DTC TROUBLESHOOTING > DTC C1840-12: DIFFERENTIAL FLUID PRESSURE SENSOR CIRCUIT HIGH VOLTAGE (2013-18)

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		

DTC (AWD)

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

   Do the current condition(s) match the threshold?
   YES
   Go to step 3.
   NO
   Go to step 2.

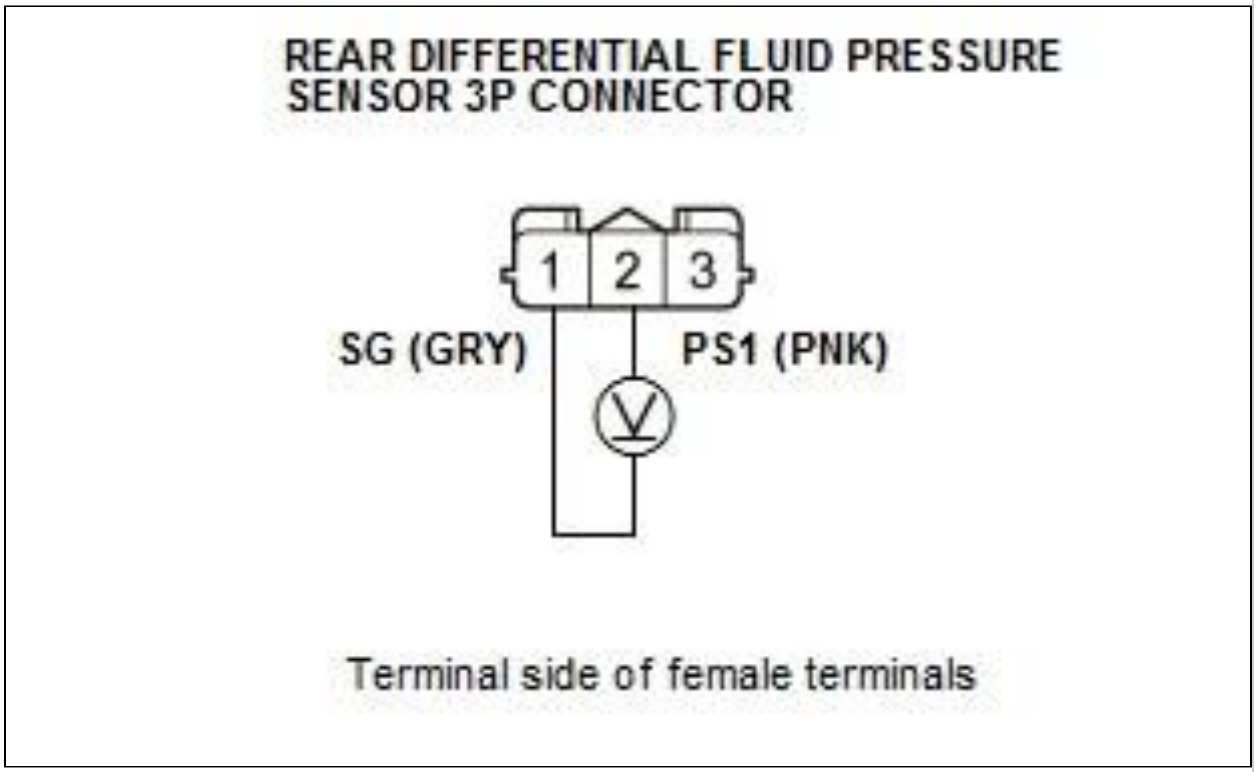
2. Problem verification:
   Clear the DTC with the HDS.
   Clear DTC
   - 2. Select FUNCTIONAL TEST in the AWD WITH INTELLIGENT CONTROL with the HDS.
   - 3. Do the OIL PRESSURE CONTROL TEST in the Functional Test with the HDS . Oil Pressure Control Test Is the test result OK?

   YES
   Intermittent failure, the system is OK at this time.
   NO
   The failure is duplicated. Follow the instructions indicated on the HDS according to the test result .
3. Determine possible failure area (short to power in PS1 line, others):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

Rear differential fluid pressure sensor 3P connector

   - 3. Press the engine start/stop button to select the ON mode.
   - 4. Measure the voltage between test points 1 and 2.

Test condition	ON mode
	Rear differential fluid pressure sensor 3P connector: disconnected
Test circuit	PS1, SG
Test point 1	Rear differential fluid pressure sensor 3P connector No. 1 (GRY)
Test point 2	Rear differential fluid pressure sensor 3P connector No. 2 (PNK)



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Is there about 3.67 V or more?
YES
Go to step 4.
NO
Go to step 5.

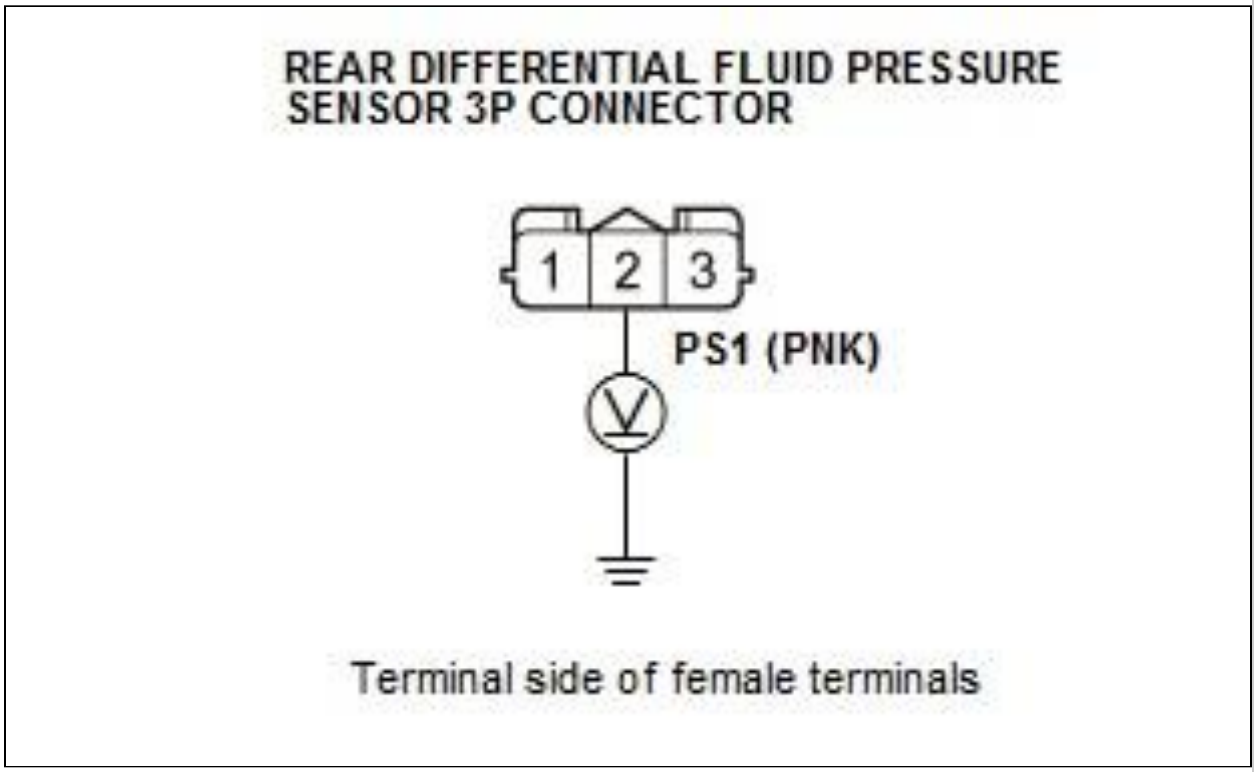
4. Shorted wire check (PS1 line to power):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

AWD control unit 24P connector

   - 3. Press the engine start/stop button to select the ON mode.
   - 4. Measure the voltage between test points 1 and 2.

Test condition	ON mode

	Rear differential fluid pressure sensor 3P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	PS1
Test point 1	Rear differential fluid pressure sensor 3P connector No. 2 (PNK)
Test point 2	Body ground



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Is there about 0.5 V or more?

YES

Repair a short to power in the PS1 wire between the rear differential fluid pressure sensor and the AWD control unit.

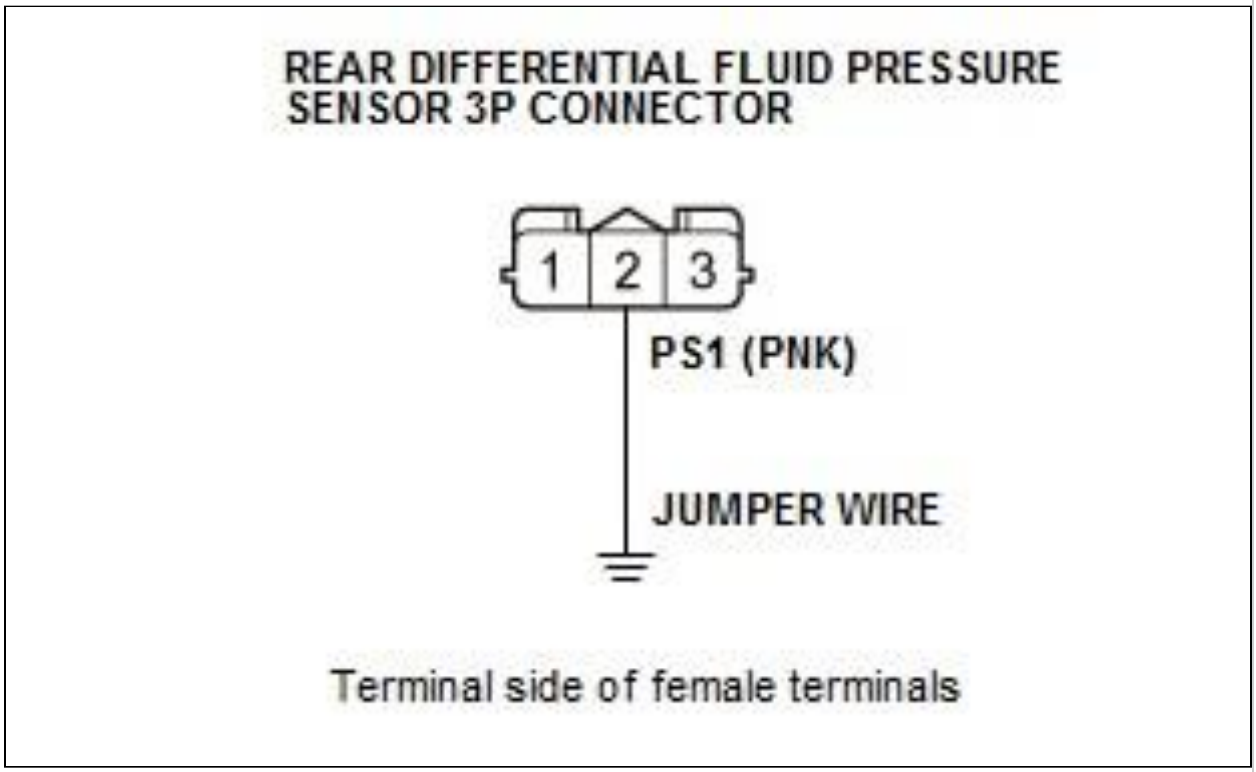
NO

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

5. Determine possible failure area (open in PS1 line, others):
   Press the engine start/stop button to select the OFF mode.
   - 2. Connect terminals A and B with a jumper wire.

Terminal A	Rear differential fluid pressure sensor 3P connector No. 2 (PNK)

Terminal B	Body ground



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- 3. Press the engine start/stop button to select the ON mode.
- 4. 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	Less than 0.1	V		

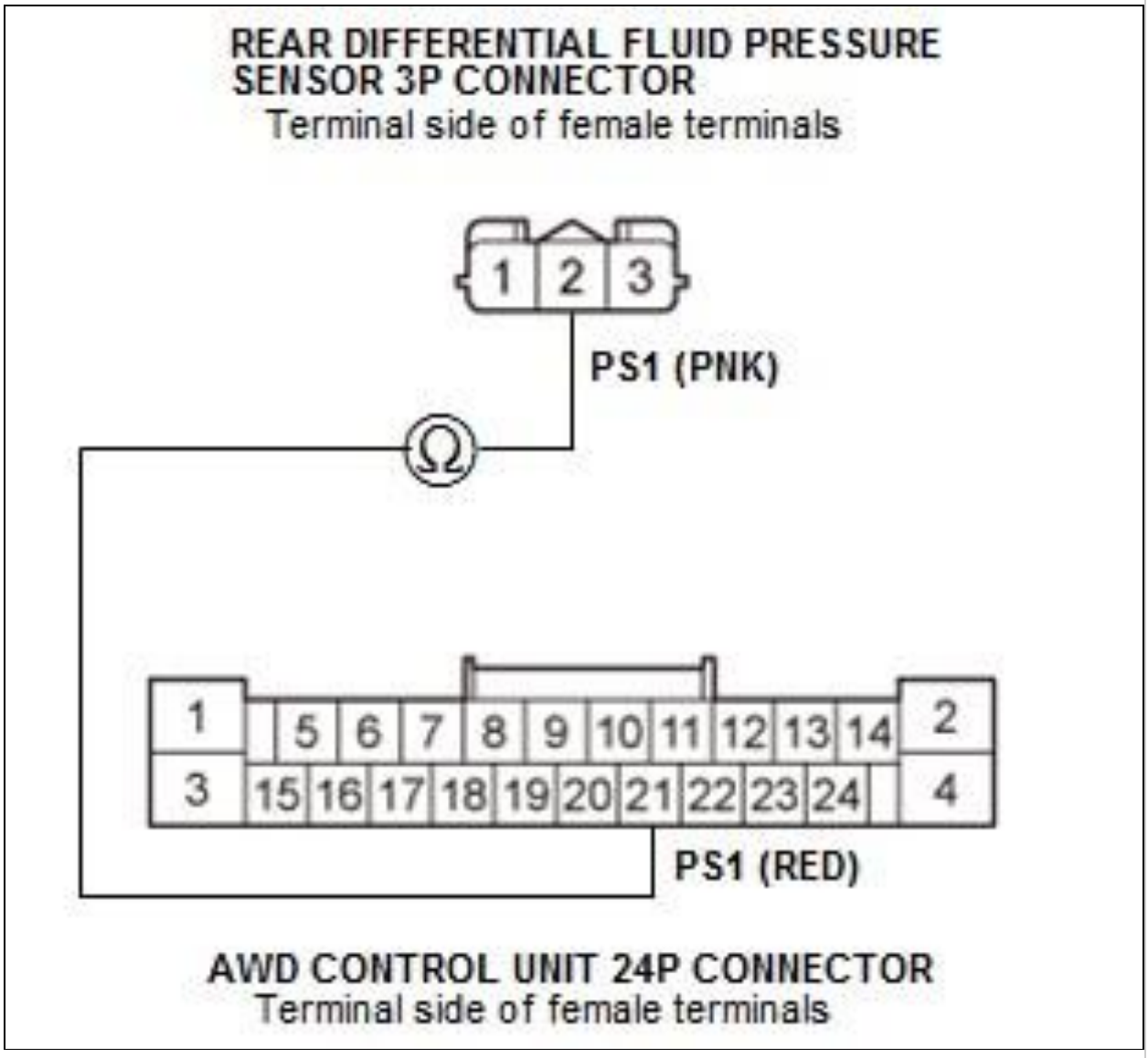
Do the current condition(s) match the threshold?
YES
Go to step 7.
NO
Go to step 6.

6. Open wire check (PS1 line):
Press the engine start/stop button to select the OFF mode.
- 2. Remove the jumper wire.
- 3. Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode
	Rear differential fluid pressure sensor 3P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	PS1
Test point 1	Rear differential fluid pressure sensor 3P connector No. 2 (PNK)
Test point 2	AWD control unit 24P connector No. 21 (RED)



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Is there continuity?

YES

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

NO

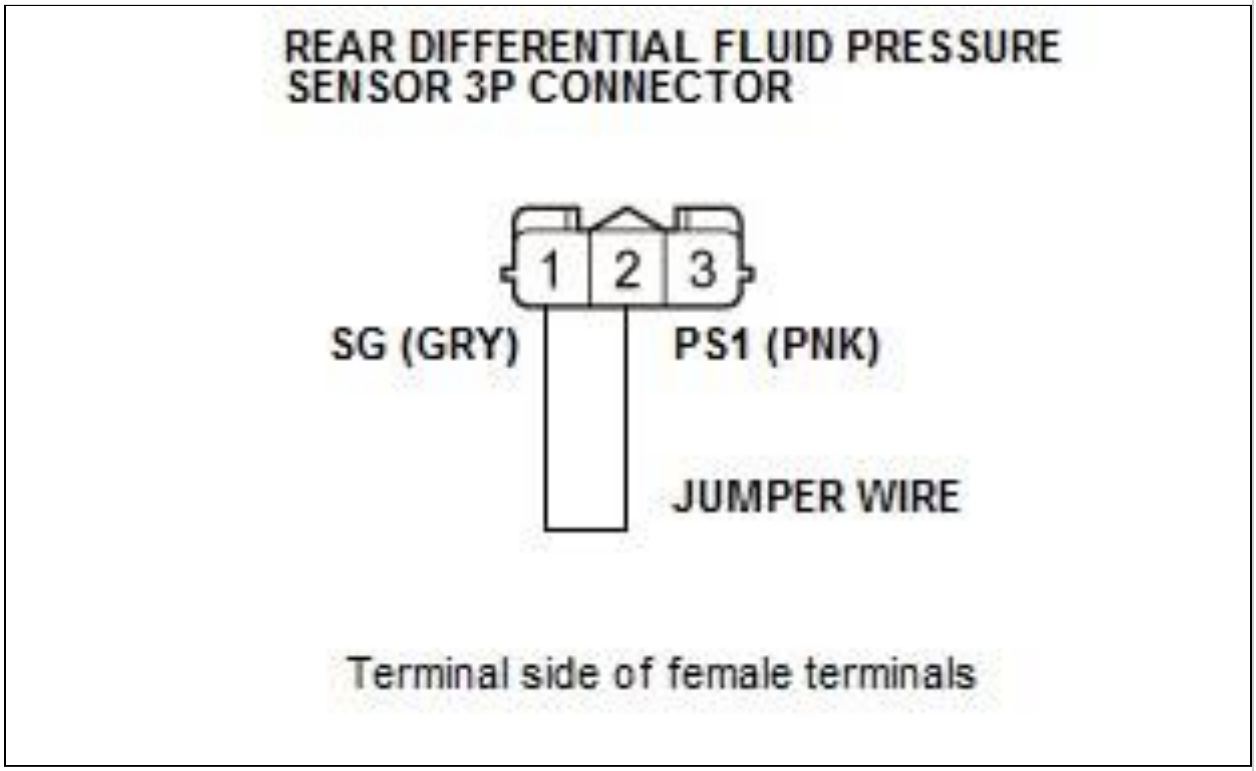
Repair an open in the PS1 wire between the rear differential fluid pressure sensor and the AWD control unit.

7. Rear differential fluid pressure sensor check:

Press the engine start/stop button to select the OFF mode.

- 2. Remove the jumper wire.
- 3. Connect terminals A and B with a jumper wire.

Terminal A	Rear differential fluid pressure sensor 3P connector No. 1 (GRY)
Terminal B	Rear differential fluid pressure sensor 3P connector No. 2 (PNK)



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- 4. Press the engine start/stop button to select the ON mode.- 5. 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	Less than 0.1	V		

Do the current condition(s) match the threshold?

YES

Replace the rear differential fluid pressure sensor .

NO

The rear differential fluid pressure sensor is OK. Go to step 8.

8. Open wire check (SG line):

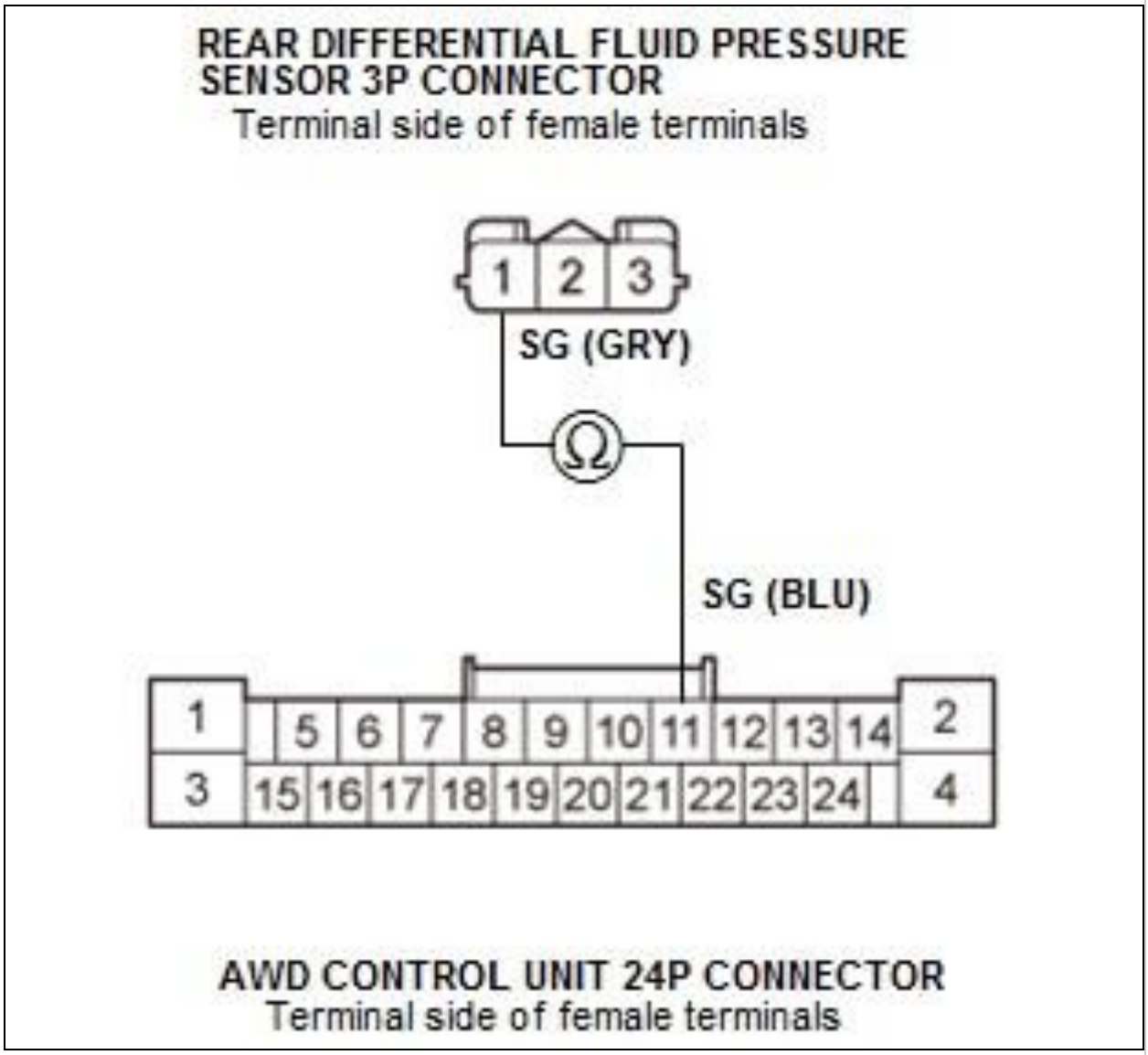
Press the engine start/stop button to select the OFF mode.

- 2. Remove the jumper wire.
- 3. Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode
	Rear differential fluid pressure sensor 3P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	SG
Test point 1	Rear differential fluid pressure sensor 3P connector No. 1 (GRY)
Test point 2	AWD control unit 24P connector No. 11 (BLU)



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Is there continuity?

YES

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

NO

Repair an open in the SG wire between the rear differential fluid pressure sensor and the AWD control unit.

DTC TROUBLESHOOTING > DTC C1840-14: DIFFERENTIAL FLUID PRESSURE SENSOR CIRCUIT LOW VOLTAGE (2013-18)

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

DTC Description	DTC	Freeze Frame
C1840-14 Differential Fluid Pressure Sensor Circuit Low Voltage		

DTC (AWD)

1. Problem verification:
   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	Less than 0.34	V		

   Do the current condition(s) match the threshold?
   YES
   The failure is duplicated. Go to step 2.
   NO
   Intermittent failure, the system is OK at this time.

2. Determine possible failure area (PS1 line, others):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

Rear differential fluid pressure sensor 3P connector

   - 3. Press the engine start/stop button to select the ON mode.
   - 4. 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	About 5	V		

   Do the current condition(s) match the threshold?
   YES
   Go to step 4.

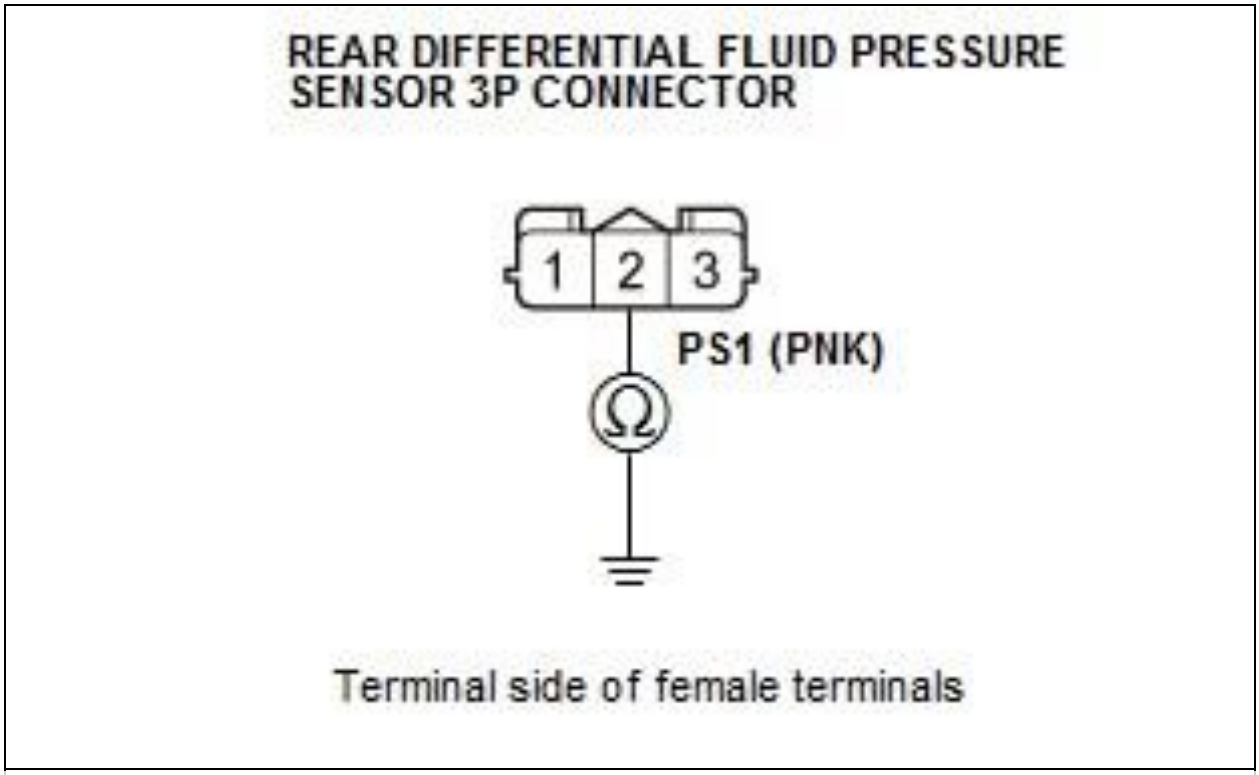
NO
Go to step 3.

3. Shorted wire check (PS1 line):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode
	Rear differential fluid pressure sensor 3P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	PS1
Test point 1	Rear differential fluid pressure sensor 3P connector No. 2 (PNK)
Test point 2	Body ground



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

Is there continuity?

YES

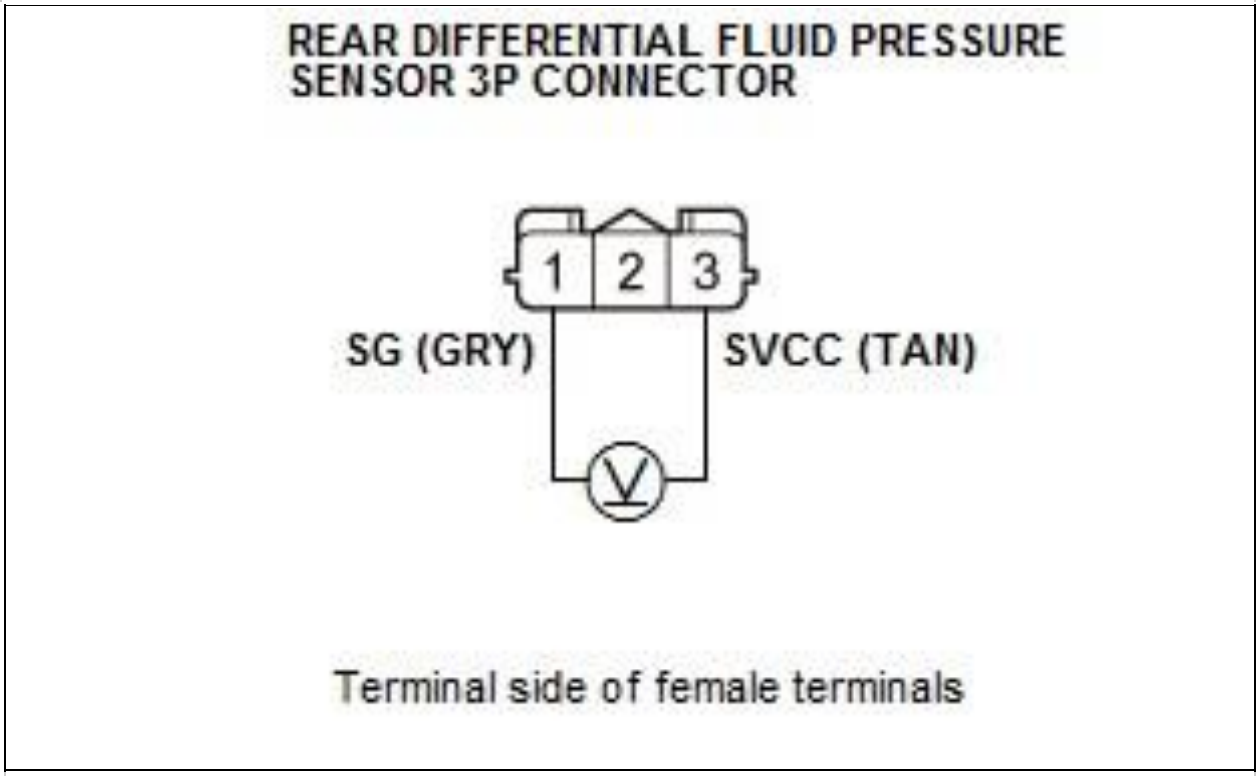
Repair a short to ground or the SG wire in the PS1 wire between the rear differential fluid pressure sensor and the AWD control unit.

