



R09PH

August 11, 2009

Dear Blue Bird Owner:

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

Blue Bird has decided that a defect which relates to motor vehicle safety exists on certain 2008, 2009 and 2010 model year "Vision" conventional school buses and non-school buses manufactured from March 27, 2007 through June 10, 2009.

On the subject buses, the lid gasket on the power steering reservoir may deteriorate and contaminate the power steering fluid resulting in potential loss of power steering assist. The loss of power steering assist could result in a vehicle crash.

**A qualified technician should perform this recall. You may contact your Blue Bird dealer to arrange to have this recall performed. Or, if you prefer, you may perform this recall yourself or have a qualified repair facility convenient to you perform this recall.**

Your Blue Bird bus(es) affected by this recall are identified by body serial number(s) on the enclosed reply sheets. If you no longer own the subject bus(es), please complete the appropriate section of the **pink** reply sheet and return to Blue Bird in the enclosed pink postage prepaid envelope.

**To receive replacement gaskets for your power steering reservoir lid, verify your shipping address on the enclosed yellow reply sheet, sign and return to Blue Bird in the pink postage paid reply envelope.** Replacement gaskets will be shipped via UPS ground service to the address provided. Note: UPS does not ship to P.O. boxes.

Labor time to replace the power steering reservoir lid gasket is 0.4 hrs (24 minutes) per bus.

If the power steering reservoir lid gasket has deteriorated and any part of the gasket is missing, the steering system may be contaminated and must be drained and flushed. Labor time to drain and flush the steering system is 2 hours per bus.

Reimbursement for labor may be obtained by completing the **pink** request for reimbursement sheet provided and returning it to Blue Bird in the enclosed **pink** postage prepaid envelope.

**BLUE BIRD CORPORATION**  
P.O. Box 937 • Fort Valley, Georgia 31030  
Phone: (478) 825-2021

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

If the modifications directed by this notification were performed on your bus prior to the receipt of this recall notification, complete and sign the recall reply sheet and attached a copy of the work order/invoice. Mail the documents in the pink self-addressed postage paid envelope included with the recall notification to Blue Bird for warranty consideration. Reimbursements will be made in accordance with the requirements of the National Highway Transportation Safety Act, Title 49 Code of Federal Regulations, Parts 573 and 577.

If Blue Bird Body Company should fail to or is unable to remedy this condition without charge to you, you may contact:

**ADMINISTRATOR  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
1200 NEW JERSEY AVENUE, SE  
WASHINGTON, D.C. 20590**

Or, you may call The National Highway Traffic Safety Administration toll free at:

1-888-327-4236  
TTY 1-800-424-9153

Or, go to: [HTTP://WWW.SAFERCAR.GOV](http://WWW.SAFERCAR.GOV)

Questions regarding this recall campaign should be directed to me at (478) 822-2242.

Thank you,



Bill Coleman  
Corporate Recall Administrator  
**BLUE BIRD CORPORATION**



# Power Steering Reservoir Gasket

**MODELS AFFECTED:** 2009-2010 BBCV Visions and all 2008 BBCV Visions serviced under bulletin, S07MU Power Steering Reservoir Cap

RECALL

## ISSUE

Power steering reservoir cap gasket may soften and break apart which may cause power steering pump to not function correctly.

## CORRECTIVE ACTION

Replace the existing gasket with new gasket made of approved Garlock material.

**WARNING** Always follow all Federal, State, Local, and Shop safety standards and use proper safety equipment when performing this procedure.

## PROCEDURE

**WARNING** Perform this procedure with Power Steering System components and fluid at ambient temperature.

**1** Park vehicle on level surface with front tires straight forward and apply parking brake. Remove key and chock wheels.

**2** Raise engine hood and locate Power Steering Reservoir on driver's side frame rail.

**3** Clean around the reservoir cap and adjacent components before proceeding.

**4** Remove and retain the retaining nut and flat washer; discard the rubber washer.

**5** Carefully remove the reservoir cap and gasket.

**6** Inspect the gasket.

6.1 Carefully wipe any excess fluid residue from the gasket.

6.2 Look for signs of deterioration and/or separation. If gasket has separated and any part is missing, the steering system may be contaminated and must be drained and flushed. Proceed to Step 7.

6.3 If gasket sags or bulges but has not separated or broken apart (is intact) steering system has not been contaminated by decaying gasket material, proceed to Step 8.

