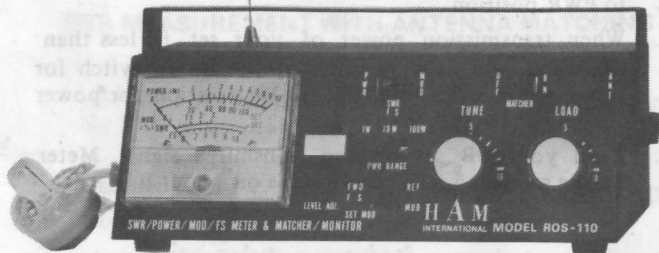


ANTENNA MATCHER & SWR/POWER/MOD/FS METER MONITOR



MODEL ROS-110

INSTRUCTION MANUAL
FOR
MODEL NO. ROS-110
ANTENNA MATCHER AND SWR/POWER/MOD/FS METER

FEATURE

1. Corrects mismatching between your transceiver and antenna system.
2. Works as an ordinary SWR/POWER/MOD/FS Meter.
3. Measures SWR and POWER value in actual use after antenna matching.
4. Suitable for both CB and HAM use.
5. Suitable for both auto and base station use.

INSTALLATION

1. Remove CB antenna cable from your CB set.
2. Connect it to the unit's (ROS-110) CB antenna connector marked "ANT" on front.
3. Connect two or three foot (or shorter) coaxial cable from the CB set's antenna connector (the place from where you have just removed the antenna cable) to the unit's connector marked "TRANS" on front.
4. Install the unit under the dashboard in a convenient location by using the bracket and machine screws. Tilt it to a desired angle by securely tightening the thumb nuts.

OPERATION
SWR MEASUREMENT

1. Set the MATCHER switch off, PWR/SWR/MOD switch to SWR position and FWD/REF switch to FWD position.
2. Turn your CB set on and transmit a signal tentatively by pushing the microphone switch on. Meter needle on the unit swings to the right.
3. Set the meter needle to the SET position on the SWR scale (for full meter swing) by adjusting the LEVEL ADJ slide control.
4. Set the FWD/REF switch to REF position. The meter needle indicates a figure on SWR scale, which is the VSWR value.

POWER MEASUREMENT

1. Set the MATCHER switch off, PWR/SWR/MOD switch to PWR position.
2. When transmission power of your set is less than 10 watts, use 10W position in the lower switch for more accurate reading. Use 100W position for power reading of HAM.
3. Turn your CB set on and transmit a signal. Meter needle swings to read power value on POWER scale.

ANTENNA MATCHING

1. Set the MATCHER switch on, PWR/SWR/MOD switch to SWR position and FWD/REF switch to REF position.
2. Turn both LOAD and TUNE controls fully counter-clockwise.
3. Place the CB set on the middle channel (channel No.12 for 23-ch, channel No.20 for 40-ch). Turn the CB set on and transmit a signal.
4. Adjust the LEVEL ADJ control so that the meter reads mid-scale. Adjust the LOAD control for the lowest SWR reading, then adjust TUNE control in the same manner. Repeat back and forth between LOAD and TUNE controls until no further improvement can be obtained.
5. Leave the unit at the lowest SWR reading. This is the best matching between your transceiver and antenna system.

SWR MEASUREMENT WITH ANTENNA MATCHING

1. Set the MATCHER switch on, PWR/SWR/MOD switch to SWR position and FWD/REF switch to REF position.
2. Turn your CB set on and transmit a signal. Set the meter needle to mid-scale by the LEVEL ADJ control.
3. Adjust the TUNE and LOAD controls for the lowest SWR reading.



4. Set the FWD/REF switch to FWD position, and set the meter needle to the SET position by the LEVEL ADJ.
5. Then again set the FWD/REF switch to REF position. The meter needle indicates a figure on SWR scale, which is the VSWR value in your actual use of transceiver.

