



November 2018

Dealer Service Instructions for:

Safety Recall U94 / NHTSA 18V-740 Reprogram Powertrain Control Module

Effective immediately all repairs on involved vehicles are to be performed according to this notification. Service Action / Rapid Response Transmittal (RRT) #18-087 / Service Bulletin (TSB) #25-003-18 is no longer applicable for the involved vehicles only. Those vehicles that have already had this repair performed, as determined by our warranty records, have been excluded from this recall.

Remedy Available

2017-2018 (RU) Chrysler Pacifica PHEV

NOTE: This recall applies only to the above vehicles equipped with Cruise Control (Sales Code NHM or NHZ) built from August 16, 2016 through August 07, 2018 (MDH 081623 through 080717).

IMPORTANT: Some of the involved vehicles may be in dealer new vehicle inventory. Federal law requires you to complete this recall service on these vehicles before retail delivery. Dealers should also consider this requirement to apply to used vehicle inventory and should perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

Subject

Some of the above vehicles may have received suspect Powertrain Control Module (PCM) software that was the remedy for Safety Recall U73 (18V-332). During some auto restart events (where the vehicle has been operating in PHEV propulsion mode, and the gas-fueled engine is attempting to restart in order to take over propulsion), the engine can synchronize 360-degrees out of phase. The detection of this mis-synchronization was not robust in the PCM software. In the PHEV propulsion system, the electric motor will continue to spin the engine in this condition causing significant amounts of unburned fuel to enter the catalyst and potentially ignite. A mis-synchronized engine could result in a loss of motive power, and/or a potential fire. A loss of motive power can cause a vehicle crash without prior warning. A fire can result in increased risk of occupant injury and injury to persons outside the vehicle.

Repair

Inspect for Diagnostic Trouble Codes (DTCs) P0420, P0430, P0016-19, P000A-D, P1B11, P0506, P219A or P219B. If codes present, perform the catalyst internal borescope inspection of their internal bricks (take photos) and inspect the surrounding components for signs of thermal distress. If DTCs P0420, P0430 are present, replace the catalytic converters and Oxygen Sensors (O2). All vehicles will require the software level of the PCM to be inspected and if an update is available, the PCM must be updated with the latest available software.

Alternate Transportation

Dealers should attempt to minimize customer inconvenience by placing the owner in a loaner vehicle if the vehicle must be held overnight.

Parts Information

NOTE: Parts are ONLY required for those vehicles which catalyst inspection determines that catalytic converter replacement is required.

<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
68093232AA	2 (AR)	Gasket, Exhaust
68271967AA	1 (AR)	Gasket, Catalytic Converter to CrossUnder Pipe
68235531AG	1 (AR)	Catalytic Converter, Right
68235532AD	1 (AR)	Catalytic Converter, Left
05149171AA	2 (AR)	Sensor, Upstream O2
05149180AA	2 (AR)	Sensor, Downstream O2
06509298AA	1 (AR)	Nut, HalfShaft Hub, Right
06512105AA	1 (AR)	Bolt, Lower Ball Joint Pinch, Right
06510676AA	1 (AR)	Nut, Lower Ball Joint Pinch, Right

Due to the small number of vehicles expected to require catalytic converter replacement, no parts will be distributed initially. **Parts should be ordered only after the DTC inspection determines that the catalytic converter replacement is required.** *Very few vehicles are expected to require catalytic converter replacement.*

Parts Return

No parts return required for this campaign.

Service Procedure

A. Inspect for DTCs

1. Open the hood. Install a battery charger and verify that the charging rate provides 13.0 to 13.5 volts. Set the battery charger timer (if so equipped) to continuous charge.
2. Connect the wiTECH micro pod II to the vehicle data link connector.
3. Place the ignition in the “**RUN**” position.
4. Open the wiTECH 2.0 website.
5. Enter your “**User id**” and “**Password**” and your “**Dealer Code**”, then select “**Sign In**” at the bottom of the screen. Click “**Accept**”.
6. From the “**Vehicle Selection**” screen, select the vehicle to be updated.
7. From the “**Action Items**” screen, select the “**Topology**” tab.
8. From the “**Topology**” screen, select the “**All DTCs**” tab to view the DTCs.
9. Record any DTCs.
10. Place the ignition in the “**OFF**” position and then remove the wiTECH micro pod II device from the vehicle.
11. Remove the battery charger from the vehicle.