**7** Drain and flush steering system following ordered steps outlined in "TRW Flush and Fill Service Procedure #SRV-100" on pages 3 - 6 of this recall. Additional service information can be obtained at: <http://trucksteering.trwauto.com/files/TRW800.pdf>

- Replace power steering reservoir filter with new filter, B.B. part #00118439 obtainable from:

*Blue Bird Body Company  
Attn: Recall Administrator  
P.O. Box 937  
Fort Valley, Georgia 31030  
Phone: 478-822-2242*

- Refill using power steering fluid (*DEXRON III or FINA Multi-Purpose ATF*) until the fluid is at the half way level in the sight glass.

**CAUTION** Do Not use Dexron VI fluid.

**CAUTION** Do Not overfill.

**CAUTION** Do Not allow contaminants to enter the power steering reservoir.

- Normal service interval for the filter is 12 months / 12,000 miles whichever occurs first. More frequent filter replacement may be required under severe duty conditions.

**8** Remove and discard gasket from reservoir cap.

**9** Clean any remaining glue or other contaminants from the surface of the reservoir cap.

**10** Install large flat washer onto spring and stud inside reservoir.

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**11** Place the side of the new gasket with the printed surface next to the cap and align the holes in the gasket with the holes in the cap.

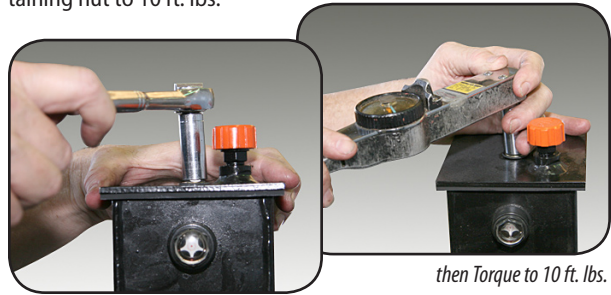
**CAUTION** Do Not apply any type of gasket sealant to the new gasket or reservoir



**12** Place the new assembly back onto the reservoir stud, squaring the sides of the cap and gasket to the sides of the reservoir.

**13** While pressing the cap down against the spring, install the new small rubber washer and the small flat washer removed in Step 4.

**14** Install the retaining nut onto the stud and tighten while holding the cap and gasket square to the reservoir. Torque the retaining nut to 10 ft. lbs.



Square and tighten

then Torque to 10 ft. lbs.

**15** Remove the breather cap and verify that the holes in the reservoir cap and gasket are aligned. Replace cap.

**16** Start engine and steer bus full left to full right 5 - 6 times.

**17** Check reservoir cap and gasket for leaks.

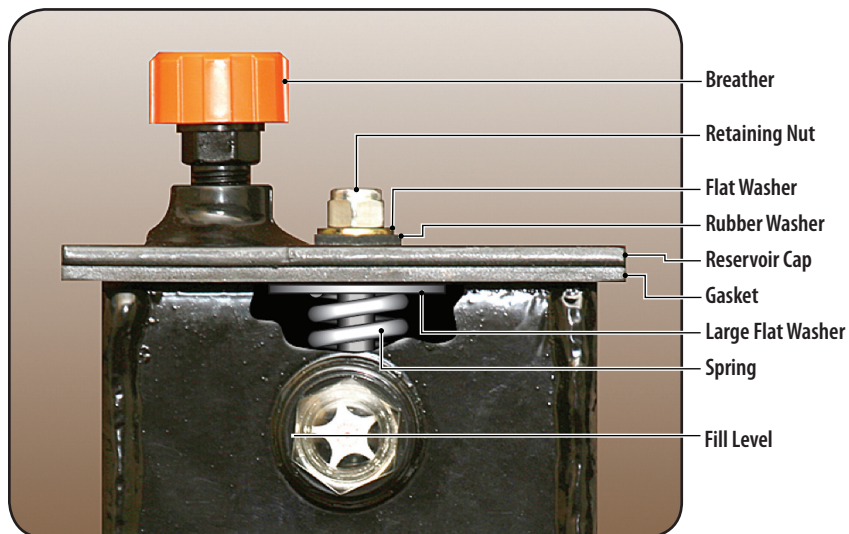
**18** Recheck fluid level in sight glass and fill as necessary.

