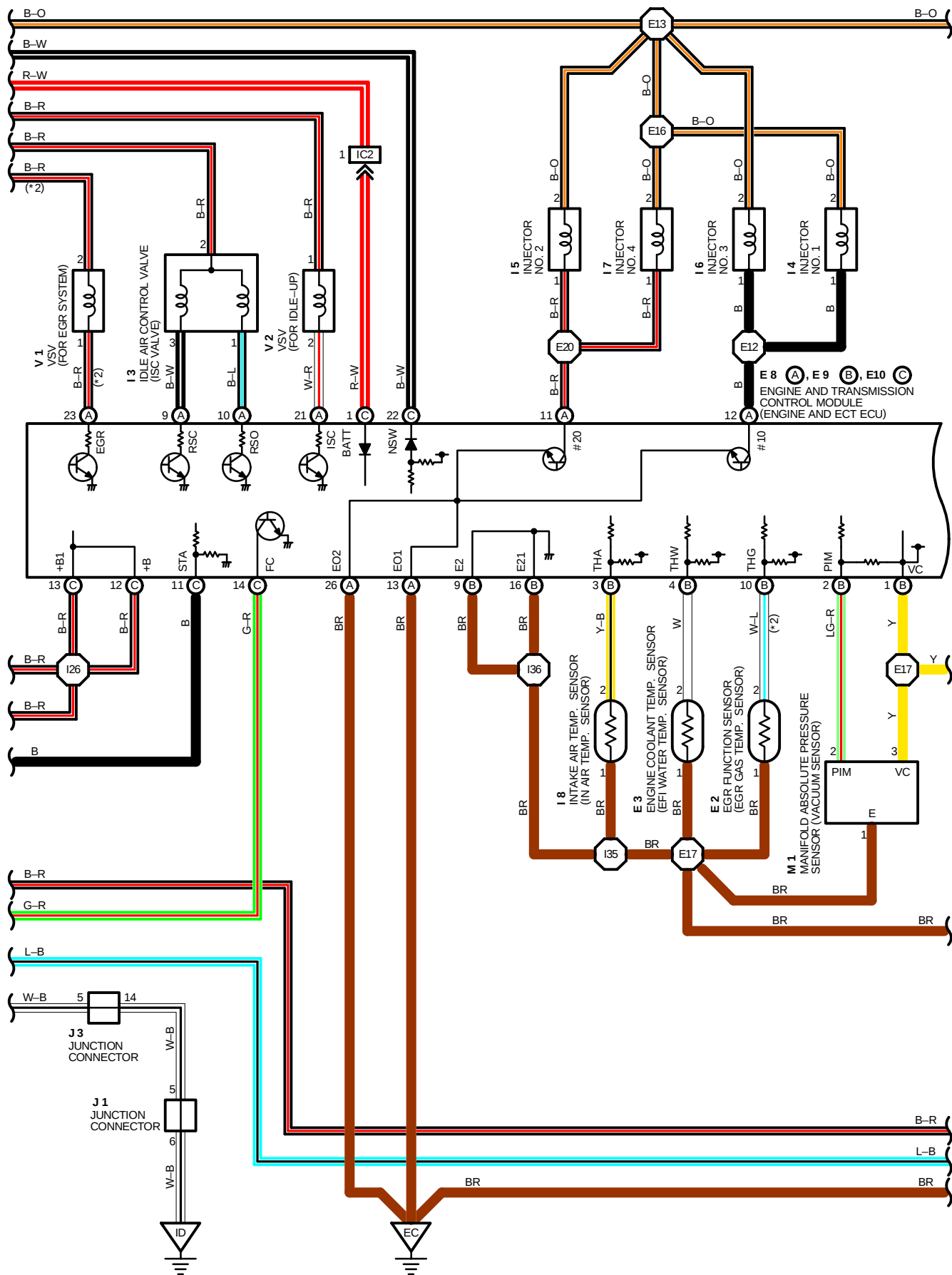
