

**GM SERVICE AND PARTS OPERATIONS  
DCS1677  
URGENT - DISTRIBUTE IMMEDIATELY**

Date: November 9, 2006

Subject: 06133 – Product Safety Recall  
Fuel Line Leak

Models: 2006 Chevrolet Aveo (Export)  
2007 Chevrolet Aveo  
2007 Pontiac Wave  
Sedan with 1.4L/1.6L Engine

To: All Chevrolet Dealers

Attention: Service Manager, Parts Manager and Warranty Administrator

**PRODUCT FIELD ACTION ANNOUNCEMENT**

General Motors is announcing Product Safety Recall 06133 today. The total number of vehicles currently involved is 31,075. Please see the attached bulletin for details.

**Mailing Information**

Customer letter mailing will begin on November 16, 2006.

**GM Vehicle Inquiry System (GMVIS)**

GMVIS information is currently available.

**Service Information System (SI)**

Bulletin 06133 is scheduled to be available in SI on November 10, 2006.

**Campaign Initiation Detail Report (CIDR)**

The CIDR will be available in DealerWorld on November 9, 2006.

**PLEASE DOUBLE CLICK ON THE ICON BELOW  
THEN SINGLE CLICK ON THE LAUNCH BUTTON  
TO VIEW OR PRINT THE BULLETIN**

END OF MESSAGE  
GM SERVICE AND PARTS OPERATIONS



# Recall Bulletin



## PRODUCT SAFETY RECALL

**SUBJECT:** Fuel Line Leak

**MODELS:** 2006 Chevrolet Aveo (Export)  
 2007 Chevrolet Aveo  
 2007 Pontiac Wave  
 Sedan with 1.4L/1.6L Engine

### CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2006-2007 Chevrolet Aveo and Pontiac Wave sedan vehicles equipped with a 1.4L or 1.6L engine. In a severe frontal crash test, the fuel line in the engine compartment fractured. In addition, the fuse block shorted, allowing the fuel pump to continue running and fuel leaked onto the ground. If these conditions occurred in an actual crash, a vehicle fire could occur if a sufficient amount of fuel leaked out and a source of ignition were present.

### CORRECTION

Dealers are to replace the fuse block to prevent a possible short-circuit and install a new section of fuel line that has been redesigned.

### VEHICLES INVOLVED

Involved are **certain** 2006-2007 Chevrolet Aveo and Pontiac Wave sedan vehicles equipped with a 1.4L or 1.6L engine and built within these VIN breakpoints:

YEAR	DIVISION	MODEL	FROM	THROUGH
2006	Chevrolet	Aveo	6B010454	6B010609
2007	Chevrolet	Aveo	7B010244	7B097763
2007	Pontiac	Wave	7B010216	7B083795

**Important:** Dealers are to confirm vehicle eligibility prior to beginning repairs by using GMVIS. Not all vehicles within the above breakpoints 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 through the applicable system listed below. Dealers will not have a report available if they have no involved vehicles currently assigned.

- US dealers - GM DealerWorld Recall Information
- Canadian dealers - GMinfoNet Recall Reports
- Export dealers – sent directly to dealers
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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.

### 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
96838251	Box, Fuse & Rly (1.6L Engine)	1
96839806	Tube, Fuel Feed (Frt) (1.6L Engine)	1
96838233	Box, A-Junction, UH (1.4L Engine) (Export)	1 (If Req'd)
96842634	Tube A-Supply, Fuel (1.4L Engine) (Export)	1

### SERVICE PROCEDURE

#### FUSE BLOCK REPLACEMENT – 1.6L Engine

1. Disconnect the negative battery cable.



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2. Remove the top cover of the fuse box.



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3. Remove the fuse block B+ nut.



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4. Release the 3 fuse box locking ribs (1) and disconnect the fuse block from the bottom cover.



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5. Disconnect the connectors from locations 1, 2, and 3 of the fuse block. Remove the connector from location 4 if the vehicle is equipped with ABS.
6. Discard the old fuse block.



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7. Install the connectors (2) to the bottom side (1) of the new fuse block.

**Tighten**

Tighten the connector fasteners to 3 N·m (27 lb in).



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8. Install the new fuse block into the bottom cover. Ensure that the three locking ribs (1) are locked properly.



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9. Install the fuse block B+ nut.

