TO: All U.S. Ford and Lincoln Dealers

SUBJECT: Customer Satisfaction Program 18M01
Reducant Heater and Sender Assembly Repair

PROGRAM TERMS
This program extends the warranty coverage of the reductant heater and sender assembly to 11 years of service or 120,000 miles from the warranty start date of the vehicle, whichever occurs first. If a vehicle has already exceeded either the time or mileage limits, this extended warranty coverage will last through December 31, 2018. Coverage is automatically transferred to subsequent owners.

NOTE: This program does not apply to vehicles that qualify for repairs under the New Vehicle Limited Warranty. Repairs for vehicles covered by New Vehicle Limited Warranty should be claimed using existing published labor operation codes.

VEHICLES COVERED BY THIS PROGRAM

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>Model Year</th>
<th>Assembly Plant</th>
<th>Build Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-250 - F-550</td>
<td>2011-2012</td>
<td>Kentucky Truck</td>
<td>August 24, 2009 through October 23, 2012</td>
</tr>
<tr>
<td>F-450 - F-550</td>
<td>2013-2015</td>
<td>Kentucky Truck</td>
<td>April 16, 2012 through December 9, 2014</td>
</tr>
</tbody>
</table>

Affected vehicles are identified in OASIS.

REASON FOR PROVIDING EXTENDED WARRANTY COVERAGE
In some of the affected vehicles, the reductant heater and sender assembly may fail causing the malfunction indicator lamp (MIL) to illuminate and, in some instances, may cause the engine to go into a reduced power de-rate strategy. If this condition exists, diagnostic trouble codes (DTCs) related to the reductant heater and sender assembly will be present in the powertrain control module.

SERVICE ACTION
If an affected vehicle exhibits this condition, dealers are to service the reductant heater and sender system following the instructions in the technical information section of this bulletin. This service must be performed at no charge to the vehicle owner.

OWNER NOTIFICATION MAILING SCHEDULE
Owner Letters are expected to be mailed the week of June 25, 2018. Dealers should repair any affected vehicles that have the MIL illuminated with DTC’s related to the reductant heater and sender assembly whether or not the customer has received a letter.

ATTACHMENTS
Attachment I: Administrative Information
Attachment II: Labor Allowances and Parts Ordering Information
Attachment III: Technical Information
Owner Notification Letter
QUESTIONS & ASSISTANCE
For questions and assistance, contact the Special Service Support Center (SSSC) via the SSSC Web Contact Site. The SSSC Web Contact Site can be accessed through the Professional Technician Society (PTS) website using the SSSC link listed at the bottom of the OASIS VIN report screen or listed under the SSSC tab.

Sincerely,

[Signature]

David J. Johnson
Customer Satisfaction Program 18M01
Certain 2011-2012 Model Year F-250-F-550 and
2013-2015 F-450-F-550 equipped with a 6.7L Diesel Engine
Reductant Heater and Sender Assembly Repair

OASIS ACTIVATION
OASIS will be activated on April 24, 2018.

FSA VIN LISTS ACTIVATION
FSA VIN Lists will not be activated for this service action.

SOLD VEHICLES
• Only owners with affected vehicles that exhibit the covered condition will be directed to dealers for repairs.
• Dealers are to prioritize repairs of customer vehicles over repairs of new and used vehicle inventory.

STOCK VEHICLES
• Do not perform this program unless the affected vehicle exhibits the covered condition.

TITLE BRANDED / SALVAGED VEHICLES
Title branded, salvaged vehicles and vehicles with cancelled warranty coverage are eligible for this program unless emission coverage is explicitly cancelled, as indicated by one of the following OASIS Warranty Cancellation Messages only:
• SCRAPPED UNIT – ALL WARRANTY CANCELLED – TOTAL INCLUDING EMISSIONS
• ALL WARRANTY CANCELLED INCLUDING EMISSIONS

OWNER REFUNDS
• Ford Motor Company is offering a refund for owner-paid repairs covered by this program if the repair was performed before the date of the Owner Notification Letter. This refund offer expires December 31, 2018.
• Dealers are also pre-approved to refund owner-paid emergency repairs that were performed away from an authorized servicing dealer after the date of the Owner Notification Letter. There is no expiration date for emergency repair refunds. Non-covered repairs, or those judged by Ford to be excessive, will not be reimbursed.
• Refunds will only be provided for the cost associated with replacing the reductant heater and sender assembly.

RENTAL VEHICLES
The use of rental vehicles is not approved for this program.

