FORD BARRA TERMINATED HARNESS FOR NEXUS R3 ECU

QUICK START GUIDE

HT-186405



HARNESS OVERVIEW

Congratulations on purchasing a Ford Barra terminated wiring harness for a Nexus R3 VCU! This specialized harness is designed for engine conversions using the following Ford Barra engines:

- **BA Series**
  Barra 240T (XR6T)
- **BF Series**
  Barra 190 (NA Falcons + Territory)
  Barra 245T (XR6T)
- **FG Series**
  Barra 270T (XR6T)

When used with a Nexus R3 VCU, your Ford Barra engine will have access to a wide range of performance and tuning capabilities.

This Quick Start Guide will walk you through the installation of the terminated harness, as well as the available sub-harnesses and other compatible devices.

Harness Features:

- Direct plug-in to Nexus R3 VCU
- Terminated engine bay and in-cabin connections
- CAN connectivity for Haltech CAN devices (e.g., dash displays, keypads, etc.)
- Sensor connections (e.g., Crank, cam, temperature, pressure, position, speed, etc.)
- Direct wideband lambda sensor connection
- Dual knock sensor support (Bosch sensors)
- Injector sub-harness options (EV1, EV6, Denso)
- Ignition sub-harness options (to suit factory ignition coils using external Haltech igniter)
- Direct VCU control for thermofan, fuel pump, and starter
- Compatible with BA, BF and FG Drive By Wire throttle systems (sub-harnesses included)
- Alternator control connection options
- Transmission wiring breakout connector
- Spare inputs and outputs located in both the cabin and the engine bay.

GENERAL INSTALLATION WARNING:

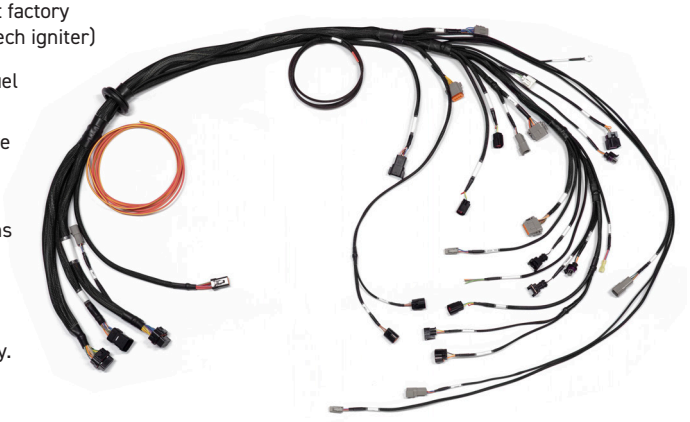
A Nexus series ECU or VCU allows connection to your laptop via the Nexus Software Programmer (NSP) using the included USB cable, without the need for +12V power. This feature conveniently lets you set up your ignition, injector, and various other outputs before initially powering up the control unit using this harness. Turning on the control unit with incorrect configurations can lead to damage to both the engine and control unit components.

This wiring harness is not designed to provide grounding for your engine. Ensure your engine is adequately grounded using a grounding or earthing strap to connect your engine to the battery.

Avoid creating sparks or using electrical devices near flammable substances. Always disconnect the battery cables when working on the electrical systems of your vehicle. Make sure all fuel system components and wiring are installed away from heat sources, properly shielded if necessary, and in well-ventilated areas.

After installation, double-check for any fuel leaks and ensure that no wiring is left exposed or uninsulated to avoid the risk of a fire from a spark or short circuit.

Do not charge or disconnect the battery while the engine is running. Doing so could expose the control unit to an unregulated power supply, which might lead to control unit failure.



What's in the bag?

- Nexus Ford Barra terminated harness (HT-186405)
- Nexus Ford Falcon BA/BF APP adaptor harness (HT-186131)
- Nexus Ford Falcon FG APP adaptor harness (HT-186132)
- Nexus Ford Barra BA/BF throttle adaptor harness (HT-186165)
- Nexus Ford Barra FG throttle adaptor harness (HT-186166)
- Nexus 2 pin BA alternator adaptor (HT-186125)
- Nexus 3 Pin BF/FG alternator adaptor (HT-186127)
- Cabin adaptor harness (HT-186130)
- Opposing connectors and pins to use with boost control solenoid, spare inputs and outputs, and transmission breakout.



Available adaptors and sub-harnesses (sold separately)

