

SUBARU 5EAT VALVE BODY ASSEMBLY

Subaru began using a version of the RE5R05A transmission with select Legacy vehicles in 2005 called the 5EAT (TG5C) transmission. Since then it has been used in select Forester, Outlook and Tribeca vehicles here in the United States. The valve body is similar yet very different when compared to the RE5R05A transmission. A few very obvious changes was the elimination of a Reverse Brake Control Valve and the inclusion of a Transfer Clutch Control Valve and a Transfer Clutch Solenoid. The Reverse Brake and the Forward Brake are not engaged by a dedicated solenoid. They are engaged from the Manual Valve using a series of check balls and accumulators in conjunction with main line pressure to control their engagement. Refer to the following figures for first generation valve body information. *Complete hydraulics are available from ATSG.*

- Refer to Figure 1 for solenoid identification and location
- Refer to Figures 2 and 3 for valve body small parts location (check balls, filters and retainers)
- Refer to Figure 4 for a partial hydraulic and explanation of a Reverse engagement
- Refer to Figure 5 for a partial hydraulic and explanation of a Drive engagement
- Refer to Figures 6 and 7 for valve and spring identification and location
- Refer to Figure 8 for case passage identification

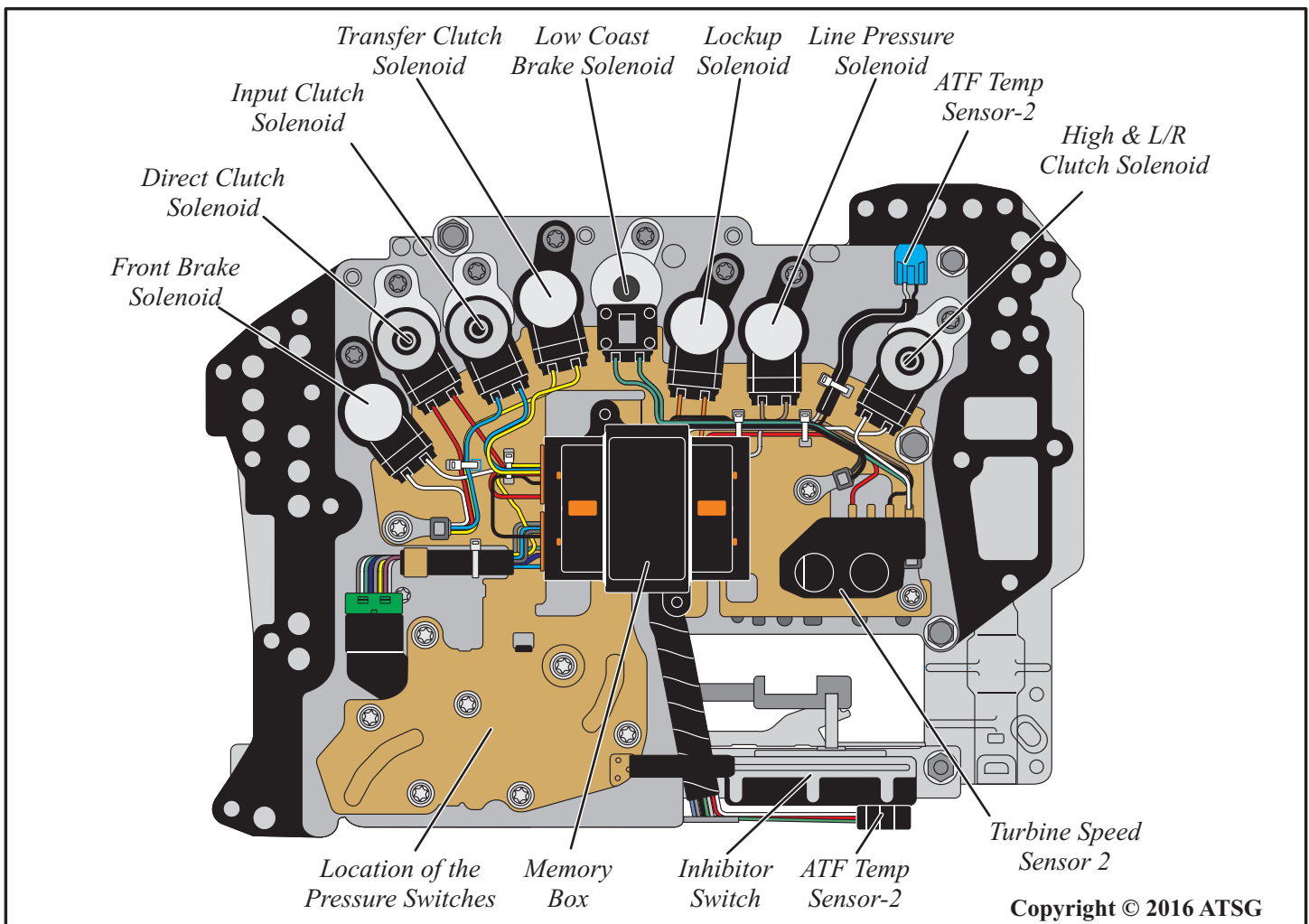


Figure 1

5EAT VALVE BODY SMALL PART LOCATIONS

LOWER CASTING UPPER SIDE

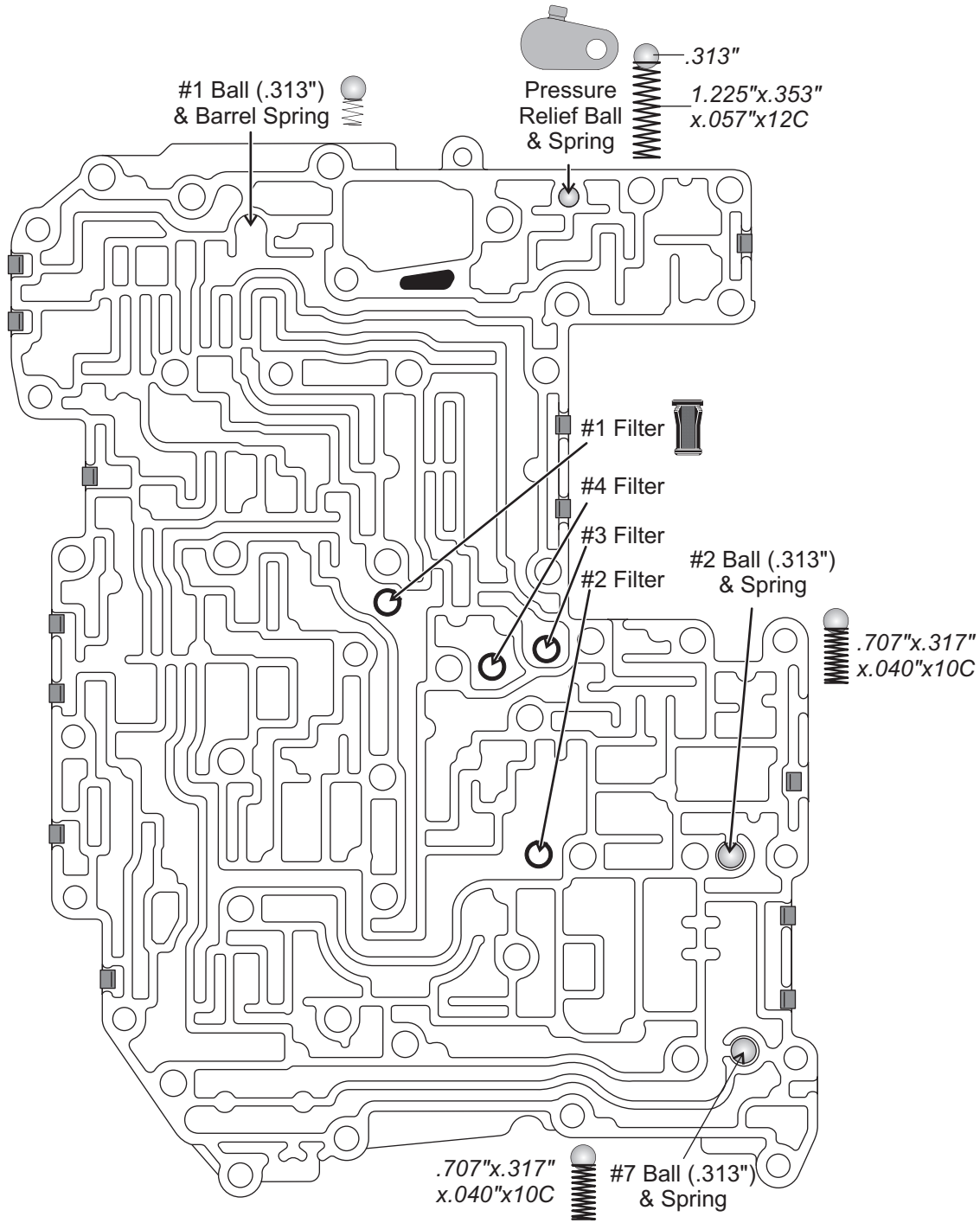
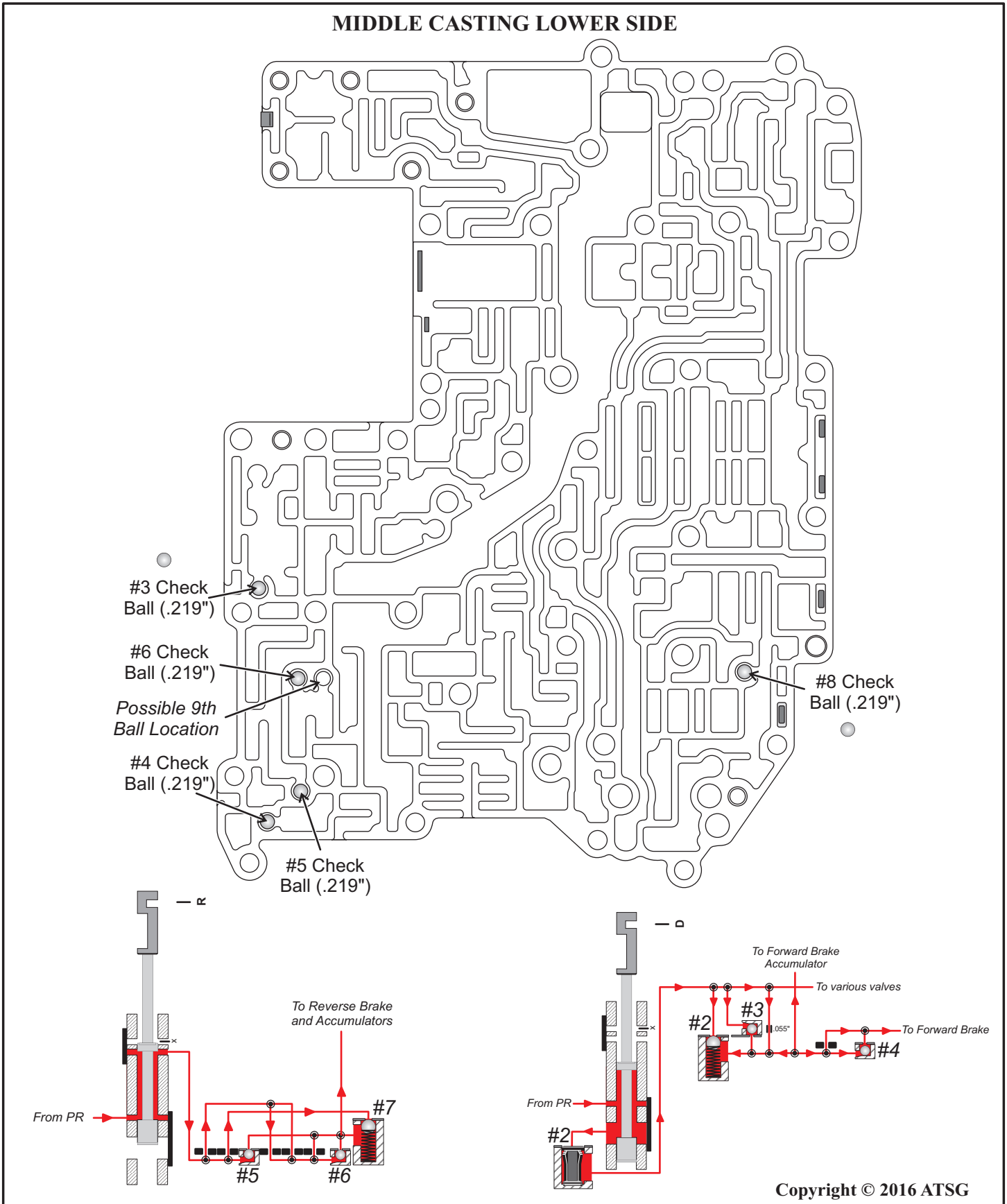


