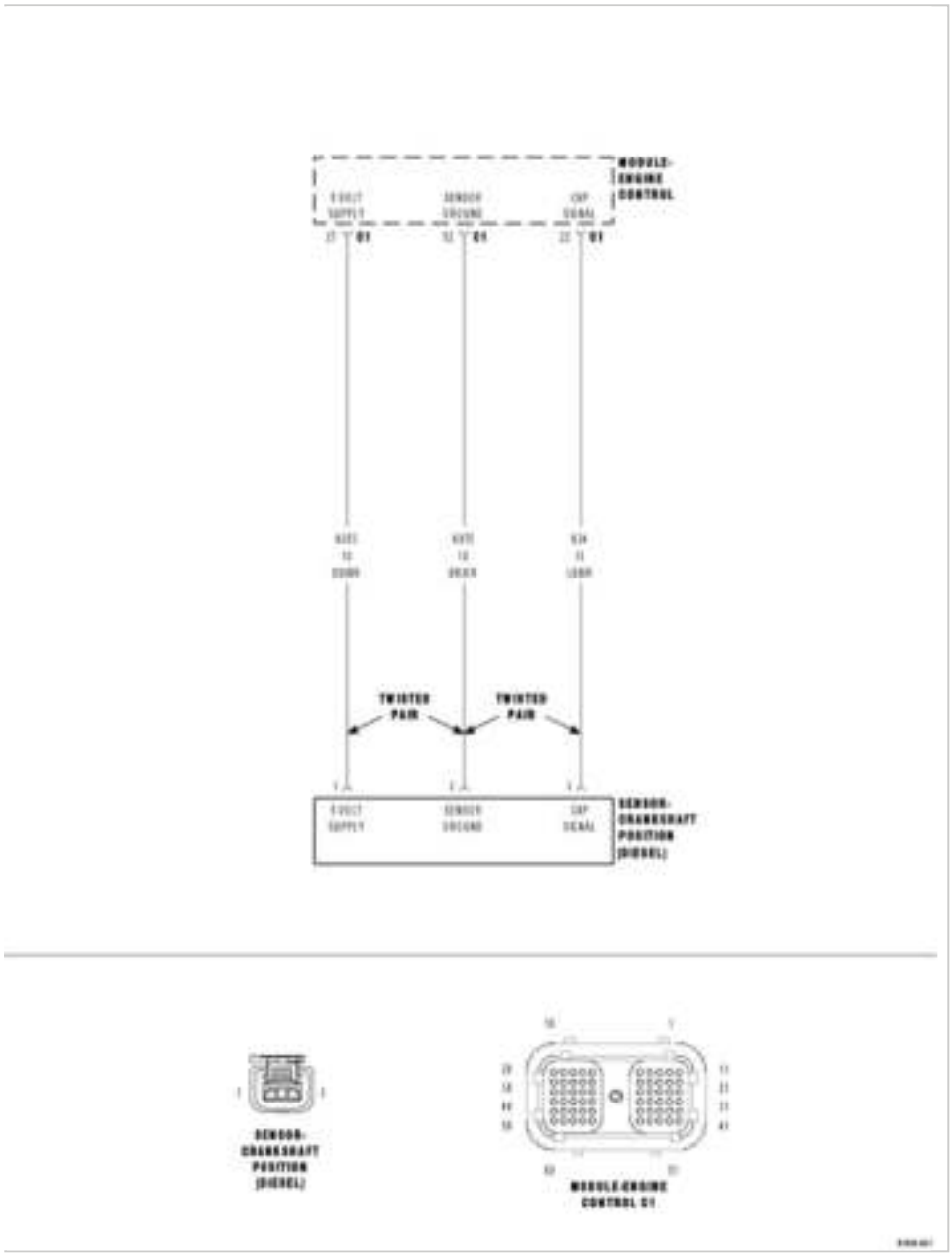
2008 Dodge or Ram Truck RAM 2500 Truck 4WD L6-5.9L DSL Turbo
Vehicle > ALL Diagnostic Trouble Codes (DTC) > Testing and Inspection > P Code Charts > P0336

5.9L DIESEL

P0336-CRANKSHAFT POSITION (CKP) SENSOR SIGNAL



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

- **When Monitored:**
  With the key on.

