

Mr. Bruce York
Reference: RQ25-003-01
October 17, 2025

ATTACHMENT

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Preliminary Statement

On April 30, 2009, Chrysler LLC, the entity that manufactured and sold the certain vehicles that may be discussed in this Information Request, filed a voluntary petition for relief under Chapter 11 of Title 11 of the United States Bankruptcy Code.

On June 10, 2009, Chrysler LLC sold substantially all of its assets to a newly formed company later known as FCA. Pursuant to the sales transaction, FCA assumed responsibility for safety recalls pursuant to the 49 U.S.C. Chapter 301 for vehicles that were manufactured and sold by Chrysler LLC prior to the June 10, 2009, asset sale.

On June 11, 2009, Chrysler LLC changed its name to Old Carco LLC. The assets of Old Carco LLC that were not purchased by FCA, as well as the liabilities of Old Carco that were not assumed, remain under the jurisdiction of the United States Bankruptcy Court – Southern District of New York (In re Old Carco LLC, et al., Case No. 09-50002).

Effective December 15, 2014, FCA changed its name to FCA US LLC (“FCA US”).

Note: FCA US makes the following clarifications:

- FCA US has interpreted this investigation to be a review of the recall repair effectiveness of recalls 17V821 and 18V100. As a result, FCA US interpreting the Subject Vehicles to be only those within scope of recalls 17V821 and 18V100. The light duty 2009 model year (“MY”) 1500 is included in the noted recalls but the heavy-duty pickup trucks including Ram 2500, 3500, 4500, and 5500 did not have a corresponding model changeover in 2009 MY. These models were the prior generation Ram pickup truck until 2010 MY for some and the 2011 MY for others. The prior generation of Ram vehicles was not affected and therefore not included in the noted recalls. As such, FCA US has excluded these vehicles and respective components from its response.
- Extension Request: On October 9, 2025, FCA US requested an extension for requests 2, 3, 4, and 15. This material will now be delivered on or before October 31, 2025

1. State, by model and model year, the number of subject vehicles FCA has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by FCA, state the following:
 - a. Vehicle identification number (17-character VIN);
 - b. Make;
 - c. Model;
 - d. Model Year;
 - e. Subject component part number and design version installed as original equipment;
 - f. Date of manufacture (MM/DD/YYYY);
 - g. Date warranty coverage commenced (MM/DD/YYYY);
 - h. Indicate if vehicle was subject to recall 17V821 or 18V100;
 - i. If vehicle was remedied under 17V821 or 18V100, provide date of remedy repair;
 - j. If vehicle was remedied under 17V821 or 18V100, indicate whether the vehicle received a new BTSI, Body Control Module software update, or both.
 - k. If a subject vehicle received a new BTSI under 17V821 or 18V100, provide the BTSI part number and design version installed.
 - l. The State in the United States where the vehicle was originally sold or leased, or delivered for sale or lease (postal abbreviation).

Provide the table in Microsoft Access 2010, or a compatible format, entitled "PRODUCTION DATA." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

- A1. FCA US' responses to subparts a through d and f through h of this Request are located in **ENCLOSURE 01** and titled **RQ25-003_PRODUCTION DATA.accdb**.
2. State the number of each of the following, received by FCA, or of which FCA is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:
 - a. Consumer complaints, including those from fleet operators;
 - b. Field reports, including dealer field reports;
 - c. Reports involving a crash, injury or fatality;
 - d. Reports involving a rollaway;
 - e. Property damage claims; and
 - f. Third-party arbitration proceedings, both pending and closed, where FCA is or was a party to the arbitration; and
 - g. Lawsuits, both pending and closed, in which FCA is or was a defendant or codefendant.

For subparts "a" through "g," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

- A2. FCA US will respond to this request on or before October 31, 2025.

