

# Fastener Tightening Specifications

Application	Ref No.	Quantity	Size	Specification	
				Metric	English
A/Trans Control Bolt	--	--	--	8 N·m	71 lb in
A/Trans Flex Plate Bolt	--	--	--	60 N·m	45 lb ft
A/Trans Fluid Pump Bolt to Converter Housing					
┆ First Pass	200	8	M8x33	10 N·m	89 lb in
┆ Final Pass	200	8	M8x33	45°	
A/Trans Fluid Pump Cover Bolt	302	23	M6x25	12 N·m	106 lb in
Control Solenoid Valve Assembly (w/TCM and Body) to Case Bolt	4	12	M6x97	10 N·m	89 lb in
Control Solenoid Valve Assembly (w/TCM and Body) to Case Bolt	6	3	M5x40.5	7 N·m	62 lb in
Control Valve Body Assembly (Complete) Bolt	400	1	M5x40.5	7 N·m	62 lb in
Control Valve Body to Case Bolt	9	2	M6x53	11 N·m	97 lb in
Control Valve Body to Case Bolt	10	9	M6x60	11 N·m	97 lb in
Control Valve Body Cover Bolt	1	13	M6x30	12 N·m	106 lb in
Drain Plug	64	1	1/8"-27 NPTF	12 N·m	106 lb in
Fluid Level Hole Plug	63	1	1/8"-27 NPTF	12 N·m	106 lb in
Fluid Pressure Test Hole Plug	51	1	1/8"-27 NPTF	12 N·m	106 lb in
Front Differential Carrier Baffle Bolt - Converter Housing	204	2	M6x25	12 N·m	106 lb in
Front Differential Carrier Baffle Bolt - Case	61	2	M6x16	12 N·m	106 lb in
Input Shaft Support Bolt	57	3	M6x50	12 N·m	106 lb in
Input Speed Sensor Bolt	21	1	M6x23	12 N·m	106 lb in
Manual Shift Detent Spring	17	1	M6x16	12 N·m	106 lb in
Output Speed Sensor Bolt	15	1	M6x18	12 N·m	106 lb in
Torque Converter and Differential Housing Bolt					
┆ First Pass	27	15	M8x30	10 N·m	89 lb in
┆ Final Pass	27	15	M8x30	50°	--
Torque Converter to Flywheel Bolt	--	--	--	60 N·m	45 lb ft
Transmission Bolt (1, 2, 3) - 6T40	--	--	--	75 N·m	56 lb ft
Transmission Bolt (4, 5) - 6T40	--	--	--	50 N·m	37 lb ft
Transmission Bolt (1, 2, 3, 4) - 6T45	--	--	--	75 N·m	56 lb ft
Transmission Bolt (5) - 6T45	--	--	--	50 N·m	37 lb ft

Transmission Fluid Cooler Outlet Pipe Nut	--	--	--	22 N·m	17 lb ft
Transmission Fluid Cooler Pipe Inlet Nut	--	--	--	22 N·m	17 lb ft
Transmission Mount Bolt	--	--	--	62 N·m	46 lb ft
Transmission Mount Bolt - Left Side to Body	--	--	--	62 N·m	46 lb ft
Transmission Mount Bolt - Left Side to Transmission	--	--	--	50 N·m + 60-75°	37 lb ft
Transmission Mount Nut - Left Side to Body	--	--	--	62 N·m	46 lb ft
Transmission Mount Through Bolt	--	--	--	62 N·m	46 lb ft
Transmission Mount to Frame Bolt	--	--	--	--	--
Transmission Mount to Transmission Bolt	--	--	--	100 N·m	74 lb ft
Transmission Range Selector Cable Bracket Bolt	--	--	--	18 N·m	14 lb ft
Transmission Range Selector Lever Nut	--	--	--	20 N·m	15 lb ft
*Reference number refers to the component callout number in Disassembled Views					