- **Set Condition:**

The voltage detected at the Crankshaft position sensor is below a calibrated value.

Possible Causes
CKP SENSOR
(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. 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?

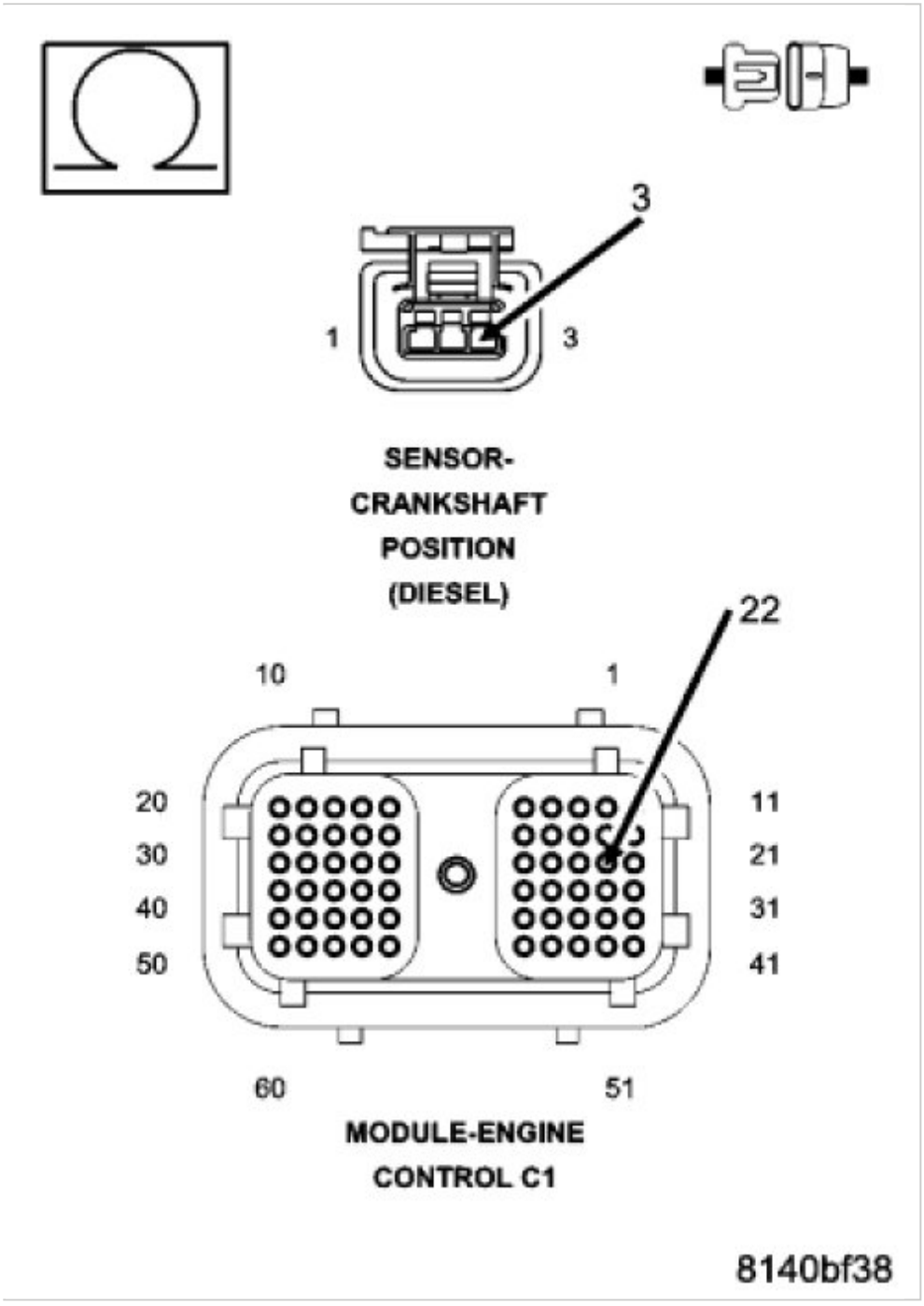
Yes

- Go To 2

No

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

2. (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?

