

# mAT-8101 INSTRUCTIONS

Antenna tuner for the ICOM IC-F8101 transmitter

Thank you for choosing this **MAT-TUNER** product.

Please **READ ALL INSTRUCTIONS** carefully and completely before using this tuner.

## ■ INTRODUCTION

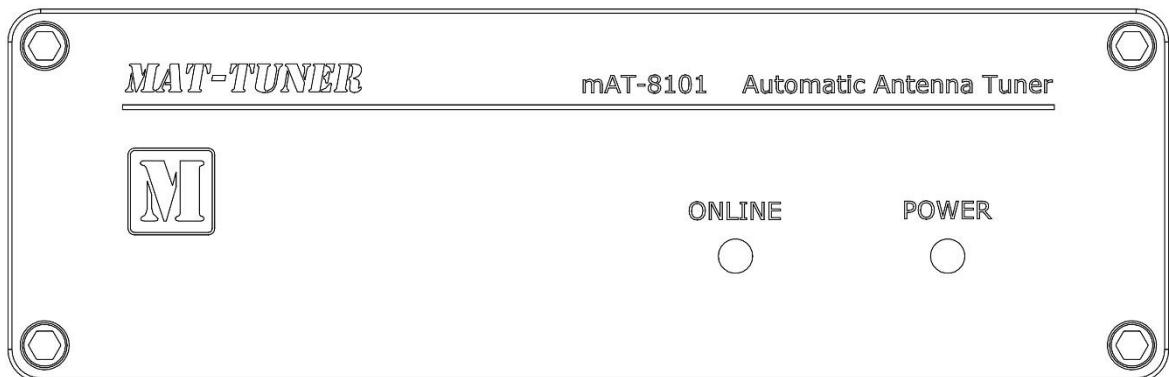
mAT-8101 is specially designed for ICOM IC-F8101 transmitters. Please do not try to use it for other transmitters. This tuner allows RF signals up to 200W to pass through.

mAT-8101 has a working frequency range of 1.8-54MHz. The tuner connects to the transmitter using the supplied mAT-232 adapter cable (RS-232). The transmitter supplies power to the tuner through this cable, communicates with it and controls the operation of the tuner. The tuner does not require additional power supply.

This tuner will tune dipoles, verticals, Yagis, or virtually any coax-fed antenna. It can match a wide range of coax-fed antennas and impedances.

## ■ FRONT PANEL

The front panel of the tuner has 2 indicator lights, as shown in the figure.

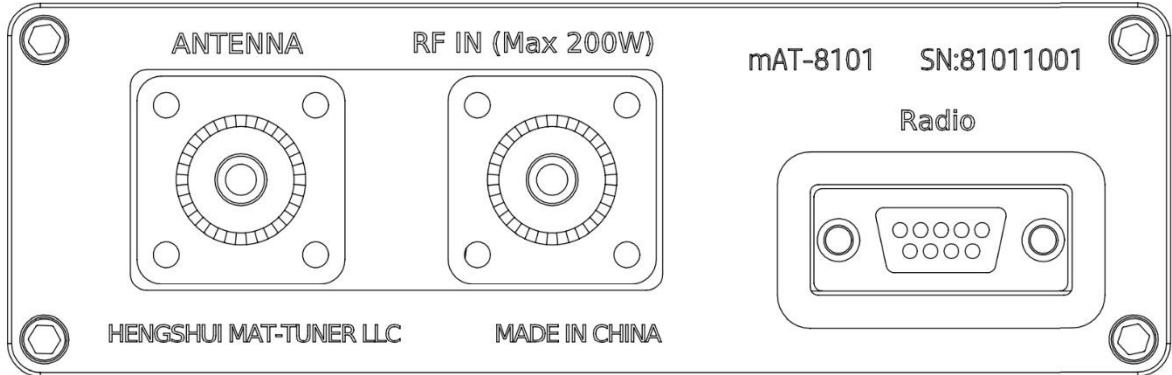


**ONLINE:** Status indication. Lights up to indicate that the tuner is online. Off indicates that the tuner is in bypass mode.

