

RMXMH50

AM/FM/BT RADIO

Installation and Operation Manual



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WARNING AND COMPLIANCE

Important Safety Information

- To ensure full satisfaction with the product, please read the entire instruction manual.
- Keep instructions for future reference.
- Follow all operation guidelines and adhere to all safety warnings and cautions to ensure safe use.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Only use attachments/accessories specified by the manufacturer.
- Never use harsh cleaning agents. Clean only with a dry cloth.

When Driving

Keep the volume level low enough to be aware of your surroundings.

Protect from Submersion

Do not submerge, as this can cause electrical shorts, fire or other damage.

Protect from High Temperatures

The space behind the chosen mounting location should allow room for the radios heatsink to dissipate heat generated under normal use. Do not mount the radio within close proximity of the engine compartment.

Use the Proper Power Supply

This product is designed to operate with a 12 volt DC negative ground battery system.

WARNING:

- DO NOT OPEN, DISASSEMBLE OR ALTER THE UNIT IN ANY WAY. Doing so may result in fire, electric shock or product damage.
- USE THE CORRECT AMPERE RATING WHEN REPLACING FUSE. Failure to do so may result in fire, electric shock or product damage.
- DO NOT INSTALL IN LOCATIONS THAT MIGHT HINDER VEHICLE OPERATION. Doing so may obstruct vision or hamper movement which can result in a serious accident.
INSTALL THE WIRING SO THAT IT IS NOT CRIMPED OR PINCHED BY SCREWS OR SHARP METAL EDGES. Route the cables away from moving parts or sharp pointed edges. This will prevent crimping and damage to the wiring. If the wiring must pass through a metal hole, be sure to use a rubber grommet to prevent the wire's insulation from being cut by the metal edge of the hole. It is also recommended to apply sealing caulk to any opening that may potentially allow water to enter.
- Be sure to choose a location that is flat and has clearance above the unit to prevent any damage, as well as allow for ventilation.
- Before drilling any holes, carefully inspect the area underneath and behind the mounting surface where the device will be mounted to make sure it will not interfere with existing wires, fuel lines, the fuel tank or any other objects that could be damaged.
- Always disconnect the vehicle negative battery terminal during installation to prevent accidental shorting.

INTRODUCTION

Thank You!

Thank for choosing this product. We hope you will find the instructions in this owner's manual clear and easy to follow. If you take a few minutes to look through it, you'll learn how to use all the features of your new receiver for maximum enjoyment.

Features

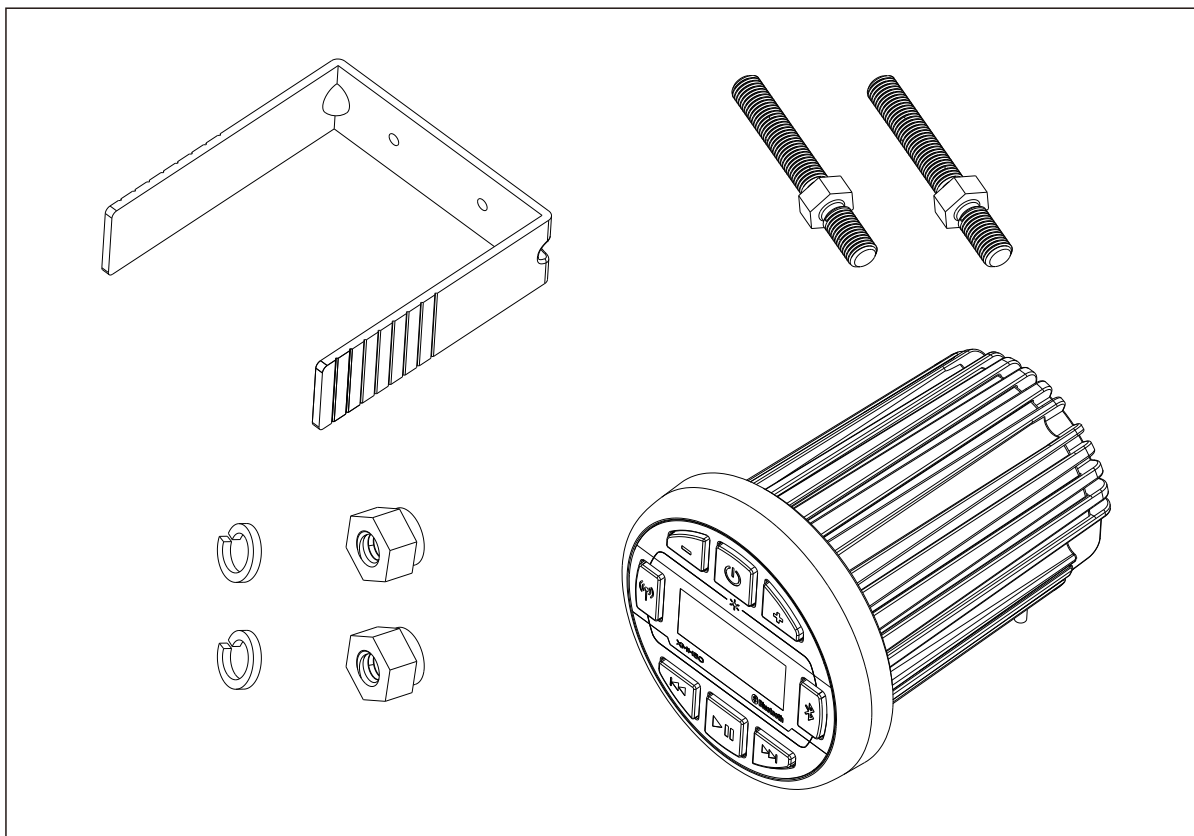
Features of the RMXMH50 include:

