

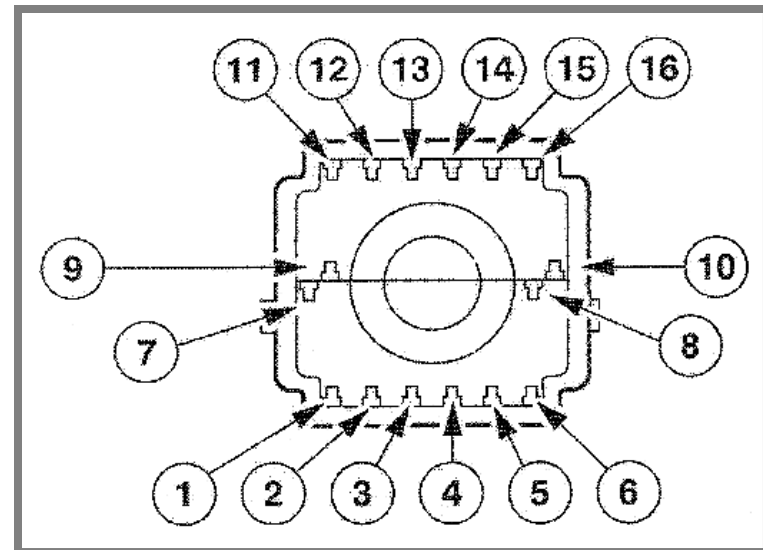
5R55N/W/S

Solenoid Resistance Values and Pin Locations

ID	Resistance
SSA	16-45 ohms
SSB	16-45 ohms
SSC	16-45 ohms
SSD	16-45 ohms
TCC	9-16 ohms

ID	Resistance
PC A	3.3-7.5 ohms
PC B	3.3-7.5 ohms
PC C	3.3-7.5 ohms

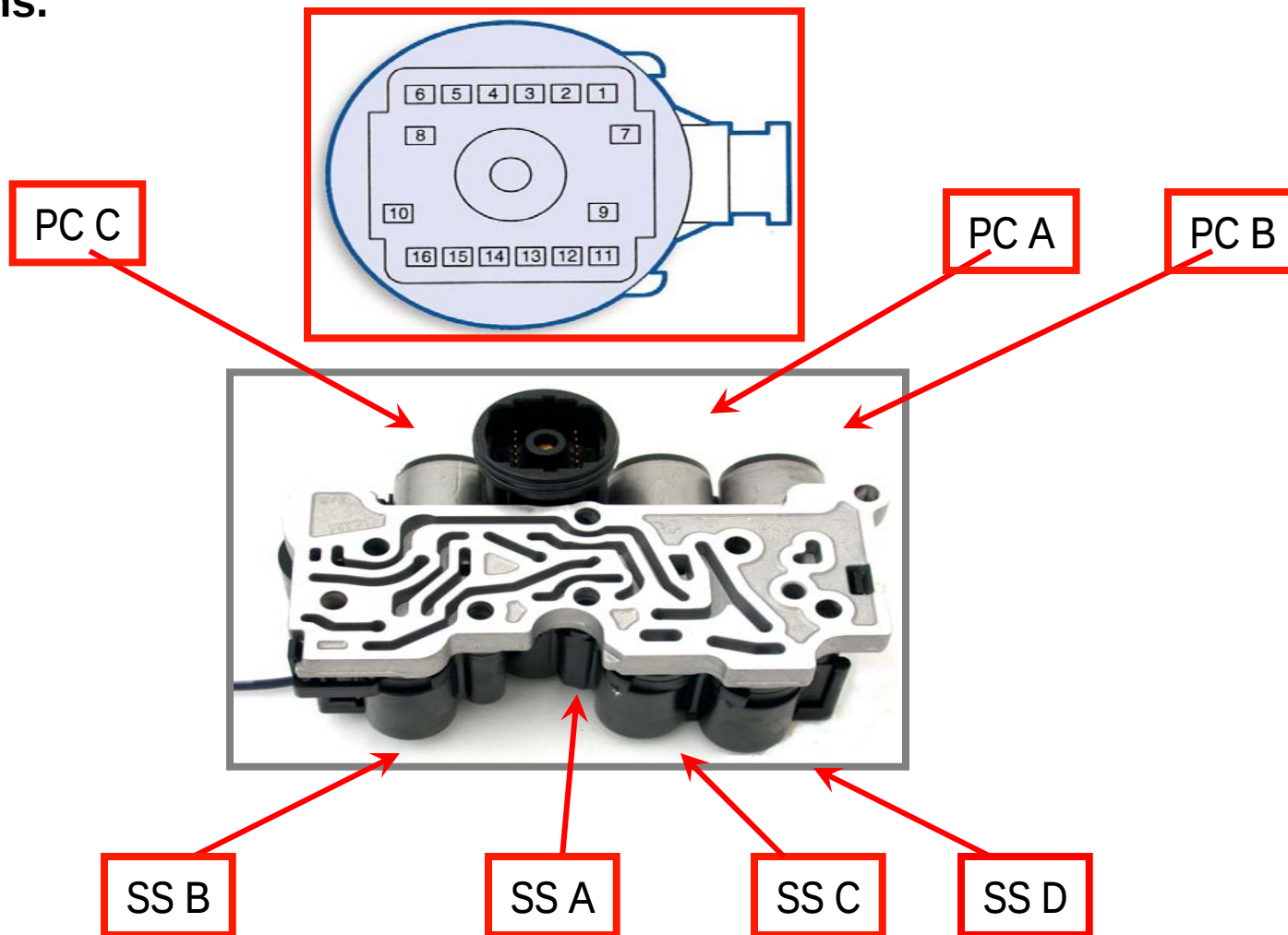
Pin#	5R55W/S	5R55N
1	PC B	PC A
2	TFT sensor	TFT sensor
3	SS +	SS +
4	PC C	PC B
5	SSD	SSD
6	SSC	SSC
7	N/A	N/A
8	N/A	N/A
9	N/A	N/A
10	N/A	N/A
11	PC A	PC C
12	Sig Return	Sig Return
13	N/A	RP Switch
14	TCC	TCC
15	SSB	SSB
16	SSA	SSA



