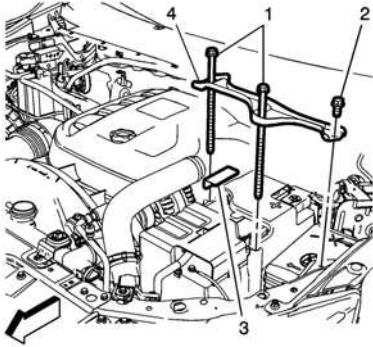


2013 Chevrolet Colorado

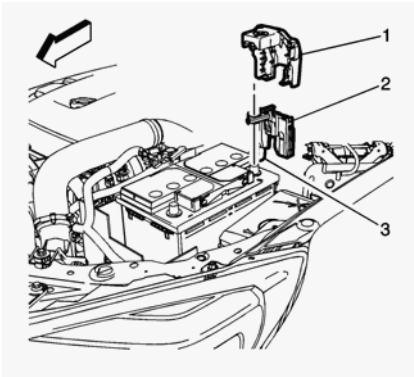
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

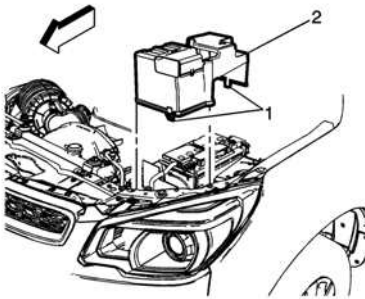
1. Disconnect the battery negative cable. Refer to Battery Negative Cable Disconnection and Connection



2. Remove the battery hold down retainer fasteners (1) and (2).
3. Remove the battery hold down retainer (4).

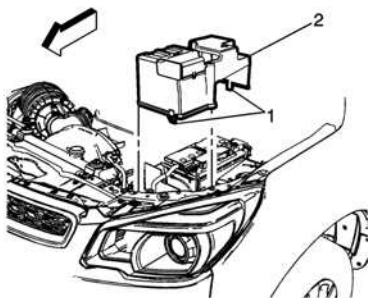


4. Remove the battery positive cover (1) and release the battery positive cable clamp (2).
5. Remove the battery positive cable (3) from the battery positive post.

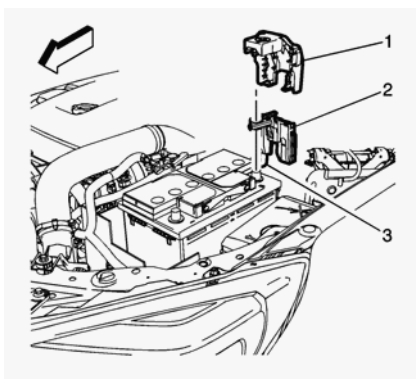


6. Release the battery box retainer tabs (1) securing the battery box to the batttery tray.
7. Remove the battery box (2).

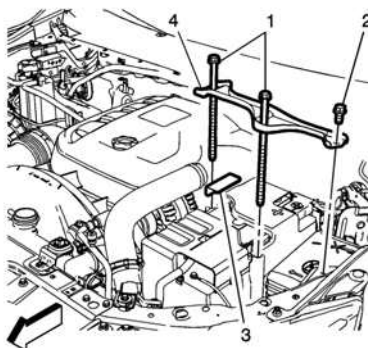
[Installation Procedure](#)



1. Install the battery box (2) to the battery tray with the battery box retainer tabs (1).



2. Install the battery positive cable (3) to the battery positive post.
3. Install the battery positive cable clamp (2) to the battery post and install the cover (1).



4. Install the retainer (4) to the top of the battery.

Caution: Refer to Fastener Caution.

5. Install the retainer fasteners (1) and tighten to **5 Y (44 lb in)**.
6. Install the upper tie bar fastener (2) and tighten to **20 Y (15 lb ft)**.
7. Connect the battery negative cable. Refer to Battery Negative Cable Disconnection and Connection

2013 Chevrolet Colorado

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

Special Tools

EL 50313 Battery Tester

For equivalent regional tools, refer to Special Tools.

Diagnostic Aids

- For best results, use an automatic taper-rate battery charger with a voltage capability of 16 V.
- The charging area should be well ventilated.
- Do not charge a battery that appears to be frozen. Allow the battery to warm to room temperature and test it using the EL 50313 before charging.

Battery State of Charge

Note: Using voltage to determine the batteries state of charge is only accurate after the battery has been at rest for 24 hours. This is enough time for the acid in each cell to equalize. If the battery has been charged or discharged in the past 24 hours, the battery state of charge will only be an estimate.

The maintenance-free batteries state of charge is estimated by reading the voltage of the battery across the battery terminals. Because the voltage is affected by current flow into or out of the battery, the engine must be stopped and all electrical loads turned OFF, including parasitic loads, when checking the voltage. The voltage can also be affected if the battery has just been charged or discharged, so it is important to consider what has happened to the battery in the time just before testing. Use the following procedure to determine the battery's state of charge:

1. Be sure all electrical loads are turned OFF.
2. Determine whether the battery has been used in a vehicle or charged within the past 12 hours.

- If the answer is no, the terminal voltage will be stabilized and no action is necessary before reading the voltage. Skip to step 3.
- If the answer is yes, terminal voltage will not be stabilized and you should wait 12 hours since the last time the battery was used.
- Estimate the battery temperature by determining the average temperature to which the battery has been exposed for the past 12 hours.

Note: The table is accurate to 10 % only after the battery has been at rest for 12 hours.

- Measure the battery voltage at the battery terminals. Refer to the following table to determine the state of charge according to the estimated battery temperature:

Battery Voltage	% Charge at 0°C (32°F)	% Charge at 25°C (75°F)
12.75 V	100%	100%
12.7 V	100%	90%
12.6 V	90%	75%
12.45 V	75%	65%
12.2 V	65%	45%
12.0 V	40%	20%

Use the state of charge information as follows:

- A battery with a state of charge that is below 65% must always be recharged before returning it to service or continuing storage.
- A battery with a state of charge that is 65% or greater is generally considered to be charged enough in order to be returned to normal service or in order to continue storage. However, if the battery is being used in slow traffic or with short drive times, or if the temperature is very hot or very cold, the battery should be fully charged, to at least 90%, before returning it to service or continuing storage.

Charging Time Required

The time required to charge a battery will vary depending upon the following factors:

- The battery charger capacity—The higher the charger amperage, the less time it will take to charge the battery.
- The state of charge of the battery—A completely discharged battery requires more than twice as much charging time as a half charged battery. In a discharged battery with a voltage below 11 V, the battery has a very high internal resistance and may only accept a very low current at first. Later, as the charging current causes the acid content to increase in the electrolyte, the charging current will increase. Extremely discharged batteries may not activate the reversed voltage protection in some chargers. Refer to the manufacturer's instructions for operating this circuitry.
- The temperature of the battery—The colder the battery is, the more time it takes to recharge the battery. The charging current accepted by a cold battery is very low at first. As the battery warms, the charging current will increase.

Charging Procedure

Caution: Turn OFF the ignition when connecting or disconnecting the battery cables, the battery charger or the jumper cables. Failure to do so may damage the ECM/PCM or other electronic components.

Caution: Refer to Fastener Caution.

When charging side-terminal batteries with the battery cables connected, connect the charger to the positive cable bolt and to a ground located away from the battery. When charging side-terminal batteries with the battery cables disconnected, install the battery side terminal adapters and connect the charger to the

adapters.

Tighten

Tighten the battery side terminal adapters to 15 Y (11 lb ft).

Use the following procedure to charge the battery:

1. Turn OFF the charger.
2. Ensure that all of the battery terminal connections are clean and tight.
3. Connect the charger positive lead to the battery positive terminal on the battery or the remote jumper stud underhood.

Caution: Do not connect the negative charger lead to the housings of other vehicle electrical accessories or equipment. The action of the battery charger may damage such equipment.

4. Connect the negative charger lead to a solid engine ground or to a ground stud in the engine compartment that is connected directly to the battery negative terminal, but away from the battery. If the negative battery cable is disconnected and a terminal adapter is being used, connect directly to the adapter.
5. Turn ON the charger and set to the highest setting for normal charging.
6. Inspect the battery every half hour after starting the battery charger.

- Charge the battery until the taper-rate charger indicates that the battery is fully charged.
- Estimate the battery temperature by feeling the side of the battery. If it feels hot to the touch or its temperature is over 45°C (125°F), discontinue charging and allow the battery to cool before resuming charging.
- After charging, test the battery. Refer to Battery Inspection/Test.

2013 Chevrolet Colorado

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

Warning: Batteries produce explosive gases, contain corrosive acid, and supply levels of electrical current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- Always shield your eyes and avoid leaning over the battery whenever possible.
- Do not expose the battery to open flames or sparks.
- Do not allow the battery electrolyte to contact the eyes or the skin. Flush immediately and thoroughly any contacted areas with water and get medical help.
- Follow each step of the jump starting procedure in order.
- Treat both the booster and the discharged batteries carefully when using the jumper cables.

Note: Because of the materials used in the manufacture of automotive lead acid batteries, dealers and service shops that handle them are subject to various regulations issued by OSHA, EPA, DOT, and various state or local agencies. Other regulations may also apply in other locations. Always know and follow these regulations when handling batteries.

Batteries that are no longer wanted must be disposed of by an approved battery recycler and must never be thrown in the trash or sent to a landfill.

Batteries that are not part of the vehicle itself, not the battery under the hood, must only be transported on public streets for business purposes via approved hazardous material transportation procedures.

Battery storage, charging and testing facilities in repair shops must meet various requirements for ventilation, safety equipment, material segregation, etc.

The maintenance free battery is standard. There are no vent plugs in the cover. The battery is completely sealed except for 2 small vent holes in the side. These vent holes allow the small amount of gas that is produced in the battery to escape.

The battery has 3 functions as a major source of energy:

- Engine cranking
- Voltage stabilizer
- Alternate source of energy with generator overload

[Battery Low Start Vehicle Message](#)

The body control module (BCM) monitors battery positive voltage to determine battery state of charge. If one or more of the BCM battery positive voltage terminals measure less than approximately 11.6V compared to the BCM ground circuits, this message will display and four chimes may sound. Start the vehicle immediately. If the vehicle is not started and the battery continues to discharge, the climate controls, heated seats, and audio systems will shut off and the vehicle may require a jump start. These systems will function again after the vehicle is started.

[Battery Ratings](#)

A battery has 2 ratings:

- Cold cranking amperage
- Amperage hours

When a battery is replaced use a battery with similar ratings. See battery specification label on the original battery.

[Amperage Hours](#)

The amperage hour rating tells you how much amperage is available when discharged evenly over a 20 hour period. The amperage hour rating is cumulative, so in order to know how many constant amperage the battery will output for 20 h, you have to divide the amperage hour rating by 20. Example: If a battery has an amperage hour rating of 74, dividing by 20 = 3.75. Such a battery can carry a 3.75 A load for 20 hours before dropping to 10.5 V. (10.5 V is the fully discharged level, at which point the battery needs to be recharged.) A battery with an amperage hour rating of 55 will carry a 2.75 A load for 20 hours before dropping to 10.5 V.

[Cold Cranking Amperage](#)

The cold cranking amperage is an indication of the ability of the battery to crank the engine at cold temperatures. The cold cranking amperage rating is the minimum amperage the battery must maintain for 30 seconds at -18°C (0°F) while maintaining at least 7.2 V. See battery label for the cold cranking amperage rating of this battery.

