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Availability: ISIS, Bus ISIS, FleetISIS, IsSIR
Major System: EXHAUST
Current Language: English
Other Languages: NONE
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Coding Information

| | | | | | | | |
|----------------------|-------------------------------|--|-----------------------------|------------------|-----------------------------|--------------------------|-----------------------------|
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Title: QLS Emergency Calibration Revert Process

Applies To: A26 and Cummins powered vehicles with the QLS Emergency Calibration Installed

CHANGE LOG

Please refer to the change log text box below for recent changes to this article:

06/01/2023 - Added A26 and CAN vehicles, updated fleet count requirements
05/19/2023 - Updated fleet count requirements
05/11/2023 - Corrected a typo based on feedback
05/10/2023 - Initial Article Release

DESCRIPTION

This document will guide the user through replacing the QLS and the process of reverting or rolling the calibration back to a production level. This is intended to only be used on vehicles marked with the Voluntary Emission Recall [# 22501](#) and [# 22502](#).

This document replaces/retires: [IK0700115 QLS Emergency Calibration](#)

CALIBRATION IDENTIFICATION

Calibration Cross Reference Table:

| Engine | Production Calibration | QLS Emergency Calibration |
|--------|------------------------|---------------------------|
| A26 | xxxxxxA | xxxxxxxZ |

For Cummins powered vehicles refer to the reference tables in [TSB210187](#)

SPECIAL TOOL(s) / SOFTWARE

| Tool Description | Tool Number | Comments | Instructions |
|--------------------|-------------|--|-----------------------------|
| Cummins Insite Pro | Software | Fleet Count maybe required - refer to quickserve for details | Refer to Cummins QuickServe |

| | | | |
|-------------------------------------|------------------------|--|---|
| SDS (Service Diagnostics Solutions) | SDS V 1.9.7 or greater | Only allows the Calibration when the Emer Cali is preset | Instructions are provided through popup messages in SDS |
|-------------------------------------|------------------------|--|---|

| Fleet Count Requirement | | |
|-------------------------|----------------------|-----------|
| Engine & Model Year | Fleet Count Required | Date |
| ISB MY 2016 | No | 5/10/2023 |
| B6.7 MY17-20 | No | 5/17/2023 |
| All ISX and X15 | No | 6/1/2023 |
| B6.7 MY 2021 (CM2450) | Yes | TBD |
| L9 MY 16-21 | Yes | TBD |

SERVICE PARTS INFORMATION

All service parts listed below have received the updates

| Navistar DEF Head Unit Part Numbers | | | |
|-------------------------------------|-----------------------|------------------------------|----------------------------------|
| Nov 2020 - June 2021 Obsoleted | June 2021 - Present | Service Only | Tank Size |
| 3% With cover / Gen 1.1 | 1% with Cover / Gen 2 | 1% with Cover / Service Only | |
| 4254212C91 | 4163689C91 | N/A | 5 Gal |
| 4254211C91 | 4157846C91 | 2523589C91 | 7 Gal |
| 4254213C91 | 4163692C91 | N/A | 9.5 Gal |
| 4254214C91 | 4163693C91 | 2523590C91 | 12 Gal |
| 4254215C91 | 4163694C91 | N/A | 15 Gal |
| 4254216C91 (Prostar) | 4163695C91 | N/A | 15.5 Gal 16 Gal 23 Gal |
| 4254210C91 (LT) | 4140918C91 | 2523591C91 | 10.6 Gal 15.9 Gal 25.2 Gal |

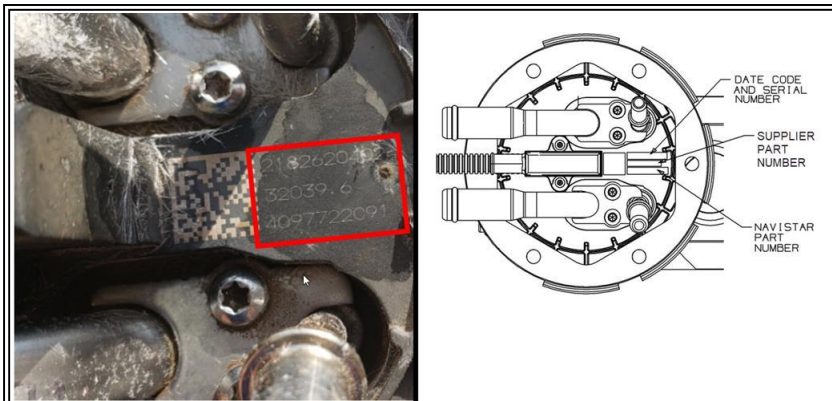
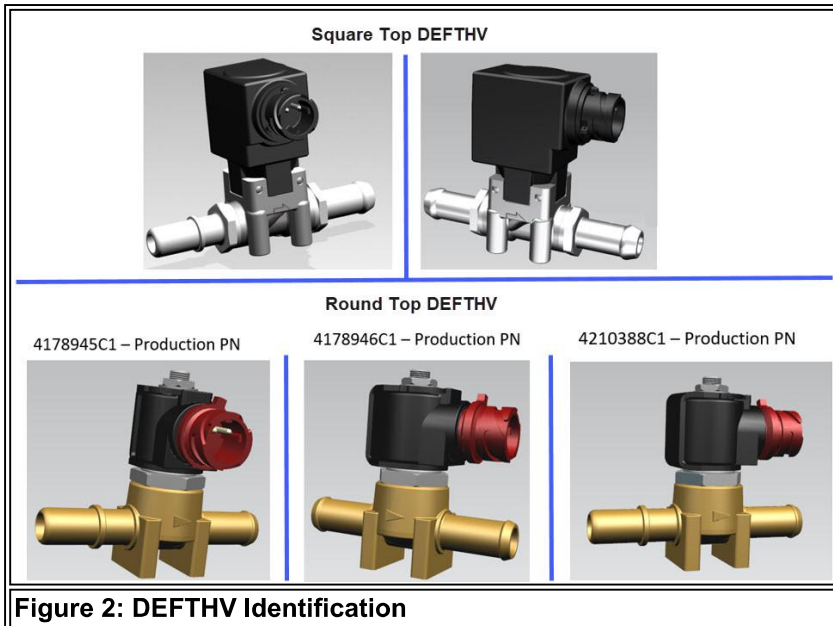



