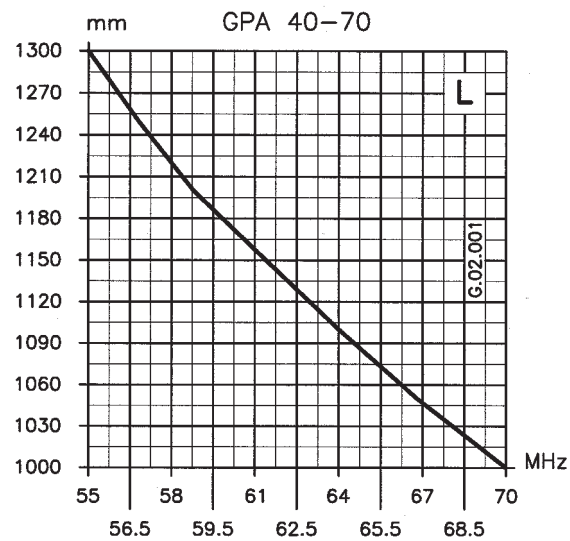
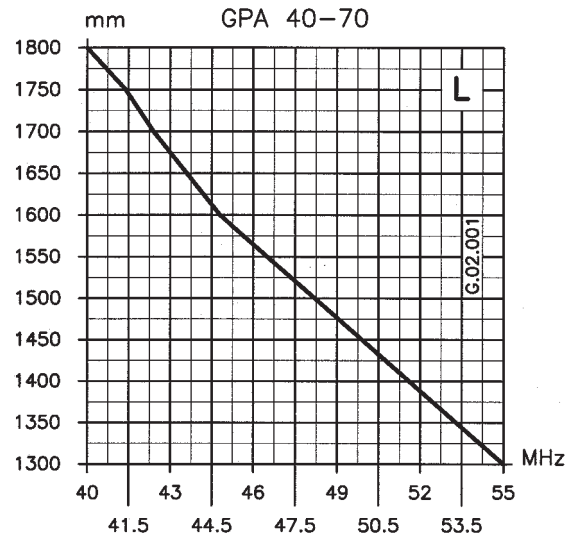


## TYPICAL TUNING DIAGRAMS



**NOTE:**

- It is recommended to use the curves as a guide and fine-tune using an SWR-Meter.

# Model GPA 40-70

VHF Ground Plane Antenna 40-70 MHz



## Installation Manual

## DESCRIPTION

1/4  $\lambda$  Ground Plane antenna for base station service working on 40-70 MHz by means of the tuning diagram enclosed. It is entirely made of non-corrosive aluminium and assembled on a strong die-cast base which allows an easy and safe installation assuring very good performances.

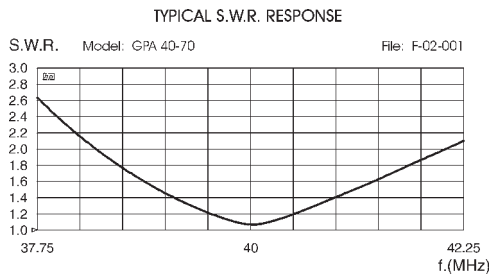
## SPECIFICATIONS

### Electrical Data

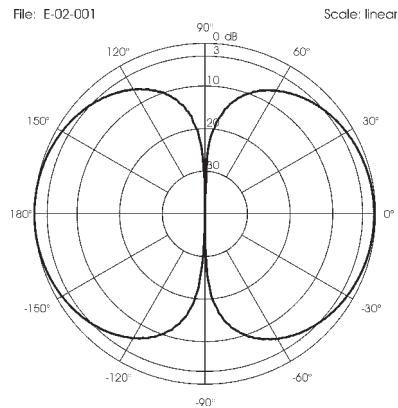
Type	: 1/4 $\lambda$ Ground Plane
Frequency Range	: 40-70 MHz tunable by diagram
Impedance	: 50 $\Omega$ Unbalanced
Radiation (H-plane)	: 360° Omnidirectional
Radiation (E-plane)	: Beamwidth at -3 dB = 86°
Radiation angle deg.	: 0°
Polarization	: Vertical
Gain	: 0 dBd - 2.15 dBi
Bandwidth at V.S.W.R. 2:1	: 3.5 MHz at 40 MHz
V.S.W.R. at res. freq.	: $\leq 1.2 : 1$
Max Power	: 1000 Watts
Feed System / Position	: Direct / Center
Connection	: UHF Female

