

|                     |                    |
|---------------------|--------------------|
| REFERENCE:          | Nova Bus Manuals   |
| SECTION:            | 11: Exhaust system |
| RS N°:              | MQR 7621-1266      |
| EFFECTIVE IN PROD.: | 2017AL             |

APPLICATION DEADLINE: 2018AU31  
CLAIM REFERENCE NUMBER: WB-4045

|                |                                                                         |
|----------------|-------------------------------------------------------------------------|
| SUBJECT:       | CNG Exhaust drain                                                       |
| JUSTIFICATION: | Heat from a drain on the exhaust may damage the rear left corner panel. |

| LEVEL | DESCRIPTION          | DIRECT CHARGES |          | TIME   |
|-------|----------------------|----------------|----------|--------|
|       |                      | LABOUR         | MATERIAL |        |
| 1     | Install a deflector. | Nova Bus       | Nova Bus | 15 min |
| 2     | –                    | –              | –        | –      |

#### MATERIAL

| QTY            | PART N° | REV. | DESCRIPTION                    | REPLACES PART N° |
|----------------|---------|------|--------------------------------|------------------|
| <b>LEVEL 1</b> |         |      |                                |                  |
| 1              | N87849  | –    | DEFLECTOR 100 DEGREE TABS      | –                |
| 2              | 504459  | –    | RIVET 1/4X.56BL PROT SS.08-.37 | –                |
| 2              | N16646  | –    | WASHER FLAT M6 SS DIN125A      | –                |
| <b>LEVEL 2</b> |         |      |                                |                  |
| –              | –       | –    | –                              | –                |

Materials will be available within 42 days once your order has been placed. To order, please contact Prevost Parts by phone at 1-800-771-6682, by fax at 1-888-668-2555 or by email at [prevostparts.commandes@volvo.com](mailto:prevostparts.commandes@volvo.com). Specify document number, quantity of parts required and shipping address.

#### DISPOSAL OF PARTS

| REMOVED PARTS ARE: | DISCARDED * | RETAINED | * Dispose of the unused parts and the defective parts in accordance with local environmental standards in effect. |
|--------------------|-------------|----------|-------------------------------------------------------------------------------------------------------------------|
|                    | Yes         | –        |                                                                                                                   |

#### REVISION HISTORY

| REV. | DATE     | CHANGE DESCRIPTION                                                       | WRITTEN BY      |
|------|----------|--------------------------------------------------------------------------|-----------------|
| NR   | 2017MA31 | Initial release                                                          | André Pelletier |
| R1   | 2017JL04 | Introduction of warnings across the procedure                            | Kumaraswamy K S |
| R2   | 2017JL20 | Removal of the procedure line related to turning OFF the shut-off valves | Kumaraswamy K S |

APPROVED BY: Daniel Theriault

Digitally signed by Daniel Theriault  
DN: cn=Daniel Theriault, o=Nova Bus, ou, email=daniel.theriault@volvo.com, c=CA  
Date: 2017.07.20 10:57:32 -0400

| CLIENT                    | ORDER | ROAD NUMBER |       | VIN (2NVY/4RKY...) |               | QTY |
|---------------------------|-------|-------------|-------|--------------------|---------------|-----|
|                           |       | FROM        | TO    | FROM               | TO            |     |
| Calgary Transit - Alberta | L733  | 8201        | 8202  | L82AXD3000926      | L82A1D3000927 | 2   |
| Demo CNG                  | L716  | —           | —     | L82A5D3000896      | L82A5D3000896 | 1   |
| Hamilton - Ontario        | L885  | 1501        | 1524  | L82K3F4501093      | L82K0F4501214 | 24  |
| Hamilton - Ontario        | L956  | 1601        | 1632  | L82K2G9775325      | L82K3G9775415 | 32  |
| Hamilton - Ontario        | LA05  | 1633        | 1643  | L82K4G9775553      | L82K7G9775577 | 11  |
| NFTA - Buffalo, New York  | L877  | 1501        | 1501  | L82K0F4500984      | L82K0F4500984 | 1   |
| NFTA - Buffalo, New York  | L897  | 1502        | 1520  | L82K1F4501223      | L82K1G9775008 | 19  |
| NFTA - Buffalo, New York  | L947  | 1601        | 1624  | L82KXG9775248      | L82K3G9775320 | 24  |
| NFTA - Buffalo, New York  | LA24  | 1701        | 1716  | L82K3H9775822      | L82K5H9775837 | 16  |
| Red Deer - Alberta        | L924  | 10104       | 10147 | L82K0G9775517      | L82KXG9775542 | 12  |
| Red Deer - Alberta        | L960  | 10021       | 10025 | L82K9G9775418      | L82K3G9775429 | 5   |
| San Antonio Texas         | L990  | -           | -     | L82K5G9775464      | L82K5G9775464 | 1   |
| San Antonio Texas         | LA10  | 422         | 446   | L82K9G9775628      | L82K8G9775653 | 25  |
| San Antonio Texas         | LA22  | 466         | 466   | L82K1H9775673      | L82K1H9775673 | 1   |
| San Antonio Texas         | LA22  | 468         | 468   | L82K5H9775675      | L82K5H9775675 | 1   |
| San Antonio Texas         | LA22  | 469         | 469   | L82K7H9775676      | L82K7H9775676 | 1   |
| San Antonio Texas         | LA22  | 476         | 476   | L82K4H9775683      | L82K4H9775683 | 1   |