# Transmission General Specifications

Name	6T40/6T45
RPO Codes	MH8, MH7
Production Location	Korea/China
Transmission Drive	Front Wheel Drive
Reverse Gear Ratio	2.94
1st Gear Ratio	4.584
2nd Gear Ratio	2.964
3rd Gear Ratio	1.912
4th Gear Ratio	1.446
5th Gear Ratio	1.000
6th Gear Ratio	0.746
Effective Final Drive Gear Ratio	2.89/3.17/3.87
Torque Converter Size - Diameter of Torque Converter Turbine	236 mm
Pressure Taps Line	Pressure
Transmission Fluid Type	DEXRON VI®
Transmission Fluid Capacity	8.0 L/8.5 qts Quarts
Transmission Type: 6	Six Forward Gears
Transmission Type: T	Transverse Mount
Transmission Type: 40/45	Product Series
Position Quadrant	P, R, N, D, * *(Refer to the applicable owner's manual)
Case Material	Die Cast Aluminum
Transmission Net Weight	81/85 kg (178/187 lbs)
Maximum Trailer Towing Capacity	N/A
Maximum Gross Vehicle Weight (GVW)	2100 kg (4,630 lbs)

# Fluid Capacity Specifications

Application	Specification	
	Metric	English
Valve Body Cover Removal - Approximate Capacity	5.0-7.0 liters	5.3-7.4 quarts
Fluid Change - Drain Plug - Approximate Capacity	4.0-6.0 liters	4.2- 6.3 quarts
Overhaul - Approximate Capacity	8.0-8.5 liters	8.5-9.0 quarts

# Fluid Pump Selective Specifications

Fluid Pump Body Pocket Depth		Fluid Pump Gear Thickness	
Metric	English	Metric	English
12.617-12.625 mm	0.4967-0.4970 in	12.580-12.588 mm	0.4952-0.4955 in
12.626-12.636 mm	0.4970-0.4974 in	12.589-12.599 mm	0.4956-0.4960 in
12.637-12.645 mm	0.4975-0.4978 in	12.600-12.608 mm	0.4960-0.4963 in

## Range Reference Table

## Shift Solenoid Valve State and Gear Ratio

[illegible]

# Transmission Internal Mode Switch Logic

Gear Selector Position	Signal A	Signal B	Signal C	Signal P
Park	LOW	HI	HI	LOW
Park/Reverse	LOW	LOW	HI	LOW
Reverse	LOW	LOW	HI	HI
Reverse/Neutral	HI	LOW	HI	HI
Neutral	HI	LOW	HI	LOW
Neutral/Drive 6	HI	LOW	LOW	LOW
Drive 6	HI	LOW	LOW	HI
Drive 6/Drive 4	LOW	LOW	LOW	HI
Drive 4	LOW	LOW	LOW	LOW
Drive 4/Drive 3	LOW	HI	LOW	LOW
Drive 3	LOW	HI	LOW	HI
Drive 3/Drive 2	HI	HI	LOW	HI
Drive 2	HI	HI	LOW	LOW
Open	HI	HI	HI	HI
Invalid	HI	HI	HI	LOW
Invalid	LOW	HI	HI	HI
HI = Ignition voltage				
LOW = 0 volts				

