



June 22, 2004

Mr. K. N. Weinstein
Associate Administrator for Safety Assurance
National Highway Traffic Safety Administration
400 Seventh Street, S.W., Room 5321
Washington, D.C. 20590

04V-299
(15 pages)

RECEIVED
JUN 23 A 9 13
OFFICE OF RECORDS
GENERAL INVESTIGATION

Dear Mr. Weinstein:

The following information is submitted pursuant to the requirements of 49 CFR 573.6 as it applies to a determination by General Motors of a safety defect involving certain 2004 Pontiac Grand Prix model vehicles.

573.6(c)(1): Pontiac Division of General Motors Corporation

573.6(c)(2)(3)(4): This information is shown on the attached sheet.

573.6(c)(5): General Motors has decided that a defect relating to motor vehicle safety exists in certain 2004 Pontiac Grand Prix vehicles. These vehicles were built with right rear body mounts that contain cracks or voids. A crack could propagate during use of the vehicle, resulting in audible creaking, groaning, or clicking noises. If the driver ignored these warnings, both rear body mounts could eventually become detached from the frame structure. If this occurred, the steering intermediate shaft could become detached from the rack and pinion steering assembly, resulting in a total loss of steering control.

573.6(c)(6): During an inspection of engine frame rear body mounts in the course of initial fabrication, Hydro Aluminum Holland discovered surface defects or blistering. The rear body mounts were sectioned and underwent a laboratory analysis by Hydro Aluminum Technology Center, based in Holland MI. This analysis showed a defect in the part resulting from a crack in the extrusion billet. Hydro Aluminum Holland notified the GM Flint Metal Center of its findings on May 13, 2004.

As molten aluminum is poured into a form to create 30-foot long billets, a crack can occur as the aluminum begins to cool and shrink within the mold. A typical casting or lot will consist of 40 billets. Titanium Boron is manually added during the casting process to reduce the level of shrinkage. Hydro Aluminum Henderson reduced the amount of Titanium Boron during the casting process, which caused the defects within the aluminum billets. If a crack is present within the aluminum billet, this defect will be present as a 3-foot billet section is extruded into rear body mounts.

On May 13, 2004, a total of 51 cross members were manufactured into engine frame assemblies with the suspect rear body mounts by the Flint Metal Center, shipped into Oshawa Car Assembly, and assembled into vehicles.

Oshawa Car Assembly produced 315 Pontiac Grand Prix vehicles on May 13, 2004 and May 14, 2004. Within this population, there are a total of 51 vehicles that have a suspect rear body mount.

All suspect material was contained at Hydro Aluminum Automotive, Flint Metal Center, and the transportation provider MTS by May 18, 2004. Product investigations was asked to provide information on the effect on vehicle performance analysis on May 25, 2004. Finite Element Analysis was conducted on a frame assembly to simulate the effect of cracks in the right hand body-mount bracket. The analysis results indicated a 80% increase in peak operating stress. On May 26, 2004, GM Engineering decided to evaluate a vehicle with the right front body-mount removed. On June 3, 2004, information on the effect on vehicle performance was provided to GM Supplier Quality.



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On June 10, 2004 the condition was reported to the FPE Director. The GMNA Senior Management Committee reviewed the issue and on June 15, 2004 the Field Action Decision Committee decided to conduct a safety recall.

573.6(c)(8): This information is included in the service procedure of the attached draft dealer bulletin.

Pursuant to 577.11(e), GM does not believe notification about reimbursement is required for this recall. The involved vehicles are current models and are covered by the new vehicle warranty.

573.6(c)(9): Attached is the draft copy of the dealer bulletin and owner letter. General Motors will provide a final copy of the dealer bulletin and owner letter when available. General Motors plans to notify dealers of this recall in August 2004.

Sincerely,

A handwritten signature in black ink, appearing to read "Gay P. Kent". To the right of the signature, the initials "GPK" are written in a smaller, more legible font.