2013 Chevrolet Colorado

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

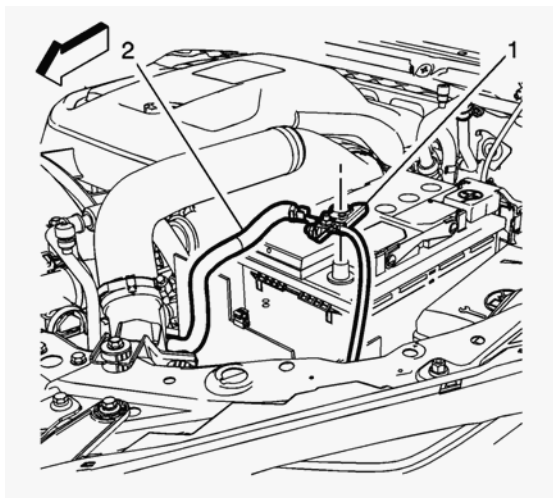
Warning: Unless directed otherwise, the ignition and start switch must be in the OFF or LOCK position, and all electrical loads must be OFF before servicing any electrical component. Disconnect the negative battery cable to prevent an electrical spark should a tool or equipment come in contact with an exposed electrical terminal. Failure to follow these precautions may result in personal injury and/or damage to the vehicle or its components.

For Vehicles equipped with OnStar® (UE1) with Back Up Battery:

The Back Up Battery is a redundant power supply to allow limited OnStar® functionality in the event of a main vehicle battery power disruption to the VCIM (OnStar® module). Do not disconnect the main vehicle battery or remove the OnStar® fuse with the ignition key in any position other than OFF. Retained accessory power should be allowed to time out or be disabled (simply opening the driver door should disable retained accessory power) before disconnecting power. Disconnecting power to the OnStar® module in any way while the ignition is On or with retained accessory power activated may cause activation of the OnStar® Back-Up Battery system and will discharge and permanently damage the back-up battery. Once the Back-Up Battery is activated it will stay on until it has completely discharged. The back-up battery is not rechargeable and once activated the back-up battery must be replaced.

2013 Chevrolet Colorado

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



Battery Negative Cable Disconnection and Connection

Callout

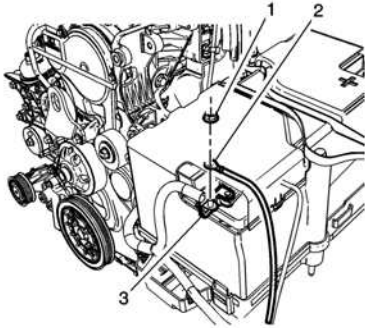
Component Name

- | | |
|---|---|
| 1 | Warning: Refer to Battery Disconnect Warning.
Battery Negative Post Clamp |
| 2 | Battery Negative Cable |

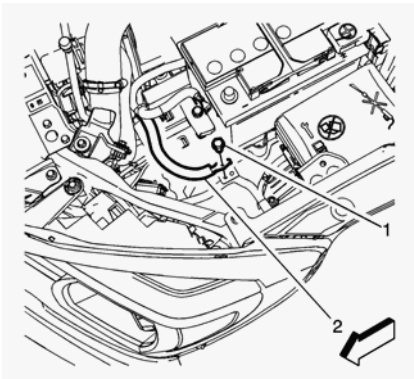
2013 Chevrolet Colorado

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

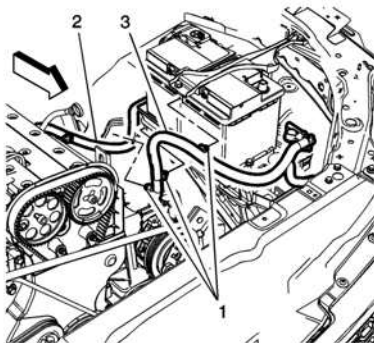
[Removal Procedure](#)



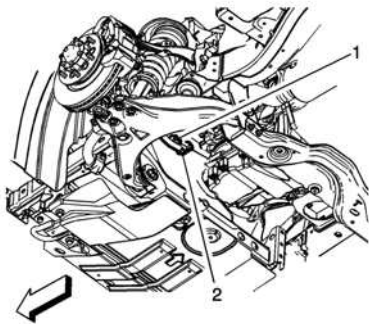
1. Remove the body harness fastener (1) and the body harness terminal (2) from the negative battery clamp (3).
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.



3. Remove the battery negative cable battery tray ground fastener (1) and remove the battery negative cable (2).



4. Remove the battery negative retainers (1) from the battery positive cable (2) and the battery tray.
5. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
6. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.

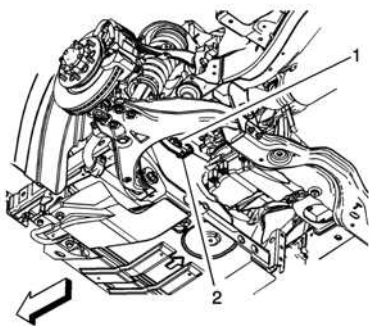


7. Remove the battery negative cable fastener (1) and the battery negative cable (2) , from the engine block.

Note: Observe how the battery negative cable was routed within the engine compartment.

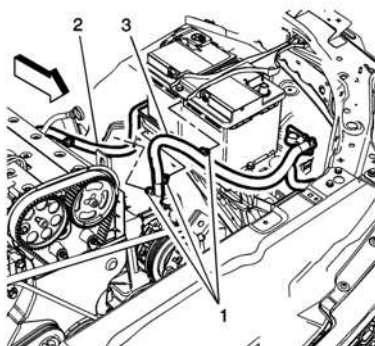
8. Remove the battery negative cable from the engine compartment.

[Installation Procedure](#)

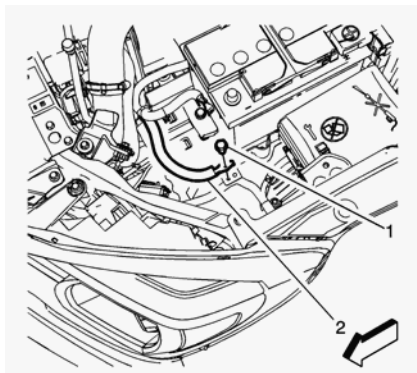


Caution: Refer to Fastener Caution.

1. Install the battery negative cable (2) to the engine block and tighten the fastener (1) to **40 Y (29 lb ft)**.

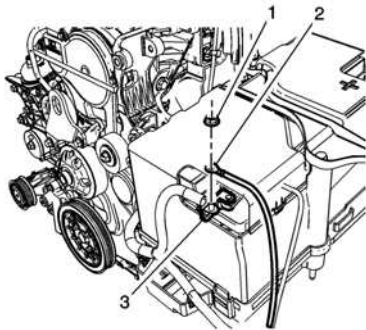


2. Install the battery negative cable (3) to the battery positive cable (2) and battery tray with the retainers (1).
3. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
4. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.



Battery Negative Cable Replacement (LE6)

5. Install the battery negative cable (2) to the left front frame rail and tighten the fastener (1) to **22 Y (16 lb ft)**.

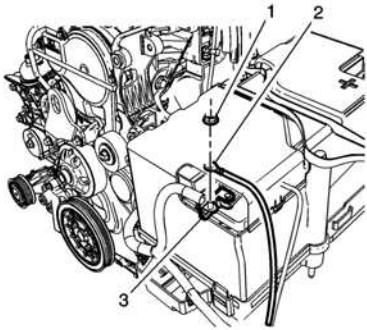


6. Install body harness terminal (2) to the negative battery clamp (3) and tighten the fastener (1) to **10 Y (89 lb in)**.

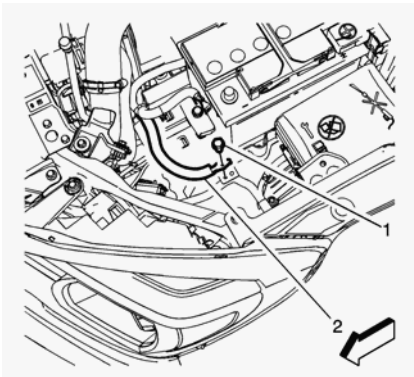
2013 Chevrolet Colorado

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

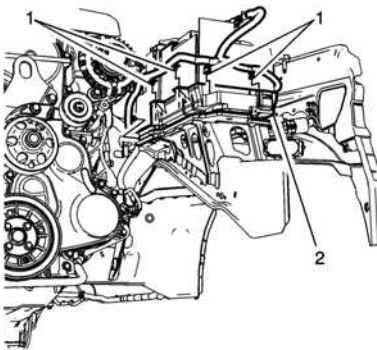
[Removal Procedure](#)



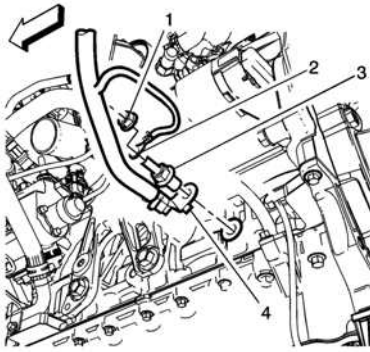
1. Remove the body harness fastener (1) and the body harness terminal (2) from the negative battery clamp (3).
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.



3. Remove the battery negative cable battery tray ground fastener (1) and remove the battery negative cable (2).

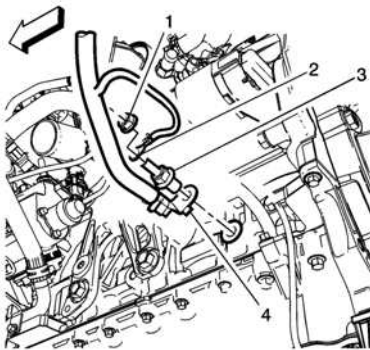


4. Remove the battery negative retainers (1) from the battery tray (2).
5. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
6. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.



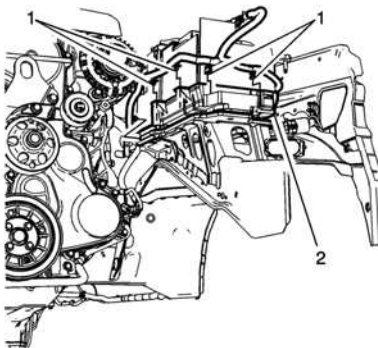
7. Remove the fuel injector harness fastener (1) and the fuel injector harness ground terminal (2).
 8. Remove the battery negative stud (3) and the battery negative cable (4) from the engine block.
- Note:** Observe how the battery negative cable was routed within the engine compartment.
9. Remove the battery negative cable from the engine compartment.

[Installation Procedure](#)

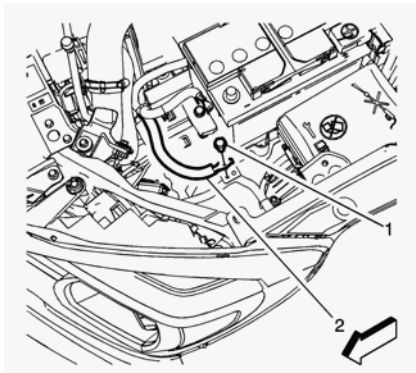


Caution: Refer to Fastener Caution.

1. Install the battery negative cable (4) to the engine block and tighten the stud (3) to **60 Y (44 lb ft)**.
2. Install the fuel injector harness terminal (2) and tighten the fastener (1) to **22 Y (16 lb ft)**.



