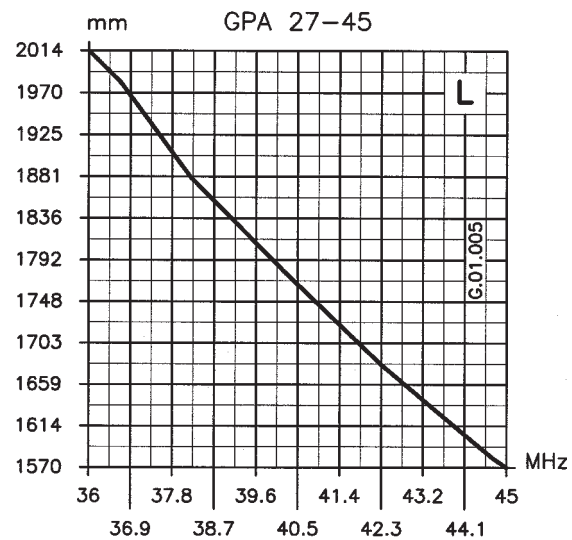
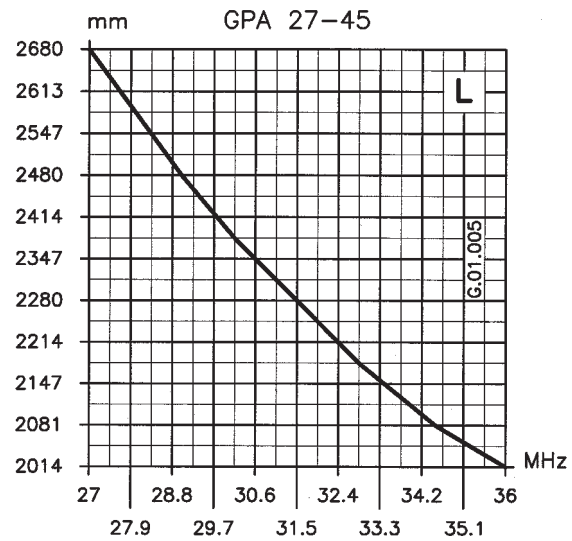


## TYPICAL TUNING DIAGRAMS



### NOTE:

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

## Model GPA 27-45

Ground Plane Antenna 27-45 MHz



*Installation Manual*

## DESCRIPTION

1/4  $\lambda$  Ground Plane antenna for base station service working on 27-45 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

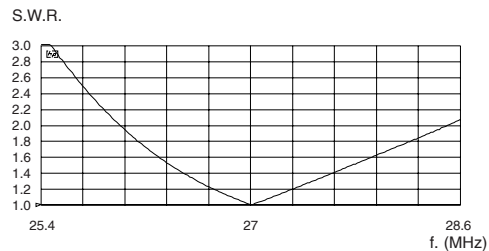
### Electrical Data

Type	:	1/4 $\lambda$ Ground Plane
Frequency Range	:	27-45 MHz tunable by diagram
Impedance	:	50 $\Omega$ Unbalanced
Radiation	:	Omnidirectional
Polarization	:	Vertical
Gain	:	0 dBd - 2.14 dBi
Bandwidth at V.S.W.R. 2:1	:	2.5 MHz at 27 MHz
V.S.W.R. at f. res.	:	$\leq 1.2 : 1$
Max Power	:	1000 Watts
Feed System / Position	:	Direct / Center
Connection	:	UHF Female

