SYSTEM OUTLINE

THIS SYSTEM UTILIZES AN ENGINE CONTROL MODULE AND MAINTAINS OVERALL CONTROL OF THE ENGINE, TRANSMISSION AND SO ON. AN OUTLINE OF THE ENGINE CONTROL IS EXPLAINED HERE.

1. INPUT SIGNALS

(1) ENGINE COOLANT TEMP. SIGNAL CIRCUIT

THE ENGINE COOLANT TEMP. SENSOR DETECTS THE ENGINE COOLANT TEMP. AND HAS A BUILT-IN THERMISTOR WITH A RESISTANCE WHICH VARIES ACCORDING TO THE WATER TEMP. IS INPUT INTO **TERMINAL THW** OF ENGINE CONTROL MODULE AS A CONTROL SIGNAL.

(2) INTAKE AIR TEMP. SIGNAL CIRCUIT

THE INTAKE AIR TEMP. SENSOR IS INSTALLED IN THE MASS AIR FLOW METER AND DETECTS THE INTAKE AIR TEMP., WHICH IS INPUT AS A CONTROL SIGNAL INTO **TERMINAL THA** OF ENGINE CONTROL MODULE.

(3) OXYGEN SENSOR SIGNAL SYSTEM

THE OXYGEN DENSITY IN THE EXHAUST GASES IS DETECTED AND INPUT AS A CONTROL SIGNAL INTO **TERMINALS OXL1**, **OXR1** AND **OXS** OF THE ENGINE CONTROL MODULE. TO MAINTAIN STABLE DETECTION PERFORMANCE BY THE OXYGEN SENSOR, A HEATER IS USED FOR WARMING THE SENSOR. THE HEATER IS ALSO CONTROLLED BY THE ENGINE CONTROL MODULE **(HTL, HTR AND HTS**).

(4) RPM SIGNAL SYSTEM

CAMSHAFT POSITION AND CRANKSHAFT POSITION ARE DETECTED BY THE CAMSHAFT POSITION SENSOR AND CRANKSHAFT POSITION SENSOR. CAMSHAFT POSITION IS INPUT AS A CONTROL SIGNAL TO **TERMINAL G22+** OF THE ENGINE CONTROL MODULE, AND ENGINE RPM IS INPUT INTO **TERMINAL NE+**.

(5) THROTTLE SIGNAL CIRCUIT

THE THROTTLE POSITION SENSOR DETECTS THE THROTTLE VALVE OPENING ANGLE AS A CONTROL SIGNAL, WHICH IS INPUT INTO **TERMINAL VTA1** OF THE ENGINE CONTROL MODULE.

(6) VEHICLE SPEED SIGNAL SYSTEM

THE VEHICLE SPEED SENSOR, INSTALLED INSIDE THE TRANSMISSION, DETECTS THE VEHICLE SPEED AND INPUTS A CONTROL SIGNAL INTO **TERMINAL SPD** OF THE ENGINE CONTROL MODULE.

(7) PARK/NEUTRAL POSITION SW SIGNAL SYSTEM (A/T)

THE PARK/NEUTRAL POSITION SW DETECTS WHETHER THE SHIFT POSITION IS IN NEUTRAL, PARKING OR NOT, AND INPUTS A CONTROL SIGNAL INTO **TERMINAL NSW** OF THE ENGINE CONTROL MODULE.

(8) A/C SW SIGNAL SYSTEM

THE A/C AMPLIFIER INPUTS THE A/C OPERATIONS INTO **TERMINAL A/C** OF THE ENGINE CONTROL MODULE AS A CONTROL SIGNAL.

(9) BATTERY SIGNAL CIRCUIT

VOLTAGE IS CONSTANTLY APPLIED TO **TERMINAL BATT** OF THE ENGINE CONTROL MODULE. WHEN THE IGNITION SW IS TURNED ON, VOLTAGE FOR ENGINE CONTROL MODULE START-UP POWER SUPPLY IS APPLIED TO **TERMINALS +B** OF ENGINE CONTROL MODULE VIA EFI RELAY.

(10) INTAKE AIR VOLUME SIGNAL CIRCUIT

INTAKE AIR VOLUME IS DETECTED BY THE MASS AIR FLOW METER AND A SIGNAL IS INPUT INTO **TERMINAL V6** OF THE ENGINE CONTROL MODULE AS A CONTROL SIGNAL.

(11) STARTER SIGNAL CIRCUIT

TO CONFIRM WHETHER THE ENGINE IS CRANKING, THE VOLTAGE APPLIED TO THE STARTER MOTOR DURING CRANKING IS DETECTED AND THE SIGNAL IS INPUT INTO **TERMINAL STA** OF THE ENGINE CONTROL MODULE AS A CONTROL SIGNAL.

(12) ENGINE KNOCK SIGNAL CIRCUIT

ENGINE KNOCKING IS DETECTED BY THE KNOCK SENSOR 1 AND 2, AND THE SIGNALS ARE INPUT INTO **TERMINALS KNKR** AND **KNKL** AS A CONTROL SIGNAL.

2. CONTROL SYSTEM

* SFI (SEQUENTIAL MULTIPORT FUEL INJECTION) SYSTEM

  THE SFI SYSTEM MONITORS THE ENGINE CONDITION THROUGH THE SIGNALS, WHICH ARE INPUT FROM EACH SENSOR (INPUT SIGNALS FROM (1) TO (12) ETC.). THE BEST FUEL INJECTION VOLUME IS DECIDED BASED ON THIS DATA AND THE PROGRAM MEMORIZED BY THE ENGINE CONTROL MODULE, AND THE CONTROL SIGNAL IS OUTPUT TO **TERMINALS #10, #20, #30, #40, #50** AND **#60** OF THE ENGINE CONTROL MODULE TO OPERATE THE INJECTOR (INJECT THE FUEL). THE SFI SYSTEM PRODUCES CONTROL OF FUEL INJECTION OPERATION BY THE ENGINE CONTROL MODULE IN RESPONSE TO THE DRIVING CONDITIONS.

* ESA (ELECTRONIC SPARK ADVANCE) SYSTEM

  THE ESA SYSTEM MONITORS THE ENGINE CONDITION THROUGH THE SIGNALS, WHICH ARE INPUT TO THE ENGINE CONTROL MODULE FROM EACH SENSOR (INPUT SIGNALS FROM (1), (3), (4) TO (12) ETC.). THE BEST IGNITION TIMING IS DECIDED ACCORDING TO THIS DATA AND THE MEMORIZED DATA IN THE ENGINE CONTROL MODULE AND THE CONTROL SIGNAL IS OUTPUT TO **TERMINALS IGT1**, **IGT2** AND **IGT3**. THIS SIGNAL CONTROLS THE IGNITER TO PROVIDE THE BEST IGNITION TIMING FOR THE DRIVING CONDITIONS.

