



HALTECH SYDNEY:

17 Durian Place, Wetherill Park NSW Australia 2164

PH: +612 9729 0999
FAX: +612 9729 0900
EMAIL: sales@haltech.com

HALTECH USA EAST:

Kentucky

750 Miles Point Way, Lexington, Ky. 40510
PH: (888) 298 8116 or +1 760 598 1941
EMAIL: usasalesandsupport@haltech.com

HALTECH USA WEST:

California

26429 Rancho Parkway #125, Lake Forest, Ca. 29630
PH: (888) 298 8116 or +1 949 490 5660
EMAIL: usasalesandsupport@haltech.com

See the Haltech Website for your local authorized dealer.

www.haltech.com

**ELITE 2000/2500
Ford Mustang
GT & Cobra 99-04
QUICK START GUIDE
HT-141390**



LIMITED WARRANTY

Lockin Pty Ltd trading as Haltech warrants the Haltech™ Programmable Fuel Injection System to be free from defects in material or workmanship for a period of 12 months from the date of purchase.

Proof of purchase, in the form of a bill of sale or receipted invoice, which indicates that the product is within the warranty period, must be presented to obtain warranty service. Lockin Pty Ltd trading as Haltech suggests that the purchaser retain the dealer's dated bill of sale as evidence of the date of retail purchase.

If the Haltech™ Programmable Fuel Injection System is found to be defective as mentioned above, it will be replaced or repaired if returned prepaid along with proof of purchase. This shall constitute the sole liability of Lockin Pty Ltd trading as 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 Lockin Pty Ltd trading as Haltech, be liable for special or consequential damages.

DISCLAIMER

Haltech will not be held responsible for any damage caused by the incorrect installation or tuning of this product. It is the installers responsibility to ensure the wiring connections and pinouts match that of the vehicle the unit is being installed into.

Haltech has taken all care to make sure the connections match the specified vehicles listed, but variations in wiring and connections on vehicles can occur and therefore this should be checked BEFORE the unit is installed.

Haltech highly recommends installation and tuning of this product is to be carried out by a professional, with an understanding on installing and tuning engine management systems. Misuse of this product can destroy your engine.

WARNING

This ECU is designed and sold for Racing use only. Using this product for street / road use may be prohibited by law. Please check with your local vehicle authority before using this product.

GENERAL INSTALLATION WARNING

Avoid open sparks, flames or operation of electrical devices near flammable substances. Always disconnect the battery cables when doing electrical work on your vehicle.

Do not charge the battery with a 24 Volt truck charger or reverse the polarity of the battery or any charging unit. Do not charge the battery with the engine running as this could expose the ECU to an unregulated power supply that could destroy the ECU and other electrical equipment.

All fuel system components and wiring should be mounted away from heat sources, shielded if necessary and well ventilated. Disconnect the Haltech ECU from the electrical system whenever doing any arc welding on the vehicle by unplugging the wiring harness connector from the ECU.

After completing the installation, make sure that there are no fuel leaks, and no wiring left un-insulated in case a spark or short-circuit occurs and causes a fire. Also make sure that you follow all proper workshop safety procedures. If you're working underneath a jacked-up car, always use safety stands!



Congratulations on purchasing a Haltech Engine Management System. This *fully programmable* product opens the door to virtually limitless performance modification and tuning of your vehicle. Programmable systems allow you to extract all the performance from your engine by delivering precisely the required amount of fuel and ignition timing that your engine requires for maximum output under all operating conditions.

Compatibility

- Ford Mustang 99-04

- Elite 2000
- Elite 2500

- Elite ECU with USB Cable and USB resource key
- Plug & Play Patch Harness
- Haltech HPI8 Igniter Module

- Haltech Dual Channel CAN Wideband Controller (HT-059986)
- FlexFuel Sensor includes Plugs n Pins (HT-011000)

Harness Overview

The Haltech Ford Mustang Cobra & GT plug and play solution allows for full control of the engine while maintaining factory dashboard and transmission operation.

Notes on Installation:

- Make sure your vehicle is ready to be worked on.
- Please make sure to perform a Throttle and Pedal Calibration before starting the vehicle.
- Please make sure the ECU and all wiring is installed properly and away from extreme heat sources.

