SIL
SERVICE INFORMATION LETTER

Allison Transmission

SUBJECT: Multiple Low Side Driver Diagnostic Trouble Codes

MODELS AFFECTED: General Motors Silverado 4500HD, 5500HD, 6500HD and NAVISTAR CV Models Equipped with Allison 1700, 1750, 2700 and 2750 Series Transmissions

Description of Complaint:

The Silverado and NAVISTAR models mentioned may experience multiple Low Side Driver Diagnostic Trouble Codes (DTC). These DTCs may become active at a vehicle restart after operating.

The DTCs are P0962, P0966, P0751, P0756, P2729, P097A, P097B and P097C. Once these codes have set, the TCM will react in the following ways:

- A Check Transmission message will appear in the Driver Information Center
- A Malfunction Indicator message will appear in the Driver Information Center
- The DTCs will store in TCM history
- Transmission will be limited to the hydraulic default mode: 3rd range and **R** (Reverse)

NOTE: Prior to reprogramming the TCM, Allison TAC must be contacted to start a TAC case. The TAC number from a complete case authorizing reprogramming the TCM must be included in the AWAARE claim narrative.

Failure to submit a claim with a TAC case number will result in the claim being reviewed for denial.

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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 dealer or distributor to understand if your particular transmission may benefit from the information contained within the Service Information Letter.

Service Procedures:

1. Before reprogramming the TCM, verify the Customer Modifiable Constants (CMCs) and Input and Outputs (I/Os)
    a. Some Customer Modifiable Constants (CMCs) and Input/Outputs (I/Os) may have been changed since the TCM was last programmed. It is advisable to confirm the CMC and I/O settings before and after reprogramming the TCM. The two most common methods are to print the CMCs and I/Os or to use the Allison Calibration Configuration Tool (ACCT) to compare the CMCs and I/Os before and after reprogramming the TCM.

Print or Print to File CMC List Method:

1. Use the Allison DOC® software to view and print, or print to a file, the Customer Modifiable Constants (CMCs) and Input/Outputs (I/Os) prior to reprogramming the TCM.
2. Connect the Allison DOC® software to the vehicle, select the **Reprogram** tab on the upper-left corner of the toolbar, see Figure 1. The **Reprogram TCM** screen will appear after selecting the **Reprogram** tab.

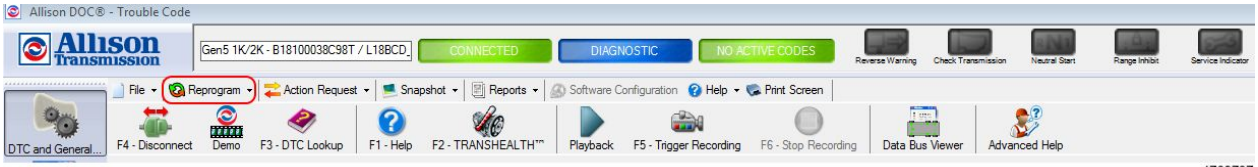


Figure 1.