NO

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

4. Determine possible failure area (Rear differential fluid pressure sensor, SVCC line):
   Measure the voltage between test points 1 and 2.

Test condition	ON mode
	Rear differential fluid pressure sensor 3P connector: disconnected
Test circuit	SVCC, SG
Test point 1	Rear differential fluid pressure sensor 3P connector No. 1 (GRY)
Test point 2	Rear differential fluid pressure sensor 3P connector No. 3 (TAN)



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Is there about 5 V?

YES

Replace the rear differential fluid pressure sensor .

NO

Go to step 5.

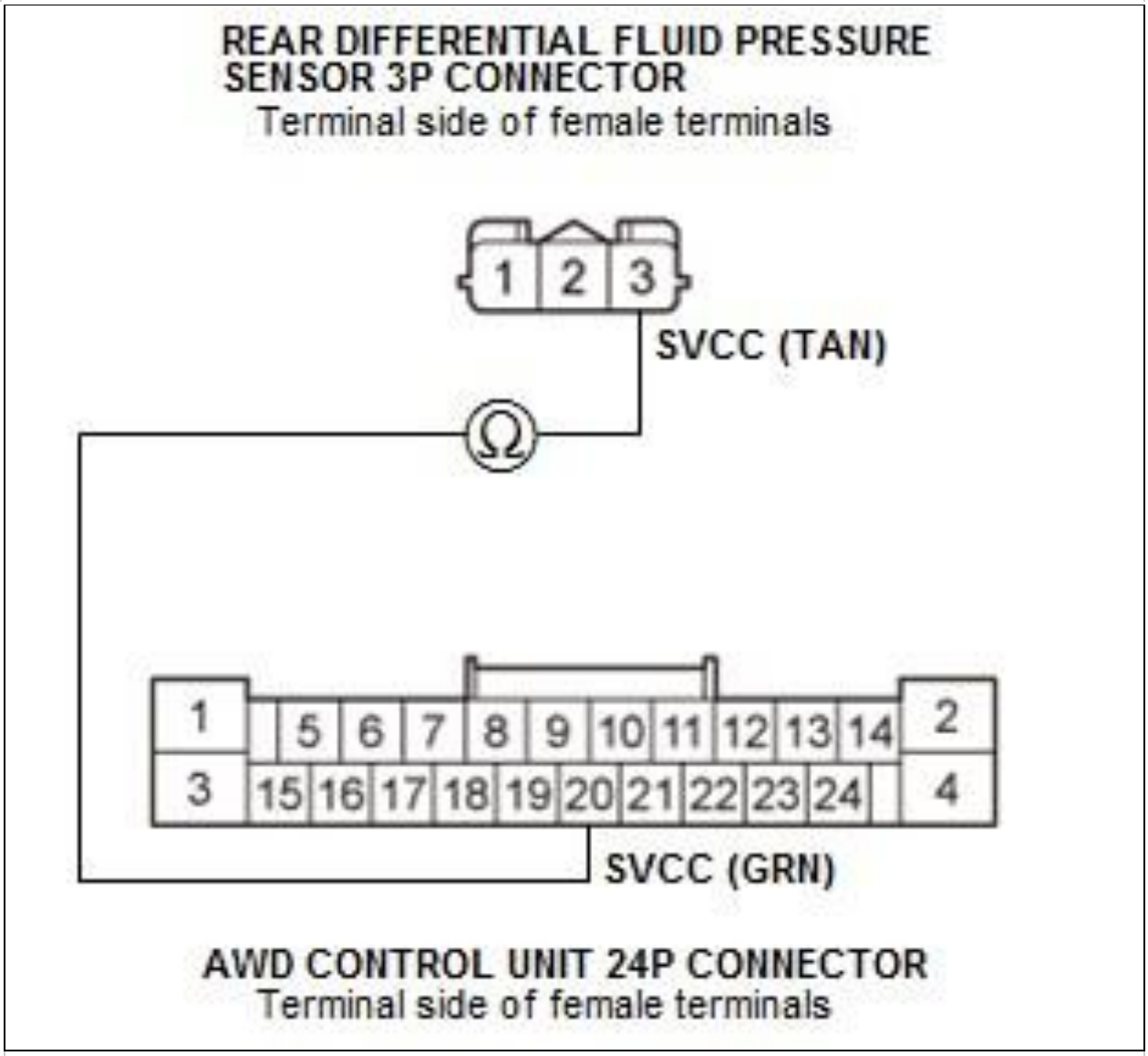
5. Open wire check (SVCC line):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode
	Rear differential fluid pressure sensor 3P connector: disconnected
	AWD control unit 24P connector: disconnected

Test circuit	SVCC
Test point 1	Rear differential fluid pressure sensor 3P connector No. 3 (TAN)
Test point 2	AWD control unit 24P connector No. 20 (GRN)



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Is there continuity?

YES

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

NO
Repair an open in the SVCC wire between the rear differential fluid pressure sensor and the AWD control unit.

DTC TROUBLESHOOTING > DTC C1841-11: DIFFERENTIAL FLUID TEMPERATURE SENSOR CIRCUIT LOW VOLTAGE (2013-18)

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

DTC Description	DTC	Freeze Frame
C1841-11 Differential Fluid Temperature Sensor Circuit Low Voltage		

DTC (AWD)

1. Problem verification:
   Press the engine start/stop button to select the ON mode.
   - 2. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
Voltage of the oil temperature sensor for rear differential	Less than 0.08	V		

   Do the current condition(s) match the threshold?
   YES
   The failure is duplicated. Go to step 2.
   NO
   Intermittent failure, the system is OK at this time.

2. Rear differential fluid temperature sensor check:
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

Rear differential fluid temperature sensor 2P connector

   - 3. Press the engine start/stop button to select the ON mode.
   - 4. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit

Voltage of the oil temperature sensor for rear differential	About 5	V		

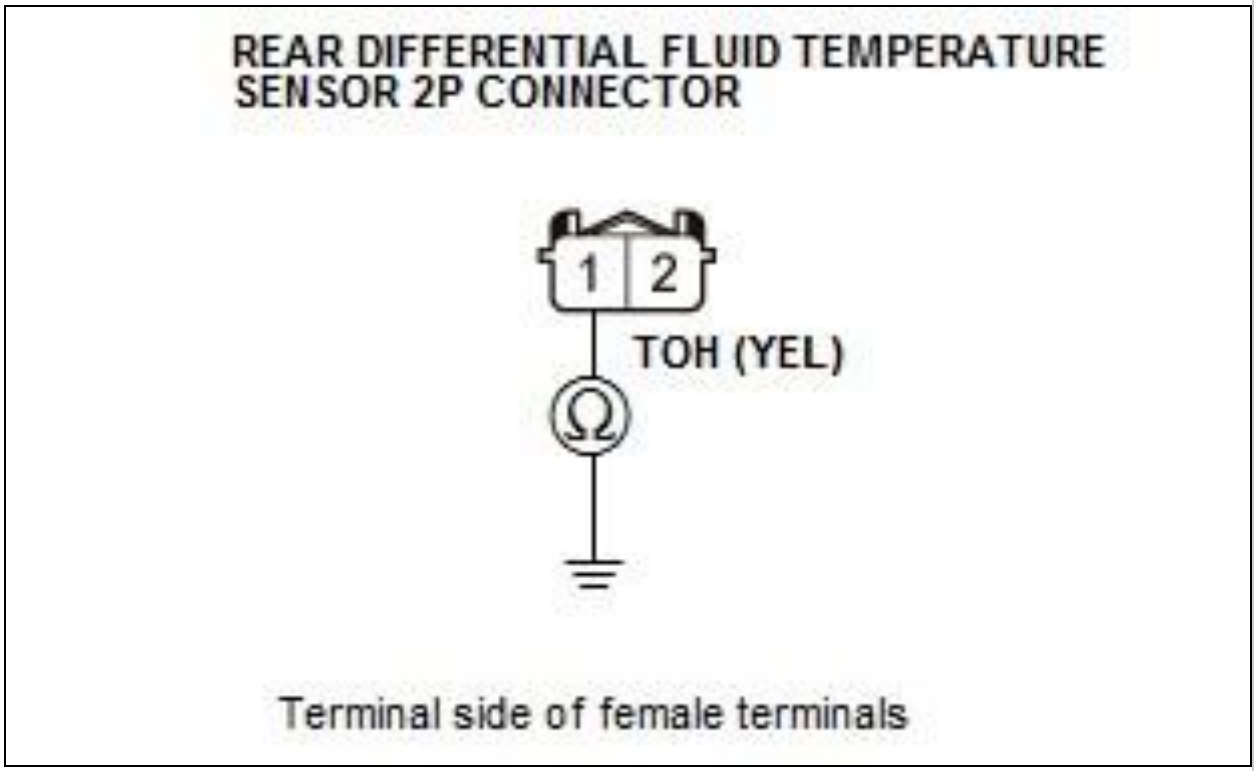
Do the current condition(s) match the threshold?
YES
Replace the rear differential fluid temperature sensor .
NO
The rear differential fluid temperature sensor is OK. Go to step 3.

3. Shorted wire check (TOH line):
Press the engine start/stop button to select the OFF mode.
- 2. Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode
	Rear differential fluid temperature sensor 2P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	TOH
Test point 1	Rear differential fluid temperature sensor 2P connector No. 1 (YEL)
Test point 2	Body ground



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

Is there continuity?

YES

Repair a short to ground or the TOL wire in the TOH wire between the rear differential fluid temperature sensor and the AWD control unit.

NO

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

DTC TROUBLESHOOTING > DTC C1841-13: DIFFERENTIAL FLUID TEMPERATURE SENSOR CIRCUIT HIGH VOLTAGE (2013-18)

NOTE: Before you troubleshoot, review the General

Troubleshooting Information for the AWD with intelligent control system .

DTC Description	DTC	Freeze Frame
C1841-13 Differential Fluid Temperature Sensor Circuit High Voltage		

DTC (AWD)

1. Problem verification:

Press the engine start/stop button to select the ON mode.
- 2. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
Voltage of the oil temperature sensor for rear differential	More than 4.9	V		

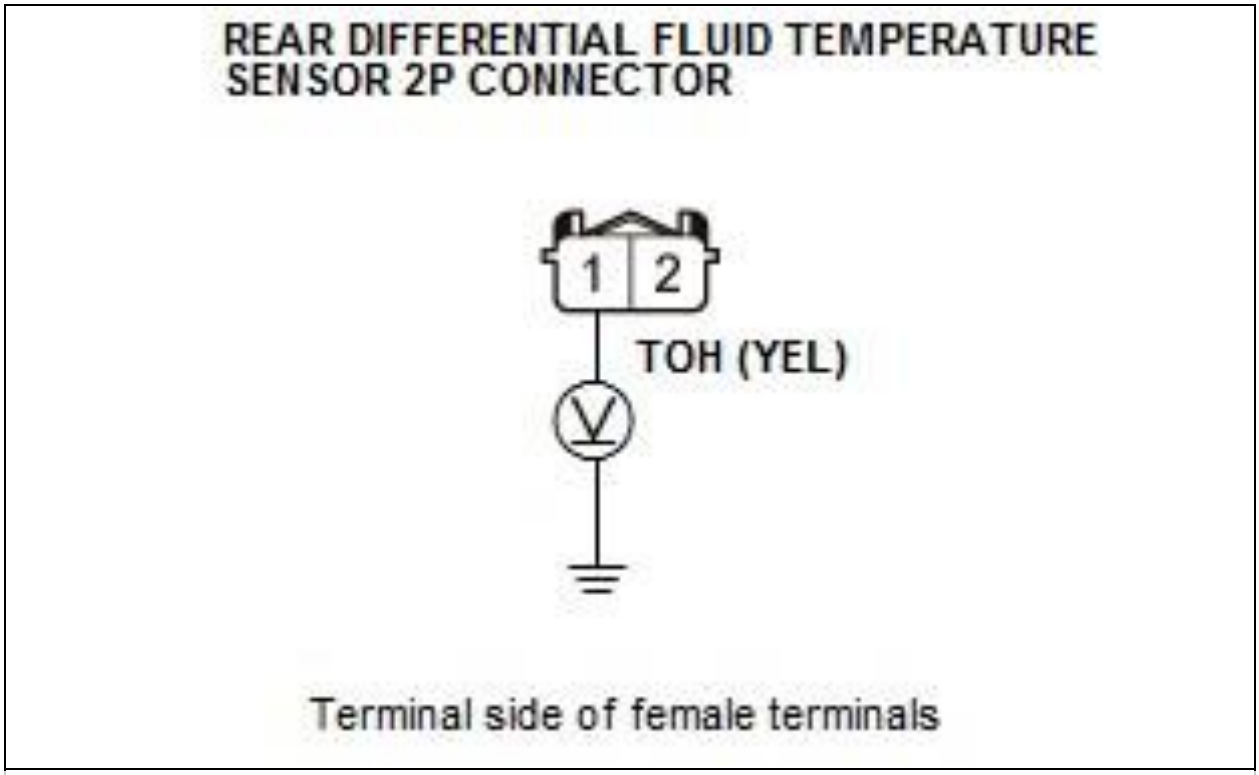
Do the current condition(s) match the threshold?
YES
The failure is duplicated. Go to step 2.
NO
Intermittent failure, the system is OK at this time.

2. Determine possible failure area (short to power in TOH line, others):
Press the engine start/stop button to select the OFF mode.
- 2. Disconnect the following connector.

Rear differential fluid temperature sensor 2P connector

- 3. Press the engine start/stop button to select the ON mode.
- 4. Measure the voltage between test points 1 and 2.

Test condition	ON mode
	Rear differential fluid temperature sensor 2P connector: disconnected
Test circuit	TOH
Test point 1	Rear differential fluid temperature sensor 2P connector No. 1 (YEL)
Test point 2	Body ground



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Is there about 4.9 V or more?

YES

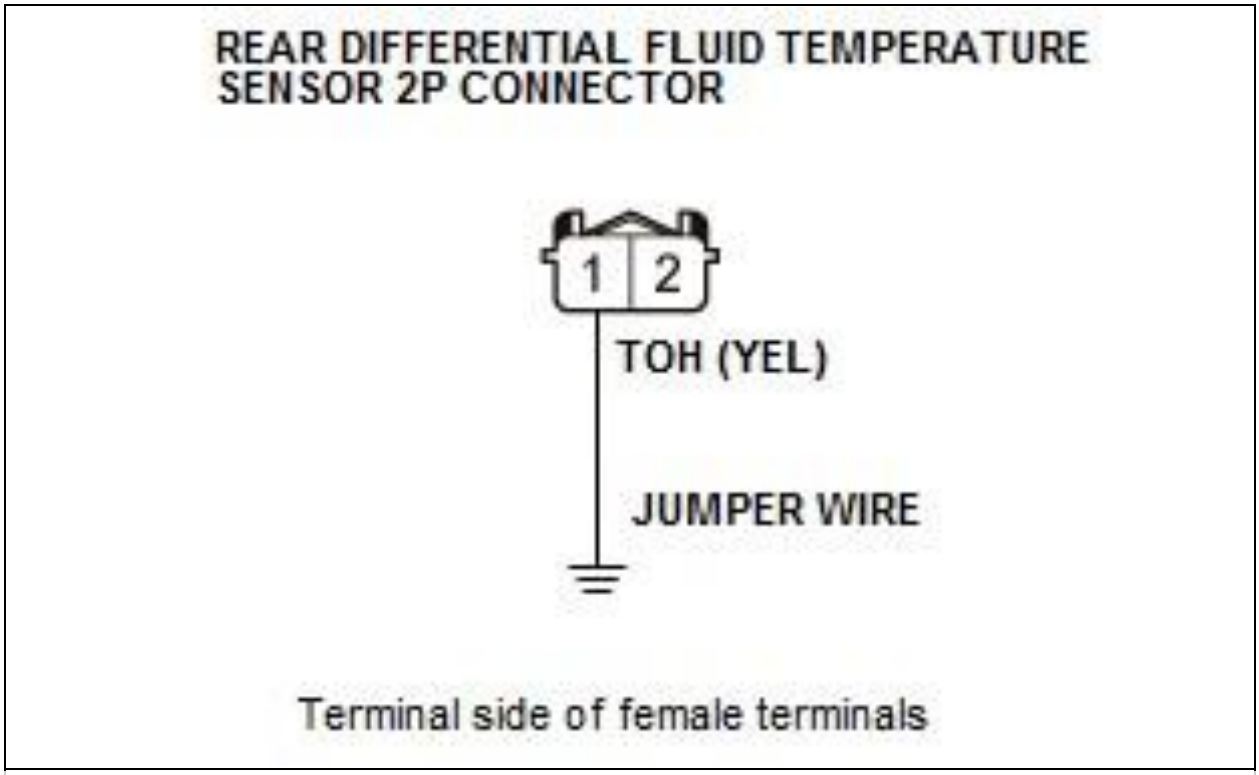
Go to step 7.

NO

Go to step 3.

3. Determine possible failure area (open in TOH line, others):
   Press the engine start/stop button to select the OFF mode.
   - 2. Connect terminals A and B with a jumper wire.

Terminal A	Rear differential fluid temperature sensor 2P connector No. 1 (YEL)
Terminal B	Body ground



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- 3. Press the engine start/stop button to select the ON mode.
- 4. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
Voltage of the oil temperature sensor for rear differential	Less than 0.1	V		

Do the current condition(s) match the threshold?

YES

Go to step 5.

NO

Go to step 4.

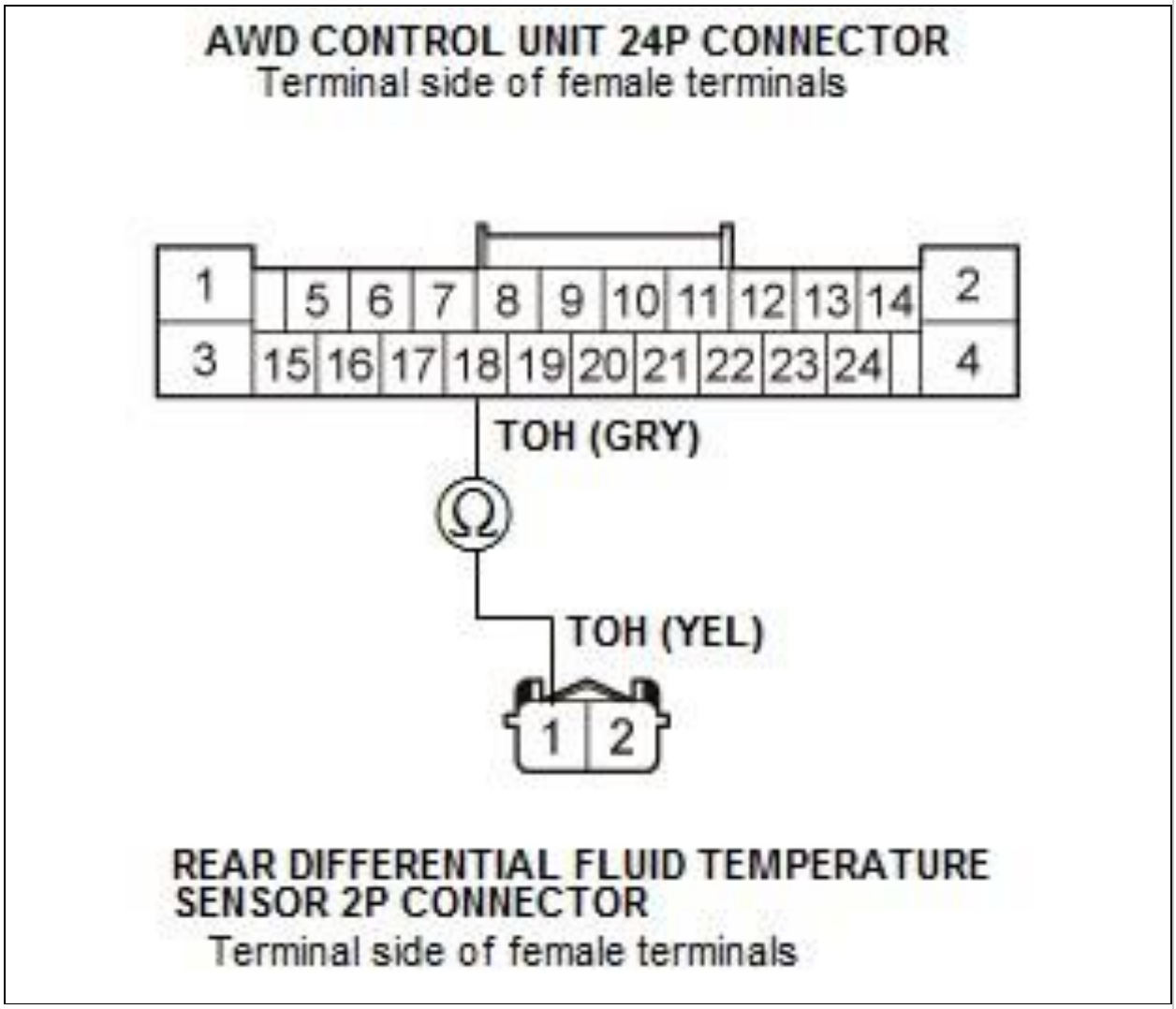
4. Open wire check (TOH line):
   Press the engine start/stop button to select the OFF mode.
   - 2. Remove the jumper wire.
   - 3. Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode
	Rear differential fluid temperature sensor 2P connector: disconnected

	AWD control unit 24P connector: disconnected
Test circuit	TOH
Test point 1	AWD control unit 24P connector No. 18 (GRY)
Test point 2	Rear differential fluid temperature sensor 2P connector No. 1 (YEL)



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Is there continuity?

YES

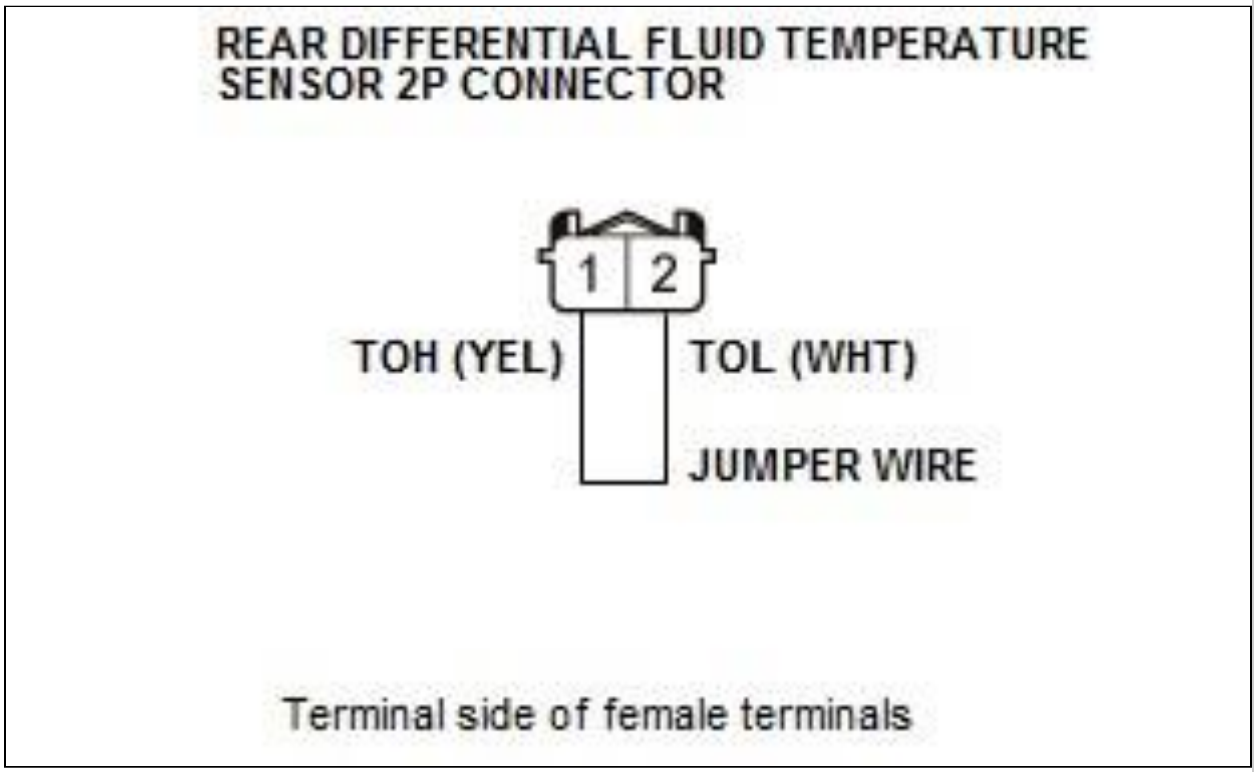
Update the AWD control unit if it does not have the latest software , or substitute a known-good AWD control unit , and recheck. If the symptom/indication goes away with the updated AWD control unit, troubleshooting is complete. If the symptom/indication goes away with a known-good AWD control unit,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

NO

Repair an open in the TOH wire between the rear differential fluid temperature sensor and the AWD control unit.

5. Rear differential fluid temperature sensor check:
Press the engine start/stop button to select the OFF mode.
- 2. Remove the jumper wire.
- 3. Connect terminals A and B with a jumper wire.

Terminal A	Rear differential fluid temperature sensor 2P connector No. 1 (YEL)
Terminal B	Rear differential fluid temperature sensor 2P connector No. 2 (WHT)



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- 4. Press the engine start/stop button to select the ON mode.- 5. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
Voltage of the oil temperature sensor for rear differential	Less than 0.1	V		

Do the current condition(s) match the threshold?
YES
Replace the rear differential fluid temperature sensor .
NO
The rear differential fluid temperature sensor is OK. Go to step 6.

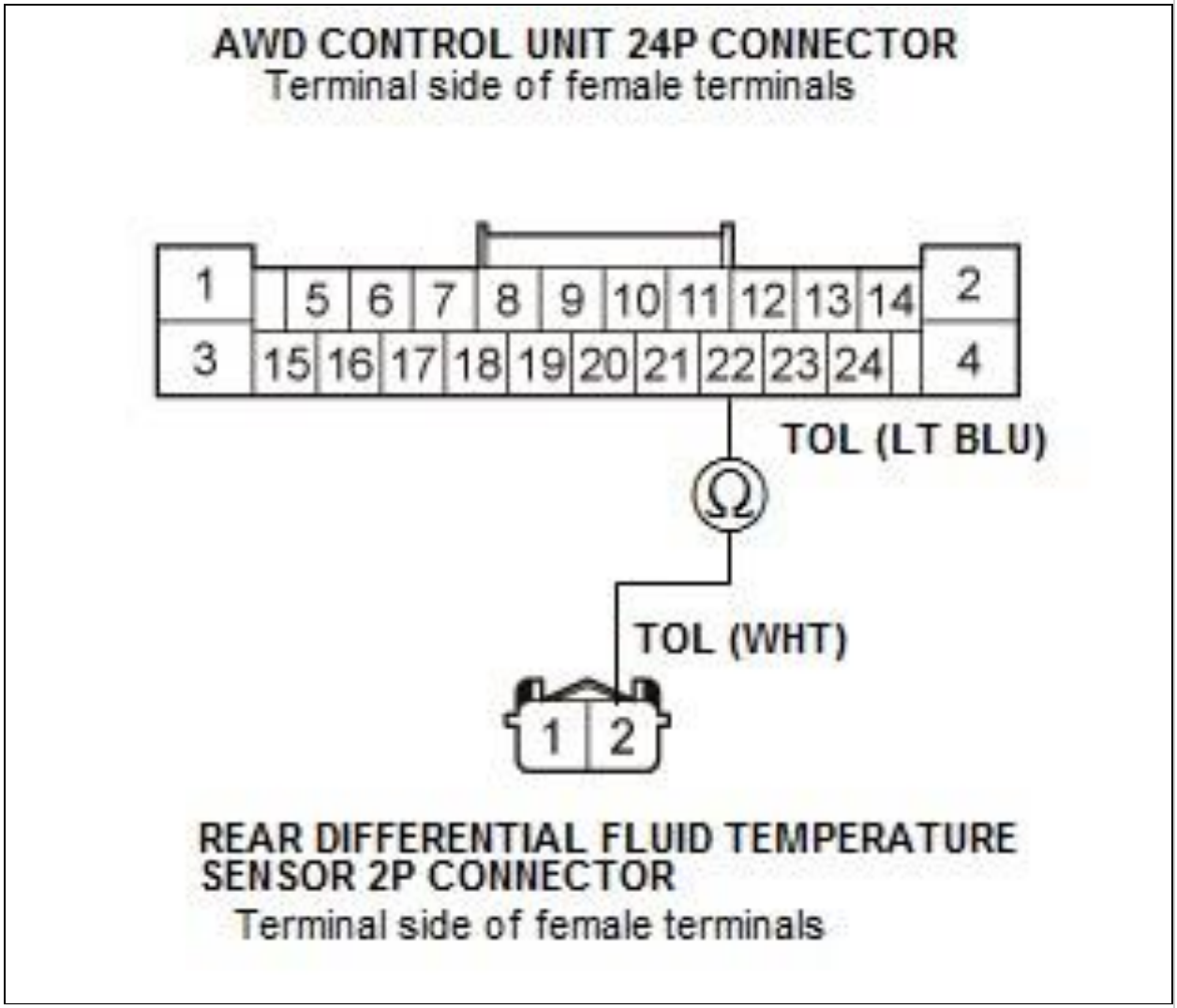
6. Open wire check (TOL line):
Press the engine start/stop button to select the OFF mode.

- 2. Remove the jumper wire.
- 3. Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode
	Rear differential fluid temperature sensor 2P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	TOL
Test point 1	AWD control unit 24P connector No. 22 (LT BLU)
Test point 2	Rear differential fluid temperature sensor 2P connector No. 2 (WHT)



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Is there continuity?

