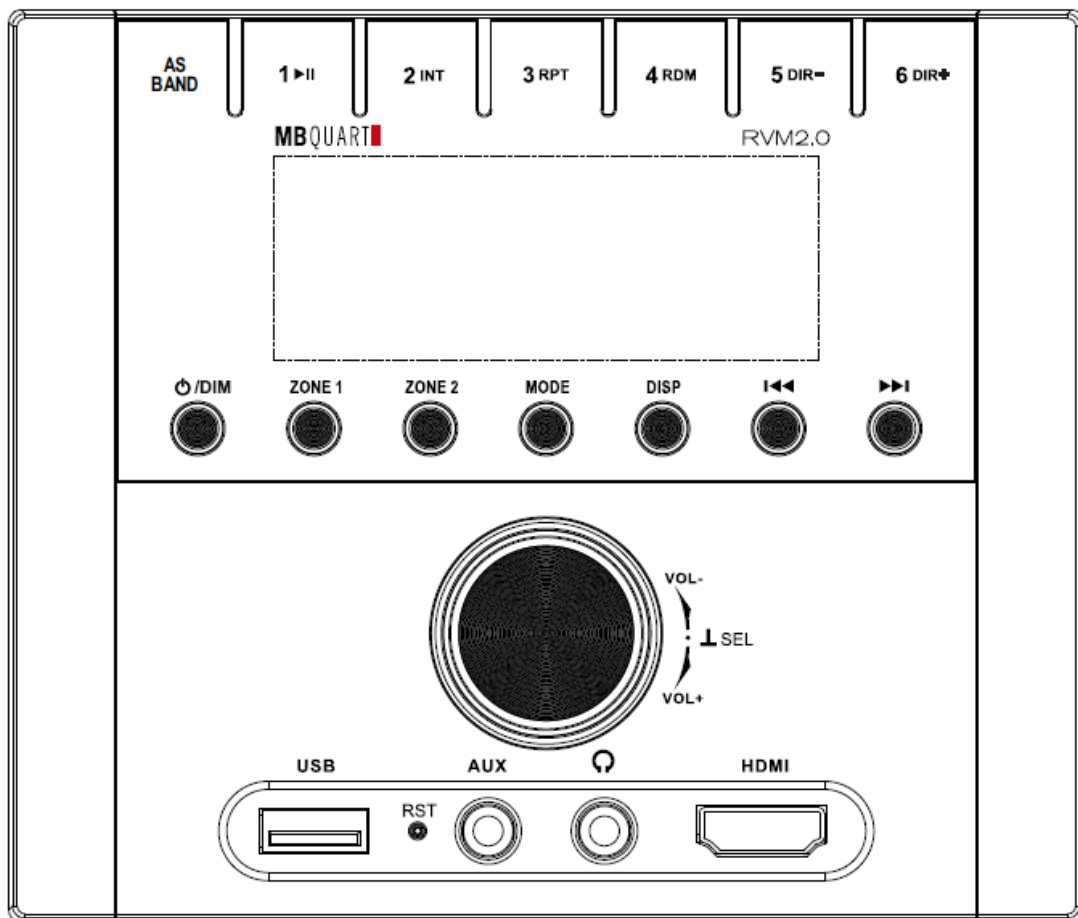


# MBQUART<sup>®</sup>

MUSIC. DEFINED.

## RVM2.0 USER MANUAL



AM/FM • Bluetooth<sup>®</sup> • USB • HDMI • Multi-Zone  
Mini RV Media Receiver

# PRE-INSTALLATION CHECKLIST

Thank you for purchasing the MB Quart RVM2.0 multi-zone mini RV radio with AM/FM and Bluetooth audio streaming. Please take a few minutes to review the user manual before attempting installation and operation.

Additional support documentation can be found at [MBQUART.com](http://MBQUART.com) or by emailing [support@maxxsonics.com](mailto:support@maxxsonics.com).

