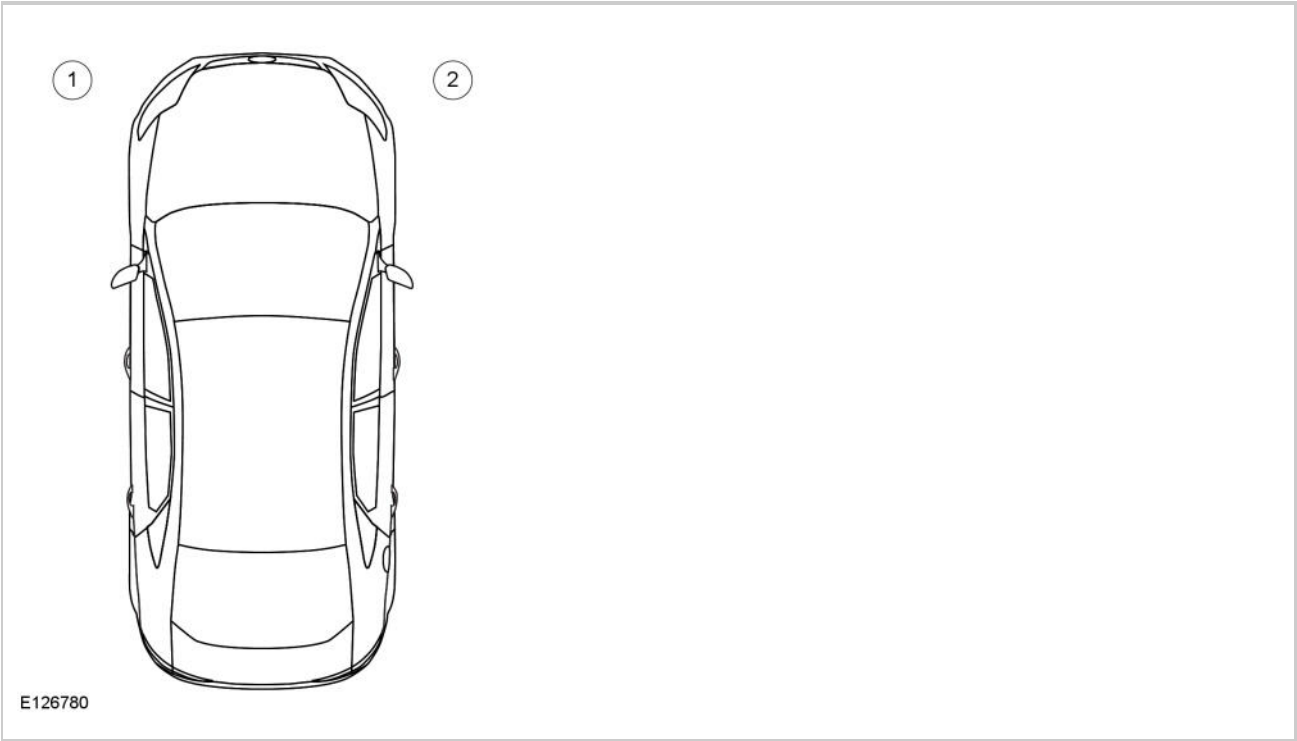


DESCRIPTION AND OPERATION > ABOUT THIS SERVICE INFORMATION > LH AND RH DESIGNATIONS

All LH and RH designations are oriented from the driver's seat position looking forward.


Vehicle LH and RH definition




Item	Part Number	Description
1	-	LH (left-hand)
2	-	RH (right-hand)


All LH and RH engine designations are oriented from the flywheel position looking toward the crankshaft pulley.

Powertrain LH and RH definition


 **WARNING:** Vehicles with scheduled remote start technology may start at any time. Make sure the scheduled remote start system is disabled when servicing or working in close proximity to rotating engine parts. Failure to follow this instruction may result in serious personal injury.


 **WARNING:** Do not work on the fuel system until the pressure has been released and the engine has cooled. Fuel in the high-pressure fuel system is hot and under very high pressure. High-pressure fuel may cause cuts and contact with hot fuel may cause burns. Failure to follow these instructions may result in serious personal injury.


