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› [Radioddity QT40 10 Meter SSB Ham Radio Instruction Manual](#)

## Radioddity QT40

# Radioddity QT40 10 Meter SSB Ham Radio Instruction Manual

Model: QT40

## 1. INTRODUCTION

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This manual provides detailed instructions for the proper setup, operation, and maintenance of your Radioddity QT40 10 Meter SSB Ham Radio. Please read this manual thoroughly before using the device to ensure safe and optimal performance.

## 2. SAFETY INFORMATION

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- Do not operate the radio without a properly connected antenna.
- Ensure the power supply voltage matches the radio's requirements.
- Avoid exposing the radio to extreme temperatures, direct sunlight, or moisture.
- Do not attempt to disassemble or modify the radio. Refer all servicing to qualified personnel.
- Maintain a safe distance from the antenna during transmission to avoid exposure to RF energy.

## 3. PACKAGE CONTENTS

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Verify that all items are present in your package:

- QT40 Radio x 1
- Microphone x 1
- USB Programming Cable x 1

## 4. PRODUCT OVERVIEW

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The Radioddity QT40 is a 10-meter SSB ham radio designed for reliable communication. It features 40 watts of transmission power, digital noise reduction, and a frequency range of 28.000-29.695MHz.

### 4.1 Front Panel Controls



This image displays the front panel of the Radioddity QT40, highlighting the various controls and indicators. Key elements include the S-Meter, NB/ANL control, NRC function control, Monitor/10K on/off switch, Echo function control, H/L/WX band switch, TX/RX indicator, Channel Display, 4-Pin Mic Connector, Power/Volume control, Squelch Level control, SSB Frequency FINE function, RF Gain Level, PA/FM/AM/USB/LSB Mode selector, Working Band Selection, Mic Gain Level control, Power Level control, and Channel Switch.

1. **S-Meter:** Indicates signal strength and output power.
2. **NB/ANL Control:** Noise Blanker and Automatic Noise Limiter.
3. **NRC Function Control:** Digital Noise Reduction activation.
4. **Control Monitor/10K on/off:** Monitor function and 10KHz step switch.
5. **ECHO Function Control:** Activates and adjusts echo effect.
6. **H/L/WX Band Switch:** High/Low power and Weather band selection.
7. **TX/RX Indicator:** Shows transmit (TX) or receive (RX) status.
8. **Channel Display:** Shows the current operating channel.
9. **4-Pin Mic Connector:** For connecting the supplied microphone.
10. **Power/Volume Control:** Turns the radio on/off and adjusts audio volume.
11. **Squelch Level Control:** Adjusts the squelch threshold.
12. **SSB Frequency FINE Function:** Fine-tunes SSB frequency.
13. **RF Gain Level:** Adjusts receiver RF gain.
14. **PA/FM/AM/USB/LSB Mode:** Selects the operating modulation mode.
15. **Working Band Selection:** Selects the operating frequency band.
16. **Mic Gain Level Control:** Adjusts microphone input sensitivity.
17. **Power Level Control:** Adjusts transmit power output.
18. **Channel Switch:** Selects operating channels.

## 4.2 Rear Panel Connections



❶ SO-239 Antenna Connector

❷ External PA Jack

❸ 3.5MM External Speaker Jack

❹ PC Programming Port

❺ Power Supply Jack

This image illustrates the rear panel connections of the Radioddity QT40. These include the SO-239 Antenna Connector, External PA Jack, PC Programming Port, 3.5MM External Speaker Jack, and Power Supply Jack.

1. **SO-239 Antenna Connector:** For connecting your external antenna.
2. **External PA Jack:** For connecting an external Public Address speaker.
3. **PC Programming Port:** For connecting the USB programming cable to a computer.
4. **3.5MM External Speaker Jack:** For connecting an optional external speaker.
5. **Power Supply Jack:** For connecting the DC power cable.

### 4.3 Microphone

① Channel Up

④ Mic

② Channel Down

⑤ Microphone Cable

③ PTT

⑥ 4-Pin Microphone Connector



The included microphone features Channel Up/Down buttons, a Push-To-Talk (PTT) button, the microphone element, and a 4-Pin Microphone Connector for connection to the radio.

1. **Channel Up:** Increases the channel number.
2. **Channel Down:** Decreases the channel number.
3. **PTT (Push-To-Talk):** Activates transmission when pressed.
4. **Mic:** Microphone element.
5. **Microphone Cable:** Connects the microphone to the radio.
6. **4-Pin Microphone Connector:** Connects to the radio's front panel.

## 5. SETUP

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### 5.1 Antenna Connection

Connect a suitable 10-meter antenna to the SO-239 Antenna Connector on the rear panel of the radio. Ensure the connection is secure. An improperly connected or mismatched antenna can damage the radio.

## 5.2 Power Connection

Connect the DC power cable to the Power Supply Jack on the rear panel. Connect the other end of the power cable to a compatible 13.8V DC power source. Observe correct polarity (red to positive, black to negative).

## 5.3 Microphone Connection

Plug the 4-Pin Microphone Connector into the corresponding jack on the front panel of the radio.