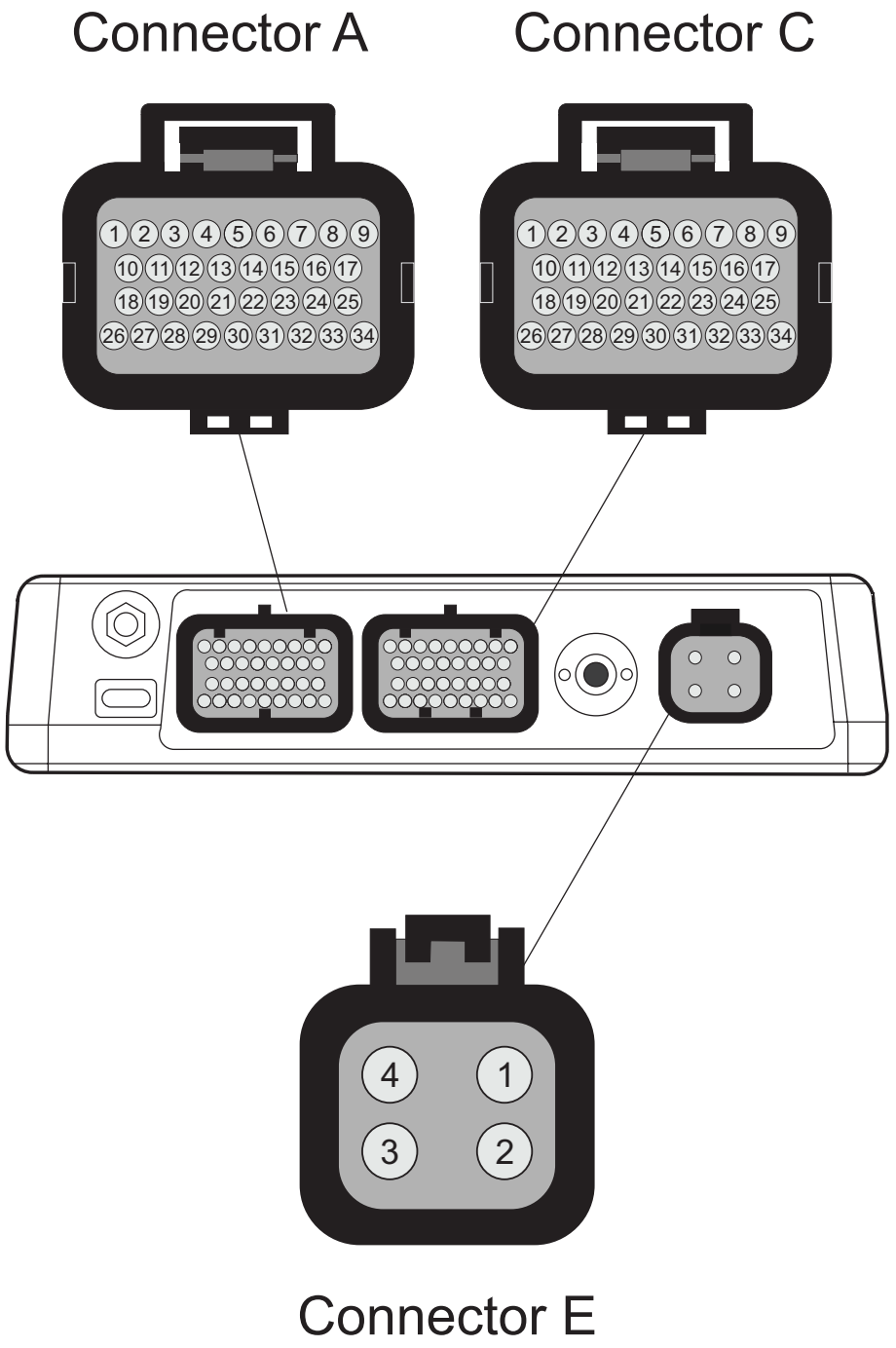
- HT-186010 - i6 Sumitomo (Denso) primary injector harness
- HT-186004 - i6 Timer (EV1) primary injector harness
- HT-186007 - i6 GT150 (USCAR EV6) primary injector harness
- HT-130345 - Ford Barra ignition sub-harness BA/BF
- HT-130347 - Ford Barra ignition sub-harness FG
- HT-186069 - Nexus 6 cylinder igniter adaptor
- HT-020036 - Nexus High Power Igniter

HARNESS PINOUT DIAGRAM

CONNECTOR A (KEYWAY TYPE 1)		
Pin	**Function**	**Color**
A1	Injector 1	Blue
A2	Injector 2	Blue/Black
A3	Injector 3	Blue/Brown
A4	Injector 4	Blue/Red
A5	Injector 5	Blue/Orange
A6	Injector 6	Blue/Yellow
A7	Injector 7 (Dual intake)	Blue/Green
A8	Injector 8 (Boost control)	Blue/Violet
A9	DPO 1 (Cabin)	Violet/Black
A10	Power ground output	Black
A11	Power ground output	Black
A12	DPO 2 (Cabin)	Violet/Brown
A13	Ignition switch input	Pink
A14	DPO 3 (Cabin)	Violet/Red
A15	DPO 4 (Spare)	Violet/Orange
A16	DPO 5 (Alt. control)	Violet/Yellow
A17	DPO 6 (Cabin)	Violet/Green
A18	HBO 5 (Transmission)	Pink/Red
A19	HBO 1 (Throttle)	Brown/Black
A20	HBO 2 (Throttle)	Brown/Red
A21	HBO 3 (VCT 1)	Brown/Green
A22	HBO 4 (VCT 2)	Brown/Pink
A23	CAN 1 High	White
A24	CAN 1 Low	Blue
A25	HBO 6 (CAN power)	Pink/Brown
A26	Const 12V (Transmission)	Red
A27	Ignition 1	Yellow/Black
A28	Ignition 2	Yellow/Red
A29	Ignition 3	Yellow/Orange
A30	Ignition 4	Yellow/Green
A31	Ignition 5	Yellow/Brown
A32	Ignition 6	Yellow/Blue
A33	Ignition 7 (Spare)	Yellow/Violet
A34	Ignition 8 (AC control)	Yellow/Gray

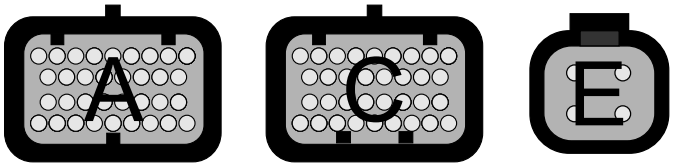
CONNECTOR C (KEYWAY TYPE 2)		
Pin	**Function**	**Color**
C1	Trigger + (Crank)	Yellow
C2	Trigger -	Green
C3	Home + (In. cam)	Yellow
C4	Home -	Green
C5	SPI 1 (Cabin)	Gray/Brown
C6	SPI 2 (Spare)	Gray/Red
C7	SPI 3 (Ex. cam)	Yellow
C8	SPI 4 (Flex fuel)	Gray/Yellow
C9	Unused	Unused
C10	AVI 1 (Cabin)	White
C11	AVI 2 (AC pressure)	White/Yellow
C12	AVI 3 (Fuel pressure)	White/Gray
C13	AVI 4 (Oil pressure)	White/Violet
C14	AVI 5 (MAP)	White/Green
C15	AVI 6 (Throttle)	White/Orange
C16	AVI 7 (Throttle)	White/Black
C17	AVI 8 (Cabin)	White/Brown
C18	AVI 9 (Cabin)	White/Red
C19	SPI 5 (Spare)	Gray/Pink
C20	SPI 6 (Transmission)	Gray/L.Green
C21	CAN 2 High	White
C22	CAN 2 Low	Blue
C23	Knock 1	White
C24	Knock 2	White
C25	5V sensor supply	Orange
C26	Sensor ground	Black/White
C27	AVI 10 (Coolant temp)	L.Green
C28	AVI 11 (Air temp)	L.Green/Black
C29	WBI 1 Heater +	Gray
C30	WBI 1 Common	Yellow
C31	WBI 1 Pump	Red
C32	WBI 1 Nernst	Black
C33	WBI 1 Heater -	White
C34	WBI 1 Cal	Green

CONNECTOR E		
Pin	**Function**	**Color**
E1	HCO 25A 1 (Starter)	Red/Blue
E2	HCO 25A 2 (Fuel pump)	Red/Yellow
E3	HCO 25A 3 (Thermofan)	Red/Orange
E4	HCO 25A 4 (Ign Inj12V)	Red/Green



Nexus R3 VCU Connection

With the unit powered off, connect the 3 VCU plugs on the main harness to the Nexus R3 ECU.



