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SECRETARY FOR SAFETY

August 9, 2002

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

02V-222 ① of ⑰

Dear Mr. Weinstein:

The following information is submitted pursuant to the requirements of 49 CFR 573.5 as it applies to a determination by General Motors of a safety defect involving certain 2002 – 2003 Buick LeSabre, Rendezvous; Cadillac DeVille; Chevrolet Impala, Monte Carlo, Trailblazer, Venture; GMC Envoy; Oldsmobile Aurora, Bravada, Silhouette; Pontiac Bonneville, Montana model vehicles.

573.5(c)(1): Buick, Cadillac, Chevrolet, GMC, Oldsmobile, and Pontiac Divisions of the General Motors Corporation.

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

573.5(c)(5): General Motors has decided that a defect which relates to motor vehicle safety exists in certain 2002 – 2003 Buick LeSabre, Rendezvous; Cadillac DeVille; Chevrolet Impala, Monte Carlo, Trailblazer, Venture; GMC Envoy; Oldsmobile Aurora, Bravada, Silhouette; Pontiac Bonneville, Montana model vehicles. Some of these vehicles have a driver side airbag inflator that could fracture at a weld during a deployment. Pieces of the inflator could strike and injure vehicle occupants and the airbag cushion would not inflate fully, reducing the capability of the bag to protect the driver.

573.5(c)(6): The following chronology of principal events led to the determination of a defect:

On June 26, 2002, GM was notified by Delphi of a test incident that occurred the previous day involving a Block 2 design Autoliv ODHS1 dual stage air bag inflator. During a module Lot Acceptance Test at the Delphi plant where air bag modules are assembled, an Autoliv inflator fractured near a diffuser-to-housing weld joint. Delphi placed the inflator lot on hold and no modules with inflators from that lot were shipped to GM.

Delphi and GM began an investigation and learned that Autoliv had experienced three similar incidents in inflator lot acceptance testing. One occurred on May 31. Autoliv held the remaining 2,795 inflators made with the same igniter slurry lot. All were tested—one fractured and 2,793 performed normally. A third test incident occurred on June 15. Autoliv held all 5,376 inflators made with the same igniter slurry lot. All were tested and performed normally.

On June 3, Autoliv formed a team to investigate the first incident. It considered many possible causes, including booster combustion pressure spikes, K_{IC} brittle failure, and hydrogen embrittlement. Testing led to elimination of the first two. On June 21, consultants engaged by Autoliv to evaluate the Block 2 design examined the fractures and indicated that the fracture morphology was consistent with hydrogen embrittlement. Autoliv analyzed production records and, on June 25, found one pattern/characteristic common among the parts that fractured: the time between welding of the previous part and the fractured part was above-average.

Product Investigations

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Evaluations were made of the material hardness, residual stress levels, and possible sources of exposure to hydrogen. Investigators exposed seven sample parts to large amounts of water drops. Possible sources of contamination during inflator manufacturing are: condensation during the welding and cooling operation, oil from welding equipment, igniter slurry, floor dust, weld slag particles and residue from the plastic conveyor. Of the seven parts tested, two parts ruptured on deployment and four parts had cracks in areas similar to the test incident parts. The morphology of the cracks was consistent with hydrogen embrittlement.

In another test, 32 parts were welded with water drops present in the weld zone. All 32 parts deployed normally. Two of the 32 parts exhibited hydrogen embrittlement morphology.

A Design of Experiments study was conducted to better understand water drops as a contributor. Sixty-four parts were produced, half with water only and half with water and the potential contaminants described above. Four parts ruptured during deployment, all of which were exposed to water only. This series of tests were completed in late June and early July.

Based on the experiments, it was concluded that water introduced into the production process was the source of hydrogen contamination that replicated the failure mode. It was determined that water could be introduced into the production process from melting ice that formed on a CO₂ cooling nozzle located above the MIG3 welding position. Depending on the humidity in the building and the time that a part remained at that welding position ("dwell time") without a discharge of CO₂, the ice could melt and water could drip on the part before and/or during welding.

Studies were then performed to determine minimum time for the ice to melt and water to drop on the part. The shortest time in which a drop fell on a part in the MIG3 weld position was 157 seconds. From Autoliv's records of welding times, it was determined that only 342 of the more than 8,000 regular production parts that had been tested had dwell times greater than 157 seconds. Among twelve parts that were observed to have cracks in the weld area, the dwell times were 165 seconds or greater. Among the four parts that fractured during testing, the dwell times were all greater than 192 seconds. These studies and statistical analysis of the testing and production data were completed in mid-July.

