

W: Injector Driver Module Enable (IDM-EN)

[← W: Introduction](#)

W1 DIAGNOSTIC TROUBLE CODE (DTC) P1662

- P1662 will set, if the PCM detects a fault on the ICM enable circuit.
- Possible causes:
 - Open fuse.
 - Open or shorted IDM enable circuit.
 - IDM relay.
 - PCM.
- Verify B+ at IDM relay primary circuit.
- Disconnect the IDM relay.
- Key on, engine off.
- Measure voltage between IDM relay Circuit 361 (W/LB) and battery ground.

Is battery voltage present?

Yes	No
GO to W2 .	REPAIR open in Circuit 361 (W/LB). RESTORE vehicle. CLEAR DTCs and RETEST.

W2 CHECK FOR SHORT TO GROUND

- Key off.
- Measure resistance between IDM relay Circuit 814 (W/BK) and battery ground.

Is resistance greater than 10,000 ohms?

Yes	No
GO to W4 .	GO to W3 .

W3 CHECK FOR SHORT TO GROUND ON CIRCUIT 814 (W/BK)

- Key off.
- Disconnect PCM.
- Measure resistance between IDM relay Circuit 814 (W/BK) and battery ground.

Is resistance greater than 10,000 ohms?

Yes	No
REPLACE the PCM. RESTORE vehicle. CLEAR DTCs and RETEST.	REPAIR short to ground on Circuit 814 (W/BK). RESTORE vehicle. CLEAR DTCs and RETEST.

W4 VERIFY THAT THE PCM IS ENABLING THE RELAY

- Key off.
- Measure resistance between IDM relay Circuit 814 (W/BK) and battery ground.
- Turn key on, while looking at DVOM.

Does resistance reading drop below 5 ohms?

Yes	No
REPLACE the IDM relay. RESTORE vehicle. CLEAR DTCs and RETEST.	GO to W5 .

W5 CHECK CONTINUITY ON CIRCUIT 814 (W/BK)

- Key off
- Install breakout box, leave PCM disconnected.
- Measure resistance between IDM relay Circuit 814 (W/BK) and PCM Test Pin 80.

Is resistance less than 5 ohms?

Yes	No
REPLACE the PCM. RESTORE vehicle. CLEAR DTCs and RETEST.	REPAIR open in Circuit 814 (W/BK). RESTORE vehicle. CLEAR DTCs and RETEST.

W6 DTC P1663 AND P1667 SET TOGETHER WITH OR WITHOUT P1668, CHECK FOR DTC P1662

- IDM and PCM connected.
- Key on, engine off.
- Perform KOEO On-Demand Self Test.

Was DTC P1662 present?

Yes	No
GO to W1 .	GO to W7 .

W7 CHECK MAXI FUSE

- PCM connected.
- Key on, engine off.
- Measure voltage between IDM (MAXI Fuse 27 on F-Series) or (MAXI Fuse 19 on Econoline) and battery ground.

Is battery voltage present on both sides of the fuse?

Yes	No
	REPLACE short to ground on Circuit 876

GO to [W8](#).

(DG/LG) and REPLACE MAXI fuse. RESTORE vehicle. CLEAR DTCs and RETEST.

W8 CHECK CIRCUIT 37 (Y)

- Key off.
- Disconnect MAXI fuse.
- Disconnect IDM relay.
- Measure resistance between IDM non-power side of fuse to IDM relay Circuit 37 (Y).

Is resistance less than 5 ohms?

Yes	No
GO to W9 .	REPAIR open on Circuit 37 (Y). RESTORE vehicle. CLEAR DTCs and RETEST.

W9 CHECK CONTINUITY ON CIRCUIT 876 (DG/LG)

- Disconnect IDM.
- Measure resistance on Circuit 876 (DG/LG) between IDM connector Pin 14 to IDM relay.

Is resistance less than 5 ohms?

Yes	No
GO to W10 .	REPAIR open on Circuit 876 (DG/LG). RESTORE vehicle. CLEAR DTCs and RETEST.

W10 IDM RELAY CHECK

- Install IDM relay, leave fuse disconnected.
- Key on, engine off.
- Measure resistance on Circuit 876 (DG/LG) between the non-power side of MAXI fuse to IDM connector Pin 14.

Is resistance less than 5 ohms?

Yes	No
GO to W11 .	REPLACE IDM relay. RESTORE vehicle. CLEAR DTCs and RETEST.

W11 IDM GROUND CHECK

- Measure resistance on Circuit 574 (BK/PK) between IDM connector Pin 26 and battery ground.

Is resistance less than 5 ohms?

Yes	No
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REPLACE IDM. RESTORE vehicle. CLEAR DTCs and RETEST.	REPAIR open in IDM ground Circuit 571 (BK/PK). RESTORE vehicle. CLEAR DTCs and RETEST.
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