

# DAIMLER



Daimler Trucks North America  
Nasser Zamani  
Manager  
Compliance and Regulatory Affairs

March 7, 2008

Dan Smith  
Associate Administrator for Vehicle Safety  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue S.E.  
Washington D.C. 20590

**Re: Defect Information Report – Supplemental Report No. 3  
07V-302, FL-504, Bendix SR-7 Spring Brake Control Valve Assembly Check Valves**

Mr. Smith

In accordance with Part 573 of Title 49 of the Code of Federal Regulations, Daimler Trucks North America LLC herewith submits supplemental defect information and copies of documents to be distributed to dealers and purchasers.

**(c)(3) Total number of vehicles potentially affected: 112,177**

**(c) (8) Communications sent to dealers:**

posted December 22, 2007 – Freightliner, Sterling, and Freightliner Custom Chassis  
posted January 25, 2008 – Thomas Built Buses

**Communications sent to owners:**

mailed January 11, 2008 – Freightliner, Sterling, and Freightliner Custom Chassis  
mailed February 1, 2008 – Thomas Built Buses

**(c) (9) Copies of Communications sent to owners and dealers are attached.**

Please contact me if you have any questions.

Sincerely yours,

A handwritten signature in cursive script that reads 'Nasser Zamani'.

Nasser Zamani

Cc: Michael Mason, CAL-OSHA

Enclosure

Certified Mail# 7003 2260 0001 3403 6876

A Daimler Company

Daimler Trucks North America LLC  
4747 N. Channel Avenue  
Portland OR 97217-7699  
503-745-6910 Phone  
503-745-5544 Fax  
NasserZamani@Freightliner.com



A Subsidiary of **FREIGHTLINER**  
CORPORATION

## Product Recall

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To: ALL DEALERS

From: TRACY SAUERBREY – WARRANTY/RECALL DEPARTMENT

Subject: RECALL 07V-302– Bendix SR-7 Park Brake Valves

Date: January 25, 2008

Enclosed are copies of the customer notification letter and the repair procedure for Recall 07V-302. This recall involves certain HDX model school buses manufactured between July 2002 and August 2007. The defect involves the Bendix SR-7 spring brake modulating valves. These valves may have one or both of the following defects. The internal rubber check valves on the SR-7 valves may deform over time and potentially result in intermittent improper seating of the check valves. The valve body retainer of Parker Hannifin 90 degree single check valves that attach to the supply port of SR-7 valves may, after prolonged use, break apart and become lodged inside the SR-7 valves, either causing a leak out of the SR-7 valve or preventing air from properly exhausting from the SR-7 valve.

This is a universal notification sent to all dealers. You may or may not have customers in your area affected by this recall. If owners in your area are subject to this recall, we have enclosed a printout listing those customers' names and addresses. If there is not a printout enclosed according to our records there are no units in your area involved. **If you have a printout and any of the units on it are still in your possession it is your responsibility to ensure the recall is performed before the unit is delivered to the customer.**

The repair will consist of replacing the defective valves. The labor allowance is 1.3 hours (SRT code 90-72). You will need to order kit number 25-FL504-001 for the Parker Single Check Valve kit and 25-FL504-000 for the Bendix SR-7 Cartridge kit from the Parts Distribution Center.

Thomas Built Buses has elected to notify all customers directly. Your customers will be contacting you to schedule an appointment for repairs. Reimbursement for parts and labor, (if requested) may be obtained by filing a warranty claim.

If you know of any customers who own or operate a Thomas bus in this recall, whose name and address is NOT listed or is INCORRECTLY listed on the enclosed printout, please promptly notify Thomas Built Buses of that additional information in writing. Thank you for your cooperation and assistance.



Tracy

Enclosures: Customer Letter Repair Procedure Printout (if applicable)



A Subsidiary of **FREIGHTLINER**  
LLC

February 1, 2008

Recall 07V-302

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. Thomas Built Buses, Inc. has decided that a defect which relates to motor vehicle safety exists on certain HDX vehicles manufactured between July 2002 and August 2007. These units are identified on the enclosed postcard (Form PSD 304).

The defect involves the Bendix SR-7 spring brake modulating valves. These valves may have one or both of the following defects. The internal rubber check valves on the SR-7 valves may deform over time and potentially result in intermittent improper seating of the check valves. The valve body retainer of Parker Hannifin 90 degree single check valves that attach to the supply port of SR-7 valves may, after prolonged use, break apart and become lodged inside the SR-7 valves, either causing a leak out of the SR-7 valve or preventing air from properly exhausting from the SR-7 valve. Either of these two defects may cause a delay in the application of the parking brake and the vehicle may roll away, resulting in possible property damage or personal injury. Normal service braking is not affected by either condition.

You should immediately contact your Thomas Built Buses dealer for an appointment to have your vehicle modified. Thomas will remedy this defect without charge. The remedy will consist of replacing the defective valves. It will take approximately 1.3 hours for repairs per unit. To arrange for repairs, contact your local Thomas Built Buses dealer. After the repair is made, please complete each postage paid card separately and return it to Thomas Built Buses to verify completion.

