



File In Section: Product Recalls
Bulletin No.: 11224
Date: August 2011

Recall Bulletin



PRODUCT SAFETY RECALL

SUBJECT: Power Steering Hose Routed Incorrectly

MODELS: 2012 Chevrolet Impala

Vehicles involved in this recall were placed on stop delivery July 28, 2011, and July 29, 2011. Once the procedure contained in this bulletin has been performed, the vehicle can be released for delivery.

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in **certain** 2012 model year Chevrolet Impala vehicles. The upper power steering hose on some of these vehicles may have been misrouted so that it can come in close proximity to and/or contact the catalytic converter. With the engine on, heat from the catalytic converter may melt the power steering hose. If this occurs, power steering fluid could flow onto the catalytic converter, and an engine compartment fire could occur.

CORRECTION

Dealers are to inspect to ensure that the upper power steering hose is routed correctly. If it is not, dealers are to replace the upper power steering hose. Dealers are to also install a protective sleeve around both power steering hoses on all vehicles (regardless of routing) to prevent abrasion of the power steering hoses.

VEHICLES INVOLVED

Involved are **certain** 2012 model year Chevrolet Impala vehicles.

Important: Dealers are to confirm vehicle eligibility prior to beginning repairs by using the Required Field Actions section in the Global Warranty system. Not all vehicles may be involved.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared and will be provided to dealers through the GM GlobalConnect Recall Reports. Dealers will not have a report available if they have no involved vehicles currently assigned.

The listing may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other

than follow-up necessary to complete this recall is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

PART INFORMATION

Parts required to complete this recall are to be obtained from two sources:

- The tie straps, power steering hose, and power steering fluid required to complete this recall are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your “involved vehicles listing” before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order. **Please note that less than 1% of vehicles will require replacement of the power steering hose.**
- The four protective sleeves will be shipped from the Warranty Parts Center (WPC) at no charge via UPS Overnight Delivery – Attention: Parts Manager, to dealers with involved vehicles on August 3, 2011 and August 4, 2011. This first shipment will be 100% of vehicles currently in dealer inventory and sold vehicles. A second shipment of protective sleeves will be sent to involved dealers early in the week of August 8, 2011. This shipment will be 100% of vehicles in transit to dealers. DO NOT call the WPC to place an order for protective sleeves.

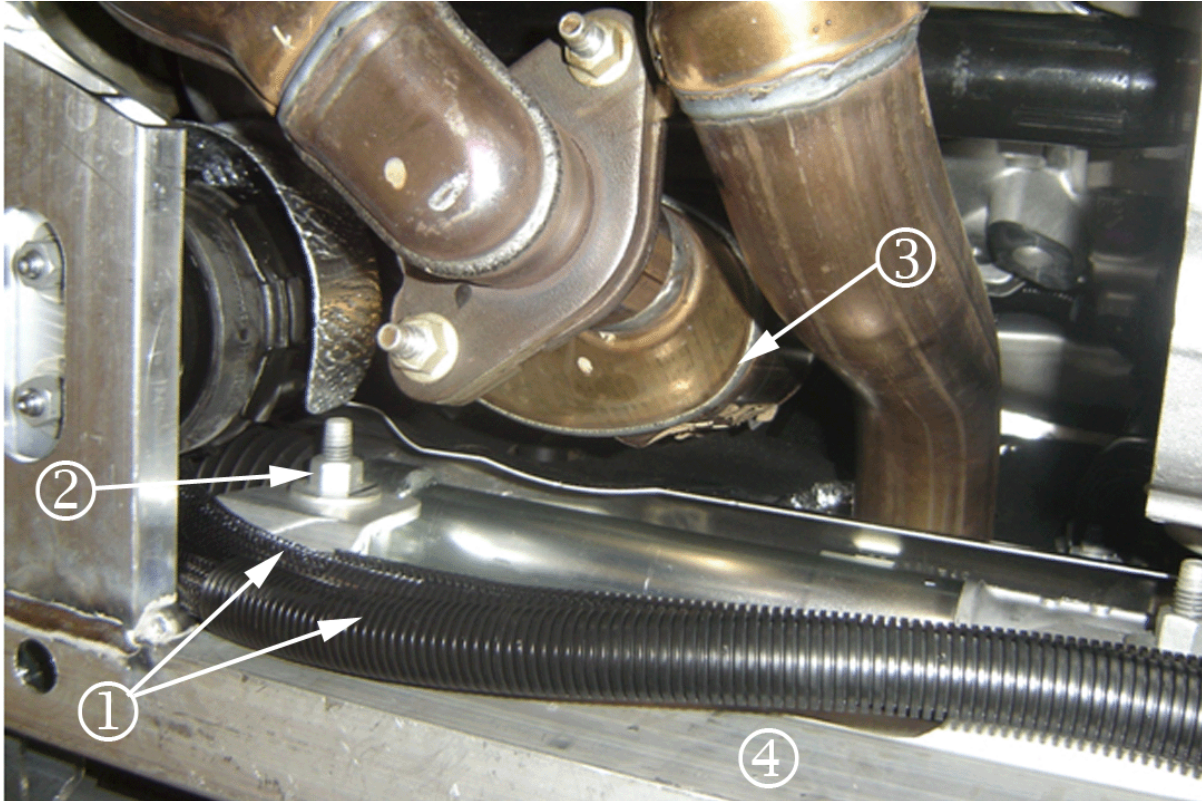
Part Number	Description	Quantity/Vehicle
WPC610*	Kit, Hose Protector	1
12337820	Strap 15" Tie Strap	3
22788952**	Hose, P/S Gr Inl	1 (If Req'd)
89020661 - US 89021186 - CN	Fluid, Hydraulic Power Steering	1 (If Hose Replaced)

