# Haltech

## PRODUCT RANGE

# Empowering automotive passion since 1986

Haltech has been at the cutting edge of engine management technology since it first opened its doors back in 1986.

The company is credited as being the first in the world to develop real time engine management calibration.

Today, Haltech ECUs are sold in over 50 countries around the world. They are the driving force behind many record-setting race vehicles.

Haltech is actively involved with many popular car culture shows like Discovery Channel's Street Outlaws and Mighty Car Mods as well as numerous racing and motorsport events like the NMCA/NMRA, SEMA, PRI, World Cup Finals, Street Machine Drag Challenge, World Time Attack Challenge and Summernats just to name a few.

The Haltech brand is recognised globally as the leader in its field, renowned for its continuously evolving, cutting edge technology and unparalleled customer support.

Over the years, Haltech has adapted to stay abreast of the emerging technologies and address changing expectations from tuners, racers and enthusiasts alike.

There are however, things that haven't and will never change - and those are Haltech's commitment to quality, innovation and the dedication and passion of the Haltech team.

These qualities have been Haltech's trademark since the beginning and are the main reason why thousands of people around the world choose Haltech for their vehicle management every year.

# NSP

## NEXUS SOFTWARE PROGRAMMER

- Customisable, user-friendly interface
- Multiple display themes
- Icon navigation
- Customisable mapping tables
- Multiple table display
- User definable functions
- Race-proven engine control
- Calibration for any sensor
- Wi-Fi connectivity
- Data logging directly to your laptop
- Data log playback within NSP
- Visual Input/Output Report
- Walk-through function guides
- Remote Help
- Automatic software updates
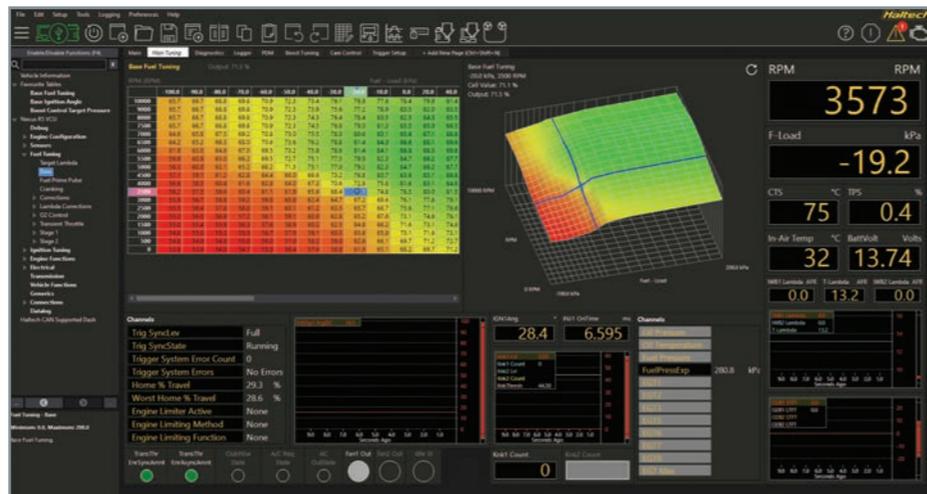


NSP (Nexus Software Programmer) is the most powerful, sophisticated and versatile software we've ever developed.

Designed as a digital hub for all current and future Nexus devices, it offers a plethora of advanced features and functions with plenty of possibilities for customisation.

With icon-based navigation and easily accessible, intuitive menus, NSP's interface is both versatile and user-friendly.

NSP is also now available on all Elite Series ECUs. It doesn't matter whether you bought your Elite yesterday or when it first came out, you can upgrade it to the latest version of NSP absolutely free and take advantage of all the advanced, new features.

**How to update your ESP to NSP on your Elite ECU:**

**Step 1:** Download the new version of ESP here: www.haltech.com/downloads

**Step 2:** Install the new ESP software and go online with your Elite Series ECU.

**Step 3:** Under the "Tools" menu select "Update ECU for use with NSP Software".

Alternatively, if you already have the latest software version, you can use the ESP Online portal to access the most current version of Firmware for your Elite ECU and update it.

**IMPORTANT:** Before updating the Firmware on your ECU always disconnect your ignition system and read the Release Notes.
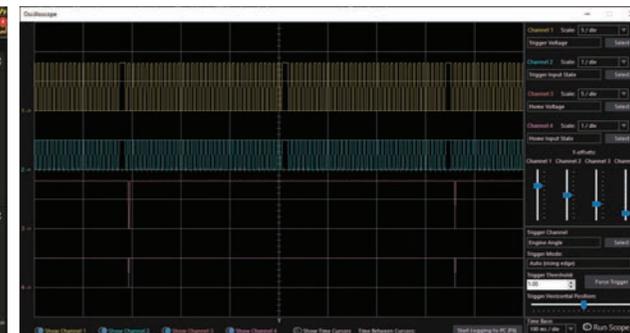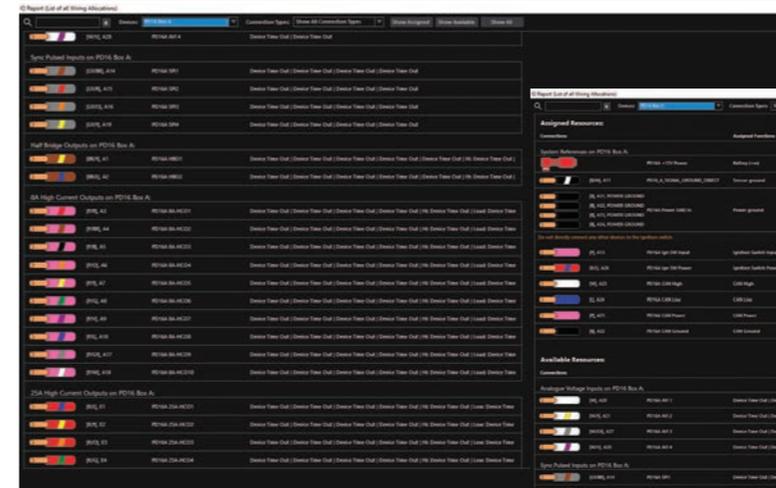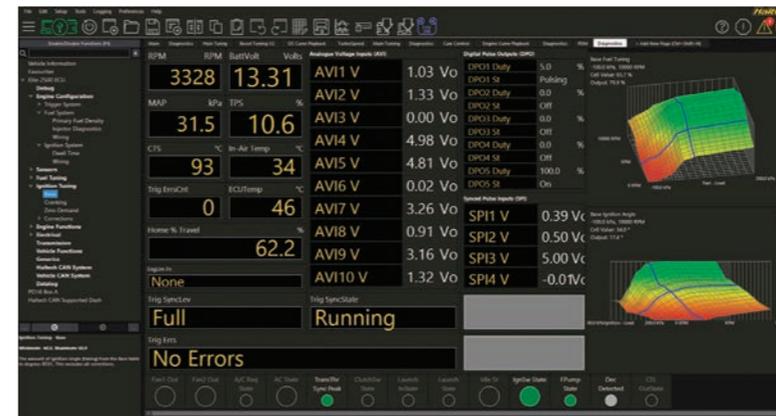


**· Oscilloscope**
Software based 4-channel oscilloscope with a 5th channel to trigger the scope capture.

**• Advanced password protection**
Lock individual tables and settings or protect the whole tune file.

**• Adjustable font sizes**
Tired of squinting? NSP allows you to enlarge or reduce the default type size.

**• Customisable favourites**
Navigate your tuning pages easier and faster than ever.

**• Forward/Back buttons**
Re-tracing your steps is now possible making ECU navigation a breeze.

**• PDM Control**
You can access the Power Distribution Module (PDM) control and configuration through the NSP interface. It doesn't get any easier!

