



**** CONFIDENTIAL ****
Technical Service Bulletin 2018-1048

DATE: November 13, 2018
TO: E-ONE and Dealers
FROM: Kevin Kearns, Customer Support Manager
SUBJECT: **DEF Sender Troubleshooting**

E-ONE has identified that a large number of DEF tank senders that have been returned for evaluation have been diagnosed as no fault found from the manufacturer. In an effort to minimize this in the future, we are sending this bulletin along with troubleshooting steps for your technicians to use when you receive customer complaints related to DEF tank gauge level issues.

Affected Products: E-ONE custom chassis with 2013 EPA and newer Cummins engines.

Summary of preliminary troubleshooting steps:

- 1) Locate 4 pin connector to DEF tank sensor (PD 81).
- 2) Check voltage between pins 3 and 4. Verify voltage is between 11.8 and 13.5 VDC. If out of range, perform voltage drop test from pin 4 to battery positive and from pin 3 to battery ground. If problem is found, repair as necessary. Re-check voltage between pins 3 and 4.
- 3) Verify the 1939 data bus (check between pins 1 and 2, connector PD 81), on the truck harness side has 60 ohms. While performing this check make sure the power is off and no power going to the VDR.
- 4) Check for active Cummins engine codes with Insite. If active codes are found refer to the attached Shaw Development document, **Cummins Insite .CSV Export Instructions**. Follow instructions to download. Contact James Venglar, (239) 405-6100 or Steven Gorecki, (239) 405-6193 at Shaw Development for instructions on sending the export data to them for evaluation.
- 5) Ensure the heater control valve is installed properly. Direction of flow indicated on valve body. See figure 1.
- 6) Ensure the red and blue coolant hoses are installed properly at the DEF sensor location. See figure 2.

