



Revision 1 October 2018

Dealer Service Instructions for:

Safety Recall U87 / NHTSA 18V-524 Powertrain Control Module

NOTE: Added additional sales code (EDE) to CSBKU874AA Part Number, and engine size update to CSBKU87JAA - 2019 KL 2.0L (EC1)

Remedy Available

2017 - 2018 (JK) Jeep® Wrangler **2018 (JL) Jeep® Wrangler** 2018 - 2019 (KL) Jeep® Cherokee 2018 (LA) Dodge Challenger 2018 (LD) Dodge Charger 2017 - 2018 (RT) Dodge Caravan 2018 (RU) Chrysler Pacifica 2018 (RU) Chrysler Pacifica-Hybrid 2018 (DX) RAM Truck (Mexico) 2018 (DS) RAM 1500 Pickup 2018 (BU) Jeep® Renegade 2018 (FB) FIAT 500X **2018 (JC) Dodge Journey** 2018 (LX) Chrysler 300 2018 (MP) Jeep® Compass 2018 (VF) RAM Promaster 2018 (WD) Dodge Durango 2018 (WK) Jeep® Grand Cherokee

NOTE: This recall applies only to the above vehicles equipped with a 2.0L (sales code EC1), 2.4 L 14 DOHC 16V Dual VVT (sales code ED3), 2.4L 14 MultiAir w/ESS (sales code EDD), 2.4L 14 Zero Evap. m-Air w/ESS (sales code EDE), 2.0L 14 DOHC Turbo eTorque (sales code EC3), 2.4L 14 E22 DOHC 16V Dual VVT (sales code ED7), 3.2L V6 24V VVT w/ESS (sales code EHK), 3.6L (sales codes ERB, ERF, ERC), 3.6L V6 Hybrid (sales code EH3), 5.7L (sales code EZH), 2.4L (sales code ED6), and 2.4L (sales code ED8) engine built from August 30, 2017 through June 27, 2018 (MDH 083006 through 062709).

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

The Powertrain Control Module (PCM) about 12,766 of the above vehicles may have been manufactured with a suspect voltage regulator chip on the electronic circuit board. If the powertrain control module fails, you may experience a no-start, a start-and-immediate stall condition, or an engine stall while driving. An engine stall while driving resulting in loss of motive power can cause vehicle crash without prior warning.

Repair

The PCM on all of the above vehicles must be replaced and reprogrammed.

Table of Contents

Page

Powertrain Control Module (PCM) Part Numbers.... 4

Section

A.	Standard PCM programming procedure7
B .	PCM Removal / Installation Procedure JK/JL models8-10
C.	PCM Removal / Installation Procedure KL model11-13
D.	PCM Removal /Installation Procedure LA/LD/LX models14-20
D1. D2.	LA vehicles
E.	PCM Removal/Installation RU- Hybrid model21-28
F.	PCM Removal/Installation RT model29-31
G.	PCM Removal/Installation DS/DX models
H.	PCM Removal/Installation BU Jeep Renegade, FB Fiat 500X, MP, M1, M6 Jeep Compass Models
I.	PCM Removal/Installation JC Dodge Journey model
J.	PCM Removal/Installation VF RAM Promaster model 39-41
K.	PCM Removal/Installation WD Dodge Durango WK Jeep Grand Cherokee models
L.	PCM Removal/Installation RU Chrysler Pacifica model 45-48

Parts Information

Part Number **Description** 2017-2018 JK (3.0L, 3.6L) sales code EHD, ERB CSBKU871AA 2018 - DS, DX (5.7L) sales code EZH CSBKU872AA 2018 - JC (2.4L) sales code ED3 CSBKU873AA 2018 - MP (2.4L) ED6, EDD, EDE CSBKU874AA 2018 - KL (3.2L) sales code EHK CSBKU875AA 2018 - VF (3.6L) sales code ERB CSBKU876AA 2018 - LA, LD, LX (3.6L) sales code ERB CSBKU877AA CSBKU878AA 2018 - BU, FB (2.4L) sales code ED6 CSBKU879AA 2018 - DS, DX (3.6L) sales code ERB 2018 - RU (3.6L) sales code ERC, ERF CSBKU87AAA 2017 - 2018 RT (3.6L) sales code ERB CSBKU87BAA 2018 - WD, WK (3.6L) sales code ERC, CSBKU87CAA EHW(3.0L)2018 - JC (3.6L) sales code ERB CSBKU87DAA CSBKU87EAA 2018 - KL (2.4L) sales code ED6, ED8 2018 - JL (3.6L) sales code ERC CSBKU87FAA 2018 - RU (3.6L) Hybrid sales code EH3 CSBKU87GAA 2018 - JL (2.0L) sales code EC3 CSBKU87HAA CSBKU87JAA 2019 - KL (2.0L) sales code, EC1

CSBKU87KAA 2019 - KL (2.4L) sales code EDE, EDD

Parts Return

No parts return required for this campaign.

NOTE: The removed PCM must be damaged and disposed by the dealership.

Special Tools

The following special tools is required to perform this repair:

NPN wiTECH micro pod II
 NPN Laptop Computer
 NPN wiTECH Software
 10084 Covers, Protective
 2035100081 Covers Set, Safety

Service Procedure

CAUTION: Certain ABS systems rely on having the Powertrain Control Module (PCM) broadcast the Vehicle Identification Number (VIN) over the bus network. To prevent problems of DTCs and other items related to the VIN broadcast, it is recommended that you disconnect the ABS CAB (controller) temporarily when replacing the PCM. Once the PCM is replaced, write the VIN to the PCM using a diagnostic scan tool. This is done from the engine main menu. Arrow over to the second page to "1. Miscellaneous". Select "Check VIN" from the choices. Make sure it has the correct VIN entered before continuing. When the VIN is complete, turn off the ignition key and reconnect the ABS module connector. This will prevent the setting of DTCs and other items associated with the lack of a VIN detected when you turn the key ON after replacing the PCM.

