



A Division of The Toro Company

P.O.Box 787 Iron Mountain, MI 49801-0787

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bossplow.com

TO: BOSS DEALERS

DATE: 3/24/16

SUBJECT: 2014 + GM Intermittent Cluster, Radio and HVAC Display Resets

The following is Service Bulletin SV123 Rev 1 from BOSS Snowplow Technical Support. This bulletin was revised as of 2/11/2019.

- The most current GM Bulletin was added to SV123 Rev 2

Also attached is **GM UI Bulletin #124j**. Please make sure these bulletins are distributed to all employees who sell or service The BOSS Snowplow. We have distributed this service bulletin to all registered Distributors and Dealers with dedicated fax lines or e-mail addresses.

Thank you,

BOSS Snowplow Technical Support

REGARDING: GM Dash Display Reset

GM trucks equipped with the optional VYU [Snow Plow Prep] may experience an issue in which the Instrument Panel Cluster (IPC), Radio and HVAC displays may “blank out”, or reset, when operating the snow plow. This condition is caused by a vehicle system voltage over-shoot phenomenon called ‘load dump’. When the large electrical draw of the plow pump motor is suddenly removed, the field energy that is built up in the alternator causes a system voltage overshoot that momentarily moves above the normal design operating levels for the module displays. As a result, the displays will shut down or reset causing the momentary blank out condition. The modules are designed to do this and immediately recover. *No modules* should be replaced for this condition.

Models Affected:

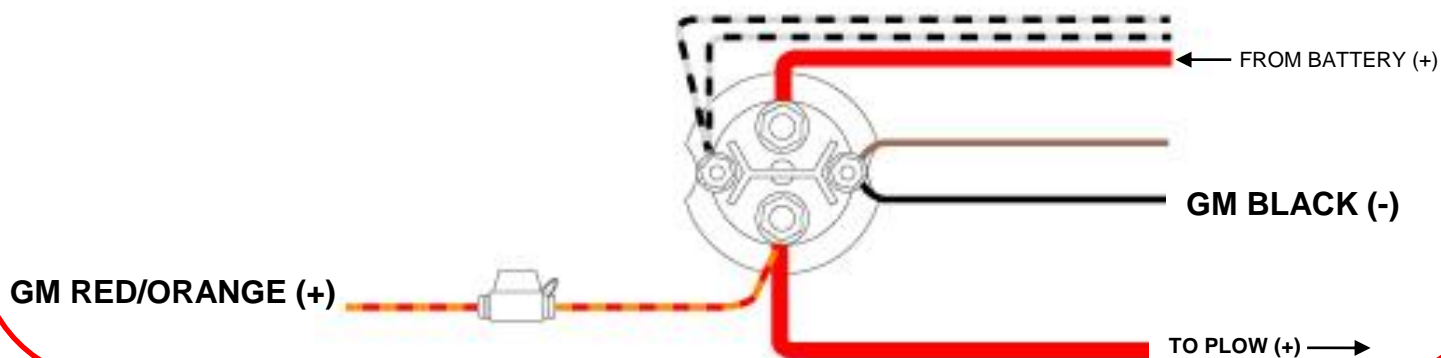
- 2014+ Chevy/GMC Silverado/Sierra 1500 with Snow Plow Prep Package (VYU)
- 2015+ Chevy/GMC 2500-3500 with Snow Plow Prep Package (VYU)

UI Bulletin #124J from GM is attached to this bulletin, which provides instructions on what to do to correct this issue.

*****IMPORTANT*****

On page 3, paragraph b) of GM UI Bulletin #124J, it instructs the installer to: *“Using a test lamp, try various connection points on the plow control wiring to identify a signal that will illuminate the test lamp only when the motor is running.”*

This step is NOT necessary when using a BOSS 13-pin truckside harness. Instead, connect these wires to the BOSS solenoid per the image below:

TOP VIEW OF SOLENOID

If you have any concerns or questions about this service bulletin please feel free to contact BOSS Technical Support at (800) 286-4155 option 2 or e-mail at techservice@bossplow.com

UI Bulletin #124j

Subject: Intermittent Cluster, Radio and HVAC
Display Resets on Snow Plow Trucks

Models/Years 2014 Chevrolet Silverado 1500
Affected: 2015 and beyond Chevrolet Silverado
2014 GMC Sierra 1500
2015 and beyond GMC Sierra
With Snow Plow Prep Package (RPO
VYU)

Origination
Date: November 30, 2015

Revision
Date: January 31, 2019

ADVISORY:

Notice: GM Dealers refer to the latest version of Service Information PIT#5387 for labor code/time information

Condition/Concern:

Trucks equipped with option VYU [Snow Plow Prep] and a snow plow, may exhibit occurrences in which the Instrument Panel Cluster (IPC), Radio and HVAC displays may "blank out" or reset after changing the snow plow position. This condition is caused by a system voltage over-shoot phenomenon called 'load dump'. When the large electrical draw of the plow pump motor is suddenly removed the field energy that is built up in the alternator causes a system voltage overshoot that momentarily moves above the normal design operating levels for the module displays. As a result the displays will shut down or reset causing the momentary blank out condition. The modules are designed to do this and immediately recover. *No modules* should be replaced for this condition.

Repair/Recommendation:

Contact your local GM Dealer for an appointment to install **PN 84288774 VYU Snow Plow Jumper harness** per the latest version of **GM Service Bulletin PIT#5387**. If your truck has RPO VYU and did not come with the harness parts they may be ordered by your dealer.

Note: This jumper harness and installation will be provided [one time] without charge. Installation charges will be waived only if the jumper is installed at your GM dealer.

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Installation Instructions

1) Single alternator systems:

- a) Unplug the 2-way connector on the alternator.
- b) Identify the master alternator connector [at the very tip of the harness when it is fully extended]. Insert it in the alternator.
- c) Take the original alternator connector and plug it into the mating jumper harness connector.
Note: In this case the second alternator connector will be unused and will remain capped and tied to the harness bundle.

2) Dual alternator systems:

- a) Unplug the control connectors on both alternators.
- b) Identify the master alternator connector [at the very tip of the harness when it is fully extended]. Insert it in the 'master' alternator on the RH side of the engine.
- c) Identify the 'slave' alternator connector on the jumper harness and insert it in the LH 'slave' alternator. Insert the removed LH alternator connector into the [unwired] cap on the jumper harness.

3) All systems:

a) Service part [early] version:

- i) Route the snow plow jumper harness along the existing harness routing where possible and secure the relay center with tie straps as shown in Details 3.1.1-3. Allow slack for engine roll and upright orientation of the relay center to prevent water intrusion/collection.

b) Factory shipped version [parts bag included with new vehicle]:

- i) Remove the harness and loose parts from the shipping bag/container. Locate the new corner brace pn 84234282 [it should be painted black but our pictures are of an unpainted part] and the nuts and bolts that will be used to attach the relay center portion of the harness.
- ii) For a complete *picture book sequence* for the installation see Details 3.2.1-7.
- iii) Route the snow plow jumper harness along the existing harness routing where possible and allow slack sufficient to secure the relay center to the [new flat] corner brace with the nuts and bolts included in the parts bag.
- iv) Remove the Radiator Air Upper Baffle and Deflector by unclipping it from the radiator.
- v) Remove and discard the LH front pencil brace as shown and install the new flat corner brace.
- vi) Attach the relay center to the corner brace and the brace top the truck as shown.

4) All systems final [signal] connection:

- a) An operating signal must be identified to operate the small relay in the jumper harness. This signal should go ON and OFF with the plow pump motor. The relay requires low power < 1 amp so most any signal will do without loading issues. The schematic shows the control terminals on the motor solenoid which is the most common connection point.
- b) Using a test lamp try various connection points on the plow control wiring to identify a signal that will illuminate the test lamp only when the motor is running.

