



Service Bulletin

INFORMATION

Subject: Installation of Electrical Aftermarket Accessories — Battery, Ignition and Ground Feeds — Do Not Splice into Wiring Harness (Install Diode to Solenoid/Relay to Suppress Voltage Spikes)

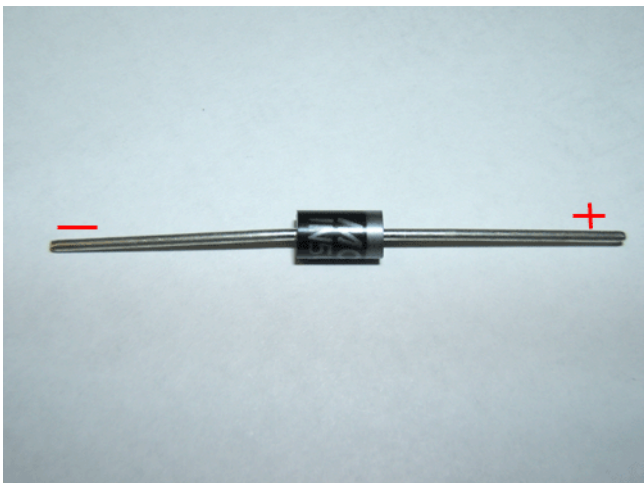
Models: 2007-2014 Cadillac Escalade Models
2007-2013 Chevrolet Avalanche, Silverado
2007-2014 Chevrolet Suburban, Tahoe
2008-2015 Chevrolet Express
2014 Chevrolet Silverado 2500/3500
2007-2013 GMC Sierra Models
2007-2014 GMC Yukon Models
2008-2015 GMC Savana
2014 GMC Sierra 2500/3500

Attention: This Bulletin also applies to any of the above models that may be Export vehicles.

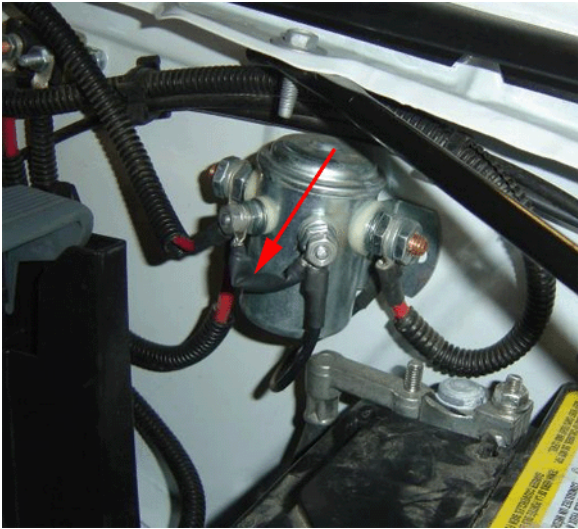
This Bulletin has been revised to add the 2013 and 2014 Model Years and 2015 Model year for Express/Savana. Please discard Corporate Bulletin Number 08-08-45-004C.

Installation of a Diode to Suppress Voltage Spikes

When an electromechanical solenoid or relay is de-energized rapidly by a mechanical switch or semiconductor, the collapsing magnetic field produces a substantial transient voltage in its effort to disperse the stored energy and oppose the sudden change in current flow. These voltage spikes can occur at the positive terminal when the solenoid or relay is de-energized (keyed-off). If a solenoid or relay is wired onto the Run/Crank circuit of the vehicle to control aftermarket equipment, the spikes can be transmitted onto the circuit. The spikes can permanently damage the internal circuitry of the sensitive electronic components and/or control modules that are on this bussed circuit. To prevent damage to these components, the solenoid or relay **MUST** have the control circuit suppressed with a diode.