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Solenoid ID and Locations

When testing the solenoids on the bench, use this illustration for test pin locations.



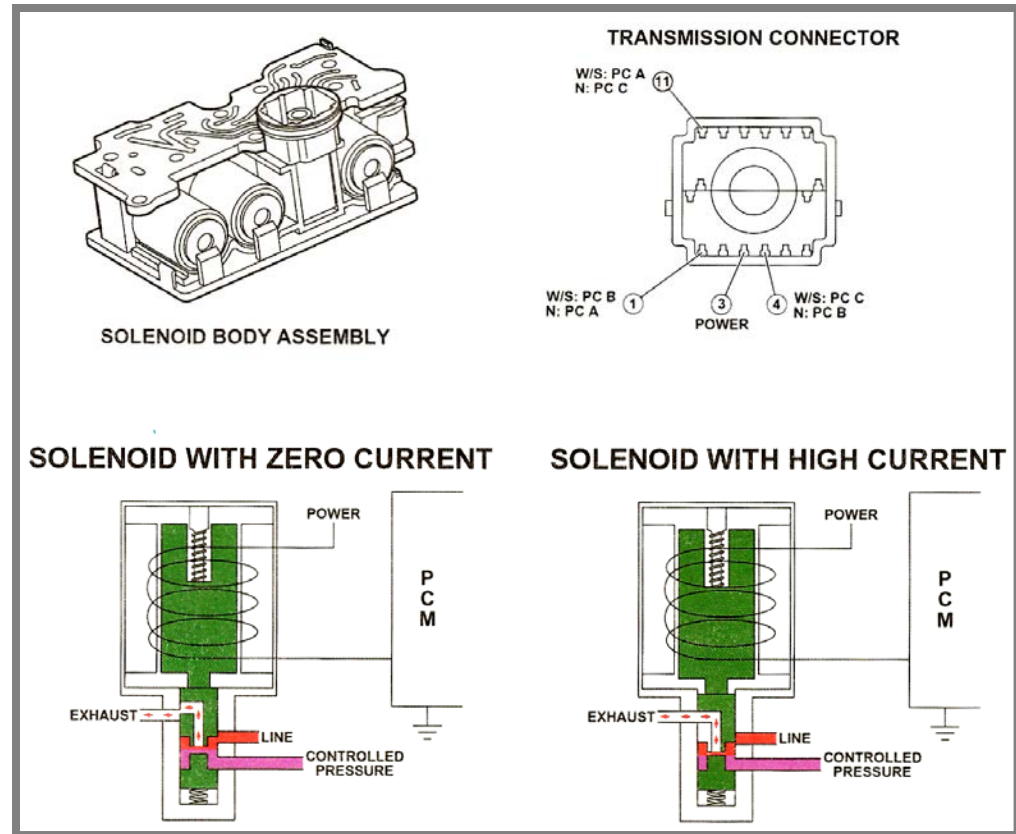
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Understanding Pressure Solenoid Hydraulics

Pressure Control Solenoids:

The Pressure Control A (PC A) and Pressure Control B (PC B) and Pressure Control C (PC C) solenoids are Variable Force Style (VFS) solenoids. A VFS solenoid is an electro-hydraulic actuator combining a solenoid and a regulating valve.

The PCM varies the current of each Pressure Control solenoid, which varies pressure in hydraulic circuits. These circuits affect line pressure and various apply component pressures



