

## ACCESSORIES & EQUIPMENT

### Audio Visual Systems - Service Information - HR-V

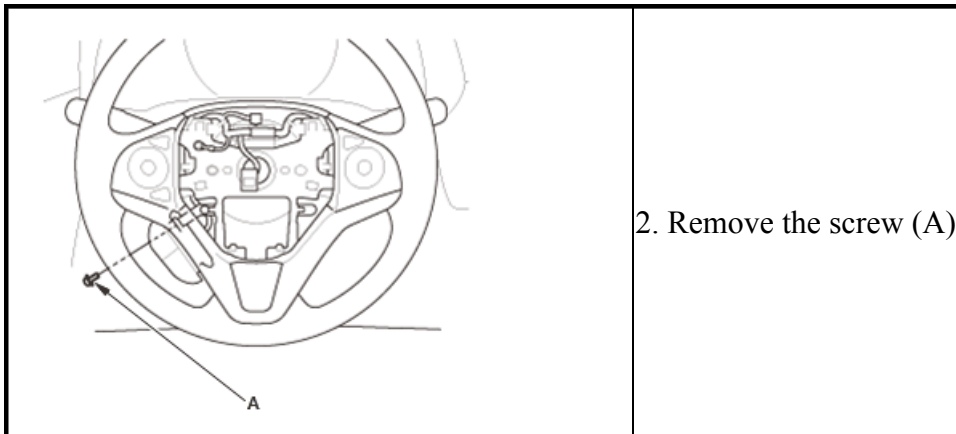
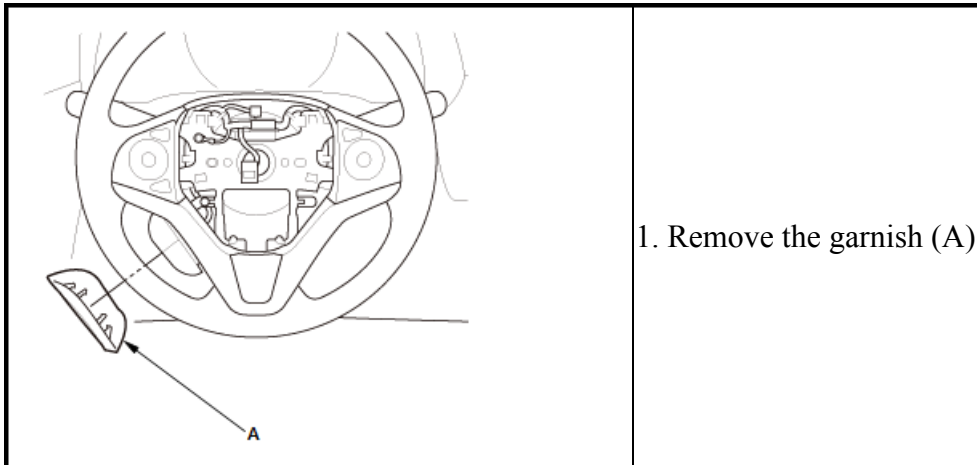
## REMOVAL INSTALLATION

### AUDIO REMOTE SWITCH REMOVAL AND INSTALLATION

#### Removal & Installation

SRS components are located in this area. Review the SRS component locations - Refer to: [SRS Component Location Index \(KA/KC\)](#), or [SRS Component Location Index \(KA/KC\)](#) and the [precautions and procedures](#) before doing repairs or service.

1. [Driver's Airbag - Remove](#)
2. Lower Garnish Assembly - Remove

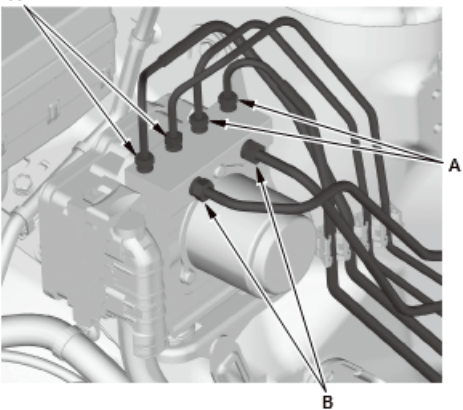


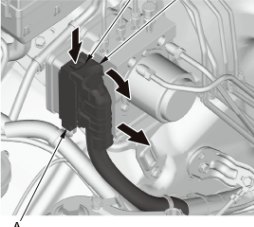
Do not spill brake fluid on the vehicle; it may damage the paint. If brake fluid gets on the paint, wash it off immediately with water.

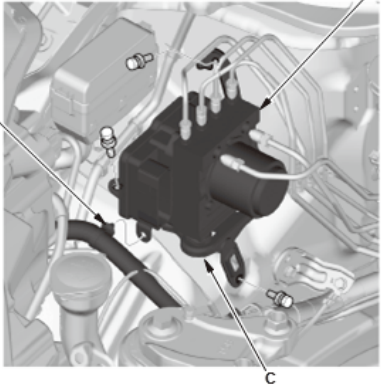
**NOTE:**

- Be careful not to damage or deform the brake lines during removal.
- To prevent the brake fluid from dripping, plug and cover the hose ends and joints with a shop towel.
- The yaw rate-acceleration sensor is built into the VSA modulator-control unit.
- Do not damage or drop the VSA modulator-control unit as it is sensitive.
- Do not use power tools when removing the VSA modulator-control unit.

