

## GPS Antenna with Whip with Shock Spring for the 160 MHz, 450 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/70/FM                                        |
| Frequency        | 2 m: 145 MHz<br>70 cm: 435 MHz<br>FM band: 88-108 MHz |
| Antenna Type     | Mobile antenna                                        |
| Max. Input Power | 25 W                                                  |
| Polarisation     | Vertical                                              |
| Impedance        | 50 $\Omega$                                           |
| VSWR             | < 1.3:1 @ f. res.                                     |
| Bandwidth        | 2 m: 20 MHz<br>70 cm: 40 MHz @ VSWR $\leq$ 2.0        |

| Mechanical |                                                                                                                                       |
|------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Materials  | Whip: Black-chromed, conical stainless steel<br>Black-chromed brass<br>Mount: Weather- and shockproof plastics<br>Black-chromed brass |
| Colour     | Black                                                                                                                                 |
| Height     | 492 mm / 19.37 in.                                                                                                                    |
| Weight     | 0.05 kg / 0.11 lb.                                                                                                                    |
| Mounting   | On the GPS-Combi mount                                                                                                                |

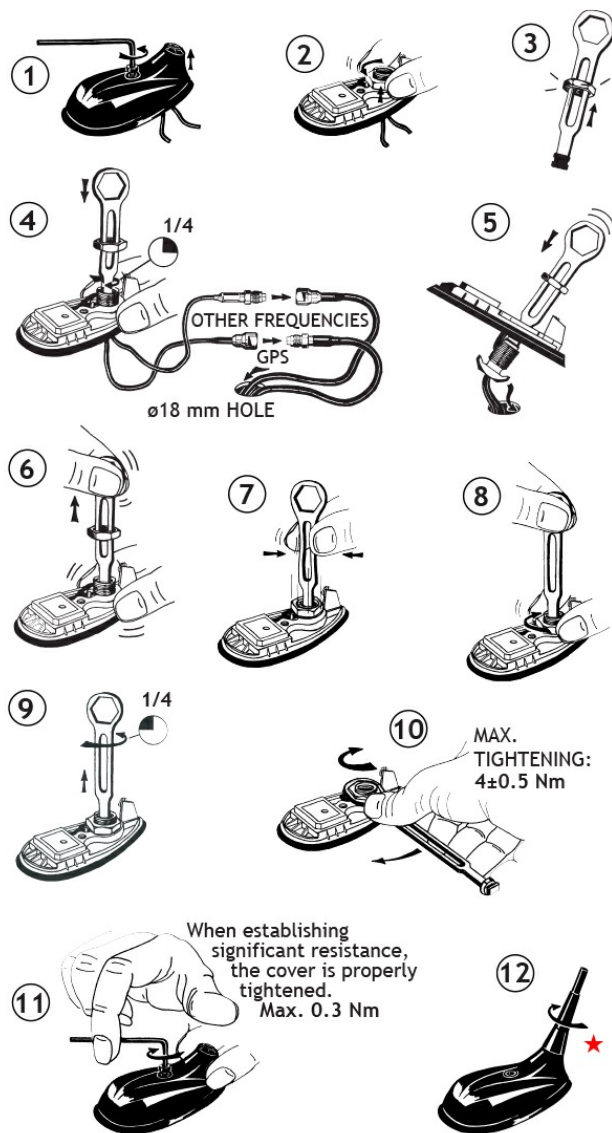


| GPS Antenna                         |                                                                                                                                                                   |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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<br>$\varnothing$ 18.5 mm dia. hole for roof thickness 2.0 - 2.5 mm<br>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                                                                                                                                                           |
| Selectivity (GPS)                   | > 45 dB down @ $\pm$ 45 MHz                                                                                                                                       |
| 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) | 0.025 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 $\Omega$                                                                                                                                                       |
| Materials (GPS)                     | Cu-nite brass, Stainless steel, Reinforced thermoplastic                                                                                                          |

### ORDERING

| Model                       | Product No. |
|-----------------------------|-------------|
| GPS-C 2R/70/FM              | 132000061   |
| Accessories                 |             |
| LH 108/136-2G (optional)    | 200000762   |
| DIPX 225/330-FME (optional) | 200000670   |