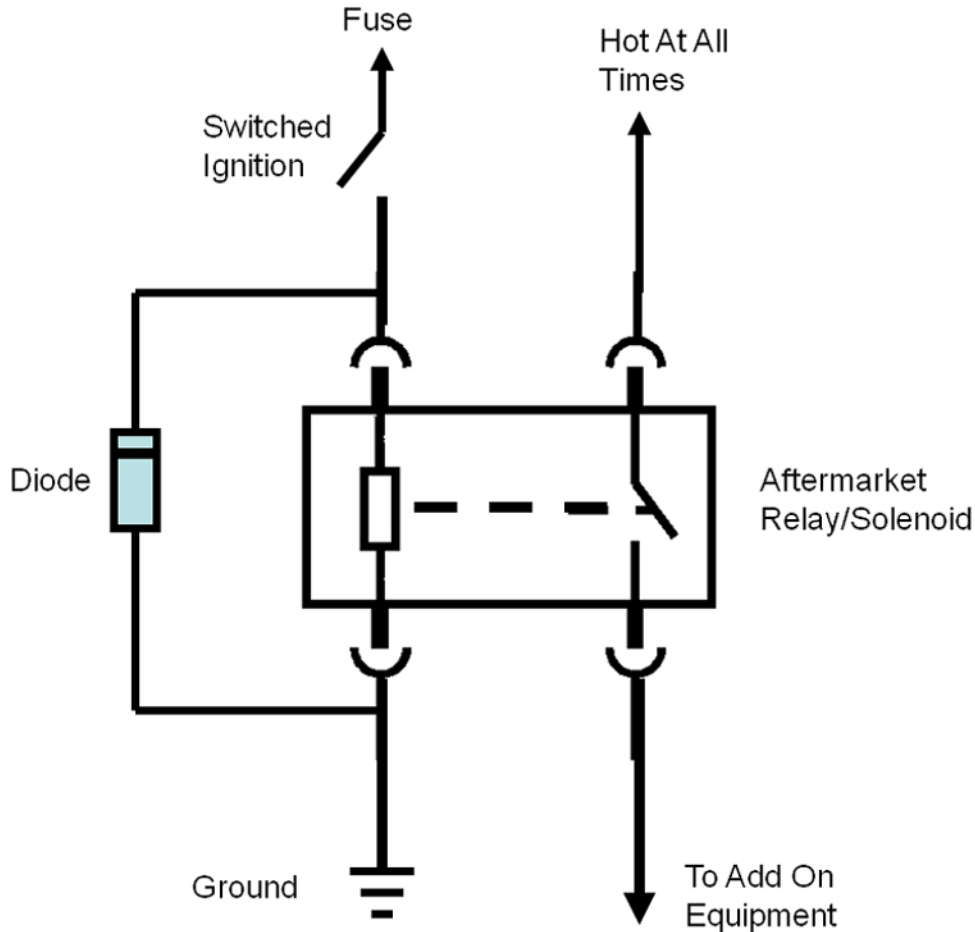


Install a diode, P/N 12112422, across the coil of the solenoid. It is important that the striped end of the diode be connected to the positive terminal of the coil and the other end of the diode be connected to ground.



Important: Be sure to insulate the diode with heat shrink tubing before installing as shown in the picture above.

Notice: Some solenoids/relays may only have a positive post and will get their ground through the mounting bracket. In this case, the striped end of the diode is to be connected to the positive terminal and the other end should be connected to the ground of the solenoid/relay.



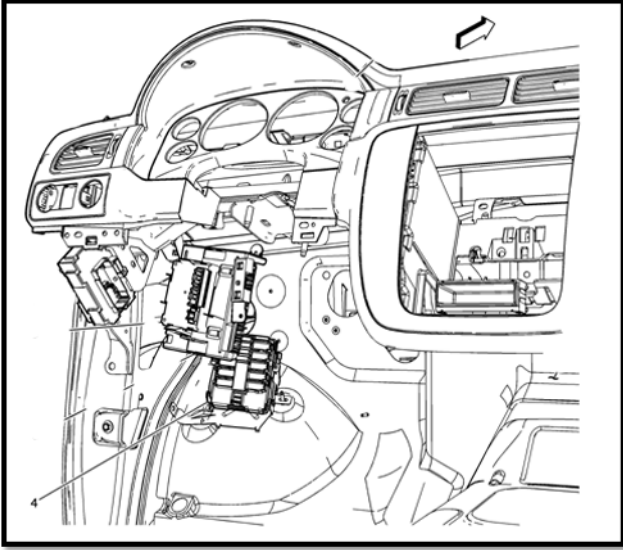
Install a diode, P/N 12112422, across the coil of the relay. It is important that the striped end of the diode be connected to the positive terminal of the coil and the other end of the diode be connected to ground. Be sure to insulate the diode with heat shrink tubing before installing.

There are two different areas on a fullsize truck or utility vehicle that power and grounds can be acquired without having to splice or cut into the existing wiring. One is the MBEC and the other is the UBEC.

