



# Service Bulletin

File In Section: Special Policies  
Bulletin No.: 99046(B)  
Date: May, 2000

99I-006



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## SPECIAL POLICY

**SUBJECT: 99046(B) - SPECIAL POLICY - HIGH/LOW/HIGH ABS BRAKE ANOMALY**

**MODELS: 1993-1996 CHEVROLET AND GMC S/T UTILITY  
1994-1996 CHEVROLET AND GMC S/T PICKUP EQUIPPED WITH A V8 ENGINE  
1993-1996 CHEVROLET AND GMC G VAN**

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**THIS SPECIAL POLICY IS IN EFFECT UNTIL DECEMBER 1, 2002**  
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**THIS ONE PAGE INSERT CANCELS AND REPLACES THE FIRST PAGE OF BULLETIN 99046(A) ISSUED APRIL, 2000. ATTACH THIS PAGE TO YOUR COPY OF BULLETIN 99046(A). THE CHART BELOW HAS BEEN REVISED TO REFLECT A PART CHANGE FOR 1993 S/T UTILITY VEHICLES WITH AN L35 ENGINE.**

**M/L VANS AND AWD T-UTILITY VEHICLES ARE NO LONGER INVOLVED IN THIS SPECIAL POLICY.**

**DUE TO THE AVAILABILITY OF PARTS, THIS SPECIAL POLICY IS BEING ADMINISTERED IN FOUR PHASES. THE FIRST PHASE, RELEASED IN DECEMBER, 1999, CONSISTED OF VEHICLES WITH A VCM. THIS SECOND PHASE WILL CONSIST OF 1993 MODEL YEAR VEHICLES. THE THIRD PHASE WILL CONSIST OF 1994 VEHICLES WITH A PCM. THE FOURTH PHASE WILL CONSIST OF 1996-96 VEHICLES WITH A PCM.**

**YOU WILL BE NOTIFIED OF THE THIRD AND FOURTH PHASES VIA DCS MESSAGE.**

	MODEL YEAR			
	1993	1994	1995	1996
G Van	Part Chg.	Part Chg.	Part Chg.	Part Chg.
S/T Pickup w/LB4 & Man Trans	N/A	Reprogram	Reprogram	N/A
S/T Pickup w/LB4 & Auto Trans	N/A	Part Chg.	Part Chg.	N/A
S/T Pickup w/L35/LF8	N/A	Part Chg.	Reprogram	Reprogram
S/T Utility w/LB4	Part Chg.	Part Chg.	N/A	N/A
S/T Utility w/L35	Part Chg.	Part Chg.	(+K20) Part Chg. (-K20) Reprogram	Reprogram



# Service Bulletin

File In Section: Special Policies  
Bulletin No.: 99048(A)  
Date: April, 2000



## SPECIAL POLICY

**SUBJECT: 99048(A) - SPECIAL POLICY - HIGH/LOW/HIGH ABS BRAKE ANOMALY**

**MODELS: 1993-1996 CHEVROLET AND GMC S/T UTILITY  
1994-1996 CHEVROLET AND GMC S/T PICKUP EQUIPPED WITH A V6 ENGINE  
1993-1996 CHEVROLET AND GMC G VAN**

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**THIS SPECIAL POLICY IS IN EFFECT UNTIL DECEMBER 1, 2002**  
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**THIS BULLETIN CANCELS AND REPLACES BULLETIN 99048 ISSUED DECEMBER, 1999. ALL COPIES OF BULLETIN 99048 SHOULD BE DESTROYED.**

**M/L VANS AND AWD T-UTILITY VEHICLES ARE NO LONGER INVOLVED IN THIS SPECIAL POLICY.**

**DUE TO THE AVAILABILITY OF PARTS, THIS SPECIAL POLICY IS BEING ADMINISTERED IN FOUR PHASES. THE FIRST PHASE, RELEASED IN DECEMBER, 1999, CONSISTED OF VEHICLES WITH A VCM. THIS SECOND PHASE WILL CONSIST OF 1993 MODEL YEAR VEHICLES. THE THIRD PHASE WILL CONSIST OF 1994 VEHICLES WITH A PCM. THE FOURTH PHASE WILL CONSIST OF 1995-96 VEHICLES WITH A PCN.**