## FEATURES

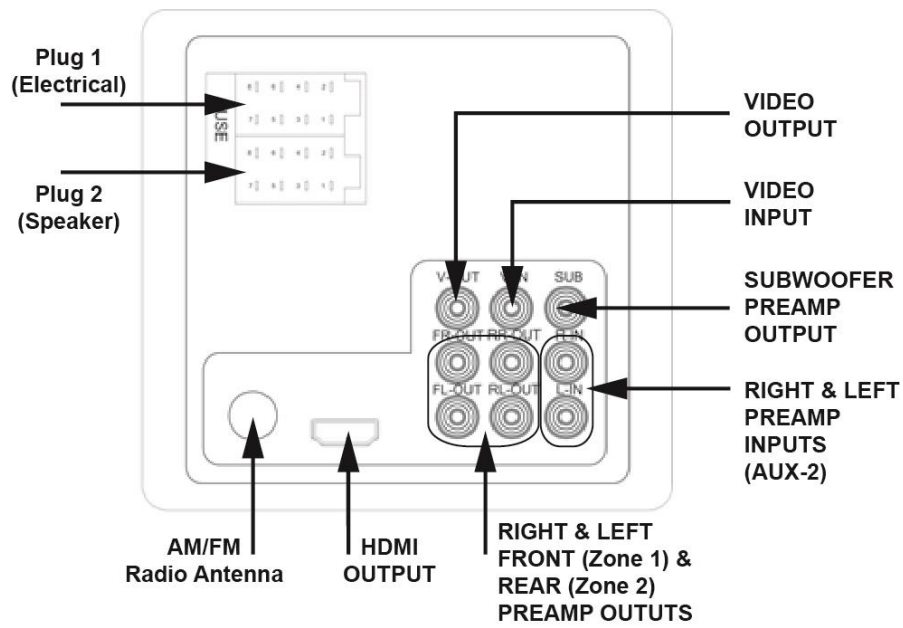
- AM/FM Radio (selectable USA/Europe)
- Bluetooth Audio Streaming (HSP)
- USB Audio Input (MP3/WMA)
- HDMI Video Input and Pass-Thru Output
- Front Panel AUX 1 Audio Input
- Rear Panel AUX 2 Audio Input
- Wired Headphone Jack
- Multi-Zone Operation
- Four (4) Built-In Speaker Outputs
- Front/Rear/Subwoofer Preamp Outputs for External Amplifiers
- Built-In Wake Up Alarm and Auto-Off Sleep Modes
- Wired Headphone Output (Privacy Listening)

## CHECKLIST

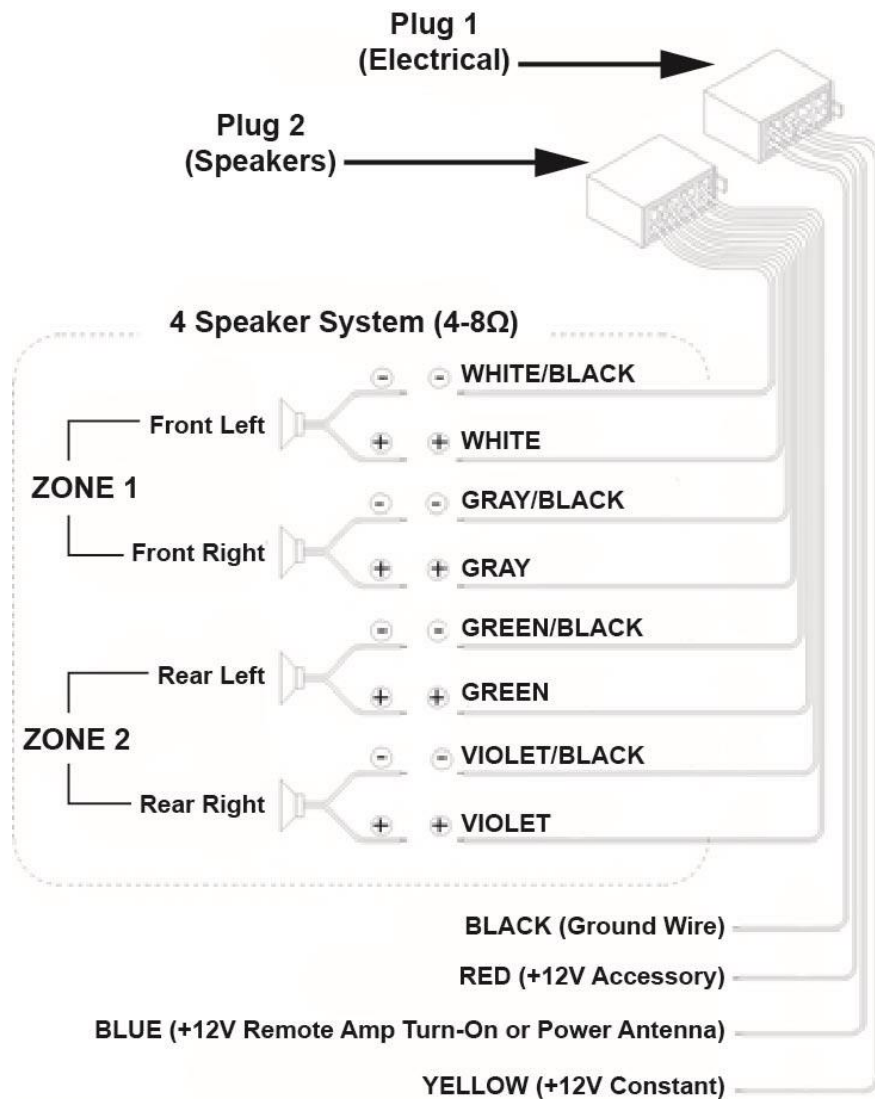
1. Please read the instruction manual carefully before installing the unit.
2. Please note this unit is intended for only 12V DC electrical systems.
3. Make connections to the unit as outlined in this instruction manual. Incorrect connections may cause damage to the unit.
4. Make sure to connect and insulate all wires before powering on the unit.
5. Secure any loose wires after installation.
6. For HDMI front or rear-connected cables, please keep the overall length 12 feet or less.

