SP 8-600-001

SERVICE PROGRAM

July, 2014

ATTENTION:
Service Managers / Parts Managers

SUBJECT:
Autocar Xpert HVAC Performance Upgrade

DESCRIPTION OF SERVICE PROGRAM:
This Service Program provides instructions to upgrade the HVAC on certain Xpert vehicles.

PROGRAM EXPIRES:
July 31, 2015

VEHICLES AFFECTED:
There are 32 affected vehicles with serial numbers in the range 213783 through 214181. Refer to the VIN list beginning on Page 31.

SERVICE RESPONSIBILITY:
Service Programs are performed on eligible vehicles at no charge to the owner until the expiration date listed above.

SERVICE PROGRAM INFORMATION:
Service Programs are product modifications and/or product improvements that Autocar has determined will enhance the operation of the truck. In a continuing effort to inform our customers of potential service issues and avoid unnecessary down time, Autocar has identified the following operation as recommended preventive maintenance. This Service Program should be added to your preventive maintenance and service manuals.

While being committed to continuous product improvement, Autocar is not liable for updating existing chassis after they have been placed in service.

Questions regarding this Service Program should be directed to Autocar Technical Support at 888-218-3611.

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REQUIRED PARTS:

(1) S5704001K001 HVAC Upgrade kit

(1)	A5700040-001	IP moulding
(1)	A5700041-001	IP trim
(1)	A5700042-001	IP moulding, L/LH
(1)	A5700043-001	IP moulding, L/RH
(1)	A5700044-001	IP moulding, L/C
(1)	A5700045-001	Cup-holder, LH
(1)	A5700046-001	Cup-holder, RH
(2)	A5700048-001	Bracket, IP LH
(14)	A5700058-001	Plug, IP screw
(10)	A5700067-001	Switch, edge
(11)	A5700068-001	Switch, center
(1)	A5700069-001	Panel, IP LH
(2)	A5941003-001	Cigar lighter
(1)	A8220015-001	Starter switch
(3)	A6000088-001	Vent, angled port
(1)	A6000089-001	Vent, straight port
(6)	A6000062-001	Vent, windshield
(2)	A6000082-001	Vent, LH foot-well
(1)	A6220043-001	Switch, LH mirror
(1)	A6220079-001	Switch, RH mirror
(1)	GZ120017-001	Switch, regen
(1)	GZ120017-003	Switch, CC on/off
(1)	GZ120017-004	Switch, CC set/res
(1)	GZ120017-005	Switch, DD
(1)	GZ120017-010	Switch, DS axle
(1)	GZ120017-017	Switch, rear-view mirror heating
(15)	GZ120017-020	Cover
(1)	A5700070-001	Bracket
(15)	A5700071-001	Nutsert, IP
(2)	A5710022-001	Cluster cover
(1)	A6000060-001	Duct, defrost LH
(1)	A6000061-001	Duct, defrost RH
(1)	A6000064-001	Duct, connector
(1)	A6000075-001	Duct, LH IN vent
(1)	A6000076-001	Duct, RH INT vent
(1)	A6000077-001	Vent, LH prim
(1)	A6000078-001	Vent, RH prim
(1)	A6000079-001	Duct, INT vent
(1)	A6000080-001	Vent, LH center
(1)	A6000081-001	Vent, RH center
(1)	A6000085-001	Duct, vent LH
(1)	A6000086-001	Duct, vent RH
(2)	A6000087-001	Hose, center vent
(10)	3081891	Clamp hose 57
(2)	673484	Clamp hose 48
(2)	8021880	Clamp hose 64
(6)	GZ220015-003	Small clamp
(1)	A6030018-001	Controller module
(1)	A6000099-001	Capacitor
(1)	A6000098-001	Motor, blower
(1)	A6000100-001	Ground wire
(1)	A8700026-025	25A Fuse, ATO

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CAUTION

LOCKOUT/TAGOUT PROCEDURES

Before entering the vehicle or vehicle body, read and follow OSHA regulations concerning entry and working in “CONFINED SPACE” OSHA 1910.146 and “LOCKOUT/TAGOUT” OSHA 1910.147. Follow OSHA regulations while performing any work on the vehicle. The vehicle must be disabled by the following steps before performing any work on the vehicle:

1. Place the transmission in NEUTRAL.
2. Set the parking brake.
3. Shut the engine OFF.
4. Lock cab doors, keep the key in your pocket. Block the wheels before entering the body or performing any work on the vehicle.
5. Turn the battery disconnect switch OFF, if equipped.
6. Completely drain the air from the primary/A system and secondary/B system by opening the drain valves on the air tanks themselves or by using the drain manifold if supplied. When draining the air tanks, do not look into the area where air is draining. Dirt or sludge particles may be expelled in the air stream and can cause eye injury.
7. Place magnetic “DANGER” signs on both cab doors before entering the body or performing any work on the vehicle.
8. Take proper precautions before working under the vehicle. Use ramps approved for the weight of your vehicle, or use floor jacks and stands. Never work under a vehicle supported by jacks alone. Always use jack stands to support the vehicle.

WARNING

Autocar natural gas powered vehicles require specific compliance in the service, storage and refueling procedures.

If you store or dispense Compressed Natural Gas (CNG) or Liquid Natural Gas (LNG), or if you work on CNG or LNG trucks, your location must be fully compliant with applicable codes, regulations and standards, including National Fire Protection Association (NFPA) codes, Society of Automotive Engineers (SAE) standards, American National Standards Institute (ANSI), Natural Gas Vehicle (NGV) standards, the United States Code of Federal Regulations (CFR), and your state and local fire and other applicable codes (including the California Code of Regulations and the Texas Administrative Code, as applicable).

Contact your local fire department for guidance and additional compliance information.

Technicians working on Autocar trucks with CNG or LNG engines must be trained in the proper repair of CNG and LNG engines and the safe storage and dispensing of CNG and LNG.

SERVICE PROGRAM

July, 2014

TO OBTAIN PARTS:

Ensure that you have authorization from the customer to perform this work, and send an e-mail to warranty@autocartruck.com which includes the following:

- VIN(s) (or last 6 digits of VIN(s)
- 'Attention To' name
- 'Ship To' address

CLAIMS FOR REIMBURSEMENT:

Submit a claim for reimbursement in accordance with Autocar's Warranty Administration Manual.

CLAIM CODING INFORMATION:

Labor Operation Code Number	Time Allowance SRT	Description
87010-0-01	12.0 HR	HVAC Upgrade

TOOLS REQUIRED:

10 mm socket
Hammer
Screwdriver
Poking rod
Needle-nose pliers
Soldering iron
Black electrical tape

SAFETY NOTICES

WARNING

Allow the vehicle's engine and cooling system to cool to ambient temperature before performing the repair procedure. A hot engine or cooling assembly may cause burns or other personal injury.

WARNING

To prevent eye injury, always wear eye protection when performing vehicle maintenance, service or inspection.

WARNING

Before working on a vehicle, set the parking brake, place the transmission in neutral and block the wheels. Failure to do so can result in unexpected vehicle movement and can cause serious personal injury or death.

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HVAC UPGRADE INSTRUCTIONS

Step 1. Remove Lower RH Instrument Panel Trim Panel

1. Remove the three sheet metal screws and set aside for reinstallation *(see Figure 1-1)*.

Note: *The fasteners and their quantities as detailed in the following sections may differ slightly depending on age of truck.*

2. Remove the trim panel and discard *(see Figure 1-1)*.

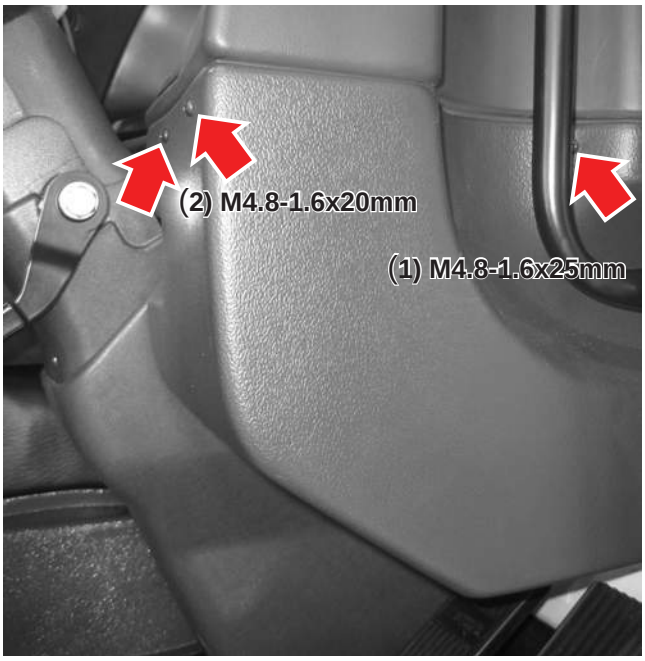

Figure 1-1

Step 2. Remove Lower LH Instrument Panel Trim Panel

1. Remove the five sheet metal screws and set aside for reinstallation *(see Figure 2-1)*.
2. Remove the trim panel and discard *(see Figure 2-1)*.

