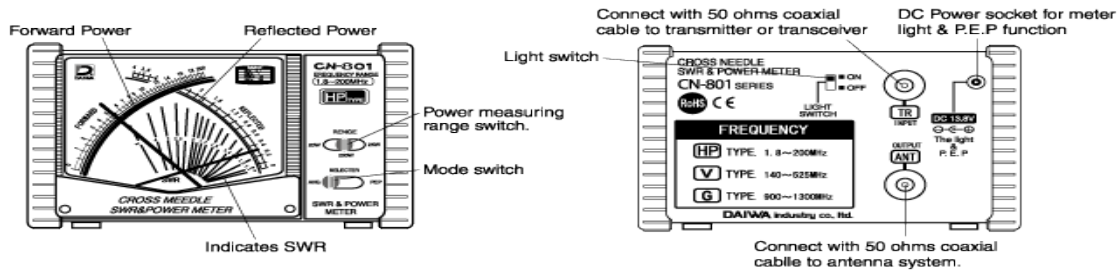


**Product Specification Power/SWR Meters**

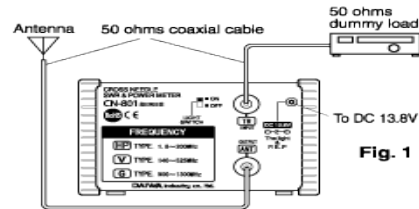

	CN-801HP	CN-801V	CN-801G	CN-801GII new
Frequency	*1.8~200MHz	140~525MHz	900~1300MHz	2200~2450MHz
Power range (Forward)	20/200/2KW	20/200W	2/20W	0.2/2W
Tolerance	±10%(OF FULL SCALE)			
SWR measurement	1 : 1 ~ 1 : ∞			
SWR detection sensitivity	5W		0.4W	0.1W
Input/Output impedance	50Ω			
Input/Output connectors	M(SO-239)	M(SO-239) or N	N	
DC Power supply	DC13.8V(70mA)			
Dimensions	157(W)×117(H)×117(D)mm			
Weight	1kg			
*Add 15% of full scale at 160~200MHz Power Rating 1KW(144MHz)				



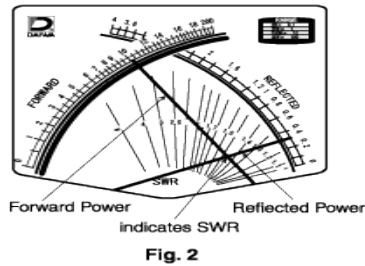
**Product Specification Power/SWR Meters**



1. Use only 50 ohms coaxial line for connections. This will maintain the accuracy of the meter.
  2. For accurate power measurements, use 50 ohms pure resistance dummy load. (Fig.1)
- ※ **HP** type, **GII** type : DC Power(13.8V) is necessary to operate.



3. Effective Radiated Power & SWR.  
Select the Mode switch to 「AVG」 position.  
To measure effective radiated power, subtract reflected power from Forward Power. (Apparent loss is only produced by impedance mismatch and does not include cables losses.)  
See Fig.2. The meter indicates Forward power 10W and Reflected power 0.4W. At the crossing point of the 2 needles the indication is SWR1.5.
4. P.E.P power (Turn Mode switch to 「P.E.P」 position.)  
**HP** type can also measure P.E.P Peak Power in SSB operation. (can not measure Reflected Power range.)  
**V**, **G**, **GII** type  
When the transmitter is operated and the switch is in the 「P.E.P」 position the meter needle Monitor P.E.P of the SSB signal. This function can not hold peak envelope power.



Mathematical verification

$$SWR = \frac{\sqrt{P_f} + \sqrt{P_r}}{\sqrt{P_f} - \sqrt{P_r}} = \frac{\sqrt{10} + \sqrt{0.4}}{\sqrt{10} - \sqrt{0.4}} = 1.5$$

Pf : Foward Power Pr : Reflected Power

(VOLTAGES SHOWN VARIOUS VOLTAGES FOR 50 OHMS DUMMY LOAD)

MODULATION MODE	Carrier Power (W)	Average Power (W)	PEP (W)	
AM/FM CARRIER	100V	100	100	100
AM Single Tone (100% modulation)	200V	100	150	400
SSB Single Tone Modulation	100V	—	100	100
SSB Two Tone Modulation	100V	—	50	100
SSB Voice Modulation	100V	—	20~50	100

During the various SSB transmission modes, as shown in the table left, the meter reading of AVG and P.E.P will differ. Therefore, when in the SSB transmit mode, before switching the mode switch from AVG to P.E.P, make certain that the meter power setting is correct. Otherwise, the meter needle will go off-scale, resulting in damage to the instrument.