

**NABI 60BRT: Cooling System Updates (4B)**



**Prepared by:** Kalman Takacs  
Field Service Engineer  
Phone (256) 241-1243  
Fax (256) 832-0930

**Approved by:** Dan Allen  
Chief Engineer

**Property name and top bus number:** NABI 60BRT buses equipped with EGR cooler

**Issue:** Air in the cooling system.

**Reason/ cause:** Cooling system was updated to enhance de-aeration.

**Solution:** Install new parts per this work instruction.

## NABI 60BRT: Cooling System Updates (4B)



**Number of affected buses:** as required

**Estimate repair hours/bus:** 4 hours.

### **Necessary parts:**

Recovery tank,	Part #: <b>500-1315-021,</b>	1 / bus,
Mounting bracket, Recov. tank,	Part #: <b>800-1315-002,</b>	1 / bus,
Plate, Surge Tank 1" NPT Port,	Part #: <b>188-1315-001,</b>	1 / bus,
Gasket, fill cap,	Part #: <b>416.00.1313.905,</b>	1 / bus,
Elbow, 90, 16FP-16MP, Brass,	Part #: <b>700-1375-011,</b>	1 / bus,
Hose barb, 16MP-16HO,	Part #: <b>436.00.1355.905,</b>	1 / bus,
Clamp, ct, 1.00-1.75,	Part #: <b>416.00.1355.903,</b>	2 / bus,
Clamp, 3/8,	Part #: <b>416.00.1355.916,</b>	2 / bus,
P-clamp, Silicone, SS, 3/8 ID,	Part #: <b>5002521,</b>	2 / bus,
Hose, 3/8", silicone,	Part #: <b>416.00.1355.914,</b>	2' / bus,
EZ Form Hose, 1"ID,	Part #: <b>600-1375-035,</b>	10' / bus,
P-clamp, Silicone, SS, 1-3/8 ID,	Part #: <b>5007107,</b>	10 / bus,
Bolt, 1/420x1, Hex, Zn, Gr8,	Part #: <b>220420088,</b>	8 / bus,
Washer, Flat, 1/4, Zn, Gr8,	Part #: <b>2606,</b>	8 / bus,
Nut, nylock, 1/4-20, Zn, Gr8 ,	Part #: <b>210420N,</b>	8 / bus,
Plug, 1" NPT,	Part #: <b>10A-1355-007,</b>	1/ bus
Thread sealant,	Part #: <b>NPN,</b>	as required

**Necessary tools:** Usual hand tools (wrenches, screwdrivers, pliers, etc.), 1/4" diameter drill bits, drill, utility knife

## NABI 60BRT: Cooling System Updates (4B)



### **SAFETY PRECAUTIONS MUST BE FOLLOWED ACCORDING TO ACCEPTED INDUSTRY STANDARDS AND LOCAL/PROPERTY REQUIREMENTS.**

1. Park the bus and apply the parking brake.
2. Turn off the battery disconnect switch.
3. Drain cooling system. Refer to NABI Maintenance Manual about safety and technical details.



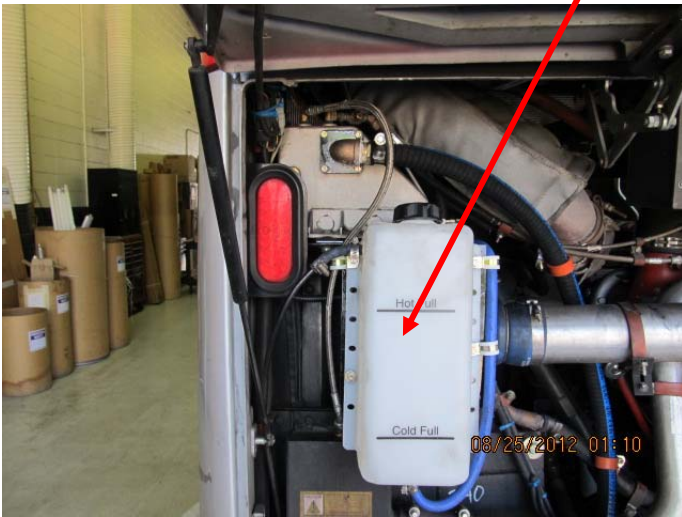
4. Replace existing surge tank fill cap with new adapter plate assembly, which includes 90 elbow and 1" hose barb. Seal treads with thread sealant.



## NABI 60BRT: Cooling System Updates (4B)



5. Install recovery tank bracket, recovery tank and the required hoses and clamps per the pictures below.



## NABI 60BRT: Cooling System Updates (4B)



- Route 10' of EZ Form hose from adapter plate on surge tank and secure it with P-clamps as pictures show below.



Work instruction number L3/FSV-126  
L4/QUA-003

Revision: A

Date: 09/28/2012  
Revision: Initial 5/6

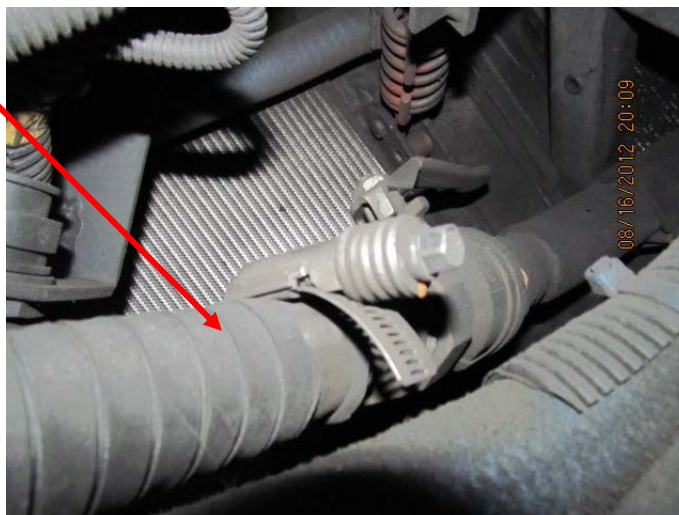
## NABI 60BRT: Cooling System Updates (4B)



7. Remove heater return hose in between  $\frac{1}{4}$  turn valve at heater return tube and  $\frac{1}{4}$ -turn valve at lower radiator tube.
8. At the lower radiator tube, remove  $\frac{1}{4}$  turn shut off valve handle and install plug in port.



9. Connect EZ- form hose to  $\frac{1}{4}$  turn valve at heater return tube above rear axle.



10. Remove tools and unused material from work area.
11. Check for completeness of work. Ensure that hoses are not rubbing or kinked. Check that the vent lines are continuously rising towards the surge tank.
12. Refill and de-aerate cooling system per **NABI L3-FSV-026** work instruction.
13. Record bus number, date of completing, mileage and the name of the technician who completed the work.