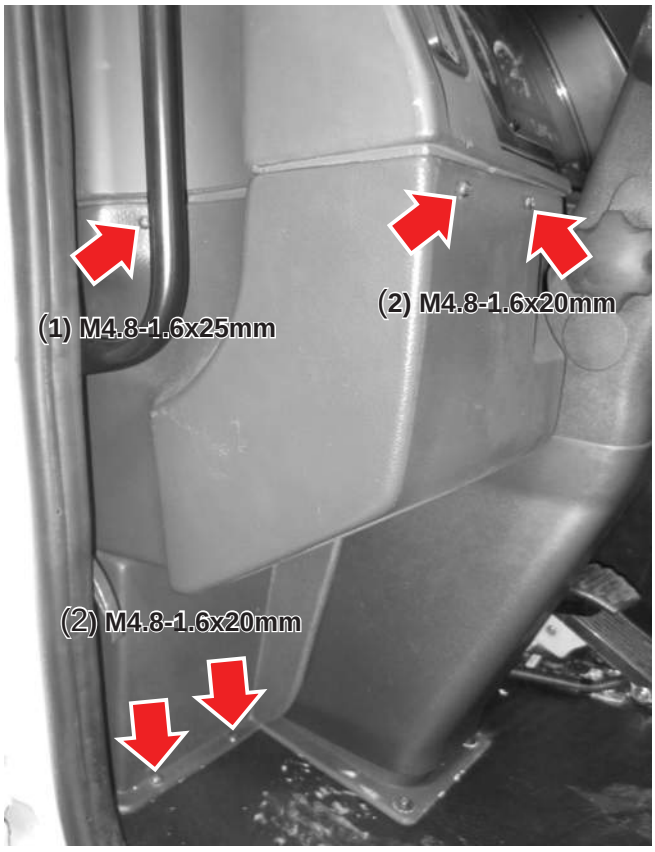

Figure 2-1

Step 3. Detach Upper Instrument Panel From Outer Support Brackets

1. Remove the bolt/nut assembly on both LH and RH sides of instrument panel and set aside for reinstallation *(see Figure 3-1)*.

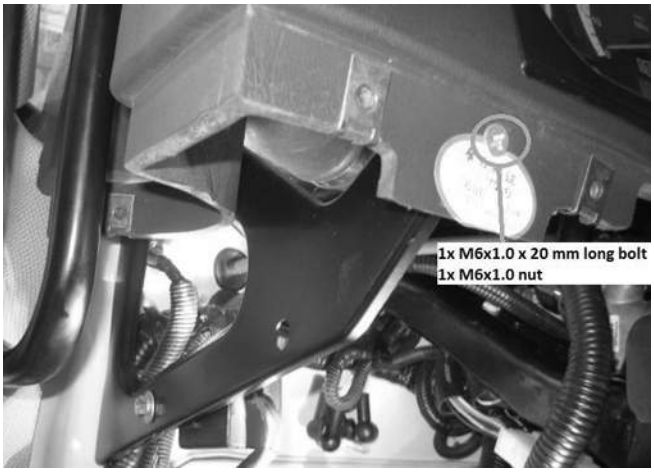

Figure 3-1

Step 4. Remove Two Instrument Clusters

1. Remove the three screw plugs and set aside for reinstallation *(see Figure 4-1)*.
2. Remove the three screws and set aside for reinstallation *(see Figure 4-1)*.
3. With all screws completely removed, pull the lower portion of the cluster outwards *(see Figure 4-1)*.
4. Pull the cluster downward to unhook the upper tabs *(see Figure 4-1)*.

Figure 4-1

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5. Using quick-release mechanism on fittings, unhook the green and red airlines from the cluster *(see Figure 4-2)*.
6. Disconnect the four electrical connectors from the cluster *(see Figure 4-2)*.
7. Remove the instrument cluster and set aside for reinstallation.

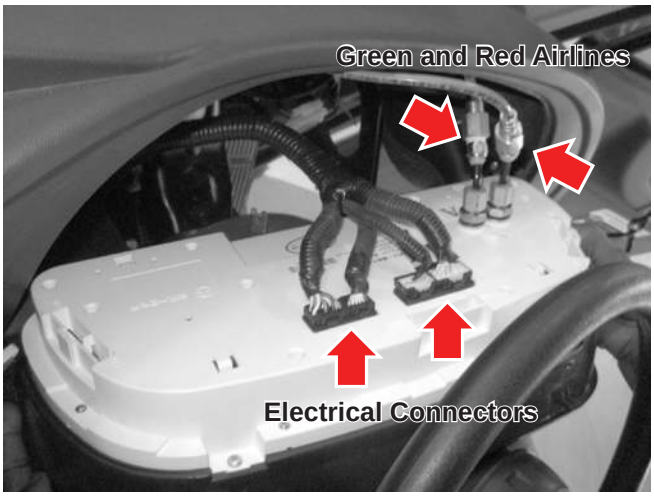

Figure 4-2

Step 5. Remove Lower Instrument Panel Skirt

1. Remove the cup holders on either side of the lower instrument panel skirt and discard *(see Figure 5-1)*.
2. Remove the screws securing the lower instrument panel skirt and set aside for reinstallation *(see Figure 5-2)*.
3. Remove the lower instrument panel skirt and discard.

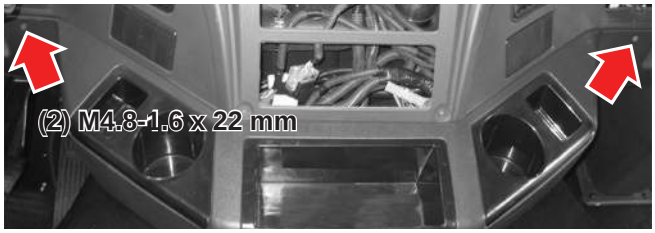

Figure 5-1

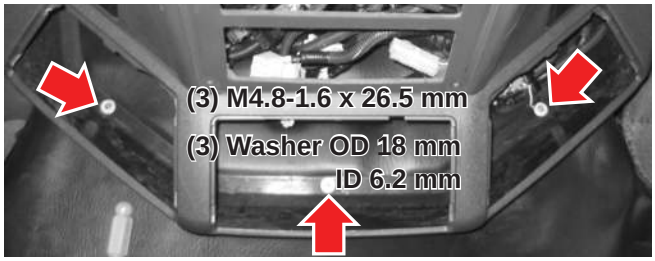

Figure 5-2

Step 6. Remove Instrument Panel Middle Bracket Screw

1. Remove the screw and washer and set aside for reinstallation *(see Figure 6-1)*.

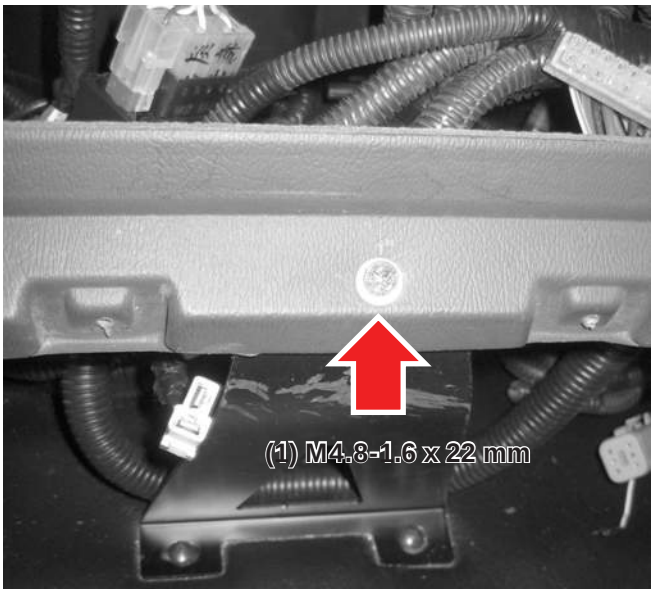

Figure 6-1

Step 7. Remove Rear Instrument Panel Screws

1. Remove the screws and washers and set aside for reinstallation *(see Figure 7-1)*.

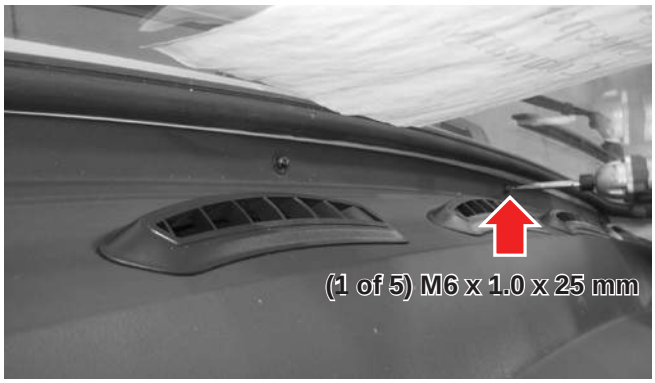

Figure 7-1

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Step 8. Remove Center Console Panel

1. Remove the eight screw caps and set aside for reinstallation *(see Figure 8-1).*
2. Remove the eight M4 screws and set aside for reinstallation *(see Figure 8-1)*.