* HEATED OXYGEN SENSOR HEATER CONTROL SYSTEM

  THE HEATED OXYGEN SENSOR HEATER CONTROL SYSTEM TURNS THE HEATER ON WHEN THE INTAKE AIR VOLUME IS LOW (TEMP. OF EXHAUST EMISSIONS IS LOW), AND WARMS UP THE HEATED OXYGEN SENSOR TO IMPROVE DETECTION PERFORMANCE OF THE SENSOR. THE ENGINE CONTROL MODULE EVALUATES THE SIGNALS FROM EACH SENSOR (INPUT SIGNALS FROM (1), (4), (9) TO (10) ETC.), AND OUTPUT CURRENT TO **TERMINALS HTL**, **HTR** AND **HTS**, CONTROLLING THE HEATER.

* IAC (IDLE AIR CONTROL) SYSTEM

  THE IAC SYSTEM (ROTARY SOLENOID TYPE) INCREASES THE RPM AND PROVIDES IDLE STABILITY FOR FAST IDLE-UP WHEN THE ENGINE IS COLD, AND WHEN THE IDLE SPEED HAS DROPPED DUE TO ELECTRICAL LOAD AND SO ON, THE ENGINE CONTROL MODULE EVALUATES THE SIGNALS FROM EACH SENSOR (INPUT SIGNALS FROM (1), (4), (5), (8), (9) ETC.), OUTPUTS CURRENT TO **TERMINALS RSO** AND **RSC** TO CONTROL IDLE AIR CONTROL VALVE.

* EGR CONTROL SYSTEM

  THE EGR CONTROL SYSTEM DETECTS THE SIGNAL FROM EACH SENSOR (INPUT SIGNALS FROM (l), (4), (9), (10), ETC.), AND OUTPUTS CURRENT TO **TERMINAL EGR** TO CONTROL THE EGR VALVE.

  THE EGR VALVE POSITION SENSOR IS MOUNTED ON THE EGR VALVE. THIS SENSOR CONVERTS THE EGR VALVE OPENING HEIGHT INTO A VOLTAGE AND SENDS IT TO THE ENGINE CONTROL MODULE AS THE EGR VALVE POSITION SIGNAL.

* ACIS (ACOUSTIC CONTROL INDUCTION SYSTEM)

  ACIS INCLUDES A VALVE IN THE BULKHEAD SEPARATING THE SURGE TANK INTO TWO PARTS. THIS VALVE IS OPENED AND CLOSED IN ACCORDANCE WITH THE DRIVING CONDITIONS TO CONTROL THE INTAKE MANIFOLD LENGTH IN TWO STAGES FOR INCREASED ENGINE OUTPUT IN ALL RANGES FROM LOW TO HIGH SPEEDS.

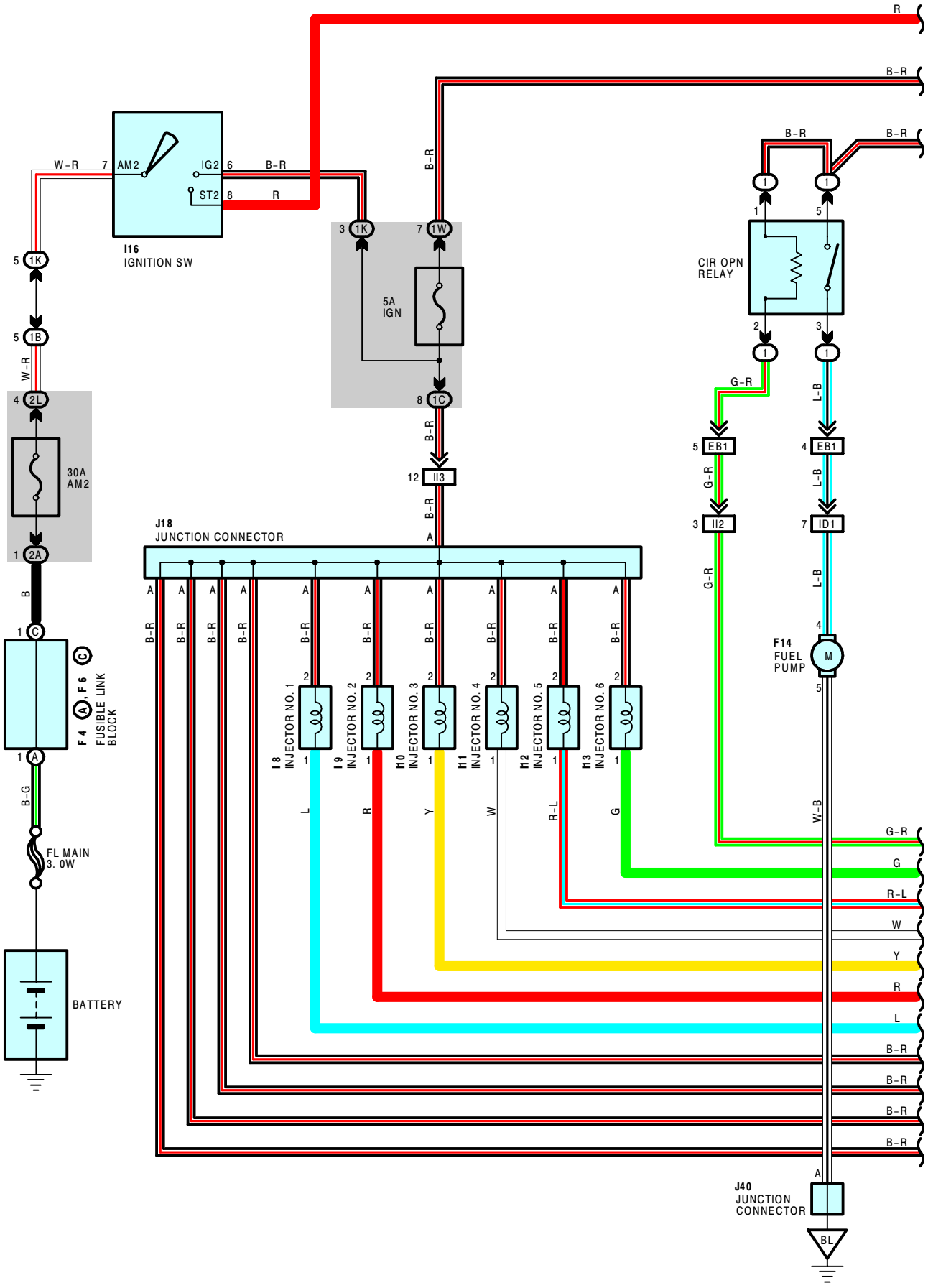
  THE ENGINE CONTROL MODULE JUDGES THE ENGINE SPEED BY THE SIGNALS ((4), (5)) FROM EACH SENSOR AND OUTPUTS SIGNALS TO THE **TERMINAL ACIS** TO CONTROL THE VSV (FOR OPENING AND CLOSING THE INTAKE CONTROL VALVE).