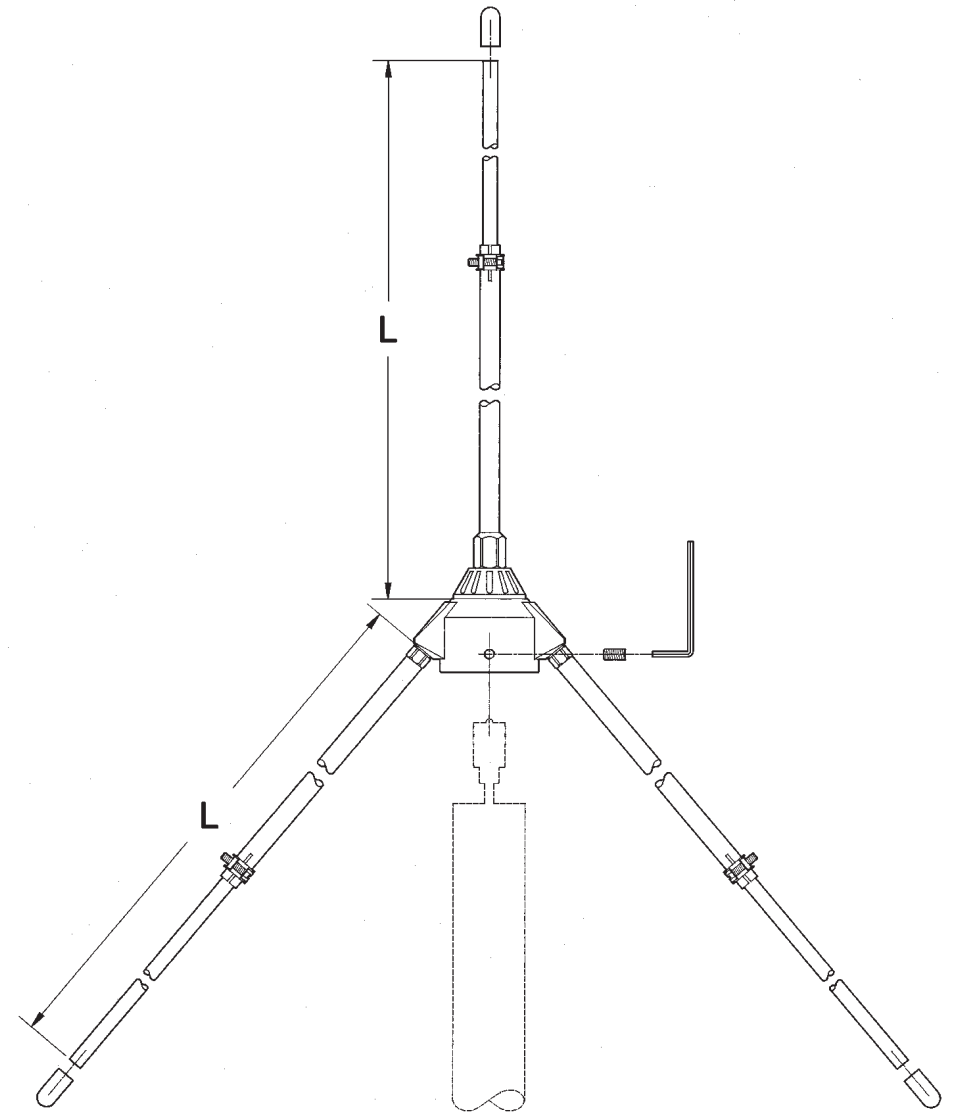
### Mechanical Data

Materials	:	Aluminium, Chromed Brass, Nylon, Stainless Steel
Wind Load / Resistance	:	126 N at 150 Km/h / 130 Km/h
Wind Surface	:	0.11 m <sup>2</sup>
Height (approx.)	:	4730 mm
Weight (approx.)	:	1250 gr
Radial Length (approx)	:	2680 mm
Mounting Mast	:	$\varnothing$ 35-40 mm

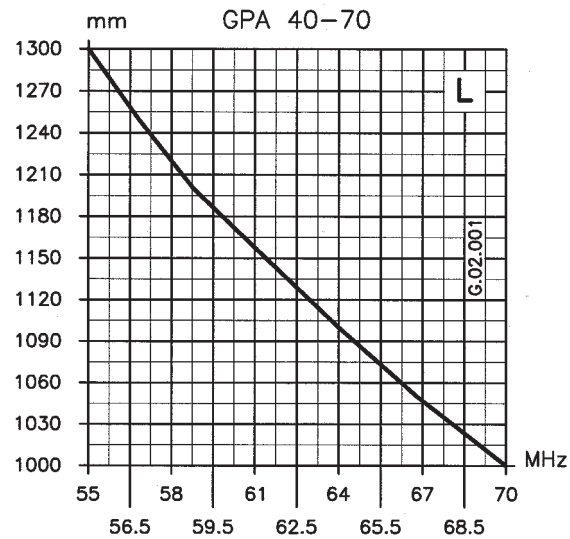
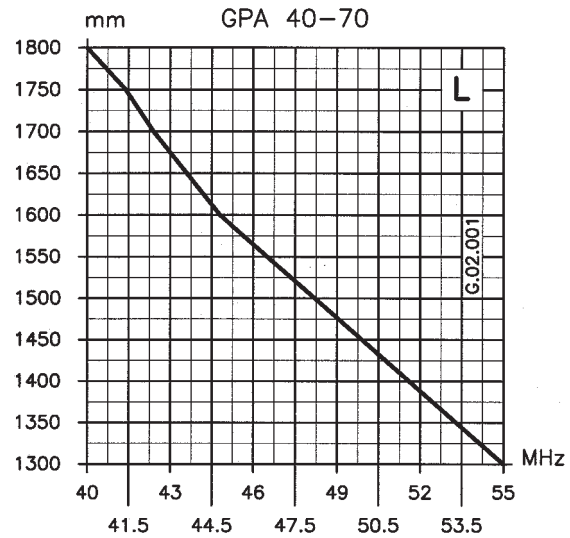
## TYPICAL S.W.R. RESPONSE



