# MBQUARTSIC. DEFINED.

# **Installation Manual**



# **MBQR-SUB-2**

10" Subwoofer / 400 Watt RZR-Tuned Audio Package for Polaris<sup>®</sup> RZR<sup>®</sup> Vehicles Thanks for choosing MB QUART! The RZR-Tuned MBQR-SUB-2 Subwoofer Kit has been meticulously engineered for your vehicle. The process of installation is simple and straightforward. Installation following these detailed instructions can be completed in about 2 hours.

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		IVE SPEAKER 800 Watt ST fer with glove box encisoure		an AM/FM, Bluetooth Source Unit, Includes Front / Rear Compressi
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### INSTALLATION OVERVIEW VIDEO

Many of the MB Quart vehicle-specific products feature a "how to" install video with additional details on a successful installation

Locate your specific video on the website. Type your model number (MBQR-SUB-2 or NA2-400.1) into the search box, then click on the INSTALL & SUPPORT tab.

### WHAT'S INCLUDED

The RZR<sup>®</sup> MBQR-SUB-2 subwoofer system ships in one box and works with either non-Ride Command<sup>®</sup> vehicles or those equipped with the Ride Command<sup>®</sup> system.

### MBQR-SUB-2 Subwoofer System

- Compact Mono, Class D 400 Watt Subwoofer Amplifier
- Glove Box Replacement Vented Subwoofer Enclosure w/10" Subwoofer

**NOTE** – Hardware for mounting components and other installation-related items you will need are contained in the kit. If you are installing the MBQR-SUB-2 as an addition to the RZR Stage 2 system (either MBQR-STG2-RAD-2 or MBQR-STG2-RC-1), the existing harness is already wired for the upgrades! You'll have power and audio inputs from the Stage 2 installation that can be implemented here.

**If you are not upgrading an existing Stage 2 system**, you'll need to determine a location to mount the NA2-400.1 mono subwoofer amplifier. We recommend using the MB Quart vehicle specific RZR amp mounting plates available at MBQuart.com. For wiring and amplifier installation information, check the NA2-400.1 installation manual.

Part# RZR-AMPD fits 2013-2018 RZR Models.



Part# RZR-AMPD19 fits 2018.5 Turbo S and 2019+ RZR Models.

Do not dispose of any packaging until you have completely installed your system and certain you have accounted for every

piece. If something is missing, please contact Maxxsonics directly via email - support@maxxsonics.com.

### WARRANTY

Your audio system is covered by a 1-year warranty from the date of the invoice. It is important to retain your sales receipt. Furthermore, it is crucial that you record and store a record of the serial numbers for each of the components that are included in your system. In the rare instance that a warranty claim is needed both proofs of purchase and serial numbers are required. Additional information on the back page.

### **TECHNICAL SUPPORT**

For additional technical information, go to the "SUPPORT" tab at MBQUART.com. There you will find helpful, FAQ, TEQ Tips and you can contact Technical Support via email.

### INSTALLATION TIME

About 2 hours are required to complete this installation assuming you already have an existing Stage 2 installation completed - either MBQR-STG2-RAD-2 or MBQR-STG2-RC-1.

### TOOLS AND SUPPLIES NEEDED

- Wire Strippers and Crimpers
- Flush Cut Wire Cutters (for trimming zip-ties)
- Ratchet
- 10mm Socket
- T25 Torx Driver

- Bojo Tools (Pry Tools)
- Small (Jeweler's) Screwdriver
- Socket (preferably deep)
- 1/2" Open Box Wrench
- T40 Torx Driver

Depending on which vehicle-specific RZR-Tuned audio system you are installing, you may or may not need all of the tools listed below. You may also own more specialized tools to complete the installation. Please share the pictures of your installation on MB Quart social media channels to help others.

In addition to the tools listed, have music ready for the INITIAL TESTING step. MB Quart recommends:

- USB thumb drive with music pre-loaded
- Bluetooth device such as a smartphone with music or a music app





### SAFETY PRECAUTIONS

Safely prepare your machine for the installation before proceeding.

