

# AMERITRON®

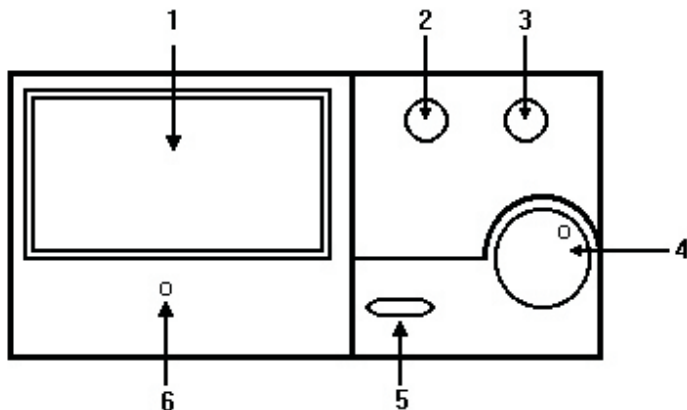
This SWR & Power meter is a highly accurate RF meter for measuring Forward Power, Reflected Power, and VSWR.

Main Features:

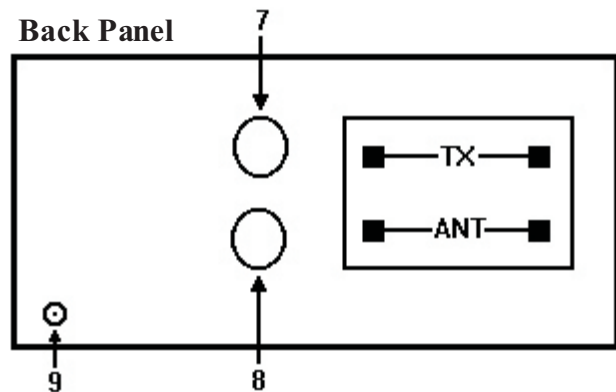
- Large meter display for easy reading.
- Forward RF power readings, switchable to indicate either average power or Peak Envelop Power (PEP) for SSB and AM transmitters.
- Reflected RF power readings.
- VSWR ratios.
- Illuminated meter.
- Convenient control for easy operation.

Model	AWM-20
Frequency Range	1.6 - 60 MHz
Power Range	1W to 3KW
Power Scale	30W, 300W, 3KW
Maximum Power	3KW (up to 1 minute maximum)
Accuracy	+/- 10% (AVG)
VSWR	Min Power required = 3 Watt for F.S.D.
Input/Output Impedance	50 Ohms
Input/Output Connectors	SO-239
Dimensions (W/H/D) in	7.5 X 4.25 X 3
Weight (lbs)	1 lb 11oz
Accessories	Instruction Manual & Lead wire with DC Plug

## Front Panel



## Back Panel



## Explanation of Features:

1. Meter Display: Indicates Forward/Reflected Power in Watts and SWR ratio.
  2. Function Switch: Selects Forward Power, Reflected Power, SWR SET, and SWR.
  3. Range Switch: Selects RF Power Ranges of 30W, 300W, and 3KW.
  4. SWR SET Control Knob: Sets full scale deflection when measuring SWR.
  5. AVG/PEP Monitor: Selects Average or PEP RF Power Readings.
  6. Meter Zero adjust: Mechanical zero adjustment for meter needle.
  7. TX Connector: Coax connector to transmitter 50 Ohm RF output.
  8. ANT Connector: Coax connector to 50 Ohm antenna system.
  9. 13.8V DC connection for meter illumination.
- Note: If meter lighting is required, use the DC cable enclosed and connect it to a 13.8V DC source.

## FORWARD POWER MEASUREMENT

1. Set the FUNCTION switch to the 'FWD' position.
2. Set the radio transceiver to transmit and read the scale corresponding to the Power range selected (30W, 300W, or 3 KW)
3. When the AVG/PEP button is 'out' the meter reads average RF power. When the AVG/PEP button is depressed the meter reads Peak Envelope Power for use with SSB and AM transmissions. In this mode there will be a slow rise and decay time.

## REFLECTED POWER MEASUREMENT

1. Set the FUNCTION switch to the 'REF' position.
2. Set the radio transceiver to transmit and read the scale corresponding to the Power range selected (30W, 300W, or 3 KW)
3. When the AVG/PEP button is 'out' the meter reads average RF power. When the AVG/PEP button is depressed the meter reads Peak Envelope Power for use with SSB and AM transmissions. In this mode there will be a slow rise and decay time.

## VSWR MEASUREMENT

1. Set the FUNCTION switch to the 'SWR SET' position.
2. Set the radio transceiver to transmit mode.
3. Slowly turn the "SWR SET" Control Knob clockwise until the meter point is at the 'CAL' position. This should be full scale.
4. Set the FUNCTION switch to the 'SWR' position while transmitting. The meter will now indicate the SWR ratio.

## CAUTION

1. Since the meter movement is very sensitive, avoid excessive vibration or mechanical shock to the unit.
2. The absolute maximum power that should be applied to the meter is 3KW. Also observe maximum power inputs of 30W and 300W when using the lower two ranges.
3. The transceiver and antenna connections to the meter must never be reversed. Always observe the correct connections to the transmitter and the antenna as indicated on the back panel and in this Instruction Manual.
4. The meter has been carefully calibrated at the factory. Tampering with any of the internal circuitry or sensors may cause damage and will degrade the accuracy of the meter.
5. Do not expose the meter to excessive temperatures, high humidity, or strong magnetic fields.
6. Power capability (measures short-term RF power up to 3KW):

