



Installation Instructions

GPSC Series

SW3-683 - v1.2

1. Introduction

The GPSC Series is a line of internal mount LTE/Cellular, and GPS/GNSS Antennas. The standard GPS/GNSS LNA gain is 30dB.



Electrical Safety Note

This product contains an active GPS/GNSS antenna (part number SR8-HG30). Rated voltage: 3-5VDC Rated current: 20mA maximum. **The supply to these devices must be provided with overcurrent protection of 1A maximum.**

2. Mounting requirements and selecting location

The GPSC antenna is designed to be fitted on or under a vehicle dashboard, located as far forward as possible to optimise view to the sky. When fitting under the panel, a position should be selected to ensure there is no metal close to the antenna inside the panel.

The optimum orientation for the antenna is to be fitted flat and the UP side must be facing towards the sky.

It can also be fitted on or under any other non-metallic panel in a position that allows an adequate view of the sky to enable satellite acquisition.

The antenna can be fitted to a vehicle window, but it is important to note that GPS/GNSS performance will be reduced on a window that is vertical or has a small angle of incline. The UP side must be facing the outside of the window.

Note that the antenna should not be fitted to a fine wire mesh type heated window or heat reflective type glass.

The antenna location should ensure that the outside edge of the antenna is a minimum 10cm (2") away from any metal structure.

The antenna must not be fitted adjacent to or in near proximity of one of the vehicle electronic control units (ECU).

3. Mounting the antenna

Note: The ideal temperature for the pad bonding is 70°F (21°C) to 100°F (37°C), Avoid installing if the temperature is less than 50°F (10°C)

Before fitting, ensure that both the antenna face and mounting surface are clean and free of grease – use the supplied alcohol swab and allow the cleaned surfaces to dry before proceeding to fit the adhesive pad.

Remove the protective backing from the adhesive pad, place on correct face of the antenna, to enable the UP side to face the sky and apply adequate pressure to adhere.

Remove the protective backing from the antenna pad, position the antenna and apply adequate pressure to ensure that it has adhered correctly.

4. Routing and terminating coaxial cable(s)

Route the coaxial cables away from the antenna, taking care that the cables do not apply stress to the antenna mounting. It is advisable to observe a minimum bend radius of 15mm when installing the twin RG174 cables. The cables should be routed so that they do not obstruct any moving vehicle components.

The cables must not be routed in front of any airbag devices – note that these may be located behind the windscreen pillar trim and the side of the roof head lining, depending on vehicle specification.

5. Commission and test

Check LTE/Cellular cable:

- Carry out VSWR check which should measure <2.5:1.

Check GPS/GNSS cable:

- Check the GPS/GNSS cable with DC to measure high resistance.
- Connect the GPS/GNSS cable to the GPS/GNSS receiver and check for satellite acquisition

6. Notices



RF Safety Note

This antenna should be mounted in such a way that no person is within 20cm (8") of the antenna during use.



Waste electrical products should not be disposed of with household waste. All electronic products with the WEEE logo must be collected and sent to approved operators for safe disposal or recycling. Please recycle where facilities exist. Many electrical/electronic equipment retailers facilitate "Distributor Take-Back scheme" for household WEEE. Check with your Local Authority or electronic retailers for designated collection facilities where WEEE can be disposed of for free.



Directive 2011/65/EU (RoHS 2)

RoHS 2 compliance is declared per Directive 2011/65/EU and its subsequent amendments with exemption 6.c applied.

REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals, EC 1907/2006)

This product contains Lead (CAS No. 7439-92-1) which is classified as an SVHC (Substance of Very High Concern) as being toxic to reproduction under Article 57c. of REACH. Do not chew parts or put them in mouth, keep away from unsupervised children. Dispose of parts as WEEE waste do not send to landfill.

This declaration is issued under the sole responsibility of the manufacturer

The object of the declaration described above is in conformity with the relevant Union Harmonization Legislation below:

Directive 2014/53/EU Radio Equipment Directive (RED)

Harmonised Standards and References:

EN 301 489-1 (V2.1.1): "Electromagnetic compatibility and Radio spectrum Matters (ERM); Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements".

Referencing EN 61000-4-2:2009 – Electrostatic Discharge Immunity and EN 61000-4-3:2006 +A1:2008 +A2:2010 – Radiated RF Immunity~ 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.

Low Voltage Directive: Directive 2014/35/EU (Electrical Equipment designed for use within certain voltage limits) of 26th February 2014.

EN62368-1: 2014 Audio/video, information and communication technology equipment. Safety requirements

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.