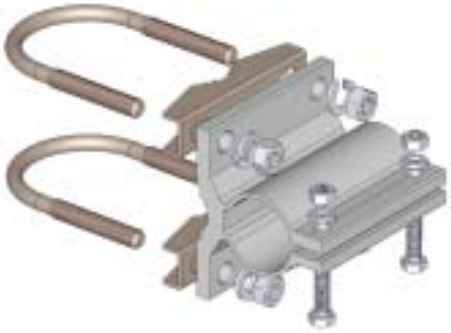
MOUNTING INSTRUCTIONS

Standard Mounting Bracket



Spare parts: p/n SA197
Materials: extruded aluminum
Hardware: stainless & zinc plated steel
Dimensions : 80 x 76 x 65 mm
Weight: 460 gr

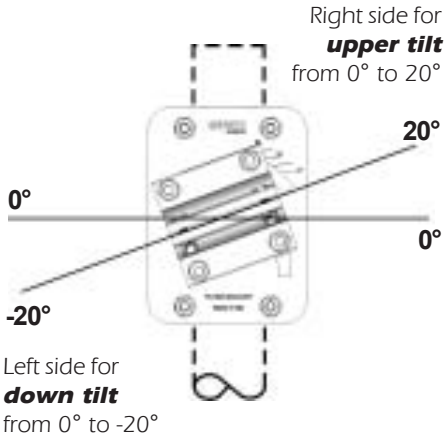
Part List	
Q.ty	*Description*
1	Extruded aluminium bracket
2	Steel bracket
2	M8x200 U-bolt
4	M8 Grower washer
4	M8 Hexagonal nut
2	M6x20 Hexagonal head screw
2	M6 Grower washer
2	M6 Hexagonal nut

Tilting Bracket*

Order p/n: 2519803.00
Materials & Hardware: zinc plated steel
Dimensions: 110 x 150 x 6 mm.
Weight: 800 gr

Part List	
Q.ty	*Description*
1	110x150x6 Tilting bracket
4	M8x25 Spheric head screw
4	M8 Grower washer
4	M8 Hexagonal nut

