

David J. Johnson Director Service Engineering Operations Ford Customer Service Division Ford Motor Company P. O. Box 1904 Dearborn, Michigan 48121

July 15, 2021

TO: All U.S. Ford and Lincoln Dealers

SUBJECT:Customer Satisfaction Program 21B10 - Supplement #2
Certain 2017-2020 Model Year F-150, 2018-2020 Expedition, and 2018-2020
Navigator Vehicles Equipped with a 3.5L GTDI Engine
Powertrain Control Module Reprogram for Cam Phaser RattleREF :Customer Satisfaction Program 21B10 - Supplement #1
Dated April 9, 2021

<u>New!</u> <u>REASON FOR THIS SUPPLEMENT</u>

- **Program Terms:** The program terms and entry conditions for 21B10 have been updated.
- **Affected Vehicles:** The list of affected vehicles in this program has expanded to include F-150 Raptor/Limited Variants, 2018-2020 Expedition, and 2018-2020 Navigator.
- **Service Action:** The Expedition and Navigator calibrations are not available at this time. They will be available shortly. Please monitor the FSA landing page for calibration updates.
- **Owner Notification Mailing Schedule:** Owner letters are scheduled to mail during the week of July 26, 2021
- Technician Instructions: Updated with new procedure.
- Labor Operations: Labor operations have been changed.

New! PROGRAM TERMS

This program will be in effect through *July 31, 2022*. There is no mileage limit for this program.

Customers that receive the 21B10 repair prior to *December 31, 2021* will receive coverage for a prorated cam phaser replacement (if needed) under a separate Customer Service Program (21N03) until *January 1, 2023*.

We recommend dealers utilize their FSA VIN Lists name and address to contact customers with affected vehicles. This will help minimize the number of vehicles that may develop a cam phaser rattle, which requires a more extensive repair.

Vehicle	Model Year	Assembly Plant	Build Dates
E 150*	F-150* 2017-2020	Dearborn	March 10, 2016 through November 30, 2019
F-150		Kansas	April 15, 2016 through November 30, 2019
Expedition	2018-2020	Kentucky Truck	March 14, 2017 through November 30, 2019
Navigator	2018-2020	Kentucky Truck	March 16, 2017 through December 21, 2019

New! AFFECTED VEHICLES

Note: This program now includes the F-150 Raptor/Limited variants.

Affected vehicles are identified in OASIS and FSA VIN Lists.

REASON FOR THIS PROGRAM

In some of the affected vehicles, an undesirable noise may develop from the cam phasers in the 3.5L GTDI engine. This noise might occur as a rattle when starting the engine after the vehicle was turned off for an extended period of time, or as a knocking noise when the engine is idling after it is warmed up.

A cam phaser that has developed an undesirable noise does not affect the vehicle safety, performance, or emissions.

New! SERVICE ACTION

Dealers are to reprogram the powertrain control module (PCM) to the latest level using FDRS or IDS release 122.04 or higher as appropriate. This service must be performed on all affected vehicles at no charge to the vehicle owner.

Note: The calibration updates for Expedition and Navigator are not available at this time but will be available shortly. Please monitor the 21B10 FSA landing page for updates.

New! OWNER NOTIFICATION MAILING SCHEDULE

Owner letters are expected to be mailed the week of *July 26, 2021*. Dealers should repair any affected vehicles that arrive at their dealerships, whether or not the customer has received a letter.

New! ATTACHMENTS

Attachment I:Administrative InformationAttachment II:Labor Allowances and Parts Ordering InformationAttachment III:Technical InformationOwner Netification

Owner Notification

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 System (PTS) website using the SSSC link listed at the bottom of the OASIS VIN report screen or listed under the SSSC tab.

Sincerely,

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David J. Johnson

ATTACHMENT I

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Customer Satisfaction Program 21B10 – Supplement #2

Certain 2017-2020 Model Year F-150, 2018-2020 Expedition, and 2018-2020 Navigator Vehicles Equipped with a 3.5L GTDI Engine Powertrain Control Module Reprogram for Cam Phaser Rattle

OASIS ACTIVATION

OASIS was activated on March 2, 2021.