3. Select the Print button to print or copy a file of the **Current Configuration** see Figure 2.

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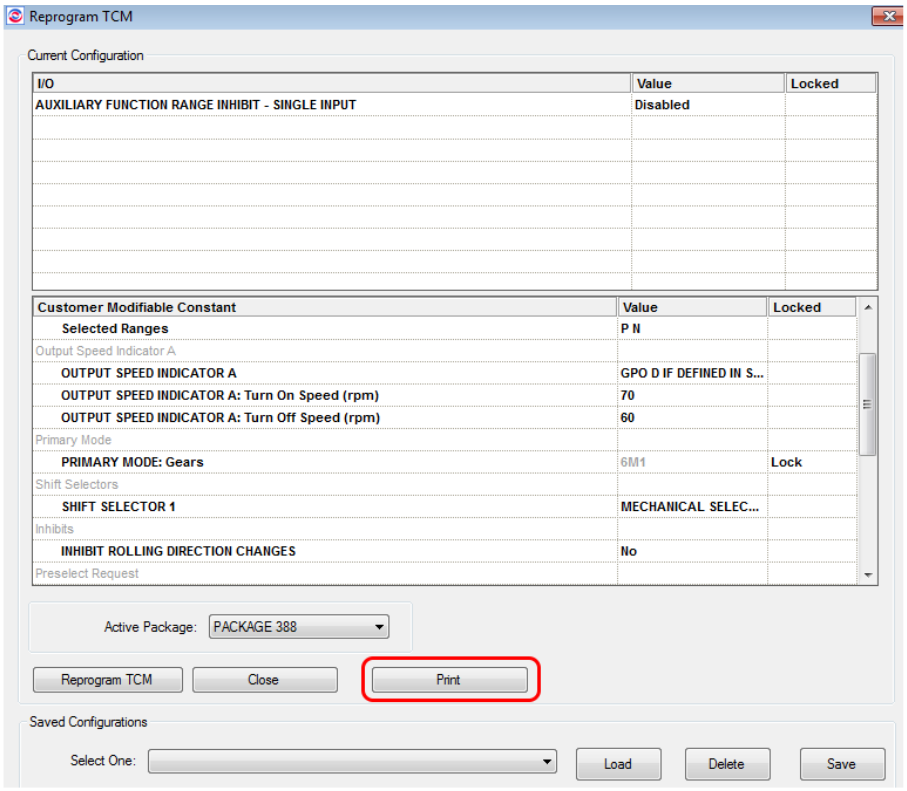


Figure 2.

