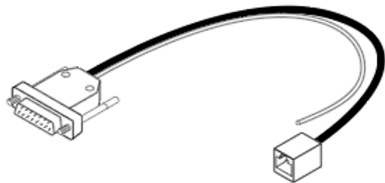
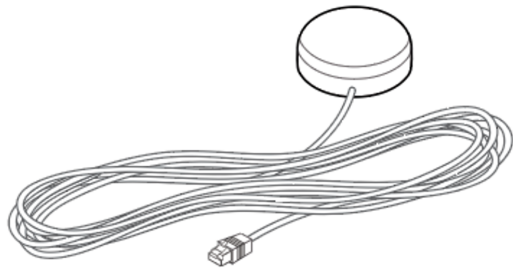


T02-00025-1002/3/4/5 GPS Receivers Installation Instructions



Introduction

The T02-00025-1002, T02-00025-1003, T02-00025-1004 and T02-00025-1005 are high performance, 32-channel (simultaneous) GPS receivers that operate at a frequency of 1575.42MHz (±10MHz). See the following table for information on each GPS receiver:

Product Code	Style	Ignition Sense Feature
T02-00025-1002	Magnetic mount, IP67 rated housing.	Yes
T02-00025-1003	Through hole mount. IP69K rated housing	Yes
T02-00025-1004	Magnetic Mount. IP67 rated housing.	No
T02-00025-1005	Through hole mount. IP69K rated housing	No

All of the GPS units have an integrated 5 meter cable (16 ft) terminated in an RJ type connector. Each unit comes supplied with a short adaptor cable to facilitate the connection to the Tait Mobile Radio AUX port (DB15).

Ignition Sense Feature

For the T02-00025-1002/3 units, the included adaptor cable supports ignition sense and includes a 30cm (12 inch) yellow wire for connection to the vehicle's ignition signal.

A companion kit: T02-00026-5001 (not pictured), facilitates the extension of the ignition sense wire from 30 cms up to 4 meters (13 ft). The kit includes a 3A fuse, a fuse holder, and the required crimp receptacles.

Installation Precautions

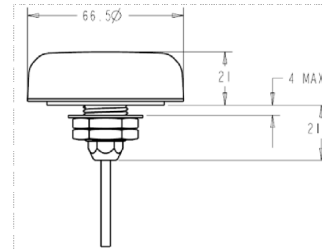
When mounting the GPS receiver inside a vehicle, ensure it is mounted securely. Unsecured equipment is dangerous to the vehicle occupants.

When drilling holes in a vehicle, check that drilling at the selected points will not damage existing wiring, fuel tanks, fuel lines, brake pipes or battery cables.

GPS accuracy may be influenced by close radiation sources (such as transmitting radio antennas). This must be taken into consideration when choosing the mounting location of the GPS antenna and cabling. If unsure, please contact your radio provider.

The radio does not meet the IP54 protection standard once the bung for the auxiliary connector is removed. Therefore, once the GPS Receiver is installed, mount the radio in areas where it is not exposed to water, dust or other environmental hazards.

GPS Receiver Installation



- Drill any holes required for the cables and install suitable grommets or bushings in the holes.
- Run the adapter cable to the radio and plug it into the 15-way auxiliary connector.
- Position the GPS receiver where it has unimpeded exposure to the sky, eg. on the roof of the vehicle or on the rear parcel tray in the vehicle.
- For the magnetic mounted T02-00025-1002/4, optimum performance is achieved with a 10 cm (4 inch) radius metallic ground plane. If a metallic ground plane is not available, the GPS antenna is sensitive enough to operate without one.
- Additional steps for T02-00025-1003/5 installation only:**
The through-hole mounted T02-00025-1003/5 will provide good service on any roof surface type (metallic or fiberglass/plastic), but best results are obtained when it is installed on a metal roof.
 - Drill a 19mm (3/4 inch) diameter hole through the mounting surface for the T02-00025-1003/5, which should be no thicker than 6.4mm (0.25 inch).
 - Remove the two nuts and the washer from the GPS receiver and pass the cable through the hole.
 - The rubber ring at the bottom of the GPS receiver does provide a seal against the mounting surface, but make sure that the outside of the mounting surface is smooth, flat and free of corrosion, flaking, and debris. Pass the cable through the washer and two nuts and secure the GPS receiver to the mounting surface.
- Run the GPS receiver cable to the radio adapter cable, and connect using the RJ connection.
- For the T02-00025-1002/3 models, see "Ignition Sense Installation (T02-00025-1002/3)" below
- Tie up any unused cables.

