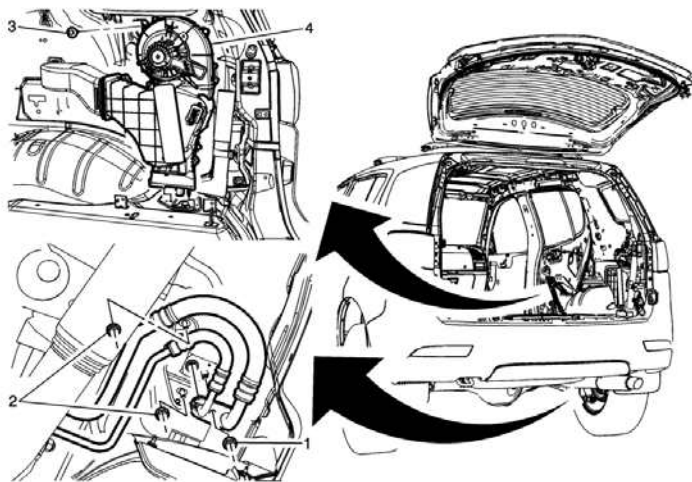


2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



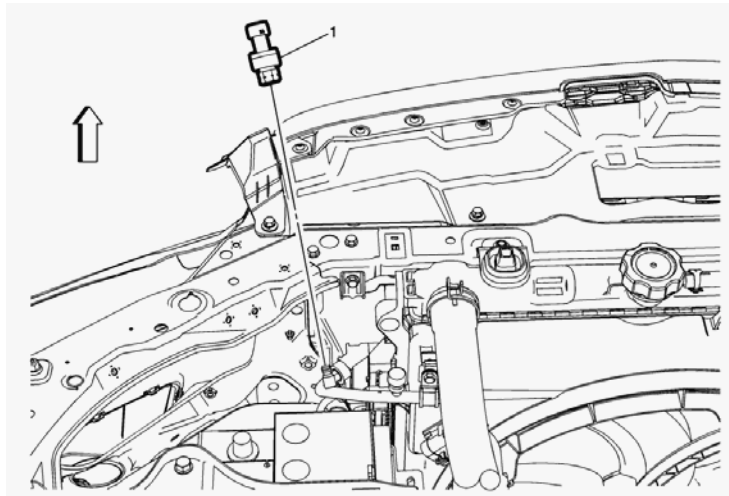
Auxiliary Air Conditioning (A/C) Evaporator and Blower Module Assembly Removal and Installation

Callout	Component Name
Preliminary Procedures	
1. Recover the refrigerant from the air conditioning system. Refer to Refrigerant Recovery and Recharging. 2. Remove the right rear quarter body side trim panel. Refer to Body Side Trim Panel Replacement - Right Side. 3. Raise the vehicle. Refer to Lifting and Jacking the Vehicle.	
	Auxiliary Air Conditioning Condenser and Air Conditioning Evaporator Tube Nut
	Caution: Refer to Fastener Caution.
	Procedure
1	Remove the auxiliary air conditioning condenser and air conditioning evaporator tube nut from the auxiliary air conditioning evaporator core.
	Note: Discard used air conditioning seals, and replace with NEW seals.
	Tighten
	22 Y (16 lb ft)
2	Auxiliary Air Conditioning Evaporator And Blower Module Nut (Qty: 2)
	Auxiliary Air Conditioning Evaporator And Blower Module Bolt (Qty: 1)
	Procedure
3	Lower the vehicle.
	Tighten
	10 Y (89 lb in)
	Auxiliary Air Conditioning Evaporator and Blower Module
4	Procedure
	Transfer all necessary components.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning (A/C) Refrigerant Pressure Sensor Replacement

Callout

Component Name

Preliminary Procedure

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Disconnect the air conditioning refrigerant pressure sensor electrical connector.

Air Conditioning Refrigerant Pressure Sensor

Caution: Refer to Fastener Caution.

1

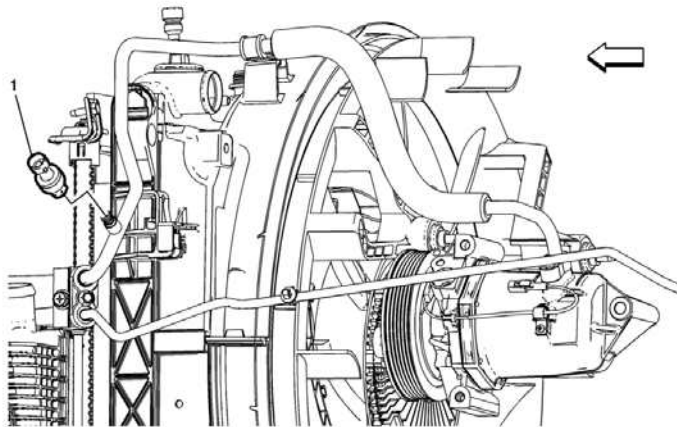
Tighten

6 Y (53 lb in)

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning (A/C) Refrigerant Pressure Sensor Replacement

Callout

Component Name

Air Conditioning (AC) Refrigerant Pressure Sensor

Caution: Refer to Fastener Caution.

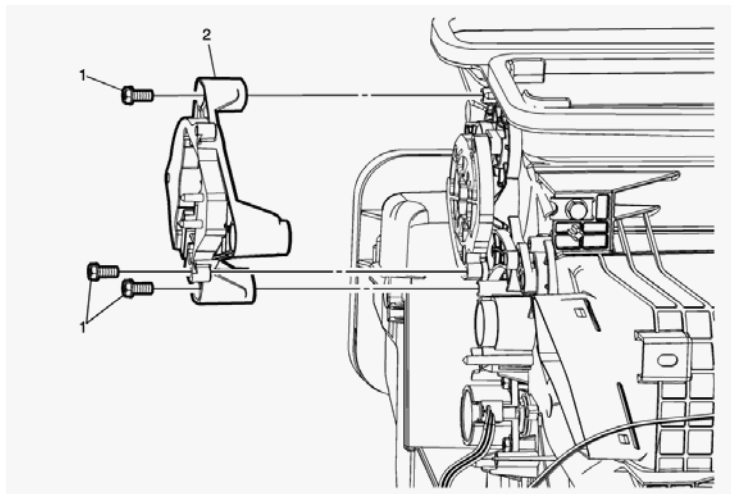
Procedure

1

1. Disconnect the electrical connector from A/C refrigerant pressure sensor.
2. Remove the A/C refrigerant pressure sensor from the A/C condenser.
3. Remove and discard the O-ring. Refer to Air Conditioning System Seal Replacement

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Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Actuator Adapter Replacement

Callout

Component Name

Preliminary Procedures

1. Remove the lower Instrument Panel Assembly.
Refer to Instrument Lower Panel Replacement.
2. Remove Mode Control Cam Actuator.
Refer to Mode Control Cam Actuator Replacement.

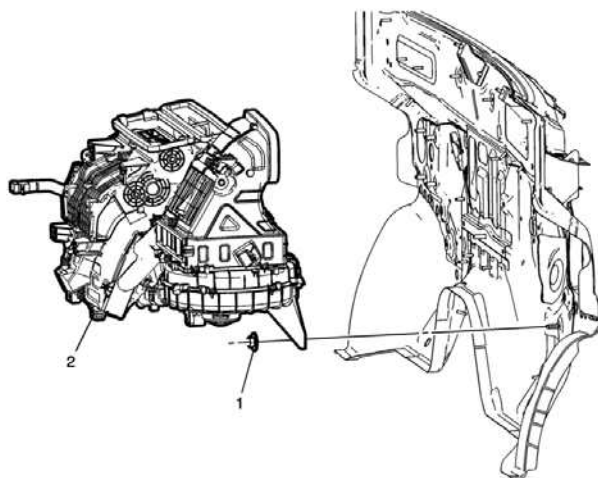
1 Actuator Adapter Fasteners (Qty: 3)

Caution: Refer to Fastener Caution.

2 Actuator Adapter

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Air Conditioning and Heater Module Assembly Removal and Installation

Callout

Component Name

Preliminary Procedures

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Drain the cooling system. Refer to Cooling System Draining and Filling.
3. Remove the instrument panel tie bar. Refer to Instrument Panel Tie Bar Replacement.
4. Disconnect the HVAC module electrical connectors.
5. Remove the air conditioning evaporator thermal expansion valve . Refer to Air Conditioning Evaporator Thermal Expansion Valve Replacement.
6. Remove the heater outlet hose. Refer to Heater Outlet Hose Replacement.
7. Remove the heater inlet hose. Refer to Heater Inlet Hose Replacement.

HVAC Module Assembly Fastener (Qty: 1)

Caution: Refer to Fastener Caution.

1

Tighten

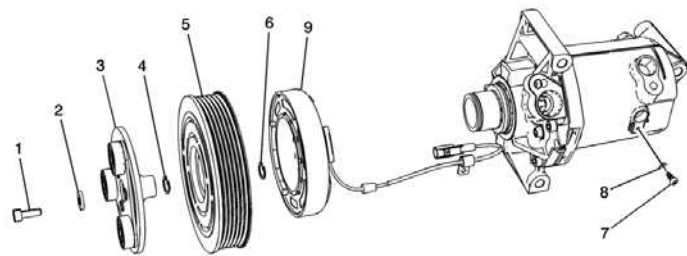
5.0 Y (44 lb in)

2

HVAC Module Assembly

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Air Conditioning Clutch Replacement

Callout Component Name

Preliminary Procedure

Remove the air conditioning compressor. Refer to Air Conditioning Compressor Replacement.

Air Conditioning Compressor Clutch Bolt

Caution: Refer to Fastener Caution.

Procedure

Use the GE-33027-A clutch plate holder to hold the compressor clutch plate from turning when removing the bolt.

- 1
- Tighten

14 Y (124 lb in)

Special Tools

GE-33027-A Clutch Plate Holder

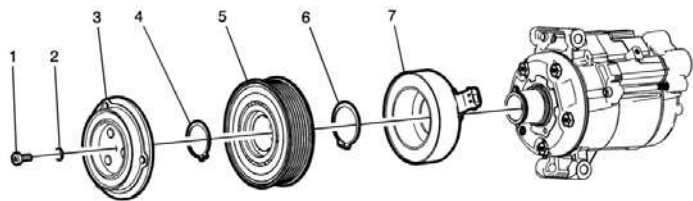
For equivalent regional tools, refer to Special Tools.

- 2
- Washer
- 3
- Air Conditioning Compressor Clutch
- 4
- Retaining Ring
- 5
- Air Conditioning Compressor Pulley
- 6
- Retaining Ring
- 7
- Tighten

4 Y (35 lb in)
- 8
- Washer
- 9
- Air Conditioning Compressor Coil

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Air Conditioning Clutch Replacement

Callout Component Name

Preliminary Procedure

Remove the air conditioning compressor. Refer to Air Conditioning Compressor Replacement.

Air Conditioning Compressor Clutch Bolt

Caution: Refer to Fastener Caution.

Procedure

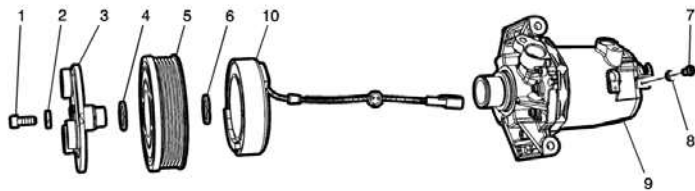
Use the CH-37872 A/C Clutch Hub Holder to hold the compressor clutch plate from turning when removing the bolt.

- | | |
|---|--|
| 1 | Tighten
14 Y (124 lb in)
Special Tools
CH-37872 A/C Clutch Hub Holder
For equivalent regional tools, refer to Special Tools. |
| 2 | Washer |
| 3 | Air Conditioning Compressor Clutch |
| 4 | Retaining Ring

Air Conditioning Compressor Pulley |
| 5 | Procedure
Use a pulley remover to remove the air conditioning compressor pulley. |
| 6 | Retaining Ring |
| 7 | Air Conditioning Compressor Coil |

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Air Conditioning Clutch Replacement

Callout Component Name

Preliminary Procedure

Remove the air conditioning compressor. Refer to Air Conditioning Compressor Replacement.

Air Conditioning Compressor Clutch Bolt

Caution: Refer to Fastener Caution.

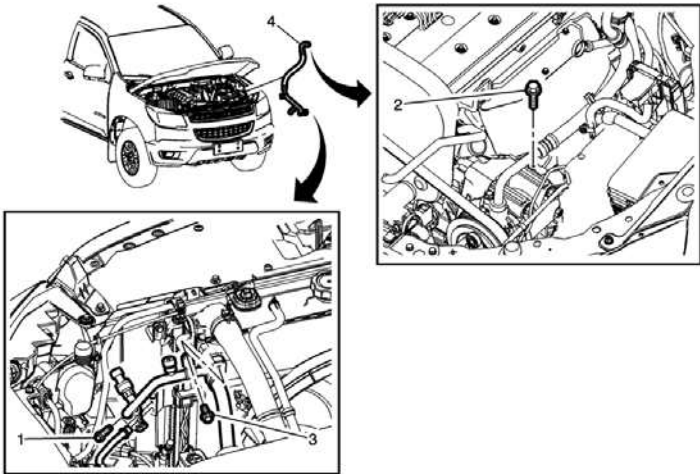
Procedure

Use the *DT-48280* holder to hold the compressor clutch plate from turning when removing the bolt.

- | | |
|----|---|
| 1 | Tighten
14 Y (124 lb in)
Special Tools
<i>DT-48280</i> Clutch Plate Holder
For equivalent regional tools, refer to Special Tools. |
| 2 | Air Conditioning Compressor Clutch Washer |
| 3 | Air Conditioning Compressor Clutch Plate |
| 4 | Retaining Ring |
| 5 | Air Conditioning Compressor Pulley |
| 6 | Retaining Ring |
| 7 | Air Conditioning Compressor Coil Bolt |
| 8 | Air Conditioning Compressor Coil Washer |
| 9 | Air Conditioning Compressor Coil Retainer |
| 10 | Air Conditioning Compressor Coil |

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Air Conditioning Compressor and Condenser Hose Replacement

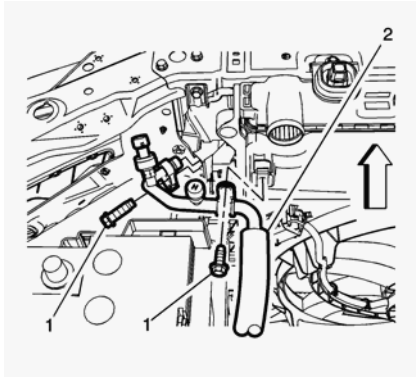
Callout	Component Name
Preliminary Procedure	
1.	Discharge and recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2.	Disconnect the pressure sensor harness connector from the pressure sensor on the air conditioning compressor and condenser hose.
Note: Always replace the compressor hose seals when servicing the air conditioning compressor hose assembly. Refer to Air Conditioning Compressor Hose Seal Replacement.	
	Air Conditioning Compressor and Condenser Hose Fastener
1	Caution: Refer to Fastener Caution. Tighten 20 Y (15 lb ft)
	Air Conditioning Compressor and Condenser Hose Retainer
2	Tighten 15 Y (11 lb ft)
	Air Conditioning Compressor and Condenser Hose Fastener
3	Tighten 20 Y (15 lb ft)
	Air Conditioning Compressor and Condenser Hose
4	Procedure Discard the old air conditioning compressor and condenser hose seals and replace with new seals.

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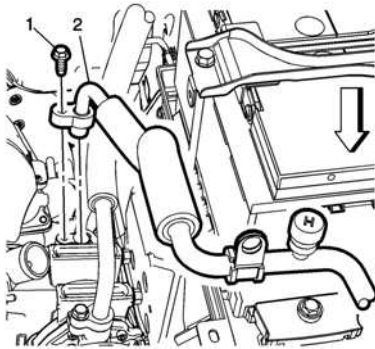
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.



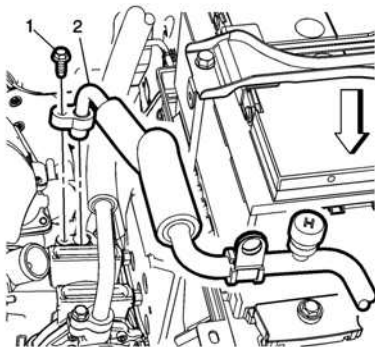
2. Remove the air conditioning compressor and condenser hose bolts (1) from the condenser and fan shroud.
3. Remove the air conditioning compressor and condenser hose (2) from the condenser and fan shroud.



4. Remove the air conditioning compressor and condenser hose bolt (1) from the compressor.
5. Remove the air conditioning compressor and condenser hose (2) from the compressor.
6. Remove the air conditioning compressor and condenser hose from the vehicle.
7. Remove and discard sealing washer. Refer to Air Conditioning System Seal Replacement
8. Remove the air conditioning (A/C) refrigerant pressure sensor. Refer to Air Conditioning (A/C) Refrigerant Pressure Sensor Replacement.

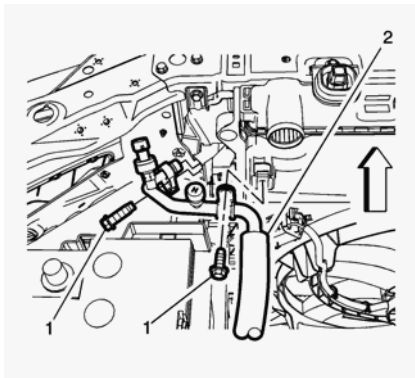
[Installation Procedure](#)

1. Install NEW sealing washer. Refer to Air Conditioning System Seal Replacement
2. Install the air conditioning compressor and condenser hose to the vehicle.



3. Install the air conditioning compressor and condenser hose (2) to the compressor.
4. Install the air conditioning compressor and condenser hose bolt (1) to the compressor and tighten to **22 Y (16 lb ft)**.

Air Conditioning Compressor and Condenser Hose Replacement (LP8)

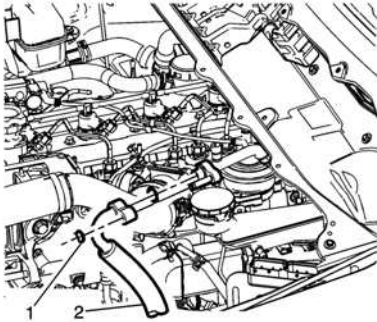


5. Install the air conditioning compressor and condenser hose (2) to the condenser and fan shroud.
6. Install the air conditioning compressor and condenser hose bolts (1) to the condenser and fan shroud and tighten to **9 Y (80 lb in)**.
7. Install the air conditioning (A/C) refrigerant pressure sensor. Refer to Air Conditioning (A/C) Refrigerant Pressure Sensor Replacement.
8. Evacuate and recharge the A/C system. Refer to Refrigerant Recovery and Recharging.

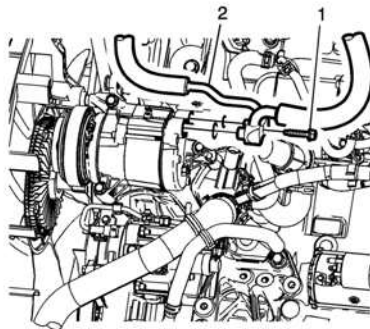
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

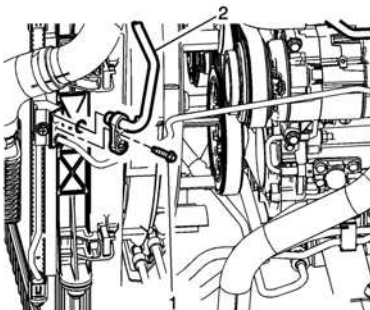
[Removal Procedure](#)



1. Discharge and recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Remove the intake manifold cover. Refer to Intake Manifold Cover Replacement.
3. Remove the air conditioning compressor and condenser hose fastener (1) from the air conditioning evaporator front tube.
4. Remove the air conditioning compressor and condenser hose (2) from the air conditioning evaporator front tube.

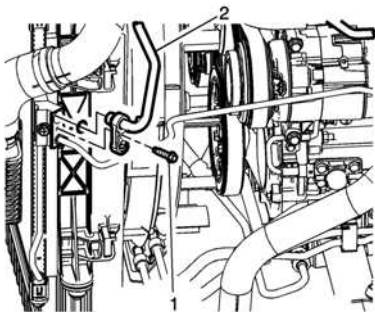


5. Remove the air conditioning compressor and condenser hose fastener (1) from the air conditioning compressor.
6. Remove the air conditioning compressor and condenser hose (2) from the compressor.

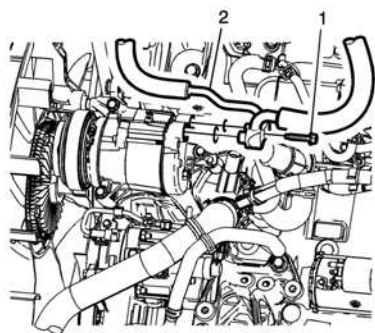


7. Remove the air conditioning compressor and condenser hose fastener (1) from the air conditioning condenser.
8. Remove the air conditioning compressor and condenser hose (2) from the vehicle.
9. Remove and discard sealing washers. Refer to Air Conditioning System Seal Replacement.

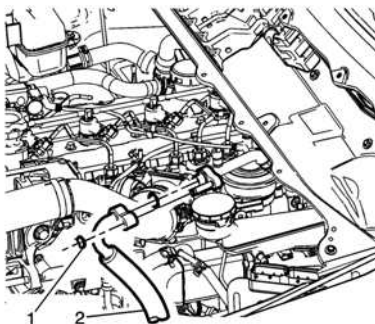
[Installation Procedure](#)



1. Install NEW sealing washers to the air conditioning compressor and condenser hose (2). Refer to Air Conditioning System Seal Replacement.
2. Install the air conditioning compressor and condenser hose (2) to the vehicle.
3. Install the air conditioning compressor and condenser hose (2) to the air conditioning condenser.
4. Install the air conditioning compressor and condenser hose fastener (1) to the air conditioning condenser and tighten to **22 Y (16 lb ft)**.



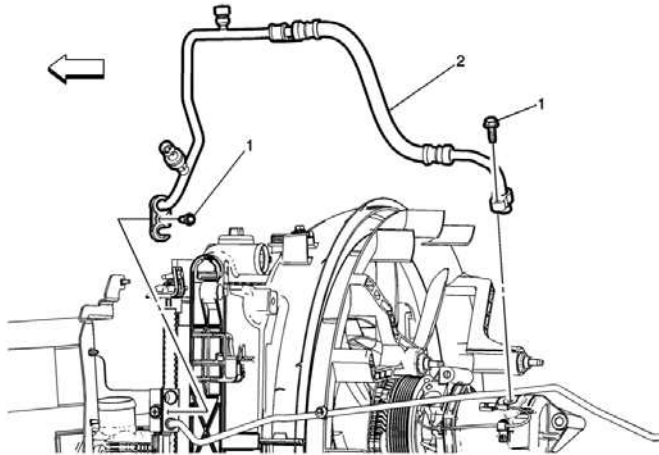
5. Install the air conditioning compressor and condenser hose (2) to the compressor.
6. Install the air conditioning compressor and condenser hose fastener (1) to the compressor and tighten to **22 Y (16 lb ft)**.



7. Install the air conditioning compressor and condenser hose (2) to the air conditioning evaporator front tube.
8. Install the air conditioning compressor and condenser hose fastener (1) to the air conditioning evaporator front tube and tighten to **22 Y (16 lb ft)**.
9. Evacuate and recharge the A/C system. Refer to Refrigerant Recovery and Recharging.

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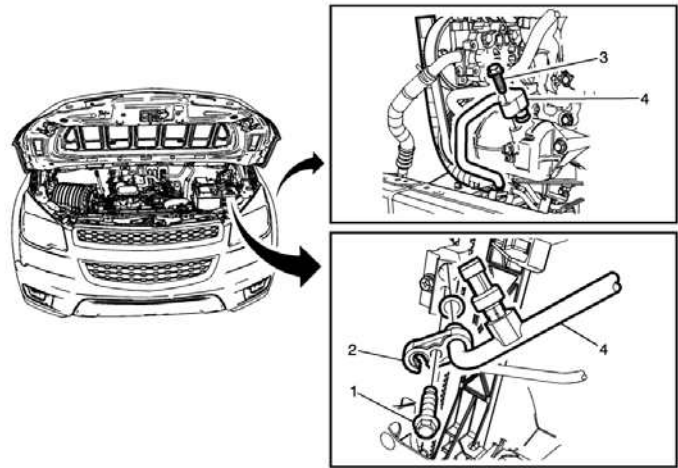


Air Conditioning Compressor and Condenser Hose Replacement

Callout	Component Name
Preliminary Procedures	
1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging. 2. Remove the Battery Tray. Refer to Battery Tray Replacement.	
	A/C Compressor and Condenser Hose Fasteners (Qty) 2
	Caution: Refer to Fastener Caution.
1	Tighten 20 Y (15 lb ft) A/C Compressor and Condenser Hose Assembly
	Procedure
2	1. Remove the A/C Compressor and Condenser Hose from the thermal expansion valve. 2. Remove and discard sealing washer. Refer to Air Conditioning System Seal Replacement.

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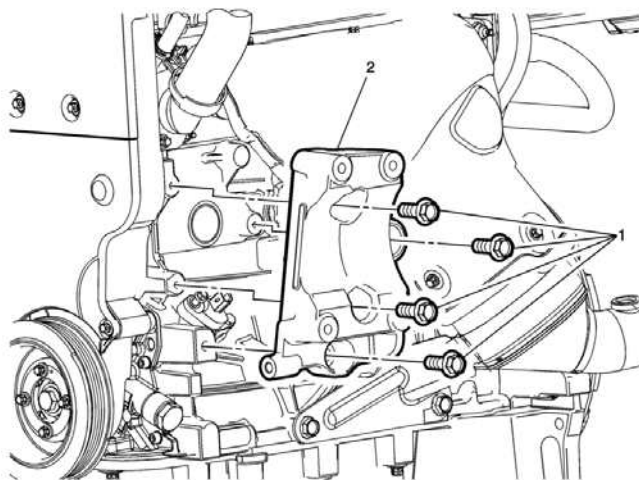


Air Conditioning Compressor and Condenser Hose Replacement

Callout	Component Name
Preliminary Procedure	
1. Discharge and recover the HVAC system. Refer to Refrigerant Recovery and Recharging.	
2. Remove the left front tire and wheel. Refer to Tire and Wheel Removal and Installation.	
3. Remove the left front wheelhouse liner. Refer to Front Wheelhouse Liner Replacement.	
4. Disconnect the pressure sensor harness connector.	
Note: Always replace the compressor hose seals when servicing the air conditioning compressor hose assembly. Refer to Air Conditioning Compressor Hose Seal Replacement.	
	Air Conditioning Compressor and Condenser Hose Fastener
1	Caution: Refer to Fastener Caution.
	Tighten
	20 Y (15 lb ft)
2	Air Conditioning Compressor and Condenser Hose Retainer
	Air Conditioning Compressor and Condenser Hose Fastener
3	Tighten
	20 Y (15 lb ft)
	Air Conditioning Compressor and Condenser Hose
4	Procedure
	Remove the fastener securing the air conditioning compressor and condenser hose to the radiator shroud.

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Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Air Conditioning Compressor Bracket Replacement

Callout	Component Name
Preliminary Procedure	

1. Remove the air conditioning compressor. Refer to Air Conditioning Compressor Replacement.
2. Remove the belt idler pulley. Refer to Belt Idler Pulley Replacement.

A/C Compressor Bracket Bolts (Qty: 4)

Caution: Refer to Fastener Caution.

