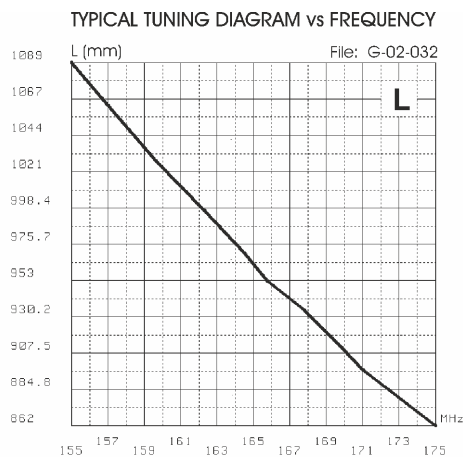
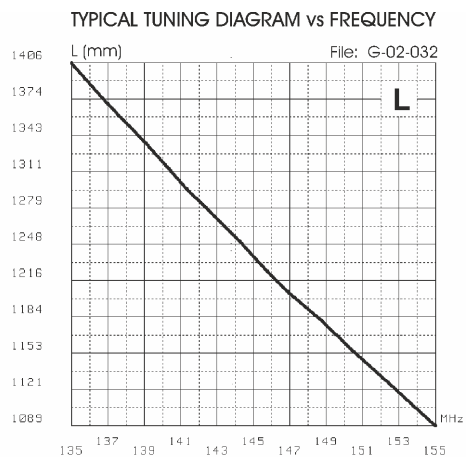


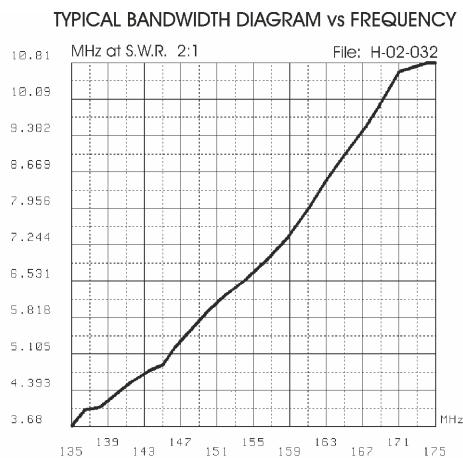
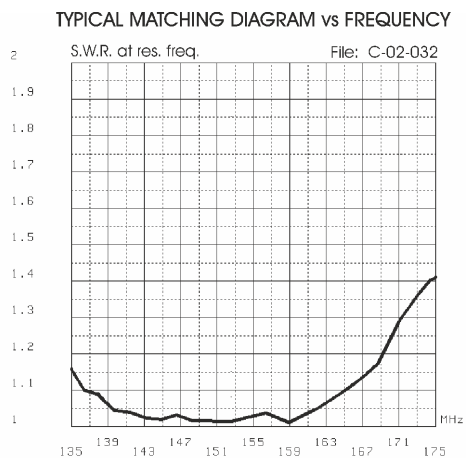
## TYPICAL TUNING DIAGRAMS



### NOTE:

- Use the curves just as a guide. For fine-tuning please use an SWR-Meter.

## MATCHING & BANDWIDTH DIAGRAMS



## GPF 22 N

VHF Base Station Antenna 135...175 MHz



HI-QUALITY ANTENNAS MADE IN ITALY

© Copyright SIRIO antenne - Technical Data are subjected to change - Printed in ITALY - Rev. 22/05/2024 - Cod. ID271

*Installation Manual*

## DESCRIPTION

2x5/8  $\lambda$  Ground Plane base station colinear antenna for land and marine service. It works on 135...175 MHz by using the cutting diagram enclosed. The matching coil is DC fed for a perfect protection from the static discharges. GPF 22-N is made of fiberglass, non-corrosive aluminium, stainless steel and its die-cast strong base assures the maximum robustness and the best performance. Tuning is easy by following the attached directions

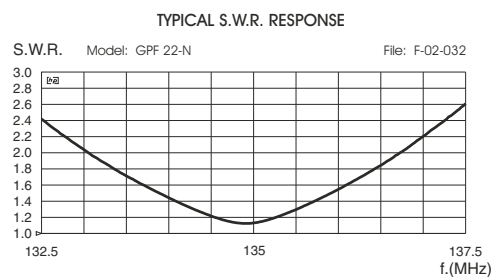
## SPECIFICATIONS

### Electrical Data

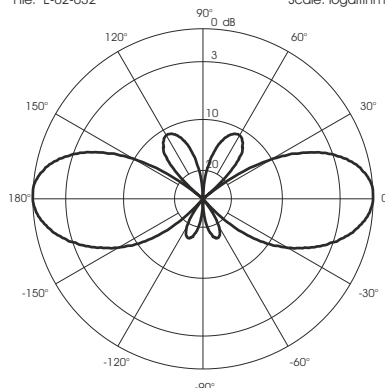
Type	: 2 x 5/8 $\lambda$ Ground Plane Colinear
Frequency Range	: 135...175 MHz tunable by cutting
Impedance	: 50 $\Omega$
Radiation (H-Plane)	: 360° Omnidirectional - HCM code = 000ND00
Radiation (E-Plane)	: Beamwidth @ -3 dB = 35° - HCM code = 018ND30
Radiation Angle deg.	: 0°
Polarization	: Linear Vertical
Gain	: 3.85 dBd, 6 dBi
Bandwidth @ SWR $\leq$ 2	: see diagram
SWR @ res. freq.	: see diagram
Max Power	: 200 Watts
Grounding Protection	: All metal parts are DC-grounded, the inner conductor is coupled capacitively
Connector	: N-female, Gold Plated central pin