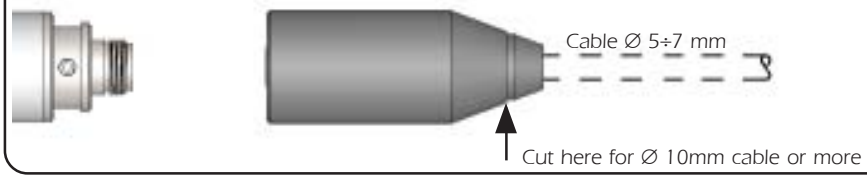
Mounting example



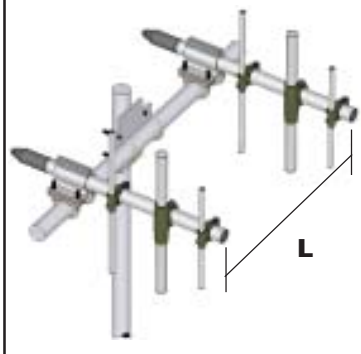
**** Optional (not included).***

Connector protection cap

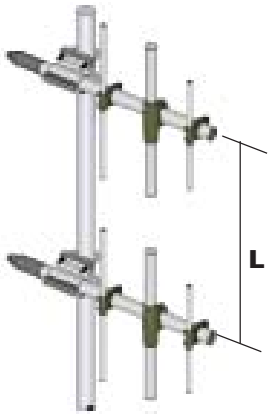
Spare parts: p/n TE06416



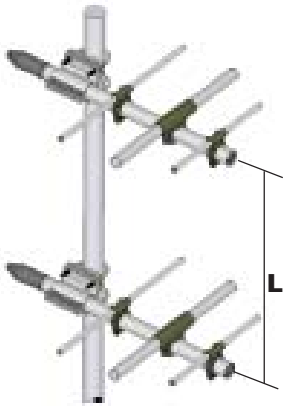
Stacking and Baying distance



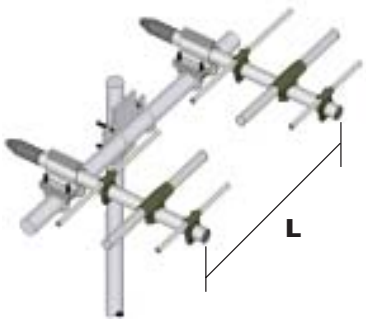
Vertical polarization
(Bayed)
L= 1.1 m



Vertical polarization
(Stacked)
L= 1.6 m



Horizontal polarization
(Stacked)
L= 1.1 m



Horizontal polarization
(Bayed)
L= 1.6 mm

SIRIO antenne HI-QUALITY ANTENNAS MADE IN ITALY

WY140-2N

140-160 MHz Base Station 2 Element Yagi Antenna

DESCRIPTION

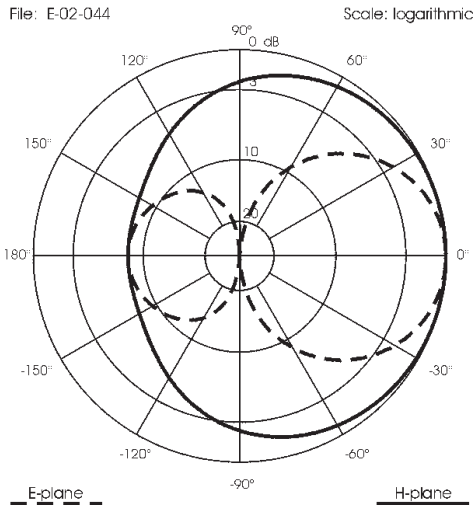
Base station antenna conceived by using an innovative feed system studied and applied to have highly symmetrical radiation pattern in both planes (E and H). It's completely computer designed to get high performances of gain and front-to-back in the working band. All aluminium parts are protected by anodized 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

Type	2 elements Yagi
Frequency range	140 - 160 MHz
Impedance	50 Ω Unbalanced
Polarization	Linear Vertical or Horizontal
Radiation (H-plane)	beamwidth at -3 dB= 195° at 150 MHz
Radiation (E-plane)	beamwidth at -3 dB= 75° at 150 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

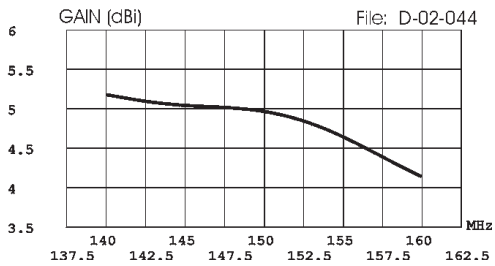
TYPICAL RADIATION PATTERN at 150 MHz



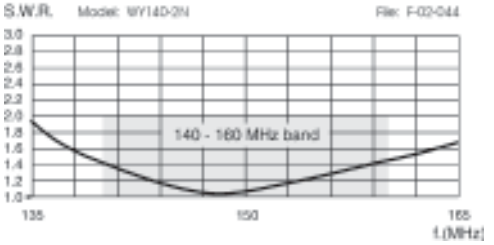
Mechanical Data

Materials	Anodized 6063-T5 Aluminium, Thermoplastic UV stabilized, Chromed Brass
Wind load / resistance	92 N at 150 Km/h / 180 Km/h
Wind surface	0.071 m^2
Dimensions (approx.)	740 x 1110 mm
Weigth (approx.)	1490 gr
Turning radius	770 mm
Operating temperature	-40° C to +60° C
Mounting Mast	Ø 35-52 mm

