

Document ID: 6986307

#25-NA-158: No Shift, Transmission in Default, only has Fifth Gear and/or Reverse, Malfunction Indicator Lamp (MIL) Illuminated - DTC P0747 Set - (Aug 18, 2025)

Subject: No Shift, Transmission in Default, only has Fifth Gear and/or Reverse, Malfunction Indicator Lamp (MIL) Illuminated - DTC P0747 Set



Note: This procedure should only be used on transmissions that have 7000 miles or more. Transmissions that experience DTC P0747 with less than 7000 miles should follow published diagnostics in Service Information for DTC P0747. If DTC P0747 resets after completion of this procedure, published Service Information diagnostics should be followed.

Brand:	Model:	Model Year:		Build Date:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Silverado 2500HD/3500HD	2000HD 2021	2024	—	—	L5P, L8T	MGM, MGU, MKM
GMC	Sierra 2500HD/3500HD						

Involved Region or Country	North America, Argentina, Brazil, Bolivia, Chile, Colombia, Ecuador, Peru, Uruguay, Europe, Middle East, Philippines, Australia/New Zealand
Condition	Some customers may comment on one or more of the following conditions: • The transmission will not shift, has defaulted to only one forward gear (5th) and reverse • MIL Illuminated Technicians will find DTC P0747 (Transmission Control Solenoid Valve 1 Stuck On) set.
Cause	Note: This procedure should not be completed on transmissions that exhibit excessive clutch material in the pan. Additional diagnostics should be performed to determine the cause of the excessive clutch material. This condition may be caused by an internal valve body concern.
Correction	Note: A video that complements this TSB can be accessed in the Center of Learning. Search the catalog for Course 57530.04V: 10L1000 Valve Body Repair for DTC P0747.

Install a new Valve Body Spacer Plate, Feed Limit Valve and Feed Limit Valve Spring.

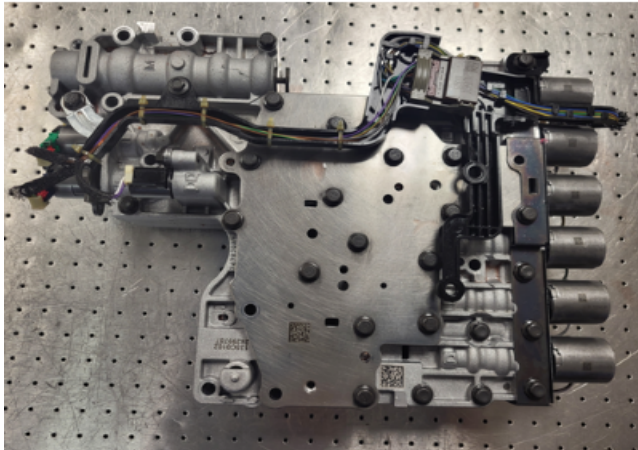
Note: Service Fast Learn (SFL) and MCVM Characterization is not required when completing this repair.

Important: Service agents must comply with all International, Federal, State, Provincial, and/or Local laws applicable to the activities it performs under this bulletin, including but not limited to handling, deploying, preparing, classifying, packaging, marking, labeling, and shipping dangerous goods. In the event of a conflict between the procedures set forth in this bulletin and the laws that apply to your dealership, you must follow those applicable laws.

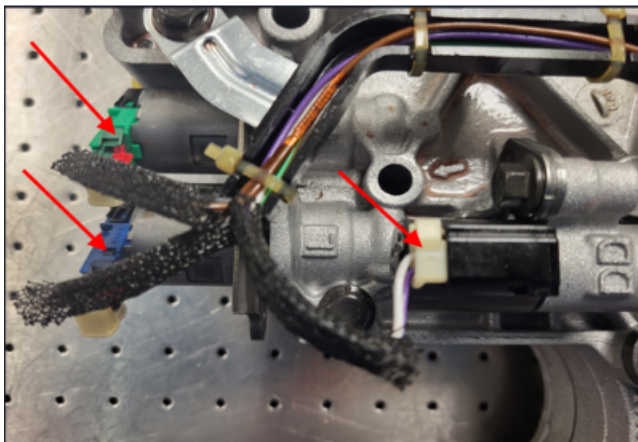
Service Procedure

Important: Do not use brake clean or other solvents on the valve body.

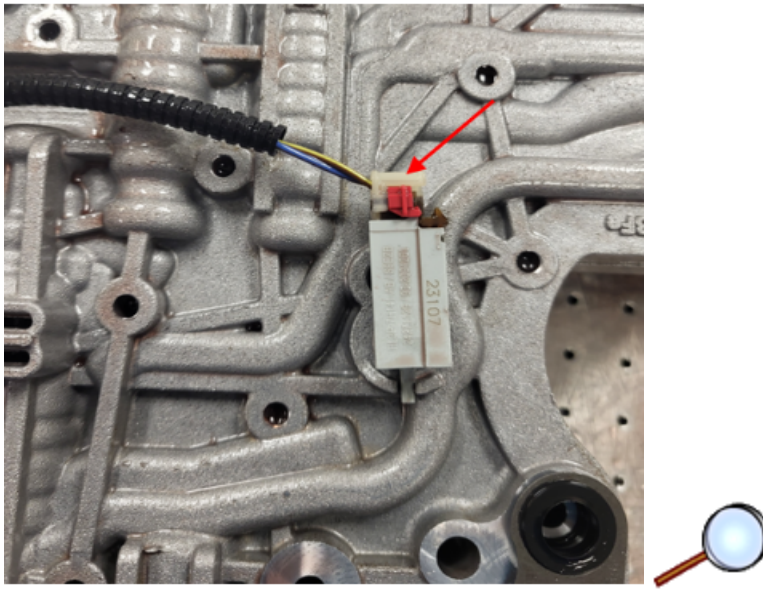
Note: This procedure should be completed on a clean metal work bench.