FSA VIN LISTS ACTIVATION

FSA VIN Lists have been available through <u>https://web.fsavinlists.dealerconnection.com</u> since March 2, 2021. Owner names and addresses were available on April 1, 2021.

NOTE: Your FSA VIN Lists may contain owner names and addresses obtained from motor vehicle registration records. The use of such motor vehicle registration data for any purpose other than in connection with this program is a violation of law in several states, provinces, and countries. Accordingly, you must limit the use of this listing to the follow-up necessary to complete this service action.

SOLD VEHICLES

- Owners of affected vehicles will be directed to dealers for repairs.
- Immediately contact any of your affected customers whose vehicles are not on your VIN list but are identified in OASIS. Give the customer a copy of the Owner Notification Letter (when available) and schedule a service date.
- Correct other affected vehicles identified in OASIS which are brought to your dealership.
- Dealers are to prioritize repairs of customer vehicles over repairs of new and used vehicle inventory.

STOCK VEHICLES

- Correct all affected units in your new vehicle inventory before delivery.
- Use OASIS to identify any affected vehicles in your used vehicle inventory.

TITLE BRANDED / SALVAGED VEHICLES

Affected title branded and salvaged vehicles are eligible for this service action.

OWNER REFUNDS

Refunds are not approved for this program.

LINCOLN PICKUP AND DELIVERY

Owners of 2017 MY and newer Lincoln vehicles have the option of requesting pickup and delivery service with a Lincoln loaner (up to 2 days), from their dealership. For details, reference EFC08708, 2021 Lincoln Pickup & Delivery Updates.

ATTACHMENT I

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Customer Satisfaction Program 21B10 – Supplement #2

Certain 2017-2020 Model Year F-150, 2018-2020 Expedition, and 2018-2020 Navigator Vehicles Equipped with a 3.5L GTDI Engine Powertrain Control Module Reprogram for Cam Phaser Rattle

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 / General Information & Special Circumstances for FSA's / Related Damage.
- For vehicles within new vehicle bumper-to-bumper warranty coverage, no SSSC approval is required, although related damage must be on a separate repair line with the "Related Damage" radio button checked.
 - Ford vehicles 3 years or 36,000 miles
 - Lincoln vehicles 4 years or 50,000 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

- **Claim Entry**: Enter claims using Dealer Management System (DMS) or One Warranty Solution (OWS) online.
 - When entering claims:
 - Claim type 31: Field Service Action. The FSA number 21B10 is the sub code.
 - Customer Concern Code (CCC): N09
 - Condition Code (CC): 42
 - Causal Part Number: RECAL
 - Part Quantity: 0
 - For additional claims preparation and submission information, refer to the Recall and Customer Satisfaction Program (CSP) Repairs in the OWS User Guide.
- Related Damage/Additional labor and/or parts: Must be claimed as Related Damage on a separate repair line from the FSA with same claim type and sub code as described in Claim Entry above.

IMPORTANT: Click the Related Damage Indicator radio button.

• Lincoln Pickup & Delivery: Claims for Lincoln Pickup & Delivery with a Lincoln loaner (up to 2 days) should be submitted on a separate line from the FSA. Refer to EFC08708, 2021 Lincoln Pickup & Delivery Updates for details.

ATTACHMENT II

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Customer Satisfaction Program 21B10 – Supplement #2

Certain 2017-2020 Model Year F-150, 2018-2020 Expedition, and 2018-2020 Navigator Vehicles Equipped with a 3.5L GTDI Engine Powertrain Control Module Reprogram for Cam Phaser Rattle

New! LABOR ALLOWANCES

Description	Labor Operation	Labor Time
Reprogram the PCM and Road Test Vehicle - Pass	21B10B	0.6 Hours
Reprogram the PCM, road test fails revert calibration back, FSA ends.	21B10C	0.8 Hours

PARTS REQUIREMENTS / ORDERING INFORMATION

Parts are not required to complete this repair.