Note:

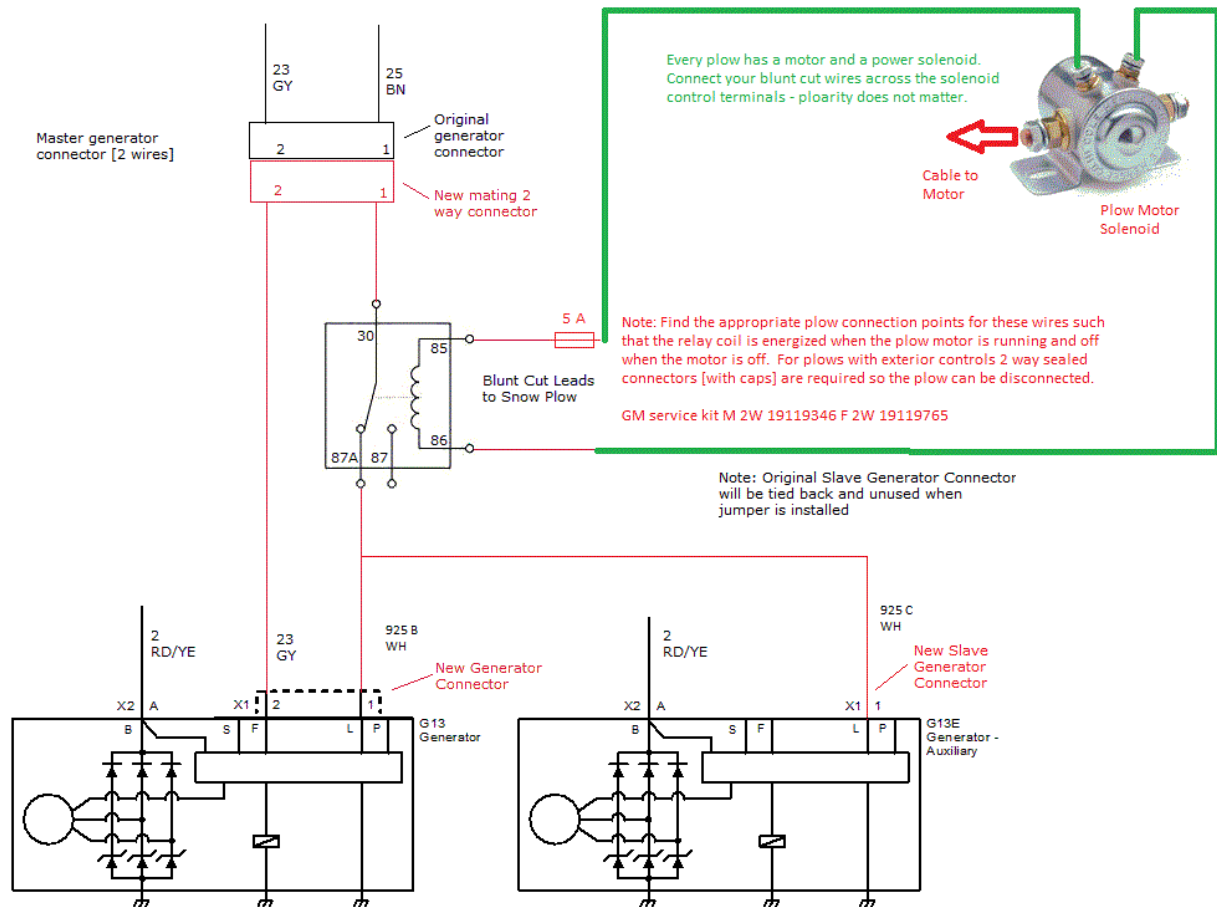
Some plows will present hot [B+] to both motor solenoid control terminals until one side goes to ground. As long as the lamp works right the jumper can be connected the same way. Connect the blunt cut red and black wires across the same signal source as was used to operate the test lamp. Normally the red wire will go to B+ and black to ground. [If both connection points are at B+ when the motor is at rest then put the black wire to the side that goes to ground when the motor runs and the red one to the constant B+ connection.]

- c) If the operating signal must be obtained outside of the engine compartment [on the plow itself] then **two sets** of inline connector will be required. **[Order GM service kit, 2 each M 2W 19119346 and 2 each F 2W 19119765 connectors]** Using 2 sets of connectors will allow tethered caps to be fashioned for when the plow is disconnected. Secure the wires and caps appropriately to assure durability. See figure 4.

Additional Reference Information

Fig 1: Jumper harness wiring schematic

VYU Service Harness for both single and dual generator trucks



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Note: To identify the signal needed by the jumper harness perform the following test. Any connection point that passes this test can be used. The best case is a signal from the wiring that remains with the truck but if that is not found then the signal must be found out on the plow itself.