### Mechanical Data

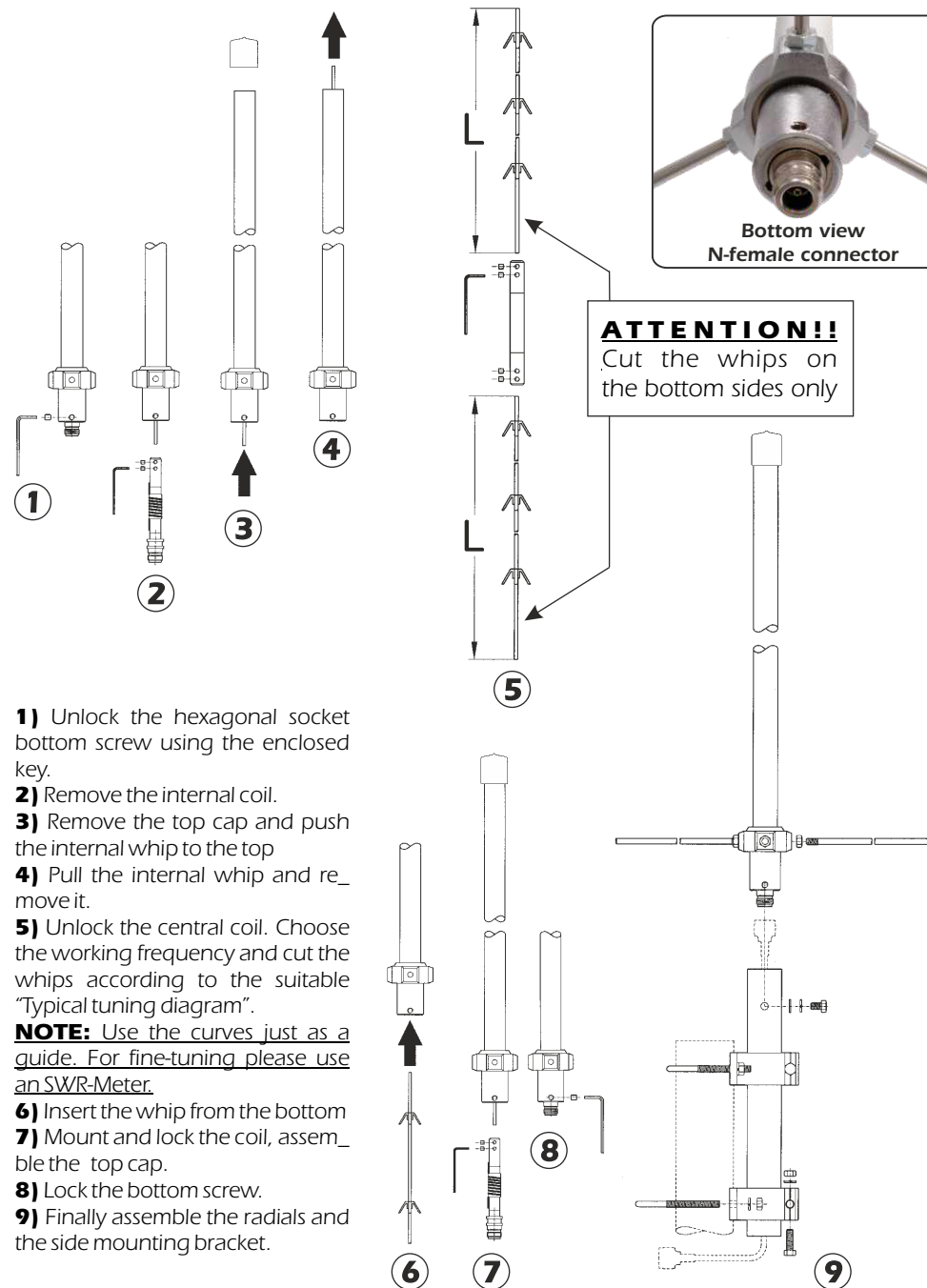
Materials	: Fiberglass, Aluminium, Brass, Stainless steel
Wind Load / Resistance	: 95 N @ 150 Km/h / 150 Km/h, 93 mi/h
Wind Surface	: 0.08 m <sup>2</sup> , 0.85 ft <sup>2</sup>
Height (approx.)	: 3230 mm, 10.6 ft
Weight (approx.)	: 1630 gr, 3.6 lb
Radial Length (approx.)	: 495 mm, 1.6 ft
Mounting Mast	: $\varnothing$ 35-60 mm, $\varnothing$ 1.4-2.4 in



TYPICAL RADIATION PATTERN in E-plane at 145 MHz  
File: E-02-032 Scale: logarithmic



## MOUNTING AND TUNING INSTRUCTIONS



**1)** Unlock the hexagonal socket bottom screw using the enclosed key.

**2)** Remove the internal coil.

**3)** Remove the top cap and push the internal whip to the top

**4)** Pull the internal whip and remove it.

**5)** Unlock the central coil. Choose the working frequency and cut the whips according to the suitable "Typical tuning diagram".

**NOTE:** Use the curves just as a guide. For fine-tuning please use an SWR-Meter.

**6)** Insert the whip from the bottom  
**7)** Mount and lock the coil, assemble the top cap.

**8)** Lock the bottom screw.

**9)** Finally assemble the radials and the side mounting bracket.