- Turn the ignition off and remove the key
- Remove driver's seat
- Remove the negative terminal of the battery (Figure 1-1)
- Use a packing blanket or other soft material to protect your machine
- Safety Glasses always wear eye protection

### PREPARATION FOR INSTALLATION

Before dismantling your vehicle, we suggest you prepare all your components, enclosures and wiring harnesses. It increases efficiency to have everything ready when each component is installed.

### STEP 1 – CONFIRMING POWER TO BUS BAR (Applies to 2013-2018 RZR Models)

The Polaris RZR has a harness that connects the battery under the seat to the bus bar harness located under the hood. The bus bar is typically where aftermarket accessories easily connect.

The harness is shown in Figure 1-2. Check that your 2013-2018 machine has this harness installed. If not, you can purchase from your dealer or Polaris online. The part numbers are 2881551 or 2881646 depending on which specific RZR model you own. 2018.5 Turbo S and all 2019+ RZR models already contain a bus bar harness.

The bus bar is the recommended location to connect the NA2-400.1 amplifier's power and ground wiring.



### TWO RZR-TUNED AUDIO SYSTEM OPTIONS: ENHANCE YOUR SUBWOOFER!

The Stage 2 audio system compliments your MBQR-SUB-2 subwoofer installation perfectly! Depending on whether or not your RZR<sup>®</sup> vehicle has the optional Ride Command<sup>®</sup> system, you have two choices. This also provides amplifier mounting plates and a fully integrated wiring harness to make the subwoofer installation seamlessly integrated. The Stage 2 system would be purchased separately.

### ABOUT RIDE COMMAND®

All Polaris® RZR<sup>®</sup> vehicles up to 2017 do not have the Ride Command. It wasn't available as an option. From the 2017 RZR XP® 1000 EPS Velocity Blue Limited Edition and later RZR model years, you can have Ride Command as an option.

### VEHICLES WITH RIDE COMMAND®

If your 2017 or newer RZR model is equipped with the Ride Command system, the MBQR-STG2-RC1-2 is the correct Stage 2 audio system for your vehicle. This system does not include a source unit because you will retain the Ride Command system as the source unit. MB Quart provides two vehicle-specific Ride Command adapters in this kit to allow easy plug-in interface for connection to the amplifier inputs in the Stage 2 system. Also includes 8" kick panel speakers and a 400 watt amplifier.



Ride Command Adapter

MBQR-RAD-2 digital media source unit

### VEHICLES WITHOUT RIDE COMMAND®

If your RZR model is not equipped with the Ride Command system, the MBQR-STG2-RAD-2 is the correct Stage 2 audio system for your vehicle. This system includes the MBQR-RAD-2 digital media source unit in a vehicle-specific **housing** that fits in the center dash storage pocket space (once the pocket is removed). Also includes 8" kick panel speakers and a 400 watt amplifier.

### AUDIO SYSTEM ACCESSORIES FOR YOUR Polaris® RZR®

**NHT1-120BPR** - 8 inch Compression Horn Speakers in a composite, steel reinforced enclosure. Includes mounting hardware. These fit the RZR roll cage for rear speaker applications. Sold as pairs (2pcs).



NHT1-120BPR Rear Speakers

SR1-120RGB

LED Ring Light

SR1-120RGB LED RING LIGHT - The optional 8-inch SR1-120RGB LED ring light features 16 different colors, 88 brightness variations and 4 effect modes Fits the front 8" kick panel speakers and the NHT1-120BPR rear speakers (shown) available for RZR vehicles. Sold as pairs (2pcs).

**RFREM WIRELESS REMOTE** - The optional MB RFREM wireless radio frequency (RF) remote for the MBQR-RAD-2 source unit is a Bluetooth device with 32ft. (10m) range. It's designed to mount on the inside of the RZR steering wheel and secured with a velcro strap. has an IPX6 water-resistant rating. Does not work with Ride Command<sup>®</sup> system, only MBQR-RAD-2.







