

ICOM AT-140

Icom AT-140 Automatic Antenna Tuner User Manual

Model: AT-140

INTRODUCTION

The Icom AT-140 is an automatic antenna tuner designed to optimize antenna performance for Icom M802 and M803 marine SSB transceivers. It ensures efficient signal transmission and reception by automatically tuning the antenna to the operating frequency, allowing for full use of the antenna for best reception across various bands.

KEY FEATURES

- **Weather-Resistant Design:** Encased in a completely weather-resistant acrylic case with rubber gaskets, ensuring durability in marine environments.
- **Memory Tuning:** Features 45 memories for significantly shorter tuning times, enhancing operational efficiency.
- **Quick Low Power Tune-up:** Supports rapid tuning at low power levels.
- **Simple Connectivity:** Comes with pre-wired cable connection points for easy plug-and-play installation.
- **Automatic Tuning:** Automatically tunes the antenna in approximately 2-3 seconds.

PRODUCT OVERVIEW



Image: The Icom AT-140 Automatic Antenna Tuner, a grey rectangular unit with "ICOM AUTOMATIC ANTENNA TUNER AT-140" printed on top. Two black cables are connected to its side, leading to a PL-259 connector and a multi-pin connector, indicating its readiness for installation.

SETUP AND INSTALLATION

The AT-140 is designed for straightforward installation. It is recommended to install the unit near the base of the antenna element for optimal performance. Ensure proper antenna cable and power connections using the pre-wired points provided.

1. **Mounting:** Securely mount the AT-140 in a suitable location, preferably close to the antenna's feed point. The unit's weather-resistant design allows for outdoor installation.
2. **Antenna Connection:** Connect your antenna cable to the SO-239 antenna connector on the AT-140.
3. **Transceiver Connection:** Connect the control and power cables from the AT-140 to your Icom M802 or M803 transceiver. The unit comes with pre-wired cables for ease of connection.
4. **Power On:** Once all connections are secure, power on your transceiver. The AT-140 will be ready for operation.

OPERATION

The Icom AT-140 operates automatically in conjunction with compatible Icom transceivers. When a new frequency is selected on the transceiver, the AT-140 will initiate an automatic tuning sequence.

- **Automatic Tuning:** Upon changing frequency on the connected M802 or M803, the AT-140 will automatically begin tuning the antenna. This process typically takes approximately 2-3 seconds.
- **Memory Function:** The tuner stores up to 45 tuning memories. If you return to a previously used frequency, the tuning time will be significantly shorter as the AT-140 recalls the stored settings.
- **Low Power Tune-up:** The unit supports quick tuning at low power, which is beneficial for protecting the transceiver during the tuning process.
- **Optimized Performance:** The AT-140 ensures that the entire antenna is utilized for the best possible reception and transmission, even when bypassing email and shortwave listening frequencies.

MAINTENANCE

The Icom AT-140 is designed for minimal maintenance due to its robust, weather-resistant construction. However, periodic checks are recommended to ensure continued optimal performance.

- **External Cleaning:** Periodically clean the exterior of the unit with a soft, damp cloth. Avoid using harsh chemicals or abrasive cleaners.
- **Cable Connections:** Inspect all cable connections (antenna, power, control) for corrosion or damage. Ensure they are securely fastened.
- **Mounting Integrity:** Verify that the mounting hardware is secure and the unit remains firmly in place.
- **Environmental Check:** Although weather-resistant, ensure the unit is not submerged or exposed to extreme conditions beyond its design specifications.

TROUBLESHOOTING

If you encounter issues with your AT-140, consider the following common troubleshooting steps:

- **Tuner Not Responding:**
 - Check all cable connections between the AT-140 and the transceiver. Ensure they are firmly seated.
 - Verify that the transceiver is powered on and functioning correctly.
- **Poor Tuning Performance:**
 - Inspect the antenna and its connections for any damage or corrosion.
 - Ensure the antenna is properly installed and clear of obstructions.
 - Confirm that the AT-140 is mounted as close as possible to the antenna feed point.
- **Intermittent Operation:**
 - Check for loose connections or damaged cables.
 - Ensure the power supply to the transceiver (and thus the tuner) is stable.

If problems persist after attempting these steps, please contact Icom customer support or a qualified service technician.

