



Installation Guide

# Connect P

(Premium Series)

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# 1. Introduction

## Message to Our Partners and Installers

### *Read this Guide*

This guide contains descriptions, illustrations, warnings and technical notes that enable the safe and valid installation of Questar hardware units. All installers are required to read this guide thoroughly before performing any installations.

### *Authorized Installations ONLY*

For the hardware to operate correctly, it must be installed according to our installation procedures by qualified and authorized installers. We make maximum efforts to provide accurate and detailed instructions. We also require that installers have strong automotive background, full knowledge of electrical/mechanical systems, and solid experience with the vehicle types on which they are installing our hardware.

### *Manufacturer Warranty for Vehicle*

To ensure that the vehicle warranty remains fully valid – it is essential that all manufacturer instructions be followed for all wire harnesses and connections. If any questions arise, please contact Questar support.

### *Questar Disclaimer*

Questar disclaims any liability for installations that are performed:

- With parts, methods or procedures not described in this guide.
- By non-authorized or non-qualified technicians.
- In contradiction to any manufacturer instructions.

### *Best Practices for Installation*

Please help us go the “extra mile” in providing excellent service to our customers:

- Perform all tasks in a professional and responsible manner.
- Treat all customers with respect and courtesy.
- Make maximum efforts to arrive on time and finish on schedule.
- Coordinate any timetable changes with the Questar Service Center.
- Be sure to double-check your installation before leaving the installation site. Or better yet – have a second team member check your work.
- Contact Questar support if you have any questions.



# General Installation Guidelines

## *Pre-Installation Safety Precautions*

- Disconnect negative terminal of vehicle battery.
- Verify that ignition switch is turned OFF and start key is removed.

## *Electrical Inspection Warnings*

- Use LED tester or voltmeter for any electrical checks.
- **DO NOT USE** an incandescent lamp for checking, as it may damage vehicle systems.

## *Unit Positioning Tips*

- Attach the unit firmly in order to minimize vibration during vehicle operation.
- Position the unit to allow for technical service or disassembly (if needed).
- Distance the unit from any moving components and from any components that need to be disassembled during routine maintenance.
- Conceal the unit as much as possible, without leaving any projecting parts that might be easily bumped or damaged.

## *Wire Connection Practices*

- Connect unit wires using soldering or crimping - and properly isolate unit wires using insulation tape or heat shrink insulation.
- Wherever possible, run unit wiring alongside existing wiring and use existing ducting and wire conduits. **No drilling should be performed for the unit's wire connections.**
- Use appropriate methods to isolate any unit wires that pass through or near metal surfaces. For example, if a unit wire passes through a hole, the hole requires a rubber grommet.
- Do not undo any "Twisted Pair" wire connections, except for small sections that connect to the CAN Bus.
- Ensure that wires are not exposed, rubbing together or creating tension.

## *Reception & Interference Issues*

- To ensure optimal reception, it is essential that the unit be distanced from any metal, electrical or magnetic devices that might cause interference.
- When possible, mount the unit on a plastic or rubber surface and not on a metal surface. Installing directly on a metal surface may cause interference, and so it is preferable to distance the unit at least 10mm from any metal surface.
- It is important to install the unit in a location where there are no metal objects blocking skyward reception.



## Safety & Compliance Issues

### *Hardware Changes Not Permitted*

This device must accept any interference received including interference that may cause undesired operation. Any unauthorized modifications or changes to this device (without the express approval of Questar Auto Technologies Ltd.) may void the user's authority to operate this device. Furthermore, this device is intended to be used only when installed in accordance with the instructions outlined in this guide. Failure to comply with these instructions may also void the user's authority to operate this device and/or benefit from the manufacturer's warranty.

### *Separation Distance Required*

A distance of at least 150 cm between the equipment and all persons should be maintained during the operation of the equipment.

### *FCC Class B Digital Device Compliance*

(FCC ID: 2A6DICONNECT)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

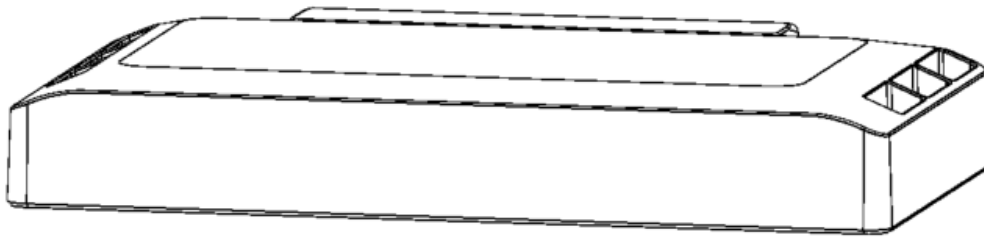
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



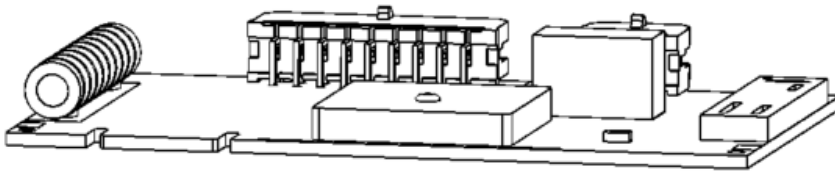
### 3. Overview of Unit Components

The unit consists of three main components, as shown below.

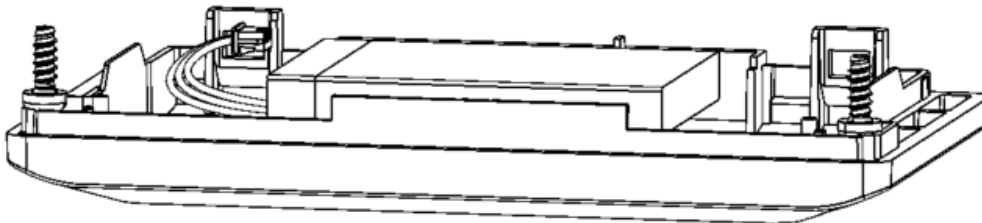
- Upper Enclosure (plastic only)
- PCB (snaps into lower enclosure)
- Lower Enclosure (contains battery)