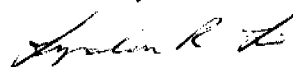
The results of the investigation were presented to the FPE Director on July 18. Engineering recommended that if it was decided that inflators should be replaced, replacing inflators with a dwell time greater than 90 seconds would provide an appropriate margin of safety. On July 24, Delphi provided GM with identification serial numbers of air bag modules that could be affected. GM immediately began to retrieve data to identify vehicles that could be affected.

On August 1, the SMC recommended that this condition be treated as a safety defect. On August 6, the decision was made that this condition was a safety defect.

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

573.5(c)(9): Draft copies of the dealer bulletin and owner letter are attached. General Motors plans to begin this safety recall in August 2002. Final copies of the owner letter and dealer bulletin will be forwarded when available.

Sincerely,



Lyndon R. Lie
Director
Product Investigations

**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>
Chevrolet	W Car	2002	12,511	5/02	7/02	Impala	* Unknown
Chevrolet	W Car	2003	8,634	5/02	7/02	Impala	"
Chevrolet	W Car	2002	4,164	5/02	7/02	Monte Carlo	"
Chevrolet	W Car	2003	2,768	5/02	7/02	Monte Carlo	"
Chevrolet	U Van	2002	5,580	5/02	7/02	Venture	"
Chevrolet	U Van	2003	4,512	5/02	7/02	Venture	"
Chevrolet	S/T Trk	2002	29,602	5/02	7/02	TrailBlazer	"
Chevrolet	S/T Trk	2003	6,712	5/02	7/02	TrailBlazer	"
Pontiac	H Car	2002	2,886	5/02	7/02	Bonneville	"
Pontiac	H Car	2003	2,118	5/02	7/02	Bonneville	"
Pontiac	U Van	2002	2,431	5/02	7/02	Montana	"
Pontiac	U Van	2003	2,943	5/02	7/02	Montana	"
Oldsmobile	G Car	2002	801	5/02	7/02	Aurora	"
Oldsmobile	G Car	2003	455	5/02	7/02	Aurora	"
Oldsmobile	U Van	2002	1,765	5/02	7/02	Silhouette	"
Oldsmobile	U Van	2003	557	5/02	7/02	Silhouette	"
Oldsmobile	S/T Trk	2002	489	5/02	7/02	Bravada	"
Oldsmobile	S/T Trk	2003	325	5/02	7/02	Bravada	"
Buick	H Car	2002	7,962	5/02	7/02	LeSabre	"
Buick	H Car	2003	4,933	5/02	7/02	LeSabre	"
Buick	B Van	2002	4,658	5/02	7/02	Rendezvous	"
Buick	B Van	2003	3,038	5/02	7/02	Rendezvous	"
Cadillac	K Car	2002	3,586	5/02	7/02	Deville	"
Cadillac	K Car	2003	2,451	5/02	7/02	Deville	"
GMC	S/T Trk	2002	14,044	5/02	7/02	Envoy	"
GMC	S/T Trk	2003	<u>3,296</u>	5/02	7/02	Envoy	"
Grand Total:			133,221				

* All involved vehicles will be corrected.



Recall Bulletin



PRODUCT SAFETY RECALL

SUBJECT: 02032 – DRIVER SIDE DUAL STAGE AIRBAG INFLATOR

MODELS: 2002 - 2003 BUICK LeSABRE, RENDEZVOUS; CADILLAC DeVILLE; CHEVROLET IMPALA, MONTE CARLO, TRAILBLAZER, VENTURE; GMC ENVOY; OLDSMOBILE AURORA, BRAVADA, SILHOUETTE; PONTIAC BONNEVILLE, MONTANA

CAUTION

FOR VEHICLES INVOLVED IN THIS RECALL, DO NOT FOLLOW THE NORMAL PROCEDURE OF DEPLOYING REPLACED AIR BAG MODULES. DEPLOYMENT OF AN AIR BAG MODULE REPLACED UNDER THIS RECALL COULD CAUSE THE INFLATOR MODULE TO EXPLODE, AND COULD RESULT IN SEVERE INJURY FROM METAL AND PLASTIC DEBRIS.