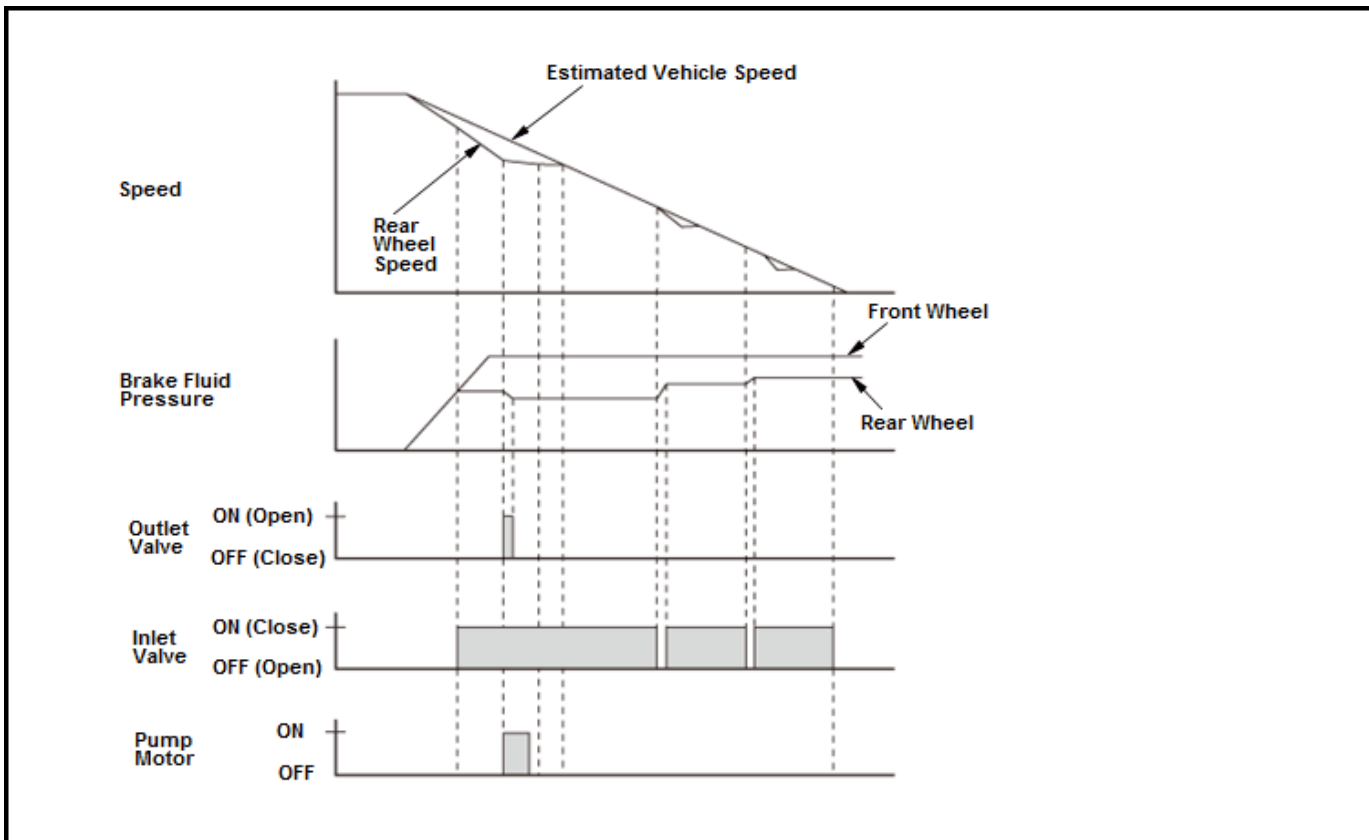
1. VSA Modulator-Control Unit - Remove

 <p>A photograph of the VSA modulator-control unit area. Two sets of brake lines are highlighted with arrows and labels: 'A' points to 10 mm lines and 'B' points to 12 mm lines.</p>	<ol style="list-style-type: none"><li>1. Turn the vehicle to the OFF (LOCK) mode</li><li>2. Disconnect the 10 mm brake lines (A)</li><li>3. Disconnect the 12 mm brake lines (B).</li></ol>
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 <p>A close-up photograph of the electrical connector. Arrows point to the connector (A), the lock (B), and the lever (C).</p>	<ol style="list-style-type: none"><li>4. Disconnect the connector (A) by pushing the lock (B) and pulling down the lever (C); the connector disconnects itself.</li></ol>
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 <p>A photograph showing the VSA modulator-control unit (B) mounted on a bracket (C). A harness clip (A) is also visible.</p>	<ol style="list-style-type: none"><li>5. Remove the harness clip (A)</li><li>6. Remove the VSA modulator-control unit (B) with the bracket (C).</li></ol>
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2. VSA Modulator- Control Unit Bracket - Remove



## VSA SYSTEM DESCRIPTION - ENGINE DRAG TORQUE CONTROL

Downshifting on a slippery road may cause vehicle instability because the engine braking may lock up the wheels. When engine braking begins to cause the wheels to lock up, the engine drag torque control commands the PCM to increase the torque, helping to prevent tire slip.

## VSA SYSTEM DESCRIPTION - HILL START ASSIST CONTROL

### Overview

The hill start assist control assists drivers by automatically controlling brake pressure when starting a vehicle on a steep hill; this assist prevents the vehicle from rolling on a hill for a few seconds while moving the driver's foot from the brake pedal to the accelerator pedal. The hill assist control may not be activated when the driver does not press the brake strongly enough upon stopping the vehicle or when the driver releases the brake pedal gradually upon starting the vehicle.

### Control

The control unit reads the angle of inclination from the yaw rate-acceleration sensor and that all four wheels are stopped, then it calculates the amount of fluid pressure required to keep the vehicle from rolling backward.

This takes place as the control unit sees the brake pressure decrease when the driver lifts their foot off of the brake pedal and moves it onto the accelerator pedal. After the driver transitions to the accelerator pedal and the engine torque is restored to the predetermined level required to start-up the engine, the hill start control will release the brake fluid pressure. The hill start assist control will release the brake fluid pressure if the accelerator pedal is not depressed for a certain period of time after the brake pedal has been released.

## DRIVELINE/AXLES

### AWD System - Diagnostics

## TROUBLESHOOTING

### DTC C1840-12 (47-01): DIFFERENTIAL FLUID PRESSURE SENSOR CIRCUIT HIGH VOLTAGE (AWD)

**NOTE:** Before you troubleshoot, review the General Troubleshooting Information for the AWD with intelligent control system .

DTC Description	DTC	Freeze Frame
C1840-12 Differential Fluid Pressure Sensor Circuit High Voltage	Â	Â

1. Determine possible failure area (electrical circuit problem, hydraulic circuit problem):

- 1. Start the engine.
- 2. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
Voltage of the oil pressure sensor for rear differential	More than 4.14	V	Â	Â

Do the current condition(s) match the threshold?

**YES**

Go to step 3.

**NO**

Go to step 2.

2. Problem verification:

- 1. Clear the DTC with the HDS.
- 2. Select FUNCTIONAL TEST in the AWD WITH INTELLIGENT CONTROL with the HDS.
- 3. Do the OIL PRESSURE CONTROL TEST in the FUNCTIONAL TEST with the HDS .

Oil Pressure Control Test

Is the test result OK?

**YES**

Test point 2	<b><u>PCM connector A (51P) No. 4</u></b>
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Is there continuity?

**YES**

**Update the PCM if it does not have the latest software** , or **substitute a known-good PCM** , and recheck. If the symptom/indication goes away with the updated PCM, troubleshooting is complete. If the symptom/indication goes away with a known-good PCM, **replace the original PCM** .

**NO**

Repair an open in the F-CAN\_H and/or F-CAN\_L wires between the AWD control unit and the PCM.

3. Open wire check (F-CAN\_H, F-CAN\_L lines)2:

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

AWD control unit 24P connector
VSA modulator-control unit 21P connector

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

Test condition	Vehicle OFF (LOCK) mode
Â	AWD control unit 24P connector: disconnected
Â	VSA modulator-control unit 21P connector: disconnected
Test point 1	<b><u>AWD control unit 24P connector No. 14</u></b>
Test point 2	<b><u>VSA modulator-control unit 21P connector No. 8</u></b>
Test point 1	<b><u>AWD control unit 24P connector No. 24</u></b>
Test point 2	<b><u>VSA modulator-control unit 21P connector No. 15</u></b>

Is there continuity?

