

2020-22 ACCESSORIES & EQUIPMENT

Acoustic Vehicle Alerting Control Unit - Diagnostics - CR-V (Hybrid)

DTC TROUBLESHOOTING

DTC B2890-13

DTC B2890-13 : An open in the acoustic vehicle alerting speaker circuit

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in [B-CAN System Diagnosis Test Mode A](#).

DTC Description	Confirmed DTC	Pending DTC
B2890-13 An open in the acoustic vehicle alerting speaker circuit	B	B

DTC (Acoustic Vehicle Alerting Control Unit)

1. Problem verification

- 1. Clear the DTCs with the HDS.
- 2. Turn the vehicle to the OFF (LOCK) mode and then the ON mode.
- 3. Wait for at least 20 seconds.
- 4. Check for Pending or Confirmed DTCs with the HDS.

DTC Description	Confirmed DTC	Pending DTC
B2890-13 An open in the acoustic vehicle alerting speaker circuit	B	B

Is DTC B2890-13 indicated?

YES

Go to step 2.

NO

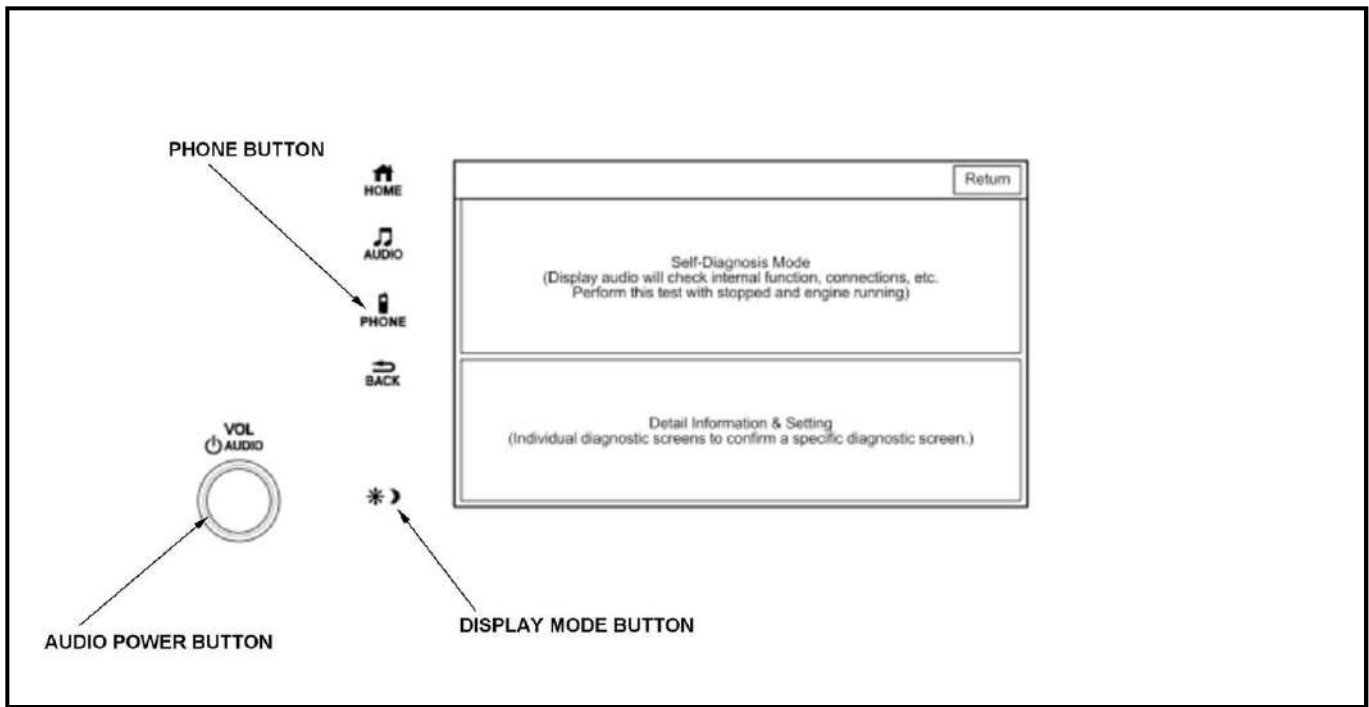
Intermittent failure, the system is OK at this time. Check for loose or poor connections.

2. AUDIBLE SPKR+, AUDIBLE SPKR- lines output check

- 1. Turn the vehicle to the OFF (LOCK) mode.
- 2. Disconnect the following connector.

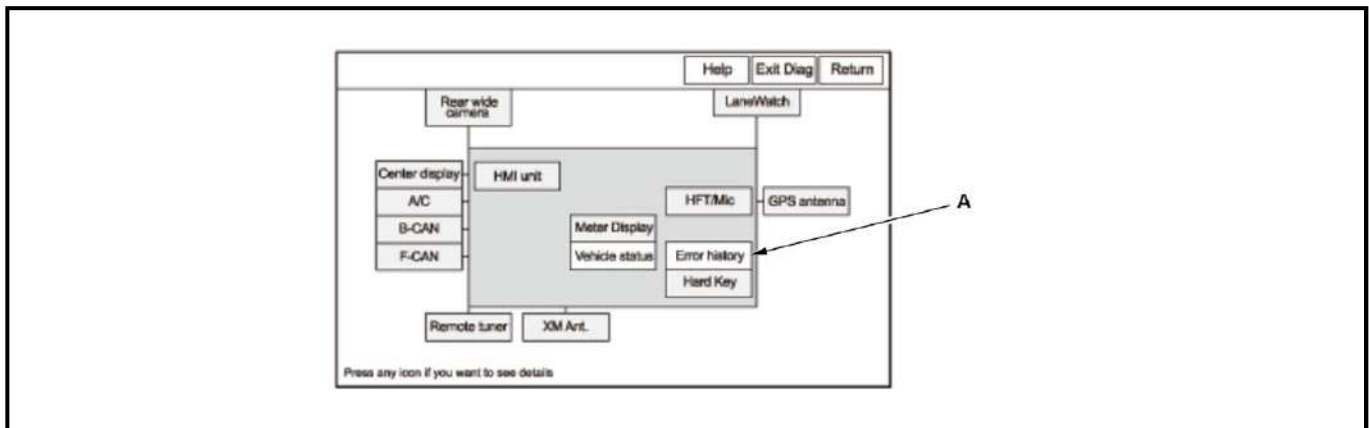
Acoustic vehicle alerting speaker 2P connector

- 3. Raise the vehicle on a lift.
- 4. Turn the vehicle to the READY TO DRIVE mode.
- 5. Shift the transmission to D position/mode, release the brake pedal but do not operate the accelerator pedal.