**YOU WILL BE NOTIFIED OF THE THIRD AND FOURTH PHASES VIA DCS MESSAGE.**

	MODEL YEAR			
	1993	1994	1995	1996
G Van	Part Chg.	Part Chg.	Part Chg.	Part Chg.
S/T Pickup w/LB4 & Man Trans	N/A	Reprogram	Reprogram	N/A
S/T Pickup w/LB4 & Auto Trans	N/A	Part Chg.	Part Chg.	N/A
S/T Pickup w/L25/LF6	N/A	Part Chg.	Reprogram	Reprogram
S/T Utility w/LB4	Part Chg.	Part Chg.	N/A	N/A
S/T Utility w/L36	N/A	Part Chg.	(+K29) Part Chg. (-K29) Reprogram	Reprogram

**CONDITION**

The federal government's highway safety agency, the National Highway Traffic Safety Administration (NHTSA) has identified, and General Motors Corporation has confirmed, the existence of a condition in the antilock braking system of some 1993-1996 Chevrolet and GMC S/T utilities, 1994-1996 Chevrolet and GMC S/T pickups equipped with a V6 engine, and 1993-1996 Chevrolet and GMC G vans, all equipped with the Lucas Verity three-sensor ABS system. On rare occasions, this condition can result in longer stopping distances during certain antilock brake applications, as explained below.

If the customer is driving on a road surface that supports good traction and they begin to stop by applying the brake pedal firmly, and both front wheels of their vehicle then pass onto a slippery surface (such as an ice-covered or wet patched asphalt part of the road), the antilock brake system will adjust the brakes at each of the wheels to take advantage of the available traction. This will allow the customer to steer and maintain stability, which is normal ABS operation, as their owner's manual explains in more detail.

However, if the customer is still braking while the vehicle leaves the slippery surface and both front wheels get back on a higher-traction surface, the ABS may perform as if the vehicle were still on the slippery surface and the vehicle may not stop as quickly. However, this will not happen every time these conditions are encountered. It depends on several additional factors, such as vehicle speed and the length of the slippery surface.

The ABS system was designed with increased sensitivity to wheel slip in order to improve vehicle steerability while braking on very slippery surfaces. This improvement for steerability, however, made it possible for reduced front braking effectiveness to occur as described above.

**SPECIAL POLICY ADJUSTMENT**

This special policy adjustment covers the condition described above until December 1, 2002, regardless of vehicle mileage or ownership. The repairs will be made at no charge to the customer (see the service procedure for the appropriate repair). Other conditions that may cause similar or different brake complaints that are not a result of the condition listed above are not covered by this special policy. The customer should be informed that any further service that is not covered by this special policy would be their responsibility, if they elect to have the service performed.

**VEHICLES INVOLVED**

Involved are 1993-1996 S/T utilities, 1994-1996 S/T pickups equipped with a V6 engine, and 1993-1996 G vans built within the following VIN breakpoints:

