

## Retevis RA27

# Retevis RA27 Fixed Mount Marine Radio Instruction Manual

Model: RA27 | Brand: Retevis

## PRODUCT OVERVIEW

The Retevis RA27 is a fixed-mount marine radio designed for reliable communication on the water. It features a built-in GPS, Digital Selective Calling (DSC) capabilities, and NOAA weather alerts, ensuring safety and convenience for marine users. Its robust IP67 waterproof rating makes it suitable for harsh marine environments.



Figure 1: Retevis RA27 Fixed Mount Marine Radio with Handheld Microphone.

This image displays the main unit of the Retevis RA27 marine radio, featuring its display screen, control buttons, and the attached handheld microphone. The unit is black with a clear, easy-to-read display.

## WHAT'S IN THE BOX

Upon unboxing your Retevis RA27, verify that all components are present:

- 1 x Retevis RA27 marine band radio
- 1 x Handheld Microphone
- 1 x Mounting Bracket
- 1 x DC Power Cable
- 1 x GPS Antenna
- 1 x English User Manual



Figure 2: Package Contents of Retevis RA27.

This image shows all the items included in the Retevis RA27 package, neatly arranged. It includes the main radio unit, microphone, GPS antenna, power cable, mounting bracket, fixing screws, and the user manual.

Your browser does not support the video tag.

Video 1: Unboxing the Retevis RA27 Marine Radio. This video demonstrates the unboxing process, showcasing the radio unit, manual, and various accessories included in the package.

## SETUP AND INSTALLATION

### Mounting the Unit

The RA27 is a fixed-mount radio and requires secure installation. Use the provided mounting bracket and screws to attach the unit to a stable surface in your vessel. Ensure the location allows for clear visibility of the display and easy access to controls.

