Bulletin No.: PI1408

Date: Jun-2015

Service Bulletin

PRELIMINARY INFORMATION

Subject: Musty Odor from HVAC Vents on Startup

Models: 2013-2015 Cadillac ATS

2014-2015 Cadillac CTS Sedan (VIN A)

Attention: This PI also applies to any of the above models that may be Export vehicles.

Condition/Concern

Some customers may comment on a musty or mildew odor coming from the HVAC instrument panel air outlet vents on startup. The odor most likely will dissipate after 30-60 seconds of operation. The odor generally occurs after the vehicle has been parked for 2–6 hours with sun load with temperatures of 21°C (70°F) or higher.

This may be caused by condensation building up on the evaporator core, which does not evaporate by itself in humid conditions. The odor may be the result of microbial growth on the evaporator core being released into the air stream by the HVAC blower motor.

Recommendation/Instructions

Follow all the steps below to reduce the HVAC musty odor:

Install the latest HVAC Control Module calibration and enable After-blow

Refer to Tis2Web and SI Procedures for enabling after-blow.

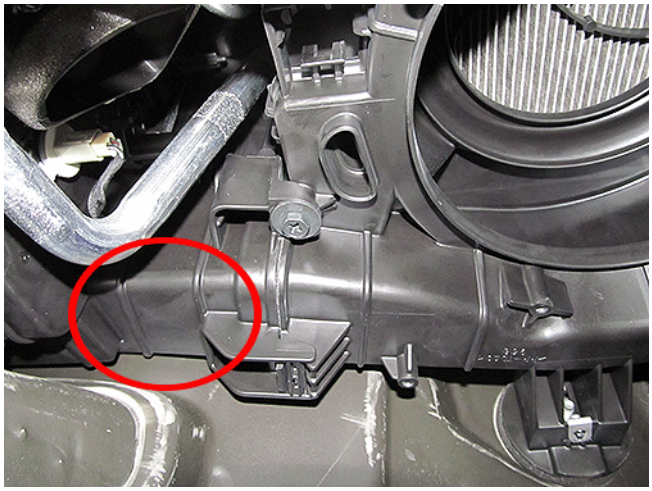
For 2013 ATS's built prior to VIN 1G6AH5RX0D0142531, refer to the latest version of PIC5730: Enabling After-blow.

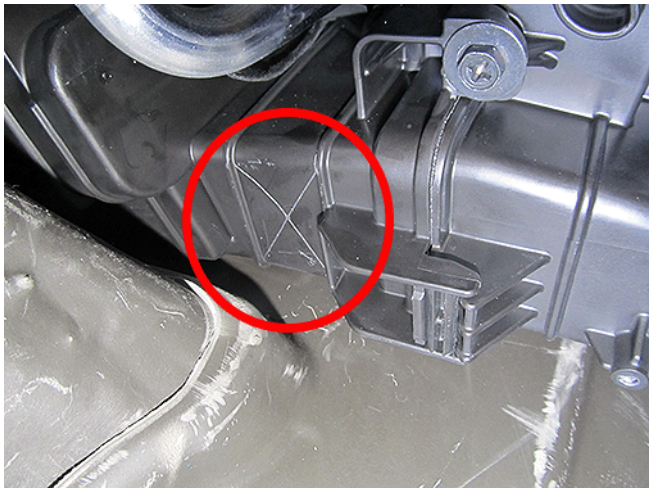
Drain Tube Inspection

1. Verify that the plenum area is free of any debris.
2. Inspect the drain assembly for the presence of a white or light blue plastic drain tube using the latest version of PI1160. If the secondary tube is present, replace the drain hose assembly.