# WIRING & INSTALLATION

## REAR PANEL DETAIL



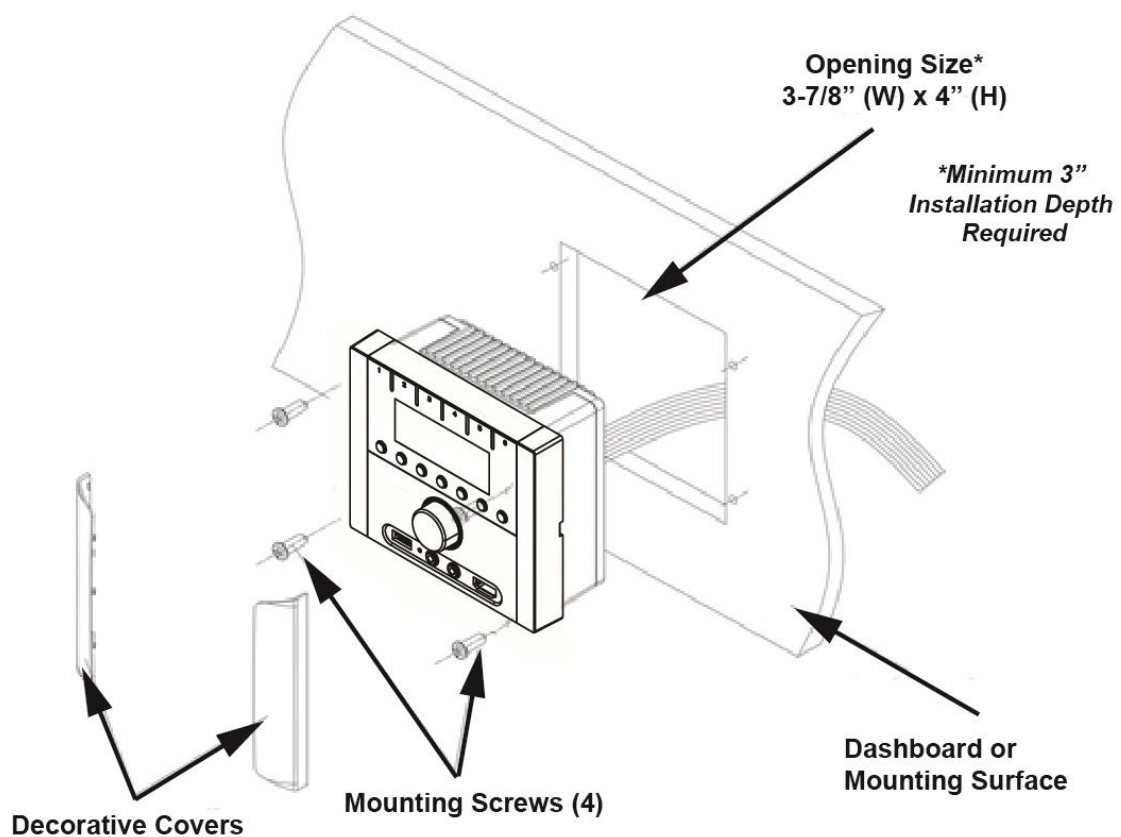
## WIRING DIAGRAM



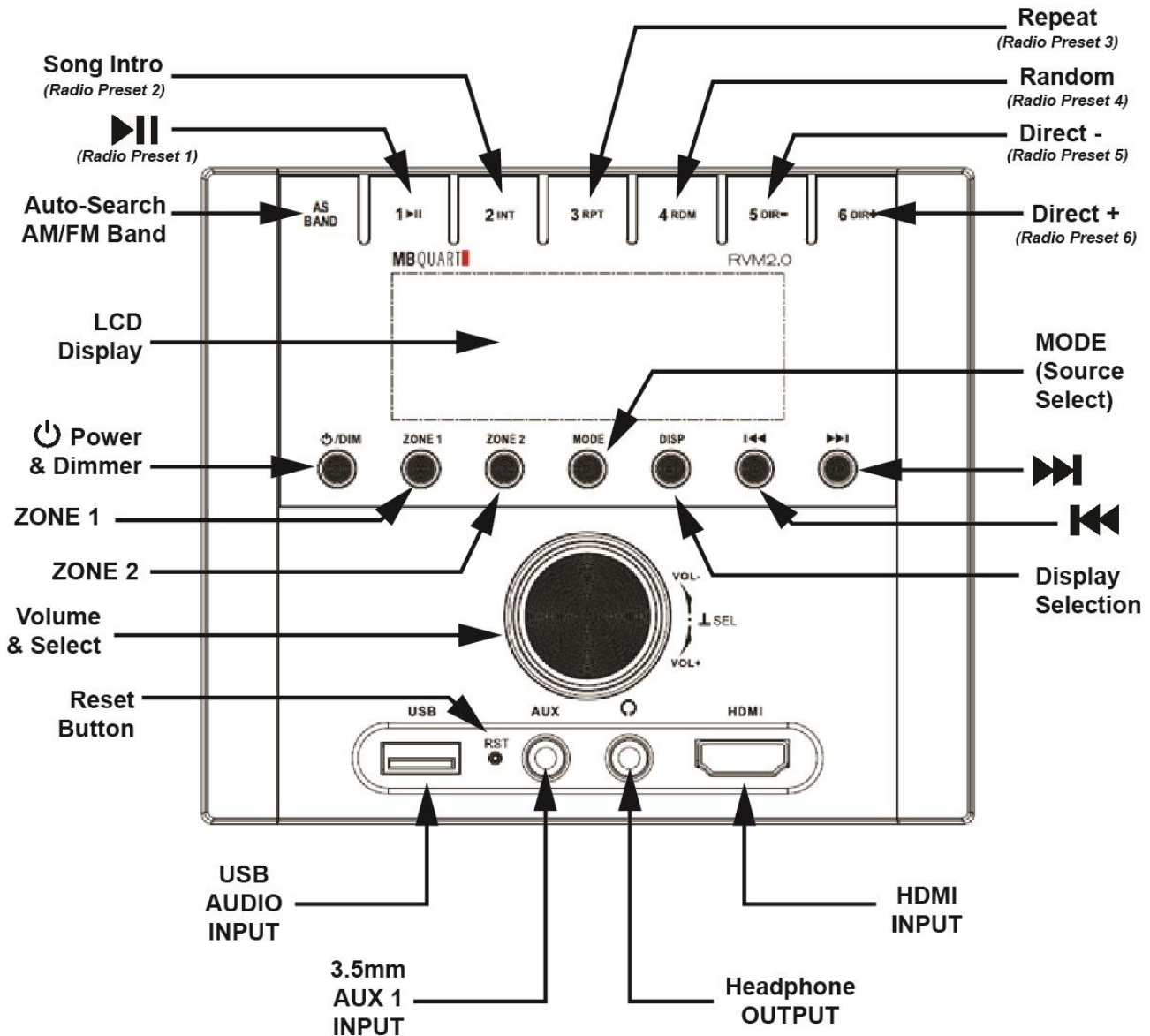
# WIRING & INSTALLATION

## INSTALL THE UNIT

- *Please note: This unit requires a minimum 3" mounting depth which includes space for the electrical/speaker plugs and any A/V input and output connections.*
1. Cut or utilize a mounting opening 3-7/8"(H) x 4"(W).
  2. Remove the left and right decorative covers as shown in the diagram.
  3. Insert the unit into the mounting opening.
  4. Attach the unit using the four (4) supplied mounting screws.
  5. Replace decorative side covers over mounting screws.



