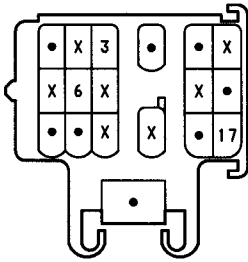
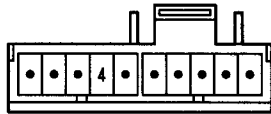


ECT (ELECTRONIC CONTROLLED TRANSMISSION)

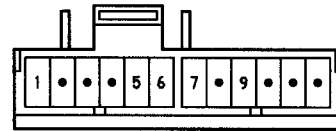
C 1 DARK GRAY



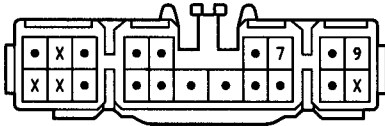
C13 (B) BROWN



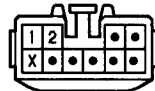
C14 (A)



C19 (B)



C20 (A)



E 1 BLACK



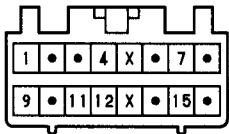
E 2 GREEN



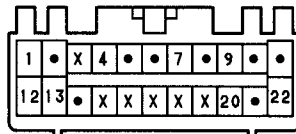
E 4 BLACK



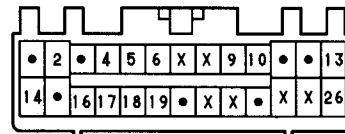
E 6 (C) DARK GRAY



E 7 (A) DARK GRAY



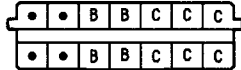
E 8 (B) DARK GRAY



I 3 GRAY

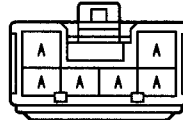


J 2



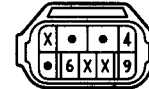
(HINT:SEE PAGE 7)

J 6



(HINT:SEE PAGE 7)

