

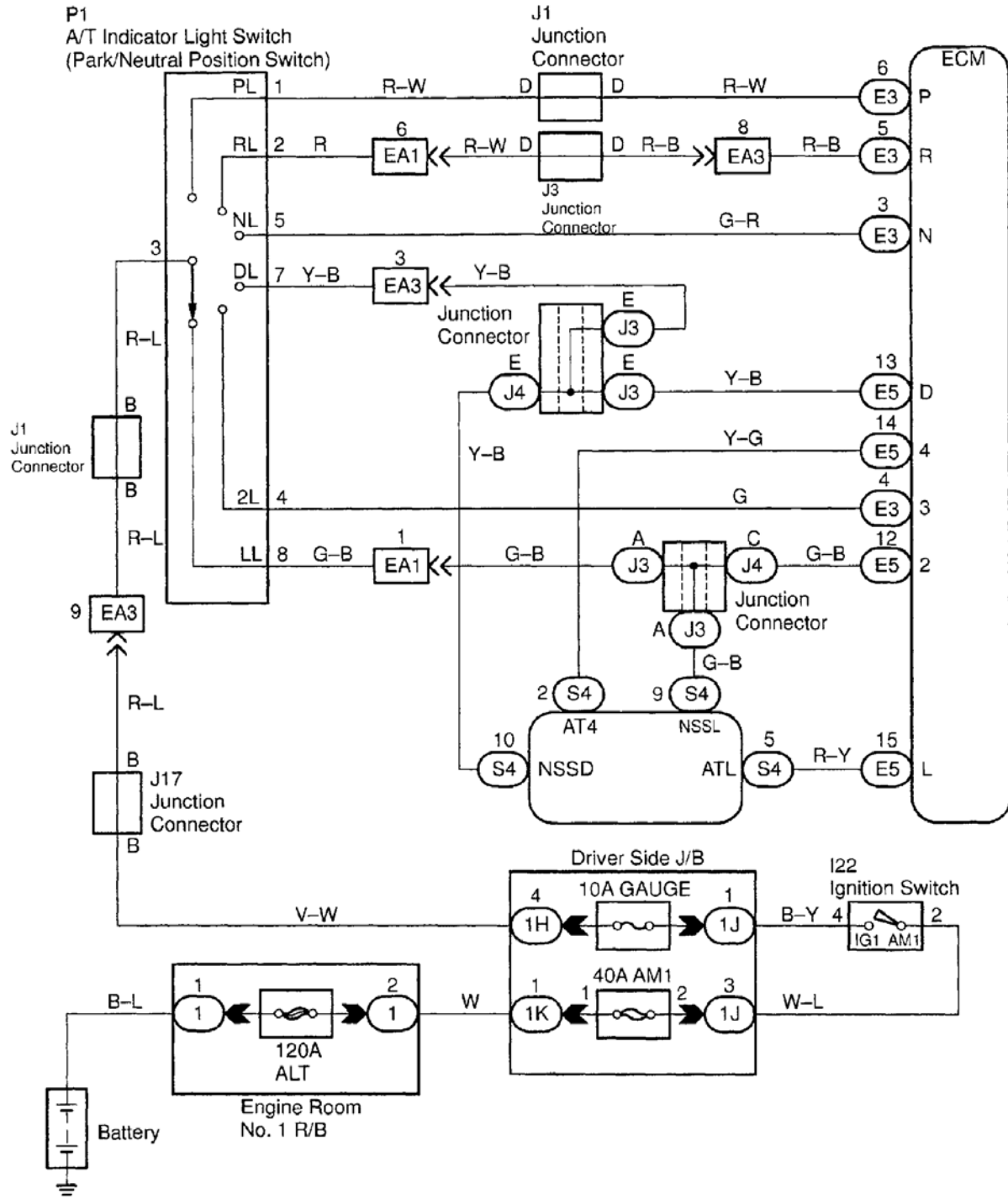
DTC P0705: PARK/NEUTRAL POSITION SWITCH MALFUNCTION

CAUTION: If ECM replacement is instructed in following testing, always ensure ECM harness connector and ground circuit are okay. If either are suspect, repair and repeat testing to confirm ECM malfunction. If ECM is replaced, ECM must be programmed with proper ignition key code for engine immobilizer system. For programming procedures, see **COMPUTER RELEARN PROCEDURES - LEXUS** article in **GENERAL INFORMATION**.