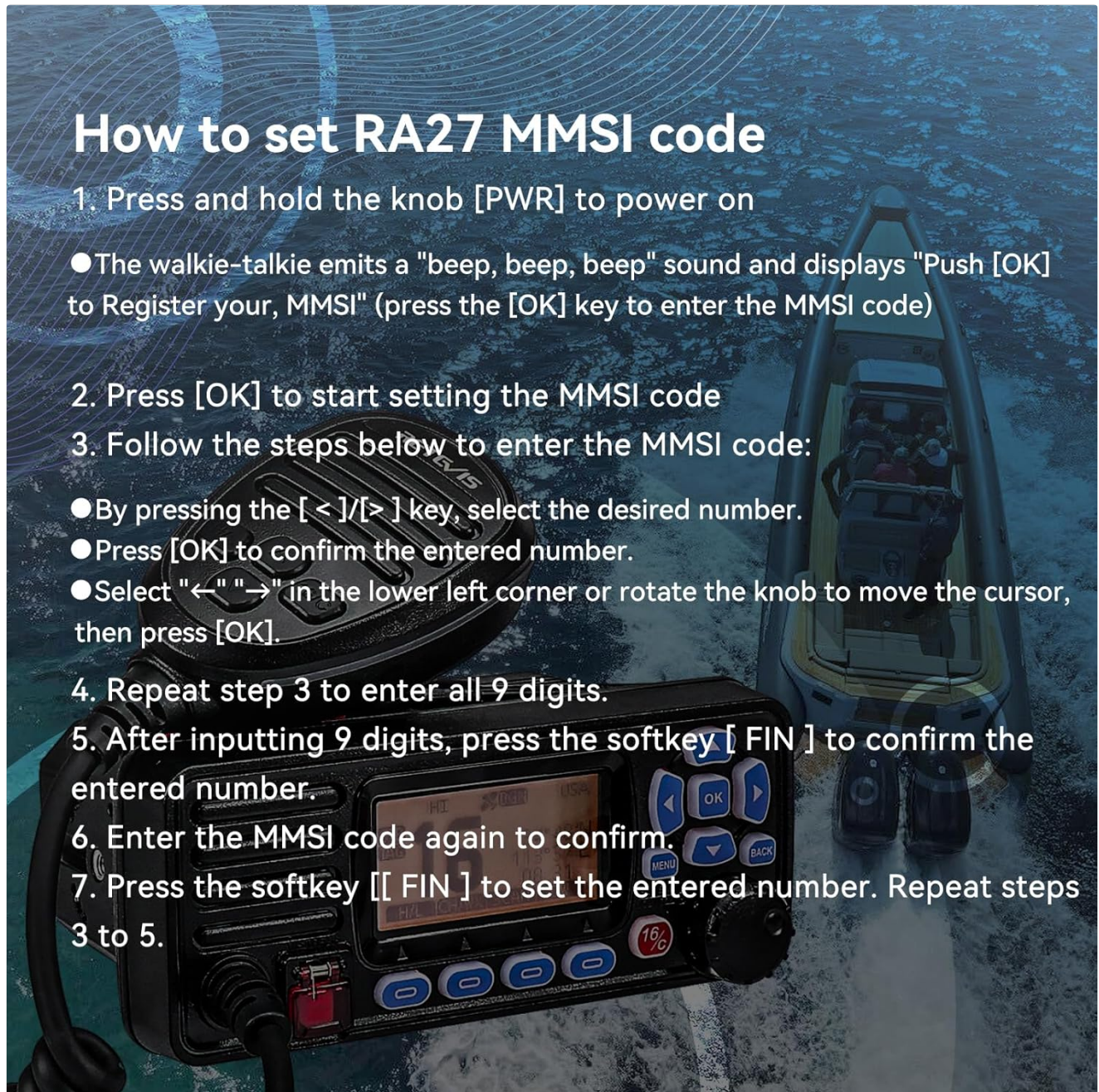


Figure 3: Installation Dimensions for Retevis RA27.

This image illustrates the dimensions of the Retevis RA27 unit, providing measurements for proper installation planning. It highlights the compact design suitable for various marine setups.

## Connecting Power and Antennas

Connect the DC power cable to a 12V DC power source on your boat. Ensure proper polarity (red to positive, black to negative). Connect the VHF antenna to the antenna port and the external GPS antenna to its dedicated port for optimal GPS signal reception.



# How to set RA27 MMSI code

1. Press and hold the knob [PWR] to power on
  - The walkie-talkie emits a "beep, beep, beep" sound and displays "Push [OK] to Register your, MMSI" (press the [OK] key to enter the MMSI code)
2. Press [OK] to start setting the MMSI code
3. Follow the steps below to enter the MMSI code:
  - By pressing the [ < ]/[ > ] key, select the desired number.
  - Press [OK] to confirm the entered number.
  - Select "←" "→" in the lower left corner or rotate the knob to move the cursor, then press [OK].
4. Repeat step 3 to enter all 9 digits.
5. After inputting 9 digits, press the softkey [ FIN ] to confirm the entered number.
6. Enter the MMSI code again to confirm.
7. Press the softkey [[ FIN ] to set the entered number. Repeat steps 3 to 5.

Figure 4: Rear Connections of Retevis RA27.

This image provides a detailed view of the rear panel of the Retevis RA27, showing the various connection ports for power, VHF antenna, and external GPS antenna. The wiring harness is clearly visible.



Figure 5: Retevis RA27 with External GPS Antenna.

This image highlights the external GPS antenna connection for the Retevis RA27, emphasizing the importance of accurate location information for DSC functions.

### Setting the MMSI Code

The MMSI (Maritime Mobile Service Identity) code is crucial for DSC functionality. It must be programmed into the radio. This code is unique to your vessel and can typically be obtained from your national telecommunications authority.

1. Press and hold the knob [PWR] to power on the radio.
2. The radio will emit a "beep, beep, beep" sound and display "Push [OK] to Register your, MMSI". Press the [OK] key to enter the MMSI code.
3. Press [OK] to start setting the MMSI code.
4. Follow the on-screen steps to enter the MMSI code:
  - By pressing the [←] / [→] key, select the desired number.
  - Press [OK] to confirm the entered number.
  - Select "←" in the lower left corner or rotate the knob to move the cursor, then press [OK].

5. Repeat step 3 to enter all 9 digits.
6. After inputting 9 digits, press the softkey [FIN] to confirm the entered number.
7. Enter the MMSI code again to confirm.
8. Press the softkey [FIN] to set the entered number. Repeat steps 3 to 5 if necessary.



Figure 6: MMSI Code Setting Procedure.

This image provides a visual guide to setting the MMSI code on the Retevis RA27, detailing the button presses and display prompts for accurate entry.

## OPERATING THE RADIO

### Basic Communication

The RA27 supports all international, US, and Canadian marine channels. Use the channel up/down buttons or the rotary knob to select your desired channel. Press the PTT (Push-To-Talk) button on the microphone to transmit and

release to receive.

