



PLATINUM
SPORT GM
(HT051100)
QUICK START GUIDE



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!

PLATINUM Sport GM

Quick Start Guide

Congratulations on purchasing a Haltech Engine Management System.

This *fully programmable Plug and Play* 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.

This quick start guide will walk you through installation of the Platinum Sport GM ECU into a vehicle. This guide is accompanied by the full service manual located on the software CD provided with the ECU that you or your tuner will need to refer to before completing your installation and configuration. The Manual can also be downloaded from the Haltech website www.haltech.com

Supported Vehicles

The Platinum Sport GM ECU supports the following vehicles:

- Holden Commodore VN - (V6 & V8)
- Holden Commodore VP - (V6 & V8)
- Holden VQ Statesman - (V6 & V8)
- Holden Commodore VR - (V6 & V8, Manual Transmission only)
- Holden Commodore VS - (V6 & V8, Manual Transmission only)

Platinum Sport GM Kit Includes

- Haltech Platinum Sport GM ECU
- USB Cable
- Software CD
- Quick Start Guide
- Haltech Sticker

Optional Accessories (Sold Separately)

- Rear Auxiliary Harness (HT040003)

Loaded Basemap

Your Platinum Sport GM ECU has been programmed with a basemap to suit a Holden V8 standard engine using the standard MAP sensor.

Alternatively, a basemap to suit the V6 variant can be found in the *C:\Users\XXXX\Documents\Haltech\ECU Maps\SportGM* folder for you to upload into your ECU.

ECU Installation

To install your new Platinum Sport GM to your vehicle, please follow the procedures below.

* Please Note the following Installation photos are based on a VQ V8 Statesman

You will require the following tools

- Drill with Sharp 4mm Drill bit (to remove the security cover if installed)
- Phillips #2 Screwdriver
- Cable ties / 3M Velcro Tape or similar

1. Ensure Ignition is off.
2. Locate your factory ECU. This will be located on the passenger side of the vehicle behind the kick panel.
If your vehicle has the optional security cover installed, then remove it by drilling out the 3 rivets securing it to the vehicle body as in figure 1.

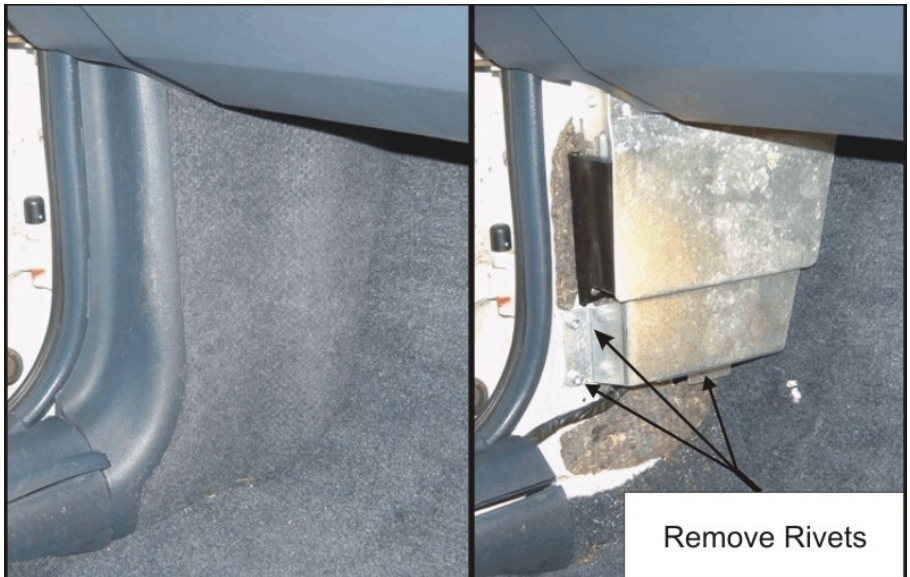


Figure 1 – ECU Location with security cover installed

3. Disconnect the OEM ECU from the wiring harness
Remove the 2 Phillips screws securing it to the vehicle
Remove OEM ECU from vehicle.