In addition to being used to verify repair completion, the postcard must be completed and returned if the vehicle does not need repair, if you no longer own the vehicle, or the vehicle identified on the postcard has been exported, stolen, or destroyed/totaled. Federal law requires that any vehicle lessor receiving the recall notice must forward a copy of this notice to the lessee within 10 days.

If you have had your vehicle repaired due to this noncompliance prior to receipt of this notice and you have incurred any costs, you may be eligible for reimbursement. For further information, please contact the Warranty/Recall Department at (336) 822-2871, 8 a.m. to 5 p.m. eastern standard time Monday through Friday, e-mail [Tracy.Sauerbrey@thomasbus.com](mailto:Tracy.Sauerbrey@thomasbus.com).

If the defect is not remedied without charge and within a reasonable time, which is not longer than 60 days after you tender the vehicle for repair, also please contact the Warranty/Recall Department at (336)-822-2871. You may also submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590, or phone the Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153) or go to <http://www.safercar.gov>. If your vehicle is involved in the Canadian portion, you may notify the Manager, Recall and Public Compliance, Road and Motor Vehicle Traffic Safety Branch, Transport Canada, Ottawa, Ontario or phone (613)-993-9851.

Sincerely,

A handwritten signature in black ink, appearing to read "Tracy Sauerbrey", written over a horizontal line.

Tracy Sauerbrey  
Warranty/Recall Department

Enclosure



# Repair Procedure

Instruction Sheet #TBB 85490089

RECALL # 07V-302

**MODEL:** HDX  
**SUBJECT:** BENDIX SR-7 PARK BRAKE VALVES  
**PAGE:** 1 OF 1

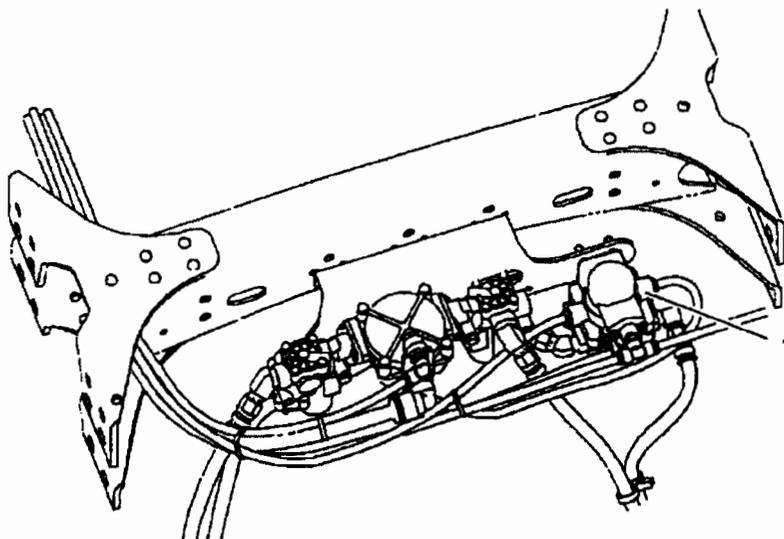
**▲ WARNING:** BEFORE WORKING ON OR AROUND AIR BRAKE SYSTEMS AND COMPONENTS, REVIEW ALL SAFETY PRECAUTIONS. FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY.

1. Drain the Air System.
2. Locate the SR-7 valve rearward of the rear suspension crossmember.
3. Using a 1/2" socket wrench, remove the two fasteners securing the SR-7 valve bracket mounted to the crossmember.

**Note:** Follow Freightliner Inspection and Replacement Procedure for the Parker Single Valve and Internal Check Valve Cartridge. (Refer to FL504A-G.)

5. Install the valve and bracket onto the crossmember.
6. Connect all of the air lines.
7. Before returning the vehicle to service, perform the operating and leakage tests.

**Note:** HDX units are not using Date Code on valve.



1. SR-7 Valve

## Subject: Bendix SR-7 Park Brake Valves

**Models Affected:** Specific Freightliner Argosy, Business Class, Business Class M2, Cargo, Century Class S/T, Classic, Classic XL, Columbia, Coronado, and FLD vehicles; Sterling A/L-Line, Acterra, and Cargo vehicles; and Freightliner Custom Chassis B2/S2 school bus chassis (Thomas Built Buses Saf-T-Liner) and VCL and XC motorhome chassis manufactured between August 13, 2002, and June 15, 2007.

### General Information

Freightliner LLC, on behalf of its Freightliner Trucks Division and its wholly owned subsidiaries, Sterling Truck Corporation and Freightliner Custom Chassis Corporation, has decided that a defect that relates to motor vehicle safety exists on the vehicles mentioned above.

There are approximately 140,000 vehicles involved in this campaign.

Certain Bendix SR-7 spring brake modulating valves may have one or both of the following defects. The internal rubber check valves on the SR-7 valves may deform over time and potentially result in intermittent improper seating of the check valve. The valve body retainer of Parker Hannifin 90 degree single check valves that attach to the supply port of SR-7 valves may, after prolonged use, break apart and become lodged inside the SR-7 valves, either causing a leak out of the SR-7 valve or preventing air from properly exhausting from the SR-7 valve. Either of these defects may cause a delay in the application of the parking brake and the vehicle may roll away, resulting in possible property damage or personal injury. Normal service braking is not affected by either condition.