Service Procedure [Continued]

12. Are DTCs P0420, P0430, P0016-19, P000A-D, P1B11, P0506, P219A or P219B present?
- If no DTCs (P0420, P0430, P0016-P0019, P0016-19, P000A-D, P1B11, P0506, P219A or P219B) are present, perform **Section B Catalyst Bore Scope Inspection** (take photos) and inspect the surrounding components for signs of thermal distress. If no signs of catalyst thermal distress are evident, proceed to **Section D Reprogram PCM** to flash software.
 - If P0016-19, P000A-D, P1B11, P0506, P219A or P219B are present, perform **Section B Catalyst Bore Scope Inspection**, (take photos) and inspect the surrounding components for signs of thermal distress. Replace catalysts and O2 sensors; **Section C Replace Catalytic Converters** then reprogram the PCM software; **Section D Reprogram PCM**.
 - If P0420, P0430 are present, replace the catalysts and O2 sensors; **Section C Replace Catalytic Converters** and reprogram the PCM software; **Section D Reprogram PCM**. After catalysts are removed, take photos of internal catalyst bricks.
 - If all 4 crankshaft position/camshaft position codes (P0016-P0019) are present and there is evidence of thermal degradation on the exterior of catalyst and surrounding components then perform **Section C Replace Catalytic Converters** to replace the catalysts and O2 sensors, then reprogram the PCM software; **Section D Reprogram PCM**. If there is any doubt, perform **Section B Catalyst Bore Scope Inspection** to confirm the condition of the internal bricks. After catalyst removal inspect their internal bricks to determine the level of degradation and take photos.

Service Procedure [Continued]**B. Catalyst Bore Scope Inspection**

WARNING! On vehicles equipped with the high voltage system, disconnecting the 12volt battery negative cable alone will not power down the 12volt system. You must perform the 12volt Power Down procedure before proceeding. Failure to follow these instructions may result in possible serious or fatal injury.

1. Perform the 12volt power down procedure. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>08 Electrical/ Standard Procedure 12Volt Power Down.
2. Remove the forward belly pan for access under the vehicle. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>13 Frame and Bumpers/Under Body Protection/Belly Pan, Engine/Removal and Installation.
3. Perform a visual inspection of the surrounding components for thermal distress (Wiring, O2 sensor wiring, half shaft boots, A/C or coolant lines rubber grommets etc), if any component not listed in the parts section of this recall is damaged follow normal repair procedure for warranty and LOPs.
4. Remove the air box assembly to allow more access space (Figure 1) . Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>09 Engine, 3.6L/Air Intake System/Body, Air Cleaner/Removal and Installation.



Figure 1 – Air Box

Service Procedure [Continued]

5. Starting with the front catalytic converter, unplug and then remove the two O2 sensors (Figure 2). Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>14 Fuel System/Fuel Injection, Gas/Sensor, Oxygen/Removal and Installation>Upstream.

NOTE: Number one O2 Sensor has a black plug, Number two O2 Sensor has a white plug. They must be replaced in the same hole they were removed from.

6. Remove the rear O2 sensors. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>14 Fuel System/Fuel Injection, Gas/Sensor, Oxygen/Removal and Installation>Downstream.

NOTE: Removal of some of the spark plug coils may be helpful to gain enough space to remove the rear number two O2 sensor. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>08 Electrical/ 8I Ignition Control/Coil, Ignition/Removal and Installation.



Figure 2 – Front Catalytic and Oxygen Sensors

Service Procedure [Continued]

7. The internal inspection involves removal of the two O2 sensors on each of the front and rear catalytic converters (Figure 3), and the use of a borescope inserted into the O2 sensor holes to capture images of the condition of the catalytic substrates (catalyst bricks) in multiple places including the condition of the interface of the substrate to the surrounding insulated mat.