Upper  
Enclosure



PCB



Lower  
Enclosure

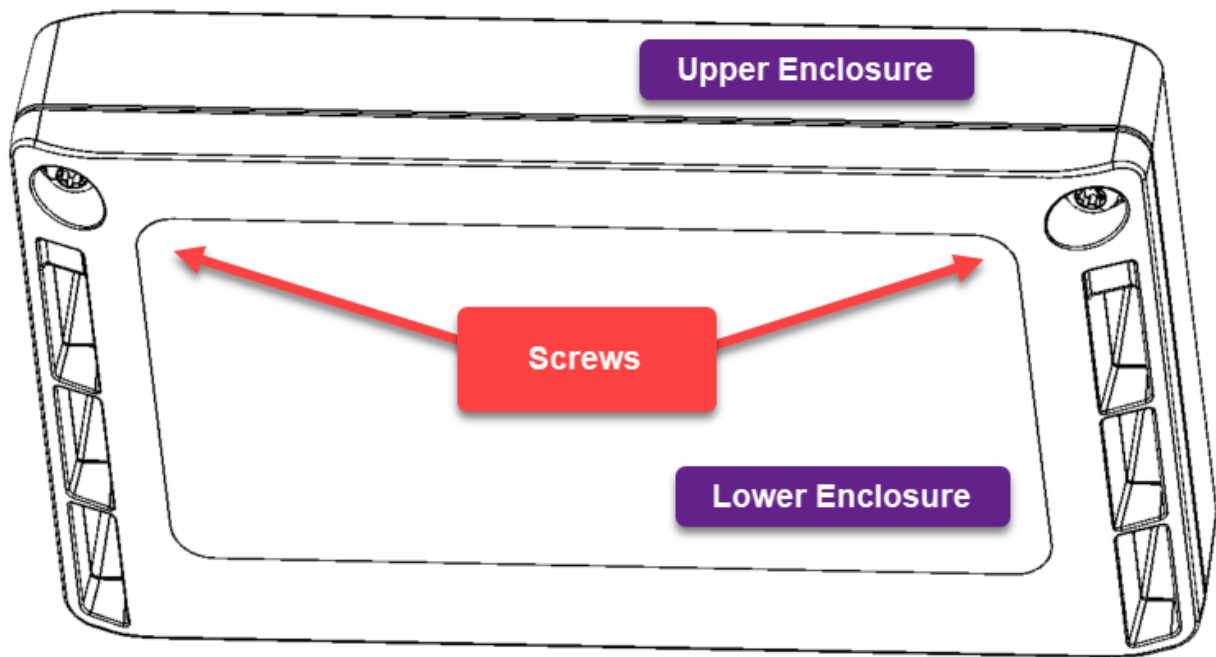


## 4. Opening Unit

Follow these steps to open the unit.

### STEP A: Remove Two Screws from Lower Enclosure

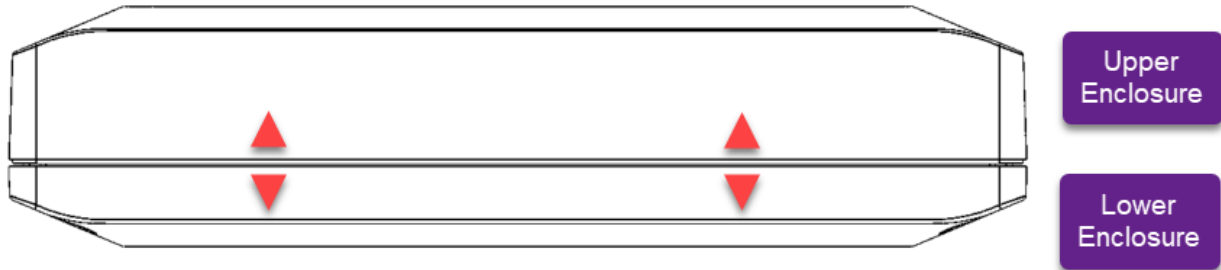
Remove the two screws to separate the upper and lower enclosures.



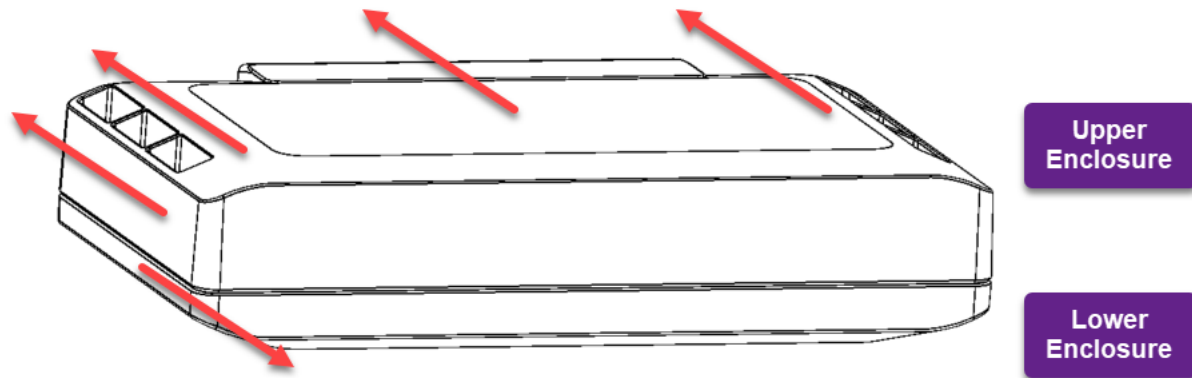


## STEP B: Slide Upper Enclosure out of Lower Enclosure

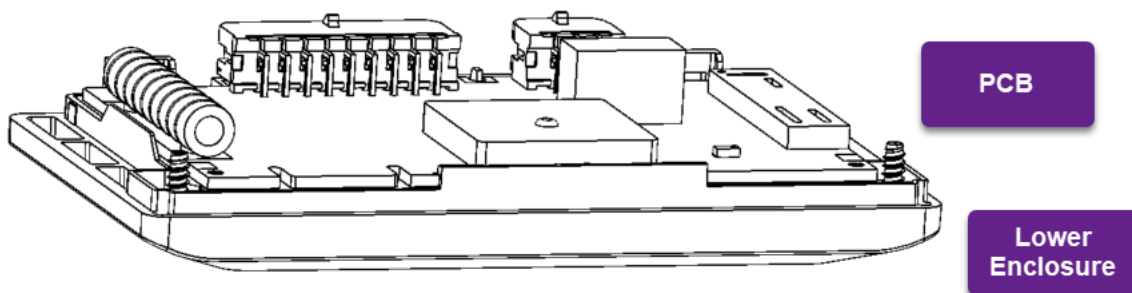
Separate upper/lower enclosures by about 8-10 millimeters.



Slide the upper enclosure backwards (about 4-6 millimeters) to snap it out of place.



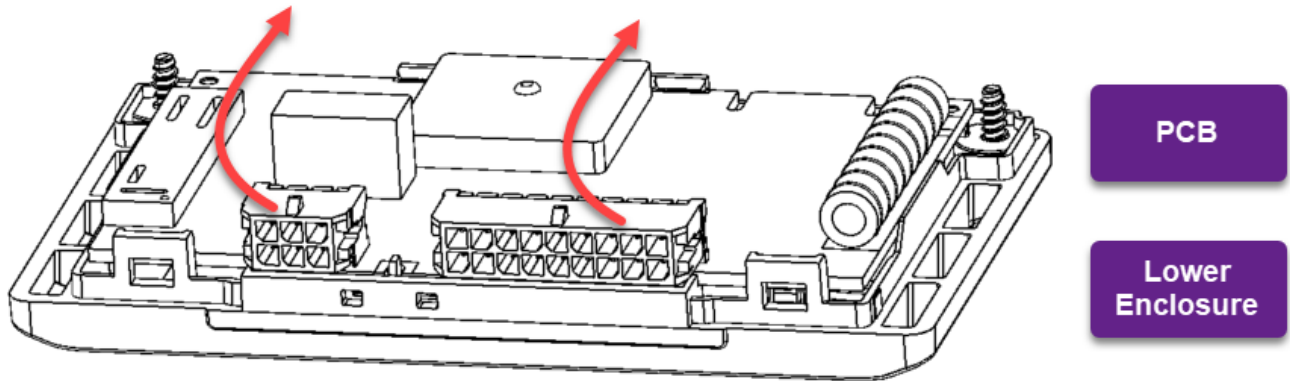
Remove the upper enclosure from the lower enclosure (to view PCB).