CERTAIN 2017-2020 MODEL YEAR F-150, *2018-2020 EXPEDITION, AND 2018-2020 NAVIGATOR* VEHICLES EQUIPPED WITH A 3.5L ECOBOOST ENGINE — POWERTRAIN CONTROL MODULE REPROGRAMMING

NEWN SERVICE PROCEDURE

Module Reprogramming

- **NOTE:** All vehicles are to have the Powertrain Control Module (PCM) reprogrammed regardless of symptoms.
- **NOTE:** If any other Diagnostic Trouble Codes (DTC's) are present in the PCM and the engine light is illuminated, record them on the repair order and advise the customer that this update will not repair these issues and that the DTC's will be cleared but will return again after this update.

F-150 VEHICLES

- 1. Connect a battery charger to the 12 volt battery.
- **NOTE:** Verify that the negative cable of the charger is installed on a chassis or engine ground, and not the 12 volt battery negative terminal to prevent the battery saver mode from activating on the vehicle.
- **NOTE:** Make sure the Integrated Diagnostic Software (IDS) computer does not enter sleep mode during programming.
- 2. Reprogram the PCM using the latest IDS release. Make sure you are connected to the Internet prior to reprogramming. *Make sure to select "No" at the beginning of the procedure when asked if programming the vehicle is due to an engine shudder.*

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

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

- 3. Clear all DTC's.
- 4. Disconnect the battery charger from the 12 volt battery once the reprogramming has completed.
- 5. Warm up the engine.
- 6. Test drive the vehicle to reset the transmission adaptive shift points.
- 7. During the test drive, monitor the vehicle to determine if a shudder around 1200 RPM during



ATTACHMENT III PAGE 2 OF 6 CUSTOMER SATISFACTION PROGRAM 21B10-52

8. Was a shudder noticed? See Figure 1.

Yes – Fails inspection. Proceed to Step 9.



- FIGURE 1
- 9. Repeat steps 1 through 4 to revert the calibration back. Make sure to select "Yes" at the beginning of the procedure when asked if programming the vehicle is due to an engine shudder.
- **NOTE:** Advise the customer that this vehicle is equipped with an adaptive transmission shift strategy which allows the vehicle's computer to learn the transmission's unique parameters and improve shift quality. When the adaptive strategy is reset, the computer will begin a re-learning process. This re-learning process may result in firmer than normal upshifts and downshifts for several days.



EXPEDITION AND NAVIGATOR VEHICLES

- 1. Connect a battery charger to the 12V battery.
- **NOTE:** Verify that the negative cable of the charger is installed on a chassis or engine ground, and not the 12 volt battery negative terminal to prevent the battery saver mode from activating on the vehicle.
- **NOTE:** If the diagnostic software does not load or if the vehicle cannot be identified properly, make sure there is a good internet connection and the VCM is properly connected to the DLC.
- 2. Log into Ford Diagnostic and Repair System (FDRS).
- **NOTE:** Vehicle information is automatically retrieved by the diagnostic software and a Network Test is run. Vehicle identification data appears on the screen when this is complete.
- 3. Click 'Read VIN from Vehicle' or manually enter the VIN.
- **NOTE:** Available modules are shown on the LH side of the screen, and available procedures are listed on the RH side of the screen. Modules that are communicating are highlighted in green.
- 4. Select Toolbox tab.
- 5. From the list on the LH side of the screen, select the PCM.
- 6. From the list on the RH side of the screen, select PCM Powertrain Control Module (PCM) Software Update.
- 7. Click RUN. Follow all on-screen instructions carefully. Make sure to select "No" at the beginning of the procedure when asked if programming the vehicle is due to an engine shudder.
- 8. From the list on the RH side of the screen, select Self-Test and click RUN.
- 9. Click the Run Selected Tests button in the lower right.
- 10. Click the Clear & Retest button at the top of the screen to clear DTCs in all modules.
- 11. Disconnect the battery charger from the 12V battery once the programming has completed.
- 12. Warm up the engine.
- 13. Test drive the vehicle to reset the transmission adaptive shift points.
- 14. During the test drive, monitor the vehicle to determine if a shudder around 1200 RPM during low/medium acceleration (stop signs) is present.
- 15. Was a shudder noticed? See Figure 2.

Yes – Fails inspection. Proceed to Step 16. No – Passes inspection, this recall is complete.



