CAMRY — UNLEADED

ELECTRONIC FUEL INJECTION (EFI)
ELECTRONIC SPARK ADVANCE (ESA)

The 1986 SV11 Camry utilizes a 2 litre 2S-E engine, which is designed to operate on unleaded petrol. Engine management is achieved by the Toyota computer controlled system (TCCS), which comprises multi-port electronic fuel injection (EFI) and electronic spark advance (ESA). A three-way catalytic converter is fitted for exhaust emission control.

Fig. 7-74 illustrates the location of the various components incorporated in the engine management and exhaust emission control systems.

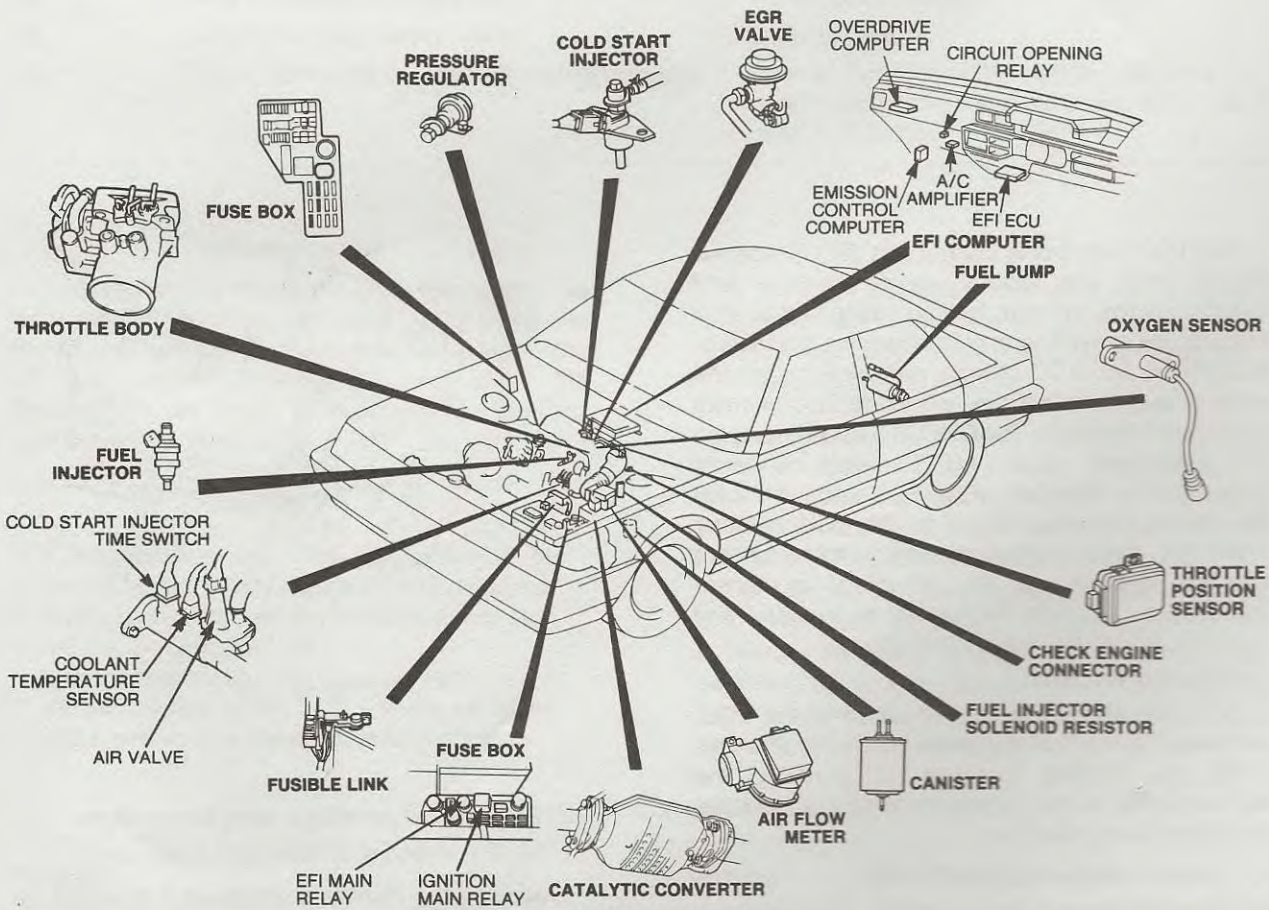


Figure 7-74

The vacuum hose layout is illustrated in *Fig. 7-75*.