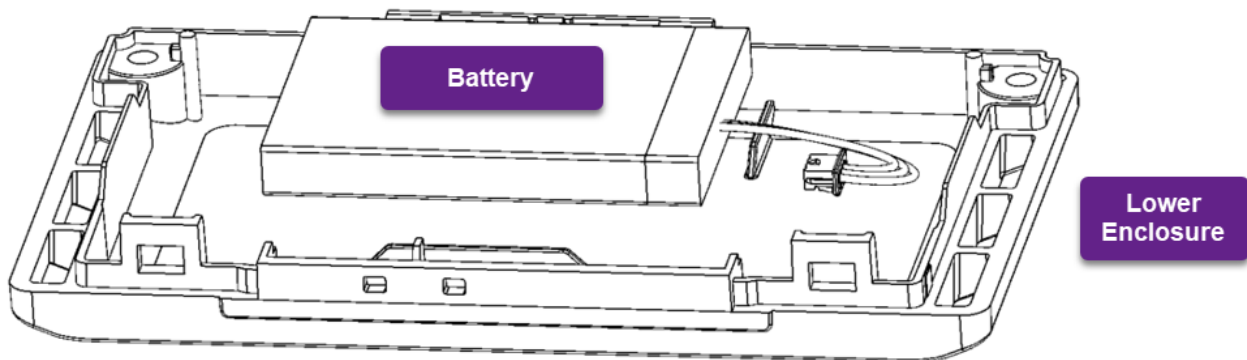


## STEP C: Remove PCB from Lower Enclosure

Gently swivel PCB upwards (about 30-40 degrees).



Remove PCB from lower enclosure (to access battery in lower enclosure).

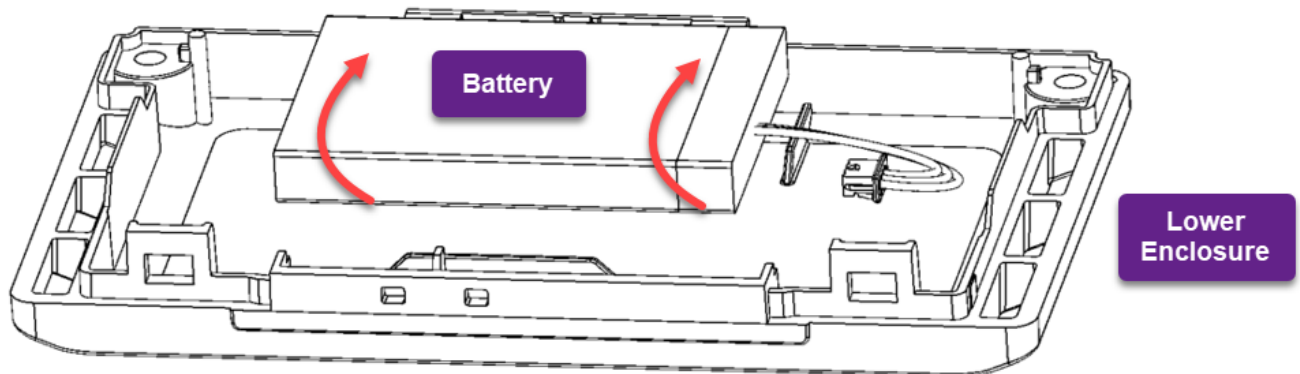




## 5. Replacing Backup Battery in Unit

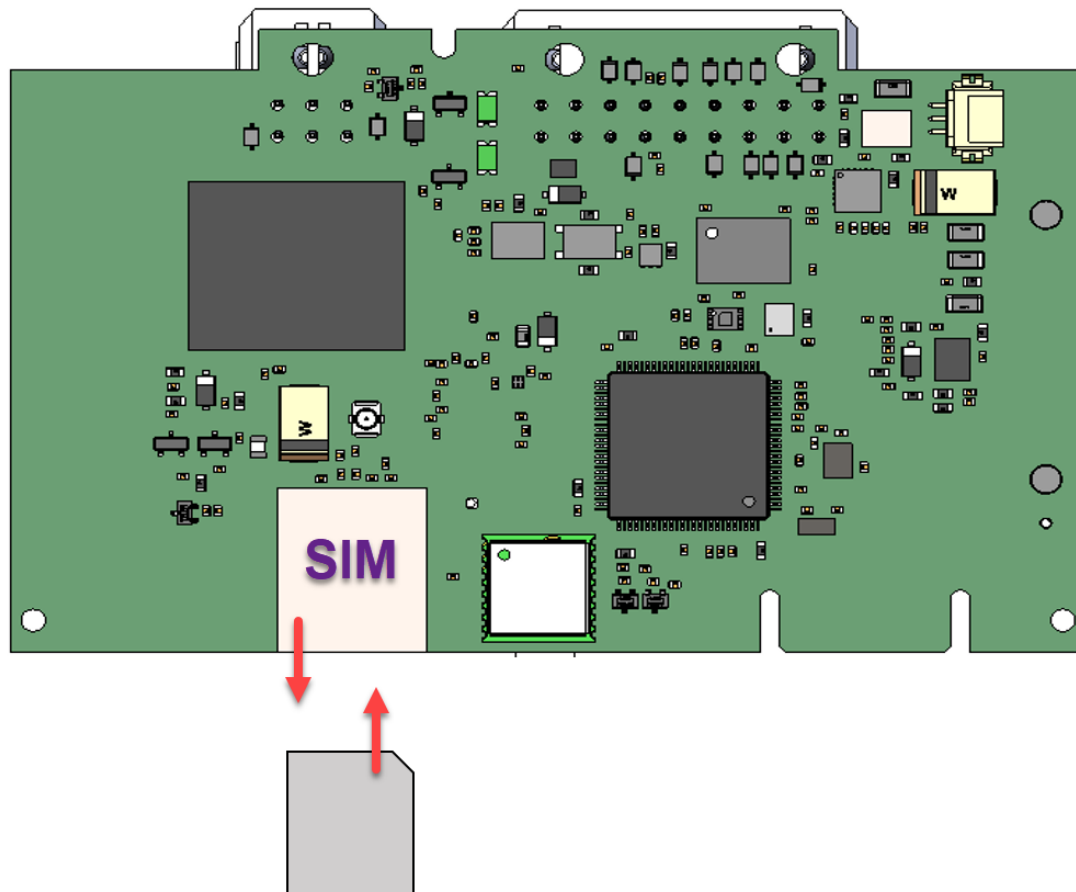
To replace an existing battery:

- Detach battery cable.
- Gently pull off the existing battery.
- Attach new battery with double-stick tape.
- Attach battery cable to the micro-connector on the lower side of the PCB.



## 6. Replacing SIM in Unit

To replace an existing SIM, pull it from the SIM slot on the PCB, and then insert the new SIM.



