
HX: Evaporative Emission (EVAP) System and Monitor Introduction

[HX: 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: BEFORE REPAIRING OR INSTALLING A NEW COMPONENT IN THE FUEL SYSTEM, REDUCE THE POSSIBILITY OF INJURY OR FIRE BY FOLLOWING THE WARNING, CAUTION, AND HANDLING DIRECTIONS IN PINPOINT TEST HC. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.

Note: Use this pinpoint test only when directed here.

The use of a soap solution around the fuel filler cap or capless fuel tank filler pipe (if equipped) or the use of the hydrocarbon emission analyzer to determine an evaporative emission system leak is not recommended. The mandatory Rotunda Evaporative Emission System Leak Tester for On Board Diagnostic (OBD) (including the ultrasonic tester) and the Rotunda Vacutec 522 Leak Detector Smoke Machine are the only devices to be used at this time for evaporative emission system leak detection.

When using the smoke machine, the fuel level in the fuel tank must be less than 85% full.

This pinpoint test is intended to diagnose the following:

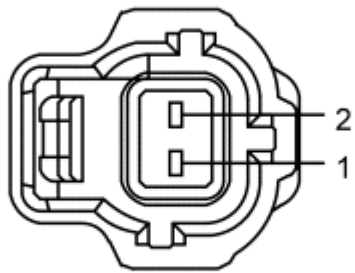
- canister vent (CV) solenoid (9F945)
- fuel filler cap (9030)
- capless fuel tank filler pipe (9034)
- fuel tank pressure (FTP) sensor (9C052)
- EVAP canister purge (EVAPCP) valve (9C915)
- EVAP system leaks using the Rotunda Vacutec Leak Detector Smoke Machine (218-00001)
- harness circuits: B+, CV, EVAPCP, FTP, FTPREF, SIGRTN, VPWR, VREF and CASE GND
- powertrain control module (PCM) (12A650)

For additional information on the EVAP system, refer to Section 1, [Evaporative Emission \(EVAP\) Systems](#), or the Workshop Manual Section 303-13, Evaporative Emissions.

Canister Vent (CV) Solenoid Connector

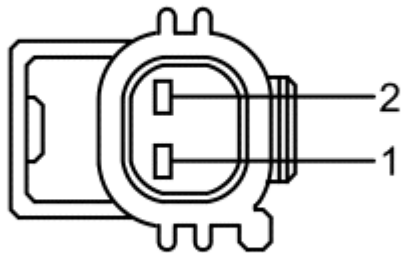
For applications that use the engine off natural vacuum (EONV) EVAP leak check monitor, KAPWR provides voltage to the CV solenoid instead of VPWR.

A



A0077547

B



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Vehicle	Connector	Pin	Circuit
Explorer, Explorer Sport Trac, Mountaineer	A	2 1	KAPWR CANV
Mustang	B	2 1	CANV VPWR
All other vehicles	A	1 2	KAPWR CANV

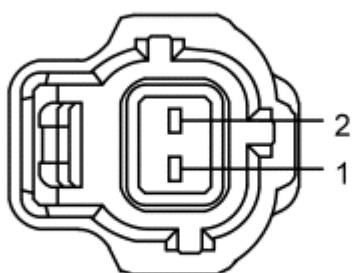
EVAP Canister Purge (EVAPCP) Valve Connector

A



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B



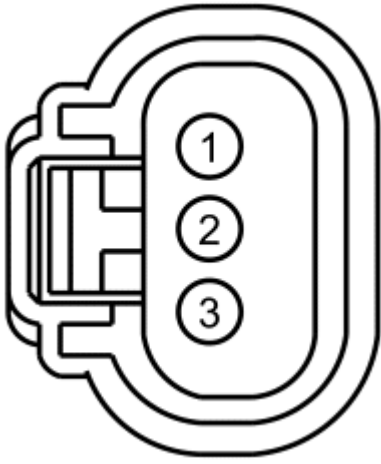
A0077550

Vehicle	Connector	Pin	Circuit
E-Series, Escape/Mariner, Expedition, F-150, Navigator	A	1 2	EVAPCP VPWR
All other vehicles	B	2 1	EVAPCP VPWR

Fuel Tank Pressure (FTP) Sensor Connector

For applications that use the engine off natural vacuum (EONV) EVAP leak check monitor, FTPREF provides voltage to the FTP sensor instead of VREF.

A

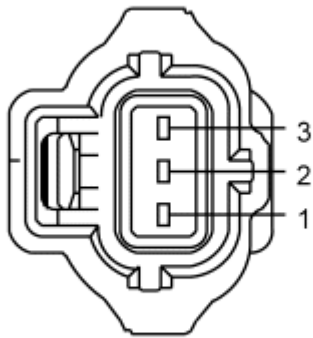


B



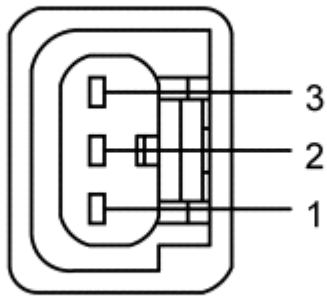
N0073092

C



A0077554

D



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Vehicle	Connector	Pin	Circuit
E-Series inline design, Escape/Mariner, Expedition, F-150, Focus, Navigator	A	1 3 2	FTP FTPREF SIGRTN
E-Series tank design	B	1 3 2	FTP FTPREF SIGRTN
F-Super Duty tank design	C	3 1 2	FTP FTPREF SIGRTN
Mustang	D	3 2 1	FTP SIGRTN VREF
All other vehicles	D	3 1 2	FTP FTPREF SIGRTN

Powertrain Control Module (PCM) Connector

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

Vehicle	Connector	Pin	Circuit
Crown Victoria	170 Pin	B13 B3 B40 B41 E57 E6	CANV FTP FTPREF SIGRTN VREF EVAPCP
E-Series 4.6L	190-Pin	B20	CANV

		B65 B66 B58 E63 E31	FTP FTPREF SIGRTN VREF EVAPCP
E-Series 6.8L	170 Pin	B13 B3 B40 B41 E57 E1	CANV FTP FTPREF SIGRTN VREF EVAPCP
E-Series 5.4L, Expedition, F-150 3V 4.6L, F-150 5.4L, F-150 2V 4.6L, Navigator	190-Pin	B20 B65 B66 B58 B52 E31	CANV FTP FTPREF SIGRTN VREF EVAPCP
Escape/Mariner	190-Pin	B20 B65 B66 B56 B52 E32	CANV FTP FTPREF SIGRTN VREF EVAPCP
Explorer, Explorer Sport Trac, Grand Marquis, Mountaineer, Ranger, Town Car	170 Pin	B13 B3 B40 B41 B40 E6	CANV FTP FTPREF SIGRTN VREF EVAPCP
F-Super Duty	170 Pin	B13 B3 B40 B41 B40 E1	CANV FTP FTPREF SIGRTN VREF EVAPCP
Focus	190-Pin	B20 B65 B66 B58 B52, B66 B55	CANV FTP FTPREF SIGRTN VREF EVAPCP
Fusion, Milan, MKZ	140 Pin	B61 B44 B29 B58 B33 B4	CANV FTP FTPREF SIGRTN VREF EVAPCP
Mustang	170 Pin	B13 B3 B41 B40 E6	CANV FTP SIGRTN VREF EVAPCP
All other vehicles	190-Pin	B61 B44	CANV FTP

		B29	FTPREF
		B58	
		B29, B64	SIGRTN
			VREF
		B50	EVAPCP

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