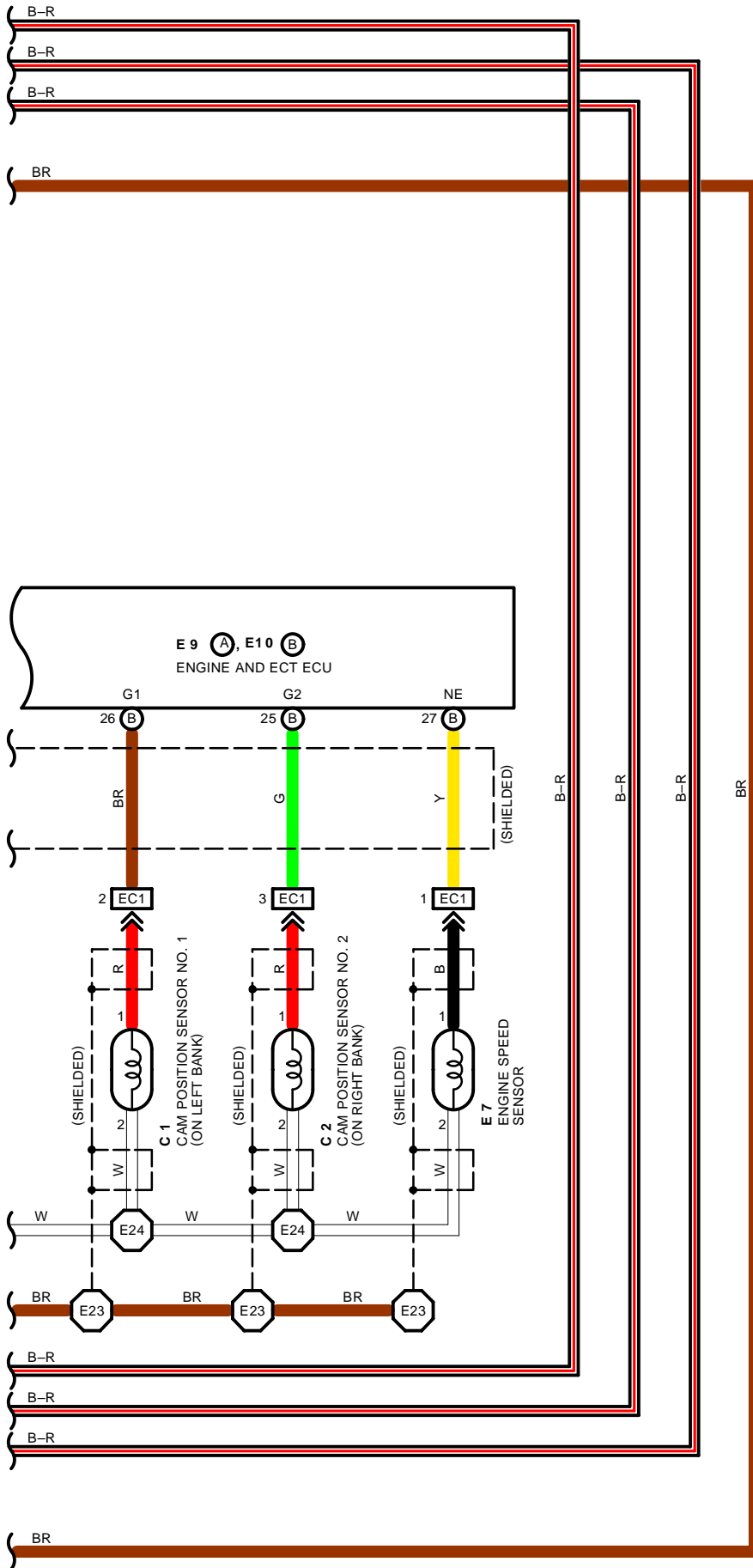


ENGINE CONTROL



SERVICE HINTS

EFI MAIN RELAY

2-4: CLOSED WITH IGNITION SW AT **ON** OR **ST** POSITION

E2 EFI WATER TEMP. SENSOR

1-2: APPROX. **16.2K Ω** (**-20°C, -4°F**)
: APPROX. **2.45K Ω** (**20°C, 68°F**)
: APPROX. **0.32K Ω** (**80°C, 176°F**)

E3 EGR GAS TEMP. SENSOR (FOR CALIFORNIA)

1-2: APPROX. **78.30K Ω** (**50°C, 122°F**)
APPROX. **13.06K Ω** (**100°C, 212°F**)
APPROX. **3.16K Ω** (**150°C, 302°F**)