DESCRIPTION AND OPERATION > ENGINE COOLING SYSTEM HEALTH AND SAFETY PRECAUTIONS

 **WARNING:** Always allow the engine to cool before opening the cooling system. Do not unscrew the coolant pressure relief cap when the engine is operating or the cooling system is hot. The cooling system is under pressure; steam and hot liquid can come out forcefully when the cap is loosened slightly. Failure to follow these instructions may result in serious personal injury.

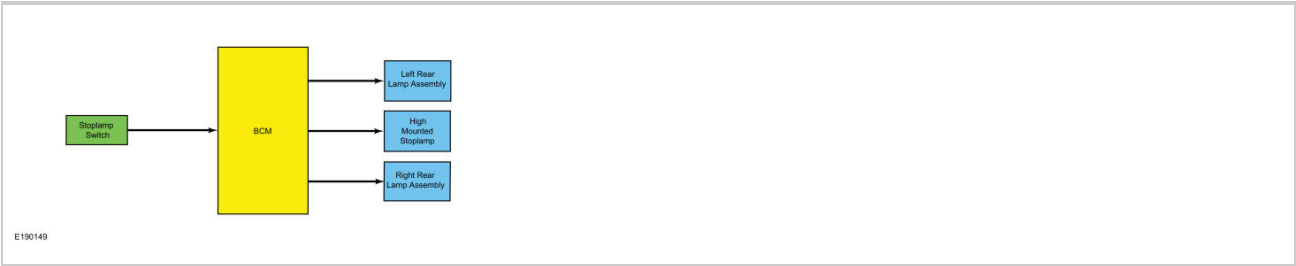
DESCRIPTION AND OPERATION > GASOLINE AND GASOLINE-ETHANOL FUEL SYSTEMS HEALTH AND SAFETY PRECAUTIONS

 **WARNING:** Before working on or disconnecting any of the fuel tubes or fuel system components, relieve the fuel system pressure to prevent accidental spraying of fuel. Fuel in the fuel system remains under high pressure, even when the engine is not running. Failure to follow this instruction may result in serious personal injury.

 **WARNING:** Do not smoke, carry lighted tobacco or have an open flame of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited. Failure to follow these instructions may result in serious personal injury.

 **WARNING:** Clean all fuel residue from the engine compartment. If not removed, fuel residue may ignite when the engine is returned to operation. Failure to follow this instruction may result in serious personal injury.

System Diagram



Stoplamps

The BCM monitors the input from the stoplamp switch. When the brake pedal is applied, voltage is routed to the BCM, indicating a request for the stoplamps. The BCM then supplies voltage to the stoplamps.

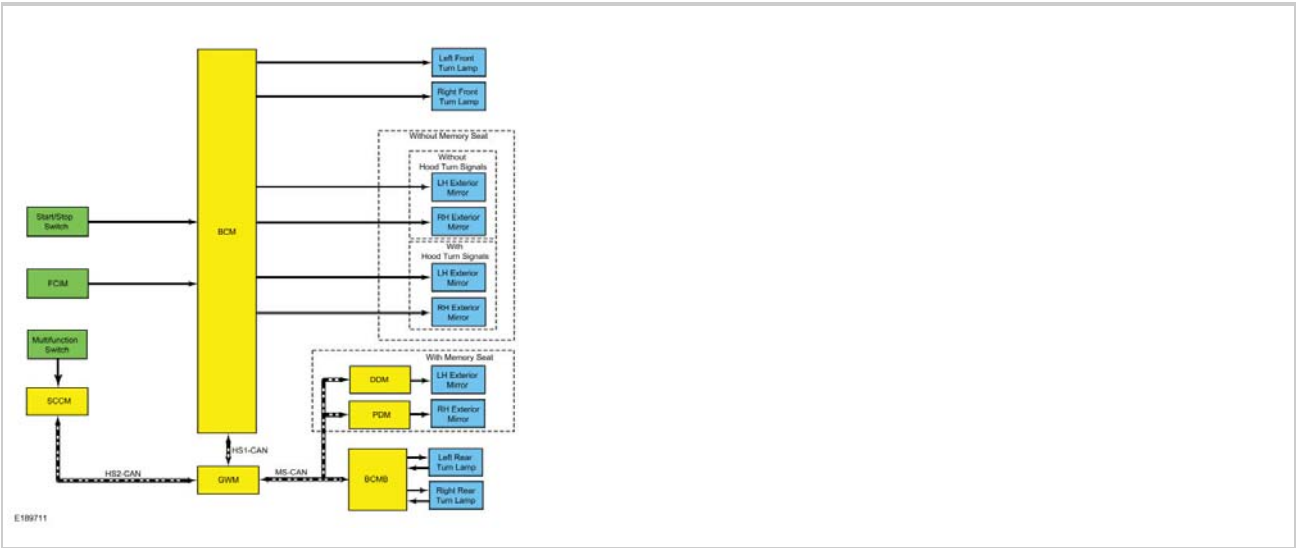
The BCM does not activate the stoplamps when the ignition is OFF.