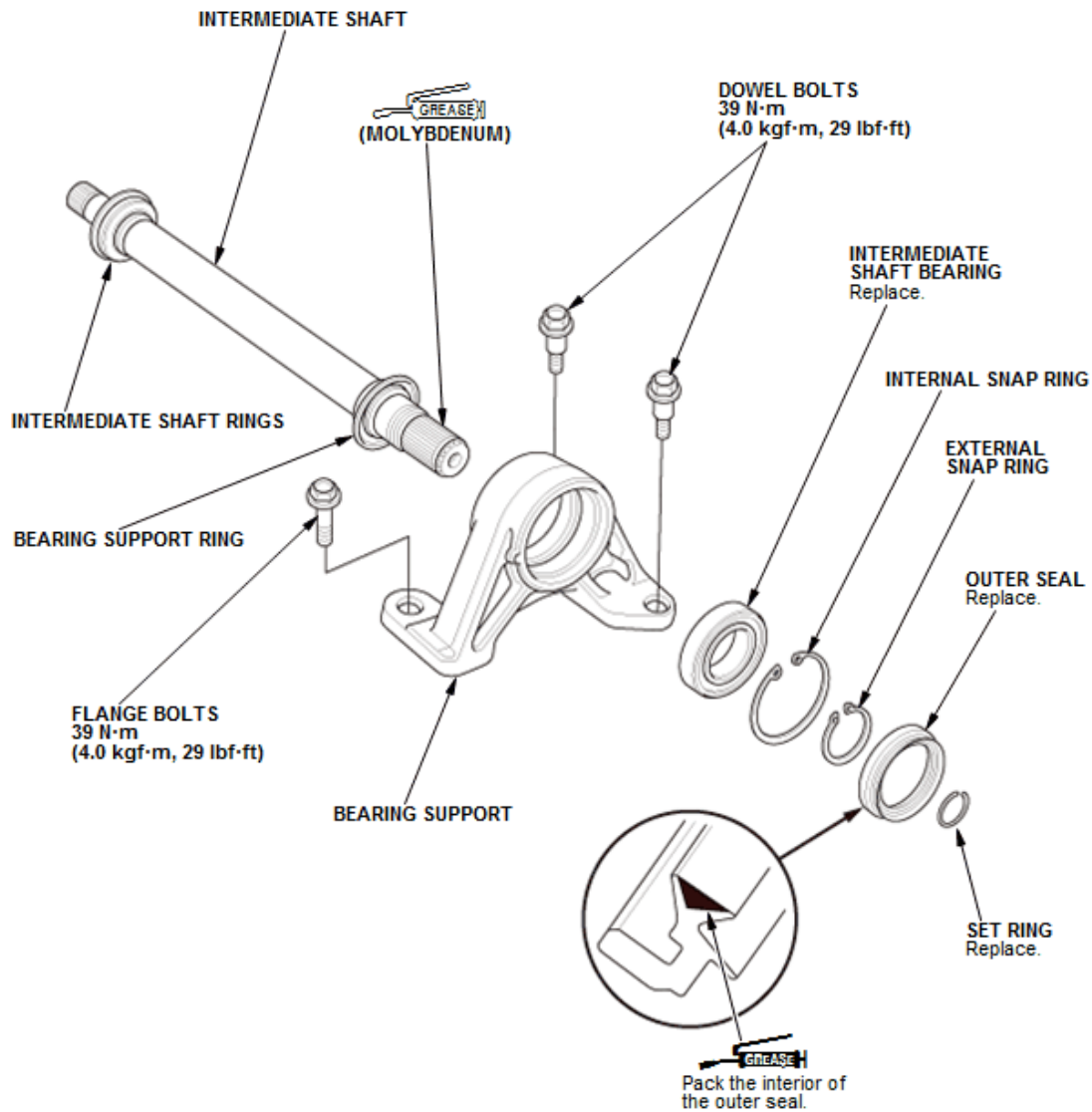
**YES**

**Update the VSA modulator-control unit if it does not have the latest software** , and recheck. If the symptom/indication goes away with the updated VSA modulator-control unit, troubleshooting is complete. If the symptom/indication does not goes away with the updated the VSA modulator-control unit, **replace the VSA modulator-control unit** .

**NO**

Repair an open in the F-CAN\_H and/or F-CAN\_L wires between the AWD control unit and the VSA modulator-control unit.

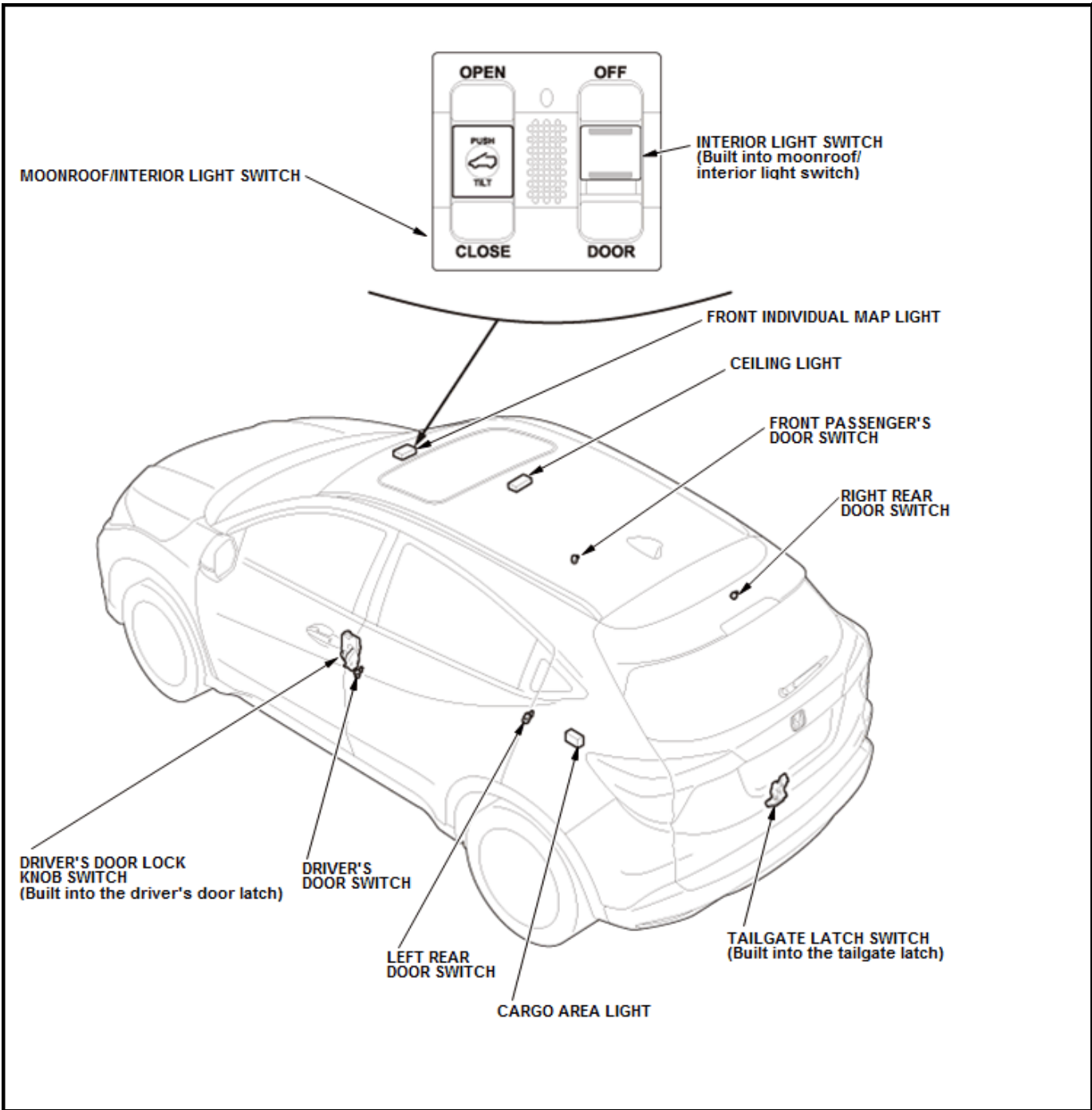
4. Open wire check (F-CAN\_H, F-CAN\_L lines)3:



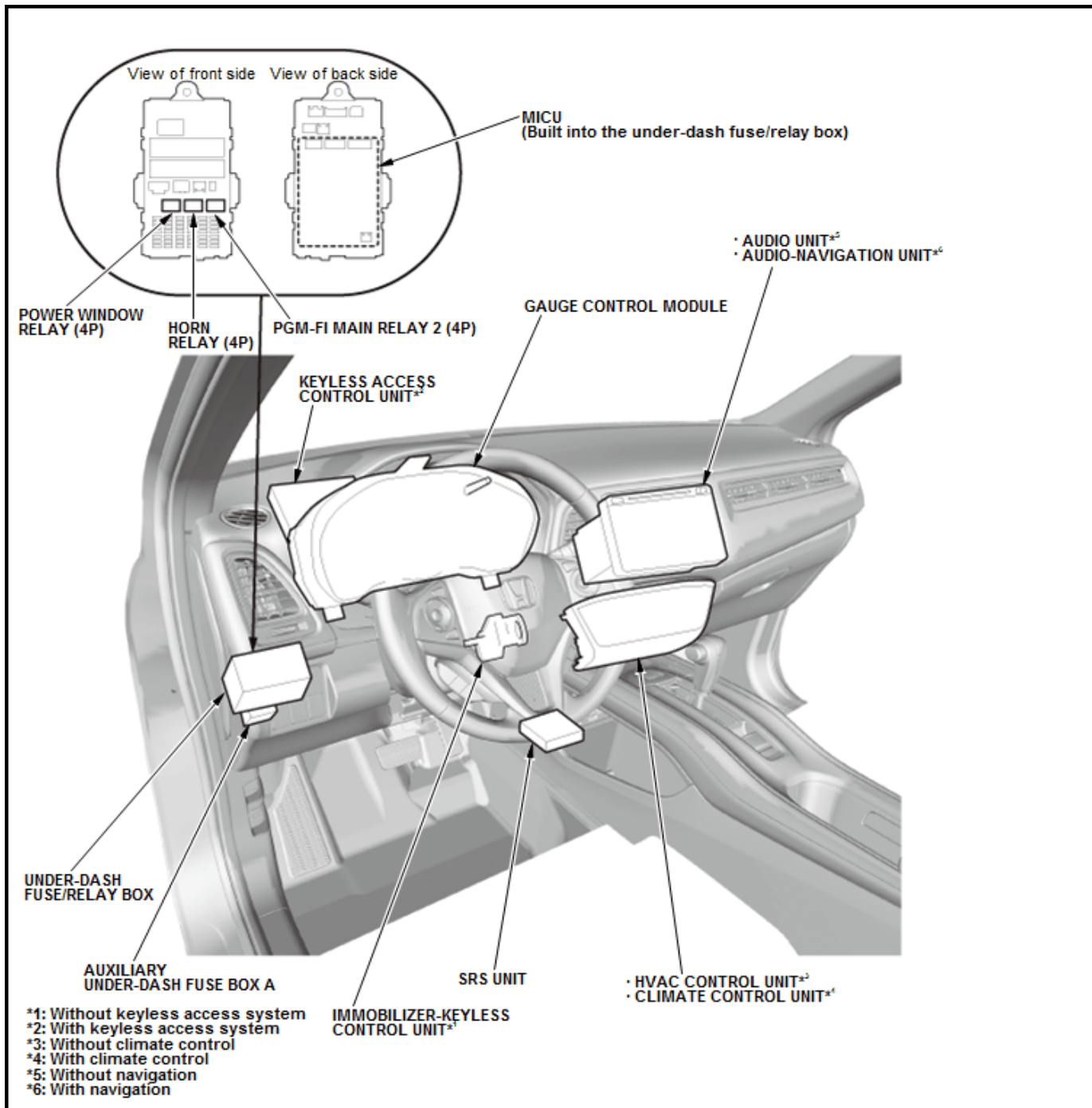
**Fig. 2: Exploded View Of Intermediate Shaft**  
Courtesy of HONDA, U.S.A., INC.