**• Linear Position Sensor Control**
Calibrate Haltech's linear position sensors directly from the NSP.

# How to choose your ECU

Haltech makes ECUs to suit a wide range of engines and applications.

Sometimes working out which ECU is right for you can be a tricky process.

Here are a few simple hints to help you choose the correct ECU for your application.

### KNOW YOUR WIRING

Haltech ECUs are split into two major groups; Plug'n'Play and Universal. If you are planning to use the factory harness then take a look at our Plug'n'Play ECU solutions.

These include the Platinum Pro Plug-in ECUs that connect directly into your factory harness or Elite ECUs that connect to the factory harness via a unique Plug'n'Play Adaptor Harness.

If you're planning to completely rewire your car, do an engine swap, or building a race car from ground up then head straight for the Universal ECU range.

These ECUs are supported with a variety of wiring options, from universal wiring harnesses to engine-specific terminated harnesses.

Like their name suggests, Universal ECUs will work with almost all engine types and configurations.

### KNOW YOUR ENGINE

Your engine's requirements will dictate the features you'll need from your ECU. The number of inputs and outputs required will quickly narrow down your selection.

Next, look at specific requirements like Engine Protection, Drive-By-Wire throttle, Flex Fuel, Knock Control, Long Term Learning, Launch/Traction Control or Data Logging. Adding these to your list will further refine your choices.

### KNOW YOUR GOALS

If you're building a race car then you'll no doubt be needing functions that will allow you to go faster, quicker and stay reliable. Look for "Race Functions" like Flat Shifting, Nitrous Control, Trans Brake or Torque Management which have been specifically designed for competitive racing.

### STILL UNSURE?

If you've narrowed your choice down to a couple of ECUs but want to confirm you've made the right decision contact our tech or sales support. Remember, our goal is not to just sell you any ECU, we want to provide you with an ECU that's right for YOU.

# How to wire-in your ECU

### DIRECT PLUG-IN ECU

If you are after a simple plug-and-play option and your car still has its original engine and wiring in it, a Pro Plug-in ECU provides the easiest and quickest solution.

Simply unplug the factory ECU, and connect the Haltech Pro Plug-in directly to the factory harness. Load your base map and you're ready to tune.

### PLUG'N'PLAY ADAPTOR

If you want the flexibility of a Universal ECU, a Plug'n'Play Adaptor Harness effectively turns any Universal Elite into a Plug'n'Play ECU.

Haltech's Plug'n'Play Adaptor Harness plugs directly into your Haltech ECU and has a set of factory connectors on the other side which plug straight into the factory harness.

### TERMINATED ENGINE HARNESS

If you're planning an engine swap or building a race car with one of the engines supported by our Terminated Engine Harness range, this is by far your easiest, most time-effective wiring solution.

Each Terminated Engine Harness is made to suit a specific engine and comes terminated with ECU connectors at one end and all engine connectors at the other.

All your factory connectors are labelled, crimped and terminated at exactly the right length.

Optional ignition breakout harnesses are also available.

### UNIVERSAL WIRE-IN HARNESS

If you're not using the factory harness you can use one of Haltech's Universal Wire-In Harnesses.

These harnesses have a set of ECU connectors at one end and unterminated wires at the other.

All the wires at the unterminated end are colour coded and clearly labelled. Connect your Haltech ECU to the terminated end and follow your wiring diagram for all the engine connections. Load your base map and you're ready to go.

### PLUG AND PINS

If your car is not supported by our Plug'n'Play options and you're using the factory engine harness you can adapt the factory wiring harness to fit your Haltech ECU using a Plug and Pin connector set.

Simply remove the factory connectors and crimp the Haltech Plug and Pin set on.

You can now connect your Haltech ECU directly to your factory harness.

| FEATURES | Elite 750 | Elite 1500 | Elite 2500 / 2500T | Elite Pro Plugin | Platinum Pro Plugin | Platinum Sport GM | Nexus R3 | Nexus R5 |
|---|---|---|---|---|---|---|---|---|
| Drive-By-Wire Throttle | NO | Single | Single | Single | As per OEM | NO | Dual | Dual |
| Flex Fuel | YES | YES | YES | YES | YES | YES | YES | YES |
| Closed Loop O2 Control | Dual | Dual | Dual | as per OEM | as per OEM | Single | Dual | Dual |
| Knock Control | NO | Single | Dual | as per OEM | as per OEM | NO | Dual | Dual |
| Variable Cam Control | Single | Up to 4 | Up to 4 | as per OEM | as per OEM | NO | Up to 4 | Up to 4 |
| Long Term Learning | Up to 3D | Up to 4D | Up to 4D | Up to 4D | Basic | NO | Up to 4D | Up to 4D |
| Data Logging | Laptop + Onboard | Laptop + Onboard | Laptop + Onboard | Laptop + Onboard | Laptop + Onboard | Laptop + Onboard | Laptop + Onboard | Laptop + Onboard |
| Anti-Lag/Rotational Idle | NO | YES | YES | YES | NO | YES | YES | YES |
| Rolling Anti-Lag | NO | YES | YES | YES | NO | NO | YES | YES |
| Launch Control | YES | YES | YES | YES | YES | YES | YES | YES |
| Traction Control | NO | YES | YES | YES | NO | NO | YES | YES |
| Tuning Table Resolution | 32x32 3D | 32x32x8 4D | 32x32x8 4D | 32x32x8 4D | 32x32 3D | 32x32 3D | 32x32x8 4D | 32x32x8 4D |
| Engine Protection | Single Level | Multi Level | Multi Level | Multi Level | Single Level | Single Level | Multi Level | Multi Level |
| CAN Networks | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 3 |
| On-board Wideband | NO | NO | NO | 1 x LSU4.9 | NO | NO | 1 x LSU4.9/NTK | 2 x LSU4.9/NTK |
| Inertia / G-Sensor | NO | NO | NO | NO | NO | NO | YES | YES |
| Wi-Fi | NO | NO | NO | NO | NO | NO | YES | YES |

| OUTPUTS | Elite 750 | Elite 1500 | Elite 2500/2500T | Elite Pro Plugin | Platinum Pro Plugin | Platinum Sport GM | Nexus R3 | Nexus R5 |
|---|---|---|---|---|---|---|---|---|
| Injection | 1 to 6 | 1 to 4 | 1 to 8 | OEM + 8 | as per OEM | 2 | 8 | 18 |
| Ignition | 1 to 6 | 1 to 4 | 1 to 8 | as per OEM | as per OEM | as per OEM | 1 | 8 | 12 |
| Engine Control Relay | 0 | 1 | 1 | 1 | as per OEM | as per OEM | Up to 6 | Up to 6 |
| User Definable | 5 | 11 | 11 | up to 8 | 4 | 4 | 16 | 28 |
| Total | 17 | 20 | 28 | OEM + 9 | N/A | N/A | 32 | 58 |

| INPUTS | Elite 750 | Elite 1500 | Elite 2500/2500T | Elite Pro Plugin | Platinum Pro Plugin | Platinum Sport GM | Nexus R3 | Nexus R5 |
|---|---|---|---|---|---|---|---|---|
| Dedicated | 3 | 5 | 6 | as per OEM | as per OEM | as per OEM | 6 | 7 |
| User Definable | 7 | 14 | 14 | 8 | 4 | 4 | 17 | 33 |
| Total | 10 | 19 | 20 | OEM + 8 | N/A | N/A | 23 | 40 |