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### DASH AREA DISASSEMBLY 2013-2018 (Non-Turbo S) RZR

Please note, separate disassembly instructions for the 2018.5 Turbo S and 2019+ RZR models are found on pages 7-9 in this manual.

### **STEP 1 – REMOVE CENTER HOOD**

Start with removing the hood as shown in Figure 5-1. Twist the tabs at the upper left and right corners. Pull up to remove. This is where you will access the bus bar described on page 3 of this manual. Confirm that your machine has the bus bar harness installed. If your bus bar harness has not been installed, you can purchase from your dealer or Polaris online. The part numbers are 2881551 or 2881646 depending on which specific RZR model you own.



### **STEP 2 - REMOVE TOP OF DASH**

Remove (2) T40 screws as shown in Figure 5-2. Slide dash forward to access back of dash and unplug gauges and switches one at a time. Set dash aside in a safe location.

### STEP 3 – REMOVE THE GRAB BAR

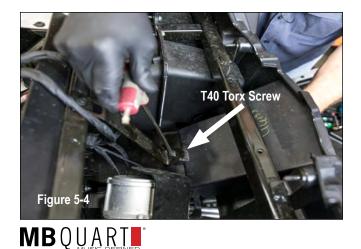
Remove the grab bar as shown in Figure 5-3 by removing the retaining clip and pin and firmly pulling the grip toward the rear of the vehicle.





### **STEP 4 - REMOVING DASH POCKET & REAR MOUNT**

To remove the DIN dash pocket from the dash, locate the rear support bracket at the rear of the pocket and remove the T40 Torx head screw as in Figure 5-4. Next, remove the clip shown on the right from the back and pull out the plastic pocket. Set aside the retaining clip shown in Figure 5-5 for re-use when mounting the MBQR-RAD-2 source unit.



Set aside OEM dash clip for source unit mounting later in the installation.

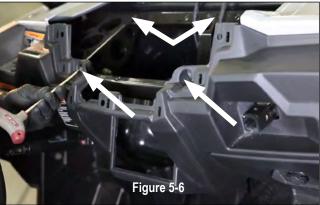


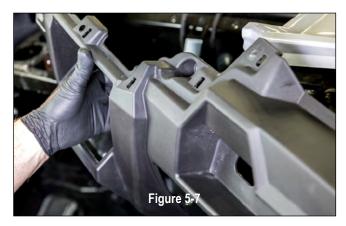


### DASH AREA DISASSEMBLY 2013-2018 (Non-Turbo S) RZR - Continued

### STEP 5 – REMOVE DASH FASCIA CENTER HARDWARE

Remove (4) Torx screws from the front of the dash through the openings shown in Figure 5-6. The first set of Torx screws will come out allowing access to the second (upper) set further back in the dash. Next, pull the only the center of the dash loose as shown in Figure 5-7.





### STEP 6 – REMOVE DASH FASCIA HARDWARE

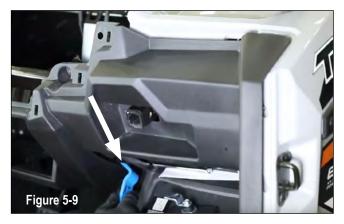
Using a large panel removal tool, release the side clips from the passenger's side front dash assembly as shown in Figures 5-8 and 5-9. Slowly ensure you account for all clips removed.

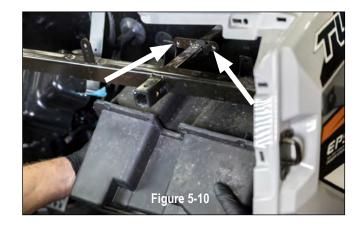


### STEP 7 – REMOVE THE GLOVE BOX

Remove (2) 10mm bolts on the top of the glove box where it is fastened to the grab bar framework. See holes in Figure 5-10. The glove box will easily slide out. A different mounting method is used for the new subwoofer.

Go to page 10 for next steps on these model year vehicles.





### DASH AREA DISASSEMBLY 2018.5 Turbo S & 2019+ RZR (RIDE COMMAND)

Please note, separate disassembly instructions for the 2013-2018 RZR models are found on pages 5-6 in this manual.

