

# HVAC System Testing and Troubleshooting 2013-2018

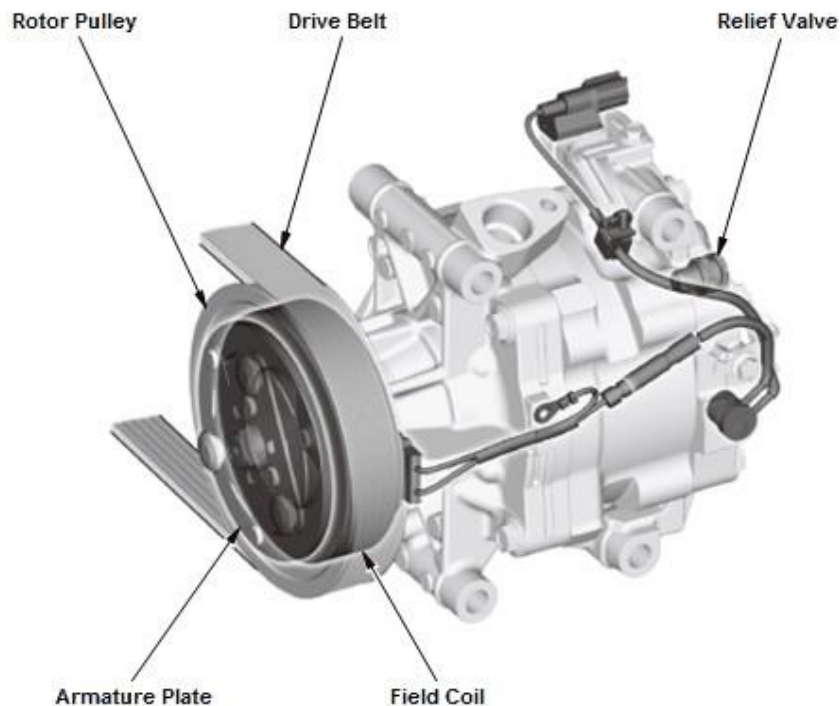
## DESCRIPTION > A/C SYSTEM DESCRIPTION - COMPRESSOR (2013-18)

### A/C Compressor

The A/C compressor is a pump that compresses a refrigerant. It is driven by the engine accessory drive belt. When the compressor clutch is OFF, the rotor pulley and pressure plate are disconnected and the compressor does not operate. When the compressor clutch is ON, the field coil is energized, creating a strong magnetic field. This magnetic field locks the rotor pulley and pressure plate together, driving the compressor. The compressed refrigerant becomes a high pressure and temperature vapor that is sent to the A/C condenser.

A/C compressor has a mechanical relief valve, and the valve opens when pressure exceeds the rated value. It cannot be reused, and should be replaced.

NOTE: This illustration is an example only. Appearance and structure of the actual parts may vary depending on the model.

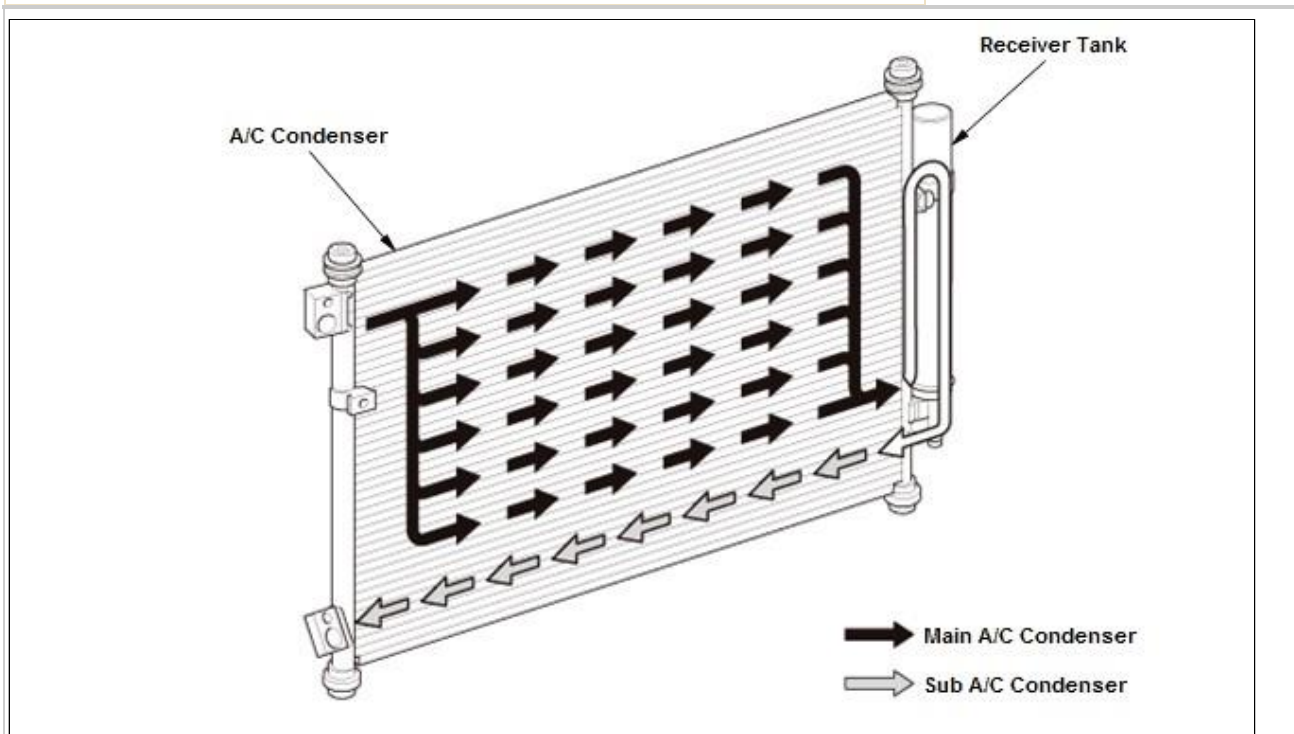


## DESCRIPTION > A/C SYSTEM DESCRIPTION - CONDENSER (2013-18)

### Sub Cool Cycle Condenser System

The condenser and receiver-drier are integrated. The main A/C condenser changes the high pressure and temperature refrigerant vapor from the A/C compressor into a high pressure and temperature liquid. This allows the refrigerant to release heat to the outside air. The receiver-drier acts as a reservoir of liquid refrigerant for the expansion valve. It also removes debris and moisture from the refrigerant. The sub A/C condenser cools the high pressure and temperature liquid refrigerant even further to improve A/C performance.

NOTE: This illustration is an example only. Appearance and structure of the actual parts may vary depending on the model.

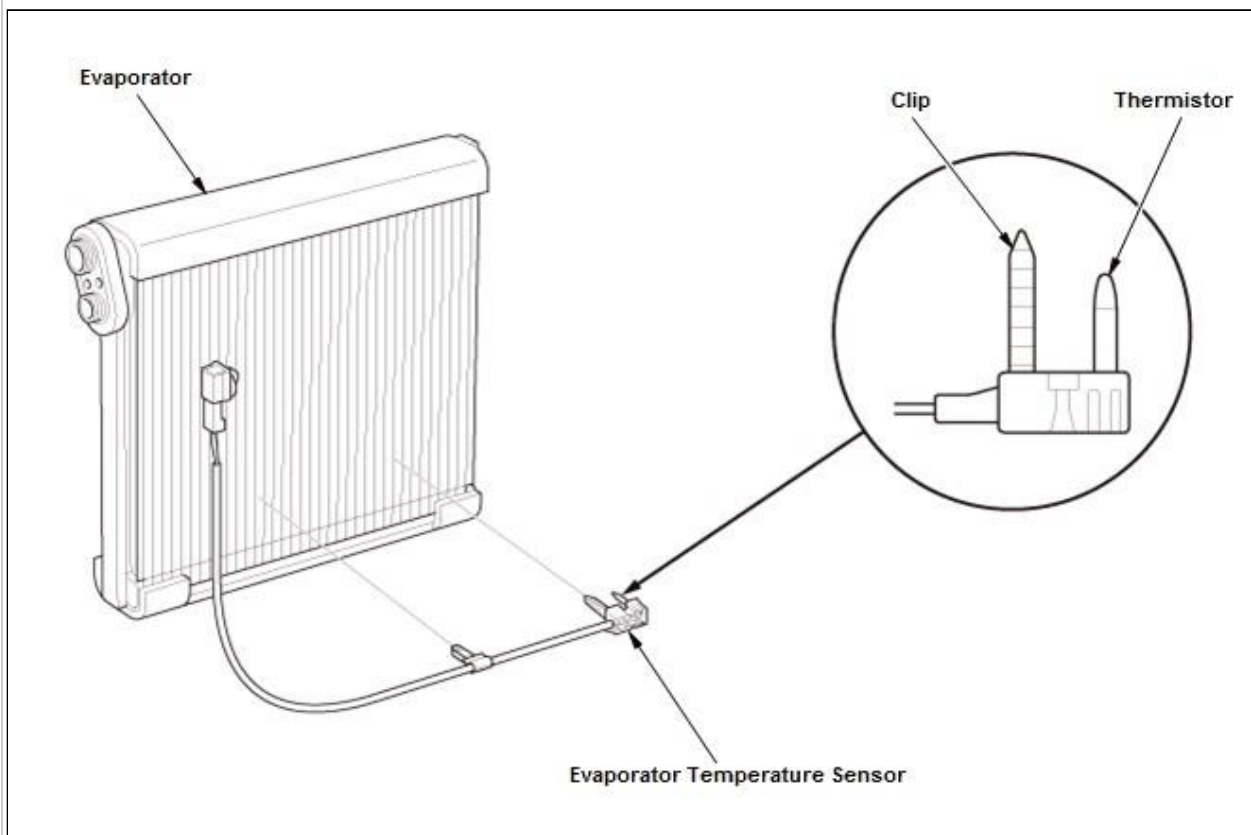


Courtesy of HONDA, U.S.A., INC.

## DESCRIPTION > A/C SYSTEM DESCRIPTION - EVAPORATOR TEMPERATURE SENSOR (2013-18)

The evaporator temperature sensor is attached to touch the fin of the evaporator. The climate control unit receives temperature of the evaporator surface from the evaporator temperature sensor. The climate control unit turns off the A/C compressor temporarily when the evaporator may freeze.

NOTE: This illustration is an example only. Appearance and structure of the actual parts may vary depending on the model.

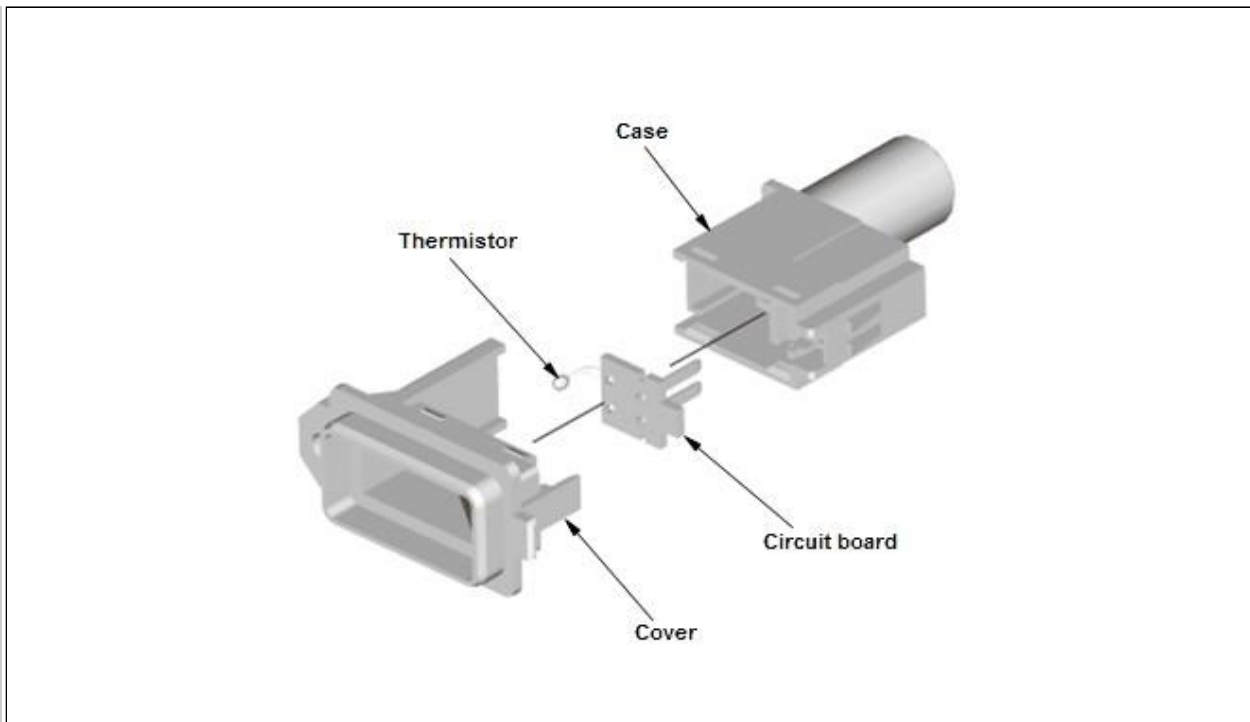


Courtesy of HONDA, U.S.A., INC.

### **DESCRIPTION > A/C SYSTEM DESCRIPTION - IN-CAR TEMPERATURE SENSOR (201318)**

The in-car temperature sensor is attached to the center face of the instrument panel and reads in-car temperature. The sensor uses a chip type thermistor-type temperature sensor that decreases resistance when temperature rises and increases resistance when temperature is drops. The climate control unit reads the resistance fluctuation in response to changes in in-car temperature and control the A/C.

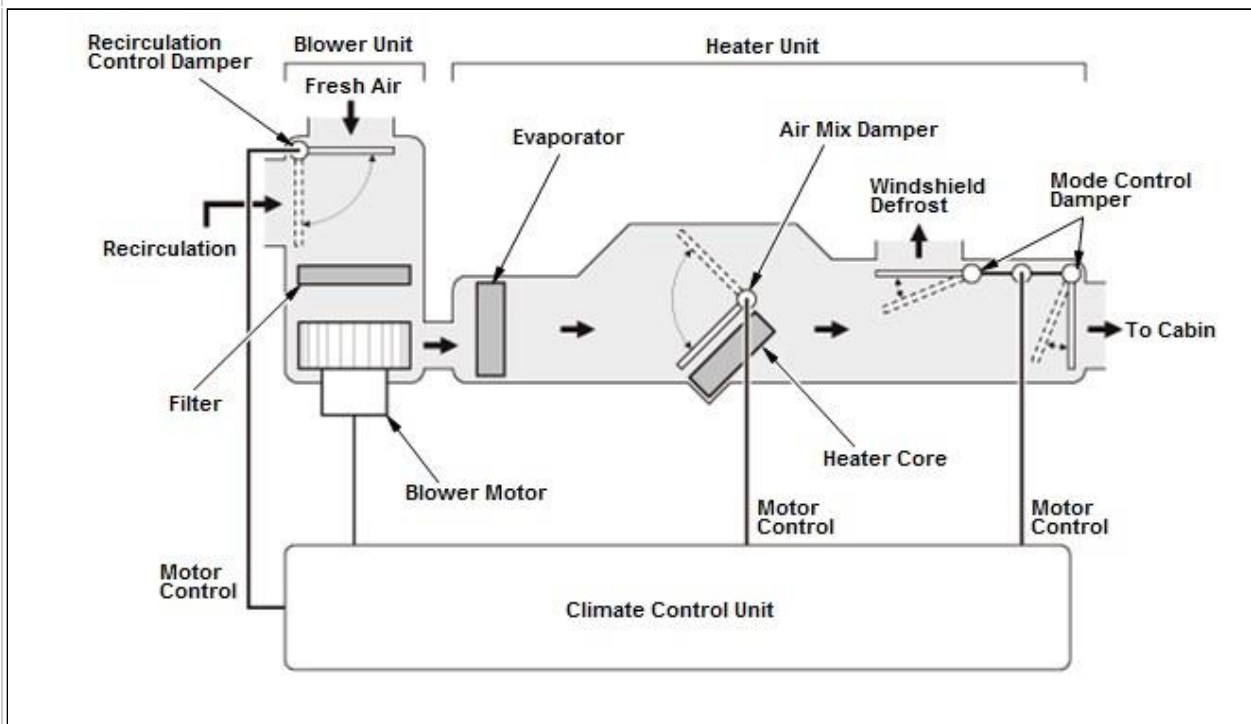
NOTE: This illustration is an example only. Appearance and structure of the actual parts may vary depending on the model.



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

### **DESCRIPTION > A/C SYSTEM DESCRIPTION - OVERVIEW (2013-18)**

The climate control system regulates temperature air outlet by mixing cold and warm air in an appropriate ratio. The heater core and evaporator core are installed in the heater unit and has the air mix damper and the mode control damper. The blower unit is composed of a blower motor, the recirculation control damper and the air conditioner filter. The blower unit is connected to a heater unit by the duct integral with the blower unit.

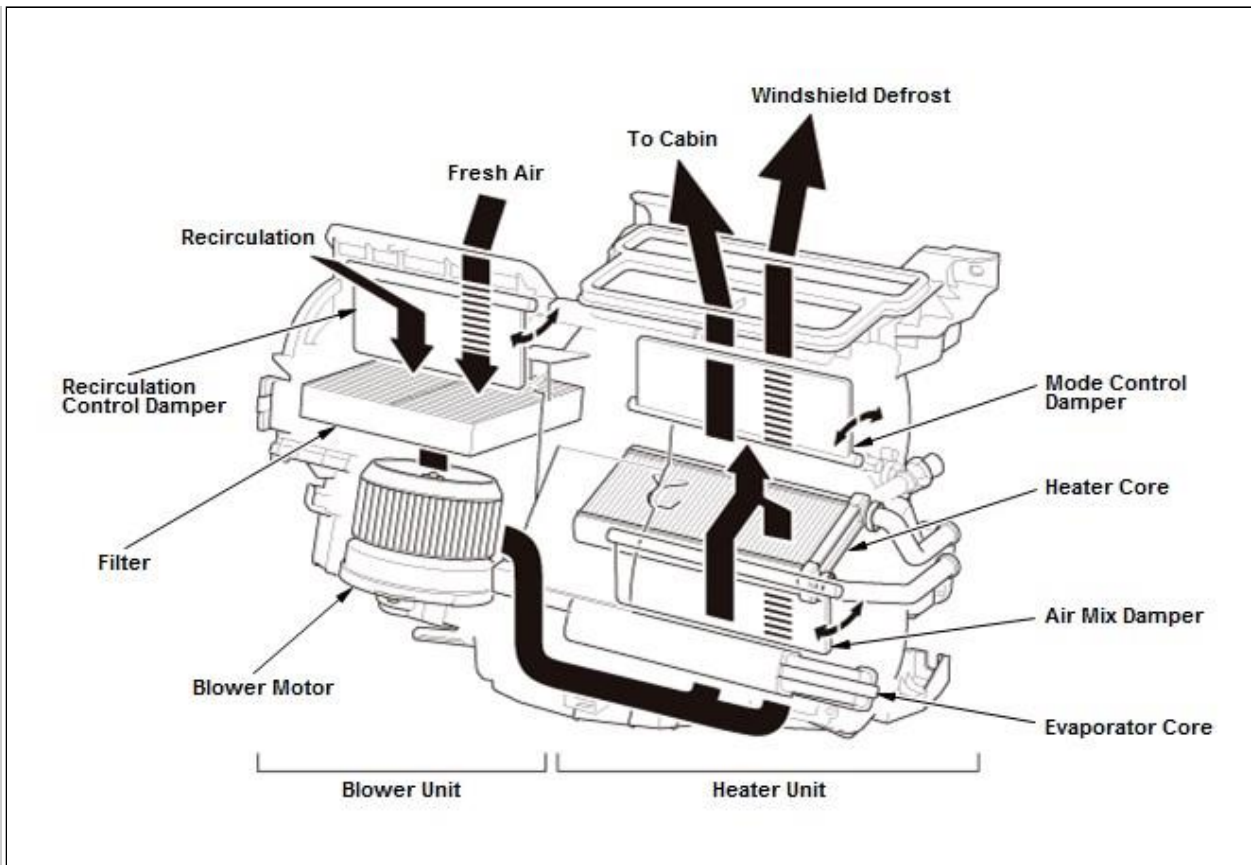


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## Air Flow Diagram

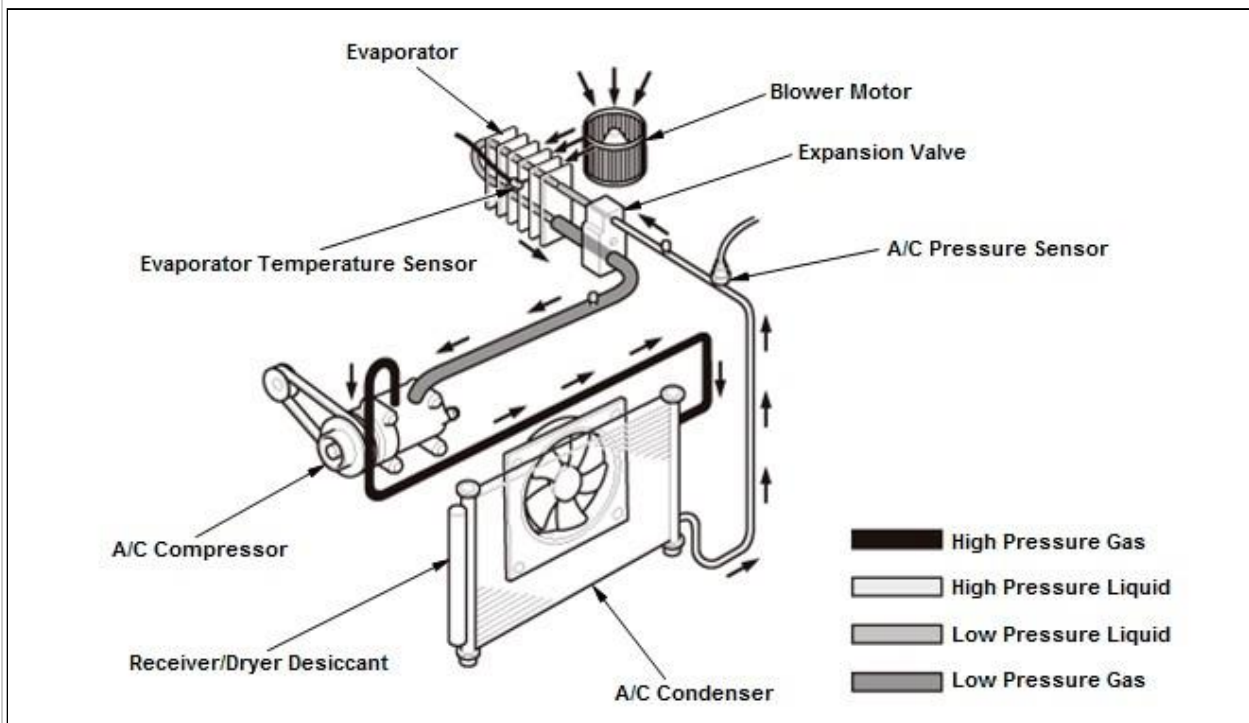
NOTE: The following illustration of the A/C system is just to give an example of what a standard structure of the components would look like. Therefore, the door shape of the damper, the number of doors, the appearance of the heater core and the evaporator core and so forth, and the layout of parts may vary depending on the model.





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

## Refrigerant Cycle



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

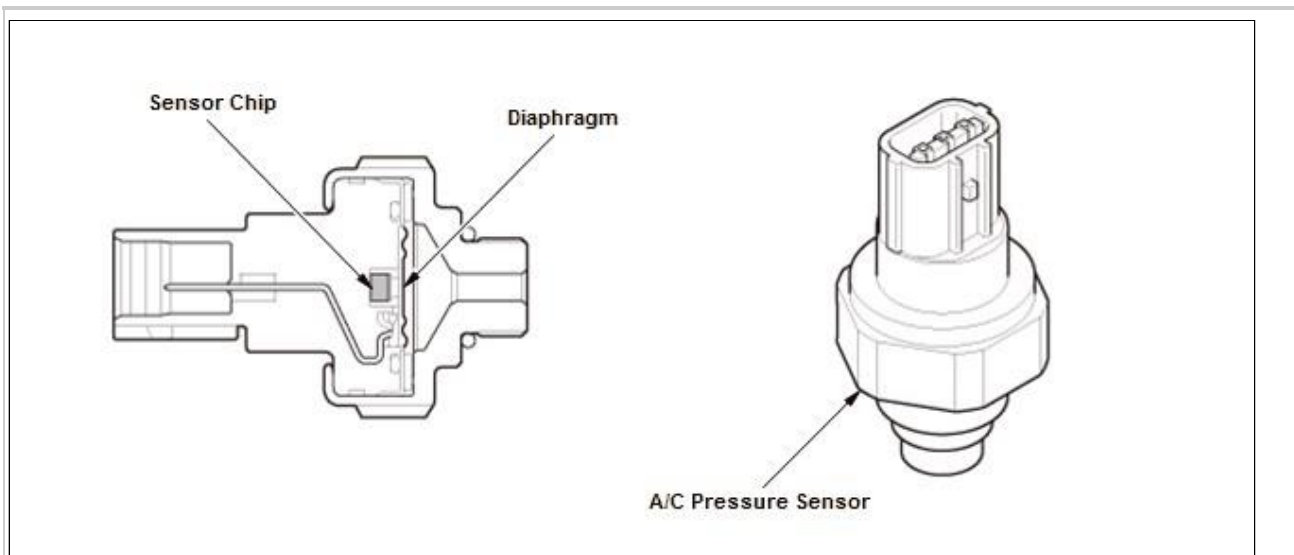
### DESCRIPTION > CLIMATE CONTROL SYSTEM DESCRIPTION - A/C PRESSURE SENSOR (2013-15)

The A/C pressure sensor is attached to a receiver pipe of the A/C condenser exit side. This sensor uses the sensor that the output voltage changes by the pressure. PCM receives the voltage signal and is used to drive the A/C compressor. When the A/C system pressure rises than an upper limit, or decreases than a lower limit, PCM stops the A/C compressor to protect the system.

- Upper limit: 3, 138 kPa (32.00 kgf/cm<sup>2</sup> , 455.1 psi)
- Lower limit: 196 kPa (2.00 kgf/cm<sup>2</sup> , 28.4 psi)

NOTE: This illustration is an example only. Appearance and structure of the actual parts may vary depending on the model.





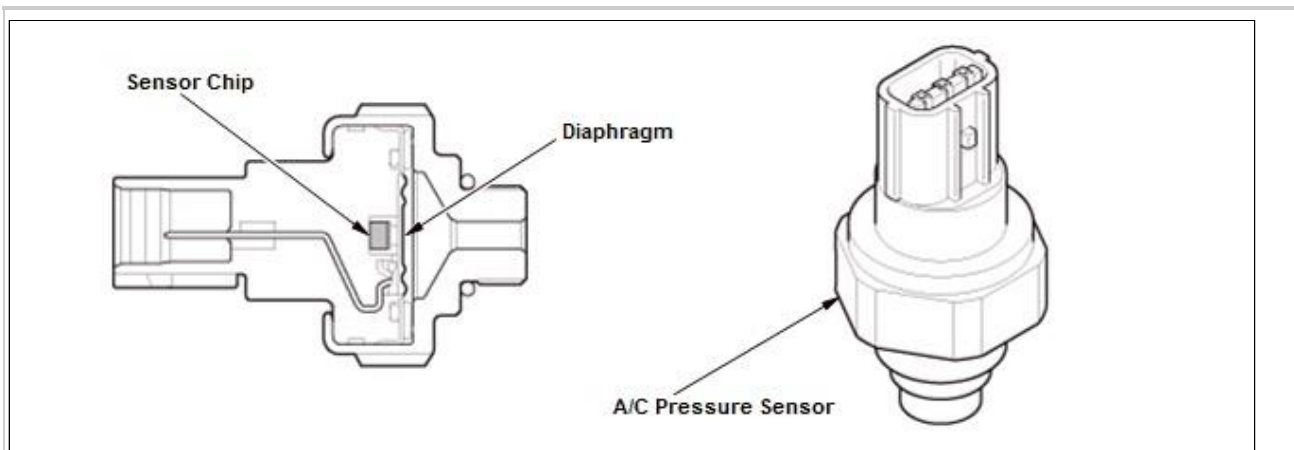
Courtesy of HONDA, U.S.A., INC.

## DESCRIPTION > CLIMATE CONTROL SYSTEM DESCRIPTION - A/C PRESSURE SENSOR (2016-18)

The A/C pressure sensor is attached to the receiver line on the outlet side of the A/C condenser. The sensor's output voltage changes in response to changes in A/C discharge pressure. The PCM receives the voltage signal and is used to drive the A/C compressor. The PCM also controls the radiator fan and A/C condenser fan. When the A/C system pressure rises than an upper limit, or decreases than a lower limit, the PCM stops the A/C compressor to protect the system.

- Upper limit: 2, 850 kPa (29.06 kgf/cm<sup>2</sup> , 413.4 psi)
- Lower limit: 196 kPa (2.00 kgf/cm<sup>2</sup> , 28.4 psi)

NOTE: This illustration is an example only. Appearance and structure of the actual parts may vary depending on the model.



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

## DESCRIPTION > CLIMATE CONTROL SYSTEM DESCRIPTION - CUSTOMIZE FUNCTION (2013-18)

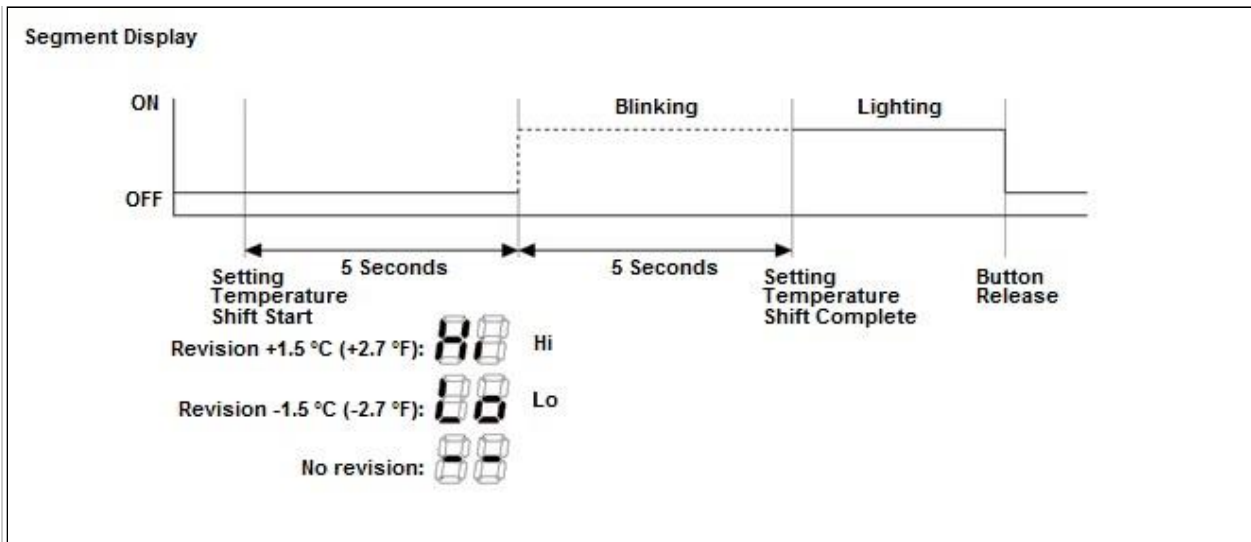
### How to Set the Setting Temperature Shift

The climate control unit has a function to revise setting temperature +1.5 °C (+2.7 °F) or -1.5 °C (-2.7 °F) degrees.

- Revision +1.5°C (+2.7 °F)
  - Turn the vehicle to the ON mode, then turn the vehicle to the OFF (LOCK) mode after confirming the climate control system is OFF.
  - With pressing both of the RECIRCULATION button and the fan speed up button, turn the vehicle to the ON mode and hold it for 10 seconds.
- Revision -1.5 °C (-2.7 °F)
  - Turn the vehicle to the ON mode, then turn the vehicle to the OFF (LOCK) mode after confirming the climate control system is OFF.
  - With pressing both of the RECIRCULATION button and the fan speed down button, turn the vehicle to the ON mode and hold it for 10 seconds.
- Return to the no revision (Revision 0 °C (0 °F))
  - Turn the vehicle to the ON mode, then turn the vehicle to the OFF (LOCK) mode after confirming the climate control system is OFF.
  - With pressing both of the RECIRCULATION button and the ON/OFF button, turn the vehicle to the ON mode and hold it for 10 seconds.
- Indication of the revision
 

The climate control unit displays the revision during until completion from the start of each revision mode as follows.

  - Displays nothing from the vehicle ON mode to 5 seconds.
  - Blinks current setting during 10 seconds from 5 seconds.
  - While push the button, the climate control unit continues displaying revision after 10 seconds.



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

## DESCRIPTION > CLIMATE CONTROL SYSTEM DESCRIPTION - CUSTOMIZE FUNCTION(WITH NAVIGATION) (2016-18)

### How to Change the Set Temperature

The climate control unit has a function to change the set temperature +2.7 °F (+1.5 °C) or -2.7 °F (-1.5 °C) in case clients feel the temperature is too warm or too cold for the displayed temperature.

NOTE: Verify that the climate control and A/C system is working properly before enabling the customize function to offset the set temperature.

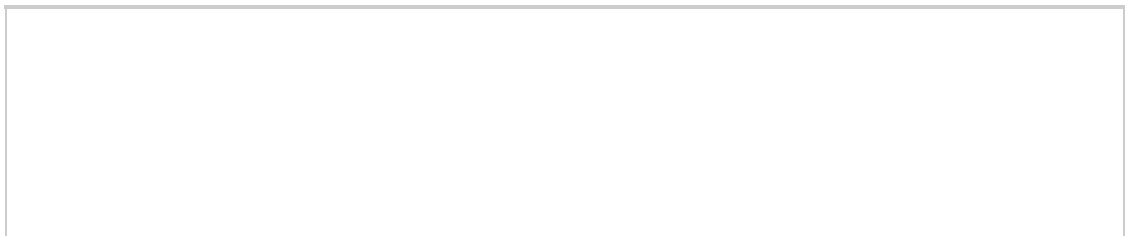
The setting temperature is only displayed in degrees centigrade (°C).

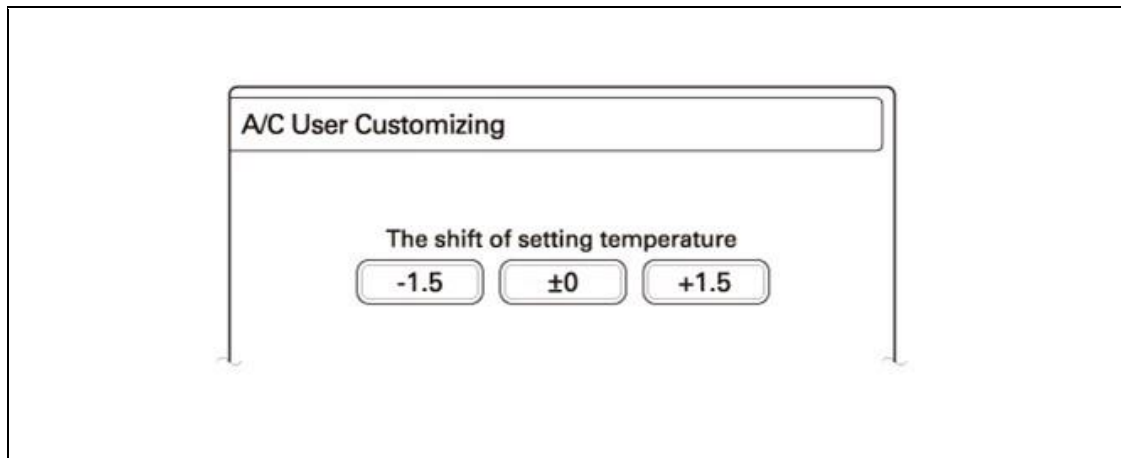
- How to enter A/C User Customizing
- ◦ While pressing the RECIRCULATION button and the ON/OFF button at the same time, turn the vehicle to the ON mode.

(TM)

NOTE: Make sure the ODMD is on and the image is displayed on the screen.

- Select the desired temperature shift icon on the display.





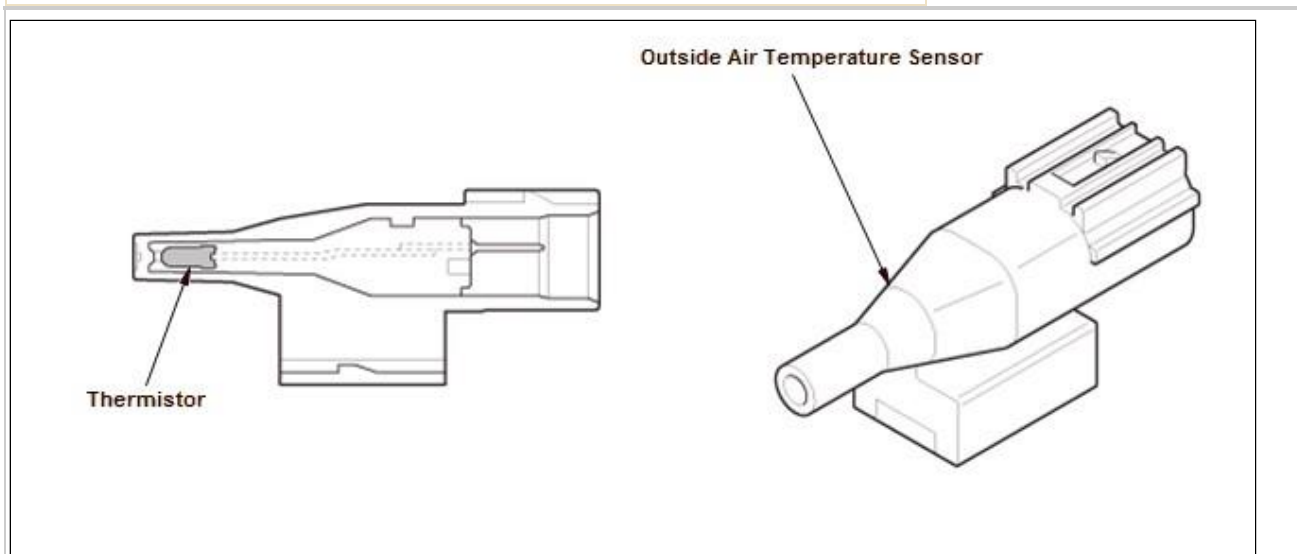
Courtesy of HONDA, U.S.A., INC.

- How to cancel A/C User Customizing
  - Turn the vehicle to the OFF (LOCK) mode.

## DESCRIPTION > CLIMATE CONTROL SYSTEM DESCRIPTION - OUTSIDE AIR TEMPERATURE SENSOR (2013-18)

The outside air temperature sensor is installed on the front side of the vehicle, near the A/C condenser. The outside air temperature sensor uses a sensor that decreases resistance when temperature rises. The climate control unit calculates the outside air temperature based on the information received from the outside air temperature sensor.

NOTE: This illustration is an example only. Appearance and structure of the actual parts may vary depending on the model.



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

## DESCRIPTION > CLIMATE CONTROL SYSTEM DESCRIPTION - OVERVIEW (2013-18)

### Climate Control

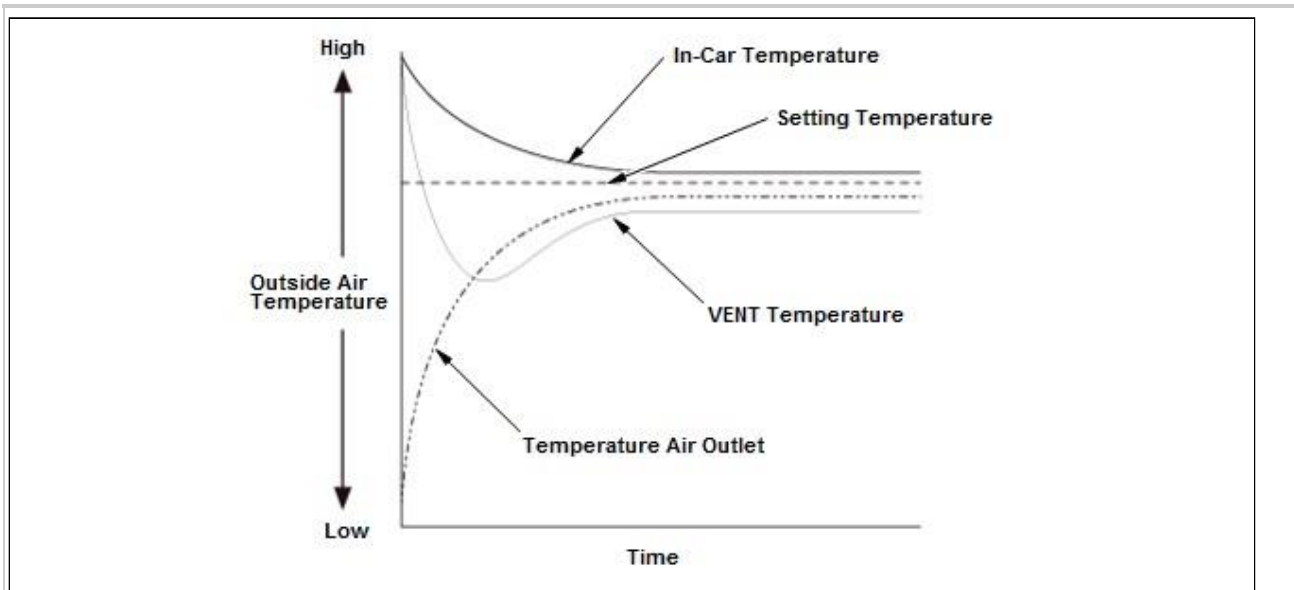
The climate control system transmits appropriate signals to each motor based on the information (sunlight, humidity, in-car temperature, outside air temperature) received from each sensor. See below for details.

- Air Mix Control Motor: The system controls the temperature of air coming into the cabin by the air mix control motor adjusting the air mix damper position in order to change the mixing ratio of warm and cold air.
- Mode Control Motor: The system directs the airflow to the specified area by the mode control motor switching the mode control damper position to the "VENT", "HEAT/VENT", "HEAT", "HEAT/DEF", or "DEF".
- Recirculation Control Motor: The recirculation control motor switches the recirculation control damper position to the "FRESH" or "RECIRCULATION".
- BLOWER MOTOR: The blower motor changes the air volume based on the voltage adjusted by the blower power transistor.

The climate control unit optimizes these controls in order to maintain passenger comfort.

### Relationship Between Vent (air outlet) Temperature and Actual In-Car Temperature

The climate control unit can automatically control vent temperature (air mix position), blower motor speed, blower intake (mode position), and A/C compressor operation to raise or lower the vehicle's interior temperature to match the customer's setting temperature. The actual vent outlet temperature is largely depends upon the difference between the in-car temperature sensor reading and the customer's setting temperature.



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

### Warm-Up Control

If heating is desired, and there is no available heat due to low engine coolant temperature, the climate control unit will slow the fan speed to avoid ventilating unpleasant air. The climate control unit will gradually increase the fan speed as the engine coolant temperature rises. The conditions that this control becomes effective are as follows:

- Fan speed "AUTO"
- Air outlet position "AUTO", "HEAT" or "HEAT/DEF"

- Outside air temperature is less than 20 °C (68 °F) Engine
- coolant temperature sensor is normal.

### **Low Engine Coolant Temperature Control**

When engine coolant temperature is low, the climate control system changes an air outlet position to the DEF. If engine coolant temperature gradually rises, the climate control system changes an air outlet position to the HEAT/DEF. In addition, engine coolant temperature rises, to control the air outlet position by outlet air temperature.

### **Relationship between Vehicle Speed and Blower Intake Mode**

Because air resistance is different, the air volume is different in the FRESH mode and the RECIRC mode if the fan speed is constant. When a recirculation control damper is "FRESH", fresh air increases as vehicle speed rises. The climate control unit regulates fan speed to make the air volume of the FRESH mode the same as RECIRC mode.

### **A/C Control**

To prevent the evaporator from freezing, the climate control unit switches the A/C compressor ON and OFF based on the evaporator temperature sensor value. While in the automatic operation mode, the climate control unit automatically switches the A/C compressor ON based on the evaporator temperature sensor value, as well as an ambient temperature and humidity.

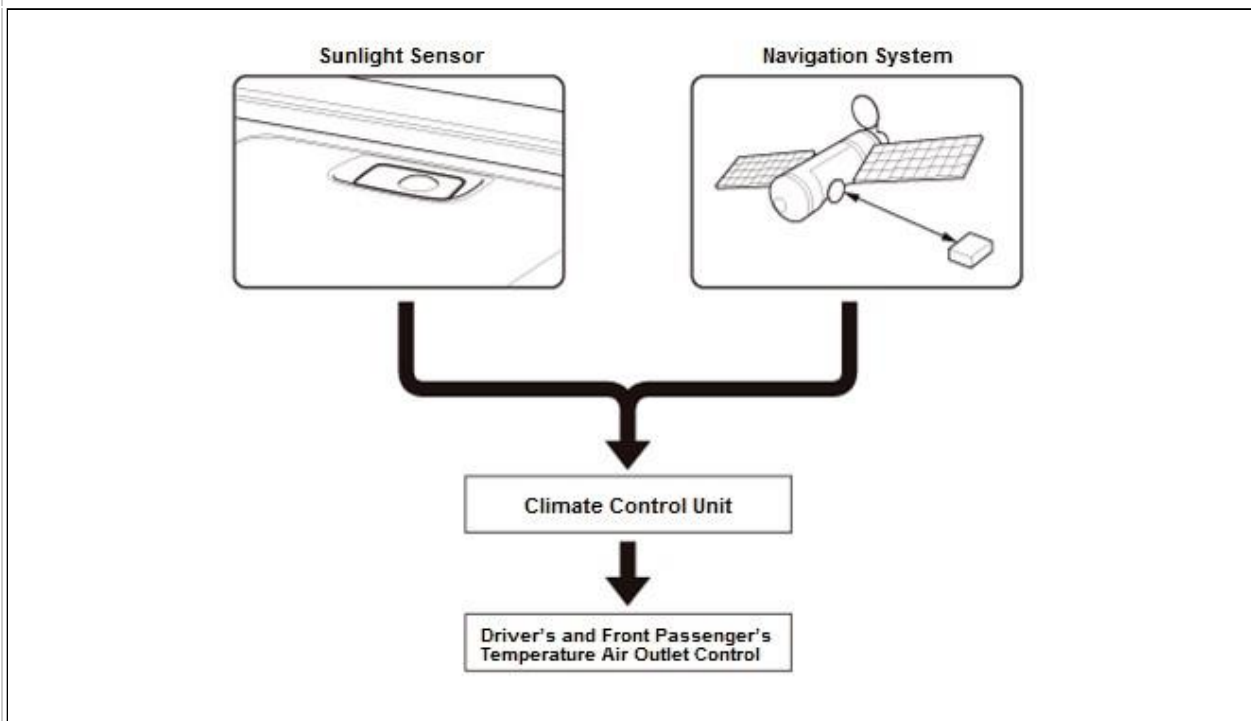
### **MAX Control**

When the temperature setting is adjusted to "MAX COOL (Lo)" or "MAX HOT (Hi)", the climate control unit overrides automatic control and defaults to the following operation:

- MAX COOL  
RECIRC, VENT, blower fan maximum speed, and A/C system ON.
- MAX HOT (With heater core)  
FRESH, HEAT\*, blower fan maximum speed, and A/C system ON.\*: If the sensor information indicates that the windshield may fog, the air outlet switches to HEAT/DEF automatically.

### **i-Dual Zone Control**

The navigation system provides the climate control unit with information concerning the insolation angle, the insolation azimuth, and the insolation angle of elevation. The measured information is sent via the B-CAN communication system. The climate control unit uses the information from the navigation system and the information from the sunlight sensor, and then adjusts the air conditioning temperature in the vehicle according to the driving direction and the angle of the sun. For example, the climate control unit will adjust the air mix door and send cool air to the face of occupants sitting on the side which has strong insolation.



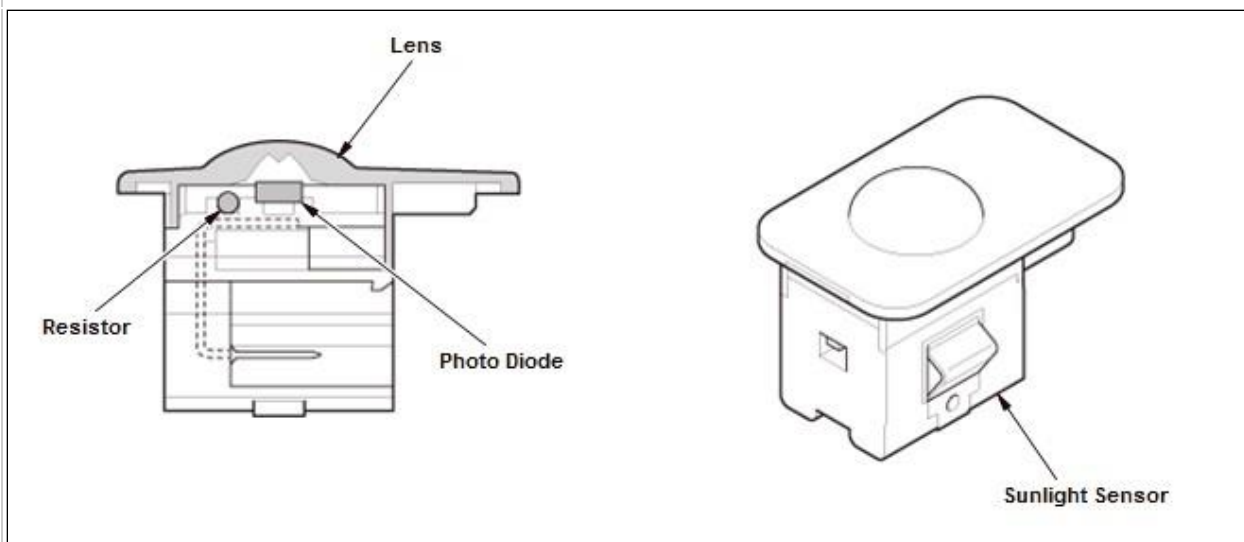
Courtesy of HONDA, U.S.A., INC.

### **DESCRIPTION > CLIMATE CONTROL SYSTEM DESCRIPTION - SUNLIGHT SENSOR (2013-18)**

The sunlight sensor is attached to the upper face of the instrument panel. The sunlight sensor uses a photodiode-type optical sensor which changes current in proportion to the sunlight intensity. The climate control unit reads the voltage fluctuation of the sunlight sensor.

The sunlight sensor has the sensor for exclusive use of the auto light control.

NOTE: This illustration is an example only. Appearance and structure of the actual parts may vary depending on the model.



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## DESCRIPTION > REAR WINDOW DEFOGGER SYSTEM DESCRIPTION - COMPONENTS (2013-18)

### Rear Window Defogger

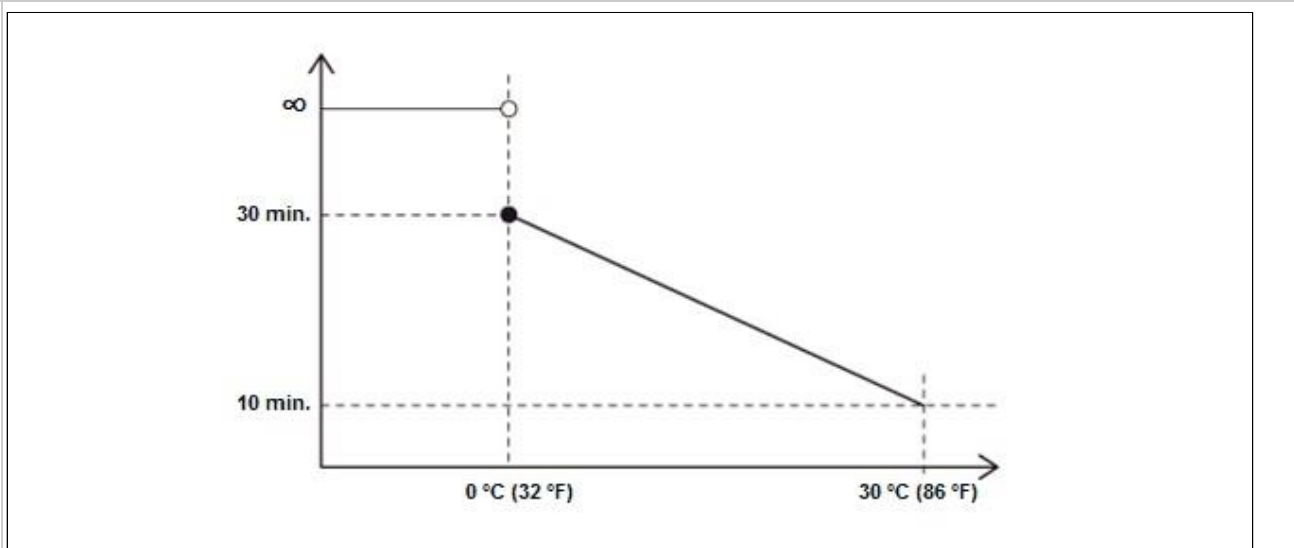
The rear window defogger is installed on the inside of the rear window.



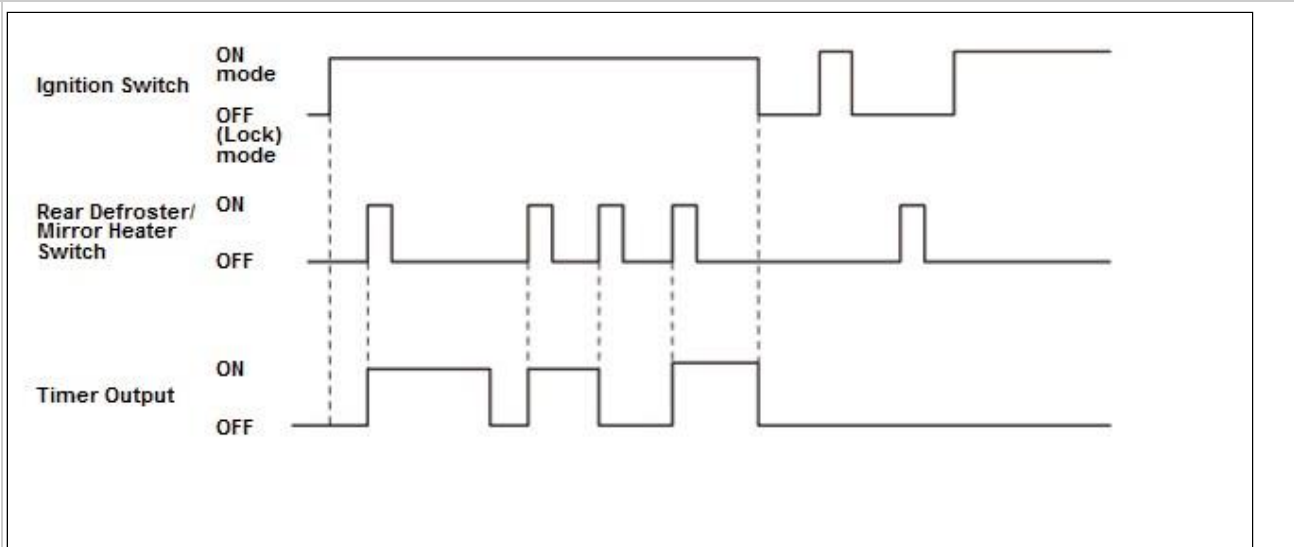
## DESCRIPTION > REAR WINDOW DEFOGGER SYSTEM DESCRIPTION CONTROL/FUNCTION (2013-18)

### The Timer Function

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



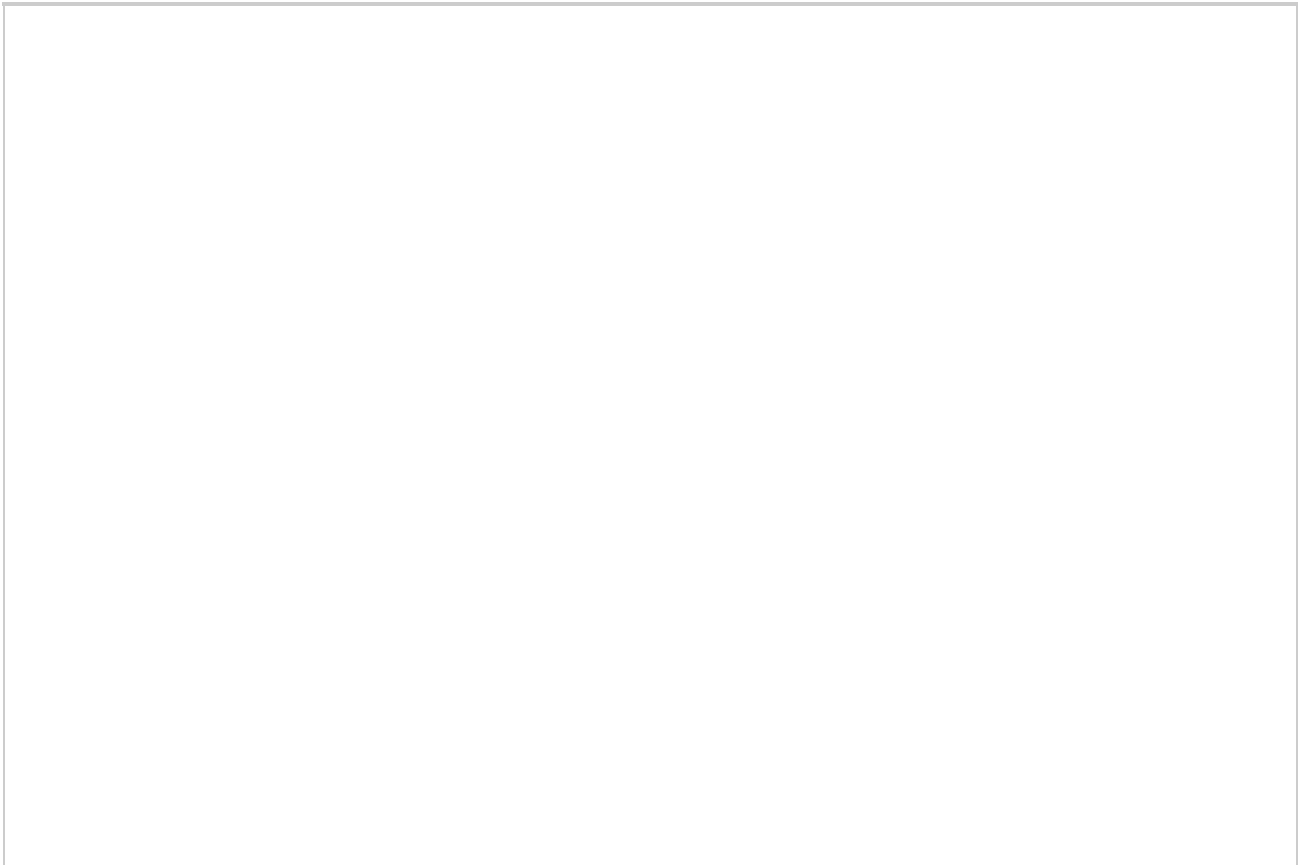
Courtesy of HONDA, U.S.A., INC.

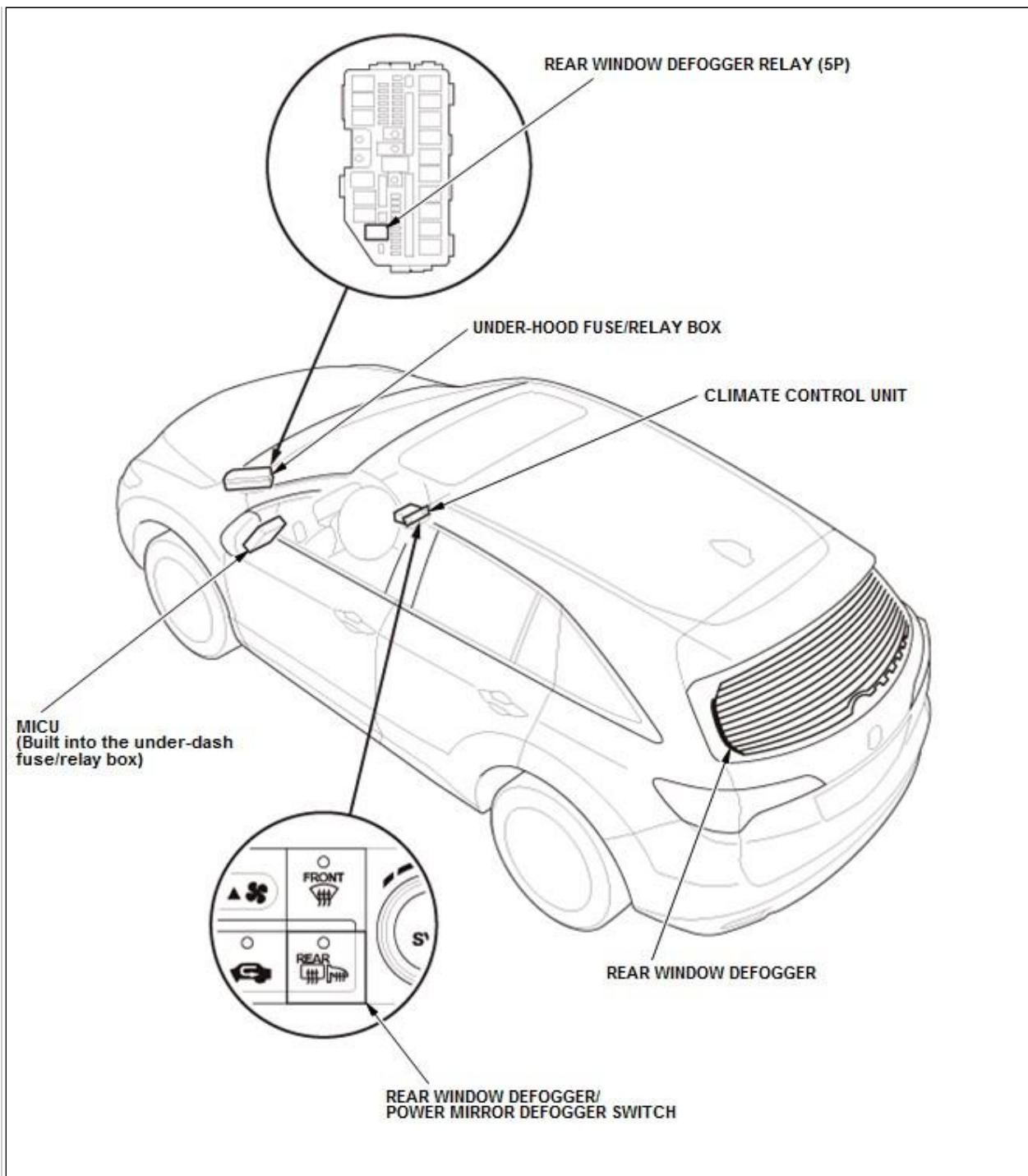


Courtesy of HONDA, U.S.A., INC.

