Elite 1500 Plug ‘n’ Play Adaptor Harness HT-140850

Supported Models

NISSAN SILVIA S13 (CA18DET)

Package Contents

THIS NISSAN S13 (CA18DET) PACKAGE CONTAINS THE FOLLOWING:

- NISSAN S13 (CA18DET) ELITE 1500 PLUG ‘N’ PLAY ADAPTOR (HT-140850)
- ELITE SERIES PLUG ‘N’ PLAY ADAPTOR HARNESS (HT-130201)
- INTAKE AIR TEMPERATURE SENSOR (HT-010200)

Application Notes

THIS NISSAN SILVIA S13 (CA18DET) ELITE 1500 PLUG 'N' PLAY ADAPTOR HARNESS IS SUITABLE FOR USE WITH A HALTECH **ELITE 1500** ECU.

ENSURE THAT THE CORRECT BASEMAP IS LOADED BEFORE STARTING THE VEHICLE.

THE BASEMAP IS ONLY FOR USE AS A STARTING POINT AND THE ECU WILL REQUIRE APPROPRIATE TUNING.

HALTECH WILL NOT BE HELD RESPONSIBLE FOR ENGINE DAMAGE DUE TO THE IMPROPER USE OF BASEMAPS.

THE 16 PIN AUXILIARY CONNECTOR PROVIDES A NUMBER OF ADDITIONAL INPUT/OUTPUT LINKS TO THE HALTECH ELITE ECU.
THIS KIT IS SUPPLIED WITH SPARE PINS FOR USE WITH THE 16 PIN AUXILIARY CONNECTOR.

AN APPROPRIATE CRIMPING TOOL IS RECOMMENDED TO USE THE 16 PIN AUXILIARY CONNECTOR.

A CRIMPING TOOL KIT (PART # HT-070300) CAN BE PURCHASED AT **WWW.HALTECH.COM**

AFTER THE INSTALLATION OF THIS PLUG 'N' PLAY KIT, FACTORY PANELS MAY BE RE-INSTALLED.

Elite 1500 Basemap

MAKE	MODEL	CODE	ENGINE	BASEMAP
NISSAN	SILVIA	S13	CA18DET	HT-140850 Nissan Silvia S13 CA18DET MAP.e1500

Basemap Notes

THE BASEMAPS SUPPLIED WITH THIS PRODUCT HAVE BEEN SETUP USING THE ELITE ECU INTERNAL 3 BAR MAP SENSOR.

PLEASE CONNECT THE ELITE ECU INTERNAL MAP SENSOR TO THE INTAKE MANIFOLD PRIOR TO STARTING THE VEHICLE.

Figure 1 - Elite ECU internal MAP sensor

ECU Location

NISSAN SILVIA S13 (CA18DET)

THE FACTORY NISSAN S13 (CA18DET) ECU IS LOCATED BEHIND THE PASSENGER LEFT SIDE KICK PANEL. REMOVING THIS PANEL WILL ALLOW FOR THE INSTALLATION OF THIS HALTECH PLUG 'N' PLAY PRODUCT. THE FACTORY KICK PANEL CAN STILL BE USED AFTERWARDS.

Figure 2 - Factory ECU Location

Figure 3 - Typical Plug 'N' Play Adaptor installation
(Double-sided tape maybe used to secure the Adaptor to the factory bracket)

Figure 4 - Final installation should look like this with ECU secured under the carpet

Air Temperature Sensor

An air temperature sensor is a required sensor used in Volumetric Efficiency (VE) tuning to compensate for changes in air density due to air temperature. Cold air has a higher density than warm air and therefore requires a greater volume of fuel to maintain the same air/fuel ratio.

The Haltech ECU can automatically compensate the fuel delivery for changes in air density based on temperature using the signal received from the air temperature sensor.