- Waterproof IPX6
- UV and Corrosion Resistant
- Dimmable LCD Backlit Control
- AM/FM Tuner (US/EURO)
- Bluetooth (Supports A2DP and AVRCP)
- Illumination Control (Day and Night)
- 4-Channel Amplified Audio Output

Box Content

- RMXMH50 Radio
- Radio Mounting Bracket
- Screw Posts (x2)
- Locking Hex Nuts (x2)
- Washers (x2)
- Quick Reference Guide
- Warranty Card

Hardware kit contents



INSTALLATION

Important Notes

- Before you begin, always turn off the batteries at the battery switch. If no battery switch is installed on the vessel, you can disconnect the negative terminal from your battery.
- Before final installation, test the wiring connections to make sure the unit is connected properly and the system works.
- Consult with your nearest dealer if installation requires the drilling of holes or other modification to your vessel.
- Install the unit where it does not interfere with driving and cannot injure passengers if there is a sudden or emergency stop.

Mounting the Radio

1. Choose a mounting location on the helm, in the glove box, or desired area of the vessel that will allow room behind to run radio cables to the power source. Consider how you will use the AUX IN, LINE OUT, SUBWOOFER OUT, WIRED REMOTE and USB connectors and route the appropriate extension cables to an accessible area.
2. Refer to the dimension diagram on the right to cut the installation opening.

IMPORTANT! Do not mount this unit where it can be submerged in water.

3. Cut a hole in the chosen mounting location using the template provided in the back of this manual. At least 4.9" depth is needed to mount the radio.
4. Slide the included spring washers (B) over the screw posts (A) and attach the screw posts to the back of the radio.
5. Place the radio in front of the dashboard opening so the wiring can be brought through the opening.

NOTE: Before final installation, test the wiring connections to make sure the unit is connected properly and the system works.

6. After completing the wiring connections, turn the radio on to confirm operation (battery switch will need turned back on or negative cable will need to be attached for this test). If the radio does not operate, recheck all wiring until the problem is corrected. Once proper operation is achieved, turn the battery switch off or disconnect the negative cable from the battery.
7. Insert the radio into the mounting hole and make sure it is right-side-up.
8. Place the "U" bracket (C) over the screw posts and secure the radio to the chosen mounting position using the included hex nuts (D). If necessary, cut the score marks (E) on either side of the mounting bracket to custom fit the bracket length for your application. See Figure A.