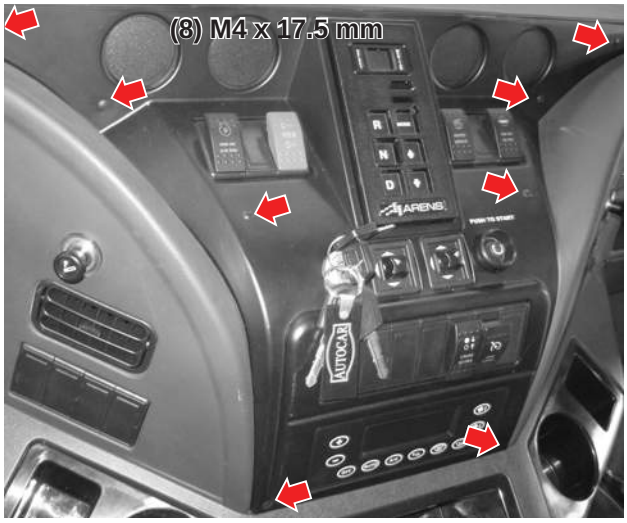

Figure 8-1

3. Pull switches out of their slots and break them apart by pushing one down and the other up *(see Figure 8-2).*

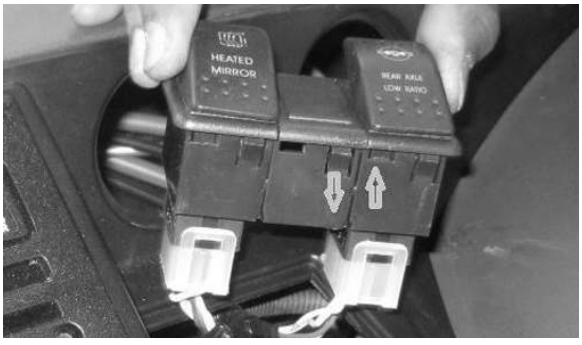

Figure 8-2

4. Push switches through the slots so that the center console panel can be removed *(see Figure 8-3).*

Figure 8-3

5. Disconnect the transmission shift selector connectors, the mirror switch connectors, the ignition barrel connector, push to start button connector, and the HVAC controller connector and set aside for reinstallation *(see Figure 8-4).*

Figure 8-4

6. Remove the gauge panel caps and set aside for reinstallation *(see Figure 8-5)*.

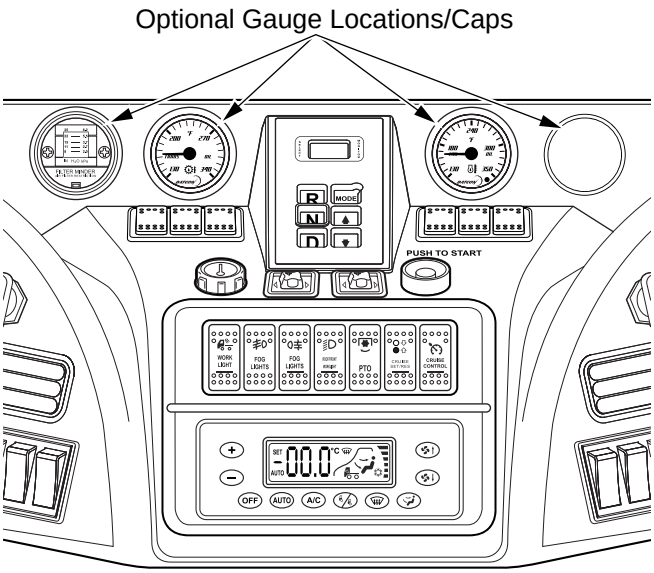

Figure 8-5

7. Disconnect the lighters.

8. Locate the terminals/connectors behind the lighters through the access holes in the center portion of the upper dashboard panel *(see Figure 8-6)*.

Figure 8-6

9. Remove the instrument top panel and set aside for reinstallation.
10. Remove the ignition barrel and set aside for reinstallation *(see Figure 8-7).*

Figure 8-7

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11. Using a 10 mm socket, remove the transmission shift selector by removing the two nuts and set aside for reinstallation *(see Figure 8-8).*

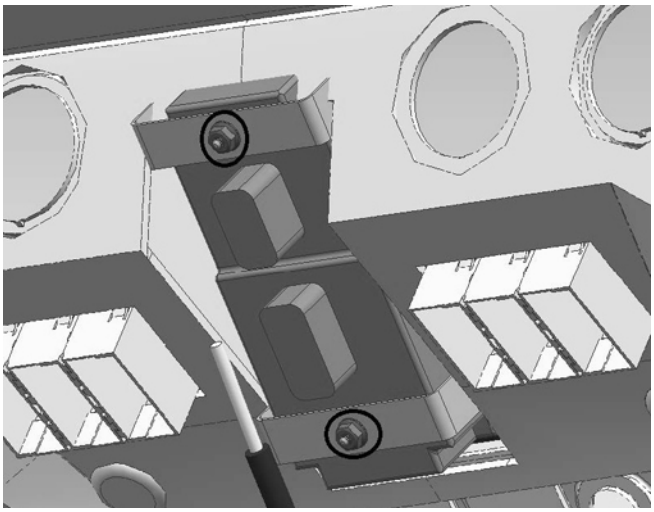

Figure 8-8

Step 9 Remove Park Brake Valves

In order to remove the main instrument panel, the two park brake valves must be removed *(see Figure 9-1)*.

1. Pull back the rubber grommets and find the yellow handle locating pins (located at the base of the park brake valve yellow handle) *(see Figure 9-1)*.
2. Carefully hammer out the locating pins with a small punch.
3. Remove the yellow handles.
4. Remove the nut clamping the valves to the dashboard and push the valves through into the dashboard, and set aside for reinstallation.

Figure 9-1

Step 10. Remove Old Panel Ducting from Instrument Panel (Outer Vents)

1. Disconnect the ducting at the vent end on both LH and RH sides *(see Figure 10-1)*.

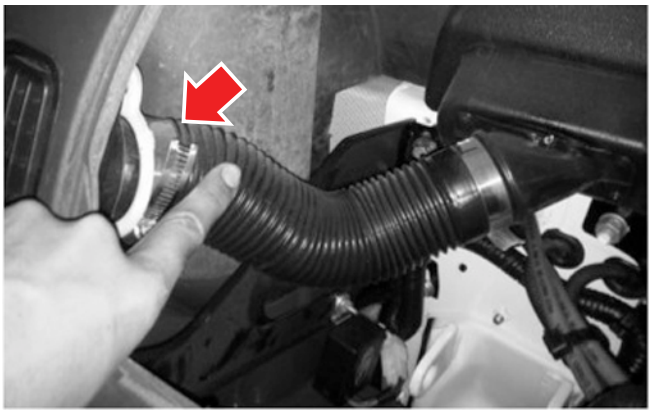

Figure 10-1

2. Disconnect the ducting at the HVAC unit end on both LH and RH sides *(see Figure 10-2)*.

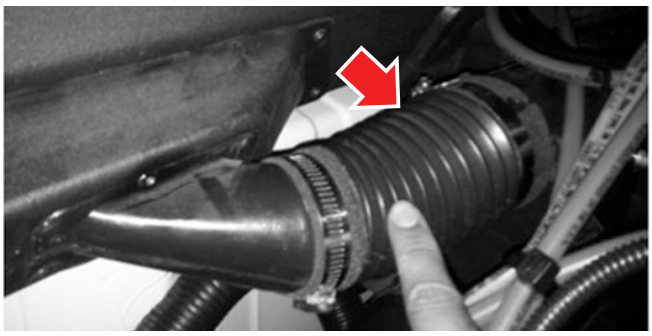

Figure 10-2

3. Remove the intermediate duct attached to the main defrost duct. Seal the screw holes by reinstalling the screws used to attach the intermediate ducting. Perform this on both LH and RH sides *(see Figure 10-3)*.

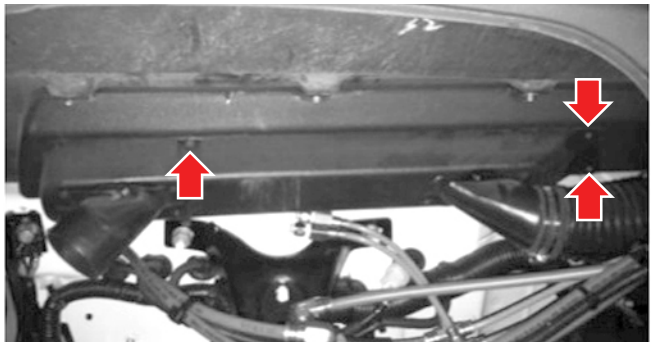

Figure 10-3

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Step 11. Replace Blower Motor

1. Remove the screw from the HVAC housing and set aside for reinstallation *(see Figure 11-1).*

Figure 11-1

2. Remove retaining clips securing the head of the HVAC unit along its perimeter and set aside for reinstallation *(see Figure 11-2)*.