The BCM also provides an Field Effect Transistor (FET) protection of the stoplamp output circuits. When an excessive current draw is detected, the BCM disables the affected stoplamp circuit driver.

Refer to: Module Controlled Functions - System Operation and Component Description .

DESCRIPTION AND OPERATION > EXTERIOR LIGHTING - SYSTEM OPERATION AND COMPONENT DESCRIPTION > TURN SIGNAL AND HAZARD LAMPS - EXCEPT CHINA

System Diagram



Network Message Chart

BCM Network Input Messages

Broadcast Message	Originating Module	Message Purpose
Turn signal switch status	GWM	Indicates the turn signal stalk

RH rear lamp assembly

3.

If equipped, remove the subwoofer and amplifier unit. Refer to: Subwoofer and Amplifier Unit .

All vehicles

4.

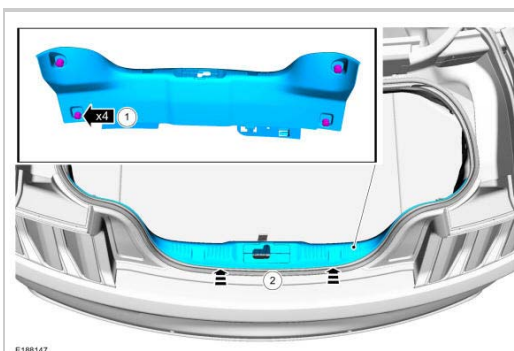
Remove the luggage compartment scuff plate.

1.

Remove the thumb nut type retainers.

2.

Remove the luggage compartment scuff plate.



5.

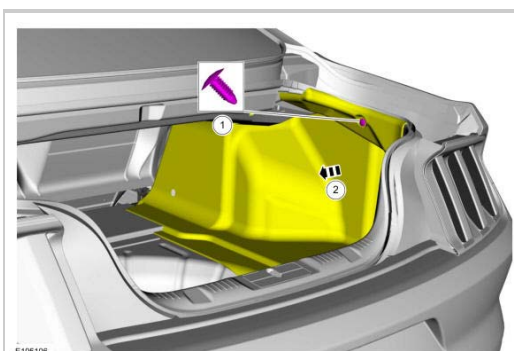
Position the luggage compartment side trim panel aside.

1.

Remove the pin-type retainer.

2.

Position aside the RH or LH luggage compartment side trim panel.



6.



4.


Remove the stowage area mat.



5.

Remove the floor console upper bolts.



 *NOTE: Automatic transmission shown, manual transmission similar.*

6.

Remove the selector lever bezel. Use the General Equipment: Interior Trim Remover