Figure 2

SEAT VALVE BODY SMALL PART LOCATIONS

MIDDLE CASTING LOWER SIDE

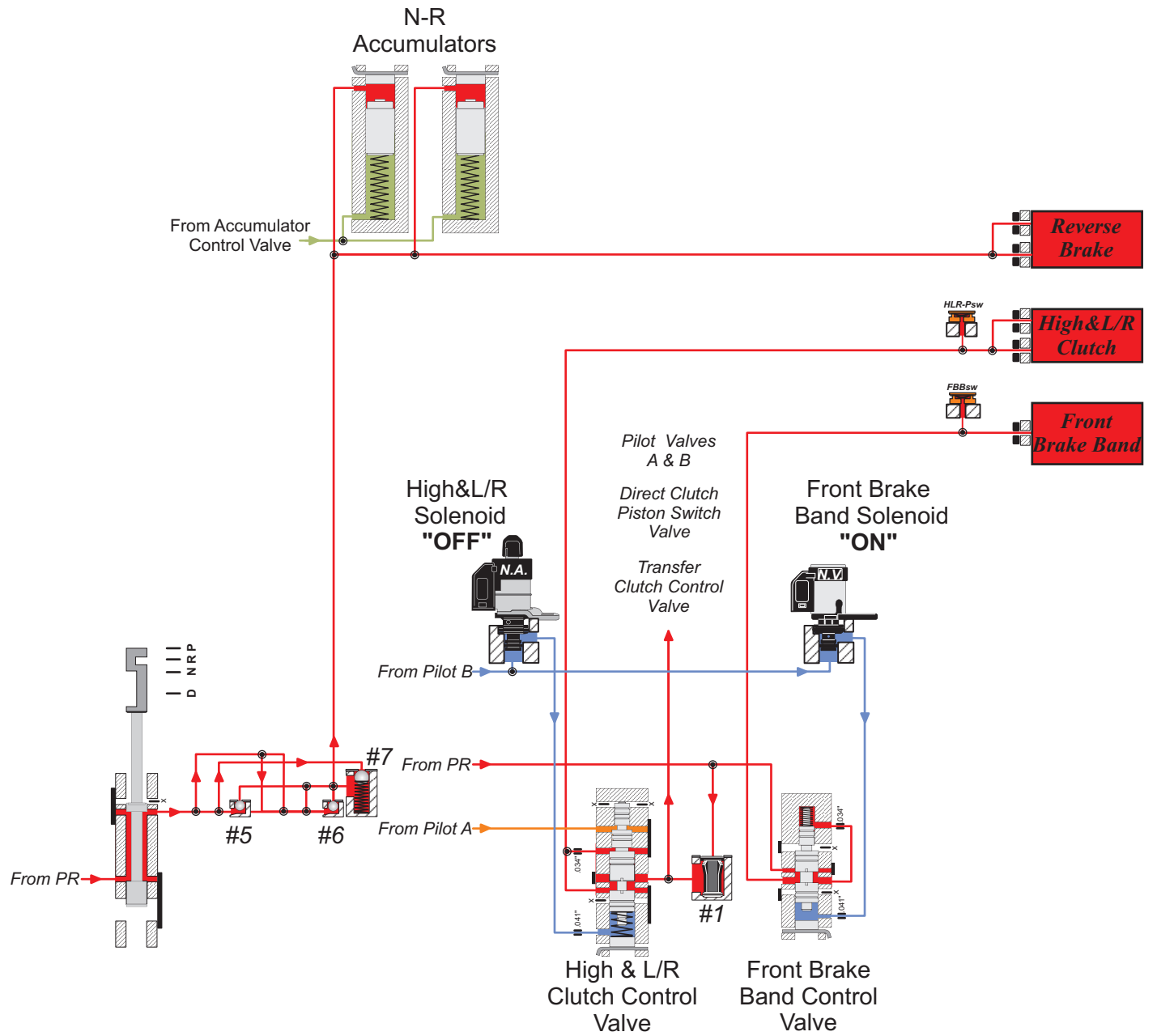


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Figure 3

5EAT REVERSE ENGAGEMENT

REVERSE BRAKE APPLY



When the vehicle starts in Park, the Front Brake Band and the High and Low/Reverse Clutch are applied by way of their respective solenoid and control valve. When Reverse is selected, line pressure feeding the manual valve is supplied to a series of check balls to control the apply of the Reverse Brake.