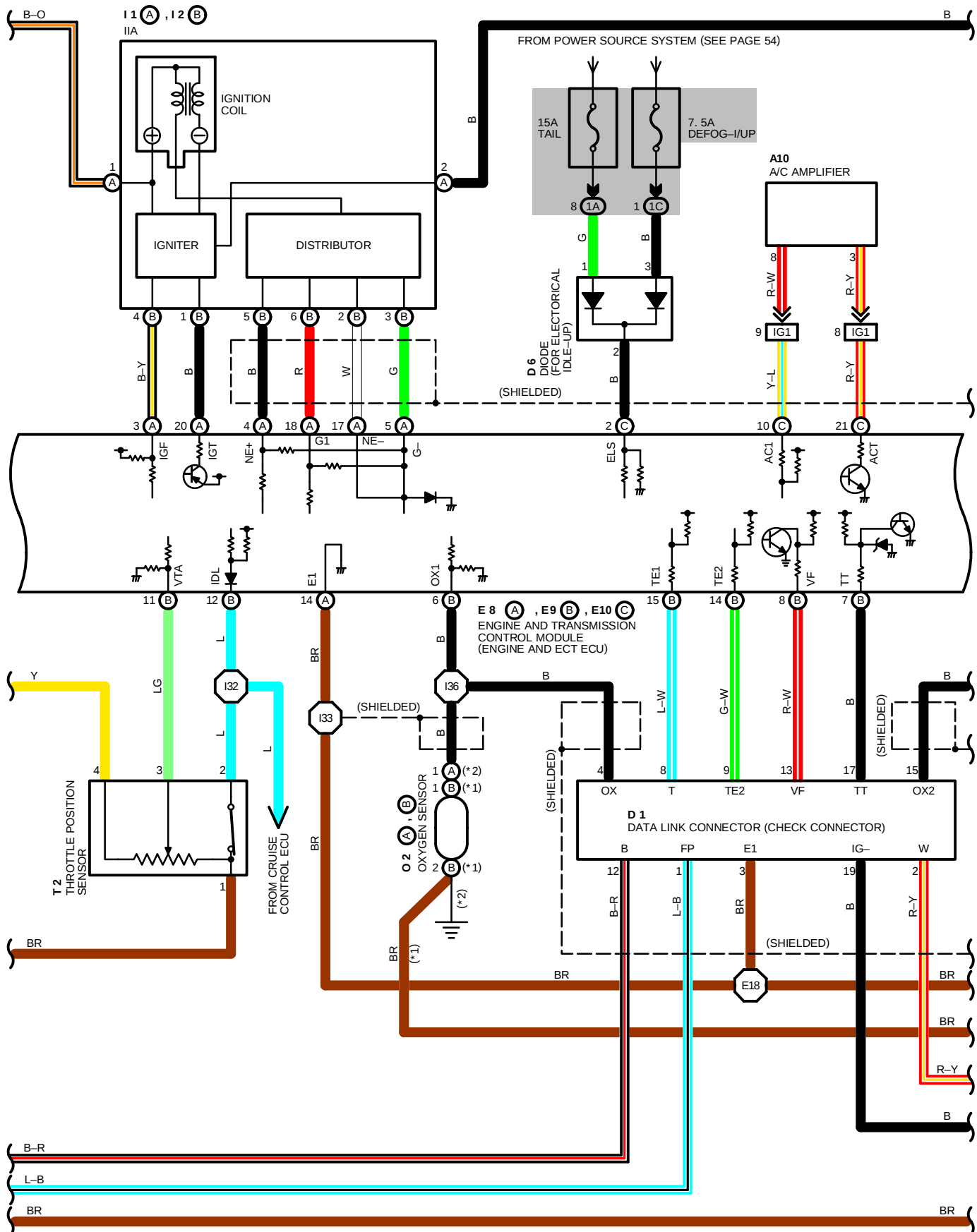