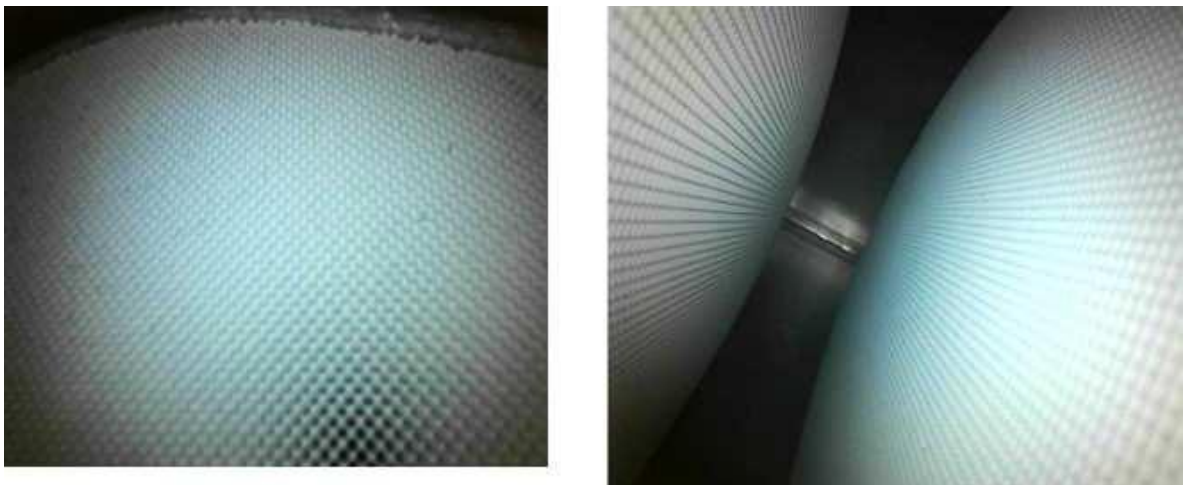


Figure 3 – Front and Rear Catalytic converters

- a. Start by inspecting the front converter first.
- b. Insert the borescope into the hole that is closest to the cylinder head outlet (O2 Sensor Hole one).
- c. Look at the condition of the substrate face (capture images when looking at an angle onto the substrate, not straight in line with the substrate holes, to allow for minor events such as chipping to be visible) (Fig. 4) and (Fig. 5).
- d. Look for signs of discoloration, melting, chipping, degradation, or any other anomaly. Inspect the entire face. If there is evidence of overheating, the converters will need to be replaced, proceed to Step 1 of the Repair Procedure.

Service Procedure [Continued]

- e. Look at the surrounding insulated mat (material at perimeter of substrate along catalyst wall). Mat should be in place between the catalyst brick and catalyst wall. It should not have holes or dropped lower than the catalyst brick material.
- f. Look for signs of degradation, shifting (change of position; under the right conditions, it is possible for the upper catalyst substrate to be pushed down). If there is evidence of overheating, the converters will need to be replaced, proceed to Step 1 of the Repair Procedure.
- g. Insert the borescope in the O2 sensor hole near the middle of the catalytic converter body. This location will allow access to view the exit side of the first substrate, as well as the entry side for the second substrate.
- h. Up to this point all three accessible faces of the front catalytic converter should have been inspected. Reinstall the O2 sensors, ensuring they are placed back into the exact hole they were removed from. Ensure the O2 sensors are torqued to the proper specification 43 N·m (32 ft.lbs.).
- i. Repeat from step Step b down for the rear converter inspection.