YES

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

NO

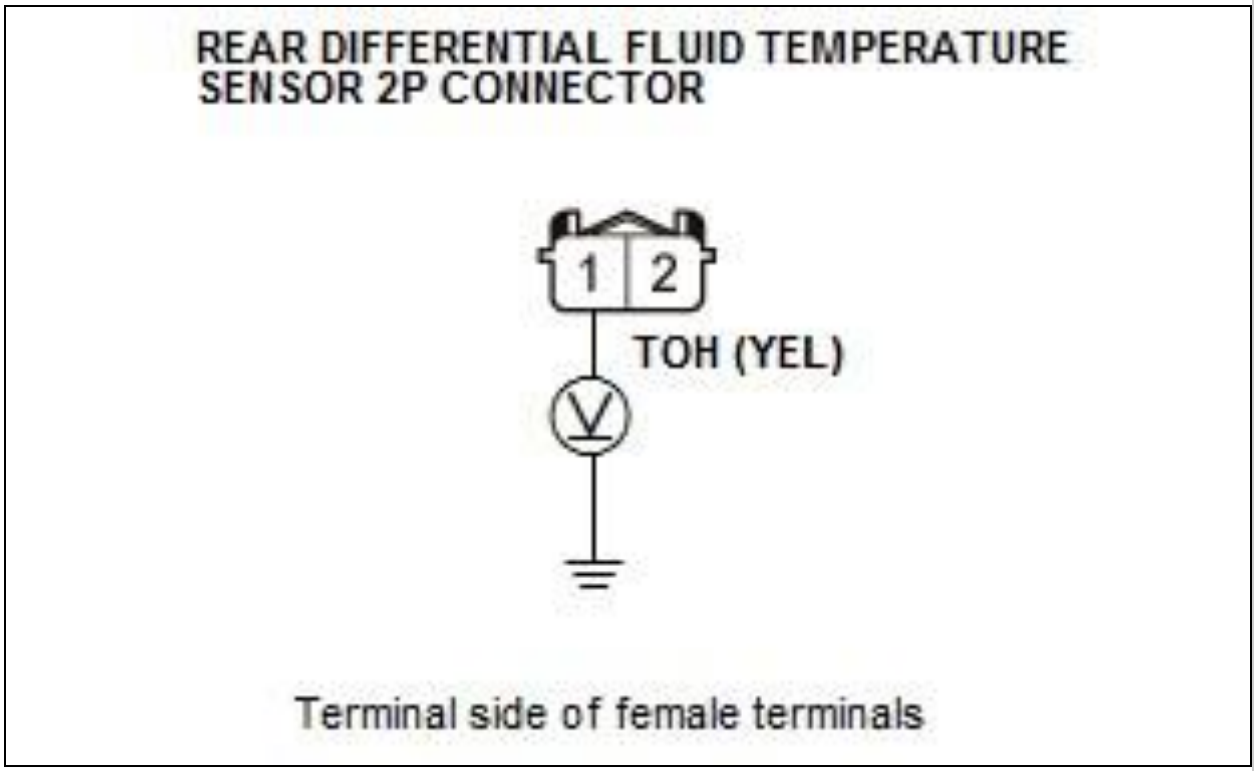
Repair an open in the TOL wire between the rear differential fluid temperature sensor and the AWD control unit.

7. Shorted wire check (TOH line to power):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

AWD control unit 24P connector

   - 3. Press the engine start/stop button to select the ON mode.
   - 4. Measure the voltage between test points 1 and 2.

Test condition	ON mode
	Rear differential fluid temperature sensor 2P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	TOH
Test point 1	Rear differential fluid temperature sensor 2P connector No. 1 (YEL)
Test point 2	Body ground



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

Is there about 0.5 V or more?

YES

Repair a short to power in the TOH wire between the rear differential fluid temperature sensor and the AWD control unit.

NO

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

DTC TROUBLESHOOTING > DTC C1841-27: DIFFERENTIAL FLUID TEMPERATURE SENSOR CIRCUIT RANGE/PERFORMANCE PROBLEM (2013-18)

NOTE: Before you troubleshoot, review the General

Troubleshooting Information for the AWD with intelligent control system .

DTC Description	DTC	Freeze Frame
C1841-27 Differential Fluid Temperature Sensor Circuit Range/Performance Problem		

DTC (AWD)

1. DTC check:
   Press the engine start/stop button to select the ON mode.
   - 2. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1841-11 Differential Fluid Temperature Sensor Circuit Low Voltage		
C1841-13 Differential Fluid Temperature Sensor Circuit High Voltage		
C1841-27 Differential Fluid Temperature Sensor Circuit Range/Performance Problem		

   Is DTC C1841-11, C1841-13, or C1841-27 indicated?
   DTC C1841-11 is indicated
   Go to DTC C1841-11 troubleshooting .
   DTC C1841-13 is indicated
   Go to DTC C1841-13 troubleshooting .
   DTC C1841-27 is indicated Go to step
   2.

2. Problem verification:
   Clear the DTC with the HDS.
   Clear DTC
   - 2. Start the engine, and let it idle for 1 minute.
   - 3. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1841-27 Differential Fluid Temperature Sensor Circuit Range/Performance Problem		

   Is DTC C1841-27 indicated?
   YES
   The failure is duplicated. Go to step 3.
   NO
   Intermittent failure, the system is OK at this time.

3. Rear differential fluid temperature sensor check:
   Check the parameter(s) below with the HDS. Make note of this value as it will be needed in the following steps.

Signal	Current conditions	
	Values	Unit
Voltage of the oil temperature sensor for rear differential		

   - 2. Press the engine start/stop button to select the OFF mode.
   - 3. Press the engine start/stop button to select the ON mode.

- 4. Check the parameter(s) below with the HDS then compare with the value checked in step 3-1.

Signal	Current conditions	
	Values	Unit
Voltage of the oil temperature sensor for rear differential		

Did the sensor value change?

YES

Check for an intermittent open or short in the TOH and TOL wires between the rear differential fluid temperature sensor and the AWD control unit, and recheck.

NO

Replace the rear differential fluid temperature sensor .

DTC TROUBLESHOOTING > DTC C1850-12: FAIL SAFE RELAY STUCK ON (2013-15)

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

DTC Description	DTC	Freeze Frame
C1850-12 Fail Safe Relay Stuck ON		

DTC (AWD)

1. Problem verification:
   Press the engine start/stop button to select the ON mode.
   - 2. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
Voltage of Battery	More than 8.3	V		

   Do the current condition(s) match the threshold?

   YES

   The failure is duplicated. Go to step 2.

   NO

   Intermittent failure, the system is OK at this time.

2. AWD relay check:
   Press the engine start/stop button to select the OFF mode.
   - 2. Remove the AWD relay , then test it .
   Is the AWD relay OK?

   YES

   The AWD relay is OK. Go to step 3.

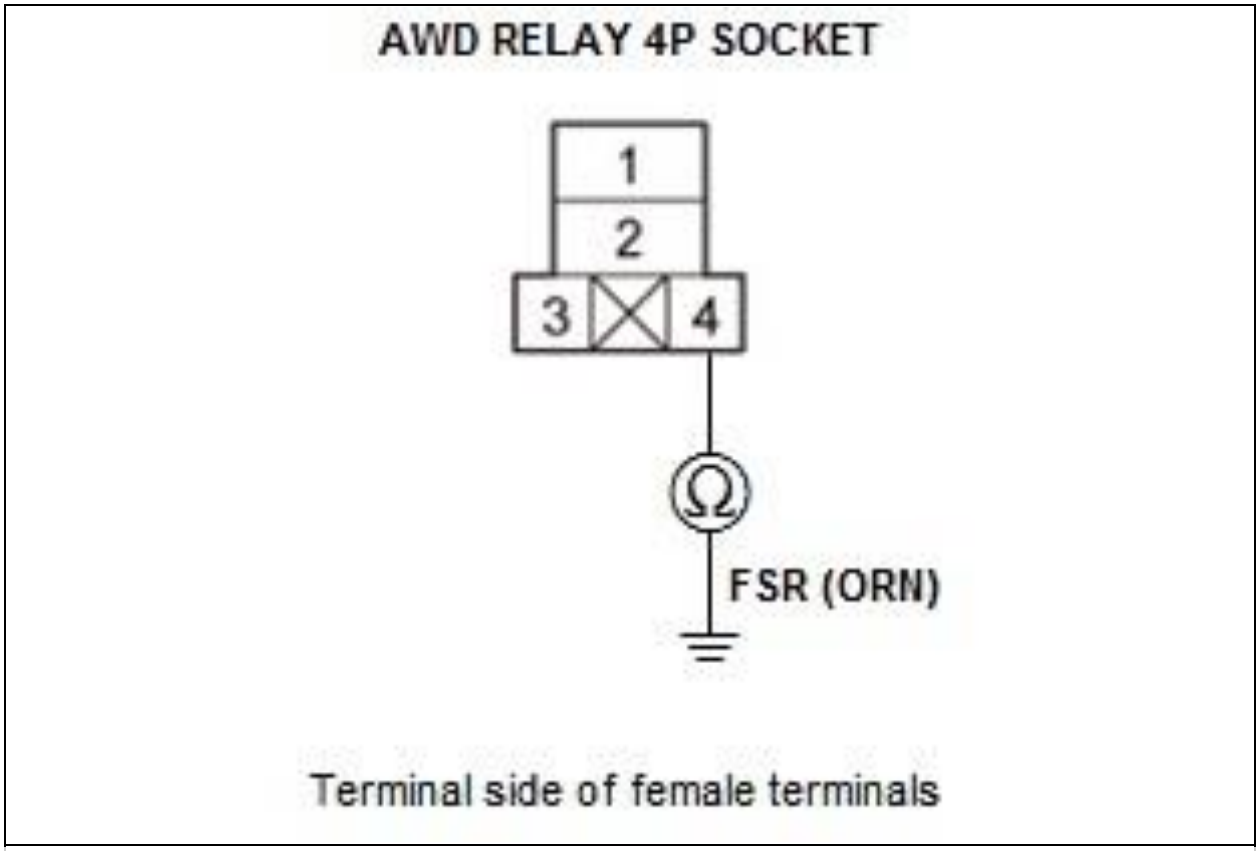
NO
Replace the AWD relay .

3. Shorted wire check (FSR line):
   Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode
	AWD relay: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	FSR
Test point 1	AWD relay 4P socket No. 4 (ORN)
Test point 2	Body ground



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

Is there continuity?

YES

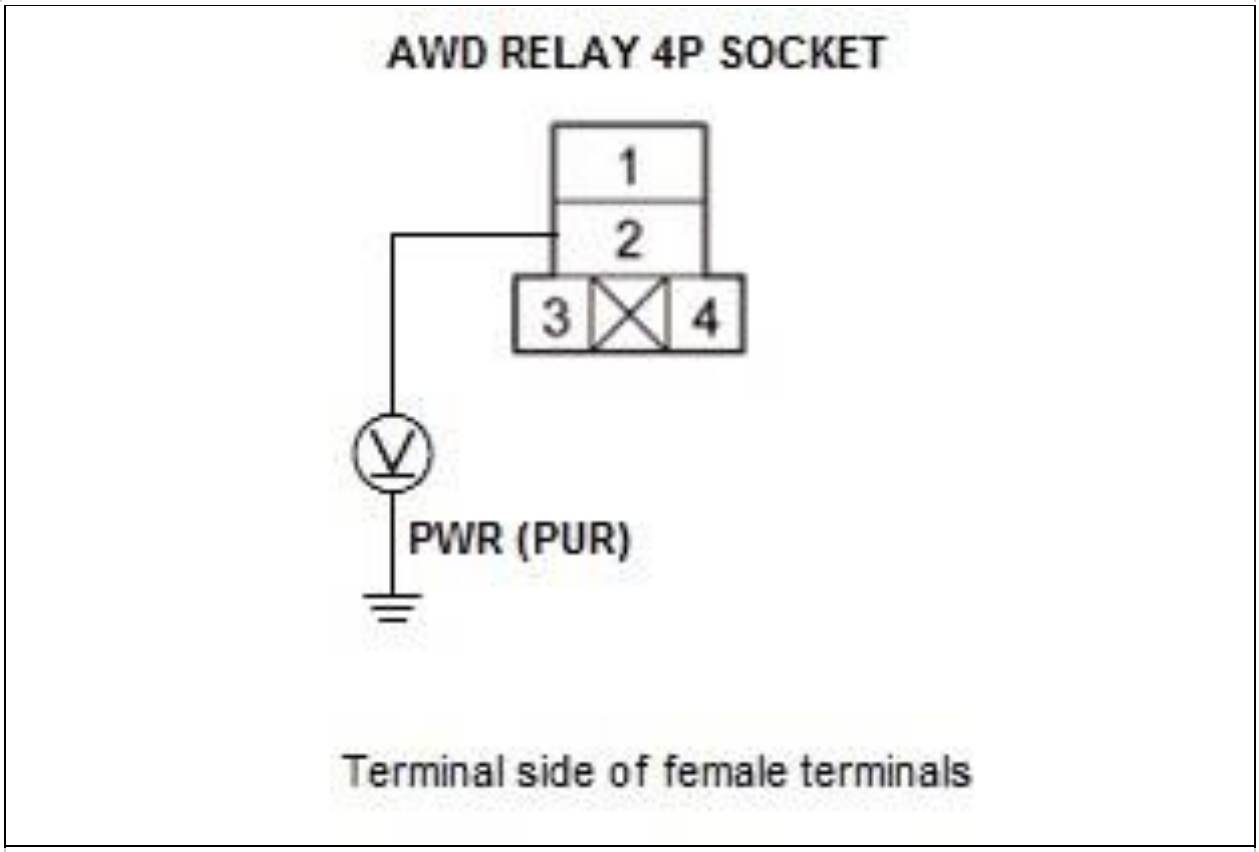
Repair a short to ground in the FSR wire between the AWD relay and the AWD control unit.

NO

The FSR wire is OK. Go to step 4.

4. Shorted wire check (PWR line to power):
   Press the engine start/stop button to select the ON mode.
   - 2. Measure the voltage between test points 1 and 2.

Test condition	ON mode
	AWD relay: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	PWR
Test point 1	AWD relay 4P socket No. 2 (PUR)
Test point 2	Body ground



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

Is there about 0.1 V or less?

YES

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

NO

Repair a short to power in the PWR wire between the AWD relay and the AWD control unit.

DTC TROUBLESHOOTING > DTC C1850-12: FAIL SAFE RELAY STUCK ON (2016-18)

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

DTC Description	DTC	Freeze Frame

C1850-12 Fail Safe Relay Stuck ON		

DTC (AWD)

1. Problem verification:
   Press the engine start/stop button to select the ON mode.
   - 2. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
Voltage of Battery	More than 8.3	V		

   Do the current condition(s) match the threshold?
   YES
   The failure is duplicated. Go to step 2.
   NO
   Intermittent failure, the system is OK at this time.

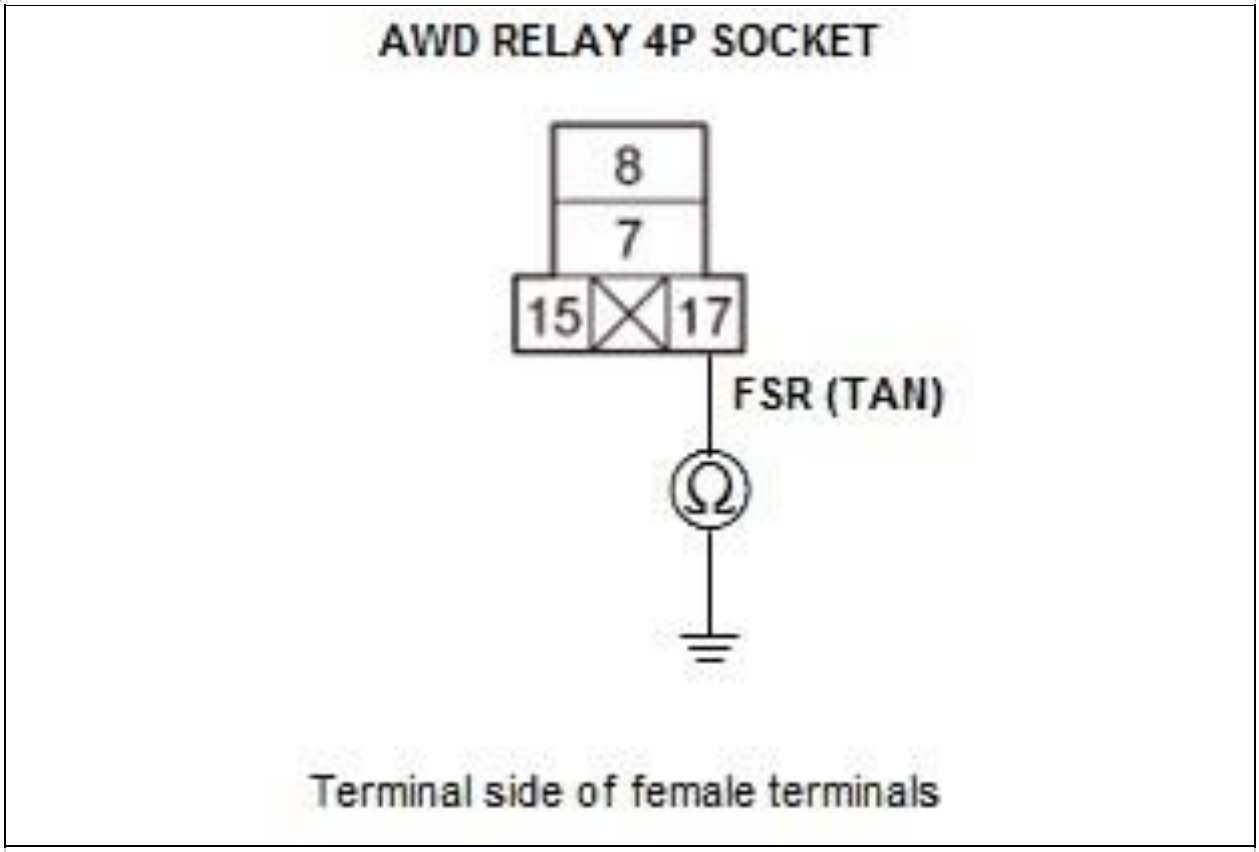
2. AWD relay check:
   Press the engine start/stop button to select the OFF mode.
   - 2. Remove the AWD relay , then test it .
   Is the AWD relay OK?
   YES
   The AWD relay is OK. Go to step 3.
   NO
   Replace the AWD relay .

3. Shorted wire check (FSR line):
   Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode
	AWD relay: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	FSR
Test point 1	AWD relay 4P socket No. 17 (TAN)
Test point 2	Body ground



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

Is there continuity?

YES

Repair a short to ground in the FSR wire between the AWD relay and the AWD control unit.

NO

The FSR wire is OK. Go to step 4.

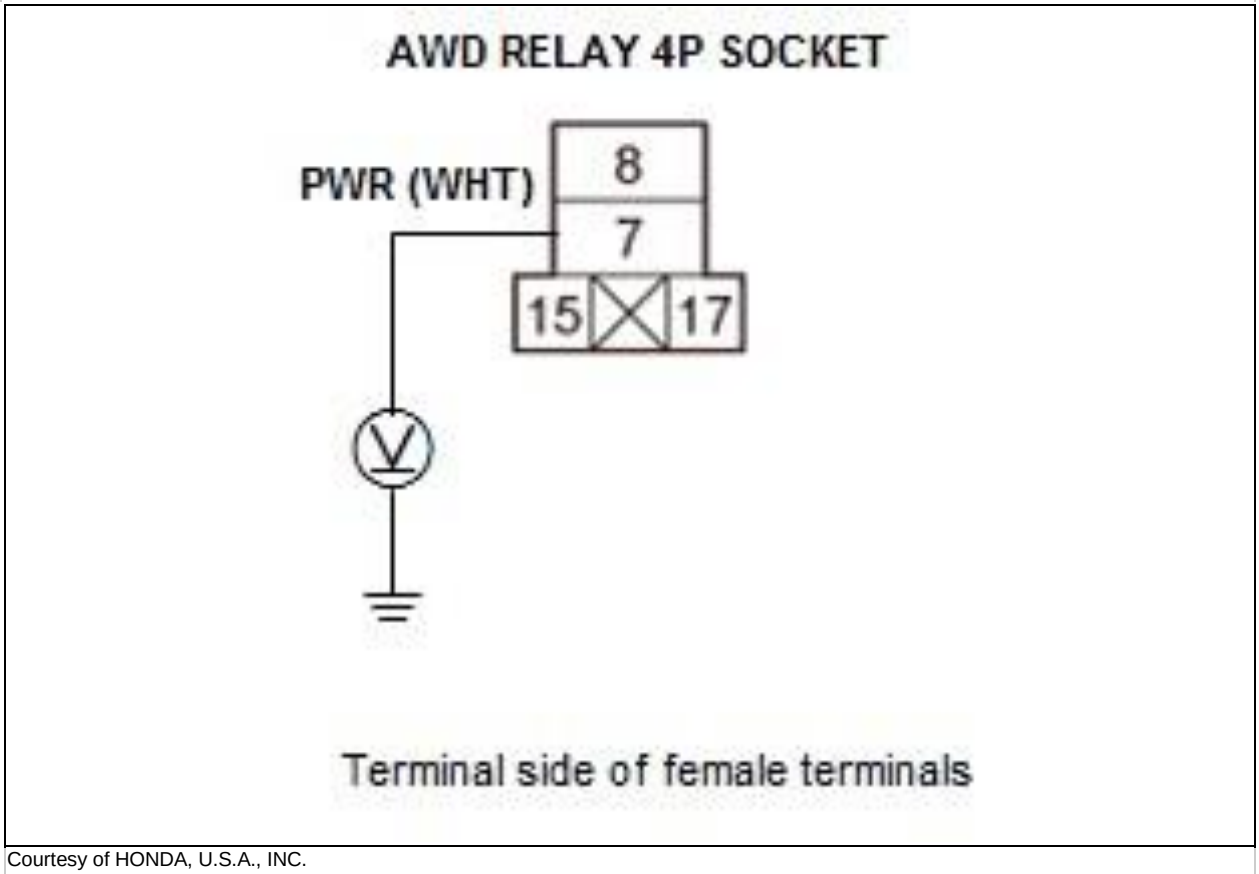
4. Shorted wire check (PWR line to power):

   Press the engine start/stop button to select the ON mode.

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

Test condition	ON mode
	AWD relay: disconnected

	AWD control unit 24P connector: disconnected
Test circuit	PWR
Test point 1	AWD relay 4P socket No. 7 (WHT)
Test point 2	Body ground



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

Is there about 0.1 V or less?

YES

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

NO

Repair a short to power in the PWR wire between the AWD relay and the AWD control unit.

DTC TROUBLESHOOTING > DTC C1850-14: FAIL SAFE RELAY STUCK OFF (2013-15)

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

DTC Description	DTC	Freeze Frame
C1850-14 Fail Safe Relay Stuck OFF		

DTC (AWD)

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

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
Voltage of Battery	Less than 3.0	V		

   Do the current condition(s) match the threshold?
   YES
   The failure is duplicated. Go to step 2.
   NO
   Intermittent failure, the system is OK at this time.

2. Fuse check:
   Press the engine start/stop button to select the OFF mode.
   - 2. Check the following fuse.

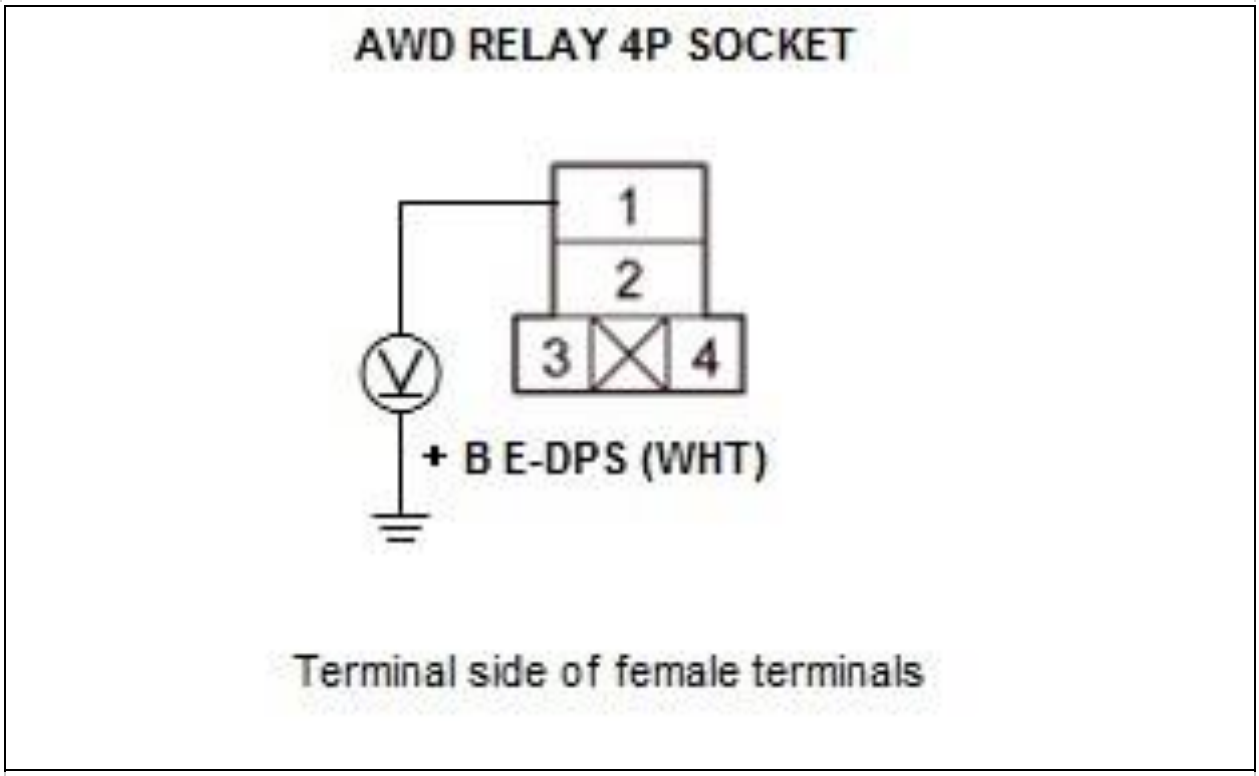
Fuse	No. A1-2 (30 A)
Location	Under-hood fuse/relay box

   Is the fuse OK?
   YES
   The fuse is OK. Reinstall the fuse, then go to step 3.
   NO
   Replace the fuse, and recheck. If the fuse blows again, repair a short to ground in the No. A1-2 (30 A) fuse circuit.

3. AWD relay check:
   Remove the AWD relay , then test it .
   Is the AWD relay OK?
   YES
   The AWD relay is OK. Go to step 4.
   NO
   Replace the AWD relay .

4. Open wire check (+B E-DPS line):
   Measure the voltage between test points 1 and 2.

Test condition	OFF mode
	AWD relay: disconnected
Test circuit	+B E-DPS
Test point 1	AWD relay 4P socket No. 1 (WHT)
Test point 2	Body ground



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

Is there battery voltage?

YES

The +B E-DPS wire is OK. Go to step 5.

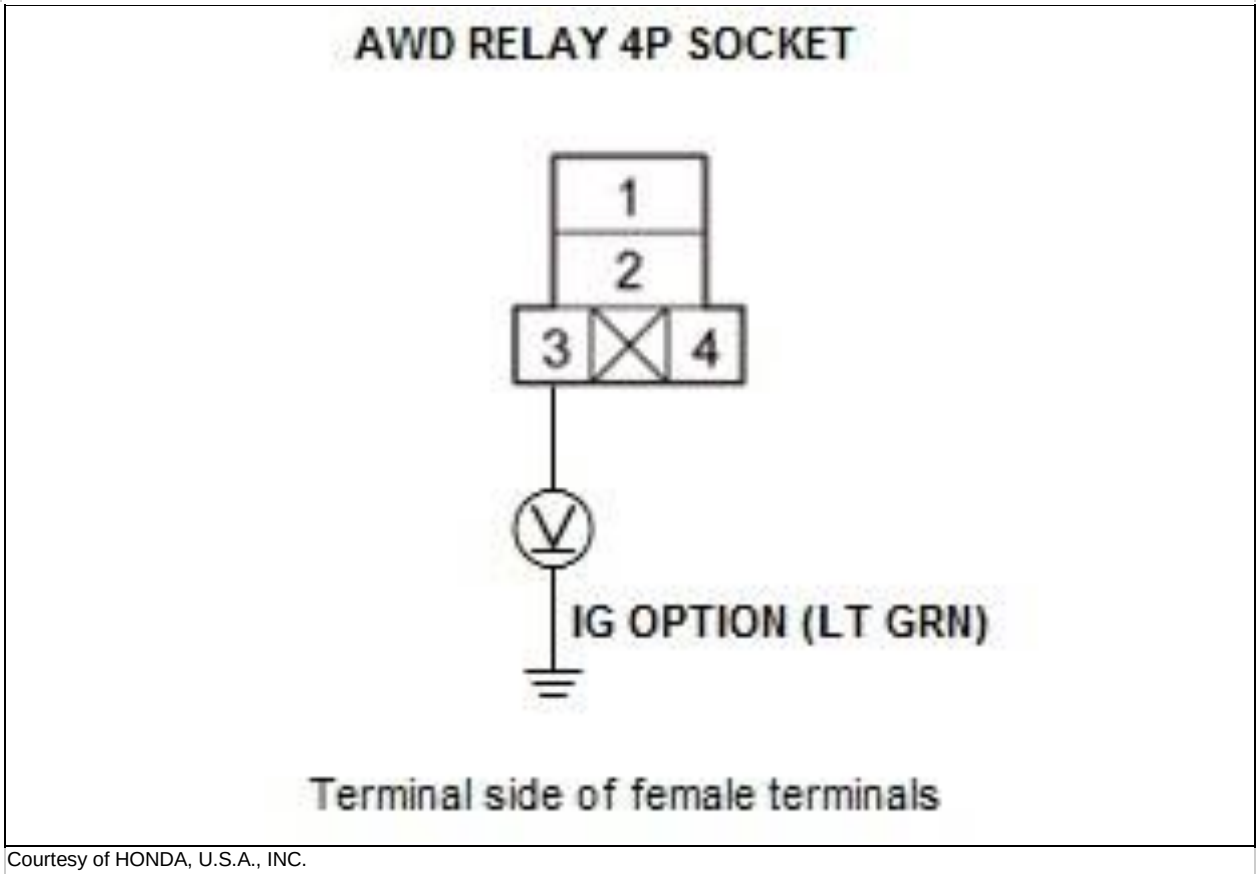
NO

Repair an open in the +B E-DPS wire between the AWD relay and the No. A1-2 (30 A) fuse in the under-hood fuse/relay box.

5. Open wire check (IG OPTION line):
   Press the engine start/stop button to select the ON mode.
   - 2. Measure the voltage between test points 1 and 2.

Test condition	ON mode

	AWD relay: disconnected
Test circuit	IG OPTION
Test point 1	AWD relay 4P socket No. 3 (LT GRN)
Test point 2	Body ground



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

Is there battery voltage?