### Disassembly

1. Intermediate Shaft - Remove



**Without moonroof**

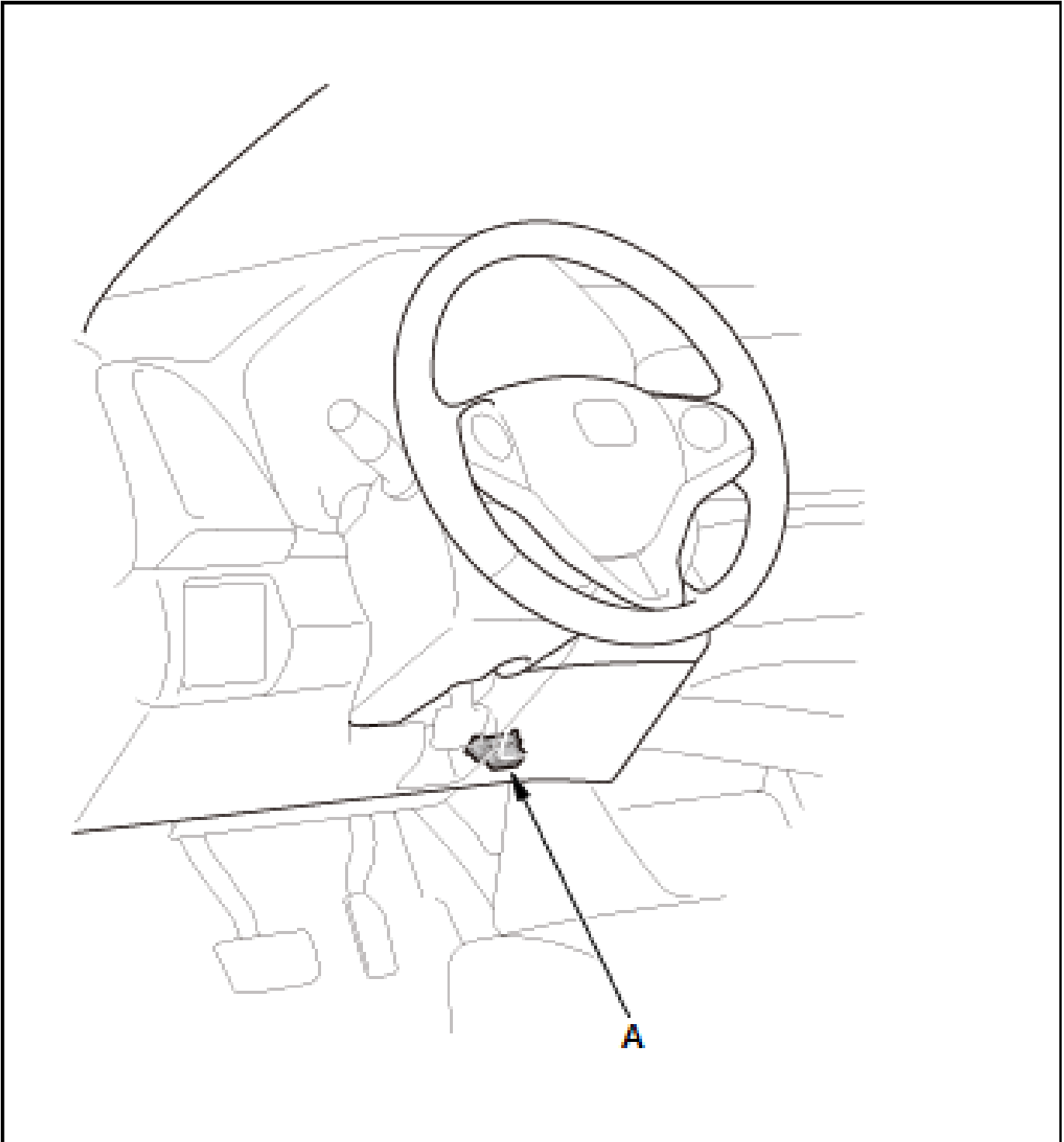


## Dashboard (2/2)



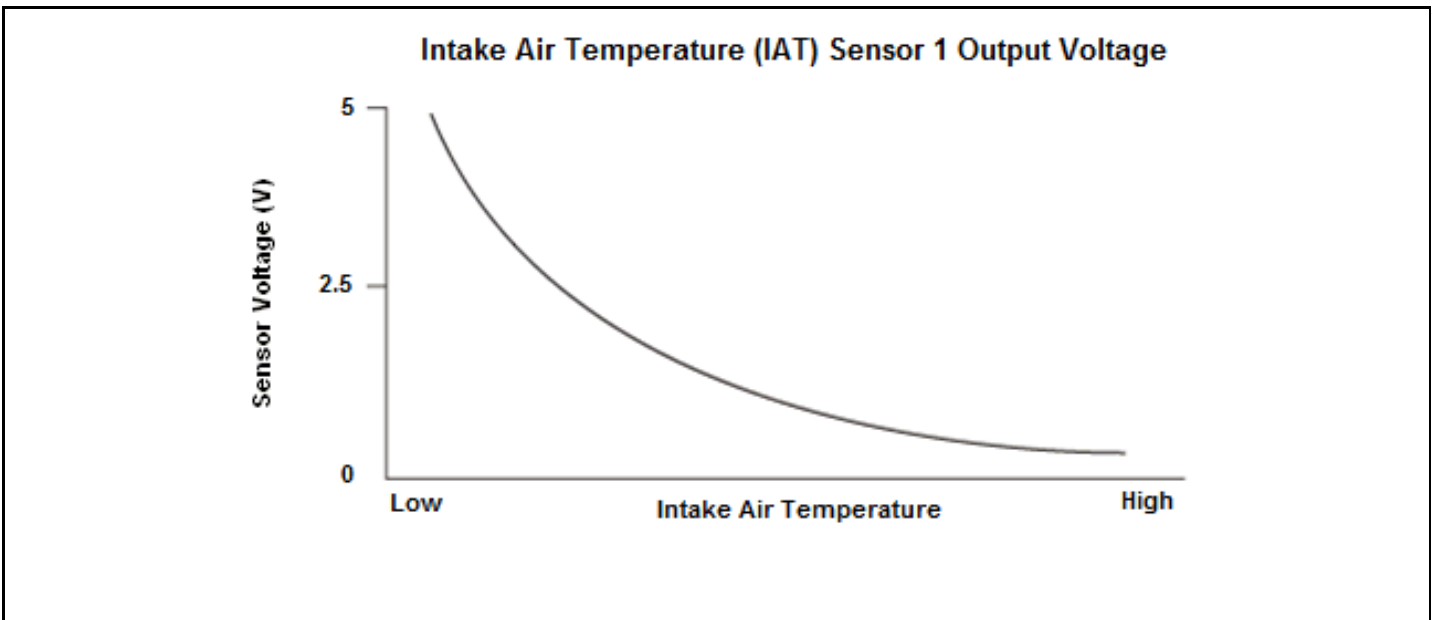
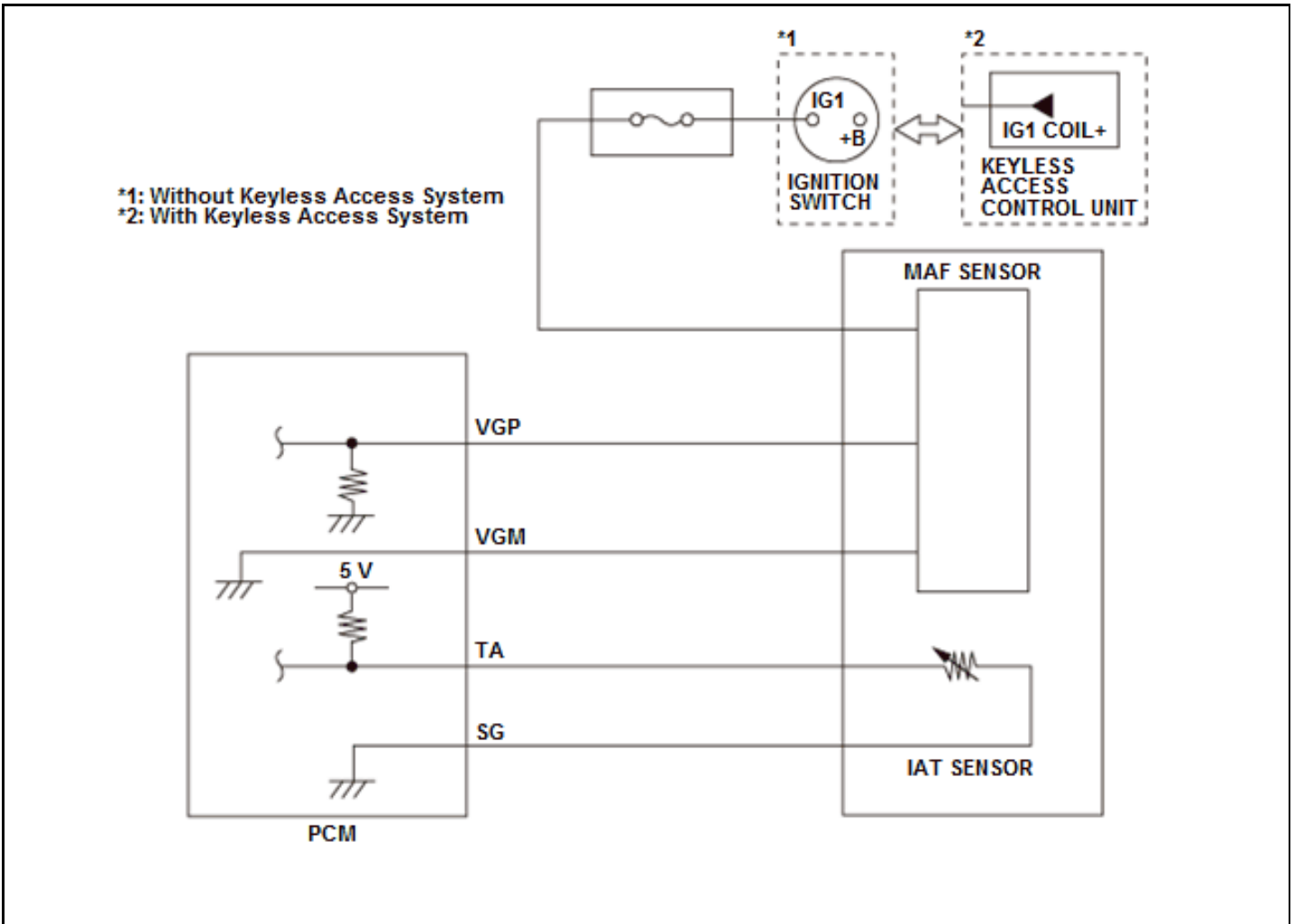
## How to Clear DTCs with the HDS

