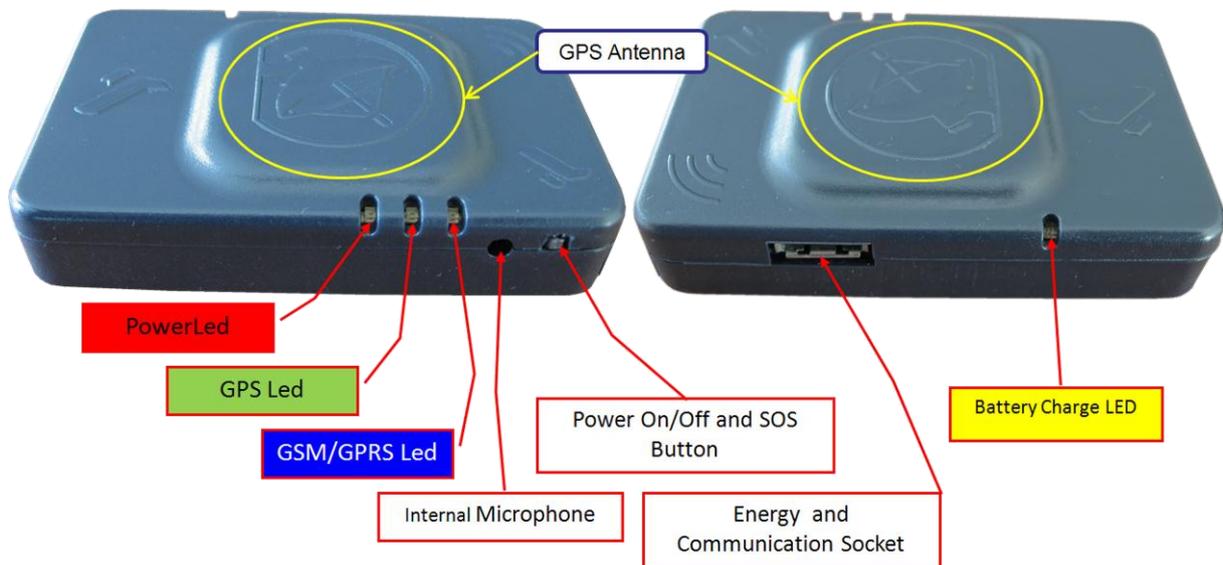


INSTALLATION INSTRUCTIONS FOR PERGO DEVICE

DEVICE OVERVIEW

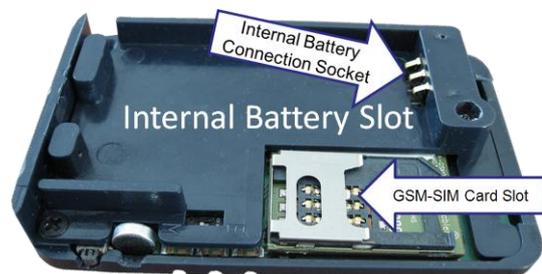


POINTS TO BE TAKEN INTO CONSIDERATION DURING THE FIXED INSTALLATION OF THE DEVICE

PREPARING THE DEVICE FOR INSTALLATION

Before beginning the fixed installation of the device into a vehicle, the SIM card to be used and the battery should be fitted into the device and operated.

If the security PIN code of the GSM SIM card has not been cancelled, this should be done or the current PIN code should be introduced to the device. The GSM SIM card connection pins must be placed correctly in the SIM card slot on the device and must fit properly into the space in the "SIM Card Slot."



The power transmission pins of the internal battery that comes with the device must be connected so as to correspond to the "Internal battery connection pins" shown in the picture, and the Battery must be placed in the "Internal Battery Slot." The battery must be inserted into its slot from above and in a straight manner. The battery should not be placed so as to damage or bend the "Internal Battery Connection Pins." The device shall operate automatically when the battery is first installed. If such operation is not desired, the device should be turned off by holding the on/off button on the device pressed for 2 seconds.