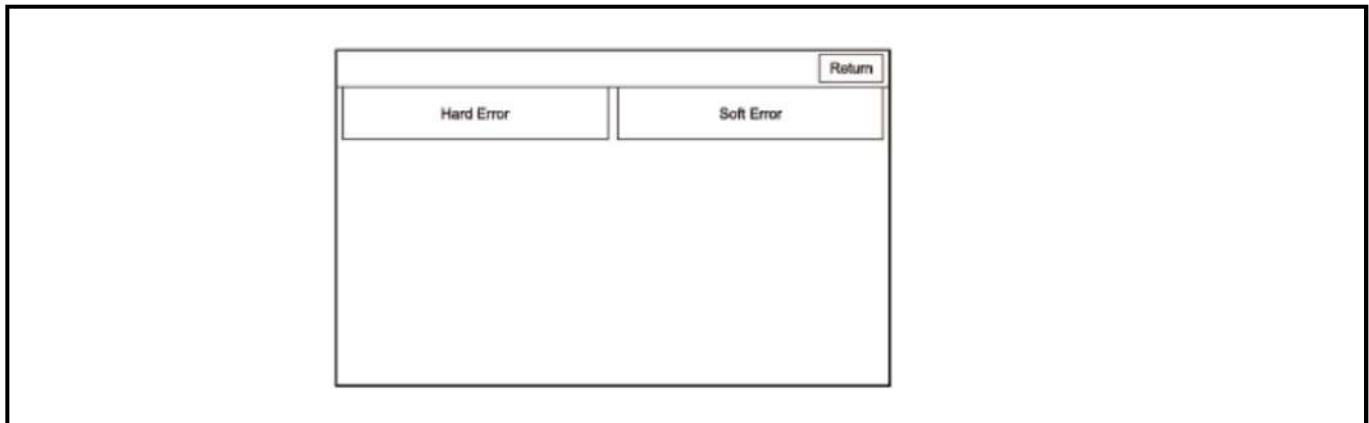
3. When the Select Diagnosis Items menu appears, select the Self-Diagnosis Mode.

4. When the audio unit has hard error codes, the Error History icon (A) appears yellow. When no hard error codes are stored, the icon appears gray. To view the errors with their navigation DTC, select the Error History icon.

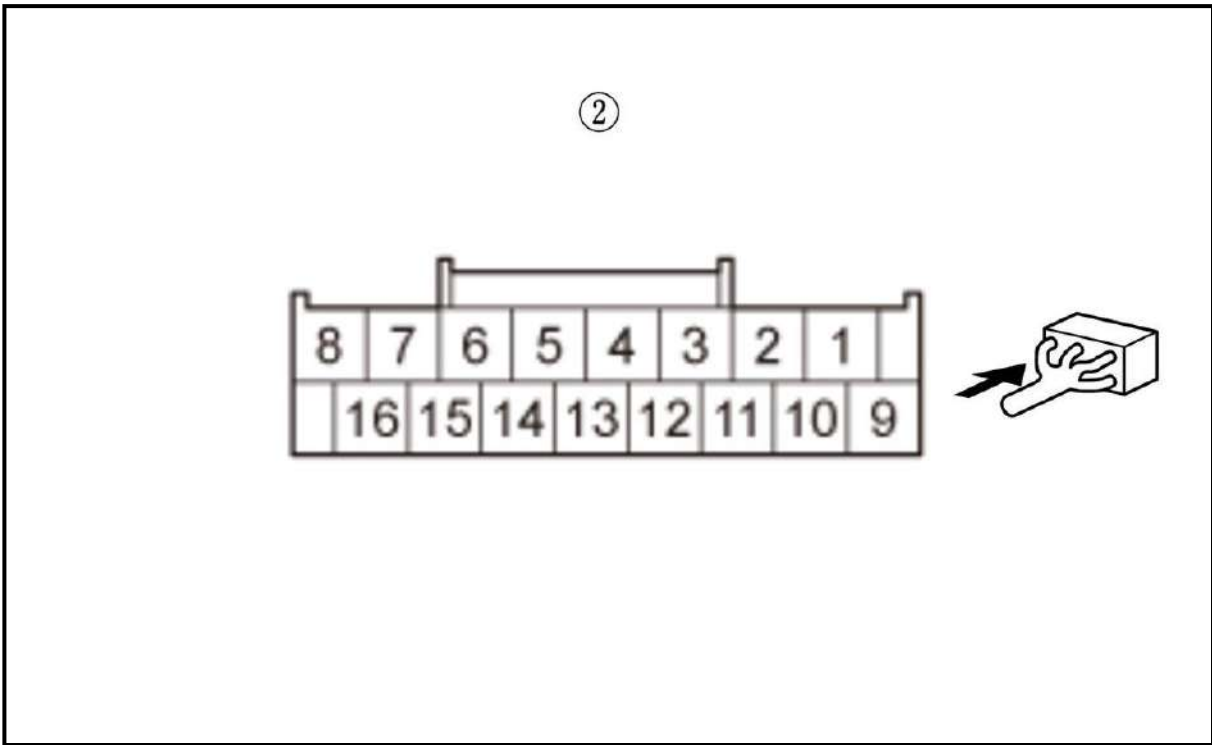


5. Select the Hard Error icon in the Error History menu.

NOTE: The Soft Error feature is for factory use only.



The Hard Error screen displays the following information by selecting the Date/Time icon (A):



Is there 1.0 Ω or less?

YES

The F-CAN B_H wire and the F-CAN B_L wire are OK. According to the detected DTC on the following chart replace the correspond control unit.

DTC	Operation for transmitting control unit
U0100	<u>PCM</u>
U0122	<u>VSA modulator-control unit</u>

NO

Repair an open in F-CAN B_H or F-CAN B_L wire.

8. Open wire check (F-CAN_H line, F-CAN_L line)

- 1. Turn the vehicle to the OFF (LOCK) mode.
- 2. Disconnect the following connector.

Body control module connector B (36P)

- 3. U0100: Jump the SCS line with the HDS, and wait more than 1 minute.

SCS short

- 4. Disconnect the transmitting control unit connector(s).