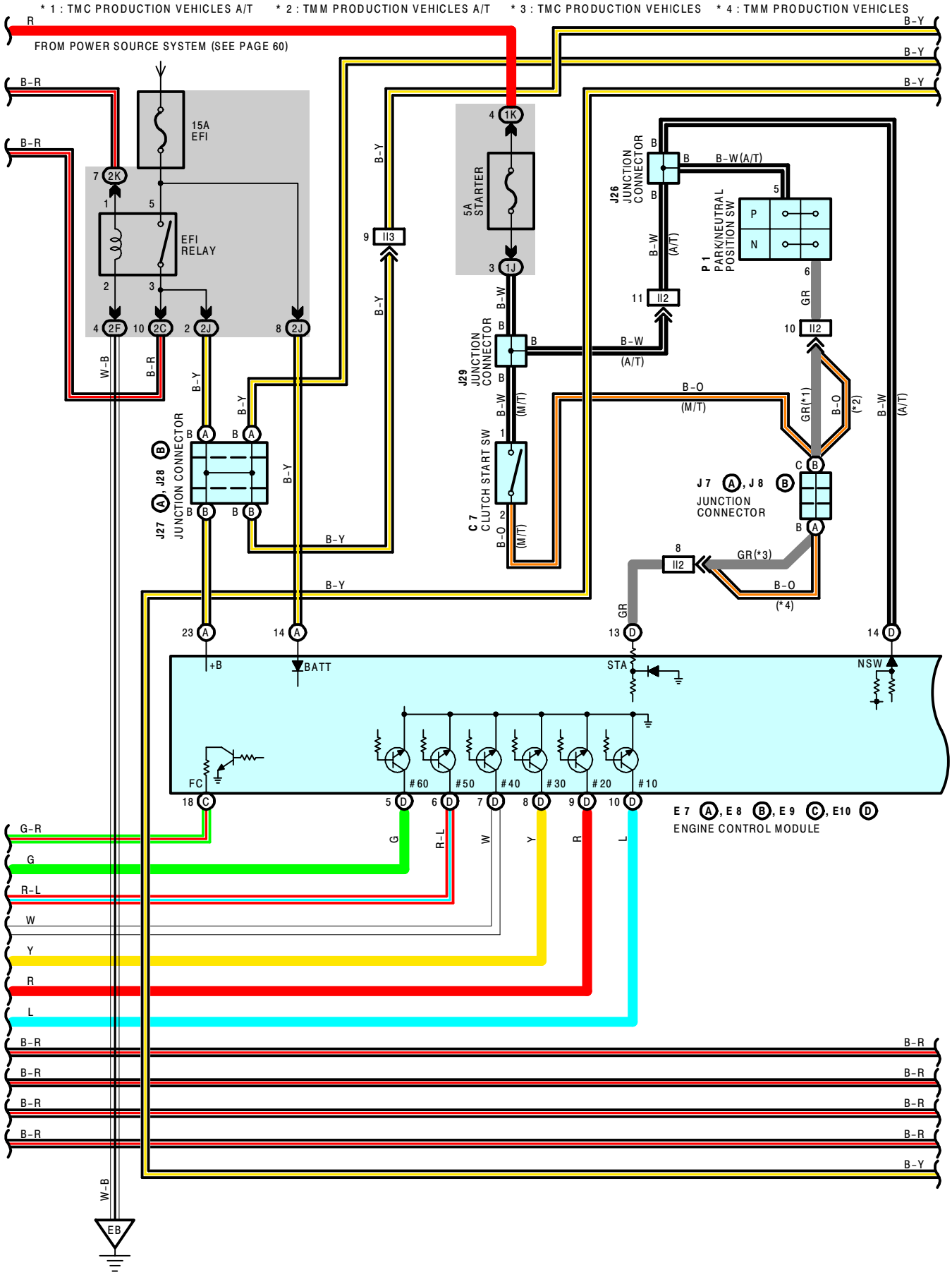
3. DIAGNOSIS SYSTEM

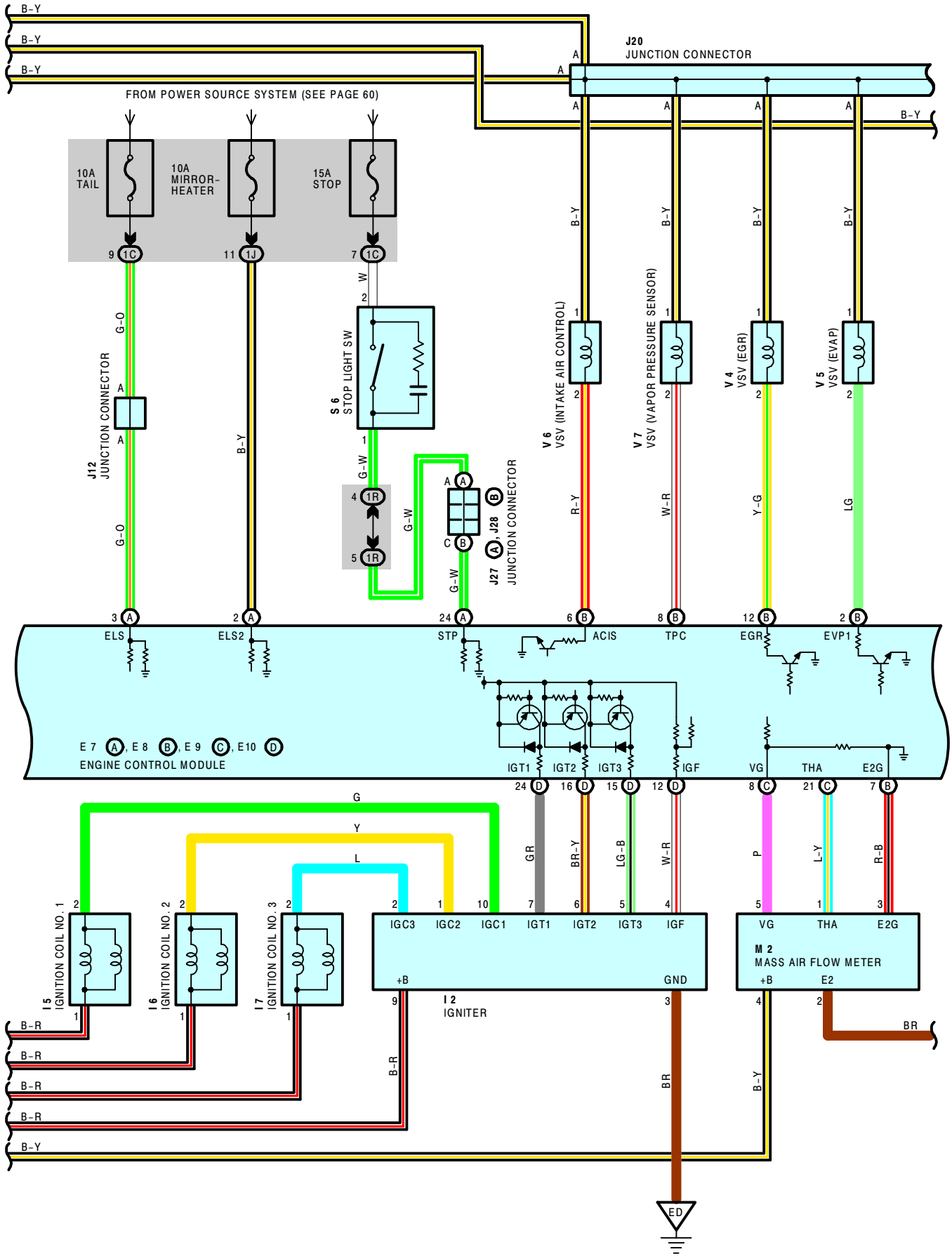
WITH THE DIAGNOSIS SYSTEM, WHEN THERE IS A MALFUNCTION IN THE ENGINE CONTROL MODULE SIGNAL SYSTEM, THE MALFUNCTIONING SYSTEM IS RECORDED IN THE MEMORY.