**WARNING**

Follow your internal safety procedures and local regulation. Make sure the components are cold enough when you work in that area.

**PROCEDURE****WARNING**

CNG systems should be maintained and inspected exclusively by trained personnel with certifications in accordance with the applicable codes. As with all pressure vessels, CNG storage and fuel delivery systems are inherently dangerous and should be treated as such. Individuals involved in any aspect of CNG fuel system maintenance, emergency response, servicing, or testing must be properly trained and certified. Individuals who are not trained and certified in all aspects concerning CNG fuel delivery systems are NOT permitted to service, maintain, test, or inspect a system in any way.

Protective footwear and eyewear should be worn by all personnel in close proximity to a CNG system.

When locating the source of a leak only, use certified leak detecting solutions and equipment such as FBI®, combustible gas detector, Swagelok Snoop®, Hoke Leak Detective®. Any other product or solutions are unacceptable.

Only use tools that are in good working order with proper calibration.

Wear appropriate attire while servicing or maintaining any CNG system.

Do NOT start the engine if a natural gas leak is detected.

CNG storage pressure can be as high as 4,250 psi (29,303 kPa).

- 1.1. Turn the ignition switch to OFF position and engage the parking brake.
- 1.2. Set the battery disconnect switch in the battery compartment to the OFF position (see Figure 1).

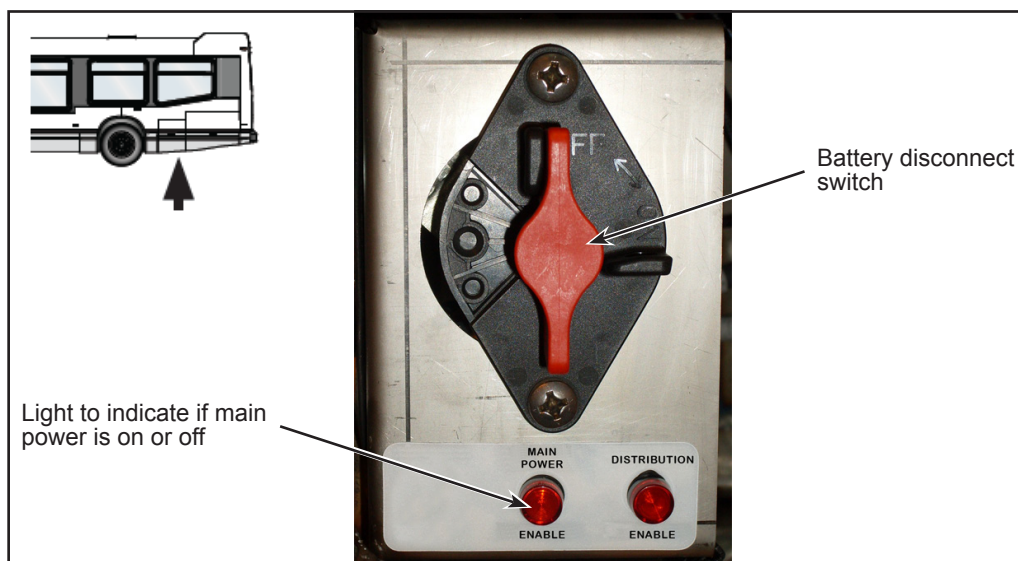


Figure 1 - Battery disconnection switch position

**WARNING**

Before starting any work on the vehicle, make sure the vehicle is completely and securely stationary. Disconnect the starting circuit on the control box at the rear of the vehicle and place the battery disconnect switch in the OFF position.

