

System Description

Ring-Master CB901 is an all-to-all direct speech system, controlled by a fully electronic central exchange. The brain of the system is a 16-bits microprocessor offering the user a wide selection of programmable features, designed to achieve flexibility and optimal efficiency in internal communication. The system configuration (numbering plan, etc.) as well as all features are simply programmed by using a dataterminal or PC (Personal Computer). Remote programming via modem is also possible. All stations are fully interchangeable since individual programmes are recorded in the central's memory.

Subscriber capacity, up to 7170.

The modular structure of the central permits easy expansion. Each subscriber card (8 subscriber positions) simply plugs in into the basic cardrack.

Simplified cabling.

The unique cabling concept allows for different cabling arrangements. Both the power supply and control units can be mounted decentralized. Each station requires one single pair for audio and signalling and one pair for power supply. To save cabling, remote groups of stations can be powered from local power units. In addition, the controlunit itself can be decentralized. Each controlunit (stage) for 240 subscribers can be installed anywhere in the system. The interconnection cabling between the master unit and the stages is optical fibre. Electronic cross-connections simplify the planning of a system.

System configurations

The Ring-Master CB901 system is divided into 4 categories based on the subscriber capacity:

SINGLE-STAGE SYSTEM CB901-1;

up to maximum 240 subscribers

DOUBLE-STAGE SYSTEM CB901-2;

above 240 and up to 480 subscribers

TRIPLE-STAGE SYSTEM CB901-3;

above 480 and up to 717 subscribers

MULTI-STAGE SYSTEM CB901-M;

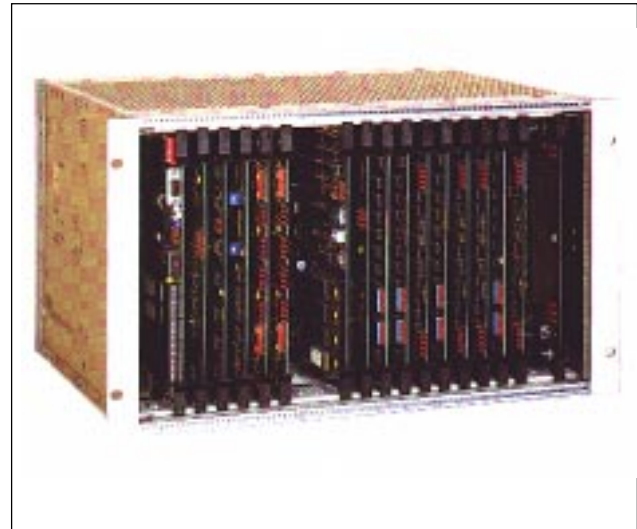
above 717 up to max. 7170.

In the Single-Stage System CB901-1, the central unit consists of a Basic Cardrack DP991 containing the Basic Cardset DP952E and Subscriber cards DP978/DP990.

There is room for max. 12 cards, i.e. 96 subscribers. If the number requirement exceeds this, the Subscriber Cardrack DP992 must be added, giving a maximum capacity of 240 subscribers in a single-stage system.

Link capacity.

In a Multi-Stage System a Digital Network Controller (DNC) controls the internal traffic between all the stages. Each stage for 240 subscribers has 15 internal links. The



CB901 **Excellent Performance**

Technical data system CB901:

Power requirements: 24V DC regulated

Internal voltages: +/- 12V, +/- 5V, 0V.

Power consumption, data unit: approx. 1 Amp.

Power consumption, Subscriber card: approx. 100 mA

Max. power consumption: approx. 100Watt

Cable specifications:

2 individual leads per station for audio

2 leads per station for power supply

Line specifications:

Frequency 300 - 5000 Hz

Galvanic line: 0 dBm (1mW/600ohm)

Speech level, normal: -12 dBm

Speech level, max.: + 4 dBm

Tone signalling level: - 10 dBm

Tone signalling frequencies in accordance with

CCITT norms

Switching principle:

Internal in nodes: Time Division Multiplex (TDM)

with analog transmission based on Pulse
Amplitude Modulation

Between nodes: Digital transmission, Pulse Code
Modulation (PCM), 2MBIT/S.

Programme organization:

Microprocessor (MPU) 16 bits MC68000

Cassette DP991/DP992 dimensions:

Height: 264mm (10.4") Width: 483mm (19")

Depth: 300mm (11.8")

Colour: Aludine yellow

CE Certification: CB901 complies with the following
standards: EMC directive 89/336-EEC, EN50081-1 and
EN50082-1

DNC has 1024 links. There are 8 interlinks between each slave stage and the DNC unit. CB901 provides not only fully adequate channel capacity, but also one dialling register per channel, thus ensuring an incredibly low blockage factor, handling traffic specifications up to 0.035 Erlang per station.

Stations and auxiliary equipment.