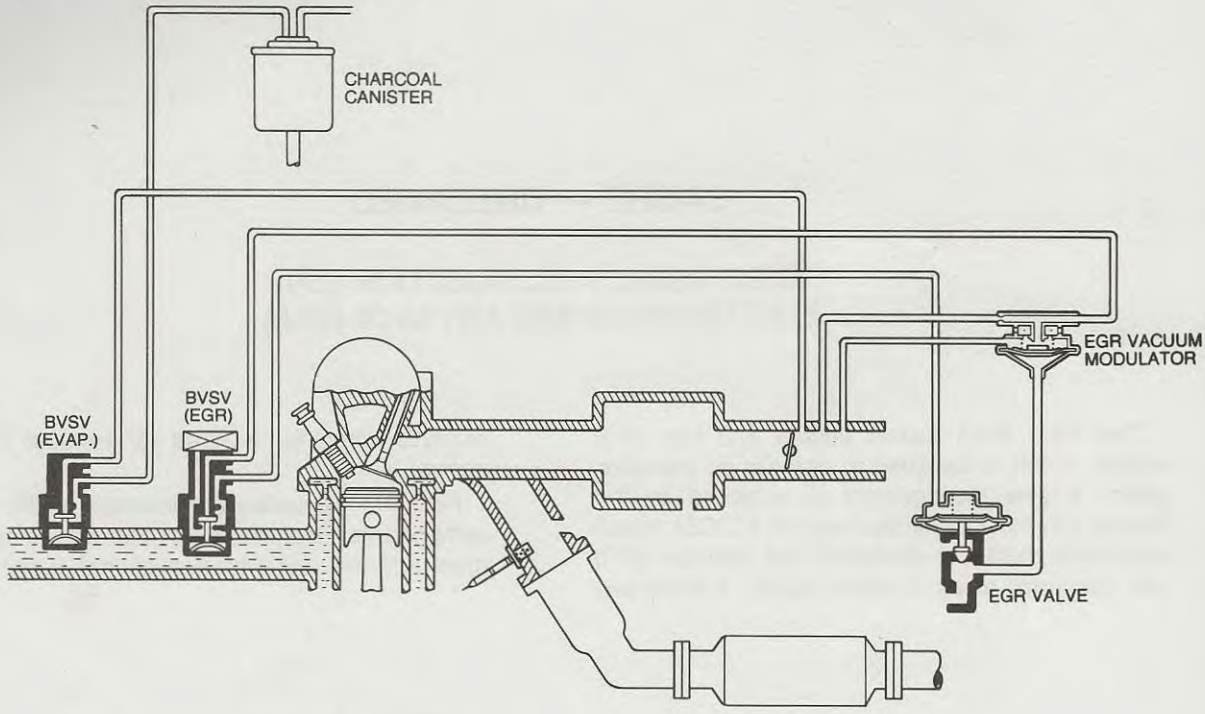


Figure 7-75

The TCCS electronic control unit (ECU) receives signals from the various engine sensors and determines the optimum ignition timing and air/fuel ratio for the prevailing engine operating conditions. In addition, the ECU detects malfunctions via the sensors and records the details in the ECU memory as a coded message. The CHECK ENGINE lamp on the instrument panel will illuminate when a malfunction is detected by the ECU, and will display the coded message stored in the ECU memory when the check engine connector terminals are shorted together. In the event of a sensor malfunction, minimum driveability is provided and the CHECK ENGINE lamp will illuminate.

Self-Diagnostic Check.

To initiate the self-diagnosis mode of the ECU, terminals E1 and T of the check connector *(see Fig. 7-76)* are shorted together. In addition, the self-diagnosis mode is dependant on the following conditions being satisfied:

a. Battery voltage exceeds 11 volts.
b. Throttle valve is fully closed (throttle positioner sensor IDL points closed).
c. Transmission is in neutral.
d. All accessories are switched OFF.

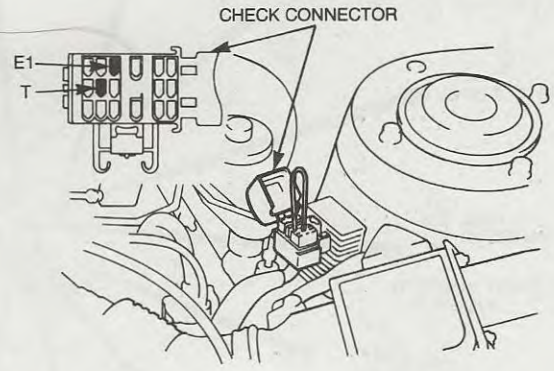


Figure 7-76

e. Engine is at normal operating temperature.
f. Ignition switch is ON (engine not running).

Decoding the displayed message is provided by the following table. If no fault is stored in memory, the CHECK ENGINE lamp will blink for 0.5 seconds and then off for 4.5 seconds continuously. In the event of a fault the lamp will blink a number of times

equal to the malfunction code, with a 2.5 second interval between each indication *(see Fig. 7-77)*. If two or more codes are to be displayed, there will be a 2.5 second pause between the codes. After all the codes have been displayed, there will be a 4.5 second pause and all codes will be repeated. When more than one code is to be displayed, the codes will appear in ascending order commencing with the lowest numbered code.

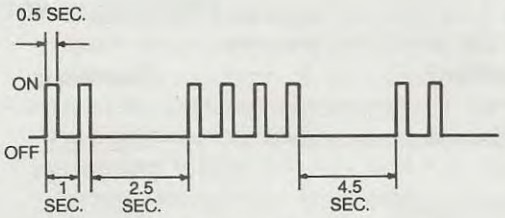


Figure 7-77

DECODING CHART

Code No.	Fault	Corrective Action
1	No fault — system normal.	—
2	Defective air flow meter.	Refer to para. m.
3	Defective ignition system.	Refer to para. e.
4	Defective coolant temperature system.	Refer to para. l.
5	Defective oxygen sensor system	Refer to para. q.
6	Defective ignition system.	Refer to para. e.
7	Defective throttle position system.	Refer to para. k.
8	Defective intake air temperature system.	Refer to para. m.
9	Defective speed sensor system.	Refer speed sensor.
10	Defective speed sensor system.	Refer to para. h.
11	One or more diagnosis conditions not fulfilled.	Turn air conditioner OFF, set throttle in idle position and ensure that the transmission is in P or N (A/T) or Neutral (M/T).

After repair, the diagnostic code retained in the ECU memory must be cancelled out by removing the ECU-B fuse for 10 seconds or more depending on the ambient temperature (the lower the temperature, the longer the fuse must be left out), with the ignition switched OFF.

NOTE

1. Cancellation can also be achieved by removing the battery negative (–) terminal, but in this case other memory systems (clock etc.) will also be cancelled out.
2. If the diagnostic code is not cancelled out, it will be retained by the ECU and appear along with a new code in the event of future trouble.
3. If it is necessary to work on engine components requiring removal of the battery terminal, a check must first be made to see if a diagnostic code is detected.

After cancellation, perform a road test to confirm that a "normal" code is now displayed on the CHECK ENGINE warning lamp. If the same diagnostic code is still displayed, it indicates that the trouble area has not been repaired thoroughly.

The various operating voltages required by the EFI control unit for correct system operation are detailed in the following table. Battery voltage must be 11V or more when the ignition switch is ON for correct operation. All voltage measurements must be taken with wiring harnesses connected.

TERMINAL FUNCTION AND VOLTAGES

Function	Terminals	Voltage	Remarks
Computer supply voltage	+B — E1	10-14	Ignition switch ON.
	+B1 — E1	10-14	Ignition switch ON.
Battery voltage	BATT — E1	10-14	Ignition switch ON and OFF.

TERMINAL FUNCTION AND VOLTAGES (continued)

Function	Terminals	Voltage	Remarks
Throttle position sensor	IDL — E1	8-14	Throttle valve fully open.
	PSW — E1	8-14	Throttle valve fully closed.
Ignition signal	IGT — E1	0.7-1	Idling.
Start signal	STA — E1	6-12	Cranking.
Injection pulse	No. 10 — E01	9-14	Ignition switch ON.
	No. 20 — E02	9-14	Ignition switch ON.
Warning light	W — E1	8-14	No trouble and engine running.
Air flow meter	VC — E2	6-10	—
	VS — E2	0.5-2.5	Measuring plate fully closed.
	VS — E2	5-10	Measuring plate fully open.
	VS — E2	2-8	Idling.
Air temperature sensor	THA — E2	1-3	Intake air temperature 20 °C.
Coolant temperature	THW — E2	0.5-2.5	Coolant temperature 80 °C.
Air conditioning	A/C — E1	8-14	Air conditioning ON.

Pin-to-pin resistances required for correct system operation are detailed in the following table. Perform resistance checks with the ignition switch OFF and the battery disconnected.