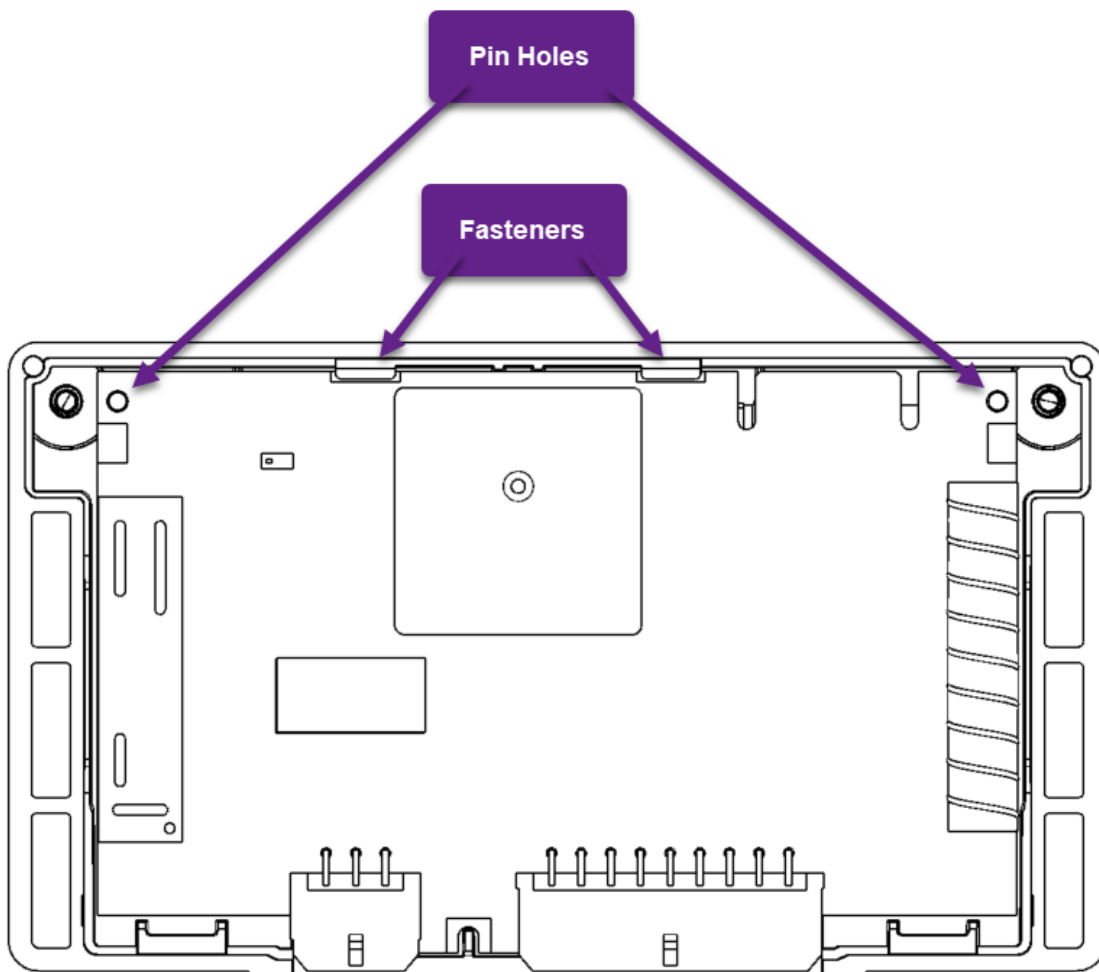


## 7. Closing Unit

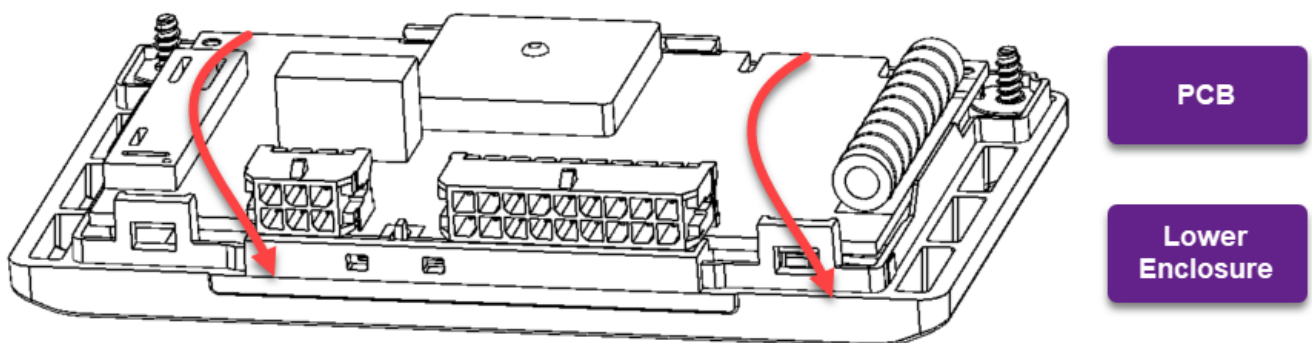
Follow these steps to close the unit.

### STEP A: Insert PCB into Lower Enclosure

Place the PCB edge at a 30-40 degree angle under the two plastic fasteners, while aligning the two plastic stubs over the pin holes.



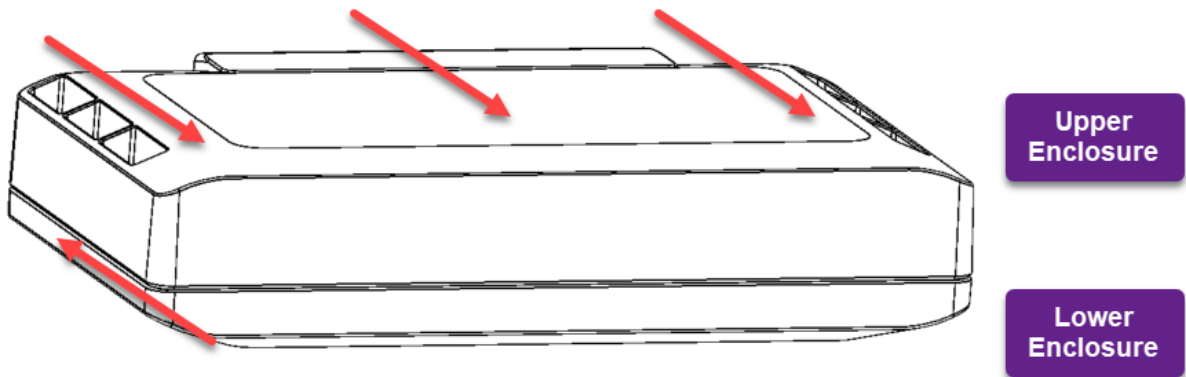
Swivel the PCB down into lower enclosure.



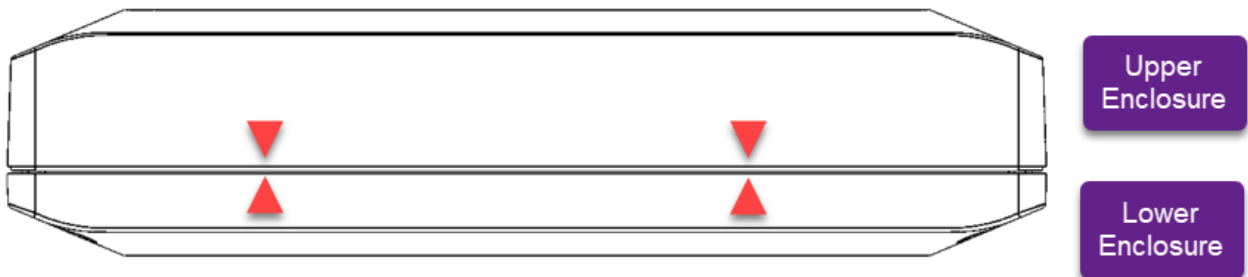


## STEP B: Slide Upper Enclosure into Lower Enclosure

Slide upper enclosure into lower enclosure.

