



Elite 2000/2500 Plug 'n' Play Adaptor Harness HT-141342

Supported Models

TOYOTA SUPRA JZA80 2JZ-GTE (non VVT-i) (Manual Transmission Only)
TOYOTA SUPRA JZA80 2JZ-GE (non VVT-i) (Manual Transmission Only)
TOYOTA ARISTO JZS147 2JZ-GTE (non VVT-i) (Manual Transmission Only)

Package Contents

THIS TOYOTA SUPRA 2JZ PACKAGE CONTAINS THE FOLLOWING:

- TOYOTA SUPRA JZA80 2JZ GTE/GE ELITE 2000/2500 PLUG 'N' PLAY ADAPTOR HARNESS (HT-141342)
- 1 x 12 PIN OPPOSING AUXILIARY PLUG WITH PINS
- INTAKE AIR TEMPERATURE SENSOR (HT-010200)



Application Notes

THIS TOYOTA SUPRA JZA80 2JZ (non VVT-i) ELITE 2000/2500 PLUG 'N' PLAY ADAPTOR HARNESS IS SUITABLE FOR USE WITH A HALTECH **ELITE 2000 & 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 TOYOTA JZA80-2JZ-GTE FACTORY MAP SENSOR IS ONLY CAPABLE OF REGISTERING UP TO 18 PSI. FOR BOOST LEVELS GREATER THAN 18 PSI, THE INTERNAL ECU MAP SENSOR (29PSI MAX) OR AN EXTERNAL MAP SENSOR (PART # HT-010110) IS REQUIRED.

THE 12 PIN AUXILIARY CONNECTOR PROVIDES A NUMBER OF ADDITIONAL INPUT/OUTPUT LINKS TO THE HALTECH ELITE ECU.

THIS KIT IS SUPPLIED WITH THE OPPOSING 12 PIN AUXILIARY CONNECTOR AND PINS.

AN APPROPRIATE CRIMPING TOOL IS RECOMMENDED TO USE THE 12 PIN AUXILIARY CONNECTOR.

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

THIS KIT CONTAINS AN AIR INTAKE TEMPERATURE SENSOR AS THE JZA80-2JZ-GE HAS NO INDEPENDENT FACTORY INTAKE AIR TEMP SENSOR (IAT). THIS CAN BE FITTED TO THE INTAKE MANIFOLD AND INPUT INTO AVI 2 (PIN 5) OF THE AUXILIARY CONNECTOR

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

Haltech Elite 2500 Basemap

MAKE	MODEL	CODE	ENGINE	BASEMAP
TOYOTA	SUPRA	MK IV	2JZ-GTE	HT-141342 - Toyota 2JZ Non VVT.e2500

Basemap Notes

THE BASEMAP SUPPLIED WITH THIS PRODUCT HAS BEEN SETUP USING THE FACTORY TOYOTA SUPRA JZA80-2JZ-GTE MAP SENSOR. THIS SENSOR IS ONLY CAPABLE OF REGISTERING UP TO 18 PSI. IF BOOST LEVELS HIGHER THAN 18 PSI ARE REQUIRED, PLEASE CONNECT THE ELITE ECU INTERNAL MAP SENSOR TO THE INTAKE MANIFOLD PRIOR TO STARTING THE VEHICLE.

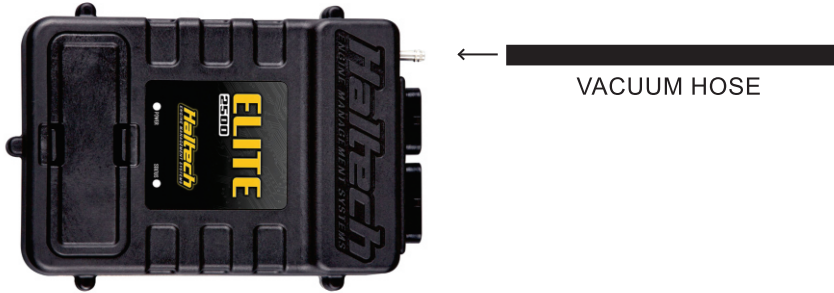


Figure 1 - Elite ECU internal MAP sensor

ECU Location

THE FACTORY TOYOTA SUPRA ECU IS LOCATED BEHIND THE PASSENGER SIDE KICK PANEL (RIGHT-HAND DRIVE (RHD) MODELS). REMOVING THE KICK PANEL WILL ALLOW SPACE TO INSTALL THE ADAPTOR HARNESS. THE ELITE ECU CAN BE INSTALLED ON THE SIDE OF THE GLOVEBOX IN THE FREE SPACE. ALL FACTORY PANELS MAY BE RE-USED AFTER INSTALLATION.

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.

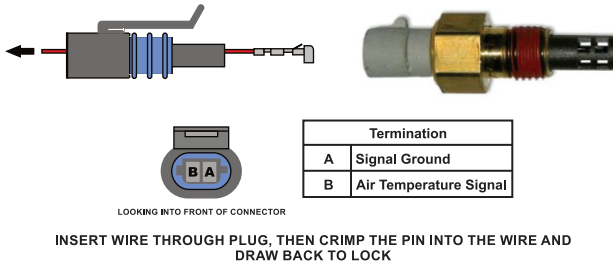
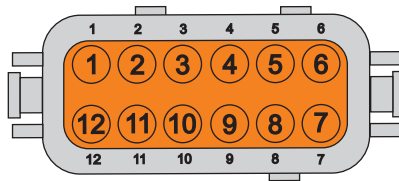