1. Connect the HDS to the data link connector (DLC) (A) located under the driver's side of the dashboard.



2. Turn the vehicle to the ON mode
3. Clear the DTCs with the HDS
4. Turn the vehicle to the OFF (LOCK) mode, and disconnect the HDS from the DLC.

## B-CAN Circuit Troubleshooting Information



Intake air temperature (IAT) sensor 1 is a thermistor that detects intake air temperature, and it is used for air/fuel ratio feedback control to compensate for the atmospheric density fluctuations that accompany changes in intake air temperature. IAT sensor 1 resistance varies depending on temperature. The output voltage and the sensor resistance increase as the intake air temperature decreases. Conversely, the output voltage and the sensor resistance decrease as the intake air temperature increases. If the IAT sensor 1 output voltage is excessively high, the powertrain control module (PCM) detects a malfunction and stores a DTC.

**Monitor Execution, Sequence, Duration, DTC Type, OBD Status**

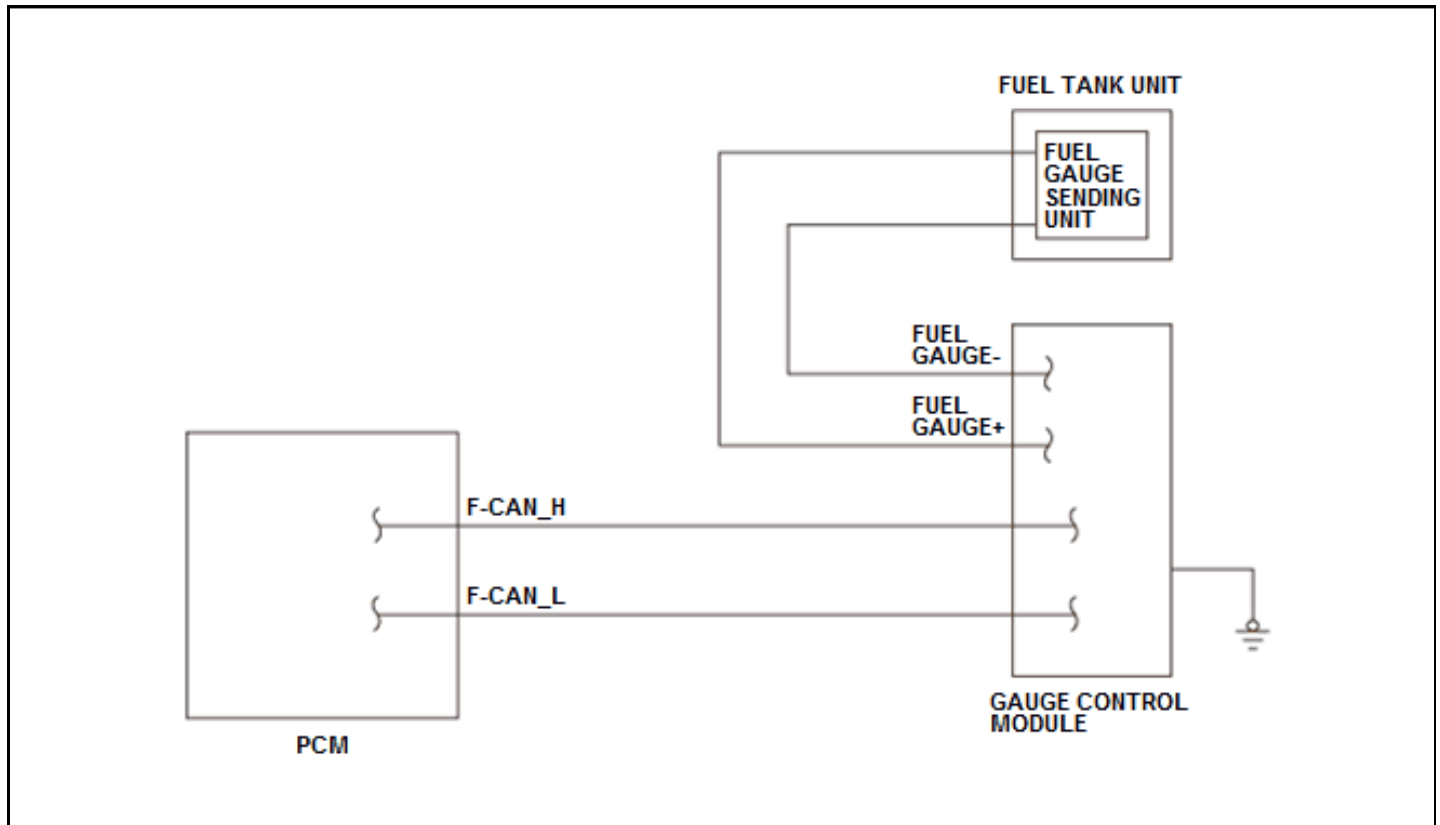
Execution	Continuous
Sequence	None

## Conditions for clearing the DTC

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 P0463: FUEL LEVEL SENSOR (FUEL GAUGE SENDING UNIT) CIRCUIT HIGH VOLTAGE

### General Description



The fuel level sensor (fuel gauge sending unit) is incorporated into the fuel pump and installed in the fuel tank. Using a built-in potentiometer and float, it converts the movement of the float to electrical signals as an output that corresponds fuel level variations in the fuel tank. The fuel level, which is indicated by the gauge control module, is sent to the powertrain control module (PCM) via the controller area network (CAN). If the PCM detects a signal from the fuel level sensor (fuel gauge sending unit) above a predetermined value for a set time, it detects a malfunction and stores a DTC.