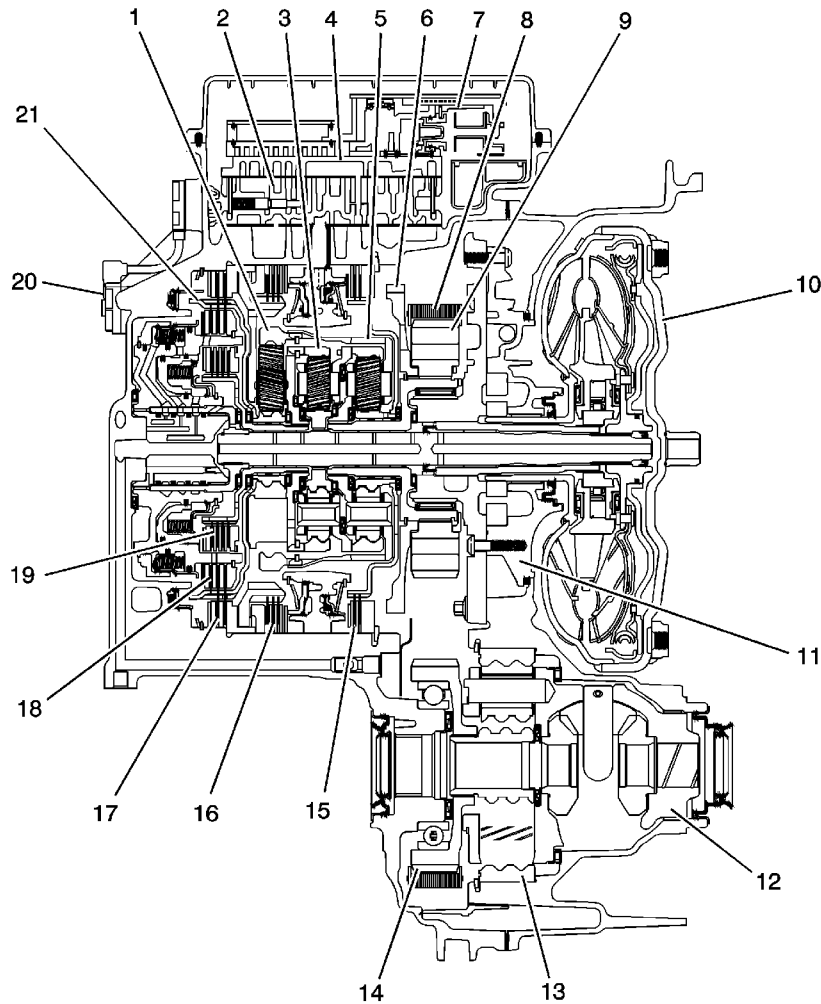


# Solenoid Valve Pressure

## Line PC Solenoid Valve Pressure

Requested Pressure (kPa)	Actual Pressure	
	Metric	English
None	345-550 kPa	50-80 psi
200	690-900 kPa	100-130 psi
400	1100-1310 kPa	160-190 psi
600	1520-1725 kPa	220-250 psi
800	1860-2275 kPa	270-330 psi
1000	1860-2275 kPa	270-330 psi
1200	1860-2275 kPa	270-330 psi
1400	1860-2275 kPa	270-330 psi
1600	1860-2275 kPa	270-330 psi
1800	1860-2275 kPa	270-330 psi
2000	1860-2275 kPa	270-330 psi

