

FORD 6F35 (Gen. 1 & 2) ZIP KIT®

PART NUMBER 6F35-ZIP

QUICK GUIDE

Parts are labeled here in order of installation. See other side of sheet for details on kit contents.

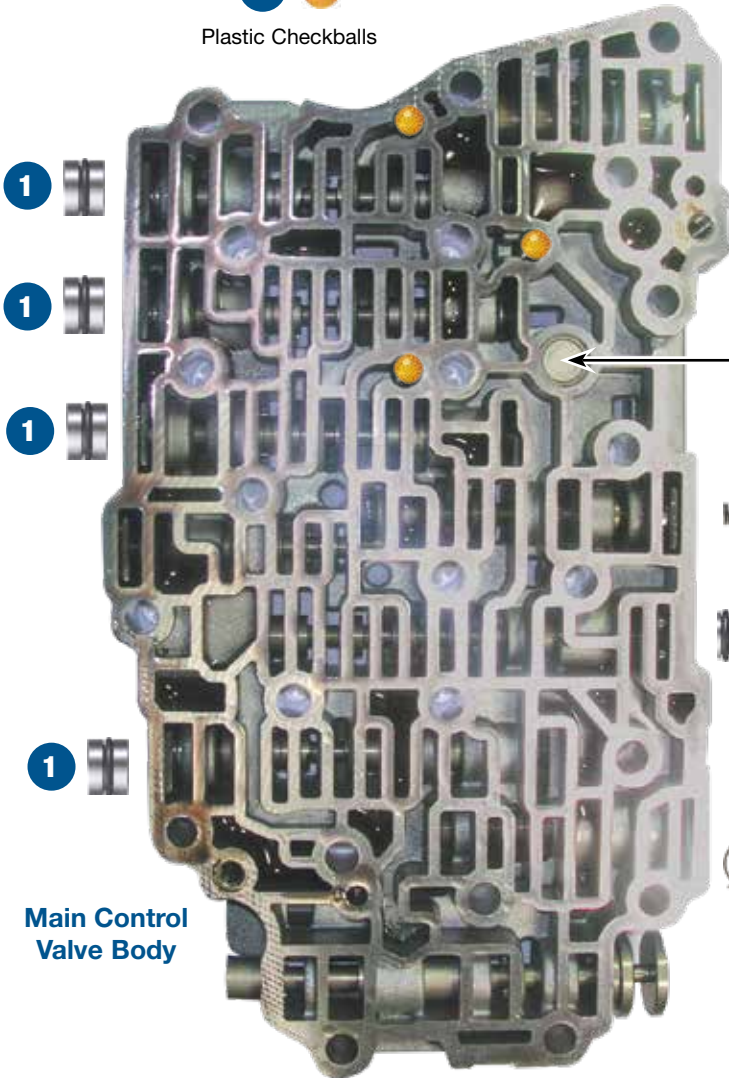
INSTALLATION DIAGRAM



NOTE: The components in this kit are all related to the valve body. It is not necessary to remove pump for kit installation; pump should only be removed if vacuum testing pump locations is desired.

6b

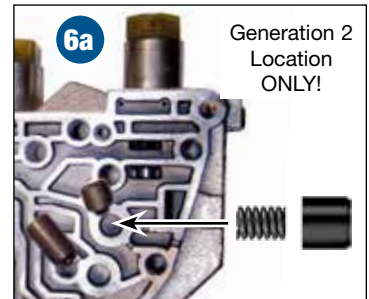
Plastic Checkballs



Main Control Valve Body



2



6a

Generation 2 Location ONLY!



6a

Generation 1 Location ONLY!