| RACE FUNCTIONS | Elite 750 | Elite 1500 | Elite 2500/2500T | Elite Pro Plugin | Platinum Pro Plugin | Platinum Sport GM | Nexus R3 | Nexus R5 |
|---|---|---|---|---|---|---|---|---|
| Nitrous Control Stages | 1 | Up to 6 | Up to 6 | Up to 6 | 1 | 1 | Up to 6 | Up to 6 |
| Boost Control | 3D Closed Loop | 4D Closed Loop | 4D Closed Loop | 4D Closed Loop | 3D Closed Loop | 2D Closed Loop | 4D Closed Loop | 4D Closed Loop |
| CO2 Control | NO | YES | YES | YES | NO | NO | YES | YES |
| Intake Air Bleed Control | NO | YES | YES | YES | NO | NO | YES | YES |
| Flat Shift Support | Basic | Advanced | Advanced | Advanced | Basic | Basic | Advanced | Advanced |
| Shock Travel & Ride Height | NO | YES | YES | YES | YES | NO | YES | YES |
| Trans Brake | NO | YES | YES | YES | NO | NO | YES | YES |
| Race Timer | NO | YES | YES | YES | YES | NO | YES | YES |
| Torque Management | NO | NO | YES (2500T) | NO | NO | NO | YES | YES |

# VEHICLE CONTROL UNITS

## NEXUS R5

The Nexus R5 is Haltech's flagship product. Featuring new, innovative yet user-friendly technology, it sets a new market standard for engine management and power distribution systems.

An ECU, PDM, Wi-Fi module, wideband controller and a data logger all in one.

- 18 x Injector drivers
- 12 x Ignition drivers
- 12 x 8A outputs
- 4 x 25A outputs
- 23 x AVI
- 10 x SPI
- 8 x DPO
- 2 x Knock control
- 2 x DBW control
- Flex Fuel Support
- Inertial measurement sensor
- 4 Channel oscilloscope
- 3 x Independent CAN bus systems
- Wireless communication
- 150 channel, 1kHz data logging with 512MB of logging space
- Dual channel O2 wideband controller capable of running LSU4.9 and NTK sensors
- Automatic transmission control



- A new generation engine management system
- A power distribution module
- A data logger
- A dual channel wideband controller
- A high speed Wi-Fi communications module
- All natively interconnected with each other
- All programmable with one single piece of software

### Nexus R5 Kit includes

- Nexus R5 VCU
- SurLok Connectors (Red & Black)
- Wi-Fi Antenna RP-SMA 108mm
- Mounting Bolts
- USB-C Cable
- USB-C Dust Cap
- USB drive with NSP Software
- Reverse mount VCU label
- Quick Start Guide and Wiring Diagrams



### Optional Accessories (sold separately)

- Nexus Basic Universal Wiring Harness 2.5m: HT-185200,  5m: HT-185201
- Nexus Universal V8 Terminated Wiring Harness HT-186200
- Plug and Pins Set. AMP 26 pin key 1 & 3 and 34 pin key 1 & 2, DTP-4. HT-030015
- Plug and Pins Set. Male DTP06-4S, Black connector 25A (inc male plug, female pins, wedgelock seal). HT-031201
- Plug Set. SurLok connectors red/black 200A. HT-030030
- 1AWG Battery Cable red/black pair. Pre terminated with SurLok connectors. 2m: HT-039212, 4m: HT-039214, 6m: HT-039216
- Glass mount Wi-Fi antenna with 1.5m terminated lead. HT-011401
- Wideband Flying Lead Adaptor Harness 400mm. HT-010723
- LSU4.9 Wideband Adaptor Harness 1200mm. HT-010726
- LSU4.9 Wideband Hardware Pack. Inc sensor, adaptor harness and weld-in bung. HT-010746
- NTK Wideband Adaptor Harness 1200mm. HT-010727
- NTK Wideband Hardware Pack. Inc sensor, adaptor harness and weld in bung. HT-010747
- Hydraulic cable lug crimping tool. HT-070306
- Nexus R5 VCU Tube Mount Anti-Vibration Kit 1.625" HT-039061.   1.25" HT-039060

**Technical Support - We're here to help!    EMAIL: support@haltech.com    WEB: www.haltech.com/support**

## NEXUS R3

It might be smaller than its big brother - the R5, but Haltech's Nexus R3 still packs a lot of features into its compact body, offering functionality that extends beyond just engine control.

Boasting innovative yet user-friendly technology, it sets a new market standard for engine management and power distribution systems.

An ECU, PDM, Wi-Fi module, wideband controller and a data logger all in one.

- 8 x Injector drivers
- 8 x Ignition drivers
- 6 x 8A outputs
- 4 x 25A outputs
- 11 x AVI
- 6 x SPI
- 6 x DPO
- 2 x Knock control
- 2 x DBW control
- Flex Fuel Support
- Inertial measurement sensor
- 4 Channel oscilloscope
- 2 x Independent CAN bus systems
- Wireless communication
- 150 channel, 1kHz data logging with 128MB of logging space
- Single channel O2 wideband controller capable of running LSU4.9 and NTK sensors
- Automatic transmission control

- A new generation engine management system
- A power distribution module
- A data logger
- An O2 wideband controller
- A high speed Wi-Fi communications module
- All natively interconnected with each other
- All programmable with one single piece of software

## What's in the box?

- NEXUS R3
- SurLok Connectors (Red and Black)
- Wi-Fi Antenna RP-SMA 108mm
- Mounting Bolts
- USB-C Cable
- USB-C Dust Cap
- Reverse mount VCU label
- USB Key with NSP Software
- Quick Start Guide and Wiring Diagrams

**Optional accessories** (sold separately)

- Plug and pins set. AMP 34 pin key 1, AMP 34 pin key 2, DTP 4 pin: HT-030013
- NEXUS R3 Basic Universal Wiring Harness 2.5m: HT-183200
- Glass mount Wi-Fi antenna with 1.5m terminated lead. HT-011401
- Wideband Flying Lead Adaptor Harness 400mm. HT-010723
- LSU4.9 Wideband Hardware Pack. Inc sensor, adaptor harness and weld-in bung. HT-010746
- NTK Wideband Hardware Pack. Inc sensor, adaptor harness and weld in bung. HT-010747
- NEXUS R3 Tube Mount Kit 1.625" HT-039067.   1.25" HT-039065
- Hydraulic cable lug crimping tool. HT-070306



HT-183200

HT-030013

HT-011401

HT-010746

HT-039065

HT-070306

HT-010723

# UNIVERSAL ECUs

## ELITE 750
**Single Connector ECU**

Ideal for budget conscious projects. Supports most popular 3, 4, 5 and 6 cylinder or 3 rotor engines, single VVTi engines and basic EFI conversions.

· Compact size

· Wide range of crank trigger patterns supported

· Sequential, semi sequential, batch or multipoint injection

· Nexus Software Programmer (NSP) real time calibration software

· Internal 4 bar MAP Sensor (up to 43.5psi boost/gauge pressure)

· Open and closed loop boost control

· Nitrous control

· Flex Fuel support

· Long Term Learning

· Compatible with high or low impedance injectors

· Compatible with Haltech dashes

· Compatible with Haltech PDMs

· Compatible with Haltech CAN Keypads



Available with a plug and pins set, a basic or premium universal engine wire-in harness.

All harnesses include a wiring diagram as well as colour coded and labelled wires that match the detailed wiring diagram for a confusion free installation process.

