

INSTRUCTION

THE SX-201 and SX-601 POWER&SWR meter is the most efficient tool in wide range of semi-professional Measuring And control instruments. the measured values can be easily read in the large scale instruments.

The SX-201 and SX-601 is an insertion type RF wattmeter and can be permanently fitted into a transmission System for continuous monitoring of station working condition .

The unit can be work without external power supply . but with 13.8DC power which permits to light up the Meter and shows the active led corresponding to the selected RF coaxial line (for SX-601 only)

DESCRIPTION OF CONTROL

1 POWER/SWR reading meter

2 Indicator adjustment

3 Power range switch

4 Function switch

5 FWD /REFLECT POWER/OFF SWITCH

6 SWR calibration potential-meter

7 Average pep to pep switch

8 200/1kw select switch

9-12 Antenna connector(connect to the antenna with 50 ohm coaxial cable)

10-13 TX connector (connect to the radio with 50 ohm coaxial cable)

11 Power jack (13.8VDC) light up the meter and sensor 1 / sensor 2 led

14 led sensor 1

15 led sensor 2

16 sensor1/sensor2 switch

REMARK :FIG1/FIG2 FOR SX-201

:FIG3/FIG4 FOR SX-601

FIG1

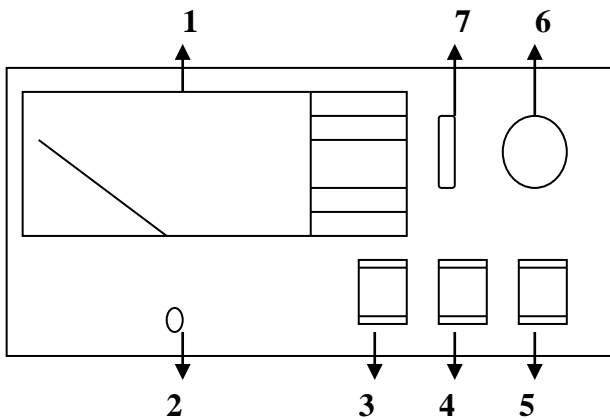


FIG2

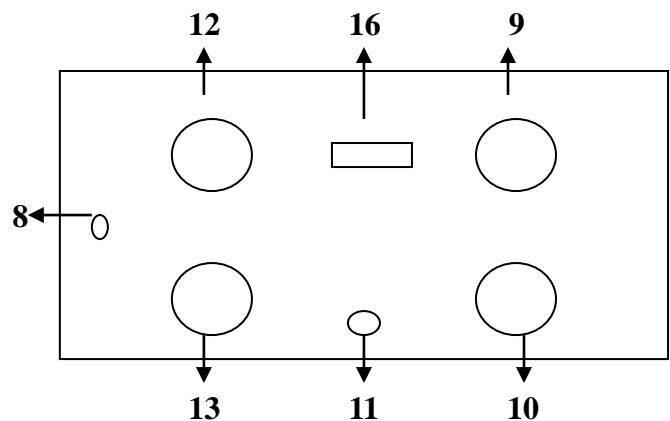
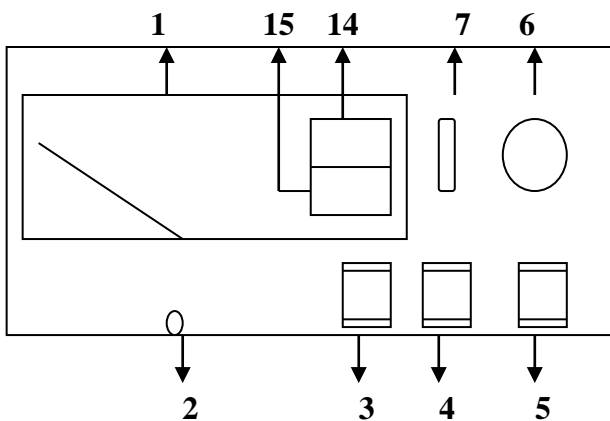
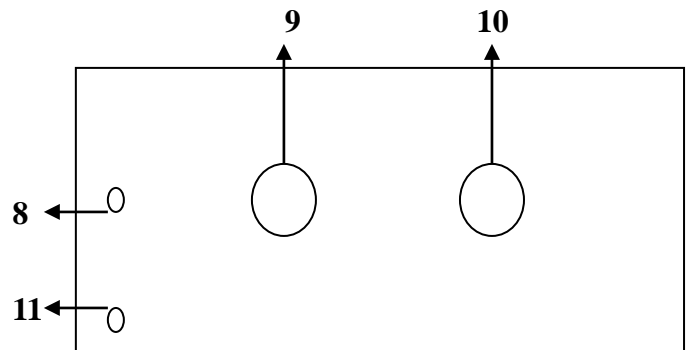