# FRONT PANEL CONTROLS & INPUTS



**BUTTON FUNCTIONS FOR ICONS (applies to AM/FM, USB and Bluetooth Sources)**

 <p><b>Play Pause</b> <i>(or AM/FM Preset 1)</i></p>	 <p><b>Fast-Forward Next Song</b> <i>(or Next AM/FM Station)</i></p>	 <p><b>Rewind Previous Song</b> <i>(or Previous AM/FM Station)</i></p>
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# FRONT PANEL FUNCTIONS (BY MODE)

BUTTON	ACTION	RADIO	USB	AUX IN	BT MUSIC
PWR/ DIM	Short	Power ON / Dimmer Dimmer = H/M/L/OFF	Power ON / Dimmer Dimmer = H/M/L/OFF	Power ON / Dimmer Dimmer = H/M/L/OFF	Power ON / Dimmer Dimmer = H/M/L/OFF
	Long	Power OFF	Power OFF	Power OFF	Power OFF
ZONE 1	Short	Zone 1 Active or Disabled	Zone 1 Active or Disabled	Zone 1 Active or Disabled	Zone 1 Active or Disabled
	Long	Zone 1 Mute ON/OFF	Zone 1 Mute ON/OFF	Zone 1 Mute ON/OFF	Zone 1 Mute ON/OFF
ZONE 2	Short	Zone 2 Active or Disabled	Zone 2 Active or Disabled	Zone 2 Active or Disabled	Zone 2 Active or Disabled
	Long	Zone 2 Mute ON/OFF	Zone 2 Mute ON/OFF	Zone 2 Mute ON/OFF	Zone 2 Mute ON/OFF
MODE	Short	Source Selection	Source Change/Search #7	Source Selection	Source Selection
	Long	BT(OFF or LINK)	BT(OFF or LINK)	BT(OFF or LINK)	BT(OFF or LINK)
AS/ BAND	Short	AM or FM Band Select	Search	/	/
	Long	Auto Store Presets	/	/	/
DISP	Short	Info/Clock	Info/Clock/Search #0	Info/Clock	Info/Clock
	Long	Clock Setting	Clock Setting	Clock Setting	Clock Setting
I<<	Short	Seek Down	Previous File/Search #8	/	Previous File
	Long	Manual Down	FR	/	/
>>I	Short	Seek Up	Next File/Search #9	/	Next file
	Long	Manual Up	FF	Reset (5seconds)	/
VOLUME KNOB	Rotary	Volume Up or Down	Volume Up or Down	Volume Up or Down	Volume Up or Down
SEL (PUSH VOLUME KNOB)	Short	BASS/TRE/BAL/EQ	BASS/TRE/BAL/EQ	BASS/TRE/BAL/EQ	BASS/TRE/BAL/EQ
	Long	Alarm on/off-Alarm set- Sleep on/off- Sleep set- BEEP- CLOCK 12/24- P_VOL- CT sync/indep -AREA-DX- STEREO	Alarm on/off-Alarm set- Sleep on/off- Sleep set- BEEP- CLOCK 12/24- P_VOL	Alarm on/off-Alarm set- Sleep on/off- Sleep set- BEEP- CLOCK 12/24- P_VOL	Alarm on/off-Alarm set- Sleep on/off- Sleep set- BEEP- CLOCK 12/24- P_VOL
1/>II	Short	Recall M1 Station	Play/Pause/Search 1	/	/
	Long	Save Station to M1	/	/	/
2/INT	Short	Recall M2 station	INT ON/OFF/Search 2	/	/
	Long	Save station to M2	/	/	/
3/RPT	Short	Recall M3 Station	RPT(ONE/ALL)/ Search:3	/	/
	Long	Save station to M3	/	/	/
4/RDM	Short	Recall M4 station	RDM on/off/Search 4	/	/
	Long	Save station to M4	/	/	/
5/DIR-	Short	Recall M5 station	DIR-/Search #5	/	/
	Long	Save station to M5	-10	/	/
6/DIR+	Short	Recall M6 station	DIR+/Search #6	/	/
	Long	Save station to M6	+10	/	/

# OPERATION

## POWER AND BASIC ADJUSTMENTS

### Turn the Unit ON or OFF

Press  button to turn the unit ON. When the unit is switched on, press and hold  button for 2 seconds to switch the unit OFF. A “GOOD BYE” message is displayed to confirm power down.

### Sound Adjustments

Press and release **VOLUME/SEL** knob to choose sound settings in the following order: BASS-TRE-BAL-EQ

- Bass – Choose from -7 to +7
- Treble – Choose from -7 to +7
- Balance – Choose Left or Right (up to 7 steps in either direction)
- EQ – If “OFF” turn knob to the right and choose from pre-programmed tone settings\*:
  - Classical
  - Rock
  - Pop
  - Flat
  - Jazz
  - EQ OFF
- *\*Note: If one of the EQ sound settings is chosen, manual Bass and Treble adjustments are disabled. Only “BAL” and the name of the EQ setting will show in the Sound Adjustment menu. To disable the EQ and allow manual Bass/Treble setting, simply scroll through the settings until “EQ OFF” is displayed.*

### Setting Adjustments (USB, Bluetooth or AUX Sources)

Press and hold **VOLUME/SEL** button for the setting menu: ALARM ON/OFF-SLEEP ON/OFF-BEEP ON/OFF-CLOCK 12/24 - P\_VOL

- In each menu item, rotating the **VOLUME/SEL** knob selects them and allow you to rotate through the sub-settings.

