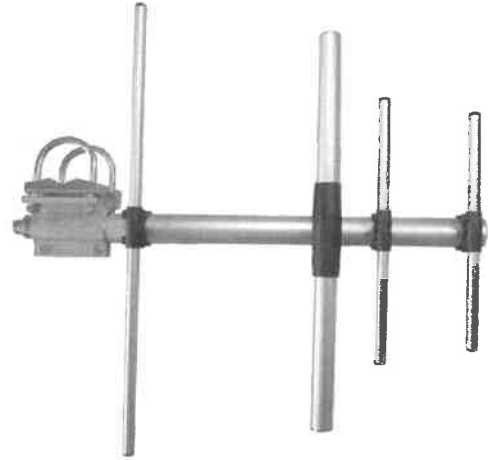


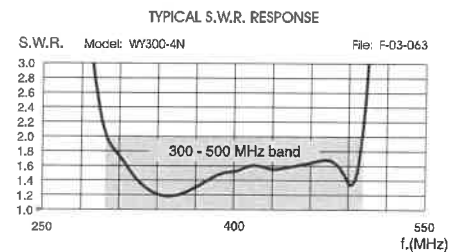
# WY 300-4N 300-500 MHz

## UHF Base Station 4 Elements Yagi Antenna

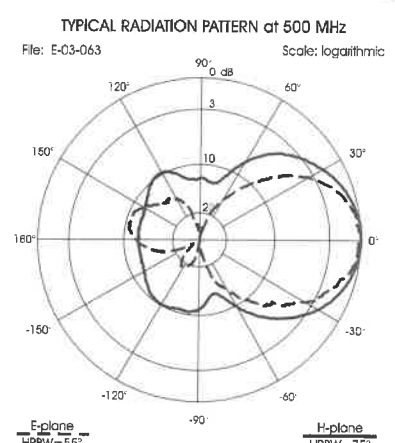
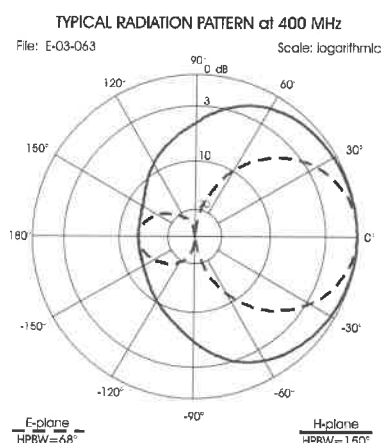
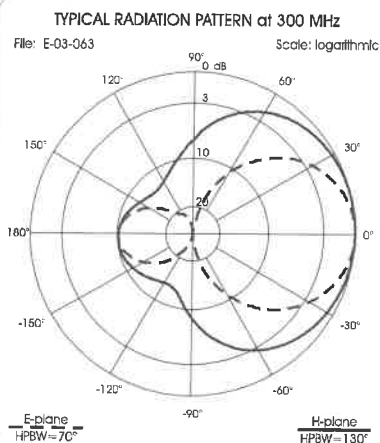
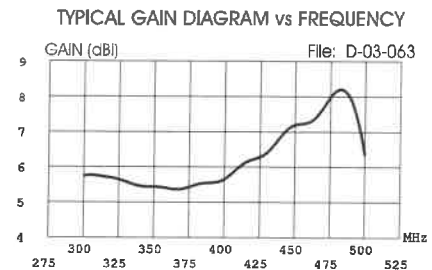
**DESCRIPTION:** Base station antenna using an innovative feed system conceived and applied to have high symmetrical radiation pattern in both planes (E and H). It's completely computer designed to get high performances and a **wide bandwidth (no tuning is required)**. All aluminium parts are protected by anodized treatment, hardware are of Stainless steel or zinc plated steel, mounting bracket is of extruded aluminium for the best strength. The connector is placed in rear position for an easily access and protected by a black rubber cap suitable for 5÷7mm cables. To increase the antenna gain please install it in vertical stacked array. **This product is Patented.**



