



**Palomar
Engineers™**

M-840 SWR Meter



MODEL M-840 AUTOMATIC SWR & POWER METER

SWR MEASUREMENT. The meter computes SWR automatically and displays it on a light bar. No manual adjustment is needed. The SWR reading is correct even with fast changing or intermittent signals such as SSB, and CW.

POWER MEASUREMENT. The power range is set by a panel switch. Full scale power ranges are 20, 200, and 2000 watts. Power display is on a light bar with 30 segments. The light bar follows power changes very rapidly so that all power peaks can be seen. Thus, the power readings are RMS for steady state and PEP for SSB operation. (PEP or Peak Envelope Power is the RMS value of power at the peak of the modulation envelope). The panel is marked for the 200 watt range.

INSTALLATION. M-840 consists of two parts: the display box and the sensor. Connect them together with the 6' telephone cable provided. Connect the INPUT connector on the sensor to your transceiver output. Connect the OUTPUT connector to the antenna or antenna tuner. This cable must be 50 ohm coaxial cable for proper operation of the meter.

The power connector is a standard 3.5 mm jack. The tip is + and the shell is -. The meter requires 12-v DC @ 800 ma peak. Palomar Model PS-95 AC adapter can be used to operate the meter from 115-v AC.

Connect the GND screw on the rear panel to the station ground.

OPERATION. Turn on the power switch. The LED indicator should light. Set the power switch to the range you expect to need (20, 200 or 2000 watts full scale).

Turn on your transmitter in its tune mode. Both power level and SWR will be displayed on the light bars. If you are using an antenna tuner, adjust it for minimum SWR.

If you move to another frequency in the band and the SWR goes up it will immediately be evident from the SWR display. As you continue to transmit you can adjust your tuner using the SWR display as a guide. Usually it is not necessary to go back into tune mode to do this.

SPECIFICATIONS:

Frequency Range: 1-30 MHz.

Power Ranges: 0-20, 0-200, 0-2000 watts.

SWR range: 1.0 to 10+.

Display: Two 30-segment red light bars.

Connectors: UHF (SO-239) for RF, 3.5 mm for power.

Controls: On-Off, power range.

Power required: 12-v DC @ 800 ma peak.

Size: 4-1/2"W x 4-1/4"H x 2-1/2"D (display).

Weight: 16 oz total.

SCHEMATIC - A648 SWR/POWER METER
 PORTIONS OF THIS CIRCUIT ARE PROTECTED
 BY U.S. PATENT No. 4,479,886
 PALOMAR ENGINEERS 2283 3-94