**DESCRIPTION > REAR WINDOW DEFOGGER SYSTEM DESCRIPTION - OVERVIEW  
(2013-18)**

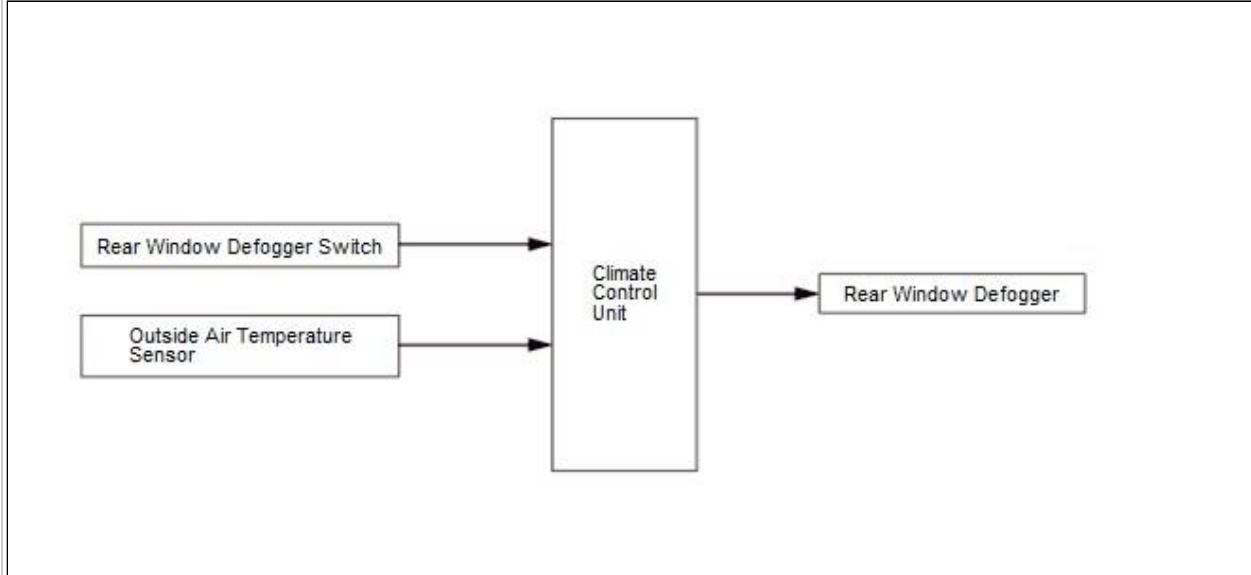
Comes equipped with the rear window defogger. The rear window defogger switch is integrated with the climate control unit.





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

**DESCRIPTION > REAR WINDOW DEFOGGER SYSTEM DESCRIPTION - SYSTEM DIAGRAM (2013-18)**



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

**CHECK > A/C COMPRESSOR CLUTCH CHECK (2013-18) > CHECK**

1. A/C Compressor Clutch Clearance - Check

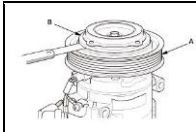


Courtesy of HONDA, U.S.A., INC.

1. Check the pressure plate (A) for discoloration, peeling, or other damage. If there is damage, replace the clutch set .
2. Check the rotor pulley (B) bearing play and drag by rotating the rotor pulley by hand. Also check for grease leakage from the bearing. Replace the clutch set with a new one if it is noisy, has excessive play/drag, or has bearing grease contamination on the clutch faces.

**NOTE:** The rotor pulley and the pressure plate were mated at the factory by a burnishing operation. Always replace the rotor pulley and the plate as a set. Replacing only one part of the clutch set will cause clutch slippage.



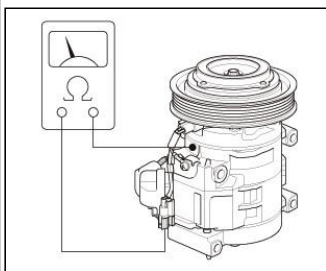


Courtesy of HONDA, U.S.A., INC.

3. Measure the clearance between the rotor pulley (A) and the pressure plate (B) all the way around. If the clearance is not within specified limits, remove the pressure plate and add or remove shims as needed to increase or decrease clearance. Clearance: 0.35-0.60 mm (0.014-0.023 in)

NOTE: The shims are available in four thicknesses: 0.1 mm, 0.3 mm, and 0.5 mm.

## 2. A/C Compressor Clutch Field Coil - Check



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

1. Measure the resistance of the field coil. If resistance is not within specifications, replace the field coil. Field Coil Resistance: 3.9-4.3 - at 68 °F (20 °C)

## 3. A/C Compressor Clutch Oil Leak - Check

1. Remove the pressure plate, and inspect the pressure plate and pulley friction surface for wear. If there is excessive wear, roughness, or scoring, replace the clutch set.
2. Inspect the friction surfaces and the A/C compressor shaft hub for excess oil. If excess oil is present, and it is not from the engine or power steering system, then the A/C compressor shaft seal is leaking. In that case, replace the A/C compressor.

## CHECK > A/C REFRIGERANT LEAK CHECK (2013-18) > CHECK



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

- Air conditioning refrigerant or lubricant vapor can irritate your eyes, nose, or throat.
- Be careful when connecting service equipment.
- Do not breathe refrigerant or vapor.
- Do not operate the leak detector near flammable vapors. Its sensor operates at high temperatures, and could ignite the vapors, resulting in personal injury and/or damage to the equipment.

NOTE:

- If accidental system discharge occurs, ventilate the work area before resuming service.
- Additional health and safety information may be obtained from the refrigerant and lubricant manufacturers.
- Check the system for leaks using an R-134a refrigerant leak detector with an accuracy of 14 g (0.49 oz) per year or better.

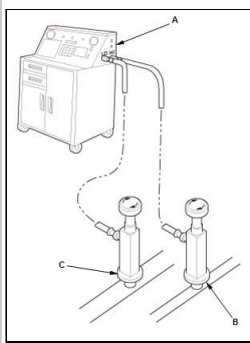
**Leak Detector Usage Tips (Refer to the Operator's Manual for complete operating instructions)**

- Position the vehicle in a wind-free work area. This will aid in detecting small leaks.
- When using the leak detector for the first time, allow it to warm up for 2 minutes with the probe in a clean atmosphere. This lets the temperature sensor in the detector stabilize.
- The calibration check should be done in the "Search 2" mode. Once that is done, the other check modes do not need calibrating.
- When leak checking through the HVAC module drain hose, avoid drawing water into the probe. Water can damage the internal pump and sensor.
- Avoid creasing the flexible probe extension. Creases can restrict air flow and give false readings.
- Because the detector recalibrates itself for ambient gases, it may be necessary to move the detector away from the leak to clear the sensor. Once the sensor has cleared, recheck the suspected leak.
- When removing the clear probe tip, be careful not to lose the flow ball.
- R-134a is heavier than air; always check below and to the sides of all potential leak sources. Halogen
- leak detectors are sensitive to chemicals: windshield washing solutions, solvents/cleaners, and some vehicle adhesives. Keep these chemicals out of the area when doing leak detection.

**Fluorescent Dye Usage Tips**

- Use only Tracer-Stick single dose fluorescent dye capsules from Tracerline. Other dyes contain solvents that may contaminate the refrigerant oil, leading to component failure.
- Adding excessive amounts of dye can damage the A/C compressor.
- PAG oil is water soluble, so condensation on the evaporator core or the refrigerant lines may wash the PAG oil and fluorescent dye away from the actual leak. Condensation may also carry dye through the evaporator module drain.
- After checking and repairing leaks, thoroughly clean any residual dye from the areas where leaks were found. Use GLO-AWAY dye cleaner, from Tracerline, and hot water to remove the dye (follow the instructions on the bottle). Residual dye stains can cause misdiagnosis of any future A/C system leaks.
- If any refrigerant dye contacts an exterior paint surface, remove it by doing this:
  - Carefully wash the affected surfaces to remove any dirt, and to prevent paint scratching. Mix
  - water and isopropyl alcohol in a 50/50 mixture. Soak a soft 100 % cotton towel with the water/alcohol mixture, and place the cloth on the affected areas to remove the dye. After
  - removing the dye with the water/alcohol-soaked cloth, carefully wash the affected areas, and check that there is no remaining dye.

1. R-134a Refrigerant Recovery/Recycling/Charging Station - Connect



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

1. Connect an R-134a refrigerant recovery/recycling/charging station (A) to the high-pressure service port (B) and the low-pressure service port (C), as shown, following the equipment manufacturer's instructions.

## 2. A/C Refrigerant - Recover

1. Recover the refrigerant from the A/C system
2. Measure the amount of refrigerant oil removed from the A/C system after the recovery process is completed. Be sure to put the same amount of new refrigerant oil back into the A/C system before charging.

## 3. A/C System - Evacuate

1. Evacuate the system - Refer to: A/C System Charging (2013-18), or A/C System Evacuation (2013-18), or A/C Refrigerant Recovery (2013-18) . The vacuum pump should run for a minimum of 30 minutes to eliminate all moisture from the system. When the suction gauge reads -93.3 kPa (-700 mmHg, 27.55 inHg) for at least 30 minutes, close all valves, and turn off the vacuum pump.
2. If the suction gauge dose not reach approximately -93.3 kPa (-700 mmHg, -27.55 inHg) in 15 minutes, there is probably a large leak in the system. Partially charge the system, and check for leaks.

## 4. A/C Refrigerant - Charge

### Refrigerant Capacity:

**430 to 480 g**

**15.2 to 16.9 oz**

**0.430 to 0.480 kg**

**0.948 to 1.060 lbs**

## 5. A/C Refrigerant - Leak Check

Possible Leak Area	Diagnostic Procedure with the Leak Detector	Notes
Service ports	<ol style="list-style-type: none"> <li>1. Check the service ports with caps installed</li> <li>2. If the detector "sniffs" a leak, use fluorescent dye to confirm it</li> </ol>	When capping the service ports, ensure that the seals on the port caps are in place, and that the caps are tight. The caps are used as the final seals in the system

A/C condenser	If the detector "sniffs" a leak, use fluorescent dye to confirm it	<ol style="list-style-type: none"> <li>1. Check for joints or connections coated with oily dust</li> <li>2. Check for damaged and corroded areas</li> <li>3. Check all fittings, couplings, brazed/welded areas and areas around attachment points</li> <li>4. Move the probe slowly (1 in/second or less), and keep it within 1/4 in of the component being checked. This maximizes the chance of detecting a leak</li> <li>5. If you detect a leak, blow compressed air over the area, then recheck for leaks. For large leaks, cleaning the area with compressed air may help you pinpoint the leak source</li> </ol>
Possible Leak Area	Diagnostic Procedure with the Leak Detector	Notes
Evaporator	<ol style="list-style-type: none"> <li>1. Check at the evaporator drain hose</li> <li>2. Check at the passenger's side vent and turn the blower on at low speed</li> </ol>	
A/C lines	<ol style="list-style-type: none"> <li>1. Wiggle the rubber hoses when checking crimped metal ends</li> <li>2. If the detector "sniffs" a leak, use fluorescent dye to confirm it</li> </ol>	<ol style="list-style-type: none"> <li>1. Check all fittings, couplings, pressure switches, brazed/welded areas, and areas around attachment points on A/C lines and components</li> <li>2. Check for damaged and corroded areas</li> <li>3. Move the probe slowly (1 in/second or less), and keep it within 1/4 in of the component being checked. This maximizes the chance of detecting a leak</li> </ol>

2. Close the quick coupler valves, then disconnect the quick couplers from the vehicle service ports
3. Attach the universal connect set, from the Optimax Jr. Leak Detection Kit, to the service valve fitting. Close the control valve (the black knob on the connect set)
4. Attach the charging station low pressure hose quick coupler to the service valve fitting, and open the quick coupler valve. Evacuate the connect set using the charging station vacuum pump, then close the quick coupler valve
5. Detach the universal connect set, and install a Tracer-Stick dye capsule between the connect set and the service valve fitting (see the manufacturer's instructions for more detail)
2. Attach the quick coupler on the universal connect set to the low pressure service port on the vehicle. Open the charging station low pressure hose quick coupler valve, but do not open the control valve
3. Start the engine, and set the A/C system to maximum cooling. Open the control valve to let refrigerant and the dye enter the A/C system through the low pressure service port. Close the control valve when the Tracer-Stick dye capsule is empty
2. Run the engine and A/C system for 15 minutes to thoroughly circulate the dye. Then shut the engine off, and inspect the following areas of the system for leaks.



**NOTE:**

1. Check for leaks in a dark work area, and use the UV light and the special glasses from the leak check kit. Other UV lights may not work well with the Tracer-Stick dye.
2. Small leaks may take up to 1 week of vehicle operation (with normal A/C use) to become visible.

<b>Possible Leak Area</b>	<b>Diagnostic Procedure with Fluorescent Dye</b>
Service ports	If a leak is found, replace the cap/O-ring seal or A/C line as needed
A/C lines	<ol style="list-style-type: none"><li>1. Use a permanent marker pen to circle the leak area</li><li>2. If a leak is found, remove and replace the A/C line</li></ol>
A/C condenser	<ol style="list-style-type: none"><li>1. If a leak is found, remove the A/C condenser - Refer to: A/C Condenser Removal and Installation (2013-15), or A/C Condenser Removal and Installation (2016-18)</li><li>2. Determine whether leak is in the A/C condenser or the receiver/dryer</li><li>3. Use a permanent marker pen to circle the leak area</li><li>4. Replace either the receiver/dryer or the A/C condenser - Refer to: A/C Condenser Removal and Installation (2013-15), or A/C Condenser Removal and Installation (2016-18) , depending upon which is leaking</li></ol>
<b>Possible Leak Area</b>	<b>Diagnostic Procedure with Fluorescent Dye</b>
A/C compressor	<ol style="list-style-type: none"><li>1. Check for leaks at all of the A/C compressor joints, the clutch center, the A/C compressor front housing bolts, and the scroll bolts on the back of the A/C compressor</li><li>2. If a leak is found, use a permanent marker pen to circle the leak area</li><li>3. If the A/C compressor relief valve appears to be leaking, determine whether the leak is coming from the relief valve, or the joint between the A/C compressor casing and the valve. If the leak is from the relief valve, check the A/C system pressures, and refer to the pressure test table in the A/C system test - Refer to: A/C System Test (2013-15), or A/C System Test (2016-18) . If the leak is from the casing/valve joint, replace the A/C compressor relief valve</li><li>4. If the leak is coming from the suction hose and/or discharge hose fittings on the A/C compressor,</li></ol>

	<p>clean the A/C fittings and replace the suction/discharge fitting O-rings</p> <p>5. For all other A/C compressor leaks, remove and replace the A/C compressor</p>
Evaporator	<ol style="list-style-type: none"> <li>1. Start checking for evaporator leaks by illuminating the evaporator drain tube area</li> <li>2. If a leak is found, remove the evaporator core</li> <li>3. Determine whether leak is from evaporator or expansion valve</li> <li>4. Use a permanent marker pen to circle leak area</li> <li>5. Replace the expansion valve or the evaporator core , depending upon which is leaking</li> </ol>

**CHECK > A/C SYSTEM NOISE CHECK (2013-18) > CHECK**

1. A/C System - Noise Check



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

1. Air conditioning refrigerant or lubricant vapor can irritate your eyes, nose, or throat.
2. Be careful when connecting service equipment.
3. Do not breathe refrigerant or vapor.

The A/C system noise check will help you determine the source of abnormal A/C system noise.

NOTE:

1. If an accidental system discharge occurs, ventilate the work area before resuming service.
2. Additional health and safety information may be obtained from the refrigerant and lubricant manufacturers.
3. Identify the conditions when the noise occurs. The weather, the vehicle speed, the vehicle being in gear or in neutral, the engine temperature, or other conditions may be factors in determining the noise source.
4. Do the A/C system inspection - Refer to: A/C System Contamination Inspection (2013-18), or A/C System Inspection (2013-18) , and correct any problems found prior to diagnosing abnormal noises.
5. Abnormal A/C noises can be misleading. For example, a sound similar to a failed bearing may be caused by loose fasteners, loose mounting brackets, or a faulty A/C compressor clutch assembly.

NOTE: If the noise does not change when the A/C compressor clutch engages or disengages, the noise may be

1. Inspect the air inlet grille in the cowl cover for debris. If debris is present, remove it

2. Sit inside the vehicle, close the doors and windows, and press the engine start/stop button to select the ON mode, but do not start the engine. Cycle the HVAC system through all blower speeds and all air distribution modes to determine where and when the noise occurs
  3. Operate the blower at each speed with the engine and A/C off, and check for unusual noises and excessive vibration. If noise and/or vibration are present, do the following checks:
    - 1. If the noise or vibration occurs only in a specific mode or setting, then check these items:
      1. Operation of the mode control motor, door, and linkage
      2. Operation of the air mix control motors, doors, and linkage
      3. Operation of the recirculation control motor, door, and linkage
    - 2. If there is a squeaking or chirping noise, but no unusual vibration, replace the blower motor . - 3. Remove the blower unit , and check for foreign material (leaves or twigs, for example) on the blower motor and fan. If foreign material is present, remove it, and recheck for noise. If you do not find any foreign material, remove the blower motor , and check these items:
      1. Check if the fan blades are cracked or broken
      2. Make sure the fan retainer is tight
      3. Inspect the fan alignment on the blower motor shaft Replace the blower motor if any problems are present.
      4. Set up the vehicle for the running A/C checks:
        1. Select a quiet area for testing.
        2. Apply the parking brake.
        3. Shift the vehicle to P or N.
        4. Start the engine.
        5. Set the temperature control dials to MAX COOL.
        6. Set the mode control button to VENT.
        7. Set the fan control button to minimum (but not OFF).
        8. Set the air conditioning button ON.
- Switch the A/C compressor on and off several times to clearly identify the sound during A/C compressor operation. Listen to the noise while the A/C compressor clutch is engaged and disengaged. Probe the A/C system with a stethoscope to pinpoint the noise.

caused by an engine-related component. Probe the engine area with a stethoscope to pinpoint the noise

ie receiver/dryer .

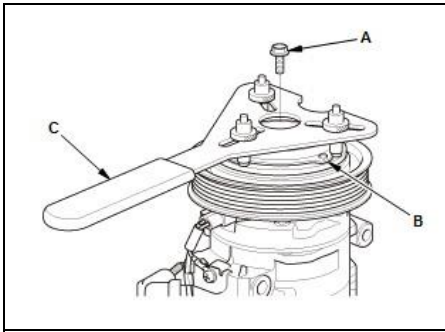
or A/C Refrigerant

- ace the expansion valve .
2. Press the engine start/stop button to select the OFF mode, a  
excessivewear, oil contamination, improper routing, or a faulty belt tens  
found. Start the engine, run the A/C system, and check if the noise is comir  
tensioner or any of the pulleys. Repair or replace any faulty components  
replace the
  3. Listen for noises coming from the A/C lines, the A/C hoses, the A/  
thereceiver/dryer, or the expansion valve, and check these items: do the A/C  
ice the A/C compressor .
    1. Noises caused by A/C components touching other components or th  
the A/C component(s) as needed, and recheck for noise. Do the refrigerant leak
    2. Loose, damaged or excessively worn A/C components or mounting |  
the faulty component(s) or hardware, and recheck for noise.
    3. A moaning noise coming from the A/C suction line. If there is a moan  
refrigerant charge. If the refrigerant charge is OK, :
    4. A whistling or hissing noise from the expansion valve. Evacuate the s  
A/C System Charging (2013-18), or A/C System Evacuation (2013-18  
recheck. If the noise is still present,
  7. Check the operation of the A/C compressor clutch: A/C
    1. Make sure A/C compressor clutch engages without slipping. If the pressure-related  
troubleshoot the A/C compressor clutch circuit. If the A/C comp  
compressor clutch assembly . And if there is a leak from the s  
compressor clutch slips, replace the A/C compressor also .
    2. Make sure the A/C compressor clutch disengages. If the clutc  
compressor clutch check . If the A/C compressor clutch is OK,
    3. Make sure the A/C compressor clutch cycles normally. If the A/C con  
rapidly, the A/C system is probably low on refrigerant due to a leak.  
check . If the refrigerant charge is OK, and there are no leaks, trouc  
clutch circuit.
  8. Listen with a stethoscope for noises coming from the A/C compressor, a  
these items
    1. The noise changes when the A/C compressor clutch disengages. If th  
when the A/C compressor disengages, the noise may be cause  
component. Probe the engine area with a stethoscope to pinpoint the
    2. The A/C system operating pressures are normal. If the system p  
troubleshoot the problem using the pressure test table in the A/C syste  
Test (2013-15), or A/C System Test (2016-18) problem(s), and rech
    3. The A/C compressor hose connections, mounting brackets, and  
condition. If any of these components are loose, damaged, or exc  
replace the faulty component(s), and recheck for noise. If these c  
condition, and the noise is still present, replace the A/C compressor .

## OVERHAUL > A/C COMPRESSOR CLUTCH OVERHAUL (2013-18) > DISASSEMBLY

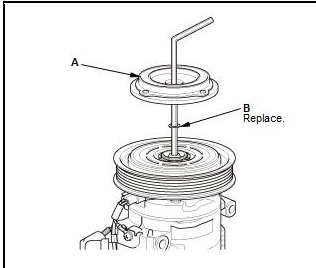
### 1. A/C Compressor Pressure Plate - Remove

	<p>1. Remove the center bolt (A) while holding the pressure plate (B) with the A/C clutch holder (C).</p>
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Courtesy of HONDA, U.S.A., INC.

2. Remove the pressure plate (A) and the shim(s) (B), taking care not to lose the shim(s).

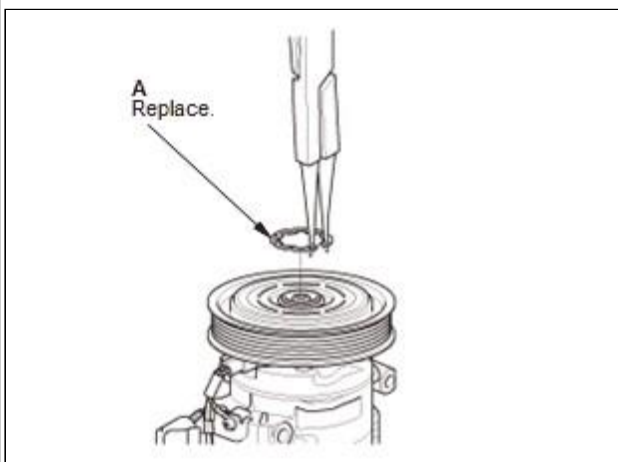


Courtesy of HONDA, U.S.A., INC.

**NOTE:**

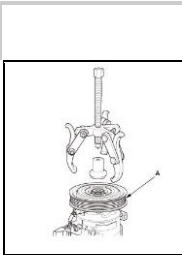
1. Do not pry on the pressure plate with screwdrivers or similar tools. Prying damages the pressure plate and the pulley.
2. Inspect the pressure plate and rotor pulley friction surfaces for wear. If there is excessive wear, roughness, or scoring, replace the clutch set.
3. If compressor oil is found, replace the A/C compressor.
4. A leaking compressor front shaft seal should be inspected at this step.

**2. A/C Compressor Rotor Pulley - Remove**



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

1. Remove the snap ring (A) with the snap ring pliers.



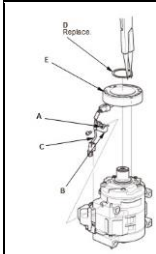
Courtesy of  
HONDA, U.S.A.,  
INC.

2. Remove the rotor pulley (A).

**NOTE:**

1. Do not hammer or pry on the rotor pulley to remove it. Using a hammer damages the A/C compressor. If the pulley is difficult to remove, use a commercially available pulley removing tool. Make sure the jaws of the pulling tool engage the back face of the pulley, not the pulley grooves.
2. Be careful not to damage the rotor pulley or the A/C compressor.

3. A/C Compressor Field Coil - Remove



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

1. Remove the field coil ground terminal (A) and the bracket (B)
2. Remove the wire harness (C)
3. Remove the snap ring (D) with snap ring pliers
4. Remove the field coil (E). Be careful not to damage the field coil or the A/C compressor.

**NOTE:** Inspect the friction surfaces and the compressor shaft hub for excess oil. If excess oil is present, and it is not from the engine or power steering system, then the compressor shaft seal is leaking. Replace the A/C compressor.

## OVERHAUL > A/C COMPRESSOR CLUTCH OVERHAUL (2013-18) > REASSEMBLY

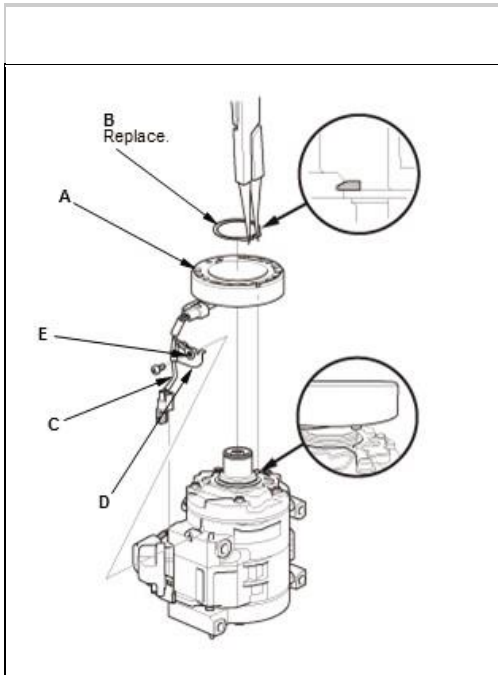
**NOTE:**

- When replacing the field coil, check that the new coil has the correct resistance .
- Install the field coil with the wire side facing down, and align the boss on the field coil with the hole in the A/C compressor.
- If the clutch surface is oil soaked, check the compressor front seal for leakage. Installing a new clutch assembly on a leaking compressor will damage the new clutch assembly friction surfaces.
- Clean the rotor pulley and the A/C compressor friction surfaces with contact cleaner or other non-petroleum solvent.



- Install new snap rings, note the installation direction, and make sure they are fully seated in the grooves.
- Make sure that the rotor pulley turns smoothly after it's reassembled.
- Route and clamp the wires properly to prevent damage by the rotor pulley.
- After reinstallation, cycle the A/C compressor clutch approximately 20 times by running the engine at 1,500-2,000 rpm and setting the A/C system to MAX COOL. This procedure seats the clutch sliding surfaces, and increases clutch torque capacity.

### 1. A/C Compressor Field Coil - Install



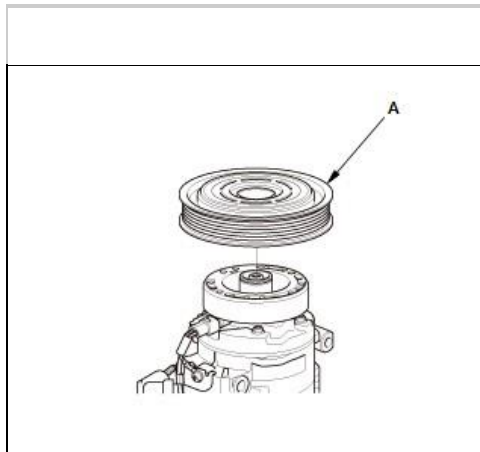
Courtesy of HONDA, U.S.A., INC.

1. Install the field coil (A).

NOTE: Be careful not to damage the field coil and A/C compressor

2. Install the snap ring (B) with the snap ring pliers
3. Install the wire harness (C)
4. Install the bracket (D) and the field coil ground terminal (E)

### 2. A/C Compressor Rotor Pulley - Install

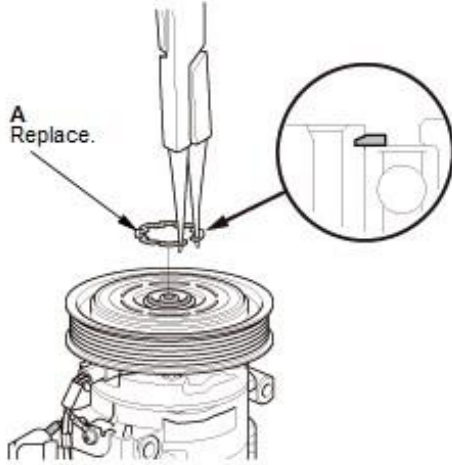


1. Install the rotor pulley (A).

NOTE: Be careful not to damage the rotor pulley or the A/C compressor.

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

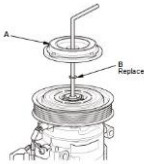
2. Install the snap ring (A) with the snap ring pliers.



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

### 3. A/C Compressor Pressure Plate - Install

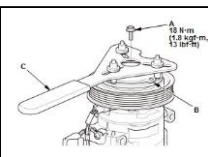
1. Install the pressure plate (A) and the shim(s) (B), taking care not to lose the shim(s).



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

#### NOTE:

1. The shims are available in three thicknesses:  
0.1 mm, 0.3 mm, and 0.5 mm.
2. When replacing the clutch set, place a trial stack of shims, 1mm total thickness, on the A/C compressor shaft. Install the pressure plate, and check its clearance. If the clearance is not with specification, add or subtract shims as needed.

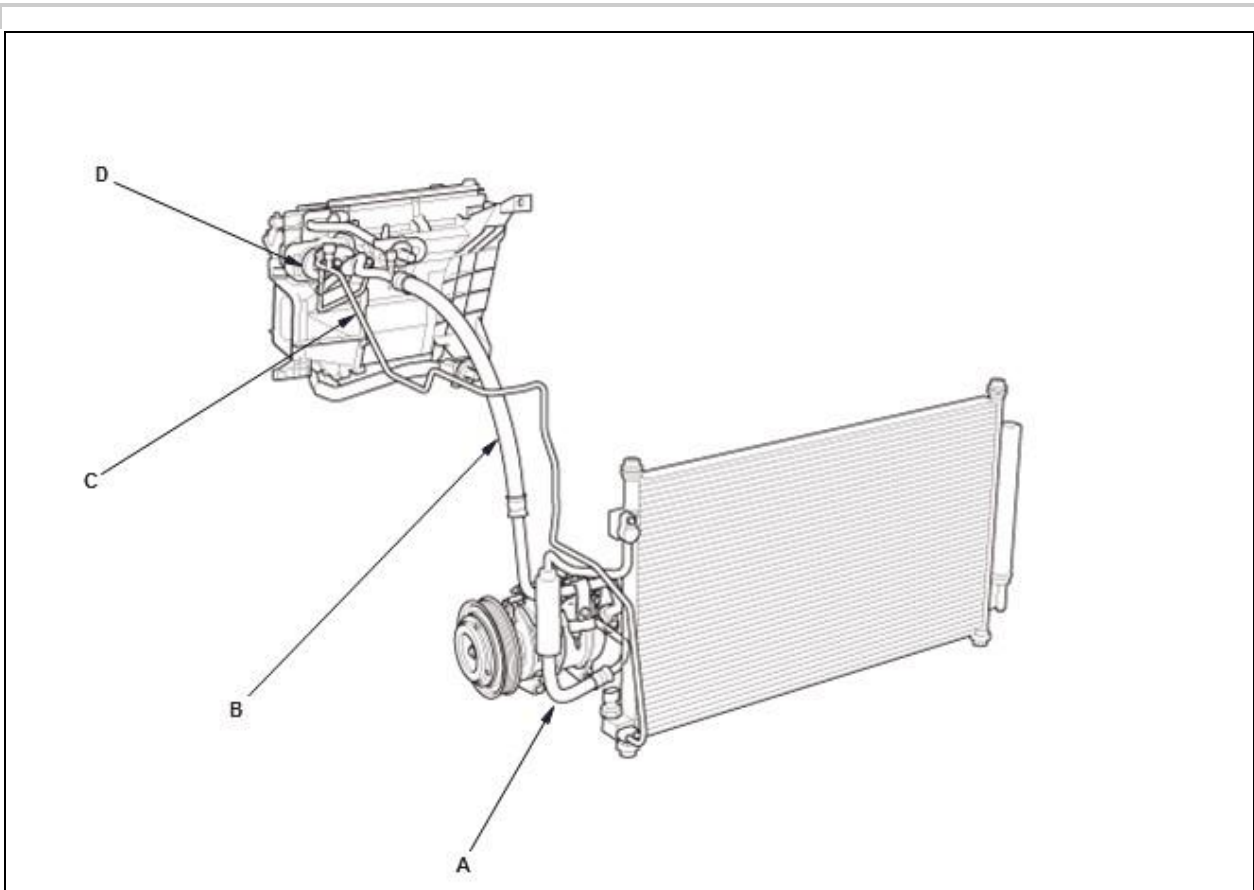


Courtesy of HONDA, U.S.A., INC.

2. Install the center bolt (A) while holding the pressure plate (B) with the A/C clutch holder (C). If the clutch needs adjustment, increase or decrease the number and thickness of shims as necessary, then reinstall the pressure plate, and recheck its clearance .

## INSPECTION/ADJUSTMENT > A/C SYSTEM CONTAMINATION INSPECTION (2013-18) > INSPECTION

### 1. A/C System Contamination - Inspect



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

2. Remove the discharge hose (A) from the A/C compressor. Then, swab inside the discharge hose and A/C compressor discharge port with a cotton swab.
  1. If no metal, dark gray or black residue is found, no contamination is present from the A/C compressor. Replace only the A/C compressor.
  2. If metal, dark gray or black residue is found, go to step 3.
3. Remove the suction hose (B) from the A/C compressor. Then, swab inside the suction hose and A/C compressor suction port with a cotton swab.
  1. If no metal, dark gray or black residue is found, go to step 4.
  2. If metal, dark gray or black residue is found, replace the components listed in Repair Procedure C. 4. Remove the receiver line (C) from the A/C condenser outlet. Then, swab inside the receiver line and A/C condenser outlet with a cotton swab.
    1. If no metal, dark gray or black residue is found, go to step 6.
    2. If metal, dark gray or black residue is found, go to step 5.
5. Remove the A/C lines (D) from the expansion valve. Then, swab inside the expansion valve and the A/C lines with a cotton swab.
  1. If no metal, dark gray or black residue is found, replace the components listed in Repair Procedure B.
  2. If metal, dark gray or black residue is found, replace the components listed in Repair Procedure C. 6. Remove the discharge hose from the A/C condenser inlet. Then, swab inside the discharge hose and A/C condenser inlet with a cotton swab.

1. If no metal, dark gray or black residue is found, replace the components listed in Repair Procedure A.

2. If metal, dark gray or black residue is found, replace the components listed in Repair Procedure B.

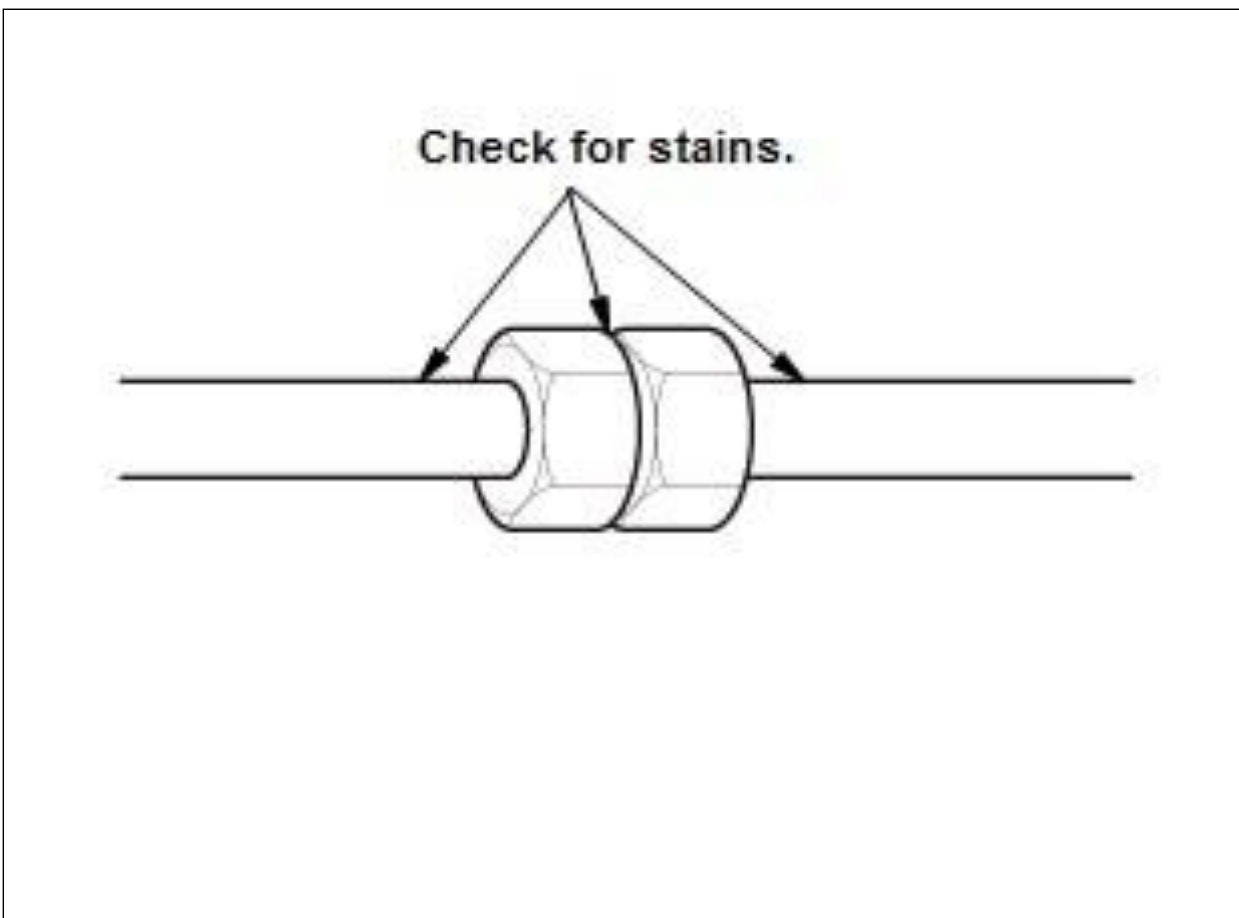
**Repair Procedure list**

Repair Procedure	Replace Components
A	<ol style="list-style-type: none"><li>1. A/C compressor</li><li>2. Discharge hose</li><li>3. Receiver/Dryer</li><li>4. O-rings from removed components</li></ol>
B	<ol style="list-style-type: none"><li>1. A/C compressor</li><li>2. Discharge hose</li><li>3. Receiver line and A/C lines</li><li>4. A/C condenser</li><li>5. Receiver/Dryer</li><li>6. O-rings from removed components</li></ol>
C	<ol style="list-style-type: none"><li>1. A/C compressor</li><li>2. All A/C hoses and lines</li><li>3. A/C condenser</li><li>4. Receiver/Dryer</li><li>5. Expansion valve</li><li>6. Evaporator</li><li>7. O-rings from removed components</li></ol>

**INSPECTION/ADJUSTMENT > A/C SYSTEM INSPECTION (2013-18) > INSPECTION**

1. A/C System - Inspect

Fig 1: Inspecting A/C Lines And Fittings



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

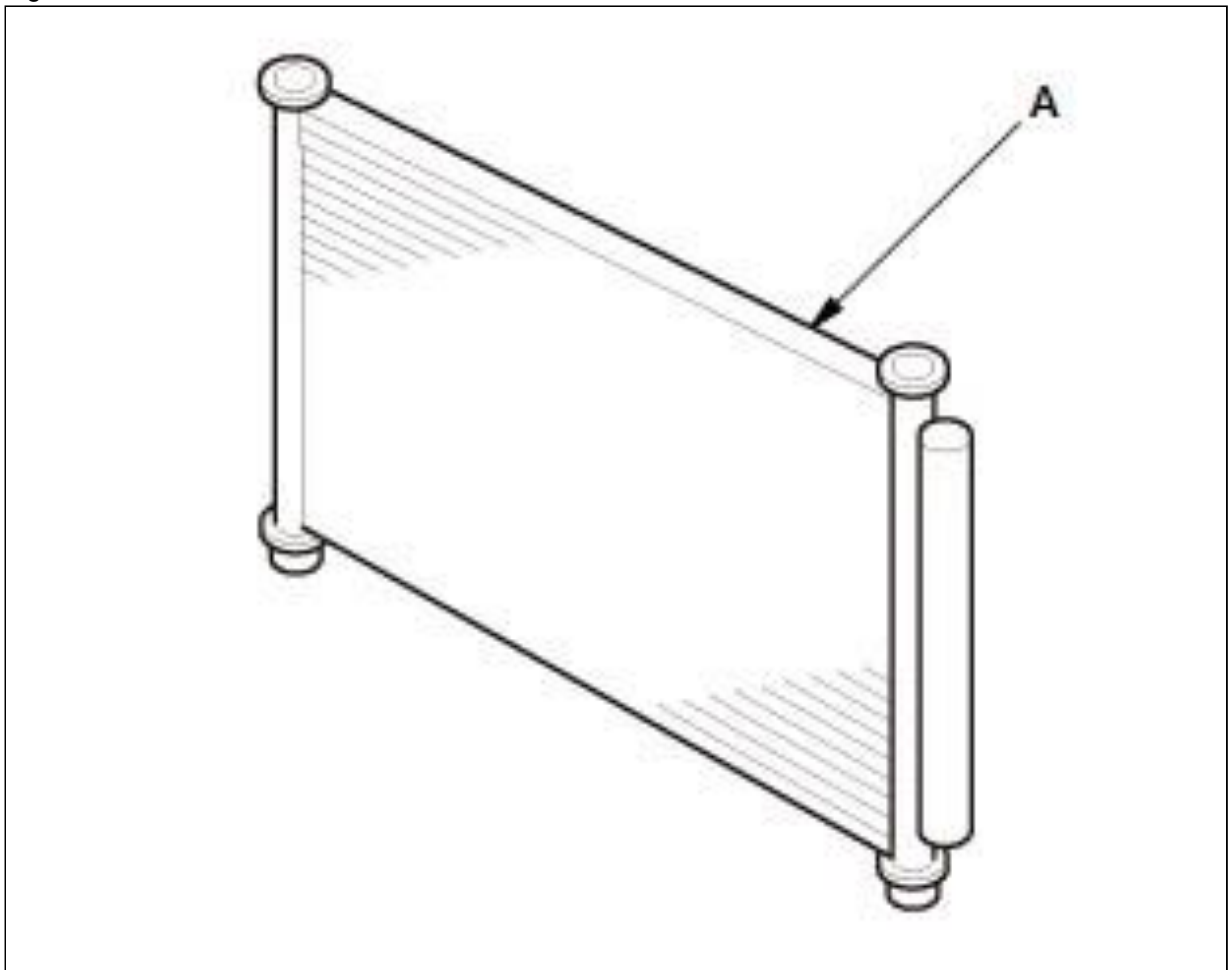
NOTE: For A/C system noise, go to the A/C System Noise Check .

Before troubleshooting any problem with the air conditioning system, other than noise, do the following:

1. 1. Check that the HVAC air intake plenum at the base of the windshield is not blocked by leaves or debris. Remove any blockage.
2. 2. Check for kinks or sharp bends in the A/C lines and hoses (which can greatly reduce system performance). If any of the A/C lines and hoses are kinked or bent, replace them .
3. 3. Inspect the A/C components, the pressure lines, and the hoses for stains that may indicate a refrigerant or an A/C compressor oil leak. If there is any indication of leaks, do the Refrigerant Leak Check to confirm the leak(s).
4. 4. Inspect the drive belt for physical damage or signs of slippage - Refer to: Drive Belt Inspection (2013-15), or Drive Belt Inspection (2016-18) . If the drive belt is damaged or shows signs of slippage, replace the drive belt - Refer to: Drive Belt Removal and Installation (2013-15), or Drive Belt Removal and Installation (2016-18) , and recheck.
5. 5. Check the A/C condenser (A) for material clogging the fins (dirt, insects, etc.). If the A/C condenser is clogged or restricted, carefully clean any material from the A/C condenser fins with water and detergent. If deeper cleaning is required, clean the fins with HondaBrite cleaner (P/N 08732-0020B). Do not perform pressure test until the A/C condenser is completely dry.

6. 6. Check the A/C condenser for fin damage (bent fins). If any of the A/C condenser fins are bent, try to comb them straight. Do the Refrigerant Leak Check to check for leaks if there is visible damage to the A/C condenser. If the A/C condenser is leaking or the fins cannot be straightened, replace the A/C condenser - Refer to: A/C Condenser Removal and Installation (2013-15), or A/C Condenser Removal and Installation (2016-18) .
7. 7. Check the dust and pollen filter. If the dust and pollen filter is clogged or restricted, replace the dust and pollen filter .
8. 8. Check for climate control DTCs using the Self-Diagnostic Function. If there are any DTCs, go to the appropriate troubleshooting.
9. 9. Start the engine, turn the A/C system on, and allow it to run for a few minutes and reach stable operation.
10. 10. Check that the A/C operates at each position of the fan control button (except OFF). If the A/C does not operate at all fan control button positions, refer to the symptom troubleshooting.

Fig 2: A/C Condensor

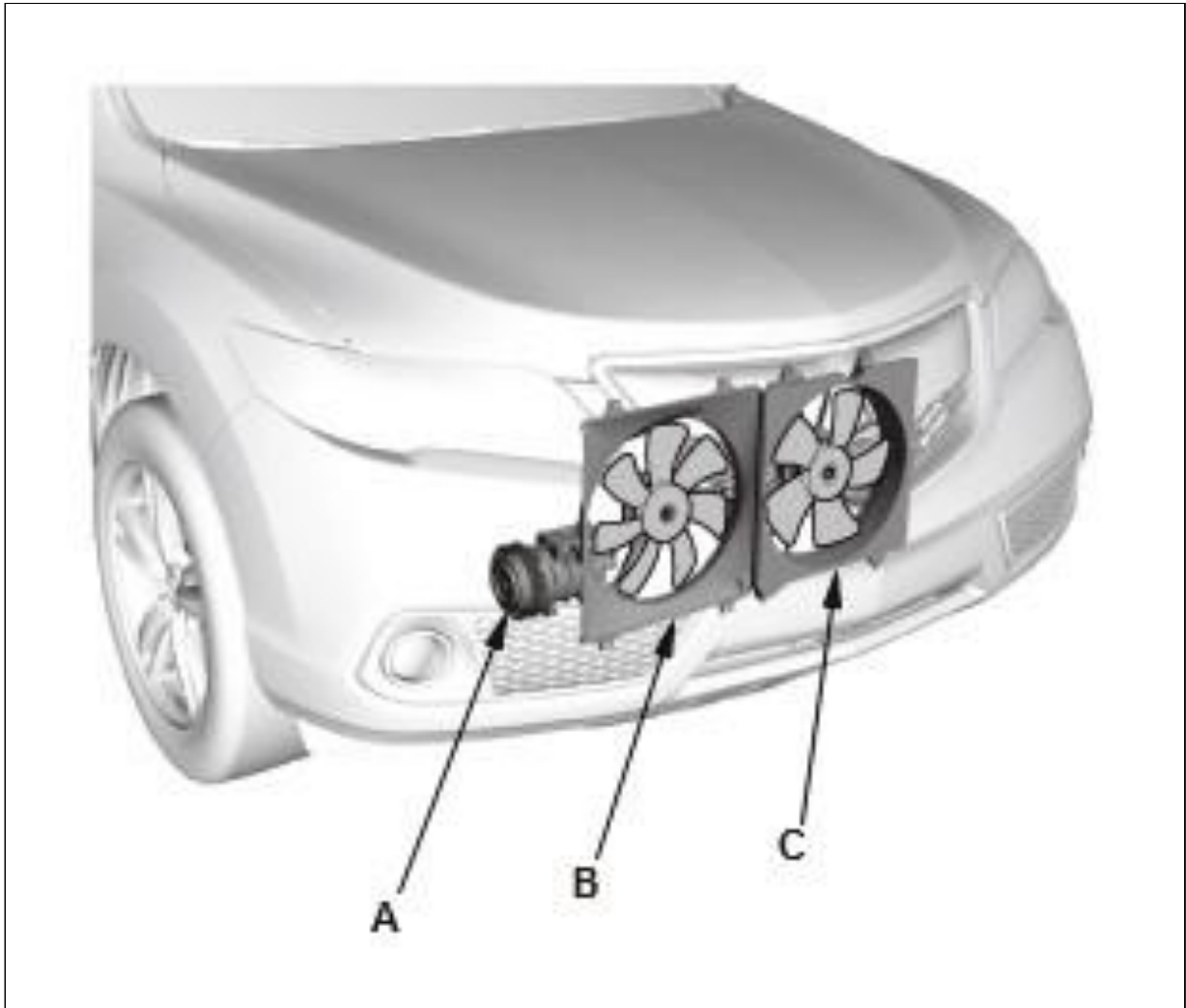


Courtesy of HONDA, U.S.A., INC.

11. 11. Check that the A/C compressor clutch pressure plate (A) is rotating at the same speed as the pulley and is engaging. If the A/C compressor clutch does not engage, go to the A/C Compressor Clutch Circuit Troubleshooting.

12. 12. Check that the A/C condenser fan (B) and the radiator fan (C) operate when the A/C compressor clutch is engaged and blow air toward the engine compartment. If one or both of the fans is not working properly, refer to the symptom troubleshooting.

Fig 3: A/C Compressor Clutch Pressure Plate And Fan Assembly

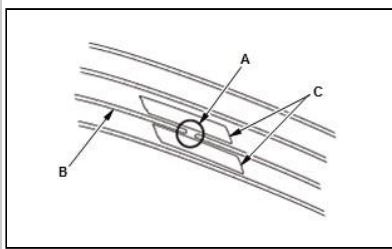


Courtesy of HONDA, U.S.A., INC.

13. 13. Check that the engine idle speed is correctly maintained when the A/C is switched on and off, (A/C compressor clutch is engaged and disengaged). If the idle speed increases more than 100 rpm when the A/C compressor engages, confirm that the A/C compressor is the cause of the idle speed increase. Replace the A/C compressor , if necessary.

## INSPECTION/ADJUSTMENT > REAR WINDOW DEFOGGER WIRE REPAIR (2013-18) > RECONDITIONING

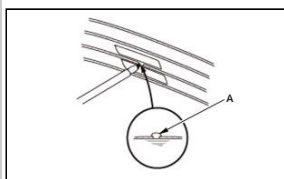
### 1. Defogger Wire - Repair



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

**NOTE:** To make an effective repair, the broken section must be no longer than 25 mm (1.0 in).

1. Lightly rub the area around the broken section (A) with fine steelwool, then clean it with isopropyl alcohol
2. Carefully mask above and below the broken area of the rearwindow defogger wire (B) with cellophane tapes (C).



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

3. Using a small brush, apply a heavy coat of silver conductive paint (commercially available) (A) extending about 3.0 mm (0.1 in) on both sides of the break. Allow 25 minutes to dry
4. Do the function test to confirm that the wire is repaired
5. Apply a second coat of paint in the same way. Let it dry 3 hours before removing the tape.

## DTC TROUBLESHOOTING INDEX > CLIMATE CONTROL SYSTEM DTC TROUBLESHOOTING INDEX (2013-15)

DTC	Detection Item or Symptom	ECU	DTC Type
U1280	Communication bus line error (BUS-OFF)	Climate control unit	Loss of communication
U128D	Lost communication with gauge control module (climate control unit)	Climate control unit	Loss of communication
B121A	An open in the mode control motor circuit	Climate control unit	Signal error
B121B	A short in the mode control motor circuit	Climate control unit	Signal error
B1209	Climate control unit lost communication with MICU (FOB ID message)	Climate control unit	Loss of communication
B1220	A short in the recirculation control motor circuit	Climate control unit	Signal error



B1225	An open in the in-car temperature sensor circuit	Climate control unit	Signal error
B1226	A short in the in-car temperature sensor circuit	Climate control unit	Signal error
B1227	An open in the outside air temperature sensor circuit	Climate control unit	Signal error
B1228	A short in the outside air temperature sensor circuit	Climate control unit	Signal error
B1229	An open in the sunlight sensor circuit	Climate control unit	Signal error
B1230	A short in the sunlight sensor circuit	Climate control unit	Signal error
B1231	An open in the evaporator temperature sensor circuit	Climate control unit	Signal error
B1232	A short in the evaporator temperature sensor circuit	Climate control unit	Signal error
B1233	An open in the air mix control motor circuit (driver's)	Climate control unit	Signal error
B1234	A short in the air mix control motor circuit (driver's)	Climate control unit	Signal error
B1235	A problem in the air mix control motor circuit, linkage, door, or motor (driver's)	Climate control unit	Signal error
B1236	An open in the passenger's air mix control motor circuit	Climate control unit	Signal error
B1237	A short in the passenger's air mix control motor circuit	Climate control unit	Signal error
B1238	A problem in the passenger's air mix control motor circuit, linkage, door, or motor	Climate control unit	Signal error
B1240	A problem in the mode control motor circuit, linkage, door, or motor	Climate control unit	Signal error
B1241	A problem in the blower motor circuit	Climate control unit	Signal error
B2983	A problem in the recirculation control motor circuit, linkage, door, or motor	Climate control unit	Signal error
B2986	An open in the recirculation control motor circuit	Climate control unit	Signal error

**DTC TROUBLESHOOTING INDEX > CLIMATE CONTROL SYSTEM DTC TROUBLESHOOTING INDEX (2016-18)**

<b>DTC</b>	<b>Detection Item or Symptom</b>	<b>ECU</b>	<b>DTC Type</b>
B1209	Climate control unit lost communication with MICU (FOB ID message)	Climate control unit	Loss of communication
B121A	An open in the mode control motor circuit	Climate control unit	Signal error
B121B	A short in the mode control motor circuit	Climate control unit	Signal error
B1220	A short in the recirculation control motor circuit	Climate control unit	Signal error
B1225	An open in the in-car temperature sensor circuit	Climate control unit	Signal error
B1226	A short in the in-car temperature sensor circuit	Climate control unit	Signal error
B1227	An open in the outside air temperature sensor circuit	Climate control unit	Signal error
B1228	A short in the outside air temperature sensor circuit	Climate control unit	Signal error
B1229	An open in the sunlight sensor circuit	Climate control unit	Signal error
B1230	A short in the sunlight sensor circuit	Climate control unit	Signal error
B1231	An open in the evaporator temperature sensor circuit	Climate control unit	Signal error
B1232	A short in the evaporator temperature sensor circuit	Climate control unit	Signal error
B1233	An open in the air mix control motor circuit (driver's)	Climate control unit	Signal error
B1234	A short in the air mix control motor circuit (driver's)	Climate control unit	Signal error
B1235	A problem in the air mix control motor circuit, linkage, door, or motor (driver's)	Climate control unit	Signal error
B1236	An open in the passenger's air mix control motor circuit	Climate control unit	Signal error

B1237	A short in the passenger's air mix control motor circuit	Climate control unit	Signal error
B1238	A problem in the passenger's air mix control motor circuit, linkage, door, or motor	Climate control unit	Signal error
B1240	A problem in the mode control motor circuit, linkage, door, or motor	Climate control unit	Signal error
B1241	A problem in the blower motor circuit	Climate control unit	Signal error
B2983	A problem in the recirculation control motor circuit, linkage, door, or motor	Climate control unit	Signal error
B2986	An open in the recirculation control motor circuit	Climate control unit	Signal error
U1280	Communication bus line error (BUS-OFF)	Climate control unit	Loss of communication
U1281	Lost communication with MICU (climate control unit)	Climate control unit	Loss of communication
U128D	Lost communication with gauge control module (climate control unit)	Climate control unit	Loss of communication

### **SYMPTOM TROUBLESHOOTING > BLOWER FAN RUNS SLOWER THAN EXPECTED IN COLD WEATHER (WHEN IN AUTO MODE) (2013-13)**

NOTE: It is normal for the blower fan to run slowly until the coolant temperature rises when in AUTO mode

#### Diagnostic Procedure

Probable cause: Engine coolant temperature (ECT) circuit malfunction  
 Troubleshooting the ECT sensor circuit:

- ECT sensor 2 circuit low voltage
- ECT sensor 2 circuit high voltage

#### Also Check for

- Climate control DTCs
- PGM-FI DTCs - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15)
- Blower motor operation

## SYMPTOM TROUBLESHOOTING > BLOWER FAN RUNS SLOWER THAN EXPECTED IN COLD WEATHER (WHEN IN AUTO MODE) (2013-18)

NOTE: It is normal for the blower fan to run slowly until the coolant temperature rises when in AUTO mode

### Diagnostic Procedure

Probable cause: Engine coolant temperature (ECT) circuit malfunction Troubleshooting the ECT sensor circuit:

- ECT sensor 2 circuit low voltage - Refer to: DTC Troubleshooting: P2184 (2013-15), or DTC Troubleshooting: P2184 (2016-18)
- ECT sensor 2 circuit high voltage - Refer to: DTC Troubleshooting: P2185 (2013-15), or DTC Troubleshooting: P2185 (2016-18)

### Also Check for

- Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18)
- PGM-FI DTCs - 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) •

Blower motor operation

## SYMPTOM TROUBLESHOOTING > CLIMATE CONTROL SYSTEM SYMPTOM TROUBLESHOOTING INDEX (2013-18)

Symptom	Diagnostic Procedure	Also Check for
The blower and the heater controls and the A/C system do not work	Probable cause: Climate control unit malfunction Do the climate control power and ground circuit troubleshooting	<ul style="list-style-type: none"> <li>• Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (201315), or Climate Control System DTC Troubleshooting Index (2016-18)</li> <li>• Blown fuse No. B22 (7.5 A) in the under-dash fuse/relay box</li> <li>• Poor ground at G503</li> <li>• Poor or loose connections at the terminals</li> </ul>

<p>The A/C compressor clutch and the A/C condenser/radiator fans are inoperative, but the blower and heater controls work</p>	<p>Probable cause: A/C pressure sensor circuit malfunction or evaporator temperature sensor circuit malfunction Troubleshoot the A/C pressure sensor circuit:</p> <ul style="list-style-type: none"> <li>• A/C pressure sensor circuit low voltage - Refer to: DTC Troubleshooting: P0532 (2013-15), or DTC Troubleshooting: P0532 (2016-18)</li> <li>• A/C pressure sensor circuit high voltage - Refer to: DTC Troubleshooting: P0533 (2013-15), or DTC Troubleshooting: P0533 (2016-18)</li> </ul> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>NOTE: The A/C pressure sensor circuit can malfunction without setting a DTC</p> </div>	<ul style="list-style-type: none"> <li>• Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (201315), or Climate Control System DTC Troubleshooting Index (2016-18)</li> <li>• PGM-FI DTCs - 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)</li> <li>• A/C signal circuit troubleshooting - Refer to: A/C Signal Circuit Troubleshooting(Climate Control) (2013-18), or A/C Signal Circuit Troubleshooting(Idle Control System) (2013-15), or A/C Signal Circuit Troubleshooting (2016-18)</li> <li>• Abnormal A/C system pressures - Refer to: A/C System Test (2013-15), or A/C System Test (2016-18)</li> <li>• Faulty evaporator temperature sensor</li> <li>• Poor or loose connections at the terminals</li> </ul>
<p>The A/C compressor clutch does not engage, but the A/C condenser/radiator fans operate, and the blower and heater controls work</p>	<p>Probable cause: No power to the A/C compressor clutch Do the A/C compressor clutch circuit troubleshooting - Refer to: A/C Compressor Clutch Circuit Troubleshooting (2013-15), or A/C Compressor Clutch Circuit Troubleshooting (2016-18)</p>	<ul style="list-style-type: none"> <li>• Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (201315), or Climate Control System DTC Troubleshooting Index (2016-18)</li> <li>• Blown fuse No. A21 (7.5 A) in the under-hood fuse/relay box</li> </ul>
		<ul style="list-style-type: none"> <li>• Poor or loose connections at the terminals</li> </ul>

The A/C condenser/radiator fans do not run at low speed with the A/C on, but the blower and heater controls work normally

Probable cause: A/C condenser/radiator fan low speed circuit malfunction  
Do the radiator and A/C condenser fan low speed circuit troubleshooting - Refer to: A/C Condenser Fan High Speed Circuit Troubleshooting (2013-15), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2013-15), or A/C Condenser Fan High Speed Circuit Troubleshooting (2016-18), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2016-18)

- Climate control DTCs - Refer to: How to Troubleshoot the Climate Control System (2013-15), or How to Troubleshoot the Body Electrical (2013-15), or How to Troubleshoot the Body Electrical (2016-18), or How to Troubleshoot the Climate Control System(Without navigation) (2016-18), or How to Troubleshoot the Climate Control System(With navigation) (2016-18)
- PGM-FI DTCs - 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)
- Blown fuse No. A2-6 (30 A) in the under-hood fuse/relay box
- Poor ground at G301
- Poor or loose connections at the terminals

The A/C condenser/radiator fans do not run at high speed, but do run at low speed with the A/C on

Probable cause: Malfunction in the fan(s) high speed circuit  
Do the following troubleshooting as needed:

- A/C condenser fan high speed circuit troubleshooting  
- Refer to: A/C Condenser Fan High Speed Circuit Troubleshooting (2013-15), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2013-15), or A/C Condenser Fan High Speed Circuit Troubleshooting (2016-18), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2016-18)
- Radiator fan high speed circuit troubleshooting - Refer

- Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18)
- PGM-FI DTCs - 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)
- Blown fuse No. A2-8 (30 A) or No. A11 (7.5 A) in the under-hood fuse/relay box
  - Poor ground at G302
  - Poor or loose connections at the terminals

to: A/C Condenser Fan High Speed Circuit Troubleshooting (2013-15), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2013-15), or A/C Condenser Fan High Speed Circuit Troubleshooting (2016-18), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2016-18)

<p>The climate control display is inoperative</p>	<p>Probable cause: Communication problem between the climate control unit and the HVAC display unit (without navigation) or the audio-navigation switch panel (with navigation)</p> <ul style="list-style-type: none"> <li>• Do the HVAC display communication line circuit troubleshooting (without navigation)</li> <li>• Do the audio-HVAC subdisplay communication line circuit troubleshooting (with navigation)</li> </ul>	<ul style="list-style-type: none"> <li>• Blown fuse No. B22 (7.5 A) in the under-dash fuse/relay box</li> <li>• Poor ground at G506 (without navigation)</li> <li>• Faulty HVAC display unit (without navigation)</li> <li>• Faulty audio-navigation switch panel (with navigation)</li> <li>• Poor or loose connections at the terminals</li> </ul>
Symptom	Diagnostic Procedure	Also Check for
<p>Blower fan runs slower than expected in cold weather (when in AUTO mode)</p> <div data-bbox="168 978 483 1436" style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p>NOTE: It is normal for the blower fan to run slowly until the coolant temperature rises when in AUTO mode</p> </div>	<p>Probable cause: Engine coolant temperature (ECT) circuit malfunction</p> <p>Troubleshooting the ECT sensor circuit:</p> <ul style="list-style-type: none"> <li>• ECT sensor 2 circuit low voltage Refer to: DTC Troubleshooting: P2184 (2013-15), or DTC Troubleshooting: P2184 (2016-18)</li> <li>• ECT sensor 2 circuit high voltage - Refer to: DTC Troubleshooting: P2185 (2013-15), or DTC Troubleshooting: P2185 (2016-18)</li> </ul>	<ul style="list-style-type: none"> <li>• Climate control DTCs Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18)</li> <li>• PGM-FI DTCs - 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)</li> <li>• Blower motor operation</li> </ul>



<p>The A/C compressor clutch cycles rapidly on and off</p>	<p>Probable cause:</p> <ul style="list-style-type: none"> <li>• A/C system is overcharged (Excessive pressure on high side of system causing pressure sensor to turn A/C compressor off)</li> <li>• Radiator and/or A/C condenser fan inoperative</li> <li>• Low idle speed</li> </ul>	<ul style="list-style-type: none"> <li>• Climate control DTCs Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18)</li> <li>• Faulty A/C pressure sensor</li> </ul>
<p>Driver's and passenger's side vent temperatures vary by more than 20 °F (11 °C)</p>	<p>Probable causes: The recirculation control door or the air mix doors are malfunctioning</p> <p>Do the following troubleshooting:</p> <ul style="list-style-type: none"> <li>• Recirculation control motor test</li> <li>• Driver's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or Passenger's Air Mix Control Motor Test (2013-18)</li> <li>• Passenger's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or Passenger's Air Mix Control Motor Test (2013-18)</li> </ul>	<ul style="list-style-type: none"> <li>• Climate control DTCs Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18)</li> <li>• Poor or loose connections at the terminals</li> </ul>
<p>HDS does not communicate with the climate control unit or the vehicle</p>	<p>Troubleshoot the DLC circuit - Refer to: DLC Circuit Troubleshooting (2013-15), or DLC Circuit Troubleshooting (2016-18)</p>	

<p>Insufficient heating</p>	<ul style="list-style-type: none"> <li>• 1. Check the coolant level</li> <li>• 2. Check the radiator cap</li> <li>• 3. Check the engine coolant temperature (ECT) during normal operation with the HDS • 4. Check the heater core inlet hose temperature: <ul style="list-style-type: none"> <li>• <ul style="list-style-type: none"> <li>◦ If it is COLD, check for restrictions in the hose, a damaged or leaking thermostat, or a damaged or leaking water pump</li> <li>◦ If it is HOT, check for restrictions in the heater</li> </ul> </li> </ul> </li> </ul> <p>core. Back flush or replace the heater core • 5. Do the driver's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or Passenger's Air Mix Control Motor Test (2013-18) and the passenger's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or Passenger's Air Mix Control Motor Test (2013-18) • 6. Check the blower motor unit for obstructions • 7. Check for air leaks around the ducts and vents</p>	<ul style="list-style-type: none"> <li>• Climate control DTCs Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18)</li> <li>• Damaged cylinder head gasket</li> </ul>
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**SYMPTOM TROUBLESHOOTING > DRIVER'S AND PASSENGER'S SIDE VENT TEMPERATURES VARY BY MORE THAN 20°F (11°C) (2013-13)**

Diagnostic Procedure

Probable causes: The recirculation control door or the air mix doors are malfunctioning Do the following troubleshooting:

- Recirculation control motor test
- Driver's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or Passenger's Air Mix Control Motor Test (2013-18)
- Passenger's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or

## Passenger's Air Mix Control Motor Test (2013-18)

Also Check for

- Climate control DTCs
- Poor or loose connections at the terminals

## **SYMPTOM TROUBLESHOOTING > DRIVER'S AND PASSENGER'S SIDE VENT TEMPERATURES VARY BY MORE THAN 20°F (11°C) (2013-18)**

### **Diagnostic Procedure**

Probable causes: The recirculation control door or the air mix doors are malfunctioning Do the following troubleshooting:

- Recirculation control motor test
- Driver's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or Passenger's Air Mix Control Motor Test (2013-18)
- Passenger's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or Passenger's Air Mix Control Motor Test (2013-18)

### **Also Check for**

- Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18)
- Poor or loose connections at the terminals

## **SYMPTOM TROUBLESHOOTING > HDS DOES NOT COMMUNICATE WITH THE CLIMATE CONTROL UNIT OR THE VEHICLE (2013-13)**

Diagnostic Procedure

- 1.