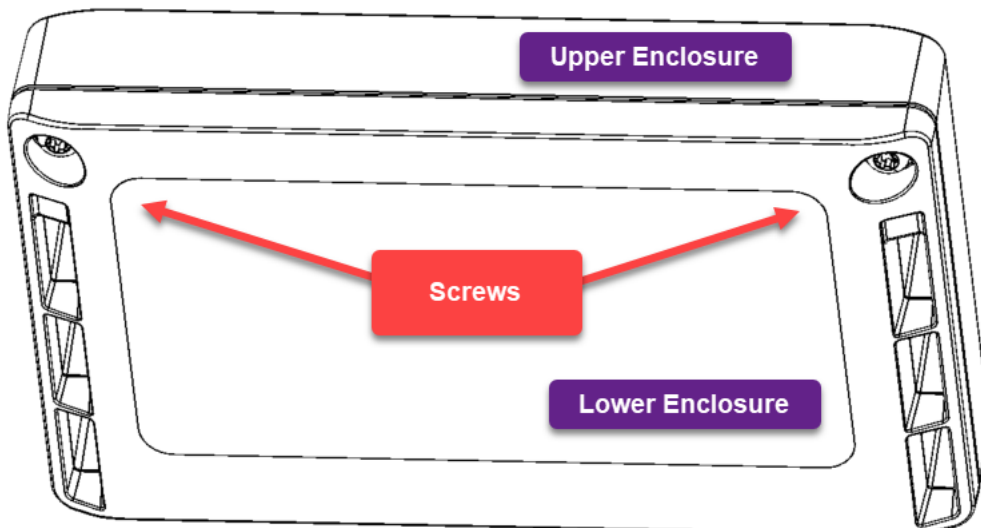


Close upper/lower enclosures.



## STEP C: Insert Two Screws in Lower Enclosure

Insert two screws to fasten together upper/lower enclosures.





## 8. Mounting Unit on Vehicle

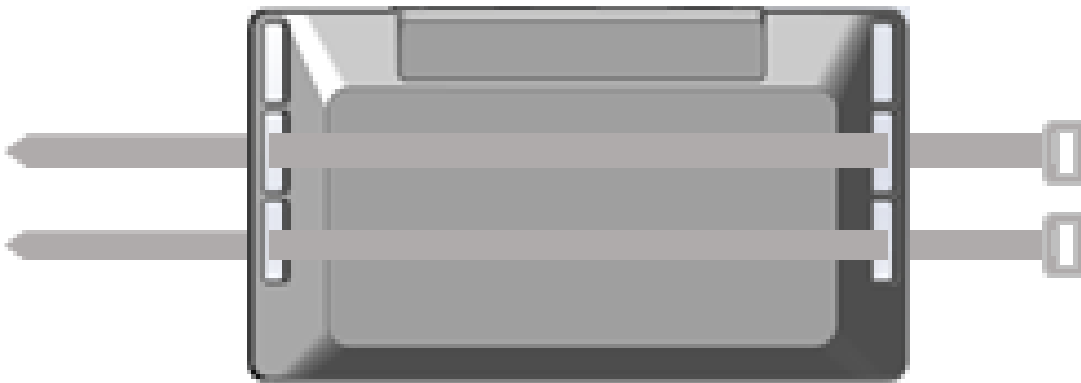
There are two methods for mounting the **Connect P** unit.

- Mount with Tie Strips
- Mount with Bracket

### Mount Unit with Tie Strips

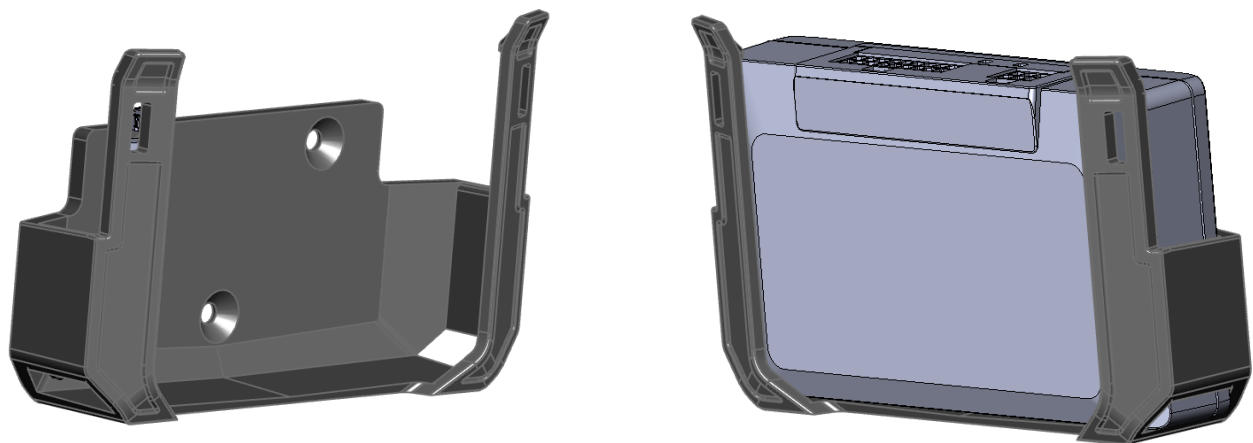
The **Connect P** ships with plastic tie strips for strapping the unit to the vehicle.

- Tie strips are useful in cases where you need to get started quickly (before permanent installation).
- Tie strips are also useful in cases where drilling is not possible.



### Mount Unit with Bracket

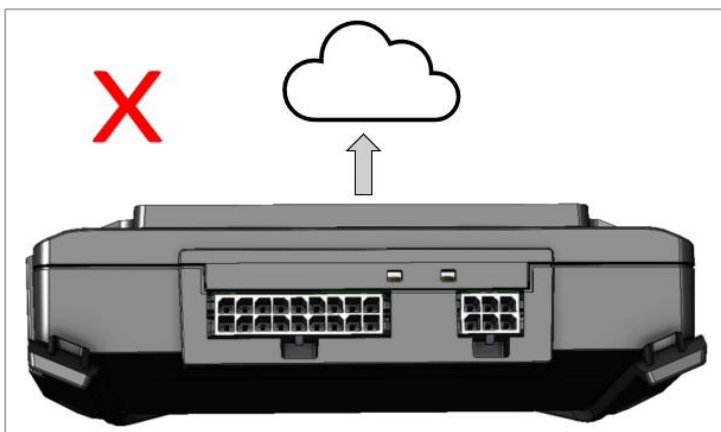
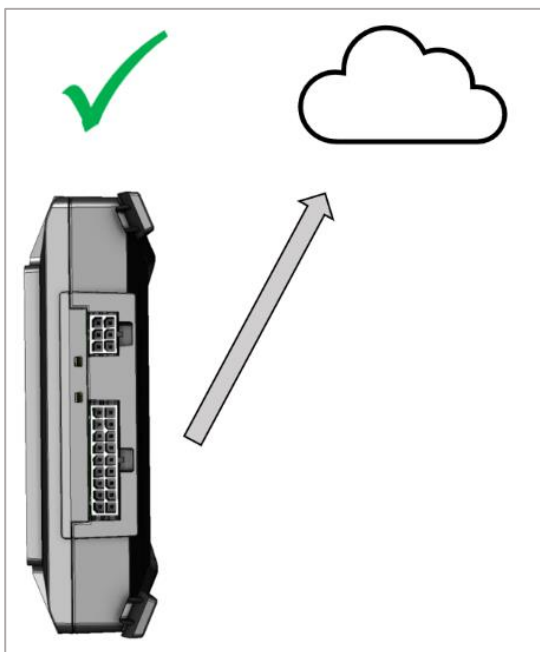
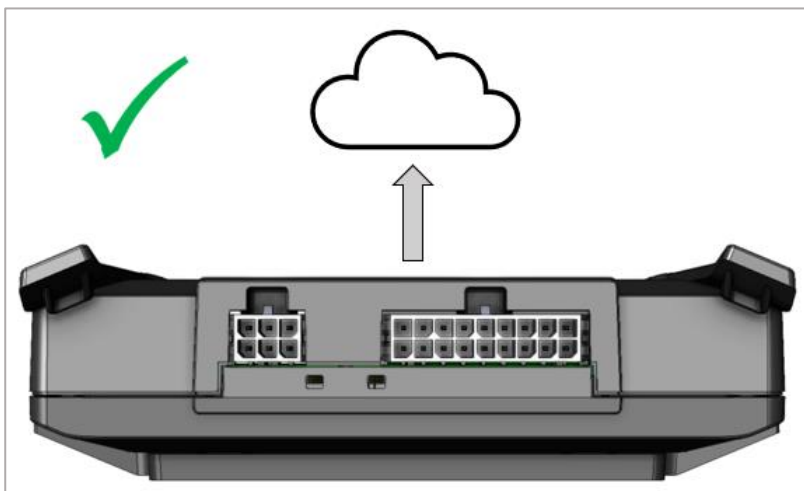
First attach the bracket to the vehicle. Then just slide in the unit.