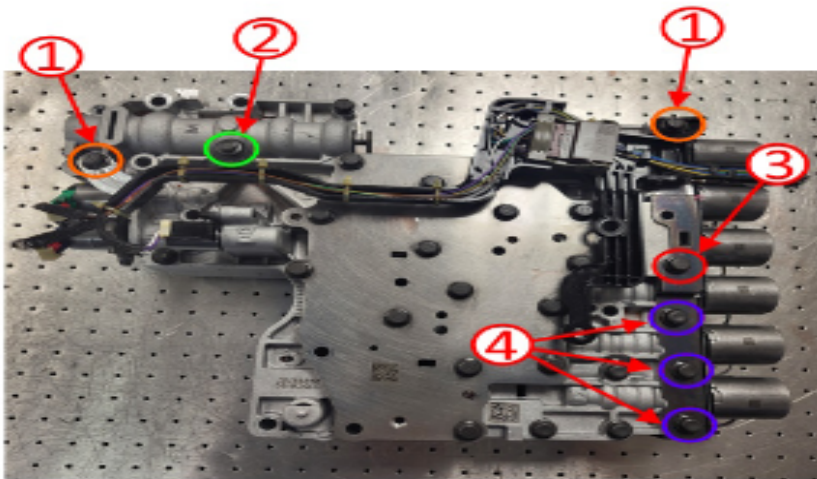
1. Remove the control valve body. Refer to [Control Valve Replacement](#).



2. Disconnect the three solenoid electrical connectors.



3. On the opposite side of control valve, disconnect the transmission fluid temperature sensor electrical connector.

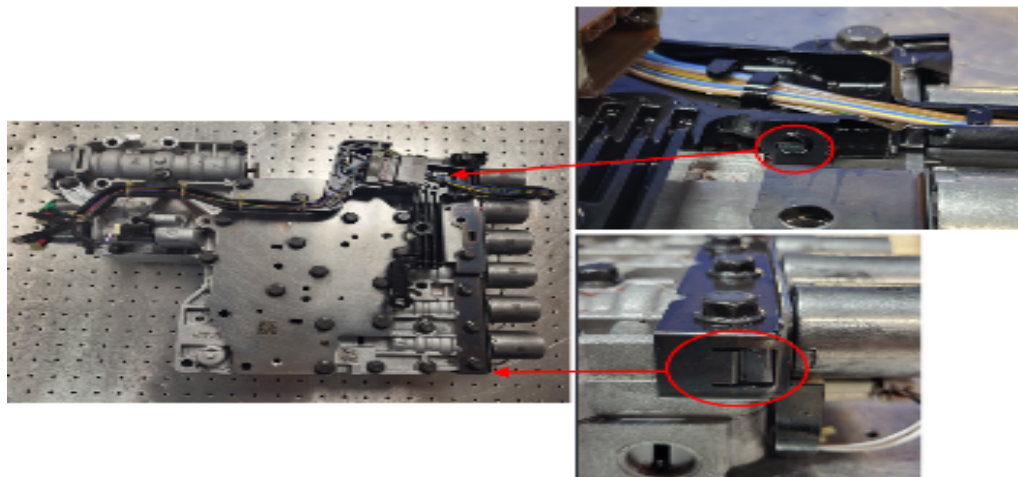


4. Remove the three bolts that secure the body harness to the control valve.

Note: The long harness retaining bolt is located near the center on the manual valve.

There's one long bolt and 3 short bolts holding the solenoid cover.

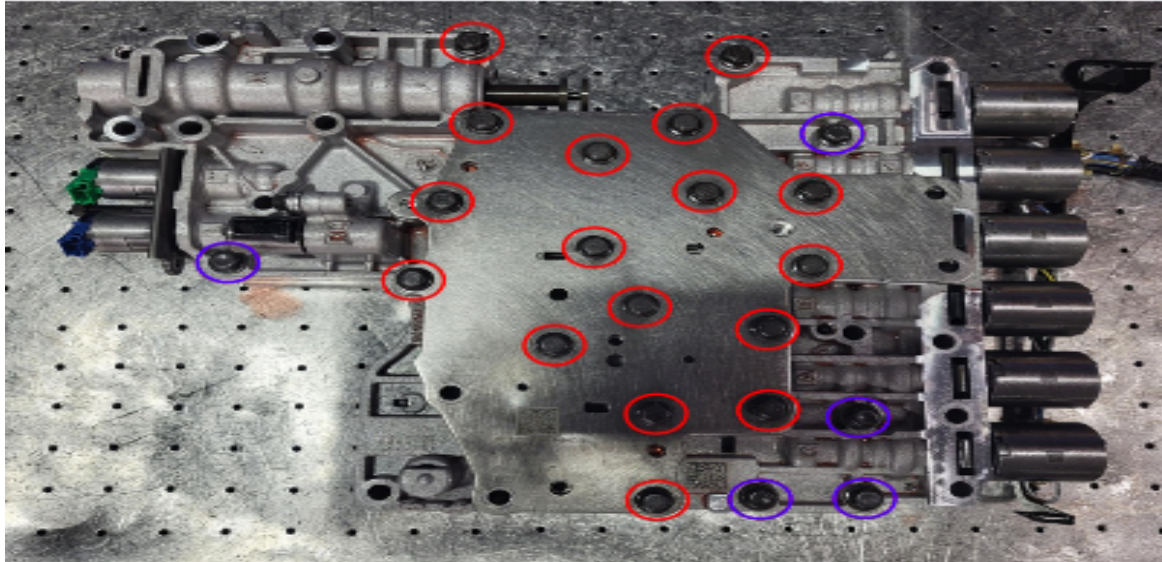
5. Remove the four bolts that secure the solenoid cover to the control valve.



Important: Use Caution when handling the valve body wire harness. The plastic clips are fragile.

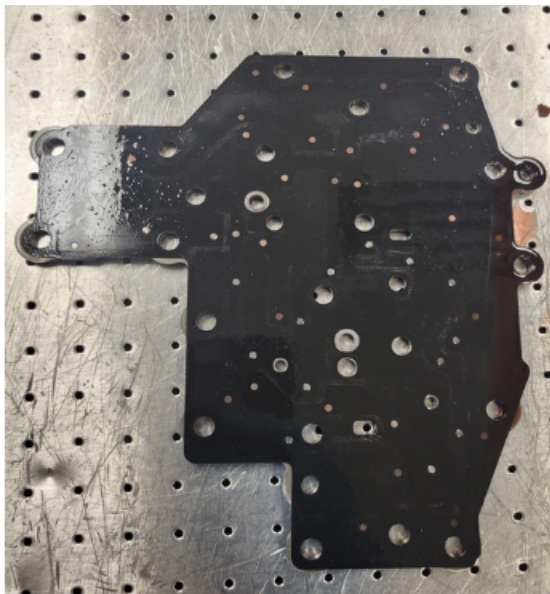
Note: The engagement point of the wire harness is on the top and side of the solenoid cover. If the wire harness retainer is damaged, it will require replacement.