**Figure 4 – Normal Substrate**

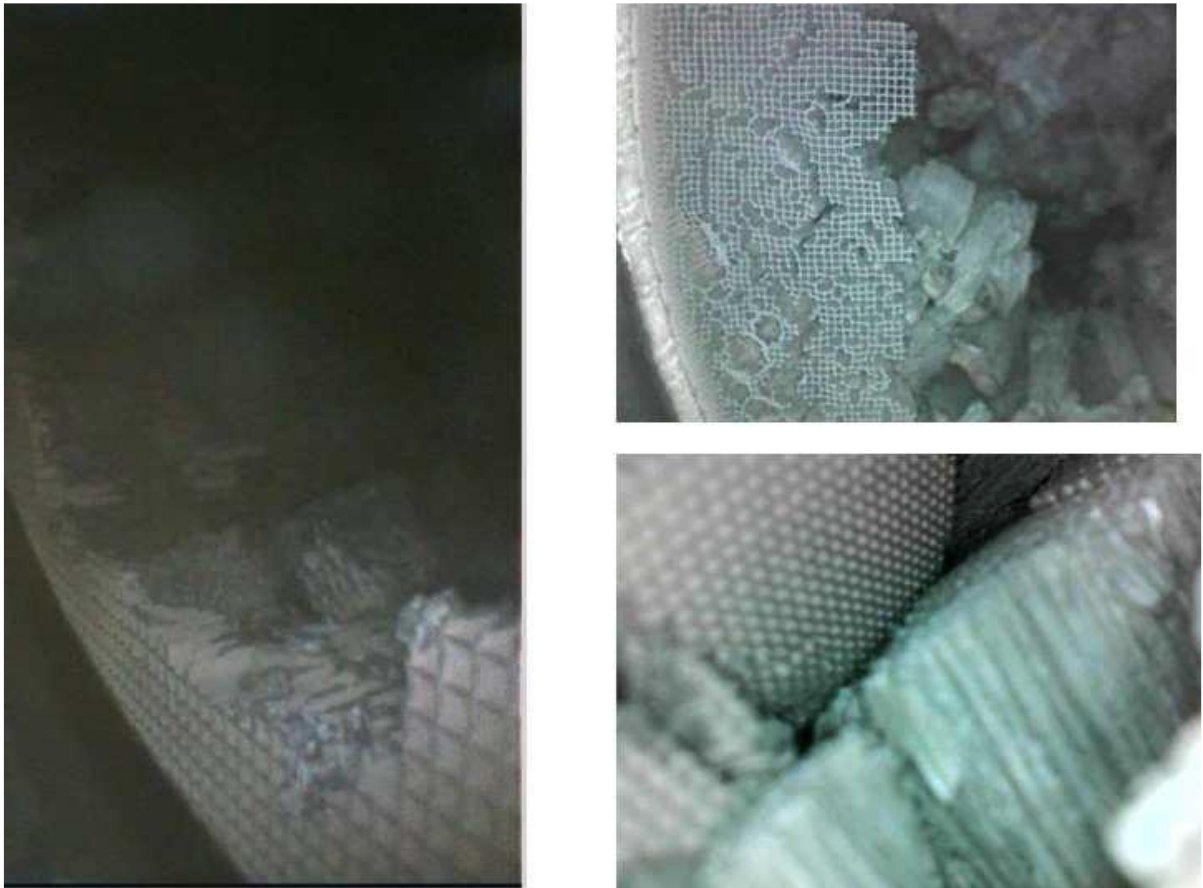
Service Procedure [Continued]

Figure 4 – Extreme Damaged Substrate

NOTE: The damaged substrate will show primarily heavy damage (missing material/large holes). Lighter damage to the substrate will consist of broken matrix walls but may not have progressed to large sections of missing material /holes. If “chains” of broken cell walls are found, the catalysts & O2 sensors need to be replaced. This may be present from viewing at either O2 sensor location.

Service Procedure [Continued]

8. If there are no signs of the catalytic converters having been overheated then perform the following:
 - Reinstall the O2 sensors. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>14 Fuel System/Fuel Injection, Gas/Sensor, Oxygen/Removal and Installation> Upstream>Downstream.
 - Install the forward belly pan under the vehicle. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>13 Frame and Bumpers/Under Body Protection/Belly Pan, Engine/Removal and Installation.
 - Install the air box assembly. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>09 Engine, 3.6L/Air Intake System/ Body, Air Cleaner/Removal and Installation.
 - Power up the 12 volt system. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>08 Electrical/ Standard Procedure 12 Volt Power Up.
 - Proceed to **Section C Reprogram PCM.**

9. If there are signs of the catalytic converters having been overheated then Proceed to **Section C Replace Catalytic Converters.**

Service Procedure [Continued]**C. Replace Catalytic Converters**

- Remove and replace catalytic converters as needed. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>11 Exhaust System/ Converter, Catalytic/Removal and Installation>Right>Left.
 - Remove and replace oxygen sensors (O2) as needed. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>14 Fuel System/Fuel Injection, Gas/Sensor, Oxygen/Removal and Installation> Upstream>Downstream.
10. Power up the 12 volt system. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info>08 Electrical/ Standard Procedure 12 Volt Power Up.
 11. Proceed to **Section D Reprogram PCM.**

Service Procedure [Continued]**D. Reprogram PCM**

NOTE: The wiTECH scan tool must be used to perform this recall.

NOTE: The Powertrain Control Module (PCM) must be updated to the latest available software calibration level after completing this Safety Recall. If the reprogramming flash process for the PCM is aborted or interrupted, the flash should be restarted.

