

HEATER KIT



P/N 2880023

APPLICATION

Verify accessory fitment at Polaris.com.

BEFORE YOU BEGIN

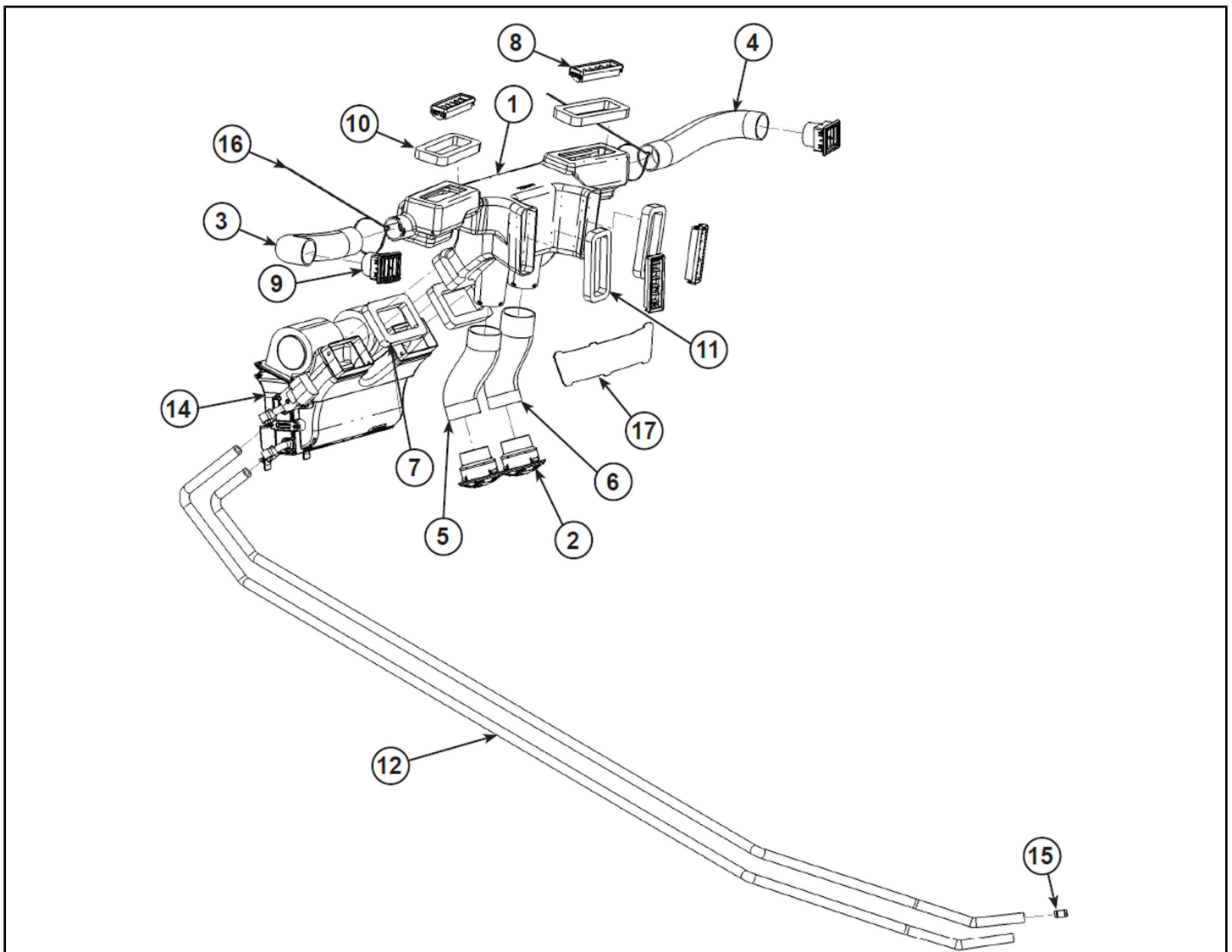
Read these instructions and check to be sure all parts and tools are accounted for. Please retain these installation instructions for future reference and parts ordering information.

KIT CONTENTS

This kit contains parts for installation of the Heater Kit only. Prior installation of a Battery Connection Kit is also required (PN 2879388, 2879685, or equivalent; sold separately).

Ranger® Diesel vehicles: Heater Adapter Kit, PN 2881072 (sold separately), is also required.

This Kit includes:



REF	QTY	PART DESCRIPTION	PART NUMBER
1	1	Plenum	3120149
2	2	Vent, Round	3120150
3	1	Duct, Outboard, LH - 2 X 13.1	3120151
4	1	Duct, Outboard, RH - 2 X 12.7	3120152
5	1	Duct, Lower, LH - 2.5 X 7.8	3120153
6	1	Duct, Lower, RH - 2.5 X 8.1	3120154
7	2	Foam Seal, Core Outlet - 4.0 X 2.4 X 0.75	3120155
8	4	Vent, Rectangular	3120156
9	2	Vent, Square	3120157
10	2	Foam Seal, Defroster - 6.4 X 3 X 0.75	3120158
11	2	Foam Seal, Center Vent - 5.0 X 1.5 X 0.75	3120159
12	2	Hose, Heater - 1/2 inch	5412724-223
13	-	(unused)	-
14	1	Core, Heater	2205072
15	1	Splice, Hose, Butt	2205073
16	20	Cable Tie, 11 inch (not shown)	7080492
17	1	Closure Panel, Storage Compartment	5439648-070
18	5	Clamp, Hose - #10 (not shown)	-
	1	Instructions	9924425

TOOLS REQUIRED

- Safety Glasses
- Cutting Tool
- Deburring Tool
- Drain Pan
- Drill
- Hole Saw: 3 inch
- Pliers, Hose Pinch-Off (two required)
- Socket Set, Torx® Bit

CONSUMABLES REQUIRED

- Antifreeze, POLARIS 50/50 Premix
- Gloves, Chemical Resistant

IMPORTANT

Your HEATER KIT is exclusively designed for your vehicle. Please read the installation instructions thoroughly before beginning. Installation is easier if the vehicle is clean and free of debris. For your safety, and to ensure a satisfactory installation, perform all installation steps correctly in the sequence shown.