Figure 1

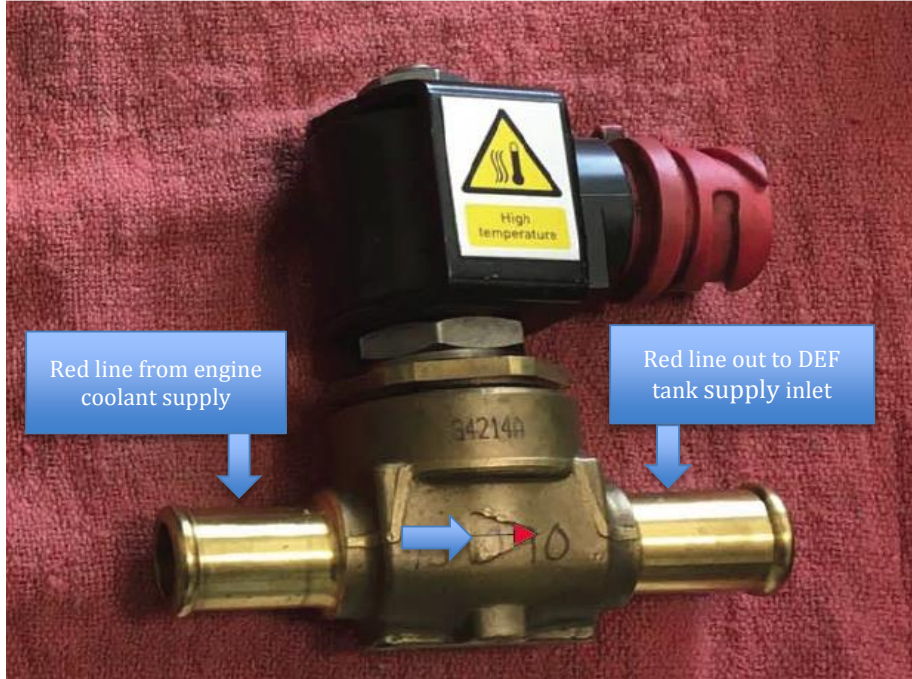


Figure 2

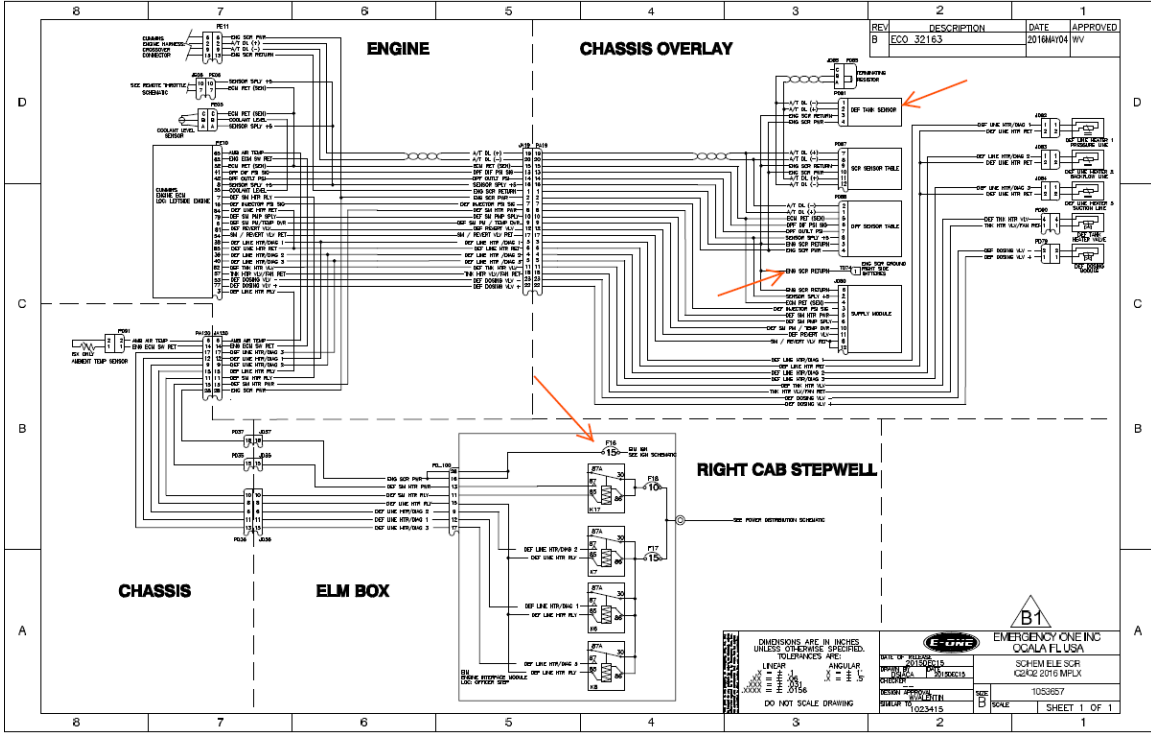
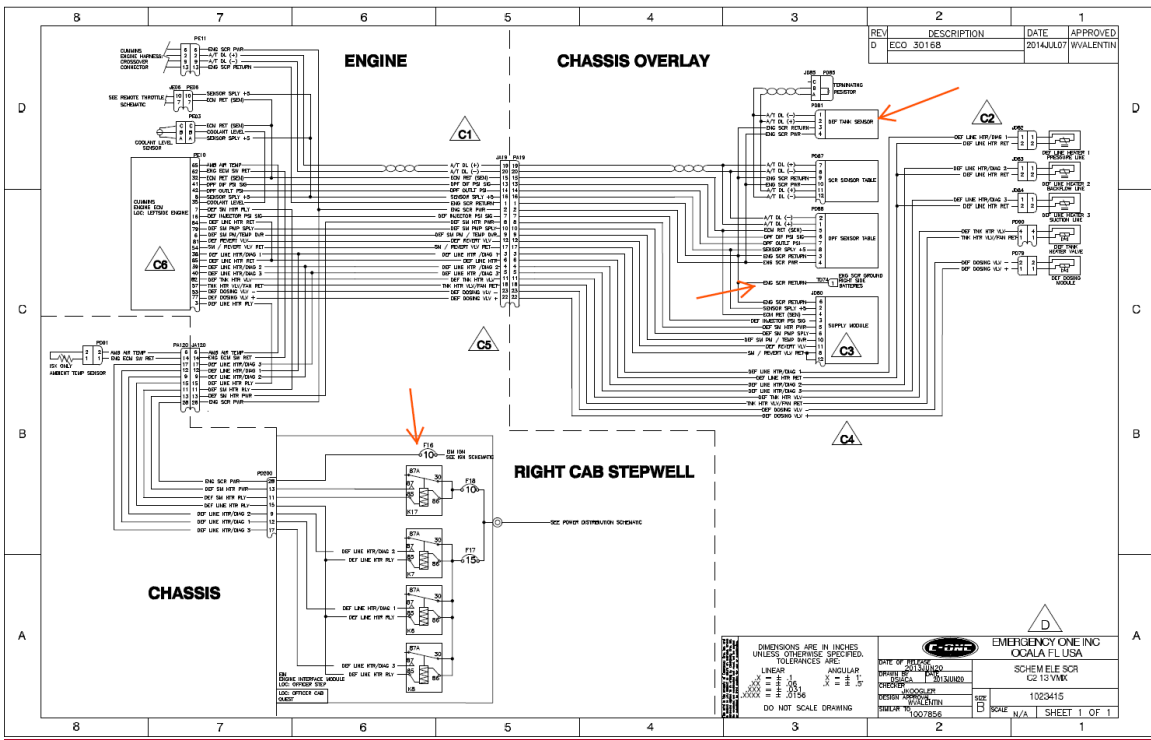