CAUTION: Use a diagnostic scan tool to reprogram the new PCM with the vehicles original identification number (VIN) and the vehicles original mileage. If this step is not done, a Diagnostic Trouble Code (DTC) may be set.

CAUTION: Read all notes and cautions for programming procedures.

NOTE: The wiTECH scan tool must be used to perform this recall. The wiTECH software is required to be at the latest release level before performing this procedure. If the reprogramming flash for the PCM is aborted or interrupted, repeat the procedure.

NOTE: Use an accurate stand-alone voltmeter. The battery charger volt meter may not be sufficiently accurate. Voltages outside of the specified range will cause an unsuccessful flash. If voltage reading is too high, apply an electrical load by activating the park or headlamps and/or HVAC blower motor to lower the voltage.

NOTE: Follow section <u>A. Standard PCM programming procedure</u> After the **NEW** PCM is installed.

A. Standard PCM programming procedure

- 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.

NOTE: The PCM must be at the latest software calibration level after completing this recall.

- 8. From the "**Topology**" tab, select the "**PCM**" module icon.
- 9. From the "**Flash**" tab, select the PCM flash part number. Read the flash special instructions page. Select "**OK**" to continue.
- 10. From the flash ECU agreement page, agree to terms by checking the box.
- 11. Select "Flash ECU" and then follow the wiTECH screen instructions to complete the flash.
- 12. Confirm the software is at the latest available calibration level.
- 13. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".
- 14. Continue with the steps in section related to your specific vehicle procedure.

B. PCM Removal / Installation Procedure JK/JL/ models

Removal

1. Disconnect, separate, and isolate the negative battery cable(s) (Figure 1).



Figure 1 – Battery Cable

2. JL 3.6L Model, remove the air inlet snorkel and fasteners (Figure 2).



Figure 2 – Air Inlet Snorkel

Page 9

Service Procedure [Continued]

- 3. Unlock and disconnect the two electrical connectors at the PCM.
- 4. Remove the PCM retaining bolts.
- 5. If equipped, reposition the ground strap.
- 6. Remove the PCM from the mounting bracket.

PCM Installation

- 7. Position the **NEW** PCM onto the mounting bracket.
- 8. If equipped, position the ground strap and install the retaining bolts and tighten to 9 N \cdot m (80 in. lbs.).
- 9. Carefully plug the connectors into the PCM.
- 10. JL 3.6L Model, install the air inlet snorkel (Figure 2).
- 11. Connect the negative battery cable/s and tighten nut to 5 N·m (45 in. lbs.).
- 12. Follow section A. Standard PCM programming procedure.
- 13. JL Models, obtain vehicle PIN follow procedure below.a. From the home page on DealerCONNECT select the "Service" tab
 - **b.** From the "Repair Information" section select "Key Code".
 - **c.** Enter the VIN, the reason and agree.
 - **d.** The PIN will be displayed, record this numbers for later use.

NOTE: If required, perform the "**Proxy Configuration Alignment**" located in the "Vehicle Preparations" menu in the Body Control Module (BCM). This routine will copy the PROXI into the PCM and write the PCM VIN. If PROXI Alignment is required, manually enter the VIN into the PCM using the "Check PCM VIN" misc. function under PCM.

- 14. From the "Topology" screen, select "PCM"
- 15. Select "Misc. functions"
 - **a.** Select "**Check PCM VIN**" and follow the on screen instructions. When complete, select "Finish".
 - **b**. Select "**Learn ETC**" and follow the on screen instructions. When complete, select "Finish".
 - **c.** Select "**Check PCM Odometer**" and follow the on screen instructions. When complete, select "Finish".
 - **d.** Select "**Miscellaneous Functions**" under the PCM menu, select and run the "**Brake Pedal Learn**" routine

NOTE: When performing the Brake Pedal Calibration Learn routine, make sure the brake pedal is NOT pressed. **NOTE:** Not all PCMs support the Brake Pedal Learn. If the PCM supports the routine, it will be available.

- 16. From the "Topology" screen, select "BCM".
- 17. Select "Miscellaneous Functions" menu.
- 18. Run the "Immobilizer ECU Replace" routine.
- 19. Place the ignition in the "**OFF**" position and then disconnect the wiTECH micro pod II device from the diagnostics port, close all doors to allow the bus to go to sleep.
- 20. Reconnect the micro pod II to the vehicle diagnostics port and start a wiTECH session and clear all DTC's.
- 21. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 22. Remove the battery charger from the vehicle.
- 23. Close the vehicle hood and return the vehicle to the customer.

C. PCM Removal / Installation Procedure KL model

Removal

- 1. Open the hood.
- 2. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable.
- 3. Disconnect the PCM electrical connectors (Figure 3).



Figure 3 – PCM Location

4. Remove the nuts that secure the PCM to the PCM mount and remove the ground wire, if necessary, from the stud.

Safety Recall U87 – Powertrain Control Module

5. If required, remove the PCM mount.

Service Procedure [Continued]

PCM Installation

- 6. Install the **NEW** PCM and tighten the bolts to $7 \text{ N} \cdot \text{m}$ (62 in lbs.).
- 7. Connect the PCM wire harness connectors.
- 8. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector to the negative battery cable.
- 9. Follow section A. Standard Programming PCM Procedure.
- 10. Obtain vehicle **PIN** follow procedure below.**a.** From the home page on DealerCONNECT select the "Service" tab
 - b. From the "Repair Information" section select "Key Code".
 - c. Enter the VIN, the reason and agree.
 - **d.** The PIN will be displayed, record this numbers for later use.
- 11. From the "Topology "select PCM.
- 12. Select "Miscellaneous Functions."
 - **a.** Select "Check PCM VIN" and follow the on screen instructions. When complete, select "Finish".
 - **b.** Select "**Check PCM Odometer**" and follow the on screen instructions. When complete, select "Finish".
 - **c.** Select "Learn ETC" and follow the on screen instructions. When complete, select "Finish".
- 13. Go to the "Action" tab.
- 14. Select guided diagnostics.

