

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.
 - Sturdy, general-purpose $\frac{1}{4} \lambda$ antenna in professional quality.
 - Easily removable whip for cleaning in car-washing machine.
- 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.
- When ordering the antenna, please state the centre frequency on each band.

CONNECTION DIAGRAM



SPECIFICATIONS

Electrical	
Model	GPS-C 2R/FM/FQ
Frequency	Tunable by cutting within : 144 - 175 MHz also receives FM band (88 - 108 MHz)
Antenna Type	Mobile antenna
Max. Input Power	30 W
Polarisation	Vertical
Impedance	50 Ω
VSWR	< 1.3:1 @ f.res.
Bandwidth	2 m : ≥ 20 MHz @ VSWR ≤ 2.0
Gain (EIA RS-329-1)	0 dB
Mechanical	
Materials	Whip : Black-chromed, conical stainless steel Black-chromed brass Spring : Black-chromed, stainless steel
Colour	Black
Height	Approx. 450 mm / 17.72 in.
Weight	Approx. 0.05 kg / 0.11 lb.
Mounting	On the GPS-Combi mount

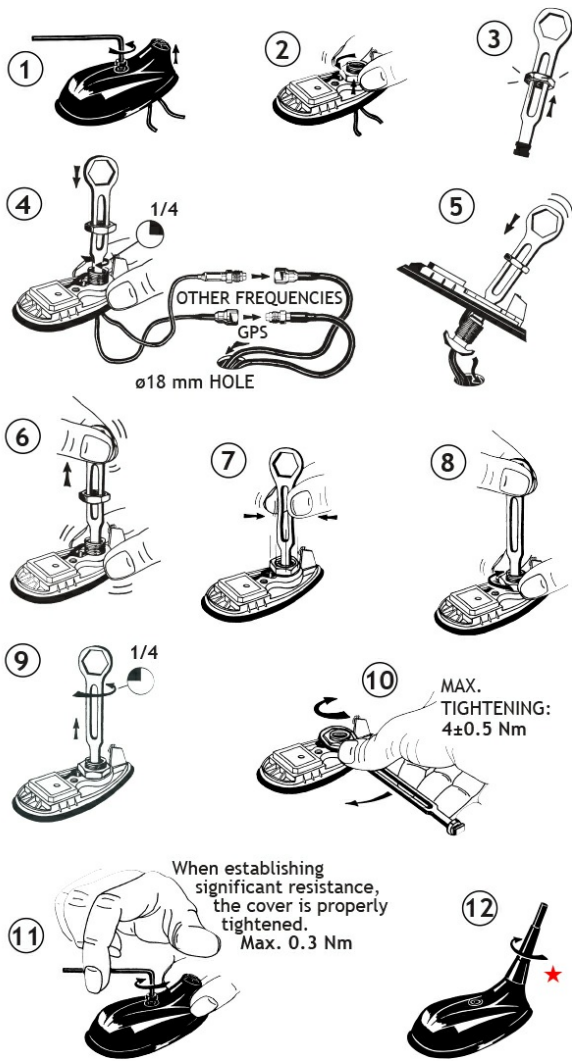


GPS Antenna	
P1dB (GPS Amplifier)	Approx. 7 dBm
Coverage (GPS)	Hemispherical
Gain (GPS)	28 dBic in axial direction (typ.)
Connection(s) (GPS)	FME(m) (male for GPS) + FME(f) (female for mobile antenna)
Mounting (GPS)	$\varnothing 18.0$ mm dia. hole for roof thickness up to 2.0 mm $\varnothing 18.5$ mm dia. hole for roof thickness 2.0 - 2.5 mm Tools for mounting included
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
Operating Temperature Range (GPS)	-35 $^{\circ}$ C to +75 $^{\circ}$ C
Selectivity (GPS)	> 45 dB down @ ± 45 MHz
Installation Torque (GPS)	4 \pm 0.5 Nm
Frequency (GPS)	1575 MHz
Weight (GPS)	Approx. 0.114 kg / 0.25 lb.
Power Supply (GPS)	5 \pm 0.5 V DC (3 V resp. 12 V on request)
Current Consumption (GPS Amplifier)	25 mA
Dimensions (GPS)	Approx. 30 x 89 mm / 0.9 x 2.9 in.
Max. Roof Thickness (GPS)	2.5 mm / 0.10 in.
Colour (GPS)	Black
Polarisation (GPS)	RHCP
Impedance (GPS)	50 Ω
Materials (GPS)	Cu-nite brass Stainless steel Reinforced thermoplastic