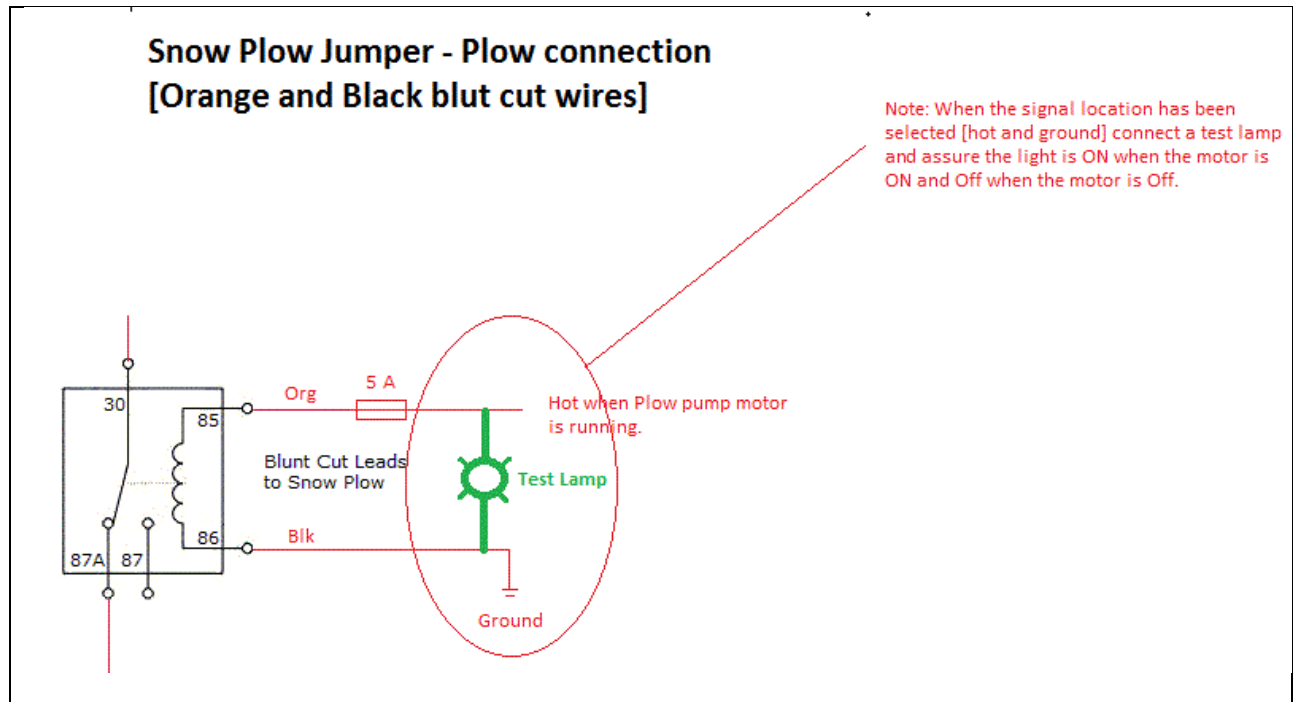


Fig: 2 Jumper Harness - Component Details

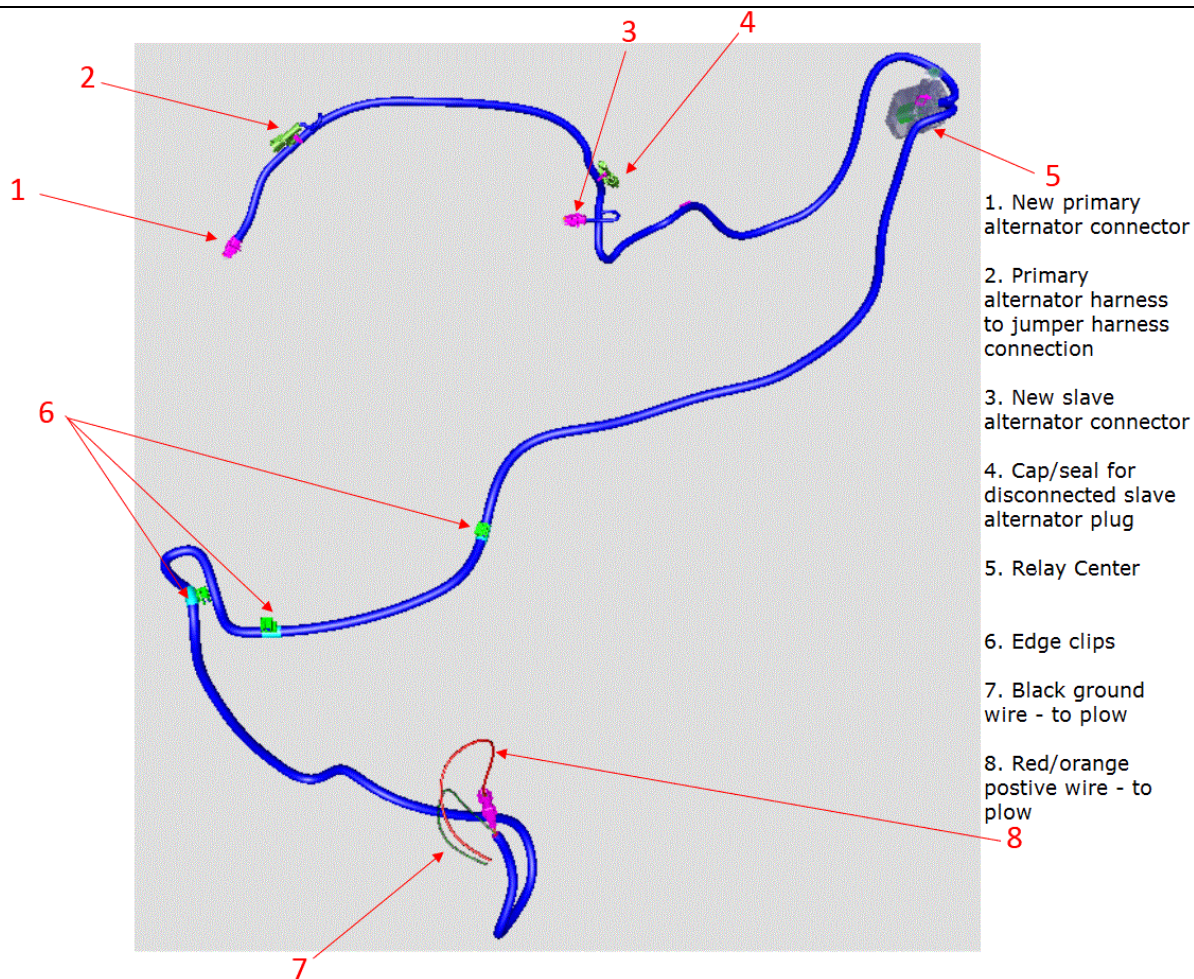


Fig: 3a Jumper Harness Layout – single alternator [see detail 3 for updated relay mounting]

