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 Availability: ISIS, FleetISIS, IsSIR Revision: 7
 Major System: EXHAUST Created: 5/19/2017
 Current Language: English Last Modified: 6/15/2017
 Other Languages: NONE Author: Josh Bowman
 Viewed: 4340

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Coding Information

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Title: Urea Quality Sensor (UQS) Boot Order

Applies To: 2016 to current N9, N10, N13 and Cummins ISB, ISL, ISX

CHANGE LOG

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

06/14/2017 - Added instructions to diagnose other UQS faults before proceeding with UQS boot kit installation
 06/06/2017 - Updated installation document. Clarified case file type for ordering UQS Boot Kit. Fixed link to LMS.
 06/01/2017 - Updated wording in the service parts information section
 05/26/2017 - Updated description, added a note for newly replaced sensors, added chart in the "other resources" section.
 05/24/2017 - Initial Article Release

DESCRIPTION

This document will guide the user on how to order the Urea Quality Sensor (UQS) Boot kit. This repair will take place on 500K units only, please reference chart in the "other resource" section of this document if needed.

SYMPTOMS

Diagnostic Trouble Codes:

DTC/Light	Description
SPN 3516 FMI 10	N9/N10/N13
SPN 3364 FMI 10 / 4277	Cummins ISB/ISL/ISX

NOTE:

Verify sensor is working correctly before installing boot kit using the following steps:

1. Check for and resolve other UQS sensor faults.

For Cummins powered vehicles SPN:3364 FMI: 1,2,3,4,5,6,7,9,11,12,13,15,18,19, and 31.

For Navistar Engines SPN:3516 FMI:1,2,3,4,12,15,18, and 19; also SPN:3515 FMI:3,4,5,6,10,11,20, and 21.

These faults are not resolved with the UQS boot kit.

- 2. Check DEF with refractometer. If DEF concentration is not between 30-34%, drain and fill with new DEF.**
- 3. Check DEF Tank for Debris. If Debris is found, drain DEF Tank, flush, and fill with new DEF.**
- 4. Aeration can be caused by the DEF heater valve being installed incorrectly. Follow [IK0700079](#) to determine correct heater valve operation.**
- 5. Check DEF concentration using Navistar Engine Diagnostics (Navistar Engines) or Insite (Cummins Engines). If concentration is less than 29%, remove air bubbles from Urea Quality Sensor (UQS) lens, and retest. If no bubbles are found on lens, replace sensor and install UQS boot.**
- 6. If previous steps indicate the sensor is reading properly, install UQS boot.**

NOTE:

If a new sensor is replaced because it was diagnosed as failed, install the UQS Boot Kit before installation.

SERVICE PARTS INFORMATION

The process is to open a **Tools Order Case File** and reference IK0700096 in the case file. The UQS Boot Kit will be supplied using this case file. Fleets who can not open an iKNOW case file should contact their Fleet Service Managers regarding parts.

UQS Boot Kit will be shipped at no charge by following this procedure, this includes freight charges.

A heat gun is required to install this kit, if you do not have a heat gun please indicate that you need a loaner heat gun when you submit the case file.

NOTE:

If your dealership is dealing with multiple VINs, those are to be attached to the case file and the specific quantity of kits requested in the description field or via a note in the case file.

Kit Description	Part Number	Quantity Required
UQS Boot Kit	N/A	1

NOTE:

Please be advised that this kit is NOT in the parts distribution centers (PDCs).

NOTE:

Please coordinate this repair activity to allow for shipment of parts and minimize the customer downtime. 2:45 pm CST is order cut-off time for over night shipment.

TRAINING

Before attempting to make this repair, please review a short training video in the Course Catalog on the LMS.
www.navistarlearning.com

REPAIR STEPS

UQS Boot Kit installation instructions can be found here: [QLS - Urea Quality Sensor Boot Installation](#)

Instructions are subject to revision, if printing discard after single use.

WARRANTY INFORMATION






Warranty Claim Coding:

Group:	18050 - SCR Aftertreatment
Noun:	124 - Sensor Assembly Def Tank

OTHER RESOURCES

[Master Service Information Site](#)

[UQS - Urea Quality Sensor Boot Installation](#)

Engine	N9/10 (746) 250k	N9/10 (746) 500K	N13A (718) 250k	N13B (745) 500K	Cummins 250K	Cummins 500K
Repair Steps	 NO UQS	 - Install Boot for SPN 3516 FMI 10 only* - Proceed to FCAP for any other faults - Program ECM if <u>Syn_FC 746-2 is present on health report</u>	 NO UQS	 - Install Boot for SPN 3516 FMI 10 only* - Proceed to FCAP for any other faults	 NO UQS	 - Install Boot for SPN 3364 FMI 10 / 4277 only* - Proceed to FCAP for any other faults
500K = Green 9Pin 250K = Black 9pin						

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Staff ID	Client ID	Comments	Created Date
	DY00184	You received the following feedback From: dy00184 - Shane Hoye Email Address: shoye@hillintltrucks.com Job Classification: SE006, Service Foreman Dealer: HILL INTL TRUCKS NA LLC Feedback: How do you remove air bubbles from the quality sensor? Please be more specific for the lower level techs	6/15/2017 10:23:13 AM
	DY14825	You received the following feedback From: dy14825 - Matt Rahn Email Address: mrahn_87@hotmail.ca Job Classification: SE008, Service Technician Dealer: TRU-NOR TRUCK CENTRES Feedback: Why does this document not follow the usual troubleshooting tree. The note	6/22/2017 8:53:35 AM

information gets lost in the document and makes it very hard to follow. The linked heater lines document is very confusing and makes troubleshooting very difficult. Please update document. Call if required. 705 560 6625