TYPICAL GAIN DIAGRAM vs FREQUENCY



TYPICAL S.W.R. RESPONSE



MOUNTING INSTRUCTIONS

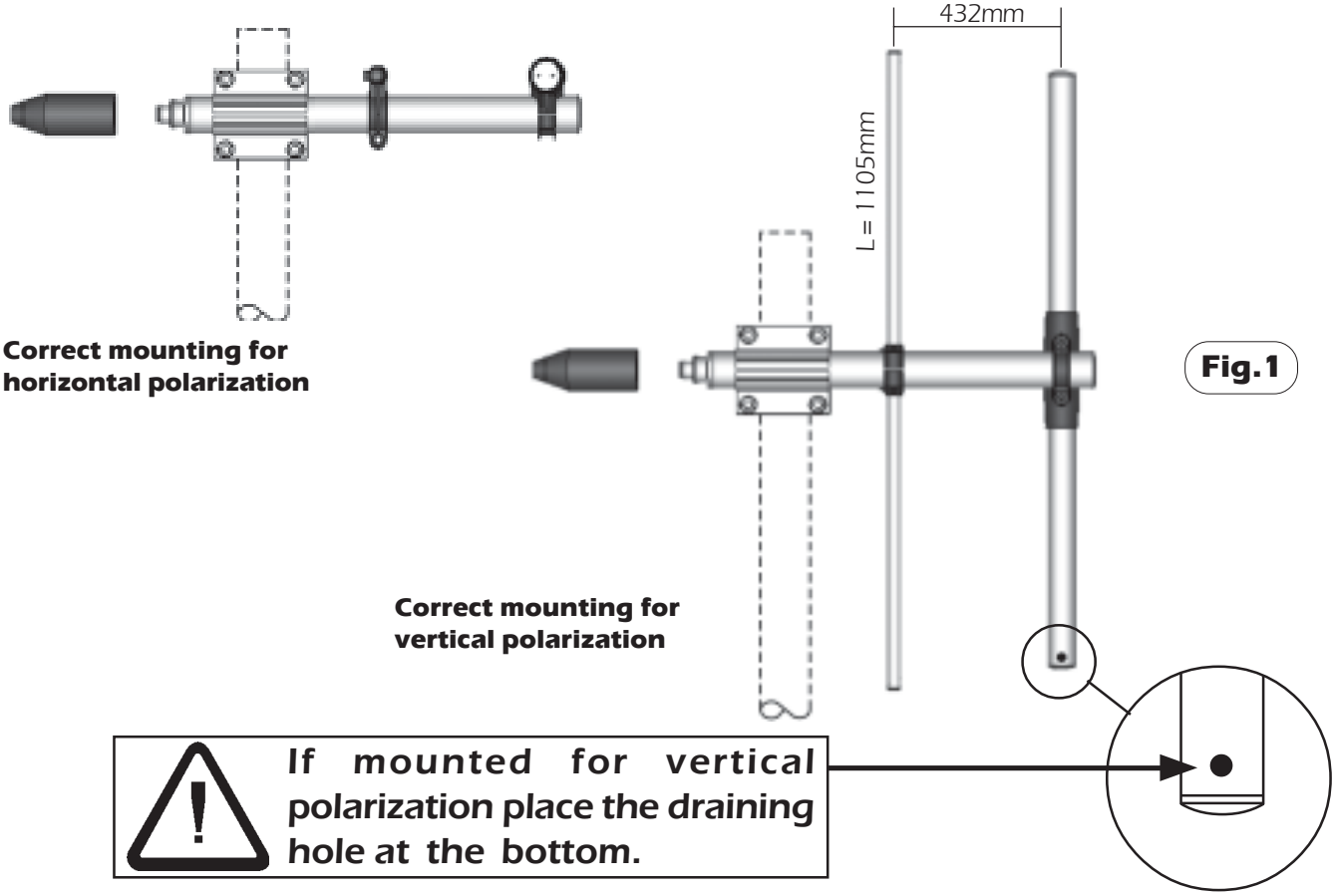


Fig.1

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**)

Part List	
Q.ty	*Description*
1	**A**) Aluminium tubes
2	**C**) M5x6 Hexagon socket set screw
1	**D**) 2.5mm Hexagonal key
2	**E**) Plastic cap