1

Tighten

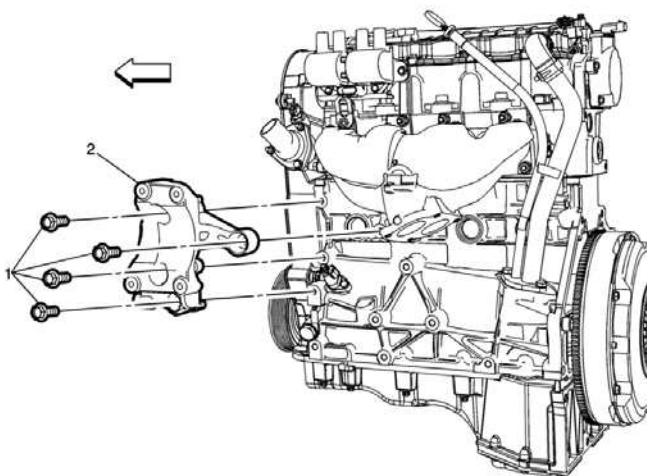
45 Y (33 lb ft)

2

A/C Compressor Bracket

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
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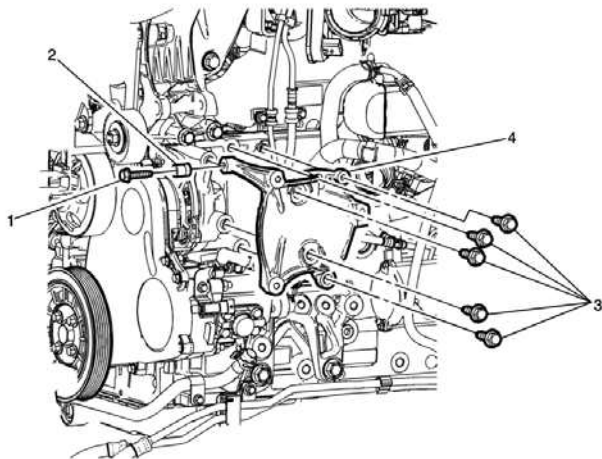


Air Conditioning Compressor Bracket Replacement

Callout	Component Name
Preliminary Procedure	
1. Remove the air conditioning compressor. Refer to Air Conditioning Compressor Replacement.	
2. Remove the belt idler pulley. Refer to Belt Idler Pulley Replacement.	
A/C Compressor Bracket Bolts (Qty: 4)	
Caution: Refer to Fastener Caution.	
1	Tighten
45 Y (33 lb ft)	
2	A/C Compressor Bracket

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Air Conditioning Compressor Bracket Replacement

Callout

Component Name

Preliminary Procedure

1. Remove the engine coolant fan lower shroud. Refer to Engine Coolant Fan Lower Shroud Replacement.
2. Remove the engine coolant fan upper shroud. Refer to Engine Coolant Fan Upper Shroud Replacement.
3. Remove the engine coolant shroud. Refer to Engine Coolant Fan Shroud Replacement.
4. Remove the compressor. Refer to Air Conditioning Compressor Replacement.
5. Remove the water inlet elbow from the water pump. Refer to Water Pump Inlet Pipe Replacement.

- | | |
|---|--------------------------------------|
| 1 | Fan Shroud Fastener |
| 2 | Fan Shroud Spacer |
| | A/C Compressor Bracket Bolts (Qty 5) |

- | | |
|---|--|
| 3 | Caution: Refer to Fastener Caution. |
|---|--|

Tighten

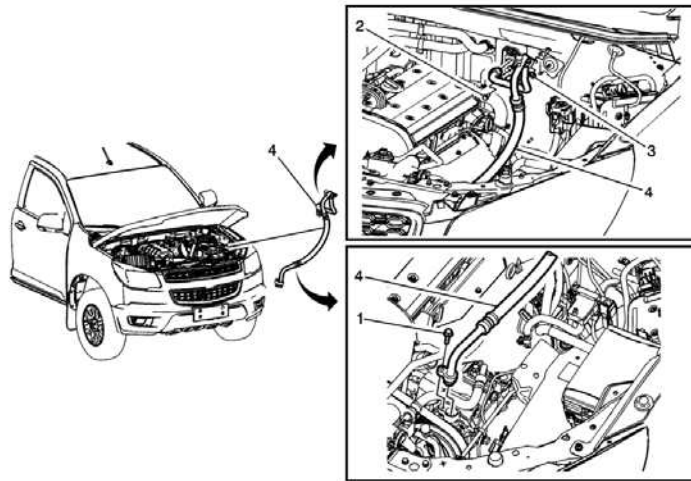
22 Y (16 lb ft)

- | | |
|---|------------------------|
| 4 | A/C Compressor Bracket |
|---|------------------------|

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Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning Compressor Hose Replacement

Callout

Component Name

Preliminary Procedure

Discharge and recover the refrigerant. Refer to Refrigerant Recovery and Recharging.

Note: Always replace the compressor hose seals when servicing the air conditioning compressor hose assembly. Refer to Air Conditioning Compressor Hose Seal Replacement.

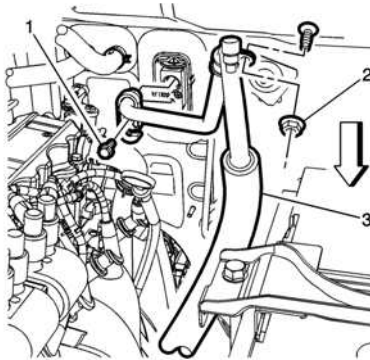
- | | |
|---|--|
| | A/C Compressor Hose Fastener |
| 1 | Caution: Refer to Fastener Caution. |
| | Tighten |
| | 20 Y (15 lb ft) |
| | A/C Compressor Hose Fastener |
| 2 | Tighten |
| | 20 Y (15 lb ft) |
| | Air Conditioning Compressor Hose Retainer Fastener |
| 3 | Tighten |
| | 15 Y (11 lb ft) |
| 4 | Air Conditioning Compressor Hose Assembly |

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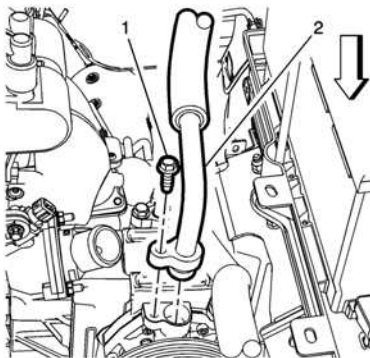
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.



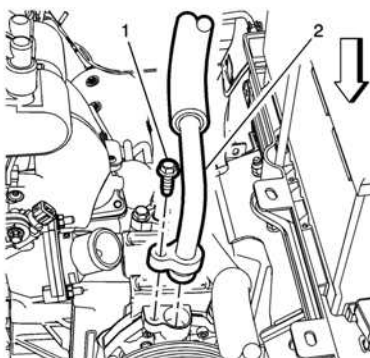
2. Remove the air conditioning compressor hose bolt (1) from the thermal expansion valve.
3. Remove the air conditioning compressor hose nut (2) from the cowl.
4. Remove the air conditioning compressor hose (3) from the thermal expansion valve and cowl.



5. Remove the air conditioning compressor hose bolt (1) from the air conditioning compressor.
6. Remove the air conditioning compressor hose (2) from the compressor.
7. Remove the air conditioning compressor hose from the vehicle.
8. Remove and discard sealing washer. Refer to Air Conditioning System Seal Replacement

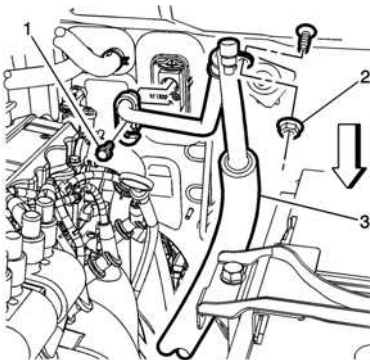
[Installation Procedure](#)

1. Install NEW sealing washer. Refer to Air Conditioning System Seal Replacement
2. Install the air conditioning compressor hose to the vehicle.



3. Install the air conditioning compressor hose (2) to the compressor.
4. Install the air conditioning compressor hose bolt (1) to the compressor and tighten to **22 Y (16 lb ft)**.

Air Conditioning Compressor Hose Replacement (LP8)

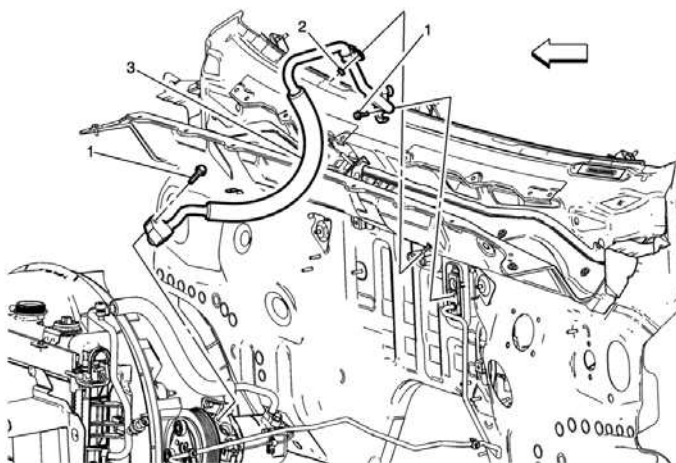


5. Install the air conditioning compressor and condenser hose (3) to the thermal expansion valve and cowl.
6. Install the air conditioning compressor hose nut (2) to the cowl and tighten to **9 Y (80 lb in)**.
7. Install the air conditioning compressor hose bolt (1) to the air conditioning compressor and tighten to **7 Y (62 lb in)**.
8. Evacuate and recharge the A/C system. Refer to Refrigerant Recovery and Recharging.

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Fuel Delivery: | Fuel:



Air Conditioning Compressor Hose Replacement

Callout

Component Name

Preliminary Procedures

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Remove the Battery Tray. Refer to Battery Tray Replacement.

A/C Compressor Hose Fasteners (Qty) 2

Caution: Refer to Fastener Caution.

1

Tighten

20 Y (15 lb ft)

A/C Compressor Hose Bracket Fastener.

2

Tighten

15 Y (11 lb in)

A/C Compressor Hose Assembly

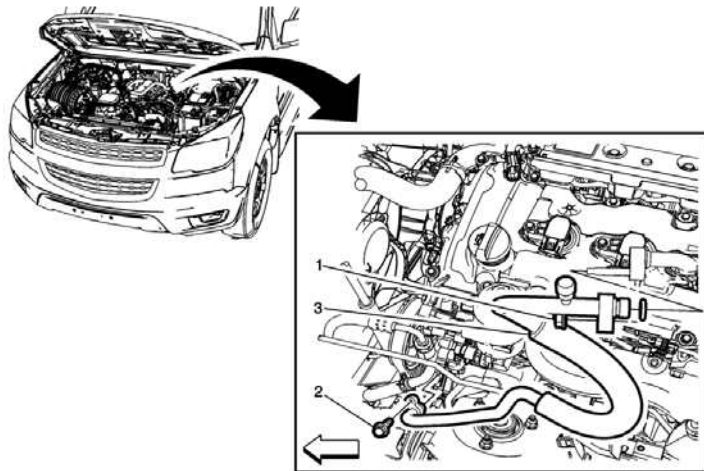
Procedure

3

1. Release the brake and fuel lines from the securing clip next to the thermal expansion valve and carefully position the lines out of the way.
2. Remove the A/C Compressor hose from the thermal expansion valve.
3. Remove and discard sealing washer. Refer to Air Conditioning System Seal Replacement.

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Fuel Delivery: | Fuel:



Air Conditioning Compressor Hose Replacement

Callout

Component Name

Preliminary Procedure

1. Discharge and recover the HVAC system. Refer to Refrigerant Recovery and Recharging.
2. Remove the left front tire and wheel. Refer to Tire and Wheel Removal and Installation.
3. Remove the left front wheelhouse liner. Refer to Front Wheelhouse Liner Replacement.

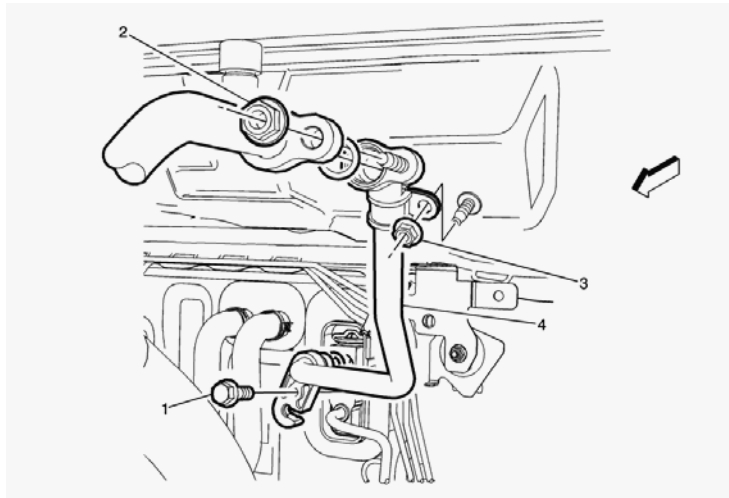
Note: Always replace the compressor hose seals when servicing the air conditioning compressor hose assembly. Refer to Air Conditioning Compressor Hose Seal Replacement.

- | | |
|---|---|
| | A/C Compressor Hose to Compressor Hose Fastener |
| 1 | Caution: Refer to Fastener Caution. |
| | Tighten |
| | 20 Y (15 lb ft) |
| | A/C Compressor Hose Fastener |
| 2 | Tighten |
| | 20 Y (15 lb ft) |
| 3 | Air Conditioning Compressor Hose Assembly |

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Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning Compressor Hose Replacement

Callout

Component Name

Preliminary Procedure

Discharge and recover the HVAC system. Refer to Refrigerant Recovery and Recharging.

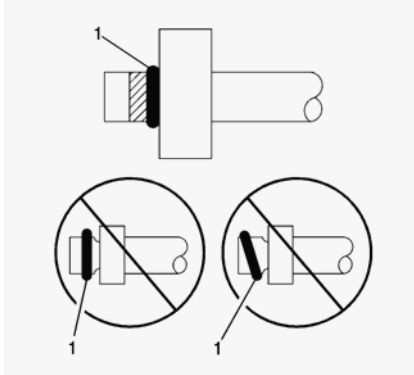
Note: Always replace the compressor hose seals when servicing the air conditioning compressor hose assembly. Refer to Air Conditioning Compressor Hose Seal Replacement.

- | | |
|---|--|
| | A/C Compressor Hose Fastener |
| 1 | Caution: Refer to Fastener Caution. |
| | Tighten |
| | 20 Y (15 lb ft) |
| | A/C Compressor Hose Fastener |
| 2 | Tighten |
| | 20 Y (15 lb ft) |
| | Air Conditioning Compressor Hose Retainer Fastener |
| 3 | Tighten |
| | 15 Y (11 lb ft) |
| 4 | Air Conditioning Compressor Hose Assembly |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

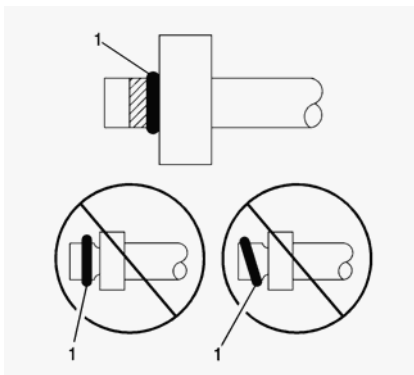


1. Remove the seal washer from the A/C refrigerant component.
 2. Inspect the seal washer for any signs of damage.
 3. Inspect the A/C refrigerant components for damage or burrs. Repair or replace as necessary.
- Note:** DO NOT reuse sealing washer.
4. Discard the sealing washer.

[Installation Procedure](#)

Note: Flat washer type seals do not require lubrication.

1. Inspect the new seal washer for any signs of cracks, cuts, or damage.
- Do not use a damaged seal washer.



2. Using a lint-free clean, dry cloth, clean the sealing surfaces of the A/C refrigerant components.
3. Carefully install the new seal washer onto the A/C refrigerant component.
4. The washer must completely bottom against the surface of the fitting.

Note: After tightening the A/C components, there should be a slight sealing washer gap of approximately 1.2 mm (3/64 in) between the A/C line and the A/C component.

5. Assemble the remaining A/C refrigerant components. Refer to the appropriate repair procedure.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Draining Procedure](#)

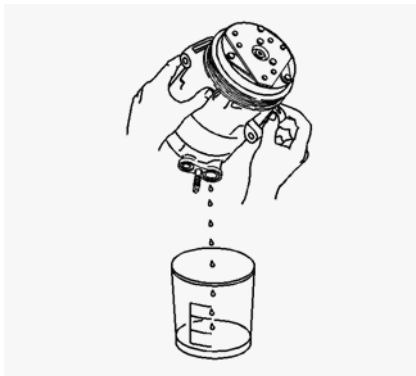
Note: Drain and measure as much of the refrigerant oil as possible from the removed compressor.

1. Remove the compressor crankcase oil drain plug and drain the crankcase into a clean, graduated container.



2. Drain the oil from both the suction and discharge ports of the removed compressor into the same container.
Rotate the compressor shaft to assist in draining the compressor.
3. Measure and record the amount of oil drained from the removed compressor.
This measurement will be used during installation of the replacement compressor.
4. Inspect oil drained from removed compressor. Refer to Air Conditioning Compressor Oil Diagnosis
5. Properly discard the used refrigerant oil.

[Balancing Procedure](#)



Note: The refrigerant oil in the A/C system must be balanced during compressor replacement.

The replacement compressor is shipped with 40 ml (1.4 fl. oz) of compressor manufacturers PAG Oil.

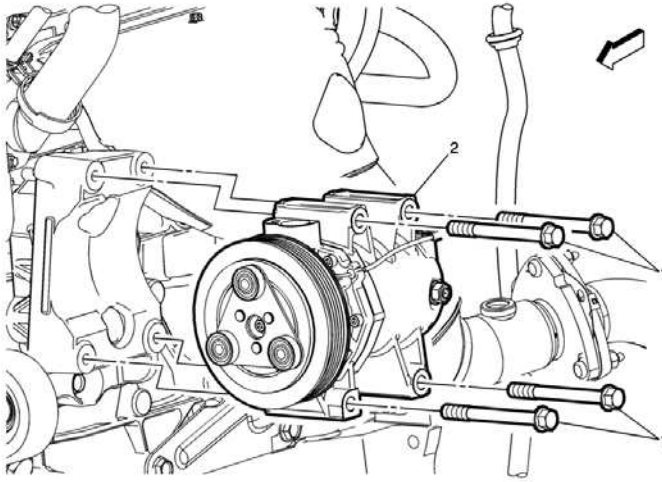
Service only with PAG oil. Refer to Refrigerant System Specifications for vehicle specific oil requirements.

1. Before installing the compressor, the refrigerant oil will have to be partially drained.
2. Refer to the amount of refrigerant oil recorded during the compressor removal.
3. If the amount of oil recorded from the removed compressor and the amount of oil removed during refrigerant recovery is less than or equal to 40 ml (1.4 fl. oz), no balancing is required.
4. Install the compressor as is. It contains 40 ml (1.4 fl. oz). Refer to Air Conditioning Compressor Replacement.
5. If the amount of oil recorded from the removed compressor is more than 40 ml (1.4 fl. oz), additional oil is required. Subtract 40 ml (1.4 fl. oz) from the sum of the removed oil (oil drained + oil recovered). Add this amount of service oil to the replacement compressor.
6. Install the compressor. Refer to Air Conditioning Compressor Replacement.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning Compressor Replacement

Callout

Component Name

Preliminary Procedure

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Remove the A/C compressor belt. Refer to Drive Belt Replacement.
3. Remove the air conditioning compressor and condenser hose. Refer to Air Conditioning Compressor and Condenser Hose Replacement.
4. Remove the air conditioning compressor hose. Refer to Air Conditioning Compressor Hose Replacement

A/C Compressor Bolts (Qty: 4)

Caution: Refer to Fastener Caution.

1

Tighten

50 Y (37 lb ft)

A/C Compressor

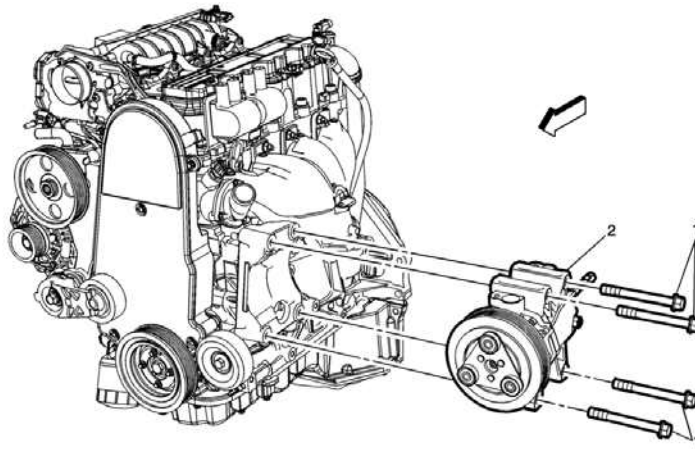
Procedure

2

1. Disconnect the air conditioning compressor electrical connector.
2. Remove and discard the air conditioning compressor and condenser hose, and air conditioning compressor hose seals. Refer to Air Conditioning System Seal Replacement.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Air Conditioning Compressor Replacement

Callout

Component Name

Preliminary Procedure

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Remove the A/C compressor belt. Refer to Drive Belt Replacement.
3. Remove the air conditioning compressor and condenser hose. Refer to Air Conditioning Compressor and Condenser Hose Replacement.
4. Remove the air conditioning compressor hose. Refer to Air Conditioning Compressor Hose Replacement
5. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.

A/C Compressor Bolts (Qty: 4)

Caution: Refer to Fastener Caution.

1

Tighten

50 Y (37 lb ft)

A/C Compressor

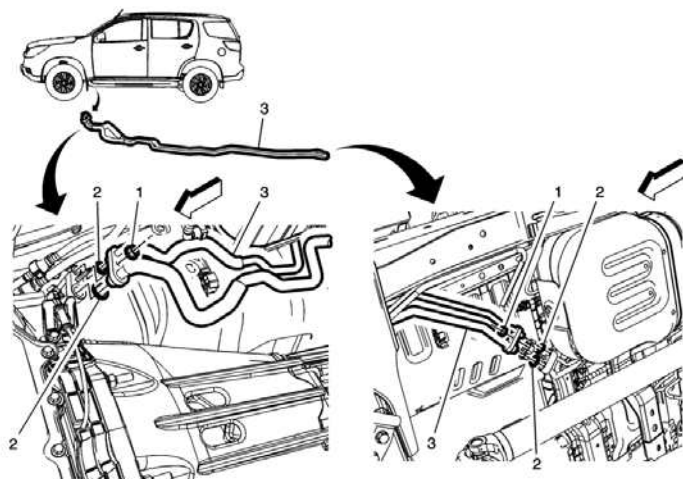
Procedure

2

1. Disconnect the air conditioning compressor electrical connector.
2. Remove and discard seal. Refer to Air Conditioning System Seal Replacement.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Air Conditioning Condenser and Air Conditioning Evaporator Tube Replacement - Front

Callout

Component Name

Preliminary Procedure

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.

Air Conditioning Condenser and Air Conditioning Evaporator Tube - Front Nuts (Qty: 2)

Caution: Refer to Fastener Caution.

1

Tighten

22 Y (16 lb ft)

Sealing Washers (QTY: 4)

2

Note: Always replace sealing washers with NEW sealing washers. Refer to Air Conditioning System Seal Replacement.

Air Conditioning Condenser and Air Conditioning Evaporator Tube - Front

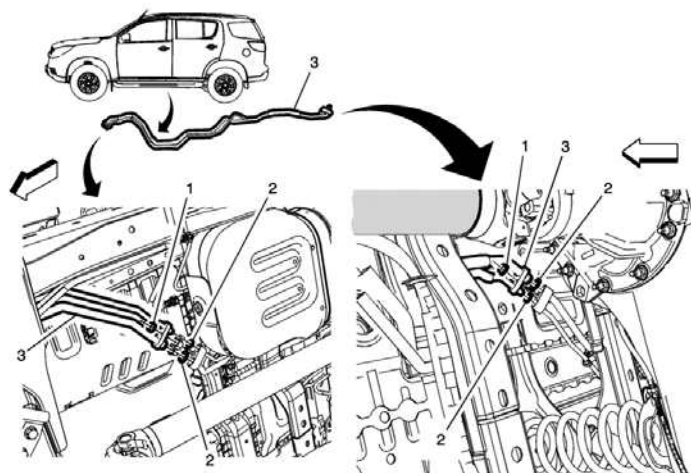
3

Procedure

Remove the air conditioning condenser and air conditioning evaporator tube - front from the retaining clips and remove from vehicle.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Air Conditioning Condenser and Air Conditioning Evaporator Tube Replacement - Intermediate

Callout

Component Name

Preliminary Procedure

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.

Air Conditioning Condenser and Air Conditioning Evaporator Tube - Intermediate Nuts (Qty: 2)

Caution: Refer to Fastener Caution.

1

Tighten

22 Y (16 lb ft)

Sealing Washers (QTY: 4)

2

Note: Always replace sealing washers with NEW sealing washers. Refer to Air Conditioning System Seal Replacement.

Air Conditioning Condenser and Air Conditioning Evaporator Tube - Intermediate

3

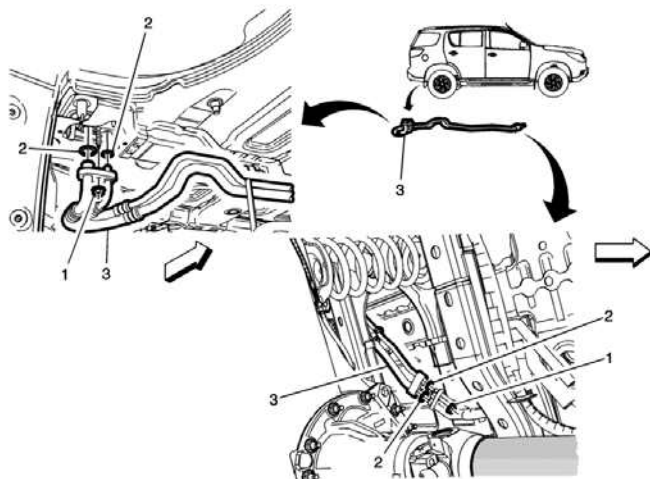
Procedure

Remove the air conditioning condenser and air conditioning evaporator tube - intermediate from the retaining clips and remove from vehicle.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning Condenser and Air Conditioning Evaporator Tube Replacement - Rear

Callout

Component Name

Preliminary Procedure

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.

Air Conditioning Condenser and Air Conditioning Evaporator Tube - Rear Nuts (Qty: 2)

Caution: Refer to Fastener Caution.

1

Tighten

22 Y (16 lb ft)

2

Sealing Washers (QTY: 4)

Note: Always replace sealing washers with NEW sealing washers. Refer to Air Conditioning System Seal Replacement.

Air Conditioning Condenser and Air Conditioning Evaporator Tube - Rear

3

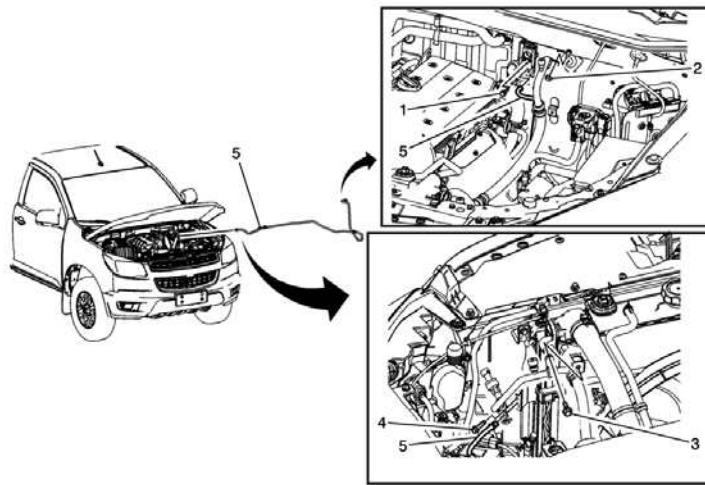
Procedure

Remove the air conditioning condenser and air conditioning evaporator tube - rear from the retaining clips and remove from vehicle.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning Condenser and Air Conditioning Evaporator Tube Replacement

Callout

Component Name

Preliminary Procedure

Discharge and recover the refrigerant. Refer to Refrigerant Recovery and Recharging.

