

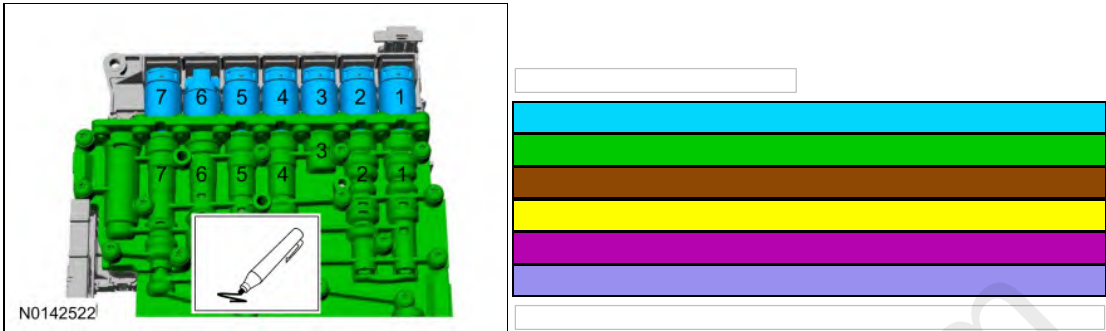
Main Control Valve Body

NOTE: Solenoids may visually appear the same but their designs/functions are different. Use care not to assemble the main control assembly incorrectly. Incorrect solenoid installation results in poor transmission shift quality.

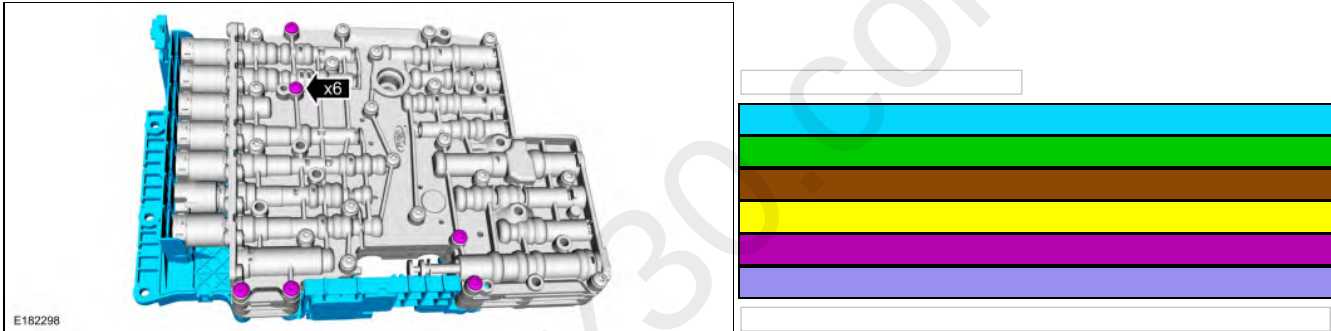
NOTE: Note the location of the 8 check balls, 6 solenoid dampers, 2 converter drain back valves and springs and 2 filter screens for reassembly.

1.
- Make an identifying mark on each solenoid and the corresponding bore for correct assembly.
- For solenoid and valve identification.

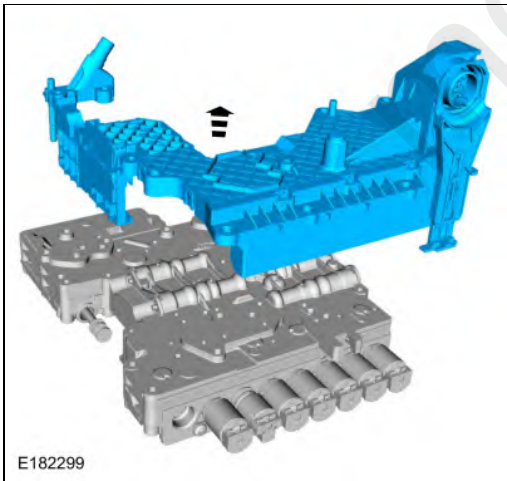
Refer to: Main Control Valve Body (307-01A Automatic Transmission, Transfer Case and Power Transfer Unit - 6-Speed Automatic Transmission 6R100, Description and Operation).