## 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 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.

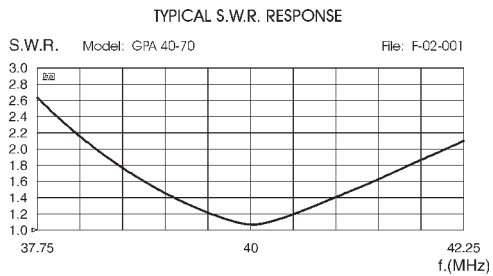
## SPECIFICATIONS

### Electrical Data

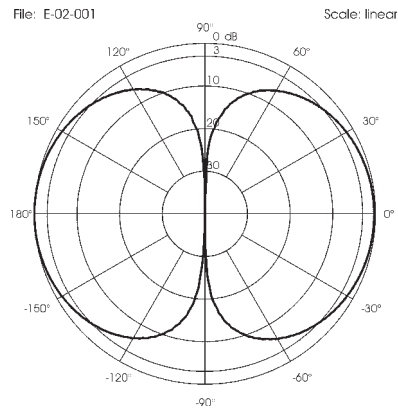
Type	:	1/4 $\lambda$ Ground Plane
Frequency Range	:	40-70 MHz tunable by diagram
Impedance	:	50 $\Omega$ Unbalanced
Radiation (H-plane)	:	360° Omnidirectional
Radiation (E-plane)	:	Beamwidth at -3 dB = 86°
Radiation angle deg.	:	0°
Polarization	:	Vertical
Gain	:	0 dBd - 2.15 dBi
Bandwidth at V.S.W.R. 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

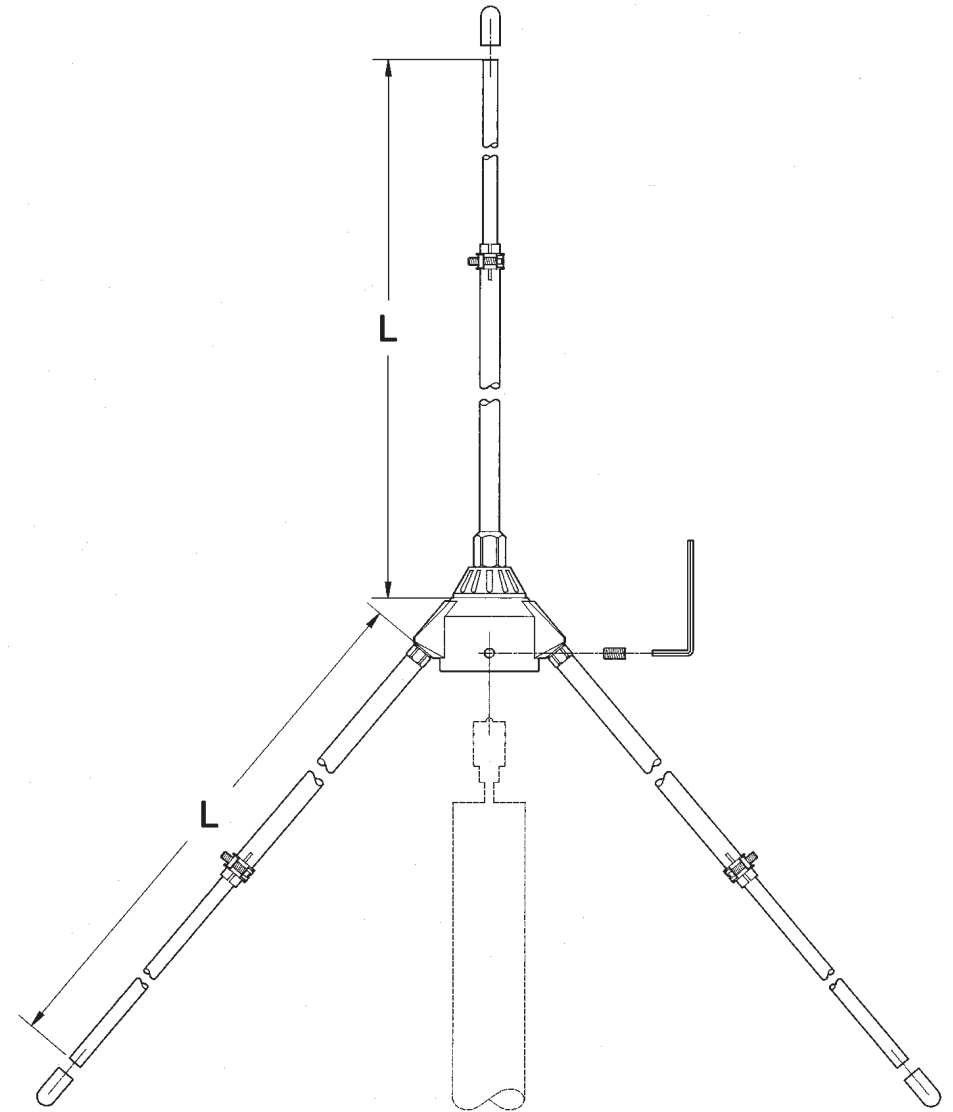
Materials	:	Aluminium, Chromed Brass, Nylon, Stainless Steel
Wind Load / Resistance	:	85 N at 150 Km/h / 150 Km/h
Wind Surface	:	0.07 m <sup>2</sup>
Height (approx.)	:	3200 mm
Weight (approx.)	:	935 gr
Radial Length (approx)	:	1800 mm
Mounting Mast	:	$\varnothing$ 35-40 mm



