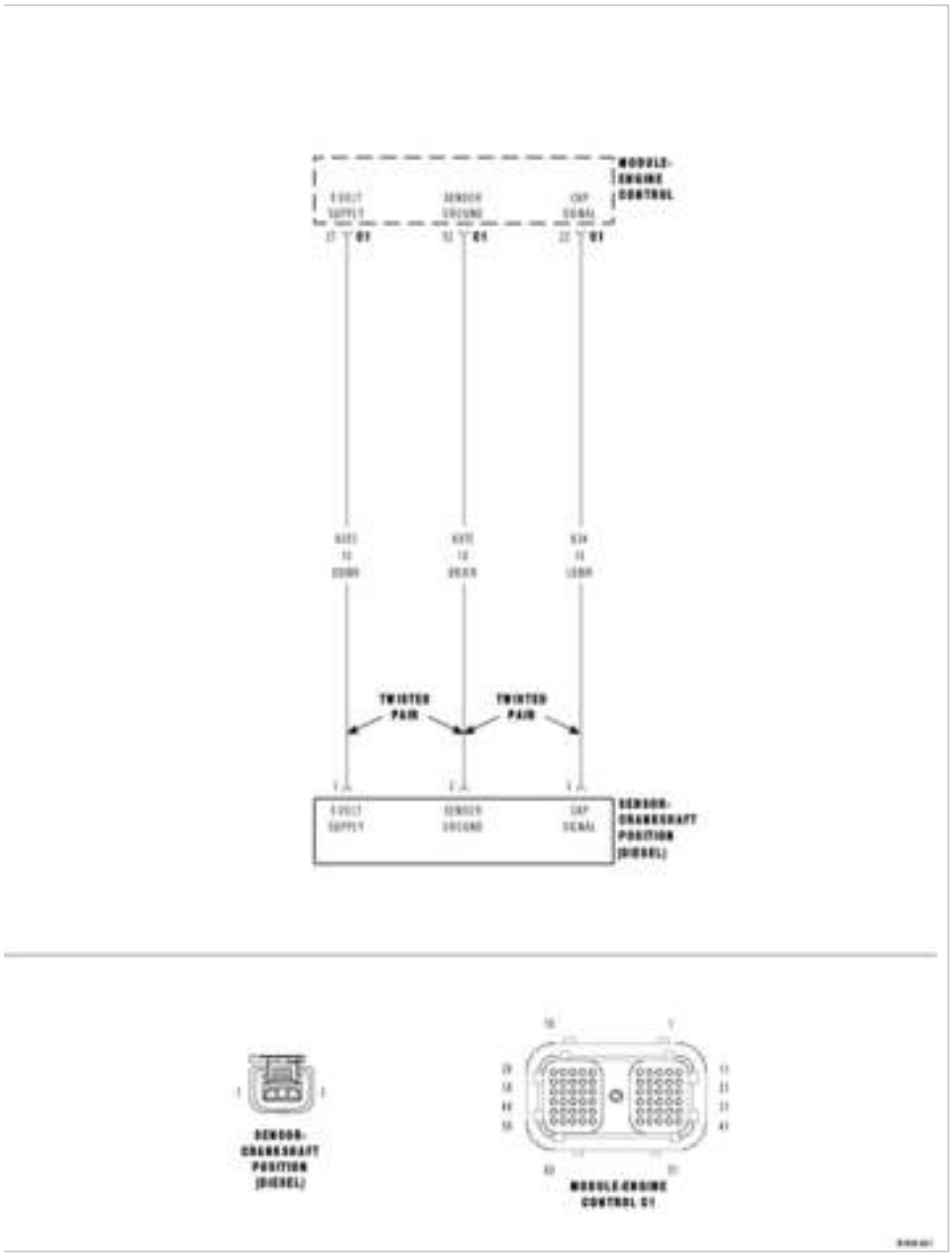
2008 Dodge or Ram Truck RAM 2500 Truck 4WD L6-5.9L DSL Turbo
Vehicle > ALL Diagnostic Trouble Codes (DTC) > Testing and Inspection > P Code Charts > P0335

5.9L DIESEL

P0335-CRANKSHAFT POSITION (CKP) LOST



For a complete wiring diagram **Refer to Diagrams/Electrical**.

- **When Monitored:**
  While the engine is running.