15. Select "Proxy Configuration Alignment".

NOTE: If required, perform the "**Proxy Configuration Alignment**" located in the "Vehicle Preparations" menu in the Body Control Module (BCM). This routine will copy the PROXI into the PCM and write the PCM VIN. If PROXI Alignment is required, manually enter the VIN into the PCM using the "Check PCM VIN" misc. function under PCM.

- 16. Turn the ignition to "**OFF**" disconnect the Micro Pod from the vehicle diagnostics port, wait two minutes for the bus to go to sleep.
- 17. Reconnect the Micro pod II to the vehicle diagnostics port and start the wiTECH session.
- 18. From the "Topology" screen select "BCM".
- 19. Select "Misc. Functions".
- 20. Select "PCM Replaced" routine, follow prompts to finish.
- 21. Clear all DTC's.
- 22. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 23. Remove the battery charger from the vehicle.
- 24. Close the vehicle hood and return the vehicle to the customer.

D. PCM Removal /Installation Procedure LA/LD/LX models

Removal

NOTE: For cowl top panel removal, refer to Section D1 for (LA) vehicles and Section D2 for (LD) and (LX) vehicles.

Section D1 Remove Cowl Top Panel - (LA) Vehicles

- 1. Open the hood.
- 2. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS electrical connector first.
- 3. Remove the two pushpins that secure the front cowl top panel to the right rear corner of the engine compartment (Figure 4).
- 4. Remove the front cowl top panel (Figure 4).



Figure 4 – Front Cowl Top Push Pins

5. Proceed to **PCM Removal**.

Service Procedure [Continued]

Section D2. Remove Cowl Top Panel - (LD) and (LX) Vehicles

- 1. Open the hood.
- 2. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS electrical connector first.
- 3. Carefully pry the plastic caps off of the wiper arm pivot nuts (Figure 5).



Figure 5 – Wiper Arm Plastic Caps

- 4. Lift the wiper arm and blade to its over-center position to hold the wiper blade off of the glass and relieve the spring tension on the wiper arm to pivot shaft connection while loosening the wiper arm nuts and removing the wiper arms.
- 5. Remove the nuts that secure the wiper arms to the wiper pivot shaft (Figure 5).

NOTE: If necessary, use a suitable battery terminal puller to disengage the wiper arm from the wiper pivot shaft.

6. Remove both wiper arms from the wiper pivot shaft (Figure 5).



Figure 5 – Wiper Arms and Pivot Shaft Nuts

- 7. Remove the nine pushpins that secure the cowl top panel (Figure 6).
- 8. Disengage the integral retaining clips that secure the cowl top panel to the dash panel and remove the cowl top panel from the engine compartment (Figure 6).



Figure 6 – Wiper Arm Plastic Caps

9. Proceed to PCM Removal.

PCM Removal

- 1. **If equipped with hood ajar switch**: Working from the top of the PCM mounting bracket on the upper radiator cross member, squeeze the two hood ajar switch latch tabs together far enough to pull the switch upward (Figure 7).
- 2. **If equipped with hood ajar switch**: Pull the hood ajar switch up through the hole in the PCM mounting bracket far enough to access and disconnect the wire harness electrical connector from the switch (Figure 7).
- 3. **If equipped with hood ajar switch**: Remove the hood ajar switch from the vehicle (Figure 7).
- 4. Remove the Powertrain Control Module (PCM) retaining bolt (Figure 7).



Figure 7 – Hood Ajar Switch

5. Disconnect the PCM electrical connectors (Figure 8).

6. Remove the PCM from the vehicle (Figure 8).



Figure 8 – PCM Electrical Connectors

- 7. Transfer the rubber bumper from the old PCM to the new PCM (Figure 9).
- 8. Transfer the mounting bracket and retaining nuts from the old PCM to the new PCM (Figure 9). Tighten the nuts to 8 N·m (71 in. lbs.).



Figure 9 – PCM Mounting Bracket and Rubber Bumper

PCM Installation

- 9. Install the **NEW** PCM.
- 10. Connect the PCM electrical connectors to the PCM (Figure 8).
- 11. Position the PCM bracket to the cross support, install the retaining bolt and tighten to 16 N·m (12 ft. lbs.) (Figure 7).
- 12. **If equipped with hood ajar switch**: Position the hood ajar switch near the switch mounting hole in the PCM mounting bracket on the upper radiator cross member (Figure 7).
- 13. **If equipped with hood ajar switch**: Pull the hood ajar switch wire harness connector through the switch mounting hole and connect it to the hood ajar switch (Figure 7).
- 14. **If equipped with hood ajar switch**: From the top of the mounting bracket, press the hood ajar switch downward into the mounting hole until the two integral switch latch tabs lock it into place (Figure 7).
- 15. Follow section A. Standard Programming PCM Procedure.
- 16. From the "Topology" screen, select "ECU View"
- 17. Select "PCM".
- 18. Select "Misc. functions"
 - a. Select "Check PCM VIN" and follow the on screen instructions. When complete, select "Finish".
 - **b.** Select "Learn ETC" and follow the on screen instructions. When complete, select "Finish".
 - **c.** Select "**Check PCM Odometer**" and follow the on screen instructions. When complete, select "Finish".
 - d. Perform the "Brake Pedal Learn" procedure as follows:
 - **I.** Park the vehicle on level ground.

