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Case Number: S2008000186 REV. B

Release Date: December 2024

Symptom/Vehicle Issue: Engine Control Module (ECM) Flash Failure, Diagnostic Trouble Code (DTC) U1601 – ECU Application Software Code 1 Missing Or Corrupted

Discussion: Several reports of ECM reprogramming failures have been received from the field. When the reprogramming process fails, it will often be accompanied by DTC U1601. Further investigation into these programming failures have found that most have been due to interference on the CAN C bus. This interference has been found to be caused by the following:

- Aftermarket equipment installed on the bus that include, but are not limited to:
 - GPS Tracking Devices.
 - Electronic Mileage Logbooks (Heavily used in certain fleets).
 - Aftermarket Trailer Brakes.
 - Other Miscellaneous devices wired into the radio.
- On vehicles equipped with Ram Telematics (sales code RFQ or RDG).
 - Fleet/Global Telematics Modules (FTMs/GTMs).

If you encounter an issue with the ECM reprogramming process failing during the flash process, please perform the following repair procedure to eliminate any possible interference on the bus.

Repair Procedure:

1. Closely inspect behind the driver's side knee bolster for the presence of any aftermarket add-on devices. Most aftermarket devices such as GPS trackers, and electronic mileage loggers are attached via a Y harness tied in at the DLC.
2. Inspect for any aftermarket devices wired into the bus behind the radio.

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

Contact STAR Center, or your Technical Assistance Center Via TechConnect, eCONTACT or Service Library entry if no solution is found.



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3. If no devices are found, or if everything is believed to be removed and the flash failure still occurs, disconnect the 20-amp Radio fuse located under the under-hood Power Distribution Center (PDC). Please see ([Figure 1](#)). This fuse supplies power to the radio and FTM/GTM if equipped.

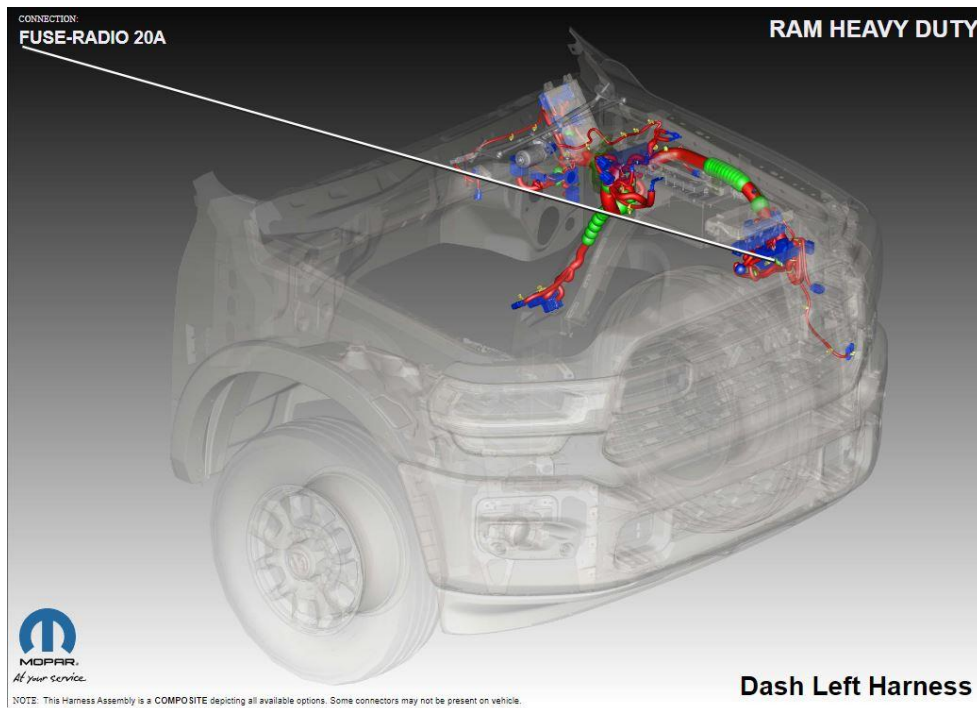


Figure 1.

4. If still encountering a failure during the flash process, disconnect all modules from the Star Connectors except for the following:
 - a. Engine Control Module (ECM).
 - b. Transmission Control Module (TCM) if equipped with an Aisin transmission.
 - c. Body Control Module (BCM).
 - d. Radio Frequency Hub (RF Hub).
 - e. Security Gateway Module (SGW).

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