N 2 GRAY



O 7



S 2 GRAY



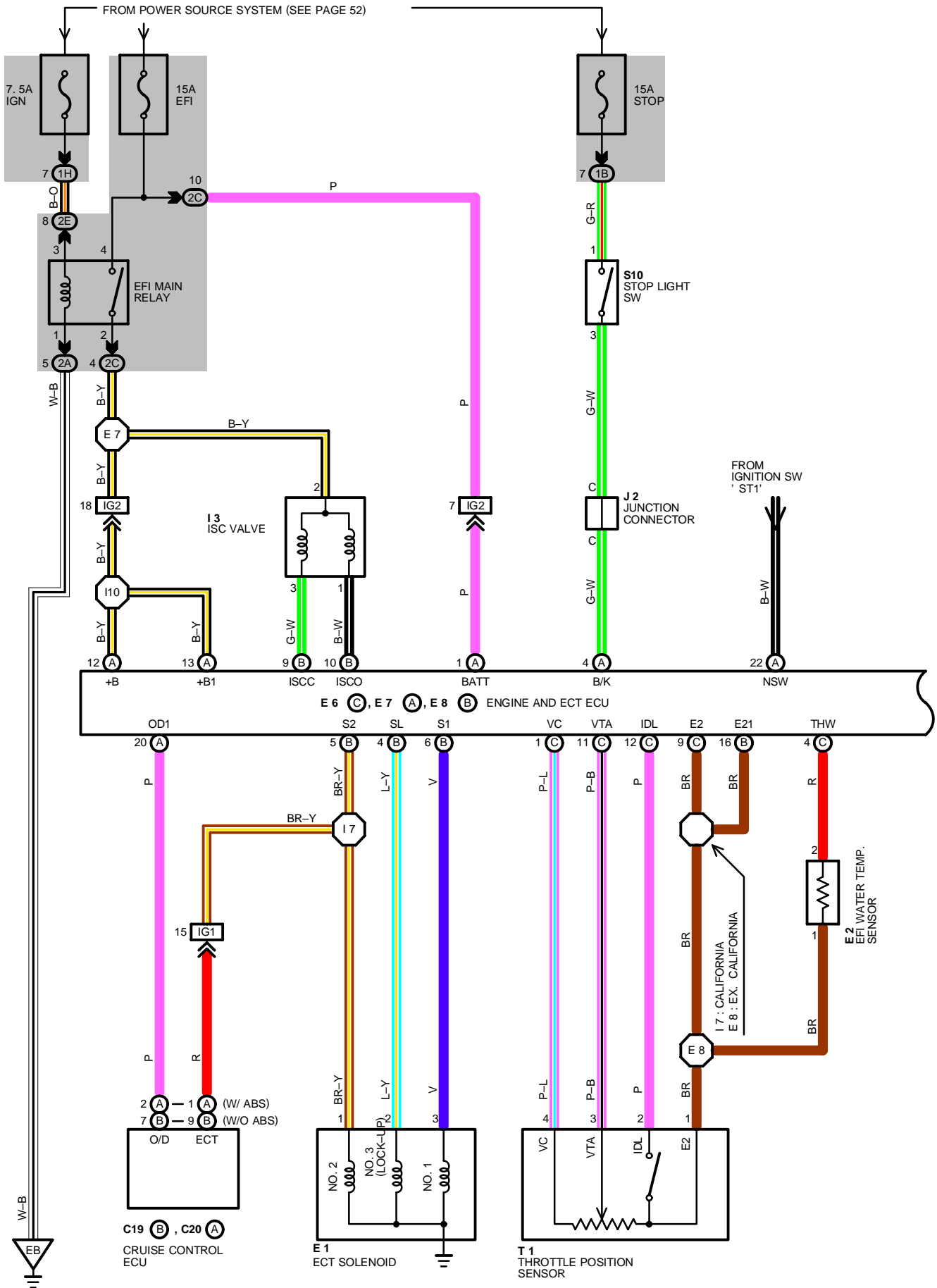
S10



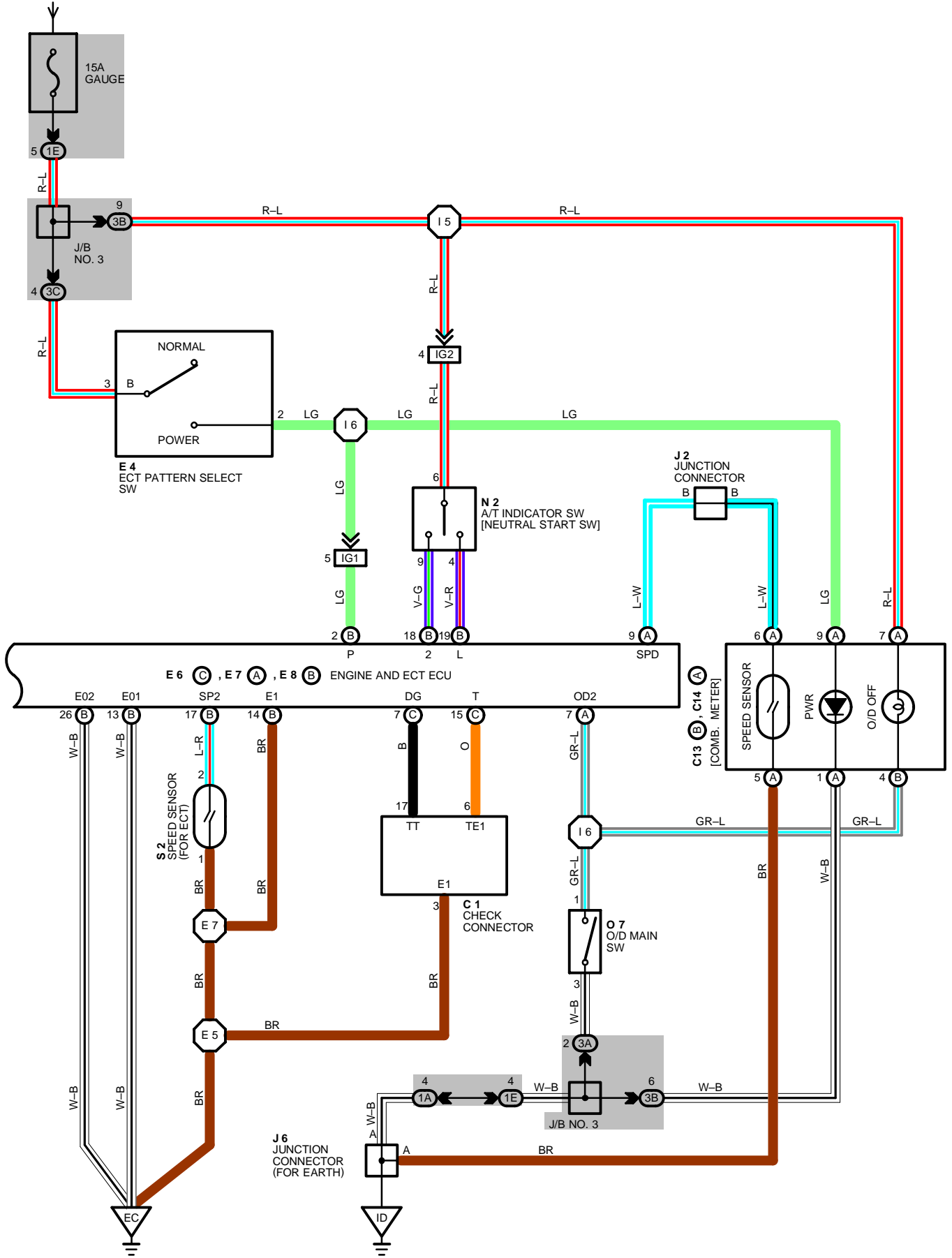
T 1 BLACK



ECT (ELECTRONIC CONTROLLED TRANSMISSION)



FROM POWER SOURCE SYSTEM (SEE PAGE 52)



ECT (ELECTRONIC CONTROLLED TRANSMISSION)

SYSTEM OUTLINE

PREVIOUS AUTOMATIC TRANSMISSIONS HAVE SELECTED EACH GEAR SHIFT USING MECHANICALLY CONTROLLED THROTTLE HYDRAULIC PRESSURE, GOVERNOR HYDRAULIC PRESSURE AND LOCK-UP HYDRAULIC PRESSURE. THE ECT, HOWEVER, ELECTRICALLY CONTROLS THE LINE PRESSURE AND LOCK-UP PRESSURE ETC., THROUGH THE SOLENOID VALVE. ECT ECU CONTROL OF THE SOLENOID VALVE BASED ON THE INPUT SIGNALS FROM EACH SENSOR MAKES SMOOTH DRIVING POSSIBLE BY SHIFT SELECTION FOR EACH GEAR WHICH IS MOST APPROPRIATE TO THE DRIVING CONDITIONS AT THAT TIME.

1. GEAR SHIFT OPERATION

