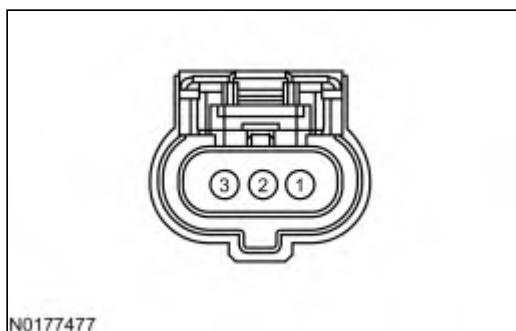


DT: Exhaust Pressure (EP) Sensor

This pinpoint test is intended to diagnose the following:

- harness circuits: EP, SIGRTN, VREF
- EP sensor (9J460)
- PCM (12A650)

Exhaust Pressure (EP) Sensor Connector

Pin	Circuit
3	EP (Exhaust Pressure)
2	SIGRTN (Signal Return)
1	VREF (Reference Voltage)

Powertrain Control Module (PCM) Connector

For PCM connector views or reference values, refer to Section 6, Reference Values.

Vehicle	Connector	Pin	Circuit
Corsair 2.5L, Escape/Kuga 2.5L	198 PIN	E16	EP
F-150	306 PIN	E97	EP
All other vehicles	198 PIN	B94	EP

DT1 CHECK FOR DTCS

Is DTC P0471, P0472 or P0473 present?

Yes	GO to DT2 .
No	RETURN to Section 3, Symptom Charts for further direction.

DT2 CHECK FOR VOLTAGE AT THE SENSOR

- Ignition OFF.
- EP Sensor connector disconnected.
- Ignition ON, engine OFF.
- Measure the voltage between:

(+) EP Sensor Connector, Harness Side	(-) EP Sensor Connector, Harness Side
VREF - Pin 1	SIGRTN - Pin 2

Is the voltage between 4.5 - 5.5 V?

Yes	GO to DT3 .
No	GO to Pinpoint Test C .

DT3 CHECK FOR AN OPEN

- Ignition OFF.
- PCM connector disconnected.
- Measure the resistance between:

(+) EP Sensor Connector, Harness Side	(-) PCM Connector, Harness Side
EP - Pin 3	EP

Is the resistance less than 5 ohms?

Yes	GO to DT4 .
No	REPAIR the open circuit. Clear the PCM DTCs. REPEAT the self-test.

DT4 CHECK FOR A SHORT BETWEEN CIRCUITS

- Measure the resistance between:

(+) EP Sensor Connector, Harness Side	(-)
EP - Pin 3	Ground

- Measure the resistance between:

(+) EP Sensor Connector, Harness Side	(-) EP Sensor Connector, Harness Side
EP - Pin 3	VREF - Pin 1
EP - Pin 3	SIGRTN - Pin 2

Are the resistances greater than 10K ohms?

Yes	GO to DT5 .
No	REPAIR the short circuit. Clear the PCM DTCs. REPEAT the self-test.

DT5 CHECK FOR A SHORT TO VOLTAGE

- Ignition ON, engine OFF.
- Measure the voltage between:

(+) EP Sensor Connector, Harness Side	(-)
EP - Pin 3	Ground

Is any voltage present?

Yes	REPAIR the short circuit. Clear the PCM DTCs. REPEAT the self-test.
No	GO to DT6 .

DT6 INTERMITTENT CHECK

- EP Sensor connector connected.
- PCM connector connected.
- Ignition ON, engine OFF.
- Access the PCM and monitor the EBP_V (VOLT) PID.
- While observing the PID, carry out the following:
 - Wiggle the harness connector to simulate road shock.
 - Wiggle the EP sensor connector.
 - Look for sudden changes in the voltage when the harness and connector are wiggled or when the EP sensor is tapped.

Is a concern present?

Yes	REPAIR as necessary. Clear the PCM DTCs. REPEAT the self-test.
No	Check the EP sensor and tube for restrictions. REPAIR as necessary. If no concern is present, INSTALL a new EP sensor. REFER to the Workshop Manual Section 303-14, Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.

mcx30.com