When beginning installation, the device should be placed on the vehicle on an open and suitable place (with a view of the sky) enabling the device to fix its position, and should be operated until the device cable is installed in the vehicle. If the device remains motionless for 3 minutes where it has been placed, it shall automatically initiate low power

consumption mode and shall shut itself down. After being turned on, the device must be checked at a time close to the automatic shut-down time, and whether only the red led blinks once every two seconds MUST be checked. Otherwise the installation must be discontinued. If the green and blue lit leds do not go out in more than one device, the reason for such failure must be examined. Warning: The green lit led shall not go out if you are in a closed environment.

The continuous lighting of one or more of the series of 3 leds (red, green, blue) indicates a malfunction, and in such cases the device must NEVER be installed.

The yellow led on the connector end of the device indicates the charge status of the battery. This led shall not light up as long as external power is **not** supplied to the device. If this led blinks rapidly when external energy is supplied to the device, this means that there is no battery in the device or that the battery in the device is not in contact with the "Internal Battery Connection Pins." This must be corrected. If the yellow led continues blinking although the battery has been placed, the installation must be discontinued. The yellow led must light up continuously when external power is attached to the device. This shows that the battery in the device is being recharged. The yellow led shall go out when the recharging of the Internal Battery has been completed.

DETERMINING A SUITABLE PLACE FOR INSTALLATION IN THE VEHICLE

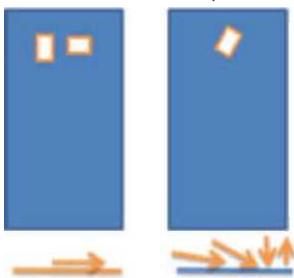


The correct operation of the installed device depends entirely on the place of installation. To ensure that the GPS module within the device is able to obtain a location fix, the device must be installed making sure that the logo on the device box in the shape of a satellite dish faces skywards.

There must be no metal surfaces over the place where the device is to be fixed. If possible, the device must be fixed to a place under the front panel of the vehicle, which is indicated in the picture as area no. 1. In the event that there are no suitable places for installation within area no. 1, installation can be made in areas no. 3. The device must under no circumstances be installed sideways or upside down, and must be secured firmly. The excess of the vehicle connection cable used in the

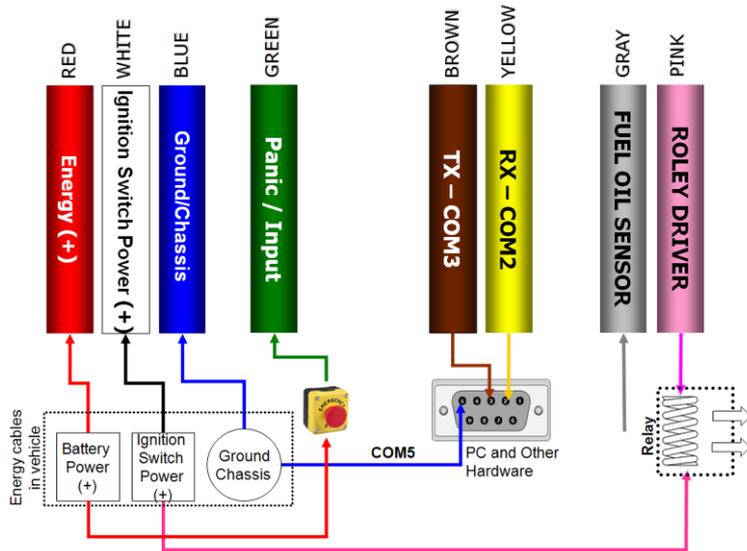
installation of the device must not be stored close to the device. Care must be taken to prevent the connection cable from pulling and forcing the device's socket. The device MUST NOT BE FIXED in a manner allowing the device to become loose and detach due to the vibration in the vehicle. The installation must not be performed in a manner that allows the sides or upper surface of the device socket to come into contact with surfaces. Otherwise, the vibrations in the vehicle will damage the socket and may cause the continuous generation of power cut/power on messages.

The device must be operated within a temperature range of -20 ile +60 C⁰ since it contains a li-ion battery. For this reason, the location chosen for installation must not be adjacent to the vehicle's heating system.