6. Remove the wire harness from the valve body and separate from the solenoid cover.



7. Remove all the bolts from the solenoid body to control valve bolts.

- 17 long bolts - Red
- 5 short bolts - Blue



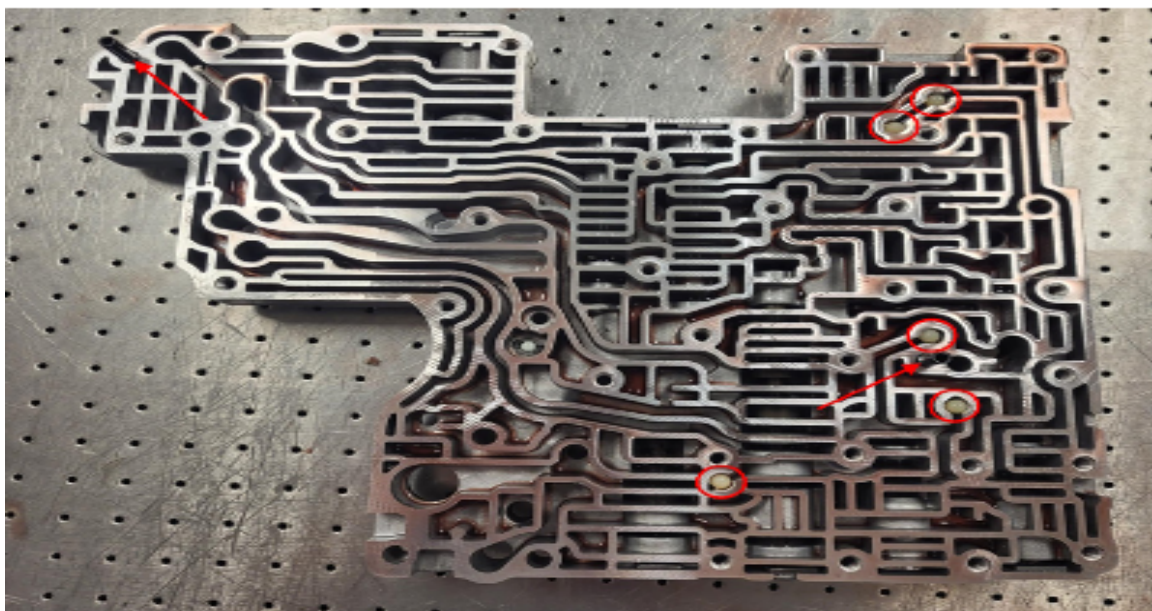
Note: The Thick Plate Gasket will be reused. Place the Thick Plate down with the Gasket side up. If the thick plate gasket is damaged the valve body will need to be replaced.

8. Remove the thick plate.



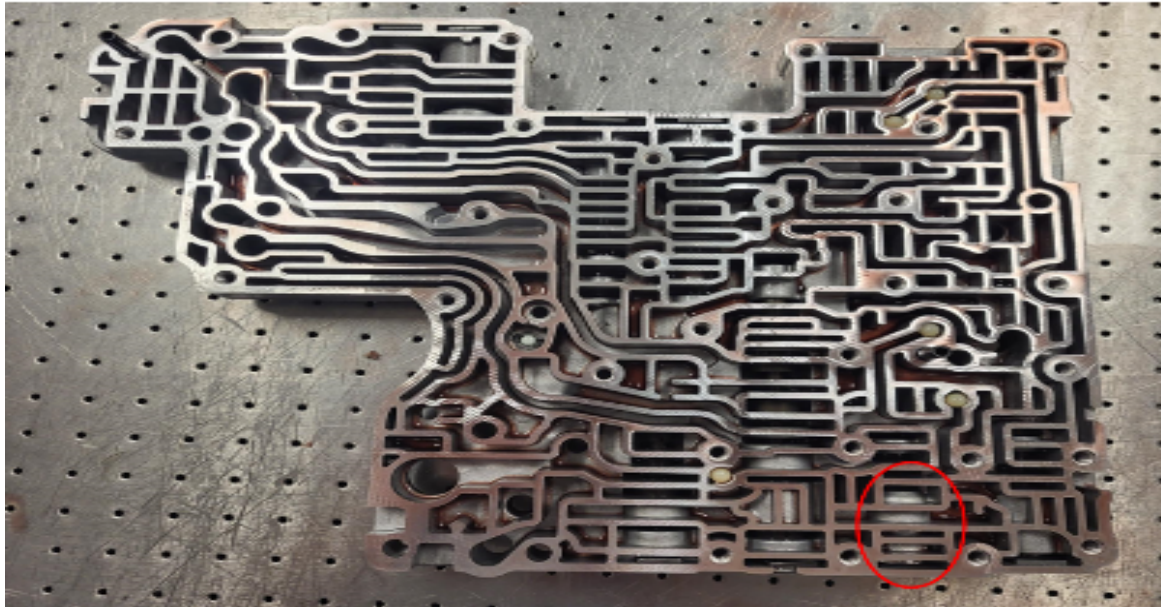
Important: Do not use prying devices to separate the valve body halves.

9. Using care, lift the solenoid body to separate the solenoid body from the control valve body. Some light shaking may be required.



Note: Do not replace any check balls unless they get misplaced during the procedure. **Do not** use Trans Gel to retain the check balls in place.

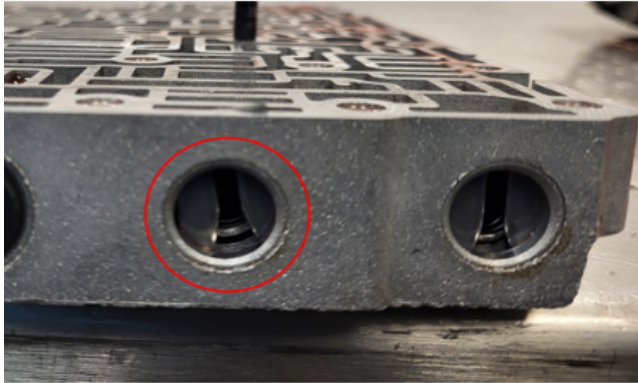
10. Locate the five check balls and note the location of the two alignment dowel pins.



