

Safety Warnings

Before using this product, read the following precautions.

- Do not exceed the maximum RF input power of 600 W.
- Always connect an antenna or a dummy load before transmitting. Make sure the expected SWR of the antenna or dummy load is within the acceptable range of your transceiver.
- Use only with a 50 Ω RF system. If the RF input or output is not 50 Ω , measurement errors may occur.

Important: Do not connect this meter between an antenna tuner and the antenna, because that is not a 50 Ω RF system.

- Keep the device dry.
- Do not disassemble the device.

Introduction

- The mAT-SW600 is designed to measure RF power and Standing Wave Ratio (SWR) in HF amateur radio systems. It features a clear color display that shows Peak Envelope Power (PEP), Maximum Power, and SWR.
- It has two built-in high-capacity 18650 lithium batteries and charges through a standard USB Type-C charger. No external power supply is required.

Package Contents

The package includes:

mAT-SW600

USB power cable

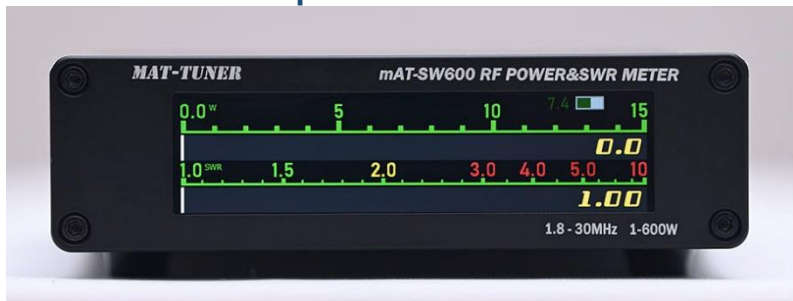
Instruction Manual

Contact your dealer if anything is missing.

Technical Specifications

Specification	Details
Frequency Range	1.8 – 30 MHz
RF power ranges	15 W, 150 W, 600 W
Impedance	50 Ω
Display	PEP, Maximum Power, SWR
Display Type	Color LCD
Antenna Connector	UHF (SO-239 / SL16)
Power Supply	USB 5 V (TYPE-C), 1 A
Operating Temperature	-10 °C to +60 °C
Dimensions / Weight	200 × 130 × 40 mm, 800 g

Front Panel Description



Front Panel Display

- The W bar graph shows the instantaneous PEP power.
- The digital display shows the maximum RF power measured during transmission.
- The SWR bar graph and digital display show the real-time SWR value.
- The battery icon and bar graph show the remaining battery level.

- The display has two selectable background colors, black and white, to suit different lighting conditions.

To switch the background color, turn off the meter and turn it on again within 1 second.

Note: The W bar graph scale is automatically adjusted. The meter selects the appropriate scale according to the current RF power level: 15 W, 150 W, or 600 W.

The scale can only change from a lower range to a higher range. To return to a lower range, turn off the meter, wait for 5 seconds, and then turn it on again. When the meter is powered on, the W bar graph starts with the lowest scale: 15 W.

Rear Panel Description



RF OUT, RF IN

RF input and output connectors. They must be connected to a 50 Ω RF system. If the connected equipment is not 50 Ω , the measurement results may be incorrect.

Note: Do not connect this meter between an antenna tuner and the antenna. The impedance at this point is not 50 Ω , so measurement errors may occur. Always connect the meter between the antenna tuner and the transceiver or RF amplifier.

CHARGER

USB Type-C charging port and power switch. Use a high-quality USB Type-C charger for charging. The charging voltage is 5 V, and the maximum charging current is 1 A.

Fully charge the battery before first use. During charging, the indicator LED will light up. When the battery is fully charged, the indicator LED will turn off.

If the indicator LED flashes rapidly after connecting the charger, the battery has failed. Check whether the battery is installed correctly or needs to be replaced.

If the battery needs to be replaced, connect the charger once after reinstalling the battery to activate the battery protection circuit. Otherwise, the meter cannot be powered on.

Note: Do not use this meter while charging. RF energy from radio equipment may interfere with the charger, causing abnormal output voltage and possible damage to the meter.

The power switch turns the meter on and off. If you turn off the power and turn it on again within 1 second, the display background color will switch between black and white.

Technical Support

Visit <http://www.mat-tuner.com> for product info, manuals, images, and demonstration videos.

Purchase Notice

Please purchase products through authorized dealers and retain your proof of purchase to ensure warranty and technical support. Products purchased through unauthorized channels may not be eligible for after-sales service or technical support. Our website lists authorized dealers in major countries and regions.

mAT-SW600 Operating Manual

Version 1.0

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Official website: <https://www.mat-tuner.com>