



July 2018

Dealer Service Instructions for:

# Equipment Safety Recall U83 NHTSA 18E-053 Reprogram Powertrain Control Module

### **Remedy Available**

MOPAR high performance Powertrain Control Module (PCM) included in the Demon Crate. This PCM is intended for use with 2018 Model Year (LA) Dodge Challenger SRT Demon vehicles.

IMPORTANT: Some of the involved equipment may be in dealer inventory. Federal law requires you to complete this recall service on this equipment before retail delivery.

# **Subject**

The Demon Crate includes a MOPAR high performance Powertrain Control Module (PCM). The fault handling strategy of this PCM software does not remove positive torque requests from the engine controller if the CAN-C bus stops communicating while the cruise control is requesting positive torque. In the instance of a short in the vehicle causing the CAN-C bus to stop communicating while the cruise control is active and the vehicle speed is below the set speed such that the cruise control system is requesting positive torque at the exact moment of the short, it is possible for a positive torque request to be locked on the PCM which may result in either the vehicle maintaining its current speed or possibly accelerating. If the driver does not shift to neutral or apply the brakes to stop the vehicle this condition can cause a vehicle crash without warning.

# Repair

Inspect the software level of the Powertrain Control Module (PCM) and if necessary, reprogram the PCM.

# **Parts Information**

No parts are required to perform this service procedure.

# **Parts Return**

No parts return required for this campaign.

# **Special Tools**

The following special tools are required to perform this repair:

➤ NPN wiTECH micro pod II

➤ NPN Laptop Computer

➤ NPN wiTECH Software

#### **Service Procedure**

#### A. Install Demon Crate PCM

- 1. Determine which PCM is currently installed in the vehicle.
  - **Production PCM** Continue with **Step 2** of this section.
  - **Demon Crate PCM** Proceed to **Section B. Reprogram PCM**

NOTE: The Demon Crate PCM has a MOPAR Performance Parts label, and the Production PCM has a generic controller label. Or using wiTech to read the PCM, the Demon Crate PCM will display "PCM Demon Crate" whereas the Production PCM will display "PCM Hellcat ADR SRT" within wiTech.

NOTE: If the Demon Crate PCM was never installed and programmed for the vehicle, first follow the Mopar Demon Crate I sheet installation instructions and perform the PCM learn procedure before performing Safety Recall U83.

- 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 push pins that secure the front cowl top panel to the right rear corner of the engine compartment (Figure 1).
- 4. Remove the front cowl top panel (Figure 1).

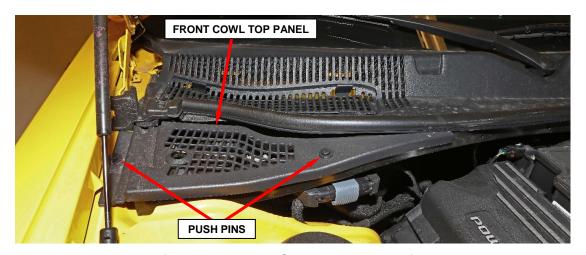


Figure 1 – Front Cowl Top Push Pins

- 5. 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 2).
- 6. 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 2).
- 7. Remove the hood ajar switch from the vehicle (Figure 2).
- 8. Remove the Powertrain Control Module (PCM) retaining bolt (Figure 2).

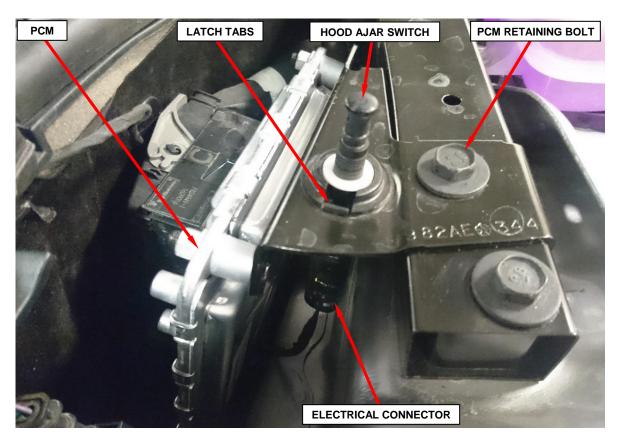


Figure 2 - Hood Ajar Switch

- 9. Disconnect the PCM electrical connectors (Figure 3).
- 10. Remove the production PCM from the vehicle (Figure 3).
- 11. Connect the PCM electrical connectors to the Demon Crate PCM (Figure 3).
- 12. Reconnect the vehicle battery. If equipped with an IBS, connect the IBS connector (Figure 3). Proceed to Section **B. Reprogram PCM**.