ASSEMBLY TIME

Approximately 4 hours

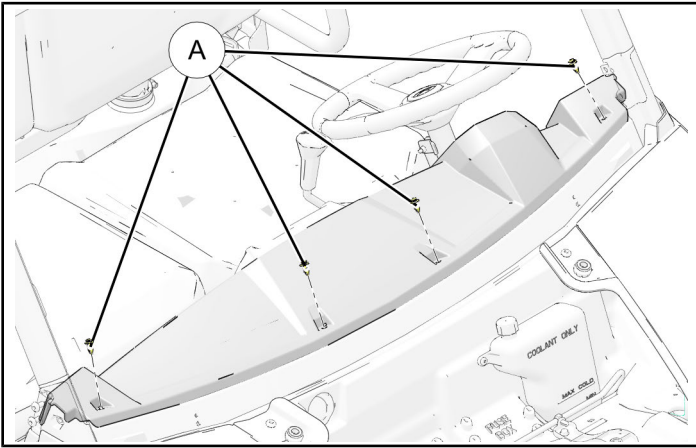
INSTALLATION INSTRUCTIONS

PREPARE VEHICLE FOR INSTALLATION

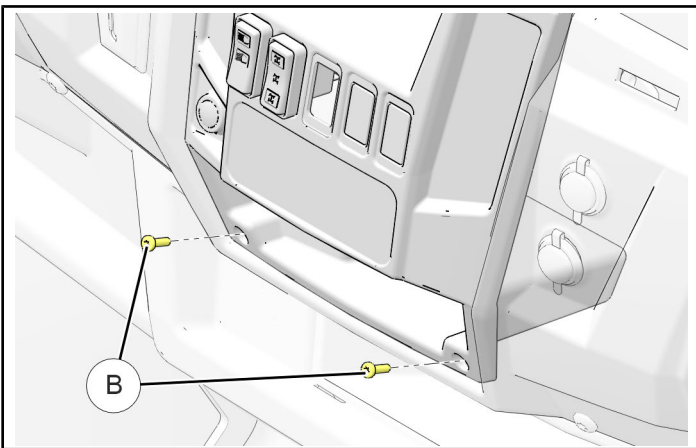
NOTE

Polaris recommends two people install heater kit.

1. Shift vehicle transmission into "PARK". Turn key to "OFF" position and remove from vehicle.
2. Remove passenger (or right rear passenger) seat and storage compartment, then disconnect black negative (-) cable from battery.
3. Raise vehicle bed.
4. Remove or open hood, as applicable.
5. Remove or open windshield, as applicable.
6. Remove upper dash panel by removing four push pin rivets (A) as shown. Retain rivets.

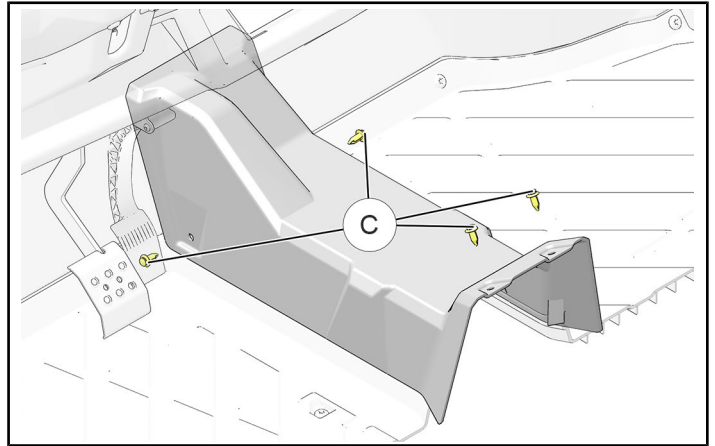


7. Remove control panel.
 - a. Detach control panel by removing two screws (B) from lower edge. Retain screws.

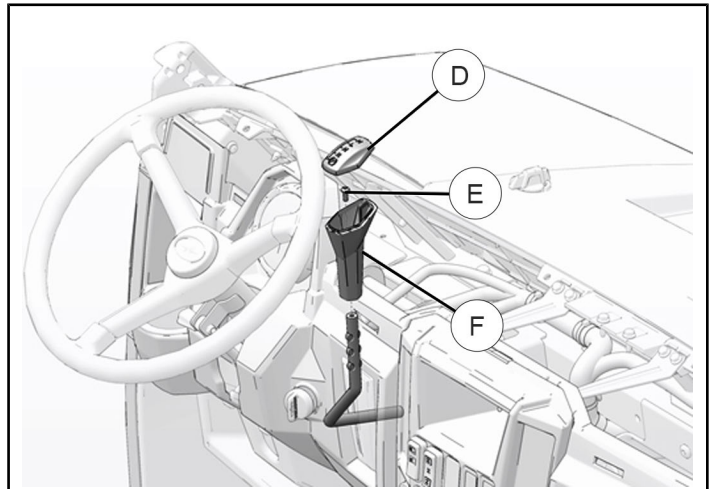


- b. Carefully pull control panel away from lower dash panel. If necessary for access, label and disconnect electrical harnesses from control panel switches.

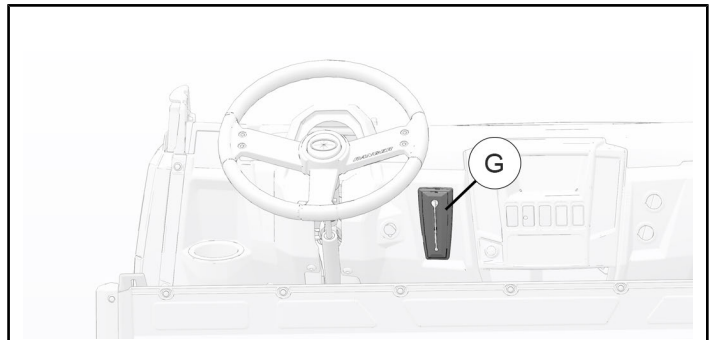
8. Remove center floor console by removing four push pin rivets (C). Retain rivets.



9. Remove shift grip and grommet.
 - a. Carefully pry off shift lever cap (D). Remove screw (E), then lift and remove grip (F). Retain cap, screw, and grip.

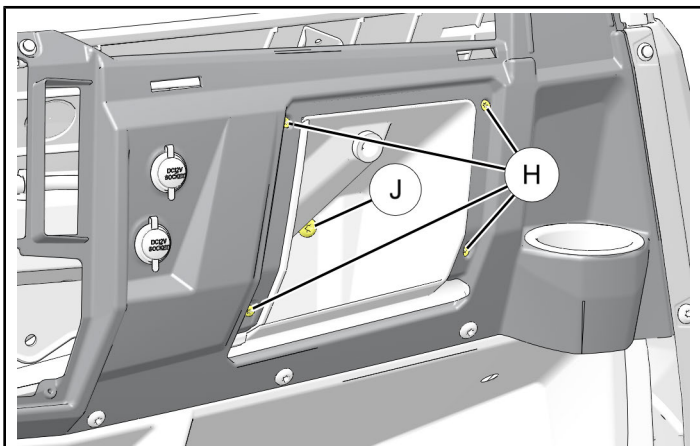


- b. Remove shift lever grommet (G) from lower dash panel. Retain grommet.