B1036:15	Right Front Seat Heater Element: Circuit Short To Battery or Open	REFER to: FRONT SEATS . See DTC Chart: FCIM.
B1038:11	Left Front Seat Heater Sensor: Circuit Short To Ground	REFER to: FRONT SEATS . See DTC Chart: FCIM.
B1038:15	Left Front Seat Heater Sensor: Circuit Short To Battery or Open	REFER to: FRONT SEATS . See DTC Chart: FCIM.
B103A:11	Right Front Seat Heater Sensor: Circuit Short To Ground	REFER to: FRONT SEATS . See DTC Chart: FCIM.
B103A:15	Right Front Seat Heater Sensor: Circuit Short To Battery or Open	REFER to: FRONT SEATS . See DTC Chart: FCIM.
B105A:12	Cabin Temperature Sensor Fan: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Dual Automatic Temperature Control (DATC) . See FCIM - DATC DTC Chart.
B105A:14	Cabin Temperature Sensor Fan: Circuit Short To Ground or Open	REFER to: Climate Control System - Vehicles With: Dual Automatic Temperature Control (DATC) . See FCIM - DATC DTC Chart.
B1081:07	Left Temperature Damper Motor: Mechanical Failure	REFER to: Climate Control System - Vehicles With: Dual Automatic Temperature Control (DATC) . See FCIM - DATC DTC Chart.
B1081:11	Left Temperature Damper Motor: Circuit Short To Ground	REFER to: Climate Control System - Vehicles With: Dual Automatic Temperature Control (DATC) . See FCIM - DATC DTC Chart.
B1081:12	Left Temperature Damper Motor: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Dual Automatic Temperature Control (DATC) . See FCIM - DATC DTC Chart.
B1081:13	Left Temperature Damper Motor: Circuit Open	REFER to: Climate Control System - Vehicles With: Dual Automatic Temperature Control (DATC) . See FCIM - DATC DTC Chart.
B1082:07	Right Temperature Damper Motor: Mechanical Failure	REFER to: Climate Control System - Vehicles With: Dual Automatic Temperature Control (DATC) . See FCIM - DATC DTC Chart.
B1082:11	Right Temperature Damper Motor: Circuit Short To Ground	REFER to: Climate Control System - Vehicles With: Dual Automatic Temperature Control (DATC) . See FCIM - DATC DTC Chart.
B1082:12	Right Temperature Damper Motor: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Dual Automatic

Ignition OFF.

Disconnect: RHF Door Woofer Speaker C612 .

Operate the audio system in AM/ FM mode.

Measure:

Positive Lead	Measurement / Action	Negative Lead
C612-1		C612-4

Is a fluctuating AC voltage present?

Yes	INSTALL a new RHF door woofer speaker. REFER to: Front Door Speaker RH .
------------	--

No	GO to P2
-----------	----------



P2 CHECK THE AUDIO CIRCUITS TO THE RHF (RIGHT-HAND FRONT) DOOR WOOFER SPEAKER FOR A SHORT TO VOLTAGE

Ignition OFF.

Disconnect: Audio DSP Module C2385B .

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
C612-1		Ground
C612-4		Ground

Is any voltage present?

Yes	REPAIR the circuit in question.
------------	---------------------------------

No	GO to P3
-----------	----------

P3 CHECK THE AUDIO CIRCUITS TO THE RHF (RIGHT-HAND FRONT) DOOR WOOFER SPEAKER FOR A SHORT TO GROUND

Ignition OFF.

Measure:

Positive Lead	Measurement / Action	Negative Lead
---------------	----------------------	---------------

Do the turn signal indicators operate correctly?

Yes	GO to BL3
------------	-----------

No	GO to Pinpoint Test S
-----------	-----------------------

BL3 PERFORM THE BCM (BODY CONTROL MODULE) SELF-TEST

Using a diagnostic scan tool, perform the BCM self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Body Control Module (BCM) .
------------	---------------------------------------

No	DIAGNOSE all GWM Diagnostic Trouble Codes (DTCs). REFER to: MODULE COMMUNICATIONS NETWORK .
-----------	---

DIAGNOSIS AND TESTING > INSTRUMENTATION, MESSAGE CENTER AND WARNING CHIMES > PINPOINT TESTS > PINPOINT TEST BM : U0100:00

Normal Operation and Fault Conditions

IPC DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0100:00	Lost Communication With ECM/PCM "A": No Sub Type Information	Sets in continuous memory in the IPC if data messages received from the PCM through the GWM are missing for 5 seconds or longer.