VYU Single Alternator - Jumper Harness

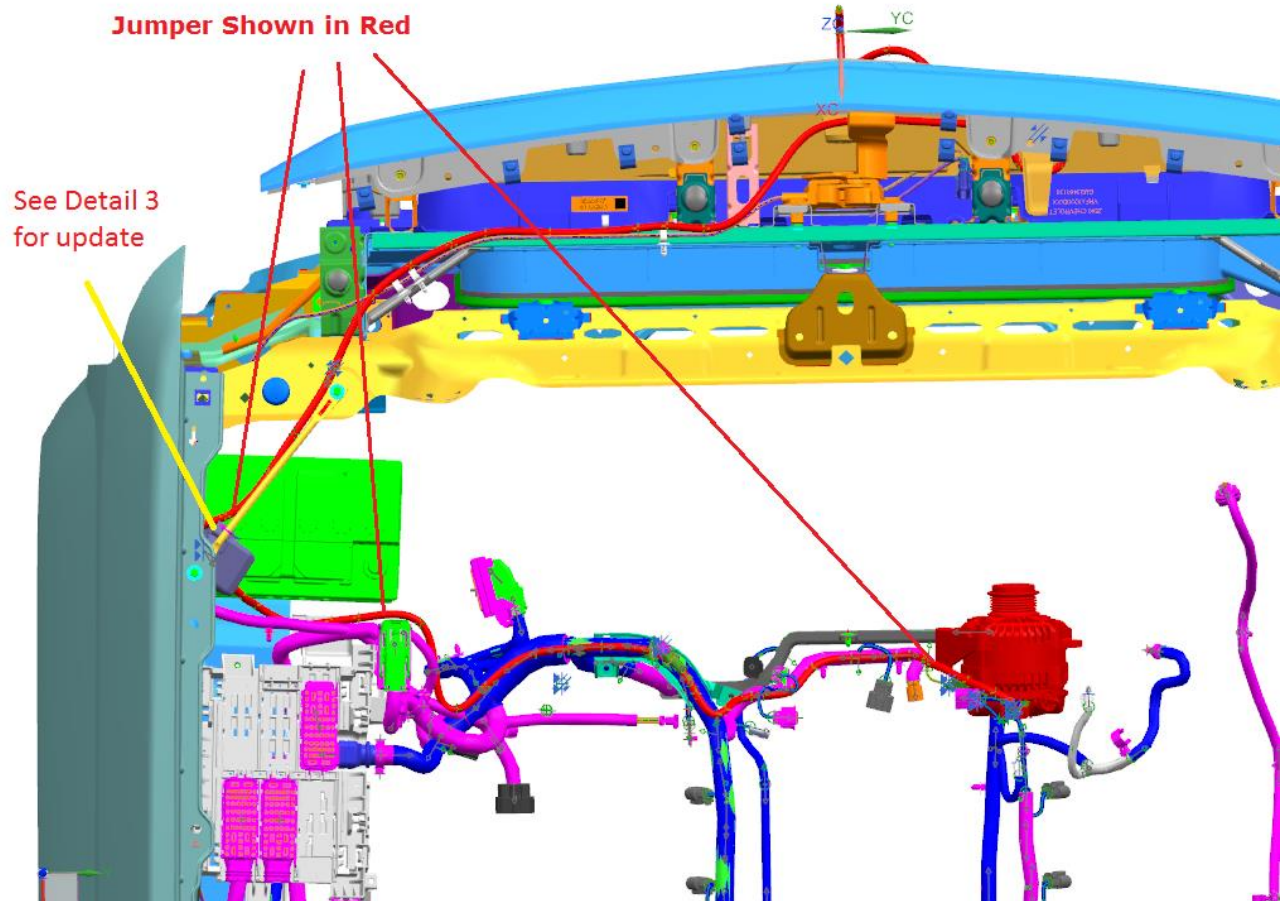
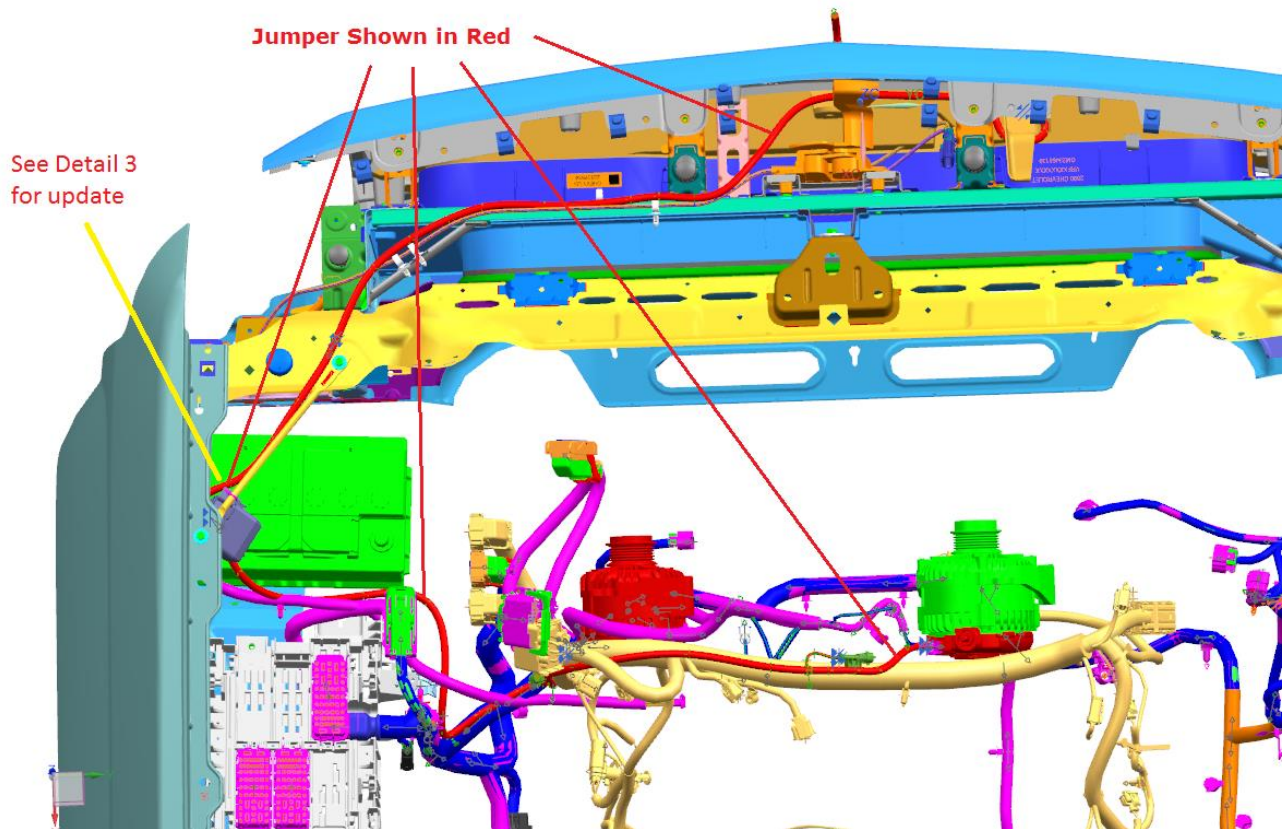


Fig: 3b Jumper Harness Layout – dual alternator [see detail 3 for updated relay mounting]

