



**DATE:           OCTOBER 27, 2011**

**TO:             BLUE BIRD DEALERS**

**SUBJECT:   SERVICE BULLETIN S11TL DIESEL EXHAUST FLUID LEVEL  
SENSOR REPLACEMENT**

**MODELS**

**AFFECTED: 2011-2012 MODEL YEAR ALL AMERICAN D3RE MODEL BUSES**

On above models the Diesel Exhaust Fluid (DEF) tank level sensor may not read accurately on tank fluid level gauge. The gauge may not read "FULL" when tank is actually at the full level. The DEF tank sending unit head should be removed and the exhaust fluid level sensor replaced with a new exhaust fluid level sensor per the instructions provided in Service Bulletin S11TL. Copy attached.

Time to perform Service Bulletin S11TL is 2 hours per bus.

**Replacement diesel exhaust fluid (DEF) level sensor kits (part number 10019934) required to perform Service Bulletin S11TL must be ordered through Blue Bird Service Parts. Parts are anticipated to be available in limited quantities beginning November 25, 2011.**

Service Bulletin S11TL is being mailed directly to owners. Owners are being advised to contact their dealer for assistance, if needed.

Service Bulletin S11TL ends one (1) year from date of issue. Claims for repairs performed after the end date cannot be submitted to Blue Bird.

Questions regarding Service Bulletin S11TL should be directed to your Blue Bird Service Representative.

Bill Coleman  
Engineering Services



October 27, 2011

Dear Blue Bird Owner,

On certain 2011 and 2012 model year Blue Bird All American D3RE model school buses the Diesel Exhaust Fluid (DEF) tank level sensor may not read accurately on tank fluid level gauge. The gauge may not read "FULL" when tank is actually at the full level. The DEF tank sending unit head should be removed and the exhaust fluid level sensor replaced with a new exhaust fluid level sensor per the instructions provided in Service Bulletin S11TL. Copy attached.

Your buses affected by Service Bulletin S11TL are identified by body serial number on the enclosed cover sheet.

Time to perform Service Bulletin S11TL is 2 hours per bus.

**Replacement diesel exhaust fluid (DEF) level sensor kits (part number 10019934) required to perform Service Bulletin S11TL must be ordered through your usual Blue Bird Service Parts source. Parts are anticipated to be available in limited quantities beginning November 25, 2011.**

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

Service Bulletin S11TL ends one (1) year from date of issue.

Should you have any questions concerning this bulletin, please contact your Blue Bird dealer.

Sincerely,

Bill Coleman  
Engineering Services



# All American (D3RE) *BULLETIN* DEF Tank Level Sensor Replacement

**Models Affected: 2011-2012 All American (D3RE)**

## ISSUE

All American (D3RE) diesel exhaust fluid (DEF) tank level sensor is not reading accurately on fuel gauge.

## CORRECTIVE ACTION

Replace DEF tank level sensor.

## PROCEDURE

**WARNING:** Always follow all Federal, State, Local and Shop safety standards and use proper safety equipment when performing these procedures. Thoroughly read and understand all instructions before performing this procedure.

1. Park the bus on a level surface, apply parking brakes, switch engine off, remove ignition key and chock wheels.
2. Locate and remove DEF tank access cover in the floor toward the rear of the bus.
3. Cut wire ties to free up the two wire harness that lead to the level sending unit.
4. Unplug the two wire harnesses.



5. Disconnect DEF lines and coolant hoses from the head unit. Use pinch-off type hose clamps on the coolant lines prior to removing to prevent coolant from leaking out of hoses.
6. Using a 1/8" Allen wrench/hex key, unscrew the Allen screws holding the retaining ring to the reservoir from the unit and place safely aside to be used at a later time.
7. Remove retaining ring from unit.



8. Using a flathead screwdriver, gently pry around where the head unit is connected to the reservoir while pulling on the top of the unit to remove.

Caution: Do NOT pull on the wires or fittings for removal.





9. Once loosened from the DEF reservoir, pull the head unit out of the tank, and drain the head unit of any coolant still inside. Place the head unit upside-down on a soft, clean surface.