### Mechanical Data

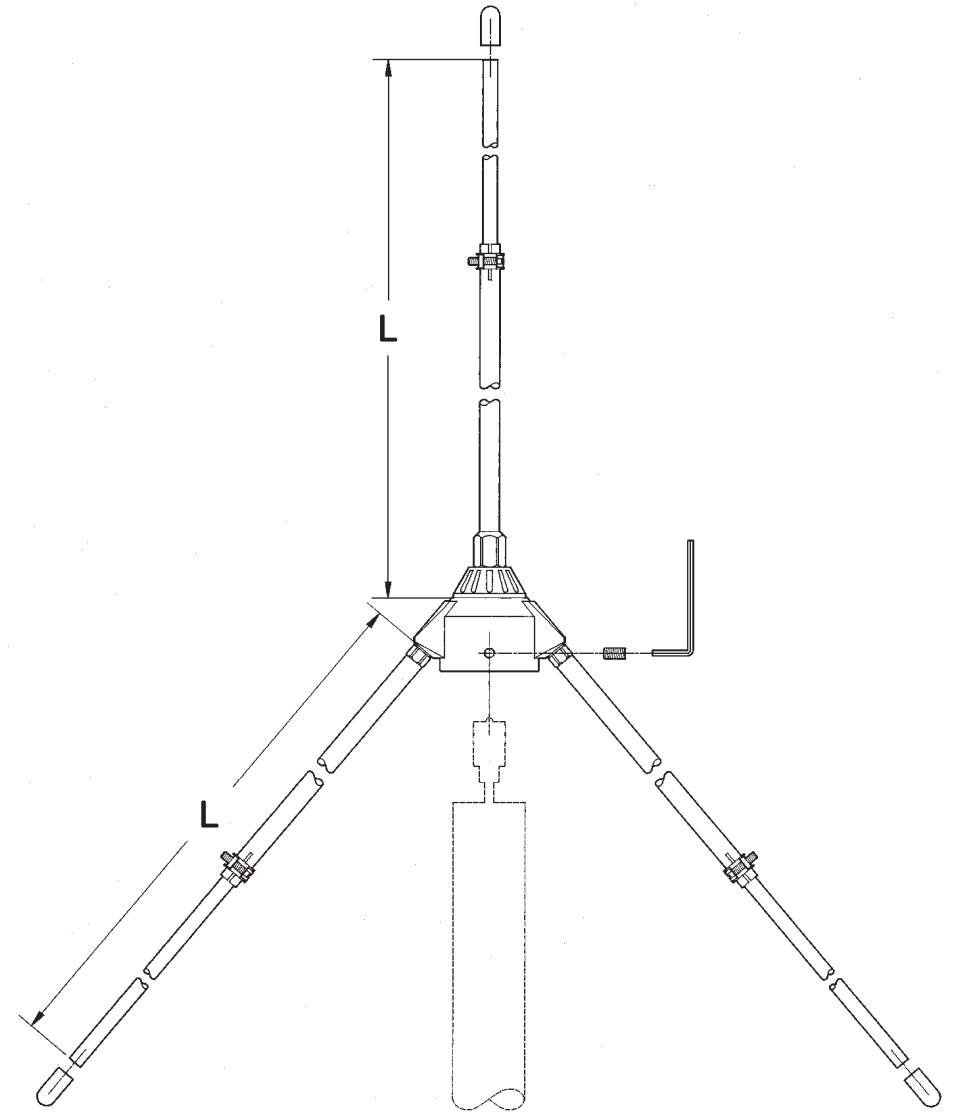
Materials	: Aluminium, Chromed Brass, Nylon, Stainless Steel
Wind Load / Resistance	: 85 N at 150 Km/h / 150 Km/h
Wind Surface	: 0.07 m <sup>2</sup>
Height (approx.)	: 3200 mm
Weight (approx.)	: 935 gr
Radial Length (approx)	: 1800 mm
Mounting Mast	: $\varnothing$ 35-40 mm



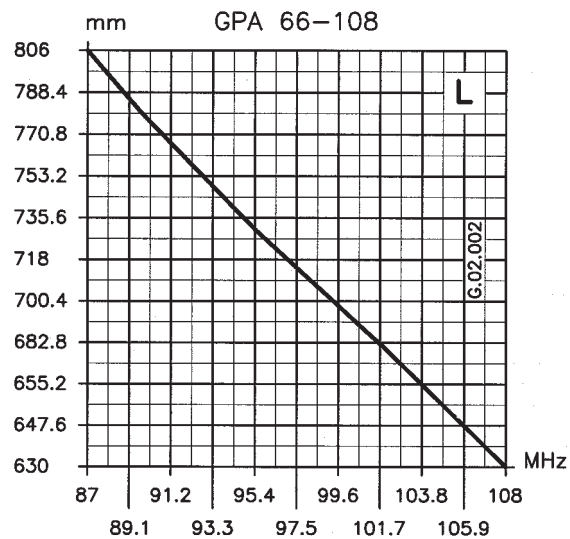
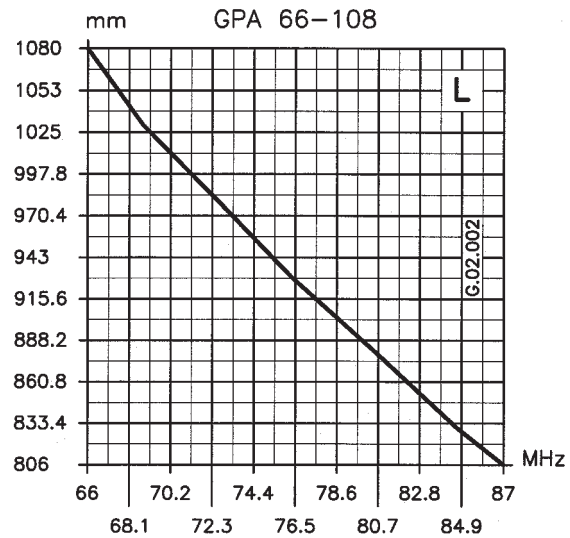
TYPICAL RADIATION PATTERN in E-plane at 40 MHz