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CUSTOMER SATISFACTION PROGRAM 21B10-S2



FIGURE 2

- 16. Repeat steps 1 through 11 to revert the calibration back. Make sure to select "Yes" at the beginning of the procedure when asked if programming the vehicle is due to an engine shudder.
- **NOTE:** Advise the customer that this vehicle is equipped with an adaptive transmission shift strategy which allows the vehicle's computer to learn the transmission's unique parameters and improve shift quality. When the adaptive strategy is reset, the computer will begin a re-learning process. This re-learning process may result in firmer than normal upshifts and downshifts for several days.



Important Information for Module Programming when using IDS

- **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: <u>NEVER DELETE THE ORIGINAL SESSION!</u>

- 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.



Important Information for Module Programming when using FDRS

- **NOTE:** When programming 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 FDRS/scan tool to a power source.
- **NOTE:** A good internet connection is necessary to identify the vehicle and to load the diagnostic software.
- Inspect Vehicle Communication Module II (VCM II)/Vehicle Communication and Measurement Module (VCMM) 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 FDRS/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

- a. Disconnect the VCMII or VCMM from the data link connector (DLC) and your PC.
- b. After ten seconds, reconnect the VCMII/VCMM to the DLC and the PC. Launch FDRS. The VCMII/VCMM icon should turn green in the bottom right corner of the screen. If it does not, troubleshoot the FDRS to VCM connection.
- c. If you are using the same FDRS as the initial programming attempt, select the appropriate VIN from the Vehicle Identification menu. If you are using a different FDRS, select "Read VIN from Vehicle" and proceed through the Network Test.
- d. In the Toolbox menu, navigate to the failed module and Download/Run Programmable Module Installation (PMI). Follow the on-screen prompts. When asked if the original module is installed, select "No" and continue through the installation application.
- e. Once programming has completed, a screen may list additional steps required to complete the programming process. Make sure all applicable steps are followed in order.



CERTAIN 2017-2020 MODEL YEAR F-150 RAPTOR AND LIMITED MODEL AND 2018-2020 NAVIGATOR VEHICLES EQUIPPED WITH A 3.5L HIGH OUTPUT (HO) ECOBOOST ENGINE — POWERTRAIN CONTROL MODULE PROGRAMMING — EXPORT VEHICLES ONLY

NEW! SERVICE PROCEDURE

Module Reprogramming

- **NOTE:** All vehicles are to have the Powertrain Control Module (PCM) reprogrammed regardless of symptoms.
- **NOTE:** If any other Diagnostic Trouble Codes (DTC's) are present in the PCM and the engine light is illuminated, record them on the repair order and advise the customer that this update will not repair these issues and that the DTC's will be cleared but will return again after this update.
- **NOTE:** Follow steps 1 through 4 and 16 through 23 for programming F-150 Raptor and Limited Model and steps 5 through 23 for programming Navigator.

F-150 RAPTOR AND LIMITED MODEL VEHICLES

- 1. Connect a battery charger to the 12 volt battery.
- **NOTE:** Verify that the negative cable of the charger is installed on a chassis or engine ground, and not the 12 volt battery negative terminal to prevent the battery saver mode from activating on the vehicle.
- **NOTE:** Make sure the Integrated Diagnostic Software (IDS) computer does not enter sleep mode during programming.
- 2. Reprogram the PCM using the latest IDS release. Make sure you are connected to the Internet prior to reprogramming. *Make sure to select "No" at the beginning of the procedure when asked if programming the vehicle is due to an engine shudder.*

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

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

- 3. Clear all DTC's.
- 4. Disconnect the battery charger from the 12 volt battery once the reprogramming has completed.