**NOTE**

No attempt shall be made to perform the installation unless Nova Bus maintenance manual and all referenced supporting documents have been read and understood. See Figure 2, for schematic of CNG system.

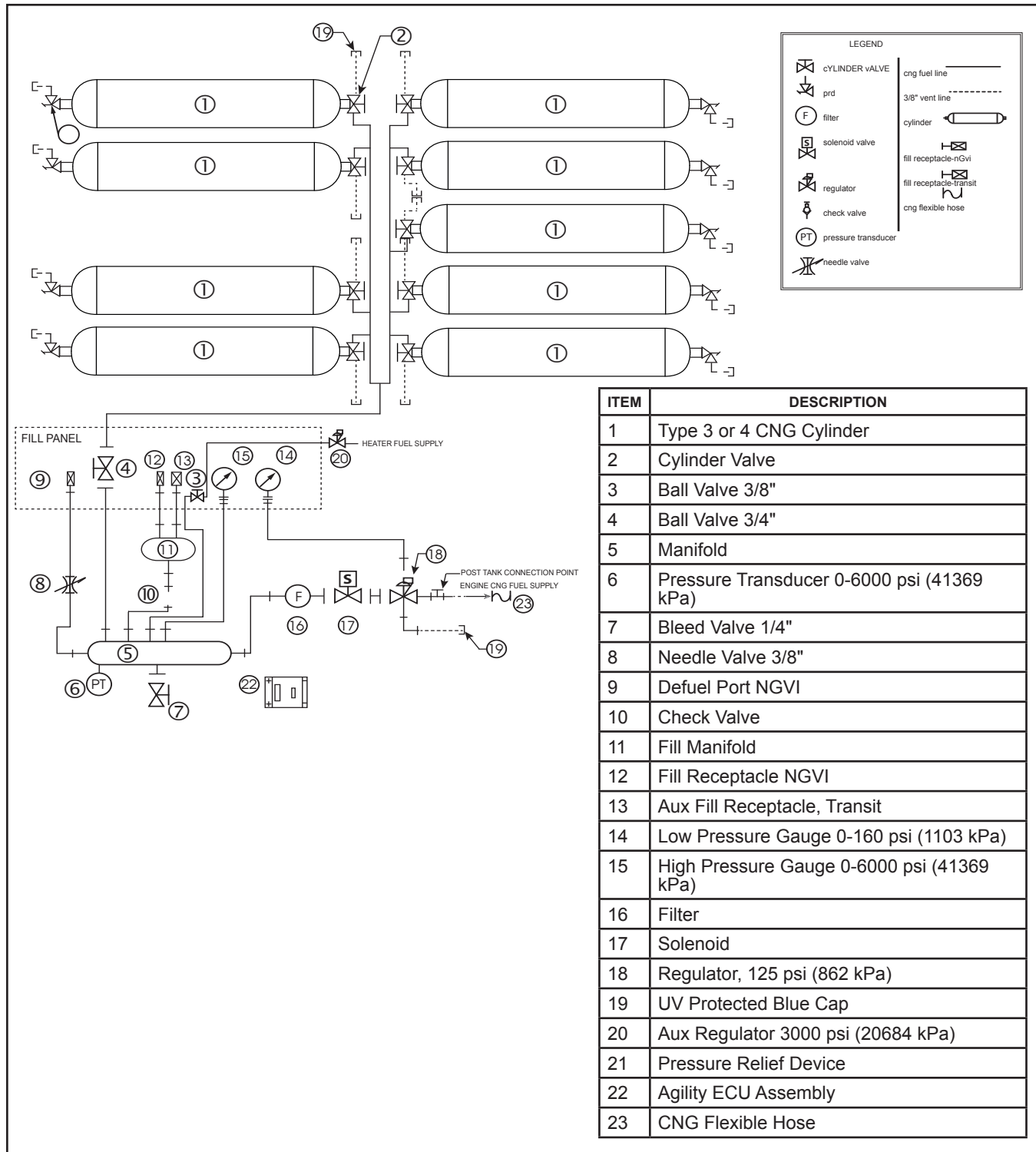


Figure 2 - CNG System Schematic

**NOTE**

Refer to Nova Bus maintenance manual, Agility's Compressed Natural Gas (CNG) publications and Cummin's ISL-G engine publications for all safety guidelines that must be respected while carrying out any procedure or installation on the vehicle.

