

**DART - Relocate Modulator Valve Remote Exhaust  
Outlet**



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**Property name and Top bus number:** DART – 304500 - 306500

**Issue:** Relocate Brake Modulator Valve Remote Exhaust Outlet (hose and outlet)

**Reason/ cause:** Valve exhaust remote outlet is in the wheel splash zone and is subject to ice buildup or debris.

**Solution:** Reroute hose and relocate the exhaust outlet behind the mud flap.



# DART - Relocate Modulator Valve Remote Exhaust

## Outlet



**Number of buses affected:** 186

**Estimate repair hours/bus:** 2 Hours

### **Engineering Documentation:**

#### **Necessary parts:**

<b>Part description</b>	<b>Part number</b>	<b>Number per. bus</b>
Hose	600-1375-035	10 feet per bus
P-clamp 1 ¼	5002525	2 per bus
Bracket	550-3840-002	2 per bus
¼ -20 plus nut	5006531	4 per bus
Bolt ¼ 20x1	220420108	5 per bus
1/4" flat washer	2604	6 per bus
¼" lock washer	2504	4 per bus
Nut ¼ 20 nylock	210420ssn	1 per bus
Sikaflex	416.00.7311.909	as needed

#### **Necessary tools:**

Cordless drill with a 1/8 and 3/8 inch drill bit.

Basic hand tools

¼ -20 plus nut installation tool

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1. Park the bus and apply the parking brake.
2. Turn off main battery disconnect switch(es)
3. At the front of the bus underneath there are two modulator valve exhaust.



Modular  
exhaust – one  
on the C/S and  
one on the S/S

The fitting to  
be removed  
and the nut to  
be removed.  
Keep both to  
be reused.

4. There are two clamps on each modular valve. Loosen them up then remove the 45 degree fitting then remove the nut that holds the line to the bracket.
5. Remove the hose and put the new hose then add two clamps as shown.

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On the S/S side front clamp needs to be installed as shown. Make sure the clamp is even with the top of the weld. Drill an 1/8 inch hole and install a screw.

Rear S/S clamp to be added to the existing slotted bar. Use a bolt two flat washers and a nylock nut. Make sure to use the top hole in the slotted bar.

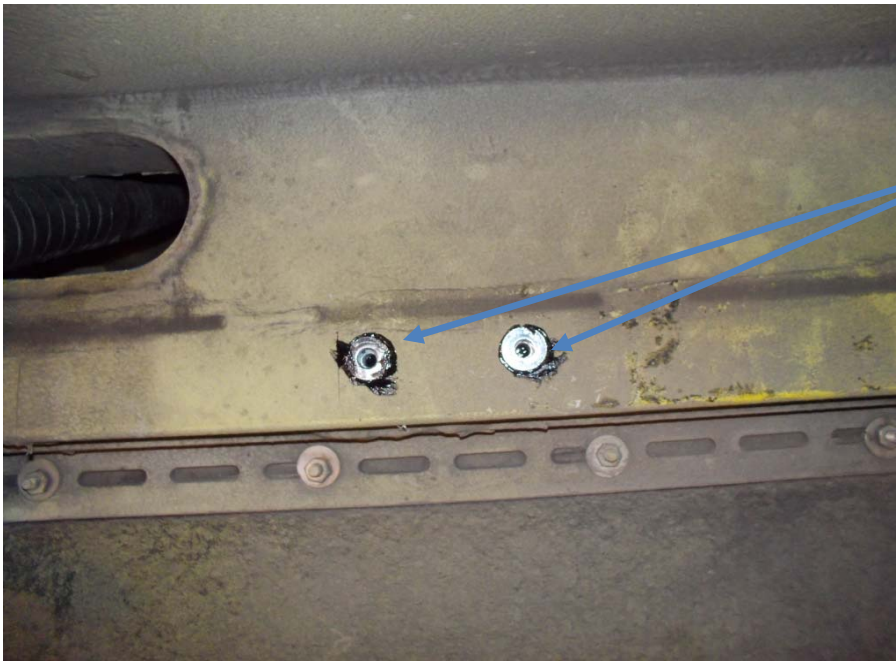
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On the S/S behind the mud flap measure 4” from the weld. Hold the bracket flush with the bottom of the beam mark your holes.

Drill out the holes were you marked the holes to 3/8”.Put sika flex in the holes.

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Install the plus nuts as shown

6. Bolt the bracket in place using one bolt – flat washer – lock washer.



Install the hose on the fitting then use the parts you removed from the front of the bus. Use thread sealer when you reinstall the fittings. S/S side completed.

7. On the C/S repeat what you did on the S/S except use the measurements below.

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On the C/S front put the clamp at two inches from the weld. Drill an 1/8 inch hole then add the screw.



On the C/S rear the hole is be drilled at 1 1/2 inch from the weld. Drill an 1/8 inch hole and install the screw.

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On the C/S behind the mud flap measure 6 ½ inch from the weld. Hold your bracket in place and drill your 3/8 in holes install the plus nuts. Put the fittings the same way you did on the S/S.

8. Check for completeness of work.
9. Remove all tools from working area.
10. Turn the main battery disconnect switch(es) on.