YEAR	DIVISION	MODEL	PLANT	FROM	THROUGH
1994	Chevrolet	S/T Pickup	Linden	RK100001	RK183995
1994	Chevrolet	S/T Pickup	Shreveport	R8100004	R8243099
1995	Chevrolet	S/T Pickup	Linden	SK100036	SK263000
1995	Chevrolet	S/T Pickup	Shreveport	S8100001	S8266202
1996	Chevrolet	S/T Pickup	Linden	TK100019	TK240986
1996	Chevrolet	S/T Pickup	Shreveport	T8100001	T8232066
1993	Chevrolet	S/T Utility	Pontiac West	P0100001	P0196997
1993	Chevrolet	S/T Utility	Moraine	P2100001	P2216436
1994	Chevrolet	S/T Utility	Pontiac West	R0100001	R0184868
1994	Chevrolet	S/T Utility	Moraine	R2100001	R2179415
1995	Chevrolet	S/T Utility	Moraine	S2100001	S2266695
1995	Chevrolet	S/T Utility	Linden	SK100001	SK263010
1996	Chevrolet	S/T Utility	Moraine	T2100001	T2316776
1996	Chevrolet	S/T Utility	Linden	TK100001	TK240987
1993	Chevrolet	G Van	Scarborough	P4100001	P4152035
1993	Chevrolet	G Van	Flint	PF300008	PF362809
1994	Chevrolet	G Van	Flint	RF100001	RF190429
1995	Chevrolet	G Van	Flint	SF100001	SF253581
1996	Chevrolet	G Van	Flint	TF100001	TF118295
1994	GMC	S/T Pickup	Linden	RK500002	RK525999
1994	GMC	S/T Pickup	Shreveport	R8500003	R8533979
1995	GMC	S/T Pickup	Linden	SK500022	SK545890
1995	GMC	S/T Pickup	Shreveport	S8500002	S8641078
1996	GMC	S/T Pickup	Linden	TK500012	TK532449
1996	GMC	S/T Pickup	Shreveport	T8500001	T8536520
1993	GMC	S/T Utility	Pontiac West	P0500001	P0528015
1993	GMC	S/T Utility	Moraine	P2500002	P2543251
1994	GMC	S/T Utility	Pontiac West	R0500001	R0535325
1994	GMC	S/T Utility	Moraine	R2500001	R2527917
1995	GMC	S/T Utility	Moraine	S2500001	S2569899
1995	GMC	S/T Utility	Linden	SK500001	SK545839
1996	GMC	S/T Utility	Moraine	T2500001	T2580013
1993	GMC	G Van	Scarborough	P4500001	P4519317
1993	GMC	G Van	Flint	PF500004	PF522530
1994	GMC	G Van	Flint	RF500001	RF536616
1995	GMC	G Van	Flint	SF500001	SF559023
1996	GMC	G Van	Flint	TF500001	TF852777

## **PARTS INFORMATION**

Parts required to complete this special policy are to be obtained from General Motors Service Parts Operations (GMSP0). 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.

**IMPORTANT:** It is estimated that only a small number of 1995 and 1996 S/T trucks with a VCM reflash may require LEGR valve replacement.

Part Number	Description	Quantity/ Vehicle
88880028	MODULE KIT, ELEK BRK CONT (vehicles equipped with a PCM)	1 - (if req'd)
17113533	VALVE-EGR (1995 S/T w/L35 & VCM)	1 - (if req'd)
17113618	VALVE ASM, EGR (1996 S/T w/L35 & VCM)	1 - (if req'd)
12555896	GASKET, EGR VLV	1 - (if req'd)

## **CUSTOMER NOTIFICATION**

Customers will be notified of this special policy on their vehicles, in phases, by General Motors (see copy of typical customer letter included with this bulletin - actual divisional letter may vary slightly).

## **SERVICE PROCEDURE**

### **VCM Programming - 1994-1995 S/T Pickups and 1995-1996 S/T Utilities equipped with a VCM**

**Important:** For 1995 S/T utilities with L35, check the Service Parts Identification (SPID) label on the inside of the glovebox to determine if the vehicle has a VCM. If there is an RPO of "K29", the vehicle has a PCM and is not programmable, see procedure below.

The new calibration was available in October, 1999 on TIS 2000 CD #21 or Techline CD #20/21 and later versions. The calibration is programmed into the vehicle's VCM via a Techline Tool. Use a Techline Terminal or scan tool to perform the learn procedure and program the VCM.

**Important:** Use the calibration file "Special Policy 99046" on TIS 2000 CD #21 or Techline CD #20/21 or later versions.

- To ensure VCM programming/RPO configuration, confirm that the following conditions exist in order to prepare for VCM programming:
  - The battery is fully charged
  - The Ignition switch is in the "RUN" position
  - The Data Link Connector (DLC) is accessible

2. Refer to the latest Techline Terminal and equipment user's instructions.
3. Clear the diagnostic trouble codes (DTCs) after the programming is complete.
4. If the vehicle is a 1994/1995 pickup with an LB4 engine, no further action is required.  
If the vehicle is a 1995/1996 S/T pickup or utility with an L35 engine, proceed to step 5.
5. With the ignition switch in the "RUN" position, but not running, use the Tech II to command the LEGR valve to 100% "desired" position, then back to 0% "desired" position. Monitor the LEGR valve "actual" position, which should track with "desired" position. When the "desired" is at either 0 or 100%, the "actual" should stop within 2% of the "desired". Repeat this step 1 more time.
  - If the "actual" position tracks with the "desired" position, no further action is required.
  - If the "actual" position does not track with the "desired" position ("actual" position sticks at a high percentage rate), then the LEGR valve should be replaced. Refer to the appropriate section of the service manual for replacement of the linear EGR valve.