3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:
- a. FCA's file number or other identifier used;
 - b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
 - c. Vehicle owner or fleet name (and fleet contact person), email address and telephone number (please use distinct fields for each data type);
 - d. Vehicle owner or fleet street address, city, state (postal abbreviation), and ZIP code (please use distinct fields for each data type);
 - e. Vehicle's 17-character VIN;
 - f. Vehicle's make, model and model year (please use distinct fields for each data type);
 - g. Vehicle's mileage at time of incident;
 - h. Incident date (MM/DD/YYYY);
 - i. Report or claim date (MM/DD/YYYY);
 - j. Whether a crash is alleged;
 - k. Whether a vehicle rollaway is alleged;
 - l. Whether property damage is alleged;
 - m. Number of alleged injuries, if any; and
 - n. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "REQUEST NUMBER TWO DATA." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

A3. FCA US will respond to this request on or before October 31, 2025.

4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method FCA used for organizing the documents. Describe in detail the search methods and search criteria used by FCA to identify the items in response to Request No. 2. For each vehicle identified in the responsive data to Request No. 2, provide, in Microsoft Access 2010 or a compatible format, a complete dealer service history within 6 months of (before and after) the alleged incident or report date (whichever is earliest) and report close date.

In addition, for items "2c" through "2g", provide a summary description of the alleged incident, causal and contributing factors, and FCA's assessment of the incident, with a summary of the significant underlying facts and evidence. For items "2f" and "2g", identify the parties to the action, as well as the caption, court, docket number, date on which the complaint or other document initiating the action was filed, and provide any associated documents containing objective, analytical, or technical information.

A4. FCA US will respond to this request on or before October 31, 2025.

5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by FCA to date that relate to, or may relate to, the alleged defect in the subject vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a. FCA's claim number;
- b. Vehicle owner or fleet name (and fleet contact person), email address and telephone number (please use distinct fields for each data type);
- c. Vehicle owner or fleet street address, city, state (postal abbreviation), and ZIP code (please use distinct fields for each data type);
- d. 17-character VIN;
- e. Repair date (MM/DD/YYYY);
- f. Vehicle mileage at time of repair;
- g. Repairing dealer's or facility's name, telephone number, city and state or ZIP code (please use distinct fields for each data type);
- h. Labor operation number(s);
- i. Problem code(s);
- j. Diagnostic trouble code(s);
- k. Replaced part number(s) and descriptions;
- l. Replacement part number(s) and description(s) (please use distinct fields for each part number);
- m. Concern stated by customer;
- n. Cause as stated on the repair order;
- o. Correction as stated on the repair order; and
- p. Additional comments, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "WARRANTY DATA." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

A5. FCA US' response to this Request is located in **ENCLOSURE 05** and titled **RQ25-003_WARRANTY DATA.accdb**. DTCs are not stored in a separate database field and may be manually entered by a claim administrator into the narrative(s) of the warranty claim.

6. Describe in detail the search methods and search criteria used by FCA to identify the claims in response to Request No. 5, including the labor operations, problem codes, diagnostic trouble codes, part numbers and any other pertinent parameters used.

A6. In order to identify the claims detailed in its response to Request No. 5, FCA US searched the normal repositories of information potentially responsive to this Request. The records contained in the response to Q5 were determined based on the subject component replacement claims after subject vehicles were repaired under the respective recall. The part numbers used for this search can be found in **ENCLOSURE 06** and titled **RQ25-003_Q5_SEARCH CRITERIA.pdf**

7. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions, diagnostic trouble codes and diagnostic trouble code descriptions applicable to the alleged defect in the subject vehicles. State whether the diagnostic trouble codes are automatically reported to the warranty database electronically or manually entered into the warranty database by a claims administrator.

A7. There are no Diagnostic Trouble Codes ("DTC") directly associated with the Subject Component. Labor operations, labor operation descriptions, problem codes, problem code descriptions, part numbers and part number descriptions potentially related to the Alleged Defect are located in **ENCLOSURE 07** and titled **RQ25-003_Q7_LABOR OPERATIONS.pdf**. DTCs are not stored in a separate database field and may be manually entered by a claim administrator into the narrative(s) of the warranty claim.