POWER MEASUREMENT WITH ANTENNA MATCHING

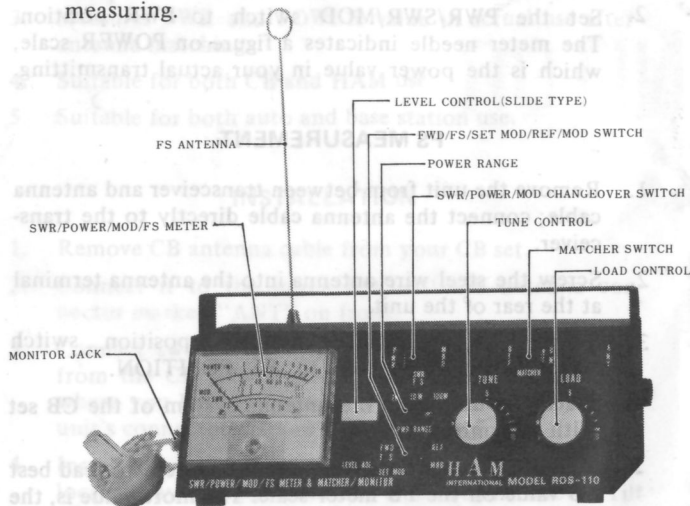
1. Make the same procedure as 1 thru 3 in above.
2. Set the PWR/SWR/MOD switch to PWR position. The meter needle indicates a figure on POWER scale, which is the power value in your actual transmitting.

FS MEASUREMENT

1. Remove the unit from between transceiver and antenna cable; connect the antenna cable directly to the transceiver.
2. Screw the steel wire antenna into the antenna terminal at the rear of the unit.
3. Set the PWR/SWR/MOD switch to FS position. switch may FWD/REF be left to FS POSITION.
4. Place the unit near the antenna system of the CB set with transmitter on.
5. Move the unit around the antenna system to read best FS value on the FS meter scale. The more value is, the better FS is.

MODULATION PERCENTAGE MEASUREMENT

1. Set the PWR/SWR/MOD switch to "MOD"
2. Place SETMOD/MOD switch to "SET MOD" position.
3. Adjust "LEVEL ADJ." to set the needle of Meter on the MOD SCALE TO "SET" POSITION.
4. Back "SET MOD" switch to MOD position. The direct reading by percentage can be taken on the MOD scale.
5. To make correct Modulation measurement, keep a transmitter constant modulation condition while measuring.



※ MONITOR

Connect a crystal earphone attached to the MONITOR JACK and you can monitor the Operating Condition of transmitter.

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www.ham-international.eu

ROS-110 SPECIFICATION

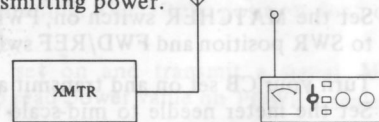
A. SWR/POWER/MOD/FS METER

Meter Sensitivity	:	100 μ A on DC Current
VSWR meter range	:	1 : 1 to 1 : 3
Power range	:	1W-10W-100W
Modulation Range	:	0 ~ 100% (AM)
Impedance	:	52 ohms
Freq. range	:	1.5MHz ~ 144MHz
Accuracy	:	SWR \pm 5%
		POWER \pm 10%
		MOD. \pm 10%

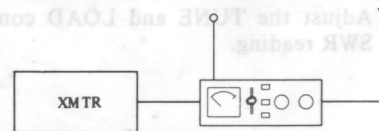
B. ANTENNA MATCHER

Freq. range	:	25 ~ 40MHz
V.S.W.R.	:	Less than 1.05
Power Loss	:	Less than 5%
Connector	:	S0239 UHF type
Antenna	:	5 inch bar antenna
Capacitance	:	Poly-varicon
Dimension	:	160 (W) x 60 (H) x 65 (D) m/m
Weight	:	700g

*Variable capacitors are employed for minimum loss in transmitting power.



FIELD STRENGTH MEASUREMENT



SWR MEASUREMENT & ANTENNA MATCHING