1. Open the hood. Install a battery charger and verify that the charging rate provides 13.0 to 13.5 volts. Do not allow the charger to time out during the flash process. Set the battery charger timer (if so equipped) to continuous charge.
2. Connect the wiTECH micro pod II to the vehicle data link connector.
3. Place the ignition in the “**RUN**” position.
4. Open the wiTECH 2.0 website.
5. Enter your “**User id**” and “**Password**” and your “**Dealer Code**”, then select “**Sign In**” at the bottom of the screen. Click “**Accept**”.
6. From the “**Vehicle Selection**” screen, select the vehicle to be updated.
7. From the “**Action Items**” screen, select the “**Topology**” tab.
8. From the “**Topology**” tab, select the “**PCM**” module icon.
9. From the “**Flash**” tab, compare the “**Current Electronic Control Unit (ECU) Part Number**” with the “**New ECU Part Number**” listed.
 - If the “**Current ECU part Number**” is the same as the “**New Part Number**”, proceed to **Step 14**.
 - If the “**Current ECU part Number**” is NOT the same as the “**New Part Number**”, continue with **Step 10**.

Service Procedure [Continued]

10. Select the flash part number. Read the flash special instructions page. Select “**OK**” to continue.
 11. From the flash ECU agreement page, agree to terms by checking the box.
 12. Select “**Flash ECU**” and then follow the wiTECH screen instructions to complete the flash.
 13. Confirm the software is at the latest available calibration level.
 14. Click “**View DTCs**”, select “**Clear All DTCs**”, click “**Continue**” and then click “**Close**”.
- NOTE: An additional key cycle may be necessary to move active DTCs to stored DTCs then it will be necessary to clear all DTCs again**
15. Place the ignition in the “**OFF**” position and then remove the wiTECH micro pod II device from the vehicle.
 16. Remove the battery charger from the vehicle.
 17. Close the vehicle hood.
 18. If applicable, continue to **Section E. Complete Proof of Correction Form for California Residents.**

Service Procedure [Continued]

E. Complete Proof of Correction Form for California Residents

This recall is subject to the **State of California Registration Renewal/Emissions Recall Enforcement Program**. Complete a Vehicle Emission Recall Proof of Correction Form (**Form No. 81-016-1053**) and **supply it to vehicle owners residing in the state of California** for proof that this recall has been performed when they renew the vehicle registration.

Process Steps to obtain the California Proof of Correction form:

- a. Access the “**DealerCONNECT**” website.
- b. Select the “**Service**” tab.
- c. Under the “**Publications**” heading, select the “**ePublishing**” link.
- d. Sign in using your **Dealer Code** and **Password**.
- e. Select the “**Proof of Correction form**”.

Completion Reporting and Reimbursement

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims paid will be used by FCA to record recall service completions and provide dealer payments.

Use the following labor operation numbers and time allowances:

	Labor Operation Number	Time Allowance
Inspect Fault Codes (No Codes Present), Borescope Left and Right Catalyst, and Reprogram Powertrain Control Module	18-U9-41-82	1.7 hours
Inspect Fault Codes (Codes Active), Borescope and Replace Left and Right Catalyst, and Reprogram Powertrain Control Module	18-U9-41-83	3.2 hours
Inspect Fault Codes (Codes Active), Replace Left and Right Catalyst, and Reprogram Powertrain Control Module	18-U9-41-84	2.9 hours

Add the cost of the recall parts package plus applicable dealer allowance to your claim.

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

Dealer Notification

To view this notification on DealerCONNECT, select “Global Recall System” on the Service tab, then click on the description of this notification.

Owner Notification and Service Scheduling

All involved vehicle owners known to FCA are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

Vehicle Lists, Global Recall System, VIP and Dealer Follow Up

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an updated VIN list of their incomplete vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the “**Service**” tab and then click on “**Global Recall System.**” Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

Dealers must perform this repair on all unsold vehicles before retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.