- 1.3. Open the exhaust compartment access panel and the engine compartment access panel (see Figure 3).

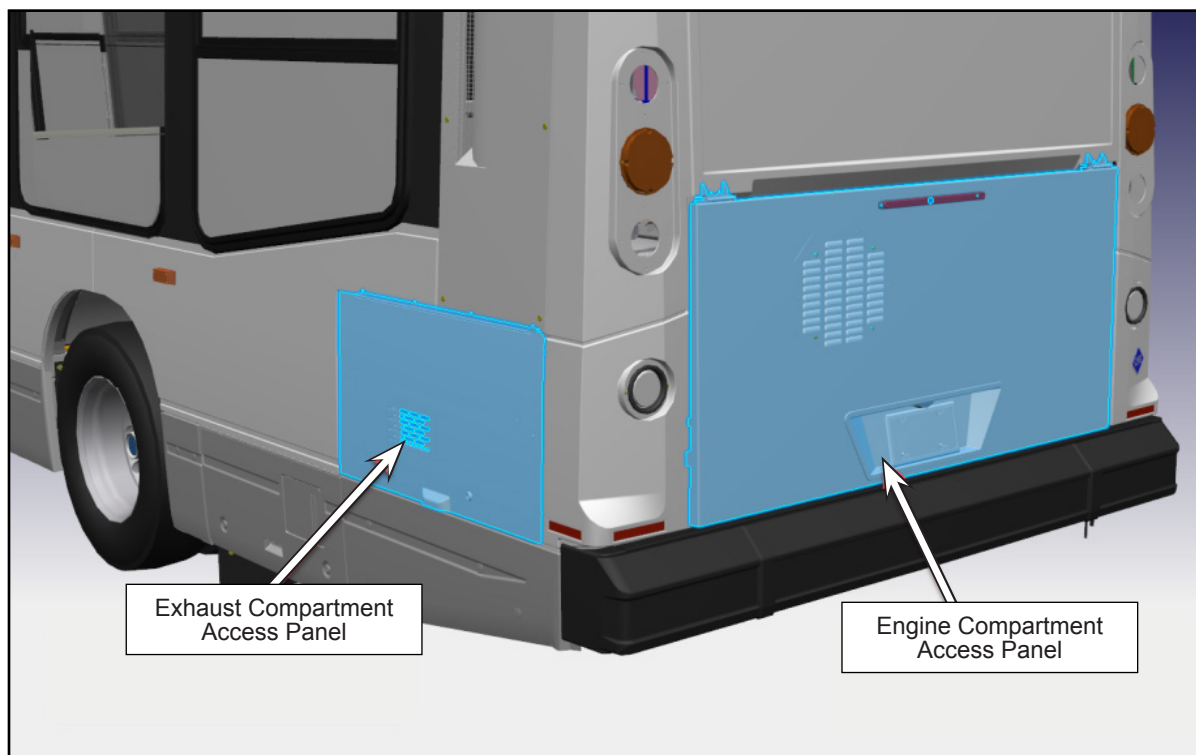


*Figure 3 - Typical View of Access Panels to be Removed*

**WARNING**

If you consider that the security conditions are NOT present, you should NOT proceed with this installation.

**CAUTION**

It's very important to put in place security measures before drilling.

**WARNING**

NO gas leakage should be present when you use a drill.

**CAUTION**

A gas detector must be used to check the absence of gas.

- 1.4. Mark where to drill the holes on the structure tube. Use the deflector as a jig (see Figure 4).