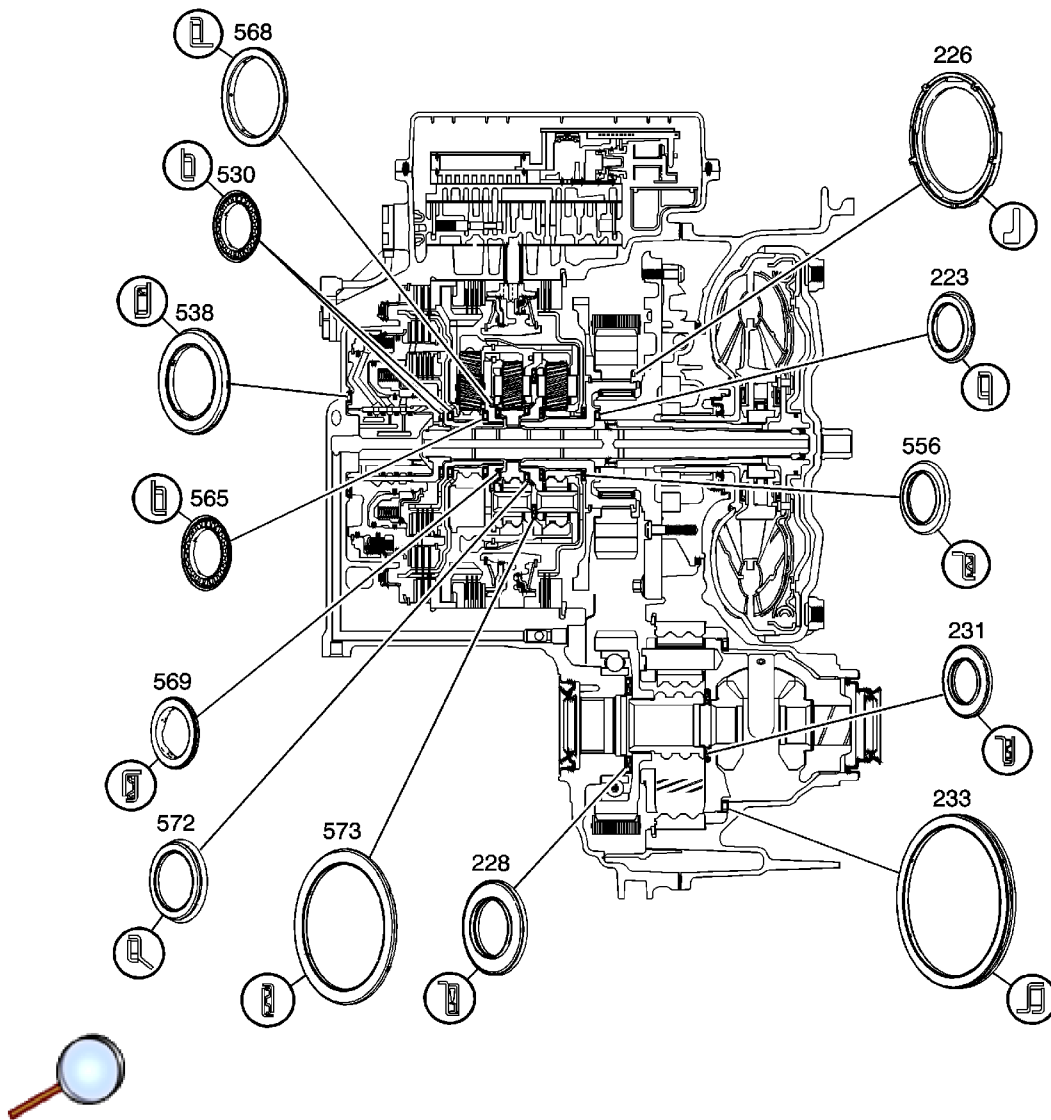
# Component Location



- (1) Reaction Carrier Assembly
- (2) Control Valve Body Assembly
- (3) Input Carrier Assembly
- (4) Valve Channel Plate
- (5) Output Carrier Assembly
- (6) Park Gear
- (7) Control Solenoid (w/Body and TCM) Valve Assembly
- (8) Drive Link Assembly
- (9) Drive Sprocket
- (10) Torque Converter Assembly
- (11) A/Trans Fluid Pump Assembly
- (12) Differential Carrier Assembly

- (14) 1-2-3-4 Clutch Assembly
- (15) 1-2-3-4 Clutch Assembly
- (16) Low and Reverse Clutch Assembly
- (17) 2-6 Clutch Assembly
- (18) 3-5 Reverse Clutch Assembly
- (19) 4-5-6 Clutch Assembly
- (20) A/Trans Input Speed Sensor Assembly
- (21) Reaction Sun Gear Assembly