**CAUTION** Do Not overfill.

**19** Close hood, remove chocks and place bus back in normal service..

## PARTS LIST

PART NUMBER	QUANTITY	DESCRIPTION
10011573	1	Kit, Power Steering Reservoir Gasket
00118439	As Req'd.	Filter Assy, Power Steering Reservoir



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**TRW Automotive**  
Commercial Steering Systems

## Service Procedure #SRV-100

### Flushing and Filling the Steering System

Draft August, 2008

**NOTE** The steering system must be flushed every time a gear, pump, or other major components get replaced, regardless if the components are new or are remanufactured

*This TRW Commercial Steering Systems service procedure has been written to help you repair commercial vehicles more efficiently. This procedure should not replace your manuals; you should use them together. These materials are intended for use by properly trained, professional mechanics, NOT "Do-it-yourselfers". You should not try to diagnose or repair steering problems unless you have been trained, and have the right equipment, tools and know-how to perform the work correctly and safely.*

1. Set parking brake on vehicle and block rear wheels.
2. Raise the front end off the ground.
3. Take vehicle out of gear and put into neutral position.
4. Raise hood and wipe down area around the steering gear and the hydraulic lines related to the steering system.
5. Place a drip pan under the steering gear to catch the oil. If the system includes an assist cylinder, place a pan under the assist cylinder to catch draining oil.
6. Remove both the pressure and return lines (Figure 1) from the steering gear and allow the oil to drain into the empty container. If applicable, remove the two pressure lines from the assist gear or cylinder and drain into a drip pan. Remove hoses as required to allow cooler to drain its oil tubes.
7. Remove filter (Figure 2) from the power steering fluid reservoir and discard. Disconnect the supply line from the reservoir.
8. Rinse and clean the inside of the reservoir with automatic transmission fluid. Do not use a shop rag to wipe the inside of the reservoir. If the reservoir is made from plastic inspect for cracks and damage. Replace with a new part if necessary.
9. Turn steering wheel from full left to full right 3-4 times. Collect the drained oil in the same container(s) as in Step 6. This will purge the oil from the steering gear(s).



Figure 1

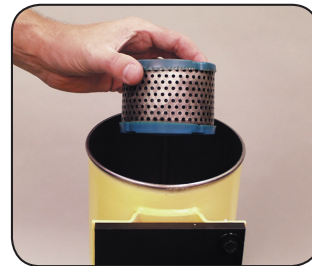


Figure 2



Figure 3

10. Reconnect pressure and return lines to the steering gear(s). Connect the supply line to the reservoir and then tighten all fittings.
11. Install new filter element into the reservoir.
12. Clean reservoir filler cap with automatic transmission fluid. Inspect gasket and replace if necessary.
13. Inspect all hydraulic hoses (Figure 3) for cracks, soft or sweat spots and signs of local collapse (remove all covers/corrugated tubing from hoses to do this) and replace any that are found to be defective.
14. Check any fittings and connectors for blockages. Clear any blockages using an appropriate method or use a new fitting/connector.
15. Fill reservoir with automatic transmission fluid and reinstall the filler cap (Figure 4).
16. Start engine for 10 seconds, stop, and check reservoir fluid level and top off if necessary. You may need to repeat this procedure 3 or 4 times.
17. Upon completion of filling the reservoir, start the engine and let it idle. At engine idle, steer full right and full left (Figure 5) once and return to straight ahead. Stop engine and check power steering reservoir level and top off if required.



Figure 4



Figure 5

**⚠ CAUTION** Do not hold steering wheel at full turn for longer than 10 seconds as this will cause system to overheat

18. Restart engine and steer full turns each direction 3 or 4 times.
19. Stop engine and recheck reservoir fluid level and adjust to correct level, if needed.
20. Inspect system for leaks and correct if necessary.
21. Bleed air from the system (see procedure below).
22. Remove drip pan and lower vehicle.

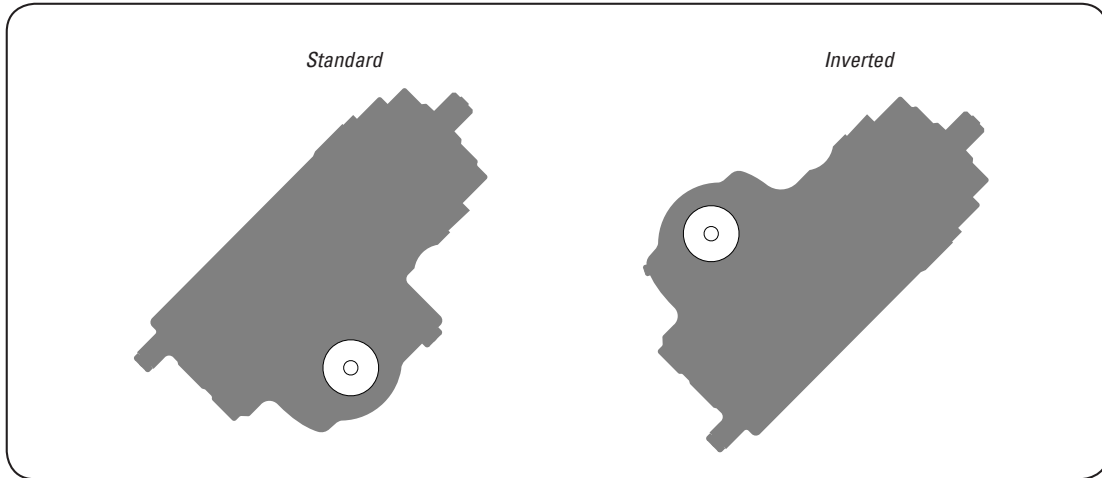
**⚠ CAUTION** Recycle all used oil using an appropriate, environmentally accepted, method. DO NOT reuse used oil as its material properties and contamination levels will be unknown.