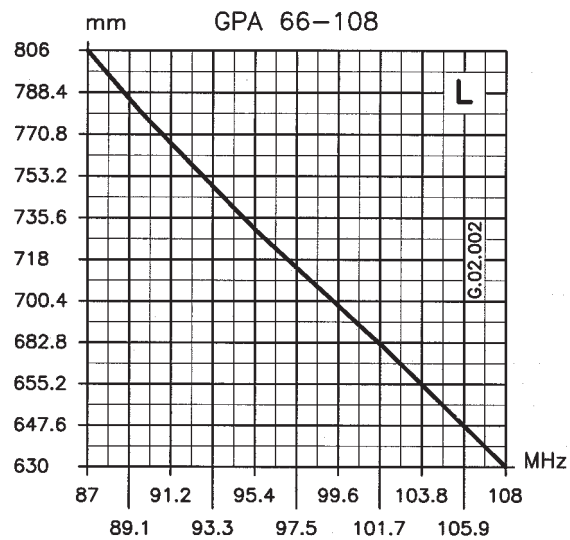
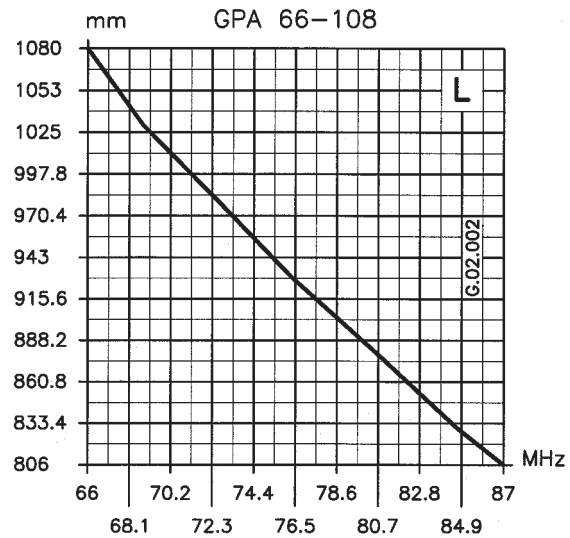
TYPICAL RADIATION PATTERN in E-plane at 40 MHz