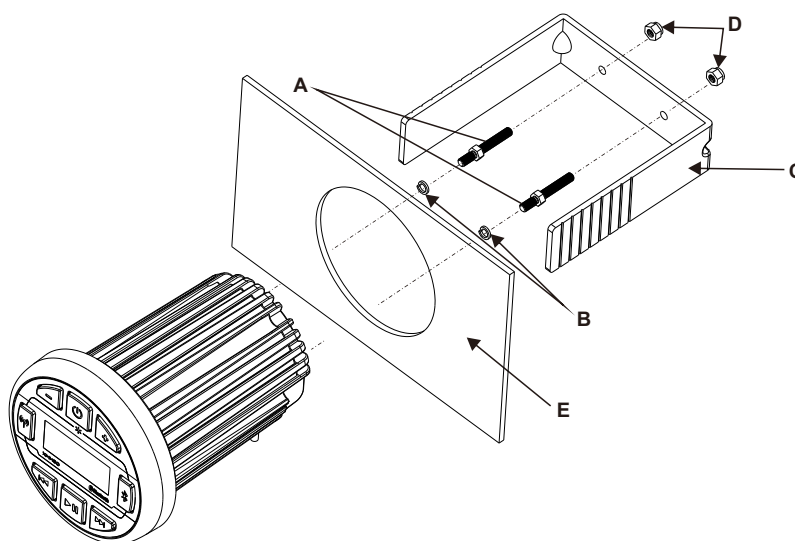
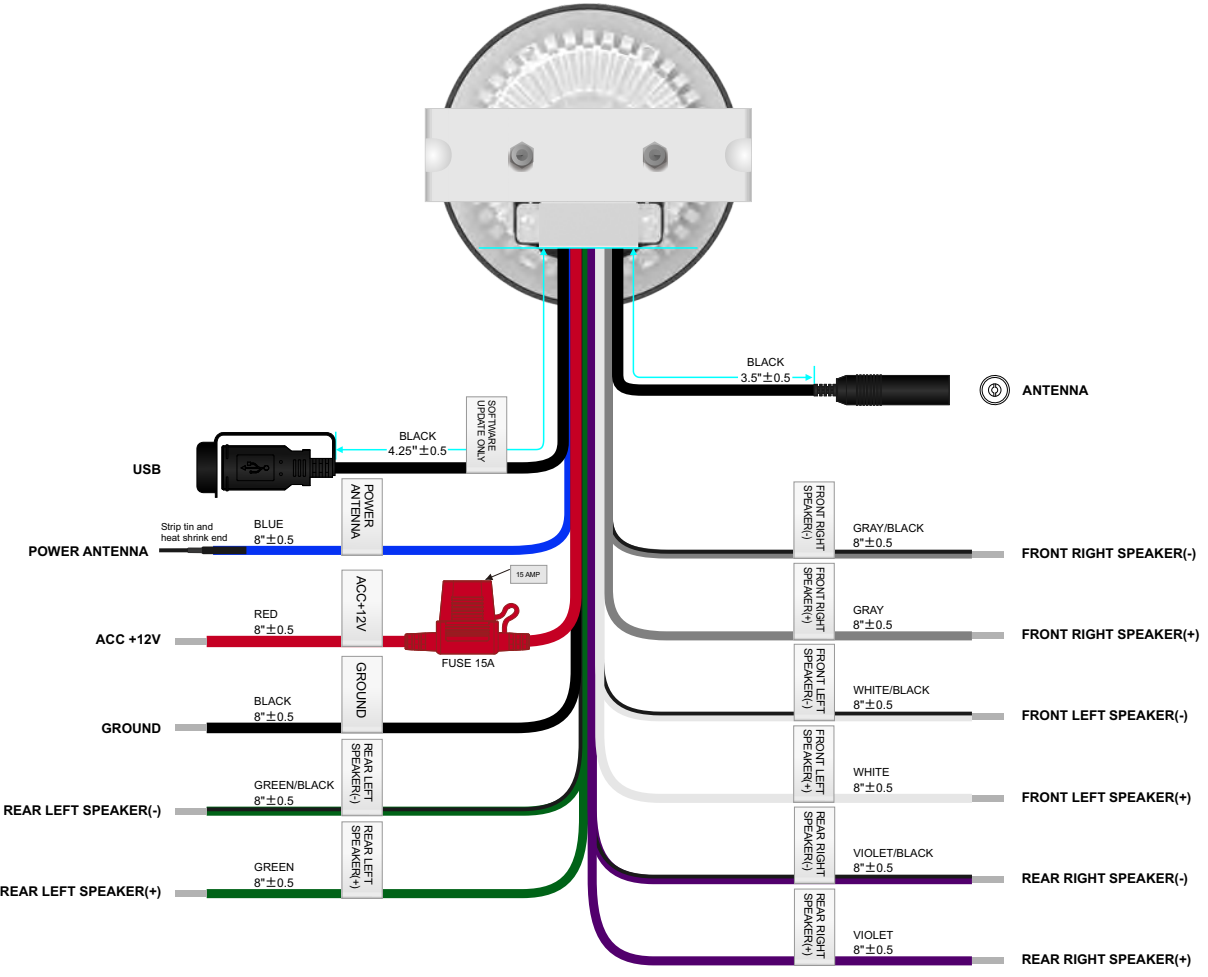


