

Critical Wear Areas & Vacuum Test Locations

ZIP Drop-In Zip Valve™
Parts Available

ZF8-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.

Upper Valve Body • ZF8HP45 Shown



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

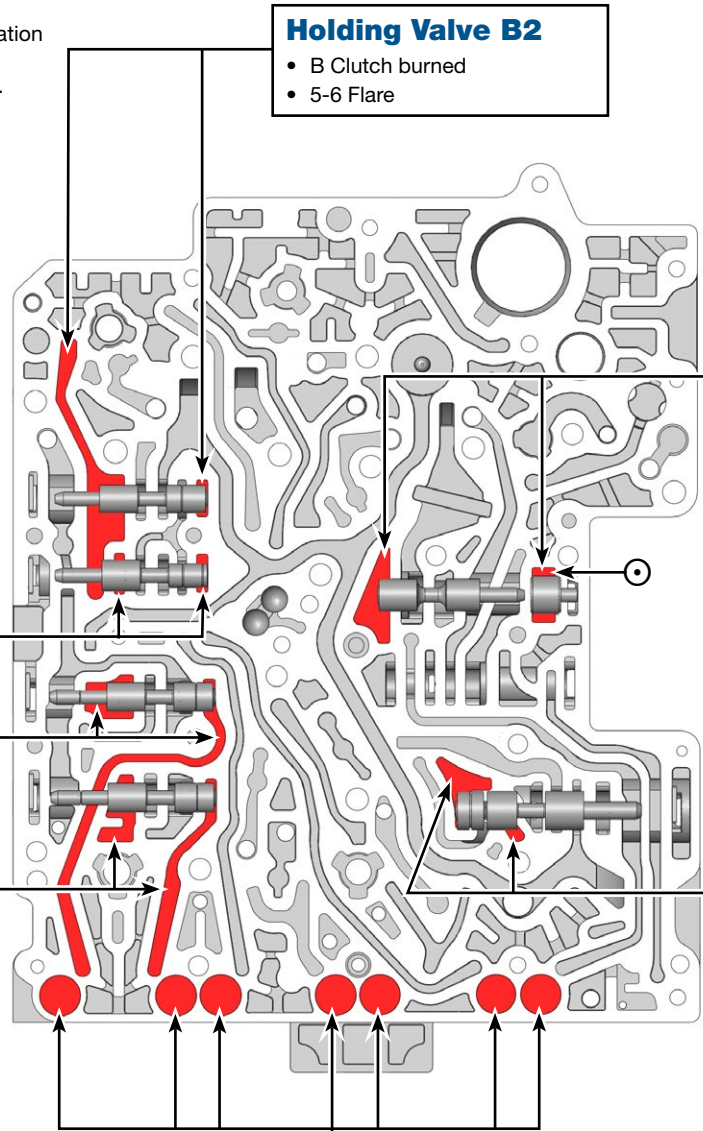
Click on Sonnax part numbers to see more information.



NOTE: Critical wear areas and vacuum test locations shown for ZF8HP45 and ZF8HP70 only.



NOTE: Do not use this information for ZF8HP55 units as valve locations and porting differ.



B2 Clutch NIC Valve

- Delayed engagement
- No Forward
- NIC (Neutral Idle Control) concerns
- Gear ratio & solenoid codes
- No Reverse
- B Clutch burned
- Flare/Harsh shifts

Replace with **Sonnax Part No. 35740-22**
Requires F-35740-TL22 & VB-FIX

Holding Valve B2

- B Clutch burned
- 5-6 Flare

TC Pressure Valve

- Coastdown clunk
- Harsh TCC apply
- Excess TCC slip
- TCC codes & overheating
- TCC lining failure
- Low lube oil flow
- Low TCC release pressure

