

GPS Antenna with a $\frac{1}{4} \lambda$ Whip with Shock Spring for the 160 MHz and FM Bands

DESCRIPTION

- External antenna whip mounted on the GPS-Combi mount.
 - Black-chromed, conical stainless steel whip.
 - Easily removable whip for car wash.
- GPS-antenna for fixed installations.
 - Full hemispherical coverage.
 - Built-in high gain, low noise amplifier.
 - Right-Hand Circularly Polarized antenna (RHCP).
 - 5 V supply voltage (3 V respectively 12 V available on request).
 - DC supply via RF-connector.
 - Sturdy, general-purpose $\frac{1}{4} \lambda$ antenna in professional quality.



ORDERING

Type	Product No.
GPS-C 2R/FM/...	132000062
LH 108/136-2G (optional)	200000762

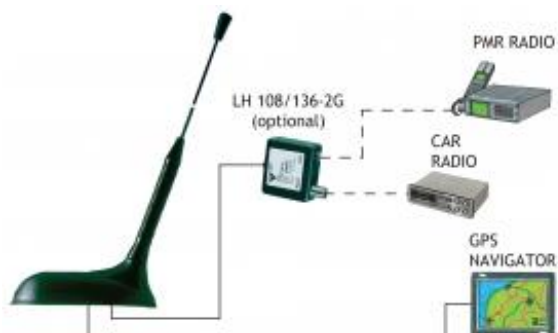
SPECIFICATIONS

Electrical	
Model	GPS-C 2R/FM/...
Frequency	Tunable by cutting within: 144 - 175 MHz also receives FM band (88 - 108 MHz)
Antenna Type	Mobile antenna
Polarisation	Vertical
Impedance	50 Ω
VSWR	< 1.3:1 @ F(res)
Maximum Input Power	30 W
Bandwidth	2 m: = 20 MHz @ SWR = 2.0
Gain (EIA RS-329-1)	0 dB

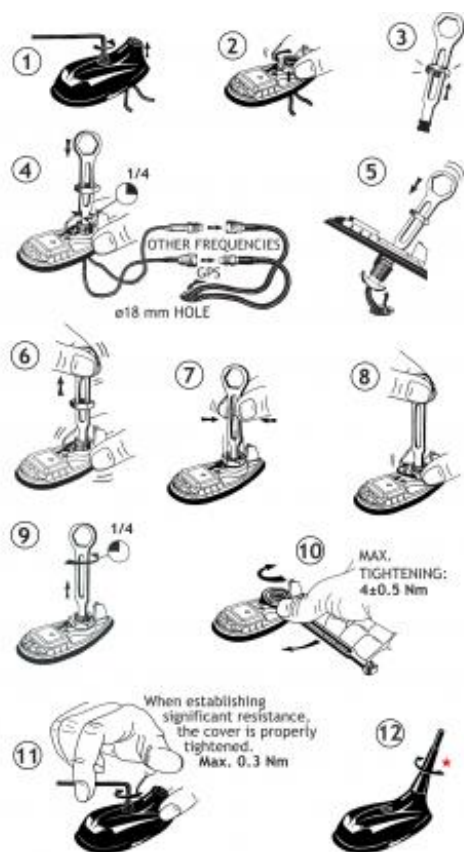
Mechanical	
Connection(s)	FME (male for GPS) + FME (female for mobile antenna)
Materials	Whip: Black-chromed, conical stainless steel Black-chromed brass Spring: Black-chromed, stainless steel
Colour	Black
Height	450 mm / 17.72 in.
Max. Roof Thickness	2.5 mm / 0.10 in.
Weight	0.05 kg / 0.11 lb
Mounting	$\varnothing$ 18.0 mm dia. hole for roof thickness up to 2.0 mm $\varnothing$ 18.5 mm dia. hole for roof thickness 2.0 - 2.5 mm Tools for mounting included

GPS Antenna	
P1dB (GPS Amplifier)	Approx. +7 dBm
Gain (GPS)	28 dBic in axial direction (typ.)
Antenna Type (GPS)	Active patch antenna
Noise Figure (GPS Amplifier)	< 1 dB (typ.)
Cross Polar Discrimination (GPS)	> 10 dB (typ.)
Gain (GPS Amplifier)	> 30 dB (typ.)
VSWR (GPS Amplifier)	< 2.0:1
Selectivity (GPS)	> 45 dB down @ +/- 45 MHz
Frequency (GPS)	1575 MHz
Weight (GPS)	0.114 kg / 0.25 lb
Power Supply (GPS)	5 $\pm$ 0.5 VDC (3 V resp. 12 V on request)
Current Consumption (GPS Amplifier)	0.025 mA
Dimensions (GPS)	Approx. 30 x 89 mm
Colour (GPS)	Black
Polarisation (GPS)	RHCP
Impedance (GPS)	50 Ω
Materials (GPS)	Cu-nite brass, Stainless steel, Reinforced thermoplastic