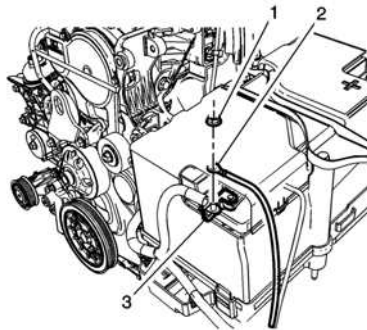
3. Install the battery negative cable to the battery tray (2) with the retainers (1).



4. Install the battery negative cable (2) to the left front frame rail and tighten the fastener (1) to **22 Y (16 lb ft)**.

Battery Negative Cable Replacement (LWH)

5. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.

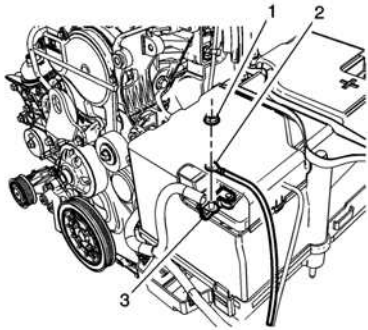


6. Install body harness terminal (2) to the negative battery clamp (3) and tighten the fastener (1) to **10 Y (89 lb in)**.

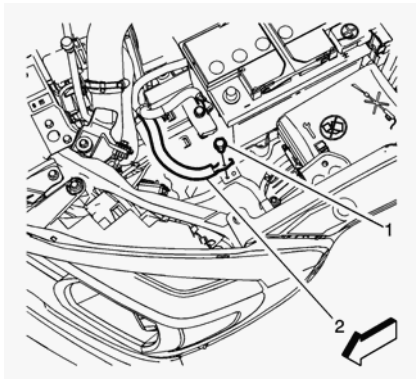
2013 Chevrolet Colorado

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

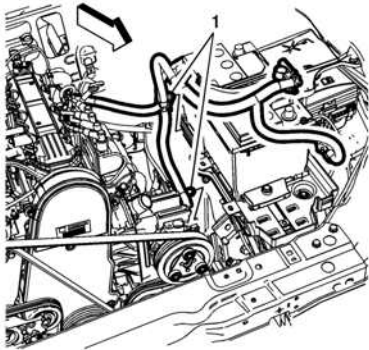
[Removal Procedure](#)



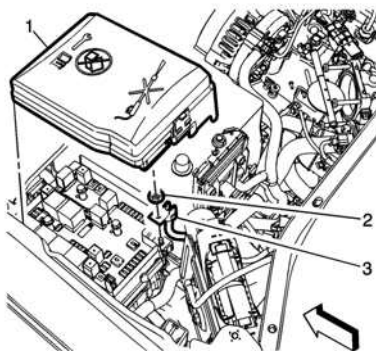
1. Remove the body harness fastener (1) and the body harness terminal (2) from the negative battery clamp (3).
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.



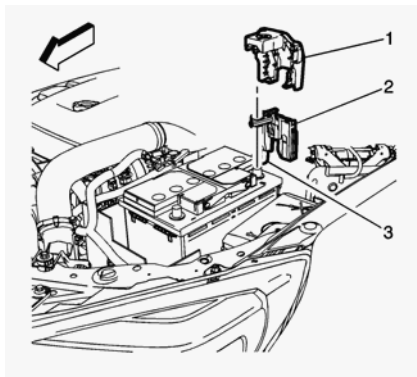
3. Remove the battery negative cable battery tray ground fastener (1) and remove the battery negative cable (2).



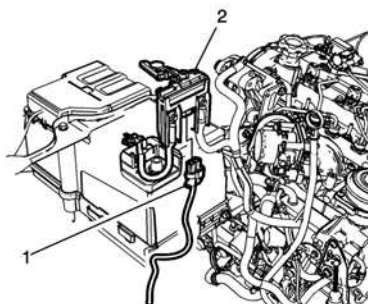
4. Remove the battery positive and negative cable retainers (1), from the battery tray and left front wheel well.



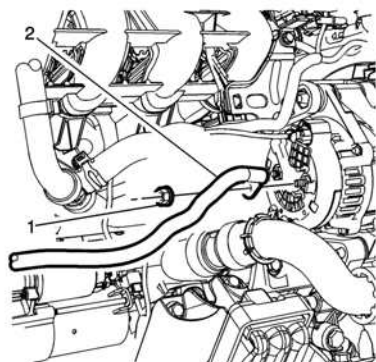
5. Remove the underhood fuse block cover (1).
6. Remove the battery positive cable fastener (2) and remove the battery positive cable (3).



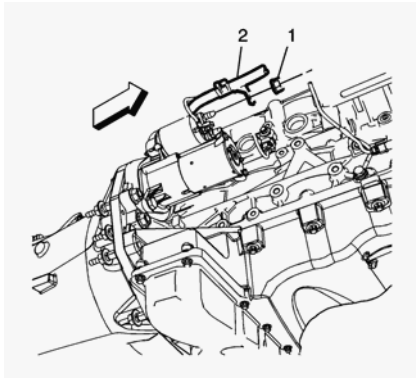
7. Remove the battery positive cable cover (1) and release the clamp (2) securing the battery positive cable (3) to the battery post.



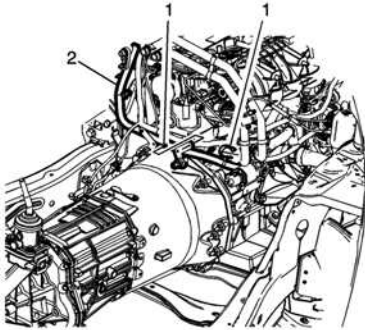
8. Remove the body harness connector (1) from the battery positive cable (2).



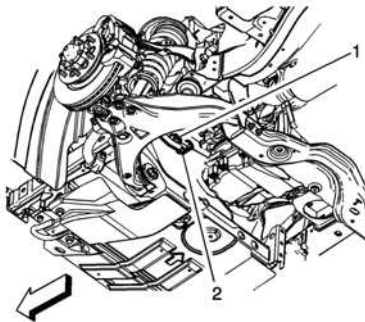
9. Remove the battery positive cable fastener (1) and the battery positive cable (2) from the back of the generator.



10. Remove the battery positive cable fastener (1) and the battery positive cable terminal (2) , from the starter.



11. Remove the battery positive retainers (1) securing the battery positive cable (2) to the transmission bracket and heater hose.
12. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
13. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.

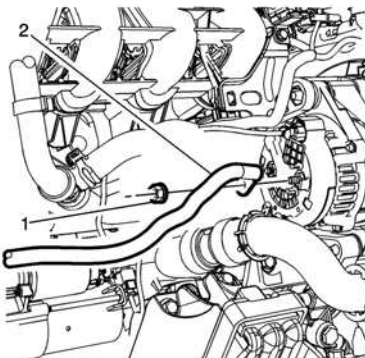


14. Remove the battery negative cable fastener (1) and the battery negative cable (2) , from the engine block.

Note: Observe how the battery positive and negative cable was routed within the engine compartment.

15. Remove the battery positive and negative cable, from the engine compartment.

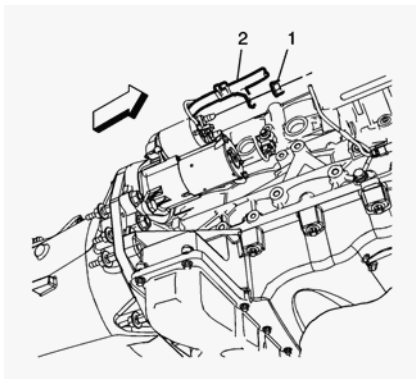
[Installation Procedure](#)



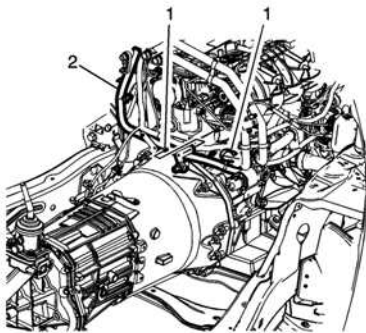
Caution: Refer to Fastener Caution.

1. Install the battery positive cable (2) to the generator and tighten the fastener (1) to **14 Y (124 lb in)**.

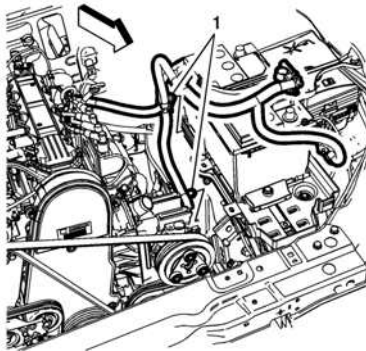
2. Install the battery negative cable (6) to the engine block and tighten the fastener (5) to **60 Y (44 lb ft)**.



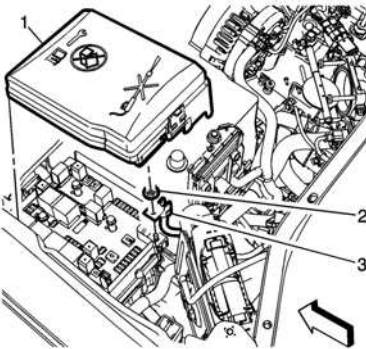
3. Install the battery positive cable (2) to the starter and tighten the fastener (1) to **10 Y (89 lb in)**.



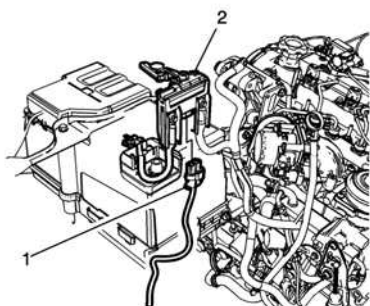
4. Install the battery positive cable (2) to the transmission bracket and heater hose (1).



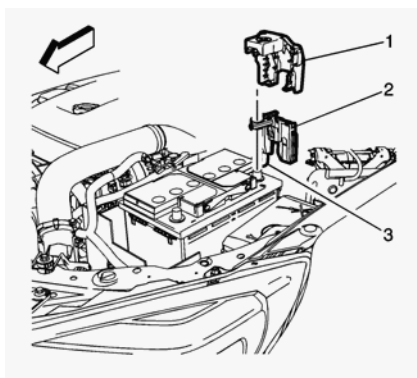
5. Install the battery positive retainers (1) securing the battery positive cable to the battery tray and the left front wheel well.



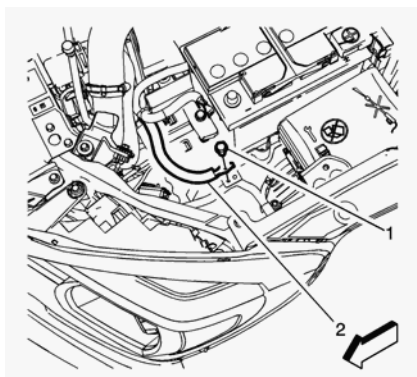
6. Install the battery positive cable (3) to the underhood fuse block stud and tighten the fastener (2) to **10 Y (89 lb in)**.
7. Install the underhood fuse block cover (1).



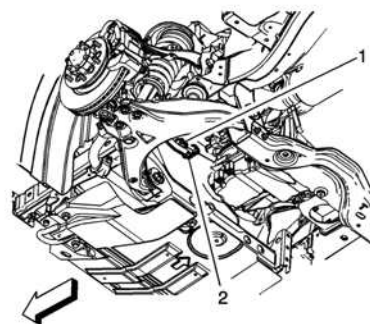
8. Install the body harness connector (1) to the battery positive cable (2).