### Setting Adjustments (AM/FM Source ONLY)

The AM/FM source adds additional settings to the adjustment menu. Press and hold **VOLUME/SEL** button for the setting menu: ALARM ON/OFF – SLEEP ON/OFF -BEEP ON/OFF-CLOCK 12/24 - P\_VOL – CT SYNC *or* CT INDEP – AREA USA *or* AREA EUR– DX *or* LOC – STEREO *or* MONO

- In each menu item, rotating the **VOLUME/SEL** knob selects them and allow you to rotate through the sub-settings. The additional AM/FM settings are:
  - CT SYNC *or* CT INDEP – allows the clock to synch with the radio station’s RDS time feed (SYNC) or to be set independently (INDEP) by the user
  - AREA USA *or* AREA EUR – Selects the region: USA or Europe
  - DX *or* LOC – Selects distance (DX) or local (LOC) for optimized reception
  - STEREO *or* MONO – Selects a stereo or mono broadcast reception

# OPERATION

## POWER AND BASIC ADJUSTMENTS (Continued)

### Alarm Operation

The alarm built into the unit functions as a wake-up alarm. It could also be used to automatically turn the unit on at a specific time (such as a meal or evening time to relax).

- In setting menu turn ALARM to “ON” and set the wake-up alarm time (see below **Alarm Time Setting**). When the wake-up alarm time is set, the unit will generate a wake-up beeping sound at the preset time. The beep sound stops when any key pressed.

### Alarm Time Setting Procedure

When ALARM is set to “ON”, the next menu item is ALARM SET.

- Wait 2 seconds after turning the alarm to “ON” and the HH (hours) flash. Rotate the **VOLUME/SEL** knob to set the hour. Next, press **VOLUME/SEL** knob. The MM (minutes) flash. Rotate the **VOLUME/SEL** knob to set the minutes. Press the **VOLUME/SEL** button to exit.

### Sleep Operation

The sleep function built into the unit allows the user to set a specific time when the unit will automatically turn off from 1-59 minutes later.

- In setting menu setting turn SLEEP to “ON” then set the sleep time (see below **Sleep Time Setting**). When the sleep time is set, the unit will power off automatically at the preset time.

### Sleep Time Setting Procedure

When SLEEP is set to “ON”, the next menu item is SLEEP SET.

- Wait 2 seconds after turning sleep time to “ON” and the sleep timer will flash. Rotate the **VOLUME/SEL** knob to set it between 01-59 minutes. Press **VOLUME/SEL** button to exit.

### Clock Setting Procedure

The clock allows you to select between 12 or 24 hour time formats.

- To set the 12 or 24 hour time format, advance to the “CLOCK” function in the settings menu and rotate the **VOLUME/SEL** knob to choose the format.
- To set the clock time, press and hold **DISP** button and the HH (hours) flash. Rotate the **VOLUME/SEL** knob to set the hour. Press **DISP** (or **VOLUME/SEL**) button until the MM (minutes) flash. Rotate the **VOLUME/SEL** knob to set the minutes. Once complete, press **DISP** (or **VOLUME/SEL**) button to exit.

### Preset (P\_VOL) Setting

This function allows the user to set the volume level at which the unit powers up again depending on what level was recorded when the unit was last turned off. This avoids surprise high volumes.

- To set the P\_VOL threshold, advance to the “P\_VOL” function in the settings menu and rotate the **VOLUME/SEL** knob to choose the volume setting.
- When the volume threshold at the time of unit turn off is **less** than P\_VOL value, the next time turns on the unit the volume will be the same as last time turned off.
- When the volume threshold at the time of unit turn off is **greater** than P\_VOL value, the next time turns on the unit the volume will default to the lower P\_VOL preset threshold.



# OPERATION

## ZONES, DISPLAY & AUX INPUTS

### ZONE 1 Operation

ZONE 1 is connected to the unit's on-board FRONT speaker and preamp-level RCA outputs.