## 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.

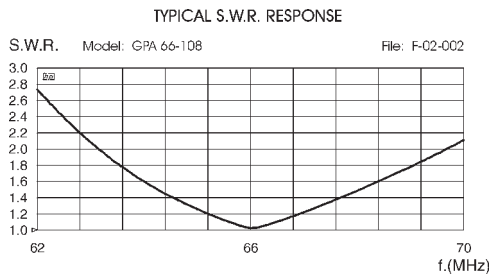
## SPECIFICATIONS

### 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

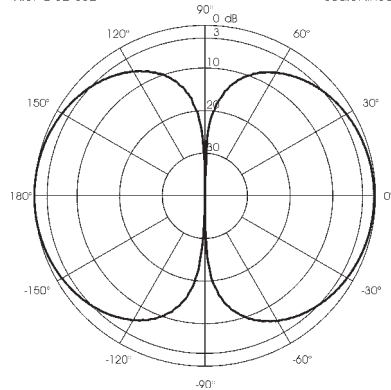
### Mechanical Data

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

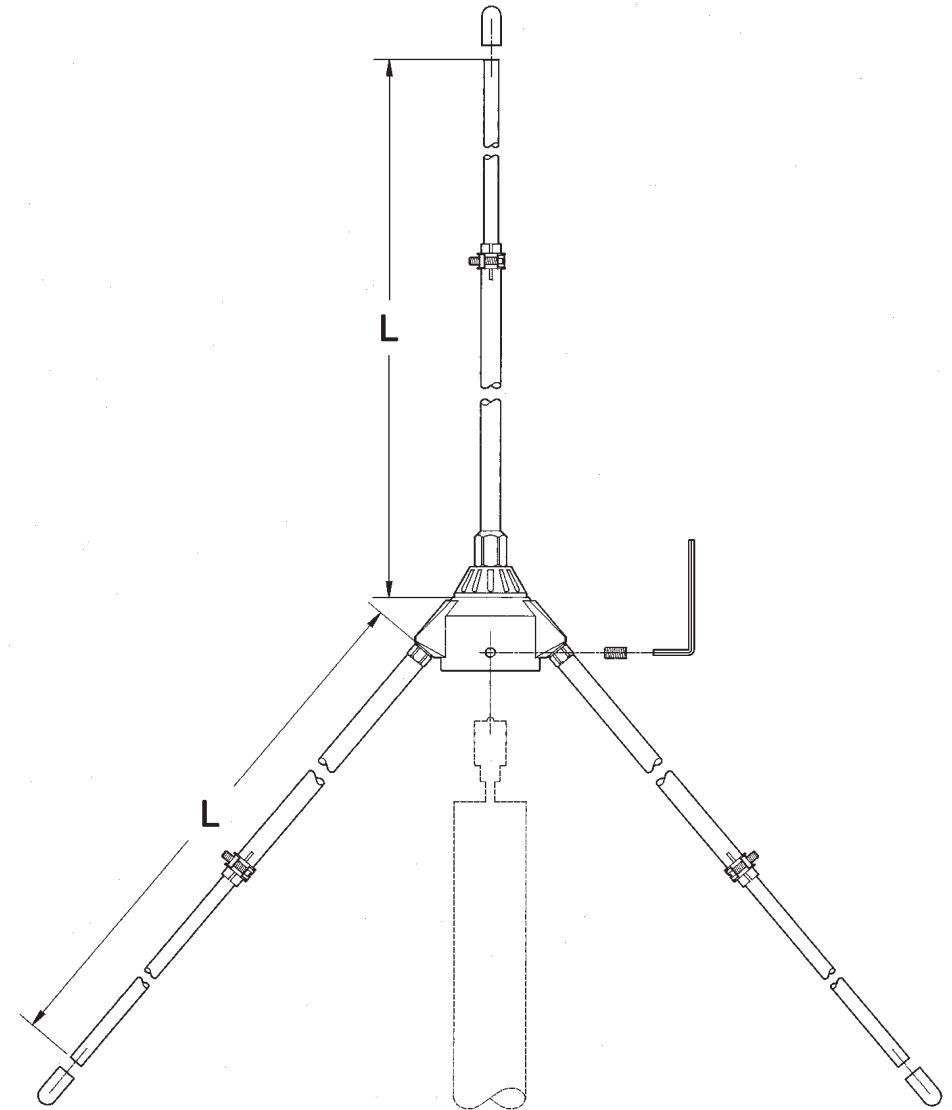


TYPICAL RADIATION PATTERN in E-plane at 66 MHz

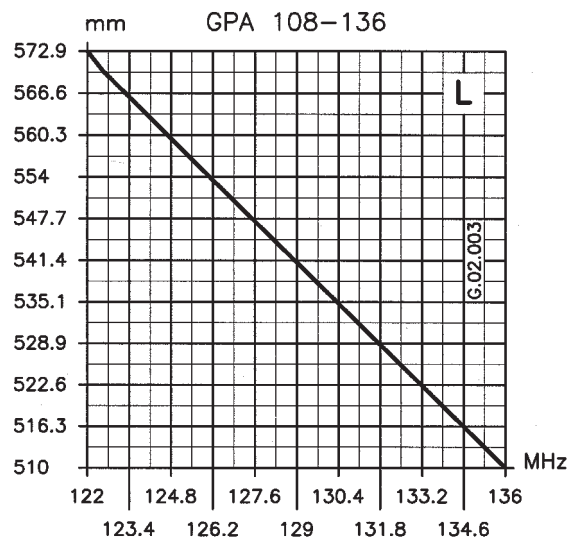
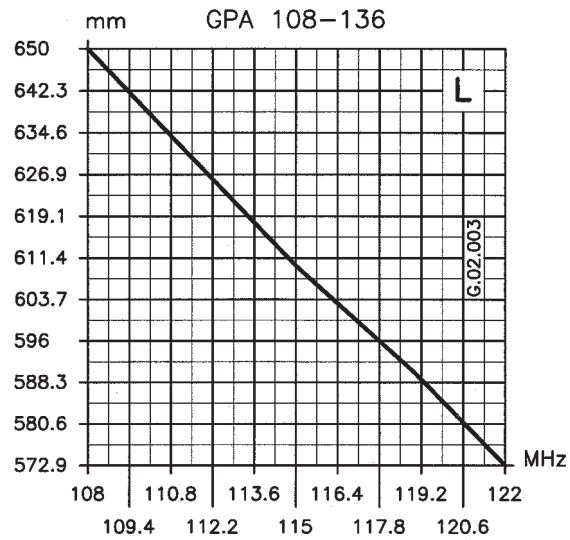
File: E-02-002 Scale: linear



## 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.

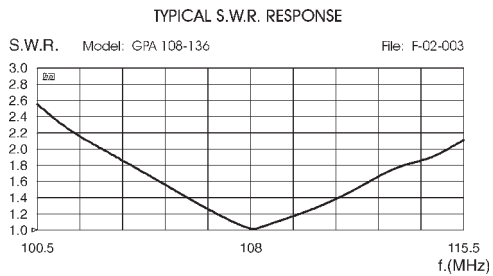
## SPECIFICATIONS

### Electrical Data

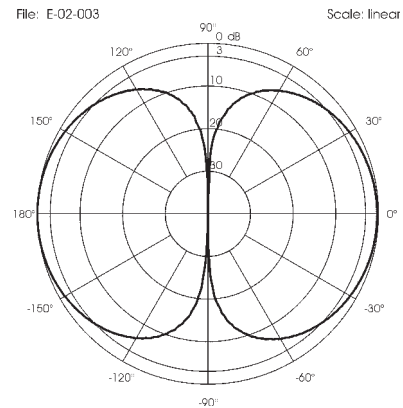
Type	:	1/4 $\lambda$ Ground Plane
Frequency Range	:	108-136 MHz tunable by diagram
Impedance	:	50 $\Omega$ Unbalanced
Radiation (H-plane)	:	360° Omnidirectional
Radiation (E-plane)	:	Beamwidth at -3 dB = 86°
Radiation angle deg.	:	0°
Polarization	:	Vertical
Gain	:	0 dBd - 2.15 dBi
Bandwidth at V.S.W.R. 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