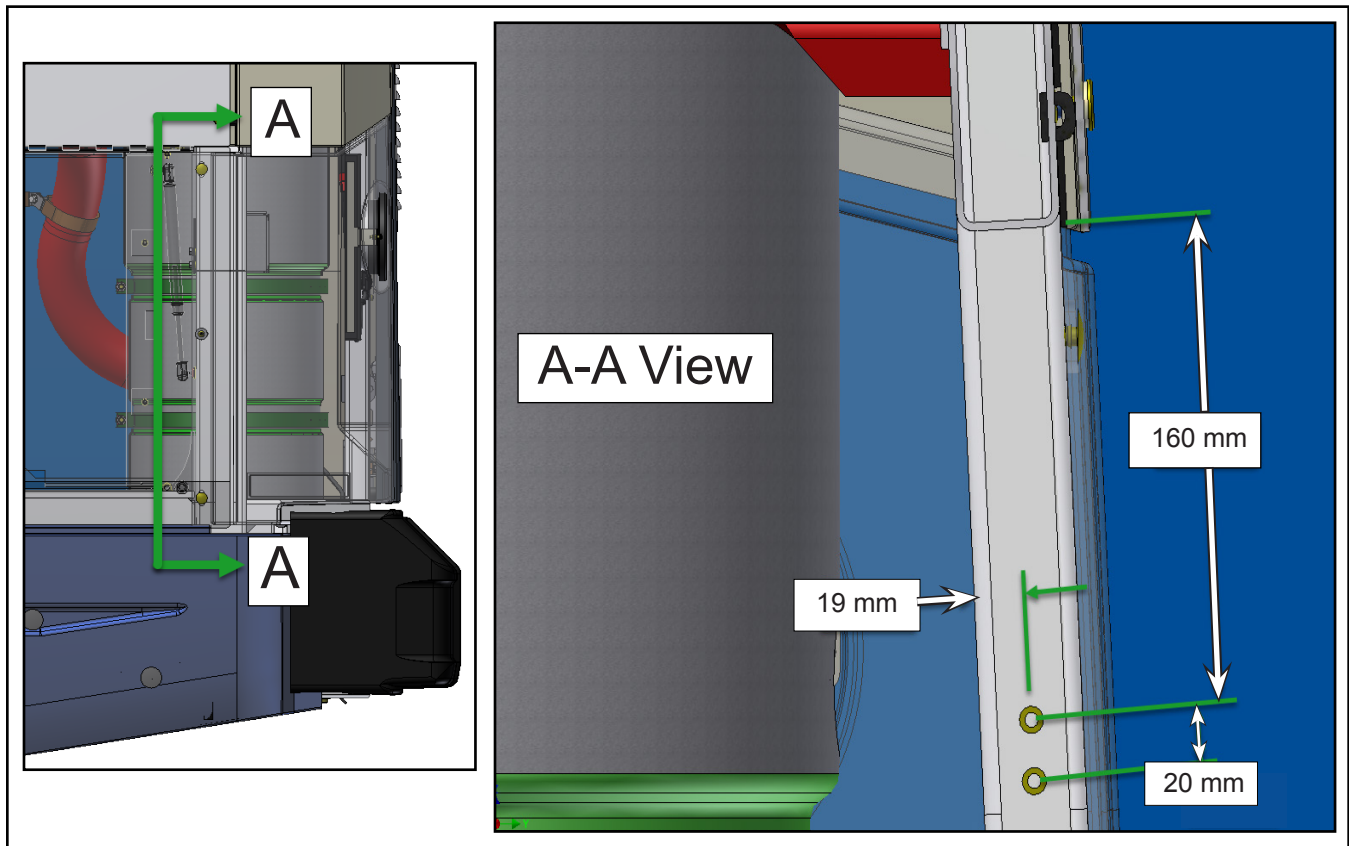


Figure 4 - Typical View of Deflector Position Marking

- 1.5. Drill the holes at 17/64 in. (0.265 in or 6.7mm) (see Figure 5).