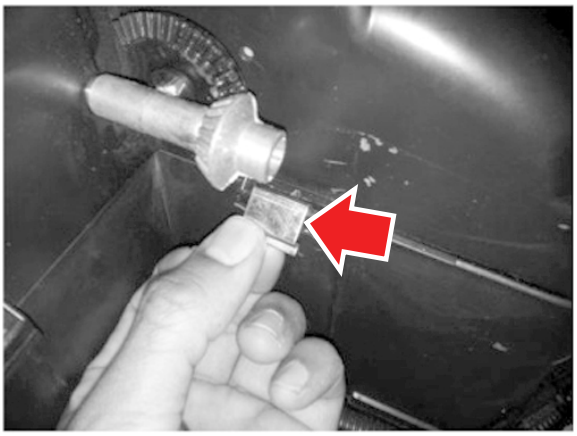

Figure 11-2

3. Remove the HVAC unit head *(see Figure 11-3).*

Figure 11-3

4. Remove the blower motor fan speed control module *(see Figure 11-4)*.

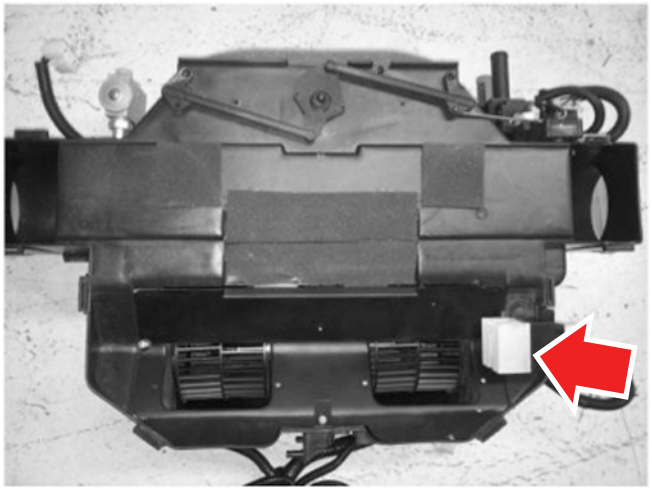

Figure 11-4

5. Remove the three screws which secure the HVAC motor in the housing *(see Figure 11-5)*.

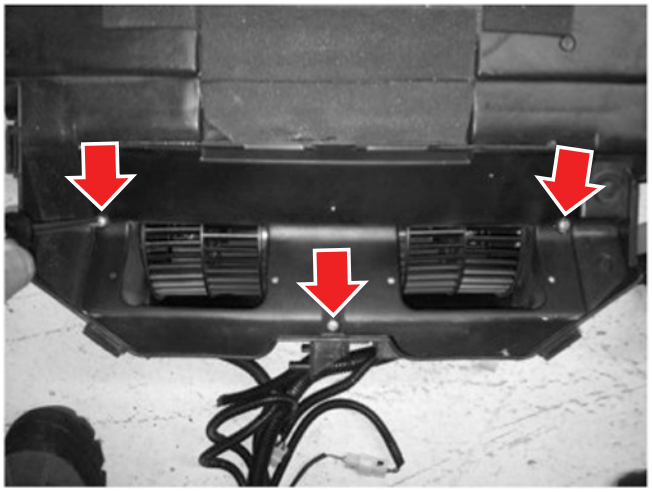

Figure 11-5

6. Remove the motor and discard *(see Figure 11-6 and Figure 11-7)*.

Note: *Before the motor can be removed, detach the terminals from the motor power connector so that the wires can be fed through the housing.*

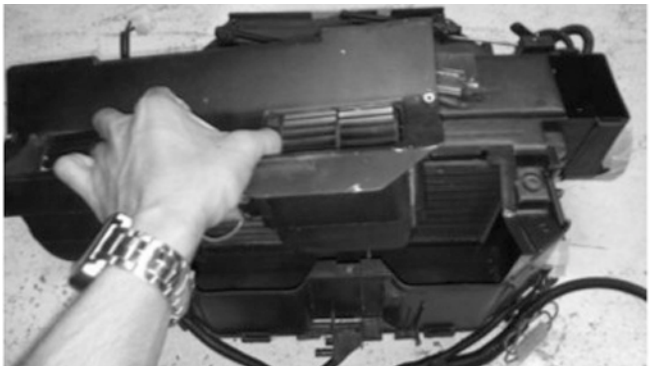

Figure 11-6

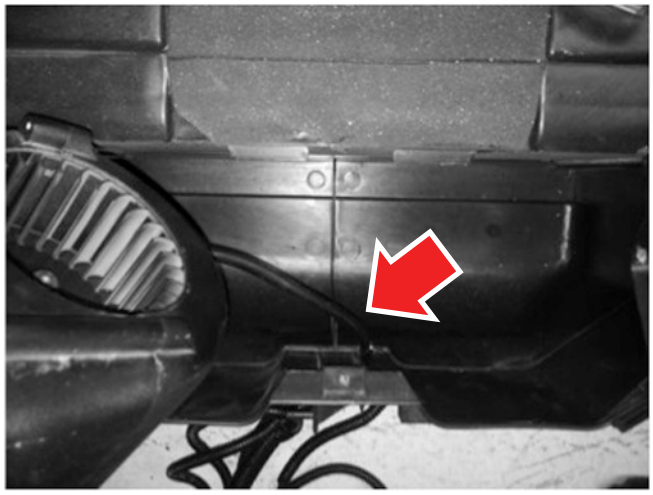

Figure 11-7

7. Install the new motor (A6000098-001) by performing step 11-1 through step 11-6 in reverse order.

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Step 12. Install HVAC Capacitor

The new HVAC controller (A6030018-001) requires that a capacitor (A6000099-001) be added to the HVAC harness.

1. Locate connector number 73 (it is located in the area below the LH cup holder in the lower instrument panel skirt which at this point has not been reinstalled – the wires on the female side of the connector are blue, gray, red and purple) *(see Figure 12-1)*.

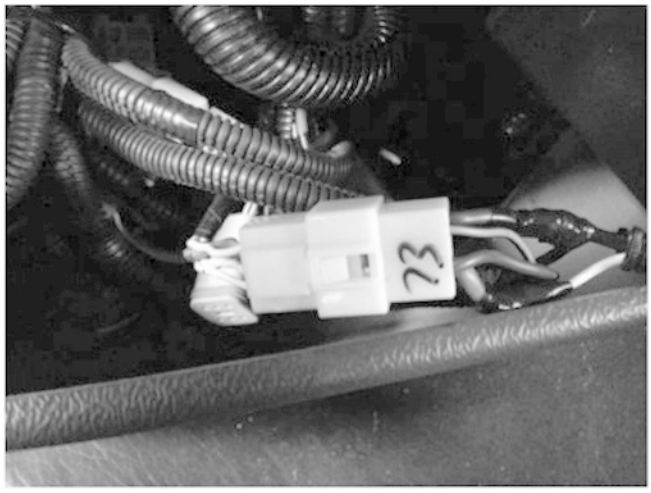

Figure 12-1

2. Splice in the capacitor to the purple and red wires with a soldering iron. Positive (+) to the red wire and Negative (-) or (black electrical tape) to the purple wire. Cable tie capacitor to the HVAC harness *(see Figure 12-2)*.

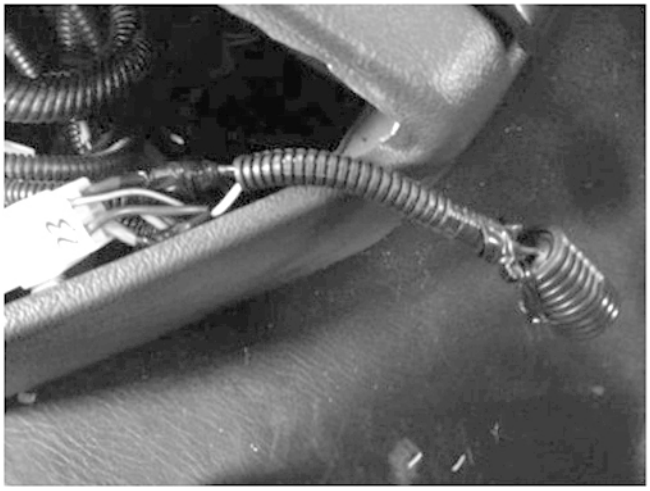

Figure 12-2

Step 13. Install Additional Ground Wire

The new blower motor draws a higher current than the discarded unit. Additional grounding is required. This is achieved by adding a ground wire that terminates directly at the cab ground stud in the cab's bulkhead.

