



Service Information System

Previous Screen

Welcome: lanets

Product: NO EQUIPMENT SELECTED
Model: NO EQUIPMENT SELECTED
Configuration: NO EQUIPMENT SELECTED

Service Letter

PRODUCT SUPPORT PROGRAM FOR UPDATING THE CALIBRATION FILE ON THE ENGINE ELECTRONIC CONTROL MODULE (ECM) AND AFTERTREATMENT CONTROL MODULE (ACM), AND QUALITY LEVEL SENSOR (QLS) ON CERTAIN CT660, CT680, AND CT681 ON HIGHWAY TRUCKS EQUIPPED WITH A CT13 ENGINE

Media Number -TEBE5856-00

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Date Updated -2017/06/29

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SERVICE LETTER

29Jun2017

U-339

Before/After

PRODUCT SUPPORT PROGRAM FOR UPDATING THE CALIBRATION FILE ON THE ENGINE ELECTRONIC CONTROL MODULE (ECM) AND AFTERTREATMENT CONTROL MODULE (ACM), AND QUALITY LEVEL SENSOR (QLS) ON CERTAIN CT660, CT680, AND CT681 ON HIGHWAY TRUCKS EQUIPPED WITH A CT13 ENGINE

7000 1901 1920 108K
108T 1439

PS45529

NOTE:

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Caterpillar's obligations under this Service Letter are subject to, and shall not apply in contravention of, the laws, rules, regulations, directives, ordinances, orders, or statutes of the United States, or of any other applicable jurisdiction, without recourse or liability with respect to Caterpillar.

NOTE:

This Program must be administered either before or after failure. In either case the decision whether to apply the Program is made by the dealer. When reporting the repair, use "PS45529" as the Part Number and "7755" as the Group Number. If administered before failure, use "56" as the Warranty Claim Description Code and "T" as the SIMS Description code. If administered after failure, use "96" as the Warranty Claim Description Code, and "Z" as the SIMS Description Code.

NOTE:

The information supplied in this service letter may not be valid after the termination date of this program. Do not perform the work outlined in this Service Letter after the termination date without first contacting your Caterpillar product analyst.

TERMINATION DATE

30Jun2018

PROBLEM

There is a problem which relates to engine emissions on certain CT660, CT680, and CT681 On Highway Trucks that were built with 2016 model year compliant CT13 Engines. This recall will require recalibration of the engine ECM. Certain On Board Diagnostic (OBD) issues will be corrected which will aid in engine malfunction identification and proper diagnosis.

AFFECTED PRODUCT

Model	Identification Number
CT660	TEJ00291-00305
	TEP01890, 1926, 1967-2020, 2022-2102
CT680 L	TRX00170-00188

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CT680 LG	TWT00112
CT681 SG	TWJ00219-00221

PARTS NEEDED

Qty	Part Number	Description
1	CALIBRATION_FILE1	Engine ECM
1	CALIBRATION_FILE2	Aftertreatment ACM
1	CALIBRATION_FILE3	QLS Sensor

In order to allow equitable parts availability to all participating dealers, please limit your initial parts order to not exceed 29% of dealership population. This is an initial order recommendation only, and the ultimate responsibility for ordering the total number of parts needed to satisfy the program lies with the dealer.

ACTION REQUIRED

Recalibrate the engine ECM and ACM to the latest file using CAT CT660 programming software. Refer to UENR7751 Engine Calibration Software User Guide.

Recalibrate the Quality Level Sensor (QLS) if applicable per the following Rework Procedure.
Obtain a QLS Reflash Cable from the area District Service Rep.

SERVICE CLAIM ALLOWANCES

Product smu/age whichever comes first	Caterpillar Parts %	Labor Hrs%	Dealer Suggested Parts %	Labor Hrs%	Customer Suggested Parts %	Labor Hrs%

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0-400000 miles, 0-48 mo	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%
NOTE: This is a 0.8-hour job						
0.6 hour job - (For ECM/ACM Calibration)						
0.2 hour job - (For QLS Sensor Calibration)						

PARTS DISPOSITION

Handle the parts in accordance with your Warranty Bulletin on warranty parts handling.