The installed device must be parallel to the vehicle. Figure 1 at the left indicates the correct installation. The installation positions in the second figure are incorrect. Installations as pictured in the second figure may cause the generation of wrong results while reporting changes in heading (straight, sideways or reverse operation) and accidents to the centre.

ISSUES TO BE TAKEN INTO CONSIDERATION DURING CABLE INSTALLATION



In order to perform the fixed installation of the device to the vehicle, it is necessary that at least 3 cables in the bunch of cables produced for the device should be connected to vehicle power. **During assembly, the cable ends belonging to the device must under no circumstances be attached between the fuse legs on the vehicle fuse board.** The device cable ends must NEVER be attached to anywhere between the vehicle battery and the fuse board. In such an installation, as there shall be no hardware to act as fuse between the power from the vehicle battery and the cable leading to the Pergo device, any short circuit that may occur in the device cable or

the vehicle cable may cause damage in the vehicle. Therefore, the cables of the Pergo device must be connected to a cable in a suitable place after passing the fuse panel of the vehicle. The cables should be connected with extreme care. The cables should not be left bare in a manner allowing short circuit and, if necessary, specifically produced cable connectors with protection should be used for connecting cables.

During the installation of the device cable, it is especially important to receive the post-contact powered cable from the correct position. While determining the post-contact powered cable, only the ignition switch should be turned on and no other hardware should be working in the vehicle (radio, heating, air conditioning, lamps etc.). For instance, receiving the post-contact power not from the real post-contact power but from the power cable leading to the air conditioning while the air conditioning is working will cause the device to generate an ignition switch-off and power-off alarm when the air condition is turned off while the vehicle is running.

Pergo device cables, the installations of which are necessary;



Socket edge cut



Socket edge not cut

Red: Must be connected to the cable that has uninterrupted power while the vehicle is running or stopping. The device must be supplied with uninterrupted power whether or not the ignition switch of the vehicle is turned on.

Blue: Grounding; the grounding connection should be made in the correct place.

White: Must be connected to the cable that is powered only when the vehicle has been started (ignition switch turned on).

Green: If the panic button is to be used, it must be installed. Of the two cables leading from the panic button, one should be connected to the device's green cable and the other to the continuously powered vehicle cable to which the red cable of the device has been connected. This cable must under no circumstances be connected to a place that does not have power while the ignition switch of the vehicle is turned off. Otherwise the panic button shall not work when the ignition switch is turned off.

ATTENTION. On one end of the cable to be used in performing the fixed installation of the device to the vehicle, there is a socket compatible with the Pergo device in order to enable connection with the Pergo device. In order that this socket is easily connected to the corresponding socket on the vehicle, the plastic pieces at the edges of the end should be cut with a suitable cutter if they are not already removed. If these are not cut and if you intend to cut them with tools such as a utility

knife, please take care not to get injured and do not force the socket of the device, cutting/breaking the socket completely. Please check whether or not the cable socket is fully connected to the socket in the Pergo device. The socket must under no circumstances be forced into place. The device must not be installed if the socket does not fit into place easily.

CONNECTING THE DEVICE TO THE VEHICLE CONNECTION CABLE, STARTING THE DEVICE AND TESTING THE CONNECTIONS

The device is connected to the vehicle connection cable while the vehicle ignition switch is turned on and the device is shut down using the button. The device is turned on using the on/off button. When a mobile-operating device is supplied with ignition switch power, the device will shift to automatic switch operation mode. When shifting from mobile to ignition switch operation the device will reset itself and from then on start according to the ignition switch operation mode upon start-up. In order to switch a device operating in the ignition switch mode to the mobile mode again, the battery of the device must be removed in the absence of external cable connection and the internal battery must be installed while pressing the on/off button. The on-off button must be held pressed for 10 seconds. When the on/off button is released, the device will start mobile operation.

When the power of a device (removed from the vehicle), which has been set to external power mode operation, has been cut (when the vehicle connection cable is disconnected), the device will turn off all of its lamps and will not respond to attempts to turn it on or off using the button. In order that such device may operate in mobile mode again, the battery in the device must be removed and reinstalled. As the device will be operating on mobile mode after this procedure, it will respond to requests of turning on/off by using the button.

