. BNC or XLR are optional at no additional charge. Please specify when ordering!
Level Meters

## CilililililiाiाIIIII:?

MSLV-120 ....... 20-Ch. of 10 -segment, tri-color bargraph analog meters, IU \$1,600.00 MSLV-120D .... To substitute digital level meters, add to suffix ............. \$2,700.00

Level Meters and Alarms with Logging Outputs


MLH-2AL ....... 2 Channels (one pair) of large format (LV-25L) 24-segment, tri-color bargraph analog level meters wich peak LED, IU. Also includes alarm module (ALR-4) for loss of audio and overrange. Over and under delays are set per pair. ......... $\$ 1,045.00$
MIH-2ALD As MLH-2AL except w/digital leved meters Phoenix connectors.
\$1,190.00


MLH-4AL ...... Same as MLH-2AL but 4 Channels, 1U
\$1,600.00
MLH-4ALD ... To substitute digital level meters, add to suffix .............
\$1,890.00
ALRM-20 ....... Alarm unit for 20 channels loss of audio, includes intermal sense units
$\$ 2,150.00$
ALRM-20HLO Alarm for 20 channels loss of audio \& over range, includes internal sense units $\qquad$ $\$ 3,750 . .00$
For custom configurations and pricing, please call Broadcasters General Store.

## Wohler Analog \& Video Monitors


M()N1-T


MON3-2 ........ Three NTSC or PAL Color Video LCD Monitor, Video loop-trough ( $3 x B N C$ ), 2Ux8.75" deep. ...
\$1,995.00
MON3-2SDI . SDI input option factory installed (per channel) ............. \$495.00
MON4-3 ........ Quad NTSC/PAL auto sense, Color LCD monitors, $3 \mathrm{U} . . . \$ 2,995.00$
MSDI-4 ........... SDI input for MON4 3 option, fied installable, (per channel) ....... \$495.00
MON 1-T ....... 5×3 Color Video Monitor NTSC or PAL fits in Tektronics $1 / 2$ rack, 3 U tub $\qquad$ $\$ 995.00$
MSID-T SDI input for MON 1-T, factory installed....................... \$495.00
VAMP-1 ......... Composite Video Monitor w/2 analog audio chassis. Specify NTSC or PAL, 2U
\$1,975.00
VAMP-24 ....... Composite Video Monitor w/4 analog audio chassis. Specify NTSC or PAL, 2U
$\$ 2,850.00$
VAMP-SDI..... SDI Video Monitor w/analog/AES/SEI audio input. NTSC/PAL out, 2U
$\$ 4,800.00$

## Wohler In Picture Metering



All Wohler PanoramaDTV units feature a superimposed (mixed) audio bargraph image allowing the operator to set a comfortable mix level. Also, the bargraph may be instantly removed when required. As with most PanoramaDTV units, the bargraphs may also be displayed on an internally generated black background if incoming video is lost. Most models feature a comprehensive on-screen system menu. Meter parameters may be customized, including bar size, orientation, position and colors. All popular scales and ballistics may be selected and operating levels set. Depending on the model chosen, phase, sum \& difference ( $M \& S$ ) and loudness meters may also be displayed. A timecode reader option is also available. Some models also feature alarms for indication of audio and carrier loss, over-level or sustained anti-phase.
SDI
AM-SD16 ....... SDI input w/loop thru. Places group 1 embedded audio on screen, full color with keying and transparency adjustment. Includes chassis
\$2,950.00
AM-SD16X .... As above w/audio demux and group select ..
\$4,725.00
AM-SD4D ..... SDI I/O and break out to YUV/RGB \& composite video, AES/ EBU digital and analog audio. Four channels metering SDI embedded or aux AES. Phasebar sum and difference, black generator and alarms.
$\$ 8,850.00$
Analog
AM-2E ... PC card in picture with 2 channels analog full or half height color bargraphs, choice of scales and ballistics, peak hold, alarms for audio and video loss, remote capability ....... $\$ 895.00$ AM-2F... 3 U card frame will hold up to 16 AM-2E stereo cards. Dual PSU individual or group control. Multi-unit link \$2,700.00 AM-2..... 2 Ch., Analog or AES/EBU Digital. Displays level, phase bar, sum \& difference. Built-in black generator; audio loss, over level and reverse-phase alarms; on screen menu, remote facility.
. \$1,750.00
AES/EBU \& Analog
AM-4 ..... 4Ch., all analog, all AES/EBU digital or two of each format. Displays level, phase bar, sum \& difference. Built in black generator, audio loss, over level and reverse-phase alarm, on screen menu, remote fadility. Please speaify input configuration at time of order ............... $\$ 2,900.00$ AM- $4 / 2$.. As above with two ch., analog or AES/EBU digital. $\$ 3,850.00$
AM-32 .... Mult-chall analog, AES inputs or mixed format. Phase bar, black generaror, built-in alarms, on screen menu YUV \& composite video in. ....... (May be onderd with 32-Channels @ $\$ 8,750.00$ - 24 Channeds $@ \$ 7,950.00$-16-Channels@ $\$ 6,150.00$ - 8 -Channeds@ $\$ 5,500.00$ ) AL-32 ..... Remote alarns breakout box, reser and remore satus indicator for AM-32 ... $\$ 1,750.00$

## Anchor <br> Liberty 4500 <br> Portable Sound System

The Anchor Liberty 4500 from Anchor Communications, is a powerful, portable sound system which converts from efficient voice projection to full-range, high fidelity with a simple flick of a switch. This unique product works as well indoors as outdoors and with or without $A C$ power.
 MPA-4500...... Dual Function Sound System (AC operable only) ....... $\$ 1,095.00$
MPB- 4500 ...... Dual Function Sound System (Battery \& AC operable ) ...... $\$ 1,250.00$
MPA- 4500 H ... Dual Function Sound System w/Heavy Duty battery ...... $\$ 1,290.00$
MP-4501 ....... Dual Function companion (unpowered)....................... $\$ 600.00$

## Anchor Porta-Vox

 Portable P.A. System The Anchor Porta-Vox runs with or without AC power, weighs only 25 pounds and is powerful enough to provide crystal-clear sound to crowds up to 5,000 .
$\$ 1,000.00$
PB-S00 ........... Battery Operated Portable P.A. System
$\$ 1,300.00$
WH-58 ........... Handheld midtransmitter w/Shure SM-58 mic element ......... $\$ 367.00$
WB-II ............. Body-pack transmitter only .......................................... $\$ 255.00$
CM-60 ........... CollarMic™ for use with WB-II ................................... \$143.00
HBM-60 ........ Headband type mic for use with WB-II ........................... \$102.00
SP-500 ............ Speaker pack for Porta-Vox ............................................... \$550.00
RC-16 ............. Replacement charger / AC adapter .................................. \$20.00


## Lectrosonics Long Ranger III

 Portable P.A. System The Lectrosonics Long Ranger III is the highest output portable PA system of is type. The built-in wireless microphone, rechargeable power supply, and high audio output (the amplifier produces an honest 33 Watts RMS) produce enough audio output to cover an area the size of a football field. It operates on rechargeable battery pack or external 12 Volt power.Long Ranger III ... w/M175 belt-pack transmitter \& HM142V headset mic ...... \$1,490.00 Long Ranger III ... w/M175LS belt-pack transmiter \& HM142V headset mic .. \$1,515.00

## New England Audio Resource (NEAR)

Environment-Proof Outdoor \& Indoor Loudspeakers
NEAR's exclusive MDT(tm) metal-alloy diaphragm is about as light as is physically possible - nearly the ideal massless piston. The benefits are immediately recognized in the musical accuracy, fine detail of sound, and ease of listening. Here is a summary of MDT benefits:


- High rigidity and low mass of metal versus traditional papers and plastics
- Extremely stable cone structure over long periods of time
- Fast transmission of sound through the diaphragm means low energy storage
- Special anodizing process creates a ceramic coating for increased stiffness
- Efficient heat-sinking of voice coils under long-term, high-power situations


In addition to MDT, another unique technology is incorporated into NEAR speakers: Magnetic Liquid Suspension (MLS(tm)). MLS eliminates the traditional mechanical centering device (the "spider") for the voice coil and replaces it with a thick magnetic fluid that remains permanently suspended in the gap of the magnet, allowing the voice coil to remain centered and to operate with extreme linearity. In fact, the louder it plays, the more accurate the centering forces become. MLS benefits include:

- Voice coil is constantly centered as it moves up and down, for lower distortion
- Voice coil is more efficiently hear-sinked by fluid instead of air
- Greater linearity is accomplished because the mechanical spider is eliminated
- Constant lubrication of the gap prevents oxidation, even in outdoor uses
- Long-term operation is more consistent since fluid doesn't change characteristics
- Longer excursions with smaller diameter woofers; spiders limit excursions

Distortion is further reduced at high output levels through use of a dual-layer voice coil with separate inner and outer windings.

New Product-please call for pricing.



## See Page 82 for other PA Systems!

## Monitoring • Nearfield/Studio



| Nearfield/Studio Monitors | Frequency <br> Response | Impe dance | Power Cap.* | Video Shield | Tweeter | Wooter | Approx. Dimensions HxWxD" | Weight lbs. | Features \& Options | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alesis Monitor One | 45-18k | 4 | 120W | - | 1" Dome | 6.5 "W | $15 \times 10 \times 9$ | 15 |  | \$399/pr |
| Alesis Monitor Two | 40-18k | 4 | 150W | - | 1"T/5"M/10"W |  | $14 \times 20 \times 14$ | 34 |  | \$699/pr |
| Alesis Point Seven | 85-22k | 4 | 50W | Yes | 1" Dome | 5"W | $8 \times 12 \times 8$ | 15 |  | \$299/pr |
| Anchor AN-1001X | 65-20k | 8 | 100W | Yes | 10 mm Dome | 4.5" | $5.25 \times 8.4 \times 9$ | 6 | RM-1 \$55 | \$128.00 |
| AUDIX 1A | 50-18k | 8 | 100W | Opt \$60 | 1" Dome | $6.5{ }^{\text {T W }}$ | $13 \times 9 \times 10$ | 9 |  | \$599.00 |
| AUDIX N-5 | 40-20k | 8 | 175W | - | $1{ }^{\prime \prime}$ Cloth Dome | $7{ }^{\text {¹ K Kevlar }}$ | $15 \times 9.5 \times 11$ | 24 |  | \$1,495.00 |
| AUDIX N-10 | 40-20k | 4 | 250W | - | $1{ }^{14}$ Cloth Dome | $2 \times 7{ }^{\text {a K K }}$ Kevlar | $22.5 \times 10 \times 13.5$ | 45 |  | \$1,995.00 |
| Auratone 5C-STD | 140-125k | 8 | 50W | - | - | $5^{n}$ Paper Dome | $6.5 \times 6 \times 6.5$ | 7 |  | \$150/pr |
| Auratone 5CT-STD | 90.25k | 8 | 40W | - | 10 mm Dome | 5" Dome | $7.5 \times 7 \times 7.5$ | 9 |  | \$230/pr |
| Auratone 5CTV-STD | 9-25k | 8 | 40W | Yes | 10 mm Dome | 5" Dome | $7.5 \times 7 \times 7.5$ | 9 |  | \$250/pr |
| Auratone 5CV-STD | 140-125k | 8 | 50W | Yes | - | 5" Dome | $6.5 \times 6 \times 6.5$ | 7 |  | \$170/pr |
| Electro-Voice Sentry 100A | 48-18k | 8 | 30W | - | Super Dome | $8{ }^{\prime \prime}$ | $17.25 \times 12 \times 11$ | 28 | Mounting Bracket SRB-7 \$64 | \$582.00 |
| Electro-Voice S-40B | 80-20k | 4 | 160W | - | 25 mm Dome | $5.25{ }^{\prime \prime}$ | $9.8 \times 7 \times 6$ | 13 | Mounting Brackel S40MB \$47 | \$398/pr |
| HHB Circle 3 Passive | 70-20k | 8 | 60W | Yes | $1 "$ | $4.5{ }^{\prime \prime}$ | $11 \times 7 \times 8^{\circ}$ | 9 |  | \$395/pr |
| HHB Circle 5 Passive | 48-20k | 8 | 120W | Yes | 1" | 8" | 17×10×12 | 22 |  | \$749/pr |
| JBL 4206 | 65-20k | 8 | 75W | - | 25 mm Dome | 6.5 " | $15.4 \times 9 \times 9.5$ | 15 |  | \$198.00 |
| JBL 4208 | 60-20k | 8 | 75W | - | 25 mm Dome | 8" | $17.75 \times 11 \times 9$ | 20.5 |  | \$260.00 |
| JBL 4408A LR | 50-20k | 8 | 100W | - | 25 mm Dome | $8{ }^{\prime \prime}$ | $17 \times 12 \times 11.6$ | 26 | Mounting Erackel MR4408 \$36 | \$362.00 |
| JBL 4410A L/R | 45-20k | 8 | 125W | - | 25 mm Dome | $5{ }^{\prime \prime}$ \& 10" | $23.5 \times 14 \times 11$ | 43 |  | \$500.00 |
| JBL 4412A L/R | 45-20k | 4 | 150W | - | 25 mm Dome | $5^{\prime \prime} \& 12^{\prime \prime}$ | $23.5 \times 14 \times 11$ | 47 |  | \$750.00 |

*Power handing capacity determined with either EIA standard RS-426-A power test or IEC standard 268-5 or AES standards \& denotes program power unless noted.
HHB Circle 5 Passive



Monitoring • Nearfield/Studio


| Nearfield/Studio Monitors | Frequency Response | Impedance | Power Cap.* | Video Shield | Tweeter | Woofer | Approx. Dimensions HxWxD" | Weight lbs. | Features \& Options | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JBL Control 1 | 70-20k | 4 | 150 W | - | 19mm Dame | 5.25 | $9 \times 6 \times 5.6$ | 4 | Sold in pairs/priced each | \$154.00 |
| JBL Control 5 | 50-20k | 4 | 175W | - | 25 mm Dome | $6.5{ }^{\prime \prime}$ | $15 \times 10 \times 9$ | 10 | Mounting Bracket MTC51 SB4 | \$269.00 |
| JBL LSR32LR | 60-22k | 8 | 200w | - | 1" Titanium | $12 \mathrm{~F} / 5^{\prime \prime}$ | $16 \times 25 \times 12$ | 47 |  | \$1,121.00 |
| KRK KRok | 57-19k | 8 | 100w | Opu\$150 | 1" Dome | $7{ }^{7}$ | $14 \times 12 \times 9.75$ | 18 |  | \$495.00 |
| KRK M6000 | 62-20k | 8 | 75W | Opt\$150 | 1' Inverted Dome | $6{ }^{\prime \prime}$ | $13 \times 9 \times 10$ | 18 |  | \$775.00 |
| KRK M7000B | 36-20k | 8 | 150W | Opl\$150 | 1" Inverted Dome | $7{ }^{\text { }}$ | $14 \times 11 \times 11$ | 25 |  | \$1,175.90 |
| Tannoy Reveal | 60-20k | 8 | 50w | Yes | 1" Dome | $6.5{ }^{\prime}$ | $14 \times 9 \times 11$ | 16 |  | \$399/pr |
| Tannoy System 600 | 55-20k | 8 | 80w | Opt\$200/pr | Dual Concentric | $6.5{ }^{\prime}$ | $9 \times 15 \times 11$ | 16 |  | \$695/pr |
| Tannoy System 800 | 47-20k | 8 | 90w | Opu/s200/pr | Dual Concentric | $8{ }^{\prime \prime}$ | $11 \times 18 \times 11$ | 23 |  | \$995/pr |
| Tannoy System 1000 | 45-20k | 8 | 100W | Opts200/pr | Dual Concentric | $10^{\circ}$ | $26 \times 17 \times 15$ | 37 |  | \$1,795/pr |
| Tannoy System 1200 | 40-20k | 8 | f80w | Opus200/pr | Dual Concentric | 12 | $16 \times 26 \times 16$ | 27 |  | \$2,495/pr |
| Tannoy System 15DMTII | 35-25k | 8 | 200w | Opus200/pr | Dual Concentric | $15{ }^{\prime \prime}$ | $33 \times 22 \times 13$ | 100 |  | \$4,195/pr |
| Tannoy System 215DMTII | 35-25k | 4/8 | 250W | OptS400/pr | Dual Concent | " +15 W | $41 \times 34 \times 26$ | 187 |  | \$7,495/pr |
| Yamaha NS10MS | 60.20k | 8 | 60 W | - | 1-3/8" Dome | $7{ }^{\prime \prime}$ | $8.5 \times 15 \times 8$ | 14 | Sold in pairs/prices each | \$239.00 |



## Monitoring • Powered Monitors



Genelec 2029A


HHB Circle 3 Active


## Monitoring • Powered Monitors



## Monitoring • Sound Reinforcement



Electro-Voice
Eliminator JBL MR Series


| Sound Reinforcement/Loudspeakers | Frequency Response | Impedance | Power RMS | Sensitivity dB | Note 1 Drivers | Enclosure Style | Approx. Dimensions $\mathrm{HxW} \times \mathrm{D}^{\prime \prime}$ | Weight lbs. | Features \& Options | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Klipsch KP-201 II-B | 50-20k | 8 | 125W | 96 | 12"W/2"CD/4"T | Painted Plywood | $22 \times 16 \times 13$ | 48 |  | \$551.00 |
| Klipsch KP-250 II-A | 65-20k | 8 | 250W | 102 | 12"W/2"CD/1"T | Painted Plywood | $22 \times 16 \times 13$ | 60 |  | \$776.00 |
| Klipsch KP-301 II-A | 45-20k | 8 | 400W | 101 |  | Painted Plywood | $32.5 \times 21 \times 17$ | 90 |  | \$976.00 |
| Tannoy i 8 | 85-22k | 8 | 130W | 92 | 8"W | Molded Polymer Trapezoid | 15.3×11×11 | 19 | Recommended $/ \mathrm{XI}_{1}$ Controiler \$499.00 | \$699.00 |
| Tannoy i 12 | 45-25k | 8 | 200W | 97 | $12^{\prime \prime} \mathrm{W}$ | Molded Polymer | $20 \times 15 \times 16$ | 44 | Recommended/TX2 Controller \$499.00 | \$1,199.00 |
| Tannoy I 15 | 35-22k | 8 | 250W | 99 | $15^{\prime \prime} \mathrm{W}$ | Molded Polymer | $24 \times 19 \times 17$ | 53 | Fecommended/X2 Controller \$499.00 | \$1,599.00 |
| Tannoy $\mathbf{T} 300$ | 55-22k | 8 | 300 W | 97 | 12"W | Molded Polymer Wedge | $24 \times 15 \times 16$ | 77 | includes TX3 Controller | \$2,525.00 |
| Tannoy T40 | 34-160k | 8 | 300 W | 96 | $15^{\prime \prime} \mathrm{W}$ | Molded Polymer | $28 \times 18 \times 18$ | 60 |  | \$750.00 |
| Tannoy B400 | 60-300k | 8 | 300 W | 101 | 15"LF | Birch Plywood | $24 \times 23 \times 27$ | 88 |  | \$1,175.00 |
| Tannoy B475 | 28-240k | 8 | 300 W | 98 | 18*LF | Birch Plywood | $24 \times 23 \times 27$ | 86 |  | \$1,125.00 |
| Tannoy 8950 | 28-240k | 4 | 600W | 101 | $2 \times 18{ }^{\text {² }} \mathrm{W}$ | Birch Plywood | $24 \times 46 \times 27$ | 168 |  | \$2,050.00 |
| Yamaha S112IV | 55-16k | 8 | 150W | 97 | $12^{\text {"W/2"CD }}$ | Bik. CarpetPlywood | $16 \times 25 \times 13$ | 43 | Bas Reflex Desinn | \$385.00 |
| Yamaha S115IV | 55-16k | 8 | 250W | 99 | $15^{\prime W}$ W/2"CD | Bik. CarpetPlywood | 19x28x 14 | 61 | Bass Rellex Design | \$415.00 |
| Key- | Note 1- W=Woofer M=Midrange |  |  |  |  | $T=$ Tweeter $\quad$ PH=Piezo Horn $\quad C D=C o m p$ |  | sion Drive | w/Horn |  |



Klipsch KP-250II-A


Tannoy T300



## Broadcasters General Store Hotlinks to Vendors © <br> www.bgsfi.com www.broadcastdealer.com

## Power Conditioning

Best Power
Best Power Patriot Pro UPSs 400
 Internet/ Intranet-ready advanced power protection for workstations, with telephone/ 10 Base -T network surge suppression. Includes free power management software.
Best Power Fortress UPSs 750 VA ( 3 kVA ) deliver pure, sine-wave power protection for network computing. Rackmount units also available 750 VA (2250VA). Free power management software included.
Best Power Fortress Rackmount UPSs 750VA ( 2250 VA ) deliver pure, sine-wave power prorection for network computing, with advanced, new features. All units in-
 clude free power management soffware.

Best Power UNITY/I Single-Phase UPSs $3 \mathrm{kVA} / \mathrm{kW}(8 \mathrm{kVA} / \mathrm{kW})$ provide worldready flexible power protection for midrange and client/server computing, with worldwide voltage and frequency compatibility.
Best Power's 610 Series UPS 700VA ( 10 kVA ) provides reliable on-line, high-frequency double-conversion power protection for mis-sion-critical applications, overcoming spikes, sags, surges, noise and blackouts.
Best Power FERRUPS uninterruptible power systems UPS, $500 \mathrm{VA}(18 \mathrm{kVA})$ furnish "bulletproof" reliability in configurable power protection for computers and telecommunications equipment. Patented ferroresonant technology overcomes spikes, sags, surges, noise, and lightning. New standard features in the $2 \mathrm{kVA}(7.5 \mathrm{kVA})$ ranges include lower output impedance, hot-swappable batteries, easy-roll casters, easier-to-use interface, and external battery connector. FERRUPS offers suppression of har-
 monic currents that can disrupt other equipment; redundant circuitry that provides high fault-tolerance and oprimum uptime; precision voltage regulation with no battery discharge down to $38 \%$ below nominal (depending upon load); and more than 80 user-programmable diagnostic and communications functions. Rackmount units are available. FERRUPS has won Midrange Systems' "Buyer's Choice" award six out of the last eight years. FERRUPS includes free Best Power CheckUPS (II Suite v3.x power management software with connectivity cable, and is SNMP/WEB BestLink ${ }^{\text {TM }}$-ready for remote management. FERRUPS is covered by a twoyear limited warranty, plus an exclusive limited "Double Lifetime" warranty.

Best Power UNITY/I Three-Phase UPSs 10 kW ( 220 kW ) provide superior three-phase power protection at lowest life-cycle costs. Patented design enables up to $97 \%$ efficiency.
Please call Broadcasters General Store for a Best catalog.

| Model | Destriprion | VANWatts | Runtime full/ Half Load(min.) | Vols $\ln /$ Out | Price |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PPO400U | Patriot ${ }_{\text {® }}$ for PCs | 400/250 | 5/12 | 120 | \$289.00 |
| PPO750U | Patriot ${ }_{\text {® }}$ for PCs | 750/470 | 5/12 | 120 | \$389.00 |
| 0520-0750-U* | Fortress ® for network $^{\text {d }}$ | $750 / 450$ | 6/19 | 120 | \$499.00 |
| 0520-1050-U* | Fortress $®$ for network | 1050/670 | $6 / 19$ | 120 | \$669.00 |
| 0520-1425-U* | Fortress $®$ for nerwork | 1425/950 | 5/17 | 120 | \$899.00 |
| FE850DDA | Ferrups $®$ for lg. systems | 850/600 | 11/28 | 120 | \$1,229.00 |
| FE1.15KDDA | Ferrups $®$ for lg. systems | 1.15/800 | $18 / 48$ | 120 | \$1,789.00 |
| FER2.1 | Ferrups $®$ for lg. systems | $2.1 \mathrm{kVA} / 1.5 \mathrm{~kW}$ | 24/58 | 120 | \$3,399.00 |

## EDCO

EDCO EMC 240B
The EDCO EMC 240 B is a rugged, highly reliable panel surge protector for $120 / 240 \mathrm{~V}$ I/O applications. It features totally solid-
 state construction with two advanced, metal oxide varistors (MOV), each capable of $40,000 \mathrm{amps}$ of surge current. After a surge, the suppressor automatically recovers and is ready for the next surge.
EMC-240B $\qquad$ $\$ 165.00$

EDCO has a wide selection of power protection, please call to request a complete catalog.

## EDCO LMC and LTL Series

CryThe EDCO LMC and LTL Series surge suppressers are designed to be hardwired or cord connected, and are ideal for protecting automated equipment, computer hardware, and mainframes. Surges up to 40,000 Amps per phase.


## EDCO SRS-232

The EDCO SRS-232 utiliz ing silicon avalanche clamp devices, is intended as a secondary level surge protector for IEEE Std. RS-232C peripheral devices.


SRS-232-25 Interface with 25 pin connectors, . protects pins 2-8 and $20 \ldots . . \$ 61.88$ SRS-232-9 Interface with 9 pin connectors, .... protects all pins. $\qquad$

EDCO BMC Series
The EDCO BMC Series is a rugged, highly reliable main or branch distribution panel surge protector. Installed in parallel, the BMC Series offers maximum protection for major facilities such as office buildings, entertainment complexes, schools, etc. In addition it is ideal for protecting computer installations and other sensitive electronic equipment. The BMC offers full redundancy which is monitored with 6 diagnostic indicator lights. 40 KA to 125 KA Surge Capacity - 5 year warranty • 6"Wx8"Hx4"D

| Model No. .............. Panel Application .................... Electrical Service ........................ MAX Surge ............... Price |
| :--- |
| BMC208Y-75R ......... Branch/Main ....... 102/108V; 3 PH-WYE, 4W + Grnd. ........ $75,000 \mathrm{~A} /$ PH ........ $\$ 627.38$ |
| BMC208Y-125R .......... Main .......... 102/108V; 3 PH-WYE, 4W + Grnd. ....... $25,000 \mathrm{~A} / \mathrm{PH}$...... $\$ 811.37$ |
| BMC408Y-125R ............ Main ........... 277/480V; 3 PH-WYE, 4W + Grnd. ....... 125,000 A/PH ...... $\$ 997.50$ |



## Power Conditioning

## ETA Systems

ETA conditioned power distribution units are designed to prevent damage to sensitive equipment from sudden voltage spikes and potentially damaging power surges as well as from EMI/ RFI interferences. The sequencing units are specifically designed to protect and filter any electronic equipment that requires a time delayed power up and down. $1 \mathrm{U}, 120 \mathrm{~V}$ standard, 15 Amps per unit, with most available in $220 / 230 / 240 \mathrm{~V}$ with IEC-320 connectors.


## ETA Systems

AC Audio Conditioned Power Distribution (15 amp, 1800 watts models) Model No.

## Descritpion

lbs. Price
8 U-grounded Edison AC outlets
PD8L 8 U-grounded Edison AC outlets with dual retractable rack illuminators, high/low on/off switch
$\$ 79.00$
PD8L
$7 \quad \$ 99.00$
9 U-grounded protected AC outlets ( 1 "always on" front, 8 back) to
PD9L accommodate up to 7 UL approved voltage converters, dual retractable rack illuminators, high/low on/off switch
9 U-grounded protected AC outlets ( 1 "always on" front, 8 back) to accommodate up to 7 UL approved voltage converters, dual retractable rack illuminators, high/low on/off switch, LED voltmeter
$8 \quad \$ 160.00$

PD9LV
$8 \quad \$ 240.00$
New Pro Series- Single Rack Space (20 amp, 2400 watts models)
PD11P 11 U-grounded protected AC outlets (8 back switched, 2 back and 1 io $\$ 2200$
PD11VP 11 U-grounded protected AC outlets (8 back switched, 2 back and 1
11 U -grounded protected AC outlets ( 8 back switched, 2 back and 1 protection, EMI/RFI filtration

11 U-grounded protected AC outlets (8 back switched, 2 back and 1 front "always on") spike and surge protection, EMI/RF1 filtration, dual retractable rack illuminators, high/low on/off switch

11 U -grounded protected AC outlets (8 back switched, 2 back and 1 front "always on"), "always on" digital voltmeter, dual retractable rack illuminators, high/low on/off switch, spike and surge protection, EMI/RFI filtration

9 U-grounded protected AC outlets (8 back switched, 2 back and 1 front "aiways on"), 4 stage sequential power up/down, spike and surge protection, EMI/RF| filtration

9 U-grounded protected AC outlets (8 back switched, 2 back and 1
PD11LVSP front "always on"), "always on" digital voltmeter, dual retractable rack
Sequential illuminators, highlow on/off switch, sequential power up/down, spike and surge protection, EMIFRI filtration

Equi=Tech Beilunowd powarfich SY=terms
The Equi=Tech Balanced Power Rack Systems range in size from 10- to $50-$ amp ourpur ( $@ 120 \mathrm{~V}$ ) and conveniently mount in equipment racks urilizing only 2 or 3 rack spaces. The systems are built around a very high quality patented toriod type isolation transformer designed to operate at a very low temperature and emit little or no acoustical noise. The low magnetic strayfield chassis design allows these systems to be placed near sensitive electronics in a rack without causing interference. Alt models are E"Il. listed and provide transient surge and GFCI protection.

The Equi=Tech Balanced Power Wall Cabinet Systems are conveniently packaged to make hard-wiring AC power into a studio or production facility an easy task with a minimum amount of effort and time. The systems are ruggedly buile and feature the same precision wound patented toroid type isolation transformer design as used in the rack-mounted versions. Wall systems provide an easy way to blanket an enire facility with bal-

| Model No. | Output | Surge Protection | Capacity | \#Circuits | Input Line | Plug Type | Rack Unit | Ibs. | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ET1R | 120VCT | $\begin{aligned} & 240 \\ & \text { Joules } \end{aligned}$ | 10 A | 1-10 | 15A 120V | NEMA 5-15 | 2 | 29 | \$889.00 |
| ET1.5R | 120VCT | $\begin{gathered} 240 \\ \text { Joules } \end{gathered}$ | 15A | 1-15 | 15A 120V | NEMA 5-15 | 2 | 68 | \$1.339.00 |
| ET2R | 120VCT | $\begin{aligned} & 240 \\ & \text { Joules } \end{aligned}$ | 20A | 1-20 | 20 A 120 V | NEMA 5-20 | 2 | 71 | \$1.539.00 |
| ET3R | 120 VCT | 240 Joules | 30 A | 2-15 | 20A 208/240V | NEMA 6-20 | 3 | 92 | \$2.089.00 |
| ET4R | 120VCT | $\begin{gathered} 240 \\ \text { Joules } \end{gathered}$ | 40A | $2 \cdot 20$ | 20A 208/240V | NEMA 6-20 | 3 | 117 | \$2.639.00 |
| ET5R | 120 VCT | $\begin{aligned} & 240 \\ & \text { Joules } \end{aligned}$ | 50A | 2-15 \& 1-20 | 30A 208/240V | NEMA L6-30 | 3 | 117 | \$3,189.00 | anced rechnical power without using up



SI ...... Super Ssolator Oprion- recommended for digital equipment applications. (N/AET4R /ET5R) Rack ..................... \$179/ Wall ............... $\$ 229$
E....... European moxels designed to nin equipment requiring 230V $50 / 60 \mathrm{I}$ z power from a 230 V source. Rack \& Wall

EA .... Euro-American option systems are equipped with a $50 / 60 \mathrm{~Hz}$ step-down transformer chat convers a 230 V supply to 120 V balanced. (Option available only for rack şstems excluding ET4R and ET5R)$\$ 329$


## Power Condifioning

## Dorrough PLM-120 <br> Power Line Monitor <br> The Dorrough PLM-120 provides <br> 

 professional facilities with complete, specific, dynamic, and 'moment-ro-moment' AC power line quality information needed to resolve daily engineering issues ranging from proper conditioning operation, to proper UPS changeover functioning, to the isolation of faults in facility power feeds and circuits. Following the 'CBEMA Curve' for proper AC line operation, the unit captures, logs, and alarms for all power quality violations. RS-232C access to non-volatile event logs assessable via WIN95.PLM-120 $\qquad$ . Power Line Monitor $\$ 650.00$

Furman PL-8 Power Conditioner/Light Module


The Furman PL-8 power conditioner and light module has eight switched AC outlets on the rear panel and two slide-out light fixtures with a dimmer control. The PL-8 protects your delicate electronic equipment by combining a high voltage surge and transient suppresser with an RFI/EMI interference filter. The PL-PLUS is an enhanced version of the PL-8. On the front panel it provides a display of AC line voltage by means of a 20 LED bargraph meter, reading from 90 to 128 volts in two volt steps. It also features a higher 15 amp rating, with a heavy-duty 10 foot power cable.
PL-8 ........... Power Conditioner/Light Module, 120V, 15A ........................... \$159.00
PL-PLUS .... Power Conditioner/Light Module/AC Volmeter, 120V, 15A ....... \$229.00
PL-PRO ..... Power Conditioner/Light Module/PRO Series, 120V, 20A ........... \$399.00

## Juice Goose Rackpower Series



The Juice Goose Rackpower Series are rack mounted power distribution panels with 120 volt power outputs and 15 amps of power ( 1800 watts) in all steel chassis with spike protection, and super discriminating EMI RFI filters.
Rackpower 100 ..... Eleven outpurs and a BNC connector for Littlite ...... $\$ 240.00$
Rackpower 200 ..... Ten outputs with two dimmable pull out tubular lights and color-coded 20 LED input volage meter. ..
$\$ 250.00$

## Nigel B Power Strips



The Nigel B Front Mounting PowerStrip has 6 outlets along with the master switch and overload device. In addicion it features full surge and EMI/RF protection and an 8 foot cord.
FP-6SP ........... Front Mounting 6 Outlet PowerStrip
$\$ 119.95$

Nigel B Guard Protected Manual Sequencing Powerstrip

The Nigel B Guard Protected PowerStrip allows you to sequentially control the on/off functions. Six of its eight outlets individually controlled by its own front mounted switch, each switch including the master switch is guard protected by a lift off clear plastic cover, so you cannot accidentally turn the device off. In addition, it features full surge and EMI/RF protection and an 8 foot cord.

GP8SP $\qquad$ Guard Protected Manual Sequencing PowerStrip
$\$ 239.95$

## One Power CQ Series

Sequenced Power Activation Systems


The Juice Goose CQ Series are Sequenced Power Activation Systems. They feature a three position switch on the front of the chassis which is active only if there is no control cable on the Sequence Signal Input connector. When active, this switch allows the unit to sequence up or sequence down and to control the sequencing of any unit connected to the Sequence Signal Output connector. The manual on switch position allows the CQ to be manually operated, overriding the control circuit in the unlikely event of a fault or failure. Lights on the front of the CQ Series allow monitoring of the unit. The Processor light will blink to indicate that the control processor is functioning. The Pod lights are illuminated as a result of contact closure by the CQ relays, indicating that actual relay closure has occurred.


CQ-1500 ........ 15A, 10 outputs, 3 sequence events . $\$ 367.00$
CQ-2000 ........ 20A, 2 outputs, 1 sequence event $\$ 240.00$
CQ-2200 ........ 20A, 4 outputs, 2 sequence events ................................. $\$ 250.00$


Whirlwind rackable power strips have an on/off switch - a resetrable circuit breaker $\bullet$ and 15 amp capacity.

## ©

AC6RSP ......... AC6R with surge protection ........................................... $\$ 79.80$
AC4R2F ......... Four outlers on rear, two on the front .............................. \$53.00

PolyPhaser Conluth bummen Brocic Patmoter
5PolyPhaser's lightning filter protection products include weatherized devices from transmit- and receive-only applications in the 800 Mhz to 1.0 Ghz frequency range. The non-gas tube, maintenance-free protectors exhibit the industry's best RF and surge performance. The Micro Lightning Filter Series is de blocked for maximum equipment protection, and is available in various connector configurations. The devices prorect single or multi-channel transmitters and receivers in

such markets as Specialized Mobile Radio, Personal Communications Services, paging and cellular services.
IS-CLF50HN N connector (female) ..................................................... \$111.95
IS-CLF50LN. N connector (female), surface/bulkhead mounting ............ \$94.95
IS-CLF50HD DIN connector (female) ................................................. $\$ 156.95$
IS-CLF50LD D DIN connector (female) ................................................ $\$ 156.95$
Add Suffix: -MA for male antenna port connector or -ME for male equipment porr comrector

## Stormin Protection

## Radio Design Lab TS-1D timmett Supprean

The Radio I hesign I ab"IS-1I) Transient Suppressor is intended to protect audio input and output circuits from the effects of transients induced on the audio lines. It's great anywhere you need immunity from: electmstatic discharge $\bullet$ induced transient voltage $\bullet$ RF interference • electromagneric pulse • and need Cl compliance.

TS-1D
Transient suppressor



Stormin Protection Products Optil ator is a tele-
 phone optically isolated surge protection system.
Oprilator .... Telephone Protection .... $\$ 250.00$



Samson Powerstrip Power Distribution System supplies 8 AC outlets on the rear panel and one unswitched frout panel outlet. It features: AC noise filtering • surge and spike protection • and 15 amp circuit breaker. PS9 ................. Powerstrip Power Distribution System ............................................................... 579.99

The Samson Powerbrite ${ }^{\mathrm{TM}}$ is a combination power distribution and lighting system. Features include: adjustable pull-out tray' with silent fluorescent light • logo or company name can be customized for backlit front panel inlay - 8 rear panel outlets accommodate both AC plugs and wall-mount power supplies unswitched front panel outlet for constant power applications • and 15 amp circuit breaker.
PB9 ................ P'owerbrite P'ower Distribution and Lighting System .
The Samson Powerbrite ${ }^{\text {TM }}$ Pro Rack Power Distribution, Metering and Lighting System has a large, easy-toread front panel metering system that includes a 10 -segment voltmeter to ensure incoming voltage is within range of the unit's operating parameters. A 10 -segment current meter warns when the unit is approaching circuit breaker disconnect status. Features include: adjustable pull-out tray with silent fluorescent lamp • logo or company name can be customized for hacklit front panel inlay $\bullet 6$ rear panel AC outlers for borh plugs and wall-mount power supplies • front panel unswirched outlet for constant power applications $\bullet 15$ amp circuit breaker • and rear-panel mini-XI.R jack \& svistch for connecting supplied gooseneck lamp.
I'B7 ....... Powerbrite Pro Power I Distribution, Metering and Lighting System .
$\$ 199.99$


## tronte

TrippL.ite BC Personal Battery Back-Up Systems guard against blackouts, brownouts, surges and spikes ${ }^{\bullet}$ Compact tower style case has small foorprint ( $9^{\prime \prime} \times 5$ " $\times 66^{\prime \prime}$ ) • $\$ 25,000$ Ultimate Lifetime Insurance on connected equipment - 2 Year Warranty
BCIPRS300 ... Basic PC protection, 300VA, 2 outlers ......................... $\$ 125.00$
BCPFRS450 ... Basic PC protection, 450VA, 2 outlets ......................... $\$ 139.00$
BCPERS600 ... PC \& network servers, 600 VA , serial port, 4 outlets .... $\$ 209.00$
BCInternet 300 ........ Internet-ready for PC's, 300VA UP'S,
modem/fax protection, 2 outlets
$\$ 125.00$

The TrippLite Isobar line features premium diagnostic LEI) indicators that alert you to loss of $A C$ power, damage to protection circuitry and improper outler wiring. $\$ 25,000$ Ultimate Liferime Insurance protects Isobar and connected equipment against surge damage, including lightning. Lifetime Product Warranty.
ISOBAR ${ }^{2}$ Ultra $\ldots . . . . . . .4$ outlets, $6^{\prime}$ cord, $105($ ) joule raring, handles spikes to $84,000 \mathrm{amps}$..
ISOBAR6Ultra .......... 6 outlets, 6 ' cord, 1200 joule rating,
ISOBAR8Ultra .......... 8 outlests, 12 cord, 1200 joule rating, $\$ 89.95$

$\$ 104.95$
$\$ 116.95$
ISOBAR8RM ........... Same as ISOBAR8Ulitra but a rackmount unit .......... \$129.50

## Recorders/Players • Analog Carts

## Audi-Cord DL series



The Audi-Cord DL series cart machine is an excellent value. The playback decks have replay lock out, audio muting (secondary tone switchable) and automatic motor turn off. The record decks have analog VU meters, automatic meter switching from record to play and an optional timer. The I L series also has a dual transport, Record/Play available. This machine will allow you to make dubs or stereo to
 mono mix dubs.


Fidelipac Dynamax CTR10
The Fidelipac Dynamax CTR10 series cart machine is ruggedly constructed with a precision DC capstan motor and PLL. control circuitry for excellent speed stability. Inputs and outputs are
 via XLR's or 9 pin "D" connectors. Remote control, tallies and FSK data interfacing are accessed thru a 50 pin " D " connector.

CTR11 ... Mono Reproducer.
CTR12 ... Stereo Reproducer .
CTR13 .... Mono Recorder/Reproducer
CIR14.... Stereo Recorder/Reproducer..
ESD10.... Eraser/Splice Detector ....... \$1,550.00


## Audiopak Carts

Audiopak A-2s come with a black casing and 605 ferric oxide tape for mono applications, AA-3s come with high-output, low-distortion 613 tape in the familiar dark blue "neutral-design" casing, or "digitalready" AA-4s with 614 tape, a premium oxide formulation designed for
superior high frequency saturation headroom, in a light blue casing with the same neutral design as the AA-3. Audiopak IA-II (previously ITC/Scotchcart) broadcast cartridge utilizes a passive system of internal tape guidance, which allows your cartridge machine to do a precise job.

| Audiopak Carts <br> Priced Each-Sold in 24 Packs |  |  |  | Audlopak IA-II previously ITC/Scotchcart |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Broadcast Cartridge | A-2 | A-3 | A-4 | $\stackrel{\text { IA-II }}{\text { Phiced Each-Sold in1 }}$ | Packs |
| Bulk Empty | \$3.85 | \$5.25 | N/A | AA-0 | \$9.88 |
| Empty | \$4.19 | N/A | N/A | AA-10/20/40/ 70100Seconds | \$10.03 |
| 10/20/35/40/50/65/ 70/90/100 Seconds | \$5.00 | \$6.10 | \$7.00 | AA-2.5/3.0/3.5/ 4.0/4.5 Minutes | \$11 63 |
| 140Sec/2.5/3.0 3.5/4.0/4.5 Minutes | \$5.65 | \$6.85 | \$7.75 | AA-5.0/5.5/6.5/ 7.5 Minutes | \$13.23 |
| 5.0/5.5/6.0/6.5/ 7.5/8.5/10.5 Minutes | \$6.35 | \$7.90 | \$9.00 |  |  |

## Recorders/Players • Reel to Reels

## Otari MX5050

The Otari MX5050 series features: built in miniautolocator with three onetouch cue point memories, search zero and repeat functions. The transports are very smooth with microprocessor controlled logic, motion sens-
 ing and dynamic braking. Standard features include a 37 pin parallel I $/ 0, \pm 20 \%$ speed control, transformerless active balanced inputs and outputs and reel size switches for both take-up and supply reels. The BQ-III now features gapless seamless punch in and punch out as well as a rehearse mode.
MX5050B-III .... 1/4" 2-Channel Half lrack ... \$4,452.00 MX5050BC-III ..... 1/4"4Channd (Lanter Tradk .. \$7,6360,00 RK-2B ....... Rack mount kit for B-III and BQ-III .. $\$ 84.00$ ZA-52L-22 ........ Metal roll-around floor stand .. \$491.00

Tascam 32

The Tascam 32 series features $7^{\prime \prime}$ or $10.5^{\prime \prime}$ reel capacity, digital tape counter w/return to zero, pitch control,

dump/edit function, cue capability for monitoring at all times, bipolar power supply, DC motors, full motion sensing with dynamic reel braking and permalloy heads. Phono ins and outs at -10 dBV .

32 .... 1/4" half track two speed (7.5/15ips) ... \$2,699.00
I)X-2D ..... 2Channed dbx Type I noise reduction .. $\$ 515.00$

RC-70F .... Full function transport remote ...... $\$ 150.00$
RM-300 ... Rack mount for 32 ........................ $\$ 70.00$
RTS-15 ..... Deluxe roll around transport stand $\$ 325.00$

Tascam BR-20
The Tascam BR20 has balanced +4 dBm ins and outs with all major calibration controls easily accessible through the front panel. The transport is precision servo con trolled for smooth operation and accurate real time counter readings. It has a $\pm 12 \%$ pitch control, direct time locate, built-in monitor speaker, three DC motors, a parallel remote port, three presettable locate points plus zero and built in rack mounts.

BR-20 ...... 2 track reel to reel .................. \$3,599.00
MA20 ...... Mic amp kit for BR-20 ............. \$110.00
RC-402 .... Transport remote control .......... $\$ 270.00$
RTS-15 ..... Deluxe roll around transport stand .... $\$ 325.00$

## Recorders/Players • Cassette \& CD Duplicators

## MicroBoards StartREC ${ }^{\text {m }}$

Digital Audio Editin System w/Multidrive CD-R Duplication Capability


The StartREC offers audio professionals advanced hard disk editing tools, and the ability to create simultaneously up to four custom audio CD's in a convenient rackmountable or desktop configuration. Suited for a variety of applications, the StartREC puts power and versatility at your fingertips. If your production environment requires digital editing of audio tracks and short run CD-R duplication, the StarTEC is the total CD-R disc production solution for you.
StartREC 400
$\$ 3,995.00$

## MicroBoards Comet

Automated CD Recordable Media Printing System The Comet is an automated CD recordable media printing system. A simple interface consisting of two LED's and one reset button, while the Sure Thing editing software and intelligent printer drivers included with the system complete a robust CD printing solution. Comet
 supports the Signature series of Primera ink jet CD-R printers, capable of producing vibrant $1200 \times 1200$ dpi colors on various types of printable media, including MicroBoards Technology's PrintWrite media ( 10 included).

Comet $\qquad$ 50 Disc Input and Output Hoppers $\$ 2,995.00$

## MicroBoards Inferno <br> CD-R and DVD Recordable Duplication Station

The Inferno is a stand-alone CD Recordable/DVD tower duplication system using the new 8 X CD recording speed. Units are expandable with Master-Slave configuations, and provide the user easy one touch operation. Up to 400 discs can be created simultaneously via the VMI card (Versatile Media Interface), which also allows for a direct upgrade path to DVD. The Inferno will interface to PC or Mac providing complete control of the mastering and duplication process, and can also be adjusted to record at $2 \mathrm{X}, 4 \mathrm{X}$, or 8 X speeds.
Infermo ..... CD-R and DVD Recordable Duplication Sation
$\$ 5,785-\$ 1252$

Tascam CD-D4000MKII Professional CD Duplicator
 The Tascam CD. D4000MKII is a standalone $1 \times 1$ duplicator. Features include: $8 \mathrm{x}, 6 \mathrm{x}$, $4 \mathrm{x}, 2 \mathrm{x}$ or 1 x write speed $\cdot$ copies both CD-R and CD-RW discs $\cdot$ CD playback mode $\cdot$ and weighs $13.5 \mathrm{lbs}-2 \mathrm{U}$.

CD-D4000MKII ..... Professional CD Duplicator
\$1,299.00

## Tascam T-3000 Cassette Duplicator



The Tascam T-3000 Cassette Duplicator has three independent cassette decks in one unit, 2 slaves and 1 master/ slave. Duplication speed is 4 times normal speed, approximately 7.5 minures with a C-60 type tape, with both sides of a tape being copied in one pass. Features include: normal/chrome auto switching - long-life ferrite heads • multiple ( 10 unit) cascade operation $\bullet$ and $3 \mathrm{U} \& 14.3 \mathrm{lbs}$..

T-3000. $\qquad$ Cassette Duplicator . $\qquad$ \$1,649.00

## Telex Copyette EH ${ }^{\text {TM }}$ Series

The Telex portable Copyette $\mathrm{EH}^{\mathrm{TM}}$
 Series 1-2-1 produces 1 copy while the EH 1-2-3 produces 3 copies from a cassette master 16 x normal speed. Features for all EH Series include: track select, erase heads, removable power cord, carrying handle, and a protective hard cover. EH 1-2-1 weighs 10 lbs . EH Series $1-2-3$ weighs 14 lbs .


#### Abstract

Mono Copyette EH 1-2-1 ........ 1/2 track, 2 channel Mono Copier $\$ 567.00$ Stereo Copyette EH 1-2-1 ........ 1/4 rrack, 4 channel Stereo Copier ........ \$912.00 Mono Copyette EH 1-2-3 ........ 1/2 track, 2 channel Mono Copier ..... \$1,390.00 Stereo Copyette EH 1-2-3 ........ 1/4 track, 4 channel Stereo Copier ..... \$2,215.00


## Telex Replica ${ }^{\text {TM }}$

The Telex Replica ${ }^{\text {TM }}$ copier is a portable, lightweight, $1 / 2$ track, 2 channel monaural copier. It simultaneously copies both sides of a cassette from a cassette master at 16 x normal speed. Features include: removable power cord, and recessed handle. Carrying case available. 7 lbs .
Mono Replica ${ }^{\text {TM }}$
$\$ 438.00$


## Telex XGEN ${ }^{\text {TM }}$ Series Duplicators

Available in two channel (mono) or four channel (stereo), the Telex XGEN series can be configured to meet almost any requirement . The master module features a master position and three copy positions. Add a total of seventeen copy modules to expand your system to 67 copy positions. Choose berween a system that operates at $8 x$ or $16 x$ normal playback speed and select a head option of standard, XL or Ferrite heads. All models feature microprocessor controls with direct drive motors in all positions,
 Ferrite erase heads, track select, modular cassette pockets, end of tape sensing, auto or manual operation, cleaning cycle, audible tone end of copy and Chrome tape copying (on select models). Two year limited warranty.


## Recorders/Players • Cassettes



| Cassette Decks | Frequercy Response | $\begin{gathered} \text { Stereo } \\ \text { Or } \\ \text { Moro } \end{gathered}$ | $\begin{gathered} \text { Heof } \\ \text { Heads } \end{gathered}$ | Note 1 Dual Dual We | $\begin{aligned} & \text { Caspstan } \\ & \text { Motor } \end{aligned}$ | Reel Motor | $\begin{gathered} \text { Head. } \\ \text { prone } \\ \text { Jack } \end{gathered}$ | $\begin{aligned} & \text { Vari- } \\ & \text { Sseed } \\ & =\% \end{aligned}$ | $\begin{aligned} & \text { Noise } \\ & \text { Reduc- } \\ & \text { fion } \\ & \text { folby } \end{aligned}$ | $\begin{aligned} & \text { Dolby } \\ & \text { Hry } \\ & \text { Pro } \end{aligned}$ | $\begin{aligned} & \text { Auto } \\ & \text { Rev. } \\ & \text { Rerse } \end{aligned}$ | Music Search | $\begin{aligned} & \text { Auto } \begin{array}{l} \text { Luc. } \\ \text { ater. } \end{array} \end{aligned}$ | $\begin{gathered} \text { Mic } \\ \text { Input } \end{gathered}$ | Line vo | Melers | $\begin{gathered} \text { Mic } \\ \text { Ater. } \\ \text { atation } \end{gathered}$ | Liminer | $\begin{aligned} & \text { Rack } \\ & \text { Mount } \end{aligned}$ | lbs. | Other Accessories | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Denon DRM-550p | 2ti-19k | Stereo | 2 | - | DC Seno | DC Sero | Yes | - | - | Yes | Yes | Yes | - | - | RCA | LED | - | - | $3 \cup$ | 9 |  | s249.00 |
| Denon DRW-585P | $2{ }^{24} \cdot 19 \mathrm{k}$ | Stereo | 2 | - | DC Seno | oc Seno | Yes | - | B.C | - | Yes | - | - | - | RCA | Led | - | - | 34 | 8.8 |  | \$299.00 |
| Denon ON-T620 | $2{ }^{17}$ 20k | Stereo | 2 | - | OC Sero | OC Seno | Ye; | 12\% | в | - | Yes | - | - | - | :LR | - | - | - | su | 132 | RCCzo Remas: Canto siso | 564.00 |
| Denon DN.720R | 20120 k | Stereo | 2 | - | DC Seno | oc Seno | Yes | 12\% | $B \cdot$ | Yes | - | Yes | - | - | RCA | LED | - | - | 34 | 10.6 | RCTroor Remre Conto sio | 569900 |
| Denon DN.TTOR | $22^{20} 20 \mathrm{k}$ | Stereo | 2 | c | OC Servo | DC Servo | $Y_{\text {e }}$ | T2\% | ${ }^{1} \mathrm{C}$ | Yes | Yes | Yes | - | - | aCA | LED | - | - | 30 | 12 | Acroorw Remose Corri silo | 569900 |
| Denon DN-TORM | 20.20 k | Stereo | $2 \times 2$ | c | OC Seno | DC Seno | Ye; | 2\% | B.C | Yes | Yes | Yes | - | - | hCA | LED | - | - | 34 | 115 | RCcroorw femme Convil S110 | 5699.00 |
| Denon DN.790R | 4.4 .22 k | Stereo | 3 | - | DC Servo | DC Seno | Ye; | 12\% | BE/S | Yes | - | Yes | - | - | bCaxli | LED | - | - | ${ }^{4}$ | 11.2 | RC7700 Remate Contra 5110 | \$999.00 |
| Marenta PMD-101 | 4013 5k | Mono | 2 | - | 10 C motor | doves both | Yes, | (2\% | - | - | - | - | - | tRs | fCA | - | - | - ALC | P | 29 |  | S29900 |
| Maratz PMD-201 | 4c-12k | Mono | 2 | - | 10 Cmator | anves bon | Yes | 20\% | - | - | - | - | - | 3.5 mm | RCA | vu | Yes | - ALC | $p$ | 29 |  | 539900 |
| Maran:Z PMD.221 | 40-12k | Mono | 3 | - | 100 molor | drves bath | Yes | $20 \%$ | - | - | - | - | - | 3.5 mm | RCA | vu | Yes | - alc | P | 2.9 | ${ }_{\text {WPCz21 }}^{\text {cil }}$ | \$479.00 |
| Marantz PMo-222 | 40-12.5k | Mono | 3 | - | 1 DC motor | dives bith | Yes | 20\% | - | - | - | - | - | $\begin{gathered} 3.5 \mathrm{~mm} \\ 8 \times L \mathrm{R} \end{gathered}$ | RCA | vu | Yes | ALC | $p$ | 2.9 | R8430 Aechargetbe Batrery $\$ 75$ FSK221 Fied Support Kit \$60 | \$519.00 |
| Marantz PMD-430 | ${ }^{35-14 \mathrm{k}}$ | Stereo | 3 | - | 10 C motor | anves boin | Yes | $6 \%$ | $88.80 x$ | - | - | - | - | tRs | bca | viu | Yes | - | P | 29 |  | S¢9900 |
| Marantz PMD-350 CD Combo | 20-28k | Stereo | 2 | - | OC Servo | OC Servo | Yes | 12\% | ${ }^{8 . C}$ | Yes | Yes | - | - | - | RCA | LED | - | - | 30 | 20 | x.frsso | 574900 |
| Marant PMD-500 | 20.16k | Stereo | 1x2 | в | DC Servo | DC Servo | Yes | - | B. | Yes | Yes | Yes | - | - | RCA | Led | - | - | 30 | 18 |  | 56900 |
| Marantz PMD. 501 | 26-16k | Stereo | 2 | - | OC Seno | OC Seno | Yes | - | 日 | - | Yes | - | - | - | RCA | LED | - | - | 34 | 15 |  | 5 599.00 |
| Marant PMD-502 | 26-16k | Stereo | 2 | - | DC Servo | DC Servo | Yes | 15\% | B. 6 | Yes | Yes | - | - | trs | fica | Led | - | - ALC | 30 | 15 |  | 5469.00 |
| Marant PMD-510 | $20-16 \mathrm{k}$ | Stereo | 2 | c | 1DC motor | dives buth | Yes | $15^{\circ} \mathrm{O}$ | 8.4 | Yes | Yes | Yes | - |  | RCA | LED | - | - | 30 | 19 | XLLF510 Ealancme Kit S229 | 57200 |
| Marant PMD. 519 | 26-16k | Stereo | 2 | c | S C motor | atrves boin | Yes | 15\% | 8.6 | Yes | Yes | Yes | - | $\begin{aligned} & \text { Dual } \\ & \text { TS } \end{aligned}$ | RCA | LED | - | Yes | 34 | 19 | XLRS 11 Balane ng Kit <br> w phantom pur \$229 | 577900 |
| Marant PMD-520 | 20-18k | Stereo | 3 | в | 1 DC motor | arives bath | Yes | \% | BC | Yes | Yes | - | - | - | RCA | LED | - | - | ${ }^{34}$ | 16 |  | 599900 |
| Key- | Note I- Dual Well <br> $A=$ Record/Play $x 1$ \& Play Only $x 1$ <br> B=Both Record/Play <br> $\mathrm{C}=2$ independent Record/Play Decks |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | C=Autom | atic Limi | ter Contr |  |  |  |




wwwibgsfi.com Www.broadcastdealer.com

## Recorders/Players • Analog Multitrackers

## Fostex X-34 Multitracker

The Fostex X-34 multitracker features: 4 -track simultaneous recording $\bullet$ advanced auto routing - each input can be assigned to any of 4 tracks with LED indication - auto bounce for easy track bouncing $\cdot 4 \times$ tape out $\bullet$ automatic track down - one button push and you're ready for stereo mixdown • Hi/Lo 2 band EQ on each channel $\bullet$ monitor out with independent level control $\bullet 4 \times$ line inputs double as insert points for connection of compressor/limiters, etc. • stereo aux return for versatile mixdown effects aux send on each channel - $-50 \% /+12 \%$ pitch control • Dolby $® B$ noise reduction high speed 3-3/4 ips selection (Dolby off) • balanced XLR mic inputs • 3 digit tape counter ${ }^{\bullet}$ and headphone output w/level control.
$\qquad$

Tascam Porta 02 Ministudio
The Tascam Porta 02 Ministudio is an extremely economical 4-track, 4-channel cassette recorder with integrated mixer letting you overdub as well as mixdown to standard cassette. Includes: two micl line inputs, each with trim control 04 channel mixer with level/pan controls on each channel 0 headphone jack w/level control and mono switch • master L/R line output • 4 part LED on each miclline input $\cdot 2$-track simultaneous record $\bullet 1-7 / 8$ ips tape speed $\bullet$ and 3 -digit tape counter.
Porta02
$\$ 225.00$

## Tascam 414 MKII Ministudio

The new Tascam 414 mkII Portastudio is ideal for newcomers or those experienced in multitrack recording, packing high-end features into a convenient, compact and economical package. A high-speed transport, combined with Hi \& Low EQ and dbx noise reduction means great sound. For convenience, there are also 2 XLR microphone inputs, and a $1 / 4^{\prime \prime} \mathrm{HiZ}$ guitar input. Features include: 4 track recorder with 8 input mixer • 4 mic/line input channels, 2 stereo inputs $\cdot 2$ XLR mic inputs $\cdot 2$ effect sends $\cdot 2$ band EQ on each channel • and $33 / 4$ ips high tape speed. Use it for demos, as a portable sketch pad, or for practicing recording techniques.
414 MKII $\qquad$ . Ministudio
$\$ 375.00$
RC-30P $\qquad$ Single switch- punch in/our $\qquad$ $\$ 40.00$

## Tascam 424MKIII Portastudio

The new Tascam 424MKIII Portastudio has 6 full-function input channels with MID sweepable 3-band EQ. The 2 independant auxiliaries mean you can add two separate effects to the same channel. Features include: 4-track, 4-channel recording * simultaneous recording up to 4 -tracks ${ }^{\text {d dual tape speed }}$ logic controlled 4-track tape transport

- dbx ® noise reduction \& 3-3/4 ips tape speed $\bullet \pm 12 \%$ pitch control $\cdot$ return to zero and 2 locate points • repeat function • auto punch $I / O$ with rehearsal function - 2 aux sends for effects processing, one of which is switchable to tape cue $\bullet 4$ assignable XLR mic inputs $\bullet$ dedicated stereo inputs (ch. $7 \& 8$ ) • stereo SUB in $\bullet$ separate main L/R and monitor outpurs • dedicated 4 tape outputs ${ }^{\bullet}$ sync output * and easy to read FL display.
424 MKIII $\$ 599.00$
RC-30P .................. Single switch- punch in/out .................................... $\$ 40.00$


## Broadcasters General Store 1-352-622-7700

## Recorders/Players • Turntable

Technics SL-1200MKII


The Technics SL-1200MKII is a quartz-locked direct drive turntable that is virtually feedback-proof because of its special base design. The platter is damped on both sides to avoid ringing. Its high starting torque brings the platter to rated speed within 0.7 second. Includes base, tonearm and dust cover.

SL-1200MKII
$\$ 699.95$

| Shure ............................. Styli Model ................... Tracking Force ............... Cartridge Price ............ Styli Price |
| :---: |
| SC35C ............................. SS35C ................. 4 to 5 grams (Spherical) ................ \$60.00 .................... \$31.00 |
| M44-7 ............................... N44-7 ................ 1.5 to 3 grams (Spherical) ............. \$115.00 ................... \$55.00 |
| M44G ............................... N44G ............... 75 to 1.5 grams (Spherical) ............. \$115.00 ................... \$47.00 |
| Stanton ......................... Styli Model ................... Tracking Force ............... Cartridge Price ............ Styli Price |
| 681EEEMKIII .............. D6800EEEMKIII ............. $3 / 4$ to 1-1/2 grams .................. $\$ 147.00$.................. $\$ 120.00$ |
| 680ELII* $\dagger$ $\qquad$ D6800ELII $\qquad$ 2 to 5 grams $\qquad$ $\$ 80.00$ $\qquad$ $\$ 55.00$ |
| 500ALII* ......................... D5107ALII ..................... 2 to 5 grams ....................... $\$ 45.00$.................... \$30.00 |
| 500AL-II Twin $\dagger$............. DP5107ALIIDP $\ddagger$................. 2 to 5 grams ....................... $\$ 69.00$.................... \$81.00 |
| * for back cueing ......... † extra stylus included ................... $\ddagger$ Disco Pack includes 3 styli |
| We handle all Shure and Stanton cartridges and ssyli; please call for further information. |


| Turntable <br> Preamps | Frequency <br> Response <br> Hz | S/N <br> Ratio | Stereo <br> Separation | Output <br> Level | Features/Options | Price |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| ATI P100S | $30-20 \mathrm{k}$ | 80 dB | $<60 \mathrm{~dB}$ | +18 dBm | Selectable RIAA curve | $\$ 349.00$ |
| ATI P1000-1 | $30-20 \mathrm{k}$ | 80 dB | $<60 \mathrm{~dB}$ | +22 dBm | Xfmr. balanced <br> RM-S $\$ 25$ Dual $\$ 28$ | $\$ 449.00$ |
| ATI P1000-2 | $30-20 \mathrm{k}$ | 80 dB | $<60 \mathrm{~dB}$ | +24 dBm | Active balanced <br> RM-S $\$ 25$ Dual $\$ 28$ | $\$ 419.00$ |
| Radio Design Labs ST-PH1 | RIAA Curve | $<-75 \mathrm{~dB}$ | $<60 \mathrm{~dB}$ | +4 dBm | 24 Vdc PS-24A \$18 | $\$ 134.00$ |
| Rane PS-1 | RIAA Curve | 84 dB | 80 dB | +22 dBm | Selectable Cartridge <br> Loading | $\$ 229.00$ |

## Recorders/Players • Digital Announcers

## ALARMCO AUTOPLAY ${ }^{\text {M }}$

Digital Recorder/Announcer

The AI.ARMCO AUTOPLAY'M Digital Recorder/Announcer is great for message on hold • public address message repeater • scheduled announcements • pre-recorded pages • and event triggered messages. Speed noted in minutes and seconds for recording capaciry.

|  | 10 ............ 1:47 Low Speed, 1:00 Srandard Speed ................... \$825.00 |
| :---: | :---: |
|  | DRAM-220 ............ 3:35 Low Speed, 2:00 Standard Speed ................ \$1,125.00 |
|  | DRAM-330 ............ 5:22 Low Speed, 3:00 Standard Speed ................ \$1,325.00 |
|  | DRAM-430 ............ 7:10 Low Speed, 4:00 Standard Speed ............... \$1,525.00 |
|  | DRAM-540 ............ 8:57 Low Speed, 5:00 Standard Speed ................ \$1,725.00 |
|  | DRAM-650 ............. 10:45 Low Speed, 6:00 Standard Speed .............. \$1,925.00 |
|  | DRAM-760 ............ 12:32 Low Speed, 7:00 Standard Speed .............. \$2,125.00 |
|  | DRAM-860 ............ 14:20 Low Speed, 8:00 Standard Speed .............. \$2,325.00 |
|  | Options available include: telephone control (\$295) • output relay (\$105) • addressable $(\$ 260) \cdot$ serial link (225) • second channel -2C(\$80) • and second channel w/music $-2 M$ (105). Only one option per announcer is possible. |

## ALARMCO TELEPLAY ${ }^{\text {m }}$

Digital Recorder/Announcer
The ALARMCO TELEPIAYTM Digital Recorder/Announcer with solid state dependability, will answer the phone, detect touch tones and play pre-recorded messages. TelePlay can play a message and instandy be ready for the next caller. Features include: remote record capability $\bullet 7$ day dock allows automatic play of different messages at different times during the week " messages can be recorded "on the fly" or downloaded from professionally produced audio tapes " and updated messages can be stored into TelePlay through satellite or FM sub-carrier audio channels.
TP-110 ........... 1:47 Low Speed, 1:00 Standard Speed ........................ \$1,065.00
TP-220 ........... 3:35 Low Speed, 2:00 Standard Speed ....................... \$1,355.00
TP - 330 .......... 5:22 Low Speed, 3:00 Standard Speed ....................... \$1,545.00
TP -430 .......... 7:10 Low Speed, 4:00 Standard Speed ......................... \$1,735.00
TP -540 .......... 8:57 Low Speed, 5:00 Standard Speed ......................... \$1,925.00
TP -650 .......... 10:45 Low Speed, 6:00 Standard Speed ....................... \$2,115.00
TP -760 .......... 12:32 Low Speed, 7:00 Standard Speed ...................... \$2,305.00
TP -860 .......... 14:20 Low Speed, 8:00 Standard Speed ..................... \$2,495.00
Options available include: output relay (\$105) or remote sourcing (\$125)

## Recorders/Players • Digtal Announcers

> ALARMCO INSTAPLAYTM

> The ALARMCO INSTAPLAYTM Digital Recorder/Announcer goes further because it will record, digitize, store and playback up to 4, 8, or 16 messages with independent access via screw terminals. Speed noted in minutes and seconds for recording capacity.

| 1:47 Low Speed, 1:00 Sid Speed | IP-4 | $\$ 825$ | IP-8 | $\$ 959$ | IP-16 | $\$ 1,095$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3:35 Low Speed, 2:00 Std Speed | IP-4 | $\$ 1,125$ | IP-8 | $\$ 1,259$ | IP-16 | $\$ 1,395$ |
| 5:22 Low Speed, 3:00 Std Speed | IP-4 | $\$ 1,325$ | IP-8 | $\$ 1,459$ | IP-16 | $\$ 1,595$ |
| 7:10 Low Speed, 4:00 Std Speed | IP-4 | $\$ 1,525$ | IP-8 | $\$ 1,659$ | IP-16 | $\$ 1,795$ |
| 8:57 Low Speed, 5:00 Std Speed | IP-4 | $\$ 1,725$ | IP-8 | $\$ 1,859$ | IP-16 | $\$ 1,995$ |
| 10:45 Low Speed, 6:00 Std Speed | IP-4 | $\$ 1,925$ | IP-8 | $\$ 2,059$ | IP-16 | $\$ 2,195$ |
| 12:32 Low Speed, 7:00 Std Speed | IP-4 | $\$ 2,125$ | IP-8 | $\$ 2,259$ | IP-16 | $\$ 2,395$ |
| 14:20 Low Speed, 8:00 Std Speed | IP-4 | $\$ 2,325$ | IP-8 | $\$ 2,459$ | IP-16 | $\$ 2,595$ |
| OPLAY plus: internal timer $(\$ 65)$ • inverted inputs $(\$ 50)$ • and switches $(\$ 80)$. Only one option per announcer is possible. |  |  |  |  |  |  |

Options available include all those shown for AUTOPLAY plus: internal timer (\$65) • inverted inputs (\$50) • and switches (\$80). Only one option per announcer is possible.