### Monitor Execution, Sequence, Duration, DTC Type, OBD Status

Execution	Continuous
Sequence	None
Duration	5 seconds or more
DTC Type	Two drive cycles, MIL off
OBD Status	PASSED/FAILED/NOT COMPLETED (STILL TESTING)

### Enable Conditions

Condition	Minimum	Maximum
12 volt battery voltage [BATTERY]	10.0 V	-
Vehicle	ON mode	
No active DTCs set (prevents monitor from running)	P0462, U0029, U0155	

[ ]: HDS Parameter

### Malfunction Threshold

The fuel level sensor (fuel gauge sending unit) output voltage is 4.92 V or more for at least 5 seconds.

### 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.

- Fuel tank unit FUEL GAUGE+ line open
- Fuel tank unit FUEL GAUGE- line open
- Fuel tank unit failure

Application	HC gpm (CO gpm)	NO <sub>x</sub> (gpm)
1981-83	5.0 (80)	7.0
1984-86	3.2 (70)	7.0
1987-90	2.2 (55)	5.0
1991-96	1.6 (40)	4.5
1997 & Newer	0.8 (20)	4.5
Heavy Duty Trucks (8501-9000 GVWR)		
1981-82	7.5 (100)	8.0
1983-84	6.0 (100)	8.0
1985-86	5.0 (75)	8.0
1987-90	3.0 (60)	8.0
1991-97	2.4 (40)	8.0
1998 & Newer	2.0 (30)	6.0

#### INDIANA EMISSION STANDARDS - IDLE TEST

Application	HC ppm (CO %)
Passenger Cars	
1976-79	350 (3.5)
1980	250 (2.0)
1981 & Newer	220 (1.2)
Light Duty Trucks (6000 GVWR Or Less)	
1976-78	500 (5.0)
1979-83	350 (3.5)
1984 & Newer	220 (1.2)
Medium Duty Trucks (6001-8500 GVWR)	
1976-78	500 (5.0)
1979-83	350 (3.5)
1984 & Newer	220 (1.2)

## KENTUCKY

**NOTE:** Currently, there is no emission testing in Kentucky.

#### KENTUCKY EMISSION STANDARDS - BOONE, CAMPBELL & KENTON COUNTIES (IDLE TEST)

Application	HC ppm (CO)
Passenger Cars (Automobiles)	
1968	950 (8.5)
1969	900 (8.5)
1970	850 (8.1)
1972	800 (8.0)
1973	800 (7.8)
1974	800 (7.6)

Cavity	Wire	Test condition	Test: Desired results	Possible cause if desired results are not obtained
				<ul style="list-style-type: none"> <li>• Faulty fog light relay</li> <li>• Poor ground (G203, G302) or an open in the ground wire</li> <li>• An open or high resistance in the wire</li> </ul>

5. Reconnect the connectors to the under-dash fuse/relay box, do the following input tests:

- If any test indicates a problem, find and correct the cause, then recheck the system.
- If all the input tests prove OK, the MICU must be faulty; **replace the under-dash fuse/relay box** .

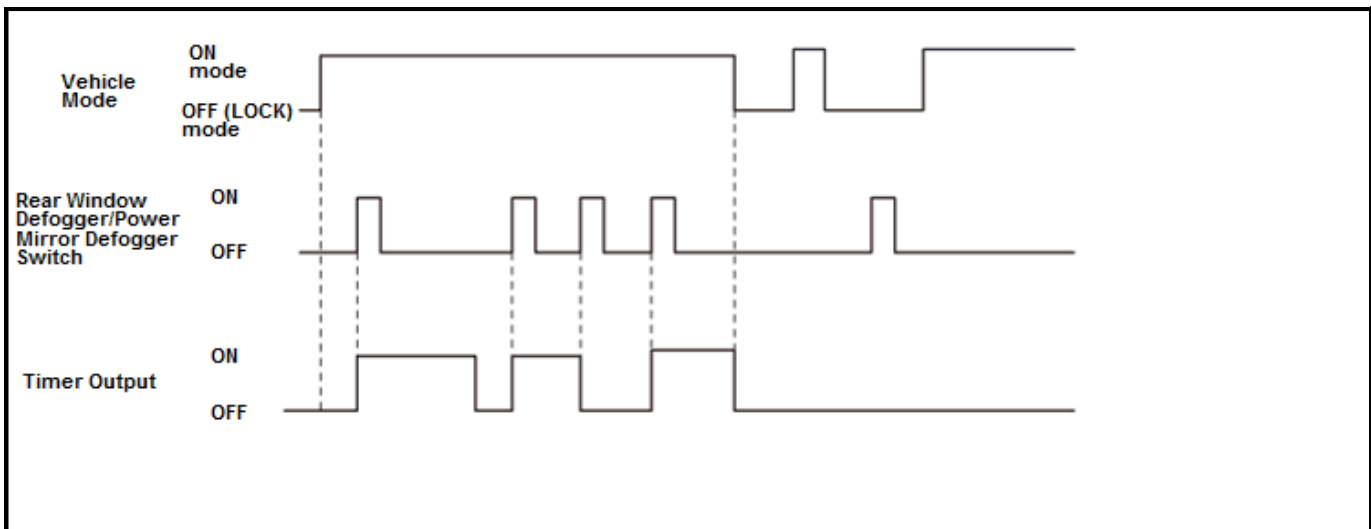
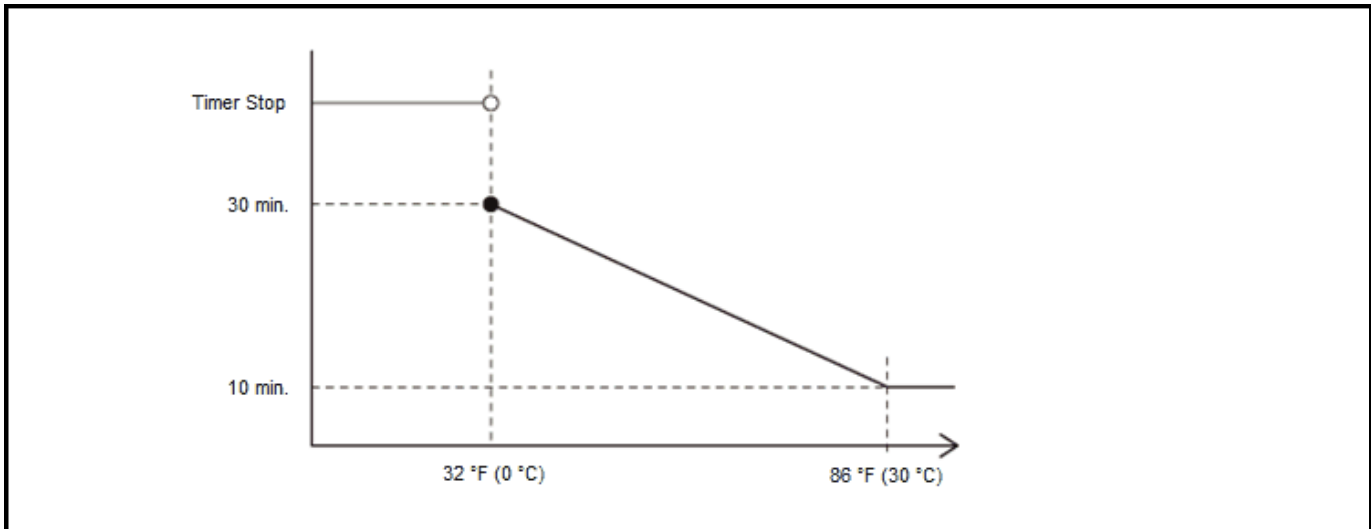
Cavity	Wire	Test condition	Test: Desired results	Possible cause if desired results are not obtained
Q15	RED	Under all conditions	Measure the voltage to ground:There should be battery voltage.	<ul style="list-style-type: none"> <li>• Blown No. B21 (10 A) fuse in the under-hood fuse/relay box</li> <li>• An open or high resistance in the wire</li> </ul>
R1	RED	Under all conditions	Measure the voltage to ground:There should be battery voltage.	<ul style="list-style-type: none"> <li>• Blown No. D1-5 (30 A) fuse in the auxiliary under-dash fuse box A</li> <li>• An open or high resistance in the wire</li> </ul>
D23	BLK	In all power modes	Measure the voltage to ground:There should be less than 0.2 V.	<ul style="list-style-type: none"> <li>• Poor ground (G401)</li> <li>• An open or high resistance in the ground wire</li> </ul>
H1	BLK	In all power modes	Measure the voltage to ground:There should be less than 0.2 V.	<ul style="list-style-type: none"> <li>• Poor ground (G401)</li> <li>• An open or high resistance in the ground wire</li> </ul>
N6	BLK	In all power modes	Measure the voltage to ground:There should be less than 0.2 V.	<ul style="list-style-type: none"> <li>• Poor ground (G502)</li> <li>• An open or high resistance in the ground wire</li> </ul>
N38	BLK	In all power modes	Measure the voltage to ground:There should be less than 0.2 V.	<ul style="list-style-type: none"> <li>• Poor ground (G502)</li> <li>• An open or high resistance in the ground wire</li> </ul>