- Quickly press and release the ZONE 1 button to select between the zone being active or disabled. The LCD screen will indicate the status of the zone above the button.
- Rotate the **VOLUME/SEL** knob up or down to adjust the ZONE 1 volume when it is in the active state.
- When ZONE 1 is in the disabled state, the **VOLUME/SEL** knob only controls the active zone. Otherwise, the ZONE 1 volume remains where it was left when disabled. To match the output of ZONE 2 after re-enabling, simply turn the volume all the way down and back to the desired level for both zones which then display equally.
- To mute ZONE 1, press and hold the ZONE 1 button to toggle between ON or OFF. The LCD screen indicates the muting status.

### ZONE 2 Operation

ZONE 2 is connected to the unit's on-board REAR speaker and preamp-level RCA outputs.

- Quickly press and release the ZONE 2 button to select between the zone being active or disabled. The LCD screen will indicate the status of the zone above the button.
- Rotate the **VOLUME/SEL** knob up or down to adjust the ZONE 1 volume when it is in the active state.
- When ZONE 2 is in the disabled state, the **VOLUME/SEL** knob only controls the active zone. Otherwise, the ZONE 2 volume remains where it was left when disabled. To match the output of ZONE 1 after re-enabling, simply turn the volume all the way down and back to the desired level for both zones which then display equally.
- To mute ZONE 2, press and hold the ZONE 2 button to toggle between ON or OFF. The LCD screen indicates the muting status.

### Show Clock or Source Information

Press **DISP** button to show either the clock or source information. Depending on the source, text information about the song playing may be available on the display (such as RDS-enabled FM stations, USB music files or Bluetooth streamed music).

### AUX Inputs

There are two methods for selecting an auxiliary input.

- Press the **MODE** button to switch to AUX IN 1 or AUX IN 2 mode when an auxiliary audio signal input is desired.
- Choose AUX IN 1 for front panel 3.5mm jack. Choose AUX IN 2 for preamp-level RCA input on the back of the unit.

### Headphone Jack

There is a 3.5mm headphone jack in the front panel to allow for use of wired headphones.

- When a headphone plug is inserted into the jack, the unit's speakers are muted.

# OPERATION

## AM/FM RADIO

### Receive a Radio Station

There are 3 FM station groups - FM1, FM2 and FM3. There are 2 AM station groups - AM1 and AM2.

- To select a radio station group, press the **MODE** button to select the radio mode. Next press **BAND** button to select desired group (FM1, FM2, FM3, AM1 or AM2).
- Press and quickly release the **▶▶/◀◀** button to tune by automatically seeking up or down to the next available radio station frequency.
- Press and hold the **▶▶/◀◀** button for manual tuning up or down to the desired frequency.

### Manually Store and Recall Radio Station Presets

The unit offers 6 presets for each of the AM and FM station groups. There are a total of 18 FM presets and 12 AM presets.

- To store radio station presets, press and hold one of the preset button (1 through 6) for 2 seconds. The current station is stored into the number button.
- To recall a given radio station preset, quickly press the preset button (1 through 6) to directly listen the station saved in the corresponding preset button.

### Auto-Store Stations

This is a useful method to populate available radio stations in a new area.

- Press and hold **BAND** button for 2 seconds to automatically store stations to numeric buttons 1 through 6 of band 1, 2 or (if FM) 3. Stations will store in the order of scanning and reception. Use front panel buttons 1 through 6 to recall presets.

# OPERATION





## USB Sources

When an USB source such as a thumb drive or portable media player is inserted to the USB port on the front panel of the unit, it supports playback of MP3 and WMA files automatically.

- To select USB as the source, press the **MODE** button until the USB mode display appears.


## Selecting Music Files

Selecting the files uses the icon-based buttons below the LCD to the right. Refer to page 5 for the icon button locations.

- Press the **NEXT**  or **PREVIOUS**  button to skip to next/previous file.
- Hold the **NEXT**  or **PREVIOUS**  button to fast forward or fast reverse.

## Play/Pause

To play or pause the song:

- Press **1/**  button to play/pause the file.

## INTRO Function

The INTRO function plays the first 10 seconds of each file. To initiate INTRO:

- Press **2/INT** button.
- Press again to stop this function.

## Repeat (RPT) Function

The REPEAT function simply repeats the same chosen file(s) or folder again and again until de-selected.

- Press **3/RPT** button to select RPT mode.
  - **RPT FOLD:** Repeat all files of the folder.
  - **RPT ONE:** Repeat the same file.
  - **RPT ALL:** Repeat all files.

## Random (RDM) Function

The RANDOM function simply randomizes all files. This is also called “shuffle” on some devices.

