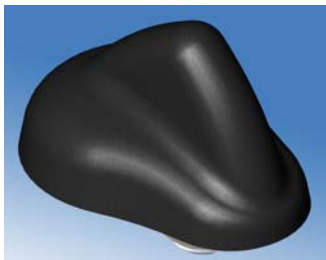


# Installation Instruction

[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 groundplane of adequate size – recommended minimum diameter 16cms.

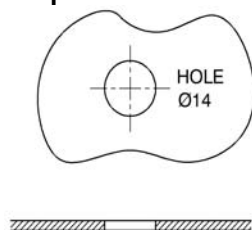
When fitting on a non-metallic panel, a groundplane plate of suitable size should be fabricated and fitted under the mounting panel

The securing washer and nut must make a low resistance electrical contact with the groundplane (less than 0.1 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 ~ 350ohms;

**Check Comms cable:**

- Earth continuity: connector body to vehicle ground should measure <0.1ohm;
- 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.