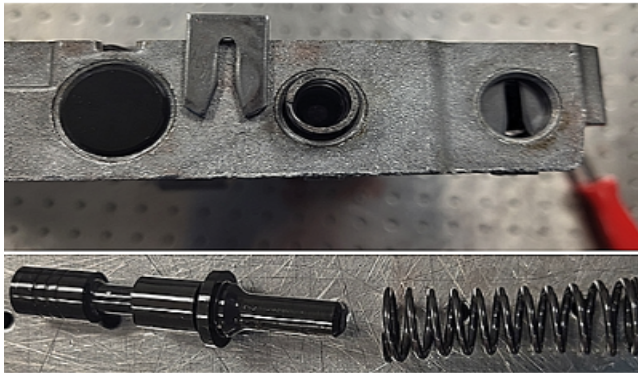
11. Locate the feed limit low valve. Second valve in from the lower right corner.



– On the un-machined side of the control valve, the feed limit low valve is identified as FL.



12. Utilizing a pick, slide the valve retainer up from the valve body to remove.



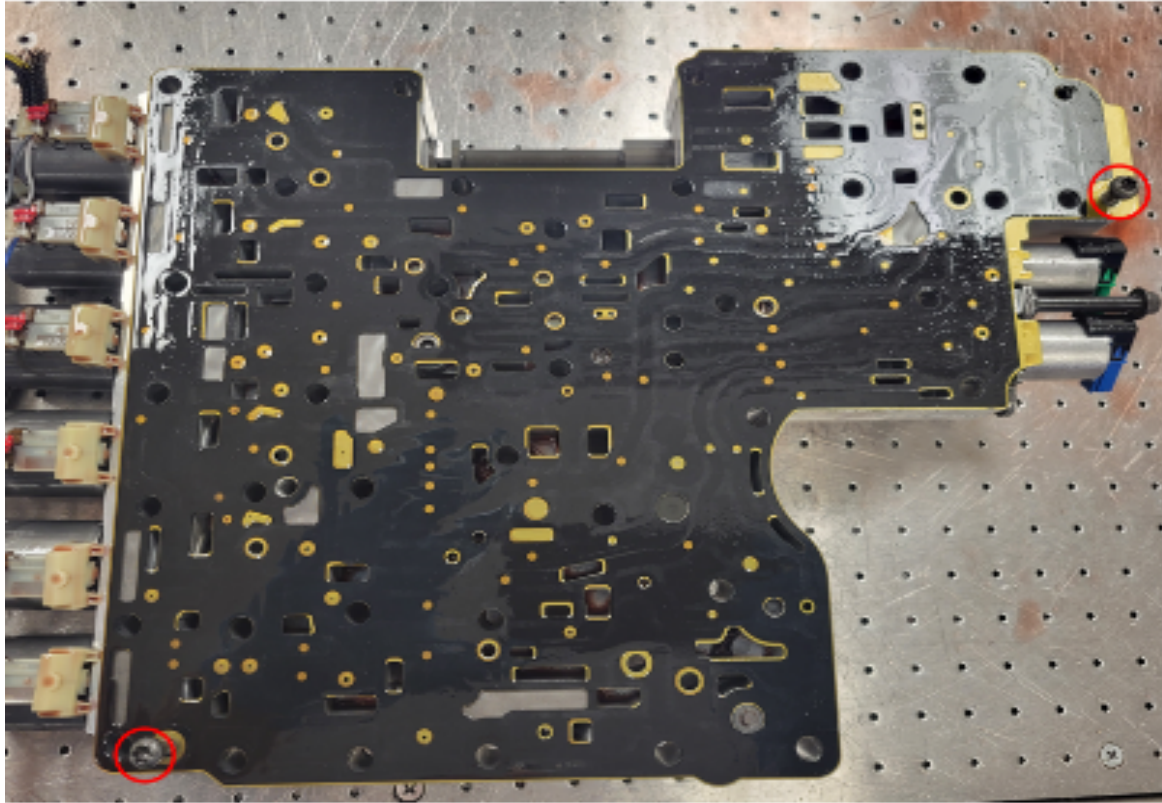
13. Remove the valve spring and valve from the bore.

- The valve can be removed with needle nose pliers. Removal of the valve should require minimal effort.
- Any valve that requires force to remove will need a valve body replacement. The bore does not require cleaning.



Note: The old valve is made from anodized aluminum where the new valve is made from steel and can be verified by a dimple on the small diameter end. The aluminum valve also has an hourglass or straight type of spring where the new steel valve utilizes a higher tension straight style spring. Care should be used when installing the new spring into the bore.

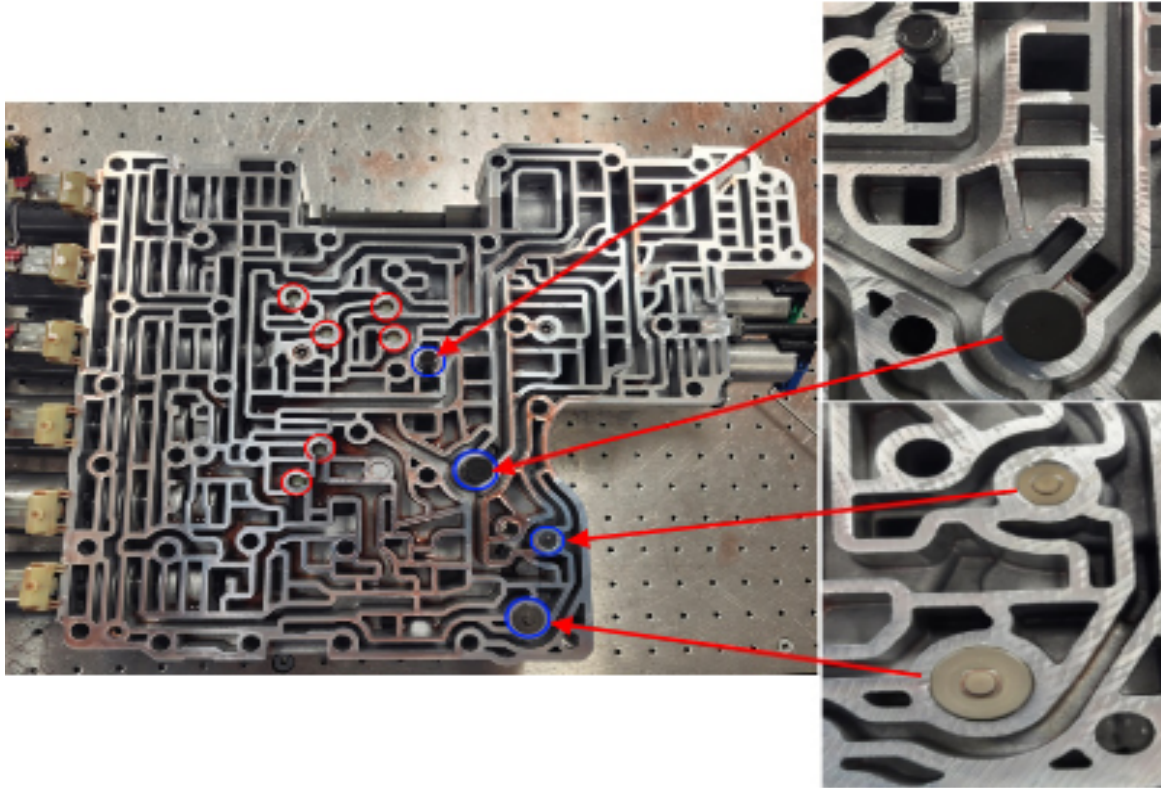
14. Install the new steel Feed Limit Low Valve in the bore.