unlimited.

- When the evaporator temperature sensor is failure, the timer operation time is 20 minutes.

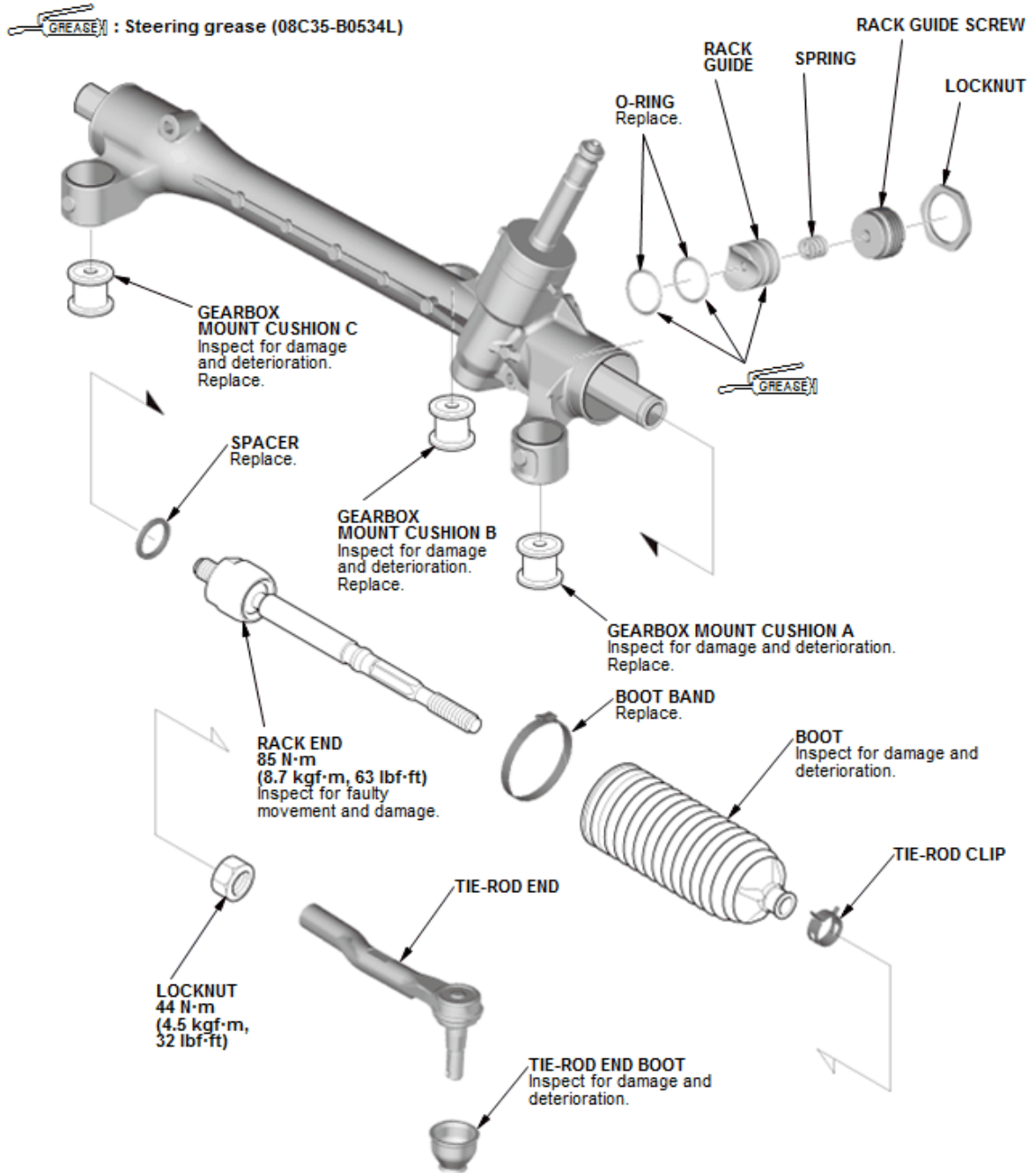
### The Timer Function (With Climate Control)

The rear window defogger provides the timer control function that is controlled by the climate control unit. The timer control is operated by turning the vehicle to the ON mode, then turning on the rear window defogger switch. The timer operating time varies according to ambient temperature. If the rear window defogger switch is turned on when the timer is active, it toggles between ON and OFF every time the switch is pressed.



### REAR WINDOW DEFOGGER SYSTEM DESCRIPTION - OVERVIEW

All vehicles of this model come equipped with the rear window defogger. The rear window defogger switch is integrated into the climate control unit or heater control panel.



**Fig. 5: Exploded View Of Steering Gearbox**  
Courtesy of HONDA, U.S.A., INC.

**STEERING WHEEL DISASSEMBLY AND REASSEMBLY**

**Exploded View**

1. Steering Wheel - Exploded View