NOTE: When performing the Brake Pedal Calibration Learn routine, make sure the brake pedal is NOT pressed. **NOTE:** Not all PCMs support the Brake Pedal Learn. If the PCM supports it the routine will be available.

- **II.** With the scan tool, under the PCM "Miscellaneous Functions" menu, select and run the "Brake Pedal Learn" routine.
- 19. View and clear all DTCs.
- 20. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 21. Remove the battery charger from the vehicle.
- 22. Close the vehicle hood and return the vehicle to the customer.

E. PCM Removal/Installation RU- Hybrid model

Removal

NOTE: Because the high-voltage battery is used to charge the 12-volt battery via the Auxiliary Power Module (APM), disconnecting the 12-volt battery negative cable will not power down the 12-volt system. The following procedure must be performed before any repairs, disassembly, or testing requiring 12-volt power down are carried out.

1. Remove and save the 12-volt Power Distribution Center (PDC) cover (Figure 10).

2. Remove and save the nut securing the positive battery cable, then disconnect the positive battery cable from the 12-volt PDC (Figure 10).

3. Cover the positive battery cable terminal with protective cover **10084** (Figure 11).

Figure 10 – Power Distribution Center

POSITIVE BATTERY CABLE







Figure 11 – Cover Cable Terminal

4. Lift the carpet away from the high-voltage manual service disconnect access cover (Figure 12).



Figure 12 – Vehicle Carpet

5. Remove and save the four screws securing the high-voltage manual service disconnect access cover to the floor then remove and save the cover (Figure 13).



Figure 13 – High-Voltage Manual Service Disconnect Access Cover

6. Depress the lever release latch firmly. With the latch fully depressed, rotate the lever upward. The lever will stop at the 45° position (Figure 14).

NOTE: At this stage, the High Voltage Inter-Lock (HVIL) connection has been broken and the circuit is de-energized.



Figure 14 – High-Voltage Manual Service Disconnect First Stage Latch Release (High-Voltage Manual Service Disconnect Removed from Vehicle for Visual Clarity)

7. Depress the locking tab and continue to rotate the lever to the end of travel, 90° position (Figure 15).



Figure 15 – High-Voltage Manual Service Disconnect Second Stage Latch Release

(High-Voltage Manual Service Disconnect Removed from Vehicle for Visual Clarity)

8. Pull straight up on the service disconnect lever to disengage and remove the high-voltage manual service disconnect from the receptacle (Figure 16).

NOTE: Make sure the location of the high-voltage manual service disconnect is always known after removal. It is best practice to place the high-voltage manual service disconnect in a highly visible location when removed.



Figure 16 – High-Voltage Manual Service Disconnect and Receptacle

 Cap the receptacle on the high-voltage battery with the appropriate cover found in safety cover set 2035100081 to prevent foreign objects from entering the receptacle (Figure 17).

10. Check the 12-Volt system at the Power Distribution Center (PDC) with a multimeter to assure that there is less than 1-Volt present. If so, the 12-volt electrical system is now powered down.



Figure 17 – High-Voltage Battery Receptacle Safety Cover

- 11. Disconnect the fresh air makeup hose from the air cleaner body (Figure 18).
- 12. Disconnect the wire harness connector from the Inlet Air Temperature (IAT) sensor (Figure 18).
- 13. Loosen the clean air hose clamp and disengage the clean air hose from the resonator (Figure 18).
- 14. Loosen the cover screws and remove the air cleaner housing cover (Figure 19).
- 15. Remove the air cleaner element (Figure 19).
- 16. Loosen the duct clamp and pull the air inlet duct straight up to disengage the locating pins from the rubber mount sockets (Figure 20).
- 17. Disengage the air cleaner body locating pins from the rubber mount sockets then remove and save the air cleaner body (Figure 20).



Figure 18 – Air Cleaner Assembly



Figure 19 – Air Cleaner Element



Figure 20 – Air Cleaner Body

- 18. Disconnect the electrical connections from the Powertrain Control Module (PCM).
 NOTE: The PCM is not visible in the graphics it is located behind to the left of the PDC.
- 19. Remove the three nuts securing the PCM to the PCM bracket.
- 20. Lift the PCM off the bracket and remove the PCM from the engine compartment.

Installation

- 21. Position and seat the **NEW** PCM to the PCM bracket.
- 22. Install and tighten the three retaining nuts securing the PCM to the PCM bracket.
- 23. Connect and lock the electrical connectors to the PCM.
- 24. Lubricate the rubber mount sockets on the air cleaner housing with Mopar® Rubber Bushing Installation Lube or equivalent.
- 25. Install the air cleaner body straight down on the locating pins until the rubber mount sockets are fully seated.
- 26. Install the air inlet duct and engage the retainers.
- 27. Securely tighten the air inlet to air cleaner body clamp.
- 28. Install the air cleaner element into the air cleaner housing.
- 29. Install the hose to the resonator and seat the cover onto the housing. Tighten the retaining screws to the proper.
- 30. Securely tighten the clamp at the resonator.
- 31. Connect the wire harness connector to the Inlet Air Temperature (IAT) sensor
- 32. Connect the fresh air makeup hose to the air cleaner body.

- 33. Reinstall the service disconnect (Figure 13).
- 34. Reinstall the service disconnect cover (Figure 13).
- 35. Secure the service disconnect cover screws and reinstall carpeting over the cover.
- 36. Reconnect the positive battery cable to the PDC and secure the nut (Figure 10).
- 37. Follow section A. Standard Programming PCM Procedure.
- 38. Obtain vehicle **PIN** follow procedure below.**a.** From the home page on DealerCONNECT select the "Service" tab
 - b. From the "Repair Information" section select "Key Code".
 - c. Enter the VIN, the reason and agree.
 - **d.** The PIN will be displayed, record this numbers for later use.
- 39. From the "Topology" screen, select "PCM"

40. Select "Misc. functions"

a. Select "Check PCM VIN" and follow the on screen instructions.