## MOUNTING INSTRUCTIONS



**TYPICAL TUNING DIAGRAMS**



**NOTE:**

- It is recommended to use the curves as a guide and fine-tune using an SWR-Meter.

**Model GPA 66-108**  
VHF Ground Plane Antenna 66-108 MHz



**Installation Manual**

## DESCRIPTION

1/4  $\lambda$  Ground Plane antenna for base station service working on 66-108 MHz by means of the tuning diagram enclosed. It is entirely made of non-corrosive aluminium and assembled on a strong die-cast base which allows an easy and safe installation assuring very good performances.

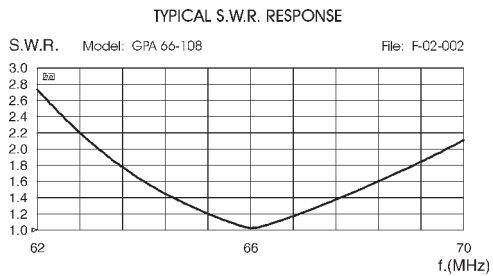
## SPECIFICATIONS

### Electrical Data

Type	:	1/4 $\lambda$ Ground Plane
Frequency Range	:	66-108 MHz tunable by diagram
Impedance	:	50 $\Omega$ Unbalanced
Radiation (H-plane)	:	360° Omnidirectional
Radiation (E-plane)	:	Beamwidth at -3 dB = 86°
Radiation angle deg.	:	0°
Polarization	:	Vertical
Gain	:	0 dBd - 2.14 dBi
Bandwidth at V.S.W.R. 2:1	:	6.5 MHz at 66 MHz
V.S.W.R. at res. freq.	:	$\leq 1.2 : 1$
Max Power	:	500 Watts
Feed System / Position	:	Direct / Center
Connection	:	UHF Female

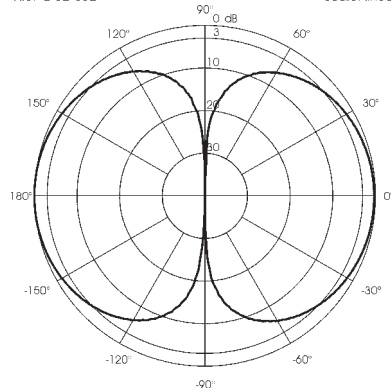
### Mechanical Data

Materials	:	Aluminium, Chromed Brass, Nylon, Stainless Steel
Wind Load / Resistance	:	54 N at 150 Km/h / 150 Km/h
Wind Surface	:	0.05 m <sup>2</sup>
Height (approx.)	:	1930 mm
Weight (approx.)	:	700 gr
Radial Length (approx)	:	1080 mm
Mounting Mast	:	$\varnothing$ 35-40 mm

