

Critical Wear Areas & Vacuum Test Locations



Drop-In Zip Valve™
Parts Available



6T40-GEN2-3-ZIP
Zip Kit® 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.

Control Valve Body Assembly Front • Gen. 2 6T40 Shown



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

Click on Sonnax part numbers to see more information.

3-5 Reverse Clutch Regulator Valve

- Burnt 3-5 Reverse clutch
- Delayed Reverse
- 3rd & 5th Concerns
- 2-3 & 4-5 Flare

2-6 Clutch Regulator Valve

- Burnt 2-6 clutch
- 2nd & 6th Concerns
- 1-2 & 5-6 Flare

1-2-3-4 Clutch Regulator Valve

- Burnt 1-2-3-4 clutch
- Delayed Forward
- 1-2-3-4 Concerns

1-2-3-4 Clutch Boost Valve

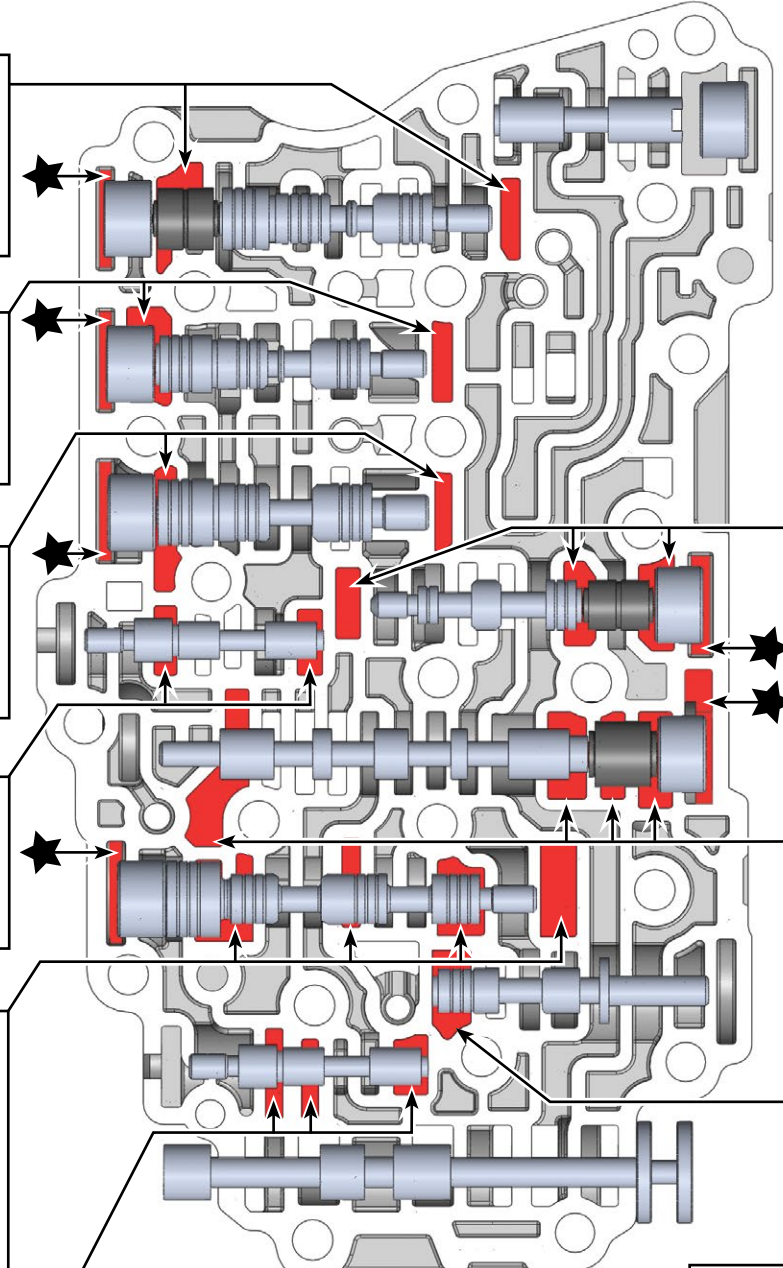
- Burnt 1-2-3-4 clutch
- Delayed Forward
- 1-2-3-4 Concerns

Low/Reverse 4-5-6 Clutch Regulator Valve

- Burnt Low/Reverse & 4-5-6 clutch
- Delayed Reverse
- 4-5-6 Concerns
- 3-4 Flare

Low/Reverse 4-5-6 Boost Valve

- Burnt Low/Reverse & 4-5-6 clutch
- Delayed Reverse
- 4-5-6 Concerns
- 3-4 Flare



Default Override Valve

Engagement concerns in Reverse when in failsafe or default.