Apply Oxyvap Cleaning Agent

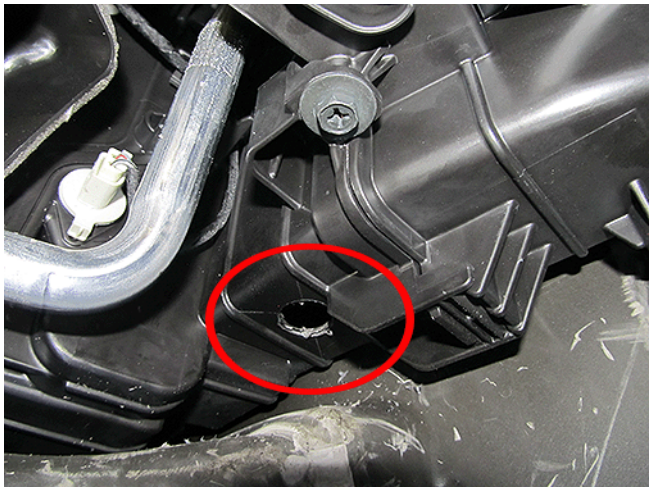
1. Place the passenger seat in the full rearward position.
2. Disable the SIR. Refer to SIR Disabling and Enabling in SI.
3. Remove the instrument panel compartment. Refer to Instrument Panel Compartment Replacement in SI.
4. Remove the front floor console extension panel - right side. Refer to Front Floor Console Extension Panel Replacement - Right Side in SI.
5. Remove the right front side door sill trim plate. Refer to Front Side Door Sill Trim Plate Replacement in SI.
6. Remove the floor front air outlet duct - right side. Refer to Floor Front Air Outlet Duct Replacement - Right Side in SI.
7. Remove the blower motor. Refer to Blower Motor Replacement in SI.
8. Pull back the carpet and roll it back towards the passenger seat.





9. On the lower HVAC case, scribe an “X” in the area shown.

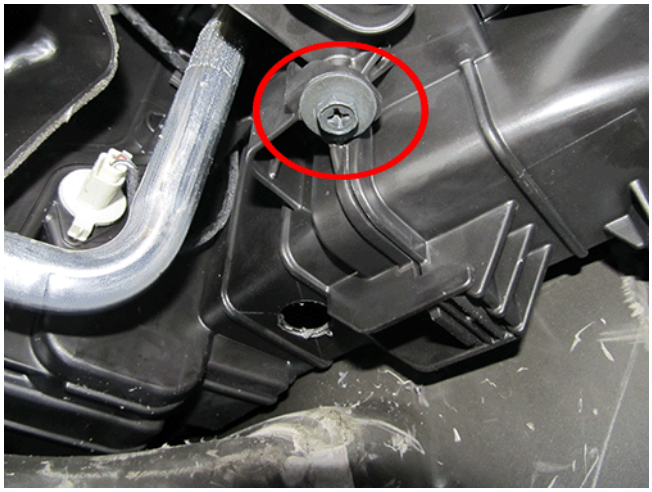
10. Drill a 3 mm (1/8”) pilot hole in the middle of the “X.”



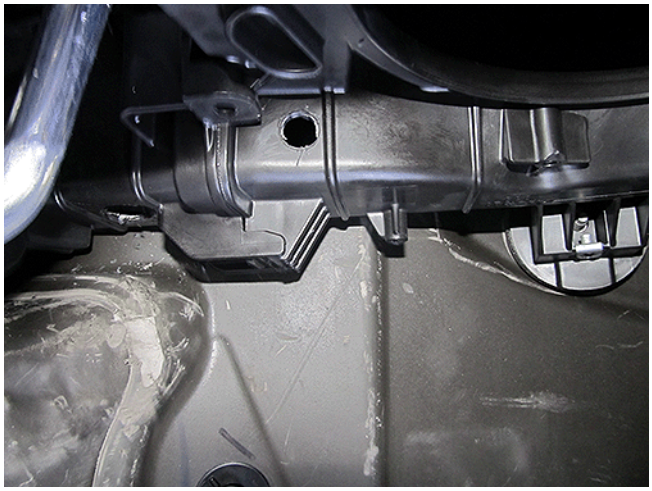
11. Drill a 19 mm (3/4") hole in the center of the air duct between the blower motor and the air distribution box. The use of a Uni-bit style bit works well. The use of a spade bit will produce excessive plastic chips and may cause the drain to get plugged.

