PANORAMA ANTENNAS

Installation Instructions

GPS25 Series

SW3-1035 - v2

1. Introduction

The GPS25 antenna series is a range of high-performance L1/L2/L5 band GPS/GNSS antennas with ~37dB gain LNA and excellent filtering. The antenna module is housed within a low profile, robust enclosure and is suitable for use with GPS, GLONASS, Galileo and BeiDou systems requiring high accuracy for navigation, RTK and other precision applications.

The antenna is available in panel mount (GPS25P) and magnetic / adhesive mount (GPS25MS) variants. The GPS25P can be installed on a metal or plastic panel. The GPS25MS can be attached by magnetic adhesion on a ferromagnetic panel. For other mounting surface materials, the adhesive pad can be used.

The antenna is supplied with integral flame retardant RG174 cable (compliant to UN ECE R118), and is suitable for many installation environments.

Electrical Safety Note

The product contains an active GPS antenna (part number SR8-HGL2537S). Rated voltage: 3-12VDC Rated current: 35mA maximum.
The supply to this device must be provided with overcurrent protection of 1A maximum.

2. Mounting requirements and selecting location

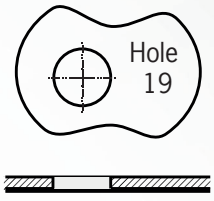
The antenna should be mounted with a clear view of the sky for optimal satellite acquisition.

If utilising the adhesive pad it is recommended that the installation is carried out when the temperature is higher than 50°F (10°C) - the ideal temperature for the pad bonding is in the range of 70°F (21°C) to 100°F (37°C).

For the panel mount version, ensure that 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.

For optimal performance the antenna should, if possible, be mounted at least 300mm (1ft) away from other conductive objects on the mounting panel.

3. Panel Mounting



Mask panel area around hole position to protect paintwork and headliner. Drill a pilot hole, and then increase to 19mm (3/4”), ensuring that drill/ cutter bit does not contact headliner. Clean area around the hole, carefully removing all swarf.

Apply some petroleum jelly or paint around the hole to prevent corrosion if necessary.
Remove protective backing from underside of antenna and feed coaxial cable through panel. Position the antenna over the hole and stick to panel by applying firm downward pressure. Assemble washer & nut from underside and tighten.

IMPORTANT: Do not exceed a torque of 5Nm (3.6ft/lbs) when tightening the mounting nut.

4. Adhesive Mounting

Make sure that the selected mounting surface is clean and dry. De-grease suface with 70% isopropyl alcohol (allowing time to dry) if required. The magnetic / adhesive version of the antenna is supplied with an anti-scratch pad fitted as standard and this should be removed before the adhesive pad is fitted to the antenna. Once the anti-scratch pad has been peeled off, remove protective backing from supplied adhesive pad and adhere to underside of antenna, position the antenna over desired location, remove remaining protective backing and stick to panel by applying firm downward pressure.

5. Magnetic Mounting

Check that the vehicle has a steel roof as the mount will not work on plastic or alloy bodies. The mount has a scratch resistant pad which is suitable for direct contact with the roof. No other material should be placed under the antenna base as this will reduce the magnetic adhesion. Make sure that the selected mounting surface is clean and dry before placing the antenna in position.

IMPORTANT: Never attempt to detach, reposition or transport the antenna using only the cable as this may damage the cable connection.

6. Routing and terminating coaxial cables

Route the coaxial cable to the equipment, ensuring that the cable is secured and protected from subsequent damage during access. The cable should be routed observing the minimum bend radius of 13mm (1/2”). If cable ties are used, they should not be overtightened, as this could distort the cable profile and affect the antenna performance.

7. Commission and Test

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

8. Notices

DO NOT
• operate the equipment in an explosive atmosphere.
• attempt to install the antennas without the proper safe equipment to access the install location.
• install the antenna in such a way that it may fall and cause injury.
• chew parts or put them in mouth, keep away from unsupervised children.

European Waste Electronic Equipment Directive 2002/96/EC
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.

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