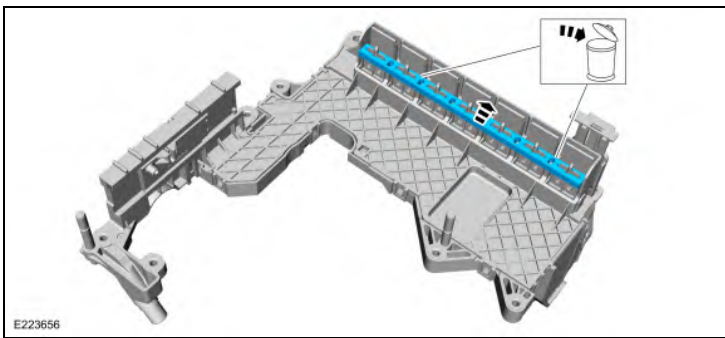
2.
- Remove the long bolts from the molded leadframe.



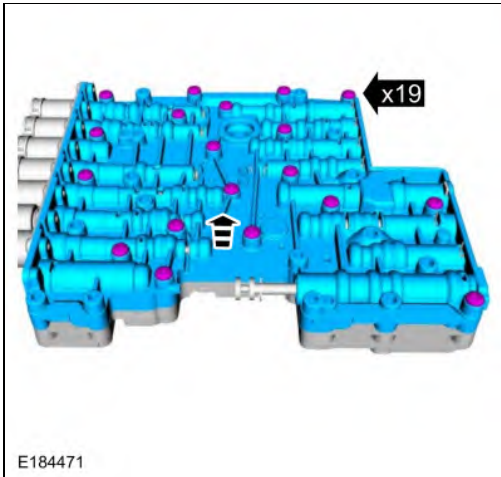
3.
- Carefully separate the molded leadframe from the main control valve body assembly.



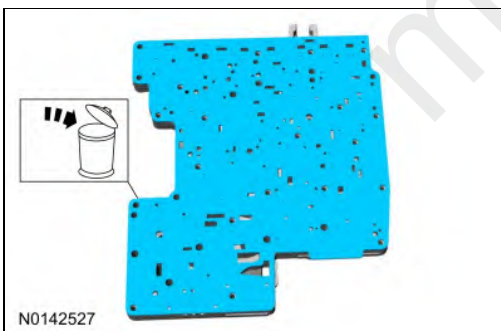
4.
- If equipped, remove and discard the foam strip seal.



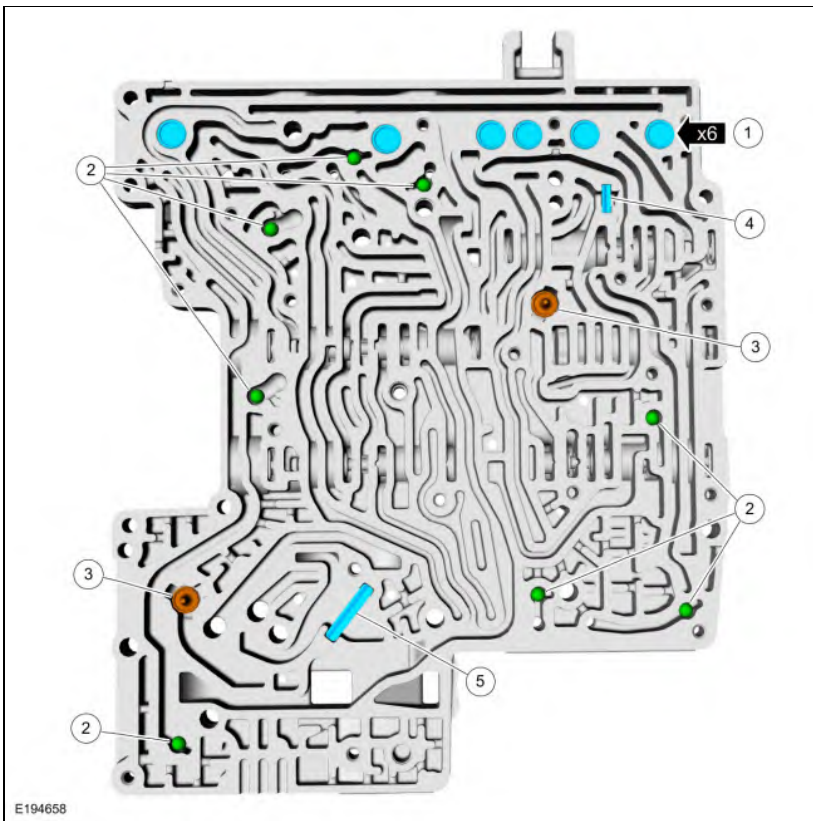
5. Remove the short main control bolts from the main control assembly. Separate the lower half of the main control assembly from the upper half of the main control assembly.



