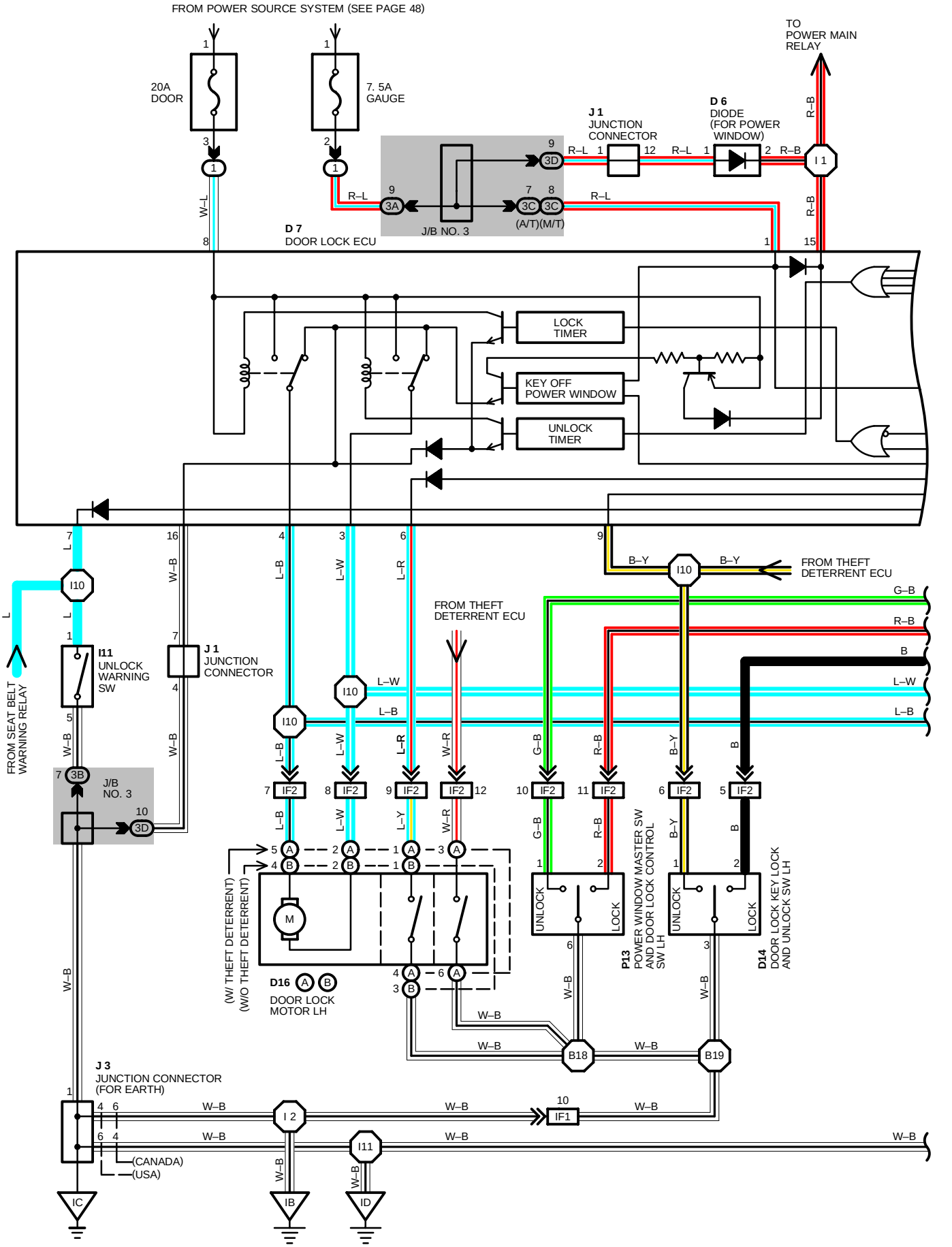