3



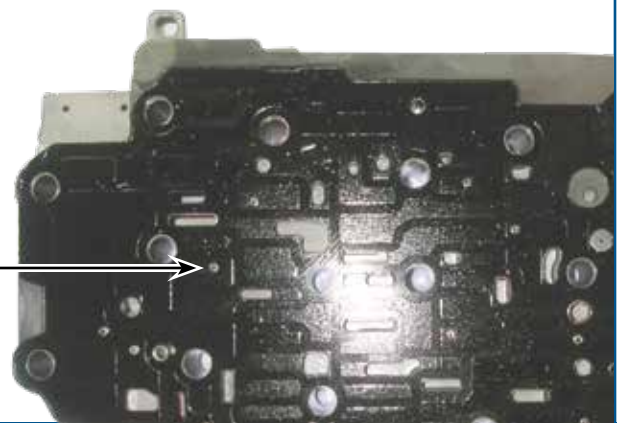
1



5

Solenoid Valve Body

4 Drill solenoid pressure regulator balance hole and seal with .062" diameter plug, peening in place.



In addition to general rebuilding tips and technical information, the technical booklet included in this kit contains vacuum testing and additional repair options for higher mileage units or for repairing specific complaints which are beyond the scope of this kit.

Kit Contents & Installation Steps

Step 1 Replace 5 OE End Plugs

Place O-ring in groove, lubricate with Sonnax Slippery Stick™ O-LUBE and roll on bench to size.



NOTE: The end plug at the clutch bypass valve location is slightly different in design and the O-ring should be installed at the inboard land as illustrated.

Packaging Pocket 1

- End Plugs (5)
- O-Rings (7) 2 Extra

Step 2 Replace OE Control Pressure Regulator Valve

Packaging Pocket 2

- Valve
- Sleeve
- Spring

Step 3 Replace TCC Regulator Valve Bore Lineup

Remove and discard all OE components except the retainer clip. Keep retainer clip for reuse.



Ensure that the shuttle valve between the inboard regulating valve and end plug is installed with the blind bore facing inboard and the rounded end nub facing the end plug.

Packaging Pocket 3

- Spring
- Valve
- Shuttle Valve
- End Plug
- O-Rings (2) 1 Extra

Step 4 Block Solenoid Pressure Regulator Balance Port

Drill indicated separator plate orifice with included .062" dia. drill bit. Remove any burrs. Insert .062" dia. aluminum plug into drilled hole and peen in place on both sides of plate. Ensure plate will still fit flush on both castings.

Packaging Pocket 4

- Drill Bit, .062" dia.
- Aluminum Plug, .062" dia. (2) 1 Extra

Step 5 Replace OE Solenoid Pressure Regulator Valve Lineup



Ensure Sonnax retainer clip is fully seated in the sleeve groove after installation.

Remove and discard OE valve and spring. Keep outboard retainer clip for reuse. Install Sonnax sleeve and valve as illustrated. Secure sleeve in bore by installing included clip into sleeve groove at inboard port. Install included spring and secure all in bore with OE retainer.

Packaging Pocket 5

- Sleeve
- Valve
- Spring
- Retainer Clip

Step 6a Replace OE Accumulator Piston

Remove and discard OE rubber-tipped damper piston from valve body (Gen. 1) or solenoid body (Gen. 2). Install Sonnax spring into Sonnax piston bore pocket. Install Sonnax accumulator piston, pocket end over spring.



NOTE: Location for replacement accumulator piston 6a varies from Gen. 1 to Gen. 2. Do NOT place this short piston and spring in the Gen. 2 long piston and spring locations.



NOTE: OE accumulator pistons should be flush or approximately .030" lower than the casting surface. It is common for the rubber insert to lose tension.

Step 6b Install Checkballs

Packaging Pocket 6

- Piston
- Spring
- Checkballs, .250" dia. (3)

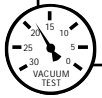
The parts listed here may be protected by patent number 8,794,108.

Critical Wear Areas & Vacuum Test Locations



Drop-In Zip Valve™
Parts Available

NOTE: OE valves are shown in rest position and should be tested in rest position unless otherwise indicated. Test locations are pointed to with an arrow. Springs are not shown for visual clarity. Low vacuum reading indicates wear and Sonnax parts are noted for replacement.



For specific vacuum test information, refer to individual part instructions included in kits and available at www.sonnax.com.