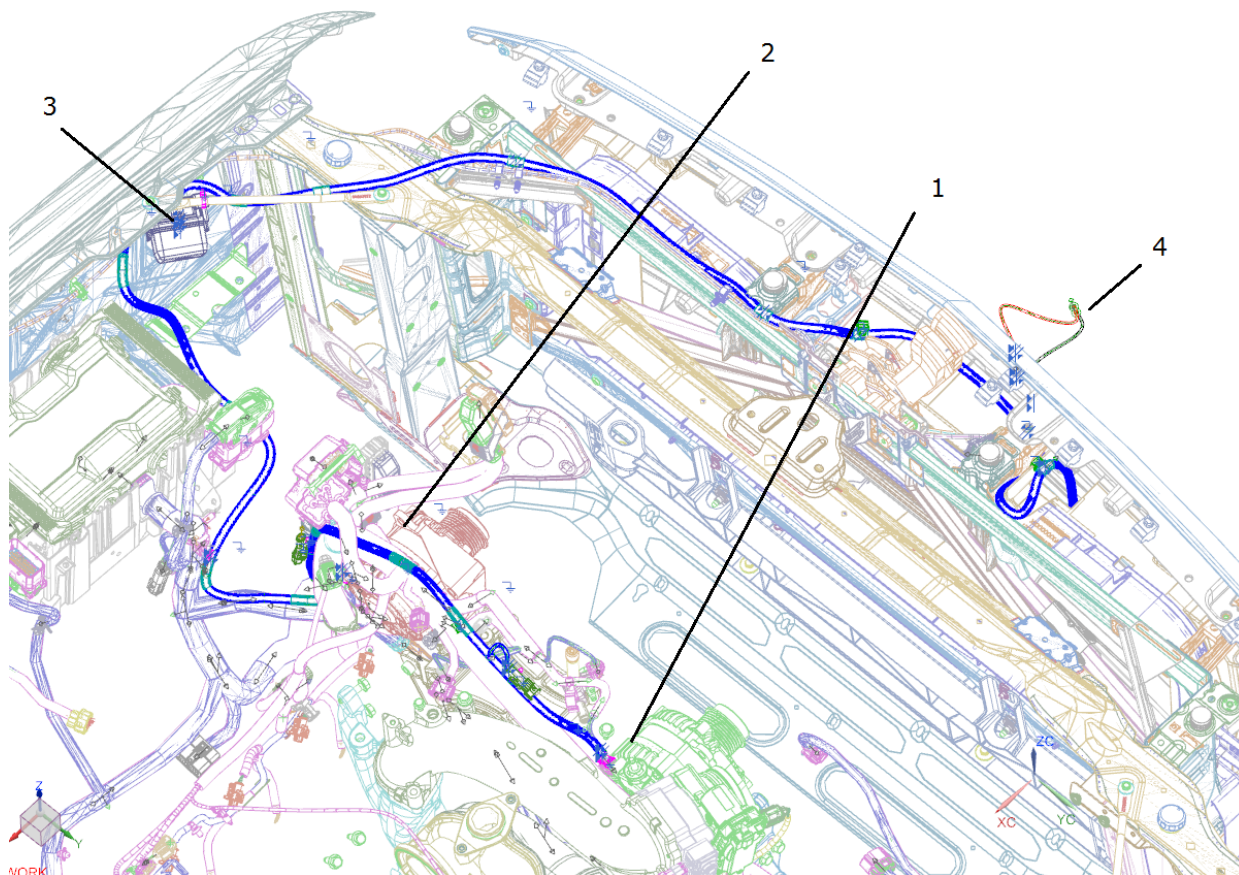
VYU Dual Alternator - Jumper Harness



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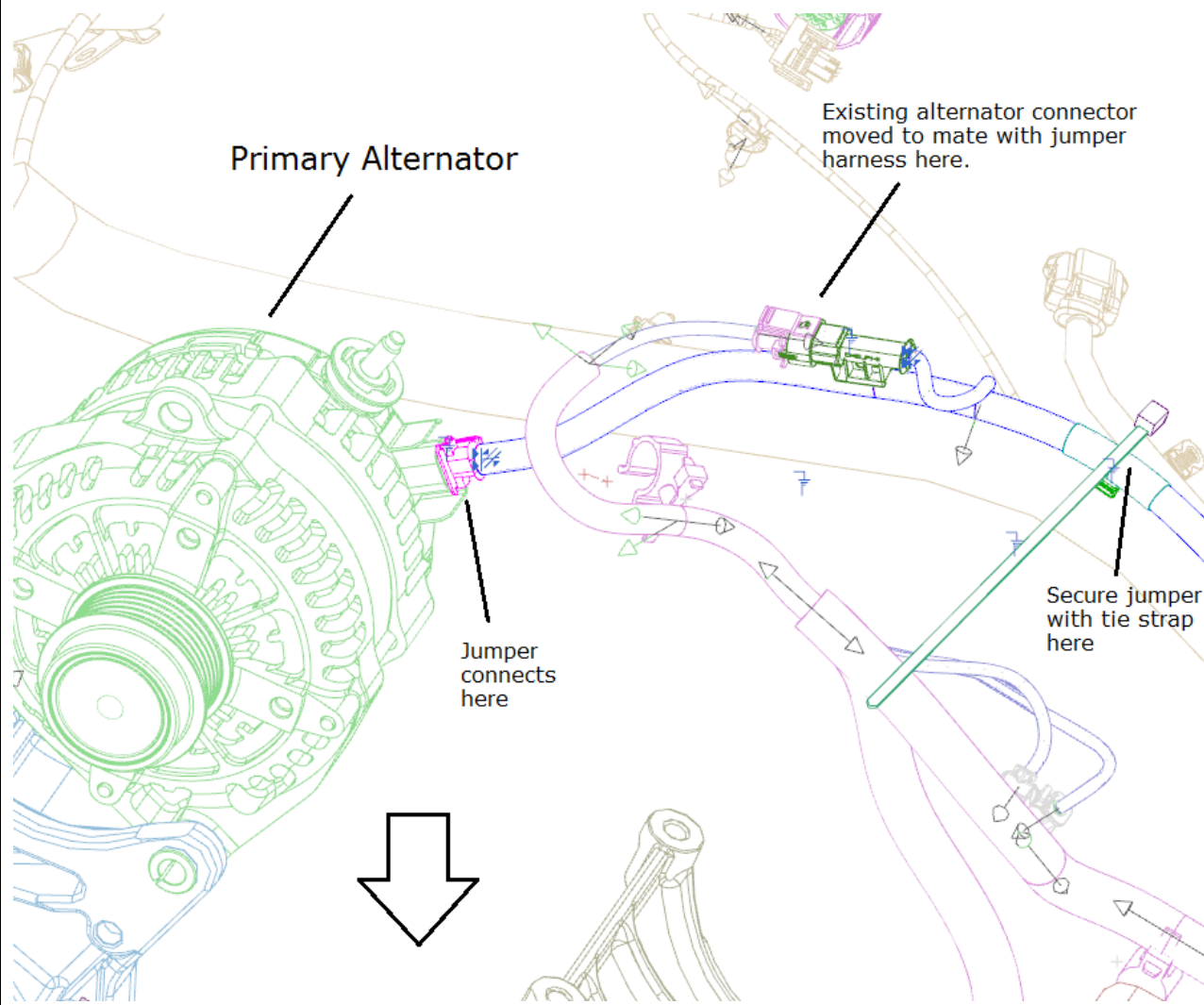
Layout Details

1. Primary Alternator
2. Slave Alternator
3. Relay Center and [new] corner brace
4. Wires to plow [fused + & ground]



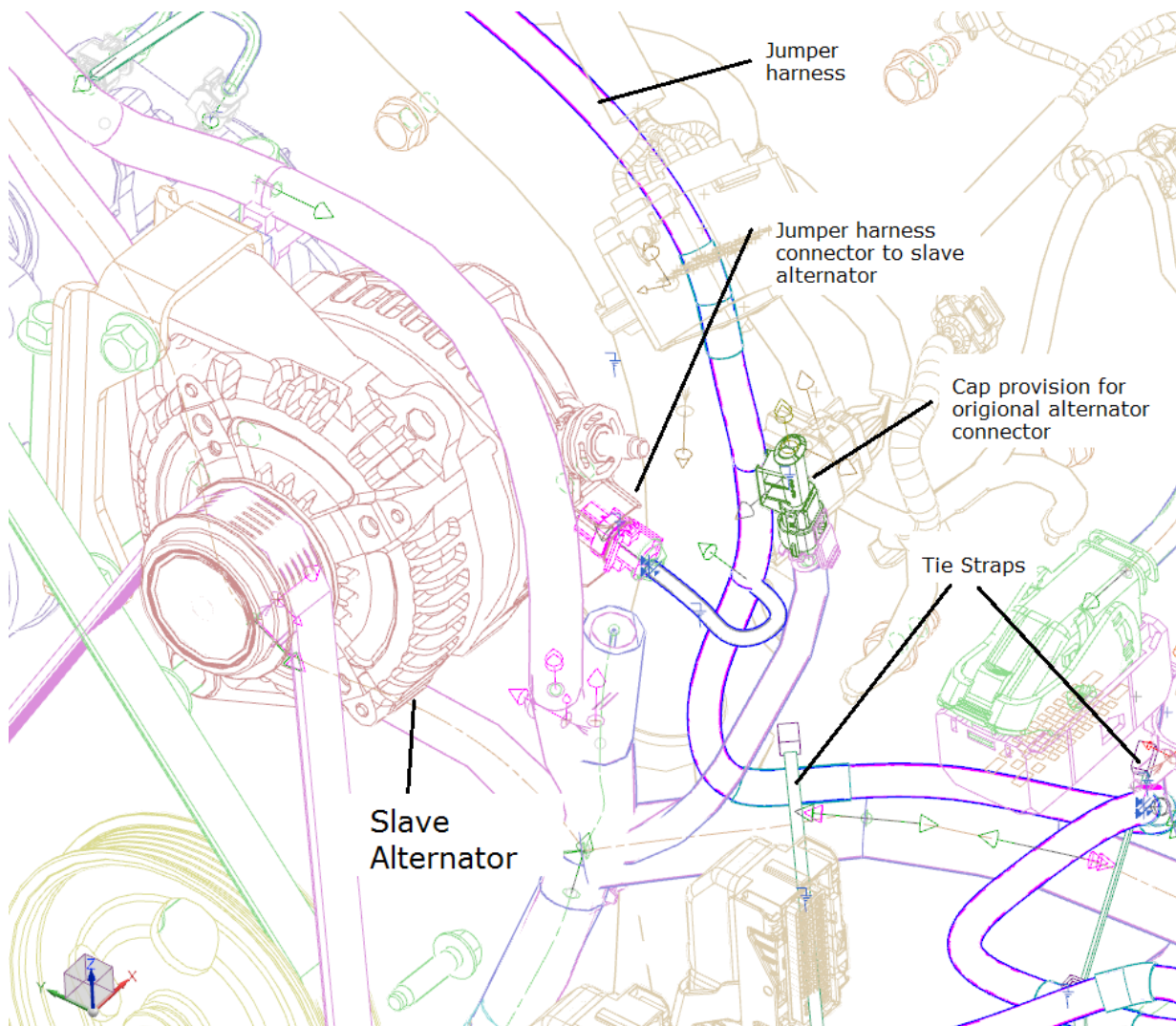
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Detail 1