The SR-7 valve will be inspected and an internal check valve cartridge, the Parker external check valve, or the entire SR-7 valve will be replaced as appropriate.

**REVISIONS:** The "NOTE" and SRT descriptions for **Table 2** have been rewritten. The repair procedure in **Table 3** for FL504E has been revised.

### Additional Repairs

Dealers must complete all outstanding recall and field service campaigns prior to the sale or delivery of a vehicle. A Dealer will be liable for any progressive damage that results from its failure to complete campaigns before sale or delivery of a vehicle.

Owners may be liable for any progressive damage that results from its failure to complete campaigns within a reasonable time after receiving notification.

### Work Instructions

Please refer to the attached work instructions. Prior to performing the campaign, check the vehicle for a completion sticker (Form WAR260). Also look on the SR-7 valve for a green zip tie that indicates that the Recall has been completed. A green zip tie is installed when a kit is used.

### Replacement Parts

Replacement kits are now available and can be obtained by ordering the kit number(s) listed below from your facing Parts Distribution Center. **NOTE: Most vehicles will require one or both of the internal valve cartridge (25-FL504-000) or external check valve (25-FL504-001) kits. Very few complete SR-7 valves (25-FL504-002) will require replacement; approximately 1 percent. A small number of vehicles, approximately 4 percent, will not require any kits.**

# Recall Campaign

January 2008  
 FL504A-G  
 NHTSA #07V-302  
 REVISED NOTICE

If our records show your dealership has ordered any vehicles involved in campaign number FL504A-G, a list of the customers and vehicle identification numbers will be available on AccessFreightliner.com. Please refer to this list when ordering parts for this recall.

**Table 1 - Replacement Parts for FL504A-G**

Campaign Number	Kit Number	Part Description	Part Number	Qty. per Kit	Suggested Wholesale*
FL504 B, C, D, E, F, G	25-FL504-000	Bendix Internal Check Valve Cartridge Kit	K023104	1 ea	\$1.89 U.S. \$2.08 CAN
		Completion Sticker	WAR260	1 ea	
FL504 A, C, E, G	25-FL504-001	Bendix External Check Valve Kit	K023103	1 ea	\$9.47 U.S. \$10.42 CAN
		Completion Sticker	WAR260	1 ea	
FL504 A, C, E, F, G (1 percent replacement rate expected)	25-FL504-002	Bendix SR-7 Valve Kit	K023105	1 ea	\$167.97 U.S. \$184.78 CAN

\* Please charge all Direct Warranty Customers the above-listed price for the kit, as they are authorized to perform their own Recalls.

**Table 1**

## Removed Parts

Please follow Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts.

## Labor Allowance

**Table 2 - Labor Allowance**

NOTE: Refer to the Quick Reference Guide in **Table 3** at the beginning of the Work Instructions to determine which repair procedures to perform for vehicles in each group (FL504A, FL504B, etc.). When all work is done, please read the descriptions below and select the **one SRT** that reflects the repairs completed for the specific vehicle.

Campaign Number	Procedure	Time Allowed (hours)	SRT Code	Damage Code
FL504 A, C, E, F, G	Inspect external single check valve or SR-7 valve; replace SR-7 valve (includes external single check valve replacement when appropriate)	0.9	996-0728A	000-Modifiedx
FL504 A, C	Inspect external single check valve and replace external check valve only	0.3	996-0728B	000-Modifiedx
FL504 B, D, F	Inspect external single check valve or SR-7 valve and install internal check valve cartridge only (Note: For FL504D no inspection is needed, install the internal check valve cartridge)	0.3	996-0728C	000-Modifiedx
FL504 C, E, G	Inspect external single check valve and replace both the internal check valve cartridge and the external single check valve	0.4	996-0728D	000-Modifiedx
FL504 B	Inspect SR-7 valve only	0.3	996-0728E	000-Inspected

**Table 2**

January 2008  
FL504A-G  
NHTSA #07V-302  
REVISED NOTICE

**IMPORTANT:** When the recall has been completed, locate the base completion label in the appropriate location on the vehicle, and attach the red completion sticker provided in the recall kit (Form WAR260). If the vehicle does not have a base completion label, clean a spot on the appropriate location of the vehicle and first attach the base completion label (Form WAR259). If a recall kit is not required or there is no completion sticker in the kit, write the recall number on a blank sticker and attach it to the base completion label.

## Claims for Credit

You will be reimbursed for your parts, labor, and handling by submitting your claim through the Warranty system within 30 days of completing this campaign. Please reference the following information in QuickClaim®:

- Claim type is **Recall**.
- In the FTL Authorization field, enter the campaign number and appropriate condition code (e.g. **FL504A, FL504B, etc.**).
- In the Primary Failed Part Number field, enter **25-FL504-000**.
- In the Parts field, enter the appropriate kit number(s) as shown in the Replacement Parts Table. **NOTE: Most vehicles will require one or both of the internal valve cartridge (25-FL504-000) or external check valve (25-FL504-001) kits. Very few complete SR-7 valves (25-FL504-002) will require replacement; approximately 1 percent. A small number of vehicles, approximately 4 percent, will not require any kits.**
- In the Labor field, first enter the appropriate SRT from the Labor Allowance Table. For administrative time, enter SRT 939-0010A for 0.4 hours for RVs or 0.3 hours for all other vehicles. See the Quick Reference Guide in **Table 3** at the beginning of the Work Instructions for a summary of procedures for each group in this Recall
- **Reimbursement for Prior Repairs.** When a customer asks about reimbursement, please do the following.
  - Accept the documentation of the previous repair.
  - Make a brief check of the customer's paperwork to see if the repair may be eligible for reimbursement. (See the "Copy of Owner Letter" section of this bulletin for reimbursement guidelines for this recall.)
  - Contact the Warranty Campaigns Department for a decision and authorization number.
  - Include the approved amount on your claim in sublet/outside purchases.
  - In the claim story, first note the authorization number and that the claim includes a reimbursement request.
  - Retain the documentation and provide it to Warranty Campaigns or Claims Processing if requested.
  - When your claim is paid, reimburse the customer the appropriate amount.

**IMPORTANT:** ServicePro® must be viewed prior to performing the recall to ensure the vehicle is involved and the campaign has not been previously completed. Also, check for a completion sticker prior to beginning work.

Contact the Warranty Campaigns Department at (800) 547-0712, from 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, Web inquiry at [AccessFreightliner.com](http://AccessFreightliner.com) / Support / Submit an Inquiry, or the Customer Assistance Center at (800) 385-4357, after normal business hours, if you have any questions or need additional information.

To return excess kit inventory related to this campaign, U.S. dealers must submit a Parts Authorization Return (PAR) to the Memphis PDC. Canadian dealers must submit a PAR to their facing PDC. All kits must be in resalable condition. PAR requests must include the original purchase invoice number.

The letter notifying vehicle owners is included for your reference.

# Recall Campaign

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January 2008  
FL504A-G  
NHTSA #07V-302  
REVISED NOTICE

Please note that the National Traffic and Motor Vehicle Safety Act, as amended (Title 49, United States Code, Chapter 301), requires the owner's vehicle(s) be corrected within a reasonable time after parts are available to you. The Act states that failure to repair a vehicle within 60 days after tender for repair shall be prima facie evidence of an unreasonable time. However, circumstances of a particular situation may reduce the 60 day period. Failure to repair a vehicle within a reasonable time can result in either the obligation to (a) replace the vehicle with an identical or reasonably equivalent vehicle, without charge, or (b) refund the purchase price in full, less a reasonable allowance for depreciation. The Act further prohibits dealers from selling a vehicle unless all outstanding recalls are performed. Also, any lessor is required to send a copy of the recall notification to the lessee within 10 days.

## Copy of Letter to Owner

### Subject: Bendix SR-7 Park Brake Valves

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

Freightliner LLC, on behalf of its Freightliner Trucks Division and its wholly owned subsidiaries, Sterling Truck Corporation and Freightliner Custom Chassis Corporation, has decided that a defect that relates to motor vehicle safety exists on specific Freightliner Argosy, Business Class, Business Class M2, Cargo, Century Class S/T, Classic, Classic XL, Columbia, Coronado, and FLD vehicles; Sterling A/L-Line, Acterra, and Cargo vehicles; and Freightliner Custom Chassis B2/S2 school bus chassis (Thomas Built Buses Saf-T-Liner) and VCL and XC motorhome chassis manufactured between August 13, 2002, and June 15, 2007.

Certain Bendix SR-7 spring brake modulating valves may have one or both of the following defects. The internal rubber check valves on the SR-7 valves may deform over time and potentially result in intermittent improper seating of the check valve. The valve body retainer of Parker Hannifin 90 degree single check valves that attach to the supply port of SR-7 valves may, after prolonged use, break apart and become lodged inside the SR-7 valves, either causing a leak out of the SR-7 valve or preventing air from properly exhausting from the SR-7 valve. Either of these defects may cause a delay in the application of the parking brake and the vehicle may roll away, resulting in possible property damage or personal injury. Normal service braking is not affected by either condition.

The SR-7 valve will be inspected and an internal check valve cartridge, the Parker external check valve, or the entire SR-7 valve will be replaced as appropriate.

Parts are now available for authorized dealers to order. Contact your authorized dealer to arrange to have the Recall performed and to ensure that parts are available at the dealer. To locate a dealer, search online at [www.FreightlinerTrucks.com](http://www.FreightlinerTrucks.com), [www.SterlingTrucks.com](http://www.SterlingTrucks.com), or contact the Warranty Campaigns Department for assistance.

When you contact your dealer, refer to campaign number **FL504A-G**. Once kit(s) are received at the dealership, the Recall will take approximately an hour and will be performed at no charge to you.

**IMPORTANT:** When the Recall has been completed, please ensure that a label has been affixed to your vehicle referencing **FL504A-G**.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, Federal law requires that you forward this notice to the lessee within 10 days. If you have paid to have this recall condition corrected prior to this notice, you may be eligible to receive reimbursement. Please see the reverse side of this notice for details.

We regret any inconvenience this action may cause but feel certain you understand our interest in motor vehicle safety.