DURING DRIVING, THE ECU SELECTS THE SHIFT FOR EACH GEAR WHICH IS MOST APPROPRIATE TO THE DRIVING CONDITIONS, BASED ON INPUT SIGNALS FROM THE EFI WATER TEMP. SENSOR TO **TERMINAL THW** OF THE ECU, AND ALSO THE INPUT SIGNALS TO **TERMINAL SP2** OF THE ECU FROM THE SPEED SENSOR DEVOTED TO THE ECT. CURRENT IS THEN OUTPUT TO THE ECT SOLENOIDS. WHEN SHIFTING TO 1ST SPEED, CURRENT FLOWS FROM **TERMINAL S1** OF THE ECU → **TERMINAL 3** OF THE ECT SOLENOIDS → **GROUND**, AND CONTINUITY TO THE NO. 1 SOLENOID CAUSES THE SHIFT.

FOR 2ND SPEED, CURRENT FLOWS FROM **TERMINAL S1** OF THE ECU → **TERMINAL 3** OF THE ECT SOLENOIDS → **GROUND**, AND FROM **TERMINAL S2** OF THE ECU → **TERMINAL 1** OF THE ECT SOLENOIDS → **GROUND**, AND CONTINUITY TO SOLENOIDS NO. 1 AND NO. 2 CAUSES THE SHIFT.