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Detail 2



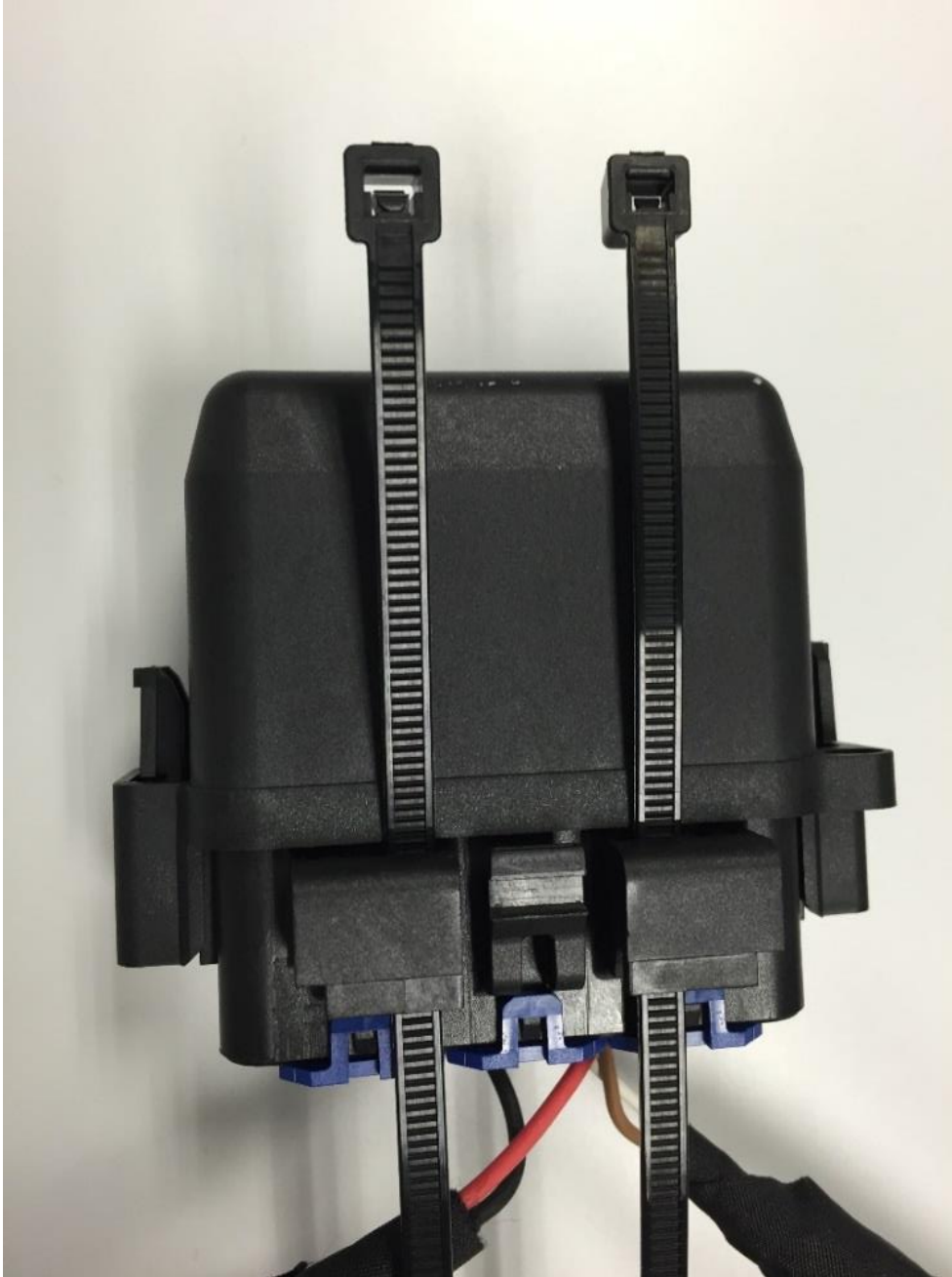
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Detail 3.1.1

Details 3.1.1-3 apply to service part and not the factory included [loose shipped] part.

See Details 3.2.1-7 for the later version factory harness that comes with a new truck.