9. Install the battery positive cable (3) to the battery post with the clamp (2).
10. Install the battery positive clamp cover (1).

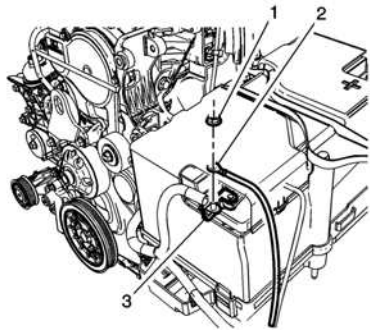


11. Install the battery negative cable battery tray ground fastener (1) and tighten to **10 Y (89 lb in)**.



12. Install the battery negative cable (2) to the engine block and tighten the fastener (1) to **40 Y (29 lb ft)**.
13. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.

Battery Positive and Negative Cable Replacement (LP8)

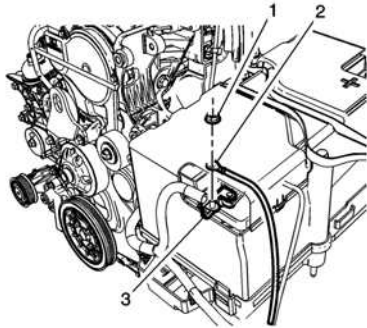


14. Install body harness terminal (2) to the negative battery clamp (3) and tighten the fastener (1) to **10 Y (89 lb in)**.

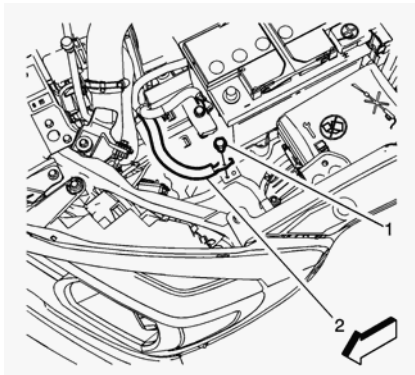
2013 Chevrolet Colorado

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

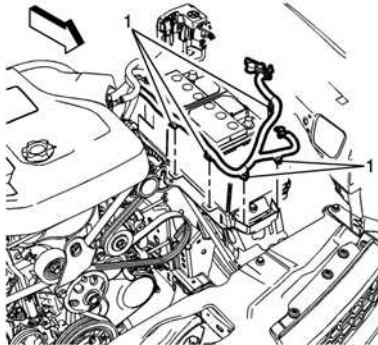
[Removal Procedure](#)



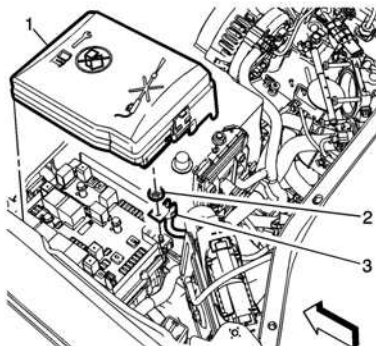
1. Remove the body harness fastener (1) and the body harness terminal (2) from the negative battery clamp (3).
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.



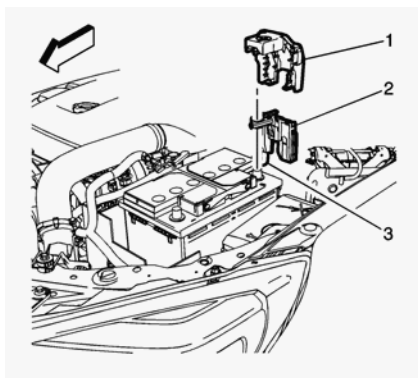
3. Remove the battery negative cable battery tray ground fastener (1) and remove the battery negative cable (2).



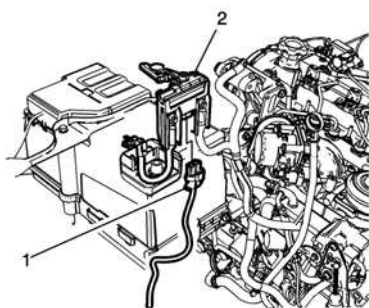
4. Disconnect the battery negative cable retainers (1) from the battery tray.



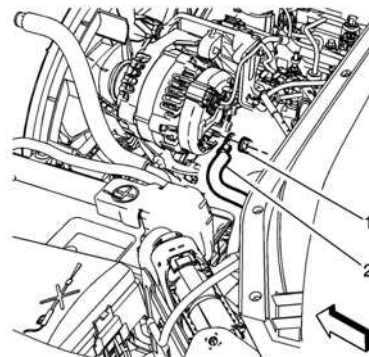
5. Remove the underhood fuse block cover (1).
6. Remove the battery positive cable fastener (2) and remove the battery positive cable (3).



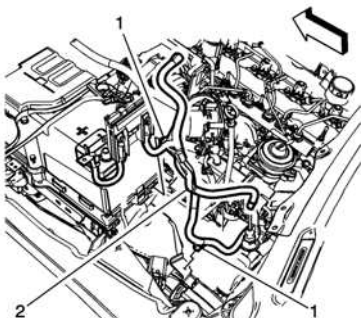
7. Remove the battery positive cable cover (1) and release the clamp (2) securing the battery positive cable (3) to the battery post.



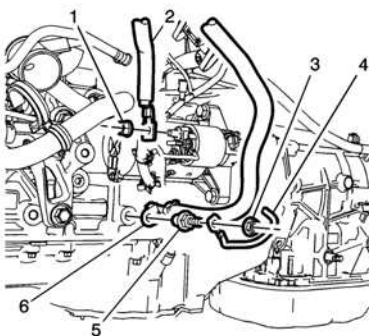
8. Remove the body harness connector (1) from the battery positive cable (2).



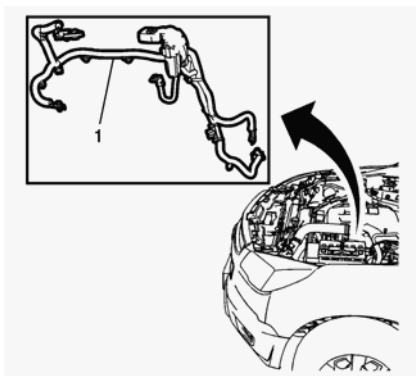
9. Remove the battery positive cable fastener (1) and the battery positive cable (2), from the back of the generator.



10. Remove the battery positive retainers (1) securing the battery positive cable (2) to the battery tray and the left front frame rail.
11. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
12. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.



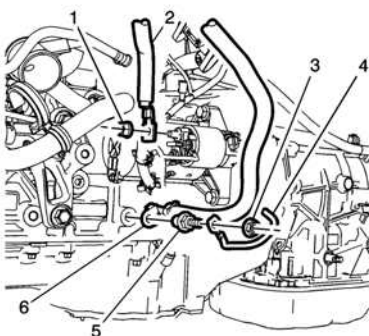
13. Remove the battery positive fastener (1) and remove the battery positive cable (2) from the starter.
14. Remove the engine harness ground fastener (3) and remove the engine harness terminal (4).
15. Remove the battery negative cable fastener (5) and remove the battery negative cable (6) from the engine block.
16. Remove the battery positive cable (2).



Note: Observe how the battery positive and negative cable was routed within the engine compartment.

17. Remove the battery positive and negative cable (1) from the front engine compartment.

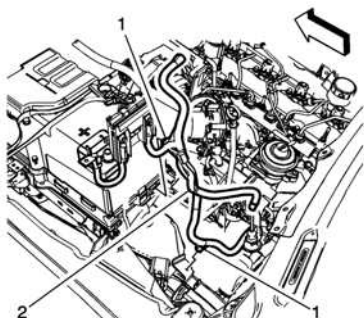
[Installation Procedure](#)



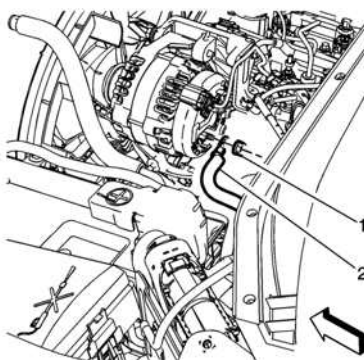
Battery Positive and Negative Cable Replacement (LVN)

Caution: Refer to Fastener Caution.

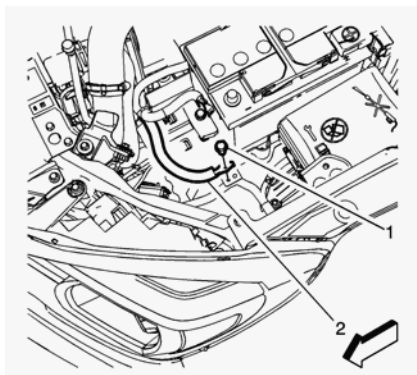
1. Install the battery positive cable (2) to the starter and tighten the fastener (1) to **10 Y (89 lb in)**.
2. Install the battery negative cable (6) to the engine block and tighten the fastener (5) to **60 Y (44 lb ft)**.
3. Install the engine harness ground terminal (4) and tighten the fastener 3) to **10 Y (89 lb in)**.
4. Install the engine protection shield. Refer to Engine Protection Shield Replacement.
5. Lower the vehicle.



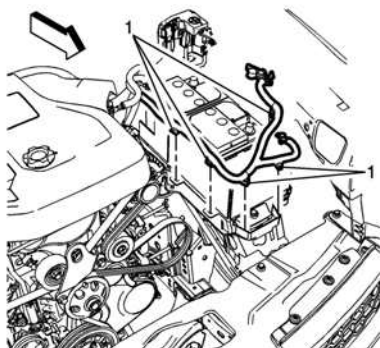
6. Install the battery positive retainers (1) securing the battery positive cable (2) to the battery tray and the left front frame rail.



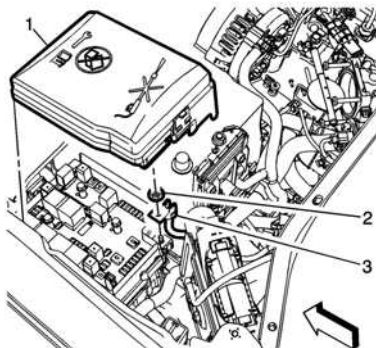
7. Install the battery positive cable fastener (1) from the back of the generator and tighten the fastener to **14 Y (10 lb ft)**.



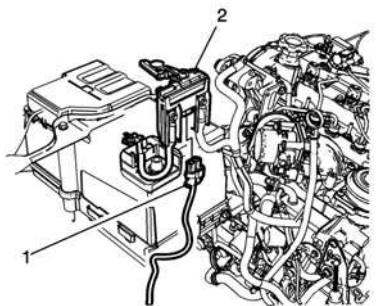
8. Install the battery negative cable battery tray ground fastener (1) and tighten to **10 Y (89 lb in)**.



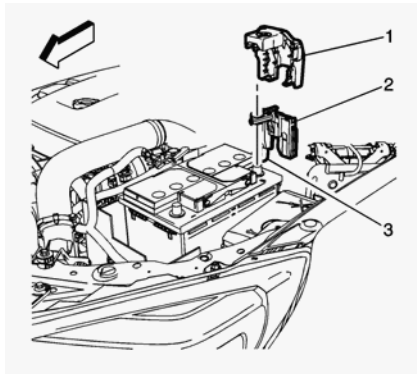
9. Connect the battery negative cable retainers (1) to the battery tray.



