



U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**

1200 New Jersey Avenue SE.  
Washington, DC 20590

SEP 21 2015

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. Stephen L. Williams  
Safety Compliance and Product Analysis  
Chrysler FCA US, LLC  
800 Chrysler Drive, CIMS 482-00-23  
Auburn Hills, MI 48326-2757

NVS-213krh  
RQ15-004

Dear Mr. Williams:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened Recall Query RQ15-004 to investigate the effectiveness of the remedy for safety recall 15V-461 and 15V-508 (subject recalls) involving software security defect conditions in approximately 1.4 million model year (MY) 2013 through 2015 Chrysler FCA vehicles, SUV's and pickup trucks manufactured by Chrysler FCA US LLC and equipped with Uconnect 8.4A (RA3) and 8.4AN (RA4) radios manufactured by Harman International.

This office has received a report by computer security experts publicly demonstrating the ability to remotely access, modify and manipulate vehicle networks and to remotely control vehicle safety critical systems. The report was provided to NHTSA on July 20, 2015 and documented incidents of software security vulnerabilities that could allow unauthorized third-party access to, and manipulation of, networked vehicle control systems.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** All vehicles covered by the subject recalls.
- **Subject recall(s):** NHTSA recalls 15V-461 and 15V-508.
- **FCA:** Chrysler FCA US LLC (collectively FCA), all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of its divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of FCA (including all business units and persons previously referred to), who are

or, in or after January 1, 2000, were involved in any way with any of the following related to the alleged defect in the subject vehicles:

- a. Design, engineering, analysis, modification or production (e.g. quality control);
  - b. Testing, assessment or evaluation;
  - c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
  - d. Communication to, from, or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers.
- **Alleged defect:** Unauthorized third-party access to networked vehicle control systems resulting from software security vulnerabilities.
  - **Document:** “Document(s)” is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletin, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by FCA, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, “document(s)” also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by FCA or not. If a document

is not in the English language, provide both the original document and an English translation of the document.

- **Other Terms:** To the extent that they are used in these information requests, the terms “claim,” “consumer complaint,” “dealer field report,” “field report,” “fire,” “fleet,” “good will,” “make,” “model,” “model year,” “notice,” “property damage,” “property damage claim,” “rollover,” “type,” “warranty,” “warranty adjustment,” and “warranty claim,” whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as FCA has previously provided a document to ODI, FCA may produce it again or identify the document, the document submission to ODI in which it was included, and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After FCA’s response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State the number of subject vehicles sold by model, model year, and Uconnect head unit (8.4AN/RA4 and 8.4A/RA3 model) software release part numbers.
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, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
  - d. Property damage claims;
  - e. Third-party arbitration proceedings where FCA is or was a party to the arbitration; and
  - f. Lawsuits, both pending and closed, in which FCA is or was a defendant or codefendant.

For subparts “a” through “d,” 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).

In addition, for items “c” through “f,” provide a “detailed” description of the alleged problem and causal and contributing factors and FCA’s assessment of the problem, with a summary of the significant underlying facts and evidence. For items “e” and “f,” identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

3. Describe the processes used to address cybersecurity in the design of the subject vehicles, including:
  - a. Identify, and provide copies of, all standards, engineering requirements, design guides and/or best practices related to cybersecurity that were used in the design/development process of the subject vehicles;
  - b. Describe all Threat Analysis and Risk Assessment efforts related to cybersecurity that were performed by, or for, FCA in the development of the subject vehicles;
  - c. Describe all Threat Analysis and Risk Assessment efforts performed by, or for, FCA in the development of the remedies for the subject recalls; and
  - d. Describe the processes used today by FCA, including all standards, engineering requirements, design guides and/or best practices used in the current design/development process for FCA vehicles.
4. Describe, and provide copies of all final reports and assessments related to, all penetration testing conducted by, or for, FCA on the subject vehicles, including:
  - a. As part of the design/development process;
  - b. All penetration studies conducted after the start of production for the subject vehicles, but prior to the subject recalls;
  - c. All penetration testing related to the subject recalls;
  - d. Describe penetration testing that is performed as part of FCA’s current development process; and
  - e. Describe whether and how FCA continues to conduct penetration testing over the lifecycles of its products.
5. Describe FCA’s procedures for defining, detecting, investigating and recording cybersecurity attacks on its vehicles, including detailed descriptions of the following:
  - a. System capabilities for detecting cybersecurity attacks;
  - b. System capabilities for recording evidence of cybersecurity attack;
  - c. System capabilities for preventing attempts to intercept, inject or otherwise manipulate data communications, firmware or hardware for safety-critical systems;
  - d. All organizational processes for identifying cybersecurity incidents;
  - e. All organization process for investigating cybersecurity incidents, including all methods to forensically examine a vehicle and collect evidence related to a cybersecurity incident/attack; and
  - f. How FCA’s procedures for defining, detecting, investigating and recording cybersecurity attacks have changed from start of production of the subject vehicles to current processes, including all changes implemented as process improvements or corrective actions from the subject recalls.