If you are not able to have the defect remedied without charge and within a reasonable time, which is not longer than 60 days after you tender the vehicle for repair, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, e-mail address [WarrantyCampaigns@freightliner.com](mailto:WarrantyCampaigns@freightliner.com), or the Customer Assistance Center at (800) FTL-HELP or (800) STL-HELP, after normal business hours. You may also wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 7th Street SW, Washington, DC 20590; or call the Vehicle Safety Hotline at (888) 327-4236 (TTY: 800-424-9153); or to <http://www.safercar.gov>. If your vehicle is involved in the Canadian portion, you may wish to notify Transport Canada, ASFAD, Place de Ville Tower C, 330 Sparks Street, Ottawa, ON K1A 0N5, or phone (800) 333-0510.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

# Recall Campaign

January 2008  
FL504A-G  
REVISED NOTICE  
NHTSA #07V-302

## Reimbursement to Customers for Repairs Performed Prior to Recall

If you have already **paid** to have this recall condition corrected you may be eligible to receive reimbursement.

Requests for reimbursement may include parts and labor. Reimbursement may be limited to the amount the repair would have cost if completed by an authorized Freightliner LLC dealer. The following documentation must be presented to your dealer for consideration for reimbursement.

Please provide original or clear copies of all receipts, invoices, and repair orders that show:

- The name and address of the person who paid for the repair.
- The Vehicle Identification Number (VIN) of the vehicle that was repaired.
- What problem occurred, what repair was done, when the repair was done.
- Who repaired the vehicle.
- The total cost of the repair expense that is being claimed.
- Proof of payment for the repair (such as the front and back of a cancelled check or a credit card receipt).

Reimbursement will be made by check from your Freightliner LLC dealer.

Please speak with your Freightliner LLC authorized dealer concerning this matter.

## Work Instructions

### Subject: Bendix SR-7 Park Brake Valves

**Models Affected:** Specific Freightliner Argosy, Business Class, Business Class M2, Cargo, Century Class S/T, Classic, Classic XL, Columbia, Coronado, and FLD vehicles; Sterling A/L-Line, Acterra, and Cargo vehicles; and Freightliner Custom Chassis B2/S2 school bus chassis (Thomas Built Buses Saf-T-Liner) and VCL and XC motorhome chassis manufactured between August 13, 2002, and June 15, 2007.

### Summary and General Procedure

1. Check the base label (Form WAR259) for a completion sticker for FL504 (Form WAR260) indicating this work has been done. On trucks, the base label is usually located on the passenger-side door, about 12 inches (30 cm) below the door latch. On school buses, the base label is usually located over the driver's window. On motorhomes, the base label is usually located on the front wall, under the dash. If a completion sticker is present, no further work is needed. If there is no completion sticker, go to the next step.

Also look on the SR-7 valve for a green zip tie that indicates that the Recall has been completed. A green zip tie is installed when a kit is used.

2. Park the vehicle on a level surface. Shut down the engine, set the parking brakes, and chock the tires.
3. Refer to ServicePro and **Table 3** to determine which procedures are required for a specific vehicle. Perform the appropriate "Inspection and Replacement Procedures" below.

Quick Reference Guide				
Campaign Number	Procedures			
FL504A (45,713 vehicles)	Inspect Parker external single check valve	If internal components ARE intact, install the external check valve kit (25-FL504-001)		
		If internal components are NOT intact, replace the SR-7 valve then install the external check valve kit (25-FL504-002 and 25-FL504-001)		
FL504B (53,144 vehicles)	Inspect SR-7 valve date code	If the date code is NOT suspect, no further work is needed		
		If the date code IS suspect, install the internal check valve cartridge kit (25-FL504-000)		
FL504C (35,813 vehicles)	Inspect Parker external single check valve	If internal components ARE intact, install the external check valve kit (25-FL504-001)	Inspect SR-7 valve date code	If the date code is NOT suspect, no further work is needed
				If the date code IS suspect, install the internal check valve cartridge kit (25-FL504-000)
FL504D (3,125 vehicles)	Install the internal check valve cartridge kit (25-FL504-000)			
	If internal components are NOT intact, replace the SR-7 valve then install the external check valve kit (25-FL504-002 and 25-FL504-001)			
FL504E (1,902 vehicles)	Inspect Parker external single check valve	If internal components ARE intact, install the the internal check valve cartridge kit and the external check valve kit (25-FL504-000 and 25-FL504-001)		
		If internal components are NOT intact, replace the SR-7 valve then install the external check valve kit (25-FL504-002 and 25-FL504-001)		

Table 3, continues on the next page

# Recall Campaign

January 2008  
 FL504A-G  
 NHTSA #07V-302  
 REVISED NOTICE

Quick Reference Guide				
Campaign Number	Procedures			
FL504F (669 vehicles)	Inspect SR-7 valve casting	If "Bendix 1," replace the SR-7 valve (25-FL504-002)		
		If "Bendix 2," install the internal check valve cartridge kit (25-FL504-000)		
FL504G (517 vehicles)	Inspect Parker external single check valve	If internal components ARE intact, install the external check valve kit (25-FL504-001)	Inspect SR-7 valve casting	If "Bendix 1," replace the SR-7 valve (25-FL504-002)
				If "Bendix 2," install the internal check valve cartridge kit (25-FL504-000)
		If internal components are NOT intact, replace the SR-7 valve then install the external check valve kit (25-FL504-002 and 25-FL504-001)		

**Table 3, Quick Reference Guide**

NOTE: Most vehicles will require one or both of the internal valve cartridge (25-FL504-000) or external check valve (25-FL504-001) kits. Very few complete SR-7 valves (25-FL504-002) will require replacement; approximately 1 percent. A small number of vehicles, approximately 4 percent, will not require any kits.