## **SYMPTOM TROUBLESHOOTING > HDS DOES NOT COMMUNICATE WITH THE CLIMATE CONTROL UNIT OR THE VEHICLE (2013-18)**

### **Diagnostic Procedure**

- 1.  
Troubleshoot the DLC circuit - Refer to: DLC Circuit Troubleshooting (2013-15), or DLC Circuit Troubleshooting (2016-18)

## **SYMPTOM TROUBLESHOOTING > INSUFFICIENT HEATING (2013-13)**

Diagnostic Procedure

- 1.  
Check the coolant level
- 2.  
Check the radiator cap
- 3.  
Check the engine coolant temperature (ECT) during normal operation with the HDS 4.
- Check the heater core inlet hose temperature:
  - If it is COLD, check for restrictions in the hose, a damaged or leaking thermostat, or a damaged or leaking water pump
  - If it is HOT, check for restrictions in the heater core. Back flush or • 5.
- Do ◦ the driver's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or Passenger's Air Mix Control Motor Test (2013-18) and the passenger's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or Passenger's Air Mix Control Motor Test (2013-18) 6.
- Check the blower motor unit for obstructions 7.  
Check for air leaks around the ducts and vents

•  
Also Check for

- Climate control DTCs

- Damaged cylinder head gasket

## **SYMPTOM TROUBLESHOOTING > INSUFFICIENT HEATING (2013-18)**

### **Diagnostic Procedure**

- 1.  
Check the coolant level
- 2.  
Check the radiator cap
- 3.  
Check the engine coolant temperature (ECT) during normal operation with the HDS 4.
- Check the heater core inlet hose temperature:
  - If it is COLD, check for restrictions in the hose, a damaged or leaking thermostat, or a damaged or leaking water pump
  - If it is HOT, check for restrictions in the heater core. Back flush or replace the heater core • 5.
- Do the driver's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or Passenger's Air Mix Control Motor Test (2013-18) and the passenger's air mix control motor test - Refer to: Driver's Air Mix Control Motor Test (2013-18), or Passenger's Air Mix Control Motor Test (2013-18) 6.
- Check the blower motor unit for obstructions 7.  
Check for air leaks around the ducts and vents

### **Also Check for**

- Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18) Damaged
- cylinder head gasket

## **SYMPTOM TROUBLESHOOTING > THE A/C COMPRESSOR CLUTCH AND THE A/C CONDENSER/RADIATOR FANS ARE INOPERATIVE, BUT THE BLOWER AND HEATER CONTROLS WORK (2013-13)**

### **Diagnostic Procedure**

Probable cause: A/C pressure sensor circuit malfunction or evaporator temperature sensor circuit malfunction

Troubleshoot the A/C pressure sensor circuit:

- A/C pressure sensor circuit low voltage
- A/C pressure sensor circuit high voltage

NOTE: The A/C pressure sensor circuit can malfunction without setting a DTC

### **Also Check for**

Climate control DTCs

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- PGM-FI DTCs - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15)
- A/C signal circuit troubleshooting - Refer to: A/C Signal Circuit Troubleshooting(Climate Control) (2013-18), or A/C Signal Circuit Troubleshooting(Idle Control System) (2013-15)
- Abnormal A/C system pressures
- Faulty evaporator temperature sensor
- Poor or loose connections at the terminals

## **SYMPTOM TROUBLESHOOTING > THE A/C COMPRESSOR CLUTCH AND THE A/C CONDENSER/RADIATOR FANS ARE INOPERATIVE, BUT THE BLOWER AND HEATER CONTROLS WORK (2013-18)**

### **Diagnostic Procedure**

Probable cause: A/C pressure sensor circuit malfunction or evaporator temperature sensor circuit malfunction  
 Troubleshoot the A/C pressure sensor circuit:

- A/C pressure sensor circuit low voltage - Refer to: DTC Troubleshooting: P0532 (2013-15), or DTC Troubleshooting: P0532 (2016-18)
- A/C pressure sensor circuit high voltage - Refer to: DTC Troubleshooting: P0533 (2013-15), or DTC Troubleshooting: P0533 (2016-18)

NOTE: The A/C pressure sensor circuit can malfunction without setting a DTC

### **Also Check for**

- Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18)
- PGM-FI DTCs - 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)
- A/C signal circuit troubleshooting - Refer to: A/C Signal Circuit Troubleshooting(Climate Control) (2013-18), or A/C Signal Circuit Troubleshooting(Idle Control System) (2013-15), or A/C Signal Circuit Troubleshooting (2016-18)
- Abnormal A/C system pressures - Refer to: A/C System Test (2013-15), or A/C System Test (2016-18)
- Faulty evaporator temperature sensor
- Poor or loose connections at the terminals
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## **SYMPTOM TROUBLESHOOTING > THE A/C COMPRESSOR CLUTCH CYCLES RAPIDLY ON AND OFF (2013-13)**

### **Diagnostic Procedure**

Probable cause:

- A/C system is overcharged (Excessive pressure on high side of system causing pressure sensor to turn A/C compressor off)
- Radiator and/or A/C condenser fan inoperative
- Low idle speed

### **Also Check for**

- 
- Climate control DTCs
- Faulty A/C pressure sensor

## **SYMPTOM TROUBLESHOOTING > THE A/C COMPRESSOR CLUTCH CYCLES RAPIDLY ON AND OFF (2013-18)**

**Diagnostic Procedure** Probable cause:

- A/C system is overcharged (Excessive pressure on high side of system causing pressure sensor to turn A/C compressor off)
- Radiator and/or A/C condenser fan inoperative Low
- idle speed

### **Also Check for**

- Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18) Faulty
- A/C pressure sensor

## **SYMPTOM TROUBLESHOOTING > THE A/C COMPRESSOR CLUTCH DOES NOT ENGAGE, BUT THE A/C CONDENSER/RADIATOR FANS OPERATE, AND THE BLOWER AND HEATER CONTROLS WORK (2013-13)**

**Diagnostic Procedure**

Probable cause: No power to the A/C compressor clutch

Also Check for

- Climate control DTCs
- Blown fuse No. A21 (7.5 A) in the under-hood fuse/relay box
- Poor or loose connections at the terminals

## **SYMPTOM TROUBLESHOOTING > THE A/C COMPRESSOR CLUTCH DOES NOT ENGAGE, BUT THE A/C CONDENSER/RADIATOR FANS OPERATE, AND THE BLOWER AND HEATER CONTROLS WORK (2013-18)**

**The A/C compressor clutch does not engage, but the A/C condenser/radiator fans operate, and the blower and heater controls work Diagnostic Procedure**

Probable cause: No power to the A/C compressor clutch

Do the A/C compressor clutch circuit troubleshooting - Refer to: A/C Compressor Clutch Circuit Troubleshooting (2013-15), or A/C Compressor Clutch Circuit Troubleshooting (2016-18)

### **Also Check for**

- Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18)
- Blown fuse No. A21 (7.5 A) in the under-hood fuse/relay box
- Poor or loose connections at the terminals

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## **SYMPTOM TROUBLESHOOTING > THE A/C CONDENSER/RADIATOR FANS DO NOT RUN AT HIGH SPEED, BUT DO RUN AT LOW SPEED WITH THE A/C ON (2013)**

### **Diagnostic Procedure**

Probable cause: Malfunction in the fan(s) high speed circuit Do the following troubleshooting as needed:

- A/C Condenser / Radiator Fan High Speed Circuit Troubleshooting (2013-15)
- A/C Condenser / Radiator Fan High Speed Circuit Troubleshooting (2016-18)

### **Also Check for**

- Climate control DTCs
- PGM-FI DTCs - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15)
- Blown fuse No. A2-8 (30 A) or No. A11 (7.5 A) in the under-hood fuse/relay box
- Poor ground at G302
- Poor or loose connections at the terminals

## **SYMPTOM TROUBLESHOOTING > THE A/C CONDENSER/RADIATOR FANS DO NOT RUN AT HIGH SPEED, BUT DO RUN AT LOW SPEED WITH THE A/C ON (2013-18)**

### **Diagnostic Procedure**

Probable cause: Malfunction in the fan(s) high speed circuit Do the following troubleshooting as needed:

- A/C condenser fan high speed circuit troubleshooting - Refer to: A/C Condenser Fan High Speed Circuit Troubleshooting (2013-15), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2013-15), or A/C Condenser Fan High Speed Circuit Troubleshooting (2016-18), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2016-18)
- Radiator fan high speed circuit troubleshooting - Refer to: A/C Condenser Fan High Speed Circuit Troubleshooting (2013-15), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2013-15), or A/C Condenser Fan High Speed Circuit Troubleshooting (2016-18), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2016-18)

### **Also Check for**

- Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18)
- PGM-FI DTCs - 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)
- Blown fuse No. A2-8 (30 A) or No. A11 (7.5 A) in the under-hood fuse/relay box
- Poor ground at G302
- Poor or loose connections at the terminals



## **SYMPTOM TROUBLESHOOTING > THE A/C CONDENSER/RADIATOR FANS DO NOT RUN AT LOW SPEED WITH THE A/C ON, BUT THE BLOWER AND HEATER CONTROLS WORK NORMALLY (2013-13)**

### **Diagnostic Procedure**

Probable cause: A/C condenser/radiator fan low speed circuit malfunction

Also Check for

- Climate control DTCs - Refer to: How to Troubleshoot the Climate Control System (2013-15), or How to Troubleshoot the Body Electrical (2013-15)
- PGM-FI DTCs - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15)
- Blown fuse No. A2-6 (30 A) in the under-hood fuse/relay box
- Poor ground at G301
- Poor or loose connections at the terminals

## **SYMPTOM TROUBLESHOOTING > THE A/C CONDENSER/RADIATOR FANS DO NOT RUN AT LOW SPEED WITH THE A/C ON, BUT THE BLOWER AND HEATER CONTROLS WORK NORMALLY (2013-18)**

### **Diagnostic Procedure**

Probable cause: A/C condenser/radiator fan low speed circuit malfunction

Do the radiator and A/C condenser fan low speed circuit troubleshooting - Refer to: A/C Condenser Fan High Speed Circuit Troubleshooting (2013-15), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2013-15), or A/C Condenser Fan High Speed Circuit Troubleshooting (2016-18), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2016-18)

Also Check for

- Climate control DTCs - Refer to: How to Troubleshoot the Climate Control System (2013-15), or How to Troubleshoot the Body Electrical (2013-15), or How to Troubleshoot the Body Electrical (2016-18), or How to Troubleshoot the Climate Control System(Without navigation) (2016-18), or How to Troubleshoot the Climate Control System(With navigation) (2016-18)
- PGM-FI DTCs - 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)
- Blown fuse No. A2-6 (30 A) in the under-hood fuse/relay box
- Poor ground at G301
- Poor or loose connections at the terminals

## **SYMPTOM TROUBLESHOOTING > THE BLOWER AND THE HEATER CONTROLS AND THE A/C SYSTEM DO NOT WORK (2013-18)**

### **Diagnostic Procedure**

Probable cause: Climate control unit malfunction

Do the climate control power and ground circuit troubleshooting

Also Check for

- Climate control DTCs - Refer to: Climate Control System DTC Troubleshooting Index (2013-15), or Climate Control System DTC Troubleshooting Index (2016-18)

- Blown fuse No. B22 (7.5 A) in the under-dash fuse/relay box
- Poor ground at G503
- Poor or loose connections at the terminals

## **SYMPTOM TROUBLESHOOTING > THE CLIMATE CONTROL DISPLAY IS INOPERATIVE (2013-13)**

### **Diagnostic Procedure**

Probable cause: Communication problem between the climate control unit and the HVAC display unit (without navigation) or the audio-navigation switch panel (with navigation)

- Do the HVAC display communication line circuit troubleshooting (without navigation)
- Do the audio-HVAC subdisplay communication line circuit troubleshooting (with navigation)

### **Also Check for**

- Blown fuse No. B22 (7.5 A) in the under-dash fuse/relay box
- Poor ground at G506 (without navigation)
- Faulty HVAC display unit (without navigation)
- Faulty audio-navigation switch panel (with navigation)
- Poor or loose connections at the terminals

## **SYMPTOM TROUBLESHOOTING > THE CLIMATE CONTROL DISPLAY IS INOPERATIVE (2013-18)**

### **Diagnostic Procedure**

Probable cause: Communication problem between the climate control unit and the HVAC display unit (without navigation) or the audio-navigation switch panel (with navigation)

- Do the HVAC display communication line circuit troubleshooting (without navigation)
- Do the audio-HVAC subdisplay communication line circuit troubleshooting (with navigation)

### **Also Check for**

- Blown fuse No. B22 (7.5 A) in the under-dash fuse/relay box
- Poor ground at G506 (without navigation)
- Faulty HVAC display unit (without navigation)
- Faulty audio-navigation switch panel (with navigation)
- Poor or loose connections at the terminals

## **TROUBLESHOOTING > A/C COMPRESSOR CLUTCH CIRCUIT TROUBLESHOOTING (2013-15)**

### **NOTE:**

- It is normal for the A/C compressor to turn off under certain conditions, such as low idle, high engine coolant temperature, or hard acceleration.

- Do not use this troubleshooting procedure if the fans are also inoperative with the A/C on. Refer to the symptom troubleshooting index .
- Before doing symptom troubleshooting, check for PGM-FI DTCs - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15) .

1. Fuse check:

Check the following fuse.

Fuse	No. A21 (7.5 A)
Location	Under-hood fuse/relay box

Is the fuse OK?

**YES**

Go to step 2.

**NO**

Replace the fuse, and recheck. If the fuse blows again, repair a short in the No. A21 (7.5 A) fuse circuit.

2. A/C pressure threshold check: Connect the HDS to the DLC.

- 2. Start the engine.
- 3. Set the A/C button and the fan control button to ON.
- 4. Using the HDS, check the under following conditions:

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
ENGINE SPEED	600-700	rpm		
ECT SENSOR 2	80-100	°C		
	176-212	°F		
TP SENSOR	About 0.5	V		

- 5. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
A/C PRESSURE SENSOR	196-3, 138	kPa		
	2.00-32.00	kgf/cm <sup>2</sup>		
	28.4-455.1	psi		

Do the current condition(s) match the threshold?

**YES**

Go to step 3.

**NO**

Go to the A/C system test .

3. Climate control system check:

Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
A/C SWITCH	ON			
Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
A/C CLUTCH	ON			

Do the current condition(s) match the threshold?

**YES**

Go to step 4.

**NO**

A/C SWITCH is OFF, go to the A/C signal circuit troubleshooting - Refer to: A/C Signal Circuit Troubleshooting(Climate Control) (2013-18), or A/C Signal Circuit Troubleshooting(Idle Control System) (2013-15) .

**NO**

A/C SWITCH is ON and A/C CLUTCH is OFF, update the PCM if it does not have the latest software, or substitute a known-good PCM , and recheck.

4. A/C compressor clutch relay check:

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

- 2. Remove the A/C compressor clutch relay from the under-hood fuse/relay box, and test it . Is the relay OK?

**YES**

Go to step 5.

**NO**

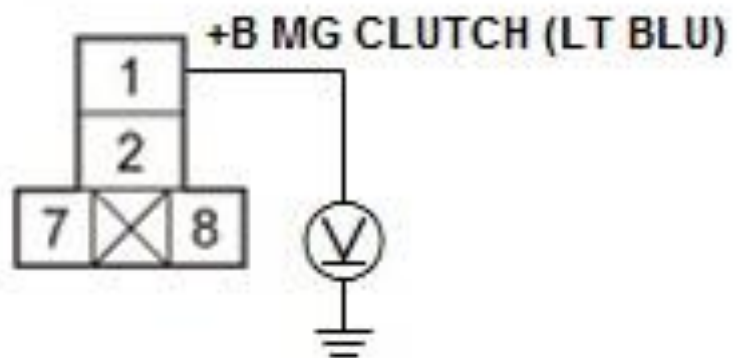
Replace the A/C compressor clutch relay.

5. Open wire check (+B MG CLUTCH line):

Measure the voltage between test points 1 and 2.

Test condition	OFF mode
	A/C compressor clutch relay: disconnected
Test circuit	+B MG CLUTCH
Test point 1	A/C compressor clutch relay 4P socket No. 1 (LT BLU)
Test point 2	Body ground

## A/C COMPRESSOR CLUTCH RELAY 4P SOCKET



Terminal side of female terminals

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

Is there battery voltage?

**YES**

The +B MG CLUTCH wire is OK. Go to step 6.

**NO**

An open in the +B MG CLUTCH wire. Replace the under-hood fuse/relay box .

6. Determine possible failure area (A/C compressor clutch relay switch side circuit, A/C compressor clutch relay coil side circuit):

Connect terminals A and B with a jumper wire.

Terminal A	A/C compressor clutch relay 4P socket No. 1 (LT BLU)
Terminal B	A/C compressor clutch relay 4P socket No. 2 (LT GRN)

## A/C COMPRESSOR CLUTCH RELAY 4P SOCKET



Terminal side of female terminals

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

Does the A/C compressor clutch click?

**YES**

Go to step 7.

**NO**

Go to step 9.

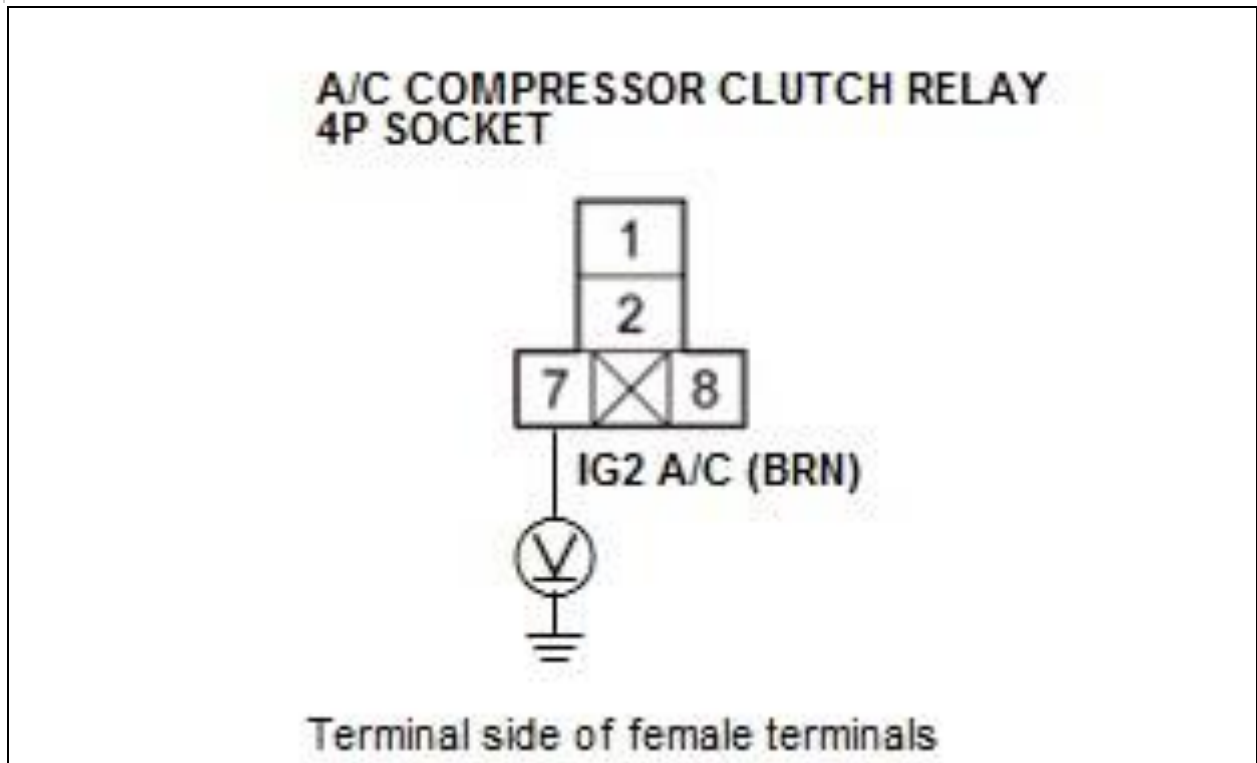
7. Open wire check (IG2 A/C line):

Disconnect the jumper wire.

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

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

Test condition	ON mode
	A/C compressor clutch relay: disconnected
Test circuit	IG2 A/C
Test point 1	A/C compressor clutch relay 4P socket No. 7 (BRN)
Test point 2	Body ground



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

Is there battery voltage?

**YES**

The IG2 A/C wire is OK. Go to step 8.

**NO**

Repair an open in the wire between the No. B22 (7.5 A) fuse in the under-dash fuse/relay box and the A/C compressor clutch relay.

- 8. Open wire check (A/C MG CLUTCH RLY CL- line):  
Press the engine start/stop button to select the OFF mode.
  - 2. Reinstall the A/C compressor clutch relay.
  - 3. Jump the SCS line with the HDS.

SCS Short

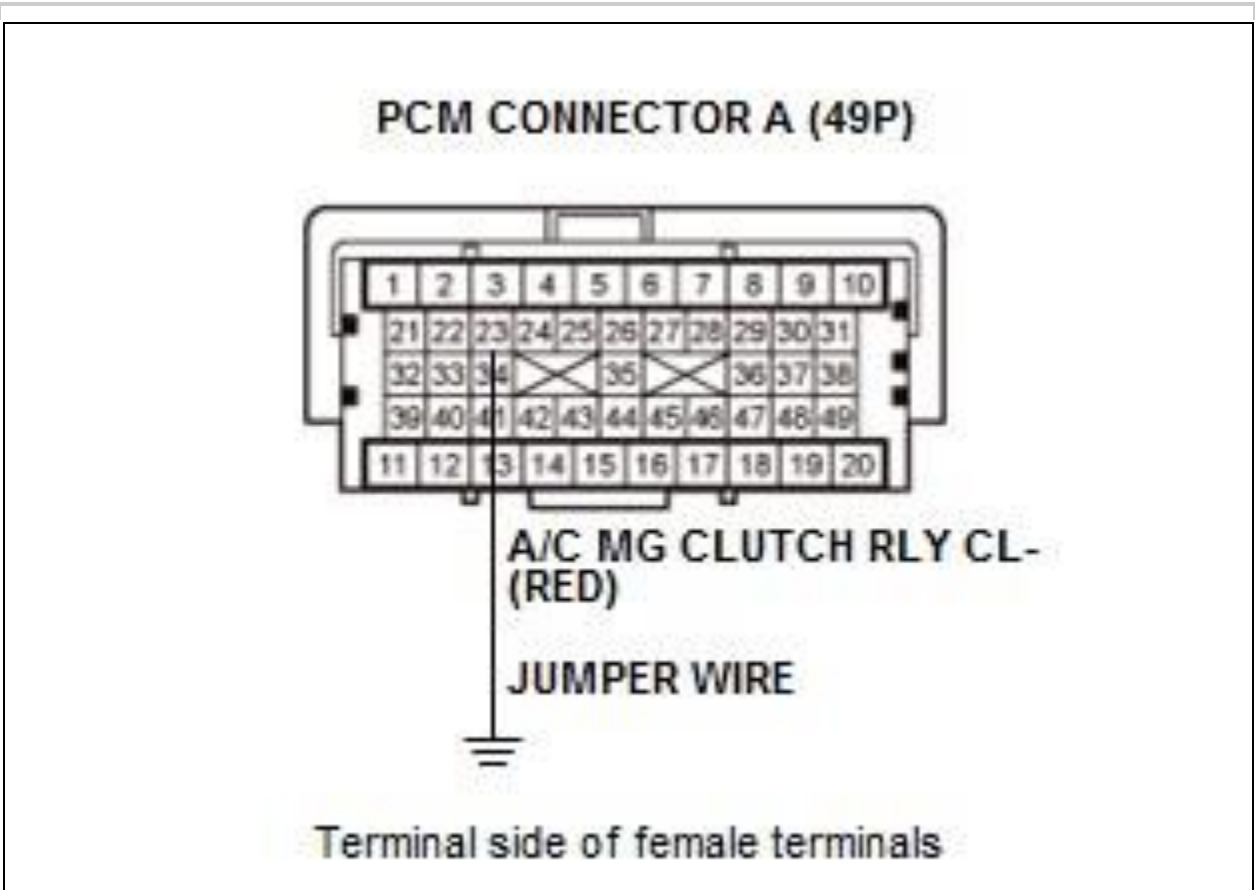
NOTE: This step must be done to protect the PCM from damage.

- 4. Disconnect the following 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)

- 5. Connect terminals A and B with a jumper wire.

Terminal A	PCM connector A (49P) terminal No. 23 (RED)
Terminal B	Body ground





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

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

Does the A/C compressor clutch click?

**YES**

Update the PCM if it does not have the latest software, or substitute a known-good PCM , and recheck.

**NO**

Repair an open in the wire between the A/C compressor clutch relay and the PCM.

9. Open wire check (A/C MG CLUTCH/COMP MG line): Disconnect the jumper wire.

- 2. Disconnect the following connector.

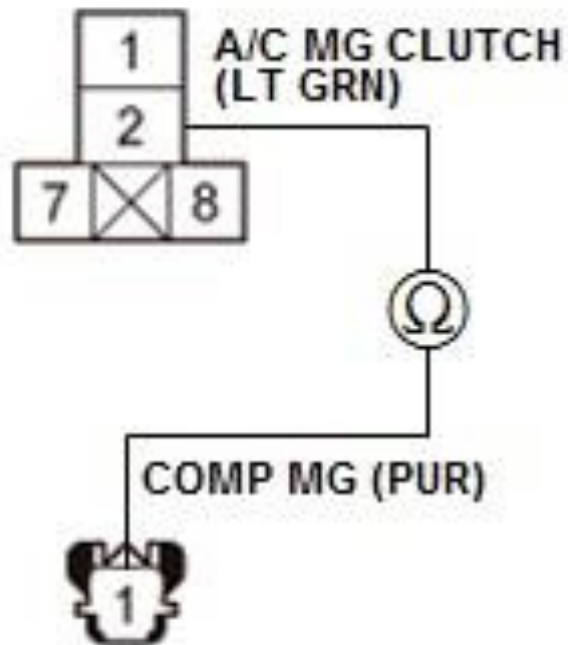
A/C compressor clutch 1P connector

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

Test condition	OFF mode
	A/C compressor clutch relay: disconnected
	A/C compressor clutch 1P connector: disconnected
Test circuit	A/C MG CLUTCH/COMP MG
Test point 1	A/C compressor clutch relay 4P socket No. 2 (LT GRN)
Test point 2	A/C compressor clutch 1P connector No. 1 (PUR)

## A/C COMPRESSOR CLUTCH RELAY 4P SOCKET

Terminal side of female terminals



## A/C COMPRESSOR CLUTCH 1P CONNECTOR

Terminal side of female terminals

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

Is there continuity?

**YES**

The A/C MG CLUTCH/COMP MG wire is OK. Check the A/C compressor clutch clearance and the A/C compressor clutch field coil. Repair as needed.

**NO**

Repair an open in the wire between the A/C compressor clutch relay and the A/C compressor.

## TROUBLESHOOTING > A/C COMPRESSOR CLUTCH CIRCUIT TROUBLESHOOTING (2016-18)

NOTE:

- It is normal for the A/C compressor to turn off under certain conditions, such as low idle, high engine coolant temperature, or hard acceleration.
- Do not use this troubleshooting procedure if the fans are also inoperative with the A/C on. Refer to the symptom

troubleshooting index .

- Before doing symptom troubleshooting, check for PGM-FI DTCs - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2016-18), or How to Troubleshoot the A/T System (2016-18) .

1. Fuse check:

Check the following fuse.

Fuse	No. A21 (7.5 A)
Location	Under-hood fuse/relay box

Is the fuse OK?

**YES**

Go to step 2.

**NO**

Replace the fuse, and recheck. If the fuse blows again, repair a short in the No. A21 (7.5 A) fuse circuit.

2. PGM-FI system parameter check 1: Connect the HDS to the DLC.

- 2. Start the engine.

- 3. Set the A/C button and the fan control button to ON.- 4. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
ENGINE SPEED	650-750	rpm		
ECT SENSOR 2	80-100	°C		
	176-212	°F		
TP SENSOR	About 0.5	V		

Do the current condition(s) match the threshold?

**YES**

Go to step 3.

**NO**

Troubleshoot the value that is not within the specifications.

3. A/C pressure sensor performance check:

Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
A/C PRESSURE SENSOR	196-3, 138	kPa		

	2.00-32.00	kgf/cm <sup>2</sup>		
	28.4-455.1	psi		

Do the current condition(s) match the threshold?

**YES**

Go to step 4.

**NO**

Go to the A/C system test .

4. PGM-FI system parameter check 2:

Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
A/C SWITCH	ON			
A/C CLUTCH	ON			

Do the current condition(s) match the threshold?

**YES**

Go to step 5.

**NO**

A/C SWITCH is OFF, replace the climate control unit .

**NO**

A/C SWITCH is ON and A/C CLUTCH is OFF, update the PCM if it does not have the latest software, or substitute a known-good PCM , then recheck. If the symptom/indication goes away with a known-good PCM, replace the original PCM .

5. A/C compressor clutch relay check:

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

- 2. Remove the A/C compressor clutch relay from the under-hood fuse/relay box, and test it . Is the relay OK?

**YES**

Go to step 6.

**NO**

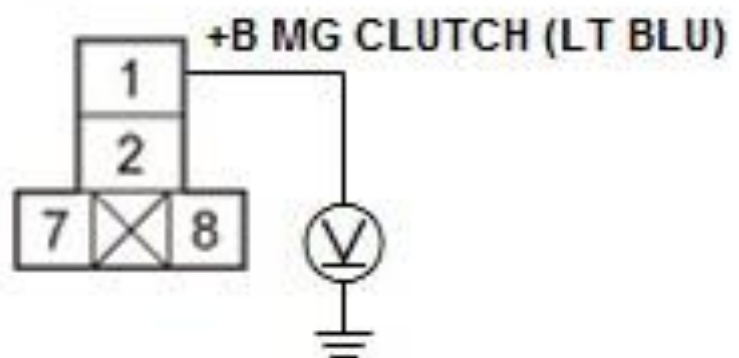
Replace the A/C compressor clutch relay.

6. Open wire check (+B MG CLUTCH line):

Measure the voltage between test points 1 and 2.

Test condition	OFF mode
	A/C compressor clutch relay: disconnected
Test circuit	+B MG CLUTCH
Test point 1	A/C compressor clutch relay 4P socket No. 1 (LT BLU)
Test point 2	Body ground

## A/C COMPRESSOR CLUTCH RELAY 4P SOCKET



Terminal side of female terminals

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

Is there battery voltage?

**YES**

The +B MG CLUTCH wire is OK. Go to step 7.

**NO**

Replace the under-hood fuse/relay box .

7. Determine possible failure area (A/C compressor clutch relay switch side circuit, A/C compressor clutch relay coil side circuit):

Connect terminals A and B with a jumper wire.

Terminal A	A/C compressor clutch relay 4P socket No. 1 (LT BLU)
Terminal B	A/C compressor clutch relay 4P socket No. 2 (LT GRN)

## A/C COMPRESSOR CLUTCH RELAY 4P SOCKET



Terminal side of female terminals

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

Does the A/C compressor clutch click?

**YES**

Go to step 8.

**NO**

Go to step 10.

8. Open wire check (IG2 A/C line):

Disconnect the jumper wire.

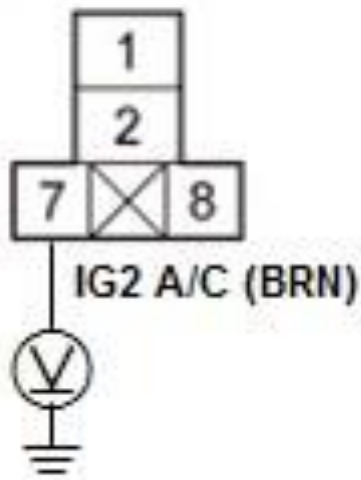
- 2. Press the engine start/stop button to select the ON mode. -

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

Test condition	ON mode
	A/C compressor clutch relay: disconnected
Test circuit	IG2 A/C
Test point 1	A/C compressor clutch relay 4P socket No. 7 (BRN)
Test point 2	Body ground



**A/C COMPRESSOR CLUTCH RELAY  
4P SOCKET**



**Terminal side of female terminals**

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

Is there battery voltage?

**YES**

The IG2 A/C wire is OK. Go to step 9.

**NO**

Repair an open in the IG2 A/C wire.

- 9. Open wire check (A/C MG CLUTCH RLY CL- line):  
Press the engine start/stop button to select the OFF mode.
  - 2. Reinstall the A/C compressor clutch relay.
  - 3. Jump the SCS line with the HDS.SCS Short

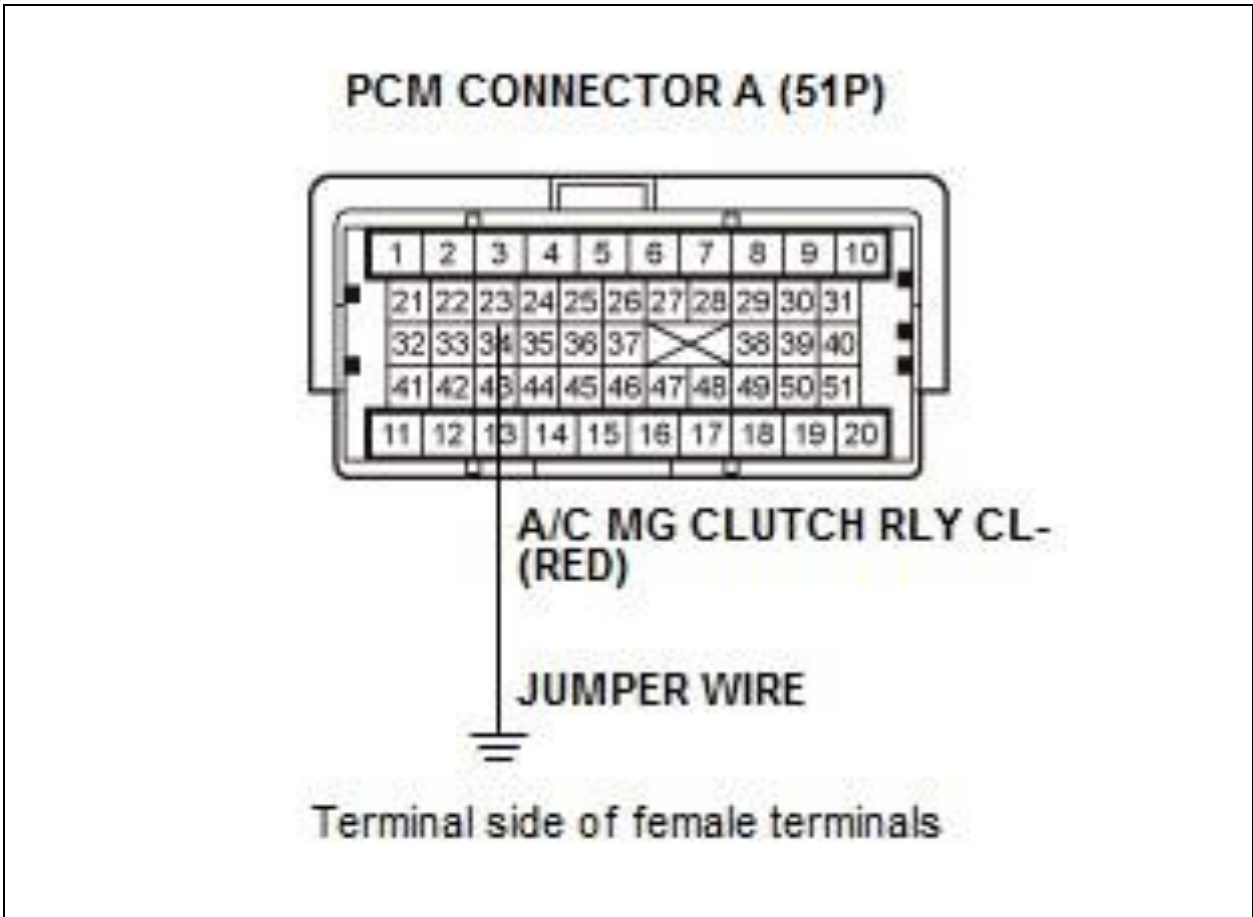
NOTE: This step must be done to protect the PCM from damage.

- 4. Disconnect the following connector.

PCM connector A (51P)

- 5. Connect terminals A and B with a jumper wire.

Terminal A	PCM connector A (51P) No. 23 (RED)
Terminal B	Body ground





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

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

Does the A/C compressor clutch click?

**YES**

Update the PCM if it does not have the latest software, or substitute a known-good PCM , then recheck.

If the symptom/indication goes away with a known-good PCM, replace the original PCM . **NO**

Repair an open in the A/C MG CLUTCH RLY CL- wire.

10. Open wire check (A/C MG CLUTCH/A/C MG line): Disconnect the jumper wire.

- 2. Disconnect the following connector.

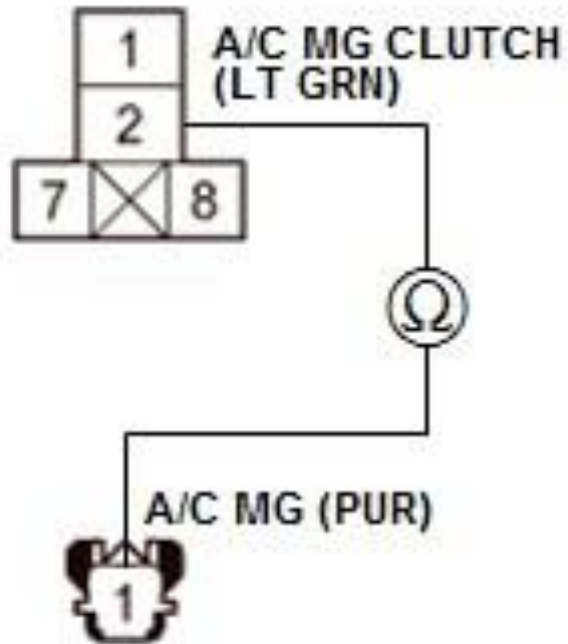
A/C compressor clutch 1P connector

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

Test condition	OFF mode
	A/C compressor clutch relay: disconnected
	A/C compressor clutch 1P connector: disconnected
Test circuit	A/C MG CLUTCH/A/C MG
Test point 1	A/C compressor clutch relay 4P socket No. 2 (LT GRN)
Test point 2	A/C compressor clutch 1P connector No. 1 (PUR)

## A/C COMPRESSOR CLUTCH RELAY 4P SOCKET

Terminal side of female terminals



## A/C COMPRESSOR CLUTCH 1P CONNECTOR Terminal side of female terminals

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

Is there continuity?

**YES**

The A/C MG CLUTCH/A/C MG wire is OK. Check the A/C compressor clutch clearance and the A/C compressor clutch field coil. Repair as needed.

**NO**

Repair an open in the A/C MG CLUTCH/A/C MG wire.

## TROUBLESHOOTING > A/C CONDENSER FAN HIGH SPEED CIRCUIT TROUBLESHOOTING (2013-15)

### NOTE:

- Do not use this troubleshooting procedure if the A/C compressor is inoperative. Refer to the symptom troubleshooting index .
- If A/C refrigerant pressure is abnormal, the radiator and A/C condenser fans are controlled based only on engine coolant temperature.
  - Before doing symptom troubleshooting, check for PGM-FI DTCs - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15) .

### 1. A/C condenser fan low speed operation check:

Jump the SCS line with the HDS.

SCS Short

NOTE: This step must be done to protect the PCM from damage.

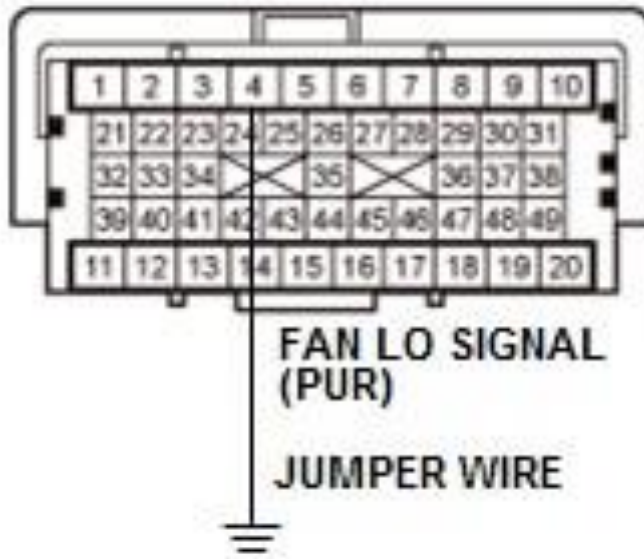
### - 2. Disconnect the following connector.

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)

### - 3. Connect terminals A and B with a jumper wire.

Terminal A	PCM connector A (49P) No. 4 (PUR)
Terminal B	Body ground

## PCM CONNECTOR A (49P)



Terminal side of female terminals

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

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

Does the A/C condenser fan (and radiator fan) run on low?

**YES**

Go to step 2.

**NO**

Do the radiator and A/C condenser fan low speed circuit troubleshooting - Refer to: A/C Condenser Fan High Speed Circuit Troubleshooting (2013-15), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2013-15) .

2. A/C condenser fan high speed operation check:

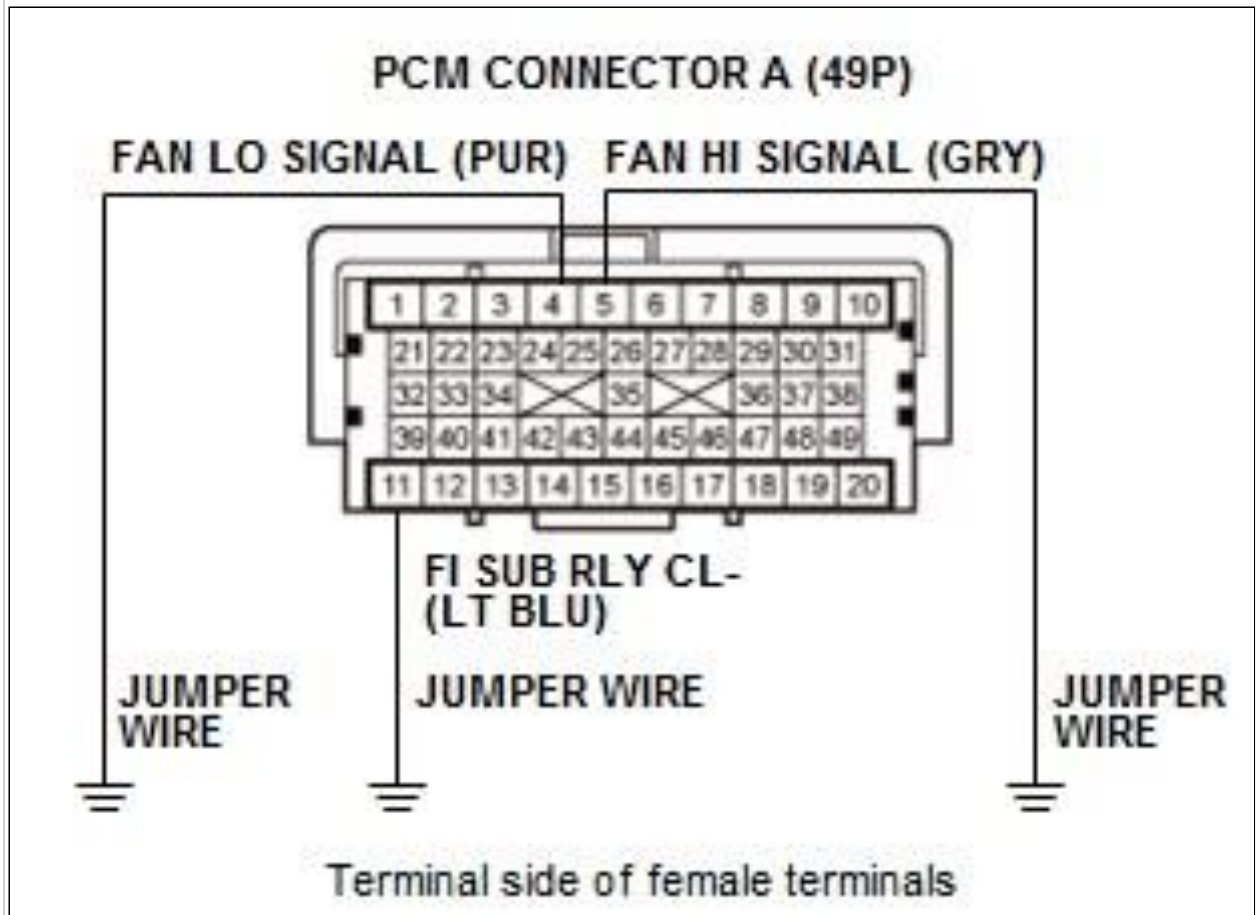
Press the engine start/stop button to select the OFF mode. -

2. Connect terminals A and B with jumper wires.

Terminal A	PCM connector A (49P) No. 4 (PUR)
Terminal B	Body ground

Terminal A	PCM connector A (49P) No. 5 (GRY)
Terminal B	Body ground

Terminal A	PCM connector A (49P) No. 11 (LT BLU)
Terminal B	Body ground



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

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

Do the A/C condenser fan run on high?

**YES**

Update the PCM if it does not have the latest software, or substitute a known-good PCM , and recheck.

**NO**

Go to step 3.

3. Open wire check (FAN HI SIGNAL line):

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

- 2. Disconnect the jumper wires.

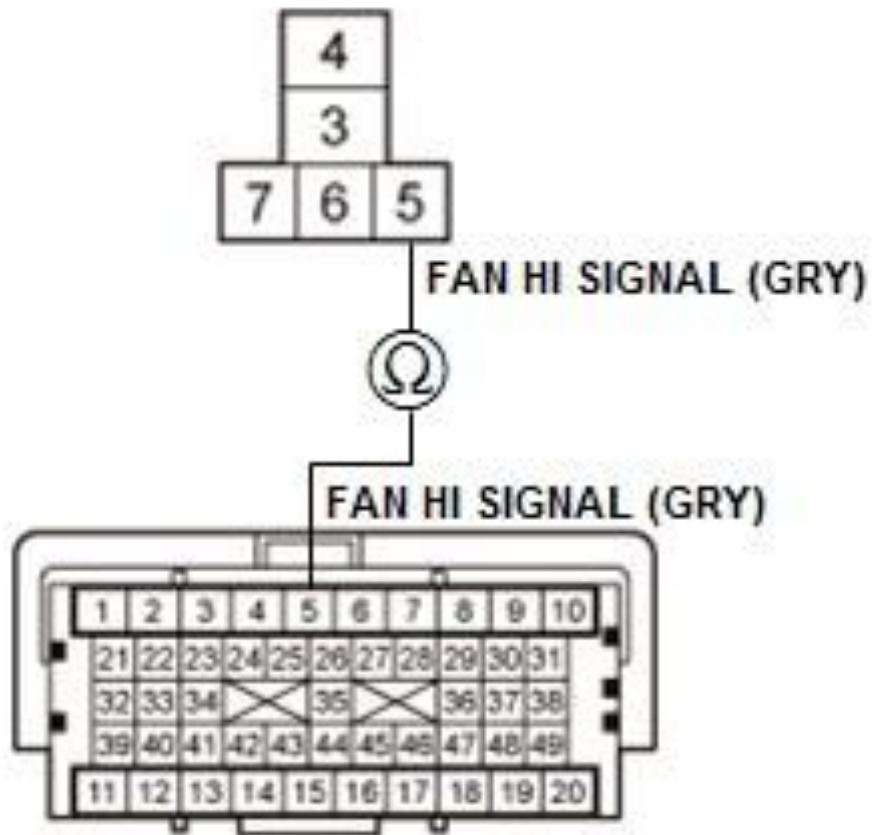
- 3. Remove the fan control relay from the under-hood fuse/relay box.- 4. Check for continuity between test points 1 and 2.

Test condition	OFF mode
----------------	----------

	PCM connector A (49P): disconnected
	Fan control relay: disconnected
Test circuit	FAN HI SIGNAL
Test point 1	Fan control relay 5P socket No. 5 (GRY)
Test point 2	PCM connector A (49P) No. 5 (GRY)

## FAN CONTROL RELAY 5P SOCKET

Terminal side of female terminals



## PCM CONNECTOR A (49P)

Terminal side of female terminals

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

Is there continuity?

**YES**

The FAN HI SIGNAL wire is OK. Go to step 4.

**NO**

Repair an open in the wire between the fan control relay and the PCM.

4. Fan control relay check:

Remove the fan control relay from the under-hood fuse/relay box, and test it .

Is the relay OK?

**YES**

Go to step 5.

**NO**

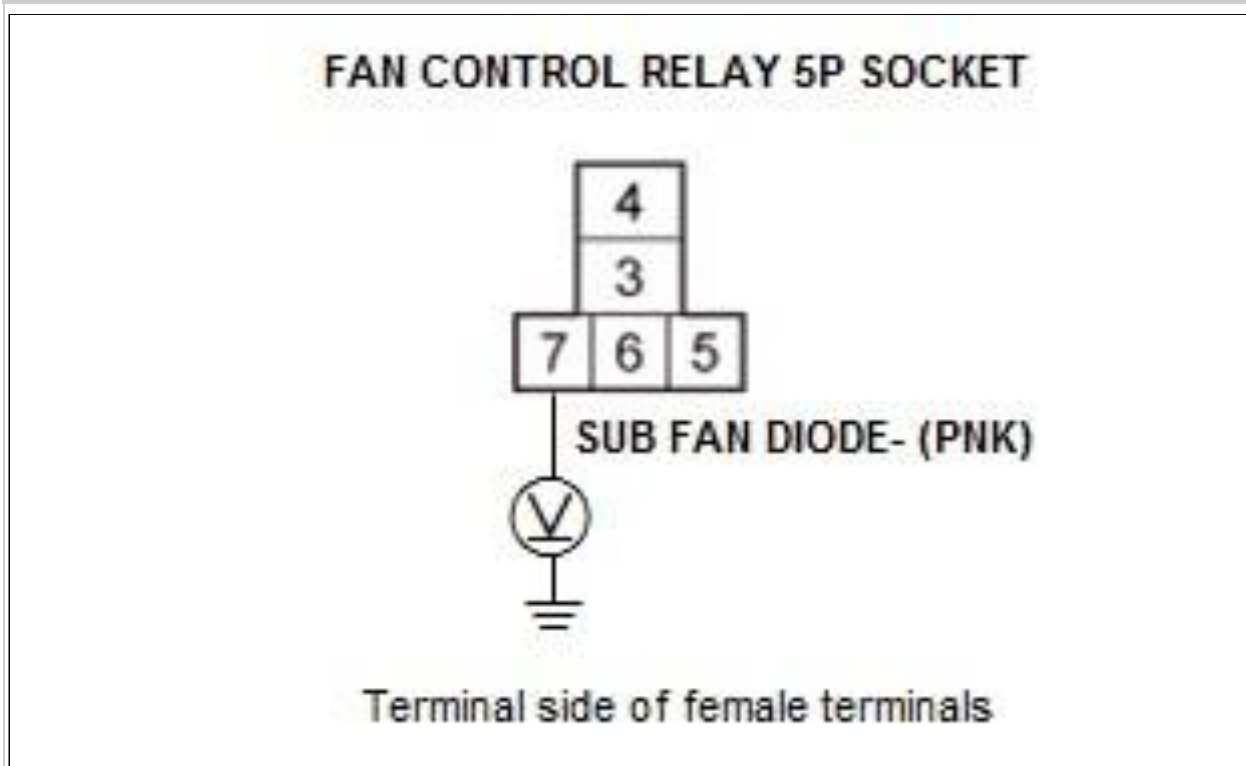
Replace the fan control relay.

5. Open wire check (SUB FAN DIODE- 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
	PCM connector A (49P): disconnected
	Fan control relay: disconnected
Test circuit	SUB FAN DIODE-
Test point 1	Fan control relay 5P socket No. 7 (PNK)
Test point 2	Body ground



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

Is there battery voltage?

**YES**

Check for an open in the wire between the fan control relay and body ground. If the wire is OK, check for poor ground at G302.

**NO**

Repair an open in the SUB FAN DIODE- wire.



## TROUBLESHOOTING > A/C CONDENSER FAN HIGH SPEED CIRCUIT TROUBLESHOOTING (2016-18)

### NOTE:

- Do not use this troubleshooting procedure if the A/C compressor is inoperative. Refer to the symptom troubleshooting index .
- If A/C refrigerant pressure is abnormal, the radiator and A/C condenser fans are controlled based only on engine coolant temperature.
- Before doing symptom troubleshooting, check for PGM-FI DTCs - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2016-18), or How to Troubleshoot the A/T System (2016-18) .

### 1. A/C condenser fan low speed operation check:

Jump the SCS line with the HDS.

SCS Short

NOTE: This step must be done to protect the PCM from damage.

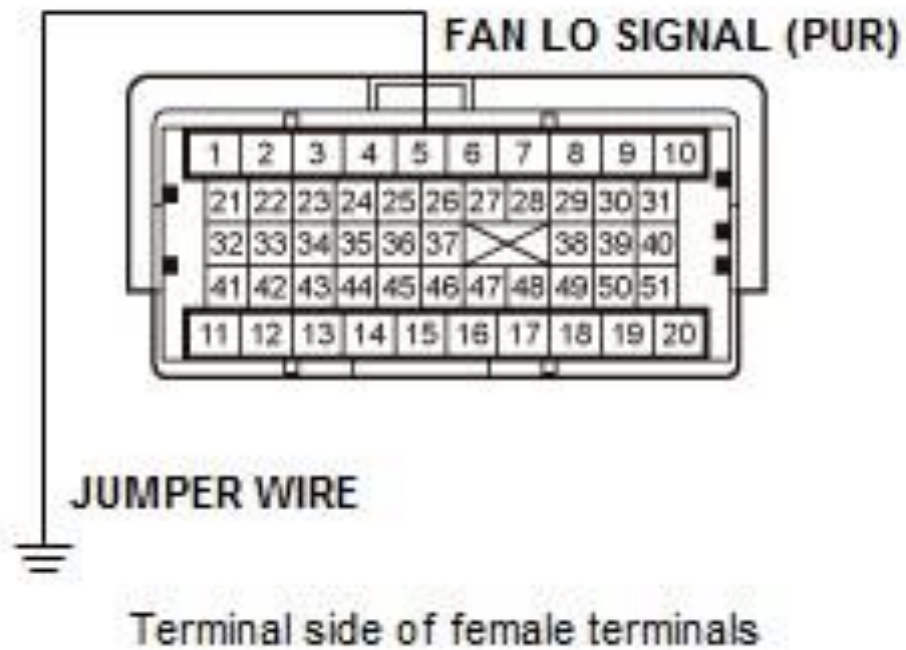
- 2. Disconnect the following connector.