## Position Unit Facing Skyward

For best reception, be sure to mount unit with the upper enclosure fully (or partially) facing skywards.





## 9. Connecting Unit for Operations

### Connect Unit to Ground

There are several options for connecting the unit ground (black wire in harness):

**OPTION 1**

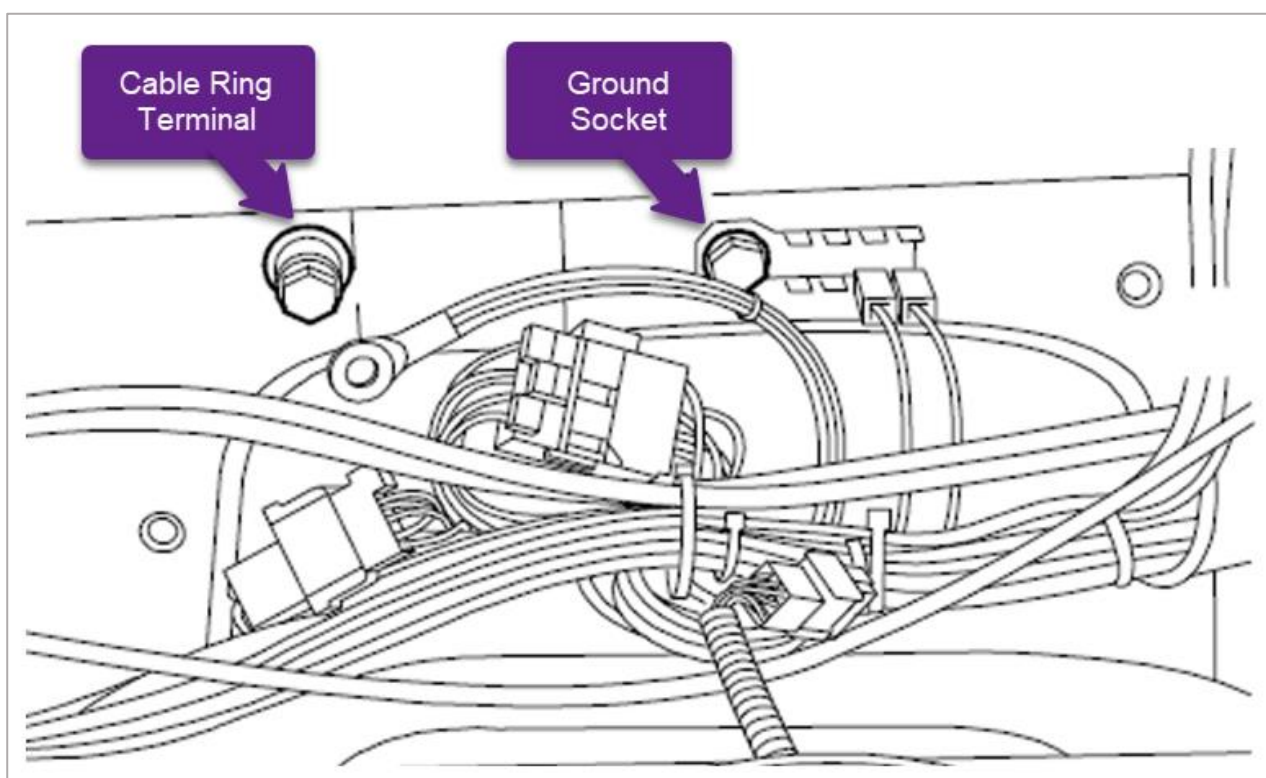
Attach GND directly to the metal body of the vehicle.

**OPTION 2**

Attach GND to a cable ring terminal (see example below).

**OPTION 3**

Attach GND to a ground socket (see example below).



Connecting or soldering the unit to another ground wire is prohibited.



## Connect Unit to Power

The **red wire** in the unit harness is used to receive constant power from the vehicle. The **red wire** needs to be connected to a main power socket (+30) at the vehicle fuse box.

If no power socket is available at the vehicle fuse box, another solution is to solder the **red wire** to the main power cable of the vehicle. Be sure to use isolate tape or shrink crimp for correct isolation.

## Connect Unit to Ignition

The **green wire** in the unit harness is used to receive ignition power from the vehicle. The **green wire** needs to be connected to an ignition socket (+15) behind the ignition switch.

If no ignition socket is available, another solution is to solder the **green wire** to the main ignition cable (+15) of the vehicle. Be sure to use isolate tape or shrink crimp for correct isolation.

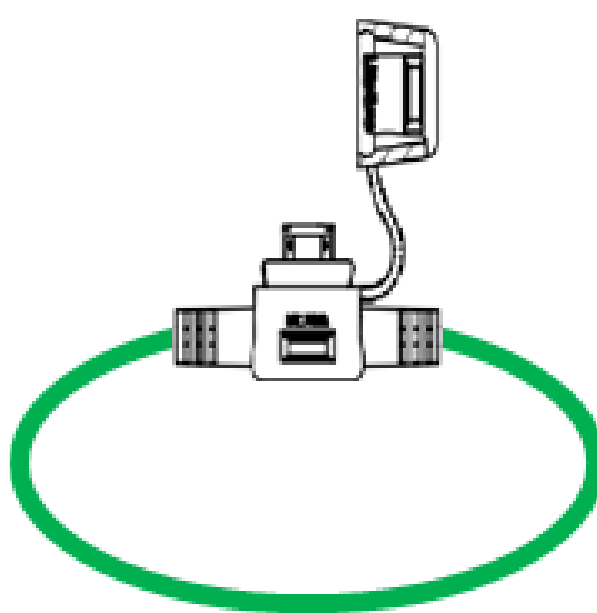
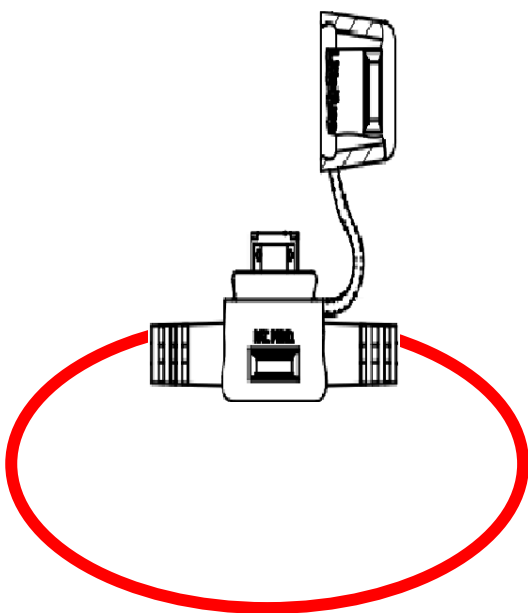
## Connect Safety Fuses

The installation kit includes two safety fuses for isolating the main power line and the main ignition line from the unit. These fuses can be installed by soldering. Be sure the fuses are in safe and accessible locations - in case they need to be replaced.