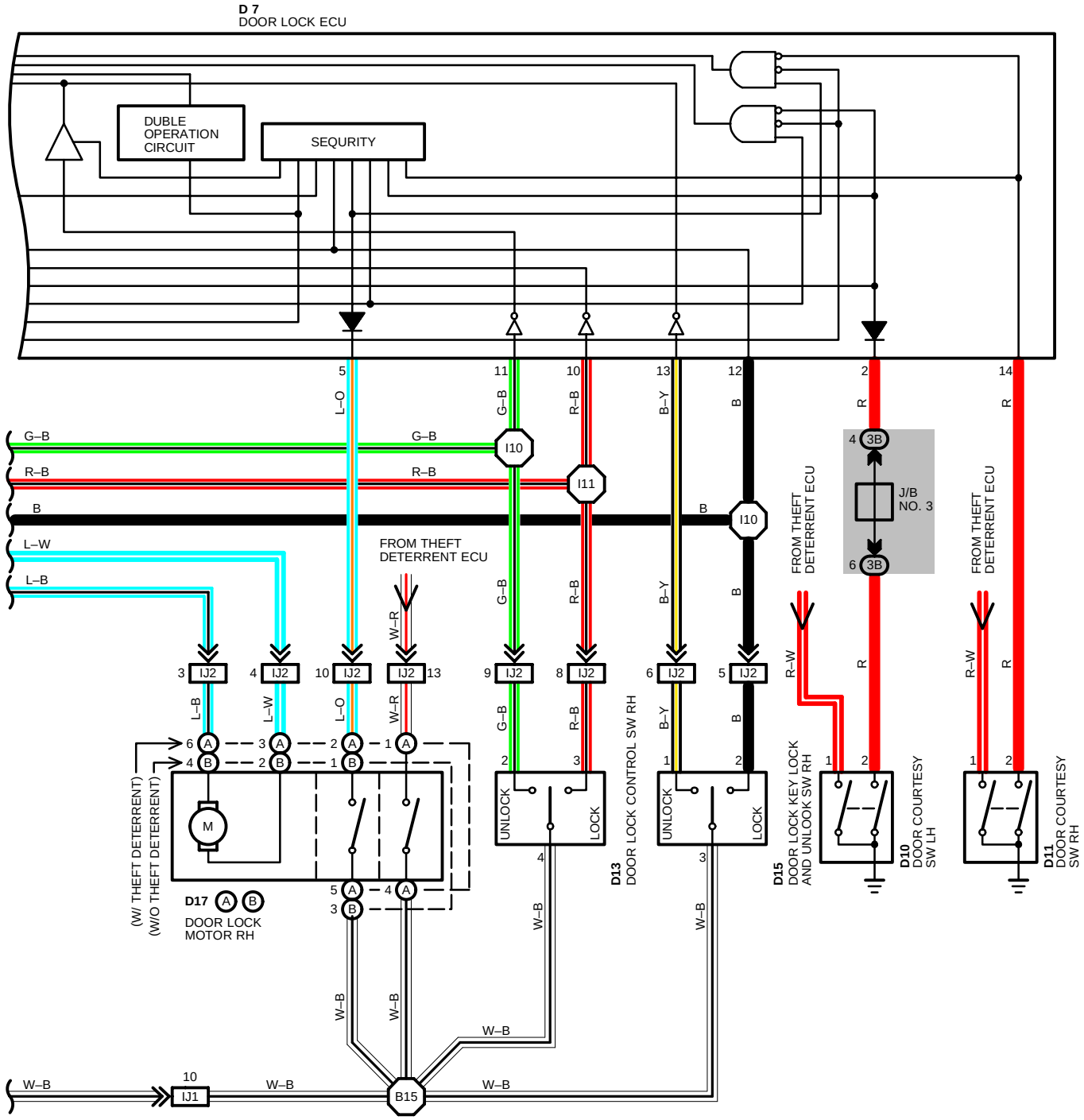
DOOR LOCK


