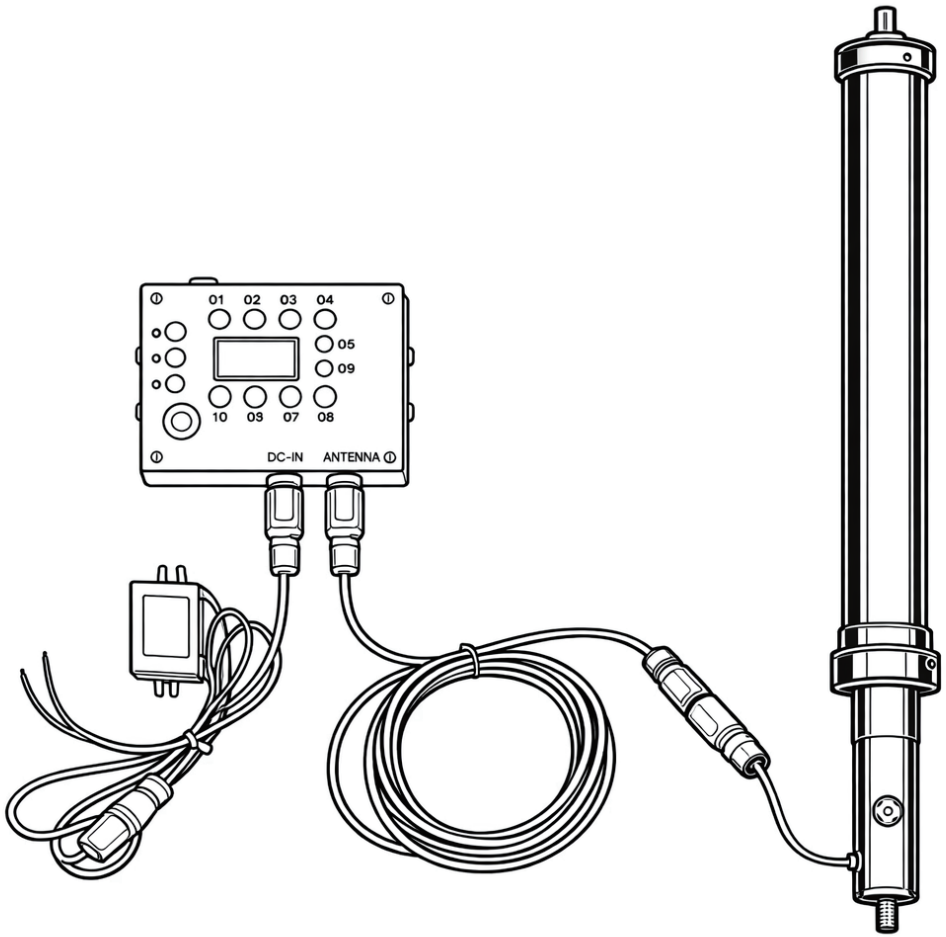
GRA-AT330T(C)

Motorized HF Screwdriver Antenna
User Manual



The GRA-AT330T(C) is a motorized screwdriver antenna designed for portable and mobile amateur radio operation.

By adjusting the height of the loading coil, the antenna can be tuned across multiple HF bands without manually changing the antenna length.

The included control box allows precise tuning and memory presets for quick band switching.

Key Features

- Frequency Coverage: 3.5–50 MHz
- Motorized Coil Adjustment
- Memory Preset Control
- Portable / Mobile Operation
- IP68 Waterproof Antenna Body

Package Contents

- GRA-AT330T(C) Motorized Antenna
- Control Box
- Signal Cable
- Power Cable
- User Manual

For clearer instructions, detailed updates, and the latest user guidance, please visit the official GRA-AT330T(C) support page. You can scan the QR code below or search for "GRA-AT330T(C)" online to access updated manuals, tutorials, and additional information.

GRA-AT330T(C)

Important Safety Information

Precautions Before Use
Please read this manual carefully before operating the antenna.
This antenna is intended for amateur radio use only.
Do not transmit outside permitted amateur bands.

Safety Guidelines

⚠ Ensure the antenna is securely mounted before use.
⚠ Do not touch the antenna during transmission.
⚠ Do not operate the antenna during thunderstorms.
⚠ Disconnect power if cables or connectors are damaged.
⚠ Avoid strong impacts or dropping the antenna.
⚠ Ensure all connectors are firmly tightened.