6. Remove and discard the main control valve body separator plate.



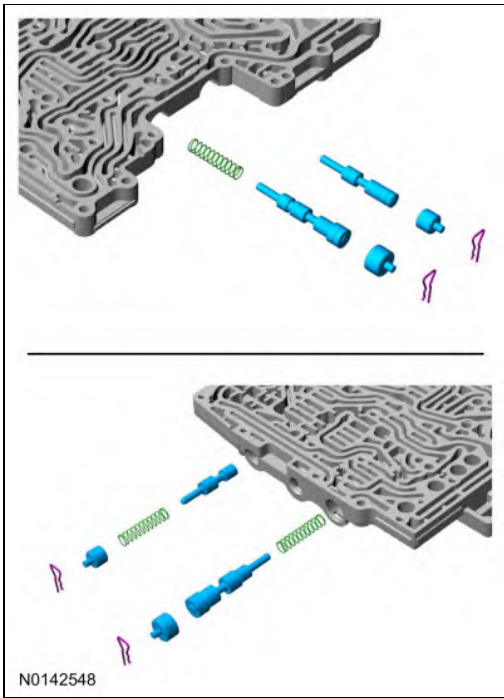
- 7.
1. Solenoid dampers
 2. Check balls
 3. Converter drain back valves and springs
 4. Small filter screen
 5. Large filter screen
 - Remove the solenoid dampers, check balls, converter drain back valves and filter screens from the main control assembly. Note the location for assembly.



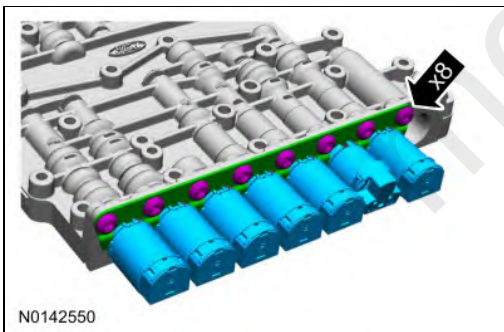
8. **NOTICE:** Many components and surfaces in the main control valve body are precision machined. Careful handling during disassembly, cleaning, inspection and assembly prevents unnecessary damage to machined surfaces.

NOTE: Note the location and order of the clips, caps, valves and valve springs for assembly.

Remove the retaining clips, caps, valves and valve springs from each bore of the main control assembly. Clean the main control assembly and install the clips, caps, valves and valve springs in the same order as noted during removal.



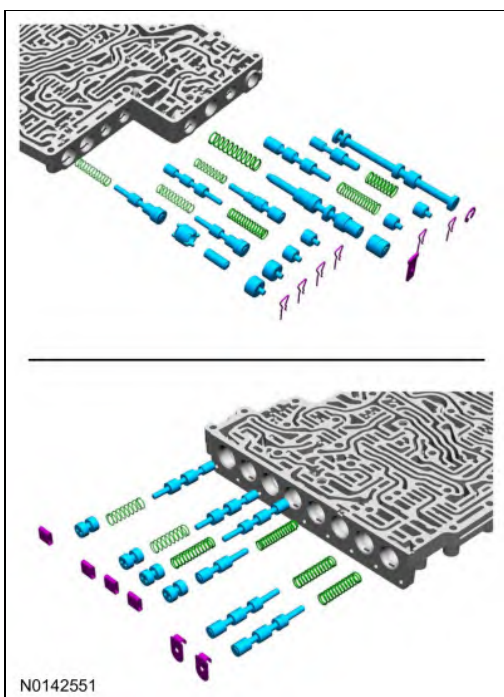
9. Remove the solenoids.



