

### Commercial Vehicle Productivity and Security

The 6800 is a versatile and economical GPS tracking beacon designed for fleet management needs in local delivery and service fleets, transportation, utility vans and construction vehicles.

With highly sensitive GPS and 4G LTE embedded antennas, an integrated OBDII port connector for power and an extremely compact design, the Vecima 6800 can be installed in a matter of seconds which substantially reduces the high cost of installation.

Combined with our commercial mobile monitoring portal, subscribers can manage and view the location of any or all vehicles in a fleet, run a variety of valuable reports, and even manage vehicle maintenance alerts.

Security features include vehicle theft detection and tracking.



### Features and Benefits

Feature	Benefit
Real-time location	View location of vehicle on a map in real-time for dispatch and vehicle recovery, or track at specified time intervals
Route logs	Archive records of vehicle movements
Ignition on/off	Know when vehicle engine is on or off for maintenance and productivity reports
Start and stop movement	Determine actual arrival and departure times
Zone (Geofence) notifications	Receive notifications upon entering or exiting circular or polygonal zones – multiple zones monitored simultaneously
Speed notifications	Manage excessive speed by receiving notifications upon crossing a set speed threshold or a posted speed limit
Idle report and notification	Help eliminate fuel wastage by knowing when a vehicle engine was on but the vehicle was not utilized
Tow	Detect and send notifications when the vehicle has been towed
Power Cut notification	A warning is issued if the device suddenly loses power or is removed from the vehicle
Power Savings	Configure the beacon to sleep after a period of inactivity or if the battery voltage is reduced
Input for auxiliary system monitoring	Remotely monitor any system that can indicate its status via a voltage change
Harsh Acceleration	An alert is generated when the vehicle accelerates too quickly
Harsh Braking	An alert is generated when the vehicle decelerates too quickly
Harsh Cornering	An alert is generated when the vehicle corners too quickly
Accident Detection	An alert is generated if a potential accident is detected
Driver ID	Identify the current vehicle operator using an electronic token

### Specifications

#### Location Technology

- 99 channel GPS (with SBAS)
- Accuracy: 2.5m CEP 50%

#### Network Functionality

- 4G LTE Cat M1
- Frequency Bands (MHz):  
B2 (1900), B4 (AWS1700), B12 (700)
- 21,000 buffered messages

#### Power Requirement

- 12/24 VDC Vehicle Systems
- Operating: 60-300mA @ 12V
- Deep Sleep: 1.7mA @ 12V
- Backup Battery 3.7V 90mAh

#### Physical Connection

- J1962 compliant connector
- Integrated GPS and Cellular Antennas

#### Mechanical

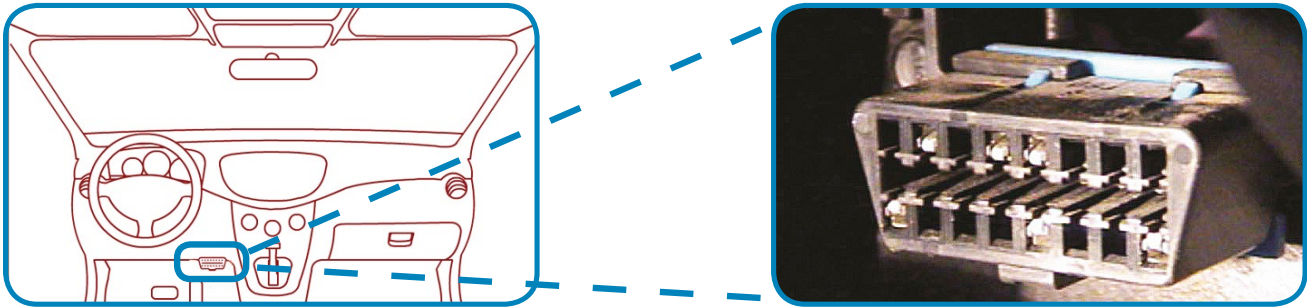
- Rugged textured plastic enclosure
- Dimensions  
3.31 x 2.05 x 0.98" (84 x 52 x 25 mm)
- Weight  
2.82 oz. (80 grams)
- Operating Temperature  
-4 to 140°F (-20 to +60°C)