8. State, by make and model year, the terms of the new vehicle warranty coverage offered by FCA on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that FCA offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

A8. New vehicle limited warranty coverage offered by FCA US on the Subject Vehicles is located in **ENCLOSURE 08** and titled **RQ25-003_NEW VEHICLE LIMITED WARRANTY.pdf**. Extended warranty coverage option(s) that FCA US offered for the Subject Vehicles, and the number of vehicles that are covered under each such extended warranty, are provided by option, model and model year located in the table included in **ENCLOSURE 08** and titled **RQ25-003_SERVICE CONTRACTS_CONF BUS INFO.pdf**.

9. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that FCA has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that FCA is planning to issue within the next 120 days.

A9. FCA US' responses to this Request are located in **ENCLOSURE 09**.

10. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, FCA . For each such action, provide the following information:

- a. Action title or identifier;**
- b. The actual or planned start date;**
- c. The actual or expected end date;**
- d. Brief summary of the subject and objective of the action;**
- e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and**
- f. A brief summary of the findings and/or conclusions resulting from the action.**

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

A10. FCA US' responses to subparts (a) through (f) of this Request are located in **ENCLOSURE 10** and are summarized in the chart titled **RQ25-003_ACTIONS SUMMARY_CONF BUS INFO.pdf**. Copies of responsive related documentary information are included within **ENCLOSURE 10**.

11. Describe all modifications or changes made by, or on behalf of, FCA in the design, material composition, manufacture, quality control, supply, or installation of the subject component, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:

- a. The date or approximate date on which the modification or change was incorporated into vehicle production;**
- b. A detailed description of the modification or change;**
- c. The reason(s) for the modification or change;**
- d. The part number(s) (service and engineering) of the original component;**
- e. The part number(s) (service and engineering) of the modified component;**
- f. The supplier information of the original component and any modified components;**
- g. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;**
- h. When the modified component was made available as a service component; and**
- i. Whether the modified component can be interchanged with earlier production components.**

Also, provide the above information for any modification or change that FCA is aware of which may be incorporated into vehicle production within the next 120 days.

A11. FCA US' response to subpart (f) can be found in **ENCLOSURE 12** and the remaining responses to subparts (a) through (i) of this Request are located in **ENCLOSURE 11** and titled **RQ25-003_CHANGE HISTORY_CONF BUS INFO.pdf**.

12. State the number of each of the following that FCA has sold that may be used in the subject vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale (including the cut-off date for sales, if applicable):

- a. Subject component; and**
- b. Any kits that have been released, or developed, by FCA for use in service repairs to the subject component/assembly.**

For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also identify by make, model and model year, any other vehicles of which FCA is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

A12. FCA US' responses to this Request are located in ENCLOSURE 12 and titled RQ25-003_PART SALES_CONF BUS INFO.xlsx and RQ25-003_SUPPLIER INFORMATION.pdf.

13. Provide information concerning the subject component, to include the following:

- a. Failure Mode and Effects Analysis (FMEA) for the subject component;**
- b. Design Verification Plan and Report (DVP&R), or similar qualification report for the subject component; and**
- c. Any material and dimensional/tolerance design specifications for the subject component.**

A13. FCA US' responses to subparts (a) through (c) of this Request where available are located in ENCLOSURE 10. FCA US was not able to locate the final DVP&R for this request but has provided two draft examples of continuing conformance DVP&R's for a similar part in a later MY.