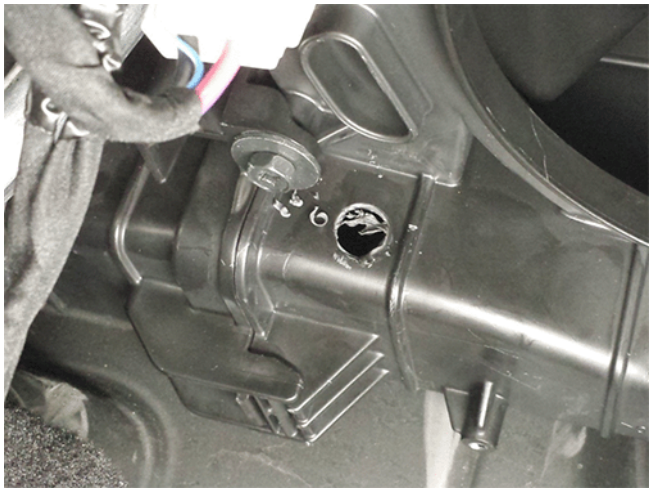
    Note: Use a vacuum to collect as many of the plastic chips inside and outside the HVAC case as possible. The blower motor removed helps gain access to the inside of the HVAC case.

12. Using the supplied ionizer bracket as a template, drill a 1/8” pilot hole as shown. Remove the bracket. It will be used at step 18 of the Ionizer Installation



    Note: Some HVAC cases may or may not have the shown case mounting bolt. If the case does not have one, use the supplied bolt in the ionizer kit to mount the bracket.





13. Using a 12.7 mm (1/2”) drill bit, drill the ionizer mounting hole.

    Important: The use of a Uni-bit style bit works well. The use of a spade bit will produce excessive plastic chips and may cause the drain to get plugged.

    Important: Remove all of the plastic flash around the ½” hole. Reach in through the blower motor area and use a mirror and/or feel to ensure that there is no plastic flash around the hole on the inside wall of the case.

    Note: Use a vacuum to collect as many of the plastic chips as possible. The blower motor removed helps gain access to the inside of the HVAC case.

14. Reinstall the blower motor. Refer to Refer to Blower Motor Replacement in SI.

15. Connect the battery.

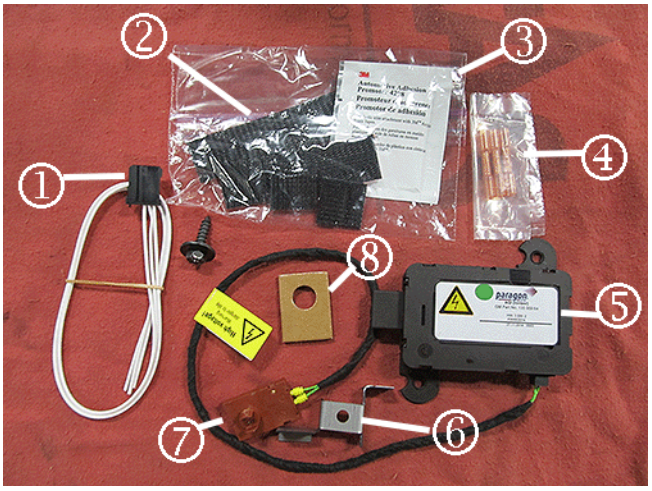
16. Close the face vents on the dash as well as the vents on the rear of the center console. Place a protective cover over the carpet under the blower to air distribution box duct and over the HVAC face (upper) vents. Set the HVAC temperature control to LO, air distribution to vent mode and blower speed to high (A/C off).