Additional Information

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services / Field Operations

FCA US LLC

This notice applies to your vehicle,

[Model Year and Model]

VIN XXXXXXXXXXXXXXXXXXXX

U94/NHTSA 18V-740

LOGO

VEHICLE PICTURE

YOUR SCHEDULING OPTIONS

- 1. RECOMMENDED OPTION**
Call your authorized Chrysler / Dodge / Jeep® / RAM Dealership
- 2. Call the FCA Recall Assistance Center at 1-800-853-1403.** An agent can confirm part availability and help schedule an appointment
- 3. Visit recalls.mopar.com, scan the QR code below, or download the Mopar Owner's Companion App.**

QR Code

Get access to recall notifications, locate your nearest dealer, and more through this website or Mopar Owner's Companion App. You will be asked to provide your Vehicle Identification Number (VIN) to protect and verify your identity. The last eight characters of your VIN are provided above.

DEALERSHIP INSTRUCTIONS

Please reference Safety Recall U94.

IMPORTANT SAFETY RECALL

Reprogram Powertrain Control Module

Dear [Name],

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

FCA has decided that a defect, which relates to motor vehicle safety, exists in certain [2017 and 2018 Model Year (RU) Chrysler Pacifica PHEV] vehicles.

It is extremely important to take steps now to repair your vehicle to ensure the safety of you and your passengers.

WHY DOES MY VEHICLE NEED REPAIRS?

The Powertrain Control Module (PCM) on your vehicle ^[1] may have received suspect software that was the remedy for Safety Recall U73 (18V-332). During some auto restart events (where the vehicle has been operating in PHEV propulsion mode, and the gas-fueled engine is attempting to restart in order to take over propulsion), the engine can synchronize 360-degrees out of phase. The detection of this mis-synchronization was not robust in the PCM software. In the PHEV propulsion system, the electric motor will continue to spin the engine in this condition causing significant amounts of unburned fuel to enter the catalyst and potentially ignite. **A mis-synchronized engine could result in a loss of motive power, and/or a potential fire. A loss of motive power can cause a vehicle crash without prior warning. A fire can result in increased risk of occupant injury and injury to persons outside the vehicle.**

HOW DO I RESOLVE THIS IMPORTANT SAFETY ISSUE?

FCA will repair your vehicle ^[2] free of charge (parts and labor). To do this, your dealer will update PCM software to detect and correct engine mis-synchronization and to inspect the catalytic converter and replace, if necessary. In addition, your dealer will require your vehicle for proper check-in, preparation, and check-out during your visit. Your time is important to us; please be aware that these steps may require more time. The estimated repair time is two to four hours. We recommend that you schedule a service appointment to minimize your inconvenience. Please bring this letter with you to your dealership.

**TO SCHEDULE YOUR FREE REPAIR,
CALL YOUR CHRYSLER, DODGE, JEEP OR RAM DEALER TODAY**

CALIFORNIA RESIDENTS

The State of California requires the completion of emission recall repairs prior to vehicle registration renewal. Your dealer will provide you with a Vehicle Emission Recall Proof of Correction Form after the Emission Recall service is performed. Be sure to save this form since the California Department of Motor Vehicles may require that you supply it as proof that the Emission Recall has been performed.

In order to ensure your full protection under the emissions warranty provisions, it is recommended that you have your (vehicle or engine) serviced as soon as possible. Failure to do so could be determined as lack of proper maintenance of your (vehicle or engine).

WHAT IF I ALREADY PAID TO HAVE THIS REPAIR COMPLETED?

If you have already experienced this specific condition and have paid to have it repaired, you may visit www.fcarecallreimbursement.com to submit your reimbursement request online. ^[3] Once we receive and verify the required documents, reimbursement will be sent to you within 60 days. If you have had previous repairs performed and/or already received reimbursement, you may still need to have the recall repair performed.

We apologize for any inconvenience, but are sincerely concerned about your safety. Thank you for your attention to this important matter.

Customer Assistance/Field Operations
FCA US LLC



Mr. Mrs. Customer
1234 Main Street
Hometown, MI 48371

[1] If you no longer own this vehicle, please help us update our records. Call the FCA Recall Assistance Center at 1-800-853-1403 to update your information.

[2] If your dealer fails or is unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave., S.E., Washington, DC 20590, or you can call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to safercar.gov.

[3] You can also mail in your original receipts and proof of payment to the following address for reimbursement consideration: FCA Customer Assistance, P.O. Box 21-8004, Auburn Hills, MI 48321-8007, Attention: Recall Reimbursement.

Note to lessors receiving this recall notice: Federal regulation requires that you forward this recall notice to the lessee within 10 days.