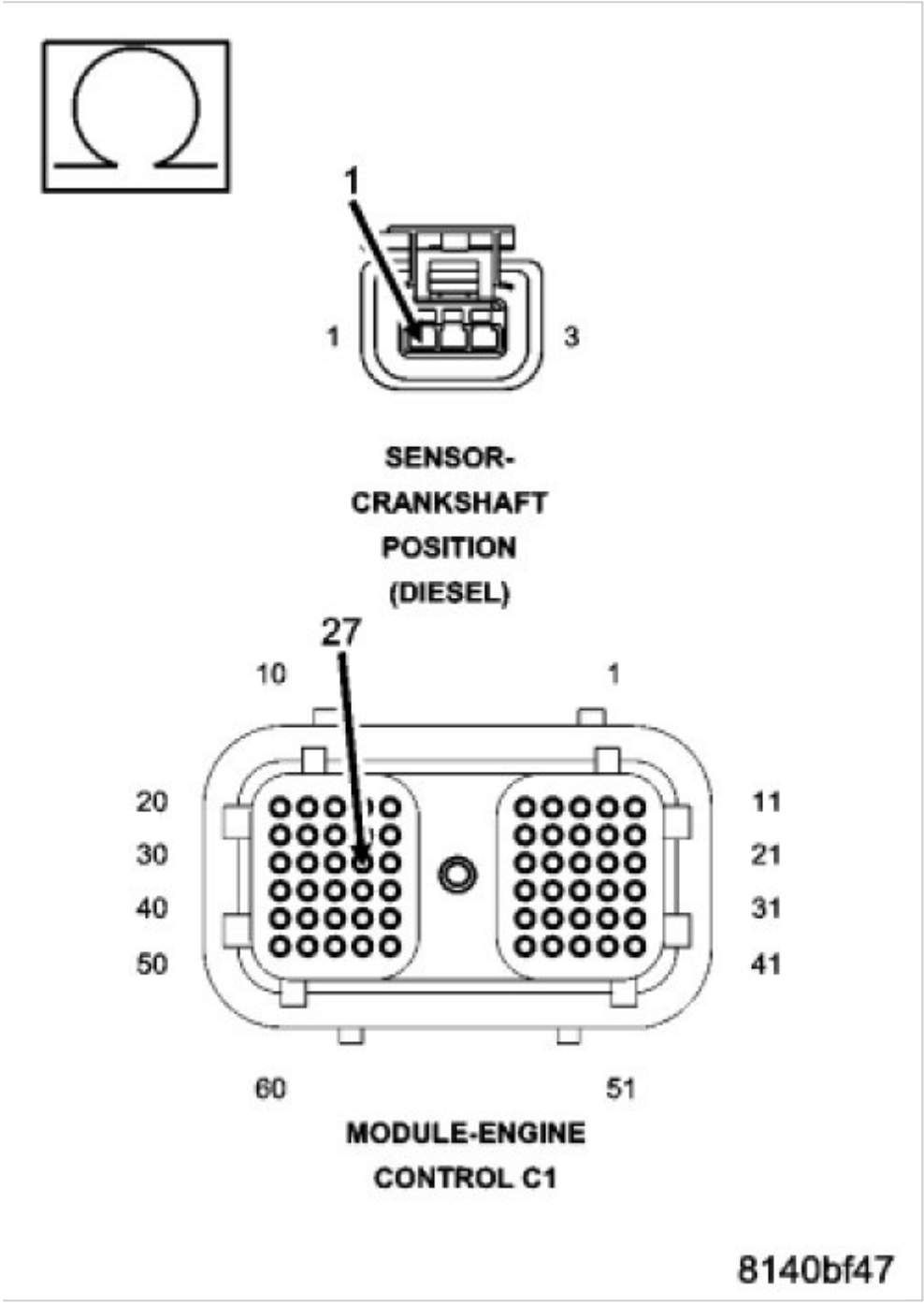
Yes

- Go To 3

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

3. (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?

