

Program Bulletin



CUSTOMER SATISFACTION PROGRAM

SUBJECT: Long Brake Pedal Travel and/or Reduced Brake Performance

MODELS: 2007 Chevrolet Optra 2009-2010 Chevrolet Aveo 2009 Pontiac G3, Wave Equipped with ABS Brakes (JM4/JL9)

THIS PROGRAM IS IN EFFECT UNTIL NOVEMBER 30, 2014.

CONDITION

Certain 2007 model year Chevrolet Optra vehicles, 2009 and 2010 model year Chevrolet Aveo vehicles, and 2009 model year Pontiac G3 and Wave vehicles, equipped with ABS brakes (JM4/JL9), may contain brake fluid that does not inhibit corrosion in the zinc plating on the antilock brake system (ABS) module valve armature. Corrosion may lead to a gel build up on the sides of the valve, which could affect the closing motion of the valve. This could result in longer brake pedal travel and/or reduced brake performance.

CORRECTION

Dealers are to inspect the ABS module and, if necessary, replace the module. Dealers are to also change the brake fluid and provide a supplement to the Owner Manual that instructs customers to use only GM recommended brake fluid.

VEHICLES INVOLVED

All involved vehicles are identified by Vehicle Identification Number on the Investigate Vehicle History screen in GM Global Warranty Management system. Dealership service personnel should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content. 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 program 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 program.

PART INFORMATION

Due to the small number of vehicles expected to require replacement of the ABS module, modules can only be ordered from the Product Quality Center (PQC) when the inspection determines that it is necessary to replace the module. Orders placed without PQC approval will automatically cancel.

Brake fluid and engine coolant, if required, 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.

Part Number	Description	Quantity/Vehicle
95241314	MODULE KIT, ELEK BRK CONT	1
	(Aveo, G3, Wave)	
95242007	MODULE KIT, ELEK BRK CONT	1
	(Optra)	
19299818 – US	BRAKE FLUID	4
19299819 - CN		
10953031	FLUID, EXTENDED LIFE ENG COOLANT	1
	(Optra)	

SERVICE PROCEDURE

Tech 2 Tool Update

Ensure that your Tech 2 is updated with software version 32.005 or higher. You can obtain this in the Software Download section of TIS2Web.

ABS Module Inspection

- 1. Park the vehicle on a flat, level surface.
- 2. Apply the parking brake.
- 3. Connect scan tool.



4. Select "F1: ABS Check" in Special Functions.



5. Start ABS valve check.



6. The Waiting for Data screen will appear.



While this screen is displayed, the pump motor is running (1sec).

7. The "Procedure in Progress" message will appear on the ABS Check screen.



When the Tech 2 screen is prompted to "Apply and Hold the Brake Pedal," the technician should apply and hold heavy brake force during ABS Check.



With the valve open, the pedal will drop for 2 seconds. With the motor pumping, the pedal will push back for 3 seconds.

Note: The Tech 2 test sequence is left front, right front, left rear and right rear during steps 8 through 23.

- If the ABS/ESC module test passes all 4 procedures (4 pedal drops and 4 push backs are "YES"), replace the brake fluid with Delco Supreme 11 Brake Fluid (P/N 19299818 USA, P/N 19299819 Canada). Flush the brake system. Refer to *Brake Valve Cycling* in this bulletin and proceed to *Brake Valve Cycling* on the Tech 2.
- If any of the answers are "NO", replace the ABS/ESC HCU and brake fluid with Delco Supreme 11 Brake Fluid (P/N 19299818 USA, P/N 19299819 Canada). Refer to *Chevrolet*

Optra Brake Pressure Modulator Replacement or Chevrolet Aveo, Pontiac G3 and Pontiac Wave Brake Pressure Modulator Replacement in this bulletin.

8. Apply and hold brake pedal.

ABS Check				
Nid you feel signif	icant brake nedal			
travel (drop)?				
	-			
Yes	No			

- 9. Answer the question on the ABS Check screen.
 - If the answer is yes, proceed to the next step.
 - If the answer is no, proceed to Chevrolet Optra Brake Modulator Replacement or Chevrolet Aveo, Pontiac G3 and Pontiac Wave Brake Modulator Replacement in this bulletin.