1. Splice the new ground wire (A6000100-001) to fan speed control module's lower RH purple wire using a soldering iron (smaller purple wire on RH side of the HVAC housing) *(see Figure 13-1)*.
2. The ring terminal on the ground wire must terminate at the RH dashboard mount bracket at the upper mount bolt *(see Figure 13-1)*.

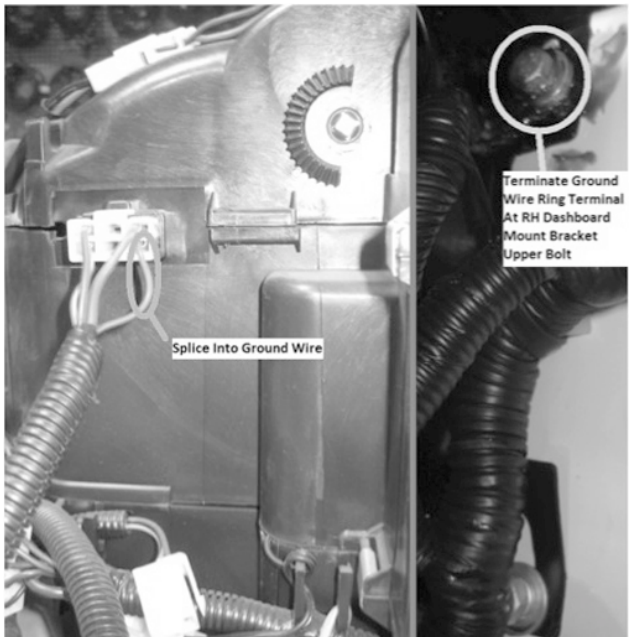

Figure 13-1

Step 14. Replace HVAC Circuit's Fuse

1. Locate the LH fuse box behind the LH seat.
2. Remove the 20 Amp fuse from slot F39 (refer to label under fuse bank cover) *(see Figure 14-1)*.
3. Install the new 25 Amp fuse (A8700026-025) to location F39 *(see Figure 14-1)*.

Figure 14-1

4. Reinstall the instrument panel.

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Step 15. Center Console Panel Preparation

1. Install the new ignition barrel (A8220015-001) in center console panel *(see Figure 15-1).*

Figure 15-1

2. Using a 10 mm socket, install the transmission shift selector (A5700071-001) using the two nuts in the center console panel *(see Figure 15-2).*

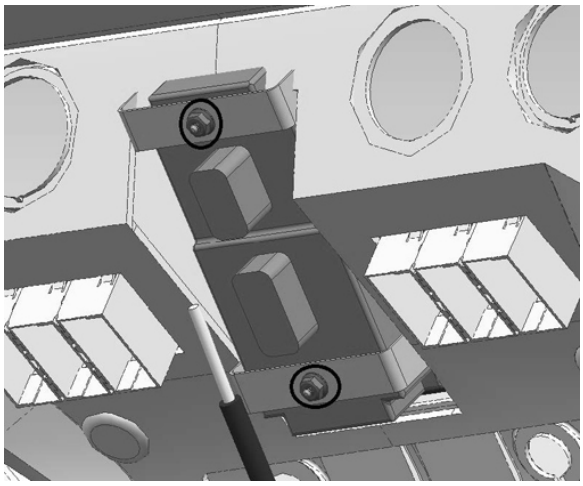

Figure 15-2

Step 16. Install Instrument Panel and Screws Along Windshield

1. Install the new instrument panel (A5700040-001.
2. Reinstall the screws and washers *(see Figure 16-1).*

Note: *Ensure all the screws have been partially fastened before tightening any of them; use a small screw driver or poking tool to line up the holes in the panel and in the sheet metal.*

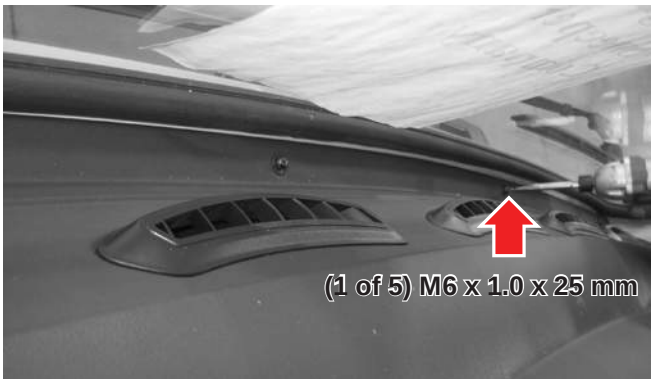

Figure 16-1

Step 17. Vent Swap

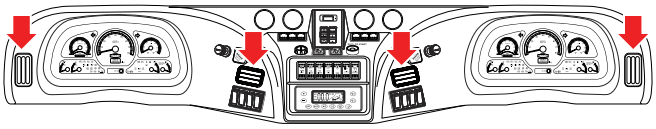

Figure 17-1

Note: *Figure 17-2 and Figure 17-3 shows the correct vent port configuration. Some trucks were fitted with different configurations, and must be reconfigured to match the images below.*

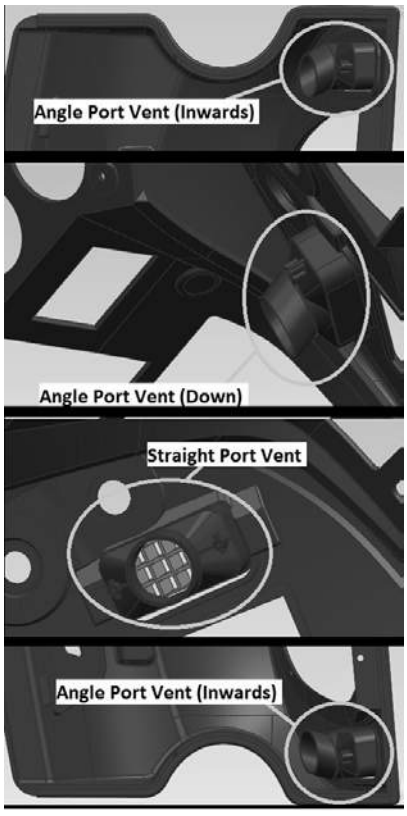

Figure 17-2

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Figure 17-3

1. For each vent, remove the 4 screws securing the locating bracket in place *(see Figure 17-4).*
2. Remove the locating bracket.
3. Push vent out through front of dashboard.
4. Reverse steps 17-1 to 17-3 to reinstall vent.

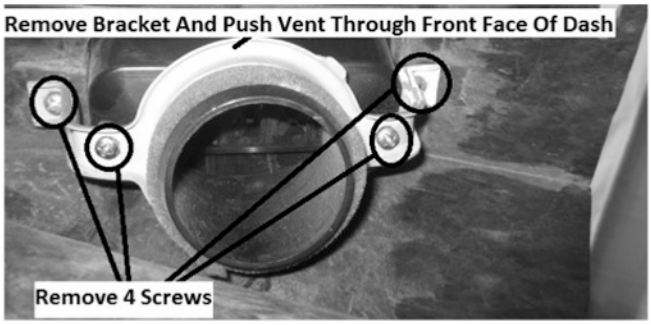

Figure 17-4

Step 18. Reattach Upper Instrument Panel to Outer Support Brackets

1. Reinstall the bolt/nut assembly on both LH and RH sides of the instrument panel *(see Figure 18-1)*.

Note: *The support brackets are slotted – push instrument panel upward while performing step 18-1 to ensure instrument panel is at top of adjustment range.*

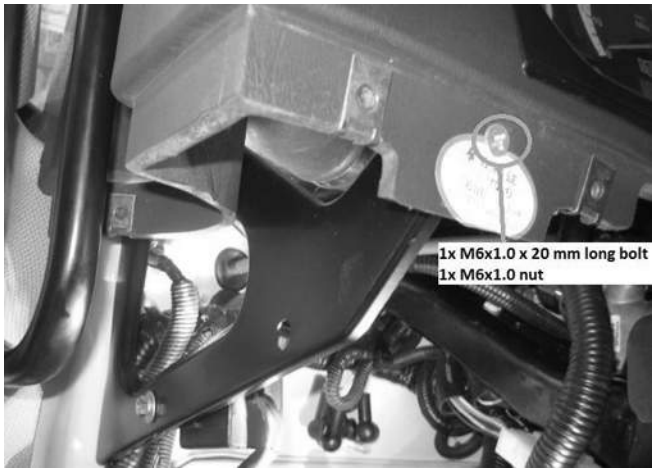

Figure 18-1

Step 19. Reinstall the Park Brake Valves

1. Push the valves through the holes in the dashboard.
2. Clamp the valve to the dashboard using the clamping nut.
3. Push the handles onto the valves.
4. Carefully hammer in the handle locating pins.
5. Pull the rubber grommet over the valve handle's shaft.

Figure 19-1

Step 20. Reconnect the Lighters

1. Locate the lighter harness terminals under the dashboard.
2. Connect the new adapter harness with the new style lighters (A5941003-001).
3. Connect the lighter harness connector to the back of the lighter.