Figure 2 - Air Temperature Sensor wiring

Auxiliary Connector

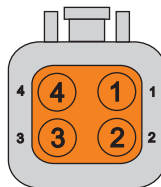
Position	Connection	Function
1	+12V	+12V Supply for Relays and Solenoids (500mA Max)
2	SPI 1	Spare SPI (Optional Flex Fuel Input)
3	SIGNAL GND	Signal Ground for Input Sensors
4	SIGNAL GND	Signal Ground for Input Sensors
5	AVI 2	Spare Analogue Voltage Input
6	+5V	+5V Supply for Input Sensors (50mA Max)
7	+5V	+5V Supply for Input Sensors (50mA Max)
8	AVI 3	Spare Analogue Voltage Input
9	SIGNAL GND	Signal Ground for Input Sensors
10	SIGNAL GND	Signal Ground for Input Sensors
11	SPI 2	Spare Synchronised Pulsed Input
12	+12V	+12V Supply for Relays and Solenoids (500mA Max)



Wire Side View

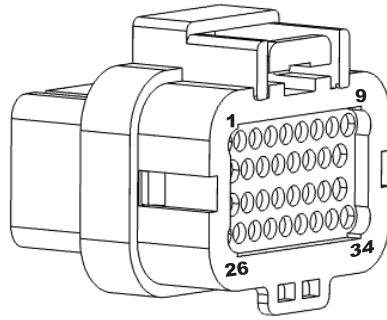
CAN Communications Connector

Position	Connection	Function
1	+12V	+12V Supply
2	SIGNAL GND	Signal Ground
3	CAN H	CAN Communications
4	CAN L	CAN Communications



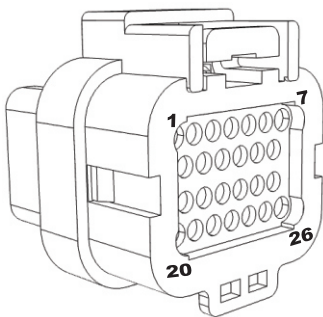
Wire Side View

Main Connectors



34 PIN (A)

ECU Connector (34 Pin Plug)	Function	Notes
A1	DPO 2	A/C Control
A2	AVI 4	Brake Pedal Switch
A3	IGN 1	Ignition Coil #1
A4	IGN 2	Ignition Coil #2
A5	IGN 3	Ignition Coil #3
A6	IGN 4	Ignition Coil #4
A7	IGN 5	Ignition Coil #5
A8	IGN 6	Ignition Coil #6
A9	+5V	+5V DC Sensor Supply
A10	BATTERY GROUND	Battery Negative
A11	BATTERY GROUND	Battery Negative
A12	+8V	Not Used
A13	IGNITION INPUT	Ignition Switch
A14	AVI 10	Throttle Position Sensor
A15	AVI 9	Manifold Pressure Sensor
A16	AVI 2	Spare Analogue Voltage Input
A17	AVI 3	Spare Analogue Voltage Input
A18	DPO 1	Tachometer
A19	INJ 1	Injector # 1
A20	INJ 2	Injector # 2
A21	INJ 3	Injector # 3
A22	INJ 4	Injector # 4
A23	DPO 3	Wastegate Solenoid
A24	DPO 5	Fuel Pump Relay
A25	DPO 6	Not Used
A26	+12V (INJ)	Fused Power
A27	INJ 5	Injector # 5
A28	INJ 6	Injector # 6
A29	INJ 7	Exhaust Bypass Valve
A30	INJ 8	Exhaust Gas Control (GTE Model)/VSV IAC (GE Model)
A31	STEP1 P1	Idle Control Motor (Idle 1)
A32	STEP1 P2	Idle Control Motor (Idle 2)
A33	STEP1 P3	Idle Control Motor (Idle 3)
A34	STEP1 P4	Idle Control Motor (Idle 4)



26 PIN (B)

ECU Connector (26 Pin Plug)	Function	Notes
B1	TRIGGER	Crankshaft Position Sensor (24 Tooth)
B2	HOME	Camshaft Position Sensor 2 (Single Tooth)
B3	AVI 7	Air Temperature Sensor (GTE Model Only)
B4	AVI 8	Coolant Temperature Sensor
B5	TRIGGER -	Ground (Crankshaft Position Sensor)
B6	HOME -	Ground (Camshaft Position Sensor)
B7	SPI 4	A/C Request
B8	SPI 1	Spare SPI (Optional Flex Fuel Input)
B9	SPI 2	Spare Synchronised Pulsed Input
B10	SPI 3	Vehicle Speed Sensor
B11	+12V (ECU)	Fused Power
B12	AVI 6	O2 Sensor 1
B13	AVI 1	O2 Sensor 2
B14	SIGNAL GROUND	Signal Ground for Input Sensors
B15	SIGNAL GROUND	Signal Ground for Input Sensors
B16	SIGNAL GROUND	Signal Ground for Input Sensors
B17	IGN 7	EVAP Cannister Purge Control
B18	IGN 8	Check Engine Light
B19	DPO 4	VSV (Intake Air Control Valve)
B20	AVI 5	Mass Air Flow Signal 1
B21	KNOCK 1	Knock Sensor Signal (Front)
B22	KNOCK 2	Knock Sensor Signal (Rear)
B23	CAN HIGH	CAN Communications Connector
B24	CAN LOW	CAN Communications Connector
B25	DBW 1	Spare Output (Available to Elite 2500 Only)
B26	DBW 2	Spare Output (Available to Elite 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 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. Proof of purchase in the form of a copy of the original purchase invoice, receipt or bill of sale which indicates that the product is within the warranty period, must be presented to obtain warranty service. 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, receipt or bill of sale 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)

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