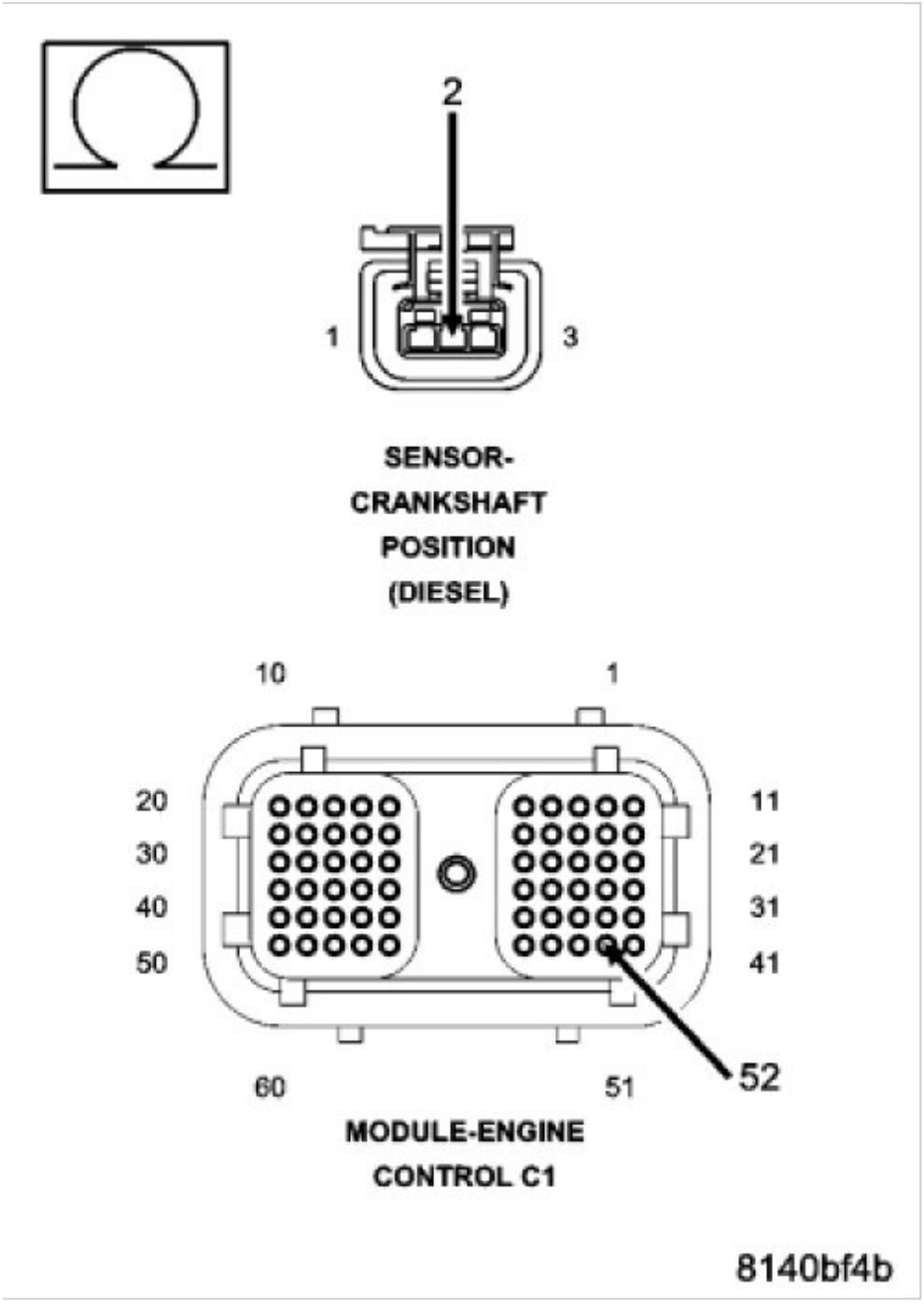
Yes

- Go To 4

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

4. (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?