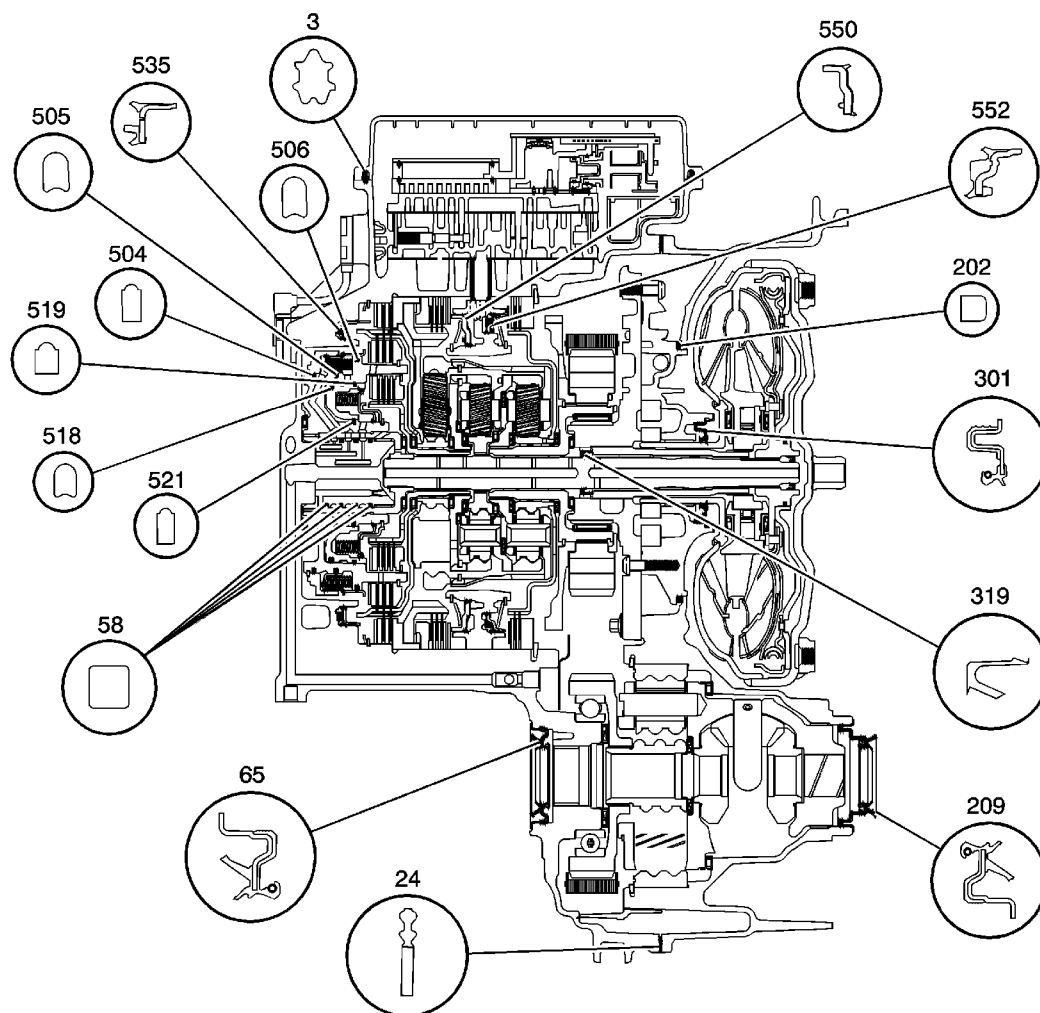
# Bushing, Bearing, and Washer Locations



- (223) Drive Spocket Bearing Assembly
- (226) Drive Sprocket Thrust Washer
- (228) Drive Sprocket Bearing Assembly
- (231) Differential Sun Gear to Differential Housing Bearing Assembly
- (233) Front Differential Carrier Bearing Assembly
- (530) Reaction Carrier Hub Thrust Bearing Assembly
- (538) 3-5-Reverse and 4-5-6 Clutch Housing Thrust Bearing
- (556) Output Sun Thrust Bearing Assembly
- (565) Reaction Sun Gear Thrust Bearing Assembly
- (568) Input Carrier Thrust Bearing Assembly
- (569) Input Sun Gear Thrust Bearing Assembly
- (572) Input Sun Gear Thrust Bearing Assembly



