

PLATINUM
PRO PLUG-IN
HONDA DC5
2005 - 2006
(HT-055048)
QUICK START GUIDE



WARNING - HALTECH OFF-ROAD USAGE POLICY

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. Using Haltech products for street/road use on public roads is 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 any Haltech product

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 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, valid in the original country of purchase only. 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. Haltech suggests that the purchaser retain the dealer's dated bill of sale/receipt as evidence of the date of retail 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. This 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 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. The sale of any sensor or accessory that is 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.

Returning a sensor or accessory product within 30 days of purchase: Product may be returned for credit or full refund. (Any sealed packaging must not have been opened or tampered with)

Returning a sensor or accessory product after 30 days of purchase: Product may be returned for credit only (no refunds given) and is subject to a 10% Restocking fee. (Any sealed packaging must not have been opened or tampered with)

PLATINUM Pro Plug-in Honda DC5 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 Pro 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 Pro Plug-in Honda DC5 ECU supports the following vehicles: Honda Integra DC5 Type S (2005/2006 Japanese Delivered Model) Honda Integra DC5 Type S (2005/2006 Australian Delivered Model) Acura RSX (2005/2006 USA Delivered Model)

Platinum Pro Plug-in Honda DC5 Kit Includes

- Haltech Platinum Pro Plug-in ECU
- USB Cable
- Software CD
- Quick Start Guide
- Haltech Elite CAN Adaptor Cable DTM4 Receptacle to 8 pin Black Tyco 75mm (HT-130040)

Optional Accessories (Sold Separately)

- Rear Auxiliary Harness (HT-040003)
- Platinum Series Mounting Kit (HT-039000)

Loaded Basemap

Your Platinum Pro Plugin has been programmed with a basemap to suit a Honda Integra Type S with a K20A standard engine using the factory Honda MAP Sensor.

Please ensure you load, modify and check the corresponding basemap for your application before attempting to start the vehicle.

ECU Installation

To install your new Platinum Pro Plug-in to your Honda DC5, please follow the procedures below.

- * Please Note the following Installation photos based on a Honda Integra DC5 (ADM) You will require the following tools
 - Small Flat Screwdriver
 - Socket set with 10mm socket
 - Platinum Mounting Kit (HT-039000) or Cable Ties / 3M Velcro tape or similar
 - Locate your factory ECU. This will be located on the passenger side of the vehicle under the glove compartment.



Figure 1 - ECU Location

Remove the 3 Clips securing the ECU cover to the vehicle, by pushing the centre pin in and pulling out the clip. Once the clips have been removed proceed to remove the cover. Your OEM ECU should now be visable.



Figure 2 – Factory ECU location with cover removed

3. With the ignition turned off disconnect the 3 connectors from the front of the ECU. Remove the 3 x 10mm bolts securing the ECU in place. Once these bolts have been taken out, remove the factory ECU from the vehicle.



Figure 3 – Factory ECU removed

4. With the factory ECU removed, install the Haltech Plug-in ECU. Plug the 3 connectors into their respective locations on the front of the ECU. The optional Auxiliary harness can be installed at this point if required. Mount the ECU to the factory cradle by means of the Haltech Platinum Mounting kit or Cable ties and Velcro Tape.

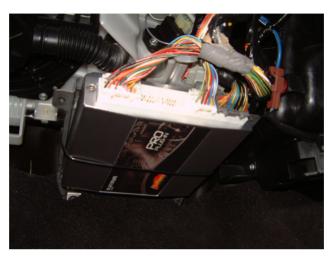


Figure 4 – Haltech ECU Mounted in factory location

5. 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 K20A standard engine. If this is your setup then you will not have to load a basemap. However, it is still strongly recommended that you check your settings before starting your engine. If another engine or sensor combination is to be used please go online with the ECU using the supplied ECU Manager software and load the basemap which is specific to your model.

With the corresponding basemap loaded into the ECU, a standard engine should be able to be started at this point, but it is recommended that you check all settings in the basemap before attempting to start the engine. If your engine is not standard please adjust any configuration settings affected according to your setup.

6. With the engine started and running its 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. Once the unit has been tuned proceed to re-install the cover.