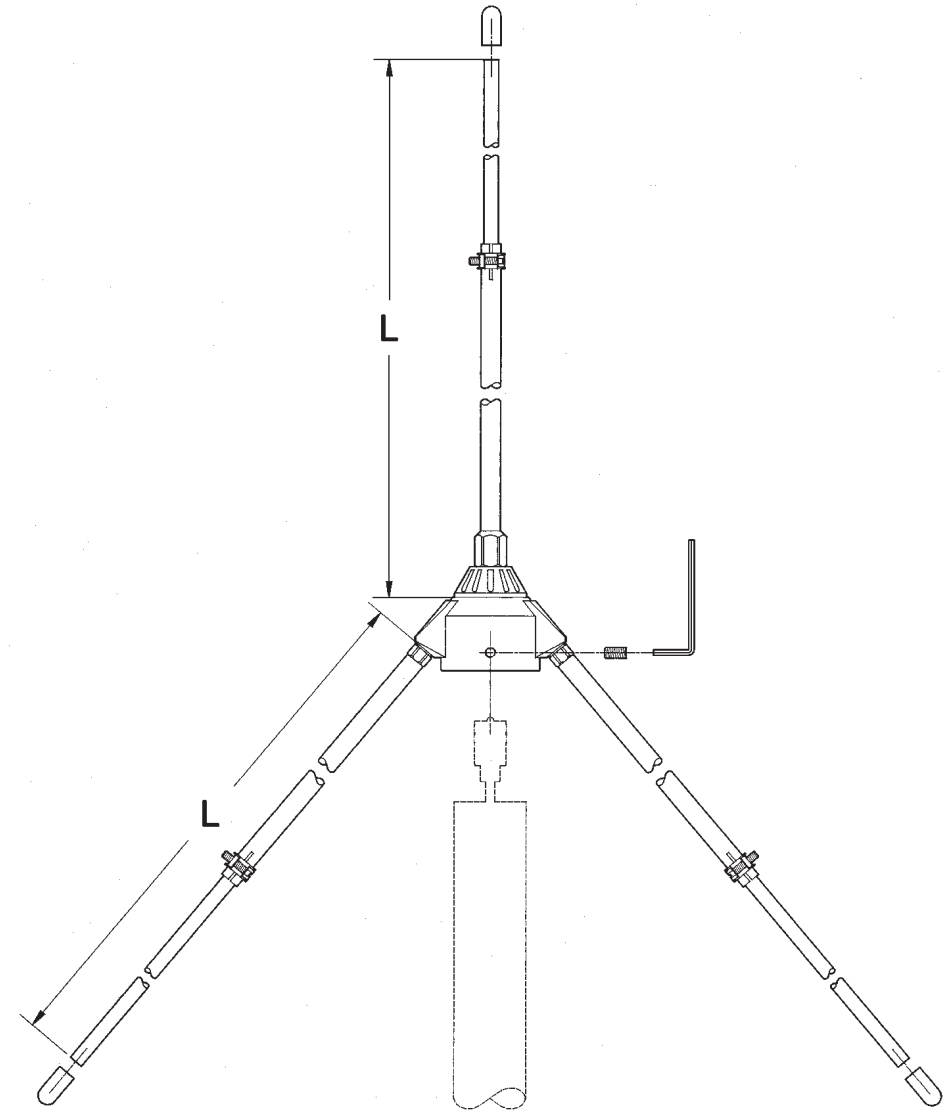


**TYPICAL RADIATION PATTERN in E-plane at 66 MHz**

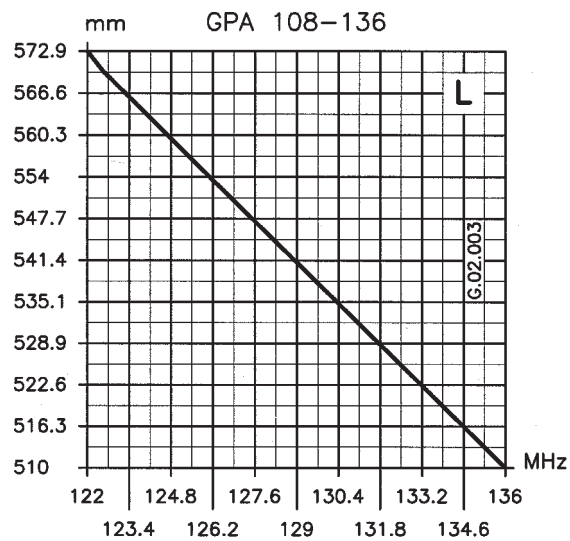
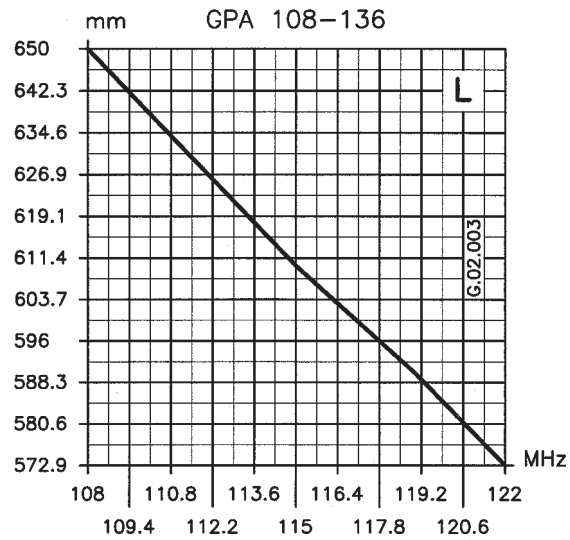
File: E-02-002 Scale: linear



## MOUNTING INSTRUCTIONS



**TYPICAL TUNING DIAGRAMS**



**NOTE:**

- It is recommended to use the curves as a guide and fine-tune using an SWR-Meter.

**Model GPA 108-136**  
VHF Ground Plane Antenna 108-136 MHz



**Installation Manual**

## DESCRIPTION

1/4  $\lambda$  Ground Plane antenna for base station service working on 108-136 MHz by means of the tuning diagram enclosed. It is entirely made of non-corrosive aluminium and assembled on a strong die-cast base which allows an easy and safe installation assuring very good performances.