**Inspection/Installation of Module Kit - 1994-95 S/T Pickups & 1993-95 S/T Utilities equipped with a PCM**

1. Raise the hood and locate the Electro-Hydraulic Control Unit (EHCUC) mounted in the area of the left front wheel house.
2. Inspect the Electronic Brake Control Module (EBCM) cover for the "Kelsey Hayes" identification logo shown in the figure below.
3. Based on the results of the inspection performed in the previous step, proceed as indicated below:
  - If the unit does not have the "Kelsey Hayes" logo on it, no further action is required.
  - If the unit has the "Kelsey Hayes" logo on it, proceed to step 4 and replace the EBCM.
4. Disconnect the battery.
5. Disconnect the two EBCM electrical connectors.
6. Remove/relocate the air cleaner assembly or the windshield washer fluid bottle to gain access to the EBCM to Brake Pressure Modulator Valve (BPMV) attaching bolts.
7. Clean the EHCUC of any foreign material.
8. Remove the seven bolts attaching the EBCM using the #25 torx tamper-proof bit provided with this bulletin.
9. Without utilizing any implement, such as a screwdriver to pry the components apart, carefully separate the EBCM from the Brake Pressure Modulator Valve (BPMV).
10. Remove the rubber diaphragm/gasket.



11. Without using any type of lubricate, install the new diaphragm/gasket, ensuring that the tabs are properly aligned.
12. Install the new EBCM to the BPMV and hand start the seven (7) new attaching bolts.
13. Using a star-pattern sequence, tighten the EBCM attaching bolts several times until a torque of 8 Nm (53 lb in) is achieved and maintained.
14. Connect the two EBCM electrical connectors.
15. Install the air cleaner assembly or windshield washer fluid bottle.
16. Connect the battery.
17. Turn the Ignition to ON and check for proper function of the ABS and brake instrument panel lights (bulb check).
18. Using a Tech II, program the tire calibration and perform an ABS function test.

#### Inspection/Installation of Module Kit – G-Van

1. Raise the hood and disconnect the battery.
2. Raise the vehicle and suitably support.
3. Remove the Electro-Hydraulic Control Unit (EHCU) splash shield located outboard of the right frame rail at approximately the passenger's feet.
4. Remove the four bolts that secure the EHCU mounting bracket to the frame.

**NOTICE:** To prevent damage (kinking or bending) to the brake lines, care must be taken when lowering the EHCU and bracket assembly to gain access to the Electronic Brake Control Module (EBCM).

5. Carefully lower and support the rear of the EHCU and the bracket assembly to gain access to the EBCM.
6. Inspect the EBCM cover for the "Kelsey Hayes" identification logo shown in the figure below.
7. Based on the results of the inspection performed in the previous step proceed as indicated below:

- If the unit does not have the "Kelsey Hayes" logo on it, no further action is required. Proceed to step 17.
- If the unit has the "Kelsey Hayes" logo on it, proceed to step 8, and replace the EBCM.



8. Disconnect the two EBCM electrical connectors.
9. Clean the EHCU of any foreign material.
10. Remove the seven bolts attaching the EBCM using the #25 torx tamper-proof bit provided with this bulletin.
11. Without utilizing any implement, such as a screwdriver to pry to the components apart, carefully separate the EBCM from the Brake Pressure Modulator Valve (BPMV).
12. Remove the rubber diaphragm/gasket.
13. Without using any type of lubricate, install the new diaphragm/gasket, ensuring that the tabs are properly aligned.

14. Install the new EBCM to the BPMV and hand start the seven new attaching bolts.
15. Using a star-pattern sequence, tighten the EBCM attaching bolts several times until a torque of 8 Nm (53 lb in) is achieved and maintained.
16. Connect the two electrical connectors to the EBCM.
17. Carefully raise the EHCU and bracket assembly into position and hand start the bracket to the frame attaching bolts.
18. Tighten the bracket to the frame attaching bolts to 75 Nm (55 lb ft).
19. Install the EHCU splash shield and tighten the attaching bolts to 16 Nm (12 lb ft).
20. Lower the vehicle
21. Connect the battery.
22. Turn the ignition to ON and check for proper function of the ABS and brake instrument panel lights (bulb check).
23. Using a Tech II, program the proper tire calibration and perform an ABS function test.