## Bogen ProHold(1) Series Butm Rearaducer



The Bogen ProHold® Series of Digital Reproducer utilizes advanced digital circuitry to creare seamless audio. The Prot lold automatically assesses the audio start and stop point, sets the record levels, downloads, and goes into play mode. Changing messages is as easy as inserting a new tape. When the ProHold downioads the new tape program, it automatically erases che previous program. If the power should be interrupted, the ProHold will autonatically reload the program on the tape lef in the unit. The ProHold has a one-time play feature, controlled by a built-in trigger jack. The audio ourput of the ProHold can be connected directly to a loudspaaker, and the message triggered by a swidd. The rigger jack also has a message sensing feature which can signal other equipneent, such as lights, doors, etc., during playback.
Pro4.
4-Minure Capacity $\$ 830.50$
Pro6. 6-Minute Capacity $\qquad$ $\$ 951.50$
$\qquad$ 8-Minute Capacity $\qquad$ $\$ 1,067.00$
Pro12.............
12-Minute Capacity $\qquad$ \$1,188.00

## Henry DigiStor-II Muth-messngo Degtat awoin Recorder

 Henry DigiStor II is a multi-message digital audio recorder. It can store up to 8 minutes ( 16 mins . optional) of monaural audio with a bandwidth of 6.5 kHz . DigiStor II's multiple modes of use make it ideal for nunnerous applications in broadcasting, telecommunications, and commercial sound: network news delay, station or translator ID and spot insert, message-on-hold, news \& actuality lines, call-in telephone information, museum exhibits \& displays, sound effects, announcenents, eic. DigiStor II can store up to 8 messages which can be played in any order. Multiple playback modes support onetime or repeat play, plus automatic sequencing and message (stacking). Messages can be different lengths, and can be selectively recorded (or changed) withour having to rerecord other messages. Messages are stored in nonvolaile flash memory and are reained even if power is off. (No backup battery needed.) Recording and playback is via local or remore control. DigiStor Il can record from either a mic or line level source. Input and output levels are adjustable. An (eomi) relay pulse is automatically generated at the end of message playback. The included relephone auto-coupler allows DigiStor II to be connected to a phone line for auto-answer message playback. A special (SR) version adds: (Secondary Cue) relay output, 16 minute storage time, RS-232 control of Record and Play functions, and front-mounted controls.
DS-8
. 8 Minute DigiStor.
$\$ 795.00$
DS-16
16 Minute DigiStor
$\$ 995.00$

## Roland AR-100 annumbentent Heraitlet

The Roland AR-100 Announcement Recorder is a half-rack space digital audio recorder/player designed for any application requiring pre-recorded announcements. Audio is recorded on industry standard PCMCIA cards which have no moving parts and require no maintenance. Theme parks, museums, airports and music delivery services are just a few of the businesses which can benefit from installation of the AR-100. The $A \mathrm{R}-100$ can be used for educational narratives, background music, safery messages, warnings, public transportation announcements and any number of applications where continuous message playback is needed. It can also playback MIDI data for controlling lights, robotics and effects. The AR- 100 offers linear playback and Roland Digital Audio Coding (RDAC) technology, which requires less disk space to record audio than orher digital systems - with virmally no loss of sound quality. Recordings can be made at several different sample rates $(44.1 \mathrm{kHz}, 32 \mathrm{kHz}, 22.05 \mathrm{kHz}$ and 16 kHz ) in either mono or stereo to opsimize recording time available on the P'C card. The P'C card slor is built right into the front panel of the AR-100, with the capability to store up to 250 announcements on one PC card. Announcements can be recorded or played back using convenient front panel operation, or controlled externally using one of many options available. Several AR-100's can also be controlled from an external M1DI controller to play back a variety of simultaneous messages. Features: Built-in I'CMCIA card slot with no moving parts for reliahle, maintenance-free operation • Many different playback options including CPI, interval playback, binary playback and MIIDI control • DC operation (9-24v) • Multiple options for recording time/quality: up to 80 minutes per 40 MB card • Recording and playback of MII) 1 information for controlling external devices - Recording can be remote controlled - Stereo, mono or independent dual mono operation - Easy front panel operation for on-site playback and recording • Seamlessly integrates into existing audio systems.
AR-100 ........... Digital Announcement Recorder
$\$ 795.00$

## Henry Audio Online

## Sottwart ind 2 me intier tabe twotlein.

Henry Audio Online is ideal for broadcast stations, public relations firms, schools, hospitals, political offices, and other institutional users who wish to nuake high-quality audio presentations aviali:ble via regular telephone lines. It is a caller-interactive system that allows callers to select messages from an "audio-menu". Up to 9,999 messages can be stored with excellent audio fidelity. Fditing messages is quick and easy. Messages can be recorded "live" or
 dubted from a prepared tape or casserte. Audio Online consists of a apecial 2 -line telephone interface/modem card plus sofftware that operates on a dedicated PC. An inexpensive, basic " 386 " IOSS computer is ideal (not includef). For each 20 MB of hard drive space, there are about 15 minutes of recording time. The hasic system answers 2 phone lines and can be expanded to handle up to 12 incoming phone lines.
Audio Orline.. Software and 2 line interface/modem. $\$ 995.00$

## Recorders/Players • Digital Announcers

## Roland AR-2000 Digital Announcement Recorder

The Roland AR-2000 Audio Recorder is a one rack space digital audio recorder/player designed for any application requiring high fidelity pre-recorded announcements. Theme parks, museums, elevators, airports, buses, trains and trams are just some of the installations that can benefit from the AR-2000's 160 minutes of record time (at 16 kHz ). The AR-2000 can be used for educational narratives, background music, safety messages, warning messages, public transportation address, directional messages, broadcast station ID's, news and sports intros, applause and laugh tracks and any number of applications where continuous message playing is needed. The AR-2000 uses the latest Roland Digital Audio Coding (RDAC) technology, which requires less memory for longer recording
times with virtually no loss of sound quality. Users can select from $44.1 \mathrm{kHz}, 32 \mathrm{kHz}, 22.05 \mathrm{kHz}, 16 \mathrm{kHz}$ and 8 kHz sampling rates and between mono and stereo modes. Two PCMCIA Card slots are built into the front panel. SRAM cards and flash ATA cards can be used to store data. The use of these large volume storage cards allow the AR-2000 to record approximately 60 minutes at $44.1 \mathrm{kHz}, 80$ minutes at 32 kHz and 160 minutes at 16 kHz (two 40 Mb PCMCIA Type II Cards in mono mode). Up to 500 phrases can be stored on any card. Phrases can be played back as required using an external controller via GPI signal or RS-232C computer control, front panel manual control and rear panel switch closures. PC-based control software can be customized for specific play-back control and phrase
editing operations. The AR-2000 is MIDI compatible, so it can be used with an external MIDI controller using MIDI messages to play back phrases. Up to 1000 phrases can be linked and played back via MIDI. The AR-2000 also functions as an audio recorder to record and play back SMF (Standard MIDI File) music data. It can play back songs when connected to MIDI sound modules and it can also control other MIDI devices. Rear panel Line Inputs can be used to mix external audio signals (like FM broadcast and CD playback) and phrases played back on the AR-2000. Incoming audio signal level can be lowered during phrase playback automatically.
AR-2000 .... Digical Announcement Recorder .. \$1,595.00

Sine Systems TTA-1 Time-Temp Announcer


The Sine Systems TTA-1 Time-Temp Announcer is a complete time and temperature delivery system that does not require an external host computer. Advertising or informational messages are recorded in nonvolatile digital storage that does not require a battery backup. The opening greeting can be a single 30 second message, two 15 second messages or three 10 second messages that rotate. The
dosing message can be up to 15 seconds. The basic system manages two telephone lines. The system is expandable with the TTA-Ex Expansion Unit that adds 6 lines. Up to two expansion units can be added for a total of 62 lines.


Aardvark Aark24 Hard disk 24 -bit Multitrack Reco
The Aark 24 brings multichannel audio to your PC. The system is built around Aark24's 24-bit outboard A/ D converters that maintain source audio with supreme clarity and precise accuracy. The standard ADAT I/O Sync makes the Aark24 the perfect Sync makes the Aark 24 the perfect complement
to any ADAT based studio while the Word Clock I/O allows it to sync your entire studio to Aardvark's powerful clocking technology! You can sequence synth gear using MIDI I/O while flying digital audio directly to your DAT via the coaxial S/PDIFI/O. The TOSLINK stereo optical support allows you to make a direct digital transfer from any Sony Minidisc ${ }^{\mathrm{TM}}$; or CD player. High performance features include: true 24 -bit A/D D/A, with eight $1 / 4^{\prime \prime}$ TRS analog I/O, • switchable $+4 \mathrm{dBu} /-10 \mathrm{dBv}, .002 \% \mathrm{THD}+\mathrm{N}$ • ADAT® optical I/ O, ADAT® sync, S/PDIF digital I/O, AES/EBU I/O (optional) • MIDI I/O, TOSLINK oprical I/O, Word Clock I/O, TASCAM(r) TDIF I/O (optional) • 10 channel full duplex simultaneous Rec/Play, shielded PCI host card w/24-bit DSP • Win 95/98 \& Steinberg ${ }^{\text {TM }}$ ASIO drivers, 19" rackmount optional.
Aark24
 $\$ 899.00$

Aardvark Direct Pro 24/96
The Direct Pro 24/ 96 allows you to record directly into the computer from practically any source in your studio. Both Mic and
 line level sources can be acomadated by the four premium MIC pre-amps included or four 4 TRS $1 / 4^{\prime \prime}$ inputs. From these four flexible inputs you can record multiple channels simultaneously, add real time DSP effects and then edit, mix, master and burn the final CD master. The rugged breakout box houses the custom MIC pre's, and
 the shielded converters keep our computer noise that could ruin a recording. Standard Features include: 24bit 96 kHz processor $\cdot 4$ XLR MIC inputs with phantom power • 4 TRS $1 / 4^{\prime \prime}$ inputs, 10 channel mixer, 6 analog outputs • 24 -bit S/PDIF, MIDI In/Out, headphone jack • real-rime DSP effects: Reverb, Compressor, 3-Band EQ
 Direct Pro24/96.
$\$ 699.00$

## Arrakis Digilink III

 CD automation, hard disk automation, two track stereo editing, News, and for remotes. When networked with the Trak*Star workstation, the Digilink III becomes a complete digital radio station integrating compurer based Traffic scheduling, Production, On Air, and log reconciliations. All workstations include: a standard DL3 workstation with DL3 automation software, a network card with network software standard, a Trak *Star 8 track editing software bundle, and 14 " color VGA monitor, keyboard, and mouse. DL3 Automation and Trak*Star editing software may not be run at the same time on a single DL 3 workstation but are included to increase the workstation's flexibility. Many expansion options are available, please call Broadcasters General Store for more information.
DL3-78 .... 78 hour Digilink Workstation ..
\$9,995.00
DL3-150 .. 150 hour Digilink Workstation . $\$ 11,995.00$
DL3-DL 4JUKE ..... 105 Hr. Hard Drive Audio Jukebox
\$5,995.00
NET2 ...... Net Board for Traffic Computer ..... $\$ 495.00$

## Recorders/Players • Computers

## Arrakis Trak*Star Multitrack editing Workstations

## Automation Screen

The Arrakis Trak*Star Multirrack editing Workstations are eight track editors that quickly and easily produce radio spots, promos, jingles, and other programs. Once produced, the finished piece is sent in perfect digital via network to the Digilink III workstation in the On AirStudio. Identical to the on air workstation, Trak*Star is the only production worksta-
 tion that backs up on air. Optimized for radio applications, Trak*Star has the features and ease of use that radio demands.
TS3-1000 ....... 8-Track editor w/2.4GB \& emerg ............................... \$5,995.00
TS3-6000 ....... 8-Track editor w/9GB \& emerg ................................. \$7,995.00
TS-AUTO ...... DL3 Automation Software ........................................ \$2,995.00


## Arrakis Digilink IV Workstations

The Arrakis Digilink IV Workstations are the newest addition to the Digilink family of products. Designed from the ground up to meet the needs of today's broadcasters for reliability, ease-of-use, and digital superhighway connectivity, the DL4 is optimized for Live On Air and Automation in hard disk based applications. With triple play and record in the base workstation, a single DL4 is an ideal cart machine replacement. Connect two stations together with the 'Share'System for six plays and dual record from a single shared hard drive and the DL4 services as many as 4 studios for On Air and Production. Even connect up to 32 workstations to the 'Shared Audio Storage System' and operate up to 32 studios from a single common library. The DL4 supports several push-button control systems but for sophisticated applications the DL4 may be controlled by a Pentium based Windows 95 PC computer. The DL4-WIN95 software supports all Live, Automation, and Production applications with such powerful capabilities as segue editing, voice tracking, phoner editing, and much more.
Please call Broadcasters General Store for complete list of options available and pricing.
DL4-1200-P .... Workstation (2GB, 24 hrs storage), requires LCD or PC ..... \$2,995.00
DL4-6000-P .... Workstation (9GB, 105 hrs storage), requires LCD or PC .... \$4,495.00
DL4-18GB-P ... Workstation (18GB, 210 hrs storage), requires LCD or PC .. $\$ 6,495.00$
DL4-LCD3-P. 3-Channel LCD front panel for Workstation .................. \$495.00
DL4-AES-IN .. AES/EBU digital audio record input ............................. \$195.00
DL4-SHARE .. Software to link 2 DL4 Workstations ............................. \$995.00
DL4-LCD? ..... 3-Channel LCD Control Panel, table-top/ rackmount/or single ch. box
$\$ 995.00$
GEM-7CC ..... 83 Button Jingle Box (LCD Control req'd) .................. \$1,195.00

## Cybex KVM LongView Extender

Relocate your CPU Up to 500' from your Keyboard, Monitor \& Mouse
The Cybex LongView LV200 Extender allows you to relocate your keyboard, monitor, and mouse up to 500 feet away using a single Category 5 UTP cable! LV400 also allows for stereo speaker, microphone and COM serial port to be remored as well. LongView is simple to install; no software or expensive networks
 are required. Just place your peripherals at your remote location, connect the cables and use your PC just as if it were in the same room. There are no jumpers or switches to configure. Multimedia capability provides high quality audio, up to $1600 \times 1200$ noninterlaced resolution video and support for a high speed COM serial porr.

LV200 ........... Trans/Rec Pair. No extension for speakers or microphone. ..
$\$ 495.00$
LV400 ............ Trans/Rec Pair PS/2 keghoard, mouse, scrial devio, speakes, micetersion ... $\$ 595.00$

## Cybex PC Companion Plus Adds a Second Keyboard, Monitor \& Mouse



The Cybex PC Companion Plus allows you to add a second keyboard, monitor \& mouse to your PC as far as 600 feet away. One switch can be configured four different ways to maximize your privacy options; prohibit unwanted viewing or interruptions from your inactive workstation, or allow full access from either location. PC Companion Plus supports both monochrome and color VGA monitors simultaneously and either PS/2 or serial mice. Just connect the cables, and place your second set of peripherals wherever you
 need them the most.
PCUE-0 .......... Transmiter/Receiver Pair, 300', PC/AT \& PS/2 plaform ....... \$495.00
PCUX-0 .......... Transmitter/Receiver Pair, 600', PC/AT \& PS/2 plaform ....... \$695.00

## Cybex SwitchViewKVM Switch Control 4 Computers w/1 Keyboard, Monitor \& Mouse

The Cybex SwitchView ${ }^{\text {TM }}$ will connect and control up to 4 compurers with a single keyboard, monitor and mouse! Features include: switch from your keyboard or front panel selection button - fully supports Microsoft IntelliMouse.....includes serial mouse emulation e cascade multiple
 SwitchView units to support up to 64 Pcs in all • automated scan mode lets you view each PC in turn • LEDs indicate which computers are on-line and which one is currently selected • plug your peripherals
 directly into the switch to eliminate multiple sets and Class B certified.
SW10040 ....... Desktop KVM Switch, 4 Ports .$\$ 249.00$
SW10020 ....... Desktop KVM Switch, 2 Ports .$\$ 169.00$
CPS2-6 ........... Cable Kits for PS/2 mouse, connects CPU to SwitchView, 6' .... $\$ 45.00$
CSER-6 ........... Cable Kits for serial mouse, connects CPU to SwitchView, $6^{\prime}$... $\$ 45.00$

## Recorders/Players • Computers


#### Abstract

Digital Audio Labs Card Deluxe Audio Interface for the Computer Digital Audio Labs CardDeluxe is the newest member of the Digial Audio Labs CardD family. With a PCl interFace and no compromise $24 / 96$ balanced analog and $5 /$ PDIF digital all on a single cand, the CardDcluxe brings high-end audio pcrformance within rach of almost any budget. Features include: PCl Interface $\bullet 8$ to 24 bit resolution • 11 kHz to 96 kHz sampling rate (actual rates: $11.025 \mathrm{kHz}, 22.05 \mathrm{kHz}, 32 \mathrm{kHz}, 44.1 \mathrm{kHz}, 48 \mathrm{kHz}$, 88.2 kHz , and 96 kHz ) • Analog two channel in/out via $1 /$ 4"TRS connectors • S/PDIF digital in/out viagold-ipped RCA connectors * $+4 /-10 \mathrm{~dB}$ balanced/unbalanced operation (jumper selectable) $\bullet 4$ channed operation using both analog and digital ins and outs simutaneously • Slaving of mutiple CardDduxes to single sample dock (See Bdow) - WavSync(mm) for flawless start and stop of multiple inslouts (See Below) • Analog Input Dithering (4types user selectable) • Support for streaming Dolby AC3 surround on the digital inputs and outpus • Windows $95 / 98$ stupport * Windows NT support • DirectX support • ASIO suppor • Macintosh support (TBA) CardDeluxe .... Audio Interface for the Computer $\$ 595$




Echo Layla24, Gina24 Darla24 \& Mona Audı Interfaces The Echo Darla 24 combines 24 -bir 96 kHz balanced inputs and outputs and a $1 / 4$ " breakout box at an incredible price! Múltiple cards may be "sync'd" together for easy expansion. The Darla 24 comes with a 3 ' shielded host cable that connects the break out box to a PCI bus master interface card. Mac/Windows.

Darla 24
$\$ 379.00$
Layla24 uses the latest generation 24-bit 96 kHz converters with 110 dB dynamic range and distortion of less than $.002 \%$. It has true differential, balanced outputs and a superb headphone output. ADAT lightpipe and oprical S/PDIF are now included, as well as a new cool-running power supply and a smaller cable.
Layla24
$\$ 995.00$


Gina 24 offers 2 in 8 out balanced 1/4" connections, ADAT, SPDIF Coaxile and S/PDIF oprical. Gina also has an internal digital audio connection for the CD ROM drive. Using the latest generation of 24 -bit 96 kHz converters, Gitua 24 offers a high dynamic range and low distortion. The new Gina 24 comes with a 6 ' shielded host cable that connects the break out box to a PCI bus master interface card.

Gina24
$\$ 495.00$
The Mona was designed, by taking everything Echo had learned from making Layla, Gina, and Darla to create a single piece of gear

 that could be the basis for an entire digital studio. It has 24 -bit, 96 kHz converters and six ourputs to master the latest DVD audio discs as well as the older CD formar. Ir allows for direct connection of microphones and guitars and interfaces with other digital equipment.
Mono
$\$ 995.00$

## IQS Innovative Quality Software



16 Stereo Tracks
IQS Innovative Quality Software SAWPro Software Audio Worshop for the professional is the latest creation from IQS, representing the Fourth Generation of the SAW software. SAWPro incorporates more power than ever with 24 -bit $/ 96 \mathrm{kHz}$ record and playback capabilities, 99 levels of multiple undo, and support of DirectX and VST plug-ins allowing you to now use your favorite third-party plug-ins LIVE in the SAW MultiTrack environment. For complete information check out our direct link to the IQS web site.
SAWStudio ..... SAMM (Soft-ware Audio Midi Mixer) virtual mixing technology and the SAW hard disk editing technology in one power-packed application
SAW 32/SAWPlus 32 ..... 32 Stereo Tracks ( 16 in SAW32), up to 12 Stereo Dev/24 I/O (6 and 12 I/O in SAW32), Includes all of the SAWPlus features and much more! .... $\$ 500 / \$ 700.00$
SAWPro .......... 32 Stereo Tracks, up to 12 Stereo Devices ( 24 I/Os), 16-bit, 20 -bit \& 24 -bit resolution, .WAV Sound File Format, Includes all of the SAWPlus and SAW32/SAW Plus32 features and much more!
$\$ 950.00$

## JK Audio Pureformer

Hum \& Noise Reducer for Sound Cards \& Audio Equipment The JK Audio Pureformer is a hum and noise reducer for sound cards and audio equipment. It removes ground loops and DC paths that cause hum and signal break-up. Just insert it between your sound card and your audio mixer or amplifier.
Pureformer ..... Hum \& Noise Reducer for Sound Cards \& Audio Equipment .... $\$ 59.00$
JK Audio TAP-1 Telephcone Audio and Power Interface
JK Audio TAP- 1 can be used to power a cordless telephone and connect the audio paths to a sound card for use as an internet telephone. Imagine roaming the office as you talk on the internet. TAP-1, powers an analog telephone with the required -48 Vdc and separates audio into transmit and receive audio paths.
TAP-1 ............. Telephone Audio and Power Interface
$\$ 245.00$

## JLCooper Electronics V/DESK mixing Software

JLCooper Electronics V/DESK mixing soffware for the Yamaha 02 R $^{\text {TM }}$ provides simecodesynchronized, dynamic recording and playback of all 02R functions. Fearure innovations like an off-line editing and graphic ediang inspire your imagination and let you visualize and edit your mix like never before. V/DESK's stunning screen graphics and intuitive user interface are second to none.


Please check out our link to the JLCooper web site for more complete information. V/DESK ......... Mixing Software for the Yamaha 02R ${ }^{\text {TM }}$ (Power Mac Only) .... \$499.95

## Recorders/Players • Computers




The iMediaLogger ${ }^{\text {TN }}$ provides real time audio recording of up to 16 simultaneous mono or 8 stereo source feeds with $4 \times 2$ channel discrete audio cards. iMedial ogger operates in: on-going logger mode skimmer mode - or scheduled source feed record mode. The iMediall ogger provides recording in a wide variety of compressed audio formats (MPEG2, MP3, WMA, ADPCM) or non-compressed PCM. User selectable bit rates and sample rates are available to suit a wide range of broadcast and commercial applications. Using the WMA compression format at 16 Khz 16 -bits stereo 20 kbs produces 1.4 GB per week off recorded audio. 5 weeks $=8 \mathrm{~GB}$ per station.

## Software Only:

iMlogger 1 ....... 1 Ch . (1 stereo), Requires Soundblaster or equivalent plus *
. $\$ 695.00$
iMlogger 2 ....... 2 Ch. ( 2 stereo or 4 mono), Requires 1 MAudio Delta-44 or Antex LX44 plus*....... \$1,295.00
iMlogger 4 ....... 4 Ch. ( 4 stereo or 8 mono), Requires 2 MAudio Delta- 44 or Antex LX44 plus* ....... \$2,495.00
iMlogger6 ....... 6 Ch. (6 stereo or 12 mono), Requires 3 Antex LX44 plus* ..................................... $\$ 3,790.00$
iM Mlogger8 ....... 8 Ch . (8 stereo or 16 mono), Requires 4 Antex LX44 plus* \$4,995.00
(iMlogger $12 \$ 6995$ ) and (iMlogger24 \$9995) Coming Soon

## iMediaLogger Applications

On-Air talent skimmer
Audible affidavit of commercials played 24 hour program logging Enemy monitoring \& eavesdropping Nerwork background recording Program redistribution Time shift programming Web audio publishing
DAT recorder replacement
Long-distance monitoring via the Internet

Turnkey Systems (preconfigured harduare) are available, please call for current pricing'

## QuicPix \& QuicPix Radio Suite orown memerna



## Oucfor features:

- Playlist screen with 7 "virtual cart decks", 24 hot keys, with multiple overlaps
- Carrwall (Arena) screen of 40 hot keys with multiple overlaps
- CD Ripping transfers audio from CD to hard disk at 6 X real time or better
- Audio Library Manager imports files from audio editors and Interner downloads
- Supports MP3, MPEG-2, WMA, ADCPM and PCM on any sound card
- Windows $95 / 98$. NT/2000 recommended for unattended automation use
 "Now I don't have to lug three cases of cd's into the booth with me everyday...everything's on the Quicl'ix. The sound is awesome and I'm finding new uses for it everyday. It is the easiest, most user friendly software. The learning curve is more like a "learning slope"...very short and not very steep. Over the course of 10 hours I loaded in my entire collection of music beds, TV/ Movie themes, 300 cartoon drops, an entire sound effects library and more."


## QuicPix Áppicatons:

- Morning Show to Go (Produce at home, use On-Air, protect your bits!)
- Low cost On-Air automation or live assist
- Internet Broadcasting
- Sales Department - Spec Spots - Client Auditions
- News gathering, packaging and delivery
- Emergency On-Air back-up
- Remotes \& Sporting Events "The Button Box Alternative"



## Quic Pix Fadio. Sulite Features:

- Includes QuicPix Playlist and Cartwall (shown above) plus:
- CD Ripper transfers audio from CD to hard disk at 6 X real time or better with CDDB database interface
- Medial lisk 32 Production allows realtime MP-3 recording, importing and waveform editing along with MPEG-2, WMA, ADICM, and PCM.
- Impor Manager imports files from audio editors \& lnternet downloads
- Word flipping, normalization and sample rate conversion
- Voice Tracking window for interactive listen out, listen in production


## Quicpux Piting

$$
\begin{aligned}
& \text { Software only: } \text { QuicPix ......................... } \$ 399.00 \\
& \text { QuicPix Radio Suite ....... } \$ 999.00 \\
& \text { or } \text { Sound Forge XP ........... } \$ 59.95 \\
& \text { Cool Edit Pro .............. } \$ 399.00
\end{aligned}
$$

Note: Requires Intel 400 MHz processor or faster, 64MB RAM or greater, at least IGB hard disk space.

Complete packages including laprop auvilable, please call for current configuration and pricing!

## Recorders/Players • Computers

## OplOG 32 Sat Net System by Meantount



OpI,OG 32 Sat-Net System for satellite or live assist use. Simple and easy to use screen Drop liner or Hot Start butions
Audio Strecth and Shrink Auto Fill and Bump Features Seamless network automation

- OpLOG-32 Sat-Net control software with auto fill, bump and audio stretch/shrink features 24 Hot Buttons for live or drop liners for satellite
- Medial)ISK-32 software with MPEC-2 or MP-3, waveform editing
- US Roborics 56K modem and PC Anywhere for remote support
- SAW multi-track editor with Digigram audio card
- Opl.OG Log Tools Kir included
- Printed Manuals, 90 days telephone training and 1 year weekday telephone support included
- 1 year warranty on OMT software, 3 year warranty on Compay computer
- Software pre-loaded and tested by OMIT
- Just add the audio and network wiring!

MTS-3200) 16 input +16 output closure interface for satellite closures
Broadcast Tools $8 \times 2$ switcher for audio switching and mixing
Pentium Class Audio Server with Digigram 1 record x 4 play audio card Windows NT' Server RAID audio storage operational redundancy

7300 Stereo Min. (MPEG-2 or MP-3, 44.1 @ 256 kbirs/scc) CD Quality Audio
On Air Pentium Class Computer with OpL.OG-32 Software
Production Pentium Class Computer, Digigram Audio Card, MultiTrack Editor CD Ripper, Voice Tracking and On Air emergency backup

- Upgrade to al5" LCD Touchscreen--- \$1,799.00
- Upgrade to a $17^{\prime \prime}$ VGA Touchscreen --- \$1,299.00
- Add MusicMaster LT Music Scheduler -... $\$ 795.00$
- Upgrade Audio Server to RAID 5 or increase audio storage (quored on request)
- Add iMedia Logger recorder, logger, 8 skimmer See lage 126 for pricing.
- $24 / 7$ Toll Firee Tèlephone Support: call for packages


## OpLog 32 Sat Net Schematic



PROGRĀMMING
TRAFFIC MUSIC (OPTIONAL) SCHEDULING


## Recorders/Players • Computers

 Jueltrent for ( ang 100 Dual Channel Effects Processor: Chorus, Flange, Pitch, Detune, Delay, Echo, Rotary, Tremolo, 1 exicon Reverb and Ambience.

Core2 $\qquad$ I )eskiop Audio System $\$ 499.00$

## Lucid PCI 24 Andio Card

The 1.ucid PC:I24 streamlined card for high-quality jobs. Here is a superb way to transfer digital audio to and from your Windows and Macintosh I'CI-bus computers. This I'Cl-bus plug-in card lets you make direct digital connections from your computer to a DA' machine,
 outboard $A / D$ ) and $I$ / $A$ converter, sampler, or any orher digital audio device with industry-standard prosumer S/PDIF pors or professional AES/EBU ports. And the PCI24 comes bundled with a free copy of Sound lorge XP4.5, the popular audio editing software. PCl24 Key Features: AES/EBU and $\$ / P I$ IIF digital $I / O \cdot 48 \mathrm{kHz}, 44.1 \mathrm{kHz}$, and 32 kHz sample rates, with real-time sample rate conversion on inputs - Compatible with Lucid ADA 1000 or any outboard $\mathrm{A} / \mathrm{D}$ and $\mathrm{D} / \mathrm{A}$ converter, including DAT machines and Cl) players - Works with PCl bus-eguipped Macintosh and Windows computers Supports a wide variery of popular software applications • Bundled with a free copy of Sound Forge XP'4.5 audio editing software for Windows systems.
PCI24 .. Audis Card $\$ 449.00$

## Mirmetonka Fast Edit



Sofrvare for Professional Sound Recording and Editing. Fast Edit works with mono or stereo .wav files, and runs with any Windows-compatible soundcard. This product allows Nondestructive editing while creating an edit history. Features Ultra-fast cut-and-paste, manual crossfade, sample-accurate editing, reversal overlays, fade-in and fade-oul, and gain change. Reversal plays sounds backwards, while gearshift acis as a varispeed dial in digital form. Fast Edtit comes bundled with two additional powerful programs at no extra charge - - the Sound Catalog and the Playlist Editor. Sound catalog allows collections of soundfiles to be played quickly via assigned a hot-key on the computer keyboard, or fired by MII)I. Use Playlist to line up songs, news clips, or sound bites and play them in a certain order. Fast Edit gives you the features in an uncluttered, straight-forward layour.

Fast Edit
$\$ 199.00$

## SEK'D Samplitude Studio

## Multhia Recodily Soltime

SEK'D Samplitude Studio transforms your computer into a complete, high quality recording studio. Along with any Windows compatible sound card, you can record, playback and edit digital audio at either 16 -bit or 24 -bit resolution, at sample rates of $11 \mathrm{kHz}, 22 \mathrm{kHz}, 32 \mathrm{kHz}, 44.1 \mathrm{kHz}$ or 48 kHz . Exceptional sound quality is achieved using 34-bit floating point precision in the processing and storage of audio. And
 you can burn your Red Book (I) directly from the software. Kay fearures: multi-track hard-disk recording • unlimited inputs and outputs • professional studio effects • direct X-Support for plug-ins $\cdot \mathrm{CD}$-mastering and CD$)$ burning a and more. Systems requirements: IRM-compatible PC, min. I'entium $166 \mathrm{Mhz} \cdot$ - Window $^{\text {IM }} 95 / 98$, Windows ${ }^{\text {IM }}$ NT • 16-bit or better sound card $\cdot \mathrm{CI}$-ROM and floppy drive.

Samplitutde .... Multi-track Recording Software
$\$ 499.00$

## Sonic Foundry Software

The Sonic Foundry ACID'M is a loop based music production tool. Combine any of the hundreds of loops included with ACII) or import. WAV or AIF loops to create custom music in minutes. ACID can preview any loop before adding it to the mix, automatically matching the tempo and pitch in real time. Click and drag to easily add or delete loops. Add volume, pan and
 effect envelopes to each track to create the perfect mix every time. To add finishing touches, apply multiple real-time effects with DirectX Audio Ilug-Ins. ACII) is a great alternative to music libraries, giving you total control over the music.
ACII) 2.0 ....... Music Production Tool
$\$ 399.00$


Sonic loundry's Sound Forge ${ }^{\circledR} 4.5$ software for W'indows ${ }^{\circledR}$ contains an extensive set of audio processes, tools and effects for manipulation of audio. Combine Sound Forge 4.5 with any Windows compatible sound card to create, record, edit and refine production,. The clean interface and familiar Windows environment make editing easy. Sound Forge has built-in Video for Windows support, making it possible to edit sound events to video with frame accuracy. Its expandable plug-in archirecture supports DirectX Audio Plug-Ins.
Forge4.5 ......... Digital Audio Fditing in Windows®
$\$ 499.00$

Sonic Foundry's Noise Reduction Plug-In analyzes and reduces low-ievel background noise such as tape hiss, electrical hum, pops, dicks even stretched tape distortion with minimal effect on the source material.
Noise Reduction
$\$ 399.00$


Sonic Foundry's Acoustic Mirror Plug-In is a signal processing tool that adds acoustical coloration of real environnents and sound altering devices to existing recordings. Acoustic Mirror can simulate responses varying from large concert halls to the vintage sound of oid tube microplones.
Acoustic Mirror
$\$ 249.00$

## Sonio- Foundry

Sonic Foundry's CD) Architect is the perfect solution for recording professional audio CI ) so Windows $\mathrm{NI}^{\circ}$ and Windows 9 x . CI) Architect includes a sound editor with dozens of professional effects and tools to process sound files. CD Architect supports most popular CI) recorders.
CD Architect
$\$ 299.00$


## Burn Rubber.



## Short cut 2000

PERSONAL AUDIO EDITOR

## You want speed? YOU GOT IT!

360 Systems' new Short/cut 2000 Editor features split-second edits for news, call-ins, and live events. Plus, you'll get industry-wide file interchange, a full slate of editing features, and unparalleled ease of use.

## Easy Upgrade!

Now yol can upgrade your existing Short/cut editor to the speed and power of Short/cir 2000.

## Sonorus STUDI/O PCI card

Sonorus STUDI/O ${ }^{\text {TM }} \mathrm{PCl}$ card has: direct support with togic audio on the MAC, ASIO2 support for both MAC \& PC, "Rock Solid" NT4 drivers, and ADAT Sync with the optional Sync Backplate on both PC \& MAC.

STUDI/O ...... PCI card

## $\$ 849.00$

## Sound Ideas Sound Effects Libraries

Sound Ideas Sound Effects Libraries offers: 32 different collections - over 400 CDs more than 50,000 different sound effects 0 and free search software for PC and Mac. For a complete listing go to www.bgsfl.com to link to the Sound Ideas web site where you'll find demos or call BGS for your free SFX Demo disk.


1-The Production Music Library now has over 125 CDs featuring: 22 distinct musical categories ${ }^{-}$comprehensive Audition CD ROM which allows you to hear tracks instantly - and all updates are included with any Full Lease at no extra charge.
2-The Turner Broadcast Music Library, includes: $15 \mathrm{CD} s$ • fully orchestrated music -8 categories: News, Sports, Drama, Comedy, Showbiz, Jazz, Rock and Lite. • and 10 year royalty-free lease for only $\$ 595.00$.
3-Beatbox, the newest music collection includes: 12 New CDs • all-natural instrumentation $\bullet 7$ categories: National, Sports, Drama, Grooves, Rock, Corporate and Lifesyle. • and an annual lease rate of only $\$ 500.00$ which includes all Beatbox updates.
4-The Mix, is a series of 6 music libraries containing: 47 CDs of great $30 \mathrm{~s}, 60 \mathrm{~s} \&$ Full-Lengths • production elements (on Mix I and Mix III) • full length themes on Mix $\mathrm{V} \& \mathrm{VI} \bullet$ low buyout price of $\$ 495.00$ each for Mix I, Mix II, Mix IV, MixV and MixVI or $\$ 395.00$ for Mix III.

Syntrillium Cool Edit Pro


Syntrillium Cool Edit ProTM is a digital audio recorder, editor, and mixer for Windows. TM Record, play, convert, and edit files up to 2 GB in size and supports more than 25 audio formats. Potent array of Audio Effects modules, including Reverb, Multitap Delay, 3D Echo, Equalizers (Graphic, Parametric, Scientific, and "Quick"), Compression, Chorus, Flanger, Distortion, Convolution, Pitch change, Tempo change, and more - many with Real-Time Preview! The Noise Reduction, H is s Reduction, and Click and Pop Eliminator are powerful tools for cleaning up older, problem recordings. No special hardware is required to mix up to 64 tracks simultaneously. Other important features include: Time Display Window, level meters, clip indicators, Mute/Solo/Record color coding; Volume and Pan envelopes; Loop, Crossfade, Zoom, and "Snap" functions. SMPTE/MIDI slave capability lets you integrate your mix with video and MIDI sequencers. Multiple Undo lets you back out of mistakes, and you can review previous versions of your recordings with the "Multiple
 Takes" feature.
Cool Edit Pro $\$ 399.00$

## Telos Assistant Producer Talk Show

Management Software for Windows
Telos Assistant Producer Talk Show Management Software for Windows® now allows producers and talent to manage callers while maintaining constant communication with each other. Assistant Producer completes Telos Systems' advanced multiline talk show systems by addressing the need for Windows-based client/server call screening software. This system
 handles a variety of studio environments, and enables producers to provide talent with information on each caller, send instant messages, and control the status of multiple telephone lines. Assistant Producer can handle up to 20 callers at a time, maintaining status of the call, caller name, city of origin, and notes, making communication between the producer and talent seamless. Additionally, the Windows platform allows the system to be networked through an ethernet, intranet, or even a password-coded Internet system, allowing access by station management or access from remote locations. An instant messaging feature enhances the efficiency of communication, and adds to the smoothness of the show. Any Telos multiline interface product can be easily integrated with maximum control and flexibility through the user-friendly Windows environment, ensuring the quality and efficiency of any talk show.

Assistant Producer Talk Show Management Software
$\$ 520.00$

## Yamaha DSP Factory Digital Mixing Card

Yamaha DSP Factory is a unique range of audio card and expansion components that, with special control software (ie. IQS, Minnetonka, SEK'D, \& Sonic Foundry control software) literally turn a standard personal computer into a truly professional digital multitrack recording and mixing system. At the heart of the DSP Factory is the DS2416 Digital Mixing Card with power-
 ful recording, mixing and sound processing engine built right in. The DS2416's mixer provides the power of the Yamaha 02R digital mixer and much more on a desktop platform. This includes 24 channels of digital mixing with a full range of on-board digital effects and dynamics processor, along with everything else professionals need, including 16 tracks of 34 -bit hard disk recording. A built-in audiostreaming engine provides 8 -tracks of simultaneous recording and 16 -tracks playback of up to 32 -bit audio to and from the computer's disk drive. On-board effects include 12 reverb rypes, 11 modulation types, 2 distortion types, 3 dynamics types, and 12 special combination types. What's more, unlike most other audio cards, the DS2416 runs on its own power and not the computer's CPU, which ensures that all functions of the card are available simultaneously, to provide a level of flexibility and performance previously not possible. Optional expansion units permit multiplechannel audio connections to and from the DS2416 to provide for connection of multi-channel digital equipment such as outboard digital multitrack recorders and signal processors.

| DS2416 ................. Digital Mixing Card | \$999.00 |
| :---: | :---: |
| AX44 .................... Audio Expansion Unit | \$299.00 |
| AX16-AT ................ Audio Expansion Card | \$299.00 |

## Recorders/Players • Digital

360 Systems Instant Freplay Nourludes Editing fentures! Brotraloruh Aumio Perace fituryburo


The 360 Systems Instant Replay is a fully professional audio recorder that can store up to 24 hours of 20 kHz stereo audio and up to 1000 cuts on its internal hard drive. 500 of these cuts can be stored in 10 banks and each bank of 50 cuts can be "Mapped" to the 50 "Hot Keys" and may be recalled by typing in the cut number, part of the cut's name or all of the cut's name. Cuts are imported via standard analog inputs (XLR), digital AES/EBU ports (XLR), digital IEC-958 II ports (RCA) and includes DNet file transfer system. Each "Hor Key's" audio is loaded into a ram buffer for instant sound at the touch of the button. Cuts can be stacked, looped, paused, stopped or initiated from the beginning as fast as you can hit the button. In the studio or on the road, Instant Replay is fast, fun and easy to use.



## 360 Systems Short/cut

 The New Short/Cut 2000 now
features split-second edits!

360 Systems Short/cut Editor is the perfect choice for two track recording and editing in news, production and onair applications. It delivers superior audio quality, true cut and paste waveform editing, massive hard disk storage and support for external removable media drives. It even has built-in speakers and ter Hot-Keys ${ }^{\text {TM }}$ for instant play-back of edited material in the studio, or on the road. Some of the newer features include: variable length cross-fade $\bullet$ programmable fade in and fade out $\bullet$ gain adjustment of selected audio with ramping • .WAV, .BWF and .AIFF file import and export - external
of control that is optimum for your application. All remotes offer "Hor Keys" for instant access to sixteen or more selected cuts, as well as transport controls. The RC-205 includes a keyboard for adding titles, while the RC-210 and RC-220 models include a display and additional keys for locating cuts and creating playlists.
D-2750-15 ...... Digicart/II Plus w/116 Hours of Dolby AC2 ............ $\$ 4,495.00$
D-2750-20 ..... Digicart/Il Plus w/154 Hours of Dolby AC2 ........... \$4,750.00
D-2750-30 ..... Digicart/II Plus w/232 Hours of Dolby AC2 ........... \$4,995.00
RS-12 ............. Rack shelf for one or two DigiCarts (4U) ................... \$149.00

RC-205 ........... Mini Keyboard Remote Control ................................ \$130.00
RC-210 ........... Play Only Remote Control ........................................ $\$ 645.00$
RC-220 ........... Full Function Remote Control, controls up to 4 units $\$ 795.00$
D-RCA-59...... RC-220 Four-Way Splitter Cable, Use to connect up to four DigiCarts to one RC-220 $\qquad$ $\$ 25.00$
D-M5-1035 .... Spare Standard Serial Cable for RC-210 or RC-220, Order as spare, or to use with RCA-59 to connect multiple DigiCarts to one RC-220 $\$ 15.00$
D-RCA-259 .... Serial Cable for RC-210 or RC-220 with DC Power Connector, Allows placement of R/C DC power supply near DigiCart unit $\$ 45.00$

Call Broadcasters General Store for upgride kits for older DigiCarts and further information! (Serial Numbers must be supplied to verify compatibility.)

The 360 Systems DigiCart/lI Plus records to hard disk or Zip, in mono or stereo, with Dolby AC-2 or in 16-bit linear, and with impeccable quality. The Digicart/ II Plus now features massive storage with up to 116 hours of audio on it's new larger standard hard drive. Even larger drive models are available for up to 232 hours of storage. Edits are fast, easy and non-destructive. And when a Zip disk moves finished work to another show, the edit markers go with it, along with the title, ID number, and running time. DigiCart/II Plus is Automation Ready, and is a proven solution to the needs of TV master control or radio. A set of GPI inputs also lets DigiCart work with fader-starts, remote buttons or satellite commands. A revised ES-Buss port permits serial control, and the leading names in broadcast automation offer interfaces. With DigiCart, it's easy to line up a second cut while another is playing. Rapid playlisting tools can build sequences, store them for future use, and make changes at any time. For spot sets, select Linear Playlists that play straight through in sequence. For TV master control, Rotating Playlists cue a new announcement or tag with each new trigger. Three remotes offer the degree
sample rate synchronization - and DNET ${ }^{\text {TM }}$ file transfer.

SC180-3 ......... 4 Hours of Internal Storage
$\$ 3,495.00$
GB-TP-SC ..... Gig Bag for Short/cut ................................................... \$110.00


## Recorders/Players • Digital

## 360 Systems TCR Series Production Recorders

 cally for TV broadcast, video production and professional audio recording. TCR recorders aren't just "play" machines for dubbing; they include many production features such as auto-locate, seamless punch-in, read-modifywrite, looping, editing, and offsets, that make them a first choice as primary studio recorders. TCR can accept an internal hard disk of unlimited size, with individual file size extending to the 24 -hour limit of SMPTE/EBU time code. TCR recorders include a DVD-RAM drive, providing several hours of low-cost file storage and a 30 year archival life. Additionally, a $250 \mathrm{MB} \mathrm{Zip}{ }^{\mathrm{TM}}$ drive is provided for storage of shorter files and to support downloads of new software revisions. As an option to DVD-RAM, the TCR's 5-1/4" drive bay will accept many user-selected drives, including removable hard disks, magneto optical and other emerging high-density cartridges. A rear-panel SCSI port connects as many as five additional drives to the TCR system. To avoid rapid obsolescence, new audio systems need to be actively reconfigured to best execute the task being performed. Much of TCR is programmable Flex® Logic, which can be reconfigured under software control. Not only new software, but also new "hardware tools" can be loaded through the built-in Zip ${ }^{8}$ drive. 360 selected 24 -bits as the standard word size for all TCR recordings; optional 16 and 20 -bit outputs can be selected for compatibility. And on digital I/ O paths, sample rates extend all the way to 96 kHz . Precise 14 -segment LED metering shows each channel's level, with provisions for switching berween different headroom standards. TCR recorders include a complete set of SMPTE/EBU time code capabilities. They can lock to all common NTSC and PAL sync formats, including LTC, VITC, word clock, AES/EBU, internal crystals, or the multi-machine buss. A wide range of audio sample rates may be generated, including $\pm 1 \%$ pulls and accurate varispeed rates. Most standard editing operations can be performed right on TCR. These include Cut, Copy, Insert, Erase, Undo, and time offsets for individual tracks, and for the entire machine. The TCR8 is designed for synchronous recording and playback in video, TV production, cinema sound and broadcast. It's also an ideal choice as a target recorder in surround-sound production, handling 6 channel (5.1), plus Lt-Re. This 8 -track can record an entire working day of 24 -bit audio without reloading media. The TCR4 answers the need for a machine to replace time code DAT and "audio-only" VTRs. It includes the 3rd and 4th tracks so often needed in video production, and provides greatly improved audio quality, cost-effective removable media, and the instant response of a hard disk recorder.


## Denon DN-F20R Pro Compact Flash Field Recorder

The DENON DN-F20R portable IC recorder uses IC memory cards as the recording medium, doing away with cumbersome mechanisms and enhancing reliability. Two card slots provide recording flexibility. Recordings on the DN-F20R are created as sound files in
 MPEG format, the international standard, which can be ported to a PC for editing and manipulation. 'Xurack' editing window DN-F20R has 2 slots for CompactFlash cards. * 'PCX' MPEG board and 'Xrrack' software are not included in DNF20R carton. Features include: the IC memory card complies with the international standards for the CompactFlash card 1 and supports large memory capacity of 192 MB use of the MPEG international standard enables high compression and high sound quality - linear PCM recording is also supported (WAVE file recording) • XLR terminals are used for $\mathrm{L}+\mathrm{R}$ mic inputs ${ }^{\text {c compact, easy-to-carry A5 size even with XLR terminals • since che }}$ memory card is 16 bit FAT formatred, it can be read and written to by a PC system 2,3 sound quality can be selected (in recording bit rate) to suit the application, enabling efficient use of the card • uses 6 AA barteries, easily purchased while on the road • a wired remote control jack. Editing features include: when a Digigram MPEG board and ediring software are installed on a PC, the PC can then be used as an editing terminal • Digigram MPEG board (PCX series) and editing software (Xtrack) can be used to edit sound data waveforms in their compressed form after chey have been recorded by a DN-F20R.
DN-F20R
Portable IC Recorder
\$1,299.00

Eventide VR/VP Digital Studio Logging Recorder/Player


Eventide Digital Studio Logging Recorder/Player, uses digital DAT-based technology that revolutionized communications audio logging, and is now available in a compact 4 -channel unit. Each data grade 120 meter DAT tape has a capacity of $500+$ hours, divided among up to four channels. The VR204 recorder is also equipped with a hard disc memory module with a capacity of approximately 30 channel-hours. Tapes recorded on the 4 -channel VR204 can be played back on the 24 -channel VR240. The VR204 recorder/player and VP204 playback deck bring the many advantages of digital logging to new applications and an even broader group of users.
Prices begin at .
$\$ 6,495.00-\$ 16,740.00$

$$
\text { MediaTouch iLogger ..... See Page } 126!
$$

# Hotlinks to Vendors © www.bgsfl.com www.broadcastdealer.com 

## Recorders／Players－CD－R \＆CD－RW

| CD－R \＆CD－RW Features | $\begin{aligned} & \text { Denon } \\ & \text { CDR- } \\ & \text { to00P } \end{aligned}$ | Fostex CR300 | $\begin{aligned} & \text { HHB } \\ & \text { CDR800 } \end{aligned}$ | $\begin{aligned} & \text { HHB } \\ & \text { CDR850 } \end{aligned}$ | $\begin{gathered} \text { HHB } \\ \text { CDR850+ } \end{gathered}$ | Marantz CD－A／RW 631 | $\begin{gathered} \text { Marantz } \\ \text { CD-P/RW } \\ 500 \end{gathered}$ | Pioneer PDR－509 | Sony CDR－W33 | Tascam CD．RW． 700 | Tascam CD．RW． 2000 | Yamaha CDR 1000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Single Well CDR |  | Yes | Yes | Yes | Yes | Yes | － | Yes | Yes | Yes | Yes | Yes |  |
| Dual Well CDR + CD |  | － | － | － | － | － | Yes | － | － | － | － | － | cima（1）30 |
| CD．TEXT Display＋Encoding |  | － | － | － | － | Yes | Yes | － | Yes | － | － | Yes | $\square=\square 10000<0$ |
| Rackmount | 2 V | 2 U | 30 | 2 U | 2 U | 2 U | 2 U | － | 2 U | 20 | 2 U | 2 U |  |
| Recording Functions |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Audio RAM Butler | － | － | 743 ms | 743 ms | 743 ms | Yes | Yes | － | － | Yes | Yes | Yes |  |
| Sample Rate Converter（SRC） | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  |
| Auto Start（CD Sync） | Yes | － | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  |
| Digital Fade．In／Fade－Out | Yes | Yes | Yes | Yes | Yes | － | － | Yes | Yes | Yes | Yes | － |  |
| Analog Record Level Control | － | Yes | Yes | Yes | Yes | Yes | Yes | Auto | Yes | Yes | Yes | Yes | $2+20$ |
| Digital Record Level Control |  | － | － | － | － | Yes | Yes | Yes | Yes | Yes | Yes | － |  |
| Record Balance Control |  | Ye | Yes | Yes | Yes | Yes | Yes | － | Yes | Yes | Yes | Yes |  |
| Record Mute | － | Yes | Yes | Yes | Yes | Yes | Yes | $Y_{06}$ | Yes | － | － | Yes |  |
| High Speed（2X）Copy |  | － | － | － | － | － | Yes | － | Yes | － | － | － | ㅇ |
| Playback Functions |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10－Key Pad |  | Remote | － | － | － | Yes | － | － | Remote | Yes | Yes | － |  |
| Program Play | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 退乐可， |
| Repeat Play | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  |
| Random Play | Yes | － | － | － | － | Yes | Yes | Yes | Yes | － | Yes | Yes |  |
| Input／Output |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RCA Analog in | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | － | 늠 |
| RCA Analog Out | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | － |  |
| XLR Analog in | － | Yes | Yes | Yes | Yes | Yes | Yes | － | － | － | Yes | Yes |  |
| XLR Analog Out | － | － | － | Yes | Yes | － | － | － | － | － | Yes | Yes |  |
| Coaxia／RCA（SPDIF）Digital IV | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  |
| Coaxia／RCA Loop Out |  | － | － | － | － | Yes | Yes | － | － | － | － | － |  |
| Optical（SPDIF）Digital／／O | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | － |  |
| XLR（AES／EBU）Digital In | － | Yes | Yes | Yes | Yes | Yes | － | － | － | － | Yes | Yes | Cm COM，RW2000 |
| XLR（AES／EBU）Digital Out | － | － | － | － | Yes | － | － | － | － | － | Yes | Yes |  |
| GPI Control Port |  | Yes | Yes | Yes | Yes | － | － | － | － | － | Yes | Yes |  |
| Headphone whevel control | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Gaimharlykt1000 |
| Remote Control |  | Included | Included | Inciuded | Included | Included | Inctuded | － | Included | Included | Incuded | Included |  |
| Remote ControlType |  | I／R | UR | IR | UR | In | IR | － | Wired IR | $1 / \mathrm{R}$ | Wired IR | ITR |  |
| Prices | \＄749 | \＄1099 | \＄1595 | \＄1195 | \＄1595 | \＄749 | \＄849 | \＄349 | 5799 | \＄749 | \＄1125 | \＄1，799 |  |

The Tascam CD－R624 is Tascam＇s solution for professional CD mastering on either the Macintosh or Windows platform．The bundled software is reliable and easy to use．The package includes cabling，blank media，tutorials，and even a CD labeling kit．The CD－R624 allows you to create data CDs to back up your computer，and create MP3 audio files for interner distribution or use in MP3 personal players． Features include：6x， 24 read TEAC CD－R drive，burns $100 \%$ Red Book compliant audio CDs，burns popular Data CD formats，and MP3 audio encoder／player．
CDR Deluxe．
$\$ 629.00$


| CD Players | Analog Out | Note 1 Digital Out | Note 2 D/A Converier | $\begin{gathered} \text { Jog } \\ \text { Wheel } \end{gathered}$ | $\begin{aligned} & \text { Paralled } \\ & \text { VF } \end{aligned}$ | Serial VF | Plich Control | Track Select | Index Select | $\begin{aligned} & \text { Cue } \\ & \text { to } \\ & \text { Music } \end{aligned}$ | Headphone Jack | Tally | Fader Start | Rack Mount Depth | lbs. | Wemanty Partimor | Other Accessories \% Remarks | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Denon DN-600F | RCA | SC | 18bL | - | - | - | 12\% | Yes | - | - | Yes | - | - | $2 \mathrm{U} \times 10.5{ }^{\text {" }} \mathrm{O}$ | 8.4 | 1/1 | RC41 Whstwatch Rerrote Sontrol 5100 or ACz31 Remon Control 850 | \$449.00 |
| Denon DN-T620 Cassette Combo | RCAXLR | - | 16bL | - | - | - | 12\% | Yes | - | - | Yes | - | - | $34 \times 9.900$ | 13.2 | 1/1 | AC620 Wred RJS $\$ 140$ | \$649.00 |
| Denon DN-C630 | RCAXLA | SC | 18bL | Yes | Yes | - | 9.9\% | Yes | - | Yes | Yes | Yes | Yes | $2 \mathrm{U} \times 10^{\text {a }}$ | 12 | 1/1 | ACBEO Wrod R/C $\mathbf{\$ 1 3 0}$ | \$599.00 |
| Denon DN-C680 | RCAXXLR | ASC | 18bL | Yes | Yes | - | 9.9\% | Yes | Yes | Yes | Yes | Yes | Yes | $3 \mathrm{Ux} 10.5{ }^{\text {P }}$ | 10 | 1/1 | RC880 Wired FVC $\$ 5150$ ACO-2shac Samphing Fatio Converter Ouputsts seso ACD.27CS SMPTE ${ }^{\text {T }} \mathrm{C}$ Kii 5550 | \$899.00 |
| Denon DN-951FA | XLR | A | 18bL | - | Yes | Yes | 3\% | Yes | Yes | Yes | Yes | Yes | Yes | $3 \mathrm{U} \times 1 / 3 \mathrm{Rw} \times 15.75^{\circ} \mathrm{D}$ | 12 | 1/1 | AC680 Wred Ric $\$ 130$ | \$1,500.00 |
| Denon DN-961FA | KLR | A | 18bL | - | Yes | Yes | 3\% | Yes | Yes | Yes | Yes | Yes | Yes | $3 \mathrm{U} \times 1 / 3 \mathrm{Rw} \times 15.75^{\circ} \mathrm{D}$ | 12 | 1/1 | RCBEO Wried PRC $\mathbf{\$ 1 3 0}$ | \$1,500.00 |
| Marantz PMO-320 | PCA | SC | 16bL | - | WRC20C | RC-5 | 12\% | Yes | - | - | Yes | - | Yes | $2 \mathrm{U} \times 11.5{ }^{\circ} \mathrm{D}$ | 7 | 1/90 |  | \$329.00 |
| Marantz PMD-321 | XLF | ASC | 16bL | - | WRC20C | AC-5 | 12\% | Yes | - | Yes | Yes | - | Yes | $2 \mathrm{U} \times 1.5{ }^{\text {² }} \mathrm{D}$ | 7 | $1 / 90$ |  | \$429.00 |
| Marantz PMD-330 | RCA | SC | 16bl | - | - | AG-5 | 12\% | Yes | Yes | Yes | Yes | - | Yes | $2 \mathrm{U} \times 128^{\circ} \mathrm{D}$ | 10.6 | $1 / 90$ | Note 3 Batow | \$429.00 |
| Marantz PMD-331 | ACAARLR | ASCISO | 16bL | Yes | Yes | RC-5 | 12\% | Yes | Yes | Yes | Yes | Yes | Yes | $2 \mathrm{U} \times 12.8{ }^{10}$ | 10.8 | 1/90 | Notes 384 hilow | \$629.00 |
| Marantz PMD-340 | RCAAXLR | ASC/SO | 16bL | Yes | Yes | RC-5 | 12\% | Yes | Yes | Yes | Yes | Yes | Yes | $2 \mathrm{U} \times 128^{\prime \prime} \mathrm{D}$ | 10.8 | :/90 | See Noles 3 \& 4 Benow nctuder Heavy Duty C:D Mectuaniem | \$789.00 |
| Marantz PMD-350 Cassette Combo | RCAx 3 | SC | 16bl | - | WRC200 | RC-5 | 12\% | Yes | - | Yes | Yes | - | Yes | 3 U \でD | 14 | $1 / 90$ | XLR350 Buancrug kis \$179 | \$749.00 |
| Marantz PMD-370 | RCA | NA | 160L | - | WAC200 | AC. 5 | - | Ves | Yes | - | - | - | - | $34 \times 150$ | 15 | 1/90 | 5-0asc CD Cluanam | \$399.00 |
| Sony CDP-3100 | XLF | A | 18bL | - | Yes | - | 12.5\% | Yos | - | Yes | Yes | - | Yes | $3 \mathrm{U} \times 1 / 2 \mathrm{RW} \times 16^{\prime \prime} \mathrm{D}$ | 15 | 1/90 | CDS3100 Remote Control \$1,975 | \$3,975.00 |
| Soby CDP-D500 | \| RCAXLR | ASC | 18bL | Yes | Yes | Yes | 12.5\% | Yas | - | Yes | Yes | - | - | $3 \mathrm{U} \times 13^{\circ} \mathrm{D}$ | 16 | 1/90 |  | \$1,75k,00 |
| Sony CDP-XE500 | PGCA | So | Pulse Hybrid | Yes | - | - | - | - | - | Yes | Yes | - | Yes | $2 \mathrm{U} \times 14.5{ }^{\circ} \mathrm{D}$ | 7 | 1/90 | Remote Contral incusted | \$200.00 |
| Tascam CD-150 | RCA | - | 16bL | - | - | - | 6\% | Yes | - | - | Yos | - | - | $2 \mathrm{U} \times 12^{-\mathrm{D}}$ | 9.7 | $1 / 90$ | Remote Comira inaviec | \$299.00 |
| Tascam CO-305 | PrCAXLA | SC | 16bL | - | - | - | - | Yes | - | - | - | - | - | $3 \mathrm{U} \times 18.5{ }^{\circ} \mathrm{D}$ | 16 | 1/90 | Remote Controi Indudec | \$650.00 |
| Tascam CD-450 | RCA | SC | 166L | - | - | - | 12\% | Yes | Yes | Yes | Yes | Yes | Yes | 2Ux12200 | 11.2 | 1/90 | La-450 outbut bet $\$ 150$ RC-450 wrod ramite sontrelior 59 | \$799.00 |
| Tascam CD-A500 Cassette Combo | PCAXXLR | SC | 160.L | - | - | - | 12\% | Yes | - | - | Yes | - | - | $3 \mathrm{Cx} 17.6^{\circ} \mathrm{D}$ | 14 | 1/90 | Femroke Contran insuden | \$450.00 |
| Tsscam CD-A700 | RCAXLA | SC | 16bL | - | - | - | 12\% | - | - | - | Yes | - | - | $3 \mathrm{~L} \times 20 \mathrm{D}$ | 15 | 1/90 | Wroless Remecte Irctudead | \$829.00 |
| Technics SLP-G480A | RCA | So | MASH Ibl | - | - | - | - | Yes: | - | Yes | - | - | - | $2 \mathrm{U} \times 11^{\circ} \mathrm{D}$ | 7 | $1 / 90$ | Whatoss Remete irchuos | \$149.95 |
| Key- | $\begin{array}{r} \mathrm{A}=\mathrm{AE} \\ \mathrm{SO}= \\ \mathrm{SC}=\mathrm{RCA} \end{array}$ | Note 1 ESVEBU (AE Optical S/P Coaxial S/PD | Digital Out ES3-1992 XL PIF (Tos lin DiF (IEC 958 | $\begin{aligned} & \text { R) } \\ & \text { k) } \\ & \text { kype II) } \end{aligned}$ | Note | $2-\mathrm{bL}$ | $L=\text { bit Lin }$ tannel |  | Note CD-R 10-K Index Fad | 3: PM W Play Vey Track x, Progr de inJO | 0330/331 <br> back, CD <br> kelect <br> mmable <br> ut, \& A-B | 1340 inc <br> -Text Di <br> Pad, C <br> Preset <br> Loop | clude: isplay, ua-toMenu, Play | Note 4: PMC33 Instiant Start. Prolection \& Pi | 1/340 <br> 10 sec <br> teh Bon | include: Shock na $\pm 6 \%$ |  |  |