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15. Remove the two retaining bolts from the Spacer Plate. Remove the Spacer Plate and discard.

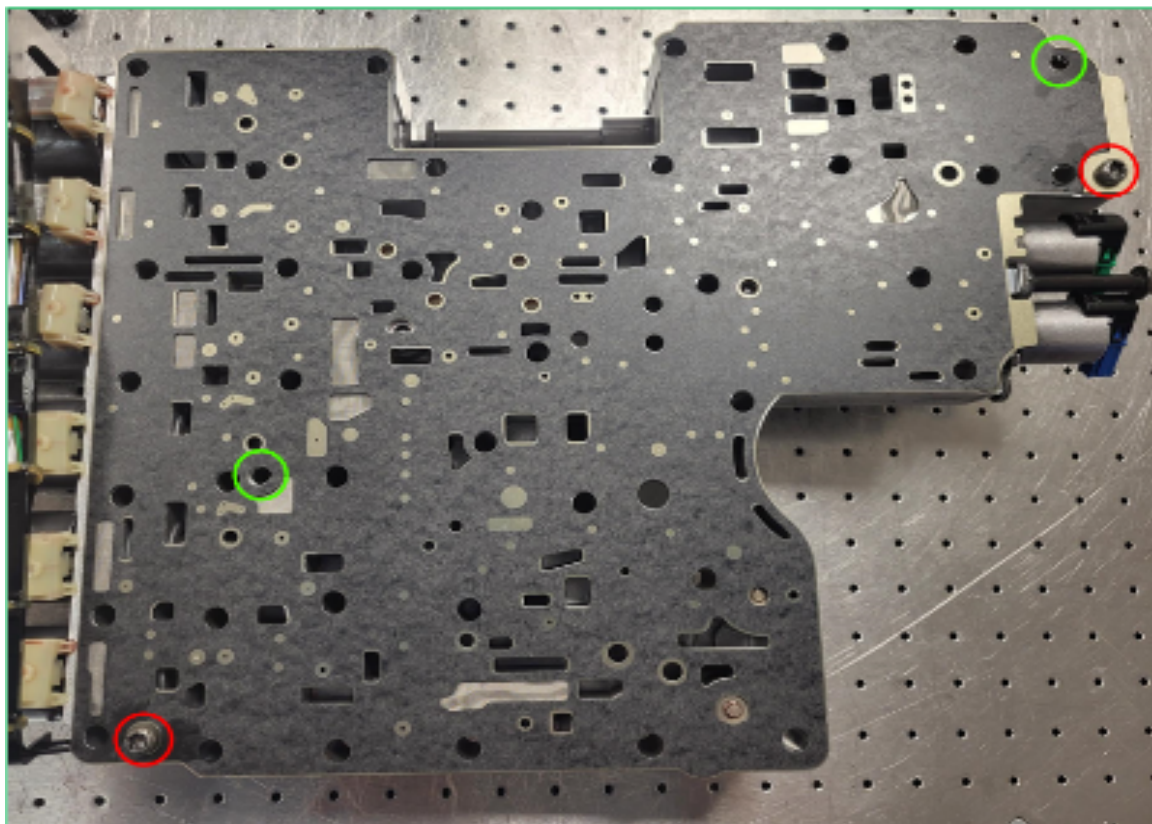


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Note: Do not replace any check balls unless they get misplaced during the procedure. Do not use Trans Gel to retain the check balls in place.