NAVIGATOR VEHICLES

- 5. Connect a battery charger to the 12V battery.
- **NOTE:** Verify that the negative cable of the charger is installed on a chassis or engine ground, and not the 12 volt battery negative terminal to prevent the battery saver mode from activating on the vehicle.
- **NOTE:** If the diagnostic software does not load or if the vehicle cannot be identified properly, make sure there is a good internet connection and the VCM is properly connected to the DLC.
- 6. Log into Ford Diagnostic and Repair System (FDRS).
- **NOTE:** Vehicle information is automatically retrieved by the diagnostic software and a Network Test is run. Vehicle identification data appears on the screen when this is complete.
- 7. Click 'Read VIN from Vehicle' or manually enter the VIN.
- **NOTE:** Available modules are shown on the LH side of the screen, and available procedures are listed on the RH side of the screen. Modules that are communicating are highlighted in green.
- 8. Select Toolbox tab.
- 9. From the list on the LH side of the screen, select the PCM.
- 10. From the list on the RH side of the screen, select PCM Powertrain Control Module (PCM) Software Update.
- 11. Click RUN. Follow all on-screen instructions carefully. Make sure to select "No" at the beginning of the procedure when asked if programming the vehicle is due to an engine shudder.
- 12. From the list on the RH side of the screen, select Self-Test and click RUN.
- 13. Click the Run Selected Tests button in the lower right.
- 14. Click the Clear & Retest button at the top of the screen to clear DTCs in all modules.
- 15. Disconnect the battery charger from the 12V battery once the programming has completed.

ALL VEHICLES

- 16. Warm up the engine.
- 17. Test drive the vehicle to reset the transmission adaptive shift points.
- 18. During the test drive, monitor the vehicle to determine if a shudder around 1200 RPM during low/medium acceleration (stop signs) is present.



ATTACHMENT IV PAGE 3 OF 5 CUSTOMER SATISFACTION PROGRAM 21B10-S2

19. Was a shudder noticed? See Figure 1.





FIGURE 1

20. Disconnect the oil pump electrical connector from the engine and secure to wire harness or coolant tube with a zip tie to prevent movement. See Figure 2.



FIGURE 2



- 21. Test drive the vehicle again to determine if the shudder is still present. Is the shudder still present? See Figure 3.
 - Yes This shudder is not caused by the 21B10 programming and normal diagnostics should be followed. This Field Service Action is complete.





FIGURE 3

- 22. Remove the zip tie and connect the oil pump electrical connector.
- 23. Replace all camshafts, all VCT Units, and both cylinder heads. Please follow the Workshop Manual (WSM) procedures in Section 303-01C for Raptor and Limited Model and 303-01 for Navigator.
- **NOTE:** Advise the customer that this vehicle is equipped with an adaptive transmission shift strategy which allows the vehicle's computer to learn the transmission's unique parameters and improve shift quality. When the adaptive strategy is reset, the computer will begin a re-learning process. This re-learning process may result in firmer than normal upshifts and downshifts for several days.



Important Information for Module Programming when using IDS

- **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: <u>NEVER DELETE THE ORIGINAL SESSION!</u>

- 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.



Important Information for Module Programming when using FDRS

- **NOTE:** When programming 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 FDRS/scan tool to a power source.
- **NOTE:** A good internet connection is necessary to identify the vehicle and to load the diagnostic software.
- Inspect Vehicle Communication Module II (VCM II)/Vehicle Communication and Measurement Module (VCMM) 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 FDRS/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

- a. Disconnect the VCMII or VCMM from the data link connector (DLC) and your PC.
- b. After ten seconds, reconnect the VCMII/VCMM to the DLC and the PC. Launch FDRS. The VCMII/VCMM icon should turn green in the bottom right corner of the screen. If it does not, troubleshoot the FDRS to VCM connection.
- c. If you are using the same FDRS as the initial programming attempt, select the appropriate VIN from the Vehicle Identification menu. If you are using a different FDRS, select "Read VIN from Vehicle" and proceed through the Network Test.
- d. In the Toolbox menu, navigate to the failed module and Download/Run Programmable Module Installation (PMI). Follow the on-screen prompts. When asked if the original module is installed, select "No" and continue through the installation application.
- e. Once programming has completed, a screen may list additional steps required to complete the programming process. Make sure all applicable steps are followed in order.