E9, E10 ENGINE AND ECT ECU

(VOLTAGE AT ENGINE AND ECT ECU WIRING CONNECTORS)

BATT - E1 : ALWAYS APPROX. **12** VOLTS
IGSW - E1 : APPROX. **12** VOLTS WITH IGNITION SW ON
+B, +B1 - E1 : APPROX. **12** VOLTS WITH IGNITION SW ON
VC - E2 : **4-6** VOLTS WITH IGNITION SW ON
IDL1, IDL2 - E2 : **0-1** VOLTS WITH IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED
: **10-14** VOLTS WITH IGNITION SW ON AND THROTTLE VALVE FULLY OPEN
VTA1, VTA2 - E2 : **0.1-1.0** VOLTS WITH IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED
: **3-6** VOLTS WITH IGNITION SW ON AND THROTTLE VALVE FULLY OPEN
THA - E2 : **1-3** VOLTS WITH IGNITION SW ON AND INTAKE AIR TEMP. **20°C (68°F)**
THW - E2 : **0.1-1.0** VOLTS WITH IGNITION SW ON AND COOLANT TEMP. **80°C (176°F)**
STA - E1 : **6-14** VOLTS WITH ENGINE CRANKING
#10, #20, #30, #40 - E1 : APPROX. **12** VOLTS WITH IGNITION SW ON
IGF1, IGF2 - E1 : **0-1** VOLTS WITH ENGINE IDLING
MREL - E1 : APPROX. **12** VOLTS WITH IGNITION SW ON
DI - E1 : **7.5-14** VOLTS WITH ENGINE IDLING
FPU - E1 : APPROX. **12** VOLTS WITH IGNITION SW ON
PAG - E1 : APPROX. **12** VOLTS WITH ENGINE IDLING
ISC1, ISC2, ISC3, ISC4 - E1 : APPROX. **12** VOLTS WITH IGNITION SW ON
HTL1, HTR1, HTL2, HTR2 - E01: **0-2** VOLTS WITH ENGINE IDLING
EGR1, EGR2, EGR3, EGR4 - E1 : APPROX. **12** VOLTS WITH IGNITION SW ON
EGR - E1 : **12** VOLTS WITH ENGINE IDLING
NSW - E1 : **0-1** VOLTS WITH IGNITION SW ON AND SHIFT LEVER **P** OR **N** RANGE
: **10-14** VOLTS WITH IGNITION SW ON AND SHIFT EXCEPT **P** OR **N** RANGE
TE1 - E1 : APPROX. **12** VOLTS WITH IGNITION SW ON
TE2 - E1 : APPROX. **12** VOLTS WITH IGNITION SW ON
W - E1 : APPROX. **12** VOLTS WITH ENGINE IDLING
0-2 VOLTS WITH IGNITION SW ON
A/C - E1 : **0-2** VOLTS WITH AIR CONDITIONER ON
10-14 VOLTS WITH AIR CONDITIONER OFF
ACMG - E1 : **0-2** VOLTS WITH AIR CONDITIONER ON
: **10-14** VOLTS WITH AIR CONDITIONER OFF
TR - E1 : APPROX. **12** VOLTS WITH IGNITION SW ON
VTA1, VTA2 - E2 : **0-1** VOLTS WITH IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED
3-5.5 VOLTS WITH IGNITION SW ON AND THROTTLE VALVE FULLY OPEN
NEO - E1 : **4-6** VOLTS WITH IGNITION SW ON

ENGINE CONTROL

(RESISTANCE OF ENGINE AND ECT ECU WIRING CONNECTORS)

- +B, +B1 – #10, #20, #30, #40 : **13.2–14.2Ω**
- +B, +B1 –STJ: **2–4Ω**
- +B, +B1 – ISC1, ISC2, ISC3, ISC4 : **10–30Ω**
- +B, +B1 –FPU: **37–44Ω**
- +B, +B1 – EGR1, EGR2, EGR3, EGR4: **19.9–23.4Ω**
- +B, +B1 – EGR : **33–39Ω**
- +B, +B1, HTR1, HTR2 : **5.1–6.3Ω**
- +B, +B1 – PAG : **30–34Ω**
- IDL1, IDL2 – E2 : INFINITY WITH THROTTLE VALVE OPEN
- 0–2.3Ω** WITH THROTTLE VALVE FULLY CLOSED
- VTA1, VTA2 – E2 : **3.3–10Ω** WITH THROTTLE VALVE FULLY OPEN
- 200–800Ω** WITH THROTTLE VALVE FULLY CLOSED
- VC – E2 : **4–9KΩ**
- THW – E2 : **200–400Ω** WITH COOLANT TEMP. **80°C (176°F)**
- THA – E2 : **2–3KΩ** WITH INTAKE AIR TEMP. **20°C (68°F)**
- THG – E2 : **69.4–88.5KΩ** WITH EGR GAS TEMP. **50°C (112°F)**
- G1, G2 –G– : **0.835–13.5KΩ**
- NE– NE– : **0.835–13.5KΩ**