10. Remove lower dash panel.

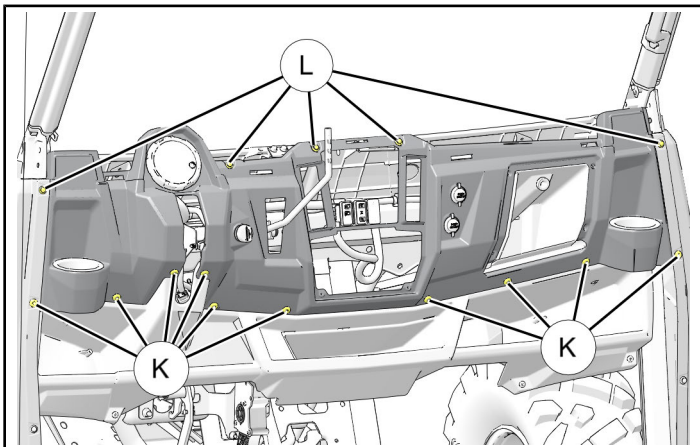
- a. Open glove box and remove four screws (H) from perimeter of box, and one screw (J) from inside of box. Retain screws.



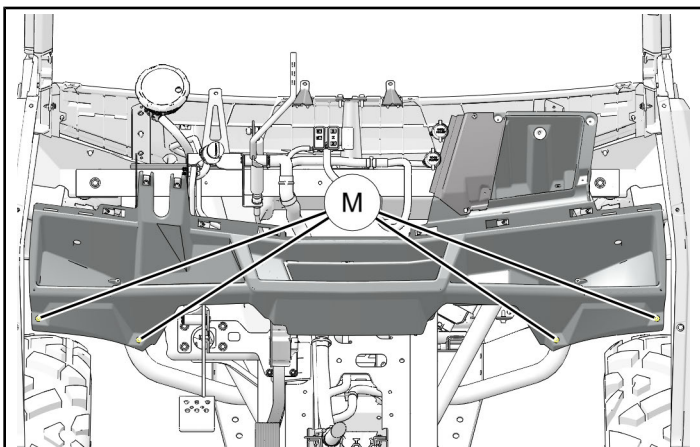
- b. Remove and retain ten screws (K) at lower edge of panel, and five push darts (L) at upper edge of panel. Unplug ignition, speedometer, and auxiliary power ports, then remove panel.

NOTE

Two outboard push darts may be hidden by door striker brackets (if installed).



11. Remove lower storage panel by removing four screws (M). Retain screws.



INSTALL HEATER CORE, DUCTS, AND VENTS

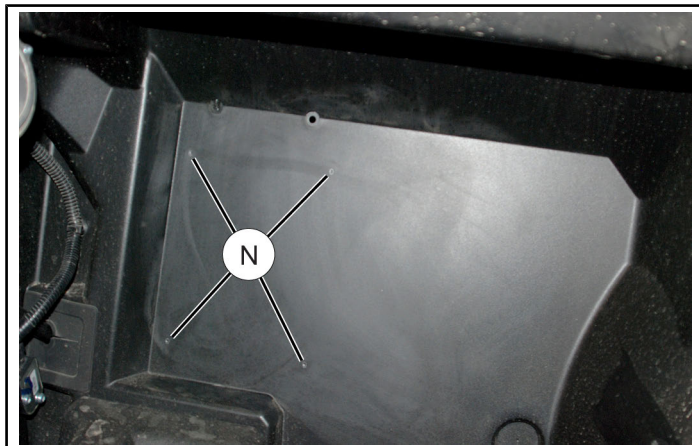
1. On passenger side of upper floor pan locate and drill four 1/4 inch heater core mounting holes at indented marks (N).

IMPORTANT

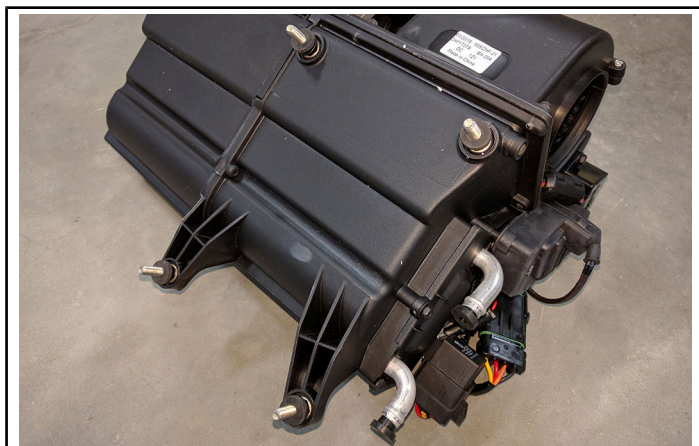
Control drill depth to prevent damage to underlying structure, components, wiring, lines/hoses, etc.

TIP

Ensure floor pan is clean and well lit to facilitate location of indented marks.



2. Remove and retain four outer nuts from heater core attach studs. Do NOT remove rubber washers or inner nuts.



3. Insert studs on heater core through newly drilled holes in floor pan, then install retained nuts on forward side of pan. Torque to specification.

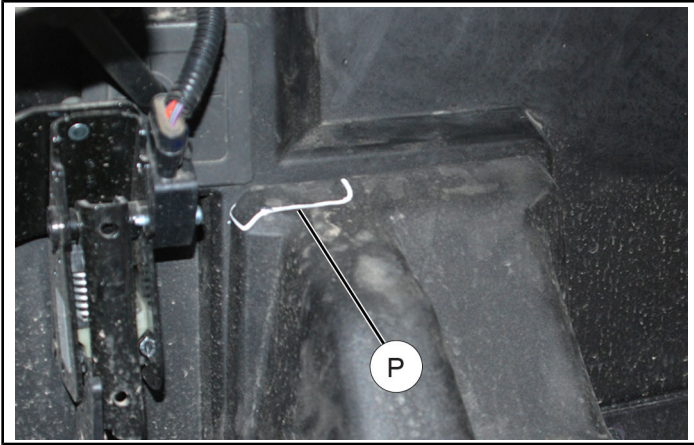
TORQUE

6–8 ft. lbs. (8–11 Nm)

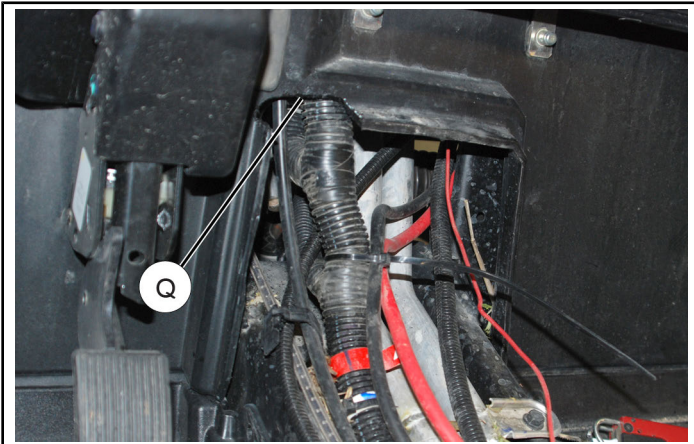
4. Route heater power harness up and forward through firewall grommet. Route heater switch assembly rearward to facilitate installation to center control panel.