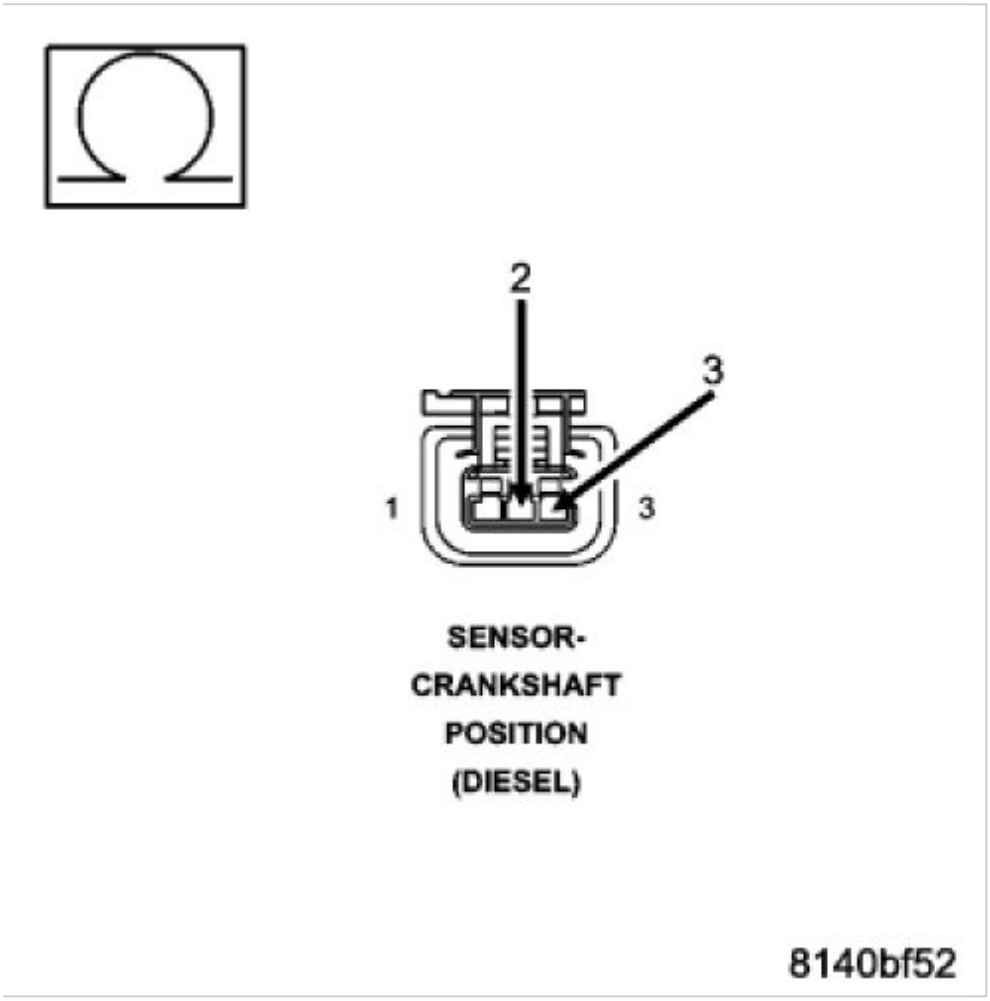
Yes

- Go To 5

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

5. (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?

