



## Elite 2500 Plug 'n' Play Adaptor Harness HT-141357

### Supported Models

NISSAN SKYLINE R32 GTS-T  
NISSAN SKYLINE R32 GT-R  
NISSAN SKYLINE R33 GTS-T  
NISSAN SKYLINE R33 GT-R  
NISSAN SKYLINE R34 GT-R

### Package Contents

THIS NISSAN SKYLINE PACKAGE CONTAINS THE FOLLOWING:

- NISSAN SKYLINE R32/33/34 ELITE 2500 PLUG 'N' PLAY ADAPTOR (HT-141357)
- ELITE SERIES PLUG 'N' PLAY ADAPTER HARNESS (HT-130201)
- INTAKE AIR TEMPERATURE SENSOR (HT-010200)



# Application Notes

THIS NISSAN SKYLINE R32/33 GTS-T / GT-R AND R34 GT-R ELITE 2500 PLUG 'N' PLAY ADAPTOR HARNESS IS SUITABLE FOR USE WITH A HALTECH **ELITE 2500** ECU ONLY.

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 [STORE.HALTECH.COM](http://STORE.HALTECH.COM)

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

## Jumper ID Settings

THIS NISSAN SKYLINE PLUG 'N' PLAY ADAPTOR HARNESS IS CAPABLE OF BEING CONFIGURED FOR USE WITH OTHER VEHICLES. IT IS PRE-CONFIGURED FOR USE WITH NISSAN SKYLINE R32/33 GT-ST / GT-R (RB25DET / RB26DET). INSIDE THE ADAPTOR BOX THERE ARE 2 JUMPERS WITH YELLOW LABELS NEXT TO THEM.

THESE LABELS ARE **A, B, C, D, E, F, G, H, I & J**

THESE MUST BE CHANGED TO USE THIS PRODUCT WITH OTHER COMPATIBLE VEHICLES.

THE JUMPER SETTINGS ARE SHOWN BELOW WITH VARIOUS CONFIGURATIONS.

**THIS PLUG 'N' PLAY ADAPTOR IS FACTORY CONFIGURED TO SUIT NISSAN SKYLINE R32/33 RB25/26DET APPLICATION**

### DEFAULT CONFIGURATION

NISSAN SKYLINE R32/33 GTS-T/GT-R (RB25/26DET)

 ID JUMPER



JUMPERS REQUIRED
A
E
C
G
I

### ALTERNATE CONFIGURATION

NISSAN SKYLINE R32 (RB20DET)

 ID JUMPER



JUMPERS REQUIRED
A
C
E
H
J

### ALTERNATE CONFIGURATION

NISSAN SKYLINE R34 GT-R (RB26DET)

 ID JUMPER



JUMPERS REQUIRED
B
F
D
G
I

# ECU Location

## NISSAN SKYLINE R32/33 GTS-T/GT-R AND R34 GT-R

THE FACTORY NISSAN SKYLINE R32/33/34 ECU IS LOCATED BEHIND THE PASSENGER 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.



## Elite 2500 Basemaps

MAKE	MODEL	CODE	ENGINE	BASEMAP
NISSAN	SKYLINE R32	GTS-T	RB20	HT-141357 - Nissan Skyline R32 GTS-T RB20.e2500
NISSAN	SKYLINE R33	GTS-T	RB25	HT-141357 - Nissan Skyline R33 GTS-T RB25.e2500
NISSAN	SKYLINE R32/33	GT-R	RB26	HT-141357 - Nissan Skyline R32R33 GT-R RB26.e2500
NISSAN	SKYLINE R34	GT-R	RB26	HT-141357 - Nissan Skyline R34 GT-R RB26.e2500

## 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.

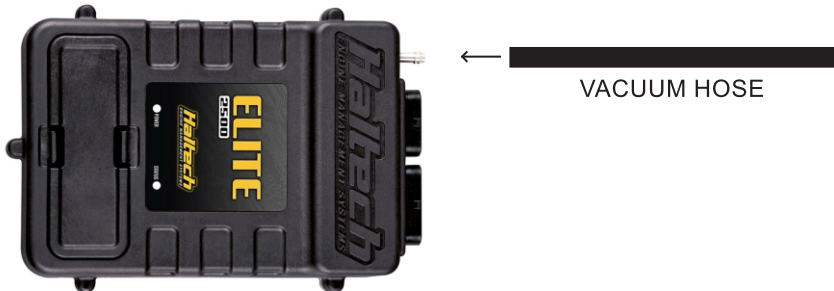


Figure 1 - Elite ECU internal MAP sensor

# ATTESA - AWD

**NOTE:**

GTR & GTS4 vehicles equipped with Nissan's ATTESA AWD system require a TPS signal in order to operate correctly. This adaptor harness is equipped with a TPS output circuit which is controlled by a Generic Duty Table directly connected via DPO2. This table is preconfigured in all GTR base-maps and is found in the ECU Navigator under 'Generic Output > 4WD Out'. For correct operation of your AWD system, please ensure this table is enabled

## 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.

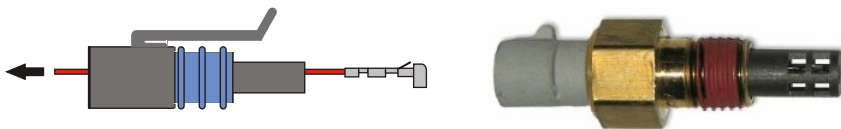
This sensor should be mounted to provide the best representation of the actual temperature of the air entering the combustion chamber, i.e. after any turbocharger, supercharger and intercooler.

