

# Operating Manual

**C★MET ANTENNA**

## Model: CWA-1000

HF 5 Band Dipole Wire Antenna

For: 3.5MHz, 7MHz, 14MHz, 21MHz, & 28MHz

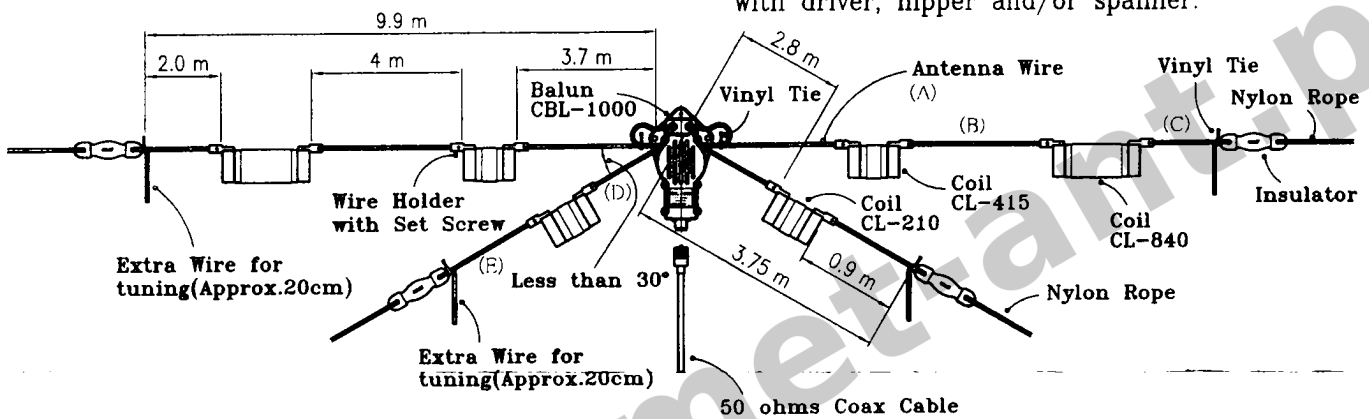
Many thanks for your best choice of our products.

### For your safety use:

Please read through this Operation Manual initially for correct assembling and proper operation. At opening package and before assembling, please check all components are involved.

Dipole Antenna is one of the most fundamental methods for communication. Please start assembling and frequency adjustment with full reference of the following explanations, with driver, nipper and/or spanner.

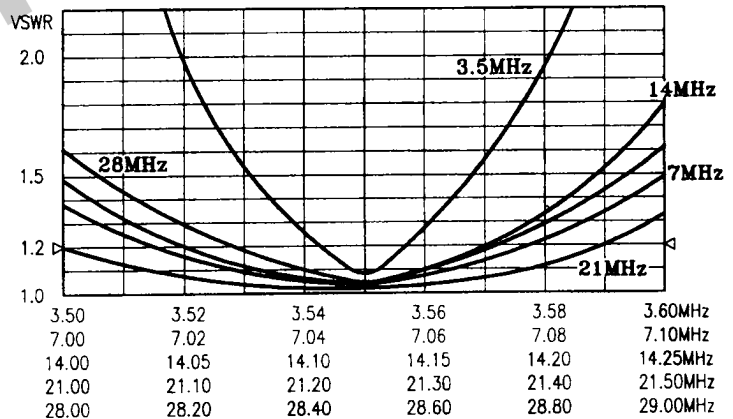
### Complete Assembled Figure



### V.SWR Characters :

### Specifications:

|                   |                         |
|-------------------|-------------------------|
| Frequencies       | 3.5, 7, 14, 21, 28MHz   |
| Impedance         | 50 Ω                    |
| Max. In-put Power | 500W (PEP)<br>300W (CW) |
| V S W R           | Less than 1 : 1.2       |
| Total Length      | 19.9 m                  |



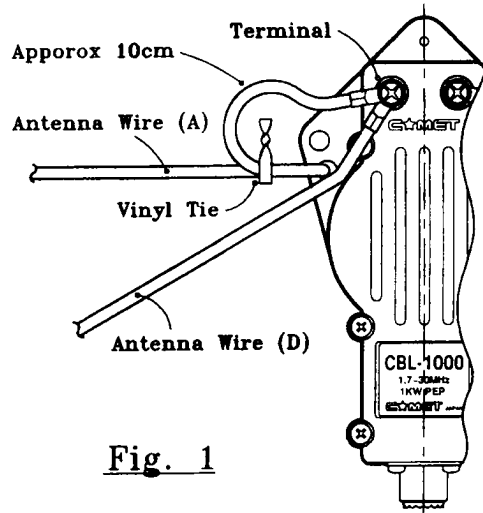
### Assembling Works :

#### 1) Antenna Wires to balun

Pass the (A) Wire through the Hole it firmly with vinyl tie. Then, assemble both (A), (D) Wires with terminals to front & back side of the balun, with bolt nut, as shown on Fig. 1.

#### 2) Antenna Wires to coils

Insert wires into the metal brackets of coils and fasten tightly with set screw. At this occasion, no need to take off the outer cover.



### 3) Antenna Wires to Insulator

Please assemble as 1) (A) Wire.

After tight fastening with vinyl tie, please prepare extra wire, length of 20cm approx., for the frequency adjustment.

### Frequency Adjustment

- ① Set up the whole assembly to the desired location initially. Then, measure out V.SWR of 21MHz firstly. If the frequencies are lower than the desired, unfasten the Set Screw of (A) Wire (on coil, CL-415), and cut its end little by little. 2cm cut-off may change the frequency higher, approx. 90KHz.
- ② Then measure out V.SWR of 7MHz. Adjust length of (B) Wire, just as done in 1). Each 2cm may change frequency of 15KHz.
- ③ Then Adjust the length of (C) Wire - 3.5MHz. This time, please cut-off the extra wire. Each 2cm may change frequency of 10KHz.
- ④ After adjustment of each (A),(B),(C) wires, start (D) & (E) wires. Please measure out V.SWR of 28MHz, and cut-off (D) wire unfastening set screw on coil, CL-210. Each 2cm may shift frequency of 250KHz.
- ⑤ Finally, adjust length of (E) wire, cutting off its extra wire little by little. Each 2cm may shift frequency of 80KHz.

### Remarks:

- ① Please cut-off the elements little by little, watching your SWR Meter.
- ② Please set-up the antenna at good location as possible.
- ③ Kindly proceed sufficient Water-Proof, at the coax. joint section, for long period use, with self-melting tape and vinyl tape.

### Note & for operation:

- This antenna is for amateur radio operator, Do not use other than for the purpose of antenna.
- Please use this antenna within the standard and specifications described in this manual. Failure to this may cause heat up and break down of the unit.
- Whatever damage and the malfunction which is due to the repair and the reorganization at end-user itself occur, it doesn't take the responsibility.

### **[ Maintenance ]**

- ☆ If mal-function is occurred, stop operation and try to find the reason. If it is not settled, please contact the store/shop where you purchased the antenna or our Engineering Department.
- Before driving start, please check the VSWR is in correct position.
- Routinely, please confirm tight fastening of each Set Screws.

### **[ Customer Service ]**

- Replacement parts and accessories are available at our dealer and our factory.
- This quality product is manufactured under strict quality control. Please contact the store/shop for those damaged by transportation.
- For further information about assembling work and other technical matters, please contact to our Engineering Department.