FROM POWER SOURCE SYSTEM (SEE PAGE 48)
20A DOOR
7. 5A GAUGE
TO POWER MAIN RELAY
J 1 JUNCTION CONNECTOR
D 6 DIODE (FOR POWER WINDOW)
D 7 DOOR LOCK ECU
J/B NO. 3
(A/T)(M/T)
LOCK TIMER
KEY OFF POWER WINDOW
UNLOCK TIMER
FROM SEAT BELT WARNING RELAY
I11 UNLOCK WARNING SW
J 1 JUNCTION CONNECTOR
FROM THEFT DETERRENT ECU
(W/ THEFT DETERRENT)
(W/O THEFT DETERRENT)
D16 DOOR LOCK MOTOR LH
P13 POWER WINDOW MASTER SW AND DOOR LOCK CONTROL SW LH
D14 DOOR LOCK KEY LOCK AND UNLOCK SW LH
J 3 JUNCTION CONNECTOR (FOR EARTH)
(CANADA)
(USA)
B18
B19
IC
IB
ID


D 7
DOOR LOCK ECU
DUBLE OPERATION CIRCUIT
SEQURITY
L–O
G–B
R–B
B–Y
B
R
R–W
L–W
L–B
W–R
W–B
I10
I11
J/B NO. 3
FROM THEFT DETERRENT ECU
IJ2
IJ1
B15
M
UNLOCK
LOCK
D13
DOOR LOCK CONTROL SW RH
D15
DOOR LOCK KEY LOCK AND UNLOOK SW RH
D10
DOOR COURTESY SW LH
D11
DOOR COURTESY SW RH
D17
DOOR LOCK MOTOR RH
(W/ THEFT DETERRENT)
(W/O THEFT DETERRENT)

DOOR LOCK

SYSTEM OUTLINE

CURRENT ALWAYS FLOWS TO **TERMINAL 8** OF THE DOOR LOCK ECU THROUGH THE **DOOR** FUSE.

WITH THE IGNITION SW TURNED ON, CURRENT FLOWS THROUGH THE GAUGE FUSE TO **TERMINAL 1** OF THE DOOR LOCK ECU AND **TERMINAL 1** OF DIODE → **TERMINAL 2** → **TERMINAL 15** OF DOOR LOCK ECU.

1. MANUAL LOCK OPERATION

TO CHANGE DOOR LOCK SW AND KEY SW TO **LOCK** POSITION, A LOCK SIGNAL IS INPUT TO **TERMINALS 10, 12** OF THE DOOR LOCK ECU AND CAUSES THE ECU TO FUNCTION. CURRENT FLOWS FROM **TERMINAL 8** OF THE ECU → **TERMINAL 4** → **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT) OF THE DOOR LOCK MOTORS → **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT) → **TERMINAL 3** OF THE ECU → **TERMINAL 16** → TO **GROUND** AND DOOR LOCK MOTORS CAUSES THE DOOR LOCK.

2. MANUAL UNLOCK OPERATION

TO CAHNGE DOOR LOCK CONTROL SW AND KEY SW TO **UNLOCK** POSITION, AN UNLOCK SIGNAL IS INPUT TO **TERMINALS 11, 13** OF THE DOOR LOCK ECU, AND CAUSES THE ECU TO FUNCTION. CURRENT FLOWS FROM **TERMINAL 8** OF THE ECU → **TERMINAL 3** → **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT) OF THE DOOR LOCK MOTORS → **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT) → **TERMINAL 4** OF THE ECU → **TERMINAL 16** → TO **GROUND** AND DOOR LOCK MOTORS CAUSES DOOR TO UNLOCK.

3. DUBLE OPERATION UNLOCK OPERATION

WHEN THE DOOR LOCK KEY SW (DRIVER'S) IS TURNED TO THE UNLOCK SIDE, ONLY THE DRIVER'S DOOR IS MECHANICALLY UNLOCKED. TURNING THE DOOR LOCK KEY SW (DRIVER'S) TO THE UNLOCK SIDE CAUSES A SIGNAL TO BE INPUT TO **TERMINAL 9** OF THE ECU, AND IF THE SIGNAL IS INPUT AGAIN WITHIN **3** SECONDS BY TURNING THE SWITCH TO THE UNLOCK SIDE AGAIN CURRENT FLOWS FROM **TERMINAL 3** OF THE ECU → **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT) OF DOOR LOCK MOTORS → **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT) → **TERMINAL 4** OF THE ECU → **TERMINAL 16** → **GROUND,** CAUSING THE DOOR LOCK MOTOR TO OPERATE AND UNLOCK THE PASSENGER'S DOOR.