Recorders/Players • DAIs


| DATS | $\begin{gathered} \text { Male e } \\ \substack{\text { Some } \\ \text { Sonote }} \\ \text { hate } \end{gathered}$ | ${ }^{\text {ADO }}$ | D/A | $\begin{gathered} \text { Anoalog } \\ \text { vo } \end{gathered}$ | $\begin{gathered} \substack{\text { ote } 22 \\ \text { Oigal } \\ \text { vol }} \end{gathered}$ | $\begin{aligned} & \text { Long } \\ & \text { LPay } \\ & \text { Mose } \end{aligned}$ | $\begin{aligned} & \text { SCMS } \\ & \text { Defent } \end{aligned}$ | $\underset{\text { SMPTE }}{\text { ITC }}$ |  | $\begin{gathered} \text { Serial } \\ \hline \text { Port } \end{gathered}$ | $\begin{aligned} & \text { Parailel } \\ & \text { Port } \end{aligned}$ | $\operatorname{Ram}^{\text {Ram }}$ | $1 \text { feof }$ | Motots | vari-e | $\left\lvert\, \begin{gathered} \text { Head } \\ \text { phone } \\ \text { Jock } \end{gathered}\right.$ | $\begin{aligned} & \text { Head } \\ & \text { Neur } \\ & \text { veuer } \end{aligned}$ | $\begin{aligned} & \text { Exier } \\ & \text { syar } \\ & \text { synnc } \end{aligned}$ | Rack Mount | Ibs. | Warranty Partlabor | Other Accessories \& Features | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fostex PO-v2 | 310 | 18.000S | 18.50 OS | x | $x$ A | - | - | Yes | - | - | - | - | 4 | 3 | - | Yes | - | Yes | Porable | 7 | 111 | AC adapere tor modules | 57,395.00 |
| Fostex 0.5 | NBic | 1 -610S | 1.6.ids | XL® | xST | Yes | Yes | - | - | - | Yes | - | 2 | 4 | - | Yes | - | - | $33 \times 13^{\circ} \mathrm{O}$ | 15 | 11 |  | \$1.029.00 |
| Fostex 0.15 | BiC | 18.04 | 20-bt | нсах. ${ }^{\text {a }}$ | meaxis | - | Yes | - | - | Yes | Yos | - | 4 | 4 | - | Yes | - | a | $34 \times 12^{\circ} \mathrm{O}$ | 24 | 171 | 015TC S3,790 *RS422 S3:405 | 53,95.00 |
| Fostex 0.25 | B 1 | 18805 | 18.0.0. ${ }^{\text {\% }}$ | XLR | xa | - | Yes | Yes | - | Yes | Yes | Yes | 4 | ¢ | Yes | Yes | - | Yes | $3 \times 190$ | 29 | 17 |  | \$7.995.00 |
| Fostex 0.30 | ${ }^{\text {BC }}$ | 18 DSS | 18.750: | XLR | xA | - | Yes | Yes | - | Yes | - | - | 4 | $\checkmark$ | - | Yes | - | Yes | $3 \times 190$ | 31 | i1 |  | \$10.99500 |
| HHE PDR.-10007C | anc | 1.9108 | 1.tios | RCOSLLA | XARS | - | - | Yes | Yes | - | Yes | - | 4 | - | - | Yes | - | - | Porable | 5.3 | \%1 |  | 56.99500 |
| Sony PCM.M1 | WBC | 16 bt | 16 ise | 3 mmm | 7.pn | Yes | - | - | - | - | - | - | 2 | - | - | Yes | - | - | Porable | ${ }^{3} 3$ | 190 | AC 100V Adgipler inaudea | \$1,040.00 |
| Sony PCM.R300 | ABC | 1.61 | - -atocic | RCA | RST | Yes | - | - | - | - | - | - | 2 | 2 | - | res | - | - | $3 \mathrm{3} \times 14^{\circ} \mathrm{D}$ | 11 | 1190 |  | \$1.02500 |
| Sony PCM.REOC | Nerc | 1. brios | tanac | псохй | XAFS | Yes | Yes | - | Yes | - | Yes | - | 2 | 41 | - | Yos | res | - | $30 \times 14^{\circ} \mathrm{D}$ | 136 | 190 |  | \$1.76500 |
| Sony PCM.R700 | $A B C$ | 1 -atios | 10.0 .0 | maxas | xafs | Yes | Yes | Yes | Yes | - | Yes | - | 4 | 4 | - | Yes | Yes | - | $34 \times 14.0$ | ${ }^{17}$ | 190 | Wireess Af Indued | \$2,950.00 |
| Sony PCM-7090 | Sic | 16 -bt unear | $\begin{aligned} & 16-\mathrm{bb} \\ & \mathrm{nn}^{2}+ \end{aligned}$ | $\times 18$ | XA | - | Yes | Yes | Yes | Yes | Yes | - | 4 | 4 | Yes | Yes | - | Yes | $3 \mathrm{x} \times 14 \mathrm{D}^{\text {D }}$ | 21 | 190 | Fack Mant Acarier Rym31 560 | 59,995.00 |
| Sony TCD-Di | ABC | ${ }_{\substack{16 \\ \text { incoar } \\ \text { linar }}}$ |  | 35 mm | $\bigcirc$ | Yes | - | - | - | - | - | - | 2 | 3 | - | Yes | - | - | Poratie | 2 | 17 | Super Bi Mapang idapler SEM' Ot | 589995 |
| Sony tco-bioproz | ABic | 16-bit Inear | $\begin{aligned} & 1692 \\ & \text { thear } \end{aligned}$ | ncaxtip | A | - | - | - | Yes | - | - | - | 2 | 4 | - | Yes | Y/s | - | Poratio | 4 | 2 |  | 84,525.00 |
| Key- | $\begin{gathered} \text { Note } f=\text { Sample tiate } \\ A=32 \mathrm{kHz} \\ \mathrm{~B}=44.1 \mathrm{kHz} \\ \mathrm{C}=48 \mathrm{kHz} \end{gathered}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |




## Tascam IDA-302 Front



| DATS | Note 1 <br> Sample Atet | ND Converwa | O/A Converver | $\begin{gathered} \text { Analog } \\ 1 / 0 \end{gathered}$ | N Note 2 Dightal No | Long Play Mode | SCMS <br> Dotorif | SMPTE | $\begin{aligned} & \text { Tume } \\ & \text { Datte } \\ & \text { Pnecinding } \end{aligned}$ | $\begin{aligned} & \text { Sertal } \\ & \text { Port } \end{aligned}$ | $\begin{aligned} & \text { Paralled } \\ & \text { Port } \end{aligned}$ | $\begin{aligned} & \text { RALH } \\ & \text { Bufler } \end{aligned}$ | $\begin{aligned} & \text { of } \\ & \text { Heede } \end{aligned}$ | $\begin{gathered} \text { of } \\ \text { Motors } \end{gathered}$ | Vart Speed | thoedphone Jack | $\begin{aligned} & \text { Hoad } \\ & \text { How } \\ & \text { Moter } \end{aligned}$ | $\begin{aligned} & \text { Exter- } \\ & \text { nal } \\ & \text { Synct } \end{aligned}$ | Rack Mount | Ibe. | Warmaty Parleter | Othe Acceseories of Foaturet | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tascam DA-zomkiI | AMBC | 1-bnDS | 1-bids | RCA | RCA | Yes | Yos | - | - | - | - | - | 2 | 2 | - | Yes | - | - | $3 \mathrm{u} 14^{\circ} \mathrm{D}$ | 18 | $1 / 90$ | Wholews Remote l\%iduded | \$1,309.00 |
| Tascmin DA-302 | NAMC | 18-bi | 16-bat | RCA | ACA | Yes | - | - | - | - | - | - | 4 | 4 | $Y_{8}$ | Y | - | - | 3U*14*D | 16 | $1 / 80$ | LA-O302 Balancing Kin $\$ 110$ WR-7000 Syncro cabe to allow cascade for 302 O DAOCT2's $\$ 17$ | \$1,899.00 |
| Tescem DA-40 | AB/C | 18-bit | 16 -br | ACAXLA | bcaxla | Yes | Yes | - | - | Yes | Yes | - | $\because$ | 3 | Yos | Yes | Yes | - | 3U*14,33\% | 18 | 1/90 | RC-D45 Wired PMC 398 | \$1.399.00 |
| Tascen DA-45HA | 8 C | 24-bin | 20-bt | bCancta | ACAXLA | - | Yes | - | - | Yes | Yes | - | 2 | 3 |  | Yes | Yes | - | $3 \mathrm{U} 14.7{ }^{\circ} \mathrm{D}$ | 19 | 1/90 | RC-045 Wired PrC $\$ 8_{89}$ | \$2,185.00 |
| Tescmin DA-somkI | BMCA | 1-bins | 20-bi | RCAXLA | XLR | - | - | Yes | Yes | Yes | Yes | You | 1 | 4 | Yes | Yes | - | Yes | $3 \mathrm{U} \times 13^{\circ} \mathrm{D}$ | 23 | 1/90 | RC-D6 Remote Cemtral \$245 | \$6.989.00 |
| Tescem DA-P1 mochutari ehouition beat AC moloser is one batury | NB/C | 1-btos | Pbins | RCanxla | RS |  | $Y_{e 8}$ | - | - | - | Yes | - | 2 | 2 | - | Yes | - | - | Porrable | 4 | 1/90 | BP-D1 Rechargents Betwery $\$ 110$ CB-D1 Ent. Battery Chatger sio CS-D1 Carry Case \$140 PS-D1 AddI AC Adkptur $\$ 140$ | \$2,099.00 |
| Key- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Recorders/Players • Flash Field

## Denon DNF-20R

The Denon DN-F20R portable IC recorder uses IC memory cards as the recording medium, doing away with cumbersome mechanisms and enhancing reliability. Two card slots provide recording flexibility. Recordings on the DNF20R are created as sound files in MPEG format, the international standard, which can be ported to a PC for editing and manipulation. Features include: use of an IC memory card as the recording medium • IC memory card complies with the international standards for the CompactFlash card 1 and supports large memory capacity of $192 \mathrm{MB} \cdot$ use of the MPEG international standard enables high compression and high sound quality • linear PCM recording is also supported (WAVE file recording) • XLR terminals are used for $\mathrm{L}+\mathrm{R}$ mic inputs ${ }^{\bullet}$ compact, easy-to-carry A5 size even with XLR terminals • since the memory card is 16-bit FAT formarted, it can be read and written to by a PC system $2,3 \cdot$ sound quality can be selected (in recording bit rate) to suit the application, enabling efficient use of the card $\bullet$ uses 6 AA batteries $\bullet$ and wired remote control jack.
DN-F20R

## Hotlinks to Vendors ©

www.bgsfi.com www.broadcastdealer.com

## Recorders/Players • MD Recorders




## Recorders/Players • Digital Multitrack

## AKAI DR16Pro Digital Recorder



AKAI's DRI6 offers 24 -bit, $96 \mathrm{kHz}, 16$ track random-access editing. Features include: 24 -bit, 20-bit, and 16 -bit digital audio format $\cdot 96 \mathrm{kHz}$, $48 \mathrm{kHz}, 44.1 \mathrm{kHz}$ and 32 kHz sampling rate $\bullet 24$-bit 128 x oversampling ADC $\cdot 20$ bit $8 x$ oversampling DAC $\bullet$ instantaneous access to 109 autolocate points $\bullet$ link up to 8 DRs for up to 128 tracks " "Take" function for easy recording and auditioning of alternate takes $\bullet$ standard SCSI interface allows access to external drives including M/O and Jaz ${ }^{\mathrm{TM}}$; removable media drives. Internal 16 -channel digiral mixer features: 99 -scene snapshot automation • full dynamic automation via MIDI $\bullet 2$ aux sends • and stereo bus for internal digital mixdown. Inputs and outputs include: analog; 8 in $/ 16$ out with stereo master $\bullet$ switchable $+4 /-10 \mathrm{~dB}$ line levels $\bullet$ balanced $1 / 4^{\prime \prime}$ TRS I/O • built-in mic preamps • digital; AES/EBU and S/PDIF • and Wordclock inpur.


AKAI DPS12V2 12 Track Digital Personal Studio
The AKAI DPS 12 V 2 digital personal studio combines a 12 -track random access digital recorder with a professional qualiry uncompressed 16 -bit sound and powerful nonlinear editing and a 20 channel (at mixdown) MIDI automatable digital mixer in one package. Features include: 12 audio tracks - 250 virtual tracks - can record 8 tracks simultaneously (6 analog/2 digi-

tal) - records onto internal removable media or external drives via SCSI-2 12 direct locate points $\bullet 100$ stack locate points $\cdot 250$ levels of undo $\bullet$ random access editing $\cdot 6$ balanced analog inputs and 1 optical S/PDIF digital (stereo) input $\cdot 2$ aux sends $\cdot 2$ master stereo outputs (analog and optical S/PDIF digital) • digital EQ and more.
DPS12V2...
12 Track Digital Personal Studio
\$1,649.00
DPS12V2S
Includes EB2M Stereo Multieffects Processor \$1,949.00

Alesis ADAT-LX20 Digital Audio Recorder
The Alesis ADAT-LX20 offers the same 20-bit ADAT type II digital recording format as the XT20 recorder. Main features
 are: modular format for studio systems from 8 to 128 tracks $\cdot$ inexpensive, readily available S -VHS tape media • 5 location points with automated recording functions $\cdot$ ADAT optical digital interface $\cdot-10 \mathrm{dBV}$ unbalanced phono RCA jacks $\bullet$ and is compatible with all models of ADATS. $3 \mathrm{U} \& 16 \mathrm{lbs}$.

## Alesis ML-9600 Digital Audio Recorder NEW, <br> The Alesis MasterLink is destined to become the new standard for high-resolution twotrack audio. A stand- <br> 

 alone system that combines hard disk recording, digital signal processing, audio editing and compact disc creation/playback. Features include: standard formats from 16-bit, 44.1 kHz to $24-$ bit, $96 \mathrm{kHz} \cdot 4.3 \mathrm{~GB}$ hard drive stores up to five hours of digital audio editing, mastering and finishing tools $\cdot$ sets precise start and end points to each track - apply real-time DSP -compression, equalization, limiting and normalization - compile 16 playlists with up to 99 songs each $\bullet$ full control of song order, track gain, fade-ins and fade-outs CD Recording and Playback - create and play back Red Book and CD24 discs • Red Book format: the worldwide CD standard ( 16 -bit, 44.1 kHz ) • CD24: Hi-res AIFF-compatible CDs with your choice of resolution $\cdot$ offers $24-$ bit, 96 kHz audio quality using low-cost CD-Rs • analog inputs and outputs (balanced XLR leff/right, unbalanced phono left/right), digital inputs and outputs (balanced AES/EBU-compatible left/right, unbalanced S/PDIF-compatible left/right), and IEC power receptade. Supplied accessories: infrared remote control, blank CD-R, rack ears, standard IEC power cord. $3 \mathrm{U} \& 16.55 \mathrm{lbs}$.ML-9600
Digital Audio Recorder
$\$ 1,699.00$

Alesis ADAT-XT2O Digital Audio Recorder
 The Alesis ADAT-XT20 records eight tracks of true, linear 20 -bit digital audio onto tape, without using external converters or multiplexer. Main features are: modular format for studio systems from 8 to 128 tracks - inexpensive, readily available $S$-VHS tape media $\cdot 20$-bit oversampling A/D and 24-bit D/A digital converters, 102 dB dynamic range - track copy, tape offset and track delay editing functions • 10 -point autolocator/ 10 -key numerical inpur • ADAT optical digital interface $\cdot+4 \mathrm{dBu}$ servo balanced and -10 dBV unbalanced audio connection • and is compatible with all models of ADAT. 3 U \& 20 lbs .
XT20
20-hit Digital Audio Recorder
\$2,599.00
Alesis ADAT StudioPack
 mixing, effects and dynamics processing. It includes the ADAT-LX20, Studio 24 recording console, and all the cables you need to hook up the entire studio system. The StudioPack comes with a free instructional video that takes you through a step by step tutorial. The video tells where to plug in each cable, explains the use of each component, and gives you advice on the best ways to begin using your new recording studio.

StudioPack ...... A complete recording studio in a box
\$2,999.00

## Recorders/Players • Disital Multitrack

## Fostex 0108 Hum Dish \& Tack Recorder



The Fostex D108 eight track digital recorder includes the FDMS3 disk management technology allowing, for example, up to 1,548 track minutes of 44.1 kHz full bandwidth recording on an 8.2 GB hard drive. A total of 24 tracks are available, of which 8 can be simultaneously recorded or played back at any one time allowing you to keep multiple takes of your tracks. The D108 also offers an additional 99 memory locate points in addition to the 6 memory edit points, 99 virtual reels and a new graphical preview function, all of which are easily displayed on the large FL display. The most innovative function is the ability to export and import the tracks of any project as PC standard '.WAV' files to facilitate editing, processing and sound file conversion using
 any popular PC based editing software. SCSI-2 is standard, with balanced I/O and comprehensive timecode facilities available on optional plug-in cards. 24 lbs .
D108. $\qquad$ Hard Disk 8 Track Recorder \$1,495.00
D108/O ......... As above w/o HD
$\qquad$ \$1,195.00
D108B ........... w/+4dBu balanced I/O and HD installed .................... \$1,860.00
D108BO ........ As above w/o HD \$1,560.00
D108TC......... w/timecode and HD .................................................. \$2,445.00
D108TCO
As above w/o HD \$2,145.00
D108TCB ...... w/balanced I/O, HD, \& timecode installed ................. \$2,810.00
D108TCBO ... As above w/o HD $\$ 2,510.00$
D160v2 .......... Hard Disk 16 Track Recorder w/5.2GB HD, 30lbs. ... \$2, 195.00

## Fostex FD4-4 Dipitai Mulitracker

The Fostex FI $4-4$ hard disk multitracker has a dynamic range of 105 dB and has a full-function four channel mixer that offers balanced XLR (on channels $1 \& 2$ ) or unbalanced mic inputs. Each channel has a 3 -band EQ with wide band parametric mid control. Two aux sends per channel and two stereo returns, plus insert points on channels 384 (for adding compressor/limiter, etc., directly into the audio path) create a flexille recording/mixing machine. Features include: auto locate auto return/play • auto punch I/O w/rehearse mode • built-in metronome with two signature types, tempo and MIDI clock output • and random access editing tools w/full undo/redo capabilities. There's the ability to bounce all four tracks to an additional stereo pair of tracks on the same media withour losing any tracks or audio quality in the process. With the FD-4 you can make 2 -track digital masters without using an external machine. The FD-4 lets you choose virtually any SCSI-2 media or have an optional E-IDE drive factory installed into the FI)-4. The FD-8 digital multirracker offers 8 -tracks and 16 virtual tracks. Oprional media of choice - internal IDE or SCSI-2 to removable HD, M/O, etc. Lighrpipe ${ }^{\text {TM }}$ interface, 2 recording modes (one for no compression CD quality, the oher for high quality extended time), interfaces \& functions of FD-4 apply.

FD-4 .............. Digital Multitracker, 10lbs. ............................................. $\$ 649.00$
FD-8 ............... Digital Multitracker, 14lbs. $\$ 899.00$

## Fostex VR800olgitu Multtrach Recorder

The Fostex VR800 digital multitrack recorder has the ability to simultaneously record 8 tracks of digital audio to a variety of storage devices that mount into a 3.5 " drive bay. Just connect two ADAT optical cables and start laying down tracks. Features include: 16 additional tracks available for 24 track recording $\cdot 3.5^{\prime \prime}$ bay for recording media such as E-IDE hard disk, Zip ${ }^{\text {TM }}$ or Zip 250 MB drive - non-compressed recording at 44.1 kHz - copy paste, move paste $\&$ erase w/undo/redo including multiple track paste $\bullet$ track exchange of any 8 track to/from additional 16 tracks $\bullet$ audio scrub with graphic envelope display $\bullet$ digital track in for importing data from $C D$, DAT, etc. • word out \& ASYNC function • MTC slave, MIDI clock, SPP out \& MMC • 6 edit memory \& 99 locate point memory • SCSI port for an external recording or backup device $\bullet \pm 6 \%$ vari-pitch • and 99 song programs.
VR800 ............ Digital Multitrack Recorder ........................................... \$749.00
VR800/5.1 ..... As above with 5.1GB Internal HD ............................. \$1,099.00
VR800/250X .. VR800 with external Zip ${ }^{\text {TM }} 250$ HD ............................. $\$ 999.00$
VC-8 .............. ADAT/Analog Converter ............................................. \$329.00


The Roland VS840EX digital studio workstation includes powerful new effects, easier operation, and a new guitar tuner. Features include: self-contained 8 -track digital recording workstation with built-in digital mixing, stereo effects processing and $250 \mathrm{MB} \mathrm{Zip}^{\text {TM }}$ drive - onboard effects include new mic simulation, acoustic and bass guitar simulation, and bass multi-effects, plus studio reverb, delay, chorus, COSM guitar amp simulation and more - dedicated guitar input with new chromatic guitar/bass tuner built-in $\cdot$ enhanced EZ routing function simplifies recording and mixing process with simple "yes/no" questions and new quick recording mode - highly efficient digital recording/editing environment with enhanced song optimize functions and expanded SCSI options • and "EX" features are available to current VS-840 owners via convenient VS-840-UPI hardware/software upgrade.
VS840EX ....... Digital Studio Workstation w/250MB Zip ${ }^{\text {TM }}$ Drive ...... \$1,395.00

## Recorders/Players • Digital Multitrack

## Roland VS880EX Digital Studio Workstation



The Roland VS880EX digital studio workstation offers high-powered digital recording with stunning built-in effects, more inputs and outputs, more simultaneous recording tracks, more virtual tracks, a refined backlit display and a simplified user interface complete with acclaimed EZ routing navigation. Features include: fully digital recording/editing, 16 -channel automated mixing, expanded EQ capabilities • built-in dual independent stereo multi-effects processing with 34 algorithms • 64 virtual tracks x 2 banks (only one bank can be used at a time, with virtual tracks freely exchanged berween banks) of digital hard disk recording; up to 8 tracks (number of simultaneous recording tracks is dependent upon speed of hard drive and recording mode used) of simultaneous recording and playback $\cdot 20$-bit A/D-D/A converters ${ }^{-}$ expanded input section with 6 balanced TRS inputs and 2 digital inputs (optical or coax) • expanded output section with 4 analog outputs and 4 digital outputs (optical and coax) • non-destructive audio editing; 999 levels of undo for recording and editing • built-in SCSI port offers storage/interface with a variety of drives, computer periphesals, etc. - MIDI timecode and MIDI machine control for sync • and audio CD recording and data backup with optional CD-R drive.
VS-880EX ...... Digital Studio Workstation w/2GB HD \& Effects ....... $\$ 2,195.00$
VS-CDRII ...... CD Recorder Stystem for the VS-880 and VS-1 680 ...... $\$ 750.00$

## Roland VS1680 Digital Studio Workstation



The Roland VS1680 offers eight tracks of full linear digital audio recording and editing. The VS1680's huge backlit 320 $\times 240$ dot full graphic LCD simultaneously displays waveform editing, level meters, EQ effects settings and more. The backlit LCD provides an intuitive graphic user interface. Features include: 20 -bit A/D-D/A converters • internal 2.1 GB hard drive provides over 550 -track minutes record time $\bullet$ sixteen tracks recording using MT-PRO recording mode 0256 recordable tracks per project, select any 16 for simultaneous playback • inputs" 2 balanced XLR mic inputs w/switchable phantom power; 6 balanced $1 / 4^{\prime \prime}$ TRS; 2 digital SPDIF and optical •outputs- 8 analog outputs; 2 stereo digital SPDIF and optical; stereo headphone output; 4 balanced analog outputs •EZ routing function provides step by step guidance • dedicated LED button • and optional CD-R system allows recording audio CD's directly through SCSI buss, plus hard drive back up and archiving to CD-RW.
VS1680HD
24-Bit Digital Studio Workstation
\$3,195.00
VS-CDRII ...... CD Recorder System for the VS-880 and VS-1680 ........ $\$ 750.00$

Tascam DA-78HR Modular Digital Multitrack Recorder


The Tascam DA-78HR offersa built in digital mixer and on board SPDIF digital I/O for transfers from DAT or CD could be used for a quick mixdown, or for bouncing tracks externally. The DA-78HR can work with any other DTRS machine in the DTRS Sync line. Features include: selectable 16-bit or 24 -bit High Resolution audio $\cdot 24$-bit A/D and D/A converters $\bullet>104 \mathrm{~dB}$ dynamic range $\cdot 20 \mathrm{~Hz}-20 \mathrm{kHz}$ frequency response $\pm 5 \mathrm{~dB} \cdot 1 \mathrm{hr}$. 48 min . recording time on a single 120 tape ${ }^{\bullet}$ on-board SMPTE synchronizer - chase or generate time code $\cdot$ onboard support for MIDI Machine Control • internal digital mixer with level and pan for internal bouncing, or for quick mixes • track slip from -200 to +7200 samples $\bullet$ expandable up to 128 tracks ( 16 machines) • Word Sync In/Out/Thru • analog output on DB25 balanced and RCA unbalanced $\bullet$ digital output on TDIF and 2 channels ofSPDIF.

DA-78HR $\qquad$ Modular Digital Multitrack Recorder
\$3,299.00
Tascam DA-88 Modular Digital Multitrack Recorder
 The Tascam DA-88 modular digital multitrack recorder delivers the best of Tascam's Hi8 digital audio format. Features include: 1 hr .48 min . recording time on a single 120 min. tape expandable up to 128 tracks/ 16 machines ${ }^{\bullet}$ user-definable track delay $\& \&$ crossfade $\bullet$ shuttle \& jog capability • auto punch with rehearsal • SMPTE, MIDI and Sony 9-pin sync capability • and options include: RC808/828 remote controllers • IF-88AE/IF885D digital interfaces $\cdot$ MU-Series meter bridge - MMC-88 MIDI machine control interface $\bullet$ and SY - 88 sync card.


DA-88
. Modular Digital Multitrack Recorder \$5,199.00
RC-808 $\$ 245.00$

Tascam DA98 DTRS Modular Digital Multitrack


The Tascam DA98 offers features like: confidence monitoring - individual track tape/ source monitoring - an integrated electronic patchbay ${ }^{-}$ dedicated function/numeric keys • digital track copy and switchable reference level capability * individual input monitor select switch facilitates easier checking of source/tape levels $\bullet$ D-sub connector (37-pin) for parallel interface with external controller - and switchable reference levels for integration into a variety of recording environments with internal tone generator. Sony P2 and MIDI synchronization standard, it has a comprehensive LCD display and the ability to defeat it's dither function. The DA-98 urilizes the DTRS® Hi8 format to deliver up to 116 minutes of digital audio recording on 8 tracks and is compatible with all DTRS format recorders. It has a flat 20 Hz to 20 kHz frequency response, a dynamic range that exceeds 92 dB and uses 20 -bit Delta Sigma A/D converters with 64 times oversampling and 20 -bir $\mathrm{D} /$ A converters with 8 times
 oversampling.

DA-98 DTRS Modular Digital Multitrack $\$ 6,499.00$

## Recorders/Players • Digital Multitrack

## Tascam MX-2424 Dygta Auetio Hard Dhes Recorder



The Tascam MX-2424 is a revolutionary product - a 24 track, 24 bit digital audio hard disk recorder designed for the expanding professional and semi-pro market. Priced at a mere $\$ 3999$, the dollar-to-track-count ratio of this stand-alone versatile recorder puts the advantages of disk based recording within reach of most audio gurus. Familiar features and performance for the analog recordist, powerful enough for the DAW editor, and pure enough to satisfy the most discriminating audiophile.
MX-2424
Digital Audio Hard Disk Recorder
\$3,999.00
Tascam 788 oughal portastudis


The Tascam 788 Digital Portastudio is an 8 -track, 24 -bit hard disk recorder workstation that was designed to give you the latest in recording technological innovation. Features include: 250 virtual tracks for comps and alternate takes $\bullet$ built-in high quality digital effects $\cdot 24$-bit uncompressed sonic fideliry, 24 -bit AD/DA converters • nondestructive editing: 999 levels of audio • 3-band EQ with true paramerric mid • and SCSI port for data archives and CD burning. Inputs on the 788 are all $1 / 4^{\prime \prime}$ balanced TRS jacks which can accept both mic and line level signals. Stereo outputs for mixing down, monitor outputs to send audio to your speakers and aux outputs are all included on individual connectors. Also, MIDI I/O jacks are provided for syncing your audio tracks to synthesizer and software-based sequencers or other devices that use MIDI Time Code, MIDI Machine Control and MIDI Clock. A S/PDIF digital output makes it easy to send your audio to CD and DAT recorders for two-track masters.
788.

Digital PortaStudio.
$\$ 1,149.00$

Yamaha AW/4.416


The Yamaha AW 4416 elevates the stand-alone studio concept to a level that's destined to become the new standard. Features include: 16 -track recording (x 8 virtual tracks) to internal hard disk $\cdot 24$ bit recording with no compression and 32-bit processing $\cdot$ Up to 64 GB internal hard disk drive ( 6.4 GB for one song) - Max. 44 channels, 8 groups and 8 AUX send busses mixer $\cdot 2$ systems of internal multi-effects ${ }^{\bullet}$ Channel/EQ/Dynamics/Delay/Attenuation/Phase/Insert $\bullet 8$ sample trigger pads with 2 banks (max. approx. 90 -seconds) • Scene Memory and Auto-mix functions • Track, Part, Region and Song editing - Standard play/record transport functions plus Jog with Shuttle - 99 Mark points per song plus Quick Locate and Repeat $\cdot$ Manual and Auto Punch I/O • Large $320 \times 240$ dot LCD + FL display $\cdot$ Onboard mastering to internal stereo tracks - Word Clock I/O, MIDI In, Out/Thru, MTC Out, To Host, SCSI, Mouse and Foot Switch connectors • 2 Mini-YGDAI card slots for multiple digital and analog I/O options • Built-in CD-RW drive (option)
AW4416HD
Professional Audio Workstation
AW4416HD with CD Burner
$\$ 3,599.00$
AW4416CDHD
\$3,799.00

## Yanlala MD8 Mutitrich MD Recbidut

Yamaha MD8 multitrack MD recorder and mixing system records digitally to a MD data disc with a sampling frequency of 44.1 kHz , delivering flat frequency response from 20 Hz to 20 kHz with inaudible $0.02 \%$ total harmonic distortion (at 1 kHz ), at a signal to noise ratio of 96 dB . This formatting permits 18 min utes of 8 -track recording, 37
minutes of 4 -track and 74 minutes of stereo recording and 148 minutes of mono recording. The MD8 also lets you record and play in stereo or monaural using a standard Mini Disc. Some of the MD8 features include: simultaneous 8track recording • all-track ping-ponging • flexible signal routing • cue section • two aux sends with stereo returns $\bullet$ group assign switches $\bullet$ monitoring features $\bullet$ direct outpurs $\bullet$ search and locate • precise punch I/O • pre-roll and post-roll • multiple controls $\bullet$ large fluorescent display • MIDI control options • channel inputs and inserts • 3-band EQ w/ mid sweep $\bullet$ time entry search $\bullet$ song repeat ${ }^{\circ}$ cue list and program play $\bullet$ and more.

## MD8

Multitrack MD Recorder $\qquad$ \$1,399.00

## Yamaha DME32

 The Yamaha DME32 Digital Mixing Engine is a digital audio tool-box that gives you all the tools necessary to create virtually any audio system or processor you require. With installed sound systems becoming more complex, the DME32's flexibility, expandability and ease of use make it a perfect solution. Because of its open-archisecture, DME32 can be used in a wide variery of applications, including a stand-alone or sidecar mixer, a speaker cluster controller, an effects processor, a digital audio router, or even a surround sound matrix. The DME32 also features a new generation of Yamaha 32-bit DSP technology and new $24-$ bit $/ 48 \mathrm{kHz}$ I/O options for absolutely unrivaled sound quality.
DME32
. Digital Mixing Engine
\$3,699.00
AD824 8-Channel A/D Converter
$\$ 1,899.00$
DA824
8-Channel D/A Converter
\$1,399.00

## Yamaha MD4S Muntrack Mo Foccirder

Yamaha MD4S multitrack MD recorder is a 4 channel full inline mixer, designed for great sound and flexibility in recording. All fou channels are equipped with $1 / 4^{\prime \prime}$ TRS phone inputs. Channels 1 and 2 incorporate combination XLR/ phone balanced inputs as well as insert I/O jacks. Each channel features a 3-band EQ section along with variable gain, pan, fader and two aux sends that can be re-
 turned to the mixer via stereo channels $5 / 6$ and $7 / 8$. Monitor your work with headphones or external speakers connected to the monitor out jacks. Direct outputs are also available for each recorder track for additional sound processing externally. Some other features include: full range frequency response of 20 Hz to 20 kHz and a sampling rate of $44.1 \mathrm{kHz} \cdot$ unlimited ping-pong w/o degradation $\bullet$ large jog $/$ shutde $\bullet$ playback at $1 / 2$ speed or fast forward/rewind at various speeds from $2 x$ to $32 x^{\prime}$ • compatible with MIDI devices $\bullet$ and has high-end editing functions and non-linear access.

MD4S
Multitrack MD Recorder
$\$ 899.00$

## Audemat ITS4 Remote Monitoring



The Audemat ITS4 is a "soft parameter" monitor that can best be described as an electronic listener. The ITS4 listens to stations and monitors many parameters that we normally don't. ITS4 monitors and alarms when out of tolerance conditions happen to the following: RF level (too low, too high), L \& R audio, audio phase rotation, stereo, pilot level, RDS, composite level, RF intruder and more.... ITS4 alerts you of alarm conditions using MAC-NET software via phone, pager, fax or even email. There are multiple levels of alarm notification and multiple levels of security for the software. ITS4 can monitor every station in a market or specific stations as required by the operator. For large groups with dozens of transmitter sites to manage ITS4 displays the location of the alarm from any site on a map. This map feature eliminates confusion as to where the problem has occurred and speeds up dispatch of technical personnel to correct the problem. The ITS4 FM also offers automatic setting of monitoring parameters, which can be locally and remotely accessed and modified. This new solution, available for $\mathrm{FM}, \mathrm{AM}$ and TV, enables network operators to make quicker and better decisions on what to do in the event of alarms, saving time and money.
ITS4FM .... FM-RDS-DARC muli-channel, muldi-task, multiple receivers .... $\$ 3,615.00$
Kit Modem ..... Modem Kit For ITS4FM Olitec RTC w/cables .............. \$225.00
ITS4AM ......... Monitoring system AM, multi-channel, multi-task, multiple receivers (delivered with internal modem) ...... $\$ 7,000.00$
ITS4TV .......... SECAM and PAL (delivered with internal modem) ..... \$7,000.00
Site Management and Alarm Reception Software
MACNET Alarm Reception Software .........................................................
Includes MAPINFO and configuration software ........ $\$ 7,446.00$

## Consider the purchase of 2 silence sensors. Set 1 for 30 seconds to call the studio or PD and 1 to call you after 5 minutes!

## Belar AS-1 Audio Sentry

The Belar AS-1 Audio Sentry is an alarm which aurally and visually alerts station personnel of the absence of modulation or carrier. It will react immediately upon loss of carrier. In the case of loss of modulation, the Audio Sentry can be programmed to sound off anywhere between 3 and 60 seconds.

## AS-1

$\$ 295.00$

Benchmark VCA-2 voltage Controlled Amplifier


Benchmark VCA-2 is a remote stereo voltage controlled amplifier that features balanced instrumentation inputs, gain control from -100 to +20 dB , and balanced outputs. It is housed in a $1 / 2$ wide, IU chassis that is rackmountable. The VCA-2 has low THD +N of $0.002 \%$ and balanced control inputs which allow long distance control.
VCA-2 .................... Voltage Controlled Amplifier ............................ \$299.00
Broadcast Tools MSO-8 Control Panel


The MSO-8 provides a convenient way to add front panel control to our smaller profile products. The MSO-8 consists of a $1-\mathrm{RU}$ chassis, top cover and a front panel that provides two sets of four LED-indicator equipped switches. The chassis has threaded standoffs configured for two small profile products and an RF Relay. I-RU.

MSO-8
Control Panel
$\$ 159.00$


## Broadcast Tools DC-8A Dial-Up Remote Control



The Broadeast Tools DC-8A is designed to connect to a standard dial-up telephone line, allowing the user to control eight SPDT relays and monitor eight digital inputs via any standard Touch-Tone $®$ telephone. The relays may be configured for momentary, latching, interlocking or group latch/unlatch operation. The DC-8A incorporates a "Pager Alert" function, which when activated, will dial up to three digital pagers and display a programmed phone number along with the input that caused the alarm. Additional features include: programming via standard Touch-Tone ${ }^{\circledR}$ phone $\bullet$ up to

8 digit passwords • programmable number of rings $\bullet 1 \mathrm{kHz}$ tone generator * audio I/O switching to telephone line $\bullet$ front panel status LEDs for tone, off-hook, local control, ring and power $\cdot$ single high/low DTMF tones used for status of the eight relays and digital inputs. Three new features include: CPC control, allowing the automatic disconnection of the phone line when the calling party hangs up • Acknowledgment of tone defeat, disabling the feedback tones when used for on-air applications • and stand-alone DTMF Detection, enables the user to connect programming audio to the unit allowing the detection of DTMF tones one through eight. IU


## Remote Controls • Automation

## Broadcast Touls DC-10 Prablup Fernote Conifol



Equipped with 10 relays ( 2 are DPDT), 8 digital and/or analog inputs, along with a telephone hytrid, which allows control and monitoring from any touch-tone telephone. Other features include; stereo silence sensor; 6 telephone number pager alert; balanced inputs and output; local and remote programming with touch tone telephone or NON-DEDICATED computer; removable screw terminals; I-RU.
DC-10 $\qquad$ Dial-Up Remote Control (Spring 2001)

Under $\$ 459.00$

## Broadcast Toals SFC-1616L seria femote comtroh



The SRC-1616L is equipped with 16 opto-isolated and CMOS/TTL compatible inputs and 16 -Relay (Form C) outputs. The unit may be controlled from a host computer, or a pair of units can be used in a stand-alone configuration (relay extension cord). The unit communicates using RS232, RS485(2-wire) or RS422(4-wire), at data rates up to 115.2 K bits/second. 32 or more SRC-1616L's could be controlled from a PC, only 2 boards can work in stand-alone mode. Other features include: LED indicators for all inputs, relays, power and serial data flow; Dip switch selection of the communication address (8-bits), and operating mode (8-bits). Jumpers are available for Baud rate selection and other functions (7-bits). Removable screw terminals.
SRC-1616L .. Serial Remote Control. $\qquad$ $\$ 659.00$

## Broadcast Tools PSC

Fromarmaile Stretule Ecrubler
The Broadcast Tools Programmable Schedule Controller, (PSC), can store and control up to 160 events. Events may be programmed with Hour/Minutes/Seconds and Day/ Month/Year or Day of Week. Fach event may control any one
 of rwenty spst relays provided with the l'SC and/or 32 serial custom commands. The PSC may be used to select multiple tone decoders, control of satellite channel/ransponder controllers, audio/video switchers/routers, power and/or directional pattern changes at transmitrer sites, audio processing day part control, or any device needing a contact closure or serial string to perform a function. Programming is accomplished with any non-dedicared computer and off-the-sheff communication software, such as I'rocomm, Bitcom, Windows Terminal, Windows 95/98/NT Hyper-Terminal, etc. Fearures include: Fiekd-programmable with a non-dedicated PC - Twenty spst relays, with up to six character labels. These may be configured for either momentary or latched contact closure. - Thirty-two, nine (9) character Serial custom commands. May be linked for longer strings. - Microprocessor based control system. - EEProm, with 10 year retention event and conffguration memory. - Stable 60 Hz power line time base. Statility is at five seconds per month or less. - Opuically isolated Sync input with LED indicator, allowing clock updates any tine within any hour from an external source, such as NIST, Program Networks or master clock systems. • ONE FARAD! Super-cap keeps time/date processor operating with crystal time base during power outages. $\bullet$ Auto leap year correction. 24 hour time format. • Daylight Saving Time programming. Y2K compliant • Password opion, allowing secure remore access with optional external modem. - WAGO clamp style wire captive terminals for easy connection to your external circuirs.

PSC
Programmable Schedule Controller
$\$ 399.00$

## Broadcast Tonls BOS. ROS \& PBB-24 Smich $b$ hation Pone

The BOS (Box-O-Switches) offers 12 N.O. dry contact switches with status LEDs in a sloped-front desktop panel. The ROS is similar, but in a single-space rack unit. The PBB- 24 provides 24 momentary buttons that can be programmed with a non-dedicated computer to output ASCII character strings on depression and release.
BOS or ROS ... Switch Button Box or Rackmount .................................. $\$ 199.00$ PPB-24 ............................................................................................... \$299.00

## Broadcast Tools SRC-8A Remote Relay Contiol

The Broadcast Tools SRC-8A adds remote relay control to your Moseley DSP-6000 and Interplex (or equivalent) digital STL, POTS or ISDN remote equipment. Applications include direct relay control for
 your dial-up remote control, a supplement to your dedicated remote control, relay control or satellite, transponder or remore audio switching as well as machine control and talent alerting for remotes. The standard system provides one-way control. The SRC-8B is available for bi-directional control and status. All SRC's utilize a high integrity data format for maximum reliability. The SRC-8A consists of both transmit and receive units. Power adapers and serial cables are provided. The SRC8 may be ordered with opto-isolated or TTL/CMOS inputs
SRC-8A $\qquad$ Half Duplex
$\$ 399$ 00/pr.
SRC-8B
Full Duplex $\$ 499.00 / \mathrm{pr}$.

## Broadcast Tools SSM smart Silence Monitor

The NEW Broadcast Tools Smart Silence Monitor utilizing the innovative "WNSD" circuitry is designed to monitor any stereo or two independent monaural sources and generate alarms when white noise
 or silence is detected. The white noise detection circuit enables detection of a loss of carrier, which other monitors are unable to provide. The following are just a few of the many features of the Smart Silence Monitor: active balanced inputs with multi-turn trimmers - alarm sensitivity down to 35 db below program • precise time delay from 2 seconds to $931 /$ 2 minutes - may be configured for stereo or dual independent monaural operation alarm and activity LED indicators for each channel with multiple-alarn-recycling • two DPDT relays, which may be used as a $2 \times 1$ program switcher $\bullet$ four open collector function outputs - remote opto-isolated defeat and reset input with local reset switch • screw style wire captive terminals • aluminum case with four mounting holes allowing convenient mounting • optional RM-2 or RM-3 rack mount for mounting two units in a 19 -inch rack.

Sitence Monitor .
$\$ 209.00$
1-352-622-7700

## Remote Controls • Automation

## Burk Technology Studio Remote Control System

The Burk Technology ARC-16 is a full time studio control, dial up control or both. The ARC-16 includes 16 analog metering channels, 16 status channels and 16 raise and 16 lower control outputs. The ARC-16 units have 32 character displays with labels and units you have selected for easy calibration and local operation. You decide whether to add studio control, telephone access or both. Communications between site can use dedicated lines, dial up, STL subcarriers,

FM SCA or 450 MHz TRL. Subcarrier generators are built in at no extra cost. The ARC-16 system is capable of controlling two transmitter sites from one studio or one transmitter site from two studios. The telemetry links between the sites can be mixed. Full access to all sites is available at any site by pushing a button. Alarm reporting is handled immediately and is displayed at all sites no matter which site is monitored.

Please call Broadcasters General Store for system configuration.


## Remote Controls • Automation

## ChronTrol Time-Programmed Control



ChronTrol Microprocessor based Timers give you timeprogrammed control of up to 16 independent circuits used to operate devices such as tape or chart recorder, program switching, lights, sound distribution equipment, fans solenoids, pumps, motors, or other equipment. With twenty independent on/off programs (or up to 40 programs optional) you can exercise control right to the second. Features include: $2,4,8,12$, or 16 independent SPDT outputs ${ }^{\bullet}$ up to 16 inputs for external activation $\bullet$ cycle times from 2 seconds to one year ${ }^{\bullet}$ separate on and off time settings and cycle times on each program - 6 digit display shows hours, minutes, and seconds • directly replaces multiple mechanical times $\bullet$ tamper-resistant locking keyboard $\bullet$ weekly cycle with day omission - completely field-programmable • battery backup keeps time even during power outages ${ }^{\bullet} 12$ or 24 -hour time readout ${ }^{\bullet}$ and countdown timer.

| XT-R2 | . Rackmount 2 Circuit ....................................... \$440.00 |
| :---: | :---: |
| XT-R4 | . Rackmount 4 Circuit ....................................... \$490.00 |
| XT-R8 | . Rackmount 8 Circuit, 40 Program ...................... \$990.00 |
| XT-R12 | . Rackmount 12 Circuit, 40 Program ................... \$1,190.00 |
| XT-R16 | . Rackmount 16 Circuit, 40 Program .................. \$1,390.00 |



CircuitWerkes DEN-8 dtmF Encoder


The CircuitWerkes DEN-8 DTMF encoder is able to generate all 16 DTMF tones and will store and replay up to eight different sequences of DTMF tones at the push of a button. Full remote control makes the DEN-8 great for mounting out of the way in a rack, while an integral keypad will make it useful for remote work. Features include: pass-through audio with active, balanced, I/Os.
DEN-8
$\$ 299.00$

## CircuitWerkes DR-10 Dial-up Controller

 that lets you control your station's equipment from anywhere there's a phone. Auto answers on user set ring number and auto-disconnects at calls-end. Its 10 dry relays ( 2 are DPDT for switching balanced audio, etc.) can be programmed to decode any of the 16 DTMF tones and can be individually programmed for momentary, latching or interlocked operation. Any relay can be asigned to any tone(s). It has four logic level inputs that can cause the DR-10 to automatically activate any relay and/ or call your pager. Other features include: up to 8 digit user set password prevents pirating $\bullet$ each relay is programmable to close at beginning or end of tone and can beep when activated (End of tone closures are after the beep!) • two-tone and detection delay modes eliminate falsing for remotes, etc. • a simple, built-in audio hybrid, with active, balanced input and outputs, lets you control your equipment while monitoring local audio sources • retains its settings and prior state after a power failure • and a silencer option removes DTMF tones from output. All outputs appear on easy to use screw terminals and programming is easily done from any DTMF telephone.

DR-10 $\qquad$ .. Dial-Up Controller
$\$ 399.00$

## CircuitWerkes DS-8 DTMF Sequence Decoder

 8 is a DTMF Sequence Decoder providing dry closures for eight different tone sequences. It can decode one to eight separate DTMF sequences used by networks for automating closed circuit feeds and local insertions. Each relay can be set for one to four digit code(s). Relays are easily (and independently) programmable, via DTMF phone, to operate in momentary, latching, or interlocked latching modes. Any mixture of modes and code lengths can be used and it remembers all the settings in a power failure. All connections are screw terminal. Use the DS-8 for remote audio switching, automated program recording, secured remote EAS control, you name it! Optional rack mount (pictured) is available. A rwo unit rack mount is also available.
DS-8 $\qquad$ .. DTMF Sequence Decoder $\qquad$ . $\$ 299.00$

## CircuitWerkes DTMF-16 DTMF Remote Control

The CircuitWerkes DTMF-16 touch-tone decoder provides up to 16 separate optocoupled outputs using standard touch-tone signals. Jumper settable modes include: momentary, interlocked-latching, two-tone and anti-falsing. When combined with an autocoupler it
 is useful for a variety of tasks such as: remote control of TV camera pan and tilt heads, emergency transmitter control, controlling remote satellite receivers, network switching equipment, repeaters or any telephone control application. An optional combination lock is available which allows for additional system security. The Silencer option board removes tones that are sent over the program channel and provides a muted, balanced audio output.
DTMF-16 $\qquad$ .. Stand alone DTMF Remote Control
$\$ 219.00$
*-Silencer ................. DTMF Silence Option - ADD
$\$ 159.00$


IPC-1 is a bi-directional IHF to professional level converter. IPC-2 is a twin IHF to professional level converter.

## IPC-1/IPC-2 L.evel Converters

Passive switching/routing with 2 stereo inputs to one stereo output or vice-versa.

SS 3.1 Stereo Audio Switcher Router Passive switching/routing with 3 stereo inputs and one stereo output or vice-versa.

DSC-20 Dual Satellite Controlier Adds remote control capability to the Scientific Atlanta Encore, DSR-3610, AD-4595, Virtex Star Guide II,Com Stream and Wegener receivers, allowing memory/service - audio changing by automation systems or contact closures.

USC-16
Universal Satellite Channel Controller
Offers remote control capabilities with multiple channel/memory selection for the Scientific Atlanta 7300/DAT-32 series, ENCORE,DSR-3610 and AD-4595; Comtech/Fairchild DART-384, and Ariel type receivers.

PBB-24 Programmable Button Box Provides 24 SPST buttons to remotely control external equipment and/or be configured to generate user-programmable ASCll strings.

## SS 2.1/BNC

Composite - AES/EBU Switcher/Router
Passive switching/routing with 2 composite audio, video or AES-EBU inputs to 2 composite audio, video or AES-EBU outputs, or vice-versa.

## SS 2.1/TERM

Stereo Audio Switcher/Router
yentiace aser pagioninave


3X2 Dual Stereo Audio Switcher
Active crosspoint switcher with 3 stereo inputs and 2 stereo outputs.


6X1 Stereo Audio Switcher/Router
Passive switching/routing with 6 stereo inputs and one stereo output, or vice-versa.


## "David-II" FM PROCESSOR/STEREO-GEN

Famous the world over for surprisingly competitive and clean audio at a budget price. Digital synthesis design gives great specs and terrific sound.

## FM MOD-MONITOR WITH PRESCALER

Off-air modulation measurement with easy-to-read display, 8 station presets, alarms and multipath indicator. A companion tunable subcarrier monitor/demod is also available.

## PRECISION FM REBROADCAST RECEIVER

A feature-packed receiver for translators and other demanding off-air program pick-ups. Synthesized tuning, MPX/demod outputs, alarms and more!

## RDS/RBDS "MINI-ENCODER"

Quickly program it with any PC to transmit station call letters, format and other identifiers, translator frequencies, promos/slogans, phone number, etc.

## "PBX" TELEPHONE LINE "ELIMINATOR"

Save telco line charges! Up to 7 remote controls, modems, alarms and other dial-up gear can share a single phone line for incoming and outgoing calls.

Visit us on-line: www.inovon.com

## Inovonics, Inc.

1305 Fair Avenue • Santa Cruz, CA 95060
TEL: (831) 458-0552 • FAX: (831) 458-0554

## Remote Controls • Automation

## CircuitWerkes SEN-6 sub-audible Tone Encoder

The CircuitWerkes SEN- 6 , a single channel, sub-audible, tone encoder capable of generating 25 Hz ,
$35 \mathrm{~Hz}, 25 / 35 \mathrm{~Hz}$ combos, $50 \mathrm{~Hz}, 75 \mathrm{~Hz}$ \& combo $50 / 75 \mathrm{~Hz}$. The SEN -6 will feature tunable notch filtering for 25 and 35 Hz and an active, balanced, audio input and output. Custom frequencies are available upon request and can be field changed by replacing one chip and retuning the notch filters. A second "test mode" output port is provided so that the user can ser tone levels without removing the SEN-6 from the audio chain. Remote control is provided from both screw terminals or a D-9 connector.

SEN-6. . $25 / 35 / 50 / 75 \mathrm{~Hz}$ subaudible tone encoder w/balanced our
$\$ 399.00$

## CircuitWerkes Silencer II

The CircuitWerkes Silencer II is designed to mute DTMF tones on any audio line. The Silencer lets you send DTMF down active audio lines without hearing those annoying tones on the other end. The Silencer is great for broadcasters doing unattended remotes via phone line or RPU, satellite nerworks and more.
Silencer II
$\$ 189.00$

## CircuitWerkes SUB-03 Subaudible Tone Decoder

The CircuitWerkes SUB-03a
Subaudible Tone Decoder decodes industry standard 25 Hz , 35 Hz and combined $25 / 35 \mathrm{~Hz}$ tones and provides dry relay contacts to the user. It features audio presence and audio clipping LED indicators to help make setup a snap. Input gain adjustment and a variable, balanced output allow for level matching. Integral filtering


Front and Back substantially reduces the presence of subaudible tones at the SUB-03a's audio ourput. Single channel (mono) operation.
SUB-03b
$\$ 349.00$

## Conex 25 Hz sub-Audible Tone Generator



The Conex dual channel sub-audible 25 Hz tone generator has front panel LEDs to indicate the duration of the tone and silence intervals. The CG-25A has plug-in type terminal strips with $600 \Omega$ balanced bridging inputs and can be remotely controlled.
CG-25A
Tone Generator.
$\$ 451.50$

Special frequency requests add ........................................................ $\$ 25.00$
RMK, Rack mount kit.
$\$ 27.00$

## Conex DT-11Tone Generator



## Conex DT-40 Tone Remote Control System

The Conex DT-40 DTMF Tone Remote Control System accepts DTMF tones
 from an audio line, receiver, or other source. After giving your user access code, it allows remote control of sixteen SPDT relays. The relays can be momentary, latching, or interlocking. A switch settable device selection code allows up to 15 DT-40's to be individually controlled from one audio source. It has miniature screw-clamp terminal strips for easy connection.
DT-40
$\$ 339.00$

## Conex DT-55 Telephone Remote Control

The Conex DT-55 answers a phone line, accepts a user determined access code, then allows
 remote control of ten SPDT relays and the remote monitoring of ten external switch contacts or logic levels. The relays are magnetic latching. On power loss and restoration you can choose to retain their prior states or return to the de-activated state. Each relay can be set, cleared or activated momentarily, for the duration of the push-button actuation on the calling telephone. Additionally, the DT-55 can be set up to act in an interlocking mode; when a button is pressed, its associated relay is set and all other relays are cleared. Easily distinguishable tones indicate the high-low or open-closed status of the ten external inputs. Status lights indicate the ringing signal, power, DTMF tone detection, line connection and access. It uses miniature screw-clamp terminal strips for easy connection.
DT-55 .

Conex CS-25B Tone Sensor


The Conex CS-25B is a compact and modular 25 HZ tone sensor for use in broadcast automation, tape control, or remote signaling systems. The sensor detects 25 Hz sub-audible tones that typically signal the end of a program selection. The resulting relay contact closures can be used to start the next source and stop the current source. A stereo high-pass filter module is offered as an option to provide absolute protection from program tripped cues.
CS-25B-10 ..... Dual 25 Hz Sensor ..... $\$ 439.64$
CS-25B-11 ..... Above with Stereo high pass filter ..... $\$ 530.98$
HPF-25 .......... Stereo high pass filter board. ..... \$91.34
CS-25B-01 ..... Stereo high pass filter ..... $\$ 319.21$
CS-25B-20 ..... Quad 25 Hz sensor. ..... $\$ 651.41$
CS-25B-21 ..... Quad 25 Hz sensor, w/stereo high pass filter . ..... $\$ 742.75$
35 HzOption ... Change to 35 Hz per module charge ..... $\$ 25.00$

## Remote Controls • Automation

## MixMax Audio Mixer



The MixMax is the perfect audio mixer for any hard drive system, unattended studio operation, or use as a programmable audio router! Six stereo inputs, one stereo out, with all parameters, including channel on/off and gain control, crossfade, fade duration, and TTL output closure status, controlled by an on-board CPU. Connect the RS-232 port to a local host computer (WIN 95/98 compatible operating software included) to operate live by "point and click", or over the Internet with an ISP connection, or from a remote PC using standard PC comm software (comm software not included). Pre-program up to eight operating setups for instant recall from the local computer, or from an optional operator pushbutton panel or from external equipment closures. The eight TTL output closures can be used to latch on, latch off, or pulse, external equipment. On board silent sense with relay output. Front panel level indicators and recessed L/R gain trim pots, plus switchable headphone monitoring. Accepts balanced or unbalanced inpurs.
Six Channel Audio Mixer .... CPU control w/ RS-232 port. In-line power supply and software included... $\$ 1250.00$
Aux Relay Panel ....... Accepts the eight TTL output closures and provides SPDTdry contact Relay outputs where higher voltage and current capability are needed ... $\$ 295.00$
Operator Interface Panel .. Countertop control panel with eight momentary pushbuttons for initiation of eight presets. Includes $50^{\circ}$ cable and DB-15 connector ....... \$250.00

## Gentner VRC2500 Remote Site Control



The Gentner VRC2500 Remote Site Control not only monitors your transmitter, it can make changes for you automatically or at scheduled intervals. If something goes wrong, it calls you to report the problem. The problem can often be fixed by the VRC2500 itself, or by giving a few simple commands via your telephone keypad or PC. It's like having a person on duty at the transmitter 24 hours a day. Features include: 16 channels each of metering, status and command - dial-up voice reporting and DTMF control - 32-bit Application Software for Windows ${ }^{\text {® }} 95 / 98 / \mathrm{NT} \cdot$ uses existing VRC2000 accessories ${ }^{\bullet}$ monitors conditions, makes power changes, and automatically logs the data • and all setup information is saved in battery backed up RAM which retains data even if the unit loses power.

VRC2500
Remote Site Control
$\$ 3,750.00$


1-352-622-7700

## Gentner GSC3000 site Control System

The Gentner GSC3000 Site Control System takes the concepts introduced by
 the VRC2000 Remote Control Unit to the next level. The GSC's I/O unit provides 16 analog metering inputs, 16 binary status inputs and 32 command outputs configured as 16 raise/lower command channels. Additional 'smarts', such as macro and time-based event capabilities, were added to the GSC. The GSC3000 System offers these unique features and benefits: operation of i to 256 sites • 8 to 256 channels of metering, status and command, per site • single or multiple PC monitoring sites $\bullet$ friendly Windows $®$ and Windows $95 ®$ based operation $\bullet$ and PC based voice/DTMF option allows control and command of multiple site locations from a single dialed number. The GSC3000 site control system is configured from: I/O Unit that performs all data collection, time and macro driven command functions ${ }^{\text {- }}$ System Server Software that provides for the set up of all I/O units and allows basic operation of the complete system • Logging Management Software that amplifies the logging capability and logging post processing functions of the system • Developer's Software Package that permits the user to customize the displays and develop personalized command functions using Visual Basic • and the Voice Server.
 Please call for special package prices!

## Gentner LYNX GSC3000 Software



Gentner Lynx all-new Win-dows®-based software is designed from the ground up to improve communications, functionality, and flexibility of the GSC3000. The Lynx Explorer allows you to configure, program, and access any point on your GSC networks, with visual cues to their condition and operational status. The Lynx Scheduler lets you pre-schedule such tasks as capturing data stored on GSC units, printing reports from the database, synchronizing clocks at GSC sites, and configuring user-defined jobs. The Lynx Browser allows you to view historical information on any GSC unit connected to your hardware and print a variety of report formats. The Lynx Designer/Viewer lets you define the visual layout fromall of the Metering Status, and Command capability of any connected GSC3000. Totally new G-bus firmware code allows rapid, reliable communication, improved security and TCP/IP (for WAN/LAN) compatible.
Lynx
Windows 95/98/NT GSC3000 Software
$\$ 299.00$

## Remote Controls • Automation

## Gentner Silence Sensor

The Gentere Silence Sensor monitors your audio source, observing both nising and falling edges of audio. In addition it observes audio on a wideband and narrowband basis, permitting the unit to ignore hum and other erroneous signals. If it notes a loss of audio an open collector output is activated and the time-out sequence begins. If audio retums before time-out, the unit reverts to a "ready" state. However, if audio
does not return afer a programmed delay time, a second open collector output is activated along with a relay dosure to turn on lights, sound alarms or start other sources. A set of dip switches located behind a front panel insert allow you to set ime-out for 1 to 165 seconds or 1 to 165 minutes.

Silence Sensor
$\$ 569.00$

## Monroe

Program Timers. Switchers, Remote Controls. Encoders. Decoders. Distribution Amps, \& Enclosures
Monroe Cue Tone Receivers manufactured by Monroe Electronics provide decoding of DTMF Cue Tone Signals transmitred over satellite transponders or telephone lines. Use of the Cue Tone Receiver permiss automatic, unattended operation of channel switching functions at 626 the headend when programming begins, ends, or changes. Models are available in wall or rackmount enclosures and may include optional fearures such as telephone access and audio/video switching.
Monroe DTMF Cue Tone Encoders are used by satellite and microwave program services to provide automated headend switching functions. These signals can be used at the headend or studio to control modulators, processors, audio/video switches, agile receivers, scramblers, video tape machines, or other unatrended switchable devices. Models are available in wall or rackmount enclosures.
Audio/Video Relay Panels provide audio-follow-
 video switches that can be controlled by program timers, remote controls, or cue tone receivers. Each switch will respond to a contact closure, a transistor switch to ground, or a compatible logic level. The control inputs are buffered to eliminate high output current drive requirements of the controlling device.

The Monroe Program Timer is a rackmount programmable time of day and day of week switcher designed to be used alone or with Monroe Cue Tone Receivers to provide unattended time and Cue Tone switching functions. It can be used with Audio/Video Relay Panels to provide independent, time controlled audio-followvideo switches.

The Video Recorder Control is a rackmounted commercial insertion controller designed to provide automatic, unattended switching to
 local video taped commercials in response to CATV program source cues. It serves as the controller for a run-of-schedule commercial insertion system, providing the cue tone detection, VCR control and audio/video switching requirements of the system.
The Remore Receiver Channel Selector provides for the remote selection of satellite transponders and includes an integral FCC registered telephone line in-
 terface which allows direct connection to a standard dial-up telephone line for remote channel selection by means of DTMF commands. They also include a local audio input to provide control via a leased line, audio pair, or microwave system.
Monroe Remote Control Systems are available for control and monitoring over dial-up telephone, microwave, two-way radio, or other audio paths by means of DTMF commands. These systems give the calling party control
of remote relays and the ability to interrogate status input points for remote control and status monitoring of unattended sites. They can also provide automatic dialing of stored phone numbers to report change of status of inputs, and can make use of an internal timer to execute control commands.

Telephone Couplers will answer the incoming ring signal and complete a bidirectional audio path to and from an ordinary dial-up telephone line. All Monroe Telephone Couplers are FCC registered and are available in wall or rackmount enclosures ready to connect into a standard telephone line.
The Emergency Alert
System permits civil emergency authorities a choice of local, dial-up telephone, or dedicated telephone access to a cable/broadcast system audio channel. Use of a security access code is required when using either dial-up or dedicated telephone.
The Remote Radio Control Units allow a caller to monitor the traffic on a receiver, and upon depression of the Push-To-Talk switch on the handser, to key the transmitter and place the caller's voice on the air. Monroe audio frequency Push-To-Talk feature allows remote control of radio equipment where hardwire facilities are not available.


## Remote Controls • Automation

Moseley MRC 1620 Remote Control System


The Moseley MRC 1620 is an intelligent integrated remore control sysrem that has 16 raise and 16 lower command relays, 16 TTL status inputs and 16 analog metering inputs. The system will automatically log, and can be controlled and interrogated from an optional control terminal or IBM PC with Taskmaster 20 software. All status channels are simultaneously displayed on the front panel. The MRC 1620 constandy checks relemerry and status data for each channel against assigned limits and riggers audible and visual alarms for out of tolerance conditions.
MRC 1620, Control terminal, 1 modem, 1 RS232 port ...................... \$1,550.00
MRC 1620, Remote terminal, 1 line modem, 1 dial up modem ........... $\$ 3,450.00$
Taskmaster 20 software for IBM PC or compatible .............................. $\$ 1,150.00$
Subcarrier Generator module (w/system N/C) Separately ....................... \$195.00
Subcarrier demod (w/system N/C) Separately ........................................ \$195.00

## Moseley MRC-2 Remote Control System

The Mosedey MRC-2 will control multiple sites from multiple control points. The basic system is one Control Terminal, one stand alone Remote Terminal or one Remote Terminal with Data Acquisition/Command unit. Multiple remote terminals may be added to the system,
 with each remote terminal designated as a site. A stand alone remote terminals maximum configuration could be 64 command lines, 48 status channels and 48 relemetry channels. The MRC-2 can control your AM, FM or TV site individually or all three at once. Many control, dara acquisition and expansion options are available.