Replace with **Sonnax Part No. 35740-18K**
Requires F-35740-TL5 & VB-FIX

Holding Valves A & D

- Bump/Flare shifts
- Burnt clutches
- Gear loss
- Gear ratio & solenoid codes

Replace with **Sonnax Part No. 35740-20K**
Requires F-35740-TL20 & VB-FIX

Position & Default Position Valves

- Delayed Forward & Reverse
- Delayed engagement

Accumulator Pistons



- Downshift clunk
- Firm shifts
- Erratic EDS solenoid control and/or EDS codes

Replace with **Sonnax Part No. 95740-15K** Contains 7 sets Patent No. 8,794,108

Test with dampener upside down and test plate orifice off center from rubber piston end

End Plugs

- Soft/Flare/Harsh shifts
- Burnt clutches
- Pressure loss

Replace with **Sonnax Part No. 35740-30K**
End Plugs (3) = 
Internal End Plugs (8) = 

Critical Wear Areas & Vacuum Test Locations

ZIP Drop-In Zip Valve™ Parts Available

ZF8-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.

Lower Valve Body • ZF8HP45 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.



NOTE: Critical wear areas and vacuum test locations shown for ZF8HP45 and ZF8HP70 only.



NOTE: Do not use this information for ZF8HP55 units as valve locations and porting differ.

Main PR Sleeve

- Harsh shifts
- Erratic/High line pressure
- Restricted converter/lube flow

Replace with **Sonnax Part No. 35740-03**

Close this passage on the other side with the palm of your hand.

Main PR Valve

- Harsh/Soft shifts
- Erratic/High line pressure
- Burnt clutches
- Restricted converter/lube flow

Replace with **Sonnax Part No. 35740-01K**
Requires F-35740-TL & VB-FIX

Park Pawl Release Valve

- Park will not release
- Park position errors

NOTE: These 2 locations suitable for vacuum testing OE valve & **35740-21K ONLY**.
NOT suitable location to check **35740-37K**.

Remove spring when testing. Center valve spool in opening.

Priming Valve

- Delayed engagement • Wrong gear starts
- Gear loss • Flare/Harsh/Neutral shifts
- Gear ratio & solenoid codes

Replace with **Sonnax Part No. 35740-37K Priming Valve & Seal Kit** or **35740-21K Oversized Priming Valve** Requires F-35740-TL20 & VB-FIX

TC Switch Valve

- No lockup • No TCC release • Engine stall
- TCC codes • Excess TCC slip
- Premature TCC apply • Soft/Harsh TCC apply

Replace with **Sonnax Part No. 35740-05**
Requires F-35740-TL5 & VB-FIX

TCC Valve

- Converter shudder & TCC slip • TCC codes
- Overheated converter • Poor fuel economy

Replace with **Sonnax Part No. 35740-13K**
Requires F-35740-TL13 & VB-FIX

Clutch Valve B1

- Slip on take off
- Gear ratio errors
- B Clutch burned

Close port on opposite side when testing.