Fuel Injector Outputs: ..............................................6
Ignition Outputs: ....................................................6
Digital Pulse Outputs: ...........................................5
Digital Pulse Inputs: ...............................................2
Analogue Voltage Inputs: .....................................5
Engine Position Inputs: ..........................................2
Tuning Table Resolution: ...........................32 x 32
CAN Bus Comms ....................................................1

Single Sensor Variable Cam Support
Open and Closed Loop Boost Control
Nitrous Control
Launch Control
Flex Fuel Support
Long Term Learning
On-Board Data Logging
Basic Engine Protection
Basic Flat Shift Support

### ELITE SERIES
**Dual Connector**

Ideal for advanced performance and racing applications, engine swaps or EFI conversions.

- Wide range of crank trigger patterns supported
- Sequential, semi sequential, batch or multipoint injection
- Staged injection
- Direct fire ignition
- Nexus Software Programmer (NSP) real time calibration software
- Internal 4 bar MAP Sensor (up to 43.5psi boost/gauge pressure)
- Closed loop boost control
- Multi-stage Nitrous control
- Traction and Launch control
- Drive-By-Wire (DBW) support
- Flex Fuel support
- Compatible with high or low impedance injectors
- Compatible with Haltech Plug'n'Play Adaptors
- Compatible with Haltech dashes
- Compatible with Haltech PDMs
- Compatible with Haltech CAN Keypads



Available with a plug and pins set, a universal wire-in, plug'n'play or terminated engine wire-in harness.

All harnesses include a wiring diagram as well as colour coded and labelled wires that match the detailed wiring diagram for a confusion free installation process.

### Elite 1500

Recommended for engines with up to 4 cylinders or 2 rotors, Drive-By-Wire (DBW), EFI conversions, engines with multiple variable camshafts.

Fuel Injector Outputs: ...................................4
Ignition Outputs: ...........................................4
Digital Pulse Outputs: ................................11
Digital Pulse Inputs: .....................................4
Analogue Voltage Inputs: ...........................10
Engine Position Inputs: .................................5
Tuning Table Res: .........................32 x 32 x 8
CAN Networks ...............................................2
4 Sensor Variable Cam Support
Drive By Wire Support
Long Term Learning
Stepper Motor Control
Launch Control
Traction Control
Anti-Lag
Knock Control
On-Board Data Logging
Advanced Engine Protection
Advanced Tuning Options
Race Functions
Staged Nitrous Control

### Elite 2500

Recommended for engines with up to 8 cylinders or 4 rotors, Drive-By-Wire (DBW), EFI conversions, engines with multiple variable camshafts.

Fuel Injector Outputs: ...................................8
Ignition Outputs: ...........................................8
Digital Pulse Outputs: ................................11
Digital Pulse Inputs: .....................................4
Analogue Voltage Inputs: ...........................10
Engine Position Inputs: .................................5
Tuning Table Res: .........................32 x 32 x 8
CAN Networks ...............................................2
4 Sensor Variable Cam
Drive-By-Wire
Long Term Learning
Stepper Motor Control
Launch Control
Traction Control
Anti-Lag
Knock Control
On-Board Data Logging
Advanced Engine Protection
Advanced Tuning Options
Race Functions
Staged Nitrous Control

### Elite 2500 T

Recommended for drag racing applications. Supports up to 8 cylinders or 4 rotors, Drive-By-Wire (DBW), EFI conversions, engines with multiple variable camshafts.

Fuel Injector Outputs: ...................................8
Ignition Outputs: ...........................................8
Digital Pulse Outputs: ................................11
Digital Pulse Inputs: .....................................4
Analogue Voltage Inputs: ...........................10
Engine Position Inputs: .................................5
Tuning Table Res: .........................32 x 32 x 8
CAN Networks ...............................................2
4 Sensor Variable Cam
Drive-By-Wire
Long Term Learning
Stepper Motor Control
Launch Control
Traction Control
Anti-Lag
Knock Control
On-Board Data Logging
Advanced Engine Protection
Advanced Tuning Options
Race Functions
Staged Nitrous Control
Advanced Torque Management

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### ELITE SERIES
**PRO PLUG-IN**

- Make/Model Specific
- Easy to install
- Plugs directly into the factory harness
- Does not require re-wiring
- Nexus Software Programmer (NSP)
- On-board Wideband Controller
- Supports OEM functions
- Supports ZF automatic transmission
- Compatible with Haltech Flex Fuel sensors
- Compatible with Haltech dashes

NOTE:
Haltech ECUs are designed and sold for Sanctioned Offroad/Competition Non-Emissions Controlled Vehicles only. In some countries it is unlawful to tamper with your vehicle's emissions equipment. Using Haltech products for street / road use on public highways in those countries may be prohibited by law. 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 using our products.

### Ford "Barra" 6 cylinder, 4 litre

Haltech's Elite Pro Plug-in ECU offers a true Plug'n'Play upgrade option for the popular Ford Falcon BA, BF and FG models.

No messy and time-consuming re-wiring required - the Elite Pro Plug-in connects directly to the factory wiring harness and fits perfectly in the factory ECU location.

With an on-board wideband controller and sophisticated race functions the Elite Pro Plug-in is one of Haltech's most advanced ECUs to date.

Apart from performance-oriented features like closed loop boost control, anti-lag and launch control, short and long term learning for fuel, ignition, boost and idle, the new Elite Pro Plug-in also controls all factory functions including variable cam control, cruise control, dash cluster and even the ZF automatic transmission.

### INPUTS

- Analogue voltage inputs (AVI): as per OEM.
- 4 x additional user definable AVIs on the aux connector.
- Digital pulsed inputs (DPI): as per OEM.
- 4 x additional user definable DPIs used for measuring duty cycle, frequency or state.
- Engine position inputs: as per OEM. Supports Ford Barra trigger pattern. Alternate generic trigger support also available.
- Knock inputs: as per OEM.
- Digital pulsed outputs: as per OEM.
- Drive By Wire (DBW) output suits any throttle body and pedal including Ford OEM.

### OUTPUTS

- 6 x current-controlled injector drivers (OEM).
- 8 x additional injector outputs available for staged injection, unused staged injector outputs are available to be used as generic DPOs.
- 6 x ignition outputs to support OEM Ford coils.
- Digital pulsed outputs - as per OEM.
- Drive By Wire (DBW) output suits any throttle body and pedal including Ford OEM.

### FEATURES

- Die cast aluminium, water resistant case.
- On-board automatic transmission control via CAN (ZF 6HP26).
- E85 Flex Fuel ready.
- Multi-fuel support. Petrol, Methanol and Ethanol.
- Internal single channel wideband (supports LSU4.9 sensor).
- Variable cam control.
- Cruise control.
- Short and long term fuel, ignition, boost and idle control learning.
- Knock control with high speed digital filtering.
- Closed loop boost control.
- Closed loop idle control.
- Closed loop O2 control.
- Anti-lag and launch control with drag and rally modes.
- Multi level engine protection.

### MAKES/MODELS SUPPORTED:

Ford Falcon BA (02-05) I6 4.0-litre DOHC VCT "Barra" engine with manual transmission.

Ford Falcon BF (05-08) I6 4.0-litre DOHC VCT "Barra" engine with manual transmission.

Ford Falcon BF (05-08) I6 4.0-litre DOHC VCT "Barra" engine with ZF 6HP26, 6-speed auto transmission.

Ford Falcon FG MkI and MkII with the I6 4.0-litre DOHC VCT "Barra" engine and ZF 6HP26, 6-speed auto transmission.

Naturally aspirated or forced induction.

Engines covered:
Barra 182, 190, 240T, 245T, 270T.