YES

The IG OPTION wire is OK. Go to step 6.

NO

Repair an open in the IG OPTION wire between the AWD relay and the power control unit.

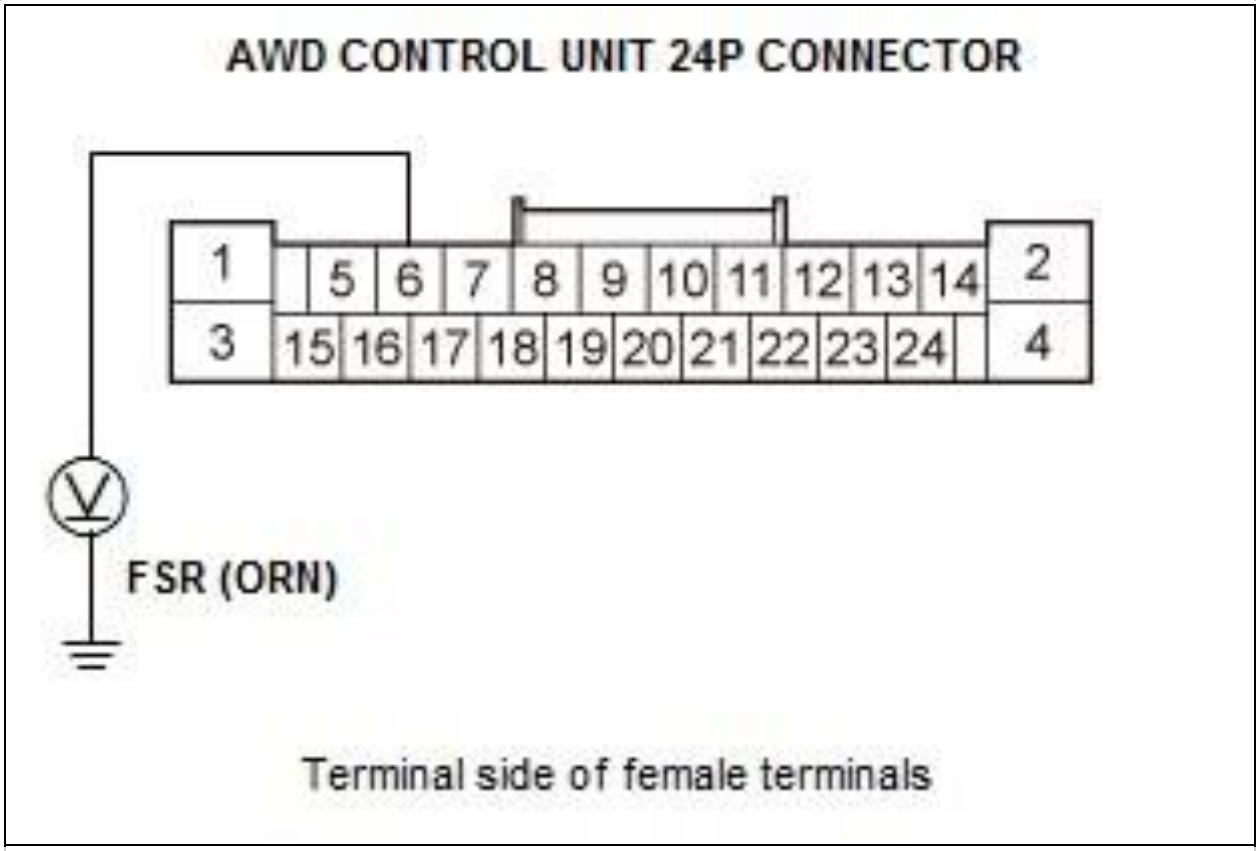
6. Shorted wire check (FSR line to power):

Press the engine start/stop button to select the OFF mode.
- 2. Disconnect the following connector.

AWD control unit 24P connector

- 3. Press the engine start/stop button to select the ON mode.
- 4. Measure the voltage between test points 1 and 2.

Test condition	ON mode
	AWD relay: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	FSR
Test point 1	AWD control unit 24P connector No. 6 (ORN)
Test point 2	Body ground



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

Is there about 0.1 V or less?

YES

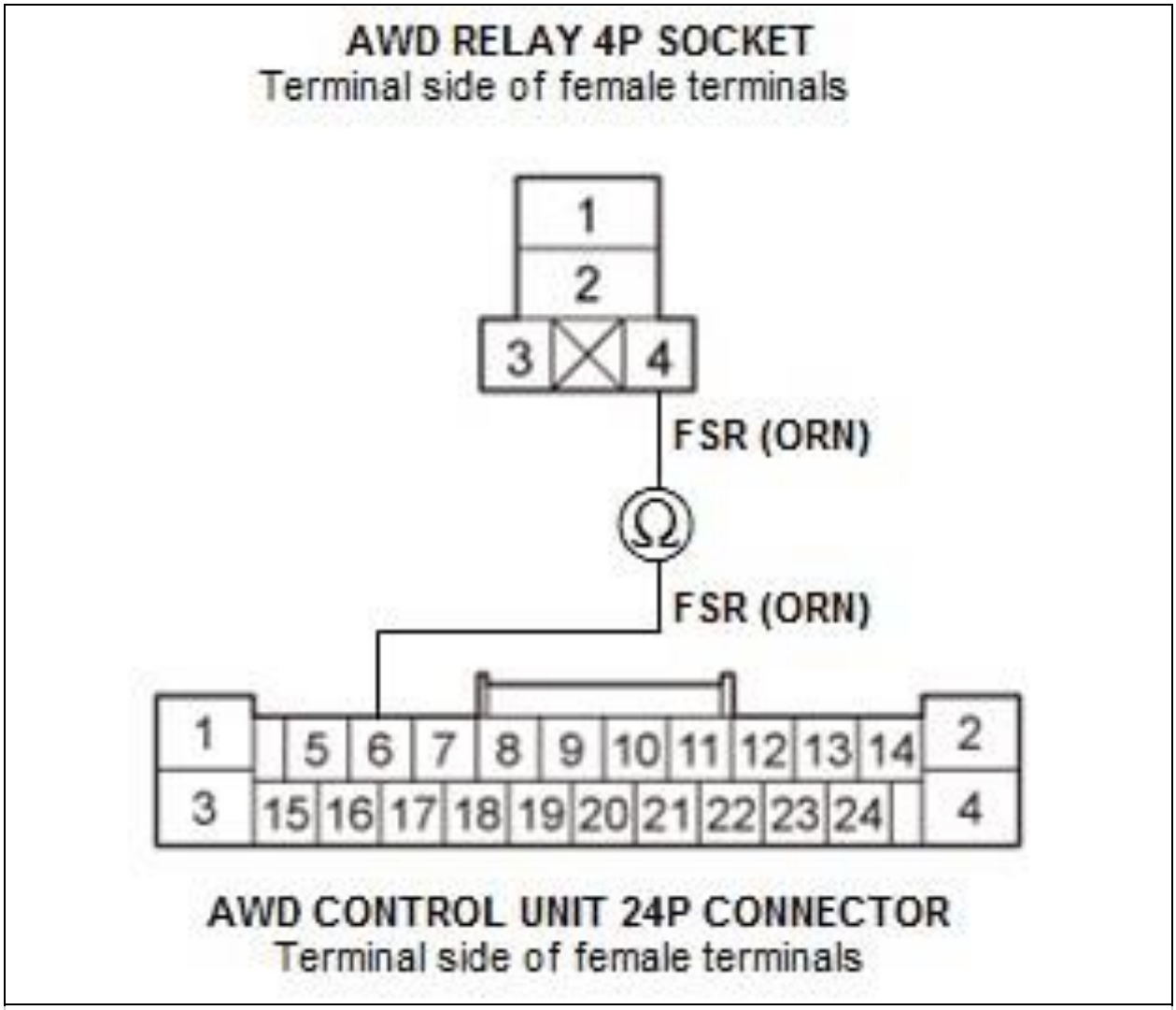
The FSR wire is not shorted to power. Go to step 7.

NO

Repair a short to power in the FSR wire between the AWD relay and the AWD control unit, then replace the AWD control unit .

7. Open wire check (FSR line):
   Press the engine start/stop button to select the OFF mode.
   - 2. Check for continuity between test points 1 and 2.

Test condition	OFF mode
	AWD relay: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	FSR
Test point 1	AWD relay 4P socket No. 4 (ORN)
Test point 2	AWD control unit 24P connector No. 6 (ORN)



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

Is there continuity?

YES

The FSR wire is OK. Go to step 8.

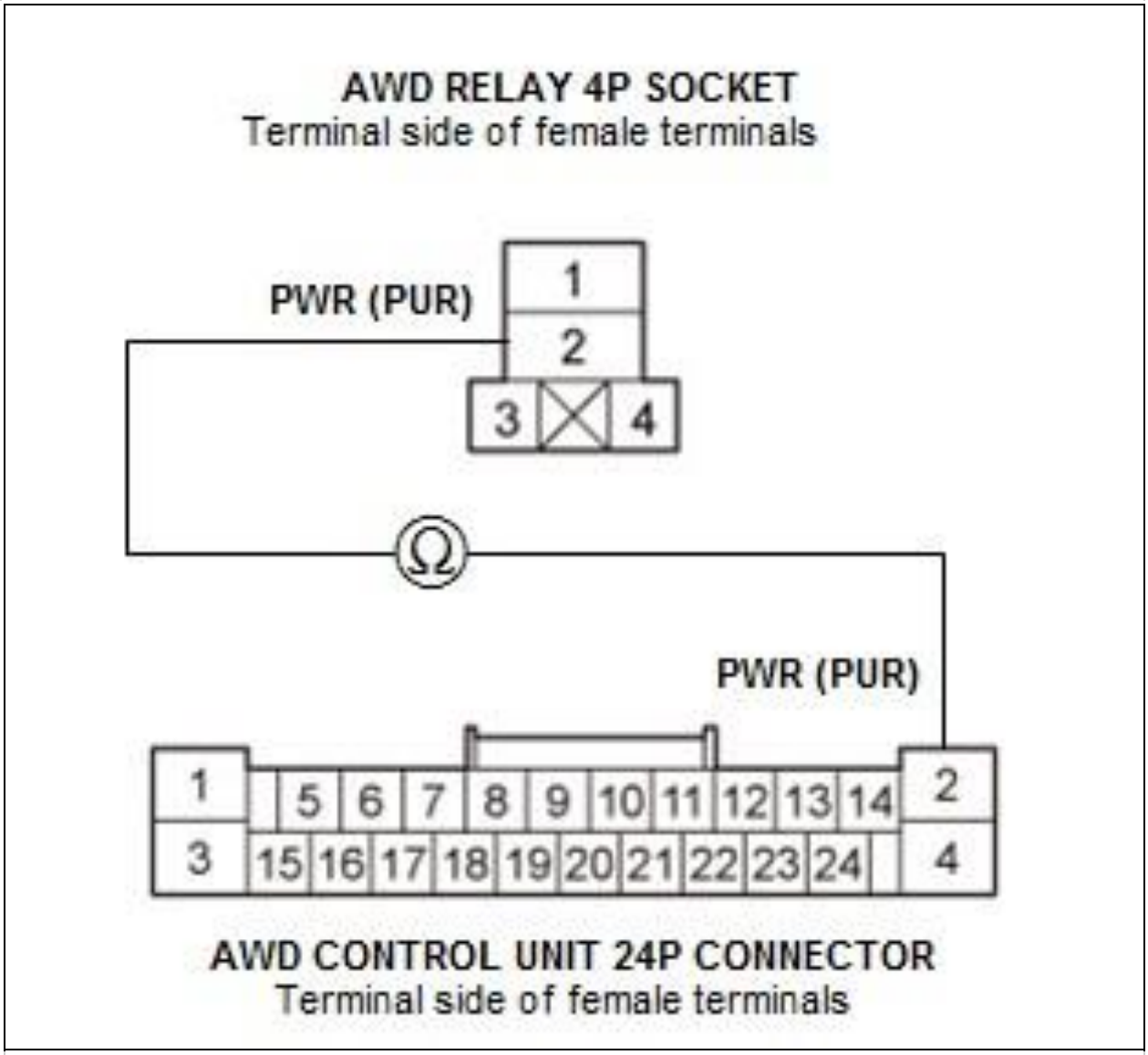
NO

Repair an open in the FSR wire between the AWD relay and the AWD control unit.

8. Open wire check (PWR line):
   Check for continuity between test points 1 and 2.

Test condition	OFF mode
	AWD relay: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	PWR
Test point 1	AWD relay 4P socket No. 2 (PUR)

Test point 2	AWD control unit 24P connector No. 2 (PUR)



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

Is there continuity?

YES

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

NO

Repair an open in the PWR wire between the AWD relay and the AWD control unit.

DTC TROUBLESHOOTING > DTC C1850-14: FAIL SAFE RELAY STUCK OFF (2016-18)

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

DTC Description	DTC	Freeze Frame
C1850-14 Fail Safe Relay Stuck OFF		

DTC (AWD)

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

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
Voltage of Battery	Less than 3.0	V		

   Do the current condition(s) match the threshold?
   YES
   The failure is duplicated. Go to step 2.
   NO
   Intermittent failure, the system is OK at this time.

2. Fuse check:
   Press the engine start/stop button to select the OFF mode.
   - 2. Check the following fuse.

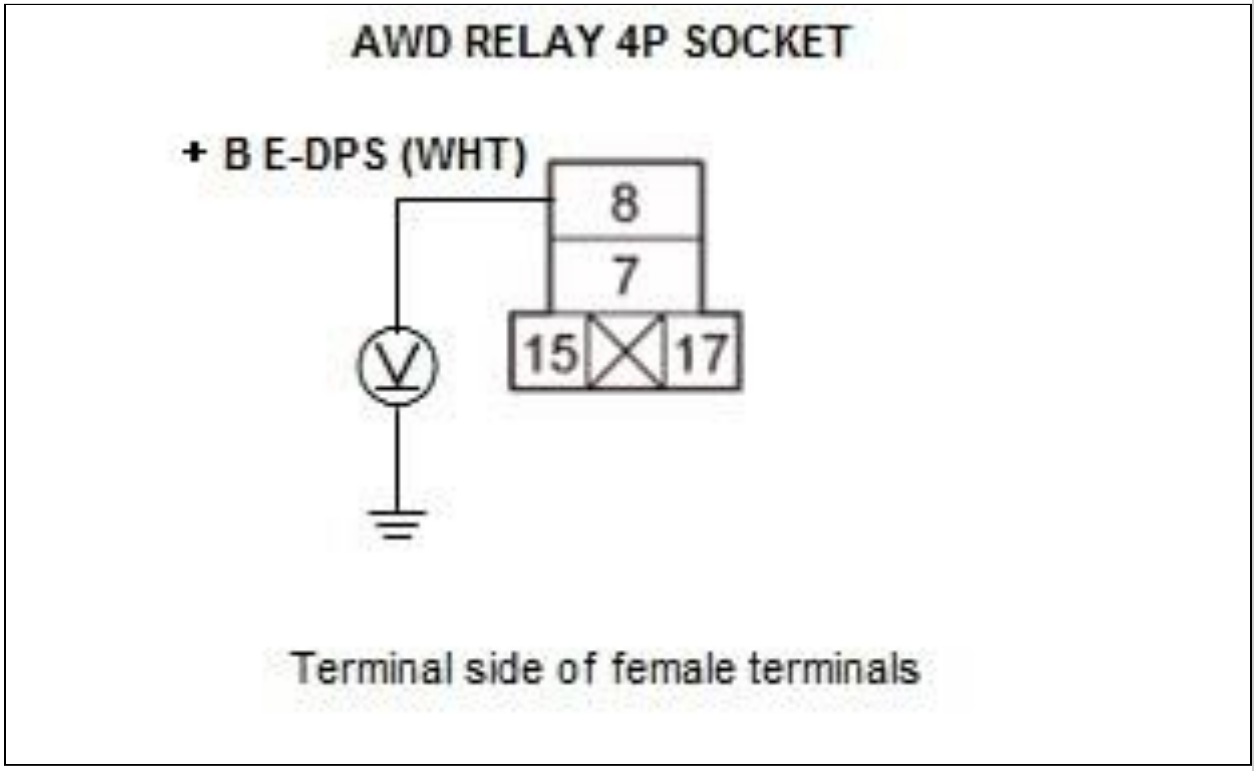
Fuse	No. A1-2 (30 A)
Location	Under-hood fuse/relay box

   Is the fuse OK?
   YES
   The fuse is OK. Reinstall the fuse, then go to step 3.
   NO
   Replace the fuse, and recheck. If the fuse blows again, repair a short to ground in the No. A1-2 (30 A) fuse circuit.

3. AWD relay check:
   Remove the AWD relay , then test it .
   Is the AWD relay OK?
   YES
   The AWD relay is OK. Go to step 4.
   NO
   Replace the AWD relay .

4. Open wire check (+B E-DPS line):
   Measure the voltage between test points 1 and 2.

Test condition	OFF mode
	AWD relay: disconnected
Test circuit	+B E-DPS
Test point 1	AWD relay 4P socket No. 8 (WHT)
Test point 2	Body ground



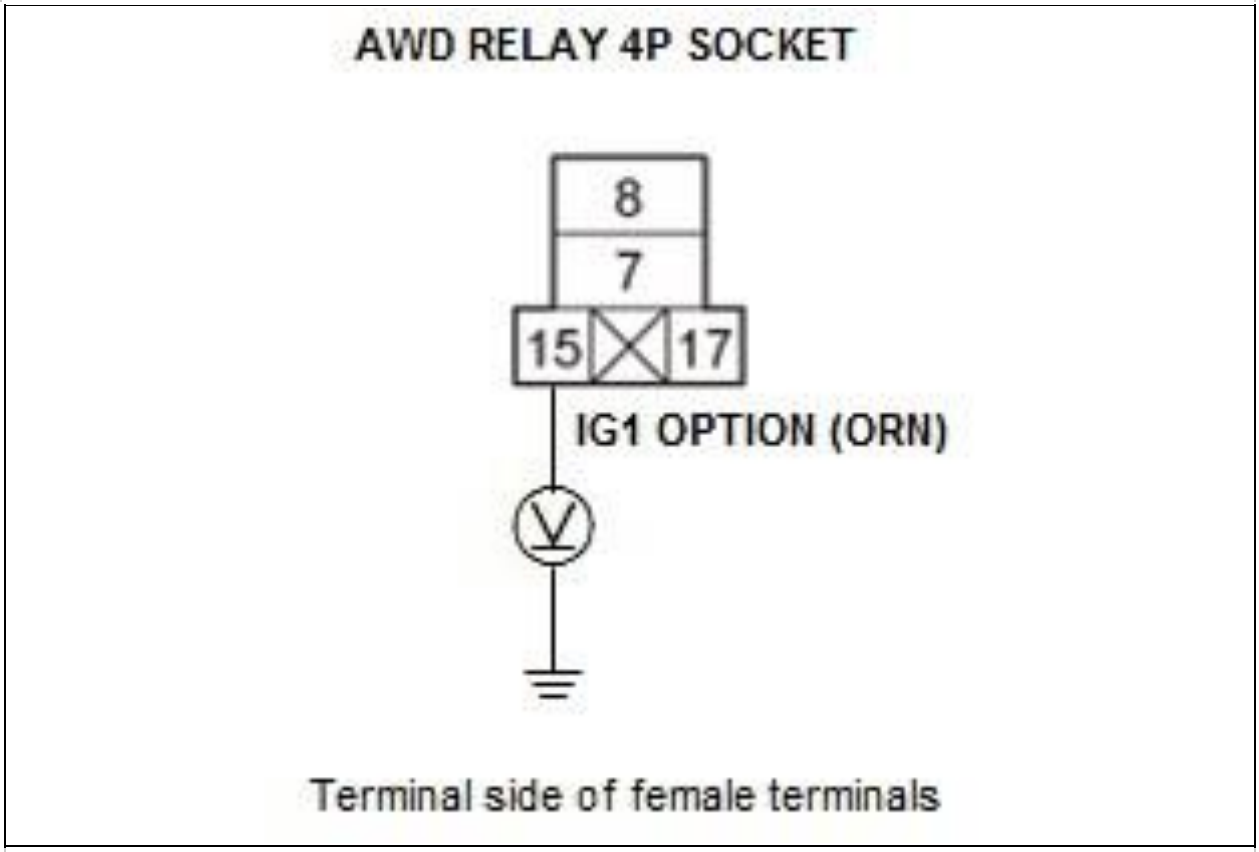
Courtesy of HONDA, U.S.A., INC.

   Is there battery voltage?
   YES
   The +B E-DPS wire is OK. Go to step 5.
   NO
   Repair an open in the +B E-DPS wire between the AWD relay and the No. A1-2 (30 A) fuse in the under-hood fuse/relay box.

5. Open wire check (IG1 OPTION line):
   Press the engine start/stop button to select the ON mode.
   - 2. Measure the voltage between test points 1 and 2.

Test condition	ON mode
	AWD relay: disconnected

Test circuit	IG1 OPTION
Test point 1	AWD relay 4P socket No. 15 (ORN)
Test point 2	Body ground



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

Is there battery voltage?

YES

The IG1 OPTION wire is OK. Go to step 6.

NO

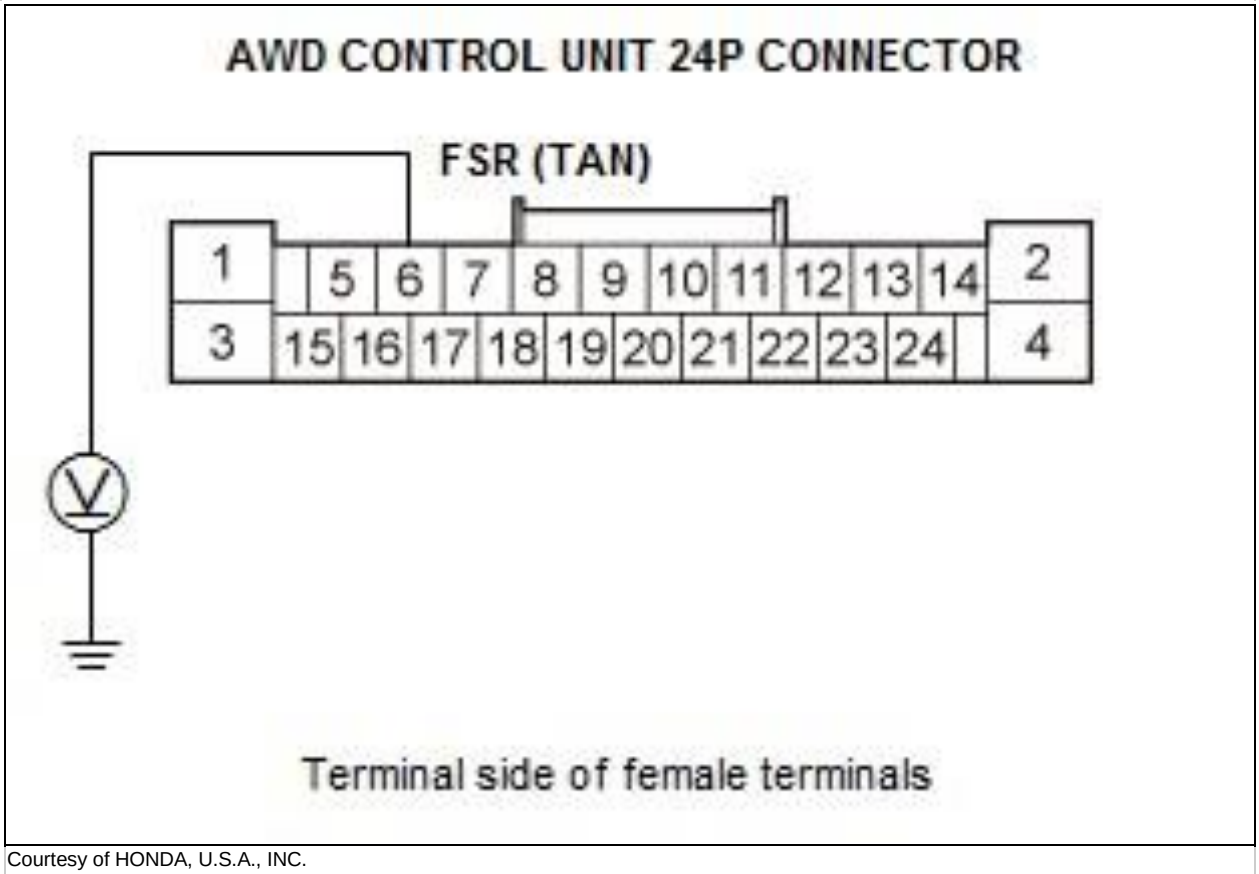
Repair an open in the IG1 OPTION wire between the AWD relay and the power control unit.

6. Shorted wire check (FSR line to power):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

AWD control unit 24P connector

   - 3. Press the engine start/stop button to select the ON mode.
   - 4. Measure the voltage between test points 1 and 2.

Test condition	ON mode
	AWD relay: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	FSR
Test point 1	AWD control unit 24P connector No. 6 (TAN)
Test point 2	Body ground



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

Is there about 0.1 V or less?

YES

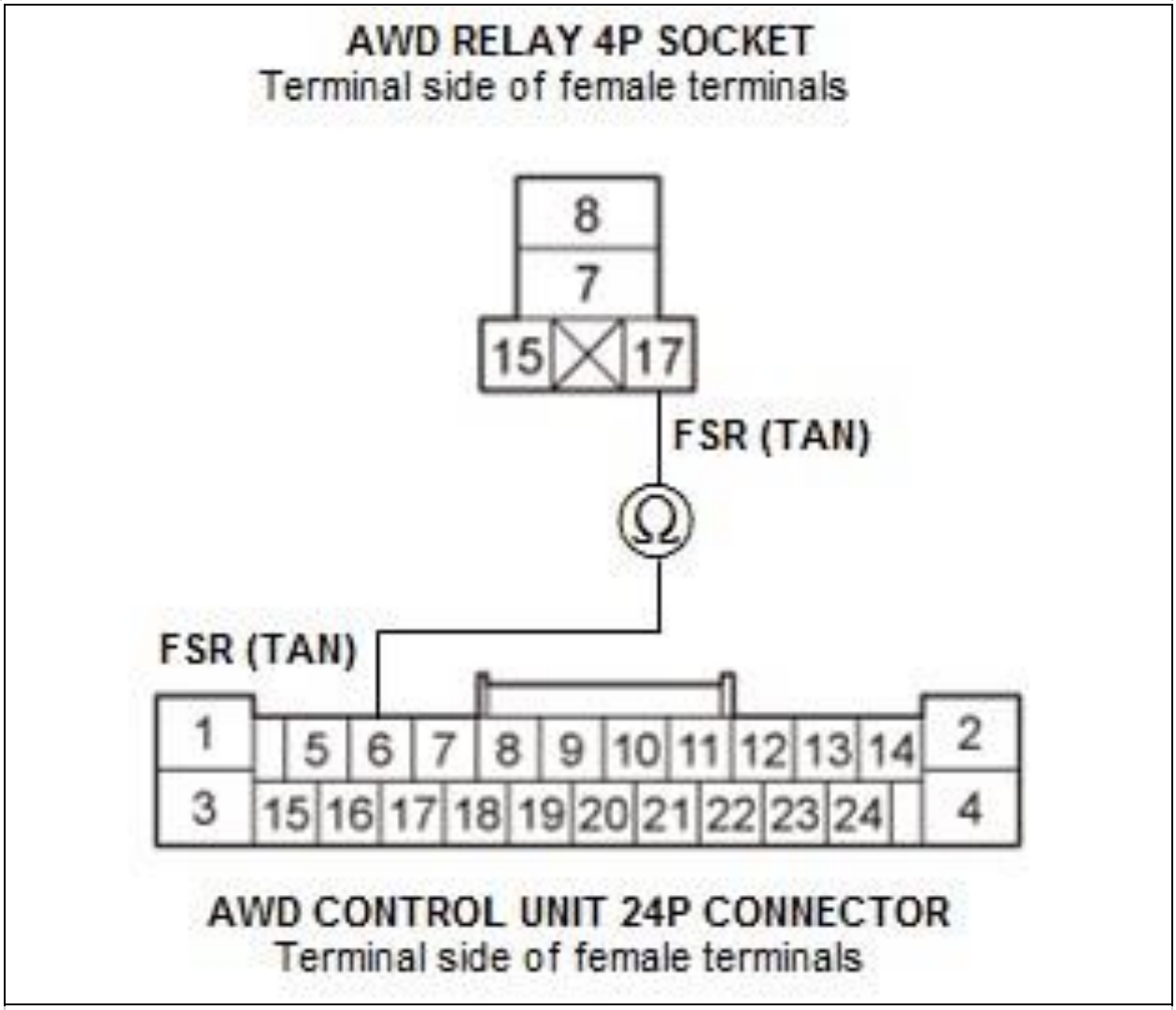
The FSR wire is not shorted to power. Go to step 7.

NO

Repair a short to power in the FSR wire between the AWD relay and the AWD control unit, then replace the AWD control unit .

7. Open wire check (FSR line):
   Press the engine start/stop button to select the OFF mode.
   - 2. Check for continuity between test points 1 and 2.

