CROSS NEEDLE TYPE SWR & POWER METER SX-20 / SX-40

GENERAL

SX-20/SX-40 cross needle SWR & POWER meter with a couple of meters indicating forward and reflected power respectively. It provides the direct read out of the SWR and output power value from the crossing of two pointers.

SETUP

Connect the output of transceiver to the "TX" connector and antenna to the "ANT" connector both located on the rear panel of the unit.

OPERATION

Select the proper range LO/HI according to your transceiver output power. Usually select the "HIGH" rang first is strongly suggest.

- FORWARD POWER
  Follow the forward scale and read it out.
- REFLECTED POWER
  Follow the reflected scale and read it out.
- STANDING WAVE RATIO (SWR)
  Follow the SWR corresponding scale from the point of pointer crossing read it out

CAUTION

- No mechanical shock to be given the unit as it employs precision meters
- Do not transmit with an antenna out of tuned or open condition as it may burn out the meter by high voltage .

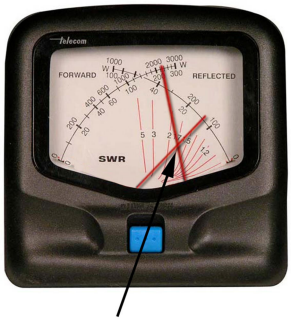
SPECIFICATION

	SX-20	SX-40
Frequency range	1.8 ~ 200 MHz.	140 ~ 525 MHz.
Input impedance	50 Ω	
Power range (switchable)	30 / 300 W	15 / 150 W
Power accuracy	10 % at full scale	
Minimum power input	2 W	1 W
Connector	UHF (PL)	
Dimension	85 (W) x 87 (H) x 95 (D) mm.	
Weight	290 gr.	280 gr.
Input power	DC12V	

$$SWR = \frac{\sqrt{Pf} + \sqrt{Pr}}{\sqrt{Pf} - \sqrt{Pr}}$$

Pf= FORWARD POWER
Pr= REFLECTED POWER

ACCESSORY: DC power input cable one piece



Correct SWR reading: the crossing pointer (SWR=1.7)

NOTE: In case of 220 MHz. band measurement both forward and reflect power to be converted with the following formula .

DIRECT READ OUT IN THE SCALE x 0.7 = ACTUAL POWER

Example: when direct read out shows 10W, it should be 10W x 0.7=7W