

GPS-C TETRA-I

GPS Antenna with a $1/2 \lambda$ Groundplane Independent Whip with Shock Spring for the TETRA Band

DESCRIPTION

- GPS-antenna for fixed installations.
- Special mount for roof thickness 3.5-7.5 mm.
- Groundplane independent $1/2 \lambda$ antenna for mounting on nonconductive surfaces.
- Built-in high gain, low noise amplifier for GPS.
- DC supply via RF-connector.
- Black-chromed, conical stainless steel whip.



ORDERING DESIGNATIONS

| TYPE | PRODUCT NO. |
|---------------|-------------|
| GPS-C TETRA-I | 132000100 |

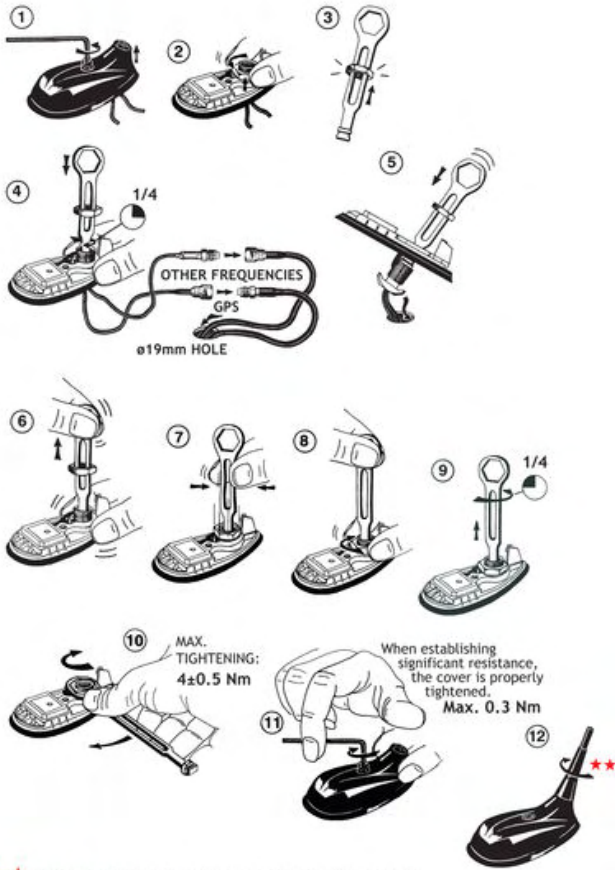
SPECIFICATIONS FOR WHIP

| ELECTRICAL | |
|--------------|--|
| MODEL | GPS-C TETRA-I |
| ANTENNA TYPE | $1/2 \lambda$ mobile antenna |
| FREQUENCY | 380 – 400 MHz |
| IMPEDANCE | Nom. 50 Ω |
| POLARIZATION | Vertical |
| GAIN | 2 dB (acc. to EIA RS-329-1) |
| BANDWIDTH | ≥ 20 MHz @ SWR 2.5 |
| MECHANICAL | |
| MATERIALS | Whip: Black-chromed, conical stainless steel Black-chromed brass Spring: Black-chromed stainless steel |
| COLOUR | Black |
| HEIGHT | Approx. 350 mm |
| WEIGHT | Approx. 50 g |
| MOUNTING | On the GPS-Combi mount |

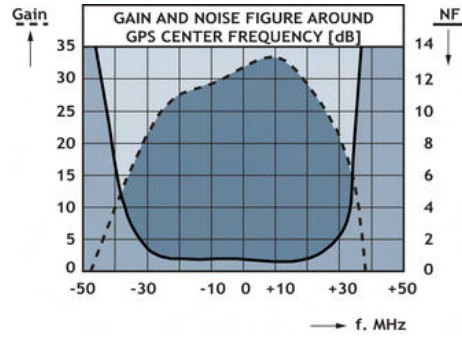
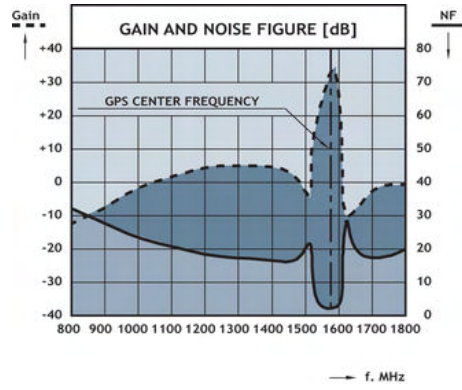
SPECIFICATIONS FOR GPS-COMBI MOUNT