TERMINAL FUNCTION AND RESISTANCES

Function	Terminals	Resistance	Remarks
System earth	E1 — Body Earth	Zero	
	E1 — E2	Zero	
	E1 — E01	Zero	
	E1 — E02	Zero	
Throttle positioner sensor	IDL — E1	Zero	Throttle valve fully closed.
	IDL — E1	Infinity	Throttle valve fully open.
	PSW — E1	Infinity	Throttle valve fully closed.
	PSW — E1	Zero	Throttle valve fully open.
	IDL — Body Earth	Infinity	
	PSW — Body Earth	Infinity	
Air flow meter	VB — E2	200-400	
	VC — E2	100-300	
	VS — E2	20-400	Measuring plate fully closed.
	VS — E2	20-1000	Resistance will vary as measuring plate is moved from fully closed to fully open.
	VB — Body Earth	Infinity	
	VC — Body Earth	Infinity	
	VS — Body Earth	Infinity	
(Fuel pump switch)	FC — E1	Infinity	Measuring plate closed.
	FC — E1	Zero	Measuring plate open.
Coolant temperature sensor	THW — E2	200-400	Coolant temperature 80 °C.
Air valve	FP — E1	40-60	Coolant temperature 80 °C.
Air temperature sensor	THA — E2	2000-3000	Intake air temperature 20 °C.
Neutral start switch	N/S — Body Earth	Zero	M/T and P or N for A/T.

In addition to standard workshop equipment, a digital multimeter, a 0-100ºC thermometer, a vacuum gauge, a 0-500 kPa pressure gauge and a means of heating water to test thermal sensors will be required to isolate faults within the various electrical circuits.

NOTE

1. Before proceeding with any tests, read the WARNINGS detailed on page ii.
2. Replacement procedures are not described in this test.

Fig. 7-93 illustrates the TCCS system for the Camry and should be utilized when carrying out the test procedure. However, the following preliminary checks should be carried out before commencing the test procedure:

a. Inspect the engine, electronic fuel injection (EFI) and electronic spark advance (ESA) wiring for damage and faulty connections. Check for air leaks at the inlet manifold and at the air intake system, and check the fuel lines and air hoses for damage or leaks. Repair or replace parts as necessary.
b. Check the condition of the air cleaner element. Replace the element if it is clogged or damaged.
c. Inspect the ignition wiring for damage or faulty connections. Repair or replace the wiring as necessary.
d. Ensure that both the EGR valve and the air regulator valve are functioning correctly. Repair or replace the valves as necessary.
e. Ensure that the engine is in good mechanical condition, i.e. the engine compression pressures and the valve clearances are to specification, and that the ignition system high tension circuit is functioning correctly. Also ensure that the battery is fully charged and that there is fuel (petrol) in the fuel tank.
f. Ensure that the crankcase ventilation system is free from air leaks, and that the oil filler cap, dipstick and by-pass hose are properly installed and seal correctly. Also ensure that the PCV valve (where fitted) is secure and operating correctly.

Test Procedure

CAUTION

As some of the following tests involve cranking the engine, appropriate safety precautions must be observed.

a. Fuel Pump.
   1. Turn the ignition switch ON, connect a jumper wire between terminals +B and Fp of the check connector *(see Fig. 7-78)* and listen for the operating noise from the fuel pressure regulator. If no sound is heard from the pressure regulator, check the fuel pump electrical circuit, *(see Fig. 7-93)* including fusible link, EFI and IGN fuses, circuit opening relay, engine main relay, EFI main relay and wiring harness. Repair or replace any item found to be faulty or damaged. Remove the jumper wire and turn the ignition OFF.

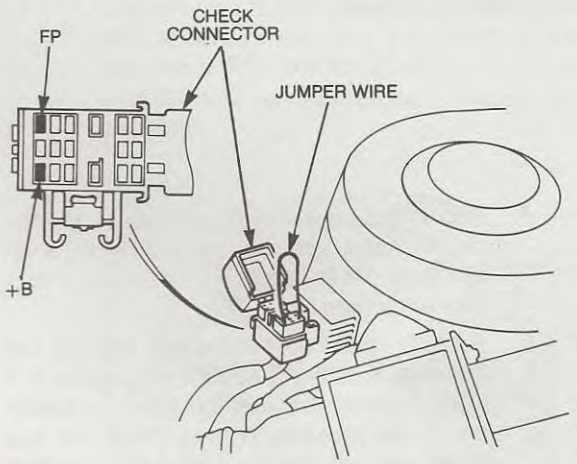


Figure 7-78

   2. If no fault was found, disconnect the wiring harness from the fuel pump and connect an ohmmeter between the terminals of the connector (fuel pump side). Continuity should exist. If not, replace the fuel pump. If continuity does exist, check the fuel lines and fuel filter (including the fuel pump inlet filter) for blockage or damage. Repair or replace parts as necesssary.

b. Fuel Pressure
   1. Check that the battery voltage is above 12 volts. Turn the ignition OFF and disconnect the negative cable at the battery. Disconnect the wiring harness connector from the cold start injector.
   2. Place a suitable container or shop towel under the cold start injector hose. Slowly loosen the union bolt at the fuel delivery pipe (to prevent possible injury from the high pressure fuel). Remove the union bolt and gaskets from the delivery pipe.
   3. With the cold start injector disconnected, install a zero-500 kPa pressure gauge including gaskets and fittings to the fuel delivery pipe *(see Fig. 7-79)*.

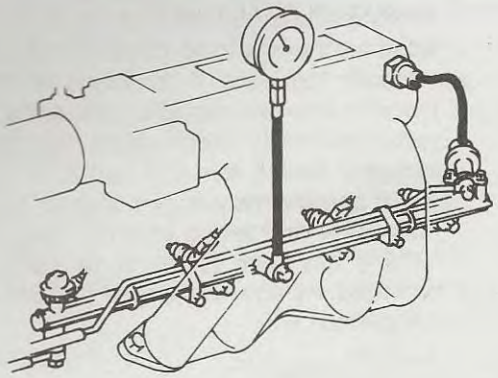


Figure 7-79

4. Reconnect the negative cable to the battery, and using a jumper wire, short terminals +B and FP at the check connector *(see Fig. 7-78)*.
5. Turn the ignition ON and check that the fuel pressure is 226-265 kPa. If the pressure is high, replace the fuel pressure regulator and if the pressure is low, check the fuel hoses and connections, fuel pump, fuel filter and the pressure regulator respectively.
6. Remove the jumper wire from the check connector.
7. Start the engine, disconnect and plug the vacuum sensing hose from the pressure regulator and check that the fuel pressure at idle is 226-265 kPa *(see Fig. 7-80)*.