If a fuse burns out, you must disconnect the **Connect P** unit before replacing the fuse.



The fuses must be installed before turning on the vehicle.

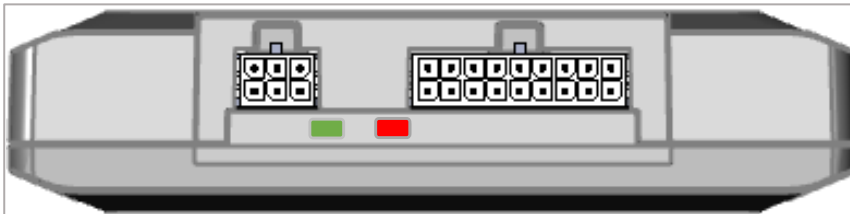




## 10. Troubleshooting with LED Indicators

### View LED Status

The **Connect P** includes two LEDs for observing GPS/GSM status, as shown below.

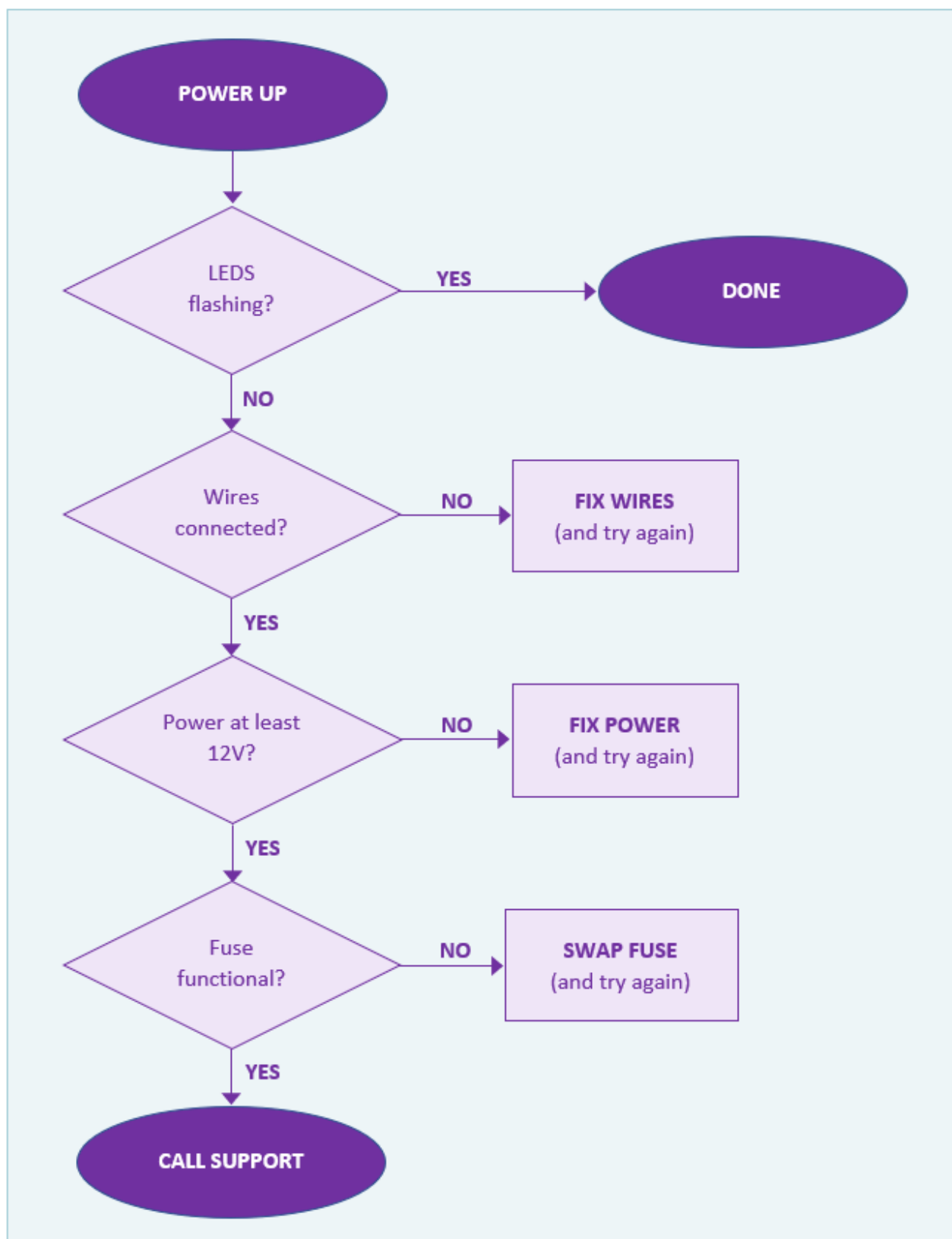


* * * * *	Searching GPS signal
* 1 Sec * 1 Sec * 1 Sec *	GPS position established
* * * * *	Searching GSM signal
* 1 Sec * 1 Sec * 1 Sec *	GSM connection established