WARNING!

Damage can occur to your ECU if your ignition system is not configured correctly.
Please make sure to load the Base Map for the ignition coils you will be using.

- Keep all wires away from the exhaust manifold and extreme sources of heat.
- The harness is designed to plug directly into the OEM wiring loom.

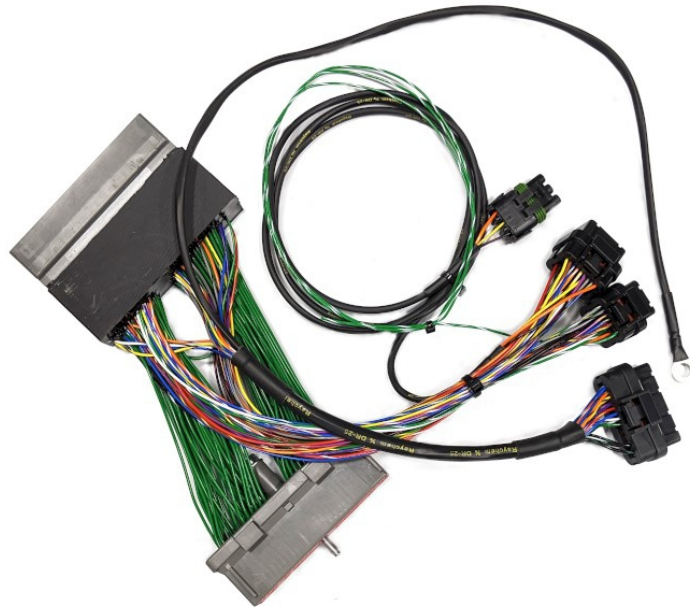
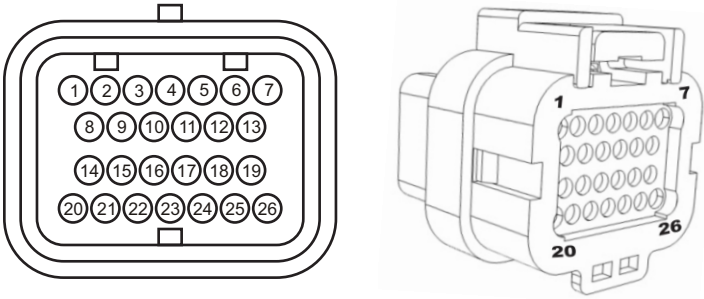


Figure 1 - HT-141390 Haltech Mustang 99-04 Parallel Harness

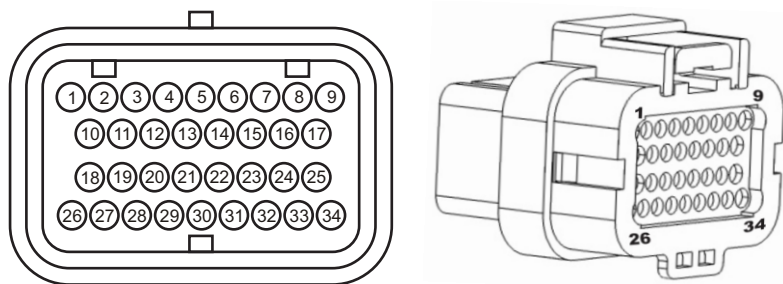


ECU CONNECTOR (26 PIN)

Position	Connection	Function	Notes
B1	Trigger +	Crank / Ref Signal	Crank Sensor Signal
B2	Home +	Cam / Sync Signal	Cam Sensor Signal (Intake Cam)
B3	Air Temp	IAT Signal	Intake Air Temp Sensor Signal
B4	Coolant Temp	ECT Signal	Coolant Temp Sensor Signal
B5	Trigger -	Crank Sensor (-)	Crank Sensor (-) Signal
B6	-	-	-
B7	SPI 4	Sync. Pulsed Input	Clutch/Transbrake Flying Lead
B8	SPI 1	Sync Pulsed Input	Speed Sensor Source
B9	SPI 2	-	-
B10	SPI 3	-	-
B11	ECU Power	ECU Power	12V from EFI Relay
B12	AVI 6	-	-
B13	AVI 1	-	-
B14	Signal Ground	Signal Ground	Signal Ground
B15	Signal Ground	Signal Ground	Signal Ground
B16	Signal Ground	Signal Ground	Signal Ground
B17	IGN 7	Ignition Output 7	Coil Cyl 7
B18	IGN 8	Ignition Output 8	Coil Cyl 8
B19	DPO 4	Digital Pulsed Output	High Speed Fan Ctrl
B20	AVI 5	Analog Input	A/C Request Switch
B21	Knock 1	Knock 1	Knock Sensor 1
B22	Knock 2	Knock 2	Knock Sensor 2
B23	CAN Hi	-	-
B24	Can Lo	-	-
B25	DBW 1	-	-
B26	DBW 2	-	-