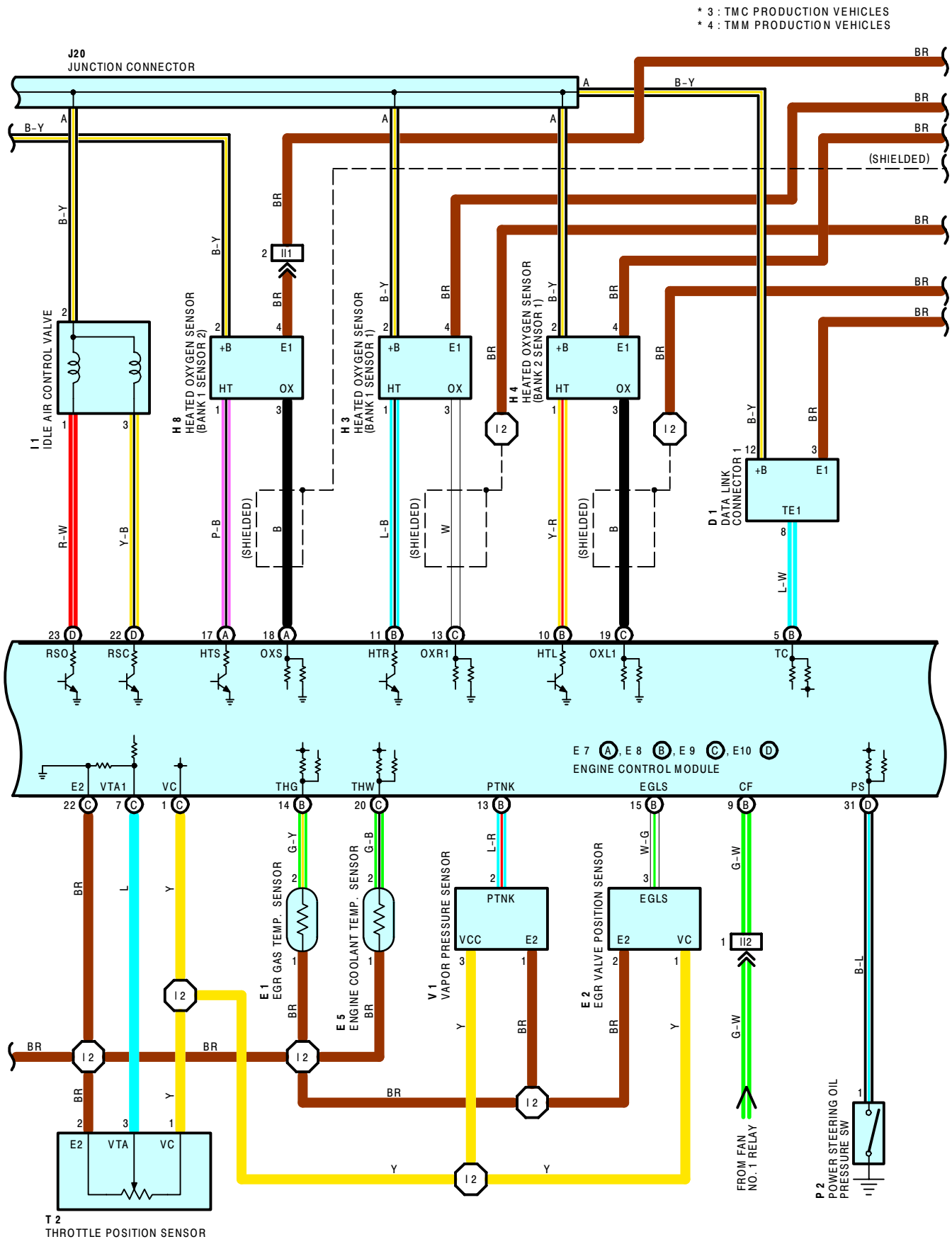
4. FAIL-SAFE SYSTEM

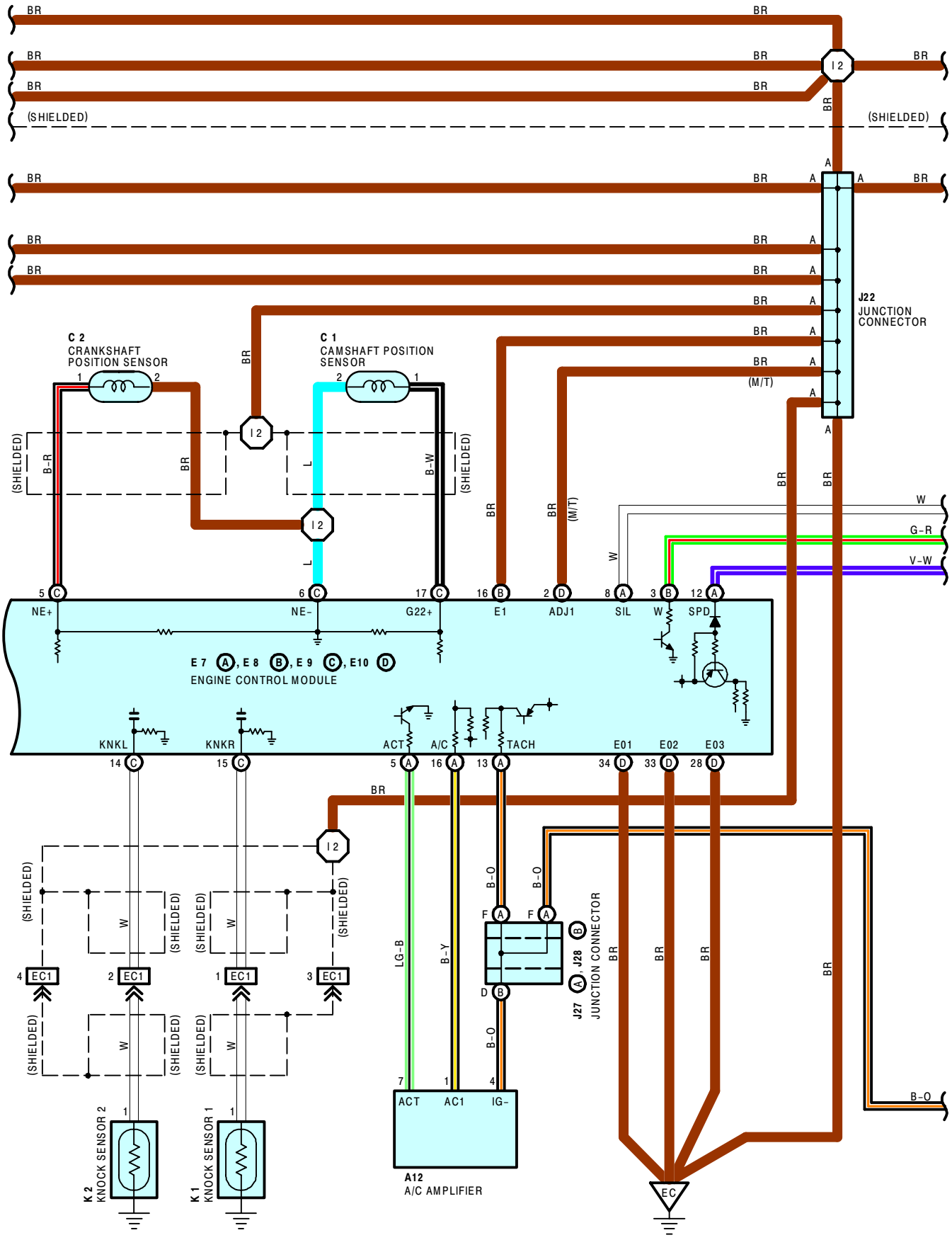
WHEN A MALFUNCTION HAS OCCURRED IN ANY SYSTEM, IF THERE IS A POSSIBILITY OF ENGINE TROUBLE BEING CAUSED BY CONTINUED CONTROL BASED ON THE SIGNALS FROM THAT SYSTEM, THE FAIL-SAFE SYSTEM EITHER CONTROLS THE SYSTEM BY USING DATA (STANDARD VALUES) RECORDED IN THE ENGINE CONTROL MODULE MEMORY OR ELSE STOPS THE ENGINE.