ABS C	heck
Did you feel signi	ficant brake pedal
push	back?
Yes	No

- 10. Answer the question on the ABS Check screen.
 - If the answer is yes, proceed to the next step.
 - If the answer is no, proceed to Chevrolet Optra Brake Modulator Replacement or Chevrolet Aveo, Pontiac G3 and Pontiac Wave Brake Modulator Replacement in this bulletin.



11. The ABS Check screen will instruct you to release the brake pedal.



While this screen is displayed, the pump motor is running (1sec).

12. The "Procedure in Progress" message will appear on the ABS Check screen.



When the Tech 2 screen is prompted to "Apply and Hold the Brake Pedal," the technician should apply and hold heavy brake force during ABS Check.



With the valve open, the pedal will drop for 2 seconds. With the motor pumping, the pedal will push back for 3 seconds.

13. Apply and hold brake pedal.



- 14. Answer the question on the ABS Check screen.
 - If the answer is yes, proceed to the next step.
 - If the answer is no, proceed to Chevrolet Optra Brake Modulator Replacement or Chevrolet Aveo, Pontiac G3 and Pontiac Wave Brake Modulator Replacement in this bulletin.



- 15. Answer the question on the ABS Check screen.
 - If the answer is yes, proceed to the next step.
 - If the answer is no, proceed to Chevrolet Optra Brake Modulator Replacement or Chevrolet Aveo, Pontiac G3 and Pontiac Wave Brake Modulator Replacement in this bulletin.



16. The ABS Check screen will instruct you to release the brake pedal.



While this screen is displayed, the pump motor is running (1sec).

17. The "Procedure in Progress" message will appear on the ABS Check screen.



When the Tech 2 screen is prompted to "Apply and Hold the Brake Pedal," the technician should apply and hold heavy brake force during ABS Check.



With the valve open, the pedal will drop for 2 seconds. With the motor pumping, the pedal will push back for 3 seconds.

18. Apply and hold brake pedal.

ABS Check		
Did you fool signif	cant brake redal	
travel (dron)?	
Yes	No	

- 19. Answer the question on the ABS Check screen.
 - If the answer is yes, proceed to the next step.
 - If the answer is no, proceed to Chevrolet Optra Brake Modulator Replacement or Chevrolet Aveo, Pontiac G3 and Pontiac Wave Brake Modulator Replacement in this bulletin.



- 20. Answer the question on the ABS Check screen.
 - If the answer is yes, proceed to the next step.
 - If the answer is no, proceed to Chevrolet Optra Brake Modulator Replacement or Chevrolet Aveo, Pontiac G3 and Pontiac Wave Brake Modulator Replacement in this bulletin.



21. The ABS Check screen will instruct you to release the brake pedal.



While this screen is displayed, the pump motor is running (1sec).

22. The "Procedure in Progress" message will appear on the ABS Check screen.



When the Tech 2 screen is prompted to "Apply and Hold the Brake Pedal," the technician should apply and hold heavy brake force during ABS Check.



With the valve open, the pedal will drop for 2 seconds. With the motor pumping, the pedal will push back for 3 seconds.

23. Apply and hold brake pedal.

ABS Check		
Did you fool signify	cant brake redal	
travel (dron)?	
	1 Op).	
Yes	No	

- 24. Answer the question on the ABS Check screen.
 - If the answer is yes, proceed to the next step.
 - If the answer is no, proceed to Chevrolet Optra Brake Modulator Replacement or Chevrolet Aveo, Pontiac G3 and Pontiac Wave Brake Modulator Replacement in this bulletin.



- 25. Answer the question on the ABS Check screen.
 - If the answer is yes, proceed to the next step.
 - If the answer is no, proceed to Chevrolet Optra Brake Modulator Replacement or Chevrolet Aveo, Pontiac G3 and Pontiac Wave Brake Modulator Replacement in this bulletin.



26. The ABS Check screen will instruct you to release the brake pedal.



27. The "Procedure Passed "message will appear on the ABS Check screen.

Brake Valve Cycling

Warning: Brake fluid may irritate eyes and skin. In case of contact, take the following actions:

- Eye contact—rinse thoroughly with water.
- Skin contact—wash with soap and water.
- If ingested—consult a physician immediately.

Warning: During the Brake Valve Cycling procedure, battery shortage may occur. It is recommended you connect secondary power supply to battery for battery shortage prevention.