Figure A - Installation

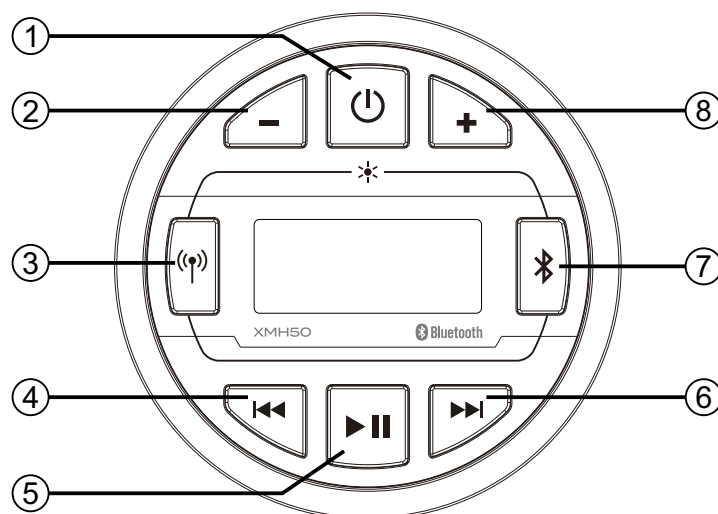
WIRING DIAGRAM



WIRE COLOR	DESCRIPTION
PURPLE	RIGHT REAR SPEAKER(+)
PURPLE/BLACK	RIGHT REAR SPEAKER(-)
GRAY	RIGHT FRONT SPEAKER(+)
GRAY/BLACK	RIGHT FRONT SPEAKER(-)
WHITE	LEFT FRONT SPEAKER(+)
WHITE/BLACK	LEFT FRONT SPEAKER(-)
GREEN	LEFT REAR SPEAKER(+)
GREEN/BLACK	LEFT REAR SPEAKER(-)
RED	ACC +12V
BLACK	GROUND
BLUE	POWER AMP REMOTE

Note: Do not connect the red wire to a constant power connection. The red wire should be connected to a vehicle connection with switched power such as IGN or ACC.

BASIC OPERATION



Power On/Off

Press the power button (1) to turn the unit on.

Press again to switch the DIMMER On or Off.

Press and hold the power button (1) to turn the unit off.

Volume Control

Press the button (8) to increase the volume.

Press the button (2) to decrease the volume.

Press and hold either button to change the volume level continuously.

Play/Pause/Mute

Press the button (5) to silence the audio output in tuner, AUX or USB mode. Press again to restore the previous volume level.

Mode

Press the button (3) to enter tuner mode, press again to navigate AM or FM.

Press again to restore the previous volume level.

Dimming Control

Press the button (1) to turn the dimmer on (night mode) and press again to turn the dimmer off in maximum brightness level (Day mode).

Radio Mode

USA/Europe (EURO) Tuning Mode Selection

Press and hold the button (3) to change from USA to Europe tuning mode.

Frequency Tuning

Press and hold the or buttons (4, 6) to enter manual tune mode. press or buttons (4, 6) again to seek stations up/down step by step.

Channel Seek

Press the or buttons (4, 6) to seek strongest radio frequencies.

Bluetooth Mode

The RMXMH50 includes built-in Bluetooth technology that allows you to connect this unit to Bluetooth devices for streaming audio playback.

Bluetooth Pairing

Press and hold the button (7) to make Bluetooth pairing available for 5 minutes then connect using your Bluetooth enabled device.

Answering a Call

When answering a call using the connected phone, Bluetooth audio playback will pause. After hanging up from the call, Bluetooth audio will continue on some phones. It may be necessary to press the button (5) to resume Bluetooth audio playback.

Bluetooth Audio (A2DP)**Selecting Tracks**

During playback, press ◀◀ or ▶▶ button (4, 6) to play the previous or next track.