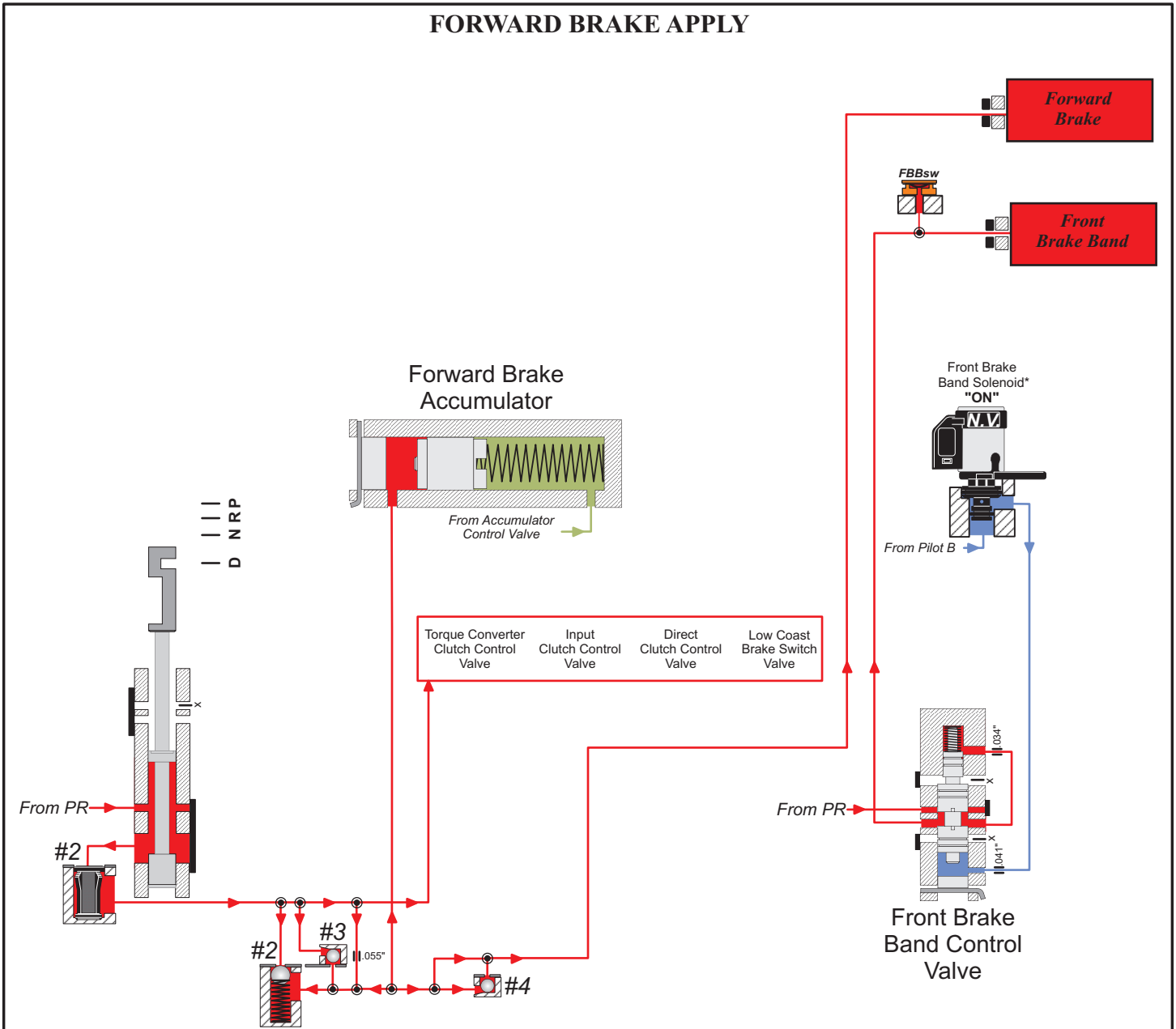
The series of check balls are used to control the flow rate to two N-R accumulators and the Reverse Brake.