NOTE: Look in bore for visual wear.

TCC Regulator Apply Valve ZIP

- Code P0741, 742
- No Lockup
- TCC slip
- Loss of fuel economy
- Low TCC apply pressure
- Overheated fluid & TCC lining
- Harsh TCC apply

Replace with Sonnax Part Nos. **144740-38K** or **144740-16K** Requires F-144740-TL16 & VB-FIX

Clutch Select Valve

- Various shift concerns
- Shift codes

Actuator Feed Limit Valve ZIP

- No 4th, 5th or 6th
- Low clutch oil pressure
- Harsh/Flare shifts

Replace with Sonnax Part Nos. **144740-39K** or **144740-01** Requires 144740-TL

O-Ringed End Plugs ZIP

- Pressure loss
- Shift concerns
- Burnt clutches
- TCC apply concerns

NOTE: Vacuum test end plugs at outboard port while sealing bore opening with thumb.

Replace with Sonnax Part No. **144510-14K*** **NOTE:** Several Locations = ★

* Part numbers with an asterisk (*) are included in this Zip Kit.

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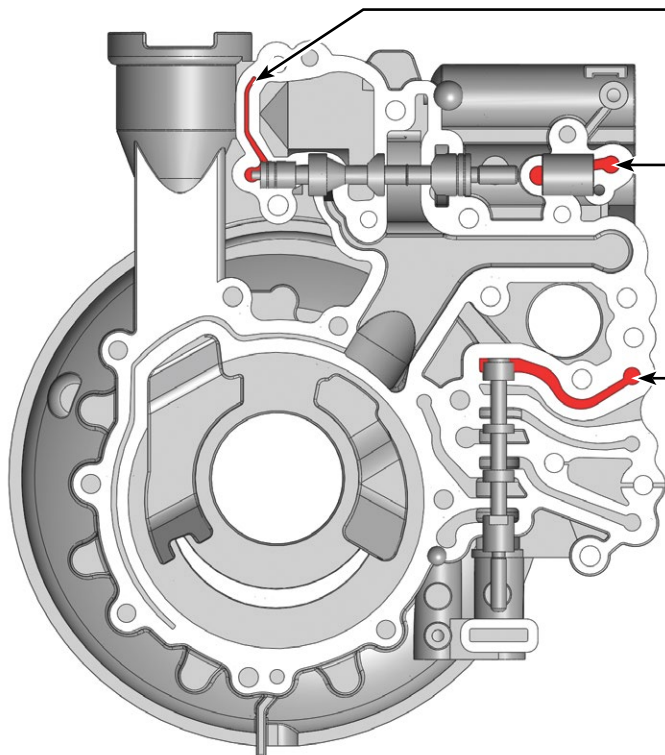
NOTE: OE valves are shown in rest position and should be tested in rest position unless otherwise indicated. Test locations are pointed to with an arrow. Springs are not shown for visual clarity. Low vacuum reading indicates wear and Sonnax parts are noted for replacement.

Pump Body • Gen. 2 6T40 Shown



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

Click on Sonnax part numbers to see more information.



Pressure Regulator Valve

- Harsh/Soft shifts
- High/Low line pressure
- Burnt clutches

TCC Control Valve

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

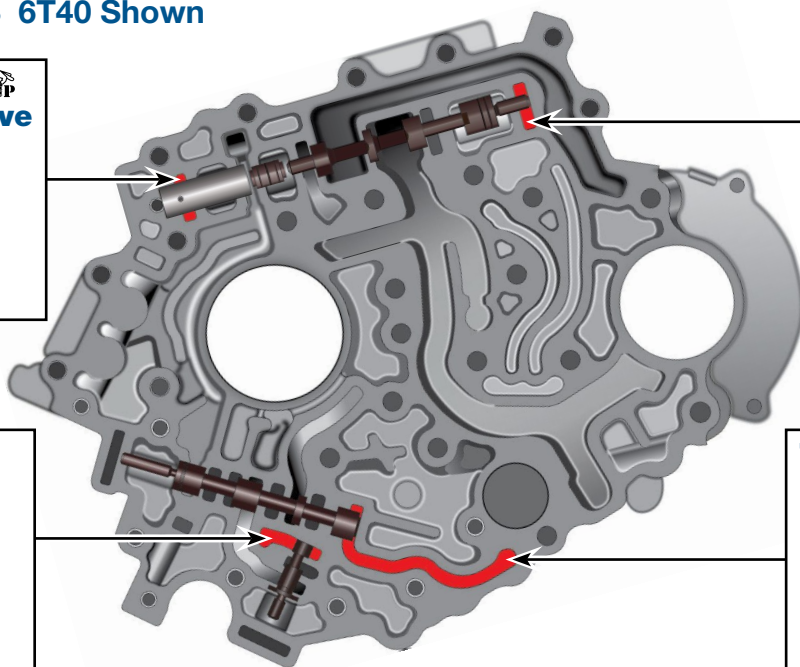
Replace with Sonnax Part No. 144510-05K
Requires F-144510-TL5C & VB-FIX