To arrange for return of air bag modules removed from vehicles involved in this recall ONLY contact Autoliv via telephone at US (800)-503-0967, CAN./MEX./IPC 1-248-375-6567. An Autoliv representative will make arrangements to pick up and safely dispose of the modules. Removed modules should be stored in an area with limited access.

CONDITION

General Motors has decided that a defect which relates to motor vehicle safety exists in **certain** 2002 – 2003 Buick LeSabre, Rendezvous; Cadillac DeVille; Chevrolet Impala, Monte Carlo, TrailBlazer, Venture; GMC Envoy; Oldsmobile Aurora, Bravada, Silhouette; Pontiac Bonneville, Montana model vehicles. Some of these vehicles may have a driver side airbag inflator that could fracture at a weld during a deployment. Pieces of the inflator could strike and injure vehicle occupants and the airbag cushion would not inflate fully, reducing the capability of the bag to protect the driver.

CORRECTION

Dealers are to replace the driver side airbag module assembly.

VEHICLES INVOLVED

Involved are **certain** 2002 – 2003 Buick LeSabre, Rendezvous; Cadillac DeVille; Chevrolet Impala, Monte Carlo, TrailBlazer, Venture; GMC Envoy; Oldsmobile Aurora, Bravada, Silhouette; Pontiac Bonneville, and Montana model vehicles and built within these VIN breakpoints:

IMPORTANT: Some of the affected airbag modules were shipped to dealers by GMSP0 between May 30, 2002 and July 15, 2002 and could have been used to service 2001-2002 model vehicles. Affected dealers will be contacted by GMSP0 concerning the disposition of such modules.

YEAR	DIVISION	MODEL	PLANT	FROM	THROUGH
2002	Buick	LeSabre	Orion	24234503	24245292
2002	Buick	LeSabre	Hamtramck	2U296902	2U306396
2002	Buick	Rendezvous	Ramos	2S584141	2S609116
2003	Buick	LeSabre	Orion	34100037	34106569
2003	Buick	LeSabre	Hamtramck	3U100053	3U106183
2003	Buick	Rendezvous	Ramos	3S500072	3S505314
2002	Cadillac	DeVille	Hamtramck	2U296901	2U306394
2003	Cadillac	DeVille	Hamtramck	3U100056	3U106182
2002	Chevrolet	TrailBlazer	Moraine	22496832	22530814
2002	Chevrolet	TrailBlazer	OKC	26113832	26138714
2003	Chevrolet	TrailBlazer	Moraine	32100036	32109034
2003	Chevrolet	TrailBlazer	OKC	36100001	36101876
2002	Chevrolet	Impala	Oshawa 1	29373719	29391999
2003	Chevrolet	Impala	Oshawa 1	39100029	39112348
2002	Chevrolet	Monte Carlo	Oshawa 1	29373730	29391932
2003	Chevrolet	Monte Carlo	Oshawa 1	39100035	39112347
2002	Chevrolet	Incomplete	Doraville	2D306085	2D319107
2002	Chevrolet	Venture	Doraville	2D303405	2D324967
2003	Chevrolet	Venture	Doraville	3D100053	3D109212
2002	GMC	Envoy	Moraine	22496833	22530816
2002	GMC	Envoy XL	OKC	26117377	26138713
2003	GMC	Envoy	Moraine	32100033	32109029
2003	GMC	Envoy XL	OKC	36100011	36101749
2002	Oldsmobile	Aurora	Orion	24235192	24245280
2003	Oldsmobile	Aurora	Orion	34100036	34106562
2002	Oldsmobile	Bravada	Moraine	22496839	22524843
2003	Oldsmobile	Bravada	Moraine	32100060	32108997
2002	Oldsmobile	Silhouette	Doraville	2D306856	2D324962
2003	Oldsmobile	Silhouette	Doraville	3D100056	3D109191
2002	Pontiac	Bonneville	Orion	24235179	24245293
2003	Pontiac	Bonneville	Orion	34100039	34106571
2002	Pontiac	Montana	Doraville	2D306321	2D324966
2003	Pontiac	Montana	Doraville	3D100058	3D109776

IMPORTANT: Dealers should confirm vehicle eligibility through **GMVIS** (GM Vehicle Inquiry System) or **GM Access Screen** (Canada only) or **DCS Screen 445** (IPC only) before beginning recall repairs. [Not all vehicles within the above breakpoints may be involved.]