# DIRECT PLUG-IN ECUs

## PLATINUM SERIES
### PRO PLUG-IN & SPORT GM

- Make/Model Specific
- Easy to install
- Plugs directly into the factory harness
- Does not require re-wiring
- ECU Manager calibration software
- Supports most OEM functions
- Internal 2.5 bar MAP Sensor
  (up to 22psi/150kPa boost/gauge pressure)
- Compatible with Haltech Flex Fuel sensors
- Compatible with Haltech dashes

NOTE:
Haltech ECUs are designed and sold for Sanctioned Offroad/Competition Non-Emissions Controlled Vehicles only. In some countries it is unlawful to tamper with your vehicle's emissions equipment. Using Haltech products for street / road use on public highways in those countries may be prohibited by law. 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 using our products.



### Platinum Sport GM

Direct replacement for Delco ECUs. Requires no additional wiring, plugs directly into the factory harness.

Fuel Injector Outputs: ................................as per OEM
Ignition Outputs: ...........................................as per OEM
Digital Pulse Outputs: ....................................................4
Digital Pulse Inputs: ..................................as per OEM
Analogue Voltage Inputs: ........................................... 4
Engine Position Inputs: ...............................as per OEM
Tuning Table Res: ....................................... 32 x 32
CAN Bus comms ...........................................................1
OEM Stepper Motor Control
Launch Control
Anti-Lag
On-Board Data Logging
Basic Engine Protection

#### MAKES/MODELS SUPPORTED:

Chevrolet Camaro, Firebird (86-89) V8 TBI & TPI
Chevrolet Corvette (86-89) V8 TBI & TPI
Chevrolet truck/van and S10 (TBI & TPI)
Holden Commodore VN-VP (Delco ECU)
Holden Commodore VR-VS (Delco ECU)

### Platinum Pro Plug-in

Direct factory ECU replacement. Requires no additional wiring, plugs directly into the factory harness.

Fuel Injector Outputs: ................................as per OEM
Ignition Outputs: .......................................as per OEM
Digital Pulse Outputs: ....................................................4
Digital Pulse Inputs: ................... as per OEM/1
Analogue Voltage Inputs: ........................................... 4
Engine Position Inputs: ...............................as per OEM
Tuning Table Res: ....................................... 32 x 32
CAN Bus comms ...........................................................1
Flex Fuel Support
OEM Variable Cam Support
OEM Drive By Wire Support
Long Term Learning
OEM Stepper Motor Control
Launch Control
Anti-Lag
Knock Control
On-Board Data Logging
Basic Engine Protection

### MAKES/MODELS SUPPORTED:

Nissan Skyline R32
Nissan Skyline R33
Nissan R34 GT-T
Nissan R34 GT-R
Nissan Z32 Fairlady 300ZX
Nissan Silvia/200SX S15
Nissan Z33 350Z
Mitsubishi Evo 8MR
Mitsubishi Evo 9
Honda EP3
Honda DC5 (03-04)
Honda DC5/RSX (05-06)
Honda S2000 AP1
Hyundai Genesis BK Theta
Subaru WRX MY01-05 GDB

USA: (888) 298 8116   AUS: +61 2 9729 0999   NZ: +64 9887 0616   EU: +43 720 883968   UK: +44 121 285 6650

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# PLUG'n'PLAY ADAPTORS

## ELITE SERIES
### ADAPTOR HARNESSES

- Ideal for advanced performance applications
- Make/model specific
- Easy to install
- Plugs into the factory harness via a unique Plug'n'Play adaptor harness
- Does not require re-wiring
- Supports most OEM functions
- Nexus Software Programmer (NSP) real time calibration software
- Compatible with two connector Elite ECUs
- Compatible with Haltech Flex Fuel sensors
- Compatible with Haltech dashes
- Compatible with Haltech PDMs
- Compatible with Haltech CAN Keypads

NOTE:
Haltech ECUs are designed and sold for Sanctioned Offroad or Competition Non-Emissions Controlled Vehicles only. In some countries it is unlawful to tamper with your vehicle's emissions equipment. Using Haltech products for street / road use on public highways in those countries may be prohibited by law. 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 using our products.



## Elite Plug'n'Play Adaptor Harness

If you're looking for a quick and easy plug-in solution to go with your Elite ECU then Plug'n'Play Adaptors are your best option.

Plug'n'Play Adaptor Harnesses allow you to use Haltech's universal Elite ECUs by connecting them directly to the factory harness in your car via a Plug'n'Play adaptor.

This is an ideal solution for builders and tuners who want a quick and easy install without the need to rewire.

The Plug'n'Play Adaptor Harness comes complete with an adaptor box which has factory ECU connector on one side and the Haltech mating connectors on the other.

The Adaptor Harness connects the Adaptor Box to an Elite ECU on one side and your car's factory ECU harness on the other.

Once the Haltech ECU is connected, launch the Nexus Software Programmer (NSP) and load your base map from the Haltech base map library.

The base map will be sufficient to get your car going and give you a great starting point for further tuning.

### MAKES/MODELS SUPPORTED:

Audi A3 (1.8T AWP)
Audi A4 Quattro Sport (1.8T AWP)
Audi TT Mk1 (8N)
Honda EP3 (02-05)
Honda B-Series Civic (OBD-I)
Honda Integra, Prelude, Accord (OBD-I)
Honda Integra DC5 / Acura RSX (02-04)
Honda Integra DC5/Acura RSX (05-06)
Honda S2000 AP1 (00-04), AP2 (05)
Mazda RX7 FD3S-S6 (92-95)
Mazda RX7 FD3S-S7/S8 (96-02)
Mazda MX-5 NA 1.6 and 1.8
Mazda MX5 NB 1.8 (00-04)
Mazda MX5 SE 1.8 (04-05)
Mitsubishi EVO 1-3, GSR, RVR
Mitsubishi EVO 4-8
Mitsubishi EVO 9
Mitsubishi Eclipse 1G/2G Turbo
Mitsubishi Galant VR4 (87-92)
Nissan Patrol Y60 (TB42)
Nissan Patrol Y61 (TB45)
Nissan Skyline R32 GTS-T, GT-R
Nissan Skyline R33 GTS-T, GT-R
Nissan Skyline R34 GT-T, GT-R
Nissan Stagea WC34
Nissan 300ZX (Z32)

Nissan Silvia S13 (CA18DET, SR20DET)
Nissan Silvia S14 S1 "ZENKI" and S2 "KOUKI"
Nissan Silvia S15
Nissan Pulsar GTiR
Nissan Pulsar SSS
SEAT León, Toledo (1.8T)
Subaru WRX (93-96)
Subaru WRX (97-98)
Subaru WRX (99-00)
Subaru WRX (01-05)
Subaru WRX (06-07)
Subaru WRX (08-09)
Subaru Liberty/Legacy Gen 4 3.0R (04-05)
Škoda Octavia vRS (1.8T AWP)
Toyota Supra JZA80 2JZ
Toyota JZX100 Mark II/Cresta/Chaser (96-01)
Toyota JZZ30 Soarer (96-01)
Volkswagen Golf Mk4 GTI (1.8T AWP) (01-06)
Volkswagen Bora/Jetta (1.8T AWP) (01-06)
Volkswagen Beetle (1.8T AWP) (01-06)
Volkswagen Polo GTI (1.8T AWP) (01-06)

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# ENGINE HARNESSES

## ELITE SERIES
### TERMINATED ENGINE HARNESSES

- Ideal for engine swaps
- Engine specific
- Labelled OEM connectors
- Engine-specific base maps
- Integrated premium fuse box
- Compatible with dual connector Elite ECUs
- Compatible with Haltech dashes

## Terminated Engine Harnesses

If you're doing an engine swap or building a race car with one of the engines supported by our Terminated Engine Harness range, this is by far your easiest, most time-effective wiring solution.