* To be pre-shipped from the WPC.

** It is estimated that less than 1% of vehicles will require hose replacement.

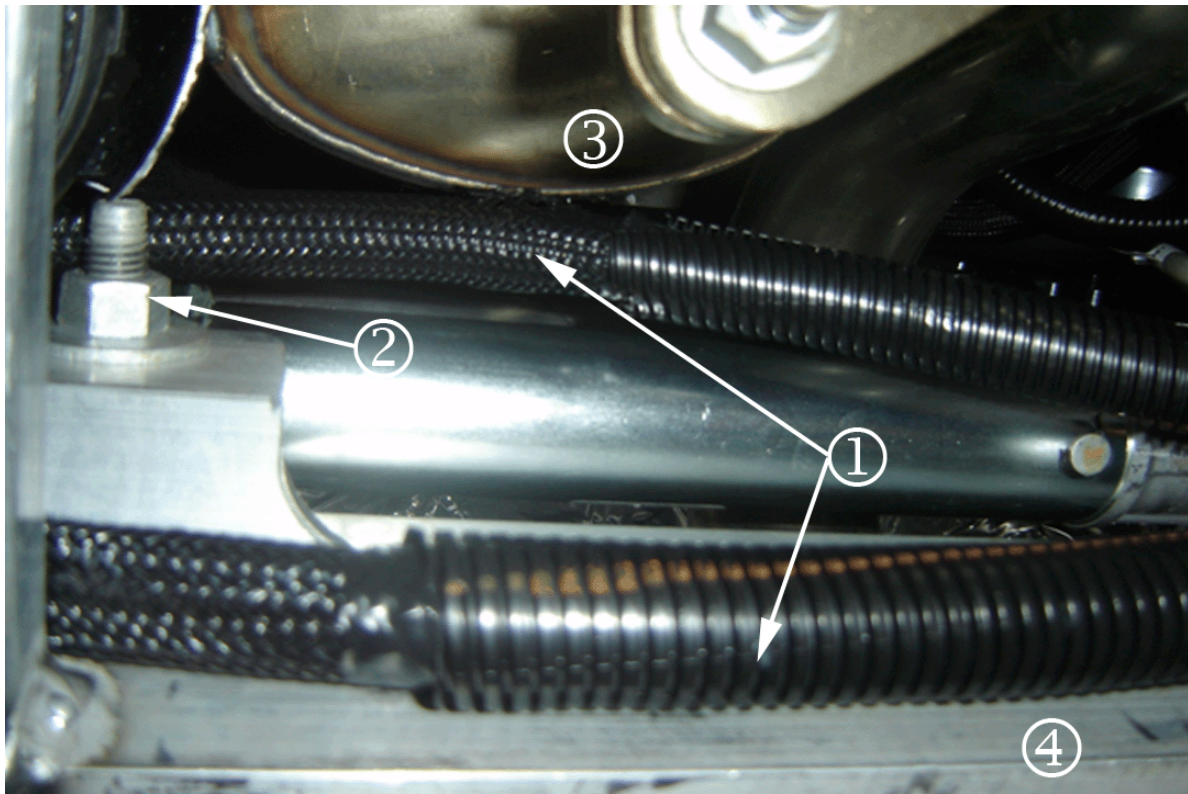
SERVICE PROCEDURE

1. Raise and support the vehicle. Refer to *Lifting and Jacking the Vehicle* in SI.
2. Determine if the power steering gear inlet pipe/hoses are routed correctly. Refer to the illustrations below.