On many vehicles the OEM air temperature sensor is located either within the mass airflow sensor or molded into the intake air manifold, however in performance applications the airflow sensor and air intake piping are often modified, removed or replaced. For this reason an air temperature sensor (HT-010200) is provided for use as a substitute to the factory air temperature sensor.

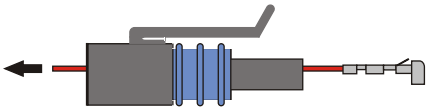
This sensor should be mounted to provide the best representation of the actual temperature of the air entering the combustion chamber, i.e. after any turbocharger, supercharger and intercooler.

The sensor needs to be in the moving air stream to give fast response times and reduce heat soak effects. Be aware in some situations, mounting the sensor into the inlet manifold (especially at the rear) may cause heat soak problems (where the sensor reads the temperature of the manifold itself rather than the air that is moving through the manifold into the engine).

Once a suitable position has been located for the air temperature sensor to be installed, a hole should be drilled and tapped to accept the sensor. The intake manifold or inlet piping should be removed from the engine before this is done to prevent any metal shavings or swarf entering the engine.

This package includes an air temperature sensor (HT-010200). This air temperature sensor should be installed by utilising an auxiliary Analogue Voltage Input (AVI) and signal ground located on the 16 pin auxiliary connector.

Please refer to the auxiliary connector pinout table and sensor wiring diagram below.



LOOKING INTO FRONT OF CONNECTOR

Termination	
A	Signal Ground
B	Air Temperature Signal

INSERT WIRE THROUGH PLUG, THEN CRIMP THE PIN INTO THE WIRE AND DRAW BACK TO LOCK

Figure 5 - Air Temperature Sensor wiring

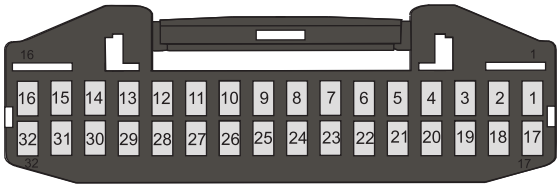
Auxiliary Connector

AUXILIARY CONNECTOR (16 PIN)
REAR VIEW (WIRE SIDE)

An auxiliary connector allows easy connection of additional ECU inputs and outputs.
Please see pinout information below for spare inputs and outputs available to this application.

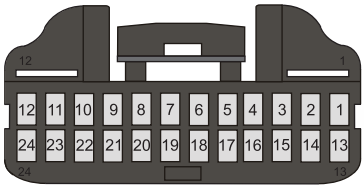
Position (16 Pin Plug)	Connection	Function	Notes
1	From Haltech ECU (A9)	+5V	+5V DC Sensor Supply (50mA Max)
2	From Haltech ECU (A15)	AVI 9	Spare Analogue Voltage Input
3	From Haltech ECU (B3)	AVI 7	Spare Analogue Voltage Input
4	From Haltech ECU (B14, B15, B16)	SIGNAL GROUND	Signal Ground For Input Sensors
5	From Haltech ECU (B17)	IGN 7	Spare Output (Available to Elite 2000/2500 Only)
6	From Haltech ECU (B18)	IGN 8	Spare Output (Available to Elite 2000/2500 Only)
7	From Haltech ECU (B8)	SPI 1	Spare SPI (Optional Flex Fuel Input)
8	From Haltech ECU (A26)	+12V (INJ)	+12V DC Supply for Relays and Solenoids (500mA Max)
9	From Haltech ECU (A9)	+5V	+5V DC Sensor Supply (50mA Max)
10	From Haltech ECU (A17)	AVI 3	Spare Analogue Voltage Input
11	From Haltech ECU (A2)	AVI 4	Spare Analogue Voltage Input
12	From Haltech ECU (B14, B15, B16)	SIGNAL GROUND	Signal Ground for Input Sensors
13	From Haltech ECU (A29)	INJ 7	Spare Output (Available to Elite 2000/2500 Only)
14	From Haltech ECU (A30)	INJ 8	Spare Output (Available to Elite 2000/2500 Only)
15	From Haltech ECU (B9)	SPI 2	Spare Synchronised Pulsed Input
16	From Haltech ECU (A26)	+12V (INJ)	+12V DC Supply for Relays and Solenoids (500mA Max)