- **Set Condition:**

The ECM no longer detects a signal from the Crankshaft Position Sensor.

Possible Causes
OTHER DTC'S
P0337 PRESENT
CKP SENSOR
VISUAL DAMAGE
(K24) SIGNAL CIRCUIT OPEN
(K853) 5-VOLT SUPPLY CIRCUIT OPEN
(K975) RETURN CIRCUIT OPEN
(K24) SIGNAL CIRCUIT SHORTED TO (K975) RETURN CIRCUIT
(K853) 5-VOLT SUPPLY CIRCUIT SHORTED TO (K975) RETURN CIRCUIT
(K24) SIGNAL CIRCUIT SHORTED TO (K853) 5-VOLT SUPPLY CIRCUIT
(K24) SIGNAL CIRCUIT SHORTED TO GROUND
(K853) 5-VOLT SUPPLY CIRCUIT SHORTED TO BATTERY NEGATIVE
INTERMITTENT CONDITION
ECM

Always perform the Pre-Diagnostic Troubleshooting procedure before proceeding. See: Computers and Control Systems > Initial Inspection and Diagnostic Overview > Pre-Diagnostic Troubleshooting Procedure

Diagnostic Test

1. OTHER DTC'S
With the scan tool, read DTCs.
Is DTC P2146 and/or P2149 present?

Yes

- Repair other DTC's.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test

No

- Go To 2

2. P0337 PRESENT
With the scan tool, read DTCs.
Is P0337 present?

Yes

- Repair P0337 first.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test

No

- Go To 3

3. VISUAL DAMAGE
Visually inspect the sensor, engine belt, sensor connector, and the ECM connector.
Is there any damage?

Yes

- Repair or replace the sensor, engine belt, harness, or the ECM.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test

No

- Go To 4

4. CKP SENSOR
Disconnect the CKP sensor harness connector.

NOTE: Check connectors - Clean/repair as necessary.

Measure the resistance between the (K853) 5-volt supply circuit and the (K24) signal circuit of the sensor.
Is the resistance between 900 and 1100 ohms?