Test condition	OFF mode
	AWD relay: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	FSR
Test point 1	AWD relay 4P socket No. 17 (TAN)
Test point 2	AWD control unit 24P connector No. 6 (TAN)



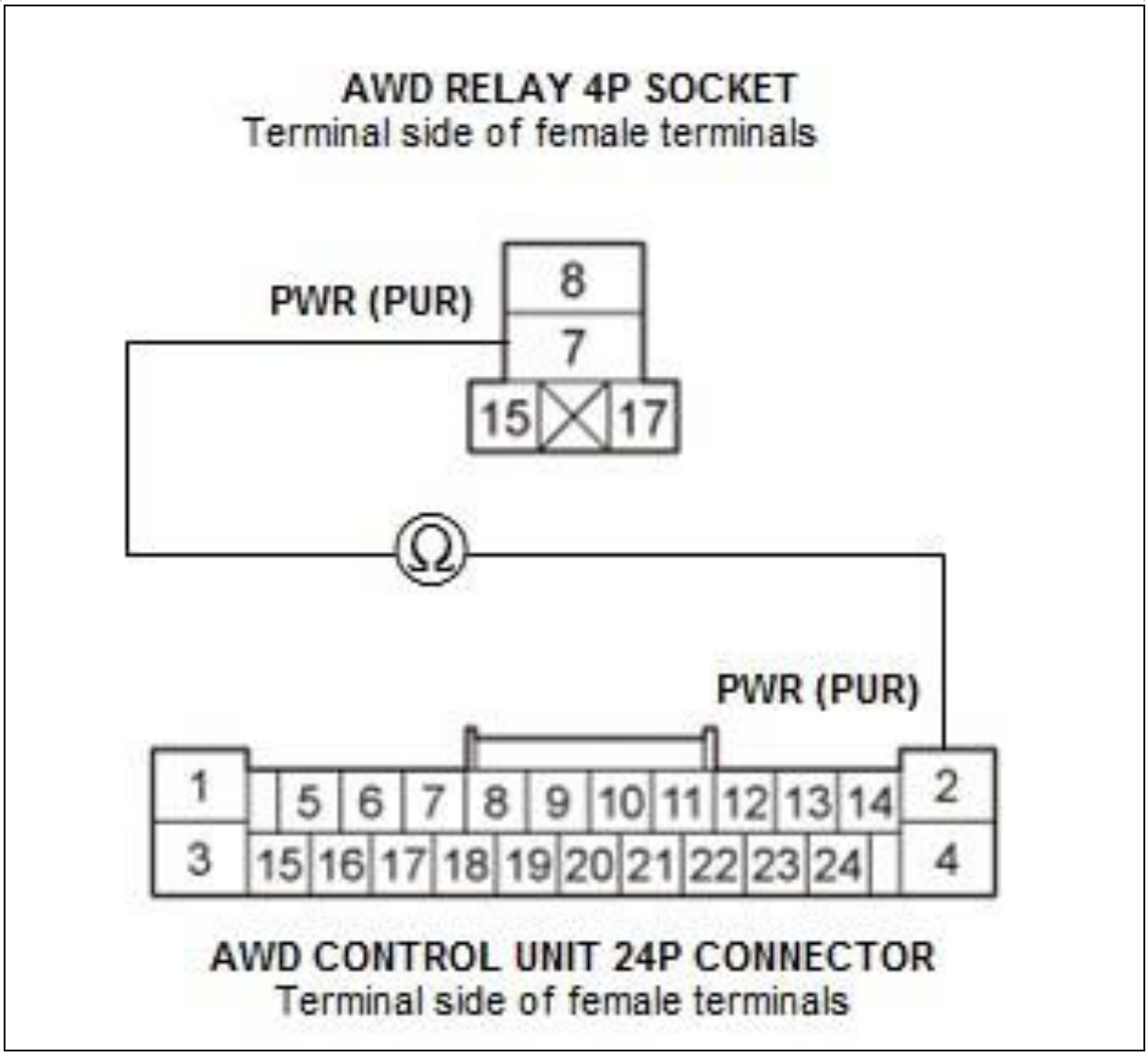
Courtesy of HONDA, U.S.A., INC.

Is there continuity?

YES
The FSR wire is OK. Go to step 8.
NO
Repair an open in the FSR wire between the AWD relay and the AWD control unit.

8. Open wire check (PWR line):
Check for continuity between test points 1 and 2.

Test condition	OFF mode
	AWD relay: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	PWR
Test point 1	AWD relay 4P socket No. 7 (WHT)
Test point 2	AWD control unit 24P connector No. 2 (PUR)



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

Is there continuity?

YES

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

NO

Repair an open in the PWR wire between the AWD relay and the AWD control unit.

DTC TROUBLESHOOTING > DTC C1851-18: MOTOR CIRCUIT LOW CURRENT (201318)

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

DTC Description	DTC	Freeze Frame
C1851-18 Motor Circuit Low Current		

DTC (AWD)

1. Problem verification (with engine idling):
   Press the engine start/stop button to select the ON mode.
   - 2. Clear the DTC with the HDS.
   Clear DTC
   - 3. Start the engine.
   - 4. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1851-18 Motor Circuit Low Current		

   Is DTC C1851-18 indicated?

   YES

   The failure is duplicated. Go to step 3.

   NO

   Go to step 2.

2. Problem verification (with rear differential pump motor running):
   Clear the DTC with the HDS.
   Clear DTC
   - 2. Select ADJUSTMENT in the AWD WITH INTELLIGENT CONTROL with the HDS.
   - 3. With the engine running, do the AIR BLEEDING in the ADJUSTMENT with the HDS .
   Air Bleeding
   - 4.Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1851-18 Motor Circuit Low Current		

Is DTC C1851-18 indicated?
YES
The failure is duplicated. Go to step 3.
NO
Intermittent failure, the system is OK at this time.

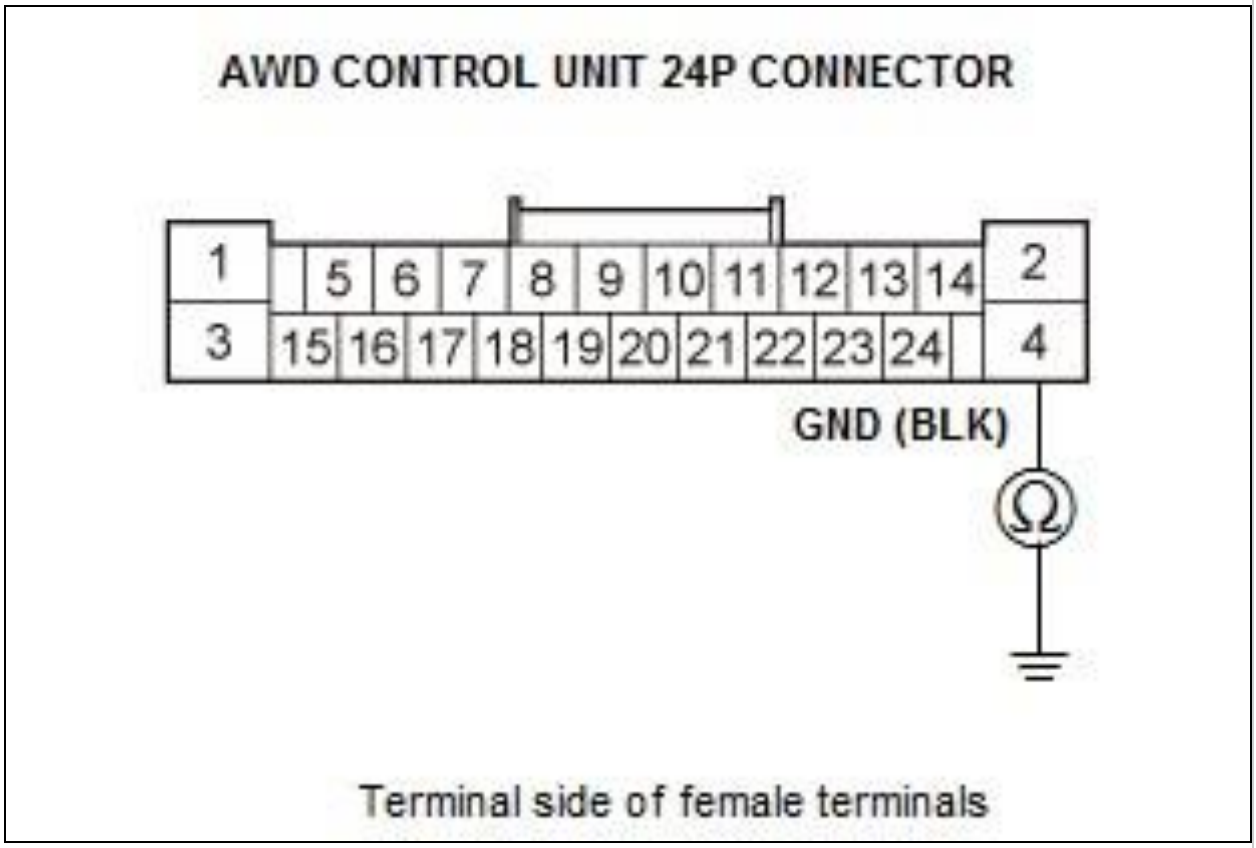
Open wire check (GND line):
Press the engine start/stop button to select the OFF mode.
- 2. Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode
	AWD control unit 24P connector: disconnected
Test circuit	GND
Test point 1	AWD control unit 24P connector No. 4 (BLK)
Test point 2	Body ground

3.



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

Is there continuity?

YES

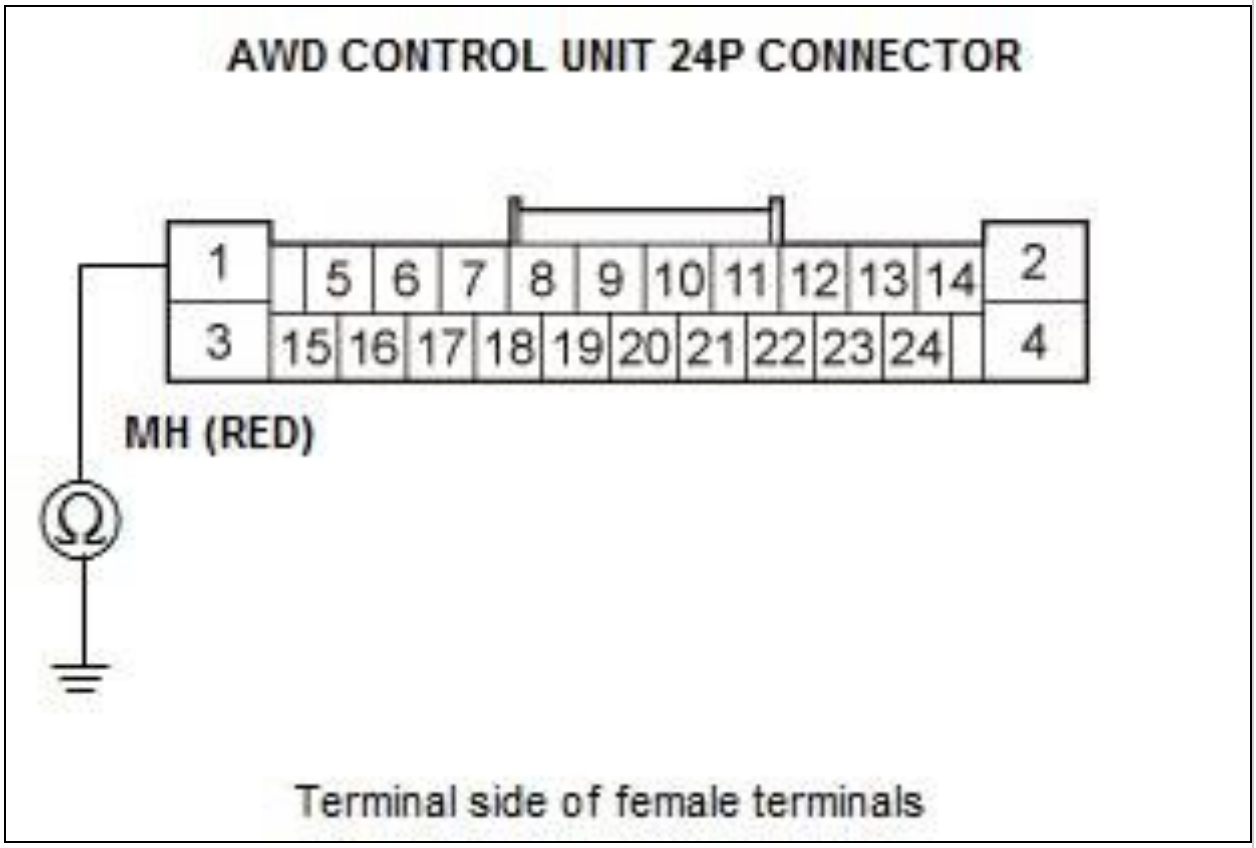
The GND wire is OK. Go to step 4.

NO

Check for poor connections or loose terminals between the AWD control unit and ground (G603). If the connections are OK, repair an open in the GND wire between the AWD control unit and ground (G603).

4. Determine possible failure area (short in MH, ML lines, open in MH, ML lines):
   Check for continuity between test points 1 and 2.

Test condition	OFF mode
	AWD control unit 24P connector: disconnected
Test circuit	MH
Test point 1	AWD control unit 24P connector No. 1 (RED)
Test point 2	Body ground

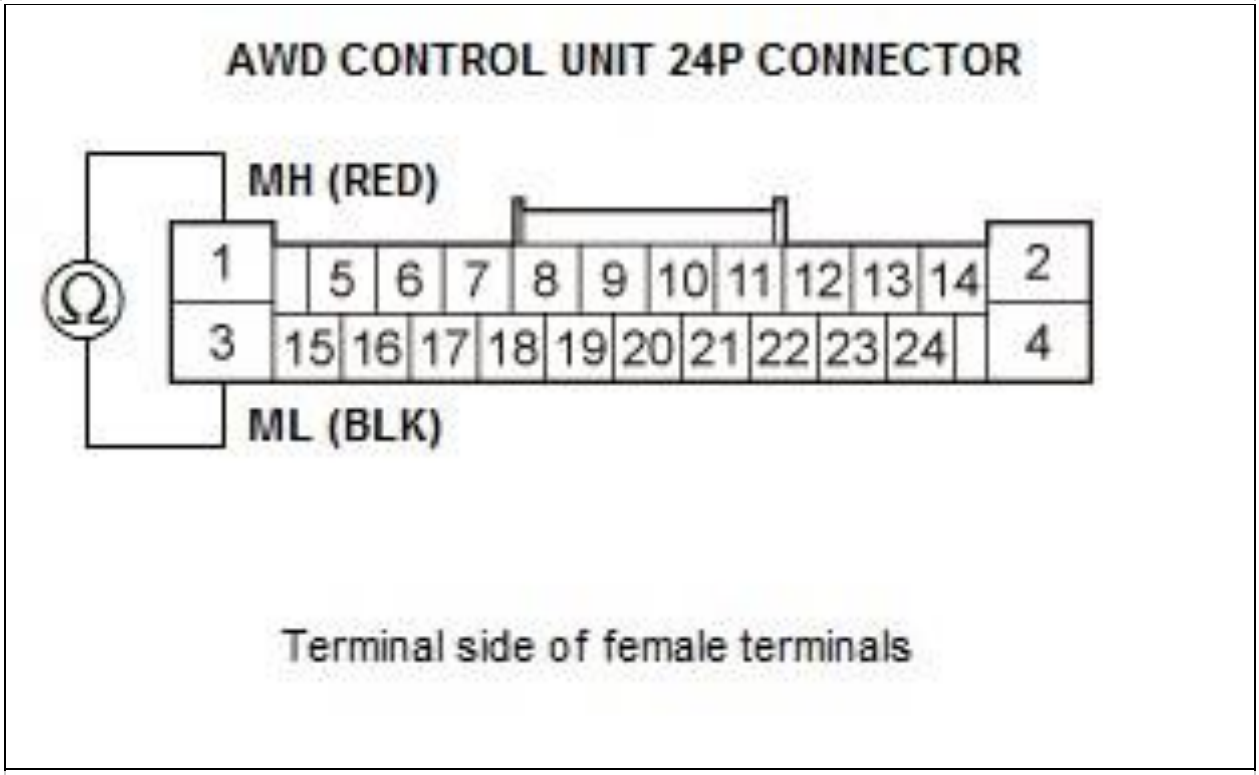


Courtesy of HONDA, U.S.A., INC.

Is there continuity?
YES
Go to step 7.
NO
Go to step 5.

5. Determine possible failure area (MH, ML lines, AWD control unit):
   Measure the resistance between test points 1 and 2.

Test condition	OFF mode, At normal air temperature
	AWD control unit 24P connector: disconnected
Test circuit	MH, ML
Test point 1	AWD control unit 24P connector No. 1 (RED)
Test point 2	AWD control unit 24P connector No. 3 (BLK)



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

Is there about 10 Ω or less?

YES

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

NO

Go to step 6.

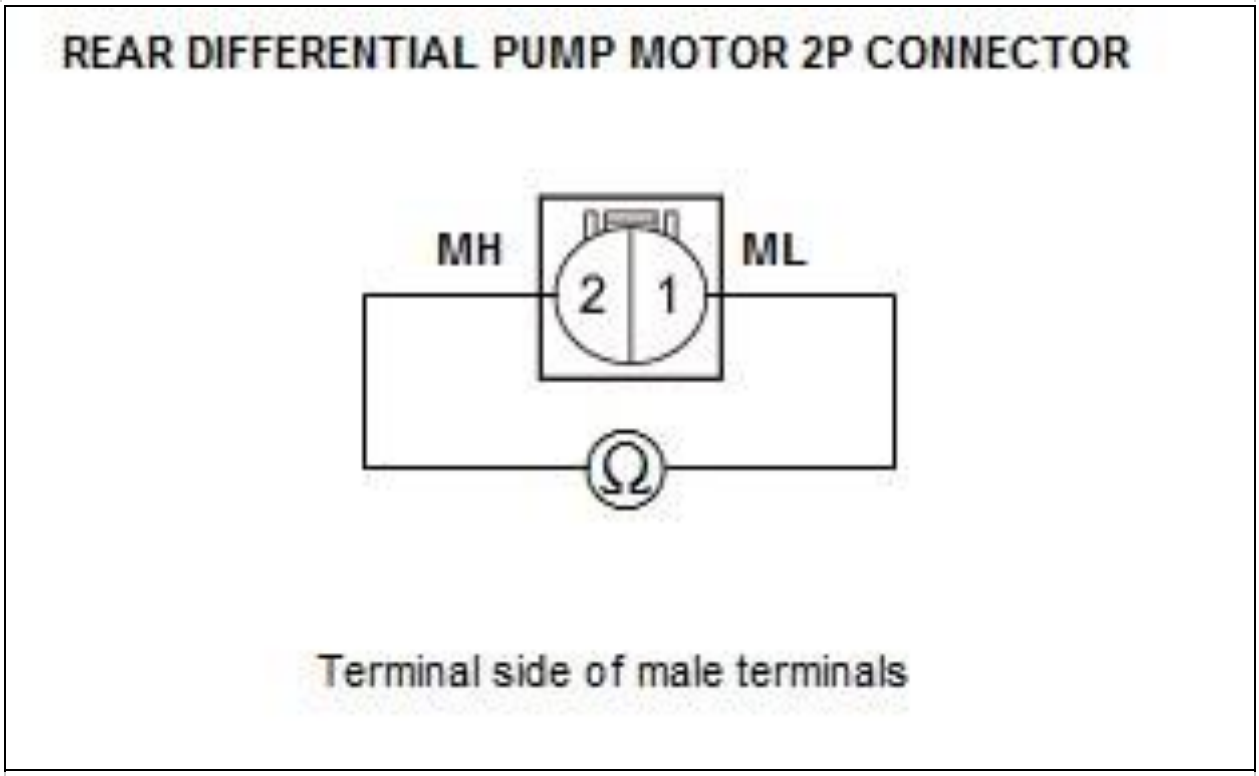
6. Rear differential pump motor internal open check:
   Disconnect the following connector.

Rear differential pump motor 2P connector - Refer to: Rear Differential Pump Motor Removal and Installation(AWD) (2013-15), or Rear Differential Pump Motor Removal and Installation(AWD) (201618)

- 2. Measure the resistance between test points 1 and 2.

Test condition	OFF mode

	AWD control unit 24P connector: disconnected
	Rear differential pump motor 2P connector: disconnected
Test circuit	MH, ML
Test point 1	Rear differential pump motor 2P connector No. 1
Test point 2	Rear differential pump motor 2P connector No. 2



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

Is there about 10 Ω or less?

YES

Repair an open in the MH and/or ML wires between the rear differential pump motor and the AWD control unit.

NO

Replace the rear differential pump motor - Refer to: Rear Differential Pump Motor Removal and Installation(AWD) (2013-15), or Rear Differential Pump Motor Removal and Installation(AWD) (201618) .

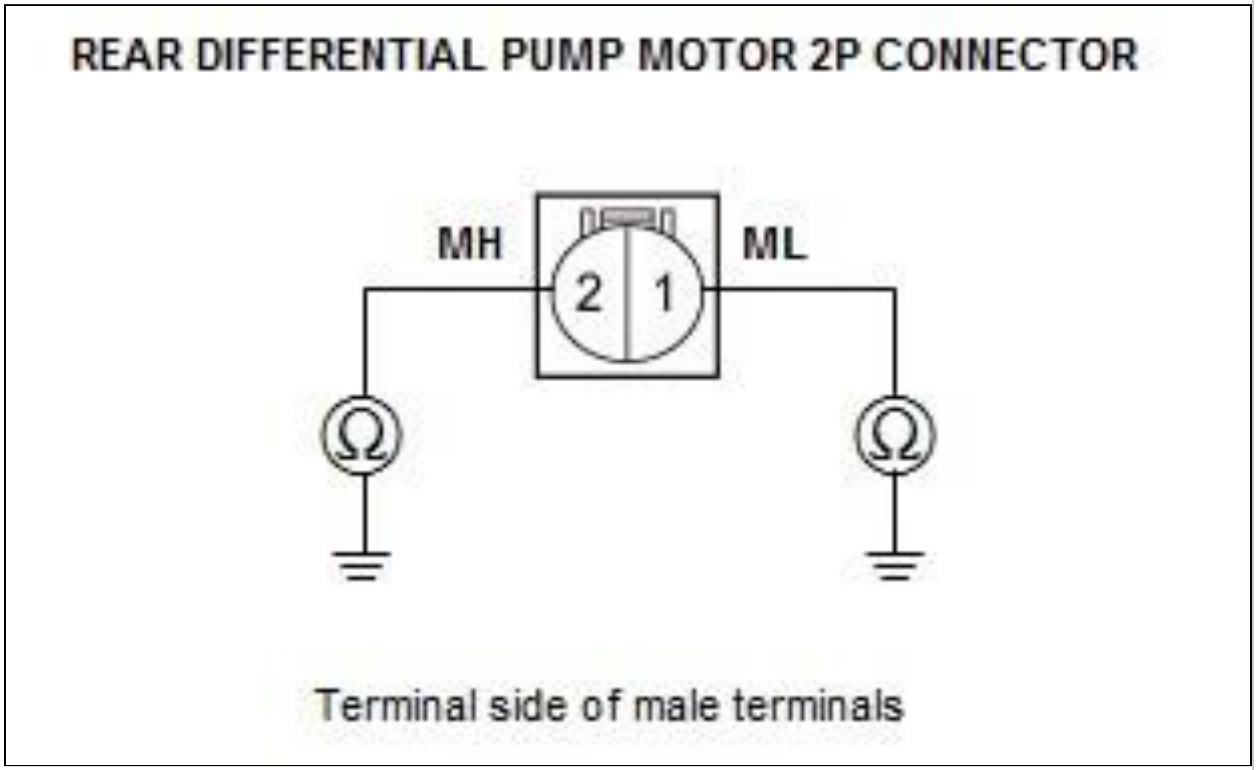
7. Rear differential pump motor internal shorted check:
   Disconnect the following connector.

Rear differential pump motor 2P connector - Refer to: Rear Differential Pump Motor Removal and Installation(AWD) (2013-15), or Rear Differential Pump Motor Removal and Installation(AWD) (201618)

- 2. Check for continuity between the following test points and the rear differential pump motor body individually.

Test condition	OFF mode
	AWD control unit 24P connector: disconnected
	Rear differential pump motor 2P connector: disconnected

Connector	Test circuit	Terminal
Rear differential pump motor 2P	ML	No. 1
	MH	No. 2



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Are there continuity?

YES

Replace the rear differential pump motor - Refer to: Rear Differential Pump Motor Removal and Installation(AWD) (2013-15), or Rear Differential Pump Motor Removal and Installation(AWD) (201618) .

NO

Repair a short to ground in the MH and/or ML wires between the rear differential pump motor and the AWD control unit.

DTC TROUBLESHOOTING > DTC C1851-19: CONTROL MODULE INTERNAL CONTROL MODULE MALFUNCTION (2013-18)

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

DTC Description	DTC	Freeze Frame
C1851-19 Control Module Internal Control Module Malfunction		

DTC (AWD)

1. Problem verification (with engine idling):
   Press the engine start/stop button to select the ON mode.
   - 2. Clear the DTC with the HDS.
   Clear DTC
   - 3. Start the engine.
   - 4. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1851-19 Control Module Internal Control Module Malfunction		

   Is DTC C1851-19 indicated?
   YES
   The failure is duplicated. Update the AWD control unit if it does not have the latest software , or substitute a known-good AWD control unit , and recheck. If the symptom/indication goes away with the updated AWD control unit, troubleshooting is complete. If the symptom/indication goes away with a known-good AWD control unit, replace the original AWD control unit .
   NO
   Go to step 2.

2. Problem verification (with rear differential pump motor running):
   Clear the DTC with the HDS.
   Clear DTC
   - 2. Select ADJUSTMENT in the AWD WITH INTELLIGENT CONTROL with the HDS.
   - 3. With the engine running, do the AIR BLEEDING in the ADJUSTMENT with the HDS .
   Air Bleeding
   - 4. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1851-19 Control Module Internal Control Module Malfunction		

   Is DTC C1851-19 indicated?

YES
The failure is duplicated. Update the AWD control unit if it does not have the latest software , or substitute a known-good AWD control unit , and recheck. If the symptom/indication goes away with the updated AWD control unit, troubleshooting is complete. If the symptom/indication goes away with a known-good AWD control unit, replace the original AWD control unit .
NO
Intermittent failure, the system is OK at this time.

DTC TROUBLESHOOTING > DTC C1851-1E: MOTOR CIRCUIT HIGH CURRENT (201318)

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

DTC Description	DTC	Freeze Frame
C1851-1E Motor Circuit High Current		

DTC (AWD)

1. Problem verification (with engine idling):
   Press the engine start/stop button to select the ON mode.
   - 2. Clear the DTC with the HDS.
   Clear DTC
   - 3. Start the engine.
   - 4. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1851-1E Motor Circuit High Current		

   Is DTC C1851-1E indicated?
   YES
   The failure is duplicated. Go to step 3.
   NO
   Go to step 2.

2. Problem verification (with rear differential pump motor running):
   Clear the DTC with the HDS.
   Clear DTC
   - 2. Select ADJUSTMENT in the AWD WITH INTELLIGENT CONTROL with the HDS.
   - 3. With the engine running, do the AIR BLEEDING in the ADJUSTMENT with the HDS .
   Air Bleeding
   - 4. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1851-1E Motor Circuit High Current		

Is DTC C1851-1E indicated?
YES
The failure is duplicated. Go to step 3.
NO
Intermittent failure, the system is OK at this time.

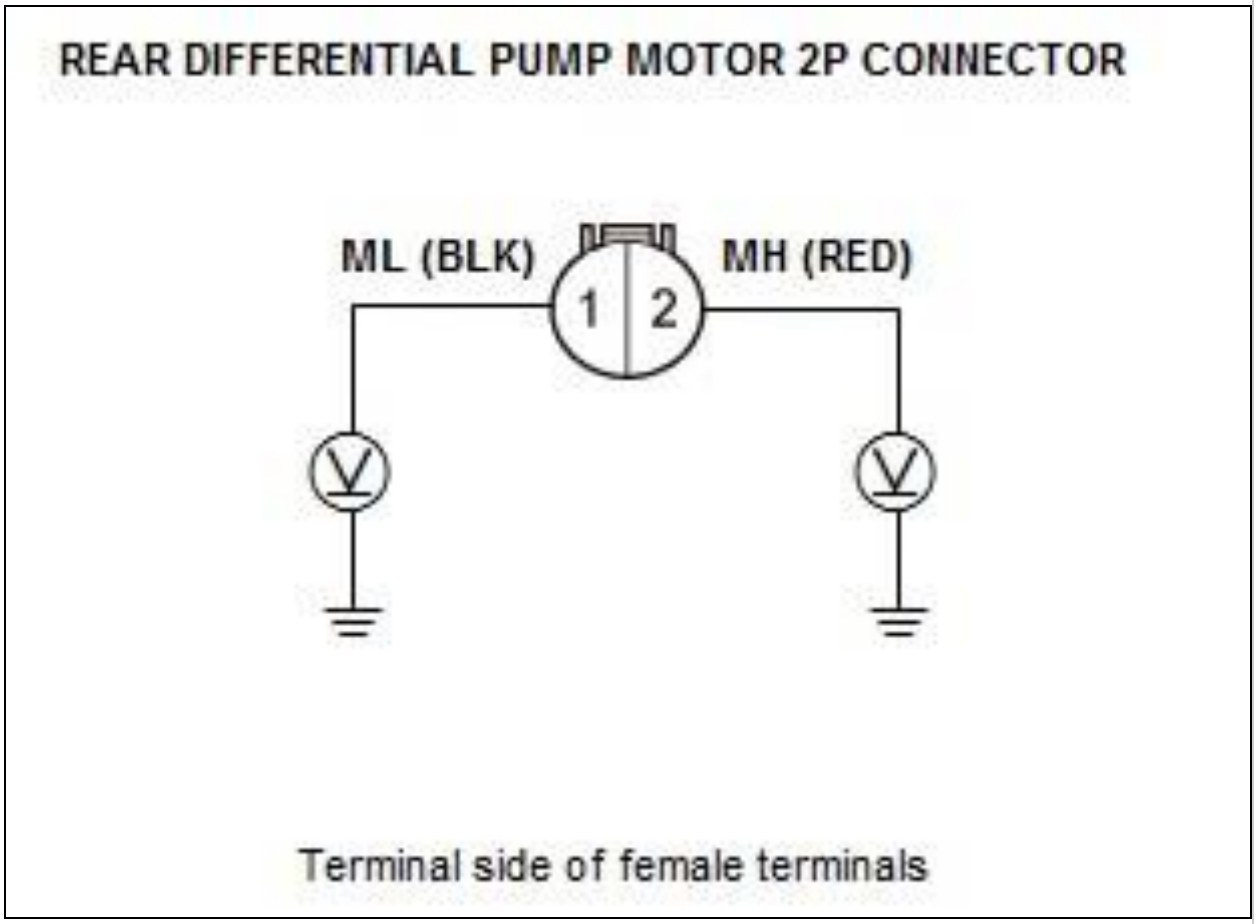
3. Determine possible failure area (short in MH, ML lines to power, others):
Press the engine start/stop button to select the OFF mode.
- 2. Disconnect the following connector.

Rear differential pump motor 2P connector - Refer to: Rear Differential Pump Motor Removal and Installation(AWD) (2013-15), or Rear Differential Pump Motor Removal and Installation(AWD) (201618)

- 3. Press the engine start/stop button to select the ON mode.- 4. Wait for 10 seconds.
- 5. Measure the voltage between the following test points and body ground individually.

Test condition	ON mode
	Rear differential pump motor 2P connector: disconnected

Connector	Test circuit	Terminal
Rear differential pump motor 2P	ML	No. 1 (BLK)
	MH	No. 2 (RED)



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Is there about 0.1 V or less?
YES
Go to step 5.
NO
Go to step 4.