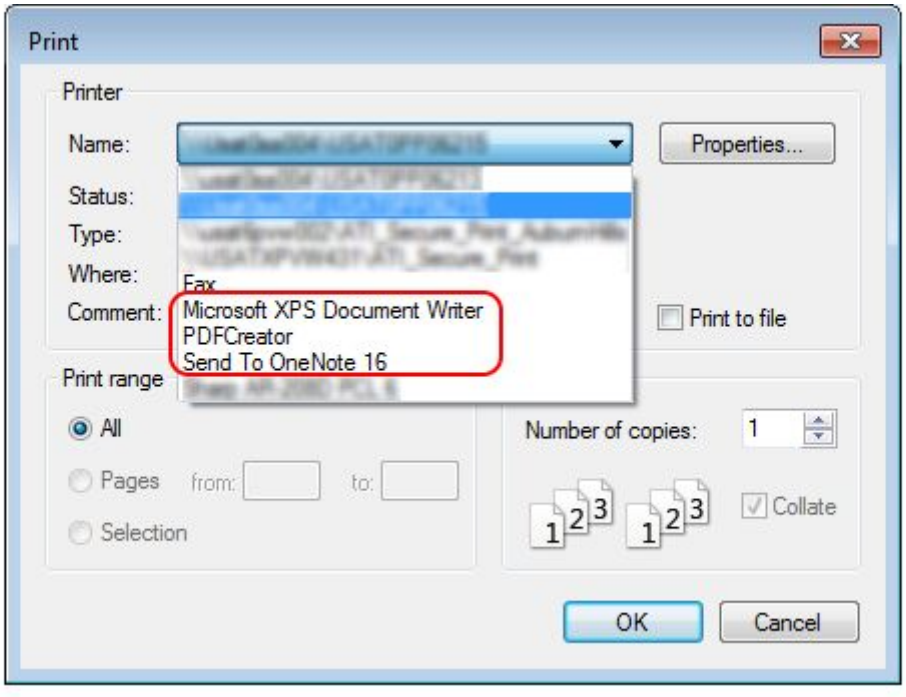


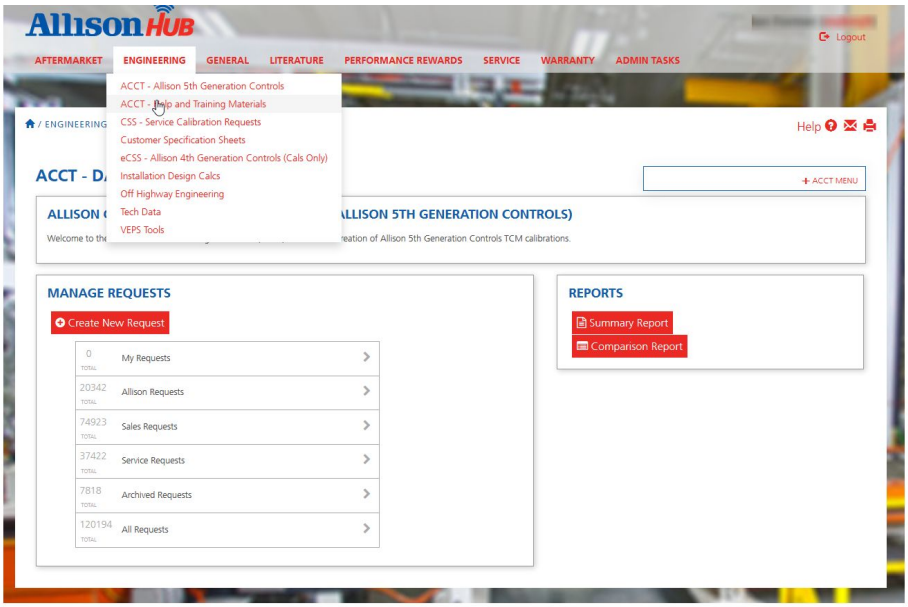
Figure 3.

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ACCT Comparison Report Method:

Use the Allison Calibration Configuration Tool to generate a **Comparison Report** of the TCM calibrations before and after the TCM reprogram event.

1. Go to the Allison *HUB* and select Engineering tab.



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Figure 4.

2. Select **TCM SN** in the **SEARCH BY** field.
3. Enter the TCM Serial Number in both of the **SEARCH VALUE** fields.
4. Choose the closet date PRIOR to the TCM reprogram event in one of the **AS OF DATE** drop-down fields, then choose the MOST RECENT date and time in the other **AS OF DATE** drop-down field, see Figure 5.

NOTE: Once the TCM reprogram event is complete or the CMCs and/or the I/Os have been changed, connect the laptop used to reprogram the TCM to the Internet. This will upload the changes made to the TCM to the Allison Calibration Configuration Tool (ACCT) database. The upload may take up to 15 minutes to complete. Once the upload is complete, the changes to the TCM will be visible in the ACCT database.

5. Select **Export to Excel** to generate the comparison report, see Figure 5.

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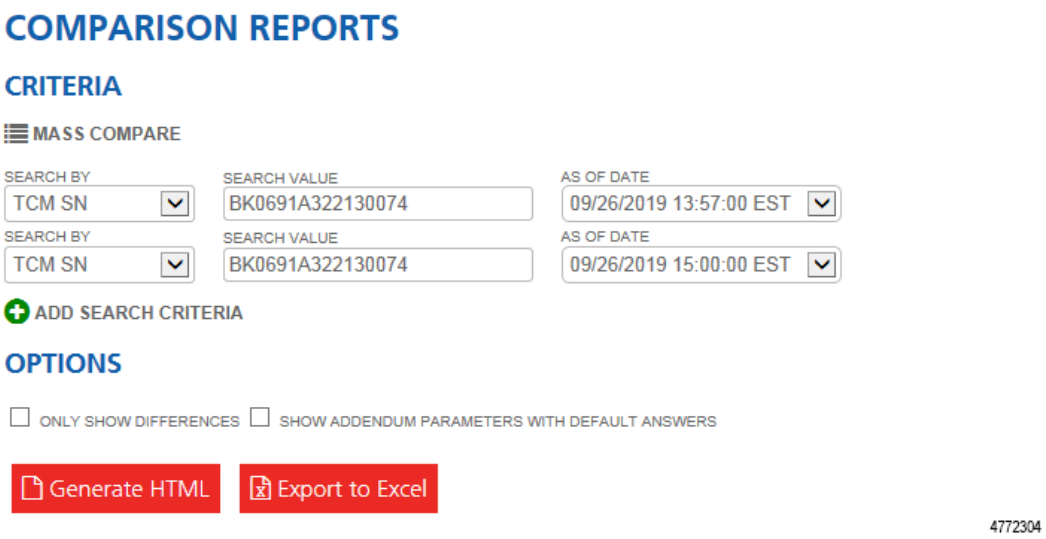


Figure 5.

Any CMCs or I/Os that have been changed since the initial TCM programming event will be highlighted yellow in the **Comparison Report**, see Figure 6.