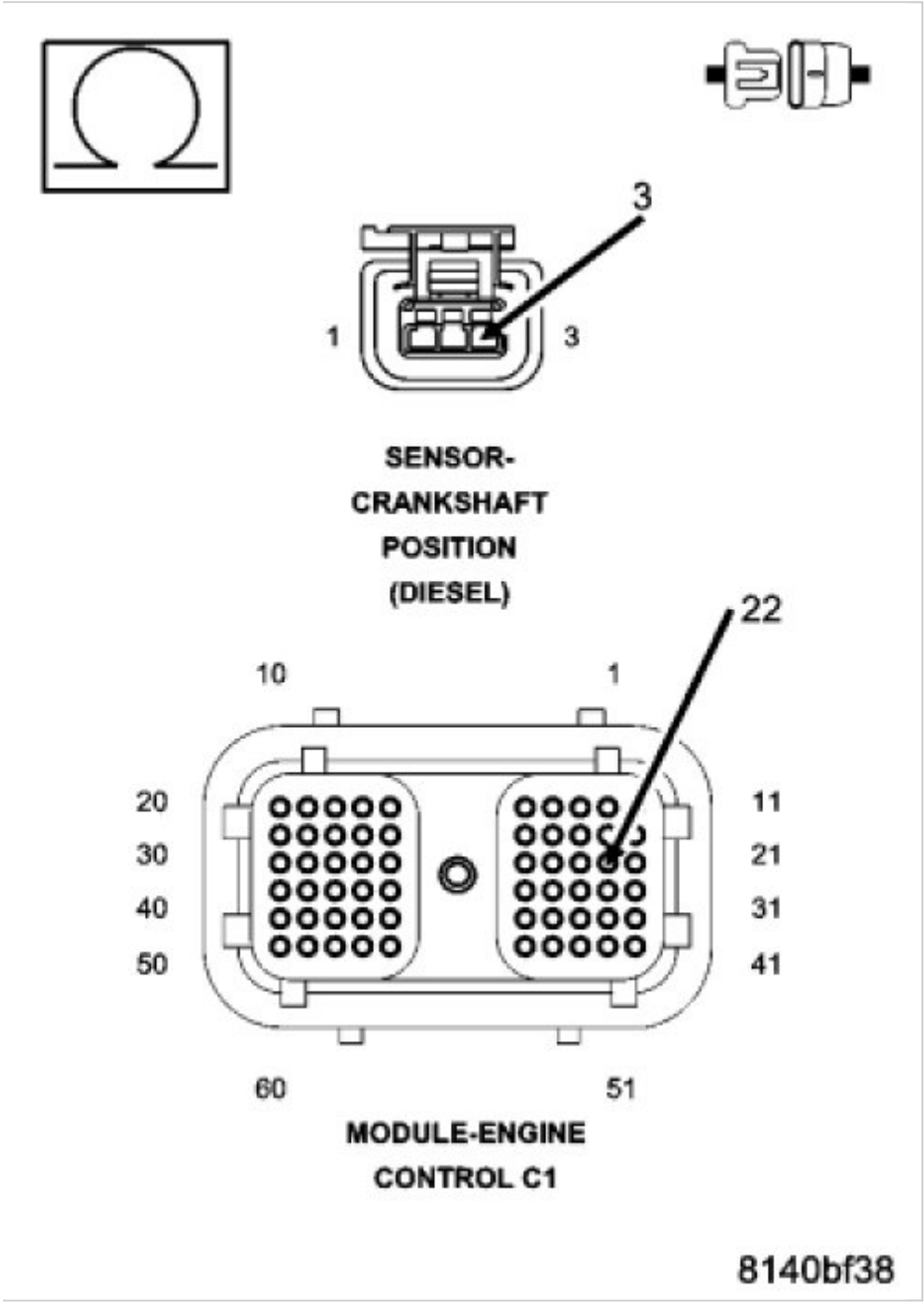
Yes

- Go To 5

No

- Replace the CKP sensor.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test

5. (K24) SIGNAL CIRCUIT OPEN



Disconnect the ECM harness connectors.
Disconnect the CKP sensor harness connector.
Check connectors - Clean/repair as necessary.
Measure the resistance of the (K24) signal circuit between the ECM harness connector and the CKP sensor harness connector.
Is the resistance less than 10 ohms?