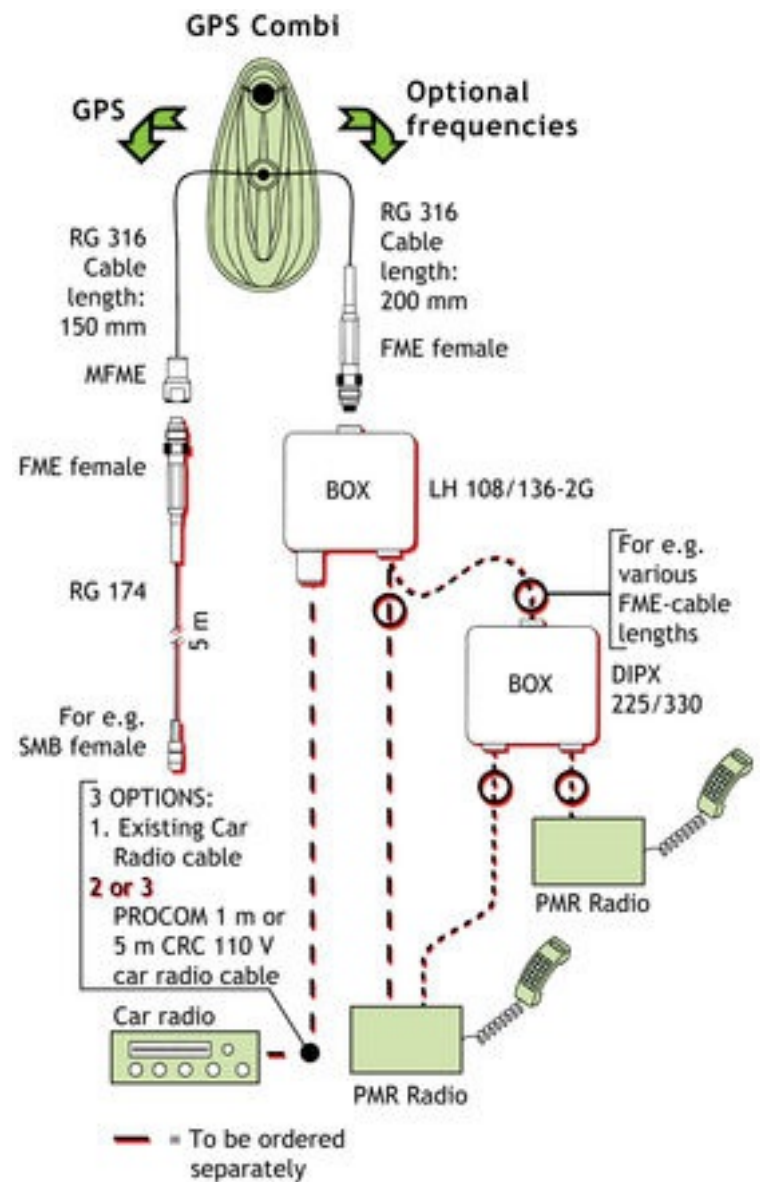
## MOUNTING INSTRUCTIONS



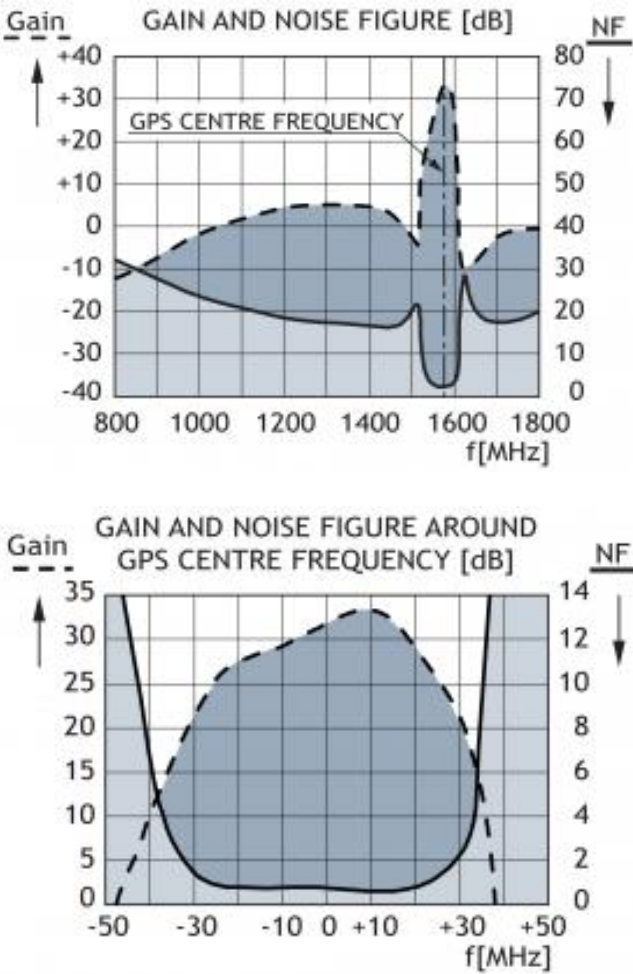
★ The whip should always be dismantled during car wash.

Do not use sealer on rubber gasket or other places.

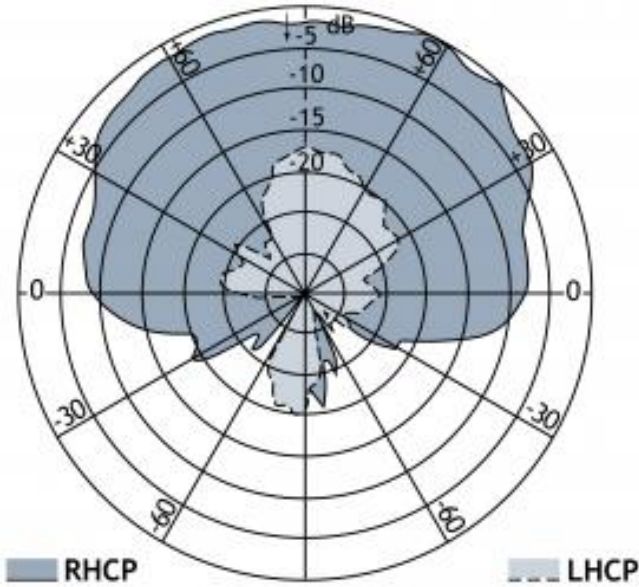
## CABLE MOUNTING



TYPICAL RESPONSE CURVES



VERTICAL RADIATION PATTERN



EU AND UK DECLARATION OF CONFORMITY

Hereby Amphenol Procom declare that the product type GPS-C 2R/70/FM 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-1.pdf>