

H: Fuel Control Introduction

H: 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.

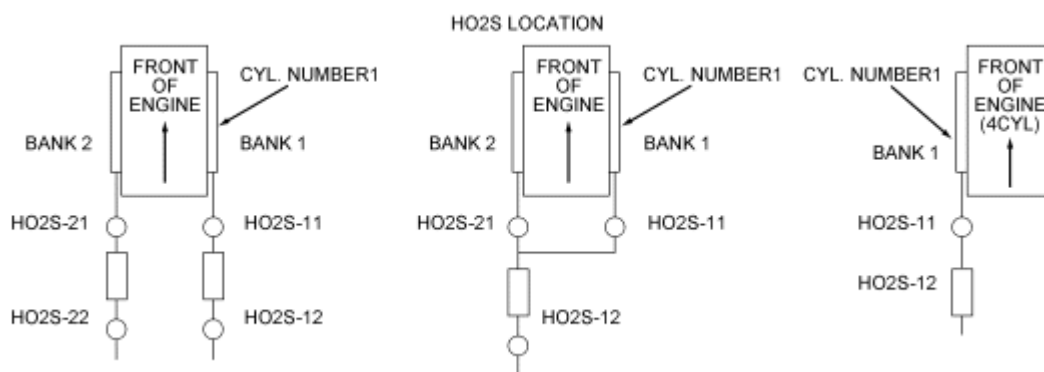


WARNING: WHILE CONDUCTING TESTS ON A HOT ENGINE TAKE ALL SAFETY PRECAUTIONS TO PREVENT SKIN CONTACT WITH HOT ENGINE COMPONENTS. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.

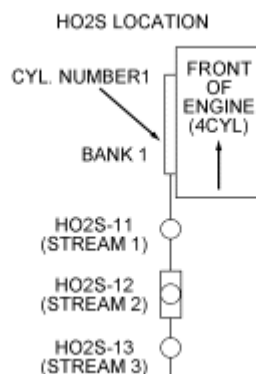
This pinpoint test is intended to diagnose the following:

- HO2S/O2S (9F472)
- HO2S/O2S (9G444)
- fuel injector(s) (9F593)
- harness circuits: HO2S, HO2S Heater, VPWR, and SIGRTN
- vacuum systems
- powertrain control module (PCM) (12A650)

For additional information on heated oxygen sensor (HO2S), refer to Section 1, [Catalyst and Exhaust Systems](#).



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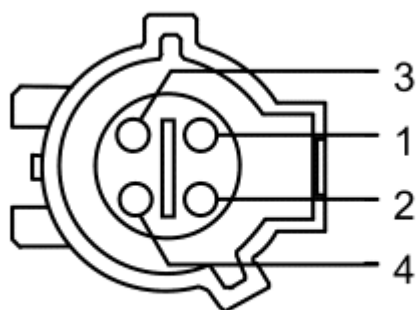
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Heated Oxygen Sensor-Front (HO2S-Front) Connector

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

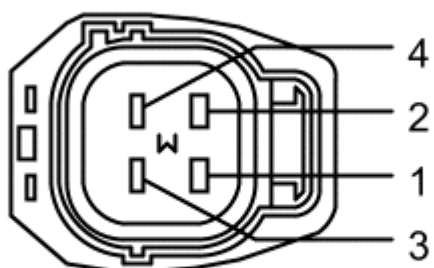
combinations are shown.

A



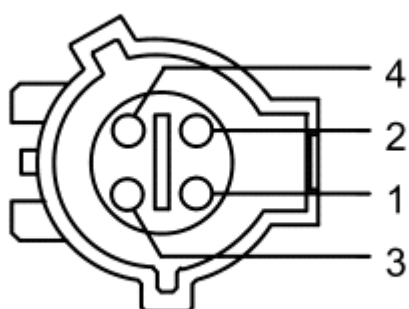
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B



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C



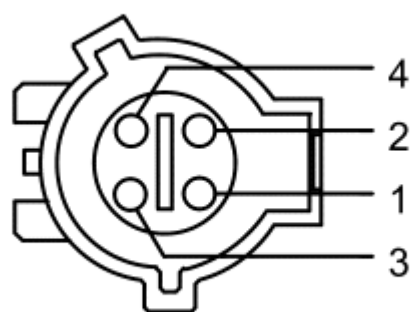
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Vehicle	Connector	Pin	Circuit
Crown Victoria, Grand Marquis, Mustang, Ranger, Town Car	A	2 4 3 1	VPWR SIGRTN HO2S Signal HO2S Heater
Focus	B	1 3 4 2	VPWR SIGRTN HO2S Signal HO2S Heater
All other vehicles	C	1 3 4 2	VPWR SIGRTN HO2S Signal HO2S Heater