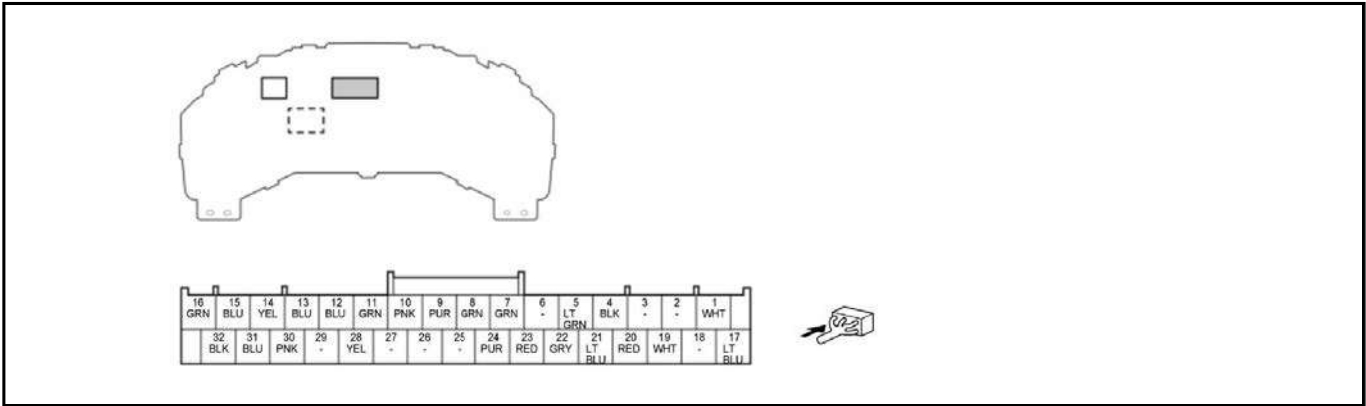
Refer to the DTC shown on the display, then disconnect the connector(s) based on the instructions (see chart below).

DTC	Connector
U0100	PCM connector A (51P)
U0122	VSA modulator-control unit 46P connector

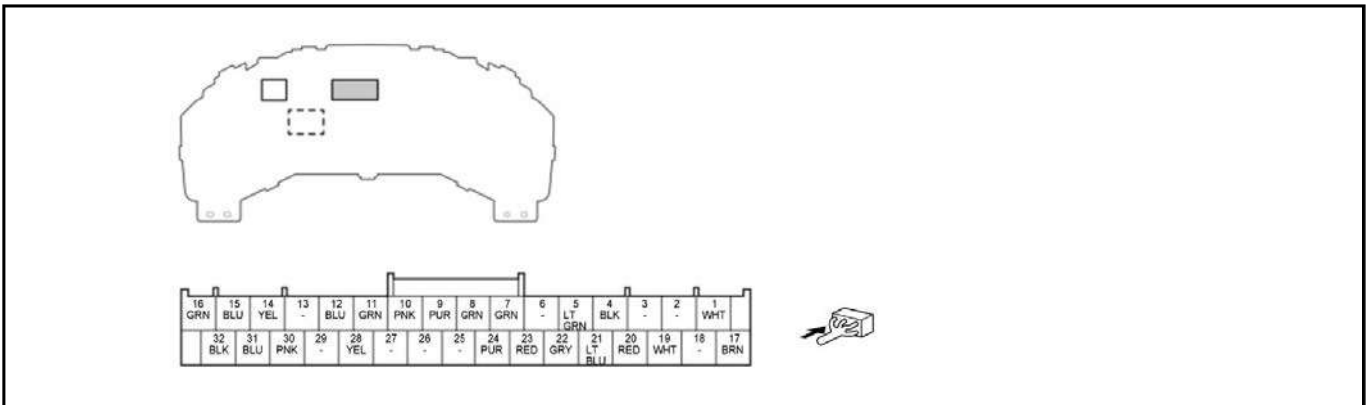
Connector Index

Gauge Control Module Connector A (32P) (with multi-information display and with auto idle stop system)
Gauge Control Module Connector A (32P) (with multi-information display and without auto idle stop system)
Gauge Control Module Connector A (32P) (without multi-information display)
Gauge Control Module Connector B (12P) (not used)
Gauge Control Module Connector C (3P) (display audio type)

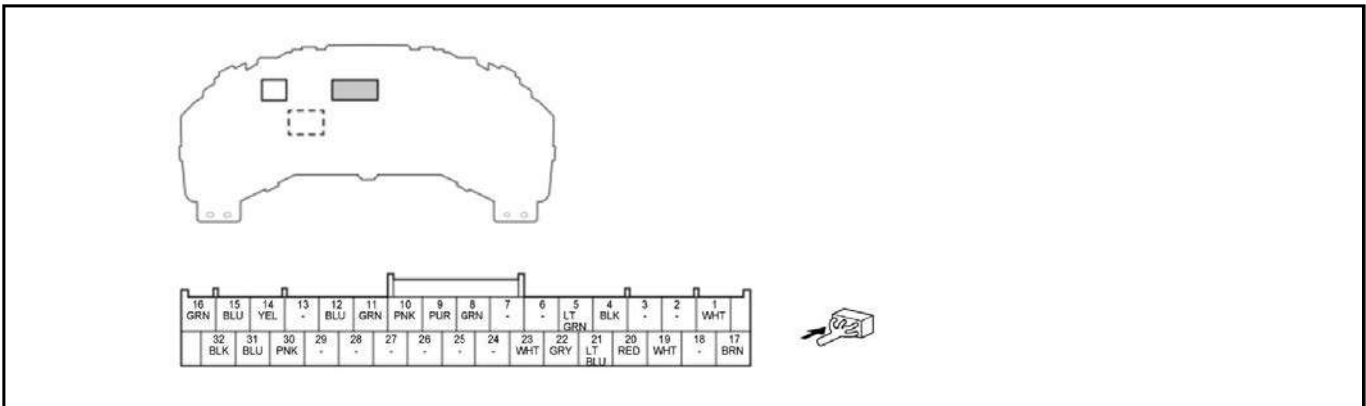
Gauge Control Module Connector A (32P) (female terminals) (with multi-information display and with auto idle stop system)