17. Insert the application tool into the drilled hole. Apply OxyVap™ at 65 psi (448 kPa).

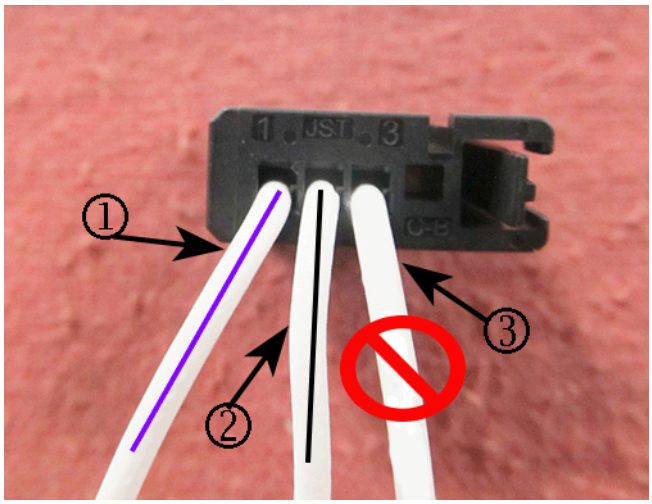
- Apply the OxyVap to the evaporator core using applicator tool P/N 23372329. Move the wand up and down to obtain good coverage to the fin area. Turn the HVAC system to off.
- Allow the core to soak for 5 minutes.
- Rinse the empty bottle of OxyVap and fill with clean water. Rinse the evaporator core moving the applicator tool up and down with clean water until th bottle is empty with the blower turned on “High.”
    - Using the applicator tool, blow compressed air on the evaporator core for one minute moving the applicator tool up and down to help remove excess water.

- Install the body plug, P/N 15632415, into the 19 mm (3/4”) hole with a thin coating of RTV.

Ionizer Kit Installation

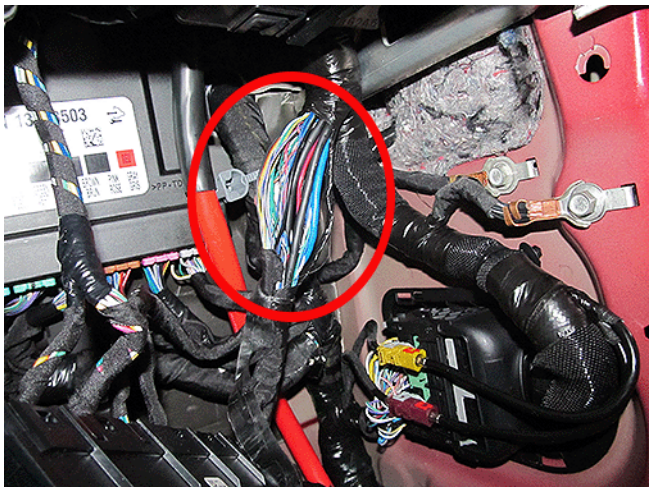


1. *Wire Harness*
2. *3M Dual Lock Mounting Strip*
3. *3M Adhesion Promoter*
4. *Splice Sleeves*
5. *Ionizer Controller*
6. *Ionizer Bracket*
7. *Ionizer Emitter*
8. *Double Sided Adhesive Gasket*