4. IGNITION KEY REMINDER OPERATION

∗ OPERATING DOOR LOCK KNOB (IN DOOR LOCK MOTORS OPERATION)

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE DOOR IS OPENED AND LOCKED USING DOOR LOCK KNOB (DOOR LOCK MOTOR), THE DOOR IS LOCKED ONCE BUT EACH DOOR IS UNLOCKED SOON BY THE FUNCTION OF THE ECU. AS A RESULT, THE CURRENT FLOWS FROM **TERMINAL 8** OF THE ECU → **TERMINAL 3** → **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT) OF THE DOOR LOCK MOTORS → **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT) → **TERMINAL 4** OF THE ECU → **TERMINAL 16** → TO **GROUND** AND CAUSES ALL THE DOORS TO UNLOCK.

∗ OPERATING DOOR LOCK CONTROL SW OR DOOR LOCK KEY SW

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE DOOR IS OPENED AND LOCKED USING DOOR LOCK CONTROL SW OR KEY SW, THE DOOR IS LOCKED ONCE BUT EACH DOOR IS UNLOCK BY THE FUNCTION OF SW CONTAINED IN MOTORS, WHICH THE SIGNAL IS INPUT TO **TERMINAL 6** (DRIVER'S) OR **5** (PASSENGER'S) OF THE ECU. ACCORDING TO THIS INPUT SIGNAL, THE CURRENT IN THE ECU FLOWS FROM **TERMINAL 8** OF THE ECU → **TERMINAL 3** → **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT) OF THE DOOR LOCK MOTORS → **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT) → **TERMINAL 4** OF THE ECU → **TERMINAL 16** → TO **GROUND** AND CAUSES ALL THE DOORS TO UNLOCK.

∗ IN CASE OF KEY LESS LOCK

WITH IGNITION KEY IN CYLINDER (UNLOCK WARNING SW ON), WHEN THE UNLOCK FUNCTION IS DISTURBED MORE THAN **0.2** SECONDS, FOR EXAMPLE PUSHING THE DOOR LOCK KNOB ETC., THE DOOR HOLDS ON LOCK CONDITION. CLOSING THE DOOR AFTER, DOOR COURTESY SW INPUTS THE SIGNAL INTO **TERMINAL 2** OR **14** OF THE ECU. BY THIS INPUTS SIGNAL, THE ECU WORKS AND CURRENT FLOWS FROM **TERMINAL 8** OF THE ECU → **TERMINAL 3** → **TERMINAL (A)2** (LH), **(A)3** (RH) (W/ THEFT DETERRENT), **(B)2** (W/O THEFT DETERRENT) OF THE DOOR LOCK MOTORS → **TERMINAL (A)5** (LH), **(A)6** (RH) (W/ THEFT DETERRENT), **(B)4** (W/O THEFT DETERRENT) → **TERMINAL 4** OF THE ECU → **TERMINAL 16** → TO **GROUND** AND CAUSES ALL THE DOORS TO UNLOCK.

SERVICE HINTS

D6 DOOR LOCK ECU

16–GROUND: ALWAYS CONTINUITY
2–GROUND: CONTINUITY WITH DRIVER'S DOOR OPEN
8–GROUND: ALWAYS APPROX. **12** VOLTS
3–GROUND: APPROX. **12** VOLTS FOR **0.2** SECONDS WITH FOLLOWING OPERATIONS:
* DOOR LOCK CONTROL SW UNLOCKED
* DOOR LOCK CONTROL SW LOCKED WITH IGNITION KEY IN CYLINDER AND DRIVER'S DOOR OPEN (IGNITION KEY REMINDER FUNCTION)
* DOOR LOCK KNOB LOCKED WITH IGNITION KEY IN CYLINDER AND DRIVER'S DOOR OPEN (IGNITION KEY REMINDER FUNCTION)
* UNLOCKING THE DRIVER'S PASSENGER'S DOOR CYLINDER WITH A KEY

4–GROUND: APPROX. **12** VOLTS **0.2** SECONDS WITH FOLLOWING OPERATION:
* DOOR LOCK CONTROL SW IS LOCKED
* LOCKING THE DRIVER'S PASSENGER'S DOOR CYLINDER WITH KEY

