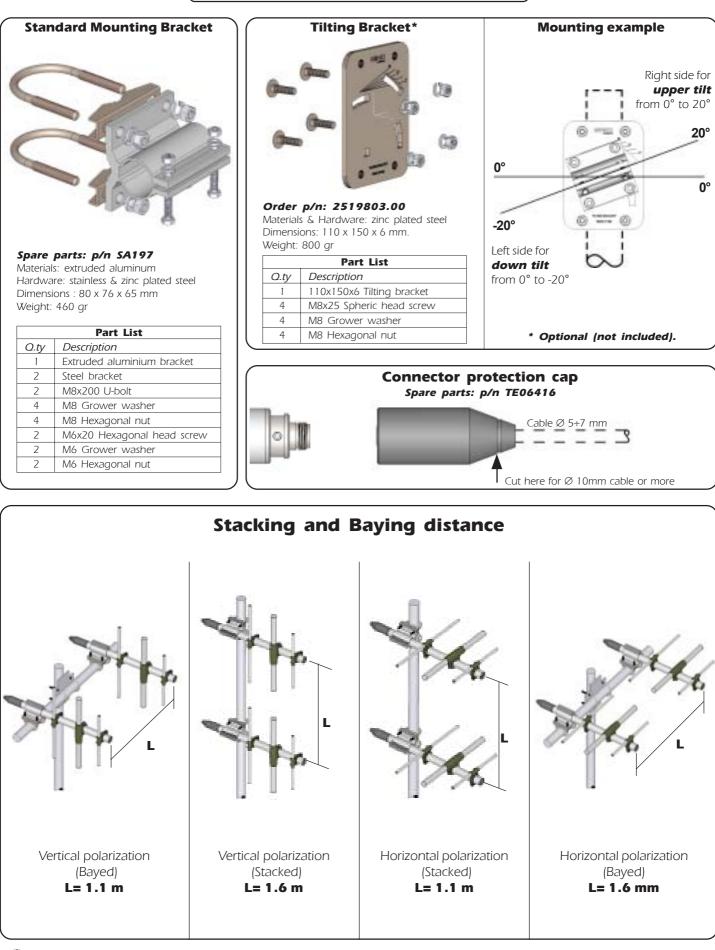
# MOUNTING INSTRUCTIONS



HI-QUALITY ANTENNAS MADE IN ITALY

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# WY155-2N 155-175 MHz Base Station 2 Element Yagi Antenna

## DESCRIPTION

Base station antenna conceived by using an innovative feed system studied and applied to have highly symmetrical radiation pattern in both planes (E and H). It's completely computer designed to get high performances of gain and front-to-back in the working band. All aluminium parts are protected by anodized treatment, hardware are of Stainless steel or zinc plated steel, mounting bracket is of extruded aluminium for the best strength and the connector is placed in rear position for an easily access. To increase the antenna gain please install it in vertical stacked array. Patent pending applied.

### **TECHNICAL DATA**

#### **Electrical Data**

| Туре                   | 2 elements Yagi                            |
|------------------------|--|
| Frequency range        | 155 - 175 MHz                              |
| Impedance              | 50 $\Omega$ Unbalanced                     |
| Polarization           | Linear Vertical or Horizontal              |
| Radiation (H-plane)    | beamwidth at -3 dB= 165° at 165 MHz        |
| Radiation (E-plane)    | beamwidth at -3 dB= 75° at 165 MHz         |
| Max Gain               | 5.2 dBi                                    |
| Front to Back ratio    | ≥9 dB                                      |
| S.W.R. in bandwidth    | ≤ 1.5:1                                    |
| Max Power              | 200 Watts (CW) at 30°C                     |
| Feed system / Position | RG303 Teflon coax with balun / inside boom |
| Lightning protection   | DC-ground                                  |
| Connector              | N-female with rubber protection cap        |

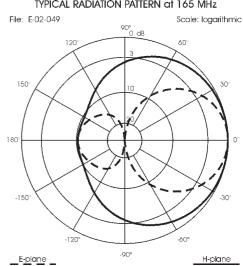
#### **Mechanical Data**

| Materials              | Anodized 6063-T5 Aluminium,                |
|------------------------|--|
|                        | Thermoplastic UV stabilized, Chromed Brass |
| Wind load / resistance | 88 N at 150 Km/h / 180 Km/h                |
| Wind surface           | 0.068 m <sup>2</sup>                       |
| Dimensions (approx.)   | 740 x 955 mm                               |
| Weigth (approx.)       | 1450 gr                                    |
| Turning radius         | 750 mm                                     |
| Operating temperature  | -40° C to +60° C                           |
| Mounting Mast          | Ø 35-52 mm                                 |