Circuit Description

Park/neutral position switch detects the shift lever position and sends signals to the ECM. The ECM receives signals (P, R, N, D, 4, 3, 2 and L) from the park/neutral position switch. When the signal is not sent to the ECM from the park/neutral position switch, the ECM judges that the shift lever is in "D" position. When the shift lever is in the "M" position (with E-shift main switch for "D" and "M" pressed), "M" in the shift position indicator light will come on and when the shift lever is in the "D" position (with E-shift main switch for "D" and "M" released), "D" in the shift position indicator light will come on. When the shift lever is in the "L" position (with E-shift main switch for 2 and "L" pressed), "L" in the shift position indicator light will come on. When the shift lever is in the "2" position (with E-shift main switch for "2" and "L" released), "2" in the shift position indicator light will come on. When the shift lever is in 4 or "M" position, the ECM prohibits shifting to 5th. See [Fig. 87](#) . Possible causes are:

- Open or short in Park/Neutral Position (PNP) switch circuit.
- Faulty PNP switch.
- Faulty ECM.



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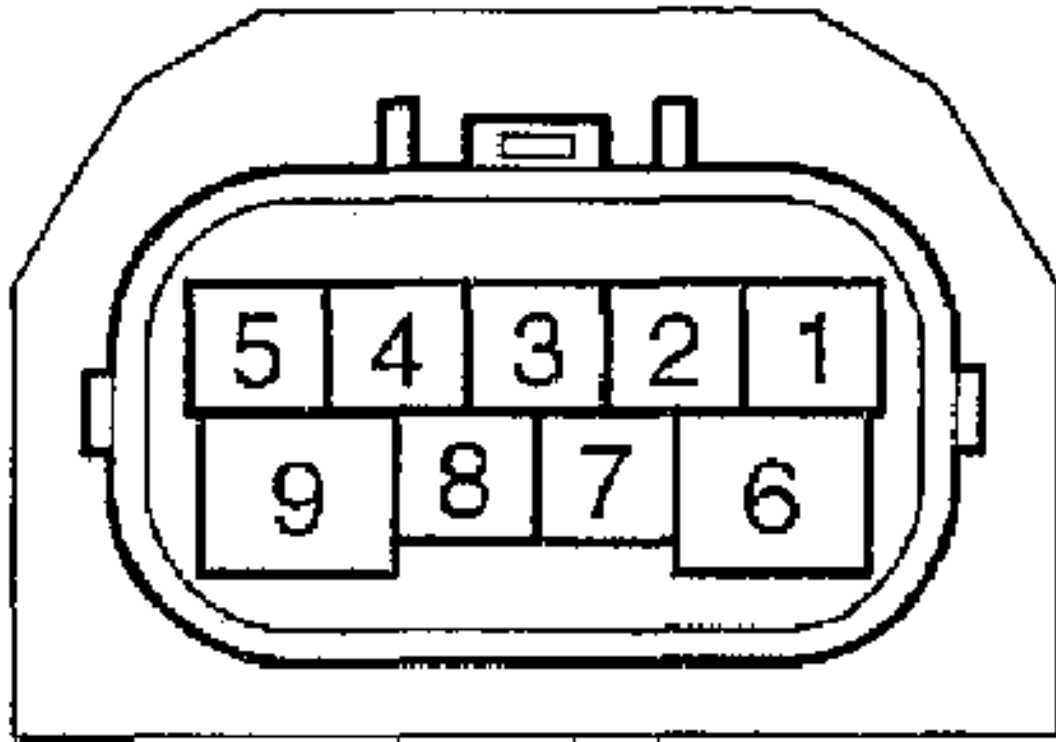
Fig. 87: Identifying Park/Neutral Position Switch Circuits
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Diagnostic Aids

Using scan tool, read freeze frame data. Freeze frame records engine conditions when malfunction is detected.