### **STEP 1 – REMOVE CENTER HOOD**

Remove the center of the hood area as shown in Figure 7-1. Twist the recessed tabs at the upper left and right corners. Pull up to remove. Next, pull passenger's side grab bar retaining clip and pin, then firmly pulling the grip toward the rear of the vehicle.

### **STEP 2 - REMOVE CENTER SHROUD**

Remove (2) plastic push clips behind the center shroud as shown in Figure 7-2a to remove the Ride Command cover or pocket depending on your vehicle. Cover removed shown in Figure 7.2b.

### **STEP 3 - REMOVE FULL FRONT COVER DASH TOP ASSEMBLY**

Remove (2) T40 screws located by the A-pillars as shown in Figure 7-3a. Next, remove the (2) T40 screws holding the front of the dash in the inner fender near the water bottle and bus bar. Lift upwards to release the top of the dash cover and remove as shown in Figure 7-3b.

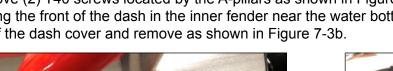


Figure 7-2a

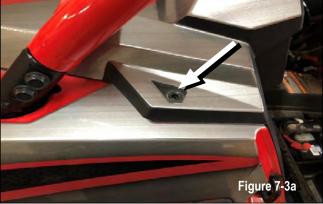
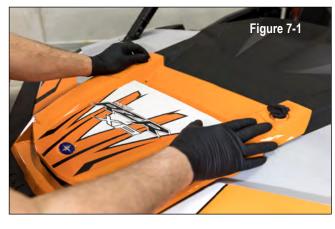




Figure 7-2b

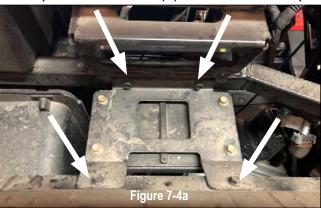




### DASH AREA DISASSEMBLY 2018.5 Turbo S & 2019+ RZR - Continued

### STEP 4 – REMOVE DYNAMIX<sup>®</sup> ECU BRACKET OR POCKET SCREW

If no Ride Command, Dynamix ECU or OEM installed amplifier are present, proceed to removing lower pocket. If you have the Dynamix ECU or OEM installed amplifier, remove (4) 10mm bolts holding the bracket as shown in Figure 7-4a. Move the ECU and/or OEM amplifier to the side leaving wire connections intact. Lower pocket removal is (1) T40 screw on the pocket support bracket as shown in Figure 7-4b.

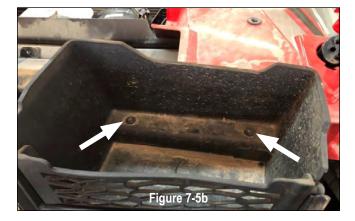




### STEP 5 – REMOVE LOWER POCKET AND PASSENGER SIDE CUBBY

Remove the lower pocket by pulling forward as shown in Figure 7-5a. If you have Ride Command you will also have to disconnect the USB cable. If you don't have Ride Command, the pocket area is where the MB Quart source unit installs. Next, remove (2) plastic push clips in the passenger side cubby as shown in Figure 7-5b. Then remove cubby and set aside.





**STEP 6 – REMOVE CENTER SWITCH HARDWARE** Remove (4) T40 screws located above the center switches as in Figure 7.6a. If you have a Ride Command, (2) will be on each side of the screen and (2) behind the screen as in Figure 7.6b.



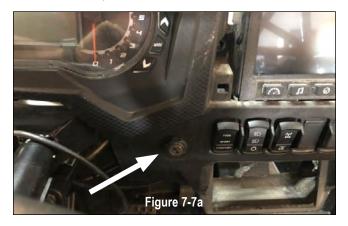


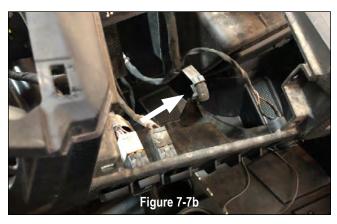
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### DASH AREA DISASSEMBLY 2018.5 Turbo S & 2019+ RZR - Continued

### STEP 7 – PREPARE FINAL ELECTRONICS FOR DASH REMOVAL

Gently remove the plastic nut holding the ignition switch to the dash as shown in Figure 7-7a. Next, disconnect wires from back of switches as shown in Figure 7-7b. Take note of plug color and switch location for reassembly purposes.