10–GROUND: CONTINUITY WITH DOOR LOCK CONTROL SW LOCKED
14–GROUND: CONTINUITY WITH PASSENGER'S DOOR OPEN
6–GROUND: CONTINUITY WITH DRIVER'S DOOR LOCK KNOB UNLOCKED
5–GROUND: CONTINUITY WITH PASSENGER'S DOOR LOCK KNOB UNLOCKED
11–GROUND: CONTINUITY WITH DOOR LOCK CONTROL SW UNLOCKED
13–GROUND: CONTINUITY WITH PASSENGER'S DOOR LOCK CYLINDER UNLOCKED WITH KEY
7–GROUND: CONTINUITY WITH IGNITION KEY IN THE KEY CYLINDER
1–GROUND: APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION
9–GROUND: CONTINUITY WITH DRIVER'S DOOR LOCK CYLINDER UNLOCKED WITH KEY
15–GROUND: APPROX. **12** VOLTS WITH IGNITION SW AT **ON** POSITION AND STAYS AT **12** VOLTS FOR **60** SECONDS AFTER THE IGNITION SW IS TURNED OFF, BUT IF A DOOR IS OPENED IN THIS **60** SECOND PERIOD, VOLTAGE WILL DROP TO **0** VOLTS
12–GROUND: CONTINUITY WITH DRIVER'S, PASSENGER'S DOOR LOCK CYLINDER LOCKED WITH KEY

I11 UNLOCK WARNING SW

1–5: CLOSED WITH IGNITION KEY IN CYLINDER

D14, D15 KEY LOCK AND UNLOCK SW

1–3: CLOSED WITH DOOR LOCK CYLINDER UNLOCKED WITH KEY
2–3: CLOSED WITH DOOR LOCK CYLINDER LOCKED WITH KEY

D10, D11 DOOR COURTESY SW

2–GROUND: CLOSED WITH DOOR OPEN

: PARTS LOCATION

CODE	SEE PAGE	CODE		SEE PAGE	CODE		SEE PAGE
D 6	26	**D14**		27	**D17**	B	27
D 7	26	**D15**		27	**I11**		26
D10	27	**D16**	A	27	**J 1**		26
D11	27		B	27	**J 3**		26
D13	27	**D17**	A	27	**P13**		27

: RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
1	20	R/B NO. 1 (LEFT KICK PANEL)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
3A	22	COWL WIRE AND J/B NO. 3 (BEHIND COMBINATION METER)
3B		
3C		
3D		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
IF1	32	COWL WIRE AND FRONT DOOR LH WIRE (LIFT KICK PANEL)
IF2	32	FRONT DOOR LH WIRE AND COWL WIRE (LEFT KICK PANEL)
IJ1	34	COWL WIRE AND FRONT DOOR RH WIRE (RIGHT KICK PANEL)
IJ2	34	FRONT DOOR RH WIRE AND COWL WIRE (RIGHT KICK PANEL)

: GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
IB	32	LEFT KICK PANEL
IC	32	INSTRUMENT PANEL BRACE LH
ID	32	RIGHT KICK PANEL

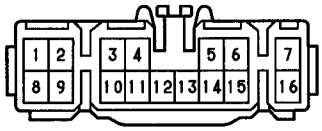
DOOR LOCK

: SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
I 1	34	COWL WIRE	B15	36	FRONT DOOR RH WIRE
I 2			B18	36	FRONT DOOR LH WIRE
I10			B19		
I11					

D 6 BLACK

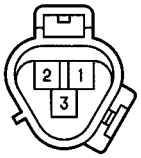
D 7



D10, D11

D13

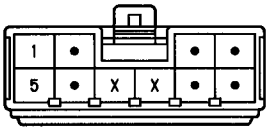
D14, D15 GRAY



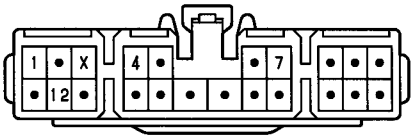
D16 Ⓐ, D17 Ⓐ

D16 Ⓑ, D17 Ⓑ

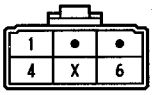
I11 BLACK



J 1



J 3



P13