Diagnosis & Repair

1. Jack up the vehicle. Disconnect the park neutral position switch connector. Check continuity between each terminal. See [Fig. 88](#) . See **PARK/NEUTRAL POSITION SWITCH CONTINUITY CHECK** table. Replace switch as necessary. If switch is okay, go to next step.



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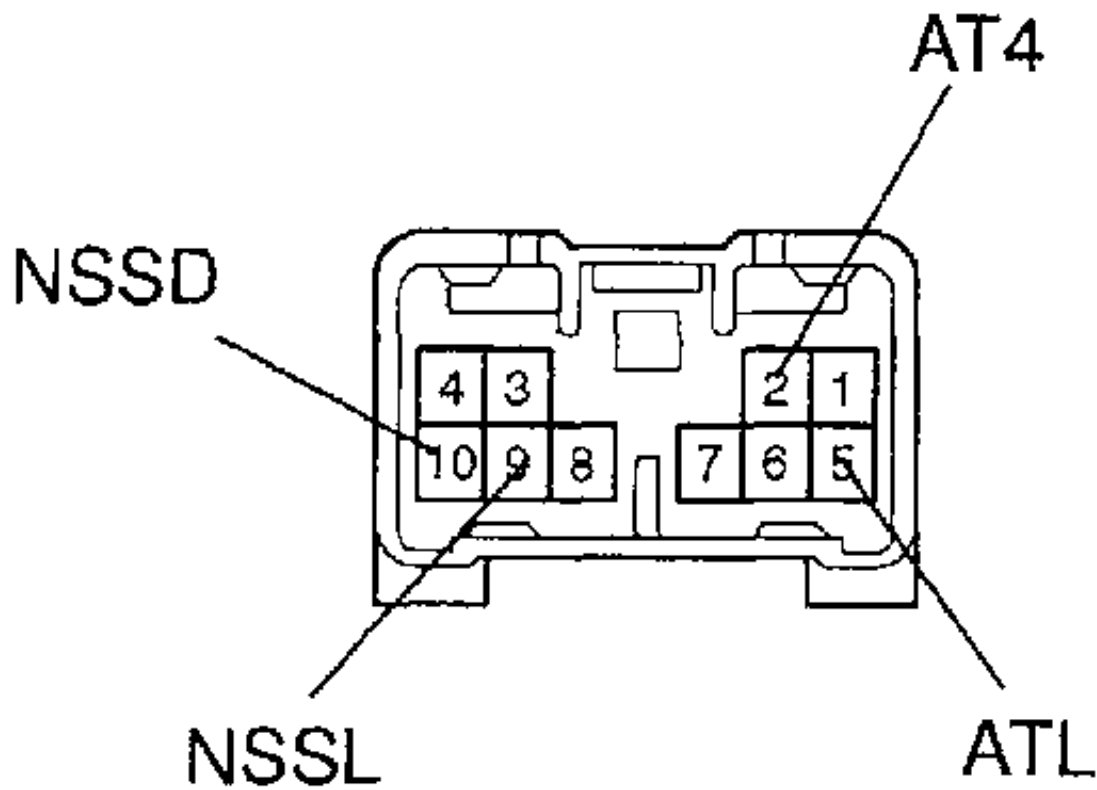
Fig. 88: Identifying Park/Neutral Position Switch Connector Terminals
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

PARK/NEUTRAL POSITION SWITCH CONTINUITY CHECK

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Shift Position	Terminal No. To Continuity
P	1-3, 6-9
R	2-3
N	3-5, 6-9
D, M	3-7
3	3-4
2, L	3-8

2. Reconnect park neutral position switch connector. Disconnect the shift lock control unit connector. See [Fig. 89](#) . Check continuity between each terminal of shift lock control unit connector. See **SHIFT LOCK CONTROL UNIT CONNECTOR CONTINUITY CHECK** table. Replace control unit as necessary. If okay, go to next step.