Note: Always replace the evaporator seals when servicing the air conditioning compressor hose assembly. Refer to Air Conditioning Compressor Hose Seal Replacement.

Air Conditioning Condenser and Air Conditioning Evaporator Tube Bolt

1

Caution: Refer to Fastener Caution.

Tighten

20 Y (15 lb ft)

2

Air Conditioning Condenser and Air Conditioning Evaporator Tube Nut

3

Air Conditioning Condenser and Air Conditioning Evaporator Tube Bolt

4

Air Conditioning Condenser and Air Conditioning Evaporator Bolt

Air Conditioning Condenser and Air Conditioning Evaporator Tube

5

Procedure

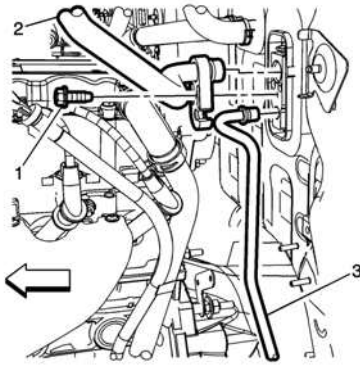
Discard the old air conditioning compressor and condenser evaporator tube seals and replace with new seals.

2013 Chevrolet Colorado

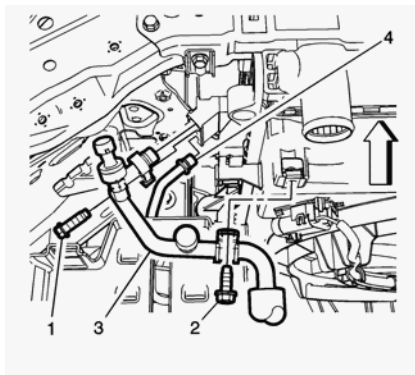
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.



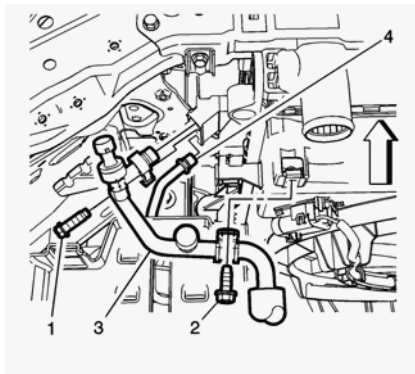
2. Remove the air conditioning compressor hose bolt (1) from the thermal expansion valve.
3. Remove the air conditioning compressor hose (2) from the thermal expansion valve and cowl.
4. Remove the air conditioning condenser and evaporator hose (3) from the thermal expansion valve.



5. Remove the air conditioning compressor and condenser hose bolt (1) from the condenser.
6. Remove the air conditioning compressor and condenser hose bolt (2) from the fan shroud.
7. Remove the air conditioning compressor and condenser hose (3) from the condenser and fan shroud.
8. Remove the air conditioning condenser and evaporator hose (4) from the condenser.
9. Unclip from retainers and remove the air conditioning condenser and evaporator hose from the vehicle.
10. Remove and discard sealing washer. Refer to Air Conditioning System Seal Replacement

Installation Procedure

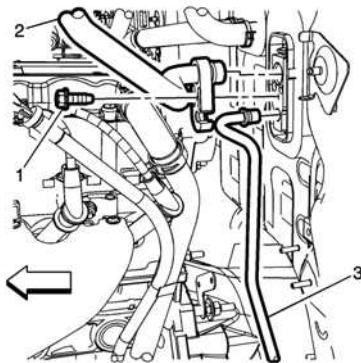
1. Install NEW sealing washer. Refer to Air Conditioning System Seal Replacement



2. Clip to retainers and install the air conditioning condenser and evaporator hose to the vehicle.

Air Conditioning Condenser and Air Conditioning Evaporator Tube Replacement (LP8)

3. Install the air conditioning condenser and evaporator hose (4) to the condenser.
4. Install the air conditioning compressor and condenser hose (3) to the condenser and fan shroud.
5. Install the air conditioning compressor and condenser hose bolt (2) to the fan shroud and tighten to **9 Y (80 lb in)**.
6. Install the air conditioning compressor and condenser hose bolt (1) to the condenser and tighten to **9 Y (80 lb in)**.

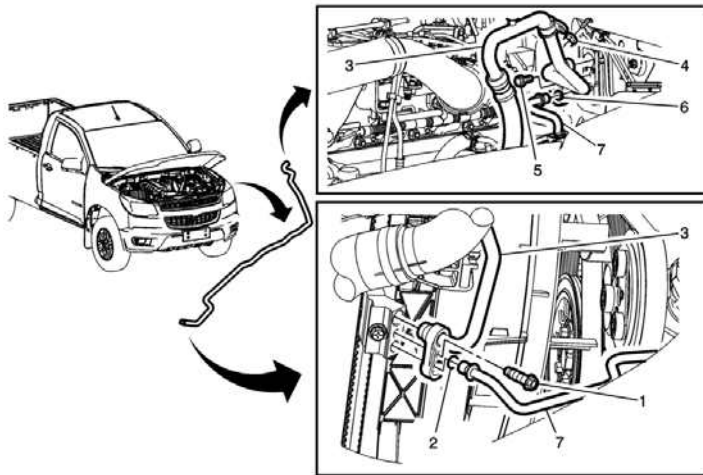


7. Install the air conditioning condenser and evaporator hose (3) to the thermal expansion valve.
8. Install the air conditioning compressor hose (2) to the thermal expansion valve and cowl.
9. Install the air conditioning compressor hose bolt (1) to the thermal expansion valve and tighten to **7 Y (62 lb in)**.
10. Evacuate and recharge the A/C system. Refer to Refrigerant Recovery and Recharging.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning Condenser and Air Conditioning Evaporator Tube Replacement

Callout

Component Name

Preliminary Procedures

1. Discharge and recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Remove the Battery Tray. Refer to Battery Tray Replacement.

Note: Always replace the evaporator seals when servicing the air conditioning compressor hose.

- | | |
|---|---|
| 1 | Air Conditioning Compressor and Condenser Hose Bolt

Air Conditioning Compressor and Evaporator Tube Seal |
|---|---|

- | | |
|---|--|
| 2 | Procedure
Discard the old air conditioning compressor and evaporator seals and replace with new seals when servicing the air conditioning compressor hose. |
|---|--|

- | | |
|---|--|
| 3 | Air Conditioning Compressor and Condenser Hose |
|---|--|

- | | |
|---|--|
| 4 | Air Conditioning Compressor and Condenser Hose Nut |
|---|--|

- | | |
|---|---|
| 5 | Air Conditioning Compressor and Condenser Hose Bolt

Air Conditioning Compressor and Evaporator Tube Seal |
|---|---|

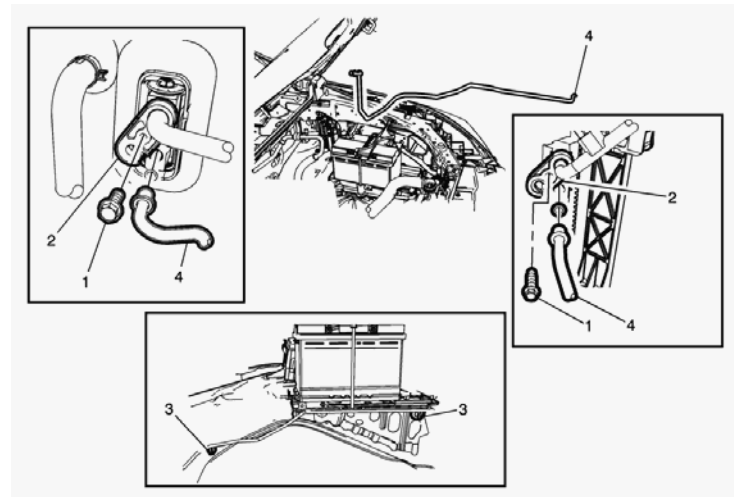
- | | |
|---|--|
| 6 | Procedure
Discard the old air conditioning compressor and evaporator seals and replace with new seals when servicing the air conditioning compressor hose. |
|---|--|

- | | |
|---|---|
| 7 | Air Conditioning Compressor and Evaporator Tube |
|---|---|

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning Condenser and Air Conditioning Evaporator Tube Replacement

Callout

Component Name

Preliminary Procedure

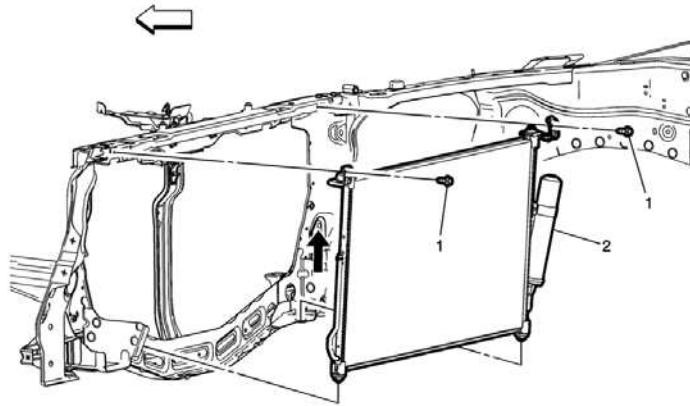
Discharge and recover the HVAC system. Refer to Refrigerant Recovery and Recharging.

Note: Always replace the evaporator seals when servicing the air conditioning compressor hose assembly. Refer to Air Conditioning Compressor Hose Seal Replacement.

- | | |
|---|---|
| | Air Conditioning Condenser and Air Conditioning Evaporator Tube Fastener (Qty: 2) |
| 1 | Caution: Refer to Fastener Caution. |
| | Tighten |
| | 20 Y (15 lb ft) |
| | Air Conditioning Condenser and Air Conditioning Evaporator Tube Retainer (Qty: 2) |
| 2 | Procedure |
| | Rotate the retainer clockwise in order to release the air conditioning condenser and air conditioning evaporator tube. |
| | C-clip retainers (Qty: 2) |
| 3 | Procedure |
| | Disengage the air conditioning condenser and air conditioning evaporator tube by lifting the tube upward out of the retainer. |
| 4 | Air Conditioning Condenser and Air Conditioning Evaporator Tube |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Air Conditioning Condenser Replacement

Callout

Component Name

Preliminary Procedures

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Remove the AC Compressor and Condenser Hose from condenser . Refer to Air Conditioning Compressor and Condenser Hose Replacement.
3. Remove the AC Evaporator Hose from condenser. Refer to Air Conditioning Condenser and Air Conditioning Evaporator Tube Replacement.
4. Remove the radiator. Refer to Radiator Replacement.

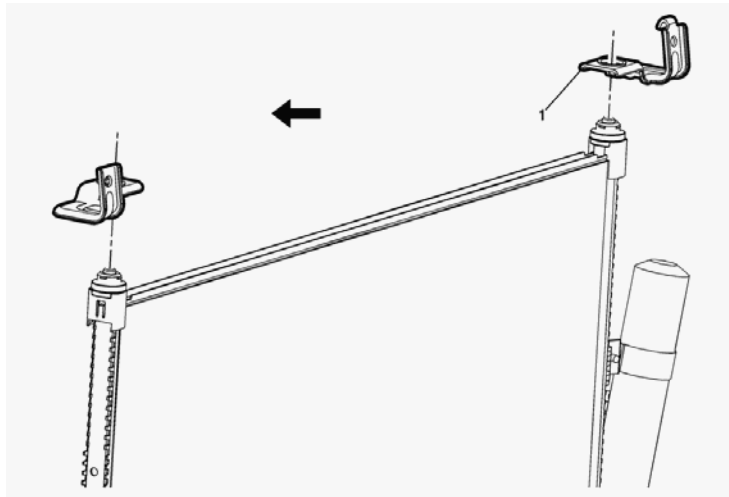
1 Air Conditioning Condenser Fasteners (Qty: 2)

Caution: Refer to Fastener Caution.

2 Air Conditioning Condenser Assembly

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Air Conditioning Condenser Upper Bracket Replacement

Callout

Component Name

Preliminary Procedure

Remove the Condenser. Refer to: Air Conditioning Condenser Replacement

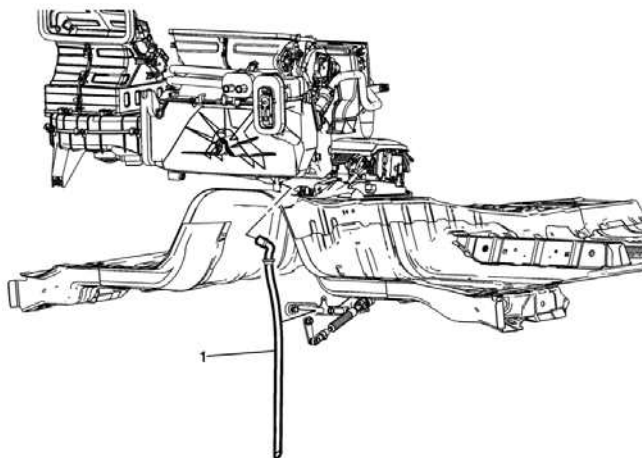
1

Air Conditioning Condenser Bracket

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning Evaporator and Blower Module Drain Hose Replacement

Callout

Component Name

Preliminary Procedure

Reposition carpet and pad from evaporator drain hose area.

Evaporator Drain Hose

1

Procedure

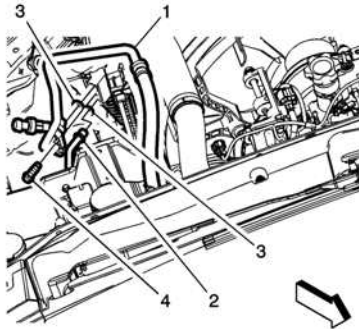
Remove hose from the HVAC module. Then remove drain hose from under vehicle.

2013 Chevrolet Colorado

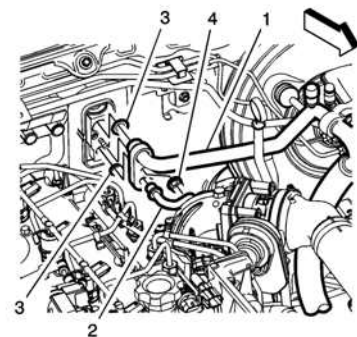
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

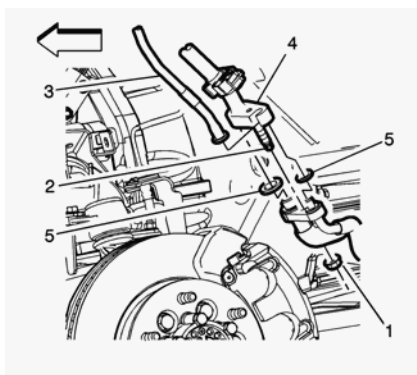
1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Remove the intake manifold cover. Refer to Intake Manifold Cover Replacement.
3. Remove the battery tray. Refer to Battery Tray Replacement.



4. Remove the air conditioning compressor and condenser hose low pressure (1) from the condenser. Refer to Air Conditioning Compressor and Condenser Hose Replacement.
5. Remove the air conditioning evaporator front tube high pressure (2) from the condenser.
6. Remove and discard the sealing washer (3). Refer to Air Conditioning System Seal Replacement.

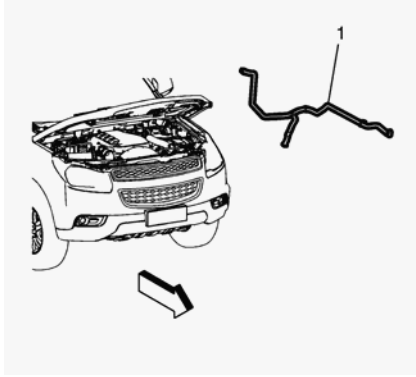


7. Remove the air conditioning evaporator front tube low pressure (1) from the thermal expansion valve. Refer to Air Conditioning Evaporator Front Tube Replacement - Low Pressure.
8. Remove the air conditioning evaporator front tube high pressure (2) from the thermal expansion valve.
9. Remove and discard the sealing washer (3). Refer to Air Conditioning System Seal Replacement.
10. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.



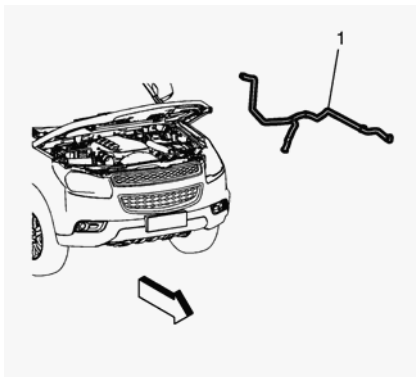
11. Remove the air conditioning evaporator front tube nut (1) from the air conditioning evaporator front tube stud (2). Refer to Air Conditioning Evaporator Front Tube Replacement - Low Pressure.

12. Remove the air conditioning evaporator front tube high pressure (3) from the air conditioning evaporator front tube (4).
13. Remove and discard the sealing washers (5). Refer to Air Conditioning System Seal Replacement.

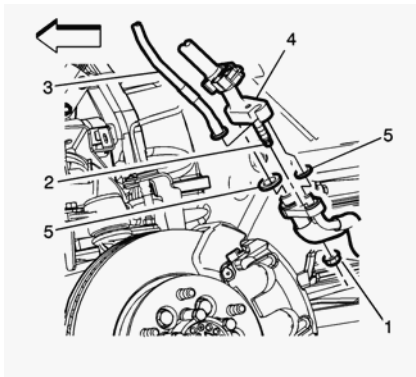


14. Remove the air conditioning evaporator front tube high pressure (1) from the retaining clips and remove from the vehicle through the wheelhouse.

[Installation Procedure](#)

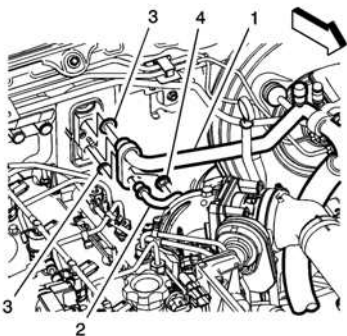


1. Install the air conditioning evaporator front tube high pressure (1) to the vehicle through the wheelhouse.
2. Install the air conditioning evaporator front tube high pressure (1) to the retaining clips.

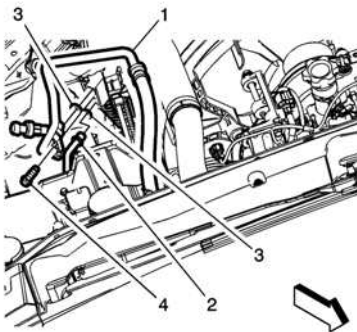


3. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
 4. Install new sealing washers (5). Refer to Air Conditioning System Seal Replacement.
 5. Install the air conditioning evaporator front tube high pressure (3) to the air conditioning evaporator front tube (4).
- Caution:** Refer to Fastener Caution.
6. Install the air conditioning evaporator front tube low pressure nut (1) to the air conditioning evaporator front tube stud (2). Refer to Air Conditioning Evaporator Front Tube Replacement - Low Pressure.
 7. Lower the vehicle.

Air Conditioning Evaporator Front Tube Replacement - High Pressure (with C69)



8. Install new sealing washers (3). Refer to Air Conditioning System Seal Replacement.
9. Install the air conditioning evaporator front tube high pressure (2) to the thermal expansion valve.
10. Install the air conditioning evaporator front tube low pressure (1) to the thermal expansion valve. Refer to Air Conditioning Evaporator Front Tube Replacement - Low Pressure.



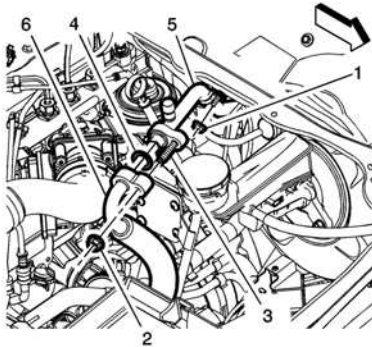
11. Install new sealing washers (3). Refer to Air Conditioning System Seal Replacement.
12. Install the air conditioning evaporator front tube high pressure (2) to the condenser.
13. Install the air conditioning compressor and condenser hose low pressure (1) to the condenser. Refer to Air Conditioning Compressor and Condenser Hose Replacement.
14. Install the battery tray. Refer to Battery Tray Replacement.
15. Install the intake manifold cover. Refer to Intake Manifold Cover Replacement.
16. Evacuate and recharge the air conditioning system. Refer to Refrigerant Recovery and Recharging.
17. Check the air conditioning system for leaks. Refer to Leak Testing.

2013 Chevrolet Colorado

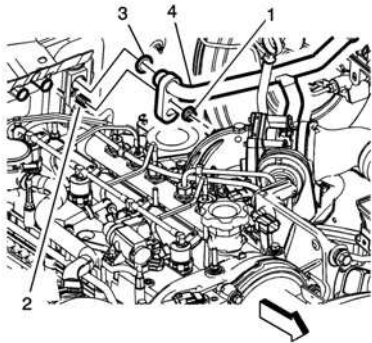
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

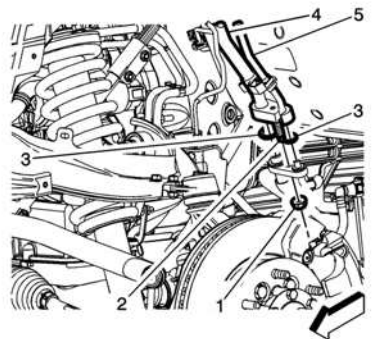
1. Remove the intake manifold cover. Refer to Intake Manifold Cover Replacement.
2. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.



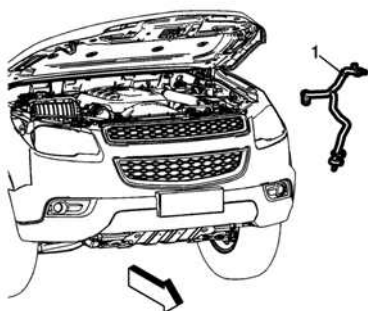
3. Remove the air conditioning evaporator front tube mounting nut (1) from the cowl panel.
4. Remove the air conditioning evaporator front tube nut (2) from the air conditioning evaporator front tube stud (3).
5. Remove and discard the sealing washer (4). Refer to Air Conditioning System Seal Replacement.
6. Remove the air conditioning compressor and condenser hose (6) from the air conditioning evaporator front tube low pressure (5).



7. Remove the air conditioning evaporator front tube nut (1) from the thermal expansion valve stud (2).
8. Remove and discard the sealing washer (3). Refer to Air Conditioning System Seal Replacement.
9. Remove the air conditioning evaporator front tube low pressure (4) from the thermal expansion valve.

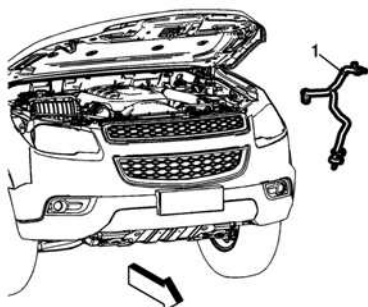


10. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
11. Remove the air conditioning evaporator front tube nut (1) from the air conditioning evaporator front tube stud (2).
12. Remove and discard the sealing washers (3). Refer to Air Conditioning System Seal Replacement.
13. Remove the air conditioning evaporator front tube from the air conditioning condenser (5) from the air conditioning evaporator front tube (4).

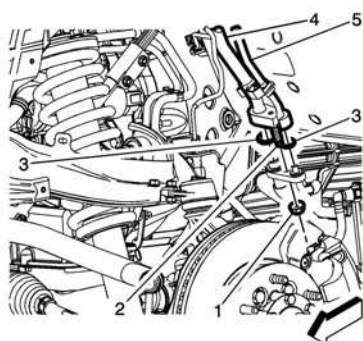


14. Remove the air conditioning evaporator front tube low pressure (1) from the retaining clips and remove from the vehicle.

[Installation Procedure](#)



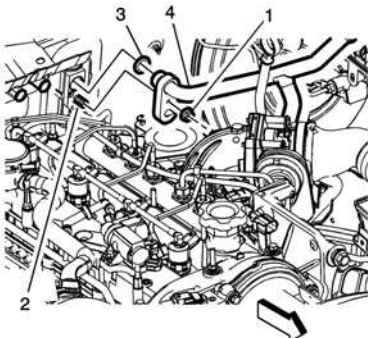
1. Install the air conditioning evaporator front tube low pressure (1) to the vehicle.
2. Install to the air conditioning evaporator front tube low pressure (1) to the retaining clips.



3. Install new sealing washers (3). Refer to Air Conditioning System Seal Replacement.
4. Install the air conditioning evaporator front tube high pressure (5) to the air conditioning evaporator front tube (4).

Caution: Refer to Fastener Caution.

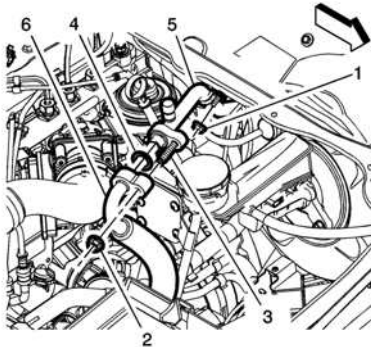
5. Install the air conditioning evaporator front tube nut (1) to the air conditioning evaporator front tube stud (2) and tighten to **22 Y (16 lb ft)**.



6. Install new sealing washer (3). Refer to Air Conditioning System Seal Replacement.
7. Install the air conditioning evaporator front tube low pressure (4) to the thermal expansion valve.

Air Conditioning Evaporator Front Tube Replacement - Low Pressure (with C69)

8. Install the air conditioning evaporator front tube nut (1) to the thermal expansion valve stud (2) and tighten to **22 Y (16 lb ft)**.

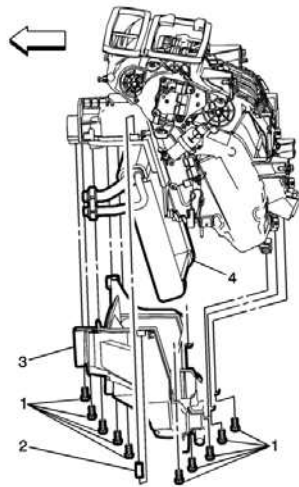


9. Install new sealing washer (4). Refer to Air Conditioning System Seal Replacement.
10. Install the air conditioning compressor and condenser hose (6) to the air conditioning evaporator front tube low pressure (5).
11. Install the air conditioning evaporator front tube mount nut (2) to the air conditioning evaporator front tube stud (3) and tighten to **22 Y (16 lb ft)**.
12. Install the air conditioning evaporator front tube nut (1) to the cowl panel and tighten to **8 Y (70 lb in)**.
13. Evacuate and recharge the air conditioning system. Refer to Refrigerant Recovery and Recharging.
14. Check the air conditioning system for leaks. Refer to Leak Testing.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning Evaporator Replacement

Callout

Component Name

Preliminary Procedures

1. Remove the heater and air conditioning evaporator and blower module. Refer to Air Conditioning and Heater Module Assembly Removal and Installation.
2. Remove the blower assembly from the air conditioning evaporator and blower module. Refer to Blower Assembly Replacement.

1 Heater and Air Conditioning Evaporator and Blower Module Case Screw (Qty: 10)

Caution: Refer to Fastener Caution.