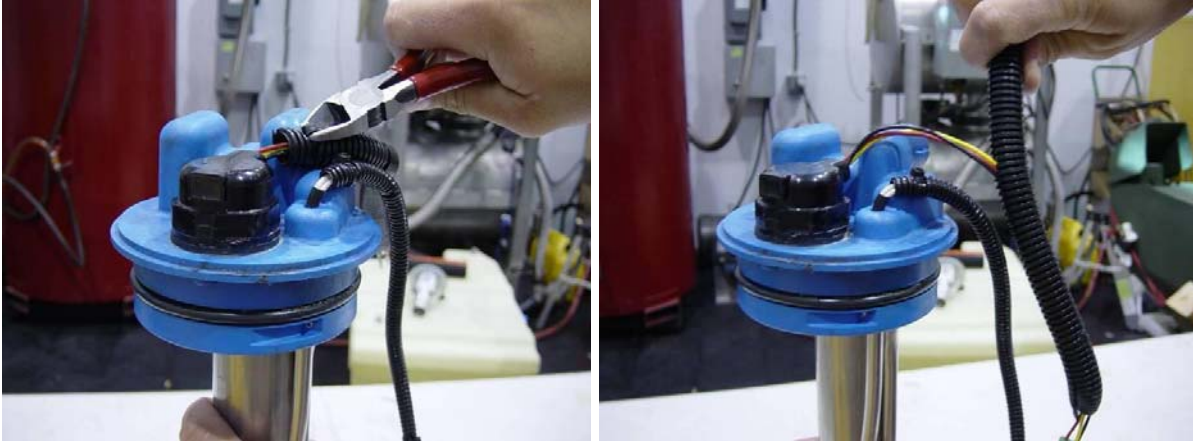
10. Grip the Focus Tube and hand loosen counter-clockwise until it becomes unattached from the head unit (Focus Tube colors vary). Set aside for use at a later time.



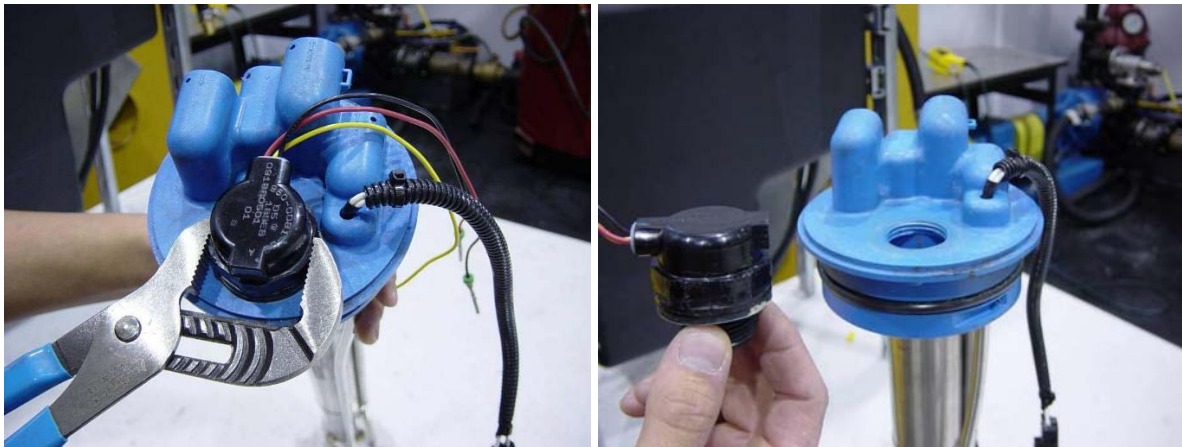
11. Place the head unit upright on a clean surface, so as to help prevent contaminants from being introduced into the reservoir upon re-installation.