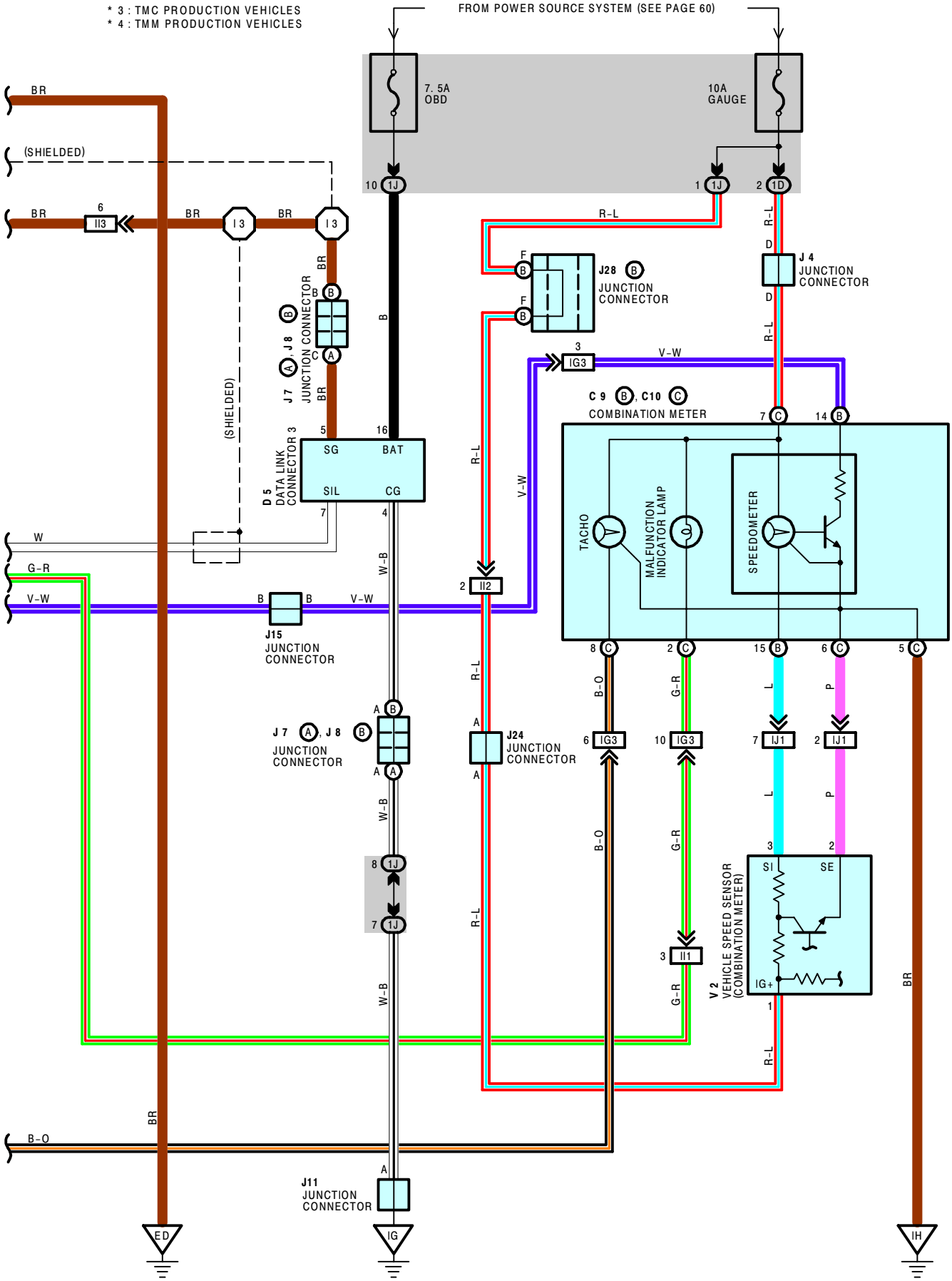

I16
IGNITION SW
AM2
IG2
ST2
W–R
B–R
R
5A
IGN
CIR OPN
RELAY
30A
AM2
FUSIBLE LINK
BLOCK
F4
F6
FL MAIN
3. 0W
BATTERY
J18
JUNCTION CONNECTOR
I8
INJECTOR NO. 1
I9
INJECTOR NO. 2
I10
INJECTOR NO. 3
I11
INJECTOR NO. 4
I12
INJECTOR NO. 5
I13
INJECTOR NO. 6
F14
FUEL
PUMP
J40
JUNCTION
CONNECTOR
BL
G–R
G
R–L
W
Y
R
L
B–R
W–B
L–B


* 1 : TMC PRODUCTION VEHICLES A/T
* 2 : TMM PRODUCTION VEHICLES A/T
* 3 : TMC PRODUCTION VEHICLES
* 4 : TMM PRODUCTION VEHICLES
FROM POWER SOURCE SYSTEM (SEE PAGE 60)
15A EFI
EFI RELAY
5A STARTER
J26 JUNCTION CONNECTOR
P 1 PARK/NEUTRAL POSITION SW
J29 JUNCTION CONNECTOR
C 7 CLUTCH START SW
J27 JUNCTION CONNECTOR
J7 , J8 JUNCTION CONNECTOR
+B
BATT
STA
NSW
FC
#60
#50
#40
#30
#20
#10
E7 , E8 , E9 , E10
ENGINE CONTROL MODULE
EB


