

ICOM 2300H 05

ICOM IC-2300H 144MHz Amateur Radio User Manual

Model: 2300H 05

1. INTRODUCTION

This manual provides essential information for the safe and effective operation of your ICOM IC-2300H 144MHz Amateur Radio. The IC-2300H is a robust VHF FM transceiver designed for reliable communication, featuring 65W of stable output power, 207 alphanumeric memory channels, and multiple scanning functions. Please read this manual thoroughly before using the transceiver to ensure proper functionality and to prevent damage.

2. SAFETY INFORMATION

Observe the following precautions to prevent fire, electric shock, or personal injury.

- **Power Supply:** Use only the specified DC power supply (13.8V DC $\pm$ 15%). Incorrect voltage can damage the unit.
- **Antenna:** Connect a suitable antenna before transmitting. Transmitting without an antenna or with an improper antenna can damage the transceiver.
- **Heat:** The transceiver may become hot during prolonged transmission. Ensure adequate ventilation around the unit.
- **Moisture:** Keep the transceiver away from water and excessive moisture. While the unit has some water resistance, it is not fully waterproof.
- **Location:** Avoid installing the transceiver in direct sunlight or in extremely hot or dusty environments.
- **Servicing:** Do not attempt to service the transceiver yourself. Refer all servicing to qualified technicians.

3. PACKAGE CONTENTS

Verify that all items listed below are present in the package:

- ICOM IC-2300H Transceiver Unit
- HM-133V Remote Control Microphone
- DC Power Cable
- Mounting Bracket Kit

4. PRODUCT OVERVIEW

The ICOM IC-2300H is a compact and durable 144MHz amateur radio. Below is an image illustrating the main unit and its remote control microphone.



Figure 1: ICOM IC-2300H Transceiver and HM-133V Remote Control Microphone. The main unit features a large LCD display, volume and squelch knobs, and various function buttons. The microphone includes a full keypad and dedicated function buttons for remote control.

5. SETUP

5.1. Power Connection

Connect the supplied DC power cable to the power connector on the rear of the IC-2300H. Ensure the red wire connects to the positive (+) terminal and the black wire to the negative (-) terminal of your 13.8V DC power supply.

5.2. Antenna Connection

Connect a 50Ω VHF antenna to the antenna connector (SO-239 type) on the rear of the transceiver. Use a high-quality coaxial cable with appropriate connectors.

5.3. Microphone Connection

Plug the HM-133V remote control microphone cable into the modular jack on the front panel of the IC-2300H. Ensure the connector clicks into place securely.

6. OPERATING INSTRUCTIONS

6.1. Basic Operation

- **Power On/Off:** Press and hold the **POWER** button (located on the left side of the front panel) for approximately 1 second to turn the transceiver on or off.
- **Volume Adjustment:** Rotate the **VOL** knob clockwise to increase audio output, counter-clockwise to decrease.
- **Squelch Adjustment:** Rotate the **SQL** knob clockwise to increase the squelch level (reduce background noise), counter-clockwise to decrease.

6.2. Frequency Selection

- **VFO Mode:** Press the **VFO/LOCK** button on the microphone to enter VFO (Variable Frequency Oscillator) mode. Rotate the main dial on the transceiver or use the UP/DOWN buttons on the microphone to change the frequency.
- **Memory Mode:** Press the **MR/CALL** button on the microphone to enter Memory mode. Rotate the main dial or use the UP/DOWN buttons to select a stored memory channel.

6.3. Memory Channels

The IC-2300H features 207 alphanumeric memory channels.

- **Storing a Channel:** Tune to the desired frequency in VFO mode. Press the **MW** button on the microphone, then select a memory channel number using the keypad or main dial, and press **MW** again to store.
- **Recalling a Channel:** In Memory mode, use the main dial or UP/DOWN buttons to navigate through stored channels.

6.4. Scan Functions

The transceiver supports multiple scan functions, including full scan, program scan, memory scan, and skip scan.

- **Initiating Scan:** Press the **SCAN** button on the front panel or the **T-SCAN** button on the microphone to start scanning.
- **Scan Types:** Refer to the detailed manual for specific instructions on setting up different scan types (e.g., program scan limits).

6.5. Tone Functions

The IC-2300H includes built-in CTCSS (Continuous Tone-Coded Squelch System) and DCS (Digital Code Squelch) encoder/decoder functions for selective calling and quiet standby.