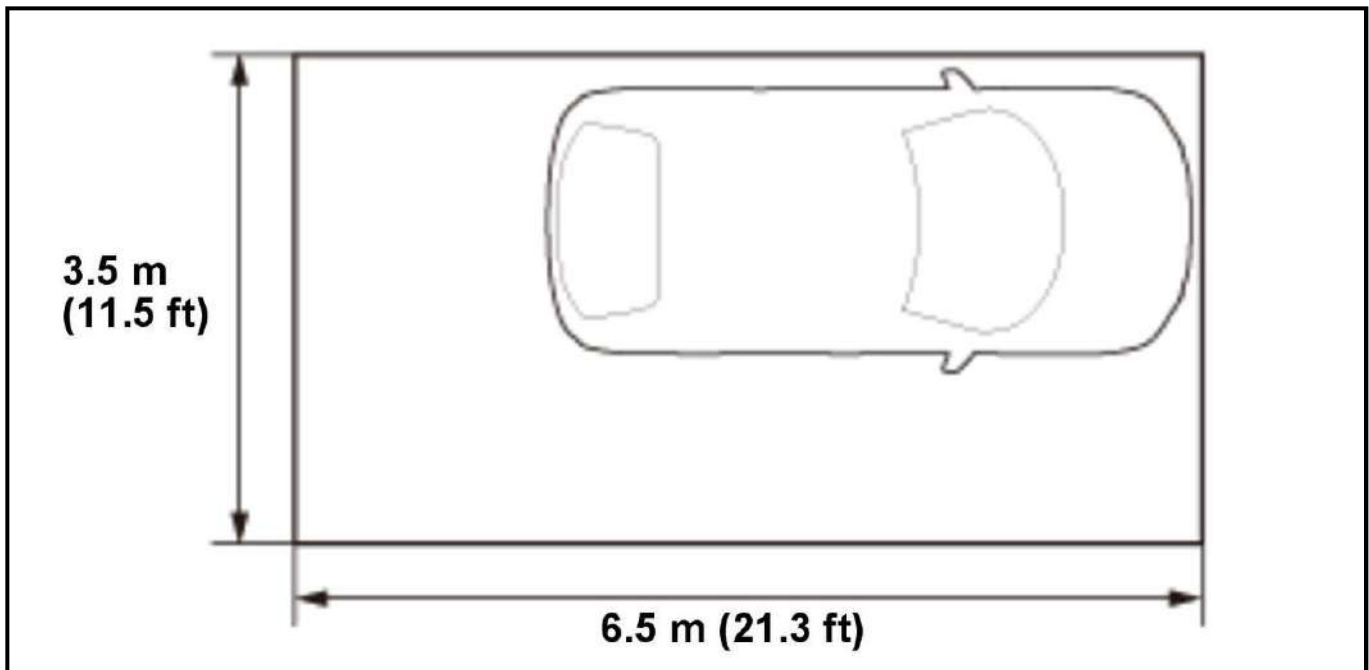
Gauge Control Module Connector A (32P) (female terminals) (with multi-information display and without auto idle stop system)



Gauge Control Module Connector A (32P) (female terminals) (without multi-information display)



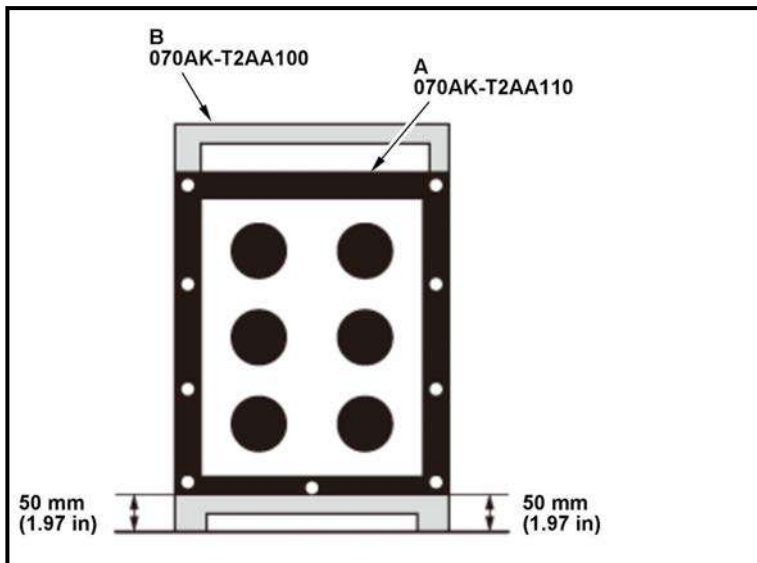
Terminal number	Terminal name	Description	Signal
1	+B BACK UP	+B power source	About battery voltage at all times
2	---	Not used	---
3	---	Not used	---
4	GND	Gauge control module ground	Less than 0.2 V at all times
5	CRUISE GND	Ground for cruise control* 7 / ACC* 6 combination switch	Less than 0.2 V at all times
6	---	Not used	---
7* 8	CMBS OFF SW	Detects CMBS OFF switch signal	With vehicle in ON mode and CMBS OFF switch OFF: about battery voltage With vehicle in ON mode and CMBS OFF switch ON: less than 0.2 V
8	ECON SW	Detects ECON switch signal	With vehicle in ON mode and ECON switch OFF: about battery voltage With vehicle in ON mode and ECON switch ON: less than 0.2 V



- When marking on the floor surface, use suitable tape to mark the exact locations.

1. **Before Aiming - Set**

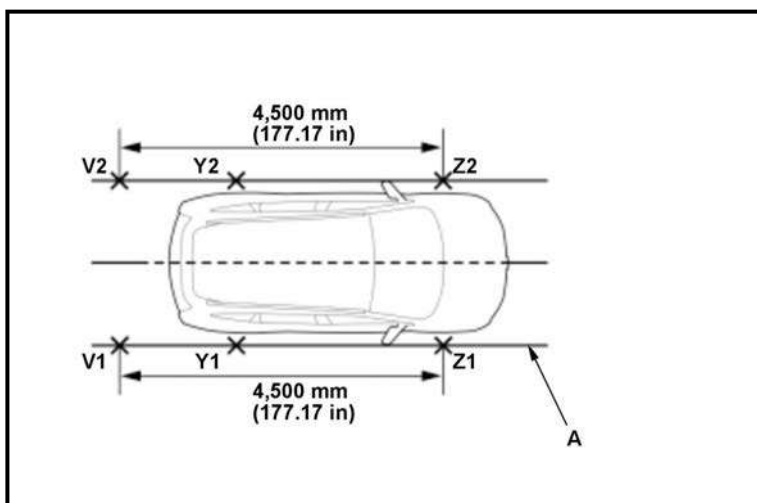
2. Aiming Marker - Set



NOTE:

- Make sure there are no other objects except the aiming target in this area.
- Check the tire pressures, and adjust them to the specified value if needed.
- Put a person or an object equivalent to the driver's weight in the driver's seat.

1. Set the aiming marker (A) to the LaneWatch aiming stand (B), and adjust the height of the aiming marker.

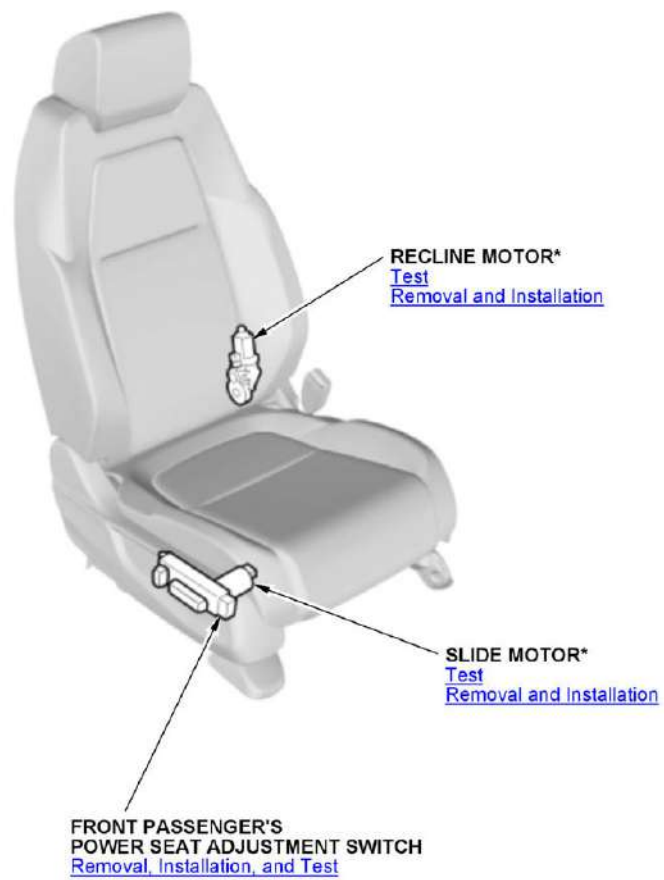


2. Pull a string (A) between the point Z1 and point Y1, and tape both ends of the string on the floor surface.

NOTE: Repeat this step for the opposite side, and pull a string on the floor surface.