## Troubleshoot Inactive LEDs

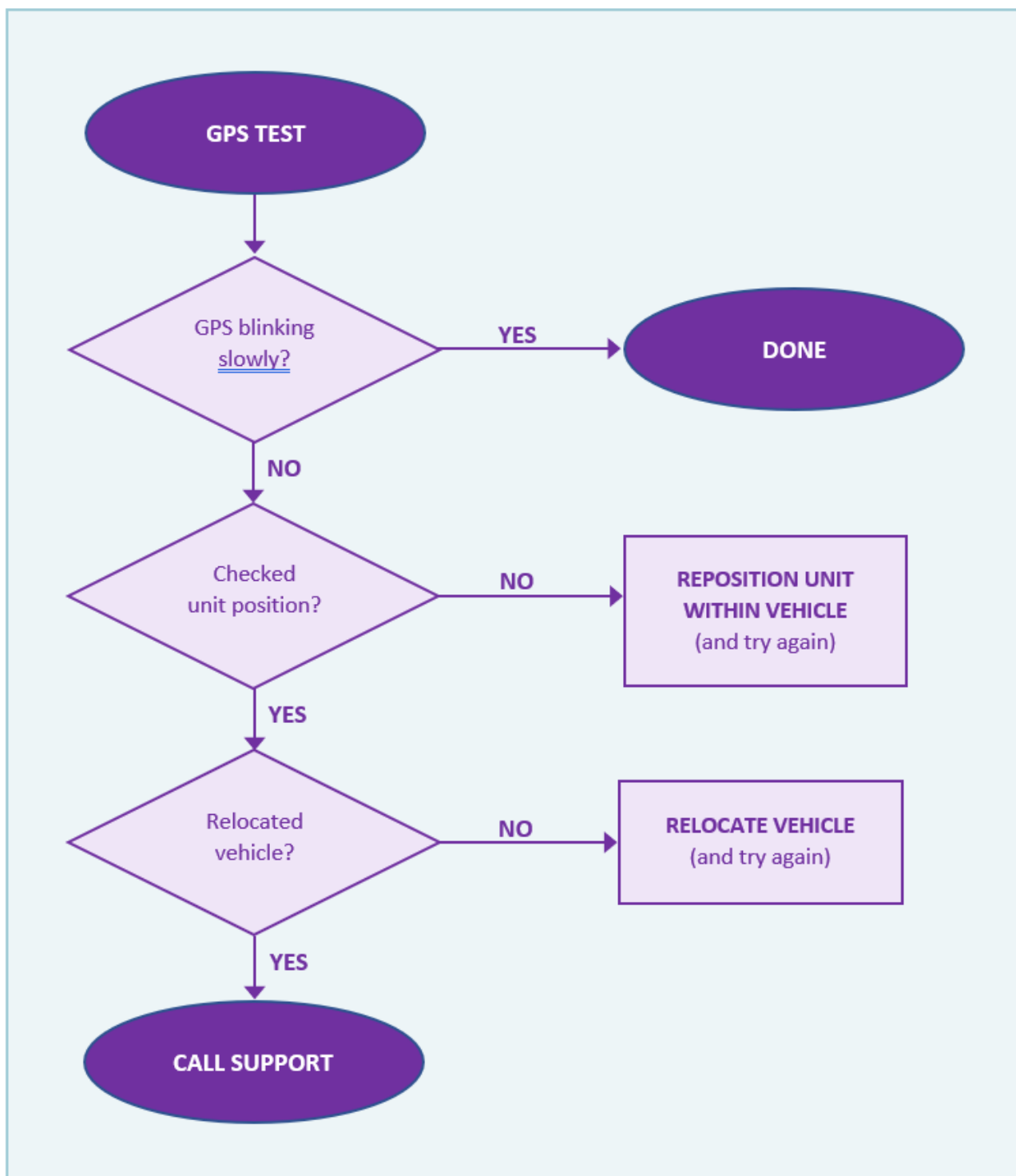
When installation is complete, you should see the two LEDs flashing rapidly. If the two LEDs are inactive, use this flowchart for troubleshooting.





## Troubleshoot GPS LED (green)

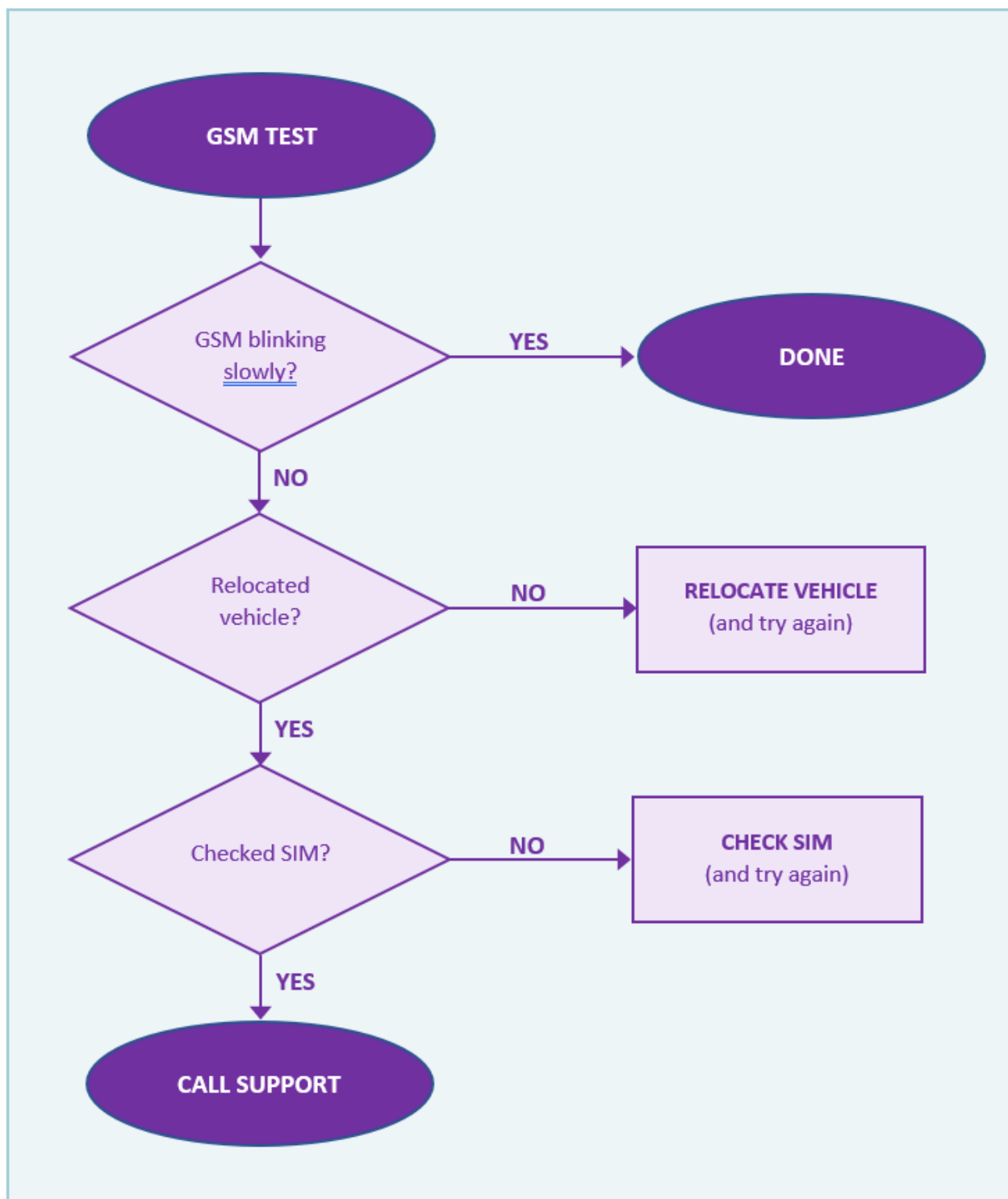
If the **GPS LED (green)** is flashing rapidly, it should change to a slow blink within 10 minutes. If it continues to flash rapidly, use this flowchart for troubleshooting.





## Troubleshoot GSM LED (red)

If the **GSM LED (red)** is flashing rapidly, it should change to a slow blink within 10 minutes. If it continues to flash rapidly, use this flowchart for troubleshooting.





# 11. Verifying Your Installation

To verify your installation, follow these instructions.

## Inspect Hardware

Perform the following hardware checks:

- Unit and wires are fixed and stable.
- Any excess cabling is rolled up and secured with cable ties.
- All connections are properly soldered or crimped - and are properly insulated with electrical tape or heat shrink isolation.
- No warning indicator lights are lit on the vehicle dashboard.

## Check Communications

Call the Questar Service Center and perform the following tests:

- Vehicle is located correctly on the map, with the vehicle ignition turned on (and then turned off).
- Diagnostic data is being transmitted correctly.
- Fill in the “installation form” and send to Questar Service Center.

## Perform Cleanup

- Collect any leftover materials from the vehicle and from the surroundings.

## Submit Form

- Fill in the “installation form” and send to Questar Service Center.