Possible Sources

- Communication concern
- Battery voltage concern
- GWM concern
- PCM
- IPC

DIAGNOSIS AND TESTING > INSTRUMENTATION, MESSAGE CENTER AND WARNING CHIMES > PINPOINT TESTS > PINPOINT TEST BM : U0100:00 > PINPOINT

part# N/A

Service Pigtail

See Below



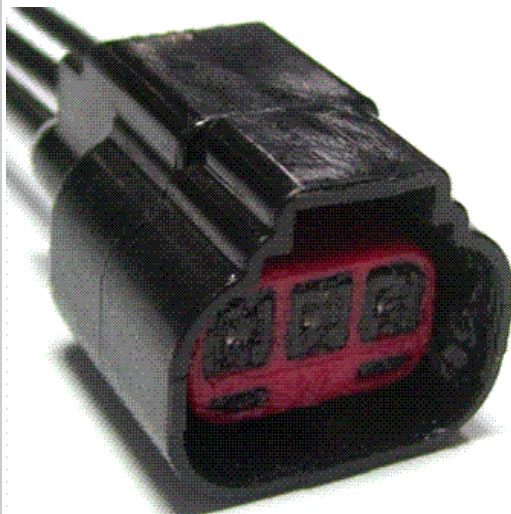
Check for Terminal Part Numbers

Pin	Circuit	Gauge	Circuit Function	Qualifier
1	LE423 (GN-VT)	20	CTRL MOD. - POWERTRAIN # VOLTAGE REFERENCE ENGINE (VREF)	
2	VE711 (YE-VT)	20	SENSOR - CRANKSHAFT POSITION (CKP)	
3	RE405 (GN-WH)	20	CTRL MOD. - POWERTRAIN # SIGNAL RETURN ENGINE (SIGRTN)	

Available Pigtail Kits

Pigtail Kit Part Number

WPT-990



Service Part Number:

8U2Z-14S411-ZB

Gauge:

14

Pin material:

Tin (greased)

Cavities:

