

ROAD ANGEL[™] *Halo*

Installation Guide



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Introduction

This document clarifies the location and installation methods to be used for all installations of the Road Angel Halo device. Using the recommendations within this document will help improve installations, provide a more reliable product and promote a better customer experience.

All installations are governed by the FCS1362:2010 UK Code of practice for the installation of mobile radio and related ancillary equipment in land based vehicles. All installers are expected to adhere to the FCS1362 standards as a minimum.

Scope

This guide covers the fitting requirements for an installation into a 12v or 24v vehicle and relates to the following unit variants:

Hardwiring can be performed by any auto electrician trained in 12v installation, familiar with modern vehicle assembly methods and the ability to dismantle trim panels with the care and sensitivity that vehicle plastics require.

Items Required for Hardwire Installation

Items sold separately	<ul style="list-style-type: none"> ● Halo hardwire lead* (DC power in) <ul style="list-style-type: none"> ○ Configuration: <ul style="list-style-type: none"> ○ 12v DC socket to device. ○ Positive (Fused), Ground and Ignition switched leads. <p><i>*Note: 3rd party leads/connections are not supported and may compromise device warranty.</i></p>
Required for installation (in box)	<ul style="list-style-type: none"> ● Halo - primary device (forward facing camera) ● Rear camera ● Rear camera extension lead ● Adhesive wire clips
Additional items (in box)	<ul style="list-style-type: none"> ● 12v DC power lead - cigar socket connection (plug & play only) ● Micro SD card ● Micro SD card reader (USB) ● USB stick (containing Halo software & user guide)



Location

It is recommended to install the primary Halo device around the top/centre of the windscreen near the rear view mirror, ensuring driver visibility is not obscured, while ensuring any leads are not subjected to stress once connected to the unit.

Find a suitable location for the Halo within the vehicle where the primary unit has a clear forward facing view. Both the power connection and rear camera extension cable must reach the Halo device without compromising safety or obscuring visibility of both the driver and device lens.

It is recommended to install the rear camera around the top/centre of the rear windscreen where the unit has a clear rear facing view. Once again, the cabling and extension leads should not be subjected to stress.

Line of Sight (GPS)

The Road Angel Halo primary device has a built in GPS antenna which is used to provide location and speed information to the user during playback. The Halo is designed to be stuck onto the inside of the windscreen, with the camera facing forward. The device must not be obscured by anything other than glass or plastic. *Note: The Camera Lens field of view must not be obstructed.*

In the case of vehicles with a UV filter / heat reflective / athermic glass or heated windscreen, the quality of the GPS signal may be degraded. Installers can contact the vehicle manufacturer to clarify the type of windscreen used on that vehicle and the best placement for GPS based products to prevent signal degradation.

Usually the vehicle manufacturer allows for antennas by creating a small hatched area where antennas can be mounted. In some vehicles this is in the top centre of the windscreen where the rear view mirror is located along with other sensors such as rain and light sensors.

Under no circumstances should the unit be subjected to water immersion, steam or solvent cleaning.

Interference

To avoid the possibility of GPS signal interference, we recommend that the primary Halo device is kept well away from the following items:

1. Any type of display equipment such as TV / TFT / LCD screens (e.g. i-Drive or Sat Nav)
2. Radios
3. Other transmitting devices (mobile phones, connected GPS devices, CB radio etc)



Cabling and Hardwire Installation

The supplied 12v power lead is used for a *normal* 'plug & play' installation and is connected directly to the cigar socket / DC out connection. When hardwiring a Halo device, this cable is redundant. However, we recommend connecting the Halo to this lead prior to installation to confirm the device operates correctly.

Note: It is important to verify the length of the cables provided is sufficient before routing the cables through the vehicle.

Installation using the Halo Hardwire Lead:

Hardwire installation requires a permanent 12V source, ground connection (GND) and an ignition feed (IGN) which is +12V powered when the ignition is on.


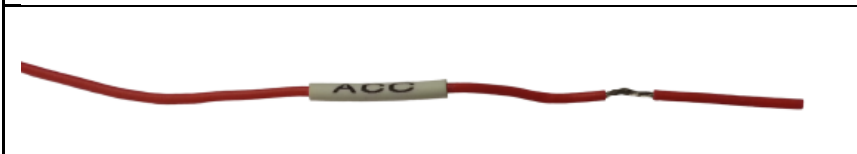

With the introduction of Stop/Start technology please be aware that the ignition feed and the permanent power (12V) needs to remain live even when the Stop/Start feature is engaged.

The Halo hardwire lead has 1x power output (DC input to device) and 3x exposed connections for wiring into the vehicle as follows:

The white cable labelled "B+" connects to a *permanent* positive 12 volt connection in the vehicle.

The red cable labelled "ACC" should be connected to an *ignition switched* 12 volt source.

The black cable labelled "GND" connects to an 'Earthed' or *ground* connection such as the chassis.

	B+ ("Battery Positive" cable)
	ACC ("Ignition Switched" cable)
	GND ("Ground" cable)



Placement of the all cabling should be kept away from air bags or similar safety equipment, away from door wells or moving parts where it could interfere with their operation or sever the cabling. When installing the cables, avoid obscuring field of view, vents or breaching waterproof seals.

It is advised that the device should not be located close to ABS wiring, audio wiring, steering columns or directly over air conditioning units.

We also recommend that the cable is secured onto other cables, metal surrounds, plastic surrounds or fitted using the provided adhesive clips.

- Do not attempt to shorten the cables provided with the device, such as the extension lead or cigar power lead (where applicable). This may prevent the correct operation of the device and will invalidate the warranty.
- Verify that the Halo functions prior to installation. This can be achieved by connecting the DC power lead to the device and confirming the device powers up and records as expected.
- Where possible, test the resistance across the hardwire lead before installation as this should indicate any defects on the connections prior to installation.

Cable & Connector Stress

Quite often there is very little room to install the cabling and/or device, and this can cause the connections of cables and connectors to become 'stressed'. Please ensure that even when space is limited, that the cables are not bent back hard causing stress on the connector and the cable.