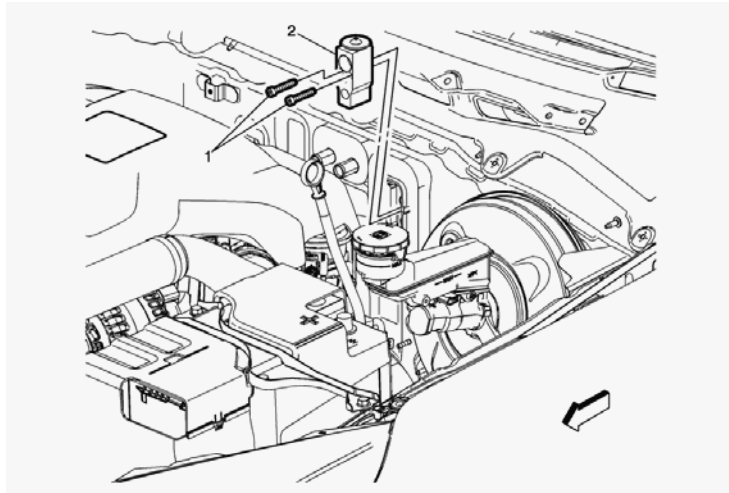
2 Heater and Air Conditioning Evaporator and Blower Module Case Clip

3 Heater and Air Conditioning Evaporator and Blower Module Lower Case

4 Air Conditioning Evaporator Core

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Air Conditioning Evaporator Thermal Expansion Valve Replacement

Callout

Component Name

Preliminary Procedures

1. Remove the cowl front panel. Refer to Cowl Front Panel Replacement.
2. Remove the air conditioning compressor hose from the thermal expansion valve. Refer to Air Conditioning Compressor Hose Replacement.
3. Remove the heater inlet hose from the inlet pipe, if equipped. Refer to Heater Inlet Hose Replacement.
4. Remove the heater outlet hose from the outlet pipe, if equipped. Refer to Heater Outlet Hose Replacement.

1 Thermal Expansion Valve Fastener (Qty: 2)

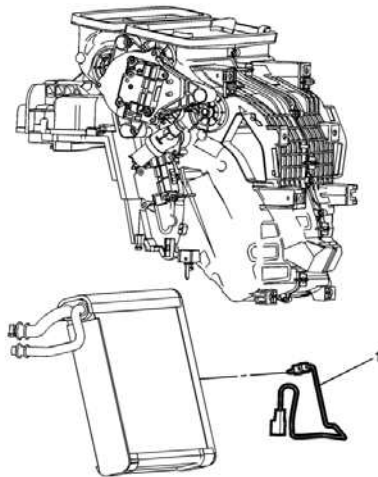
Caution: Refer to Fastener Caution.

2 Air Conditioning Evaporator Thermal Expansion Valve

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Air Conditioning Refrigerant Temperature Sensor Replacement

Callout

Component Name

Preliminary Procedures

1. Remove the heater and air conditioning evaporator and blower module. Refer to Air Conditioning and Heater Module Assembly Removal and Installation.
2. Remove the air conditioning evaporator. Refer to Air Conditioning Evaporator Replacement.
3. Disconnect the heater and air conditioning evaporator and blower module assembly electrical connectors.

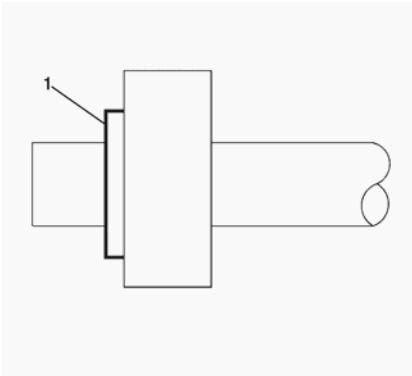
1 Air Conditioning Evaporator Refrigerant Temperature Sensor

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

1. Disassemble the A/C refrigerant components. Refer to the appropriate repair procedure.
Note: Cap or tape the open A/C refrigerant components immediately to prevent system contamination.
2. Cap or tape the A/C refrigerant components.

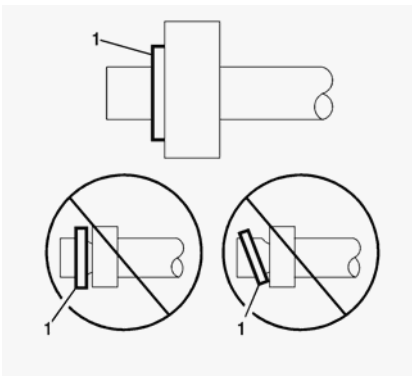


3. Remove the sealing washer (1) from the A/C refrigerant component.
4. Inspect the seal washer for signs of damage to help determine the root cause of the failure.
5. Inspect the A/C refrigerant components for damage or burrs. Repair if necessary.
Note: DO NOT reuse sealing washer.
6. DISCARD the sealing washer.

Installation Procedure

Note: Flat washer type seals do not require lubrication.

1. Inspect the new sealing washer for any signs of cracks, cuts, or damage.
Do not use a damaged sealing washer.
2. Remove the cap or tape from the A/C refrigerant components.



3. Using a lint-free clean, dry cloth, clean the sealing surfaces of the A/C refrigerant components.
4. Carefully install the NEW sealing washer (1) onto the A/C refrigerant component.

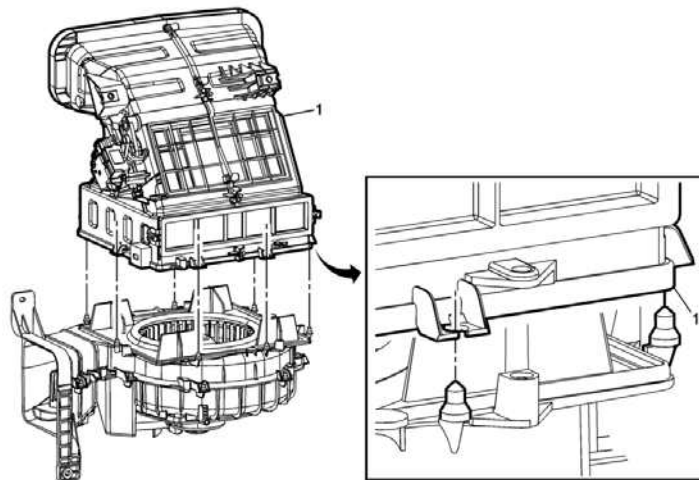
The sealing washer (1) must completely bottom against the surface of the fitting.

Note: After tightening the A/C components, there should be a slight sealing gap of approximately 1.2 mm (3/64 in) between the A/C line and the A/C component.

5. Assemble the remaining A/C refrigerant components. Refer to the appropriate repair procedure.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Air Inlet Replacement

Callout

Component Name

Preliminary Procedure

Remove the blower assembly. Refer to Blower Assembly Replacement.

Air Inlet Housing

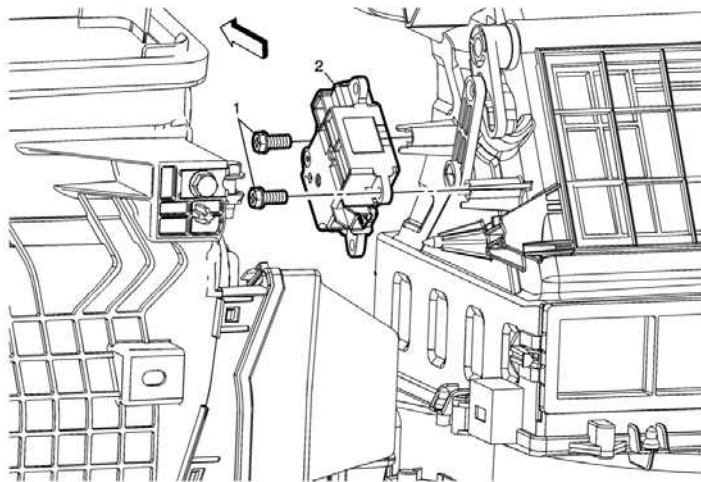
1

Procedure

Use a flat-bladed plastic trim tool to release the 7 retainers securing the blower motor housing to the air inlet housing.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Air Inlet Valve Actuator Replacement

Callout

Component Name

Preliminary Procedures

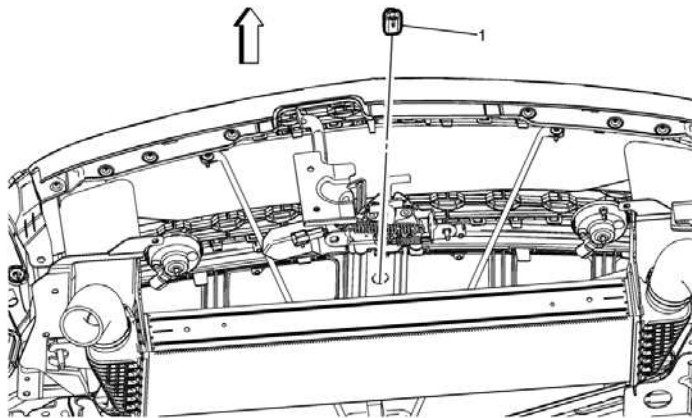
Remove the instrument lower panel. Refer to Instrument Lower Panel Replacement.

- | | |
|---|--|
| 1 | Inlet Valve Actuator Fastener (Qty: 2) |
| 2 | Inlet Valve Actuator |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Ambient Air Temperature Gauge Sensor Replacement

Callout

Component Name

Preliminary Procedure

Remove radiator grille support Refer to. Front Grille Support Reinforcement Replacement.

Ambient Air Temperature Sensor

Procedure

1

1. Disconnect the electrical connector.
2. Unsnap the temperature sensor.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

The air temperature and the air delivery description and operation are divided into eight areas:

- HVAC Control Components
- Air Speed
- Air Delivery
- Heating and A/C Operation
- Air Recirculation Operation
- Automatic Operation
- Engine Coolant
- A/C Cycle

[HVAC Control Components](#)

HVAC Control Module

The HVAC control module is a GMLAN device that interfaces between the operator and the HVAC system to maintain and control desired air temperature and air distribution settings. The battery positive voltage circuit provides power that the HVAC control module uses for keep alive memory. If the battery positive voltage circuit loses power, all HVAC DTCs and settings will be erased from keep alive memory. The body control module (BCM), which is the vehicle mode master, provides a device ON-Signal. The HVAC control module provides blower, air delivery mode and air temperature settings.

Mode Actuator

The mode actuator is a 3-wire actuator. The HVAC control module supplies a 12 V reference voltage and ground to the actuator. The HVAC control module and the actuator communicate via LIN-Bus in order to set the distribution flap to the desired position.

Air Temperature Actuator

The air temperature actuator is a 3-wire actuator. The HVAC control module supplies a 12 V reference voltage and ground to the actuator. The HVAC control module and the actuator communicate via LIN-Bus in order to set the air temperature flap to the desired position.

Air Recirculation Actuator

The air recirculation actuator is a 3-wire actuator. The HVAC control module supplies a 12 V reference voltage and ground to the actuator. The HVAC control module and the actuator communicate via LIN-Bus in order to set the air recirculation flap to the desired position.

Blower Motor Control Module

The blower motor control module is an interface between the HVAC control module and the blower motor. The blower motor speed control, blower motor feedback, power supply, and ground circuits enable the control module to operate. The HVAC control module provides a pulse width modulation (PWM) signal to the blower motor control module in order to command the blower motor speed. The blower motor control module transfers the PWM signal into a corresponding blower motor voltage.

A/C Evaporator Temperature Sensor

The A/C evaporator temperature sensor is a 2-wire negative temperature co-efficient thermistor. The sensor operates within a temperature range of -44 to $+100^{\circ}\text{C}$ (-47 to $+212^{\circ}\text{F}$). The sensor is installed at the evaporator and measures its temperature. If the temperature drops under 3°C (38°F), the compressor will be switched off in order to prevent a frozen evaporator.

Inside Air Temperature Sensor

The inside air temperature sensor is a 2-wire negative temperature co-efficient thermistor. A signal and low reference circuit enables the sensor to operate. As the air temperature surrounding the sensor increases, the sensor resistance decreases. The sensor signal voltage decreases as the resistance decreases. The sensor operates within a temperature range between -44 to $+100^{\circ}\text{C}$ (-47 to $+212^{\circ}\text{F}$). The sensor signal varies between 0–5 V.

A/C Refrigerant Pressure Sensor

The A/C refrigerant pressure sensor is a 3-wire piezoelectric pressure transducer. A 5 V reference voltage, low reference, and signal circuits enable the sensor to operate. The A/C pressure signal can be between 0.2–4.8 V. When the A/C refrigerant pressure is low, the signal value is near 0 V. When the A/C refrigerant pressure is high, the signal value is near 5 V. The engine control module (ECM) converts the voltage signal to a pressure value. When pressure is too high or too low, the ECM will not allow the A/C compressor clutch to engage.

A/C Compressor

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. When the A/C switch is pressed, the HVAC control module sends an A/C request message to the body control module (BCM). The BCM sends this message to the ECM via CAN-Bus. Therefore the ECM grounds the A/C compressor clutch relay control circuit, which will switch the A/C compressor clutch relay. With the relay contacts closed, battery voltage is supplied to the A/C compressor clutch. The A/C compressor clutch will be activated.

Sunload Sensor

The sunload sensor is a 2-wire photo diode. Low reference and signal circuits enable the sensor to operate. As the light shining upon the sensor gets brighter, the sensor resistance increases. The sensor signal decreases as the resistance increases. The sensor operates within an intensity range between completely dark and bright. The sensor signal varies between 0–5 V.

The sunload sensor provides the HVAC control module a measurement of the amount of light shining on the vehicle. Bright, or high intensity, light causes the vehicles inside temperature to increase. The HVAC system compensates for the increased temperature by diverting additional cool air into the vehicle.

[Air Speed](#)

The blower control switches are part of the HVAC control module.

The blower motor control module is an interface between HVAC control module and blower motor. The HVAC control module provides a PWM signal to the blower motor control module in order to command the desired blower motor speed. The blower motor control module uses the blower motor ground as a low side control to adjust the blower motor speed. The voltage amounts between 2–13 V and changes linear to the height of the PWM signal.

Air Delivery

The HVAC control module controls the distribution of air by the use of air recirculation and mode actuator. The modes that may be selected are:

- Defrost
- Panel
- Floor
- Defrost/Floor
- Panel/Floor

The desired air distribution mode can be selected with the mode switches and the defrost switch at the HVAC control module. The HVAC control module controls the air distribution actuator so that it drives the flap to the calculated position. Depending on the position of the flap, air is distributed through various ducts leading to the outlets in the dash. Turning the mode flap to the defrost position, the HVAC control module will move the air recirculation actuator to outside air, reducing window fogging. When defrost is selected, the blower motor will be activated, regardless of the coolant temperature. The HVAC control module enables a high volume of air delivered to the front defrost vents. A/C is available in all modes.

The rear window defogger does not affect the HVAC system.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. Regardless of the temperature setting, the following can affect the rate that the HVAC system can achieve the desired temperature:

- Air recirculation actuator setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting

Pressing the A/C switch enables the HVAC control module to request A/C compressor engagement and turn ON the A/C switch LED. The HVAC control module sends a message to the engine control module (ECM) for A/C compressor engagement. The ECM will provide a ground for the A/C compressor relay enabling it to close its internal contacts to send battery voltage to the A/C compressor clutch coil. The A/C compressor diode will prevent a voltage peak, resulting from the collapse of the magnetic field of the coil, from entering the vehicle electrical system when the compressor is disengaged.

The following conditions must be met in order to activate the A/C compressor:

- Battery voltage is between 9–18 V.
- Engine coolant temperature is less than 124°C (255°F).
- Engine speed is greater than 600 RPM.
- Engine speed is less than 5 500 RPM.
- A/C high side pressure is between 269–2 929 kPa (39–425 PSI).
- Throttle position is less than 100%.
- Evaporator temperature is greater than 3°C (38°F).
- ECM does not detect immoderate torque load.
- ECM does not detect insufficient idle quality.
- The ambient temperature is above 1°C (34°F).

The sensor information is used by the ECM to determine the following:

- The A/C high side pressure
- An A/C system load on the engine
- The heat load at the A/C condenser

The air streams into the passenger compartment through the heater core and the evaporator core. The air temperature actuator drives the mixed air flap to induce the airflow. If the interior temperature should be increased, the mixed air flap is put into the position in which more air streams through the heater core. If the interior temperature should be decreased, the mixed air flap is put into the position in which more air streams through the evaporator core.

Air Recirculation Operation

The air recirculation switch and fresh air switch are part of the HVAC control module. The HVAC control module controls the air intake through the air recirculation actuator. The air recirculation switch closes the air recirculation flap in order to circulate the air within the vehicle. Through pressing of the fresh air switch, the air recirculation flap is opened again in order to route outside air into the vehicle.

Air recirculation is only available if the defrost mode is not active. When the defrost mode is active, the air recirculation actuator opens the air recirculation flap and outside air is circulated to the windshield to reduce fogging.

In automatic mode, the HVAC control module switches between fresh air mode and air recirculation mode on the basis of characteristic lines.

Automatic Operation

In automatic operation, the HVAC control module maintains the comfort level inside of the vehicle by controlling the blower motor, the air temperature actuators, mode actuator and air recirculation actuator.

To put the HVAC system in automatic mode, the following is required:

1. The auto switch must be activated.
2. The air temperature switch must be in any other position than full hot or full cold position.

Once the desired temperature is reached, the blower motor, mode, air recirculation and temperature actuators automatically adjust to maintain the temperature selected. The HVAC control module performs the following functions to maintain the desired air temperature:

- Monitors the following sensors:
 - Ambient air temperature sensor
 - Sunload sensor
 - Inside air temperature sensor
 - A/C evaporator temperature sensor

- Regulate blower motor speed
- Position the air temperature actuator
- Position the mode actuator
- Position the air recirculation actuator

When the warmest position is selected in automatic operation the blower speed will increase gradually until the vehicle reaches normal operating temperature. When normal operating temperature is reached the blower stays on high speed and the air temperature actuators stay in the full heat position.

When the coldest position is selected in automatic operation the blower stays on high and the air temperature actuators stay in full cold position. The mode actuator remains in the panel position.

Under cold ambient temperatures, the automatic HVAC system provides heat in the most efficient manner. The operator can select an extreme temperature setting but the system will not warm the vehicle any faster. Under warm ambient temperatures, the automatic HVAC system also provides air conditioning in the most efficient manner. Selecting an extreme cool temperature will not cool the vehicle any faster.

In automatic mode, the HVAC control module switches between fresh air mode and air recirculation mode on the basis of characteristic lines.

[Engine Coolant](#)

Engine coolant is the essential element of the heating system. The thermostat controls the normal engine operating coolant temperature. The thermostat also creates a restriction for the cooling system that promotes a positive coolant flow and helps prevent cavitation.

Coolant enters the heater core through the inlet heater hose, in a pressurized state. The heater core is located inside the HVAC module. The ambient air drawn through the HVAC module absorbs the heat of the coolant flowing through the heater core. Heated air is distributed to the passenger compartment, through the HVAC module, for passenger comfort. Opening or closing the air temperature flap controls the amount of heat delivered to the passenger compartment. The coolant exits the heater core through the return heater hose and recirculates back to the engine cooling system.

[A/C Cycle](#)

Refrigerant is the key element in an air conditioning system. R-134a is presently the only Environmental Protection Agency approved refrigerant for automotive use. R-134a is a very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system. The A/C system is mechanically protected with the use of a high pressure relief valve. If the A/C refrigerant pressure sensor fails or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows to the Receiver/Dehydrator(R/D).

The R/D contains desiccant that absorbs moisture that may be in the refrigerant system. The R/D also acts as a storage vessel to ensure that a steady flow of liquid reaches the thermal expansion valve. The refrigerant exits the R/D and flows through the liquid line to the thermal expansion valve.

The thermal expansion valve is located at the front of dash and attaches to the evaporator inlet and outlet pipes. The thermal expansion valve is the dividing point for the high and the low pressure sides of the A/C system. As the refrigerant passes through the thermal expansion valve, the pressure on the refrigerant is lowered. The thermal expansion valve also meters the amount of liquid refrigerant that can flow into the evaporator.

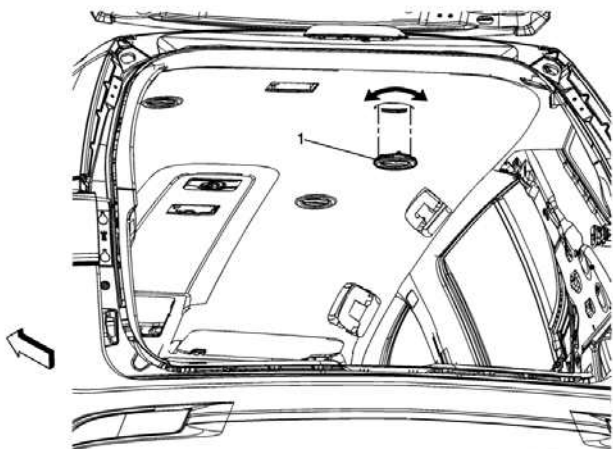
Refrigerant exiting the thermal expansion valve flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the A/C compressor, in a vapor state, and completing the A/C cycle of heat removal. At the A/C compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the HVAC module for passenger comfort. The heat and moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC module as water.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Auxiliary Air Conditioning Air Outlet Deflector Replacement

Callout

Component Name

Auxiliary Air Conditioning Air Outlet Deflector

Procedure

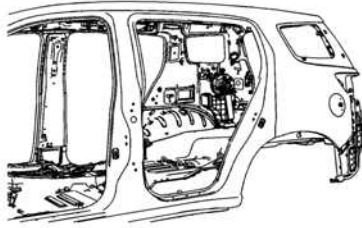
1

1. Turn the auxiliary air conditioning air outlet deflector counter clockwise in order to release it from the headliner.
2. Pull down on the auxiliary air conditioning air outlet deflector to remove from the headliner.
3. Insert and turn auxiliary air conditioning air outlet deflector clock wise to secure to the headliner.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

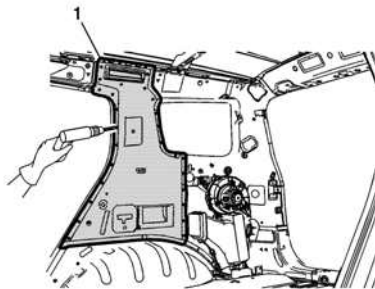
[Removal Procedure](#)



Warning: Refer to Approved Equipment for Collision Repair Warning.

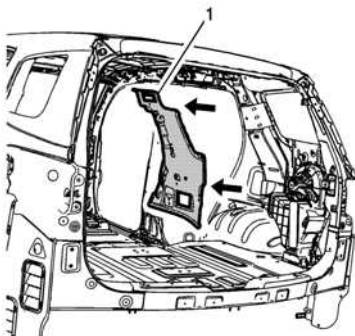
Warning: Refer to Glass and Sheet Metal Handling Warning.

1. Disable the supplemental inflatable restraint (SIR) system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications.
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.

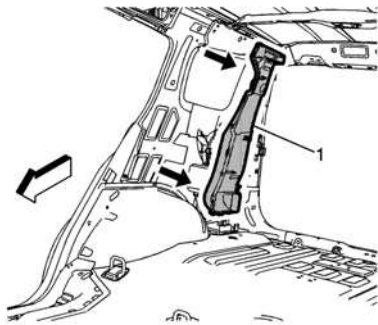


Note: The quarter inner panel will not be removed. The collision repair technician will release the quarter inner panel to access and remove the auxiliary air conditioning air duct.

6. Locate and drill out all factory welds (1). Note the number and location of the welds for installation of the service panel.

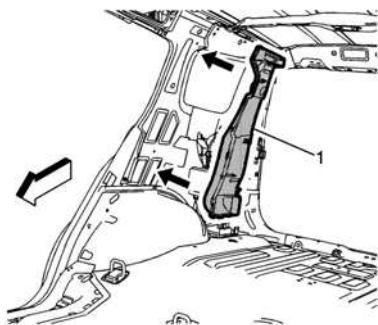


7. Gentle bend the quarter inner panel (1) to gain access to the auxiliary air conditioning air duct.
8. Using the proper tool, release the auxiliary air conditioning air duct clamps.



9. Remove the damaged auxiliary air conditioning air duct (1) from the vehicle.

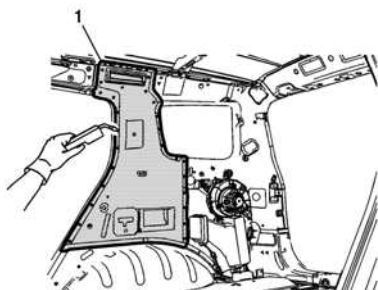
Installation Procedure



1. Position the auxiliary air conditioning air duct (1).
2. Clamp the auxiliary air conditioning air duct (1) in place.



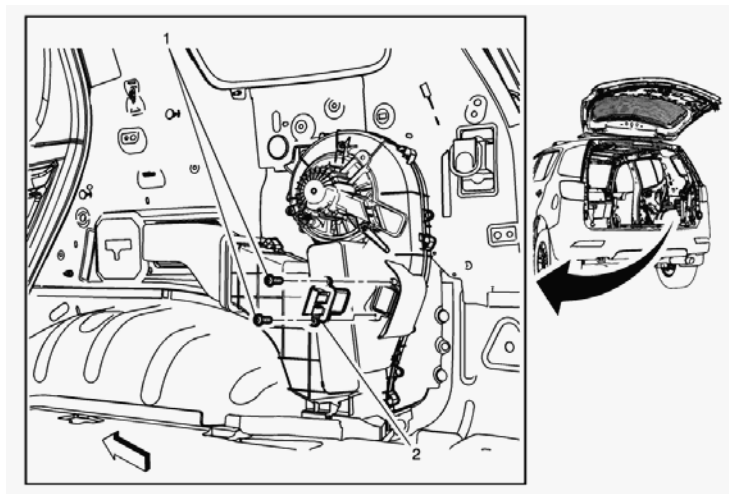
3. Position the inner quarter panel (1) to the vehicle.



4. Plug weld accordingly (1).
5. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
6. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
7. Install all related panels and components.
8. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
9. Enable the SIR system. Refer to SIR Disabling and Enabling.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Auxiliary Air Conditioning Blower Motor Resistor Replacement

Callout

Component Name

Preliminary Procedure

Remove the right rear quarter body side trim panel. Refer to Body Side Trim Panel Replacement - Right Side.

- 1 Auxiliary Air Conditioner Blower Motor Resistor Screw (Qty: 2)

Caution: Refer to Fastener Caution.

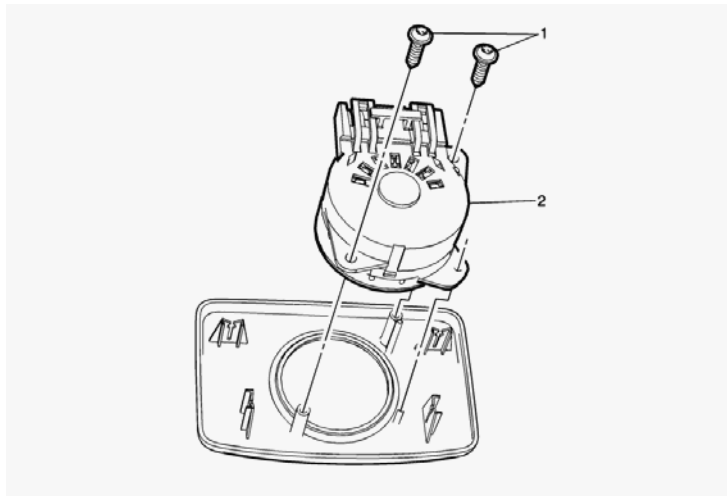
Auxiliary Air Conditioner Blower Motor Resistor Assembly

- 2 **Procedure**

Disconnect the electrical connector.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Auxiliary Air Conditioning Blower Switch Replacement

Callout

Component Name

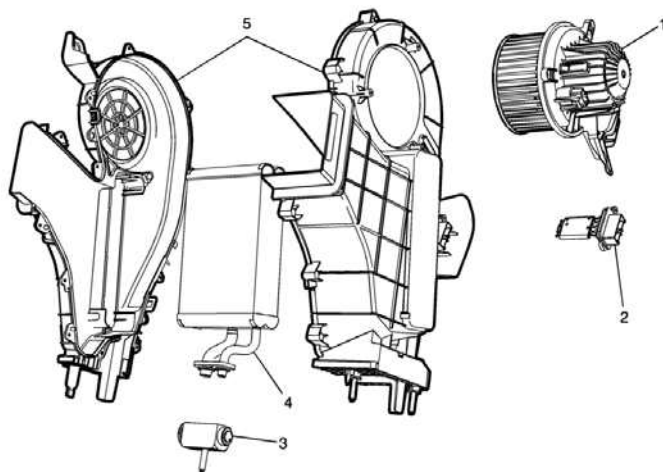
Preliminary Procedure

Remove the auxiliary air conditioning blower switch bezel. Refer to Auxiliary Heater and Air Conditioning Control Bezel Replacement.