- 1. Connect required brake bleeding equipment.
- 2. Raise and support vehicle. Refer to Lifting and Jacking the Vehicle in SI.
- 3. Remove all tire and wheel assemblies. Refer to *Tire and Wheel Removal and Installation* in SI.
- 4. Drain brake fluid from the brake system.

Note: Fill the master cylinder reservoir with brake fluid. Keep the master cylinder at least 1/2 full of fluid during the brake bleeding operation. Fill brake system with Delco Supreme 11 Brake Fluid (P/N 19299818 USA, P/N 19299819 Canada).

5. Bleed the brake system. (DO NOT perform air bleeding through scan tool). Refer to *Hydraulic Brake System Bleeding* in SI.

6. Connect scan tool.



7. Select "F2.Special Functions" and then Select "F2.Brake Valve Cycling".



8. Start brake valve cycling.



This screen displays when the Tech 2 is starting to communicate with the vehicle.

9. Waiting for data.

Brake Valve Cycling
* Procedure in Progress *

10. The "Procedure in Progress" message will appear from the Brake Valve Cycling screen.

Brake	e Valvo	e Cycl:	ing	
Apply and	l hold	Brake	Pedal.	

11. The "Apply and Hold Brake Pedal" message will appear from the Brake Valve Cycling screen.



The auto brake valve cycling process will run for 25 seconds. A little pedal down/up will occur during the process.

12. The "Procedure in Progress" message will appear from the Brake Valve Cycling screen.

Note: Perform base brake bleed for **ONLY the front wheel circuits** after each loop has been completed. Open each front caliper bleeder valve 1 time for 1-2 seconds and then close it. This will only extract a very small quantity of brake fluid from each front caliper. Then proceed to the next loop or count. Repeat steps 11 -13 until the 10th loop has been counted. **The procedure is automatic; the procedure will only complete 10 loops and then stop.**

Brake Valve Cycling		
Release Brake Pedal		
Refer to the service information for additional instructions and perform a base brake bleed.		
When the base brake bleed is complete select [Restart]		
Restart		

13. The "Release Brake Pedal" message will appear from the Brake Valve Cycling screen.



- 14. The "Procedure Complete" message will appear on the Brake Valve Cycling screen.
- 15. To ensure the brake system is functioning properly, perform the ABS Module Inspection procedure again. Refer to ABS Module Inspection in this bulletin.

Chevrolet Optra Brake Pressure Modulator Replacement

Warning: Brake fluid may irritate eyes and skin. In case of contact, take the following actions:

- Eye contact—rinse thoroughly with water.
- Skin contact—wash with soap and water.
- If ingested—consult a physician immediately.

Removal Procedure

- 1. Drain the brake fluid from the brake system.
- 2. Turn the ignition switch to the OFF position.
- 3. Drain the engine coolant to below the level of the surge tank.
- 4. Loosen the return hose clamp and disconnect the return hose from the top of the surge tank.
- 5. Loosen the throttle body hose clamp and disconnect the throttle body hose from the top of the surge tank.



- 6. Loosen the feed hose clamp and disconnect the feed hose from the bottom of the surge tank.
- 7. Remove the surge tank attaching bolt.



8. Remove the surge tank from the support mount.

Warning: Wear safety glasses in order to avoid eye damage.

9. Clean the brake modulator assembly pipe fitting areas of any accumulated dirt and foreign material.



- 10. Disconnect the electrical connector from the electronic brake control module (EBCM).
- 11. Place a shop towel under the brake modulator assembly to catch any brake fluid loss.

Note: Prior to disconnecting the brake pipes from the antilock brake system (ABS) modulator assembly, note the locations of the brake pipes to the valve assembly, to aid during installation.



- 12. Disconnect the brake pipe fitting nuts from the brake pressure modulator valve (BPMV).
- 13. Cap the brake pipe ends to prevent brake fluid loss and contamination.
- 14. Plug the modulator brake pipe openings to prevent brake fluid loss and contamination.
- 15. Remove the mounting bracket bolt and nuts from the body panel.