Pump Body • Gen. 3 6T40 Shown

Pressure Regulator Isolator Valve & Sleeve

- Low line pressure
- Line pressure instability
- Shift concerns
- Burnt clutches

Replace with Sonnax Part No. 144510-15K



Pressure Regulator Valve

- Burnt clutches
- Low line pressure
- Line pressure instability
- Shift concerns

Replace with Sonnax Part No. 144510-17K

Lube-on-Demand Valve

- Low cooler flow
- No converter apply
- Low line pressure
- Overheated converter
- Overheated fluid

Replace with Sonnax Part No. 144510-19K

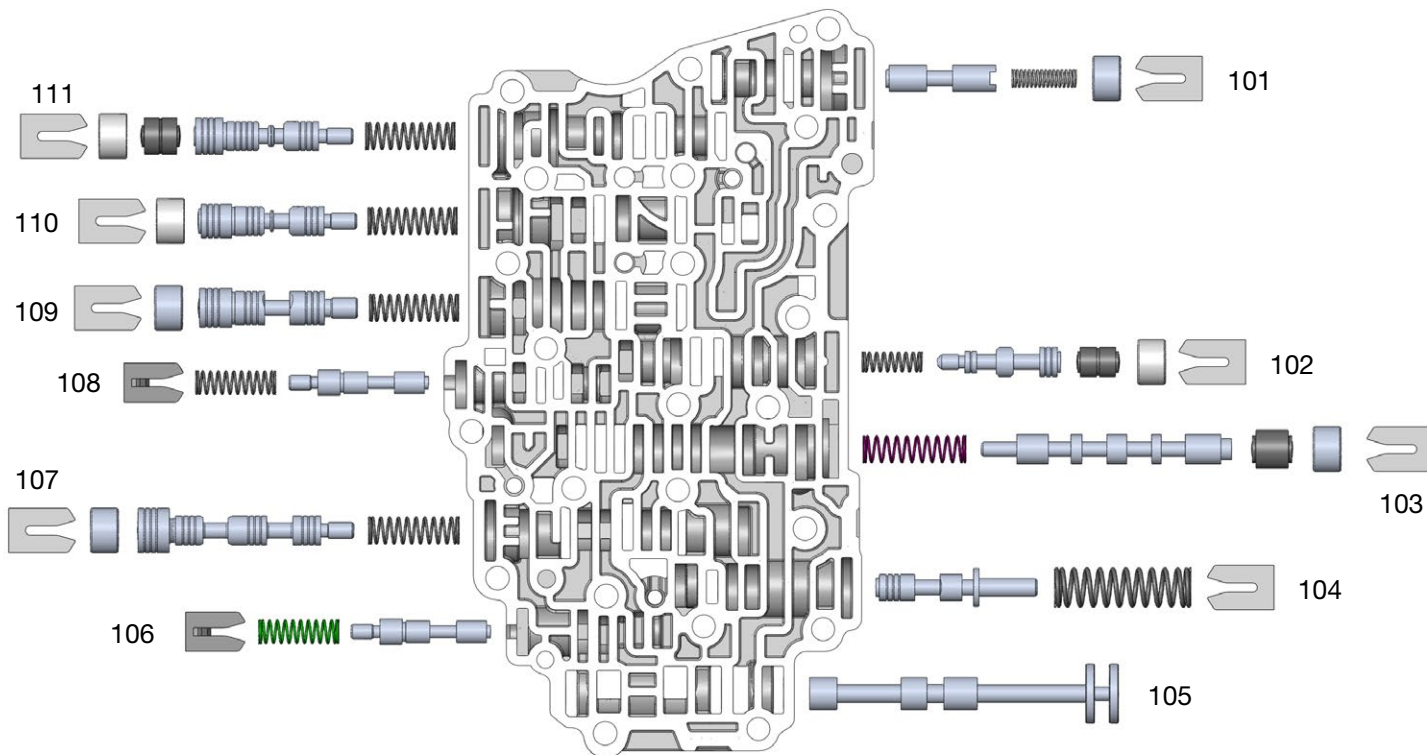
TCC Control Valve

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

OE Exploded View

Control Valve Body Assembly • Gen. 2 6T40 Shown

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