- | | |
|---|--|
| 1 | Auxiliary Blower Switch Fasteners (Qty: 2) |
| 2 | Auxiliary Air Conditioning Blower Switch |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Auxiliary Air Conditioning Evaporator and Blower Case Replacement

Callout

Component Name

Preliminary Procedure

Remove the rear auxiliary air conditioning evaporator and blower module assembly.

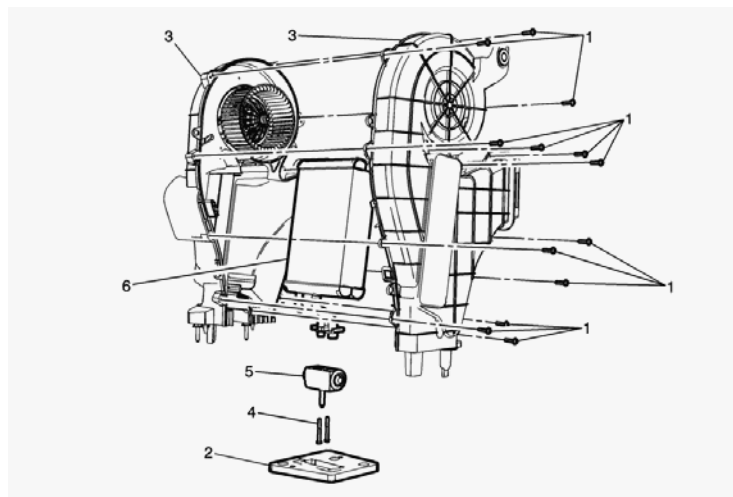
Refer to Auxiliary Air Conditioning (A/C) Evaporator and Blower Module Assembly Removal and Installation.

- | | |
|---|--|
| 1 | Auxiliary Blower Motor
Refer to Auxiliary Blower Motor Replacement. |
| 2 | Auxiliary Air Conditioning Blower Resistor
Refer to Auxiliary Air Conditioning Blower Motor Resistor Replacement. |
| 3 | Auxiliary Air Conditioning Evaporator Thermal Expansion Valve
Refer to Auxiliary Air Conditioning Evaporator Thermal Expansion Valve Replacement. |
| 4 | Auxiliary Air Conditioning Evaporator
Refer to Auxiliary Air Conditioning Evaporator Replacement. |
| 5 | Auxiliary Air Conditioning Evaporator And Blower Module Assembly Case Halves (Inboard or outboard) |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Auxiliary Air Conditioning Evaporator Replacement

Callout

Component Name

Preliminary Procedure

Remove the rear air conditioning evaporator and blower module assembly.

Refer to Auxiliary Air Conditioning (A/C) Evaporator and Blower Module Assembly Removal and Installation.

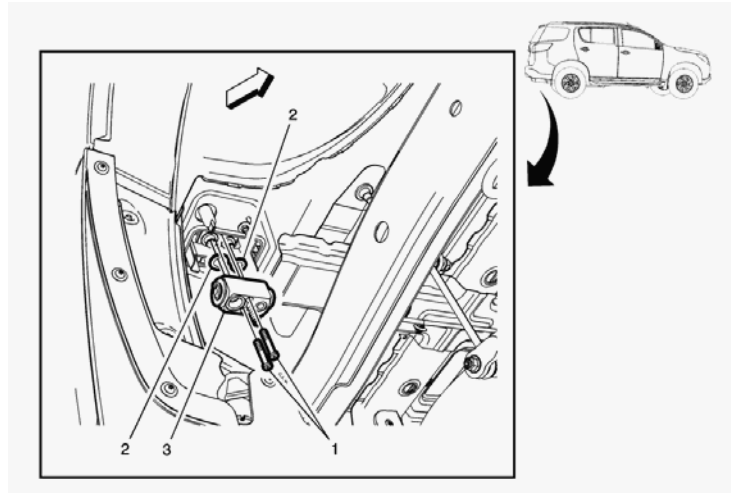
- | | |
|---|---|
| 1 | Auxiliary Air Conditioning Evaporator And Blower Module Bolts (Qty: 13)
Caution: Refer to Fastener Caution. |
| 2 | Auxiliary Air Conditioning Evaporator And Blower Module Assembly Seal |
| 3 | Auxiliary Air Conditioning Evaporator And Blower Module Assembly Halves

Auxiliary Air Conditioning Evaporator Thermal Expansion Valve Bolts (Qty: 2) |
| 4 | Tighten
7 Y (5 lb ft) |
| 5 | Auxiliary Air Conditioning Evaporator Thermal Expansion Valve |
| 6 | Auxiliary Air Conditioning Evaporator |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Auxiliary Air Conditioning Evaporator Thermal Expansion Valve Replacement

Callout

Component Name

Preliminary Procedure

1. Recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
3. Remove the air conditioning condenser and air conditioning evaporator tube - rear from the auxiliary air conditioning evaporator thermal expansion valve. Refer to Air Conditioning Condenser and Air Conditioning Evaporator Tube Replacement - Rear.

Thermal Expansion Valve Bolts (Qty :2)

Caution: Refer to Fastener Caution.

1

Tighten

7 Y (62 lb in)

Sealing Washers (QTY: 2)

2

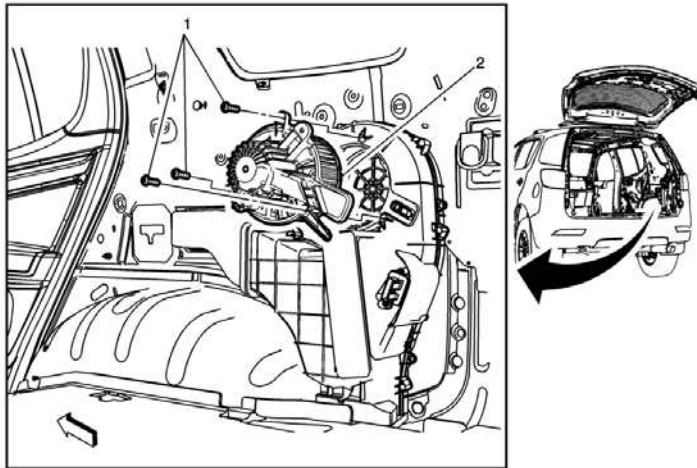
Note: Always replace sealing washers with NEW sealing washers. Refer to Air Conditioning System Seal Replacement.

3

Auxiliary Air Conditioning Evaporator Thermal Expansion Valve

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Auxiliary Blower Motor Replacement

Callout

Component Name

Preliminary Procedure

Remove the right rear quarter body side trim panel. Refer to Body Side Trim Panel Replacement - Right Side.

1

Auxiliary Blower Motor Screw (Qty: 3)

Caution: Refer to Fastener Caution.

Auxiliary Blower Motor Assembly

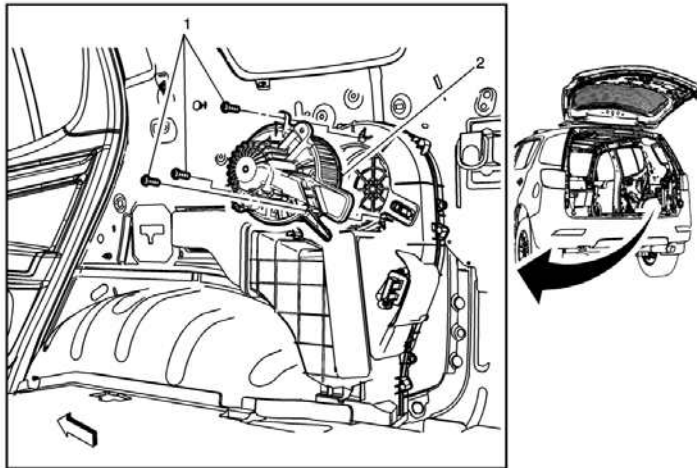
2

Procedure

Disconnect the electrical connector.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Auxiliary Blower Motor Replacement

Callout

Component Name

Preliminary Procedure

Remove the right rear quarter body side trim panel. Refer to Body Side Trim Panel Replacement - Right Side.

1

Auxiliary Blower Motor Screw (Qty: 3)

Caution: Refer to Fastener Caution.

Auxiliary Blower Motor Assembly

2

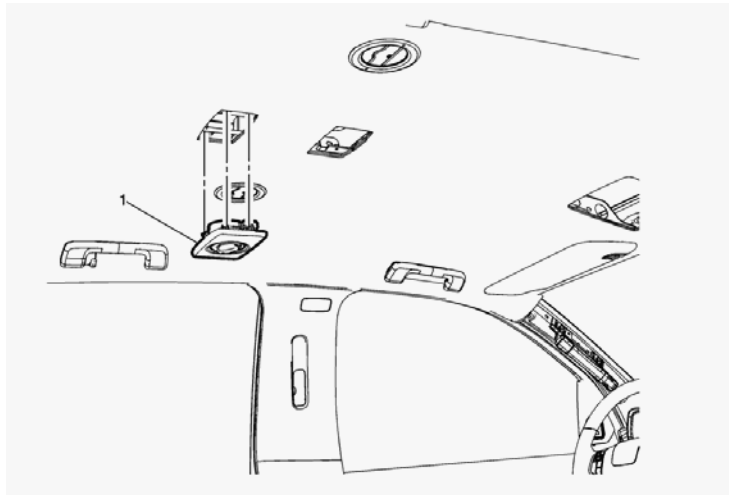
Procedure

Disconnect the electrical connector.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Auxiliary Heater and Air Conditioning Control Bezel Replacement

Callout

Component Name

Auxiliary Heater And Air Conditioning Control Bezel

Procedure

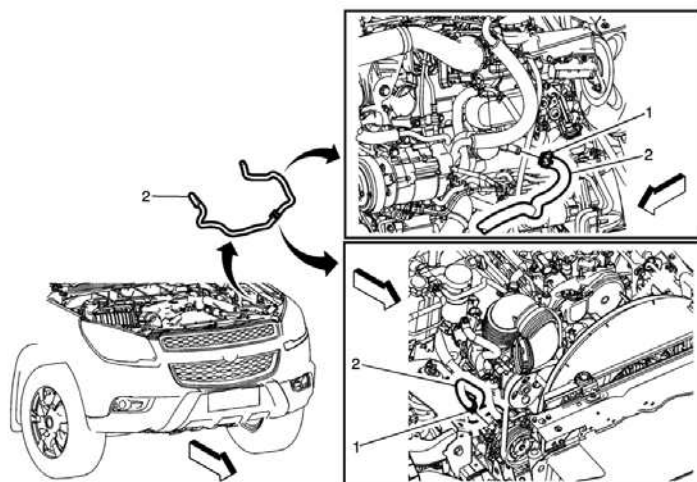
1

1. Pull down on auxiliary heater and air conditioning control bezel to unsnap the bezel from the headliner.
2. Remove and transfer the auxiliary air conditioning blower switch. Refer to Auxiliary Air Conditioning Blower Switch Replacement.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Auxiliary Heater Inlet Hose Replacement

Callout

Component Name

Preliminary Procedures

1. Drain the coolant. Refer to Cooling System Draining and Filling.
2. Remove the rear engine protection shield. Refer to Engine Protection Shield Replacement.
3. Remove the right front wheelhouse liner. Refer to Front Wheelhouse Liner Replacement.
4. Remove the right front wheelhouse splash shield. Refer to Front Wheelhouse Splash Shield Replacement.

Auxiliary Heater Outlet Hose Clamp (Qty: 2)

Procedure

1

Reposition the heater outlet hose clamps using the *BO-38185* pliers.

Special Tools

BO-38185 Hose Clamp Pliers

For equivalent regional tools. Refer to Special Tools.

Auxiliary Heater Outlet Hose

Procedure

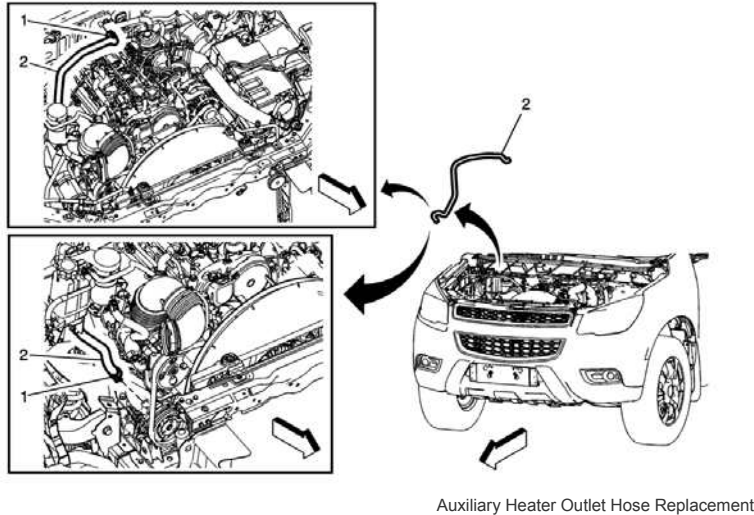
2

1. Remove the auxiliary heater outlet hose from the thermostat housing.
2. Remove the auxiliary heater outlet hose from the auxiliary heater.
3. Remove the auxiliary heater outlet hose from the vehicle.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Auxiliary Heater Outlet Hose Replacement

Callout

Component Name

Preliminary Procedures

1. Drain the coolant. Refer to Cooling System Draining and Filling.
2. Remove the intake manifold cover. Refer to Intake Manifold Cover Replacement.
3. Remove the cowl front panel. Refer to Cowl Front Panel Replacement.
4. Remove the air cleaner assembly. Refer to Air Cleaner Assembly Replacement.

Auxiliary Heater Outlet Hose Clamp (Qty: 2)

Procedure

Reposition the heater outlet hose clamps using the *BO-38185* pliers.

1

Special Tools

BO-38185 Hose Clamp Pliers

For equivalent regional tools. Refer to Special Tools.

Auxiliary Heater Outlet Hose

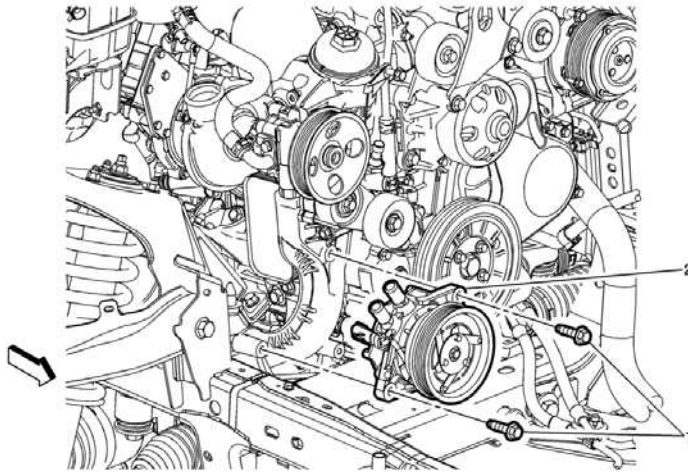
Procedure

2

1. Remove the auxiliary heater outlet hose from the heater core tube.
2. Remove the auxiliary heater outlet hose from the auxiliary heater.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Auxiliary Heater Replacement

Callout

Component Name

Preliminary Procedures

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the rear engine protection shield. Refer to Engine Protection Shield Replacement.
3. Drain the coolant. Refer to Cooling System Draining and Filling.
4. Remove the right front wheelhouse liner. Refer to Front Wheelhouse Liner Replacement.
5. Remove the right engine lower front splash shield. Refer to Engine Lower Front Splash Shield Replacement.
6. Remove the auxiliary heater inlet and outlet heater hoses. Refer to Auxiliary Heater Inlet Hose Replacement and Auxiliary Heater Outlet Hose Replacement.

Auxiliary Heater Bolts (Qty: 2)

Caution: Refer to Fastener Caution.

1

Tighten

45 Y (33 lb ft)

Auxiliary Heater

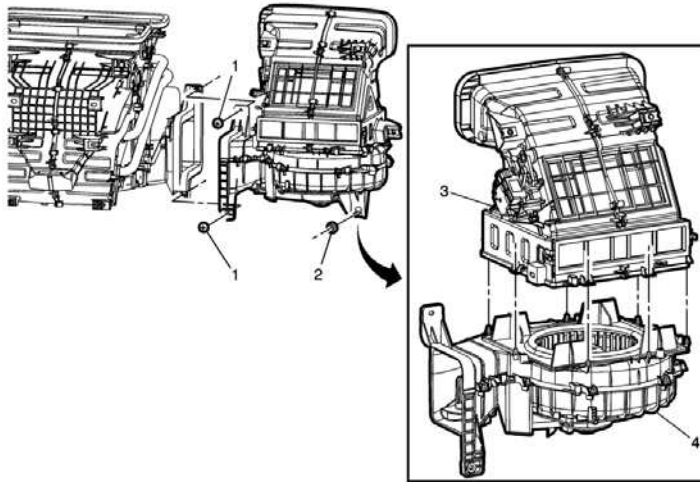
2

Procedure

Remove the auxiliary heater from the vehicle.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Blower Assembly Replacement

Callout

Component Name

Preliminary Procedures

1. Remove the instrument panel tie bar assembly. Refer to Instrument Panel Tie Bar Replacement.
2. Disconnect the heater and air conditioning evaporator and blower module assembly electrical connectors.

- 1 Blower Motor Assembly Fastener (Qty: 2)

Caution: Refer to Fastener Caution.

- 2 Blower Motor Assembly Nut

Tighten

5.0 Y (44 lb in)

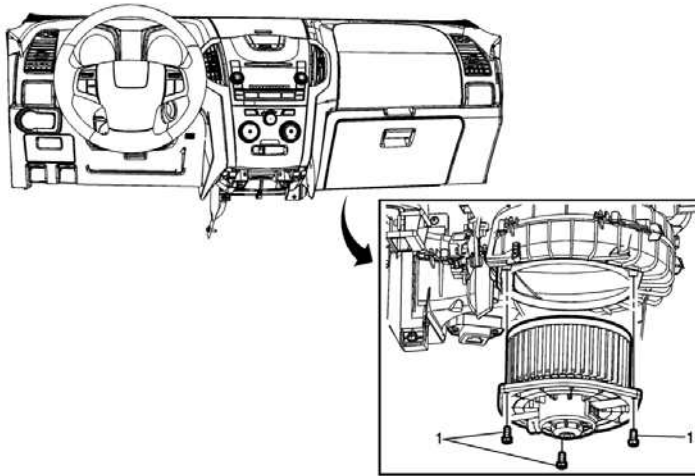
- 3 Air Inlet Assembly

Refer to Air Inlet Replacement.

- 4 Blower Motor Assembly

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Blower Motor Replacement

Callout

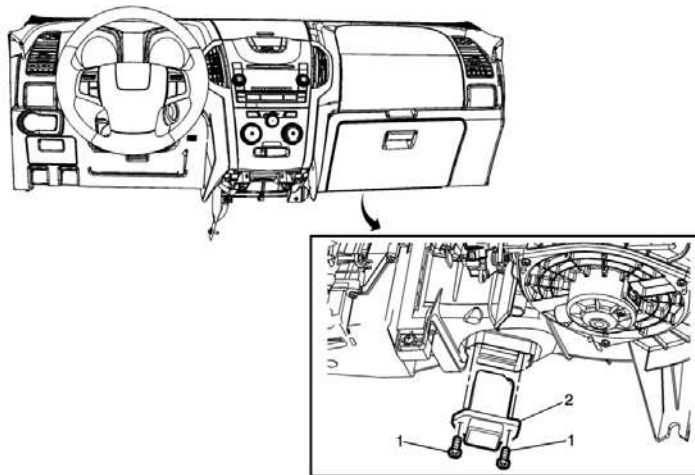
Component Name

- | | |
|---|--|
| 1 | Blower Motor Fastener (Qty: 3)
Caution: Refer to Fastener Caution. |
| 2 | Blower Motor |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Blower Motor Resistor Replacement

Callout

Component Name

1

Blower Motor Resistor Screw (Qty: 2)

Caution: Refer to Fastener Caution.

Blower Motor Resistor

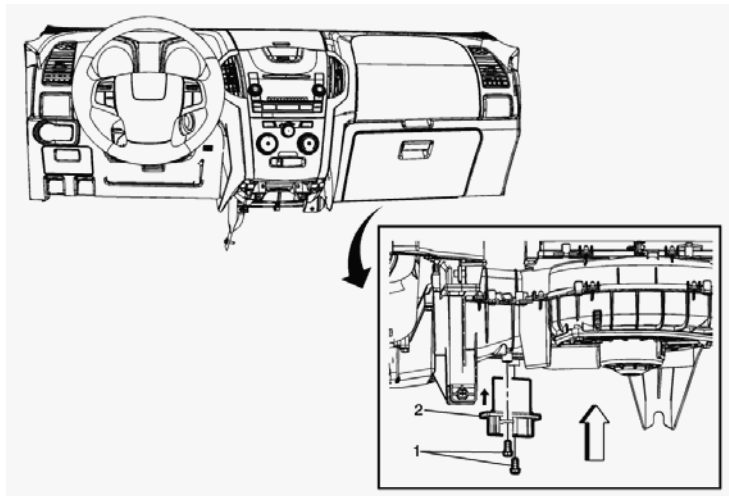
2

Procedure

Disconnect the wiring connector.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Blower Motor Resistor Replacement

Callout

Component Name

1

Blower Motor Resistor Screw (Qty: 2)

Caution: Refer to Fastener Caution.

Blower Motor Resistor

2

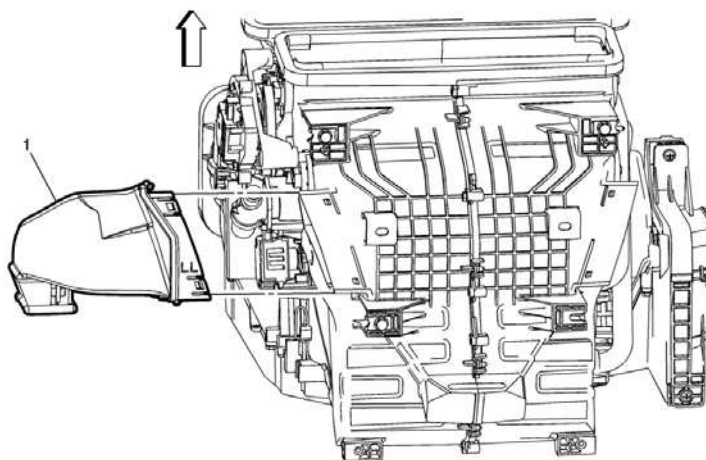
Procedure

Disconnect the wiring connector.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Blower Outlet Duct Replacement - Driver Side

Callout

Component Name

Preliminary Procedure

Loosen the instrument panel tie bar bolt. Refer to Instrument Panel Tie Bar Replacement.

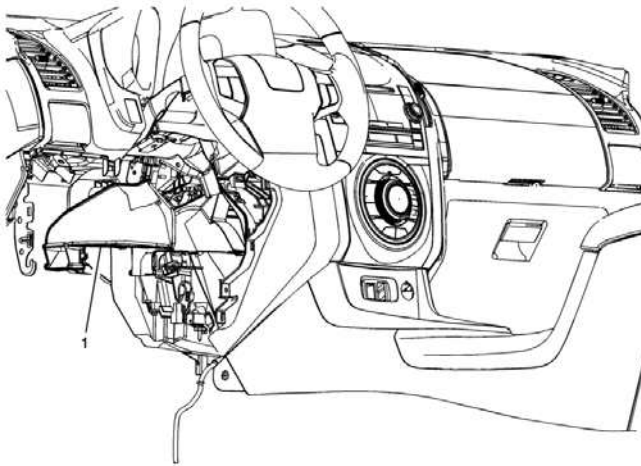
1

Floor Front Air Outlet Duct

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Blower Outlet Duct Replacement - Driver Side

Callout

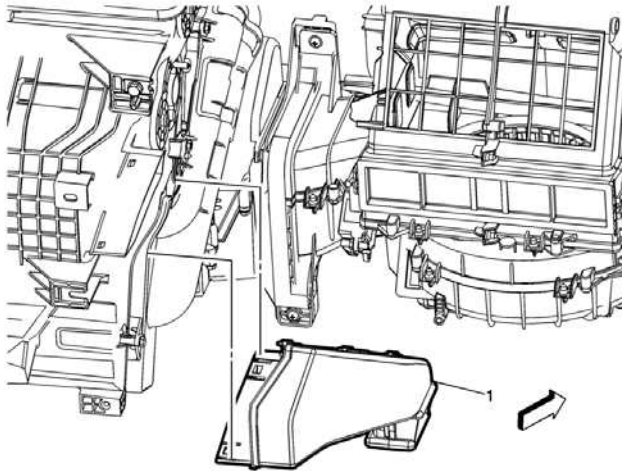
Component Name

Preliminary Procedures

1. Remove the lower instrument panel. Refer to Instrument Lower Panel Replacement.
2. Remove the bolt securing the instrument panel tie bar brace to the floor panel. Refer to Instrument Panel Tie Bar Replacement.
3. Pull the blower outlet duct away from the heater case to unsnap the duct from heater case.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Blower Outlet Duct Replacement - Passenger Side

Callout

Component Name

Preliminary Procedure

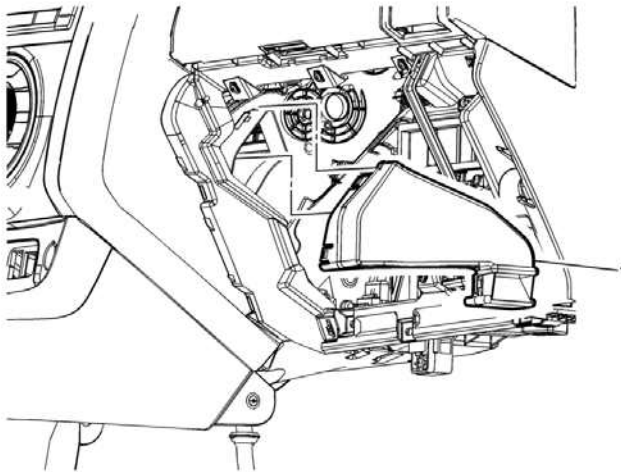
Remove the instrument lower panel. Refer to Instrument Lower Panel Replacement.

1

Floor Front Air Outlet Duct

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Blower Outlet Duct Replacement - Passenger Side

Callout

Component Name

Preliminary Procedures

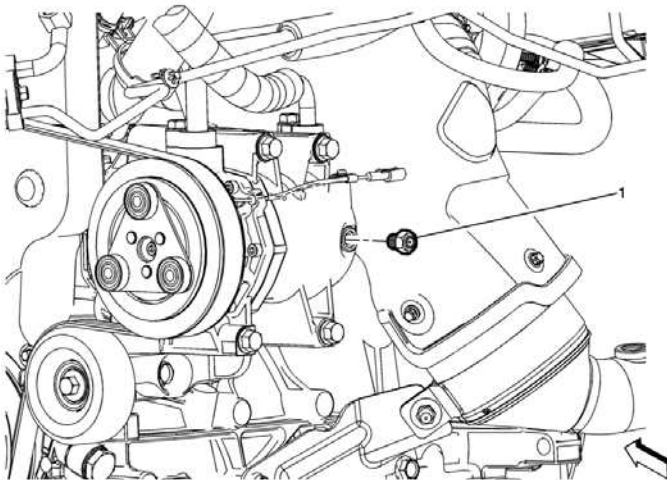
1. Remove the instrument lower panel. Refer to Instrument Lower Panel Replacement.
2. Pull the blower outlet duct away from the heater case to unsnap the duct.