F12 FUEL PUMP RESISTOR

1 – 2 : APPROX. **0.7Ω**

I1 ISC VALVE

4, 6–5 : APPROX. **21.3Ω**
 1, 3–2 : APPROX. **21.3Ω**

I6, I7, I8, I9, I10, I11 I12, I13 INJECTOR

1 – 2 : APPROX. **13.8Ω**

O3, O4 OXYGEN SENSOR SUB

1 – 2 : APPROX. **5.6Ω (20°C, (68°F)**

T2 THROTTLE POSITION SENSOR

1 – 4 : APPROX. **4–9KΩ**
 1 – 3 : **3.3–10.0KΩ** WITH THROTTLE VALVE FULLY **OPENED** POSITION
 0.2–1.2KΩ WITH CLEARANCE BETWEEN LEVER AND STOP SCREW **0MM (0 IN.)**
 1 – 2 : LESS THAN **2.3KΩ** WITH CLEARANCE BETWEEN LEVER AND STOP SCREW **0.4 MM (0.0157 IN.)**
 INFINITY WITH CLEARANCE BETWEEN LEVER AND STOP SCREW **0.85MM (0.0335 IN.)**

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
A 9	26	I 1	27	N 1	27
C 1	26	I 2	27	O 3	27
C 2	26	I 3	27	O 4	27
C 3	26	I 6	27	O 6	29
C13	B 28	I 7	27	O 7	29
C14	A 28	I 8	27	S 1	27
E 2	26	I 9	27	S 3	27
E3	26	I10	27	S12	29
E4	26	I11	27	T 2	27
E 7	26	I12	27	T 6	29
E 9	A 28	I13	27	V 1	27
E10	B 28	I15	29	V 2	27
F 9	26	K 1	27	V 3	27
F15	30	K 2	27		
F16	30	K 3	29		

○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
2	19	ENGINE COMPARTMENT LEFT

 : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
1A	20	ENGINE ROOM MAIN WIRE
1B		
1E	20	INSTRUMENT PANEL WIRE
1H	20	COWL WIRE
1I		
1J		
1K		
3A	23	INSTRUMENT PANEL WIRE
3D		

 : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EB1	34	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (FRONT SIDE OF R/B NO.2)
EB2		
EC1	34	ENGINE WIRE AND ENGINE ROOM NO. 4 WIRE (FRONT SIDE OF CYLINDER HEAD COVER LH)
EC2		
ED1	34	ENGINE NO. 2 WIRE AND ENGINE WIRE (REAR SIDE OF AIR INTAKE CHAMBER)
Ee1	34	ENGINE WIRE AND ENGINE NO. 4 WIRE (REAR SIDE OF AIR INTAKE CHAMBER)
IE1	36	ENGINE WIRE AND COWL WIRE (R/B NO. 4)
IG2	36	INSTRUMENT PANEL WIRE AND COWL WIRE (R/B NO. 5)
IG3	38	INSTRUMENT PANEL WIRE AND COWL WIRE (RIGHT KICK PANEL)
IH1	36	COWL NO. 2 WIRE AND COWL WIRE (BEHIND COMBINATION METER)
II1	36	ENGINE WIRE AND A/C WIRE (BEHIND GLOVE BOX)
IJ1	36	ENGINE WIRE AND COWL WIRE (RIGHT KICK PANEL)
IJ2		
IK1	36	ENGINE WIRE AND INSTRUMENT PANEL WIRE (RIGHT KICK PANEL)
IK2		
BT1	40	FLOOR WIRE AND COWL WIRE (LEFT KICK PANEL)

 : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	34	FRONT SIDE OF LEFT FENDER
ED	34	REAR SIDE OF CYLINDER HEAD RH
EE	34	REAR SIDE OF CYLINDER HEAD LH
IF	36	LEFT KICK PANEL
IH	36	UNDER THE ASHTRAY LH
BK	40	UNDER THE CENTER PILLAR LH

 : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E10	34	ENGINE ROOM MAIN WIRE	I16	38	INSTRUMENT PANEL WIRE
E14			I17		
E15			I18		
E16			I19		
E17			I21		
E18			I22		
E19			I32		
E20			I33		
E21			I34		
E23			34		
E24	B12				
I13	38	COWL WIRE			

ENGINE CONTROL