14. Please provide the following items related to recalls 17V821 and 18V100 and the alleged defect:

- a. A technical analysis of the root cause and consequences, including the following:
 - i) defect addressed by recalls 17V821 and 18V100;**
 - ii) the alleged defect for each recall; and**
 - iii) the failure rate determined by FCA for each recall population broken down by model / model year.****
- b. a summary of FCA's assessment of the remedy program's effectiveness;**
- c. A detailed chronology of all events related to the development of recalls 17V821 and 18V100 and the alleged defect.**
- d. A summary of any tests conducted to validate the remedies for recalls 17V821 and 18V100;**
- e. Rationale behind updating the diagnostic procedure; and**
- f. A summary of any tests or analysis conducted to determine the updated remedy test procedures cited in the January 2019 revision of recall 17V821.**

A14a) The defect addressed by the 17V821 and 18V100 was the possible ability to shift the transmission out of the PARK position without a key in the ignition or depressing the brake pedal. This condition increases the potential for unintended vehicle movement, or rollaway that may result in a vehicle crash or injury without warning. The cause of the defect was found to be prolonged depression of the brake pedal for prolonged periods of time while the engine was running and the transmission in PARK. Depression of the brake pedal when the vehicle is in PARK and in the RUN ignition position with the engine running energizing the Brake Transmission Shift Interlock ("BTSI"). A diagram of the BTSI can be found in ENCLASURE 10 in the file titled, RQ25-003_Q10_0014_CONF_BUS_INFO.pdf. The bobbin housing encases the solenoid, and the housing cover encases the bobbin itself. FCA US' investigation found that when the BTSI is energized for prolonged periods of time, the temperature rises, causing the plastic BTSI housing to swell and the grease to degrade, which can cause the BTSI locking pin to stick in one position. With the BTSI locking pin stuck in the open position, or retracted, the transmission can be shifted out of PARK and to-or-from any gear position without depression of the brake pedal and/or with or without operation of the key. If the pin were to stick in the closed position, or extended, the vehicle would be stuck in park. FCA US determined the failure rate for the population of recall 17V821 at the time of the recall was 3%. During the investigation that led to recall 18V100, 35 2017-18MY vehicles were inspected with no failures identified, indicating a failure rate of 0%. Field data identified five warranty and field reports for 2017-18MY within the recall scope of 228,508 vehicles. This indicates a failure rate of 0.002% overall.

A14b) On 2/8/18 FCA US declared a defect of the BTSI solenoid on 2009-2018 MY Ram 1500, 2500, 3500, 4500 and 5500 vehicles. FCA US also determined to monitor the population of 2018 MY trucks which were not in scope for the noted recalls which received sorted parts in ongoing production. Based on the review of those vehicles, as well as testing and analysis, an additional internal investigation was opened to monitor the remedy effectiveness of all vehicles included in the subject recalls. In January 2019, FCA US reviewed the status of that investigation with NHTSA. At that time, results showed that the recall had 99.985% effectiveness based on the ongoing monitoring of only the safety consequence where the pin was stuck in the open position, allowing the vehicle to be shifted out of park without depressing the brake. In November 2020, FCA US reviewed the analysis with NHTSA indicating an updated failure rate of 0.23 c/1000 or a remedy effectiveness rate of 99.977% using the same criteria. The decision to close the monitoring investigation was made at an Investigations Steering Group meeting on 11/18/2020 after 2.5 years of monitoring due to high remedy effectiveness.

As part of the response to this investigation request, FCA US has discovered 5,053 reports of re-repair of the gearshift bracket using the T79 or U11 remedy kit part number or the service catalogue part number as reported in ENCLOSURE 05 and titled RQ25-003_WARRANTY DATA.accdb. These re-repairs include cases where the driver is unable to get the vehicle out of Park, or the shifter stalk breaks, neither of which represent a safety consequence. Based on this information, FCA US has opened a new investigation, and the remedy effectiveness for subject recalls is currently under review and analysis.