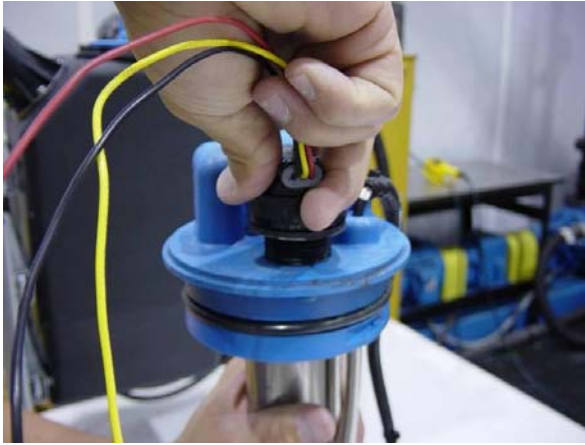
12. Cut zip ties to remove the split wire loom from the wires connected to the sensor and remove split wire loom from around the wires connected to the level sensor unit.



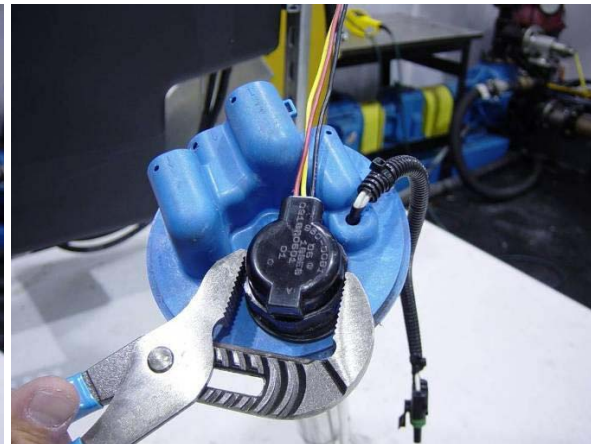
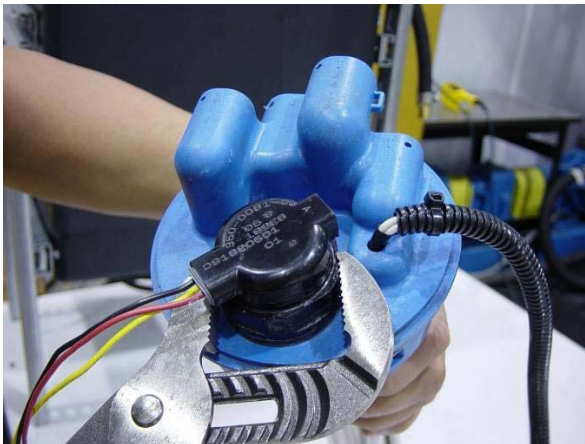
13. Before removing level sensor, mark level sensor wires original position for use with new sensor. Use channel lock pliers or a wrench to firmly grip the base of the level sensor and turn it counter clockwise to remove it from the head unit.



14. The gasket of the new level sensor (10019934) should be lubricated with a thin layer of DEF compatible lubricant such as Parker O-Lube, petroleum jelly or oil, and then screw into place until the bottom lip of the sensor is touching the top of the head unit.



15. Use the channel lock pliers or wrench to tighten so that the wires are in the original position (shown in second image below).