3. Measure and make a new spot V1 on the floor surface at the rear of the vehicle 4,500 mm (177.17 in) from the point Z1.

NOTE: Repeat this step for the opposite side, and mark a new spot V2 on the floor surface.



*: Included in a seat frame assembly.

SEAT HEATERS COMPONENT LOCATION INDEX

2. Problem verification

- 1. Test-drive the vehicle in the range of the recorded freeze data parameters.

Freeze Data

- 2. Monitor the OBD STATUS for DTC P1F3C in the DTCs MENU with the HDS.

DTC Description	OBD STATUS
P1F3C VCU Over Temperature	B

Does the HDS indicate FAILED?

YES

Go to step 3.

NO

If the HDS indicates PASSED, the system is OK at this time but has an intermittent failure. If the HDS indicates NOT COMPLETED, keep test-driving until an indication comes on. If the freeze data/on-board snapshot of this DTC is recorded, try to reproduce the failure under the same conditions with the freeze data/on-board snapshot.

3. PCU coolant circuit check

- 1. **Do the PCU coolant circuit inspection** .

Is it OK?

YES

Check the cooling fan operation. If it is OK, **replace the PCU** .

NO

Repair or replace parts as needed.

DTC U0029 (107) (MOTOR CONTROL MODULE)

DTC U0029 : F-CAN Malfunction (Traction Motor Control Module Bus-Off)

NOTE: Before you troubleshoot, **review the general troubleshooting information** .

DTC Description	Confirmed DTC	Pending DTC	Freeze Frame
U0029 F-CAN Malfunction (Traction Motor Control Module Bus-Off)	B	B	B

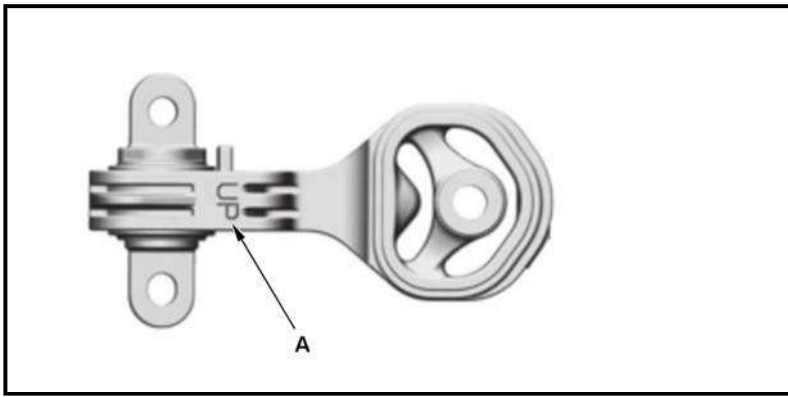
DTC (Electric Powertrain)

1. Problem verification

- 1. Turn the vehicle to the ON mode.
- 2. Clear the DTC with the HDS.
- 3. Turn the vehicle to the OFF (LOCK) mode.
- 4. Turn the vehicle to the ON mode.

Symptom	Probable Cause	Remedy
	<ul style="list-style-type: none"> • - Bearing (wear or damage) • - Drive pinion taper bearing (wear) • - Debris in bearing • Pump noise (at lubrication) • - Debris in pump • - Rotor (wear or damage) • Loose or missed torqued parts 	

Symptom	Probable Cause	Remedy
Abnormal noise (at start)	<ul style="list-style-type: none"> • Gear noise • - Poor gear mesh between ring gear and drive pinion • - Hypoid gear (wear or damage) • - Poor pre-road (drive pinion) • - Debris in hypoid gear area • - Fluid level too low • - Distortion of the differential carrier case • - 	B



1. Install the parts in the reverse order of removal.

NOTE:

- Make sure to install the upper torque rod with the "UP" mark (A) facing up.
- **Do the mounts tightening procedure before tightening all of the mounts' bolts and nuts .**

ENGINE BLOCK DRAIN BOLT/SEALING BOLT REMOVAL AND INSTALLATION (1.5 L ENGINE)

Removal and Installation

1

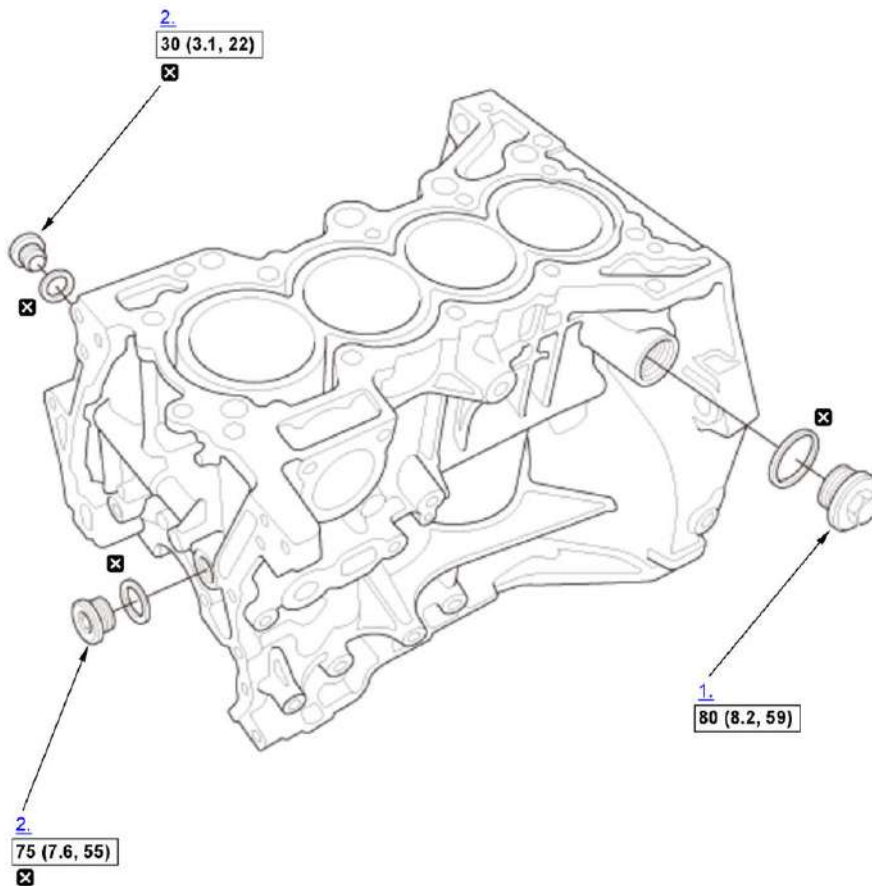


Fig. 30: Engine Block Drain Bolt/Sealing Bolt Replacement Components With Torque Specifications (1.5 L Engine)

Courtesy of HONDA, U.S.A., INC.