SPECIFICATIONS

| Feature | Detail |
|------------------------|--|
| Dimensions (W x H x D) | 230 x 340 x 80 mm (approx. 9.06 x 13.39 x 3.15 inches) |
| Antenna Connector | SO-239 |

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|-----------------------|---|
| Max. Input Power | 150 W (PEP), 100 W (continuous) |
| Automatic Tuning Time | Approx. 2-3 seconds |
| Memory Channels | 45 |
| Weight | Approx. 7 pounds (3.17 kg) |
| Case Material | Weather-resistant acrylic with rubber gaskets |

WARRANTY AND SUPPORT

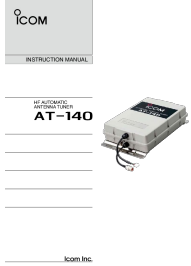


Icom provides support for its products. For specific warranty details, please refer to the documentation included with your purchase or visit the official Icom website. Protection plans may also be available for extended coverage.


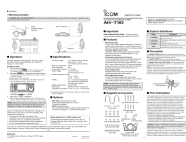
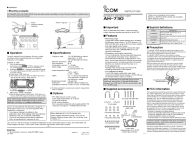
- **Protection Plans:** Extended protection plans are available for purchase, offering 2-year or 3-year coverage.
- **Returns:** Standard return policy allows for returns within 30 days.
- **Manufacturer Support:** For technical assistance, service, or warranty claims, please contact Icom America directly.



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Related Documents - AT-140

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|  | <p>Icom AT-140 HF Automatic Antenna Tuner Instruction Manual</p> <p>This instruction manual provides comprehensive guidance for the Icom AT-140 HF Automatic Antenna Tuner. It covers installation, safety precautions, unit description, specifications, and operational examples for marine and land-based HF radio systems, ensuring optimal performance and safe usage.</p> |
|  | <p>Icom AH-740 HF Automatic Tuning Antenna Instruction Manual</p> <p>This manual provides instructions for the installation and operation of the Icom AH-740 HF Automatic Tuning Antenna. It covers features, safety precautions, system installation, specifications, and optional accessories.</p> |
|  | <p>Icom AH-705 Automatic Antenna Tuner Instructions and Specifications</p> <p>Comprehensive instructions and specifications for the Icom AH-705 Automatic Antenna Tuner, covering operation, features, connection, installation, and safety precautions.</p> |

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|  <p>The image shows the front cover of the Icom AT-130 and AT-130E HF Automatic Antenna Tuner instruction manual. The cover is white with the Icom logo at the top left. Below the logo, it says 'INSTRUCTION MANUAL'. In the center, there is a photograph of the AT-130 and AT-130E tuners. Below the photograph, the model numbers 'AT-130' and 'AT-130E' are printed. At the bottom, the Icom Inc. logo is visible.</p> | <p>Icom AT-130 AT-130E HF Automatic Antenna Tuner Instruction Manual</p> <p>Comprehensive instruction manual for the Icom AT-130 and AT-130E HF Automatic Antenna Tuners, covering installation, operation, features, and specifications for marine and land mobile use.</p> |
|  <p>The image shows the front cover of the Icom AH-730 Automatic Antenna Tuner installation and operation manual. The cover is white with the Icom logo at the top left. Below the logo, it says 'INSTRUCTION MANUAL'. In the center, there is a photograph of the AH-730 tuner. Below the photograph, the model number 'AH-730' is printed. At the bottom, the Icom Inc. logo is visible.</p> | <p>Icom AH-730 Automatic Antenna Tuner: Installation and Operation Manual</p> <p>This manual provides detailed instructions for installing and operating the Icom AH-730 Automatic Antenna Tuner. It covers features, specifications, precautions, and mounting guidelines for optimal performance in radio communications.</p> |
|  <p>The image shows the front cover of the Icom AH-730 Automatic Antenna Tuner installation and operation guide. The cover is white with the Icom logo at the top left. Below the logo, it says 'INSTRUCTION MANUAL'. In the center, there is a photograph of the AH-730 tuner. Below the photograph, the model number 'AH-730' is printed. At the bottom, the Icom Inc. logo is visible.</p> | <p>Icom AH-730 Automatic Antenna Tuner: Installation and Operation Guide</p> <p>Comprehensive instructions for installing and operating the Icom AH-730 Automatic Antenna Tuner, covering features, specifications, mounting, and safety precautions.</p> |