FOR 3RD SPEED, THERE IS NO CONTINUITY TO NO. 1 SOLENOID, ONLY TO NO. 2, CAUSING THE SHIFT.

SHIFTING INTO 4TH SPEED (OVER DRIVE) TAKES PLACE WHEN THERE IS NO CONTINUITY TO EITHER NO. 1 OR NO. 2 SOLENOID.

2. LOCK-UP OPERATION

WHEN THE ECT ECU JUDGES FROM EACH SIGNAL THAT LOCK-UP OPERATION CONDITIONS HAVE BEEN MET, CURRENT FLOWS FROM **TERMINAL SL** OF THE ECT ECU → **TERMINAL 2** OF THE ECT SOLENOID → **GROUND**, CAUSING CONTINUITY TO THE LOCK-UP SOLENOID AND CAUSING LOCK-UP OPERATION.

3. STOP LIGHT SW CIRCUIT

IF THE BRAKE PEDAL IS DEPRESSED (STOP LIGHT SW ON) WHEN DRIVING IN LOCK-UP CONDITION, A SIGNAL IS INPUT TO **TERMINAL B/K** OF THE ECU, THE ECU OPERATES AND CONTINUITY TO THE LOCK-UP SOLENOID IS CUT.

4. OVERDRIVE CIRCUIT

* O/D MAIN SW ON

WHEN THE O/D MAIN SW IS TURNED ON (O/D OFF INDICATOR LIGHT TURNS OFF), A SIGNAL IS INPUT TO **TERMINAL OD2** OF THE ECU AND ECU OPERATION CAUSES GEAR SHIFT WHEN THE CONDITIONS FOR OVERDRIVE ARE MET.

* O/D MAIN SW OFF

WHEN THE OVERDRIVE SW IS TURNED TO OFF, THE CURRENT FLOWING THROUGH THE O/D OFF INDICATOR LIGHT FLOWS THROUGH THE O/D MAIN SW TO **GROUND**. CAUSING THE INDICATOR LIGHT TO LIGHT UP. AT THE SAME TIME, A SIGNAL IS INPUT TO **TERMINAL OD2** OF THE ECU AND ECU OPERATION PREVENTS SHIFT INTO OVERDRIVE.

5. ECT PATTERN SELECT SW CIRCUIT

IF THE ECT PATTERN SELECT SW IS CHANGED FROM NORMAL TO POWER, THE CURRENT FLOWING THROUGH THE POWER INDICATOR FLOWS TO **GROUND**, CURRENT FLOWS TO **TERMINAL P** OF THE ECT ECU, THE ECU OPERATES, AND SHIFT UP AND SHIFT DOWN OCCUR AT HIGHER VEHICLE SPEEDS THAN WHEN THE SW IS IN **NORMAL** POSITION.

SERVICE HINTS

E 6(C), E 7(A), E 8(B) ENGINE AND ECT ECU

(B) 6-(B)14 : 10-14 VOLTS (IGNITION SW ON)

(B)4, (B)5-(B)14 : UNDER 1 VOLTS (IGNITION SW ON)

(B)2-(B)14 : 10-14 VOLTS (IGNITION SW AND ECT PATTERN SELECT SW POWER)

UNDER 1 VOLTS (IGNITION SW ON AND ECT PATTERN SELECT SW NORMAL)

(A) 4-(B)14 : 10-14 VOLTS (BRAKE PEDAL IS DEPRESSED)

UNDER 1 VOLTS (BRAKE PEDAL IS DEPRESSED)

(C) 4-(B)14 : 0.1-0.8 VOLTS (IGNITION SW ON AND COOLANT TEMP. 80°C (176°F))

(C)12-(C) 9 : UNDER 1 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED)

4.5-5.5 VOLTS (IGNITION SW ON AND THROTTLE VALVE CLOSED)

(C)11-(C) 9 : 0.1-0.8 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED)

4.5-5.5 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY OPEN)

(C) 1-(C) 9 : 4.5-5.5 VOLTS (IGNITION SW ON)