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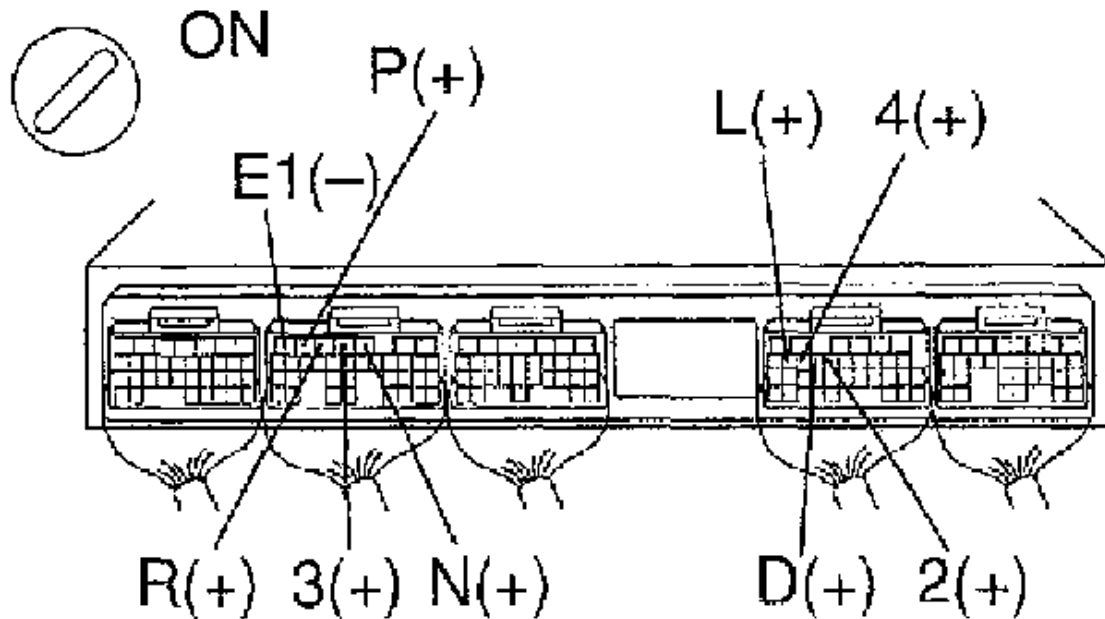
Fig. 89: Identifying Shift Lock Control Unit Connector Terminals

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

SHIFT LOCK CONTROL UNIT CONNECTOR CONTINUITY CHECK

Shift Position	Tester Connection	Specified Value
D	10-2 (NSSD-AT4)	No Continuity
M	10-2 (NSSD-AT4)	Continuity
2	9-5 (NSSL-ATL)	No Continuity
L	9-5 (NSSL-ATL)	Continuity

3. Connect the shift lock control unit assembly. Turn the ignition switch ON. Measure voltage between each terminal P, R, N, D, 4, 3, 2 and L, and E1 of ECM when the shift lever is shifted to the following positions. See [Fig. 90](#) . See **IDENTIFYING ECM CONNECTORS & TERMINALS** table. Battery voltage should exist at all terminals. If voltage is not as specified, repair harness or connector as necessary. If okay, replace ECM.



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Fig. 90: Identifying P, R, N, D, 4, 3, 2, L & E1 ECM Terminals

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

IDENTIFYING ECM CONNECTORS & TERMINALS

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Shift Lever Gear Position	ECM Connector	Terminal No. (Wire Color)
Park	E3	6 (Red/White)
Reverse ⁽¹⁾	E3	5 (Red/Black)
Neutral	E3	3 (Green/Red)
Drive	E5	13 (Yellow/Black)
4	E5	14 (Yellow/Green)
3	E3	4 (Green)
2	E5	12 (Green/Black)
L	E5	15 (Red/Yellow)

(1) Voltage should be less due to back-up light illuminating.