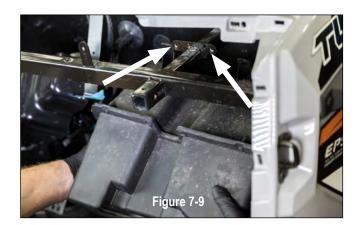
### **STEP 8– REMOVE DASH FASCIA**

Gently pull dash fascia toward seat to remove as shown in Figure 7-8. Set aside in a safe location until it's time for reassembly.



### **STEP 9 – REMOVE THE GLOVE BOX**

Remove (2) 10mm bolts on the top of the glove box where it is fastened to the grab bar framework. See holes in Figure 7-9. The glove box will easily slide out. A different mounting method is used for the new subwoofer.



Go to page 10 for next steps on all model year RZR vehicles.

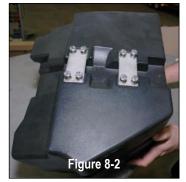


### SUBWOOFER ENCLOSURE MOUNTING (ALL MODELS)

Prepare to mount the subwoofer into the glove box and grab bar location. 2018.5 Turbo S and 2019 and newer RZR models, use only the rear mounting plate and four 1/2" bolts as shown in Figure 8-1. All other RZR models use both mounting plates and all eight 1/2" bolts as shown in Figure 8-2.

2018.5 Turbo S and 2019+ RZR Models use only rear mounting plate and four 1/2" bolts.





2013-2018 (non Turbo) RZR Models use both mounting plates and eight 1/2" bolts.

### **STEP 1 – POSITION SUBWOOFER ENCLOSURE**

Sitting on the floor of the RZR, hold the subwoofer enclosure up to the grab bar pipe and push it forward into place as shown in Figure 8-3.

### **STEP 2 – BEGIN MOUNTING ENCLOSURE**

Begin mounting the subwoofer to the RZR using the supplied steel plates and bolts as indicated for your specific year and model. Start by hand-threading the bolts until finger tight as indicated in Figure 8-4, Then, use a 1/2 inch socket with a small ratchet to begin tightening the bolts. Space is tight for any larger tools, a smaller ratchet will work best.

**NOTE** – Ensure the wiring harness from the subwoofer does not get pinched behind the enclosure. This will prevent the enclosure from seating properly and will not allow the front dash to snap into place properly The harness should be routed over the top of the push bar frame to the subwoofer amplifier connector.

### **STEP 3 – FINISH SUBWOOFER MOUNTING**

Tighten a few threads at a time on each bolt to allow the subwoofer to rise up against the pull bar frame evenly. This will allow the subwoofer to seat properly against the frame of the vehicle.

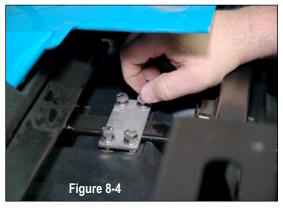
**NOTE** – When the subwoofer starts to seat into place, continue to push the subwoofer firmly forward as shown in Figure 8-3 as you tighten mounting hardware. This forward pressure will be critical when you reassemble the front dash for fitment into all the clips.

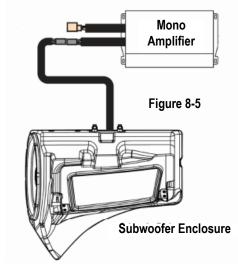
### **STEP 4 – ROUTE SUBWOOFER WIRING HARNESS**

Route the subwoofer enclosure's wiring harness over to the amplifier area. Connect it to the speaker output of the mono amplifier as shown in figure 8-5 if adding on to a Stage 2 system.