Heated Oxygen Sensor-Rear (HO2S-Rear) Connector

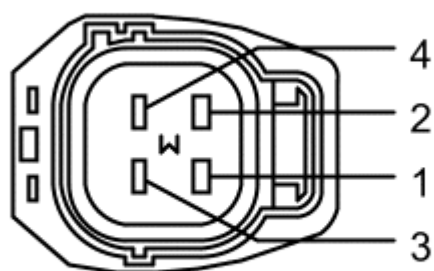
The pin numbering for the connector is in reference to the connector lock tab. Not all connector key combinations are shown.

A



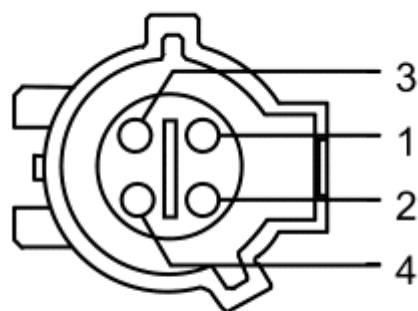
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B



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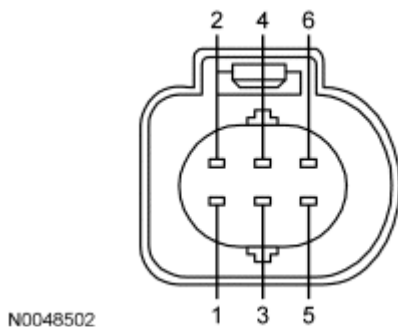
C



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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

Universal HO2S-Front Connector



Pin	Circuit
1	UO2SPC (Universal Oxygen Sensor Pumping Current)

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	E24 E23 T48 T18 T20 T16 B67 B58, E64, T40	UO2SPC21 UO2SPC11 HTR22 HTR12 HO2S22 HO2S12 VPWR SIGRTN
Edge, MKX, Sable, Taurus, Taurus X	190-PIN	E2 E70 E1 E69 E24	HTR22 HTR21 HTR12 HTR11 HO2S22

		E28 E23 E29 B51 B58, E58	HO2S21 HO2S12 HO2S11 VPWR SIGRTN
Escape / Mariner 3.0L	190-PIN	T48 E70 T49 E69 T40 E9 T29 E8 B67 B56, E49, T41	HTR22 HTR21 HTR12 HTR11 HO2S22 HO2S21 HO2S12 HO2S11 VPWR SIGRTN
Escape / Mariner 2.5L	190-PIN	T49 E69 T29 E8 B67 B56, E49, T41	HTR12 HTR11 HO2S12 HO2S11 VPWR SIGRTN
F-Series Super Duty 6.8L Narrow frame	170 PIN	E70 B38 E69 E29 B14 E28 B35 B41, E58, T41	HTR21 HTR12 HTR11 HO2S21 HO2S12 HO2S11 VPWR SIGRTN
Flex, MKS, Sable PZEV, Taurus PZEV, Taurus X PZEV	190-PIN	E6 E4 E2 E1 E24 E23 B51 B58, E58	UO2SPC21 UO2SPC11 HTR22 HTR12 HO2S22 HO2S12 VPWR SIGRTN
Focus	190-PIN	T18 E52 T16 E11 B67 B58, E64, T40	HTR12 HTR11 HO2S12 HO2S11 VPWR SIGRTN
Fusion 3.0L, Milan 3.0L, MKZ	140 PIN	E24 E70 E23 E69 E4 E29 E3 E28 B51 B58, E58	HTR22 HTR21 HTR12 HTR11 HO2S22 HO2S21 HO2S12 HO2S11 VPWR SIGRTN
Fusion 2.3L, Milan 2.3L	140 PIN	E23 E69 E3 E28 B51 B58, E58	HTR12 HTR11 HO2S12 HO2S11 VPWR SIGRTN
Fusion 2.3L PZEV,	140 PIN	E25	HTR13

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

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