**Tighten**

Tighten the nut to 10 N·m (89 lb in).



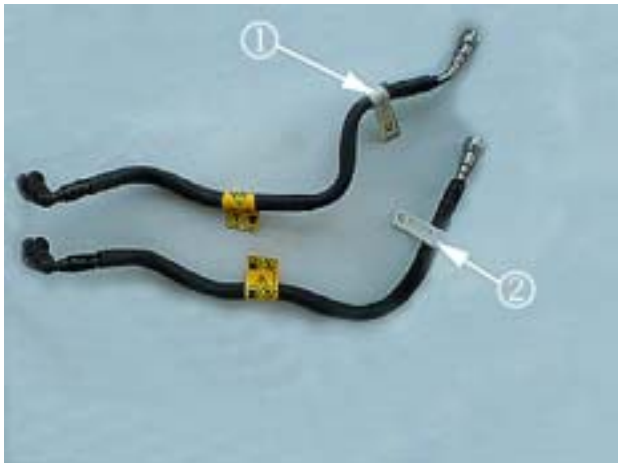
1865700

10. Install the fuse box top cover.
11. Connect the negative battery cable.

**Tighten**

Tighten the cable to 4.5 N·m (40 lb in).

## **FUEL RAIL REPLACEMENT – 1.6L Engine**



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A second design fuel hose (1) is required to complete the service procedure. The vehicles involved in this recall are equipped with first design fuel hoses (2). Refer to the *Parts Information* section for parts information.

**Caution:** Remove the fuel tank cap and relieve the fuel system pressure before servicing the fuel system in order to reduce the risk of personal injury. After you relieve the fuel system pressure, a small amount of fuel may be released when servicing the fuel lines, the fuel injection pump, or the connections. In order to reduce the risk of personal injury, cover the fuel system components with a shop towel before disconnection. This will catch any fuel that may leak out. Place the towel in an approved container when the disconnection is complete.

### **Tools Required**

- CH 47831, J 43178 – Fuel Line Release Tool, or equivalent 5/16 in release tool
1. Remove the fuel cap.
  2. Remove the fuel pump fuse EF10 from the engine fuse box.
  3. Start the engine and allow the engine to stall.
  4. Crank the engine for an additional 10 seconds.

**Caution:** Do not allow smoking or the use of open flames in the area where work on the fuel or EVAP system is taking place. Anytime work is being done on the fuel system, disconnect the negative battery cable, except for those tests where battery voltage is required.

5. Disconnect the negative battery cable.
6. Place the new fuel hose alongside of the old fuel hose.



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**Caution:** Wear safety glasses when using compressed air as flying dust particles may cause an eye injury.

7. Blow any dirt out of the quick connector fitting (2), which is attached to the fuel rail (1).
8. Insert CH 47831, Fuel Line Release Tool, or equivalent, into the quick connector (2), then push inward in order to release the locking tabs.
9. Pull the connection apart.

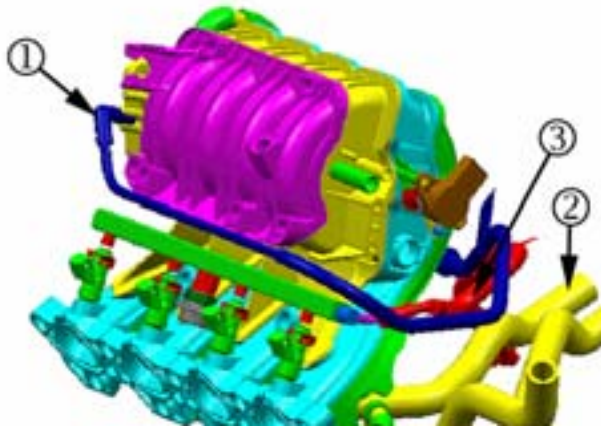
**Notice:** If necessary, remove rust or burrs from the fuel pipes with an emery cloth. Use a radial motion with the fuel pipe end in order to prevent damage to the O-ring sealing surface. Use a clean shop towel in order to wipe off the male tube ends. Inspect all connections for dirt and burrs. Clean or replace the components and assemblies as required.

10. Use a clean shop towel in order to wipe off the male pipe end.
11. Inspect both ends of the fitting for dirt and burrs. Clean or replace the components as required.