B-Y
B-Y
B-Y
FROM POWER SOURCE SYSTEM (SEE PAGE 60)
J20
JUNCTION CONNECTOR
10A
TAIL
10A
MIRROR-
HEATER
15A
STOP
9 1C
11 1J
7 1C
W
2
S 6
STOP LIGHT SW
1
G-W
4 1R
5 1R
G-W
A A
C B
J27, J28
JUNCTION CONNECTOR
G-W
G-O
A
A
J12
JUNCTION CONNECTOR
G-O
B-Y
V 6
VSV (INTAKE AIR CONTROL)
R-Y
V 7
VSV (VAPOR PRESSURE SENSOR)
W-R
V 4
VSV (EGR)
Y-G
V 5
VSV (EVAP)
LG
3 A
2 A
24 A
6 B
8 B
12 B
2 B
ELS
ELS2
STP
ACIS
TPC
EGR
EVP1
E7 A, E8 B, E9 C, E10 D
ENGINE CONTROL MODULE
IGT1
IGT2
IGT3
IGF
VG
THA
E2G
24 D
16 D
15 D
12 D
8 C
21 C
7 B
G
Y
L
GR
BR-Y
LG-B
W-R
P
L-Y
R-B
I5
IGNITION COIL NO. 1
I6
IGNITION COIL NO. 2
I7
IGNITION COIL NO. 3
IGC3
IGC2
IGC1
IGT1
IGT2
IGT3
IGF
+B
GND
I2
IGNITER
VG
THA
E2G
M 2
MASS AIR FLOW METER
+B
E2
B-R
B-R
B-R
B-R
B-Y
B-R
BR
BR
B-Y
BR
ED


* 3 : TMC PRODUCTION VEHICLES
* 4 : TMM PRODUCTION VEHICLES
J20
JUNCTION CONNECTOR
I1
IDLE AIR CONTROL VALVE
H8
HEATED OXYGEN SENSOR (BANK 1 SENSOR 2)
H3
HEATED OXYGEN SENSOR (BANK 1 SENSOR 1)
H4
HEATED OXYGEN SENSOR (BANK 2 SENSOR 1)
D1
DATA LINK CONNECTOR 1
(SHIELDED)
RSO
RSC
HTS
OXS
HTR
OXR1
HTL
OXL1
TC
E7 A, E8 B, E9 C, E10 D
ENGINE CONTROL MODULE
E2
VTA1
VC
THG
THW
PTNK
EGLS
CF
PS
E1
EGR GAS TEMP. SENSOR
E5
ENGINE COOLANT TEMP. SENSOR
V1
VAPOR PRESSURE SENSOR
E2
EGR VALVE POSITION SENSOR
FROM FAN NO. 1 RELAY
P2
POWER STEERING OIL PRESSURE SW
T2
THROTTLE POSITION SENSOR


BR
(SHIELDED)
I 2
J22
JUNCTION
CONNECTOR
C 2
CRANKSHAFT
POSITION SENSOR
C 1
CAMSHAFT POSITION
SENSOR
(M/T)
B-R
B-W
L
W
G-R
V-W
NE+
NE-
G22+
E1
ADJ1
SIL
SPD
E7 A, E8 B, E9 C, E10 D
ENGINE CONTROL MODULE
KNKL
KNKR
ACT
A/C
TACH
E01
E02
E03
LG-B
B-Y
B-O
EC1
K2
KNOCK SENSOR 2
K1
KNOCK SENSOR 1
J27, J28
JUNCTION CONNECTOR
A12
A/C AMPLIFIER
AC1
IG-
EC


* 3 : TMC PRODUCTION VEHICLES
* 4 : TMM PRODUCTION VEHICLES
FROM POWER SOURCE SYSTEM (SEE PAGE 60)
7. 5A OBD
10A GAUGE
BR
(SHIELDED)
W
G-R
V-W
B-O
R-L
W-B
L
P
G-R
J28 JUNCTION CONNECTOR
J 4 JUNCTION CONNECTOR
J 7 JUNCTION CONNECTOR
D 5 DATA LINK CONNECTOR 3
SG
BAT
SIL
CG
J15 JUNCTION CONNECTOR
J24 JUNCTION CONNECTOR
J11 JUNCTION CONNECTOR
C 9 , C10
COMBINATION METER
TACHO
MALFUNCTION INDICATOR LAMP
SPEEDOMETER
V 2 VEHICLE SPEED SENSOR (COMBINATION METER)
SI
SE
IG+
ED
IG
IH

SERVICE HINTS

CIR OPN RELAY

(1) 3– **(1)** 5 : CLOSED WITH STARTER RUNNING

EFI RELAY

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

E 5 ENGINE COOLANT TEMP. SENSOR

1–2 : APPROX. **15.04** K Ω (**–20**° C, **–4**° F)
APPROX. **5.74** K Ω (**0**° C, **32**° F)
APPROX. **2.45** K Ω (**20**° C, **68**° F)
APPROX. **1.15** K Ω (**40**° C, **104**° F)
APPROX. **0.584** K Ω (**60**° C, **140**° F)
APPROX. **0.318** K Ω (**80**° C, **176**° F)