If you have any questions, please contact me at (352) 861-3361.

Regards

Kevin Kearns

Customer Support Manager





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CUMMINS INSITE .CSV EXPORT INSTRUCTIONS

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VERSION HISTORY

Version	Implemented By	Revision Date	Reason
A	Christian Braun	08/01/2018	Initial draft

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1 INTRODUCTION

1.1 Purpose

The purpose of this document is to provide instructions for exporting Cummins Insite Work Orders/ECM images, to a .csv format. These files can then be sent to Shaw Development for analysis.

2 PROCEDURE

- Connect the Cummins Insite service tool to the J1939 connector on the vehicle.
- Open the Cummins Insite application on your computer
- Turn the vehicle key switch to power on the vehicle electronics (do not crank the engine)
- In Cummins Insite, connect to the ECM
- When instructed to, set up the work order details as instructed by your organization
- Export the Work Order/ECM Image as follows
 - 1) Select the "Work Orders ECM Images ECM Templates" option on the left-hand side of the Insite application
 - 2) Right click on the Work Order/ECM Image you just created
 - 3) Select "Export Image(s) to External File"
 - 4) Complete the Save File dialog, and save the file to your preferred location
- Send the .csv file you created to Shaw Development for analysis

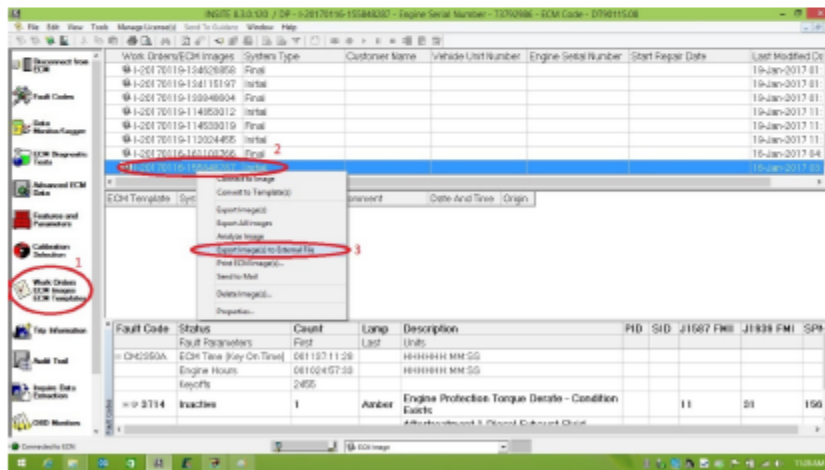


Figure 1: Cummins Insite Export Image