MOONRAKER

INSTRUCTIONS FOR:
SWR 200, SWR 400, SWR 600 & SWR 1000

INSTRUCTION

The Moonraker VSWR power meters offer the most efficient tool in a wide range of semi-professional measuring requirements. Large window display makes measure values easy to read and with the option of 13.8DC power to light up the meter can be used at all times.

The Moonraker VSWR power meters can be permanently fitted in line for continuous monitoring of your stations working condition.

DESCRIPTION OF CONTROLS

1	POWER/SWR Reading Meter
2	Indicator Adjustment
3	Power Range Switch
4	Function Switch
5	FWD /REFLECT POWER/OFF SWITCH REMARK (FIG1/FIG2 FOR SWR 200/400)
6	SWR Calibration Potential-Meter (FIG3/FIG4 FOR SWR 600/1000)
7	Average Pep to Pep Switch
8	200W/400W Select Switch
9/12	Antenna Connector (connect to the antenna with 50ohm coaxial cable)
10/13	TX Connector (connect to the radio with 50ohm 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 (BANK2 ,BANK3 ,BANK4)
16	Sensor 1 / Sensor 2 Switch

FIG1

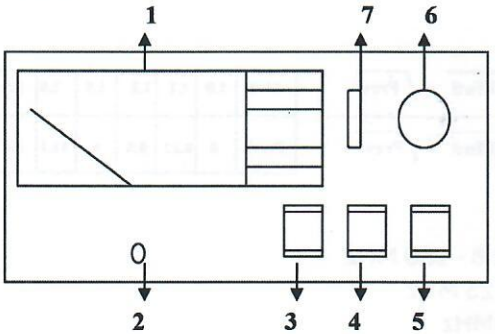
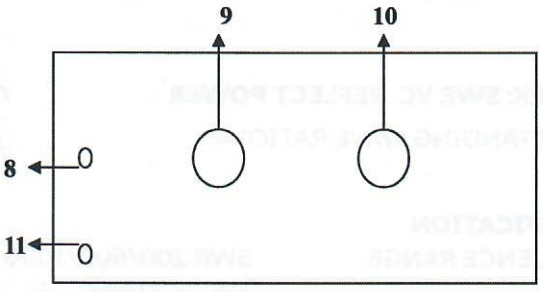


FIG2



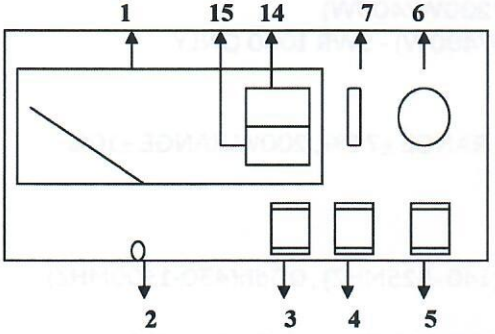


FIG3

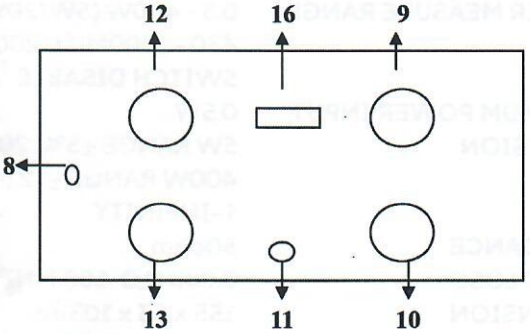


FIG4

INSTALLATION

To install the Moonraker VSWR power meter, simply connect the coaxial cable direct from the antenna to connection marked "ANT" and the cable from the transmitter or from your linear amplifier to the connection marked "TX". Your meter is now ready for use.

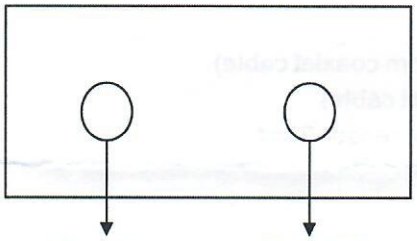
POWER MEASUREMENTS

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

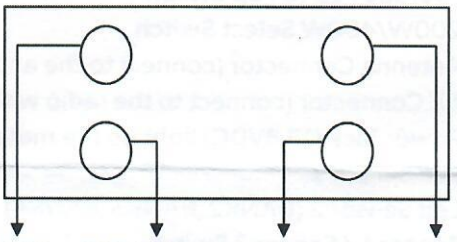
1. Select the RANGE (3) switch on the end-scale position value as to the power of the unit.
2. Select the FUNCTION (4) switch in the CAL position
3. Let the radio transmit and adjust the instrument by turning the CAL knob, position the end-scale index in the CAL position.
4. Select the FUNCTION (4) switch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

FIG5 (FOR SWR 200 or SWR 400)



SWR 200 (1.8 - 160 MHz)
SWR 400 (140 - 525 MHz)

FIG6 (FOR SWR 600 or SWR 1000)



(1.8 - 160 MHz) SWR 600 (1.8 - 525 MHz)
SWR 1000 (430 - 1300 MHz)

REMARK: SWR VC. REFLECT POWER

SWR (STANDING WAVE RATIO) =

$$\frac{\sqrt{Pfwd} + \sqrt{Prev}}{\sqrt{Pfwd} - \sqrt{Prev}}$$

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

FREQUENCE RANGE	SWR 200/600/1000: 1.8 - 160 MHz SWR 400/600: 140 - 525 MHz SWR 1000: 430 - 1300MHz
POWER MEASURE RANGE	0.5 - 400W (5W/20W/200W/400W) 430 - 1300MHz (200W/400W) - SWR 1000 ONLY SWITCH DISABLE
MINIMUM POWER INPUT	0.5W
PRECISION	5W RANGE ±5%, 20W RANGE ±7.5%, 200W RANGE ±10% 400W RANGE ±12.5%
SWR	1~INFINITY
IMPEDANCE	50ohm
INPUT LOSS	0.2db (1.8~160 MHZ), (140~525MHZ), 0.3db(430-1300MHZ)
DIMENSION	155 x 63 x 103mm
WEIGHT	SWR 200/400: 630g, SWR 600: 720g, SWR 1000: 730g