

SIL 8-TC10-16
February, 2016
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SUBJECT: TC10 HARDWARE MODIFICATION - A65 TCMs, Rear Covers, and Interchangeability

MODELS AFFECTED: TC10 Product Family Transmissions

SERIAL NUMBERS AFFECTED: 8810001001 to 8810001870

Effective February 2016, Allison Transmission, Inc. is making some modifications for the TC10 model.

The purpose of this Service Information Letter (SIL) is to highlight the A65 Transmission Control Module (TCM) and rear cover modifications which occurred in February, 2016 and how this hardware change can affect the interchangeability of these components when repairing a transmission or when used in the building of Allison ReTran® Transmissions. This SIL will also outline the appropriate service procedures to address any interchangeability issues with the current and former components.

Table 1. Rear Cover, A65 TCM, and Associated Hardware Part Numbers

Part Name	P/N for S/N 8810001001 to S/N 8810001869	P/N Beginning with S/N 8810001870	Description of Change
A65 TCM	29550693	29555551	Removal of brackets, bushings, and isolators. Machined steps removed from TCM housing.
TCM Mounting Bracket (Left)	29557908	N/A	No longer Required
TCM Mounting Bracket (Right)	29557909	N/A	No longer Required
Isolator Mount	29554722	N/A	No longer Required
Mounting Grommet Bushing	29554723	N/A	No longer Required
M8 Thread Forming Bolt	N/A	29557407	Required for service of 29555551 with 29553926
Rear Cover	29553926	29557408	Relocation of TCM mounting bolt holes

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Please Note: Allison Transmission Service Information Letters are intended for use by professional, trained technicians, not for the "do-it-yourselfer." They are written to inform those technicians of conditions that may occur on some transmission models (or serial numbers ranges) or to provide information that could assist in the proper servicing of a specific Allison transmission. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, do not assume that the Service Information Letter applies to your transmission, or that your transmission has the condition described. Product evolution and information updates are inevitable. Please see your authorized Allison Transmission service leader or distributor to understand if your particular transmission may benefit from the information contained within the Service Information Letter.

Interchangeability:

Table 2. Interchangeability

Part Name	Current P/N	Former P/N	Former P/N Maintained For Service	8810001001 - 8810001869 Service With	Beginning With S/N 8810001870 Service With
A65 TCM	29555551	29550693	No	29555551 29557908 29557909 29554722 29554723 29557407	29555551
TCM Mounting Bracket (Left)	N/A	29557908	Yes	29557908	N/A
TCM Mounting Bracket (Right)	N/A	29557909	Yes	29557909	N/A
Isolator Mount	N/A	29554722	Yes	29554722	N/A
Mounting Grommet Bushing	N/A	29554723	Yes	29554723	N/A
M8 Thread Forming Bolt	29557407	N/A	N/A	29557407	N/A
Rear Cover	29557408	29553926	No	29555551 29557408	29557408

Parts Modifications:

The brackets, isolator mounts, and mounting grommet bushings have been removed from the current A65 TCM P/N 29555551 design. Improvements have been made to the internal components of the TCM which no longer require the use of the aforementioned components. The machined steps on the TCM housing have also been removed from the current TCM design.

The TCM mounting bolt hole locations have changed on the current rear cover P/N 29557408. This change requires that the current A65 TCM P/N 29555551 is to be used with the current rear cover P/N 29557408. Former A65 TCM P/N 29550693 is NOT to be used with rear cover P/N 29557408 due to lack of bolt support when the brackets are removed.

Service Procedure When Replacing Former A65 TCM:

A65 TCM Removal

1. Loosen the bolt in the 24-way OEM vehicle wiring harness connector.
2. Disconnect the OEM vehicle wiring harness from the 24-way TCM connector.
3. Loosen the bolt in the 40-way external wiring harness connector.
4. Disconnect the external wiring harness from the 40-way TCM connector.
5. Remove the four bolts securing the former A65 TCM P/N 29550693 to the former rear cover P/N 29553926.

6. Remove the former A65 TCM P/N 29550693 from the former rear cover P/N 29553926.
7. Loosen the four bolts securing the isolator brackets to the former A65 TCM P/N 29550693.
8. Remove the isolator brackets, isolator mounts, and mounting grommet bushings from the former A65 TCM P/N 29550693.

A65 TCM Installation

1. Using four M8X1.25 Taptite® bolts, secure the isolator brackets, mounting grommet bushings, and isolator mounts to the current A65 TCM P/N 29555551. Tighten the four bolts to 31-39 N·m (23-29 lb ft).



NOTE: Being that Taptite® bolts are thread forming, it is recommended that the bolts are snugged, backed out, and then properly torqued.

2. Install the current A65 TCM P/N 29555551 with TCM hardware onto the former rear cover P/N 29553926.
3. Install the four bolts that secure the TCM to the rear cover. Tighten the bolts to 10-13 N·m (7-10 lb ft).
4. Connect the external wiring harness to the 40-way TCM connector.
5. Tighten the bolt securing the 40-way external wiring harness connector to the TCM, to 2-3 N·m (12-24 lb in).
6. Connect the OEM vehicle wiring harness to the 24-way TCM connector.
7. Tighten the bolt securing the 24-way OEM vehicle wiring harness connector to the TCM, to 2-3 N·m (12-24 lb in).

Service Procedure When Replacing Current A65 TCM:

A65 TCM Removal:

1. Loosen the bolt in the 24-way OEM vehicle wiring harness connector.
2. Disconnect the OEM vehicle wiring harness from the 24-way TCM connector.
3. Loosen the bolt in the 40-way external wiring harness connector.
4. Disconnect the external wiring harness from the 40-way TCM connector.
5. Remove the four bolts securing the current A65 TCM P/N 29555551 to the current rear cover P/N 29557408.
6. Remove the current A65 TCM P/N 29555551 from the former rear cover P/N 29557408.

A65 TCM Installation:

1. Install the current A65 TCM P/N 29555551 onto the current rear cover P/N 29557408.
2. Install the four bolts that secure the TCM to the rear cover. Tighten the bolts to 10-13 N·m (7-10 lb ft).
3. Connect the external wiring harness to the 40-way TCM connector.
4. Tighten the bolt securing the 40-way external wiring harness connector to the TCM, to 2-3 N·m (12-24 lb in).
5. Connect the OEM vehicle wiring harness to the 24-way TCM connector.
6. Tighten the bolt securing the 24-way OEM vehicle wiring harness connector to the TCM, to 2-3 N·m (12-24 lb in).