Line pressure control is also involved to ensure a smooth garage shift into reverse.

Figure 4

5EAT DRIVE ENGAGEMENT

FORWARD BRAKE APPLY



When the vehicle starts in Park, the Front Brake Band and the High and Low/Reverse Clutch are applied by way of their respective solenoid and control valve. When Drive is selected, the Front Brake Band remains applied while the normally applied High and Low/Reverse solenoid turns on. This blocks solenoid signal oil to the spring side of the High and Low/Reverse Clutch Control Valve. Pilot pressure A then closes the valve against spring tension disengaging the High and Low/Reverse Clutch. Simultaneously, line pressure feeding the manual valve is supplied to a series of check balls to control the apply of the Forward Brake.

The series of check balls are used to control the flow rate to the N-D accumulator and the Forward Brake.

Line pressure control is also involved to ensure a smooth garage shift into drive.

Figure 5

SEAT VALVE BODY VALVE IDENTIFICATION

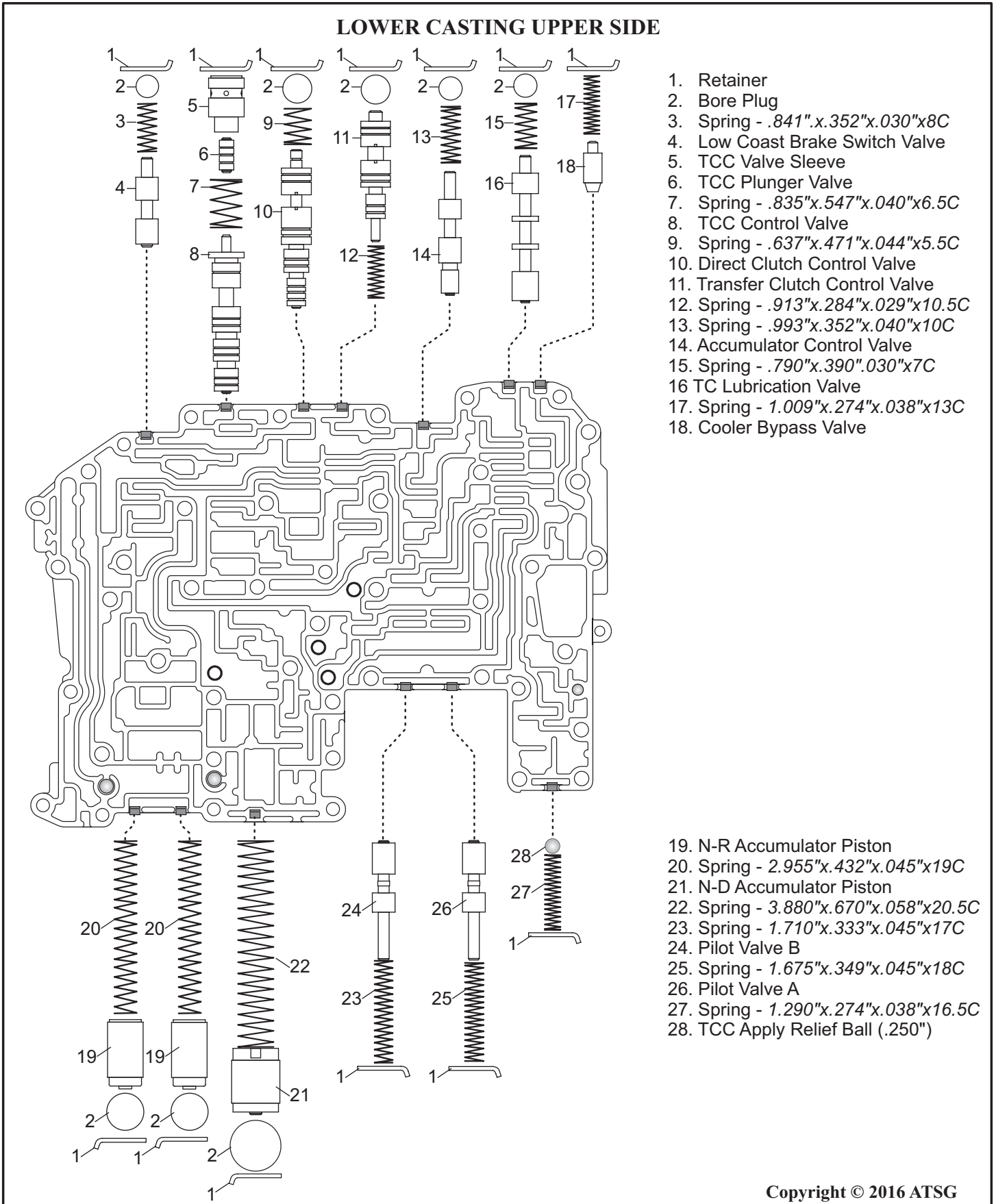


Figure 6

SEAT VALVE BODY VALVE IDENTIFICATION

MIDDLE CASTING UPPER SIDE

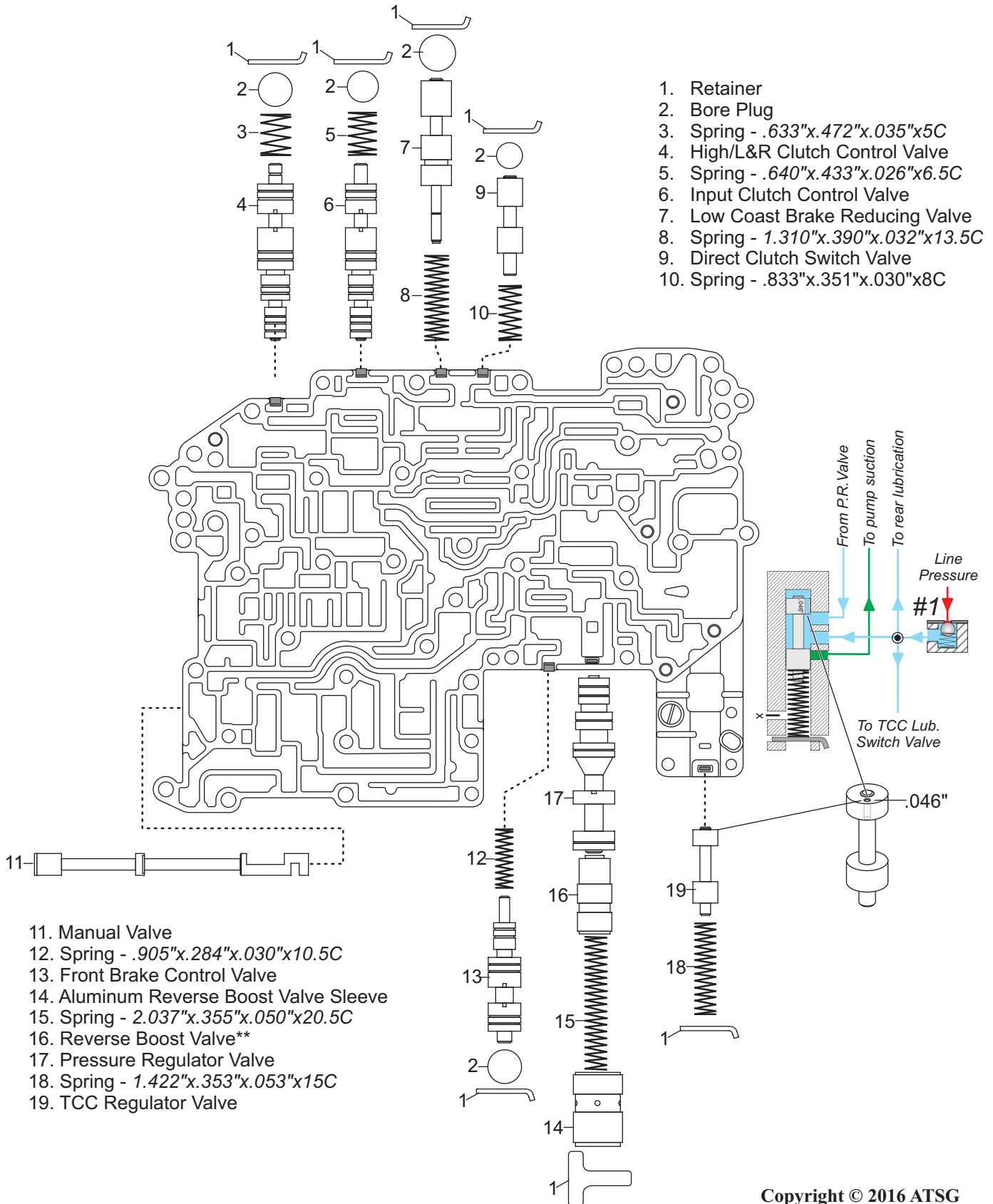
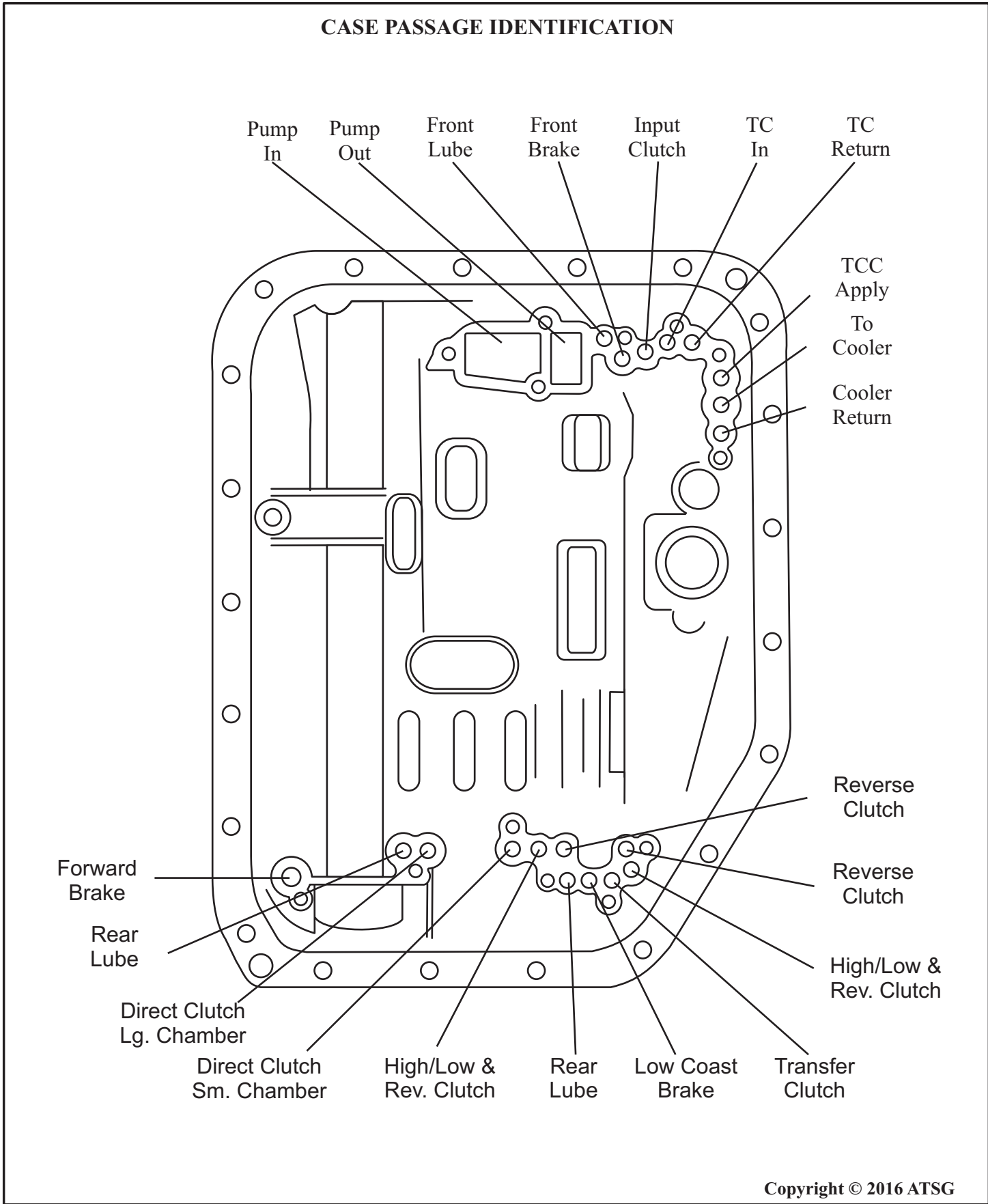


Figure 7

5SEAT TRANSMISSION

CASE PASSAGE IDENTIFICATION



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Figure 8