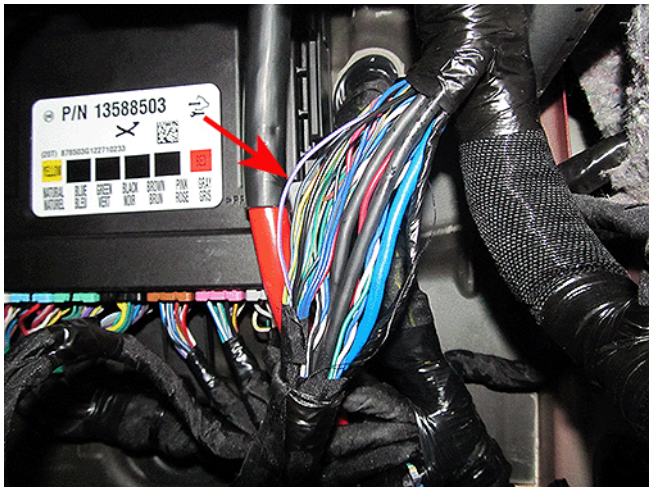


1. Disconnect the battery and any connected battery charger.

2. On the supplied wire harness, cut wire (3) from the connector. Wire (1) is power and wire (2) is for ground.

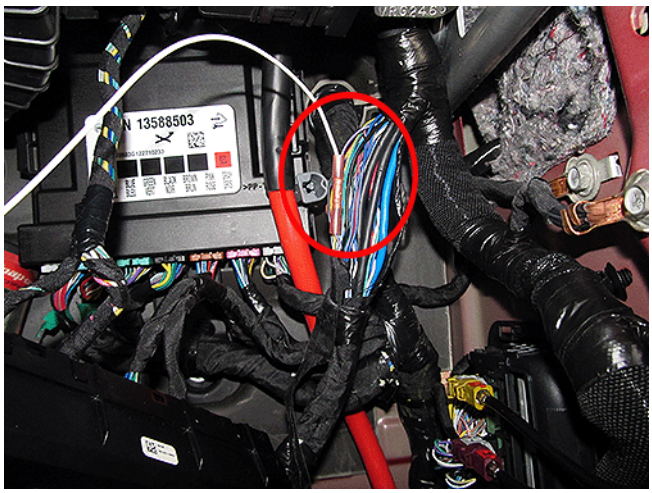


3. Remove the friction tape from the instrument panel harness to gain access to the wires.



4. Locate the violet/gray wire (circuit 539, K33 HVAC Control Module X2) in the instrument panel harness for power as shown and cut the wire.

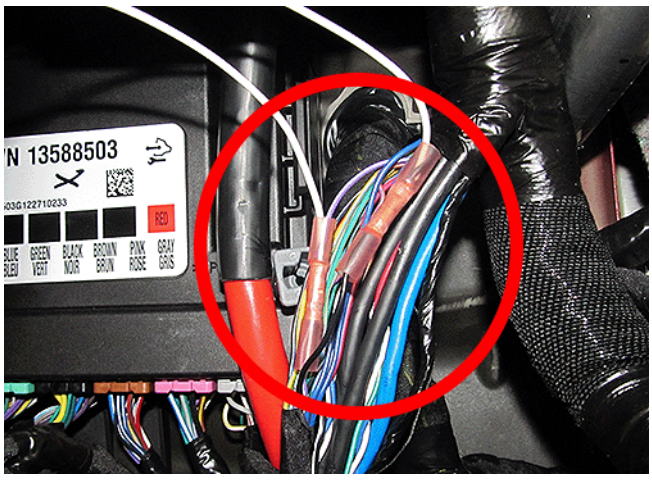
   Note: Within the same harness, there is a violet/white wire. Use caution to select the correct wire.



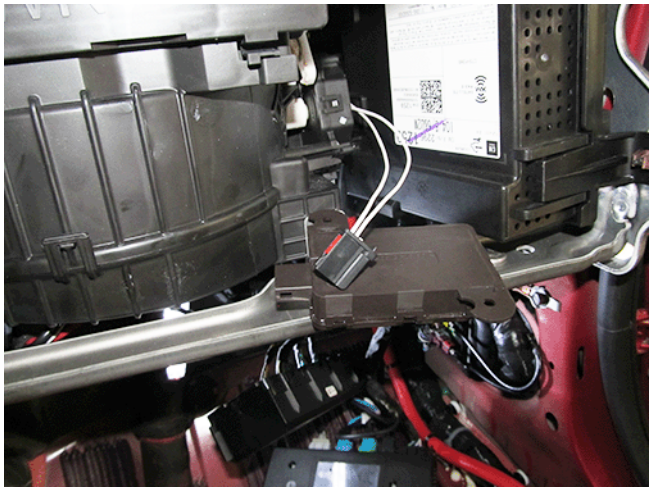
5. Using the supplied splice sleeves, crimp wire 1 from the supplied wire harness to the violet I/P harness and connect the other end of the violet wire to the connector.

   Note: Stagger the crimps from the supplied wire harness to the instrument panel harness.