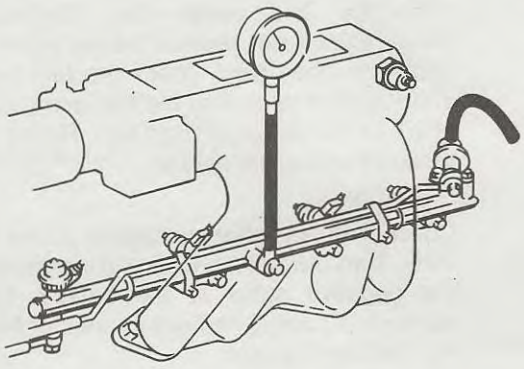


Figure 7-80

8. Reconnect the vacuum sensing hose to the pressure regulator and check that the fuel pressure at idle is 185-216 kPa. If the fuel pressure is not within specification, check the vacuum sensing hose and pressure regulator.
9. Stop the engine and check that the fuel pressure remains above 147 kPa for five minutes after the engine is switched OFF. If the fuel pressure is not within specification, check the fuel pump, pressure regulator, hoses and injectors.

c. Check Engine Warning Lamp.
   1. With the ignition ON, the CHECK ENGINE lamp should be illuminated. If not, connect the voltmeter to EFI control unit terminals W and E1, and check for a reading of 8-14V. If the voltage is present, replace the EFI control unit. If no voltage is present, connect the voltmeter to ignition switch pin IG1 and body earth, and check for approximately +12V. If the voltage is present, check for a blown fuse (GAUGE), blown lamp (CHECK ENGINE) or defective wiring between the ignition switch and the EFI control unit. If no voltage is present at IG1, check for the voltage at pin AM1 of the ignition switch. If the voltage is present, check for a blown fusible link (1.25B) or defective wiring between the ignition switch and the battery *(see Fig. 7-93)*.

d. Cold Start Injector and Time Switch.
   1. Remove the connector from the cold start injector and connect the voltmeter to the wiring harness connector (positive lead to terminal STA). Turn the igniton to START and check that a reading of approximately +12 V is indicated on the voltmeter. If no voltage is present, check for the voltage at ignition switch pin ST1. If the voltage is present, check for a defective neutral start switch (A/T only) or defective wiring between the ignition switch and the cold start injector *(see Fig. 7-93)*. If no voltage is present at ST1, check for the voltage at pin AM1 on the ignition switch. If the voltage is present, replace the ignition switch. If no voltage is present at AM1, check for a blown fusible link (1.25B) or defective wiring between the ignition switch and the battery *(see Fig. 7-93)*.
   2. Using the ohmmeter, check the resistance across the cold start injector terminals *(see Fig. 7-81)*. A reading of 2-4 ohms should be obtained. Replace the cold start injector as necessary.
   3. Using an ohmmeter, check the resistance across the time switch terminals STA and STJ. The resistance indicated should be 30-50 ohms with a coolant temperature below 35 °C and 70-90 ohms with a coolant temperature above 25 °C. Connect the

Figure 7-81

ohmmeter between terminal STA and earth and check for a reading of 20-60 ohms. Replace the time switch as necessary.

e. Ignition Signal.
   1. Connect a voltmeter to EFI control unit terminals IGT and E1. Crank the engine and check for a reading of 0.7-1.0V. If no voltage is indicated, check for 0.7-1.0V between terminal IGT and chassis earth. If this voltage is correct, check for defective wiring between the control unit terminal E1 and earth. If no fault is found with the wiring, replace the control unit. If no voltage is indicated at IGT, check for a blown fusible link (two off), faulty ignition switch or defective wiring *(see Fig. 7-93)*. Repair or replace as necessary.
   2. Ensure that the ignition switch is OFF then disconnect the coil leads. Connect an ohmmeter to the positive (+) and negative (–) terminals and check for a primary coil resistance of 0.3-0.5 ohms. Connect the ohmmeter between the positive (+) terminal and the high tension terminal *(see Fig. 7-82)* and check for a secondary coil resistance at 10.2-13.8 kohms. Replace the coil as necessary.

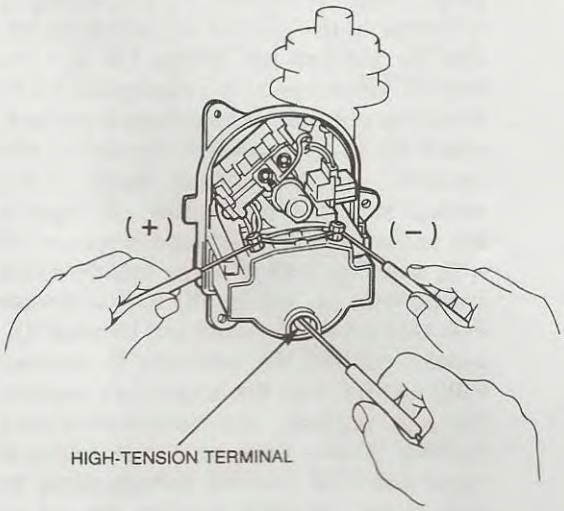


Figure 7-82

NOTE
Resistance figures quoted are for a cold coil.

   3. Remove the distributor cap and, using a brass feeler gauge, check the gap between the signal rotor and the pick-up coil projection. An air gap of 0.2-0.4 mm is required, if not replace the distributor. Inspect the pick-up coils for signs of damage and check pick-up coil resistance with an ohmmeter *(see Fig. 7-83)*. If the resistance is not 140-180 ohms or if the pick-up coils are damaged, replace the distributor.

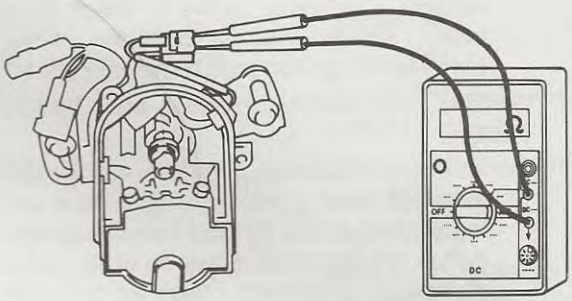


Figure 7-83

   4. Connect a voltmeter to control unit terminals IGT and E1 and crank the engine. If a reading of 0.7-1.0V is indicated, replace the igniter. If the voltage is not indicated, replace the EFI control unit.

f. EFI Main Relay.
   1. Remove the relay *(see Fig. 7-74)* from the fuse box in the engine bay. Connect an ohmmeter to relay terminals 1 and 2 and check for a coil resistance of 40-60 ohms. Connect the ohmmeter to relay terminals 3 and 4 and check for a reading of infinity (∞). Apply battery voltage to terminals 1 and 2 and note that continuity now exists between terminals 3 and 4. If not to specification, replace the relay.

g. Circuit Opening Relay.
   1. Remove the glove box to gain access to the circuit opening relay. Connect a voltmeter to terminal Fp and chassis earth *(see Fig. 7-93)*, and check that the meter indicates battery voltage during engine cranking and idling. Remove the circuit opening relay and connect an ohmmeter to relay terminals