5. Cut coolant line openings.

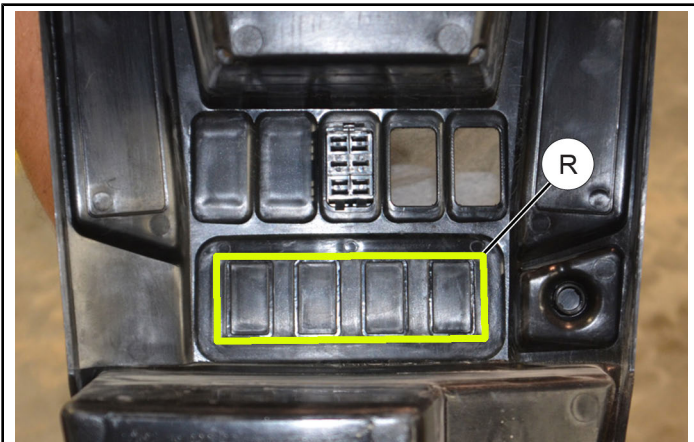
- a. Modify center floor console by cutting notch \textcircled{P} in LH side of upper forward corner. Debur edges as required to prevent coolant line damage.



- b. Modify front floor panel by carefully cutting corresponding notch \textcircled{Q} . Protect existing wiring, lines, and other components to prevent damage. Debur edges as required to prevent coolant line damage.



6. Cut heater switch assembly opening \textcircled{R} in control panel. Ensure size of opening will permit heater switch assembly to lock into place.

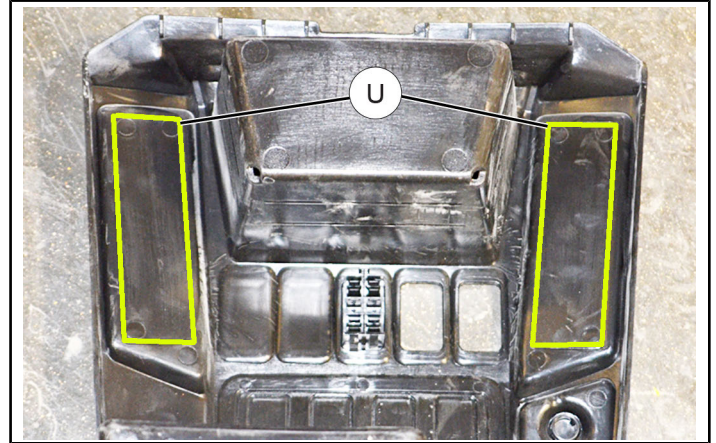


7. Install heater vents.

IMPORTANT

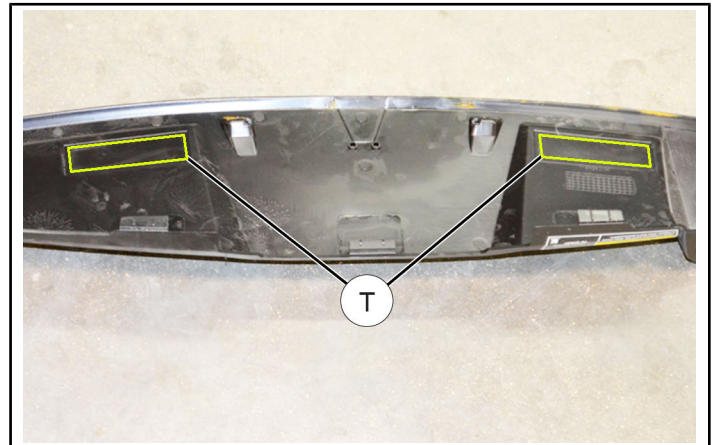
Ensure rectangular and square vent openings are cut on **INSIDE** lines (raised portion), not outside lines, to ensure proper fit of vents.

- a. Control Panel: Cut two rectangular openings on **INSIDE** lines \textcircled{U} marked on back of panel. Debur edges as required, then install two rectangular vents $\textcircled{8}$ into openings.

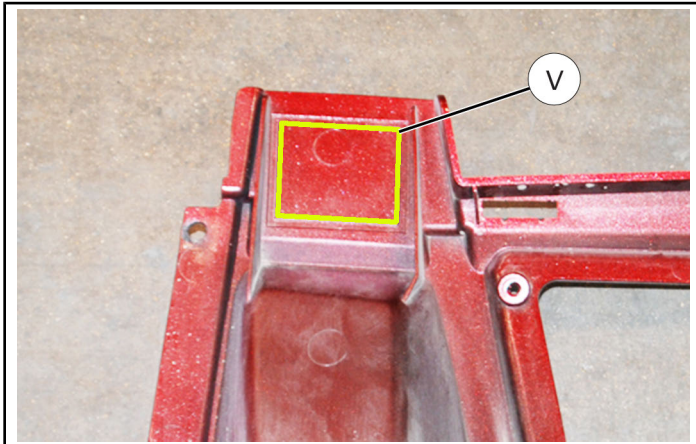


- b. Upper Dash Panel: Cut two rectangular openings on **INSIDE** lines \textcircled{T} marked on back of panel. Debur edges as required, then install two rectangular vents $\textcircled{8}$ into openings.

Ensure vents operate freely. If not, remove vent and trim hole until vent operates freely.



- c. Lower Dash Panel: Cut two square openings on INSIDE lines (raised portion) ⑤ marked on back of panel. Debur edges as required, then install two square vents ⑨ into openings.

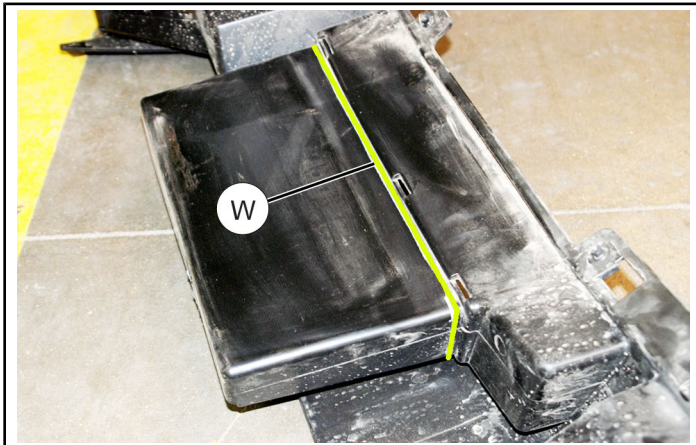


d. Lower Storage Panel

- i. Cut off forward portion of storage bin at location ⑩. Do NOT cut off slots. Slots must remain intact to secure closure panel ⑰.

NOTE

Cutting bin is required to provide adequate space for lower heater ducts and vents.