- b. When complete, select "Finish".
- c. From "Topology" screen and select the Body Control Module (BCM).
- d. Select the "Misc. Functions" menu.
- e. Run the "Immobilizer ECU Replace" routine.
- f. From the "Topology" screen, select "PCM".
- g. Select "Misc. functions"
- **h.** Select "Learn ETC" and follow the on screen instructions. When complete, select "Finish".

- i. Select "Check PCM Odometer" and follow the on screen instructions. When complete, select "Finish".
- j. Perform the "Brake Pedal Learn" procedure as follows:
- **k.** Park the vehicle on level ground.

NOTE: When performing the Brake Pedal Calibration Learn routine, make sure the brake pedal is NOT pressed.

NOTE: Not all PCMs support the Brake Pedal Learn. If the PCM supports it the routine will be available.

- 41. With the scan tool, under the PCM "Miscellaneous Functions" menu, select and run the "Brake Pedal Learn" routine.
- 42. Select **"Total Linear Compensation (TLC) learn"**, follow screen prompts to "finish".

NOTE: Engine temperature must be at 150 (F) (65 C) degrees before the TLC learn routine is performed, hood must be open in order for the engine to start and not be in the "electric" mode.

- 43. Clear all DTC's.
- 44. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 45. Remove the battery charger from the vehicle.
- 46. Close the vehicle hood and return the vehicle to the customer.

F. PCM Removal/Installation RT model

Removal

- 1. Disconnect and isolate the negative battery cable.
- 2. Raise and support the vehicle.
- 3. Remove the left front wheel and tire assembly.
- 4. Remove the four screws and five pushpins from the splash shield and remove the shield (Figure 21).



NOTE: Pushpins not illustrated.

NOTE: The PCM is located behind the splash shield towards the front (Not Illustrated).

Figure 21 – Right Front Splash Shield

- 4. Unlock and disconnect the electrical connectors from the powertrain control module (PCM).
- 5. Remove the three bolts and the PCM.

Installation

- 6. Install the **NEW** powertrain control module (PCM) with three bolts tightened to 4.5 N·m (40 in. lbs.).
- 7. Connect and lock the electrical connectors to the PCM.
- 8. Reposition the splash shield cover and install the pushpins and screws (Figure 21).
- 9. Install the wheel and tire assembly and tighten the lug nuts to 135 N⋅m (100 ft. lbs.).
- 10. Lower the vehicle.
- 11. Connect the negative battery cable and tighten nut to 5 N·m (45 in. lbs.).
- 12. Follow section A. Standard Programming PCM Procedure.

NOTE: Programming the PCM or WIN is done using the diagnostic scan tool and a PIN to enter secure access mode. If three attempts are made to enter secure access mode using an incorrect PIN, secure access mode will be locked out for one hour. To exit this lockout mode, turn the ignition to the RUN position for one hour and then enter the correct PIN. Be certain that all accessories are turned OFF. Also, monitor the battery state and connect a battery charger if necessary.

CAUTION: Read all notes and cautions for programming procedures.

- 13. Obtain vehicle **PIN** follow procedure below.a. From the home page on DealerCONNECT select the "Service" tab
 - b. From the "Repair Information" section select "Key Code".
 - **c.** Enter the VIN, the reason and agree.
 - d. The PIN will be displayed, record this numbers for later use.

- 14. Ignition key should be in RUN position.
- 15. Select "ECU View".
- 16. Select "WIN Wireless Control".
- 17. Select "Miscellaneous Functions."
- 18. Select "PCM Replaced".
- 19. Enter the **PIN** when prompted.
- 20. Verify the correct information.
- 21. Cycle ignition key after the successful routine completion.
- 22. Select "PCM".
- 23. Select "Misc. functions"a. Select "Learn ETC" and follow the on screen instructions. When complete, select "Finish".

b. Select "**Check PCM Odometer**" and follow the on screen instructions. When complete, select "Finish".

- 24. Clear all DTC's.
- 25. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 26. Remove the battery charger from the vehicle.
- 27. Close the vehicle hood and return the vehicle to the customer.

G. PCM Removal/Installation DS/DX models.

CAUTION: Certain ABS systems rely on having the Powertrain Control Module (PCM) broadcast the Vehicle Identification Number (VIN) over the bus network. To prevent problems of DTCs and other items related to the VIN broadcast, it is recommended that you disconnect the ABS CAB (controller) temporarily when replacing the PCM. Once the PCM is replaced, write the VIN to the PCM using a scan tool. This is done from the engine main menu. Arrow over to the second page to "1. Miscellaneous". Select "Check VIN" from the choices. Make sure it has the correct VIN entered before continuing. When the VIN is complete, turn off the ignition key and reconnect the ABS module connector. This will prevent the setting of DTCs and other items associated with the lack of a VIN detected when you turn the key ON after replacing the PCM.

CAUTION: Use the scan tool to reprogram the new PCM with the vehicles original identification number (VIN) and the vehicles original mileage. If this step is not done, a Diagnostic Trouble Code (DTC) may be set.

Removal

- 1. Disconnect the negative battery cable.
- 2. Carefully disconnect the electrical connectors from the PCM (Figure 22).