- Press **4/RDM** button to choose RDM on/off.
  - **RDM ON:** Plays all files in random order.
  - **RDM OFF:** Turns off the random function.

# OPERATION

## USB Sources (Continued)



### Directory+/- Function

If you have a USB device set up with folders (such as by artist or playlist), the Directory function allows you to navigate the folders for MP3 and WMA music files.

- Press **DIR+ / DIR-** button to select next/previous folder to play. Once in the directory function, use the **+10/-10 to navigate the folders.**
- Press and hold **DIR+ / DIR-** button for 2 seconds it will skip +10/-10 file to play.

### Search Songs

The unit allows users to directly input a song number or rotate through the dial to quickly get to a specific song (file) on the USB device.

- To search songs on a USB device, press the **BAND** button.
- The display shows “NUM 0000.”
- Rotating **VOLUME/SEL** (or directly enter number) to select the numbers then press **VOLUME/SEL** to play.
  - For the number 1: Use preset button 1
  - For the number 2: Use preset button 2
  - For the number 3: Use preset button 3
  - For the number 4: Use preset button 4
  - For the number 5: Use preset button 5
  - For the number 6: Use preset button 6
  - For the number 7: Use the MODE button
  - For the number 8: Use the “Previous Track”  button
  - For the number 9: Use the “Next Track”  button
  - For the number 0: Use the DISP button

# OPERATION

## BLUETOOTH SOURCES

### Bluetooth Pairing

You must first pair a Bluetooth-enabled device to stream music to your unit.

- Select “search” or “discover” on the Bluetooth device while the unit is in the BT MUSIC mode. “RVM2.0” should appear in the list of available devices. Select “RVM2.0.”
- If a password is required, input “0000.”
- When successfully paired, BT MUSIC is displayed on LCD.
- If no Bluetooth device is paired, “UNPAIRED” will show in the LCD display.

### Stream Bluetooth Audio

This unit supports Bluetooth music streaming using the Headset Profile (HSP). It also supports text readout from compatible BT streams.

- Using a Bluetooth-enabled device, press the **MODE** button to switch to BT MUSIC source. It will play a song from the BT device automatically as long as it’s been selected in the music player on the device.
- Press the 1/ ▶|| button to play/pause the song. Press ▶▶/◀◀ button to select next/previous song.

### Disconnect Bluetooth Device

This is useful for mobile phones where the user wishes to place or receive a call.

- When the Bluetooth device is paired with the unit. Press and hold the **MODE** button to disconnect the Bluetooth. “BT OFF” is displayed.

### Reconnect Bluetooth Device

This is useful if a Bluetooth-enabled mobile phone user has completed a call and wishes to continue playing music via Bluetooth.

- Press and hold the **MODE** button again to connect the previously paired Bluetooth device. “LINKED” is displayed.

# SPECIFICATIONS

## GENERAL

Power Supply Requirements:	DC 12 Volts, Negative Ground
Current Drain:	10 Ampere (max.)
Maximum Output Power:	4 x 17 watts into 4 Ohms @ 14.4V DC
Preamp Output Voltage:	2.1V (with AUX, USB or AM/FM Source) 1.5V (with BT Source)

Chassis Dimensions : 3-7/8”(H) x 4”(W) x 2”(D)\*  
*\*Note: Installation depth requires 3” minimum*

Tone Controls:

- Bass (at 100 Hz): ± 10 dB
- Treble (at 10 kHz): ± 10 dB

RADIO	FM	AM
Frequency Coverage	87.5 to 108 MHz	520 to 1710 kHz
IF	10.7 MHz	450 KHz
Sensitivity	4µV(S/N=30dB)	36dBuV(S/N=20dB)
FM Stereo Separation	>25dB	N/A (AM is Mono)

## TROUBLESHOOTING

Symptom	Cause	Solution
No power.	The vehicle’s ignition switch is not on.	If the power supply is connected to the vehicle’s accessory circuits, but the engine is not moving, switch the ignition key to “ACC”.
	The fuse is blown.	Replace the fuse.
The unit turns on, but has no sound.	Volume is on minimum	Adjust volume to a desired level.
	Audio wiring is not properly connected.	Check wiring connections to preamp outputs, speakers or both.
The buttons on the unit do not respond.	The built-in microcomputer is not operating properly due to noise.	Press the reset button on the front panel.
The radio does not Work. The radio station automatic selection does not work.	The antenna cable is not connected.	Insert the antenna cable firmly.
	The signals are too weak.	Select a station manually.

### **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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