ENGINE CONTROL (7A-FE A/T)





ENGINE CONTROL (7A-FE A/T)

SERVICE HINTS

E 8(A), E 9(B), E10(C) ENGINE AND TRANSMISSION CONTROL MODULE (ENGINE AND ECT ECU (7A-FE A/T))

BATT-E1 : 9.0–14.0 VOLTS (ALWAYS)
+B-E1 : 9.0–14.0 VOLTS (IGNITION SW ON)
+B1-E1 : 9.0–14.0 VOLTS (IGNITION SW ON)
IDL-E2 : 9.0–14.0 VOLTS (IGNITION SW ON AND THROTTLE VALVE OPEN)
VTA-E2 : 0.3–0.8 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED)
 : 3.2–4.9 VOLTS (IGNITION SW ON AND THROTTLE VALVE OPEN)
PIM-E2 : 3.3–3.9 VOLTS (IGNITION SW AT **ON** POSITION)
VC-E2 : 4.5–5.5 VOLTS (IGNITION SW ON)
#10, #20-E1, E2 : 9.0–14.0 VOLTS (IGNITION SW AT **ON** POSITION)
THA-E2 : 0.5–3.4 VOLTS (IGNITION SW ON AND INTAKE AIR TEMP. 20°C (68°F))
SPD-E2 : 4.5–5.5 VOLTS (IGNITION SW AT **ON** POSITION)
THW-E2 : 0.2–1.0 VOLTS (IGNITION SW ON COOLANT TEMP. 80°C (176°F))
STA-E1 : 6.0–14.0 VOLTS (CRANKING)
IGT-E1 : 0.8–1.2 VOLTS (IDLELING)
TE1-E1 : 9.0–14.0 VOLTS (IGNITION SW ON AND CHECK CONNECTOR **TE1-E1** NOT CONNECTED)
 : 0–3.0 VOLTS (IGNITION SW ON AND CHECK CONNECTOR **TE1-E1** CONNECTED)
W-E1 : 9.0–14.0 VOLTS (NO TROUBLE AND ENGINE RUNNING)
AC1-E1 : 2.0 VOLTS OR LESS (IGNITION SW ON AND AIR CONDITIONING ON)
ACT-E1 : 4.5–5.5 VOLTS (IGNITION SW ON AND AIR CONDITIONING ON)
NSW-E1 : 0–3.0 VOLTS (IGNITION SW ON AND **PARK/NEUTRAL** POSITION SW (NEUTRAL START SW)
 AT **P** OR **N** POSITION)
 : 9.0–14.0 VOLTS (IGNITION SW ON AND **PARK/NEUTRAL** POSITION SW (NEUTRAL START SW)
 AT EX. **P** OR **N** POSITION)
B/K-E1 : 9.0–14.0 VOLTS (BRAKE PEDAL DEPRESS)

RESISTANCE OF ECU WIRING CONNECTORS

IDL-E2 : INFINITY (THROTTLE VALVE OPEN)
 : 2.3K Ω OR LESS (THROTTLE VALVE FULLY CLOSED)
VTA-E2 : 3.3–10.0K Ω (THROTTLE VALVE FULLY OPEN)
 : 0.2–0.8K Ω (THROTTLE VALVE FULLY CLOSED)
VC-E2 : 3.0–7.0K Ω
THA-E2 : 2.0–3.0K Ω (INTAKE AIR TEMP. 20°C (68°F))
THW-E2 : 2.0–3.0K Ω (COOLANT TEMP. 80°C (176°F))
G1, NE-G- : 0.17–0.21K Ω
RSC, RSO - + B, +B1 : 19.3–22.3 Ω

C 7 CIRCUIT OPENING RELAY

1–2 : CLOSED WITH STARTER RUNNING

MFI MAIN RELAY (EFI MAIN RELAY)

3–5 : CLOSED WITH IGNITION SW AT **ON** OR **ST** POSITION

E 3 ENGINE COOLANT LEVEL SENSOR (EFI WATER TEMP. SENSOR)

1–2 : 10.0–20.0 K Ω (–20°C, –4°F)
 4.0–7.0 K Ω (0°C, 32°F)
 2.0–3.0 K Ω (20°C, 68°F)
 0.9–1.3 K Ω (40°C, 104°F)
 0.4–0.7 K Ω (60°C, 140°F)
 0.2–0.4 K Ω (80°C, 176°F)