Correctly Routed Power Steering Gear Inlet Pipe/Hoses are Routed Below the Steering Gear Mount Bolt: (1) Power Steering Gear Inlet Pipe/Hose (2) Steering Gear Mount Bolt (3) Catalytic Converter (4) Cradle

- If the power steering gear inlet pipe/hoses are routed correctly, proceed to *Protective Sleeve Installation* in this bulletin.



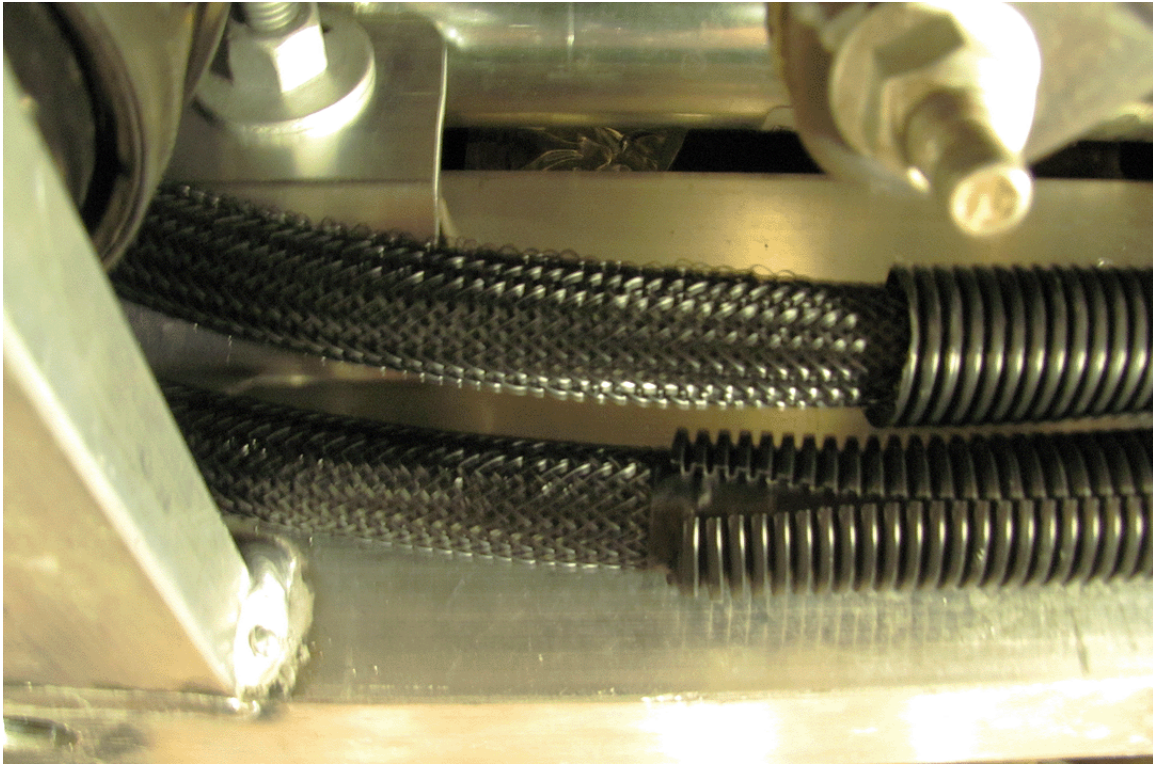
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Incorrectly Routed Power Steering Gear Inlet Pipe/Hoses are Routed Above the Steering Gear Mount Bolt: (1) Power Steering Gear Inlet Pipe/Hose (2) Steering Gear Mount Bolt (3) Catalytic Converter (4) Cradle

Note: Incorrectly routed power steering gear inlet pipe/hoses include one or both hoses routed above the steering gear bolt. The hoses may contact the steering gear bolt and/or the catalytic converter. **REPLACE** the power steering gear inlet pipe/hoses if the hoses are incorrectly routed.

- If the power steering gear inlet pipe/hoses are NOT routed correctly, remove and replace the power steering gear inlet/pipe hoses. Refer to *Power Steering Gear Inlet Pipe/Hose Replacement* in SI. After installing the power steering gear inlet pipe/hoses, ensure that the hoses are routed below the steering gear mount bolt. Refer to *Correctly Routed Power Steering Gear Inlet Pipe/Hose* illustration. Proceed to *Protective Sleeve Installation* in this bulletin after installing the power steering gear inlet pipe/hoses.