A wide range of stations can be supplied for the CB901 system, such as desk/wall master station w/display (AA960), desk/wall master station (AA916), surface and flush mounted stations (AA903), light (AA912) and heavy (AA906) industrial stations, light industrial station w/ display (AA961), explosion-proof stations (AF103), vandal-proof stations (AB931), membrane station (AA911) and a large number of substations and doorstations of different design. Several of these are specially designed to fit the various customer requirements.

See separate datasheets for stations and optional equipment.

Features.

The CB901 system has the following feature categories: Standard, Individual and Interface features.

Standard features:

- Handsfree/loudspeaking
- Confidential/softspeaking
- T-button for simplex control
- Microphone cut-off
- Camp on busy extension
- Conference
- Hurry-up tone
- Call-back
- Remote control circuits (doorlocks etc.)
- Data transmission

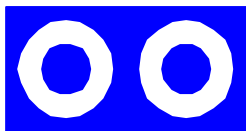
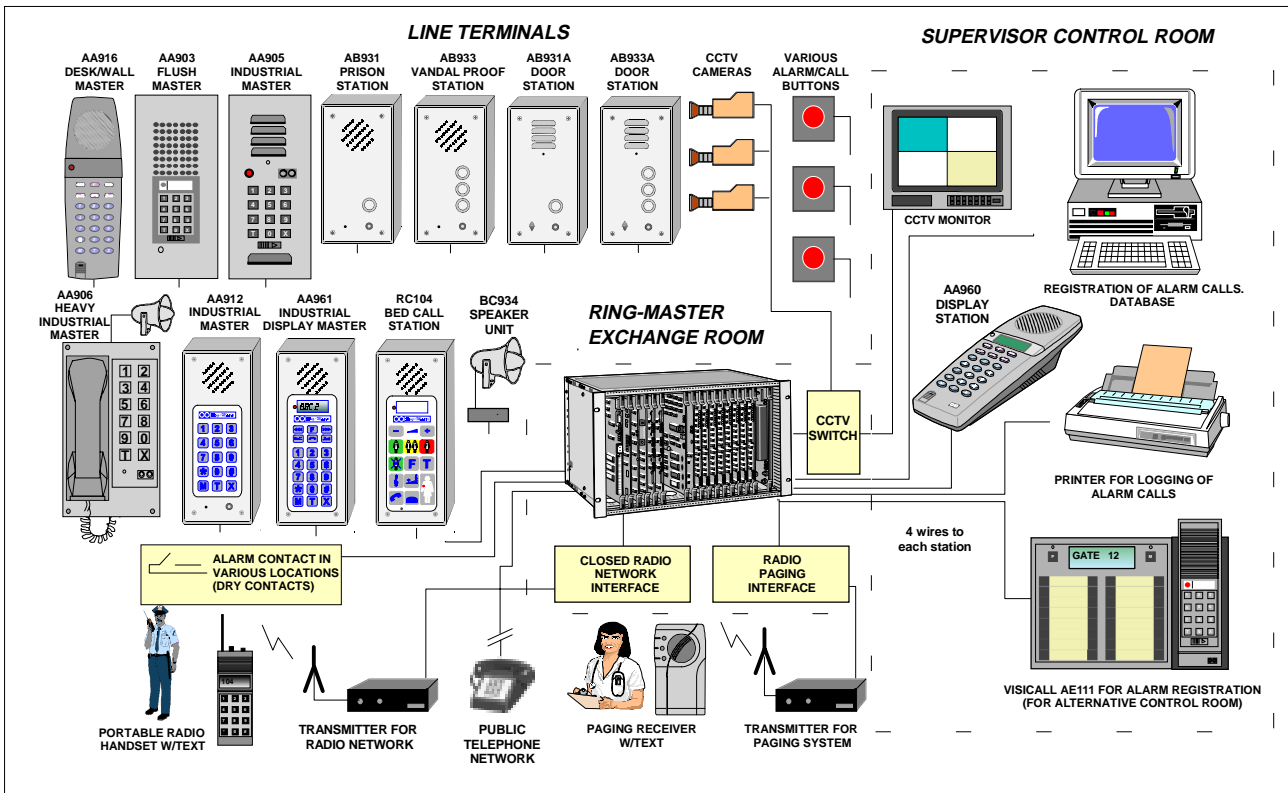
Individual features:

- Call numbers, freely programmable
- All/Group-call with reply back
- Privacy
- Priority
- Call forward/Secretary transfer
- Call transfer
- Hunt
- Speed dialling
- Call reply
- Sectoring/Portioning
- Direct conference dialling
- Direct dialling
- Direct access
- Central Answering Service (CAS)
- Remote dialling
- Status output
- Open station (line)

Interface features:

- Two-way mobile radio
- Radiopaging
- Intersystem tie-line
- Public address
- Telephone public network
- Voice messaging (Mini-Svim)
- Programme distribution (Music), 8 channels
- 2 alarm channels w/priority

The system's flexibility permits combinations of the above features to provide virtually any service desired by the user.



Ring Communications, Inc.
 New York U.S.A.
 Tel: 631-585-7464
 Fax: 631-585-7410
 Web: <http://www.ringcomm.co>
 E-mail: mail@ringcomm.com



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