



# ANTENNA EXPERTS

E-mail: [info@antennaexperts.in](mailto:info@antennaexperts.in) Website: [www.antennaexperts.in](http://www.antennaexperts.in)

Model AQY-150

136 – 174 MHz.

17dBi Gain

## INSTALLATION MANUAL – VHF QUAD YAGI ANTENNA

### 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.

Yagi Boom and Elements:	6063T6 Aluminum.
Stacking Pipes	6063T6 Aluminum.
Mounting Hardware:	All stainless steel.
Fasteners:	All Stainless Steel.
Connector:	Silver Plated Brass body & Gold plated pin.
Insulator:	TEFLON.
Housing:	NYLON

### PACKING LIST:

<u>Sl. No.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
01.	Yagi Antenna	4 Nos.
	Accessories for each Yagi antenna	
(a).	Main Boom Square Section.	1 Each.
(b).	Reflector Element.	1 Each.
(c).	Dipole complete with Feed.	1 Each
(d).	Directors 1- 4.	4 Nos.
(e).	Mounting Clamp Square Boom-to-Horizontal cross member (fixed on Square Boom).	1 Each.
02.	Phasing Harness Cable complete with connectors.	1 Each.
03.	Horizontal cross member, 1.5 Inch O.D., 9 feet long Aluminum tube in two sections.	2 Nos.
04.	Mounting clamps for Horizontal cross member to Vertical Mast suitable for 2 Inch Outer Dia tube.	2 Nos.
05.	Cable ties for dressing the Phasing Harness Cable	15 Nos.
06.	Installation Instruction.	1 Each.
07.	Test Report.	1 Each.



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## INSTALLATION INSTRUCTIONS

1. Unpack all the hardware of Quad Yagi Antenna from the packing box.
2. On visual inspection of the each boom (square section) and each elements of the Yagi antenna, the marked position of each element will be noticed.
3. Assemble the Reflector, Dipole and Directors on the boom (square section) as per the marking.
4. Take care while mounting the Dipole Feed on the boom, make sure that marked position of the dipole (This Side Up) should be up-ward and the N-female termination of the Dipole Feed should face towards Director 1.
5. Make sure to tighten all nuts and bolts of each element.
6. The mounting clamps for Boom-to-Horizontal cross member are fixed on the center of boom of each Yagi antenna. Initially these mounting clamps are fixed on the boom for Vertical Polarization.
7. Assembled both the Horizontal cross members by using Male and Female threads, provided in the center of each Horizontal cross members.
8. Install all the four Yagi antenna at the end of both Horizontal cross members 1.5 Inch O.D., 9 feet long Aluminum tube, by using four Boom-to-Horizontal cross member mounting clamps (fixed on the boom). Take extreme care during installation that both Yagi antenna on each Horizontal cross member should face the same direction.
9. Assembled both the mounting clamps for Horizontal cross member-to-Vertical mast, in the center of each Horizontal cross member.
10. Install both set of Yagi antenna (Upper and Lower ) on the 2 Inch O.D. Vertical mast ( not provided), by using the Two Horizontal cross member-to-Vertical mast mounting clamps. Take extreme care during installation that all the Four Yagi antenna should face the same direction and the position of all the four Dipole Feed should face up-word.
11. The Vertical and Horizontal stacking distance each Yagi antenna should be same and equal to 8.5 feet.
12. Connect the N-Male Connectors of Phasing Harness Cable to the N-Female termination of each Yagi antenna and run it along the Boom, Horizontal cross member and than over the Vertical mast and secure with cable tie. Never allow it to run between the Antenna elements.
13. Connect the N-Female termination of the Phasing Harness Cable to the Transceiver cable.
14. Seal the all the connectors against moisture ingress with a sealing tape.
15. Take a SWR reading by using through-line RF Power meter. The SWR should never exceed 1:1.5.
16. Keep the record of SWR measurements for future reference.
17. Carefully align the antenna in desired direction to obtain maximum signal strength.
18. Tighten all nuts and bolts.