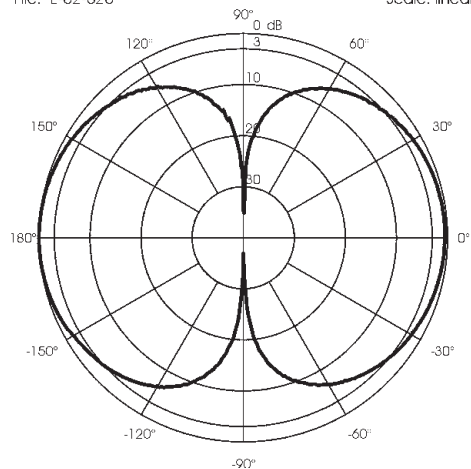


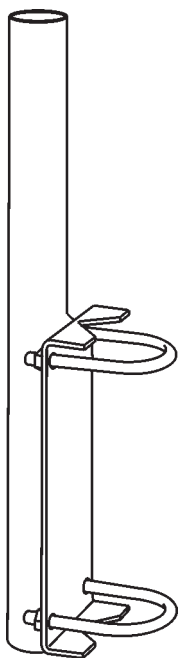
TYPICAL RADIATION PATTERN in E-plane at 122 MHz

File: E-02-020

Scale: linear



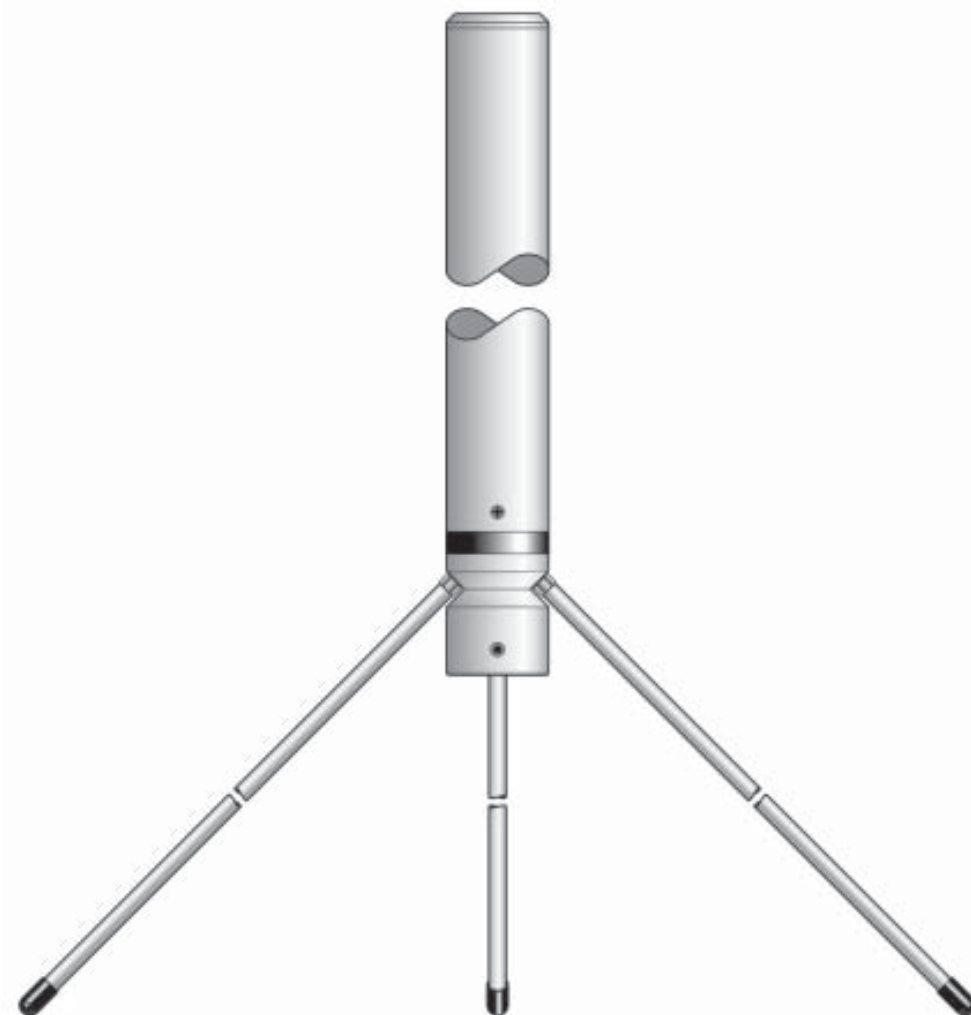
### OPTIONAL FT-2 FIXING BRACKET



Type : Side Mast Fixing Bracket  
 Top Size : Ø 38 mm for antenna fitting  
 Bottom Size : Ø 42/50 mm for fitting on the mast  
 Weight (approx.) : 1100 gr  
 Material : Galvanized Steel