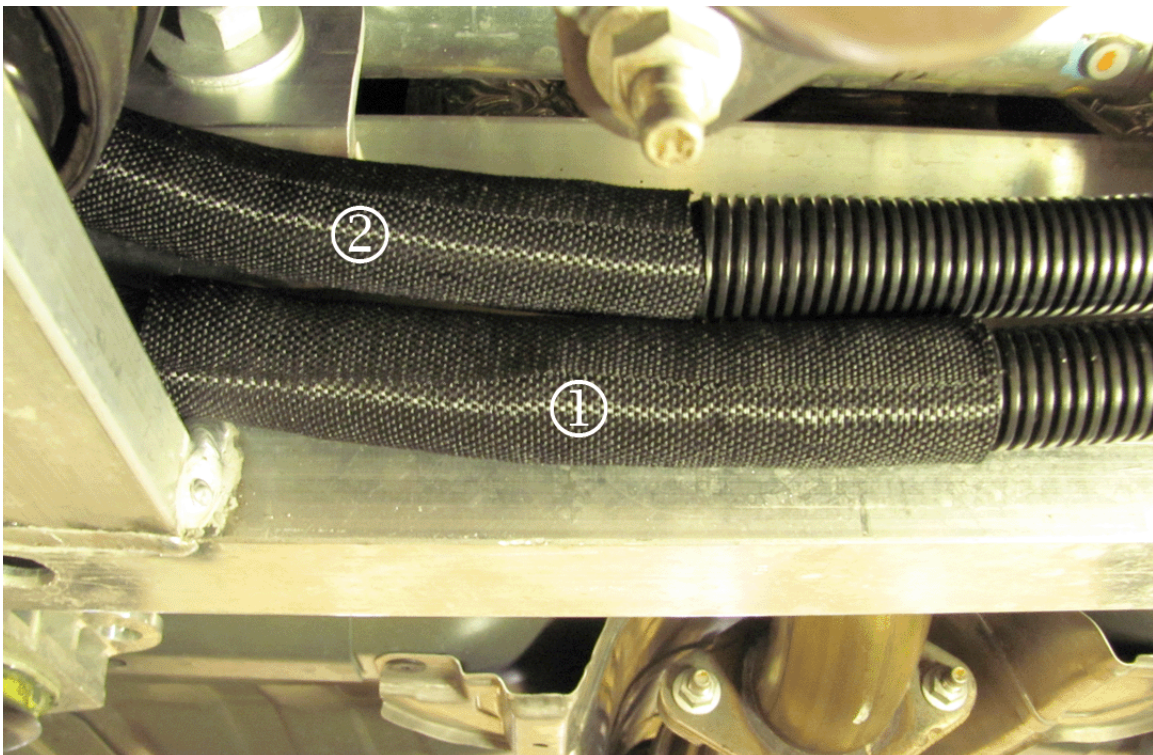
Protective Sleeve Installation



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1. Remove the tie strap if a tie strap is in place to hold the upper and lower the power steering gear inlet pipe/hoses.

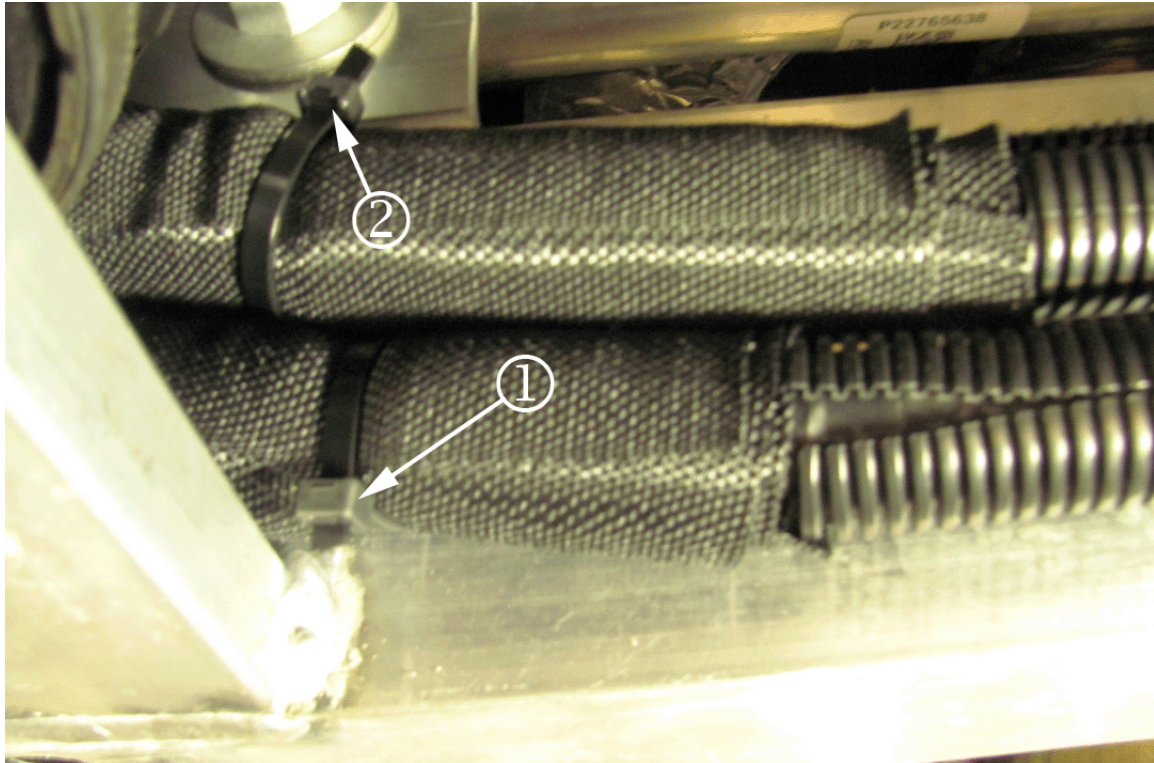
Note: The purpose of the protective sleeves on the lower hoses is to protect the hose from the edge of the cradle side rail.