Pausing Playback

During playback, press ▶|| button (5) to pause the Bluetooth audio playback. Press ▶|| button (5) again to resume playback. If you change to another mode, playback will automatically pause. Press the ✱ button (7) to return to Bluetooth mode and resume audio playback from your Bluetooth enabled device.

NOTE: *If a Bluetooth device is disconnected due to the power being turned off or if the device goes out of range, the unit will automatically search for the matching Bluetooth mobile device when the po is restored.*

Compliance with FCC Rules (U.S.A Only)

This device complies with Part 15 of the FCC rules. Operation is subjected to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received), including interference that may cause undesired operation.

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 residential 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. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. This equipment complies 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.

FCC WARNING

- Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- Proper connections must be used for connection to a host computer and/or peripherals in order to meet FCC emission limits.

Canada Statement

This device contains licence-exempt transmitters(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions;

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement de l'appareil numérique du client conforme

Le présent appareil doit être installé et exploité à une distance minimale de 20 cm entre le radiateur et les corps.

CARE AND MAINTENANCE

- Keep the product away from dust and dirt, which can cause premature wear of parts.
- Handle the product gently and carefully. Dropping it can damage circuit boards and cases, and can cause the product to work improperly.
- Wipe the product with a dampened cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the product.
- Use and store the product only in normal temperature environments. High temperature can shorten the life of electronic devices, damage batteries and distort or melt plastic parts.

Ignition

The most common source of noise in reception is the ignition system. This is a result of the radio being placed close to the ignition system (engine). This type of noise can be easily detected because it will vary in intensity of pitch with the speed of the engine.

Usually, the ignition noise can be suppressed considerably by using a radio suppression type high voltage ignition wire and suppressor resistor in the ignition system. (Most vessels employ this wire and resistor but it may be necessary to check them for correct operation). Another method of suppression is the use of additional noise suppressors. These can be obtained from most CB/A radio or electronic supply shops.

Interference

Radio reception in a moving environment is very different from reception in a stationary environment (home). It is very important to understand the difference.

AM reception will deteriorate when passing under a bridge or when passing under high voltage lines. Although AM is subject to environmental noise, it has the ability to be received at great distance. This is because broadcasting signals follow the curvature of the earth and are reflected back by the upper atmosphere.

TROUBLESHOOTING

Problem	Solution
No power	If the power supply is properly connected to the vessel's accessory terminal. but the engine is not on, switch the ignition key to "ACC". Fuse may be blown. Replace with 15 AMP ATP fuse.
No AM/FM reception	Antenna cable not connected; insert antenna cable firmly. Check power; make sure device is on.
No sound	Check volume level; increase volume if necessary. Check power; make sure device is on. Check device; press the play/pause button to ensure unit is not in Pause mode.
The operation keys do not work	Press the reset button.
Cannot tune to radio station, auto-seek does not work	Check Power; make sure device is on. Select a station manually, if signals are too weak.
Cannot connect or pair a Bluetooth Device	Check the radio to ensure not connecting to any Bluetooth devices. Press and hold  button and ensure the radio in Bluetooth pairing mode.

SPECIFICATIONS

FM Tuner

Tuning Range (USA).....	87.5 to 107.9 MHz
Tuning Range (Europe).....	87.5 to 108.0 MHz
Sensitivity (S/N=30dB)	<14dBμV
Stereo Separation.....	>25dB

AM Tuner

Tuning Range (USA).....	530 to 1710 KHz
Tuning Range (Europe).....	522 to 1620 KHz
Sensitivity (S/N=30dB)	<25dBμV

Amplifier

Maximum Output Power.....	180 Watts (45 Watts x 4 Channels)
Speaker Impedance.....	4-8 Ω (ohms) per channel

General

Frequency band(s) (for Bluetooth)	2.4~2.4835GHz
Maximum radio frequency power transmitted (for Bluetooth)	10 dBm
Power Supply Requirements.....	DC 12 Volts, Negative Ground
Operating Voltage.....	10-16V DC
Fuse Rating.....	15 Ampere (Max)
Chassis Dimensions.....	3.866" Wide, 4.465" Deep
Mounting Dimensions.....	4.51" Diameter, 5.06" Deep
Weight.....	1.45lb

Specifications subject to change without notice.



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