STA and E1 and check for a reading of 17-25 ohms. Connect the ohmmeter to terminals B and Fc and check for a reading of 88-112 ohms. Connect the ohmmeter to terminals B and Fp and check for a reading of infinity (∞). If not to specification replace the relay.

h. Starting Signal.
   1. Connect a voltmeter to EFI control unit terminals STA and E1 and turn the ignition switch to START. Check for a reading of 6-12V. If no voltage is present, connect the voltmeter to pin 1 (ST1) of the ignition switch and turn the switch to the START position. If the voltage is indicated, check for a defective neutral start switch (A/T only) or defective wiring between the ignition switch and the control unit. If no voltage is indicated at pin 1, check for a blown fusible link or defective wiring between the ignition switch and the battery.

i. Control Unit Supply Voltage and Battery Voltage.
   1. To check the control unit supply voltage and earth, connect a voltmeter to control unit terminals +B and E1 and turn the ignition switch ON. Check for a reading of 10-14V. If no voltage is present, check for defective wiring between the EFI relay and terminal +B, and also between body earth and terminal E1. If the voltage at terminal +B is correct, replace the control unit.
   2. Turn the ignition switch OFF and connect the voltmeter to terminals BATT and E1. Check for a reading of 10-14V. If no voltage is present, check for a blown fuse (ECU-B) or defective wiring between BATT terminal and the battery. If all voltages are correct, replace the control unit.

j. Fuel Injectors.
   1. Connect the voltmeter to control unit terminals No. 10 and E1 and turn the ignition switch ON. Check for a reading of 9-14V, which should also be indicated between pins No. 20 and E1. If the voltage is correct, replace the control unit. If no voltage is present, connect the voltmeter to the +B side of the injector resistors *(see Fig. 7-84)* and check for approximately 9-14V. If no voltage is present, check for defective wiring between the ignition pin IG2 and the resistor network, check for approximately 9-14V on the opposite side of the resistor network. If no voltage is present at one or more terminals, replace the resistor network. If the voltage is present, turn the ignition switch OFF and check the resistance coil in each injector with an ohmmeter *(see Fig. 7-85)*. A reading of 1.5-3 ohms should be obtained for each injector. Replace injectors as necessary. If all injectors appear serviceable, check for defective wiring between the resistor network and control unit terminals No. 10 and No. 20, via each injector.

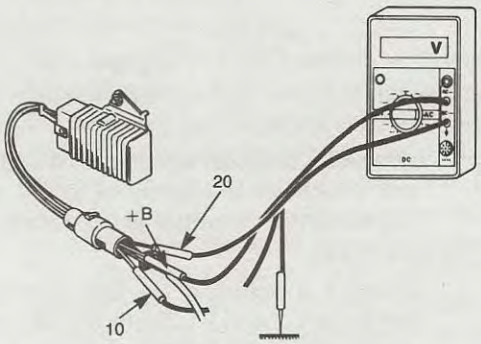


Figure 7-84

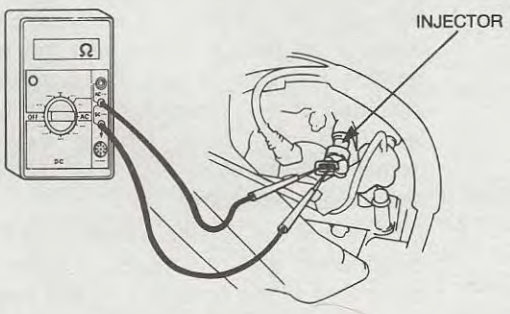


Figure 7-85

k. Throttle Position Sensor.
   1. Correct operation of the throttle position sensor can be verified by connecting a voltmeter to EFI control unit terminals IDL and E2 and turn the ignition ON and the throttle valve open, a reading of 8-14V should be obtained. If no voltage is present, check for 10-14V between the control unit terminal +B, and chassis earth. If the voltage is correct at terminal +B, replace the control unit. If no voltage is present at +B, use *Fig. 7-93* to trace the defective component or wiring. If the voltmeter indicated 8-14V at control unit terminal IDL initially, connect the voltmeter to terminal PSW and E1. With the accelerator pedal in the idle position, the voltmeter should indicate 8-14V. Depress the accelerator pedal and note that the voltage drops to zero. If the voltage indications are not as specified, carry out continuity checks to

determine if the throttle position sensor or wiring is defective. If necessary, replace the control unit.

l. Coolant Temperature Sensor.

1. With the engine at normal operating temperature and the ignition switch ON, connect a voltmeter to control unit terminals THW and E2. A reading of 0.5-2.5V should be obtained. If not, disconnect the wiring harness at the temperature sensor and check the wiring harness to the control unit terminals for continuity, damage or faulty connection. Repair as necessary.
2. If there was no fault with the wiring harness, remove the temperature sensor from the outlet manifold, then suspend the sensor in a container filled with water, ensuring that the sensor does not touch the container. Place a thermometer with at least a 0-100 °C scale in the container and apply heat to the container *(see Fig. 7-86)*. Check the resistance at the sensor terminals at various temperatures (refer to the scale in *Fig. 7-86*). If the ohmmeter readings are not within specification, replace the sensor. If the ohmmeter readings are within specification, connect the voltmeter to control unit terminals +B and E1, and turn the ignition switch ON. Check for a reading of 10-14V. If correct, replace the control unit. If not, use *Fig. 7-93* to trace the defective component or wiring.

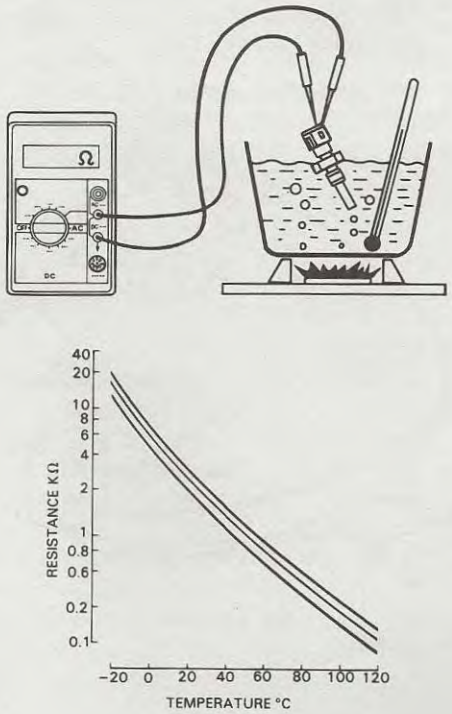


Figure 7-86

m. Air Flow Meter.