Involved vehicles have been identified by Vehicle Identification Number. Computer listings containing the complete Vehicle Identification Number, customer name and address data have been prepared, and are being furnished to involved dealers with the recall bulletin. The customer name and address data will enable dealers to follow up with customers involved in this recall. Any dealer not receiving a computer listing with the recall bulletin has no involved vehicles currently assigned.

These dealer listings may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any other purpose is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this listing to the follow-up necessary to complete this recall.

PARTS INFORMATION

Important: Replacement parts are on order control and cannot be ordered without the authorized 14-character bar code found on the rear side of the air bag module. See **SERVICE PROCEDURE** to determine an authorized bar code.

- For U.S. - Call **GMSPO** at 1-888-551-4395 to order the replacement part. If parts are needed because of a collision or to complete other repairs, dealers must call **GMSPO** at 1-888-551-4395.
- For Canada - Dealers should fax the attached air bag module order form to **SPO Parts Assistance Center** at 1-800-820-0612.
- For IPC – Dealers should contact their **International Customer Service Representative** at **GMSPO**.

Part Number	Description	Quantity/Vehicle
10313105	MODULE,STRG WHL INFL RST(Blue 27I) Impala	1
10313106	MODULE,STRG WHL INFL RST(Pewter 92I) Impala	1
10313107	MODULE,STRG WHL INFL RST(Neutral 52I) Impala	1
10313108	MODULE,STRG WHL INFL RST(Ebony)Monte Carlo	1
10314244	MODULE,STRG WHL INFL RST(Gray 14I) Rendez	1
10314245	MODULE,STRG WHL INFL RST(Oak 67I) Rendez	1
10434982	MODULE,STRG WHL INFL RST(Gray 14I) Silhouette	1
10434983	MODULE,STRG WHL INFL RST(Neutral 52I) Silhouet	1
10434985	MODULE,STRG WHL INFL RST(Ebony) Venture	1
10434986	MODULE,STRG WHL INFL RST(Ebony) Montana	1
15168511	MODULE,STRG WHL INFL RST(Ebony) TrailBlazer	1
15168512	MODULE,STRG WHL INFL RST(Oak) TrailBlazer	1
15168514	MODULE,STRG WHL INFL RST(Ebony) Envoy	1
15168515	MODULE,STRG WHL INFL RST(Oak) Envoy	1
15168517	MODULE,STRG WHL INFL RST(Ebony) Bravada	1
16867469	MODULE,STRG WHL INFL RST(Gray 14I) DeVille	1
16867470	MODULE,STRG WHL INFL RST(Wheat 50I) DeVille	1
16867471	MODULE,STRG WHL INFL RST(Black 19I) DeVille	1
16867472	MODULE,STRG WHL INFL RST(Blue) DeVille	1
25732237	MODULE,STRG WHL INFL RST(Gray 93I) Bonneville	1
25732238	MODULE,STRG WHL INFL RST(Neutral 56I) Bonnev	1

Part Number	Description	Quantity/Vehicle
25732240	MODULE,STRG WHL INFL RST(Gray 17I) LeSabre	1
25732242	MODULE,STRG WHL INFL RST(Neutral 56I) LeSabr	1
25732244	MODULE,STRG WHL INFL RST(Gray 93I) Aurora	1
25732245	MODULE,STRG WHL INFL RST(Neutral 52I) Aurora	1
25732283	MODULE,STRG WHL INFL RST(Gray 93I) LeSabre	1

SERVICE PROCEDURE

The following service procedures for replacing the driver's air bag module are different than those found in the service manuals. As a result the labor times published in this recall bulletin are different than those currently in the labor time guide. Additional time was added for comparing the serial number on the backside of the air bag with those listed in this bulletin and some time was deleted because removed and replaced air bags are NOT to be deployed.

Buick LeSabre, Cadillac DeVille and Pontiac Bonneville

1. Remove the rear seat cushion.
2. Remove the cover from the electrical center and remove the "AIR BAG" (LeSabre) or "SIR" (DeVille/Bonneville) fuse.
3. Using tool J-44298 release the spring clips on the rear side of the DRIVER's air bag that attach it to the steering wheel.
4. Disconnect the two air bag electrical connectors and the one horn electrical connector.
5. Remove the air bag.

IMPORTANT: The complete 14 character bar code found on the rear side of the air bag in the next step must be recorded on the Repair Order in order for the claim to be paid.