Gay P. Kent
Director

Product Investigations

2158 - 04055
Attachments

573.6(CY2N3Y4)

VEHICLES POTENTIALLY AFFECTED BY MAKE, MODEL, AND MODEL YEAR
PLUS INCLUSIVE DATES OF MANUFACTURE

<u>MAKE</u>	<u>MODEL SERIES</u>	<u>MODEL YEAR</u>	<u>NUMBER INVOLVED</u>	<u>INCLUSIVE MANUFACTURING DATES (FROM) (TO)</u>		<u>DESCRIPTIVE INFO. TO PROPERLY IDENT. VEH.</u>	<u>EST. NO. W/CONDITION</u>
Pontiac	W	2004	281	05/2004	05/2004	Grand Prix	16%
		GM Total:	281				

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Dear General Motors Customer:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. Federal regulation requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

Reason For This Recall: General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2004 model year Pontiac Grand Prix vehicles. Some of these vehicles have a condition where the front frame rear body mount bracket may fracture because of cracks in the aluminum bar from which it was made. Over time, this fracture would degrade the mounting bracket and you would begin to hear noises such as creaking, groaning, and clicking. If these warning signs were ignored, the bracket would continue to degrade to the point where the intermediate steering shaft could separate, resulting in loss of steering control. If this happens while the vehicle is moving, a crash could result without prior warning.

What Will Be Done: Your GM dealer will inspect the front frame assembly and replace it, if necessary. This service will be performed for you at no charge.

How Long Will The Repair Take? This inspect will take approximately 15 minutes. If the front frame assembly requires replacement, an additional 2 hours and 15 minutes will be required. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time.

Contacting Your Dealer: To limit any possible inconvenience, we recommend that you contact your GM dealer as soon as possible to schedule an appointment for this repair. By scheduling an appointment, your dealer can ensure that the necessary parts will be available on your scheduled appointment date. Should your dealer be unable to schedule a service date within a reasonable time, you should contact the appropriate Customer Assistance Center at the listed number below. The Customer Assistance Center's hours of operation are from 8:00 AM to 11:00 PM, EST, Monday through Friday.

Division	Number	Text Telephones (TTY)
Pontiac	1-800-620-7868	1-800-833-7668
Puerto Rico - English	1-800-496-9992	
Puerto Rico - Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

If, after contacting the appropriate Customer Assistance Center, you are still not satisfied that we have done our best to remedy this condition without charge and within a reasonable time, you may wish to write the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, SW, Washington, DC 20590 or call 1-888-327-4236.

Customer Reply Form: The enclosed customer reply form identifies your vehicle. Presentation of this form to your dealer will assist in making the necessary correction in the shortest possible time. If you no longer own this vehicle, please let us know by completing the form and mailing it back to us.

Courtesy Transportation: If your vehicle is within the New Vehicle Limited Warranty your dealer may provide you with shuttle service or some other form of courtesy transportation while your vehicle is at the dealership for this repair. Please refer to your Owner's Manual and your dealer for details on Courtesy Transportation.

Recall Information Online: More information about this recall (including answers to frequently asked questions) is available online at the Owner Center at My GMLink. This free online service offers vehicle and ownership related information and tools tailored to your specific vehicle. To join, visit www.mygmllink.com, and enter your vehicle's 17-character vehicle identification number (VIN) shown on the enclosed form to get the most personalized information for your vehicle.

We are sorry to cause you this inconvenience; however, we have taken this action in the interest of your safety and continued satisfaction with our products.

General Motors Corporation

Enclosure
04XXX



Recall Bulletin



PRODUCT SAFETY RECALL

SUBJECT: FRONT FRAME REAR BODY MOUNT BRACKET FRACTURE

MODELS: 2004 PONTIAC GRAND PRIX

DRAFT
A FINAL VERSION OF THIS DRAFT WILL BE USED
IF THERE IS A DECISION TO RECALL

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2004 model year Pontiac Grand Prix vehicles. Some of these vehicles have a condition where the front frame rear body mount bracket may fracture because of cracks in the aluminum bar from which it was made. Over time, this fracture would degrade the mounting bracket and the driver would begin to hear noises such as creaking, groaning, and clicking. If these warning signs were ignored, the bracket would continue to degrade to the point where the intermediate steering shaft could separate, resulting in loss of steering control. If this happens while the vehicle is moving, a crash could result without prior warning.