[]	Torque: N.m (kgf.m, lbf.ft)
[X]	Replace

1. Drain Bolt - Remove
2. Sealing Bolt - Remove
3. All Removed Parts - Install

1. Install the parts in the reverse order of removal.

Possible Cause

NOTE: The causes shown may not be a complete list of all potential problems, and it is possible that there may be other causes.

- Thermostat failure
- Engine coolant temperature (ECT) sensor 1 failure
- Intake air temperature (IAT) sensor failure
- Manifold absolute pressure (MAP) sensor failure
- Crankshaft position (CKP) sensor failure
- Barometric pressure (BARO) sensor failure
- Ignition system failure
- Fuel supply system failure
- Radiator fan failure
- Hood opened

Confirmation Procedure

Operating Condition

- Start the engine under Enable Conditions (see "Engine off time", "Initial intake air temperature [IAT SENSOR (1)]", "Initial engine coolant temperature (ECT 2) [ECT SENSOR 2]", and "The difference between initial intake air temperature [IAT SENSOR (1)] and current intake air temperature [IAT SENSOR (1)]").
- Drive the vehicle at a speed between 15 - 75 mph (24 - 120 km/h) for at least 30 minutes.
- Drive the vehicle in this manner only if the traffic regulations and ambient conditions allow.

With the HDS

None.

Diagnosis Details

Conditions for setting the DTC

When a malfunction is detected during the first drive cycle with the engine coolant temperature and intake air temperature at engine start-up within the specified temperature range, a Pending DTC is stored in the PCM memory. If the malfunction returns in the next (second) drive cycle with the engine coolant temperature and intake air temperature at engine start-up within the specified temperature range, the MIL comes on and a Confirmed DTC and the freeze data are stored.

Conditions for clearing the DTC

The MIL is cleared if the malfunction does not return in three consecutive trips in which the diagnostic runs. The MIL, the Pending DTC, the Confirmed DTC, and the freeze data can be cleared with the scan tool Clear command or by disconnecting the 12 volt battery.

DTC P0130 (1.5 L ENGINE) (2018 2019 2020 2021)

DTC P0130: Air/Fuel Ratio (A/F) Sensor (Sensor 1) Out of Range

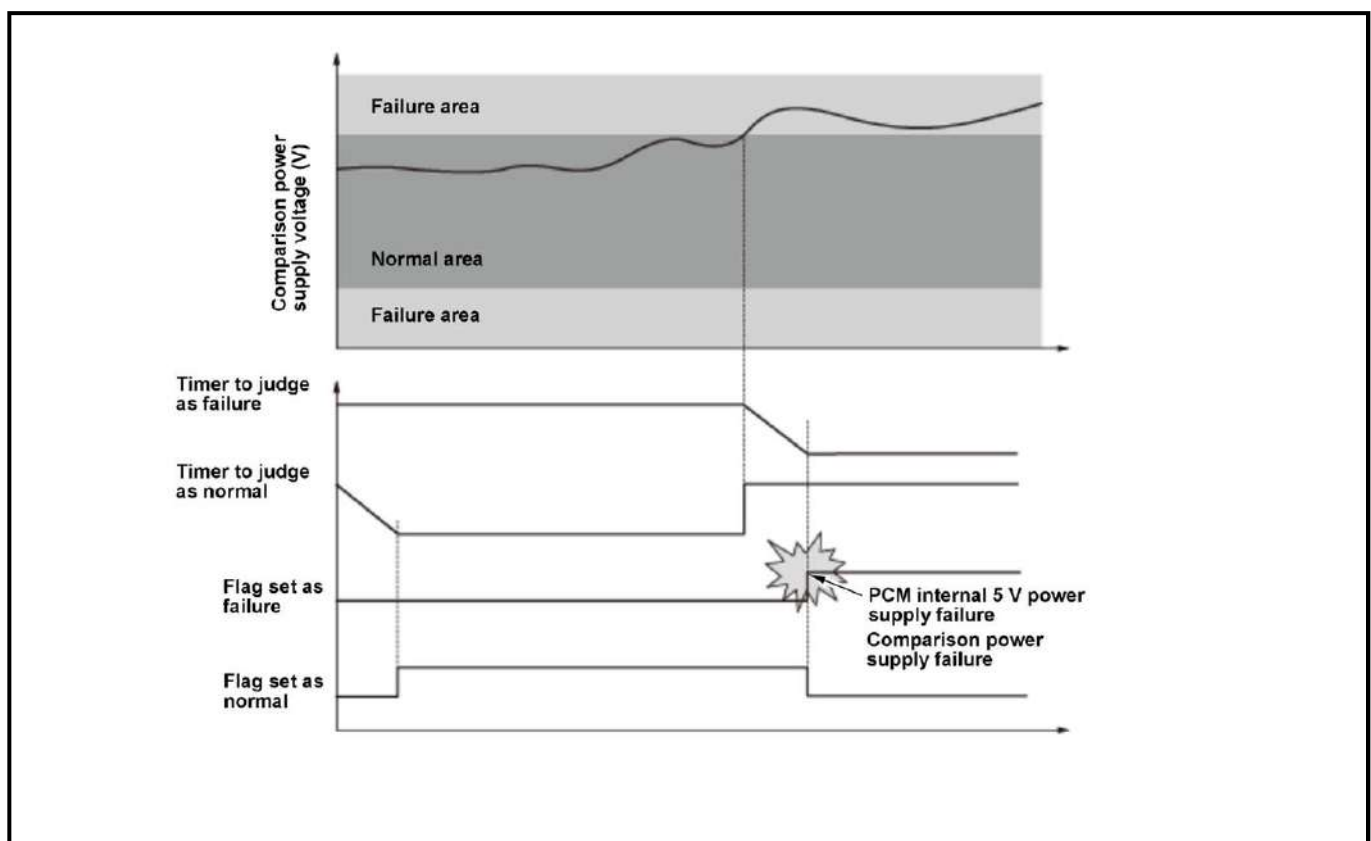
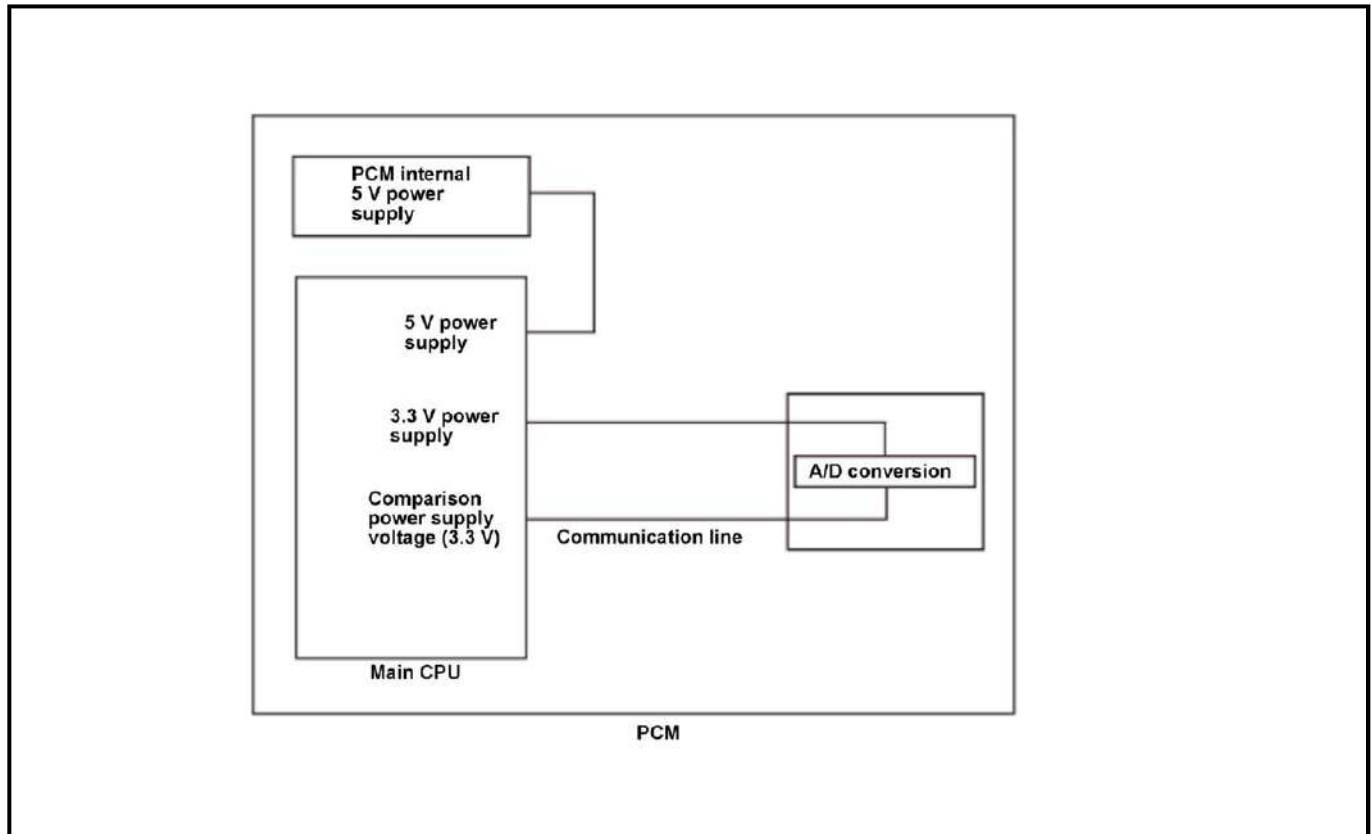
General Description

