

SWR Power Meter for 140 to 525MHz

Thank you for your purchasing our product. This product is made under the stringent quality control. Should there be any breakage in transit, please do not hesitate to contact the shop you purchased this product.

For your safety, read this manual carefully for proper handling and operation before using.

Features

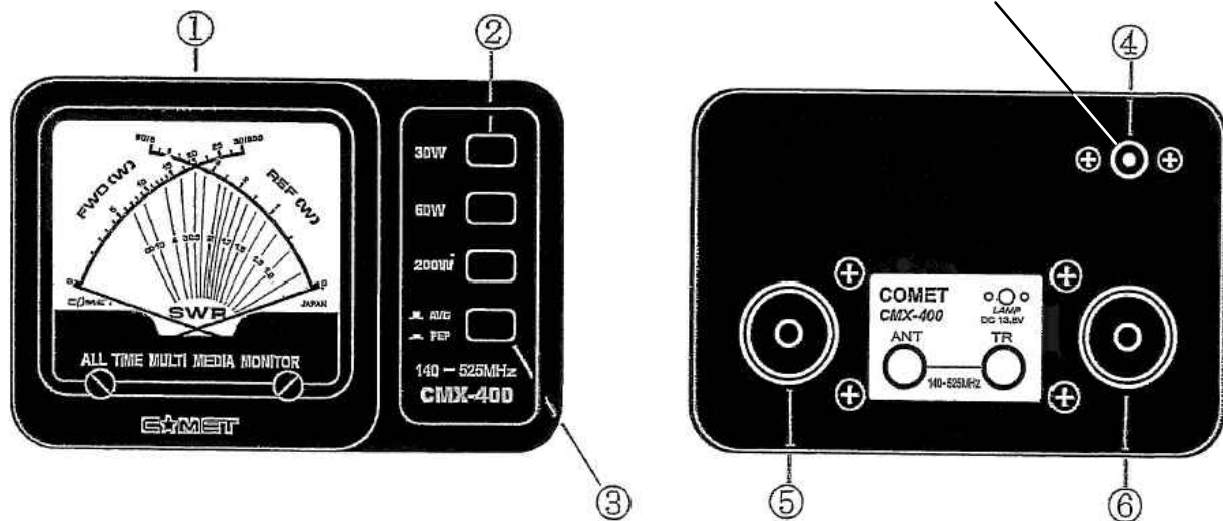
- Measureable 140 to 525MHz, HF and VHF Band.
- Cross Needle display provides FWD, REF and SWR simultaneously.
- Power loss remain minimal with a built-in low-loss sensor.
- Beautifully illuminated when connected to your power supply.

⚠ Precautions for using

CMX-400 is perfectly tuned before the delivery. Do not take the panel off or touch inside, it might cause measurement error. Especially the RF Sensor has extremely low loss circuit so that you can't tune it with a common measuring instrument.

Never attempt to use the monitor at 15V or more. Failure to follow this could cause serious damage.

● Appearance



● Components

- ① Display Meter
- ② Power Range button
- ③ AVG/PEP Switch
- ④ External DC-Power supply Terminal
- ⑤ ANT Connector
- ⑥ TR Connector

for indicating FWD, REF and SWR.

for changing the max power of FWD.

AVG reads Average Voltage and PEP reads Peek Envelop Power.

for connecting DC Power Supply DC11 to 15V.

M type Connector for Antennas or Dummy Loads.

M type Connector for the Transceiver.

● How to connect

- First of all, connect the power cable of transceiver to TR Connector.
- Secondly, connect the antenna cable or dummy loads to ANT Connector.
- When you use an Antenna Tuner with CMX-400, make sure to put it between Transceiver and Antenna Tuner. (Do not put it between Antenna Tuner and Cable. Failure to follow this would cause serious damage.)
- Connect the power at 11 to 15V to the External DC-Power supply Terminal for illumination, if necessary. (note : Never attempt to use it at 15V or more.)

●Specifications

Frequency Range : 140 to 525MHz

Power Range : 30/60/200W

VSWR Range : 1.0 - ∞

Residual VSWR : 1.2 or less

Min. Power for SWR measurement : approx.6W

Connector : SO-239 (M-J) type

Power for illumination : DC 11-15V approx. 250mA (Center-pin positive)

Dimensions : (W) 120 x (H) 80(85) x (D) 105(130) [mm] (Figures in parentheses include protrusions)

Weight : approx. 630g

Measureable Range : 0 to 200W (VHF/UHF)

Tolerance : +/- 10% at full scale

Impedance : 50 Ω (Unbalanced)

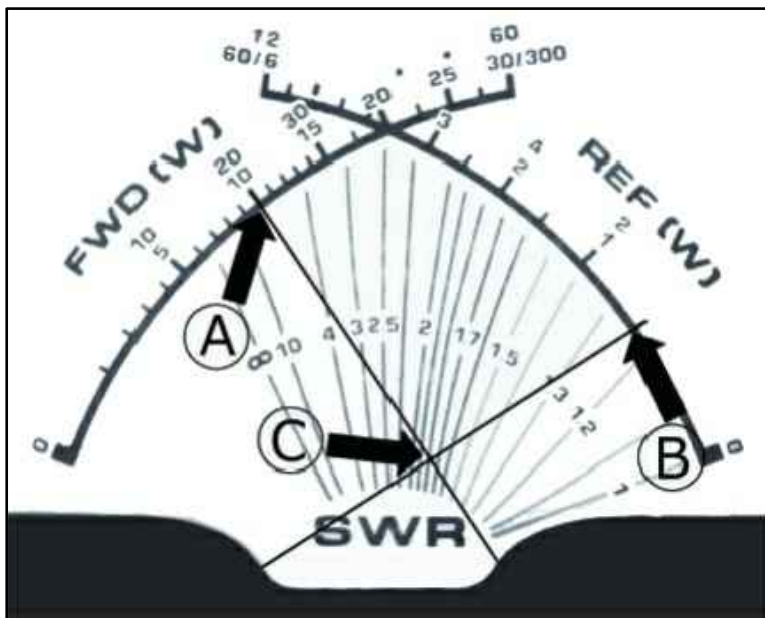
Insertion Loss : 0.2 dB or less

●How to use

- Switch the Power Range Button, according to the power of transceiver.
- While the transceiver transmitting, FWD Meter indicates Forwarding Wave Power and REF Meter indicates Reflecting Wave Power. Cross point of these two needles indicates SWR.

Example of Measurement

FWD, REF, SWR at under Figure.



30W range

1. FWD → 10W (A)

2. REF → 0.6W (B)

3. SWR → 1.8 (C)

[Cross point of two needles]

60W range

1. FWD → 20W (A)

2. REF → 1.2W (B)

3. SWR → 1.8 (C)

[Cross point of two needles]

200W range

1. FWD → 100W (A)

2. REF → 6W (B)

3. SWR → 1.8 (C)

[Cross point of two needles]

⚠ Warning

Extremely high SWR might cause serious damage. Do not expose RF Censor to excessive shock. This product should be positioned horizontally. The max measurable Freq Power for short-time measurement is as indicated on the Panel. Max continuous power is changed as below in case wave is FM, AM, CW, FAX, or RTTY. Higher Power than below would burnout elements.

MAX Continuous Power

Approx. 150W(140 to 220MHz) Approx. 120W (above 400MHz)

Appearance and specifications are subject to change without notice.

COMET CO., LTD.

4-18-2, Tsuji, Minami-ku, Saitama-City, Saitama-Pref 336-0026 JAPAN

TEL : +81-48-839-3131 FAX : +81-48-839-3136

URL <http://www.comet-ant.co.jp>