Installation Instruction

[GPSF & FIN series]

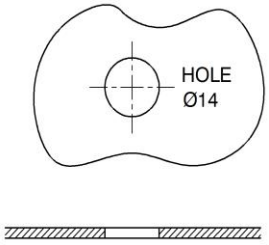
Introduction

The GPSF is a dual function compact fin style with tri-band GSM900/1800/1900MHz + 3G/UMTS and an active GPS antenna.
Standard GPS LNA gain is 26dB, version R has a 13dB gain LNA.
The FIN version has tri-band GSM900/1800/1900MHz + 3G/UMTS only.
The product as supplied will fit to standard vehicle panels of up to 6mm thickness.

Mounting Requirements and Selecting Location

This antenna must be fitted on a conductive ground plane of adequate size – recommended minimum diameter 16cms.
When fitting on a non-metallic panel, a ground plane plate of suitable size should be fabricated and fitted under the mounting panel
The securing washer and nut must make a low resistance electrical contact with the ground plane (less than 0.2 ohm).
Select a mounting location to ensure there is adequate under panel clearance and that there is no double skin panel or cross brace present.
Measure to check for central position if applicable.

Prepare and make hole



Mask panel area around hole position to protect paintwork and headliner.
Drill a pilot hole, then increase to 14mm, ensuring that drill/cutter bit does not contact the internal headliner.
Clean area around the hole, carefully removing all swarf.
Remove paint and primer from under panel surface to ensure adequate earth contact by washer and nut.
Apply some petroleum jelly or paint around the hole to prevent corrosion.

Fitting the Antenna

Remove protective backing from underside of antenna, feed coaxial cable(s) through panel. Position the antenna over the hole ensuring correct orientation and stick to panel by applying firm downward pressure.
Assemble nut and washer from underside and tighten.

Routing and terminating coaxial cable(s)

Connect extension coaxial cables to antenna and route to equipment, taking care to avoid running adjacent to existing vehicle wiring or fouling any moving vehicle component.
The cable(s) must not be routed in front of any airbag device.
Fit correct coaxial connector to cable(s) as required.

Commission and Test

Check GPS cable:

- Connector body to centre pin should measure high resistance.

Check Comms cable:

- Earth continuity: connector body to vehicle ground should measure <0.2ohm;
- Connector body to centre pin should measure open circuit.
- GPSK only - carry out VSWR check, should measure <1.5:1 in transmit band.
- Connect GPS cable to receiver and check for satellite acquisition.

	**European Waste Electronic Equipment** Directive 2002/96/EC Please ensure that your old Waste Electricals and Electronics are recycled do not throw them away into standard waste.

	**RF Safety Note** – This antenna should be mounted in such a way that no person is within 20cm of the antenna during use.

CE	**R&TTE: DIRECTIVE 1999/5/EC** of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity. Compliance is declared according to: **EN 301 489-1 V1.9.2**– Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements -Referencing **EN 301 489-3 V1.6.1** and **EN 300 440-1 V1.6.1 (2010-08)** – Electromagnetic compatibility and radio spectrum matters (ERM); short range devices; radio equipment to be used in the 1GHz to 40GHz frequency range; Part 1: Technical characteristics and Test methods in accordance with **EN 300 440-2 V1.4.1 (2010-8)** - Electromagnetic compatibility and radio spectrum matters (ERM); short range devices; radio equipment to be used in the 1GHz to 40GHz frequency range; Part 2: Harmonised EN covering the essential requirements of article 3.2 of the R&TTE Directive. **Low Voltage Directive**: **Directive 2006/95/EC** (Electrical Equipment designed for use within certain voltage limits) of August 2007. Compliance is declared according to: **EN60950-1**: Safety of information technology equipment – according to test specification EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011.

Waiver: This document represents information compiled to the best of our present knowledge. It is not intended to as a representation or warranty of fitness of the products described for any particular purpose. This document details guidelines for general information purposes only. Always seek specialist advice when planning installations and ensure that antennas are always installed by a properly qualified installer in compliance with local laws and regulations.