- After all work is completed, clean a spot on the base label and attach a completion sticker for FL504 to the base label.

## Safety Precautions

Before attempting to work on the air brake system, observe the following precautions:

- Since the compression and storage of air can be compared to the energy in a coiled spring, when released, it can present a hazard if not properly recognized.
- The wheels of the vehicle must always be chocked so that depletion of air will not permit the vehicle to roll.
- When draining the system, do not look into the air jets or direct them toward a person, as dirt or sludge particles can be carried in the air stream.
- Hoses will whip dangerously if disconnected under pressure. Follow the manufacturer's recommended procedures when working on any air devices so as to avoid injury or damage from parts which, when released, are subject to mechanical (spring) or pneumatic propulsion.
- As system pressure is drained and the emergency brakes apply, hands must be away from the air chamber pushrods and spring actuators that apply automatically with the loss of pressure. This also applies when checking the service brake system.
- The safety valves must not be reset higher than specified by the reservoir manufacturer, vehicle manufacturer, or code to which the reservoir had been manufactured, in order to prevent valve failure.
- Various actuators contain powerful internal springs that require special handling procedures. Note and be guided by the warning tags on such units to avoid personal injury or property damage.
- To avoid injury, keep clear of the air chamber pushrod when brakes are applied or when air is exhausted from the system.

## Inspection and Replacement Procedures

### Parker Single Check Valve Inspection and Replacement (FL504 A, C, E, G)

- Ensure that the vehicle is properly chocked, then drain the air system.

NOTE: Do not disconnect air lines and fittings unless specified.

2. Locate the SR-7 spring brake modulating valve on the vehicle. Typically, it is located near the rear axle, mounted on the frame rail or cross member.
3. Locate the Parker external single check valve installed in the supply port of the SR-7 valve as shown in Fig. 1.

NOTE: All vehicles requiring this procedure were assembled with a Parker single check valve. If a vehicle has a different valve, do not complete this procedure. Contact Warranty Campaigns for assistance.

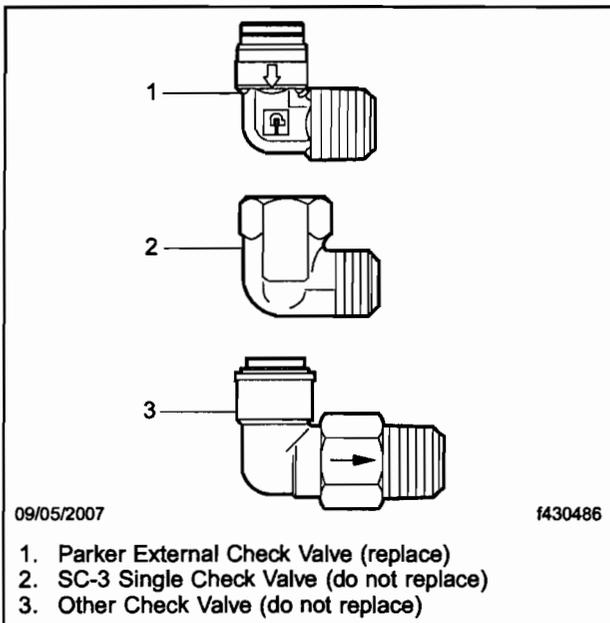
4. Remove the 1/2-inch o.d. supply line from the external single check valve supply port.
5. Note the orientation of the external check valve. (Some SR-7 valves may have a fitting between the external single check valve and the SR-7 valve.)
6. Remove the external single check valve.
7. Inspect the outlet (threaded side) of the Parker single check valve to determine whether the brass retainer and internal components are present and intact. See Fig. 2.

If the brass retainer and internal components are present and intact, go to the next step.

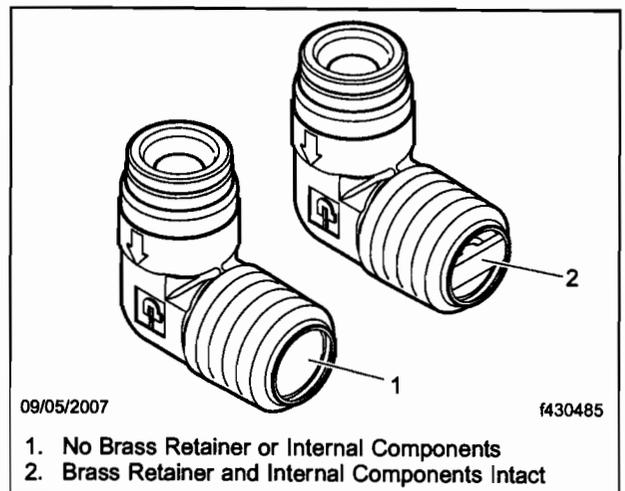
If the brass retainer and internal components are not present and intact, both the Parker external check valve and the entire SR-7 valve must be replaced. First complete the "SR-7 Valve Replacement" below then continue with this procedure and install the external check valve kit.