Figure 22 – PCM Location

3. Remove the three PCM mounting fasteners and remove the PCM from the vehicle.

Installation

- 4. Position the **NEW** PCM to the mounting bracket. Tighten the bolts to 8 N⋅m (71 in. lbs.).
- 5. Reconnect the electrical connector to the PCM.
- 6. Connect the negative battery cable and tighten nut to $5 \text{ N} \cdot \text{m}$ (45 in. lbs.).
- 7. Follow section A. Standard Programming PCM Procedure.
- 8. From the "Topology" screen, select "ECU View"
- 9. Select "PCM"
- Select "Misc. functions"
 a. Select "Check PCM VIN" and follow the on screen instructions. When complete, select "Finish".
 - **b.** Select "Learn ETC" and follow the on screen instructions. When complete, select "Finish".
 - c. Select "Check PCM Odometer" and follow the on screen instructions.

When complete, select "Finish".

- d. Perform the "Brake Pedal Learn" procedure as follows:
 - **I.** Park the vehicle on level ground.

NOTE: When performing the Brake Pedal Calibration Learn routine,

make sure the brake pedal is NOT pressed.

NOTE: Not all PCMs support the Brake Pedal Learn. If the PCM supports it, the routine will be available.

II. With the scan tool, under the PCM "Miscellaneous Functions" menu, select and run the "Brake Pedal Learn" routine.

- 11. Clear all DTC's.
- 12. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 13. Remove the battery charger from the vehicle.
- 14. Close the vehicle hood and return the vehicle to the customer.

H. PCM Removal/Installation (BU) Jeep Renegade, (FB) Fiat 500X, (MP) Jeep Compass models.

<u>Removal</u>

- 1. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable.
- 2. Remove the engine cover.
- 3. Disconnect the Powertrain Control Module (PCM) wire harness connectors.
- 4. Remove the retaining nut and disconnect the ground wire.
- 5. Remove the PCM retaining nuts and then remove the PCM from the vehicle.

Installation

- 6. Position the **NEW** PCM to the vehicle, then install and securely tighten the nuts.
- 7. Connect the ground wire and retaining nut to the PCM.
- 8. Connect the wire harness connectors to the PCM.
- 9. Install the engine cover.
- 10. Connect the negative battery cable and tighten nut to 5 N⋅m (45 in. lbs.). If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector.
- 11. Follow section A. Standard Programming PCM Procedure.

- 12. **MP, BU, FB Models -** Perform the "**Proxy Configuration Alignment**" located in the "Vehicle Preparations" menu in the Body Control Module (BCM). This routine will copy the PROXI into the PCM and write the PCM VIN.
- 13. **MP, Models** Select and run the "ECM" in "miscellaneous functions", and perform the "PCM/ECM/ESL replace" routine. Verify that the PCM states programmed after it transfers the immobilizer data.
- 15. MP, Model Perform the "ETC" test.
- 16. **BU, FB Models** Obtain PIN by following the steps below.
 - **a**. From the home page on DealerCONNECT select the "Service" tab
 - **b.** From the "Repair Information" section select "Key Code".
 - **c.** Enter the VIN, the reason and agree.
 - **d.** The PIN will be displayed, record this numbers for later use.
- 17. **BU, FB Models -** Navigate to the BCM "**Misc. Functions**" menu and perform the "Transfer Secret Key to ESL ECM" routine. Enter PIN when requested.
- 18. **BU, FB Models -** Verify that the engine starts and runs.
- 19. **BU, FB Models -** In the PCM "**Misc. Functions**" menu, select and run the "**Learn ETC**" routine. This routine is necessary to learn the throttle position voltages and the accelerator pedal position. Follow the prompts shown on the diagnostic scan tool.
- 20. **BU, FB Models -** In the PCM "**Misc. Functions**" menu, perform the "**Cruise Control Learn**" routine. Follow the prompts shown on the diagnostic scan tool
- 21. Clear all DTC's.
- 22. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 23. Remove the battery charger from the vehicle.
- 24. Close the vehicle hood and return the vehicle to the customer.

I. PCM Removal/Installation (JC) Dodge Journey model.

Removal

1. Disconnect and isolate the negative battery cable (Figure 23).



- 2. Unlock and disconnect the two electrical connectors at the PCM (Figure 23).
- 3. Remove the four bolts holding the PCM to the bracket and remove the PCM from the vehicle.

Installation

- 4. Install the **NEW** PCM to bracket with four bolts.
- 5. Install and lock the two electrical connectors to the PCM.
- 6. Connect the negative battery cable tighten nut to $5 \text{ N} \cdot \text{m}$ (45 in. lbs.).
- 7. Follow section A. Standard Programming PCM Procedure.
- 8. From the "Topology" screen, select "PCM"
- 10. Select "Misc. functions"
 - **a.** Select "**Check PCM VIN**" and follow the on screen instructions. When complete, select "Finish".
 - **b.** Select "Learn ETC" and follow the on screen instructions. When complete, select "Finish".
 - **c.** Select "**Check PCM Odometer**" and follow the on screen instructions. When complete, select "Finish".
 - d. Perform the "Brake Pedal Learn" procedure as follows:
 - **I.** Park the vehicle on level ground.

NOTE: When performing the Brake Pedal Calibration Learn routine,

make sure the brake pedal is NOT pressed.

NOTE: Not all PCMs support the Brake Pedal Learn. If the PCM supports it, the routine will be available.

II. With the scan tool, under the PCM "Miscellaneous Functions" menu, select and run the "Brake Pedal Learn" routine.

- 11. Cycle the ignition key and clear all DTC's.
- 12. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 13. Remove the battery charger from the vehicle.
- 14. Close the vehicle hood and return the vehicle to the customer.

J. PCM Removal/Installation (VF) RAM Promaster model.

Removal

1. Remove the floor mat and battery tray access cover (Figure 24).



Figure 24 – Battery Tray Access Cover

2. Disconnect and isolate the negative battery cable (Figure 25).



Figure 25 – Battery

- 3. Unlock and disconnect the electrical connectors from the Powertrain Control Module (PCM).
- 4. Remove the three nuts.
- 5. Remove the PCM from the bracket.