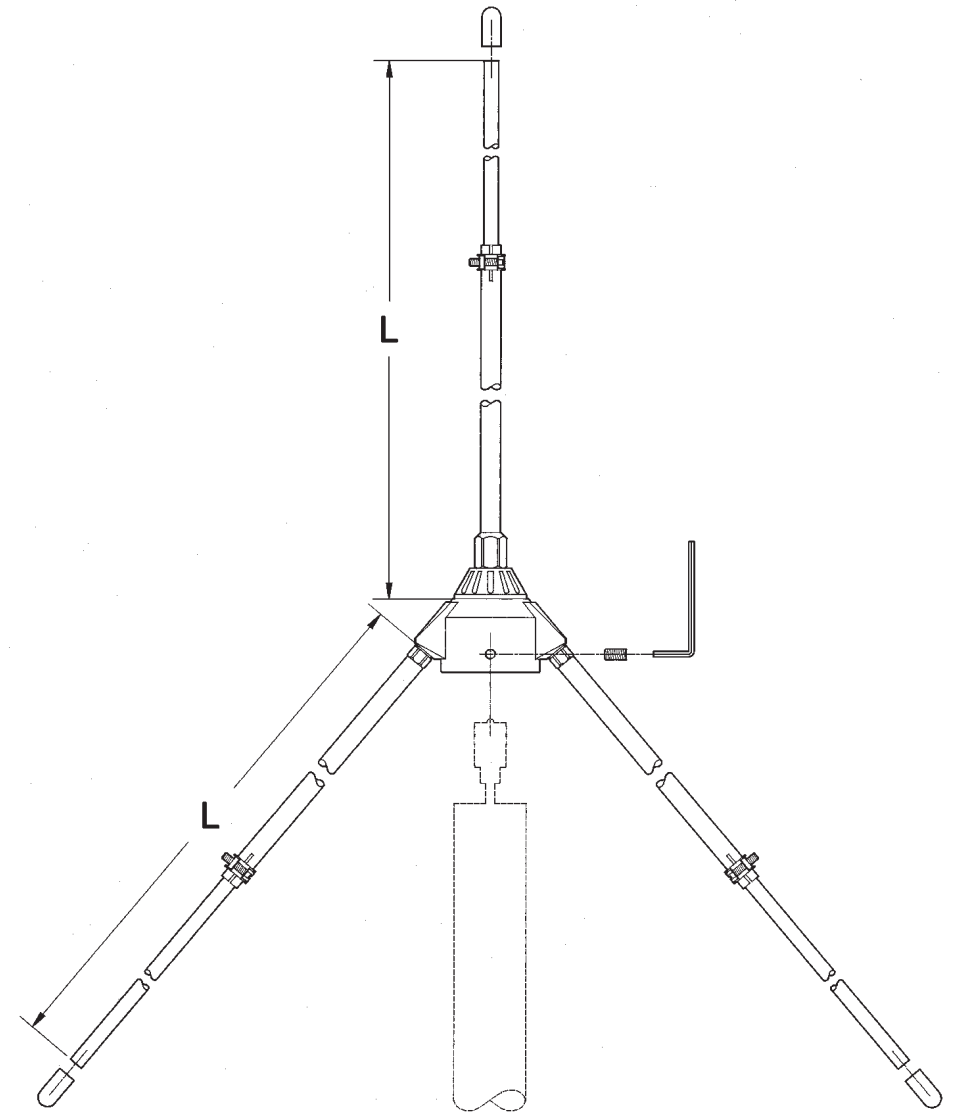
Materials	:	Aluminium, Chromed Brass, Nylon, Stainless Steel
Wind Load / Resistance	:	35 N at 150 Km/h / 150 Km/h
Wind Surface	:	0.03 m <sup>2</sup>
Height (approx.)	:	1185 mm
Weight (approx.)	:	565 gr
Radial Length (approx.)	:	650 mm
Mounting Mast	:	$\varnothing$ 35-40 mm



TYPICAL RADIATION PATTERN in E-plane at 108 MHz

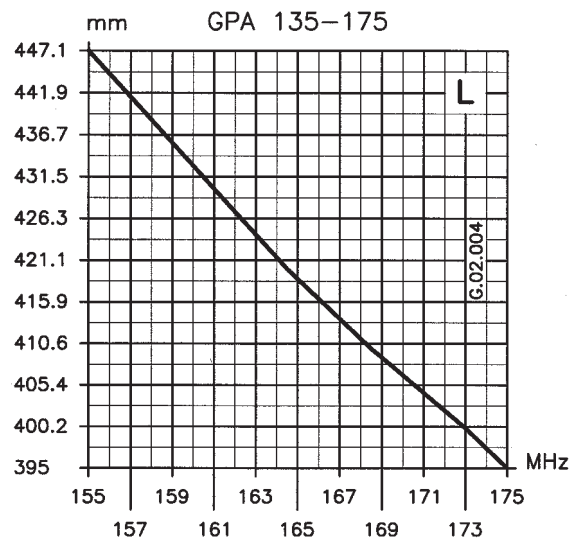
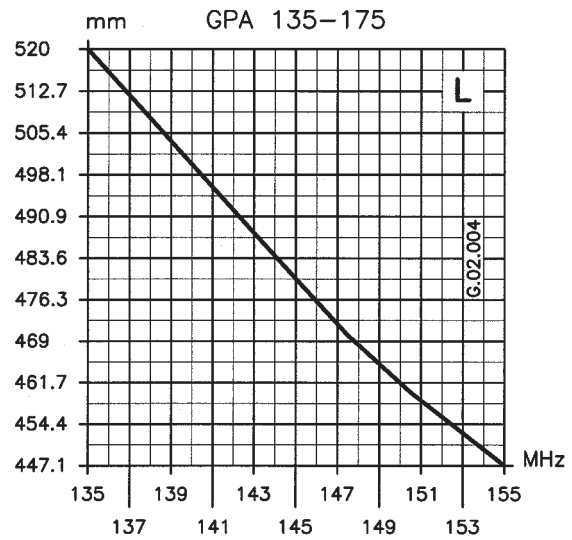