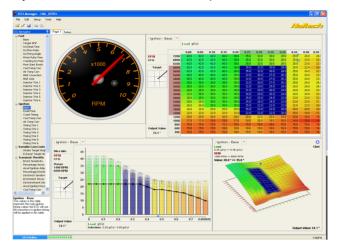


Figure 5 – Haltech ECU Manager Software tuning page

7. Re-install the ECU Cover to the vehicle.



Figure 6 – ECU Cover Re-installed

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

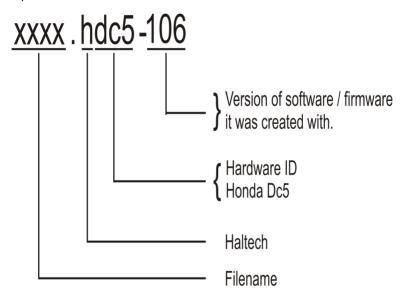
Detailed manuals can be found in the software by pressing your F1 key or by selecting the Help tab located at the top left of the screen

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.hdc5-106



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:

- 2 Additional Digital Pulsed Outputs (DPO)
- 2 Additional Digital Switched Outputs (DSO)
- 2 Additional Analogue Voltage Inputs (AVI)
- 2 Additional Analogue Temperature Inputs (ATI)

These extra Inputs / Outputs can be used to:

- Fit additional sensors. (eg MAP and Temperature)
- Control additional devices via relays
- Control additional solenoids directly (eg Aftermarket Boost Control solenoid)

The Rear Auxiliary harness is available as an optional extra. (HT-040003)



Pin #	Wire Colour	Connection
1	0	+5V
2	Υ	AVI1 (MAP)
3	O/B	AVI2
4	B/W	SIGNAL GROUND
5	V/B	DPO1
6	V/BR	DPO2
7	-	-
8	-	-
9	0	+5V
10	GY	ATI1 (AIR)
11	GY/B	ATI2
12	B/W	SIGNAL GROUND
13	V/R	DSO1
14	V/O	DSO2
15	-	-
16	-	-

Figure 7 - 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.

Two additional outputs can be connected using the Optional Rear Auxiliary Harness (HT-040003)

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

Digital Switched Outputs (DSO)

Digital Switched Outputs are capable of switching to ground DSO's can be used to control relays in an on / off state only. Two additional outputs can be connected using the Optional Rear Auxiliary Harness (HT-040003)

Digital Switched 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 (HT-040003)

Analogue Temperature Inputs (ATI)

Analogue Temperature Inputs accept variable resistance sensors.

These inputs have a 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 (HT-040003)

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 # HT-159000) 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 every time.