Figure 20-1

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Step 21. Install the New Panel Ducting (Outer Vents)

1. On the RH side, apply foam insulation (obtain locally) to the vent and then install the new outer vent duct (A6000078-001) *(see Figure 21-1).*

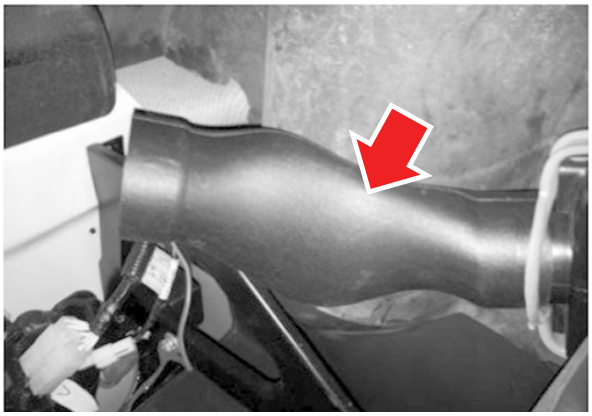

Figure 21-1

2. Apply foam insulation (obtain locally) to the HVAC unit outlet, then install the RH Internal vent duct (A6000076-001) *(see Figure 21-2).*

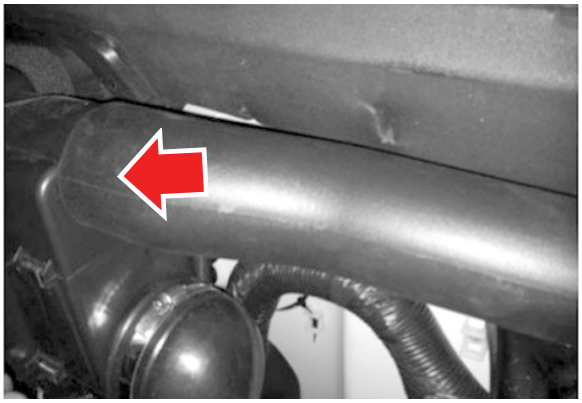

Figure 21-2

3. Slide the hose clamps loosely at the duct connection locations *(see Figure 21-3).*

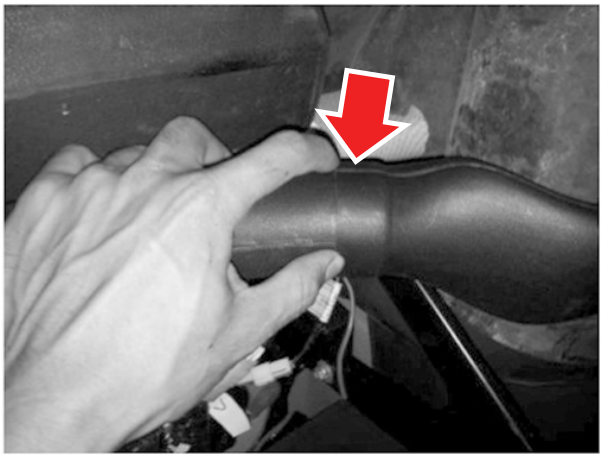

Figure 21-3

4. Install hose clamps (673484) over duct interface, but do not tighten *(see Figure 21-4 and Figure 21-5).*

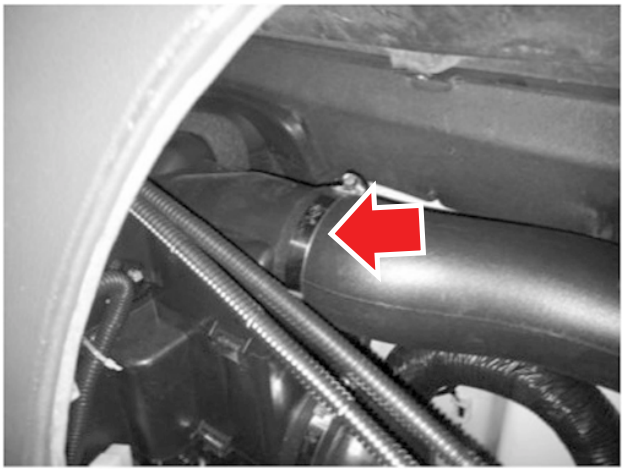

Figure 21-4

Note: *In order for the new ducting not to interfere with the instrument clusters, the ducting much be pushed as far downward as possible prior to tightening any of the clamps (the ducts coming out of the HVAC unit have an up/down adjustment range of approximately 1 inch).*

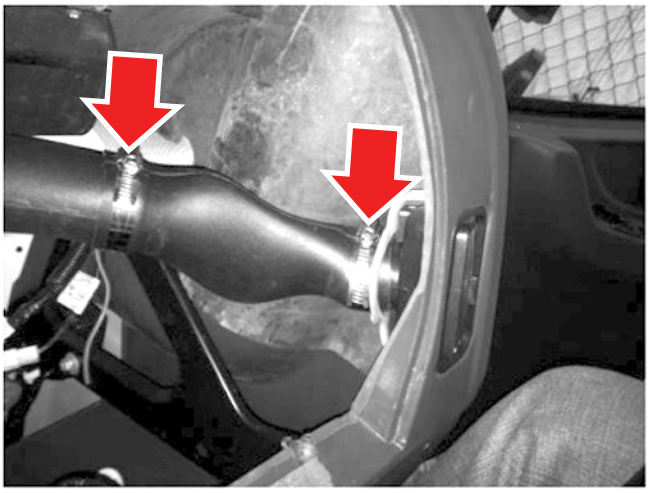

Figure 21-5

5. Tighten hose clamps *(see Figure 21-5).*

Step 22. Remove Panel Ducting (Internal Vents)

1. Remove the screws from the top and side of the central outlet on the HVAC unit and set aside for reinstallation *(see Figure 22-1).*

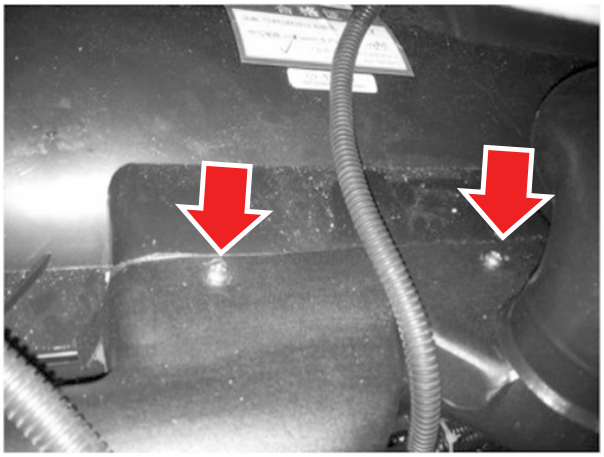

Figure 22-1

2. After loosening the clamps at the center vents, remove the center duct and discard *(see Figure 22-2).*

Figure 22-2

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Step 23. Install New Panel Ducting (Internal Vents)

1. Apply foam insulation (obtain locally) to the duct and center vents (A6000079-001) *(see Figure 23-1).*

Figure 23-1

2. Pre-install the center ducts (A6000080-001 and A6000081-001) for greater ease of installation *(see Figure 23-2).*

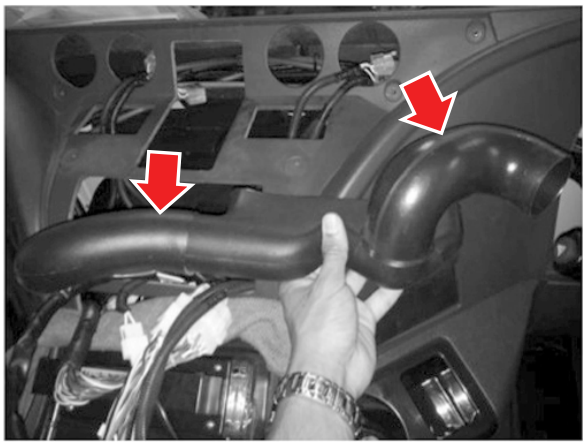

Figure 23-2

3. Using self-tapping screws (3), attach the center adapter (A6000079-001) on LH and RH edges (LH edge shown in figure 23-3 - arrow 3), and on the top portion on the LH and RH *(see Figure 23-3).*

4. Install the flexible duct onto the LH vent (A6000077-001) (ensure that hose clamps (1) and (2) are loosely fitted) *(see Figure 51)*.