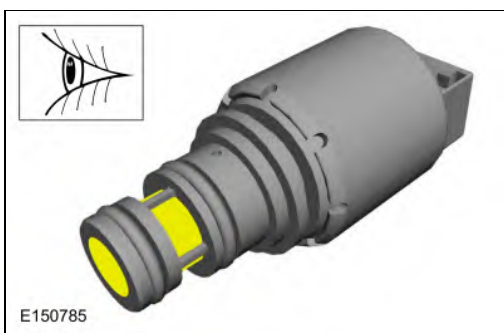
10. **NOTICE:** Many components and surfaces in the main control valve body are precision machined. Careful handling during disassembly, cleaning, inspection and assembly prevents unnecessary damage to machined surfaces.

NOTE: Note the location and order of the clips, caps, valves and valve springs for assembly.

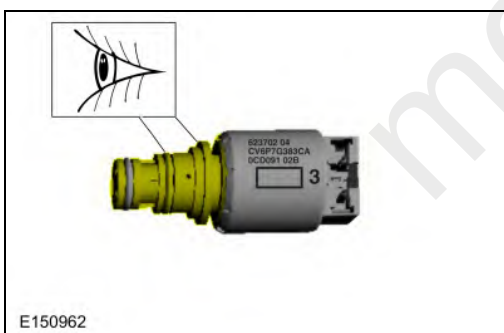
Remove the retaining clips, caps, valves and valve springs from each bore of the main control assembly. Clean the main control assembly and install the clips, caps, valves and valve springs in the same order as noted during removal.



11. Inspect the solenoid screens for debris that may restrict fluid flow.



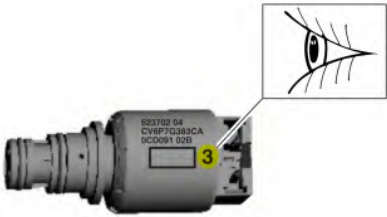
12. If installing new solenoids, note the color of the plastic nozzle and the large O-ring. High pressure solenoids, such as the Line Pressure Control (LPC) solenoid, Shift Solenoid B (SSB) and Shift Solenoid D (SSD), have black plastic nozzles and orange O-rings. Low pressure solenoids, such as the TCC solenoid, Shift Solenoid A (SSA) and Shift Solenoid C (SSC), have brown plastic nozzles and green O-rings. The solenoids can only be replaced with the same color solenoid.



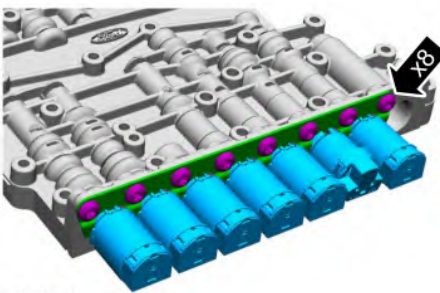
13. Determine the part number suffix by checking the solenoid service band number etched on the side of the solenoid. The band number is next to the two-dimensional matrix barcode on the side of the solenoid and will be a 1, 2, 3, 4 or 5. Determine the part number suffix and match the new solenoid base part number and suffix with the old solenoid.