Solenoid Valve Body • 6F35, Gen. 1 Shown

Low Reverse/Overdrive (4-5-6) Clutch Latch Valve

- Slips & flares • Delayed engagement
- Shift quality is not load sensitive • Slip codes
- Harsh/Slide shifts • Burnt clutches

Replace with Sonnax Part No. **144740-21** Requires F-144740-TL21 & VB-FIX

Intermediate (2-6) Clutch Latch Valve

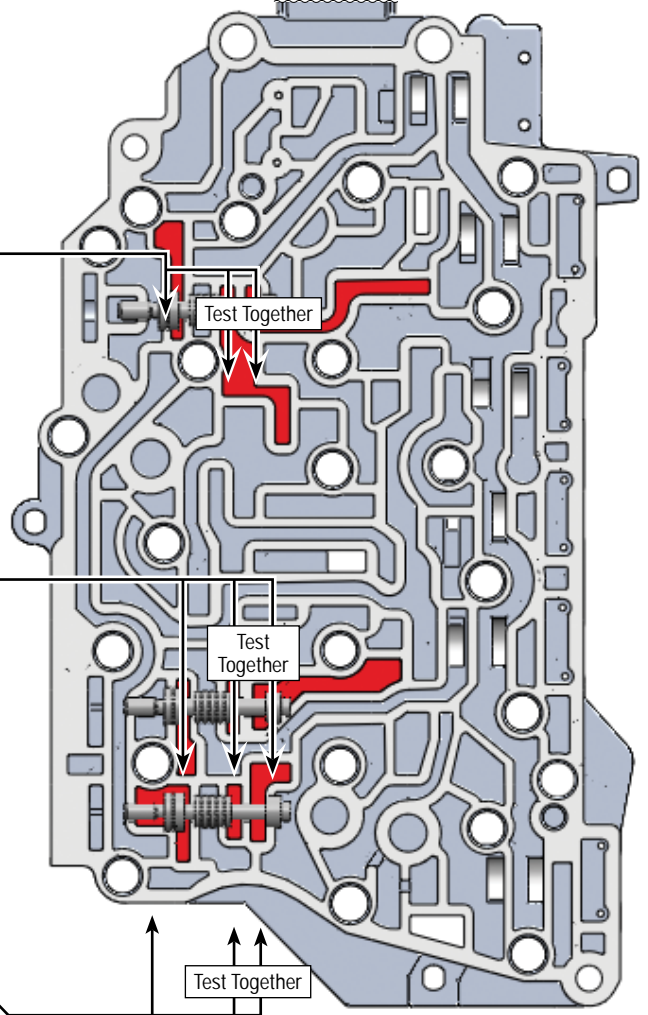
- Slips & flares • Delayed engagement
- Shift quality is not load sensitive • Slip codes
- Harsh/Slide shifts • Burnt clutches

Replace with Sonnax Part No. **144740-21** Requires F-144740-TL21 & VB-FIX

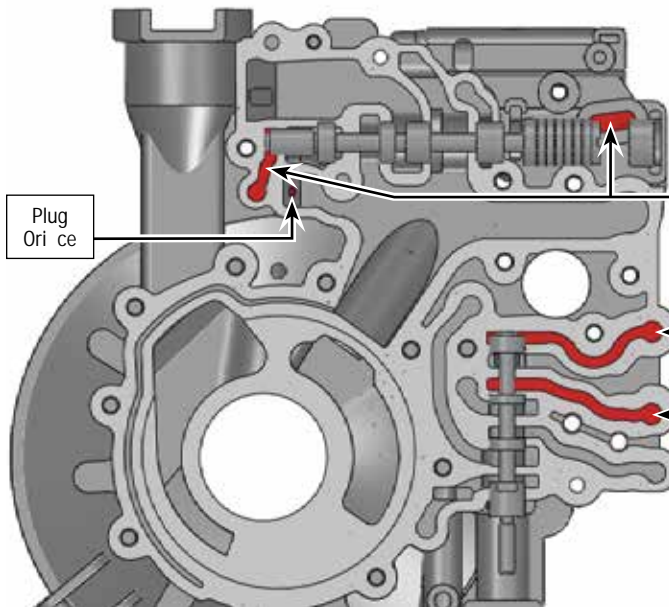
Direct (3-5-R) Clutch Latch Valve

- Slips & flares • Delayed engagement
- Shift quality is not load sensitive • Slip codes
- Harsh/Slide shifts • Burnt clutches