**Caution:** In order to reduce the risk of fire and personal injury, before connecting fuel pipe fittings, always apply a few drops of clean engine oil to the male pipe ends. This will ensure proper reconnection and prevent a possible fuel leak. During normal operation, the O-rings located in the female connector will swell and prevent proper reconnection if not lubricated.

12. Apply a few drops of clean engine oil to the male pipe end.
13. Insert the new fuel hose into the fuel pipe. Push both sides of the fitting together in order to snap the retaining tabs into place. A TICK noise is produced when the fuel hose is connected to the fuel pipe.





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14. Route the new fuel hose (3) between the purge hose (1) and the heater hose (2).
15. Lift and support the vehicle. Refer to the *Lifting and Jacking the Vehicle* procedure in SI.



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16. Disconnect the rear fuel hose from the fuel pipe. The rear portion of the fuel hose (1) is located above the exhaust pipe (2) and to the rear of the engine compartment.



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**Notice:** The rear portion of the fuel hose has a quick connector fitting. To avoid damaging the quick connector fitting, do not use a screwdriver to remove or install the fitting and fuel hose.

17. Push the white button on the quick connector fitting and pull out the old fuel hose.



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18. Insert the new fuel hose (2) into the fuel pipe (1). Push both sides of the fitting together. A TICK noise is produced when the fuel hose is connected to the fuel pipe.
19. Remove the old fuel hose from the vehicle. Discard the fuel hose.
20. Ensure that the new fuel hose is routed between the purge hose and the heater hose.
21. Lower the vehicle.
22. Connect the negative battery cable.
23. Start the vehicle and inspect the new fuel hose for leaks.

**FUEL RAIL REPLACEMENT – 1.4L ENGINE (Export Only)**

**Caution:** The fuel system is under pressure. To avoid fuel spill and the risk of personal injury or fire, it is necessary to relieve the fuel system pressure before disconnecting the fuel lines.

1. Remove the fuel cap.
2. Remove the fuel pump fuse from the engine fuse box.
3. Start the engine and allow the engine to stall.
4. Crank the engine for an additional 10 seconds.
5. Disconnect the negative battery.



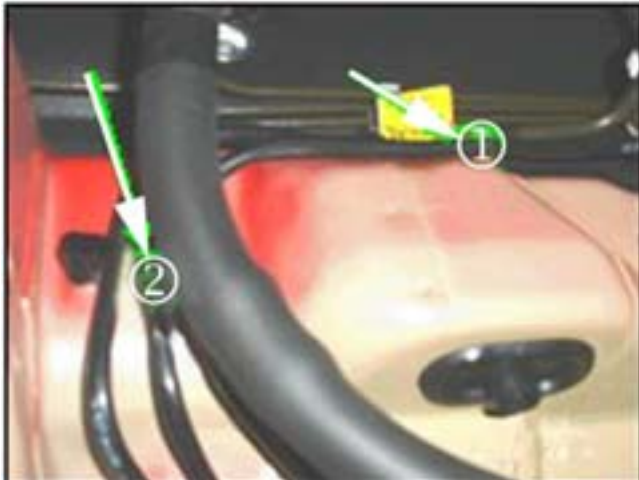
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6. Push inward to release the locking tabs of the connector and then pull out to remove the connector (1) from the fuel rail.



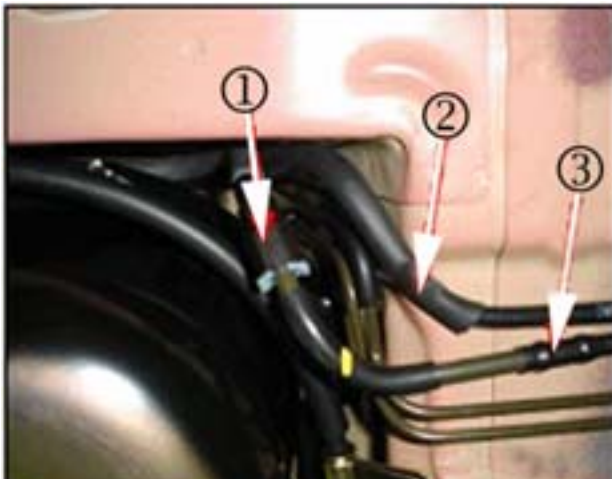
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7. Remove the clip between the fuel tube and hose. Discard clip.
8. Lift and support the vehicle. Refer to the *Lifting and Jacking the Vehicle* procedure in SI.