MBEC — Mid-Bussed Electrical Connector

The MBEC is located below the instrument panel to the left of the brake pedal (#4 in the graphic points to the MBEC).

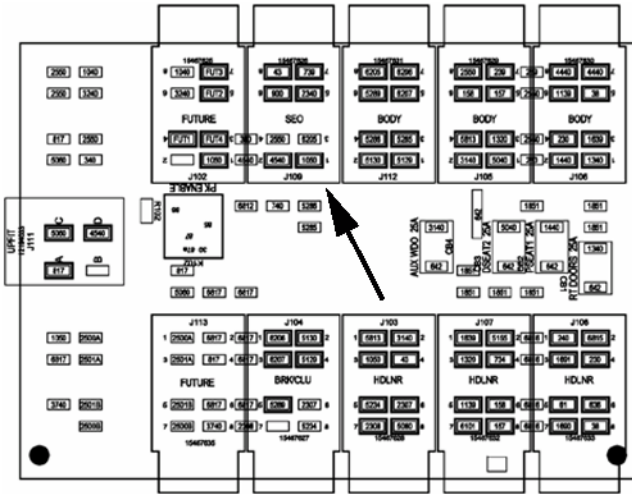
MBEC Location:



The MBEC has 10 positions for connecting electrical connectors. One of these positions is designated for aftermarket utilization. Install a connector (P/N 20791502) into the open position identified in the following graphic.

Within this connector, there is a fused 30 Amp battery feed, a fused 15 Amp battery feed, a fused 10 Amp Run/Crank feed, a 300 milliamp RAP (Retained Accessory Power) feed and a ground.

Location of Connector for Aftermarket Utilization:



Important: Connector P/N 20791502 comes with a one wire lead installed. This lead will need to be removed before the connector is pinned for use with aftermarket electrical devices.

The pin out of the connector is as follows:

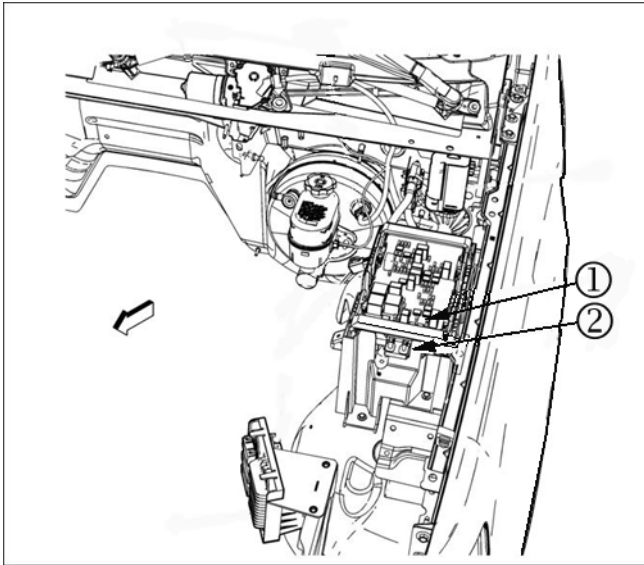
Cavity	Circuit Description	Circuit Number	Fuse Size
1	Ground	1050	NA
2	Battery Feed	4540	15 Amps
3	Not Used	—	—
4	Not Used	—	—

5	Battery Feed	2340	30 Amps
6	Not Used	—	—
7	Run/Crank Feed	739	10 Amps
8	RAP Feed	43	300 milliamps

UBEC — Underhood Bussed Electrical Center

On vehicles not equipped with an Auxiliary Battery (Auxiliary Battery RPO TP2), there is a stud that could be used for a fused battery feed at the UBEC. The UBEC is located on the left side of the engine compartment (refer to graphic).

Connecting Aftermarket Electrical Devices On Vehicles Not Equipped with TP2:



Important: A J-case fuse (1) with a 40 amp maximum rating **MUST** be inserted into this position (1) for the stud (2) to be powered.

Outboard M6 stud (2) can be used for a fused battery feed.

Wire Gauge Selection

For any of these powered connections to be used, Circuit Protection Guidelines must be followed to assure that the circuit gauge is selected appropriately so that it will be protected by the fuse in case of a short circuit.

Parts Information

Part Number	Description	Qty
12112422	Diode	1

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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