Replace with Sonnax Part No. **144740-21** Requires F-144740-TL21 & VB-FIX



Pump Body • 6F35, Gen. 1 Shown



Pressure Regulator Valve

- Poor shift quality • Erratic line pressure
- TCC apply & release concerns
- Burnt clutches • Overheating
- Low converter & lube flow

Replace with Sonnax Part No. **144510-03K** Requires F-144510-TL3C & VB-FIX

TCC Control Valve

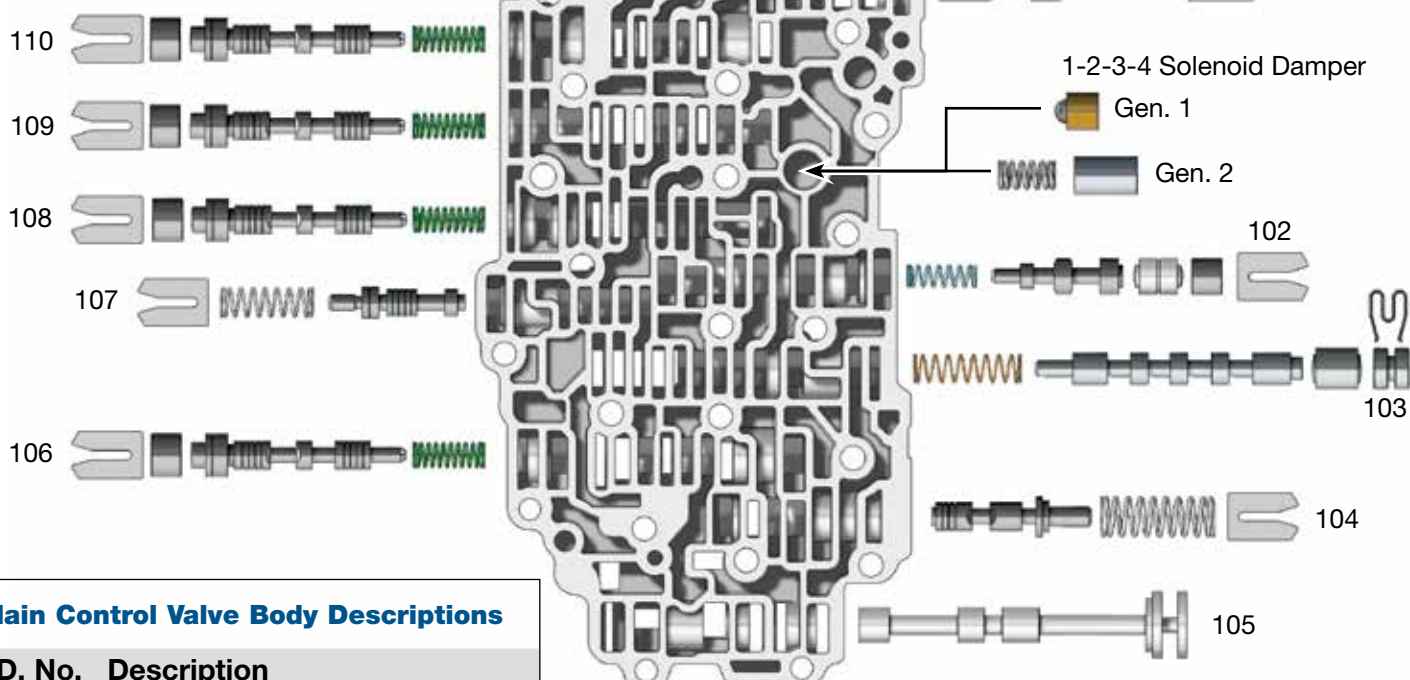
- Excess TCC slip • TCC codes
- TCC lining failure • Shudder
- TCC apply & release concerns
- Low cooler flow • Overheating
- Low converter & lube flow