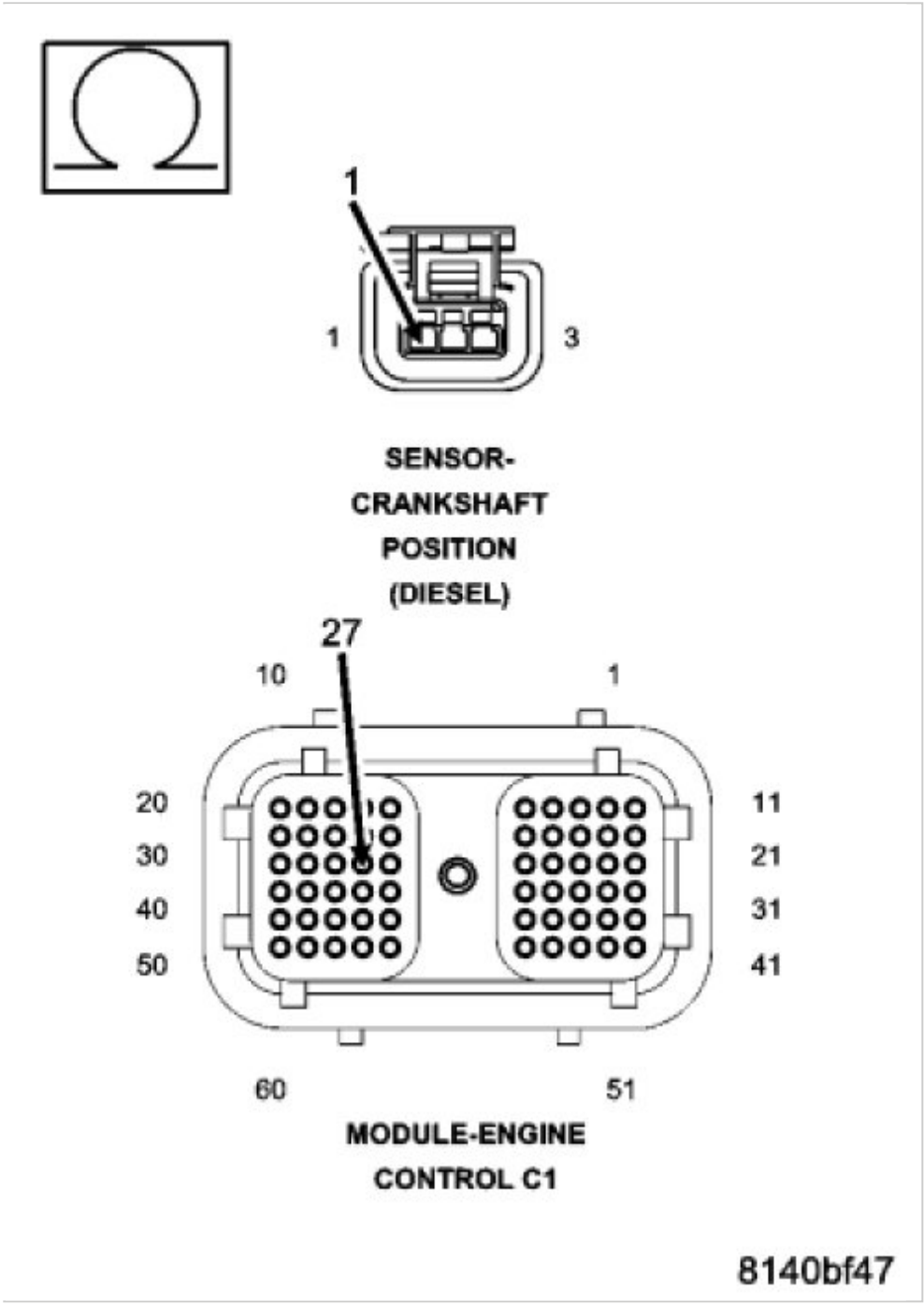
Yes

- Go To 6

No

- Repair the open (K24) signal circuit.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test

6. (K853) 5-VOLT SUPPLY CIRCUIT OPEN



Measure the resistance of the (K853) 5-volt supply circuit between the ECM harness connector and the CKP sensor harness connector.
Is the resistance less than 10 ohms?