Please call Broadcasters General Store for further information.
MRC 2CT ...... Control Terminal only .
$\$ 4,980.00$
MRC 2RT ...... Remote Terminal only (16 Command/16 Status/ 16 Analog telemetry channels)
$\$ 7,980.00$

## Radio Design Labs ST-ACR1M

 Audio Control Relay
Radio Design Labs ST-ACRIM is designed to switch on low-level sources, such as microphones or mic-level sources. The ST-ACR2 is designed to switch on line-level sources with extended release delay. The ST-ACR2 is widely used as a Silence Sense Relay.

| Sensitivity | Release Time |
| :---: | :---: |
| ST-ACR1 ................ -30dBv to 0dBver | 5 sec , to 5.0 sec , ................. $\$ 96.00$ |
| ST-ACR1M ........... -60 dBv to 10 d | . 5 sec, to 5.0 sec, ................. $\$ 98.00$ |
| ST-ACR2 ................ -30dBv to 0dBv | 5.0 sec, to 50 sec . ................. $\$ 96.00$ |
| PS-24A .... Power Supply, one will po | .. $\$ 19.00$ |

Sine Systems TTT-1 Time-Temp Thing The Sine Systems TT-1 TimeTemp Thing gives automated sations the ability to announce the local time and/or temperature in a professional sounding voice (male) upon a command from the automation system. The TT-1 changes the way it says the time and temperature so that it does not say the exact same thing every time. A contact closure is all that is required to trigger the TT-1 announcement and it will provide a contact closure back to the automation system when it is done speaking. The clock is battery backed. Both the time and temperature can be calibrated for accuracy.

TT-1 Time-Temp Thing

## Sine System RFC-1B

The Sine System RFC-1B is an affordable, full-featured transmitter remote control system that can be accessed through a standard telephone or cellular phone. Readings are reported with a natural sounding human voice. The basic system consists of an RFC-1/B
 and an RP-8 Relay Panel that provides eight channels of telemetry and raise/lower control. Up to eight relay panels can be connected for a maximum of 64 channels. The RFC-1/B can be programmed to perform power/pattern changes and take readings automatically. It can also be programmed to alert station personnel during an alarm condition. for surge protection on the telephone line and telemetry signals use the SP-8 Surge Protector.
RFC-1/B......... Remote Facilities Controller ....................................... \$1,250.00
MA-1 .............. Modem Adapter (internal modem) ................................ \$295.00
PA-1 ............... Parallel Printer Adapter (printer port) ............................ \$295.00
RAK-1 ............ Intelligent Rack Adapter (1 RP-8 Req'd) see below ......... \$700.00
RP-8 ............... Relay Panel (eight channels) ......................................... \$425.00
SP-8 ................ Surge Protector (protects telephone and telemetry) ......... \$135.00

Sine Systems RAK-1 Intelligent Rack Adapter
The Sine Systems RAK-1 Intelligent Rack Adapter is designed for use with the RFC-1/B Remote Facilities Controller. It adds a modem, parallel printer port, battery backed power supply, and telephone line surge suppression and front panel indicators in a sleek rackmountable aluminum chassis. Most of these options are available for the RFC-1/B separately, however, the RAK-1 is easily the most economical way to upgrade the RFC-1/B with all of these options. furthermore, the RAK-1 is a field upgrade for RFC-1/B systems that are already installed. RFC-1/B software (firmware) version 4.00 or higher is required for upgrade. The RAK-1 is also available for new installations with the RFC-1/B already installed and requires at least one RP-8 Relay Panel for operation.

RAK-1 ............ Intelligent Rack Adapter
$\$ 700.00$

## Sine Systems AFS-2 Audio Failsafe

The Sine Systems AFS-2 Audio Failsafe is typically used to trigger an alarm on a remore control system or terminate transmission if program audio fails. It monitors one or two
 audio signals and provides a relay contract closure as long as audio is present on at least one of the rwo audio inputs. When no audio is present on either input for a preset length of time, the relay contacts open and an Alarm LED lights. The length of the delay is adjustable from 7 seconds to 4.5 minutes.

AFS-2 ............. Audio Failsafe
$\$ 260.00$

## RF Related Products • Antennas

## Andrew P,PAR, PL, PX \& PXL Series Microwave Antennas



The Andrew P, PAR, PL, PX and PXL Series Standard Parabolic Antennas are unshielded parabolic antennas that provide economical and reliable service where high degrees of back and side radiation suppression are not necessary. Features include: low-VSWR versions minimize echo distortion for less noise on the system • a vertical tower mount is included. Optional mounts and radomes can be ordered separately for versatility of installation single and dual-polarized options available in most applicable frequencies $\bullet$ spun aluminum reflectors provide long term reliability and minimize environmental distortion to protect system investments - provide rugged, high-quality performance at low initial costs • PAR Series - FCC Category A antennas for 6,10 , and 11 GHz bands.

Antenna Specialists \& Decibel


Decibel Base Commander, UHF Broadland Collinear Fiberglass Vertical Base Sextion, 7 dB Gain


Antenna Specialist Whip antenna, magnet mnt., 5dB Gain
ASP-7654
$445-470 \mathrm{MHz}$........................................................ $\$ 75.75$

## Cushcraft

The Cushcraft UHF Mobiles are rugged high performance $406-512 \mathrm{MHz}$ stainless steel antennas, available with either PL259 or mini-UHF connector. A molded center phase prevents shock-induced damage and moisture contamination. The all-brass hardware and ultrasonically welded-in brass threads eliminate the electrolysis effect of dissimilar metals. Cushcraft includes a full 16.5 feet of RG58A/U cable with $97 \%$ braid coverage and all brass mount hardware.

SN450S $450-470 \mathrm{MHz}, 5 \mathrm{~dB}$, Collinear, hole mount with spring and RG-58 $\$ 65.00$
SN450MS ...... As above but black magnet mount . $\$ 85.00$

The heavy-duty Cushcraft PLC Series Yagis are factory assembled and adjusted for easy installation. They feature heavy-wall tubing elements and large rugged machined aluminum blocks for the boom-to-element junctions. Six and ten element models are available.
PLC-456N ..... $450-470 \mathrm{MHz}, 7.5 \mathrm{~dB}$ gain, N connector, 125 mph wind surv., 8 lbs . ......................... $\$ 152.00$
PLC- 4510 N ... $450-470 \mathrm{MHz}, 11.5 \mathrm{~dB}$ gain, N connector, 125 mph wind surv., 12 lbs . ................ $\$ 217.00$

Ruggedized mounting, all-welded joints, and complete weatherproofing are yours with Cushcraft 900 MHz Yagis. At these frequencies, antenna construction is critical. As in all PC Yagis, the elements are welded to the boom. The pigtail feed will withstand a 50 pound pull, and makes connector weatherproofing a snap.


PC9010N ....... $928-960 \mathrm{MHz}, 12 \mathrm{~dB}$ gain, 10 elements, N connector, 125 mph wind surv., 3 lbs ... $\$ 112.00$

## Comtech 3.0 and 3.8 Meter Antennas

Comtech's 3.0 and 3.8 meter antennas keep installation costs down with a single pole mount and three-piece reflector design. The use of Comtech's unique splice-strap system yields a superior sufface tolerance. The 3.8 meter has a gain of 42.9 dB , ideal for SMATV, radio SCPC and Cable TV applications. The EI/Az mount permits $360^{\circ}$ azimuth adjusement wichout costly foundation alignment. The elevation jack provides smooth elevation adjustment from O to $70^{\circ}$. The polar-mounted system can be selected in either manual or motorized versions. It tracks the arc widh just one adjustment. The motorized version comes with its own control system. Comtech's 3.8 meter is also available in a low-profile transportable version supplied ready to roll.

|  | 3 M | 3.8 M |
| :--- | :---: | :---: |
| G2 .... Dual Polarization Manual Feed | $\$ 2,995.00$ | $\$ 3,420.00$ |
| G4 .... Dual Polarization Motorized Feed \& EC1 Control | $\$ 3,760.00$ | $\$ 4,585.00$ |

## RF Related Products • Antennas



Dielectric DCR
Series
Circular Polarized FM Antennas
The Dielectric DCR Series of Circularly Polarized FM Antennas are available for all powers, short spaced or directional applications. Optional deicers or radomes available as well as 1/ 4 scale pattern optimization. Standard types available as follows:
DCR H .. 4 to 12 KW Low Power, 1 to 8 bays
$\$ 4,200$ to $\$ 25,200$
DCR C ... 10 to 40 KW Medium Power, 1 to 12 bays ............. $\$ 4,800$ to $\$ 42,600$
DCR M .. 18 to 40 KW High Power Broad Banded, 1 to 12 bays ... $\$ 5,950$ to $\$ 82,000$


## ERI

ERI LPX is a rugged, brass and copper, wide bandwidth antenna, with $1-5 / 8^{\prime \prime}$ tubing throughout. Rated at 9 kW input for end fed models and 12 kW for center fed. Center fed models have 3-1/8" female EIA input. End fed are $1-5 / 8^{\prime \prime}$ EIA female. Many options available.

LPX .. Prices from \$ 3,207.00 to \$34,230.00
Low Power (CP-11A)
This half-wave spaced system is ideal for low power and booster sites with a maximum input of 500 w to 2000 w . It is available only in even numbered bays connected with non-pressurized RG-type cable. Terminated with a UHF female or 1-5/ $8^{\prime \prime}$ male EIA connector.
CP-11A $\qquad$ Prices from $\$ 1,175.00$ to $\$ 7,900.00$
Medium Power (1105A/B)
The $1105 \mathrm{~A}, 1-5 / 8^{\prime \prime}$ system offers up to 8 bays to a maximum level of 7.5 kW . The $1105 B$, $3-1 / 8^{\prime \prime}$ system offers up to 12 bays (in pairs only) with a maximum power of 12 kW . Due to their light weight, they're ideal for small structures. Many options available.
1105A/B $\qquad$
$\qquad$ Prices from $\$ 1,805.00$ to $\$ 23,037.00$
High Power (SHPX)
This rugged, all brass and copper, large element antenna produces a wide bandwidth and a uniform energy distribution. The " $A$ " series, $3-1 / 8$ " inter-bay line, is rated between 32 kW and 64 kW . The "B" series, $4-1 / 8$ " inter-bay line, is rated at 40 kW to 112 kW . The "C" series, $6-1 / 8$ " inter-bay line is rated for up to 120 kW ! Many options available.
SHPX $\qquad$ . Prices from $\$ 4,464.00$ to $\$ 100,798.00$
PATRIOT Commercial Antenna Systems

3.8 Meter w/Az-El Pole Mt. ...... \$2,875.00 w/Horizon to Horizon .............. \$5,095.00 w/Navigator Mt. ...................... \$6,000.00 w/Az-El Kingpost .................... \$5,550.00 w/Dual Axis Kingpost (Includes Actuators)

## Mark Ântennas

Mark Antennas meet or exceed every existing F.C.C. requirement, are lightweight, strong, heli-arc welded aluminum, multi-element parabolic grid antennas. One of the outstanding characteristics of a grid antenna is the low wind loading figures, usually 25 to $40 \%$ of solid dishes.

## When ordering please specify frequency.

Mark 940-960 MHz Parabolic Grids


| Diameter ..... Pressurized ....... Non-Pressurized ...... Non-Pressurized ........... Price |  |
| ---: | ---: |
| 7/8" EIA Flange | $7 / 8^{\prime}$ EIA Flange |

-Note -1 includes mounting hardware for a 1.9"-4.5" nertical O.D. pipe

-Note - 2 includes mounting hardware for a 4.5" vertical O.D. pipe ONLY
6 Ft ............. P-9A72G-S ......... P-9A72GF-S ........... P-9A72GN-S .... \$1,570.00
8 Ft ............. P-9A96G-S ......... P-9A96GF-S ........... P-9A96GN-S .... \$2,330.00
10 Ft .......... P-9A120G-S ....... P-9A120GF-S ......... P-9A120GN-S ... $\$ 2,960.00$
Other diameters, frequency ranges, mounts and styles are avalable. Call Broadcasters General Store for a Mark catalog.

Model ...................... Pattern ............ Gain (dB) ...... Freq.(MHz) ................ Price SC-48 ........... 4' full range parabolic ..... 19.0 ............. 940-960 ............. $\$ 895.00$ YC-XXX .... 5 element Yagi, specify freq. ... 9.0 ......... 152.08-170.45 ........ \$225.00 YC-450 ............... Yagi, 6 element .......... 10.0 ........ 450.01-455.99........ $\$ 225.00$
The Marti HA- 450 base antennas will give you up to 30 dB isolation from vertically polarized UHF transmitters. This antenna will minimize annoying interference during remote broadcasts.


## RF Related Products • Antennas



Aural STL and inter-city relay systems
Model ......... Description .. Gain (dBd).... Mhz ....... Mount .. Connector ... Price PR-950 ....... Paraflector(8) ....... 20.0 ..... 940-960 ... H or V ......... N .... \$650.00 MF-950B... Miniflector® ...... 14.0 ...... 940-960 .... V only ......... N .... $\$ 340.00$
Model ......... Description .. Gain (dBd) .... Mhz ....... Mount ...... Watts ....... Price PR-460 ....... Paraflector® ....... 15.5 ...... $450-470$.... H or V ....... 100 ... $\$ 650.00$ CA7-460 Seven-element Yagi.. 10.0 ...... $450-470$.... H or V ....... 250 ... $\$ 220.00$

Note: No mounting hardware included with Scala Antennas. Mounting brackets are availble for a wide range of applications. MKPX-8 is the standard mounting bracket for PARAFLECTORS at $\$ 50.00$ Must be ordered separately!

Call Broadcasters General Store for a complete Scala catalog.


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| Model........................ Description ....... Mhz ... Mount .. Polarity ... $\Omega$ 's ......... Price |
| :--- |
| CA5-FM/HCM .... S-element FM Yagi Specify ...... C ......... H ... 50(50N) $\$ 330.00$ |
| CA5-FM/HRM .... 5-element FM Yagi Speciff ..... R ........ H.. 50(50N) $\$ 370.00$ |
| CA5-FM/CP/RM .. S-element FM Yagi Specify ...... R ......... C ... 50(50N) $\$ 995.00$ |

## Whilburt HURRY-UP Mast

Standard Duty Masts



## HURRY-UP Mast

903614 .....
25' HURRY-UP
$\$ 1,600.00$
*Normal delivery is 1-4 weeks; items marked *-up to 12 weeks
†Notes NYCOIL length calculations for std non-locking collar mast model

| How to Order-TMD Model Coding TMD-X* OX $^{* * *-X X X * * * ~}$ |  |
| :---: | :---: |
| $X^{*}$ Notes | Nested height in feet |
| $X X^{* *}$ Notes | Extended beight in feet |
| $X X X * * *$ lst $X$ position Notes- | 1. Std duty non-locking 2. Std duty locking <br> 3. Hvy duts non-locking 4. Hvy duty, locking |
| XXX*** 2nd $X$ position Notes | 5. Rotatable (Manually) 6. Non-rotatable |
| XXX ${ }^{* * *} 3$ rd $X$ position Notes | 7. Internal mt. 8. External mt. 9. Field mast |
| Specify top interface - Antenna stub, or platform adapter when ordering. |  |

Pneumatic Systems


## Unwired NYCOIL Cable Conduit


*For installation of customer supplied cables in NYCOIL cable conduit contact BGS for quote.
Weather-tight Strain Relief Connectors
Part No. ........... Description
n.......................................................................

900540 ........... $90^{\circ}$ ell for 1/2" ID NYCOIL ........................................... $\$ 22.00$
900539 ............ $90^{\circ}$ ell for 3/4" ID NYCOIL ........................................... \$32.00
900574 ........... $90^{\circ}$ ell for $1^{\prime \prime}$ ID NYCOIL .............................................. $\$ 52.00$

## RF Related Products • Cable



Andrew Corporation provides cable, rigid transmission line, dehydra tors, broadcast antennas, coaxial switches, and accessories. Phase stable, super-flexible, high temperature, low VSWR and 50 or 75
 ohm are some of the types available. Please remember that some cable sizes come on a returnable reel, which requires a deposit and a return freight charge.

Call Broadcasters General Store for an Andrew catalog.

| Cable size ..................... Part Number ........... Attenuation dB/100ff ............... Connectors ............ Price |
| :--- |
| $960 \mathrm{MHz} / 450 \mathrm{MHz} / 100 \mathrm{MHz}$ |




|  | Easiax kit consists of tool, instruction sheet and 5 extra blades. <br> Easiax makes a clean cut and decreases the risk of cutting the inner conductor. |
| :---: | :---: |
|  |  |



Bird Model 43 Drectional Wattmeter
The Bird Model 43 thru-line directional wattmeter accurately measures forward or reflected power in coaxial transmission lines under any load condition. This wattmeter consists of a line section and meter housed in an aluminum case. Quick-change-rype connectors and plug-in elements are required for operation.
43 ................ CW/Portable ....................... \$276.00 Elements Specify frequency and power .. From $\$ 68.00$
Bird 3126A \& 3127A
Wat:chere RF Power Monitor


The Bird 3126 \& 3127 protect installations from high VSWR, measuring power from 250 W to 250 kW at frequencies from $2-1000 \mathrm{Mhz}$. Abnormal load conditions quickly cause transmitter shurdown, a buzzer alarm, and a change of illumination color of the reset button. Audible and visual alarms indicaing system malfunction may be remoted.

| 3126A | For rigid lines |
| :---: | :---: |
|  | (15/30/60 scale meters) ........ \$1,075.00 |
| 3127A... | For rigid lines |
|  | (5/10/25 scale meters) .......... \$1,075.00 |

## PolyPhaser Lightning Protection

 PolyPhaser corporation designs qualiry lightning protection and grounding solution products. Products included: AC power protectors • worldwide plug/socket patterns ${ }^{\circ}$ DC power protectors $\bullet$ grounding solutions $\bullet$ grounding components $\bullet$ test equipment $\bullet$ twisted pair/cable protectors - DC injector/DC path • DC rype - combiner protectors • RF coupled shield/DC blocked • DC blocked filter $\cdot$ DC blocked. We chose two products to highlight. design for fast response and fast restoration - field replaceable gas tubes available • air tight "through" for dry air or N pressure ( 15 \#psi) • and stainless steel hardware and gasket.
IS-318E .... w/ 3-1/8" EIA connector, flange mt ..... \$814.95 IS-158E .... w/ 1-5/8" EIA connector, flange mt ..... \$574.95

Note: Gas tube must be ordered separately.

## Cablewave



## Broadcasters General Store <br> Hotlinks to Vendors ©



## www.bgsfl.com www.broadcastdealer.com

## Coaxial Dynamics <br> Directional RF Wattmeters

Coaxial Dynamics High Power Series of Directional RF wattmeters are designed to measure RF power in $50 \Omega$ coaxial transmission line. Several different models are available. The external line section can be used with accessory cables ( $10^{\prime}$ normally supplied) up to $200^{\prime}$ from the meter. The meter unit is protected by a rugged, shock-proof housing. On the back of the housing are two sockets for storing additional measuring elements. The high quality meter utilized three computer generated scales and advanced taut band technology for reliability and accurate readings. Features include: $4-1 / 2^{\prime \prime}$ mirrored scale ${ }^{\circ}$ gold plated plug-in elements ${ }^{\bullet}$ and 2 year limited warranty. Elements for these wattmeter range in price from $\$ 110$ to $\$ 147$.
81100-A ..... 1-5/8" Directional RF Wattmeter .... \$676.00 81600-A ..... 6-1/8" Directional RF Wattmeter .. $\$ 1,440.00$

The Coaxial Dynamics 81000-A wattmeter can measure RF power in $50 \Omega$ coaxial cable and transmission lines, and accept plug in elements in the range of 0.1 to 10,000 watts full scale, and from 0.45 to 2300 Mhz . Complete with a built-in line section, the "Quick Match" RF connectors for $50 \Omega$ cables and transmission lines offer the you expect from Coaxial
 speed and reliability Dynamics. Connect the wattmeter berween the power source and antenna or "dummy" load, plug in the appropriate measuring element and select forward or reflected direction. The RF power is visually identified directly on the $4-1 / 2^{\prime \prime}$ three scale display. The $81000-\mathrm{A}$ can be used with accessory cables up to 200' from the meter. The $81001-A$ RF wattmeter has the added feature of an auxiliary DC input, providing the option of single meter measurement of several power sources. Line sections (eg. PN88525) are permanently installed at these measurement points, with model 810001 -A connected to each as needed. The DC signal is coupled from the line section to the auxiliary DC input to provide the same measuring capabilities as the basic model $81000-\mathrm{A}$. Elements for these wattmeter range in price from $\$ 68$ to $\$ 142$.

[^3]
## RF Related Products • Gable

## Coaxial Dynamios wattetman

The Coaxial Dynamics, Wattchman rackmounted monitor/alarm measures forward and reflected RF power simultaneously in $50 \Omega 2$ transmission lines. It is compatible with their $7 / 8^{\prime \prime}$ thru $6-1 / 8^{\prime \prime}$ line sections and will accept plug in elements that range from 5 watts to 100,000 watts full scale at frequency ranges of 0.45 Mhz to 2.3 Ghz . Model 81070 meters have $5 / 10 / 25$ scales while the81090 has $15 / 30 / 60$ scales. Both models feature forward and reflected trip adjustments. Can be powered from either 110 or 220 v sources. A station monitor/alarm system installation consists of a Wattchman, a dual socket line section and two elements for monitoring both forward and reflected power. The Wattchman is supplied with two $25^{\prime}$ DC cable assemblies for connection to the line section, and a $6^{\prime} \mathrm{AC}$ power cord.

Installation requires inserting the line section into the transmission line, and connecting the proper terminals of the transmitter interlock system(s) to the proper terminals on the Wattchman and providing $A C$ power. Abnormal load conditions quickly cause transmitter shut down in less than 15 milliseconds (including control relay). An audible single tone alarm will indicate system/transmitter malfunction. Relay contacts are provided for remote alarm and reset switching. Fail-safe or nonfail-safe mode is selected by a switch located on the rear of the instrument. Element selection: suggest using a $10: 1$ ratio ie: 10 kW forward and 1 kW reflected.
81070
\$1,029.00
81090
$\$ 949.00$


Myat
FeF Transmuksher Próducts
Miter Elbows (X01-021) are used at the rop of the tower to bring the vertical run close to the support structure (a short horizontal section of line assembly may also be necessary at this point). At the bottom of the vertical run, one or two miter elbows connect the vertical and horizontal sections while allowing room for expansion and contraction.
Rigid Hangers (X01-042-1) are used at the top of the tower to stabilize the connection between the transmission line and the antenna feed line. Normally a pair of rigid hangers spaced $10^{\prime}$ apart is sufficient.

20' Rigid Line Assemblies ( $\mathrm{X} 01-001 / 007$ ) compose the vertical and horizontal runs. Myat can also supply sections in any specified length, with or without flanged ends. Pressurized and unpressurized line sections are both readily available.
Spring Hangers (X01-042-3) are placed at a maximum of $10^{\prime}$ intervals to allow the main portion of the vertical run to expand and contract with temperature changes.
A Lateral Brace (X01-042-8) at the base of the tower prevents side-to-side movement of the transmission line.
Three Point Suspension Hangers (X01-042-17) support the horizontal run while allowing for expansion and contraction.
Anchor Plates (X01-042-5) are required on each side of the transmitter building's outside wall.Series 301 (3-1/8" Rigid, 50 ) Pricing
301-001 $20^{\circ}$ line assembly, flangex both ends, hdwre include., 55.2 lbs . ..... $\$ 600.00$
301-002-xxx ... Same as above, but customer specified length, $2.6 \mathrm{lbs} . / \mathrm{ft}+4.5 \mathrm{lbs}$. ..... $\$ 160+\$ 23 / \mathrm{ft}$
301-004 .......... 20' line assembly, unflanged, no hdwre, 50 lhs. ..... $\$ 490.00$
301-006 .......... Same as 301-001, but only one end flanged, 54 lbs . ..... $\$ 550.00$
301-008 .......... Fixed flange for silver brazing ..... $\$ 36.00$
301-009 .......... Swivel flange for silver brazing ..... $\$ 60.00$
301-013 .......... Field flange adapter, pressurized, soft solder type ..... $\$ 84.00$
301-014 .......... Flange adapter, unpressurized w/hose clamp ..... $\$ 85.00$
301-017 .......... Coupling assembly w/inner connector for 2 unpressurized line assemblies ..... $\$ 94.00$
301-021 .......... 90 Degree Elbow, flanged w/hdwre ..... $\$ 380.00$
301-025 .......... 90 Degree Elbow, unflanged ..... $\$ 186.00$
301-050 .......... Gas barrier with 1/8" NPT gasport ..... $\$ 325.00$
301-138 .......... Manual patch panel ( $3,4,5$, or 7 pole) ..... From $\$ 1,400-\$ 2,900.00$
301-042-1 ...... Fixed hanger, Top of vertical run (2 min.) ..... $\$ 65.00$
301-042-3 ...... Vertical spring suspension hanger ..... $\$ 80.00$
301-042-5 ...... Wall anchor plate ( 2 per wall) ..... $\$ 98.00$
301-042-17 .... 3-P'oint horizontal spring hanger

$\qquad$
$\$ 150.00$
Please call for information and pricing on the Series $401\left(4-1 / 16^{\prime \prime}\right) 5\left(32,601\left(6-1 / 8^{\prime \prime}\right)\right.$ 50S2, 701(6-1/8") 75S, 801(9-3/16") 75S2 or a Myat catalog.

## Myat Manual Patch Panels



## Patch Panels

## $15 / 8^{\prime \prime} 50 \Omega$ Patch Panels

$31 / 8^{\prime \prime} 50 \Omega$ Patch Panels
3 Pole, with 1 "U" Link ............ 201-138-3-* .......... \$1,050.00 ................. 301-138-3* .......................... \$1,400.00
4 Pole, with 2 "U" Link ............ 201-138-4-* .......... \$1.450.00 .................. 301-138-4* .......................... \$1,900.00
5 Pole, with 2 "U" Link ............ 201-138-5-* .......... \$1,650.00 .................. 301-138-5* .......................... \$2,200.00
7 Pole, with 3 "U" Link ............ 201-138-7** .......... \$1,800.00 .................. 301-138-7* .......................... \$2,900.00
*Interlocks - Add \$70.00 per each SPDT Interlock Switch required. Example: PN201-138-4-4S=Patch Panel - 4 Pole with 4 SPDT Interlocks. - Interlocks - Add $\$ 80.00$ per cach DPDT Interlock Switch required. Example: PN201-138-3.2D = Patch Panel - 3 Pole with 2 DPDT Interlocks.

## RF Related Products • Cable

Delta Electronics Motorizerd Coaxial Transfer Switches
 Delta Electronics offers manually or remotely operated Coaxial Transfer Switches. They can switch pairs of transmission lines in less than two seconds. If only three of the terminals of the switches are employed, the switches can be used as SPDT rypes.


The Models 6740B and 6742B can be pressurized up to $15 \mathrm{lb} . /$ sq. in. A gas barrier is built into each terminal, and an air inlet port is provided. Internal switch contacts enable remote control and status indication.
6730E
$0-400 \mathrm{Mhz}, 1-5 / 8,13 \mathrm{lbs}$.
\$3,000.00
6730E1
$0-900 \mathrm{Mhz}, 1-5 / 8,13 \mathrm{lbs}$.
\$3,135.00
6740B
$0-216 \mathrm{Mhz}, 3-1 / 8,65 \mathrm{lbs}$.
$\$ 7,100.00$

$X$ is determined by the motor drive and control relay coil voltage and \# of ports.


MCI Coaxial Transfer Switches, as four-port transfer switches will switch two signal sources between loads. Since they can also be used as SPDT switches, complex switching matrices can be easily assembled. A unique fearure of these switches is the coplanar port configuration that permits neater, more compact layouts and requires fewer elbows. Switch action is accomplished by a standard high torque gear motor and is bi-directional to positive stops. In the event of loss of control power, these switches can be operated manually. The switching speed of the following switchers is 2 seconds with a maximum of 3 seconds. Standard E.1.A. male connector.


## RF Related Products • Composite DAs

# Broadcast Devices CDS-200 composite DA/Switcher 



The Broadcast Devices CDS-200 Composite DA/Switcher was designed to allow two switchable sources to be distributed to three location. Sources within the bandwidth of 10 Hz to 100 Khz such as composite audio, SCA or SAP signals can all be accommodated. Each ourput uses individual ourput amplifiers for maximum isolation. Level adjustments, switcher controls and a test jack for non-intrusive connection to a scope or spectrum analyzer are conveniendy located on the front panel. The switcher has remote control capability with status that is compatible with virtually all remote control telemetry systems in use today.

CDS-200 $\qquad$ .. Composite DA/Switcher $\qquad$ $\$ 825.00$

## Dixon CS-200 Dual Mode Composite Switcher \& DA



The Dixon CS-200 is a dual mode composite switcher and distribution amplifier that'seasy to interface with most any plant control system. In "Remote" mode, the unit allows remote selection of one of two composite signals and provides three independent and isolated outputs for each transmitter. When operated in "Local" mode, there's front panel selection of the composite source for each transmirter. Features include: full remote status ${ }^{*}$ built-in power fail with bypass and status • last remote command memory with status and automatic return - outputs for transmitters $1 \& 2$ as well as two additional outputs for modmonitors, oscilloscopes, etc. and multi-rurn adjustable level for each ourpur.
CS-200
$\$ 899.00$

## Excalibur CDA-1 composite Distribution Amplifier



The Excalibur CDA-1 Composite Distribution Amplifier is 1-in, 3-out distribution amplifier for stereo composite or subcarrier signals, with each output individually adjustable. For sites with ground loop problems, a ground lif switch is provided on che rear panel to separate the circuit ground from the power ground and chassis. A transient protector is part of the power supply circuitry for protection in hostile environments. 1U


CDA- 1
. Composite Distribution Amplifier
$\$ 420.00$

## Modulation Sciences CLD-2504

 FM \& TV Stereo Composite Distribution Amplifier

The Modulation Sciences CLD-2504 is an FM and TV Stereo Composite Distribution Amplifier providing four outpurs. Each output is low impedance and can drive long transmission lines terminated in 50 or $75 \Omega \mathrm{~s}$. With more than 40 dB of isolation there is no interaction among loads.
CLD-2500..
Line Driver / Receiver Set .
\$1,860.00
CLD-2501 ....... Composite Line Driver ( $1 \mathrm{in} / 2$ out) .......................................... $\$ 975.00$
CLD-2502...... Composite Line Receiver ( $1 \mathrm{in} / 1$ out) ................................ $\$ 925.00$
CLD-2504 ...... Composite DA (1 in/4 out) ........................................... $\$ 950.00$

## RF Related Products • Dehydrators

## Andrew Dehydrator

Andrew pressurization equipment can improve the performance of your premium antenna system components. The Andrew MT-050 is a small,
 compact, fully automatic membrane dehydrator. Ideal for pressurizing systems up to $10 \mathrm{ft}^{3}$ in volume.
MT-050-81015 ..... DryLine Dehydrator $\qquad$ \$2,199.00

## Dielectric 600 Dehydrator

Dielectric manufactures several models of small capacity, self-regenerating, air dryers that are ideally suited for broadcast transmission line and waveguide pressurization applications. The model 600 has a maximum output of 750 SCFD and can be operated from 115 or 230 V power sources. These units feature a built-in air storage tank to reduce cycling and extend component life. The rwin tower design is a headless drying system that will offer years of trouble free
 operation. The efficient design make these compact units ideal for all small capacity dry air requirements. These air dryers are available with various output pressure/alarm configurations designated by the A through D suffix for each model. Contact BGS for complete information on current options.
600
Prices from \$3,370.00

## Environmental Technology



The Environmental Technology ADH-2ACOM Autonatic Dehydrator supplies low pressure dry air to keep waveguide and coax moisture free. Automatic regeneration, an alarm relay and a RS-422 communications interface make unattended operation practical. Regeneration occurs when needed rather than at fixed times and does not need a drain line. Maximum power consumption is 120 W during regeneration while averaging less than 40 W in typical operation. 3 U
Environmental Technology introduced the new $\mathrm{ADH}^{\mathrm{TM}}-3 \mathrm{COM}$ computerized air dehydrator with automatic regeneration. It satisfies the need for low pressure dry air required in satellite earth stations and general purpose microwave applications. Maximum power consumption is 146 W during regeneration while averaging less than 60 W in typical operation. It employs: dual compressors for improved reliability and higher air flow - Low pressure and high humidity alarm relays are standard • monitoring of all parameters through its RS-485 serial communications port • and supports both the S-A and ETI proprietary protocols. To
 ensure safety and minimum powerconsumption, all internal pneumatic systems operate at the discharge pressure. 3U


FIDHIA

ADH-2ACOM ..... $14.2 \mathrm{cu} / \mathrm{ft}$ per hour Rack mount-\#17696. \$2,495.00
Wall mount-\#17846$\$ 2,495.00$Outdoor NEMA-17905\$3,855.00
Opt.-1 .... 230V ..... N/C
Opt.-2 .... SI Calibration ..... N/C
Opt.-3 .... High Pressure, 6.0 PSI ..... $\$ 69.00$
Opt. -4 .... Extended Warranty ..... $\$ 207.00$
Opt.-5 .... High Pressure, 3.0 PSI ..... $\$ 69.00$
Opt.-6 .... Master configuration on dehydrator ..... $\$ 143.00$
EDH ${ }^{\text {TM }}-4$...... $6.0 \mathrm{cu} / \mathrm{ft}$ per hour Manually Regenerated Air Dehydrator\#18021 (for small volume waveguide \& coa$\$ 800.00$
Optional Wall Mount-\#17982 ..... $\$ 91.00$
Outside NEMA-\#18250 ..... $\$ 1,795.00$
EDH $^{\text {TM }}-3 \mathrm{~W} . . .2 .4 \mathrm{cu} / \mathrm{ft}$ per hour Manually regenerated- Microprocessor control, Wall Mount \#16672$\$ 545.00$
Opt. 1230 V\$102.00
ADH ${ }^{\text {TM }}$-3COM ..... 26.4 cu/ft per hour Automatci Regeneration ....... \$2,594.00\#17845, Wall Mount Version\$3,195.00
\#18136 Ourdoor Mount Version ..... $\$ 4,049.00$

## RF Related Products • Dummy Loads

## Bird Electronics

Bird Electronics offers a varied selection of RF loads in their Termaline Series: dry, oil dielectric, water cooled and forced air. They range in size from 2 W load to 25 kW models. Accessories include replacement coolants, dollies, step up/down flange adaptors, coupling kits, thermoswitches and water flow switches.

## Coaxial Dynamics



Coaxial Dynamics' 4000 Series are dry, convection cooled RF loads ranging from 5 W to 1 kW and offer a two year warranty. The 85000 Series loads are liquid filled, convection cooled, blower assembly optional. They range in size from 600 W to 10 kW . Please specify conncetor size.

Coaxial Dynamics 84000 Series liquid-air loads are available to cover power ranges of 2.5 through 12.5 kW over frequency range of DC to $2,400 \mathrm{MHz}$. A wide variety of configurations are available to meet most applications. Many connectors, thermal switches and blower options are available.

## Electro~Impulse

The Electro-Impulse DPTC-25KFM is an upright forced air cooled coaxial load rated at 25 kW continuous from DC-110MHz with a VSWR @ 1.15 : 1. $3-1 / 8^{\prime \prime}$ EIA input is standard, $1-5 /$ $8^{\prime \prime}$ EIA maybe substituted.

DPTC-25KFM $\qquad$ $\$ 4,150.00$

Electro-Impulse makes several models of oil Dielectric RF loads from 500 W to 5 kW and dry, forced air loads from 5 kW to 80 kW with reflect load option (controls fan), as well as convection cooled and water cooled loads. Please specify connector size.


## RF Related Products • EAS

## CircuitWerkes EAS Trigger IV

The Circuir Werkes EAS Trigger IV is designed to interface Sage® Endecs to your automation system or any contact closures. The EAS IV takes contact closures and converts them to serial data that is used to trigger the required weekly or monthly tests. Up to four different, co-located, stations can be controlled using one Endec and the EAS IV.

EAS Trigger IV
$\$ 299.00$

## Gorman-Redlich EAS Encoder-Decoder



The Gorman-Redlich EAS Encoder-Decoder comes with 4 audio inputs, expandable to 6. It allows automatic interruption of program audio to insert EAS F.S.K. header codes, 2 tone attention signal as well as two minutes of stored digital audio and E.O.M. F.S.K. The two minutes of stored digital audio is expandable to 4.5 minutes. The stored audio will not include any 2 tone attention signals or 1050 cycle tone on the weather service transmitter. A four line, 40 character LED back-lit LCD display is used with a 20 position keypad switch to set modulation levels on your transmitter, and set audio input levels for the broadcast stations you are monitoring. The keypad is also used to compose alert messages if your station will be originating a message. Another keypad key transfers control from automatic operation to manual operation and back to automatic. While in automatic, the encoderdecoder will completely run the emergency alert function. When an alert is received, the display will tell you the time interval of the audio portion of the message. It comes with: five, two-way RS-232 Ports (1 dedicated to a computer input) • a 25 pin printer port for an external IBM compatible printer • and 52 terminals on the rear for inter-connecting to other equipment.
EAS
$\$ 1,750.00$
Programming Charge.................................................................... $\$ 50.00$
CRW ............. Weather Receiver. $\$ 540.00$
YA .................. 6 dement Yagi Antenna, 10 dB , cut to weacher frequencies ...... $\$ 125.00$
WA ................ Whip Antenna, cut to weather frequencies ..................... $\$ 20.00$

## Dayton AFC3

EAS Monitoring
The Dayton Industrial AFC3 was

designed for professional monitoning or EAS monitoring. It indudes three receivers: weacher, FM, AM and Public Service Band 148 to 175 MHz . Fearures include: front panel carrier and modulation LED indicators • internal monitor speaker • front panel headphone jack w/volume control • Aler LED's and test/reset switch • 10 volt automotive type intermal regulator allows vehicle or battery standby operation $\bullet$ and is $1 \mathrm{U} \& 5.5 \mathrm{lbs}$.
AFC3
$\$ 399.00$

## Dayton AF810

Public Service Band Receiver
The Dayton Industrial AF810 receives broadcasts in the Public Service Band (148 to 175 MHz ). It was designed to meet professional
 monitoring and $E A S$ equipment input requirements. Features include: frequency of operation set by internal DIP and BCD switches in 500 Hz increments $\bullet$ external antenna ( F -type) connector • dual sequential tone decoders (unmutes SPKR) • mute controlled SPKR output with volume control $\bullet$ RCA unbalanced output (balanced output DIN) • current consumption approximatedly 70 mA standby $\bullet 10$ volt automotive type internal regulator allows vehicle or battery standby operation - LED indicators for power and alert $\bullet$ tone controlled relay ourpurs NC and $\mathrm{NO} \bullet$ headser output • \& optional rackmount.

## SITCO

The SITCO Antenna will increase your NWS reception! Frequency, 162 MHz • 10 dB Gain • SWR < 2:1 • Beamwidh 55 Degrees • Vertical polarization • and Female $75 \Omega$ termination.
EM5-1-EAS $\qquad$ $\$ 160.00$


TFT EAS Encoder/Decoder


The TFT EAS91IR4 EAS Encoder/Decoder design is the result of extensive input from some of the industry's most respected professionals. All design features and operations including front panel push-buttons and rear panel connections were thoroughly researched. Its features include: four balanced audio inputs (expandable to 10) - two RS-232 digital ports • RS-485 port • two relay outputs • balanced audio output $\bullet$ digital voice recorder $\bullet$ help and practice key for operator training $\bullet$ multipurpose LCD display • easy-to-read 24 column impact printer uses standard, off-the-shelf adding machine paper • and a rear panel connection mutes printer and speaker while air mic is keyed.

> EAS911R4 ....... EAS Encoder/Decoder with four balanced audio inputs ....... \$2,195.00
> Radio Pack ...... EAS911R4 w/ EAS930A ........................................... \$3,195.00
> Radio Pack 2 ... EAS911R6 w/ EAS930A ........................................... \$3,395.00
> EAS911R6 ...... Same as 911R w/6 balanced audio inputs .................... \$2,395.00
> Opt03 ............. 4-port COM expander for PC interface, RBDS and electronic sign driver .
> $\$ 395.00$

EAS930A ........ Multi-Module Receiver, AM, FM and 7-channel NOAA , all modules have auto-changeover and alarm ......... $\$ 1,470.00$

EAS940A .... Transmitter/Program Interrupt Unit, four separately controllable balanced audio channels with status indicators, rackmount and XLR connectors ...................................... $\$ 459.00$
EAS941A ..... RS-485 Remote Control/Status Module for EAS911 for connection to EAS911 over single, shielded twisted pair, up to $5,000^{\prime}$. Up to 16 units may be connected in parallel to provide remote operation of EAS911 from multiple studio locations. ............ $\$ 495.00$
EAS-943 ..... EAS Telephone Access Unit-for remote password secured encoding by officials of EAS message via touch-tone telephone..


> WWW.bgsfl.com www.broadcastdealer.com

## RF Related Products • Generators/Modulation Monitors

AVOCET Pro Channel Receiver


The AVOCET Pro Channel Receiver gives television broadcasters the equivalent of a one way 3 kHz line, centered at 102.271 kHz on the composite audio signal. Using the Pro channel for IFB eliminates the cost, interference, and legal problems associated with cellular phones. It is specifically designed for IFB applications and gives you audio quality comparable to two-way radio with built-in muting and noise filtering. The Pro-Line 102A enables you to receive data as well as voice from the Pro Channel. It's perfect for receiving scripts, messages, remote control telemetry or other information at remote sites. Front panel has headphone jack and speaker with volume control, and rear panel has balanced XLR output with level adjust. DB- 25 connector provided for data.

Pro-Line 102A ....
Option 07 $\qquad$ Selective cueing and Main-Mix via sub-audible tone (CTCSS) decoder
$\$ 1,595.00$

SCE-2 $\qquad$ Sub-audible tone encoder $\qquad$
$\qquad$ . $\$ 100.00$ AVOCET AV-100 Television Audio Receiver


The AVOCET AV-100 enables the monitoring of television station's audio as part of the FCC's requirements for the EAS program. A choice is given for feeding either SAP or Main channel audio on rear panel XLR connectors. Both signals are balanced, line level outputs. The AV-100 is frequency agile and can be easily tuned to off air channels 2 through 69. The selector is located inside the chassis to protect from accidental changes. Applications other than EAS include: recording programming off-air - recording news promos at radio stations for later rebroadcast - rebroadcasting to cable head ends $\bullet$ re-broadcasting to translators and network relay sites ${ }^{\bullet}$ and general studio monitoring.
AV-100 ........... Television Audio Receiver
$\$ 495.00$
SAP-16 ........... Consumer SAP receiver with built-in speaker, RCA jack ...... $\$ 160.00$
Avocet TV-2 SAP/Pro Channel Receiver


The Avocet TV-2SAP/Pro is a SAP and Pro channel receiver with Turbo Sound on the Pro channel that can improve your signal to noise ratio by up to 25 dB . It offers a versatile selection of capabilities for using your station's own audio subcarriers to cut costs and improve efficiency. The SAP channel was designed to carry a second audio channel in addition to regular program audio. SAP is a subcarrier of the audio signal centered at 78.67 kHz , and has a deviation of 10 kHz . The TV-2's Pro receiver is easily made part of your IFB system. The Pro channel can carry data such as scripts, messages, remote control telemerry or other information to remote sites. The Pro channel was designed to give television broadcasters the equivalent of a one way 3 kHz line. The Prochannel is centered at 102.271 kHz of the composite audio signal, and has a deviation of 3 kHz . The receiver provides balanced XLR outputs, a front panel speaker and headphone jack for monitoring.
TV-2SAP/Pro .... SAP \& Prochannd receiver, indudes Turbo Sound/Ro Channd ..... $\$ 2,195.00$
TV-2SAP ....... SAP channel receiver only with dbx decoding .............. $\$ 1,695.00$
TV-2Pro ........ Pro channel receiver with Turbo Sound ................... $\$ 1,695.00$
$\qquad$

Belar TVM-101 modulation Monitor


The Belar TVM-101 precision wideband aural monitor is designed to measure the total modulation characteristics of mono and multi-channel television transmitters. It conforms with EIA/BTSC standards. At proof time it can be used as a low-noise, low-distortion main channel demodulator for driving audio monitor amplifiers and distortion analyzers. Wide band composite outputs are provided for Stereo, SAP, PRO and SCA monitors. The TVM-100 adds a quasi-parallel derection mode and a digital front panel voltmeter for direct reading of deviation in kHz .

TVM-100 ....... Specify channel or frequency ..................................... \$4,750.00
TVM-101E ...... TV Aural Mod. Mon., PAL system, specify visual/aural freq. ...... $\$ 4,500.00$
TVM-102 ....... TV Aural Modulation Monitor, Dual Sound Carriers Specify visual \& boch aural freq, will monitor 1 aural at a aime .
$\$ 5,500.00$
Option 01 ....... SAP \& PRO Injection board for TVM-100 ................... \$550.00
Option 03 ....... Peak Weighting module, 5 time constants plus
$\quad$ FCC mode for TVM-100 \& 101 ............................... $\$ 395.00$
MP-11 ............ Remote meter panel for TVM-100 or TVM-101 ............ \$275.00
Belar TVM-230 Digital BTSC TV Stereo Monitor/Analyzer


The Belar TVM-230 is a DSP-based, microprocessor controlled Digital BTSC TV Stereo Monitor/Analyzer. The TVM-230 digitizes the composite baseband signal and decodes the stereo multiplex portion using digital signal processing techniques. Unlike an analog design, a DSP-based design is immune to variations due to temperature or the aging and tolerance of components. By employing linear phase FIR filters, the TVM-230 eliminates phase distortion in the recovered audio. This permits unprecedented accuracy in measuring modulation peaks on the $\mathrm{L}, \mathrm{R}, \mathrm{L}+\mathrm{R}$ and $\mathrm{L}-\mathrm{R}$ signals.
TVM-230 ....... TV Digital St. Mod. Mon., BTSC System ................... \$5,850.00
TVM-250 ....... TV SAP/PRO Monitor .............................................. \$3,900.00
TVM-2A ........ TV digital frequency monitor, VHF
(measures aural, visual and intercarrier) $\qquad$ $\$ 3,550.00$
TVM-3A ........ TV digital frequency monitor, UHF
(measures aural, visual and intercarrier)
$\$ 4,150.00$
RFA-3............. TV RF amplifier, specify frequency (for use with TVM-2A \& TVM-3A for off air use or to combined feed) ... $\$ 1,250.00$
Option01 ........ SAP/PRO Injection Board for TVM230 ......................... \$550.00
Option 03 ....... PWM-I Peak Weighting Module for TVM230/250 ....... $\$ 395.00$
MP230 ........... Analog Meter Panel for TVM-230 ................................. \$450.00
MP250 ........... Analog Remote Meter Panel for TVM-250 ..................... \$400.00


## RF Related Products • Generators/Modulation Monitors

## Belar FM Radio Monitor Equipment


FMM-2 ........... FM Precision Modulation Monitor (specify frequency) ........ $\$ 1,790.00$
FMS-2 ............ FM Precision Stereo Modulation Monitor ................... $\$ 2,050.00$
FMM-4A ........ FM Digital Frequency Monitor ..... $\$ 1,590.00$
Option 01 ....... Eight Alarm Relay card for FMM-4A .....  $\$ 250.00$
SCM-2 ............ SCA Modulation Monitor, 67 kHz Std. (3 more available) ... ..... $\$ 2,050.00$
Each additional standard SCA frequency .....  $\$ 75.00$
Each additional special SCA frequency ..... $\$ 100.00$
RDS-1 ............ RDS/RBDS Monitor. $\$ 2,200.00$
RFA-IA ........... FM RF Amplifier (specify frequency) .....  $\$ 850.00$

RFA-4 ............. Frequency Agile FM RF Amplifier ( 10 Memory Presest) ...... $\$ 1,190.00$ Option 01 ....... Module for interfacing RFA-4 with the WIZARD ......... $\$ 100.00$


FMMA-I .......... The WIZARD, Precision Digital FM Modulution Analyree .... $\$ 3,300.00$ Option 01 ....... Precision FM demodulator with calibrator (IF Input) ..... $\$ 590.00$ Option 02 ........ Down converertsync AM noise detector (speaify frequency) ........ $\$ 495.00$ DC4 ............. Frequency Agile Down Converter for ransmiter operation ..... $\$ 1,500.00$


FMSA-1 .......... FM Digital Stereo Modulation Monitor and Analyzer . $\$ 3,900.00$ FMRR-4 .......... Freq. Agile FM Rebroadcart Rec, w/calibraror \& carnie fiil safe...... $\$ 1,890.00$ FMRR-1A......... FM Rectradass Recaine w/ alibracor \& canic- fini ssfe (peaidy freq) ...... $\$ 1,590.00$


DSD-1............$~ D i g i t a l ~ S t e r e o ~ D e c o d e r ~(F M ~ C o m p o s i t e ~ i n p u t, ~$
provides 48 kHz AES/EBU St. output ....................... $\$ 1,900.00$ DSD-1A ......... Digital St. Decoder w/analog outputs (adds bal. analog L,R,L+R \& L-R outputs) $\$ 2,500.00$ FM Accessories
MP-8 ............. Combined remote meter panel for FMM-2 and FMS-2 ......... $\$ 425.00$
MP-9 ............. Remote meter panel for FMM-2 ................................ $\$ 275.00$
MP-10 ........... Remote merer panel for SCM-2 .................................. $\$ 275.00$
PWM-1. ........... Peak weighing module ( 5 ime constants plus FCC mode) ..... $\$ 395.00$
Belar RDS-1 RDS/RBDS Monitor \& Decoder

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The Belar RDS-1 is a fully-feaured RDS/RBDS monitor and decoder. The RDS1 is essential to monitor critical RDS parameters, such as RDS injection and the phase relacionship berween the RDS subcarrier and the stereo pilot. It has an RS232 interface and a Wizard interface built-in.

RDS-1
$\$ 2,200.00$


Belar AM Monitor<br>Equipment

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## CRL SCA-300B

Digitally Synthesized Subcarrier Generator


The CRL SCA-300B is a digitally synthesized subcarrier generator with integral two-band audio limiter. The SCA-300B subcarrier frequency is user-selectable from 40 to 110 kHz . Either voice or data can be transmitted; two direct data input ports are provided. Also, the SCA-300B can be fully remote-controlled.
SCA-300B
$\$ 2,050.00$

## CRL SG-800A Digital Stereo Generator



The CRL SG-800A FM stereo generator is a drift-free, lab grade stereo generator due to its digitally synthesized balanced modulator design. Stereo separation exceeds 55 dB . SCA inputs are provided for composite loop-through. The SC-800A's linear low-Z output drives up to 1,000 feet of $\mathrm{RG}-58$ cable.
SG-800A $\qquad$ $\$ 2.590 .00$
$\$ 1,800.00$

## Delta SM-1 Splatter Monitor

The Detra SM-1 Splatrer Monitor measures the level of splatter or any other spurious emissions which fall berween 11 kHz and 100 kHz away from both sides of the carrier. While
 normally installed in an equipment rack and fed with the transmitter or common point RF sample, it also operates in the field from a twelve volt DC source fed by an optional active antenna. This portability is very useful for investigating interference complaints.
SM-1 ............. AM Splatter monitor ..... $\$ 4,490.00$
AWA-1 ........... Active Whip Antenna ..... $\$ 780.00$
PH-1 Peak Hold Option ..... $\$ 555.00$
SA-1 Spectrum Analyzer Filter ..... $\$ 555.00$

## RF Related Products • Generators/Modulation Monitors

## Inovonics 701 rds/rbds



Inovonics 701 RDS/RBDS is a stand-alone unit that does not require a dedicated host computer. Messages are held in non-volatile memory. It locks to 19 kHz pilot from MPX sample - no special "sync" port is required. Menu driven programming soffware is supplied.
701
$\$ 390.00$

Inovonics 710 RBDS Encoder/Subcarrier Generator


The Inovonics 710
PROM'-based RBDS encoder/subcarrier generator is an easy-to-use encoder which requires no programming. As many as 15 separate "frames", or complete sets of IDs, flags and messages are held in the 710's non-volatile memory. With the touch of a button or by remote command, you select the data frame(s) to be broadcast. Later should you want to implement other options, such as paging, GPS, contests, etc., connect the 710 to any IBM-compatible PC to enter the "dynamic" mode. "Static" operation remains a default should the on-line link be lost.

710
$\$ 1,050.00$

## novonics 520 AM Modulation Monito



Inovonics 520 AM Modulation Monitor includes a tunable preselector for accurate off-air measurements. It features bargraph peak metering, fixed and adjustable flashers, program and carrier loss alarms, and an RS-232 port for optional computer modulation analysis.
520 ................. AM Modulation Monitor
$\$ 1,750.00$
AFA ................ Optional, weatherproof active ferrite antenna ................. $\$ 300.00$

## Inovonics 530

FM Rece ver a FM Broadcast Carrier Modulation


Inovonics' 530 combines a wideband FM receiver with a linear demodulation and metering circuitry for precise measurement of FM broadcast carrier modulation. Highresolution displays give reliable readings of total modulation, demodulated program audio, and pilor/subcarrier injection levels. The incoming RF signal and multipath distortion components are also monitored to ensure that indicated measurements are truly valid. The 530 accepts both an antenna feed and a directly-coupled RF sample. Included are: eight station presets, balanced program audio outputs, a composite baseband I/O, and connections for remote readout of all panel displays, the peak flasher, plus dead air and carrier loss alarms and headphone jack.

## Inovonics 540 FM Subcarrier Monitor/Demod



Inovonics' new 540 has a dual conversion design with precise, crystal-contolled digital tuning and works with any FM Mod-Monitor having a Composite (MPX) output. It measures injection level of SCA, RDS and highspeed data subcarriers. It demodulates audio SCAs and accurately displays subcarrier deviation.

540 ......................... FM Subcarrier Monitor/Demod ......................... $\$ 1,150.00$
RDS Decode Option ........................................................................... \$165.00

## Marti SCG-10 \& SCD-10

Subcarrier Generator \& Demodulator
The Marti SCG-10 subcarrier generator is designed to operate in
 SCA service with an FM transmitter or, with an SCD-10 subcarrier demodulator to form a subcarrier link on a microwave (STL) system. It has selectable pre and de-emphasis of 0,75 , 150 or 225 microseconds and low pass audio filters of 3,5 , or 7 kHz .
SCG-10 ................... Subcarrier Generator ............................................ \$798.00
SCD-10 ................... Subcarrier Demodulator ........................................ $\$ 798.00$

## Modulation Sciences ModMinder FMMM-2

Modulation Monitor


Modulation Sciences ModMinder's ${ }^{\text {TM }}$ user-selectable response allows you to adjust processing for maximum legal modulation. The optional DeMod board gives you MSl's Modulation Assurance with accuracy of $\pm 1 \%$. ModMinder is compatible with analog remote control systems and operates by modem from any PC. The remote software package analyzes modulation to give you complete information about any FM signals densiry, loudness and competitive characteristics.

FMMM-2 ....... ModMinder with DeMod
$\$ 3,090.00$

## Modulation Sciences Sidekick SCA-186 SCA \& Data Sidekick



Modulation Sciences Sidekick with audio processing especially designed for SCA, and Data. Sidekick has everything you need including loop-through composite connections for easy installation, remote control provisions, crystal-locked synthesizer tuning, a super-accurate peak/hold SCA deviation meter, a noise generator and synchronous AM meter so you can tune the transmitter for minimum crosstalk. Data Sidekick's direct FM modulation technique is specifically designed for maximum reliability and throughput over the SCA subcarrier.
SCA-186.... $\qquad$ Specify frequency \$3,835.00
DSCA-188 .............. Data Sidekick, specify frequency \$5,040.00
DSCA-1 ................. Data Subcarrier (SCA) Receiver, Board Only ......... \$265.00
DSCA-2 .................. Data Subcarrier (SCA) Receiver w/Enclousure ....... \$330.00

## New standards in STL RPU and Transmission



## MPX5 E MEXIM

With impeccable raliability and a sound that remains clean whether sef to loud and punchy or open and transparent, MPX5 and MaXGM are the combination of choice for stations worldwide wanting the very best analogue processing equipment. MaXiM provides precise peak level control using split-band limiting and intelligent program-dependant control to utilize every last drop of available modulation without degrading already processed signals. MPX5 is a very high specification stereo generator with DSP filtering and advanced overshoot compensation allowing increased modulation allied to superb sonic performance.

Full MPX5 \& MaXIM specifications on page 174

## FMAD E FMEO

For a complete low-power broadcast solution or as exciters for higher power systems, FM10 and FM30 share sbs' renowned ultra-linear modulator and a wideband design that allows direct frequency setting - no tuning required. They are engineered for many years of trouble-free operation at full rated power (10W for FM10, 30W for FM30). and are fully protected against faults in the antenna system. Comprehensive input aptions include composite / multiplex, mono, stereo - with an integrated stereo generator/processor section for true "plug and play" operation - and AES/EBU digital.

Full FM10 \& FM30 specifications on page 173



## TX4008

The complete package for STLs and remate broadcasting. Available on any permitted frequency from 48 to 1300 MHz , and with a wide range of options - mono or internal stereo generator, limiters, AES/EBU, wde or narrow band FM - a TX400 system will suit every epplication. The matching RX4C.0 completes the link, delivering high-quality balanced audio or composite / multiplex signals, and cam also be used alone for demanding off-air monitoring or as the receiver for a franslator system.

Full TX400 \& RX400 specifications on page 167

## paparge c parao

Because the Power Amplifiers are one of the most important links in the transmission chain, the PA125 (125W) and PA250 (250W) FM power amplifiers have been engineered for ultimate reliability. Load and internal operating conditions are continuously monitored, protecting the transmitter, keeping your station on-air and reporting potenticl problems via the telemetry interface. The innovative "fresh-air-tunnel" design eliminates short-lived air filters, whilst the generously rated power supply combines high efficiency with rejection of maims-borne spikes and surges.

Full PA1 25 \& PA250 specifications on page 173


## Euardiane e Acue

Intelligent management of the whole transmission chain for total peace of mind. Guardian2 dynamically monitors both audio and composite / multiplex signals, switching seamlessly in the event of a fault to the reserve STL, secondary processor or, as last resort, an on-site source. ACU3 responds to problems in a dual redundant transmitter system, selecting between mgin and reserve chains (up to 100 W internally or higher power with an external relay). And with a full telemetry / control interface fitted to both units, you always remain in the picture and in control.

## Full Guardian specifications on page 174

## NTSC Video Demodulator Outperforms All Competition



Compare for Yourself
$\checkmark$ Guaranteed (not typical) specifications
$\checkmark$ Performance comparable to the
legendary 1450
$\checkmark$ Full Three Year Warranty
$\checkmark$ All for less than $\$ 6000$

What's the secret behind the outstanding performance and unbelievable price of the msi 320? Advanced technology. We use modern highperformance VLSI integrated circuits, some of which didn't even exist as recently as 3 years ago, instead of discrete components. We developed a proprietary SAW filter that outperforms anything else available.

But the msi $\mathbf{3 2 0}$ not only outperforms its higher priced competitors, its stable reliable design is also far more user friendly. For example, it has only 8 internal adjustments, compared to the more that 300 tweaks that many competitors require. That's why recalibration costs only $\$ 250$.

But don't just take our word for it. Contact us to arrange a FREE demonstration. We'll show you how you can get performance that's head and shoulders above the rest, without paying through the nose.

## RF Related Products • Generators/Modulation Monitors

## Modulation Sciences PRO PCG-II

Sidekick™ Pro Channel Audio Generator
 Modulation Sciences PRO Sidekick $^{\text {TM }}$ Audio Generator produces PRO channel on your TV aural signal. A complete, self-contained PRO Channel Generator. Operates on mono or stereo TV aural transmitters. Use with PRO-II PROceiver to place your IFB or cueing signals within reach of your remote vehicles without the use of cellular phones.
PCG-II $\qquad$ PRO Sidekick ${ }^{T M}$ Pro Channel Audio Generator
\$3,990.00

## Modulation Sciences PRO-II

PRO Channel Receiver w/Antenna Diversity


Modulation Sciences PROceiver ${ }^{\mathrm{TM}}$ II will greatly reduce or eliminate your dependence on cellular telephone connections for cueing and IFB information in ENG or remote activities. It contains a quartz-synchesized stand alone FM tuner which is completely independent of the visual carrier. A SAW filter protects the signal from video interference. On board noise reduction greatly enhances signal-to-noise performance. The Antenna Diversity option allows the PROceiver to operate reliably under severe multipath conditions. The optional $12 / 28 \mathrm{VDC}$ kit lets you use PROceiver anywhere.
PRO-II ........... PRO Channel Receiver w/Antenna Diversiry ............... \$1,895.00
PRO-AC ......... All-Call option for PRO-II ........................................... $\$ 385.00$
PRO-II28 ....... 28 Volt PS instead of 12 Volt ........................................ $\$ 300.00$

Modulation Sciences SRD-1 Stereo Reference Decoder
Modulation Sciences TV Stereo Reference Decoder is for critical measurements. Certified compliance to BTSC standards, compatible with all ste-

reo generators and operates with the Tektronix 1450-1 demodulator. Precision and balanced line outputs provided.
SRD-1 $\qquad$ Stereo reference decoder $\qquad$ $\$ 5,250.00$

## Modulation Sciences STV-784 TV Stereo Generator



The Modulation Sciences STV-784 TSG encoder and baseband stereo generator for NTSC delivers better than 40 dB BTSC Mode Stereo Separation. It complies with the BTSC Standard: FCC's OET-60R Report. Includes operational monitoring and integral Television Audio Processor.
STV-784WB ... TV Stereo Generator w/Balanced composite Output ..... $\$ 13,100.00$
STV-784 NA .. TV Stereo Generator less audio Processor Module ...... \$9,875.00
STV-784 AO .. Audio Processor Module for STV-784 NA ................. \$3,125.00
CLD-2503 B .. Balanced Compostie Line Receiver for STV-784 WB ..... $\$ 900.00$

## Modulation Sciences TSCA-189 <br> TV Sidekick SAP Generator



Modulation Sciences TSCA-189 TV Sidekick® SAP Generator contains audio processing and BTSC encoder. Unconditionally locked to horizontal sync via composite video. Stereo generator not required.

TSCA-189
$\$ 5,275.00$

## Modulation Sciences TV ModMinder <br> Modulation Status Panel

 Modulation Sciences TV ModMinder Modulation Status Panel works with any wideband precision demodulator (such as the Tektronix 1450-1). Gives continuous display of key MTS parameters (total modulation percentage with peak flasher) • status and injection levels of subcarriers * autoranging • and is far more accurate and less expensive than traditional modulation monitors.

TVMM-1 ....... TV ModMinder, Modulation Status Panel
$\$ 3,295.00$

## QEI 691 fm <br> Modulation Monitor/ <br> Test Set

The QEI 691 is a complete proof-ofperformance instrument for FM mono, stereo, and SCA measurements. It has a one year manufacturers warranry on all parts and labor.


691FM Modulation Monitor / Test Set
691/01Same as above with SCA (specify frequency) ............................ \$7,095.00
691/02Same as above with dual SCA (specify frequency)
$\$ 7,350.00$

## Radio Design Labs ACM-2 am Noise Monitor <br> 

Radio Design Labs ACM-2 is an AM noise monitor. RDL's ACM technology is the only time-proven, industry accepted method of controlling Synchronous AM Noise (the elusive varying: bandwidth-limiting gremlin that effects listeners receivers). Hundreds of top performing FM's in every major U.S. market turn to ACM technology for Maximum Bandwidth Performance! Every transmitter, new or old, can easily produce poor bandwiddh, or can be made to perform as well as any signal in the market. Every FM station needs ACM technology to provide the accurate AM measurement and continuous monitoring needed for opcimum transmitter tuning and performance.