1

Blower Outlet Duct-Right Side

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Compressor Pressure Relief Valve Removal

Callout

Component Name

Preliminary Procedure

Remove the air conditioning compressor. Refer to Air Conditioning Compressor Replacement.

1

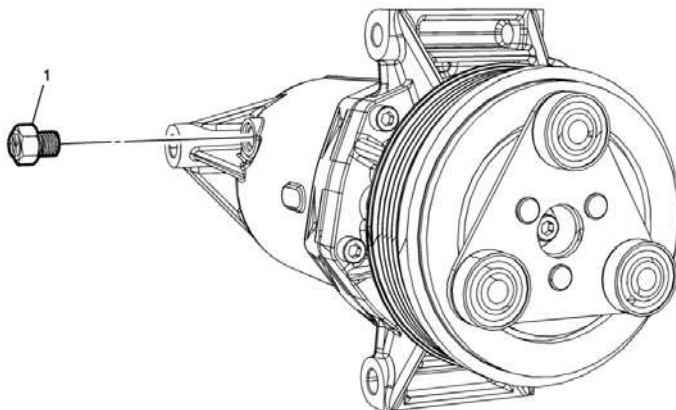
Air Conditioning Compressor Relief Valve.

Caution: Refer to Fastener Caution.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Compressor Pressure Relief Valve Removal

Callout

Component Name

Preliminary Procedure

Remove the air conditioning compressor. Refer to Air Conditioning Compressor Replacement.

1

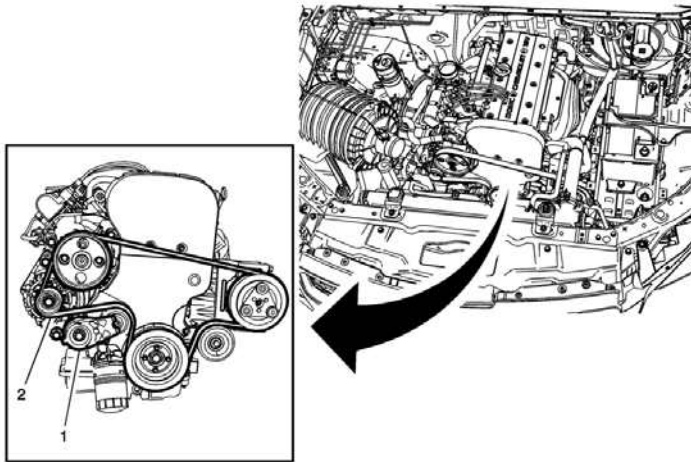
Air Conditioning Compressor Relief Valve.

Caution: Refer to Fastener Caution.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Drive Belt Replacement

Callout

Component Name

Drive Belt Tensioner

1

Procedure

Use the proper tool to rotate the drive belt tensioner.

Drive belt

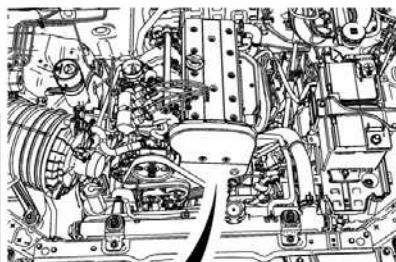
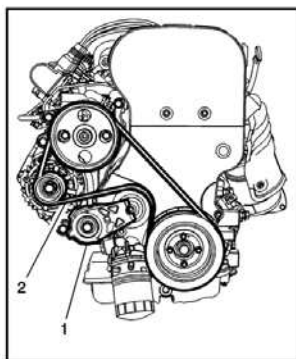
Procedure

2

1. Remove the drive belt from the pulleys and tensioner.
2. Clean and inspect the drive belt surfaces of all the pulleys.
3. Inspect the drive belt for correct alignment.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Drive Belt Replacement

Callout

Component Name

1 Drive Belt Tensioner

Procedure

Use the proper tool to rotate the drive belt tensioner.

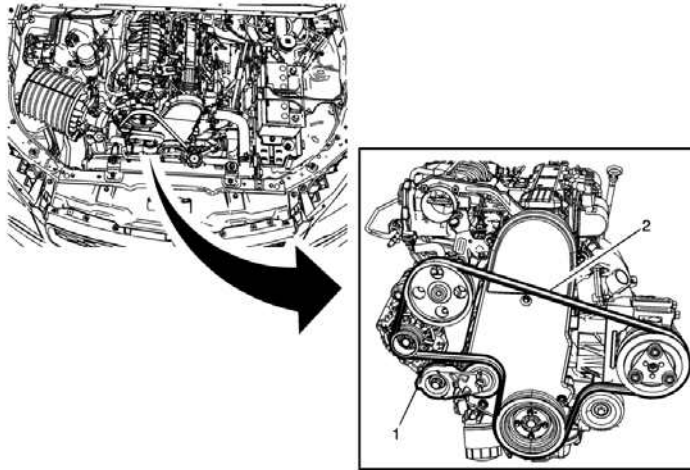
Drive belt

Procedure

- 2
1. Remove the drive belt from the pulleys and tensioner.
 2. Clean and inspect the drive belt surfaces of all the pulleys.
 3. Inspect the drive belt for correct alignment.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Drive Belt Replacement

Callout

Component Name

Drive Belt Tensioner

1

Procedure

Use the proper tool to rotate the drive belt tensioner.

Drive belt

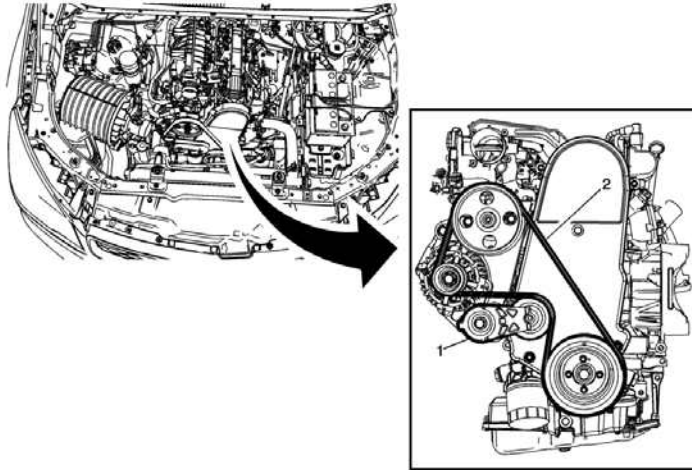
Procedure

2

1. Remove the drive belt from the pulleys and tensioner.
2. Clean and inspect the drive belt surfaces of all the pulleys.
3. Inspect the drive belt for correct alignment.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Drive Belt Replacement

Callout

Component Name

Drive Belt Tensioner

1

Procedure

Use the proper tool to rotate the drive belt tensioner.

Drive belt

Procedure

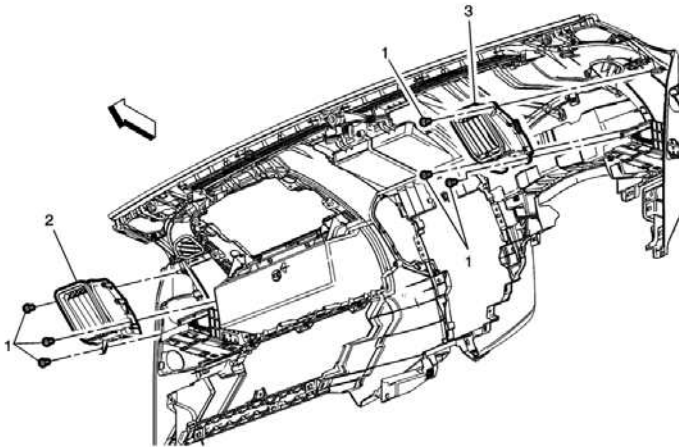
2

1. Remove the drive belt from the pulleys and tensioner.
2. Clean and inspect the drive belt surfaces of all the pulleys.
3. Inspect the drive belt for correct alignment.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Front Side Door Air Outlet Grille Replacement

Callout

Component Name

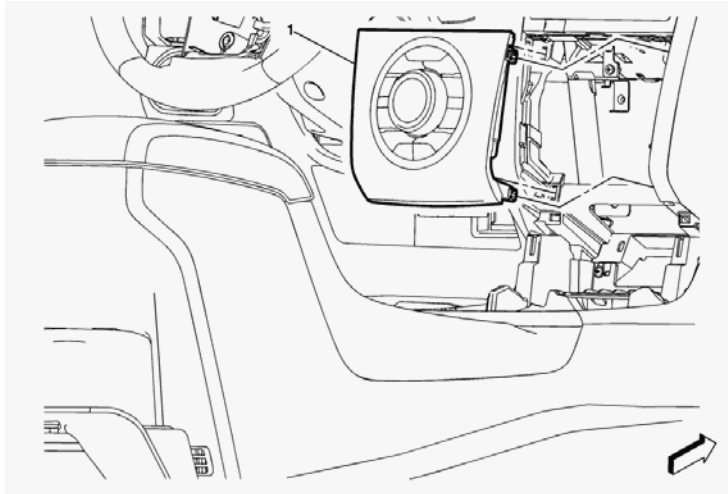
Preliminary Procedure

Remove the instrument panel outer air outlet duct. Refer to Instrument Panel Outer Air Outlet Duct Replacement.

- | | |
|---|--|
| 1 | Instrument Carrier Bolt (Qty: 6)
Caution: Refer to Fastener Caution. |
| 2 | Front Side Door Air Outlet Grille- Passenger Side |
| 3 | Front Side Door Air Outlet Grille- Driver Side |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Heater and Air Conditioning Control Replacement

Callout

Component Name

Preliminary Procedure

Remove the front floor console transmission shift opening bezel. Refer to Front Floor Console Transmission Shift Opening Bezel Replacement.

Heater and Air Conditioning Control

1

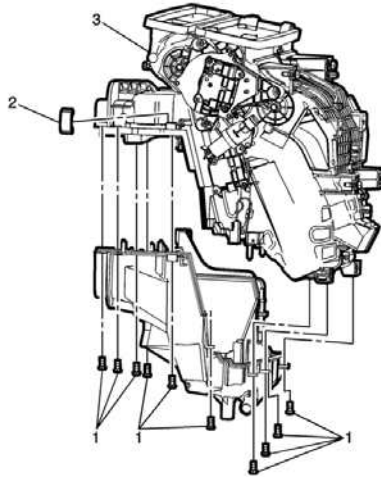
Procedure

Disconnect the electrical connections.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Heater and Air Conditioning Evaporator and Blower Upper Case Replacement

Callout

Component Name

Preliminary Procedures

1. Remove the heater and air conditioning evaporator and blower module. Refer to Air Conditioning and Heater Module Assembly Removal and Installation.
2. Remove the heater core. Refer to Heater Core Replacement.
3. Disconnect the heater and air conditioning evaporator and blower module assembly electrical connectors.
4. Remove the mode control cam actuator, if equipped. Refer to Mode Control Cam Actuator Replacement.
5. Remove the temperature valve actuator, if equipped. Refer to Temperature Valve Actuator Replacement.
6. Remove the air inlet valve actuator. Refer to Air Inlet Valve Actuator Replacement.

1 A/C Evaporator Case Fastener (Qty: 10)

Caution: Refer to Fastener Caution.

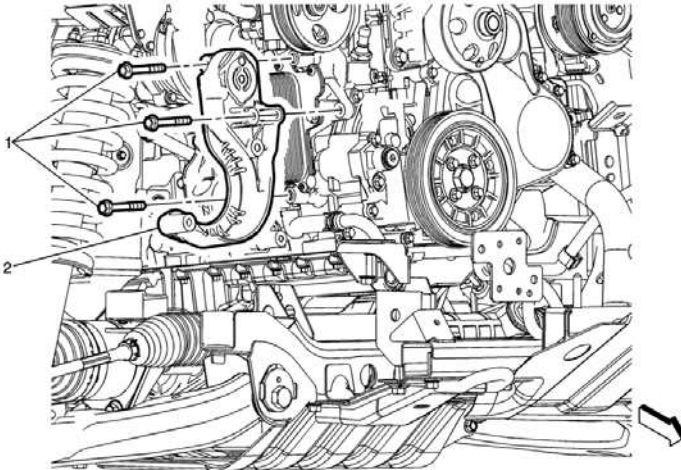
2 Air Conditioning Evaporator Case Clip

3 Upper Case

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Heater Bracket Replacement

Callout

Component Name

Preliminary Procedures

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
2. Remove the auxiliary heater. Refer to Auxiliary Heater Replacement.

Heater Bracket Bolts (Qty: 3)

Caution: Refer to Fastener Caution.

1

Tighten

25 Y (18 lb ft)

Heater Bracket

2

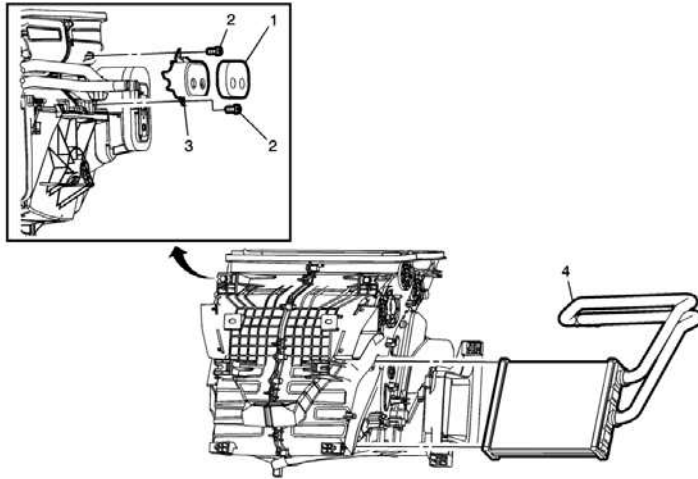
Procedure

Remove the auxiliary heater bracket from the vehicle.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Heater Core Replacement

Callout

Component Name

Preliminary Procedures

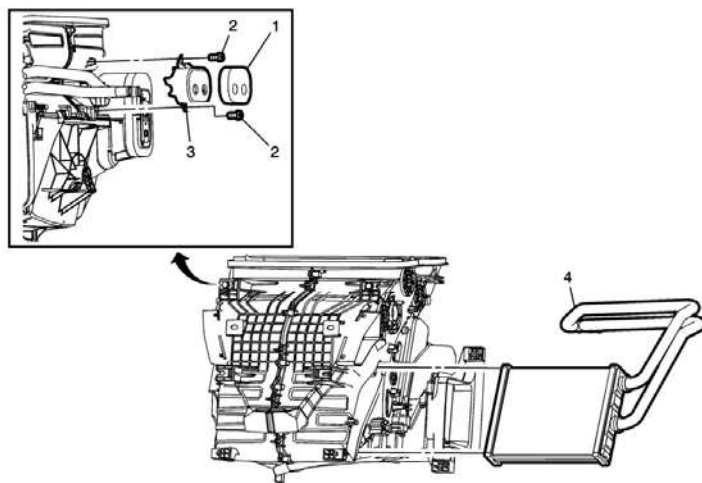
1. Remove the air conditioning and heater module. Refer to Air Conditioning and Heater Module Assembly Removal and Installation.
2. Remove the blower motor assembly. Refer to Blower Assembly Replacement.
3. Remove the heater core tube cover. Refer to Heater Core Tube Cover Replacement.

- | | |
|---|---|
| 1 | Tube Insulator |
| 2 | Heater Tube Front Cover Fastener (Qty: 2) |
| 3 | Heater Tube Front Cover |
| 4 | Heater Core |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Heater Core Replacement

Callout

Component Name

Preliminary Procedures

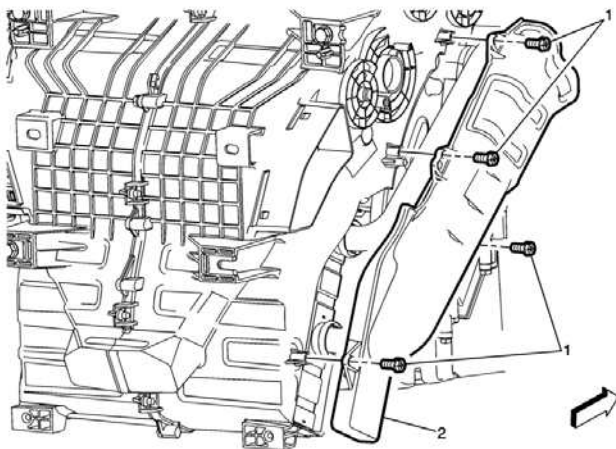
1. Remove the air conditioning and heater module. Refer to Air Conditioning and Heater Module Assembly Removal and Installation.
2. Remove the heater core tube cover. Refer to Heater Core Tube Cover Replacement.

- | | |
|---|--|
| 1 | Tube Insulator |
| 2 | Heater Tube Front Cover Fastener (Qty: 2) |
| | Caution: Refer to Fastener Caution. |
| 3 | Heater Tube Front Cover |
| 4 | Heater Core |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Heater Core Tube Cover Replacement

Callout

Component Name

Preliminary Procedures

1. Remove the instrument panel tie bar. Refer to Instrument Panel Tie Bar Replacement.
2. Remove the blower assembly. Refer to Blower Assembly Replacement.
3. Remove the right blower outlet duct. Refer to Blower Outlet Duct Replacement - Passenger Side.
4. Disconnect the electrical connectors as necessary.

1 Tube Cover Fastener (Qty: 4)

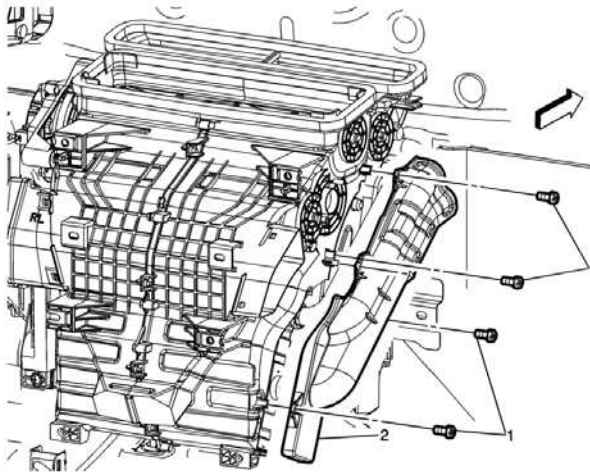
Caution: Refer to Fastener Caution.

2 Heater Tube Cover

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Heater Core Tube Cover Replacement

Callout

Component Name

Preliminary Procedures

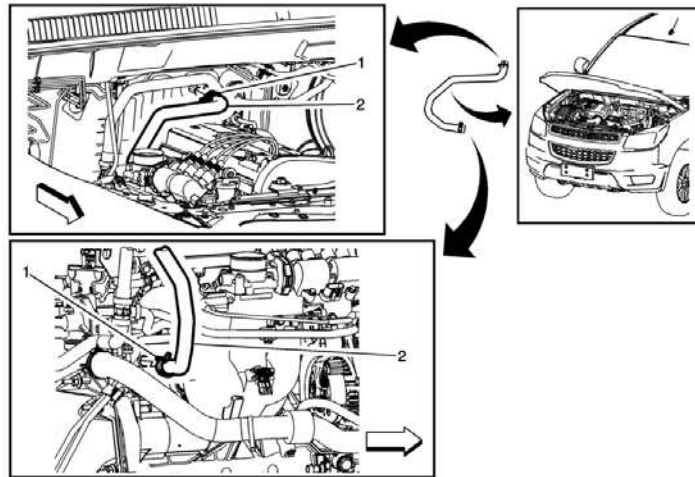
1. Remove the instrument panel tie bar. Refer to Instrument Panel Tie Bar Replacement.
2. Remove the right blower outlet duct. Refer to Blower Outlet Duct Replacement - Passenger Side.
3. Disconnect the electrical connectors as necessary.

1 Tube Cover Fastener (Qty: 4)
Caution: Refer to Fastener Caution.

2 Heater Tube Cover

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Heater Inlet Hose Replacement

Callout

Component Name

Preliminary Procedure

1. Remove the air cleaner assembly. Refer to Air Cleaner Assembly Replacement.
2. Remove the air cleaner outlet resonator. Refer to Air Cleaner Outlet Resonator Replacement.
3. Disconnect the power brake booster vacuum hose. Refer to Power Brake Booster Vacuum Check Valve and Hose Replacement.
4. Drain the cooling system. Refer to Cooling System Draining and Filling.

Heater Inlet Hose Clamp (Qty: 2)

Procedure

1

Reposition the heater inlet hose clamps using the *BO-38185* pliers.

Special Tools

BO-38185 Hose Clamp Pliers

For equivalent regional tools, refer to Special Tools.

Heater Inlet Hose

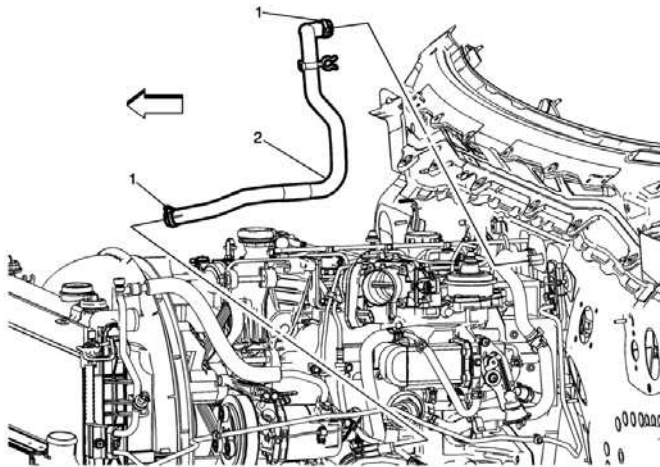
Procedure

2

1. Remove the heater inlet hose from the heater core tube.
2. Remove the heater inlet hose from the radiator outlet pipe.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Heater Inlet Hose Replacement

Callout

Component Name

Preliminary Procedures

1. Drain the cooling system. Refer to Cooling System Draining and Filling.
2. Remove the battery tray. Refer to Battery Tray Replacement.
3. Remove the intake manifold cover. Refer to Intake Manifold Cover Replacement.

Heater Inlet Hose Clamp (Qty: 2)

Procedure

Reposition the heater inlet hose clamp using the *BO-38185* pliers.

1

Special Tools

BO-38185 Hose Clamp Pliers

For equivalent regional tools, refer to Special Tools.

Heater Inlet Hose

2

Procedure

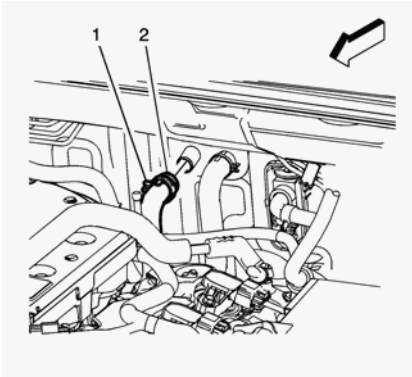
Remove the quick disconnect retainer from the quick disconnect clamp.

2013 Chevrolet Colorado

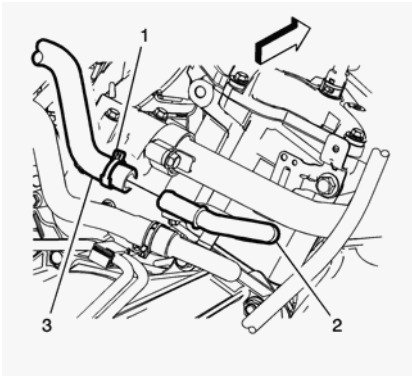
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

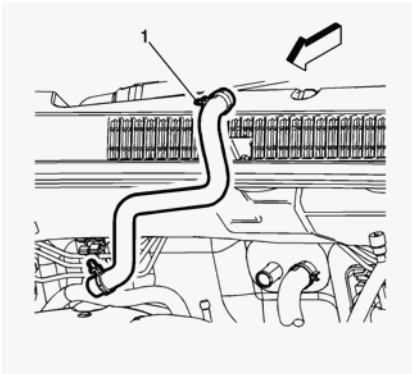
1. Drain the cooling system . Refer to Cooling System Draining and Filling.



2. Loosen the clamp (1), enough to disconnect the heater inlet hose (2) from the heater core.



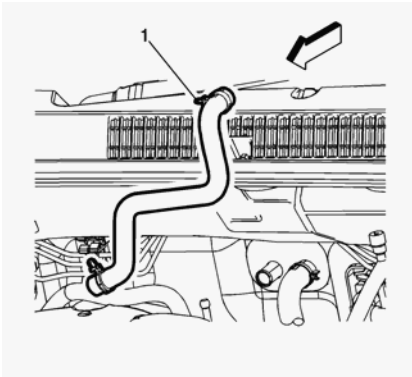
3. Loosen the clamp (2), enough to disconnect the heater inlet hose (3) from the engine outlet pipe (1).



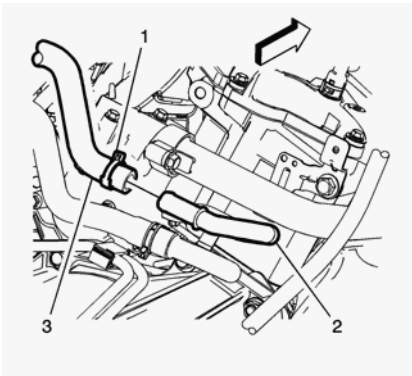
4. Remove the heater inlet hose (1) from the vehicle.

[Installation Procedure](#)

Heater Inlet Hose Replacement (With LY7 Engine)



1. Position the heater inlet hose (1) to the vehicle.



2. Connect the heater inlet hose (3) to the engine outlet pipe (1). Assure the clamp (2) is positioned correctly.

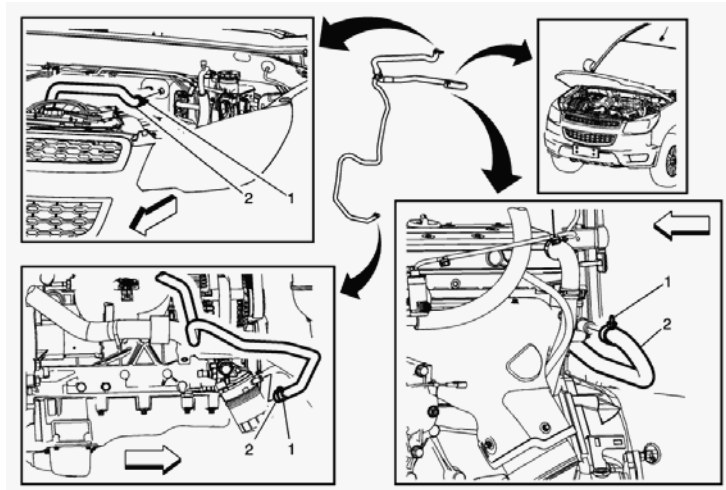


3. Connect the heater inlet hose (2) to the heater core. Assure the clamp (1) is positioned correctly.
4. Refill the cooling system . Refer to Cooling System Draining and Filling.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Heater Outlet Hose Replacement

Callout

Component Name

Preliminary Procedure

1. Remove the air cleaner assembly. Refer to Air Cleaner Assembly Replacement.
2. Remove the air cleaner outlet resonator. Refer to Air Cleaner Outlet Resonator Replacement.
3. Drain the cooling system. Refer to Cooling System Draining and Filling.

Heater outlet Hose Clamp (Qty: 3)

Procedure

1

Reposition the heater outlet hose clamps using the *BO-38185* pliers.

Special Tools

BO-38185 Hose Clamp Pliers

For equivalent regional tools, refer to Special Tools.