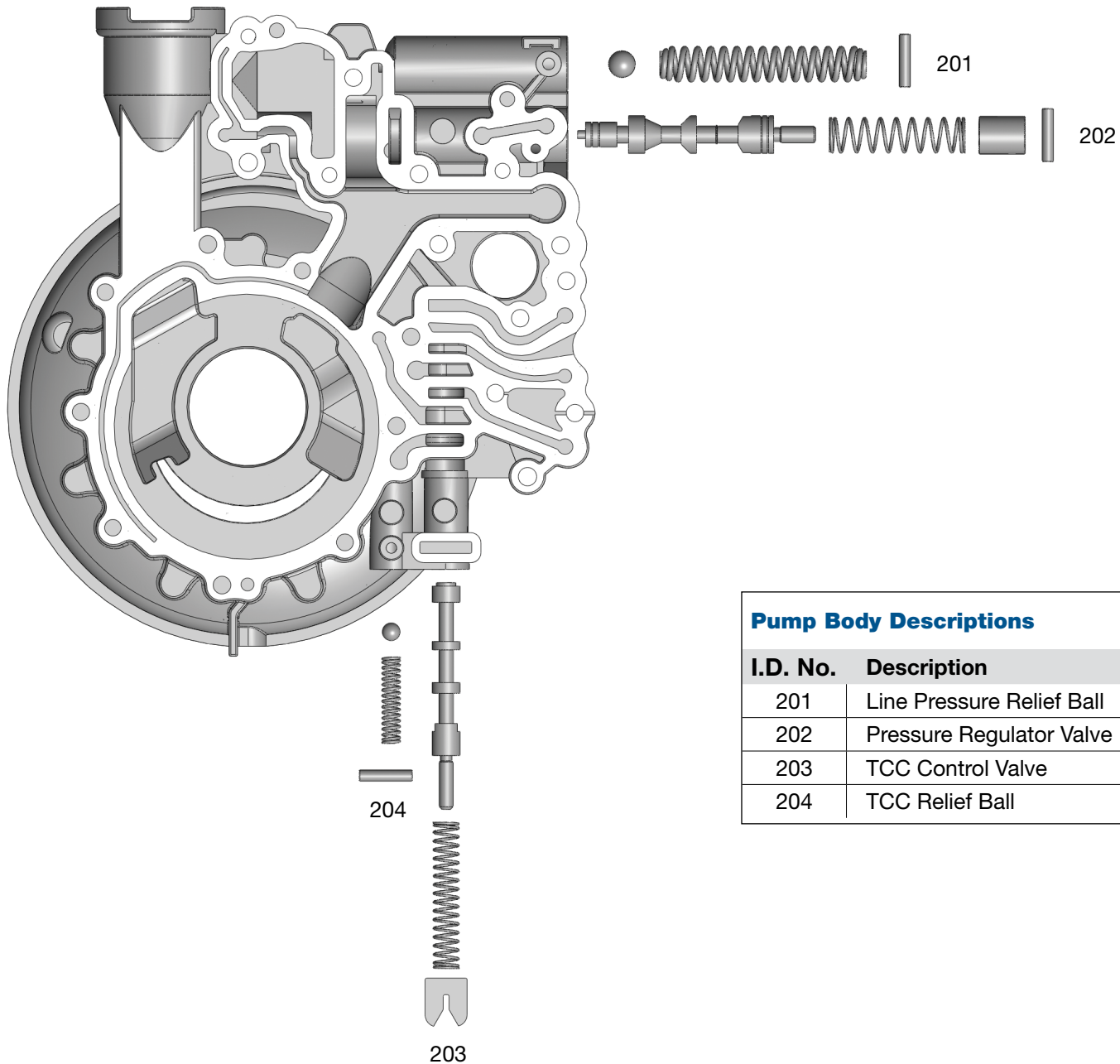
Control Valve Body Assembly Descriptions

I.D. No.	Description
101	Default Override Valve
102	TCC Regulator Apply Valve
103	Clutch Select Valve (inboard) Shuttle Valve (outboard)
104	Actuator Feed Limit Valve
105	Manual Valve
106	Low/Reverse 4-5-6 Boost Valve
107	Low/Reverse & 4-5-6 Clutch Regulator Valve
108	1-2-3-4 Clutch Boost Valve
109	1-2-3-4 Clutch Regulator Valve
110	2-6 Clutch Regulator Valve
111	3-5 Reverse Clutch Regulator Valve

OE Exploded View

Pump Body • Gen. 2 6T40 Shown

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



Pump Body Descriptions

I.D. No.	Description
201	Line Pressure Relief Ball
202	Pressure Regulator Valve
203	TCC Control Valve
204	TCC Relief Ball