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-2500 high power 2.5kW/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 Characters**
*(Straight - Type)*

- **CW-operation** - © location
- **SSB-operation** - ® location
- **FM(28MHz)** - © location

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**Adjust Element** for 7MHz

- **Balan, Red-mark side:**
  - Assemble to see 2 holes
  - Holes need Taping.

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**Standard Length** 1560mm

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**Adjust Element** for 7MHz

- **Balan, Red-mark side:**
  - Assemble to see 1 hole!
  - Holes need Taping!

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**Standard Length** 1360mm

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**Adjust Element** for 7MHz

- **Balan, Red-mark side:**
  - Assemble to see 1 hole!
  - Holes need Taping!

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**Standard Length** 1360mm

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**Adjust Element** for 7MHz

- **Balan, Red-mark side:**
  - Assemble to see 1 hole!
  - Holes need Taping!

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**Standard Length** 1360mm

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**Adjust Element** for 7MHz

- **Balan, Red-mark side:**
  - Assemble to see No hole!

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**Standard Length** 1400mm

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**Adjust Element** for 7MHz

- **Balan, Red-mark side:**
  - Assemble to see No hole!

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**Standard Length** 1400mm

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**V SWR**

**Frequencies (MHz)**

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**V SWR**

**Frequencies (MHz)**

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**V SWR**

**Frequencies (MHz)**

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**V SWR**

**Frequencies (MHz)**

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**V SWR**

**Frequencies (MHz)**

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**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 7cm, is 15kHz.**

**Difference of Left & Right 7MHz element is to be 200mm constantly.**
**Measurement & SWR Characters**

- CW-operation - () location
- SSB-operation - () location
- FM(28MHz) - () location

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**20m high from ground**

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***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 150kHz.***

***Difference of Left & Right 7MHz Element is to be 390mm.***
Frequency Adjustment:
1) Please connect SWR meter between H-422 and transceiver, as shown below:

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

3) Antenna location may give great influences on the 7MHz band. Then, adjust the length of 7MHz Adjust Ele. of both (A) & (B) watching your SWR meter.
   Element sliding of 1cm can change the freq. of 15KHz.

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.