1. The air flow meter also comprises the air temperature sensor and the fuel pump switch *(see Fig. 7-93)*. The following voltage and resistance checks should be carried out to determine the serviceablity of these items. if not within specification, replace the air flow meter. If no fault is found with the air flow meter assembly, check for defective wiring and/or replace the control unit.

NOTE

Never use a metal or sharp object to move the measuring plate.

(a) Voltage Checks.

Terminal	Voltage	Remarks
VB — E2	10-14	Ignition ON.
VC — E2	6-10	Ignition ON.
VS — E2	0.5-2.5	Ignition ON, measuring plate fully closed.
VS — E2	5-10	Ignition ON, measuring plate fully open.
VS — E2	2.0-8.0	Engine idling.
THA— E2	1-3	Ignition ON, intake air temperature 20 °C.

(b) Resistance Checks. Turn the ignition OFF, disconnect the wiring harness connector from the air flow meter and remove the air flow meter from the vehicle.

Terminal	Resistance	Remarks
VB — E2	200-400	—
VC — E2	100-300	—
VS — E2	20-400	Measuring plate fully closed.
VS — E2	20-1000	Resistance will vary as the measuring plate is moved from fully closed to fully open.
THA— E2	10-20 k	Air temperature -20 °C.
	4-7 k	Air temperature 0 °C.
	2-3 k	Air temperature 20 °C.
	0.9-1.3 k	Air temperature 40 °C.
	0.4-0.7 k	Air temperature 60 °C.
FC — E1	Infinity	Measuring plate fully closed.
	Zero	Measuring plate at any position other than fully closed.

n. Air Valve.
   1. To check the air valve for correct operation, connect a tachometer to the engine then start the engine. Pinch shut the air line shown in *Fig. 7-87* and check that the

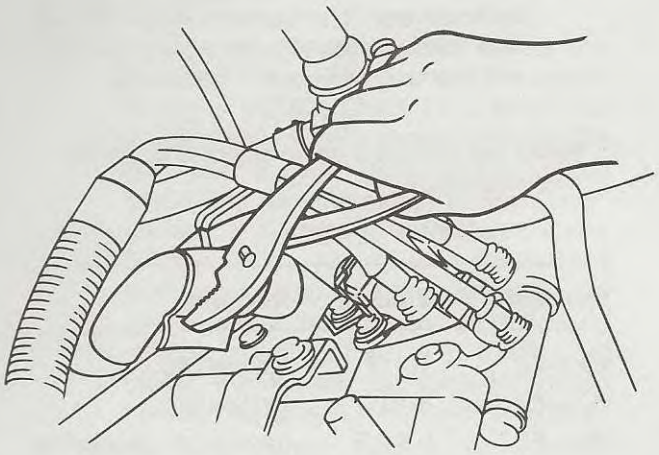


Figure 7-87

engine speed drops if the engine is cold (coolant temperature below 60 °C) but the engine speed does not drop more than 100 rpm if the engine is at normal operating temperature. Turn the ignition off and disconnect the wiring harness connector at the air valve. Using an ohmmeter *(see Fig. 7-88)*, check that the resistance across the air valve terminals FP and E1 is 40-60 ohms (coolant temperature 80 °C). Replace the air valve if necessary.

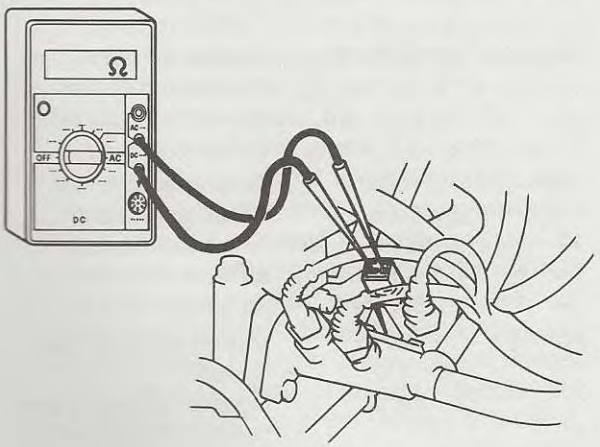


Figure 7-88

o. Air Conditioner.
   1. Connect the voltmeter to control unit terminals A/C and E1. With the engine running and the air conditioner ON, the voltmeter should indicate 8-14V. If no voltage is present, check for the voltage between terminal A/C and body earth. If this voltage is correct, check for defective wiring between terminal E1 and body earth. If no fault is found with the earth connection, replace the control unit. If no voltage is present at terminal A/C and body earth, check that the air conditioner compressor is running and that the voltage is present at the A/C amplifier output. If the voltage is present, check for defective wiring between the A/C amplifier and the control unti. If no voltage is present, check the A/C amplifier and associated wiring for correct operation and rectify faults as necessary.

p. Check Engine Connector.
   1. With the ignition switch OFF, connect an ohmmeter to computer terminals T and E1. Using a shorting link *(see Fig. 7-90)*, short the CHECK ENGINE connector terminals T and E1 together and note that the ohmmeter indicates zero ohms. If not, check for defective wiring or a defective CHECK ENGINE connector.

q. Ignition Timing, Idle-Up and Idle Speed Adjustments.
   1. Connect the tachometer test probe to the distributor service connector *(see Fig. 7-89)*. Short terminals T and E1 of the check connector *(see Fig. 7-90)*.