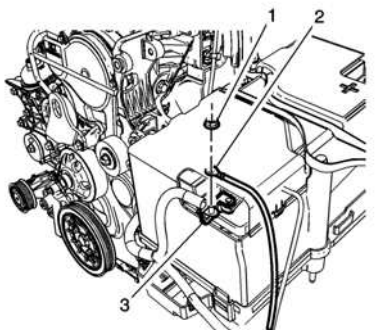
10. Install the battery positive cable (3) to the underhood fuse block stud and tighten the fastener (2) to **10 Y (89 lb in)**.
11. Install the underhood fuse block cover (1).



12. Install the body harness connector (1) to the battery positive cable (2).



13. Install the battery positive cable (3) to the battery post with the clamp (2).
14. Install the battery positive clamp cover (1).
15. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.

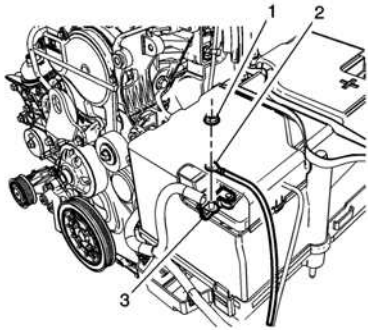


16. Install body harness terminal (2) to the negative battery clamp (3) and tighten the fastener (1) to **10 Y (89 lb in)**.

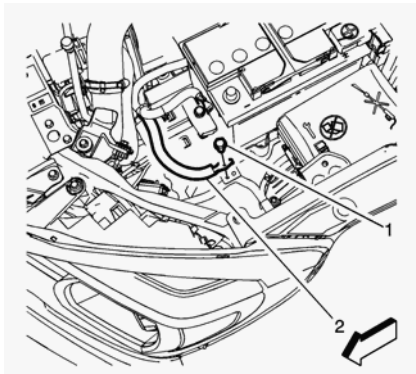
2013 Chevrolet Colorado

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

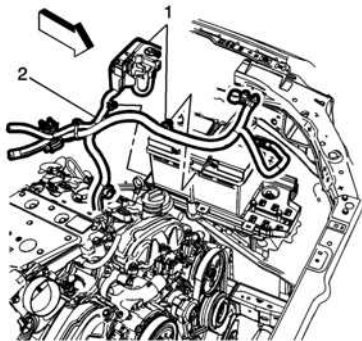
[Removal Procedure](#)



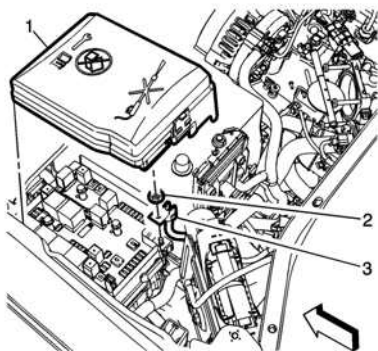
1. Remove the body harness fastener (1) and the body harness terminal (2) from the negative battery clamp (3).
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove the intake manifold cover. Refer to Intake Manifold Cover Replacement.



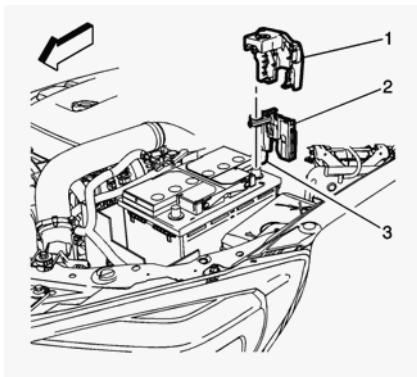
4. Remove the battery negative cable battery tray ground fastener (1) and remove the battery negative cable (2).



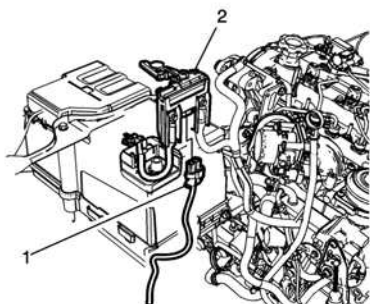
5. Remove the battery positive and negative cable retainers (1), from the battery tray.



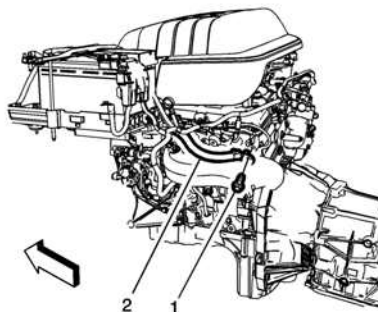
6. Remove the underhood fuse block cover (1).
7. Remove the battery positive cable fastener (2) and remove the battery positive cable (3).



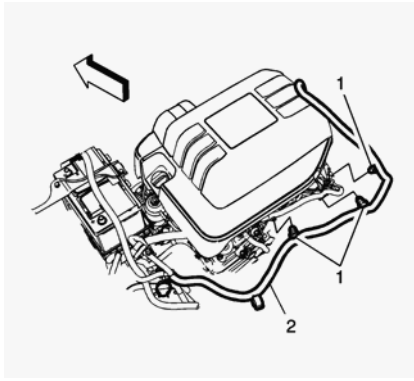
8. Remove the battery positive cable cover (1) and release the clamp (2) securing the battery positive cable (3) to the battery post.



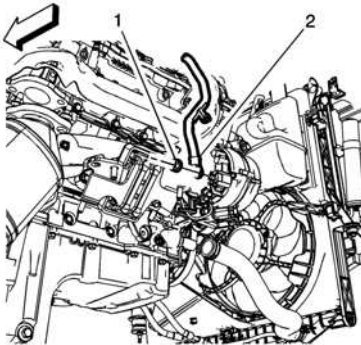
9. Remove the body harness connector (1) from the battery positive cable (2).



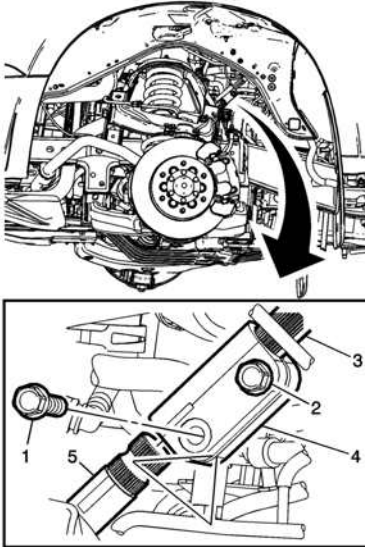
10. Remove the battery negative engine ground fastener (1) and remove the battery negative cable terminal (2).



11. Remove the battery positive cable retainers (1) from the engine harness holders.
12. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.

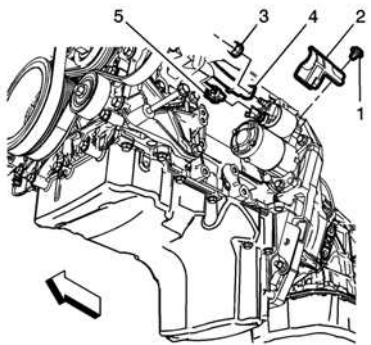


13. Remove the battery positive cable fastener (1) and the battery positive cable (2) from the back of the generator.
14. Remove the left front engine lower front splash shield. Refer to Engine Lower Front Splash Shield Replacement.



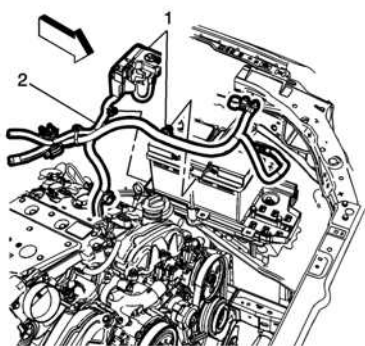
15. Place match marks on the following parts:

- The intermediate steering shaft (3)
- The intermediate steering shaft clamp (4)
- The lower steering shaft (5)
- Loosen the intermediate steering shaft clamp upper bolt (2).
- Remove the intermediate steering shaft clamp lower bolt (1).
- Disconnect the intermediate steering shaft clamp from the lower steering shaft.

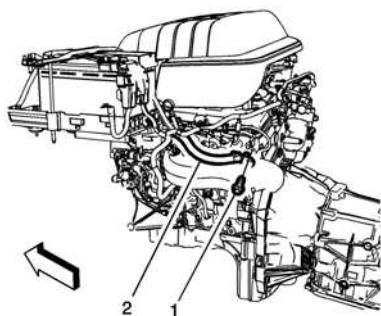


- Remove the starter heat shield fastener (1) and the starter heat shield (2).
 - Remove the battery positive cable fastener (3) and remove the battery positive cable (4) from the starter solenoid.
- Note:** Observe how the battery positive and negative cable was routed within the engine compartment.
- Remove the battery positive and negative cable, from the engine compartment.

[Installation Procedure](#)

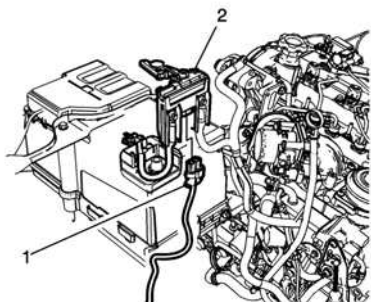


1. Install the battery positive and negative cable retainers (1), to the battery tray.

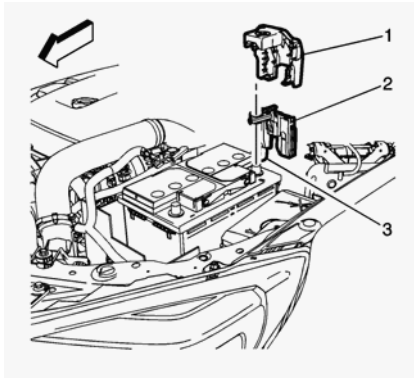


Caution: Refer to Fastener Caution.

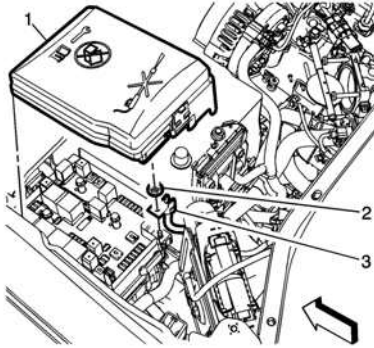
2. Install the battery negative cable engine ground terminal (2) and tighten the fastener (1) to **58 Y (43 lb ft)**.



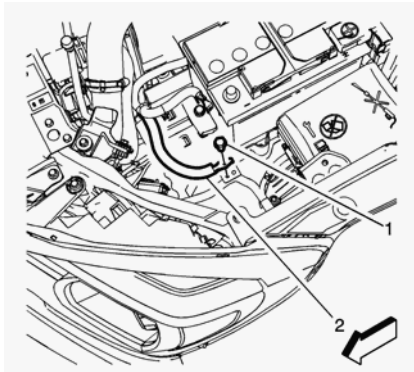
3. Install the body harness connector (1) to the battery positive cable (2).



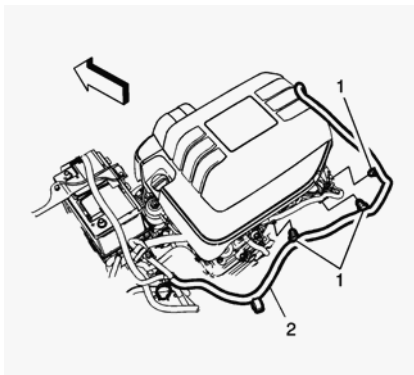
4. Install the battery positive cable (3) to the battery post with the clamp (2).
5. Install the battery positive clamp cover (1).