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2. Place the first piece of protective sleeve on the lower hose (1).

3. Place the second piece of protective sleeve on the lower hose (1).
 - 3.1 Begin wrapping the protective sleeves around the hard plastic conduit portion of the hose.
 - 3.2 Slide both protective sleeves toward the passenger side of the vehicle. The protective sleeve should end adjacent to the hard plastic conduit. The protective sleeve should NOT overlap the hard plastic conduit portion of the hose.
 - 3.3 Ensure that the overlapping edges of the protective sleeves are facing down and away from the cradle.

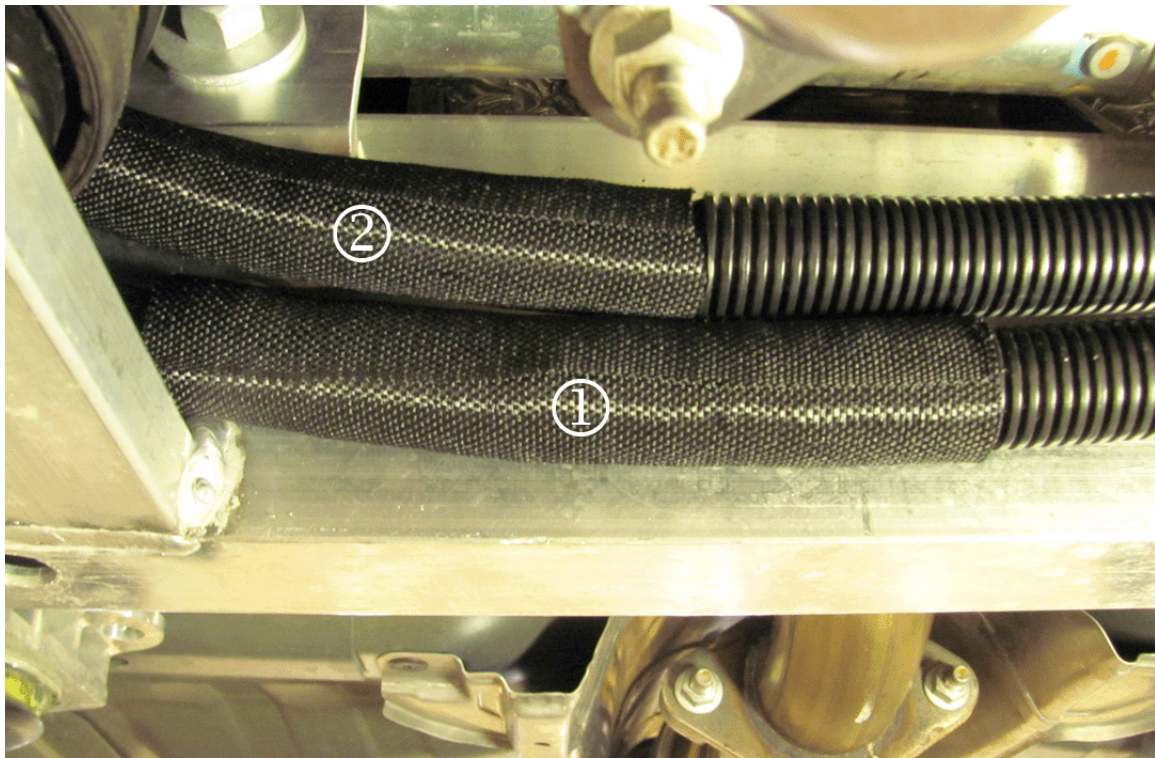


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Caution: Perform the following tie strap installation instructions to avoid hose damage:

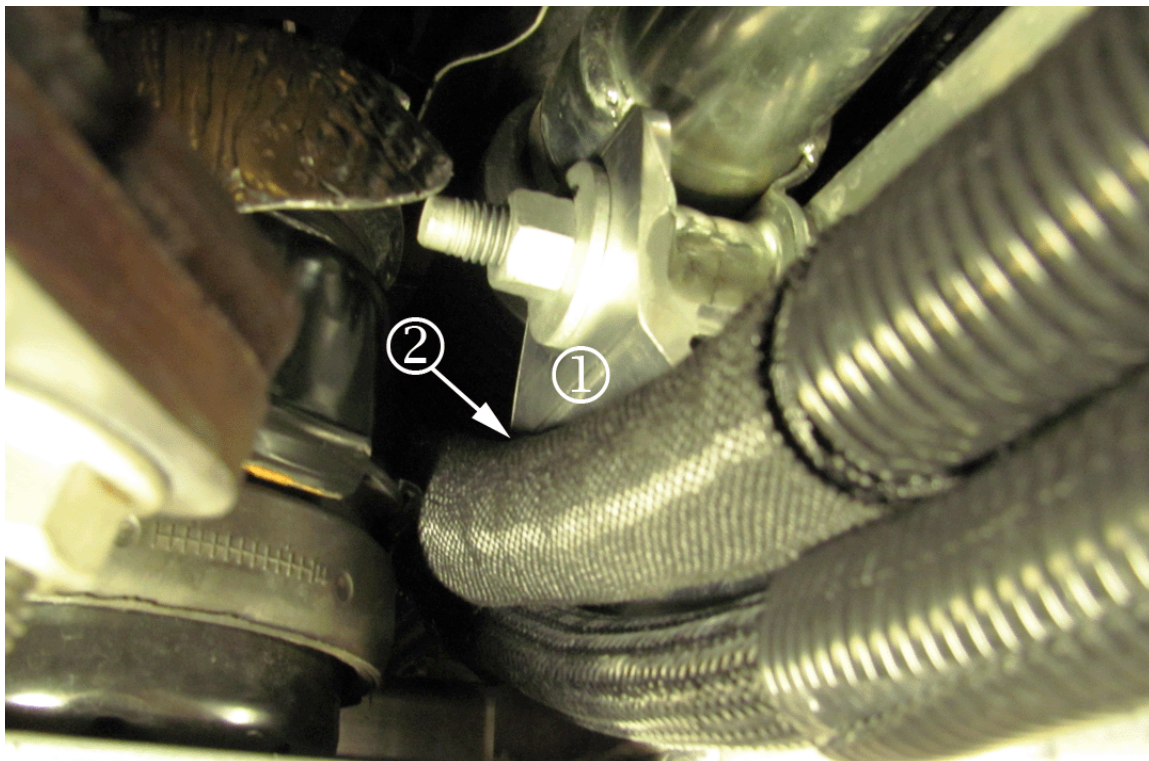
- The tie strap should line up with the edge of the cradle side rail.
- The tie strap should be fastened snug. The purpose of the tie strap is to hold the protective sleeves in place. However, do NOT fasten the tie strap too tight to ensure that it does NOT cut into the hose.
- Locate the connector end (1) of the tie strap away from the other hose.

4. Tie strap the protective sleeves in place.



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- 5. Place the first piece of protective sleeve on the upper hose (2).
- 6. Place the second piece of protective sleeve on the upper hose (2).
- 6.1 Begin wrapping the protective sleeves around the hard plastic conduit portion of the hose.