CORRECTION

Dealers are to inspect the front frame assembly and replace it, if necessary.

VEHICLES INVOLVED

Involved are certain 2004 model year Pontiac Grand Prix vehicles built within these VIN breakpoints:

YEAR	DIVISION	MODEL	FROM	THROUGH
2004	Pontiac	Grand Prix	41358384	41358827

IMPORTANT: Dealers should confirm vehicle eligibility through **GMVIS** (GM Vehicle Inquiry System) prior to beginning recall repairs. [Not all vehicles within the above breakpoints may be involved.]

For US: For dealers with involved vehicles, a Campaign Initiation Detail Report containing the complete Vehicle Identification Number, customer name and address data has been prepared and will be loaded to the GM DealerWorld.

Recall Information website. Dealers that have no involved vehicles currently assigned, will not have a report available in GM DealerWorld.

For Canada: For dealers with involved vehicles, a Campaign Initiation Detail Report containing the complete Vehicle Identification Number, customer name and address data has been prepared, and is being furnished to involved dealers. Dealers that have no involved vehicles currently assigned, will not receive a report with the recall bulletin.

The Campaign Initiation Detail Report 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.

PARTS INFORMATION

Parts required to complete this recall are to be obtained from General Motors Service Parts Operations (GMSPO). 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.

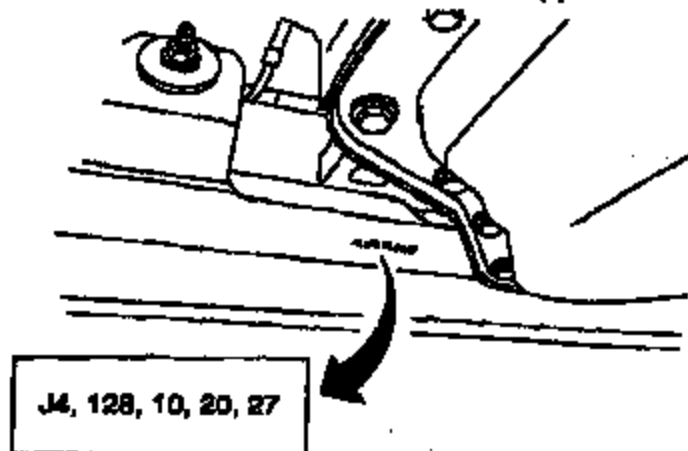
Part Number	Description	Quantity/Vehicle
#####	-----	#

Important: It is estimated that only ##% of involved vehicles will require <part> replacement. Please order parts accordingly.

SERVICE PROCEDURE

The following procedure provides instructions for inspecting, and if necessary replacing the front frame (cradle) assembly.

1. Raise vehicle on a suitable hoist and support as necessary.



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2. Locate the data code stamped on the frame assembly near the transmission pan as shown. For this inspection we are looking for frames made during a certain timeframe on one particular day this year.

The data codes involved are J4, 128, 10, 20, 27 to J4, 128, 13, 25, 54.

A date code is broken down as follows:

J4 = Calendar Year 2004
 128 = Day 128 (May 7th)
 10 = Hour (10am)
 20 = Minute (10:20am)
 27 = Second (10:20am and 27 seconds)

- "DAY" Begin with the Day number. If the "day" number in the date code is not 128, the frame does NOT need to be replaced. If the "day" number is 128, proceed to the next step and inspect the "hour".
- "HOUR" If the "hour" number in the date code is 9 or less, or 14 or higher, the frame does NOT need to be replaced. If the number on the frame is 11 or 12, the frame must be replaced. If the number is 10 or 13, proceed to the next step and inspect the "minute".
- "MINUTE" If the "hour" number is 10 and the "minute" number in the date code is 19 or less, then the frame does NOT need to be replaced. If the "minute" number on the frame is 21 or higher the frame must be replaced. If the "minute" number is 20, then continue and inspect the "second".