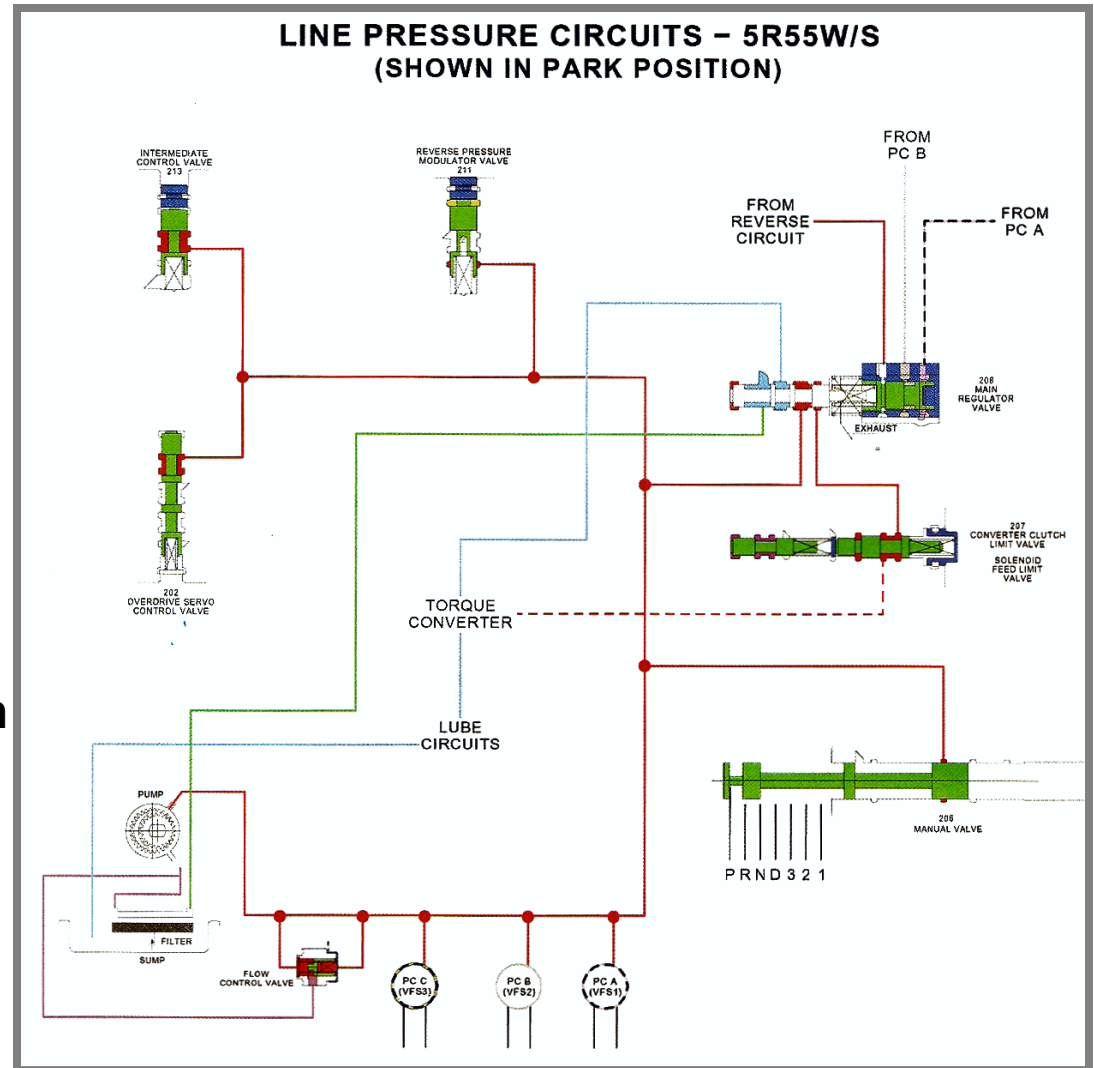
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Understanding Pressure Solenoid Hydraulics

Line Pressure Hydraulic

Circuit:

Fluid under pressure from the pump flows to several hydraulic controls in the valve body, including the main regulator valve. The main regulator valve varies line pressure as part of controlling shift feel and efficient apply component operation. The PCM controls the position of the main regulator valve with the PC A and PC B solenoids.