Holding Valves B1, C & E

- Bump/Flare shifts
- Burnt clutches • Gear loss
- Gear ratio & solenoid codes

Replace with **Sonnax Part No. 35740-20K**
Requires F-35740-TL20 & VB-FIX

Clutch Valve D

- Gear ratio errors 4-8th Gears
- Slips in Reverse
- D Clutch burned

Clutch Valve A

- Slip in Drive or Reverse
- Gear ratio codes
- A Clutch burned

Clutch Valve C

- Slip on take off
- Gear ratio codes
- C Clutch burned

Clutch Valve E

- Slip on 1-2
- Gear ratio codes
- E Clutch burned

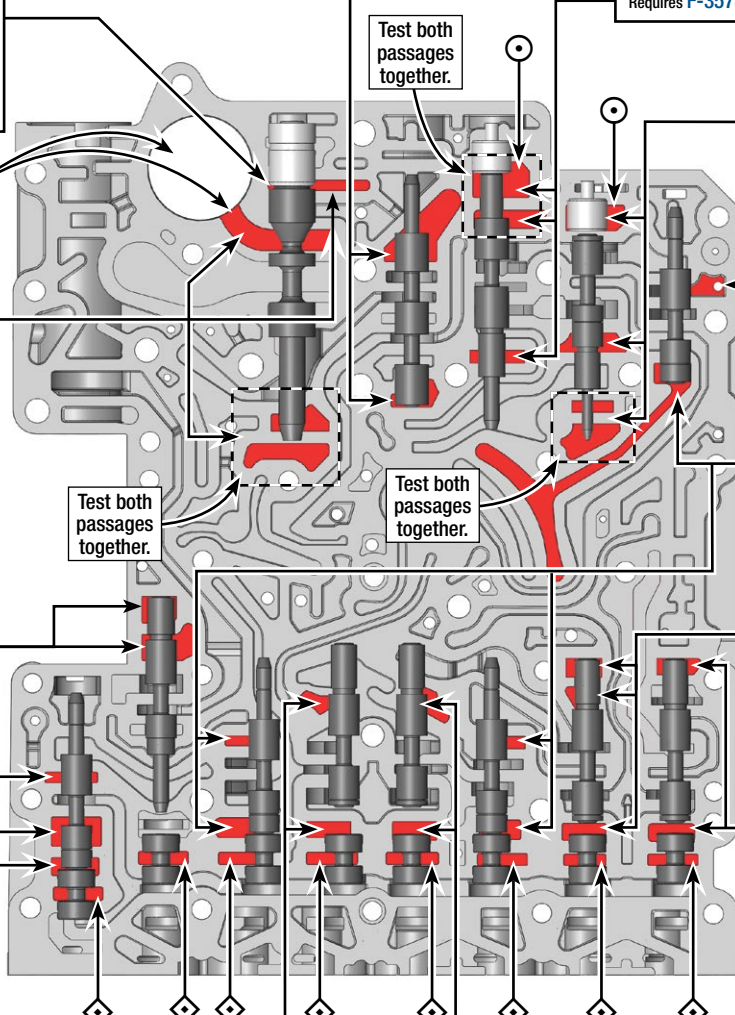
End Plugs

- Soft/Flare/Harsh shifts
- Burnt clutches • Pressure loss

Replace with **Sonnax Part No. 35740-30K**

End Plugs (3) =

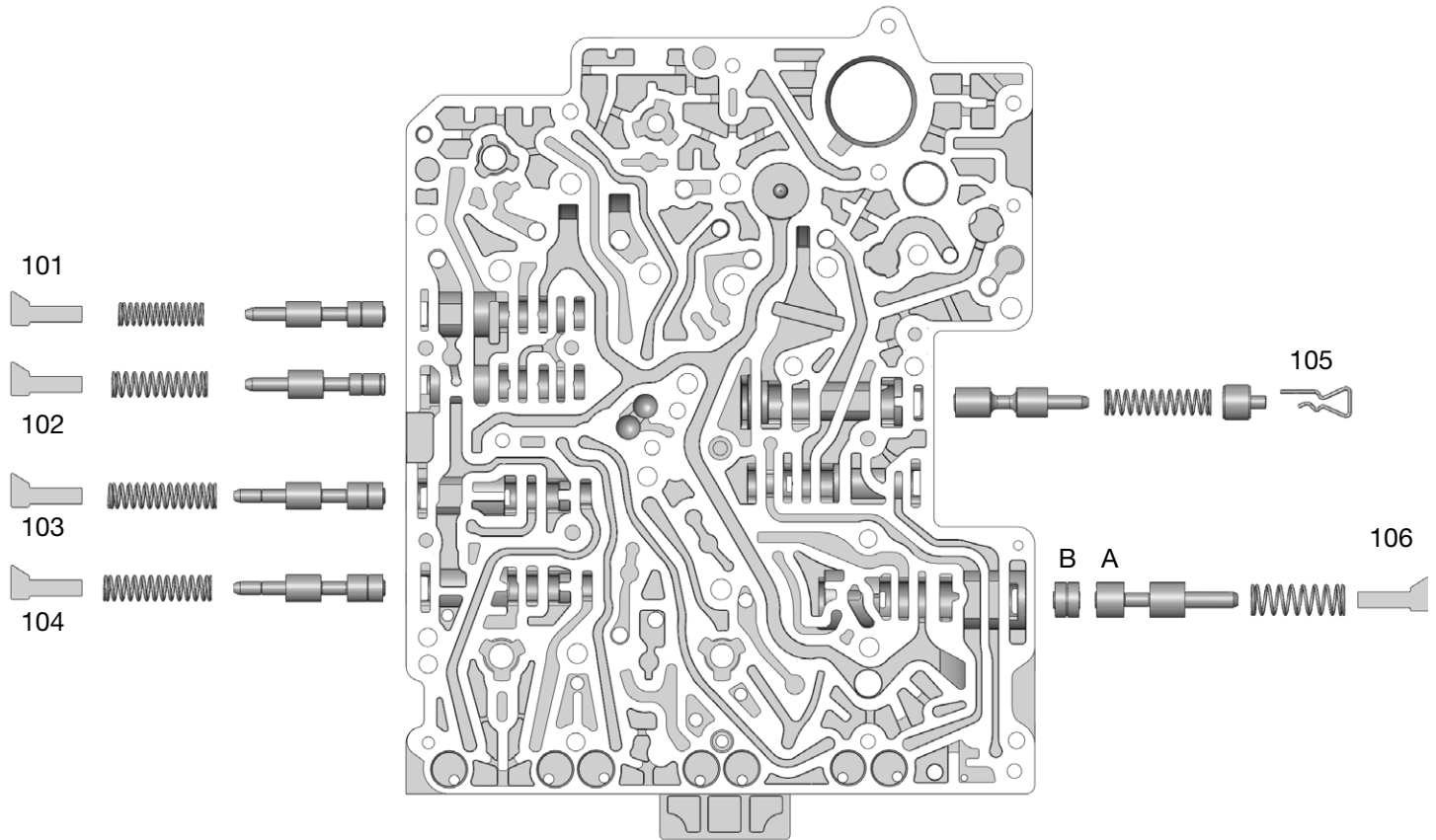
Internal End Plugs (8) =



OE Exploded View

Upper Valve Body • ZF8HP45 Shown

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



Upper Valve Body Descriptions

I.D. No.	Description	ZF Valve Name	Chrysler Valve Name
101	Holding Valve B2	HV-B2	HV-B2