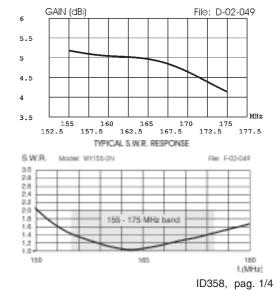




TYPICAL RADIATION PATTERN at 165 MHz

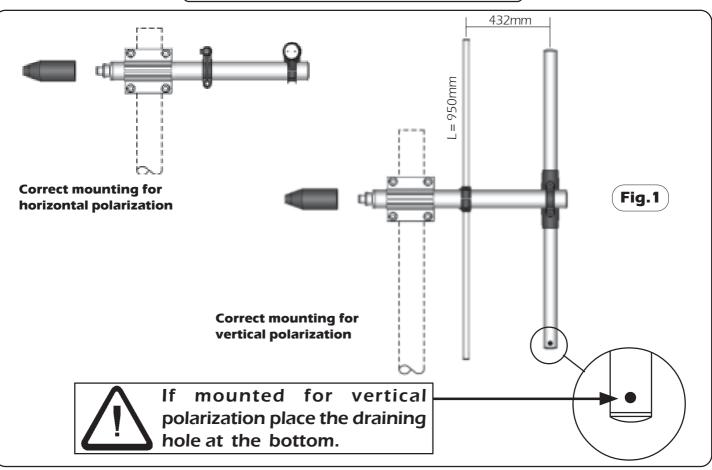


TYPICAL GAIN DIAGRAM vs FREQUENCY



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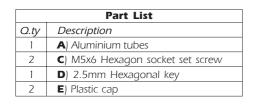
#### **Element Mounting**

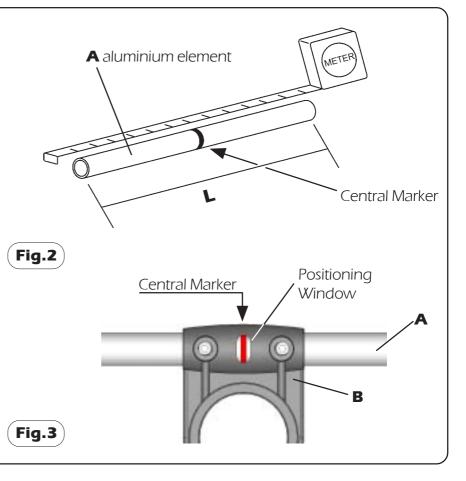
1) By means of a meter measure the aluminium elements **A** and position them in the plastic support **B** of the boom according to **fig.1**.

2) Place the reference marker of the aluminium element **A** in the centre of the plastic support **B** (see **fig. 3**) and lock the screws **C** by the supplied key **D** (**fig. 4**). When the screws touch the aluminium tubes you can finally lock them turning for 1.5 turns.

#### Warning: do not exceed 1.5 turns. The plastic support threads could be damaged.

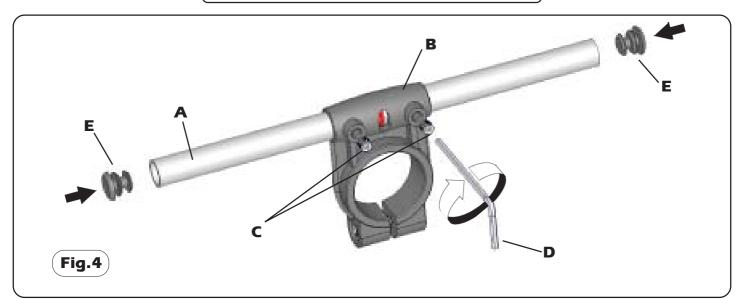
3) Insert the plastic caps **E** on the aluminium elements **A** (see **fig. 4**)

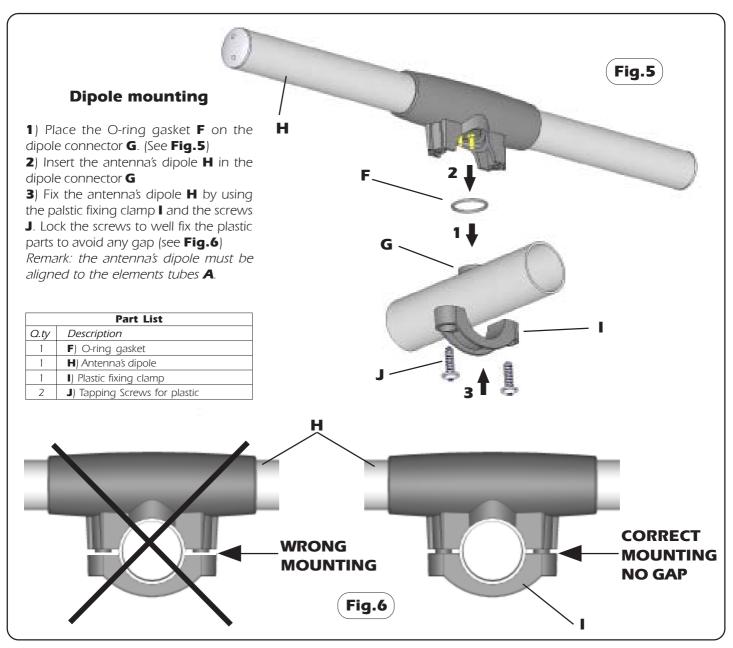




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## **MOUNTING INSTRUCTIONS**





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