OR

- "MINUTE" If the "hour" number is 13 and the "minute" number in the date code is 24 or less, the frame must be replaced. If the "minute" number on the frame is 26 or higher the frame does NOT need to be replaced. If the "minute" number is 25, then proceed to the next step and inspect the "second".
- "SECOND" If the "minute" number is 20 and the "second" number in the date code is 26 or less, the frame does NOT need to be replaced. If the "second" number is 27 or higher, the frame must be replaced.

OR

- "SECOND" If the "minute" number is 25 and the "second" number in the date code is 54 or less, the frame must be replaced. If the "second" number is 55 or higher, the frame does NOT have to be replaced.

Frame Replacement

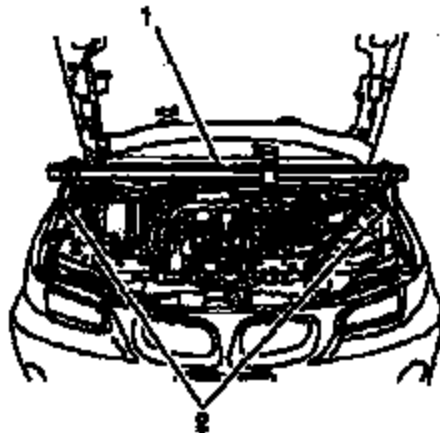
Tools Required

- J 28467-B Universal Engine Support Fixture
- J 38482-A Engine Support Adapter Leg Set
- J 28467-501 Engine Support Fixture Adapters

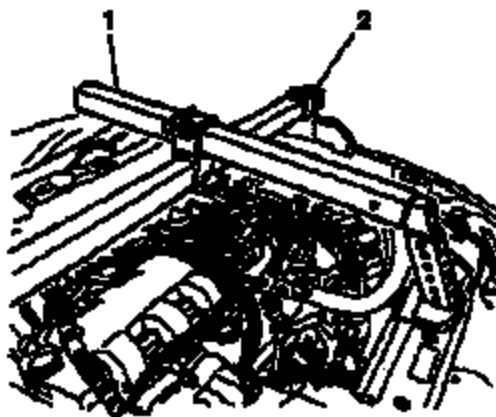
The procedure should only be performed if the results of the inspection above indicated that frame replacement is required.

For additional information see the appropriate sections of the service manual.

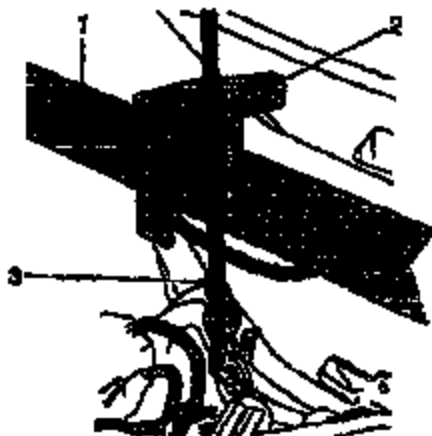
1. Lower the vehicle and open the hood.



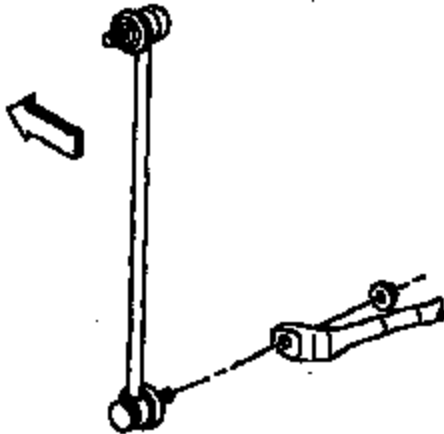
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815100