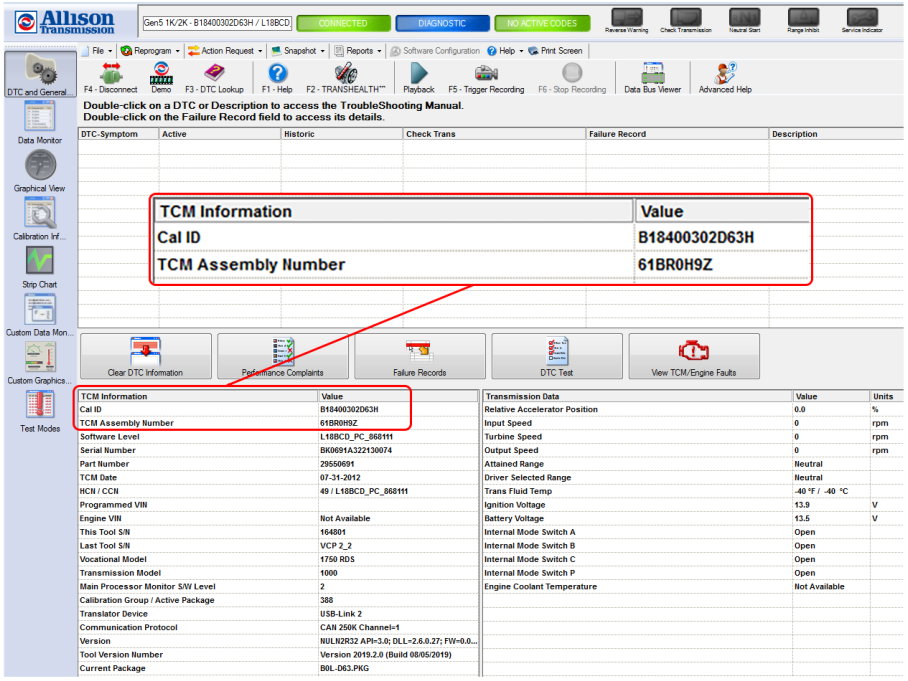
	TCM: BK0691A322130074	TCM: BK0691A322130074
Features & Options - Inputs		
Parameter	Setting	Setting
AUXILIARY FUNCTION RANGE INHIBIT - SINGLE INPUT [25090]	EITHER GPI E OR GPI AI IF DEFINED IN SELECTED GPIO PACKAGE [1]	DISABLED [0]
GRADE BRAKING / REGENERATION INPUT [17132]	GM GLOBAL A [2]	GM GLOBAL A [2]
GRADE BRAKING: Automatic Preselect Optimization [17133]	MODERATE [2]	MODERATE [2]
Features & Options - Interfaces		
Parameter	Setting	Setting
ENGINE BRAKE: Minimum Preselect Range [22020]	3RD RANGE [3]	2ND RANGE [2]
ENGINE BRAKE: Automatic Preselect Optimization [22040]	AGGRESSIVE [3]	MODERATE [2]
PTO DRIVE INTERFACE 1: Lockup Engagement Speed [27080]	900	900
Features & Options - Indicators		
Parameter	Setting	Setting
OUTPUT SPEED INDICATOR A [26050]	GPO D IF DEFINED IN SELECTED GPIO PACKAGE [1]	GPO D IF DEFINED IN SELECTED GPIO PACKAGE [1]
OUTPUT SPEED INDICATOR A: Turn Off Speed [26060]	60	60
OUTPUT SPEED INDICATOR A: Turn On Speed [26070]	70	70
RANGE INDICATOR [26110]	DISABLED [0]	GPO C IF DEFINED IN SELECTED GPIO PACKAGE [1]
RANGE INDICATOR: Park [26210]	ENABLED [1]	ENABLED [1]
RANGE INDICATOR: Reverse [26200]	DISABLED [0]	DISABLED [0]
RANGE INDICATOR: Neutral [26220]	ENABLED [1]	ENABLED [1]
RANGE INDICATOR: 1st Gear [26130]	DISABLED [0]	DISABLED [0]
RANGE INDICATOR: 2nd Gear [26140]	DISABLED [0]	DISABLED [0]
RANGE INDICATOR: 3rd Gear [26150]	DISABLED [0]	DISABLED [0]
RANGE INDICATOR: 4th Gear [26160]	DISABLED [0]	DISABLED [0]
RANGE INDICATOR: 5th Gear [26170]	DISABLED [0]	DISABLED [0]
RANGE INDICATOR: 6th Gear [26180]	DISABLED [0]	DISABLED [0]

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Figure 6.