Solenoid Number	Solenoid Part Number Suffix
1	B
2	C

3	D
4	E
5	F



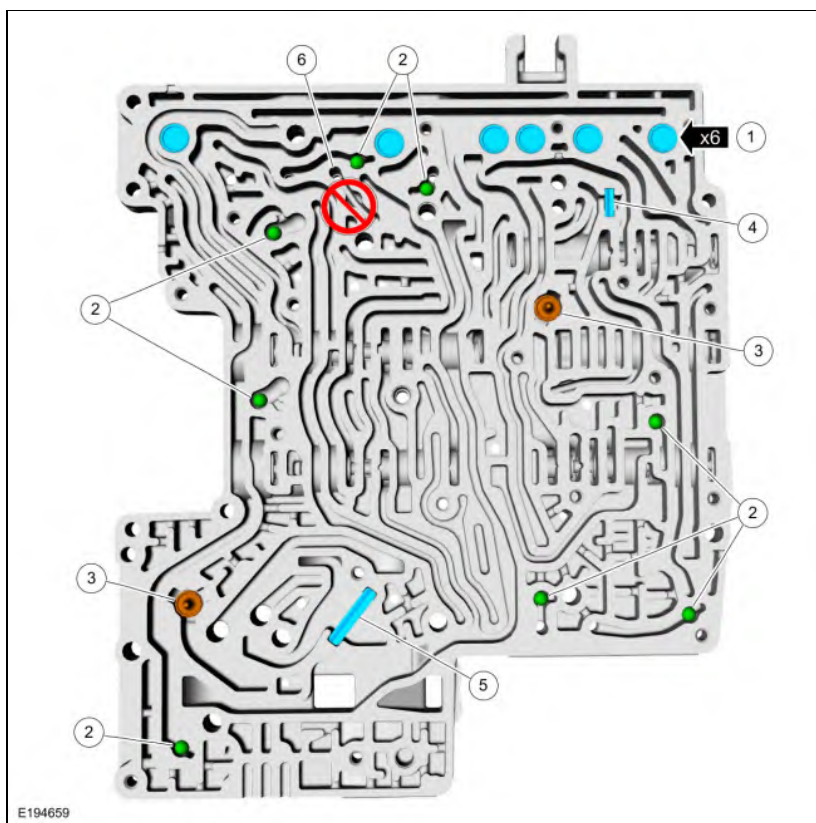
14. Install the solenoids into their correct bores as marked during disassembly.
Torque: 53 lb.in (6 Nm)



15. **NOTICE:** Toward the back of the upper valve body there is a hydraulic passage that is shaped as though it receives a check ball. This passage does not require a check ball. Be sure not to mistake this hydraulic passage for a passage that does require a check ball or damage to the transmission can occur.

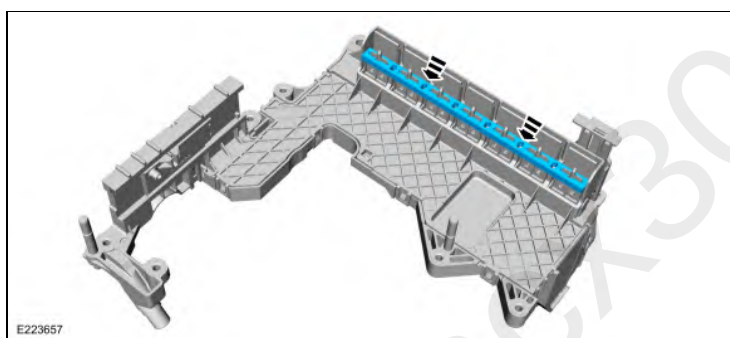
Install the solenoid dampers, check balls, converter drain back valves and springs and filter screens in the main control assembly.

- Solenoid dampers
- Check balls
- Converter drain back valves and springs
- Small filter screen
- Large filter screen
- Empty hydraulic passage (no check ball)

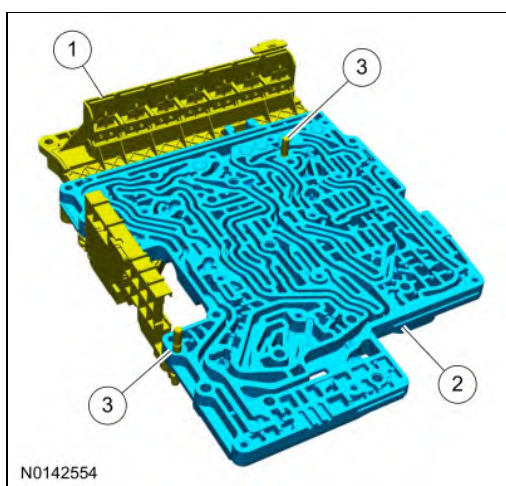


16. **NOTE:** Some vehicles may not have been built with a foam strip seal. A new foam strip seal should be installed on all molded leadframes.

Install a new foam strip seal on the molded leadframe.