Connector A:
34-pin, Keyway Type 1
Connector C:
34-pin, Keyway Type 2
Connector E:
4-pin, DTP

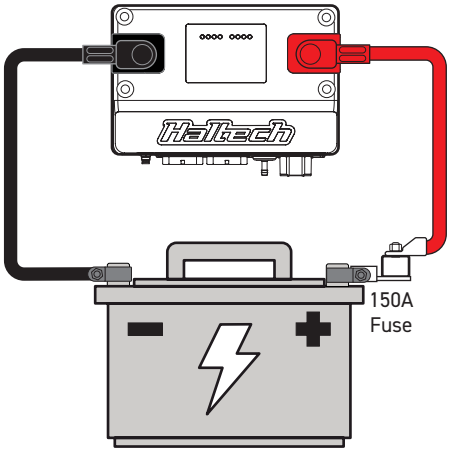


Battery Positive and Battery Negative (Nexus R3 VCU)

For correct operation, the battery positive and battery negative must be connected to the Nexus R3 VCU at all times.

The Nexus R3 VCU's positive (red) terminal must be connected to the positive (+) terminal of the battery. It is recommended to use a 150A fuse (sample CF fuse shown below) in this connection. Use the supplied red Surlok connector, along with a red 4 AWG battery cable (sold separately), to complete the connection.

The Nexus R3 VCU's negative (black) terminal must be connected to the negative (–) terminal of the battery using the supplied black Surlok connector, along with a black 4 AWG battery cable to complete the connection.



Nexus R3 VCU battery connection (fused)

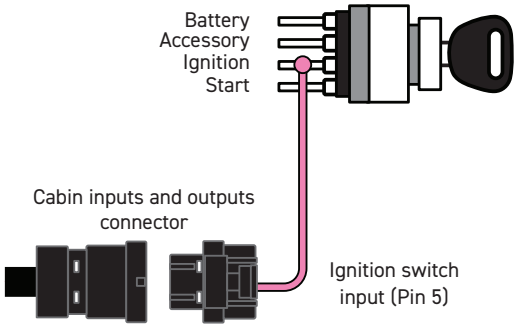
Ignition Switch Input

(Label: Ign. Sw.)

The ignition switch input (pink) wire must be connected to a switched +12V source to turn the Nexus R3 VCU on.

When connecting this wire to the ignition key switch, it is important to make sure to use the main ignition wire (i.e., not accessory) so it doesn't lose power when the key is in the "Start" position, causing the VCU to momentarily turn off.

The pink ignition switch input wire comes out of the connector for cabin inputs and outputs, where the APP adaptor is also integrated.



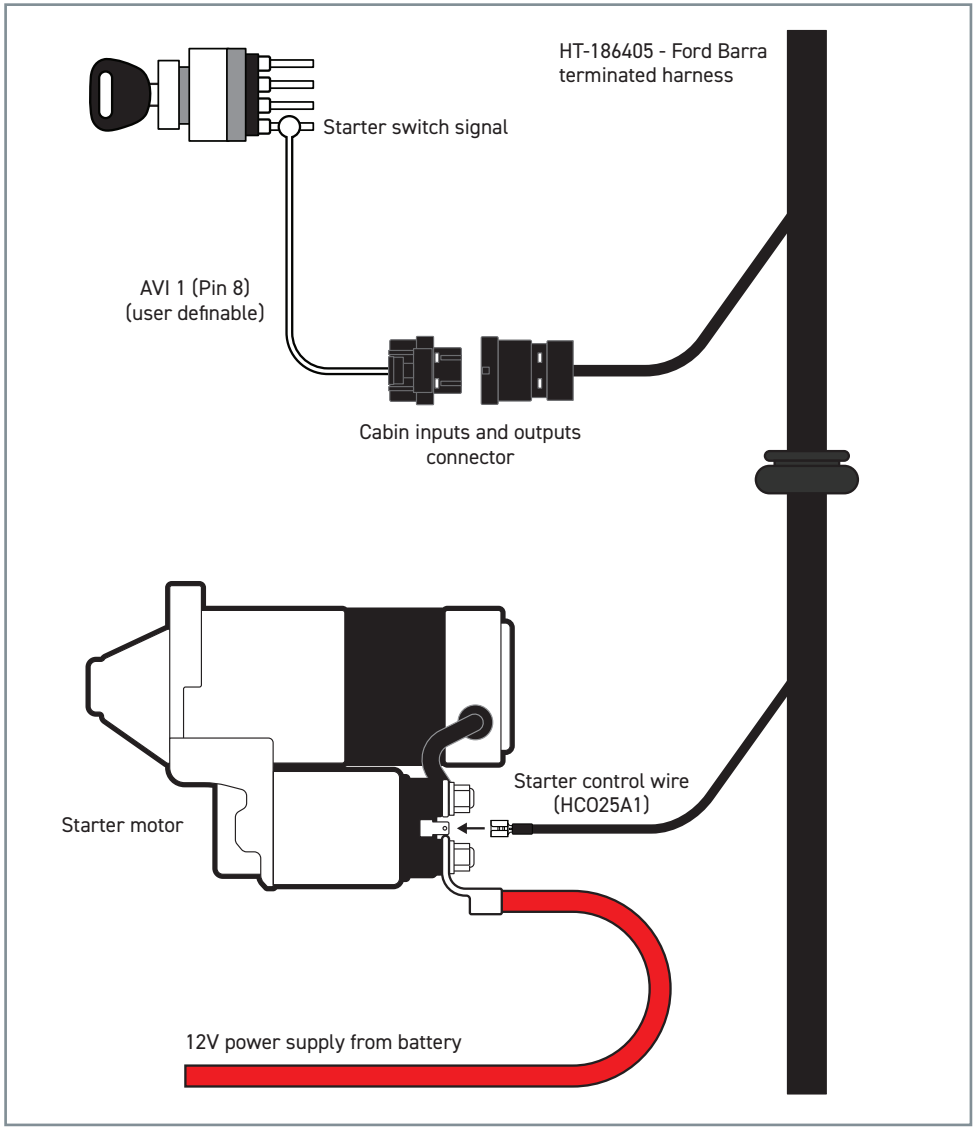
Starter Motor Control

(Label: Starter)

The Ford Barra terminated harness features a high-current output wire that can supply +12V (25A) to the starter solenoid when needed to engage the starter motor. This wire is terminated with a spade terminal that connects directly into the starter solenoid. The output is controlled by the VCU via the HCO 25A 1 pin, which is assigned to the starter control function in the VCU settings.

