



28041 Trade Way Two
Suite 3, Bonita Springs,
FL 34135
www.DuraWRX.com

P00514-HOSE BEAD HEADER INSTALLATION INSTRUCTIONS

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1. INTRODUCTION

1.1 Disclaimer and Limitation of Liability

⚠ *Read the entire service instructions before beginning the service procedure.*

Disclaimer:

By using this instruction sheet, you agree that other than as expressly stated in the DuraWRX™ Terms and Conditions (Agreement) or as required by the laws of the state of Florida or applicable United States federal law (Applicable Law), this instruction sheet is provided “AS IS” and DuraWRX™ does not make any specific representations or warranties about this instruction sheet. For example, DuraWRX™ does not make any warranties about; (A) the content provided in this instruction sheet; (B) any specific features of this instruction sheet, or its accuracy, reliability, or ability to meet your needs. The knowledge and experience level of users of this instruction sheet vary widely; if you do not have adequate knowledge and experience to use this instruction sheet and safely accomplish the tasks described, please hire a professional to assist you for your safety and the safety of your vehicle and others.

Limitation of Liability:

Except as required by applicable Law, DuraWRX™ its affiliates, officers, directors, employees, and agents will not be responsible for any loss of profits, revenues, business opportunities, goodwill, or anticipated savings, indirect or consequential loss, punitive damages caused by:

1. Errors, mistakes, or inaccuracies in this instruction sheet.
2. Personal injury or property damage resulting from your use of this instruction sheet.

This limitation of liability provision applies to any claim regardless of whether the claim asserted is based on warranty, contract, tort, or any other legal theory.

Use this information at your own risk. Any injury, damage, or loss that may result from the use of the tools, equipment, products, or information contained in this instruction sheet is the sole responsibility of the user.

1.2 Purpose of Technical Bulletin

The purpose of this Technical Bulletin document is to familiarize users with the DuraWRX™ DEF (diesel exhaust fluid) multifunction head unit assembly (MFHU) and provide proper installation instructions for the MFHU assembly into the existing DEF tank assembly.

NOTE: [WARNING, CAUTION TIP] These adjuncts are utilized throughout the entirety of the document. These points are utilized for the purpose of simplicity and to highlight/emphasize important points to be considered. Warnings call attention to the use of materials, processes, methods, procedures, or limits that must be followed precisely to avoid injury to person and/or damage to the components/equipment. Caution calls for necessary action to be taken or avoid prohibited action. Tip calls attention to methods to ease the task at hand.

1.3 Applicable Part Numbers, Assemblies and/or Applications

Table 0-1

	Source	Document No.	Title/Description
1	DuraWRX	ASPVM-500	DEF HEADER
2	DuraWRX	ASPVM-570	DEF HEADER
3	DuraWRX	ASPFL-2335	DEF HEADER
4	DuraWRX	ASPFL-2336	DEF HEADER
5	DuraWRX	ASPFL-2383	DEF HEADER
6	DuraWRX	ASPFL-2384	DEF HEADER

1.4 Required Tools and Equipment

Table 0-2

	Required Tools
1	Socket wrench
2	Flathead Screw Driver

1.5 Definitions/Acronyms

DEF: Diesel Exhaust Fluid

MFHU: Multifunction Head Unit (aka DEF header)

MSU: Multi-parametric Sensing unit

OEM: Original Equipment Manufacturer

PPE: Personal Protective Equipment

1.6 Safety Summary

Full safety precautions must be followed throughout all sections of this procedure to prevent any injury, equipment damage, or death. Verify that the area is clear of flammable gases and vapors and proper authorization is obtained to do the work.

Follow Vehicle OEM safety procedures and standards.

NOTE: All the Service Technicians shall be capable of,

1. Testing, assessing, evaluating, servicing, and reconditioning components.
2. Identifying the right tools and equipment to do the job properly and safely.
3. Assuring that the equipment on which work has been performed is safe, reliable, and acceptable for its intended purpose.
4. Identifying defective or additional equipment and potential safety problems, environmental hazards, and code violations.

Some of the procedures in this manual are preceded by warnings and reminders about potential hazards in handling this equipment. All these warnings should be carefully read and understood before proceeding and then be followed closely while performing related tasks.

To prevent physical injury, all personnel directly or indirectly involved with the maintenance of the DEF tank assembly must follow the safety rules listed below when servicing the equipment:

WARNING: Treat all electrical systems as energized, pneumatic systems as under pressure, and mechanical systems as under tension.

WARNING: Irritation can result from exposure to DEF. When working with DEF, ensure the work area is well-ventilated. Wear appropriate PPE such as gloves, eye protection, long sleeves, etc. Failure to comply could result in injury to personnel.

WARNING: If DEF has come into contact with skin, wash the affected area thoroughly with soapy water. If irritation persists, seek medical attention. If it has come into contact with the eyes, flush thoroughly with water and seek medical attention if irritation persists. If DEF is ingested, do not induce vomiting, drink plenty of water, and contact a physician if symptoms become present.

WARNING: DEF is corrosive to many materials. In the event of a spill, DEF should be contained, cleaned, and disposed of in accordance with standard operating procedures.

