

SECTION 2 GENERAL AND ASSEMBLY

2.1 UNPACKING AND INSPECTION

This manual describes assembly procedures and operation of the CD Model CLP5130-2. After unpacking, check all parts against the parts list in Section 3 to make sure if there is no parts are missing or damaged. If any parts are missing or damaged please follow the instructions stipulated in the warranty which is on the back side of the front cover of this instruction manual. Distinguish large parts (pre-assembled one) from small parts (bolts and nuts) and separate them into a small box so that they will not be lost and easily be identify for the assembly work. Read the manual instructions carefully and fully digest it on how the parts are being used for assembling this antenna.

2.2 ANTENNA STRUCTURE

Create Model CLP5130-2 is a broadband antenna as illustrated in Fig. 1 meanwhile Fig. 2 shows a construction illustration. This manual explains under the condition that the antenna is supposed to installed in the horizontal construction (Elements are set horizontally against the ground). Booms for supporting each element consist of 2 L channels B1 for front side and B2 for back side. Each element in the B1 channel is factory pre-assembled, in the meanwhile the insulators on B2 for mounting element tubings are also factory pre-assembled. The elements tubing symmetrically pre-tuned and cut to be mounted onto B2 are provided 2 piece each as a pair.

2.3 INSTALLATION OF VERTICAL POLARIZATION

For the installation of this antenna in vertical polarization, there are 2 methods of installation in order to avoid the interference of the mast tubing. The one installation illustrated in left in the Fig. 3 shows an example that is using non-metallic mast tubing like an FRP made tubing. In case that using FRP made tubing is practically difficult, install the antenna in the way like the other illustration shown in the Fig. 3 so that the alignment of antenna element and metallic mast tubing come off at the certain distance with each other by using an arm tubing sticking sideward. The proper distance must be set is at least approximate 50% of the longest element of this antenna. These parts are not included in this kit (customer's furnished).

2.4 ASSEMBLY

For assemble of the CLP5130-2, refer to Fig. 2 and Fig. 3 and the detailed illustration in them(DETAIL-). Assemble the antenna in the following step by step procedures.

- 1) FRONT ELEMENT ASSEMBLY : Each element tubing is pre-assembled (revetted) in B1. Spread the elements at right angle to the boom and fix them with S1(M3x8) screws. Attach the 2 assembled B1 booms together with B7 and B8 as shown in DETAIL-B.
(See DETAIL-A and B)
- 2) BOOM ASSEMBLY : Join the booms B1 to B2 together using S2(M4x10) screw as shown in DETAIL-D. There is no directivity either up or down.
(See DETAIL-D)
- 3) FEEDER INSTALLATION : At the front end of B1, attach the F1 feeder plate to the front of B1 together with the F2 element rod and fasten them with S1(M3x8) screw. The screw hole of the F2 rod has a screw threaded to allow S1 screw fitted. Be sure to set F2 element in reversefy against the position of the next element (2nd from front). Fix the feeder to the boom using with B9 saddle.
(See DETAIL-C)
- 4) REAR ELEMENT ASSEMBLY : As the only 2 holders located at the both ends of the rear boom B2 is pre-assembled with a screw. Assemble the rest of the holders to the appropriate locations around middle of the boom and fix them with S4(M4x35). The assembly of holder is completed, insert element tubings E11-16 into holders and fix them S3(D4x14) screw as shown in DETAIL-E.
(See DETAIL-E)
- 5) ASSEMBLY OF BOOM CLAMP : The illustration on the left side in Fig.3 shows horizontal mount meanwhile illustration on the left side shows vertical mount. For the vertical polarization mount, install U-plate B10 and insulator B4 to the boom and fasten with S5(M5x55) screw, then mount and fix the mast clamp B3 on it. For vertical polarization mount, after mounting plate B5 and insulator B4, fix the mast clamp B3 to the boom and fix it.
(See Fig. 3)
- 6) ARRESTOR COIL ASSEMBLY : At back side of rear boom B2, attach the coil B6 using S2(M4x10) screws as both the boom line is shorted electrically. Please take care not to bend or deformed the arrestor coil.
(See Fig. 3)
- 7) ELEMENT CAP : Element caps ① should only be used and applied to the upper side tip element when