**P/N 2510004.00 FT-2 Universal**

**GP 87-108 LB FM RADIO BAND**  
**GP 108-136 LB VHF AIRCRAFT BAND**



**Installation Manual**

## DESCRIPTION

1/4  $\lambda$  Ground Plane wide-band antenna for base station service. It is made of aluminium and hi-quality materials to get the best efficiency and robustness. Its radial whip is earthed to be protected against the static discharges. GP 87-108 LB is developed for FM radio band and GP 108-136 LB is particularly recommended for the aeronautic band service.

## SPECIFICATIONS

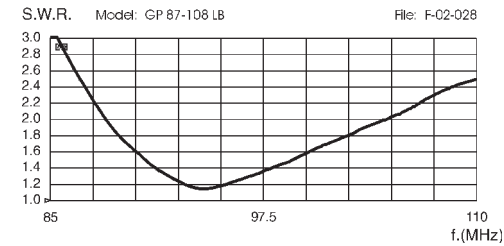
### Electrical Data

Type	:	1/4 $\lambda$ Folded Ground Plane
Frequency Range	:	
GP 87-108 LB	:	RADIO band: 87-108 MHz at V.S.W.R. $\leq$ 2.5 : 1
GP 108-136 LB	:	VHF AIR. band: Rx 108-136 MHz; Tx 118-136 at V.S.W.R. $\leq$ 2:1
Impedance	:	50 $\Omega$ Unbalanced
Radiation (H-plane)	:	360° Omnidirectional
Radiation (E-plane)	:	Beamwidth at -3 dB = 78°
Radiation angle deg.	:	0°
Polarization	:	Vertical
Gain	:	0 dBd - 2.15 dBi
Bandwidth at V.S.W.R. 2:1	:	
GP 108-136 LB	:	22 MHz
V.S.W.R. at res. freq.	:	$\leq$ 1.2 : 1
Max Power	:	1000 Watts
Feed System / Position	:	Direct DC-Ground / Center
Connector	:	
GP 87-108 / 108-136 LB-U	:	UHF Female
GP 87-108 / 108-136 LB-N	:	N Female

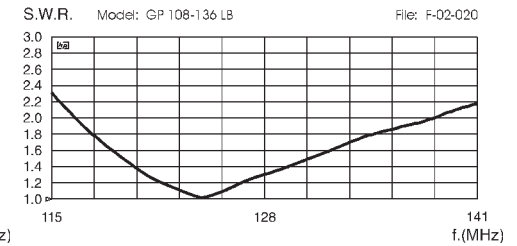
### Mechanical Data

Materials	:	Anodized Aluminium, Nylon, Stainless Steel
Wind Load / Resistance	:	
GP 87-108 LB	:	67 N at 150 Km/h / 160 Km/h
GP 108-136 LB	:	56 N at 150 Km/h / 160 Km/h
Wind Surface	:	
GP 87-108 LB	:	0.06 m <sup>2</sup>
GP 108-136 LB	:	0.05 m <sup>2</sup>
Height (approx.)	:	
GP 87-108 LB	:	1190 mm
GP 108-136 LB	:	890 mm
Weight (approx.)	:	
GP 87-108 LB	:	1500 gr
GP 108-136 LB	:	1310 gr
Mounting Mast	:	Ø 36-40 mm