6. Record on the Repair Order the 14 character bar code number found on the label on the rear side of the air bag.
7. Compare the last five characters of the bar code with those in the appropriate list included in the bulletin. Please note that the lists are broken down by vehicle name and interior color.
 - If the last five (5) characters of the bar code ARE found in the appropriate list, proceed to the next step and install a NEW air bag. See the "Parts Information" section in this bulletin for important information on how to obtain a new air bag.
 - If the last five (5) characters of the bar code are NOT in the appropriate list, proceed to the next step and reinstall the air bag. Do NOT install a new air bag if the bar code number is NOT on the list.
8. Connect the two air bag electrical connectors and the horn electrical connector to the air bag.
9. Route the wiring harness as necessary and position the air bag to the steering wheel.
10. Press the air bag to the steering wheel to engage the spring clips.
11. Install the "AIR BAG" or "SIR" fuse and the cover on the electrical center.
12. Install the rear seat cushion.
13. Turn the ignition switch to the "ON" position and verify that the "AIR BAG" indicator flashes seven (7) times and goes out.
14. Open the hood, install the GM Recall Identification Label and close the hood.

15. If a NEW air bag was installed, place the old air bag in the box that the new air bag came in, tape it shut and mark the box as follows:

"DO NOT DEPLOY" -- "FOR FURTHER INFORMATION REFER TO RECALL BULLETIN # 02032"

To arrange for return of air bag modules removed from vehicles involved in this recall ONLY contact Autoliv via telephone at US (800)-503-0967, CAN./MEX./IPC 1-248-375-6567. An Autoliv representative will make arrangements to pick up and safely dispose of the modules. Removed modules should be stored in an area with limited access.

Chevrolet Venture, Oldsmobile Silhouette and Pontiac Montana

1. Remove the cover from the electrical center on the right side end of the instrument panel.
2. Remove the "SIR" fuse.
3. Using tool J-44298 release the spring clips on the rear side of the DRIVER's air bag that attach it to the steering wheel.
4. Disconnect the two air bag electrical connectors and the one horn electrical connector.
5. Remove the air bag.

IMPORTANT: The complete 14 character bar code found on the rear side of the air bag in the next step must be recorded on the Repair Order in order for the claim to be paid.

6. Record on the Repair Order the 14 character bar code number found on the label on the rear side of the air bag.
7. Compare the last five characters of the bar code with those in the appropriate list included in the bulletin. Please note that the lists are broken down by vehicle name and interior color.

- If the last five (5) characters of the bar code ARE found in the appropriate list, proceed to the next step and install a NEW air bag. See the "Parts Information" section in this bulletin for important information on how to obtain a new air bag.
- If the last five (5) characters of the bar code are NOT in the appropriate list, proceed to the next step and reinstall the air bag. Do NOT install a new air bag if the bar code number is NOT on the list.

8. Connect the two air bag electrical connectors and the horn electrical connector to the air bag.
9. Route the wiring harness as necessary and position the air bag to the steering wheel.
10. Press the air bag to the steering wheel to engage the spring clips.
11. Install the "SIR" fuse.
12. Install the cover over the electrical center on the right side end of the instrument panel.
13. Turn the ignition switch to the "ON" position and verify that the "AIR BAG" indicator flashes seven (7) times and goes out.
14. Open the hood, install the GM Recall Identification Label and close the hood.
15. If a NEW air bag was installed, place the old air bag in the box that the new air bag came in, tape it shut and mark the box as follows:

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Chevrolet TrailBlazer, GMC Envoy and Oldsmobile Bravada

1. Open the hood, remove the cover from the underhood electrical center and remove the "AIR BAG" fuse.
2. Using a blunt-ended tool, release the DRIVER's air bag by pushing the leaf spring fasteners inward through the two small access holes located on the rear side of the steering wheel.
3. Disconnect the two air bag electrical connectors and the one horn electrical connector.
4. Remove the air bag.

IMPORTANT: The complete 14 character bar code found on the rear side of the air bag in the next step must be recorded on the Repair Order in order for the claim to be paid.