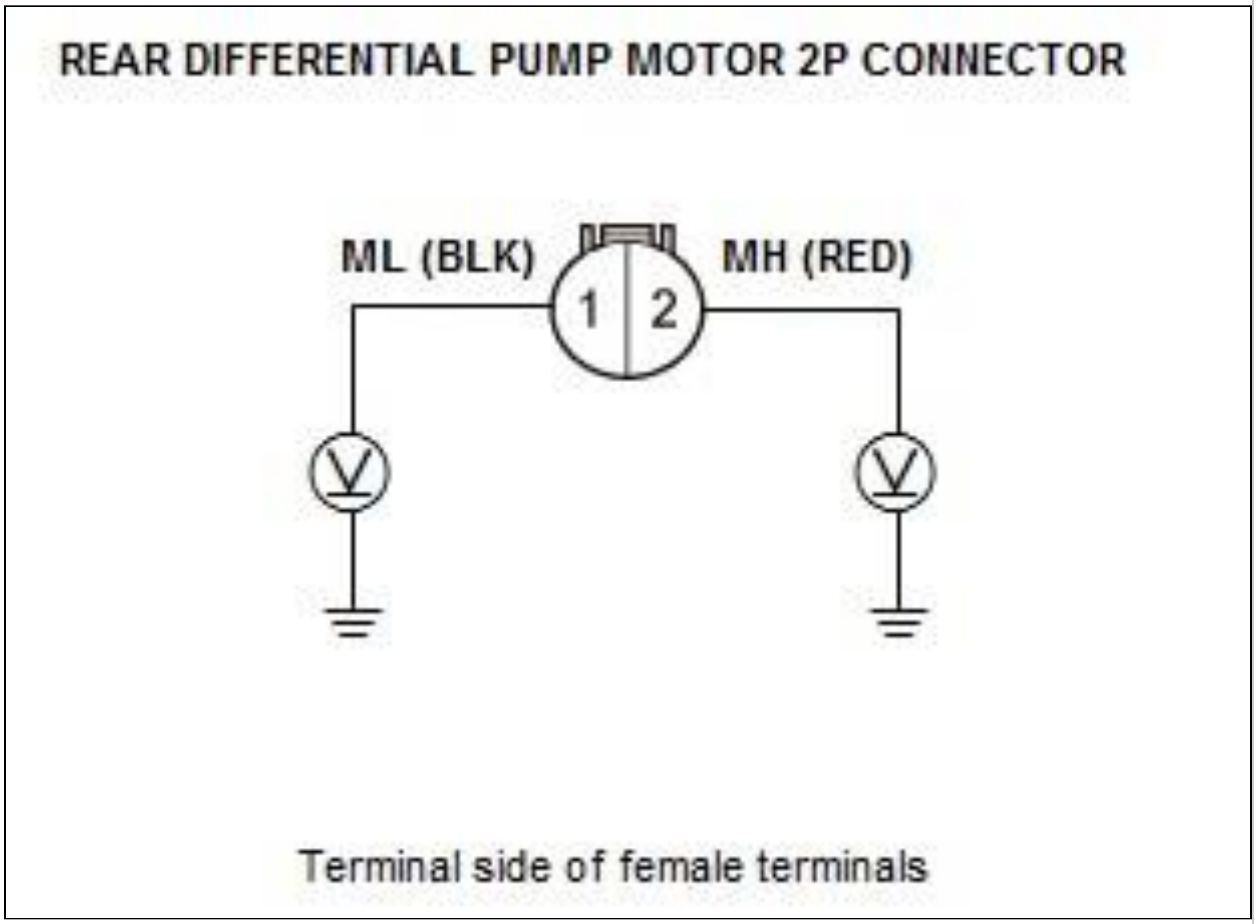
4. Shorted wire check (MH line to power, ML line to power):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

AWD control unit 24P connector

   - 3. Press the engine start/stop button to select the ON mode.
   - 4. Measure the voltage between the following test points and body ground individually.

Test condition	ON mode	
	Rear differential pump motor 2P connector: disconnected	
	AWD control unit 24P connector: disconnected	
Connector	Test circuit	Terminal

Rear differential pump motor 2P	ML	No. 1 (BLK)
	MH	No. 2 (RED)



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Is there about 0.1 V or less?

YES

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

NO

Repair short to power in the MH and/or ML wires between the rear differential pump motor and the AWD control unit.

5. Shorted wire check (MH line to ML line):

Press the engine start/stop button to select the OFF mode.

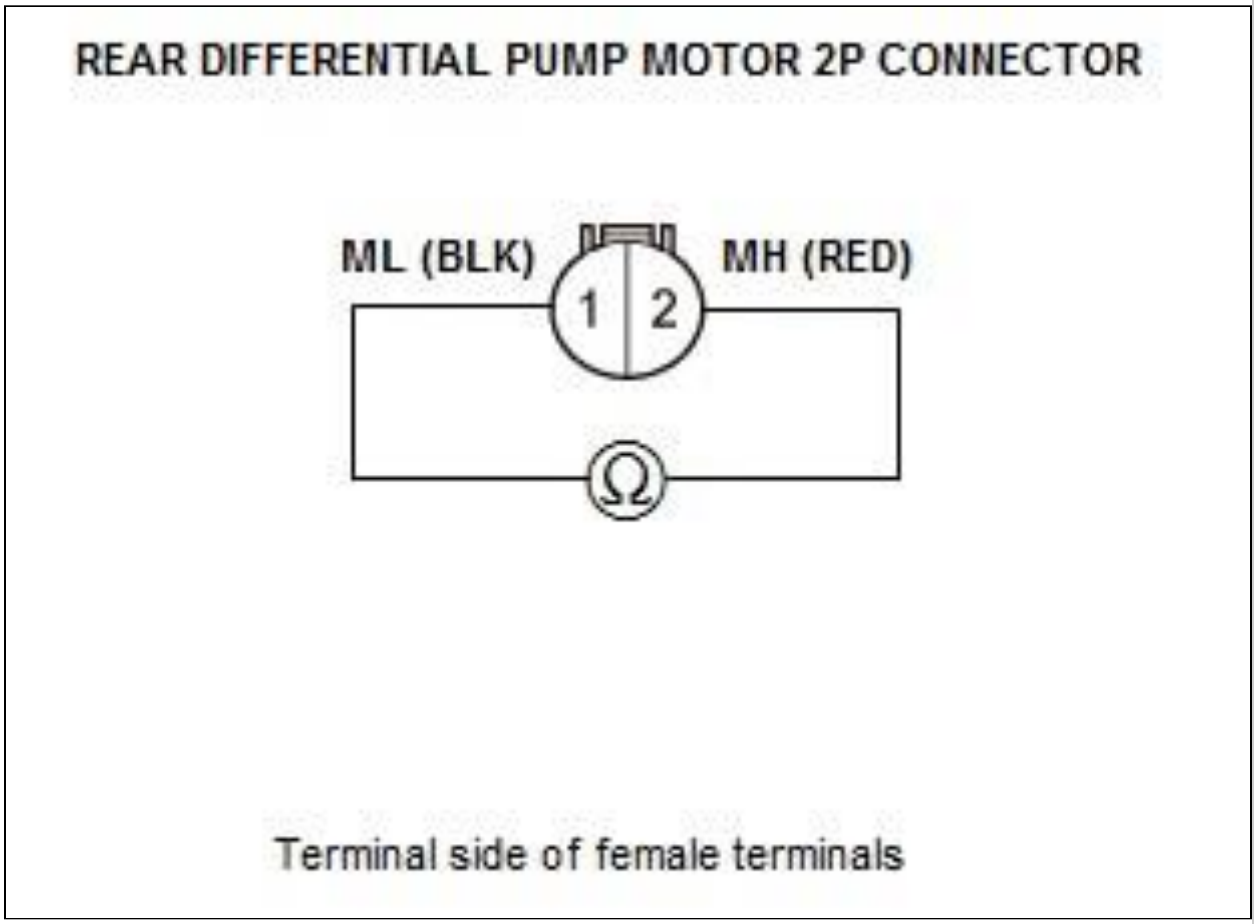
- 2. Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode

	Rear differential pump motor 2P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	MH, ML
Test point 1	Rear differential pump motor 2P connector No. 1 (BLK)
Test point 2	Rear differential pump motor 2P connector No. 2 (RED)



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

Is there continuity?

YES

Repair a short in the MH wire to the ML wire between rear differential pump motor connectors No. 1 and No. 2.

NO

Replace the rear differential pump motor - Refer to: Rear Differential Pump Motor Removal and Installation(AWD) (2013-15), or Rear Differential Pump Motor Removal and Installation(AWD) (201618) .

DTC TROUBLESHOOTING > DTC C1852-18: SOLENOID VALVE CIRCUIT LOW CURRENT (2013-18)

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

DTC Description	DTC	Freeze Frame
C1852-18 Solenoid Valve Circuit Low Current		

DTC (AWD)

1. Problem verification (with engine idling):
   Press the engine start/stop button to select the ON mode.
   - 2. Clear the DTC with the HDS.
   Clear DTC
   - 3. Start the engine.
   - 4. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1852-18 Solenoid Valve Circuit Low Current		

   Is DTC C1852-18 indicated?
   YES
   The failure is duplicated. Go to step 3.
   NO
   Go to step 2.

2. Problem verification (with rear differential pump motor running):
   Clear the DTC with the HDS.
   Clear DTC
   - 2. Select ADJUSTMENT in the AWD WITH INTELLIGENT CONTROL with the HDS.
   - 3. With the engine running, do the AIR BLEEDING in the ADJUSTMENT with the HDS .
   Air Bleeding
   - 4. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1852-18 Solenoid Valve Circuit Low Current		

   Is DTC C1852-18 indicated?
   YES
   The failure is duplicated. Go to step 3.
   NO
   Intermittent failure, the system is OK at this time.

3. Determine possible failure area (GND line, others):
   Check for continuity between test points 1 and 2.

Test condition	ON mode
Test point 1	Rear differential body
Test point 2	Body ground

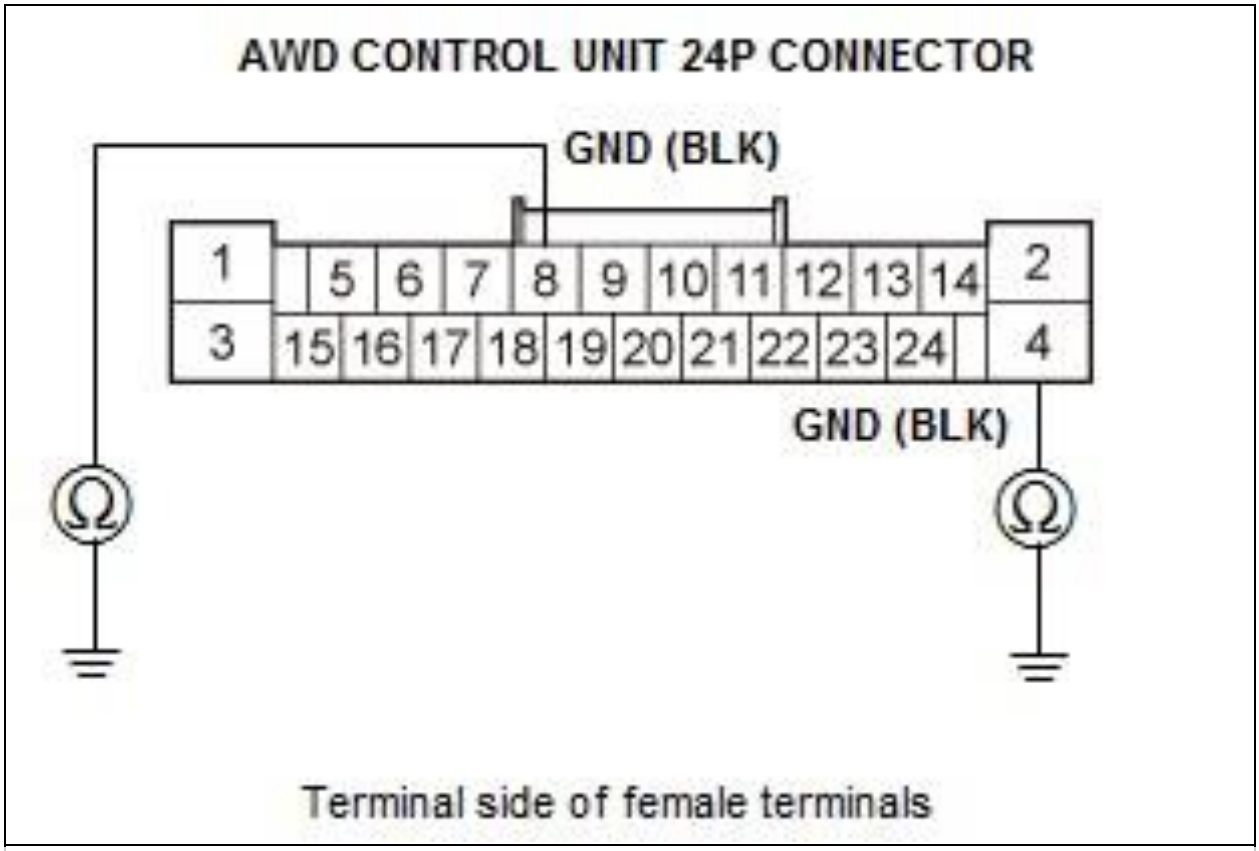
Is there continuity?
YES
Go to step 6.
NO
Go to step 4.

4. Open wire check (GND line):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

AWD control unit 24P connector

   - 3. Check for continuity between the following test points and body ground.

Test condition	OFF mode	
	AWD control unit 24P connector: disconnected	
Connector	Test circuit	Terminal
AWD control unit 24P	GND	No. 4 (BLK)
	GND	No. 8 (BLK)



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Is there continuity?

YES

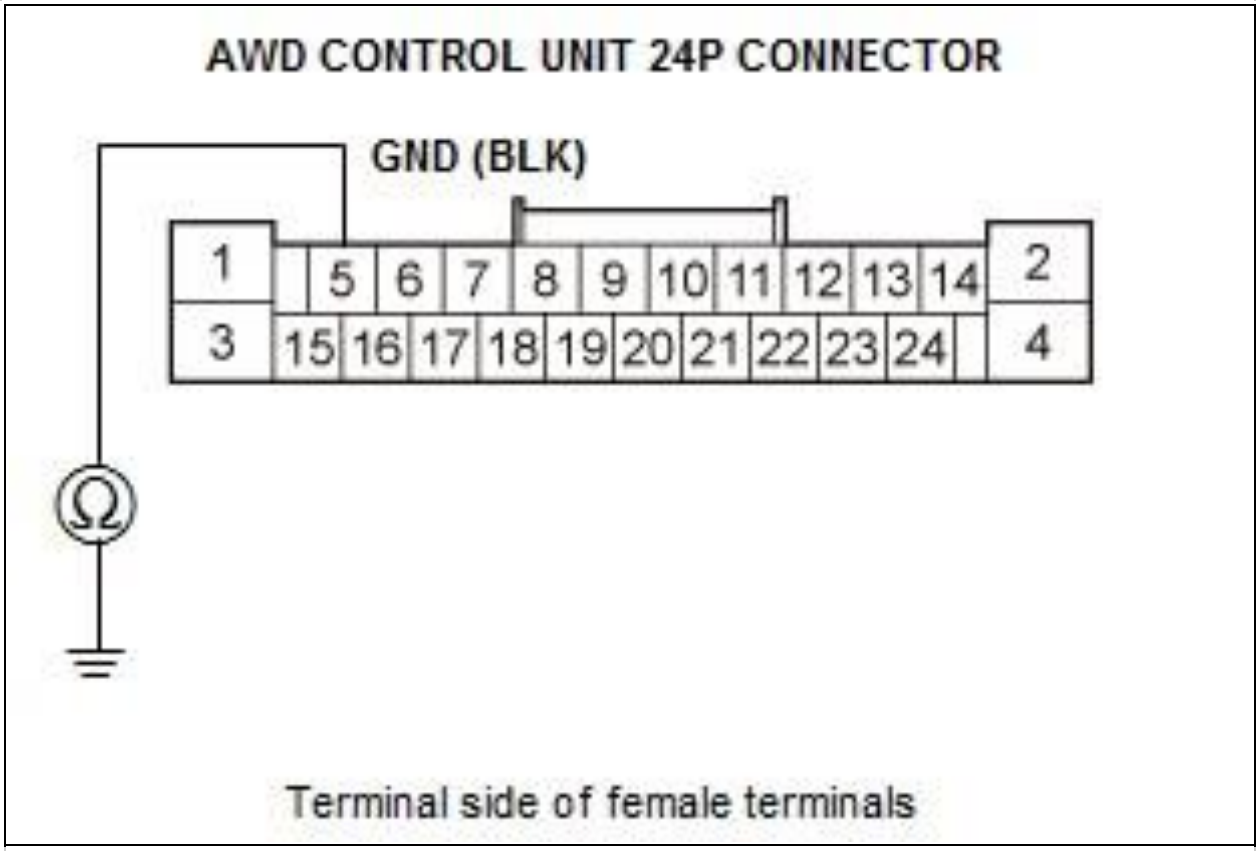
The GND wires are OK. Go to step 5.

NO

Repair an open in the GND wires between the AWD control unit and ground (G603).

5. Open wire check (GND line):
   Check for continuity between test points 1 and 2.

Test condition	OFF mode
	AWD control unit 24P connector: disconnected
Test circuit	GND
Test point 1	AWD control unit 24P connector No. 5 (BLK)
Test point 2	Rear differential body



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Is there continuity?

YES

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

NO

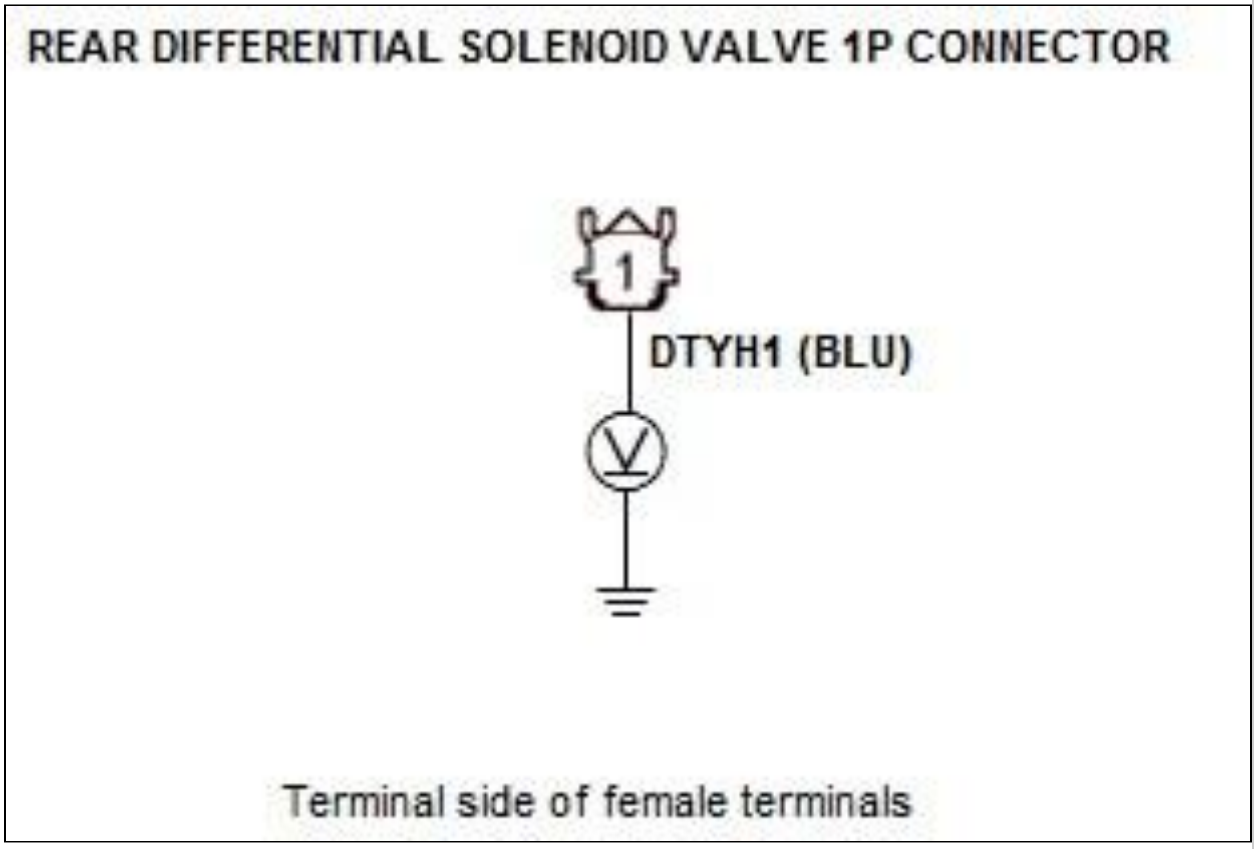
Check for poor connections or loose terminals between the AWD control unit and the rear differential body ground (T6). If the connections are OK, repair an open in the GND/D-GND wire between the rear differential body and the AWD control unit.

6. Determine possible failure area (DTYH1 line, others):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

Rear differential solenoid valve 1P connector - Refer to: Rear Differential Disassembly and Reassembly(AWD) (2013-15), or Rear Differential Disassembly and Reassembly(AWD) (2016-18)

- 3. Press the engine start/stop button to select the ON mode.
- 4. Wait for 10 seconds.
- 5. Measure the voltage between test points 1 and 2.

Test condition	ON mode
	Rear differential solenoid valve 1P connector: disconnected
Test circuit	DTYH1
Test point 1	Rear differential solenoid valve 1P connector No. 1 (BLU)
Test point 2	Body ground



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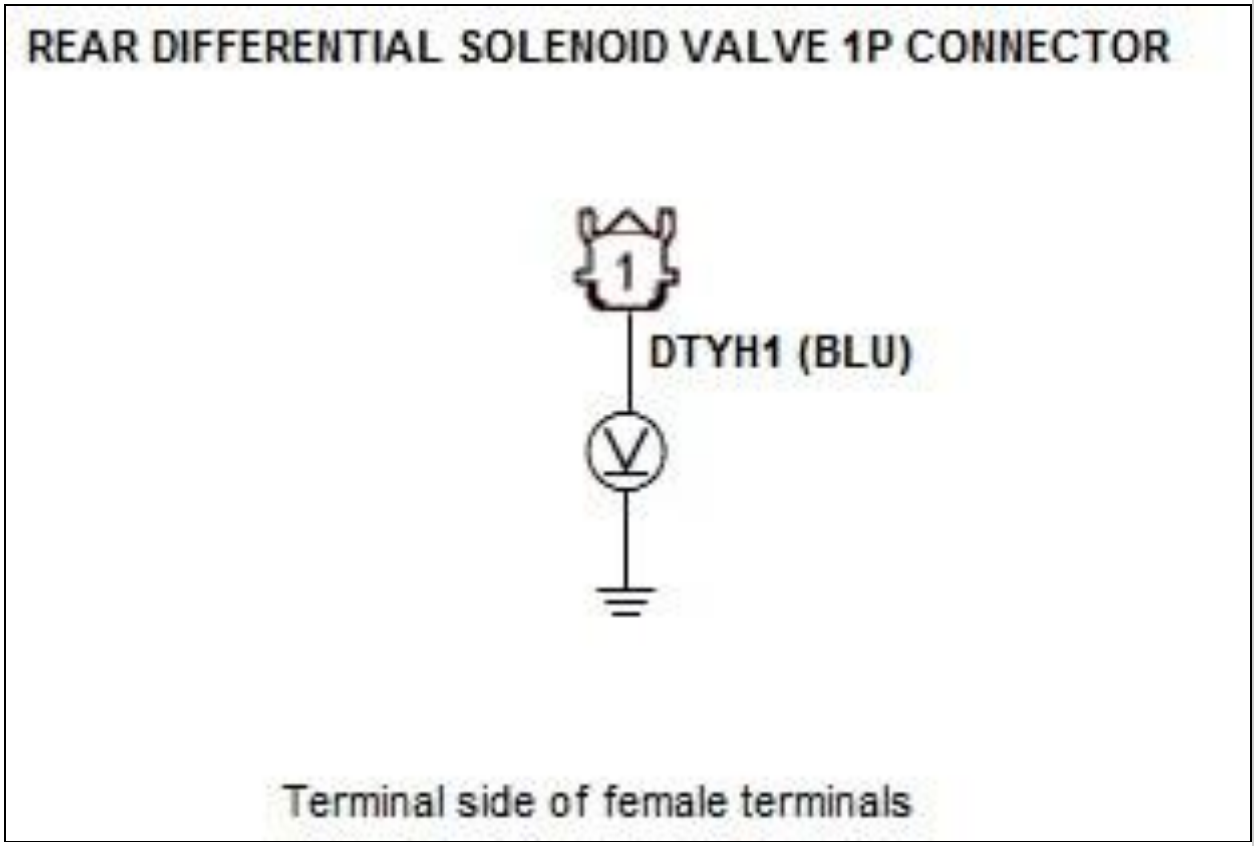
Is there about 0.1 V or less?
YES
Go to step 8.
NO
Go to step 7.

7. Shorted wire check (DTYH1 line to power):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connector.

AWD control unit 24P connector

- 3. Press the engine start/stop button to select the ON mode.
- 4. Measure the voltage between test points 1 and 2.

Test condition	ON mode
	Rear differential solenoid valve 1P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	DTYH1
Test point 1	Rear differential solenoid valve 1P connector No. 1 (BLU)
Test point 2	Body ground



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Is there about 0.1 V or less?

YES

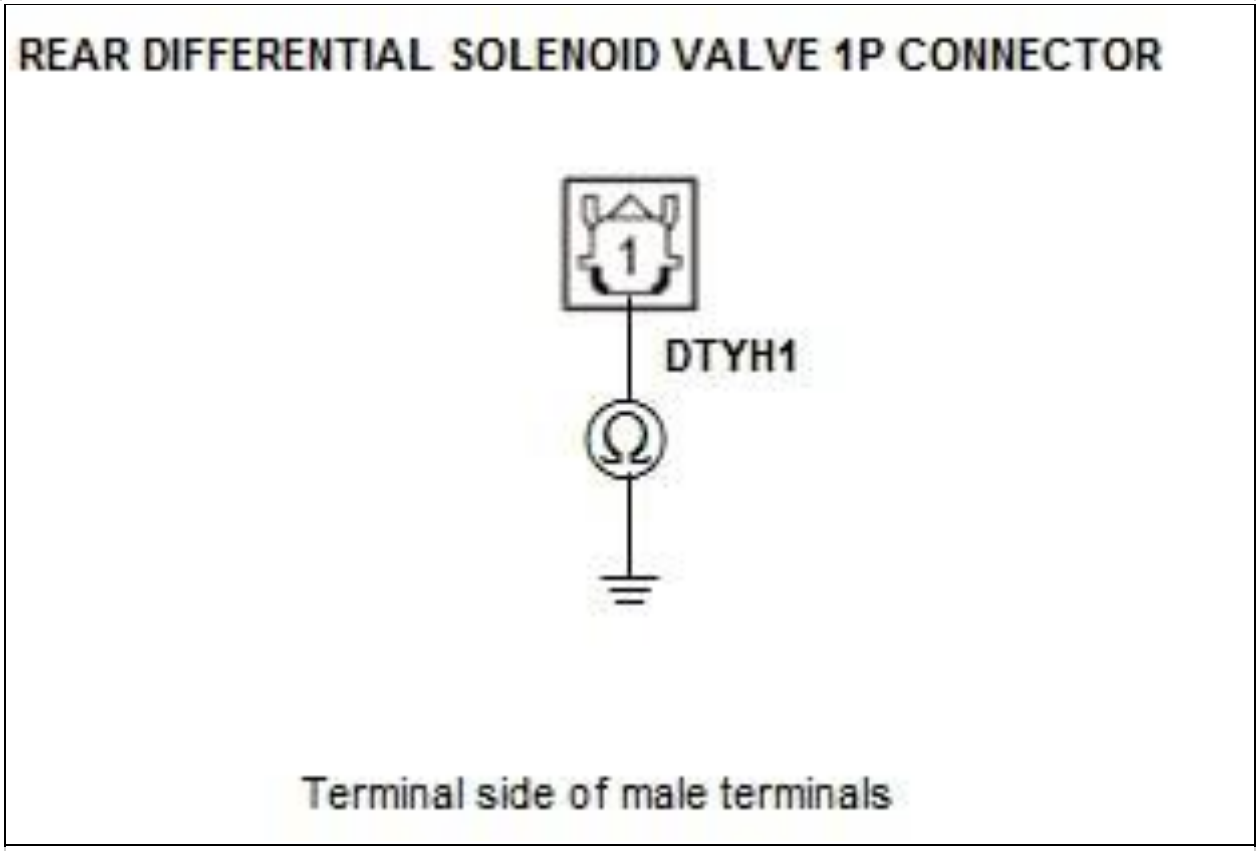
Update the AWD control unit if it does not have the latest software , or substitute a known-good AWD control unit , and recheck. If the symptom/indication goes away with the updated AWD control unit, troubleshooting is complete. If the symptom/indication goes away with a known-good AWD control unit,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

NO

Repair a short to power in the DTYH1 wire between the rear differential solenoid valve and the AWD control unit.

8. Rear differential solenoid valve check:
   Measure the resistance between test points 1 and 2.

Test condition	ON mode
	Rear differential solenoid valve 1P connector: disconnected
Test circuit	DTYH1
Test point 1	Rear differential solenoid valve 1P connector No. 1
Test point 2	Rear differential solenoid valve body



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Is there about 100 Ω or less?

YES

The rear differential solenoid valve is OK. Go to step 9.

NO

Replace the rear differential solenoid valve - Refer to: Rear Differential Disassembly and Reassembly(AWD) (2013-15), or Rear Differential Disassembly and Reassembly(AWD) (2016-18) .