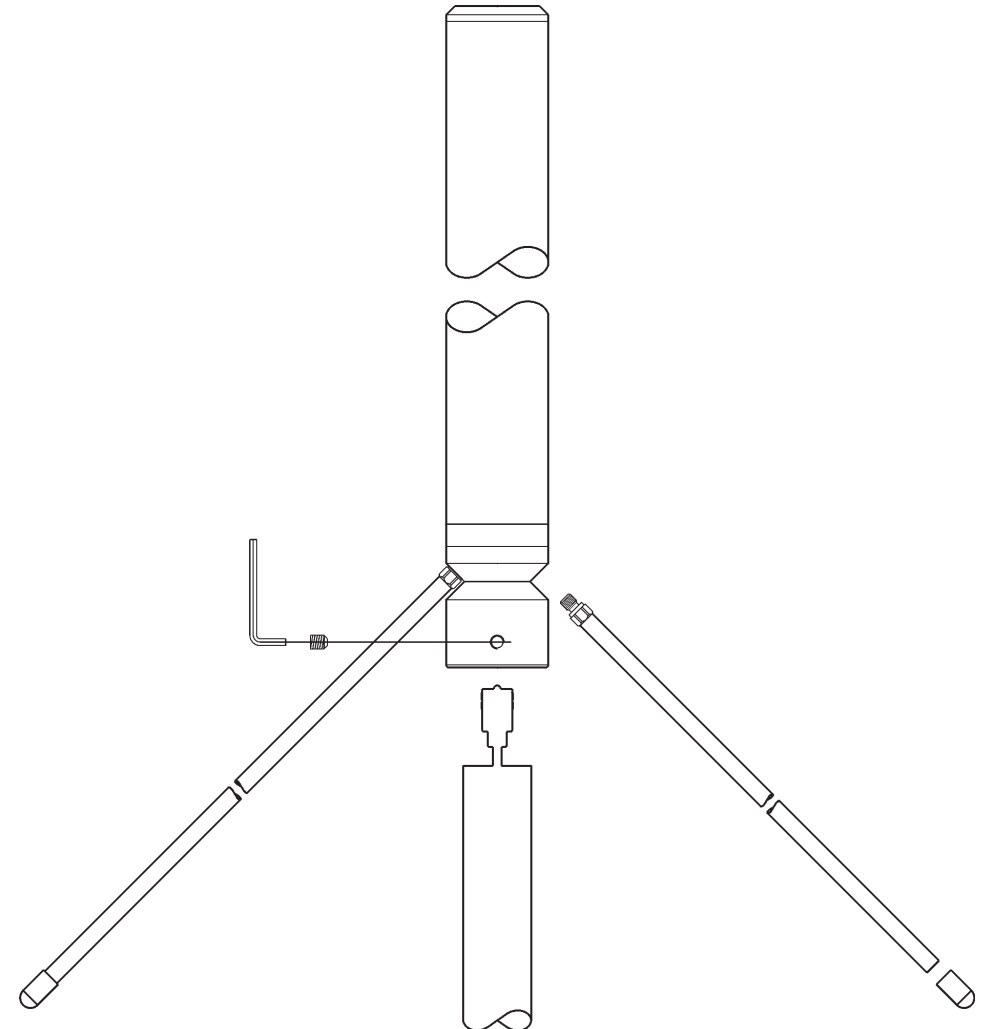
TYPICAL S.W.R. RESPONSE



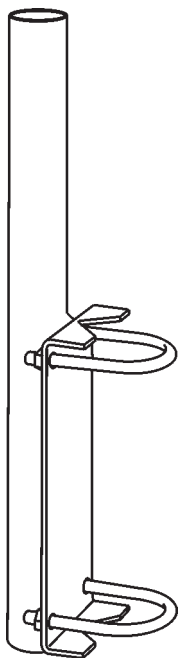
TYPICAL S.W.R. RESPONSE



## MOUNTING INSTRUCTIONS



### OPTIONAL FT-2 FIXING BRACKET

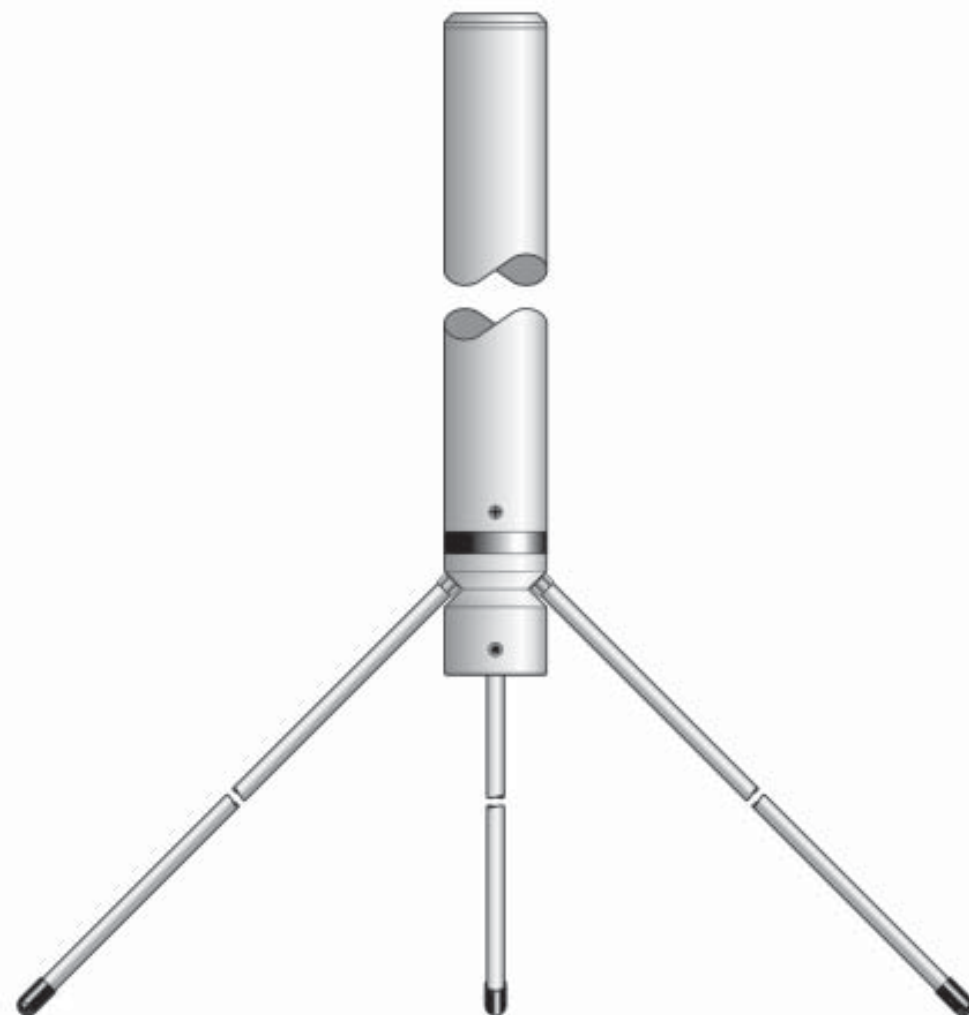


Type : Side Mast Fixing Bracket  
Top Size : Ø 38 mm for antenna fitting  
Bottom Size : Ø 42/50 mm for fitting on the mast  
Weight (approx.) : 1100 gr  
Material : Galvanized Steel

**P/N 2510004.00 FT-2 Universal**

## Model **GP 160 LB**

VHF Base Station Antenna 145-175 MHz



## Installation Manual

## DESCRIPTION

1/4  $\lambda$  wide-band antenna for base station service covering the frequency range of 145-175 MHz. It as been developped according to the most modern technologies to assure a perfect protection against the worst atmospheric climates and to get the best performance. It is entirely made of aluminium to assure strength and robustness and its radial whip is earthed. Its 30 MHz bandwidth makes it particularly recommended for relay stations or two-party systems.

