

45CLFW 8100: Cooling System Updates (4B)



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Property name and top bus number: NABI 45CLFW 8100 series buses

Issue: Air in the cooling system.

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

Solution: Install new parts per this work instruction.

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Number of affected buses: 8100 series buses

Estimate repair hours/bus: 4 hours.

Necessary parts:

Recovery tank,	Part #: 500-1315-021,	1 / bus,
Mounting bracket, recov. tank,	Part #: 800-1315-002,	1 / bus,
Plate, Surge Tank 1" NPT Port,	Part #: 188-1315-001,	1 / bus,
Gasket, fill cap,	Part #: 416.00.1313.905,	1 / bus,
Elbow, 90, 16FP-16MP, Brass,	Part #: 700-1375-011,	1 / bus,
Check valve, 16FP, 5PSI,	Part #: 50000001,	1 / bus,
Nipple, -16MP, hex, brass,	Part #: 5030503,	1 / bus,
Hose barb, 16MP-16HO,	Part #: 436.00.1355.905,	4 / bus,
Clamp, ct, 1.00-1.75,	Part #: 416.01.1355.903,	2 / bus,
Clamp, 5/8,	Part #: 416.01.1355.901,	2 / bus,
P-clamp, Silicone, SS, 3/8 ID,	Part #: 5002521,	2 / bus,
Hose, 3/8", silicone,	Part #: 416.00.1355.914,	2' / bus,
EZ Form Hose, 1"ID,	Part #: 600-1375-035,	10' / bus,
P-clamp, Silicone, SS, 1-3/8 ID,	Part #: 5007107,	10 / bus,
Bolt, 1/4x20x1, Hex, Zn, Gr8,	Part #: 220420088,	8 / bus,
Washer, Flat, 1/4, Zn, Gr8,	Part #: 2606,	8 / bus,
Nut, nylock, 1/4-20, Zn, Gr8 ,	Part #: 210420N,	8 / bus,
Plug, 1" NPT,	Part #: 10A-1355-007,	1/ bus
Thread sealant,	Part #: NPN,	as required

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

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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.



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



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



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- Remove heater return hose in between ¼ turn valve at heater return tube and ¼-turn valve at lower radiator tube.
- At the lower radiator tube, remove ¼ turn shut off valve and install plug in port.
- Install check valve with fittings as pictures show below.

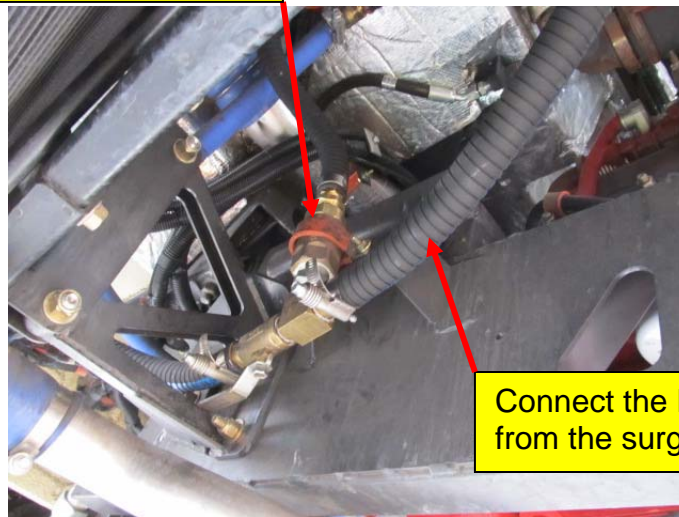
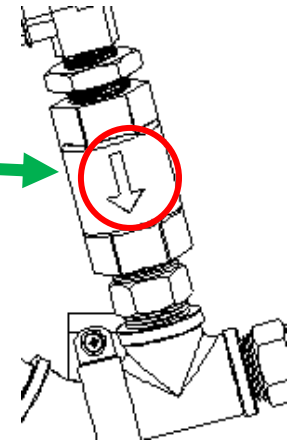
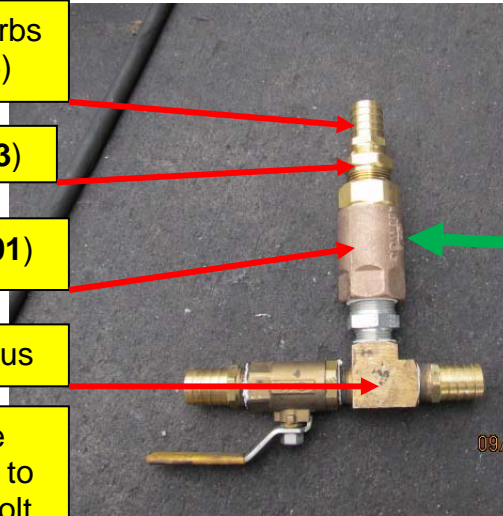
16MP-16HO hose barbs
(PN 436.00.1355.905)

Nipple (PN 5030503)

Check valve (PN 5000001)

Use existing Tee and ¼-turn valve on bus

Install check valve / Tee / 1/4-turn valve assembly here. Secure valve assembly to the bracket with P-clamp and ¼-20x1 bolt.



Connect the EZ-form hose coming from the surge tank to the here.

- Connect EZ- form hose from adapter plate on surge tank to valve assembly.
- Remove tools and unused material from work area.
- 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.
- Refill and de-aerate cooling system per **NABI L3-FSV-026** work instruction.
- Record bus number, date of completing, mileage and the name of the technician who completed the work.