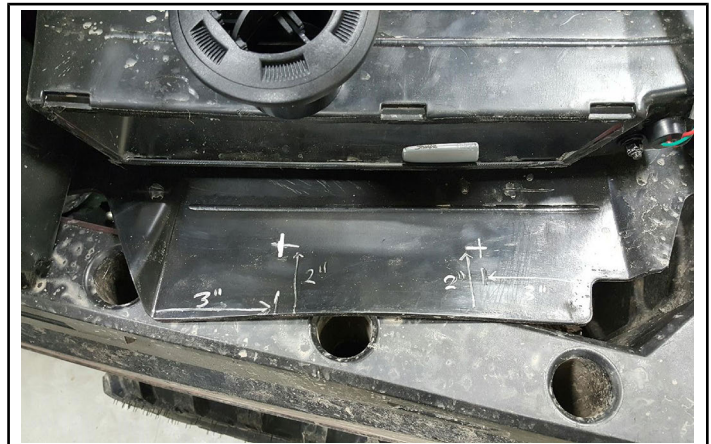


- ii. Position two round vents ② on lower center surface of storage panel, spacing vents evenly to ensure they will not interfere with each other or with storage panel installation.

Mark and drill two 3 inch vent holes. Debur edges as required, then install two round vents into openings.

NOTE

Vent location is not critical since vents are attached to plenum ① with flexible ducts ⑤ and ⑥. Suggested location is 3 inches inboard from each end, and 2 inches from forward edge as shown.

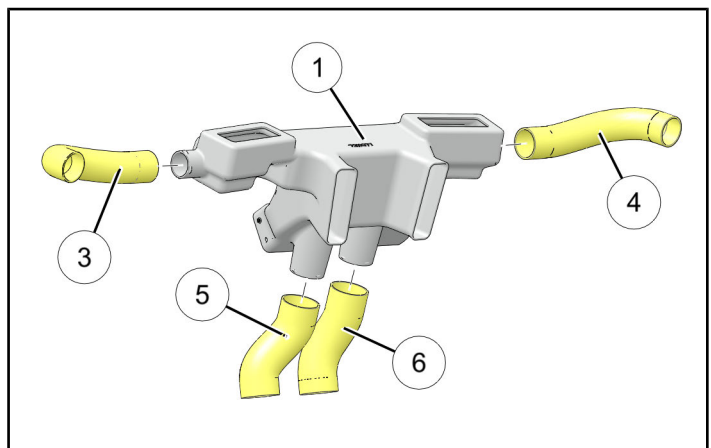


- iii. Install closure panel ⑰ into slots at forward side of storage bin.

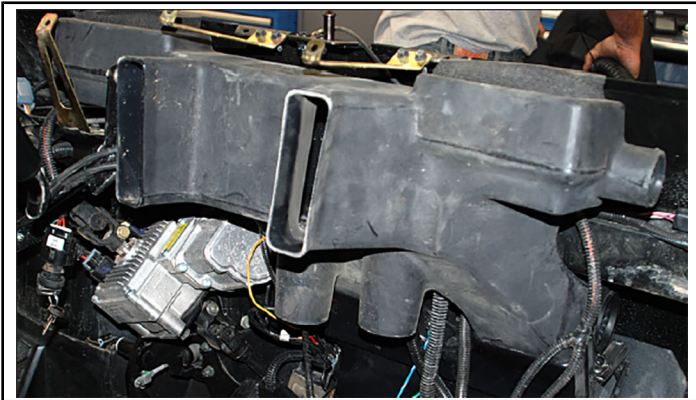
8. Install 2 inch diameter outboard ducts ③ and ④, and 2-1/2 inch diameter lower ducts ⑤ and ⑥ to plenum ①. Secure each duct using cable tie ⑱.

NOTE

LH and RH ducts are slightly different lengths. See Kit Contents for detail.



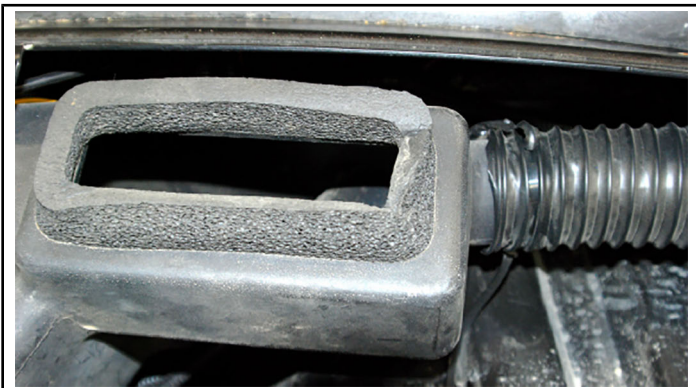
9. Install plenum.
 - a. Install two foam seals ⑦ to outlet ducts on top of heater core ⑭.
 - b. Install plenum ① to top of heater core ⑭, routing any harness wires disconnected in Step 7 of section **PREPARE VEHICLE FOR INSTALLATION** rearward between plenum and core. Route accessory power plug wire rearward along passenger side of plenum.



- c. Install two defroster foam seals ⑩, and two center vent foam seals ⑪ to their respective plenum outlets.

NOTE

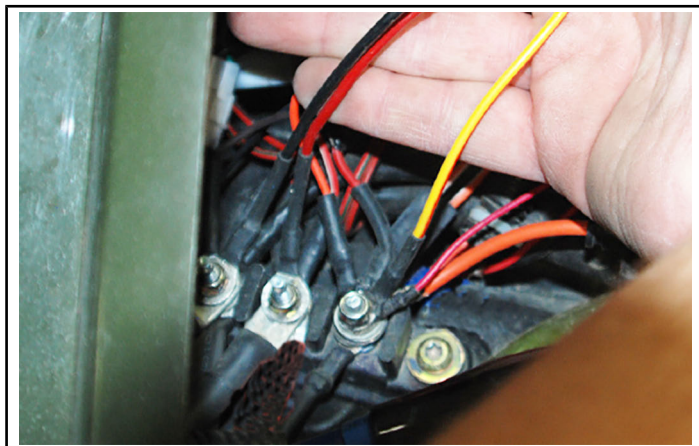
Foam seals are different sizes. See Kit Contents for detail.



10. Hold lower storage panel in position, install lower ducts ⑤ and ⑥ to vents ②, then secure each duct using cable tie ⑯. Reinstall lower storage panel (see section **PREPARE VEHICLE FOR INSTALLATION**, Step 11).
11. Hold lower dash panel in position, install outboard ducts ③ and ④ to vents ⑨, then secure each duct using cable tie ⑯. Reinstall lower dash panel, shift grip, and grommet (see section **PREPARE VEHICLE FOR INSTALLATION**, Steps 9–10).
12. Reinstall upper dash panel (see section **PREPARE VEHICLE FOR INSTALLATION**, Step 6).

