

DW: Heated Oxygen Sensor (HO2S) Introduction

[DW: Pinpoint Tests](#) ➔

WARNING: CROWN VICTORIA POLICE INTERCEPTOR VEHICLES EQUIPPED WITH FIRE SUPPRESSION SYSTEM, REFER TO SECTION 419-03 FOR IMPORTANT SAFETY WARNINGS. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.



WARNING: WHILE CONDUCTING TESTS ON A HOT ENGINE TAKE ALL SAFETY PRECAUTIONS TO PREVENT SKIN CONTACT WITH HOT ENGINE COMPONENTS. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.

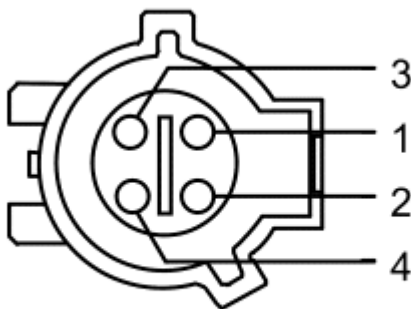
This pinpoint test is intended to diagnose the following:

- HO2S/O2S (9F472)
- HO2S/O2S (9G444)
- harness circuits: HO2S, HO2S Heater, VPWR, and SIGRTN
- powertrain control module (PCM) (12A650)

Heated Oxygen Sensor-Front (HO2S-Front) Connector

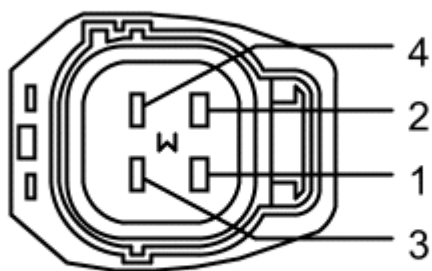
The pin numbering for the connector is in reference to the connector lock tab. Not all connector key combinations are shown.

A



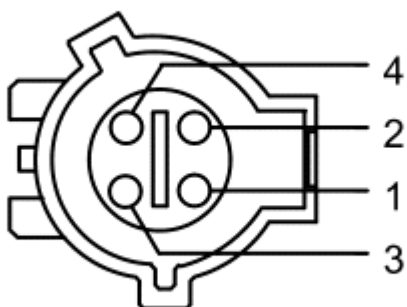
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C



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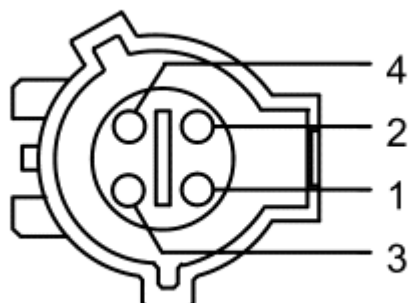
Vehicle	Connector	Pin	Circuit
Crown Victoria, Grand Marquis, Mustang, Ranger, Town Car	A	2 4 3 1	VPWR SIGRTN HO2S Signal HO2S Heater
Focus	B	1 3 4 2	VPWR SIGRTN HO2S Signal HO2S Heater
All other vehicles	C	1 3 4 2	VPWR SIGRTN HO2S Signal HO2S Heater

Heated Oxygen Sensor-Rear (HO2S-Rear) Connector

The pin numbering for the connector is in reference to the connector lock tab. Not all connector key

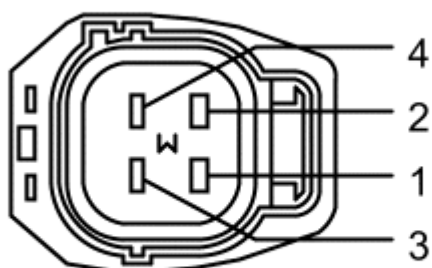
combinations are shown.

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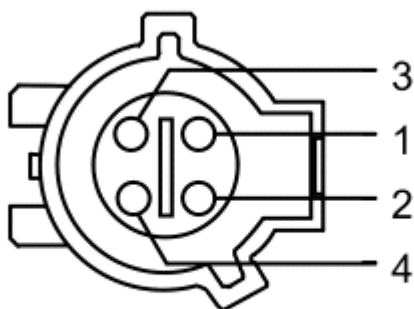
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Vehicle	Connector	Pin	Circuit
Escape / Mariner 2.5L	A	1 3 4 2	VPWR SIGRTN HO2S Signal HO2S Heater
Focus	B	1 3 4 2	VPWR SIGRTN HO2S Signal HO2S Heater
All other vehicles	C	2 4 3 1	VPWR SIGRTN HO2S Signal HO2S Heater

Powertrain Control Module (PCM) Connector

For PCM connector views or reference values, refer to [Section 6](#).

Vehicle	Connector	Pin	Circuit
E-Series 4.6L, E-Series 5.4L, Expedition, F-150, Navigator	190-PIN	T16 T18 T20 T48 B67, B68 B58, E64, T40	HO2S12 HTR12 HO2S22 HTR22 VPWR SIGRTN
Edge, MKX, Sable, Taurus, Taurus X	190-PIN	E29 E69 E28 E70 E23 E1 E24 E2	HO2S11 HTR11 HO2S21 HTR21 HO2S12

		B51, B52, B53 B58, E58	HTR12 HO2S22 HTR22 VPWR SIGRTN
Escape / Mariner 3.0L	190-PIN	E8 E69 E9 E70 T29 T49 T40 T48 B67, B68 B56, E49, T41	HO2S11 HTR11 HO2S21 HTR21 HO2S12 HTR12 HO2S22 HTR22 VPWR SIGRTN
Escape / Mariner 2.5L	190-PIN	E8 E69 T29 T49 B67, B68 B56, E49, T41	HO2S11 HTR11 HO2S12 HTR12 VPWR SIGRTN
F-Series Super Duty 6.8L Narrow frame	170 PIN	E28 E69 E29 E70 B14 B38 B35, B36 B41, E58, T41	HO2S11 HTR11 HO2S21 HTR21 HO2S12 HTR12 VPWR SIGRTN
Flex, MKS, Sable PZEV, Taurus PZEV, Taurus X PZEV	190-PIN	E23 E1 E24 E2 B51, B52, B53 B58, E58	HO2S12 HTR12 HO2S22 HTR22 VPWR SIGRTN
Focus	190-PIN	E11 E52 T16 T18 B67, B68 B58, E64, T40	HO2S11 HTR11 HO2S12 HTR12 VPWR SIGRTN
Fusion 3.0L, Milan 3.0L, MKZ	140 PIN	E28 E69 E29 E70 E3 E23 E4 E24	HO2S11 HTR11 HO2S21 HTR21 HO2S12

		B51, B52 B58, E58	HTR12 HO2S22 HTR22 VPWR SIGRTN
Fusion 2.3L, Milan 2.3L	140 PIN	E28 E69 E3 E23 B51, B52 B58, E58	HO2S11 HTR11 HO2S12 HTR12 VPWR SIGRTN
Fusion 2.3L PZEV, Milan 2.3L PZEV	140 PIN	E28 E69 E3 E23 E5 E25 B51, B52 B58, E58	HO2S11 HTR11 HO2S12 HTR12 HO2S13 HTR13 VPWR SIGRTN
Ranger 2.3L	170 PIN	E28 E69 T24 T47 B35, B36 B41, E58, T41	HO2S11 HTR11 HO2S12 HTR12 VPWR SIGRTN
All other vehicles	170 PIN	E28 E69 E29 E70 T24 T47 T25 T48 B35, B36 B41, E58, T41	HO2S11 HTR11 HO2S21 HTR21 HO2S12 HTR12 HO2S22 HTR22 VPWR SIGRTN