## MOUNTING INSTRUCTIONS





## 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.

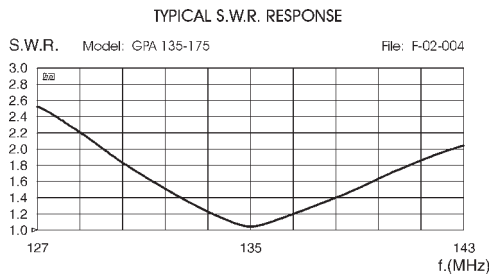
## SPECIFICATIONS

### Electrical Data

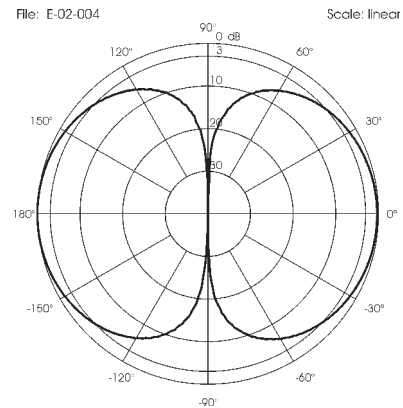
Type	:	1/4 $\lambda$ Ground Plane
Frequency Range	:	135-175 MHz tunable by diagram
Impedance	:	50 $\Omega$ Unbalanced
Radiation (H-plane)	:	360° Omnidirectional
Radiation (E-plane)	:	Beamwidth at -3 dB = 86°
Radiation angle deg.	:	0°
Polarization	:	Vertical
Gain	:	0 dBd - 2.15 dBi
Bandwidth at V.S.W.R. 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

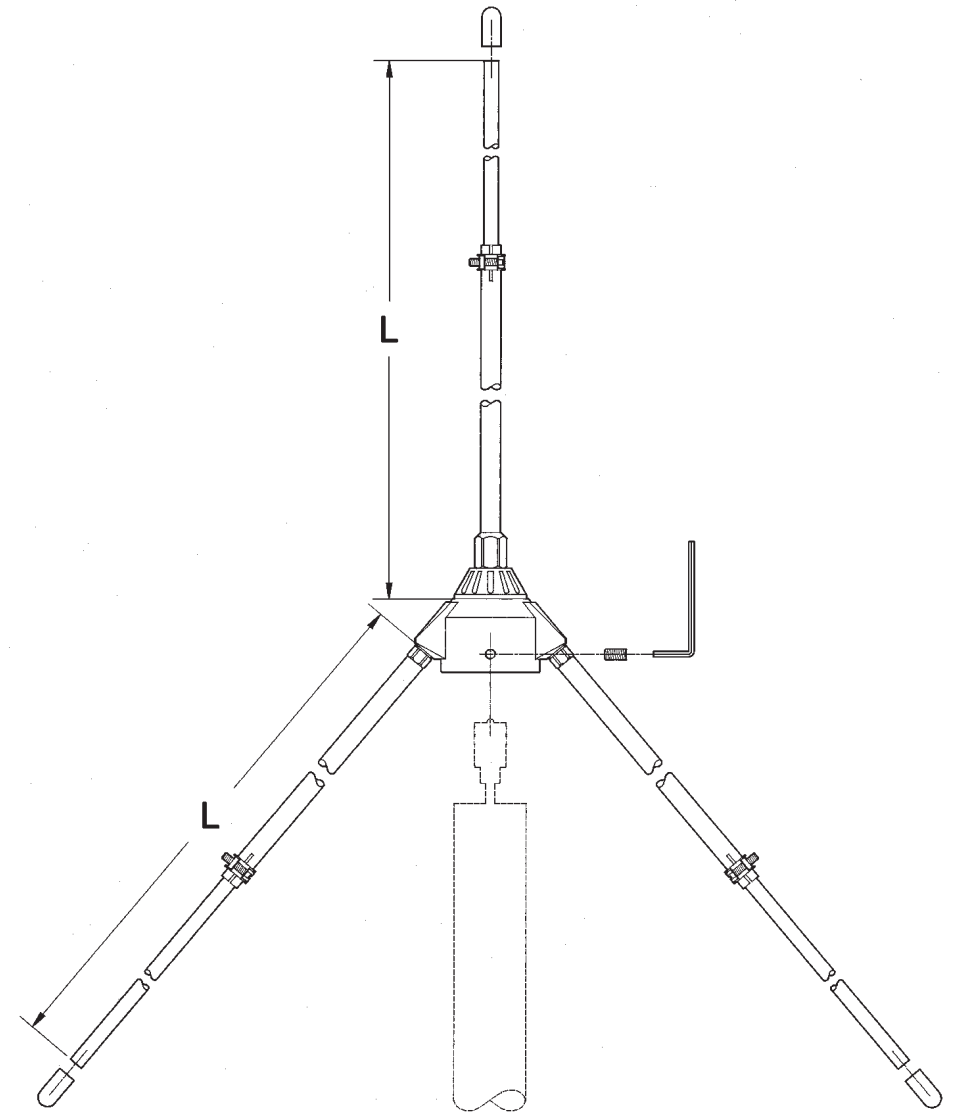
Materials	:	Aluminium, Chromed Brass, Nylon, Stainless Steel
Wind Load / Resistance	:	29 N at 150 Km/h / 180 Km/h
Wind Surface	:	0.03 m <sup>2</sup>
Height (approx.)	:	960 mm
Weight (approx.)	:	520 gr
Radial Length (approx)	:	520 mm
Mounting Mast	:	$\varnothing$ 35-40 mm