6. Reprogram TCM with B193 level software
   a. Verify TCM software level and TCM Assembly Number with Allison DOC® software, see Figure 7
   b. Cross-reference the TCM Assembly Number to select the appropriate **TCM Assembly Number** from table in this document, see Table 1.

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Figure 7.

c. Download the appropriate software from Allison TCM Reflash™ (PCCS), 5th Gen – Production database.

d. Reprogram TCM using Allison TCM Reflash™.

NOTE: TCMs must be reprogrammed using the **TCM Assembly Number**, see Table 1. The TCM Serial Number is NOT to be used for this reprogramming activity. Use the table in this document to select the appropriate **TCM Assembly Number**. Download the appropriate program from Allison TCM Reflash™ (PCCS), 5th Gen – Production database.

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Table 1.

Vocational Model	B184	B193
2750HS	61BR0J8B	61BR0L37
2700MH	61BR0HZ3	61BR0L38
2700HS	61BR0HA5	61BR0L39
1750HS	61BR0HA3	61BR0L3A
2750RDS	61BR0J8C	61BR0L3B
2700RDS	61BR0HA4	61BR0L3D
1700RDS	61BR0H9W	61BR0L3E
1700EVS	61BR0H9X	61BR0L3F
1750RDS	61BR0H9Z	61BR0L3G
1700HS	61BR0H9Y	61BR0L3H
1750EVS	61BR0HA2	61BR0L3J
2700EVS	61BR0HAR	61BR0L3K
1700MH	61BR0HHL	61BR0L3L
2750EVS	61BR0KC6	61BR0L3M
1750MH	61BR0HH7	61BR0L3N
NOTE: The Vocational Model must remain the same after reprogramming the TCM to B193.		

Once the TCM has been reprogrammed, the CMCs and I/Os can be reset using the Allison DOC® **REPROGRAM** feature, if needed.

1. Connect the Allison DOC® software to the vehicle and select the **Reprogram** tab on the upper-left corner of the toolbar see Figure 8.

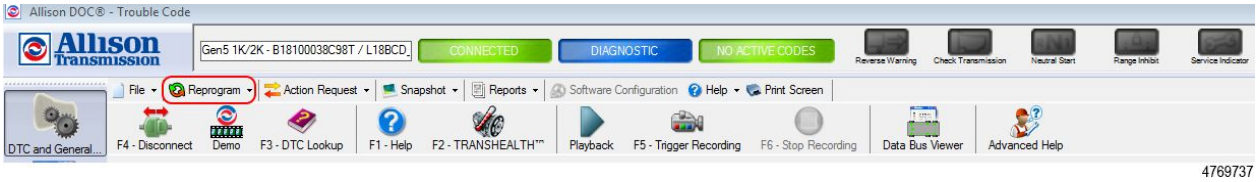
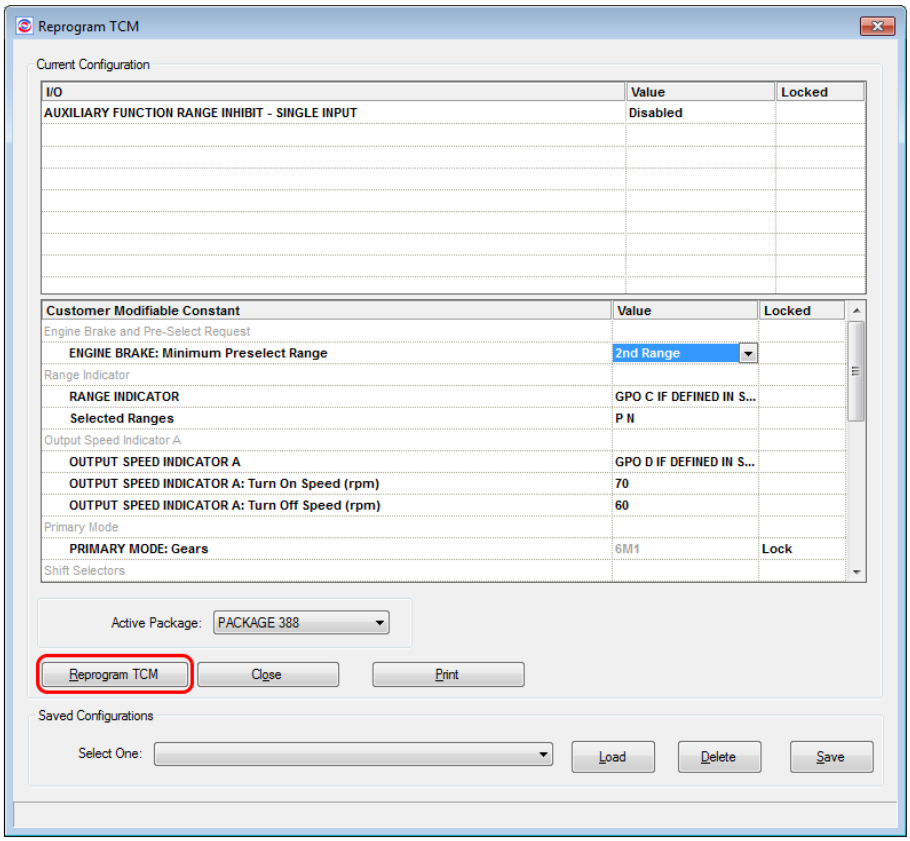