A14c)

17V821 Detailed Chronology

- On March 3, 2017, the FCA US Vehicle Safety and Regulatory Compliance (“VSRC”) organization opened an investigation as a result of CAIR [REDACTED]. The subject vehicle, a 2016 MY D2 truck, is equipped with a column shifter, and was involved in an alleged roll away incident resulting in an injury to the driver.
- During the months of March and April 2017, the FCA US VSRC reviewed warranty data for cables, shifters, transmissions, and the BTSI for RAM trucks.
- In May 2017, the FCA US VSRC searched for customer complaints (CAIRs) alleging that the column shifter in RAM truck vehicles could be shifted out of PARK without depressing the brake pedal or having the key in the ignition.
- In June 2017, the FCA US VSRC reviewed BTSI warranty part return data and suspected that “debris” or “foreign material” resulted in the BTSI solenoid pin in some vehicles was getting stuck down/open within the housing.
- On June 22, 2017, the FCA US VSRC was made aware of a fleet of RAM vehicles in which 72 of 240 trucks were able to move the shifter out of PARK without depressing the brake pedal or having the key in the ignition.
- On June 27, 2017, the FCA US VSRC and FCA US Interior Engineering visited the BTSI supplier to review the plant assembly process and a part returned with the BTSI solenoid pin stuck down/open. No issues with the assembly line were found during this visit. Analysis of the failed part identified an interaction between the bobbin housing and the pin.
- On June 29, 2017, the FCA US VSRC and FCA US Interior Engineering visited the Toledo Machining Plant where the BTSI bracket is assembled to the steering column and no issues were identified.
- In July and August 2017, the FCA US VSRC received parts through fleet repairs and warranty part retentions for inspection. A field survey found one of 32 employee vehicles to have a failed BTSI. Additional field surveys were initiated in California, Texas, Florida and Minnesota to determine the effect of different climates on the BTSI.
- On July 21, 2017, the FCA US VSRC was notified that a BTSI had failed during grade testing at the Arizona Proving Grounds.
- On July 21, 2017, the FCA US VSRC inspected BTSI parts returned from vehicle surveys. One BTSI part had corrosion on the solenoid pin, and another had a damaged plastic gate wall. Subsequent analysis performed by FCA US Interior Engineering on a new part showed that after six pulls on the column shifter lever without depressing the brake the gate wall broke. This low cycle failure indicated that customer abuse could cause the damaged plastic gate.
- In August 2017, FCA US Materials Engineering analyzed returned parts and confirmed the zinc plating on the BTSI solenoid pin exhibited corrosion.
- On August 17, 2017, the multi-state survey was completed and resulted in three failed BTSIs out of a test population of 100 vehicles.
- On September 7, 2017, the FCA US VSRC inspected additional returned fleet parts and identified three unique potential failure modes related to the BTSI: 1) damaged gate wall; 2) corroded solenoid pin; and 3) overheated solenoid coil that caused the grease to degrade and become sticky within the housing.
- On September 8, 2017, the FCA US Materials Engineering Corrosion Lab completed humidity testing and found the solenoid pin stuck down/open in the housing after 240 hours of testing.