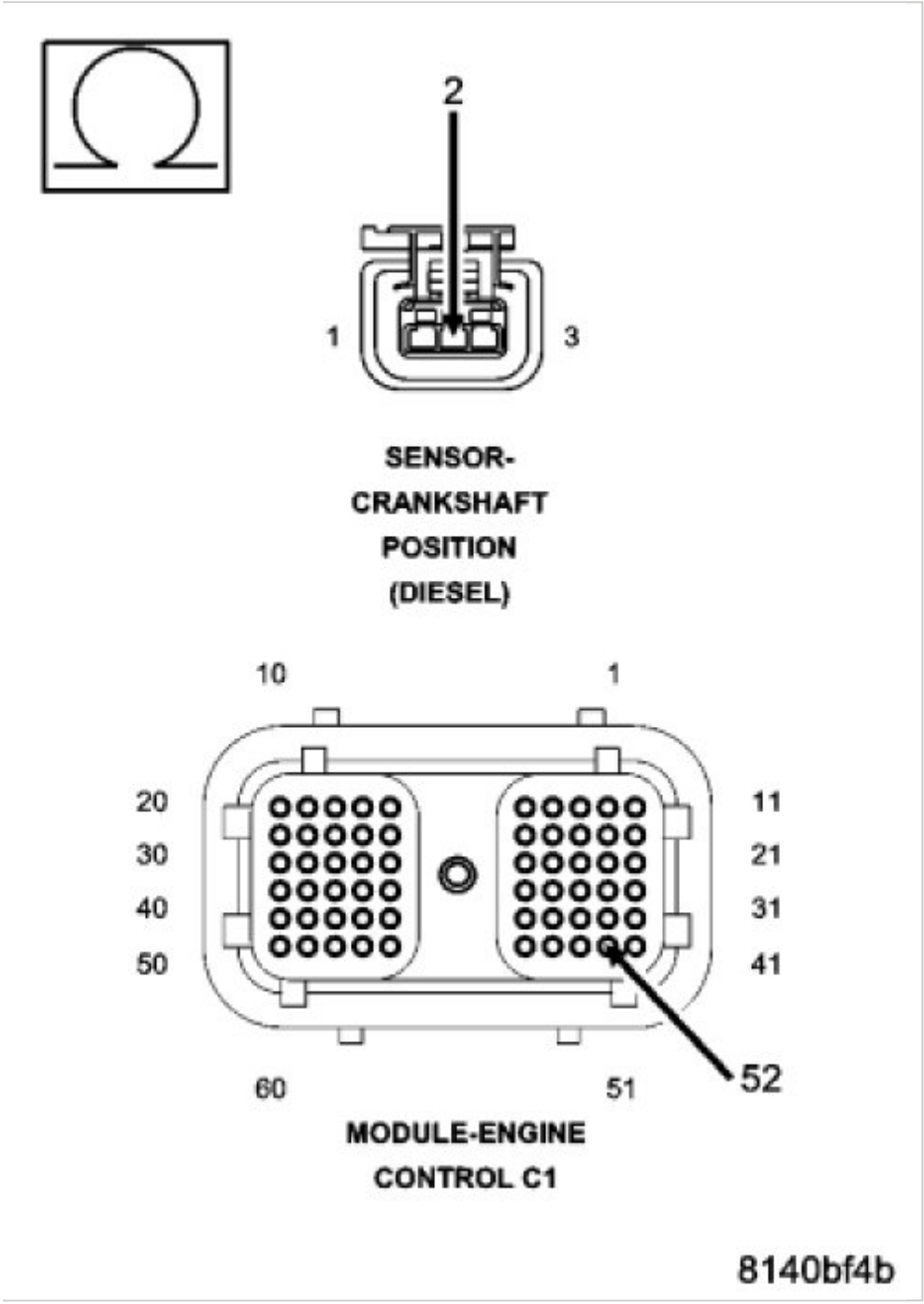
Yes

- Go To 7

No

- Repair the open (K853) 5-volt supply circuit.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test

7. (K975) RETURN CIRCUIT OPEN



Measure the resistance of the (K975) return circuit between the ECM harness connector and the CKP sensor harness connector.

Is the resistance less than 10 ohms?