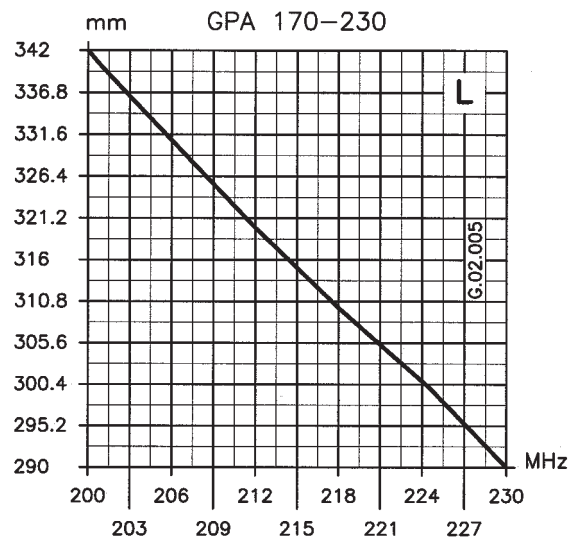
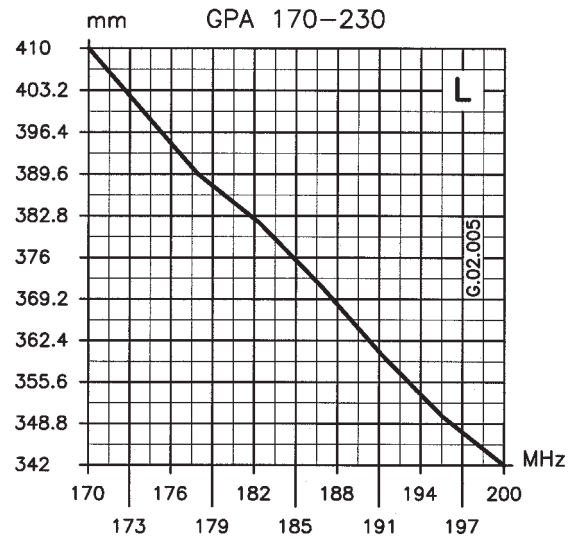
**TYPICAL RADIATION PATTERN in E-plane at 135 MHz**



## 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.

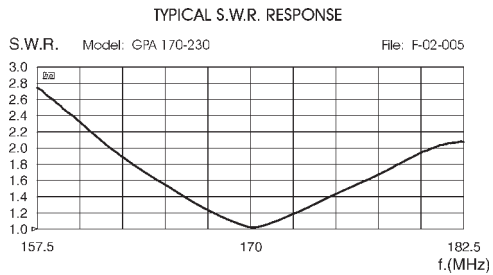
## SPECIFICATIONS

### Electrical Data

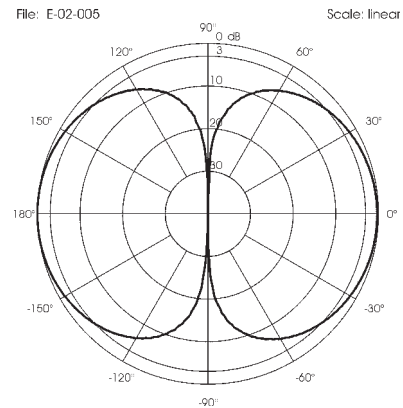
Type	:	1/4 $\lambda$ Ground Plane
Frequency Range	:	170-230 MHz tunable by diagram
Impedance	:	50 $\Omega$ Unbalanced
Radiation (H-plane)	:	360° Omnidirectional
Radiation (E-plane)	:	Beamwidth at -3 dB = 86°
Radiation angle deg.	:	0°
Polarization	:	Vertical
Gain	:	0 dBd - 2.15 dBi
Bandwidth at V.S.W.R. 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