Electrical Data	WY 300-4N
Type	4 elements Yagi
Frequency Range @ SWR ≤ 2	300 - 500 MHz
Impedance	50 Ω
Radiation (H-plane) beamwidth @ -3 dB	150° @400MHz
Radiation (E-plane) beamwidth @ -3 dB	68° @400MHz
Front to back ratio	≥ 9 dB
Polarization	Linear Vertical or Horizontal
Max Gain	5.85 dBd - 8 dBi
Max Power (CW) @ 30°C	150 Watts
Grounding Protection	All metal parts are DC-grounded, the inner conductor shows a DC short
Connector	N-female with rubber protection cap



Mechanical Data	
Materials	Anodized 6063-T5 Aluminium, EPDM rubber, thermoplastic UV stabilized, Chromed Brass
Wind Load @ 150 km/h	60 N
Wind Resistance	180 Km/h; 112 mi/h
Wind Surface	0.048 m²; 0.51 ft²
Dimensions W x H (approx.)	600 x 480 mm; 2 x 1.57 ft
Turning radius (approx.)	470 mm; 1.54 ft
Weight (approx.)	1300 gr; 2.87 lb
Operating temperature	-40° C to +60° C
Mounting Mast	Ø 35 - 52 mm; Ø 1.4 - 2.0 in
Boom / Dipole / Element Diameter	Ø 32 mm; 1.3 in / Ø 24 mm; 0.95 in / Ø 12 mm; 0.5 in



## MOUNTING INSTRUCTIONS

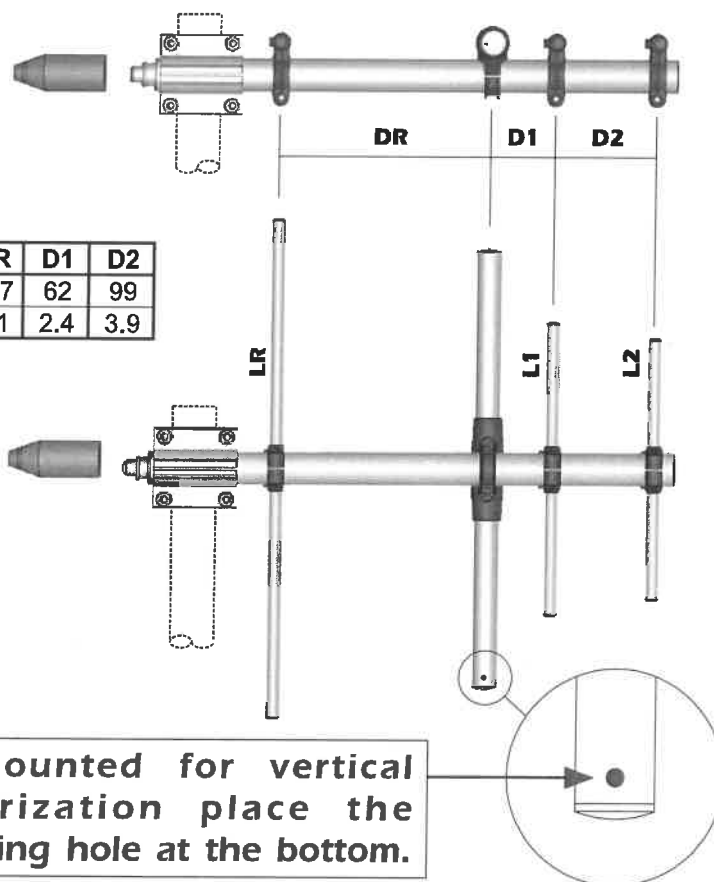
**Correct mounting for horizontal polarization**

		LR	L1	L2	DR	D1	D2
WY 300-4N	(mm)	480	280	250	207	62	99
	(in)	18.9	11	9.8	8.1	2.4	3.9

**Correct mounting for vertical polarization**



**If mounted for vertical polarization place the draining hole at the bottom.**



### Element Mounting

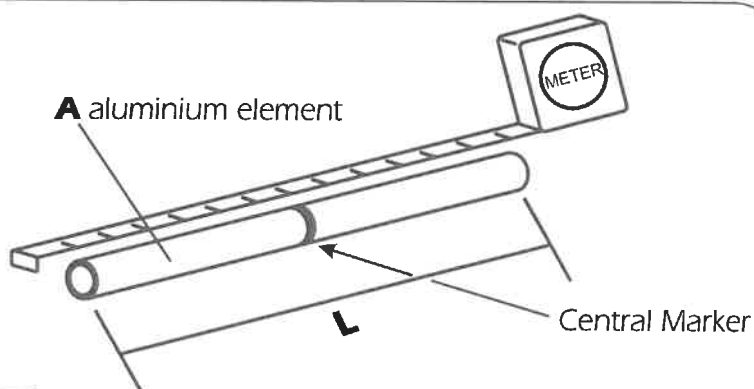
**1)** By means of a meter measure the aluminium elements **A** and position them in the plastic support **B** of the boom according to **fig. 1**.

