

# INSTRUCTION

The RX-200/400 and RX-600 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 RX-200/400 and RX-600 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 13.8VDC power which permits to light up the meter and shows the active led corresponding to the selected RF coaxial line (for RX-600 only).

## DESCRIPTION OF CONTROL

1 Power/SWR reading meter

2 Indicator adjustment

3 Power range switch

4 Function switch (lamp on/off, peak/average power)

5, 8 Antenna connector(connect to the antenna with 50 ohm coaxial cable)

6, 9 TX connector (connect to the radio with 50 ohm coaxial cable)

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

10 led sensor 1

11 led sensor 2

12 sensor1/sensor2 switch

FIG1: RX-200/400

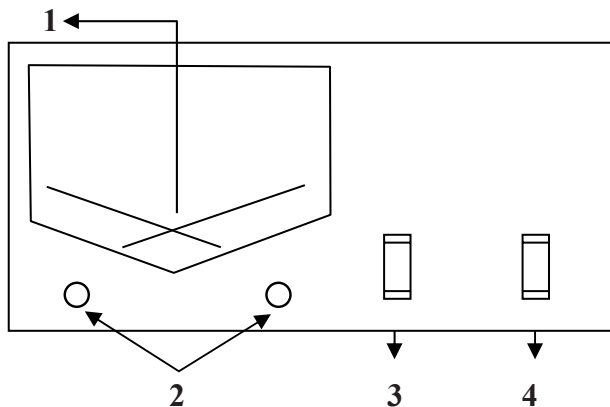


FIG2: RX-200/400

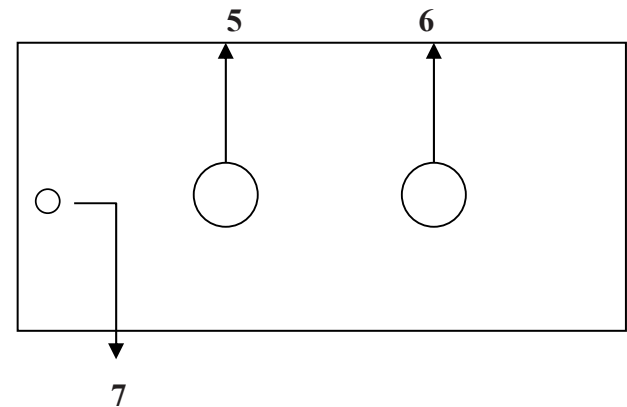


FIG3: RX-600

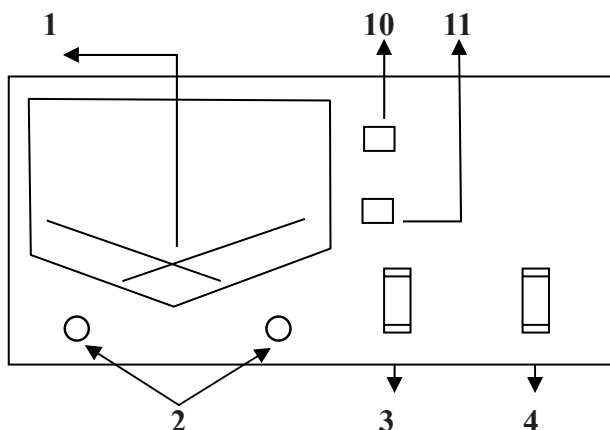
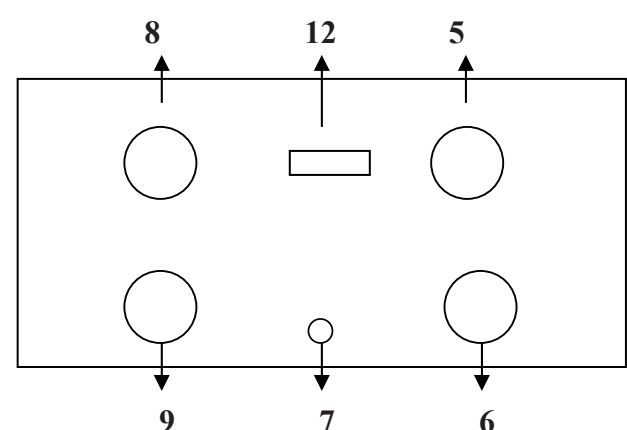


FIG4: RX-600



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## INSTALLATION

To install the RX-200/400 and RX-600 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”.