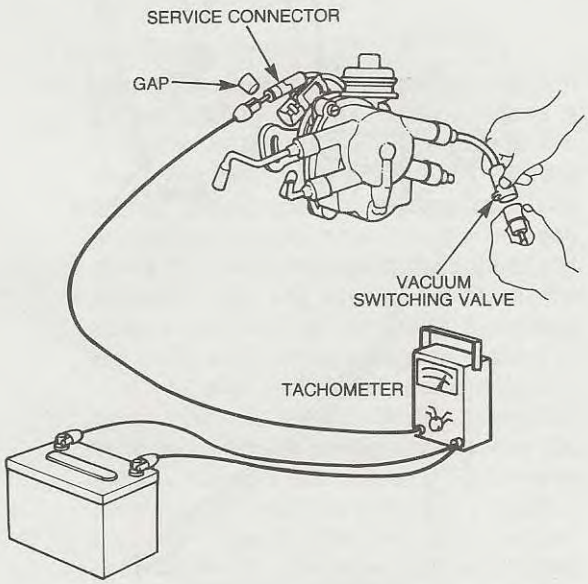


Figure 7-89

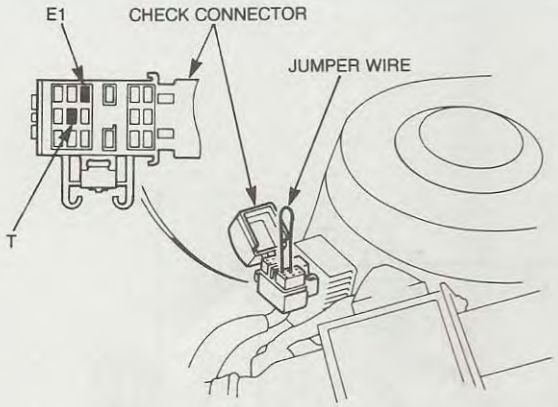


Figure 7-90

2. Connect the timing light and check that the ignition timing is 10 ± 1 BTDC at 700 ± 50 rpm when the engine is at normal operating temperature. If necessary, loosen the distributor bolts and turn the distributor to align the timing marks.
3. To inspect the idle-up system, disconnect the idle-up connector of the vacuum switching valve *(see Fig. 7-93)*. Remove the rubber plug and turn the idle speed adjusting screw to below 500 rpm. Re-connect the vacuum switching valve and check that engine rpm is increased by 100 rpm.
4. To inspect and adjust the idle speed, disconnect the idle-up connector of the vacuum switching valve. Remove the rubber plug and turn the idle speed adjusting screw to obtain 700 rpm *(see Fig. 7-91)*. Ensure that the cooling fan is not operating when performing idle speed adjustments.

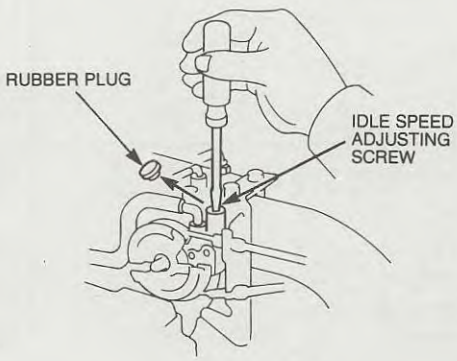


Figure 7-91

r. Oxygen Sensor.
   1. Ensure that the engine is correctly tuned and that the ignition system is in good working order.
   2. Start the engine and allow it to warm up to normal operating temperature. Connect a positive (+) lead of a voltmeter to terminal VF of the check connector *(see Fig. 7-92)* and the voltmeter negative (–) lead to terminal E1.

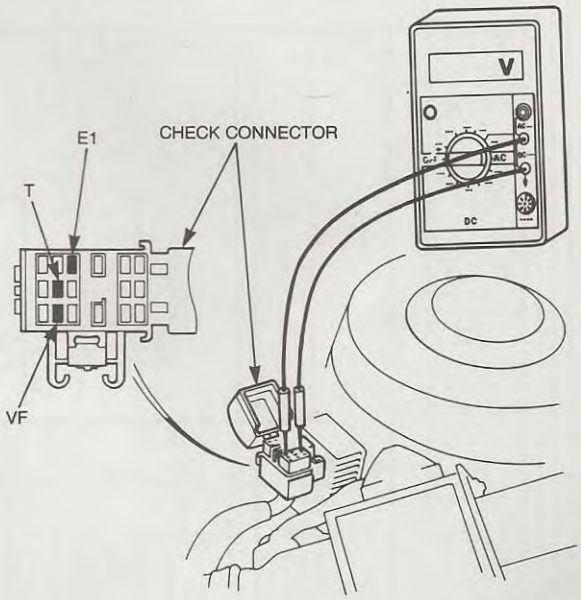


Figure 7-92

   3. Increase engine speed to 2500 rpm and hold at that speed for 90 seconds. Short the check engine connector terminals T and E1 *(see Fig. 7-90)* while maintaining 2500 rpm.
   4. Check the number of 0-5 V transitions in a 10 second period on the voltmeter. Eight or more should be indicated. If the number is eight or more, and self-diagnosis code No. 5 persists, replace the EFI control unit. If less than eight transitions are indicated on the voltmeter, replace the oxygen sensor and return to para. 3. If the fault persists, check for defective wiring and/or replace the control unit.