5. Complete the connection at the middle connection by rotating the formed duct into the flexible duct.

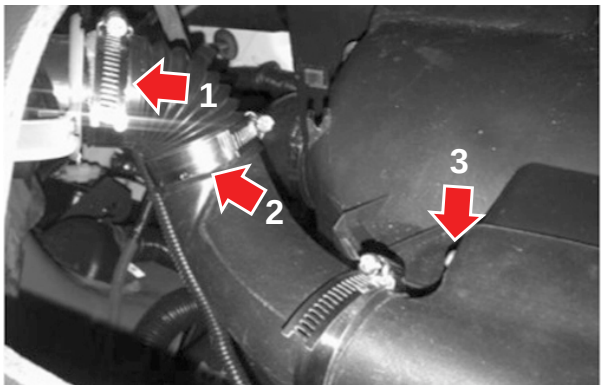

Figure 23-3

6. Tighten hose clamps *(see Figure 23-4).*

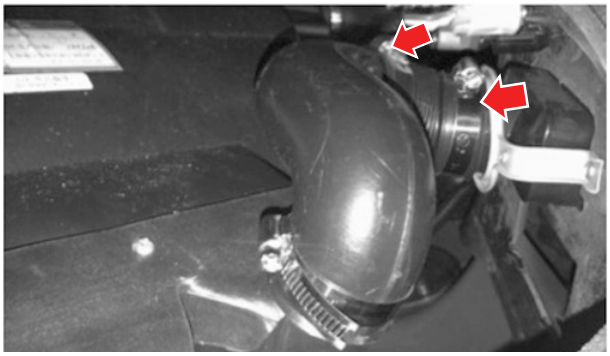

Figure 23-4

7. Repeat the steps 23-4 through 23-6 for the RH side.

Step 24. Install Lower RH Instrument Panel Trim Panel

1. Align the new lower RH instrument panel trim panel (A5700043-001) with mounting spring nuts on the upper instrument panel *(see Figure 24-1)*.
2. Reinstall the three sheet metal screws, ensuring they are driven through the spring nuts *(see Figure 24-1)*.

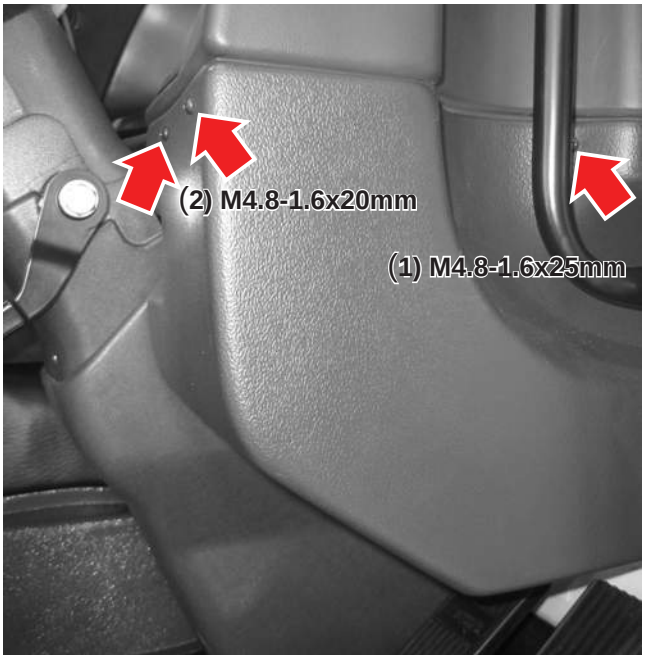

Figure 24-1

Step 25. Install Lower LH Instrument Panel Trim Panel

1. Align the new lower LH instrument panel trim panel (A5700042-001) with mounting spring nuts on the upper instrument panel *(see Figure 25-1)*.
2. Reinstall the three upper sheet metal screws, ensuring they are driven through the spring nuts *(see Figure 25-1)*.
3. Install the lower two sheet metal screws *(see Figure 25-1)*

Note: *Pre-drill holes in the floor to accommodate the two sheet metal screws to mount the lower kick panel.*

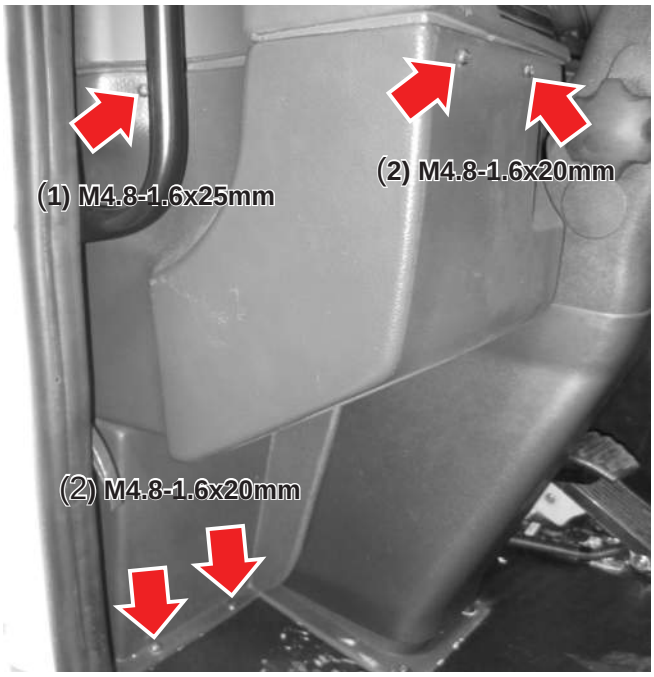

Figure 25-1

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Step 26. Install Upper Instrument Panel Middle Support Bracket Screws

1. Install the screw and washer *(see Figure 26-1)*.
2. Certain trucks requiring HVAC kit were not fitted with the middle support bracket (A5700070-001). This bracket has been included in upgrade kit (S5704001K001). Pre-drill a hole in the upper dash panel in the location where the screw is to be installed. Drive the base screws through the sheet metal floor of the cab. Pre-drill holes in the floor for this purpose.

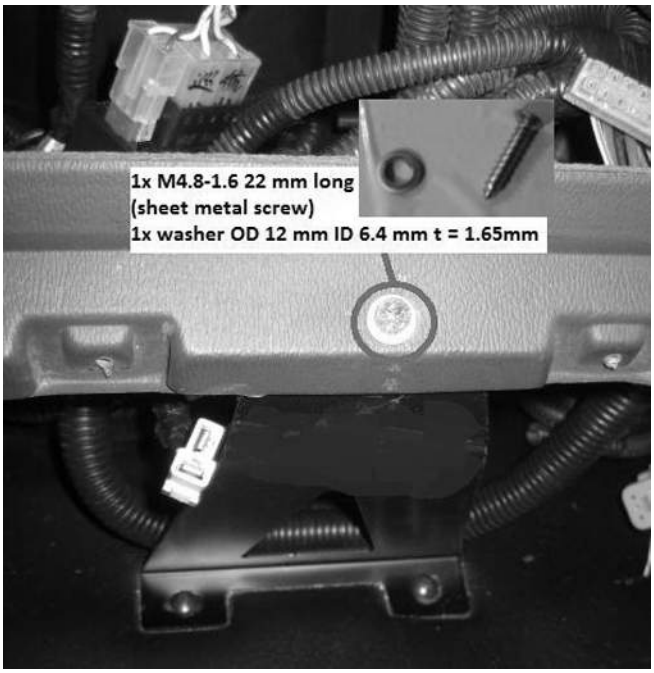

Figure 26-1

Step 27. Install Lower Instrument Panel Skirt

1. Install the five screws securing the lower instrument panel skirt (A5700044-001) *(see Figure 27-1)*.
2. Install the cup holders (A5700046-001 and A5700045-001) and the center storage bin/cover (A5700044-001), if equipped *(see Figure 27-2)*.

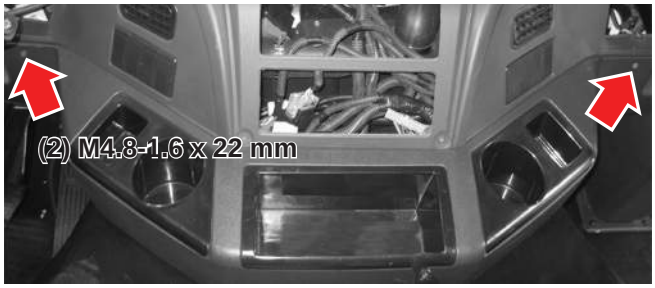

Figure 27-1

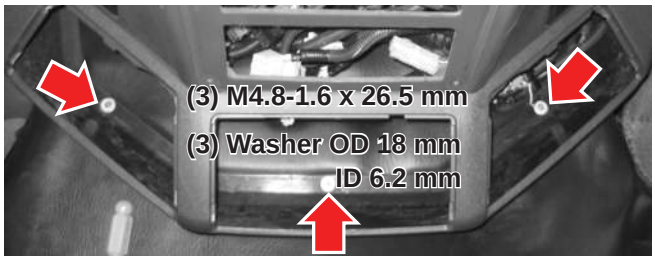

Figure 27-2

Step 28. Install the Instrument Cluster

1. Connect the four electrical connectors *(see Figure 28-1)*.
2. Connect the airlines, green to the RH port, red to the LH port *(see Figure 28-1)*.

