



DTC (Code) <i>Codigo</i> :	U02A2-00	Bulletin: Date <i>Fecha</i> :	RD18-002 August 11, 2018
Description:	Lost Communication with Reductant Quality Module – No additional information		
Application:	US13 – US20 Emissions		

### **General Information**

These repair instructions are intended to address the following faults:

DTC	Description	Possible Cause	Possible (Observable) Symptoms
U02A2-00	Lost Communication with Reductant Quality Module	<ul> <li>The electronic control unit (ECU) has a software fault or the wrong software version</li> <li>Control unit has no supply voltage</li> <li>Connector</li> </ul>	None

### **Required Parts**

Part Number	Description	Quantity
21073825	DEF Level Sensor	1

### **Repair Instructions**

Aftertreatment Diesel Exhaust Fluid (DEF) Tank, Level Sensor, Replacement

### Removal

- 1. Secure the vehicle for service by parking it on a flat level surface, applying the parking brake, chocking the rear wheels, and placing the transmission in neutral or park.
- 2. Disable battery power.
- 3. Move the engine control switch on the rear control panel to the "OFF" position.
- 4. Close all the coolant valves to the bus interior. Connect the coolant extractor and drain the engine coolant. Special tools: 85112740 Note: On B13R buses, the panel under the coolant package must be removed to access the coolant extractor fitting.
- 5. Place a suitable container under the DEF tank to catch any spilled DEF and coolant during the removal procedure. *Note: On B13R buses, the panel under the DEF tank must be removed to access the drain on the DEF tank.*



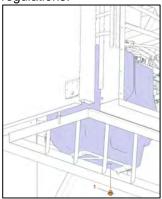
Volvo Buses. Driving quality of life



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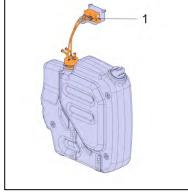
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6. Remove the drain plug from the DEF tank and drain fluid in the DEF tank into the container. When all the fluid has drained from the DEF tank, replace the drain plug and tighten. Discard the used DEF according to local regulations.



1. DEF Tank Drain Plug

- 7. Disconnect the wiring harness from the DEF tank level sensor. *Note: Cover the wiring harness connectors with a plastic bag to protect them from any spilled DEF which is highly corrosive to electrical contacts.*
- 8. If equipped, disconnect the electrical harness from the DEF quality sensor module. Remove the fasteners from the module. *Note: Cover the wiring harness connectors with a plastic bag to protect them from any spilled DEF which is highly corrosive to electrical contacts.*



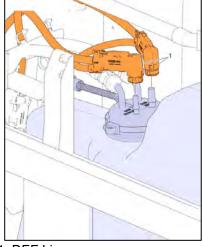
1. DEF Quality Sensor Module Electrical Connector





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9. Disconnect the DEF lines from the DEF tank level sensor fittings.



1. DEF Lines

10. Disconnect the two coolant lines from the fittings on the DEF tank level sensor.



1. Coolant Line

2. Coolant Line

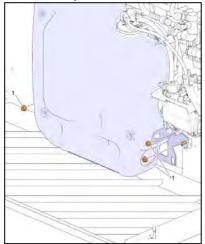
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11. Remove the fasteners securing the DEF tank to the vehicle chassis and carefully remove the tank from the vehicle compartment. *Note: On Prevost X models, the DEF pump must be moved to allow tank removal.* 



1. Mounting Fasteners

12. Loosen the clamp securing the DEF level sensor in the DEF tank and remove the level sensor and quality sensor module, if equipped. Use care when handling the sensor to avoid damaging the sensor.



1. DEF Level Sensor

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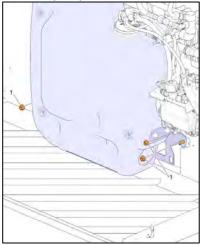
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#### Installation

- 1. Check DEF tank for debris. Flush tank if necessary.
- 2. Position the level sensor in the DEF tank and tighten the clamp to secure it in place. Use care when handling the sensor to avoid damaging the sensor.



- 1. DEF Level Sensor
- 3. Position the DEF tank in the vehicle compartment and use the fasteners to secure it in place on the chassis. Tighten the fasteners to specification; refer to Function Group 20, Specifications. *Note: On Prevost X models, the DEF pump must be reinstalled.*



1. Mounting Fasteners

4. Remove the protective plastic bag from the wiring harness connector and connect the wiring harness lead to the level sensor connector.

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5. If equipped, position the DEF quality sensor module and install fasteners. Remove the protective plastic bag from the wiring harness connector and connect electrical harness to the DEF quality sensor module electrical connector.



- 1. DEF Quality Sensor Module Electrical Connector
- 6. Attach the two coolant lines to the fittings on the DEF tank level sensor.



Coolant Line Coolant Line

- 7. Fill the DEF tank with new DEF fluid.
- 8. Reinstall the engine coolant using the coolant extractor. Open all coolant valves to the bus interior. Special tools: 85112740
- 9. Turn the battery switch to "ON".





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#### **Additional Resources**

These repairs are the most likely fix for the identified fault(s), if this does not fix the issue, Tech Tool will need to be used for more detailed diagnostics. If filing a warranty claim, please include the ASIST case number.

Labor Code	
2589-03-02-05	2.4
Causal Part	21073825