NOTE: Teflon tape is not an acceptable substitute for pipe sealant.

8. Using pipe sealant, install the new Parker single check valve, from the kit. Be careful to orient it in the same position as the original.
9. Install the 1/2-inch o.d. supply line in the external single check valve supply port.



**Fig. 1, External Check Valve Identification**



**Fig. 2, Inspecting the Parker External Check Valve**

# Recall Campaign

January 2008  
 FL504A-G  
 NHTSA #07V-302  
 REVISED NOTICE

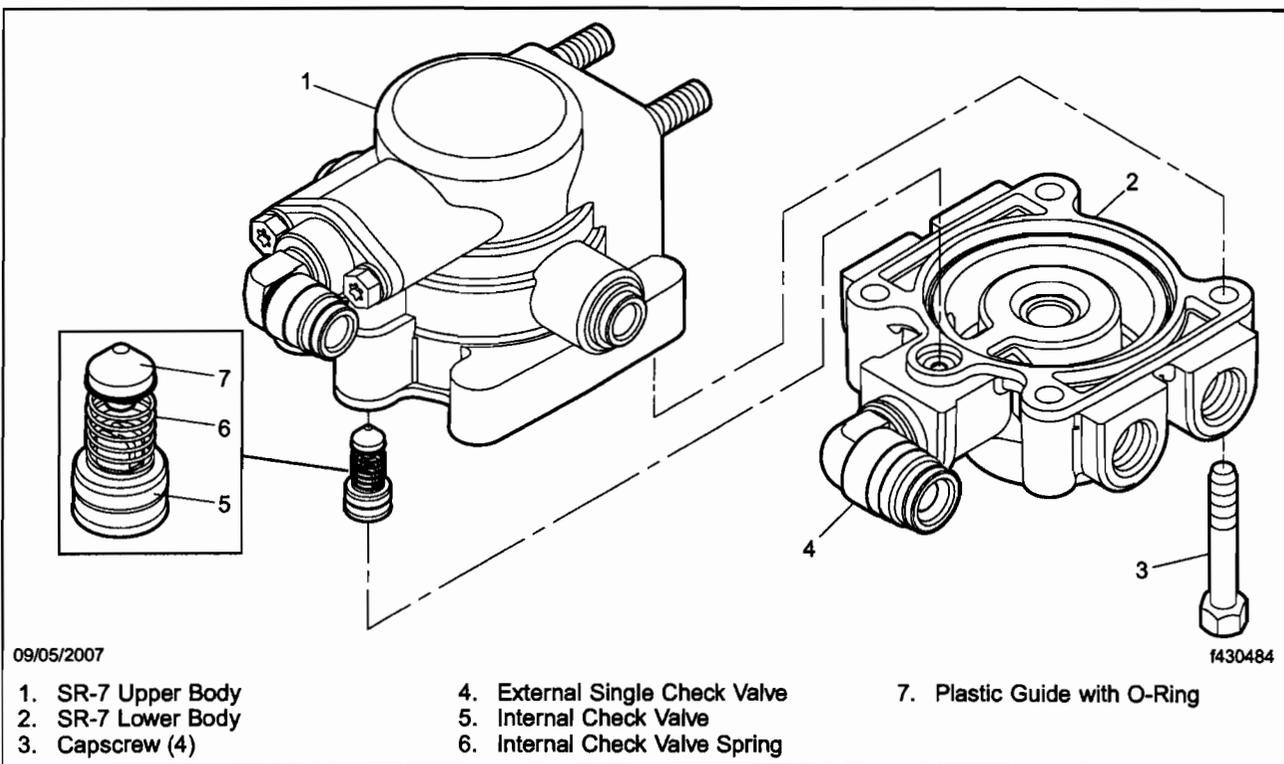
10. Secure the enclosed tie wrap on the valve or fitting in a conspicuous location to indicate that the Recall has been performed.
11. Perform the "Operation and Leak Test" below.

## Internal Check Valve Cartridge Replacement (FL504 B, C, D, E, F, G)

1. Ensure that the vehicle is properly chocked, then drain the air system.
2. Remove the four screws that secure the upper and lower bodies of the SR-7 valve. See Fig. 3. Do not disconnect additional hoses or fittings. The separation between the upper and lower body should be approximately three inches and allow adequate room to install this kit.
3. Locate the plastic guide in the upper body of the SR-7 valve directly above the supply port. The O-ring seal from the lower body may stick to the plastic guide when the bodies are separated. If so, remove it from the guide and place it back into the lower body. An extra O-ring has been included in this kit in the event that the O-ring is lost or damaged during servicing.

NOTE: The check valve may stick to its seat in the upper body. Be sure that all of the components are removed before going to the next step.

4. From the valve bore, remove and discard the plastic guide, spring, and check valve.
5. Insert the replacement cartridge in the bore where the check valve, spring, and plastic guide were removed. Push the cartridge into position until it stops. A portion of the plastic guide in the cartridge will stick out. Do not force the cartridge further into the bore.