- On September 11, 2017, the supplier reproduced the sticking solenoid pin by energizing the BTSI coil for 3.5 days. The temperature of the BTSI solenoid reached 300° F within 30 minutes by continuously energizing the coil.
- On September 15, 2017, the FCA US VSRC discovered that some fleet vehicles use an aftermarket add-on module, which constantly energizes the BTSI solenoid when the vehicle is running. The BTSI design intent is to energize the BTSI solenoid only when the brake pedal is depressed and the vehicle turned on and in PARK.
- On September 21, 2017, the FCA US VSRC re-opened the multi-state survey to gather more data. On September 25, 2017, the FCA US VSRC and engineering notified the fleet manager that the add-on module installed on some of their vehicles was contrary to design intent of the vehicles.
- On September 28, 2017, the supplier completed the same 3.5 day constant energy test without grease added to the BTSI solenoid and the pin did not stick. The supplier of the current production grease, Rheogel 283, informed FCA US that the grease is not rated for this high of a temperature (300° F).
- In October 2017, the FCA US Materials Engineering Corrosion Lab conducted a 21-day humidity test for different part configurations of grease or no grease and pin plating combinations; all configurations resulted in BTSI failures. The test was re-started with a modified setup to simulate production intent in vehicle position.
- In October 2017, the FCA US VSRC conducted bake testing for different part configurations of grease or no grease; all configurations resulted in BTSI failures. The testing was repeated with bobbin housing measurements taken before and after the test, which revealed the housing swells causing the clearance gap to decrease and tighten around the pin at high temperatures.
- On November 3, 2017, the FCA US VSRC collected customer usage data through the FCA US Chelsea Proving Grounds monitoring department. The data indicated instances where customers actuate the BTSI in the vehicle for longer than five minutes and as long as 24 minutes.
- In November 2017, the FCA US Materials Engineering Corrosion Lab's second 21-day humidity test concluded resulting in corrosion failures only on parts without grease. The current production representative parts tested did not fail. These test results indicated that humidity would cause the corrosion seen in field failures if the grease was compromised.
- In November 2017, the FCA US VSRC conducted a 60-piece bake test of the bobbin housing, 30 with and 30 without grease, taking measurements before and after the test. The dimensions changed more rapidly with the grease but the parts without grease also changed or swelled. Both the grease and the plastic housing degrade when exposed to the high temperatures produced by the BTSI when energized beyond 5 minutes.
- During the week of November 20, 2017, the FCA US VSRC reviewed all other FCA US vehicle BTSI solenoid designs and discovered that the overheat issue is unique to the RAM Trucks equipped with a column shifter (2009-2018 DS, 2010-2018 DX, DJ, DP, D2, and DD and 2016-2018 DF) as the other BTSI designs are robust to the high temperatures produced by the solenoid.
- In December 2017, the ongoing multi-state survey resulted in 12 BTSI failures out of 377 vehicles surveyed.
- On December 18, 2017, FCA US determined, through the Vehicle Regulations Committee, to conduct a voluntary safety recall of the affected vehicles

- On December 18, 2017, the FCA US Vehicle Regulations Committee (“VRC”) requested follow up on tool history for 2017-2018 MY vehicles built after December 31, 2016.
- In January 2018, FCA Engineering energized a BTSI solenoid for 30 minutes in an oven set at 170 degrees Fahrenheit to simulate a higher atmospheric starting temperature. The solenoid reached 250 degrees within 5 minutes of activation.
- In January 2018, the FCA US VSRC requested tooling history of the bobbin housing and armature pin. No tooling changes were found affecting the diameter of the parts after December 31, 2016.
- In January 2018, the FCA US VSRC re-opened the multi-state survey to continue to review 2017 and 2018 MY vehicles. No failures were found.
- On January 18, 2018, the FCA US VSRC searched for new repair orders and identified 3 vehicles built after December 31, 2016 with confirmed BTSI failures allowing the customer to shift out of PARK without the brake pedal applied.
- On January 26, 2018, the FCA US VSRC searched for new CAIRs and field reports. There were 2 additional field reports for vehicles built after December 31, 2016 with confirmed BTSI failures allowing the customer to shift out of park without the brake pedal applied.
- On February 1, 2018, FCA US determined, through the VRC, to conduct a voluntary safety recall of the affected vehicles.

A14d) FCA US has provided all documents relating to testing and analysis in response to Question 10. In summary, the tests outlined in "RQ25-003_Q10_0014_CONF_BUS_INFO.pdf" confirm that the high temperature produced by the BTSI when energized, resulting from prolonged brake pedal depression, was the final root cause with 99.9% confidence. As outlined in FCA's response to Q14A, this heat can degrade the grease used in the armature and can shrink the bobbin housing, causing plastic deformation which traps the armature pin. Accordingly, the recall remedy actions were developed to reduce the possible negative effects of BTSI energization over time on the mobility of the armature pin.

A14e).