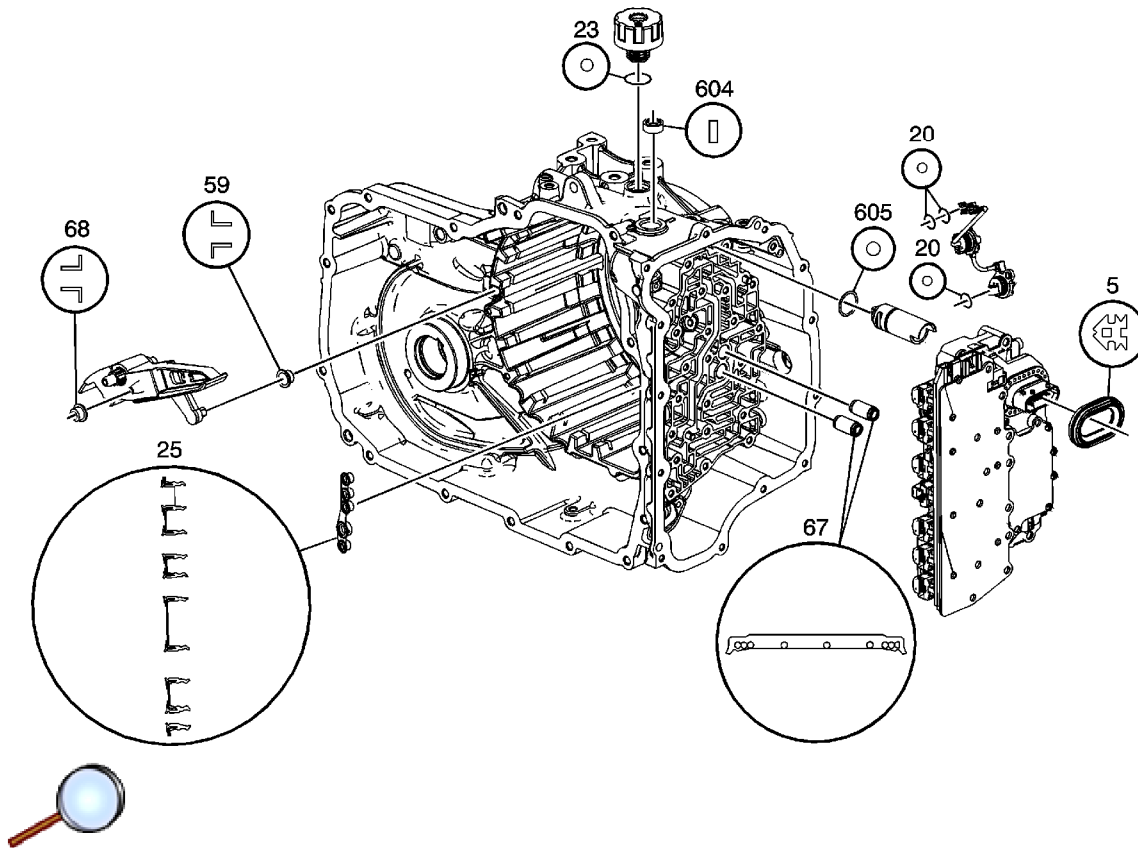
## Seal Locations (1 of 2)



- (3) Control Valve Body Cover Gasket
- (5) Control Valve Body Cover Gasket
- (24) Torque Converter Housing Gasket
- (58) 3-5-Reverse and 4-5-6 Clutch Fluid Seal Ring
- (65) Drive Shaft Oil Seal Assembly
- (202) Torque Converter and Differential Housing Seal
- (209) Front Wheel Drive Shaft Oil Seal Assembly
- (301) Torque Converter Fluid Seal Assembly
- (319) Torque Converter Fluid Seal Assembly
- (504) 3-5-Reverse Clutch Piston Inner Seal
- (505) 3-5-Reverse Clutch Piston Inner Seal