E 7 (A), E 8 (B), E 9 (C), E10 (D) ENGINE CONTROL MODULE

VOLTAGE AT ENGINE CONTROL MODULE WIRING CONNECTOR
BATT–E1 : ALWAYS **9.0–14.0** VOLTS
+B–E1 : **9.0–14.0** VOLTS (IGNITION SW AT **ON** POSITION)
VC–E2 : ALWAYS **4.5–5.5** VOLTS (IGNITION SW AT **ON** POSITION)
VTA1–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 FULLY OPEN)
VG–E2G : **1.1–1.5** VOLTS (ENGINE IDLING AND A/C SW OFF POSITION)
THA–E2 : **0.5–3.4** VOLTS (ENGINE IDLING AND INTAKE AIR TEMP. **20**° C, **68**° F)
THW–E2 : **0.2–1.0** VOLTS (ENGINE IDLING AND ENGINE COOLANT TEMP. **80**° C, **176**° F)
IGF–E1 : **4.5–5.5** VOLTS (IGNITION SW AT **ON** POSITION)
PULSE GENERATION (ENGINE IDLING)
G22+–NE– : PULSE GENERATION (ENGINE IDLING)
NE+–NE– : PULSE GENERATION (ENGINE IDLING)
NSW–E1 : **9.0–14.0** VOLTS (IGNITION SW ON AND OTHER SHIFT POSITION IN **P** OR **N** POSITION)
BELOW **3.0** VOLTS (IGNITION SW ON AND SHIFT POSITION IN **P** OR **N** POSITION)
SPD–E1 : PULSE GENERATION (IGNITION SW ON AND ROTATE DRIVING WHEEL SLOWLY)
TC–E1 : **9.0–14.0** VOLTS (IGNITION SW AT **ON** POSITION)
W–E1 : BELOW **3.0** VOLTS
A/C–E1 : BELOW **2.0** VOLTS (ENGINE IDLING AND A/C SW ON)
9.0–14.0 VOLTS (A/C SW OFF)
ACT–E1 : **9.0–14.0** VOLTS (ENGINE IDLING AND A/C SW ON)
BELOW **2.0** VOLTS (A/C SW OFF)
ACIS–E01 : **9.0–14.0** VOLTS (IGNITION SW AT **ON** POSITION)
STA–E1 : **6.0** VOLTS OR MORE (ENGINE CRANKING)
THG–E2 : **4.5–5.5** VOLTS (IGNITION SW AT **ON** POSITION)
ELS–E1 : **7.5–14.0** VOLTS (DEFOGGER SW OR TAILLIGHT SW AT **ON** POSITION)
0–1.5 VOLTS (DEFOGGER SW OR TAILLIGHT SW AT **OFF** POSITION)
ELS2–E1 : **7.5–14.0** VOLTS (DEFOGGER SW AT **ON** POSITION)
0–1.5 VOLTS (DEFOGGER SW AT **OFF** POSITION)
EGR–E01 : **9.0–14.0** VOLTS (IGNITION SW AT **ON** POSITION)
FC–E1 : **9.0–14.0** VOLTS (IGNITION SW AT **ON** POSITION)
0–3.0 VOLTS (ENGINE IDLING)
EVP1–E01: **9.0–14.0** VOLTS (IGNITION SW AT **ON** POSITION)
CF–E1 : **9.0–14.0** VOLTS (ELECTRIC COOLING FAN IS OPERATING ON HIGH SPEED)
0–2.0 VOLTS (ELECTRIC COOLING FAN IS OPERATING ON LOW SPEED OR OFF)
TACH–E1 : PULSE GENERATION (ENGINE IDLING)
TPC–E1 : **9.0–14.0** VOLTS (IGNITION SW ON AND DISCONNECT THE VACUUM HOSE FROM THE VAPOR PRESSURE SENSOR)
PTNK–E1 : **3.0–3.6** VOLTS (IGNITION SW AT **ON** POSITION)
1.3–9.1 VOLTS (IGNITION SW ON AND APPLY VACUUM **2.0** KPA (**15.0** mmHg, **0.6** in. Hg)
STP–E1 : **7.5–14.0** VOLTS (IGNITION SW ON AND BRAKE PEDAL DEPRESSED)
BELOW **1.5** VOLTS (IGNITION SW ON AND BRAKE PEDAL RELEASED)
SIL–E1 : PULSE GENERATION (DURING TRANSMISSION)
RSC, RSO–E01 : **9.0–14.0** VOLTS (IGNITION SW ON AND DISCONNECT **E 7** OF ENGINE CONTROL MODULE CONNECTOR)
KNKL, KNKR–E1 : PULSE GENERATION (ENGINE IDLING)
HTS, HTL, HTR–E03 : **9.0–14.0** VOLTS (IGNITION SW AT **ON** POSITION)
0–3.0 VOLTS (ENGINE IDLING)
OXS, OXL1, OXR1–E1 : PULSE GENERATION (MAINTAIN ENGINE SPEED AT **2500** RPM FOR TWO MINUTES AFTER WARMING UP)
IGT1, IGT2, IGT3–E1 : PULSE GENERATION (ENGINE IDLING)
#10, #20, #30, #40, #50, #60–E01 : **9.0–14.0** VOLTS (IGNITION SW AT **ON** POSITION)
PULSE GENERATION (ENGINE IDLING)

I 8, I 9, I10, I11, I12, I13 INJECTOR

2–1 : APPROX. **13.8** Ω

: PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A12	30	I 1	27 (1MZ-FE)	J24	31
C 1	26 (1MZ-FE)	I 2	27 (1MZ-FE)	J26	31
C 2	26 (1MZ-FE)	I 5	27 (1MZ-FE)	J27 A	31
C 7	30	I 6	27 (1MZ-FE)	J28 B	31
C 9 B	30	I 7	27 (1MZ-FE)	J29	31
C10 C	30	I 8	27 (1MZ-FE)	J40	32
D 1	26 (1MZ-FE)	I 9	27 (1MZ-FE)	K 1	27 (1MZ-FE)
D 5	30	I10	27 (1MZ-FE)	K 2	27 (1MZ-FE)
E 1	26 (1MZ-FE)	I11	27 (1MZ-FE)	M 2	27 (1MZ-FE)
E 2	26 (1MZ-FE)	I12	27 (1MZ-FE)	P 1	27 (1MZ-FE)
E 5	26 (1MZ-FE)	I13	27 (1MZ-FE)	P 2	27 (1MZ-FE)
E 7 A	30	I16	30	S 6	31
E 8 B	30	J 4	31	T 2	27 (1MZ-FE)
E 9 C	30	J 7 A	31	V 1	27 (1MZ-FE)
E10 D	30	J 8 B	31	V 2	27 (1MZ-FE)
F 4 A	26 (1MZ-FE)	J11	31	V 4	27 (1MZ-FE)
F 6 C	26 (1MZ-FE)	J12	31	V 5	27 (1MZ-FE)
F14	32	J15	31	V 6	27 (1MZ-FE)
H 3	26 (1MZ-FE)	J18	31	V 7	27 (1MZ-FE)
H 4	26 (1MZ-FE)	J20	31		
H 8	30	J22	31		

: RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	24	ENGINE ROOM R/B NO.1 (ENGINE COMPARTMENT LEFT)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1B	20	COWL WIRE AND INSTRUMENT PANEL J/B (LOWER FINISH PANEL)
1C		
1D	20	INSTRUMENT PANEL WIRE AND INSTRUMENT PANEL J/B (LOWER FINISH PANEL)
1J	20	COWL WIRE AND INSTRUMENT PANEL J/B (LOWER FINISH PANEL)
1K		
1R		
1W		
2A	22	ENGINE ROOM MAIN WIRE AND ENGINE ROOM J/B NO.2 (ENGINE COMPARTMENT LEFT)
2C		
2F		
2J	22	COWL WIRE AND ENGINE ROOM J/B NO.2 (ENGINE COMPARTMENT LEFT)
2K		
2L		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EB1	36 (1MZ-FE)	COWL WIRE AND ENGINE ROOM MAIN WIRE (UNDER THE ENGINE ROOM J/B NO.2)
EC1	36 (1MZ-FE)	ENGINE WIRE AND SENSOR WIRE (HEAD COVER RH)
ID1	40	FLOOR WIRE AND COWL WIRE (LEFT KICK PANEL)
IG3	40	INSTRUMENT PANEL WIRE AND COWL WIRE (UNDER THE BLOWER MOTOR)
II1	42	ENGINE WIRE AND COWL WIRE (UNDER THE BLOWER MOTOR)
II2		
II3		
IJ1	42	ENGINE WIRE AND INSTRUMENT PANEL WIRE (UNDER THE BLOWER MOTOR)

: GROUND POINTS

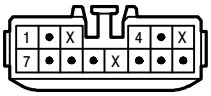
CODE	SEE PAGE	GROUND POINTS LOCATION
EB	36 (1MZ-FE)	LEFT RADIATOR SIDE SUPPORT
EC	36 (1MZ-FE)	SURGE TANK RH
ED	36 (1MZ-FE)	REAR SIDE OF THE SURGE TANK
IG	40	INSTRUMENT PANEL BRACE LH
IH	40	INSTRUMENT PANEL BRACE RH
BL	44	UNDER THE LEFT CENTER PILLAR

: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 2	42	ENGINE WIRE	I 3	42	COWL WIRE