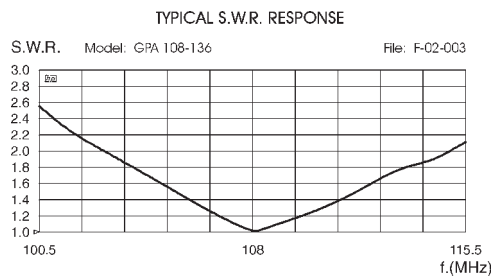
## SPECIFICATIONS

### Electrical Data

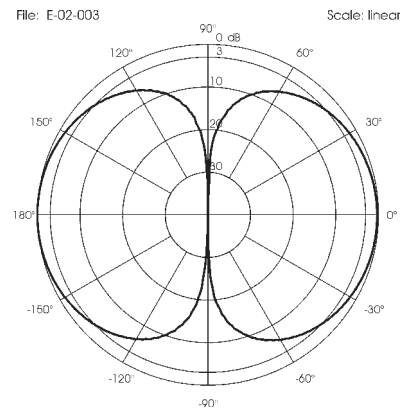
Type	:	1/4 $\lambda$ Ground Plane
Frequency Range	:	108-136 MHz tunable by diagram
Impedance	:	50 $\Omega$ Unbalanced
Radiation (H-plane)	:	360° Omnidirectional
Radiation (E-plane)	:	Beamwidth at -3 dB = 86°
Radiation angle deg.	:	0°
Polarization	:	Vertical
Gain	:	0 dBd - 2.15 dBi
Bandwidth at V.S.W.R. 2:1	:	12 MHz at 108 MHz
V.S.W.R. at res. freq.	:	$\leq 1.2 : 1$
Max Power	:	500 Watts
Feed System / Position	:	Direct / Center
Connection	:	UHF Female

### Mechanical Data

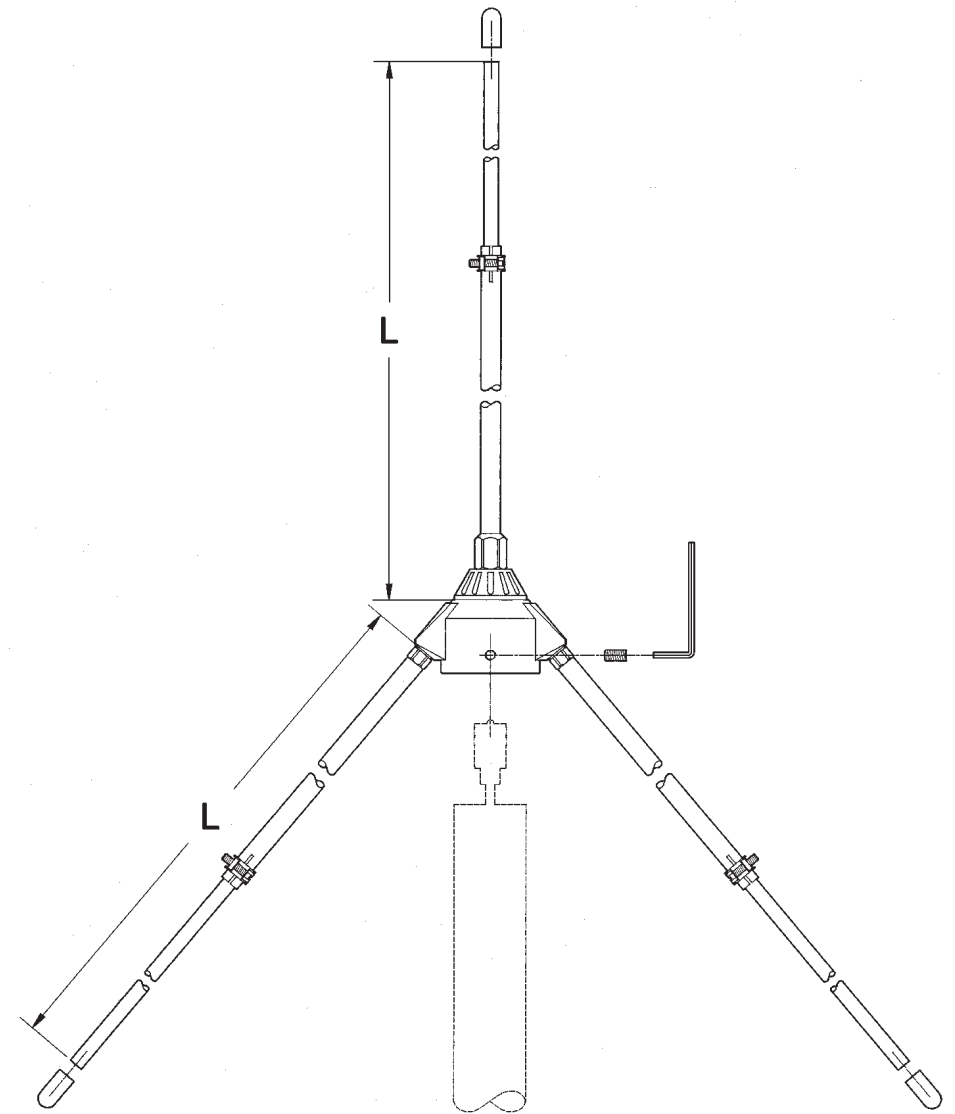
Materials	:	Aluminium, Chromed Brass, Nylon, Stainless Steel
Wind Load / Resistance	:	35 N at 150 Km/h / 150 Km/h
Wind Surface	:	0.03 m <sup>2</sup>
Height (approx.)	:	1185 mm
Weight (approx.)	:	565 gr
Radial Length (approx.)	:	650 mm
Mounting Mast	:	$\varnothing$ 35-40 mm