- (518) 4-5-6 Clutch Piston Outer Seal
- (519) 4-5-6 Clutch Piston Outer Seal
- (521) 4-5-6 Clutch Piston Inner Seal
- (535) 2-6 Clutch Piston Assembly
- (550) Low and Reverse Clutch Piston
- (552) 1-2-3-4 Clutch Piston

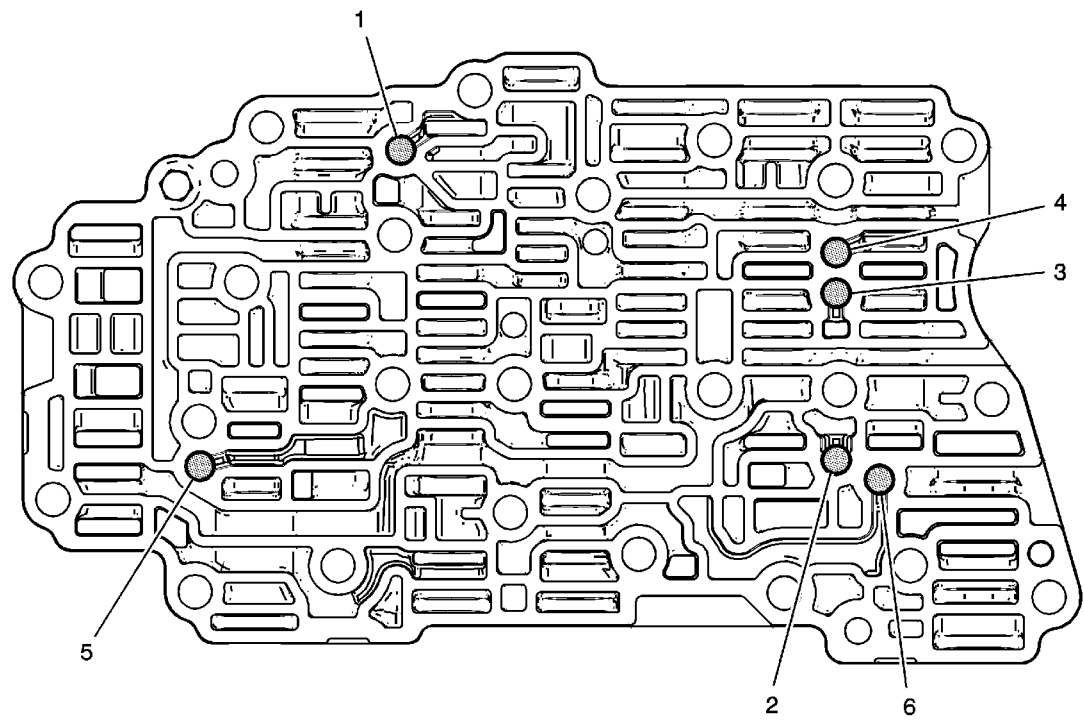
## Seal Locations (2 of 2)



- (5) Control Valve Body Cover Hole Seal
- (20) A/Trans Input Speed Sensor Assembly O-Ring Seal
- (23) Fill Cap Seal
- (25) A/Trans Fluid Pump Seal Assembly
- (59) Drive Link Lube Fluid Seal
- (67) 1-2-3-4 and Low Reverse Clutch Fluid Passage
- (68) Drive Link Lube Fluid Seal
- (604) Manual Shift Shaft Seal
- (605) Park Pawl Actuator Guide Seal



# Ball Check Valve Locations



I.D.	Input Oil	Input Oil	Output Oil
1	PS4	456 CL FD	CSV2 Latch
2	35 Rev FD/Drive 1-6	Drive 1-6	35 Rev FD
3	35 Rev FD	--	35 Rev FD
4	Comp FD	35 Rev FD	35 Rev CL FD/Exh BF
5	Act FD LM	--	R1/456 CL FD
6	Act FD LM	--	35 Rev CL