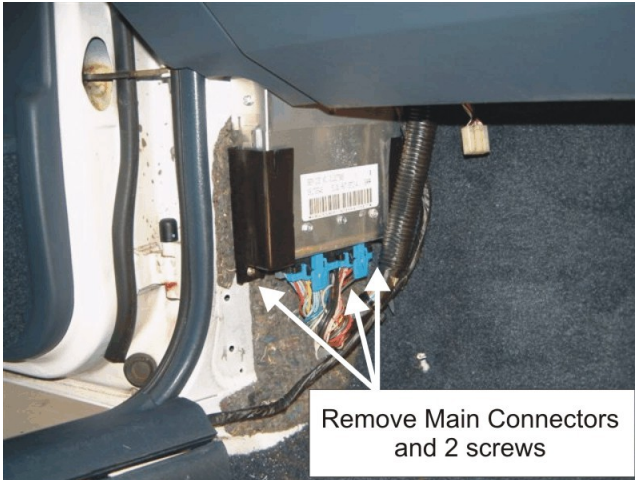


Figure 2 – OEM ECU Removal

4. Connect the Haltech Sport GM to the vehicles wiring harness
Connect the USB cable and optional Auxiliary harness (#HT040003 if required)
Mount the ECU to the vehicle using 3M Velcro tape and cable ties



Figure 3 – Haltech Sport GM Mounted in vehicle

5. Route the connected USB Cable up to the glove compartment for storage and easy access for programming.
Re-fit the kick panel to the vehicle



Figure 4 – Haltech Sport GM ECU with kick panel re-installed

6. With the ECU installed do not attempt to start the vehicle.
You will need to configure the ECU.

The ECU is pre configured for use with a standard V8 engine.

- If this is your setup then you will not have to load a base map. However, it is still strongly recommended that you check your settings before starting your engine.
- If a non standard engine or sensor combination is to be used then please go online with the ECU using the supplied ECU Manager software and adjust any configuration settings affected according to your setup. If the engine is modified, then all tables must be checked as the standard fuel and ignition settings may not be appropriate to operate your engine safely.

With the correct settings configured in the ECU, the engine should be able to be started at this point.

- With the engine started and running its now time to tune
 This is best achieved by your nearest engine tuner
 See the listing of Haltech dealers on our website to find the one closest to you.
www.haltech.com

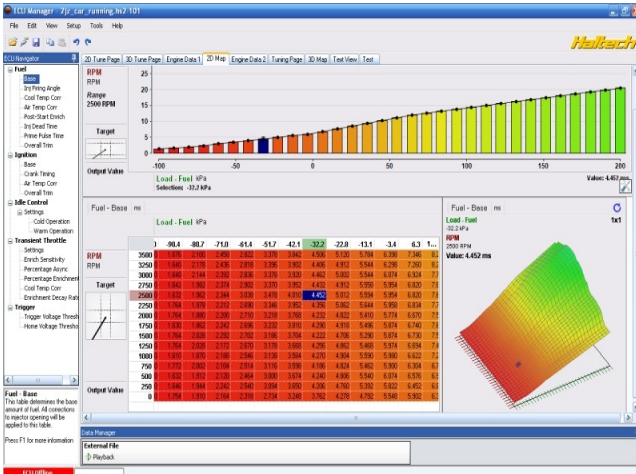


Figure 5 – Haltech ECU Manager Software

ECU Manager Software

ECU Manager software is used for setup, calibration and diagnostics and can be found on the CD supplied with this unit or downloaded from the Haltech website www.haltech.com

Minimum System Requirements

Operating System:	Windows 2000 SP4 / XP / Vista / Windows 7
Processor Speed:	1GHz
RAM:	256 Mb
Video Card:	128MB graphics card with 3D acceleration
USB:	1.1
Hard Drive Space:	250Mb
Minimum Screen Resolution:	1024 x 768 pixels

Installing ECU Manager

Installing ECU Manager onto your PC is performed similar to any other Windows software package. Installation is outlined below to ensure correct installation:

- 1.** Insert the CD-ROM into your PC's CD-ROM drive. The CD should automatically launch into the Haltech Browser. If the CD does not run automatically double click on the "My Computer" icon on the desktop, double click on the Haltech icon (CD- ROM drive) to start the browser software.
- 2.** The Browser will display the disclaimer and you will need to agree to the terms stated before allowing to progress. Read the Disclaimer and click on AGREE if you agree.
- 3.** Now you will be able to access all the information contained on the CD
- 4.** To download the Platinum Software, click on the Platinum Series ECU Manager Link. You will be prompted to install the software. Click "Install" to install ECU Manager and the Data Log viewer.
- 5.** Follow the software prompts and install the software.

With your programming cable (USB) attached to your ECU and the other end connected to your laptop, power up the ECU by turning your key to IGN. Start the programming software on your PC and go online with the ECU.