- **Channel 16:** International distress, safety, and calling channel. Always monitor Channel 16 when not communicating on another channel.
- **Dual Watch / Triple Watch:** Allows monitoring of Channel 16 (and another selected channel for Dual Watch, or Channel 16, a selected channel, and a call channel for Triple Watch) while operating on a working channel.



Figure 7: Channel 16 Display on Retevis RA27.

This image shows the radio's display indicating Channel 16, the international distress and calling channel, along with other status indicators.

### Digital Selective Calling (DSC)

DSC allows you to send digital distress alerts and make routine calls to other vessels or shore stations using their MMSI numbers. The RA27 features Class D DSC.

- **Distress Call:** In an emergency, lift the red cover and press the **DISTRESS** button for several seconds. The radio will automatically transmit your vessel's identity and current position.
- **Individual Call:** To call a specific vessel, enter their MMSI number and initiate an individual call.



Figure 8: DSC Distress Button on Retevis RA27.

This image highlights the prominent red distress button on the Retevis RA27, which is used for initiating emergency DSC calls. The protective cover is also visible.

### GPS Functionality

The built-in GPS and external GPS antenna provide accurate location data for DSC calls and general navigation. The radio can display your current latitude, longitude, and time.



Figure 9: GPS Antenna Connection.

This image shows the external GPS antenna connected to the Retevis RA27, illustrating how it provides precise location data for the radio's functions.

### NOAA Weather Alerts

The RA27 can receive NOAA weather alerts, providing timely warnings for severe weather conditions. This feature automatically connects to alert you of updates.



Figure 10: NOAA Weather Alert Display.

This image depicts the Retevis RA27 display showing a NOAA weather alert, indicating the radio's capability to receive and display critical weather information.

## MAINTENANCE

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Proper maintenance ensures the longevity and optimal performance of your Retevis RA27 marine radio.

- **Cleaning:** Regularly wipe the radio and microphone with a soft, damp cloth. Avoid using harsh chemicals or abrasive cleaners.
- **Waterproofing:** The RA27 is IP67 waterproof, meaning it can withstand immersion in up to 1 meter of water

for 30 minutes. However, always ensure all covers and connections are securely fastened to maintain its waterproof integrity.

- **Connection Checks:** Periodically inspect all cable connections (power, antenna, GPS) for corrosion or damage. Ensure they are tight and secure.



Figure 11: IP67 Waterproof Feature.

This image visually represents the IP67 waterproof capability of the Retevis RA27, showing the radio in a marine environment with water splashes, indicating its durability.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No Power	Loose power connection, blown fuse, low battery voltage.	Check power cable connections. Inspect and replace fuse if necessary. Verify battery voltage.
No Audio / Poor Audio	Volume too low, squelch set too high, faulty speaker/microphone.	Increase volume. Adjust squelch. Check microphone connection. Consider external speaker if needed.
Cannot Transmit	Antenna issue, PTT button malfunction, power output setting.	Check antenna connection. Ensure PTT button is fully pressed. Verify high power setting.
GPS Not Acquiring Signal	GPS antenna obstructed, faulty GPS antenna, incorrect settings.	Ensure clear view of sky for GPS antenna. Check antenna connection. Review GPS settings in manual.
DSC Call Failure	Incorrect MMSI, poor GPS signal, channel busy.	Verify MMSI code. Ensure strong GPS signal. Try again on a clear channel.

## SPECIFICATIONS

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- **Model:** RA27
- **Item Weight:** 2.77 pounds
- **Product Dimensions:** 6.1 x 3.38 x 2.68 inches
- **Waterproof Rating:** IP67
- **Number of Channels:** 88
- **Frequency Range:** 156.000-163.425 MHz
- **Talking Range Maximum:** 11.1 Kilometer
- **Tuner Technology:** VHF
- **Voltage:** 13.8 Volts
- **Display Size:** 3 Inches
- **Battery Life (Internal):** 12 Hours (Note: This specification might refer to an internal clock/memory battery, as fixed-mount radios are typically powered by the vessel's electrical system.)
- **Special Feature:** Easy to use and install, IP67 Waterproof

## WARRANTY AND SUPPORT

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Retevis provides a **2-year warranty** for the radio body and a **1-year warranty** for accessories. A 30-day no-reason return policy is also offered.

For any issues or support inquiries, please contact Retevis customer service through Amazon. They aim to reply within 12 hours.

Even beyond the warranty period, maintenance services are offered, though buyers may be required to cover

associated costs.

For more information or to explore other products, visit the [Retevis Store on Amazon](#).