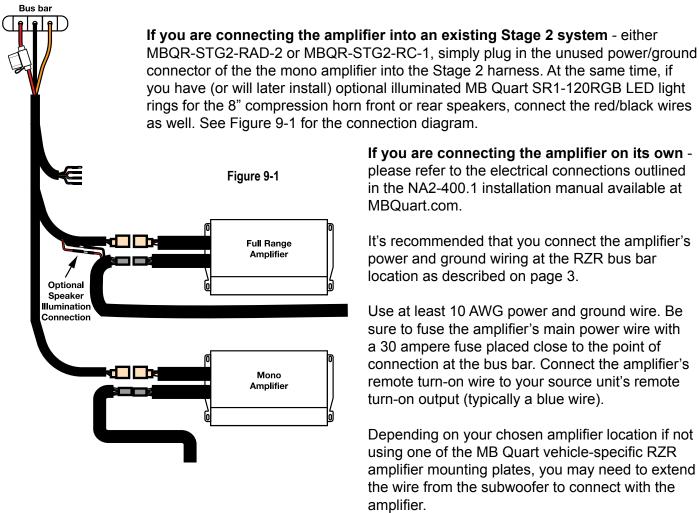
The next section describes connecting to the amplifier.







### AMPLIFIER WIRING



If you are connecting the amplifier on its own please refer to the electrical connections outlined in the NA2-400.1 installation manual available at MBQuart.com.

It's recommended that you connect the amplifier's power and ground wiring at the RZR bus bar location as described on page 3.

Use at least 10 AWG power and ground wire. Be sure to fuse the amplifier's main power wire with a 30 ampere fuse placed close to the point of connection at the bus bar. Connect the amplifier's remote turn-on wire to your source unit's remote turn-on output (typically a blue wire).

Depending on your chosen amplifier location if not using one of the MB Quart vehicle-specific RZR amplifier mounting plates, you may need to extend the wire from the subwoofer to connect with the amplifier.

### AMPLIFIER SETTINGS

This manual provides the information for initial settings on the NA2-400.1 subwoofer amplifier accordingly.

TUNED PACKAGE	TWO-CHANNEL AMPLIFIER	MONO AMPLIFIER	
MBQR-SUB-2	N/A	Bass Boost to 0dB	
		LPF to 100Hz	

### **STEP 1 - ADJUST MONO AMPLIFIER**

Looking at the NA2-400.1 shown in Figure 9.2, make the following initial adjustments:

- BOOST Switch to "0dB" position.
- LEVEL Rotate control to halfway (pointing) up). This represents an input level that will closely match the source unit's output at full volume allowing the amplifier to achieve full power without notable distortion.

• LPF - Rotate control to halfway (pointing up). This is approximately 100HZ.

• SUBSONIC - Leave in the lowest (15Hz position). If the subwoofer has trouble with the lowest notes in your choice of music upon testing, you can adjust up slightly about 1/4 turn.



Figure 9-2



### **INITIAL TESTING**

This step is to confirm that everything is working before you put the vehicle back together.

### STEP 1 – RECONNECT THE BATTERY

With the power/ground wiring connected to the bus bar, reconnect the negative terminal of the negative battery cable as indicated in Figure 10-1.

### **STEP 2 – TURN ON IGNITION**

Turn the ignition key to the ACC position and push the PWR button on your source unit.

### **STEP 3 – INITIAL CHECKS**

Confirm connectivity of the system you just installed.

### • AMPLIFIER

Ensure the amplifier's power connection has the fuse in place. Ensure the amplifier is properly grounded.We recommned the bus bar location. Ensure the remote turn-on wire is connected to the source unit. Ensure the amplifier's inputs are connected to the source unit's output(s) properly. Ensure the amplifier initial settings are completed. Refer to page 11.

### • SUBWOOFER

Ensure the subwoofer's wiring is connected to the amplifier.

If you extended the subwoofer's wiring because of amplifier placement, ensure the correct polarity is observed - positive amplifier output to positive subwoofer wire and negative amplifier output to negative subwoofer wire.