Programming Radios

The programming application Help provides support for programming the radio for use with the GPS receiver. Talk to your radio provider for information on GPS and AVL.

Ignition Sense Installation (T02-00025-1002/3)

The ignition signal can be used to power up and power down the radio. This will turn the radio off when the ignition key is off to avoid flattening the battery. This will turn the radio on or return it to its previous state (as programmed) when the ignition key is on.

If the T02-00026-5001 companion kit (see "Ignition Sense Feature" above) is not used, please observe the following guidelines:

- Ensure that a suitably rated extension wire is reliably connected to the flying lead with environmental sealing appropriate for the working conditions.
- In order to protect the ignition sense wire in case of excessive fault current, an appropriately rated fuse-holder/fuse must be incorporated into the wire and positioned as close to the ignition/acc signal as possible.
- Do not install the fuse into the fuse holder until the installation is ready to be tested.

If a T02-00025-1002/3 GPS receiver is being incorporated into an existing installation which is already using ignition sense, e.g. a T03-00034-EAAA is fitted, the original ignition sense kit must be removed and replaced by the T02-00025-1002/3 adaptor cable ignition sense.

If the ignition sense feature of the T02-00025-1002/3 is not used, i.e. the adaptor cable wire is left unconnected, the radio power-on behavior will change. For example, if the radio is disconnected from power, the radio will always stay off when power is re-applied. The radio can only be turned on with the on/off button. To allow the radio to turn on whenever power is applied, connect the ignition sense wire directly to the radio's positive power lead. The following table summarizes 'power-on' behavior in relation to the yellow wire connection.

Yellow Wire Connection	Radio Power-on ^a
Floating (not connected)	Via front panel on/off button only
Ignition signal	Via ignition signal or front panel on/off button
Radio supply +Ve	When radio power is applied or via front panel on/off button

Radio Hardware Configuration for Ignition Sense

The radio hardware link LK2M (on the top-side of the main board) must be fitted for ignition sense operation. LK2M is typically factory fitted by default.

^aAssumes radio hardware link LK2M is fitted. See section below.

Voltages Required for Ignition Sense Operation

Link required	Voltages required for Ignition Sense
LK2M in (factory default)	Ignition signal $< 0.9V$ (or floating) = off Ignition signal $> 5V$ = on Ignition-sense compatible with 24V vehicular systems (34V max.)

For more information, see the TM9300/TM9400 Installation Guide (MMB-00002-xx).

Radio Programming

1. Startup/Shutdown form: In the Power On Mode field, set how the radio will respond when the radio receives a signal to power on from the vehicle's ignition signal. Select either Power On or Previous State.
2. Programmable I/O form (Digital tab): Program the AUX GPI3 line to Power Sense (Ignition) and Active to High.

Refer to the online help of the programming application for more information.

Declaration of Compliance

Hereby, Tallysman Wireless Inc declares that the radio equipment types, TW5242 and TW5352 are in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

T02-00025-1002 Declaration of Conformity in all European languages:

<https://tallymatics.com/app/uploads/2020/12/TW5242-RED-Certificate-Various-Languages-Merged-Document.pdf>

For the T02-00025-1003 Declaration of Conformity in all European languages:

<https://tallymatics.com/app/uploads/2020/12/TW5342-RED-Compliance-Certificates-Various-Languages.pdf>

For the T02-00025-1004 Declaration of Conformity in all European languages:

<https://tallymatics.com/app/uploads/2020/12/TW5242-RED-Certificate-Various-Languages-Merged-Document.pdf>

For the T02-00025-1005 Declaration of Conformity in all European languages:

<https://tallymatics.com/app/uploads/2020/12/TW5342-RED-Compliance-Certificates-Various-Languages.pdf>

More Information

Refer to your radio provider for more information about these products.

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