- **Setting Tones:** Use the **TONE** or **DTCS** buttons on the microphone, often in conjunction with the **FUNC** button, to access tone settings.

6.6. Microphone Functions (HM-133V)

The HM-133V remote control microphone provides comprehensive control over the transceiver.

- **PTT (Push-To-Talk):** Press and hold to transmit, release to receive.
- **Keypad (0-9, A-D, *, #):** Used for direct frequency entry, memory channel selection, and DTMF tones.
- **VFO/LOCK:** Toggles between VFO mode and locks the keypad/dial.
- **MR/CALL:** Toggles between Memory mode and Call channel.
- **BANK/OPTION:** Accesses memory bank functions or option settings.
- **F-1, F-2:** Programmable function keys.
- **FUNC:** Activates secondary functions of other buttons.

- **DTMF-S:** Sends DTMF tones.
- **ANM/MONI:** Activates auto-numeric memory or monitor function.
- **T-SCAN/SCAN:** Initiates scan or selects scan type.
- **PRIO:** Activates priority watch.
- **MW/CLR:** Stores memory write or clears entry.
- **D-OFF/SET:** Toggles display off or enters set mode.
- **TONE/TSQL/DTCS:** Accesses tone squelch settings.
- **DUP/SIMP:** Sets duplex operation or simplex.
- **MUTE/SQL AD:** Mutes audio or adjusts squelch.

7. FEATURES OVERVIEW

The ICOM IC-2300H offers a range of features designed for amateur radio enthusiasts:

- **144MHz Amateur Radio:** Operates on the 2-meter band.
- **Stable 65W Output:** Provides robust transmission power.
- **User Interface:** Retains a user-friendly interface similar to the IC-2200H for familiar operation.
- **Durability:** Tested to the latest MIL-STD-810 G specifications, ensuring proven durability.
- **207 Alpha-Numeric Memory Channels:** Ample storage for frequently used frequencies and repeater settings.
- **Built-in CTCSS/DCS Encoder/Decoder:** For quiet standby and selective calling.
- **3-inch LCD Display:** Clear and easy-to-read display.
- **Multiple Scan Functions:** Efficiently monitor various frequencies and channels.
- **Compact Case:** Designed for easy installation in various environments.

8. MAINTENANCE

8.1. Cleaning

Wipe the transceiver with a soft, dry cloth. If the surface is dirty, use a soft cloth dampened with water and a mild detergent, then wipe dry. Avoid using strong solvents like benzene or alcohol, as they can damage the transceiver's surfaces.

8.2. Storage

When storing the transceiver for extended periods, disconnect the power cable and antenna. Store the unit in a cool, dry place away from direct sunlight and extreme temperatures.

9. TROUBLESHOOTING

If you experience issues with your IC-2300H, refer to the table below for common problems and their solutions.

Problem	Possible Cause and Solution
No power	Check power cable connection. Ensure power supply is on and providing correct voltage (13.8V DC). Check fuse.

Problem	Possible Cause and Solution
No audio output	Adjust VOL knob. Decrease SQL level. Check speaker connection.
Cannot transmit	Check antenna connection. Ensure correct frequency is selected. Verify PTT button is functioning. Check SWR of antenna system.
Poor reception/transmission	Check antenna and coaxial cable. Ensure proper antenna tuning. Verify frequency and mode settings. Check for local interference.
Display is blank or dim	Adjust display brightness (if applicable). Check power connection. Unit may be in display-off mode (press D-OFF/SET button).

If the problem persists after attempting these solutions, please contact ICOM customer support or a qualified service technician.

10. SPECIFICATIONS

Feature	Value
Product Dimensions	10 x 5 x 8 inches (approx.)
Item Weight	2.43 pounds
Model Number	2300H 05
Frequency	144 MHz (VHF Amateur Band)
Number of Channels	207 (Alpha-numeric memory channels)
Output Power	65W (Stable)
Tuner Technology	VHF
Water Resistance Level	Water Resistant
Manufacturer	ICOM
First Available Date	June 15, 2012

11. WARRANTY AND SUPPORT

ICOM products are manufactured with high standards of quality and durability. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official ICOM website.

For technical support, service, or additional information, please contact ICOM America customer service or visit their official website: www.icomamerica.com.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question

and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question