ECU Manager / ECU Manuals

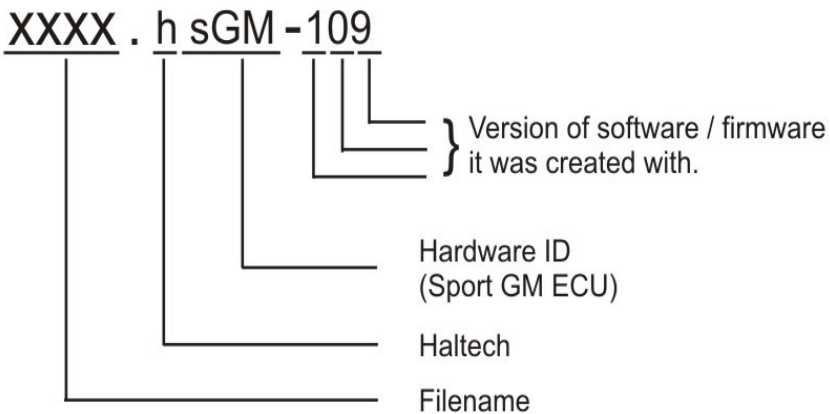
Detailed manuals can be found in the software by pressing your F1 key or by selecting the Help tab located at the top left of the screen

ECU Manager File Extensions

When ECU manager saves the map from the Haltech ECU, it saves the map with a Haltech specific file extension.

The File extension can be broken down as follows:

Example File : xxxx.hsGM-109



Later map versions cannot be loaded into ECU's with earlier firmware versions.

ECU Manager will upgrade earlier map versions when loading into ECU's with later firmware versions.

ECU Manager upgrades maps between versions where equivalent settings are available. However, new settings not in the original map, will be substituted with values from the new version's default map.

WHENEVER ECU MANAGER CONVERTS YOUR ECU MAP, YOU SHOULD ALWAYS CHECK YOUR MAP SETTINGS TO ENSURE THAT ALL THE APPROPRIATE SETTINGS HAVE BEEN CONVERTED CORRECTLY.

Rear Auxiliary Connector

The Platinum Pro Plugin Series allows further expansion of your ECU by the Rear Auxiliary Connector.

The Rear Auxiliary connector allows you access to:

- 4 Additional Digital Pulsed Outputs (DPO)
- 4 Additional Analogue Voltage Inputs (AVI)

These extra Inputs / Outputs can be used to:

- Fit additional sensors. (e.g. MAP, Temperature, Wide-band O2 Sensors)
- Control additional devices via relays
- Control additional solenoids directly (e.g. Haltech Boost Control solenoid)

The Rear Auxiliary harness is available as an optional extra. (HT040003)



Pin #	Wire Colour	Connection
1	O	+5V
2	Y	AVI1 (MAP)
3	O/B	AVI2
4	B/W	SIGNAL GROUND
5	V/B	DPO1
6	V/BR	DPO2
7	-	-
8	-	-
9	O	+5V
10	GY	AVI 3
11	GY/B	AVI 4
12	B/W	SIGNAL GROUND
13	V/R	DPO3
14	V/O	DPO4
15	-	-
16	-	-

Figure 6 - Rear Auxiliary Harness Connector and Pinout

Digital Pulsed Outputs (DPO)

Digital Pulsed Outputs are capable of producing pulsed waveforms with varying duty and frequency. DPO's can be used to control various devices such as thermo-fans, shift lights, bypass air control valves, boost control solenoids etc.

When a Digital Pulsed output is activated by the ECU the output will switch to ground. Solenoid valves and shift lights etc can be run directly from the output, however high current devices such as thermo-fans and additional fuel pumps must be activated through a relay. This way the DPO is only switching a relay and not a high current draw device.

Four additional outputs can be connected using the Optional Rear Auxiliary Harness (HT040003)

Digital Pulsed Outputs are limited to 800mA Max current draw.

Analogue Voltage Inputs (AVI)

Analogue Voltage Inputs accept variable voltage inputs from 0V to 5V. These inputs can also accept switch inputs that change between two different voltage levels.

The On Voltage and Off Voltage define what the thresholds are between the On and Off states. The Voltage can be viewed as a channel in the software to determine the thresholds for a switched input.

Two additional sensors or switched inputs can be connected using the Optional Rear Auxiliary Harness (HT040003)

Analogue Temperature Inputs (ATI)

Analogue Temperature Inputs accept variable resistance sensors.

These inputs have a 1K pull – up resistor connected to them to allow them to be used with most automotive temperature senders (Variable resistance thermistor types). Two additional sensors can be connected using the Optional Rear Auxiliary Harness (HT040003).

Wire connections

When using crimp connectors ensure that the correct crimping tool is used – if in doubt do a pull test on a crimp connector, the wire should break before the wire pulls out of the crimp. Terminal soldering can weaken a connection and should only be used as a last resort. If solder joints are used, ensure joints are well isolated from movement as solder joints are prone to fracture.