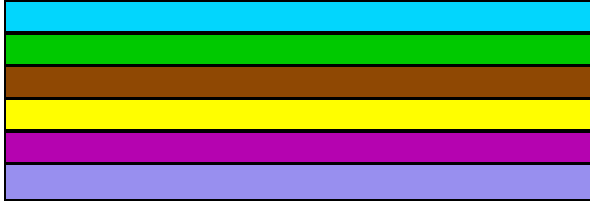
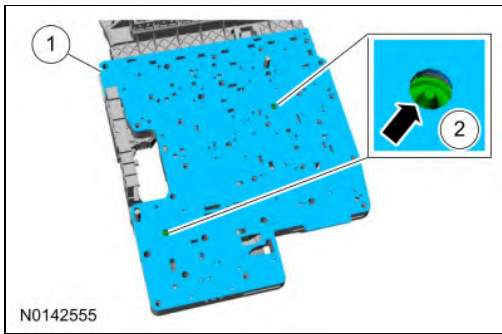
- 17.
1. Molded leadframe
 2. Upper main control valve body
 3. Guide pins
 - Align the guide pins on the molded leadframe with the holes in the main control upper valve body and install the valve body onto the molded leadframe.



18. **NOTICE:** If the drain back valves are not installed correctly in the separator plate, damage to the transmission can occur.

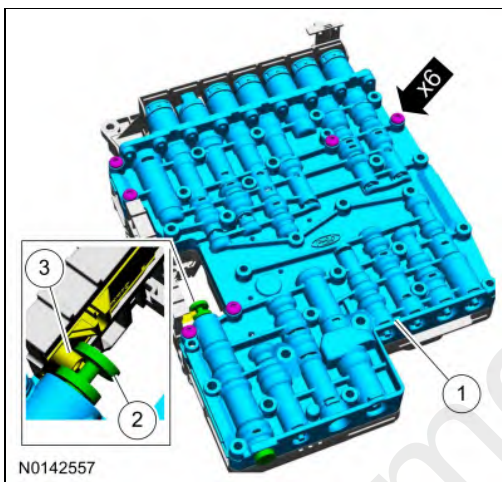
1. Main control separator plate
2. Drain back valves
3. Guide pins
 - Position the new main control separator plate on the main control upper valve body. Check the 2 converter drain back valves to be sure they are correctly positioned in the

separator plate when the separator plate is pressed flush against the main control upper valve body.



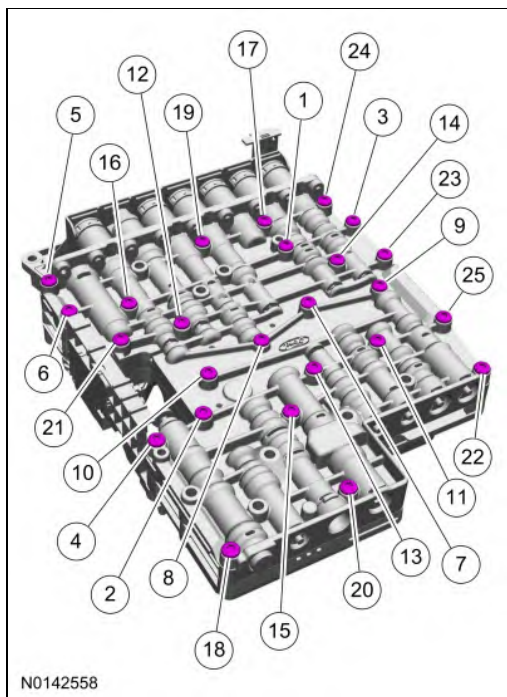
19. **NOTICE:** If the converter drain back valves are not installed correctly in the separator plate, damage to the transmission can occur.

1. Main control lower valve body
 2. Manual valve
 3. TR sensor
- Position the main control lower valve body on the 2 molded leadframe alignment studs, align the manual valve with the TR sensor on the molded leadframe and install the main control lower valve body. Install the long molded leadframe-to-valve body bolts hand-tight.



20.

- Install the short main control assembly lower-to-upper valve body bolts. Tighten all the bolts in the sequence shown.
- Tighten bolts 1 through 6
Torque: 53 lb.in (6 Nm)
- Tighten bolts 7 through 25
Torque: 62 lb.in (7 Nm)



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