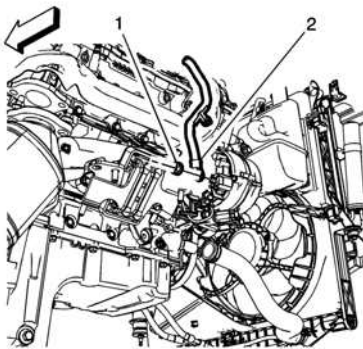
6. Install the battery positive cable (3) to the underhood fuse block stud and tighten the fastener (2) to **10 Y (89 lb in)**.
7. Install the underhood fuse block cover (1).



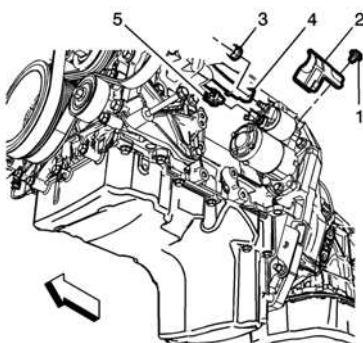
8. Install the battery negative cable battery tray ground fastener (1) and tighten to **10 Y (89 lb in)**.



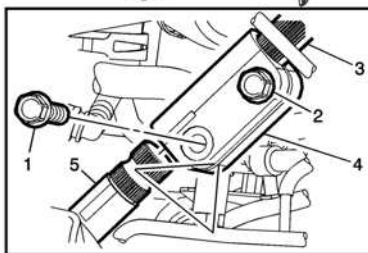
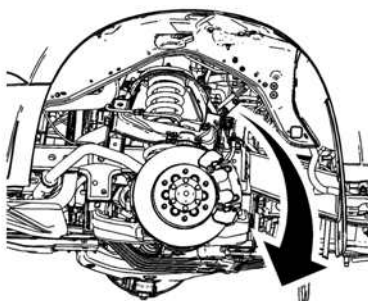
9. Install the battery positive cable retainers (1) to the engine harness holders.



10. Install the battery positive cable terminal (2) to the back of the generator and tighten the fastener (1) to **20 Y (15 lb ft)**.
11. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.

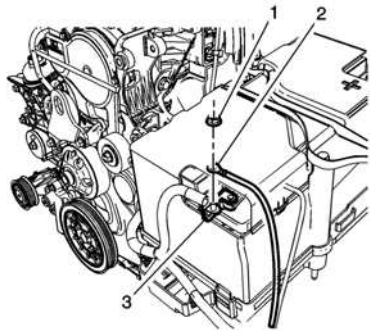


12. Install the battery positive cable terminal (4) to the starter solenoid and tighten the fastener (1) to **10 Y (89 lb in)**.
13. Install the starter heat shield (2) and tighten the fastener (1) to **5 Y (44 lb in)**.



14. Align the match marks and connect the intermediate steering shaft clamp (4) to the lower steering shaft (5).
15. Install the intermediate steering shaft clamp lower bolt (1) and tighten to **31 Y (23 lb ft)**.
16. Tighten the intermediate steering shaft clamp upper bolt (2) to **31 Y (23 lb ft)**.
17. Install the intake manifold cover. Refer to Intake Manifold Cover Replacement.
18. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.

Battery Positive and Negative Cable Replacement (LY7)



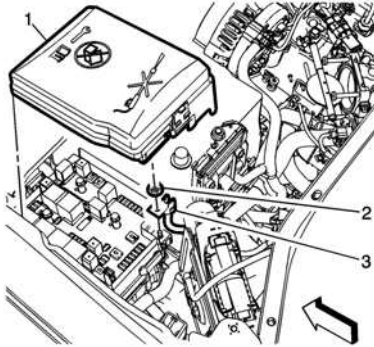
19. Install body harness terminal (2) to the negative battery clamp (3) and tighten the fastener (1) to **10 Y (89 lb in)**.

2013 Chevrolet Colorado

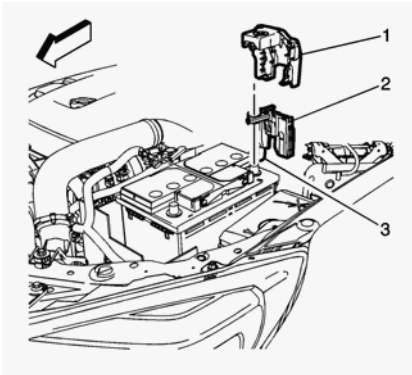
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

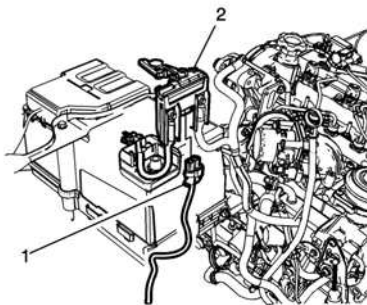
1. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.



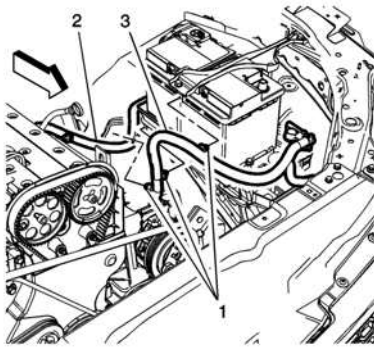
2. Remove the underhood fuse block cover (1).
3. Remove the battery positive cable fastener (2) and remove the battery positive cable (3).



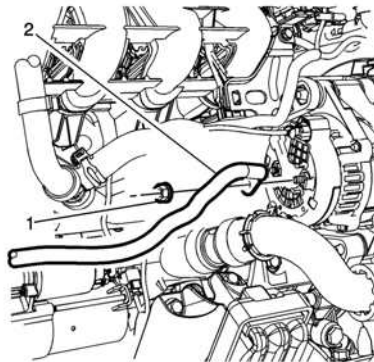
4. Remove the battery positive cable cover (1) and release the clamp (2) securing the battery positive cable (3) to the battery post.



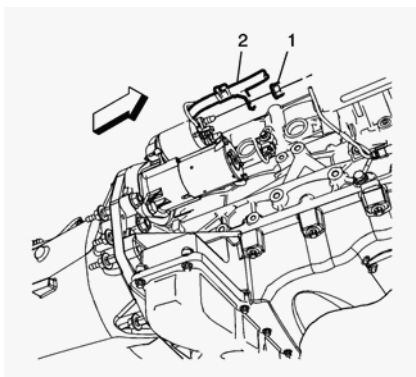
5. Remove the body harness connector (1) from the battery positive cable (2).



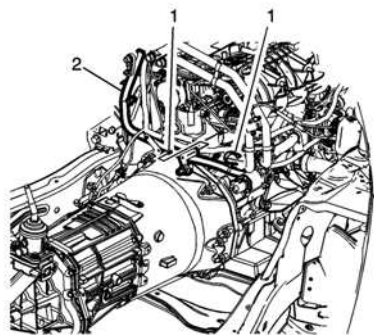
6. Remove the battery negative retainer (1) from the battery positive cable (2).
7. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.



8. Remove the battery positive cable fastener (1) and the battery positive cable (2) from the back of the generator.
9. Remove the starter. Refer to Starter Replacement.

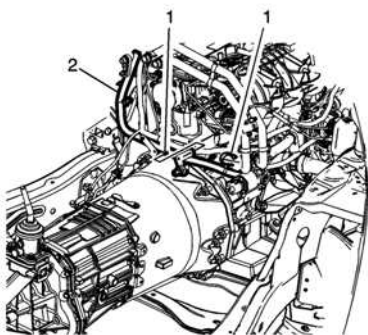


10. Remove the battery positive cable fastener (1) and the battery positive cable terminal (2) , from the starter.

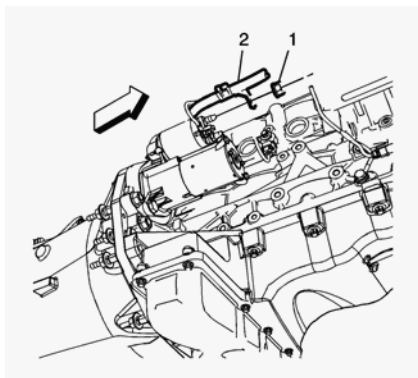


11. Remove the battery positive retainers (1) securing the battery positive cable (2) to the transmission bracket and heater hose.
Note: Observe how the battery positive cable was routed within the engine compartment.
12. Remove the battery positive cable, from the engine compartment.

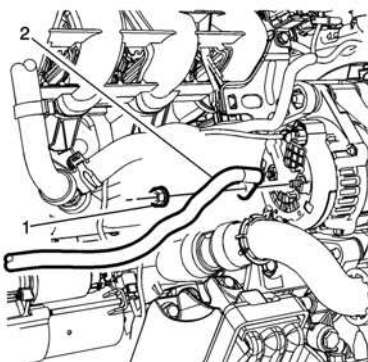
[Installation Procedure](#)



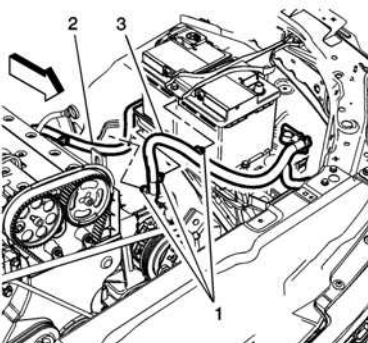
1. Install the battery positive cable (2) to the transmission bracket and heater hose (1).



- Caution:** Refer to Fastener Caution.
2. Install the battery positive cable (2) to the starter and tighten the fastener (1) to **10 Y (89 lb in)**.
 3. Install the starter. Refer to Starter Replacement.

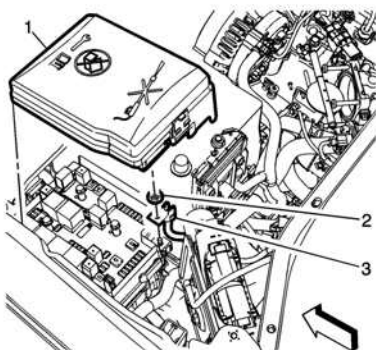


4. Install the battery positive cable (2) to the generator and tighten the fastener (1) to **14 Y (124 lb in)**.
5. Lower the vehicle. Refer to Lifting and Jacking the Vehicle.

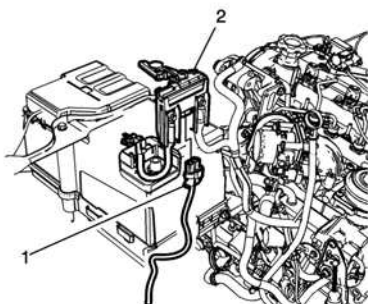


6. Install the battery positive cable (2) to the battery negative retainer (1) on the battery negative cable (3).

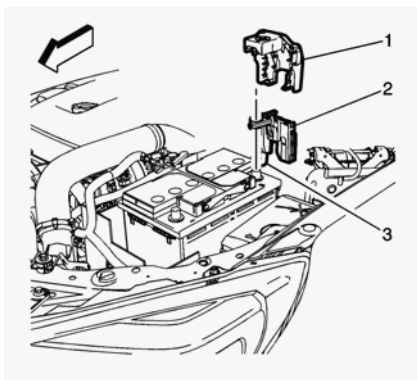
Battery Positive Cable Replacement (LE6)



7. Install the battery positive cable (3) to the underhood fuse block stud and tighten the fastener (2) to **10 Y (89 lb in)**.
8. Install the underhood fuse block cover (1).