INSTALL ELECTRICAL CONTROLS

1. Install heater switch assembly to control panel.
2. If other electrical harnesses were disconnected in Step 7 of section **PREPARE VEHICLE FOR INSTALLATION**, reconnect them now.
3. Reinstall control panel using two retained screws ⑧.
4. Connect heater power harness ring terminals to terminal block:
 - **RED** harness wire: To post with existing RED battery connection cable (unswitched 12V POS)
 - **YELLOW** harness wire: To post with existing ORANGE wire (accessory switched 12V POS)
 - **BLACK** harness wire: To post with existing BLACK battery connection cable (12V NEG)



INSTALL COOLANT LINES

⚠ WARNING

Always wear safety goggles and proper shop clothing when performing this procedure. Failure to do so may result in severe injury or death.

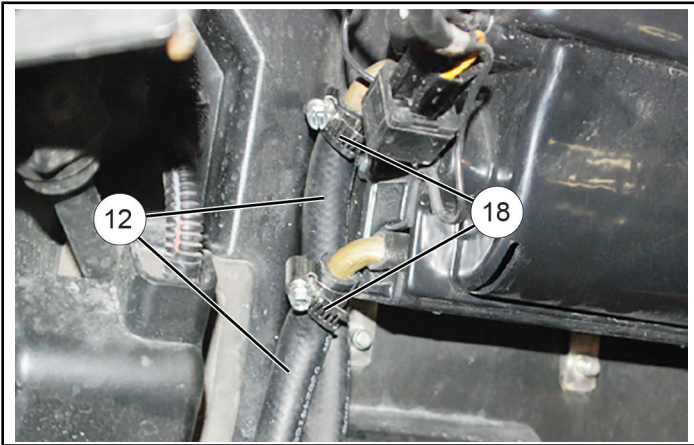
⚠ WARNING

Ensure engine is COOL before performing the following steps. Hot cooling system will be pressurized, and opening system may result in uncontrolled release of hot coolant, resulting in severe burns or other injuries.

CAUTION

Do NOT twist or bend heater core fittings during hose installation to prevent damage and/or leaks.

1. Carefully install two heater hoses ⑫ to heater core fittings using two hose clamps ⑱.

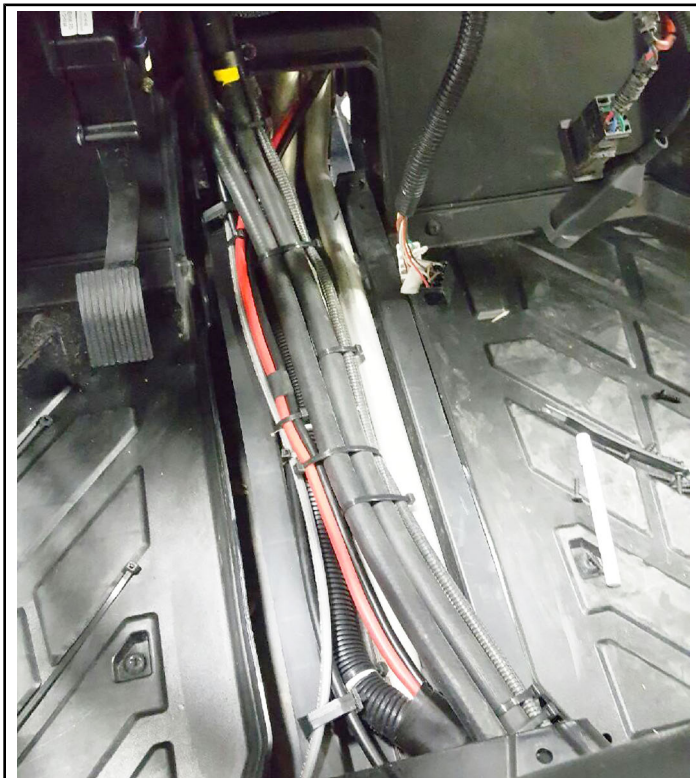


2. Route heater hoses ⑫ through notches previously cut in front floor panel, then rearward along existing engine coolant lines in center console(s) and below seat(s).

Secure hoses using cable ties ⑯ to prevent contact with hot components, sharp edges, or moving parts.

NOTE

Diesel Engine Vehicles: Follow above procedure except one hose is routed REARWARD, and one hose is routed FORWARD (to lower radiator). Coolant can flow either direction through heater core, and therefore, either hose can be used.



3. Install heater hoses to engine cooling system.

Vehicles with 900/1000 Engine

- a. Place drain pan below engine water pump (forward RH corner of engine).
- b. Locate 1/2 inch diameter coolant hose ⑩ connecting oil cooler outlet to water pump inlet.

Use hose pinch-off pliers to clamp hose below 90° bend, then cut hose below pliers at location ⑪. Temporarily plug open end of cut line leading to water pump to minimize coolant loss.

IMPORTANT

Short formed segment of existing oil cooler outlet hose must remain attached to oil cooler to prevent hose contact with exhaust components. Do NOT attach heater hose ⑫ directly to oil cooler.

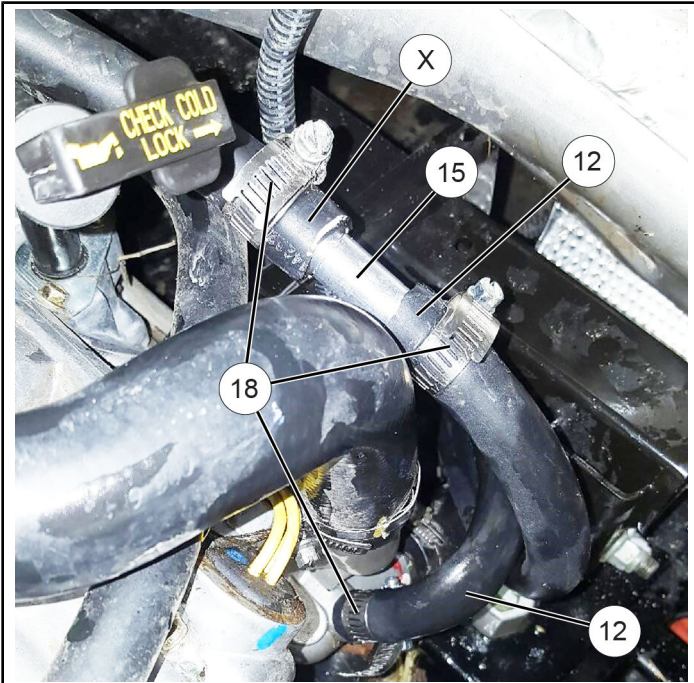


- c. Trim one of two heater hoses ⑫ to proper length for connection to oil cooler outlet hose. Ensure length is adequate to prevent hose contact with hot components, sharp edges, or moving parts.