Figure 1: QLS Identification


The top of the QLS is stamped
 Date code and SN
 Supplier part number
 Navistar part number

| DEF Tank Heater Valve Description | Part Number | Notes |
|---|-------------|---|
| (HD) 1 quick connect, 1 barb, 90 deg ele connector towards flow | 4178945C1 | Used with 10.6, 15.9, and 25.2 gal tanks |
| (MD) 2 Barb, ele connector towards outlet | 4178946C1 | Used with 5, 7, 9.5, 12, 15, 16, and 23 gal tanks |
| (15WEG) 1 quick connect, 1 barb, ele toward outlet | 4210388C1 | Used with 10.6 gal tanks feature code 15WEG |
| (Legacy) 2 quick connect, ele towards outlet | 4210389C1 | |



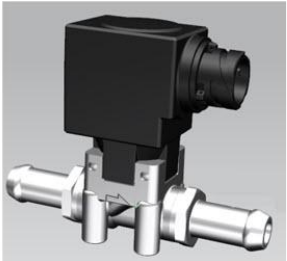
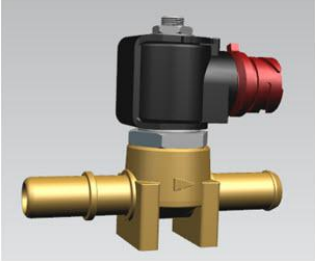
DIAGNOSTIC STEP(s)

| |
|---|
|  WARNING: |
| To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance. |

| |
|---|
|  WARNING: |
| To prevent property damage, personal injury, and / or death, park vehicle on a hard, flat surface, turn the engine off, set the parking brake, and install wheel chocks to prevent the vehicle from moving in either direction. |

| Step | Action | Decision |
|------|--|---------------------|
| 1 | DIAGNOSTIC: Is the vehicle marked with campaign # 22501 or # 22502 | Yes. Move to Step 2 |

| | | |
|--|--|--|
| | | <p>No. This procedure does not apply</p> |
|--|--|--|

| Step | Action | Decision |
|------|---|--|
| 2 | <p>DIAGNOSTIC:</p> <p>Inspect the DEF tank heater valve (DEFTHV). Is it a square top or round?</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>Square Top Replace - No flow test required</p>  </div> <div style="text-align: center;"> <p>Round Top Flow test - Only replace as needed</p>  </div> </div> | <p>Square Top: Replace the valve and move to the repair instructions.</p> <hr/> <p>Round Top: Move to step 3</p> |

| Step | Action | Decision |
|------|--|--|
| 3 | <p>DIAGNOSTIC:</p> <p>Perform the DEFTHV flow test: DEFTHV Flow Test</p> <p>After 3-4 minutes was there a constant stream of coolant coming from the DEF head unit?</p> | <p>Yes. Replace the DEFTHV and move to the repair instructions</p> <hr/> <p>No. Move to the repair instructions. There is no need to replace the valve</p> |

REPAIR STEP(s)

1. Replace the QLS. Refer to the truck service manual in [Master Service Information](#) for detailed instructions.

For A26:

2a: Connect SDS and follow the programming instructions to update the ECM calibration

For Cummins:

2b: Refer to the calibration reference table in [TSB210187](#) to identify the required calibration code. Connect Insite and follow the programming instructions to update the ECM calibration.

3: Remove the calibration warning label located on the windshield. See figure 3.



Figure 3: QLS Window Cling

If installed, remove the QLS warning label window cling.

WARRANTY INFORMATION

Warranty Claim Coding:

Refer campaign [# 22501](#) or [# 22502](#) for warranty coding requirements

Standard Repair Time(s):

Refer campaign [# 22501](#) or [# 22502](#) for SRT times

OTHER RESOURCES

[Master Service Information Site](#)

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