



# VAM-HD 12v Installation Guide

NOTE: This Product is intended for installation by a professional installer only! Any attempt to install this product by any person other than a trained professional may result in severe damage to the electrical system and to vehicles components.



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## 1 VAM-HD 12V PLUGIN INSTALLATION



1. Plug the device into the 12V adapter
2. Using the supplied Velcro strips, securely fasten the device to the carpet or dashboard with the white barcode label facing downwards. Avoid installing the unit where it is subject to kicks or bumps such as in the glove box or under the central armrest. The ideal location is out of reach under the passenger seat.
3. Turn on the engine of the vehicle. The blue light in the charger should be illuminated.
4. On the main unit, observe the LED flash sequence as described in section 2.
5. After a few minutes (up to 10), the LED flash sequence should turn green, except for a single long red flash to indicate the lack of Bluetooth.

### 1.1 Installation Test

#### 1.1.1 VAM Function

Park the vehicle outdoors to receive GPS signals, with engine off. The VAM unit is set to automatically search for a GPS fix as soon as power is applied. Once a fix has been found, the unit will send a “First Fix Message” via the GSM network to the Back Office provider.

Next turn the engine on and observe the LED flash sequence as described in the table in section 6.

Ensure that the GPS is able to achieve a 3D fix by observing the 3 short green flashes. A 3D fix will take several minutes to achieve.

Ensure that the VAM connects to the GSM network. This can take several minutes AFTER the 3D GPS fix is obtained.

Ensure the VAM thinks the engine is running by observing the rapid flashes. Two should be seen in green. This should take several seconds after the ignition is switched on.

If you only get one rapid flash the device thinks that the vehicle is not running. **CHECK YOUR IGNITION CONNECTION!**











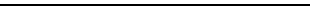

Turn the engine off.



## 1.2 Back Office Connection

Ensure the unit has registered with the Back Office over the GSM network. DO NOT leave the vehicle until you have checked that the unit has checked in by displaying its current location on the Back Office.

## 2 DIAGNOSTIC LED FLASH SEQUENCE

LED Flash	Colour	Type	Description
<b>GPS</b>			
	Red	1 short flash	No GPS
	Orange	2 short flashes	2D GPS fix
	Green	3 short flashes	3D GPS fix
<b>GSM/GPRS Network Connection</b>			
	Orange	1 medium flash	GSM network available (SMS only)
	Green	2 medium flashes	Data link available (GPRS)
	Orange	3 medium flashes	SMS(s) being transmitted or received since last sequence cycle
	Red	4 medium flashes	No network coverage (No GSM, GPRS)
<b>Ignition Status</b>			
	Orange	1 rapid flash	Ignition OFF
	Green	2 rapid flashes	Ignition ON
<b>Bluetooth</b>			
	Orange	1 long flash	Searching for a Bluetooth connection
	Green	2 long flashes	Bluetooth connected
	Red	1 long flash	Bluetooth not connected/off



The VAM diagnostic LED sequence indicates the GPS and communications network status, plus engine running detection. These three sequences are repeated in a loop with a one second gap between each sequence.

A full engineering diagnostic cycle lasts between 4 seconds with no GPS or GSM and no engine running to 10½ seconds with 3D GPS, GSM SMS active and the engine running.

To save power, the LED will be switched off when the VAM is in Sleep Mode.

### **3 REGULATION**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

this device may not cause harmful interference, and

this device must accept any interference received, including interference that may cause undesired operation.

To reduce potential radio interference to other users, the GPS antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication.

The product should not be installed in the engine bay of the vehicle.

The product should be installed at least 20cm away from any persons within the vehicle.