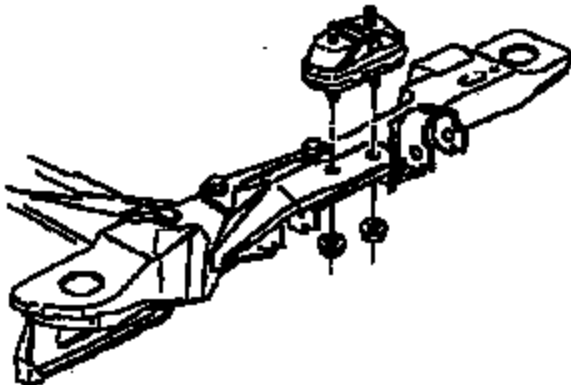


2. Install universal engine support fixture J 28487-B with adapters (J36462-A and J28487-501) or equivalent.
3. Raise the vehicle and support as necessary.
4. Remove both front wheel/tire assemblies.



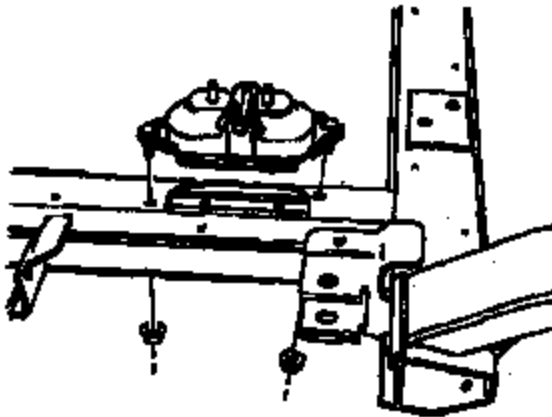
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5. Remove the nut attaching the stabilizer bar link to the stabilizer bar.
6. Separate the link from the bar.
7. Position an adjustable support at the rear of the frame.
8. Remove the two rear frame to body bolts.



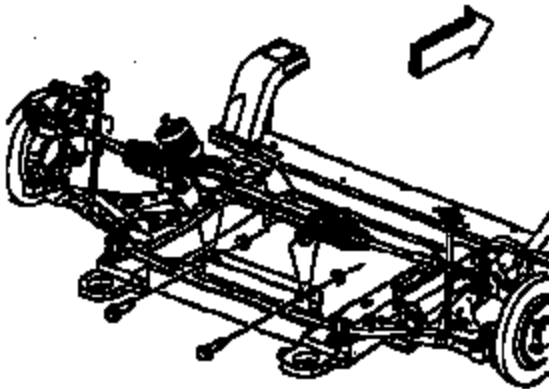
101234

9. Remove the two nuts attaching the left side transmission mount to the frame.



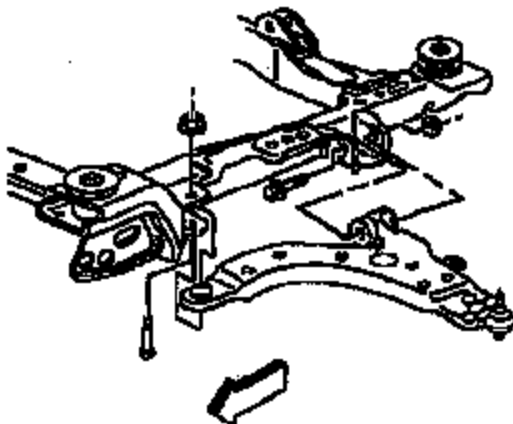
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10. Remove the two nuts attaching the right side engine mount to the frame.
11. Partially lower the rear of the frame.



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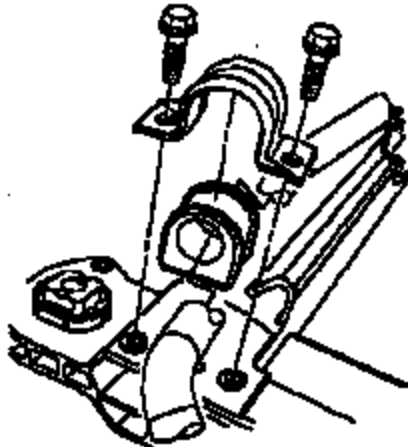
12. Remove the two bolts attaching the steering gear to the frame.
13. Remove and reposition the steering gear from the frame.
14. Remove the one power steering cooler line retainer from the right side of the frame.