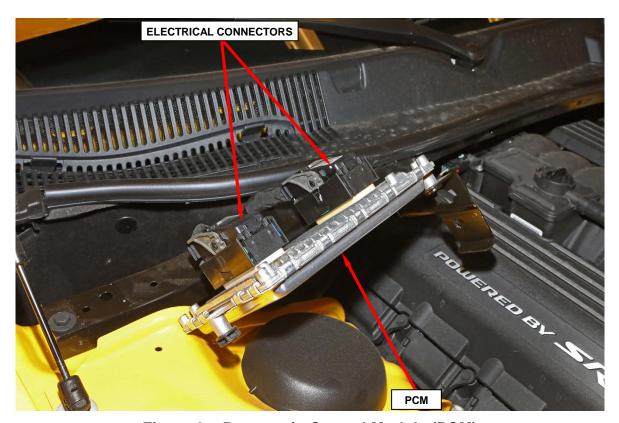


Figure 3 – Powertrain Control Module (PCM)

### **B.** Reprogram PCM

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.

1. 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.

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.

- 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, 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 15.
  - ➤ If the "Current ECU part Number" is NOT the same as the "New Part Number", continue with Step 10.
- 10. From the PCM tab, select the PCM 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".
- 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. Return vehicle to customer:
  - ➤ If the Demon Crate PCM was temporally installed for reprogramming, reinstall the production PCM in the vehicle, proceed to **Section C. Install Production PCM**. Return the Demon Crate PCM to the customer.
  - ➤ If the Demon Crate PCM was installed by the vehicle owner leave the Demon Crate PCM installed, do not install the production PCM.

### **C. Install Production PCM**

- 1. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS electrical connector first.
- 2. Disconnect the PCM electrical connectors from the Demon Crate PCM (Figure 3).
- 3. Ensure the reprogrammed Demon Crate PCM is returned to the customer.
- 4. Connect the PCM electrical connectors to the production PCM (Figure 3).
- 5. Position the PCM bracket to the cross support, install the retaining bolt and tighten to 16 N·m (12 ft. lbs.) (Figure 2).
- 6. Position the hood ajar switch near the switch mounting hole in the PCM mounting bracket on the upper radiator cross member (Figure 2).
- 7. Pull the hood ajar switch wire harness connector through the switch mounting hole and connect it to the hood ajar switch (Figure 2).
- 8. 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 2).
- 9. Position the front cowl top panel to the right rear corner of the engine compartment (Figure 1).
- 10. Install the two push-pins that secure the front cowl top panel (Figure 1).
- 11. Connect the negative battery cable. If equipped with an IBS, connect the IBS connector.
- 12. This recall is now complete.

### **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 Allowance
Inspect PCM Softw	vare Level	18-U8-31-81	0.2 hours
Inspect PCM Software Perform Software		18-U8-31-82	0.3 hours
Related Operation	<u>n</u>		
Temporally Install PCM for Software		18-U8-31-50	0.2 hours

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> <u>perform</u> 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.

Customer Services / Field Operations FCA US LLC

#### U83/NHTSA 18E-053

# **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 MOPAR high performance Powertrain Control Modules (PCM) included in the Demon Crate. This PCM is intended for use with 2018 Model Year Dodge Challenger SRT Demon 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 DEMON CRATE PCM NEED REPAIR?

FCA records indicate that you may have purchased a Demon Crate for your vehicle [1]. The Demon Crate includes a MOPAR high performance Powertrain Control Module (PCM) which you may have installed in your vehicle. The fault handling strategy of this PCM software does not remove positive torque requests from the engine controller if the CAN-C bus stops communicating while the cruise control is requesting positive torque. In the instance of a short in the vehicle causing the CAN-C bus to stop communicating while the cruise control is active and the vehicle speed is below the set speed such that the cruise control system is requesting positive torque at the exact moment of the short, it is possible for a positive torque request to be locked on the PCM which may result in either the vehicle maintaining its current speed or possibly accelerating. If the driver does not shift to neutral or apply the brakes to stop the vehicle this condition can cause a vehicle crash without warning.

#### HOW DO I RESOLVE THIS IMPORTANT SAFETY ISSUE?

# <u>Please bring your Demon Crate PCM and the vehicle to your dealer for remedy.</u> Your vehicle's original PCM is covered by Safety Recall U60 / NHTSA 18V-332.

FCA will repair your vehicle <sup>[2]</sup> free of charge (parts and labor). To do this, your dealer will inspect the software level of the Powertrain Control Module (PCM) and if necessary, reprogram the PCM. No other Demon Crate components require removal, installation, or reinstallation to accommodate the PCM reprogramming operation. 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.

#### Do not use cruise control on your vehicle until your PCM has been remedied.

#### TO SCHEDULE YOUR <u>FREE</u> REPAIR CALL YOUR CHRYSLER, DODGE, JEEP OR RAM DEALER TODAY

#### 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 <a href="www.fcarecallreimbursement.com">www.fcarecallreimbursement.com</a> 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.

#### YOUR SCHEDULING OPTIONS

- 1. RECOMMENDED OPTION
  Call your authorized Chrysler /
  Dodge / Jeep<sub>®</sub> / RAM Dealership
- 2. Call the FCA Recall Assistance Center at 1-800-853-1403. An agent can help schedule an appointment

#### **DEALERSHIP INSTRUCTIONS**

Please reference Safety Recall U83.

Customer Assistance/Field Operations Fiat Chrysler Automobiles US LLC



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

<sup>[1]</sup> 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.

<sup>[2]</sup> 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.

<sup>[3]</sup> 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.