PCM connector A (51P)

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

Terminal A	PCM connector A (51P) No. 5 (PUR)
Terminal B	Body ground

### PCM CONNECTOR A (51P)



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

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

Do the A/C condenser and radiator fans run on low?

**YES**

Go to step 2.

**NO**

Do the radiator and A/C condenser fan low speed circuit troubleshooting - Refer to: A/C Condenser Fan High Speed Circuit Troubleshooting (2016-18), or Radiator and A/C Condenser Fan Low Speed Circuit Troubleshooting (2016-18) .

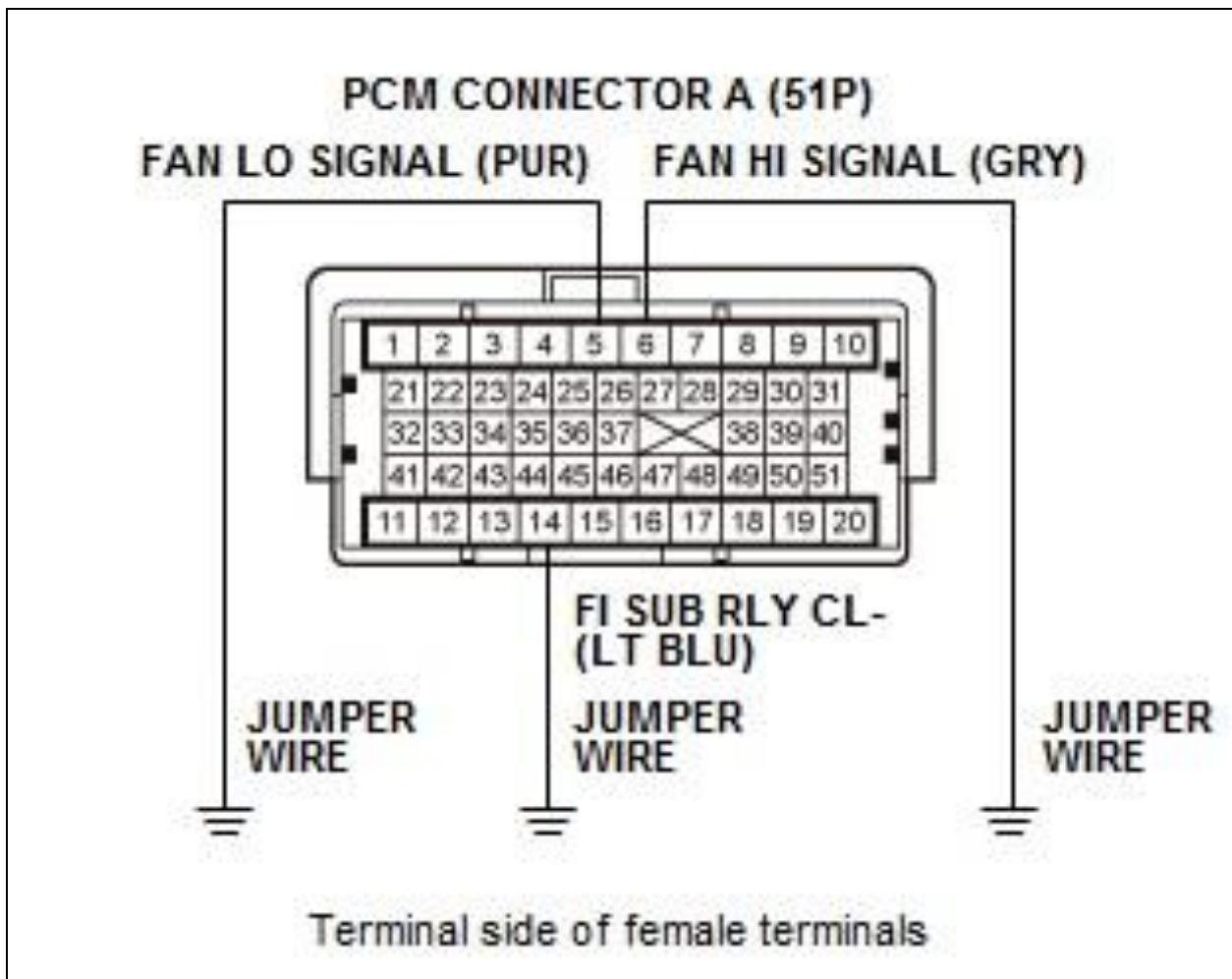
2. A/C condenser fan high speed operation check:

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

2. Connect terminals A and B with jumper wires.

Terminal A	PCM connector A (51P) No. 6 (GRY)
Terminal B	Body ground

Terminal A	PCM connector A (51P) No. 14 (LT BLU)
Terminal B	Body ground



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

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

Do the A/C condenser and the radiator fans run on high?

**YES**

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

**NO**

Go to step 3.

3. Fan control relay check:

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

- 2. Disconnect the jumper wires.

- 3. Remove the fan control relay from the under-hood fuse/relay box, and test it . Is the relay OK?

**YES**

Go to step 4.

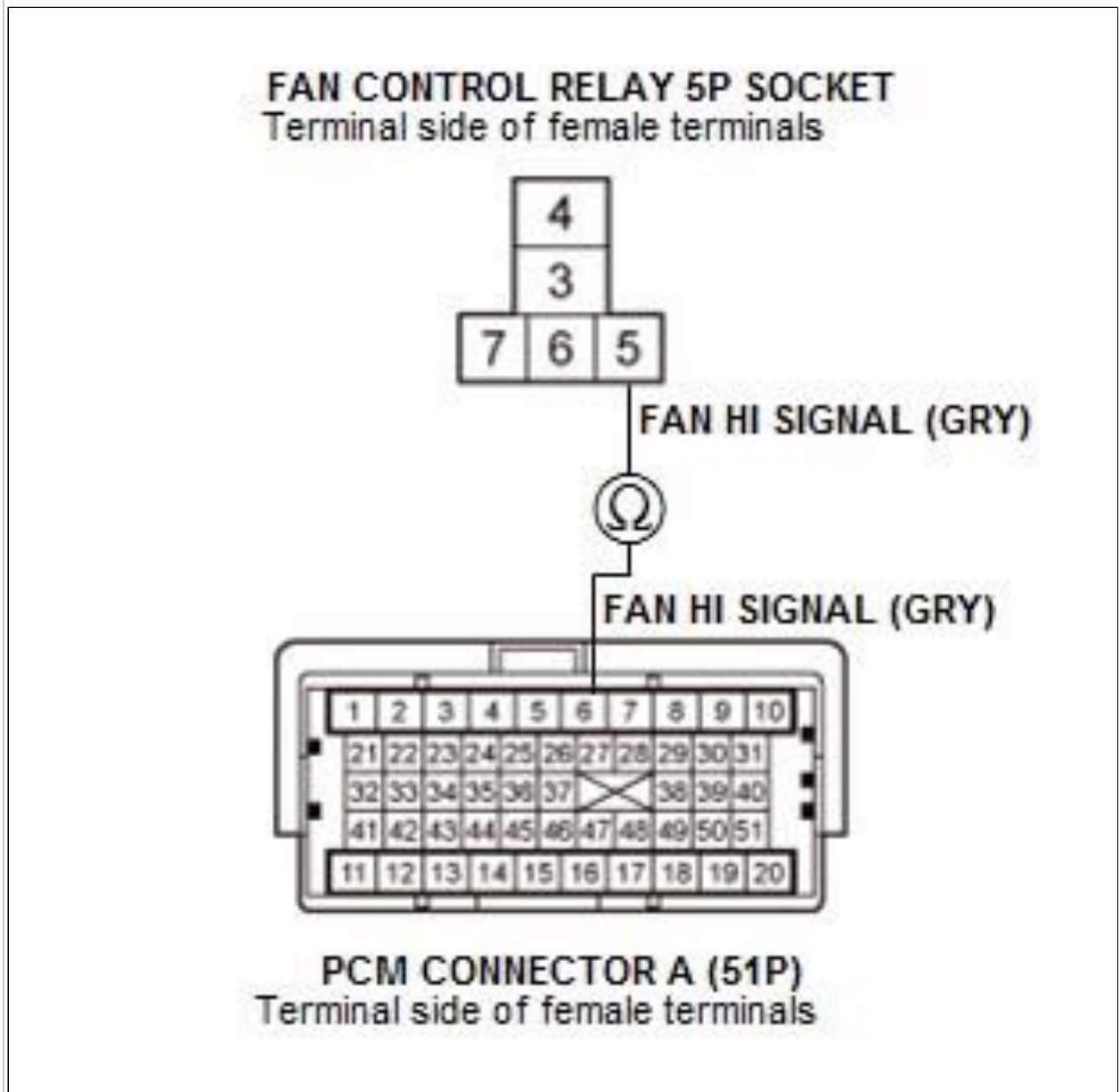
**NO**

Replace the fan control relay.

4. Open wire check (FAN HI SIGNAL line):

Check for continuity between test points 1 and 2.

Test condition	OFF mode
	PCM connector A (51P): disconnected
	Fan control relay: disconnected
Test circuit	FAN HI SIGNAL
Test point 1	Fan control relay 5P socket No. 5 (GRY)
Test point 2	PCM connector A (51P) No. 6 (GRY)



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

Is there continuity?

**YES**

The FAN HI SIGNAL wire is OK. Go to step 5.

**NO**

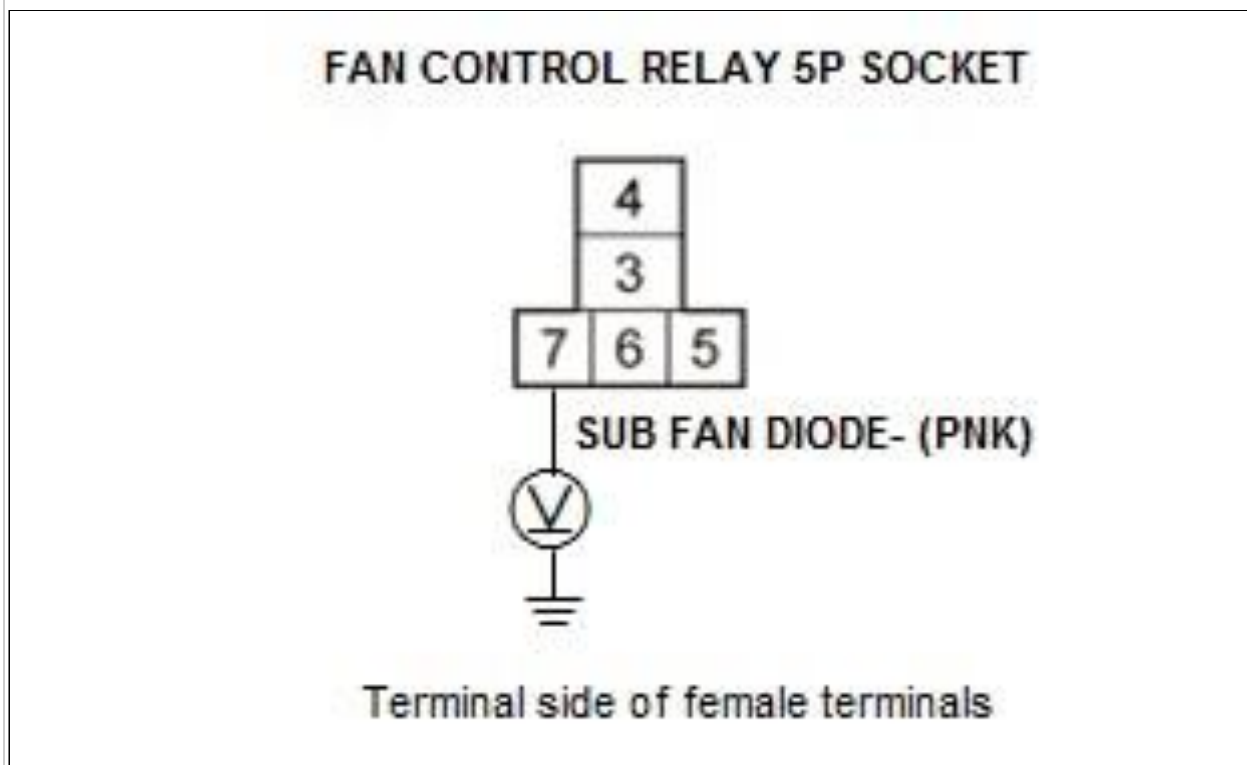
Repair an open in the FAN HI SIGNAL wire.

5. Open wire check (SUB FAN DIODE- 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
	PCM connector A (51P): disconnected
	Fan control relay: disconnected
Test circuit	SUB FAN DIODE-
Test point 1	Fan control relay 5P socket No. 7 (PNK)
Test point 2	Body ground



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

Is there battery voltage?

**YES**

Check for an open in the GND wire. If the wire is OK, check for poor ground at G302.

**NO**

Repair an open in the SUB FAN DIODE- wire.

## TROUBLESHOOTING > A/C SIGNAL CIRCUIT TROUBLESHOOTING (CLIMATE CONTROL) (2013-18)

### NOTE:

- Do not use this troubleshooting procedure if any of the following items are operative with the A/C button and the fan control button to ON: The A/C condenser fan, the radiator fan, or the A/C compressor. Refer to the symptom troubleshooting index .
- Do not use this troubleshooting procedure if the A/C system pressure is abnormal - Refer to: A/C System Test (2013-15), or A/C System Test (2016-18) .
- Before doing symptom troubleshooting, check for PGM-FI DTCs - 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) .

#### 1. Blower motor operation check:

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

- 2. Check that the blower motor operates at all speeds.

Does the blower motor operate at all speeds?

#### **YES**

Go to step 2.

#### **NO**

Repair the problem in the blower motor circuit.

#### 2. Evaporator outlet air temperature check:

Start the engine.

- 2. Set the A/C button and the blower control button to ON.

- 3. Do the sensor input display mode - Refer to: How to Troubleshoot the Climate Control System (2013-15), or How to Troubleshoot the Body Electrical (2013-15), or How to Troubleshoot the Body Electrical (2016-18), or How to Troubleshoot the Climate Control System(Without navigation) (2016-18), or How to Troubleshoot the Climate Control System(With navigation) (2016-18) . Is Sensor #5 (evaporator outlet air temperature) above 3 °C?

#### **YES**

Go to step 3.

#### **NO**

Go to step 8.

#### 3. A/C pressure threshold check:

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

- 2. Connect the HDS to the DLC.

- 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
A/C PRESSURE SENSOR	196-3, 138	kPa		
	2.00-32.00	kgf/cm <sup>2</sup>		
	28.4-455.1	psi		

Do the current condition(s) match the threshold?

**YES**

Go to step 4.

**NO**

Go to the A/C system test - Refer to: A/C System Test (2013-15), or A/C System Test (2016-18) .

4. Climate control system check:

Start the engine.

- 2. Using the HDS, confirm the following values in the PGM-FI Data List at idle.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
A/C SWITCH	ON			
A/C CLUTCH	ON			

Do the current condition(s) match the threshold?

**YES**

Go to the A/C compressor clutch circuit troubleshooting - Refer to: A/C Compressor Clutch Circuit Troubleshooting (2013-15), or A/C Compressor Clutch Circuit Troubleshooting (2016-18) . **NO**

A/C SWITCH is OFF, go to step 5.

**NO**

A/C SWITCH is ON and A/C CLUTCH is OFF. Check the ECT value, if in specification, continue; if not trouble shoot ECT sensor W or engine overheating; update the PCM if it does not have the latest software, or substitute a known-good PCM - Refer to: PCM Removal and Installation (2013-15), or PCM Removal and Installation (2016-18) , and recheck.

5. ACS line voltage check:

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

2. Disconnect the following connector.

Climate control unit connector A (28P) - Refer to: Climate Control Unit Removal and Installation (201315), or Climate Control Unit Removal and Installation (2016-18)

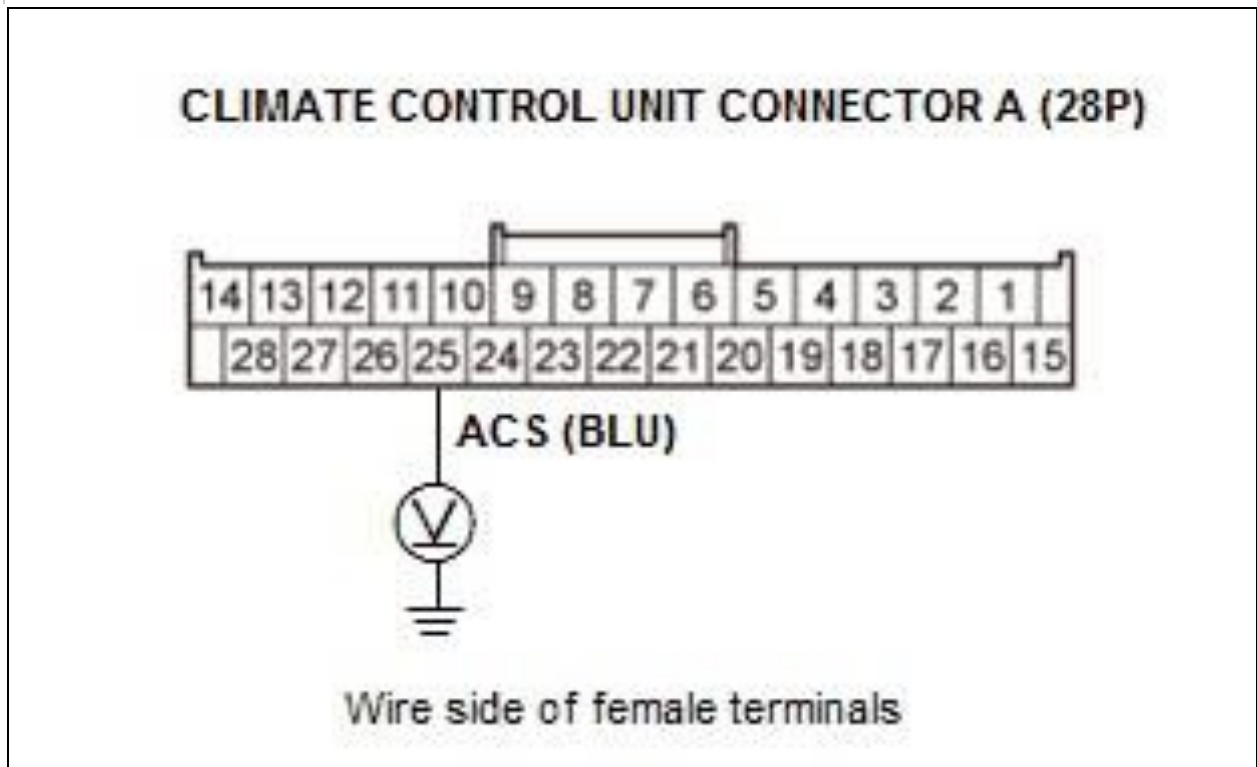
- 3. Press the engine start/stop button to select the ON mode. -

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

Test condition	ON mode
----------------	---------



	Climate control unit connector A (28P): disconnected
Test circuit	ACS
Test point 1	Climate control unit connector A (28P) No. 25 (BLU)
Test point 2	Body ground



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

Is there 10 volts or more?

**YES**

The ACS wire is OK. Go to step 6.

**NO**

Go to step 7.

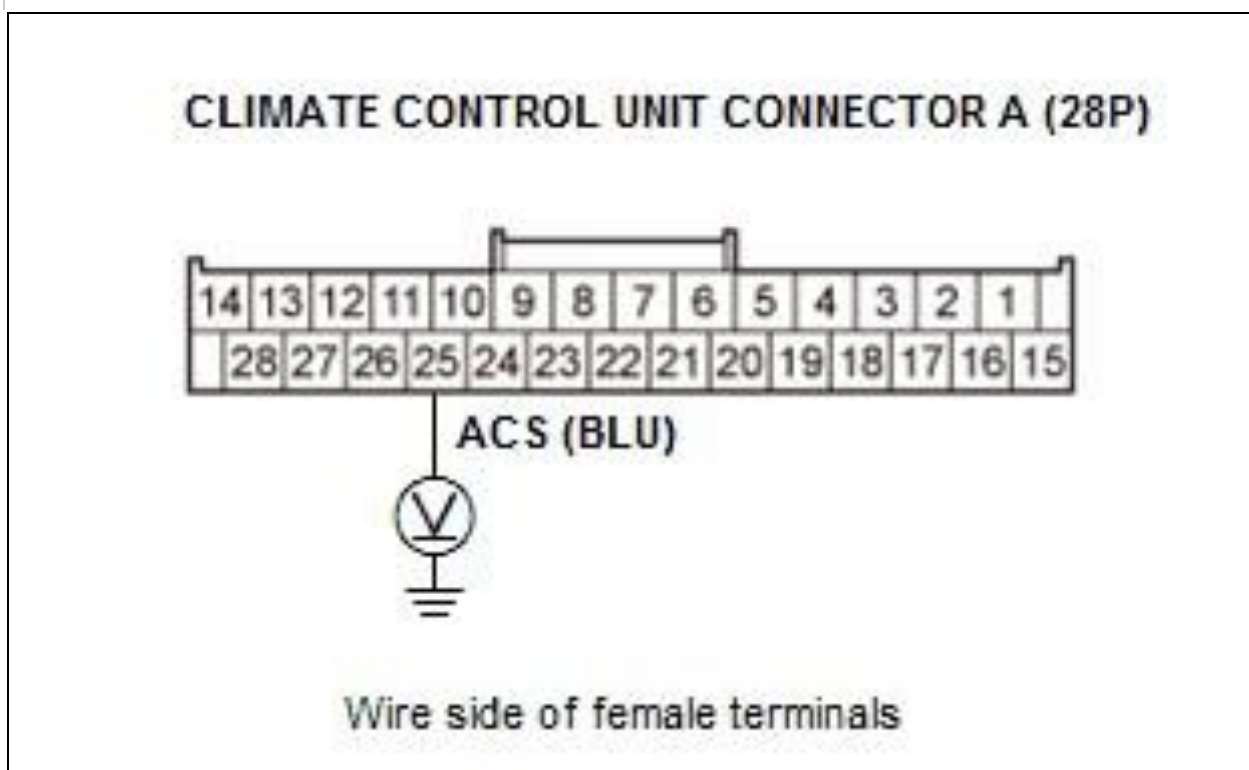
6. Climate control unit check:

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

- 2. Reconnect climate control unit connector A (28P) - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18) .

- 3. Start the engine.
- 4. Set the A/C button and the blower control button to ON.
- 5. Measure the voltage between test points 1 and 2.

Test condition	ON mode
Test circuit	ACS
Test point 1	Climate control unit connector A (28P) No. 25 (BLU)
Test point 2	Body ground



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

Is there 0.2 V or less?

**YES**

Replace the under-dash fuse/relay box .

**NO**

Replace the climate control unit - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18) .

7. Open wire check (ACS line):

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

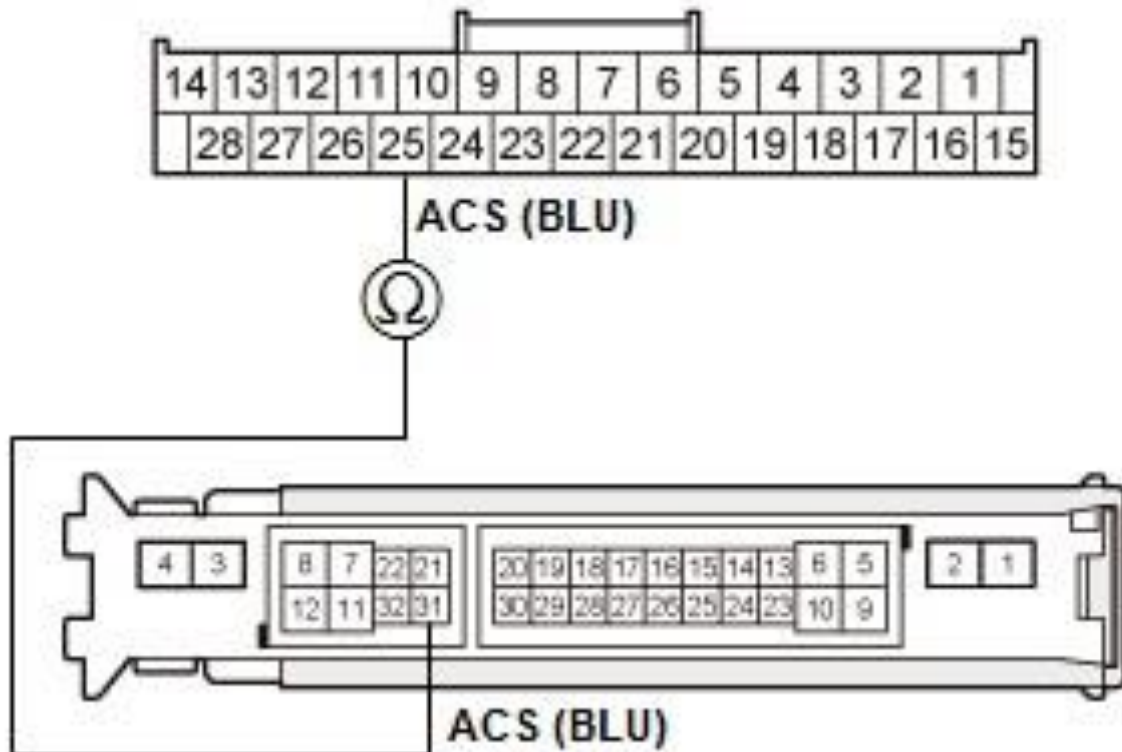
2. Disconnect the following connector.

Under-dash fuse/relay box connector D (32P)
---

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

Test condition	OFF mode
	Climate control unit connector A (28P): disconnected
	Under-dash fuse/relay box connector D (32P): disconnected
Test circuit	ACS
Test point 1	Climate control unit connector A (28P) No. 25 (BLU)
Test point 2	Under-dash fuse/relay box connector D (32P) No. 31 (BLU)

**CLIMATE CONTROL UNIT CONNECTOR A (28P)**  
Wire side of female terminals



**UNDER-DASH FUSE/RELAY BOX CONNECTOR D (32P)**  
Wire side of female terminals

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

Is there continuity?

**YES**

Replace the under-dash fuse/relay box .

**NO**

Repair an open in the wire between the climate control unit and the under-dash fuse/relay box.

8. Evaporator temperature sensor check:

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

2. Disconnect the following connectors.

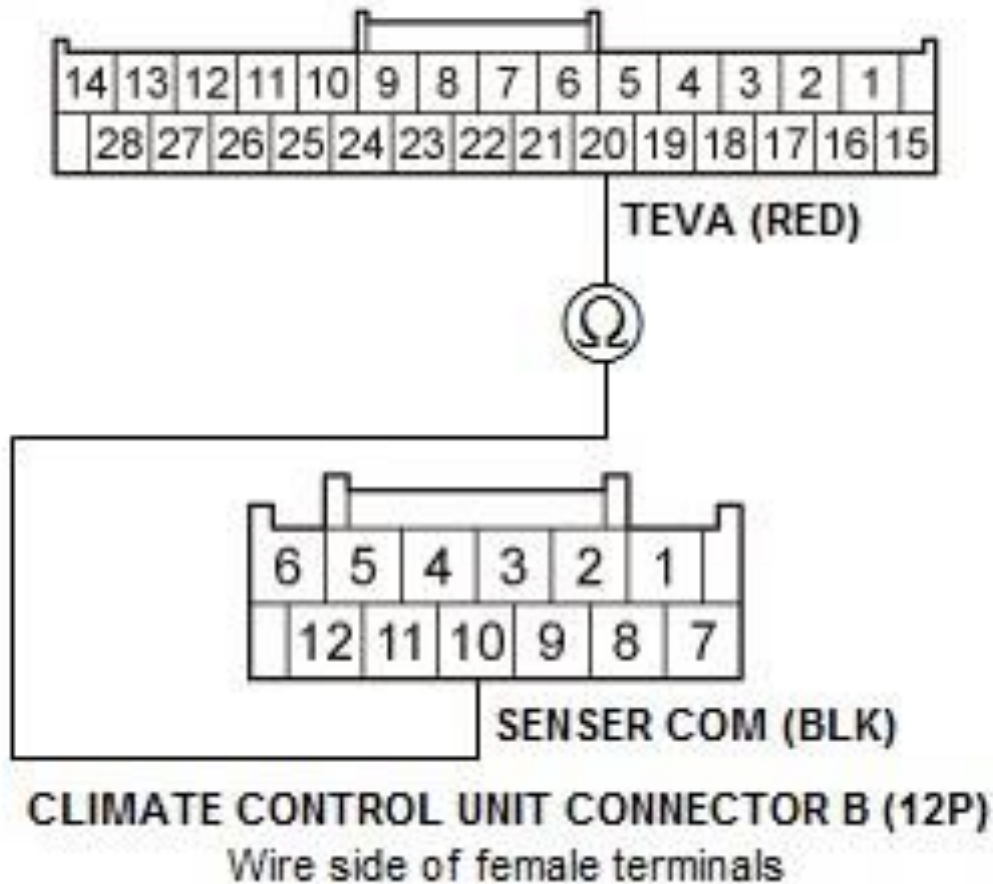
Climate control unit connector A (28P) - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18)

Climate control unit connector B (12P) - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18)

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

Test condition	OFF mode
	Climate control unit connector A (28P): disconnected
	Climate control unit connector B (12P): disconnected
Test circuit	TEVA, SENSOR COM
Test point 1	Climate control unit connector A (28P) No. 20 (RED)
Test point 2	Climate control unit connector B (12P) No. 10 (BLK)

**CLIMATE CONTROL UNIT CONNECTOR A (28P)**  
Wire side of female terminals



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

Is the resistance less than 24 kΩ?

**YES**

Replace the climate control unit - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18) .

**NO**

Test the evaporator temperature sensor .

**TROUBLESHOOTING > AUDIO-HVAC SUBDISPLAY COMMUNICATION LINE CIRCUIT  
TROUBLESHOOTING (WITH NAVIGATION) (2013-18)**

NOTE: Do this troubleshooting procedure only if sent here by symptom troubleshooting index .

1. Fuse check:

Check the following fuse.

Fuse	No. B22 (7.5 A)
Location	Under-dash fuse/relay box

Is the fuse OK?

**YES**

Go to step 2.

**NO**

Replace the fuse, and recheck. If the fuse blows again, repair a short in the No. B22 (7.5 A) fuse circuit.

2. Open wire check (IG2 A/C line):

Disconnect the following connector.

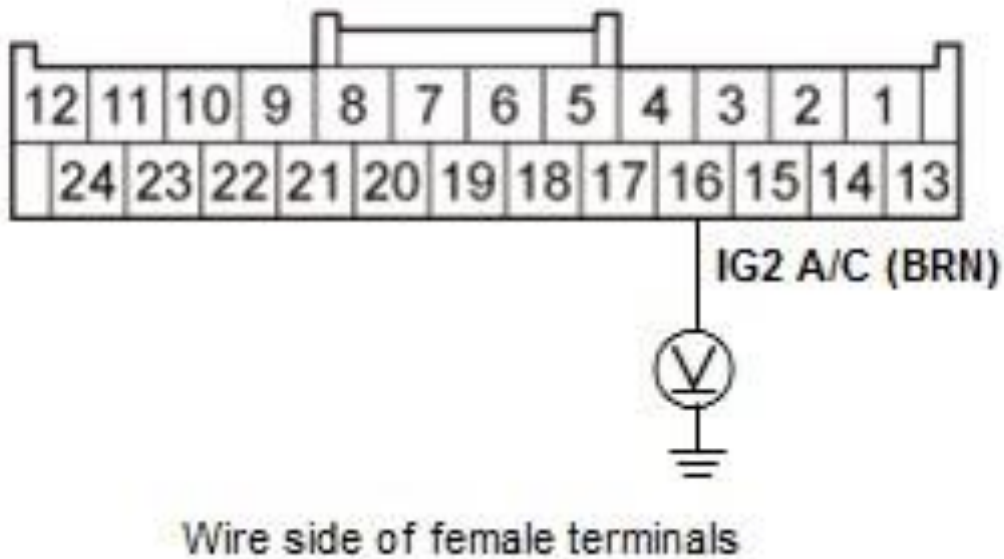
Audio-navigation switch panel 24P connector
---

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

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

Test condition	ON mode
	Audio-navigation switch panel 24P connector: disconnected
Test circuit	IG2 A/C
Test point 1	Audio-navigation switch panel 24P connector No. 16 (BRN)
Test point 2	Body ground

## AUDIO-NAVIGATION SWITCH PANEL 24P CONNECTOR



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

Is there battery voltage?

**YES**

The IG2 A/C wire is OK. Go to step 3.

**NO**

Repair an open in the wire between the No. B22 (7.5 A) fuse in the under-dash fuse/relay box and the audio-navigation switch panel.

### 3. Open wire check (A/C SO line):

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

2. Disconnect the following connector.

Climate control unit connector A (28P) - Refer to: Climate Control Unit Removal and Installation (201315), or Climate Control Unit Removal and Installation (2016-18)

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

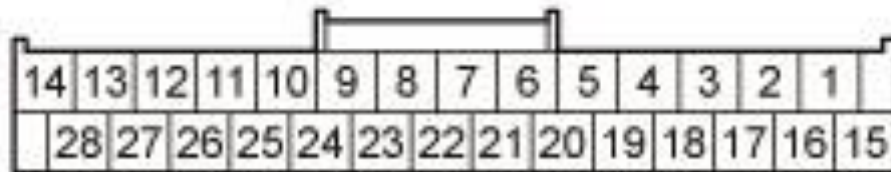
Test condition	OFF mode
	Climate control unit connector A (28P): disconnected
	Audio-navigation switch panel 24P connector: disconnected
Test circuit	A/C SO
Test point 1	Climate control unit connector A (28P) No. 27 (RED)



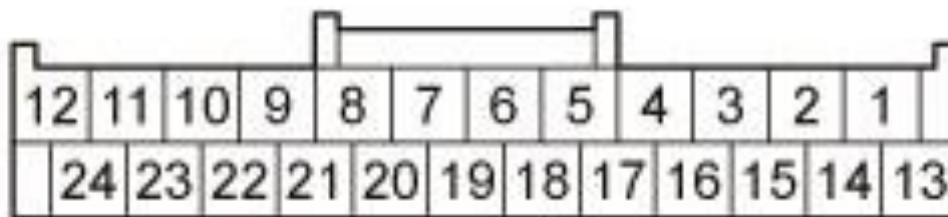
Test point 2

Audio-navigation switch panel 24P connector No. 18 (RED)

**CLIMATE CONTROL UNIT CONNECTOR A (28P)**  
Wire side of female terminals



A/C SO (RED)



A/C SO (RED)

**AUDIO-NAVIGATION SWITCH PANEL**  
**24P CONNECTOR**  
Wire side of female terminals

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

Is there continuity?

**YES**

The A/C SO wire is not open. Go to step 4.

**NO**

Repair an open in the wire between the climate control unit and the audio-navigation switch panel.

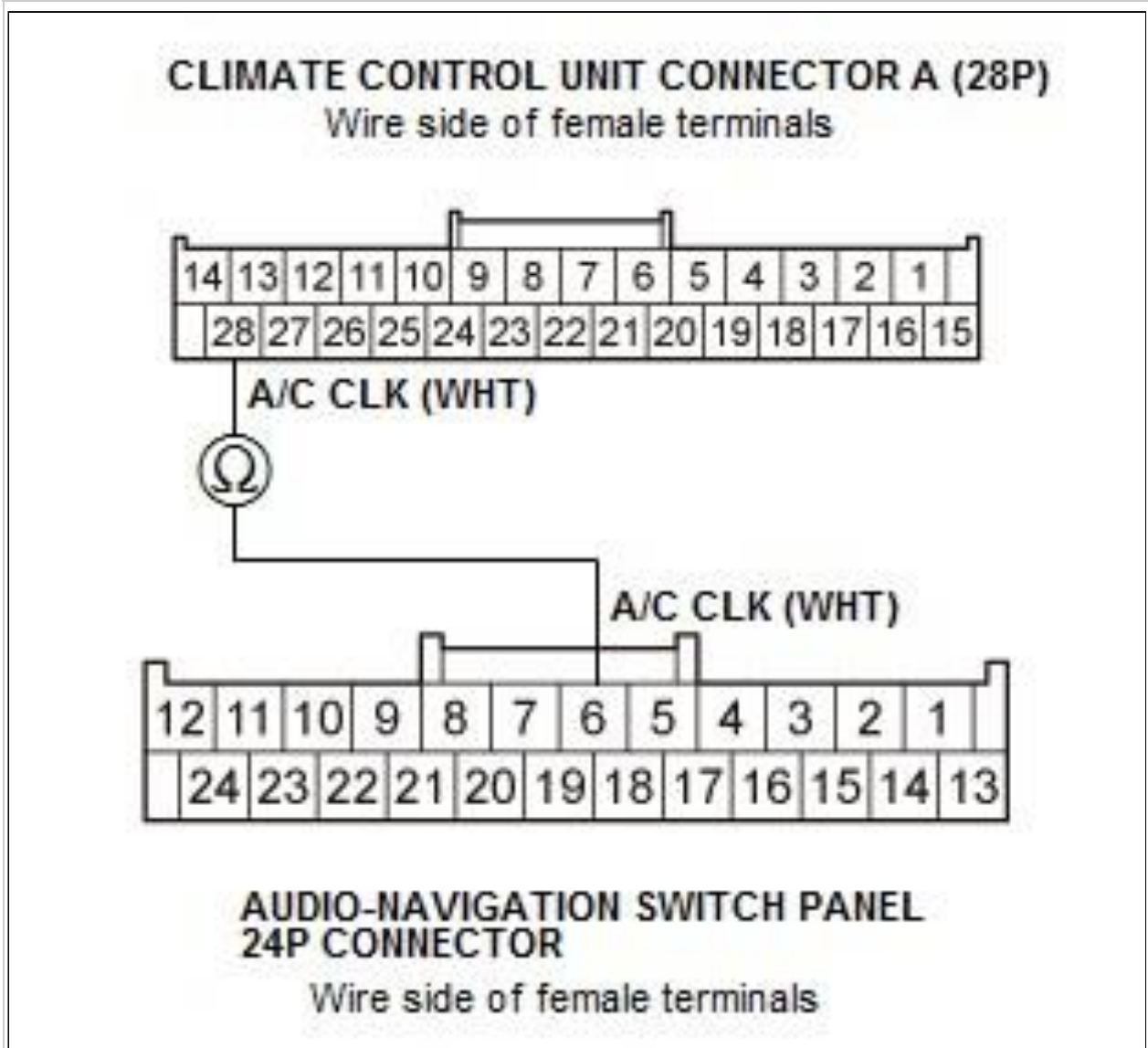
4. Open wire check (A/C CLK line):

Check for continuity between test points 1 and 2.

Test condition

OFF mode

	Climate control unit connector A (28P): disconnected
	Audio-navigation switch panel 24P connector: disconnected
Test circuit	A/C CLK
Test point 1	Climate control unit connector A (28P) No. 28 (WHT)
Test point 2	Audio-navigation switch panel 24P connector No. 6 (WHT)



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

Is there continuity?

**YES**

The A/C CLK wire is not open. Go to step 5.

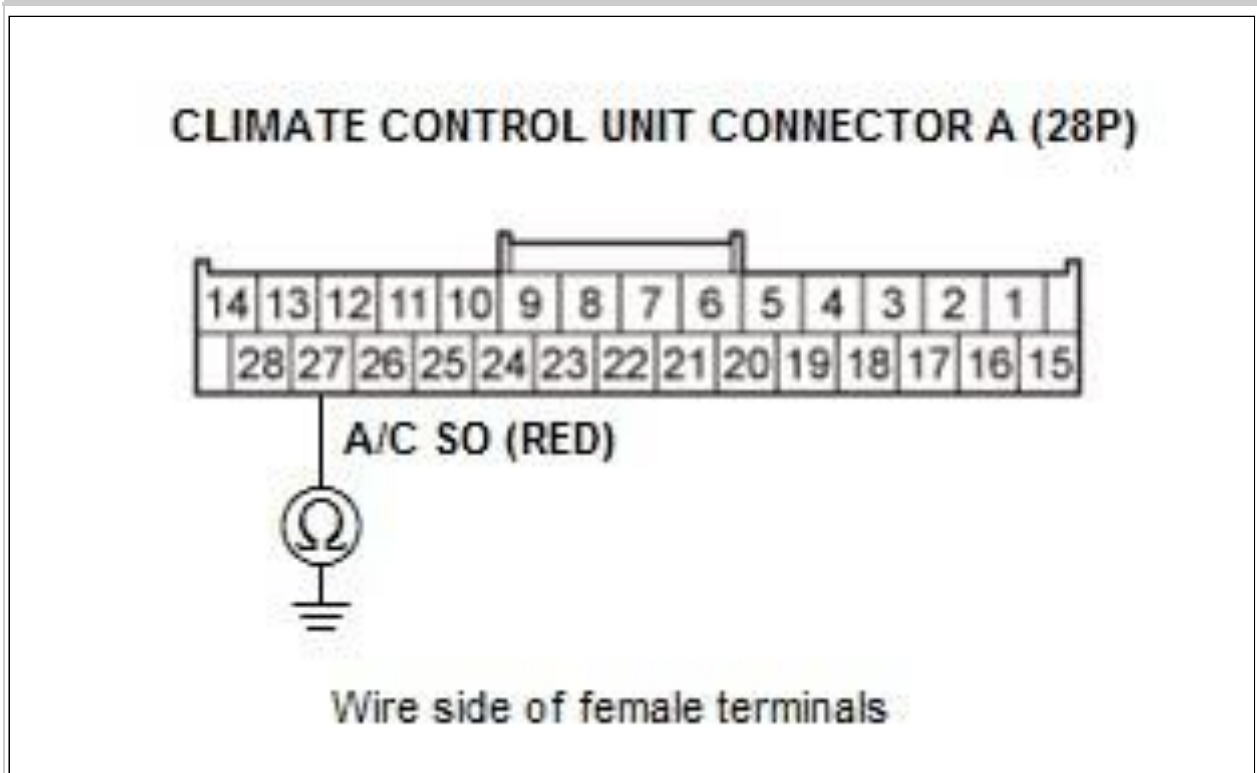
**NO**

Repair an open in the wire between the climate control unit and the audio-navigation switch panel.

5. Shorted wire check (A/C SO line):

Check for continuity between test points 1 and 2.

Test condition	OFF mode
	Climate control unit connector A (28P): disconnected
	Audio-navigation switch panel 24P connector: disconnected
Test circuit	A/C SO
Test point 1	Climate control unit connector A (28P) No. 27 (RED)
Test point 2	Body ground



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

Is there continuity?

**YES**

Repair a short to body ground in the wire between the climate control unit and the audio-navigation switch panel.

**NO**

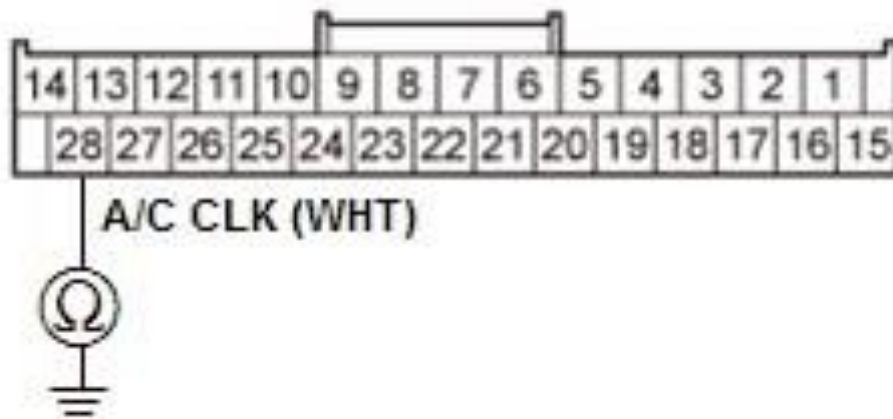
The A/C SO wire is OK. Go to step 6.

6. Shorted wire check (A/C CLK line):

Check for continuity between test points 1 and 2.

Test condition	OFF mode
	Climate control unit connector A (28P): disconnected
	Audio-navigation switch panel 24P connector: disconnected
Test circuit	A/C CLK
Test point 1	Climate control unit connector A (28P) No. 28 (WHT)
Test point 2	Body ground

### CLIMATE CONTROL UNIT CONNECTOR A (28P)



Wire side of female terminals

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

Is there continuity?

**YES**

Repair a short to body ground in the wire between the climate control unit and the audio-navigation switch panel.

**NO**

The A/C CLK wire is OK. Go to step 7.

7. Climate control unit check:

Substitute a known-good audio-navigation switch panel - Refer to: Audio-Navigation Unit Removal and Installation (2013-15), or Audio-Navigation Unit Removal and Installation (2016-18) . - 2. Reconnect the following connector.

Climate control unit connector A (28P) - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18)

Audio-navigation switch panel 24P connector

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

Is the audio-navigation switch panel operative?

**YES**

Replace the original audio-navigation switch panel - Refer to: Audio-Navigation Unit Removal and Installation (2013-15), or Audio-Navigation Unit Removal and Installation (2016-18) .

**NO**

Replace the climate control unit - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18) .

**TROUBLESHOOTING > CLIMATE CONTROL UNIT POWER AND GROUND CIRCUIT TROUBLESHOOTING (2013-18)**

NOTE: Do this troubleshooting procedure only if sent here by symptom troubleshooting index .

1. Fuse check:

Check the following fuse.

Fuse	No. B22 (7.5 A)
Location	Under-dash fuse/relay box

Is the fuse OK?

**YES**

Go to step 2.

**NO**

Replace the fuse, and recheck. If the fuse blows again, repair a short in the No. B22 (7.5 A) fuse circuit.

2. Open wire check (IG2 A/C line):

Disconnect the following connector.

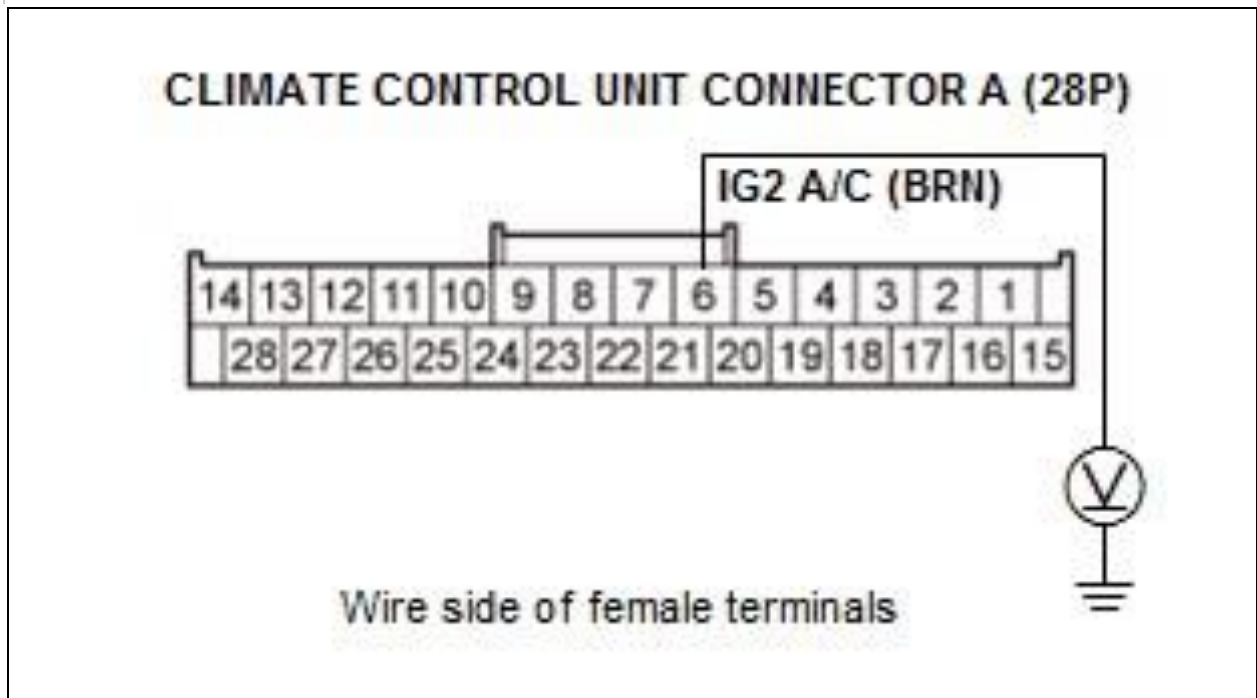
Climate control unit connector A (28P) - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18)

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

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

Test condition	ON mode
	Climate control unit connector A (28P): disconnected
Test circuit	IG2 A/C

Test point 1	Climate control unit connector A (28P) No. 6 (BRN)
Test point 2	Body ground



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

Is there battery voltage?

**YES**

The IG2 A/C wire is OK. Go to step 3.

**NO**

Repair an open in the wire between the No. B22 (7.5 A) fuse in the under-dash fuse/relay box and the climate control unit.

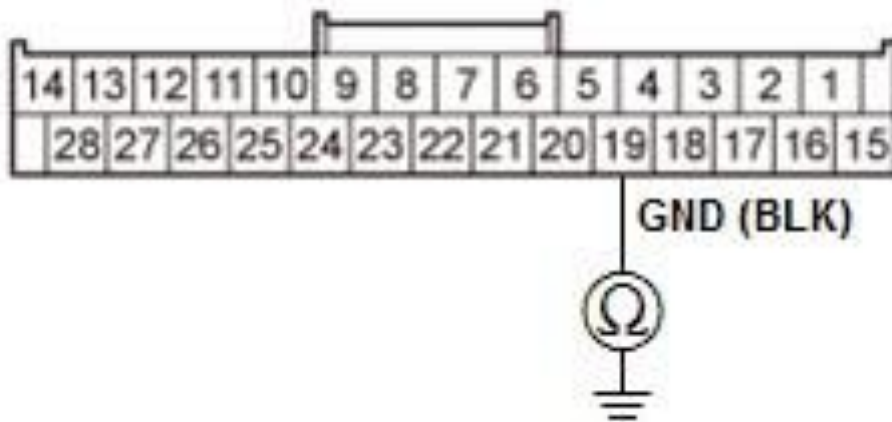
3. Open wire check (GND line):

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
	Climate control unit connector A (28P): disconnected
Test circuit	GND
Test point 1	Climate control unit connector A (28P) No. 19 (BLK)
Test point 2	Body ground

**CLIMATE CONTROL UNIT CONNECTOR A (28P)**



Wire side of female terminals

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

Is there continuity?

**YES**

The GND wire is OK. Replace the climate control unit - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18) .

**NO**

Check for an open in the wire between the climate control unit and body ground. If the wire is OK, check for poor ground at G503.

## TROUBLESHOOTING > HVAC DISPLAY COMMUNICATION LINE CIRCUIT TROUBLESHOOTING (WITHOUT NAVIGATION) (2013-18)

NOTE: Do this troubleshooting procedure only if sent here by symptom troubleshooting index .

1. Fuse check:

Check the following fuse.

Fuse	No. B22 (7.5 A)
Location	Under-dash fuse/relay box

Is the fuse OK?

**YES**

Go to step 2.

**NO**

Replace the fuse, and recheck. If the fuse blows again, repair a short in the No. B22 (7.5 A) fuse circuit.

2. Open wire check (IG2 A/C line):

Disconnect the following connector.

HVAC display unit 12P connector

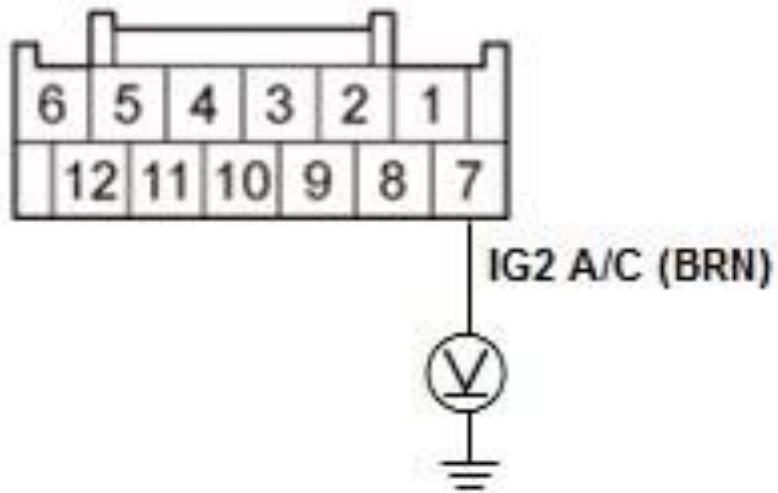
- 2. Press the engine start/stop button to select the ON mode. -

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

Test condition	ON mode
	HVAC display unit 12P connector: disconnected
Test circuit	IG2 A/C
Test point 1	HVAC display unit 12P connector No. 7 (BRN)
Test point 2	Body ground



## HVAC DISPLAY UNIT 12P CONNECTOR



Wire side of female terminals

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

Is there battery voltage?

**YES**

The IG2 A/C wire is OK. Go to step 3.

**NO**

Repair an open in the wire between the No. B22 (7.5 A) fuse in the under-dash fuse/relay box and the HVAC display unit.

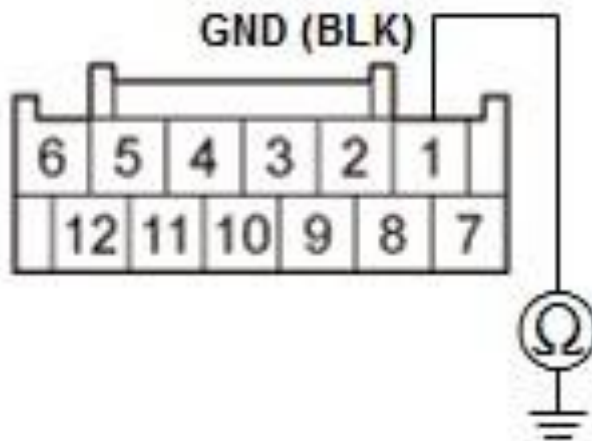
### 3. Open wire check (GND line):

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
	HVAC display unit 12P connector: disconnected
Test circuit	GND
Test point 1	HVAC display unit 12P connector No. 1 (BLK)
Test point 2	Body ground

## HVAC DISPLAY UNIT 12P CONNECTOR



Wire side of female terminals

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

Is there continuity?

**YES**

The GND wire is OK. Go to step 4.

**NO**

Check for an open in the wire between the HVAC display unit and body ground. If the wire is OK, check for poor ground at G506.

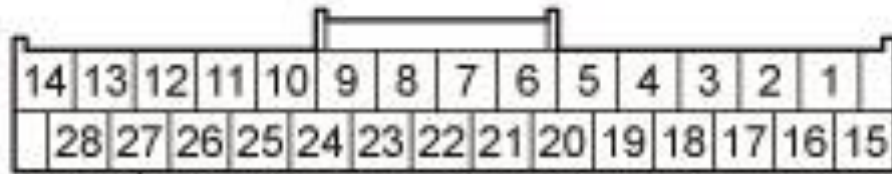
4. Open wire check (A/C SO line):  
Disconnect the following connector.

Climate control unit connector A (28P) - Refer to: Climate Control Unit Removal and Installation (201315), or Climate Control Unit Removal and Installation (2016-18)

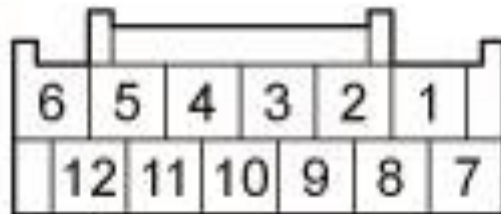
- 2. Check for continuity between test points 1 and 2.

Test condition	OFF mode
	Climate control unit connector A (28P): disconnected
	HVAC display unit 12P connector: disconnected
Test circuit	A/C SO
Test point 1	Climate control unit connector A (28P) No. 27 (RED)
Test point 2	HVAC display unit 12P connector No. 12 (RED)

**CLIMATE CONTROL UNIT CONNECTOR A (28P)**  
Wire side of female terminals



A/C SO (RED)



A/C SO (RED)

**HVAC DISPLAY UNIT 12P CONNECTOR**  
Wire side of female terminals

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

Is there continuity?

**YES**

The A/C SO wire is not open. Go to step 5.

**NO**

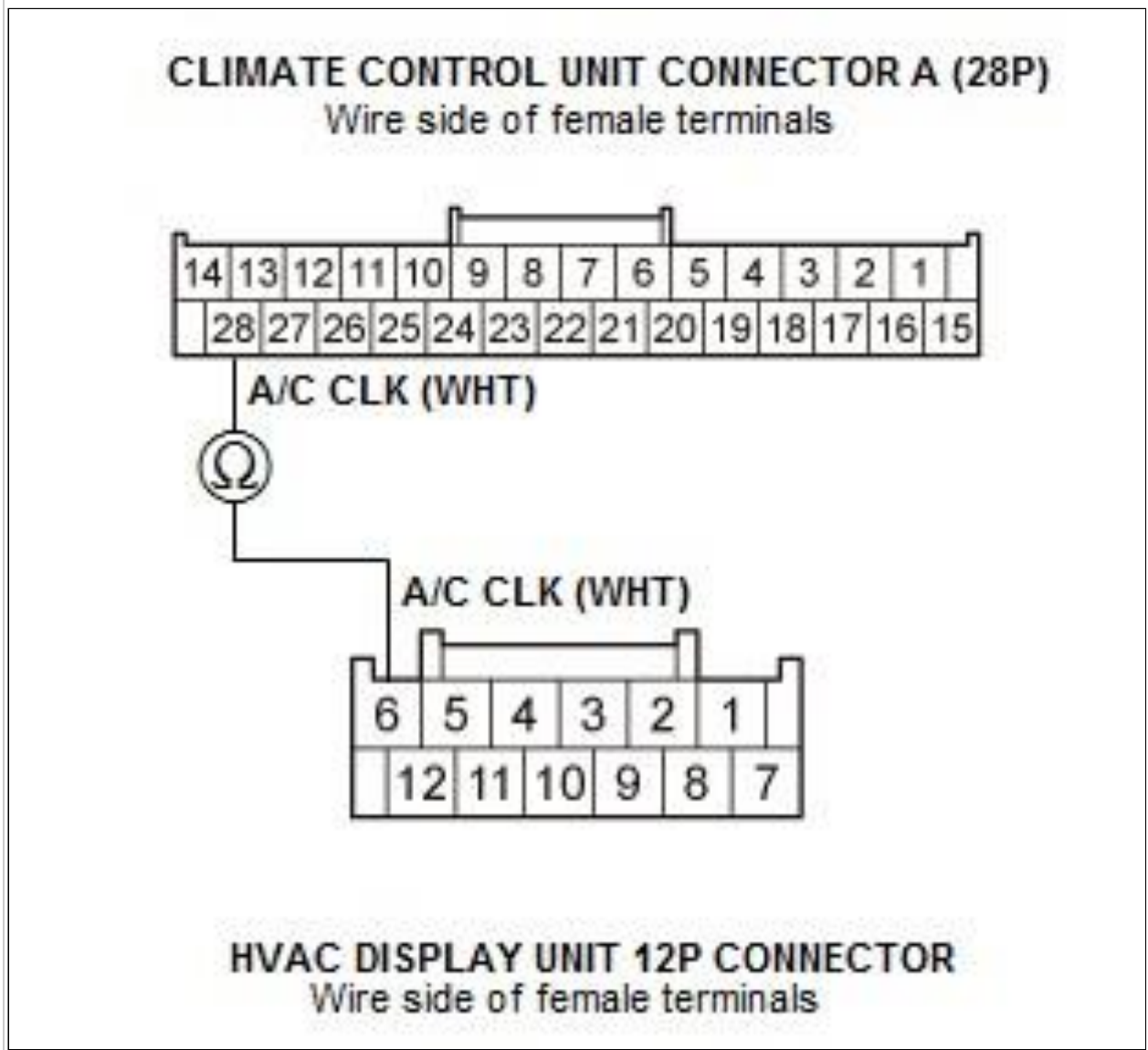
Repair an open in the wire between the climate control unit and the HVAC display unit.

5. Open wire check (A/C CLK line):

Check for continuity between test points 1 and 2.

Test condition	OFF mode
	Climate control unit connector A (28P): disconnected
	HVAC display unit 12P connector: disconnected

Test circuit	A/C CLK
Test point 1	Climate control unit connector A (28P) No. 28 (WHT)
Test point 2	HVAC display unit 12P connector No. 6 (WHT)



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

Is there continuity?

**YES**

The A/C CLK wire is not open. Go to step 6.