The device operating on power mode can be used to perform checks such as whether or not the external cable connections are made correctly.

Testing the External Connection Socket

1. The device is operated. (By installing the battery or holding the on/off button pressed for 2 sec.)
2. The vehicle ignition switch is turned off.
3. The socket on the vehicle connection cable is connected to the socket on the device. The yellow led will go on and stay lit at the end of this procedure. If the yellow led blinks with short intervals or does not light at all the device **must not** be installed or the problem must be solved.
4. The vehicle ignition switch is turned on.
5. When the device senses the ignition switch power from its external power cable it shall reset itself automatically and reboot. This procedure will last about 15-30 seconds. If resetting has not occurred, the cable test cannot be performed and the device will shut down when the on/off button is pressed for testing, since the device shall be on mobile mode. In such case the ignition switch connection should be checked. If you are sure of the correctness of the ignition switch connection, there might be a problem in the socket connection of the device; under such circumstances the device must not be installed.
6. In order to test whether or not the cable connections are correct, a cable test must be performed according to the statuses of the on/off button and the series of 3 illuminated leds on the device. Accordingly;
 - a. The on/off button on the device is held pressed. (Warning: If the device turns off after 2 seconds, the ignition switch connection may not have been recognised by the device/the ignition switch connection may be defective/the device may be defective. These three different conditions must be rechecked.)



- b. If the external power connection is correct, the green illuminated led in the centre shall light continuously.
- c. The blue illuminated led will light continuously because the vehicle ignition switch is on.
- d. If the Panic button is pressed, the red illuminated led will light continuously. The red illuminated led will go off when the Panic button is released.
- e. The vehicle ignition switch is turned off.
- f. Whether or not the blue illuminated led has gone off is checked. If it does not, the vehicle ignition switch connection cable must be controlled.
- g. Whether or not the green illuminated led at the centre continues to light is checked. If it does not, the vehicle battery power connection connected to the red cable should be checked.
- h. The Panic button is pressed again, the red illuminated led must light continuously. The red illuminated led will go off when the Panic button is released.
- i. If all the above tests have been conducted and the correct led statuses have been observed, the on/off button of the device is released.
- j. The vehicle ignition switch is turned on again. The red and blue illuminated leds on the device shall start lighting after approximately 0-30 seconds. The green illuminated led will possibly not light. This indicates that the device has performed the location fix.
- k. The device is fixed to its place in the vehicle firmly, without causing its socket to be cramped.
- l. Whether or not only the red illuminated led on the device is blinking is checked. (The yellow illuminated led on the far side of the series of three leds will light continuously. This indicates that the battery is being recharged. The other green and blue illuminated leds must be off.
- m. The vehicle ignition switch is turned off. Approximately 30 seconds later, none of the 3 leds on the device must be lit.
- n. The installation form for the vehicle is completed and forwarded to the call centre.

TROUBLESHOOTING

1. Blue (GSM/GPRS) illuminated led status

a. If the blue led is continuously on;

- i. A SIM card may not be inserted.
- ii. The SIM card PIN code inquiry may not have been cancelled and may not have been recognised by the device.
- iii. The GSM Modem may be defective.

In order to understand the exact reason of the problem, the device must be connected to the computer and checked.

2. Yellow (GPS) illuminated led status

- a. If the yellow led is on continuously, the GPS is defective and the installation must not be performed.
- b. If the yellow led continues blinking at 2 sec. intervals for more than 3 minutes this means that it has not succeeded in fixing the position. The reasons for this may be;

- i. The GPS of the device may be defective.
- ii. The device may be situated in a closed area, between high buildings or right next to a building wall. Under such circumstances the position fix may take time or may not be achieved at all.

3. The device shuts down automatically 30 sec. after start-up. All leds go off.

- i. If the battery level of the device is below 20%, the device may be shutting down due to low battery.
- ii. The device may be shutting down because its IMEI number is not recognised by the server to which the device tries to connect. (This condition is not valid for a taxi server. A device set to connect to a taxi server will be recognised automatically by the system even if it has not been designated, and connection shall be allowed.