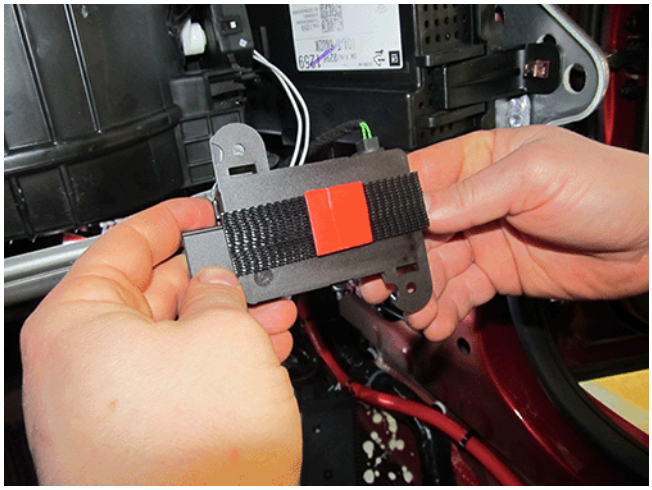
6. Locate the black wire (circuit 1450, K33 HVAC Control Module X2) in the instrument panel harness for ground and cut the wire.



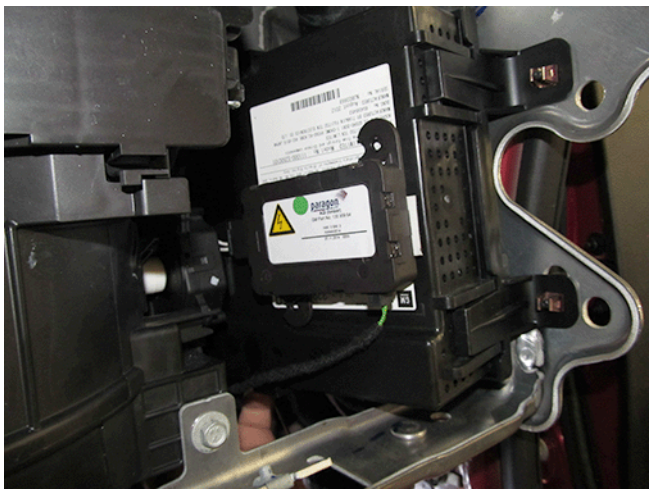
7. Using the supplied splice sleeves, crimp wire 2 from the supplied wire harness to the black I/P harness and connect the other end of the black wire to the connector.
8. Apply heat to the splice sleeves to seal them.
9. Rewrap the I/P harness with the friction tape and seal with electrical tape.



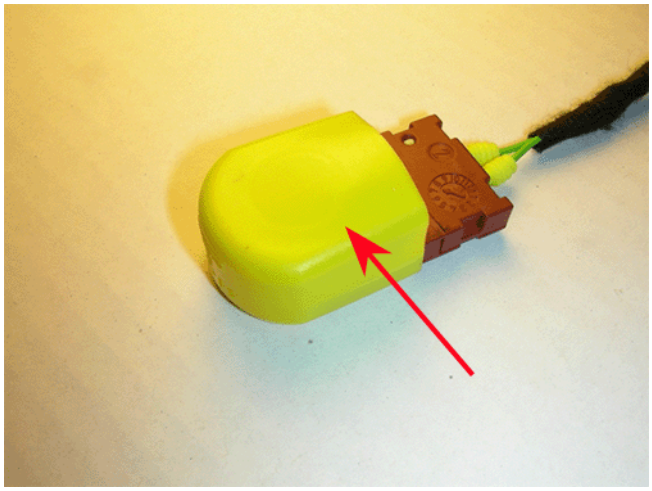
10. Route the supplied wire harness (connector end) up towards the radio.
11. Connect the battery.
12. With ignition on, check for 12 volts at the Ionizer connector of the wire harness before connecting to the ionizer controller. (The Ionizer has no telltale signs that it is operational.)
13. Connect the supplied wire harness to the ionizer controller.
14. Clean the ionizer controller and the surface of the radio with the supplied adhesion promoter and let dry.