5. Record on the Repair Order the 14 character bar code number found on the label on the rear side of the air bag.
6. Compare the last five characters of the bar code with those in the appropriate list included in the bulletin. Please note that the lists are broken down by vehicle name and interior color.
 - If the last five (5) characters of the bar code ARE found in the appropriate list, proceed to the next step and install a NEW air bag. See the "Parts Information" section in this bulletin for important information on how to obtain a new air bag.
 - If the last five (5) characters of the bar code are NOT in the appropriate list, proceed to the next step and reinstall the air bag. Do NOT install a new air bag if the bar code number is NOT on the list.
7. Connect the two air bag electrical connectors and the horn electrical connector to the air bag.
8. Route the wiring harness as necessary and position the air bag to the steering wheel.
9. Press the air bag to the steering wheel to engage the leaf springs.
10. Install the "AIR BAG" fuse.
11. Install the cover on the underhood electrical center.
12. Turn the ignition switch to the "ON" position and verify that the "AIR BAG" indicator flashes seven (7) times and goes out.
13. Install the GM Recall Identification Label and close the hood.
14. If a NEW air bag was installed, place the old air bag in the box that the new air bag came in, tape it shut and mark the box as follows:

"DO NOT DEPLOY" -- "FOR FURTHER INFORMATION REFER TO RECALL BULLETIN # 02032"

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Chevrolet Impala and Monte Carlo

1. Remove the cover from the electrical center on the left side end of the instrument panel.
2. Remove the "SRS" fuse.
3. On IMPALA models, using tool J-44298 release the spring clips on the rear side of the DRIVER's air bag that attach it to the steering wheel.

On MONTE CARLO models:

- With the front wheels facing straight ahead, turn the steering wheel 90 degrees (1/4 turn) to the left so that the right spoke is now facing upwards. Using a flat-bladed screwdriver through the hole in the rear side of the upwards facing spoke, move the spring clip in a DOWNWARDS direction while pulling that corner of the air bag away from the steering wheel.
 - Continue turning the steering wheel another 90 degrees (1/4 turn) so that the bottom spoke is now facing upwards. At this point the steering wheel is upside down. Again using a flat-bladed screwdriver through the hole in the rear side of the upwards facing spoke, move the spring clip towards the CENTER of the vehicle while pulling that corner of the air bag away from the steering wheel.
 - Turn the steering wheel back until the left spoke is facing upwards. Once again using a flat-bladed screwdriver through the hole in the rear side of the upwards facing spoke, move the spring clip in an UPWARDS direction while pulling that corner of the air bag away from the steering wheel.
4. Disconnect the two air bag electrical connectors and the one horn electrical connector.
 5. Remove the air bag.

IMPORTANT: The complete 14 character bar code found on the rear side of the air bag in the next step must be recorded on the Repair Order in order for the claim to be paid.

6. Record on the Repair Order the 14 character bar code number found on the label on the rear side of the air bag.
7. Compare the last five characters of the bar code with those in the appropriate list included in the bulletin. Please note that the lists are broken down by vehicle name and interior color.
 - If the last five (5) characters of the bar code ARE found in the appropriate list, proceed to the next step and install a NEW air bag. See the "Parts Information" section in this bulletin for important information on how to obtain a new air bag.
 - If the last five (5) characters of the bar code are NOT in the appropriate list, proceed to the next step and reinstall the air bag. Do NOT install a new air bag if the bar code number is NOT on the list.

8. Connect the two air bag electrical connectors and the horn electrical connector to the air bag.
9. Route the wiring harness as necessary and position the air bag to the steering wheel.
10. Press the air bag to the steering wheel to engage the spring clips.
11. Install the "SRS" fuse.
12. Install the cover over the electrical center on the left side end of the instrument panel.
13. Turn the ignition switch to the "ON" position and verify that the "AIR BAG" indicator flashes seven (7) times and goes out.
14. Open the hood, install the GM Recall Identification Label and close the hood.
15. If a NEW air bag was installed, place the old air bag in the box that the new air bag came in, tape it shut and mark the box as follows:

"DO NOT DEPLOY" -- "FOR FURTHER INFORMATION REFER TO RECALL BULLETIN # 02032"

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Buick Rendezvous

1. Remove the cover from the electrical center on the right side of the floor console.
2. Remove the "AIR BAG" fuse.
3. Using tool J-44298 release the spring clips on the rear side of the DRIVER's air bag that attach it to the steering wheel.
4. Disconnect the two air bag electrical connectors and the one horn electrical connector.
5. Remove the air bag.

IMPORTANT: The complete 14 character bar code found on the rear side of the air bag in the next step must be recorded on the Repair Order in order for the claim to be paid.