16. Note the location of the six check balls and ensure that the four mini accumulators remain in place.



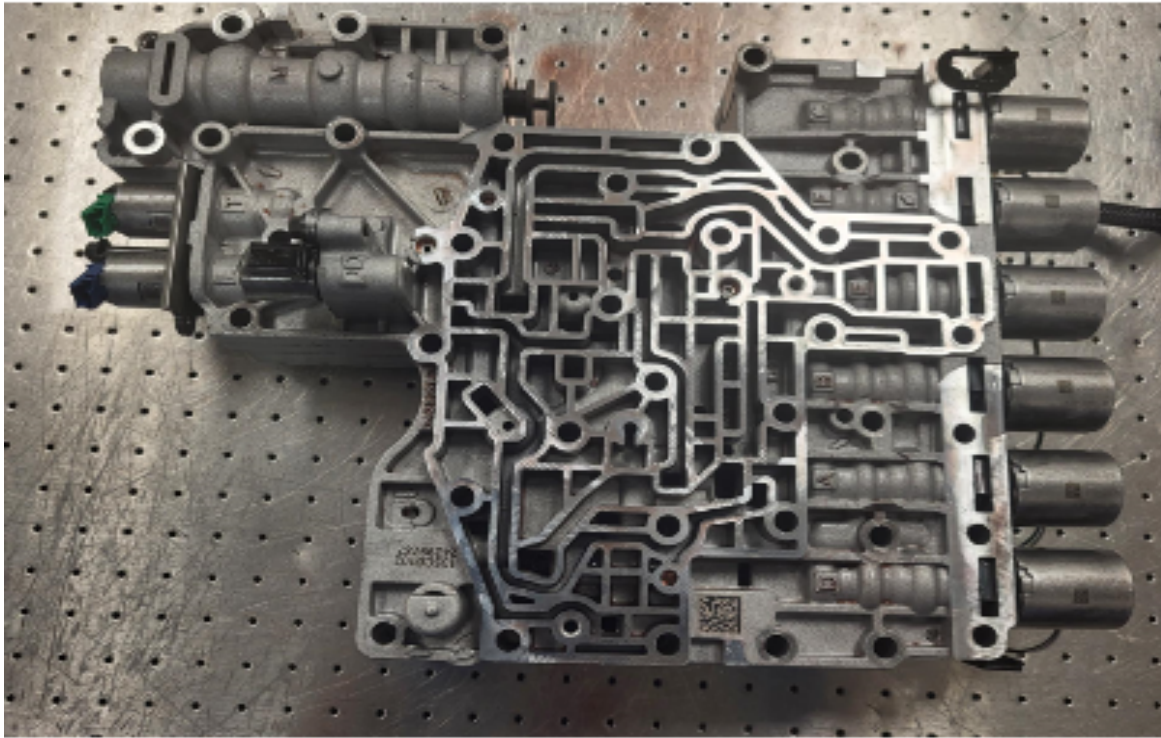
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Note: There are two alignment dowels used when installing the solenoid body to control valve. The areas of alignment are noted in green in the graphic above. The dowels are located on the valve body half.

17. Install the new spacer plate.

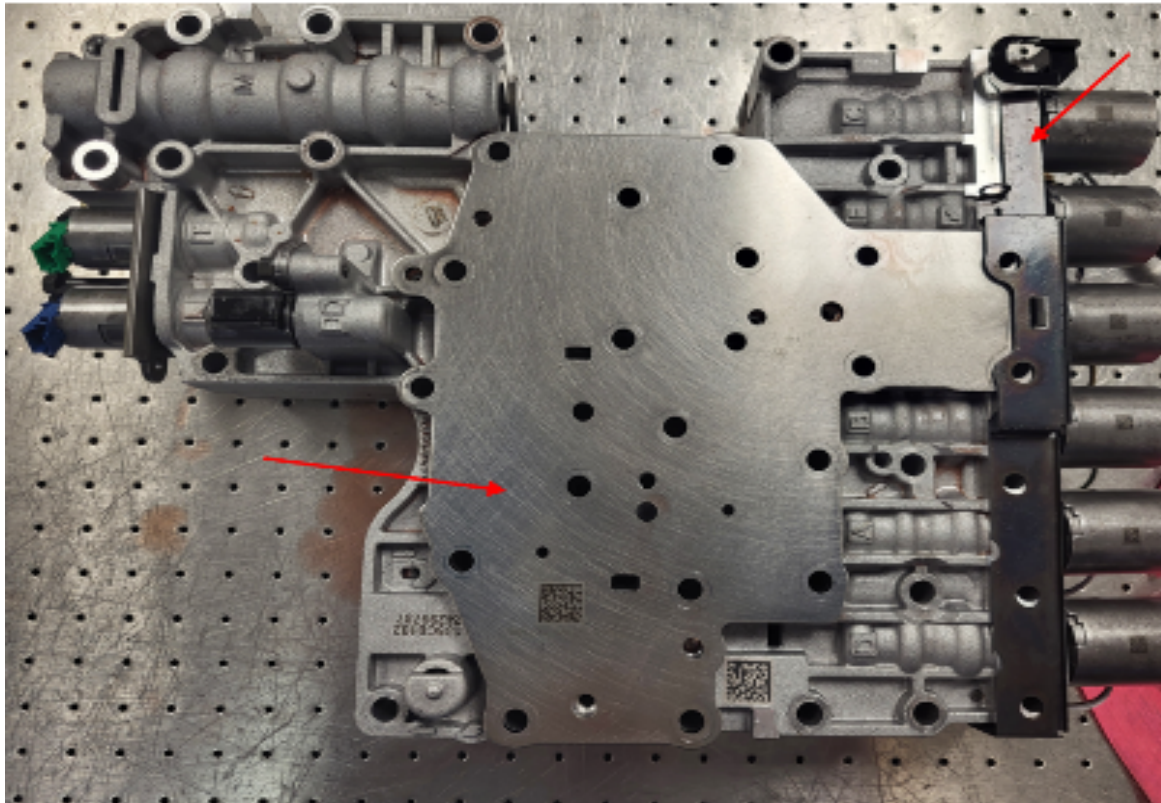
⇒ Torque the bolts to 6 N•m (53 in lbs).



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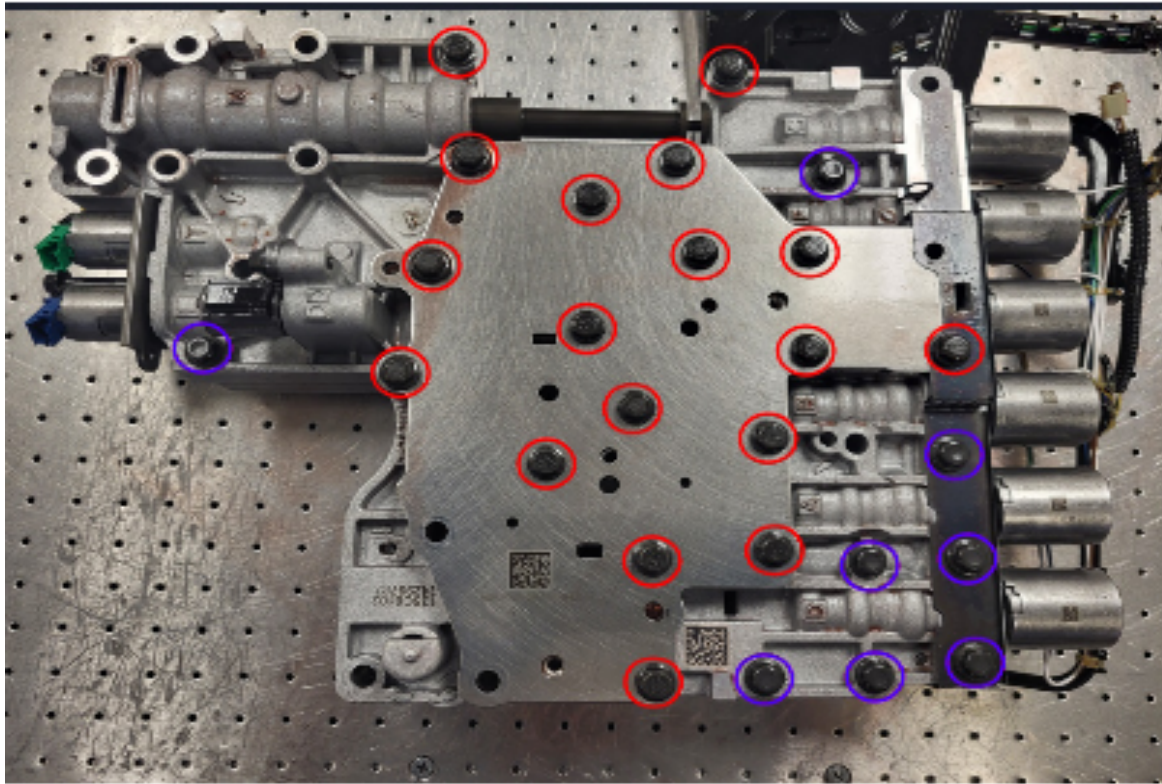
18. Using care, place the solenoid body onto the control valve.