Replace with Sonnax Part No. **144510-07K** Requires F-144510-TL7C & VB-FIX

OE Exploded View

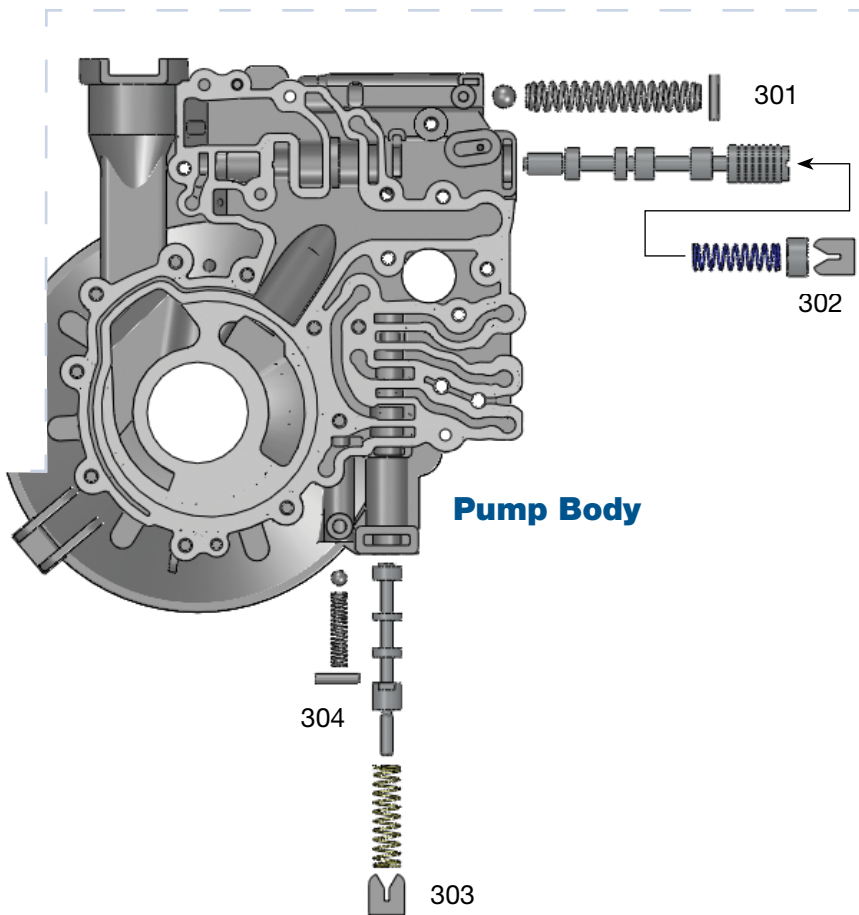
Main Control Valve Body

NOTE: Depending upon vehicle application, the OE springs shown may not be present.



Main Control Valve Body Descriptions

I.D. No.	Description
101	Control Pressure Regulator Valve
102	TCC Regulator Valve
103	Clutch Bypass Valve
104	Solenoid Pressure Regulator Valve
105	Manual Valve
106	Low Reverse/Overdrive (4-5-6) Clutch Regulator Valve
107	FWD (1-2-3-4) Clutch Latch Valve
108	FWD (1-2-3-4) Clutch Reg. Valve
109	Intermediate (2-6) Clutch Reg. Valve
110	Direct (3-5-R) Clutch Reg. Valve