### Applications of GPS Fleet Management

- Improve productivity of mobile staff
- Improve customer service
- Prevent misuse of company resources
- Recover stolen or misplaced vehicles
- Provide monitored security for drivers
- Reduce fuel wastage and maintenance costs

## Plug and Play Installation

Since 1996, North American vehicles have supported the On-Board Diagnostics-II protocol (OBD-II). The port that supports OBD-II connectors and devices (including the Vecima model 6800 beacon) is typically found beneath the dash on the driver's side of the vehicle.



With the vehicle ignition turned off, install the beacon by pressing it firmly onto the vehicle port. The beacon is powered from the vehicle battery, allowing communication to start right away. Connectivity can be confirmed by looking at the LEDs (see LED Indicators below) and by checking the portal for ignition events once the vehicle is started.

If the 6800 is plugged directly into the OBDII port, it is recommended to secure the device using a zip tie to prevent it from being accidentally dislodged or removed.



Installing the 6800 with a Y-cable will allow the device to remain connected while other diagnostics equipment is in use. If the Y-cable is used, the 6800 must be secured in place beneath the dash, as movement or excessive vibration will cause inaccurate results for accelerometer functions. For best results, the IMEI label with the bar code should face the sky and not be obstructed by metal objects.

Part #68xx-YCC-M is for a covert installation.

One end of the cable replaces the existing OBDII port, while the 6800 may be installed beneath the dash out of sight. Please refer to [this video](#) for installation instructions.



The Y-cable includes various connectors for attaching the cable to the OBDII port on the dashboard. Choose the connector that matches your vehicle.

## LED Indicators

The Vecima 6800 has three LEDs on the side of the device which provide feedback about the current state of the device.

LED	LED Patterns	
Blue (GPS status)	Solid Off Blink every 1 second Solid On	GPS is off GPS is obtaining a fix GPS has current location fix
Red (Communication status)	Solid Off Blink every 1 second Blink every 2 seconds Fast Blink 2 / Second Solid	Modem is off Modem is on ...searching for network Network is registered Data connected Assigned server connected (full connectivity)
Green (VBus status)	Solid Off Fast Blink Blink every 10 seconds	ECM data protocol not found ECM data transmitting Deep sleep mode

## Auxiliary Input

The 6800 has a single auxiliary input, which may be used for applications such as an emergency button or other form of switch. The input is installed using the feature adapter cable (part #68xx-IN-1W ).

The wires in the adapter cable are described in the following chart:

Wire Color	Connection
Red	Power (+5V) (to be used if required for accessories)
Black	Ground
Brown	Input 1
Green	RS232 Rx (unused)
Yellow	RS232 Tx (unused)
Orange	1-Wire interface (Driver ID, Temperature Sensor)

Input 1 (**Brown** wire) is a negative digital input. The acceptable voltage range is 0 to 5V, and the triggering voltage is 0 to 0.8V. Note that the power provided by the cable (+5V/GND) has a maximum limit of 500mA.



## Warnings and Known Issues

- The Vecima 6800 may be incompatible with certain models of electric or hybrid vehicles. For more information please contact your Vecima dealer.
- Some electric vehicles are equipped with two OBDII-style ports. One is the EV port used by the manufacturer for firmware updates, and the other is the OBDII diagnostic port used for the 6800. **Plugging the 6800 into the EV port may damage the vehicle.** Check your vehicle documentation to correctly identify the ports.
- It is important that the device is installed fully onto the OBDII port, and that the port itself is firmly attached to the vehicle. If the Y-cable is used the beacon must be securely mounted to the vehicle to prevent unexpected movement. Excessive vibrations caused by loose connections can cause incorrect results.
- The Vecima 6800 is not a waterproof or sealed device. Care must be taken to ensure the device is kept away from water or any other liquids.
- The micro-USB plug on the feature adapter cable may become dislodged by excessive vibration. It is a good practice to secure the cable to the 6800 device using a “zip”-style cable tie.