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

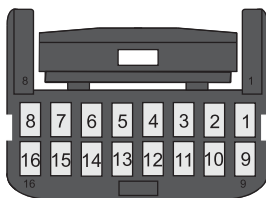
Termination	
A	Signal Ground
B	Air Temperature Signal

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

**Figure 2 - Air Temperature Sensor wiring**



# Auxiliary Connector

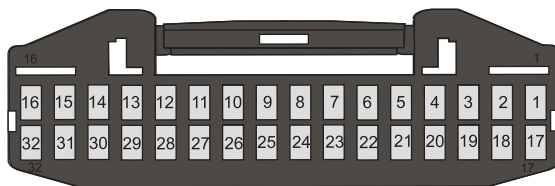


AUXILIARY CONNECTOR (16 PIN)  
REAR VIEW (WIRE SIDE)

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.

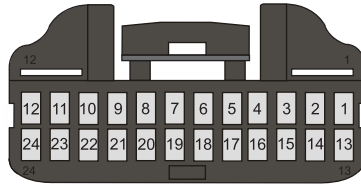
Position (16 Pin Plug)	Connection	Function	Notes
1	From Haltech ECU (A9)	+5V	+5V DC Sensor Supply (50mA Max)
2	From Haltech ECU (A15)	AVI 9	Spare Input
3	From Haltech ECU (B20)	AVI 5	Spare Input
4	From Haltech ECU (B14, B15, B16)	SIGNAL GROUND	Signal Ground For Input Sensors
5	From Haltech ECU (B17)	IGN 7	Spare Output / Variable Valve Lift Solenoid (NEO RB25 Only)
6	From Haltech ECU (B18)	IGN 8	Spare Output
7	From Haltech ECU (B8)	SPI 1	Spare Input (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	-	Not Used	-
11	-	Not Used	-
12	From Haltech ECU (B14, B15, B16)	SIGNAL GROUND	Signal Ground For Input Sensors
13	From Haltech ECU (A29)	INJ 7	Spare Output
14	From Haltech ECU (A30)	INJ 8	Spare Output
15	From Haltech ECU (B9)	SPI 2	Spare 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	Output for 4WD TPS On-Board Circuit
2	A2	AVI 4	AFM Front Signal
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	Ignition Coil #5
8	A8	IGN 6	Ignition Coil #6
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	Power Steering Switch
17	A17	AVI 3	AFM Rear Signal
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	Wastegate Solenoid
24	A24	DPO 5	Fuel Pump Relay
25	A25	DPO 6	ECCS Relay
26	A26	+12V (INJ)	Fused Power
27	A27	INJ 5	Injector #5
28	A28	INJ 6	Injector #6
29	A31	STEP1 P1	Thermofan
30	A32	STEP2 P2	Injector Monitor Feedback (R34)
31	A33	STEP3 P3	Check Engine Light
32	A34	STEP4 P4	Idle Air Control (BAC)



CONNECTOR (24 PIN)  
REAR VIEW (WIRE SIDE)

ECU Connector (26 Pin Plug)	Function	Description
B1	TRIGGER	Crankshaft Sensor (+)
B2	HOME	Cam Position Sensor
B3	AVI 7	Air Temperature Sensor
B4	AVI 8	Coolant Temperature Sensor
B5	TRIGGER -	Not Used
B6	HOME -	Not Used
B7	SPI 4	A/C Request
B8	SPI 1	Spare Input (Optional Flex Fuel Input)
B9	SPI 2	Spare Input
B10	SPI 3	Vehicle Speed Sensor
B11	+12V (ECU)	Fused Power
B12	AVI 6	O2 Sensor - Rear
B13	AVI 1	O2 Sensor - Front
B14	SIGNAL GROUND	Signal Ground for Input Sensors
B15	SIGNAL GROUND	Signal Ground for Input Sensors
B16	SIGNAL GROUND	Signal Ground for Input Sensors
B23	CAN HIGH	Not Used
B24	CAN LOW	Not Used
B19	DPO 4	A/C Control Relay
B20	AVI 5	Spare Input
B21	KNOCK 1	Knock Sensor 1 Signal
B22	KNOCK 2	Knock Sensor 2 Signal
B25	DBW 1	Fuel Pump Voltage Control 1
B26	DBW 2	Fuel Pump Voltage Control 2

## 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 uninsulated. 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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**USA:** [usasupport@haltech.com](mailto:usasupport@haltech.com)



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