

2012FA06D
May, 2013
Product Code(s): 63
Page 1 of 4

SUBJECT: Calibration Update for Improved C5 Clutch Operation with C5 Clutch Friction Plate Replacement

MODELS AFFECTED: 1000 and 2000 Series Transmissions

VOCATIONS AFFECTED: Non Shift Energy Management (SEM)/Low Range Torque Protection (LRTP) Transit Bus with 2010 Uprate Controls Operating in the United Kingdom/Republic of Ireland

Introduction:

Allison Transmission, Inc. has identified an issue which could limit the life of the C5 clutch in 1000/2000 Series Transit Bus vocations. A higher C5 pressure strategy was implemented with the 2010 Uprate Controls which, over time, may cause friction material loss on the C5 clutch friction plate.

To increase customer enthusiasm, Allison Transmission, Inc. is implementing this Field Action to prevent premature C5 clutch failures. A newly released calibration will lower the C5 pressure strategy, while insuring proper torque capacity. The C5 clutch friction plates will be replaced in transmissions with mileage over 40,000 miles at the time the recalibration was completed.

The affected population of non SEM/LRTP Transit Bus vehicles begins with the first production 2010 Uprate units and ends when the new calibration was released on September 18th, 2012.

This Field Action will expire on November 1, 2014.

Service Procedure:

Only Allison 1000/2000 Series trained technicians are to perform this Field Action at authorized 1000/2000 service outlets. Collect all necessary vehicle information needed to complete a standard warranty claim: Vehicle Identification Number (VIN), Serial Number (S/N), bus number, correct mileage, etc.

Remove the transmission from vehicle. Remove the pan and suction filter from the transmission. Split the suction filter apart and inspect for C5 clutch debris in the pan and filter media. Refer to [Figure 1](#) for an example of debris. If C5 clutch debris is found, then continue the disassembly. Rebuild the transmission using the instructions provided in the 1000/2000 Product Families 2010 Uprate Service Manual (SM5818EN).

If C5 clutch debris is not found, then disassemble the transmission using the instructions provided in the 1000/2000 Product Families 2010 Uprate Service Manual (SM5818EN) to replace only the C5 clutch friction plates. It is necessary to partially disassemble the transmission to allow for proper selective reaction plate selection in the C5 clutch.



Figure 1.

Install new C5 clutch friction plates, measure for proper selectable C5 reaction plate and reassemble the unit per 1000/2000 Product Families 2010 Uprate Service Manual (SM5818EN). Reinstall the transmission in the vehicle. If recalibration described in 2012FA06B has not yet been completed then reflash the updated/newest version of the original calibration as follows:

- Record an Allison DOC® snapshot to save original Customer Modifiable Constants (CMC) values.
- Use Allison TCM Reflash™ (Production Calibration Configuration System (PCCS)) to request an updated/newest version of the original calibration.
- Recalibrate Transmission Control Module (TCM).
- Verify that CMCs are set to original values.

Claim Submittal Information:

Reimbursement of expenses should be requested via a Claim Type 4 with a Primary Failed Part (PFP) of 70 if no damage to the C5 is observed or PFP of 29537393 for a C5 clutch friction plate failure. Multiple claims per Serial Number (S/N) will be accepted if the recalibration is not performed at the same time as the C5 clutch friction plate replacement.

Below is the claim submittal information for the inspection if the C5 clutch friction plates DO NOT show signs of compressive fatigue:

Claim Type	4
Special Activity Indicator	2012FA06D
Primary Failed Part	70
Complaint Code	AT02
Failure Code	CC03

Product Code 63		
Labor Operation Code	Labor Hours	Labor Operation
94000065	6.5	R&R Transit Bus 1K/2K
00095211	3.0	Partial Trans Overhaul
00095205	1.5	Dyno Test
00094006	0.5	Back Flush/Clean Cooler
00096400	0.5	Final Test Drive Vehicle

Table 1. Parts Covered to Perform C5 Replacement

Qty	Part Number	Part Description*
1	29536478	Gasket, Main Housing, Separator Plate
1	29536941	Gasket, Rear Cover
6	29537393	C5 Clutch Friction Plate
1	29536379	Seal Assembly, Oil
1	29536847	Bolt, 1/2-20 Flange Hd
1	29536848	Washer, Sealing
6	23049056	Bolt, M10 x 1.5 x 15 Flange Hd
2	29536781	O-ring, 23.47 mm ID
* May require C5 Clutch Reaction, Selective (Quantity 1)		

Below is the claim submittal information for the inspection if the C5 clutch friction plates DO show signs of compressive fatigue and debris inside the transmission.

Claim Type	4
Special Activity Indicator	2012FA06D
Primary Failed Part	29537393
Complaint Code	AT02
Failure Code	CC03

Product Code 63		
Labor Operation Code	Labor Hours	Labor Operation
94000065	6.5	R&R Transit Bus 1K/2K
00095200	8.4	Transmission Overhaul
00095205	1.5	Dyno Test
00094006	0.5	Back Flush/Clean Cooler
00096400	0.5	Final Test Drive Vehicle

Table 2. Parts Covered to Overhaul if a C5 Failure Occurs

Qty	Part Number	Part Description*
1	29547606	Seal & Gasket Kit
6	29537393	C5 Clutch Friction Plate
1	29542824	Filter, Suction, Deep Pan
1	29539579	Filter, Control Main
1	Various	Converter Assembly
1	29536847	Bolt, 1/2-20 Flange Hd
1	29536848	Washer, Sealing
6	23049056	Bolt, M10 x 1.5 x 15 Flange Hd
2	29536781	O-ring, 23.47 mm ID
* May require C5 Clutch Reaction, Selective (Quantity 1)		

Net Items:

If travel expense is required to complete this Field Action, it must be justified on the warranty claim. Each C5 clutch replacement warranty claim can include up to 21 liters of TES 295 transmission fluid. Any additional parts, labor or travel deemed necessary to complete this Field Action must be completely described in detail in the claim narrative; if not, they will be deducted from the claim.