Rework Procedure

1. Park vehicle on flat surface.
2. Shift transmission to Park or Neutral and set parking brake.
3. Install wheel chocks.
4. Obtain Vehicle Health Report and verify DEF QLS fault codes.
5. If applicable, diagnose any possible DEF QLS related fault codes before proceeding.



Image1.1.1

Image 1.1.1 Marked Sensor

1. Paint mark

6. Access and inspect Diesel Exhaust Fluid Quality Sensor (DQS) / Quality Level Sensor (QLS). If QLS has been previously replaced, a paint mark (Image 1.1.1, Item 1) will be present on sensor:

- a) If paint mark is present, proceed to Step 23.
- b) If paint mark is not present, proceed to Step 7.

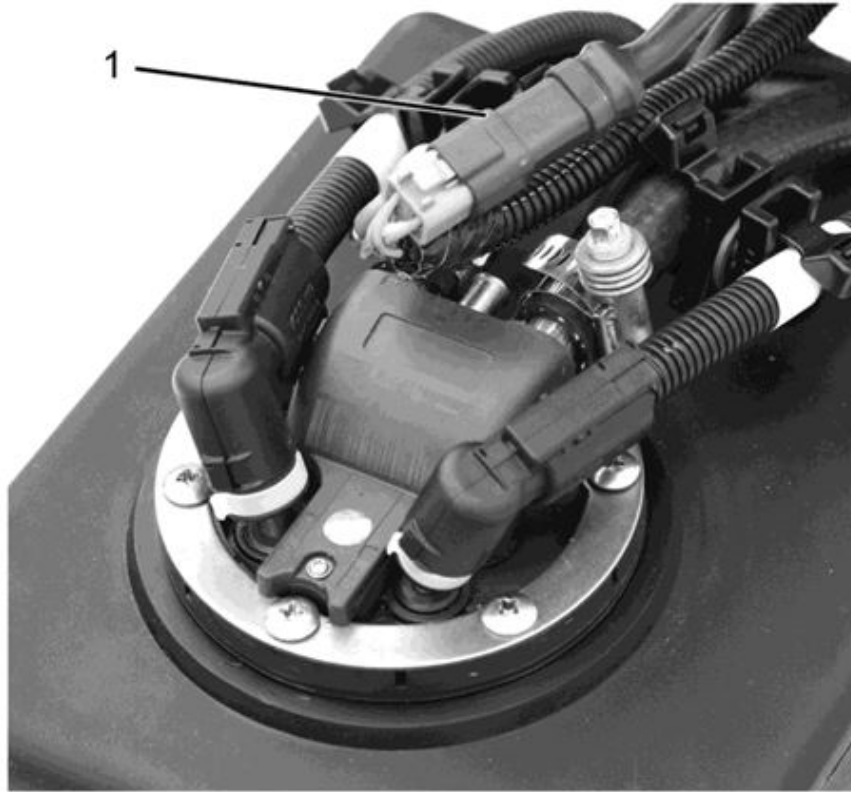


Image1.2.1

Image 1.2.1 QLS Sensor Harness - Tank Location
1. Harness

7. Remove cable wire tie securing DQS / QLS harness. Disconnect DQS QLS harness (Image 1.2.1, Item 1) from vehicle harness.