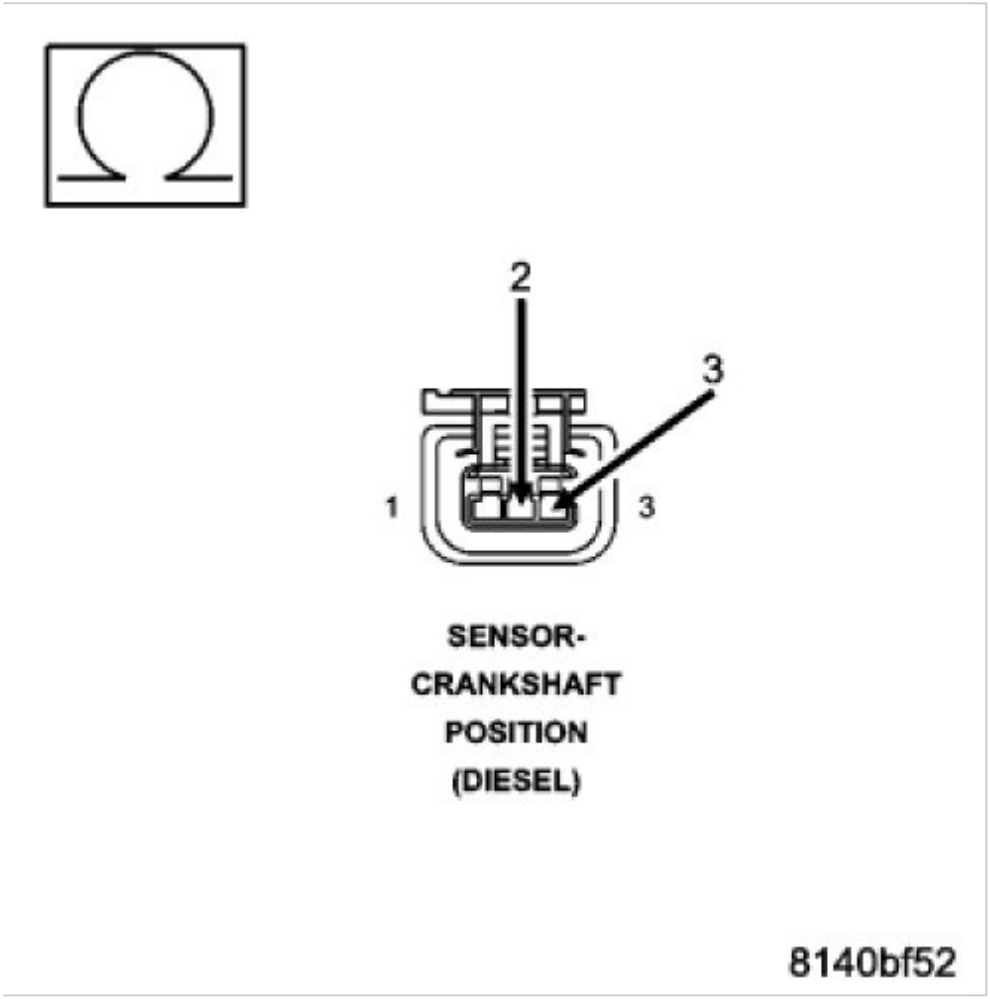
Yes

- Go To 8

No

- Repair the open (K975) return circuit.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test

8. (K24) SIGNAL CIRCUIT SHORTED TO (K975) RETURN CIRCUIT



Measure the resistance between the (K24) signal circuit and the (K975) return circuit in the sensor connector.
Is the resistance greater than 100k Ohms?

Yes

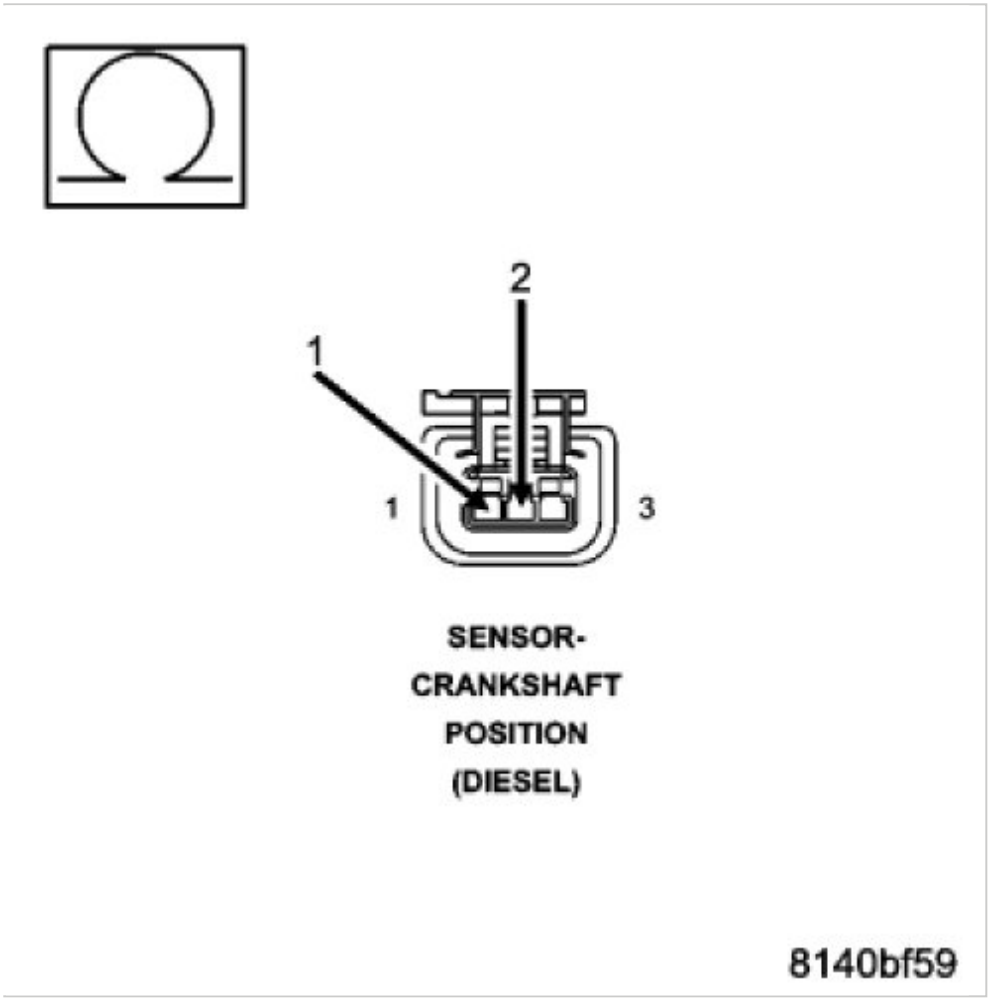
- Go To 9

No

- Repair the short circuit or replace the engine harness.

- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test

9. (K853) 5-VOLT SUPPLY CIRCUIT SHORTED TO (K975) RETURN CIRCUIT



Measure the resistance between the (K853) 5-volt supply circuit and the (K975) return circuit in the sensor connector.
Is the resistance greater than 100k Ohms?

Yes

- Go To 10

No

- Repair the short circuit or replace the engine harness.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification

10. (K24) SIGNAL CIRCUIT SHORTED GROUND

Measure the resistance between the (K24) signal circuit and ground.
Is the resistance greater than 100k Ohms?

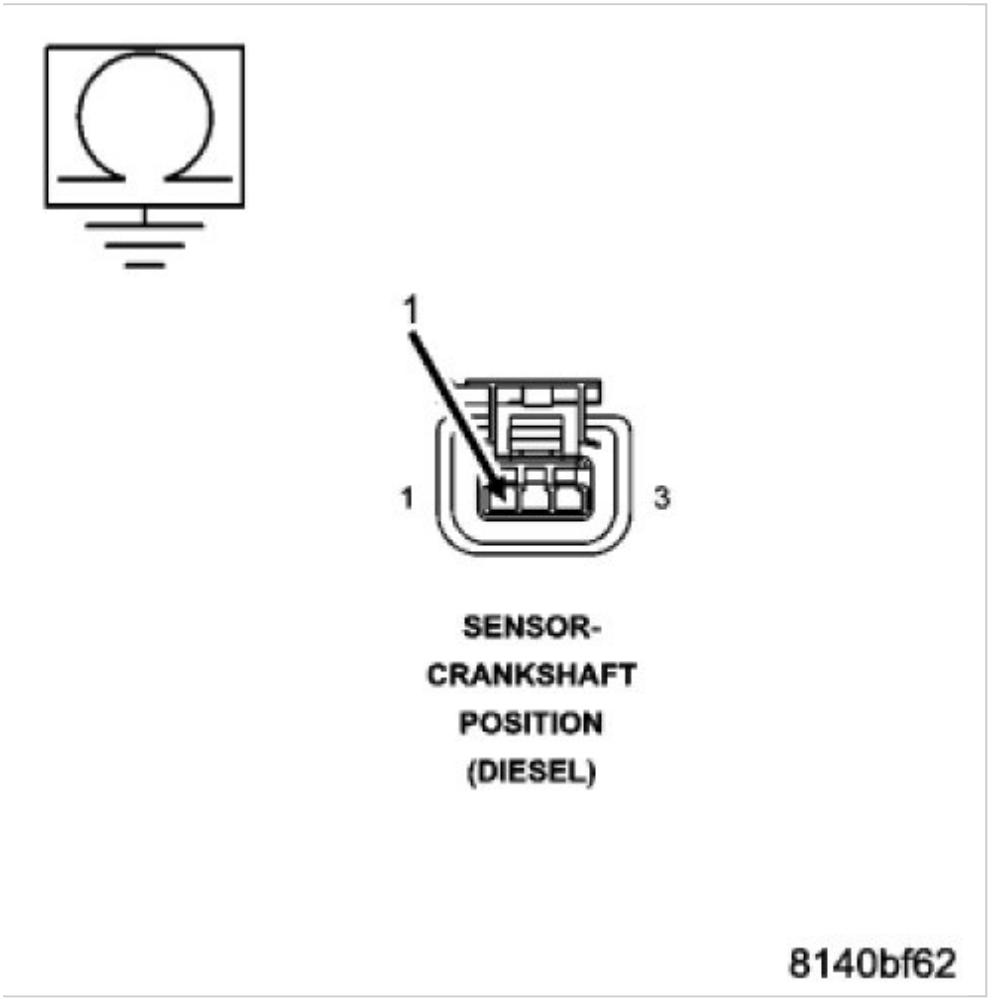
Yes

- Go To 11

No

- Repair the short circuit or replace the engine harness.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test

11. (K853) 5-VOLT SUPPLY CIRCUIT SHORTED TO GROUND



Measure the resistance between the (K853) 5-volt supply circuit and ground.
Is the resistance greater than 100k Ohms?