6. Record on the Repair Order the 14 character bar code number found on the label on the rear side of the air bag.
7. Compare the last five characters of the bar code with those in the appropriate list included in the bulletin. Please note that the lists are broken down by vehicle name and interior color.
 - If the last five (5) characters of the bar code ARE found in the appropriate list, proceed to the next step and install a NEW air bag. See the "Parts Information" section in this bulletin for important information on how to obtain a new air bag.
 - If the last five (5) characters of the bar code are NOT in the appropriate list, proceed to the next step and reinstall the air bag. Do NOT install a new air bag if the bar code number is NOT on the list.
8. Connect the two air bag electrical connectors and the horn electrical connector to the air bag.
9. Route the wiring harness as necessary and position the air bag to the steering wheel.
10. Press the air bag to the steering wheel to engage the spring clips.

11. Install the "AIR BAG" fuse.
12. Install the cover over the electrical center on the right side end of the floor console.
13. Turn the ignition switch to the "ON" position and verify that the "AIR BAG" indicator flashes seven (7) times and goes out.
14. Open the hood, install the GM Recall Identification Label and close the hood.
15. If a NEW air bag was installed, place the old air bag in the box that the new air bag came in, tape it shut and mark the box as follows:

"DO NOT DEPLOY" -- "FOR FURTHER INFORMATION REFER TO RECALL BULLETIN # 02032"

To arrange for return of air bag modules removed from vehicles involved in this recall ONLY contact Autoliv via telephone at US (800)-503-0967, CAN./MEX./IPC 1-248-375-6567. An Autoliv representative will make arrangements to pick up and safely dispose of the modules. Removed modules should be stored in an area with limited access.

Oldsmobile Aurora

1. Remove the rear seat cushion.
2. Remove the cover from the electrical center and remove the "AIR BAG" fuse.
3. Remove the cover from the base of the cruise control lever on the rear side of the steering wheel.
4. Using a flat-bladed screwdriver release the spring clips on the rear side of the DRIVER's air bag that attach it to the steering wheel.
5. Disconnect the two air bag electrical connectors and the one horn electrical connector.
6. Remove the air bag.

IMPORTANT: The complete 14 character bar code found on the rear side of the air bag in the next step must be recorded on the Repair Order in order for the claim to be paid.

7. Record on the Repair Order the 14 character bar code number found on the label on the rear side of the air bag.
8. Compare the last five characters of the bar code with those in the appropriate list included in the bulletin. Please note that the lists are broken down by vehicle name and interior color.
 - If the last five (5) characters of the bar code ARE found in the appropriate list, proceed to the next step and install a NEW air bag. See the "Parts Information" section in this bulletin for important information on how to obtain a new air bag.
 - If the last five (5) characters of the bar code are NOT in the appropriate list, proceed to the next step and reinstall the air bag. Do NOT install a new air bag if the bar code number is NOT on the list.
9. Connect the two air bag electrical connectors and the horn electrical connector to the air bag.
10. Route the wiring harness as necessary and position the air bag to the steering wheel.
11. Press the air bag to the steering wheel to engage the spring clips.
12. Install the cover on the base of the cruise control lever on the rear side of the steering wheel.

13. Install the "AIR BAG" fuse and the cover on the electrical center.
14. Install the rear seat cushion.
15. Turn the ignition switch to the "ON" position and verify that the "AIR BAG" indicator flashes seven (7) times and goes out.
16. Open the hood, install the GM Recall Identification Label and close the hood.
17. If a NEW air bag was installed, place the old air bag in the box that the new air bag came in, tape it shut and mark the box as follows:

"DO NOT DEPLOY" -- "FOR FURTHER INFORMATION REFER TO RECALL BULLETIN # 02032"

To arrange for return of air bag modules removed from vehicles involved in this recall ONLY contact Autoliv via telephone at US (800)-503-0967, CAN./MEX./IPC 1-248-375-6567. An Autoliv representative will make arrangements to pick up and safely dispose of the modules. Removed modules should be stored in an area with limited access.