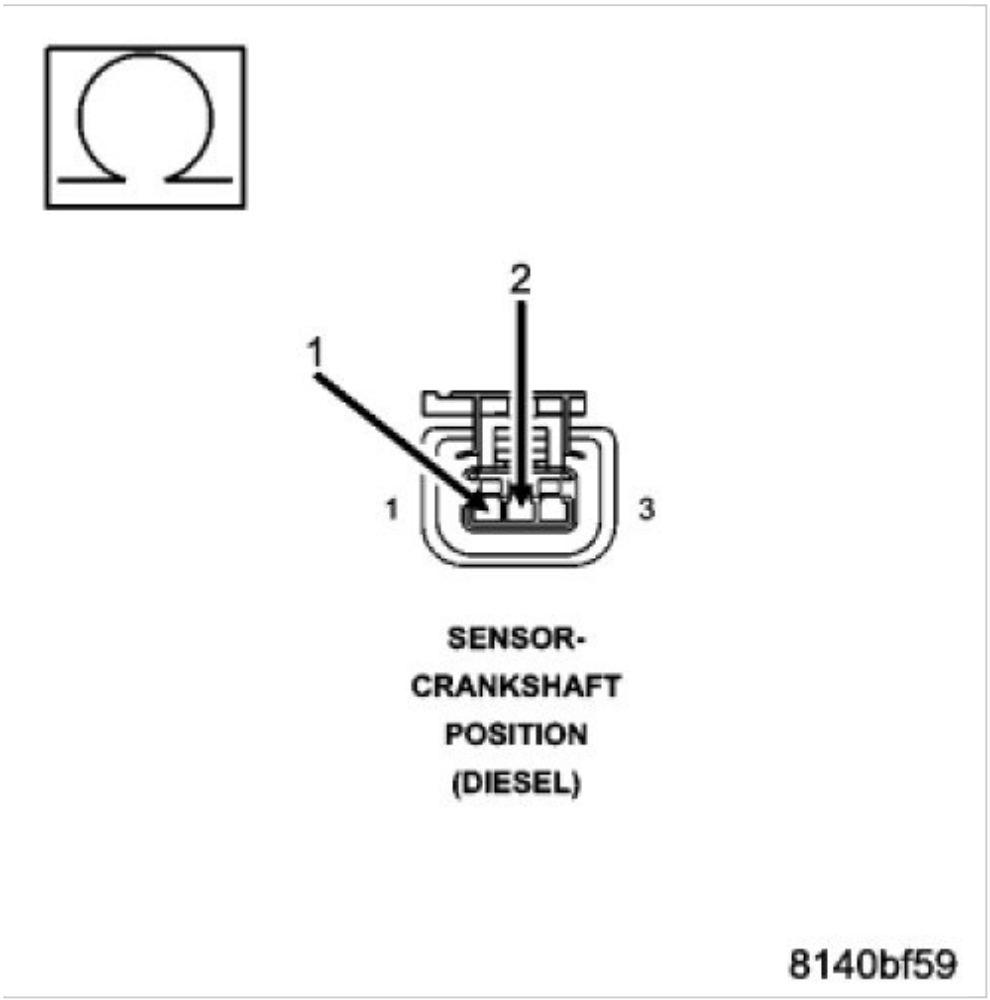
Yes

- Go To 6

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

6. (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 7

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

7. (K24) SIGNAL CIRCUIT SHORTED GROUND

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

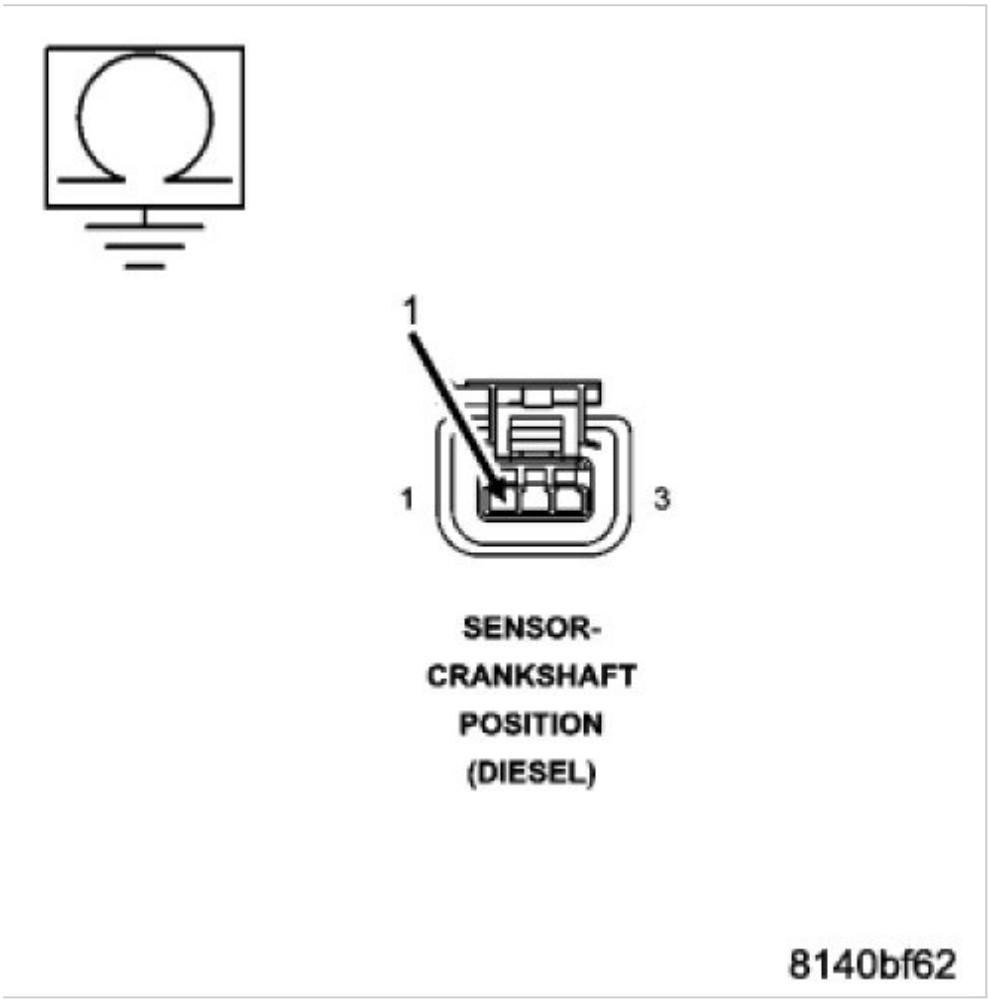
Yes

- Go To 8

