



<b>Countries:</b>	CANADA, UNITED STATES, MEXICO, PUERTO RICO	<b>Document ID:</b>	IK0700120
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<b>Other Languages:</b>	NONE	<b>Author:</b>	William Knoth
<b>Viewed:</b>	11349		

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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:

- 6/16/2023 - Added SDS programming instructions and DEF gauge level responsiveness note
- 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 may be required - refer to Quickserve for details	Refer to Cummins QuickServe

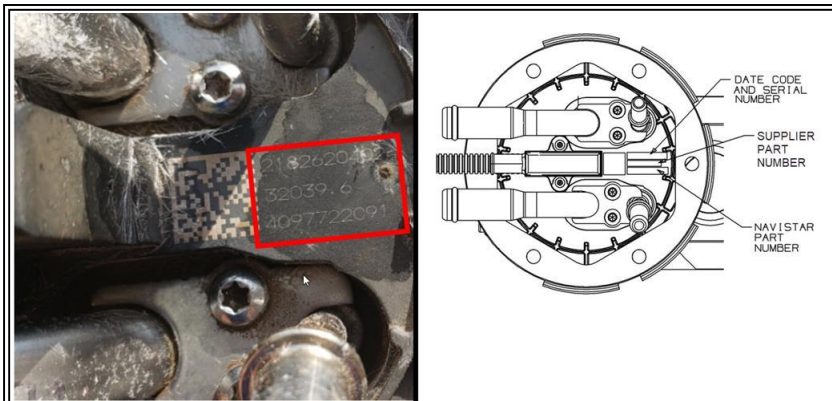
SDS (Service Diagnostics Solutions)	SDS V 1.9.7 or greater	Only allows the Calibration when the Emer Cali is preset	Instructions are provided through popup messages in SDS
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Fleet Count Requirement		
Engine & Model Year	Fleet Count Required	Date
ISB 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

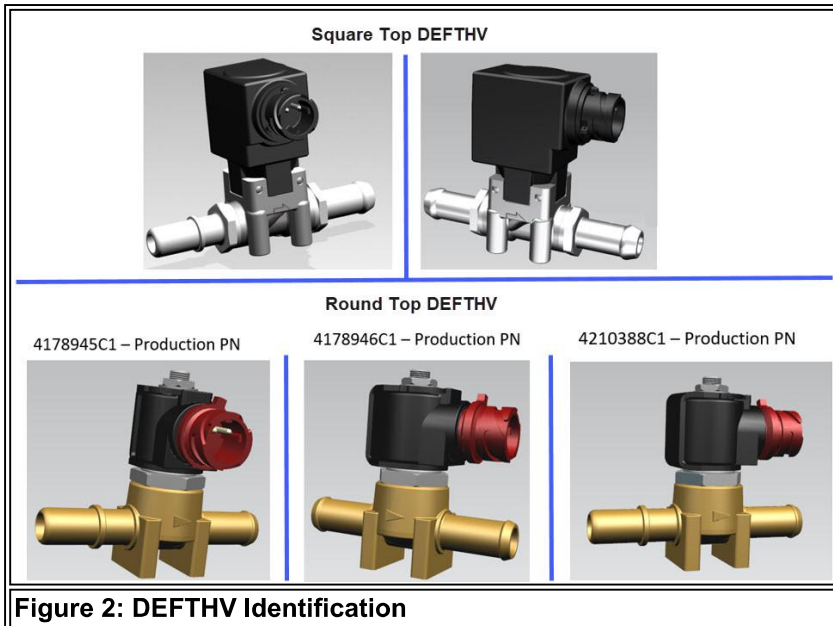
Navistar DEF Head Unit Part Numbers			
Nov 2020 - June 2021 Obsoleted	June 2021 - Present	Service Only	Tank Size
3% With cover / Gen 1.1	1% with Cover / Gen 2	1% with Cover / Service Only	
4254212C91	4163689C91	N/A	5 Gal
4254211C91	4157846C91	2523589C91	7 Gal
4254213C91	4163692C91	N/A	9.5 Gal
4254214C91	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	



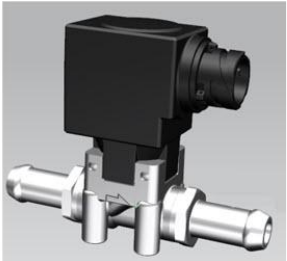
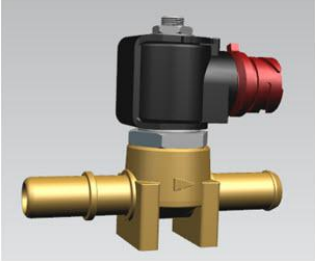
## DIAGNOSTIC STEP(s)

 <b>WARNING:</b>
<p>To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.</p>

 <b>WARNING:</b>
<p>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.</p>

Step	Action	Decision
1	<p><b>DIAGNOSTIC:</b></p> <p>Is the vehicle marked with campaign <a href="#"># 22501</a> or <a href="#"># 22502</a></p>	Yes. Move to Step 2

		<p>No. This procedure does not apply</p>
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Step	Action	Decision
2	<p><b>DIAGNOSTIC:</b></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><b>Square Top:</b> Replace the valve and move to the repair instructions.</p> <hr/> <p><b>Round Top:</b> Move to step 3</p>

Step	Action	Decision
3	<p><b>DIAGNOSTIC:</b></p> <p>Perform the DEFTHV flow test: <a href="#">DEFTHV Flow Test</a></p> <p>After 3-4 minutes was there a constant stream of coolant coming from the DEF head unit?</p>	<p><b>Yes.</b> Replace the DEFTHV and move to the repair instructions</p> <hr/> <p><b>No.</b> 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.

### **NOTE:**

**The DEF gauge is very slow to respond to fluid level changes to prevent the gauge from reacting to fluid sloshing. After programming the engine may need to run up to 15 minutes for the gauge to read accurately. This is normal.**

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**

 Hide Details

Feedback Information

Viewed: 11348  
Helpful: 20  
Not Helpful: 2

Staff ID	Client ID	Comments	Created Date
	DY73715	You received the following feedback From: DY73715 - Nicole Withers Email Address: nwithers@ohallorans.com Job Classification: SE005, Service Writer Dealer: O'HALLORAN INTL PTS & SV Feedback: In the I know fleet cal requirement it show fleet count not recovered, but if you follow the repair steps and go to cummins tsb 210187 it show the old calibration HB80355 and the HB80689. question is are we to be changing the calibration once we replace qls or not.	6/19/2023 1:18:49 PM