Controlling the starter also requires a starter switch signal to be connected to the VCU. A white wire is fitted to the cabin connector and is pinned to AVI 1 (pin 8) for this purpose. This wire must be connected to the starter switch signal from the ignition key switch.

Alternatively, the starter switch signal can be assigned to any available AVI/SPI within NSP, or to a CAN keypad button if your setup includes one.

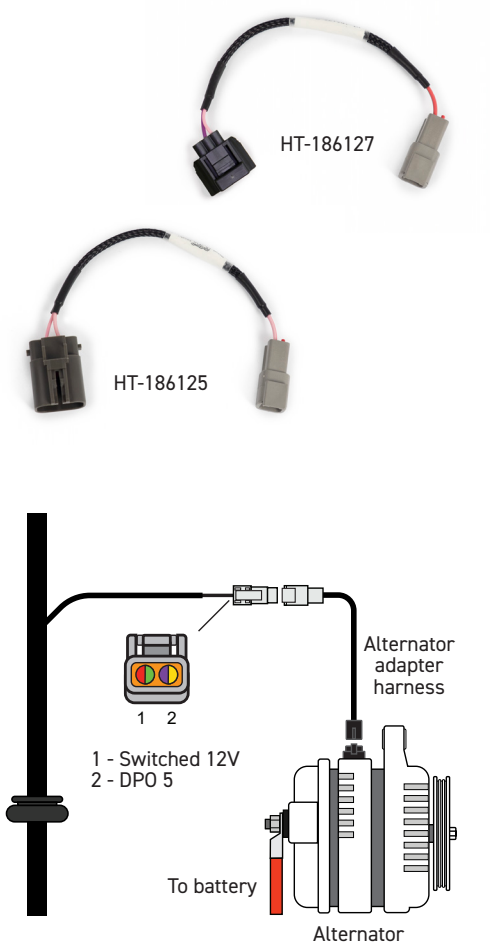


Alternator
(Label: Alt)

This harness is equipped with a 2-pin DTM connector to provide switched +12V power to alternators, as well as a DPO for ECU alternator control, if required. Additionally, the harness kit includes alternator adapter harnesses to suit the most common Ford Barra engine alternators, with the following connectors:

HT-186125: Nexus 2 pin BA alternator harness

HT-186127: Nexus 3 pin BF/FG alternator harness

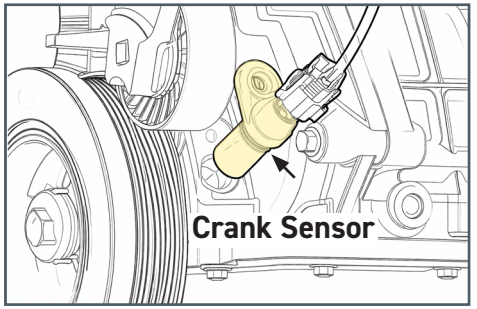


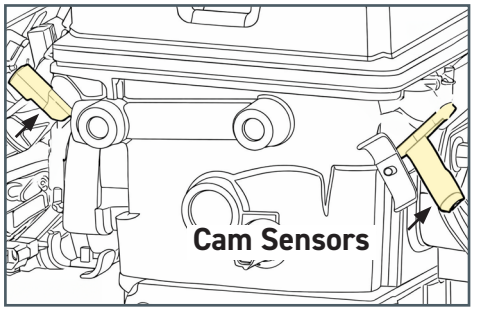
Crank and Cam Sensors
(Labels: Crank, Cam Intake, Cam Exhaust)

The inline-six Ford Barra engines with dual VCT on both the intake and exhaust camshafts use a crank sensor located toward the front of the engine behind the crank pulley, and two cam sensors positioned at the rear of the cylinder head, one on each side.

The Nexus R3 Ford Barra terminated harness supports all three sensors using factory connectors, with branches laid out and labelled accordingly.

Additionally, each branch features switched 12V and sensor ground wires looped beneath the heat shrink to support aftermarket Hall Effect sensor conversions.

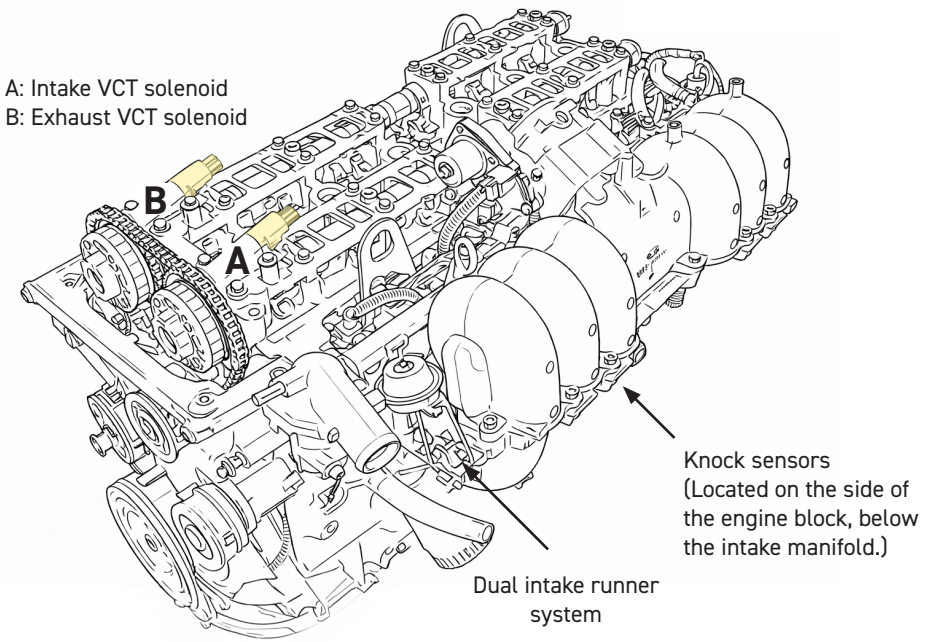




Knock Sensors
(Label: Knock 1, Knock 2)

The Ford Barra terminated harness features two knock sensor connectors that plug into the factory knock sensors located on the side of the engine block below the intake manifold.