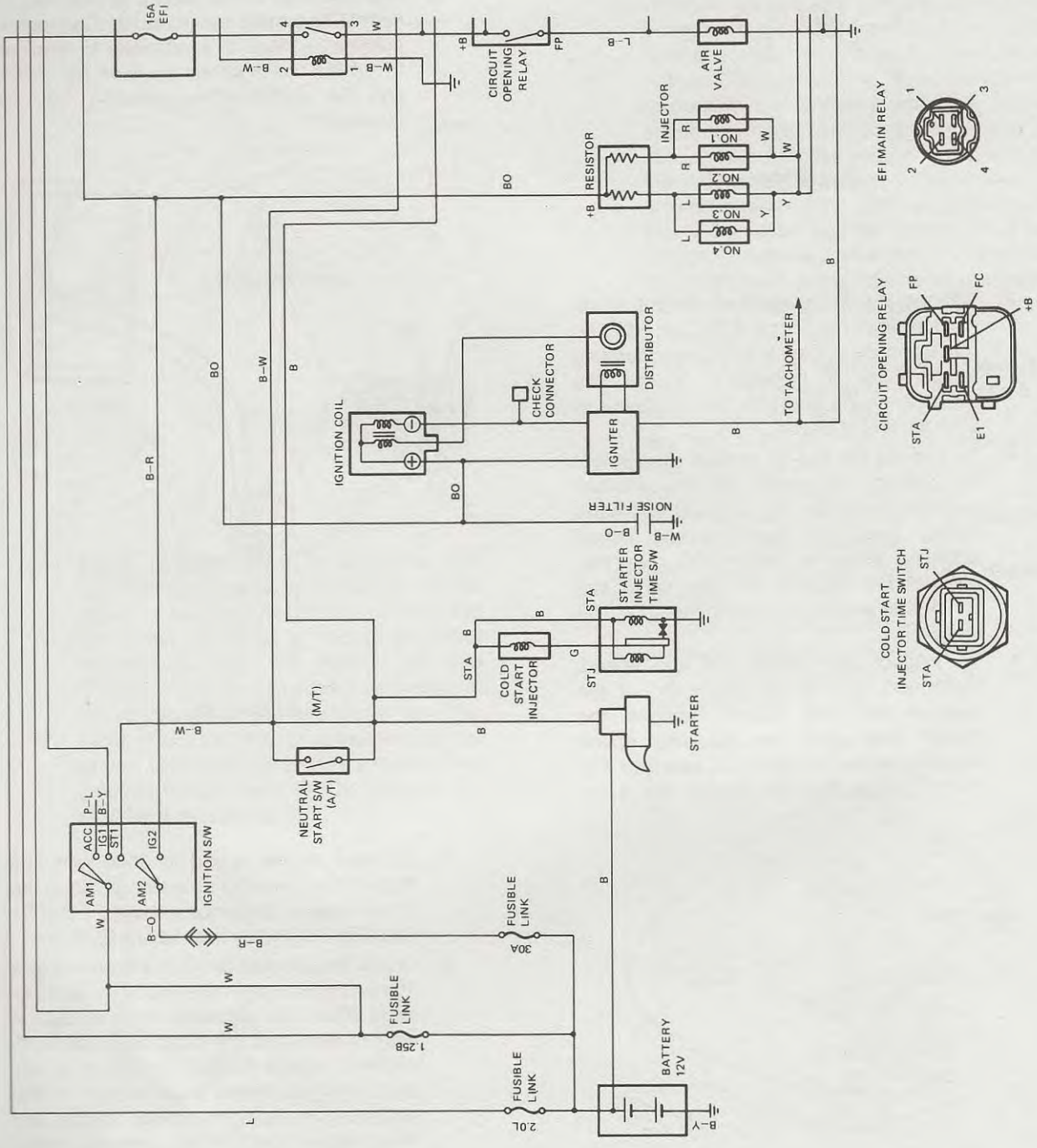
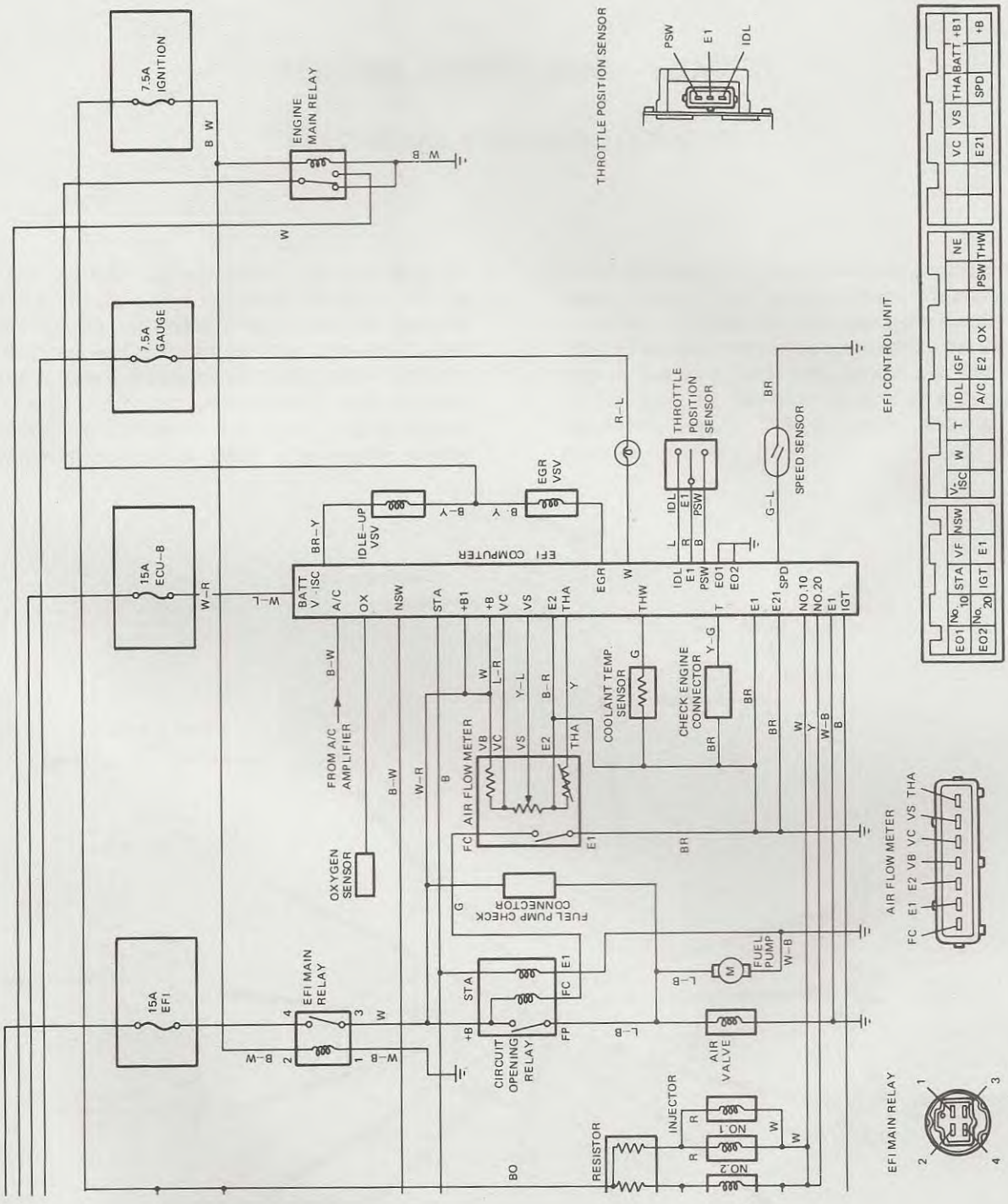

15A EFI
CIRCUIT OPENING RELAY
AIR VALVE
INJECTOR
NO.1
NO.2
NO.3
NO.4
RESISTOR
EFI MAIN RELAY
DISTRIBUTOR
IGNITION COIL
CHECK CONNECTOR
IGNITER
TO TACHOMETER
CIRCUIT OPENING RELAY
NOISE FILTER
STARTER INJECTOR TIME S/W
COLD START INJECTOR
COLD START INJECTOR TIME SWITCH
STARTER
NEUTRAL START S/W (A/T)
(M/T)
IGNITION S/W
ACC
IG1
ST1
IG2
AM1
AM2
FUSIBLE LINK
30A
1.25B
2.0L
BATTERY 12V

Figure 7-93


7.5A IGNITION
7.5A GAUGE
15A ECU-B
15A EFI
ENGINE MAIN RELAY
EFI MAIN RELAY
CIRCUIT OPENING RELAY
EFI COMPUTER
BATT
V-ISC
A/C
OX
NSW
STA
+B1
+B
VC
VS
E2
THA
EGR
THW
IDL
E1
PSW
EO1
EO2
T
E1
E21
SPD
NO.10
NO.20
E1
IGT
IDLE-UP VSV
EGR VSV
THROTTLE POSITION SENSOR
THROTTLE POSITION SENSOR
SPEED SENSOR
EFI CONTROL UNIT
AIR FLOW METER
COOLANT TEMP. SENSOR
CHECK ENGINE CONNECTOR
FROM A/C AMPLIFIER
OXYGEN SENSOR
FUEL PUMP CHECK CONNECTOR
FUEL PUMP
AIR VALVE
INJECTOR
NO.1
NO.2
RESISTOR
EFI MAIN RELAY
AIR FLOW METER
FC E1 E2 VB VC VS THA