The Lincoln Motor Company P. O. Box 1904 Dearborn, Michigan 48121

July 2021

Customer Satisfaction Program 21B10 - 21N03

Mr. John Sample 123 Main Street Anywhere, USA 12345

Your Vehicle Identification Number (VIN): 12345678901234567

At the Lincoln Motor Company, we are committed not only to building high quality, dependable products, but also to building a community of happy, satisfied customers. To demonstrate that commitment, we are providing a no-charge Customer Satisfaction Program for your vehicle with the VIN shown above.

On your vehicle, it may be possible that an undesirable noise may develop from the cam phasers in the 3.5L GTDI engine. This noise might occur as a rattle when starting the engine after your vehicle was turned off for an extended period of time, or as a knocking noise when the engine is idling after it is warmed up. The Lincoln Motor Company has developed an update to the PCM software that helps protect your cam phasers so that they will not develop an undesirable noise. This PCM update is program 21B10.
Additionally, for customers who receive the PCM update under program 21B10 prior to December 31, 2021 and continue to experience cam phaser noise after receiving that PCM update, The Lincoln Motor Company will provide an extended warranty for the cam phasers. The cam phaser extended warranty is Customer Satisfaction Program 21N03 and coverage will expire on January 1, 2023. Program 21N03 will reimburse for a one-time repair based on the mileage chart below.
A cam phaser that has developed an undesirable noise does not affect the vehicle safety, performance, or emissions.
In the interest of customer satisfaction, The Lincoln Motor Company has authorized your dealer to address this issue by reprogramming the PCM free of charge (parts and labor) under the terms of program 21B10. Receiving this service on or before December 31, 2021 may help avoid additional repairs and will activate Customer Satisfaction Program 21N03 on your vehicle. A customer can have their vehicle's PCM reprogrammed under Customer Satisfaction Program 21B10 until July 31, 2022, regardless of mileage. Coverage is automatically transferred to subsequent owners.

If your vehicle exhibits an undesirable noise generated by the cam phasers, and your cam phasers are no longer covered under your powertrain warranty, The Lincoln Motor Company has authorized your dealer to replace the cam phasers under Customer Satisfaction Program 21N03, provided that you received the 21B10 PCM reprogramming prior to December 31, 2021. The cost of replacing the cam phasers will be prorated using the table below and will use the vehicle mileage at the time of Repair Order creation for program 21N03. This is a one-time repair program.

Lincoln Vehicles		
Mileage	Lincoln Will Cover	
Up to 79,999	100%	
80,000 - 89,999	66%	
90,000 - 99,999	33%	
100,000 or higher	0%	

How long will it take? The time needed to perform program 21B10 and reprogram the PCM is less than one half day. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time.

The time needed to perform program 21N03 and replace the cam phasers is about one and a half days. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time. Please talk to your dealer if you require a rental vehicle while the cam phasers are being replaced.

What should you do? Please call your dealer without delay to schedule a service appointment for Customer Satisfaction Program 21B10. Provide the dealer with the VIN of your vehicle. The VIN is printed near your name at the beginning of this letter.

Lincoln owners of 2017 Model Year or later vehicles affected by this recall have the option of requesting complimentary Pickup & Delivery service with a Lincoln vehicle for use during service. Please request Lincoln Pickup & Delivery through your dealership if you would like to take advantage of this option.

If you do not already have a servicing dealer, you can access <u>owner.lincoln.com</u> for dealer addresses, maps, and driving instructions.

The Lincoln Motor Company wants you to have this service action completed on your vehicle. The vehicle owner is responsible for making arrangements to have the work completed. The Lincoln Motor Company can deny coverage for any vehicle damage that may result from the failure to have this service action performed on a timely basis. Therefore, please have this service action performed as soon as possible.