**POWER:** Power light  
When the tuner is working, lit green.

## ■ REAR PANEL

The figure below is the rear panel of the tuner.



**ANTENNA:** SO-239 socket, connect antenna with 50 ohm coaxial cable.

**RF IN (Max 200W):** SO-239 socket, connected to the transmitter's "ANT" socket, using 50 ohm coaxial cable.

**Radio:** This socket is connected to the transmitter's "Tuner" socket via a mAT-232 cable. This cable comes with the tuner.

## ■ INSTALLATION

**Important:** Turn off the transceiver before connecting any cables.

1. Connect the "ANT" jack on the transceiver to the "RF IN (Max 200W)" jack on tuner, using a 50 ohm coax cable.
2. Connect the adapter cable mAT-232 (Standard accessories, free with tuner) to the jack on tuner, marked "Radio".
3. Connect the other end of this mAT-232 cable to the "TUNER" jack on the transceiver.
4. Connect the coaxial cable of the antenna to the "ANTENNA" socket of tuner.
5. For safety and best performance, always ground your tuner. Ideally, use a ground rod with buried wires. A single rod, a cold water pipe, or an outlet screw can also work. Also, always use a properly installed lightning arrestor on your antenna cable.

## ■ TRANSCEIVER SETTINGS

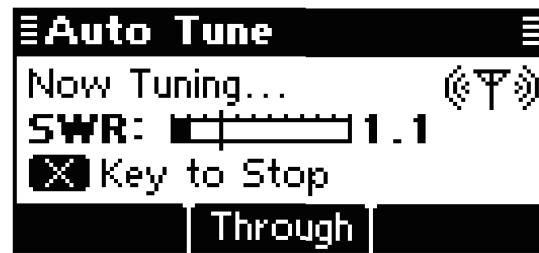
For the ICOM IC-F8101 transmitter, the mAT-8101 tuner is compatible with the ICOM tuner, and their operation methods are the same. In most cases, no additional settings are required.

## ■ OPERATION

For the method of operating the mAT-8101 tuner with ICOM IC-F8101 transmitter, please carefully read page 11 of the transmitter user's manual. The specific steps are as follows. The following contents are extracted from the transmitter user's manual and the copyright belongs to ICOM company.

1. Push [TUNE] to enter antenna tuning mode. The “Auto Tune” screen appears.
2. Push [✓] to start auto tuning. The display shows the antenna SWR. If the antenna cannot be tuned after 20 seconds, the tuning circuit is automatically bypassed. After tuning is finished, the tuner automatically stops transmitting. If necessary, push [ ] to manually stop transmitting. Push [TUNE] to turn OFF the antenna tuner.
3. After tuning is finished, push [TUNE] again to return to the normal operating screen.

Tuning is complete. Normal operation can begin. When your working frequency changes, you need to restart these operations.



## ■ SUPPLIED ACCESSORIES

mAT-232 Adapter cable 1pc

## ■ TECHNICAL SUPPORT

- Frequency range: 1.8 ~ 54 MHz
- Maximum input power: 200W(SSB), 60W(DATA)
- Tuning time: Maximum 5 seconds ( Full tuning ), 0.1 seconds ( Memory tuning )
- Number of memories: 16000
- Usable temperature: -10°C ~ +60°C, 14°F ~ 140°F
- Dimensions: 180 x 142 x 51 mm, 7.1 x 5.6 x 2.0 inches
- Weight: 830g, 29.3oz

## ■ TECHNICAL SUPPORT

Visit the web: <http://www.mat-tuner.com/> for more information.

The website provides links to product manuals, just in case you lose this one! When you are thinking about the purchase of other **MAT-TUNER** products our website also has complete product specifications and photographs you can use to help make your purchase decision. Don't forget the links to all of the quality **MAT-TUNER** Dealers also ready to help you make that purchase decision.