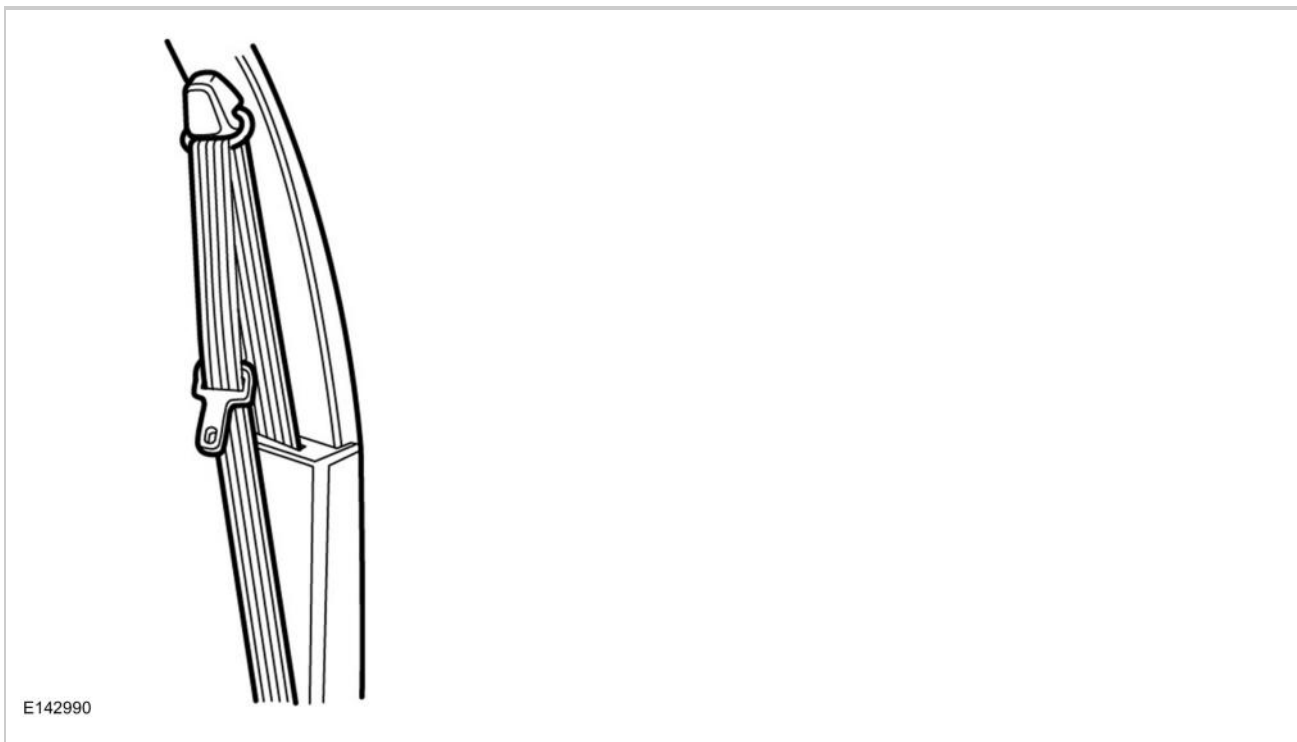
3

Vehicle Uses

Sensor - Cam Shaft Position

Sensor - Crank Shaft Position

Sensor - Fuel Tank Pressure Transducer



REMOVAL AND INSTALLATION > CHILD SAFETY SEAT TETHER ANCHOR > REMOVAL



NOTE: LHD shown in illustration, RHD similar.



NOTE: RH shown in illustration, LH similar.



NOTE: Removal steps in this procedure may contain installation details.

1.

Remove the rear seat cushion. Refer to: Rear Seat Cushion .

2.

Remove the retainers and the child safety seat tether anchor.

Torque

: 30 lb.ft (40 Nm)

System (SRS) Repowering .

Ignition ON.

Attempt to recreate the fault by wiggling connectors (including any inline connectors) and flexing the wire harness, tilting and rotating the steering wheel frequently.

Using a diagnostic scan tool, perform RCM self-test.

Was DTC B0001:12 retrieved on-demand during self-test?

Yes	DEPOWER the SRS and REPAIR as necessary. Refer to OEM CONNECTOR REPAIR PROCEDURES for schematic and connector information. GO to A24.
No	The fault is not present and cannot be recreated at this time. Do not install any new SRS components at this time. Install SRS components only when directed to do so in the pinpoint test. GO to A23.

A23 CHECK THE HARNESS AND CONNECTORS

Ignition OFF.

Depower the SRS. REFER to: Supplemental Restraint System (SRS) Depowering .

Remove the driver airbag. REFER to: Driver Airbag .

Inspect connector(s) (including any inline connectors) for corrosion, loose or spread terminals and loose or frayed wire connections at terminals.

Inspect wire harness for any damage, pinched, cut or pierced wires.

Inspect RCM C310A and C310B Connector Position Assurance (CPA) lever/lock for correct operation.

Inspect Driver Airbag C216A Connector Position Assurance (CPA) tab to verify that it is correctly seated and free of damage.

Were any concerns found?

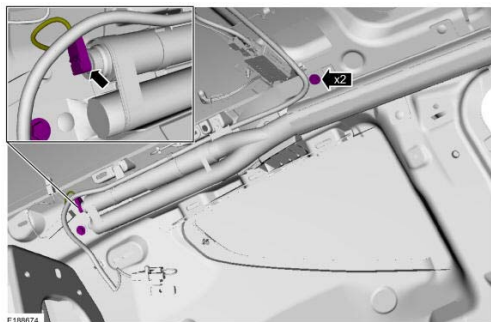
Yes	REPAIR as necessary. Refer to OEM CONNECTOR REPAIR PROCEDURES for schematic and connector information. GO to A24.
No	The fault is not present and cannot be recreated at this time. Do not install any new SRS components at this time. Install SRS components only when directed to do so in the pinpoint test. GO to A24.

A24 CHECK FOR ADDITIONAL SRS (SUPPLEMENTAL RESTRAINT SYSTEM) DIAGNOSTIC TROUBLE CODES (DTCS)

Ignition OFF.

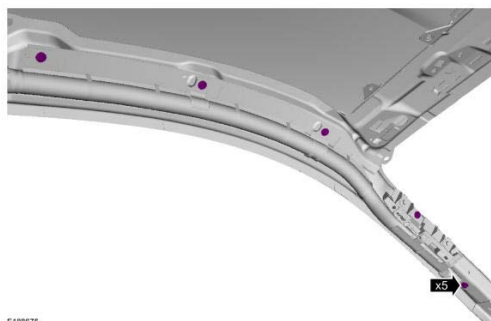
Reconnect all SRS components (if previously disconnected).