NOTE

Heater core is connected in SERIES between oil cooler outlet and water pump inlet. Coolant can flow either direction through heater core, and therefore, either heater hose can be used.

- d. Join trimmed heater hose ⑫ to oil cooler outlet hose ⑩ using hose splice ⑮ and two hose clamps ⑱.



- e. Trim remaining heater hose ⑫ to proper length for connection to water pump inlet fitting. Ensure length is adequate to prevent hose contact with hot components, sharp edges, or moving parts.
- f. Remove existing coolant hose segment from water pump inlet fitting. Discard segment and clamp.

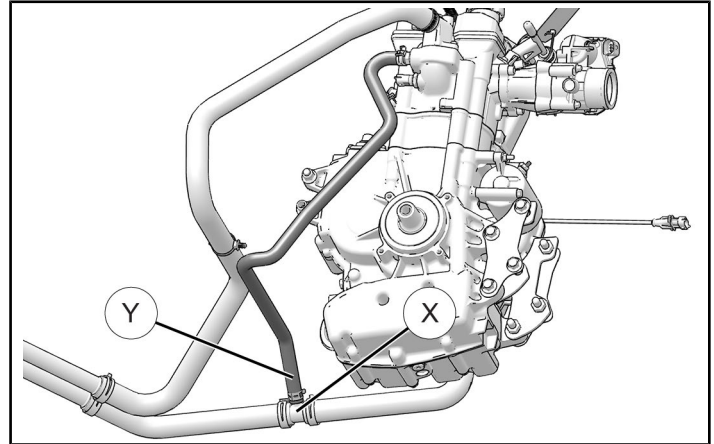
TIP

Coolant will flow from water pump inlet fitting when plugged coolant hose is removed. To minimize coolant loss ensure new heater hose ⑫ and new hose clamp ⑱ are ready for installation.

- g. Immediately connect heater hose ⑫ to water pump inlet fitting using hose clamp ⑱.
- h. Secure hoses using cable ties ⑯ to prevent contact with hot components, sharp edges, or moving parts.
- i. Properly dispose of any drained coolant per local and/or state regulations.

Vehicles with 570 Engine

- a. Place drain pan below tee fitting ⑩.

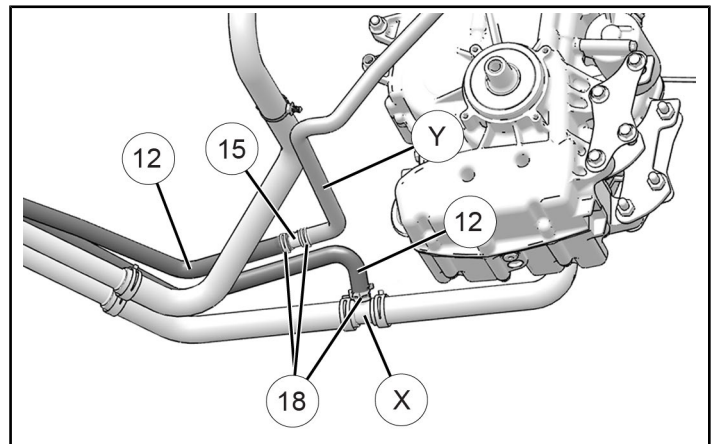


- b. Disconnect bypass hose ⑪ from tee fitting ⑩.
- c. Trim one of two heater hoses ⑫ to proper length for connection to bypass hose. Ensure length is adequate to prevent hose contact with hot components, sharp edges, or moving parts.

NOTE

Heater core is connected in SERIES with existing bypass hose. Coolant can flow either direction through heater core, and therefore, either heater hose can be used.

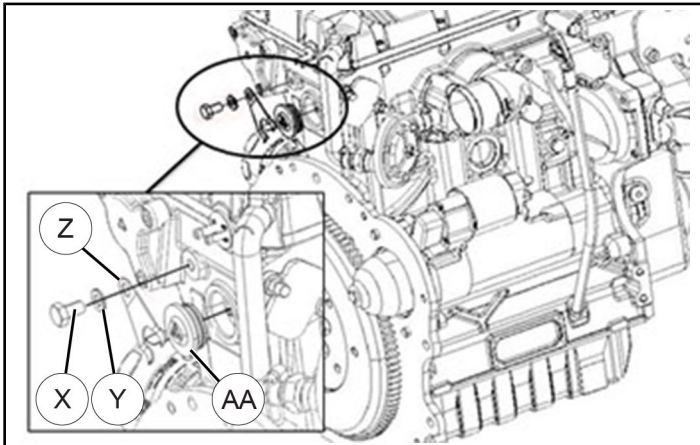
- d. Join trimmed heater hose ⑫ to bypass hose ⑪ using hose splice ⑮ and two hose clamps ⑱.



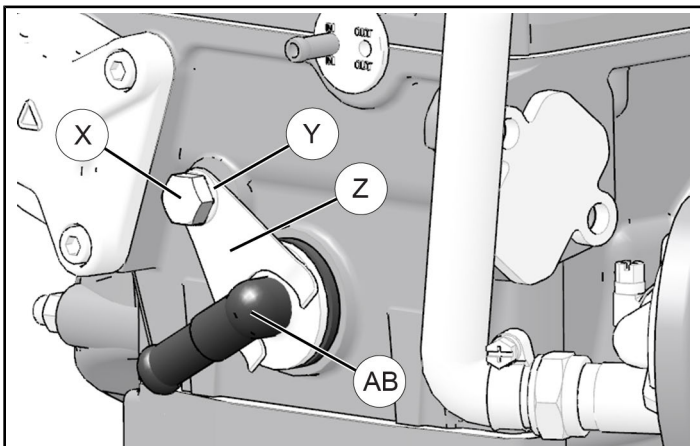
- e. Trim remaining heater hose ⑫ to proper length for connection to tee fitting ⑩. Ensure length is adequate to prevent hose contact with hot components, sharp edges, or moving parts.
- f. Connect heater hose ⑫ to tee fitting ⑩ using hose clamp ⑱.
- g. Secure hoses using cable ties ⑯ to prevent contact with hot components, sharp edges, or moving parts.
- h. Properly dispose of any drained coolant per local and/or state regulations.

Vehicles with Diesel Engine

- a. Place drain pan below engine.
- b. Remove screw (X), washer (Y), plug bracket (Z), and aluminum plug/O-ring assembly (AA) from engine. Retain screw, washer, and bracket. Plug and old O-ring will not be reused.