102	Clutch Valve B2 - B Clutch NIC (Neutral Idle Control)	KV-B2	CV-B2
103	Holding Valve A	HV-A	HV-A
104	Holding Valve D	HV-D	HV-D
105	Torque Converter Pressure Valve	WD-V	TC-V
106	A Position Valve (Outboard)	Pos-V	Pos-V
	B Default Position Valve (Inboard)	PosD-V	PosD-V

OE Exploded View

Lower Valve Body • ZF8HP45 Shown

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

Lower Valve Body Descriptions

I.D. No.	Description	ZF Valve Name	Chrysler Valve Name
201	Main Pressure Regulator Valve & Sleeve	SYS-DR-V	A LP-V (Inboard) B RED-V (Outboard)
202	Torque Converter Switch Valve	SV-WD	SV-TC
203	Torque Converter Clutch Valve	WK-V	TCC-V
204	Clutch Valve B1	KV-B1	CV-B1
205	Holding Valve B1	HV-B1	HV-B1
206	Priming Valve	DR-RED-V	PR-V
207	Park Pawl Release Valve	PS-V	Park-V
208	Holding Valve C	HV-C	HV-C
209	Clutch Valve C	KV-C	CV-C
210	Clutch Valve E	KV-E	CV-E
211	Holding Valve E	HV-E	HV-E
212	Clutch Valve D	KV-D	CV-D
213	Clutch Valve A	KV-A	CV-A