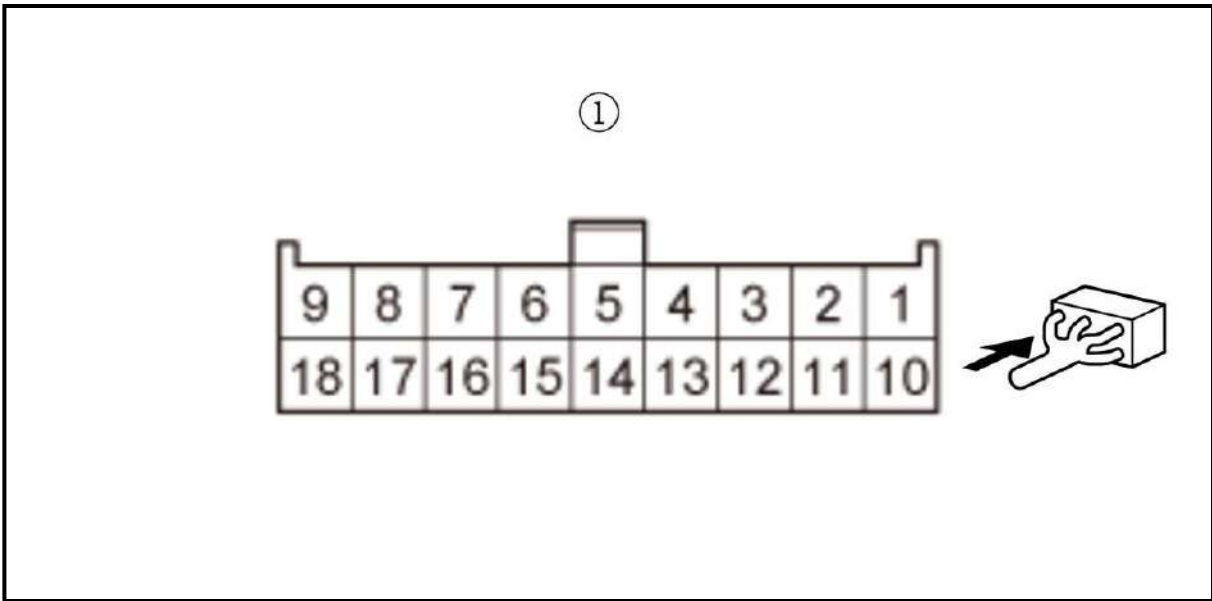
The MIL is cleared if the malfunction does not return in three consecutive trips in which the diagnostic runs. The MIL, the Pending DTC, the Confirmed DTC, and the freeze data can be cleared with the scan tool Clear command or by disconnecting the 12 volt battery.

DTC P06A8

DTC P06A8: Internal VCC Power Malfunction

General Description





Is there continuity?

YES


The FI SUB RLY OUT wire is OK. Go to step 6.