Using these knock sensors allows the Nexus R3 VCU to detect knock and control ignition timing as part of the VCU's knock control strategy.



Intake and Exhaust VCT
(Label: VCT 1 Intake, VCT 2 Exhaust)

This terminated harness features two VCT solenoid connections terminated with factory plugs. VCT, or Variable Camshaft Timing, allows for optimised engine performance, reduced emissions, and improved fuel efficiency compared to engines with fixed camshaft timing.

NOTE: This engine is equipped with continuously variable cam timing on both the intake and exhaust cams, with up to 60 degrees of adjustment range.

A unique characteristic of this engine is that the intake camshaft is at full advance in its default state. The ECU controls intake cam timing by retarding the camshaft as additional duty cycle is applied to the control solenoid. This results in an intake cam target angle table that may appear unusual, resembling a conventional cam timing table that has been retarded by 60 degrees.

The exhaust camshaft follows a similar convention; however, this behaviour is typical for most other engines. Ford also defines an arbitrary reference point as zero degrees, which corresponds to approximately -10 degrees (10 degrees of retard) in Haltech terminology. This difference in reference points is one of the reasons Haltech cam timing tables appear different from those used by other Ford Barra ECU tuning platforms.

Dual Intake Runners
(Label: Dual Intake)

The Ford Barra terminated harness is fitted with a 2-pin DTM connector set to wire a dual intake runner solenoid, if the engine is equipped with one. A dual intake runner system allows the intake manifold airflow path to switch between short and long runners depending on engine speed and load. This effectively optimises engine performance at both low and high RPM.



Dual intake runner connector
(Wire side view)

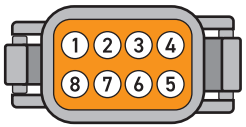
DUAL INTAKE RUNNER CONNECTOR PINOUT		
PIN	FUNCTION	COLOR
1	Switched 12V	Red/Green
2	Injector 7	Blue/Green

Fuel Injector Breakout

(Label: Inj)

The Nexus Ford Barra terminated harness uses an injector breakout connector that plugs into multiple types of injector sub-harnesses (sold separately). The choice of sub-harness depends on the type of injector connectors being used.

Each injector plug is labeled accordingly to easily identify which injector on the engine it connects to.



Fuel injector breakout connector
(Main harness wire side view)

FUEL INJECTOR BREAKOUT CONNECTOR		
PIN	FUNCTION	COLOR
1	Injector 1	Blue
2	Injector 2	Blue/Black
3	Injector 3	Blue/Brown
4	Injector 4	Blue/Red
5	Injector 5	Blue/Orange
6	Injector 6	Blue/Yellow
7	Injector supply	Red/Green
8	Injector supply	Red/Green



HT-186004 - EV1 Primary Injector Harness



HT-186010 - Sumitomo (Denso) Primary Injector Harness



HT-186007 - GT150 (USCAR EV6) Primary Injector Harness



EV1 USCAR / EV6 Denso

Ignition Coil Breakout

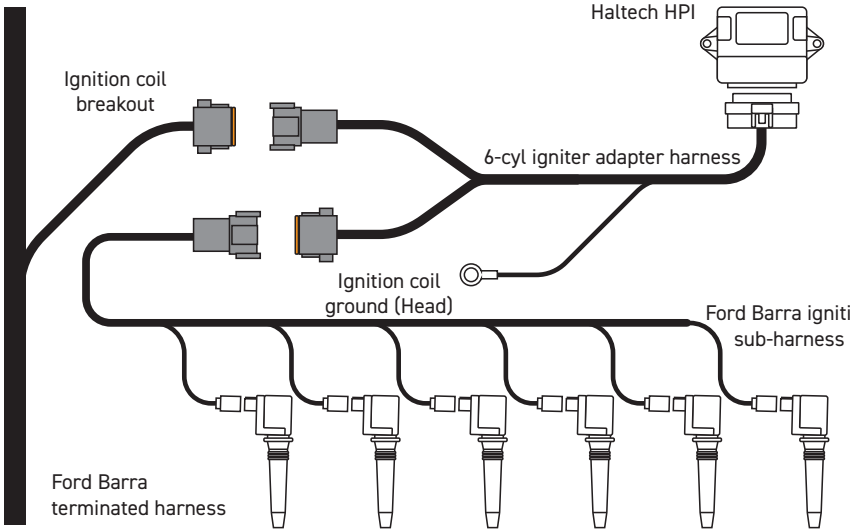
(Label: IGN)

The Nexus Ford Barra terminated harness uses an ignition coil breakout connector that allows the use of the factory 2-pin non-ignited ignition coils, with the following sub-harnesses (sold separately):

HT-130345 - Barra ignition sub-harness BA/BF
HT-130347 - Barra ignition sub-harness FG
HT-186069 - 6 cylinder igniter adapter
HT-020036 - High Power Igniter

Refer to the diagram below for connection reference.





WARNING: The factory Ford Barra 2-pin ignition coils do not have internal igniters. For this reason, the Haltech HPI external igniter and Nexus 6-cylinder igniter adaptor harness must be installed between the ignition coil breakout connector and the Ford Barra ignition sub-harness, as shown below.

The Haltech HPI enables the ECU to correctly drive these ignition coils. Connecting a 2-pin, non-ignited ignition coil directly to the ECU via the ignition coil breakout, without an external igniter module such as the Haltech HPI, will result in damage to both the ECU and the ignition coils.

R35 Ignition Coils and Bracket Kit

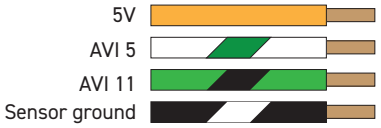
Alternatively, Haltech offers a kit (HT-120205) that includes the use of R35 ignition coils, an R35 coil ignition harness, ignition coil bracket and all mounting hardware. The kit plugs directly to the ignition coil breakout connector and does not require the external igniter.



TMAP Sensor
(Label: Int Air Temp / MAP)

The inline-six Ford Barra engines feature a four-pin Manifold Absolute Pressure (MAP) sensor and an Intake Air Temperature (IAT) sensor combined into a single assembly. This type of sensor is supported by the Nexus Ford Barra terminated harness through a dedicated flying lead branch and will need to be terminated by the installer using either of the two connector sets included, depending on the sensor connector type used on BA/BF and FG engines.