(A)20-(B)14 : 10-14 VOLTS (IGNITION SW ON)

(A) 7-(B)14 : 10-14 VOLTS (IGNITION SW ON AND O/D MAIN SW TURNED ON)

UNDER 1 VOLTS (IGNITION SW ON AND O/D MAIN SW TURNED OFF)

(A) 9-(B)14 : UNDER 1 VOLTS (IGNITION SW ON, CRUISE CONTROL SW OFF AND STARTING STILL)

0 ↔ 10-14 VOLTS REPEAT (IGNITION SW ON, CRUISE CONTROL SW OFF AND VEHICLE MOVING)

- (B)17-(B)14 : UNDER 1 VOLTS (IGNITION SW ON AND STARTING STILL)
 0 ↔ 4.5-5.5 VOLTS REPEAT (IGNITION SW ON AND VEHICLE MOVING)
- (B)22-(B)14 : 10-14 VOLTS (IGNITION SW ON AND NEUTRAL START SW P OR N POSITION)
 UNDER 1 VOLTS (IGNITION SW ON AND EX. NEUTRAL START SW P OR N POSITION)
- (B)18-(B)14 : 10-14 VOLTS (IGNITION SW ON AND NEUTRAL START SW 2 POSITION)
 UNDER 1 VOLTS (IGNITION SW ON AND EX. NEUTRAL START SW 2 POSITION)
- (B)19-(B)14 : 10-14 VOLTS (IGNITION SW ON AND NEUTRAL START SW L POSITION)
 UNDER 1 VOLTS (IGNITION SW ON AND EX. NEUTRAL START SW L POSITION)
- (A)12, (B)13-(B)14 : 10-14 VOLTS (IGNITION SW ON)
- (A) 1-(B)14 : 10-14 VOLTS (ALL CONDITIONS)

RESISTANCE AT ECU WIRING CONNECTORS

- (DISCONNECT WIRING CONNECTOR)
- (C)12-(C) 9 : INFINITY (THROTTLE VALVE OPEN)
 2.3 KΩ OR LESS (THROTTLE VALVE FULLY CLOSED)
- (C)11-(C) 9 : 3.3-10.0 KΩ (THROTTLE VALVE FULLY OPEN)
 0.2-0.8 KΩ (THROTTLE VALVE FULLY CLOSED)
- (C) 1-(C) 9 : 3.0-7.0 KΩ
- (C) 4-(C) 9 : 0.2-0.4 KΩ (COOLANT TEMP. 80°C, 176°F)
- (B) 4, (B) 5, (B) 6-GROUND : 11-15 Ω (ALL CONDITIONS)

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 1	26 (5S-FE)	E 4	29	N 2	26 (5S-FE)
C13	B 28	E 6	C 29	O 7	29
C14	A 28	E 7	A 29	S 2	26 (5S-FE)
C19	B 28	E 8	B 29	S10	29
C20	A 28	I 3	26 (5S-FE)	T 1	26 (5S-FE)
E 1	26 (5S-FE)	J 2	29		
E 2	26 (5S-FE)	J 6	29		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	18	COWL WIRE AND J/B NO. 1 (LEFT KICK PANEL)
1B		
1E		
1H	18	ENGINE ROOM MAIN WIRE AND J/B NO. 1 (LEFT KICK PANEL)
2A	20	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (NEAR THE BATTERY)
2C	20	ENGINE WIRE AND J/B NO. 2 (NEAR THE BATTERY)
2E	20	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (NEAR THE BATTERY)
3A	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3B		
3C		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IG1	36	ENGINE WIRE AND COWL WIRE (UNDER THE ENGINE ECU)
IG2		

▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	32 (5S-FE)	FRONT LEFT FENDER
EC	32 (5S-FE)	INTAKE MANIFOLD
ID	36	LEFT KICK PANEL

○ : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 5	32 (5S-FE)	ENGINE WIRE	I 6	36	COWL WIRE
E 7			I 7	36	ENGINE WIRE
E 8			I10	36	CONSOLE BOX WIRE
I 5	36	COWL WIRE			