NOTE: You can receive information about Recalls and Customer Satisfaction Programs through The Lincoln Way: Lincoln Owner App. The app can be downloaded through the App Store or Google Play. In addition there are other features such as reserving parking in certain locations and

	controlling certain fur start) if it is equipped	nctions on your vehic to allow control.	cle (lock or unlock doors, remote
COVID-19 (CORONAVIRUS)	Lincoln dealerships have implemented enhanced protocols to ensure both your safety and the safety of dealership employees. This includes specific procedures for cleaning and disinfecting client vehicles and vehicles used for Pickup & Delivery* both before and after each vehicle is serviced. In most places, vehicle service has been deemed a critical service. Please contact your local dealer to confirm current service hours. For more information on how Lincoln and your local dealer are working hard to keep you on the road during these challenging times, please visit <u>owner.lincoln.com</u> . *Complimentary Lincoln Pickup & Delivery Service is available for all 2017 model year and newer Lincoln vehicles within the 4-year/50,000 mile New Vehicle Limited Warranty. Contact your preferred dealer for important details. Mileage limitations may apply.		
Have you previously paid for this repair?	If you have previously paid for a repair that addresses the issue described in this letter, you still need to have this service action performed to ensure the correct parts were used. If the previously paid for repair was performed <u>before</u> the date of this letter, you may be eligible for a refund under program 21N03. Refunds will only be provided for service related to cam phaser replacement due to noise. To verify eligibility and <u>expedite reimbursement</u> , give your paid original receipt to your dealer before December 31, 2021. Your refund will be prorated based on the mileage at the time of repair. See table below. To avoid delays, do not send receipts to The Lincoln Motor Company.		
	Lincoln	Vehicles	
	Mileage	Lincoln Will Cover	-
	Up to 79,999	100%	
	80,000 - 89,999	66%	
	90,000 - 99,999	33%	
	100,000 or higher	0%	
What if you no longer own this vehicle?	If you no longer own please forward this le You received this not state registration and	this vehicle, and har etter to the new own tice because our rec I title data, indicate t	ve an address for the current owner, er. ords, which are based primarily on hat you are the current owner.
Can we assist you further?	If you have difficulties charge, please conta <u>RETAIL OWNERS</u> : If Customer Relations representatives will b the Internet, our addr	s getting your vehiclent for your dealership's f you have questions ship Center at 1-86 be happy to assist your ress is: <u>owner.lincolr</u>	e repaired promptly and without Service Manager for assistance. s or concerns, please contact our 6-436-7332 and one of our bu. If you wish to contact us through <u>n.com</u> .

For the hearing impaired call 1-800-232-5952 (TDD). Representatives are available Monday through Friday: 8:00AM - 8:00PM (Eastern Time).

<u>FLEET OWNERS</u>: If you have questions or concerns, please contact our **Fleet Customer Information Center at 1-800-34-FLEET**, choose Option #3, and one of our representatives will be happy to assist you. If you wish to contact us through the Internet, our address is: <u>fleet.ford.com</u>.

Representatives are available Monday through Friday: 8:00AM - 8:00PM (Eastern Time).

Thank you for your attention to this important matter.

The Lincoln Motor Company



Ford Motor Company Ford Customer Service Division P. O. Box 1904 Dearborn, Michigan 48121

Customer Satisfaction Program 21B10 - 21N03

Mr. John Sample 123 Main Street Anywhere, USA 12345

Your Vehicle Identification Number (VIN): 12345678901234567

At Ford Motor Company, we are committed not only to building high quality, dependable products, but also to building a community of happy, satisfied customers. To demonstrate that commitment, we are providing a no-charge Customer Satisfaction Program for your vehicle with the VIN shown above to reprogram the powertrain control module (PCM).

Why are you receiving this notice?	On your vehicle, it may be possible that an undesirable noise may develop from the cam phasers in the 3.5L GTDI engine. This noise might occur as a rattle when starting the engine after your vehicle was turned off for an extended period of time, or as a knocking noise when the engine is idling after it is warmed up. Ford Motor Company has developed an update to the PCM software that helps protect your cam phasers so that they will not develop an undesirable noise. This PCM update is program 21B10.
	Additionally, for customers who receive the PCM update under program 21B10 prior to December 31, 2021 and continue to experience cam phaser noise after receiving that PCM update, Ford Motor Company will provide an extended warranty for the cam phasers. The cam phaser extended warranty is Customer Satisfaction Program 21N03 and coverage will expire on January 1, 2023. Program 21N03 will reimburse for a one-time repair based on the mileage chart below.
What is the effect?	A cam phaser that has developed an undesirable noise does not affect the vehicle safety, performance, or emissions.
What will Ford and your dealer do?	In the interest of customer satisfaction, Ford Motor Company has authorized your dealer to address this issue by reprogramming the PCM free of charge (parts and labor) under the terms of program 21B10. Receiving this service on or before December 31, 2021 may help avoid additional repairs and will activate Customer Satisfaction Program 21N03 on your vehicle. A customer can have their vehicle's PCM reprogrammed under Customer Satisfaction Program 21B10 until July 31, 2022, regardless of mileage. Coverage is automatically transferred to subsequent owners.