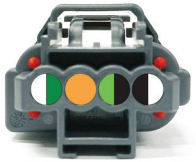
Refer to the pinout information and connector images below for wire termination guidance.



TMAP CONNECTOR PINOUT			
FUNCTION	COLOR	BA/BF	FG
5V	Orange	3	2
AVI 5 (MAP)	White/Green	4	1
AVI 11 (IAT)	L.Green/Black	2	3
Sensor ground	Black/White	1	4



4 3 2 1
TMAP sensor connector (BA/BF)
(Wire side view)



1 2 3 4
TMAP sensor connector (FG)
(Wire side view)

Coolant Temperature Sensor
(Label: Coolant Temp)

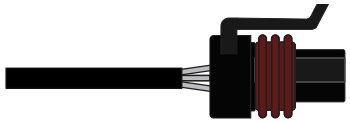
The Barra engine coolant temperature sensor (often referred to as the cylinder head temperature sensor) is located at the rear of the cylinder head, near the firewall, and is supported by the Ford Barra terminated harness using the factory connector.

This sensor is "dry," meaning it measures cylinder head temperature rather than being directly immersed in coolant. However, it operates on the same principle as a conventional coolant temperature sensor and is configured in NSP in the same manner.



Oil and Fuel Pressure Sensors
(Label: Oil Press / Fuel Press)

This harness plugs directly into Haltech oil and fuel pressure sensors using the Delphi 3-pin pressure sensor connector shown below. While oil and fuel pressure sensors are not required for the engine to run, they are highly recommended to enable the VCU to make fueling adjustments and provide engine protection.



Delphi 3-pin
Pressure sensor connector



HT-010910 - 150 PSI Motorsport Pressure Sensor
HT-010912 - 250 PSI Motorsport Pressure Sensor

Boost Control
(Label: Boost)

The Ford Barra terminated harness features a dedicated 2 pin DTM connector for wiring a Haltech boost control solenoid. A 3-port boost solenoid, such as the HT-020400, is suitable for performance applications and provides much more stable control over the desired boost pressure.

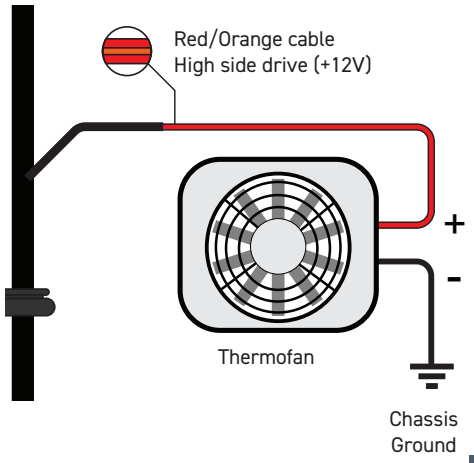


3-Port Boost Control Solenoid
(HT-020400)

Thermofan Control
(Label: Fan)

This harness provides direct thermofan control using the Red/Orange 10AWG cable.

Use this cable to supply +12V power directly to the thermofan and leverage VCU functions, such as setting the fan's on/off temperature threshold, activating the fan with air-conditioning, or deactivating the fan when the vehicle reaches a specified speed (vehicle speed sensor is required).



Wideband Lambda Sensor
(Label: WB02)

The Ford Barra terminated harness is equipped with a DTM-6 connector that plugs into a Haltech wideband hardware pack and is directly controlled by the wideband controller built into the Nexus R3 VCU. Wideband hardware packs are available with either a Bosch LSU4.9 sensor (HT-010746) or NTK sensor (HT-010747). Using a wideband lambda sensor allows the VCU to utilise functions such as closed-loop fuel control, where the VCU targets the desired fuel mixture for any RPM and engine load combination. It also enables the VCU to implement engine protection strategies when it detects that the fuel mixture is running too lean.

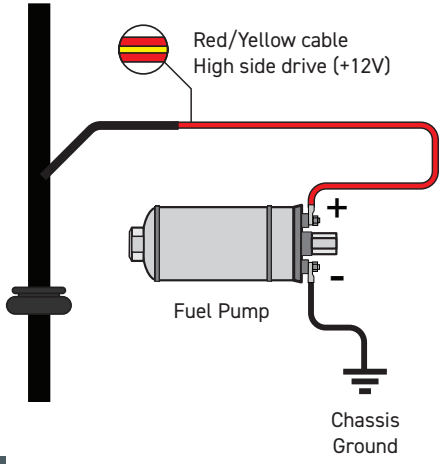


Bosch LSU4.9 Wideband Hardware Pack
(HT-010746)

Fuel Pump Control
(Label: F Pump)

The harness also provides direct fuel pump control using the Red/Yellow 10AWG terminated cable.

Use this cable to supply +12V power directly to the fuel pump, allowing the VCU to prime the pump when the system is turned on and to implement safety functions, such as automatically turning the pump off when the VCU no longer detects an RPM signal.



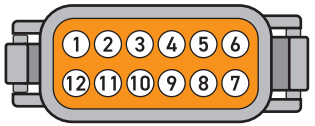
Throttle Breakout Connector

(Label: Throt)

The inline-six Ford Barra engine features a Drive-By-Wire (DBW) throttle system that operates the throttle electronically using a motor and dual throttle position sensors for feedback and redundancy.

This system is supported by the Nexus R3 VCU and the Ford Barra terminated harness via a throttle connector breakout, which allows the use of the following DBW sub-harnesses included in the kit:

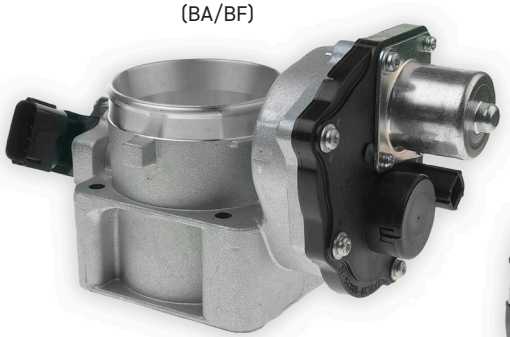
- DBW throttle sub-harnesses (BA/BF)
- DBW throttle sub-harnesses (FG)



Throttle breakout connector
(Main harness wire side view)