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

8. (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 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. (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?

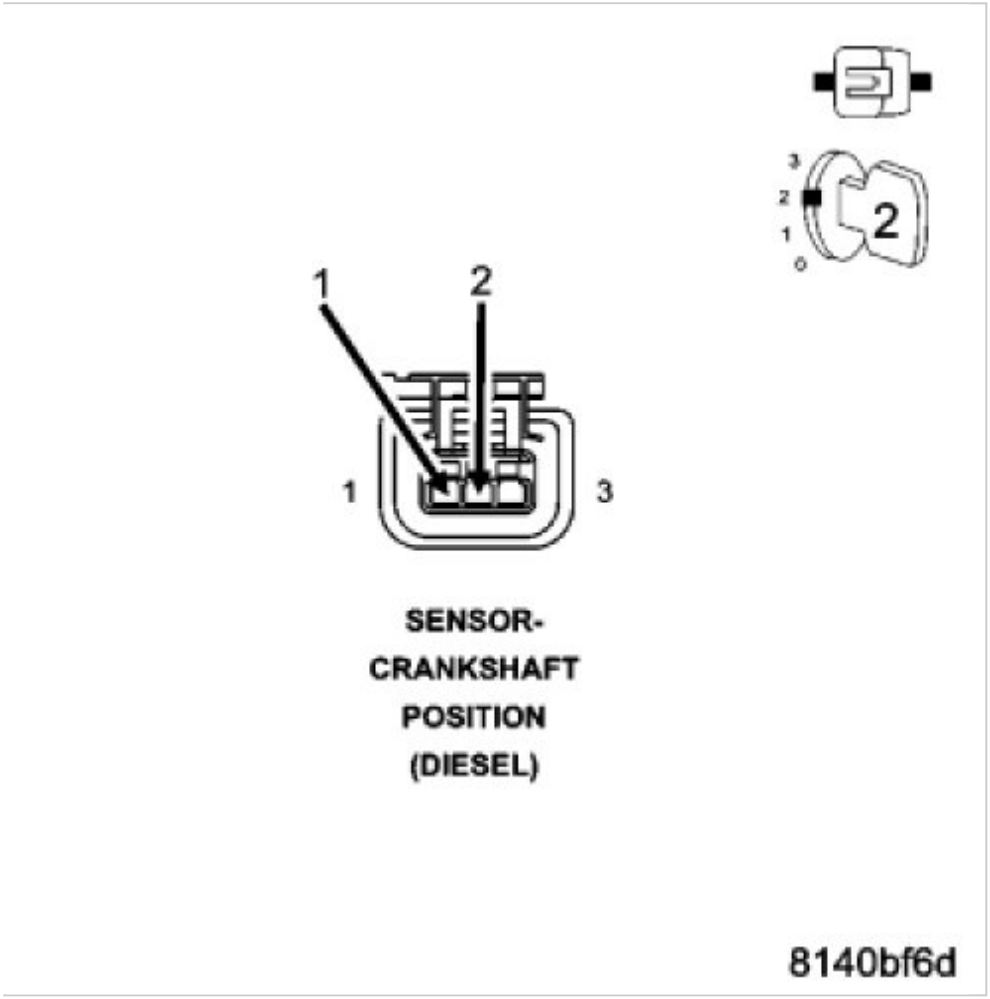
Yes

- Go To 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 Tests > Powertrain Verification Test

10. 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