When splicing 2 wires it is preferable to use a crimp splice – again if using a solder joint, ensure joint is limited in its range of possible movement as solder joints are prone to fracture. Always use heat-shrink sleeving to insulate wires.

The Haltech CAN Network

The Haltech CAN network allows for simple and effective expansion in ECU capability and functionality without having to go to the trouble of wiring in a whole new computer.

Expansion is made possible by the addition of multiple expansion devices that communicate to the main ECU via a Control Area Network (CAN).

Installation time and costs are kept to a minimum as all expansion devices are powered up from the main ECU via the pre-terminated connection cable that comes with each expansion device.

Simply connect the device directly to the 8 pin CAN connector on the rear of the ECU or connect using an optional Haltech CAN Hub (order as part # HT059991) if multiple expansion devices are required).

Each expansion device is pre-programmed with a unique ID code which allows it to be recognised on the network and work correctly first time every time.

For current available expansion devices please go to our website at www.haltech.com



Figure 7 – Haltech ECU connected to a Racepak Dash

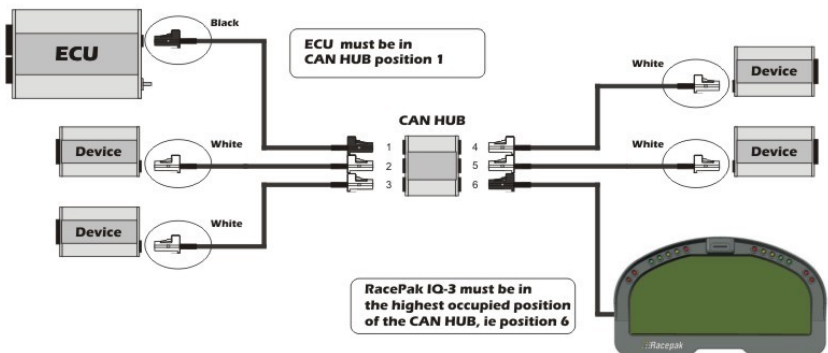
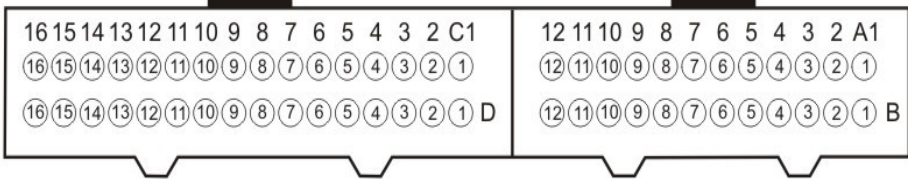


Figure 8 – Haltech ECU connected to 5 Auxiliary CAN based devices

ECU Pinout



Looking Into ECU Connector

A	
A1	Fuel Pump Relay Control
A2	Signal to Trip Computer
A3	-
A4	-
A5	Check Engine Light
A6	Ignition Voltage Input
A7	TCC Solenoid Control
A8	-
A9	-
A10	Vehicle Speed Signal Input
A11	MAP / MAT Sensor Earth
A12	Engine Earth

B	
B1	+12V ECM Supply
B2	-
B3	Distributor Reference Earth
B4	-
B5	Distributor Reference Input Signal
B6	-
B7	-
B8	Air Conditioning Request Input
B9	-
B10	Park/ Neutral Switch
B11	-
B12	-

C	
C1	A/C Condensor Fan Relay Control
C2	Air Conditioning Relay Control
C3	IAC Coil B Low
C4	IAC Coil B High
C5	IAC Coil A High
C6	IAC Coil A Low
C7	4 th Gear Overtemp Signal Input
C8	-
C9	-
C10	Coolant Temp Sensor Signal Input
C11	MAP Sensor Signal Input
C12	MAT Sensor Signal Input
C13	TPS Signal Input
C14	+5V Reference Voltage Output
C15	-
C16	+12V ECM Supply

D	
D1	Engine Earth
D2	TPS, Coolant Sensor Earth
D3	Engine Earth
D4	EST Output
D5	Ignition Module Bypass Control
D6	Oxygen Sensor Earth Circuit
D7	Oxygen Sensor Input Signal
D8	-
D9	-
D10	Engine Earth
D11	-
D12	-
D13	-
D14	-
D15	Injector Control
D16	Injector Control

Figure 9 – Platinum Sport GM Pinout

Haltech™

ENGINE MANAGEMENT SYSTEMS