16. Remove the brake modulator assembly to the mounting bracket damping bolts.



17. Remove the ABS module from bracket.



18. Remove the mounting pins from ABS module.



- 19. Remove the HCU from EBCM. (ABS: 3 bolts, ESC: 4 bolts).
- 20. Install new HCU onto EBCM. Tighten the mounting bolts to 1.8 Nm (16 lb-in).
- 21. Install the mounting pins from ABS module. Tighten mounting pins: 8 Nm (6 lb-ft).
- 22. Install the brake modulator assembly to the modulator bracket. Tighten mounting bolts: 8 Nm (6 lb–ft).
- 23. Install the damping bolts to the brake modulator assembly. Tighten the damping bolts to the brake modulator assembly to 11 N.m (8 lb–ft).
- 24. Install the brake modulator assembly with the mounting bracket attached to the body panel. Tighten the mounting bracket bolt and nuts to 22 Nm (16 lb-ft).
- 25. Remove the caps from the master cylinder brake pipe ends.
- 26. Remove the plugs from the master cylinder ports on the modulator assembly.
- 27. Connect the master cylinder brake pipes to the modulator assembly, in the same location as removed.
- 28. Tighten the brake pipe fittings nuts. Tighten the fitting nuts to 16 Nm (12 lb-ft).
- 29. Connect the electrical connector to the EBCM.

Note: Refill coolant in the reservior tank properly. It may need about one liter.

30. Install the engine coolant reservior tank.

Note: Fill the master cylinder reservoir with brake fluid. Ensure the master cylinder is at least 1/2 full of fluid during the brake bleeding operation. Fill brake system with Delco Supreme 11 Brake Fluid (P/N 19299818 USA, P/N 19299819 Canada).

31. Bleed the brake system. Refer to Hydraulic Brake System Bleeding in SI.

Chevrolet Aveo, Pontiac G3 and Pontiac Wave Brake Pressure Modulator Replacement

Warning: Brake fluid may irritate eyes and skin. In case of contact, take the following actions:

- Eye contact—rinse thoroughly with water.
- Skin contact—wash with soap and water.
- If ingested—consult a physician immediately.
- 1. Drain the brake fluid from the brake system.



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Warning: Unless directed otherwise, the ignition and start switch must be in the OFF or LOCK position, and all electrical loads must be OFF before servicing any electrical component. Disconnect the negative battery cable to prevent an electrical spark should a tool or equipment come in contact with an exposed electrical terminal. Failure to follow these precautions may result in personal injury and/or damage to the vehicle or its components. For Vehicles equipped with OnStar® (UE1) with Back Up Battery: The Back Up Battery is a redundant power supply to allow limited OnStar® functionality in the event of a main vehicle battery power disruption to the VCIM (OnStar® module). Do not disconnect the main vehicle battery or remove the OnStar® fuse with the ignition key in any position other than OFF. Retained accessory power (RAP) should be allowed to time out or be disabled (simply opening the driver door should disable RAP) before disconnecting power. Disconnecting power to the OnStar® module in any way while the ignition is On or with RAP activated may cause activation of the OnStar® Back-Up Battery (BUB) system and will discharge and permanently damage the back-up battery. Once the Back-Up Battery is activated it will stay on until it has completely discharged. The BUB is not rechargeable and once activated the BUB must be replaced.

- 2. Disconnect the negative battery cable and then disconnect the positive battery cable.
- 3. Remove the nuts from the battery rods that fasten the battery hold-down bar clamp.
- 4. Remove the battery from the vehicle.
- 5. Unlock the retaining tabs on the fuse block and remove the cover.



Note: Do not separate the fuse block from the housing. Do not remove the wiring harness from the fuse block.

6. Remove the fuse block positive battery cable nut (1) and the positive battery cable (2).



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Note: Illustration shows fuse block out of housing for illustration purposes only. Remove the fuse block and housing as one assembly.

7. Remove fuse block housing bolt (1) and fuse block housing (2) from current location with fuse block and housing as one assembly.

Caution: The fuse block wiring harness will limit where you can place the fuse block. Do not attempt to move the fuse block further than what the wiring harness will permit.

8. Move fuse block and fuse block housing away from work area in the engine compartment.



- 9. Disconnect the electrical connector from the master cylinder reservoir.



Note: Do not remove the radiator surge tank coolant feed hose. Plug surge tank overflow outlet on the tank, if required.

10. Disconnect the radiator surge tank overflow hose located next to the radiator surge tank attachment fasteners.



11. Remove radiator surge tank attachment nuts.

Caution: The radiator surge tank coolant feed hose will limit where you place the radiator surge tank. Do not attempt to move the radiator surge tank further than the coolant feed hose will permit.

12. Move radiator surge tank away from work area in the engine compartment.



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- 13. Disconnect the electronic brake control module (EBCM) wiring harness connector.
- 14. Cover the connector and the socket with shop cloths to protect them from brake fluid.

