



SWR/WATT METER

Model : RS-101, RS-102, RS-402, RS-502

INSTRUCTION MANUAL

INTRODUCTION

This SWR & POWER meter is a highly accurate RF meter for measuring Forward/Reverse Power, and VSWR

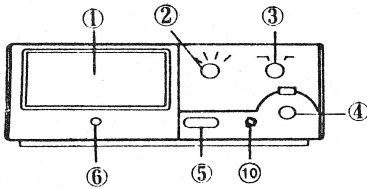
Main Features

1. Large meter display for ease of reading
2. Forward RF power readings (switchable to indicate either average power or Peak Envelope Power [PEP] for SSB and AM transmitters)
3. Reverse RF power reading
4. VSWR ratio
5. Illuminated meter
6. Convenient control layout for ease operation

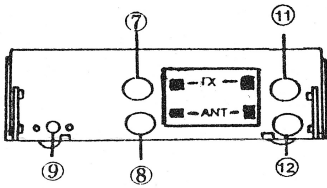
SPECIFICATION

MODEL	RS-101	RS-102	RS-402	RS-502
Frequency Range	1.8 - 60 MHz	1.8 - 200 MHz	125 - 525 MHz	1.8 - 525 MHz
Power Range	0 - 3 KW	0 - 200 W		
Power Scale	30/300/3KW	5/20/200W		
Maximum Power	3 KW	200W		
Accuracy Low Range	(AVG) +/- 10%			
	(PEP) +/- 15%			
Accuracy High Range	(AVG) +/- 5%			
	(PEP) +/- 10%			
Minimum Power for SWR	1 W			
Input/Output Impedance	50 OHM			
Input/Output Connectors	M (N option for RS-502)			
Insertion Loss	Less than 0.1 dB			
Testing Function	Fwd/Rev Power, PEP, SWR			
Dimension (W/H/D) mm	190 x 85 x 135 mm			
Weight (Net)	780 g	790 g	800 g	950 g
Accessories	Operation Manual, 13.8 DC Wire			

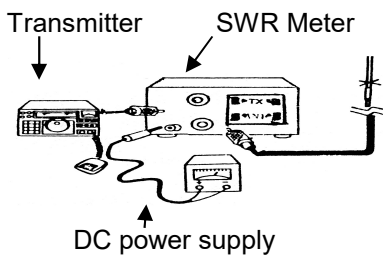
<FRONT PANEL>



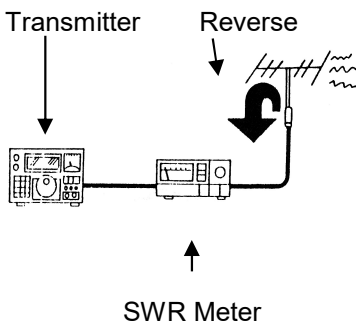
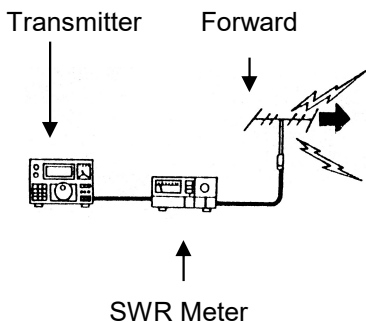
<REAR PANEL>



<INSTALLATION>



<OPERATION>



<FRONT & REAR PANEL>

1. Meter Display : Indicates FWD/REV power in watts and VSWR ratio
2. Function Switch : Select FWD/REV power, SWR SET, and SWR
3. Range Switch : Selects RF power range of 5/20/200W, 30/300/3KW
4. SWR SET Knob : Sets full scale deflection when measuring VSWR
5. AVG/PEP knob (elliptical push button) : Selects Average or PEP RF Power readings
6. Meter Zero Adj.: Mechanical adjustment for meter needle
7. TX Connector : Coax connector to transmitter 50 ohm RF output.
8. ANT Connector : Coax connector to 50 ohm antenna system.
9. 13.8V DC connection (via power supply) for meter LED illumination.
10. HF, VHF/UHF band switch : available on RS-502 only
- 11& 12. 2nd pair of TX/ANT connector : available on RS-502 only.

<FORWARD POWER MEASUREMENT>

1. Set the FUNCTION switch to FWD
2. Set the radio transceiver to transmit mode and read the scale corresponding to the Power Range selected.
3. When the AVG/PEP button is 'out', the meter reads average RF power. When the button is 'depressed', the meter reads Peak Envelope Power for use with SSB and AM transmissions. In this mode, there will be a slow rise and decay time.

<REVERSE POWER MEASUREMENT>

This measure the reverse power on the coaxial cable between transceiver and antenna. The rest the settings are the same as that of < FORWARD POWER MEASUREMENT>

<VSWR MEASUREMENT>

1. Set the radio transceiver to transmit mode and Function Switch to SWR SET
2. Slowly turn the SWR SET control knob clockwise until meter pointer is at meter full scale
3. Set Function Switch to "SWR" position whilst still transmitting, the meter will indicate VSWR ratio. (Note : handheld and mobile have H/L range, when using 'H' range, read the upper SWR dial. Using 'L' range, read the lower SWR dial)

[CAUTION]

1. Since the meter movement is very sensitive, avoid excessive vibration or mechanical shock to the meter
2. Watch the absolute maximum power could be applied to the meter by different models you bought.
3. The meter must never be reverse connected. Always observe the correct connections to transmitter and antenna as indicated on the rear sockets
4. Do not expose the meter to excessive temperatures, high humidity, or strong magnetic fields

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