THROTTLE BODY CONNECTOR PINOUT		
PIN	FUNCTION	COLOR
1	Unused	No connection
2	Unused	No connection
3	HBO 1	Brown/Black
4	HBO 2	Brown/Red
5	Sensor ground	Black/White
6	5V	Orange
7	AVI 6	White/Orange
8	AVI 7	White/Black
9	Brake pedal signal	L. Green/Brown
10	Switched 12V	Red/Green
11	Unused	No connection
12	Unused	No connection

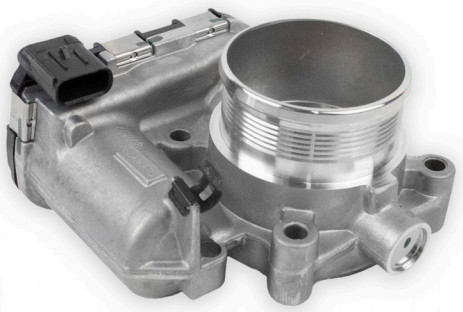
DBW throttle
(BA/BF)





DBW sub-harness
(BA/BF)

DBW throttle
(FG)





DBW sub-harness
(FG)

Accelerator Pedal Position

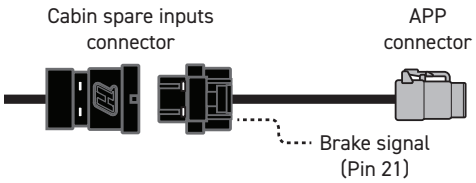
(Label: APP)

To complete the DBW throttle system, two Accelerator Pedal Position (APP) sub-harnesses are also included to suit the following APP sub-harnesses:

- APP sub-harness (BA/BF)
- APP sub-harness (FG)

The above sub-harnesses plug into the 6-pin DTM connector labelled APP, which is integrated into the 26-pin Cabin IO connector.

The cabin connector also includes a dedicated pin (Pin 21) designed for connection to a brake pedal switch, as part of the DBW control strategy. This brake pedal input signal is expected to read +12V whenever the brake pedal is pressed.





APP connector
(Wire side view)

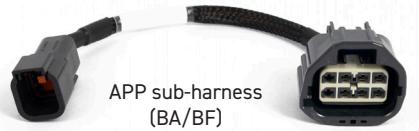
APP CONNECTOR PINOUT		
PIN	FUNCTION	COLOR
1	Sensor ground	Black/White
2	APP 1	White/Brown
3	5V	Orange
4	5V	Orange
5	APP 2	White/Red
6	Sensor ground	Black/White



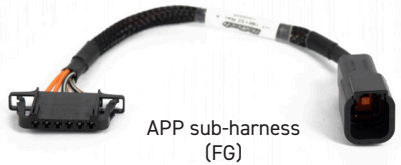
Accelerator Pedal
Position (BA/BF)



Accelerator Pedal
Position (FG)



APP sub-harness
(BA/BF)

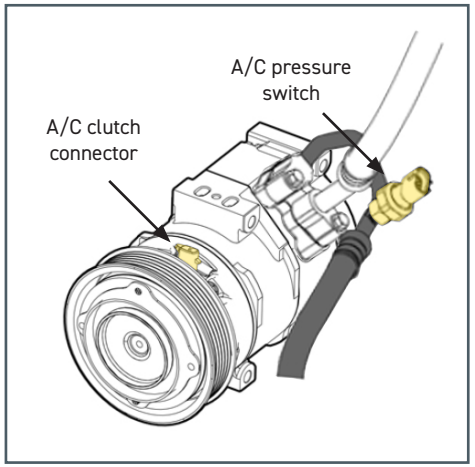


APP sub-harness
(FG)

A/C Clutch and Pressure Switch
(Label: A/C Clutch, A/C Press Sw)

The Ford Barra terminated harness features factory connectors that plug directly into the A/C compressor clutch connector and A/C pressure switch. Allowing the ECU to directly control the A/C compressor provides several advantages, including the ability to enforce a minimum engine run time after startup before engaging the compressor, and to automatically disengage the compressor at high engine speeds.

Connecting the A/C pressure switch also enables the ECU to monitor system pressure and only allow compressor engagement when the pressure is within the approved operating range.



Transmission Breakout Connector
(Label: Transmission)

The transmission breakout connector on the Ford Barra terminated harness can be used to wire in transmission sensors and wiring, or to interface with a CAN-based Haltech transmission controller.

Pinout information is provided below, and an opposing connector and pin set is included in the kit.



Main harness wire side view

TRANSMISSION BREAKOUT CONNECTOR		
PIN	FUNCTION	COLOR
1	HBO 5	Pink/Red
2	Power ground	Black
3	CAN 1 High	White
4	CAN 1 Low	Blue
5	SPI 6	Gray/L.Green
6	Constant 12V	Red
7	5V	Orange
8	Sensor ground	Black/White

Fuel Fuel Sensor
(Label: FLEX F)

The Ford Barra terminated harness also features an optional connector that plugs into a Haltech Flex Fuel Sensor. Using a Flex Fuel Sensor enables the VCU to make real-time adjustments to optimize the tune for varying ethanol blends.



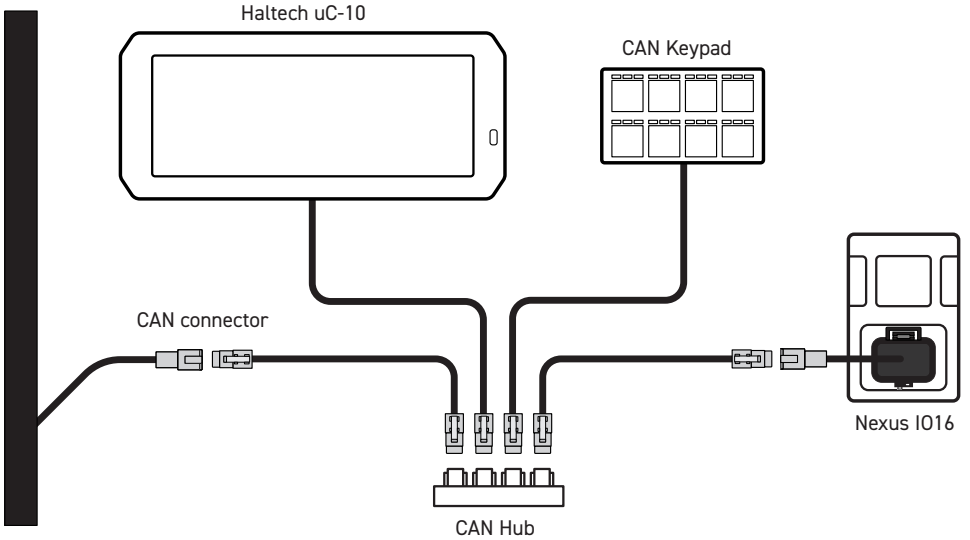
Flex Fuel Sensor
(HT-011000)

Haltech CAN connection
(Label: CAN)

This harness is equipped with 4 pin DTM connectors—one at the cabin end and the other at the engine bay end of the harness. These CAN connectors are designed to connect to Haltech CAN devices (e.g., display dash, keypad, PDM), which further expand the functionality of the application.