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9. Pull out the fuel tube from the clip.  
Refer to the illustration for the two location points in engine compartment.



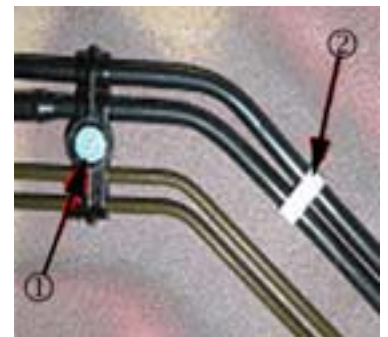
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(1) Quick Connector (2) Purge Line (3) Fuel Line

10. Remove the quick connector (1) in front of the fuel tank.

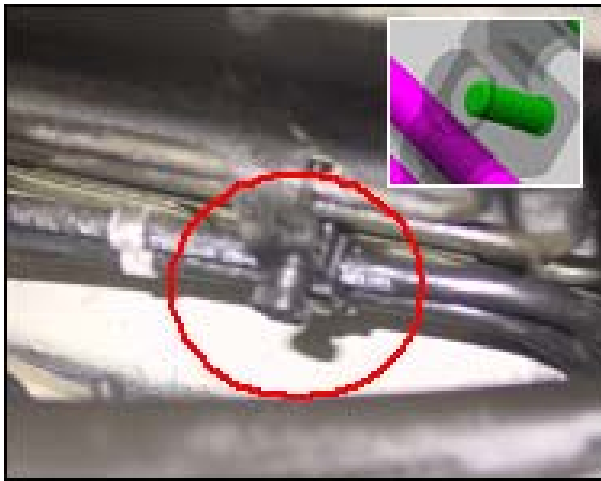


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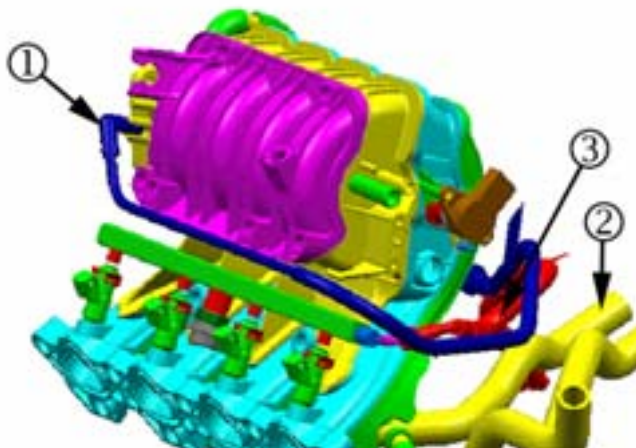
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11. Remove the fuel tube clip (1) (2) with a screwdriver under the body.  
Refer to the illustration for the four fuel clip location points.  
12. Drain the fuel from the fuel feeding tube into a suitable container.



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13. Release the fuel feeding tube from the plastic clip above the front right control arm. Slightly unscrew the plastic cap and pull it out.
14. Remove the old fuel feeding tube.

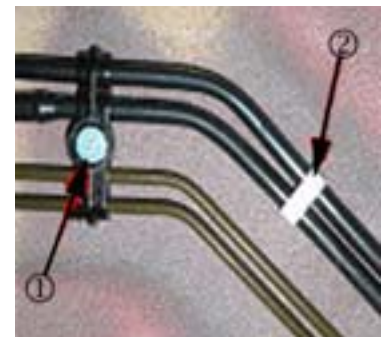


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15. Insert the new fuel feeding tube in the engine compartment. Route the new fuel hose (3) between the purge hose (1) and the heater hose (2).
16. Install the new fuel feeding tube to the plastic clip in the engine compartment.



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17. Install the new fuel feeding tube to the plastic clip (1) (2) onto the underbody and tighten it. There are four clip location points. Refer to illustration.

18. Install the new fuel feeding tube into the quick connector in front of the fuel tank.
19. Install the new fuel feeding tube to the plastic clip above the front control arm.
  - Insert the fuel feeding tube into the plastic clip and push the plastic cap to fix it.
20. Lower the vehicle.
21. Install the fuel feeding tube to the fuel rail.