# 6. OPERATING INSTRUCTIONS

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## 6.1 Basic Operation

- **Power On/Off:** Rotate the **Power/Volume Control** clockwise to turn the radio on. Continue rotating to adjust the audio volume.
- **Squelch Adjustment:** Rotate the **Squelch Level Control** clockwise until background noise disappears. Rotate counter-clockwise to hear weaker signals.
- **Channel Selection:** Use the **Channel Switch** knob on the front panel or the **Channel Up/Down** buttons on the microphone to select your desired operating channel.

## 6.2 Modulation Modes (AM/FM/SSB)

Use the **PA/FM/AM/USB/LSB Mode** selector to choose your desired modulation mode:

- **AM (Amplitude Modulation):** Common for local communication.
- **FM (Frequency Modulation):** Offers clearer audio over shorter distances.
- **USB (Upper Sideband) / LSB (Lower Sideband):** Used for long-distance SSB communication. Fine-tune with the **SSB Frequency FINE Function**.
- **PA (Public Address):** Outputs audio to an external PA speaker.



This image shows the Radioddity QT40 radio in a vehicle, illustrating its capability for AM/FM/SSB modulation, crucial for various communication needs.

## 6.3 Digital Noise Reduction (NRC)

The QT40 features TX and RX digital noise reduction technology. Activate the **NRC Function Control** to reduce background noise during transmission and reception, improving audio clarity.



This image depicts the Radioddity QT40 radio installed in a vehicle, emphasizing its digital noise reduction feature for clearer communication in noisy environments.

#### **6.4 Weather Channel and NOAA Alert**

To access weather channels and NOAA alerts, use the **H/L/WX Band Switch** to select the WX band. This feature provides timely weather information and alerts.

#### **6.5 CTCSS/DCS**

The radio supports CTCSS (Continuous Tone-Coded Squelch System) and DCS (Digital Coded Squelch) for selective calling. These features can be configured via the programming software.

#### **6.6 VOX Function**

The VOX (Voice Operated Transmit) function allows for hands-free operation. When activated, the radio will transmit automatically when it detects your voice. Adjust VOX sensitivity via the programming software.



This image shows the Radioddity QT40 microphone mounted in a vehicle, demonstrating the convenience of the VOX hands-free function for drivers.

## 6.7 PC Programming

The Radioddity QT40 can be customized using PC programming software and the included USB programming cable. This allows for advanced settings adjustments, including CTCSS/DCS codes, VOX levels, and other features. Software and drivers are typically available on the manufacturer's website.

## 7. MAINTENANCE

- **Cleaning:** Use a soft, damp cloth to clean the radio's exterior. Do not use harsh chemicals or abrasive cleaners.
- **Storage:** When not in use for extended periods, store the radio in a dry, dust-free environment.
- **Antenna Check:** Periodically inspect antenna connections for corrosion or damage.

## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No power	Power cable disconnected; incorrect voltage; blown fuse.	Check power connections; verify power source; inspect fuse.
No reception	Squelch too high; antenna disconnected; incorrect channel/mode.	Adjust squelch; check antenna connection; verify channel and mode settings.
Cannot transmit	Microphone not connected; PTT button faulty; antenna issue.	Ensure microphone is connected; test PTT; check antenna and SWR.
Poor audio quality	Low signal strength; high noise; incorrect mode.	Adjust RF Gain; activate NRC; ensure correct modulation mode.

Problem	Possible Cause	Solution
E5 Error Code	High SWR (Standing Wave Ratio) detected, indicating an antenna mismatch or fault.	Check antenna connection; verify antenna tuning for the operating frequency; inspect antenna cable for damage. Do not transmit with high SWR to prevent radio damage.

## 9. SPECIFICATIONS

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Feature	Specification
Brand	Radioddity
Model Number	QT40
Frequency Range	28.000-29.7MHz
Number of Channels	40
Transmission Power	40 Watts
Modulation Modes	AM, FM, SSB (USB/LSB), PA
Special Features	Automatic Squelch, Echo, PC programmable, VOX Function, Digital Noise Reduction, NOAA Alert
Item Weight	3.3 pounds (1.5 kg)
Product Dimensions	11.3 x 7.87 x 2.4 inches (287 x 200 x 61 mm)
Talking Range Maximum	10 Miles (approximate, depends on conditions)
Water Resistance Level	Not Water Resistant



This image provides a visual representation of the Radioddity QT40's dimensions (11.2 inches length, 7.9 inches width, 2.4 inches height) and weight (3.3 lbs).

## 10. WARRANTY INFORMATION

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The Radioddity QT40 comes with an 18-month warranty from the date of purchase. This warranty covers manufacturing defects. Please retain your proof of purchase for warranty claims. The warranty does not cover damage caused by misuse, unauthorized modifications, or improper installation.

## 11. SUPPORT

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For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact Radioddity customer support. Refer to the official Radioddity website for the most current contact information and support resources.

Official Radioddity Website: [www.radioddity.com](http://www.radioddity.com)