ADDITIONAL REPAIR (LABOR TIME AND/OR PARTS)
Additional repairs identified as necessary to complete the FSA should be managed as follows:
• For related damage and access time requirements, refer to the Warranty and Policy Manual – Section 6 – Ford/Lincoln Program Policies – Field Service Actions (FSA) – Related Damage.
• For vehicles within new vehicle bumper-to-bumper warranty coverage, no SSSC approval is required.
  o Ford vehicles – 3 years or 36,000 miles
• For vehicles outside new vehicle bumper-to-bumper warranty coverage, submit an Approval Request to the SSSC Web Contact Site prior to completing the repair.
CLAIMS PREPARATION AND SUBMISSION

- This program does not apply to vehicles that qualify for repairs under the New Vehicle Limited Warranty. Repairs for vehicles covered by New Vehicle Limited Warranty should be claimed using published labor operation codes.
- Enter claims using Dealer Management System (DMS) or One Warranty Solution (OWS) online.
  o When entering claims, select claim type 31: Field Service Action. The FSA number (18M01) is the sub code.
  o For additional claims preparation and submission information, refer to the Recall and Customer Satisfaction Program (CSP) Repairs in the OWS User Guide.
- Additional labor and/or parts must be claimed as related damage on a separate repair line from the FSA. **IMPORTANT:** Click the radio button on the Related Damage Indicator.
- Submit refunds on a separate repair line.
  - Program Code: 18M01   - Misc. Expense: ADMIN
- Multiple refunds should be submitted on one repair line and the invoice details for each repair should be detailed in the comments section of the claim.
Customer Satisfaction Program 18M01
Certain 2011-2012 Model Year F-250-F-550 and
2013-2015 F-450-F-550 equipped with a 6.7L Diesel Engine
Reductant Heater and Sender Assembly Repair

LABOR ALLOWANCES

<table>
<thead>
<tr>
<th>Description</th>
<th>Labor Operation</th>
<th>Labor Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2014 Super Duty (All Configurations)</td>
<td>18M01B</td>
<td>0.7 Hours</td>
</tr>
<tr>
<td>Reprogram the PCM using IDS release 109.01 or higher. No other repairs needed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-2014 Super Duty Pickup</td>
<td>18M01C</td>
<td>1.9 Hours</td>
</tr>
<tr>
<td>Replace the reductant heater and sender assembly and reprogram the PCM using IDS release 109.01 or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-2014 Chassis Cab – Inboard Reductant Tank</td>
<td>18M01D</td>
<td>1.8 Hours</td>
</tr>
<tr>
<td>Replace the reductant heater and sender assembly and reprogram the PCM using IDS release 109.01 or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-2014 Chassis Cab – Outboard Reductant Tank</td>
<td>18M01E</td>
<td>1.5 Hours</td>
</tr>
<tr>
<td>Replace the reductant heater and sender assembly and reprogram the PCM using IDS release 109.01 or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015 Super Duty (All Configurations)</td>
<td>18M01F</td>
<td>0.4 Hours</td>
</tr>
<tr>
<td>Reprogram the PCM using IDS release 109.01 or higher. No other repairs required.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015 Super Duty Pickup</td>
<td>18M01G</td>
<td>1.6 Hours</td>
</tr>
<tr>
<td>Replace the reductant heater and sender assembly and reprogram the PCM using IDS release 109.01 or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015 Chassis Cab – Inboard Reductant Tank</td>
<td>18M01H</td>
<td>1.6 Hours</td>
</tr>
<tr>
<td>Replace the reductant heater and sender assembly and reprogram the PCM using IDS release 109.01 or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015 Chassis Cab – Outboard Reductant Tank</td>
<td>18M01J</td>
<td>1.3 Hours</td>
</tr>
<tr>
<td>Replace the reductant heater and sender assembly and reprogram the PCM using IDS release 109.01 or higher</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Extra time to R&I fuel tank shield (if equipped) to access lifting points

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>Labor Operation</th>
<th>Labor Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-FX4 package vehicles</td>
<td>18M01K</td>
<td>0.1</td>
</tr>
<tr>
<td>FX4 package vehicles only</td>
<td>18M01L</td>
<td>0.3</td>
</tr>
</tbody>
</table>
Customer Satisfaction Program 18M01
Certain 2011-2012 Model Year F-250-F-550 and
2013-2015 F-450-F-550 equipped with a 6.7L Diesel Engine
Reductant Heater and Sender Assembly Repair

PARTS REQUIREMENTS / ORDERING INFORMATION
Less than 14% of the vehicle population covered by this program is expected to require reductant heater and sender assembly replacement.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Order Quantity</th>
<th>Claim Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC3Z-5J225-L</td>
<td>Reductant Heater and Sender Assembly (Pickup)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>BC3Z-5J225-M</td>
<td>Reductant Heater and Sender Assembly (Chassis Cab)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>PM-27*</td>
<td>Motorcraft Diesel Exhaust Fluid</td>
<td>Up to 5 gallons</td>
<td></td>
</tr>
</tbody>
</table>

*The use of PM-27-GAL, PM-27-JUG, PM-27-D, or PM-27-T is acceptable.

The DOR/COR number for this recall is 51121.
Order your parts through normal order processing channels. To guarantee the shortest delivery time, an emergency order for parts must be placed.

OVERVIEW

This customer satisfaction program extends the warranty coverage of the reductant heater and sender assembly. If any Diagnostic trouble codes (DTC's) remain after performing this procedure, proceed with normal workshop manual diagnosis outside of this customer satisfaction program.