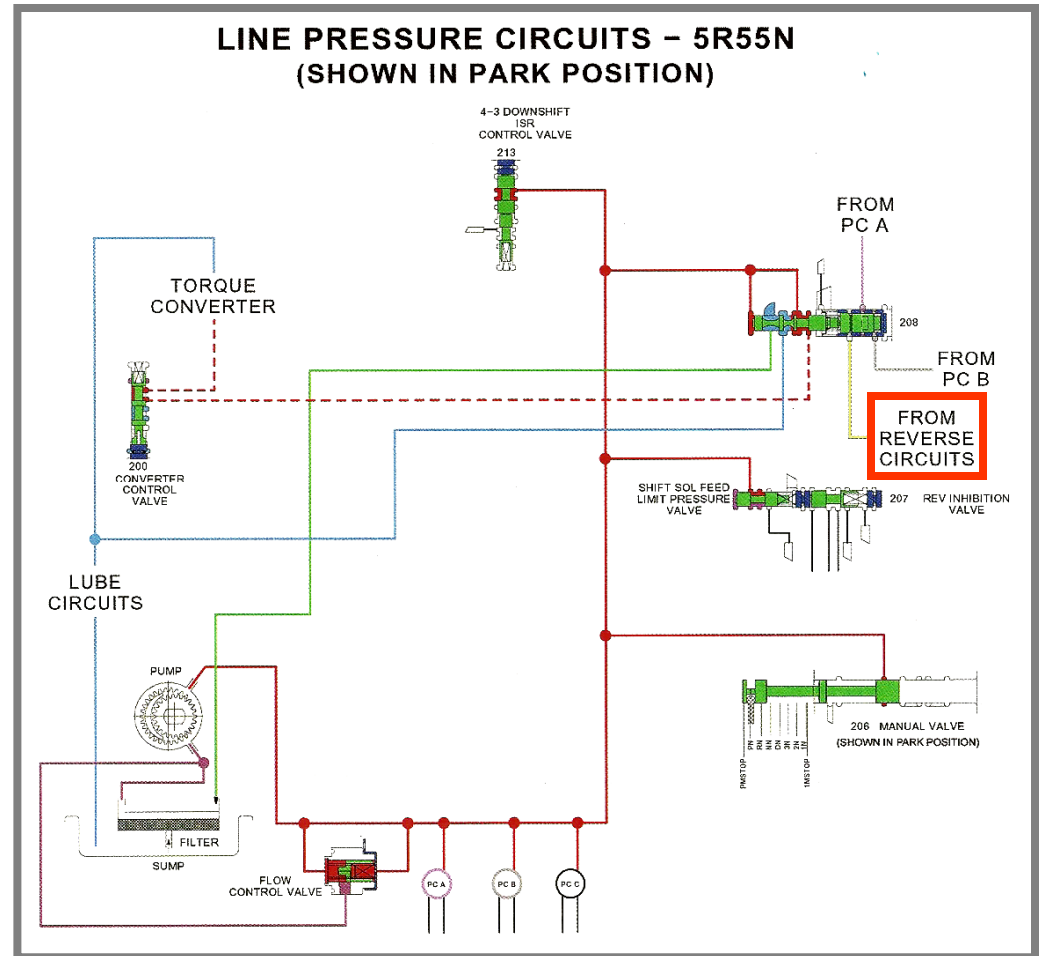
5R55N/W/S

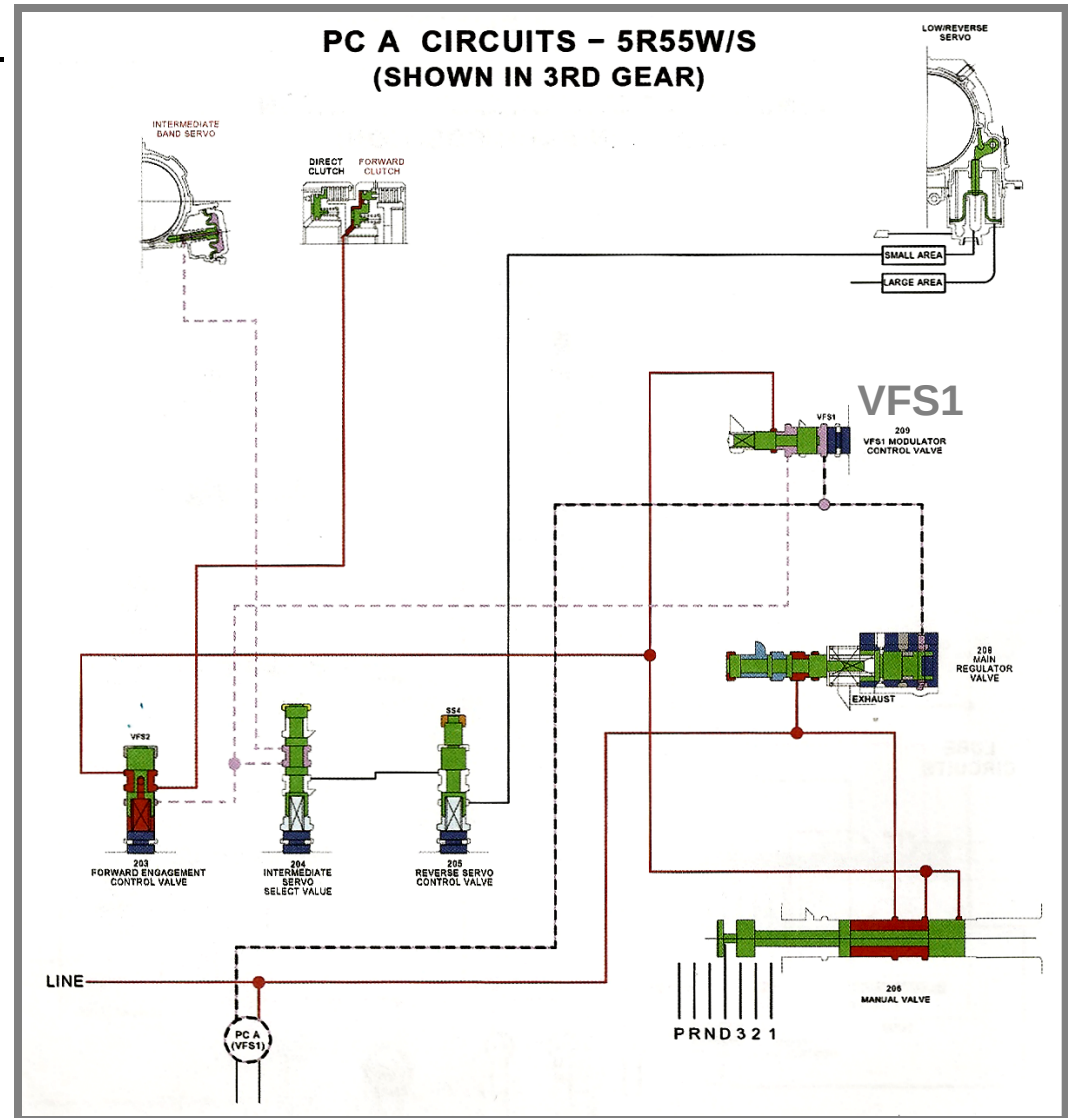
Understanding Pressure Solenoid Hydraulics

Line Pressure Hydraulic Circuit:

When PC A and PC B pressures are lower, the main regulator valve position provides lower line pressure. As the fluid pressures from PC A and PC B increase, the main regulator valve provides higher line pressure.