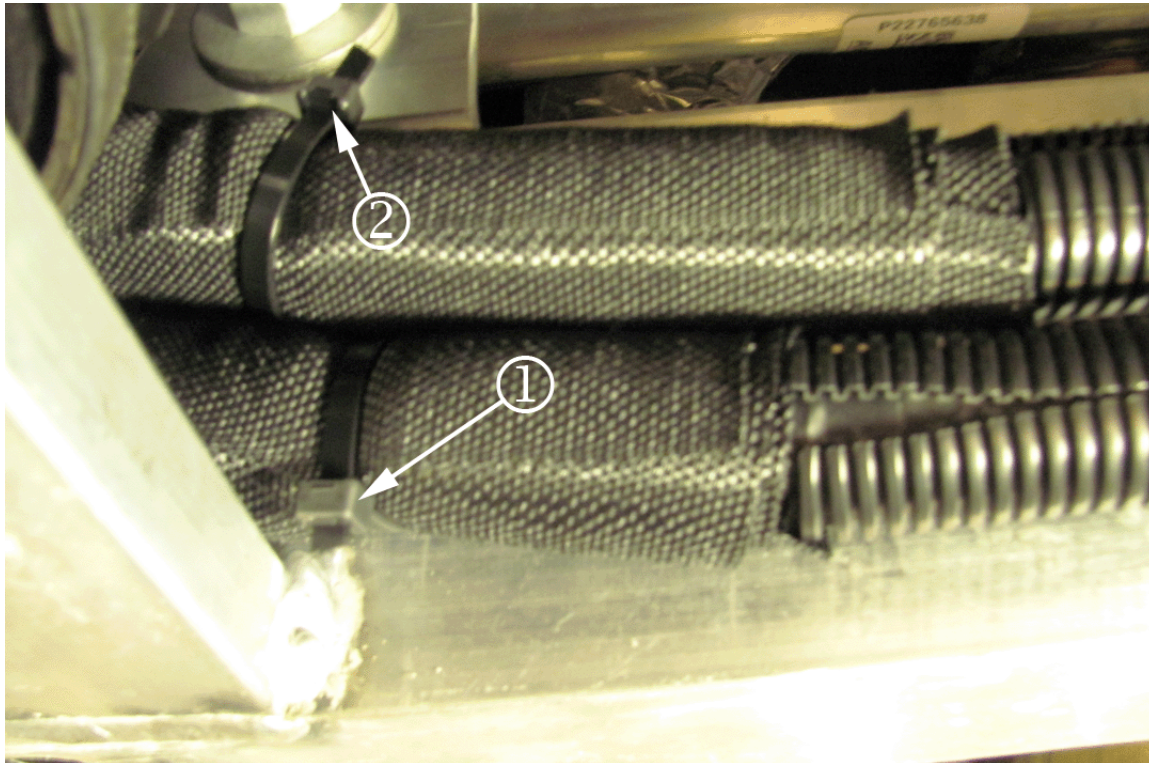


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Caution: Ensure that the protective sleeves are installed past the rear edge of the power steering gear bracket and powertrain mount to protect the hose from the front and rear edge of the power steering gear bracket and powertrain mount. The protective sleeve should end

adjacent to the hard plastic conduit. The protective sleeve should NOT overlap the hard plastic conduit portion of the hose.

- 6.2 Slide the protective sleeves past the rear edge of the power steering gear bracket and powertrain mount.
- 6.3 Ensure that the overlapping edges of the protective sleeves are facing down and away from the cradle.