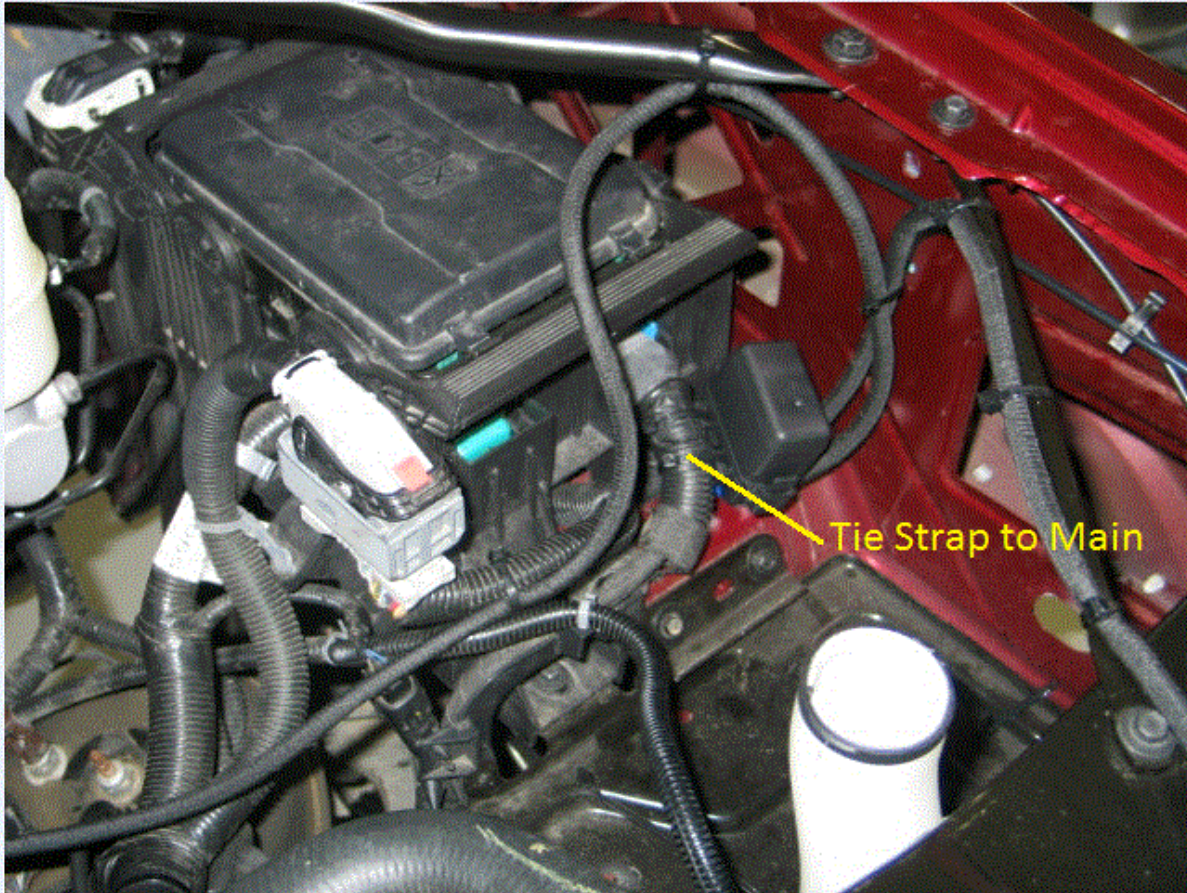
Add tie straps to relay



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Detail 3.1.2

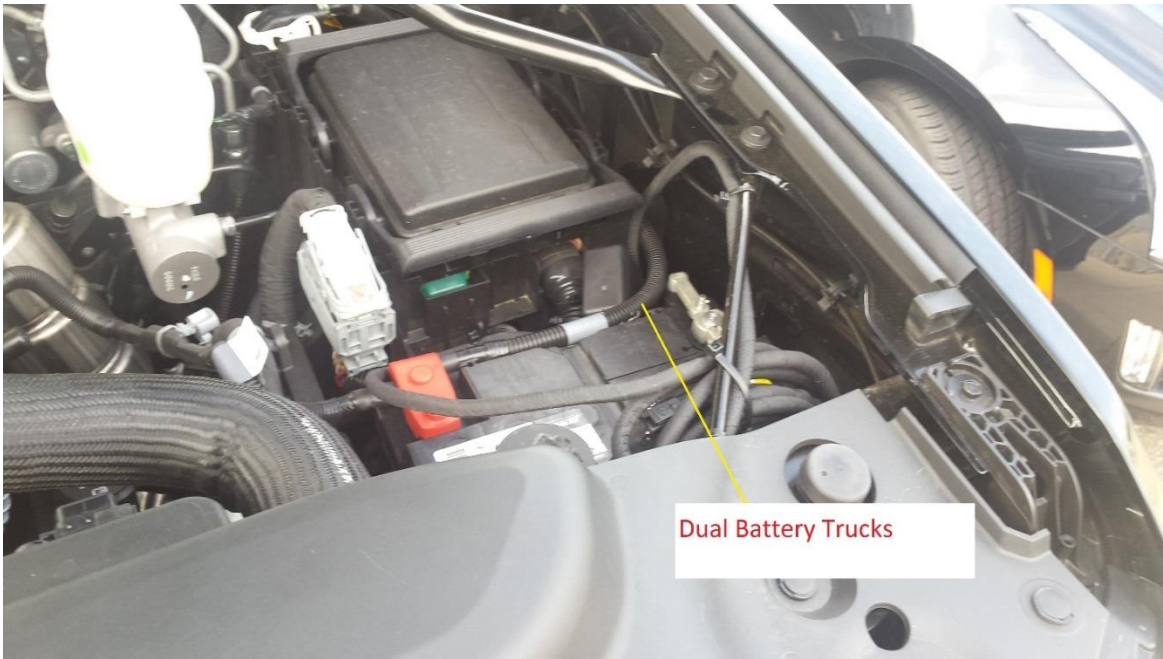
Single Battery Trucks



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Detail 3.1.3

Dual Battery Trucks



Detail 3.2.1

The following details 3.2.1 – 7 apply only to trucks that came with harness components [loose shipped] from the assembly plant.

Remove the Radiator Air Upper Baffle and Deflector.



Detail 3.2.2

Identify the new flat painted corner brace pn 84234282. [unpainted version shown]



Detail 3.2.3

Relay center and bracket details.



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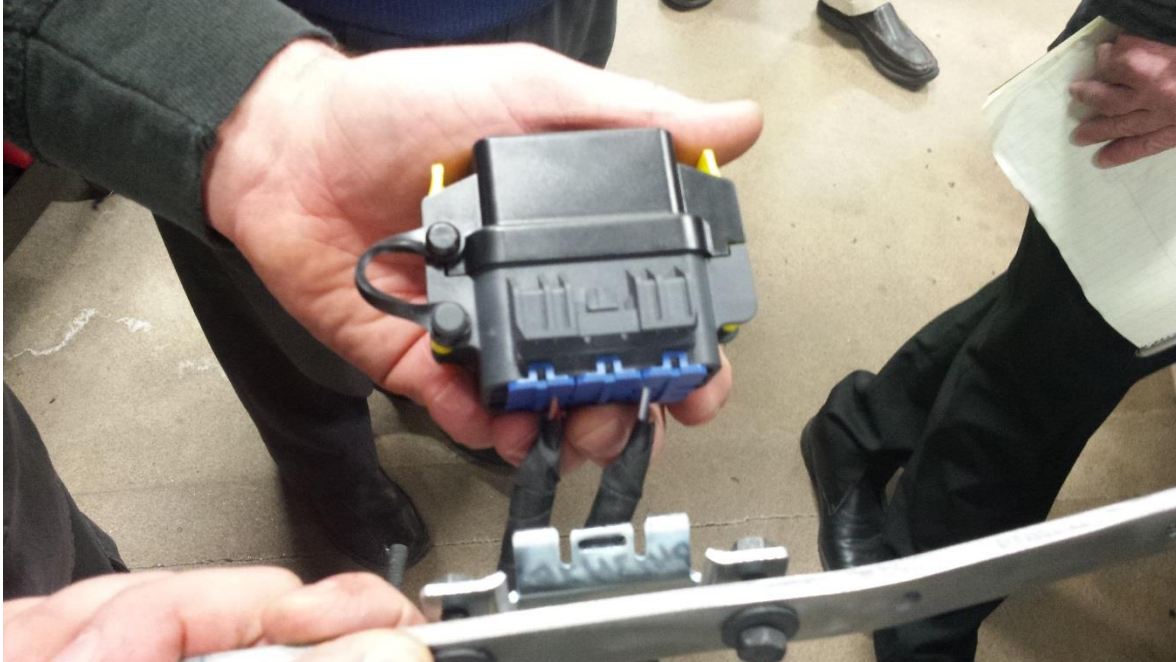
Detail 3.2.4

Remove the [round] left front corner brace shown here.



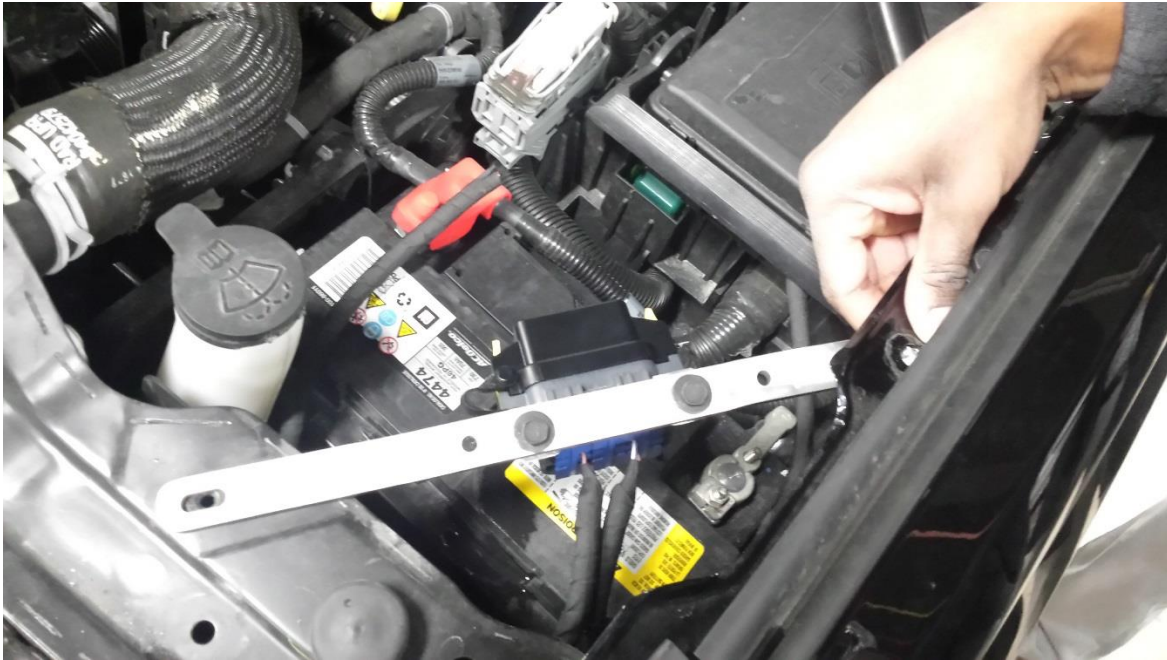
Detail 3.2.5

Assemble the relay bracket to the flat corner brace using hardware provided. Snap the relay bracket into the feature on the relay center.