9. Install the body harness connector (1) to the battery positive cable (2).



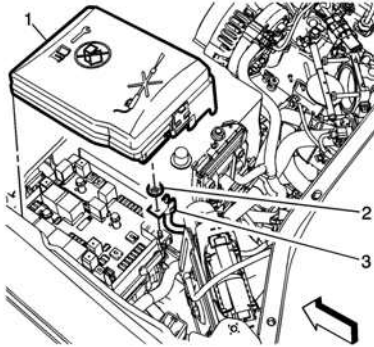
10. Install the battery positive cable (3) to the battery post with the clamp (2).
11. Install the battery positive clamp cover (1).
12. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
13. Install the battery negative cable (6) to the engine block and tighten the fastener (5) to **60 Y (44 lb ft)**.

2013 Chevrolet Colorado

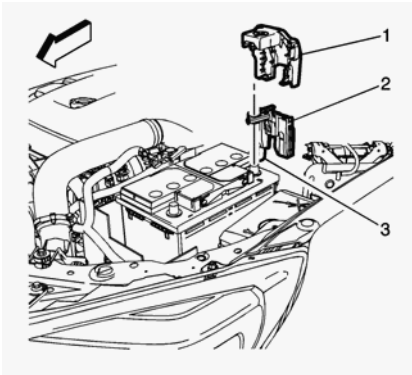
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

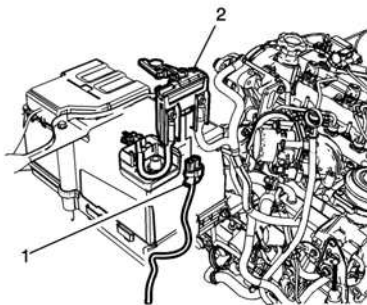
1. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.



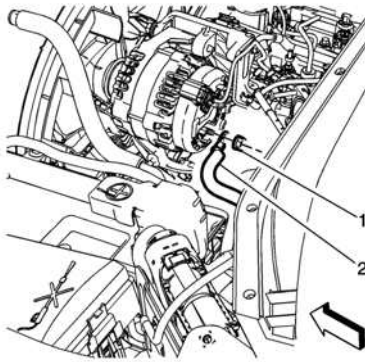
2. Remove the underhood fuse block cover (1).
3. Remove the battery positive cable fastener (2) and remove the battery positive cable (3).



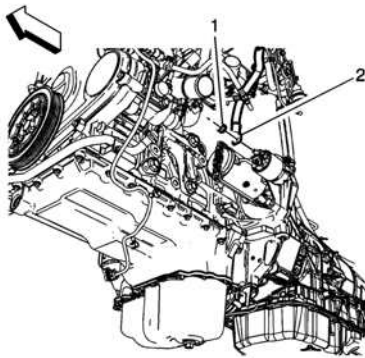
4. Remove the battery positive cable cover (1) and release the clamp (2) securing the battery positive cable (3) to the battery post.



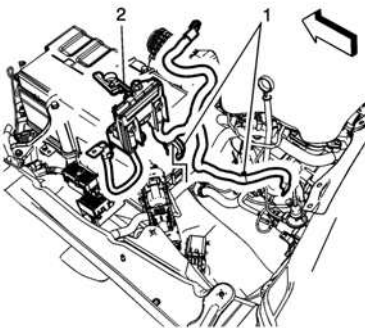
5. Remove the body harness connector (1) from the battery positive cable (2).



6. Remove the battery positive cable fastener (1) and the battery positive cable (2), from the back of the generator.
7. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
8. Remove the engine protection shield. Refer to Engine Protection Shield Replacement.



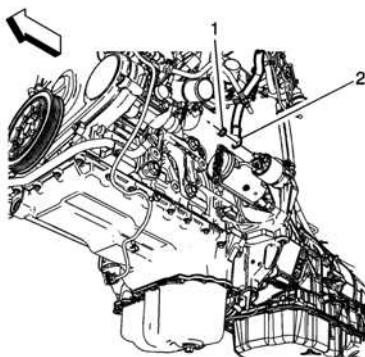
9. Remove the battery positive fastener (1) and remove the battery positive cable (2) from the starter.



Note: Observe how the battery positive and negative cable was routed within the engine compartment.

10. Remove the battery positive retainers (1) and remove the battery positive cable (2) from the engine compartment.

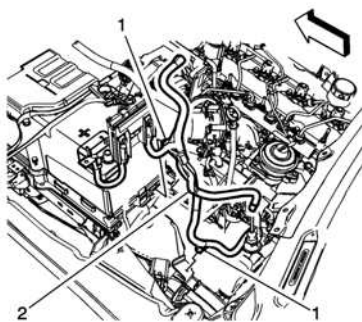
[Installation Procedure](#)



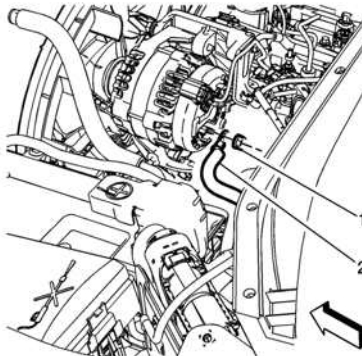
Caution: Refer to Fastener Caution.

1. Install the battery positive cable (2) to the starter and tighten the fastener (1) to **10 Y (89 lb in)**.
2. Install the engine protection shield. Refer to Engine Protection Shield Replacement.

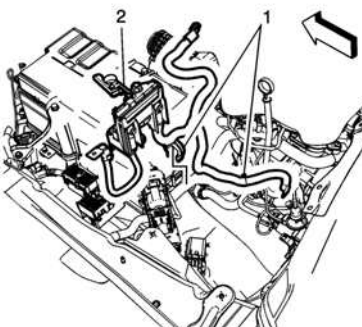
3. Lower the vehicle.



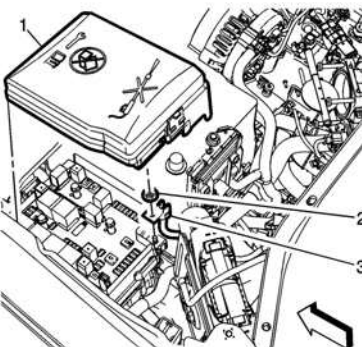
4. Install the battery positive retainers (1) securing the battery positive cable (2) to the battery tray and the left front frame rail.



5. Install the battery positive cable (2) and battery positive cable fastener (1) from the back of the generator and tighten the fastener (1) to **14 Y (10 lb ft)**.

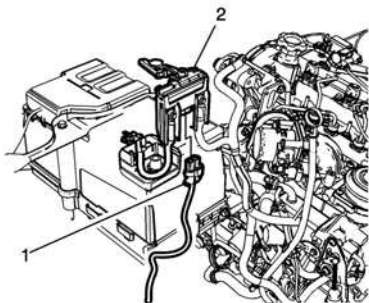


6. Connect the battery positive retainers (1) securing the battery positive cable (2).

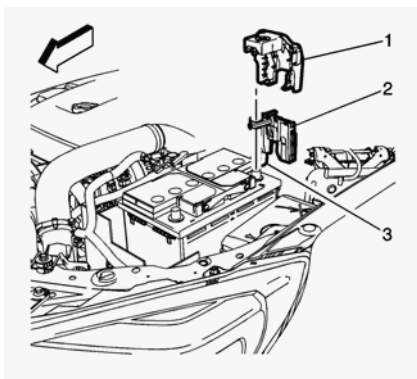


7. Install the battery positive cable (3) to the underhood fuse block stud and tighten the fastener (2) to **10 Y (89 lb in)**.
8. Install the underhood fuse block cover (1).

Battery Positive Cable Replacement (LWH)



9. Install the body harness connector (1) to the battery positive cable (2).



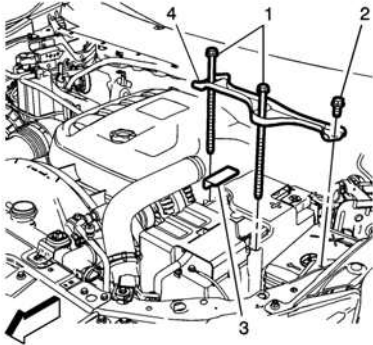
10. Install the battery positive cable (3) to the battery post with the clamp (2).
11. Install the battery positive clamp cover (1).
12. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.

2013 Chevrolet Colorado

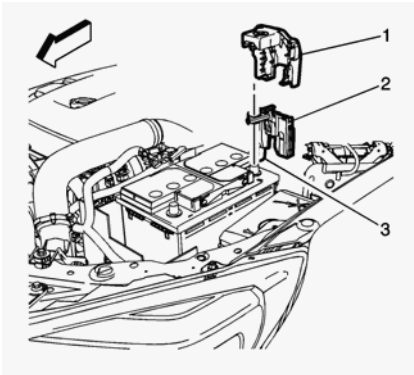
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

[Removal Procedure](#)

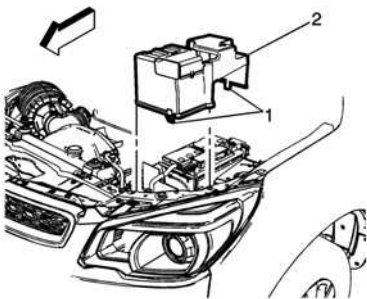
1. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.



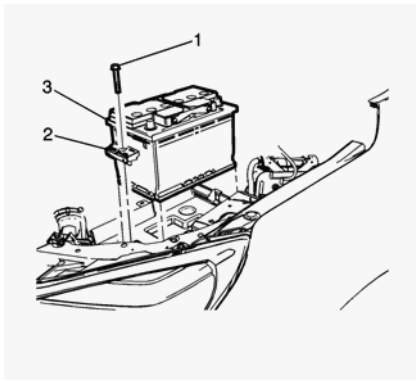
2. Remove the battery retainer fasteners (1) and (2).
3. Remove the battery retainer (4)



4. Remove the battery positive cover (1) and release the battery positive cable clamp (2).
5. Remove the battery positive cable (3) from the battery positive post.

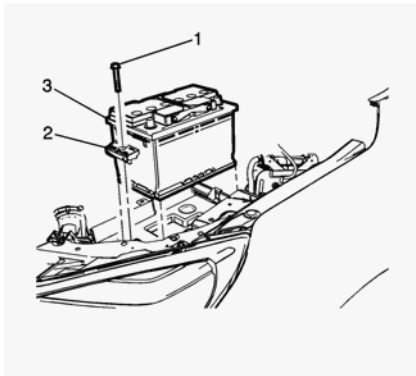


6. Release the battery box retainer tabs (1) and remove the battery box (2).



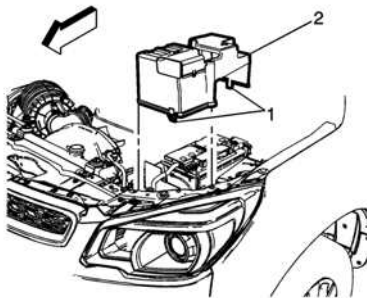
7. Remove the battery hold down retainer fastener (1) and the battery hold down retainer (2).
8. Remove the battery (3) from the engine compartment.