When the transmission shifter is in the R position, fluid under pressure from the manual valve to apply components also affects the position of the main regulator valve. This results in a pressure boost





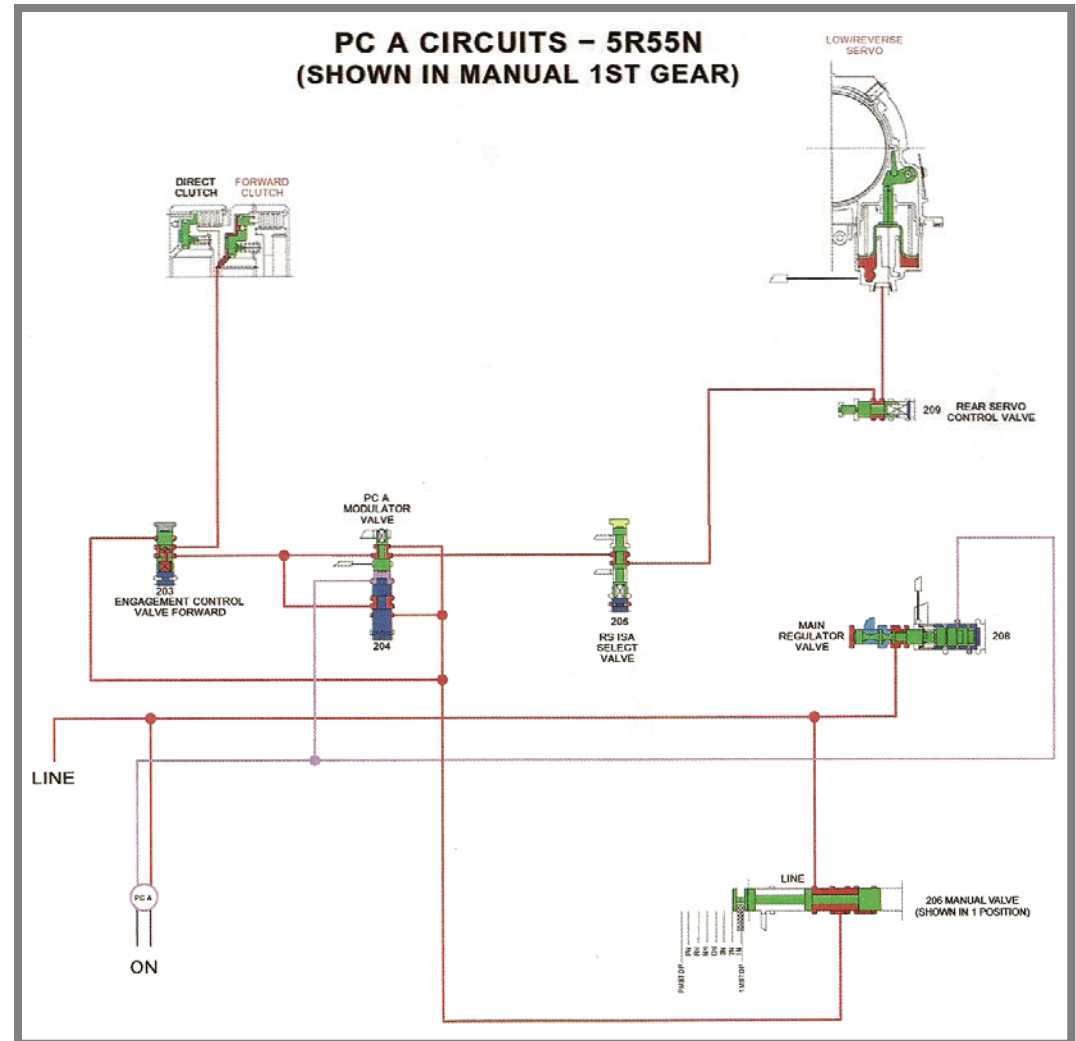
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Understanding Pressure Solenoid Hydraulics

Pressure Control “A” N Series:

In N series transmissions, the PC A solenoid affects the operation of the main regulator valve and the PC A modulator control valve.

PC A pressure indirectly affects the feel of forward clutch engagement. It also indirectly affects the feel of low/reverse servo apply in manual 1st gear and manual 2nd gear.



