



ANTENNA EXPERTS

E-mail: info@antennaexperts.in Website: www.antennaexperts.in

Model # CY-150Q 136 – 174 MHz. 16 dBic. Gain

CIRCULAR PLARIZED QUAD STACKED YAGI ANTENNA - INSTALLATION MANUAL

NOTICE:

Installation, maintenance or dismounting of the antenna system requires qualified and experienced personnel. Antenna Experts antenna Installation instructions have been prepared and are meant for skilled personnel only.

Antenna Experts disclaims any liability or responsibility as a result of improper or unsafe installation practices.

MATERIALS:

Following materials are used for the fabrication of Antennas and its accessories.

01.	Yagi Boom and Elements:	6063T6 Aluminum.
02.	Mounting Hardware:	All stainless steel.
03.	Fasteners:	All Stainless Steel.
04.	Connector:	Silver Plated Brass body with Gold plated pin.
05.	Insulator:	TEFLON.
06.	Housing:	NYLON

PACKING LIST:

<u>Sl. No.</u>	<u>Item/Description.</u>	<u>Quantity</u>
01.	Antenna Yagi, 6 Cross Elements complete in packed condition.	4 Nos.
02.	Phasing Harness for Vertical Elements.	1 Each.
03.	Phasing Harness for Horizontal Elements.	1 Each.
04.	Phase Shifter Cable (delay harness cable).	1 Each.
05.	Vertical Stacking Pipe, 1.5 Inches dia. fitted with clamp.	2 Nos.
06.	Horizontal Stacking Pipe, 1.5 Inches dia. for Rotator.	1 Each.
07.	Cable Ties.	15 Nos.
08.	Installation Manual.	1 Each.
09.	Test Report.	1 Each.

INSTALLATION INSTRUCTION :

01. Unpack the Four Yagi Antennas, Phasing Harness, Stacking Pipe and Mounting Hardware from the packing box.
02. Spring washer is supplied separately in a plastic box. Fit each element using spring washer and tighten the element using pliers.
03. Assemble all the four Yagi antennas as per marking, i.e. R, DP, F1 to F8 and D1 to D4 are marked on the Boom and Elements. The position of each element should match their respective Mark on the Boom.
04. Make sure that the N-female connectors should be facing forward direction of radiation (away from parasitic reflector).
05. Install all the four Yagi Antenna on the end of 1.5 Inches dia. Vertical Stacking pipe, by using Stainless Steel mounting clamps which are fixed on the Yagi boom, and tighten it with "U" type bolts.
06. Insert both ends of the Horizontal Stacking pipe into the mounting clamp of Vertical Stacking pipe, which is fixed on the center of Vertical Stacking pipe.
07. A marking T1 to T8 is provided on the N-female connector of the antenna and N-male connector of the Vertical & Horizontal phasing harness.
08. Connect the Vertical Phasing Harness cable to the Terminating point T1, T3, T5 & T7.
09. Connect the Horizontal Phasing Harness cable to the Terminating point T2, T4, T6 & T8.
10. The position of each Terminating point should match their respective mark.
11. Dress the phasing harness over the horizontal stacking pipe, vertical stacking pipe and each boom of the Yagi antenna and secure it with cable ties.

12. Connect the Phase Shifter cable to the N-Female connectors of both Vertical and Horizontal phasing harness cable.
 13. Plane of Polarization (LHCP or RHCP) can be changed by interchanging the Phase Shifter Cable between the two out put ports of the Vertical and Horizontal phasing harness cable.
- OR**
14. Connect the antenna feeder cable/LNA to the both N-Female connectors of Vertical and Horizontal phasing harness cable for POLARIZATION DIVERSITY and secure it with cable tie. (for Receive only, in this case do not use the phase shifter cable). In this case both Vertical & Horizontal polarized signals can be received simultaneously.
 15. Take extreme care during installation of the FEEDS, feeds F1, F3, F5 and F7 must be facing in one direction and feeds F2, F4, F6 and F8 must be facing in other direction.
 16. A red mark is provided on feeds F1, F3, F5 and F7. While fixing each Yagi antenna on the vertical stacking pipe, make sure that all the red marked feeds should be facing in one direction.
 17. Install the complete antenna on the Rotator.
 18. Do not install the antenna other than the recommended installation procedure. Also do not operate the antenna other then the frequency marked on the antenna.
 19. Take VSWR reading by using through-line RF Power meter (If available). The VSWR should not increase to 1:1.5. Keep the record of VSWR measurements for future reference. Secure the RF flexible coaxial cable with cable ties.
 20. Carefully align the antenna in the desired direction to obtain maximum signal strength. Tighten all nuts and bolts.
 21. When the installation of the antenna has been completed, it is necessary to ensure that the installation instructions have been followed in all aspects. Tighten all nuts and bolts.
 22. Qualified, skilled personnel to verify proper installation and maintenance should inspect antenna system once a year.