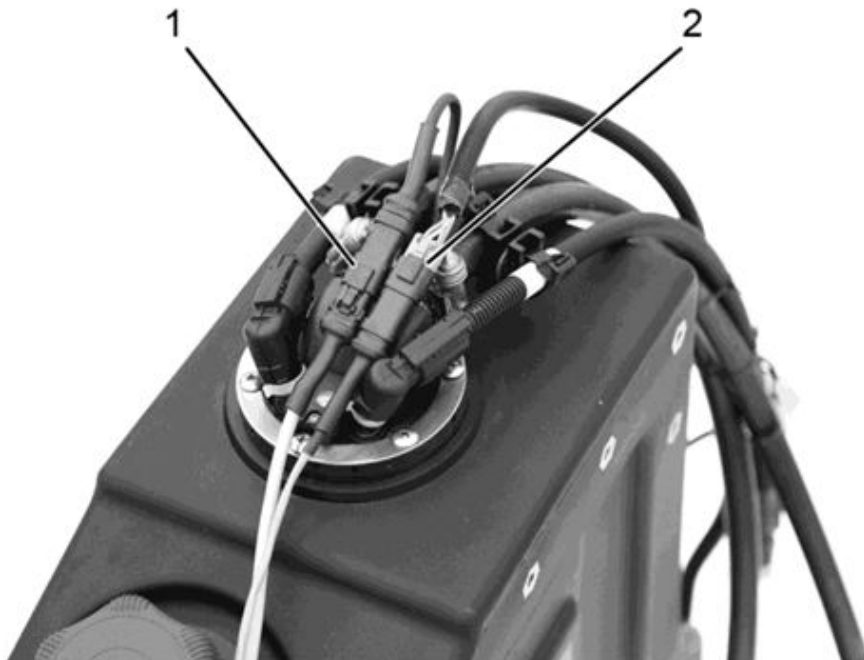


Image1.3.1

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Image 1.3.1 QLS-CABLE Quality Level Sensor Reflash
Cable - Vehicle Connection

1. Sensor harness
2. Vehicle harness

8. Connect reflash cable between DQS / QLS harness (Image 1.3.1, Item 1) and vehicle harness (Image 1.3.1, Item 2).

CAUTION! To prevent component / vehicle damage, NEVER attempt to connect QLS-CABLE banana jack plugs to any other / additional power source. ONLY connect these cables to the QLS-SWITCH.

Image1.4.1

9. Connect reflash cable to DQS / QLS power switch. Connect USB cable to EST.

10. Connect reflash cable 9-pin connector to 9-pin connector of approved USB communication interface. Connect approved USB communication interface to EST.