**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.

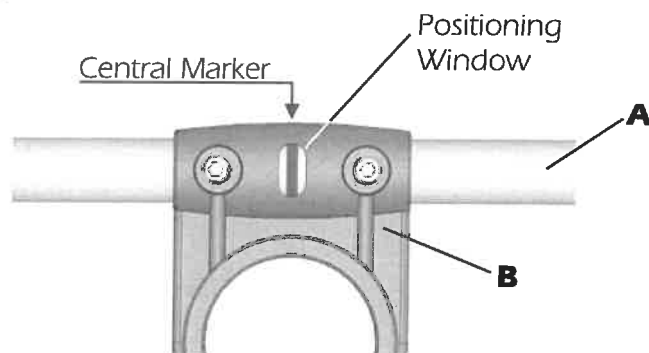
**Warning: do not exceed 1.5 turns. The plastic support threads could be damaged.**

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

Part list	
Q.ty	Description
1	<b>A)</b> Aluminum tubes
2	<b>C)</b> M5x6 Hexagon socket set screw
1	<b>D)</b> 2.5mm Hexagonal key
2	<b>E)</b> Plastic cap

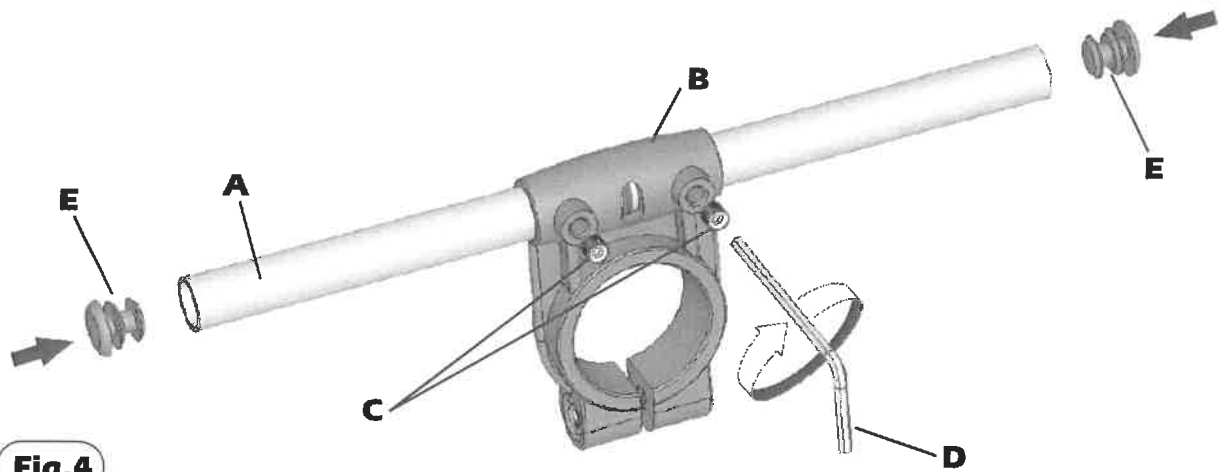


**Fig.2**



**Fig.3**

## MOUNTING INSTRUCTIONS

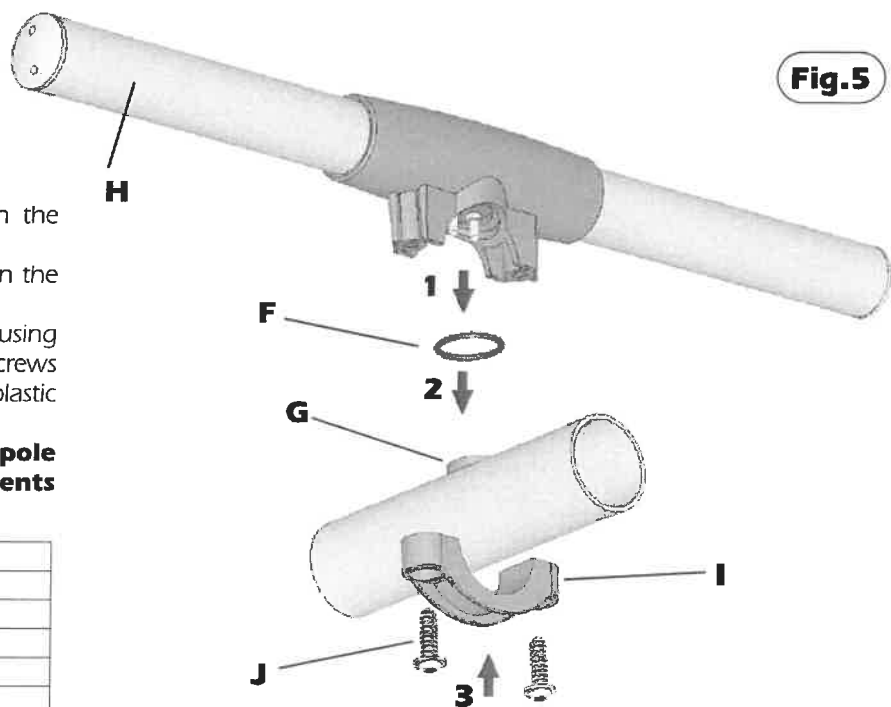


**Fig.4**

### Dipole mounting

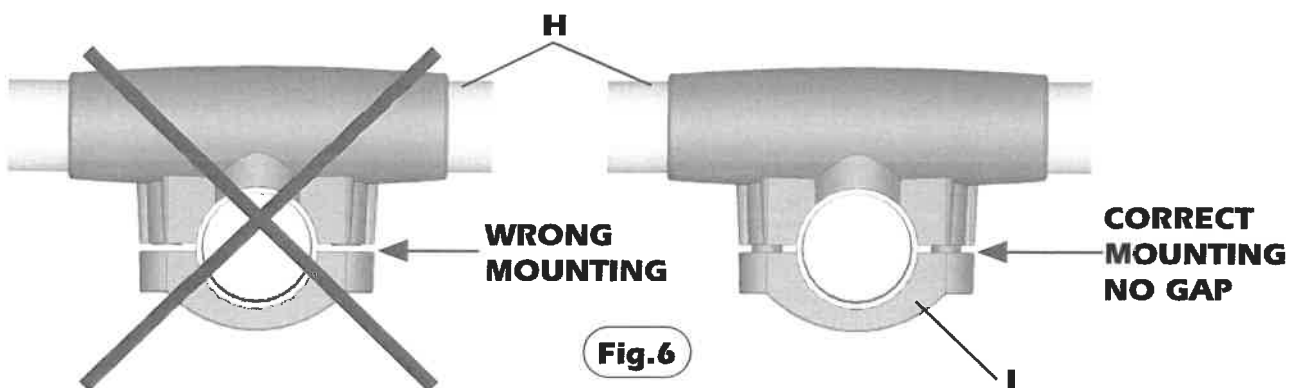
- 1) Place the O-ring gasket **F** on the dipole connector **G**. (See **Fig.5**)
- 2) Insert the antenna's dipole **H** in the dipole connector **G**
- 3) Fix the antenna's dipole **H** by using the plastic fixing clamp **I** and the screws **J**. Lock the screws to well fix the plastic parts to avoid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

**Remark: the antenna's dipole must be aligned to the elements**



**Fig.5**

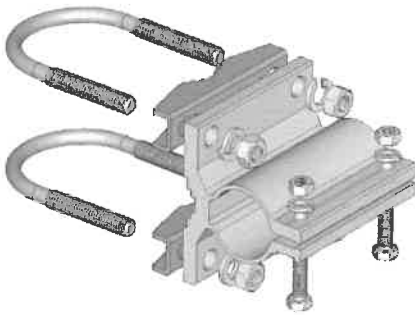
Part list	
Q.ty	Description
1	<b>F</b> O-ring gasket
1	<b>H</b> Antenna's dipole
1	<b>I</b> Plastic fixing clamp
2	<b>J</b> Tapping Screws for plastic