## ACM-2

$\qquad$ AM Noise Monitor $\qquad$

## RF Related Products • Generators/Modulation Monitors

TFT 844A FM Baseband/Stereo Mod Monitor The TFT 844A is an FM stereo mod monitor chat has a frequency agile RF pre-selector, baseband demodulator and stereo demodulator. The 844A can be used for off-air monitoring or direct transmitter
 proof measurements. This monitor can be used for complete measurements of total, right and left channel modulation, channel separation, main and sub channel crosstalk, L+R, L-R, 38 kHz carrier suppression and pilot injection level. All measurements can be made with front panel pushbuttons and meter, and a scope can be fed from BNC connectors. Front panel modulation calibration is possible within $\pm 2 \%$. The preselector has two digitally runable RF preselectors to let you switch between FM stations. The 844A has a one year manufacturers warranty.
Model 844A ... FM Baseband/Stereo Mod Monitor ............................. \$5,150.00
Option 02 ....... Spare parts kit .................................................................... $\$ 575.00$
Model 804 ...... Remote meter and flasher ............................................. \$610.00
Option $03 . . . . . .57 \mathrm{kHz}$ RDS injection level ....................................................... $\$ 330.00$

TFT 845 FM SCA Monitor


The TFT 845 is an FM SCA monitor with up to three front panel selectable subcarrier frequencies. The 845 can be used to make SCA proof measurements and with one or two optional service channel boards it can provide uninterrupted SCA program or data output(s) separate from the monitor portion. It includes a loss of modulation alarm and a built in modulation calibrator. The 845 has a one year manufacturers warranty.

Model 845 ...... 3 Ch SCA monitor, 67 kHz supplied std .................... $\$ 2,735.00$
Option 01 ....... RF module preselector (specify frequency) ..................... $\$ 910.00$
Option 02 ....... Additional SCA freq ( 41 kHz ) components .................... \$145.00
Option 03 ....... Additional SCA freq ( 92 kHz ) components .................... \$145.00
Option 04 ....... Spare parts kit ............................................................. \$295.00
Option 05 ....... Service Ch module max 2 (specify frequency) ................ \$315.00
Model 805 ...... Remote meter and flasher ............................................ \$610.00

## RF Related Products • Receivers/Tuners

## CircuitWerkes TeleRadio <br> DTMF Remote Controlled Tuner w/Telephone Coupler



If you have CircuitWerkes TeleRadio at your stations, you can listen to every radio station in each of your markets in real-time. TeleRadio is a DTMF remote controlled tuner combined with a telephone coupler. When it answers, the internal radio begins playing down the phone line to you. You can control the radio by using the buttons on your phone. It features: ten random memory presers; remote controlled scanning, tuning, AM/FM band change, \& memory set; FCC rype approved for phone connection; automatically resets to first memory each time it answers a call; auto-answer/disconnect; and auxiliary audio input allows the coupler section to temporarily be used as an audio patch for remote talkback.

TeleRadio
$\$ 465.00$

## Dayton Industrial AF200

Frequency Agile SCA Receiver
The Dayton Induscrial AF200 Receiver is phase lock loop controlled ( 88 to 108 MHz ), wich a 67 or 92 kHz (selectable) SCA demodulator. Power is provided by an external 115 VAC to 12 Vdc converter. Features include: frequency of operation set by
 switch - SCA/Main selector switch • audio volume control • external antenna F connector • RCA line out • 1W audio power output * and line out volume control.

AF200 ............ SCA Receiver, Frequency Agile ..................................... \$199.95
AF200-FM ..... FM Main Only (no SCA) Receiver, tunable .................... \$179.95
Options include: Composite output, RCA jack $\$ 20.00 \cdot$ Data detector circuit $\$ 12.00$ • Field strength output, RCA jack $\$ 12.00$ • $19^{\prime \prime}$ front panel rackmount, black $\$ 24.00$ • Simultaneous (2) SCA detectors $\$ 40.00$ • External $67 / 92 \mathrm{kHz}$ toggle switch $\$ 5.75 \cdot$ External MainSCA toggle switch \$5.75 - Wide bandwidth \$12.00.

## Dayton Industrial AF210 FM, FM/SCA. FM/RDS Monitor/Receiver

The Dayton Industrial AF210 is a precision FM broadcast receiver with stereo, SCA and RDS demodulators. The AF210 is a singlectannel with PLL (synchesized) tuning. Features include: wide and namow band AGC to prevent overload $\cdot+6 \mathrm{~dB}$ balancod and unbalanced FM audio (stereo) ouput $\bullet+6 \mathrm{~dB}$ composite audio ouput $\cdot$ +6 dB SCA ouput • selectable 50,75 microseconds, or no deemphasis • selectable 25,50 or 100 kHz frequency uning steps • sdectable 150, 225 micasseconds, or no SCA deemphasis • main or SCA channd 350 mW amp for monitor $\bullet$ FM stereo with 40 dB (or betrer) separation $\bullet$ FM signal strength blend and high cut if desired • adjustable kevel carrier detection relay • RDS demodulator with carrier derect, dock and dare - LED indicators for signal strength, power, main carrier • stereo, SCA carrier and RDS • swirchable 67 or 92 kHz SCA demodularor • DC coupled SCA FSK dara oupur with adjust symmerry ${ }^{\bullet}$ adjustable soft FM mute • and adjustable SCA muing. IU \& 10bbs.

AF210
FM, FM/SCA, FM/RDS Monitor/Receiver
$\$ 409.95$

## Dayton Industrial AF272

Portable FM/SCA Receiver \& Field Strength Meter
The Dayton Industrial AF272 receiver is a sensitive FM receiver that covers the 88 to 108 Mhz standard band and demodulates the main channel audio as well as the standard 67 and 92 kHz subcarrier audio. Meters are provided that enable the AF272 to be used as a portable field strength meter. There are two tuning methods: fixed tune frequency (PLL controlled) and a manual tune control for the entire band. There are switch selectors for the tuning method used, the audio selection, meter function and attenuator controls.

AF272 $\qquad$ Portable FM/SCA
Receiver and Field Strength Meter

## RF Related Products • Receivers/Tuners

## Dayton Industrial AF565 fm/SCA Receiver,

The Dayton Industrial AF565 is a single channel, crystal controlled receiver that operates in the standard FM band ( 88 to 108 Mhz ), and demodulates the normal main channel audio (mono) as well as the special "SCA" audio associated with such services as the Reading Services for the Blind,
 Ethnic services, background music and other "SCA" applications. the receiver is a sophisticated design with an F.E.T. input amplifier for increased sensitivity and low noise operation. The main audio receiver is a superheterodyne design and the "SCA" channel contains a second compete receiver for demodulating the "SCA" signals. The Main or SCA audio is selected by a front panel switch (AF714 side switch). The audio signals are applied to an internal amplifier and speaker. AF565 power is supplied by an external 115 VAC to 12 Vdc converter (provided) and an internal telescoping antenna is provided as well as connections for an external antenna if desired. The AF714 has an earphone provided as well as an internal telescoping antenna. In the AF714, the earphone wire acts as the antenna and there is no internal speaker. Power is supplied by an internal battery supply ( 2 AA ) and an optional AC to DC converter is available.
AF565 ............ FM/SCA Receiver, Crystal Controlled, Table Style ......... \$149.95
OptT .............. External 67/92kHz slide switch ...................................... \$19.00
AF714 ............. FM/SCA Receiver, Handheld, single ch., crystal controlled ..... \$169.95

## Dayton Industrial AF610 <br> NOAA Weather Radio <br> The Dayton Industrial AF610 NOAA weather radio broadcasts in the VHF public service bands. The receiver is PLL (phase lock

 loop) controlled. The frequency of operation is selected using an internal 3 position DIP switch. A continuous receiver line audio output is provided. A second output (SPKR) is also provided. The SPKR output audio is controlled automatically by a tone detector circuit that monitors the receiver audio for the presence of a 1050 Hz and/or 1650 Hz tone signal. There is also a test switch and a reset switch for activating the SPKR audio and alarm light manually. Power is provided by an external 115 VAC to 12 Vdc converter. This receiver is designed to meet professional EAS equipment input requirements.AF610
NOAA Weather Radio.
$\$ 209.95$
OptB .............. Balanced line audio output ............................................. \$19.00
OptMF ........... 19" front panel rackmount, IU ...................................... \$30.00
OptR .............. Relay output for alarm circuit ......................................... $\$ 25.00$

Denon TU-1500RDP
AM/FM/FM Stereo Tuner w/RDS Radio Data System
AM/PM The Denon TU.
 1500RDP AM/FM/FM stereo cuner with RDS Radio Dhatasystem display fearures: PS, PTY, CT, RT, TP functions • manual character input (8 character) • 40 station memory ${ }^{\circ}$ auto preser memory $\bullet$ low impedance ourput $100 \Omega \mathrm{~s} \cdot$ and RF artenuator. 2 U
TU-1500RDP
Professional Tuner
$\$ 399.00$
$\qquad$ Rackmount option Included
RC-158
IR Remore Control
$\$ 26.00$

## Denon DRA-375RDP

AM/FM/FM Stereo Receiver w/RDS Radıo Data System
The new Denon DRA375RDP AM/FM/FM stereo receiver $\bullet$ RDS Radio Data system • 60 watts per channel into $8 \Omega$ - discrete power amplifier
 output section $\bullet$ auto preset FM memory $\bullet$ video switching function $\bullet$ video selector - banana plug compatible speaker terminals • IR remote control sensor • variable loudness control $\cdot$ remote control included $\cdot$ and rack mount included.

DRA-375RDP ......... Professional Stereo Tuner.
$\$ 349.00$

## Denon DRA-685P

AM/FM/FM Stereo Receiver
The new Denon DRA-685P AM/FM/FM Stereo Receiver • $100+100$ watts RMS, 20Hz$20 \mathrm{kHz}>.05 \%$ THD • Record ourput selector • Pre-out and main-in jacks • Banana plug compatible speaker terminals • Dual Zone Muli-Room, with pre-outs for second zone and second dedicated (supplied) IR remote control • Videolaudio signal mixing (simulcast) • Auto preset FM memory • Loudness function • Tone defear • IR input for extemal IR repeater • A/B speaker switching • Composite video switching for $A / V$ sources • 40 station random AM/FM runer memory ${ }^{-}$Motorized analog volume control.

DRA-685P $\qquad$ Professional Stereo Receiver
$\$ 549.00$
Magnum Dynalab FT-101A pro Stereo Tuner

horse' functions as a wide band composite output for modulation monitoring and adjustable alarm outputs for both carrier and modulation. Also standard is separate, demodulated outputs for 67 and 92 kHz SCA bands. Main channel audio outpur is $600 \Omega$ balanced and the SCA audio output is $600 \Omega$ unbalanced. All output levels are adjustable. The Pro 101 provides a 'benchmark' sampling of off-air signal quality. Being analog and fully tunable across the FM band, it provides infinite frequency adjustment in order to deal with adverse reception environments.
FT-101P-B19
$\$ 1,600.00$
FT-PSLU ........ Narrow band mode
[Additional Selectivity to 30 dB (adjacent)]
$\$ 100.00$

## Rolls RS78b \& RS79

Digital PLL Synthesized AM/FM Tuners
The Rolls RS78b and RS79 are digital PLL synthesized AM/FM tuners. They have large LCD displays that can be read in daylight and show the frequency and preset. They will auto search up and down as well as store up to 16 FM and 8 AM presets and retains settings for up to 4 days with power off. The RS79 comes with an additional headphone out, signal strength meter, balanced XLR outputs, \& 1 year memory. IU


## RF Related Products • Cavity Filters



## RF Related Products • RF Amplifiers



The TPL RXR series is a family of reliable, cost effective continuous duty amplifiers. This series will accept any TPL amplifier from low band through 960 MHz , with output levels up to 120 watts. If conditions warrant, a cooling fan will be added. On $800-960 \mathrm{MHz}$ models with output levels of 80 watts or higher, the
 cooling fan is standard. The series has four configurations. The " $F$ " designation in the model nurnber indicates a cooling fan, and the "PS" designation indicates a self contained switching power supply. These amplifiers operate on 13.8 Vdc unless otherwise specified.


# Broadcasters General Store 1-352-622-7700 

## Marti RPT-30/15/2 Transmitters \& Receivers

These Marti systems enable non-technical personnel to produce professional sounding live remotes. The Marti remote transmitters are for continuous duty • are available in one or two frequencies • have sub-audible encoders, for switching repeaters ${ }^{\circ}$ and will work on AC or DC power. The RPT-30 has four balanced mic inputs, with one switchable to a line input. The RPT 15 and RPT 2 have two audio inputs, mic and high level unbalanced. The hand held RPT-2 mic input is push to talk. The CR-10 and AR-10 receivers have single or dual frequency capability and sub-audible tone decoding. Marti transmitters have a one year warranty.


RPT-30 ....... RPU 30W transmitter, single frequency ......... \$1,910.00
RPT-30-2 ... as above w/dual frequency
$\$ 1,935.00$
CR-10
CR-10-D ........ Receiver Single frequency, w/decoder .......... \$1,460.00


CR-10-2-D ..... as above w/dual frequency ........... \$1,685.00


AR-10.
Mobile relay receiver single frequency .... $\$ 1,460.00$
AR-10-2 ......... as above, dual frequency..
$\$ 1,485.00$

Various Marti packages, accessories and antennas are available. Please call Broadcasters General Store for more information.

## sbs TX400 Transmitter \& RX400 Receiver



The sbs frequency agile TX400 and RX400 series of high performance links are designed to meet the requirements of radio stations needing either fixed link or RPU systems. The TX400 and RX400 series can be supplied in any of the permitted operating frequencies berween 48 MHz and 960 MHz . They are available with RF and composite bandwidths suitable for all applications. Other options include audio input low pass filter/limiters and stereo generator, AES/EBU or composite input alone. Receivers feature helical filters and high level double balanced mixers for high performance even in high RF environments.

## Marti SR-10 rpu Receiver

The Marti SR-10 is a frequency agile base station receiver with superior selectivity. Features include: frequency agile
 over $450-455 \mathrm{Mhz}$ Band $\bullet$ Front panel selection of chan-
nels • Sub-audible tone decoder • Auromatic noise reduction • Built-in monitor speaker with front panel headphone jack and level control - LCD display (backlighted) to indicate exact channel frequency • and six programmable priority channels can be scanned or selected.

SR-10 $\qquad$ RPU rackmount Receiver
\$2,500.00

## Marti SRPT-40E \& SR-10E VHF frequency Agile RPU System <br> Marti SRPT-40E and SR-10E VHF frequency agile RPU system was recently FCC approved for use in the United <br> 

 States. The SRPT-40E/SR-10E offers 16 user programmable channels shown on an LCD display, which can be programmed within a 2 MHz spread of the center frequency with frequency step separation of 12.5 kHz . The receiver is able to be remotely switched between 16 preset channels, making it ideal for relay and repeater operations. Features include: frequency ranges 140-200, $200-300,300-400 \mathrm{Mhz} \cdot$ maximum power output 40 watts $\cdot$ RF connector SO-239 (UHF female) • double-balanced mixers ${ }^{\bullet}$ operated on either $110 / 220 \mathrm{Vac}$ (all units are 12 Vdc ready through a 9 pin connector on the back).SRPT-40E Transmitter
\$2,795.00
SR-10E $\qquad$ Receiver.
\$2,500.00

## Marti SRPT-40 rpu Transmitter



The Marti SRPT-40 RPU transmitter has incorporated all the features found in the RPT15 and RPT-30 transmitters and added the ability to change frequency by means of front panel thumbwheel switches. New switching power supplies produce $30 \%$ more power with $30 \%$ less weight and run cooler. The SRPT-40 will operate on any $50 / 60 \mathrm{~Hz}$ AC voltage between 95 and 250 volts without changing jumpers or switches. It has a compressor/limiter built-in, UG-58 N female RF connector and are compatible with your existing system when not companded.
SRPT-40
40 Watt
$\$ 2,795.00$

Specifications for the TX400: Frequency range: $48-55,420-520$ and $800-960 \mathrm{MHz}$ - Output: 25 W typical at $50 / 400 \mathrm{MHz}, 7 \mathrm{~W}$ typical at $800-960 \mathrm{MHz}$ • Power Supply (AC) $110 / 230 \mathrm{Vac} \pm 10 \%, 50 / 60 \mathrm{~Hz},<100 \mathrm{VA} \cdot$ Power Supply (DC) 24 to 30 V , $<100 \mathrm{VA}$. Warranty 5 Years.

Specification for the RX400: Sensitivity $<88 \mu \mathrm{~V}$ typical for 60 dB SN stereo $75 \mu \mathrm{~S}$ • Stereo separation $>50 \mathrm{~dB}$ typical - Warranty 5 Years.

| 1 | Composite/Mono Transmitter .......................... \$2,345.00 |
| :---: | :---: |
| TX400 | Stereo Transmitter ......................................... \$2,795.00 |
| DLM3. | Limiter Option for Mono TX400 ....................... \$182.00 |
| RX400. | Composite/Mono Receiver .............................. \$1,645.00 |
| IRX400 | Stereo Receiver ............................................ \$1,895.00 |

Composite/Mono Transmitter
\$2,345.00
TX400/S ................. Stereo Transmitter ............................................. \$2,795.00
DLM3 ..................... Limiter Option for Mono TX400 .......................... $\$ 182.00$
IRX400/S ................ Stereo Receiver ................................................... \$1,895.00 $\$ 1,645.00$
$\$ 1,895.00$

## See Satellite Antennas on Pages 149 \& 150



Broadcast Tools USC-16
Universal Satellite Channel Controller
The Broadcast Tools USC- 16 provides remote channel selection for DATSEDAT digital audio decoder cards installed in Scientific Atlanta DAT32 series, Comtech/Fairchild DART-384 and Ariel Receivers, along with memory selection for
 the Scientific Atlanta "ENCORE"* receiver. Four open collector outputs are provided for control of the older receivers' transponder selection via the USC-1 6 serial port. Using a 2400 or 9600 baud serial port (either locally or remotely via modem) the user may program using the Menu Mode to select sixteen DAT-SEDAT channels, sub-channels and $7.5 / 15 \mathrm{kHz}$ selection on each decoder card. Selection of active channels, Encore memories and latching/momentary open collector control are also provided. After these channels have been programmed and/or made active, the USC-16 may be unplugged and installed. The program information is stored in Eprom memory with a retention life of tens years. The USC-16 allows selection of the channels and memories with momentary TTL/CMOS 56 volt logic levels, open collector or dry contact closures, allowing control by a user's remote control system or switch contacts. The $2400 / 9600$ baud serial port provides status for the two channel ports, active memory with the Encore receiver, the last momentary/latch condition of the open collector outputs and a means of performing remote last minute changes via modem or a local computer.
USC-16 $\$ 299.00$
USC-16/SG .... Upgrade $\$ 49.00$
SA-Cable ......... For use with Scientific Atlanta DAT-32 series receivers $\$ 39.00$
*Note: SA "Encore" receiver soffuave should be 4.0 .1 or greater

## Broadcast Tools DSC-32/64

Satellite Channel Controller
 The Broadcast Tools DSC-32/ 64 allows complete remote control of two StarGuide II/III, Wegener Unity 4000 or ComStream receivers. An encoder control with a $16 \times 2 \mathrm{LCD}$ display provides local control and program descriptions, while external control may be in the form of serial, 32 contact closures or 8 bit binary. Sixty-four, thirty-two character ASCII character strings are provided for each receiver port. The unit also provides a programmable minute and second time-sync relay command each hour. Custom programming is accomplished with a non-dedicated computer. IU.

Broadcast Tools DSC-20
Dual Satellite Controller
The Broadcast Tools DSC-20 dual satellite controller adds remote control capability to the Scientific-Atlanta Encore, DSR-3610, AD-4595, Virtex StarGuide II/III, Wegener
 Unity 4000 and Com Stream receivers, allowing memory/service - audio changing by automation systems or contact closures. Customized programming is accomplished with a NON-DEDICATED computer.
DSC-20
. Dual Satellite Controller
$\$ 299.00$

## Zephrus Series 300

Radio Network Service, Basic System The Zephrus Series 300, Radio Network Service, basic system consists of the 304 mainframe, a IU platform with its own DC power supply and room for one of the two receiver cands, one of the two demod cards, and two oprional control cards. The receiver cards are crystal stable but can be tuned in 1 MHz steps to compensate for unstable LNB's. Demod cards offer $50-15 \mathrm{kHz}$ response at 0 dBm nominal output.

304

Mainframe, 4 card slots

$\$ 95.00$

321 ................. Mono "Whisper" audio demod ..................................... $\$ 250.00$
322 ................ Stereo "Whisper" audio demod $\$ 325.00$
327 ................. Frequency agile "Whisper" audio demod ........................ \$465.00
361 ................. AFSK data demod ........................................................ $\$ 250.00$
366 ................. DFSK data demod .............................. \$250/async \& $\$ 325 /$ sync
381 ................. Three-function $25 / 35 \mathrm{~Hz}$ decoder, mono ........................ $\$ 325.00$
383 ................. 6 or 15 Function $25 / 35 \mathrm{~Hz}$ decoder, stereo ...................... $\$ 700.00$
391 ................. Satellite baseband receiver, above video .......................... $\$ 350.00$
392 ................ Satellite receiver (FM-FM) ........................................... $\$ 370.00$
1-352-622-7700

## RF Related Products • STL



A Marti discrete STL system will give you a noise floor near -80 dB with equal stereo separation. Twelve volt battery operation is possible with the APS-28/ 18 power supply. Marti offers a two year limited warranty.
. $\$ 1,835.00$
STL-10 ........... Transmitter, specify frequency \$1,835.00
R-10 ............... Receiver, specify frequency . $\$ 755.00$
ARS-15A ........ Receiver switcher, specify frequency
ATS-15E ......... Transmitter switcher, specify frequency ............................. $\$ 755.00$
Pkg 50 ........... 950 Mhz Mono Package, STL10 \& R10 ................... $\$ 3,590.00$
Pkg 50 ............ 950 Mhz Mono Package, STL10 \& R10 \$3,590.00
Pkg 51 ............ 950 Mhz Stereo Package, 2-STL10, 2-R10, 2-MTS-1 \& 1-HRC-10B
$\$ 7,698.00$
Pkg 50MA ...... Monaural System, STL-10, R-10, 2-SC-48,
2-PG1.7B \& 2-K-1
$\$ 5,516.00$
Pkg 51SA ........ SCPC 950 Mhz St. Pack, 2-SLT-10, 2-R10, 2-SC-48, 2-PG1.7B, 1-MTS-1, 1-HRC-10B \& 2-K-1
\$9,624.00

## Marti STL-15C composite Transmitter \& Receiver



The Marti Composite STL-15C transmitter and the companion R-15C receiver, form a high quality, frequency synthesized broadcast link (in selected bands). Systems are available from 140 MHz to 960 MHz . Depending upon the available channel bandwidth, systems can be configured for: Composite FM stereo with one subcarrier - Monophonic audio with two subcarriers ${ }^{\text {- }}$ Multi-channel audio or data. Complex systems can be built from basic STL-15C transmitters and R-15C receivers having multiple relay (repeaters), bi-directional (full duplex), and automatic switching hot standby features. It comes with a two year limited warranty.
STL-15C ........ Composite Transmitter .............................................. \$3,000.00
R-15C ............ Composite Receiver ................................................... \$3,000.00
Pkg 60CA ....... 950Mhz Composite STL Stereo System w/2 ea. Yagi Antennas, Jumper Cables \& Weatherproofing Kits
$\$ 7,926.00$

## Marti DSTL Systems



The Marti DSTL takes advantage of the latest advances in audio, digital, and RF technologies, eliminating compromises in audio quality that is typically found in other hybrid digital and analog system. The frequency range for the DSTL is $845-852 \mathrm{Mhz}$, and
$944-952 \mathrm{Mhz}$. The DSTE's receiver sensitivity is an outstanding two microvolts ( -100 dBm ). As a result, the DSTL system has a fade margin approximately 20 dB better than conventional STL systems, giving you longer signal paths. Advanced engineering allows the DSTL to successfully co-exist with FM STLs or DSTL systems on adjacent channels, resulting in minimum deterioration of signal quality under fade or interference conditions. Features include: Dolby® AC-2® Digital Audio Coding • wide RF dynamic range provides greater immunity to interference $\bullet$ sophisticated modulation techniques.

DSTL-2 .......... DSTL System, 2 channel, DP5501A \& DP5502, Specify frequency
$\$ 12,500.00$
DSTL-2SG ..... DSTL System, 2 channel, DP5501A, DP5502-406
\& Stereo generator, Specify frequency
$\$ 12,900.00$
DSTL-2R ....... DSTL System, 2 channel, repeater, DP5501AR \& DP5502R, Specify frequency
$\$ 11,500.00$
DSTL-4 .......... DSTL System, 4 channel, DP5503A \& DP5504, Specify frequency
$\$ 14,500.00$
DSTL-4SG ..... DSTL System, 4 channel, DP5503A, DP5504-406 \& Stereo generator, Specify frequency
$\$ 14,900.00$
DSTL-4R ....... DSTL System, 4 channel, repeater, DP5503AR \& DP5504R, Specify frequency
$\$ 13,500.00$

## Broadcasters General Store Hotlinks to Vendors © mmasatiom www.broadcastdealer.com

RF Related Products • STL

## Moseley STARLINK 900371

 Ougtai Due TyThe Moseley STARLINK 9003 T 1 is an all-digital, open- architecture, modular system for
 uncompressed digital audio conveyance over Tl or fractional T 1 circuits. The STARLINK 9003 Tl mainframe can house 8 application-specific personality modules which allow the user to easily configure appropriate STL/TSL systems. Other product features include: 16 -bit linear audio and choice of ISO/MPEG Layer II or apt-X coding • AES/EBU and analog inputs • Built-in sample rate converter • Intelligent Multiplexer with drop and insert; expansion slots for voice and data cards.
PAC2XO .... 2-Channel STL, 2 linear audio channels ................................. $\$ 8,250.00$
PAC4XO .... 4-Channel STL, 2 linear, 1 data, 2 compressed audio channels
$\$ 13,250.00$
PAC2X2 ..... 2-Channel STL/TSL, 2 linear audio channels each ................. $\$ 10,750.00$
PAC4X2 ..... 4-Channel STL, 2 linear, 2 compressed $\& 1$ data audio ch. \& 2-Channel TSL, 2 linear audio ch.
$\$ 15,750.00$
PAC4X4 ..... 4-Channel STL, 2 linear, 2 compressed $\& 1$ data audio ch. 4-Channel TSL, 2 linear, 2 compressed $\& 1$ data audio ch....... $\$ 18,750.00$

## Moseley PCL 6000

Digitan Rego Stil
The Moseley PCL 6000 is a digital ready STL that can
 operate in either analog or digital (by adding one of the DSP6000 pkgs), and monaural or composite modes. Both the transmitter and receivers use a synthesized reference oscillator. Two systems can be employed in a dual discrete configuration to transmit right and left stereo programs with no measurable crosstalk. The main determining factor in deciding which receiver is hest suited to your application is the amount of aural STL activity in your area. Moseley provides a two year warranty.


## Moseley STARLINK SL9001SS <br> Sbieas Spective Digitul timnsitussion System <br> Moseley STARLINK SL9001SS <br> Spread Spectrum Digital Transmission System is a digital RPL using the latest in spread spectrum <br> 

RF technology and audio source coding. The STARLINK
9001SS provides CD-quality stereo remotes over distances of up to 30 miles. Untechered from telco service, point-to-point local remotes can be established quickly and efficiently. Open architecture allows a user to select plug-and-play modules for ISO/MPEG Layer II or apt-X source coding. In addition, the same open architecture allows the user to select between analog or AES/EBU input and output modes. A built-in sample rate converter keeps operation considerations to a minimum. The recently assigned 2.4 Ghz band for spread spectrum requires no license. The SL9001SS package includes transmitter, receiver, source encoder, source decoder, and antennas. Source encoder and decoder available with choice of apt-X or ISO/MPEG Layer II coding (Please specify when ordering).
SL9001SSPAC......... Transmitter/Receiver Package with antenna ......... $\$ 9,250.00$

## Moseley STARLINK SL9003Q gesortw Stialo Fionnmituer Linh

## SL9003Q-2S .. 2 Channel System, includes SL9003Q QAM modulated

 transmitter and receiver, SL9000SE encoder and SL9000SD decoder audio modules with AES/EBU and analog $1 / O s$ with on RS-232 data circuit.SL9003Q-4S ... 4 Channel System, includes SL9003 QAM modulated transmitter and receiver, two SL.9000SE encoder and two SL9000SD decoder modules with AES/EBU and analog I/Os with two RS-232 data circuits. $\$ 16,250.00$

SL9003Q-RTX

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& \text { ". Cnatans } \\
& \text { in a single chassis.. }
\end{aligned}
$$ in a single chassis

$\qquad$
$\$ 8,500.00$
SL9003Q-RT2 ........ Repeater with two decoded audio channels ....... $\$ 10,000.00$
SL9003Q-RT4 ........ Repeater with four decoded audio channels ....... $\$ 11,500.00$
SL9003Q-TX2 ........ Transmitter only with two audio channels ........... $\$ 7,500.00$
SL9003Q-TX4 ........ Transmitter only with four audio channels.......... \$9,000.00
SL9003Q-RX2 ....... Receiver only with two audio channels ............... \$6,000.00
SL9003Q-RX4 ....... Receiver only with four audio channels ............... $\$ 7,500.00$


## RF Related Products•STL

## Moseley DSP 6000 Digital Transmission System

 Transmission System can be interfaced to the PCL 6000 series and with a digital ready kit the 606 composite system. With the DSP 6000 in multiple hops, the last hop is as good as the first, full SNR is delivered down to the digital threshold. When used with the optional built-in digital stereo generator, composite stereo can be delivered directly to the FM exciter. The DSP 6000 also has a direct digital input for future digital interconnection. These digital audio source and channel encoders and decoders offer 90 dB dynamic range, $0.008 \%$ distortion, and are equipped with monaural channels ( 15 kHz ) with 85 dB crosstalk. Also includes AES/EBU output with coding delay of 3.8 ms .
DSP 6000E2 ................ Two audio and one data channel encoder....... \$2,995.00
DSP 6000D2 Two audio and one data channel decoder. \$2,995.00

DSP 6000E4 Four audio and two data channel encoder $\$ 4,450.00$

DSP 6000D4 Four audio and two data channel decoder \$4,450.00

DSP 6000ER
Digital repeater encoder \$2,295.00

DSP 6000 DR Digital repeater decoder \$2,295.00
DSP 6000/PCL 6020 System including DSP 6000E2/D2 with PCL 6010TX/6020RX $\$ 12,000.00$
DSP 6000/PCL 6030 ... System including DSP 6000E4/D4 with PCL 6010TX/6020RX \$14,000.00
Add To substitute a PCL 6030 Receiver .............. \$1,000.00

QEI QUICK-LINK Digital Stereo Microwave System


The QEI QUICK-LINK is a digital stereo microwave system for broadcasters to use for RPU, backup STL/TSL, or anything else requiring a high fidelity, quick and easy, digital stereo transmission, without any audio delay. It accepts stereo or monaural audio from any mixer. Features include: XLR connectors - Two LED bargraphs • Two user signals to the receiver to control or flag equipment at the studio ${ }^{-}$Ten coding channels $\cdot$ Powered by AC or DC • Coding chan-
 nel in use and lock status indication ${ }^{\circ}$ and can remotely select receiver's channel code.
QUICK-LINKII ...... Includes 2 Quick-Link terminals
priced less antennas \& line .................................. $\$ 8,750.00$
QLII-R ........... Wireless spread spectrum repeater for Quick-Link II ... $\$ 5,650.00$
QLC .............. Configuration software, for advanced system users ........ $\$ 195.00$
QLC-MA ...... QLC software maintenance agreement (annual renewal) ..... $\$ 100.00$
QL-BA ........... Balanced audio I/O option ..................................... $\$ 450.00$
QLM ........... Rack mount ears and transport handle kit ...................... $\$ 55.00$
QL-Yagi ......... 15dB gain Yagi with radome (N female input) .............. $\$ 275.00$ 15 dB gain Yagi with radome ( N female input).. $\$ 275.00$
sbs TX400 Transmitter \& RX400 Receiver


The sbs frequency agile TX400 and RX400 series of high performance links are designed to meet the requirements of radio stations needing either fixed link or RPU systems. The TX400 and RX400 series can be supplied in any of the permitted operating frequencies between 48 MHz and 960 MHz . They are available with RF and composite bandwidths suitable for all applications. Other options include audio input low pass filter/limiters and stereo generator, AES/EBU or composite input alone. Receivers feature helical filters and high level double balanced mixers for high performance even in high RF environments.

Specifications for the TX400: Frequency range: $48-55,420-520$ and $800-960 \mathrm{MHz}$

- Outpur: 25 W typical at $50 / 400 \mathrm{MHz}, 7 \mathrm{~W}$ typical at $800-960 \mathrm{MHz}$ • Power Supply (AC) $110 / 230 \mathrm{Vac} \pm 10 \%, 50 / 60 \mathrm{~Hz},<100 \mathrm{VA} \cdot$ Power Supply (DC) 24 to 30 V , $<100 \mathrm{VA}$.

Specification for the RX400: Sensitivity $<88 \mu \mathrm{~V}$ typical for 60 dB SN stereo $75 \mu \mathrm{~S}$ Sterco separation $>50 \mathrm{~dB}$ typical - Warranty 5 Years.

| IX400 | Composite/Mono Transmitter .................... \$2,345.00 |
| :---: | :---: |
| TX400/S | Stereo Transmitter .................................... \$2,795.00 |
| DLM3 | Limiter Option for Mono TX400 .................. \$182.00 |
| RX400 | Composite/Mono Receiver ........................ \$1,645.00 |
| IRX400/S | Stereo Receiver ....................................... \$1,895.00 |

Composite/Mono Transmitter
$\$ 2,345.00$
TXU
Stereo Transmitter

0

DLM3

Composite/Mono Recciver
\$1,645.00
IRX400/S $\qquad$ Stereo Receiver
\$1,895.00

## RF Related Products • Towers



## ERI Towers

ERI Towers offer not only structural strength but also an antenna interactive design that compliments your coverage goals. Strength, durability and accountability are ERI's cornerstones. Before any support structure leaves ERI, it is first cross-referenced to the steel mill certificates. Next, it is inspected by using a non-destructive magnetic particle test, monitored by an independent certified inspection company. This procedure provides the accountability you demand and is proof solid of ERI's commitment to structural superiority. With ERI you are purchasing a complete package including antenna and structural engineering services, antenna interactive tower design, proof solid structural verification, and the best installation service.

## ERI SSTX Smit Suphormin Rowf

The ERI SSTXX Self-Supporting Tower series is entirely constructed of solid steel members. This design eliminates any of the inherent design flaws associared with pipe legs or inner members. Another advantage of the SSTX series is the diminished requirement for redundant inner members. Decreasing the number of inner supports reduces wind load area and installation time. The net result is a very strong yet cost effective structure.

## ERI Balt Togither Geyed Towi

The ERI Bolr Together Guyed Tower is the solution when the need arises for antenna suppore structures over $1200^{\prime}$, extremely severe loading conditions, or when shipping size is critical. Tower face widths range from $5^{\prime}$ to $10^{\prime}$ with a maximum height of $1500^{\circ}$.

## ER:GWx/GVZ Guyed Tower

The ERI GWX/GWZ Guyed Tower series are often the most economical means of elevating an antenna system. The guys of a guyed tower have a very large base and are arranged for tension-only loading. This creates a structure using significantly less steel than 2 self-supporting type, thus saving on material, fabrication and installation costs. The GWZ series extends to $460^{\circ}$ with a maximum 6 -bay load, while the GWX series offers heights from $540^{\prime}$ to $1100^{\prime}$ with a maximum 12-bay load.

Environmental Technology De-icing


APS3B ........... Provides automatic snow melting system control ............ $\$ 765.00$ CITTM-1 ......... Sensor derects falling or hlowing snow at temp below $38^{\circ} \mathrm{F} . . . . . \$ 320.00$ $L^{\text {LM }}{ }^{\text {TM }} 3 S$..... Snow Switch $®$, De-icing control senses both temp and precip. $\$ 375.00$
 $\$ 162.00$
SSAC Tower Flashers

FS-155-30-T
Flasher, two beacons (120VAC).
FS-165-30-T ............ Flasher, up to four beacons (230VAC)

SSAC totally solid-state tower flashers have proven retliability with years of use on radio and TV towers. Flash single or multiple beacons, simultaneously, alternately or sequentially and sense lamp failure with an alarm output. SSAC gives you a modular approach to your lighting needs with efficiency and economy:
$\$ 130.00$
$\$ 145.90$

## RF Related Products • Transmitters

## Crown Integrated FM transmitter system



A Crown integrated FM transmitter system combines built-in audio processing and stereo generation in one rugged, compact unit. Each model provides excellent signal quality, ease-of-use and economical long-term reliability! The integrated FM transmitter system can be a stand-alone or stand-by transmitter, ideally suited for translator, satellator and booster operation. The integrated design makes installation quick and easy, requiring only an audio source (mono, $\mathrm{L} / \mathrm{R}$ stereo or composite signal), antenna and $A C$ or $D C$ power. The built-in remote $I / O$ interface supports remote control and monitoring for critical functions, and the DC power hookup can provide uninterrupted service when $A C$ power is lost.

|  | Exciters | Price | Transmitters Price | Translators Price |
| :---: | :---: | :---: | :---: | :---: |
| 30 Watt | FM30E | \$3,495.00 | FM30T \$4,195.00 | FM30R \$4,195.00 |
| 100 Watt | FM100E | \$5,350.00 | FM100T \$6,150.00 | FM100R \$6,150.00 |
| 250 Watt | FM250E | \$7,495.00 | FM250T \$7,495.00 | FM250R \$7,495.00 |
| 500 Watt | FM500E | \$8,995.00 | FM500T \$9.795.00 | FM500R \$9,795.00 |
| 1000 Watt FM1000E \$15,795.00 FM1000T\$15,795.00 |  |  |  |  |
| 2000 Watt | FM2000E | \$20,795.00 | FM200T \$ $20,795.00$ |  |

## Delta ASE-2 AM Stereo Exciter

The Delta ASE-2 is a IU, low cost high performance AM


Stereo Exciter. All controls are on the front panel. The
operating frequency is crystal controlled for maximum stability and minimum phase noise.
ASE-2-1 .......... Basic unit which includes TTL drive .......................... \$4,605.00
ASE-2-2 .......... Basic unit with high level output option ...................... \$4,800.00
ASE-2-3 .......... Basic unit with synchronous transmitter option ........... \$4,870.00
ASE-2-4 .......... Basic unit with high level output option and the synchronous transmission option.
$\$ 4,910.00$

JT Communications FMP-20 portable LPFM Exciter


JT Communications FMP-20 FM exciter/transmitter- 12 Vdc operation; utilizes the PLFM100 A as the frequency agile PLL FMO, with 100 kHz steps. Spike, reverse-voltage and noise suppressed power input. Inter- nal PLL lock-up protection, adjustable 0-15W output, with remote/local carrier control. Remote/Local metering of IPA and PA stages, Low-pass filter. FCC type verified. Fearures include: Portable "Plug-N-Play" operation • Surge, spike \& noise filtered 12 Vdc power input ${ }^{-}$Adjustable Low-pass filtered $0-15 \mathrm{~W}$ output - 88-108 frequency agile operation - Remore/local metering \& RF control - Portable digital multimeter included - FCC Type Verified- meets all FCC broadcast specs. Key Benefits: Low cost •LPFM/Emergency/Standby use • Portable operation
$\$ 724.95$

## Marti ME-40

40 Watt Synthesized FM Broadcast Exciter/Transmitter
The Marti ME-40, a 40 Watt synthesized FM Broadcast Exciter/Transmitter is an excellent choice to
 replace your older existing exciters or for use as a standby. Features include: 40 Watt VSWR protected power output • Peak-hold baseband modulation LED display • Test multimeter with forward and reverse power range $\bullet$ and Full remote capability.

ME-40
40 Wart synchesizod FM Broadcast Exciter/Transmitter.
$\$ 3,495.00$
 latest digital exciter technology • accepts analog or digital audio input from an STL, ISDN or direct feed • built-in stereo generator and audio processor $\bullet$ up to 150 watts into 1.5 to 1 VSWR • full remote control ready • rack mount or table top operation • digital input: AES/EBU, SPDIF, TOSLINK • Analog input: Composite, Left and Right, Audio • frequency range: 87.5 MHz to 108 MHz jumper selectable to specifitc operating frequency (programmable in 50 kHz steps). Easy to install, it is a "Plug N Play".
PNP150.......... "Plug N Play" FM transmitter
$\$ 4,950.00$

## Marti CD-15 Composite Demodulator

The Marti CD-15
Composite De-
modulator is fo anyone looking for a cost effective
 way to demodulate a composite signal to baseband left and right audio. It enables audio monitoring at repeater sites, running a composite AM transmitter feed, or even running composite remotes (export only). All controls are front panel mounted with simultaneous left and right metering. Independent output level adjustments for each channel insure an exact match to your system.

CD-15 $\qquad$ Composite Demodulator

NiCOM NT 20 Phase Locked Loop Programmable
FM Exciter/Transmitter 87.5-108MHz Range


The NiCOM NT 20 includes: low pass/harmonic filter and can be used as a standalone transmitter $\bullet$ instant front panel programmability in 10 kHz increments ${ }^{\bullet}$ softstart from RF mute status * adjustable power output from 2 to 20 W with automatic power control maintaining the output at any pre-set level - main parameters available also on rear terminal board for remore control • available with built-in stereo generator - compatible with external references for custom phase locking in synchronous applications • meets or exceeds all FCC and CCIR requirements • high reliability provided by conservatively rated components $\bullet$ modular layout with plugin, easily replaceable circuits and parts ${ }^{\bullet}$ optional 24 Vdc capability.
NT 20 ..... Phase Locked Loop Programmable FM Exciter/Transmitter ...... \$1,980.00

## RF Related Products • Transmitters

## QEI 675B \& 695 PM Euciters

TheQEI FM Exciters are all solid state, on carrier direct FM, phase locked, and frequency synchesized. They
 are designed to meet or exceed the FCC requirements for use in the standard FM broadcast band. The Exciters may be programmed to operate on any 100 KHz increment using the same high stability 8 MHz crystal as a reference. The 695 FM Exciter's output is variable from 5 to 20 Watts with "Auto-mol" automatic modulation control, very low noise, and distortion < $0.025 \%$ independent of temperature. The 695 has bargraph modulation metering with built-in peak
 counter, an annunciator panel, and a spectrum display output which permits Bessel-Null calibration of modulation monitoring.
675B.
FM Exciter, $115 / 230 \mathrm{Vac}$ $\qquad$ $\$ 3.095 .00$
695. $\qquad$ FM Fxciter, 115/230 Vac $\qquad$ \$5,600.00


The QEI Quannum "E" Series is an all solid state, broadband, frequency synthesized, "on carneer" direct FM, phase locked, transmission system. It is programmed to operate on any 100 kHz increment in the FM band. Direct FM "on carrier" operation ensures spurious free transmission and extremely low distortion, crosstalk and noise without stereo degradation. The Solid State FET Power Amplifier of the Quantum "E" is unconditionally stabie and will withstand any magnitude or phase of VSWR indefinitely without damage by automatically reducing power. 3 U
Quantum 150E
150 Watt FM Exciter/Transmitter, 115 Vac .
\$4,650.00

Quantum 150EA
Quantum 300E
Quantum 300EA.
Quantum 600E
150 Watt FM Amplifier Only, 115 Vac 300 Watt FM Exciter/Transmitter, $115 \mathrm{Vac} . .$.
$\qquad$ \$4,195.00

600 Watt FM Exciter/Transmitter, $115 \mathrm{Vac} . . . . . . .$.
Quantum 600EA ..... 600 Watt FM Amplifier Only, 115 Vac $\qquad$ \$5,695.00

Quantum 230VAC .. 230 Vac oprion for E \& EA

QEI FMQ Series


QEI FMQ Series: Advanced ta hnology, reliahility, and conservative design are the halimarks of $Q E 1$ transmitters. All key parameters have alarms to warn you before the critical failure point. They all urilize single EIMAC rubes in grounded grid configurations with a 15,000 hour tube warranty! The driver stages are $100 \%$ solid state and automatic power control is standard. For ease of service both the IPA and power supply modules can be removed from an on-air transmitter. All transmitters come with the 675 exciter or can be ordered with the 695 exciter which also provides automatic modulation control. Prices include a spare parts kit and a factory check out after installation. All these transmitters are available with single phase power supplies with the option of a chree phase power supply.

## Silicon Valley FM RF Amps

The same amplifier modules are used in their complete FCC compliant FM Broadcast Power Amplifiers. These rack mount solid state amplifiers need no adjusting or runing, have VSWR foldback, forced air cooling, interface for remote control and monitoring. Output power guaranteed at any frequency in the FM band. Can be fed directly into the antenna, or can be used to replace a tube IPA, or as a back-up for emergency use. All products are completely made in the USA.
B-150 150 w output, 10 watts input, Type N output connector $\$ 1,975$
B-300 ......... 300 w output, 10 watts input, Type N output connector .. \$2,750
B-450 ......... 450 w output, 20 watts input, Type $N$ output connector \$3,495
B-600 ......... 600w output, 25 watts input, Type N output connector \$4,150
B-850 …....... 850w output, 40 watts input, Type N output connector \$5,795
$10 / 1000 \ldots \ldots .1 \mathrm{~kW}$ output, 10 watts input, $7 / 8^{\prime \prime}$ flange output connector .............. $\$ 6,350$
B-1000 ....... 1.2kW output, 50 w input, Type N output connector ......................... $\$ 6,500$
B-1500 ....... 1.5kW output, 10 w input, $7 / 8^{\prime \prime}$ flange output connector ................. $\$ 11,995$
B-2000 ....... 2 kW output, 10 w input, $7 / 8^{\prime \prime}$ flange output connector.................... $\$ 14,495$
$10 / 3000 \ldots \ldots .3 \mathrm{~kW}$ output, 10 w input, $7 / 8^{\prime \prime}$ flange output connector...
$\$ 19,350$

The 10/1000 FM Broadcast Power Amplifier is a filly self-contained solid-state 1 kW broadband FM amplifier with VSWR foldback and full remote capability. The amplifier comlines the outputs of two 500 wart modules driven by a

Replacement Power Amplifier modules for Harris and Continental IPAs. If no manufacturer is specified the Continental version is supplied.
$0101-700 \mathrm{CH}$......................... 700 W output ..... $\$ 1,925$
$0101-500 \mathrm{CH}$ 500W output ..... \$1,750
$0101-300 \mathrm{CH}$ 300W output ..... \$1,345
0101-150CP 150W pallet ..... \$475

## RF Related Products • Transmitters

The new sbs range of transmitters, amplifers, translators and ancillary equipment offer proven reliability and functionality gained by years of experience worldwide in manufacture and installation of FM radio stations. sbs transmitters have multiple options ranging from external very high quality limiters and stereo generators to internal limiterlgenerator packages for smaller budgets. All transmitter and link equipment includes comprehensive remote control and monitoring functions as well as clear front panel display of system status, modulation, pover, and full fuult condition indication. Transmitter program input equipment includes a full range, from fully featured input and STL change overlaudio fail detectors with composite monitoring to distribution and line drive amplifiers.
sbs FM10-10 watt FM Exciter


The sbs FM10 is a high specification broadcast FM exciter featuring wideband design techniques, frequency adjustment is easily achieved by internally set direct reading dial switches - no furcher tuning is required. Ultra linear modulator for superb sound with freedom from overshoots and artifacts. Effective VSWR foldback system allows operation intoany
load without damage. Conservacively rated components are used for extremely high reliability and efficiency. The FM10 is available in four versions priced below. The rear panel has a RF output monitor point and includes a monitoring socket that allows starus signaling to an extemal system. Frequency range 87.5 to 108 MHz in 50 kHz steps • Frequency stability $< \pm 200 \mathrm{~Hz}$ • Power Output 1W to $>10 \mathrm{~W}$ (adjustable) • Harmonic $\&$ spurious output $<-60 \mathrm{dBc}(30 \mathrm{MHz}$ to 1 GHz$) \cdot$ Spurious outputs $<-100 \mathrm{dBc}(87.5 \mathrm{MHz}$ to $137 \mathrm{MHz} @ \mathrm{f} \pm 0.5 \mathrm{MHz}) \cdot$ AM Noise $<0.5 \% @ \pm 75 \mathrm{kHz}$ deviation • Input sensitivity +8 dBu (adjustable) for $\pm 75 \mathrm{kHz}$ deviation • Sample rate (AES/EBU version) $32,44.1 \& 48 \mathrm{kHz}$ transformer balanced - Warranty 5 Years.

sbs FM30-30 Watt FM Exciter

and artifacts. It will operate into any load without damage thanks to its VSWR cut back circuit that protects the power amplifier stage from adverse operating conditions. The FM30 front panel metering shows forward and reflected power together with internal voltages and the modulation level. Quick-view status monitoring using dual color LEDs indicate that PLL lock, forward power and reflected power are normal. The rear panel includes a remote control/monitoring socket that allows carrier muting and status signaling to external systems.
Conservatively rated components and a switch mode DC-DC converter are used to ensure high reliability
and efficiency. Frequency range 87.5 to 108 MHz in 50 kHz steps ${ }^{\bullet}$ Frequency stability $< \pm 200 \mathrm{~Hz}$ • Power Output 0 to $>30 \mathrm{~W} \cdot$ Harmonic $\&$ spurious output $<-70 \mathrm{dBc}(30 \mathrm{MHz}$ to 1 GHz ) • Spurious outputs $<-100 \mathrm{dBc}(87.5 \mathrm{MHz}$ to $137 \mathrm{MHz} @ f(0.5 \mathrm{MHz}) \cdot$ AM Noise $<0.5 \% @ \pm 75 \mathrm{kHz}$ deviation • Input sensitivity +8 dBu (adjustable) for $\pm 75 \mathrm{kHz}$ deviation - Composite response $<0.3 \mathrm{~dB}(5 \mathrm{~Hz}-100 \mathrm{kHz})$ without pre-emphasis • Warranty 5 Years.
FM30 ....... Composite Input .................. $\$ 2,574.00$
FM30/M .. Mono Input with Limiter ..... \$2,745.00
FM30/S .... Stereo Inputs w/Stereo Generator and Limiters $\$ 2,992.00$
FM30/AES/EBU ... AES/EBU Stereo Input without Limiters ...... \$3,234.00
sbs PA125/PA250/PA500 - FM Power Amplifiers


The sbs PA125 and PA250 are high specification FM Power Amplifiers, using the latest design and construction techniques. They give unprecedented performance, excellent control and monitoring with maintenance free use in 2 U . Both amplifiers are a wideband design requiring no tuning, offering very easy installation. One of the most novel features
of these amplifiers is the heat-dissipating "fresh-air-tunnel" with intelligent fans. These provide sophisticated cooling to the specially designed heat sink in a stream of air that needs no filtering, saving on routine filter replacements. No active components are in the air flow thus keeping sensitive areas entirely unsoiled. An efficient power supply design, combining a toroidal transformer and switch mode regulator which are ideally suited to transmitter applications where the rejection of supply borne voltage spikes and surges is of prime importance. Circuit boards bonded to the massive heat sink/ ground plane are used to achieve remarkable thermal stability at the surface mounted component level, leading to excellent reliability. RF Input 3W(PA125) 5W(PA250) 10W(PA500) •RF Output 10 to $>125 \mathrm{~W}(\mathrm{PA125)} 20$ to $>250 \mathrm{~W}(\mathrm{PA} 250) 40$ to $>500$ W(PA500) front panel pre-set • Input/Output Impedance $50 \Omega \cdot$ Harmonic \& spurious output $<-75 \mathrm{dBc}(30 \mathrm{MHz}$ to 1 GHz$) \cdot$ Spurious outputs $<-90 \mathrm{dBc}(87.5 \mathrm{MHz}$ to $137 \mathrm{MHz} @ \mathrm{f} \pm 0.5 \mathrm{MHz}) \cdot$ AM Noise $<0.5 \% @ \pm 75 \mathrm{kHz}$ deviation $\cdot$ Minimum return loss 12 dB at full power (foldback above this level) • Warranty 5 Years.
PA125 $\qquad$ FM 125 Watt Power Amplifier $\qquad$ $\$ 2,540.00$
PA250 ............. FM 250 Watt Power Amplifier $\$ 3,590.00$
PA500. Uses 2 PA250 Amplifiers \& a Combiner . $\qquad$ \$7,995.00

## RF Related Products • Transmitters

## sbs RX400/RBRX - Rebroadcast Receiver

Thesbs RX400/RBRX is a very


## (1)

 high performance receiver for use in translators. It uses a high level precision crystal oscillator feeding a double balanced mixer which gives unprecedented performance in the presence of strong adjacent signals. It is designed to meet the need for a fixed frequency receiver to supply program feed in a translator application even when high power transmitters would render other receivers unusible. De-emphasised stereo and mono as well as composite outputs are provided. The RX400/RBRX is also ideal for use in high RF environments to provide an off-air studio receiver source of the highest quality. The signal strength is shown on a frontpanel meter. Headphone monitoring with volume control is provided. The RX400/ RBRX has two relays that can be used for control of associated equipment. The Stereo Pilot tone operates a changeover relay with contacts on the rear panel. RF Input $50 \Omega$ • Frequency Range $87.5-108 \mathrm{MHz} \cdot$ Selectivity $>95 \mathrm{~dB} @ \pm 400 \mathrm{kHz}$ (Close channel spacing version available) • Uttimate quieting - $75 \mathrm{~dB}(50 \mathrm{~Hz}$ to $15 \mathrm{kHz} 75 \mu \mathrm{~s}$ • Audio output at 75 kHz deviation -20 dBu to +10 dBu • Audio distortion $<0.2 \%$ - Audio Outputs $75 \Omega$ Electronically balanced • Seperation $>50 \mathrm{~dB}$ typical $\cdot$ Warranty 5 Years.

RX400/RBRX
$\$ 1,195.00$

## sbs MaXiM - Processor/Limiter

The sbs MaXiM is a very high specification broadcast modulation limiter. The MaXiM is a three-stage design using split-band limiting techniques. A broadband limiter and sliding preenuphasis limiter (switchable) are employed.
Program dependent attack and release time constants are auromatically selected to give an exceptionally clean sound. On its own the MaXiM can produce a loud and punchy sound or an open and transparent effect similar to that achieved with manual gain control. This is purely
dependent upon the settings of the long release time constant and the amount of gain reduction.

The MaXiM handles already processed signals equally well, leaving your sound exactly as you intended it to be; additionally it can be used to further enhance the signal. $\mathrm{A} / \mathrm{dB}$ step precision atrenuator guarantees the inpur setting accuracy. A safery clipper stage (switchable) at the outpur sets the maximum outpur level. The inbuilt 'test' mode allows easy adjustment of other transmission system components.

Input impedance $20 \mathrm{k} / 600 \Omega$, internal switchable. Input level (for limiting) -2 dBu to +9 dBu (or -8 dBu to +3 dBu ) in 1 dB steps. Output impedance $22 \Omega$ balanced. Output level (broadband limit) +8.5 dBu (factory set). Output level (hf limit) +9 dBu (factory set). Output level (clipping) +10 dBu (factory set). Frequency response $\pm 0.5 \mathrm{~dB}(20 \mathrm{~Hz}$ 20 kHz ), below limiting. THD (liniting, worst case) $0.1 \%$ at 1 kHz . THD (limiting, worst case) $0.2 \%$ at 100 Hz . Broadband limit control range 28dB. Warranty 5 Years

MAXIM
\$1,399.00

## sbs Guardian - Broadcast Audio Fall Control

Concise control of audio, and composite source failures. Automatically switches to mono or external source or backup processor depending on fault. Includes alarm/start/stop outputs. The sbs Guardian Broadcast Audio Fail Control Unit is designoed to provide sophisticated managennent of audio signals, such as audio lines, STL's and even composite signals. Incoming signals are monitored and if a faut is derected by the Guardian on one channel, it will derive a mono feed from the remaining channel or if both are lost it will switch to an external source, such as a CD, to keep transmissions running. Audio signals are passel through the Guardian on relay contacts giving a fail safe system with no active components in circuit. The Guardian uses $300 \mathrm{~Hz}-3 \mathrm{kHz}$ bandpass filters followed by separate dymamic range and static level derectors to discern berween fault conditions such as hum on a line and valid program feeds. This technique almost completely eliminates false triggering. A level and pilor derector (swirchable) are induded in the composite detector, switching to the hackup immediately if a composite fault is detected. The rear panel includes the remote control/monitoring socket that provides an interface to alarm systems and con-
trol of external systems, such as starting a CD player. An external control may be connected to force a 'mono from leff', 'mono from right', 'external in' or 'Alt Inpur' to be the signal in use, with similar control of the composite detector. All of the audio detector outputs are available as open collectors. The delay before switching to backup is easily set by the front panel control knob. The delay before returning to the normal state can be set to fast or slow by a front panel switch. The Guardian can also be forced to the backup or main feed, over-riding the detectors from the delay time control. A switch selectable +10 dB amplifier can be enabled on the external Input to allow the use of "domestic" equipment such as a CD player with a low level ourpur. Quick-view status monitoring using dual color LED)s is provided for on-site monitoring of Left, Right, Alt, and composite audio inputs. LEDs indicate the stare of the detectors. Input impedance $600 / 10 \mathrm{k}$ - Switch selected detection delay 5-90 Seconds, user selectable ( $5,10,20,30 . .90$ ) • User selectable external input gain 0 or +10 dB • Warranty 5 Years.
Guardian
$\$ 1,099.00$

## sbs MPX5 Stereo Generator

The sbs MPX5 is one of the very best stereo generator available on the market today. Linear phase anti-aliasing digital filters are used to reduce overshoots, enabling average modulation and therefore loudness to be significantly increased, without over-
deviation. Extensive use of digital waveform synthesis and DSP ensure superior audio perfornlance. An optional overshoot compensator, which eliminates the undesirable effects of 15 kHz low pass filtering necessary in stereo generators, is designed to enable radio stations in comperitive markers to increase modulation levels by $2-5 \mathrm{~dB}$. The MPX5 uses high performance VCA's with a single input gain setting making alignment a very simple process. Pre-emphasis may be set to $0 / 50 / 75 \mu$ s. Only 1 U of rack space is occupied and front panel tamper proof multi-turn controls for Input, Output and Pilot Level presets are pro-
vided. Input impedance $50 \mathrm{k} / 600 \Omega 2$, switchable on rear panel • Input level +10 CBu (adjustable $+4 /-2 \mathrm{~dB})$ for peak modulation $\bullet$ Input CMRR $70 \mathrm{~dB}(20 \mathrm{~Hz}-20 \mathrm{kHz}) \cdot$ RBDS/ SCA inpur level $0 \mathrm{dBu} \pm 0.3 \mathrm{~dB}$ for $\pm 2 \mathrm{kHz}$ deviation. RBDS/ SCA input impedance $10 \mathrm{k} / 75 \Omega$, swirchable on rear panel. Output impedance 22/75 $\Omega$, switchable on rear panel - Output level $(22 \Omega)+8 \mathrm{dBu}$ (adjustable $+0.5 /-5.5 \mathrm{~dB}$ ) for peak modulation - Output level $(75 \Omega)+2 \mathrm{dBu}$ (adjustable $+0.5 /-5.5 \mathrm{~dB}$ ) for peak modulation. Frequency response $\pm$ $0.3 \mathrm{~dB}(20 \mathrm{~Hz}-15 \mathrm{kHz}),<-60 \mathrm{~dB}$ above $15.4 \mathrm{kHz} \bullet$ Pilot frequency stability $\pm 1 \mathrm{~Hz} \cdot 38 \mathrm{kHz}$ suppression $<-60 \mathrm{~dB} \cdot$ Crosstalk better than $60 \mathrm{~dB} \cdot$ Distortion, THD and beats $<-60 \mathrm{~dB}$ ( $20 \mathrm{kHz}-15 \mathrm{kHz}$ ) - Warranty 5 Years.

MPX5

## Studio Furnishings • Cases

\section*{Clipper Products <br> | Model \# .... Wt.Capacity .. Cart Wt. ..... Price |
| :--- |
| $880-2$............. 400 ............ 19 .... $\$ 169.95$ |
| $770-2$.............. 400 ............. 15 .... $\$ 129.95$ |
| $660-2$............. 300 ............ 13 .... $\$ 109.95$ |
| $440-2$............. 150 ............ 8.5 ..... $\$ 79.95$ | <br> }

## Comrex Road Cases



Comrex makes road cases to meet every traveling need. The softside case, made of sturdy foam-lined nylon, is perfect for dashing off to that last minute remote or carrying right onto the plane with you. This case comfortably holds an Envoy, Vector, Matrix, HorLine or Nexus with additional pockers for microphones, headphones, cables etc. the heavyduty plastic road cases care for your remote equipment when its not in your hands. The small road case measures $18^{\prime \prime} \times 13^{\prime \prime} \times 8^{\prime \prime}$ with custom foam inserts for the Envoy, Vector, Marrix, HotLine or Nexus. The large road case comes with foam inserts for an Envoy or Vector. Measuring $24^{\prime \prime} \times 17.5 " \mathrm{x} 12$ ", the large road case has extra comparments for peripheral gear. It also has recessed wheels and a retractable handle for easy transport.
$\qquad$Small Road Case $\$ 200.00$
Large Road Case
$\$ 375.00$
Kaces III Protective Gig Bags feature: sturdy web handles • heavy duty metal zippers • burgundy trim zippers ${ }^{\text {• tear }}$ resistant nylon - ultra thick padding ${ }^{\bullet}$ and accessories compartment.
KEB-20 .......... Holds Marantz PMD 101, 201, 221, 222 \& 430 and many wireless mic systems ..... $\$ 24.95$
KEB-22 .......... Holds Mackie 1202 ..... $\$ 25.95$
KEB-31 .......... Holds Mackie 1402 ..... $\$ 37.95$
KEB-30 .......... Holds Mackie 1604 ..... $\$ 54.95$
MB-6 .............. Microphone Bag, hold 6 mics and accessories ..... $\$ 89.95$
MB-12............ Microphone Bag, hold 12 mics and accessories ..... $\$ 99.95$

## Pelican Cases



Pelican Protector ${ }^{\circledR}$ cases are watertight and airtight to 30 feet for the ultimate in protection. Constructed of light-weight space age structural resin with a neoprene o-ring seal and exclusive purge valve. Supplied complete with pre-scored pick n' pluck foam or padded dividers (no cutting required). Also includes locking flanges, massive multiple latches for absolute security and a comfortable molded fold down handle. Integral personalized name plates can be engraved at additional cost.

| Description .. Outside Dimension ...... Inside Dimension ..... Weight .... Price |
| :---: |
| 1200 Case ........ 10-3/4"x 9-3/4"x $5^{\prime \prime}$..... 9-1/2"x $7-1 / 2^{\prime \prime} \times 4-1 / 2^{\prime \prime} . . . .3 \mathrm{lbs} . . . . . \$ 49.50$ |
| 1300 Case ........ 10-3/4"x 9-3/4"x $7^{\prime \prime}$..... 9-1/2"x $7-1 / 2^{\prime \prime} \times 6-1 / 2^{\prime \prime}$... $3.5 \mathrm{lbs} . . . \$ 59.60$ |
| 1400 Case ........ 13-1/2"x 11-3/4"x $6^{\prime \prime}$.... 9-1/2"x 7-1/2"x 6-1/2" ... 3.5 lbs. ... \$90.46 |
| 1450 Case ........ 16-1/8"x 13-1/4"x $7^{\prime \prime}$......... $15^{\prime \prime} \times 10-1 / 2^{\prime \prime} \times 6^{\prime \prime}$....... 7.5 lbs. . $\$ 116.90$ |
| 1500 Case ........ 18-1/2"x $15^{\prime \prime} \times 6-7 / 8^{\prime \prime} . . . . . . . .17^{\prime \prime} \times 11-3 / 4^{\prime \prime} \times 6^{\prime \prime} . . . . . . .8 .5 \mathrm{lbs} . . \$ 136.36$ |
| 1520 Case .... 19-1/4"x 15-5/8"x $7-5 / 8^{\prime \prime}$... 18"x 12-7/8"x 6-3/4" .... 10.5 lbs . \$150.06 |
| 1550 Case .... 20-3/4"x 17-1/4"x 8-5/8" ..... 19"x 14"x $7-3 / 4^{\prime \prime}$........ 14 lbs .. $\$ 170.50$ |
| 1600 Case ........ $24-1 / 4^{\prime \prime} \times 19-1 / 2^{\prime \prime} \times 9^{\prime \prime}$........... $22^{\prime \prime} \times 17^{\prime \prime} \times 8^{\prime \prime} . . . . . . . . . . .17 \mathrm{lbs} . . . \$ 201.86$ |
| 1650 Case ...... 332 "x 21-3/4"x 11-1/2" ...... 29"x 18"x 10-1/2" ...... 17.5 lbs . $\$ 295.76$ |
| Dimensions shown are Length $x$ Width $x$ Depth |
|  |
| 1454 .............. 1450 Case with padded dividers ................................ \$154.46 |
| 1504 .............. 1500 Case with padded dividers ................................ \$165.26 |
| 1524 .............. 1520 Case with padded dividers ................................ \$191.80 |
| 1526 .............. 1520 Case w/1527 convertible travel bag..................... \$241.66 |
| 1527*see below ........ Convertible travel bag only ............................... \$110.26 |
| 1554 .............. 1550 Case with padded dividers ................................ \$233.60 |
| 1604 .............. 1600 Case with padded dividers ................................ \$265.36 |
| 1654 .............. 1650 Case with padded dividers ................................ \$385.56 |
| 1508 ............... Photographer's Lid Organizer $\begin{aligned} & \text { Holds film, filter, gadgets, notes ...................................... } \$ 20.96\end{aligned}$ |
| 1509 ............... Attaché Lid Organizer, fits 1500/1520 $\quad$ Holds paper, pens, calculator etc. ................................... \$23.06 |

*The 1527 Travel Bag is designed to fit inside a 1520 case. Converts instantly from a hard case to soft bag, for complete hardknocks travel protection. Just pull out for short day trips etc. sling over your shoulder and go without rearranging anything. Made of heavy duty waterproof padded Ballistic Nylon with multiple front and side gadget pockets. Padded adjustable divider system protects complete outfits. Exclusive top/side access to equipment while in use with thick curved and padded shoulder strap. All nylon zippers and clips. 171/2"Lx121/2"Wx61/4"D in black.