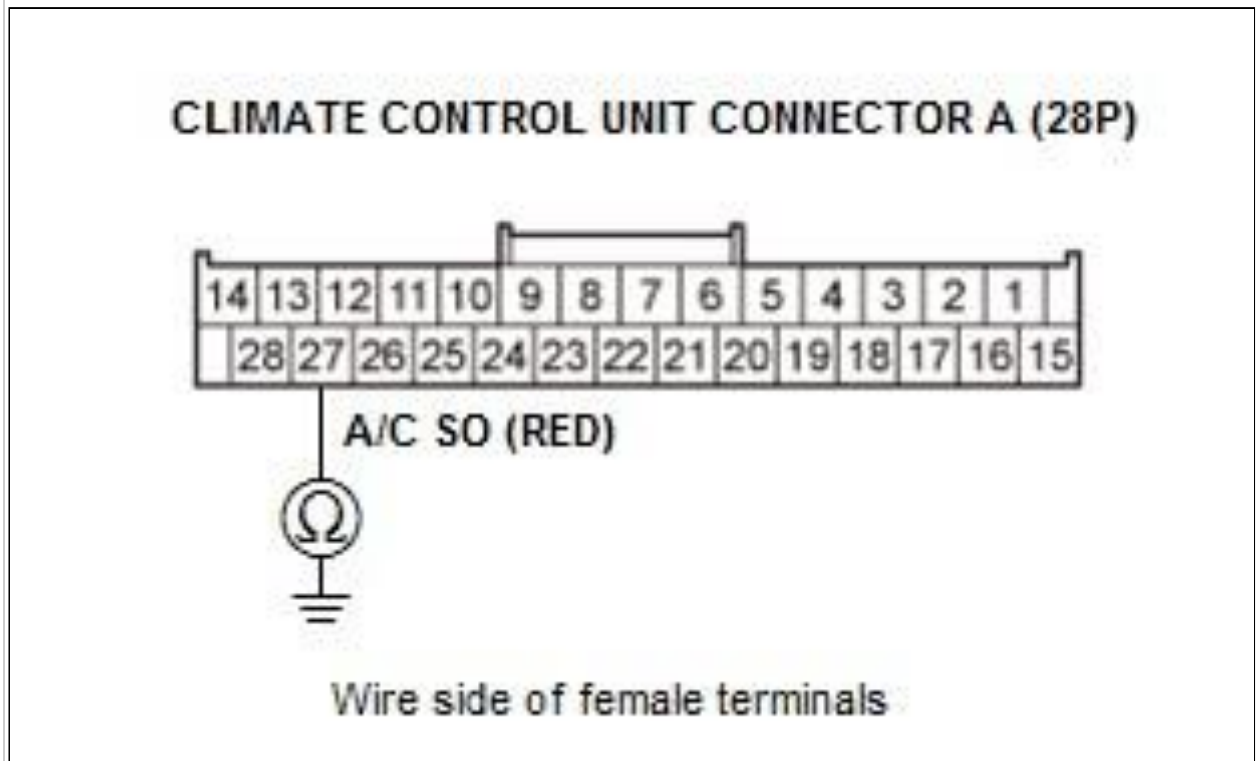
**NO**

Repair an open in the wire between the climate control unit and the HVAC display unit.

6. Shorted wire check (A/C SO line):  
Check for continuity between test points 1 and 2.

Test condition	OFF mode
----------------	----------

	Climate control unit connector A (28P): disconnected
	HVAC display unit 12P connector: disconnected
Test circuit	A/C SO
Test point 1	Climate control unit connector A (28P) No. 27 (RED)
Test point 2	Body ground



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

Is there continuity?

**YES**

Repair a short to body ground in the wire between the climate control unit and the HVAC display unit.

**NO**

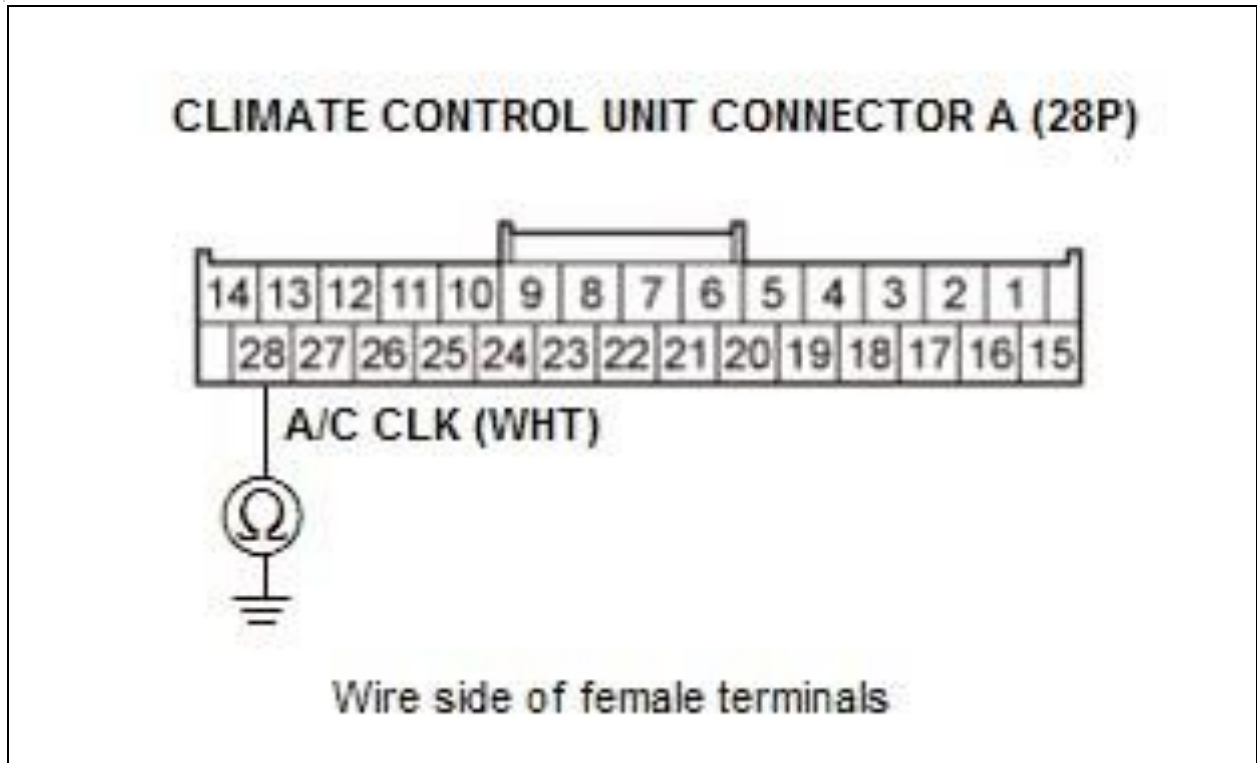
The A/C SO wire is OK. Go to step 7.

7. Shorted wire check (A/C CLK line):

Check for continuity between test points 1 and 2.

Test condition	OFF mode
	Climate control unit connector A (28P): disconnected
	HVAC display unit 12P connector: disconnected

Test circuit	A/C CLK
Test point 1	Climate control unit connector A (28P) No. 28 (WHT)
Test point 2	Body ground



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Is there continuity?

**YES**

Repair a short to body ground in the wire between the climate control unit and the HVAC display unit.

**NO**

The A/C CLK wire is OK. Go to step 8.

8. Climate control unit check:

Substitute a known-good HVAC display unit - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18) . - 2. Reconnect the following connector.

Climate control unit connector A (28P) - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18)

HVAC display unit 12P connector

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

Is the HVAC display unit operative?

**YES**

Replace the original HVAC display unit .

**NO**

Replace the climate control unit - Refer to: Climate Control Unit Removal and Installation (2013-15), or Climate Control Unit Removal and Installation (2016-18) .

**HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (2013-15) > HOW TO CHECK FOR DTCS WITH THE HDS****NOTE:**

- There are three methods used to check for DTCs. The recommended method is to use the Honda Diagnostic System (HDS) with the appropriate software, plugged into the data link connector (DLC).
  - The second method is to run the self-diagnostic function built into the climate control unit.
  - The third method is to use B-CAN system diagnosis test mode A - Refer to: Body Electrical Troubleshooting - B-CAN System Diagnosis Test Mode A - Initial Communication and DTC Checks (2013-15) .

1. Make sure the vehicle ignition is OFF mode
2. Connect the HDS to the DLC (A) located under the driver's side of the dashboard.







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3. Press the engine start/stop button to select the ON mode.
4. Make sure the HDS communicates with the vehicle and the climate control unit. If it does not, go to the DLC circuit troubleshooting .
5. Select BODY ELECTRICAL in the System Selection Menu.
6. Select HVAC/Climate Control in the Body Electrical System Select.
7. Select DTCs in the HVAC/Climate Control Mode Menu.

8. Check for DTCs. If any DTCs are indicated, write down the DTCs, then go to the indicated DTC troubleshooting. If no DTCs are indicated, do all system scan, then refer to symptom troubleshooting.

**NOTE:**

1. After troubleshooting, clear the DTCs with the HDS.
2. For specific operations, refer to the user's manual that came with the HDS.

## **HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (2013-15) > HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**

**NOTE:** This method is only available if the HDS can communicate with the climate control unit.

1. Make sure the vehicle ignition is OFF mode.
2. Connect the HDS to the DLC.
3. Press the engine start/stop button to select the ON mode.
4. Make sure the HDS communicates with the vehicle and the climate control unit. If it does not, go to the DLC circuit troubleshooting .
5. Select BODY ELECTRICAL in the System Selection Menu.
6. Select HVAC/Climate Control in the Body Electrical System Select.
7. Select Inspection in the HVAC/Climate Control Mode Menu.
8. Select Climate Control Unit Self Test in the Inspection Menu.
9. DTCs. If any DTCs are indicated, write down the DTCs, then go to the indicated DTC troubleshooting.

**NOTE:**

1. After troubleshooting, clear the DTCs with the HDS.
2. For specific operations, refer to the user's manual that came with the HDS.

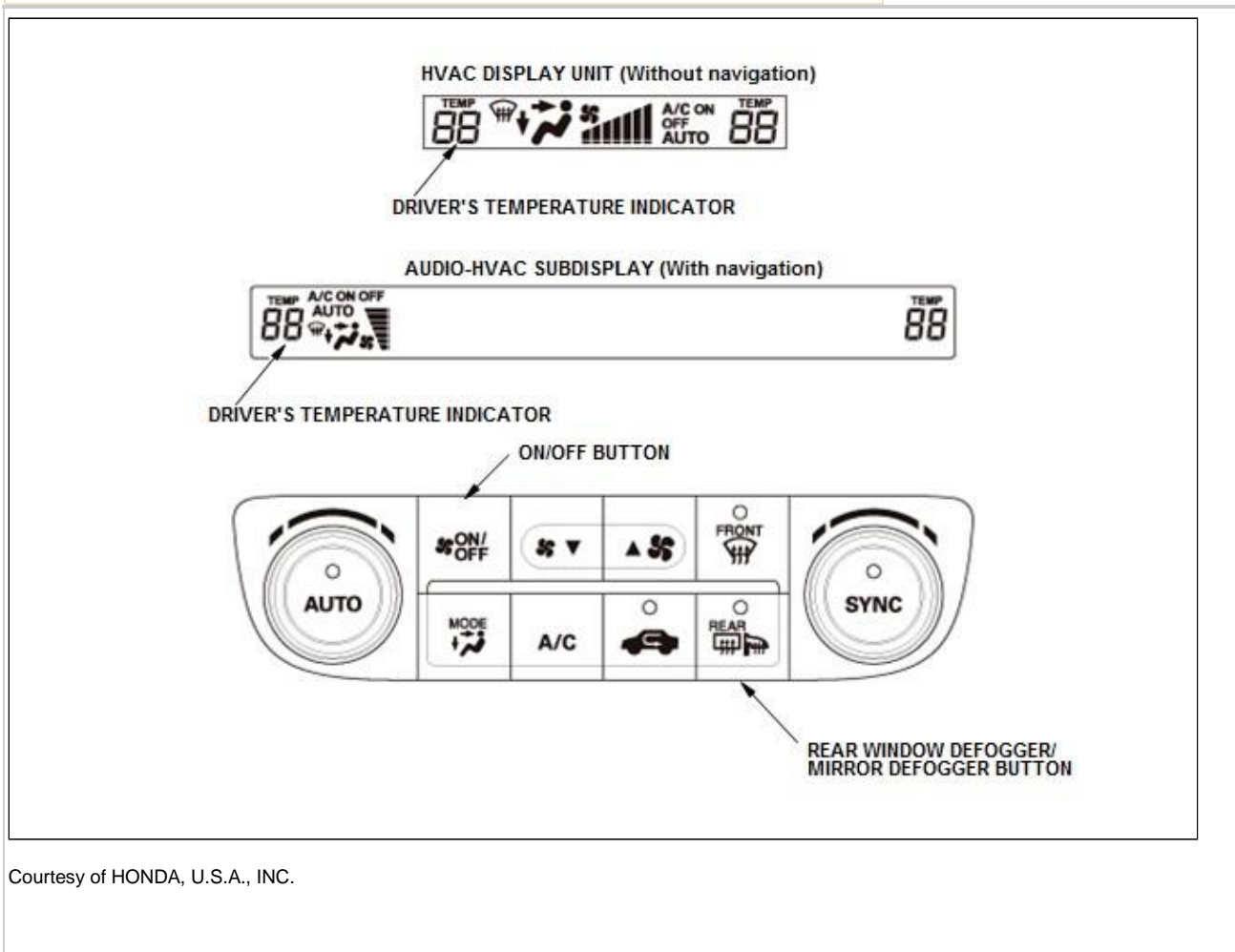
## **HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (2013-15) > HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT THE HDS**

The climate control unit has a self-diagnostic function. To run the self-diagnostic function, do the following:

1. Press the engine start/stop button to select the OFF mode and then the ON mode
2. Press and hold the ON/OFF button, then within 10 seconds press and release the REAR WINDOW DEFOGGER/MIRROR DEFOGGER button five times. Release the ON/OFF button
3. ALL LCD segments come on for 2 seconds, then the self-diagnostic function begins.

NOTE:

- The blower motor will run at various speeds regardless of what the panel is displaying.
- If there is any problem in the system, the driver's temperature indicator flashes 88 or alternately flashes 88. Refer to checking for DTCs.
- If there is more than one DTC, they are displayed one at a time in sequence followed by a pause (all the display indicator segments illuminate) between the DTCs.
- If there are no problems detected, the system will flash no.



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### Canceling the Self-Diagnostic Function

4. Press the engine start/stop button to select the OFF mode, to cancel the self-diagnostic function. After completing repair work, run the self-diagnostic function again to make sure that there are no other DTCs.

### HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (2013-15) > HOW TO CHECK THE PAST DTCS

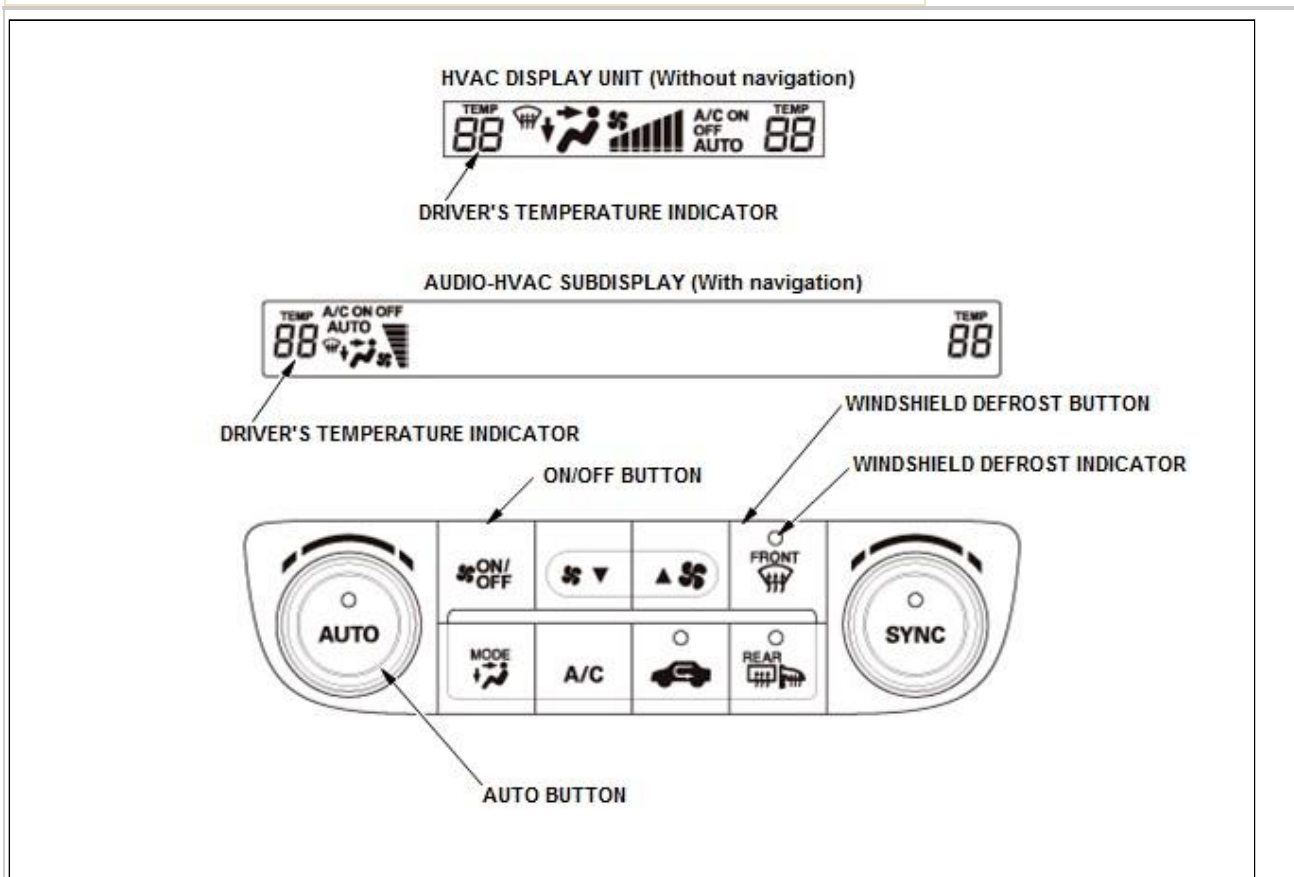
The climate control unit can record DTCs of the past trouble. How to read the past DTC is as follows.

1. Press the engine start/stop button to select the OFF mode and then the ON mode
2. Press and hold both the AUTO and ON/OFF buttons

3. During press and hold both the AUTO and ON/OFF buttons, the past trouble is indicating.

NOTE:

- If there is any problem in the system, the driver's temperature indicator flashes 88 or alternately flashes 88. Refer to checking for DTCs.
- If there is more than one DTC, they are displayed one at a time in sequence followed by a pause (all the display indicator segments illuminate) between the DTCs.
- If there are no problems detected, the system will flash no.



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### Canceling the Read Past DTCs

4. Press the engine start/stop button to select the OFF mode, to cancel the read past DTCs. After completing the repair work, clear the DTCs.

### HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (2013-15) > HOW TO CLEAR THE PAST DTCS

1. Press the engine start/stop button to select the OFF mode
2. Press and hold both the AUTO and WINDSHIELD DEFROST buttons, then press the engine start/stop button to select the ON mode
3. After about 5 seconds the windshield defrost indicator starts to blink, release the buttons

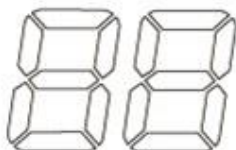
4. Do the How to check the past DTCs to verify DTCs have been cleared.

## HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (2013-15) > CHECKING FOR DTCS

The driver's temperature indicator display indicates single or multiple DTCs. If no DTCs are present, the indicator remains will flash no.

NOTE: If the driver's temperature indicator segments 03, 05, 07, 09, 40, 43, 49, and 55 indicator are on at the same time, there may be an open in the sensor common ground wire.

DRIVER'S TEMPERATURE INDICATOR



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

DTC (Temperature Indicator Segments)	DTC	Detection Item
03	B1225	An open in the in-car temperature sensor circuit
04	B1226	A short in the in-car temperature sensor circuit
05	B1227	An open in the outside air temperature sensor circuit
06	B1228	A short in the outside air temperature sensor circuit
07	B1229	An open in the sunlight sensor circuit
08	B1230	A short in the sunlight sensor circuit
09	B1231	An open in the evaporator temperature sensor circuit
0A	B1232	A short in the evaporator temperature sensor circuit
40	B1233	An open in the air mix control motor circuit (driver's)
41	B1234	A short in the air mix control motor circuit (driver's)

42	B1235	A problem in the air mix control motor circuit, linkage, door, or motor (driver's)
43	B1236	An open in the passenger's air mix control motor circuit
44	B1237	A short in the passenger's air mix control motor circuit
45	B1238	A problem in the passenger's air mix control motor circuit, linkage, door, or motor
49	B121A	An open in the mode control motor circuit
4A	B121B	A short in the mode control motor circuit
4B	B1240	A problem in the mode control motor circuit, linkage, door, or motor
55	B2986	An open in the recirculation control motor circuit
56	B1220	A short in the recirculation control motor circuit
57	B2983	A problem in the recirculation control motor circuit, linkage, door, or motor
59	B1241	A problem in the blower motor circuit
80	U1280	Communication bus line error (BUS-OFF)
81	U128D	Climate control unit lost communication with gauge control module (ECT message)
83	U128D	Climate control unit lost communication with gauge control module (VSP message)
C0	- - -	Climate control unit internal error

### **HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (2013-15) > DISPLAYING SENSOR INPUTS AT THE CLIMATE CONTROL UNIT**

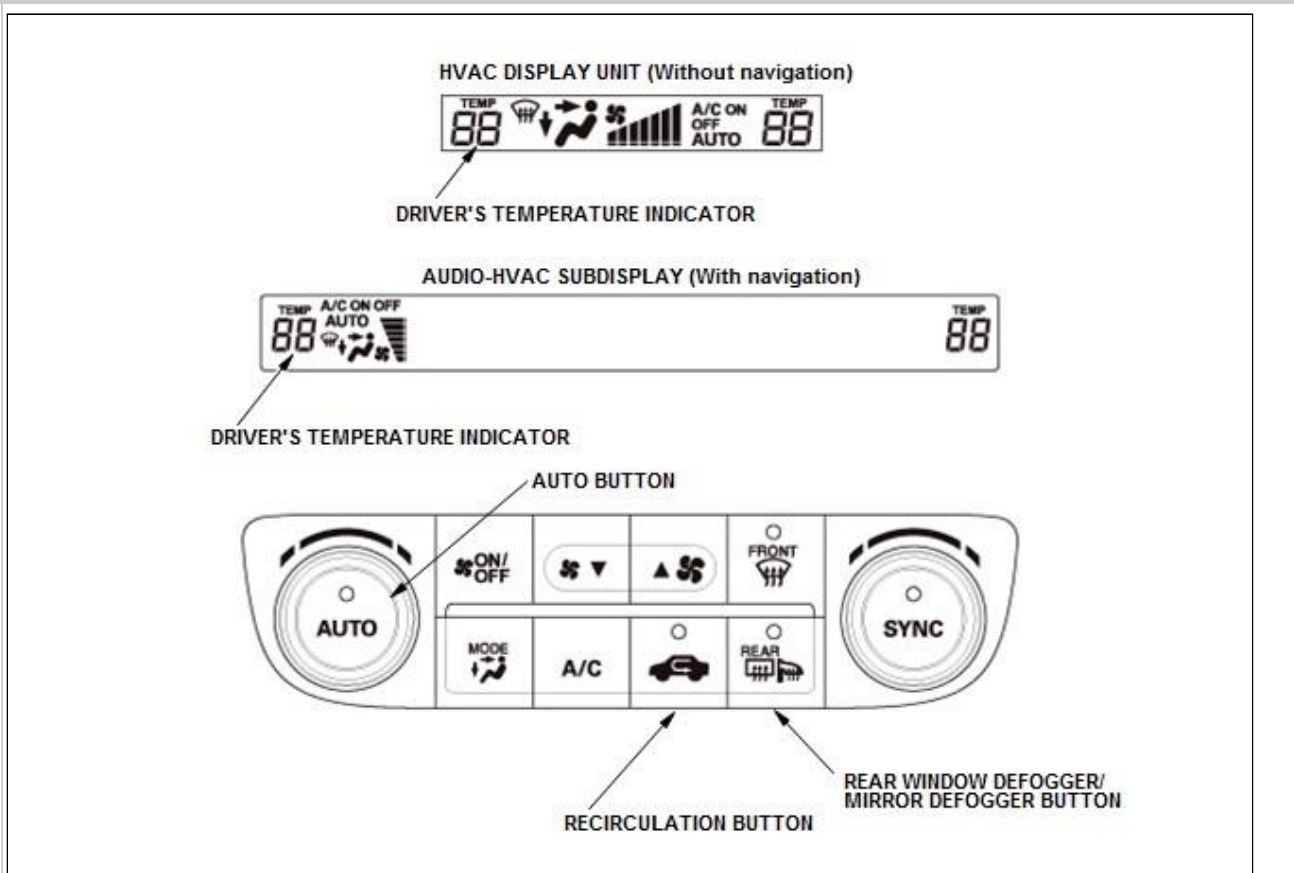
The climate control unit has a mode that displays the sensor inputs it receives. This mode shows you what the climate control unit is receiving from each of the sensors, one at a time, and it can help you determine if a sensor is faulty.

### **HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (2013-15) > CHECKS BEFORE USING THE SENSOR INPUT DISPLAY MODE**

1. Press the engine start/stop button to select the ON mode, and check the recirculation door function; press the RECIRCULATION button to switch from FRESH to RECIRC. The air volume and sound should change slightly
2. Set the TEMPERATURE CONTROL dial to the desired test temperature:
  - "Lo" temperature setting will default to MAX COOL, VENT, and RECIRC (A/C on) or FRESH (A/C off).
  - "Hi" temperature setting will default to MAX HOT, HEAT, HEAT/DEF, and FRESH.
  - 58 through 86 °F (14 through 30 °C) settings will use the automatic climate control logic.
3. Press the engine start/stop button to select the OFF mode.

## HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (2013-15) > RUN THE SENSOR INPUT DISPLAY MODE

1. Press and hold both the AUTO and RECIRCULATION buttons, then start the engine.



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2. Release both buttons. The driver's temperature indicator will flash the sensor number and then the value for that sensor. Record the value displayed
3. To advance to the next sensor, press the REAR WINDOW DEFOGGER/MIRROR DEFOGGER button.

### NOTE:

- The sensor values will be displayed in degrees Celsius (°C) or an alphanumeric code. Use the chart to convert the value to degrees Fahrenheit (°F).
- If the sensor value displays "Er", this indicates there is an open or short in the circuit or sensor. Check for DTCs using the HDS, or use the climate control self-diagnostic function.
  - necessary, compare the sensor input display to a known good vehicle under the same test conditions.
  - If the sensor displayed value is out of the normal range, refer to the sensor test or substitute a known-good sensor, and recheck.

Sensor	Item	Displayed Value
1	Mode positioning	%
2	In-car temperature	°C
3	Outside air temperature	°C
Sensor	Item	Displayed Value
4	Solar radiation sensor value: dark = 00, flashlight = 04, cloudy = 10, sunny = 65	10 kcal/m <sup>2</sup> .h
5	Evaporator outlet air temperature	°C
6	Driver's air mix opening (low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
7	Passenger's air mix opening (low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
8	Recirculation control opening	% of opening
9	Vehicle speed (vehicle must be driven to display speed)	10 km/h
A	Engine coolant temperature	°C
b	Vent temperature air out (TAO) (driver's)	°C
d	Illumination duty	Step
H	Software version	-

#### Celsius to Fahrenheit Conversion Table

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0	32	10	50	20	68	30	86	40	104
1	34	11	52	21	70	31	88	41	106
2	36	12	54	22	72	32	90	42	108
3	37	13	55	23	73	33	91	43	109
4	39	14	57	24	75	34	93	44	111
5	41	15	59	25	77	35	95	45	113
6	43	16	61	26	79	36	97	46	115



7	45	17	63	27	81	37	99	47	117
8	46	18	64	28	82	38	100	48	118
9	48	19	66	29	84	39	102	49	120
°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
50	122	60	140	70	158	80	176	90	194
51	124	61	142	71	160	81	178	91	196
52	126	62	144	72	162	82	180	92	198
53	127	63	145	73	163	83	181	93	199
54	129	64	147	74	165	84	183	94	201
55	131	65	149	75	167	85	185	95	203
56	133	66	151	76	169	86	187	96	205
57	135	67	153	77	170	87	189	97	207
58	136	68	154	78	172	88	190	98	208
59	138	69	156	79	174	89	192	99	210

**Alphanumeric Conversion Table**

Display Reading (Alphanumeric)	°C	°F	%
A1 thru A9	-1 thru -9	30 thru 16	-1 thru -10
B0 thru B9	-10 thru -19	14 thru -2	-10 thru -19
C0 thru C9	-20 thru -29	-4 thru -20	-20 thru -29
D0 thru D9	-30 thru -39	-22 thru -38	-30 thru -39
E0 thru E9	-40 thru -49	-40 thru -56	-40 thru -49
E9	-50 or less	-58 or less	-50 or less

**Alphanumeric Conversion Table (Mode Positioning)**

Display Reading (Alphanumeric)	Mode Position
0	VENT

18	HEAT/VENT-1
33	HEAT/VENT-2
50	HEAT
66	HEAT/DEF-1
80	HEAT/DEF-2
F0	DEF

**HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITH NAVIGATION) (2016-18) > HOW TO CHECK FOR DTCS WITH THE HDS**

NOTE:

- There are three methods used to check for DTCS. The recommended method is to use the Honda Diagnostic System (HDS) with the appropriate software, plugged into the data link connector (DLC).
  - The second method is to run the self-diagnostic function built into the climate control unit.
  - The third method is to use B-CAN system diagnosis test mode A - Refer to: Body Electrical Troubleshooting - B-CAN System Diagnosis Test Mode A - Initial Communication and DTC Checks (2016-18), .

1. Make sure the vehicle ignition is OFF mode
2. Connect the HDS to the DLC (A) located under the driver's side of the dashboard.





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3. Press the engine start/stop button to select the ON mode.
4. Make sure the HDS communicates with the vehicle and the climate control unit. If it does not, go to the DLC circuit troubleshooting .
5. Select BODY ELECTRICAL in the System Selection Menu.
6. Select HVAC/Climate Control in the Body Electrical System Select.
7. Select DTCs in the HVAC/Climate Control Mode Menu.

8. Check for DTCs. If any DTCs are indicated, write down the DTCs, then go to the indicated DTC troubleshooting. If no DTCs are indicated, do all system scan, then refer to symptom troubleshooting.

**NOTE:**

1. After troubleshooting, clear the DTCs with the HDS.
2. For specific operations, refer to the user's manual that came with the HDS.

## **HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITH NAVIGATION) (2016-18) > HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**

**NOTE:** This method is only available if the HDS can communicate with the climate control unit.

1. Make sure the vehicle ignition is OFF mode.
2. Connect the HDS to the DLC.
3. Press the engine start/stop button to select the ON mode.
4. Make sure the HDS communicates with the vehicle and the climate control unit. If it does not, go to the DLC circuit troubleshooting .
5. Select BODY ELECTRICAL in the System Selection Menu.
6. Select HVAC/Climate Control in the Body Electrical System Select.
7. Select Inspection in the HVAC/Climate Control Mode Menu.
8. Select Climate Control Unit Self Test in the Inspection Menu.
9. Check for DTCs. If any DTCs are indicated, write down the DTCs, then go to the indicated DTC troubleshooting.

**NOTE:**

1. After troubleshooting, clear the DTCs with the HDS.
2. For specific operations, refer to the user's manual that came with the HDS.

## **HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITH NAVIGATION) (2016-18) > HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT THE HDS**

The climate control unit has a self-diagnostic function. To run the self-diagnostic function, do the following:

1. Press the engine start/stop button to select the OFF mode and then the ACCESSORY mode.

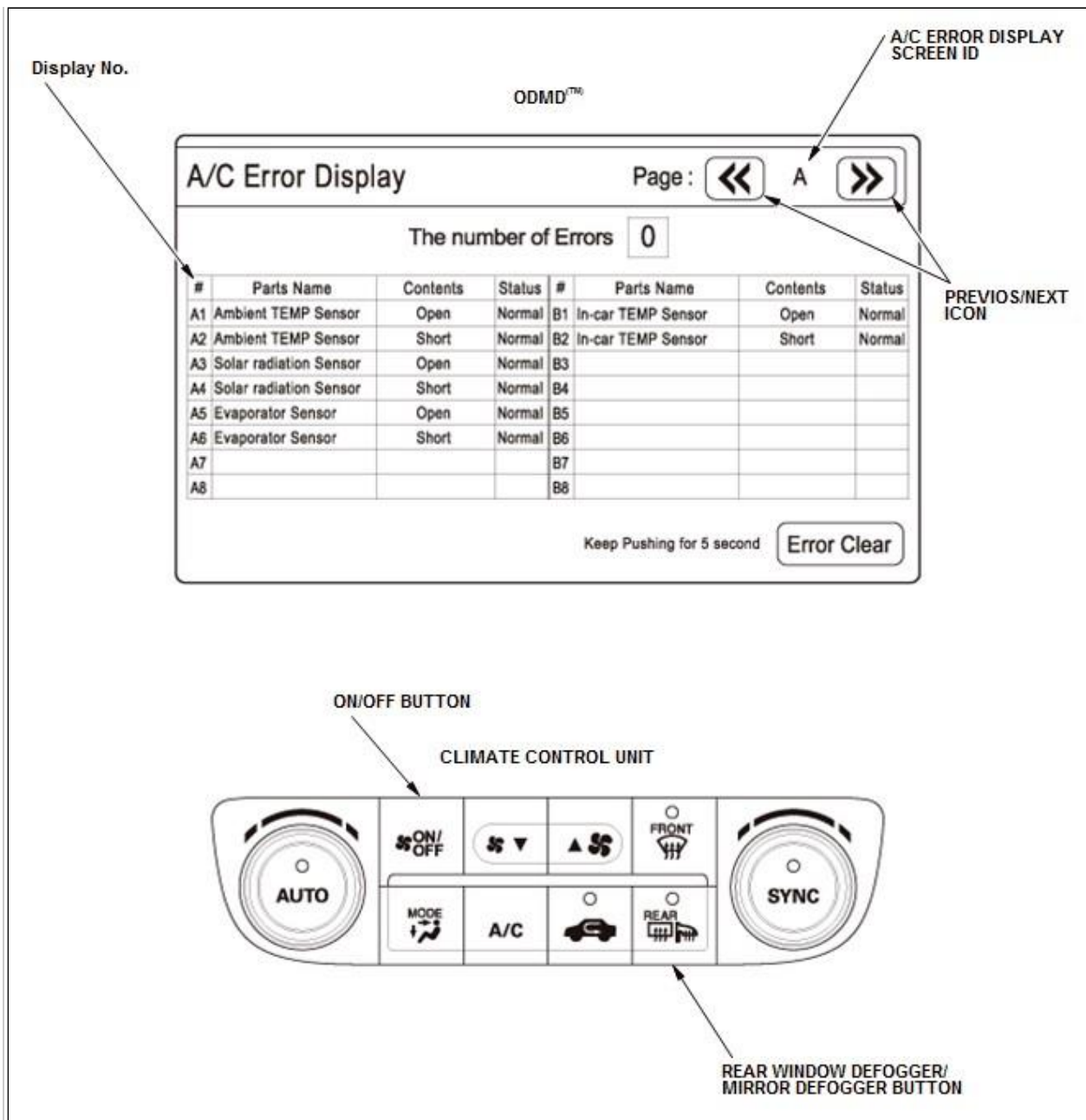
**NOTE:** Make sure the ODMD (TM) is activated and the image is displayed on the screen

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

3. Press and hold the ON/OFF button, then within 10 seconds press and release the REAR WINDOW DEFOGGER/MIRROR DEFOGGER button five times. Release the ON/OFF button, then the self-diagnostic function begins.

**NOTE:**

- The self-diagnostic function is engaged when the "Under A/C self diagnostic" window appears at the bottom of the ODMD(TM) .
- The blower motor should run at various speeds when in the self-diagnostic mode.
- If there are any problems in the system, the A/C Error Display screen will indicate them. Select the previous/next icon to confirm the DTCs. To determine the meaning of the indication, refer to the table that follows.
- If there are no problems detected, Normal is indicated.



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### Canceling the Self-Diagnostic Function

4. Press the engine start/stop button to select the OFF mode to cancel the self-diagnostic function. After completing repair work, run the self-diagnostic function again to make sure that there are no other DTCs.

## HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITH NAVIGATION) (2016-18) > HOW TO CHECK FOR HISTORY DTCs

The climate control unit can record history DTCs. To read the history DTCs, do the following:

1. Press the engine start/stop button to select the OFF mode and then the ACCESSORY mode.

(TM)

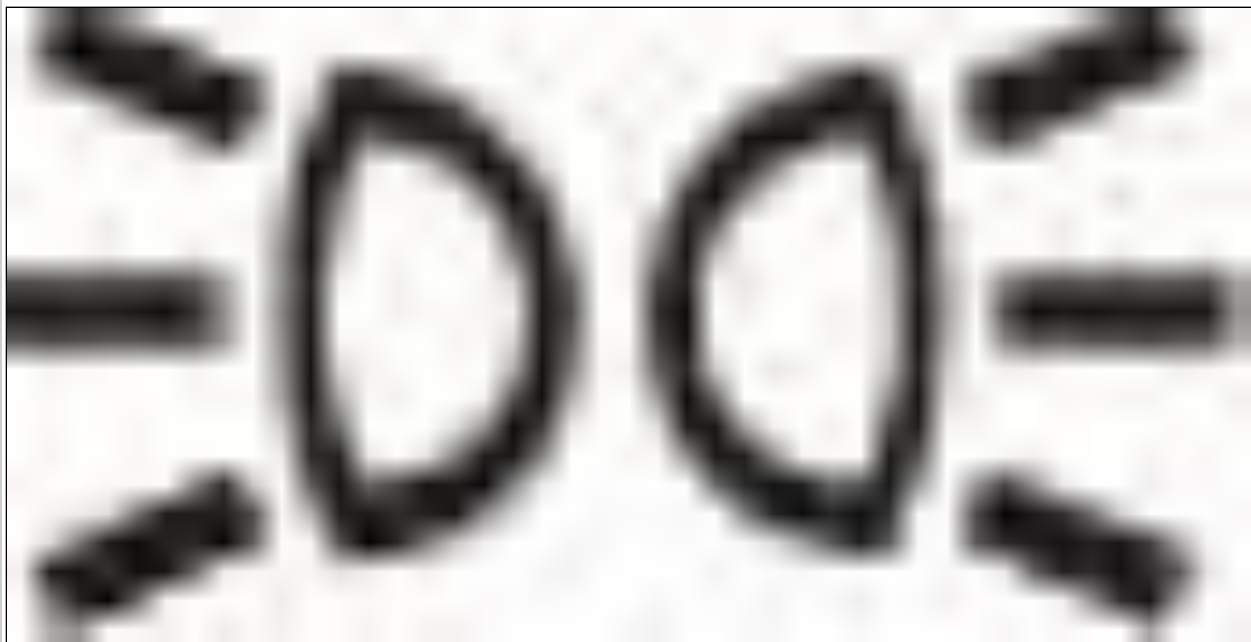
NOTE: Make sure the ODMD is activated and the image is displayed on the screen

2. Press the engine start/stop button to select the ON mode
3. Turn the combination light switch OFF, then to the parking position (



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- )
2. Press and hold the WINDSHIELD DEFROST button, then press and hold the ON/OFF button
  3. While holding the buttons, turn the combination light switch OFF, then to the parking position (



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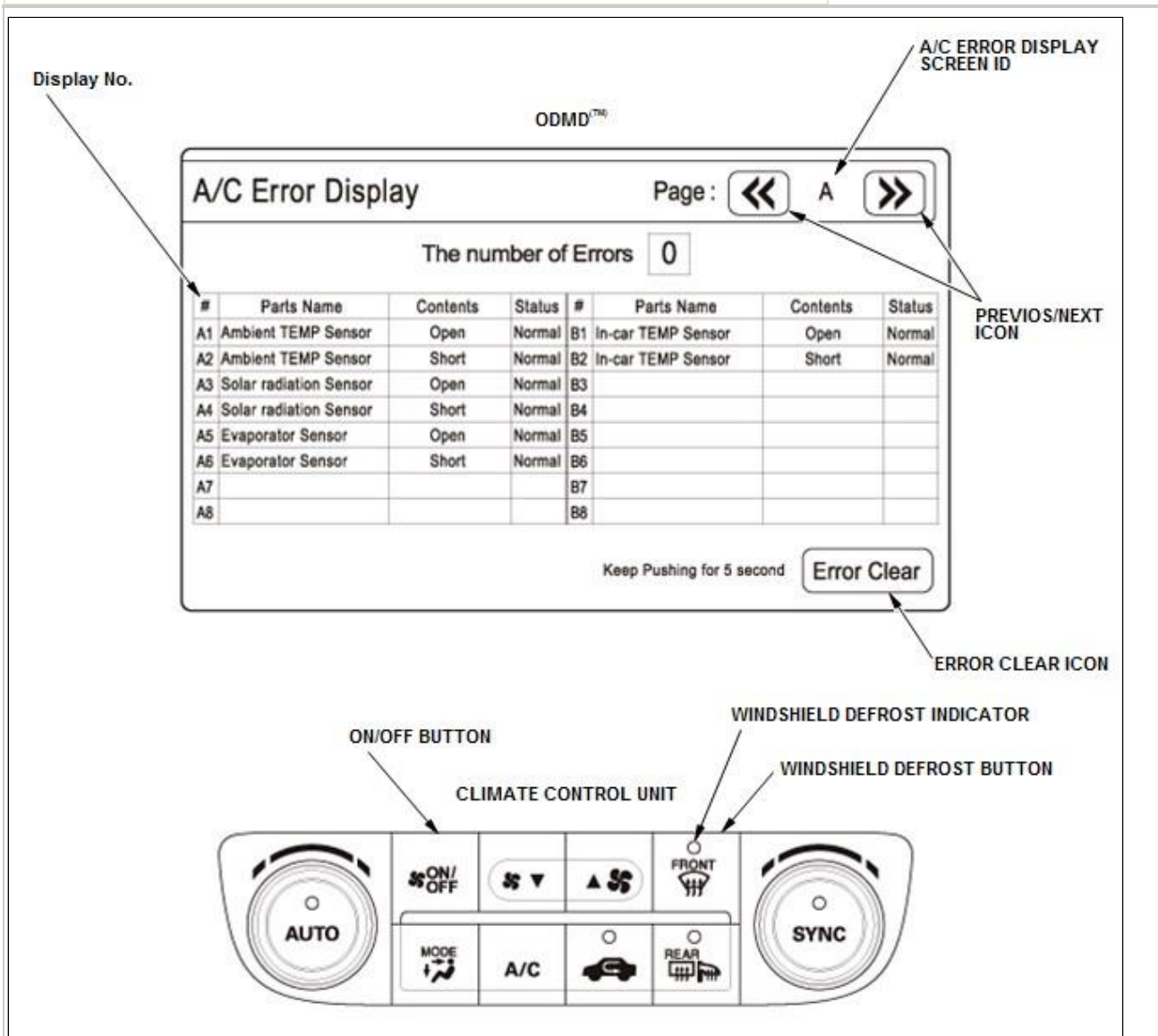


) and OFF again

2. While pressing and holding both the WINDSHIELD DEFROST and ON/OFF buttons, the history DTCs will be indicated.

**NOTE:**

- If there are any problems in the system, the A/C Error Display screen will indicate them. Select the previous/next icon to confirm the DTCs. To determine the meaning of the indication, refer to the table that follows.
- If there are no problems detected, Normal is indicated.



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### Canceling the Read History DTCs

7. Press the engine start/stop button to select the OFF mode to cancel reading the history DTCs. After completing the repair work, clear the DTCs.

## HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITH NAVIGATION) (2016-18) > HOW TO CLEAR THE HISTORY DTCs

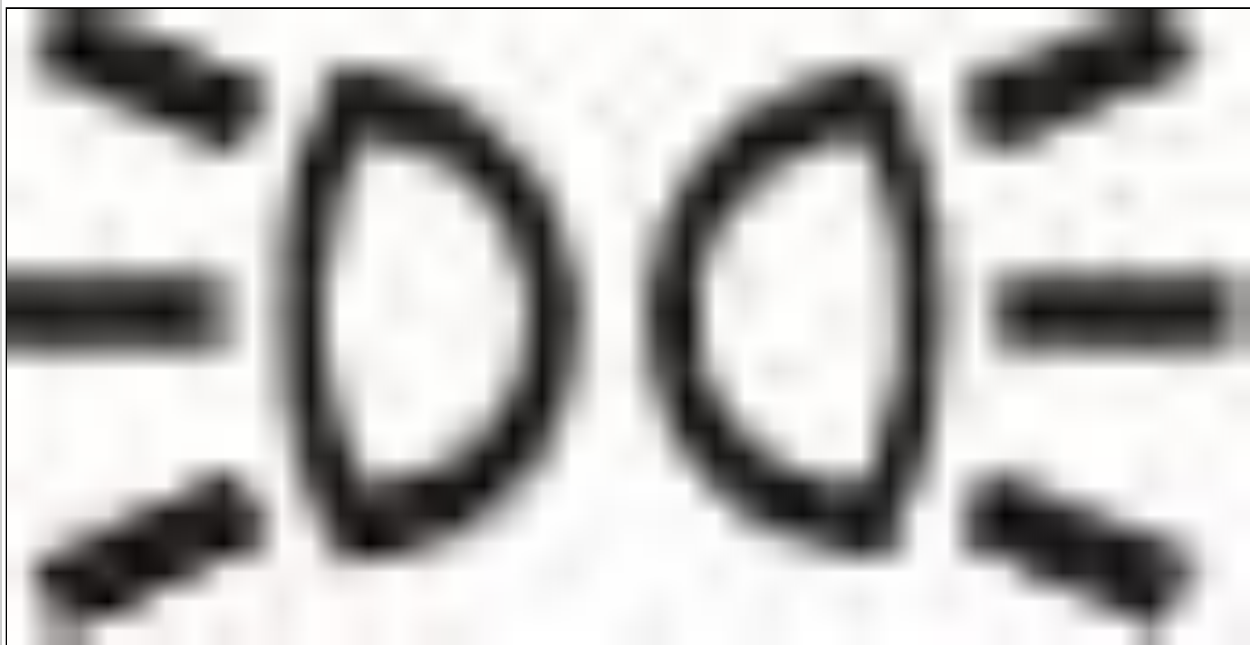
1. Press the engine start/stop button to select the OFF mode and then the ACCESSORY mode.

(TM)

NOTE: Make sure the ODMD is activated and the image is displayed on the screen

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

3. Turn the combination light switch OFF, then to the parking position (

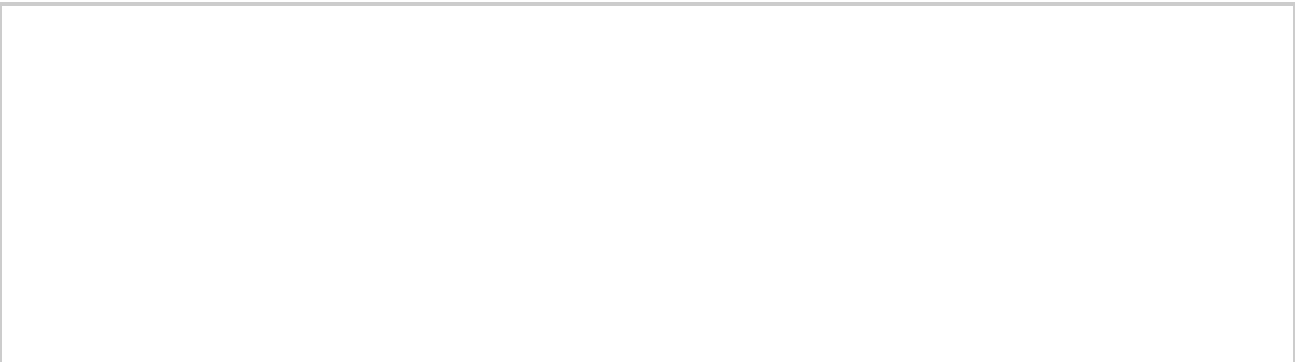


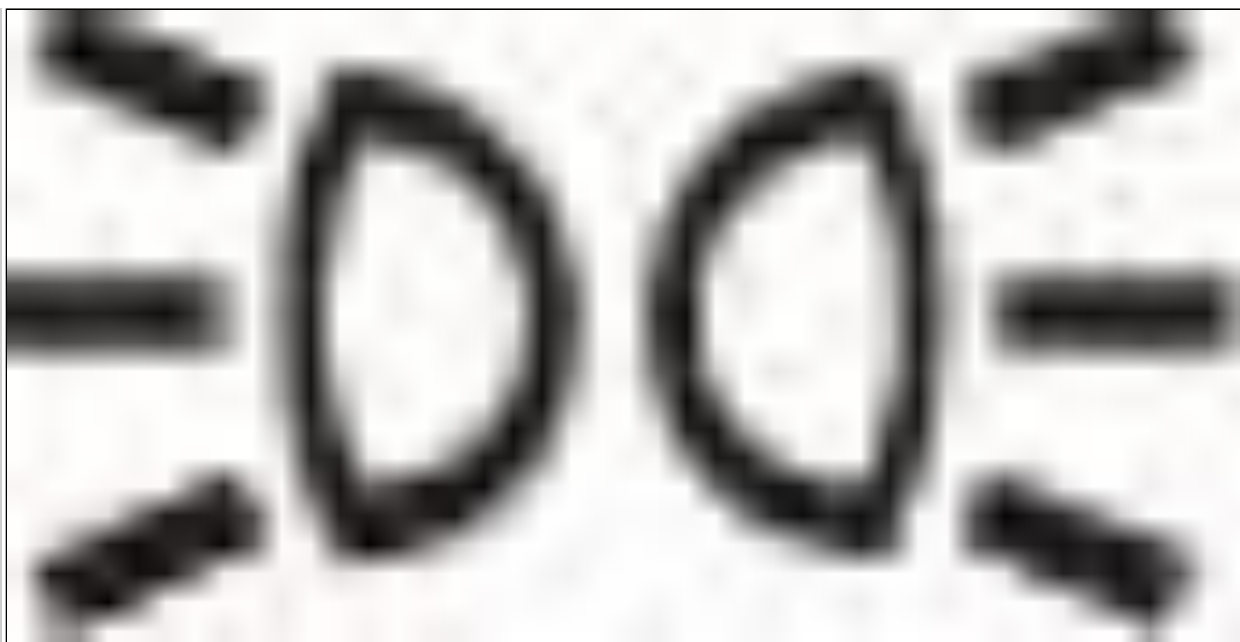
Courtesy of HONDA, U.S.A., INC.

)

2. Press and hold the WINDSHIELD DEFROST button, then press and hold the ON/OFF button

3. While holding the buttons, turn the combination light switch OFF, then to the parking position (





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- ) and OFF again
- 2. While pressing and holding both the WINDSHIELD DEFROST and ON/OFF buttons, touch and hold the Error Clear icon for 5 seconds
- 3. Do the How to Check for History DTCs to verify DTCs have been cleared.

**HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITH NAVIGATION) (2016-18) > CHECKING FOR DTCs**

A/C Error Display Screen ID	Display No.	Parts Name	Contents	DTC	Detection Item
A	A1	Ambient TEMP Sensor	Open	B1227	An open in the outside air temperature sensor circuit
	A2	Ambient TEMP Sensor	Short	B1228	A short in the outside air temperature sensor circuit
	A3	Solar radiation Sensor	Open	B1229	An open in the sunlight sensor circuit
	A4	Solar radiation Sensor	Short	B1230	A short in the sunlight sensor circuit
	A5	Evaporator Sensor	Open	B1231	An open in the evaporator temperature sensor circuit

A6	Evaporator Sensor	Short	B1232	A short in the evaporator temperature sensor circuit
B1	In-car TEMP Sensor	Open	B1225	An open in the in-car temperature sensor circuit
B2	In-car TEMP Sensor	Short	B1226	A short in the in-car temperature sensor circuit

\*: It is constantly displayed as "Normal" even though F-CAN line has a failure.

A/C Error Display Screen ID	Display No.	Parts Name	Contents	DTC	Detection Item
B	A1	A/M motor(Dr)	Open	B1233	An open in the air mix control motor circuit (driver's)
	A2	A/M motor(Dr)	Short	B1234	A short in the air mix control motor circuit (driver's)
	A3	A/M motor(Dr)	Lock	B1235	A problem in the air mix control motor circuit, linkage, door, or motor (driver's)
	A4	A/M motor(As)	Open	B1236	An open in the passenger's air mix control motor circuit
	A5	A/M motor(As)	Short	B1237	A short in the passenger's air mix control motor circuit
	A6	A/M motor(As)	Lock	B1238	A problem in the passenger's air mix control motor circuit, linkage, door, or motor
	B4	MODE motor(Dr)	Open	B121A	An open in the mode control motor circuit
	B5	MODE motor(Dr)	Short	B121B	A short in the mode control motor circuit
	B6	MODE motor(Dr)	Lock	B1240	A problem in the mode control motor circuit, linkage, door, or motor
C	A4	R/F motor	Open	B2986	An open in the recirculation control motor circuit
	A5	R/F motor	Short	B1220	A short in the recirculation control motor circuit

	A6	R/F motor	Lock	B2983	A problem in the recirculation control motor circuit, linkage, door, or motor
	A7	Blower motor	Lock	B1241	A problem in the blower motor circuit
D	A1	B-CAN	BUS OFF	U1280	Communication bus line error (BUS-OFF)
	A2	Meter (BCAN)	Lost COMM	U128D	Lost communication with gauge control module (climate control unit)
	A7*	FCAN	Lost COMM	- - -	- - -
	B2	MICU(BCAN)	Lost COMM	U1281	Lost communication with MICU (climate control unit)
	B8	FLASH	Read/Write Error	- - -	Climate control unit internal error

\*: It is constantly displayed as "Normal" even though F-CAN line has a failure.

## HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITH NAVIGATION) (2016-18) > DISPLAYING SENSOR INPUTS AT THE CLIMATE CONTROL UNIT

The climate control unit has a mode that displays the sensor inputs it receives. This mode shows you what the climate control unit is receiving from each of the sensors, one at a time, and it can help you determine if a sensor is faulty.

## HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITH NAVIGATION) (2016-18) > CHECKS BEFORE USING THE SENSOR INPUT DISPLAY MODE

1. Press the engine start/stop button to select the ON mode, and check the recirculation door function;press the RECIRCULATION button to switch from FRESH to RECIRC. The air volume and sound should change slightly
2. Set the TEMPERATURE CONTROL dial to the desired test temperature:
  - "Lo" temperature setting will default to MAX COOL, VENT, and RECIRC (A/C on) or FRESH (A/C off).
  - "Hi" temperature setting will default to MAX HOT, HEAT, HEAT/DEF, and FRESH.
  - 58 through 86 °F (14 through 30 °C) settings will use the automatic climate control logic.
3. Press the engine start/stop button to select the OFF mode.

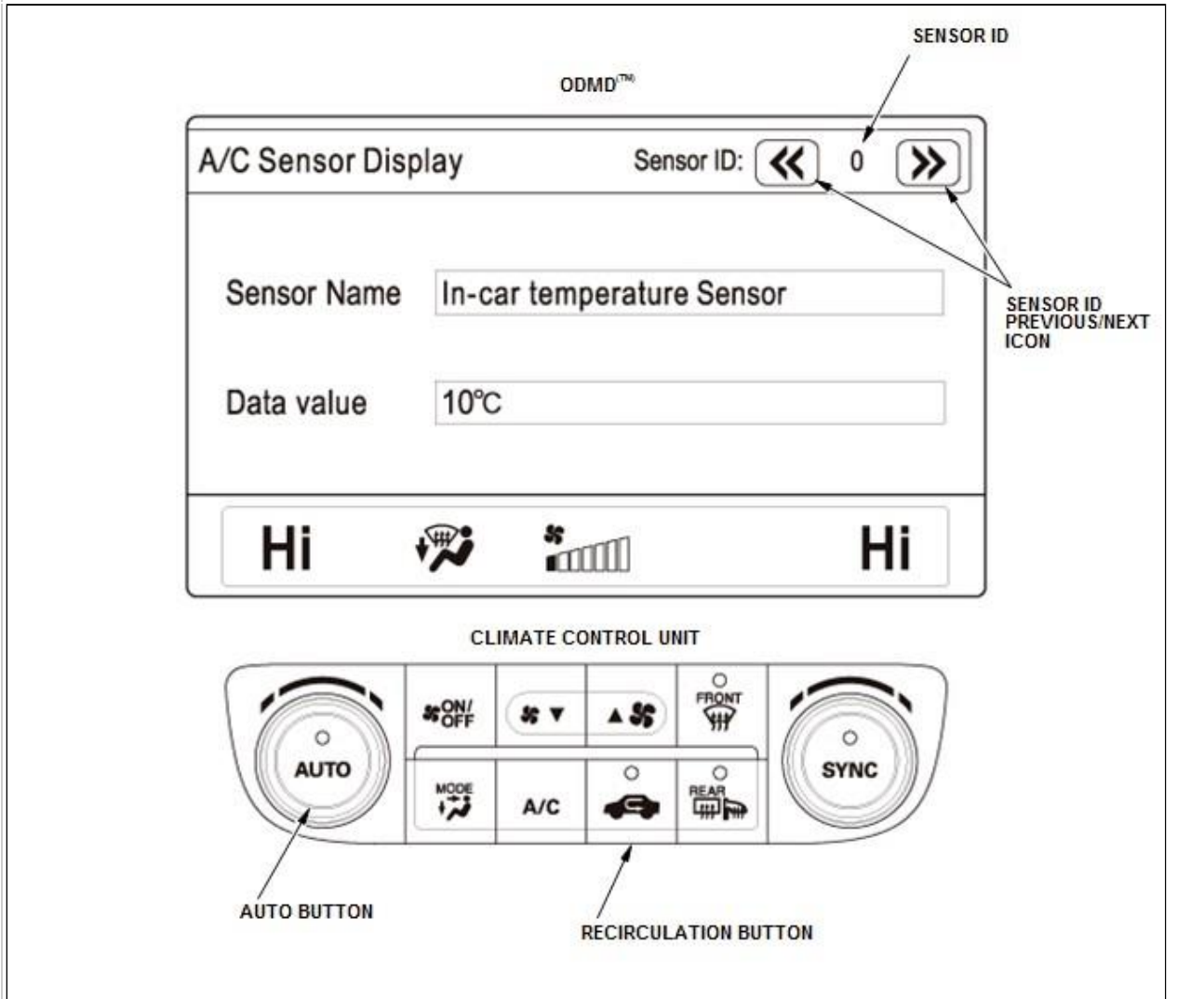
## HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITH NAVIGATION) (2016-18) > RUN THE SENSOR INPUT DISPLAY MODE

1. Press the engine start/stop button to select the OFF mode and then the ACCESSORY mode.

(TM)

NOTE: Make sure the ODMD is activated and the image is displayed on the screen.

2. Press and hold both the AUTO and RECIRCULATION buttons, then start the engine.



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3. Release both buttons. The display screen goes directly to the A/C sensor display mode shown. The display screen indicates the sensor ID and then the value for that sensor
4. To advance to the next sensor, touch the sensor ID previous/next icon.

**NOTE:**

- The sensor values will be displayed in degrees Celsius (°C) or an alphanumeric code. Use the chart to convert the value to degrees Fahrenheit (°F).
- If the sensor value displays "255", this indicates there is an open or short in the circuit or sensor. Check for DTCs
  - using the HDS, or use the climate control self-diagnostic function. If
  - necessary, compare the sensor input display to a known-good vehicle under the same test conditions.

If the sensor displayed value is out of the normal range, refer to the sensor test or substitute a known-good sensor, and recheck.

Sensor ID	Item	Displayed Value
0	In-car temperature	°C
1	Outside air temperature	°C
2	Solar radiation sensor value	10 W/m <sup>2</sup>
3	Engine coolant temperature	°C
4	Evaporator outlet air temperature	°C
8	Driver's air mix opening (low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
9	Passenger's air mix opening (low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
11	Mode positioning	%
13	Recirculation control opening	% of opening
15	Vehicle speed (vehicle must be driven to display speed)	km/h
16	Vent temperature air out (TAO) (driver's)	°C
19	---	---

**Celsius to Fahrenheit Conversion Table**

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0	32	10	50	20	68	30	86	40	104
1	34	11	52	21	70	31	88	41	106
2	36	12	54	22	72	32	90	42	108
3	37	13	55	23	73	33	91	43	109
4	39	14	57	24	75	34	93	44	111
5	41	15	59	25	77	35	95	45	113
6	43	16	61	26	79	36	97	46	115
7	45	17	63	27	81	37	99	47	117
8	46	18	64	28	82	38	100	48	118
9	48	19	66	29	84	39	102	49	120
°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
50	122	60	140	70	158	80	176	90	194
51	124	61	142	71	160	81	178	91	196
52	126	62	144	72	162	82	180	92	198
53	127	63	145	73	163	83	181	93	199
54	129	64	147	74	165	84	183	94	201
55	131	65	149	75	167	85	185	95	203
56	133	66	151	76	169	86	187	96	205
57	135	67	153	77	170	87	189	97	207
58	136	68	154	78	172	88	190	98	208
59	138	69	156	79	174	89	192	99	210

**Alphanumeric Conversion Table**

Display Reading (Alphanumeric)	Value
0 thru 200	0 thru 200
201 thru 209	-1 thru -9



210 thru 219	-10 thru -19
220 thru 229	-20 thru -29
230 thru 239	-30 thru -39
240 thru 249	-40 thru -49
Display Reading (Alphanumeric)	Value
250 thru 254	Not used
255	Er

**Alphanumeric Conversion Table (Mode Positioning)**

Display Reading (Alphanumeric)	Mode Position
0	VENT
18	HEAT/VENT-1
33	HEAT/VENT-2
50	HEAT
66	HEAT/DEF-1
80	HEAT/DEF-2
F0	DEF

5. To cancel the sensor input display mode, press the AUTO button or press the engine start/stop button to select the OFF mode.

**HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITHOUT NAVIGATION) (2016-18) > HOW TO CHECK FOR DTCS WITH THE HDS**

NOTE:

- There are three methods used to check for DTCs. The recommended method is to use the Honda Diagnostic System (HDS) with the appropriate software, plugged into the data link connector (DLC).
  - The second method is to run the self-diagnostic function built into the climate control unit.
  - The third method is to use B-CAN system diagnosis test mode A - Refer to: Body Electrical Troubleshooting - B-CAN System Diagnosis Test Mode A - Initial Communication and DTC Checks (2016-18), .

1. Make sure the vehicle ignition is OFF mode
2. Connect the HDS to the DLC (A) located under the driver's side of the dashboard.





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3. Press the engine start/stop button to select the ON mode.
4. Make sure the HDS communicates with the vehicle and the climate control unit. If it does not, go to the DLC circuit troubleshooting .
5. Select BODY ELECTRICAL in the System Selection Menu.
6. Select HVAC/Climate Control in the Body Electrical System Select.
7. Select DTCs in the HVAC/Climate Control Mode Menu.

8. Check for DTCs. If any DTCs are indicated, write down the DTCs, then go to the indicated DTC troubleshooting. If no DTCs are indicated, do all system scan, then refer to symptom troubleshooting.
  1. After troubleshooting, clear the DTCs with the HDS.
  2. For specific operations, refer to the user's manual that came with the HDS.

## **HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITHOUT NAVIGATION) (2016-18) > HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**

NOTE: This method is only available if the HDS can communicate with the climate control unit.

1. Make sure the vehicle ignition is OFF mode.
2. Connect the HDS to the DLC.
3. Press the engine start/stop button to select the ON mode.
4. Make sure the HDS communicates with the vehicle and the climate control unit. If it does not, go to the DLC circuit troubleshooting .
5. Select BODY ELECTRICAL in the System Selection Menu.
6. Select HVAC/Climate Control in the Body Electrical System Select.
7. Select Inspection in the HVAC/Climate Control Mode Menu.
8. Select Climate Control Unit Self Test in the Inspection Menu.
9. Check for DTCs. If any DTCs are indicated, write down the DTCs, then go to the indicated DTC troubleshooting.

NOTE:

1. After troubleshooting, clear the DTCs with the HDS.
2. For specific operations, refer to the user's manual that came with the HDS.

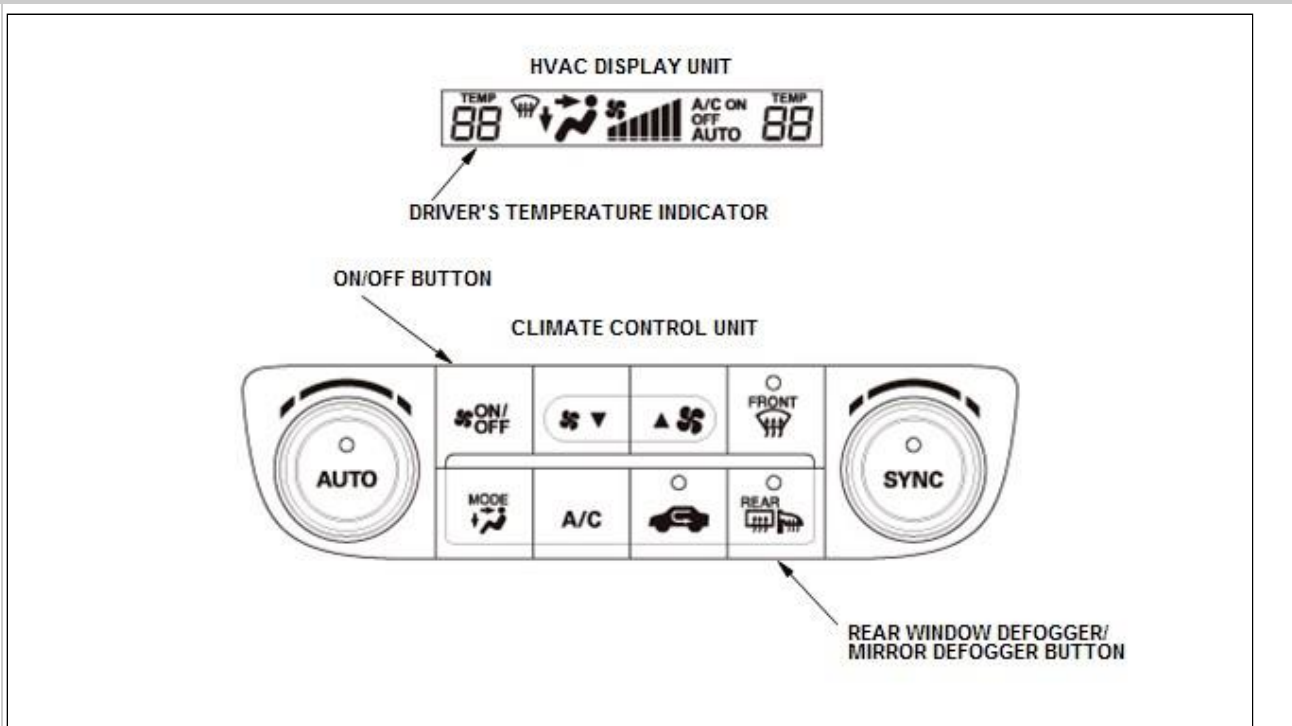
## **HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITHOUT NAVIGATION) (2016-18) > HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT THE HDS**

The climate control unit has a self-diagnostic function. To run the self-diagnostic function, do the following:

1. Press the engine start/stop button to select the OFF mode and then the ON mode
2. Press and hold the ON/OFF button, then within 10 seconds press and release the REAR WINDOW DEFOGGER/MIRROR DEFOGGER button five times. Release the ON/OFF button
3. ALL LCD segments come on for 2 seconds, then the self-diagnostic function begins.

NOTE:

- The blower motor will run at various speeds regardless of what the panel is displaying.
- If there is any problem in the system, the driver's temperature indicator flashes 88. Refer to checking for DTCs. If there is more than one DTC, they are displayed one at a time in sequence followed by a pause (all the display indicator segments illuminate) between the DTCs.
- If there are no problems detected, the system will flash no.



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### Canceling the Self-Diagnostic Function

4. Press the engine start/stop button to select the OFF mode to cancel the self-diagnostic function. After completing repair work, run the self-diagnostic function again to make sure that there are no other DTCs.

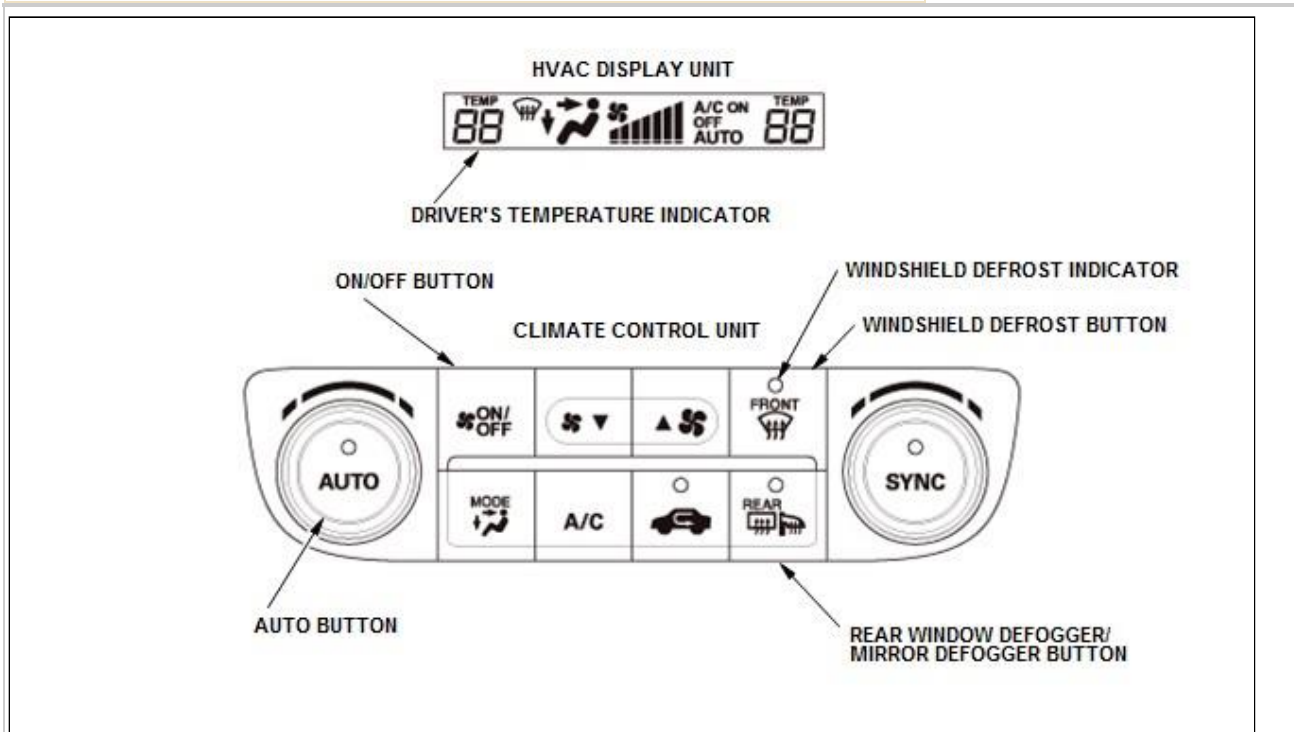
## HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITHOUT NAVIGATION) (2016-18) > HOW TO CHECK THE HISTORY DTCs

The climate control unit can record history DTCs. How to read the history DTC is as following:

1. Press the engine start/stop button to select the OFF mode and then the ON mode
2. Press and hold both the AUTO and ON/OFF buttons
3. During press and hold both the AUTO and ON/OFF buttons, the history DTCs will be indicated.

NOTE:

- If there is any problem in the system, the driver's temperature indicator flashes 88. Refer to checking for
- DTCs. If there is more than one DTC, they are displayed one at a time in sequence followed by a pause (all the display indicator segments illuminate) between the DTCs.
- If there are no problems detected, the system will flash no.



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### Canceling the Read History DTCs

4. Press the engine start/stop button to select the OFF mode to cancel the read history DTCs. After completing the repair work, clear the DTCs.

## HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITHOUT NAVIGATION) (2016-18) > HOW TO CLEAR THE HISTORY DTCs

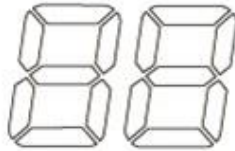
1. Press the engine start/stop button to select the OFF mode
2. Press and hold both the AUTO and WINDSHIELD DEFROST buttons, then press the engine start/stop button to select the ON mode
3. After about 5 seconds the windshield defrost indicator starts to blink, release the buttons
4. Do the How to check the history DTCs to verify DTCs have been cleared.

## HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITHOUT NAVIGATION) (2016-18) > CHECKING FOR DTCs

The driver's temperature indicator display indicates single or multiple DTCs. If no DTCs are present, the indicator remains will flash no.

NOTE: If the driver's temperature indicator segments 03, 05, 07, 09, 40, 43, 49, and 55 indicator are on at the same time, there may be an open in the sensor common ground wire.

DRIVER'S TEMPERATURE INDICATOR



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

DTC (Temperature Indicator Segments)	DTC	Detection Item
03	B1225	An open in the in-car temperature sensor circuit
04	B1226	A short in the in-car temperature sensor circuit
05	B1227	An open in the outside air temperature sensor circuit
06	B1228	A short in the outside air temperature sensor circuit
07	B1229	An open in the sunlight sensor circuit
08	B1230	A short in the sunlight sensor circuit
09	B1231	An open in the evaporator temperature sensor circuit
0A	B1232	A short in the evaporator temperature sensor circuit
40	B1233	An open in the air mix control motor circuit (driver's)
41	B1234	A short in the air mix control motor circuit (driver's)
42	B1235	A problem in the air mix control motor circuit, linkage, door, or motor (driver's)
43	B1236	An open in the passenger's air mix control motor circuit
44	B1237	A short in the passenger's air mix control motor circuit
45	B1238	A problem in the passenger's air mix control motor circuit, linkage, door, or motor



49	B121A	An open in the mode control motor circuit
4A	B121B	A short in the mode control motor circuit
4B	B1240	A problem in the mode control motor circuit, linkage, door, or motor
55	B2986	An open in the recirculation control motor circuit
56	B1220	A short in the recirculation control motor circuit
57	B2983	A problem in the recirculation control motor circuit, linkage, door, or motor
59	B1241	A problem in the blower motor circuit
80	U1280	Communication bus line error (BUS-OFF)
81	U128D	Climate control unit lost communication with gauge control module (ECT message)
83	U128D	Climate control unit lost communication with gauge control module (VSP message)
91	U1281	Lost communication with MICU (climate control unit)
C0	- - -	Climate control unit internal error

## **HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITHOUT NAVIGATION) (2016-18) > DISPLAYING SENSOR INPUTS AT THE CLIMATE CONTROL UNIT**

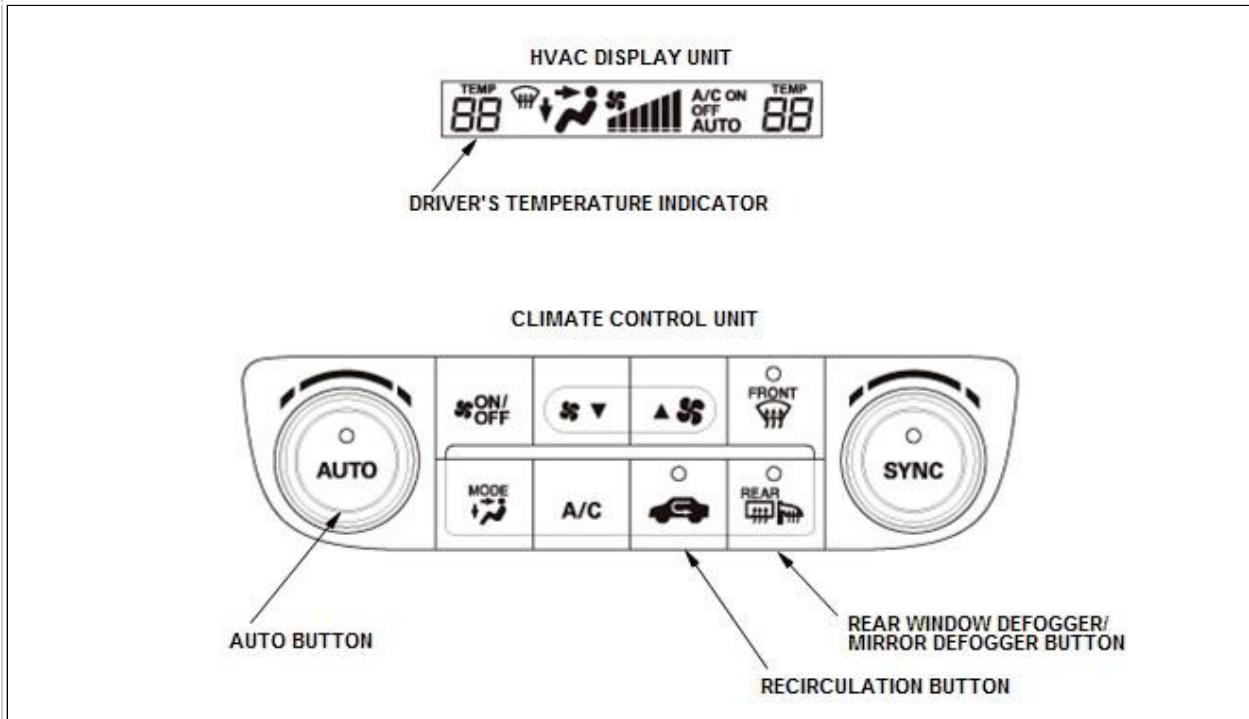
The climate control unit has a mode that displays the sensor inputs it receives. This mode shows you what the climate control unit is receiving from each of the sensors, one at a time, and it can help you determine if a sensor is faulty.

## **HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITHOUT NAVIGATION) (2016-18) > CHECKS BEFORE USING THE SENSOR INPUT DISPLAY MODE**

1. Press the engine start/stop button to select the ON mode, and check the recirculation door function; press the RECIRCULATION button to switch from FRESH to RECIRC. The air volume and sound should change slightly
2. Set the TEMPERATURE CONTROL dial to the desired test temperature:
  - "Lo" temperature setting will default to MAX COOL, VENT, and RECIRC (A/C on) or FRESH (A/C off).
  - "Hi" temperature setting will default to MAX HOT, HEAT, HEAT/DEF, and FRESH.
  - 58 through 86 °F (14 through 30 °C) settings will use the automatic climate control logic.
3. Press the engine start/stop button to select the OFF mode.

## HOW TO INFORMATION > HOW TO TROUBLESHOOT THE CLIMATE CONTROL SYSTEM (WITHOUT NAVIGATION) (2016-18) > RUN THE SENSOR INPUT DISPLAY MODE

1. Press and hold both the AUTO and RECIRCULATION buttons, then start the engine.



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2. Release both buttons. The driver's temperature indicator will flash the sensor number and then the value for that sensor. Record the value displayed

3. To advance to the next sensor, press the REAR WINDOW DEFOGGER/MIRROR DEFOGGER button.

### NOTE:

- The sensor values will be displayed in degrees Celsius (°C) or an alphanumeric code. Use the chart to convert the value to degrees Fahrenheit (°F).
- If the sensor value displays "Er", this indicates there is an open or short in the circuit or sensor. Check for DTCs using the
  - HDS, or use the climate control self-diagnostic function. If necessary,
  - compare the sensor input display to a known good vehicle under the same test conditions.

If the sensor displayed value is out of the normal range, refer to the sensor test or substitute a known-good sensor, and recheck.

Sensor	Item	Displayed Value
1	Mode positioning	%
2	In-car temperature	°C
3	Outside air temperature	°C
4	Solar radiation sensor value	10 kcal/m <sup>2</sup> .h
5	Evaporator outlet air temperature	°C
6	Driver's air mix opening (low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
7	Passenger's air mix opening (low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
8	Recirculation control opening	% of opening
9	Vehicle speed (vehicle must be driven to display speed)	10 km/h
A	Engine coolant temperature	°C
b	Vent temperature air out (TAO) (driver's)	°C
d	Illumination duty	Step
H	Software version	-

**Celsius to Fahrenheit Conversion Table**

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0	32	10	50	20	68	30	86	40	104

1	34	11	52	21	70	31	88	41	106
2	36	12	54	22	72	32	90	42	108
3	37	13	55	23	73	33	91	43	109
4	39	14	57	24	75	34	93	44	111
5	41	15	59	25	77	35	95	45	113
6	43	16	61	26	79	36	97	46	115
7	45	17	63	27	81	37	99	47	117
8	46	18	64	28	82	38	100	48	118
9	48	19	66	29	84	39	102	49	120
°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
50	122	60	140	70	158	80	176	90	194
51	124	61	142	71	160	81	178	91	196
52	126	62	144	72	162	82	180	92	198
53	127	63	145	73	163	83	181	93	199
54	129	64	147	74	165	84	183	94	201
55	131	65	149	75	167	85	185	95	203
56	133	66	151	76	169	86	187	96	205
57	135	67	153	77	170	87	189	97	207
58	136	68	154	78	172	88	190	98	208
59	138	69	156	79	174	89	192	99	210

### Alphanumeric Conversion Table

Display Reading (Alphanumeric)	°C	°F	%
A1 thru A9	-1 thru -9	30 thru 16	-1 thru -10

B0 thru B9	-10 thru -19	14 thru -2	-10 thru -19
C0 thru C9	-20 thru -29	-4 thru -20	-20 thru -29
D0 thru D9	-30 thru -39	-22 thru -38	-30 thru -39
E0 thru E9	-40 thru -49	-40 thru -56	-40 thru -49
E9	-50 or less	-58 or less	-50 or less

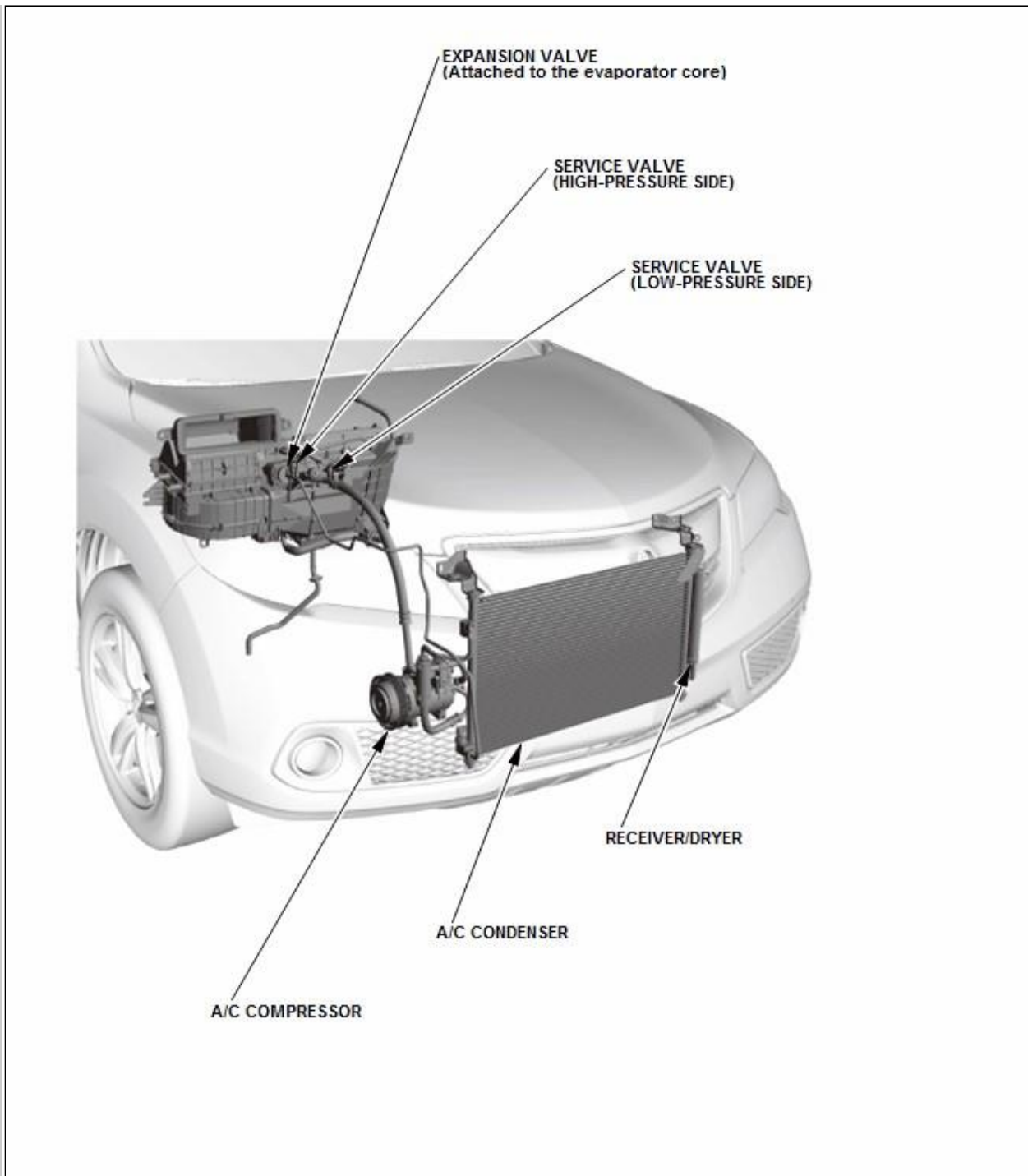
**Alphanumeric Conversion Table (Mode Positioning)**

Display Reading (Alphanumeric)	Mode Position
0	VENT
18	HEAT/VENT-1
33	HEAT/VENT-2
50	HEAT
66	HEAT/DEF-1
80	HEAT/DEF-2
F0	DEF

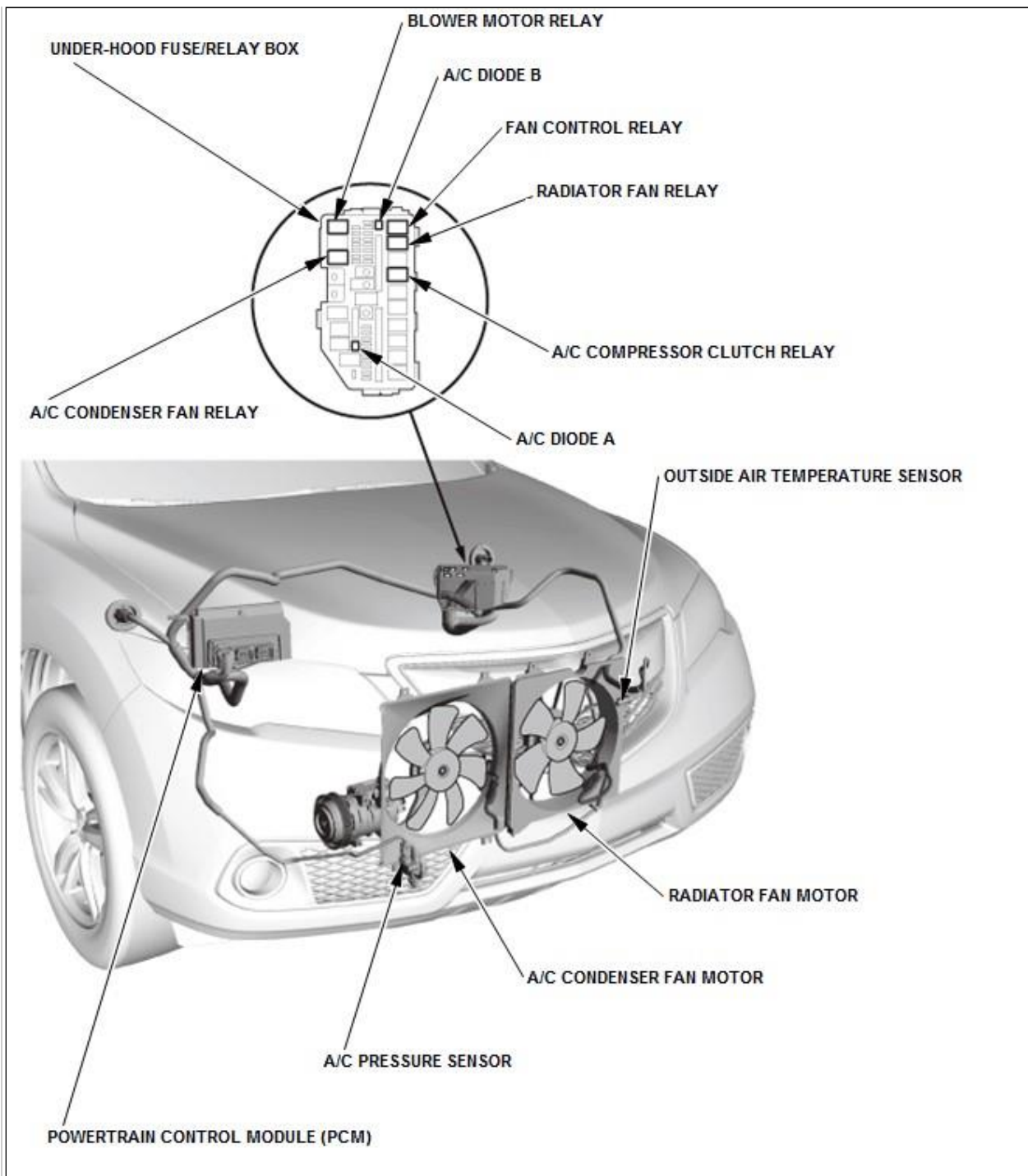
4. To cancel the sensor input display mode, press the AUTO button or press the engine start/stop button to select the OFF mode.

**COMPONENT LOCATION INDEX > CLIMATE CONTROL SYSTEM COMPONENT  
LOCATION INDEX (WITHOUT NAVIGATION) (2013-18)**

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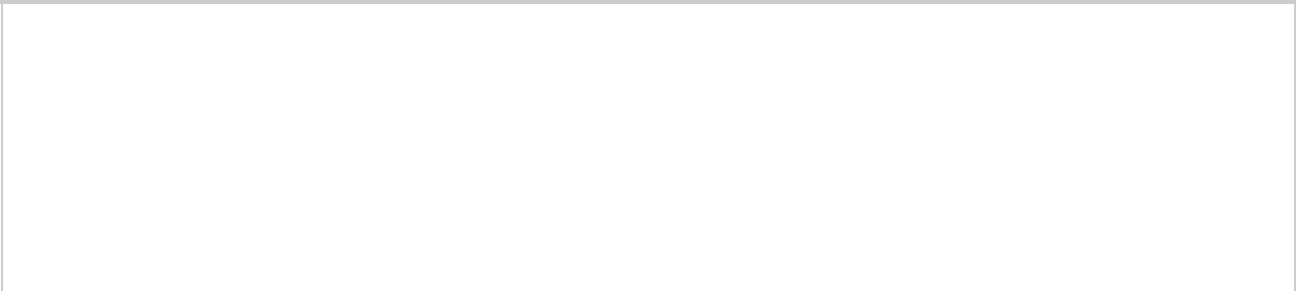


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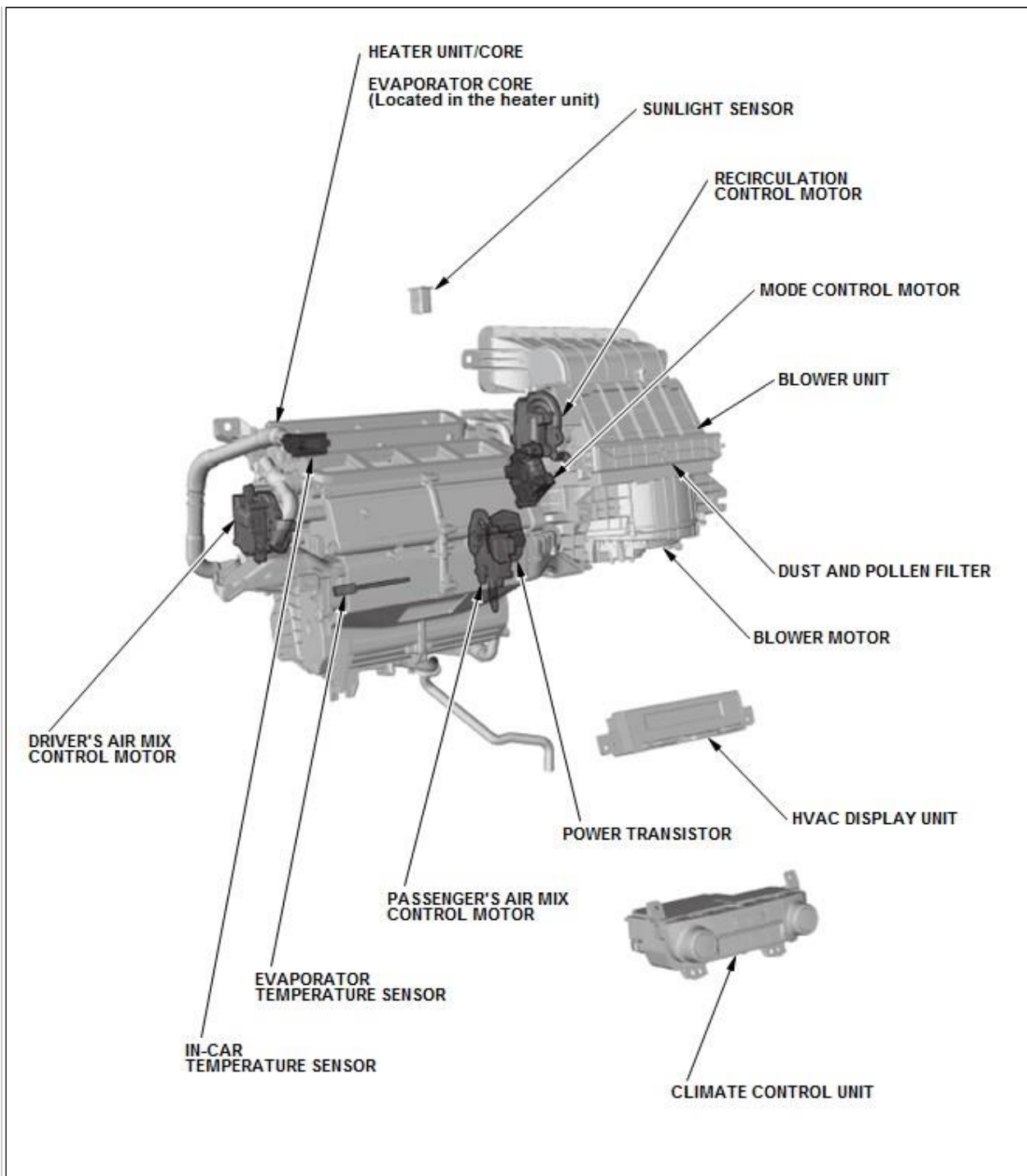


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**Without navigation**



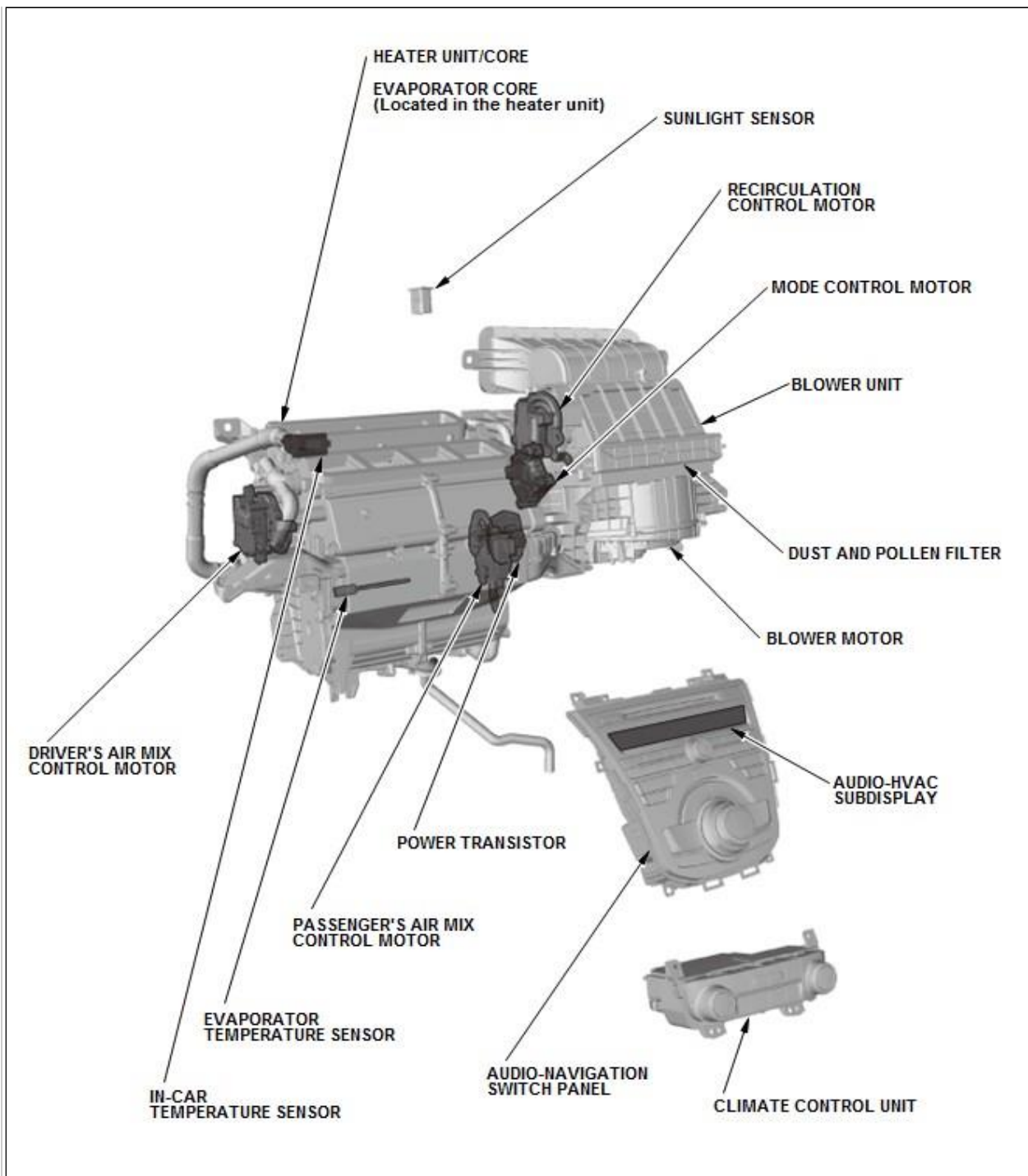




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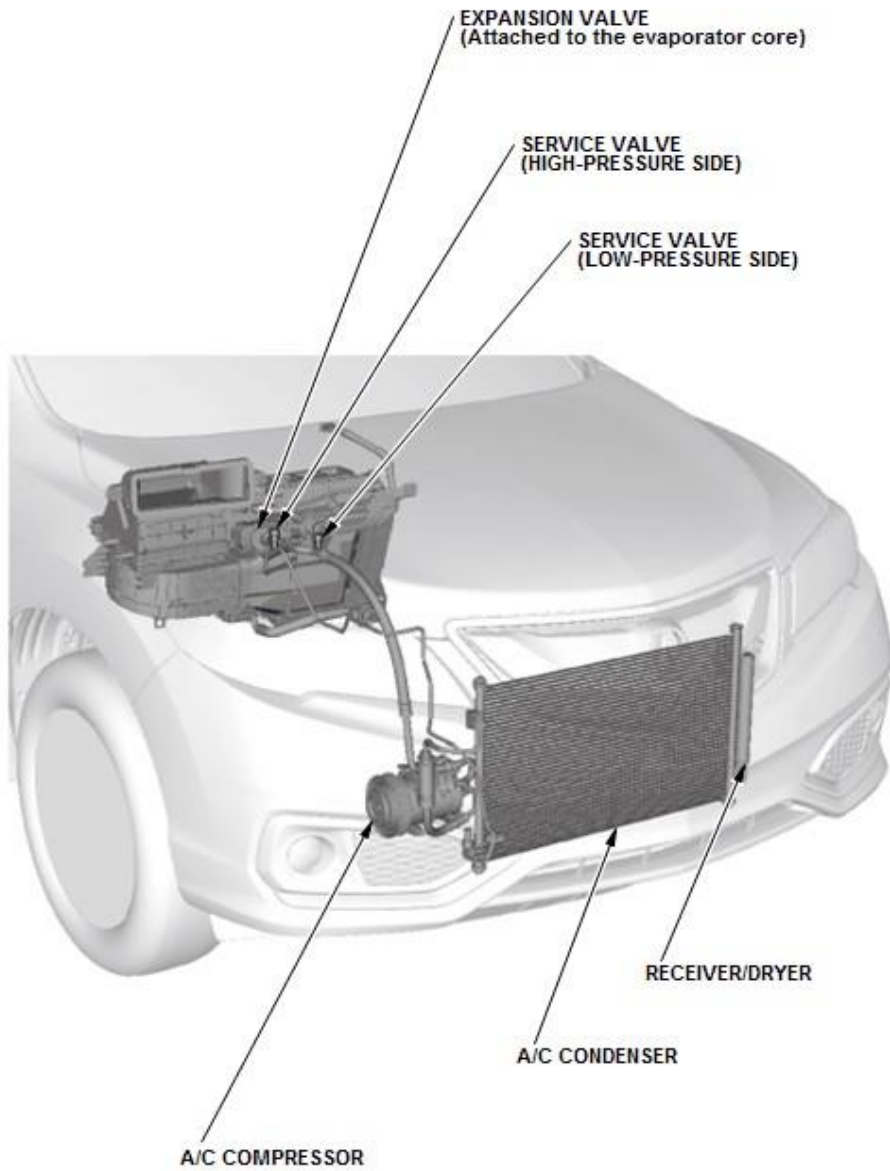




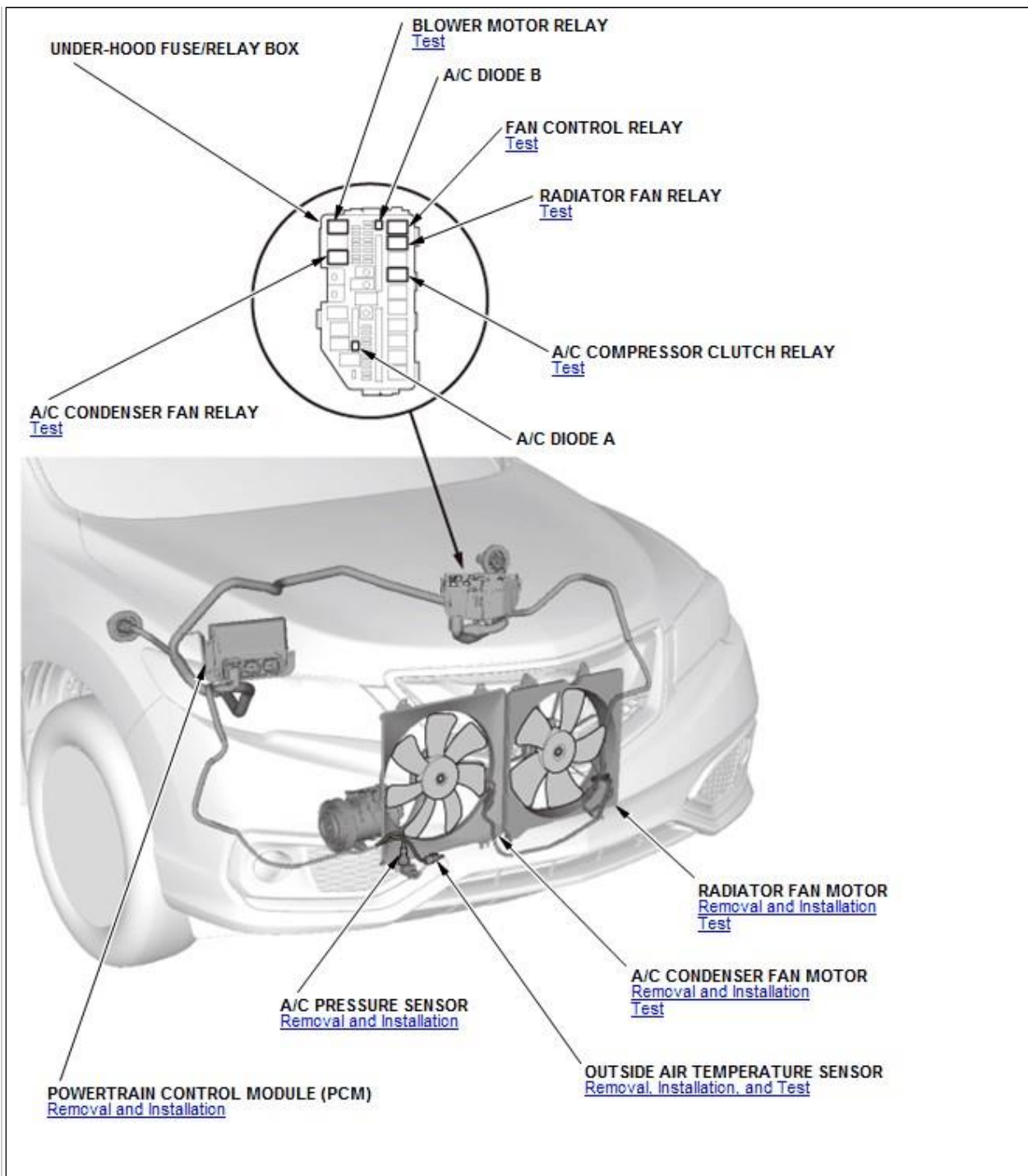
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**COMPONENT LOCATION INDEX > CLIMATE CONTROL SYSTEM COMPONENT  
LOCATION INDEX (WITH NAVIGATION) (2013-18)**

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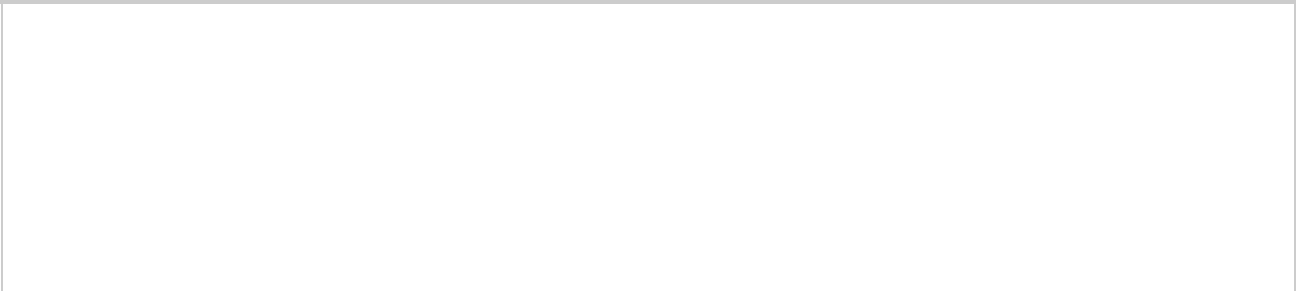


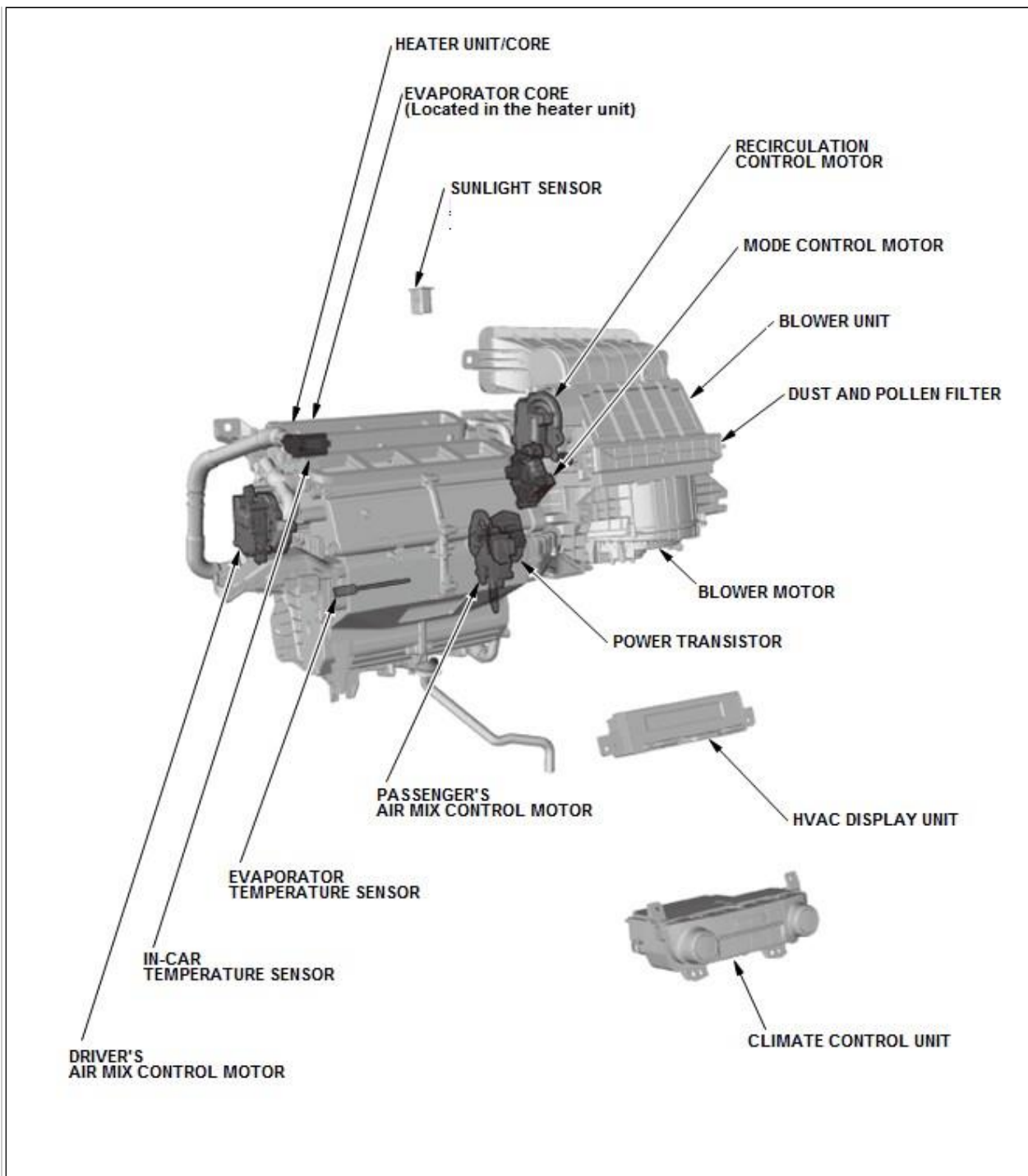
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**Without navigation**

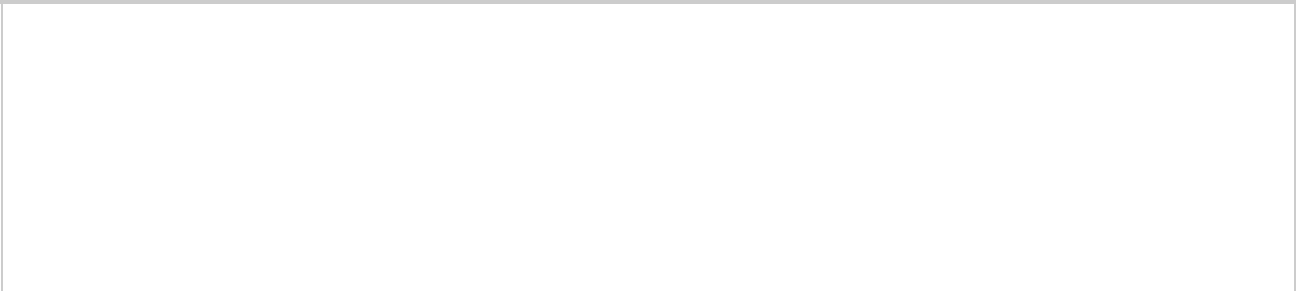


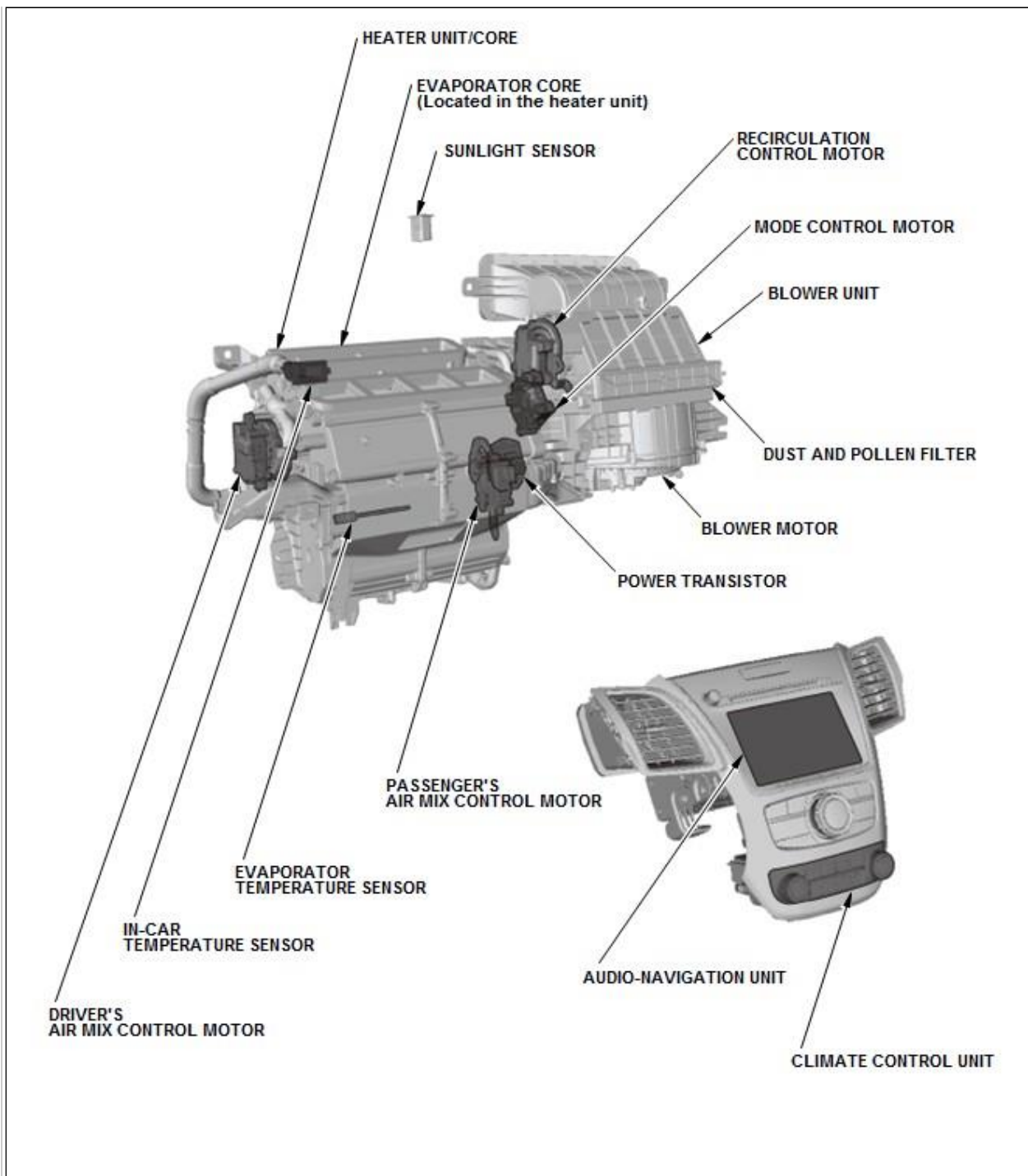


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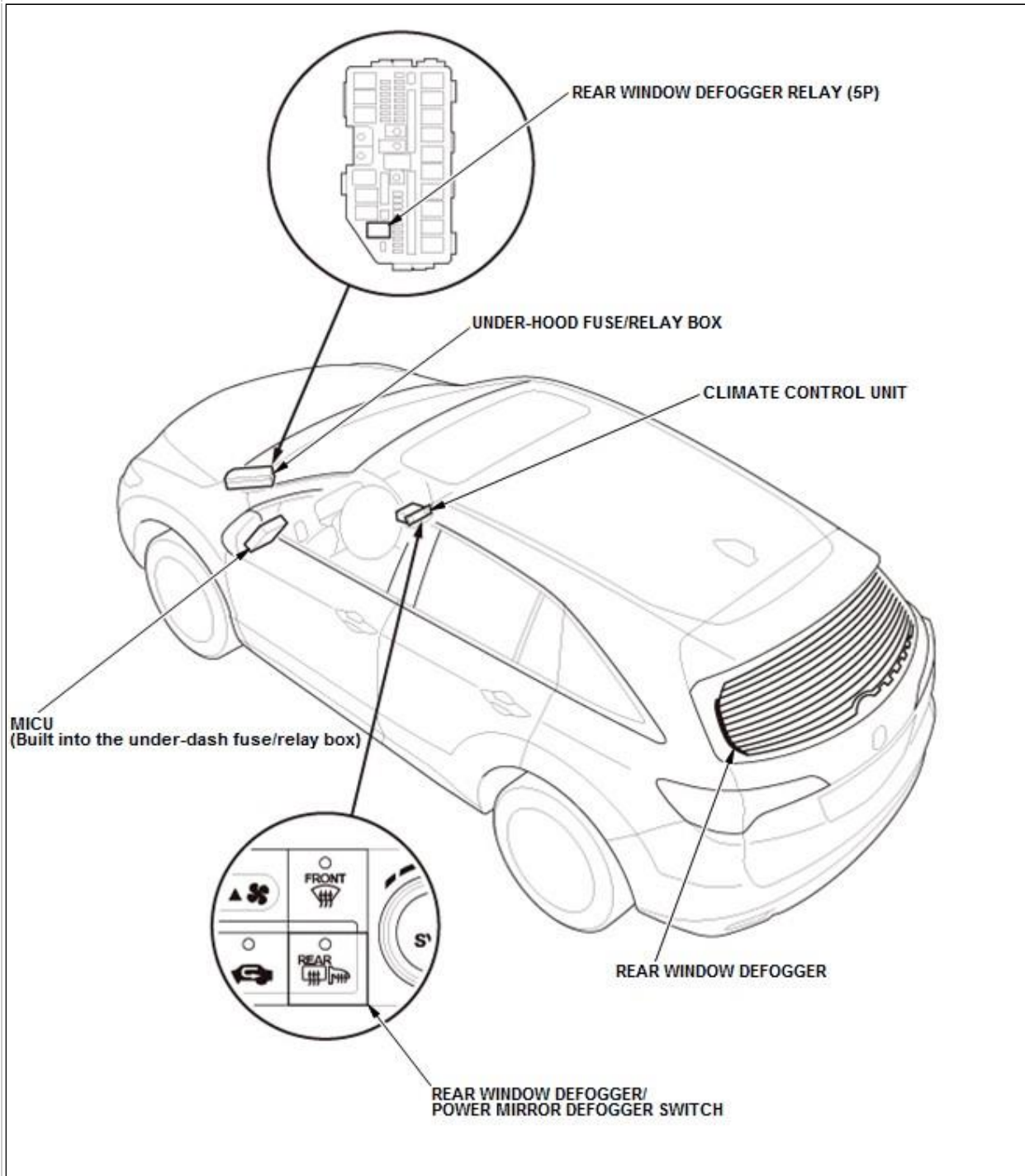
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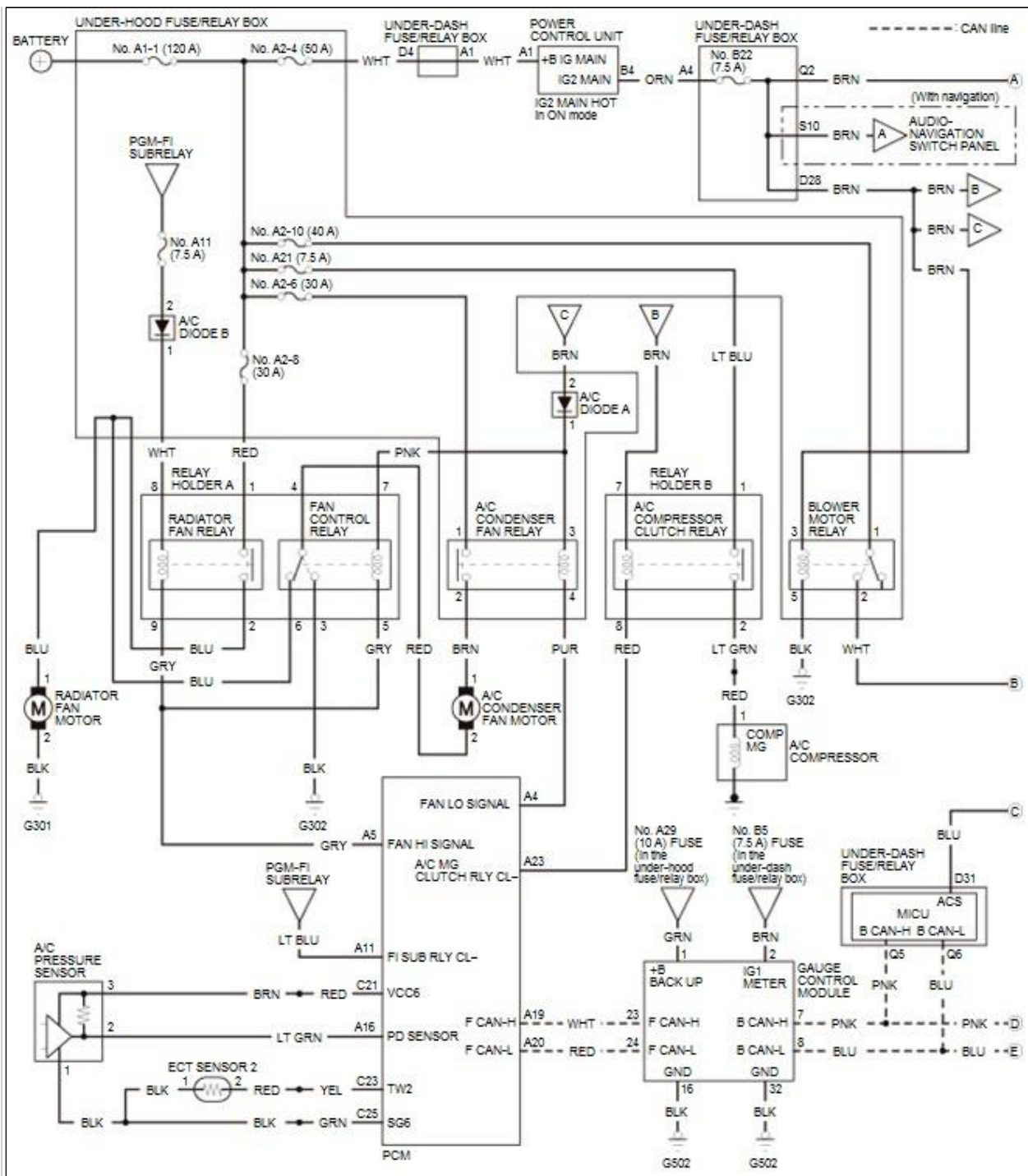
# COMPONENT LOCATION INDEX > REAR WINDOW DEFOGGER COMPONENT LOCATION INDEX (2013-18)



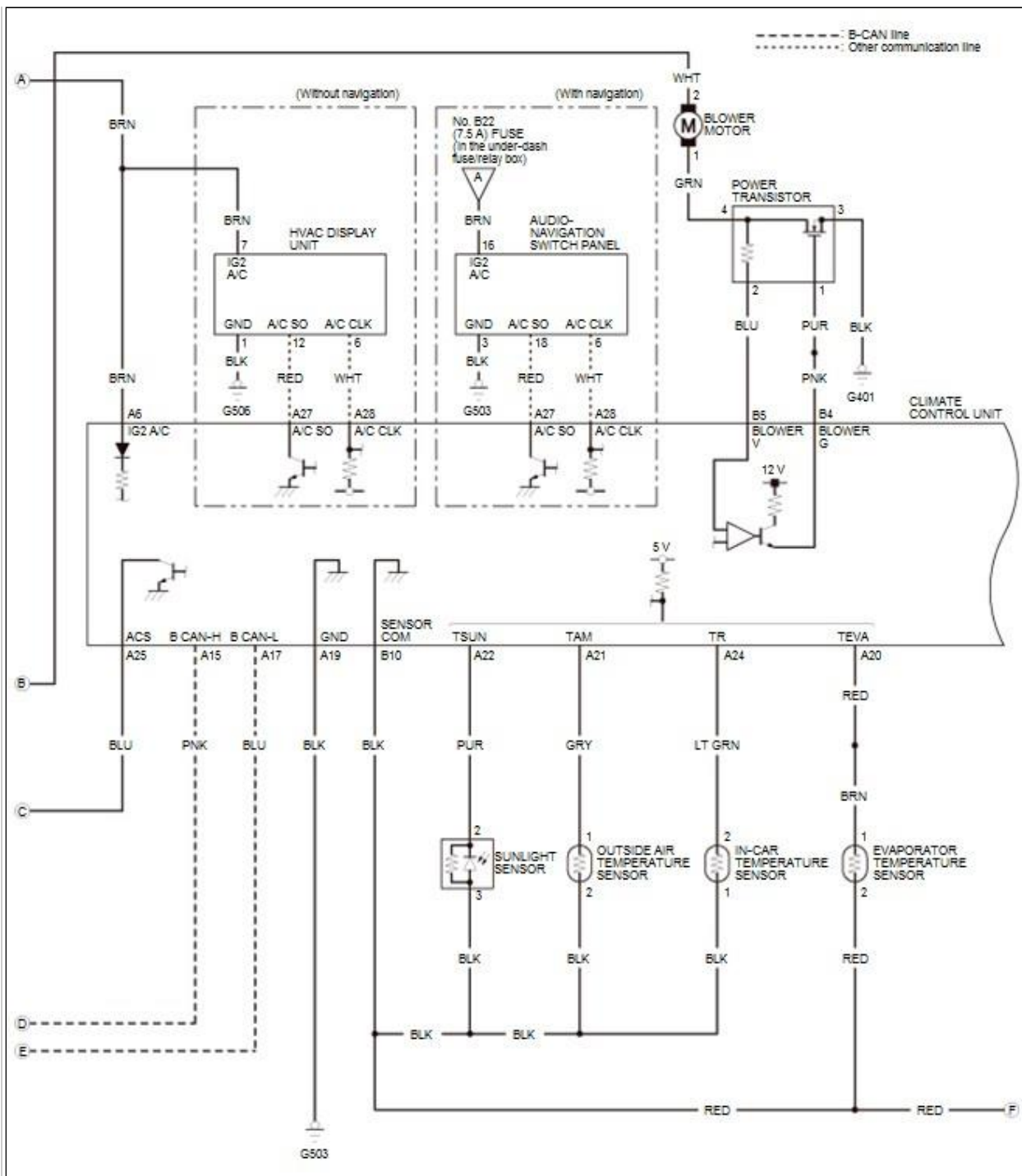
Courtesy of HONDA, U.S.A., INC.