Figure 7 - 26 Pin Harness Connector Pin Allocation

Harness Pinout



ECU CONNECTOR (34 PIN)

Position	Connection	Function	Notes
A1	DPO 2	BAC	BAC/Idle Valve Control
A2	AVI 4	Analog Input	Fuel Pressure Input
A3	IGN 1	Ignition Output 1	Coil Cyl 1
A4	IGN 2	Ignition Output 2	Coil Cyl 2
A5	IGN 3	Ignition Output 3	Coil Cyl 3
A6	IGN 4	Ignition Output 4	Coil Cyl 4
A7	IGN 5	Ignition Output 5	Coil Cyl 5
A8	IGN 6	Ignition Output 6	Coil Cyl 6
A9	5VDC	5V Sensor Power	5V to MAP Plug
A10	Chassis Ground	Chassis Ground	ECU Grounds
A11	Chassis Ground	Chassis Ground	ECU Grounds
A12	8V DC	-	-
A13	IGN SW INPUT	-	-
A14	AVI 10	Analog Input	Throttle Positon Sensor Input
A15	AVI 9	Analog Input	Manifold Pressure Sensor Signal
A16	AVI 2	-	-
A17	AVI 3	-	-
A18	DPO 1	-	-
A19	INJ 1	Injection Output 1	Cylinder #1 Injector
A20	INJ 2	Injection Output 2	Cylinder #2 Injector
A21	INJ 3	Injection Output 3	Cylinder #3 Injector
A22	INJ 4	Injection Output 4	Cylinder #4 Injector
A23	DPO 3	A/C Control	A/C Relay Control
A24	DPO 5	-	-
A25	DPO 6	-	-
A26	12VDC Switched	ECU Power	12V from EFI Relay
A27	INJ5	Injection Output 5	Cylinder #5 Injector
A28	INJ6	Injection Output 6	Cylinder #6 Injector
A29	INJ7	Injection Output 7	Cylinder #7 Injector
A30	INJ8	Injection Output 8	Cylinder #8 Injector
A31	Stepper 1	-	-
A32	Stepper 2	-	-
A33	Stepper 3	-	-
A34	Stepper 4	-	-

Figure 6 - 34 Pin Harness Connector Pin Allocation

Installation

Installing the Haltech Elite 2000/2500 is quite simple. The following installation instructions will outline the steps necessary to connect your ECU with the provided Plug n Play harness.

Step 1:

Disconnect Battery before beginning installation.

- The OEM EECV ECU is located in the passenger side foot well behind the kick panel. Remove the lower door threshold cover and kick panel.
- Use a 10mm socket to disconnect the OEM wiring loom from the EECV ECU and install the Haltech Parallel loom between the OEM Loom and OEM EECV ECU.



Figure 2 - Factory ECU Location

WARNING!

It is recommended that the Haltech ECU be installed inside the cabin to keep it away from heat and water intrusion. The front cover must be installed to maintain IP67 water resistant rating. If you wish to leave a USB cable plugged into the ECU then you must contact your Haltech dealer to purchase caps for each connector inside the lid as well as a sealed USB cable.

Step 2:

Connect the Haltech Patch Loom Ground Wire to an appropriate chassis ground as shown. Be sure the ground connection is paint free with bare metal contact to ground terminal.



Figure 3 - Patch Loom Ground

Step 3:

Once the harness is physically installed, reconnect the battery and begin configuration of the Elite ECU to suit engine setup and confirm TDC offset before attempting to start.