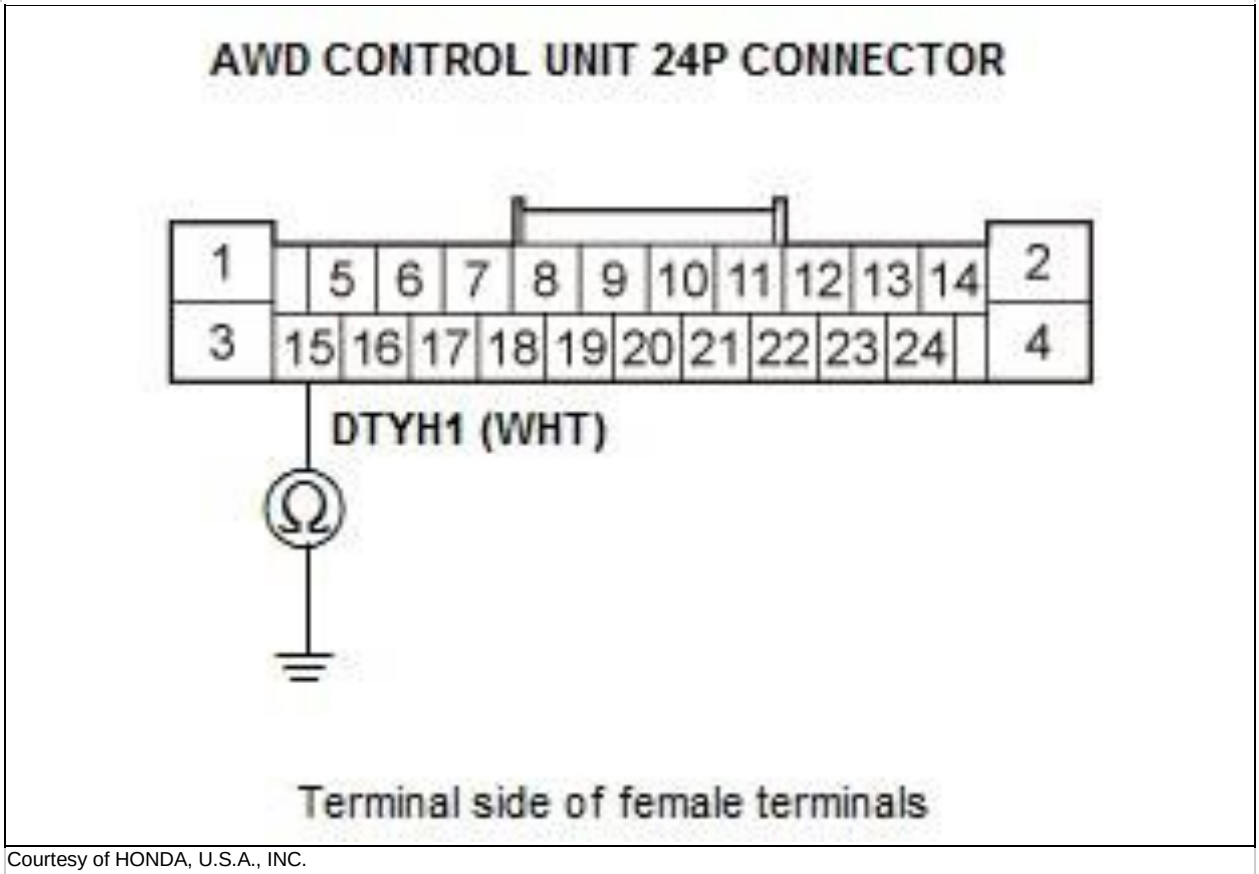
9. Shorted wire check (DTYH1 line):

Press the engine start/stop button to select the OFF mode.
- 2. Disconnect the following connector.

AWD control unit 24P connector

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

Test condition	OFF mode
	Rear differential solenoid valve 1P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	DTYH1
Test point 1	AWD control unit 24P connector No. 15 (WHT)
Test point 2	Body ground



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Is there continuity?

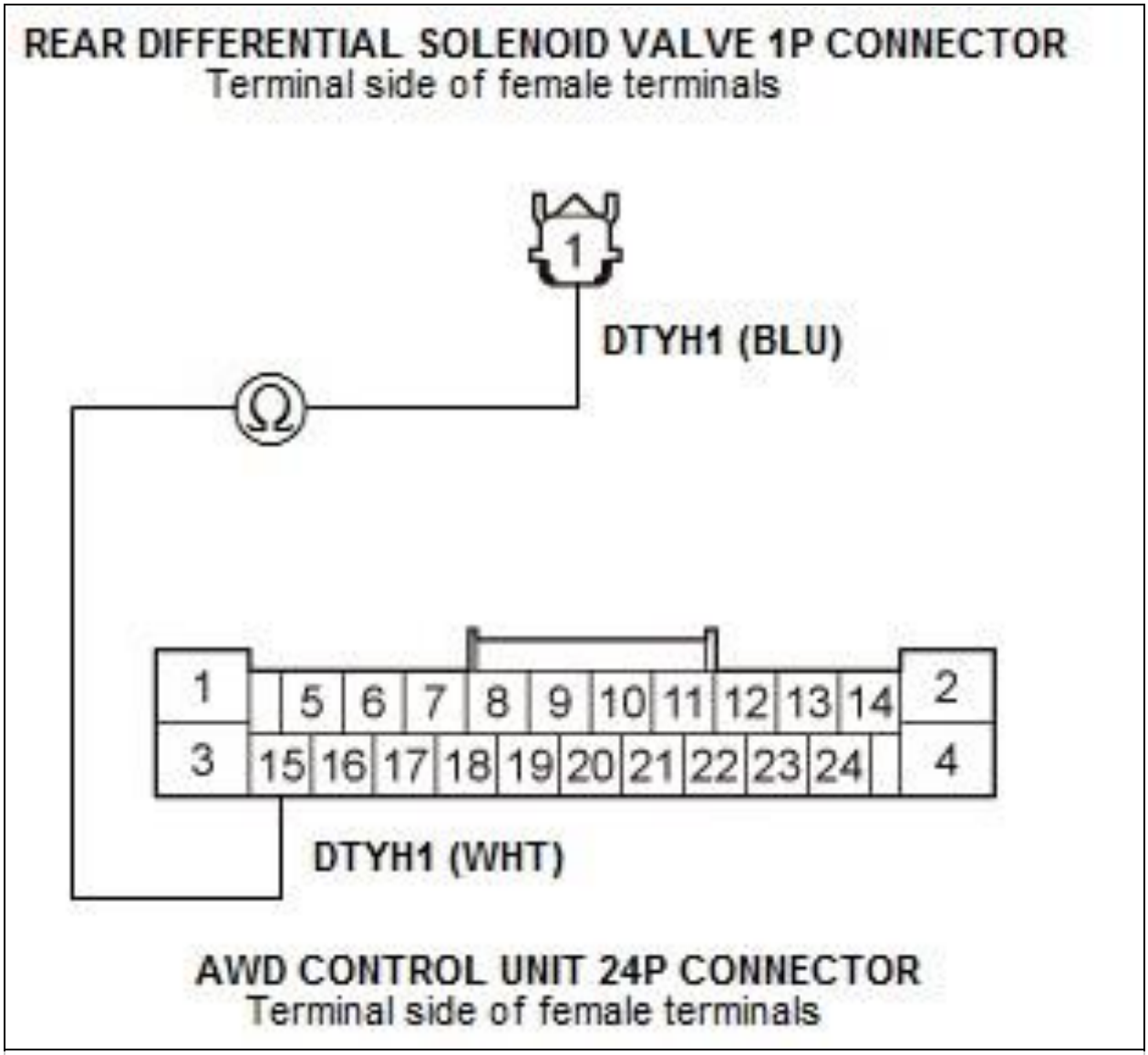
YES

Repair a short to ground in the DTYH1 wire between the rear differential solenoid valve and the AWD control unit.

NO
The DTYH1 wire is not shorted. Go to step 10.

10. Open wire check (DTYH1 line):
Check for continuity between test points 1 and 2.

Test condition	OFF mode
	Rear differential solenoid valve 1P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	DTYH1
Test point 1	Rear differential solenoid valve 1P connector No. 1 (BLU)
Test point 2	AWD control unit 24P connector No. 15 (WHT)



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Is there continuity?

YES

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

NO

Repair an open in the DTYH1 wire between the rear differential solenoid valve and the AWD control unit.

DTC TROUBLESHOOTING > DTC C1852-19: SOLENOID VALVE CIRCUIT HIGH CURRENT (2013-18)

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

DTC Description	DTC	Freeze Frame
C1852-19 Solenoid Valve Circuit High Current		

DTC (AWD)

1. Problem verification (with engine idling):
   Press the engine start/stop button to select the ON mode.
   - 2. Clear the DTC with the HDS.
   Clear DTC
   - 3. Start the engine.
   - 4. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1852-19 Solenoid Valve Circuit High Current		

   Is DTC C1852-19 indicated?
   YES
   The failure is duplicated. Go to step 3.
   NO
   Go to step 2.

2. Problem verification (with rear differential pump motor running):
   Select ADJUSTMENT in the AWD WITH INTELLIGENT CONTROL with the HDS.
   - 2. With the engine running, do the AIR BLEEDING in the ADJUSTMENT with the HDS .
   Air Bleeding
   - 3. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
C1852-19 Solenoid Valve Circuit High Current		

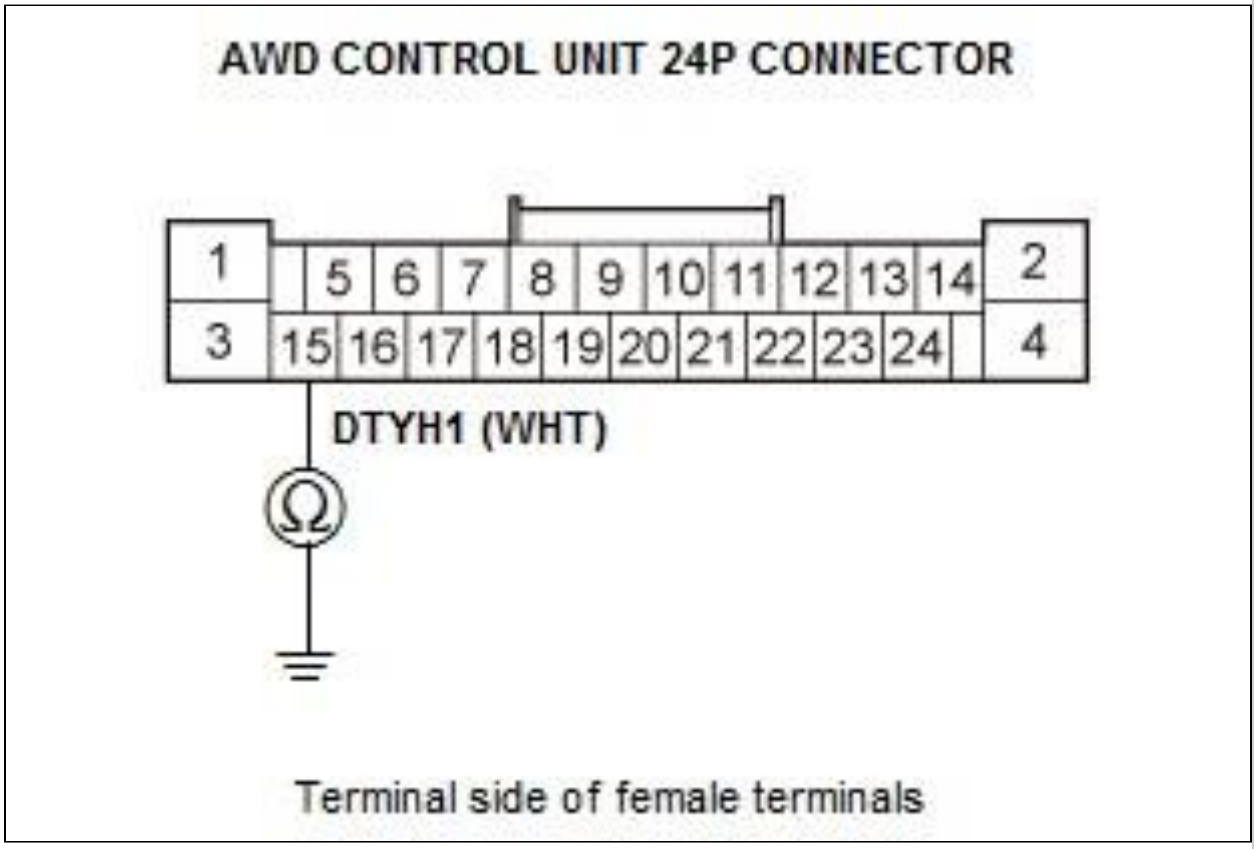
   Is DTC C1852-19 indicated?
   YES
   The failure is duplicated. Go to step 3.
   NO
   Intermittent failure, the system is OK at this time.

3. Shorted wire check (DTYH1 line):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connectors.

Rear differential solenoid valve 1P connector - Refer to: Rear Differential Disassembly and Reassembly(AWD) (2013-15), or Rear Differential Disassembly and Reassembly(AWD) (2016-18)
AWD control unit 24P connector

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

Test condition	OFF mode
	Rear differential solenoid valve 1P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	DTYH1
Test point 1	AWD control unit 24P connector No. 15 (WHT)
Test point 2	Body ground



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

Is there continuity?

YES

Repair a short to ground in the DTYH1 wire between the rear differential solenoid valve and the AWD control unit.

NO
The DTYH1 wire is OK. Go to step 4.

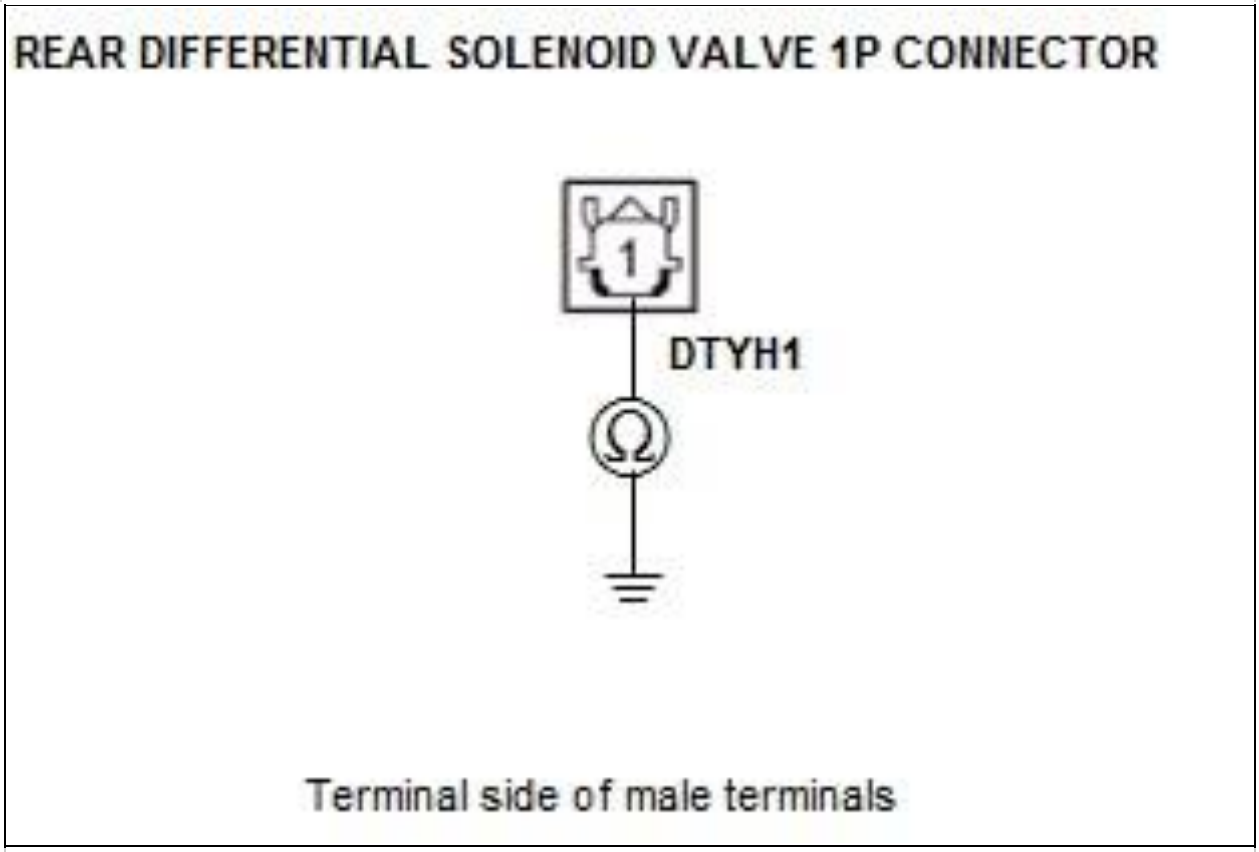
4. Rear differential solenoid valve check:
Press the engine start/stop button to select the ON mode.
- 2. Check the parameter(s) below with the HDS.

NOTE: The rear differential fluid temperature should be 50°F (10°C) - 86°F (30°C). If the value is not within the enable temperature, warm up the rear differential fluid temperature by raising the vehicle on a lift and run the vehicle at speeds 13 mph (20 km/h) for 5 seconds then slow down, and stop the wheels.

Signal	Current conditions	
	Values	Unit
Oil temperature for rear differential		

- 3. Press the engine start/stop button to select the OFF mode.
- 4. Measure the resistance between test points 1 and 2.

Test condition	OFF mode
	Rear differential solenoid valve 1P connector: disconnected
	AWD control unit 24P connector: disconnected
Test circuit	DTYH1
Test point 1	Rear differential solenoid valve 1P connector No. 1
Test point 2	Body ground



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Is there about 10 Ω or more?

YES
Update the AWD control unit if it does not have the latest software , or substitute a known-good AWD control unit , and recheck. If the symptom/indication goes away with the updated AWD control unit, troubleshooting is complete. If the symptom/indication goes away with a known-good AWD control unit, replace the original AWD control unit .
NO
Replace the rear differential solenoid valve - Refer to: Rear Differential Disassembly and Reassembly(AWD) (2013-15), or Rear Differential Disassembly and Reassembly(AWD) (2016-18) .

DTC TROUBLESHOOTING > DTC C1858-72: DIFFERENTIAL FLUID PRESSURE DEVIATION LOW (2013-18)

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

DTC Description	DTC	Freeze Frame
C1858-72 Differential Fluid Pressure Deviation Low		

DTC (AWD)

1. Rear differential fluid level check:
   Check the rear differential fluid level , and check for rear differential fluid leakage.
   Is the check result OK?
   YES
   The rear differential fluid level is OK. Go to step 2.
   NO
   Find and repair the source of the fluid leak then add recommended fluid .

2. Problem verification (function test with HDS):
   Press the engine start/stop button to select the ON mode.
   - 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 fault code indicated?
   Fault code is not indicated
   Intermittent failure, the system is OK at this time.
   Fault code 2-1 or 5-1 is indicated Go to step 3.
   Fault code 3-1 is indicated
   Go to step 4.
   Fault code except 2-1, 3-1, and 5-1 is indicated
   Go to step 5.

3. Hydraulic system check:
   Select ADJUSTMENT in the AWD WITH INTELLIGENT CONTROL with the HDS.
   - 2. Do the AIR BLEEDING in the ADJUSTMENT with the HDS . Air Bleeding
   - 3. Select FUNCTIONAL TEST in the AWD WITH INTELLIGENT CONTROL with the HDS.
   - 4. Do the OIL PRESSURE CONTROL TEST in the FUNCTIONAL TEST with the HDS . Oil Pressure Control Test Is the test result OK?
   YES

Hydraulic system is OK at this time.
NO
Replace the rear differential fluid then do the rear differential fluid pressure sensor test and do the rear differential solenoid valve test . If they are OK, replace the rear differential assembly .

4. Hydraulic system check:
   Select ADJUSTMENT in the AWD WITH INTELLIGENT CONTROL with the HDS.
   - 2. Do the AIR BLEEDING in the ADJUSTMENT with the HDS . Air Bleeding
   - 3. Select FUNCTIONAL TEST in the AWD WITH INTELLIGENT CONTROL with the HDS.
   - 4. Do the OIL PRESSURE CONTROL TEST in the FUNCTIONAL TEST with the HDS . Oil Pressure Control Test Is the test result OK?
   YES
   Hydraulic system is OK at this time.
   NO
   Replace the rear differential fluid , then do the rear differential solenoid valve test . If it is OK, replace the rear differential assembly .

5. DTC check:
   Select FUNCTIONAL TEST in the AWD WITH INTELLIGENT CONTROL with the HDS.
   - 2. Do the OIL PRESSURE CONTROL TEST in the FUNCTIONAL TEST with the HDS three times. Oil Pressure Control Test - 3.
   Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame

   Are there any DTCs?
   YES
   Go to the indicated DTC's troubleshooting.
   NO
   System is OK at this time.

DTC TROUBLESHOOTING > DTC C1858-73: DIFFERENTIAL FLUID PRESSURE DEVIATION HIGH (2013-18)

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

DTC Description	DTC	Freeze Frame
C1858-73 Differential Fluid Pressure Deviation High		

DTC (AWD)

1. Problem verification (function test with HDS):
   Press the engine start/stop button to select the ON mode.
   - 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 fault code indicated?

Fault code is not indicated

Intermittent failure, the system is OK at this time.

Fault code 4-1 or 6-1 is indicated

Replace the rear differential fluid , then do the rear differential solenoid valve test . If it is OK, replace the rear differential assembly .

Fault code except 4-1 and 6-1 is indicated

The failure is duplicated. Go to step 2.

2. DTC check:

Select FUNCTIONAL TEST in the AWD WITH INTELLIGENT CONTROL with the HDS.

- 2. Do the OIL PRESSURE CONTROL TEST in the FUNCTIONAL TEST with the HDS three times. Oil Pressure Control Test

- 3. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame

Are there any DTCs?

YES

Go to the indicated DTC's troubleshooting.

NO

System is OK at this time.

DTC TROUBLESHOOTING > DTC C1860-98: DIFFERENTIAL FLUID OVERHEATED (2013-18)

NOTE:

- Before you troubleshoot, review the General Troubleshooting Information for the AWD with intelligent control system .
- When the clutch is presumed to be overheated, DTC C1860-98 is set and the system turns off the clutch engagement to protect the clutch. This DTC may also set under the following conditions.
- When
  - spinning the rear wheels while the vehicle
  - is stuck in sand, mud, snow, etc When the VSA system is OFF
- If except DTC C1860-98 and/or DTC C1861-9A is stored at the same time as DTC C1860-98 and/or DTC C18619A, troubleshoot except DTC C1860-98

and/or DTC C1861-9A first, then recheck for DTC C1860-98 and/or DTC C1861-9A.

DTC Description	DTC	Freeze Frame
C1860-98 Differential Fluid Overheated		

DTC (AWD)

1. DTC check:
   Press the engine start/stop button to select the ON mode.
   - 2. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame

   Is DTC C1860-98, C1861-9A, or other DTC indicated?
   DTC C1860-98 is indicated Go to step 2.
   DTC C1861-9A is indicated
   Go to step 2.
   Other DTC is indicated
   Go to the indicated DTC's troubleshooting.

2. Tire size check:
   Check the tire size of the four wheels.
   Is the tire size same?
   YES
   The tire size is OK. Go to step 3.
   NO
   Replace the tire with the standard size .

3. Rear brake drag check:
   Check for rear brake drag .
   Are the rear brakes OK?

YES
The rear brake are OK. Go to step 4.
NO
Inspect and repair the rear brakes .

4. Brake system indicator check:
   Press the parking brake pedal.
   Does the brake system indicator come on?
   YES
   The brake system indicator is OK. Go to step 5.
   NO
   Inspect and repair the brake system .

5. Rear differential fluid temperature sensor check:
   Check the parameter(s) below with the HDS.

Signal	Current conditions	
	Values	Unit
Oil temperature for rear differential		

   - 2. Check the temperature of the rear differential fluid then compare it with the value checked in step 5-1.
   Is the difference within ±86 °F (±30 °C)?
   YES
   The rear differential fluid temperature sensor is OK. Go to step 6.
   NO
   Replace the rear differential fluid temperature sensor .

6. Rear differential fluid pressure sensor test:
   Do the rear differential fluid pressure sensor test .
   Is the test result OK?
   YES
   System is OK at this time.
   NO
   Do the repair depending on the test result .

DTC TROUBLESHOOTING > DTC C1861-9A: VEHICLE SPIN DETECTED (2013-18)

NOTE:

- Before you troubleshoot, review the General Troubleshooting Information for the AWD with intelligent control system .
- When a vehicle spin is detected, DTC C1861-9A is set for the purpose of protecting the AWD with intelligent control system. When this condition occurs, the system will temporarily stop the AWD function. This DTC may also set under these conditions.
  - in sand, mud, snow, etc
  - When the VSA system is OFF
- If except DTC C1860-98 and/or DTC C1861-9A is stored at the same time as DTC C1860-98 and/or DTC C18619A, troubleshoot except DTC C1860-98 and/or DTC C1861-9A first, then recheck for DTC C1860-98 and/or DTC C1861-9A.

DTC Description	DTC	Freeze Frame
C1861-9A Vehicle Spin Detected		

DTC (AWD)

1. DTC check:
   Press the engine start/stop button to select the ON mode.
   - 2. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame

   Is DTC C1860-98, C1861-9A, or other DTCs indicated?
   DTC C1860-98 is indicated Go to step 2. DTC C1861-9A is indicated Go to step 2.
   Other DTC is indicated
   Go to the indicated DTC's troubleshooting.

2. Tire size check:
   Check the tire size of the four wheels.
   Is the tire size same?
   YES
   The tire size is OK. Go to step 3.

NO
Replace the tire with the standard size .

3. Rear brake drag check:
   Check for rear brake drag .
   Are the rear brakes OK?
   YES
   The rear brake are OK. Go to step 4.
   NO
   Inspect and repair the rear brakes .

4. Brake system indicator check:
   Press the parking brake pedal.
   Does the brake system indicator come on?
   YES
   System is OK at this time.
   NO
   Inspect and repair the brake system .

DTC TROUBLESHOOTING > DTC C1870-00, C1871-00, C1872-00: RELATED MALFUNCTIONS (2013-18)

DTC C1870-00 : Fuel and Emissions Related Malfunction **DTC C1871-00** : Automatic Transmission Related Malfunction **DTC C1872-00** : VSA Modulator-Control Unit Related Malfunction

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

DTC Description	DTC	Freeze Frame
C1870-00 Fuel and Emissions Related Malfunction		
C1871-00 Automatic Transmission Related Malfunction		
C1872-00 VSA Modulator-Control Unit Related Malfunction		

1. Problem verification (DTC check):
   Press the engine start/stop button to select the ON mode.
   - 2. Clear the DTC with the HDS.
   Clear DTC
   - 3. Start the engine.
   - 4. Check for DTCs with the HDS.

NOTE: These codes are stored whenever the following systems DTCs are detected.

1. When DTC C1870-00 is indicated, check the PGM-FI system DTC.
2. When DTC C1871-00 is indicated, check the A/T system DTC.

3. When DTC C1872-00 is indicated, check the VSA system DTC.

DTC Description	DTC	Freeze Frame
C1870-00 Fuel and Emissions Related Malfunction		
C1871-00 Automatic Transmission Related Malfunction		
DTC Description	DTC	Freeze Frame
C1872-00 VSA Modulator-Control Unit Related Malfunction		

Is DTC C1870-00, C1871-00, or C1872-00 indicated?
DTC C1870-00 is indicated
The failure is duplicated. Check the PGM-FI system DTC - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15), or How to Troubleshoot the Fuel and Emissions Systems (2016-18), or How to Troubleshoot the A/T System (2016-18) .
DTC C1871-00 is indicated
The failure is duplicated. Check the A/T system DTC - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15), or How to Troubleshoot the Fuel and Emissions Systems (2016-18), or How to Troubleshoot the A/T System (2016-18) .
DTC C1872-00 is indicated
The failure is duplicated. Check the VSA system DTC .
DTC is not indicated
Intermittent failure, the system is OK at this time.

DTC TROUBLESHOOTING > DTC C1873-00: STEERING ANGLE SENSOR MALFUNCTION (2013-18)

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

DTC Description	DTC	Freeze Frame
C1873-00 Steering Angle Sensor Malfunction		

DTC (AWD)

1. Problem verification:
   Press the engine start/stop button to select the ON mode.
   - 2. Clear the DTC with the HDS.
   Clear DTC
   - 3. Start the engine.
   - 4. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame

C1873-00 Steering Angle Sensor Malfunction		

Is DTC C1873-00 indicated?

YES

The failure is duplicated. Go to step 2.

NO

Intermittent failure, the system is OK at this time.

2. VSA system DTC check:
   Check for DTCs in the VSA system with the HDS.

DTC Description	Confirmed DTC	Freeze Frame

Are any DTCs stored?

YES

Go to the indicated DTC's troubleshooting in the VSA system .

NO

Intermittent failure, the system is OK at this time.

DTC TROUBLESHOOTING > DTC U0100-00, U0101-00, U0122-00, U0126-00: F-CAN MALFUNCTION (2013-15)

DTC U0100-00 : F-CAN Malfunction (Lost Communication with Powertrain Control Module (PCM))**DTC U0101-00** : F-CAN Malfunction (Lost Communication with A/T Control System)**DTC U0122-00** : F-CAN Malfunction (Lost Communication with VSA Modulator-Control Unit)**DTC U0126-00** : F-CAN Malfunction (Lost Communication with Steering Angle Sensor)

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

DTC Description	DTC	Freeze Frame
U0100-00 F-CAN Malfunction (Lost Communication with Powertrain Control Module (PCM))		
U0101-00 F-CAN Malfunction (Lost Communication with A/T Control System)		
U0122-00 F-CAN Malfunction (Lost Communication with VSA Modulator-Control Unit)		
U0126-00 F-CAN Malfunction (Lost Communication with Steering Angle Sensor)		

1. Problem verification (DTC check):
   Press the engine start/stop button to select the ON mode.

- 2. Clear the DTC with the HDS.
Clear DTC
- 3. Press the engine start/stop button to select the OFF mode.
- 4. Start the engine.
- 5. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
U0100-00 F-CAN Malfunction (Lost Communication with Powertrain Control Module (PCM))		
U0101-00 F-CAN Malfunction (Lost Communication with A/T Control System)		
U0122-00 F-CAN Malfunction (Lost Communication with VSA Modulator-Control Unit)		
U0126-00 F-CAN Malfunction (Lost Communication with Steering Angle Sensor)		

Is DTC U0100-00, U0101-00, U0122-00, or U0126-00 indicated?
DTC U0100-00 or U0101-00 is indicated The failure is duplicated. Go to step 2. DTC U0122-00 is indicate
The failure is duplicated. Go to step 3.
DTC U0126-00 is indicated
The failure is duplicated. Go to step 4.
DTC is not indicated
Intermittent failure, the system is OK at this time.