Main Connectors



CONNECTOR (32 PIN)
REAR VIEW (WIRE SIDE)

Position (32 Pin Plug)	ECU Connector (34 Pin Plug)	Function	Description
1	A1	DPO 2	Wastegate Solenoid
2	A2	AVI 4	Spare Analogue Voltage Input
3	A3	IGN 1	Ignition Coil #1
4	A4	IGN 2	Ignition Coil #2
5	A5	IGN 3	Ignition Coil #3
6	A6	IGN 4	Ignition Coil #4
7	A7	IGN 5	Spare Output (Available to Elite 2000/2500 Only)
8	A8	IGN 6	Spare Output (Available to Elite 2000/2500 Only)
9	A9	+5V	+5V DC Sensor Supply
10	A10	BATTERY GROUND	Battery Negative
11	A11	BATTERY GROUND	Battery Negative
12	A12	+8V	+8V DC Sensor Supply
13	A13	IGNITION INPUT	Ignition Switch
14	A14	AVI 10	Throttle Position Sensor
15	A15	AVI 9	Spare Analogue Voltage Input
16	A16	AVI 2	Spare Analogue Voltage Input
17	A17	AVI 3	Spare Analogue Voltage Input
18	A18	DPO 1	Tachometer
19	A19	INJ 1	Injector #1
20	A20	INJ 2	Injector #2
21	A21	INJ 3	Injector #3
22	A22	INJ 4	Injector #4
23	A23	DPO 3	Air Conditioner Relay
24	A24	DPO 5	Fuel Pump Relay
25	A25	DPO 6	ECCS Relay
26	A26	+12V (INJ)	Fused Power
27	A27	INJ 5	Spare Output (Available to Elite 2000/2500 Only)
28	A28	INJ 6	Spare Output (Available to Elite 2000/2500 Only)
29	A31	STEP1 P1	O2 Heater
30	A32	STEP1 P2	Variable Intake Runner Solenoid
31	A33	STEP1 P3	Idle Control (BAC)
32	A34	STEP1 P4	Check Engine Light



CONNECTOR (24 PIN)
REAR VIEW (WIRE SIDE)

Position (24 Pin Plug)	ECU Connector (26 Pin Plug)	Function	Description
1	B1	TRIGGER	Crankshaft Sensor
2	B2	HOME	Camshaft Position Sensor
3	B3	AVI 7	Spare Analogue Voltage Input
4	B4	AVI 8	Coolant Temperature Sensor
5	B5	TRIGGER -	Not Used
6	B6	HOME -	Not Used
7	B7	SPI 4	A/C Request
8	B8	SPI 1	Spare SPI (Optional Flex Fuel Input)
9	B9	SPI 2	Spare Synchronised Pulsed Input
10	B10	SPI 3	Vehicle Speed Sensor
11	B11	+12V (ECU)	Fused Power
12	B12	AVI 6	O2 Sensor
13	B13	AVI 1	Spare Analogue Voltage Input
14	B14	SIGNAL GROUND	Signal Ground for Input Sensors
15	B15	SIGNAL GROUND	Signal Ground for Input Sensors
16	B16	SIGNAL GROUND	Signal Ground for Input Sensors
17	B23	CAN HIGH	Not Used
18	B24	CAN LOW	Not Used
19	B19	DPO 4	Spare Output
20	B20	AVI 5	Mass Airflow Sensor
21	B21	KNOCK 1	Knock Sensor Signal
22	B22	KNOCK 2	Not Used
23	B25	DBW 1	Spare Output (Available to Elite 1500/2500 Only)
24	B26	DBW 2	Spare Output (Available to Elite 1500/2500 Only)

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)

Need more help?

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