

INSTRUCTION

THE AV-CN200/400 and AV-CN600 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 AV-CN200/400 and AV-CN600 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 AV-CN600 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)

10 led sensor 1

11 led sensor 2

12 sensor1/sensor2 switch

REMARK :FIG1/FIG2 FOR AV-CN200/400

FIG3/FIG4 FOR AV-CN600

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

FIG1

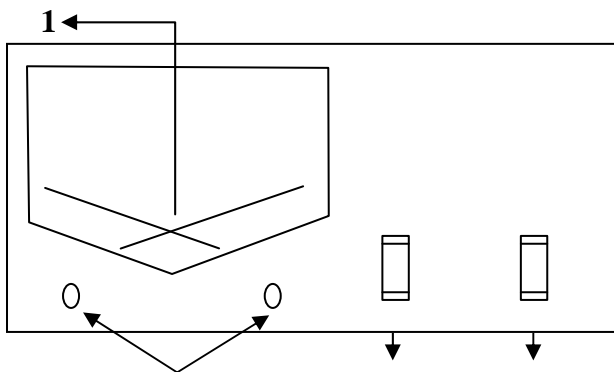


FIG2

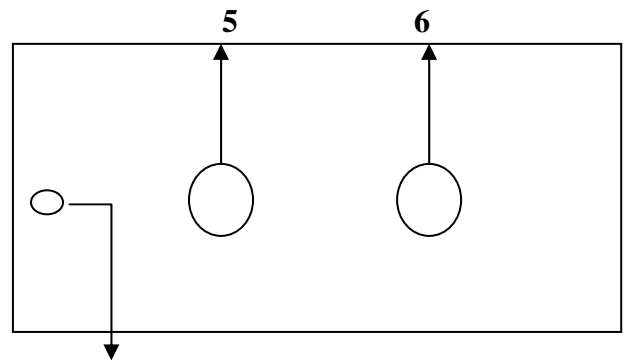


FIG3

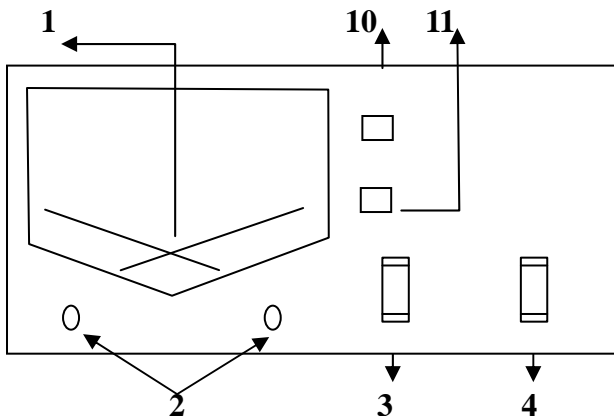
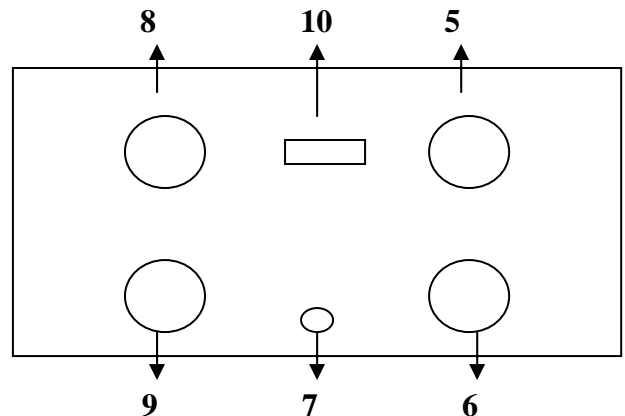


FIG4



INSTALLATION

To install the AV-CN200/400 and AV-CN600 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" AV-CN200/400 and AV-CN600 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.

FIG5 (FOR AV-CN200/400)

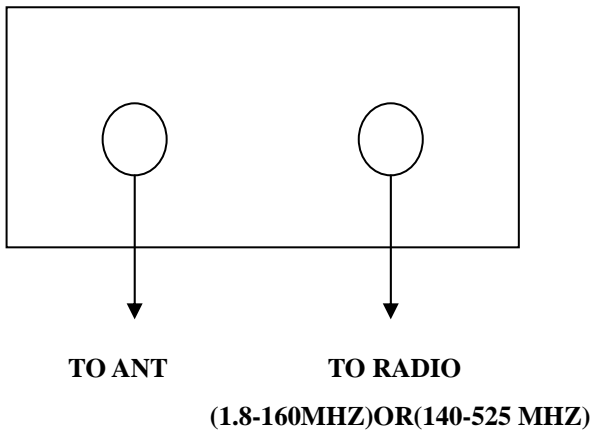
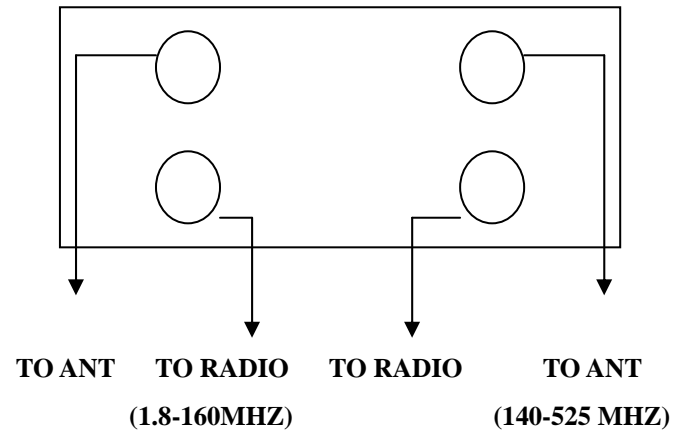


FIG6 (FOR AV-CN600)



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(AV-CN200, AV-CN600) , 140~525 MHZ (AV-CN400, AV-CN600)

POWER MEASURE RANGE :.....0.5~3KW(30W/300W/3KW) FOR AV-CN200 and AV-CN600 HF BAND

:.....0.5W~600W(30W/300W/600W) FOR AV-CN400 and AV-CN600 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 15 seconds / 2Kw 30 seconds / 1Kw 60 seconds

MINIMUM POWER INPUT :.....0.5W FOR AV-CN200 , AV-CN400 and AV-CN600

PRECISION:.....30W RANGE $\pm 5\%$, 300W RANGE $\pm 5\%$, 600W $\pm 7.5\%$, 3KW RANGE $\pm 7.5\%$

SWR:..... 1~INFINITY

IMPEDANCE:.....50ohm

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

DEMENSION:.....15X6.5X10CM

WEIGHT:.....720gr.(AV-CN600), 630gr.(AV-CN200/400)