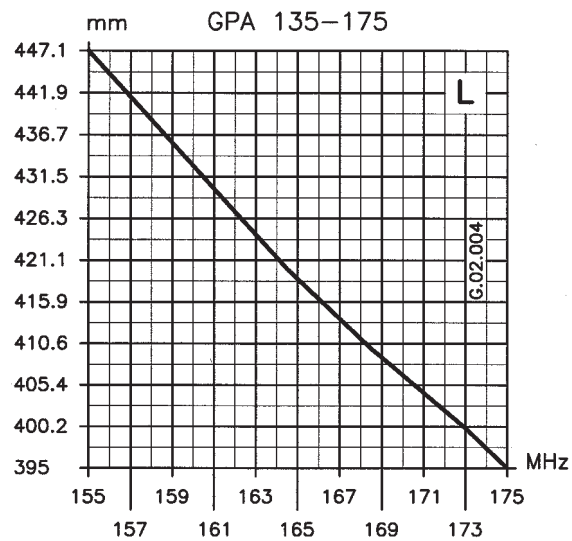
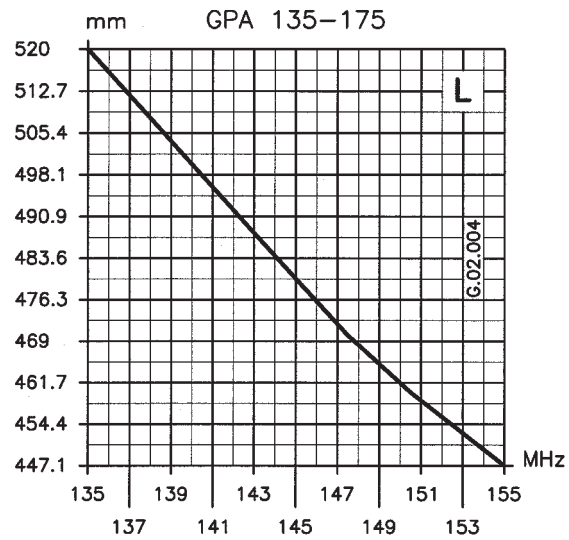
TYPICAL RADIATION PATTERN in E-plane at 108 MHz



## MOUNTING INSTRUCTIONS



## TYPICAL TUNING DIAGRAMS



### NOTE:

- It is recommended to use the curves as a guide and fine-tune using an SWR-Meter.

## Model GPA 135-175

VHF Ground Plane Antenna 135-175 MHz



## Installation Manual

## DESCRIPTION

1/4  $\lambda$  Ground Plane antenna for base station service working on 135-175 MHz by means of the tuning diagram enclosed. It is entirely made of non-corrosive aluminium and assembled on a strong die-cast base which allows an easy and safe installation assuring very good performances.

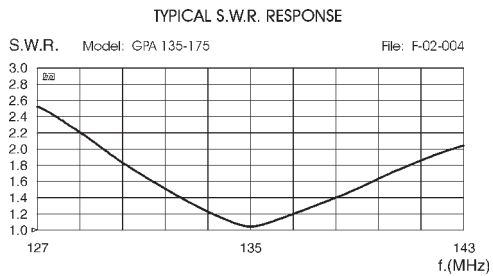
## SPECIFICATIONS

### Electrical Data

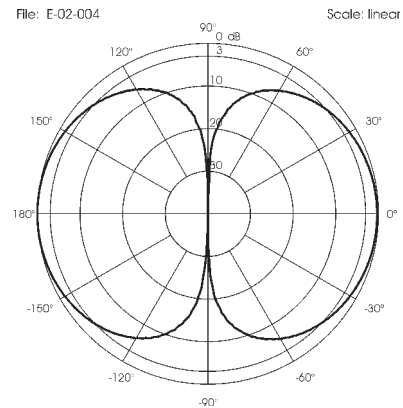
Type	: 1/4 $\lambda$ Ground Plane
Frequency Range	: 135-175 MHz tunable by diagram
Impedance	: 50 $\Omega$ Unbalanced
Radiation (H-plane)	: 360° Omnidirectional
Radiation (E-plane)	: Beamwidth at -3 dB = 86°
Radiation angle deg.	: 0°
Polarization	: Vertical
Gain	: 0 dBd - 2.15 dBi
Bandwidth at V.S.W.R. 2:1	: 13 MHz at 135 MHz
V.S.W.R. at res. freq.	: $\leq 1.2 : 1$
Max Power	: 300 Watts
Feed System / Position	: Direct / Center
Connection	: UHF Female