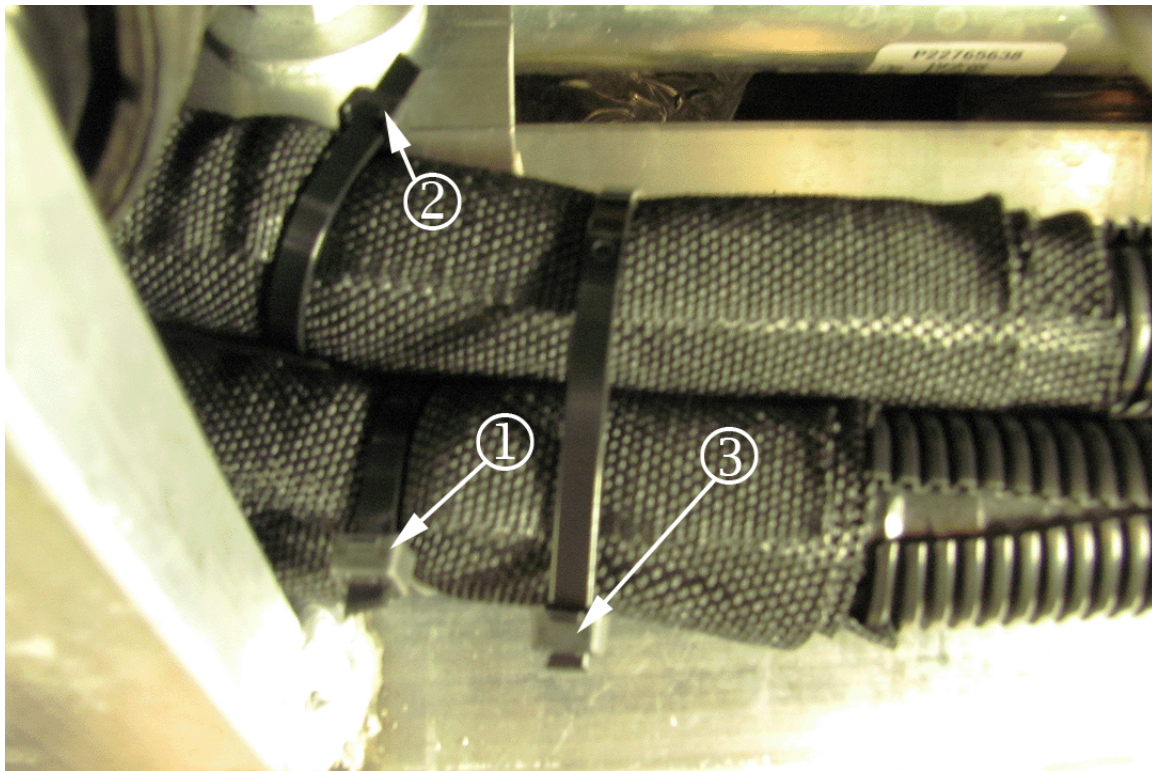


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Caution: Perform the following tie strap installation instructions to avoid hose damage:

- The tie strap should line up with the edge of the cradle side rail.
- The tie strap should be fastened snug. The purpose of the tie strap is to hold the protective sleeves in place. However, do NOT fasten the tie strap too tight to ensure that it does NOT cut into the hose.
- Locate the connector end (2) of the tie strap away from the other hose.

7. Tie strap the protective sleeves in place.



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8. Fasten a tie strap (3) loosely around the upper and lower hoses. Locate the tie strap (3) between the hard plastic conduit and existing tie straps. Refer to illustration.

FLOOR PLAN REIMBURSEMENT

Dealers in possession of vehicles included in the Stop Delivery are eligible for reimbursement of floor plan expense upon completion of this recall. This reimbursement is limited to the number of days from the Stop Delivery message to receipt of the recall parts and/or repair procedures. Floor plan reimbursement beyond these dates is not allowed. The amount of reimbursement should be charged as a net amount expense using the recall labor operation provided.

COURTESY TRANSPORTATION

The General Motors Courtesy Transportation program is intended to minimize customer inconvenience when a vehicle requires a repair that is covered by the New Vehicle Limited Warranties. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product program is very important in maintaining customer satisfaction. Dealers are to ensure that these customers understand that shuttle service or some other form of courtesy transportation is available and will be provided at no charge. Dealers should refer to the General Motors Service Policies and Procedures Manual for Courtesy Transportation guidelines.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below.

Labor Code	Description	Labor Time	Net Item
V2463	Inspect PS Gear Inlet Pipe/Hose & Install Protective Sleeve	0.4	N/A
V2464	Inspect & Replace PS Gear Inlet Pipe/Hose & Install Protective Sleeve	0.9	N/A
V2465	Floor Plan Reimbursement	N/A	*

* The amount identified in "Net Item" should represent the product of the vehicle's average daily interest rate (see table below) multiplied by the actual number of days the vehicle was in dealer inventory and not available for sale. This reimbursement is limited to the number of days from the date of the stop delivery message (July 28, 2011) to the date the repair is completed and the vehicle is ready for sale (not to exceed 12 days):

US Reimbursement Amount	Canadian Reimbursement Amount
\$ 3.98	\$ 4.18

CUSTOMER NOTIFICATION

General Motors will notify customers of this recall on their vehicle.

DEALER RECALL RESPONSIBILITY – For US (US States, Territories, and Possessions)

The US National Traffic and Motor Vehicle Safety Act provides that each vehicle that is subject to a recall of this type must be adequately repaired within a reasonable time after the customer has tendered it for repair. A failure to repair within sixty days after tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within a reasonable time, the customer may be entitled to an identical or reasonably equivalent vehicle at no charge or to a refund of the purchase price less a reasonable allowance for depreciation. To avoid having to provide these burdensome remedies, every effort must be made to promptly schedule an appointment with each customer and to repair their vehicle as soon as possible. In the recall notification letters, customers are told how to contact the US National Highway Traffic Safety Administration if the recall is not completed within a reasonable time.

DEALER RECALL RESPONSIBILITY – All

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

Dealers are to service all vehicles subject to this recall at no charge to customers, regardless of mileage, age of vehicle, or ownership, from this time forward.

Customers who have recently purchased vehicles sold from your vehicle inventory, and for which there is no customer information indicated on the dealer listing, are to be contacted by the dealer. Arrangements are to be made to make the required correction according to the instructions contained in this bulletin. Recall follow-up cards should not be used for this purpose, since the customer may not as yet have received the notification letter.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

