

DART: Optical Flame Sensor and Thermostat

Relocation



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Property and Top Bus Number: DART 40FW, 304000

Issue: Optical flame sensor and roof mounted thermostat need to be moved.

Reason/ cause: Optical sensor is blocked by a slotted bar and thermostat mounted the wrong side of the CNG cradle.

Solution: Move sensor and thermostat per this work instruction (SOI).

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Number of affected buses: as required

Estimate repair hours/bus: 45 minutes

Necessary parts:

SCREW,10-24x1/2,PH,SS,F410,	P/N: 270127,	4 / bus,
WASHER,FLAT,#10,ZN,	P/N: 26010,	4 / bus,
WASHER,LOCK,#10,ZN,BK,	P/N: 5020695,	4 / bus,
Wire tie, 15", black,	P/N: 500-1686-007,	15 / bus,
FIRE BARRIER 2000+,3M,	P/N: 75100-84856,	1 / 20 buses

Necessary tools:

Regular hand tools,

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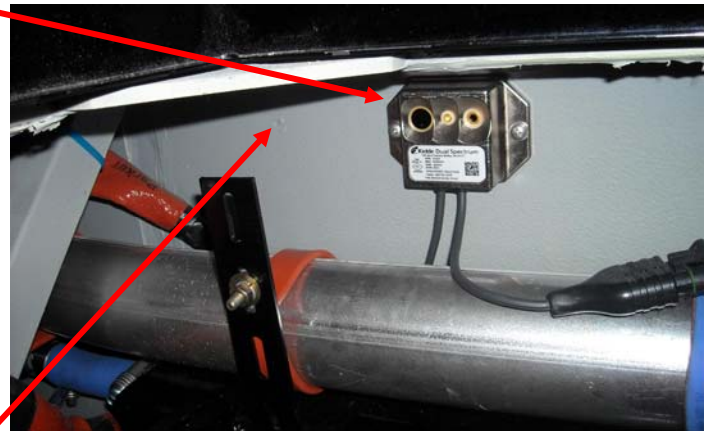
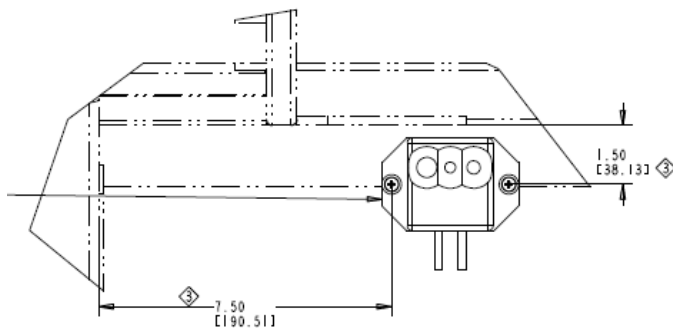


SAFETY PRECAUTIONS MUST BE FOLLOWED ACCORDING TO ACCEPTED INDUSTRY STANDARDS AND LOCAL/PROPERTY REQUIREMENTS.

1. Park the bus and apply the parking brake.

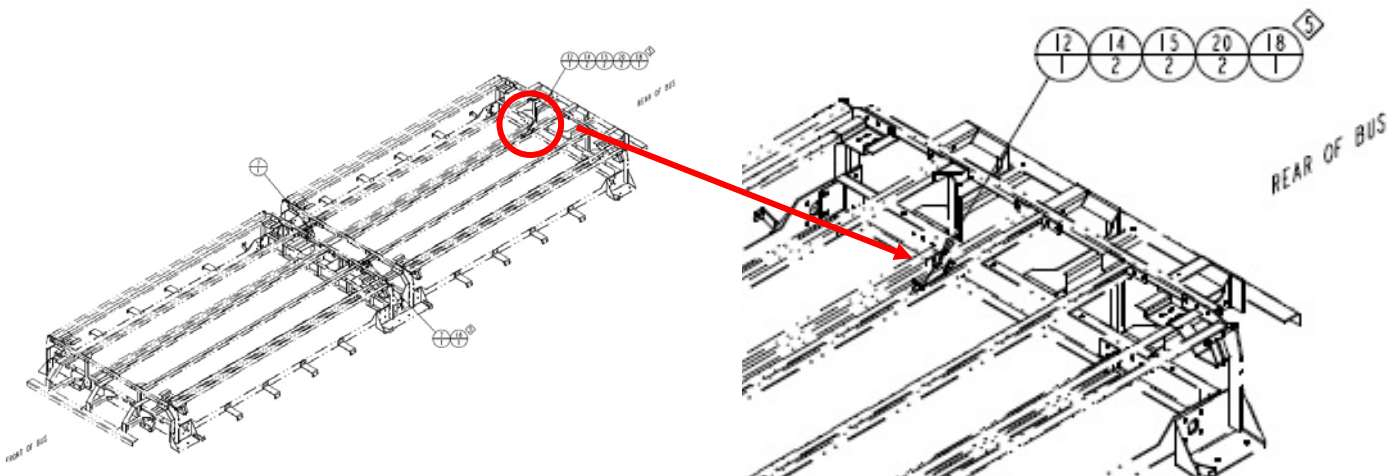
Optical Flame Sensor Relocation:

2. Open the settee seats.
3. Open the rear engine hatch.
4. Remove sensor.
5. Drill two 1/8" size holes according to the drawing below.
6. Install sensor to the new location with #10-24x1/2 PH screws, flat and lock washers.



7. Seal the original mounting holes with Fire barrier 3M sealer.

Roof 350F thermostat relocation:



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8. There are two harnesses for the upper sensor. The lower harness is 25' long and bailed behind the agent tank. Cut the wire ties and un-bail the harness. Pull slack out upwards.



9. Go to the roof and remove fuel line cover.
10. Open the access doors of CNG compartment.
11. Pull the harness up.
12. Disconnect the lower and upper harness.
13. Disconnect the upper (30') harness at the sensor located at the forward cross member of the CNG frame (see below). Save the 30' cable and send back to NABI-Anniston.
14. Remove sensor from the forward cross member.

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15. Install sensor at the back of the CNG compartment per the pictures below.



16. Connect the lower harness to the sensor.
17. Secure harness as required with wire ties. Ensure that the harness is not rubbing, pinched, bent, etc.
18. Reinstall fuel line cover.
19. Remove unused parts and tools from work area.
20. Check for completeness of work.
21. Close CNG tank compartment doors.
22. Record bus number, mileage and date of completion.