Note: Take care not to allow air into the hydraulic unit or into the brake pipes from the master cylinder. If air gets into the hydraulic unit, it will require a bleeding procedure using a scan tool programmed for the ABS 5.3 system. As long as no air enters the hydraulic unit, a simple bleeding procedure is all the system will require.



- 15. Remove the brake pipes from the brake pressure modulator valve (BMPV) assembly.
- 16. Plug the brake pipes.
- 17. Remove the mounting bracket bolts on the BMPV assembly.
- 18. Remove the ABS module bracket assembly from vehicle.



19. Remove the ABS module from bracket.



20. Remove the mounting pins (1) from ABS module.



- 21. Remove the fastners (2) seuring the HCU to the EBCM.
- 22. Install new HCU on the EBCM. Tighten mounting bolts to 1.8 Nm (16 lb-ft).
- 23. Install ABS module mounting pins. Tighten mounting pins: 8 Nm (6 lb-ft).
- 24. Install the brake modulator assembly to the modulator bracket. Tighten mounting bolts: 8 Nm (6 lb–ft).
- 25. Install the BPMV assembly into the mounting bracket. Secure with two nuts and tighten to 16 Nm (12 lb-ft).



26. Remove the plugs from the brake pipes and connect the brake pipes to the BPMV assembly and tighten to 22 Nm (16 lb-ft).





- 27. Connect the wiring harness EBCM connector.
- 28. Place fuse block assembly back into its original location.



Note: Illustration shows fuse block out of housing for illustration purposes only. Install the fuse block and housing as one assembly.

29. Install the fuse block housing bolts (1) and tighten to **7** N·m (62 lb in).



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- 30. Install the fuse block positive battery cable nut (1) and the positive battery cable (2) and tighten to **10 N·m (89 lb in)**.
- 31. Install fuse block cover.



- 32. Connect the master cylinder electrical connector.
- 33. Place the radiator surge tank into its original location.



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34. Install the radiator surge tanks attachment nuts.



35. Connect the radiator surge tank overflow hose.



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- 36. Install the battery into the tray.
- 37. Fasten the bar clamp to the battery by loosely attaching the battery rods from the battery tray cutouts through the bar clamp holes, and loosely tightening the nuts.
- 38. Tighten the battery retainer clamp-to-battery rod nuts to 4 N·m (35 lb in).
- 39. Connect the negative and positive battery cables.
- 40. Tighten the battery cable nuts to 4.5 N·m (40 lb in).

Note: Fill the master cylinder reservoir with brake fluid. Ensure the master cylinder is at least 1/2 full of fluid during the brake bleeding operation. Fill brake system with Delco Supreme 11 Brake Fluid (P/N 19299818 USA, P/N 19299819 Canada).

- 41. Bleed the brake system. Refer to Hydraulic Brake System Bleeding in SI.
- 42. Place a copy of the Owner Manual Supplement (found on the next page) in the customer's owner manual.

Owner Manual Supplement

Please place this in the "Recommended Fluids and Lubricants" section of your Owner Manual

Below are the GM recommended brake fluids. Using brake fluid other than GM recommended brake fluid may cause corrosion to components of the brake system. Corrosion may make the brake system not work well and could cause a crash.

Usage	Fluid/Lubricant
Hydraulic Brake	Delco Supreme 11 Brake Fluid
System	(GM Part No. U.S. 19299818, in Canada 19299819)

CUSTOMER REIMBURSEMENT - For US

Customer requests for reimbursement of previously paid repairs for the recall condition are to be submitted to the dealer by November 30, 2013, unless otherwise specified by state law. If this is not convenient for the customer, they may mail the completed Customer Reimbursement Request Form and all required documents to the GM Customer Assistance Center.

All reasonable and customary costs to correct the condition described in this bulletin should be considered for reimbursement. Any questions or concerns should be reviewed with your GM Representative prior to processing the request.

When a customer requests reimbursement, they must provide the following:

- A completed Customer Reimbursement Request Form. This form is mailed to the customer or can be obtained through GM GlobalConnect.
- The name and address of the person who paid for the repair.
- Paid receipt confirming the amount of the repair expense, a description of the repair, and the person or entity performing the repair.