> Mackie Mixer Bags
> Mackie Mixer Bags have rich Corinthian suede leather from low-distortion cows with 1 kHz horns. This gig bag has internal foam padding, double stitched nylon joints, snap-cuff handles, carry strap, extra front pocket for cables and mics and has the embroidered Mackie logo.
> Mixer Bag for the 1202-VLZ PRO \& MS1202-VLZ.
> . $\$ 49.99$
> Mixer Bag for the 1402-VLZ PRO \& MS1402-VLZ.
> .$\$ 69.99$
> Mixer Bag for the 1604-VLZ PRO \& CR1604-VLZ ........................................................ $\$ 89.99$


## Studio Furnishings • Gases



Porta-Brace has a case for any of your field production crews needs, Please call Broadcasters General Store for a Porta-Brace catalog.
AO-1U ............ Audio Organizer, Inside measurements $6^{\prime \prime} \mathrm{W} \times 8^{\prime \prime} \mathrm{H} \times 14^{\prime \prime} \mathrm{L}$..... $\$ 270.00$
RB-1 ............... Run bag, 7"W x 9-1/2"H x 18"L.................................... \$152.00
RB-2 ............... Run bag, 7"W $\times 9-1 / 2^{\prime \prime} \mathrm{H} \times 21^{\prime \prime} \mathrm{L} . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ \$ 158.00 ~$
RB-3 ............... Run bag, 7"W x 9-1/2"H x 25"L.................................... \$163.00
CAR-1 ............ Cargo case, inside measurements $8^{\prime \prime} \mathrm{W} \times 10^{\prime \prime} \mathrm{H} \times 13^{\prime \prime} \mathrm{L} . . . . \$ 178.00$
CAR-2 ............ Cargo case, inside measurements $8^{\prime \prime W} \times 10^{\prime \prime} \mathrm{H} \times 18^{\prime \prime} \mathrm{L} \ldots . . \$ 188.00$
AR-*** ............. Recorder cases for HHB, Marant PMD's, Sony TC-D5
\& Sony TCD-D10 PRO, Tascam DAP1 and more .. \$192.00-\$271.00
MX-*** ........... Mixer Cases for Shure FP-31/32/32A/33/ or 410 ........... $\$ 176.00$

## Modern Cases Rack Bags



Modern Cases Rack Bags are a lightweight, durable protective case for your rack equipment. Made of foam covered plywood and cordura fabric, the bag simply zips open front and rear for quick access. Carrying straps are included.
 Modern Case also makes a variery of plywood ATA syyle cases.

Please call for a Modern Case catalog and pricing!

## 1-352-622-7700

SKB-1904 ....... Caster kit for SKB-19 cases, 8 lbs. ............... $\$ 109.95$
SKB-1916 ....... Caster kit for SKB shock cases, 9 lbs. ............. $\$ 174.96$
SKB-19-ACI ... Rack-mount nut and bolt kit ( 12 sets) ............ $\$ 12.95$
SKB-88 ........... Attaché case with files, 10 lbs .
ID=4-1/2"Hx17"Wx12-3/4"D .................. $\$ 167.95$
SKB-88F ......... As above, with dice foam, 10 lbs. ................. $\$ 167.95$
SKB-600 ......... 6 hole ATA microphone case, 9 lbs.
ID $=10-1 / 2^{1 " H x 13^{\prime \prime} W x \mid 1 " D ~ . . . . . . . . . . . . . . . . . . . . . . . ~} \$ 159.95$
SKB-1200 ........ 12 hole ATA micruphone case, 13 lbs .
ID $=10-1 / 2^{4} \mathrm{Hx} 17^{\prime \prime} \mathrm{W} \times 13^{" D}$..
$\$ 189.95$
SKB-1713 ....... ATA equipment case, 11 lbs . ID=10-1/2"Hx17"Wx13"D ...................... $\$ 169.95$
SKB-1713F ..... As above, with dice foam, 11 lbs. ................. $\$ 199.95$
SKB-2416 ....... ATA equipment case, 16 lbs .
ID $=13^{\prime \prime} H \times 24^{\prime \prime} W \times 16^{\prime \prime} \mathrm{D}$ $\qquad$ . $\$ 199.95$
SKB-19-P12 .... Pop-up Mixer Case, 26 lbs .
ID $=8^{\prime \prime} \mathrm{H} \times 20-5 / 8^{" W} W \times 23-1 / 2^{" D}$ $\qquad$ $\$ 259.95$

## SKB Gases

SKB cases are stackable, light weight, and made of a strong polyechylene material. The draw tight latch covers are gasket-sealed to keep out moisture and dirt. The mounting flange is close to the edge, which makes it easy to read the dials and LCD screens on your equipment. The snap-in hardware allows for easy replacement of mounting nuts iffailure should occur. Cases come with mounting hardware. Overall rack dimensions for the SKB-19 cases are $21-1 / 2^{\prime \prime} \mathrm{W} \times 20-1 / 2^{\prime \prime} \mathrm{D}$ with $17^{\prime \prime}$ of rack-mountable depth. The SKB-9 shock cases are $36^{\prime \prime} \mathrm{W} \times 27^{\prime \prime} \mathrm{D}$ with $20^{\prime \prime}$ of rack-mountable depth.



## Viking Cases

All Viking cases can be customized to fit your requirements and budget. Standard case designs available are: DJ cases, standard or shock mounted rack and double wide rack cases, pull over rack cases, and music cases. Some of the options are: rear rack rails, a variety of casters or rubber feet, locks, corner and fastener hardware, waterproofing and special foam. Normal turn around time of seven to ten working days with no additional charges for rush orders!


Call Broadcasters General Store for a Viking catalog and pricing.

## The Studioluhbrwiring Solution

Winner of both the prestigious BE Radio "Pick Hit" and Radio World "Cool Stuff" new product awards.



[^4]a product from RADIO SYSTEMS, INC. 602 Haron Drive - 20 Box 458 • Bridgeport, NJ 08014-045 8 856.4578000-fax 856 -1673004-salessradiosystems.com


## ANALOG CLOCKS.......

Here are two types of our Analog Clocks that can be driven from any of our five Master Clocks. Our LX-5112 (12/24 Hr.) Analog Clock can self set it's hands to the correct time from three different time code inputs (SMPTE/EBU, ASCII or ESE). Alternate modes of operation allow the LX-5112 to synchronize with an alternating 12 or 24 volt impulse signal. or to act as a stand alone clock. We also carry the LX-168 "Sweep" Second Hand and the LX-162S "Stepping" Second Hand Analog Clocks, driven from Impulse Drivers.

## MASTER CLOCKS.......

For more than 30 Years, ESE's Master Clocks have been known for their accurate and cost effective methods of time keeping. Any of our ten Master Clocks can drive up to 100 of our Digital Disploys with up to 4000 feet of cable. Our Digital Displays range from . $4^{\prime \prime}$ to $4^{\prime \prime}$ LED characters that are viewable from 10 to 120 feet, perfect for Broadcasting and Recording Studios. Our Master Clocks lock to refererces such as GPS, WW., Modem and Crystal.


## AUDIO PRODUCTS.......

These product's include two different "Digital" Audio Level Indicators. Each is available in rack mount panels with as many as six mounted on a single $13 / 4^{\prime \prime}$ panel. Other units include the highly popular ES-244 Audio Level Impedence Interface (which allows interfacing between "pro" and consumer equipment) and the ES-212 Phone Patch (which interfaces between an audio console and the telephone).

## DISTRIBUTION AMPLIFIERS.

ESE's Audio and Video Distribution Amplifiers have been designed to create exact copies of an available input signal. Whether the signal is Audio, Video, S-VHS or HDTV, these Distribution Amplifiers deliver the highest in professional broadcast audio/video quality. We supply a variety of DA's ranging from $1 \times 4$ to quad $1 \times 6$ 's which can be set up to have 24 outputs in a single rack. We also carry $1 \times 4$ video \& audio PC cards for Desktop applications.
$\square$


## Studio Furnishings • Acoustical Panels

## Auralex's ${ }^{\text {M }}$ Studiofoam ${ }^{\text {m }}$

Auralex's ${ }^{\text {TM }}$ Studiofoam ${ }^{\text {TM }}$ is wedge-cut, $60 \%$ more effective than other foams, and has a long lasting formulation that gives years of service. It passes Califomia firecode and is far more flame retardant than other brands. Charcoal gray is usually in stock with many other colors available. (We would be happy to send a sample) All


Studiofoam panels are 2'x4' and ship in

box quantities only. Auralex also makes Sonomatt ${ }^{T M /}$ which is a charcoal gray eggcrate panel. Sonomatt is recommended when budget is the primary concern because the panels are cut randomly, it makes the pattem hard to line up and not always square to the panel. Auralex supplies a variety of solutions for your sound controd problems.

| Description ...................................Qty/B | Qty/Box ......Coverage/sq. ft. ...........Price |
| :---: | :---: |
| Studiofoam 1" ................................... 20. | 20 .................. 160 .............. \$239.00 |
| Studiofoam 2" ................................... 12. | 12 ................... 96 ............... \$209.00 |
| Studiofoam $4^{\prime \prime}$ | . 48 .............. \$209.00 |
| Sonomatt 2" (2'x4') ............................ 12. | 12 ................... 96 ............... \$179.00 |
| Sonomatt 2" (4'x8') | .. 64 ............... \$119.00 |
| Venus Bass Traps ( $2^{\prime} \times 4^{\prime}$ ) | . 16 .............. \$239.00 |
| LENRD Bass Traps 2' long | 16 lin.ft. ........... \$259.00 |
| Wedgies 2" (1'x1') .............................. 24. | 24 ................... 24 ................ \$79.00 |
| 2"x2"x24" Corner-fills ......................... 36. | $36 . . . . . . . . . . . . .72 l^{\text {lin. fr. .............. } 49.00}$ |
| $4^{\prime \prime} \times 4^{\prime \prime} \times 24{ }^{\text {" }}$ Corner-fills .......................... 9. | 9.............. 18 lin. ff. ............ \$49.00 |
| 12 "x12"x24" Corner-f | 2 lin. ft. ............. \$39.00 |
| Tubetak Adhesive | .. Approx. 32 ............. \$6.99 |
| SheetBlok-10, 10'x4', black ................... 1 .. | .. 1 .................... 40 .............. \$139.99 |
| SheetBlok-30, 30'x4', black ................... 1 .. | 1 .................. 120 .............. \$359.99 |
| U-Boat Floaters Floor Decoupler ........... 50. | ... 50 ............. Approx. 70 .......... \$107.50 |
| MiniFuser, $12^{\prime \prime} \times 12^{\prime \prime}$ white paintable........ 12. | ... 12 ................... 12 ............... \$167.88 |
| T’Fuser, 2'x2', ceiling grid or wall ........... 4 .. | . 4 ................... 16 .............. \$279.96 |

## AVL Acoustical Panels

AVL systems designs, engineers and manufactures high performance acoustical products for any custom application; wall panels, acoustic baffles and ceilings. The wall and ceiling treatments help create an interior space that is truly an acoustically controlled environment by absorbing up to $99 \%$ of sound energy. For safery and insurance purposes, panels are rated Class A with a flame spread rating of 25 or less and a smoke developed rating of 65 or less. Acoustical panels in boxed sizes, available in five fabrics; Grey Mix, Crystal Blue, Wheat, Quartz, and Cherry Neutral.

_.... Panels ..... Size ..... Total Sq. Ft. ... Price
$1^{\prime \prime}$. (4) ...... $2^{\prime} \times 2^{\prime}$........... 16 ...... $\$ 133.00$
(4) ...... 2' x 4' .......... 32 ...... $\$ 199.00$
(4) ...... $4^{\prime} \times 5^{\prime}$.......... 80 ...... $\$ 390.00$
(4) ..... 4' x 10' ........ 160 ..... $\$ 688.00$

2" .. (2) ...... 2' x 2' ........... 8 ......... $\$ 83.00$
(2) ...... 2' x 4' .......... 16 ...... $\$ 132.00$
(2) ......4' $\times 5^{\prime}$.......... 40 ...... $\$ 270.00$
(2) ..... $4^{\prime} \times 10^{\prime}$.......... 80 ...... $\$ 490.00$

Call Broadcasters General Store for custom fabrics and panel pricing.

## Middle Atlantic <br> Acoustical Panels

Middle Atlantic Acoustical Panels are faced with $100 \%$ polyester fabric, which will not rip or crack like foam products and features resin-hardened edges which are beveled for aesthetics. AP series $2^{\prime \prime}$ thick panels offer the same sound absorbing rating as 4 " thick foam panels. Fire rated class 1 (ASTM E-84) and easy to clean.
AP24X24 ........ Specify G for Gray or B for Beige, 24"x24", Glbs. ........... \$150.00
AP24X48 ........ Specify G for Gray or B for Beige, 24"x48", 10lbs. ......... \$206.75
AP30X48 ........ Specify G for Gray or B for Beige, 30"x48", 12lbs. ......... \$250.00
AP30X84 ........ Specify G for Gray or B for Beige, 30"x84", 22lbs. ......... \$402.25

## Studio Furnishings • Clocks \& Timers

## ESE ES362A

Master Up/Down Timer
The ESE ES362A master up/down timer is a four-digit, 100 minute timer featuring
 a serial time code output. It will drive as many as 100 remote serial slaves such as ES361A, ES364, ES366A, ES369A, or ES372A. Any of the ES362A's up, down, stop, reset, and preset functions can be activared from a frontmounted switch The ES362A performs the same functions as the ES301A, with the added speed advantage of a leverwheel used for the pre-set functions.



The ESE ES 112 E and the ES124E are solid state, CMOS, six-digit clocks featuring bright orange LED displays. Three simple controls, fast or slow advance and hold, make setting to the precise second easy.
ESI12E
.12 hour format
$\$ 230.00$
ES124E
. 24 hour format.
$\$ 230.00$

ESE ES520
\& LX520
60 Minute Timers
The ESE ES520 and LX520 are fourdigit, 60 minute timers which have a serial time code output capable of driving 100 slaves.


ES520 ................................................................................................ \$185.00
LX520. $\$ 285.00$

## Studio Furnishings • Clocks \& Timers

## Clocks/Timers (Continued)

ESE ES301A \& ES302A

## 100 minute up/down timer

The ESE ES301A is a four-digit, 100 minute up/down timer featuring six push button control switches. Minutes and seconds can be advanced simultaneously or independently to pre-set count downs.


ES301A $\$ 325.00$
ES302A
same as above with leverwheel preset $\$ 420.00$

## ESE Master Clocks

ESE Masters provide a means of keeping all time displays in the system in agreement through the use of a serial time code. Only one pair of wires is needed to distribute the time code to all remote serial input displays. An ESE master clock system can operate digital displays, clocks with sweep second hands, printers and also tell your computer what time it is.

> The following clocks have many options available, call Broadcasters General Store for complete literature.

## ESE ES180A NBS Master Clock

The ESE ES180A NBS is 1 U master clock with LED display of hours, minutes, and seconds. It receives and decodes ime transmitred by the U.S. National Bureau of Standards. It provides an extremely accurate time reference, and is avilable with the following outputs: serial time code that drives 100 ES161A, 166A, 171A, 991 A and 993A remote displays; a one pulse per second output; an RS-232C output at 1200 Baud, switchable to other rates; a speaker audio outpur; and an earphone jack.
ES180A
Specify time zone, 1 U
\$2,965.00
ESAA1
Active antenna for ES 180 $\$ 195.00$

ESE ES185A GPS Master Clock \& Time Code Generator
 sitioning Satellite System) master clock and time code generator provides extremely accurate time and date information anywhere in the world. The unit features a one PPS accuracy of better than 130 nS and four serial time code outputs. Time and Julian Date information are received via the internal eight channel GPS receiver and displayed on the nine $.56^{\prime \prime}$ yellow LED's. An indoor/outdoor antenna and 4-hour battery back-up are included while several optional features are also available.
ES185A $\qquad$ $\$ 2,495.00$

ESE ES192A
\& 194A


## Master Clocks

The ESE ES192A and 194A are micro-based master clocks. They provide the output needed to drive remote serial displays such as the ES161A, 166A, 171A, 991A or 993A
ES192A.6 Digit .56" yellow LED display, 12 hour format$\$ 270.00$
LX192A .......... As above with "LX" enclosure ..... $\$ 370.00$
ES194A 6 Digit $.56^{\prime \prime}$ yellow LED display, 24 hour format ..... $\$ 270.00$
LX194A. As above with "LX" enclosure ..... $\$ 370.00$

## ESE ES160A Series SMPTE, ESE, ASCII and 1PPS Outputs

The ESE ES160A master clock has an internal timebase and SMPTE, ESE,


ASCII and 1 PPS are standard outputs. Optional are serial BCD and CMOS compatible outputs. Without buffering it can drive $100 \mathrm{ES} 161 \mathrm{~A}, 166 \mathrm{~A}, 171 \mathrm{~A}, 991 \mathrm{~A}$ or 993 A remote displays. The ES160A displays six digits of time information on a $.56^{\prime \prime}$ LED and comes with battery and charger. The ESE TC is both TC89 (time only) and TC90 (time \& date), available on seperate outputs.
ES160A ...... 1 second per month accuracy, 1U ................................... $\$ 1,755.00$
ES162A ........ Impule Driver for LX/ES162S or existing 12/24VDC system, 1U ...... \$460.00
LX162S ...... As above with "LX" enclosure ........................................... \$255.00

## ESE ES165 Impulse Clock Driver

The ESE ES165 impulse clock driver is designed to provide synchronized power
 to ES168 impulse clocks. It can drive up to 50 impulse clocks and will keep them running during a 12 -hour power failure. For optimum accuracy, the ES165 should receive either a synchronizing pulse from the 1 PPS outpur of a master clock or an alternating 12 or 24 volt impulse from an existing impulse clock system. When operated without this pulse accuracy will be questionable.
ES 165 ............. Impulse driver, stand alone or references master .............. \$380.00
LX168 ............ As above with "LX" enclosure ....................................... \$255.00
ESE ES150 Time Code Switchover Unit
The ESE ES150 is an Automatic Time Code Switchover unit. It is designed to provide a simple/automatic method for monitoring and switching berween a Primary Master Clock and a Secondary Master Clock. The unit receives ESE time code from two different sources ( $A \& B$ ) and if a fault is detected from the Primary Clock (A), the ES150 automatically swirches to the Back-up Clock (B). Once a fault is detected, the unit remains in the " B " state until manually reset. Front panel mounted LED's indicate status and a toggle switch allows manual switching berween A and B . Additional "passively" switched I/O circuits include SMPTE/EBU, ASCII, 1 PPS and optionally available IRIG-B, 8 PPS, $1 \mathrm{kHz}, 10 \mathrm{MHz}$ and alternating 12 BDC Impulse Clock Drive.

ES150 ............. Primary/Secondary Master Clock Switcher System ...... \$1,425.00
ESE 7901000 Event Programmer
The ESE 790 is a sophis ticated 32-channel clock featuring microproces-sor-based programmability. 1,000 time events can be programmed, at
 random rather than chronologically, to occur every minute, hour, day or week. Multiple output channels (up to 32) can be activated simultaneously or individually.

ES 790 $\$ 2,745.00$
$/ 1$... w/1 Second per Month Master Clock Option \& Serial Time Code Oupput .... + $\$ 346.00$

## Studio Furnishings • Clocks/Timers

ESE 750E Series Programmer \& comparators


The ESE 750E Series of thumbwheel programmer/comparators is both economical and easy to use when programming 1 or 2 output events. A thumbwheel switch is set to compare the time information from an ESE clock or timer. Output occurs each time the switch serting agrees with the time display.
ES 750E .......... 6-Digir 12 Hour Clock with One 6-Digir Comparator ........... $\$ 435.00$
ES 751E .......... 6-Digit 24 Hour Clock with One 6-Digir Comparator ........... $\$ 435.00$
ES753E ........... 6-Digit 12 HourClock with Two 4Digit (hr\&Min) Comparator ........ \$525:00
ES754E ............ 6Digi 24 Hour Cook with Two 4Digit (hr \& Min) Comparator ........ \$525:00
ES 760E .......... ES 754E widh Battery/Charger and Parallel BCD Output ....... $\$ 875.00$

## ESE Remote Displays



These are the basic remote displays that receive serial time code from any ESE master clock. They can be configured with numerous options to fit your application.


Rack Mount Option $\$ 50.00$

Remote Displays that receive Serial Time Code
ES161U ...... Six digit . $55^{\prime \prime}$ orange LED display, specify 12 or 24 hour format ...... $\$ 230.00$
LX161U .... As above with "LX" enclosure ............................................ $\$ 330.00$
ES167C ...... Interface board translates parallel BCD into ESE serial time code ..... $\$ 210.00$
ES166U ..... Six digit . $55^{\prime \prime}$ LED display, specify 12 or 24 hour format, .... $\$ 355.00$
LX166U .... As above with "LX" enclosure ............................................ \$455.00
ES171U ..... Six digit . $4^{\prime \prime}$ bright red LED display, console mount ............ $\$ 210.00$
ES991U ..... Four digit 2" LED display, desk mount ............................... \$450.00
ES993U ..... Six digit 2" hr. \& min., 1" sec. LED display, wall mount ..... $\$ 630.00$
ES941U ..... Four digit 4" hr. \& min., ESE Serial Slave, wall mount ........ $\$ 715.00$
ES943U ..... Six digit $4 "$ hr., min. \& sec., ESE Serial Slave, wall mount ............ $\$ 875.00$
ES996U ...... Six digit 2.3" hr., min. \& sec, ESE Serial Slave, $15^{\prime \prime}$ wall mount ...... $\$ 685.00$
ES126U ..... Time \& Date .55" 12 digit ESE Serial Slave, 1U ................. $\$ 580.00$
ES127U ..... Time \& date 1" 12 digir ESE Serial Slave, 2U ..................... $\$ 820.00$
Self Setting Analog Clocks
LX5105 ..... 5" Self-setting/impulse clock w ESE,
SMPTE or ASCII input (sweep/step) .................................. $\$ 575.00$
LX5112 ..... As above but 12" .............................................................. $\$ 575.00$
LX5116 ..... As above but 16" .............................................................. $\$ 675.00$
LX5212 ..... Digital/Analog 12" Clock w/ESE, SMPE/EBU,
IRIG-B \& ASCII Input
$\$ 895.00$

## Radio Systems CT-6

## Clocks \& Up Timers



All Radio Systems CT-6 models function as both clocks and up timers. The "mode" button selects between functions withour affecting the accuracy of the timer or time-of-day.
The CD-6 Desktop model (RS\#10846) is only $3^{\prime \prime}$ high and $4^{\prime \prime}$ deep and offers a 6digit, $1^{" ~ h i g h ~ d i s p l a y . ~ I t ~ a l s o ~ h o u s e s ~ t h e ~ o p t i o n a l ~ m a s t e r ~ d r i v e r ~ b o a r d ~ w h i c h ~ o u t-~}$ puts the RS-485 serial time data to synchronize any CT-6 downstream. It is accurate to within $\pm 1.5$ seconds per month and accepts top-of-hour and 1 Hz sync inpurs and can drive Radio Systems' AC-12 analog clocks.

The CT-6 Thin model (RS\#10842) is only $3^{\prime \prime}$ high and 1 " deep and can be used as a "stick-on" clock/timer. All functions are fully remotable.
The CT-6 Large models (RS\#10844: 6-digit \& RS\#10869: 4-digit) offer a 2 " display viewable from over 35 " away. It can be slaved to the desktop model master or house the master driver board itself. Finally, the CT-6 Console model can be ordered for in-
 ternal installation in Radio Systems consoles only and can be a clock/timer or a serial slave to a master clock.
CT-6 Desktop .................................................................................... \$175.00
CT-6 Thin ......................................................................................... \$155.00
CT-6 Large ....................................................................................... \$395.00
CT-6C Console ................................................................................. \$155.00
CT6 w/ ........................ Master Driver Board ...................................... $\$ 375.00$
GPS-MDB .................. GPS Master Driver Board ............................ \$1,295.00
AC-12 .......................... Clock ............................................................. $\$ 95.00$
AMD-1 ....................... Impulse Clock Driver .................................... \$525.00


## Studio Furnishings • Warning/Messaging

Warnings/On-Air \& Messaging
 Enberg BA-6 monitor provides your control room with a complete view of important status information at a glance. Each of the six flashing indicators are capable of 3 modes of operation: telephone latching, auto reset, and manual reset. The BA-6 also has a DC output (150ma @ channel), designed to drive the BA-6F remote monitor for duplicate displays in other studios.


Enberg BA-6 Monitor
BA-6 .............. Includes 1 FN-6 and a set of labels ................................ $\$ 389.00$
BA-6R ............ Remote ................................................................................. \$239.00
BA-6RX .......... Rack mount remote includes 1 FN-6 .............................. \$389.00
BA-6RXR ....... Rack mount remote only .............................................. \$119.00
FN-6 .............. Phone module, detects ring on 2 separate lines ................. \$39.00
Labels ............. Standard label set ( 32 titles)- 2 set minumum ................... \$20.00
FH-6 .............. Modification ................................................................. \$20.00

## Fidelipac On-Air Lights

Fidelipac 340 .... On Air
(specify language w/order)


Pro On-Air Lights L101
Pro Lights L101 .......... Micro Series On Air Light, 24 Vdc , White Lens

## Architectural Series On-Air Lights


$\qquad$
PRO-AW ........ Flat wall mount with lens
PRO-AP ......... Extended mount with dual lens ..... $\$ 169.00$
PRO-AC......... Ceiling mount with dual lens ..... $\$ 169.00$
Lens. Specify Record, On Air, or Mic Picture Only, Black or Red ..... $\$ 15.00$
Blank Lens
Blank Lens ..... $\$ 13.00$

## COM3636 On-Air Light

COM3636 ...... On Air Light, 110Vdc $\$ 65.00$
RB-1 ................ 25 Watt red red replacement bulb $\$ 5.95$

## Sine Systems MBC-1 Message Board Controller

The Sine Systems MBC-1 Message Board Controller is designed to replace all the various strobe lights and colored beacons that are a part of most every broadcast studio. It has 15 inputs for relay contact closures or logic level sources and a single serial output that connects to an electronic message display

(typically an inexpensive 'Beta Brite' by AMS). Each input can trigger a unique display on the message board and multiple message boards can be connected to a single MBC-1. The messages are stored in the display so the same input can trigger different messages on different displays. A factory serup feature can program the display with a list of suggested messages. The display is fully programmable by the user and is not included.

MBC-1 ........... Message Board Controller
. $\$ 315.00$


## Wheelock TelStrobe® ${ }^{\circledR}$

Wheelock TelStrobe® is ideal for signaling your board operator when the telephone rings. Their solid-state design utilizes a xenon flash tube for brightness, long life and low power consumption. Strobes operate directly from telephone line ring voltage and low voltage AC or DC power supplies.


PS-11A-WPW
$.40-130 \mathrm{~V}, 16-68 \mathrm{~Hz}$ $+115 \mathrm{VAC}, 70 \mathrm{KCP}$
PS-33A-WPW ....... 18-30VAC,/VDC, 25KCP . $\$ 82.40$

## Computemp 5

Time of Day and Temperature
The Computemp 5 has continuously-alternating readouts displaying both the time of day and temperature at the two locations you are monitoring. Its unique memory function keeps track of daily temperarure ex-
 tremes and alerts you to critical temperature changes.
CompuTemp 5 LED display, AC powered $w / 9 \mathrm{~V}$ battery back-up
$\$ 99.95$

## Conex WJ-10 WeatherJack Recording Barograph and Thermograph <br> The Conex WJ-10 WeatherJack is a recording barograph and thermograph for your PC. You can watch weather fronts roll across your PC. The WeatherJack is a simple, battery operated module that connects to your PC via RS-232. Display pressure and outside tem-

 perature graphs and trends on your PC desktop. It records 5 days of data even while your PC is off. Data can be archived on your hard drive and imported to a spreadsheet for analysis.WJ-10. $\qquad$ Recording Barograph and Thermograph
$\$ 129.00$

## Broadcast Tools Alert Sentry 16



The Broadcast Tools Alert Sentry 16 provides a convenient way to monitor and log station alarms on DOS and Windows based PC's. The AS-16 is equipped with 16 optically isolated inputs, that may be programmed for wet or dry contacts. It also provides two separate relay contacts. The first doses for six seconds after any high to low or low to high input on any port. The second relay contact stays closed indefinitely while any of all alarms are present. The AS-16 is provided with software that may be run under DOS or Windows and allows up to sixteen alert and sixteen non-alert, 63 character descriptions to be displayed and logged. An alarm condition causes a highlighted cursor to flash beside the highlighted 63 character description. Input connections are via wire captive terminals. Logging provides the time, date and description of each event changing states or loss of communication with the computer and is logged to disk in ASCII form. The log data may be edited, printed and viewed using any text editor.

## Studio Furnishings • Warning/Messaging

## Conex Jumbo Digital Barometer

The Conex Jumbo Digital Barometer shows the barometric pressure at a glance. Its large display allows it to be easily visible from across the room. A special display indicates a rising or falling pressure trend. In addition, a user switchable beeper unobtrusively tells when the pressure starts rising or falling, with a special series of beeps when the pressure starts dropping rapidly, indicating the possibility of an approaching storm. It is powered by a 9V Alkaline battery and includes a low battery indicator.
JDB-I
Digital Barometer
$\$ 159.00$

## RainWise Weather Station



The RainWise Weather Station provides an LED digital readout for time, indoor and outdoor temperature, barometric pressure, wind direction, wind speed, windchill, rainfall, and ourdoor relative humidity. Its microprocessor computes and accumulates degree days heating and cooling throughout the year with maximums and minimums being provided for any desired period to the nearest hour, day and month.
WS 2000 ................. Weather Station .................................................. \$990.00
WS-1000-CC .......... Computer Capable Weather Station ................... \$1,300.00

## Studio Furnishings • Storage Racks

## ABCO Racks

CD Racks, for standard jewel cases, (Denon cases are very snug)
\#70 ....... Suringer holds 70 CDs, 5-1/2"Wx5-1/2"Dx69-1/2"L ... $\$ 89.50$
\#280 ..... Lazy Susan holds 280 CDs, ${ }^{\prime}$ H, 22" diameter ... $\$ 401.50$
\#560 ..... Lazy Susan holds $560 \mathrm{CDs}, 6^{\prime} \mathrm{H}, 27^{\prime \prime}$ diameter ... $\$ 833.00$


## Atlantic



Atlantic makes a wide variety of economical modular tape storage units, this is a sample.
1209 ... CD tower, holds 35 , steel wire/
mat black, $5^{\prime \prime} \mathrm{W} \times 44^{\prime D} \mathrm{D} 22^{\prime} \mathrm{H} . . .$. $\$ 14.00$
1229 ... Cassette tower, holds 25 , steel wire/mat black .......... \$14.00
1230 ... VHS tower, holds 17, steel wire/mat black .............. \$14.00


DR-60 or DRB-60 ......... DATRAX-60 Solid Oak $\$ 59.95$
CD-60 or CDB-60
CD-60 Solid or Black Oak
$\$ 64.95$

DSD-320 .......... DAT Tape Storage Drawer, hold 320 tapes ................... $\$ 359.00$
Plastic Line (Charcoal Grey Fleck)
DRP-40 .................. DATRAX-40 ........................................................ \$21.95
V8-36 \& Pro ...........Video 8mm ........................................................... \$21.95
CP-48 ...................... Cassette-48 ........................................................... \$21.95
CDP-63 ................... Compact Disc-63


## Alps

Alps storage for: cassetres, DATs, carts, CDs , all sizes audio reels, magnetic film, 8 mm , VHS, M2, Beta, $3 / 4^{\prime \prime}$, D1, D2, and $1^{\prime \prime}$ reels. Alps cabinets have a reputation for craftsmanship and durability in high use situations. If you compare cost per unit and density per square foot of floor space, you won't find a better value in media storage. All of Alps high density storage cabinets are 4 ' wide and 2 deep. Inserts come inside of evcry drawer and drawers can be mixed to fit your needs. The standard colors are: white, almond and gray. Other color laminates are available at an additional cost. These cabinets are shipped fully assembled by common carrier, you may want to specify inside delivery.

## ALPS CD/CD ROM Storage Cabinets:

CBA605 ......... Five drawer base unit, holds 2120 CD's, $42^{\prime \prime} \mathrm{H}$............ \$1,375.00
CBA908 ......... Eight drawer base unit, holds 3392 CD's, $60^{\prime \prime} \mathrm{H}$.......... \$1,695.00
CBU466 ......... Six drawer top unit, holds 1836 CD's, 45 "H ............... \$1,630.00
ALPS Audio Storage
CBA609 ......... Nine drawer base unit, holds 2880 cassettes, $42^{\prime \prime} \mathrm{H} . . . . . . \$ 1,560.00$
CBA913 .......... Thirteen drawer base unit, holds 4160 cassettes, $60^{\prime \prime} \mathrm{H} . . . . . . . . . \$ 1,865.00$
CBU466 ......... Six drawer top unit, holds 2016 cassettes, $45^{\prime \prime} \mathrm{H}$.......... \$1,630.00
ALPS Video Cassette Storage
CBA607 ......... Seven drawer base unit, holds 812 w/o box, $42^{\prime \prime} \mathrm{H}$....... $\$ 1,410.00$
CBA910 ......... Ten drawer base unit, holds 1160 w/o box, $60^{\prime \prime} \mathrm{H}$........ $\$ 1,675.00$
CBU444 ......... Four drawer top unit, helds 672 w/o box, $45^{\prime \prime} \mathrm{H} . . . . . . . .$. \$1,430.00
CBA606 ......... Six drawer base unit, holds 510 w/box, $42^{\prime \prime} \mathrm{H}$.............. \$1,325.00
CBA909 ......... Nine drawer base unit, holds 765 w/box, $60^{\prime \prime} \mathrm{H}$............ $\$ 1,590.00$
CBU444 ......... Four drawer top unit, holds 512 w/box, 45 "H ............. \$1,430.00
Locks ............. Per cabinet charge ........................................................ \$125.00
Please call for pricing on other tape storage units. This is just a sample of what's available.

## Studio Furnishings • Storage Racks

| Broadcasters General | Store offers a wide selection of |
| :--- | :--- | :--- |
| equipment rack made by numerous manufactures. |  |
| - Atlas/Soundolier - HOME, Inc. - Nigel B <br> -Cabron Systems, Inc. - Lowell - Winsted <br> - D.D.B. Unlimited - Luxor - Zero Stantron |  |

## Middle Atlantic Racks

Narrow Design For Large-Scale Multi-Bay Jobs - 14 Gauge Steel Top/Bottom with 16 Gauge Steel Sides \& 11 Gauge Front and Rear Rack Rails, Black Textured Powder Coat or Putty Finish Suffix Part \# with "P". Fully Weided Construction 1000 lbs Capacity

| Model | Panel Space | Depth | Width | Total Height | Lbs. | Price | Lbs. | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRK-2426 | 42" (24 Space) | 261/2" | $22^{*}$ | 481/8' | 95 | \$649.00 | 105 | \$722.25 |
| MRK-2431 | 42" (24 Space) | $311 / 2^{\prime \prime}$ | 22" | 481/8' | 100 | \$722.25 | 110 | \$795.75 |
| MRK-3726 | 643/4" (37 Space) | 261/2" | $22^{\prime}$ | 707/8" | 116 | \$691.25 | 138 | \$778.00 |
| MRK-3731 | $643 / 44^{\prime \prime}$ (37 Space) | $311 / 2^{\prime \prime}$ | 22" | 7078" | 128 | \$809.00 | 148 | \$895.75 |
| MRK-4026 | $70^{\prime \prime}$ (40 Space) | 261/2" | $22^{\prime \prime}$ | 761/8* | 130 | \$709.00 | 155 | \$804.50 |
| MRK-4031 | 70" (40 Space) | $311 / 2^{\prime \prime}$ | $22^{\prime \prime}$ | 761/8 ${ }^{\prime \prime}$ | 133 | \$860.00 | 153 | \$955.75 |
| MRK-4426 | 77" (44 Space) | 261/2" | 22" | 831/8' | 135 | \$769.00 | 155 | \$869.00 |
| MRK-4431 | $77{ }^{\text {7 }}$ (44 Space) | $311 / 2^{\prime \prime}$ | $22^{\prime \prime}$ | 83188* | 147 | \$920.00 | 167 | \$1,020.00 |

ERK Series - 16 Gauge Steel Top/Bottom and Sides, 11 Gauge Adjustable Rack Rails, with Keylocking Rear Door. 750 Ibs. Capacity.

| ERK-1820 | $311 / 2^{\prime \prime}$ (18 Space) | $20^{\circ}$ | 221/4" | 355/8" | 70 | \$389.00 | 78 | \$460.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ERK-1825 | $311 / 2^{\prime \prime}$ (18 Space) | 25" | 221/4 ${ }^{\text {a }}$ | 355/8" | 76 | \$435.75 | 86 | \$506.75 |
| ERK-2720 | 471/4" (27 Space) | $20^{\prime \prime}$ | 221/4" | 513/8" | 89 | \$438.00 | 104 | \$520.00 |
| ERK-2725 | 471/4" (27 Space) | $25^{\prime \prime}$ | 221/4" | 513/8" | 107 | \$473.50 | 122 | \$555.75 |
| ERK-3520 | $611 / 4^{* \prime}$ (35Space) | $20^{\circ}$ | 221/4" | 653/8" | 102 | \$478.00 | 122 | \$566.75 |
| ERK-3525 | 611/4" (35 Space) | $25^{\prime \prime}$ | 221/4" | 653/8" | 107 | \$546.75 | 137 | \$638.00 |
| ERK-4020 | 70" (40Space) | $20^{\circ}$ | 221/4' | 741/8" | 118 | \$546.75 | 138 | \$635.75 |
| ERK-4025 | $70^{\circ}$ (40 Space) | $25^{\prime \prime}$ | 221/4" | 741/8" | 138 | \$569.00 | 158 | \$662.25 |
| ERK-4420 | $77^{\prime \prime}$ (44 Space) | $20^{\prime \prime}$ | 221/4" | 811/8" | 124 | \$566.75 | 144 | \$671.25 |
| ERK-4425 | 77' (44 Space) | $25^{\circ}$ | 221/4" | 811/8" | 144 | \$624.50 | 164 | \$729.00 |
| Narrow Multi-Bay Racks Optimized for Video Cable Bundles - 14 Gauge Steel Top/Bottom, 16 Gauge Sides, \& 11 Gauge Adjustable Rack Rair. 1000 Ibs. Capacity. |  |  |  |  |  |  |  |  |
| VRK-44-31H | 77" (44 Space) Horizontal Bars | $311 / 2^{\prime \prime}$ | $22^{\prime}$ | 831/8" |  |  | 170 | \$1,222.25 |

Wide Multi-Bay Gangable Racks - 14 Gauge Steel Top/Bottom with 16 Gauge Steel Sides \& 11 Gauge Front and Rear Rack Ralis, Black Textured Powder Coat or Putty Finish Suffix Part \# with "P". Stand Alone Units include Side Panels. When ordering Stand Alone Specify Part \# with "SA" ex: WRK-40SA-27. When ordering Less Rear Door Specify "LRD" ex: WRK-24-27LRD.

| Model | Panel Space | Depth | Width | Total Height | Ibs. | Price w/Door | Model | Ibs. | Price Stand Alone w/ Rear Door |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WRK-24-27 | 42" (24 Space) | 253/4" | 241/4" | 481/8" | 114 | \$855.75 | WRK-24SA-27 | 138 | \$878.00 |
| WRK-24-32 | 42" (24 Space) | 303/4" | 241/4" | 481/8" | 125 | \$911.25 | WRK-24SA-32 | 155 | \$955.75 |
| WRK-37-27 | 643/4" (37 Space) | 253/4" | 241/4* | 707/8" | 153 | \$966.75 | WRK-37SA-27 | 170 | \$1,000.00 |
| WRK-37-32 | 643/4" (37 Space) | 303/4" | 241/4" | 707/8" | 156 | \$1,011.25 | WRK-37SA-32 | 180 | \$1,066.75 |
| WRK-40-27 | 70" (40 Space) | 253/4" | 241/4" | 761/8" | 160 | \$1,033.50 | WRK-40SA-27 | 178 | \$1,066.75 |
| WRK-40-32 | 70" (40 Space) | 303/4" | 241/4" | 761/8" | 165 | \$1,055.75 | WRK-40SA-32 | 180 | \$1,089.00 |
| WRK-44-27 | 77" (44 Space) | 253/4* | 241/4" | 831/8" | 172 | \$1066.75 | WRK-44SA-27 | 215 | 1,100.00 |
| WRK-44-32 | 77" (44 Space) | 303/4" | 241/4* | 831/8* | 181 | \$1,100.00 | WRK-44SA-32 | 232 | \$1,189.00 |

## RaXXess Racks

Gangable Audio Racks - 12 Gauge Steel Top/Bottom \& 14 Gauge Steel Side Posts, with Front and Rear 11 Gauge Adjustable Rack Rail, Black Powder Coat

| Model | Panel Space | Depth | Width | Total Height | lbs. | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GAR-35-25 | 35 <br> Space 61.25" | 25 " | $24^{*}$ | $68.50^{*}$ | 100 | \$779.95 |
| GAR-35-30 | 35 Space | $30 \times$ | $24^{*}$ | $68.50^{\circ}$ | 110 | \$809.95 |
| GAR-40-25 | $\begin{gathered} 40 \\ \text { Space } \\ 70^{4} \end{gathered}$ | $25^{\prime \prime}$ | $24^{*}$ | $75.75{ }^{*}$ | 112 | \$819.95 |
| GAR-40-30 | 40 Space | $30^{\prime \prime}$ | $24^{*}$ | 75.75* | 119 | \$849.95 |
| GAR-44-25 | $\begin{gathered} \text { Space } \\ 77^{\prime \prime} \end{gathered}$ | 25" | $24^{*}$ | 82.75* | 120 | \$869.95 |
| GAR-44-30 | 44 <br> Space | $30^{\circ}$ | $24^{*}$ | $82.75{ }^{\circ}$ | 140 | \$899.95 |

Enclosed Audio Racks - 16 Gauge Steel Welded Construction with Fully Adjustable 11 Gauge Front Rack Rails, Black Powder Coat

| KAR-18-22 | 18 <br> Space <br> $32^{\prime \prime}$ | $22^{*}$ | $21.875^{\prime}$ | $37^{\prime \prime}$ | 60 | $\$ 419.95$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| KAR-18-28 | 18 <br> Space | $28^{*}$ | $21.875^{\circ}$ | $37^{\prime \prime}$ | 70 | $\$ 439.95$ |
| KAR-24-22 | 24 <br> Space <br> $42^{*}$ | $22^{\prime \prime}$ | $21.875^{\prime \prime}$ | $47^{\prime \prime}$ | 80 | $\$ 449.95$ |
| KAR-24-28 | 24 <br> Space | $28^{\prime \prime}$ | $21.875^{\prime \prime}$ | $47^{\prime \prime}$ | 90 | $\$ 479.95$ |
| KAR-35-22 | 35 <br> Space <br> $61.25^{\prime \prime}$ | $22^{\prime \prime}$ | $21.875^{\prime \prime}$ | $66.25^{\prime \prime}$ | 130 | $\$ 489.95$ |
| KAR-35-28 | 35 <br> Space | $28^{\prime \prime}$ | $21.875^{\prime \prime}$ | $66.25^{\prime \prime}$ | 140 | $\$ 519.95$ |
| KAR-44-22 | 44 <br> Space <br> $77^{\prime \prime}$ | $22^{\prime \prime}$ | $21.875^{\prime \prime}$ | $82^{\prime \prime}$ | 160 | $\$ 549.95$ |
| KAR-44-28 | 44 <br> Space | $28^{\prime \prime}$ | $21.875^{\prime \prime}$ | $82^{\prime \prime}$ | 170 | $\$ 579.95$ |



## Studio Furnishings • Storage Racks




Optionai Plexiglass Doors are avaifable for the above units. Please call for information and pricing.




Hotlinks to Vendors ©

## www.bgsfli.com www.broadcastdealer.com

## Studio Furnishings • Storage Racks



## Middle Atantic MD-KB



Middle Arlantic MD-KB Computer Keyboard Tray is designed for un-der-desk use. The computer keyboard tray is equipped with a padded wrist support and built-in mouse tray that can be pulled out to either side and retracts out-of-the-way when not in use. All mounting hardware included.
MD-KB .......... 711/8" Wide by 143/8" Deep, 91bs. ............................ $\$ 126.25$

## 1-352-622-7700



Aucan lywh

Access Panels - are perfect for those situations where access to the rear of connector panels is required. Captive thumbscrews require no tools and will not get lost.

|  | Middle Atlantic - Black <br> Powder Coat Aluminum |  | RaXXess - Hinged Vent <br> Black Baked Enamel |  |
| ---: | :---: | :---: | :---: | :---: |
| $31 / 2^{\prime \prime}$ (2 Space) | AP-2 | $\$ 33.50$ | SB1 | $\$ 12.00$ |
| $7^{\prime \prime}$ (4 Space) | AP-4 | $\$ 39.50$ | SB2 | $\$ 15.50$ |
| $101 / 2^{\prime \prime}$ (6 Space) | AP-6 | $\$ 48.00$ | SB3 | $\$ 19.00$ |



Middle Atlantic Rack Rails
is Tapped for 10-32 Threads (Suited for 191/8" Wide Opening)

|  | Black Powder Coat/Pair |  |
| :---: | :---: | :---: |
| $312^{\prime \prime}$ (2 Space) | RR2 | \$7.00 |
| $7{ }^{\text {" }}$ (4 Space) | RR4 | \$11.25 |
| 1012" (6 Space) | RRF6 | \$16.00 |
| 14 " (8 Space) | RRF8 | \$18.50 |
| 17172" (10 Space) | RRF10 | \$22.00 |
| $21^{\prime \prime}$ (12 Space) | RRF12 | \$26.50 |
| $241 / 2{ }^{\prime \prime}$ (14 Space) | RRF14 | \$29.00 |
| $28^{\prime \prime}$ (16 Space) | RRF16 | \$32.75 |
| 31 1/2" (18 Space) | RRF18 | \$35.75 |
| 363/4" (21 Space) | RRF21 | \$40.50 |
| 471/4" (27 Space) | RRF27 | \$49.75 |
| 783/4" (45 Space) | RRF45 | \$80.75 |

## Studio Furnishings • Storage Racks

Raxxess \& Middle Atlantic Hardware

Hardware 10-32 x .75"
Middle Atlantic RaXXess
Captive Washer Screw - Integrated washer head screw saves time on installs!

| Qty. 100 | HW100 | $\$ 26.25$ | CPSW100 | $\$ 23.95$ |
| :---: | :---: | :---: | :---: | :---: |
| Qty. 500 | HW500 <br> (with plastic jar) | $\$ 100.00$ | CPSW500 <br> (with fanny pack) | $\$ 79.95$ |

Phillips Truss Head - with Black Nylon Washers

| Qty. 25 | HPS | $\$ 5.75$ | PTSW25 | $\$ 5.95$ |
| ---: | :---: | :---: | :---: | :---: |
| Qty. 50 | - | - | PTSW50 | $\$ 9.95$ |
| Qty. 100 | HP | $\$ 19.75$ | PTSW100 | $\$ 19.95$ |

Security Screw - Star or Pin Torx Head with Black Nyion Washers

|  | Qty. 50 | HTX | $\$ 15.00$ | PNTX | $\$ 12.95$ |
| ---: | ---: | :---: | :---: | :---: | :---: |
|  | Bit | TBIT | $\$ 12.75$ | PNTX-Bit | $\$ 9.95$ |


| Qty. 100 | HS | $\$ 25.50$ | SDS | $\$ 25.95$ |
| ---: | :---: | :---: | :---: | :---: |
| Bit | SBIT | $\$ 3.25$ | SDB | $\$ 2.00$ |

## Rack Release Systems



Rack Release Systems developed a quick-release system designed to replace the phillips head screw normally used in most standard racks. To install Rack Release, follow these steps: 1. Identify (4) each double-threaded studs, nylon washers, and slotted caps. 2. With a coin or a flat-head screwdriver, screw the non-slotred end of the four studs into the rack. 3. Slide your equipment over the four studs. 4. Place a nylon washer over each stud end. 5. Screw a slotted cap over the slotted end of each stud and tighten by hand. If needed tighten with a coin or flat head screwdriver. Pretty neat!

10/32 $\qquad$ . Rack Release Pack

## Luxo Copy Holders

MH801 .... Made of durable plastic and special matte surface to reduce glare. Easy to use linefinder opens $90^{\circ}$. Load Capacity 1 lb . Lt. Gray MH801 $\qquad$ . $\$ 100.00$ MH805 .... Same as above with a load capacity of 4 lbs .


MH805 $\qquad$ . $\$ 120.00$
MH806 .... Same as MH805 with easal expanding to $12^{n} \times 16^{n}$.
MH806 $\qquad$ . $\$ 145.00$

MH901 .... $12^{n} \times 16^{n}$ Data Size Desktop Copyholder Load Capacity of 4lbs. Lt. Gray


QuikLox Table Rack Stand Both Assemble RS-952 10-Space Table Top Rack Stand - H $25.2^{\prime \prime} \times$ W $21.6^{\prime \prime}$ • Leg depth $17.7^{\prime \prime}$ • Tube size $1.5 " \cdot$ Weight capacity $250 \mathrm{lb} \cdot$ Weight 12.2 lbs . RS-952 $\$ 99.95$

RS-957 10-Space Table Top Rack Stand • H $18.7^{\prime \prime}$ xW 21.2" • Leg depth 15.1" • Weight capacity $150 \mathrm{lb} \cdot$ Weight 6.6 lbs .

RS-957
$\$ 69.95$

Ac-cetera LUMIN-EZE


## Studio Furnishings



The NEW Arrakis Flex-Studio is a complete, modular furniture package that can be assembled in dozens of different ways to meet nearly any studio design. It can be assembled left or right handed, as well as in ALL of our standard configurations : 'Short L', 'Long L', and 'Unbalanced U'. All pedestal returns have front equipment racks and rear access doors. The table pedestals have BOTH inside and outside access doors. The tabletop equipment pod provides rack mount space for tabletop equipment. A 60 inch interview table is standard and designed to be placed on any $60+$ inch outer edge of the studio. The console table is 36 inches deep and 45 inches wide to accommodate most consoles. A 37 inch inside width, console spanning, copy stand completes the package. Modulux is the \#1 selling studio furniture system with nearly 2000 studios sold worldwide. As a standard Modulux product, the NEW Flex-Studio features solid oak trim, high pressure laminate table surfaces, complete laminate finish inside and out, ease of assembly, and delivery from STOCK !!! Standard colors are medium gray tabletops, light beige side panels, and red oak trim (custom configured Modulux furniture packages are also available)
MOD-FLEX- 1
$\$ 4,995.00$
Nigel B Furniture


Studio Technology's Custom Furniture


Middle Atlantic
 1-352-622-7700

## CircuitWerkes CP-2

Call Progress Decoder
The CircuitWerkes CP-2 is a call progress decoder for use with some PBX systems and a few telephone companies that do not provide the required DC signaling for your telephone autocouplers. Autocouplers need a drop or reversal of the voltage on a telephone line in order to sense that the call is over and hang up. The CP-2 listens to the phone line for dial tone or busy. An adjustable delay-before-disconnect, prevents the decoder from accidentally disconnecting a call. The CP-2 is also ideal for interfacing older 1A2 key systems to DID lines.
CP-2.
.. Call Progress Decoder ...
$\$ 167.00$
Comrex LXT/R Single Line Extender The Comrex LXT/R one line frequency extender system works with a standard dial telephone line or a cellular telephone to pass 250 Hz of addi-
 tional low frequencies. This results in more natural sounding audio, eliminating the "tinny" telephone sound. The LXT/R combines the function of an encoder and a decoder - the choice is made by pushing a single switch. (An LXT/R is required at both the sending and receiving ends of the phone line.)
LXT/R ............ Single Line Extender. $\$ 850.00$

Inovonics PBX Telephone Line Eliminator
The Inovonics " $P B X$ ", is a telephone line "eliminator". It allows up to seven modems, remote controls, alarms or any other dial-up devices at a remote transmitter site to share
 a single telco line. Incoming calls are routed using touch-tone commands, and outgoing calls are handled on a first-come basis.
PBX
$\$ 420.00$

## JK Audio Tap-1

Telephone Audio \& Power Inter face
The JK Audio Tap-1, telephone audio and power interface, separates voice into transmit and receive signals for recording or service simulation. It powers telephone with 48 VDC , and provides a 2 -wire to 4 -wire hybrid. Tap- 1 allows clean voice recordings with a "telephone bandwidth" sound without phone line noise. Hybrid null adjustment optimizes transmit and receive separation to $>50 \mathrm{~dB}$. Put two units back to back for TV or film studio recording.
TAP-1
$\$ 245.00$

## Telephone - Cellular

## Conex CJ-20 CellJack <br> Cellular Phone Interface

The Conex CJ-20 Celljack is a
compact cellphone adapter that allows easy remote broad-
 casts via your cellular phone. The CellJack provides a transformer isolated and balanced XLR input with switchable high/low gain for connection to either an external mixer or a standard broadcast dynamic microphone. The stereo headset jack allows monitoring of the cell-phone audio and, when an external radio is plugged into the tuner input jack, its audio is fed to one side of the headset. Includes the interconnect cable for the Motorola "bag-phone" C.
CJ-20 ...... CellJack Cellular Phone Interface . $\$ 245.00$

Conex CJ-30 CellJack II
Cellular Phone Mixer
 of telephone interface products. Like the original CellJack, the CellJack II is designed to interface to Motorola brand bag-type cell phones. The CellJack II incorporates a 3 input mixer with LED level indicator. Two of the inputs are either mic or line level and the third is an auxiliary line level input. Also featured on the Celljack II are two headphone jacks each with its own level control. Features include: plug-in integrated circuits • XLR jacks for microphone/line inputs • tuner input for off-air monitoring $\bullet$ tape/aux input $\bullet$ send and receive level controls • 2 headphone jacks • level indicating LED's • and interconnect cable included.
CJ-30 ...... Celllack2 Cellular Phone Mixer ...... $\$ 349.00$

## Conex FlipJack FJ-10

FlipJack Cellular Phone Mixer
The Conex FlipJack FJ-
10 is a cellular in-
terface for pocket
cell phones. The
FlipJack is designed
to interface to the Motorola brand StarTac cell phones or other cell phones with a 2.5 mm hands-free adapter jack. It has two XLR microphone inputs, one of which can be switched to accept a balanced line level input. It also has a headphone output with a separate level control. The headphone can monitor either the cell-phone audio or an off-air signal via an external tuner input. Also included is a belt clip for hands free operation. Features include: front panel LED level and low battery indicator $\bullet$ balanced line-level output • interconnect cable provided • transformer isolated $\mathrm{I} / \mathrm{Os}$ • operates from it's own 9 V alkaline battery • and an adapter is available for driving a dial-up telephone if cell connection is not available.
FJ-10 ...... FlipJack Cellular Phone Mixer ... $\$ 289.00$

## Hotlinks to Vendors © www.bgsfi.com www.broadcastdealer.com

## Telephone • Codecs



## AETA Scoop Reporter II

POTS \& ISDN Codec
The AETA Scoop Reporter II combines POTS, ISDN, and internal battery backup in a portable unit. Features include: supports G.711, G.722, ISO/ MPEG Layer II and J. 52 • compatible with the universal CELP algorithm • send and receive 20 kHz audio at 128 Kbs - send and receive 7.5 kHz audio with POTS • full duplex operation • fast 60MIPS DSP operation • 99 user programmable autodial presets • built-in 3 channel mixer • two microphones and one line level input • balanced XLR output for studio producer IFB and mix-minus feeds • local program return feed with balance adjust • internal NT1 adapter $\bullet$ operating voltages from 85 to 265 volts at 47 to $440 \mathrm{~Hz} \bullet$ internal battery operation ( 2 hours rypical, alkaline " $\mathrm{D}^{\prime}$ batteries) • Lexan $®$ front panel finish • and rugged padded carry case fits into overhead compartment.

## Comrex DX200 Audio Codec



The Comrex DX200 Music Line is designed to provide the lowest cost solution for high quality stereo audio on digital phone lines. The DX200 uses ISO/ MPEG Layer II coding to send up to 20 kHz stereo audio over digital transmission paths as low as 112 kbps . The DX200 is a "second generation" codec which implements the recent updates to the Layer II algorithm, including a choice of input sampling rates at 24,32 , and 48 kHz . The DX200 encoder may be userconfigured for a variery of output data rates and for stereo, joint stereo, dual mono or mono operation. It supports data transmission rates up to 384 kbps . The G. 722 algorithm is also included for low delay 7.5 or 15 kHz audio. Offering a wide variety of configurations, the DX200 is compatible with almost every mono or stereo codec on the market today.
DX200 ........... Audio Codec ................................................................ \$3,000.00
DX200RC ...... Remote Control Option .
$\$ 300.00$
Comrex DXP. 1 \& DXR. 1 Audio codecs
 Like the Nexus, the Comrex DXR. 1 and DXP. 1 codecs provide a full 15 kHz bidirectional feed on $112 / 128 \mathrm{kbps}$ circuits and use the G. 722 standard for 7.5 kHz at $56 / 64 \mathrm{kbps}$. Since they have very little processing delay, these codecs are the best choice for live programming such as talk, news and sports, where real-time cueback is essential. The DXR. 1 is a rackmount unit while the DXP. 1 is compact and portable. An external DSU/CSU or terminal adapter is needed to interface these codecs to your data circuit. DB25 cable included.
DXP. 1 ............. Portable Audio Codec, 4 lbs. \$1,500.00
DXR. 1 ............ Rackmount Audio Codec, 9lbs. .................................. \$1,500.00
V. 35 Cable ...... DB-25 to V. 35 Cable $\qquad$ ... $\$ 40.00$

## Comrex Nexus ISDN Codec



The Comrex Nexus has everything you need for sending great sounding audio over ISDN. Audio codec, terminal adapter and NTI are integrated into a rugged, 3 pound, easy-touse package. The Nexus provides low delay 15 kHz bidirectional audio on $112 /$ 128 kbps circuits such as BRI ISDN. It also provides standard G. 7227.5 kHz audio at transmission rates of $56 / 64 \mathrm{kbps}$. Audio input is mic or line and the output is a variable mix of codec return and local program. For complete digital communications, the Nexus supports ancillary data to provide a computer link between send and receive sites.
NEXUS .......... ISDN Codec with TA/NT1, portable, Glbs.
\$2,300.00
NEXUS .......... ISDN Codec with TA/NT1, rackmount, 11 lbs. .......... \$2,500.00

## Comrex HotLine pots codec

The Comrex HorLine has the audio clarity of a crowave link and the convenience of a simple telephone call. Just plug the HotLine into your client's phone jack, connect your mic/ headphone (or the output of a wireless receiver), press the quick dial memory button for the studio (it even has last number redial memory) and you're on the air. Comrex's adaptive audio compression algorithm is designed to work with the
 lower speed connections associated with POTS lines. At 12 kbps
(worst case) it will deliver $20 \mathrm{~Hz}-4.5 \mathrm{kHz}$ response--better than a single line frequency extender. At 33.6 kbps (best case) it delivers $20 \mathrm{~Hz}-10 \mathrm{kHz}$ response-_microwave over the phone!!! It also offers an extra input and output for house feeds.
HorLine $\qquad$ . Portable, 6lbs. $\$ 2,800.00$
HotLine $\qquad$ Rackmount, 11 lbs. $\$ 3,000.00$


## Comrex Envoy ISDN codec



The Comrex Envoy combines a codec, terminal adapter, NT 1 and full-featured mixer into one compact unit for high quality remote broadcasts on ISDN. Using the G. 722 algorithm, the Envoy delivers 7.5 kHz full duplex mono audio on ISDN with a minimal 6 millisecond delay. Applications include interactive remotes, interviews, talk shows, and sporting events. The Envoy also delivers 15 kHz two-way mono audio, with the Turbo G. 722 algorichm, for applications requiring full fidelity while still maintaining the low 6 millisecond delay. Mixing and monitoring facilities consist of 4 mic level inputs ( 2 are switchable to line level), 3 headphone outpurs and 1 line level output. The Envoy is the simplest, most flexible way to send program on ISDN.
Envoy $\qquad$ ISDN Studio, 8 lbs .
\$3,500.00


The Comrex Vector POTS Codec delivers 15 kHz full duplex audio on a single plain telephone line. Now, you can send music with full fidelity from just about anywhere at any time! The Vector has mixing capabilities built right in: 3 mic leve! inputs on XLR ( 3 rd is switchable to line) with an additional mic/line input on XLR for the main program or cueing and 3 headphone outputs on $1 / 4^{\prime \prime}$ phone jacks plus an additional line level output to feed a PA or a recorder. The Vector is compatible with the HotLine POTS codec and it can even act as a plain telephone if a phone line cannot sustain modem transmission.
Vector
Portable, 8 lbs .
\$4,500.00
Vector $\qquad$ Rackmount, 11 lbs. $\qquad$ $\$ 4,500.00$

# Broadcasters General Store Hotlinks to Vendors © <br> www.bgsfl.com www.broadcastdealer.com 

## Telephone • Codecs



Marti SMARTI is a result of years of asking broadcasters what they needed in a telephone remote. SMARTI is capable of sending and receiving broadcast quality audio over a standard POTS telephone line. Utilizing the latest MPEG compression algorithms coupled with modern DSP technology, the SMARTI offers Broadcast Audio Quality with phone line convenience. Features include: field portable or rackmountable - adjusts bandwidth/modem "baud rate" to maximize constantly changing phone lines • handles complex audio, nptimized for voice and music • supports up to 33.6 kbps depending upon the phone lines • automatic redial if disconnected • 10 telephone number storage wish more than enough characters including commas for long distance and credit card calls via a standard telephone keypad - full duplex data connections in addition to the audio feed for attaching two computers via the DB-9 port • event timer via LCD display, can be operated in the count up or down mode - 2 relay contact closure switches for remote control at either end of the link - front panel, $600 \Omega$ monitor outpur via standard $1 / 4^{\prime \prime}$ plug • return and program audio line level adjustments ${ }^{\circ}$ internal switching power supply operates from 100 to 240 volts ( 50 or 60 Hz ) without switches or jumpers to ser ${ }^{\bullet}$ easy to replace ${ }^{\mathbf{r}} 33.6 \mathrm{Kbps}$ computer plug-in style, internal modem (available from factory only) - software upgrades done automatically via modem connection to Marti *and carrying case included with both models.
SMARTI......... RKS-411
$\$ 2,875.00$
SMARTI LITE RKS-111, 1 Miclline, 1 headphone jack Version \$2,575.00

## MUSICAM RoadRunner




RoadRunner, an economical, compact portable ISDN codec/mixer that lets you send and receive the highest quality monaural audio over a single ISDN phone line. Designed for voice-overs, news, sports and other applications where high-fidelity, broadcast quality audio is required, the RoadRunner delivers 20 Hz to 20 kHz audio with greater than 84 dB SNR when 2 ISDN ' $B$ ' channels are used. 15 kHz can be achieved when only a single ' $B$ ' channed is used. This lightweight, portable codec features a three-channel audio mixer with two dedicated microphone inputs and a third input switchable between mic and line levels. Two independent headphone circuits are included, with individually adjustable send and receive levels. Balanced return audio as well as unhalanced local and return outputs are provided for direct connections to your audio equipment. The RoadRunner comes standard with an internal ISDN terminal adapter and integrated NT-1 where required. It offers G.722, fully compatible MUSCIAM ${ }^{\circledR}$ enhanced MPEG Layer 2 and Layer 3 algorithms, 24, 32 and 48 kHz sampling frequencies, with connect rates from 56 to 128 kbps .