**Note: The next procedure is not required on vehicles produced after September 27, 2006. In this case, please skip to Step 30.**



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22. Remove the engine room fuse box cover.



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23. Remove the fuse box B+ nut.



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24. Release the 3 fuse box locking ribs (1) and disconnect the fuse box.



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25. Disconnect the connectors from locations 1, 2, and 3 of the fuse block. Remove the connector from location 4 if the vehicle is equipped with ABS.
26. Discard old fuse block and replace it with a new fuse block, P/N 96838233.
27. Install the connectors and tighten the connector fasteners.

**Tighten**

Tighten the connector fasteners to 7 N·m (62 lb in).

28. Install the fuse box onto the lower cover and make sure that the 3 ribs are locked properly.
29. Install the fuse box B+ nut.

**Tighten**

Tighten the nut to 10 N·m (89 lb in).

30. Install the fuse box upper cover.
31. Connect the negative battery.
32. Install the fuel pump fuse and fuel cap.
33. Perform an inspection of the fuel rail, fuel line/tube and fuel tank connections.

**COURTESY TRANSPORTATION** – For US and Canada

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
Replace Fuse Block & Section of Fuel Line <ul style="list-style-type: none"> <li>• 1.6L Engine</li> <li>• 1.4L Engine (Export Only – Vehicles Built Before Sept. 27)</li> </ul>	2	---	*	MA-96	V1529	0.7 0.9
Replace Fuel Feeding Tube Only (1.4L Export Only – Vehicles Built After Sept. 27)	1	---	**	MA-96	V1535	0.4
Courtesy Transportation for vehicles within the New Vehicle Limited Warranty (US & Canadian GM Dealers)	N/A	N/A	N/A	MA-96	***	N/A

- \* The "Parts Allowance" should be the sum total of the current GMSPD Dealer net price plus applicable Mark-Up or Landed Cost Mark-Up (for Export) for the fuse block and fuel line needed to complete the repair.
- \*\* The "Parts Allowance" should be the sum total of the current GMSPD Dealer net price plus applicable Landed Cost Mark-Up for the fuel line 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 for vehicles within the New Vehicle Limited Warranty.

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 Export

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 Export (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. 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.



November 2006

Dear General Motors Customer:

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

General Motors has decided that a defect that relates to motor vehicle safety exists in certain 2006-2007 model year Chevrolet Aveo and Pontiac Wave sedan vehicles equipped with a 1.4L or 1.6L engine. As a result, GM is conducting a safety recall. We apologize for this inconvenience. However, we have taken this action for your safety and continued satisfaction with our products.

## **I M P O R T A N T**

- Your vehicle is involved in safety recall 06133.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

### **Why is your vehicle being recalled?**

In a severe frontal crash test on a vehicle similar to yours, the fuel line in the engine compartment fractured. In addition, the fuse block shorted, allowing the fuel pump to continue running and fuel leaked onto the ground. If these conditions occurred in an actual crash, a vehicle fire could occur if a sufficient amount of fuel leaked out and a source of ignition were present.

### **What will we do?**

Your GM dealer will replace the fuse block to prevent a possible short-circuit and install a new section of fuel line that has been redesigned. This service will be performed for you at **no charge**. It is likely that your dealer will need your vehicle longer than the actual service correction time of approximately 45 minutes because of service scheduling requirements.

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.

### **What should you do?**

You should contact your GM dealer to arrange a service appointment as soon as possible. Bring the enclosed customer reply form with you when you visit your dealer. The form identifies the repairs required. If you no longer own this vehicle, please let us know by completing the form and mailing it back to us.

### **Do you have questions?**

If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below. More information about this recall can be found at the Owner Center at MyGMLink, <http://www.gm.com/recall>

Division	Number	Text Telephones (TTY)
Chevrolet	1-800-630-2438	1-800-833-2438
Pontiac	1-800-620-7668	1-800-833-7668
Guam	1-671-648-8650	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

If after contacting your dealer and the Customer Assistance Center, you are still not satisfied 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 St., SW, Washington DC 20590, or call the toll-free Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to <http://www.safercar.gov>.

Federal regulation requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

Scott Lawson  
General Director,  
Customer and Relationship Services

Enclosure  
06133