ADDITIONAL DATA



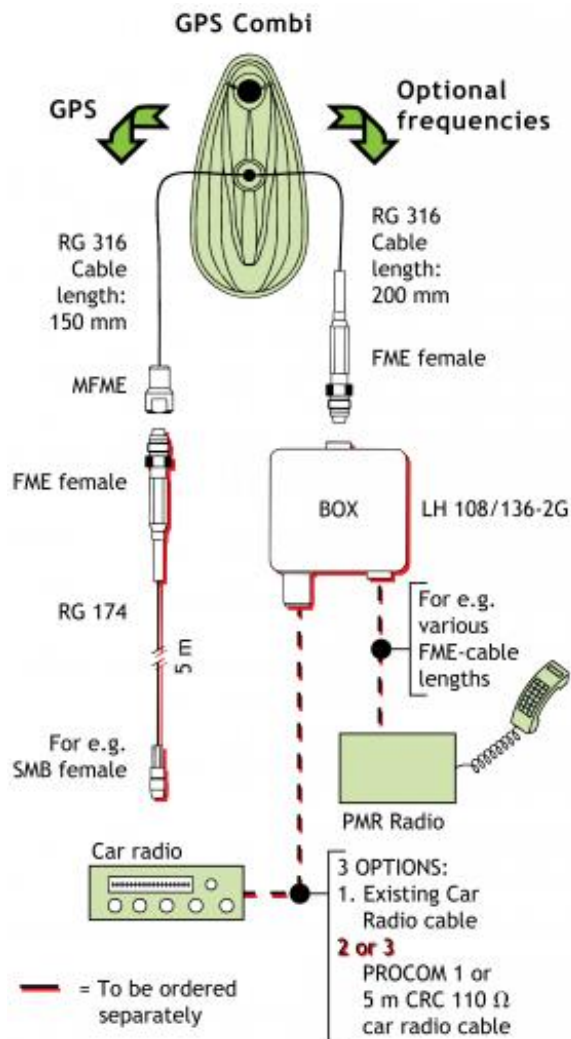
MOUNTING INSTRUCTIONS



★ The whip should always be dismounted during car wash.

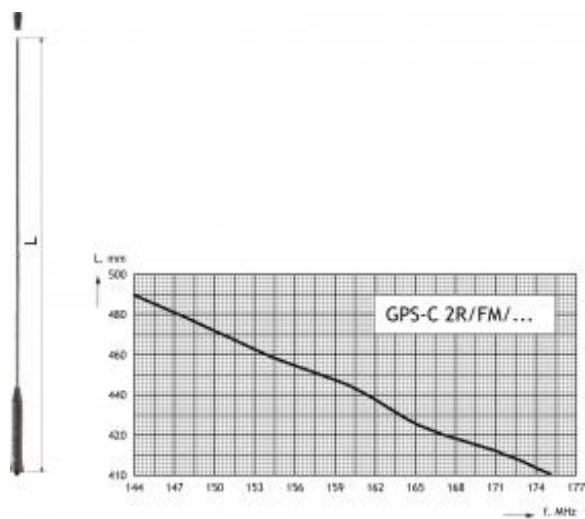
Do not use sealer on rubber gasket or other places

CABLE MOUNTING

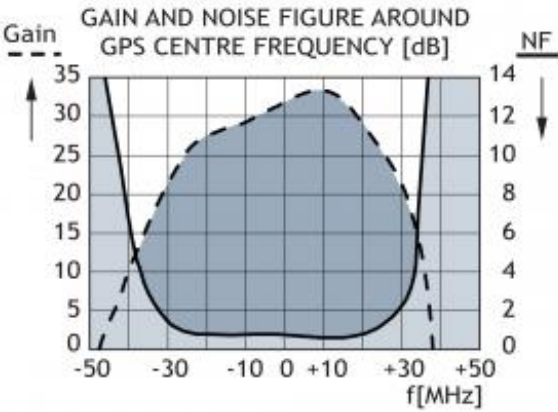
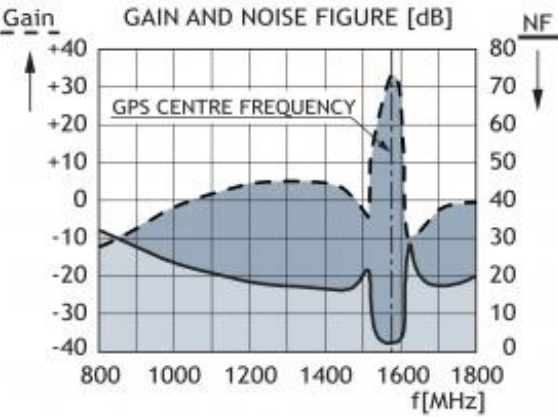


TUNING

The antenna should always be tuned using an SWR-meter. The cutting diagram below serves as a guide for this procedure.



TYPICAL RESPONSE CURVES



VERTICAL RADIATION PATTERN