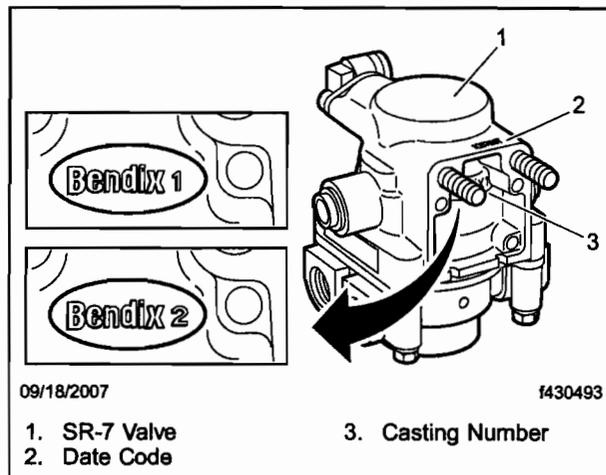
**Fig. 3, Replacing the Internal Check Valve**

- Align the valve lower body with the upper body and push the body halves together. Install two of the four screws (finger tight only) into the lower body mounting holes closest to the supply port first. This will help with alignment.
- Insert the remaining two screws and tighten finger-tight. Tighten all four screws to 80 to 100 lbf-in (900 to 1140 N-cm).
- Reconnect any air lines that were disconnected.
- Secure the enclosed tie wrap on the valve or fitting in a conspicuous location to indicate that the Recall has been performed.
- Perform the "Operation and Leak Test" below.

## SR-7 Valve Date Code Inspection (FL504 B, C)

NOTE: The SR-7 valve is located near the rear axle's parking brake chambers, usually mounted on a bracket on a frame crossmember.

- Locate the manufacturing date code on the top of the SR-7 valve. See Fig. 4 to determine its location.



**Fig. 4, Date Code and Casting Number Identification**

- Determine whether the date code is suspect.

In the date code, the second character is a letter representing the month of manufacture (affected months are D = April and E = May; no other months are involved). The next four characters are numbers; the first two represent the day and the second two represent the year. For example, the date code 1D2006T indicates the valve was manufactured April 20, 2006.

If the date code is **not** between April 1, 2006 (D0106) and May 24, 2006 (E2406), no further work is needed.

If the date code **is** between April 1, 2006 (D0106) and May 24, 2006 (E2406), install the internal check valve kit. Go to the "Internal Check Valve Cartridge Replacement" procedure.

## SR-7 Valve Casting Inspection (FL504 F, G)

NOTE: The SR-7 valve is located near the rear axle's parking brake chambers, usually mounted on a bracket on a frame crossmember.

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FL504A-G  
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1. Without removing the air lines and fittings at this time, carefully remove the mounting nuts and move the valve away from the bracket to view the back.
2. Inspect the casting stamp between the mounting studs on the back of the valve. Either "Bendix 1" or "Bendix 2" is stamped on the valve. See **Fig. 4**.

If the casting is "Bendix 2" and the vehicle is in FL504F, install the internal check valve cartridge kit; go to the "Internal Check Valve Cartridge Replacement" procedure. Next install the Parker external check valve kit; go to the "Parker Single Check Valve Inspection and Replacement" procedure starting with step 8.

If the casting is "Bendix 2" and the vehicle is in FL504G, install the internal check valve cartridge kit. Go to the "Internal Check Valve Cartridge Replacement" procedure.

If the casting is "Bendix 1" for both FL504F and FL504G, replace the SR-7 valve. Go to the "SR-7 Valve Replacement" procedure.

## SR-7 Valve Replacement (FL504 A, C, E, G)

1. Ensure that the vehicle is properly chocked, then drain the air system.
2. Identify and mark all the air lines to the SR-7 valve, then disconnect all the air lines.
3. Remove the two mounting nuts that secure the valve to the frame rail and remove the valve.
4. Compare the valve that was removed to the replacement valve.

If the valve that was removed contains fittings or pipe plugs that the new valve does not, note their orientation and remove the fittings.

NOTE: Teflon tape is not an acceptable substitute for pipe sealant.

5. Using pipe sealant, install the fittings that were removed into the replacement SR-7 valve.  
Be sure that the orientation of the fittings is the same. Install the fittings finger-tight, then tighten 1-1/2 to 2 turns. For shaped fittings, such as tees and elbows, tighten no more than one additional turn to the final position.
6. Install the valve on the frame rail. Tighten the mounting nuts 180 to 220 lbf·in (2000 to 3400 N·cm).
7. Connect all air lines as marked during disassembly.
8. Secure the tie wrap (included in the kit) on the valve or fitting in a conspicuous location to indicate that the Recall has been performed.
9. Return and complete the replacement of the Parker single check valve or continue to the "Operation and Leak Test" below as appropriate.

## Operation and Leak Test

1. Charge the air brake system to governor cut-out pressure.
2. Place the parking control valve in the release position. Observe that the spring brake actuators release fully.
3. Place the parking control valve in the park position. Observe that the spring brake actuators apply promptly, within 3 seconds.
4. Place the parking control valve in the release position.
5. Using a soap solution, coat all ports including the exhaust port. A 1-inch (25-mm) bubble in 3 seconds is permitted. If the valve does not function as described, or if leakage is excessive, replace the valve.