### CLAIM INFORMATION

For vehicles repaired under the terms of this special policy, submit a claim with the information indicated below:

REPAIR PERFORMED	PART COUNT	PART NO.	PARTS ALLOW	CC-FC	LABOR OP	MODEL	LABOR HOURS
VCM Reprogram & LEGR Function Test	0	N/A	N/A	MK-95	T5535	S/T	0.7
Replace LEGR Valve	2	---	*	MK-95	T5545	1995	0.4
						1998	0.2
Inspect Module - No Further Action Req'd	0	N/A	N/A	MK-95	T5546	S/T	0.2
						G	0.4
Inspect Module & Install Module Kit	1	---	*	MK-95	T5547	S/T	0.4
						G	0.7

- \* The "Parts Allowance" should be the sum total of the current GMSPD Dealer Net Price plus the applicable Mark-Up or Landed Cost Mark-Up (for IPC) for the module kit needed to complete the repair.

**PHASE I**

99046

(Sample of Notification Used)

December, 1999

**Dear Chevrolet/GMC Customer:**

As the owner of a General Motors truck equipped with the Lucas Vortec three-sensor antilock brake system (ABS), your satisfaction with our product is of utmost concern to us.

**Condition:** The federal government's highway safety agency, the National Highway Traffic Safety Administration (NHTSA) has identified, and General Motors Corporation has confirmed, the existence of a condition in the antilock braking system of some Chevrolet and GMC 1994-1996 S/T pickups equipped with a V6 engine, and 1995-1996 S/T utility vehicles. On rare occasions, this condition can result in longer stopping distances during certain antilock brake applications, as explained below.

If you're driving on a road surface that supports good traction and you begin to stop by applying your brake pedal firmly, and both front wheels of your vehicle then pass onto a slippery surface (such as an ice-covered or wet patched asphalt part of the road), your antilock brake system will adjust the brakes at each of the wheels to take advantage of the available traction. This will allow you to steer and maintain stability, which is normal ABS operation, as your owner's manual explains in more detail.

However, if you are still braking while the vehicle leaves the slippery surface and both front wheels get back on a higher-traction surface, the ABS may perform as if the vehicle were still on the slippery surface and the vehicle may not stop as quickly. However, this will not happen every time these conditions are encountered. It depends on several additional factors, such as vehicle speed and the length of the slippery surface.

Your ABS system was designed with increased sensitivity to wheel slip in order to improve vehicle steerability while braking on very slippery surfaces. This improvement for steerability, however, made it possible for reduced front braking effectiveness to occur as described above. Therefore, GM has developed a change that will make your vehicle less sensitive to wheel slip under the circumstances described above.

**What Will Be Done:** Upon your request, your Chevrolet/GMC dealer will make a change to your antilock braking system software to prevent this phenomenon from occurring. This software change will have only a slight effect on vehicle steerability during braking on very slippery surfaces and is designed to have no effect on normal ABS or other braking operations. This change should not affect how your brakes feel or create any perceptible difference in the steerability or stability of your vehicle while braking. This service will be performed for you at no charge at any time until December 1, 2002.

**How Long Will The Repair Take:** Your Chevrolet/GMC dealer will modify your vehicle's ABS software. We estimate that it will take your dealer 45 minutes to perform this modification. 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.

**Contacting Your Dealer:** Repairs and adjustments qualifying under this special coverage must be performed by a Chevrolet/GMC dealer. You may want to call the service department to arrange a convenient appointment. Should your dealer be unable to schedule a service date within a reasonable time, you should contact the appropriate Customer Assistance Center at the number listed below:

Division	Number	Deaf, Hearing Impaired or Speech Impaired *
Chevrolet	1-800-222-1020	1-800-833-2438
GMC	1-800-452-8782	1-800-452-8888

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

Chevrolet/Pontiac-GMC Division  
General Motors Corporation