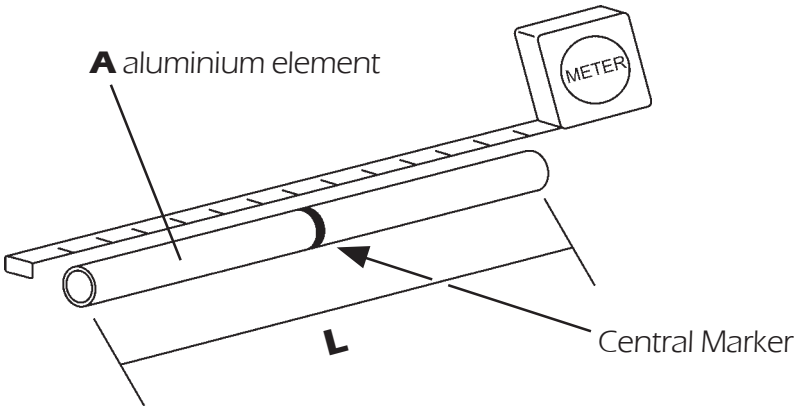


Fig.2

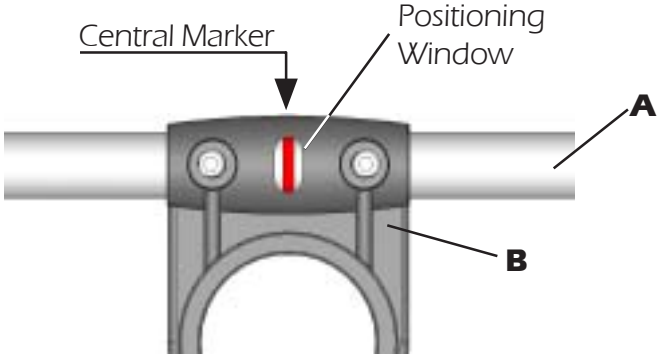


Fig.3

MOUNTING INSTRUCTIONS

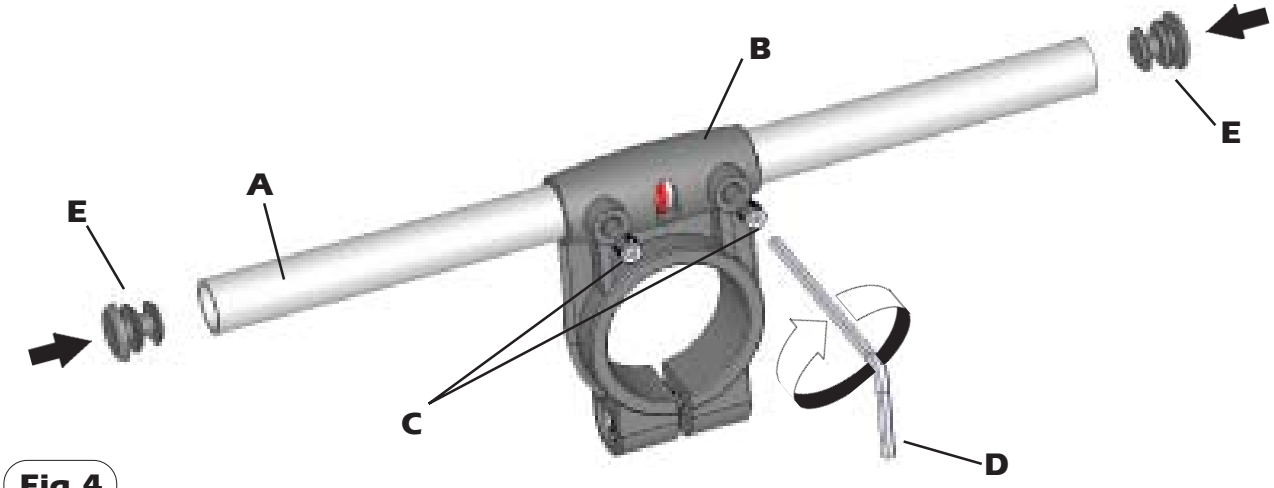


Fig.4

Dipole mounting

1) Place the O-ring gasket **F** on the dipole connector **G**. (See **Fig.5**)
2) Insert the antenna's dipole **H** in the dipole connector **G**
3) Fix the antenna's dipole **H** by using the palstic fixing clamp **I** and the screws **J**. Lock the screws to well fix the plastic parts to avoid any gap (see **Fig.6**)
*Remark: the antenna's dipole must be aligned to the elements tubes **A**.*

Part List	
Q.ty	*Description*
1	**F**) O-ring gasket
1	**H**) Antenna's dipole
1	**I**) Plastic fixing clamp
2	**J**) Tapping Screws for plastic