Yes

- Go To 12

No

- Repair the short circuit or replace the engine harness.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test

12. (K24) SIGNAL CIRCUIT SHORTED TO (K853) 5-VOLT SUPPLY CIRCUIT

Measure the resistance between the (K24) signal circuit and the (K853) 5-volt supply circuit in the sensor connector.
Is the resistance greater than 100k Ohms?

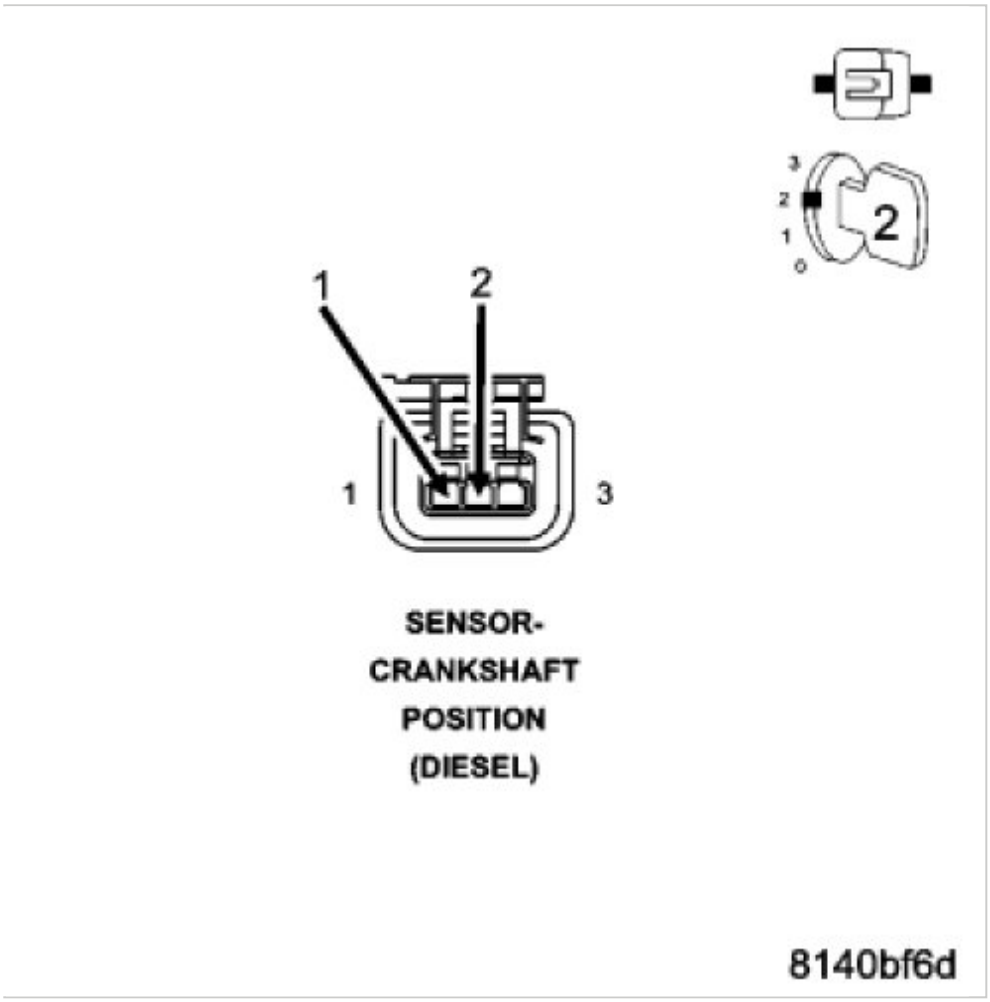
Yes

- Go To 13

No

- Repair the short circuit or replace the engine harness.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test

13. ECM



Reconnect the ECM harness connectors.
Ignition on, engine not running.
With the scan tool, erase DTCs.
Connect a jumper wire between the sensor supply circuit and the sensor return circuit in the sensor harness connector.
Did DTC P0337 set?

Yes

- Refer to the INTERMITTENT CONDITION Symptom (Diagnostic Procedure). See: Computers and Control Systems > Component Tests and General Diagnostics > Intermittent Condition

No

- Replace the ECM.
- Perform POWERTRAIN VERIFICATION TEST (DIESEL). See: A L L Diagnostic Trouble Codes (DTC) > Verification Tests > Powertrain Verification Test