ORDERING

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

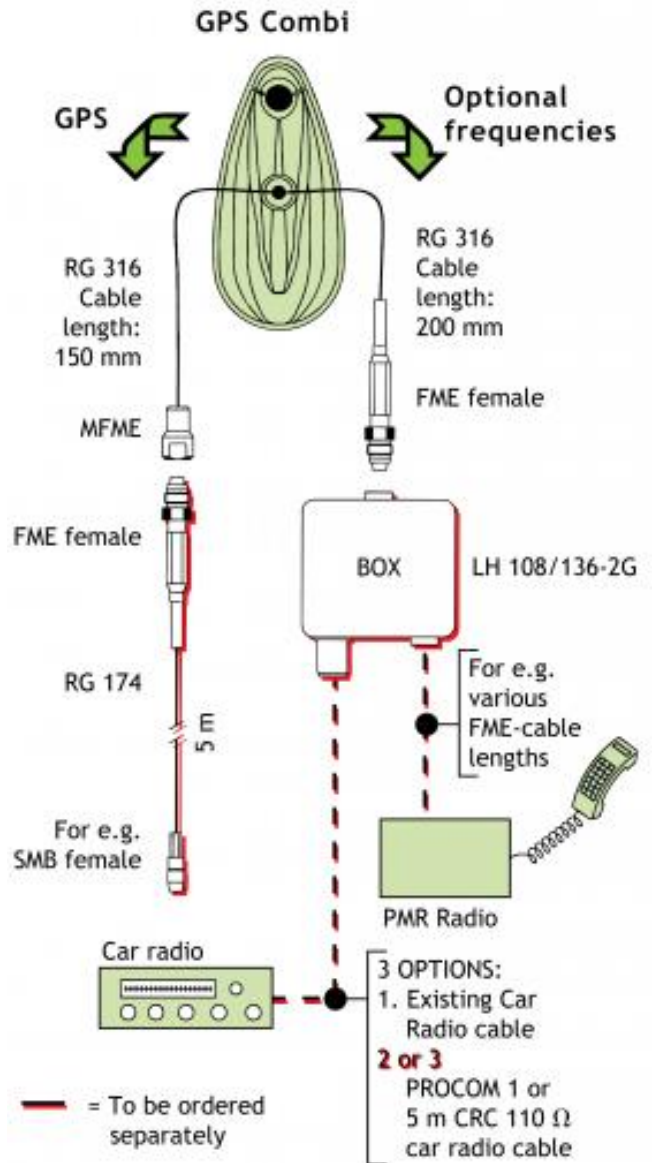
MOUNTING INSTRUCTIONS



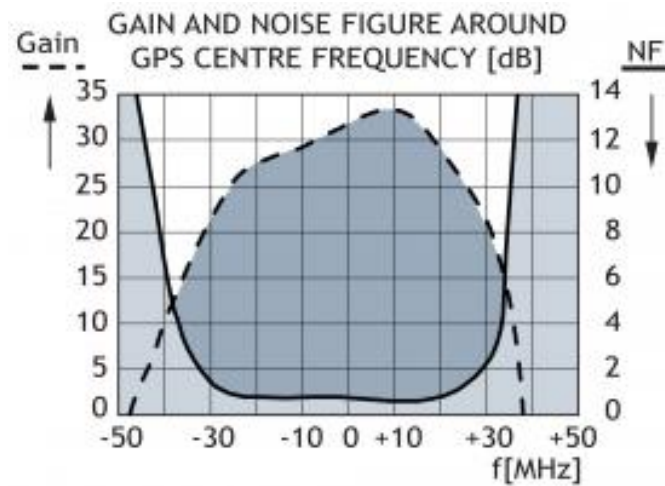
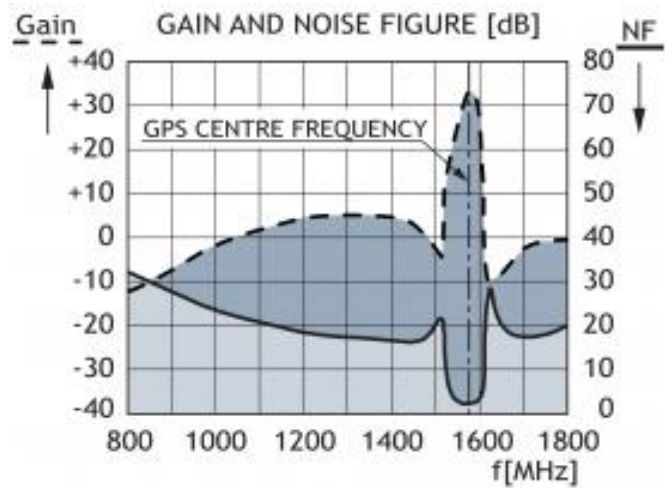
★ The whip should always be dismantled during car wash.

Do not use sealer on rubber gasket or other places

CABLE MOUNTING

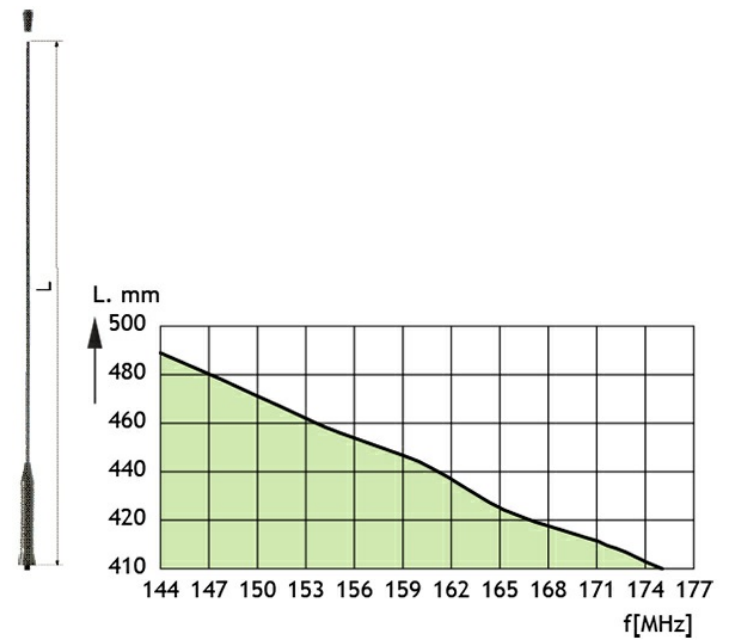


TYPICAL RESPONSE CURVES



TUNING

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



EU AND UK DECLARATION OF CONFORMITY

Hereby Amphenol Procom declare that the product type GPS-C 2R/FM/FQ is in compliance with EU Directive 2014/53/EU and the UK Radio Equipment Regulations 2017 (S.I. 2017 No. 1206). The full text of the Declaration of Conformity is available at:

<https://amphenolprocom.com/images/shop/catalog/pdf-for-catalogues/Declaration-of-Conformity-GPS-C-2.pdf>

VERTICAL RADIATION PATTERN