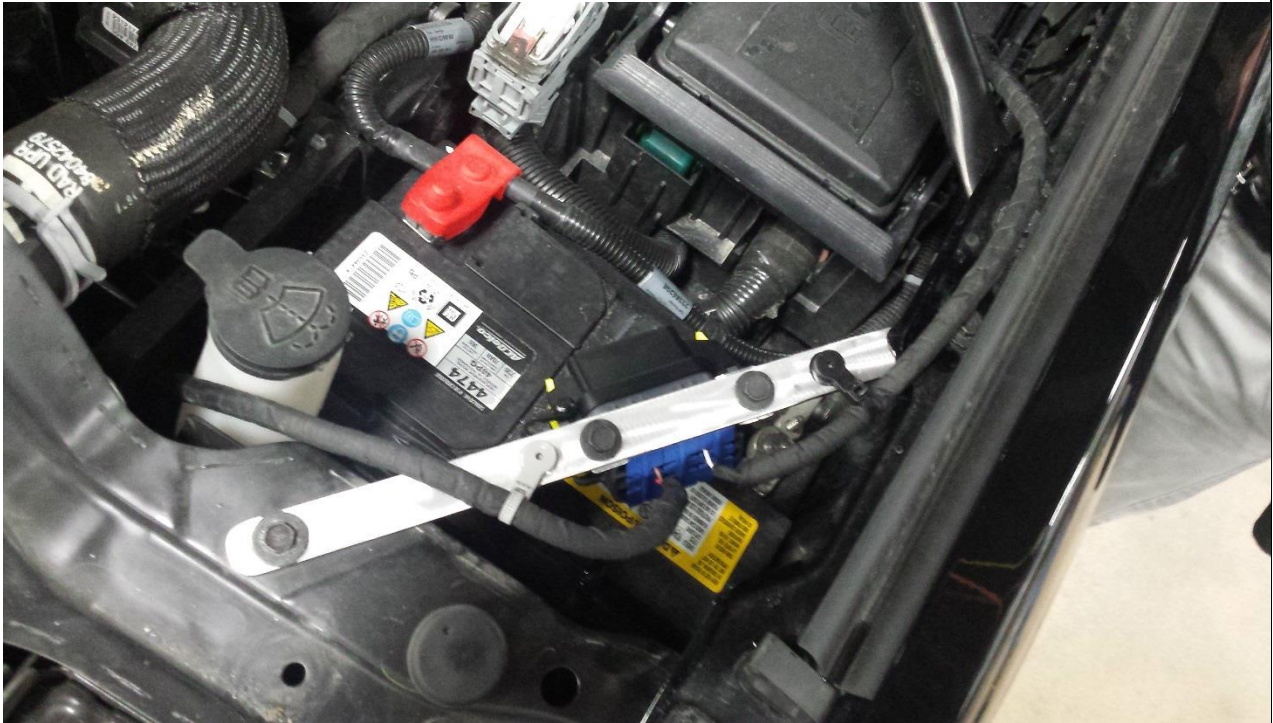
Detail 3.2.6

Position the corner brace and relay center assembly.



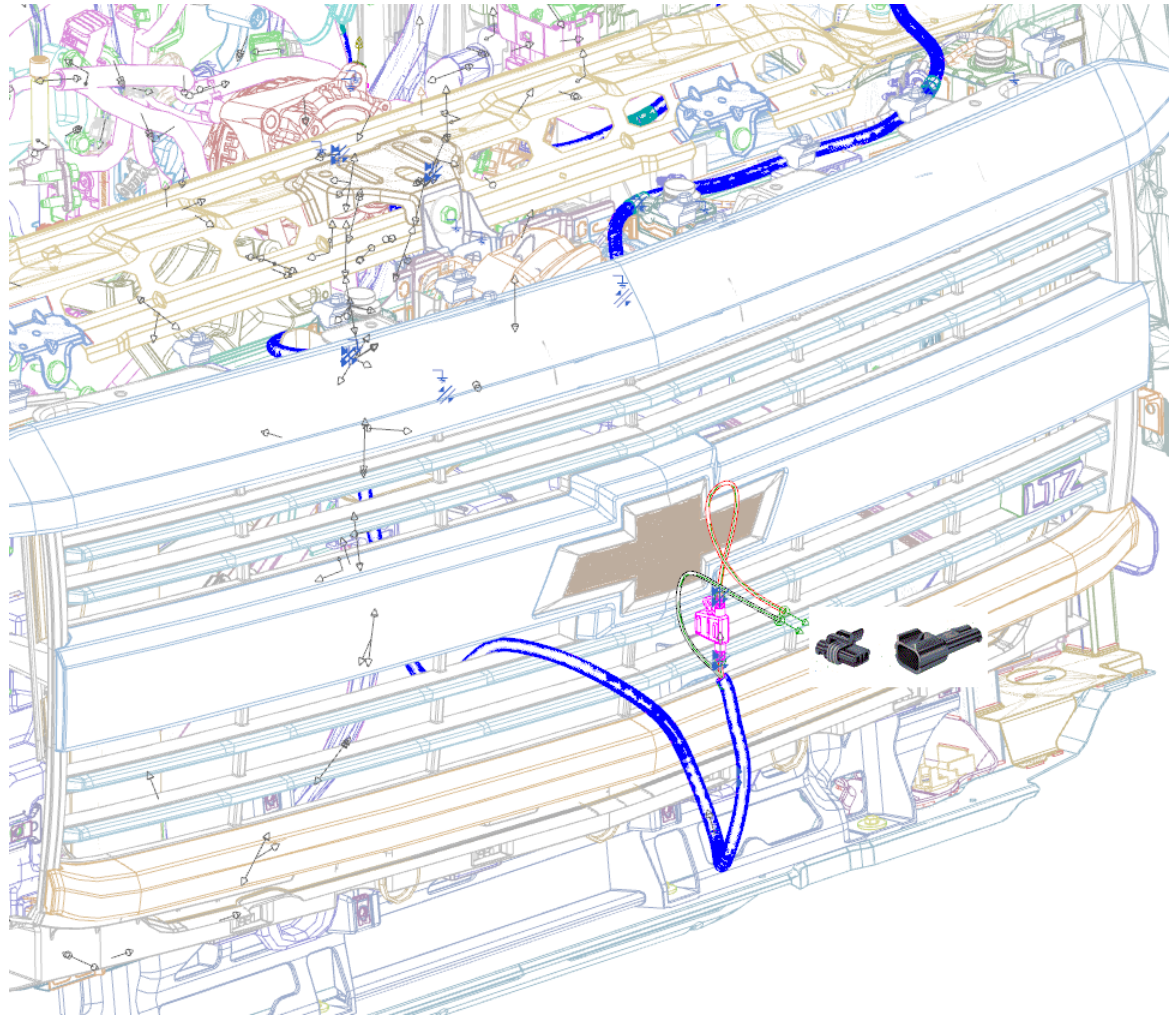
Detail 3.2.7

Mount the flat corner brace assembly as shown.



Detail 4

On units where the control signal must be obtained out on the plow wiring. **Two sets of 2-way sealed connectors** will be required as shown here. Extra mating halves can be used to fashion tethered caps. [Order GM service kit, 2 each M 2W 19119346 and 2 each F 2W 19119765 connectors]



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