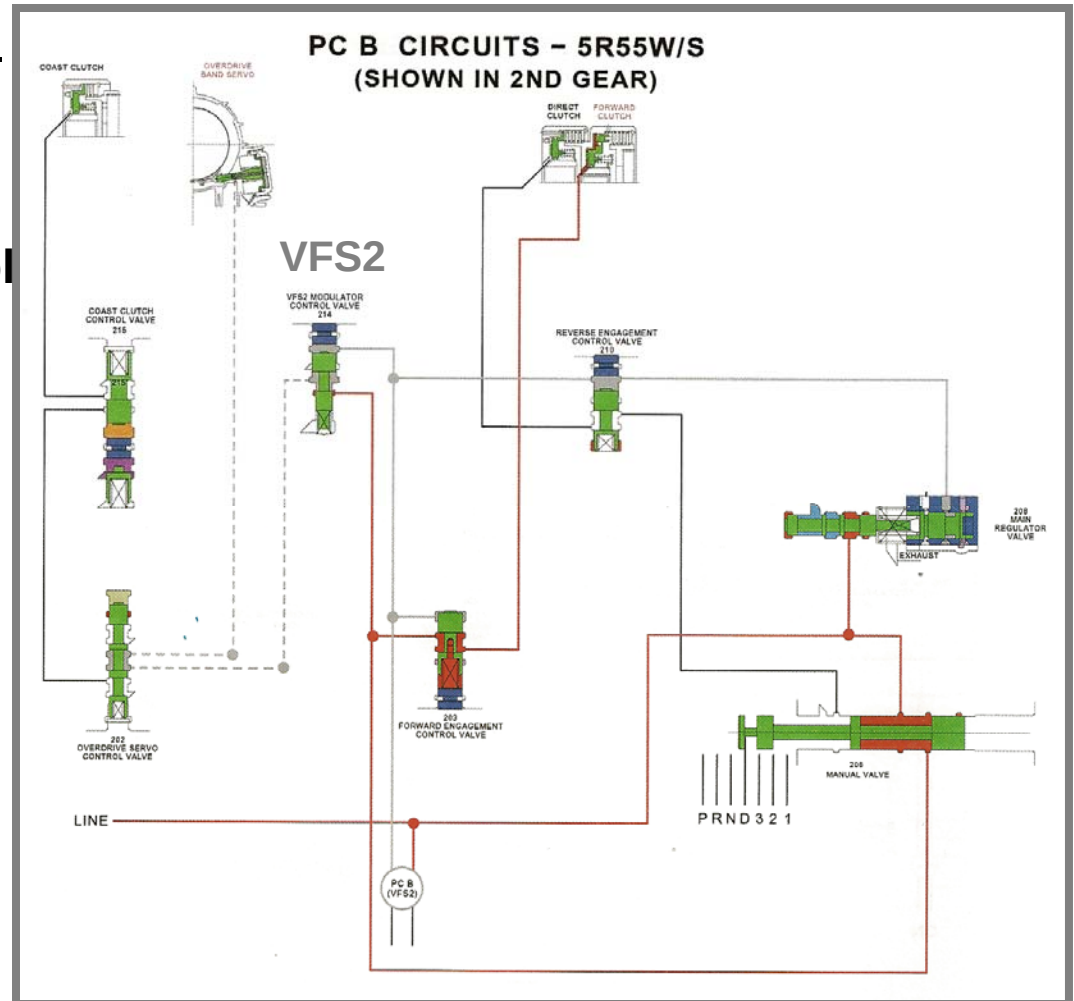
5R55N/W/S

Understanding Pressure Solenoid Hydraulics

Pressure Control “B” W/S Series:

In W/S series transmissions, the PC B solenoid affects the operation of the main regulator valve, the VFS2 modulator control valve, the forward engagement control valve and the reverse engagement control valve.

VFS2 pressure indirectly affects the feel of forward clutch engagement, as well as direct clutch engagement in reverse. VFS2 pressure directly applies the overdrive servo or the coast clutch.