Heater outlet Hose

Procedure

2

1. Remove the heater outlet hose from the heater core tube.
2. Remove the heater outlet hose from the radiator outlet pipe.
3. Remove the heater outlet hose from the camshaft rear cover.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

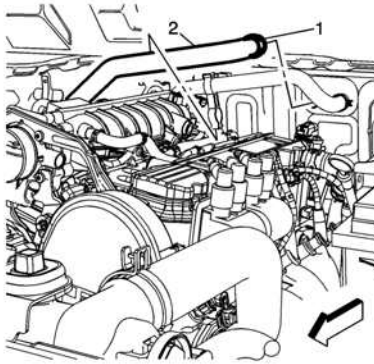
Special Tools

BO-38185 Hose Clamp Pliers

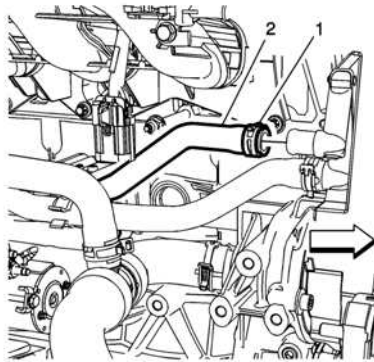
For equivalent regional tools, Refer to Special Tools

[Removal Procedure](#)

1. Drain the cooling system. Refer to Cooling System Draining and Filling.



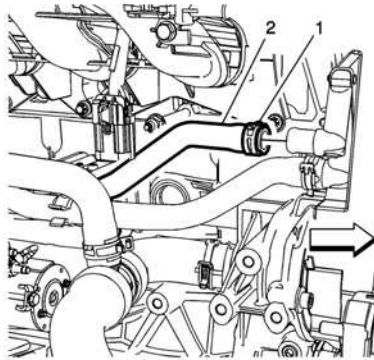
2. Remove the heater outlet hose clamp (1) using *BO-38185* Hose Clamp Pliers from the heater core.
3. Remove the heater outlet hose (2) from the heater core.
4. Remove the generator bracket. Refer to Generator Bracket Replacement.



5. Remove the heater outlet hose clamp (1) using *BO-38185* Hose Clamp Pliers from the engine.
6. Remove the heater outlet hose (2) from the engine.
7. Remove the heater outlet hose from the vehicle.

[Installation Procedure](#)

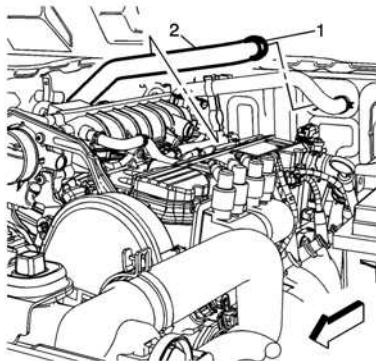
1. Install the heater outlet hose to the vehicle.



2. Install the heater outlet hose (2) to the engine.

Heater Outlet Hose Replacement (LP8)

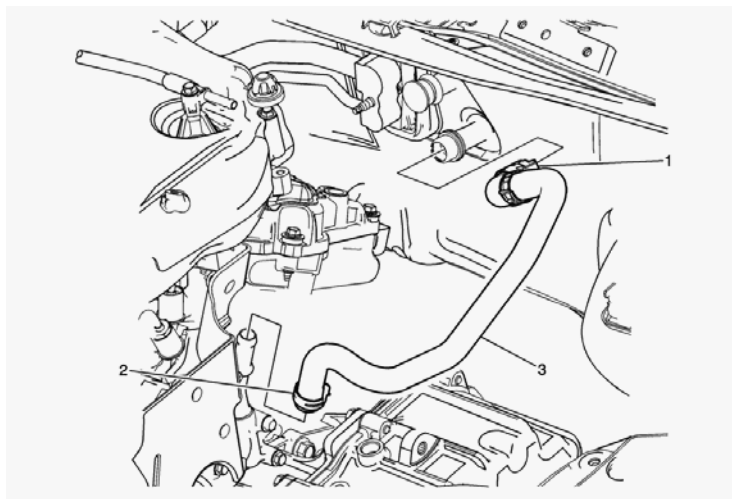
3. Install the heater outlet hose clamp (1) using *BO-38185* Hose Clamp Pliers to the engine.
4. Install the generator bracket. Refer to Generator Bracket Replacement.



5. Install the heater outlet hose (2) to the heater core.
6. Install the heater outlet hose clamp (1) using *BO-38185* Hose Clamp Pliers to the heater core.
7. Fill the cooling system. Refer to Cooling System Draining and Filling.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Heater Outlet Hose Replacement

Callout

Component Name

Preliminary Procedures

1. Drain the cooling system. Refer to Cooling System Draining and Filling.
2. Remove the battery tray. Refer to Battery Tray Replacement.
3. Remove the intake manifold cover. Refer to Intake Manifold Cover Replacement.
4. Remove the coolant recovery reservoir inlet hose clamp from the water pump side. Refer to Radiator Inlet Hose Replacement.

Heater Outlet Hose Quick Disconnect Clamp

1

Procedure

Remove the quick disconnect retainer from the quick disconnect clamp.

Heater Outlet Hose Clamp

Procedure

Reposition the heater inlet hose clamp using the *BO-38185* pliers.

2

Special Tools

BO-38185 Hose Clamp Pliers

For equivalent regional tools, refer to Special Tools.

3

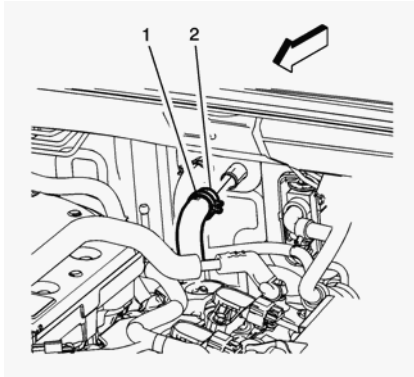
Heater Outlet Hose

2013 Chevrolet Colorado

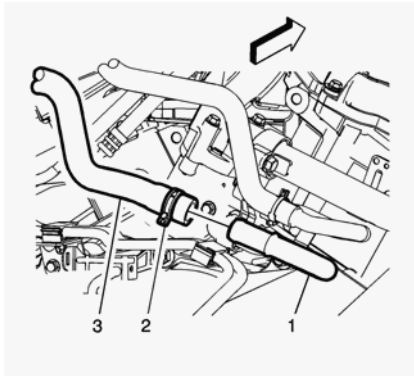
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

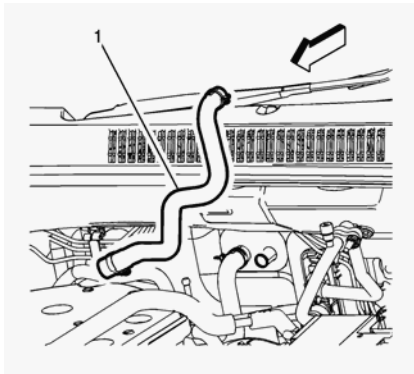
1. Drain the cooling system . Refer to Cooling System Draining and Filling.



2. Loosen the clamp (1), enough to disconnect the heater outlet hose (2) from the heater core.



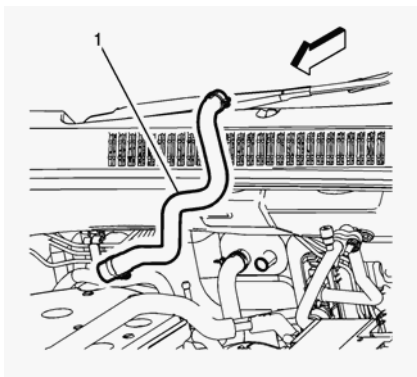
3. Loosen the clamp (3), enough to disconnect the heater outlet hose (1) from the engine inlet pipe (2).



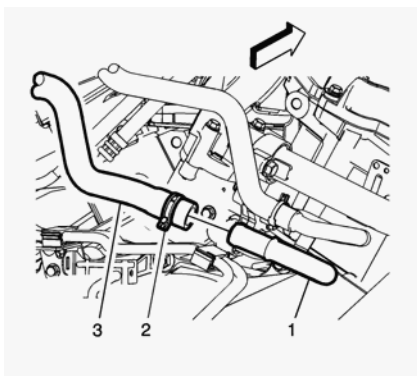
4. Remove the heater outlet hose (1) from the vehicle.

[Installation Procedure](#)

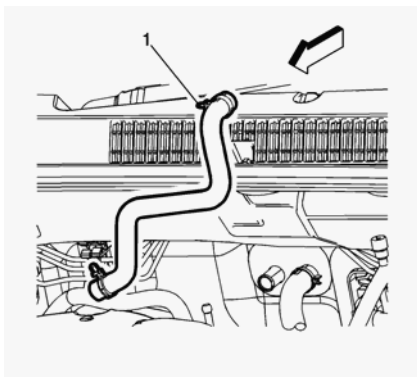
Heater Outlet Hose Replacement (LY7)



1. Position the heater outlet hose (1) into the vehicle.



2. Connect the heater outlet hose (1) onto the engine inlet pipe (2). Assume the clamp (3) is positioned correctly.



3. Connect the heater outlet hose (2) to the heater core. Assume the clamp (1) is positioned correctly.
4. Refill the cooling system . Refer to Cooling System Draining and Filling.

2013 Chevrolet Colorado

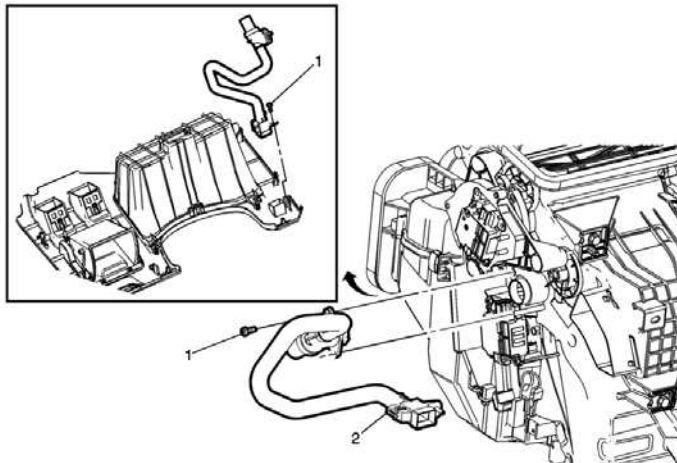
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

There is no setup procedure that needs to be performed for the HVAC control module on this vehicle.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Inside Air Temperature Sensor Replacement

Callout

Component Name

Preliminary Procedure

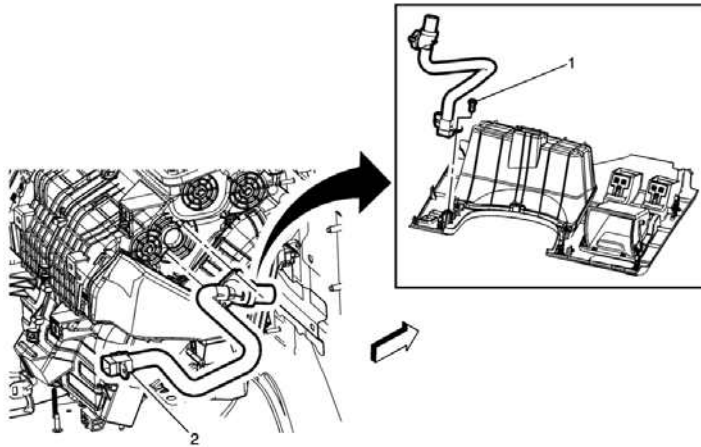
Remove Lower Instrument Panel. Refer to Instrument Lower Panel Replacement.

- | | |
|---|---|
| 1 | Inside Air Temperature Sensor Fastener (Qty: 2) |
| | Caution: Refer to Fastener Caution |
| 2 | Inside Air Temperature Sensor Assembly |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Inside Air Temperature Sensor Replacement

Callout

Component Name

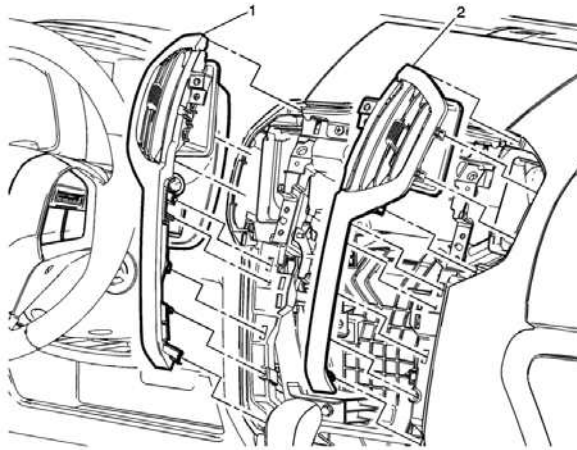
Preliminary Procedure

Remove driver side lower Instrument panel. Refer to Instrument Lower Panel Replacement.

- | | |
|---|---|
| 1 | Inside Air Temperature Sensor Fastener |
| | Caution: Refer to Fastener Caution |
| 2 | Inside Air Temperature Sensor Assembly |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Instrument Panel Center Air Outlet Grille Replacement

Callout

Component Name

Preliminary Procedures

1. Remove the instrument panel center trim plate, if equipped with (UGP) radio. Refer to Instrument Panel Center Trim Plate Replacement.
2. Remove the radio, if equipped with (UGQ) radio. Refer to Radio Replacement.

Instrument Panel Center Air Outlet Grille– Left Hand

1

Procedure

Use a flat bladed plastic trim tool in order to release the retainers securing the instrument panel center air outlet grille to the instrument panel assembly.

Instrument Panel Center Air Outlet Grille– Right Hand

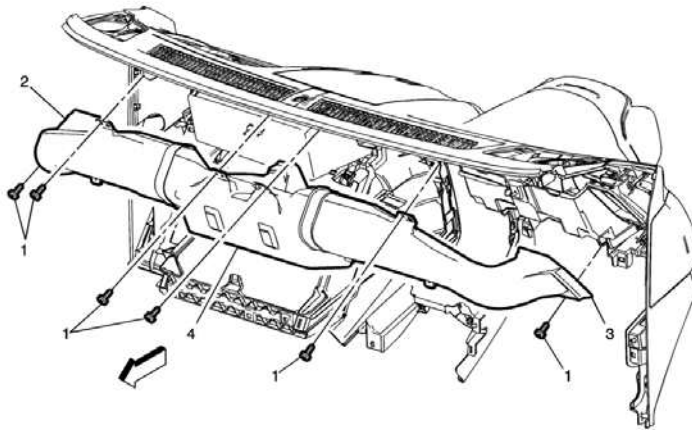
2

Procedure

Use a flat bladed plastic trim tool in order to release the retainers securing the instrument panel center air outlet grille to the instrument panel assembly.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Instrument Panel Outer Air Outlet Duct Replacement

Callout

Component Name

Preliminary Procedure

Remove the windshield defroster nozzle duct. . Refer to Windshield Defroster Nozzle Duct Replacement.

- | | |
|---|---|
| 1 | Instrument Panel Outer Air Outlet Duct Screw (Qty: 6)
Caution: Refer to Fastener Caution. |
| 2 | Instrument Panel Outer Air Outlet Duct – Passenger |
| 3 | Instrument Panel Outer Air Outlet Duct – Driver |
| 4 | Instrument Panel Center Air Outlet Duct |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Manual HVAC Description and Operation](#)

The air temperature and the air delivery description and operation are divided into seven areas:

- HVAC Control Components
- Air Speed
- Air Delivery
- Heating and A/C Operation
- Recirculation Operation
- Engine Coolant
- A/C Cycle

[HVAC Control Components](#)

HVAC Control Module

The HVAC control module is a device that interfaces between the operator and the HVAC system to maintain air temperature and distribution settings. The air recirculation, mode and air temperature flaps are mechanically controlled.

A/C Refrigerant Pressure Sensor

The A/C refrigerant pressure sensor is a 3-wire piezoelectric pressure transducer. A 5 V reference voltage, low reference, and signal circuits enable the sensor to operate. The A/C pressure signal can be between 0.2–4.8 V. When the A/C refrigerant pressure is low, the signal value is near 0 V. When the A/C refrigerant pressure is high, the signal value is near 5 V. The engine control module (ECM) converts the voltage signal to a pressure value. When pressure is too high or too low, the ECM will not allow the A/C compressor clutch to engage.

A/C Compressor

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The pressed A/C switch supplies battery voltage to the A/C request signal circuit at the instrument cluster. The instrument cluster sends an A/C request message to the engine control module (ECM) via CAN-Bus. Therefore the ECM grounds the A/C compressor clutch relay control circuit, which will switch the A/C compressor clutch relay. With the relay contacts closed, battery voltage is supplied to the A/C compressor clutch. The A/C compressor clutch will be activated.

[Air Speed](#)

The HVAC control module applies voltage to the blower motor control circuit that corresponds to the selected blower speed. The resistors and the blower motor are in a series circuit. The following list represents the number of resistors in series with the blower motor per particular speed request:

- Speed 1 – 3 resistors
- Speed 2 – 2 resistors
- Speed 3 – 1 resistors
- Speed 4 – 0 resistors

When the operator requests High speed, the HVAC control module applies direct voltage to the blower motor.

[Air Delivery](#)

The HVAC control module controls the distribution of air by the use of the mechanically controlled air recirculation and mode flap. The modes that may be selected are:

- Defrost
- Panel
- Floor

The desired air distribution mode can be selected with the air distribution switch at the HVAC control module. Depending on the position of the flap, air is distributed through various ducts leading to the outlets in the dash.

[Heating and A/C Operation](#)

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. Regardless of the temperature setting, the following can affect the rate that the HVAC system can achieve the desired temperature:

- Air recirculation flap setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting

Pressing the A/C switch enables the HVAC control module to request A/C compressor engagement and turn ON the A/C switch LED. The pressed A/C switch supplies ground to the A/C request signal circuit at the body control module (BCM). The BCM sends an A/C request message to the engine control module (ECM) via CAN-Bus. The ECM will provide a ground for the A/C compressor relay enabling it to close its internal contacts to send battery voltage to the A/C compressor clutch coil. The A/C compressor diode will prevent a voltage peak, resulting from the collapse of the magnetic field of the coil, from entering the vehicle electrical system when the compressor is disengaged.

The following conditions must be met in order to activate the A/C compressor:

- Battery voltage is between 9–18 V.
- Engine coolant temperature is less than 124°C (255°F).

- Engine speed is greater than 600 RPM.
- Engine speed is less than 5 500 RPM.
- A/C high side pressure is between 269–2 929 kPa (39–425 PSI).
- Throttle position is less than 100%.
- Evaporator temperature is greater than 3°C (38°F).
- ECM does not detect immoderate torque load.
- ECM does not detect insufficient idle quality.
- The ambient temperature is above 1°C (34°F).

The sensor information is used by the ECM to determine the following:

- The A/C high side pressure
- An A/C system load on the engine
- An immoderate A/C high side pressure
- The heat load at the A/C condenser

The air streams into the passenger compartment through the heater core and the evaporator core. The mechanically controlled air temperature flap induces the airflow. If the interior temperature should be increased, the mixed air flap is put into the position in which more air streams through the heater core. If the interior temperature should be decreased, the mixed air flap is put into the position in which more air streams through the evaporator core.

Recirculation Operation

The recirculation switch is part of the HVAC control module. The air recirculation flap is mechanically controlled.

Engine Coolant

Engine coolant is the essential element of the heating system. The thermostat controls the normal engine operating coolant temperature. The thermostat also creates a restriction for the cooling system that promotes a positive coolant flow and helps prevent cavitation.

Coolant enters the heater core through the inlet heater hose, in a pressurized state. The heater core is located inside the HVAC module. The ambient air drawn through the HVAC module absorbs the heat of the coolant flowing through the heater core. Heated air is distributed to the passenger compartment, through the HVAC module, for passenger comfort. Opening or closing the air temperature flap controls the amount of heat delivered to the passenger compartment. The coolant exits the heater core through the return heater hose and recirculates back to the engine cooling system.

A/C Cycle

Refrigerant is the key element in an air conditioning system. R-134a is presently the only Environmental Protection Agency approved refrigerant for automotive use. R-134a is a very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system. The A/C system is mechanically protected with the use of a high pressure relief valve. If the A/C refrigerant pressure sensor fails or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows to the Receiver/Dehydrator(R/D).

The R/D contains desiccant that absorbs moisture that may be in the refrigerant system. The R/D also acts as a storage vessel to ensure that a steady flow of liquid reaches the thermal expansion valve. The refrigerant exits the R/D and flows through the liquid line to the thermal expansion valve.

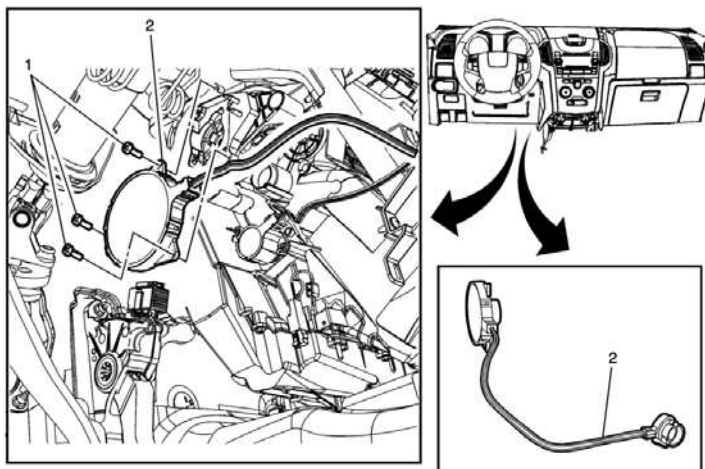
The thermal expansion valve is located at the front of dash and attaches to the evaporator inlet and outlet pipes. The thermal expansion valve is the dividing point for the high and the low pressure sides of the A/C system. As the refrigerant passes through the thermal expansion valve, the pressure on the refrigerant is lowered. The thermal expansion valve also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the thermal expansion valve flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the A/C compressor, in a vapor state, and completing the A/C cycle of heat removal. At the A/C compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the HVAC module for passenger comfort. The heat and moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC module as water.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Mode Control Cable Replacement

Callout

Component Name

Preliminary Procedure

Remove the heater and air conditioning control assembly. Refer to Heater and Air Conditioning Control Replacement.

1

Mode Control Cable Fastener (QTY: 3)

Caution : Refer to Fastener Caution.

Mode Control Cable

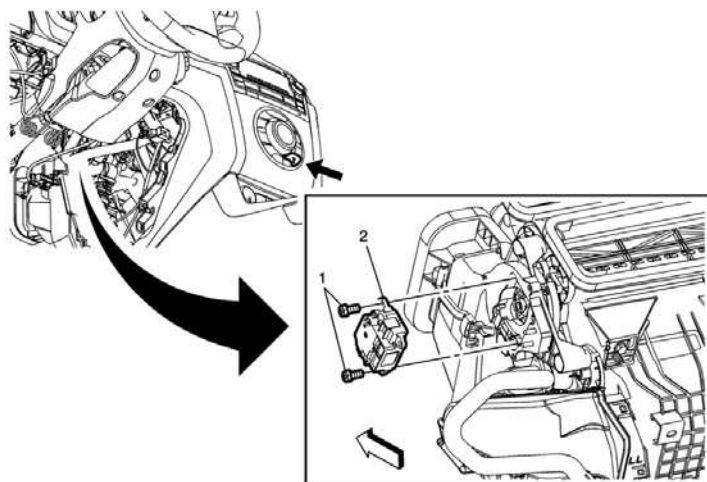
Procedure

2

1. Disconnect the mode control cable from the heater and air conditioning control assembly.
2. Remove the tie bar to floor support bolt. Refer to Instrument Panel Tie Bar Replacement.
3. Remove the left blower outlet duct. Refer to Blower Outlet Duct Replacement - Passenger Side.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Mode Control Cam Actuator Replacement

Callout

Component Name

Preliminary Procedures

1. Remove the driver side instrument lower panel.
Refer to Instrument Lower Panel Replacement.
2. Set the heating and air condition system to the defrost mode.

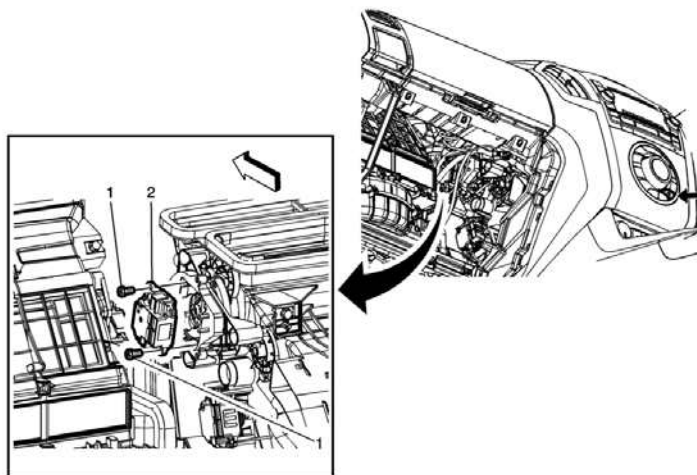
1 Mode Control Cam Actuator Fastener (Qty: 2)

Caution: Refer to Fastener Caution.

2 Mode Control Cam Actuator

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Mode Control Cam Actuator Replacement

Callout

Component Name

Preliminary Procedures

1. Remove the passenger side instrument lower panel. Refer to Instrument Lower Panel Replacement.
2. Remove the left blower outlet duct. Refer to Blower Outlet Duct Replacement - Passenger Side.

1

Mode Control Cam Actuator Fastener (Qty: 2)

Caution: Refer to Fastener Caution.

Mode Control Cam Actuator

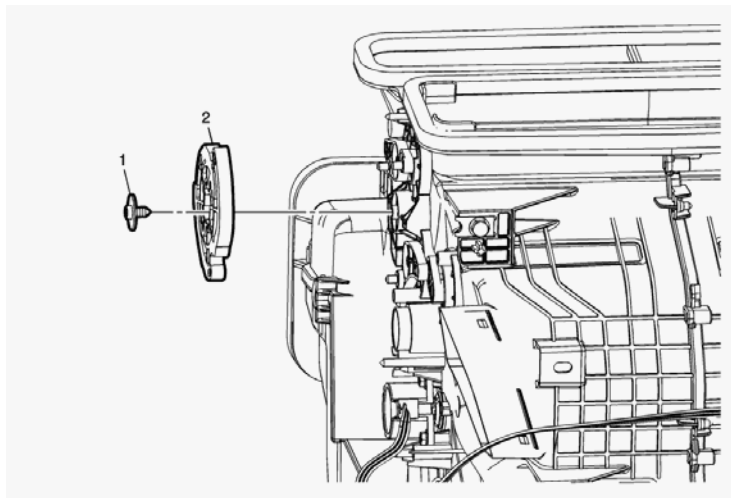
2

1. Activate the defrost button in order to release the actuator from the heater assembly.
2. Disconnect the electrical connection.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Mode Control Cam Replacement

Callout

Component Name

Preliminary Procedures

Remove Actuator Adapter. Refer to Actuator Adapter Replacement.

1 Mode Control Cam Fastener

2 Mode Control Cam

2013 Chevrolet Colorado

Submodel: | **Engine Type:** | **Liters:**
Fuel Delivery: | **Fuel:**

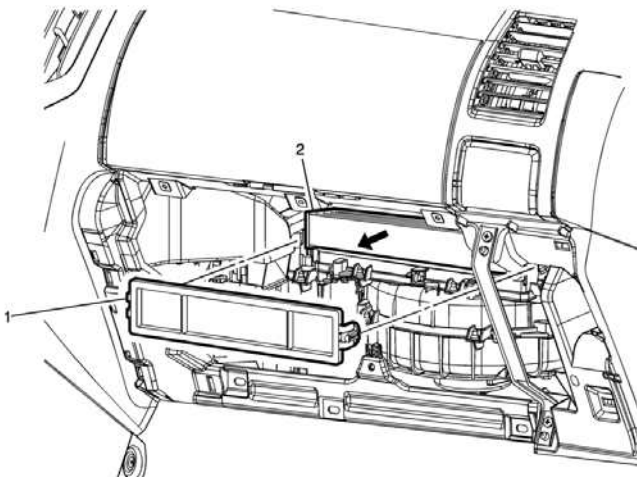
Eliminating Air Conditioning Odor

1. Odors may be emitted from the air conditioning system primarily at start up in hot, humid climates. The following conditions may cause the odor:
 - Debris is present in the HVAC module assembly.
 - Microbial growth on the evaporator core.
 - When the blower motor fan is turned on, the microbial growth may release an unpleasant musty odor into the passenger compartment. To remove odors of this type, the microbial growth must be addressed. Perform the following procedure:
 - Remove evaporator core. Refer to Air Conditioning Evaporator Replacement.
 - Clean evaporator core with a solution of 40% vinegar and 60% water.
 - Refit evaporator core. Refer to Air Conditioning Evaporator Replacement.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Passenger Compartment Air Filter Replacement

Callout

Component Name

Preliminary Procedure

Remove the passenger side instrument lower panel. Refer to Instrument Lower Panel Replacement.