WARNING: Ensure the coolant is at a safe temperature before performing any maintenance procedures. Make sure all the pressure has been relieved from the coolant unit system. Wear appropriate PPE. Failure to comply can cause serious skin and eye injuries and respiratory illness.

2 GENERAL OVERVIEW

 The Images shown in this document are for reference only. Tank/MFHU Shape and size may vary.



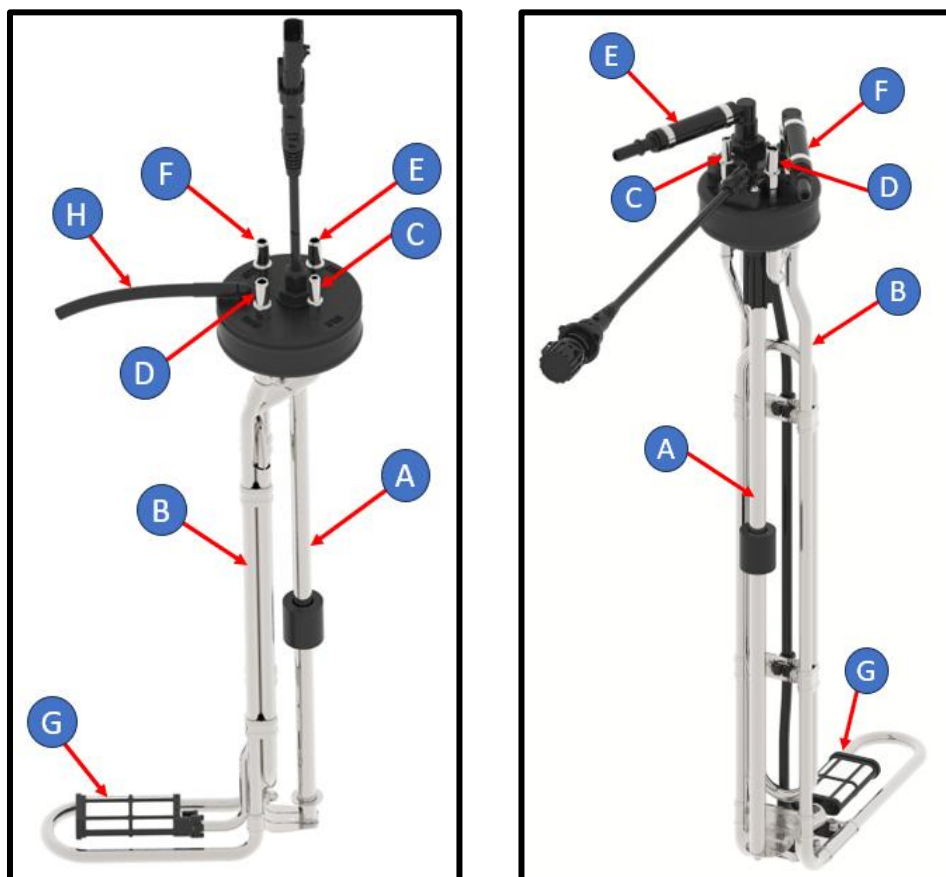
Freightliner-Multifunction Head Unit



Volvo-Multifunction Head Unit

Figure 2.1 Multifunction Head Unit

2.1 Multifunction Head Unit Assembly



Item. No	Description	Qty
A	REED Switch Sensor	1
B	Heat Exchanger	1
C	DEF Suction Fitting	1
D	DEF Return Fitting	1
E	Coolant Inlet Fitting	1
F	Coolant Outlet Fitting	1
G	DEF Suction Filter	1
H	Vent Fitting/Tube	1

Figure 2.2 Multifunction Head Unit Components

2.2 MFHU Removal

! Removal of the multifunction head unit (head Unit) requires the use of personal protective equipment including but not limited to goggles and gloves.

Tip: Note down the head unit orientation on the DEF tank.

- 1) Clean surfaces around the head unit prior to removing the head unit from the tank.
- 2) Remove the head unit following OEM service procedure.
- 3) After removing the OEM multifunction head unit keep the hose clamp aside on a clean surface and properly discard the head unit in compliance with local government/State disposal regulations.

2.3 MFHU Installation Instructions

! Installation of the multifunction head unit requires the use of personal protective equipment including but not limited to goggles and gloves.

! Remove protective cover from fittings prior to head unit installation.

! Durawrx DEF headers does not come with replacement O-ring. Clean the existing O ring

- 1) Tilt the header to an approximate 45° angle, with respect to the top of the tank. With the heel of the MFHU foot angled upward, place the toe of the coolant heat exchanger into the bore opening of the tank. Gradually insert the bottom portion of the DEF head into the bore opening until completely inserted in the tank.



Figure 2.3 Installation of MFHU into DEF tank

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- 2) Position the DEF head unit as per previous OEM Orientation



Figure 2.4 Installation of MFHU into DEF tank

- 3) Assemble the hose clamp and torque the clamp to 44 ± 4 in lbs.



Figure 2.5 Installation of Hose Clamp

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- 4) Reconnect DEF and coolant hoses per OEM service procedure (Refer **Figure 2.2** for DEF and coolant fitting locations)