I 4, I 5, I 6, I 7 INJECTOR

1–2 : APPROX. 13.8 Ω

T 2 THROTTLE POSITION SENSOR

3–1 : 0.3–6.3 K Ω WITH CLEARANCE BETWEEN LEVER AND STOP SCREW 0 MM (0 IN.)
2–1 : LESS THAN 2.3 K Ω WITH CLEARANCE BETWEEN LEVER AND STOP SCREW 0.35 MM (0.014 IN.)
 WITH CLEARANCE BETWEEN LEVER AND STOP SCREW 0.7 MM (0.0276 IN.)
3–1 : 3.5–10.3 K Ω WITH THROTTLE VALVE FULLY OPEN

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A10	30	F 8	28	J 1	31
C 7	30	F11	32 (S/D), 33(W/G)	J 3	31
C11	A 30	I 1	A 29	K 1	29
C12	B 30	I 2	B 29	M 1	29
D 1	28	I 3	29	O 2	29
D 6	30	I 4	29	O 3	29
E 2	28	I 5	29	P 1	29
E 3	28	I 6	29	T 2	29
E 8	A 30	I 7	29	V 1	29
E 9	B 30	I 8	29	V 2	29
E10	C 30	I 9	31		

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	INSTRUMENT PANEL WIRE AND J/B NO.1 (LEFT KICK PANEL)
1B		
1C		
1E		
1G	20	ENGINE ROOM MAIN WIRE AND J/B NO. 1 (LEFT KICK PANEL)
1H	22	ENGINE ROOM MAIN WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2A		
2C	22	ENGINE WIRE AND J/B NO. 2 (ENGINE COMPARTMENT LEFT)
2E		
2F		
2G		
3A	24	INSTRUMENT PANEL WIRE AND J/B NO. 3 (BEHIND THE INSTRUMENT PANEL CENTER)
3C		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	34	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (NEAR THE FRONT WIPER MOTOR)
IC1	36	ENGINE WIRE AND INSTRUMENT PANEL WIRE (UNDER THE ASHTRAY)
IC2		
ID1	36	FLOOR WIRE AND INSTRUMENT PANEL WIRE (LEFT KICK PANEL)
IG1	36	INSTRUMENT PANEL WIRE AND A/C SUB WIRE (BEHIND THE GLOVE BOX)

▽ : GROUND POINTS

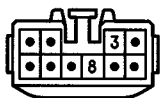
CODE	SEE PAGE	GROUND POINTS LOCATION
EB	34	FRONT LEFT FENDER
EC	34	INTAKE MANIFOLD
ID	36	LEFT KICK PANEL
BH	40 (S/D)	UNDER THE LEFT QUARTER PILLAR
	42 (W/G)	
BI	40 (S/D)	BACK PANEL CENTER
	42 (W/G)	UNDER THE RIGHT QUARTER PILLAR

○ : SPLICE POINTS

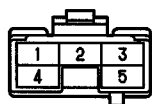
CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E12	34	ENGINE WIRE	I25	38	INSTRUMENT PANEL WIRE
E13			I26		
E14			I32	38	ENGINE WIRE
E16			I33		
E17			I34		
E18			I35		
E20			I36		
I18	38	INSTRUMENT PANEL WIRE	B18	42 (W/G)	FLOOR WIRE
I24					

ENGINE CONTROL (7A-FE A/T)

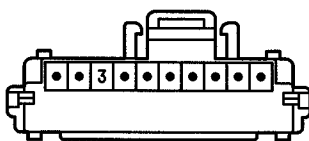
A10 BLACK



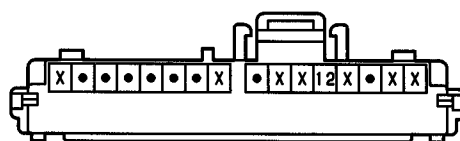
C 7 DARK GRAY



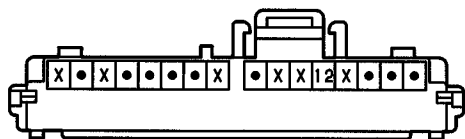
C11 (A) GRAY



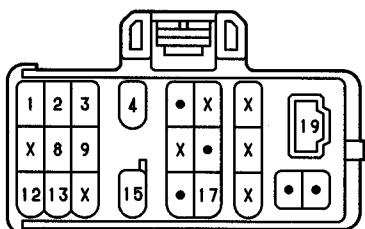
(PUERTO RICO) C12 (B)