**Fig.6**

## MOUNTING INSTRUCTIONS

### Standard Mounting Bracket

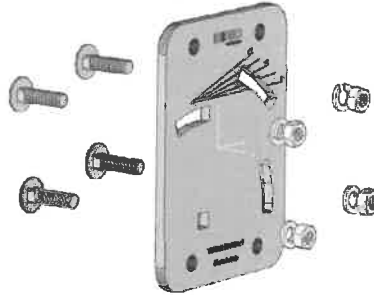


#### Spare parts: p/n SA197

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\*

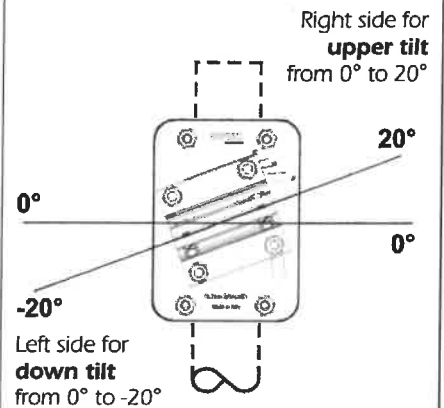


#### Order p/n: 2519803.00

Materials & Hardware: zinc plated steel  
Dimensions: 110 x 150 x 6 mm.  
Weight: 800 gr

Part list	
Q.ty	Description
1	10x150x6 Tilting bracket
4	M8x25 Spheric head screw
4	M8 Grower washer
4	M8 Hexagonal nut

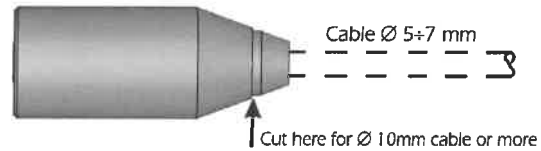
### Mounting example



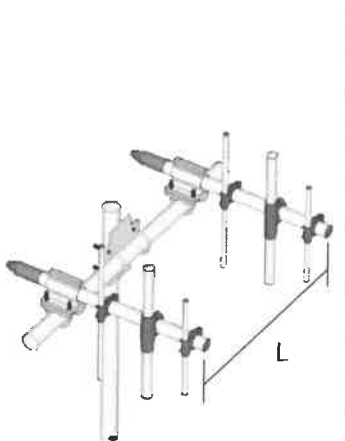
\* Optional (not included).

### Connector protection cap

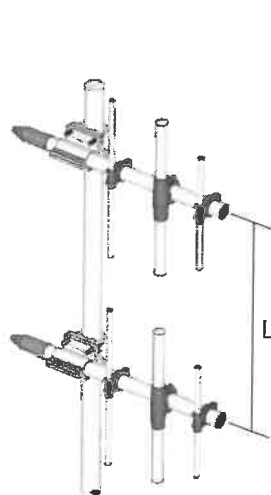
Spare parts: p/n TE06416



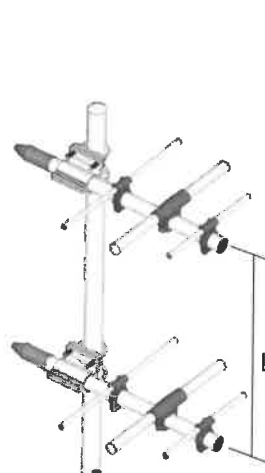
## Stacking and Baying distance



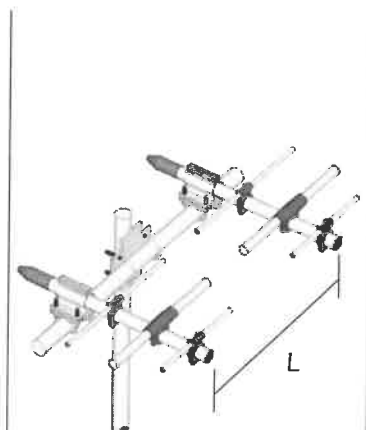
Vertical polarization  
(Bayed)  
**L= 470 mm; 18.5 in**



Vertical polarization  
(Stacked)  
**L= 670 mm; 26.3 in**



Horizontal polarization  
(Stacked)  
**L= 470 mm; 18.5 in**



Horizontal polarization  
(Bayed)  
**L= 670 mm; 26.3 in**