FIG3

FIG4

INSTALLATION

To install the SX-201 or SX-601 simply connect coaxial cable directed to the antenna connector marked “ANT”,and The cable coming from the transmitter or from the linear amplifier to the connector marked “TX” SX-201 or SX-601 is ready to operate.

POWER MEASUREMENTS

- 1 Select the RANGE (3) switch on the end-scale position value as to the power of the unit
- 2 Select the FUNCTION (4) switch in the power position
- 3 Select the POWER switch the FWD position to measure the direct power(from the radio to antenna) or REF position to measure the reflected power(from antenna to the radio)
- 4 Select the power value can be read on the corresponding scale.

SWR MEASUREMENTS

- 1 Select the RANGE (3) switch on the end-scale position value as to the power of the unit.
- 2 Select the FUNCTION (4) switch in the CAL position .
- 3 Let the radio transmit and adjust the instrument by turning the CAL knob, position the end-scale index in the CAL position.
- 4 Select the FUNCTION (4) switch in the SWR position
- 5 Read the SWR value in the above scale.

FIG5 (FOR SX-201)

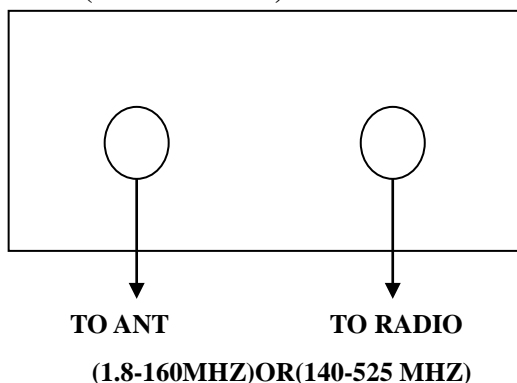
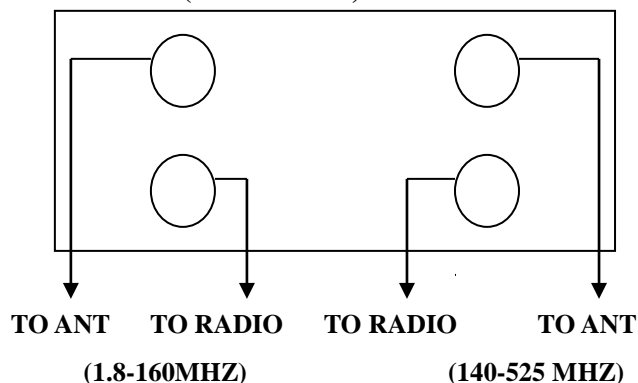


FIG6 (FOR SX-601)



REMARK: SWR VS. REFLECT POWER

$$\text{SWR (STANDING WAVE RATIO)} = \frac{\sqrt{P_{\text{fwd}}} + \sqrt{P_{\text{rev}}}}{\sqrt{P_{\text{fwd}}} - \sqrt{P_{\text{rev}}}}$$

SWR	1.0	1.1	1.2	1.5	2.0	2.5	3.0
Prev%	0	0.22	0.8	4	11.1	8.4	25.0

SPECIFICATION

FREQUENCY RANGE:1.8~160 MHZ(SX-201) , 140~525 MHZ (,SX-601)

POWER MEASURE RANGE :....0.5~400W(5W/20W/200W/1KW) FOR SX-201 ,SX-601 HF BAND

POWER MEASURE RANGE :....0.5~400W(5W/20W/200W) FOR SX-601 UHF BAND

MINIMUM POWER INPUT :.....0.5W

PRECISION:.....5W RANGE ±5% ,20W RANGE ±7.5% , 200W RANGE ±10% ,400W RANGE ±12.5%
1KW RANGE ±15%

SWR:.....1~INFINITY

IMPEDANCE:.....50ohm

INPUT LOSS:.....0.2db (1.8~160 MHZ),(140~525MHZ)

DEMISION:.....15X6.5X10CM WEIGHT:.....720gr.(SX-601), 630gr.(SX-201)