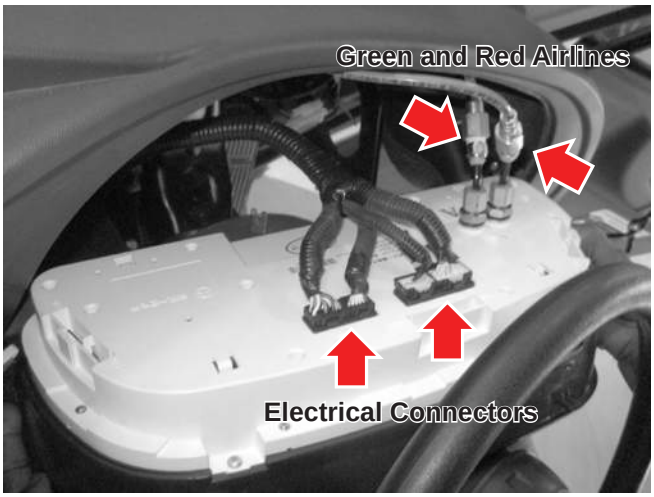

Figure 28-1

3. Hook the upper tabs under the upper perimeter of the cluster cut-out in the instrument panel *(see Figure 28-2)*.
4. Push the lower portion of the cluster forward, ensuring the cluster bezel locates securely in the cluster cut-out in the instrument panel *(see Figure 28-2)*.
5. Install the three screws, ensuring that they are aligned with the spring nuts *(see Figure 28-2)*.
6. Install the three screw plugs *(see Figure 28-2)*.

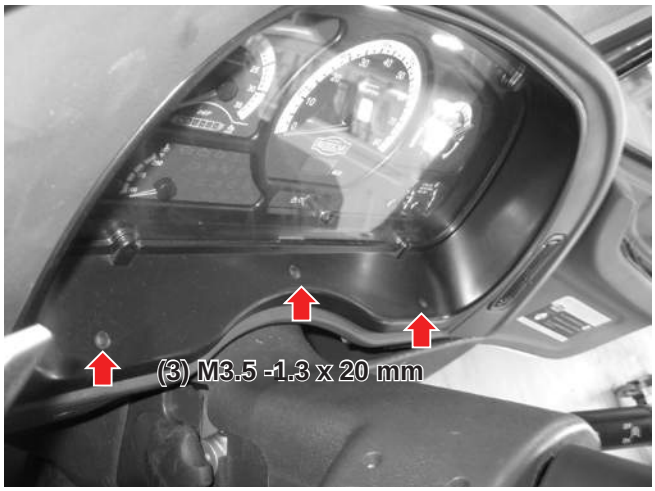

Figure 28-2

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Step 29. Install New HVAC Controller

1. Remove the four screws affixing the clamp bracket to the rear of the HVAC controller *(see Figure 29-1)*.

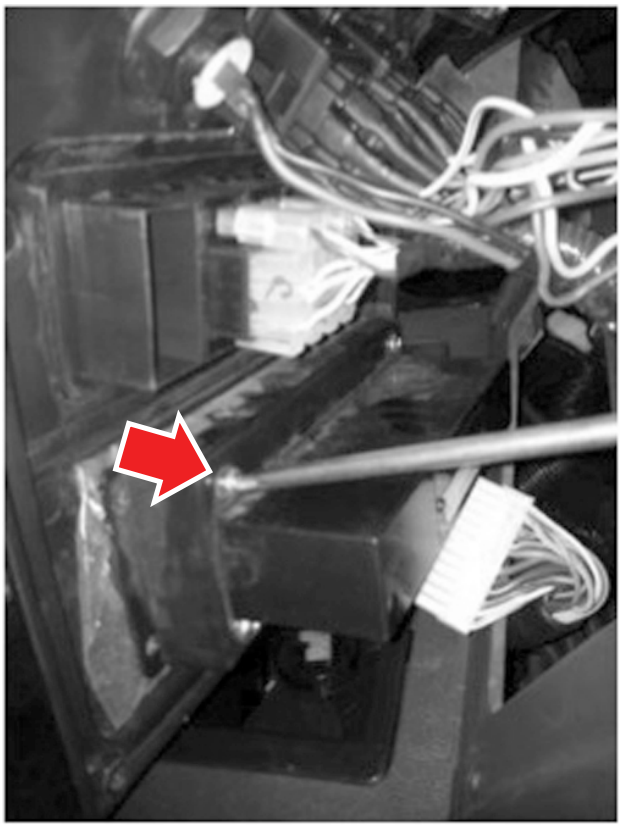

Figure 29-1

2. Remove the clamp bracket *(see Figure 29-2)*.

Figure 29-2

2. Slide the old controller out *(see Figure 29-3)*.

Figure 29-3

3. Install the new controller (A6030018-001) by reversing steps 29-3 to 29-1.

Step 30. Reconnect the Center Console Panel Controls

1. Connect the transmission shift selector connectors *(see Figure 30-1).*
2. Connect the mirror switch (A6220043-001) connectors *(see Figure 30-1).*
3. Connect the ignition barrel connector and the HVAC controller (A6030018-001) connector *(see Figure 30-1).*

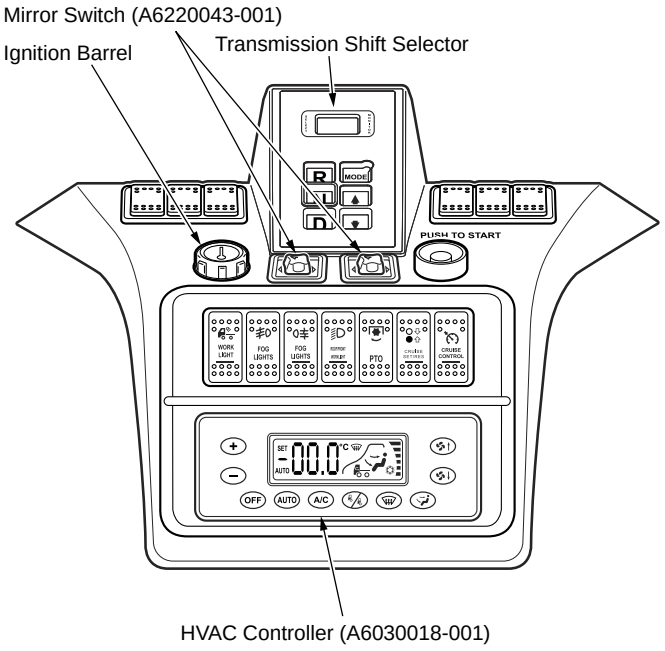

Figure 30-1

Step 31. Interior Temp Sensor Location Verification

1. Ensure the interior temperature sensor is located correctly on the upper shroud of the LH steering column.

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Step 32. Test the HVAC System

1. Start the engine and let it warm up.
2. Turn on the HVAC system by pressing the increase fan speed button.
3. Test the fan at all speeds.
4. While fan is at max speed, cycle through the 4 vent modes and ensure air is coming out of all the correct vents: panel, floor, windshield, floor and windshield (allow at least 5 seconds for vent selection valve to adjust between modes).
5. Drop the set temp to 64°F and turn on air-conditioning compressor (press frost symbol button). Ensure air becomes cool.
6. Increase set temp to HI while compressor is still running. Ensure that heater core is able to overcome the cooling effect of the evaporator core.
7. While the set temp is at any setting other than “HI” or “LO”, press the defrost button, and ensure the following occur:
   - Only windshield vents should be open.
   - Fan speed should set to highest setting.
   - Air source should be set to fresh air.
   - Pressing the defrost button again should resume previous settings.
8. Set fan speed to the third speed level and check instrument cluster for stop or check engine lights. If either of these lamps is illuminated, check that capacitor has been installed correctly.

Note: *If at any point the stop or check engine lights illuminate, check that the capacitor has been installed correctly.*

Step 33. Reconnect Switches

1. Route the switches through the slots in the center console panel in their original locations *(see Figure 33-1)*.
2. Reassemble the switch banks in the same configuration that they were before breaking apart in step 8-3 *(see Figure 33-1)*.
3. Push the switches through the slots in the center console until they snap into place *(see Figure 33-2)*.

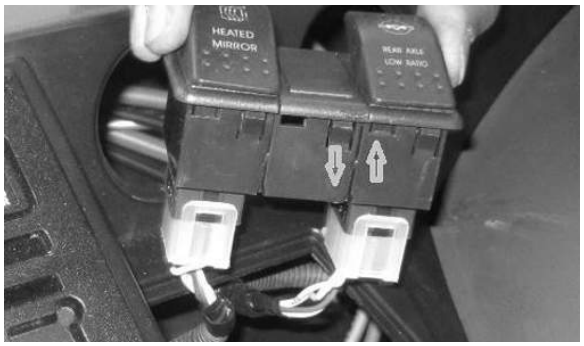

Figure 33-1

Figure 33-2

Step 34. Install Center Console Panel

1. Install the eight M4 screws (do not tighten until all the screws have been located and the panel aligned correctly) *(see Figure 34-1)*.
2. Install the eight screw caps ((A5700058-001) *(see Figure 34-1)*.
3. Install gage panel caps *(see Figure 34-1)*.
4. Push switches into their locating slots *(see Figure 34-1)*.

Figure 34-1

5. HVAC upgrade is complete.

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