23. Remove blocks from wheels and return vehicle for normal service.

## Air Bleeding the Steering System

### Visual Identification

When you air bleed a steering system, you are simply allowing air trapped in the cavities of the steering gear to escape. As a general rule, if your steering gear is a "standard mount", you should use the Automatic Bleed method. If your gear is an "inverted mount", you will need to use the Manual Bleed method to purge the trapped air from the gear.



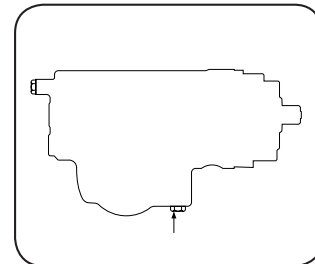
*Gear Mounting Configurations*

### Automatic Bleed Gears

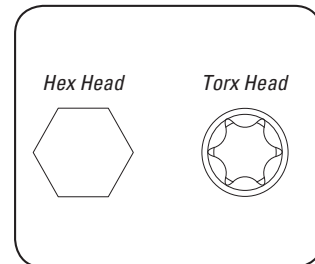
1. Fill the reservoir.
2. Start the engine, let it run for 10 seconds - without steering, then shut it off.
3. Check the reservoir, and refill if the fluid level has dropped.
4. Repeat at least three times, checking and refilling the reservoir each time if necessary.

**NOTE** Do not allow the fluid level to drop significantly or run out of the reservoir. This may induce air into the system.

5. Start the engine and let it idle for 2 minutes - without steering. Shut off the engine and check the fluid level in the reservoir. Refill if required.
6. Start the engine again. Steer the vehicle from full left to full right several times. Automatic bleed systems should now be free from trapped air.
7. Finally, be sure to check the fluid level in the reservoir. Refill if necessary before returning the vehicle to service.



*Auto Bleed Plug Location*



*Auto Bleed Plug Styles*



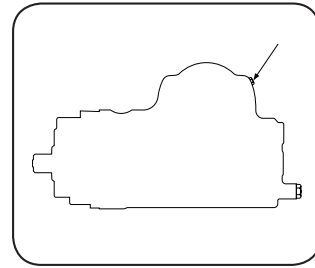
### Manual Bleed Gears

1. Fill the reservoir.
2. Start the engine, let it run for 10 seconds - without steering, then shut it off.
3. Check the reservoir, and refill if the fluid level has dropped.
4. Repeat this process at least three times, checking and refilling the reservoir each time if necessary.

**NOTE** Do not allow the fluid level to drop significantly or run out of the reservoir. This may induce air into the system.

5. Start the engine and let it idle for 2 minutes - without steering. Shut off the engine and check the fluid level in the reservoir. Refill if required.
6. Start the engine again. Steer the vehicle from full left to full right several times.
7. Again, check the fluid level in the reservoir.
8. With the engine idling, steer from full left turn to full right turn several times. Stop steering with the wheels pointed straight ahead and loosen the manual bleed screw 2-3 turns.
9. Allow air and aerated fluid to "bleed out" until fluid appears without bubbles.
10. Close the bleed screw, refill the reservoir if required.
11. Repeat steps 8, 9 and 10 three or four times until all the air is discharged. Torque manual bleed screw to 45 in•lb.

**CAUTION** Do not turn steering wheel with bleed screw loosened.



Manual Bleed Screw Location



Figure 1



Figure 2



5/16" Hexagon Screw

Manual Bleed Screw Style

### TRW Commercial Steering Systems

P.O. Box 60  
Lafayette, IN 47902  
Phone: 765.423.5377  
Fax: 765.429.1868