

PM-30 SWR/Power Meter

INTRODUCTION

The PM-30 can simultaneously measure and display forward power, reflected power, and SWR in the frequency range of 1.8 to 60 MHz. Accuracy of the readings is assured because the PM-30 features a true shielded directional coupler. The back lit meter can also display either peak or average power readings.

SPECIFICATIONS

FREQUENCY RANGE: 1.8 to 60 MHz
POWER RANGE: 300 and 3000 W Ranges
METER LAMP: 12 Vdc with on/off switch
OPTIONAL ADAPTER: Vectronics AC-12
DIMENSIONS: 5.3"W x 5.75"D x 3.5"H
WEIGHT: 1.2 lbs.
CHASSIS: Alodine Plated Aluminum

FRONT PANEL CONTROLS

ON/OFF Meter Lamp Switch
3000W/300W Range Switch
PEAK/AVG..... Selection Switch

REAR PANEL CONNECTIONS

RF OUTPUT SO-239 Connector
RF INPUT SO-239 Connector
POWER CONNECTOR 2.5mm coaxial type jack

INSTALLATION

1. Connect the coax connector labeled RF INPUT to the transmitter using PL-259 connectors. If using an antenna tuner, the PM-30 should be placed between the transmitter and antenna tuner.
2. Connect the coax connector labeled RF OUTPUT to the antenna using a PL-259 connector. If using an antenna tuner, the RF OUTPUT is connected to the antenna tuner input.

Note: Vectronics recommends using high quality coax cable for all coax connections.

3. If a lighted meter is desired, a 9-12Vdc power supply, such as the AC-12, must be connected to the power jack on the back of the unit. This is a 2.5mm coaxial type jack with the center positive.

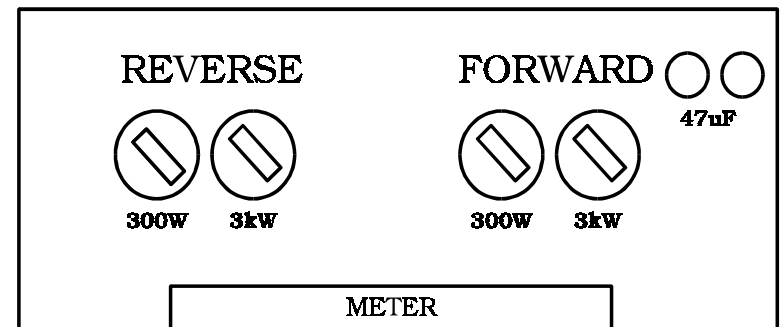
OPERATION

1. Set the desired power range by using the push-button switch on the front panel labeled POWER 3000W/300W. With the switch in the out position, the 300W range is selected. When the switch is locked in, the 3000W range is selected.
2. The Peak Reading feature may be switch on/off by using the push-button switch labeled POWER PEAK/AVG. Peak reading is activated when the switch is locked in.
3. SWR is indicated at the intersection of the two meter pointers. While transmitting, read the SWR from the red SWR line nearest the intersecting point.

CALIBRATION

To null the directional coupler, apply power through the RF INPUT connector, terminating the output in 50Ω. Adjust the power level for 50-100 Watts on the 300 W range. Looking from the front of the meter, adjust the left-hand trim capacitor on the directional coupler board for a null or minimum meter deflection. Reverse the input and output cables and again apply power. Adjust the right-hand trim capacitor for a null on the other meter.

Using a calibrated source, adjust the meter with the internal trim pots as label in the following diagram:



TECHNICAL ASSISTANCE

If you have any problem with this unit first check the appropriate section of this manual. If the manual does not reference your problem or your problem is not solved by reading the manual you may call VECTRONICS at 601-323-5800. You will be best helped if you have your unit, manual and all information on your station handy so you can answer any questions the technicians may ask.

You can also send questions by mail to VECTRONICS, 1007 HWY 25 South, Starkville, MS 39759 or by FAX to 601-323-6551. Send a complete description of your problem, an explanation of exactly how you are using your unit, and a complete description of your station.

PM-30 SCHEMATIC