If previously directed to depower the SRS, repower the SRS.

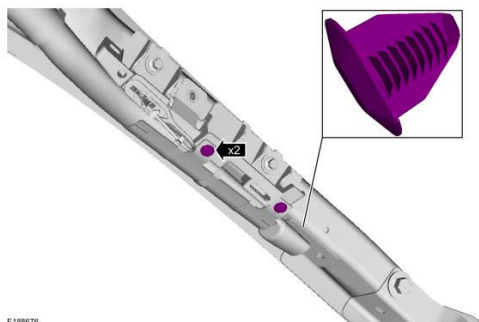


NOTE: Follow the unique instructions or graphic for this step in installation.

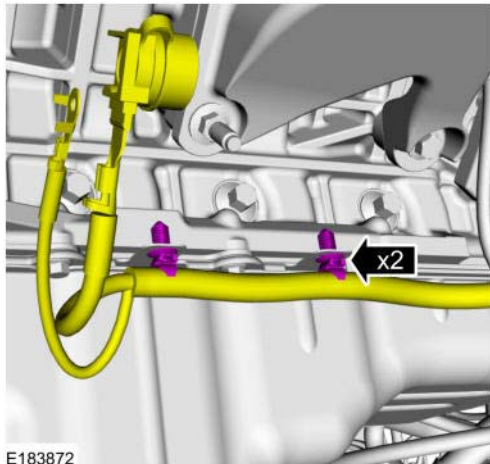
4.
Remove the screws.



5.
Remove the pin-type retainers at the A-pillar.



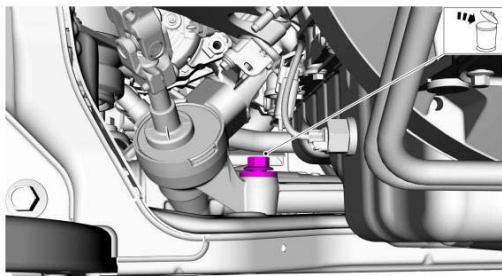
6.
Disengage the retainer and position the side curtain airbag away from the A-pillar.



All vehicles

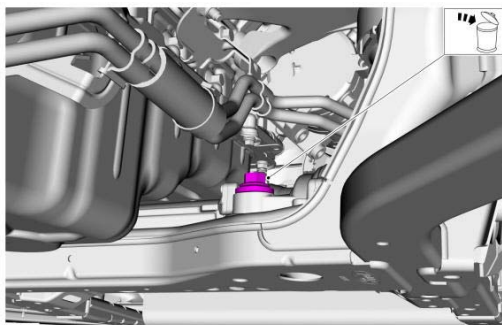
28.

Remove and discard the LH steering gear bolt.



29.

Remove and discard the RH steering gear bolt.



30.

On convertible vehicles. If equipped. Remove the steering gear bracket bolt and the steering gear bracket.

Positive Lead	Measurement / Action	Negative Lead
C1575-7	Ω	Ground
C1575-9	Ω	Ground
C1575-14	Ω	Ground
C1575-13	Ω	Ground
C1575-10	Ω	Ground
C1575-8	Ω	Ground
C1575-16	Ω	Ground
C1575-3	Ω	Ground

Are the resistances greater than 10, 000 ohms?








Yes	GO to A6
------------	----------

No	REPAIR the transmission vehicle harness circuit. CLEAR the DTCs.
-----------	--

A6 CHECK SOLENOID CONTROL CIRCUITS FOR A SHORT TO POWER

Connect: PCM C1381E

Measure the voltage between the transmission vehicle harness C1575 , harness side and ground using the following chart:

Positive Lead	Measurement / Action	Negative Lead
C1575-9		Ground
C1575-14		Ground
C1575-13		Ground
C1575-10		Ground
C1575-8		Ground
C1575-16		Ground
C1575-3		Ground

Is the voltage greater than 3 volts on the suspect circuit?

Yes	REPAIR the transmission vehicle harness circuit. CLEAR the DTCs.
------------	--

No	GO to A7
-----------	----------

Fig 9: Navigation Circuit, W/O Touch Screen (4 of 4)