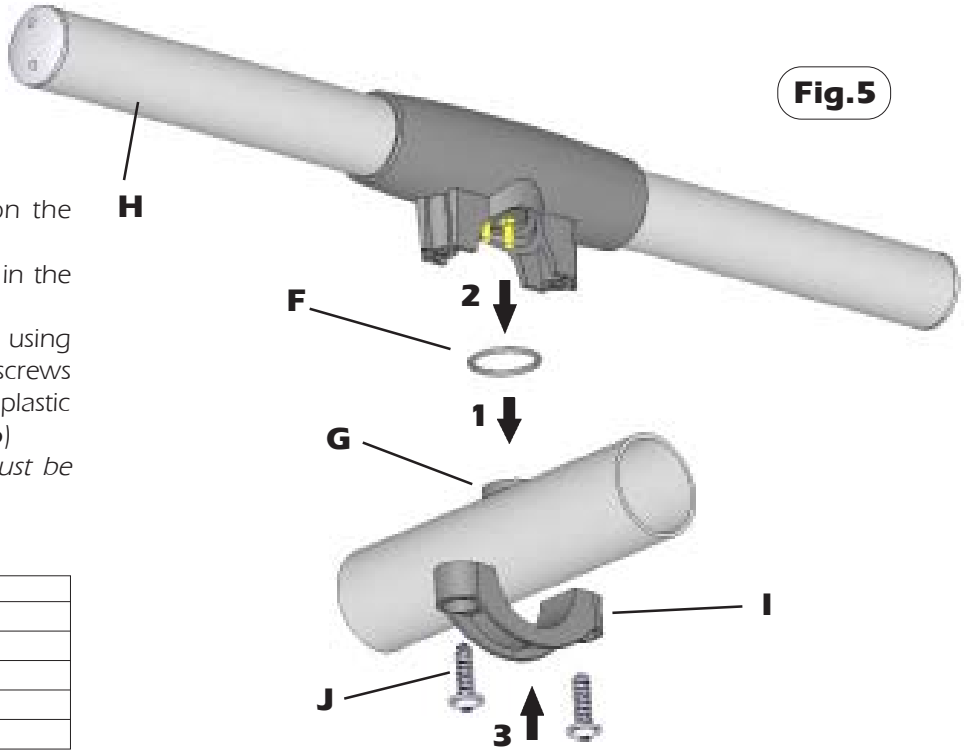


Fig.5

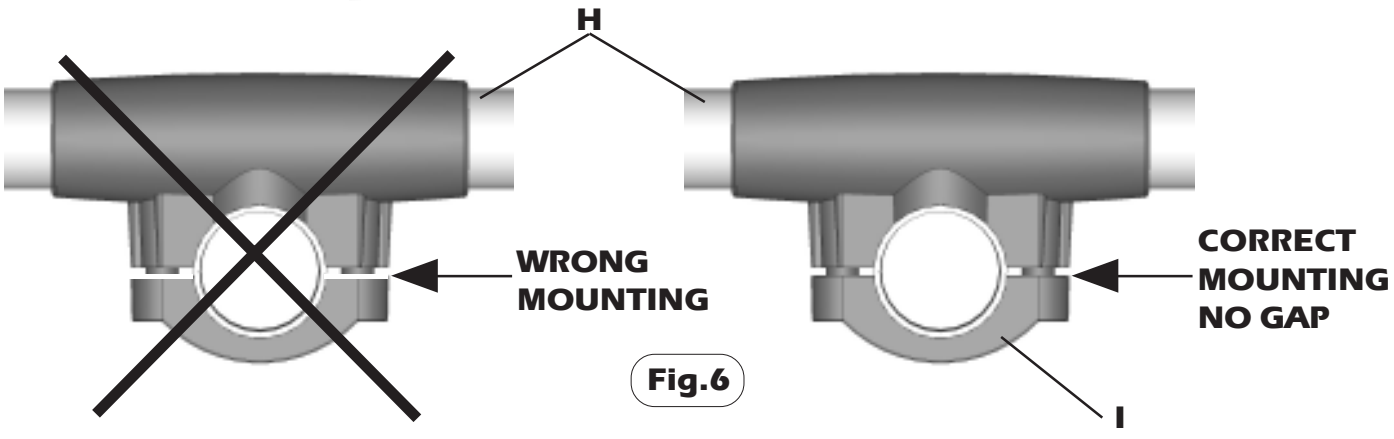


Fig.6