If you are using multiple Haltech CAN devices, a Haltech CAN Hub can be used to increase the number of available connection ports.







Spare Inputs and Outputs

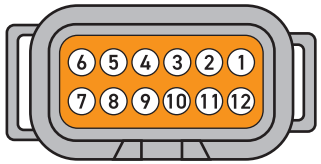
(Label: Cabin, Spare)

The Nexus Ford Barra terminated harness features two connectors with spare inputs and outputs that can be used to wire in additional sensors, switches, or to control relays, solenoids, warning lights, or other devices you want the VCU to control.

The connector located at the cabin end of the harness is labelled "Cabin" and uses a 26-pin connector.

The other connector, labelled "Spare" is located at the engine bay end of the harness and uses a 12-pin DTM connector.

Both opposing connectors are supplied in the kit, with pinout information provided below for reference.



Spare IO connector (engine bay)
Opposing connector, wire side view

SPARE IO CONNECTOR (ENGINE BAY)		
PIN	FUNCTION	COLOR
1	SPI 2	Gray/Red
2	Sensor ground	Black/White
3	5V	Orange
4	DPO 4	Violet/Orange
5	Power ground	Black
6	Switched 12V	Red/Green
7	Ignition 7	Yellow/Violet
8	SPI 5	Gray/Pink
9	Unused	No connection
10	Unused	No connection
11	Unused	No connection
12	Unused	No connection



Cabin IO connector (In-cabin)
Opposing connector, wire side view

SPARE IO CONNECTOR (IN-CABIN)		
PIN	FUNCTION	COLOR
1	CAN 1 High	White
2	CAN 1 Low	Blue
3	Switched 12V	Red/Green
4	Power ground	Black
5	Ignition switch	Pink
6	Switched 12V	Red/Green
7	Unused	No connection
8	AVI 1	White
9	Power ground	Black
10	Unused	No connection
11	DPO 1	Violet/Black
12	5V	Orange
13	DPO 2	Violet/Brown
14	CAN 2 High	White
15	CAN 2 Low	Blue
16	Sensor ground	Black/White
17	DPO 6	Violet/Green
18	Unused	No connection
19	Unused	No connection
20	DPO 3	Violet/Red
21	Brake signal	L.Green/ Brown
22	SPI 1	Gray/Brown
23	Sensor ground	Black/White
24	AVI 8 (APP 1)	White/Brown
25	AVI 9 (APP 2)	White/Red
26	5V	Orange

WARRANTY CERTIFICATE

At Haltech we make every effort to design and manufacture fault-free products that perform up to or above the market expectations. All our products are covered by a Limited 12 Month Warranty.

Haltech Limited Warranty

Unless specified otherwise, Haltech warrants its products to be free from defects in material or workmanship for a period of 12 months from the date of purchase.

If the Haltech product is found to be defective as mentioned above, it will be replaced or repaired if returned prepaid along with proof of purchase. Proof of purchase in the form of a copy of the original purchase invoice, receipt or bill of sale which indicates that the product is within the warranty period, must be presented to obtain warranty service.

Replacement or repair of a defective product shall constitute the sole liability of Haltech. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representations, either expressed or implied, including any implied warranty of merchantability or fitness. In no event shall Haltech, be liable for special or consequential damages.

Product Returns

Please include a copy of the original purchase invoice, receipt or bill of sale along with the unused, undamaged product and its original packaging. Any product returned with missing accessory items or packaging will incur extra charges to return the item to a re-saleable condition.

All product returns must be sent via a freight method with adequate tracking, insurance and proof of delivery services. Haltech will not be held responsible for product returns lost during transit.

Returns of Products Supplied in Sealed Packaging

The sale of any sensor or accessory supplied in sealed packaging is strictly non-refundable if the sealed packaging has been opened or tampered with. This will be clearly noted on the product packaging. If you do not accept these terms please return the sensor in its original unopened packaging within 30 days for a full refund.

A sensor or accessory product may be returned after 30 days of purchase (with its sealed packaging intact) for credit only (no refunds given) and will be subject to a 10% restocking fee.

Installation of Haltech Products

No responsibility whatsoever is accepted by Haltech for the fitment of Haltech Products. The onus is clearly on the installer to ensure that both their knowledge and the parts selected are correct for that particular application. Any damage to parts or consequential damage or costs resulting from the incorrect installation of Haltech products are totally the responsibility of the installer.

Always disconnect the battery when doing electrical work on your vehicle. Avoid sparks, open flames or use of electrical devices near flammable substances. Do not run the engine with a battery charger connected as this could damage the ECU and other electrical equipment.

Do not overcharge the battery or reverse the polarity of the battery or any charging unit. Disconnect the Haltech ECU from the electrical system whenever doing any welding on the vehicle by unplugging the wiring harness connector from the ECU.

After completing the ECU installation, make sure there is no wiring left un-insulated. Uninsulated wiring can cause sparks, short circuits and in some cases fire. Before attempting to run the engine ensure there are no leaks in the fuel system.

All fuel system components and wiring should be mounted away from heat sources, shielded if necessary and well ventilated. Always ensure that you follow workshop safety procedures. If you're working underneath a jacked-up car, always use safety stands!

Haltech Off-Road Usage Policy

In many states it is unlawful to tamper with your vehicle's emissions equipment. Haltech products are designed and sold for sanctioned off-road/competition non-emissions controlled vehicles only and may never be used on a public road or highway.

Using Haltech products for street/road use on public roads or highways is prohibited by law unless a specific regulatory exemption exists (more information can be found on the SEMA Action Network website www.semasan.com/emissions for state by state details in the USA).

It is the responsibility of the installer and/or user of this product to ensure compliance with all applicable local and federal laws and regulations. Please check with your local vehicle authority before purchasing, using or installing any Haltech product.

06-2026



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