* 1 : TMC PRODUCTION VEHICLES
* 2 : TMM PRODUCTION VEHICLES

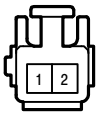
A12 ORANGE



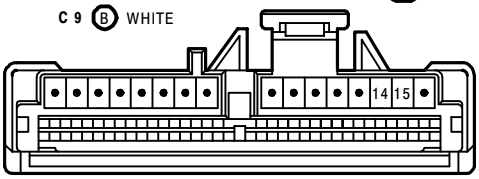
C 1 BLACK

C 2 BLACK

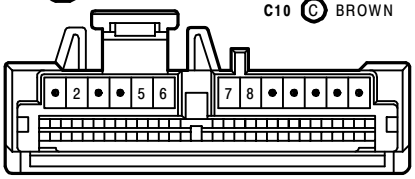
C 7 WHITE



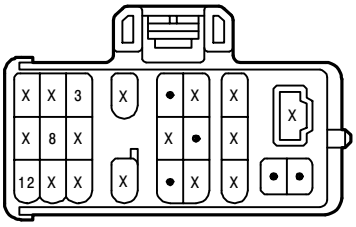
C 9 (B) WHITE



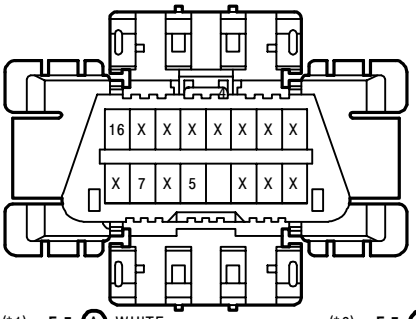
C10 (C) BROWN



D 1 BLACK



D 5 WHITE

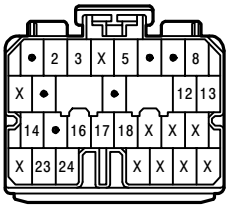


E 1 DARK GRAY

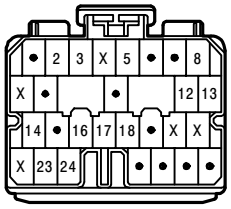
E 2 BLACK

E 5 DARK GRAY

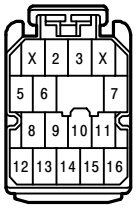
(*1) E 7 (A) WHITE



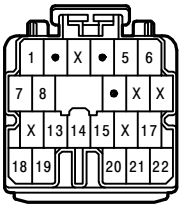
(*2) E 7 (A) WHITE



E 8 (B) WHITE



E 9 (C) WHITE



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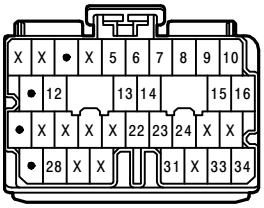

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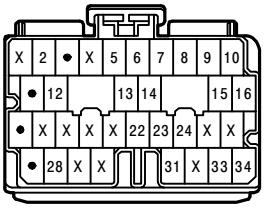
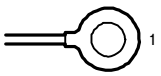


F 4 (A)



F 6 (C)

F14 WHITE

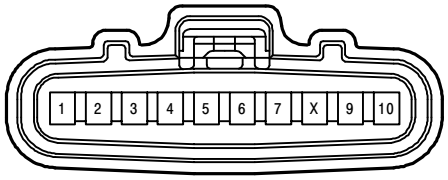
H 3 DARK GRAY

H 4 DARK GRAY

H 8 DARK GRAY

I 1 GRAY

I2 BLACK



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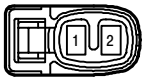

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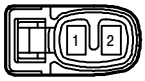
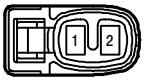


I7 BLACK



I8 GRAY

I9 GRAY

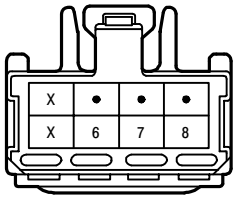
I10 GRAY

I11 GRAY

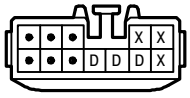
I12 GRAY

I13 GRAY

I16 WHITE

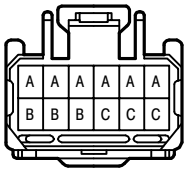


J4 BLACK



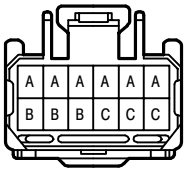
(HINT : SEE PAGE 7)

J7 (A) GRAY



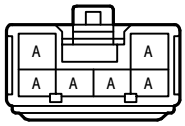
(HINT : SEE PAGE 7)

J8 (B) GRAY



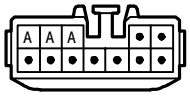
(HINT : SEE PAGE 7)

J11 WHITE



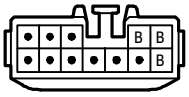
(HINT : SEE PAGE 7)

J12 BLACK



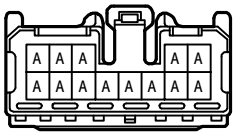
(HINT : SEE PAGE 7)

J15 BLACK



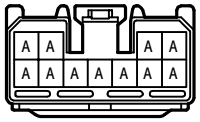
(HINT : SEE PAGE 7)

J18 ORANGE



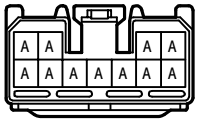
(HINT : SEE PAGE 7)

J20 WHITE



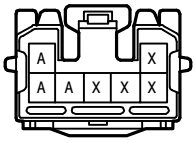
(HINT : SEE PAGE 7)

J22 WHITE



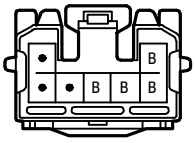
(HINT : SEE PAGE 7)

J24 WHITE



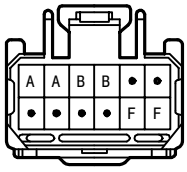
(HINT : SEE PAGE 7)

J26 WHITE



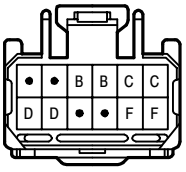
(HINT : SEE PAGE 7)

J27 (A) WHITE



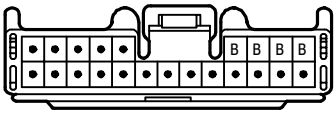
(HINT : SEE PAGE 7)

J28 (B) WHITE



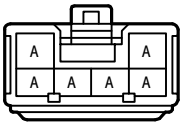
(HINT : SEE PAGE 7)

J29 WHITE



(HINT : SEE PAGE 7)

J40 WHITE

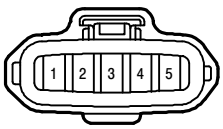


(HINT : SEE PAGE 7)

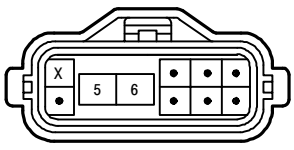
K1 DARK GRAY

K2 DARK GRAY

M2 BLACK

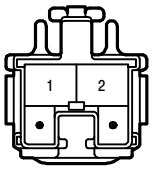


P1 GRAY



P2 BLACK

S6 BLUE

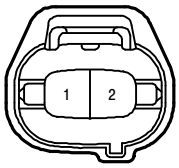


T2 BLACK

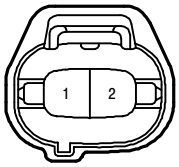
V1 GRAY

V2 BLACK

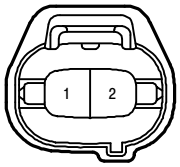
V4 BROWN



V5 BLUE



V6 BROWN



V7 BLUE