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

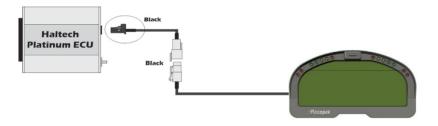


Figure 8 – Haltech ECU connected to a Racepak Dash

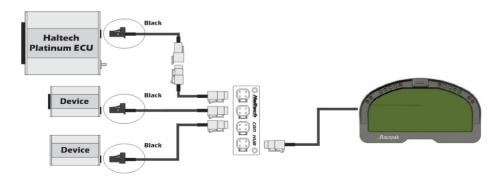


Figure 9 - Haltech ECU connected to 3 Auxiliary CAN based devices

LOOKING INTO ECU CONNECTOR

A2		LOOKING INTO
AS	A1	KS (Knock Sensor)
PG2 (Power Ground)	A2	IGP2 (Power Source)
A5 PG1 (Power Ground) A6 TDC / CMPB (Top Dead Centre Sensor) A7 CKP (Crankshaft Position Sensor) A8 LG2 (Logic Ground) A9 LG1 (Logic Ground) A10	A3	IGP1 (Power Source)
A6 TDC / CMPB (Top Dead Centre Sensor) A7 CKP (Crankshaft Position Sensor) A8 LG2 (Logic Ground) A9 LG1 (Logic Ground) A10	A4	PG2 (Power Ground)
AZ CKP (Crankshaft Position Sensor) AB LG2 (Logic Ground) AB LG1 (Logic Ground) AB LG2 (Logic Ground) AI IMRC (Intake Manifold Runner Control Solenoid Valve) * K20A3 ENGINE AII IMRC (Intake Manifold Runner Control Solenoid Valve) * K20A3 ENGINE AII MRC (Intake Manifold Runner Control Solenoid Valve) * K20A3 ENGINE AII IMRC (Intake Manifold Runner Control Solenoid Valve) * K20A3 ENGINE AII IMRC (Intake Manifold Runner Control Solenoid Valve) * K20A3 ENGINE AII IMRC (Intake Manifold Runner Control Pulse) AII IMPL SOLE (No. 3 Ignition Coil Pulse) AII IMPL SOLE (No. 1 Ignition Coil Pulse) AII IMPL SOLE (Company Voltage) AII IMPL SOLE (Company Voltage) AII IMPL SOLE (Sensor Ground) AII IMPL SOLE (Sensor Sensor) AII	A5	PG1 (Power Ground)
A8 LG2 (Logic Ground) A9 LG1 (Logic Ground) A10	A6	TDC / CMPB (Top Dead Centre Sensor)
A8 LG2 (Logic Ground) A9 LG1 (Logic Ground) A10	A7	CKP (Crankshaft Position Sensor)
A9 LG1 (Logic Ground) A10	A8	
A10	A9	
ALC IACV (Idle Air Control Valve)	A10	-
ALC IACV (Idle Air Control Valve)		IMRC (Intake Manifold Runner Control Solenoid Valve) * K20A3 ENGINE
A13 IGPLS4 (No. 4 Ignition Coil Pulse) A14 IGPLS3 (No. 3 Ignition Coil Pulse) A15 IGPLS2 (No. 2 Ignition Coil Pulse) A16 IGPLS2 (No. 1 Ignition Coil Pulse) A17	A12	
A14 IGPLS3 (No. 3 Ignition Coil Pulse) A15 IGPLS2 (No. 2 Ignition Coil Pulse) A16 IGPLS2 (No. 1 Ignition Coil Pulse) A17	A13	
A15 IGPLS2 (No. 2 Ignition Coil Pulse) A16 IGPLS1 (No. 1 Ignition Coil Pulse) A17		
A16 IGPLS1 (No. 1 Ignition Coil Pulse) A17		
A17 A18 VSS (Vehicle Speed Sensor) A19 CMPA (Camshaft Position Sensor) A20 VCC2 (Sensor Voltage) A21 VCC1 (Sensor Voltage) A22		
A18 VSS (Vehicle Speed Sensor) A19 CMPA (Camshaft Position Sensor) A20 VCC2 (Sensor Voltage) A21 VCC1 (Sensor Voltage) A21 VCC1 (Sensor Voltage) A22		
A19		
A20		
A21 VCC1 (Sensor Voltage) A22		
A22		
A23 SG2 (Sensor Ground)		
A24		
A25		
A26		· · · · · · · · · · · · · · · · · · ·
A27		•
A28		-
A29		-
MAP (Manifold Absolute Pressure Sensor)		-
Number Number		
State		MAP (Manifold Absolute Pressure Sensor)
B2	A31	-
B2		
Sample S	B1	
B4	B2	INJ4 (No.4 Injector)
B5	B3	INJ3 (No.3 Injector)
B66	B4	INJ2 (No.2 Injector)
### B8 ### ECT (Engine Coolant Temperature Sensor) ### B9 ### ECT (Engine Coolant Temperature Sensor) ### B10	B5	INJ1 (No.1 Injector)
B8	B6	
B88 ECT (Engine Coolant Temperature Sensor)	B7	<u> </u>
B9	B8	ECT (Engine Coolant Temperature Sensor)
B10		
B11		Al TI (Alternator I Signal)
### B12		
B13		· · · · · · · · · · · · · · · · · · ·
### ### ### #### #####################		
### B15		ALTE (Alternator PK Signal)
### B16		-
B17 IAT (Intake Temperature Sensor) B18 ALTC (Alternator Control) B19 - B20 - B21 PCS (Evaporative Emission Canister Purge Valve) B22 - B23 -		-
B18 ALTC (Alternator Control) B19 - B20 - B21 PCS (Evaporative Emission Canister Purge Valve) B22 - B23 -		-
### B19	B17	
### B20	B18	ALTC (Alternator Control)
B21 PCS (Evaporative Emission Canister Purge Valve) B22 - B23 -	B19	-
B22 B23	B20	-
B22	B21	PCS (Evaporative Emission Canister Purge Valve)
B23 -	B22	-
	B23	-
	B24	-

CONNECTORS C AND D ARE NOT USED

E1			
E2	RVS (Reverse Lock Solenoid Valve) *K20Z1 Engine		
E3	LG3 (Logic Ground)		
E4	SG3 (Sensor Ground)		
E5	VCC3 (Sensor Voltage)		
E6	-		
E7	MRLY (PGM-FI Main Relay)		
E8	-		
E9	IG1 (Ignition Signal)		
E10	-		
E11			
E12	FANC (Radiator Fan Control)		
E13	SEFMJ (Mulitplex Control Unit Communications)		
E14	FTP (Fuel Tank Pressure (FTP) Sensor		
E15	ELD (Electrical Load Detector)		
E16	PSPSW (Power Steering Pressure Swicth Signal)		
E17	IMO FPR (Immobilizer Fuel Pump Relay)		
E18	ACC (A/C Clutch Relay)		
E19	-		
E20	SHO2S (Secondary Heated Oxygen Sensor (Secondary HO2S) Sensor 2)		
E21	SHO2SHTC (Secondary HO2S) Heater Control)		
E22	BKSW (Brake Pedal Position Switch)		
E23	-		
E24	-		
E25	NEP (Engine Speed Pulse)		
E26	VSSOUT (Vehicle Speed Sensor Output Signal)		
E27	-		
E28			
E29			
E30			
E31	MIL (Malfunction Indicator Lamp)		

Figure 10 – Platinum Pro Plug-in Honda DC5 ECU Pinout

Note	es e	
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Need more help?



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