| ELECTRICAL General specifications | |
|------------------------------------|--|
| MODEL | GPS-COMBI MOUNT |
| ANTENNA TYPE | Active patch antenna |
| FREQUENCY | 1575 MHz |
| IMPEDANCE | Nom. 50 Ω |
| POLARIZATION | Circular right-hand |
| COVERAGE | Hemispherical |
| GAIN | 28 dBic in axial direction (typ.) |
| CROSS-POLARIZATION ATT. | > 10 dB (typ.) |
| BUILT-IN AMPLIFIER | |
| GAIN | > 30 dB (typ.) |
| NOISE FIGURE | < 1 dB (typ.) |
| P 1dB | Approx. +7 dBm |
| SELECTIVITY | > 45 dB down at ± 45 MHz |
| SWR (output) | ≤ 2.0 |
| SUPPLY VOLTAGE | 5 ± 0.5 VDC (3 V resp. 12 V on request) |
| POWER CONSUMPTION | Approx. 25 mA |
| MECHANICAL (only for the GPS-part) | |
| MATERIALS | Cu-nite brass Stainless steel Reinforced thermoplastic |
| ANTENNA COLOUR | Black |
| TEMP. RANGE | $-35^{\circ} \text{C} \rightarrow +75^{\circ} \text{C}$ |
| CONNECTOR | FME (male for GPS) + (FME (female for mobile antenna)) FME (male) on output of BBMU filter |
| RECOMMENDED INSTALL. TORQUE | 4 ± 0.5 Nm |
| DIMENSIONS(H x L) | Approx. 30 x 89 mm |
| ROOF THICKNESS | 3.5 - 7.5 mm |
| WEIGHT | Approx. 114 g |
| MOUNTING | $\varnothing 19$ mm dia. hole Tools for mounting included |

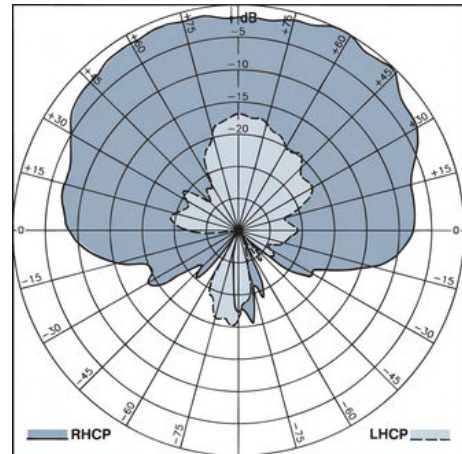
MOUNTING INSTRUCTIONS



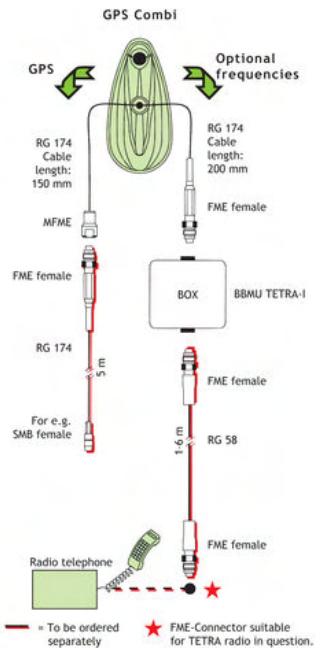
TYPICAL RESPONSE CURVE



TYPICAL RADIATION PATTERN



CABLE MOUNTING



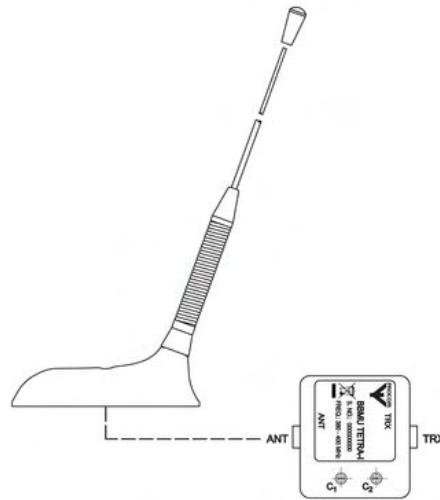
Do not use sealer on rubbergasket or other places.

TUNING

SWR 3000 Analyzer with built-in signal generator and graphic display range of measurement 30-2700 MHz.



Tune the SWR in on the desired centre frequency and suitable spacing (for instance 30 MHz). Adjust C1 till the SWR curve emerges on the display. Adjust C2 till the best possible SWR minimum is reached on the required frequency. Fine-tune the SWR minimum and the bandwidth step by step by means of C1 and C2.



PROCOM A/S reserve the right to amend specifications without prior notice.

16/02/2010