RX-200/400 and RX-600 are now 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.

FIG5: RX-200/400

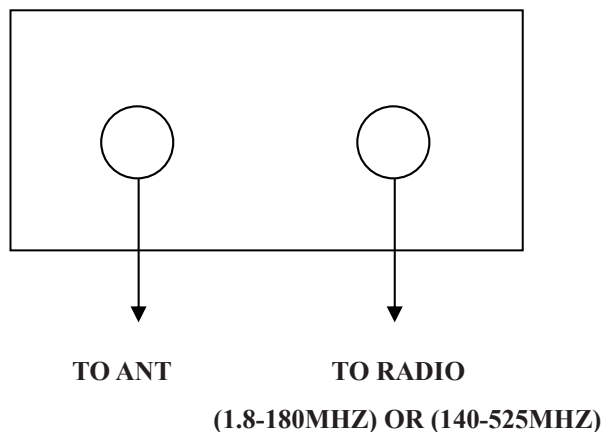
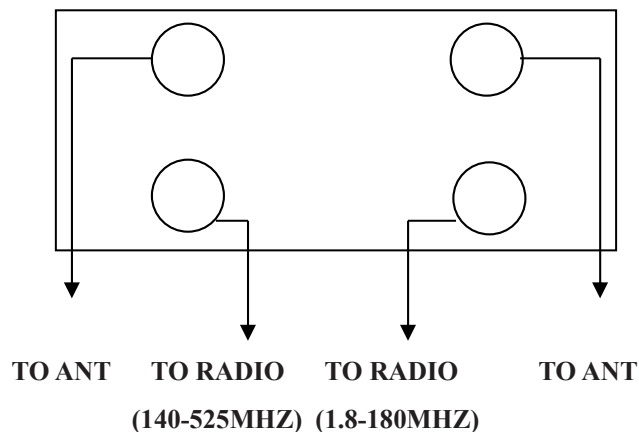


FIG6: RX-600



## REMARK: SWR VS. REFLECT POWER

$$\text{SWR (Standing Wave Ratio)} = \frac{\sqrt{\text{P}_{\text{fwd}}} + \sqrt{\text{P}_{\text{rev}}}}{\sqrt{\text{P}_{\text{fwd}}} - \sqrt{\text{P}_{\text{rev}}}}$$

|        |     |      |     |     |      |     |    |
|--------|-----|------|-----|-----|------|-----|----|
| SWR    | 1.0 | 1.1  | 1.2 | 1.5 | 2    | 2.5 | 3  |
| Prev % | 0   | 0.22 | 0.8 | 4   | 11.1 | 8.4 | 25 |

## SPECIFICATION

|                          |                                                                                                                       |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Frequency range:         | 1.8~180 MHZ (RX-200, RX-600) , 140~525 MHZ (RX-400, RX-600)                                                           |
| Power measure range:     | 0.5~3KW (30W/300W/3KW) for RX-200 and RX-600 HF BAND<br>0.5W~600W (30W/300W/600W) for RX-400 and RX-600 UHF BAND 300W |
| Continuous power rating: | CW/SSB for 1.2~200MHz 300W                                                                                            |
| Continuous power rating: | CW/SSB for 140~525MHz 300W                                                                                            |
| Maximum power handling:  | 3KW for 15 seconds / 2KW for 30 seconds / 1KW for 60 seconds                                                          |
| Minimum power input:     | 0.5W for RX-200, RX-400 and RX-600                                                                                    |
| Precision:               | 30W range ±5% , 300W range ±5% , 600W ±7.5%, 3KW range ±7.5%                                                          |
| SWR:                     | 1~Infinity                                                                                                            |
| Impedance:               | 50ohms                                                                                                                |
| Input loss:              | 0.2db (1.8~180MHZ), (140~525MHZ)                                                                                      |
| Dimensions:              | 15x6.5x10CM                                                                                                           |
| Weight:                  | 720gr. (RX-600), 630gr. (RX-200/400)                                                                                  |