Installation

- 6. Install the **NEW** PCM and tighten the three nuts to $4.5 \text{ N} \cdot \text{m}$ (40 in. lbs.).
- 7. Connect and lock the electrical connectors to the PCM.
- 8. Connect the negative battery cable and tighten.
- 9. Reinstall the Battery access cover and floor mat.
- 10. Follow section A. Standard Programming PCM Procedure.
- 11. From the "**Topology**" screen, select "PCM"
- 12. Select "Misc. functions"
 - **a**. Select "**Check PCM VIN**" and follow the on screen instructions. When complete, select "Finish".
 - **b**. Select "**Learn ETC**" and follow the on screen instructions. When complete, select "Finish".
 - c. Select "Check PCM Odometer" and follow the on screen instructions.

- 13. If available (sales code XCL), select "Engine Idle Feature Enable/Disable" and set to vehicle operators preference.
- 14. If available (sales code XCL), select "Engine Idle Shutdown Timer Adjustment" and set to the vehicle operators preference.
- 15. Select the appropriate "MAX VEHICLE SPEED Adjustment" routine. Refer to the following sale code table to select the proper speed:

SALES CODE	VALUE
JJ3	50 MPH MAX SPEED
JJ4	55 MPH MAX SPEED
JJ5	60 MPH MAX SPEED
JJ7	65 MPH MAX SPEED
9LL	70 MPH MAX SPEED

- 16. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".
- 17. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 18. Remove the battery charger from the vehicle.
- 19. Close the vehicle hood and return the vehicle to the customer.

K. PCM Removal/Installation (WD) Dodge Durango (WK) Jeep Grand Cherokee models.

Removal

- 1. Disconnect and isolate the negative battery cable.
- 2. Remove the coolant reservoir fasteners and carefully position the reservoir to gain access to the PCM connectors (Figure 26).



Figure 26 – Coolant Reservoir

- 3. Carefully unplug the connectors from the PCM.
- 4. Remove the PCM retaining screws.
- 5. Position the ground strap aside.
- 6. Remove the PCM from the mounting bracket located on the PDC.

Installation

- 7. Position the **NEW** PCM onto the mounting bracket located on the PDC.
- Position the ground strap, install the retaining screws and tightened to 9 N⋅m (80 in. lbs.).
- 9. Carefully connect the electrical connectors into the PCM.
- Reinstall the coolant reservoir and tighten the fasteners to 10 N⋅m (89 in. lbs.). (Figure 26).
- 11. Connect the negative battery cable tighten nut to $5 \text{ N} \cdot \text{m}$ (45 in. lbs.).
- 12. Follow section A. Standard Programming PCM Procedure.
- 13. From the "Topology" screen, select "PCM"
- 14. Select "Misc. functions"
 - a. Select "Check PCM VIN" and follow the on screen instructions. When complete, select "Finish".
 - **b**. Select "**Learn ETC**" and follow the on screen instructions. When complete, select "Finish".
 - **c.** Select "**Check PCM Odometer**" and follow the on screen instructions. When complete, select "Finish".
 - d. Perform the "Brake Pedal Learn" procedure as follows:
 - e. Park the vehicle on level ground.

NOTE: When performing the Brake Pedal Calibration Learn routine, make sure the brake pedal is NOT pressed.

NOTE: Not all PCMs support the Brake Pedal Learn. If the PCM supports it, the routine will be available.

- 15. Place the ignition in the "**OFF**" position and then disconnect the wiTECH micro pod II device from the vehicle diagnostics port, close all doors allow the bus to go to sleep.
- 16. Reconnect the micro pod II to the vehicle diagnostics port start wiTECH and clear all DTC's.
- 17. Remove the battery charger from the vehicle.
- 18. Close the vehicle hood and return the vehicle to the customer.

L. PCM Removal/Installation (RU) Chrysler Pacifica model.

<u>Removal</u>

- 1. Disengage the retainers and remove the air inlet duct.
- 2. Disconnect the 12v and if equipped the auxiliary negative battery cable(s).
- 3. Disconnect the fresh air makeup hose from the air cleaner body (Figure 27).



Figure 27 – Air Cleaner Housing

- 4. Loosen the clean air hose clamp and disengage the clean air hose from the resonator (Figure 27).
- 5. Loosen the cover screws and remove the air cleaner housing cover (Figure 28).

6. Remove the air cleaner element.



Figure 28 – Air Cleaner

- 7. Remove the screw and pull the air cleaner body straight up to disengage the locating stud from the rubber mount (Figure 28).
- B. Disconnect the electrical connections from the Powertrain Control Module (PCM).
 NOTE: The PCM is not visible in the graphics it is leasted behind the sin

NOTE: The PCM is not visible in the graphics it is located behind the air cleaner body.

- 9. Remove the three nuts securing the PCM to the PCM bracket.
- 10. Lift the PCM off the bracket and remove the PCM from the engine compartment.

Installation

- 11. Position and seat the **NEW** PCM to the PCM bracket.
- 12. Install and tighten the three retaining nuts securing the PCM to the PCM bracket.
- 13. Connect and lock the electrical connectors to the PCM.
- 14. Lubricate the rubber mount sockets on the air cleaner housing with Mopar® Rubber Bushing Installation Lube or equivalent.
- 15. Install the air cleaner body straight down on the locating pin until the rubber mount is fully seated.
- 16. Install and tighten the air cleaner body screw (Figure 28).
- 17. Install the air cleaner element into the air cleaner housing.
- 18. Install the air cleaner housing top cover and tighten the screws (Figure 27).
- 18. Securely tighten the air inlet to air cleaner body clamp.
- 20. Connect the fresh air makeup hose to the air cleaner body.
- 21. Follow section A. Standard Programming PCM Procedure.
- 22. Obtain vehicle **PIN** follow procedure below.**a.** From the home page on DealerCONNECT select the "Service" tab
 - b. From the "Repair Information" section select "Key Code".
 - c. Enter the VIN, the reason and agree.
 - **d.** The PIN will be displayed, record this numbers for later use.