**CIRCUIT DIAGRAM > CLIMATE CONTROL SYSTEM CIRCUIT DIAGRAM (2013-15)**

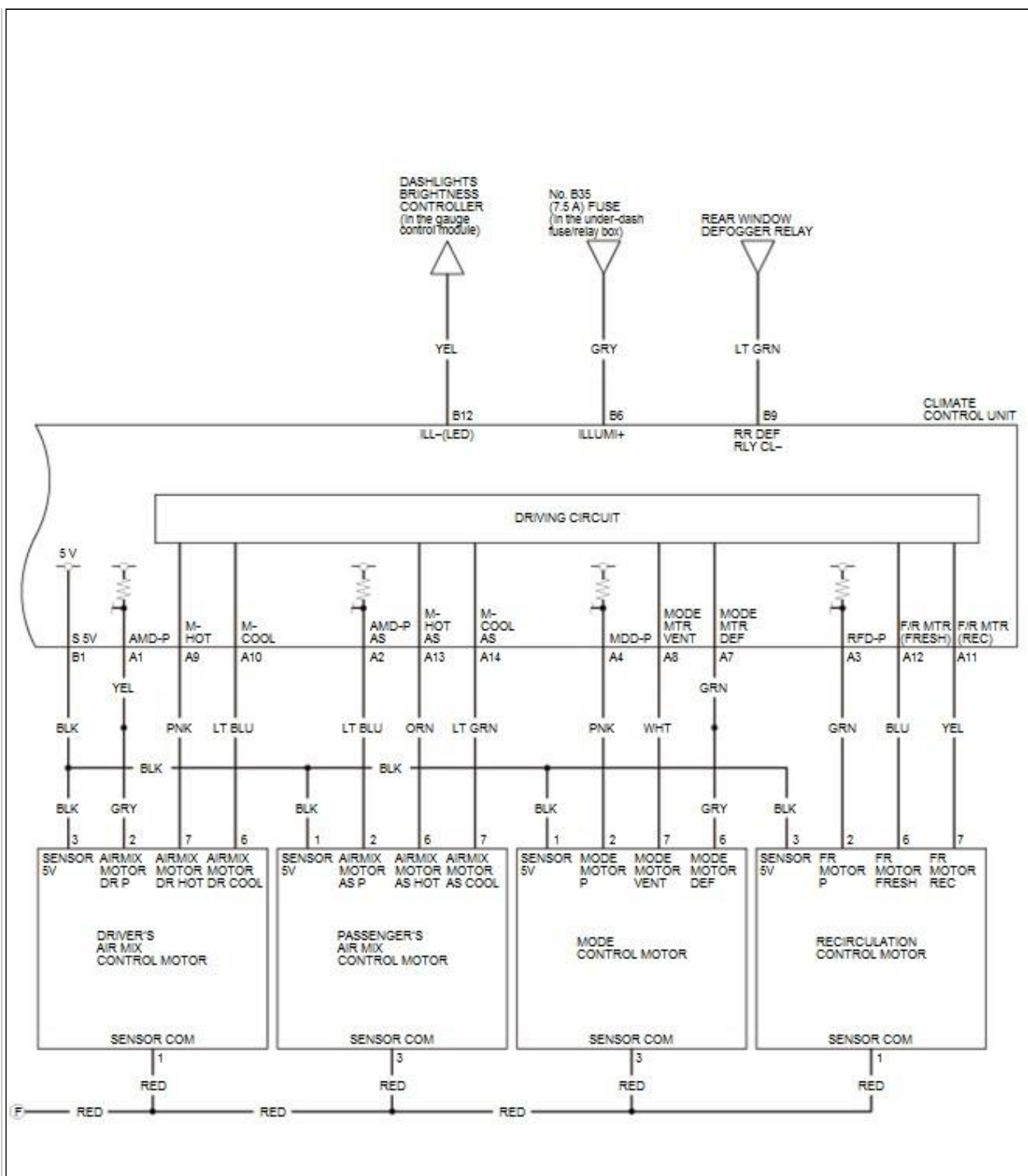




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Courtesy of HONDA, U.S.A., INC.

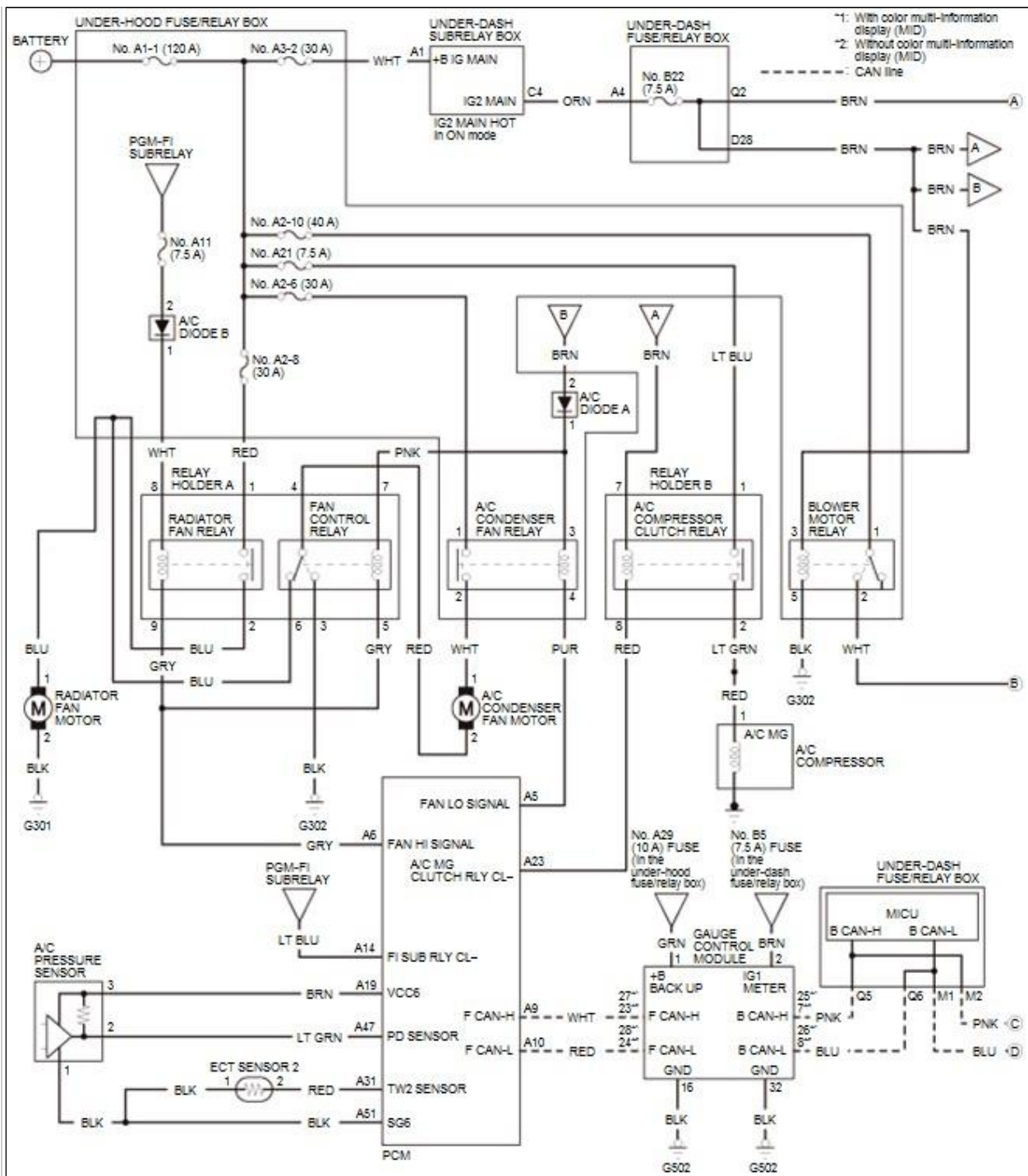


Courtesy of HONDA, U.S.A., INC.

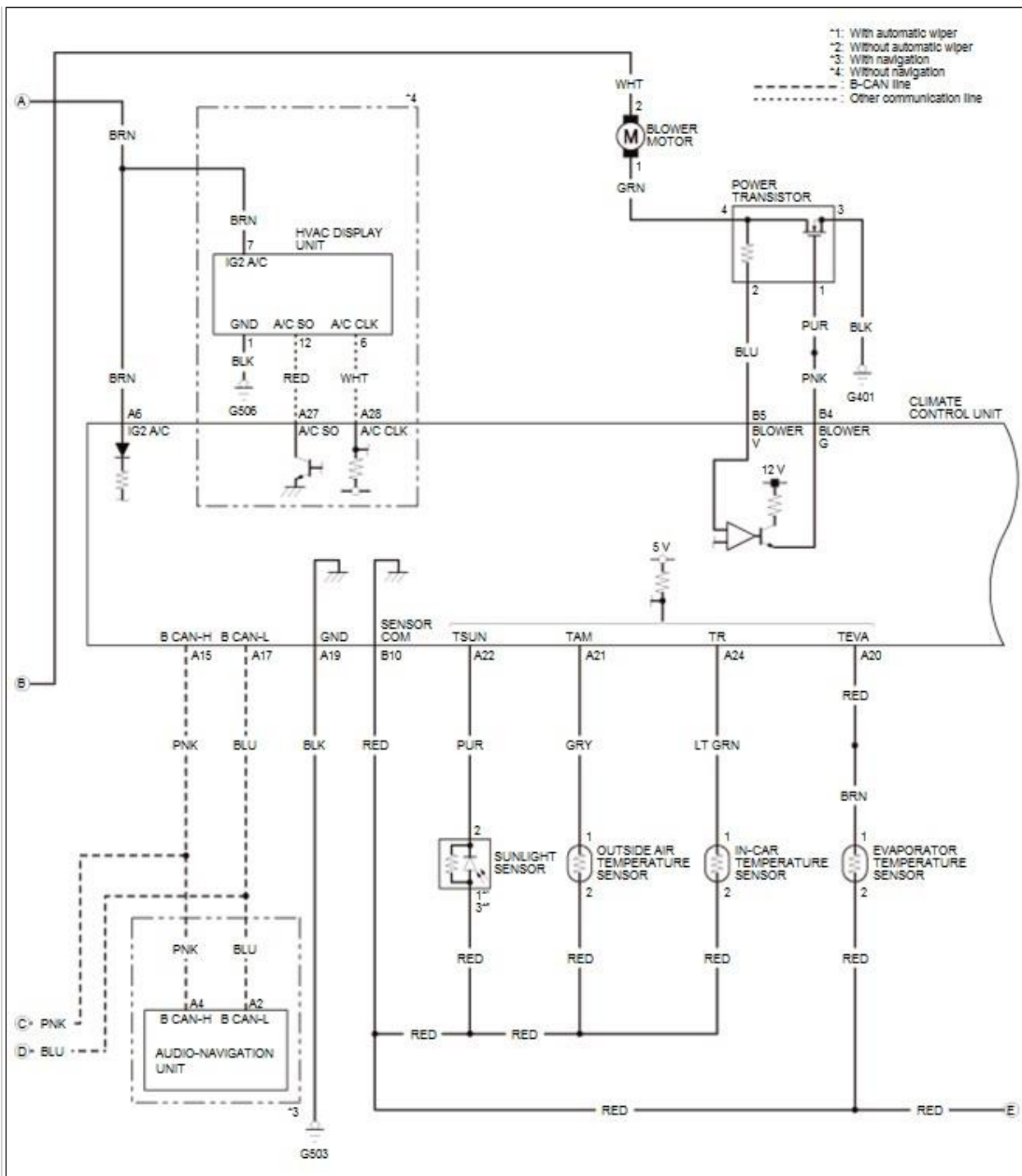
**CIRCUIT DIAGRAM > CLIMATE CONTROL SYSTEM CIRCUIT DIAGRAM (2016-18)**



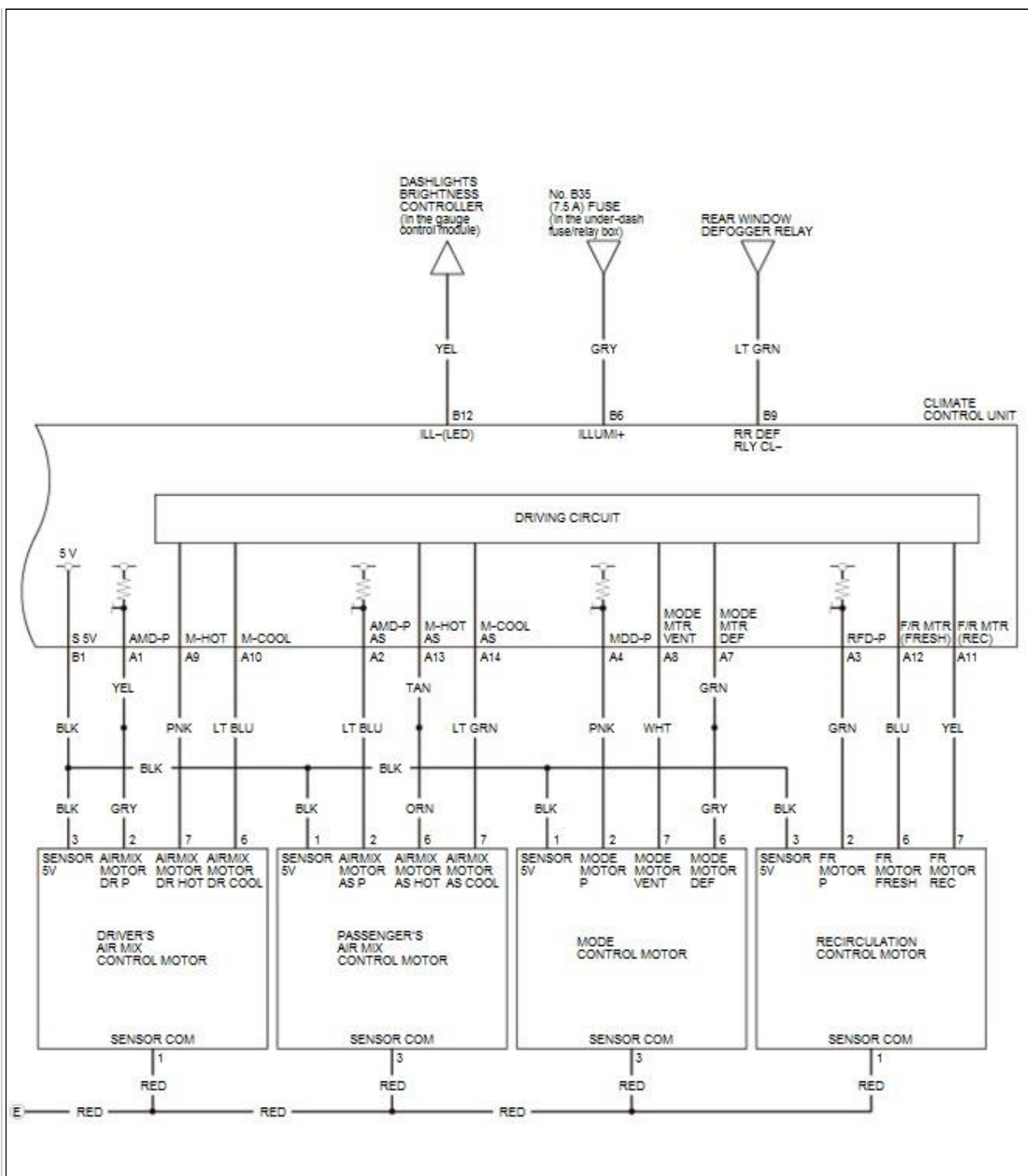




Courtesy of HONDA, U.S.A., INC.

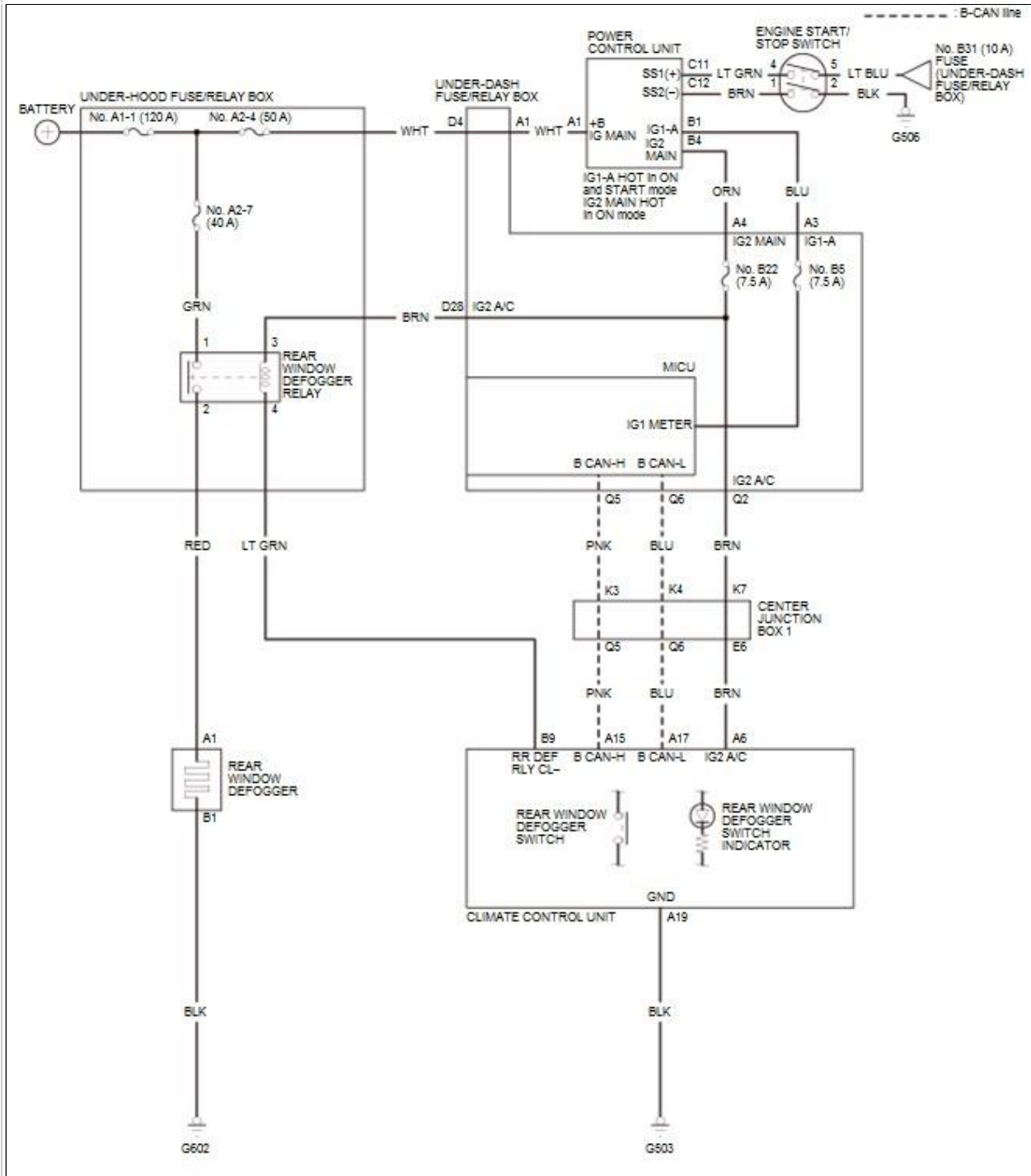


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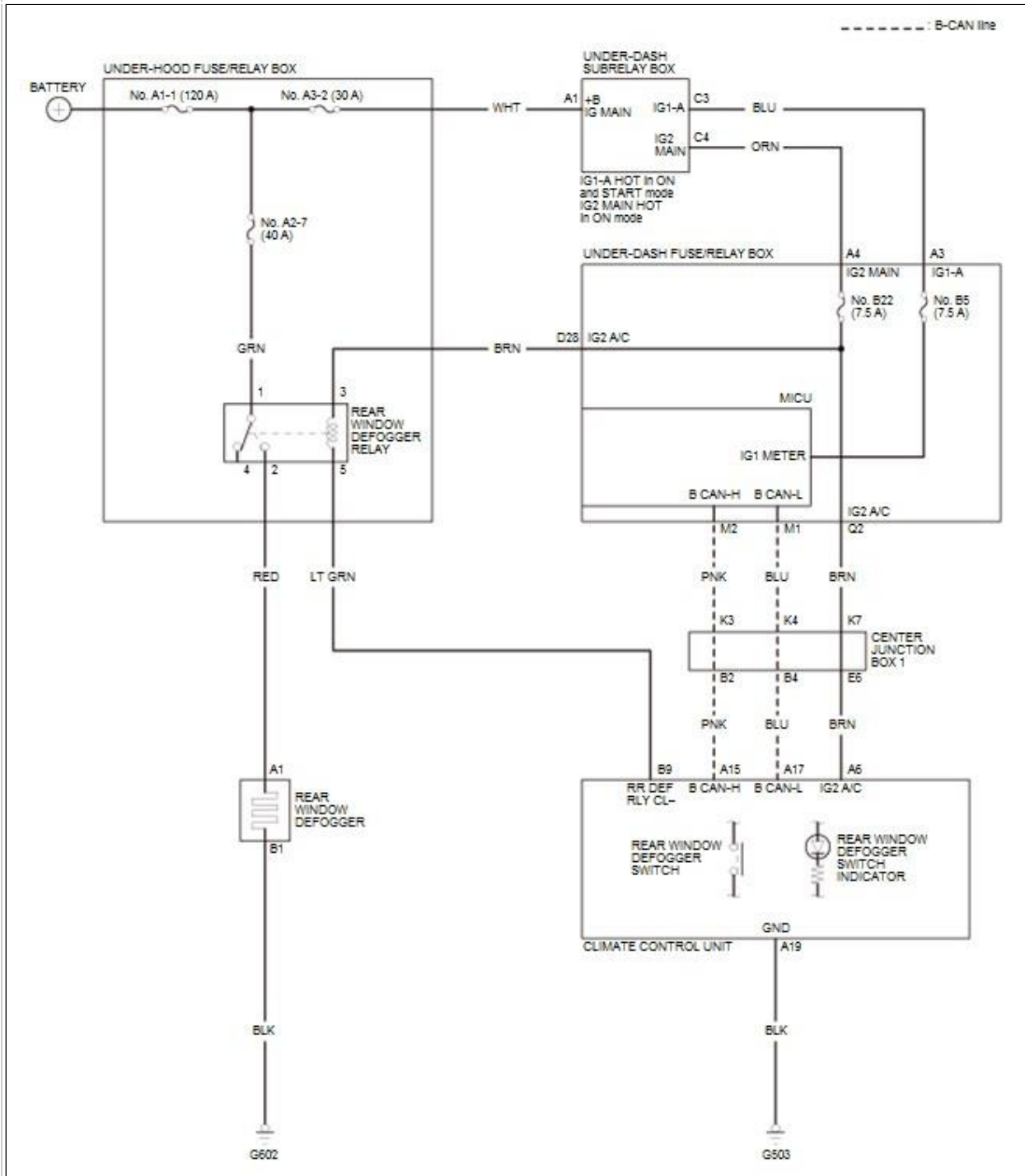
Courtesy of HONDA, U.S.A., INC.

# CIRCUIT DIAGRAM > REAR WINDOW DEFOGGER CIRCUIT DIAGRAM (2013-15)



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

# CIRCUIT DIAGRAM > REAR WINDOW DEFOGGER CIRCUIT DIAGRAM (2016-18)



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

## TESTING > A/C DIAGNOSTIC PROCESS (2013-18)

When a client presents A/C concern, do the following procedure to identify the cause of the problem.

1. Confirm the type of concern.
  - If a client complains about the A/C noise problem, do the A/C system noise check . If
  - a client complains about the A/C performance problem, go to step 2.
2. Do the A/C system inspection - Refer to: A/C System Contamination Inspection (2013-18), or A/C System Inspection (2013-18) and repair any problems. If no problems are found, then go to step 3.
3. Recover the refrigerant from the A/C system - Refer to:A/C Refrigerant Recovery (2013-18) and measure the refrigerant charge from the A/C system using a recovery/recycling/charging station that meets SAE J2788 standards.
  - If the refrigerant charge is within specifications, evacuate - Refer to: A/C System Evacuation (201318), and recharge the system - Refer to: A/C System Charging (2013-18), Then go to step 4.
  - If the refrigerant charge is significantly under specifications, then go to step 5.
  - If the refrigerant charge is significantly over specifications, evacuate - Refer to: A/C System Evacuation (2013-18), and recharge the system - Refer to: A/C System Charging (2013-18), Then go to step 7.
4. Do the A/C system test - Refer to: A/C System Test (2013-15), or A/C System Test (2016-18) .
  - If vent temperature or suction/discharge pressures are not within specifications, diagnose and repair the A/C system as needed. Then go to step 6.
  - If no problems are found, the A/C system is operating as designed and the A/C diagnostic process is complete.
5. Do the refrigerant leak check .
  - If any leaks are found, repair the A/C system as needed. Then go to step 6. If
  - no leaks are found, go to step 7.
6. Evacuate - Refer to: A/C System Evacuation (2013-18), and recharge the system - Refer to: A/C System Charging (2013-18), . Then go to step 7.
7. Do the A/C system test - Refer to: A/C System Test (2013-15), or A/C System Test (2016-18) to confirm your repairs.
  - If vent temperature or suction/discharge pressures are within specifications, the repair is confirmed and the A/C diagnostic process is complete.
  - If vent temperature or suction/discharge pressures are not within specifications, a problem may still exist. Return to step 1 and recheck your test procedures.

## TESTING > A/C SYSTEM TEST (2013-15) > TEST



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

- Air conditioning refrigerant or lubricant vapor can irritate your eyes, nose, or throat.
- Be careful when connecting service equipment.
- Do not breathe refrigerant or vapor.

SRS components are located in this area. Review the SRS component locations and the precautions and procedures before doing repairs or service.

The performance test will help determine if the A/C system is operating within specifications.

### NOTE:

- If accidental system discharge occurs, ventilate the work area before resuming service.
- Additional health and safety information may be obtained from the refrigerant and lubricant manufacturers.

### Performance Test

#### 1. A/C System - Inspect

1. Do the A/C system inspection - Refer to: A/C System Contamination Inspection (2013-18), or A/C System Inspection (2013-18) , and correct any problems found.

#### 2. R-134a Refrigerant Recovery/Recycling/Charging Station - Connect

1. Connect an R-134a refrigerant recovery/recycling/charging station to the high-pressure service port and the low-pressure service port, following the equipment manufacturer's instructions.

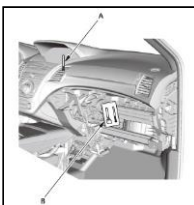
#### 3. Humidity and Air Temperature - Check

1. Determine the relative humidity and air temperature.

#### 4. Glove Box - Remove

1. Remove the glove box .

#### 5. A/C System - Test



1. Insert a thermometer (A) in the center vent
2. Place a hygro-thermometer (B) near the blower unit's recirculation inlet duct
3. Test conditions:
  1. Move the vehicle out of direct sunlight and let it cool down to the surrounding (ambient) temperature. If necessary, wash the vehicle to cool it down more quickly.
  2. The blower intake temperature must be at least 68 °F (20 °C).

Courtesy of HONDA,

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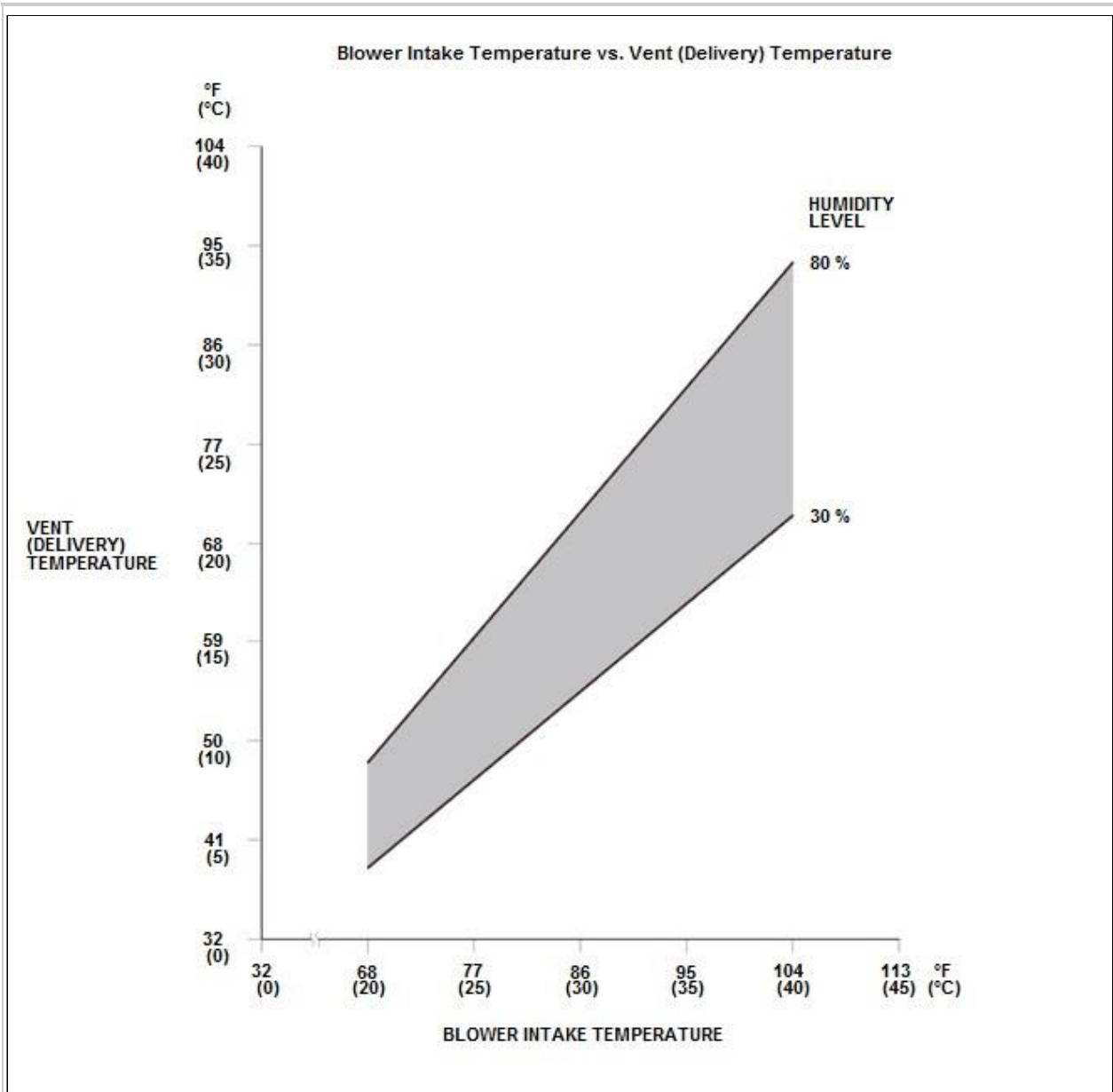
3. Open the hood.
4. Open the front doors.
5. Start the engine.
6. Set the temperature control dials to MAX COOL, the mode control button to VENT, and the recirculation control button to RECIRCULATE.
7. Turn the A/C button on and the fan control button to Max.
8. Run the engine at 1, 500 rpm.
9. No driver or passengers in vehicle.
4. Inspect the A/C components for the following conditions:
  1. A/C compressor clutch not engaged.
  2. Abnormal frost areas.
  3. Unusual noises.

If you observe any of these conditions, refer to the Symptom Troubleshooting Index 2. After running the air conditioning for 10 minutes under the above test conditions, read the delivery temperature from the thermometer in the center vent, the blower intake temperature near the blower unit, and the discharge (high) and suction (low) pressures on the A/C gauges.

6. To complete the vent (delivery)/blower intake temperature chart:
  1. Mark the vent (delivery) temperature on the vertical line.
  2. Mark the blower intake temperature on the bottom line.
  3. Draw a vertical line from the blower intake temperature mark.
  4. Draw a horizontal line from the vent (delivery) temperature mark until it intersects the vertical line.

**NOTE:** The vent (delivery) temperature and blower intake temperature should intersect in the shaded area. Any measurements outside the line may indicate the need for further inspection.

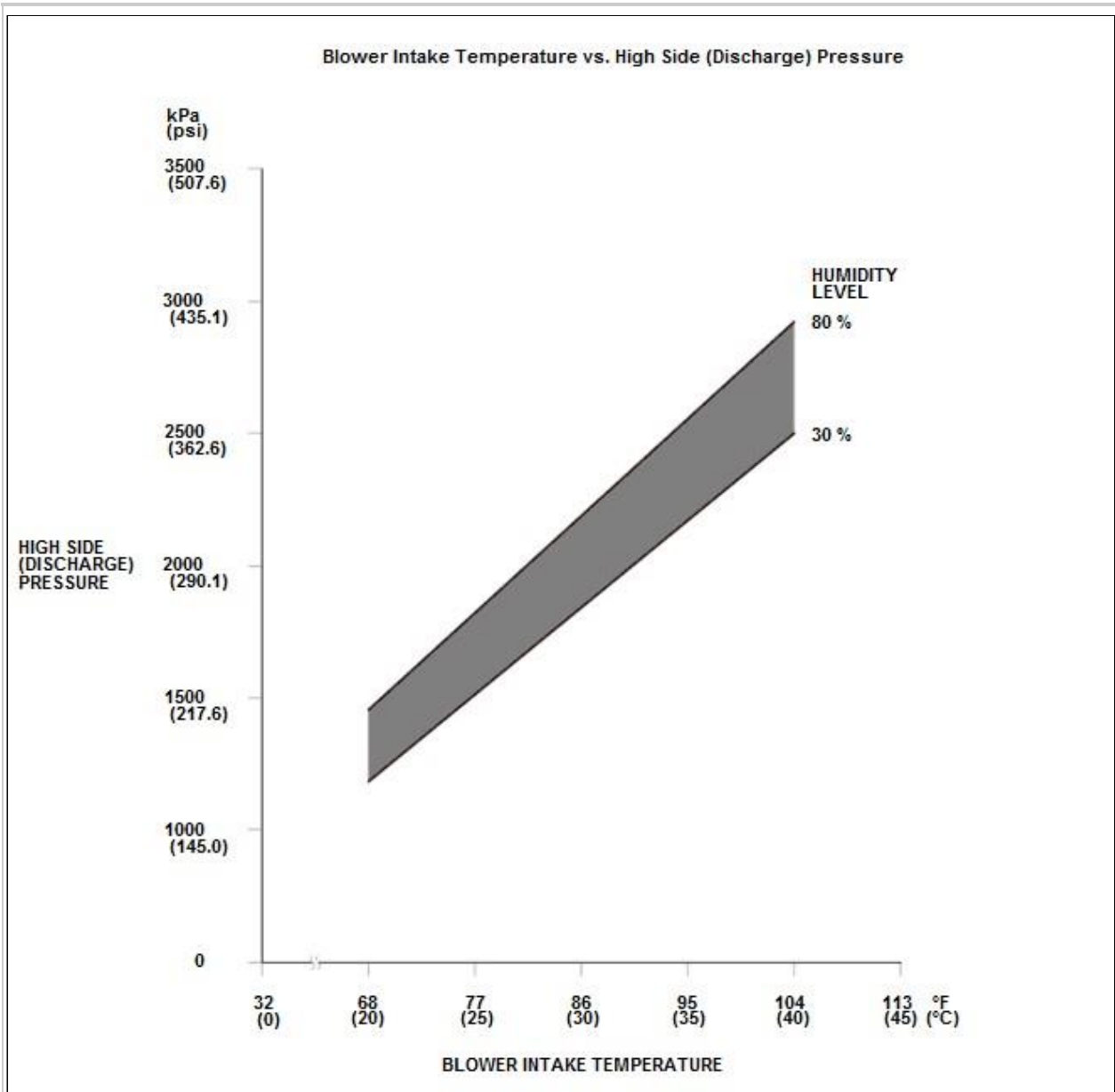




Courtesy of HONDA, U.S.A., INC.

7. To complete the high side (discharge) pressure/blower intake temperature chart:
1. Mark the high side (discharge) pressure on the vertical line.
  2. Mark the blower intake temperature on the bottom line.
  3. Draw a vertical line from the blower intake temperature mark.
  4. Draw a horizontal line from the high side (discharge) pressure mark until it intersects the vertical line.

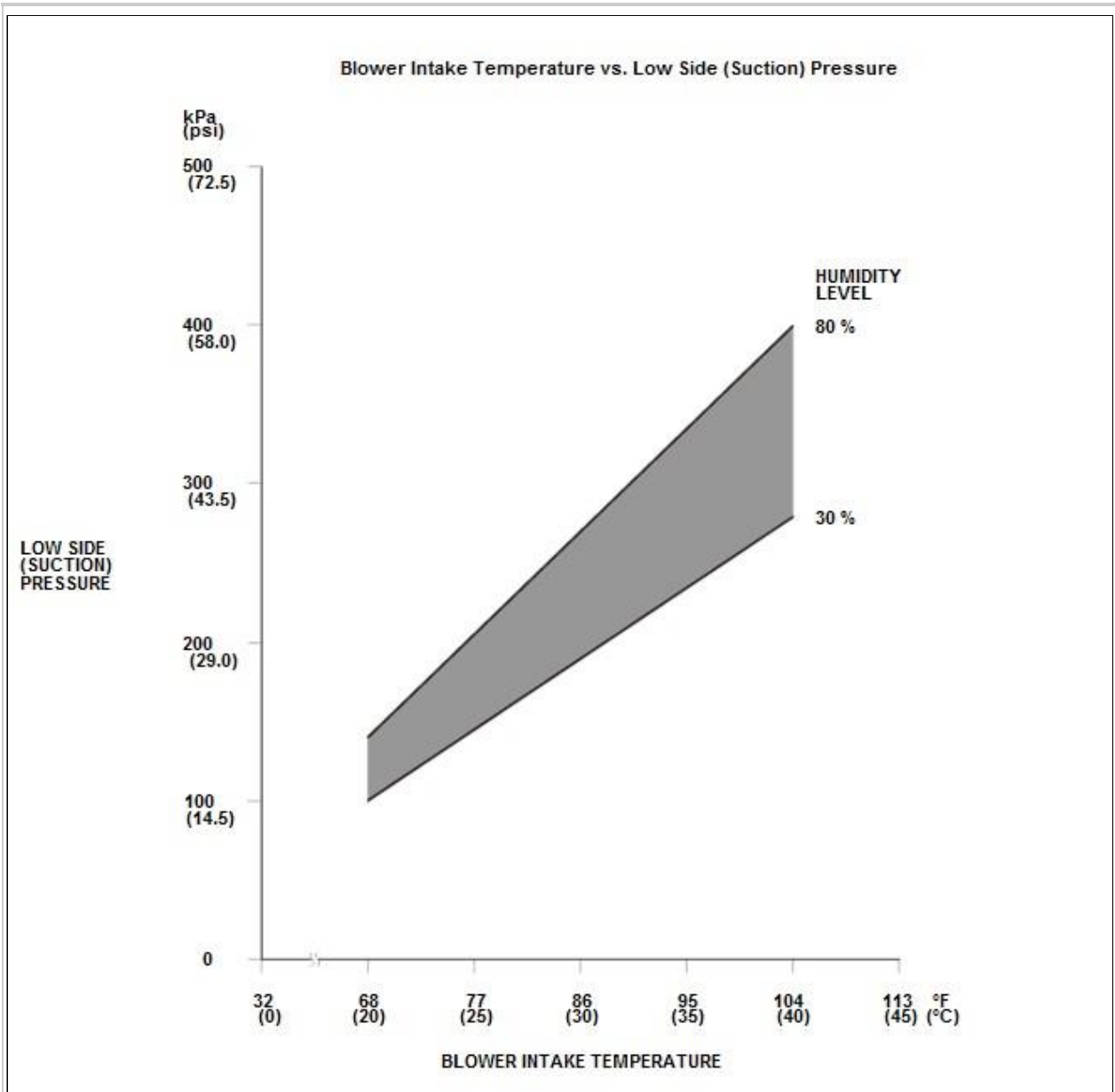
NOTE: The high side (discharge) pressure and blower intake temperature should intersect in the shaded area. Any measurements outside the line may indicate the need for further inspection.



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

8. To complete the low side (suction) pressure/blower intake temperature chart:
  1. Mark the low side (suction) pressure along the vertical line.
  2. Mark the blower intake temperature along the bottom line.
  3. Draw a vertical line from the blower intake temperature mark.
  4. Draw a horizontal line from the low side (suction) pressure mark until it intersects the vertical line.

**NOTE:** The low side (suction) pressure and blower intake temperature should intersect in the shaded area. Any measurements outside the line may indicate the need for further inspection.



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

**Pressure Test**

6. Pressure Test

Test results	Related symptoms	Probable cause
Driver and passenger's side A/C vent temperatures may vary by approximately 20 °F (11 °C) or more	Suction pressure may be low	1. Low refrigerant charge 2. Expansion valve not opening sufficiently
	Driver's or passenger's air mix door DTCs present	One air mix door stuck or inoperative

Test results	Related symptoms	Probable cause
Discharge pressure abnormally High	Discharge pressure reduced when A/C condenser cooled with water spray	Significant refrigerant overcharge
	<ol style="list-style-type: none"> <li>1. Restricted/weak airflow through A/C condenser</li> <li>2. With doors open, fresh air selected and radiator and A/C condenser fan run on high speed, temperature drop across A/C condenser inlet to outlet is less than about 41 °F (5 °C)</li> </ol>	<ol style="list-style-type: none"> <li>1. Dirty A/C condenser or damaged fins</li> <li>2. Debris between A/C condenser and radiator</li> <li>3. Radiator and/or A/C condenser fan motor(s) malfunctioning</li> </ol>
Discharge pressure abnormally Low	<ol style="list-style-type: none"> <li>1. Suction and discharge pressures equalize rapidly after stopping A/C compressor</li> <li>2. Suction pressure higher than normal</li> </ol>	Faulty A/C compressor discharge valve or seal
Suction pressure abnormally Low	Weak or insufficient airflow across evaporator	Restricted blower intake or dust and pollen filter
	Suction pressure varies from near normal to a vacuum, as moisture freezes in expansion valve orifice	<ol style="list-style-type: none"> <li>1. Moisture in the system</li> <li>2. Faulty expansion valve</li> </ol>
	<ol style="list-style-type: none"> <li>1. Reduced airflow from vents</li> <li>2. Vent temperature is very low</li> </ol>	<ol style="list-style-type: none"> <li>1. Evaporator freezing</li> <li>2. Faulty evaporator temperature sensor (check DTC)</li> <li>3. Faulty expansion valve or A/C compressor clutch relay stuck in the on position</li> </ol>
Suction pressure abnormally High	<ol style="list-style-type: none"> <li>1. Lack of slight suction pressure variation at 1, 500 rpm when "Recirculated" airflow is switched to "Fresh Air"</li> <li>2. Discharge pressure near normal</li> </ol>	Expansion valve stuck open or open too long
Suction and Discharge pressures abnormally High	<ol style="list-style-type: none"> <li>1. Sheet of paper does not stick to front of A/C condenser</li> </ol>	Radiator and/or A/C condenser fan motor(s) inoperative or wires

	<p>surface with cooling fans on</p> <p>2. With doors open, fresh air selected and radiator and A/C condenser fan run on high speed, temperature drop across A/C condenser inlet to outlet is less than about 41 °F (5 °C)</p>	reversed
	<p>1. A/C compressor clutch remains engaged during off cycle</p> <p>2. Pressure relief valve may open</p>	<p>1. Insufficient A/C compressor clutch clearance</p> <p>2. A/C compressor clutch relay stuck in the on position or circuit problem</p> <p>3. Excessive air in system</p>
Test results	Related symptoms	Probable cause
Suction and Discharge pressures abnormally Low	Suction line from expansion valve to A/C compressor is not cold	Excessively low refrigerant charge
	Lack of slight suction pressure variation at 1,500 rpm when the "Recirculated" airflow is switched to "Fresh Air"	Expansion valve clogged with debris/desiccant, stuck closed, or not opening sufficiently
	More than 50-60 °F (10-16 °C) temperature drop across A/C condenser inlet to outlet pipes	Blocked or restricted A/C condenser internal passages or lines/components restricting refrigerant flow
	<p>Significant temperature difference along high or low side A/C lines or components</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NOTE: Some restrictions may not show up until 3,000 rpm</p> </div>	Restriction in A/C suction or discharge lines or components (check temperatures to isolate)
Suction pressure High and Discharge pressure Low	<p>1. Excessive A/C compressor noise quickly</p> <p>2. Pressures equalize quickly and noise after A/C compressor turns off</p>	A/C compressor internal damage (Check for A/C system debris contamination)

Suction and discharge pressures slightly low	Vent temperature too high	<ol style="list-style-type: none"> <li>1. Slightly low refrigerant charge</li> <li>2. Air mix door sticking, misadjusted or inoperative</li> <li>3. Excessive refrigerant oil in system</li> </ol>
	Static pressures high with A/C system equalized. (After engine is off 4-12 hours)	<ol style="list-style-type: none"> <li>1. Air/Non-condensable gasses in system</li> <li>2. Contaminated or incorrect refrigerant</li> </ol>

**TESTING > A/C SYSTEM TEST (2016-18) > TEST**



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

- Air conditioning refrigerant or lubricant vapor can irritate your eyes, nose, or throat.
- Be careful when connecting service equipment.
- Do not breathe refrigerant or vapor.

SRS components are located in this area. Review the SRS component locations - Refer to: SRS Component Location Index (2013-18), or SRS Component Location Index (2013-18) and the precautions and procedures before doing repairs or service.

The performance test will help determine if the A/C system is operating within specifications.

**NOTE:**

- If accidental system discharge occurs, ventilate the work area before resuming service.
- Additional health and safety information may be obtained from the refrigerant and lubricant manufacturers.

**Performance Test**

1. A/C System - Inspect

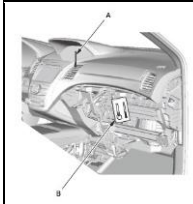
1. Do the A/C system inspection - Refer to: A/C System Inspection (2013-18), or A/C System Contamination Inspection (2013-18) , and correct any problems found.

2. R-134a Refrigerant Recovery/Recycling/Charging Station - Connect

1. Connect an R-134a refrigerant recovery/recycling/charging station to the high-pressure service port and the low-pressure service port, following the equipment manufacturer's instructions.

3. Glove Box - Remove

#### 4. A/C System - Test



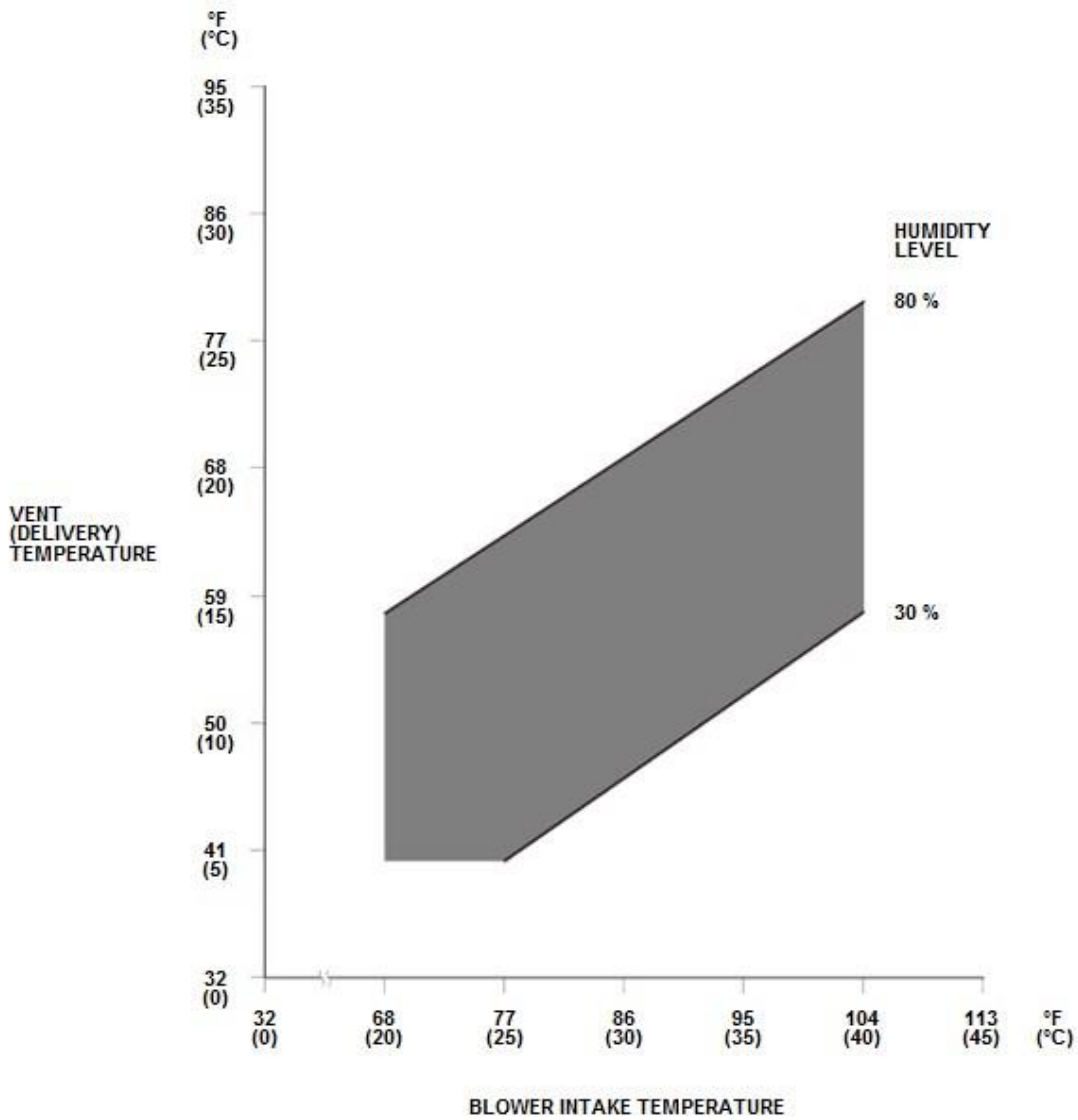
Courtesy of HONDA,  
U.S.A., INC.

1. Determine the relative humidity and air temperature
  2. Insert a thermometer (A) in the center vent
  3. Place a hygro-thermometer (B) near the blower unit's recirculation inlet duct
  4. Test conditions:
    1. Move the vehicle out of direct sunlight and let it cool down to the surrounding (ambient) temperature. If necessary, wash the vehicle to cool it down more quickly.
    2. The blower intake temperature must be at least 68 °F (20 °C).
    3. Open the hood.
    4. Open the front doors.
    5. Start the engine.
    6. Set the temperature control dials to MAX COOL, the mode control button to VENT, and the recirculation control button to RECIRCULATE.
    7. Set the A/C button on and the fan control button to Max.
    8. Run the engine at 1, 500 rpm.
    9. No driver or passengers in vehicle.
  5. Inspect the A/C components for the following conditions:
    1. A/C compressor clutch not engaged.
    2. Abnormal frost areas.
    3. Unusual noises.
- If you observe any of these conditions, refer to the Symptom Troubleshooting Index 2. After running the air conditioning for 10 minutes under the above test conditions, read the delivery temperature from the thermometer in the center vent, the blower intake temperature near the blower unit, and the discharge (high) and suction (low) pressures on the A/C gauges.

7. To complete the vent (delivery)/blower intake temperature chart:
  1. Mark the vent (delivery) temperature on the vertical line.
  2. Mark the blower intake temperature on the bottom line.
  3. Draw a vertical line from the blower intake temperature mark.
  4. Draw a horizontal line from the vent (delivery) temperature mark until it intersects the vertical line.

**NOTE:** The vent (delivery) temperature and blower intake temperature should intersect in the shaded area. Any measurements outside the line may indicate the need for further inspection.

Blower Intake Temperature vs. Vent (Delivery) Temperature

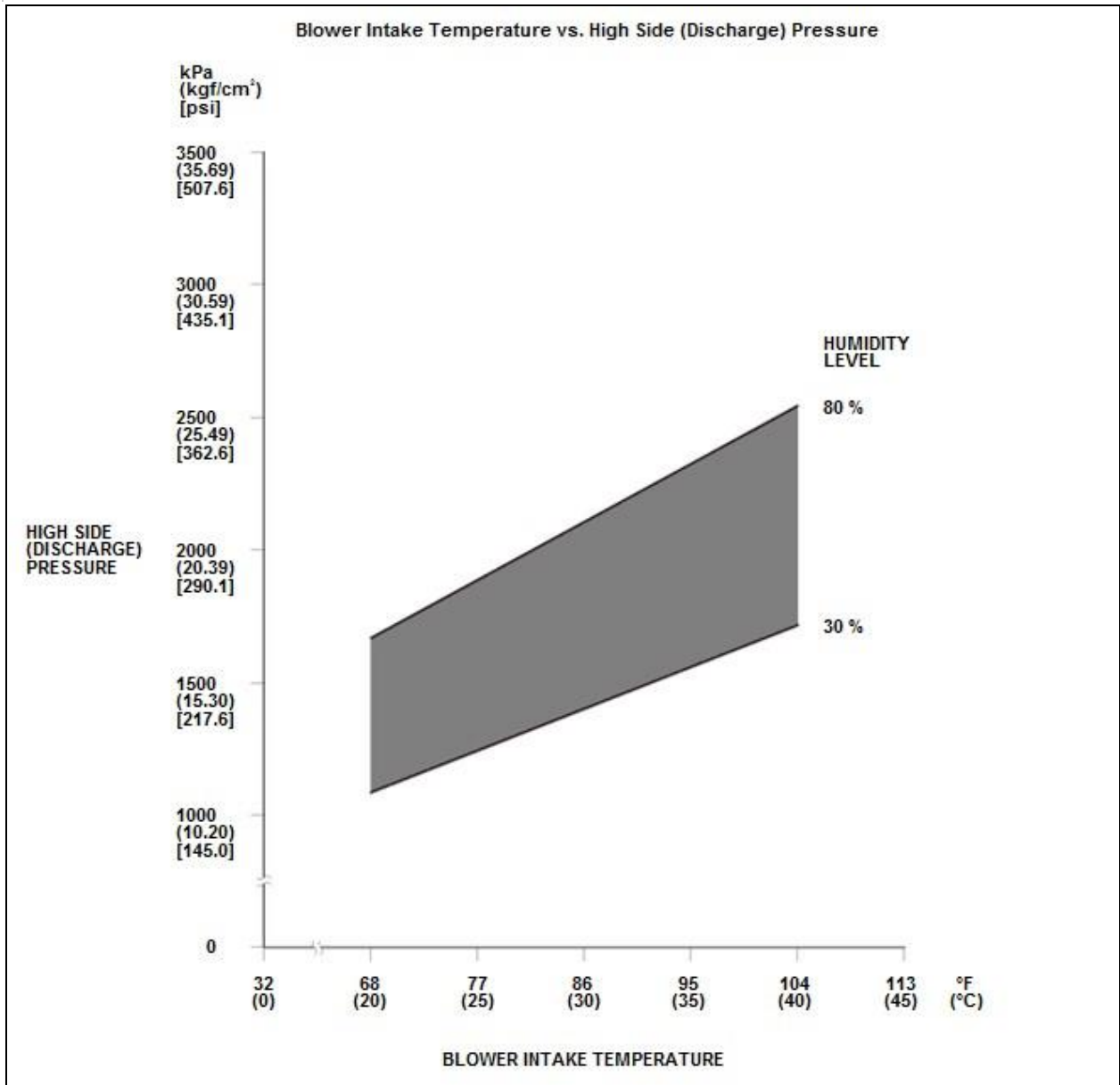




8. To complete the high side (discharge) pressure/blower intake temperature chart:

1. Mark the high side (discharge) pressure on the vertical line.
2. Mark the blower intake temperature on the bottom line.
3. Draw a vertical line from the blower intake temperature mark.
4. Draw a horizontal line from the high side (discharge) pressure mark until it intersects the vertical line.