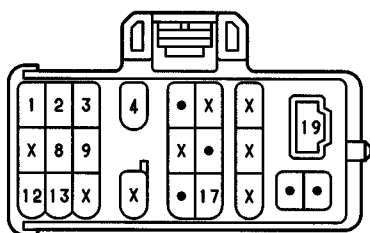
(EX. PUERTO RICO) C12 (B)



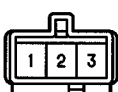
(CALIFORNIA) D 1 BLACK



(EX. CALIFORNIA) D 1 BLACK



D 6 ORANGE



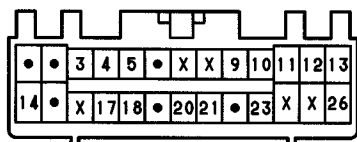
E 2 DARK GRAY



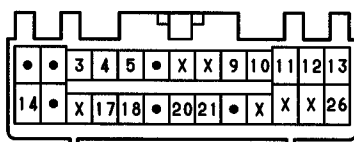
E 3 DARK GRAY



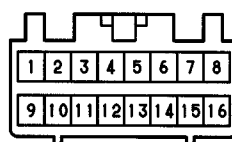
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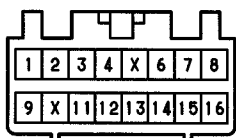
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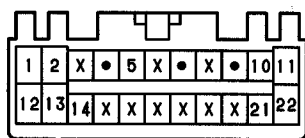
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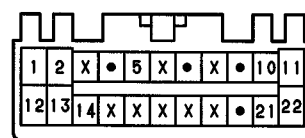
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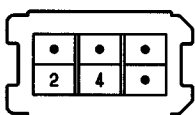
(CALIFORNIA) E10 (C) DARK GRAY



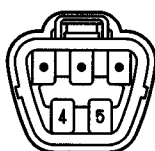
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F 8 BLACK



F11 DARK GRAY



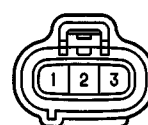
I 1 (A) DARK GRAY



I 2 (B) DARK GRAY



I 3 GRAY



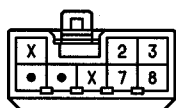
I 4, I 5, I 6, I 7 GRAY



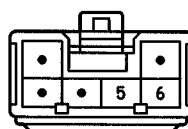
I 8 BLACK



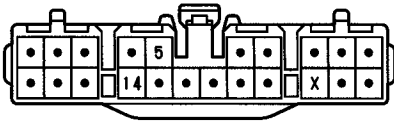
I 9 BLACK



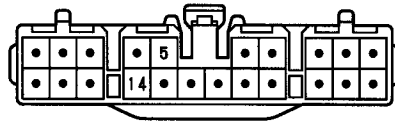
J 1



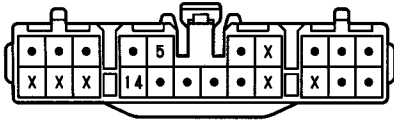
(USA) J 3 DARK GRAY



(CANADA) J 3 DARK GRAY



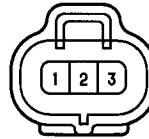
(PUERTO RICO) J 3 DARK GRAY



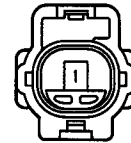
K 1



M 1



(CALIFORNIA) 0 2 A DARK GRAY



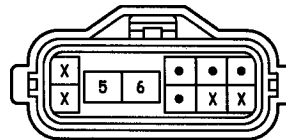
(EX. CALIFORNIA) 0 2 B DARK GRAY



(CALIFORNIA) 0 3 DARK GRAY



P 1 GRAY



T 2 BLACK



V 1 BROWN



V 2 BLACK