RECALL IDENTIFICATION LABEL – For US and IPC

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five (5) digit dealer code of the dealer performing the recall service. This information may be inserted with a typewriter or a ball point pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle. **When installing the Recall Identification Label, be sure to pull the tab to allow adhesion of the clear protective covering. Additional Recall Identification Labels for US dealers can be obtained from Dealer Support Materials by either ordering on the web from DWD Store, gm-dealerworld.com, or calling 1-866-700-0001 (Monday-Friday, 8:00 a.m. to 5:00 p.m. EST). Request Item Number S-1015 when ordering.**

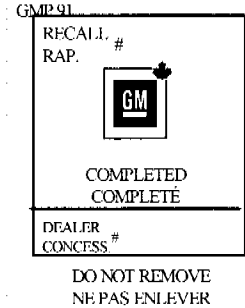
Additional Recall Identification Labels for IPC dealers can be obtained from your Regional Marketing Office.



RECALL IDENTIFICATION LABEL – For CANADA

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five (5) digit dealer code of the dealer performing the recall service. This information may be inserted with a typewriter or a ball point pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle. **Additional Recall Identification Labels for Canadian dealers can be obtained from DGN by calling 1-800-668-5539 (Monday-Friday, 8:00 a.m. to 5:00 p.m. EST). Ask for Item Number GMP 91 when ordering.**



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 Driver Airbag – No action required	--	--		MA-96	V0884	0.2
ADD: For Aurora, DeVille & Rendezvous						0.1
Inspect & Replace Driver Airbag	1	--	**	MA-96	V0885	0.2
ADD: For Aurora, DeVille & Rendezvous						0.1
Courtesy Transportation	N/A	N/A	N/A	MA-96	***	

- * For Program Administrative Allowance, add 0.1 hours to the "Labor Hours".
- ** The "Parts Allowance" should be the sum total of the current GMSPO Dealer net price plus applicable Mark-Up or Landed Cost Mark-Up (for IPC) for parts 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

Customers will be notified of this recall on their vehicles by General Motors (see copy of customer letter included with this bulletin).

IMPORTANT: Customers are being advised, in the notification letter, that a courtesy vehicle will be provided at no charge if their vehicle requires airbag replacement (i.e. vehicle kept over night).

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/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. This could be done by mailing to such customers, a copy of the customer letter accompanying 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.



August, 2002

Dear General Motors Customer:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Reason For This Recall: General Motors has decided that a defect which relates to motor vehicle safety exists in **certain** 2002 – 2003 Buick LeSabre, Rendezvous; Cadillac DeVille; Chevrolet Impala, Monte Carlo, TrailBlazer, Venture; GMC Envoy; Oldsmobile Aurora, Bravada, Silhouette; Pontiac Bonneville, Montana model vehicles. Some of these vehicles have a driver side airbag inflator that could fracture at a weld during a deployment. Pieces of the inflator could strike and injure vehicle occupants and the airbag cushion would not inflate fully, reducing the capability of the bag to protect the driver.

What Will Be Done: Your dealers will inspect, and replace if necessary, the driver side airbag module assembly. This service will be performed for you at **no charge**.

How Long Will The Repair Take? Performing the inspection takes about 15 to 30 minutes. Most vehicles will only require an inspection. Additional time may be required to schedule and process your vehicle. If your dealer has a large number of vehicles awaiting service, this additional time may be significant. Please ask your dealer if you wish to know how much additional time will be needed to schedule, process and repair your vehicle.

The air bag module will be replaced in some vehicles and your dealer will have to order the correct part for your vehicle. Parts for each vehicle are available and the specific part needed for your vehicle will be shipped as quickly as possible. It will be necessary in most cases to leave your vehicle overnight or longer until the part is received and installed. A courtesy vehicle will be provided in such cases.

Contacting Your Dealer: Please contact your dealer as soon as possible to arrange a service date. Parts are available and instructions for making this correction have been sent to your dealer. Your dealer is best equipped to obtain parts and provide services to correct your vehicle as promptly as possible. 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:

Division	Number	Deaf, Hearing Impaired or Speech Impaired *
Buick	1-800-521-7300	1-800-832-8425
Cadillac	1-800-458-8006	1-800-833-2622
Chevrolet	1-800-222-1020	1-800-833-2438
GMC	1-800-462-8782	1-800-462-8583
Pontiac	1-800-762-2737	1-800-833-7668
Oldsmobile	1-800-442-6537	1-800-833-6537
GMODC	(905) 644-4112	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

* Utilizes Telecommunication Devices for the Deaf/Text Telephones (TDD/TTY)

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 Card: The attached customer reply card identifies your vehicle. Presentation of this card 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 attached and mailing it in the postage paid envelope.

Courtesy Transportation: If your vehicle is within the New Vehicle Limited Warranty your dealer will 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.

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