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- Note:** Any damage to the thick plate will require valve body replacement.
19. Place the thick plate/gasket and solenoid cover onto solenoid body.

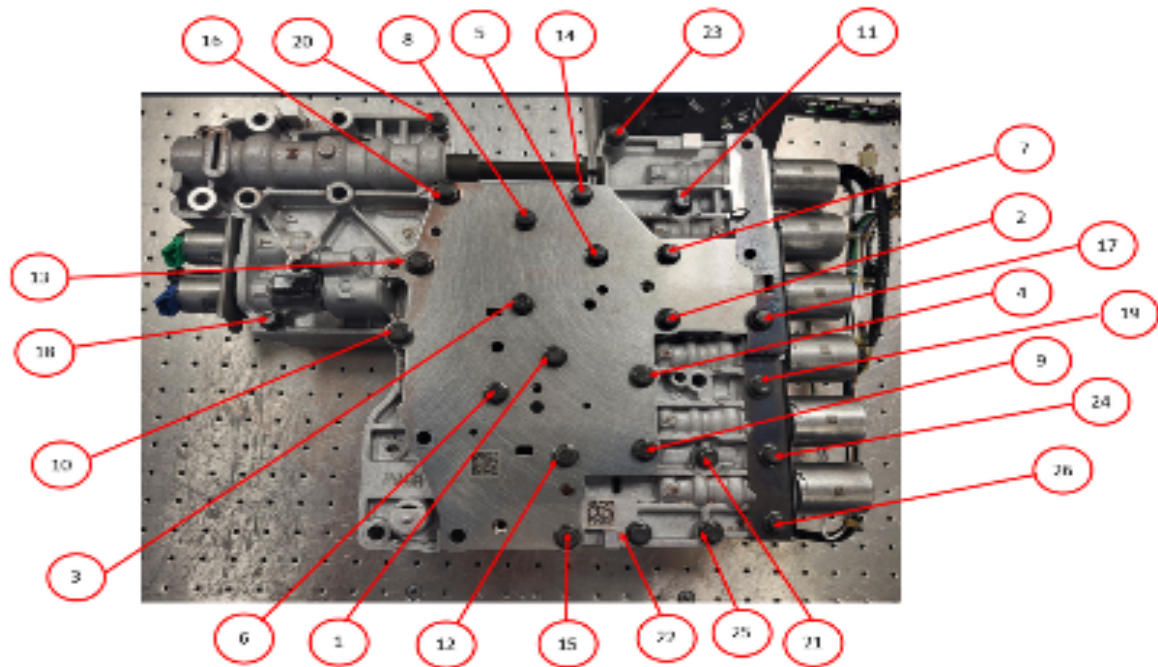


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20. Install the twenty-six valve body bolts.

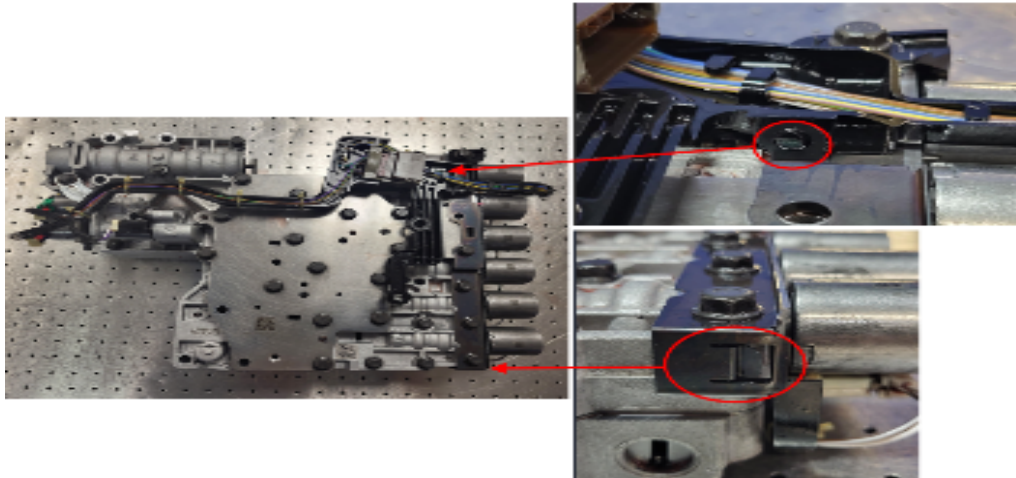
- 18 long bolts - Red
- 8 short bolts - Blue