If the subwoofer is working and producing sound, proceed to the next section - Fine Tuning.

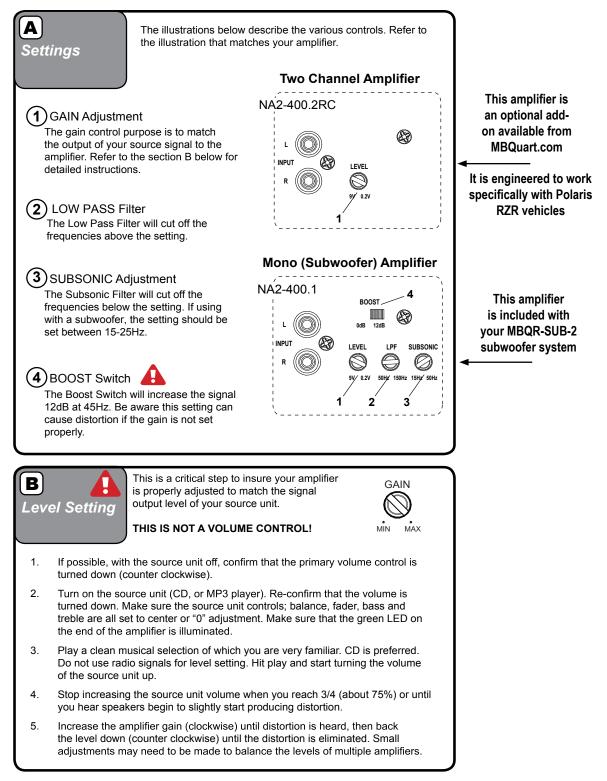


# FINE TUNING

### **FINE TUNING**

When setting up your amplifiers you will refer to the manual inside each amplifier. However, through hundreds of installations, we have determined the settings shown on page 11 are ideal for MBQR-SUB-2 subwoofer system.

**NOTE** – Gain control, it is important to adjust each amplifier gain as described in the manual. Remember, these settings are NOT volume controls. Gain controls, properly adjusted help properly balance the system sound between lows, highs and minimize distortion that comes from the source unit. Listen for a clear, crisp audio sound. The ideal gain setting should allow full volume from the source unit without audible distortion.





### VEHICLE REASSEMBLY

Follow along any wiring you've routed and zip-tie to the vehicle to assure it doesn't come loose during rides. Do not zip-tie your wiring to any heat or moisture sources. Once your wiring is secure, you can begin reassembling all the panels.

Here is an important checklist so you do not forget anything:

### 2013-2018 RZR Models

- TIGHTEN NEGATIVE BATTERY TERMINAL FULLY
- REINSTALL SEATS
- FRONT OF DASH CHECK ALIGNMENT WHERE THE DASH MEETS THE SUBWOOFER
- ZIP-TIE WIRING WHILE AVOIDING HEAT SOURCES OR MOVING PARTS
- REASSEMBLE TOP OF DASH
- REPLACE HOOD

### 2018.5 Turbo S and 2019+ RZR Models

- TIGHTEN NEGATIVE BATTERY TERMINAL FULLY
- REINSTALL DYNAMIX<sup>®</sup> ECU BRACKET (IF PRESENT) TIGHTEN TWO 10MM BOLTS
- FINAL FIT OF AMPLIFIER BRACKET (OR YOUR CHOSEN MOUNTING METHOD) TIGHTEN REMAINING TWO 10MM BOLTS FOR ECU BRACKET
- REINSTALL SEATS
- FRONT OF DASH CHECK ALIGNMENT WHERE THE DASH MEETS THE SUBWOOFER
- ZIP-TIE WIRING WHILE AVOIDING HEAT SOURCES OR MOVING PARTS
- REASSEMBLE TOP OF DASH
- REPLACE HOOD