Each Terminated Engine Harness is made to suit a specific engine and comes terminated with ECU connectors at one end and all engine connectors at the other.

All your factory connectors are labelled, crimped and terminated at exactly the right length.

Also included with each kit is an ignition harness and all the connectors needed to get you up and running.

### MAKES/MODELS SUPPORTED:

Universal V8 Applications
Chrysler Hemi V8
Ford Big/Small Block V8
Ford Barra 4.0L
GM Gen III LS1/LS6
GM Gen IV LSx
GM Big Block/Small Block V8
Mazda 13B
Nissan RB20, RB25, RB26, RB30
Toyota 2JZ

# POWER MANAGEMENT

## PD16
**Power Distribution Module**

- Full integration with Haltech systems

- Directly compatible with Elite and Nexus ECUs

- Single system control centre:
  Fully controlled via the NSP software

- Easily expandable:
  Link up to four PD16s on a single
  Haltech CAN bus

- 16 x Outputs (10 x 8A, 4 x 25A, 2 x HBO)

- 8 x Inputs (4 voltage + 4 pulsed)

- 1 x CAN bus

## Power Distribution Reimagined

Boasting new, innovative yet user-friendly technology, Haltech's PD16 sets a new market standard for power distribution systems.

Designed to integrate seamlessly into your existing Haltech Elite or Nexus engine management system, the PD16 delivers safe, dependable power delivery to your vehicle.

A Power Distribution Module (like the new Haltech PD16), is just like a mechanical fuse and relay box, but smarter. Just like a fuse block, it has a main power input and outputs that turn devices like fans and pumps on or off.

But unlike your conventional fuse relay block, there are no mechanical contacts and no physical fuses to blow.

With the PD16, all of the on and off switching is done with solid-state drivers and fuse currents are set digitally by the end-user. So in essence, the PD-16 replaces your mechanical relays and fuses.

### Easier, safer wiring

With a Power Distribution Module your wiring is more intuitive, easier to troubleshoot, and safer. We've eliminated all fusible links or relays so there is no chance of electro-mechanical failures. Additionally, solid-state drivers are fully programmable, so you can change your triggers/switches on the fly without any physical re-wiring.

For example, by using the NSP software, we can program our electric fan to turn on at $80^oC$ ($176^oF$), but also when the A/C compressor is on. We can also choose to turn the fan off when the vehicle is moving at highway speeds.

The PD16 also allows us to monitor current draw in real-time, set programmable fuse limits and, because those fuse limits are set digitally, they can also be reset digitally

which means if a circuit does go over current for any reason you can program the PD16 to reset the fuse after a certain time period.

The more familiar you become with your PD16, the more you will be able to take advantage of its customisable options. That's the beauty of this system - it truly is infinitely customisable. You can make it as simple or as complicated as you want it to be while running the minimum amount of wiring necessary.

### Plug'n'Play with Haltech ECUs

The PD16 has been designed to integrate directly with Haltech's Elite and Nexus series devices.

What that means is your Haltech ECU and your Haltech PD16 are programmed using the same NSP software. Once the power wiring is complete you simply plug the PD16 into the ECU CAN bus and it's automatically recognised on the bus.

The PD16 is supported by a range of accessories, from tube mount kits to a full flying lead harness to simplify those big wiring jobs.

# DIGITAL DISPLAYS

## iC-7 DISPLAY DASH

- Ideal replacement for analog or OEM gauges
- Plug'n'Play compatible with Haltech Platinum, Elite and Nexus Series ECUs
- Plug'n'Play compatible with many other aftermarket ECUs.
- OBD-II compatible (via CAN)
- Simple to install and easy to set up

### Mounting Options

Universal Mounting Bracket

Tube Mount (1.25" / 32mm)

Mounting Bracket with Integrated Visor

## A new way of seeing things

With a crisp, clear and full colour display, the all new Haltech iC-7 Display Dash lets you see things in a brand new way.

Featuring auto-dimming ambient light reactive brightness and user-programmable multi-colour shift light bar, the iC-7 connects directly to all current Haltech ECUs via a CAN network.

The iC-7 can also connect directly (via CAN) to most late model vehicles using the factory OBD-II port.

## Haltech iC-7 Software

The new, simple and intuitive iCC software allows customisation of data displays, user configurable channels, units and alarms:

- Data ranges and red ranges for channels.
- Data display units.
- The channel to be displayed at each location on the screen.
- Shift light RPM points and colours.
- Alarm thresholds, colour for on-screen display and shift lights, manual or auto reset methods.

## Aftermarket ECU Compatibility

The Haltech iC-7 Display Dash is compatible with a number of third-party ECUs via a Haltech iC-7 Adapter Harness (sold separately).

ECUs currently supported by the iC-7 Dash:

- Link: Atom, Monsoon, Storm, Extreme, Fury, Thunder, Force GDI, G5.
- MoTeC: M1 series MoTeC hundred series (M400,600,800 "gold box" ECUs)
- Microtech
- MaxxEcu
- Syvecs

## Standalone option

The iC-7 can be used as a "Standalone" dash on cars without a Haltech (or any aftermarket) ECU as well as carbureted or mechanically injected applications using the semi-terminated harness (HT-060300).

This harness comes complete with labeled terminated sensor connectors as well as flying lead connections for integrating additional inputs such as high beam, park lights, turn signals or a fuel level sender.

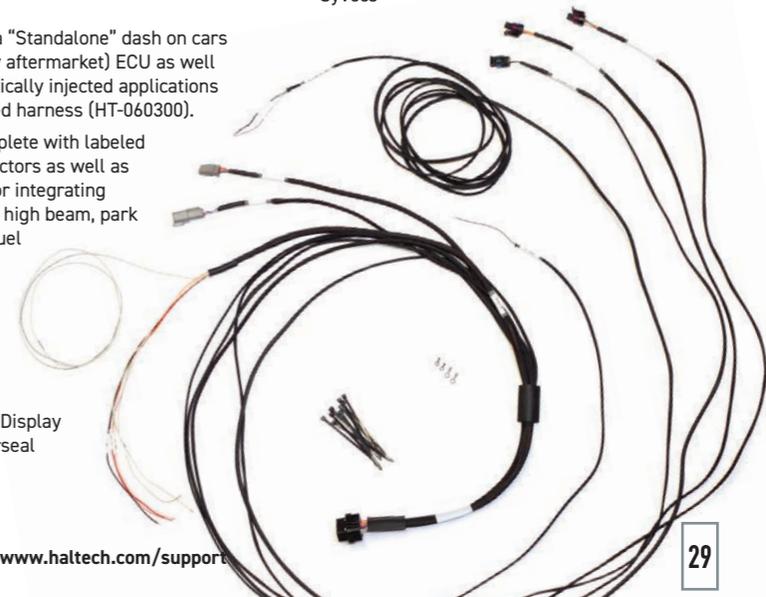This harness supports both the CAN and the OBD-II versions of the iC-7 Display Dash.

This harness connects directly to Haltech's iC-7 Display Dash with a 34 Pin Superseal Connector.

## CAN KEYPADS

- Available in 2x4 and 3x5 button configurations
- Expand the functionality of your ECU or VCU by adding extra inputs.
- Vibration and impact resistant (IP67)
- Ergonomically designed soft touch buttons
- Supplied with a set of custom labels
- Simple to install and easy to set up

Haltech CAN Keypads are a plug and play control solution for Haltech's Elite and Nexus series ECUs.