1 Passenger Compartment Air Filter Access Hole Cover

Procedure

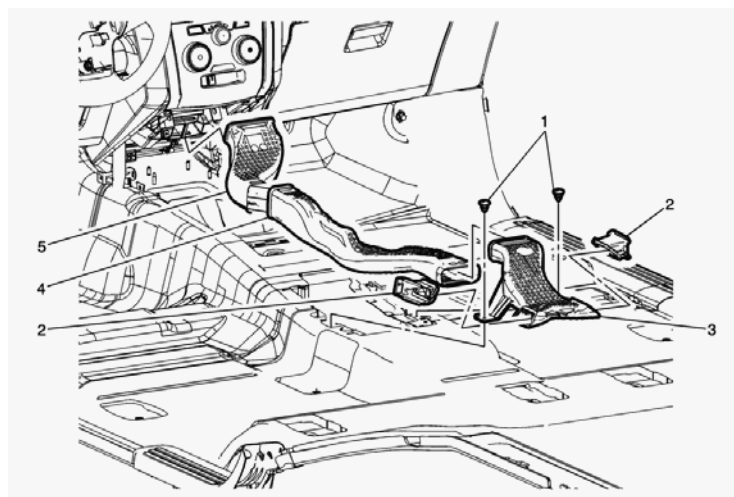
Release the retainer and open the service lid.

2 Passenger Compartment Air Filter

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Rear Floor Auxiliary Air Outlet Duct Replacement

Callout

Component Name

Preliminary Procedure

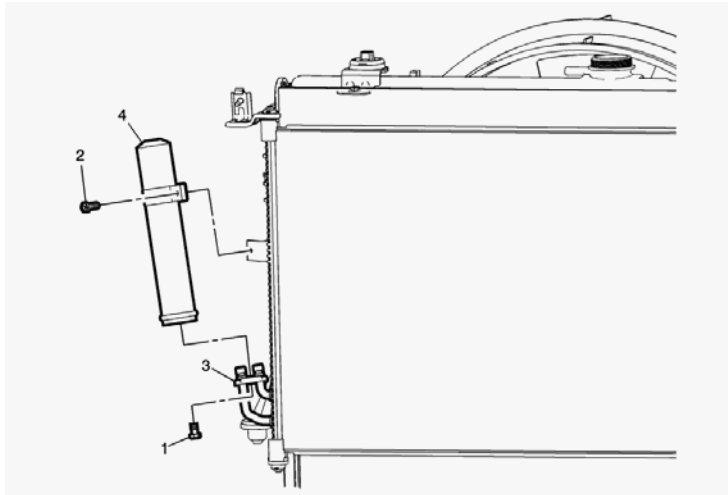
Remove the front floor console. Refer to Front Floor Console Replacement.

- | | |
|---|---|
| 1 | Push Pin Fasteners (QTY: 2) |
| 2 | Rear Floor Auxiliary Outlet Ducts Rear Outlets (Qty: 2) |
| 3 | Rear Floor Auxiliary Outlet Duct |
| 4 | Rear Floor Auxiliary Intermediate Outlet Duct |
| 5 | Rear Floor Auxiliary Front Outlet Duct |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Receiver and Dehydrator Replacement

Callout

Component Name

Preliminary Procedures

1. Discharge and recover the refrigerant. Refer to Refrigerant Recovery and Recharging.
2. Remove the air conditioning condenser. Refer to Air Conditioning Condenser Replacement.

1 Receiver and Dehydrator Fastener

2 Receiver and Dehydrator Bracket Fastener

Receiver and Dehydrator Seals

Procedure

- 3 Discard the old receiver and dehydrator seals and replace with new seals.

Note: Always replace the receiver and dehydrator seals when servicing the receiver and dehydrator.

4 Receiver and Dehydrator

2013 Chevrolet Colorado

Submodel: | **Engine Type:** | **Liters:**

Fuel Delivery: | **Fuel:**

Warning: To prevent personal injury, avoid breathing A/C Refrigerant and lubricant vapor or mist. Work in a well ventilated area. To remove refrigerant from the A/C System, use service equipment designed for recovery that is certified to meet the requirements of the appropriate SAE Standards. If an accidental system discharge occurs, ventilate the work area before continuing service. Additional health and safety information may be obtained from the refrigerant, refrigerant recovery, and lubricant manufacturers.

Warning: For personal protection, goggles and lint-free gloves should be worn and a clean cloth wrapped around fittings, valves, and connections when doing work that includes opening the refrigerant system. If refrigerant comes in contact with any part of the body severe frostbite and personal injury can result. The exposed area should be flushed immediately with cold water and prompt medical help should be obtained.

Caution: You must replace the desiccant if the A/C refrigerant system has been open to atmosphere for more than four hours, or if the A/C refrigerant oil has been contaminated. Failure to replace the desiccant will result in damage to the A/C refrigerant system.

Caution: To avoid system damage use only R-134a dedicated tools when servicing the A/C system.

Caution: R-134a is the only approved refrigerant for use in this vehicle. The use of any other refrigerant may result in poor system performance or component failure.

Caution: Use only Polyalkylene Glycol Synthetic Refrigerant Oil (PAG) for internal circulation through the R-134a A/C system and only 525 viscosity mineral oil on fitting threads and O-rings. If lubricants other than those specified are used, compressor failure and/or fitting seizure may result.

Caution: R-12 refrigerant and R-134a refrigerant must never be mixed, even in the smallest of amounts, as they are incompatible with each other. If the refrigerants are mixed, compressor failure is likely to occur. Refer to the manufacturer instructions included with the service equipment before servicing.

The A/C service station is a complete air conditioning service center for refrigerant. The service station recovers, recycles, evacuates and recharges A/C refrigerant quickly, accurately and automatically. The unit has a display screen that contains the function controls and displays prompts that will lead the technician through the recover, recycle, evacuate and recharge operations. A/C refrigerant is recovered into and charged out of an internal storage vessel.

The A/C service station has a built in A/C refrigerant identifier that will test for contamination, prior to recovery and will notify the technician if there are foreign gases present in the A/C system. If foreign gases are present, the station will not recover the refrigerant from the A/C system.

For information on the actual equipment, please refer to the manual of the equipment in question.

Always recharge the A/C System with the proper amount of refrigerant. Refer to Refrigerant System Specifications for the correct amount.

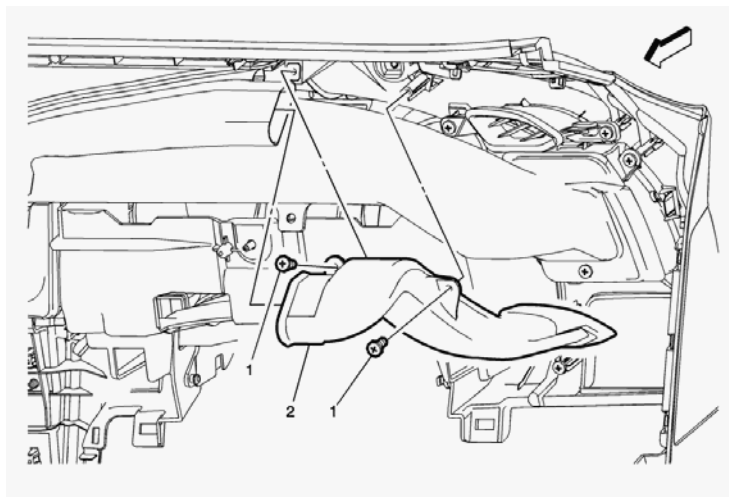
[A/C Refrigerant System Oil Charge Replenishing](#)

If oil was removed from the A/C system during the recovery process or due to component replacement, the oil must be replenished. Oil can be injected into a charged system. For the proper quantities of oil to add to the A/C refrigerant system, refer to Refrigerant System Specifications.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Side Window Defogger Outlet Duct Replacement - Left Side

Callout

Component Name

Preliminary Procedure

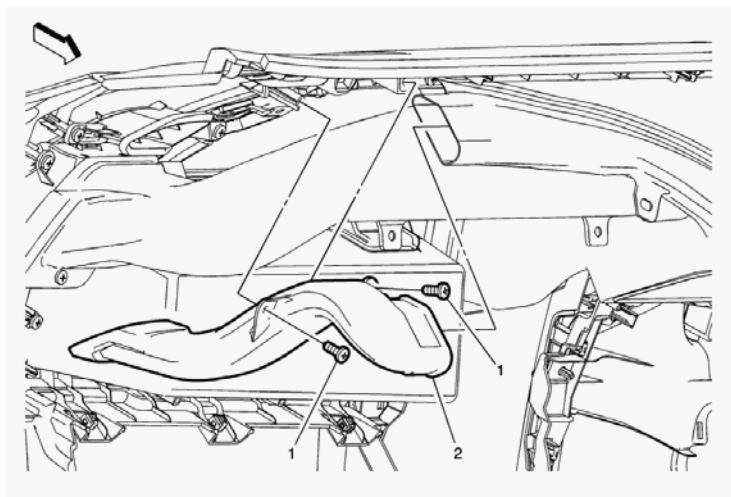
Remove the instrument panel assembly. Refer to Instrument Panel Assembly Replacement.

- | | |
|---|--|
| 1 | Side Window Defogger Outlet Duct-Left Fasteners(Qty) 2 |
| 2 | Side Window Defogger Outlet Duct-Left |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Side Window Defogger Outlet Duct Replacement - Right Side

Callout

Component Name

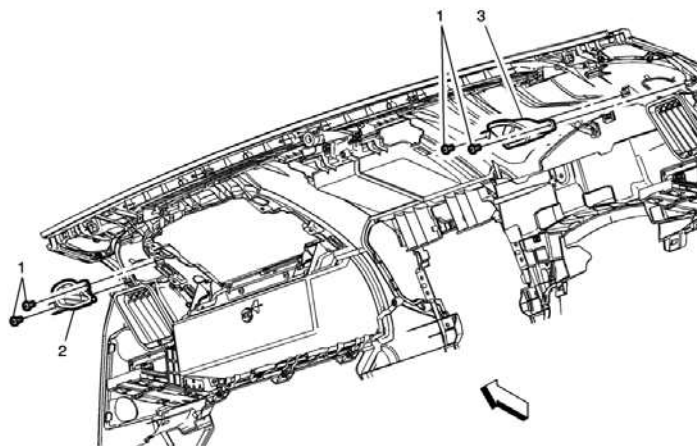
Preliminary Procedure

Remove the instrument panel assembly. Refer to Instrument Panel Assembly Replacement.

- | | |
|---|---|
| 1 | Side Window Defogger Outlet Duct-Right Fasteners(Qty) 2 |
| 2 | Side Window Defogger Outlet Duct-Right |

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Side Window Defogger Outlet Grille Replacement

Callout

Component Name

Preliminary Procedures

1. Remove the left side window defogger outlet duct. Refer to Side Window Defogger Outlet Duct Replacement - Left Side
2. Remove the right side window defogger outlet duct. Refer to Side Window Defogger Outlet Duct Replacement - Right Side

- | | |
|---|--|
| 1 | Instrument Carrier Bolt (Qty: 4)
Caution: Refer to Fastener Caution. |
| 2 | Side Window Defogger Outlet Grille- Passenger Side |
| 3 | Side Window Defogger Outlet Grille- Driver Side |

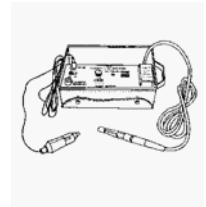
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Illustration



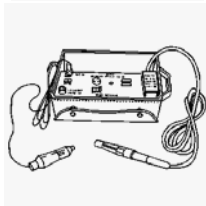
A/C Filling Device



GE-39400

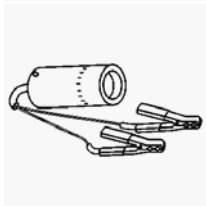
J-39400

Electric Halogen Leak Detector



GE-50078

Halogen Leak Detector



BO-42220

J-42220

Universal 12V Leak Detection Lamp



EL-47955

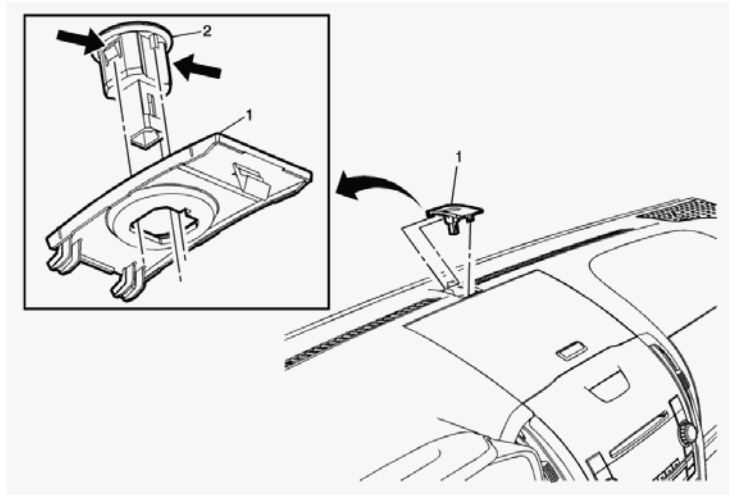
J-2534

Multi Diagnostic Interface MDI

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Sun Load Temperature Sensor Replacement

Callout

1

Instrument Panel Upper Trim Panel Cover

Refer to Instrument Panel Upper Trim Panel Cover Replacement

Sun Load Temperature Sensor

Procedure

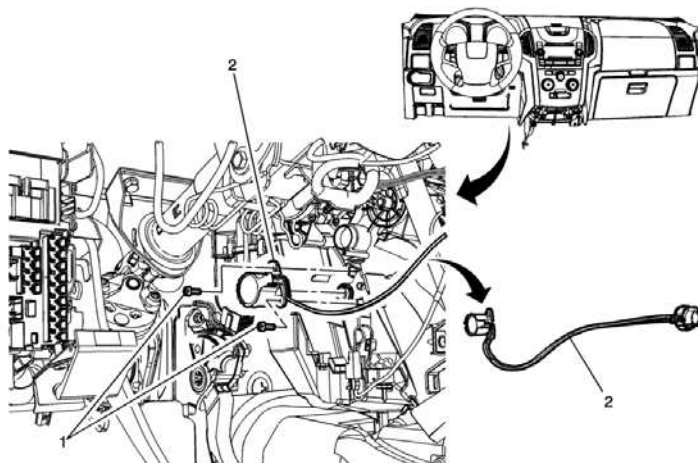
2

1. Disconnect the electrical connector.
2. Press the tabs to release the sun load temperature sensor from the cover.

Component Name

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Temperature Control Cable Replacement

Callout

Component Name

Preliminary Procedure

Remove the heater and air conditioning control assembly. Refer to Heater and Air Conditioning Control Replacement.

1

Temperature Control Cable Fastener (QTY: 2)

Caution : Refer to Fastener Caution.

Temperature Control Cable

Procedure

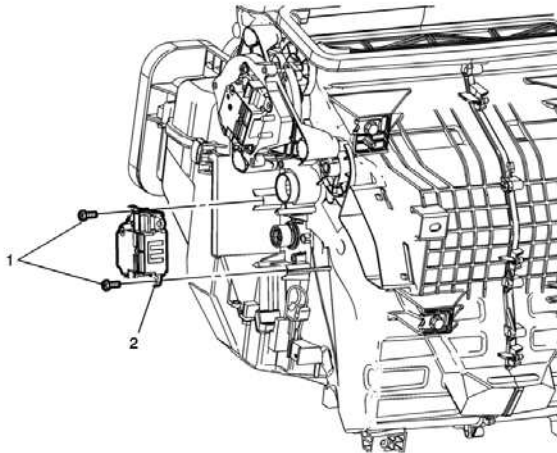
2

1. Disconnect the temperature control cable from the heater and air conditioning control assembly.
2. Remove the tie bar to floor support bolt. Refer to Instrument Panel Tie Bar Replacement.
3. Remove the left blower outlet duct. Refer to Blower Outlet Duct Replacement - Driver Side.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:



Temperature Valve Actuator Replacement

Callout

Component Name

Preliminary Procedures

Remove the instrument lower panel . Refer to Instrument Lower Panel Replacement.

1 Temperature Valve Actuator Fasteners (Qty: 2)

Temperature Valve Actuator

2 **Procedure**

Disconnect the electrical connection.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:

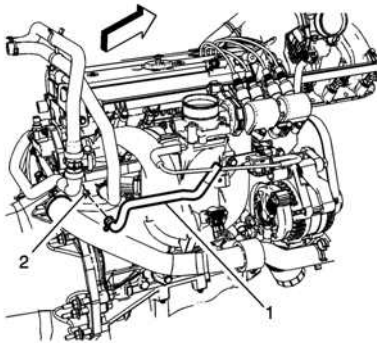
Special Tools

BO-38185 Hose Clamp Pliers

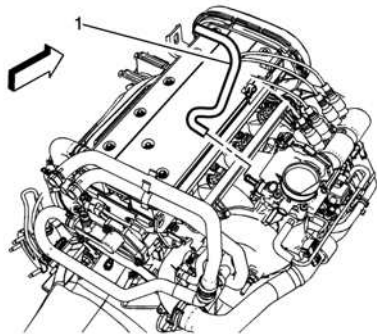
For equivalent regional tools, refer to Special Tools.

[Removal Procedure](#)

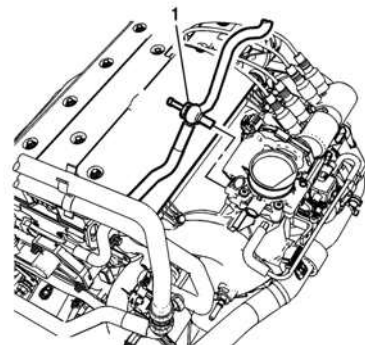
1. Remove the air cleaner assembly. Refer to Air Cleaner Assembly Replacement.
2. Remove the throttle body assembly. Refer to Throttle Body Assembly Replacement.
3. Drain the cooling system. Refer to Cooling System Draining and Filling.



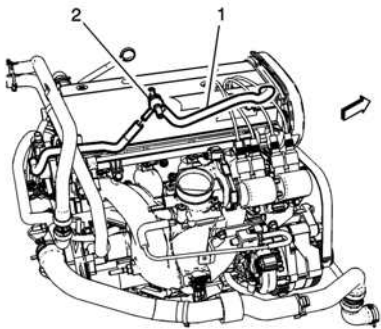
4. Remove the throttle body outlet hose (1) using the BO-38185 pliers from the radiator outlet hose fitting (2).



5. Remove the PCV pipe (1) from the vacuum source manifold fitting on the intake manifold.

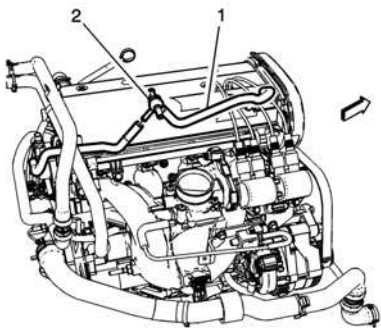


6. Remove the fastener (1) holding the vacuum source manifold fitting to the intake manifold.

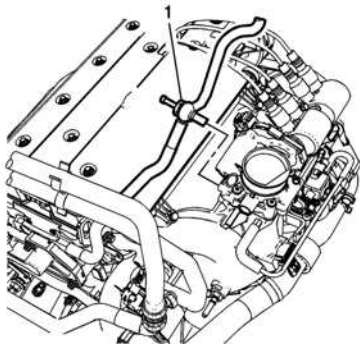


7. Remove the throttle body outlet hose (1) from the vacuum source manifold fitting (2).
8. Remove the throttle body outlet hose from the engine compartment.

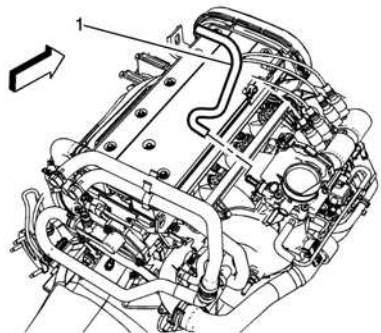
[Installation Procedure](#)



1. Install the throttle body outlet hose (1) onto the vacuum source manifold fitting (2).

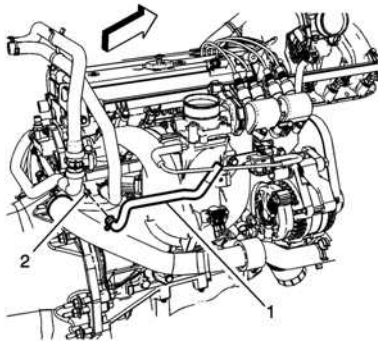


2. Install the vacuum source manifold fitting (1) onto the intake manifold.



3. Install the PCV pipe (1) from the vacuum source manifold fitting into the intake manifold.

Throttle Body Heater Outlet Hose Replacement (LE6-Radiator Hose-to-Vac Fitting)



4. Install the throttle body outlet hose (1) onto the radiator outlet hose fitting (2).
5. Install the throttle body assembly. Refer to Throttle Body Assembly Replacement.
6. Install the air cleaner assembly. Refer to Air Cleaner Assembly Replacement.
7. Fill the cooling system. Refer to Cooling System Draining and Filling.
8. Start the engine and check for coolant leaks.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:

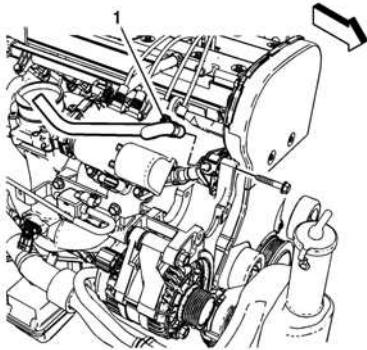
Special Tools

BO-38185 Hose Clamp Pliers

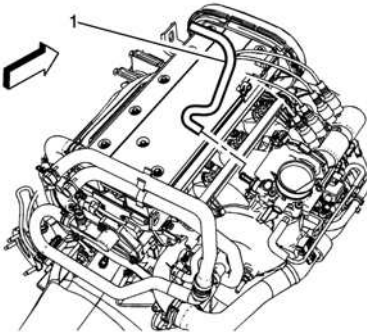
For equivalent regional tools, refer to Special Tools.

[Removal Procedure](#)

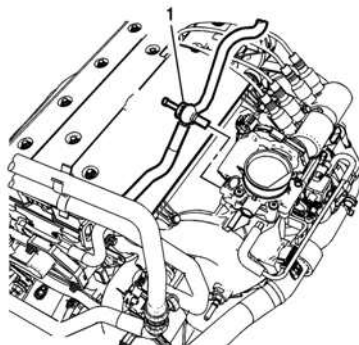
1. Remove the air cleaner assembly. Refer to Air Cleaner Assembly Replacement.
2. Remove the throttle body assembly. Refer to Throttle Body Assembly Replacement.
3. Drain the cooling system. Refer to Cooling System Draining and Filling.



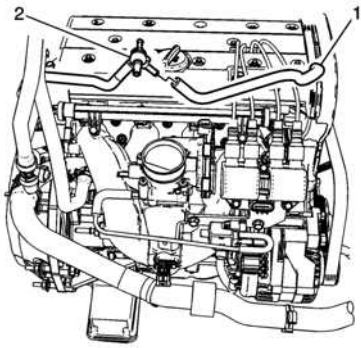
4. Remove the throttle body outlet hose (1) using the BO-38185 pliers from the engine cooling water outlet adapter.



5. Remove the PCV pipe (1) from the vacuum source manifold fitting on the intake manifold.

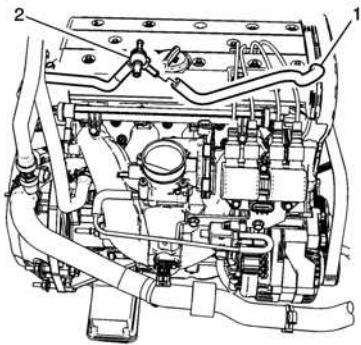


6. Remove the fastener (1) holding the vacuum source manifold fitting to the intake manifold.

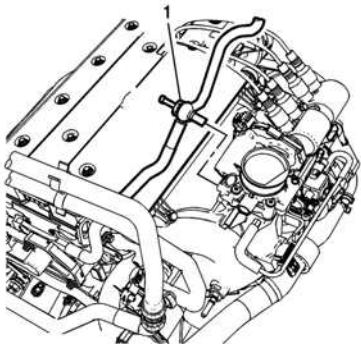


7. Remove the throttle body outlet hose (1) from the tee connector (2).
8. Remove the throttle body outlet hose from the engine compartment.

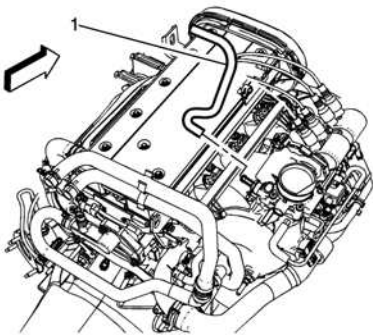
[Installation Procedure](#)



1. Install the throttle body outlet hose (1) onto the vacuum source manifold fitting (2).

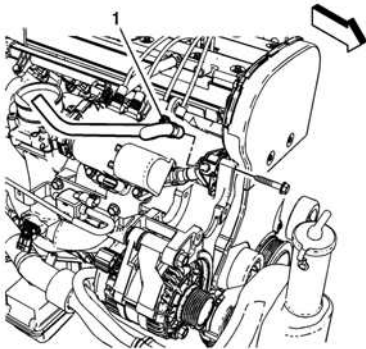


2. Install the vacuum source manifold fitting (1) onto the intake manifold.



3. Install the PCV pipe (1) from the vacuum source manifold fitting into the intake manifold.

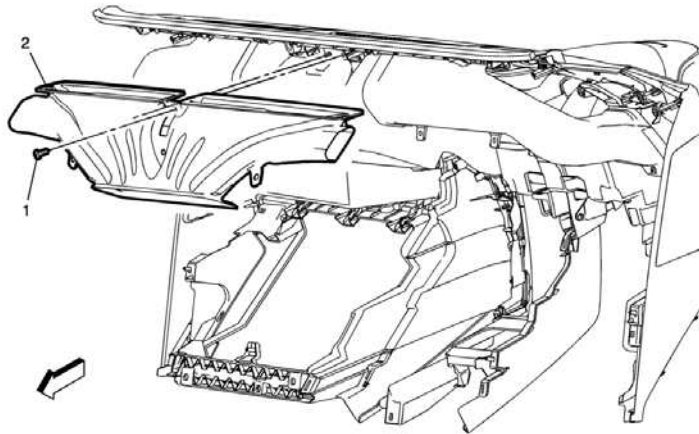
Throttle Body Heater Outlet Hose Replacement (LE6-Water Outlet-to-Vacuum Fitting)



4. Install the throttle body outlet hose (1) onto the engine coolant outlet adapter.
5. Install the throttle body assembly. Refer to Throttle Body Assembly Replacement.
6. Install the air cleaner assembly. Refer to Air Cleaner Assembly Replacement.
7. Fill the cooling system. Refer to Cooling System Draining and Filling.
8. Start the engine and check for coolant leaks.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Windshield Defroster Nozzle Duct Replacement

Callout	Component Name
Preliminary Procedure	
1. Remove the instrument panel assembly. Refer to Instrument Panel Assembly Replacement.	
2. Remove left side window defroster. Refer to Side Window Defogger Outlet Duct Replacement - Left Side	
3. Remove right side window defroster. Refer to. Side Window Defogger Outlet Duct Replacement - Right Side	
1	Windshield Defroster Nozzle Duct Fastener Caution: Refer to Fastener Caution.
2	Windshield Defroster Nozzle Duct