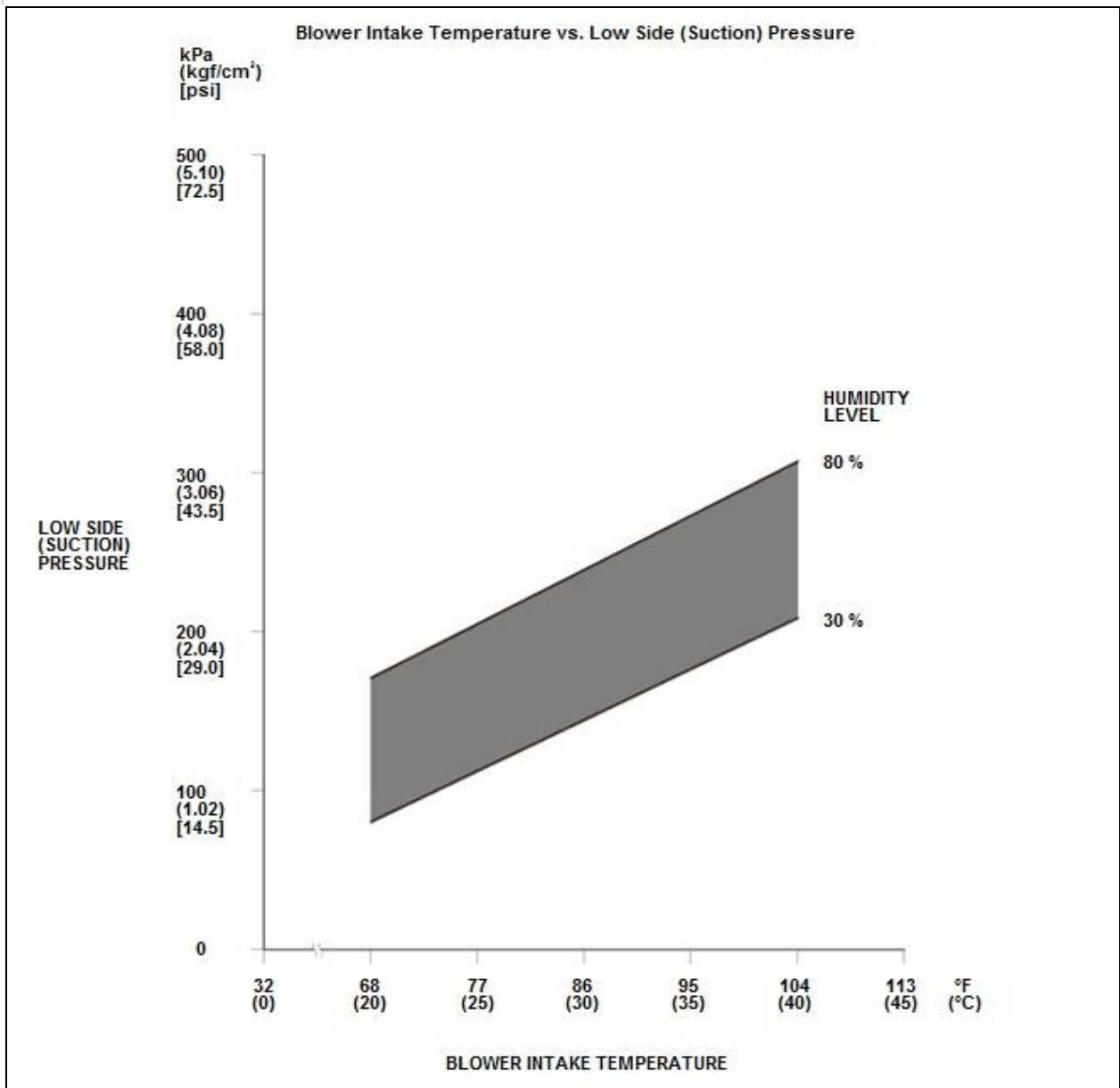
NOTE: The high side (discharge) pressure and blower intake temperature should intersect in the shaded area. Any measurements outside the line may indicate the need for further inspection.



9. To complete the low side (suction) pressure/blower intake temperature chart:

1. Mark the low side (suction) pressure along the vertical line.
2. Mark the blower intake temperature along the bottom line.
3. Draw a vertical line from the blower intake temperature mark.
4. Draw a horizontal line from the low side (suction) pressure mark until it intersects the vertical line.

NOTE: The low side (suction) pressure and blower intake temperature should intersect in the shaded area. Any measurements outside the line may indicate the need for further inspection.



**Pressure Test**

5. Pressure Test

Test results	Related symptoms	Probable cause
Driver and passenger's side A/C vent temperatures may vary by approximately 20 °F (11 °C) or more	Suction pressure may be low	<ol style="list-style-type: none"> <li>1. Low refrigerant charge</li> <li>2. Expansion valve not opening sufficiently</li> </ol>
	Driver's or passenger's air mix door DTCs present	One air mix door stuck or inoperative
Test results	Related symptoms	Probable cause
Discharge pressure	Discharge pressure reduced when	Significant refrigerant overcharge
abnormally High	A/C condenser cooled with water spray	
	<ol style="list-style-type: none"> <li>1. Restricted/weak airflow through A/C condenser</li> <li>2. With doors open, fresh air selected and radiator and A/C condenser fan run on high speed, temperature drop across A/C condenser inlet to outlet is less than about 41 °F (5 °C)</li> </ol>	<ol style="list-style-type: none"> <li>1. Dirty A/C condenser or damaged fins</li> <li>2. Debris between A/C condenser and radiator</li> <li>3. Radiator and/or A/C condenser fan motor(s) malfunctioning</li> </ol>
Discharge pressure abnormally Low	<ol style="list-style-type: none"> <li>1. Suction and discharge pressures equalize rapidly after stopping A/C compressor</li> <li>2. Suction pressure higher than normal</li> </ol>	Faulty A/C compressor discharge valve or seal
Suction pressure abnormally Low	Weak or insufficient airflow across evaporator	Restricted blower intake or dust and pollen filter
	Suction pressure varies from near normal to a vacuum, as moisture freezes in expansion valve orifice	<ol style="list-style-type: none"> <li>1. Moisture in the system</li> <li>2. Faulty expansion valve</li> </ol>
	<ol style="list-style-type: none"> <li>1. Reduced airflow from vents</li> <li>2. Vent temperature is very low</li> </ol>	<ol style="list-style-type: none"> <li>1. Evaporator freezing</li> <li>2. Faulty evaporator temperature sensor (check DTC)</li> <li>3. Faulty expansion valve or A/C compressor clutch relay stuck in the on position</li> </ol>

Suction pressure abnormally High	<ol style="list-style-type: none"> <li>1. Lack of slight suction pressure variation at 1, 500 rpm when "Recirculated" airflow is switched to "Fresh Air"</li> <li>2. Discharge pressure near normal</li> </ol>	Expansion valve stuck open or open too long
Suction and Discharge pressures abnormally High	<ol style="list-style-type: none"> <li>1. Sheet of paper does not stick to front of A/C condenser surface with cooling fans on</li> <li>2. With doors open, fresh air selected and radiator and A/C condenser fan run on high speed, temperature drop across A/C condenser inlet to outlet is less than about 41 °F (5 °C)</li> </ol>	Radiator and/or A/C condenser fan motor(s) inoperative or wires reversed
	<ol style="list-style-type: none"> <li>1. A/C compressor clutch remains engaged during off cycle</li> <li>2. Pressure relief valve may open</li> </ol>	<ol style="list-style-type: none"> <li>1. Insufficient A/C compressor clutch clearance</li> <li>2. A/C compressor clutch relay stuck in the on position or circuit problem</li> <li>3. Excessive air in system</li> </ol>
Suction and Discharge pressures abnormally Low	Suction line from expansion valve to A/C compressor is not cold	Excessively low refrigerant charge
	Lack of slight suction pressure variation at 1, 500 rpm when "Recirculated" airflow is switched to "Fresh Air"	Expansion valve clogged with debris/desiccant, stuck closed, or not opening sufficiently
	More than 50-60 °F (10-16 °C) temperature drop across A/C condenser inlet to outlet pipes	Blocked or restricted A/C condenser internal passages or lines/components restricting refrigerant flow
	<p>Significant temperature difference along high or low side A/C lines or components</p> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p>NOTE: Some restrictions may not show up until 3,000 rpm</p> </div>	Restriction in A/C suction or discharge lines or components (check temperatures to isolate)

Test results	Related symptoms	Probable cause
Suction pressure High and Discharge pressure Low	<ol style="list-style-type: none"> <li>1. Excessive A/C compressor noise</li> <li>2. Pressures equalize quickly and noise after A/C compressor turns off</li> </ol>	A/C compressor internal damage (Check for A/C system debris contamination)
Suction and discharge pressures slightly low	Vent temperature too high	<ol style="list-style-type: none"> <li>1. Slightly low refrigerant charge</li> <li>2. Air mix door sticking, misadjusted or inoperative</li> <li>3. Excessive refrigerant oil in system</li> </ol>
	Static pressures high with A/C system equalized. (After engine is off 4-12 hours)	<ol style="list-style-type: none"> <li>1. Air/Non-condensable gasses in system</li> <li>2. Contaminated or incorrect refrigerant</li> </ol>

### TESTING > BLOWER POWER TRANSISTOR TEST (2013-18) > TEST

SRS components are located in this area. Review the SRS component locations - Refer to: SRS Component Location Index (2013-18), or SRS Component Location Index (2013-18) and the precautions and procedures - Refer to: SRS Precautions and Procedures (2013-15), or SRS Precautions and Procedures (2016-18) before doing repairs or service.

#### 1. Glove Box - Remove

1. Remove the glove box .

#### 2. Passenger's Heater Duct - Remove

1. Remove the passenger's heater duct .

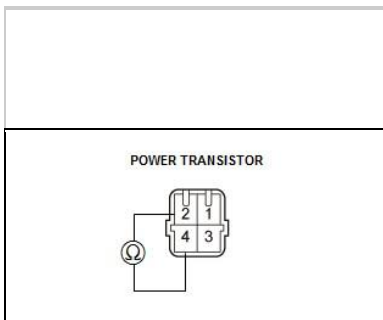
#### 3. Dashboard Center Panel - Remove

1. Remove the dashboard center panel:

1. Without navigation

2. With navigation - Refer to: Audio-Navigation Unit Removal and Installation (2013-15), or Audio-Navigation Unit Removal and Installation (2016-18)

#### 4. Power Transistor - Test



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

1. Disconnect the power transistor connector
2. Measure the resistance between terminals No. 2 and No. 4 of the power transistor. It should be about 1.5 kΩ.

1. If the resistance is within the specifications, go to step 3.

2. If the resistance is not within the specifications, replace the power transistor .

**NOTE:** Also check the blower motor. Power transistor failure can be caused by a defective blower motor

2. Reconnect the power transistor connector.

4. Connect climate control unit connector A (28P) terminals No. 6 and climate control unit connector B (12P) terminals No. 4 with a jumper wire 5. Press the engine start/stop button to select the ON mode

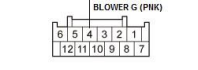
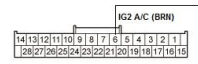
6. Check that the blower motor runs.

1. If the blower motor does not run, replace the power transistor .

NOTE: A faulty blower motor can cause the power transistor to fail. Before replacing the power transistor, check the blower motor for binding, and replace the blower motor if necessary .

2. If the blower motor runs, the power transistor is OK.

CLIMATE CONTROL UNIT CONNECTOR A (28P)  
Wire side of female terminals



CLIMATE CONTROL UNIT CONNECTOR B (12P)  
Wire side of female terminals

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

#### 5. Dashboard Center Panel - Install

1. Install the dashboard center panel:

1. Without navigation

2. With navigation - Refer to: Audio-Navigation Unit Removal and Installation (2013-15), or Audio-Navigation Unit Removal and Installation (2016-18)

#### 6. Passenger's Heater Duct - Install

1. Install the passenger's heater duct .

#### 7. Glove Box - Install

1. Install the glove box .

### TESTING > DRIVER'S AIR MIX CONTROL MOTOR TEST (2013-18) > TEST

NOTE: Before testing the motor, check for climate control DTCs.

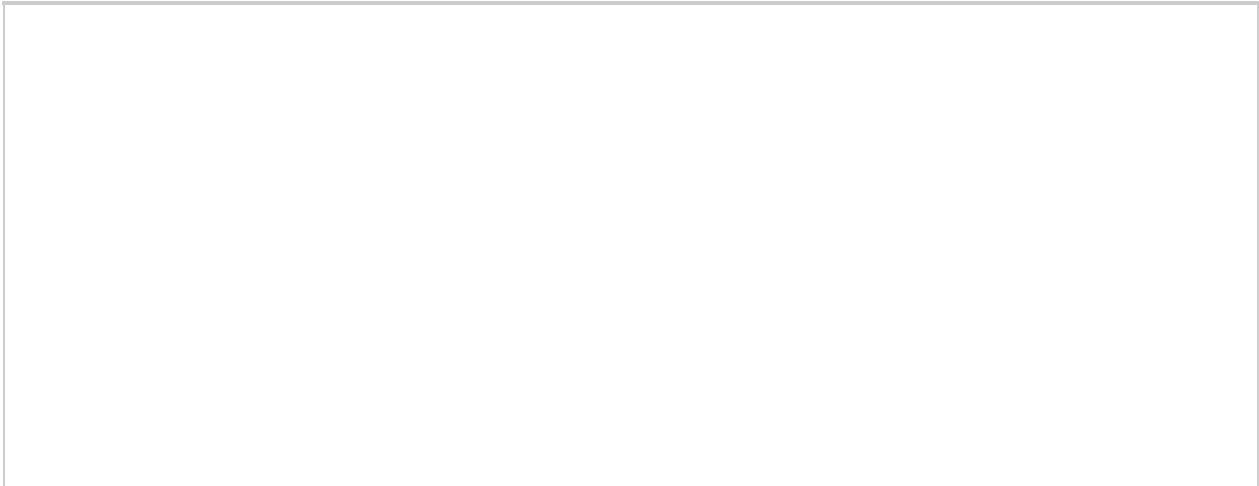
1. Driver's Air Mix Control Motor - Test



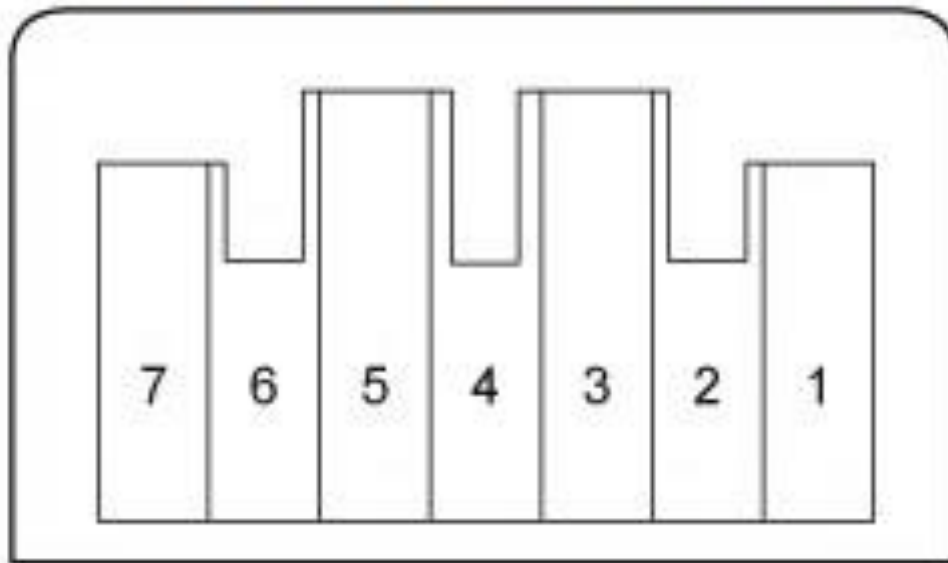
Courtesy of HONDA, U.S.A., INC.

Incorrectly applying power and ground to the driver's air mix control motor will damage it. Follow the instructions carefully.

2. Connect battery power to terminal No. 7 of the driver's air mix control motor, and ground terminal No.6; the driver's air mix control motor should run, and stop at MAX HOT. If it does not, reverse the connections; the driver's air mix control motor should run, and stop at MAX COOL. When the driver's air mix control motor stops running, disconnect battery power immediately.



## DRIVER'S AIR MIX CONTROL MOTOR



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

3. If the driver's air mix control motor did not run in step 2, remove it, then check the air mix control linkage and door for smooth movement.
  1. If the linkage and door move smoothly, go to step 4.
  2. If the linkage or door sticks or binds, repair them as needed.
4. Measure the resistance between terminals No. 1 and No. 3. It should be between 4.2 k $\Omega$  and 7.8 k $\Omega$
5. Reconnect the driver's air mix control motor connector
6. Press the engine start/stop button to select the ON mode
7. Using the backprobe set (07SAZ-001000A), measure the voltage between terminals No. 1 and No. 2.

<b>MAX COOL:</b>	<b>About 1.0 V</b>
<b>MAX HOT:</b>	<b>About 4.0 V</b>

8. If either the resistance or the voltage readings are not as specified, replace the driver's air mix control motor - Refer to: Driver's Air Mix Control Motor Removal and Installation (2013-18), or Passenger's Air Mix Control Motor Removal and Installation (2013-18) .

### TESTING > MODE CONTROL MOTOR TEST (2013-18) > TEST

SRS components are located in this area. Review the SRS component locations - Refer to: SRS Component Location Index (2013-18), or SRS Component Location Index (2013-18) and the precautions and procedures - Refer to: SRS Precautions and Procedures (2013-15), or SRS Precautions and Procedures (2016-18) before doing repairs or service.

NOTE: Before testing the motor, check for climate control DTCs.



1. Glove Box - Remove

- 1. Remove the glove box .

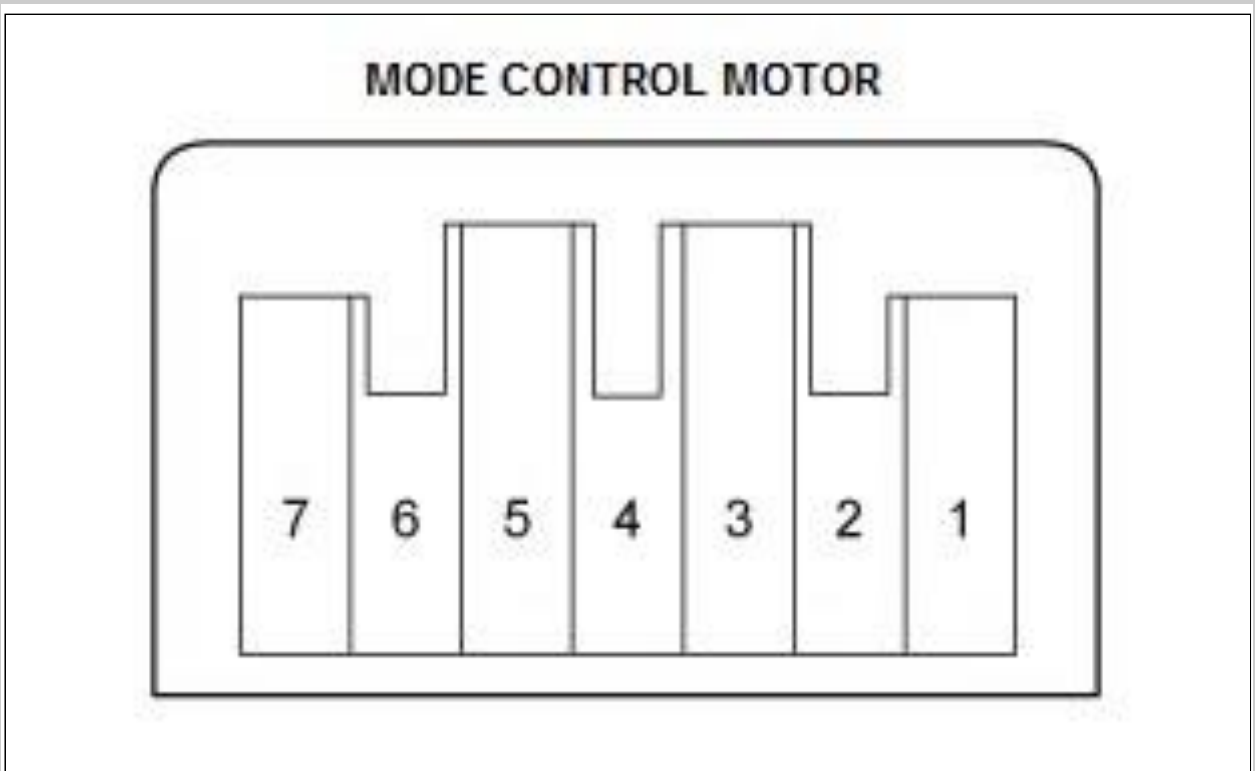
2. Mode Control Motor - Test



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

Incorrectly applying power and ground to the mode control motor will damage it. Follow the instructions carefully.

- 2. Connect battery power to terminal No. 6 of the mode control motor, and ground terminal No. 7; the mode control motor should run, and stop at DEFROST. If it does not, reverse the connections; the mode control motor should run, and stop at VENT. When the mode control motor stops running, disconnect battery power immediately.



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

3. If the mode control motor did not run in step 2, remove it, then check the mode control linkage and door for smooth movement.
  1. If the linkage and door move smoothly, go to step 4.
  2. If the linkage or door sticks or binds, repair them as needed.
4. Measure the resistance between terminals No. 1 and No. 3. It should be between 4.2 kΩ and 7.8 kΩ
5. Reconnect the mode control motor connector
6. Press the engine start/stop button to select the ON mode
7. Using the backprobe set (07SAZ-001000A), measure the voltage between terminals No. 2 and No. 3.

<b>VENT:</b>	<b>About 0.5 V</b>
<b>DEFROST:</b>	<b>About 4.5 V</b>

8. If either the resistance or the voltage readings are not as specified, replace the mode control motor .

3. Glove Box - Install

1. Install the glove box .
----------------------------

**TESTING > PASSENGER'S AIR MIX CONTROL MOTOR TEST (2013-18) > TEST**

SRS components are located in this area. Review the SRS component locations - Refer to: SRS Component Location Index (2013-18), or SRS Component Location Index (2013-18) and the precautions and procedures - Refer to: SRS Precautions and Procedures (2013-15), or SRS Precautions and Procedures (2016-18) before doing repairs or service.

NOTE: Before testing the motor, check for climate control DTCs.

1. Glove Box - Remove

1. Remove the glove box .
---------------------------

2. Passenger's Heater Duct - Remove

1. Remove the passenger's heater duct .
---

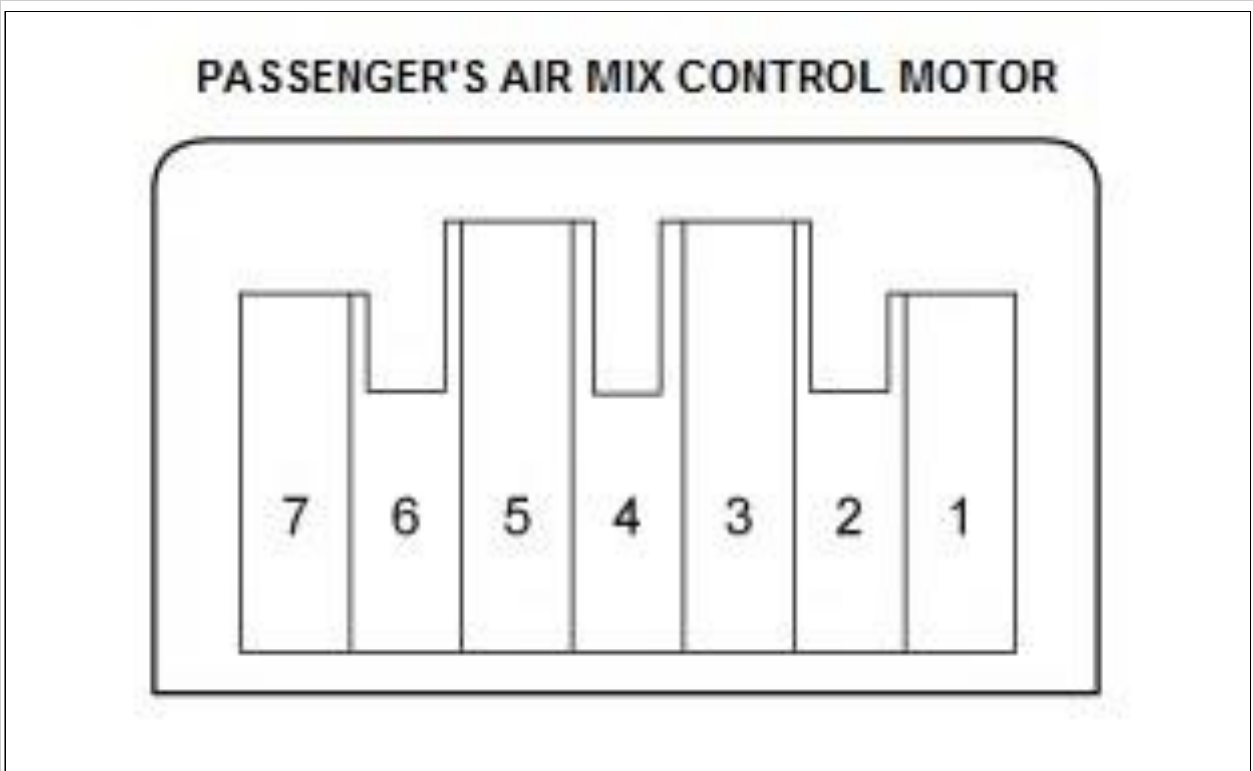
3. Passenger's Air Mix Control Motor - Test



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

Incorrectly applying power and ground to the passenger's air mix control motor will damage it. Follow the instructions carefully.

2. Connect battery power to terminal No. 6 of the passenger's air mix control motor, and ground terminal No. 7; the passenger's air mix control motor should run, and stop at MAX HOT. If it does not, reverse the connections; the passenger's air mix control motor should run, and stop at MAX COOL. When the passenger's air mix control motor stops running, disconnect battery power immediately.



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

3. If the passenger's air mix control motor did not run in step 2, remove it, then check the passenger's air mix control linkage and door for smooth movement.
  1. If the linkage and door move smoothly, go to step 4.
  2. If the linkage or door sticks or binds, repair them as needed.
4. Measure the resistance between terminals No. 1 and No. 3. It should be between 4.2 kΩ and 7.8 kΩ
5. Reconnect the passenger's air mix control motor connector
6. Press the engine start/stop button to select the ON mode
7. Using the backprobe set (07SAZ-001000A), measure the voltage between terminals No. 2 and No. 3.

<b>MAX COOL:</b>	<b>About 1.0 V</b>
<b>MAX HOT:</b>	<b>About 4.0 V</b>

8. If either the resistance or the voltage readings are not as specified, replace the passenger's air mix control motor - Refer to: Driver's Air Mix Control Motor Removal and Installation (2013-18), or Passenger's Air Mix Control Motor Removal and Installation (2013-18) .

#### 4. Passenger's Heater Duct - Install

1. Install the passenger's heater duct .

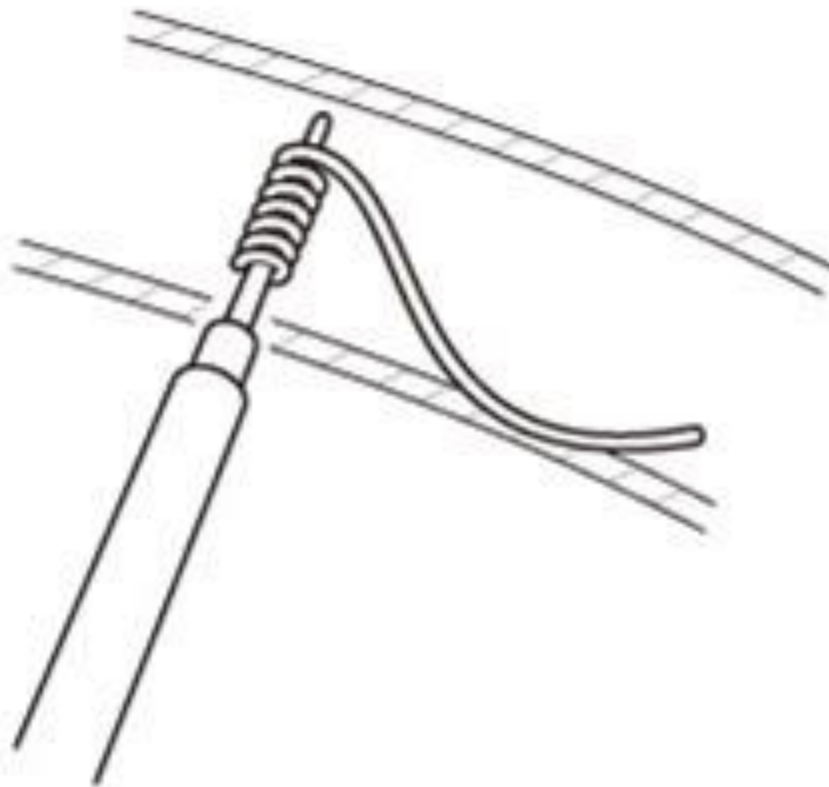
#### 5. Glove Box - Install

1. Install the glove box .

## TESTING > REAR WINDOW DEFOGGER FUNCTION TEST (2013-18)

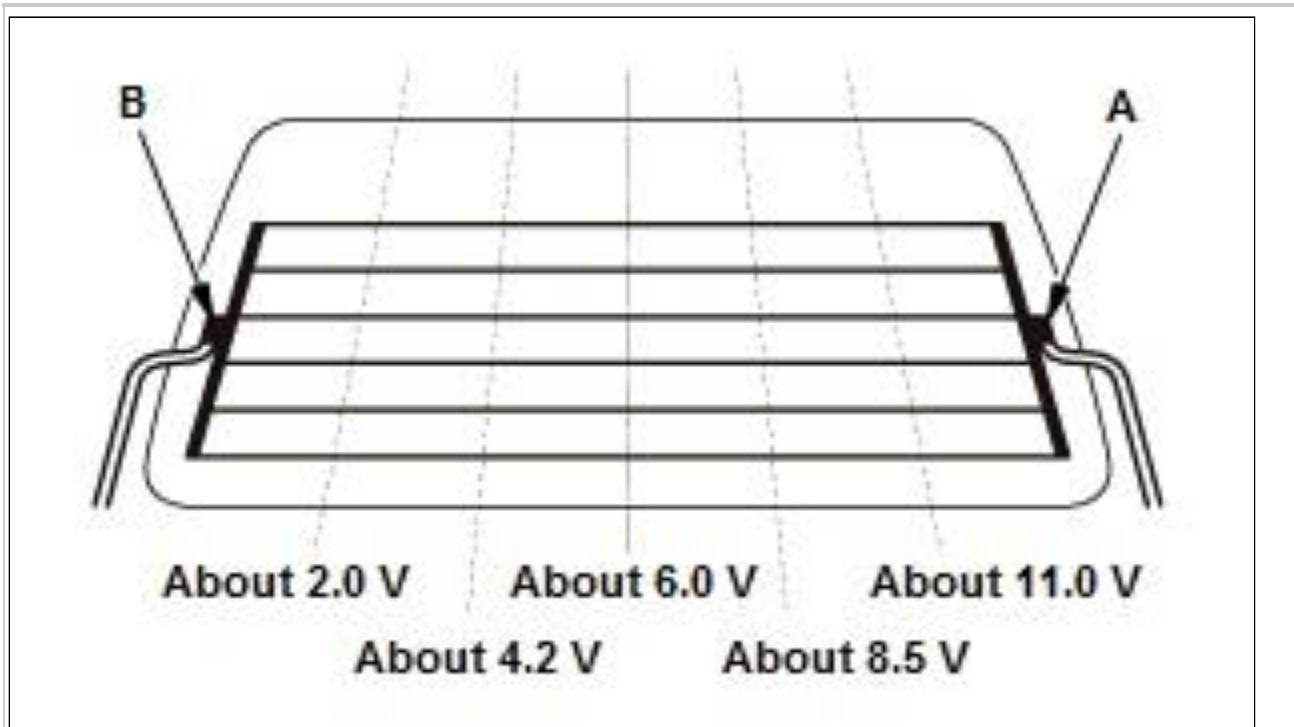
### NOTE:

- Before testing, make sure the No. A2-7 (40 A) fuse in the under-hood fuse/relay box is OK.
- Before testing, make sure the No. B22 (7.5 A) fuse in the under-dash fuse/relay box is OK.
- Aftermarket window tinting should be removed before testing. When testing the defogger, hold a cup of hot steaming water near the glass. The steam can help diagnose a broken or under-performing defogger grid.
- Be careful not to scratch or damage the defogger wires with the tester probe. To avoid damaging the defogger grid, wrap a single strand of bare copper wire or aluminum foil around the voltmeter probe. Use the foil or wire as a contact brush when moving across the defogger grid.



1. Press the engine start/stop button to select the ON mode, then turn the rear window defogger switch ON 2. Measure the voltage between the rear window defogger A (1P) positive terminal and body ground. There should be battery voltage.

- If there is no voltage, check for:
  - Faulty rear window defogger relay.
  - Faulty climate control unit.
  - An open or high resistance in the RED wire to the positive terminal.
- If there is battery voltage, go to step 3.



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

3. Measure the voltage between the rear window defogger B (1P) negative terminal and body ground. There should be less than 0.2 V. If there is more than 0.2 V, check for an open or high resistance in the ground (BLK) wire or poor ground (G602). If there is 0.2 V or less, go to step 4

4. Touch the voltmeter positive probe along each defogger wire, and the negative probe to the negative terminal.

- If the voltage is as specified, the defogger wire up to that point is OK.
- If the voltage is not as specified, repair the defogger wire.
  - If voltage is more than specified at one of the points, there is a break or high resistance toward the negative half of the wire.
  - If voltage is less than specified at one of the points, there is a break or high resistance toward the positive half of the wire.

## TESTING > RECIRCULATION CONTROL MOTOR TEST (2013-18) > TEST

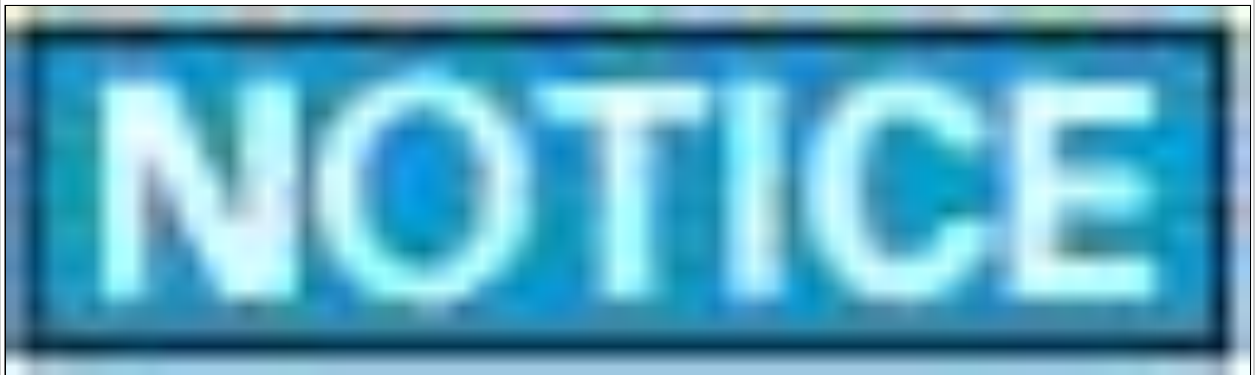
SRS components are located in this area. Review the SRS component locations - Refer to: SRS Component Location Index (2013-18), or SRS Component Location Index (2013-18) and the precautions and procedures - Refer to: SRS Precautions and Procedures (2013-15), or SRS Precautions and Procedures (2016-18) before doing repairs or service.

NOTE: Before testing the motor, check for climate control DTCs.

1. Glove Box - Remove

1. Remove the glove box .

2. Recirculation Control Motor - Test

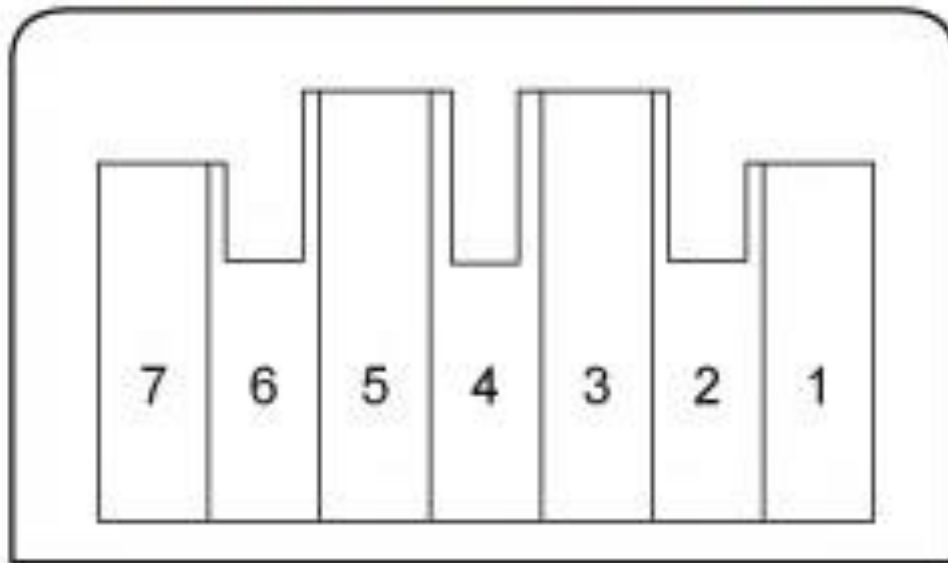


Courtesy of HONDA, U.S.A., INC.

Incorrectly applying power and ground to the recirculation control motor will damage it. Follow the instructions carefully.

2. Connect battery power to terminal No. 6 of the recirculation control motor, and ground terminal No. 7; the recirculation control motor should run, and stop at FRESH. If it does not, reverse the connections; the recirculation control motor moving to RECIRCULATE side. When the recirculation control motor stops running, disconnect battery power immediately.

## RECIRCULATION CONTROL MOTOR



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

3. If the recirculation control motor did not run in step 2, remove it, then check the recirculation controllinkage and door for smooth movement.
  1. If the linkage and door move smoothly, go to step 4.
  2. If the linkage or door sticks or binds, repair them as needed.
4. Measure the resistance between terminals No. 1 and No. 3. It should be between 4.2 k $\Omega$  and 7.8 k $\Omega$
5. Reconnect the recirculation control motor connector
6. Press the engine start/stop button to select the ON mode
7. Using the backprobe set (07SAZ-001000A), measure the voltage between terminals No. 1 and No. 2.

<b>RECIRCULATE:</b>	<b>About 2.8 V</b>
<b>FRESH:</b>	<b>About 0.5 V</b>

8. If either the resistance or voltage readings are not as specified, replace the recirculation control motor

### 3. Glove Box - Install

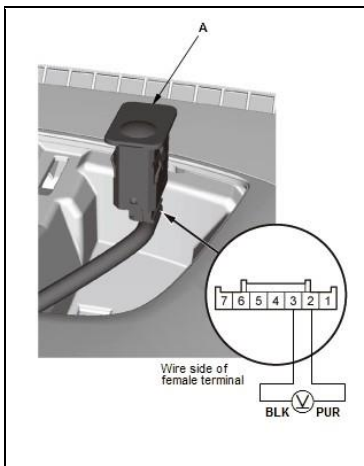
1. Install the glove box .

## TESTING > SUNLIGHT SENSOR TEST (2013-15) > TEST

NOTE: Before testing the sensor, check for climate control DTCs.

### 1. Sunlight Sensor - Test

1. Remove the sunlight sensor (A) .



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

2. Connect the sunlight sensor connector.
3. Press the engine start/stop button to select the ON mode.
4. Measure the voltage between (+) probe on terminal No. 2 and (-) probe on terminal No. 3 with the connector connected.

NOTE: The voltage readings will not change under the light of a flashlight or a fluorescent lamp. Voltage should be:

1. 3.56 V with no sunlight or the sensor covered up
2. Less than 3.56 V with sunlight on the sensor (depends on sunlight intensity)
5. If the voltage is not as specified, replace the sunlight sensor.

### TESTING > SUNLIGHT SENSOR TEST (2016-18) > TEST

NOTE: Before testing the sensor, check for climate control DTCs.

#### 1. Sunlight Sensor - Test

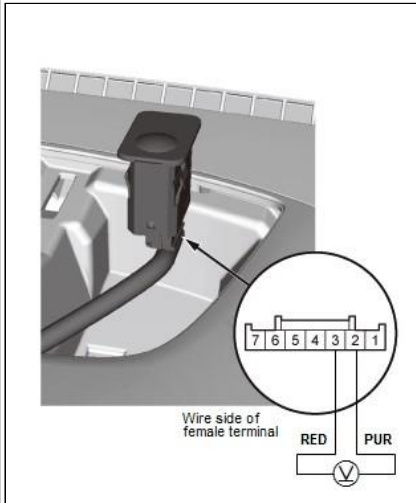
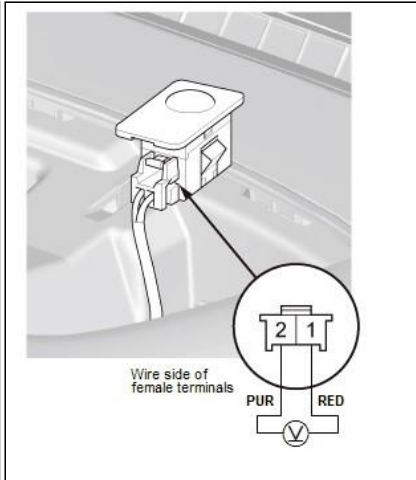
##### With Automatic Wiper

1. Connect the sunlight sensor connector
2. Press the engine start/stop button to select the ON mode
3. Measure the voltage between the terminals with the (+) probe on terminal No. 2 and the (-) probe on terminal No. 1 (with automatic wiper) or terminal No. 3 (without automatic wiper) with the connector connected.

NOTE: The voltage readings will not change under the light of a flashlight or a fluorescent lamp. Voltage should be:

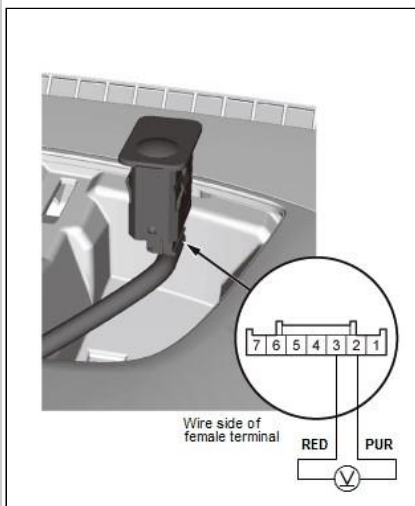
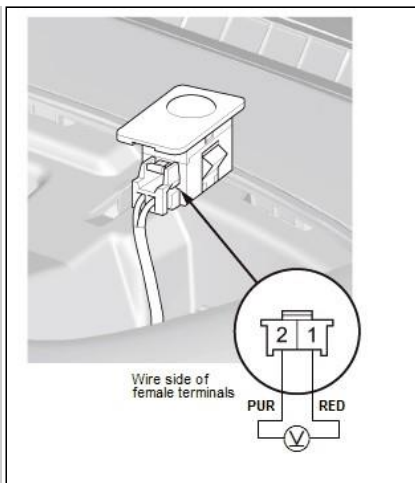
1. 3.56 V with no sunlight or the sensor covered up
2. Less than 3.56 V with sunlight on the sensor (depending on sunlight intensity)
4. If the voltage is not as specified, replace the sunlight sensor.





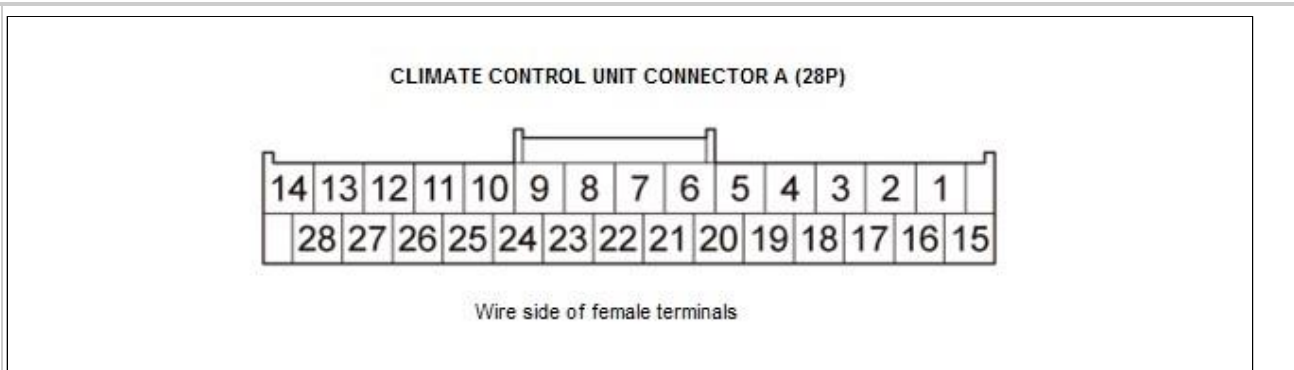
Courtesy of HONDA, U.S.A., INC.HONDA,  
U.S.A., INC.

**Without automatic wiper**



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

## INPUT / OUTPUT > CLIMATE CONTROL UNIT CONNECTOR FOR INPUTS AND OUTPUTS (2013-15)



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

## CONNECTOR A

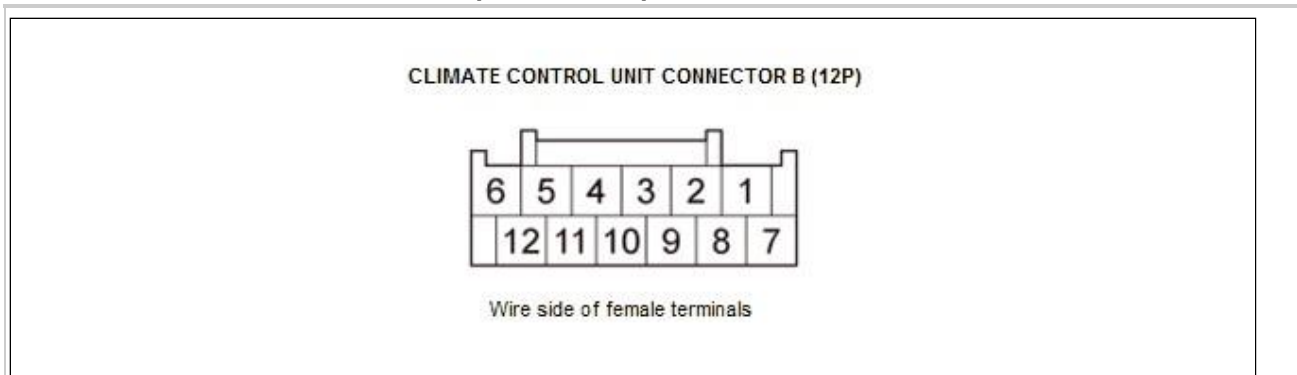
Cavity	Wire color	Terminal name	Description	Signal
1	YEL	AMD-P	Detects potentiometer signal of driver's air mix control motor (door position)	With vehicle in ON mode: about 1.0-4.0 V (depending on driver's air mix control motor position)
2	LT BLU	AMD-P AS	Detects potentiometer signal of passenger's air mix control motor (door position)	With vehicle in ON mode: about 1.0-4.0 V (depending on passenger's air mix control motor position)
3	GRN	RFD-P	Detects potentiometer signal of recirculation control motor (door position)	With vehicle in ON mode: about 0.5-4.5 V (depending on recirculation control motor position)
4	PNK	MDD-P	Detects potentiometer signal of mode control motor (door position)	With vehicle in ON mode: about 0.5-4.5 V (depending on mode control motor position)
5	Not used	Not used	----	----
6	BRN	IG2 A/C	IG2 power source	With vehicle in ON mode: battery voltage
7	GRN	MODE MTR DEF	Outputs to drive mode control motor to DEF side	With vehicle in ON mode, and mode control motor moving to DEF: battery voltage
8	WHT	MODE MTR VENT	Outputs to drive mode control motor to VENT side	With vehicle in ON mode, and mode control motor moving to VENT: battery voltage
9	PNK	M-HOT	Outputs to drive driver's air mix control motor to HOT side	With vehicle in ON mode, driver's air mix control motor moving to HOT: battery voltage
10	LT BLU	M-COOL	Outputs to drive driver's air mix control motor to COOL side	With vehicle in ON mode, driver's air mix control motor moving to COOL: battery voltage

11	YEL	F/R MTR(REC)	Outputs to drive recirculation control motor to RECIRCULATE side	With vehicle in ON mode, and recirculation control motor moving to RECIRCU: battery voltage
12	BLU	F/R MTR(FRESH)	Outputs to drive recirculation control motor to FRESH side	With vehicle in ON mode, and recirculation control motor moving to FRESH: battery voltage
13	ORN	M-HOT AS	Outputs to drive passenger's air mix control motor to HOT side	With vehicle in ON mode, passenger's air mix control motor moving to HOT: battery voltage
Cavity	Wire color	Terminal name	Description	Signal
14	LT GRN	M-COOL AS	Outputs to drive passenger's air mix control motor to COOL side	With vehicle in ON mode, passenger's air mix control motor moving to COOL: battery voltage
15	PNK	B CAN-H	B CAN-H communication signal	With vehicle in ON mode: pulses
16	Not used	Not used	----	----
17	BLU	B CAN-L	B CAN-L communication signal	With vehicle in ON mode: pulses
18	Not used	Not used	----	----
19	BLK	GND	Ground for climate control unit (G503)	With vehicle in ON mode: less than 0.2 V
20	RED	TEVA	Detects evaporator temperature sensor signal	With vehicle in ON mode: about 1.0-4.0 V (depending on evaporator temperature)
21	GRY	TAM	Detects outside air temperature sensor signal	With vehicle in ON mode: about 1.0-4.0 V (depending on outside air temperature)
22	PUR	TSUN	Detects sunlight sensor signal	With vehicle in ON mode, and no sunlight or the sensor covered up: 3.56 V With vehicle in ON mode, and sunlight on the sensor: less than 3.56 V
23	Not used	Not used	----	----

24	LT GRN	TR	Detects in-car temperature sensor signal	With vehicle in ON mode: about 1.0-4.0 V (depending on in-car temperature)
25	BLU	ACS	Outputs A/C on/off signal	With vehicle in ON mode, normal A/C pressure, and A/C switch ON: less than 0.2 V With vehicle in ON mode, normal A/C pressure, and A/C switch OFF: battery voltage
26	Not used	Not used	----	----
27	RED	A/C SO	Outputs display data to HVAC display unit <sup>*1</sup> or audionavigation switch panel <sup>*2</sup>	With vehicle in ON mode: pulses
28	WHT	A/C CLK	Inputs clock signal from HVAC display unit <sup>*1</sup> or audio-navigation switch panel <sup>*2</sup>	With vehicle in ON mode: pulses

\*1: Without navigation\*2: With navigation

### Climate Control Unit Connector for Inputs and Outputs



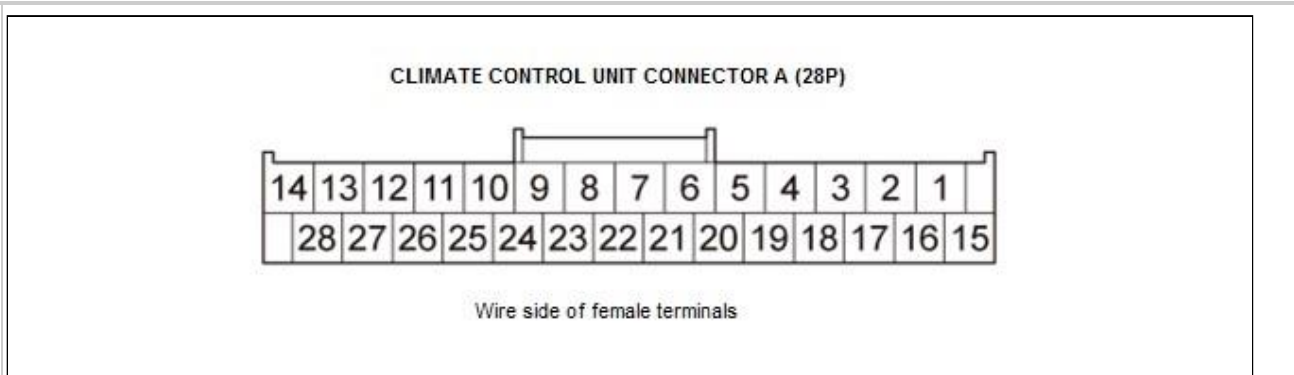
Courtesy of HONDA, U.S.A., INC.

### CONNECTOR B

Cavity	Wire color	Terminal name	Description	Signal
1	BLK	S 5V	Outputs sensor 5 V	With vehicle in ON mode: about 5.0 V
2	Not used	Not used	----	----
3	Not used	Not used	----	----

4	PNK	BLOWER G	Outputs power transistor gate voltage	With vehicle in ON mode, and fan control switch OFF: less than 0.2 V With vehicle in ON mode, and fan control switch ON: about 4.0 V battery voltage (depending on blower motor control)
5	BLU	BLOWER V	Feedback signal of power transistor drain voltage	With vehicle in ON mode: about 0 V battery voltage (depending on blower motor speed)
6	GRY	ILLUMI+	Power source for illumination	With combination light switch ON: battery voltage
7	Not used	Not used	----	----
8	Not used	Not used	----	----
9	LT GRN	RR DEF RLY CL-	Signal for rear window defogger relay	With vehicle in ON mode, and rear window defogger button ON: about 0 V With vehicle in ON mode, and rear window defogger button OFF: battery voltage
10	BLK	SENSOR COM	Sensor ground	With vehicle in ON mode: less than 0.2 V
11	Not used	Not used	----	----
12	YEL	ILL-(LED)	Detects illumination control signal	With combination light switch ON: changed voltage (depending on dashlights brightness controller)

**INPUT / OUTPUT > CLIMATE CONTROL UNIT CONNECTOR FOR INPUTS AND OUTPUTS (2016-18)**



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

**CONNECTOR A**

Cavity	Wire color	Terminal name	Description	Signal
1	YEL	AMD-P	Detects potentiometer signal of driver's air mix control motor (door position)	With vehicle in ON mode: about 1.0-4.0 V (depending on driver's air mix control motor position)
2	LT BLU	AMD-P AS	Detects potentiometer signal of passenger's air mix control motor (door position)	With vehicle in ON mode: about 1.0-4.0 V (depending on passenger's air mix control motor position)
3	GRN	RFD-P	Detects potentiometer signal of recirculation control motor (door position)	With vehicle in ON mode: about 0.5-4.5 V (depending on recirculation control motor position)
4	PNK	MDD-P	Detects potentiometer signal of mode control motor (door position)	With vehicle in ON mode: about 0.5-4.5 V (depending on mode control motor position)
5	Not used	Not used	----	----
6	BRN	IG2 A/C	IG2 power source	With vehicle in ON mode: battery voltage
7	GRN	MODE MTR DEF	Outputs to drive mode control motor to DEF side	With vehicle in ON mode and mode control motor moving to DEF: battery voltage

8	WHT	MODE MTR VENT	Outputs to drive mode control motor to VENT side	With vehicle in ON mode and mode control motor moving to VENT: battery voltage
9	PNK	M-HOT	Outputs to drive driver's air mix control motor to HOT side	With vehicle in ON mode and driver's air mix control motor moving to HOT: battery voltage
10	LT BLU	M-COOL	Outputs to drive driver's air mix control motor to COOL side	With vehicle in ON mode and driver's air mix control motor moving to COOL: battery voltage
11	YEL	F/R MTR(REC)	Outputs to drive recirculation control motor to RECIRCULATE side	With vehicle in ON mode and recirculation control motor moving to RECIRCULATE: battery voltage
12	BLU	F/R MTR(FRESH)	Outputs to drive recirculation control motor to FRESH side	With vehicle in ON mode and recirculation control motor moving to FRESH: battery voltage
13	TAN	M-HOT AS	Outputs to drive passenger's air mix control motor to HOT side	With vehicle in ON mode and passenger's air mix control motor moving to HOT: battery voltage
14	LT GRN	M-COOL AS	Outputs to drive passenger's air mix control motor to COOL side	With vehicle in ON mode and passenger's air mix control motor moving to COOL: battery voltage
15	PNK	B CAN-H	B CAN-H communication signal	With vehicle in ON mode: pulses
16	Not used	Not used	----	----
17	BLU	B CAN-L	B CAN-L communication signal	With vehicle in ON mode: pulses

\*: Without navigation

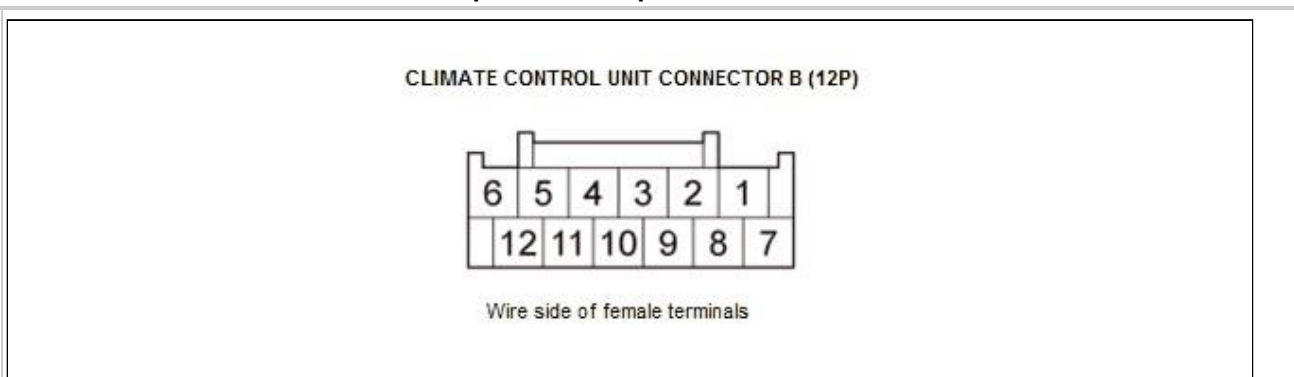
Cavity	Wire color	Terminal name	Description	Signal
18	Not used	Not used	----	----
19	BLK	GND	Ground for climate control unit (G503)	With vehicle in ON mode: less than 0.2 V
20	RED	TEVA	Detects evaporator temperature sensor signal	With vehicle in ON mode: about 1.0-4.0 V (depending on evaporator temperature)



21	GRY	TAM	Detects outside air temperature sensor signal	With vehicle in ON mode: about 1.0-4.0 V (depending on outside air temperature)
22	PUR	TSUN	Detects sunlight sensor signal	With vehicle in ON mode, and no sunlight or the sensor covered up: 3.56 V With vehicle in ON mode and sunlight on the sensor: less than 3.56 V
23	Not used	Not used	----	----
24	LT GRN	TR	Detects in-car temperature sensor signal	With vehicle in ON mode: about 1.0-4.0 V (depending on in-car temperature)
25	Not used	Not used	----	----
26	Not used	Not used	----	----
27*	RED	A/C SO	Outputs display data to HVAC display unit	With vehicle in ON mode: pulses
28*	WHT	A/C CLK	Inputs clock signal from HVAC display unit	With vehicle in ON mode: pulses

\*: Without navigation

### Climate Control Unit Connector for Inputs and Outputs



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

### CONNECTOR B

Cavity	Wire color	Terminal name	Description	Signal
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1	BLK	S 5V	Outputs sensor 5 V	With vehicle in ON mode: about 5.0 V
2	Not used	Not used	-----	-----
3	Not used	Not used	-----	-----
4	PNK	BLOWER G	Outputs power transistor gate voltage	With vehicle in ON mode and fan control button OFF: less than 0.2 V  With vehicle in ON mode and fan control button ON: about 4.0 V battery voltage (depending on blower motor control)
5	BLU	BLOWER V	Feedback signal of power transistor drain voltage	With vehicle in ON mode: about 0 V battery voltage (depending on blower motor speed)
6	GRY	ILLUMI+	Power source for illumination	With combination light switch ON: battery voltage
7	Not used	Not used	-----	-----
8	Not used	Not used	-----	-----
Cavity	Wire color	Terminal name	Description	Signal
9	LT GRN	RR DEF RLY CL-	Signal for rear window defogger relay	With vehicle in ON mode and rear window defogger/mirror defogger button ON: about 0 V With vehicle in ON mode and rear window defogger/mirror defogger button OFF: battery voltage
10	RED	SENSOR COM	Sensor ground	With vehicle in ON mode: less than 0.2 V
11	Not used	Not used	-----	-----
12	YEL	ILL-(LED)	Detects illumination control signal	With combination light switch ON: voltage changes (depending on dashlights brightness controller)

## GENERAL INFORMATION > A/C SERVICE TIPS AND PRECAUTIONS (2013-18)



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

- Compressed air mixed with the R-134a forms a combustible vapor.
- The vapor can burn or explode causing serious injury.
- Never use compressed air to pressure test R-134a service equipment or vehicle air conditioning systems.



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

- Air conditioning refrigerant or lubricant vapor can irritate your eyes, nose, or throat.
- Be careful when connecting service equipment.
- Do not breathe refrigerant or vapor.

The air conditioning system uses HFC-134a (R-134a) refrigerant and polyalkyleneglycol (PAG) refrigerant oil. Use only service equipment that is U.L.-listed and is certified to meet the requirements of SAE J2788 to remove R-134a from the air conditioning system.

If accidental system discharge occurs, ventilate the work area before resuming service.

R-134a service equipment or vehicle air conditioning systems should not be pressure tested or leak tested with compressed air.

Additional health and safety information may be obtained from the refrigerant and lubricant manufacturers.

- Always disconnect the negative cable from the battery whenever replacing air conditioning parts. Keep moisture and dirt out of the system. When disconnecting any lines, plug or cap the fittings immediately; do not remove the caps or plugs until just before you reconnect each line.
- Before connecting any hose or line, apply a few drops of refrigerant oil to the O-ring.
- When tightening or loosening a fitting, use a second wrench to support the matching fitting. When discharging the system, use an R-134a refrigerant recovery/recycling/charging station; do not release refrigerant into the atmosphere.