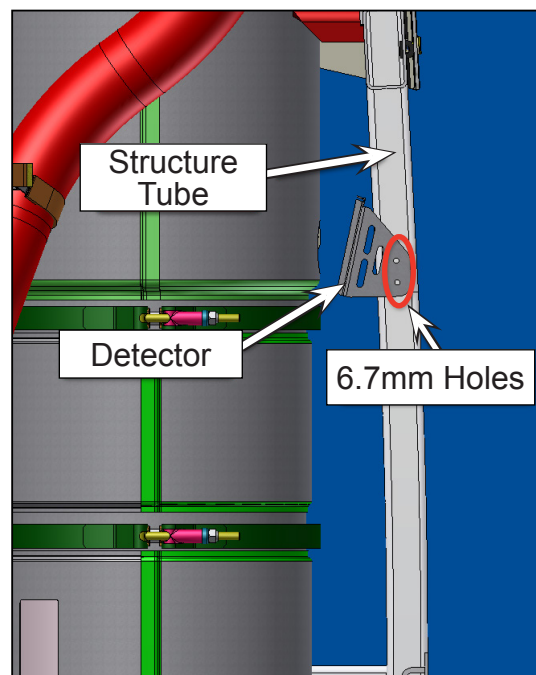


Figure 5 - Typical Location of Drilled Holes (6.7 mm)

- 1.6. Install the deflector (see Figure 6).

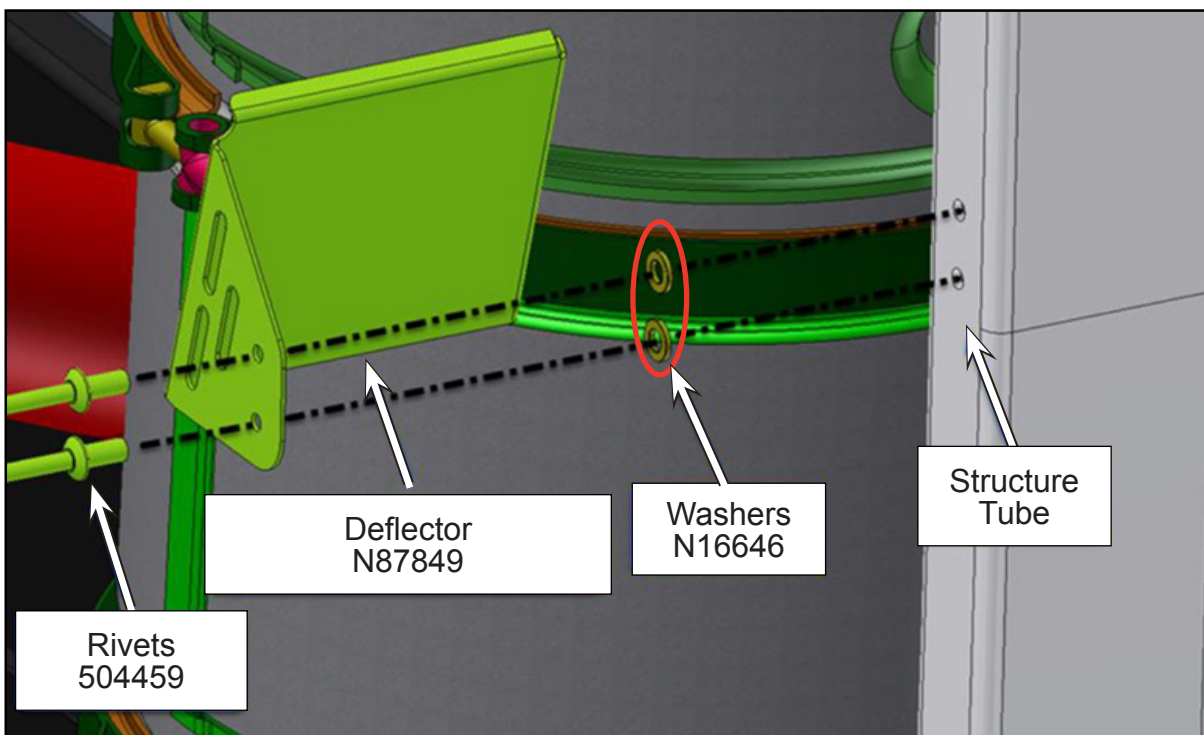


Figure 6 - Installation of Deflector

- 1.7. Verify for proper fitment of deflector and hardware.  
1.8. Close the exhaust compartment access panel and the engine compartment access panel.  
1.9. Verify for any leakage and other safety measures.



**NOTE**

**See section 09-104.716: STARTING SYSTEM - CNG supplied by Nova Bus before starting the engine for safety measures.**

- 1.10. Set the battery disconnect switch in the battery compartment to ON position.  
1.11. Turn the ignition switch to ON position and start the engine.  
1.12. The vehicle may be returned to service.❖