Pump Body

Pump Body Descriptions

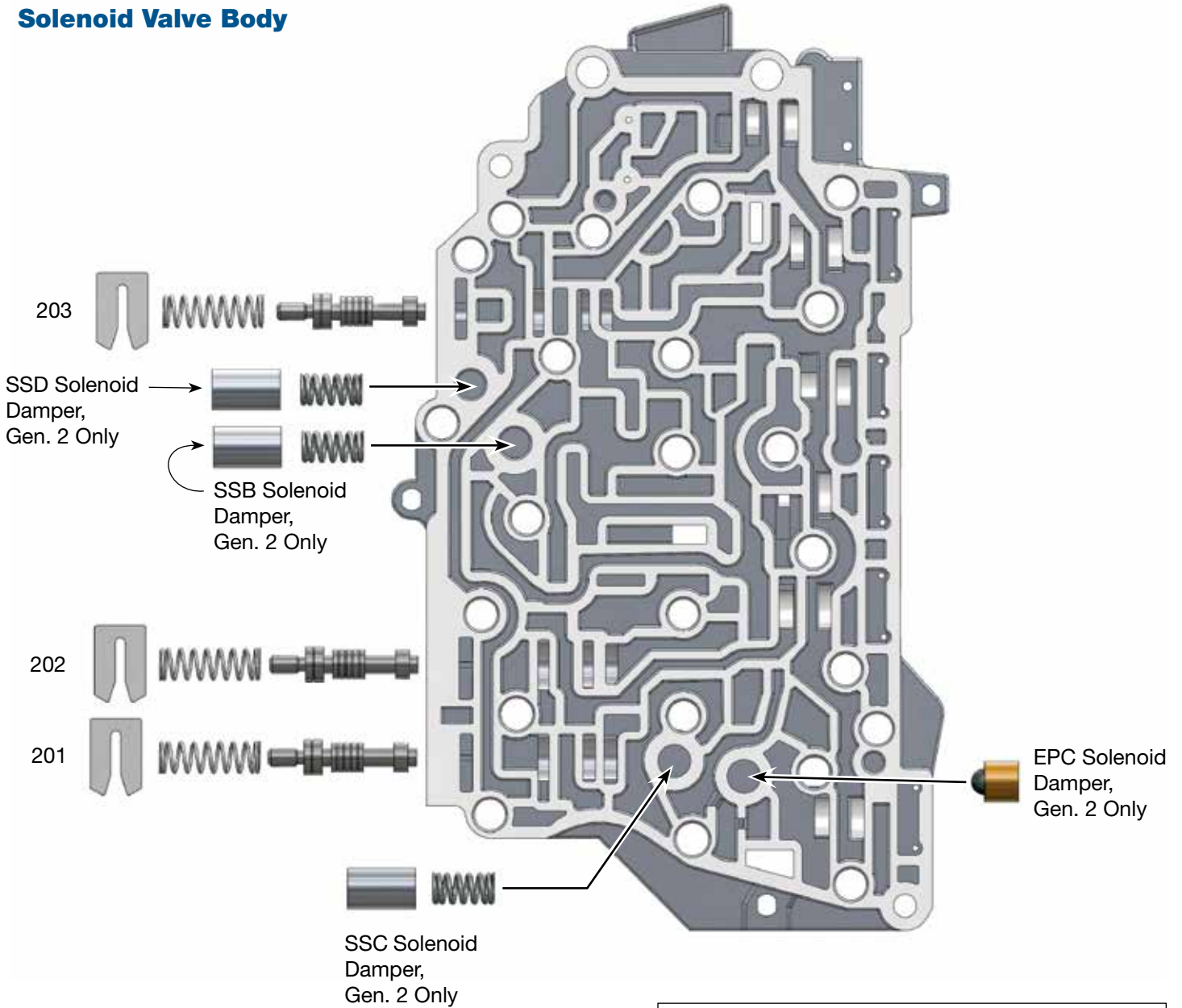
I.D. No.	Description
301	Line Pressure Relief
302	Pressure Regulator Valve
303	TCC Control Valve
304	TCC Relief Ball

OE Exploded View

Solenoid Valve Body

NOTE: Depending upon vehicle application, the OE springs shown may not be present.

Solenoid Valve Body



Solenoid Valve Body Descriptions

I.D. No.	Description
201	Direct (3-5-R) Clutch Latch Valve
202	Intermediate (2-6) Clutch Latch Valve
203	Low Reverse/Overdrive (4-5-6) Clutch Latch Valve