SERVICE PROCEDURE

Recommended Tool List:

<table>
<thead>
<tr>
<th>General Tools</th>
<th>General Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; Drive Ratchet (Power and Hand Tool)</td>
<td>Light</td>
</tr>
<tr>
<td>1/2&quot; Drive Extension 10 in (25 cm)</td>
<td>Transmission Jack</td>
</tr>
<tr>
<td>1/2&quot; Drive 13mm Shallow Socket</td>
<td>Special Tools</td>
</tr>
<tr>
<td>1/2&quot; Drive Torque Wrench</td>
<td>310-069 Wrench, Fuel Tank Sender Unit</td>
</tr>
<tr>
<td>3/8&quot; Drive Ratchet (Power and Hand Tool)</td>
<td>391-24226 Rotunda DEF Extractor or Equivalent</td>
</tr>
<tr>
<td>3/8&quot; Drive Torque Wrench</td>
<td></td>
</tr>
<tr>
<td>3/8&quot; Drive Extension 10 in (25 cm)</td>
<td></td>
</tr>
<tr>
<td>3/8&quot; Drive 10mm Shallow Socket</td>
<td></td>
</tr>
<tr>
<td>1/4&quot; Drive Ratchet (Power and Hand Tool)</td>
<td></td>
</tr>
<tr>
<td>1/4&quot; Drive Torque Wrench</td>
<td></td>
</tr>
<tr>
<td>1/4&quot; Drive 5.5 mm Shallow Socket</td>
<td></td>
</tr>
<tr>
<td>1/4&quot; Drive 5/32 Hex Bit</td>
<td></td>
</tr>
<tr>
<td>Trim Tool</td>
<td></td>
</tr>
</tbody>
</table>

1. Using an Integrated Diagnostic Scan Tool (IDS) perform a key on engine off self test on the PCM. Are any DTC's present related to the reductant heater and sender assembly?

   Yes - Proceed to Step 2.
   No - This program does not apply.

2. Determine the appropriate repair based on what DTC's are present.

   • If DTC P2043 is the only DTC present related to the reductant heater and sender assembly, proceed to the PCM Reprogramming procedure on Page 2.

   • If DTC's P205C, P205D, or any other DTC's related to the reductant heater and sender assembly are present, replace the reductant heater and sender assembly. Please follow the Workshop Manual (WSM) procedures in Section 303-08 then proceed to the PCM Reprogramming procedure on Page 2.
PCM Reprogramming

NOTE: Reprogram appropriate vehicle modules before performing diagnostics and clear all DTCs after programming. For DTCs generated after reprogramming, follow normal diagnostic service procedures.

1. Connect a battery charger to the 12V battery.

2. Reprogram the PCM using Integrated Diagnostic Software (IDS) release 109.01 or higher.

NOTE: Calibration files may also be obtained at www.motorcraftservice.com.

NOTE: Follow the IDS on-screen instructions to complete the reprogramming procedure.

3. Disconnect the battery charger from the 12V battery once the reprogramming has completed.

Important Information for Module Programming

NOTE: When programming or reprogramming a module, use the following basic checks to ensure programming completes without errors.

- Make sure the 12V battery is fully charged before carrying out the programming steps and connect IDS/scan tool to a power source.
- Inspect Vehicle Communication Module (VCM) and cables for any damage. Make sure scan tool connections are not interrupted during programming.
- A hardwired connection is strongly recommended.
- Turn off all unnecessary accessories (radio, heated/cooled seats, headlamps, interior lamps, HVAC system, etc.) and close doors.
- Disconnect/depower any aftermarket accessories (remote start, alarm, power inverter, CB radio, etc.).
- Follow all scan tool on-screen instructions carefully.
- Disable IDS/scan tool sleep mode, screensaver, hibernation modes.
- Create all sessions key on engine off (KOEO). Starting the vehicle before creating a session will cause errors within the programming inhale process.

Recovering a module when programming has resulted in a blank module: NEVER DELETE THE ORIGINAL SESSION!

a. Obtain the original IDS that was used when the programming error occurred during module reprogramming (MR) or programmable module installation (PMI).

b. Disconnect the VCM from the data link connector (DLC) and the IDS.

c. Reconnect the VCM to IDS and then connect to the DLC. Once reconnected, the VCM icon should appear in the corner of the IDS screen. If it does not, troubleshoot the IDS to VCM connection.

d. Locate the original vehicle session when programming failed. This should be the last session used in most cases. If not, use the session created on the date that the programming failed.
NOTE: If the original session is not listed in the previous session list, click the Recycle Bin icon at the lower right of the previous session screen. This loads any deleted sessions and allows you to look through them. Double-click the session to restore it.

e. Once the session is loaded, the failed process should resume automatically.

f. If programming does not resume automatically, proceed to the Module Programming menu and select the previously attempted process, PMI or MR.

g. Follow all on-screen prompts/instructions.

h. The last screen on the IDS may list additional steps required to complete the programming process. Make sure all applicable steps listed on the screen are followed in order.