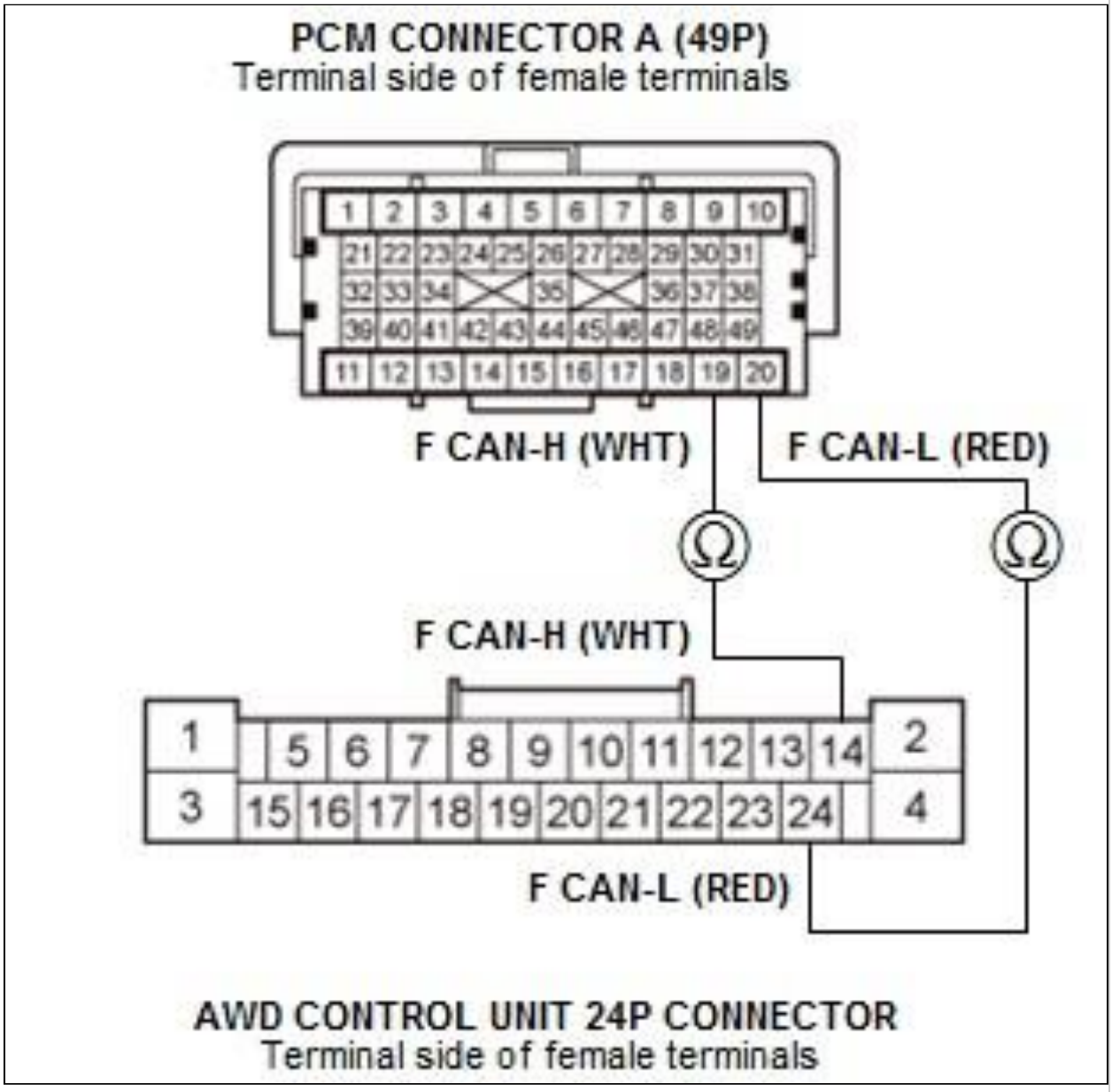
2. Open wire check (F CAN-H, F CAN-L lines):
Press the engine start/stop button to select the OFF mode.
- 2. Jump the SCS line with the HDS.
SCS Short
- 3. Disconnect the following connectors.

AWD control unit 24P connector
PCM connector A (49P) - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15)

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

Test condition	OFF mode
	AWD control unit 24P connector: disconnected
	PCM connector A (49P): disconnected
Test circuit	F CAN-H
Test point 1	AWD control unit 24P connector No. 14 (WHT)

Test point 2	PCM connector A (49P) No. 19 (WHT)
Test circuit	F CAN-L
Test point 1	AWD control unit 24P connector No. 24 (RED)
Test point 2	PCM connector A (49P) No. 20 (RED)



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

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**

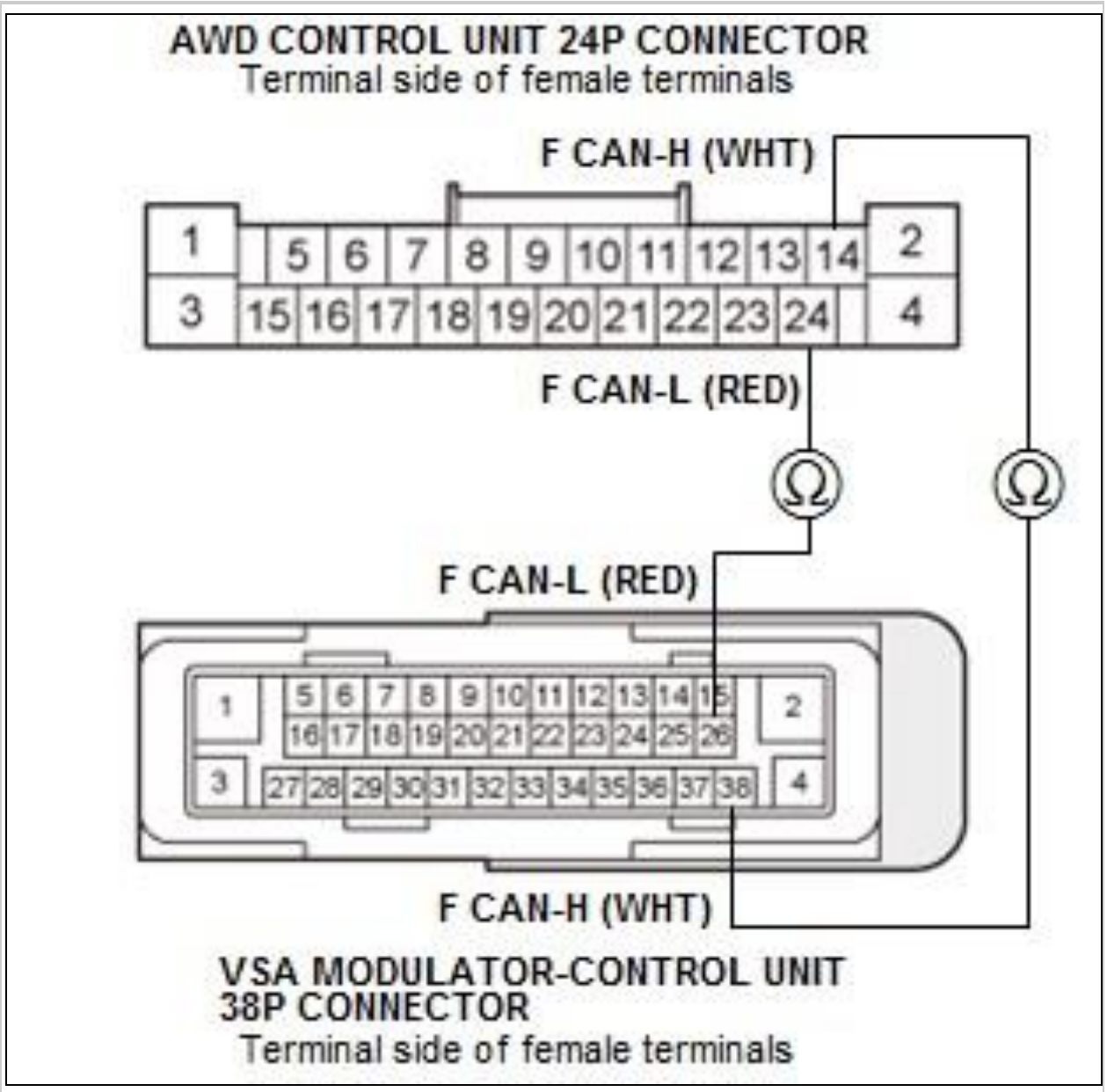
Repair an open in the F CAN-H and/or F CAN-L wires between the AWD control unit and the PCM.

3. Open wire check (F CAN-H, F CAN-L lines):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connectors.

AWD control unit 24P connector
VSA modulator-control unit 38P connector

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

Test condition	OFF mode
	AWD control unit 24P connector: disconnected
	VSA modulator-control unit 38P connector: disconnected
Test circuit	F CAN-H
Test point 1	AWD control unit 24P connector No. 14 (WHT)
Test point 2	VSA modulator-control unit 38P connector No. 38 (WHT)
Test circuit	F CAN-L
Test point 1	AWD control unit 24P connector No. 24 (RED)
Test point 2	VSA modulator-control unit 38P connector No. 26 (RED)



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

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 goes away with the updated the VSA modulator-control unit, replace the original VSA modulator-control unit .

NO

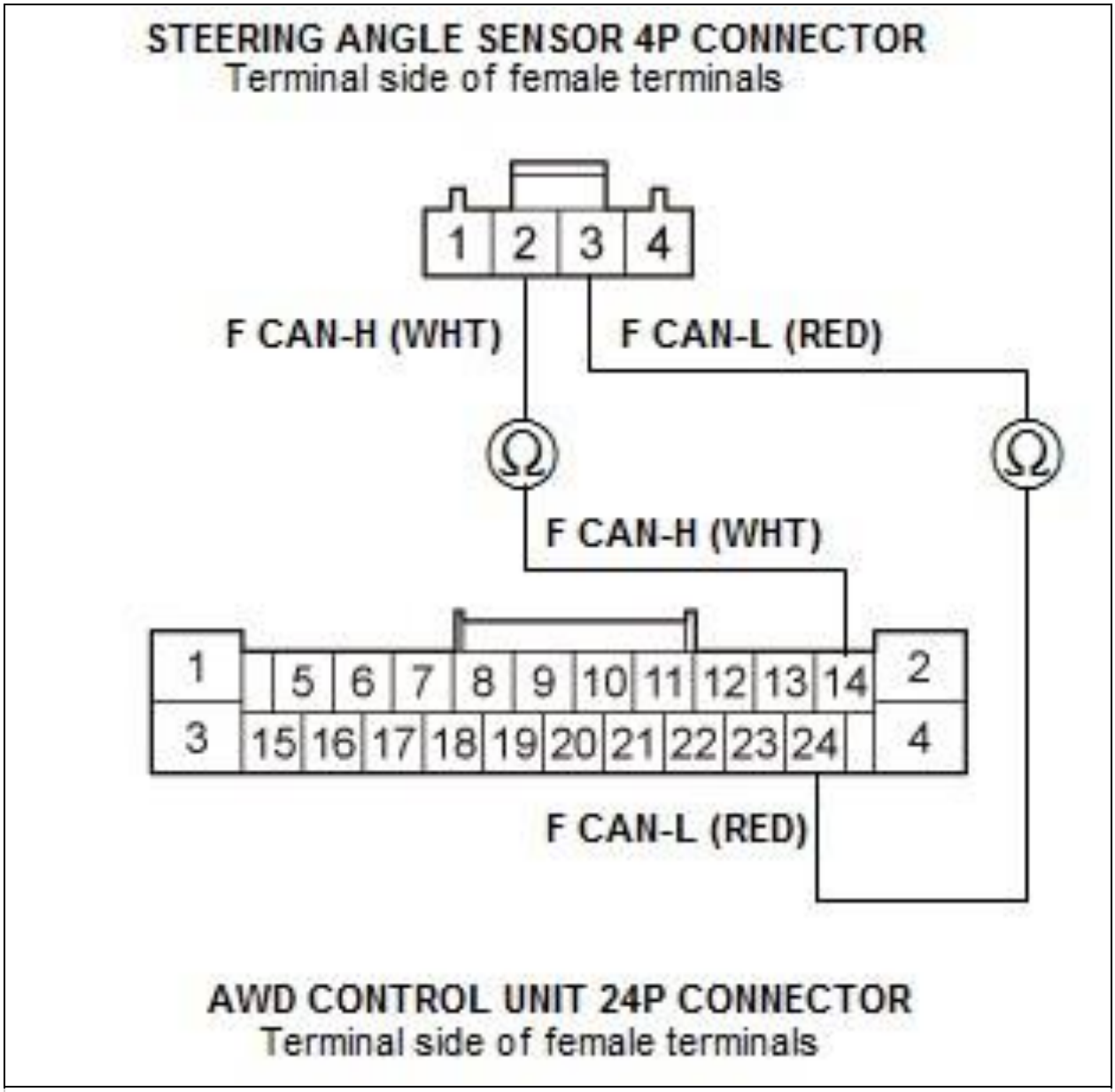
Repair an open in the F CAN-H and/or F CAN-L wires between the AWD control unit and the VSA modulator-control unit.

4. Open wire check (F CAN-H, F CAN-L lines):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connectors.

AWD control unit 24P connector
Steering angle sensor 4P connector

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

Test condition	OFF mode
	AWD control unit 24P connector: disconnected
	Steering angle sensor 4P connector
Test circuit	F CAN-H
Test point 1	AWD control unit 24P connector No. 14 (WHT)
Test point 2	Steering angle sensor 4P connector No. 2 (WHT)
Test circuit	F CAN-L
Test point 1	AWD control unit 24P connector No. 24 (RED)
Test point 2	Steering angle sensor 4P connector No. 3 (RED)



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

Is there continuity?

YES

Replace the steering angle sensor .

NO

Repair an open in the F CAN-H and/or F CAN-L wires between the AWD control unit and the steering angle sensor.

DTC TROUBLESHOOTING > DTC U0100-00, U0101-00, U0122-00, U0126-00: F-CAN MALFUNCTION (2016-18)

DTC U0100-00 : F-CAN Malfunction (Lost Communication with Powertrain Control Module (PCM))**DTC U0101-00** : F-CAN Malfunction (Lost Communication with A/T Control System)**DTC U0122-00** : F-CAN Malfunction (Lost Communication with VSA Modulator-Control Unit)**DTC U0126-00** : F-CAN Malfunction (Lost Communication with Steering Angle Sensor)

NOTE:

- Before you troubleshoot, review the General Troubleshooting Information for the AWD with intelligent control system .
- According to the detected DTC(s), check for the power circuit and the ground circuit of the control unit which cannot communicate with the AWD control unit.

DTC Description	DTC	Freeze Frame
U0100-00 F-CAN Malfunction (Lost Communication with Powertrain Control Module (PCM))		
U0101-00 F-CAN Malfunction (Lost Communication with A/T Control System)		
U0122-00 F-CAN Malfunction (Lost Communication with VSA Modulator-Control Unit)		
U0126-00 F-CAN Malfunction (Lost Communication with Steering Angle Sensor)		

DTC (AWD)

1. Problem verification (DTC check):
   Press the engine start/stop button to select the ON mode.
   - 2. Clear the DTC with the HDS.
   Clear DTC
   - 3. Press the engine start/stop button to select the OFF mode.
   - 4. Start the engine.
   - 5. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
U0100-00 F-CAN Malfunction (Lost Communication with Powertrain Control Module (PCM))		
U0101-00 F-CAN Malfunction (Lost Communication with A/T Control System)		
U0122-00 F-CAN Malfunction (Lost Communication with VSA Modulator-Control Unit)		

U0126-00 F-CAN Malfunction (Lost Communication with Steering Angle Sensor)		

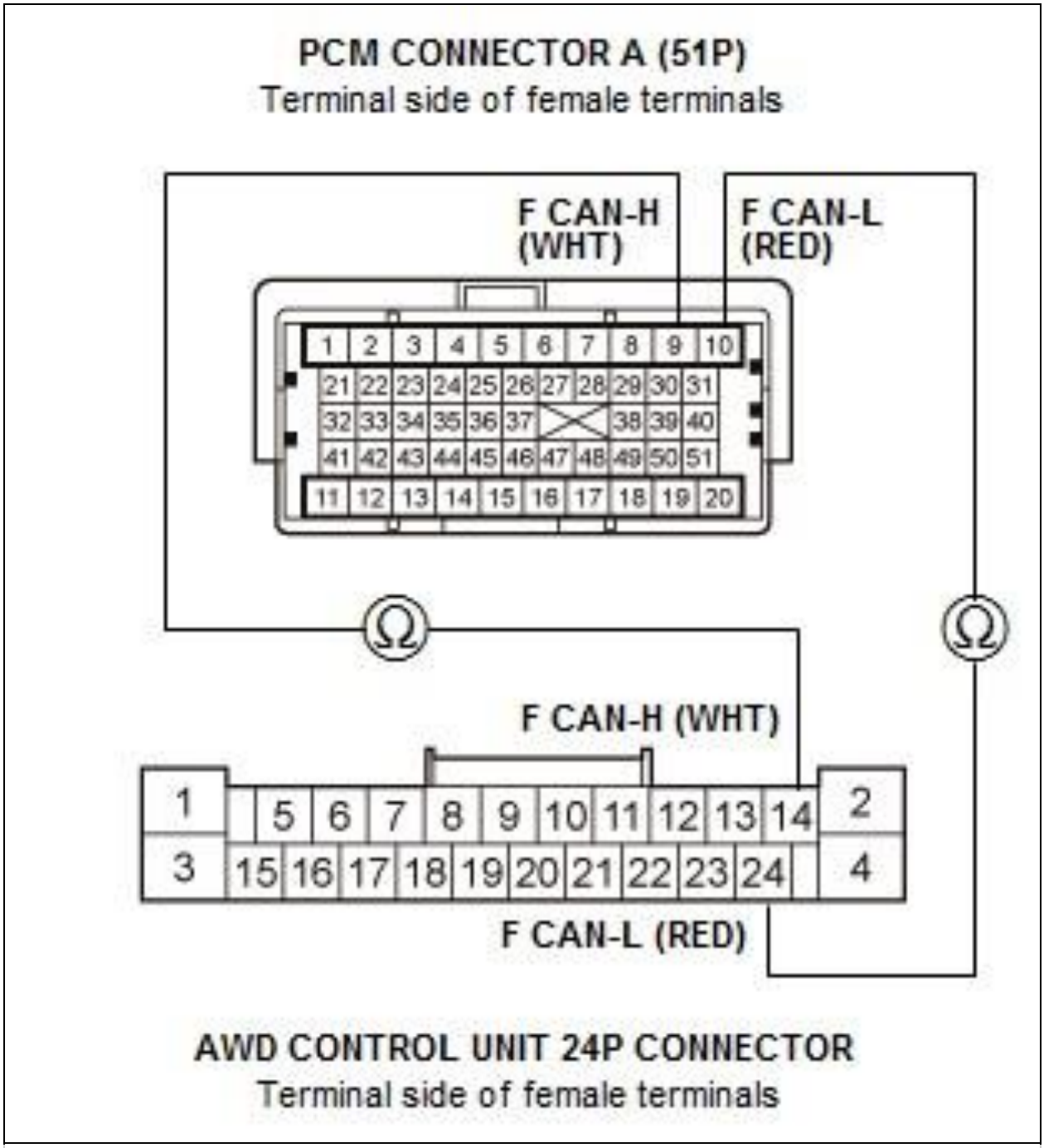
Is DTC U0100-00, U0101-00, U0122-00, or U0126-00 indicated?
DTC U0100-00 or U0101-00 is indicated The failure is duplicated. Go to step 2. DTC U0122-00 is indicate
The failure is duplicated. Go to step 3.
DTC U0126-00 is indicated
The failure is duplicated. Go to step 4.
DTC is not indicated
Intermittent failure, the system is OK at this time.

2. Open wire check (F CAN-H, F CAN-L lines):
   Press the engine start/stop button to select the OFF mode.
   - 2. Jump the SCS line with the HDS.
   SCS Short
   - 3. Disconnect the following connectors.

AWD control unit 24P connector
PCM connector A (51P)

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

Test condition	OFF mode
	AWD control unit 24P connector: disconnected
	PCM connector A (51P): disconnected
Test circuit	F CAN-H
Test point 1	AWD control unit 24P connector No. 14 (WHT)
Test point 2	PCM connector A (51P) No. 9 (WHT)
Test circuit	F CAN-L
Test point 1	AWD control unit 24P connector No. 24 (RED)
Test point 2	PCM connector A (51P) No. 10 (RED)



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

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):

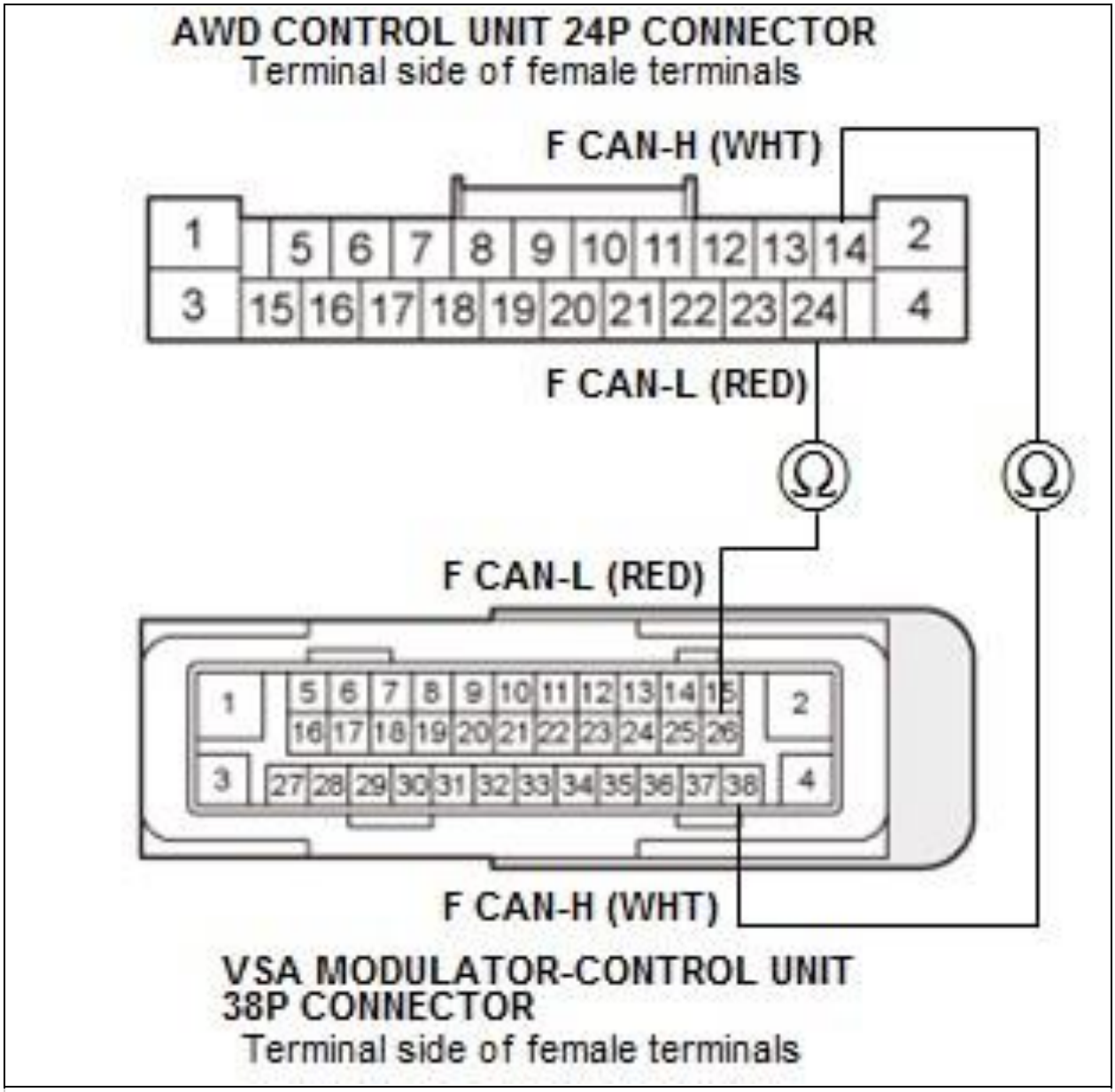
   Press the engine start/stop button to select the OFF mode.

   - 2. Disconnect the following connectors.

AWD control unit 24P connector
VSA modulator-control unit 38P connector

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

Test condition	OFF mode
	AWD control unit 24P connector: disconnected
	VSA modulator-control unit 38P connector: disconnected
Test circuit	F CAN-H
Test point 1	AWD control unit 24P connector No. 14 (WHT)
Test point 2	VSA modulator-control unit 38P connector No. 38 (WHT)
Test circuit	F CAN-L
Test point 1	AWD control unit 24P connector No. 24 (RED)
Test point 2	VSA modulator-control unit 38P connector No. 26 (RED)



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

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 go 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.

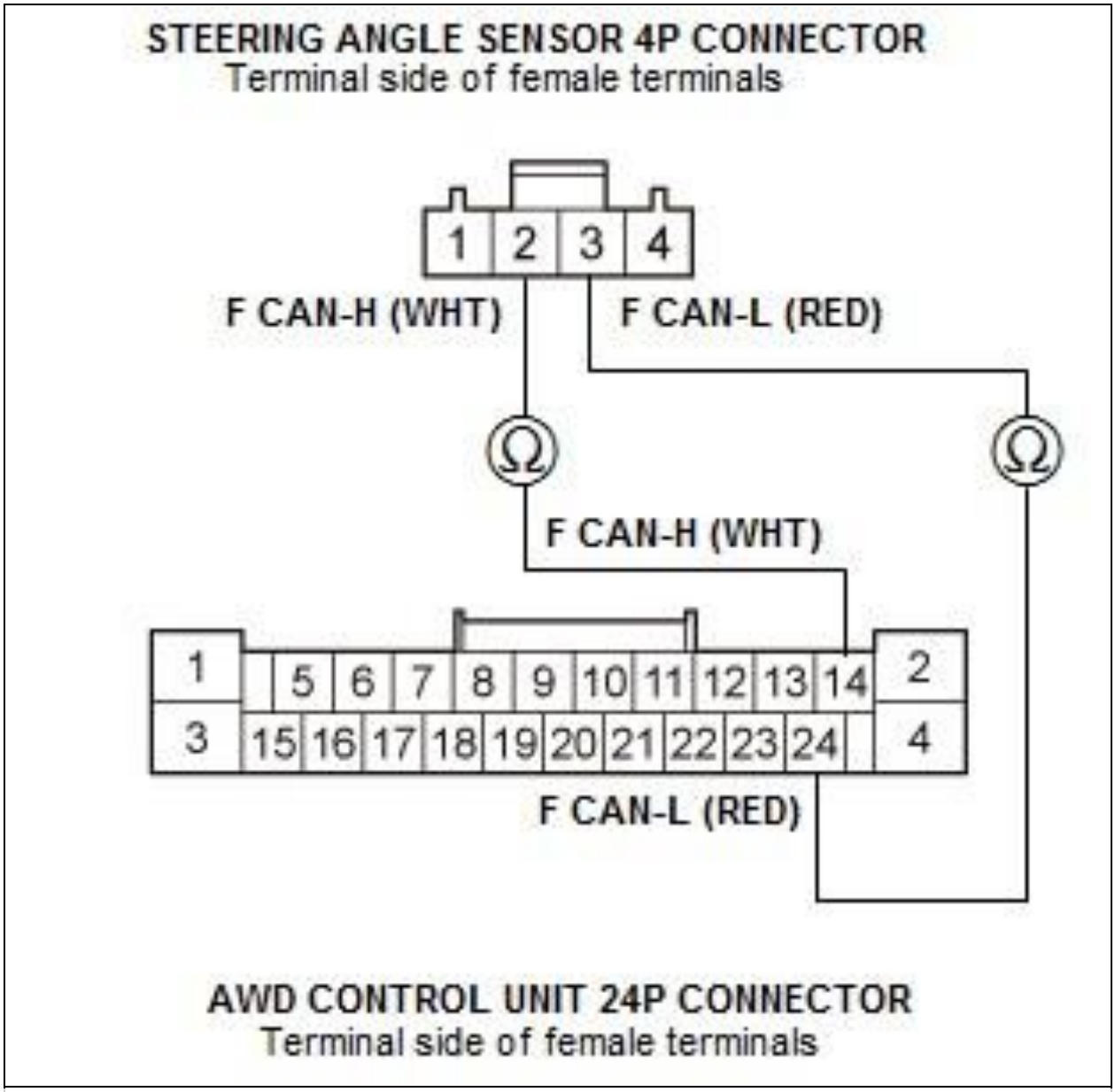
4. Open wire check (F CAN-H, F CAN-L lines):
   Press the engine start/stop button to select the OFF mode.
   - 2. Disconnect the following connectors.

AWD control unit 24P connector

Steering angle sensor 4P connector

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

Test condition	OFF mode
	AWD control unit 24P connector: disconnected
	Steering angle sensor 4P connector
Test circuit	F CAN-H
Test point 1	AWD control unit 24P connector No. 14 (WHT)
Test point 2	Steering angle sensor 4P connector No. 2 (WHT)
Test circuit	F CAN-L
Test point 1	AWD control unit 24P connector No. 24 (RED)
Test point 2	Steering angle sensor 4P connector No. 3 (RED)



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

Is there continuity?

YES

Replace the steering angle sensor .

NO

Repair an open in the F CAN-H and/or F CAN-L wires between the AWD control unit and the steering angle sensor.

DTC TROUBLESHOOTING > DTC U3000-49: CONTROL MODULE INTERNAL CONTROL MODULE MALFUNCTION (2013-18)

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

DTC Description	DTC	Freeze Frame
U3000-49 Control Module Internal Control Module Malfunction		

DTC (AWD)

1. Problem verification:
   Press the engine start/stop button to select the ON mode.
   - 2. Clear the DTC with the HDS.
   Clear DTC
   - 3. Start the engine.
   - 4. Check for DTCs with the HDS.

DTC Description	DTC	Freeze Frame
U3000-49 Control Module Internal Control Module Malfunction		

   Is DTC U3000-49 indicated?
   YES
   The failure is duplicated. Update the AWD control unit if it does not have the latest software , or substitute a known-good AWD control unit , and recheck. If the symptom/indication goes away with the updated AWD control unit, troubleshooting is complete. If the symptom/indication goes away with a known-good AWD control unit, replace the original AWD control unit .
   NO
   Intermittent failure, the system is OK at this time.

DTC TROUBLESHOOTING > DTC U3000-51: CONTROL MODULE PROGRAMMING ERROR (2013-18)

NOTE: Before you troubleshoot, review the General

Troubleshooting Information for the AWD with intelligent control system .

DTC Description	DTC	Freeze Frame
U3000-51 Control Module Programming Error		

DTC (AWD)

1. Problem verification:
   Do the re-programming of the AWD control unit .
   - 2. Clear the DTC with the HDS.

DTC Description	DTC	Freeze Frame
U3000-51 Control Module Programming Error		

Is DTC U3000-51 indicated?

YES

The failure is duplicated. Substitute a known-good AWD control unit , and recheck. If the symptom/indication goes away with a known-good AWD control unit, replace the original AWD control unit .

NO

Intermittent failure, the system is OK at this time.