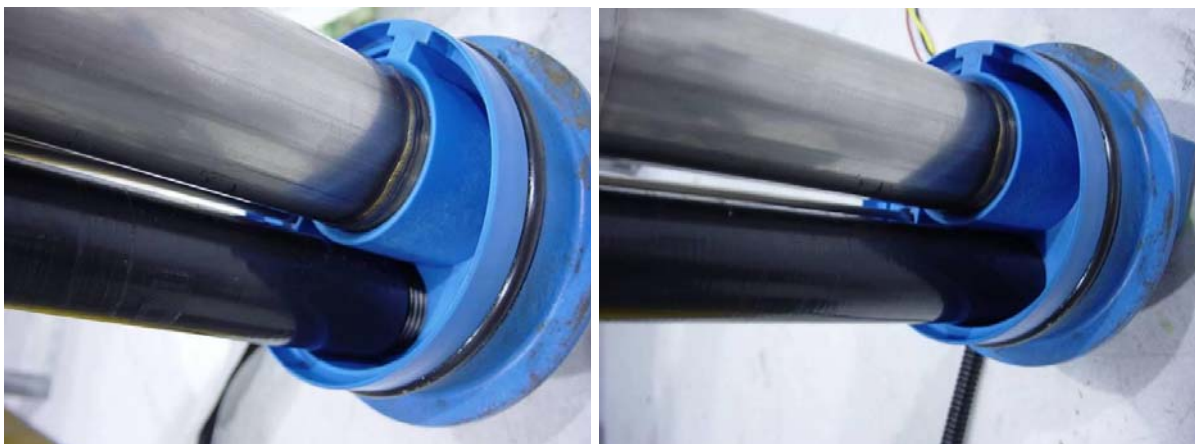




16. Locate where the focus tube will be positioned on the underside of the head unit. Situate the focus tube so that the inner threaded side of the tube will be tightened over top of the threaded projection from the level sensor on the underside of the head unit (Focus Tube colors vary).

