



Subject: Performance Complaints – Cummins ISX12 (NG) Engines with UltraShift *PLUS* and Fuller Advantage

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Issue Description:

Customers can experience performance complaints with the UltraShift *PLUS* and Fuller Advantage Automated transmissions and the Cummins ISX12 (NG) engine. Complaints include one or a combination of the following:

- Intermittent poor acceleration
- Harsh or extended shifts
- Engine lugging to near stall condition during launch
- Stuck in gear (fault code 74)
- Poor low speed maneuverability in “R”
- Gear Engagement Detected (fault code 81) on 2018 ISX12N Engines

Containment/Corrective Action:

Cummins and Eaton engineering have developed and released specific calibrations for Cummins ISX12G engines to address these complaints.

For Cummins ISX12N engines, ensure the Shift Point Calibration and Engine Calibration are properly configured in the TECU.

Affected Models/Population:

- UltraShift *PLUS* with the Cummins ISX12 (NG) engine
- Fuller Advantage Automated with the Cummins ISX12 (NG) engine

Note: ISX12 (NG) engines with UltraShift *PLUS* (LAS or MHP), or Fuller Advantage (EA3), is approved **ONLY** in Linehaul, Regional Haul and Pick-up and Delivery vocations, with a max GCW of 80,000 lbs. and maximum of 8% grades. No off-highway or off-road use is allowed.

Field Strategy:

Customers experiencing any of these documented complaints should make the following changes in an effort to improve the overall performance.

2013 – 2017 ISX12G Engines:

- Create a Service Activity Report
- Update transmission software to latest available – 55700055 or greater
- Configure Shift Point Calibration: “Cummins ISX12G 5573268”
- Configure Engine Calibration: “2013-2017 Cummins ISX12G (CNG) 5573554”

- Configure the Coast Down Gear: 6th
- Configure the Start Gear: 2nd
- Key off, and allow the transmission system to perform a complete power down to save configuration
- Key on, and verify the transmission's configuration matches the setting performed in the previous steps
- **Calibrate the Cummins engine control module (EMC) to the latest revision.**

2018 ISX12N Engines:

- Create a Service Activity Report
- Update transmission software to latest available – 5570065 or greater
- Configure Shift Point Calibration:
 - EA3 models: “2018 Cummins ISX12N (CNG) for EA3 5573305”
 - MHP models: “2018 Cummins ISX12N (CNG) for MHP 5573300”
- Configure Engine Calibration: “2018 Cummins ISX12N (CNG) 5573567”
- Configure the Coast Down Gear: 6th
- Configure the Start Gear: 2nd
- Key off, and allow the transmission system to perform a complete power down to save configurations
- Key on, and verify the transmission's configuration matches the setting performed in the previous steps

Warranty Information:

Calibration updates are non-warrantable.

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