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15. Remove the bolts from both lower control arms.

16. Separate both lower control arms from the frame.
17. Release the two clips attaching the wiring harness to the front of the frame.
18. Release the two clips attaching the power steering cooler lines to the front of the frame.
19. Release the clip attaching the left side ABS wiring harness to the frame.
20. Support the frame assembly as necessary.
21. Remove both front frame to body bolts.
22. Carefully lower and remove the frame assembly.



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23. With the frame out of the vehicle, remove the bolts attaching the clamps, insulators and stabilizer bar to the frame.
24. Install the stabilizer bar, insulators, and clamps to the NEW frame and install the bolts. **Tighten**

Tighten the bolts to 30 N·m (22 lb ft).

25. Raise the NEW frame assembly to the body and install the front two frame to body bolts. **DO NOT** tighten at this time.
26. Attach the clip for the ABS wiring harness to the left side of the frame.
27. Attach the two clips for the power steering cooler lines to the front of the frame.
28. Attach the two clips for the wiring harness to the front of the frame.
29. Position both lower control arms to the frame and install the bolts. **DO NOT** tighten at this time.
30. Attach the one power steering cooler line retainer to the right side of the frame.
31. Install the steering gear in the frame brackets.
32. Install the steering gear to frame attaching bolts. **Tighten**

Tighten the bolts to 90 N·m (66 lb ft).

33. Partially raise the frame closer to the body.
34. Align the right side engine mount to the frame and install the two nuts. **Tighten**

Tighten the nuts to 47 Nm (35 lb ft).

35. Align the left side transmission mount to the frame and install the two nuts. **Tighten**

Tighten the nuts to 47 N·m (35 lb ft).

36. Raise the frame to the body and install the rear frame to body bolts. **Tighten**

Tighten the bolts to 180 N·m (133 lb ft).

37. Tighten the front frame to body bolts.

Tighten the bolts to 180 N·m (133 lb ft).

38. Attach the stabilizer links to the stabilizer bar and install the nuts. **Tighten**

Tighten the nuts to 45 N·m (33 lb ft).

39. Place an adjustable support under the outboard end of the lower control arms and raise the arms to normal curb height position. **Tighten**

Tighten the lower control arm bolts to 125 N·m (92 lb ft).

40. Install the front wheel/tires and wheel nuts. **Tighten**

Tighten the nuts to 140 N·m (103 lb ft).

41. Remove all supports and lower the vehicle.

42. Remove the engine support fixture.

43. Close the hood.

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 Warranty. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product recall 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.

CLAIM INFORMATION

Submit a Product Recall Claim with the information indicated below:

REPAIR PERFORMED	PART COUNT	PART NO.	PARTS ALLOW	CC-FC	LABOR OP	LABOR HOURS
Inspect Frame - No Further Action Required	0	N/A	N/A	MA-96	V---	0.2*
Inspect & Replace Frame (Cradle) (Inc. Wheel Alignment)	1	---	**	MA-96	V---	2.5*
Courtesy Transportation	N/A	N/A	N/A	MA-96	---	N/A

For Recall Administrative Allowance, add 0.1 hours to the "Labor Hours".

** The "Parts Allowance" should be the sum total of the current GMSPD Dealer net price plus applicable Mark-Up for the cradle needed to complete the repair.

*** Submit courtesy transportation using normal labor operations for courtesy transportation as indicated in the GM Service Policies and Procedures Manual.

Refer to the General Motors WINS Claims Processing Manual for details on Product Recall Claim Submission.

CUSTOMER NOTIFICATION – For US and CANADA

General Motors will notify customers of this recall on their vehicle (see copy of customer letter included with this bulletin).

CUSTOMER NOTIFICATION – For IPC

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

DEALER RECALL RESPONSIBILITY – For US and IPC (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/repared 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. A copy of the customer letter is provided in this bulletin for your use in contacting customers. 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.

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 tools, equipment, 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 distributor for information on whether your vehicle may benefit from the information.



We Support
Voluntary Technician
Certification