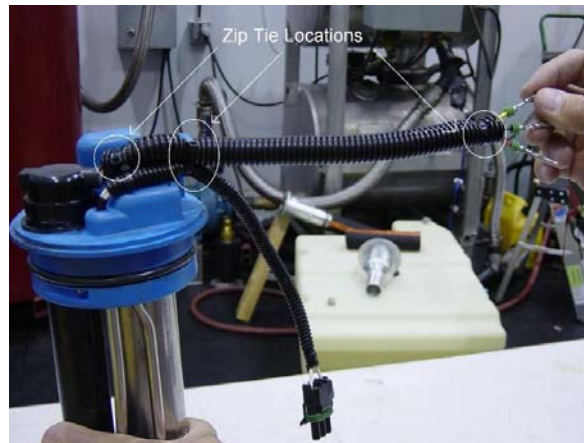


17. Tighten the focus tube by hand until it feels snug.

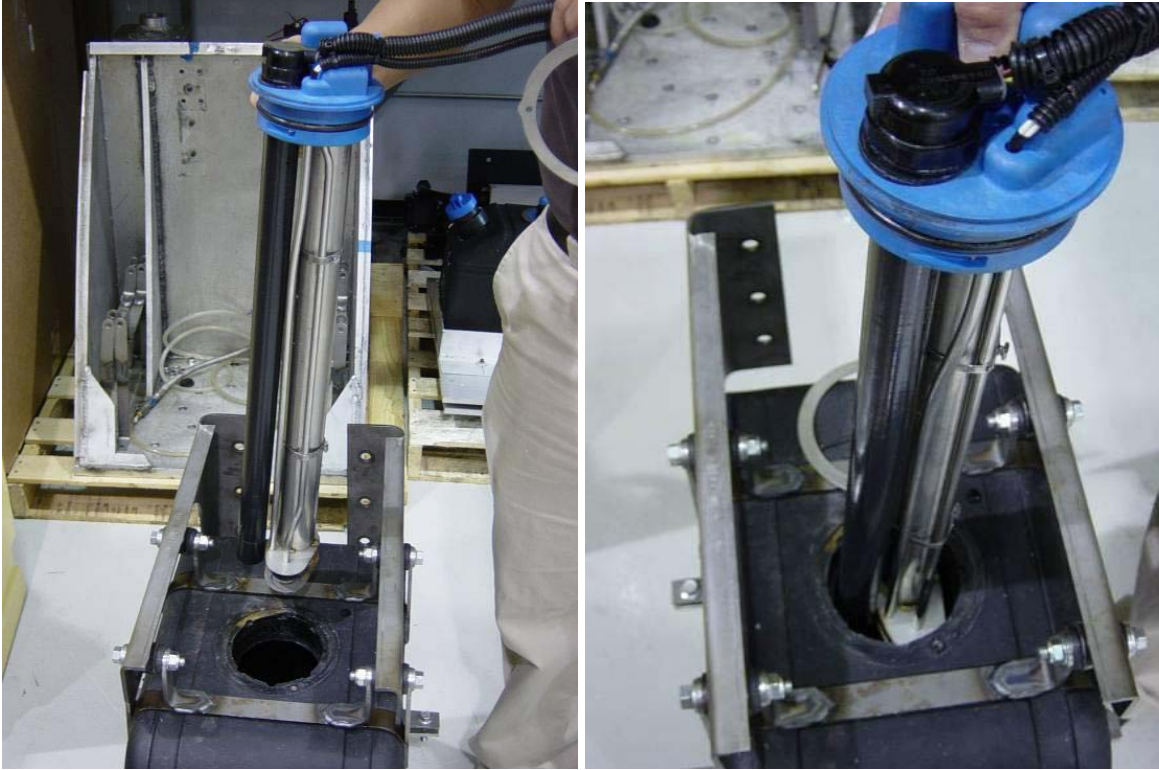




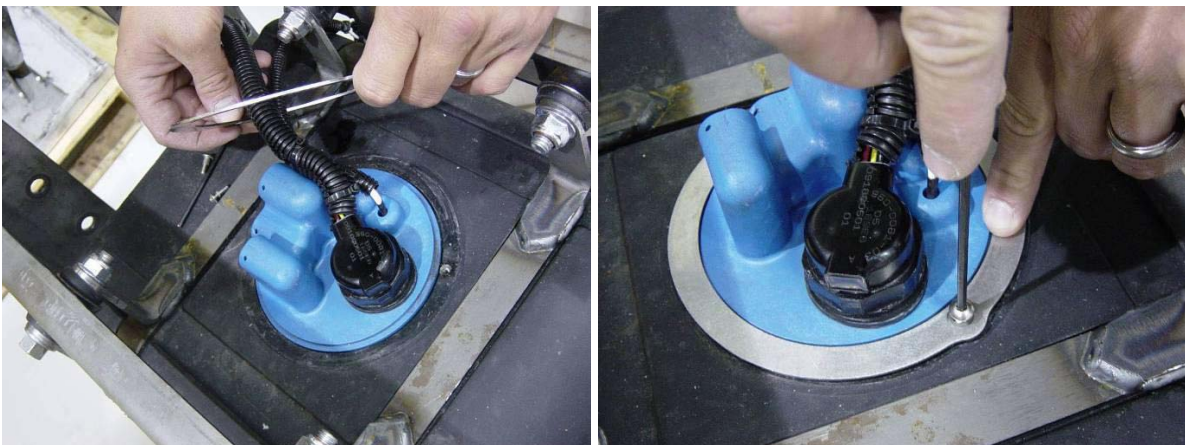
18. Pull the split wire loom over the wires of the new level sensor unit and attach zip ties, making sure that the second tie connects both wire looms and goes through the connector located on the DEF head unit itself.



19. Position DEF head unit with new level sensor and focus tube over reservoir tank. Angle the head unit so that it will fit through the opening, then straighten the head unit and slide it the rest of the way through.



20. Push the head unit back into place, facing the original or desired location to ensure proper hose connection. Parker O-Lube or equivalent petroleum jelly may need to be applied to the O-ring on the head unit for easier insertion. Apply Loctite 242 to the screw holes on the reservoir, and then slide the retaining ring over the split wire loom coverings and onto the head unit, ensuring the screw holes of the retaining ring match up with the holes in the tank.
21. Using the Allen Wrench/Hex Key, screw the Allen screws back into place and installation is complete. Recommended torque installation is 20-30 in-lbs.





22. Reconnect DEF lines and coolant hoses to the head unit.
23. Plug in the two wire harnesses and secure with wire ties.
24. Replace DEF tank access cover.
25. Remove wheel chocks and place bus back in normal service.



Parts List		
Part Number	Description	Qty
10019934	SENSOR,LEVEL,-12 DEF HEAD UNIT,2010	1
---	Loctite 242 (Obtain Locally)	As Needed
---	ZIP TIE (Obtain Locally)	As Needed
---	Petroleum Jelly (Obtain Locally)	As Needed
---	Parker O-Lube (Obtain Locally)	As Needed