## SPECIFICATIONS

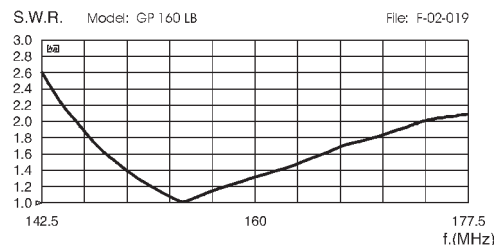
### Electrical Data

Type	:	1/4 $\lambda$ Folded Ground Plane
Frequency Range	:	145-175 MHz at V.S.W.R. $\leq$ 2:1
Impedance	:	50 $\Omega$ Unbalanced
Radiation (H-plane)	:	360° Omnidirectional
Radiation (E-plane)	:	Beamwidth at -3 dB = 78°
Radiation angle deg.	:	0°
Polarization	:	Vertical
Gain	:	0 dBd - 2.15 dBi
Bandwidth at V.S.W.R. 2:1	:	30 MHz
V.S.W.R. at res. freq.	:	$\leq$ 1.2 : 1
Max Power	:	1000 Watts
Feed System / Posistion	:	Direct DC-Ground / Center
Connector	:	
GP 160 LB - U	:	UHF Female, gold plated central pin
GP 160 LB - N	:	N Female, gold plated central pin and teflon insulator

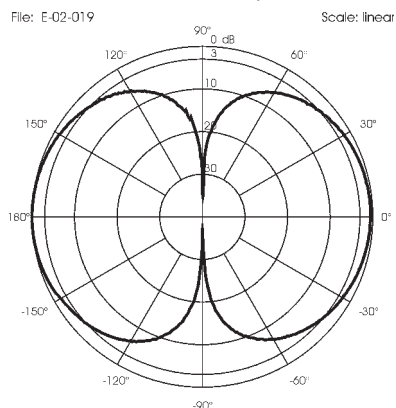
### Mechanical Data

Materials	:	Anodized Aluminium, Nylon, Stainless Steel
Wind Load / Resistance	:	43 N at 150 Km/h / 160 Km/h
Wind Surface	:	0.04 m <sup>2</sup>
Height (approx.)	:	700 mm
Weight (approx.)	:	1150 gr
Mounting Mast	:	Ø 36-40 mm

TYPICAL S.W.R. RESPONSE



TYPICAL RADIATION PATTERN in E-plane at 160 MHz



## MOUNTING INSTRUCTIONS