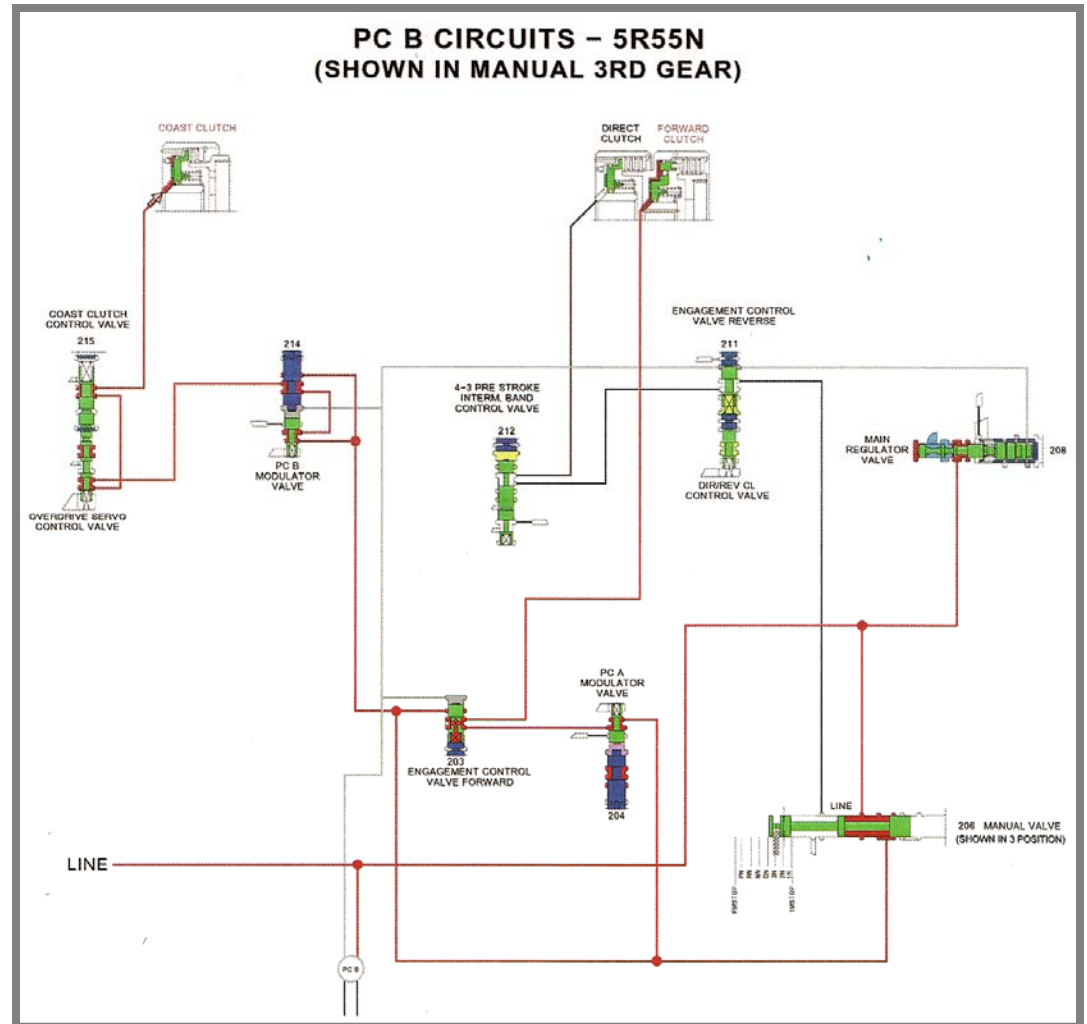
5R55N/W/S

Understanding Pressure Solenoid Hydraulics

Pressure Control “B” N Series:

In N series transmissions, the PC B solenoid affects the operation of the main regulator valve, the PC B modulator control valve, the forward engagement control valve and the reverse engagement control valve.

PC B pressure indirectly affects the feel of forward clutch engagement, as well as direct clutch engagement in reverse. PC B pressure also indirectly affects the apply of the coast clutch.