Revision	Date	Edit	Rationale for update
T79-7	8/9/18	“Remedy Available” section updated to include additional model years. New LOP added for 2009 – 2012 model year vehicles. Added to Repair procedure: 2009 – 2012 Model Years: BTSI <i>must</i> be replaced. Software update & addendum card is not included for 2009-2012 model years only. Also, change gearshift bracket replacement kit part numbers. Add clarification: 2009-12 BCMs do not receive software update. 2013-18 BCMs should receive software update. Parts section & service procedure updated	Bracket replacement is required for model years 2009-2012, but bracket should only be replaced on model year 2013-18 vehicles if it fails inspection. Gearshift bracket continuous improvement
T79-9	1/12/19	Revised inspection process for model year 2013-17 BTSI system. Added to BTSI inspection procedure requirements: The BTSI inspection procedure may be performed in a parking lot prior to starting or moving the	The cooldown period after the BTSI solenoid is energized during the braking event allows plastic deformation of the bobbin housing, permitting the bobbin

		vehicle provided the two conditions below can be met. If the vehicle interior cabin ambient temperature is suspected to be above 90F/32C degrees, roll down all windows and open all doors to allow interior to cool. Place a thermometer in the vehicle near the base of the steering column and monitor the interior cabin ambient temperature. Temperature must be at or below 90F/32C degrees before proceeding with Step 1 of this procedure. Vehicle MUST be parked with the ignition in the "OFF" position for a minimum of 15 minutes prior to proceeding with Step 1 of this procedure. NOTE: Do not proceed with Step 1 of BTSI inspection procedure unless the two conditions above have been met	housing to collapse and 'grab' the locking pin upon cooldown. If the BTSI locking pin is stuck, the BTSI fails inspection and will be replaced.
U11-1	2/18/18	Added requirement: For all vehicles that were previously repaired under this safety recall (prior to February 18, 2018) drive the vehicle until at least 10 MPH is achieved for 5 seconds. For 2018 MY vehicles also perform the battery disconnect & BUS cycle included in steps 17 through 19 in Section C. Revised Section C. Reprogram Body Control Module (BCM). Revised LOP section. Updated parts ordering instructions.	Inspection procedure involves achieving 10mph for 5s, then hard braking energizes the BTSI solenoid, allowing plastic deformation of bobbin housing. 2018 MY vehicles have distinct ignition-off sleep patterns due to slightly different software. Revised the LOP section because of the different labor requirements between model year 2017 vs 2018 remedy strategies. See note above.
U11-5	1/12/19	Change BTSI Inspection procedure requirements.	FCA added the same T79 cooldown period to the inspection procedure.

A14f). During the monitor investigation, FCA US issued a notice to dealers in October 2018 with instructions to contact FCA US VSRC if a vehicle came back with shifter and BTSI related complaints after the recall was performed. In November 2018, FCA US inspected a part returned from a 2016 RAM 2500 that had previously had the recall completed with software flash only. The technician was able to pull the shifter out of park without brake. The part functioned when activated for more than a minute. Upon further analysis, FCA US determined that the armature pin stuck down after cooling, allowing the shifter to move freely without first depressing the brake. Following this observation, FCA US amended the repair procedure to add a cooldown period to the inspection. This cooldown period was added to exacerbate the condition leading to the stuck pin by ensuring the housing cooled and stabilized after the prolonged energizing of the solenoid. If heating the bobbin housing, resulted in plastic deformation, but then the

housing had cooled in a deformed configuration, this would increase the likelihood of having a trapped armature pin.

This change in the minimum diameter of the bobbin does not solidify until the bobbin housing returns to the temperature below the zone of plastic deformation. If the BTSI locking pin is stuck, the BTSI fails inspection and will be replaced. FCA US' update to the dealer remedy instructions in January 2019 made the inspection of the BTSI more robust. FCA's determination of what makes a worst-case scenario was based on testing of a BTSI with small clearance (large pin diameter, small bobbin diameter) but was functioning acceptably until it was overheated and cooled.

15. Furnish FCA 's assessment of the alleged defect in the subject vehicles, including:

- a. The causal or contributory factor(s);**
- b. The failure mechanism(s);**
- c. The failure mode(s);**
- d. The risk to motor vehicle safety that it poses;**
- e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring, or subject component was malfunctioning; and**
- f. The reports included with this inquiry.**

A15. FCA US will respond to this request on or before October 31, 2025.