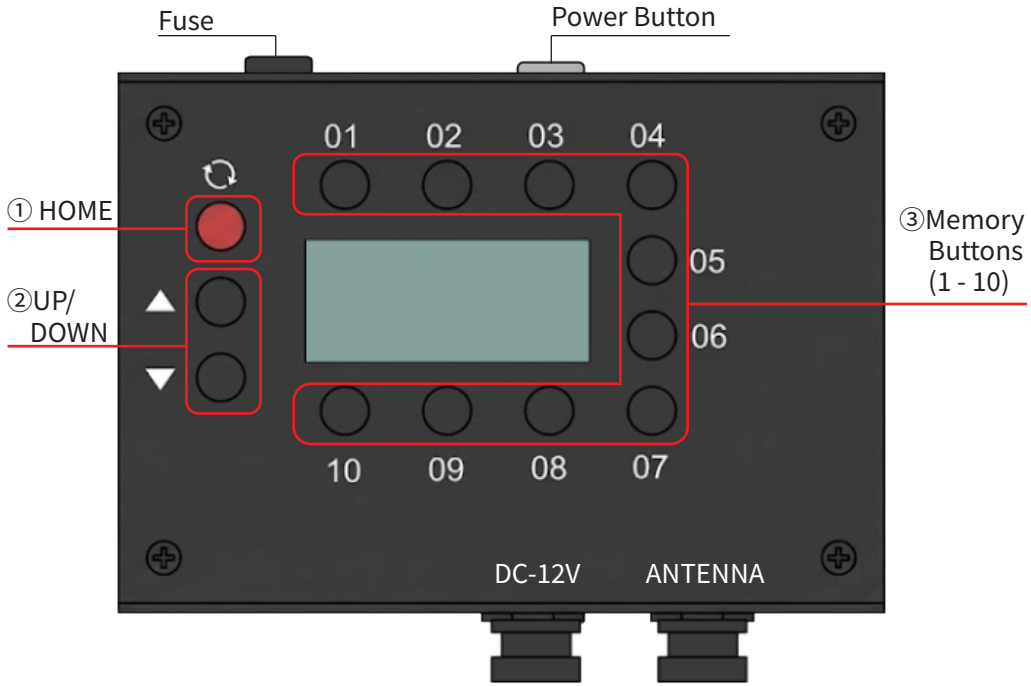
Waterproof Rating

IP68 Waterproof Components
✓ Antenna body
✓ Signal cable connectors

Not waterproof
X Control box
X Power supply module

Keep electronic components protected from water.

Control Box Overview



①HOME Button
Reset antenna position / Stop movement / Return to menu

Always press HOME after each adjustment to reset the antenna reference.
Failure to do so may result in inaccurate tuning or memory errors.
This is required to maintain tuning accuracy.
In memory setting mode, press UP or DOWN to stop adjustment.
Press HOME to confirm and save the setting.

②UP/DOWN
Single press - Fine adjustment
Hold - Continuous movement
Double-click - Automatic movement

Memory Preset Operation

③Memory Buttons(1-10)
Press memory button once - View stored data
Press again - Move the antenna to the saved position automatically.

*The controller stores antenna position based on motor running time, not exact frequency. Tuning accuracy may vary depending on voltage stability and mechanical conditions.

Tune antenna

Hold memory button → Adjust if needed (Press UP or DOWN to stop adjustment) → Press HOME to save.
Press UP or DOWN to stop adjustment.

The controller stores antenna position based on motor running time. Because of this design, voltage variations or mechanical resistance may slightly affect tuning accuracy.

Default Presets

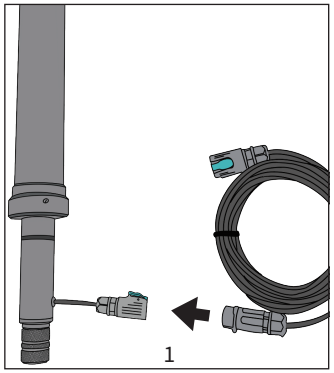
#1 3.5 MHz
#2 7.1 MHz
#3 10.12 MHz
#4 14.12 MHz
#5 18.1 MHz
#6 21.2 MHz
#7 24.9 MHz
#8 28.5 MHz
#9 51 MHz

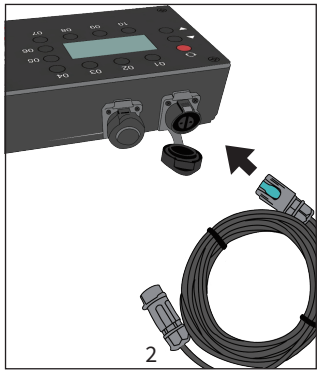
*These presets are reference values only.
Users may overwrite them with custom settings.

Saving a Memory Position

1. Tune antenna to desired frequency.
2. Press and hold memory button (1-9).
3. Controller saves antenna position.
4. Press HOME to exit.

Quick Setup





*STEP 0 (IMPORTANT) Press HOME to reset antenna before use.

Manual Tuning Procedure

To achieve the best performance, tune the antenna using an SWR meter or antenna analyzer.

Tuning Steps

1 Set the desired frequency on your radio.
2 Use UP or DOWN to adjust the antenna coil.
3 Monitor SWR while adjusting.
4 Stop when the lowest SWR is reached.

Power Handling

Maximum recommended power
200W SSB
100W Digital Modes

Troubleshooting Guide

Issue	Possible Causes	Solution
Antenna moves up but not down	• Power polarity wiring error • Voltage instability • Mechanical obstruction	• Check power wiring polarity • Verify stable 12V power supply • Inspect antenna tube movement
SWR cannot be improved after adjusting the coil	• Poor grounding • Loose connection • Incorrect installation	• Improve grounding • Check coax connection • Verify antenna mounting
Memory preset inaccurate	• Voltage fluctuation • Antenna reference not reset	• Press HOME before operation • Retune and store new memory
Antenna stops moving	• Motor protection triggered • Limit position reached	• Release button • Press HOME to reset

Need Help or Want to Work With Us?

Scan for Support & Contact

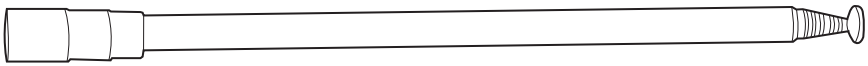
Website: www.gabilradio.com/contact

We are continuously improving our products and support.
Thank you for choosing Gabil Radio.

Choose the Right Telescopic Whip

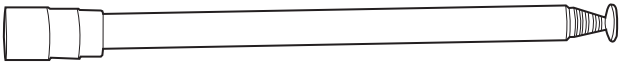
Select the correct whip based on your operating frequency:

Long Whip



3.5MHz - 30MHz

Short Whip



7MHz - 50MHz

Using the wrong whip will result in poor tuning or high SWR.

Always select the correct whip for your operating frequency to achieve optimal performance.

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