The back light and LED indicator lights feature adjustable brightness and add clarity while tastefully blending with any car interior.

Each button can be setup as either a momentary or a toggle function. Momentary switches are used for things like staging creep control where the function stays on only for as long as you are holding the button down.

A toggle switch can be used for headlights where you press the button once for the lights to come on, and they stay on until the button is depressed a second time to turn the output off.

There are three LED status lights on each button; green, amber and red.

· **Green** indicates the current state of the button (on or off).

· **Amber** represents the output state of the function associated with the button. This LED is on or if the function is outputting, for example if the button is set up as a thermofan override, this amber light illuminates when the fan is 'on' regardless of whether it's been triggered by engine temperature or the button.

· **Red** indicates error.

HT-011500

HT-011502

HT-011501

## TYRE MANAGEMENT SYSTEM

- Plug'n'Play compatible with Haltech Elite and Nexus series ECUs.
- Compatible with Haltech iC-7 Display Dashes
- Available with either external or internal sensors
- Monitors tyre temperature and pressure
- Programmable high temperature or low pressure warnings

The Haltech TMS-4 is a simple, plug and play way to measure both tyre temperature and pressures through Haltech Elite and Nexus series ECUs.

Available in two kits with either internal or external sensors.

**External Sensors** are fitted directly to the valves on your tyres without removal. These sensors screw directly on to your existing valves.

They are held in place with an anti-theft lock nut and will not require tyre removal or re-balancing.

**Internal Sensors** mount inside of the tyre and rim. These sensors replace the existing tyre valves meaning you will have to remove the tyre from the wheel to install.

Both sensors have a working range of 0-110 psi and can trigger a DTC if it detects too high or too low of a pressure. They also can warn you if tyre temperature gets too high.

HT-011600

### How TMS-4 works

The TMS-4 receiver takes in the signal from each of the four tyre pressure sensors and sends it to your Haltech ECU through the CAN cable (included in each kit).

Connecting the receiver is a simple matter of plugging the 6 pin connector into the rear of the receiver and connecting the DTM connector into your Haltech CAN network.

They will display as separate tyre channels in the NSP software and can be re-assigned to any wheel if you need to rotate tyres or swap wheels. The sensors can also be turned off in the software if you do not want to monitor a specific wheel.

HT-011601

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- MAP Sensors
- Pressure Sensors
- Air Temperature Sensors
- Fluid Temperature Sensors
- Speed/Position Sensors
- O2 Wideband Controllers
- Thermocouples
- Flex Fuel Sensors
- Knock Sensors
- Linear Position Sensors
- Pressure Sensors
- Air Temperature Sensors
- Fluid Temperature Sensors
- Rotary Trim Switches
- Laser Ride Height Sensors
- Input/Output Expanders

## Essential ECU Sensors

While there are many sensors you can fit to increase the functionality of your engine management system, there are some that are essential for your Haltech ECU to run the engine successfully:

• **Trigger, or Reference Sensor.** This sensor tells the ECU how fast the engine is turning and possibly what angle the crankshaft is currently at.

• **Home or Synchronisation Sensor.** This sensor tells the ECU exactly what position and which stroke each piston is up to.

• **Manifold Absolute Pressure (MAP) Sensor.** Used to measure the amount of pressure in the intake manifold, this sensor could be mounted directly on the intake manifold or remotely mounted with a vacuum hose.

• **Air Temperature Sensor.** This sensor lets the ECU know the temperature of the air entering the intake manifold, its normally found close to the throttle body, either just before or just after it.

• **Coolant Temperature Sensor.** This sensor measures the temperature of the fluid in the cooling system which is representative of the engine temperature.

• **Throttle Position (TPS) Sensor.** Measures the throttle body blade angle and is used to trigger throttle pumps or deceleration fuelling conditions to improve fuel economy.

The Manifold Pressure, Air and Coolant temp sensors work together to give the ECU an accurate estimation of the "Charge Air Temperature" which is the temperature of the air entering each cylinder. With this information, the ECU can then determine the mass of air entering the cylinder, and inject the right mass of fuel in order to achieve the correct Air to Fuel Ratio (AFR).

## Knock Sensors

A well set-up knock control system will provide effective engine monitoring and prevent engine damage due to detonation. A knock sensor operates like a microphone. It senses vibration within the engine and transmits this signal into ECU.

Once this signal is received by the ECU, it then determines what is knock and what is normal engine noise. When knock is detected the ECU will apply an instantaneous short term timing retard and also make adjustments to a long term correction table.

## Flex Fuel Sensors

A Flex Fuel Sensor allows the driver to add any mixture of ethanol/gasoline (from 0-100% ethanol content) without the need to swap tunes.

The sensor is installed between the fuel pressure regulator and the fuel tank, where it monitors the ethanol content of the fuel returning to the tank. That information is then passed onto the Haltech ECU which applies fuel, ignition and boost corrections to make the best power for the ethanol content available. Easy to install and setup, the Haltech Flex Fuel Sensor is an ideal addition for weekend racers and cars that use a varying ethanol/petrol mix.

## Thermocouple Amplifiers

Thermocouple sensors are typically used to measure exhaust gas, manifold, turbo or oil temperatures.

Haltech's open-tip style thermocouple sensors have a working range of 0ºC - 1100ºC (32ºF - 2012ºF) and come with either weld-on or screw type fittings. They are available in a wide range of lengths from 0.61m (24") to 2.44m (96") long. All Haltech thermocouples are terminated with a K-type connector which then plug directly into a Haltech TCA box.

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# INPUTS

## LINEAR POSITION SENSORS

Most commonly used as shock travel sensors, the Linear Position Sensors can also be used to measure gearbox shaft position, differential angle, or in any application that requires linear position data. In short, these simple sensors can make your ride not just faster but also more predictable.

Used as shock travel sensors, Haltech's Linear Position Sensors can measure and log the speed and distance of your shock's compression, extension, rebound, etc. to give you an accurate picture of how the vehicle reacts to the track surface and changes. They remove the guesswork out of chassis tuning. Armed with this information, you can significantly cut down on testing and adjusting, saving not just time but wear and tear on your vehicle.

Haltech Linear Position Sensors are available in two diameters – 1/2 inch and 1 inch with each diameter offering different lengths (see table on the right). Each sensor comes complete with a 450mm Terminated lead (Terminated with DTM 3 Receptacle) and an opposing DTM 3 Connector with pins seals and wedge.

Haltech Linear Position Sensors are supported by a range of mounting accessories, including split collar mounts, nuts, and weld-on tabs.

| Part No | Diameter | Travel |
|---|---|---|
| HT-011201 | 1/2" (12.70mm) | 50mm (1.9") |
| HT-011202 | 1/2" (12.70mm) | 100mm (3.9") |
| HT-011203 | 1/2" (12.70mm) | 150mm (5.9") |
| HT-011204 | 1/2" (12.70mm) | 200mm (7.8") |
| HT-011205 | 1/2" (12.70mm) | 250mm (9.8") |
| HT-011211 | 1" (25.40mm) | 100mm (3.9") |
| HT-011212 | 1" (25.40mm) | 150mm (5.9") |
| HT-011213 | 1" (25.40mm) | 200mm (7.8") |
| HT-011214 | 1" (25.40mm) | 250mm (9.8") |

## Wideband Controllers

Haltech CAN wideband controllers allow the user to accurately measure air/fuel ratios over a wide range from rich to lean via the Haltech CAN system for precise engine tuning.

A wideband oxygen sensor allows the air/fuel ratio to be measured over a very broad range (often from 0.34 - 1.5 Lambda).