July 2021

Continued... If your vehicle exhibits an undesirable noise generated by the cam phasers, and your cam phasers are no longer covered under your powertrain warranty, Ford Motor Company has authorized your dealer to replace the cam phasers under Customer Satisfaction Program 21N03, provided that you received the 21B10 PCM reprogramming prior to December 31, 2021. The cost of replacing the cam phasers will be prorated using the table below and will use the vehicle mileage at the time of Repair Order creation for program 21N03. This is a one-time repair program.

Ford Vehicles		
Mileage	Ford Will Cover	
Up to 69,999	100%	
70,000 - 79,999	66%	
80,000 - 89,999	33%	
90,000 or higher	0%	

How long will it take? The time needed to perform program 21B10 and reprogram the PCM is less than one half day. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time.

The time needed to perform program 21N03 and replace the cam phasers is about one and a half days. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time. Please talk to your dealer if you require a rental vehicle while the cam phasers are being replaced.

What should you do? Please call your dealer without delay to schedule a service appointment for Customer Satisfaction Program 21B10. Provide the dealer with your VIN, which is printed near your name at the beginning of this letter.

If you do not already have a servicing dealer, you can access <u>owner.ford.com</u> for dealer addresses, maps, and driving instructions.

Ford Motor Company wants you to have this service action completed on your vehicle. The vehicle owner is responsible for making arrangements to have the work completed. Ford Motor Company can deny coverage for any vehicle damage that may result from the failure to have this service action performed on a timely basis. Therefore, please have this service action performed as soon as possible.

NOTE: You can receive information about Recalls and Customer Satisfaction Programs through our FordPass App. The app can be downloaded through the App Store or Google Play. In addition, there are other features such as reserving parking in certain locations and controlling certain functions on your vehicle (lock or unlock doors, remote start) if it is equipped to allow control.

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(CORONAVIRUS)Ford dealerships have implemented enhanced protocols to ensure both your
safety and the safety of dealership employees. This includes specific
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hours. For more information on how Ford and your local dealer are working
hard to keep you on the road during these challenging times, please visit
owner.ford.com.

Have you previously paid for this repair? If you have previously paid for a repair that addresses the issue described in this letter, you still need to have this service action performed to ensure the correct parts were used.

If the previously paid for repair was performed <u>before</u> the date of this letter, you may be eligible for a refund under program 21N03. Refunds will only be provided for service related to cam phaser replacement due to noise. To verify eligibility and <u>expedite reimbursement</u>, give your paid original receipt to your dealer before December 31, 2021. Your refund will be prorated based on the mileage at the time of repair. See table below. To avoid delays, do not send receipts to Ford Motor Company.

Ford Vehicles		
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Up to 69,999	100%	
70,000 - 79,999	66%	
80,000 - 89,999	33%	
90,000 or higher	0%	

What if you no longerIf you no longer own this vehicle, and have an address for the current owner,own this vehicle?please forward this letter to the new owner.

You received this notice because our records, which are based primarily on state registration and title data, indicate that you are the current owner.

Can we assist youIf you have difficulties getting your vehicle repaired promptly and without
charge, please contact your dealership's Service Manager for assistance.

<u>RETAIL OWNERS</u>: If you have questions or concerns, please contact our **Ford Customer Relationship Center at 1-866-436-7332** and one of our representatives will be happy to assist you. If you wish to contact us through the Internet, our address is: <u>owner.ford.com</u>

For the hearing impaired call 1-800-232-5952 (TDD). Representatives are available Monday through Friday: 8:00AM – 8:00PM (Eastern Time).

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Thank you for your attention to this important matter.

Ford Customer Service Division