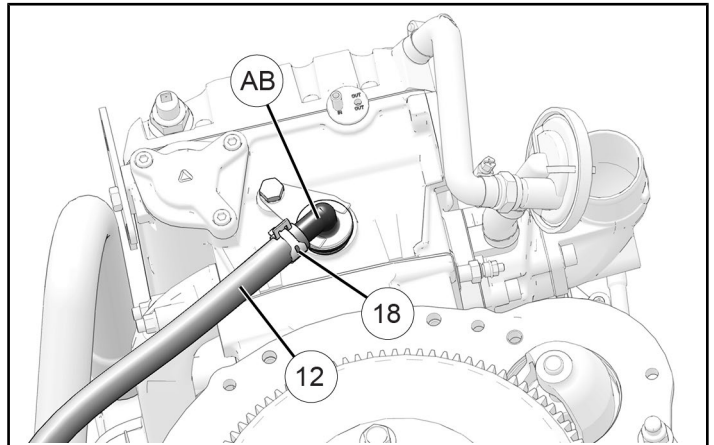


- c. Using parts from Heater Adapter Kit, PN 2881072 (sold separately), install elbow fitting (AB) with new O-ring (not shown), then secure with retained bracket (Z), washer (Y), and screw (X).

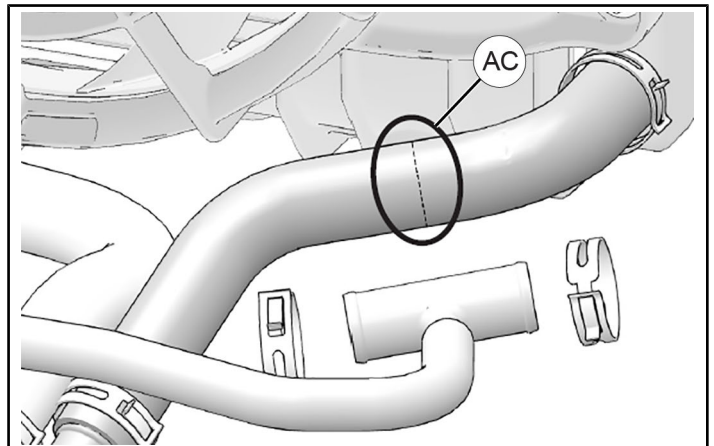


- d. Trim heater hose (12) to proper length for connection to elbow fitting (AB). Ensure length is adequate to prevent hose contact with hot components, sharp edges, or moving parts.

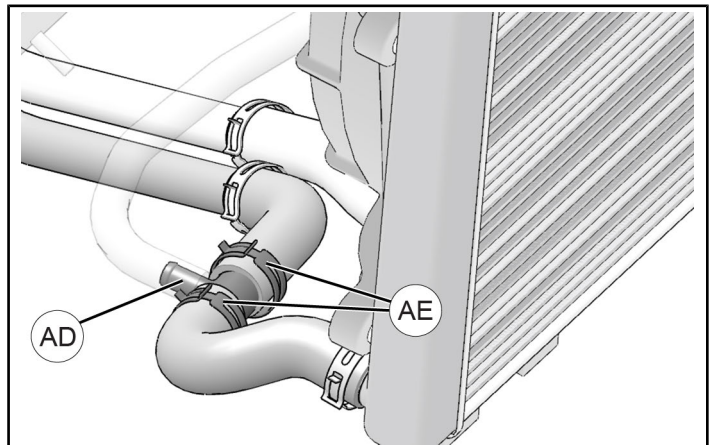
- e. Join trimmed heater hose (12) to elbow fitting (AB) using hose clamp (18).



- f. Move drain pan below radiator.
- g. Cut lower radiator hose in half at location (AC).

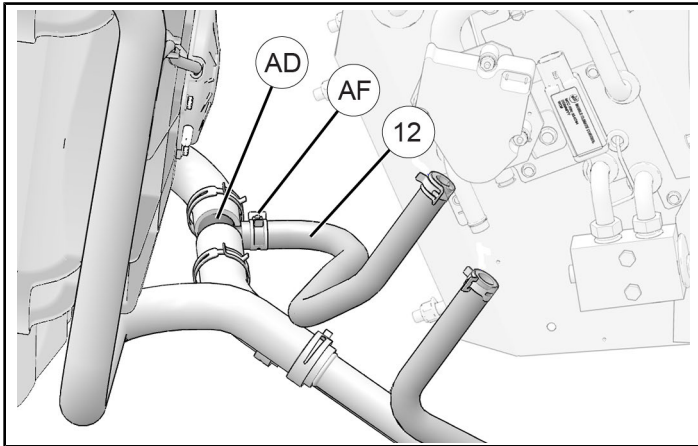


- h. Using parts from Heater Adapter Kit, PN 2881072 (sold separately), install tee fitting (AD) between cut radiator hose segments using two clamps (AE).



- i. Trim remaining heater hose (12) to proper length for connection to tee fitting (AD). Ensure length is adequate to prevent hose contact with hot components, sharp edges, or moving parts.

- j. Using parts from Heater Adapter Kit, PN 2881072 (sold separately), join trimmed heater hose ⑫ to tee fitting ①D using hose clamp ①F.



- k. Secure hoses using cable ties ①6 to prevent contact with hot components, sharp edges, or moving parts.
- l. Properly dispose of any drained coolant per local and/or state regulations.

BLEED SYSTEM AND RESTORE ACCESS

1. Reinstall center floor console using four retained push pin rivets ①C (see section **PREPARE VEHICLE FOR INSTALLATION**, Step 8).
2. Reconnect black negative (-) cable to battery, then reinstall storage compartment and passenger (or right rear passenger) seat.
3. Fill and bleed cooling system per applicable service manual.

⚠ WARNING

Do NOT remove radiator pressure cap when system is hot. Hot cooling system will be pressurized, and opening system will result in uncontrolled release of hot coolant, resulting in severe burns or other injuries.

FEEDBACK FORM

A feedback form has been created for the installer to provide any comments, questions or concerns about the installation instructions. The form is viewable on mobile devices by scanning the QR code or by clicking [HERE](#) if viewing on a PC.

FEEDBACK FORM



4. Start engine. Turn heater temperature control to full hot, and heater fan to high speed. Allow engine to idle until radiator fan has cycled two times.

While engine is warming up perform the following steps:

- a. Inspect system for leaks. Repair leaks as required, allowing engine to cool to room temperature before opening system.
- b. Monitor engine/coolant temperature. If temperature exceeds maximum safe operating temperature (see applicable service manual), then immediately shut off engine, allow engine to cool to room temperature, and re-bleed system.
- c. Monitor coolant level in recovery bottle. Add coolant as required.

NOTE

If leaks are present cooling system may not draw coolant from recovery tank.

5. Test heater operation. If inadequate heat is present, re-bleed system.

NOTE

Engine at idle speed may not be able to produce maximum heat, especially in diesel engine.

6. Allow engine to cool to room temperature, then remove coolant recovery bottle cap and radiator pressure cap, then fill recovery bottle to MAX COLD line and radiator to filler neck. Reinstall caps.

Periodically check coolant level during first few hours of operation.

7. Restore remaining access (see section **PREPARE VEHICLE FOR INSTALLATION**, Steps 3–5).