The stock oxygen sensor (usually a narrowband sensor) can only measure the air/fuel ratio over a very narrow range (from around 0.99 - 1.01 Lambda).

When a Haltech CAN wideband controller is connected to a Haltech ECU the diagnostic information is broadcast directly to the ECU.

This additional diagnostic information is used by the ECU to determine if the sensor is up to operating temperature.

If the sensor has a short or fault condition or if the sensor has been disconnected, the ECU will automatically turn off closed loop O2 control (if it's enabled) and run in open loop mode.

## Laser Ride Height Sensors

Ideal for drag racing, the Haltech Laser Ride Height Sensor controls wheelies by measuring the distance from the sensor to the ground and feeding that information to the ECU.

We can then set up a maximum lift distance and map the ignition and fuel against the front-end lift and the road speed.

When the front end lifts, the ECU will start cutting ignition or fuel or both. Once the front end comes down and makes contact with the ground the ECU restores the fuel and ignition to its original setting.

## GPS Speed Input Modules

These modules convert GPS Speed to a pulsed digital output. Using data received from the Global Positioning Satellite network, the GPS Speed Sender calculates three-dimensional ground speed and provides a pulsed output similar to that of a mechanical speed sender.

These modules are an ideal replacement for mechanical speed senders.

## Rotary Trim Controllers

You can now control your Elite or Nexus functions in real time from inside the cabin using the Haltech Trim Module. Torque management, boost levels, nitrous control, ignition correction and other functions can now be accessed and controlled via a cabin-mounted switch panel.

Up to 12 levels of boost pressure, on the fly adjustable traction control, launch RPM control, target driveshaft RPM curve adjustment.

Available with dual or triple switch panels.

# OUTPUTS

## IGNITION, IDLE & BOOST CONTROL

- OEM-style Ignition Modules
- High Power Igniter Modules
- Ignition Coils
- Idle Control
- Boost Solenoids
- Injector Ballast Resistors
- Input/Output Expanders
- DC Motor Drivers

## Haltech Ignition Coils

The purpose of the ignition system is to start the combustion process and provide a spark strong enough and hot enough to ignite the air and fuel mixture inside the combustion chamber under all conditions.

The ignition coil is charged by the ignition module up to the point of saturation, the coils stored energy is then released into the spark plug.

Haltech has a range of ignition coils available. The popular IGN-1A IGBT coil with a built-in igniter is an all-in-one package that includes a high power 15A igniter built directly into the coil body for neat and tidy installation.

There is also a version of this coil available without a built in igniter for connection with applications that require the OEM external ignition module to be retained (or the use of a Haltech HPI Igniter) as well as a CDI specific version for use with Haltech CDI systems.

## Input/Output Expanders

This CAN device increases the number of available analog and digital inputs as well as digital outputs.

It is ideal for additional pressure, temperature and flex fuel sensors that can be used for engine protection or general monitoring of your engine's vital data.

The I/O Expander integrates with all Haltech Platinum, Elite and Nexus series ECUs and VCUs.

## HP Igniters

Inductive ignition systems comprise both an ignition coil and an ignition module.

Some coils have the ignition module built into the same packaging as the coil.

For all ignition coils that do not have an ignition module built into the coil an external ignition module such as the Haltech HP series of ignition modules is required. Haltech HP Igniters come in 4, 6 or 8 channel configurations.

## DC Motor Drivers

These drivers have been designed to drive a DC motor like the Turbosmart Electric Wastegate or Varex systems.

They can also be used to drive high-power, external electric throttle bodies.

Compatible with all Elite and Nexus series devices, these 8A full-bridge drivers will work in applications where the current requirements are higher than the Haltech Elite ECU's stepper (1A) or DBW (3A) outputs can provide.

# WIRING & CRIMPING

For a painless and professional Haltech ECU install, you're going to need the right tools. Whether that is a professional set of crimpers to get you all wired up, de-pinning tools or heavy duty hydraulic cable lug crimpers.

We've got everything you need to assist you with your Haltech ECU install.

· Manual Crimpers
· De-pinning Tools
· Hydraulic Cable Lug Crimping Tools
· Harness Sleeve Packs

#PLANETHALTECH

# MERCHANDISE

1. Classic Tee - Black
2. Classic Tee - Yellow
3. Classic Tee - Grey
4. Classic Pull-over Hoodie - Black
5. Classic Pull-over Hoodie - Yellow
6. Classic Pull-over Hoodie - Grey

All Haltech tees and hoodies are made from premium quality fabric and feature weather and wash proof screen printing.
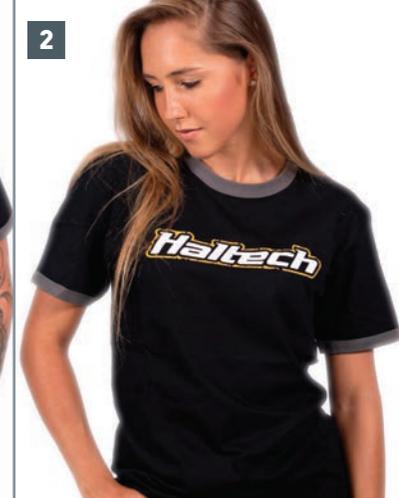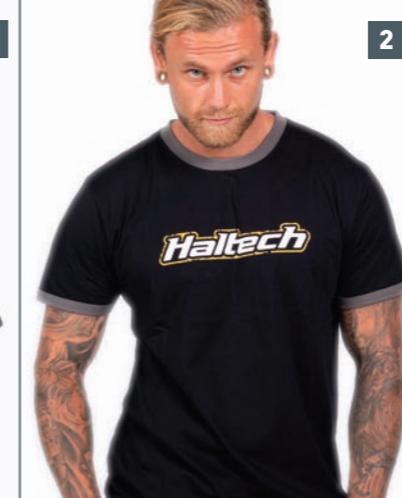
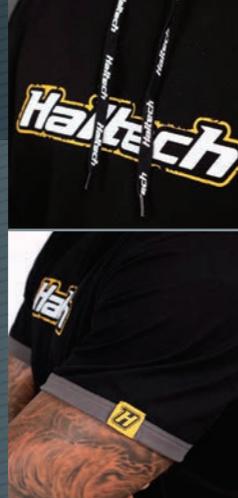See the full range at www.haltech.com
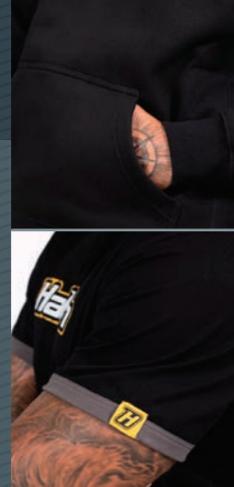
# MERCHANDISE

1. Premium "Page Up" Tee
2. Premium "Skull" Tee
3. Premium "Page Up" Zip-up Hoodie
4. Premium "Skull" Pull-over Hoodie

All Haltech tees and hoodies are made from premium quality fabric and feature weather and wash proof screen printing.

See the full range at www.haltech.com

# MERCHANDISE

1. Laptop Sleeve
2. Foam PUFP Finger
3. Telescopic Light
4. Workshop Gloves
5. Backpack
6. Wheel Cover
7. Parachute Tag
8. Car Stickers
9. Keyring Tag
10. Lanyard
11. Snapback - White on Black
12. Snapback - Black on Black
13. Snapback - Yellow on Black
14. FlexFit Hat - White on Black
15. Knit Beanie
16. Straw Hat
17. Sunglasses - Yellow
18. Sunglasses - Black

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