### Mechanical Data

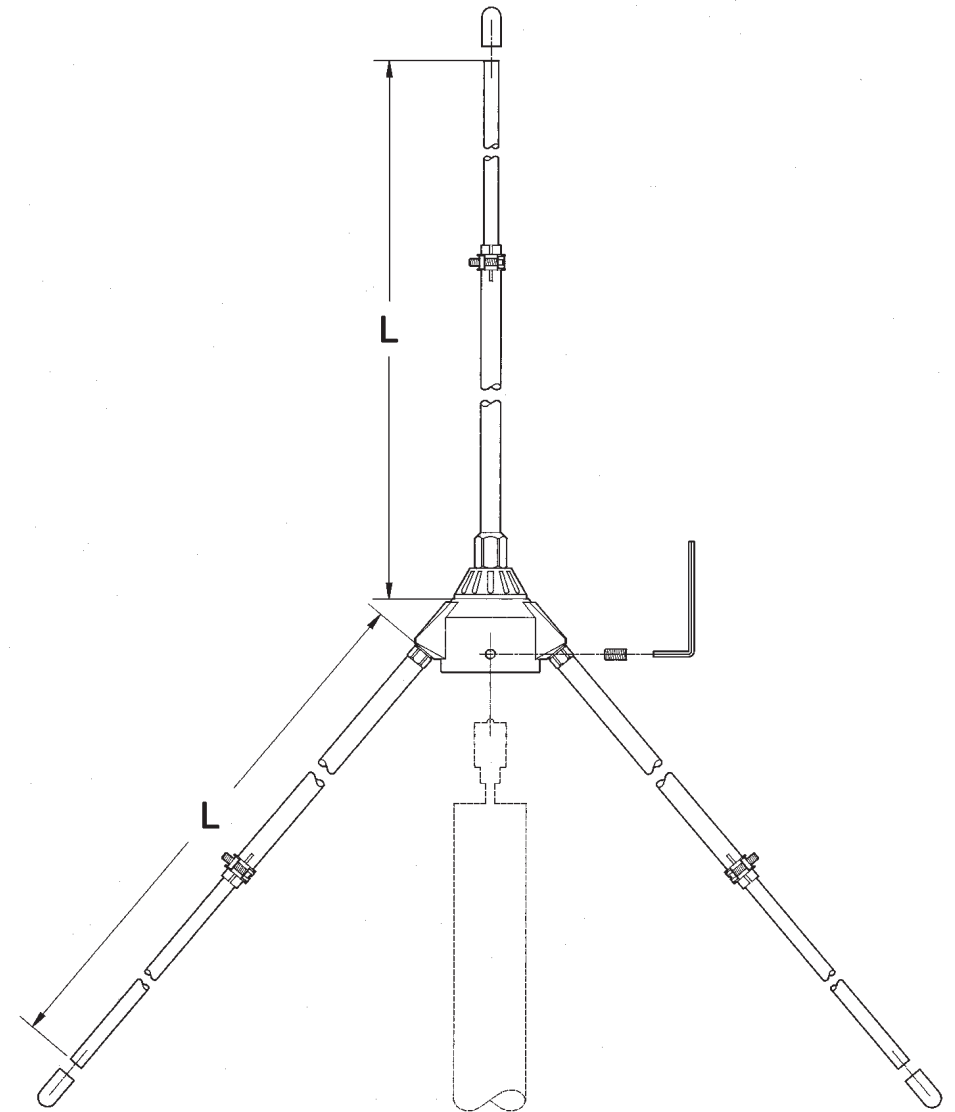
Materials	: Aluminium, Chromed Brass, Nylon, Stainless Steel
Wind Load / Resistance	: 29 N at 150 Km/h / 180 Km/h
Wind Surface	: 0.03 m <sup>2</sup>
Height (approx.)	: 960 mm
Weight (approx.)	: 520 gr
Radial Length (approx)	: 520 mm
Mounting Mast	: $\varnothing$ 35-40 mm



