

INSTRUCTION MANUAL —

CROSS NEEDLE SWR & POWER METER





CN-501 Series







■ DESCRIPTION (average power-FM)

The CN-501 Series is high quality Instrument with unique features which make tedious measurement of SWR and Power during antenna tests, matching and tuning of transmitters a very easy task. SWR and Power indicators are installed in one meter unit. One scale will indicate Forward Power. Another scale Reflected Power and SWR is indicated at the crossing point of the 2 needles. This unique feature makes it possible to read Forward Power, Reflected Power and SWR all at the same time.

■ SPECIFICATIONS

	ТУРЕ	Н2 түре	Туре
Frequency	1.8~150MHz	1.8~150MHz	140∼525MHz
Power range : Forward	15/150/1.5KW	20/200/2KW	20W/200W
Power rating	1.5KW(1.8∼60MHz) 1KW(144MHz)	2KW(1.8~60MHz) 1KW(144MHz)	200W(140~525MHz)
Tolerance	±10% at full scale		
SWR measurement	1:1~1∶∞		
SWR detection sensitivity	4W MIN		
Input / Output impedance	50 ohms		
Input / Output connectors	М Туре		M or N Type
Dimensions	155(W) × 80(H) × 100(D) mm		
Weight	670 g		

■ NOMENCLATURE (average power-FM)

(1) Cross meter : Indicates SWR, Forward and Reflected Power.

② Range Switch: Used to select the power measuring range.

(3) Model Selector: Used to select meter reading of AVG (average

Switch power), or monitoring of P.E.P.

4 Output(ANT) : Connect with 50 ohms coaxial cable to antenna

system.

(5) Input(TR) : Connect with 50 ohms coaxial cable to transmi-

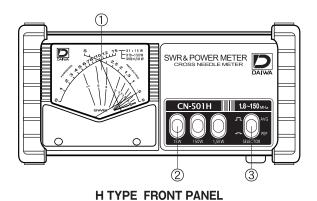
tter or transceiver.

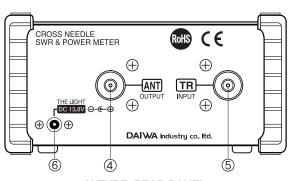
6 Lamp Terminal: Connect lamp terminal to 13.8VDC Power Su-

pply to illuminate the lamp.

7 The suitable : Diameter (Inside/Outside) 2.5mm/5.5mm

Length 9.0mm DC plug size





H TYPE REAR PANEL

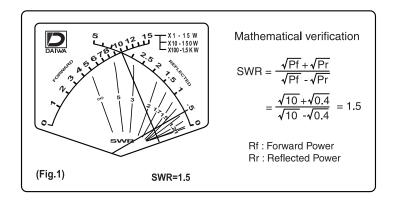
■ OPERATION

- 1. Select the Mode switch to "AVG" FM position
- "Forward" scale indicates Forward Power.
- "Reflected" scale indicates Reflected Power.
- Effective Radiated Power.

To measure effective radiated power, subtract Reflected power from Forward Power. (Apparent loss is only produced by impedance mismatch and does not include cable losses.)

2. Monitoring P.E.P power

Turn the Mode switch to PEP SSB position
When the transmitter is operated and the switch is in the PEP
position the meter needle Monitor PEP of the SSB signal.
For monitoring PEP, a condensor is placed into detector circuit.
This function can not hold peak envelope power.



CAUTIONS

- 1. Use only 50 ohms coax line for connections. This will maintain the accuracy of the meter.
- For accurate power measurements, use 50 ohms pure resistance dummy load.
- 3. The meter movements are highly sensitive. Prevent mechanical shock and vibration.
- Measuring power with a poorly matched antenna or disconnecting the output of the bridge while operating may damage the meter.