- 23. From the "**Topology**" screen, select "PCM"
- 24. Select "Misc. functions"
 - **a.** Select "**Check PCM VIN**" and follow the on screen instructions. When complete, select "Finish".
 - **b.** Select "**Learn ETC**" and follow the on screen instructions. When complete, select "Finish".
 - c. Select "Check PCM Odometer" and follow the on screen instructions.
 - d. From "Topology" screen and select the Body Control Module (BCM).
 - e. Select the "Misc. Functions" menu.
 - f. Run the "Immobilizer ECU Replace" routine.
 - g. From the "Topology" screen, select "PCM".
 - h. Select "Misc. functions"
 - i. Perform the "Brake Pedal Learn" procedure as follows:
 - **j.** Park the vehicle on level ground.

NOTE: When performing the Brake Pedal Calibration Learn routine, make sure the brake pedal is NOT pressed.

NOTE: Not all PCMs support the Brake Pedal Learn. If the PCM supports it the routine will be available.

- 25. Clear all DTC's.
- 26. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 27. Remove the battery charger from the vehicle.
- 28. Close the vehicle hood and return the vehicle to the customer.

Complete Proof of Correction Form for California Residents

This recall is subject to the <u>State of California Registration Renewal/Emissions</u> <u>Recall Enforcement Program</u>. Complete a Vehicle Emission Recall Proof of Correction Form (<u>Form No. 81-016-1053</u>) 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 <u>one</u> of the following labor operation numbers and time allowances:

	Labor Operation <u>Number</u>	Time <u>Allowance</u>
Replace PCM and Program JC, JK, VF, LA Models	08-U8-71-82	0.4 hours
Replace PCM and Program KL, FB, MP, DS, DX, WK, WD, BU, LX, LD RU-Non Hybrid	08-U8-71-83	0.5 hours
Replace and Program PCM RT 3.6L, JL 3.6L Model	08-U8-71-84	0.6 hours
Replace and Program PCM JL 2.0L Model	08-U8-71-85	0.7 hours
Replace and Program PCM RU - Hybrid Model	08-U8-71-86	1.2 hours
Floor Plan Reimbursement	95-95-95-97	Calculate See Below

Floor Plan Reimbursement

Floor Plan Reimbursement represents the vehicle's average daily allowance (see table below) multiplied by the number of days the vehicle was in dealer inventory and not available for sale. This reimbursement is limited to the number of days from the date of the stop sale to the date that the remedy was made available. Note: If the vehicle was received by your dealership (KZX date) AFTER the stop sale date, you will use the KZX date instead of the stop sale date. For this Recall, the stop sale was initiated on **08/16/2018** and the remedy was made available on **09/27/2018**, therefore, the number of days cannot exceed **42** days.

Vehicle	Average Daily Allowance
2017-2018 (JK) Jeep Wrangler	
2018 (JL) Jeep Wrangler	
2018 – 2019 (KL) Jeep Cherokee	
2018 (LA) Dodge Challenger	
2018 (LD) Dodge Charger	
2017-2018 (RT) Dodge Caravan	
2018 (RU) Chrysler Pacifica	
2018 (DS) RAM 1500 Pickup	
2018 (BU) Jeep Renegade	
2018 (FB) Fiat 500X	
2018 (JC) Dodge Journey	
2018 (LX) Chrysler 300	
2018 (MP) Jeep Compass	
2018 (VF) RAM Promaster	
2018 (WD) Dodge Durango	
2018 (WK) Jeep Grand Cherokee	

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 <u>updated</u> VIN list of <u>their incomplete</u> 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 <u>must</u> perform this repair on all unsold vehicles <u>before</u> 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.

This notice applies to your vehicle,

U87/NHTSA 18V-524

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.



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 **U87**

IMPORTANT SAFETY RECALL

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 – 2018 (JK) Jeep Wrangler, 2018 (JL) Jeep Wrangler, 2018 – 2019 (KL) Jeep Cherokee, 2018 (LA) Dodge Challenger, 2018 (LD) Dodge Charger, 2017 – 2018 (RT) Dodge Caravan/Chrysler Town & Country, 2018 (RU) Chrysler Pacifica, 2018 (DS) RAM 1500 Pickup, 2018 (BU) Jeep Renegade, 2018 (FB) FIAT 500X, 2018 (JC) Dodge Journey, 2018 (LX) Chrysler 300, 2018 (MP) Jeep Compass, 2018 RAM Promaster, 2018 (WD) Dodge Durango, 2018 (WK) Jeep Grand Cherokee] vehicles equipped with a 2.0L, 2.4L,3.2L, 3.6L, or 5.7L engine.

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 been manufactured with a suspect voltage regulator chip on the electronic circuit board. If the powertrain control module fails, you may experience a no-start, a start-and-immediate stall condition, or an engine stall while driving. An engine stall while driving resulting in loss of motive power can cause vehicle crash without prior warning.

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 replace and program the Powertrain Control Module. 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 one hour. We recommend that you schedule a service appointment to minimize your inconvenience. Please bring this letter with you to your dealership.

TO SCHEDULE YOUR <u>FREE</u> 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 serviced as soon as possible. Failure to do so could be determined as lack of proper maintenance of your vehicle.

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.