Figure 8.

2. The **Reprogram TCM** screen will appear after selecting the **Reprogram** tab see Figure 9.
3. Find the CMC or I/O to be changed and select the drop-down in the **VALUE** field of the desired CMC or I/O. Once the value(s) has been changed, press the **REPROGRAM TCM** button.

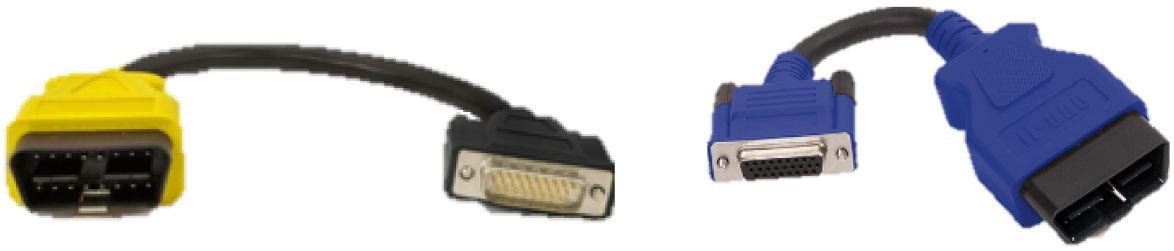
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Figure 9.

NOTE: When connecting to a Siverado 4500HD,5500HD or 6500HD or a NAVISTAR CV model, an OBD II adapter must be used. Two examples of the OBD II adapters are the Noregon P/N 121671 and the NEXIQ P/N 493013, See Figure 10



NOREGON
ODBII Harness
(P/N 121671)

NEXIQ
ODBII Harness
(P/N 493013)

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Figure 10.

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Warranty Information:

Authorized Allison Service Outlets shall submit an AWAARE claim type 01 for each vehicle completed under this SIL. Any additional work shall be claimed separately, even if performed simultaneously with another transmission repair, e.g., overhaul solenoid replacement, etc.

Authorization is to be obtained from Allison once the troubleshooting performed by the repairing facility has determined that the TCM must be reprogrammed. Prior to reprogramming the TCM, Allison Technical Assistance Center (TAC) must be contacted. Please call the appropriate number during the times listed below.

8:00AM - 6:00PM EST (Eastern Standard Time) Monday thru Friday call 800-252-5283

AWAARE Claim Values	
Claim Type	01
Special Activity Number	28-1K2K-19
Primary Failed Part	400
Complaint Code	FS10
Failure Code	BA04

AWAARE Claim Labor Information		
Labor Operation Code	Labor Hours	Labor Operation Description
96501	1.0	TCM Reprogram and Verify*
96400	0.5	Test Drive
*Includes connecting with Allison DOC® and downloading software from Allison TCM Reflash™		

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