



DIGITAL WATTMETER, SWR BRIDGE, LINEAR AMPLIFIER SWR PROTECTION & REMOTE MEASUREMENT CAPABILITY

1. FREQUENCY RANGE : 1.6 – 54 MHz
2. TWO POWER MEASUREMENT RANGES : 1W – 500W
& 10W – 5KW
3. NUMERICAL & BARGRAPH DISPLAY!
4. SIMULTANEOUS POWER & SWR DISPLAY!
5. SIMULTANEOUS AVERAGE & PEAK DISPLAY
6. LINEAR AMPLIFIER PROTECTION IN CASE
SWR > 2 : 1 (INTERRUPTS THE TX GND LINE)
7. REMOTE MEASUREMENT CAPABILITY USING FTP
CABLE 2 – 10 METERS LONG
8. AUTO ADJUST POWER BAR

DIMENSIONS	: 135 x 70 x 90 mm
L.C.D. DISPLAY	: 98 x 22 mm

The device displays power with 1 watt step up to 100W. Then the step changes to 5 watts and raises progressively until 50 watts and then up to 1KW. This is done because power measurement with accuracy greater than 5% is a very hard thing to do. Even the BIRD 43 POWER/ SWR METER does not guarantee an accuracy better than 5%!

The device operates with an external 12VDC supply drawing 130mA, but can also operate with the internal 9V battery for a short time period without activating the display backlight, reducing the current draw to 30mA only.

THERE IS ONLY ONE POWER SWITCH AND TWO BUTTONS ON THE FRONT PANEL OF THE DEVICE:

Power switch: This switch turns the device on and off. When the device is connected to a power supply, the LCD backlight is activated. Otherwise, when battery operated, the backlight goes off. The red LED on the right of the switch (Batt Low) starts glowing progressively as soon as the battery voltage drops below the allowed operating limits of the device! The red LED on the left of the switch (Pwr On) shows that the device is activated.

Scale-Swr button: This button with a short push changes the power scale from 0.5kW to 5.0kW, while with a long push changes the upper bar from FORWARD to REFLECTED power. The numerical indication on the right of the bar remains, still showing forward power and the label “Swr” on the right side of the LCD (lower line) changes to “Swbar”.

Showing a bar for the reflected power makes tuning with a manual tuner easier for some people, because all what has to be done is adjust the variable capacitors and inductors to erase the bar .

Avg/Pep-Swr Reset button: This button with a short push makes the transition from AVERAGE to PEAK power display, while with a long push deactivates the protection circuit that has disabled the linear amplifier, or any other device. When the problem that had pushed the SWR level up has been solved, we keep the button pushed until the red LED (Swr Cut) goes off. The standing wave ratio that stops the operation of the protected device is set to 2.0 : 1, but it can be set to any desired value if ordered so. **For simultaneous monitoring peak and average power, we simultaneously press the two buttons** while we have first selected the power scale (0.5kW or 5.0kW). In the upper line we see the PEP power and in the lower line the average. To get back to normal display we repeat the same action!

POWER AUTO SET BAR

For full deflection of the power bar we need 50W on the 0.5kW scale and 500W on the 5.0kW scale. When we operate at the low scale with 200W for example, the power bar automatically adjusts itself for 200W full scale deflection. The above applies in the high scale also. For a quick reset of the bar to maximum sensitivity, all we have to do is push the scale button quickly twice!

BACK PANEL CONNECTORS

On the back panel of the device, starting from the bottom, we have the 12VDC power input jack and the two RCA type connectors: PA in and PA out. It doesn't really matter if we reverse the plugs inserted in those connectors, because the wires inside the device go to the contacts of a simple relay cutting the circuit!

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