RoadRunner
. Portable ISDN Codec/Mixer.
$\$ 2,500.00$

## 1-352-622-7700

## MUSICAM FieldFone II



Provides broadcast quality audio over a single analog phone line. FieldFone II features a state-of-the-art 33.6 kbps modem, a three input audio mixer, and an enhanced MPEG Layer 3 algorithm to provide performance not previously available in POTS audio codecs. 20 Hz to 10 kHz bandwidth with greater than 83 dB SNR is achieved when connecting at 33.6 kbps . FieldFone II is fully bidirectional, and Two mic and 1 mic/line inputs, balanced and unbalanced outputs and rwo headphone monitor systems with separate send and return level controls are built in. A unique Sound-Shaper ${ }^{\text {TTM }}$ lets you "fine tune" the encoding algorithm to the audio source, maximizing fideliry while minimizing coding artifacts. 256 -entry speed dialing directory, lass number redial, and telephone handset input are included.
Fieldfonell
. Porrable POTS Audio Codec
\$3,350.00

## MUSICAM StudioFone



FieldFone II, adding an internal monitor speaker and an IFB (interruptible fold back) circuit. 33.6 kbps modem, enhanced MPEG Layer 3 and superior audio specifications yield up to 10 kHz audio with greater than 83 dB SNR. Fully bidirectional digital audio over one analog phone line with separate send and return monitor level controls are featured. StudioFone provides a built-in talkback feature allowing the return audio to the remote site to be interrupted when the panel mounted IFB button is pressed. Two mixing inputs, switchable for mic and line levels, and balanced line level outputs are available. Front-panel monitor speaker and headphone jack let you monitor both send and return audio, fed through two separate level controls.

StudioFone $\qquad$ POTS Audio Codec
$\$ 3,550.00$

## MUSICAM Prime LT \& Prima LT+

## Telephone • Codecs



V35, X 21 , 35, X. 21 or RS22A interfaces. dependent audio channels to two or more locations, or send the same monaural or stereo program to as many as six locations simultaneously.

110 ........ I U, character LCD, basic keypad, accepts 1 interface module ...... \$3,250.00
210 ........ 2U, character LCD, basic keypad, accepts 3 interface modules, AES/EBU (XLR) digital I/O and dual RS232 ancillary data channels .
$\$ 3,750.00$
120 ........ 1 U, character LCD, accepts 1 Interface Module, AES/EBU (DB-9) digital I/O, encode \& decode VU, correlation and stereo image meters, intelligent headphone output, enhanced keypad includes headphone control, direct menu access and cue keypad, cue \& status LEDs and front panel RS232 remote control.
\$4,200.00
220 ........ 2 U , character LCD, accepts 3 interface modules, AES/EBU (XLR) digital I/O, encode \& decode VU, correlation and stereo image meters, intelligent headphone output, enhanced keypad includes headphone control, direct menu access and cue keypad, cue \& status LEDs, front panel RS232 remote control and dual RS232 ancillary data channels
$\$ 4,700.00$
230 ....... 2U, large, graphics LCD display with encoder and decoder real-time spectrum analysis and phase displays, accepts 3 Interface Modules, AES/EBU (XIR) digital I/O, encode \& decode VU, correlation and stereo image meters, intelligent headphone output, extended feature keypad adds direct display function keys and eight user programmable 'hot' keys, extended front panel starus LEDs, front panel RS232 remote control and dual RS232 ancillary data channels
$. \$ 5,700.00$


## www.bgsfl.com www.broadcastdealer.com

Telos Zephyr ismn codec


Telos Zephyr() is specifically designed for use with one ISDN circuir and other low bit-rate transmission paths. Zephyr can transmit two-way, 20 kHz stereo audio plus ancillary data using a single ISDN circuit, or 15 kHz mono audio using one of an ISDN line's two channels. The ISDN terminal adapter is built-in and is compatible with US and Euro-ISDN systems. Everything required for the ISDN connection is included, and the connection to the elephone network is via a single modular cable. Features include: full metering • call duration timer • headphone jack • fifty userprogrammed auto-dial sets • bi-directional, RS-232 serial data at 9600 bps for communications and control are transmitted simultaneously with the audio $\bullet$ four end-to-end parallel "contact closures" can be used to control recorders and other devices - selectable input audio limiter prevents your audio from distorting when your talent screams - logic output serves as an in-use indicator when an ISDN line is connected and as an alarm when the ISDN connection is terminated - and an optional AES/EBU digital I/O interface module provides maximum flexibility for connection with digital studio equipment. Sample rate conversion is available on both input and output paths. $2 \mathrm{U} \& 17 \mathrm{lbs}$.

> 9100* ..... 3 DSP (Mono Xmir, Stereo Rcv) with ISDN TA and X. $21 / \mathrm{V} .35$ interface $\$ 3,580.00$

## Telos Zephyr-Express ISDN Codec



The Telos Zephyr-Express portable ISDN audio transceiver combines a full-fearured codec, an ISDN terminal adapter, and an audio mixing/monitoring system....... all in a road-rugged chassis. The three input mixer has two monaural microphone level inputs and a two-channel line level input. Two independent headphone outputs have selectable source controls for monitoring local and/or return audio. ISDN operation is through a familiar keypad, a large LCD display and an edit control knob. Menu structure is simple and includes on-line help. Unique, selectable SAFE feature allows the Zephyr-Express to be locked into a single, preferred configuration. The user can manually dial, disconnect and change levels but is restricted from modifying the ISDN setup and number to be dialed. If the situation requires, the user can disable the SAFE feature from the back panel and access the full menu. Other features include: MPEG Audio Layers 3 and 2 , as well as G. 722 • and G. 711 allows you to place a voice-grade call to any standard telephone so you save the expense of an additional circuit at the remote site. Portable unit \& 13 lbs .

## Telephone • Couplers

 two dedicated each coupler card has its own individual $600 \Omega$ bi-directional audio connection. Cards can be removed or installed while powered without affecting the others. All controls and indicators are remoted. Indicators include ring, on-line, audio clipping and power.
AC-12 .............
Powered multi-bay autocoupler chassis with 2 AC -1 bs
$\$ 349.00$
AC-1b $\qquad$ Coupler cards for AC-12 $\$ 175.00$

## CircuitWerkes HC-3

The CircuitWerkes HC-3 is a simple hybrid that provides a separate, unbalanced, send and receive port. Its new, on board limit-
 ing provides loudness without clipping distortion. Normally open, dry relay contacts close either momentarily or larch at the beginning of a call, and answers on a programmable number of rings. A combination lock option for a secured coupler can be easily added.
HC-3............. Telephone Auto Coupler $\$ 249.00$
C-Lock2 ......... Combination lock $\$ 99.00$
Comrex TCB-1 \& TCB2


The Comrex TCB-1 manual coupler provides a switched-hold connection to a telephone line so that the telephone set may be hung up during program feeds. Use with any modular phone to send or receive live or taped material. Very convenient for field use and does not require batteries or external power. The TCB-2 automatically answers a telephone line on the first ring and disconnects that line when the calling party hangs up. Ideal for unattended situations such as "listen lines", IFB feeds, dial-up networks, remote transmitter sites and satellite links. The TCB-2 requires an external AC suddly.
TCB-1


Manual Coupler
........................ TCB-2 ............ Auto-Answer Coupler $\qquad$ Dial Tone Detect Board $\qquad$ $\$ 250.00$ Excalibur $\mathrm{HC}-1$


The Excalibur HC-1 connects berween the phone and handset. It will send and receive audio via $1 / 4^{\prime \prime}$ TRS jacks. There is a send level adjustment and a switch to select handset audio or external audio.

HC-I $\$ 99.00$


## Gentner Auto Coupler

The Gentner Auto Coupler can send or receive line level audio sources. It will automatically answer after one complete ring and disconnects when the caller hangs up. Use the Auto Coupler for information lines, IFB, or any use requiring automatic operation.

Auto Coupler CP
for telco lines without "loop drop" hang-up signal .
$\$ 379.00$

Rack Mount
holds four units
$\$ 54.00$


Gentner's Hybrid Coupler connects directly to the telephone line and is used to send or receive audio or other information. Its passive design allows you to "tap" the phone line, using the telephone and coupler simultaneously, or it can seize the line. Use it for news or producer feeds, or sending a church service broadcast.
Hybrid Coupler
$\$ 199.00$
Rack Mount ..... holds four units ....... \$\$9.00

## Gentner Microtel

Genterer's Microtel replaces the handset of the telephone, giving you hands-free phone operation and an easy way to send and receive other audio sources. Connections are provided for microphone, headset, and auxiliary inputs/ourputs such as a tape machine. Ideal for news reporters, sportscasters, ENG crews, or sales people.

Microtel.
\$272.00


## JK Audio Inline Patch

The JKAudio Inline Patch connects
berween your analog telephone and wall jack. Make recordings with separate control over your voice and the callers voice. Mix audio into your conversation, or use without a telephone as a simple hybrid. XLR I/O, $1 / 8^{n} \mathrm{I} / \mathrm{O}$.
Inline Patch .... Telephone Audio Interface
$\$ 270.00$


JK Audio QuickTap connects between your telephone and handset jack so that you can talk over your handset and record both sides of the conversation. You can also get presentation quality audio using a powered speaker or PA system. No batteries needed.

QuickTap
$\$ 59.00$

## JK Audio QuickTap IFB

Simply connect JK Audio QuickTap IFB between the handset and the base of your telephone. $1 / 8^{\prime \prime}$ jack will drive a high impedance earpiece at nominal levels. $600 \Omega$ male XLR provides a good mix of both sides of the call. No batteries or AC needed.
QuickTap IFB
$\$ 125.00$

## JK Audio THAT-1\& THAT-2



Connect JK Audio THAT-1 between your telephone and handset jack to record or play tapes down the telephone line. A handset/line in button enables you to either talk or play a recording down
the phone line without changing cables. It works with analog, digital, PBX, ISDN and single line telephones. You can also get presentation quality audio using a powered speaker or PA system. No batteries needed.

$\$ 225.00$


## Sound Advice.

1. 

Demand UNCOMPRESSED

16-bit linear audio in your alldigital air chain. Compression means compromise and we just won't hear of it.
2.

Select a digital STL that can be configured with UP TO TWO PAIRS of linear stereo audio. It's like getting two radios for the price of one.
3.

Exercise your FREEDOM OF CHOICE. Choose 32, 44.1 or 48 kHz audio sampling. It's your broad-cast-select the rate that works best for you.


Choose a digital STL that CAN ADAPT TO ANY RF ENVIRONMENT with user-defined 16, 32 or 64 QAM rates. (Flexibility is always a good thing.)

## 5.

Purchase a 950 MHz RF STL. The channel allocation is free, and the money you save over a T1 STL goes straight to your bottom line.

Moseley's Starlink SL9003Q is the only 4-channel digital studio transmitter link on the market with all these features. Not just an STL, a sound investment.

## Talk radio is suddenly intimate

hybrids from the company that invented them. Never have your callers sounded so consistently loud and crystal clear - it's the next best thing to having them there. Don't just talk to your audience... get intimate.

Telos Systems. Connected.

www.telos-systems.com

## Telephone • Hybrids

## Broadcast Tools MC-16

Telephone Hybrid/Coupler


Broadcast Tools MC-16 is a full featured telephone line coupler with hybrid which provides the following features: 32 programs; 32 ASCII strings (DTMF to ASCII); 64 macros; 16 relays; balanced inputs and output; auto answer (max 20 rings); 4digit access codes; programming done with non-dedicated computer; removable screw terminals; IU and a host of additional features.
MC-16 ................... Telephone Hybrid/Coupler
$\$ 499.00$

## Gentner Teleswitch

Telephone Call Director
Gentner's Teleswitch, is a simple telephone call director for up to five lines. You can place the call on hold or direct it to your hybrid. Features include: telephone set connection • input for audio on hold $\cdot$ conferencing mode and standard RJ-11E connections.


Teleswitch ... \$1,045.00
Interconnect cable .... specify Gentner hybrid $\$ 35.00$

## Gentner TS612 Version 2.5

 Multi-line System, 6 lines/12 lines The Gentner TS612 Version 2.5 mainframe contains two internal digital hybrids that provide high-quality interface to six telephone lines (expandable to 12). The dual hybrids allow the TS612 to operate as a single-studio telephone system able to conference up to four callers simultaneously or as a two-studio system able to conference two callers to each studio. The TS-612 supports a dedicated call-screening control surface. An off-air screener takes incoming calls and places them in a screened-hold queue. The on-air talent or producer presses the NEXT button on the main control surface and the call is immediately on-air. The integrated mix-minus provides superior audio quality and simple installation. Automatic gain control provides consistent audio levels on all calls. The TS-612 can be configured to operate as a single studio dual hybrid system, or as two independent studios with a single digital hybrid each. The system is expandable via the Network Interface to accommodate up to 9 studios and sharing 12 telephone lines.


Gentner SPH10 Analog Telephone Interface


The Gentner SPH 10 is an analog telephone interface that interconnects between a standard telephone line and your audio equipment. Features include: the newest analog technology ${ }^{\bullet}$ audio filtering and equalization $\bullet$ balanced $I / O \cdot$ balanced and unbalanced mix output for recording both sides of the conversation $\bullet$ built-in monitor amp • automatically accepts all worldwide voltages and is worldwide compliant!


SPH10
. Analog Telephone Interface
$\$ 499.00$

Gentner DH20 \& DH-22 Digital Telephone Hybrids
 The Gentner DH20 and DH-22 has 16-bit DSP digital technology to deliver better and more reliable sound quality. Features include: auto mixminus • built-in speaker amp • balanced $\mathrm{I} / \mathrm{O} \cdot$ mic or line input ${ }^{\circ}$ selectable AGC • selectable caller ducking • selectable auto answer/auto disconnect compatible with most telephone central offices including loop current interruption and busy/reorder - remote control and status • automatically accepts all worldwide voltages and is worldwide compliant. The DH-22 is two digital hybrids in one chassis. It included all the above feature as well as selectable cross conferencing.
DH-20
$\$ 995.00$
DH-22
. \$1,595.00

## Gentner DH3O Digital Hybrid



The Gentner DH30 24-bit DSP digital technology can interface with the latest digital consoles, as well as analog consoles. Features include: remoteable presets password protected • AES/EBU digital or analog audio I/O • record and cue functions $\bullet$ selectable auto mix-minus • selectable acoustic echo cancellation • selectable auto answer • selectable auto disconnect with loop drop and/or call progress detection • integrated monitor amp with front-panel volume control • remote control via rear-panel connection • adjustable caller control (ducking) • adjustable 3-band EQ - adjustable compressor and expander - bass boost • microphone send and cue preamps • automatically accepts all worldwide voltages • three selectable presers for customized audio • and worldwide compliant including FCC, CSA and CE.

DH30.
\$1,795.00

> Hotlinks to Vendors © www.bgsfi.com www.broadcastdealer.com

## Telephone • Hybrids

## JK Audio innkeeper 1 Digital Hybrid



The JK Audio innkeeper 1 Digital Hybrid uses a $16-$ bit DSP to continuously monitor the phone line for maximum transmit/receive separation. XLR in and out, headphone and speaker output. Remote keypad available. Universal AC input. Deskrop enclosure.

innkeeper 1 .............. Digital Hybrid ..................................................... $\$ 750.00$
innkeeper 1r ............ Digital Hybrid, rack mount version $\$ 825.00$

## JK Audio Guest Module Remote Keypad



## Radio Systems TI-101 Analog Hybrid

The Radio Systems TI-101 provides easy two-way connection between your console and phone line with back panel gain switches. Its features include: equalization, send limiting, receive compression/expansion, caller mute, LED clipping indicators, conference linking, and bandpass filtering.
Tl-101.
$\$ 495.00$

## Radio Systems DI-2000 \& DI-1000

Digital Phone Hybrids
The Radio Systems DI-2000 is 000000 sum 000000 retu the only hybrid with built-in circuitry to answer and audition callers, put them on hold, on-air, or in conference mode without any external gear or wiring needed. Line nulling, two line conferencing, full audio switching, call routing, and console remote control is all automatic and ready to use. Just plug-in your phone line, connect your console, and put your
 callers on the air!
DI-2000
. Dual Line Digital Phone Interface
\$1,495.00
DI-1000
Single Line Digital Phone Interface
$\$ 995.00$


The Telos 100 Delta digital hybrid uses advanced digital signal processing to produce the most natural sounding two-way conversation even on the most difficult telephone lines. In addition to superior trans-hybrid loss (typically exceeds 50 dB ) for full-duplex audio, the 100 Delta achieves consistent output level and improved tonal quality from the telephone line. Smart digital gain control and digital dynamic equalization offer the highest level of caller intelligibility. Other features include: two duplex-depth settings that can be established and remotely selected digital logarithmic (dB linear) automatic gain control - Digital Echo Elimination, Telos' proprietary two-stage feedback suppression system • high and low pass filtering to clean up phone line noise and hum. This hybrid can operate alone or be bundled into multi-line talk show systems with a Direct Interface Module or 1A2 Interface Module and Switch Console. $1 \mathrm{U} \& 11 \mathrm{lbs}$.

100 Detta ................. Digital Hybrid
$\$ 1,780.00$
Telos
Switch Console,
Direct Interface Module \& 1A2 Interface Module


Telos offers a variety of complete systems for talk and call-in shows. Systems configuration starts with the telephone hybrids. If only one caller is to be placed on-air, a single Telos digital hybrid telephone interface may be used. Two hybrids are strongly recommended when two callers are to be conferenced to provide adequate caller-tocaller gain. The Direct Interface and 1A2 Interface Modules are used to connect to telephone lines and provide system management. The Direct Interface Module allows connection of up to ten phone lines, without any intermediary equipment, and provides music-on-hold input and connection for screener phones. The 1A2 Interface Module is used with key systems and allows system expansion to 20 or 30 lines by adding second and third units. The desktop Switch Console is used for system control and line selection. Plugs are provided for two Switch Consoles. Optional power supplies permit the connection of additional controllers. The controller panels available for the consoles of several broadcast equipment manufacturers are alternatives to the Switch Console.
DIM .
Direct Interface Module, 2U \& 17 lbs .
\$2,100.00
$\qquad$ 1A2 Interface Module, IU \& 14 lbs . \$1,200.00
SC .......................... Switch Console, 6lbs. ..... $\$ 590.00$
MS ......... Mitel Superset IV, a full-featured electronic phonefor screening calls with the DIM, 4 lbs .$\$ 380.00$
LPS ......... Local Power Supply, for use with SC when cable is in excess of 75 feet, or when more than 2 SC are needed, or when console-mounted control panel is used. ..... $\$ 210.00$
AP .......... Assistant Producer, Call Screening Software ..... $\$ 520.00$
$50^{\prime}$.......... Modular Shielded Cable, 50 foot ..... $\$ 30.00$
$75^{\prime}$.......... Modular Shielded Cable, 75 foor ..... $\$ 40.00$


The Telos ONE produces superb digital telephone hybrid performance for broadcast, teleconferencing and communications applications. All hybrid functions, gain control and filtering is performed completely in the digital domain. Features include: advanced digital auto-nulling • trans-hybrid loss is typically greater than $40 \mathrm{~dB} \cdot$ input gain processor with smart, floating freeze-gain gate $\bullet$ output gain processor that provides level control and smart downward expansion • selectable override function to reduce the caller level by approximately 8 dB when input audio is present, allowing the talent's voice to have more presence when speaking at the same time as the caller ${ }^{\circ}$ Digi- tal Echo Elimination, allowing significant gain-before-feedback when used with open monitor speakers • high and lowpass filtering to clean up phone line noise and hum. The Telos ONE comes in three versions: a single hybrid, available in either a compact modem case or standard rack mount chassis (can operate with Basic or Super Auto Answer Boards); and the ONE plus ONE, a dual hybrid with a built-in mix-minus matrix.

|  | Digital Hybrid, Modem Case, 8lbs. ............................ \$680.00 |
| :---: | :---: |
| ONER | Digial Hybrid, Rack Mount Version, 1U \& 10lbs. ......... \$880.00 |
| ONE | Dual Digital Hybrid, IU \& 15lbs. ........................... \$1,980.00 |
| Basic | Basic Auto Answer Board, enables hybrid to automatically answer incoming call and hang up on loop current drop or reversal (calling party control). CPC not available in all countries or private PBX s, in those cases use Super Auto Answer Bd. $\$ 60.00$ |
| Sup | Super Auto Answer Board, same as the basic but adds sophisticated capabilities such as remote control capability for connect, drop and auto-answer function and open collector outputs from integral DTMF decoder. $\qquad$ $\$ 175.00$ |
|  | Single Rack Mount Panel for ONE .............................. $\$ 80.00$ |
|  |  |

DRM .............. Dual Rack Mount Panel for two ONEs
Telos ONE-x-Six Talk Show System


The Telos ONE-x-Six works identical to the all-digital performance and features of the Telos ONE and has all of the telephone interface and control equipment needed for talk show programming. A single rack mount unit houses both a Telos ONE digital hybrid and a six-line broadcast phone system. For system control, the ONE-x-Six requires at least one desktop Switch Console and supports a maximum of two Switch Consoles or console-mounted control surfaces. Features include: six-line call selector $\bullet$ program-on-hold $\bullet$ caller screening and conferencing - and full implementation of Switch Console special functions.

ONE-x-Six ..... ONE-x-Six Talk Show System, $1 U \& 10 \mathrm{lbs}$
\$1,430.00
SC .................. Switch Console, Glbs.
$\$ 590.00$

## Telos TWO

Digital Hybrid Two-line ISDN


The Telos TWO exploits the ability of telephone networks, which are encirely digital, to crossconnect analog (POTS) lines with ISDN. By maintaining an all-digital path from the studio to the Telco's central office, the studio end benefits from the virtual four-wire configuration of ISDN. The Telos TWO ISDN Hybrid contains twin independent hybrids, one for each ISDN B channel. Built-in conferencing capability between the two channels is provided. Performance is superior to the all-analog equivalent because only the far-end analog caller lines need conditioning. That means more gain without feedback for clean, loud caller and send-to-caller audio. Features include: built-in ISDNTA, with S and U interfaces ${ }^{\bullet}$ balanced XLR analog and $\mathrm{AES} / \mathrm{EBU} \mathrm{I} / \mathrm{O} \bullet$ two mic/line inputs with phantom power ${ }^{\bullet}$ dynamic EQ with caller AGC • adjustable caller ducking $\bullet$ graphical LCD $\bullet$ and supports caller ID.

TWO $\qquad$ Digital Hybrid, Two-line ISDN, 2U
$\$ 2,980.00$
Telos TWOx12 Talk Show System
 The Telos TWOX12 talk show system allows you to manage up to twelve callers with full high-quality conferencing capabilities. Call traffic can be controlled with up to four intelligent Desktop Directors that use icon-based call management. In addition, the TWOx12 supports the popular Telos Assistant Producer call screening soffware. Features include: intelligent call controller with built-in handset, speakerphone and headset jack • analog and AES/EBU I/O • Ethernet and RS-232 ports. POTS version is field-upgradeable to ISDN. Base system requires one Desktop Director, supports a maximum of four with additional power supply.
TWOx12 ISDN $\qquad$ Digital Talk Show System $\$ 4,980.00$

TWOx12 POTS ............... Digital Talk Show System ......................... \$4,180.00
DD Desktop Director \$1,180.00
0212-1100 ...... Telco ISDN Card for Two-x-12, Dual U card permits connection of two (one ISDN BRI line $=$ two B channels or 2 dial tones) ISDN BRI lines. Two-x-12 accepts up to three of these cards for a full complement of twelve dial tones.
0212-1300 ...... Telco POTS Card for Two-x-12, Three-line POTS card permits connection of three POTS lines (one dial tone per line). Two-x-12 accepts up to four of these cards for a full complement of twelve dial tones.
0212-1400 ...... Desktop Director Power Supply --- Needed when third and fourth Desktop Director is added to TWOx12. One power supply is required for each Desktop Director in excess of two, or when a Desktop Director cable is in excess of 250 feet. $\$ 520.00$


Zephyr Remote Software
The Zephyr Remote (ZR) was developed to control the Telos Zephyr Audio Transceiver. Zephyr Remore allows control from any PC, via Comm Port, LAN or Internet. Some features include: on-screen unlimited autodials • continuous real-time status updates • control of multiple Zephyrs • manipulation of all Zephyr functions • continuously updated ISDN and sync status • displays call time, warns if call is lengthy and protects against leaving Zephyr connected unintentionally $\bullet$ warm Reboot of Zephyr • and Windows $95,98 \&$ NT. ZR makes it easy for a facility to share Zephyrs. It automatically routes control and blocks access while others are using the Zephyr. Radio and TV stations will find this software useful when doing remotes. The engineer can control Zephyr functions while in the control room.
Zephyr Remote Software .......... Single Version \$99.00/ Network Version \$399.00

## Test Equipment

## Audernat FM-MC3.2




The Audemat FM-MC3.2 is a dynamic FM field-strength meter, base-band analyzer, high quality FM receiver, FM demodulator, RDS decoder and DARC receiver and decoder, and GPS satellite receiver. It includes a 12 Vdc for in car use and a univeral $A C$ main power supply, with MS Windows based software. Available in AM, FM configurations, the FMMC3.2 allows users to monitor and analyze multiple signals and to display and record the results for analysis of the marker and the competition. Every aspect of the broadcast signal can be measured, monitored and analyzed to allow the broadcaster to optimize his signal. Ease of operation and user-friendly ergonomics has made the FM-MC3.2 the recognized standard of broadcast nerworks and regulation authorities around the world. The FM-MC3.2 can also be delivered or upgraded with "Goldenear", a new software program that qualifies broadcast reception quality.

FM-MC3.2
$\$ 24,043.00$
Auclemat. Goldenear Anuysus of Signar Qunfty Software Goldenear is a new software program that qualifies broadcast reception quality and allows broadcasters the ability to measure and record many parameters of a station to allow for a complete analysis of signal quality. Parameters include the composite signal, pilot, RF, RDS, left channel, right channel, L+R, L-R, among others. Godenear also creates a quality index and allows objective comparisons between competing signals. Even multipath can be analyzed. Data recorded can be manipulated in many ways; GPS results which display as color values can be turned into numerical values and sorted as required. Visualization filters allow you to filter out anything over or below specific criteria; for example anything below 50 dB (ciry grade signal) or anything over $61-1 \mathrm{~dB}$ representation. Because the audio and data has been recorded, it can be taken back to the studio and analyzed. Broadcasters can evaluate how each of these components effects the audio by not only listening to the audio, but by watching the playback.
Goldenear ........ Analysis of Signal Quality Software .......................... $\$ 28,304.00$
Option......... Goldenear as option for those who own an FM-MC3.2 ... $\$ 6,385.00$

## Audio Control Industrial SA-3051

1/3 Ootione Spectrum Ams) 2 :
The Audio Control Industrial SA-3051 is an affordable, measurement-grade, onethird octave real-time analyzer with 6 memories, ANSI Closs II, XLR, 1/4" and RCA inputs, SPI, pink noise and freeze frame and $\mathrm{CM}-10$ microphone. Other fearures include. digital SPL display, peak hold,
 memory averaging, and microprocessor avergged slow speed. The SA-3052 includes the SA3051 features plus internal rechargeable battery, parallel printer interface and carrying case.
SA-3051 ......... 1/3 Octave Spectrum Analyzer, 110 Vac ......................... $\$ 995.00$ SA-3052 ........... 1/3 Octave Spectum Analyzer, 110Vac \& Battery Operation ...... \$1,359.00
ATI NG-1 Audibe Noise Generatol
The ATI Audible Noise Generator NG-1 has selectable and adjustable pink or white noise, pulsed or continuous with builtin speaker and an output jack for an external amplifier and speaker. It's battery operated for portable use and includes a wall mount AC power supply for continuous operation.


[^5]
## Avcont PSA.35A Portahle Spectrum Anaiyzer



1750 MHz , and from 3.7 to 4.2 GHz . Please specify voltage.
PSA-35A.
$\$ 1,965.00$

## Avcom PSA-37D Portabie Spectrom Analyer

The Avcom PSA-37D portable spectrum analyzer is Avcom's answer to your downlink installation, service, and maintenance problems. Frequency coverage is from 10 to over 1750 MHz and from 3.7 to
 4.2 GHz , in 5 bands. Frequency readout is shown in MHz on a four digit LCD front panel display. The digital readout allows you to identify and resolve terrestrial interference problems quickly and precisely by displaying the frequency of offending signals. The PSA-37D has a built-in DC block with +18 VDC for powering LNA's and BDC's, accurate signal strength amplitude display and internal battery with charger. Selectable vertical sensitivity of either 2 dB or $10 \mathrm{~dB} /$ Div. is standard.

PSA-37D
$\$ 2,475.00$

## Avcom PSA-65A \& B Porrabie Mlcrowave Spectrum Arranger



Avcom's PSA-65A Portable Microwave spectrum analyzer covers a frequency range from less than 2 MHz to 1000 MHz . This light weight, battery or line operated Spectrum Analyzer is the perfect instrument for field testing of RF systems, classroom instruction, satellite system alignment, electronic counter measures, cable TV maintenance, cellular, and production use. Options include a 10 kHz resolution bandwidth filter for the $2 \mathrm{MHz} /$ Div. span that extends lower frequency range to approximately 200 kHz , an FM demodulator for aural monitoring, and several high performance precision-machined log periodic antennas.

-10 kHz resolution bandwidth option$\$ 275.00$
FADO . F$\$ 565.00$

Bird Wattmeter \& Wattcher See Page 152!
Coaxial Dynamics watmetersien Poge 16;
Conex RX-11 Tont Juich Ausio Generator
The Conex RX-11 Tone Jack is a compact audio frequency generator providing sine and square-wave signals with precise frequencies from 1 Hz to $29,999 \mathrm{~Hz}$. It is useful in testing the frequency response of systems, filters, tone sensors, etc. It is powered by a 9 V battery or external power and has an RS232 interface that allows a computer or terminal to control all the normal front panel functions.

(PLL controlled) and MANUAL tune control for che entire band. There are switch selectors for the tuning method used, the audio selection, meter function and attenuator controls.

AF272 $\qquad$ Portable FM/SCA Receiver and Field Strength Meter .. \$479.95

Delta Electronics SNG-1
 the requirements of NRSC-I and 2 standards for testing AM stereo and mono radio transmission facilities.
$\qquad$
$\qquad$
dbx Alan Parsons Sound Check Test CD
The dbx Alan Parsons Sound Check Test CD features 99 tracks of test signals, alignment tones, and instument and vocal tracks to ring and test any environment.
APSCD $\qquad$ Alan Parsons Sound Check CD . $\qquad$ $\$ 29.95$

DOD RTA series If Real Tine Analyeur


DOD RTA series II Real Time Analyzer has each of the 31 bands displayed in a vertical row of 5 LED's. It is switchable between 1 dB steps in a 4 dB window or 3 dB steps in a 12 dB window, with a built in pink noise generator.
RTA. $\qquad$ Includes mic with $40^{\circ}$ of cable, 1 U $\qquad$

Test Equipment
Dorrough 1200 sterm Audio Siphal Test Set
The Dorrough 1200 is a simple and easy to operate stereo audio signal test set. It allows measurements of level, balance, crosstalk, and signal-to-noise with a dynamic range of 90 to +20 dB and a measurement range of -76 to +20 dB . The solution to balanced stereo lines.
1200 $\qquad$ Stereo audio signal test set $\qquad$ $\$ 1,650.00$

SWizz Army ${ }^{5}$ in in 1 coblule Tester
Swizz Army 6 in 1 Cable Tester for XLR, $1 /$ 4 "TRS, RCA, MIDI, TT, $1 / 8$ stereo. Continuity check tells you good/had and what pins are shorted. It's intermitrent detect $\&$ display allows you to shake/wiggle your cable without fear of missing the intermittent short. It stores your intermittent information until you reset it. In test tone mode it generates a switchable $440 \mathrm{~Hz} / 1 \mathrm{kHz}$ tone at mic level, -10 dBV , and +4 dBu . The phantom power detect not only tells you if there is phantom power, but which pin it is on. The grounded shield detect allows you to be sure your connections are right. The installed cable test allows you the check cables that are already installed in walls. Includes a steel belt clip.
Swizz Army $\qquad$ 6 in 1 Cable Tester $\qquad$ $\$ 149.95$Fostex TR-1
5-fiequetry Sine Wive oscllutai
Fostex TT-15 is a 9 V battery operated, 5 -frequency sine wave oscillator $(40 \mathrm{~Hz}, 400 \mathrm{~Hz}, 1,10$ and 15 kHz$)$ with 3 selectable output levels $(-30,-10$ and 0 dB$)$, is useful for spot checking frequency response, calibrating mixers with tape recorders and other level matching jobs.
TT-15
. $\$ 60.00$

Galaxy Audio Cricket Polarity Test Set
Galaxy Audio makes a test instrument for the audio installer or soundman which indicates absolute polarity of most audio devices or may be used as a cable tester. The send unit has balanced $1 / 4^{\prime \prime}$ and XLR jacks, an unbalanced $1 / 4^{\prime \prime}$ speaker out jack
 and an internal speaker. The receive unit has $1 / 4^{\prime \prime}$ and XLR jacks, a sensitivity control and an internal microphone. Both units are housed in high impact padded ABS cases and are powered by a 9 volt battery.

## Test Equipment

## Gold Line 30M8 30 band RTA with 8 Memories <br> The Gold Line 30 M 8 is a $1 / 3$ Octave battery operated Audio Spectrum Analyzer complete with remote microphone and 8 memories which are active until the unit is turned off. It is also an accurate sound level meter and will read sound pressure levels in either A or C weighting. A calibrated instrument mi- <br> 

 crophone is provided which can be attached directly to the 30 M 8 via the XLR mic input or it can be remoted via mic cable.30M8 $\qquad$ 30 band RTA with 8 memories $\$ 749.95$

## Gold Line DSP-30

Digital 1/3 Octave Real Time Spectrum Analyzer
The Gold Line DSP- 30 features an 85 dB sound window with scroll up/down that is large enough to capture the dynamic response of a room and is capable of detailed measurements with great accuracy. The $1 / 4 \mathrm{~dB}$ precision measurement range permits the engineer to utilize standard industry test tapes and view all frequencies simultaneously for faster tape head monitoring or service.


DSP-30 .......... Digital 1/3 Octave real time spectrum analyzer...
\$1,625.00
DSP-30RM .... Rack Mount DSP-30/pink noise
$\$ 1,900.00$

## Gold Line LM27P5

1/3 Octave Real Time Analyzer w/Pink Noise Generator
The Gold Line LM27P5 is a one third octave Real Time Analyzer, complete with instrument microphone and built-in pink noise generator. 1 U
LM27PS $\qquad$ $\$ 630.00$


## Goldline PN-2 \& PN-3A Pink Noise Generators



Goldline's Pink Noise Generators supply a flat noise source as a test signal for sound systems. The PN-2 is powered by a 9 V battery which is turned on by the insertion of a $1 / 4^{\prime \prime}$ connector to the pink noise output and is housed in an ABS plastic case. The PN-3A is a gated pink noise source which provides continuous pink noise or bursts which are excellent for RT60 measurements plus short pulses suitable for Loudspeaker Timing Analysis. Complete with timer controls for "time on and off." Powered by a 9 V battery. The output is accessed via a $1 / 4^{\prime \prime}$ unbalanced plug.
PN-2
$\$ 123.75$
PN-3A $\$ 167.00$


## Gold Line SPL 120 <br> Sound Pressure Level Measurements

The Gold Line SPL 120 is a portable instrument designed to fill the need for accurate sound pressure level measurements, all at an affordable price. It fearures: seven segment digital numeric display with SPL readings in dB , a built-in instrument microphone, and is battery or AC powered.

SPL120
$\$ 269.95$

## Goldline TS-1 Three Audio Test Instruments in One

Goldline TS-1 is three audio test instruments in one unit. It includes: a low distortion audio oscillator with a range of 10 Hz to 30 kHz ; a frequency counter with response of 1 Hz to 99.99 kHz ; and a dB meter with range of -50 to 24 dB from 20 Hz to 20 kHz .
 The TS-2 is a TS-1 that will determine impedances in the audio frequency range ( 20 Hz to 27 kHz ) from $1 \Omega$ to $1000 \Omega$. Versions are available from $1 \Omega$ to $10 \mathrm{~K} \Omega$.

TS-1 .. Balanced in . $\$ 429.95$
TS-1-BP ......... Wired for battery (battery included) ............................... \$625.00
TS-1-RMX ..... Balanced in \& out via XLR both front \& rear w/RM ..... $\$ 579.00$
TS-2 ............... TS-1 with impedance function ...................................... \$589.00
TS-2-BP ......... Wired for battery (battery included) .............................. \$750.00

## Graham Patten DTG-1 Tone Generator



The Graham Patten DTG-1 tone generator is an economical source of a variety of audio test signals that are generated entirely in the digital domain and output in the AES/EBU format. Use it in the studio as a reference tone generator or on the bench as a troubleshooting tool. Rugged, compact, and capable of running off battery power, the DTG1 is also ideal for portable application. The DTG-1 has internal oscillator both 44.1 and 48 kHz sample rates, or it may be locked to an
 external reference.

DTG-1 $\qquad$ Tone Generator
$\$ 749.00$

## GTC Industries, Inc. Tone Plug

No larger than a standard microphone connector, the TONE PLUG is a unique audio test instrument capable of generating 11 distinct test functions for the rapid trouble-
 shooting, analysis and calibration of audio systems and components. It can also be used for generating slate tones for audio and video recordings. The TONE PLUG offers five user selectable sine wave test tones at frequencies of $100,250,400,1 \mathrm{~K}$ and 10 KHz . An additional five special function test signals are also provided. These include a $40 / 2400$ Hz signal for testing the VLF components of a system such as sub-woofers, crossovers and amplifiers; a short duration, multi-frequency pulse for adjusting time delays, reverbs and echo units; An amplitude sweep function for adjusting compressors, limiters and tape levels; Automatic frequency stepping, and a unique sweep tone for tracing wiring in racks and buildings. The TONE PLUG even includes a bright LED indicator for checking microphone cables and connections. A single button on the side of the TONE PLUG allows for quick selection of all test functions. And because the TONE PLUG is phantom powered, it requires no batteries or external power supply.
Tone Plug
$\$ 50.00$

## GTC Industries, Inc. Noise Plug

The NOISE PLUG is a complete precision pink noise generator built in a XLR microphone connector. Inside the NOISE PLUG is an ultra wideband, avalanche junction white
 noise source. The outpur of the white noise source
is frequency limited, amplified and passed through a precision -3 db per octave low pass filter. The result is a full audio spectrum noise source with equal energy distribution in all octaves. The NOISE PLUG can be used to check over-all audio system operation, adjust speaker crossover points and balance, check frequency response of amplifiers, tape decks and other audio components, and adjust system equalization. Pink noise is also often used in noise masking systems to reduce annoyance from other noise sources such as heavy machinery and air handling systems. The NOISE PLUG is extremely easy to use. Simply plug it into a phantom powered microphone input on your mixer and turn up the volume. A bright red LED indicator on the back of the NOISE PLUG shows that phantom power is present and that the NOISE PLUG is operating. Because it's phantom powered, there are no batteries to go dead or bulky plug-in power supplies to deal with. It's always ready for immediate use.

Noise Plug
$\$ 49.95$

## Hamlet Portable Composite Waveform/Vectorscope

The Hamlet portable units were the first rasterizing test measurement devices designed for field use. They digially generare waveform/vector signals for display on standand field monitors, LCDs and some camera view finders. They provide a means of iden-
 tifying and analyzing signal aberrations and assist in locating the equipment causing the problem. Monitoring video levels during video production can guard against a multirude of potential problems and are especially important because they confirm the quality of the video signal at the remote location, improving accuracy. The Micro Scope Series are portable units that weigh less than 2 pounds and are small enough to hold in the palm of your hand. They are powered by either rechargeable Nicad batreries or the included 12V AC adapter. Hamlet offers a complete line of portable, rack-mountable and PCB-level devices for studio, desktop video and ENG/EFP applications. All units carry a two year warranty:
302WVA ........ Portable Composite Waveform, Vector and Audio . \$1,745.00
300W ............. Portable Composite Waveform only ........................... \$1,249.00
PLM-1 ............ Portable Composite/Component Pgm. level meter ...... \$1,095.00

## Hamlet Composite Waveform/Vectorscope



The Hamlet Waveform/Vectorscopes digitally-generate waveform, vector and/or audio signals with their associated graticules for display on any standard monitor. So, you can route the signals to multiple monitors of any size or to monitors located in remote areas. Choose from a variety of models that meet all video applications and broadcast specifications.
301 WV .......... Composite/Component Waveform and Vector
\$2,295.00
302WVR ......... 1/2 RU, Composite/Component Waveform, Vector and Audio .
\$1,995.00
301 WVA
301 WV w/Audio Display
$\$ 3,170.00$

McCurdy ATS-100 Stereo Extended Range Audio Meter The McCurdy ATS-100 Stereo (or dual mono) Extended Range Audio Meter allows monitoring of audio levels over a wide range of levels and system impedance's. Features include: Taut-band high quality meters • LED illumination eliminates bulb replacement - Accurate offset adjustment in 1 dB steps $\cdot 90 \mathrm{~dB}$ range • Provides readings to 0.1 dB accuracy • XLR rear connectors • An indicator is provided for accurate stereo phasing measurement $\cdot$ Integral power supply.

ATS-100 $\qquad$ . Specify $-10,+4$ or +8
$\$ 1,995.00$

## Modulation Sciences SRD-1



Modulation Sciences SRD-1 Stereo reference decoder accepts wideband composite and provides left and right or sum and difference in the BTSC (companded) or equivalent mode. Transfer standard for checking the performance of any make TV stereo generator.
SRD-1 $\$ 5,250.00$

Neutrik MR-1 Multifunctional Analog Audio Generator
 The Neutrik MR-1 Minirator is a battery powered professional multifunctional analog audio generator. The Minirator covers most of the typical test signals used in pro audio, including sine and square waves, as well as pink and white noise. A 20 Hz sawtooch-like waveform is induded as a polarity signal. This signal will be used in conjunction with the next product in the MINI series, the Minianalyzer.

MR-1 ........ Multifunctional Analog audio Generator .. $\$ 105.00$

## Neutrik Minilyzer ML-1

Neutrik Minilyzer® continuously measures audio levels at RMS peak levels, absolute or relative to a definable reference with selectable units. The accurate frequency measurement, with a high resolution of 100 ppm gives additional functions and acts as the base for distortion measurement. The meter features DIN, BS and Nordic as standard. Distortion is measured as THD +N , automatically rejecting the fundamental frequency and calculating
 the $\mathrm{THD}+\mathrm{N}$ value in dB or percent. A set of audio weighting filters can be achieved in all measurement functions. A balance indicator continuously monitors and displays the quality of the signal balance giving immediate detection of defective or cable wired incorrectly. Results are displayed on a high resolution $100 \times 64$ pixel backlit LCD as numerical values, a bargraph when in meter mode, or recorded as a curve versus frequency in sweep mode. The scope is autoranging and autoscaling. The intuitive user interface is based on pull down menus providing quick access to the different functions, modes and menus. It is powered by 3 standard AA batteries.

ML-1 Minilyzer
\$279.00

## Test Equipment

## Potomac AA51A

Automatic Audio Analyzer The Potomac AASIA Automatic Audio Analyzer features: RFI shielding • balanced, stereo inputs - total harmonic distortion meter $(20 \mathrm{~Hz}$ to 20 kHz • • intermodulation distortion meter ( 60 Hz and 7 kHz composite) • AC
 voltmeter ( 10 Hz to $100 \mathrm{kHz}, 0.3 \mathrm{mV}$ to 30 V (Full Scale.) • $\mathrm{S}+\mathrm{N} / \mathrm{N}$ meter $(20 \mathrm{~Hz}$ to 20 kHz ) • phase meter ( $\pm 180$ degrees, 20 Hz to 20 kHz ) • wow and flutter $(0.1 \%$ to . $3 \%$ (Full Scale) peak weighted) • ratio meter • and frequency counter.

AA-51A. $\qquad$ Automatic Audio Analyzer $\$ 4,450.00$

## Potomac AG-51

Stereo Audio Generator
The Potomac AG-51 Stereo Audio Generator features: RFI shielded • transformerless stereo outputs, balanced and unbalanced, $600 \Omega$ and $150 \Omega$, automatic signal leveling with self test feature -
 stereo matrix switch ( $\mathrm{L}, \mathrm{R}, \mathrm{L}+\mathrm{R}, \mathrm{L}-\mathrm{R}$ ) • precision attenuators $(10 \mathrm{db}, 1.0 \mathrm{~dB}, 0.1 \mathrm{~dB}) \cdot$ low distrotion sine generator $(20 \mathrm{~Hz}$ to 200 kHz$) \cdot$ composite intermodulation test generator $(60 \mathrm{~Hz}$ and $7 \mathrm{kHz} @ 4: 1 \cdot 3.15 \mathrm{kHz}$ wow \& flutter signal generator (SMPTE standard frequency).
AG-51.
Audio Generator
$\$ 4,030.00$

## Radio Design Labs RU-OSC4A \& B oscillator

The RDL RU-OSC4A \& B Oscillator is for anywhere you need reference tones to verify audio system response. Manually selectable audio tones, line level balanced/ unbalanced output and gain trim for each frequency. Output connections are made on the rear panel through full-size barrier block terminals. The RU-OSC4A features 4 separate audio oscillators operating at $100 \mathrm{~Hz}, 1 \mathrm{kHz}, 7.5 \mathrm{kHz}$ and 15 kHz . These frequencies provide quick, automatic verification of audio frequency response through a piece of equipment or an entire audio chain. A silent' period berween the 15 kHz tone and the 100 Hz tone provides time to verify system noise levels.

RU-OSC4A
$\$ 271.00$
RU-OSC4B $\$ 271.00$

## Radio Design Labs ST-NG1

Random Noise Generator
Radio Design Labs ST-NG1 is ideal where random white or pink, mic and/or line level noise signal is needed. It is suitable either as a reference noise source for audio measurements or as a masking noise source. It produces no reperitive frequency or amplitude pattern. PS24A (\$19) power supply optional.
ST-NG1
$\$ 128.00$

## Radio Design Labs ST-OSC2A/B

 Dual Audio OscillatorRadio Design Labs ST-OSC2A/B is a Dual Audio Oscillator with adjustable levels anywhere you need: Precision sine-wave audio signal • Amplitude-stable oscillator • and Dual tone oscillators.

ST-OSC2A
.. 1 kHz and 10 kHz
\$104.00
ST-OSC2B .............. 100 Hz and 400 Hz ............................................... \$104.00
PS24A
Power Supply
$\$ 19.00$

Rolls CT1 Cable Detective


The Rolls CT1 cable detective, will cross-test cables like $1 / 4^{\prime \prime}$ to XLR, $1 / 4^{\prime \prime}$ to RCA etc. Now tests MIDI cables. Note CT1 does not ship with a power supply.
CT-1 ............. Cabel Detective ................... $\$ 60.00$
PS-12 ............ 12 Vac Adapter .................... $\$ 12.00$

## TerraSonde The Audio Toolbox



The Audio Toolbox ${ }^{\text {TM }}$ provides a comprehensive set of audio tools in an affordable, easy-to-use package. Utilizing DSP technology and pro-qualiry analog audio stages, a graphical backlit LCD display, encoder input control, built-in microphone, speaker, fully-balanced XLR and $1 / 4^{\prime \prime}$ inputs and outputs, unbalanced RCA, and MIDI in and out. The Audio Toolbox has dozens of uses for every sound/video/film en-
gineer or contractor.
$A C$ and battery
powered. Acoustic
 Analysis Tools in-
clude: sound level meter • real-time analyzer • reverb decay time e energy time graph • polarity tester $\bullet$ and noise criteria. Test Functions include: signal generator • level meter/frequency counter • signal-to-noise ration • sweeps $\bullet$ sample scope • and distortion meter. Utilities features include: monitor amp • cable tester • power tests • PC/Mac inter-
 face - setup \& calibration may be field re-calibrated. Session Helpers include: instrument tuner ${ }^{\bullet}$ tempo computer • MIDI helper • MIDI transmitter • time code tools $\cdot$ and hum cancellation.
The Audio Toolbox .. Portable (plastic)
$\$ 999.00$
The Audio Toolbox .. Rack-mount Version w/large screen, 2U .............. \$1,785.00
ATB + .............. Portable Audio Toolbox (metal enclouser).
\$1,699.00


## Ward-Beck M405P Extended Range VU Meter

The Ward-Beck M405P Extended Range VU Meter is a battery operated, portable instrument designed for the measurement of transmission, noise and VU levels throughout an audio system. The instument produces a 9 VU indication on a 3-1/2" meter for input levels from50 dBm to +30 dBm over a 20 Hz to 20 kHz bandwidth. An input attenuator, calibrated in 2 dB steps, accommodates the full 80 dB range in one continuous 300 degree rotation. A front panel selector switch is provided to permit the M405P to operate in the $600 \Omega$ terminated or HiZ bridging mode. In addition, a 60 Hz notch filter may be switched in to allow measurements if hum is present. The power on/off switch includes a test position to check the charge on the internal batteries. Inputs to the M405P are via an XLR3(F) connector or a $1 / 4^{\prime \prime}$ TRS jack. A front panel $1 / 4^{n}$ jack allows for aural monitoring of the measured signal with a high impedance (typically $400 \Omega$ ) headset.

M405P $\qquad$ . Portable Extended Range VU Meter $\$ 975.00$ Ward-Beck ABB-1 Audio Bit Buddy
The Ward-Beck Audio Bit buddy monitors both digital (AES/EBU, S/PDIF) and analog audio signals. Digital and analog program audio can be monitored by the headphone output while the $\mathrm{U} / \mathrm{R}$ levels are
 displayed on LED bargraph meters. Critical signal parameters such as sampling frequency, emphasis, professional/consumer format and data errors are displayed when monitoring AES/EBU or S/PDIF signals. Digital input monitors sampling frequencies from 30 kHz to 50 kHz automatically.
ABB- 1 $\qquad$ Audio Bit Buddy $\qquad$ABS-1 Audio Bit Spitte
. $\$ 625.00$
Ward-Beck ABS-1 Audio Bit Spittter

## Test Equipment • Maintenance Supplies

## Whirlwind Qbox ${ }^{\circledR}$ Audio Line Tester

The Whirlwind $\mathrm{Qbox}{ }^{\circledR}$ is the all-in-one audio line tester that you'll want in the toolbox every time you do field audio. In
 one battery powered box you have a microphone, a speaker, a test tone generator, outputs for standard headphones or a $2 \mathrm{k} \Omega$ earpiece, and voltage presence monitoring for phantom or intercom power. You can talk into it, listen to it, watch it, and clip it on your belt or cable reel for easy access. The Qbox is made from a rugged, lightweight industrial composite to withstand the wear and rear of fieldwork. It's powered by a single standard 9 V alkaline battery that is easily replaced without tools. Plug in a dynamic mic to give it a quick test, leave the internal speaker powered as a squawk box from the console, or use the internal mic to talk back up the line. It's all easy with a Qbox! The SOURCE selector lets you send a 440 Hz tone or the signal from the Qbox's built in condenser mic back to the main console at $+4,-20$ or -50 dB levels. The SPEAKER selector lets you test dynamic mics and confirm mic or line level signals.

Qbox $\qquad$ . Audio Line Tester $\$ 199.95$
Whirlwind Cable Tester
This Whirlwind Cable Tester can test cables with any combination of XLR, $1 / 4$ " or RCA phono plugs for shorts, opens and phase. The hands-free design allows manipulation of cable to locate intermittence. An on/off switch is provided, with LED to indicate sufficient testing power. Belt clip included.

Tester
$\$ 109.95$
Tester2 ..................................................................
$\$ 142.00$

The Ward-Beck Audio Bit Spitter is a portable, battery powered unit that generates digital and stereo analog audio test signals that may be injected into the signal path when testing device performance or signal pach continuity with an Audio Bit Buddy, POD11 Digizal Audio Meter, M445 Extended Range Meter or any other audio monitor or metering device. The ABS-I generades an AEXJEBU digital audio signal, 1 kHz
or 400 Hz, at $48 \mathrm{kHz}, 44.1 \mathrm{kHz}$ or 32 kHz . The unit may also be synchronized to an external digital reference signal. Digial signal levels of $-20,-12$

+4dBu. To dissinguish between the CH A and CH B (left and right) signals, the unit provides the option to cyde and/or invert the CH B (right) signal or to turn off completely. A send invalid function on the ABS-1 sets invalid bits in the AES/EBU bir stream. and 0 dBFS are front panel selectable. Stereo analog tones of 1 kHz or 400 Hz may also be selected at levels of $-16,-8$ and

ABS-1
. Audio Bit Spitter
$\$ 625.00$


## AudioLab TD-1B

AudioLab TD-1B Erases audio, video, computer data, magnetic films, cartridges, and diskettes - For standard tapes up to $1 / 2$ inch in width $\bullet$ Accommodates up to $10-1 / 2$ inch $N A B$ reels - Positive results every time with a simple two pass operation - Transient protection to prevent permanent tape damage - Thermostatically protected. (Wont earase DATs).
$\$ 145.00$ $230 \mathrm{VAC}, 50-60 \mathrm{~Hz}$ $\$ 150.00$ 2400-007 .......................NAB Hub adapter ........................................................................... $\$ 7.00$

## Fidelipac 400

Fidelipac's Model 400 is a powerful bulk eraser, providing over 2000 Gauss of erasure power. Featuring a scuff resistant laminate top, die cast zinc edge guide, removable aluminum pivot pin, and non-skid rubber feet, it will efficiently erase reel sizes up to 11 "in diameter.

## AudioLab TD-4A

The AudioLabTD-4A erases: audio, video and data tapes; U-Matic cassettes up to 750 oersteds and reels up to 16 inches in diameter and 1 inch in width - provides a 2550 effective Gauss field in HI mode $\bullet$ built-in imer has adjuscable "ON" cyde andautomatic shut-off • automatic cooling fan operation • overheat light with automatic chermal protection prevents exceeding dury cyde on HI
 position • chermal protection resets to normal operation automatically • high/low operation with continuous duty erasing on low position for most apes • standard $5 / 16$ inch center post with 3 inch NAB hub supplied. This would be che minimum required to erase DATs.

TD-4A
110-125VAC, Specify 50 or 60 Hz
$\$ 950.00$
Fidelipac 395 BLANK-IT
The Fidelipac 395 BLANK-IT is made of molded un breakable lightweight plastic. It supplies 1550 Gauss of erasure power at $1 / 4$ inch from its base center, and will perform at a longer duty cycle than similar units.


Model 395.
. Handheld, 110 VAC
$\$ 125.00$
Model 395-FP
2-pack felt base pads

## Test Equipment • Maintenance Supplies



The S-721H will provide strong cleaning ability with quick evaporation and can be used to clean all metal and plastic heads, guides, and pinch rollers.
S-721H-2 ....... Head Cleaner 2 oz.
$\$ 8.00$
S-721-H-Q..... Head Cleaner 1 Quart
$\$ 24.00$



D-501 ....... Electronic Cassette Demagnetizer ......... \$12.00
D-512 ....... Wand Demagnetizer ............................ $\$ 30.00$
K-161 ....... S-721H-2, D-512, CS- F, Carry Bag ..... \$40.00

## American Recorder Technologles

Removes unwanted dirt, dust \& fingerprints from disc surface that causes audio skips and video distortion. Includes a 1 ounce bottle of non-alchohol disc cleaning solution, cleaning brush, extra pads, all in a custom folding case.
KCD-101A ..... DVD/CD Cleaner .................................................. $\$ 15.00$
CD-101P ........ Manual DVD/CD Cleaner-polybag ........................... $\$ 8.00$
CD-102A ....... 3 Replacement Pads for CD-10IP ............................. $\$ 5.00$
CD-121A ....... Rotary CD Cleaner Kiet .......................................... $\$ 15.00$
CD-122A ....... 2 Replacement Pads for CD-121A ............................. $\$ 5.00$
CD-103A ....... Disc Cleaning Fluid 1.5 oz./spray bottle ..................... $\$ 6.00$
LD-101P ........ Laser Disc Cleaner-polybag ..................................... $\$ 15.00$
LD-102 .......... 2 Replacement Pads for LD-101P .............................. $\$ 6.00$

Laser lens cleaner featuring a "dual brush" design.
LL-15! $\qquad$ Laser Lens Cleaner
$\$ 8.00$

LLCD-1
LL-151/CD-121A Combo Kit
$\$ 15.00$


AD-171.....ADAT Cleaner S-721H-2, VS-1, carry bag
$\$ 32.00$
AD 171D....Same as ADAT-171, includes
CO- $2 \& \mathrm{CO}-2 / 3$
$\$ 60.00$
AD-1000 .... 2-311B, IVS-1B, CO-2, CO-2/6, S721H-2, Case .............. \$120.00
AD-311B .... ADAT Cleaner with $1 / 2 \mathrm{oz}$. S-721H .................................... $\$ 20.00$
DAT-101 .... DAT Cleaner-Wet, 1/2 oz. S-721H ..................................... \$30.00
DAT-101D . DAT Cleaner- Dry .............................................................. $\$ 15.00$

Wet cleaning system that removes harmful oxides and other contaminants from tapepath. Includes $1 / 2 \mathrm{oz}$. bottle of cleaning fluid.

V-311B $\qquad$ VHS Recorder Cleaner. $\$ 15.00$ V-331D .................. 8 mm Cleaner-Dry ................................. $\$ 20.00$
V-331 ............. 8 mm Cleaner-Wet, $1 / 2 \mathrm{oz}$. S-721H

## Test Equipment • Maintenance Supplies

## CAIG Laboratories, ifle:

DeoxIT dissolves oxides and sulfides that form on meal contact surfaces. This restores the contaca's integrity and leaves a thin (organic) layer that carts and protects the metal. Avilable widh peroleum naphha solient ( $5 \%$ ), or wihhout ( $100 \%$ ). General pupose traatment.

R5 Power Booster is formulated to provide improved deoxidizing, deaning, preserving and lubricating characteristics. The new R5 is non-lanmable, fast evaporating, safe on plastics and environmentally safer than the previous R5. The spray is in a new precision pump, prowiding a safe altemative to pressurized aerosol cans. (Recommended replacement for Cramolin R5).
PreservIT seals, lubricates and preserves metal suffaces against oxidation and contamination. It provides long-lasting protection for newly manufactured components or those cleaned by utrasonics, DeoxIT or other procedures.
ProGold is a conditioning solution that improves conductivity, lubricates and provides long-lasting protection on gold, silver, thodium, copper, nickel and base metals. ProGold is the only product that actually penetrates plated surfaces, molecularly bonds to the base metals and seals \& protecas both surfaces. Available with petroleum naphtha solvent $(5 \%)$, or without $(100 \%)$. Maximum performance and protection for plated connectors and contacts.
ProGold GXL is formulated for maximum performance and protection for critical metal connections. ProGold improves conductivity for greater definition and dynamics, reduces noise and interference, and lowers distortion. It also stabilizes connections between similar and dissimilar metals. Provides long-lasting protection ( $1-10$ years) on gold, siver, rhodium, copper, nickel and ocher precious metals. The new GXL is nonflammable, fast evaporating, safe on plastics and environmentally safer. The GX5 spray is also available in a new precision pump, providing a safe altemative to pressurized aerosol cans. Temperature range $-45^{\circ}$ to $400^{\circ} \mathrm{C}$. Ideal for plated metal contacts and connectors.

Cail ube MCL is a precision lubricant and enhancer for plastic moving contact surfaces (faders, switches, potentiometers, mouse pads and other mechanisms with sliding surfaces). Over time these components lose their original lubrication from wear and repeated deaning. The $5 \%$ spray is idead in flushing away contamination that may have collected on the contact. The $100 \%$ spray and liquid were formulated to provide lubrication only. CaiLube MCL is not a deoxidizer or cleaner, use ProGold or DeoxIT for this function.

CaiKleen $\mathrm{A} / \mathrm{V}$ is a precision cleaning solvent for magnecic and optical read/write heads. Removes dirt, grease, nicotine, merallic oxides and tape residues from surfaces. Use it on tape heads (magnetic \& optical), digital tape decks, audio/video tape decks, VTRVCR reconders and industrial tape equipment.

Caikleen RBR is a precision deaner for rubber rollers, parts and platens. Ideal for computers, printers, copiers, fax machines and ocher office and industrial equipment. It will rejuvenate rubber and reduce misfeeds and jams.
DustALL is a precision air duster that removes dirt, lint and particles quickly and safely from electronic equipment. It is packaged with a precise one-piece trigger valve and extension rube for controlled application.
FreezALL cools circuits to $-54^{\circ} \mathrm{C}$ and locates intermittent components due to heat failure, hair-line cracks on printed cireuit boards and provides low temperature testing of electric circuits. It is packaged with a precise one-piece trigger valve and extension rube.

CAIG Laboratories, Inc. makes high quality, environmentally safe cleaners to improve condacivity and maintain optimum signal quality on electrical connectors and contacts. CAIG formulations are highly con centrated - only small amounts are required (typically one quick spray or drop per application).

D5S-6 ................ DeoxIT Spray; $5 \%$ Solution, 5 oz ..... $\$ 8.25$
D5MS-15 .......... DeoxIT Mini-Spray, 5\% Solution, 15 g . (pocker sized - ideal for tool kiis) ....... ..... $\$ 5.25$
D100S-2 ............ DeoxIT Spray. 100\% Solution, 2 oz. ..... $\$ 12.25$
D100L-25C....... DeoxIT Needle Dispenser, $100 \%$ Solution, 25 ml ..... $\$ 17.95$
K-D50W ........... DeoxIT Wipes, 100\% Solution. 50 each ..... $\$ 10.95$
R5PS-6 .............. R5 Pump Spray, 5\% Solution, 125 ml ..... $\$ 24.95$
R5MS-15........... R5 Mini-Spray, 5\% Solution, 20 ml ..... $\$ 12.95$
P5S-6 ................. PreserviT Spray; 5\% Solution, 5 oz. (recommended replacement for Cramolin B5-6) ..... $\$ 9.95$
GSS-6 ................ ProGold Sprav, 5\% Solution, 5 oz. ..... $\$ 15.95$
GSMS-15 .......... ProGold Mini-Spray, $5 \%$ Solution, 15 g (pocket sized - ideal for tool kits) ..... $\$ 9.95$
G100S-2 ............ ProGold Spray, 100\% Solution. 2 oz. ..... $\$ 24.95$
G100L-25C ....... ProGold Needle Dispenser. $100 \%$ Solution, 25 ml ..... $\$ 49.95$
K-G50W ........... ProGold Wipes, 100\% Solution, 50 each ..... $\$ 18.95$
GXP5S-6 ........... ProGold GX Pump Spray, 5\% Solution, 125 ml ..... $\$ 29.95$
GX5MS-15........ Pro Gold GX Mini-Spray, $5 \%, 20 \mathrm{ml}$ ..... $\$ 14.95$
K-100A .............. DeoxIT and PreservIT ( $100 \%$ ) in 7.4 ml vials with brush applicators, lint-free cloths, paper swabs, cleaning brushes ..... $\$ 21.95$
MCL100S-L2 .... CaiLube MCL Spray, 100\% Solution, 2 oz. ..... $\$ 12.95$
MCL100-L25C .. CaiLube MCL, Needle Dispenser, $100 \%$ Solution, 25 ml ..... $\$ 17.95$
MCL5S-H6 ....... CaiLube MCL Spray, 5\% Solution, 5 oz. ..... $\$ 9.95$
AV100PS-6 ........ CaiKleen A/V Pump Spray, HCFC Blend, 150 ml ..... $\$ 12.95$
K-AV 100P ......... CaiKleen A/V Pen, HCFC Blend, 12 ml ..... $\$ 12.95$
RBR 100PS-6 ..... CaiKleen RBR Pump Spray, Concentrate, 150 ml ..... $\$ 12.95$
RBR100I - 25C .. CaiKleen RBR Liquid, Needle Dispenser, Concentrate, 25 ml ..... $\$ 7.95$
DT3PS-10 ......... DustALL Spray, HFC, 200 ml ..... $\$ 12.95$
FZ7PS-10 .......... FreezALL Spray, HFC, 200 ml ..... $\$ 12.95$
LFC-100 ............ Lint-Free Cloth - Polypropylene, box of 100 ..... $\$ 4.95$
LFC-C/100 ........ Lint-Free Cloth - Cotton, box of 100 ..... $\$ 8.95$

## Video

Alcorn McBride, Inc. DVM/HD

The Alcom McBride Digital Video Machine DVM/ HD provides she ultimate playback, even better than HDTV, with picture sizes up to $1920 \times 1080$ and bit rates over four times those of broadcast DTV. It also supports ATSC DTV formats including 720p
and 1080i. Its RGB and YCrCb outputs assure maximum video quality; and muli-
channel audio outputs (both analog and digita)) provide better-than-CD quality. Features include: serial and discrete control • digital broadcastinterfaces $\bullet$ update content via Ethemed Intemet - supports ATSC DTV formats and more $\bullet$ and stores over I hour of HD Video.
DVM/HD ............... Digital Video Machine----------Starting at
$\$ 10,000.00$

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## Doremi Labs V1 Rimdtrm Acouns video Recorder/Piayer

The Doremi labs V1 is a high-quality Video Disk Recorder/Player designel to record and playback video and audio using hard disks or optical cartridges. It consists of a 3 U rackmount unit with a full function remote control and 2 drive bays that can house hard disk drives or a removable M.O. The V 1 records 1 video channel, 2 audio channels and Time Code (VITC and LTC). The video

data is compressed using Motion-JPEG standards (4:1 up to 32:1) and recorded along with the audio and the time cole onto the hard disk drive. Features include: NTSC or PAL • RS-422 serial Sony 9-pin control - high-resolution (CCIR 601) 2 -field picture $\bullet$ instant pictures on locate $\cdot 2$ channel audio at $48 \mathrm{kHz} \cdot$ scrub video in sync with audio at all speeds • and universal serial 9-pin remote control.
$\$ 5,995.00$

## Burst Character Generators



There are three members of the Micro Character Generator family, the MCG3, MCG-2 and RCG-3. The MCG-3 Color CG is a genlockable unit that accepts NTSC video and overlays color characters with a selectable color background. The MCG-3 can also run in the stand alone mode, without a video input. It can be programmed to detect loss of video input and display a message. There are 8 colors with 16 character sizes from 28 to 72 scan lines. Page construction is 24 characters per line by 10 lines per page with a ten page memory. The MCG-3 includes buittin menus, help screens, and self test. Text input is via front panel push-button or RS-232. Real Time Clock option available for the MCG-2 \& MCG-3. The MCG2 outpurs b/w characters in a 20 character/line, 9 line/page format. The RCG-3 is a MCG-3 minus the front panel controls, operation is RS-232 only.