11. Open reflash software on EST.

12. Turn ignition key to ON position, engine OFF.

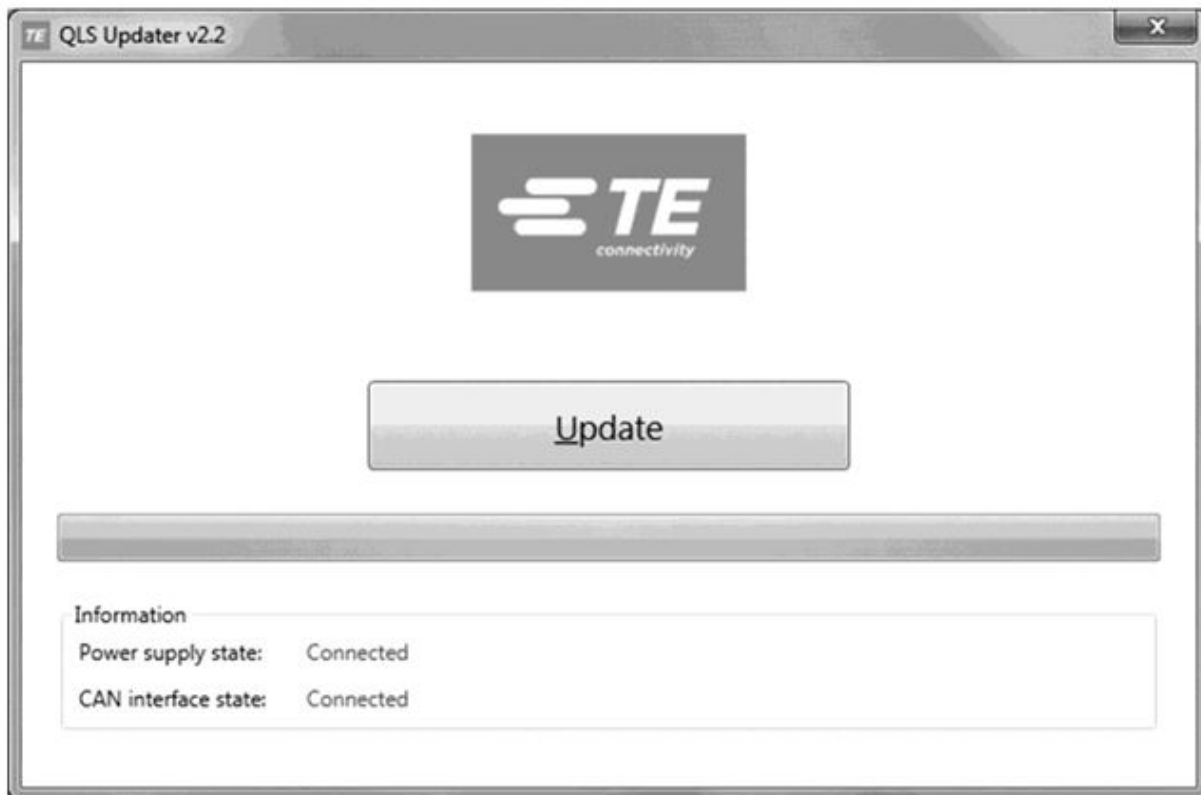


Image1.5.1

Image 1.5.1 QLS Updater - Connected Status

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13. Verify on screen that QLS is properly connected (Image 1.5.1). If necessary, check harness connections to vehicle and service tool.



Image1.6.1

Image 1.6.1 QLS Updater - Successful Update

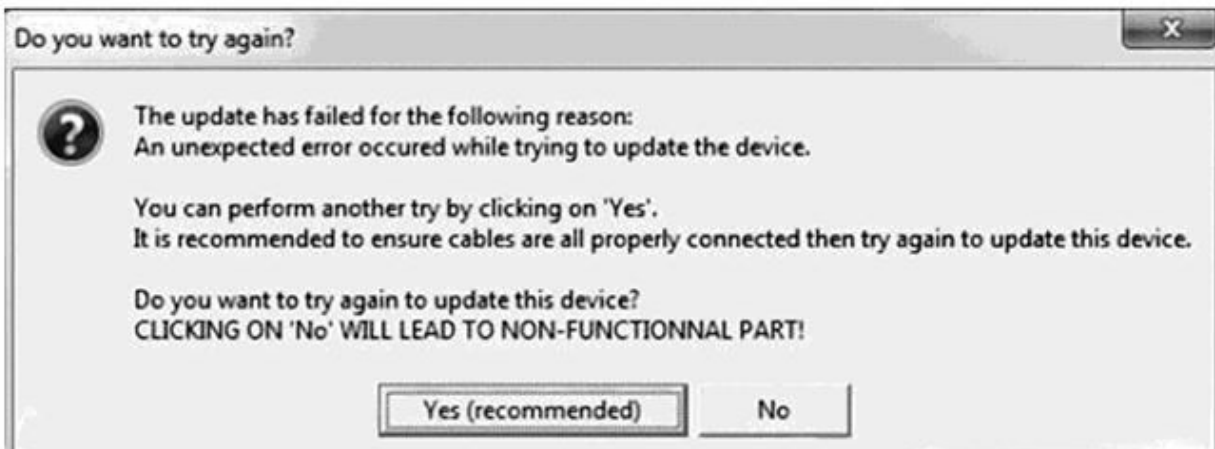


Image1.7.1

Image 1.7.1 QLS Updater - Error Message

14. Click button marked UPDATE:

- a) If successful, a green checkmark will be shown (Image 1.6.1).
- b) If unsuccessful, an error message will display (Image 1.7.1). Verify all cable / harness connections are properly connected and click YES to try again.

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15. Once successfully completed turn ignition key to engine OFF position.
16. Disconnect USB cable from EST.
17. Disconnect reflash cable from QLS power switch.
18. Disconnect approved USB communication interface 9-pin connector from 9-pin connector of reflash cable.
19. Disconnect reflash cable from DQS / QLS harness and vehicle harness.
20. Connect DQS / QLS harness to vehicle harness.
21. Install cable wire tie securing DQS / QLS harness.



Image1.9.1

Figure 1.9.1 Marked Sensor

1. Paint mark

22. Using a yellow paint marker, mark successfully updated sensor with a paint mark (Figure 1.9.1, Item 1).
23. Connect ED (Engine Diagnostics) to vehicle.
24. Turn ignition to key ON, engine OFF position.
25. Verify that ECM has latest software.

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26. Program ECM.

27. Once ECM is successfully programmed clear any inactive / previously active fault codes. Only perform diagnostics or procedures on active faults.

28. Remove wheel chocks

29. Rework is now complete.

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Wed Jul 5 09:40:33 CDT 2017

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