6. Describe how security is incorporated into FCA's processes for reflashing software in the subject vehicles, including:
  - a. Describe how the Uconnect head unit detects reflash errors to ensure the flashware is not corrupted by reflash problems;
  - b. Describe how the Uconnect head unit ensures that the flashware is from an authorized source;
  - c. Describe how the flashware is protected from being copied by anything other than the predetermined target vehicle electronic system;
  - d. Describe how the flashware is protected from being read by unauthorized parties; and
  - e. Describe how the Uconnect head unit ensures that any external programming media/tool is an authorized device for system reflashing.

### **Legal Authority for This Request**

This letter is being sent to FCA pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information.

### **Civil Penalties**

FCA's failure to respond promptly and fully to this letter could subject FCA to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) The Vehicle Safety Act, as amended, 49 U.S.C. § 30165(b), provides for civil penalties of up to \$7,000 per day, with a maximum of \$17,350,000 for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. *See* 49 CFR 578.6 (as amended by 77 Fed. Reg. 70710 (November 27, 2012)). This includes failing to respond completely to ODI information requests.

If FCA cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, FCA does not submit one or more requested documents or items of information in response to this information request, FCA must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

### **Confidential Business Information**

**All business confidential information must be submitted directly to the Office of Chief Counsel as described in the following paragraph and should not be sent to this office.** In addition, do not submit any business confidential information in the body of the letter submitted

to this office. Please refer to RQ15-004 in FCA's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel.

If FCA claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, FCA must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended, to the Office of Chief Counsel (NCC-111), National Highway Traffic Safety Administration, Room W41-227, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. FCA is required to **submit two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.** Please remember that the phrase "ENTIRE PAGE CONFIDENTIAL BUSINESS INFORMATION" or "CONTAINS CONFIDENTIAL BUSINESS INFORMATION" (as appropriate) must appear at the top of each page containing information claimed to be confidential, and the information must be clearly identified in accordance with 49 CFR 512.6. If you submit a request for confidentiality for all or part of your response to this IR, that is in an electronic format (e.g., CD-ROM), your request and associated submission must conform to the new requirements in NHTSA's Confidential Business Information Rule regarding submissions in electronic formats. *See* 49 CFR 512.6(c) (as amended by 72 Fed. Reg. 59434 (October 19, 2007)).

If you have any questions regarding submission of a request for confidential treatment, contact Otto Matheke, Senior Attorney, Office of Chief Counsel at otto.matheke@dot.gov or (202) 366-5253.

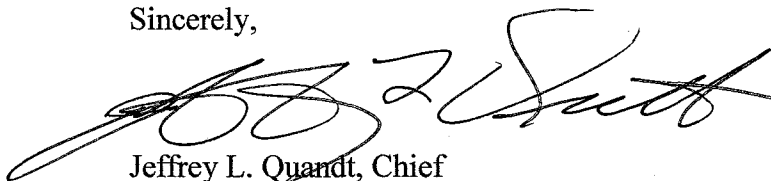
### **Due Date**

FCA's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by **November 6, 2015**. If FCA finds that it is unable to provide all of the information requested within the time allotted, FCA must request an extension from Jeff Quandt at (202) 366-5207 no later than five business days before the response due date. If FCA is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information FCA then has available, even if an extension has been granted.

Please send email notification to Kareem Habib at [Kareem.Habib@DOT.gov](mailto:Kareem.Habib@DOT.gov) and to [ODI\\_IRresponse@dot.gov](mailto:ODI_IRresponse@dot.gov) when FCA sends its response to this office and indicate whether there is confidential information as part of FCA's response.

If you have any technical questions concerning this matter, please call Kareem Habib of my staff at (202) 366-8703.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey L. Quandt". The signature is fluid and cursive, with a large initial "J" and "Q".

Jeffrey L. Quandt, Chief  
Vehicle Control Division  
Office of Defects Investigation