15. Apply the suppled 3M dual lock mounting strip to the ionizer controller as shown.

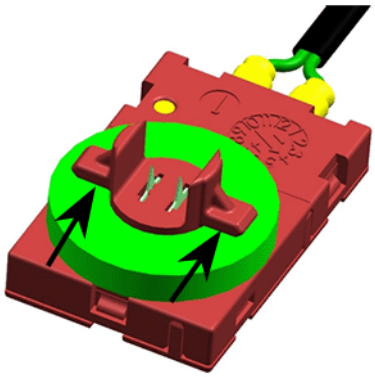


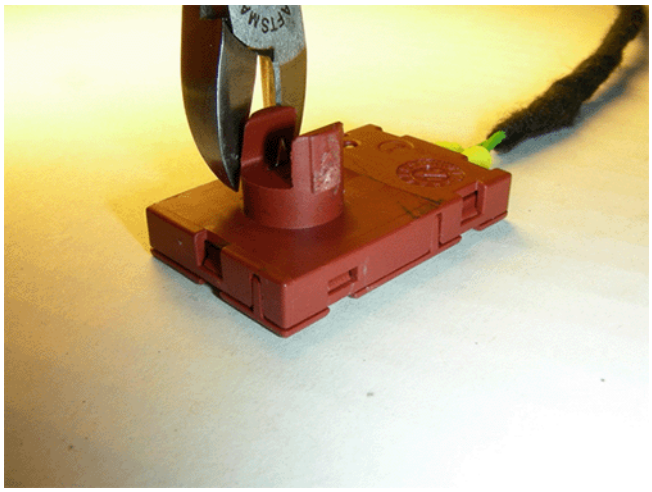
16. Peel the backing from the other mounting strip and apply the ionizer controller firmly to the radio.



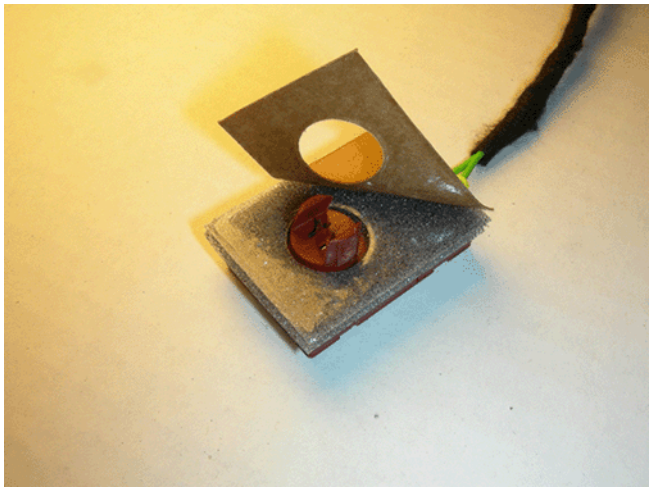
17. Remove and discard the protective sleeve from the ionizer emitter.

Caution: When handing and installing the ionizer emitter, use care to not touch or otherwise damage the two tiny metal prongs located between the protruding plastic protectors. The Ions are produced by the metal prongs.

