



# INSTRUCTIONS SWR/POWER METERS DX-CN-200 / DX-CN-400-N / DX-CN-600-N

The DX-CN-200/400 and DX-CN-600 POWER & SWR meter is the most efficient tool in wide range of semi-professional measuring and control instruments. The measured values can be easily read in the large scale instruments.

The DX-CN-200/400 and DX-CN-600 is an insertion type RF wattmeter and can be permanently fitted into a transmission System for continuous monitoring of station working condition.

The unit can be work without external power supply but with 13.8VDC power which permits to light up the meter and shows the active led corresponding to the selected RF coaxial line (for DX-CN-600-N only)

## DX-CN-200 & DX-CN-400-N



## DX-CN-600-N



### DESCRIPTION OF CONTROLS

- 1 POWER/SWR reading meter
- 2 Indicator adjustment
- 3 Power range switch
- 4 Function switch (lamp on/off , peak/average power)
- 5, 8 Antenna connector (connect to the antenna with 50 ohm coaxial cable)
- 6, 9 TX connector (connect to the radio with 50 ohm coaxial cable)
- 7 Power jack (13.8VDC) light up the meter and sensor 1 / sensor 2 led
- 10 Led sensor 1
- 11 Led sensor 2
- 12 Sensor1/Sensor2 switch

## INSTALLATION

To install the DX-CN-200/400 and DX-CN-600 simply connect coaxial cable direct to the antenna connector marked **ANT** and the cable coming from the transmitter or from the linear amplifier to the connector marked **TX**.

## MEASUREMENTS

**Power:** Direct reading *W scale*. With the RANGE switch (3) select the appropriate maximum power.

**Reflected power:** Direct reading *REFLECTED scale*.

**SWR:** SWR value is read at the point where the two needles intersect (SWR scale)

## SPECIFICATIONS

|                         | DX-CN-200   | DX-CN-400-N                  | DX-CN-600-N  |
|-------------------------|---|------------------------------|--|
| Frequency range         | 1.8 – 160 Mhz.  | 140 – 525 Mhz.               | 1.8 – 160 Mhz.<br>140 – 525 Mhz.                                       |
| Power measurement range | 0.5 ~ 3KW<br>(30/300/3000W)   | 0.5 ~ 600 W<br>(30/300/600W) | 0.5 ~ 3KW (30/300/3000W) for HF<br>0.5 ~ 600 W (30/300/600W) for V/UHF |
| Minimum power input     | 0.5 W   | 0.5 W                        | 0.5 W  |
| Precision               | 30W Range ± 5%; 300 W Range ±7.5%; 600 W Range ±7.5%; 3KW range ±7.5% |                              |  |
| SWR                     | 1 ~ ∞   |                              |  |
| Impedance               | 50 Ω  | 50 Ω                         | 50 Ω   |
| Input loss              | 0.2 dB 1.8~160 Mhz. / 0.2 dB 140~525 Mhz.                             |                              |  |
| Dimensions              | 15 x 6.5 x 10 cm.   |                              |  |
| Weight                  | 630 gr.   | 630 gr.                      | 720 gr.  |

## SWR vs. REFLECTED POWER

$$SWR = \frac{\sqrt{PFwd} + \sqrt{PRev}}{\sqrt{PFwd} - \sqrt{PRev}}$$

|            |     |      |     |     |      |      |      |
|------------|-----|------|-----|-----|------|------|------|
| SWR        | 1.0 | 1.1  | 1.2 | 1.5 | 2.0  | 2.5  | 3.0  |
| P.Rev. (%) | 0   | 0.22 | 0.8 | 4.0 | 11.1 | 18.4 | 25.0 |