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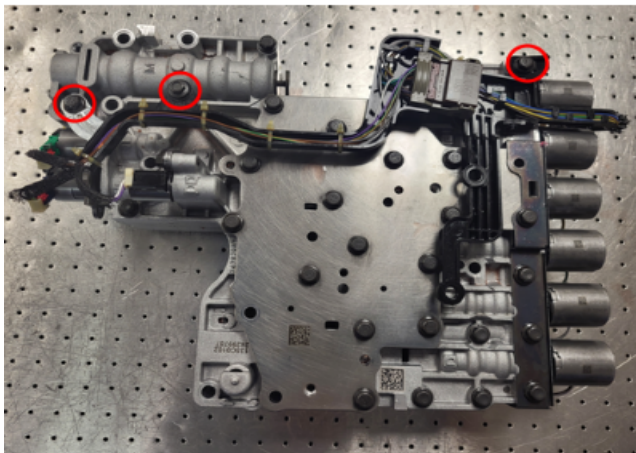


21. Torque the control valve bolts in sequence.
 ⇒ Torque the bolts to 9 N•m (80 in lbs).



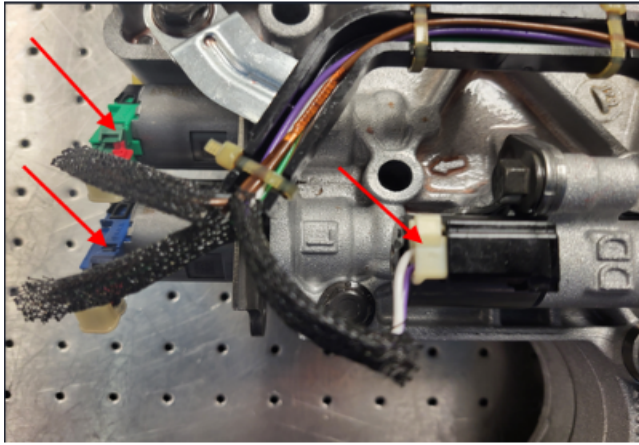
Important: Use Caution when handling the valve body wire harness. The plastic clips are fragile.

Note: The engagement point of the wire harness is on the top and side of the solenoid cover
 22. Install the control valve wire harness.

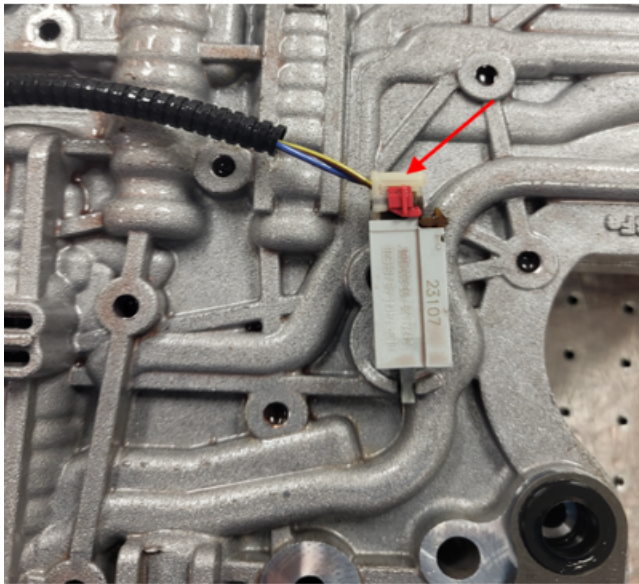


Note: The long bolt is located near the center on the manual valve.
 23. Install the three retaining bolts.

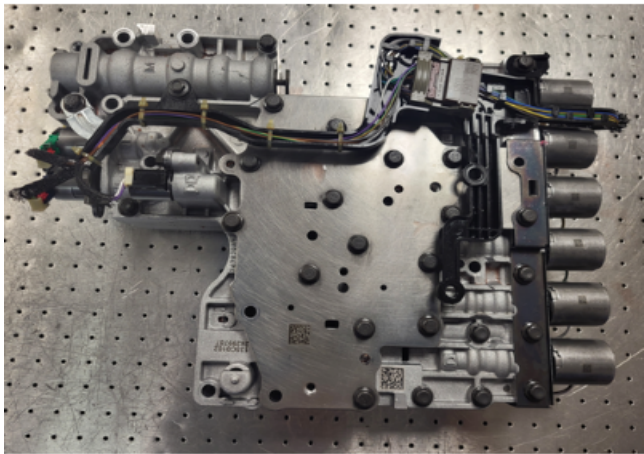
⇒ Torque the bolts to 9 N•m (80 in lbs).



24. Connect the three solenoid electrical connectors.



25. Connect the transmission fluid temperature sensor electrical connector on the opposite side of control valve.



26. Install the control valve. Refer to [Control Valve Replacement](#).

Note: Service Fast Learn (SFL) and MCVM Characterization is not required when completing this repair.

Parts Information

Note: Only select the parts that coincide with the repair performed. Replace the part with the P/N in accordance with the vehicle VIN and RPO.

Note: Follow the procedure in SI for additional parts that may be required for the repair.

Causal Part	Model Year	RPO	Description	Part Number	Qty
X	21-24	MGM MGU MKM	SPRING-ACTR FEED LIM VLV	24279142	1
X	21-24	MGM MGU MKM	VALVE-ACTR FEED LIM	24059372	1
X	24	MGM MGU MKM	PLATE ASM-C/VLV BODY SPCR (W/ GSKT) HD	24047335	1
X	21-23	MGM MGU	PLATE ASM-C/VLV BODY SPCR (W/ GSKT) HD	24044188	1
X	21-24	MGM MGU MKM	SEAL-A/TRNS FLUID PUMP	24270191	1

Causal Part	Model Year	RPO	Description	Part Number	Qty
X	24 (L8T)	MKM	SEAL-EXH MANIF PIPE (Donut)	20987829	1
X	24 (L8T)	MKM	SEAL-EXH MANIF PIPE (Steel O- Ring)	15077362	1
X	21-24	MGM MGU MKM	FILTER KIT- A/TRNS FLUID (filter and seal)	24298004	1
X	21-24	MGM MGU MKM	VALVE-C/VLV BODY BALL CHK (As Needed)	96020431	3 (As Needed)
N/A	21-24	MGM MGU MKM	ULV FLUID- A/TRANS (CAN)	19352620	As Required
N/A	21-24	MGM MGU MKM	ULV FLUID- A/TRANS (US)	19352619	As Required

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Warranty Information

For vehicles repaired under the Powertrain coverage, use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

Labor Operation	Description	Labor Time
8481158*	Control Valve Overhaul	2.5 hrs
Add	For L8T	0.9 hr
*This is a unique Labor Operation for bulletin use only.		

Version	1
Modified	Released August 18, 2025

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