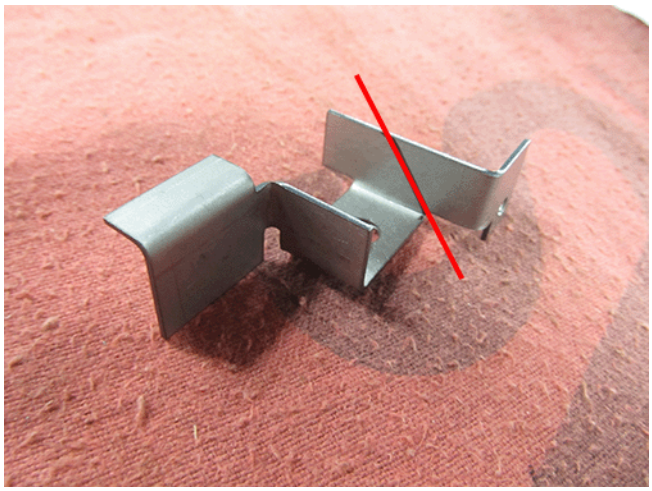


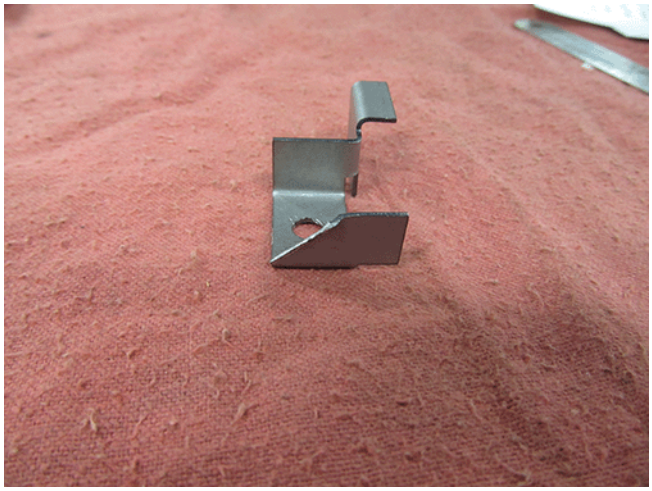


18. Before installing, remove the green foam seal and snip off the “ears” from the ionizer as shown.



19. Install the supplied gasket to the ionizer emitter.



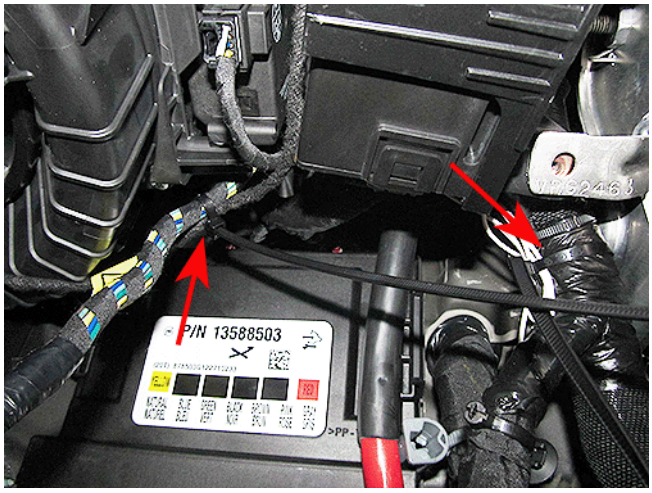


20. Using tin snips or equivalent, trim the mounting bracket as shown.

21. Install the ionizer emitter to the HVAC case. The adhesive from the gasket will hold it in place until the bracket can be installed.

22. Install the ionizer emitter bracket to the HVAC case with the supplied or existing screw.

    Tighten: Tighten the screw to 9 Y (79 lb in).



23. With the supplied tie straps, secure the wiring harness in place.
24. Place the carpet back in place.
25. Install the floor front air outlet duct - right side. Refer to Floor Front Air Outlet Duct Replacement - Right Side in SI.
26. Remove and install a new passenger cabin compartment carbon air filter.
27. Install the instrument panel compartment. Refer to Instrument Panel Compartment Replacement in SI.
28. Install the front floor console extension panel - right side. Refer to Front Floor Console Extension Panel Replacement - Right Side in SI.
29. Install the front side door sill trim plate. Refer to Front Side Door Sill Trim Plate Replacement in SI.
30. Enable the SIR. Refer to SIR Disabling and Enabling in SI.

Parts Information

Part Number	Description
13356914	FILTER, PASS COMPT CARBON AIR
23372329*	APPLICATOR TOOL
15632415	BODY PLUG

23328151	IONIZER KIT **Note:** Ionizer Kits are currently in limited supply. This kit will be on order review and all DROs (Daily Replenishment Orders) will cancel. If determined that this part is needed for this field fix, order part on a CSO (Customer Special Order) and create a SPAC case. SPAC orders will be processed in the order received. All orders will be reviewed prior to being filled. Duplicate VIN orders will cancel.
534–60646**	OXYVAP EVAPORATOR SANITIZER
*The Applicator Tool is reusable and does not need to be ordered for additional repairs.	
**Available through 1-800-GM-TOOLS or by visiting www.GMDEsolutions.com (U.S.) or www.des-canada.ca (Canada).	

Warranty Information

For vehicles repaired under the Bumper-to-Bumper coverage (Canada Base Warranty coverage), use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

Labor Operation	Description	Labor Time
4480308*	Inspect Drain Tube, Clean Evaporator and Install Ionizer	2.8 hrs
*This is a unique Labor Operation for Bulletin use only. It will not be published in the Labor Time Guide.		