IMPORTANT: GM requires dealers to approve or deny a reimbursement request within 30 days of receipt. If a reimbursement request is approved, the dealer should immediately issue a check to the customer and submit an appropriate warranty transaction for the incurred expense. If a reimbursement request is denied, the dealer <u>MUST</u> provide the customer with a clear and concise explanation, in writing, as to why the request was denied. The bottom portion of the Customer Reimbursement Request Form may be used for this purpose. If the denial was due to missing documents, the customer can resubmit the request when the missing documents are obtained, as long as it is still within the allowed reimbursement period.

Warranty transactions for customer reimbursement of previously paid repairs are to be submitted as required by GM Global Warranty Management. Additional information can also be found in Warranty Administration Bulletin 11-00-89-004.

CUSTOMER REIMBURSEMENT - For Canada

Customer requests for reimbursement of previously paid repairs to correct the condition described in this bulletin are to be submitted to the dealer prior to or by November 30, 2013.

When a customer requests reimbursement, they must provide the following:

- Proof of ownership at time of repair.
- Original paid receipt confirming the amount of unreimbursed repair expense(s) (including Service Contract deductibles), a description of the repair, and the person or entity performing the repair.

All reasonable and customary costs to correct the condition described in this bulletin should be considered for reimbursement. Any questions or concerns should be reviewed with your GM representative prior to processing the request.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below.

Labor Code	Description	Labor Time
V2636	Inspect ABS Module (no replacement necessary) (inc brake fluid change)	2.3
V2637	Inspect & Replace ABS Module (inc brake fluid change)	
	- Optra	1.5
	- Aveo, G3, Wave	2.0
V2667*	Customer Reimbursement Approved	0.2
V2668	Customer Reimbursement Denied - For US dealers only	0.1

* Customer reimbursement will not close this program. The service procedure must also be performed on the vehicle.

CUSTOMER NOTIFICATION

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

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 PROGRAM RESPONSIBILITY

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

Dealers are to service all vehicles subject to this program at no charge to customers, regardless of mileage, age of vehicle, or ownership, through November 30, 2014.

Customers who have recently purchased vehicles sold from your vehicle inventory, and for which there is no customer information indicated on the involved vehicle 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. Program 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 program enters your vehicle inventory, or is in your facility for service through November 30, 2014, you must take the steps necessary to be sure the program correction has been made before selling or releasing the vehicle.



November 2012

Dear General Motors Customer:

We have learned that your 2007 model year Chevrolet Optra, 2009 model year Pontiac G3 or Wave, or 2009-2010 model year Chevrolet Aveo may contain brake fluid that does not inhibit corrosion in the zinc plating on the anti-lock brake system (ABS) module valve armature. Corrosion may lead to a gel build up on the sides of the valve, which could affect the closing motion of the valve. This could result in longer brake pedal travel and/or reduced brake performance.

Your satisfaction with your GM vehicle is very important to us, so we are announcing a program to prevent this condition or, if it has occurred, to fix it.

What We Will Do: Your GM dealer will inspect the ABS module and, if necessary, replace the module. Your dealer will also change the brake fluid and provide you with a supplement to the Owner Manual that lists the GM recommended brake fluid. This service will be performed for you at no charge until November 30, 2014.

What You Should Do: To limit any possible inconvenience, we recommend that you contact your dealer as soon as possible to schedule an appointment for this repair. If the inspection indicates that the ABS module requires replacement, your dealer may need your vehicle for a day or two while they obtain a new module.

Reimbursement: If you have paid for repairs for the condition described in this letter, please complete the enclosed form and present it to your dealer with all required documents. Working with your dealer will expedite your request, however, if this is not convenient, you may mail the completed form and all required documents to Reimbursement Department, PO Box 33170, Detroit, MI 48232-5170. The completed form and required documents must be presented to your dealer or received by the Reimbursement Department by November 30, 2013, unless state law specifies a longer reimbursement period. Even though you may have already had this condition corrected, you will still need to take your vehicle to your dealer for additional repairs.

If you have any questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Chevrolet	1-800-222-1020	1-800-833-2438
Pontiac	1-800-762-2737	1-800-833-7668
Guam	65-6267-1752	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

We sincerely regret any inconvenience or concern that this situation may cause you. We want you to know that we will do our best, throughout your ownership experience, to ensure that your GM vehicle provides you many miles of enjoyable driving.

Jim Moloney General Director, Customer and Relationship Services

Enclosure 12189