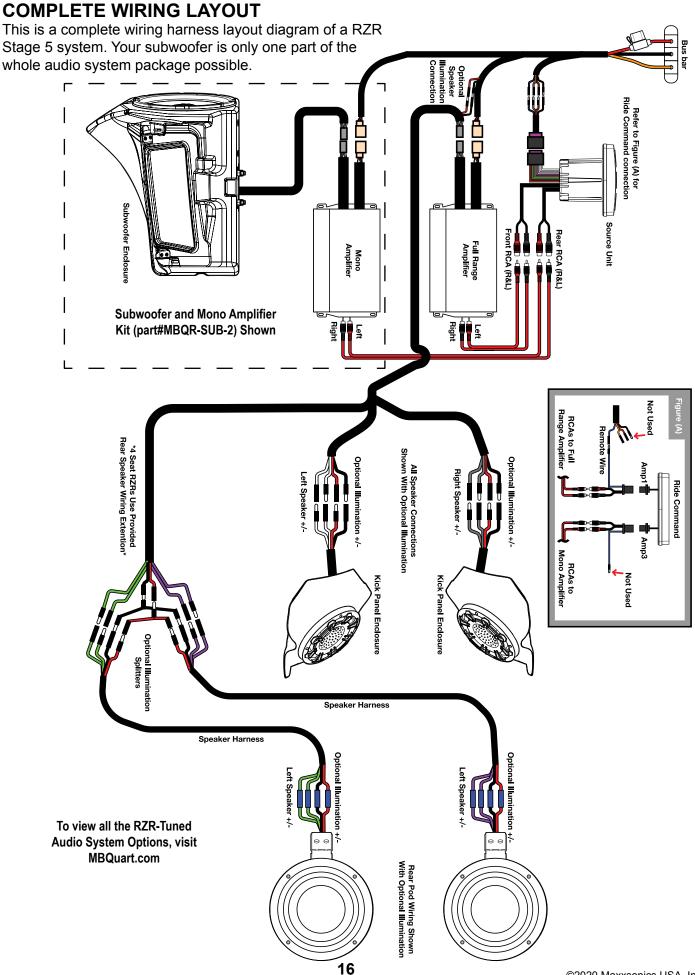
### **FINAL INSPECTION**

Here is a checklist to make sure your vehicle is ready to hit the trails. You should pull & tighten everything so that you know your RZR and your audio equipment are secure.

- NUTS ON HARNESS AT THE BUS BAR IF YOU ACQUIRED POWER/GROUND THERE
- SUBWOOFER MOUNT
- SUBWOOFER GLOVE BOX DOOR
- AMPLIFIERS MOUNTED AND SECURED
- NUTS ON STEERING WHEEL COLUMN (2013-2018 Models) 40 FT/LB of TORQUE\*
- POWER/GROND/REMOTE TURN-ON WIRING TO AMPLIFIERS
- SUBWOOFER SPEAKER HARNESS AT AMPLIFIER
- HIDE WIRING SO NOTHING IS SHOWING OR HANGING OUT FROM UNDER SUBWOOFER ENCLOSURE
- ACCOUNT FOR ALL YOUR TOOLS.

**\*NOTE** – It is critical to the safe operation of your vehicle that the nuts holding the steering column in 2013-2018 models be re-tightened to 40-foot pounds of torque.





### NOTES

Use this section to record serial numbers of each product, final gain and crossover settings of amplifiers or any other wiring or installation-related details that will be helpful if you need to add on to the system or troubleshoot any unforeseen issues.




## HEQuart.com #MUSIC DEFINED

### FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a mobile installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

WARNING: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complied with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

### WARRANTY

Maxxsonics USA Inc. warrants this product, to the original consumer purchaser, to be free from defects in material and workmanship for a period of one (1) year from the date of purchase. Maxxsonics USA Inc. will, at its discretion, repair or replace defective products during the warranty period. Components that prove to be defective in materials and workmanship under proper installation and use must be returned to the original authorized Maxxsonics USA Inc. retailer from where it was purchased. A photocopy of the original receipt must accompany the product being returned. The costs associated with removal, re-installation and freight are not the responsibility of Maxxsonics USA Inc. This warranty is limited to defective parts and specifically excludes any incidental or consequential damages connected therewith. To view the full warranty, please visit the website.

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