Figure 4 - Haltech HPI and Harness Connected

- Keep all wires away from the exhaust manifold and extreme sources of heat.
- The harness is designed to plug directly into the OEM wiring loom.
- Base maps are provided with ESP software installation files.

For Technical Help Videos check us out at
www.youtube.com/haltechecu

Function	Elite	Mustang	Notes	Color
DPO 2	A1	83	IAC Valve Control	Yellow
AVI 4	A2	63	Fuel Pressure Input	Brown
Ignition 1	A3	Haltech HPI-8	Coil 1	Blue/White
Ignition 2	A4	Haltech HPI-8	Coil 2	Orange/White
Ignition 3	A5	Haltech HPI-8	Coil 3	Yellow/White
Ignition 4	A6	Haltech HPI-8	Coil 4	Purple/White
Ignition 5	A7	Haltech HPI-8	Coil 5	Pink/Gray
Ignition 6	A8	Haltech HPI-8	Coil 6	Light Blue/Gray
+5V	A9	-	Haltech MAP 60"	Orange
Ground	A10	-	Ground	Black
Ground	A11	25	Ground	Black/White
+8V	A12	-	-	-
Ignition Switch	A13	-	-	-
AVI 10	A14	89	TPS	Gray
MAP	A15	-	Haltech MAP 60"	Yellow
AVI 2	A16	-	-	-
AVI 3	A17	-	-	-
DPO 1	A18	-	-	-
Injector 1	A19	75	Injector 1	Blue/Red
Injector 2	A20	101	Injector 2	Orange/Red
Injector 3	A21	74	Injector 3	Yellow/Red
Injector 4	A22	100	Injector 4	Purple/Red
DPO 3	A23	69	AC Relay	Purple
DPO 5	A24	-	-	-
DPO 6	A25	-	-	-
+12V Switched	A26	97	+12V Switched	Red
Injector 5	A27	73	Injector 5	Pink/Red
Injector 6	A28	99	Injector 6	Light Blue/Red
Injector 7	A29	72	Injector 7	White/Red
Injector 8	A30	98	Injector 8	Light Green/Red
Stepper 1 P1	A31	-	-	-
Stepper 1 P2	A32	-	-	-
Stepper 1 P3	A33	-	-	-
Stepper 1 P4	A34	-	-	-

Crank Trigger +	B1	21	Crank Signal	Gray/White
Cam Home +	B2	85	Cam Signal	Gray/Black
IAT	B3	39	IAT	Purple/Yellow
ECT	B4	38	ECT	Blue/Yellow
Crank Trigger -	B5	22	Crank Signal -	Brown/Yellow
Cam Home -	B6	-	-	-
SPI 4	B7	-	Clutch/Trans Brake Flying Lead 60"	Light Green
SPI 1	B8	68	VSS	Light Blue/Yellow
SPI 2	B9	-	-	-
SPI 3	B10	-	-	-
+12V Switched	B11	71	+12V Switched	Red/White
AVI 6	B12	-	-	-
AVI 1	B13	-	-	-
Signal Ground	B14	91	Signal Ground	Black/Red
Signal Ground	B15			
Signal Ground	B16	-	-	-
Ignition 7	B17	Haltech HPI-8	Coil 7	White
Ignition 8	B18	Haltech HPI-8	Coil 8	Light Green/White
DPO 4	B19	46, 58	High Speed Fan Control	Orange
AVI 5	B20	41	AC Request	Orange/Gray
Knock 1	B21	57	Knock 1	Dark Green
Knock 2	B22	102	Knock 2	Dark Blue
CAN High	B23	-	-	-
CAN Low	B24	-	-	-
DBW 1	B25	-	-	-
DBW 2	B26	-	-	-

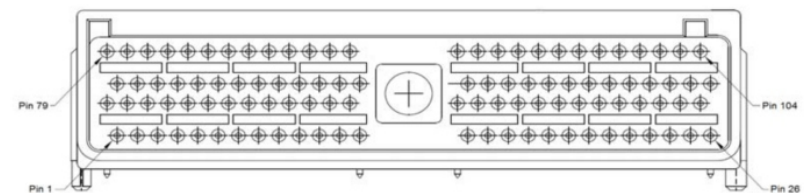


Figure 5 - 26 Pin Harness Connector Pin Allocation