



Subject: Relocation of Electrical Components/ Devices-Best Practices/Recommendations

Models/Years Affected: Origination Date: Revision Date: N/A

# ADVISORY:

# **Condition/Concern:**

During the upfit process it may, for various reasons, become necessary to remove or relocate certain electrical connections, components and/or control modules. The following are the best practices/guidelines as they pertain to these types of components.

# **Repair/Recommendation:**

### Safety Systems:

Vehicle safety system components should never be removed and/or relocated without first contacting General Motors Upfitter Integration group (<u>www.gmupfitter.com</u>). Be advised that the components for the following systems...Air Bag, Anti-lock Braking, Collision Avoidance, Obstacle Detection Lane Departure and Blind Spot Warning cannot be relocated as the systems are calibrated to their location within and to the vehicle.

#### Electrical Components (non-safety system related)

When relocating electrical components careful consideration needs to be given as to environmental conditions of the new location. Such things such as moisture, temperature, electromagnetic interference, signal interference/impediment.

#### Under-hood/Vehicle:

When relocating components outside the passenger compartment of the vehicle steps to protect the device/component from high heat sources such exhaust system, engine block, cooling system and their associated parts/sub-assemblies.

Consideration to the possibility of water/moisture intrusion must also be given, many outside areas of the vehicle are often subject to water splash and/or spray so the components must be protected by a water tight housing with proper weather protected connector and seal assemblies. Consideration to any and all moving parts/components is required when selecting a new location

#### Under-dash:

Components being considered for relocation inside of the passenger component need to have the same environmental considerations given as to the selected location. Components to be mounted under dash/above the driver/operator foot controls must secured so as to not impose a risk of dislodging and impeding the operation of any of the vehicles foot controls. Under dash mounting must also not impede the operation of any of the vehicles subsystems.

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Bulletin #125

April 13, 2015



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#### Doors:

When relocating components within the doors consideration to moving parts and environment. When considering a new location for a components be aware of the travel path of the moving window and its components. Also being sure not to impact any of the door latching/release systems. Additionally reinstallation of the door's water deflection system/shields is required to prevent water intrusion inside the vehicle. Electrical system components should never be relocated to the "wet" side of the water deflection system. To prevent water intrusion into components inside of the door, connector interfaces should always be located in a downward orientation. It is also suggested that wire harnesses be routed with a drip loop near or at the device whenever possible.

#### **Under Seats:**

When relocating components under or near the seats consideration to any and all moving parts and environment must be giving. When considering a new location for a components be aware of the travel path of the moving seat and its components. Also being sure not to impact any of the seat's latching/release systems. Many front driver and passenger seats have integrated safety components that too must not be interfered with as well. Consideration to the seat belt system and its moving and latching system must also be given.

#### **Rear Stowage Areas:**

When mounting or location electrical components in the rear stowage area of the vehicle consideration to any and all moving parts and environment must be giving. Additionally once again environment must consider when mounting or locating a device in this area to the "drip zone" of water/moisture dripping off the rear stowage area enclosure. Be sure that when the enclosure is opened that any water or moisture that may be on the enclosure won't drip onto the mount device/components.

#### **General Recommendation:**

Lastly, always give consideration to any and all possible impacts to the vehicle's operator and occupants when adding or relocating electrical devices.

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