Burst Video Switchers witr R's 232 Contre


The VS4x1 is a four input, one output vertical interval video switcher. All four inputs (and output) are dc clamped to ground reference. This provides jump free switching between genlocked sources. A special feature of the VS8xl is digital logic (jumper selectable) that inhibits the selection of an unused input, I.E., one where no video is present. The 25 Mhz bandwidth and low differential phase and gain assures clean video. Plus RS-232 (optional) allows remote operation. The VS8xl is an eight by one version with dual outputs.

```
VS4x1
VS8x 1
```

$\qquad$

``` \(\$ 249.00\)
S8x
```

Burst Digital LOGO


LG-1 Pus

## Generator

The LG-1 Digital LOGO Generator/Inserter is a video graphic overlay unit that imports a PC generated graphics file and overlays that graphics on video. The graphics window is 256 pixels (approx $1 / 3$ screen width) wide by 64 scan lines and may be placed anywhere on the video screen. The image is adjustable in gray scale ( 0 to $100 \%$ ) and transparency. The LG-1 has an internal mixer and keyer with fade and intensity control. This allows for a smooth up/ down transition of the overlaid graphics.


LG-1+............. Digital LOGO Generator/Inserter $\qquad$ $\$ 695.00$ Burst Time Code Generator


The TC-3 SMPTE Time Code Generator/Reader allows the SMPTE TC to be generated on and read from $8 \mathrm{~mm}, 1 / 2^{\prime \prime}$, $3 / 4$ " or 1 " tape. Features include: ability to generate window dubs, drop frame and field 1 indicator, plus a jam sync mode. The high legibility characters have user adjustable position and size, on the video display. The TC-3 also has selectable auto backtime of $0: 30,1: 00,1: 30$ and 2:00 minutes. The longitudinal TC is recorded on an audio channel or a separate TC channel, if the recorder is so equipped. The time code then can be read back at play speed. Y/C version available.


## ERGO Keytsoards, Monitors \& Rack Kits

Ergo manufactures economical rackmounts for: equipment slidekits, monitors, keyboard shelves, computer chassis, touchpanels and touchscreen monitors. Please visit our website or call for more information.

Computur Knetront Snelvis
E2CKS-1 ........ Full size sliding Keyboard Shelf 2/o Keyboard ..... $\$ 209.95$
E2CKS-4 ......... 1U Sliding Keyboard Shelf, Incl. Keyboard \& Trackball. ..... $\$ 279.95$
E2CKS-4M ..... IU Sliding Keyboard Shelf, Incl. Keyboard \& Trackball .. .....  $\$ 279.95$
E2CKS-3 ........ 3U Sliding Keyboard Shelf, Incl. Keybd., Trackball \& 12.1" TFT Monitor ..... $\$ 1,495.00$
E2CKS-5 ........ 4 U Sliding Keyboard Shelf, Incl. Keybd., Trackball \& 15 " ViewableTFT Monitor ..... $\$ 1,995.95$
Fracherment Nonitions
E2SVGA-14 ... 14" SVGA Monitor (1024×768) Digital Registration ..... $\$ 435.00$
E2SVGA-15 .... 15" SVGA Monitor (1280x1024) Oascreen Registration ..... $\$ 535.00$
E2SVGA-17.... 17" SVGA Monitor (1280x1024) Onscreen Registration ..... $\$ 735.00$
E2SVGA-17S .. 17" SVGA Monitor (1600x1200) Onscreen Registration .....  $\$ 799.00$
Bachrmisur Tousticrean Moritors
E2TS-14 ......... 14" SVGA Monitor (1024x768) Digital Registration ..... $\$ 949.00$
E2TS-15 ......... 15" SVGA Monitor (1280x1024) Onscreen Registration ..... $\$ 990.00$
E2TS-17 ......... 17" SVGA Monitor (1280x1024) Onscreen Registration .....  $\$ 1,350.00$
E2TS-17S ........ 17" SVGA Monitor (1600x1200) Onscreen Registration .....  $\$ 1,375.00$
conputer Chassis
E2CC-1 .......... 19" RM Computer Chassis for Computersno more than $16^{\prime \prime} \times 7^{\prime \prime} \times 18 "$\$299.00
E2-CCIR ........ 19" Rackmount Computer Chassis w/Sliding Rackrails ..... $\$ 355.00$
xCAMontprs
E2XGA-17S .... 17" XGA Monitor (1600x1200) Onscreen Registration ... ..... $\$ 699.00$
E2XGA-1916 ... 19" XGA Monitor (1600x1200) Onscreen Registration ..... $\$ 1,075.00$
E2XGA-2116 ... 21" XGA Monitor (1600x1200) Onscreen Registration . ..... $\$ 1,499.00$
ESE ES305Nows Taltem:
Counīdown Display


ESE ES305 News Talent Count-down Display is mounted to a camera so talent can see the five bright orange lights that extinguish one at a time the way a director counts down. It can display a 5 second count-down or start with 5 seconds of steady lights prior to count-down. The ES305 can be operated from 120 VAC 60 Hz or 400 Hz , or it can run on 12 VDC . It comes in a black anodized case measuring $1.6^{\prime \prime} \mathrm{H} \times 10^{\prime \prime} \mathrm{W} \times 5 \mathrm{D} \mathrm{D}$ and weighs less than 2 lbs .

ES305 News talent count down display, camera mountable .. $\$ 295.00$

## Video • Controllers


Clip Management Systems
200 Clip Instant Access system
2000CL-"X" ST300-S/SM Controller, ST320 ShorBox \& Shotlist Software $\$ 4,500.00$
2000CL-"X"-T Same as 2000 CL."X" w/T-Bar ..... $\$ 5,000.00$
2000CL-"X"-PBIO Same as 2000CL-"X w/Peripheral Bus Interface Option ..... $\$ 5,500.00$
400 Clip Fast Access System
4000CL-"X" ST300-S/SM Controller \& Shorlist Sofware ..... \$3,100.00
4000 CL-"X"-T ................ Same as $4000 \mathrm{CL}-" X "$ w/T-Bar ..... $\$ 3,600.00$
4000 CL-"X"-PBIO .......... Same as $4000 \mathrm{CL}-$-"X w/Peripheral Bus Interface Oprion ..... $\$ 3,600.00$
4000CL-"X"-T-PBIO ...... Same as $4000 \mathrm{CL}-$ "X w/T-Bar \& Peripheral Bus Interface Option ..... $\$ 4,100.00$
3000 P. "X" Playlist Playout System
3000P."X" ST300-S/SM Controller with 4 Line Display ..... $\$ 3,600.00$
Time Management Control System
DMAT Controller
DMAT-DL ST300-S/SM Controller with DMAT Sofware for DoReMI Labs V1 DDR ..... $\$ 3,000.00$
DMAT-TX ST300-S/SM Controller with DMAT Software for Tektronix Profile DDR ..... $\$ 4,500.00$
DMAT-SX ST300-S/SM Controller widh DMAT Soffware for Sony SX series Hybrid Recorder ..... $\$ 4,500.00$
-TSuffix Adds a T-Bar Option to Above DMAT Controllers for an additional charge of... $\$ 500.00$Cue Point Management Systems
200 Clip Instant Access System
2200TL-S ST300-S/SM Controller, ST320 ShotBox \& Time/Time Code Referenced Gue Points ..... $\$ 4,500.00$
2200TL-S.T Same as $2200 \mathrm{TL}-\mathrm{S}$ wT-Bar ..... \$5,000.00
2200TL-S-PBIO Same as 22007L-S w/Reripheral Bus Interface Option ..... $\$ 5,000.00$
2200TL-S-T-PBIO Same as 2200TL-S w/T-Bar \& Peripheral Bus Intefface Opion ..... $\$ 5,500.00$
400 Clip Fast Access System
4200TL-S ST300-S/SM Controller \& Time/Time Code Referenced Gue Points ..... $\$ 3,100.00$
4200TL-S-T Same as 4200TL-S w/T-Bar ..... $\$ 3,600.00$
4200TL-S-PBIO Same as $4200 \mathrm{TL}-S$ w/Peripheral Bus Interface Option ..... $\$ 3,600.00$
4200TL-S-T-PBIO .......... Same as 4200TL-S w/T-Bar \& Peripheral Bus Interface Option ..... $\$ 4,100.00$
Video Segment Management Systems
200 Clip Instant Access System2400VS."X" ................... ST300-S/SM Controller, ST320 ShotBox \& Video Segment Sofware$\$ 4,500.00$
2400VS."X"-T ............... Same as 2400 VS ."X" w/T-Bar ..... $\$ 5,000.00$
2400VS-"X"-PBIO .......... Same as 2400VS."X"w/Peripheral Bus Interface Option ..... \$5,000.00
2400VS."X"-T-PBIO ...... Same as 2400 VS ."X" w/T-Bar \& Peripheral Bus Interface Option ..... $\$ 5,500.00$
400 Clip Fast Access System
4400VS-"X" ................... ST300-S/SM Controller \& Video Segment Sofware ..... \$3,100.00
$4400 V S$-"X"-T ............... Same as 4400VS-"X" w/T-Bar ..... $\$ 3,600.00$
4400VS."X"-PBIO .......... Same as 4400VS."X" w/Peripheral Bus Interface Option ..... $\$ 3,600.00$
4400 VS -"X"-TPBIO ....... Same as 4400 VS -"X" w/T-Bar \& Peripheral Bus Interface Option ..... $\$ 4,100.00$
Peripheral Bus Interface Box
PBIB-360 Peripheral Buss Interface Box for Digicart ..... \$1,250.00
PBIB-422 Peripheral Buss Interface box for VTR, DDR, Laser Disc ..... \$1,250.00
PBIB-SONYMD Peripheral Buss Interface Box for Sony Mini Disc ..... \$1,250.00
ShotBoxesST320 ShotBox\$1,700.00
ST320X-AC . For Accom Atrache ..... \$2,250.00
ST420 ShotBox ..... $\$ 5,000.00$
DNF Controls
Slow Motion Controllers
ST300-SSM Slow Motion Controller withour T-Bar ..... $\$ 2,800.00$
ST300-SSM-T Slow Motion Controller w/T-Bar ..... $\$ 3,300.00$
ST200-SSM Slow Motion Controller ..... $\$ 1,900.00$
Editor
2MCE Two Machine Cuts Editor ..... \$3,100.00
Universal Parallel Interface
ST60-"X"-DRN Dual Rackmount ST60 withour Keypad ..... $\$ 1,250.00$
ST60-"X"-SRN Single Rackmount ST60 without Keypad ..... $\$ 850.00$
ST60-"X"-DRK Dual Rackmount ST60 w/Keypad ..... \$1,400.00
ST60."X"-SRK Single Rackmount ST60 w/Keypad ..... $\$ 950.00$
Universal VTR Controllers
ST30 Sony VTR Controller (Power Supply not Included) ..... $\$ 300.00$
ST100-"X"-TBL ST100 Tabletop VTR Controller . ..... \$1,150.00
ST100-"X"-SRK ST100 Rackmount VTR Controller ..... $\$ 1,250.00$
ST200-"X" ST200 VTR Controller ..... $\$ 1,350.00$
ST400 VTRJDDR Contoller (Playlist Playout version only available) ..... $\$ 4,500.00$
VTR Controller Options
-SMRT ......................... Smart Switch (For the ST60, ST100, \& ST200 Universal VTR Controllers) ........... $\$ 100.00$
-SMTR ........................ Smarter Switch (For the ST60, ST100, \& ST200 Universal VTR Controllers) ......... $\$ 200.00$
-4L.......................... 4 Line Display Option (For the ST300-SSM \& ST300-SSM-T Systems) ............. $\$ 350.00$
RS422 Port Switcher
SW32PS, RS422 32 Port Switcher
-32 ........................................................................................... 32 Port Configuration \$4,000.00
-24 .......................................... 24 Port Configuration 16 Port Configuration ..... \$3,500.00
-8.. 8 Port Configuration ..... \$3,000.00
RS422 Switchers
SWIX8 1X8 RS422 Switcher ..... \$1,100.00
SW2X1- 1 SW2X1 Cards, Rackmount Housing, Power Supply ..... $\$ 800.00$
SW2X1-3 3 SW2XI Cards, Rackmount Housing, Power Supply ..... \$1,600.00
SW2XI-4 4 SW2XI Cards, Rackmount Housing, Power Supply ..... $\$ 2,000.00$
Serial to Parallel Converter
SR60-"X"-DRN ........... Serial to Parallel Converter - Dual Rackmount without Keypad. ..... $\$ 1,300.00$
SR60-"X"-SRN ........... Serial to Parallel Converter - Single Rackmount without Keypad ..... $\$ 900.00$
Programmable Interface
TIB350 Interface Box ..... \$2,000.00
TBC Controller
TBC-2 Dual TBC Controller (Specify Sony, DVCPRO, or JVC) ..... $\$ 700.00$
Computer Interface
sT60-CS Sony VTR Controller (RS232 Interface) ..... $\$ 900.00$
Video Duplication Control Systems
ST60."X"-DRN . Dual Rackmount ST60 without Keypad. ..... \$1,250.00
ST60-"X"-SRN Single Rackmount ST60 without Keypad ..... $\$ 850.00$
ST60-"X"-DRK . Dual Rackmount ST60 w/Keypad ..... \$1,400.00
ST60."X"-SRK Single Rackmount ST60 w/Keypad ..... $\$ 950.00$
Video • Controllers

ST60, ST100. ST200 ..... $\$ 150.00$
ST300 ..... $\$ 300.00$

DNF Controls san provide extensive software modifications to fit your needs. Please prooide a detailed list of desired functions and fax ar $\varepsilon$-mail to $B G S$.

## Video • Distribution Amps



## Looking for a flexible workhorse?



VAC's distribution
amplifiers now come
with a variety of connectors and options that you can choose from.


Tight spaces
Indoors or Outdoors

Comming late in 2001:
Fiber Optic Infra red products

## VAC products are problem solvers in small packages.



New options for: power supplies connector types mounting holes racking solutions types of gain control

# THE KEYS TO CONITROL 

## The Name Of The Game is Control.

When it has to be fast. When it has to be easy. When it has to be precise. DNF's DMAT Sports Controller is the key to putting you in control. DMAT's ST400 controlier gives Sony MAV555s advanced sportscasting capabilities, including effects and super slomo recording.

## Control the Action.

DMAT provides continuous record and simultaneous playback
 of sports action so you don't miss a thing!

## Control Your Slow

 Motion.Developed specifically for demanding sports production, the ST400 has exclusive menu features, precision control, and
personalized control options to give operators everything needed for smooth, accurate replays.

## Control Playback.

The fewest possible number of keystrokes completes all time-critical operations.

- Mark cue points with 1 key stroke.
- Recall cue points with 1 key stroke.
- Quickly access video segments for instant replay playback.
- Easily build and manage playlists for instant access to highlights.
- Fast, easy control of multichannel playback for cues, segments and playlists.
- View ST400 status on a video monitor.

ST420 SHOTBOX

## Video • Distribution Amps



and a video reference input connector. These two inputs are on $75 \Omega$ BNC connectors, located on the rear panel.
The hinged, quick release front panel faciliates rapid access to controls and tallies located on the front edge of the amplifier cards. During installation and system setup, the panels may be easily removed to afford unobstructed access to all cards and their controls and tallies. Power supply redundancy in the MF82 frame is carried through the primary mains to the separate switchmode supplies. Two separately fused AC power cords are provided. The switchmode supplies operation on $115 \mathrm{~V} / 60 \mathrm{~Hz}$ to $230 \mathrm{~V} / 50 \mathrm{~Hz}$ without any special serup and require 130 VA maximum. Current modules include the following.

The 200 Senes is a modular solution
for the distribution and conversion of audio and video signals. The two standard frames of this system are the MF-82/10 and the MF-82/12. The MF82 frame occupies two vertical units of rack space. The MF-82/12 can house up to twelve 8200 series cards and two power supplies, while the MF-82/10 can house up to ten cards and two power supplies.
Headers for each amplifier slot are accessible from the rear of the frame. Terminal interface assemblies for the appropriate amplifier card plug into these headers to allow for input and output connections. When distributing signals on BNC terminations, the MF-82/10 frame provides space for loop through inpurs and 8 outputs per card, while the MF-82/12 terminations have terminating inpurs and 6 ourpurs. Each MF82 frame is equipped with an AES


## Video

## Evertz HDTV Lopo Imsertar/shate Gerierator

The Evertz HD9525LG Logo Inserter system is a complete package that will key one or many staticlanimated "bugs over full bandwidth HDTV program video signal. Logos are stored in flash memory and may be downloaded to the system via an RS232 serial interface, or USB port for quick loading. The Install Logo software, included with the system, provides an easy to use Windows $®$ interface for setup and off-line storage of Logs and Slates. Features: Stores and inserts static or animated logos • multiple simultaneous logos can be keyed with independent fade control incorporates high quality variable transparency mixer that provides transparency and softedges to logos - full 10 -bit linear fade-in and fade-out control provided front panel, RS232/RS422 remote control and GPI contact closure - downloads from standard PC • stores up to 40 1/16th screen size logos in 1080i/1080p24 or 45 1/9th screen size logos in 720 p format - optional memory for additional storage capability • optional secondary redundant power supply $\bullet$ optional remote control panel - optional Bypass Relay.

HD9525LG
$\$ 8,995.00$

## Evertz HDTV Routers

 The Evertz X-HD9504 HDTV Video router routes 1.5 Gbps serial digital signals. Features include: Operates with generic SMPTE 292M video signals ( 1.5 Gbps ) • Front panel or optional remote control panel operation • 130 m automatic input cable equalization (Belden 1694) • Genlock referenced switch (accepts standard composite black \& burst or tri-level sync signals) - GIP switch control • Optional redundant power supply control • Includes dual $4 \times 1$ AES routers for $4 \times 1$ video router.

X-HD9504.
$\$ 3,500.00$

## Evertz HDTV Video Router



The Evertz X-HD9512 series HDTV Video router routes 1.5 GBps serial digital signals. Features include: Operates with generic SMPTE 292M video signals ( 1.5 Gbps ) Front panel or optional remote control panel operation - 130 m automatic input cable equalization (Belden 1694) • Genlock referenced switch (accepts standard composite black \& burst or tri-level sync signals) - Operational redundant power supply - GPI switch control.

X-HD9512
HD Video Router
$\$ 7,500.00$

## Evertz Digital Video ciosed Captionung Encoder

The Evertz model
8074 - M D M 2 digital encoder has 5 serial ports, 2 internal Modems and 3 RS-232 ports. It also features a GPI input for relay bypass and a tally output on power failure. It accepts 525 or 625 component (4:2:2) or NT'SC composite (4Fsc) digital video signals • encodes captions or text data in field 2 or field 2.

8074-MDM2
$\$ 300.00$

## Feral QS-440 Quad Spit



The Feral QS-440 Quad Split is the first economical way to view and manipulate multiple inlages on one screen. The Quad Split combines four video inputs into one video output. Each input is independently scalable, allowing you to horizontally and vertically re-size and position each image with aspect ratio control plus, each input can be independently frozen to hold its display while moving the other inputs. The image re-sizing and transitions can be manually performed or pre-stored in memory for quick and easy recall. It has composite and Y/C inputs and outputs as well as NTSC and PAL video standards. It automatically detects and transcodes berween formats. The genlock input and key output allow for easy integration
 with other equipment.
QS-440
$\$ 2,495.00$

## Hotronic

## Dugitat TEC/Frume Syohmanuer Seatimy

Hotronic's main line of products are digital TBC/Frame Synchronizer systems and other products for NTSC and PAL.


AP41 ........... TBC/Frame Synchronizer Y/C / composite I/O, full proc-amp control/Gen lock. \$1,035.00
AP41SW ...... AP41 plus Digital Comb Filter ..................................... \$1,350.00 AP41SF ........ AP41 plus S-VHS output, freeze frame/field, 16 speed strobe .. $\$ 1,350.00$ I)OC ........... Option for AP41, Digital Pixel by Pixel, drop-out compensator ..... $\$ 200.00$



## Miranda

Miranda features a collection of audio/video conversion and processing interfaces. The Imaging Series is a complete series of audio/video interface modules that consist of over 40 conversion, processing and distribution functions in a choice of 3 housing for 1,4 , or 16 modules. The largest of the series is the Symphonie that holds 16 modules in a 4 rack unit frame by snapping in a corresponding rear module. Full power redundancy can be obrained by adding a second power supply that is hot swappable for easy maintenance. The Symphonie also offers air-forced cooling and thermal monitoring. The status for each imaging module and power supply is reported on the frames front panel multicolor LEDs. In addition, complete control of all parameters of the 16 imaging modules can be remotely accessed via the ICP control network. Symphonie provides an internal reference distribution feature that allows a common video or audio reference signal to be distributed to each module without external wiring or distribution amplifiers. The Symphonie frame features a totally modular archirecture in which any module, video or audio, may be installed in any slot. Quartet frames are available in different versions to facilitate video or audıo interconnection requirements and can accommodate up to four modules in any physical location within a 1 RU frame. The Quarter-RPS can be used to supplement the Quarter's power supply redundancy feature by fitting up to three extra power supplies in IU. Each module comes with a configuration label which can be attached on the back of the housing unit, allowing you to clearly identify the function of each connector. The Solo is a single module imaging housing for desk top environments. Each Solo comes with its own power supply and RS-422 remore control port. Up to 16 Solos can be daisy-chained through the communication port while their interlock feature allows them to be stacked. All imaging are hot-swappable and all controls are accessible from the front of the unit or via the ICP control network. Remote control is standard in every imaging module via Version 3.0 of ICP-S, Miranda's NT based monitoring and control software. All modules in the imaging series provide remote access to key configurations and operational parameters via the high speed ICP imaging control network. This network allows multiple imaging housing frames and control workstations to be interconnected across a facility.

Some of the most popular cards of the more than 50 available are:
ASD101i ........ Component analog video to 4:2:2 converter ................. \$1,995.00
SDM101i ....... 4:2:2 to component analog video converter $\$ 1,495.00$
ASD221i .......... NTSC/PAL to 4:2:2 decoder/frame synchronizer with TBC .... \$3,495.00 SDM211i ....... 4:2:2 to NTSC/PAL encoder with Genlock ................. \$2,995.00

The Quanta stand-a-lone family of compact interfacing products provides solutions for a variety of signal handing, timecode processing, digial video and audio converters, timecode to RS232 readers, serializers/deserializers and a video to SGI gateway. Kaleido is a multi-image display system with the features of a control room monttor wall in a single multi-window display. Kaleido is capable of simultaneously displaying up to 16 analog or digital video signals. Each window can be configured for $4: 3$ to $16: 9$ aspect ratios and can be independendy sized and positioned. Source ID) labels can be positioned over, under or inside the display window. The units dual ourputs provides user selectable resolution ailowing the output to be adapted to a variety of computer, projection, and plasma displays.

Please call for further information and pricing!

## Matthey Low Pass Video Filters \& Video Delay Lines Marthey - low pass video filters • very sharp cut (Brickwall) filters - 601 type filters - 422 filters • slow roll off filters • HDTV high frequency, low pass filters • triple filters - S.I.L. filters • D.I.L. filters • zero loss filters • hybrid video amplifiers • noise weighting filters • group delay equalizers • differentiating pulse networks - video attenuators. For a complete Matthey catalog, please give us a call. <br> Marthey Video Delay Lines are available in metal boxes with BNC connectors. They are designed to be used either as permanent rack mounted installations, or as temporary connections in test laborato- <br>  ries, outside broadcast units, or when timing a new installation. The metal boxes are strong, providing good protection to the delay line; and RFI shielding. Swirches are all gold plated with low noise performance. <br> NV180 ..... Video delay for smaller than $180^{\circ}$ of phase, 2ns steps and $\pm 1$ ns trim ... $\$ 371.00$ <br> NV360 ..... Video delay for up to $360^{\circ}$ of phase, 2 ns steps and $\pm \mathrm{Ins}$ trim .......... $\$ 423.00$

Modulation Sciences MSI-320
Precision Television Demodulator


Modulation Sciences' new MSI-320 Precision Television Demodulator is a revolution in video monitoring. The new, high quality precision demodulator provides advanced, accurate measurement and monitoring of a station's visual and aural signal at a fraction of what precision demods usually cost. The MSI-320 features Modulation Sciences' own, state-of-the-art contemporary design using the most advanced components and precision technology.
MSI-320
Television Demodulator
$\$ 5,650.00$


Network Electonics is a designer and manufacturer of broadcast quality Digital \& Ana$\log$ Routing Sivitchers, Distribution Amplifiers, and A to D, D to A Converters. Network System Integration Equipment features ingenious ultra compact design with state of the art performance. Network equipment uses less power, gives offless heat \& radiation, and has unique configuration expansion capabilities. Network Electronics Systems Integration Equipment provides cost effective solutions for demanding applications, right off the shelf. All Network routers many be controlled with the MIDI bus and RS-232 port to facilitate remote control through PC's using Network CrossSoft Windows ${ }^{\text {M }}$ based software, or by a standard builr-in local control panel. With concise open plaform protocols, software is relatively easy to cusiomize for individual selection status of the router when power is shur down. All Network products come with a three year warranty with immediate replacement. Network Electronics: revolutionary design, prompt delivery, and attractive prices. Please call for more information or check out our website.

## Video • Video Markers



## Omnimount ARC Adjustable Framing Support Systems

The Omnimount ARC Connections I are an adjustable framing support system. When the system is tightened, special pads with a high coefficient of friction compress against the enclosure surfaces. The eight pads in the four corners prevent any movement of the frame. They also conform to variations in contours on the enclosure and protect against marring or scratching. Two
independently functioning steel aircraft cables hold the framing system together. Each cable is rated to a test strength of $1,000 \mathrm{lbs}$. Either cable is capable of independently supporting the load, but the redundancy of using two cables provides an added margin of safery and strength.
Prices Range fro $\qquad$ $\$ 49.95-\$ 950.00$

## Pointmaker- by Boeckeler Instruments

## Frotereapnaf Elocoudant Visun tharbers

The Pointmaker can be used to enhance a video presentation when connected between a video source and monitor. Drawing and pointing is accomplished either from the back of the room with a wireless remote control, directly on the monitor with a light pen, or with a digitizing tablet. The Pointmaker may also be operated with a touch screen (call for compaubility), or a computer (via RS-232C). Compatible with monochrome EIA RS-170, composite NTSC, Y/C (S-Video), RGB, VGA (PC) and most Macintosh sources and displays. Add the letter " C " to the model number for compatibility with CCIR and PAL video instead of NTSC.

Video Arrow. Joystick with BNCs for composite NTSC, or RGB with sync on green (Optional cable YCX-10 (\$150) allows use with Y/C video equipment)

Video Marker. Compatible with composite NTSC, or RGB with sync on green. (Optional cable YCX-10 (\$150) allows use with Y/C video equipment)
Professional Broadcast Video Marker. Comparible with composite NTSC, or $\mathrm{Y} / \mathrm{C}$ video equipment. Includes key out and sync delay features.

Chroma-System w/Broadcast Video Marker with touch-sensitive wall panel ( $4^{\prime} \times 5$ ) for broadcast chroma-key. Compatible with composite NTSC, or Y/C video equipment. Includes key out and sync delay features.

External Delay Adjustment. Allows time delay adjustment of markers from a location other than where the tablet or light pen is being used.

External Cancel. Clears all markers from overlay from a location other than where the tablet or light pen is being used.
Multiple-Sync Video Marker. Multiple-sync capabilities for composite NTSC. Y/C, RGB, VGA, SVGA, and Macintosh. Includes videoconferencing features.
A/V Equipment Control Option. For the PVI-83 model. Allows RS- 232 control of up to $9 \mathrm{~A} / \mathrm{V}$ units.

Multiple Comm Port Option. For the PVI-83 model. Price does not include extra controllers.

Presentation System. Uses video scaling to transform composite, Y/C, and RGB inputs to high-resolution output.

PVI-40D ........ Video Marker, Includes DT-30 Digitizing Tablet$\$ 395.00$
PVI-40L ......... Video Marker, Includes LP-32 Light Pen ..... \$1,095.00
PVI-44D ........ Color Video Marker, Includes DT-30 Digitizing Tablet ..... \$1,695.00
PVI-44L ......... Color Video Marker, Includes LP-32 Light Pen ..... \$1,795.00
PVI-64D ......... Professional Broadcast Video Marker, Includes DT-30 Digitizing Tablet ..... \$3,695.00
PVI-64DL ....... Professional Broadcast Video Marker, Includes DT-30 \& LP-32 . ..... \$4,095.00
CS-64D .......... Chroma-System w/Broadcast Video Marker Includes Chroma-board, DT-30 Digitizing Tablet, extended cabling and drivers for both board, tablet, \& rack mount kit ..... $\$ 8,745.00$
/DELAY ......... External Delay Adjustment. ..... $\$ 250.00$
/CANCEL ...... External Cancel ..... $\$ 100.00$
PVI-73D ........ Multiple-Sync Video Marker, Includes DT-30 Digitizing Tablet ..... $\$ 2,795.00$
PVI-73L ......... Multiple-Sync Video Marker, Includes LP-32 Light Pen .....  2,895.00
PVI-83D ......... Multiple-Sync Video Marker, Includes Keyboard \& DT-30 Digitizing Tablet ..... $\$ 3,495.00$
PVI-83L ......... Multiple-Sync Video Marker, Includes Keyboard \& LP-32 Light Pen ..... \$3,595.00
/TROL . A/V Equipment Control Option, For use with PVI-83 ..... $\$ 650.00$
/COMM-4 ..... Multiple Comm Port Option, For use with PVI-83 ..... $\$ 600.00$
/COMM-8 ..... Multiple Comm Port Oprion, For use with PVI-83 ..... $\$ 900.00$
PVI-X100D .... Presentation System, Includes DT-30 Digitizing Tablet ..... \$6,495.00
PVI-X100DL.. Presentation System, Includes DT-30 \& LP-32 ..... $\$ 6,895.00$
Please call for further information and pricing on accessories available for Pointmaker.

## ProTeleVision PT 5664

Digital \& Analog Component/Composite WFM


The PT 5664 combined analog and digital waveform monitor and vectorscope provides new dimensions in video signal monitoring, in component and composite environments. With its three different video input formats it is a natural choice in mixed analog and digital facilities. The instument automatically adjusts to the television system supplied at the inputs. Features include: SDI input $525 / 625$ lines ${ }^{\bullet}$ analog component input $525 / 625$ lines • analog composite input (PAL/NTSC) • YPBPR, RGB, Parade and Overlay, Star and Vector display.

PT5664/50 ..... Digital \& Analog Component/Composite WFM ........ \$5,106.00

## ProTeleVision PM5639/00 \& PM5639/01

 CRT Color Analyzer \& Analyzer w/PC Interface The CRT Color Analyzer, PM5639/00 is a unique tool for white balance alignment of broadcast monitors and computer graphic displays. It ensures a consistent and high picture quality in video editing. Features include: handheld, battery operated - graphic RGB and CIE chromaticity display • phosphor type independent • traceable to international standard, NIST and BIPM. The PM 5639/01 uses a PC as display, and comes with a sofiware package.
PM5639/00
CRT Color Analyzer \$5,490.00

PM5639/01
CRT Color Analyzer w/PC Interface . $\$ 4,733.00$
ProTeleVision
PM5639/82 \& PM5639/83 Color Alignment Generators
Features include: battery operated heandheld generator

- standard and special patterns for alignment of color monitors, projectors and video walls.

PM5639G/82
Component RGB, YPBPR in 525 or 625 line versions PM $5639 \mathrm{M} / 82$....... Component RGB, YPBPR in 525 or 625 line versions
$\$ 938.00$ PM5639G/83 ....... Composite and Y/C in PAL or NTSC verstions .............. $\$ 938.00$ $\$ 938.00$ PM5639M/83 .......Composite and Y/C in PAL or NTSC verstions ................. \$938.00



## Sachtler Lighting \& Camera Support Systems



## Wohler SDI Video Peripherals



The Wohler UB-1000 SDI Peripheral Chassis includes standard front panel and redundant PSU. It holds maximum two product 1000 cards.

## UB-1000 <br> SDI Peripheral Chassis

\$1,595.00
The Wohler SQ-1000 Aspect Ration Converter allows you to pan $\&$ scan, compress or expand video output horizontally or vertically by any amount, without sacrificing a quality picture. With fully flexible zooming, SQ-1000 converts all sapect ratios bi-directionally. SDI I/O, EDH insertion, and 10 -bit quality. Auto delay and Auto Tracking available. Includes Digital to Analog converter with RGB/YUV outputs.
SQ-1000 ......... Digital Aspect Ratio Converter (Req's UB-1000) .........
$\$ 4,350.00$
LK-1000 SDI Logokeyer Card uses a digital keyer to superimpose logos onto SDI program picture. Simultaneously stores four different logos and their preferences. Full position and opacity controls. 16:9 compatible. Designed to be trouble-free, yet remakably cost-effective. Includes a Serial Digital Video input connector for logo aquisition. Options include plug-in Digital to Analog converter with RGB/YUV monitoring outputs.
LK-1000 ......... Digital LOGO keyer Card (Req's UB-1000) .
$\$ 3,750.00$
CP-1000 SDE RGB Clipper/Legalizer Card makes serial digital video legal and valid. Features 10 -bit throughout, constant hue feature, hard and soft clipping. Legalizes detail in sub-blacks prior to clipping. Optional Plug-In Digital to Analog converter with RGB/YUV outputs available.

CP-1000 ......... Digital Video RGB legalizer Card (Req's UB-1000) ..... \$3,695.00
CG-1000SDI Safe Area Generator/Cage Card (Serial Digital Cage) provides in-vision cursors in the SDI signal, blanking for different aspect ratios, 16:9, 14:9 and 4:3 compatible.

CG-1000 . Safe Area Generator Card (Req's UB-1000)
$\$ 2,495.00$

## Wohler SDI \& AES/EBU Audio Shufflers



The Wohler B-21 10 AES/EBU Audio Shuffler offers a cost effective solution to modifying AES/EBU audio signals. Useful in transmission, racks and VT areas, the Shuffler allows four AES/EBU audio input signals to be selected, modified and then routed to four digital ourpurs. Four analog and four digital outputs. Also includes headphone jack.
B-2110 $\qquad$ Digital audio signal modifier/break-out box; 2xAES/EBU I/O's, re-routing, level adjust \& phase/reversal $\$ 4,025.00$
B-2110opt 1.
Plug in AES/EBu bus insert PCB
. $\$ 525.00$
B-21 10opt2 .... Plug in video synch/word clock PCB $\$ 395.00$
B-2120 ........... SDI Digital Audio Signal Shuffler. SDI I/O. Re-routing, mixing, level adjust \& phase reversal. 8 user memories. RS422 port. Analog output, headphone \& insert port .... $\$ 4,600.00$
B-2120opt1 ..... Plug in for analog \& AES I/O for muxing and demuxing ... \$1,025.00

## Hotlinks to Vendors © www.bgsfi.com www.broadcastdealer.com

## Video • DTV

## Wohler 7120/7210/7310/8110/8210

Autha Orfiy/Synahtonterl|


| Wohler PANORAMA dtv <br> Audio Delay / Synchronizers Comparison Chart |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Product Number | 7120 | 7220 | 7310 | 8110 | 8210 |
| Analog 10's | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| AES/EBU IO's |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| D/A and AD Conversion |  | $\checkmark$ | $\checkmark$ |  |  |
| Number of Audio Channels | 2 | 2 | 2 | 8 | 4 |
| Separate SMPTE Timecode Delay |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| Independent Channel Settings | $\checkmark$ | $\checkmark$ | $\checkmark$ | pars | $\checkmark$ |
| Maximum Delay per Channet | 660 ms | 1.35 | 1.35 | 7.5 trames | 1.35 |
| Silent Manual Delay Adjustment on line |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| Auto-tracking. Audio Follow Video |  |  | $\checkmark$ |  |  |
| NTSC or PAL Operation | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Increment in Samples. Fields, Frames or mSecs | $\checkmark$ | $\checkmark$ | $\checkmark$ | fields | $\checkmark$ |
| Extemal AESIEBU, Video \& Word Retrence |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| LCD Display | $\checkmark$ | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| 8 User Memories | $\checkmark$ | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| Front-end Sample Rate Converter |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| Balanceal IO's | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Data lo Port |  |  |  |  | $\checkmark$ |
| Fall.Sale Bypass | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| RS232 Remote Control Port |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| Windows 95 Remote Sottware Option |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| Price | \$1,485 | \$2,350 | \$4,685 | 53,185 | 54,400 |

## Wohler Broadcast Quality Signal Conversion

Wohler offers a 3 U housing that holds up to 12 cards (mix \& match) for you to build your own broadcast quality video and audio conversion rack. EMC compliant, with a wide range of cards and configurations available to handle any application: Distribution (SDI Video, AES, Analog Video \& Audio) • Monitoring (SDI Video, AES) • Encod
 ing (SDI Video to NTSC/PAL/YUV/RGB) • Decoding (NTSC/PAL/YUV/RGB to SDI Video) • Embedding (AES, Analog audio to SDI stream) • De-Embedding (AES, Analog audio from SDI stream) • Utility switchers (Digital and Analog) • Rouring switchers (Digital and Analog) • Proven high reliability!

## Wohler B-6110 Audu Lay Detr Riecorder



The Wohler B-61 10 lay-off recorder operates in the timecode "follow" mode or via an RS-422 serial interface, in NTSC or PAL formats. In the "follow" mode it records and replays audio in mono or stereo, in synchronization with other equipment when fed with external SMPTE timecode. Effectively, it provides two additional tracks of audio in order to simplify editing when audio needs to be cross faded and not edited with the video. When used under serial control the B-61 10 provides VTR emulation and supports Sony protocol. Standard stereo memory is $42 \operatorname{secs}$ ( 1 min 24 secs mono) with 1 min 24 secs and 2 mins 48 secs options available. SMPTE timecode rracking, AES and analog I/O.
B-6110 ........... Audio Lay-Off Recorder, 42 second memory
$\$ 5,250.00$
B-6110 ........... Audio Lay-Off Recorder, 1 min .42 second memory .... $\$ 6,350.00$
B-6110 ........... Audio Lay-Off Recorder, 2 min .42 second memory.
\$8,500.00

## Wire - Accessories



| Part <br> Number | Nominal <br> O.D. | Nominal <br> Capacitance | Description | Price/ <br> 1000 ft. |
| :--- | :---: | :---: | :---: | :---: |
| Belden <br> 8451 | $.138^{\prime \prime}$ | 34 pi/ft | 22AWG | $\$ 150.00$ |
| Belden <br> 9451 | $.135^{\prime \prime}$ | 34 pi/ft | 22AWG | $\$ 150.00$ |
| Belden <br> 8761 | $.175^{\prime \prime}$ | 24 pi/ft | $22 A W G$ | $\$ 150.00$ |
| Canare <br> L-2B2AT | $.126^{\prime \prime}$ | 23 pi/ft. | $25 A W G$ | $\$ 160.00$ |
| Clark <br> SPA22GS | $.135^{\prime \prime}$ | 30 pf/ft. | $22 A W G$ | $\$ 99.00$ |
| Gepco <br> 61801 <br> Gepco | $140^{\prime \prime}$ | 25 pi/ft. | $22 A W G$ | $\$ 130.00$ |
| 61801EZ | $138^{\prime \prime}$ | 29 pi/ft. | $22 A W G$ | $\$ 130.00$ |
| West <br> Penn 291 | $.141^{\prime \prime}$ | 55 pi/ft. | Single Pair | $\$ 80.00$ |

## 1-352-622-7700

| Audio Dual Pair Cable |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Part Number | Nominal O.D. | Nominal Capacitance | Description | $\begin{aligned} & \text { Price/ } \\ & 1000 \mathrm{ft} \text {. } \end{aligned}$ |
| Belden 8723 | .150" | $35 \mathrm{pt} / \mathrm{tt}$. | 22AWG | \$170.00 |
| $\begin{aligned} & \text { Belden } \\ & 1504 \mathrm{~A} \end{aligned}$ | .143"x. 3000 | $57 \mathrm{pt/ft}$. | 22AWG | \$370.00 |
| Clark Zip RS22G2 | .135x.280" | $30 \mathrm{pt} / \mathrm{tt}$. | 22AWG | \$235.00 |
| Clark Zip RS22G2-Plen | . $135 \mathrm{x} .280^{\circ}$ | $30 \mathrm{pr} / \mathrm{ft}$. | 22AWG | \$450.00 |
| Gepco D61801EZGF | .140"x.290" | $29 \mathrm{pf/ft}$. | 22AWG | \$300.00 |
| $\begin{aligned} & \text { West Penn } \\ & 2452 \end{aligned}$ | N/A | $\mathrm{pt} / \mathrm{t}$. | 24AWG | \$202.00 |


| Digital/LAN Cable |  |  |
| :---: | :---: | :---: |
| Part Number | Description | $\begin{aligned} & \text { Price/ } \\ & 1000 \mathrm{ft} \text {. } \end{aligned}$ |
| $\begin{aligned} & \text { Belden } \\ & \text { 1583A } \end{aligned}$ | 4-Pair, Category 5 | \$70.00 |
| $\begin{aligned} & \text { Belden } \\ & 1700 \mathrm{~A} \end{aligned}$ | 4-Pair, Enhanced Category 5 | \$130.00 |
| $\begin{aligned} & \text { Belden } \\ & 1752 A \end{aligned}$ | 4-Pair, Enhanced Category 5 Stranded | \$240.00 |
| $\begin{array}{\|l} \text { Belden } \\ 1872 \mathrm{~A} \end{array}$ | 4-Pair, Media Twist Data/Audic/Video/etc. | \$190.00 |
| Clark CATSPVCAPR | 4-Pair, 24AWG solid B.C., unshielded, Category 5 | \$118.00 |
| Clark CATSPVCAPASTR | 4-Pair, 24AWG solid B.C., shielded, Category 5 | \$230.00 |
| $\begin{aligned} & \text { West Penn } \\ & 54568 \end{aligned}$ | 4-Pair, Category 5, Solid | \$75.00 |
| $\begin{aligned} & \text { West Penn } \\ & 54998 \end{aligned}$ | 4-Parr, Category 5, Plenum, Solid | \$195.00 |
| $\begin{aligned} & \text { West Penn } \\ & 55082 \end{aligned}$ | 4-Pair, Category 5 Shielded, Plenum, Solid | 8542.00 |
| $\begin{aligned} & \text { West Penn } \\ & 54783 \end{aligned}$ | 4-Pair, Category 5, Shielded, Solid | \$208.00 |

## Hotlinks to Vendors @ www.bgsfl.com www.broadcastdealer.com



## Wire • Accessories

|  | Speaker Cable |  |
| :--- | :---: | :---: |
| Part Number | Description | Price/ <br> 1000 ft. |
| Belden 9716 | 16AWG, Zip Style | $\$ 270.00$ |
| Belden 9717 | 14AWG, Zip Style | $\$ 400.00$ |
| Belden 9718 | 12AWG, Zip Style | $\$ 690.00$ |
| Clark Z160FC | 16AWG, Zip Style | $\$ 150.00$ |
| Clark Z140FC | 14AWG, Zip Style | $\$ 320.00$ |
| Clark Z120FC | 12AWG, Zip Style | $\$ 409.00$ |
| Clark Z100FC | 10AWG, Zip Style | $\$ 510.00$ |
| Gepco <br> GSC1020FC | 10AWG, Stranded (413x36) | $\$ 960.00$ |
| Gepco <br> GSC1220FC | 12AWG, Stranded (259×36) | $\$ 680.00$ |

## RF 50 ohm Transmission Cables

| Part Number | Description | Price/ <br> 1000 ft |
| :--- | :---: | :---: |
| Belden 8240 | RG-58/U Type | $\$ 230.00$ |
| Belden 8259 | RG-58A/U Type | $\$ 230.00$ |
| Belden 8237 | RG-8/U Type | $\$ 680.00$ |
| Belden 9913 | Low Loss RG-8/U Type | $\$ 810.00$ |
| Belden 9913F | Low Loss RG-8/U Type, High Flex | $\$ 910.00$ |
| Clark RG58AU | RG-58A/U Type, 20 Gage, Stranded | $\$ 195.00$ |
| Gepco 3111 | RG-58 Type, 20 Gage, Solid | $\$ 260.00$ |
| Gepco 3135 | RG-58 Type, 20 Gage, Stranded | $\$ 300.00$ |
| Gepco 3240 | RG-8 Type, 11 Gage, Stranded | $\$ 780.00$ |
| West Penn 810 | RG-8 Type | $\$ 432.00$ |
| West Penn 812 | RG-58AUU Type | $\$ 144.00$ |


| RF 75 ohm Transmission Cables |  |  |
| :---: | :---: | :---: |
| Part Number | Description | Price/ 1000 ft . |
| Belden 8241 | RG-59/U Type | \$210.00 |
| Belden 8241B | RG-59/U Type | \$210.00 |
| Belden 88241 | RG-59/U Type, Non-conduit Plenum | \$1,090.00 |
| Belden 9259 | RG-59/U Type | \$260.00 |
| Belden 89259 | RG-59/U Type, Non-conduit Plenum | \$1,440.00 |
| Belden 1426A | RG-59/U Type | \$190.00 |
| Belden 9248 | RG-6/U Type | \$270.00 |
| Belden 89248 | RG-6/U Type, Non-conduit Plenum | \$1,520.00 |
| Clark RG59/U-PLEN | RG59/U Plenum | \$590.00 |
| Clark RG6SD | Serial Digital Cable, Thin Profile | \$299.00 |
| Clark RG11/U | Camplex2 RG11, stranded | \$462.00 |
| Gepco 5726 | RG-6 Type, 18 Gage, Solid | \$180.00 |
| Gepco VE61859M | RG-59 Type, 22 Gage, Stranded | \$320.00 |
| Gepco 5573 | RG-58 Type, 20 Gage, Solid | \$200.00 |
| Gepco 5913 | RG-11 Type, 14 Gage, Solid | \$330.00 |
| West Penn 801 | RG-11/U Type | \$402.00 |
| West Penn 804 | RG-59/U Type | \$156.00 |
| West Penn 841 | RG-6/U Type | \$108.00 |

## Canare Cable Reel Stand



Canare CRS-02 cable storage rack accommodates 10 full-size Canare spools. Extra heavy duty gauge steel frame with solid reinforced welded joints. Rugged crinkled powder coat blue finish. Includes 4 industrial strength roll-around locking casters. CRS-2 ........ Cable Storage Rack ........ $\$ 584.90$

The Canare BET-12 connector removal tool perfectly firs not only Canare $75 \Omega$ BCP-CBNCseries, but
all otherstandardMIL-SPEC BNC line plugs. The BET-12 allows easy access to those hard-to-reach BNC jacks located deep inside rear rack enclosures. BET-12 ..... Connector Removal Tool . $\$ 42.25$

## Quik Lok Bulk Cable Stand



The Quik Lok ESP-6 bulk cable stand has computer-welded joints and $1-1 / 2^{\prime \prime}$ diameter steel tubing. It is capable of holding up to 15110 -yard reels of cable. Easy to load and remove cable reels a and supplied with casters for easy mobility.
ESP-6
$\$ 239.95$



| Model ... Size ....... | Wt. ...... Stackable .. Casters ...... Cable ..... Hanger ........ Price (lbs.) ................................... Cut-Out |
| :---: | :---: |
| R460S ..... L | 36.00 |
| R380S M | YES ......... YES ........ YES ...... \$414.95 |

Whirlwind Cable Reels
Whirlwind cable reels are constructed of heavy gauge steel with welded frames for rugged durability. The premium WD Series reels feature a unique adjustable braking system that controls the speed of the spool during payout and eases turning during rewind. The economical MR Series reels offer heavyduty cable storage in a compact design.

The WD-1 and WD-2 are ideal for storage of microphone and small diameter mulripair cable. Integral handles make them easy to carry and store.
WD-1 ......................... $\$ 169.00$
WD-2 .......................... $\$ 227.80$

The WD- 3 and WD-3S are large capacity reels that feature removable crank handles and pillowblock bearings for smooth cranking under heavy loads. The unique split reel design offers easy access to both ends of the cable without having to unspool the entire length.
WD-3 .......................... $\$ 403.00$


American Recorder Technologies SnakeSkin is the state of the art wire bundling and protection system. The wrap around design provides $100 \%$ coverage that holds wire snugly in place. Open weave construction will not retain moisture and protects wires and cable from abrasion. SnakeSkin can easily be cut with scissors, or a hot knife for a neat, melted edge.
SKI-0.5/1000B ........ 1/2" SnakeSkin, 1000' Black $\qquad$ $\$ 200.00$

SKI-1.0/100B $\qquad$ 1" SnakeSkin, 100' Black $\qquad$ $\$ 250.00$ Bodge Plugs


With a set of Bodge Plugs and a length of balanced cable, a range of 45 different adapter cables can be made quickly, saving you time and aggravation.

|  | XLR 3-pin Plug ............................................... \$35.00 |
| :---: | :---: |
| BOD-XLRJ | XLR 3-pin Jack ............................................... \$35.00 |
| BOD-SPPS | 1/4" Standard Stereo Phone Plug ......................... \$35.00 |
| BOD-SPJS. | , 1/4" Standard Stereo Phone Jack ........................... \$35.00 |
| BOD-SPP | . 1/4" Standard Mono Phono Plug .......................... \$35.00 |
| BOD-PP | RCA Phono Plug .............................................. $\$ 35.00$ |
| BOD-P | RCA Phono Jack ............................................. \$35.00 |
| BOD-BJ | BNC Jack ....................................................... \$35.00 |
| BOD-TRS | 1/4" Tip Ring Sleeve Plug ..................................... $\$ 35.00$ |
| Audio Adap |  |
| SPP-XLRJ | .1/4" Standard Phone Plug to 3-pin XLR jack ............ \$9.99 |
| SPP-XLRP | . 1/4" Standard Phone Plug to 3-pin XLR Plug ........... \$9.99 |
| XLRJ-BL | . -pin XLR Jack to Jack Barrel .............................. \$10.99 |
| XLR-FM. | . 3-pin Plug to Jack .............................................. \$9.99 |
| XLRJ-PJ | 3-pin XLR Jack to Phono (RCA) Jack ...................... \$9.99 |
| XLRP-BL | 3-pin XLR Plug to Plug Barrel ................................ \$9.99 |

## Wire • Accessories

## Energy Transformation Systems, Inc. (ETS)



ETS is a manufacturer and supplier of high-performance data communications and multimedia wiring products, physical layer LAN products, custom magnetic and power electronics. ETS is one of the pioneers in physical layer components for network systems that enable Ethernet, Token ring, Apple Talk/Local Talk, IBM and Wang devices to operate over media not anticipated during system design, especially unshielded twisted-pair data communications components.

ProCision WaveAudio - Digital


## HOSA

All Hosa cables and adaptors come with a lifetime warranty to be free of defects in material and workmanship. Below is just a sampling of what Hosa offers, please call for further information and pricing.

| CRA-105 ............... RCA-RCA, 5 ft. ....................................................... $\$ 8.00$ |  |
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## Intelix Baluns

The Intelix A/V baluns (used in pairs) allows audio and video equipment to route through a building's existing strucrured cabling system based on Cat 3 or 5 Unshielded Twisted Pair (UTP) cable offering greater control and efficiency at a fraction of the cost. Specify in pairs (2). Priced per unit.
V1 V1 ................. Composite video

(BNC connector to RJ45) ...... $\$ 35.00$
V1A2 ...... Composite video and stereo audio (1 BNC \& 2 RCA to RJ45)
$\$ 83.00$

V2A2 ...... 2-way video and audio
(4 RCA connectors to RJ45)
$\ldots . . \$ 83.00$


V3 .......... RGB video (3 BNC to RJ45)


## Neutrik Connectors



Below is a sampling of the connectors available from Neutrik. The XLR connectors are available in 3 through 7 pins, straight, right angle, and panel configuration.
Please call for complete Neutrik information.


## Switchcraft Connectors \& Adapters

321 ......... Phono plug to 3 -pin
A3M
322 ......... Phono jack to 3-pin
XLR female audio-connector .................. \$17.10
323 ......... Phono plug to 3-pin
XLR male audio-connector ..................... \$15.20
324 ......... Phono jack to 3-pin
XLR male audio-connector ..................... $\$ 15.20$
389 ......... Adapter- XLRF to XLRF ............................. $\$ 18.75$
390 ......... Adapter- XLRM to XLRM ............................ $\$ 15.55$
A3F ........ Satin Nickel Finish, female 3-pin XLR ...... $\$ 6.70$
A3M ....... Satin Nickel Finish, male 3-pin XLR ........ $\$ 5.95$

## Wire - Accessories

## Radio Systems StudioHub

## 

The StudioHub product makes extensive use of shielded twisted pair (STP) CAT-5 compliant cable throughout its design and implementation. In conjunction with companion termination and active amplifier components (used where needed to condition the audio), these integrated StudioHub products provide a convenient and technically sound method to wire and intermix analog and digital signals in a broadcast facility. STP cable, widely used in the computer industry, was selected for this new cross-platform application due to its characteristic: 100 -ohm impedance and low capacitance range • excellent performance at audio frequencies - wide bandwidth for data transmission • low cost and wide availability $\bullet$ and wide range of connector and cable management systems.

## 

Category 5 cables perform well for digital audio applications because they are engineered to have characteristic impedance of 100 ohms, and more importantly, extremely low capacitance (in the $12 \mathrm{pF} / \mathrm{ft}$ range). This yields the fastest transmission speeds and lowest signal reflection resulting in the best high frequency response and lowest error rates. CAT-5 cables are engineered for data rates up to $100 \mathrm{Mb} / \mathrm{sec}$ ( 100 baseT nerworks). Since AES/EBU signals have a bandwidth of abour $3 \mathrm{Mb} / \mathrm{sec}$ (depending on sample rate), they operate well within the cables' guaranteed performance parameters, with dependable error-free transmission at lengths up to 920 meters (over $1 / 2$ mile).

## 

In a recent article, Steve Lampen, a senior audio video specialist for Kelden Wire \& Cable writes, "Digital audio cables make the absolute best analog calles. You can go farther with flatter frequency response than with any cable designed for analog". This is due to it's characteristic low capacitance, data calle is designed to transmit data at high velocity and wide bandwidths. At audio frequencies, these characteristics will yield exceptionally flat frequency response, even over very long cable lengths.

Shielded rwisted pair cable is specified for use in the StudioHub product to negate the effects of RFI in high RF environments and to avoid any possible crosstalk hetween cables in multi-cable bundles. While there is a potential for signal cross coupling between pairs in the same cable, the use of good modern design electronically balanced circuits (especially at the terminating end) reduces this interference to negligible levels. Tests conducted by Radio Systems have measured maximum crosstalk at $-102 \mathrm{~dB}, 20-20 \mathrm{kHz}$, measured along a $200^{\circ}$ length of CAT-5 cable, into a balanced termination with a CMRR of 85 dB . An "average" quality balanced circuit with 50 dB of CMRR yielded -90 dB with the same eest parameters. Finally, the use of a digital capable cable is recommended for facilities even where no digital audio circuits are currently contemplated due to the low cost and ease of future digital conversion. In addition, by adopting the uniform use of a "multi-platform" cable, facility planning is simplified because any building cable may be readily employed at any time for analog, digital or data (LAN) applications.

## 

Standard CAT-5 cable features four tightly rwisted pairs (8 wires total); rwo of which are utilized for balanced left and right audio by the StudioHub wiring archirecture. Two of the unused wires, plus a third ground wire are employed for the "DC power link system" which conducts $\pm 15$ volts through the cabling to remotely power various system auxiliary amplifiers and accessories. These "spoke" products include miniature matching and pre-amplifiers to conveniently convert source equipment with consumer style unbalanced and low-level audio inputs and outputs to the pro standards required for use with the StudioHub product. The "power link" approach provides phantom style powering of remote devises, eliminating the clutter and noise associated with multiple $A C$ power supplies and "wall-wart" solutions. Future applications for the additional pairs made available via the use of CAT-5 cabling will include the introduction of RS-485 serial control signaling for "smart" spoke devises such as routing switchers and intercom signaling systems.

## Tascam



8 Channel Snake Cables (Unbalanced) Insert (Send/Return) Snake Cables 8 Channel Snake Cables (Balanced) 8 Channel Suake Cables (D-Sub Balanced) Patch Bay Cable Sets Single Audio Crables (Unbalanced) Single Audio Cables (Balanced Microphone/Instrument) Daul Audio Cables Insert (Send/Return) Cables

Headphone Extension Cables Instrument Cables
Guitar Cables MIDI Cables (Molded End) MIDI Cables (Metal End) MIDI Cables (Right Angle Plug) MIDI Cables (Misc.) Audio Adaptors

Audio Couplers
" $Y$ " Cables
TDIF Cables
DA38/DA98/DA88 Cables
"TT" Tiny Telephone (Balanced)
AES/EBU Cables
ADAT Cables
Connectors

Speaker Cables SCSI Cables Sound Card Cables SPDIF Cables Video Cables USB/Firewire Power Extension Word Clock

We show a sampling of cables we stock, please call for further information and pricing.CU/AA203XLR (M) - XLR (M)$\$ 10.00$
CU/AA204 XLR (F) - XLR (F) ..... $\$ 12.00$
[latill alulo Chtiots
CU/AD)102 RCA (M) - RCA (M), 6 ft. ..... $\$ 4.75$
CU/AD302 1/4"Phone (M) - RCA (M), 6ft. ..... $\$ 5.75$
Heaptumo Eutintion Coble
CU/HE525 ............. 14/"TRS - 1/4"TRS (F), 25ft. Coiled ..... $\$ 10.00$
CU/AB202 1/4"TRS (M) - 1/4"TRS (M), 6ft. ..... $\$ 5.00$
CU/AB305 XLR (M) - 1/4"TRS (M), 16ft ..... $\$ 14.00$
CU/AB405 XLR (F) - 1/4"TRS (M), 16ft. ..... $\$ 14.50$

CU/AS202 1/4"Phone (M) - 1/4"Phone (M), 6ft. ..... $\$ 4.00$
CU/AS302 1/4"Phone (M) - RCA (M), 6ft. ..... $\$ 3.75$
CU/AS502 XIR (F) - RCA (M), 6ft. ..... $\$ 10.00$
CU/AS602 XIR (M) - 1/4"Phone (M), 6 ft . ..... $\$ 9.25$
CU/AS702 XLR (F) - 1/4"Phone (M), 6ft. ..... $\$ 10.00$

+ Crioletion
CU/YC103 RCA (M) - RCA (Fx2), 6 ..... $\$ 3.00$
CU/YC501 .............. 1/4"TRS (M) - RCA (Fx2), 6" ..... $\$ 3.75$
CU/YC701 . XI.R (M) - XI.R (Fx2), 6" ..... $\$ 17.50$
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## Terms \& Conditions Stuff

# Broadcasters General Store 



## PAYMETI

We accept most major credit cards, as well as certified check, money order, COD, or 30 day open account for those approved accounts. Orders paid for by personal check may be accepted upon approval by TeleCheck. Orders outside the U.S. require payment by U.S. certified funds, credit card or via bank transfer. To obtain Customer Open Account Status: Please complete and
sign our credit application, we will ship on open account to qualified domestic businesses and educational agencies upon receipt of a written purchase order. Our credit application can be found on the back of the address page of this catalog, at our web site or we would be happy to fax one to you. All accounts over the agreed credit terms will relinquish their privilege of credit terms.

## SHIPPIME

Normally we ship via UPS. For those shipment that require faster service we will ship UPS or Federal Express (we will try to use other specified carriers upon request). Shipping charges are based on the weight or in the case of larger boxes the dimensional shipping weight of the item. Shipping charges are prepaid and added to the customer's chosen method of payment.

Upon receipt of the shipment please inspect all boxes immediately. If a package is damaged, make a note of the damage or any missing cartons on the receipt and
have the driver for the delivery company sign it and give you a copy. Please call BGS if any of these problems arise.
Claim: The copy of your shipping receipt should be faxed to us so that we can assist you in filing a claim. You must keep all cartons and equipment until the claim is investigated by the shipping company. Under present ICC rules and regulations, it is the responsibility of the consignee to inspect and report loss and damages promptly, within 5 working days, and in writing.

## BTIUMS

Please call BGS, before returning anything. We must issue you a Retum Authorization, which allows us to credit you account quickly. We will credit your account for product value only. We do not include shipping costs, unless the error was ours or the manufacturers. The items must show no cosmetic damage or signs of wear and must be retumed in the manufacturer's original packaging. Return authorizations expire 14 days from the date issued.

Restocking Charges: Special orders or non-inventory items may be subject to restrictions with possible manufacturer restocking fees! These fees can range from 15 to $50 \%$, while some custom orders are not returnable. Computer software will only be accepted back if unopened and the factory seal is intact.

## HOWDIIOHS OFSAI:

Payment for the goods is as previously agreed at the time of sale and as stated on the invoice, including freight charges. In the event an invoice is not paid as agreed, the Buyer agrees that the Seller, Broadcasters General Store, Inc., retains title and right to
possession of the goods, that the Buyer agrees to pay all costs of collections, including attorney's fees and that interest shall accrue on the full balance at the rate of $18 \%$ per annum. Any litigations between the parties shall take place in Marion County, Florida.

## WHARAMTIES

The manufacturers' warranties apply and commence on the invoice date. In the event of equipment failure during the warranty period, contact Broadcasters General Store promptly so that we may assist in the replacement or repair of the defective item.
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[^0]:    2200 ............ Note: cannot be field or factory upgraded to the 2200D .....
    \$3,950.00
    2200 D ......... As above w/AES/EBU digital inputs \& outputs
    $\$ 4,250.00$

[^1]:    SS8.2.
    Crosspoint Switching/Routing

[^2]:    "They are supplied with handles (ubss) on the rack ears smlex sperifed unthout havdles at the time of order:

[^3]:    81000-A ........ Average Reading Directional RF Wattmeter
    $\$ 248.00$
    81001-A ........ As above w/auxiliary DC input .... $\$ 343.00$

[^4]:    entespor-uticatile Muterctareo ERH2
    
     AtㅏㄴIII He Det

[^5]:    NG-1
    $\$ 219.00$