TYPICAL RADIATION PATTERN in E-plane at 135 MHz

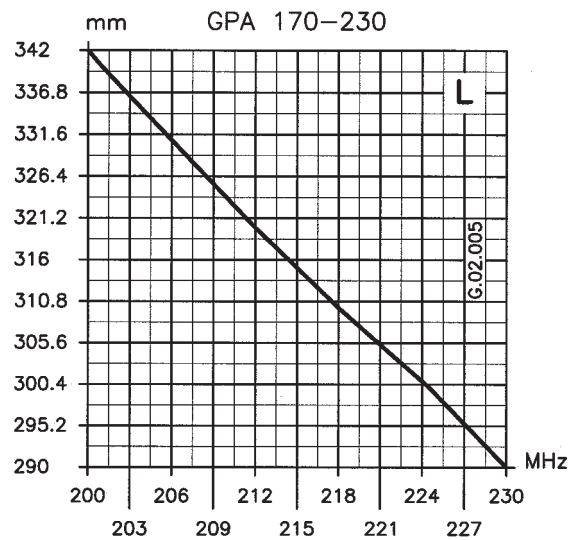
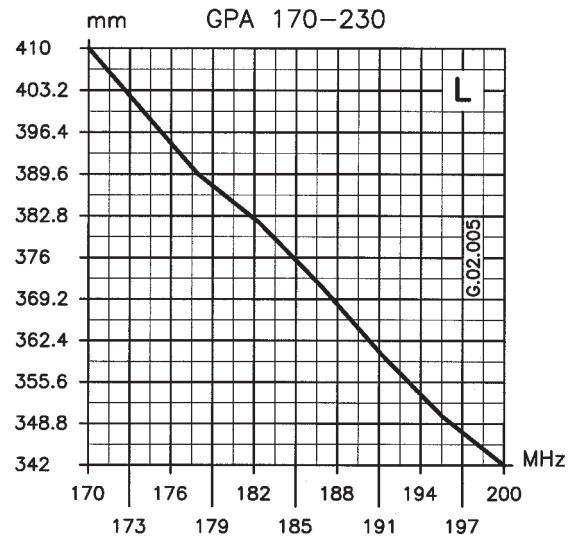


## MOUNTING INSTRUCTIONS





## TYPICAL TUNING DIAGRAMS



### NOTE:

- It is recommended to use the curves as a guide and fine-tune using an SWR-Meter.

# Model GPA 170-230

VHF Ground Plane Antenna 170-230 MHz



## Installation Manual

## DESCRIPTION

1/4  $\lambda$  Ground Plane antenna for base station service working on 170-230 MHz by means of the tuning diagram enclosed. It is entirely made of non-corrosive aluminium and assembled on a strong die-cast base which allows an easy and safe installation assuring very good performances.

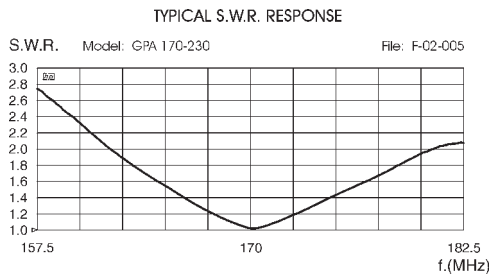
## SPECIFICATIONS

### Electrical Data

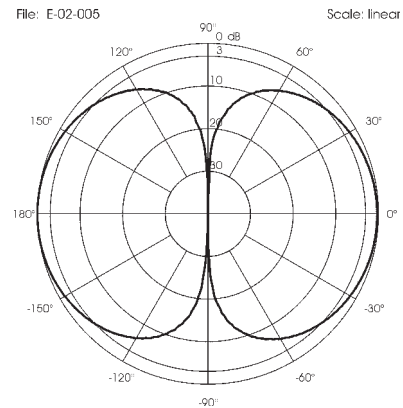
Type	:	1/4 $\lambda$ Ground Plane
Frequency Range	:	170-230 MHz tunable by diagram
Impedance	:	50 $\Omega$ Unbalanced
Radiation (H-plane)	:	360° Omnidirectional
Radiation (E-plane)	:	Beamwidth at -3 dB = 86°
Radiation angle deg.	:	0°
Polarization	:	Vertical
Gain	:	0 dBd - 2.15 dBi
Bandwidth at V.S.W.R. 2:1	:	19 MHz at 170 MHz
V.S.W.R. at res. freq.	:	$\leq 1.2 : 1$
Max Power	:	300 Watts
Feed System / Position	:	Direct / Center
Connection	:	UHF Female

### Mechanical Data

Materials	:	Aluminium, Chromed Brass, Nylon, Stainless Steel
Wind Load / Resistance	:	24 N at 150 Km/h / 180 Km/h
Wind Surface	:	0.02 m <sup>2</sup>
Height (approx.)	:	760 mm
Weight (approx.)	:	480 gr
Radial Length (approx)	:	410 mm
Mounting Mast	:	$\varnothing$ 35-40 mm



**TYPICAL RADIATION PATTERN in E-plane at 170 MHz**



## MOUNTING INSTRUCTIONS

