

LONG JOHN BEAM ANTENNA



CL6DX for 50MHZ

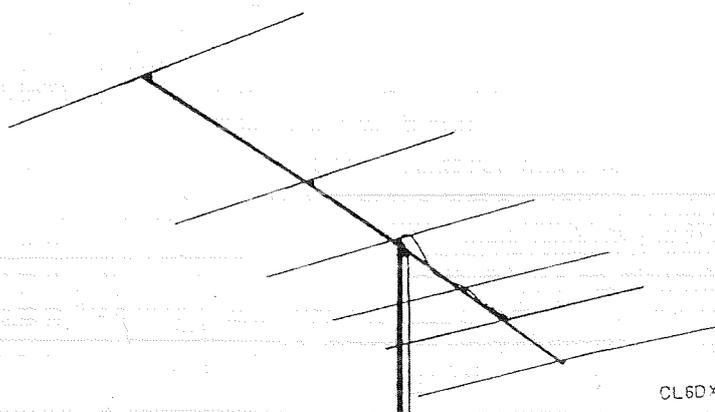


FIGURE 1-1 Model CL6DX

The 50 MHz 6-element LONG JOHN Beam Antennas put CD's long years of research and experimental experience to work in concentrated development and design. The result is an exclusive element spacing and coaxial balun (hairpin match style). The use of high-quality aluminum materials also assures high gain and excellent pattern as well as high durability. All in all, Models CL6A and CL6DX are must antennas for DXer involved in long-range QSO in the 50 MHz band.

Performance Chart	Model CL6DX 6 ELE 6 Meter
Electric characteristics	
F gain	13 dB
F/B ratio	22 dB
F/S ratio	40 dB
SWR (max.)	1.1
Impedance	52 Ω
Mechanical characteristics	
Boom length	5.8 m
Element	3 m

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SECTION 1

1. GENERAL

1.1 INSTRUCTION

This instruction manual describes for assembly, installation and operation of the CD model CL6DX antenna.

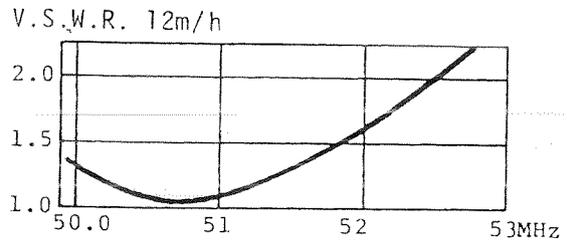
1.2 GENERAL DESCRIPTION

Model CL6DX is 6 element, Yagi type monoband beam antenna designed to provide the best performance for the limited boom length, using specially selected element space and element length. This antenna has a high gain-to-spacing ratio and well adjusted radiation angle, F/B ratio and VSWR with respect to the average height of the antenna. The impedance of the feed section is matched with 50 ohms to 200 ohms and CD's exclusive coaxial 1:4 balun is used in order to derive transferring RF energy without any power loss. This balun can withstand approximately 1kW/PEP of the RF power. High strength materials are used for the boom and element tubings and in order to have enough wind capability, swage-processed element tubings for minimizing the wind resistance.

1.3 SPECIFICATIONS Model CL6DX

Electrical:

Forward Gain	13 dB
F/B Ratio	22 dB
F/S Ratio	40 dB
V.S.W.R.(Maximum)	Less Than 1.1:1
Impedance	50 Ohms
Power Capability (Maximum)	1 kW PEP



Mechanical:

Boom Length	5.8m (19')
Boom Dia.	35mm (1.1/2")
Element Length	3.1m (10' 1")
Rotaional Radius	3.5m(11' 6")
Weight	6Kg (13.2Lbs)

V.S.W.R. CHART

Figure 1.

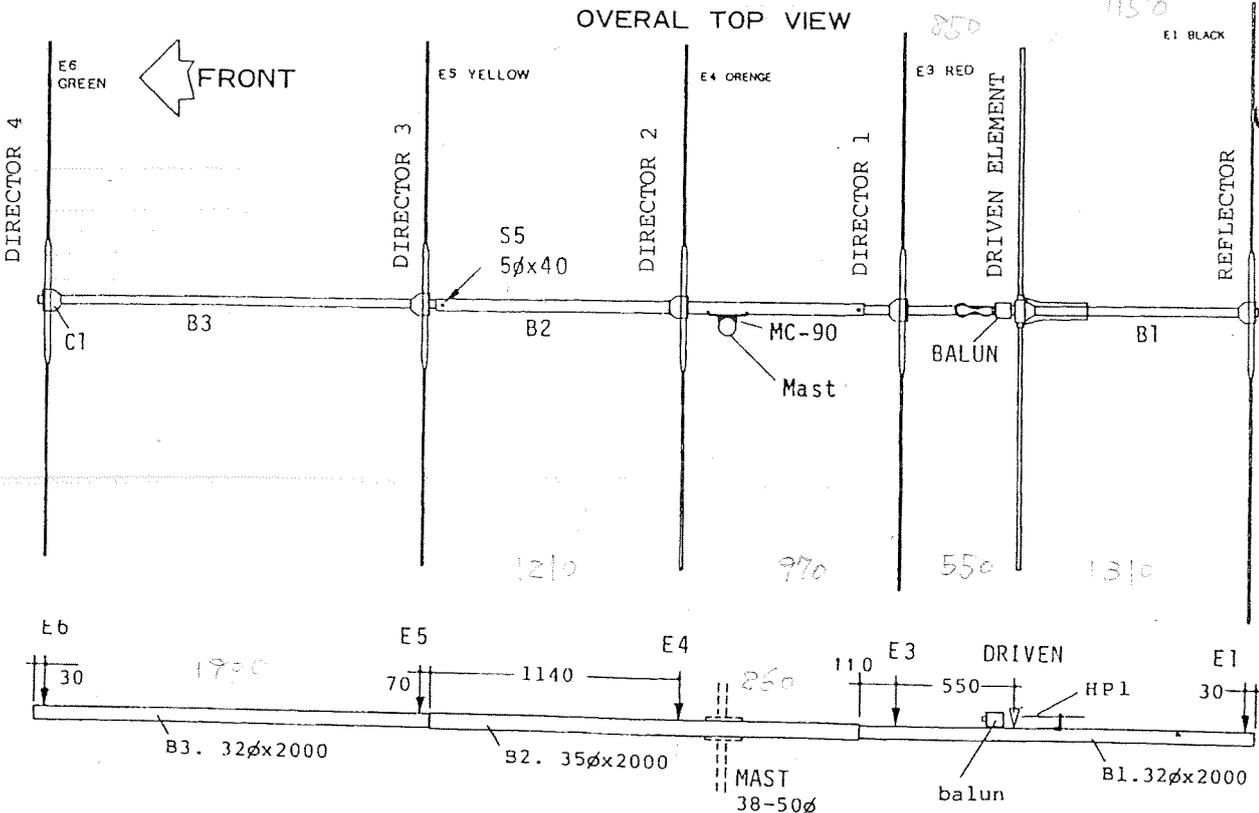


Figure 2. Element Space. model CL6DX

SCALE=mm