[Installation Procedure](#)

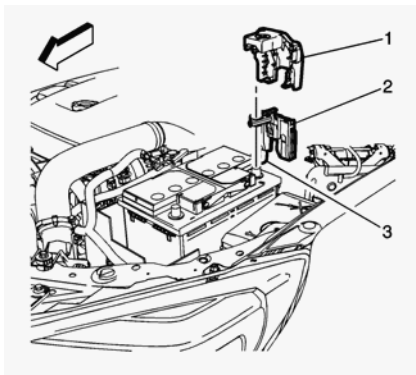


Caution: Refer to Fastener Caution.

1. Install the battery (3) onto the battery tray with the battery hold down retainer (2). Tighten the fastener (1) to **20 Y (15 lb ft)**.

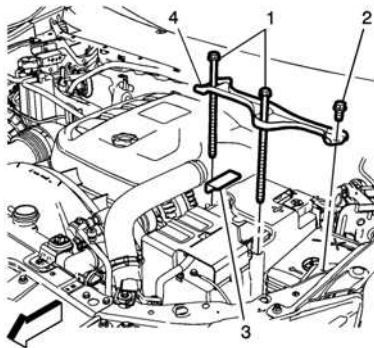


2. Install the battery box (2) to the battery tray with the retainer tabs (1).



3. Install the battery positive cable (3) to the battery positive post.
4. Install the battery positive cable clamp (2) to the battery post and install the cover (1).

Battery Replacement



5. Install the retainer (4) to the top of the battery.
6. Install the retainer fasteners (1) and tighten to **5 Y (44 lb in)**.
7. Install the upper tie bar fastener (2) and tighten to **20 Y (15 lb ft)**.
8. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.

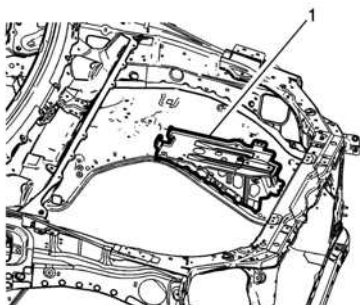
2013 Chevrolet Colorado

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

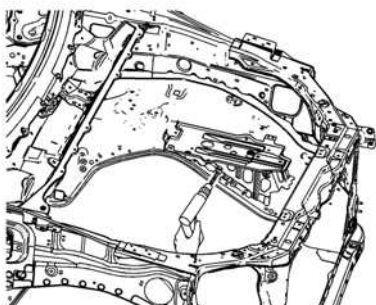
[Removal Procedure](#)

Warning: Refer to Approved Equipment for Collision Repair Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.

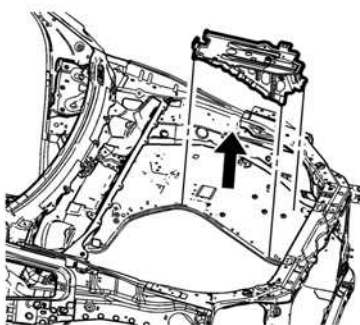


2. Remove all related panels (1) and components.
3. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.
4. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.



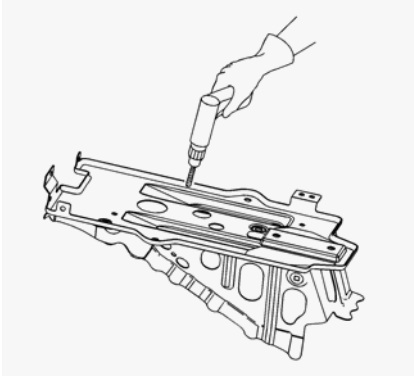
Note: Do not damage any inner panels or reinforcements.

5. Locate and drill out all factory welds. Note the number and location of welds for installation of the battery tray.



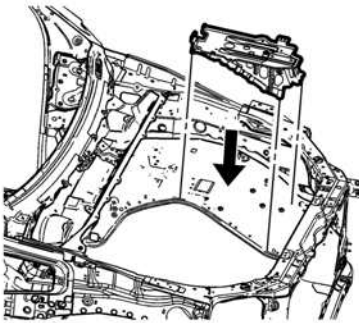
6. Remove the damaged battery tray.

[Installation Procedure](#)

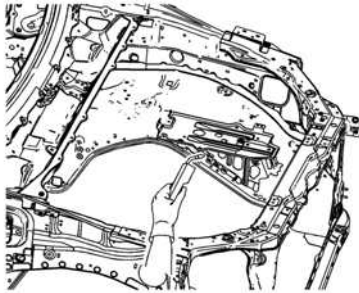


Note: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive is present, space the plug weld holes every 40 mm (1½ in) apart.

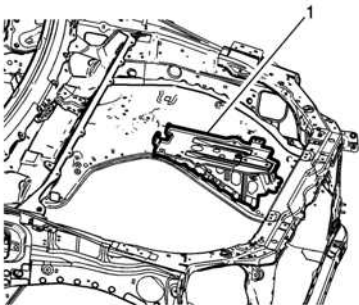
1. Drill 8 mm (5/16 in) plug weld holes as necessary in locations noted from the original battery tray.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



4. Position the battery tray.



5. Plug the weld accordingly.



6. Clean and prepare all welded surfaces (1).
7. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
8. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
9. Install all related panels and components.
10. Enable the SIR system. Refer to SIR Disabling and Enabling.

2013 Chevrolet Colorado

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

Diagnostic Aids

Warning: Refer to Battery Disconnect Warning.

Note:

- The battery test using the *EL 42000* Battery Tester requires correct connections to the battery terminals. A failure to obtain the correct connections during the test may result in a failed test on a good battery.
- Use the Out of Vehicle test for each battery when testing a vehicle with dual batteries.

Follow these instructions in order to avoid an incorrect diagnosis because of connections:

- If testing the vehicle with the battery cables still connected, wiggle the EL 42000 clips on the terminal bolt. This may cut through any coating or through any oxidation that may be present on the bolt.

Even new bolts contain a protective coating that may insulate or cause a resistance in the test circuit.

- If correct connections to the battery terminal bolts in the vehicle are in doubt, perform the following steps:
 1. Disconnect the negative battery cable.
 2. Disconnect the positive battery cable.
 3. Install the test adapters on the terminals.
 4. Follow the instructions for testing a removed battery.
- If the tester displays a REPLACE BATTERY or BAD CELL REPLACE result for a battery tested in the vehicle with the battery cables connected, perform the following steps:

1. Disconnect the negative battery cable.
2. Disconnect the positive battery cable.
3. Install the tester adapters.

Note: Always write the test code displayed by the tester on the repair order for any warranty purposes. The number is a unique code that describes the test data for a particular battery at a particular time. The test code may occasionally repeat when you retest the same battery. More often, each test will result in a different code. Use the test code from the second, or Out of Vehicle test.

4. Follow the instructions for testing a removed battery.
5. Replace the battery only if the second test shows a REPLACE BATTERY or BAD CELL REPLACE result.

Use the test code from the second test for any warranty purposes.

- Use the correct terminal adapters.

Do not use any common bolts or a combination of bolts, of nuts, and of washers as adapters when testing the battery.

Use the test adapters that are provided with the EL 42000 or GM P/N 12303040 terminal adapters. If the adapters that are provided with the EL 42000 require replacement, use GM P/N 12303040. Any other adapter may not contact the correct areas of the battery terminal, causing a resistance that may result in an invalid battery test result.

Reference Information

Schematic Reference

Starting and Charging Schematics

Connector End View Reference

Component Connector End Views

Description and Operation

Starting System Description and Operation

Electrical Information Reference

- Circuit Testing
- Connector Repairs
- Testing for Intermittent Conditions and Poor Connections
- Wiring Repairs

Scan Tool Reference

Control Module References for scan tool information

Special Tools

EL 42000 Battery Tester

For equivalent regional tools, refer to Special Tools.

Circuit/System Testing

Warning: Unless directed otherwise, the ignition and start switch must be in the OFF or LOCK position, and all electrical loads must be OFF before servicing any electrical component. Disconnect the negative battery cable to prevent an electrical spark should a tool or equipment come in contact with an exposed electrical terminal. Failure to follow these precautions may result in personal injury and/or damage to the vehicle or its components.

For Vehicles equipped with OnStar® (UE1) with Back Up Battery:

The Back Up Battery is a redundant power supply to allow limited OnStar® functionality in the event of a main vehicle battery power disruption to the VCIM (OnStar® module). Do not disconnect the main vehicle battery or remove the OnStar® fuse with the ignition key in any position other than OFF. Retained accessory power should be allowed to time out or be disabled (simply opening the driver door should disable retained accessory power) before disconnecting power. Disconnecting power to the OnStar® module in any way while the ignition is On or with retained accessory power activated may cause activation of the OnStar® Back-Up Battery system and will discharge and permanently damage the back-up battery. Once the Back-Up Battery is activated it will stay on until it has completely discharged. The back-up battery is not rechargeable and once activated the back-up battery must be replaced.

1. Inspect the C1 Battery for a cracked, broken, or damaged case, which may be indicated by battery acid leakage.
 - If there is any apparent damage, replace the C1 Battery.
 - Verify the cold cranking amperage and amperage hour rating of the C1 Battery to the original C1 Battery or original equipment specification.
 - If the C1 Battery does not meet or exceed specifications, replace the C1 Battery.
 - Verify that the C1 Battery cables are clean and tight. The C1 Battery terminal bolts should be torqued as specified in Fastener Tightening Specifications.
 - If the C1 Battery cables need to be cleaned, clean as required and tighten as specified.
 - If the C1 Battery cables are damaged, replace then tighten as specified.
 - Install the EL 42000 and follow directions supplied by the tester.
 - If the tester calls for charging the C1 Battery, refer to Battery Charging.
 - The battery should not have a history of being discharged or having low voltage.
 - If the battery has frequently been discharged or had low voltage while the engine is running, refer to Charging System Test.
 - If the battery has frequently been discharged or had low voltage while the ignition is OFF, refer to Battery Electrical Drain/Parasitic Load Test.

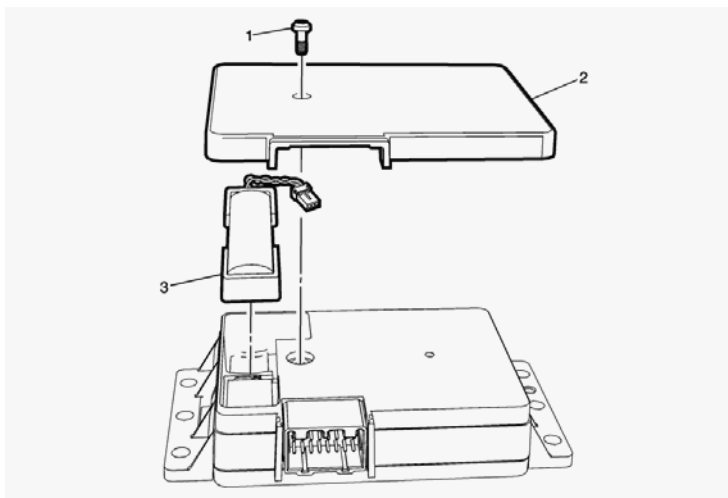
[Repair Instructions](#)

Perform the Diagnostic Repair Verification after completing the diagnostic procedure.

- Battery Positive and Negative Cable Replacement
- Battery Replacement

2013 Chevrolet Colorado

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



Transmitter Battery Replacement

Callout

Component Name

Preliminary Procedure

Remove the communication center call transceiver. Refer to Communication Center Call Transceiver Replacement.

- 1 Communication Center Call Transceiver Bolt
Caution: Refer to Fastener Caution.
- 2 Communication Center Call Transceiver Battery Cover
Transmitter Battery
- 3 **Procedure**
Disconnect the electrical connector.