OPERATION MANUAL

H-422
40/20/15/10M Quad-Band Trapped Dipole Antenna

Features:

1. New compact design for even the most restrictive mounting locations, providing wide band-width in a small footprint.

2. Assemble as either a “straight” dipole, and/or in a “V” configuration. When assembled in the “V” shape, good performance is provided even from a minimum height of only 10 feet!

3. CBL-2000 high power 2kW/SSB balun is included, and helps to prevent TVI and other interference.

4. Specially designed high power traps assure constant high power QSOs

5. Three radiator lengths - Low - Mid - High – are illustrated for easy tuning.

Specifications:

Frequencies: 7, 14, 21, 28MHz
Impedance: 50 Ohm
VSWR: Less than 1.5:1 at center frequency
Max Power Input: 1kW SSB / 500W FM
Max Wind Survival: 67MPH
Wind Load: 3.01 sq ft
Length: 33’10” (straight assembly)
        24’ 5” (V assembly)
Weight: 11’ 14”
Rotation Radius: 17’ 5” (straight assembly)
                12’ 6” (V assembly)
Req’d Mount Mast: 1.5” – 2.5” diameter
Measurement & SWR Characteristics
(Straight - Type)

- CW-operation - [●] location
- SSB-operation - [●] location
- FM(28MHz) - [●] location
- 20ft high from ground. ———— 5m high from ground.

---

Adjust Element for 7MHz (A)
Balan, Red-mark side.
Assemble to see 2 holes
Holes need Taping.

Standard Length 1550mm

---

Adjust Element for 7MHz (B)
Balan, Red-mark side.
Assemble to see 1 hole!
Hole needs Taping!

Standard Length 1360mm

---

Adjust Element for 7MHz (C)
Balan, Red-mark side.
Assemble to see No hole!

Standard Length 1600mm

---

Adjust Element for 7MHz (D)
Balan, Red-mark side.
Assemble to see No hole!

Standard Length 1400mm

---

** You can change Center freq. of 7MHz by sliding the 7MHz Adjust Element, without any influence to other frequencies.
** Shift of 7MHz band per each 1cm, is 15KHz.
** Difference of Left & Right 7MHz element is to be 20cm constantly.
**Measurement & SWR Characters (V-type)**

- **CW-operation**: 
  - Location

- **SSB-operation**: 
  - Location

- **FM(20MHz)**: 
  - Location

  - 20m high from ground
  - 5m high from ground

---

**Diagram Description**

1. **Standard Element 1640mm**
   - Adjust Element for 7MHz (A)
   - Balun-Red-Mark side
   - Assemble to see 2 holes
   - Holes need Taping
   - Standard Length 1340mm

2. **Standard Length 1680mm**
   - Adjust Element for 7MHz (A)
   - Balun-Red-Mark side
   - Assemble to see 1 hole only
   - Hole needs Taping
   - Standard Length 1380mm

3. **Standard Length 1680mm**
   - Adjust Element for 7MHz (A)
   - Balun-Red-Mark side
   - Assemble to see No Hole
   - Standard Length 1380mm

---

**Notes**

- You can change Center Freq. of 7MHz by sliding the 7MHz adjust Element, without any influence to other frequencies.
- Shift of 7MHz band per each 1cm, is 1500Hz.
- Difference of Left & Right 7MHz Element is to be 300mm.
Frequency Adjustment:

1) Please connect SWR meter between H-422 and transceiver, as shown below:

2) If 14, 21 and 28 MHz are wide bands, then no frequency adjustment is necessary. But, kindly check which location of the SWR meter is preferred.

3) Antenna location may give great influences on the 7 MHz band. Then, adjust the length of 7 MHz Adjust Ele. of both (A) & (B) watching your SWR meter.

Element sliding of 1 cm can change the freq. of 15 KHz.

Remarks:

1) Drain Holes on the Trap coils must be assembled to face downward to prevent water-inflow.

2) Kindly proceed necessary Water-Proof works, on the cable-joint section etc., using self-melting tape and/or vinyl tapes.
40M band angle of radiation in the horizontal (straight) configuration

10 feet above ground       33 feet above ground

40M band angle of radiation in the “V” configuration

10 feet above ground       33 feet above ground