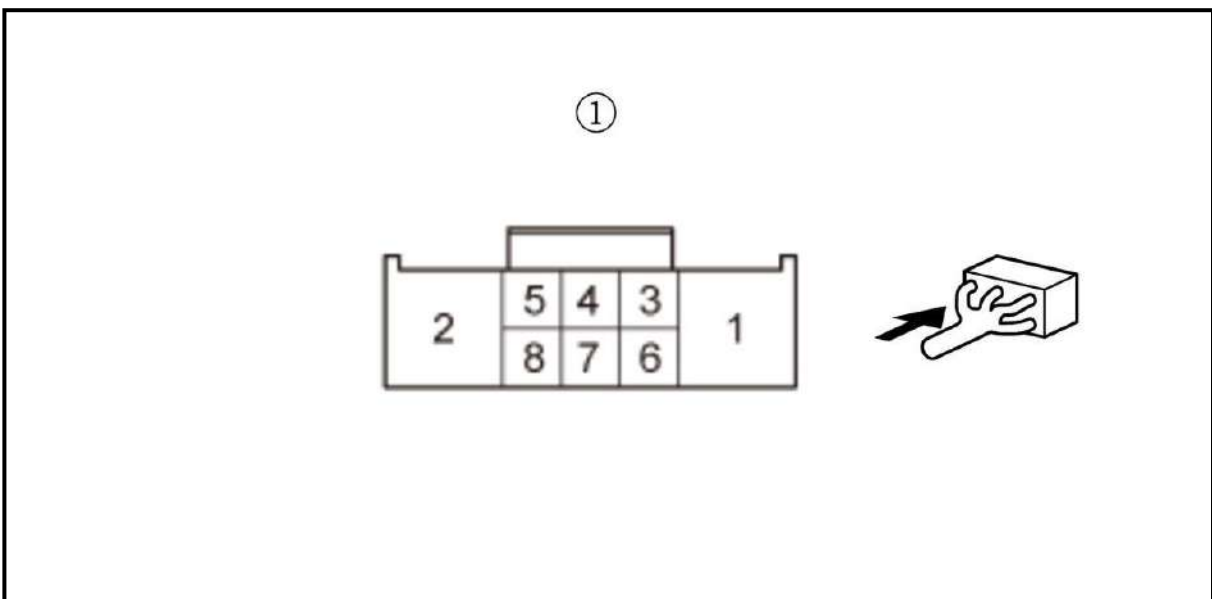
NO

Repair an open in the FI SUB RLY OUT wire between the PCM (A16) and the relay circuit board (PGM-FI subrelay circuit).

6. Open wire check (FI SUB RLY CL- line)

-1. Check for continuity between test points 1 and 2.

Test condition	Vehicle OFF (LOCK) mode
B	Relay circuit board: removed
B	PCM connector A (50P): disconnected
Test point 1	Relay circuit board connector A (8P) (female terminals) No. 3: 
Test point 2	PCM connector A (50P) No. 25



Is there continuity?

YES

Repair a short to power in the PARKCMD wire and/or the PARKBUSY wire between the park pawl actuator driver unit and the PCM.

NO

The PARKCMD wire and the PARKBUSY wire are not shorted to power. Go to step 5.

5. Park pawl actuator driver unit check

- 1. Turn the vehicle to the OFF (LOCK) mode.
- 2. **Substitute a known-good park pawl actuator driver unit** .
- 3. Connect the following connectors.

Park pawl actuator driver unit 26P connector
PCM connector E (80P)

- 4. Turn the vehicle to the ON mode.
- 5. **Update the park pawl actuator driver unit** .

WARNING: Do not turn the vehicle to the OFF (LOCK) mode. Turing the vehicle to the OFF (LOCK) mode during an update can damage the park pawl actuator driver unit.

- 6. Clear the DTC with the HDS.
- 7. Turn the vehicle to the OFF (LOCK) mode.
- 8. Turn the vehicle to the ON mode, and wait for at least 10 seconds.
- 9. Check for Pending or Confirmed DTCs with the HDS.

DTC Description	Confirmed DTC	Pending DTC	Freeze Frame
P170F Park Pawl Unit Communication Circuit (PWM)	B	B	B

Is DTC P170F indicated?

YES

The park pawl actuator driver unit is OK. Check for any authorized service information related to the DTCs or symptoms you are troubleshooting, or **replace the original PCM** .

NO

Replace the original park pawl actuator driver unit .

DTC P1711

DTC P1711 : Park Pawl Unit Malfunction

NOTE: Before you troubleshoot, **review the General Troubleshooting Information** .

DTC Description	Confirmed DTC	Pending DTC	Freeze Frame
P1711 Park Pawl Unit Malfunction	B	B	B

Is DTC B123F or Error on the DTC screen A-A3 (climate control panel without display) or 17 (climate control panel with display) indicated?

YES

Go to step 2.

NO

Intermittent failure, the system is OK at this time.

2. Equipment check 1

-1. Turn the vehicle to the OFF (LOCK) mode.

-2. Confirm the vehicle have an automatic lighting system.

Does the combination light switch have an AUTO position?

YES

Go to step 3.

NO

Go to step [4](#).

3. Equipment check 2

-1. Confirm the vehicle have an automatic wiper system.

Does the wiper/washer switch have an AUTO position?

YES

Go to step 4.

NO


Go to step [9](#).

4. Open wire check (TSUN line)

-1. Disconnect the following connectors.

Climate control unit connector A (32P)
Sunlight sensor 2P connector

-2. Check for continuity between test points 1 and 2.

Test condition	Vehicle OFF (LOCK) mode
	Climate control unit connector A (32P): disconnected
	Sunlight sensor 2P connector: disconnected
Test point 1	<u>Climate control unit connector A (32P) No. 10</u>
Test point 2	Sunlight sensor 2P connector (female terminals) No. 2: 

-8. Turn the vehicle to the ON mode, then wait for 10 seconds.

-9. Check for DTCs with the HDS.

DTC Description	DTC
B0001-12 Short to power in the driver's airbag first inflator	B

Is DTC B0001-12 indicated?

YES

Go to step 4.

NO

Short to power in the cable reel; **replace the cable reel**, then clear the DTC.

4. Shorted wire check (LA1+, LA1- lines to power)

-1. Turn the vehicle to the OFF (LOCK) mode.

-2. Disconnect the negative cable from the 12 volt battery, then wait at least 3 minutes.

-3. Disconnect the following connector.

SRS unit connector A (39P)

-4. Disconnect the SRS inflator simulator from SRS simulator lead J. Do not disconnect SRS simulator lead J from cable reel connector B (4P) on the dashboard wire harness.

-5. Reconnect the negative cable to the 12 volt battery.

-6. Turn the vehicle to the ON mode.

-7. Measure the voltage between test points 1 and 2.

Test condition	Vehicle ON mode
	Driver's airbag first inflator 2P connector (on the cable reel harness): disconnected
	Cable reel connector B (4P) (on the dashboard wire harness): disconnected
	SRS unit connector A (39P): disconnected
	Cable reel connector B (4P) (on the dashboard wire harness): connected to SRS simulator lead J
Test point 1	SRS simulator lead J red terminal
Test point 2	Body ground