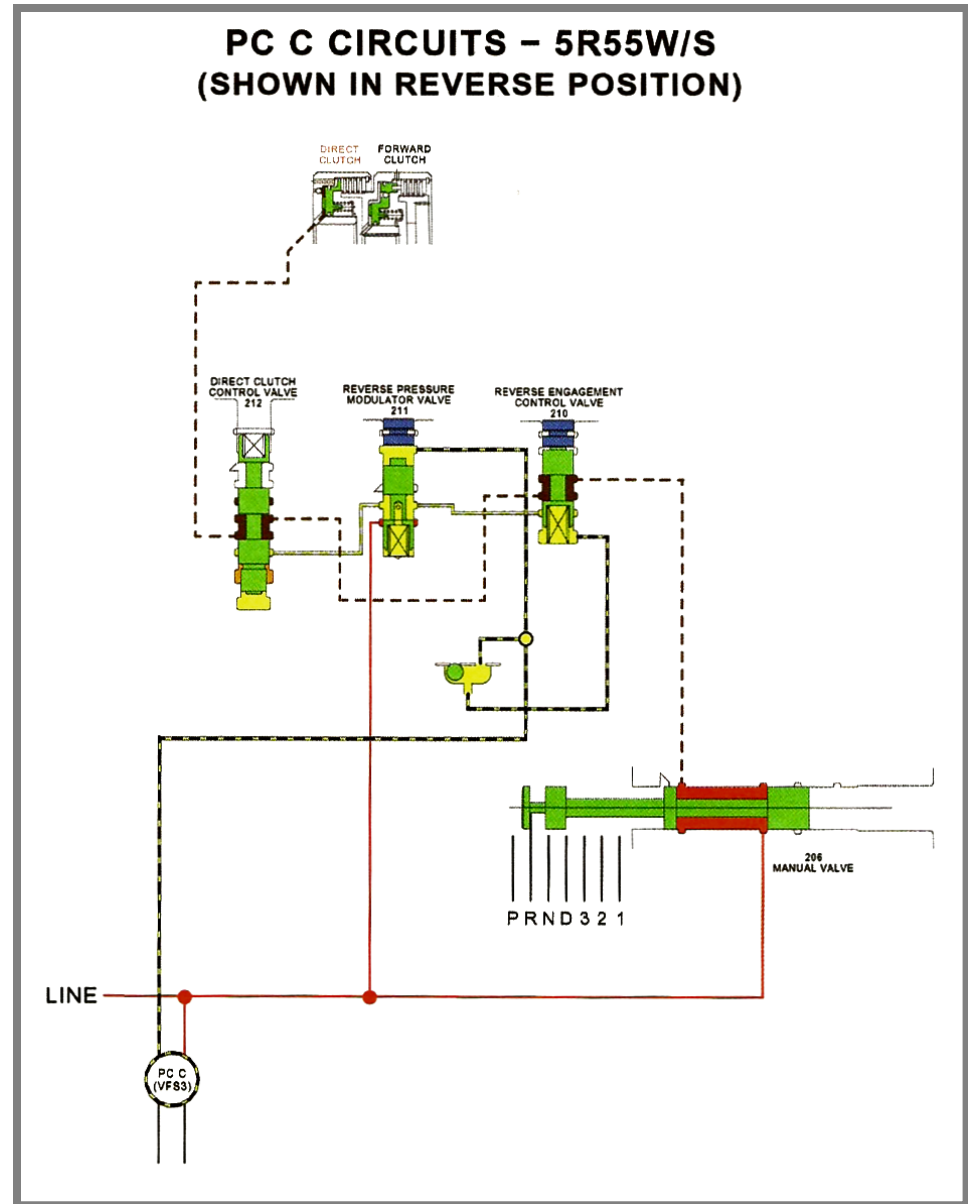
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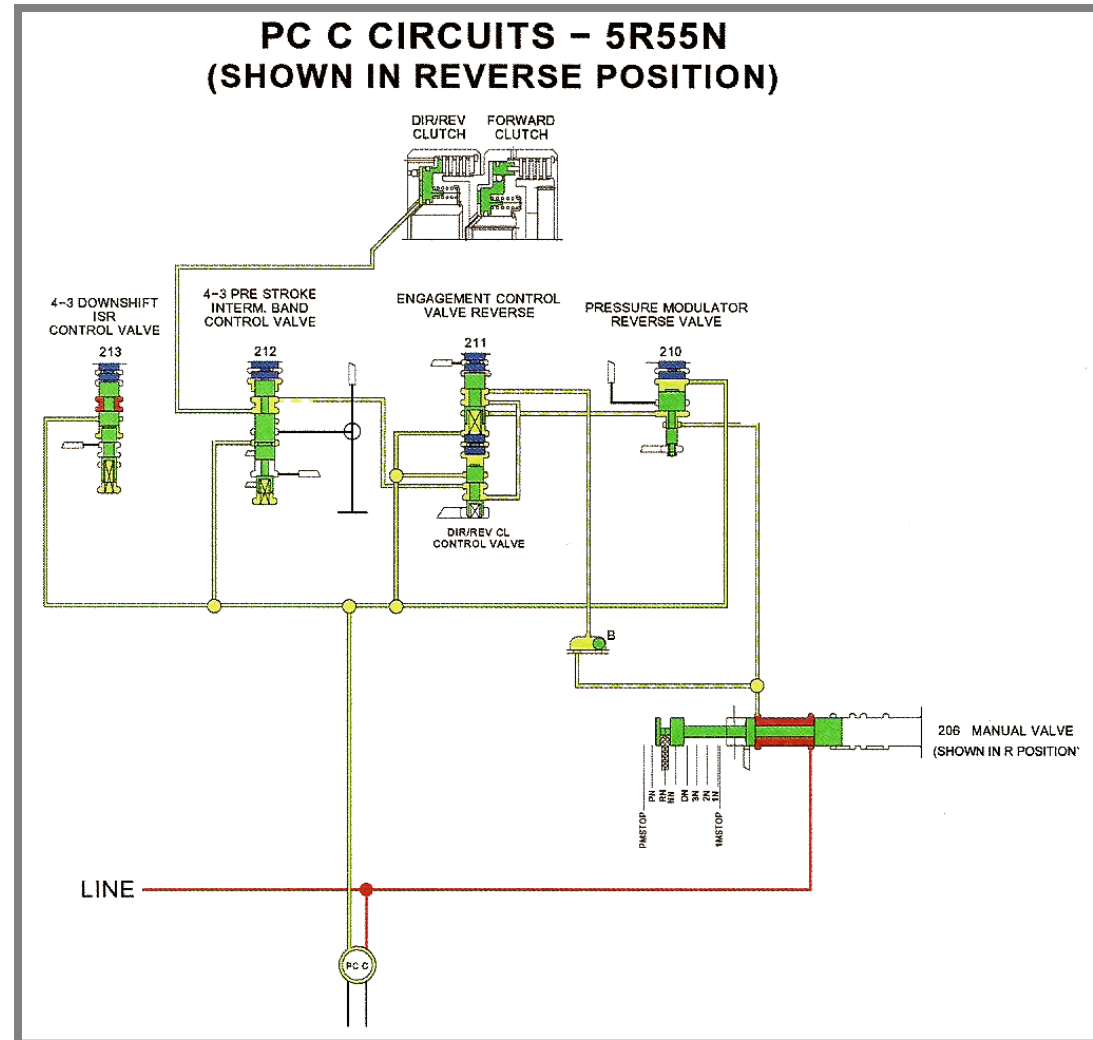
Understanding Pressure Solenoid Hydraulics

Pressure Control “C” W/S Series:

In W/S series transmissions, the PC C solenoid affects the operation of the reverse pressure modulator valve and the reverse engagement control valve

PC C pressure indirectly affects the feel of direct clutch engagement in reverse. PC C pressure directly applies the direct clutch in 4th gear and 5th gear





5R55N/W/S

Understanding Shift Solenoid Hydraulics

Shift Solenoids:

SS A, SS B, SS C, and SS D are electro-hydraulic actuators that block fluid flow when OFF and allow fluid flow when ON.

The PCM affects the operation of hydraulic control valves for apply components by determining when to turn the shift solenoids ON or OFF. This results in control of the transmission in all forward speeds, as well as inhibiting operation in Reverse.

