



No.: 06 TS – 05Rev  
March 28, 2006

TO: DDC Distributors, FLLC Dealers

FROM: Technical Service

SUBJECT: **VCU Parameter Changes for MBE904 Engines to Limit Engine Speed and Torque During Initial Acceleration**

**ISSUE**

Revised VCU parameter changes for MBE904 engines are now available to limit engine speed and torque during initial acceleration. These revised settings may enhance rear tire life on Freightliner Custom Chassis Corporation (FCCC) MT45 walk-in vans manufactured for FedEx Home Delivery. The vehicles affected MUST conform to the following conditions:

- FCCC MT45 walk-in van powered by an MBE904 engine.
- Labeled as a FedEx Home Delivery vehicle.
- Manufactured from October, 2003, through December, 2005.
- Have Goodyear 225/70 R 19.5 G647 RSS single rear tires.
- Have a 4.56 rear axle ratio.

**CAUSE**

Driver behavior combined with the engine torque and speed transmitted from the MBE904 engine to the rear tires during initial acceleration has a direct affect on the life of the rear tires.

**ADDITIONAL INFORMATION**

- “Torque Rate Management” parameter changes within the Vehicle Control Unit (VCU) have been created that limit torque and engine speed during initial acceleration. These changes should improve the life of the rear tires.
- This software feature remains active until the vehicle achieves a road speed of 5-10 mph.
- Depending on VCU software level, re-flashing of the VCU may also be necessary.

**REQUIRED ACTION**

1. Park the vehicle on level ground with the park brake set and chock the tires.
2. Locate the diagnostic connector, typically found under the left hand side of the driver’s dashboard area.
3. Confirm the VCU has software level 14.20 or higher. If not, re-flash the VCU to the latest software level.
4. Change items in Parameter Group 23 per the table below.

Item Number	Description	New Value
1	Torque Factor Gear Down Protection	0.5
2	Gear Ratio For Gear Down Protection	0.1
8	AL Engine Speed Threshold	50
9	AL Minimum Engine Speed Threshold	830
10	AL Ramp Up Rate	160
11	AL Minimum Engine Torque	50
35	AL Conditions	2-extended AL with torque curve #3 threshold

**Table 1 Parameter Group 23 Changes**

**CONTACT INFORMATION**

Please contact the DDC Customer Support Center at 313-592-5800 if you have any questions.