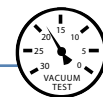




# Critical Wear Areas & Vacuum Test Locations



**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.

## Upper Valve Body • ZF8HP45 Shown



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

Click on Sonnax part numbers to see more information.

### Holding Valve B2

- B Clutch burned
- 5-6 Flare

### 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 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

### Accumulator Pistons

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

Replace with Sonnax Part No. **95740-15K**

Contains 7 sets

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

Patent No. 8,794,108

### 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

### Position & Default Position Valves

- Delayed Forward & Reverse
- Delayed engagement

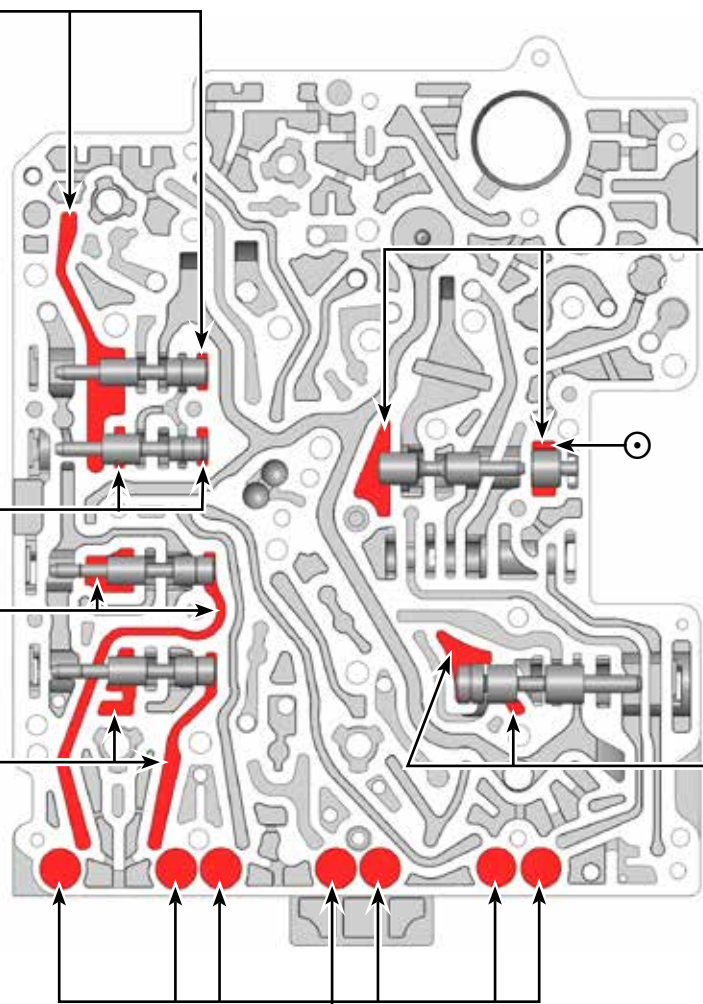
### End Plugs

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

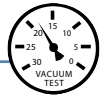
Replace with Sonnax Part No. **35740-30K**

End Plugs (3) =

Internal End Plugs (8) =



# Critical Wear Areas & Vacuum Test Locations



**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.

## Lower Valve Body • ZF8HP45 Shown

**Click on Sonnax part numbers to see more information.**



**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**

**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

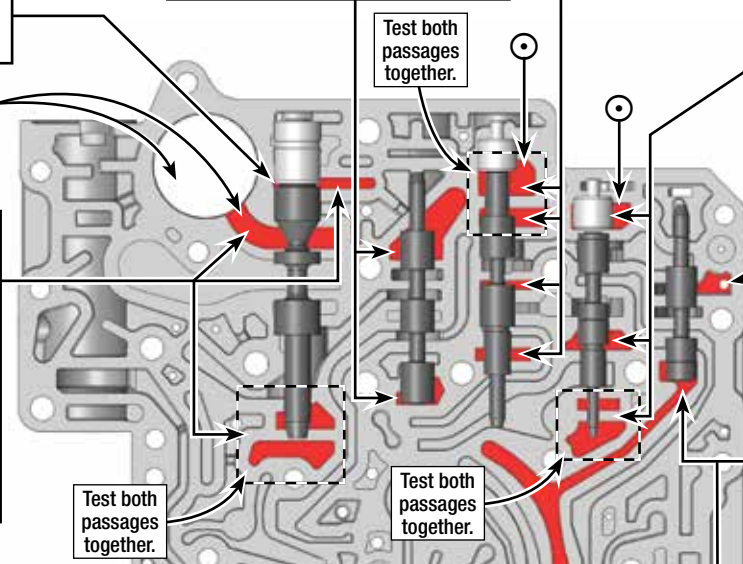
**Clutch Valve B1**

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

**Main PR Valve**

- Harsh/Soft shifts
- Erratic/High line pressure
- Burnt clutches
- Restricted converter/lube flow
- Broken parts due to excessive line pressure

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



**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

**Park Pawl Release Valve**

- Park will not release
- Park position errors

**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

**Priming Valve**

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

**Replace with Sonnax Part No. 35740-21K**  
Requires F-35740-TL20 & VB-FIX

**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**

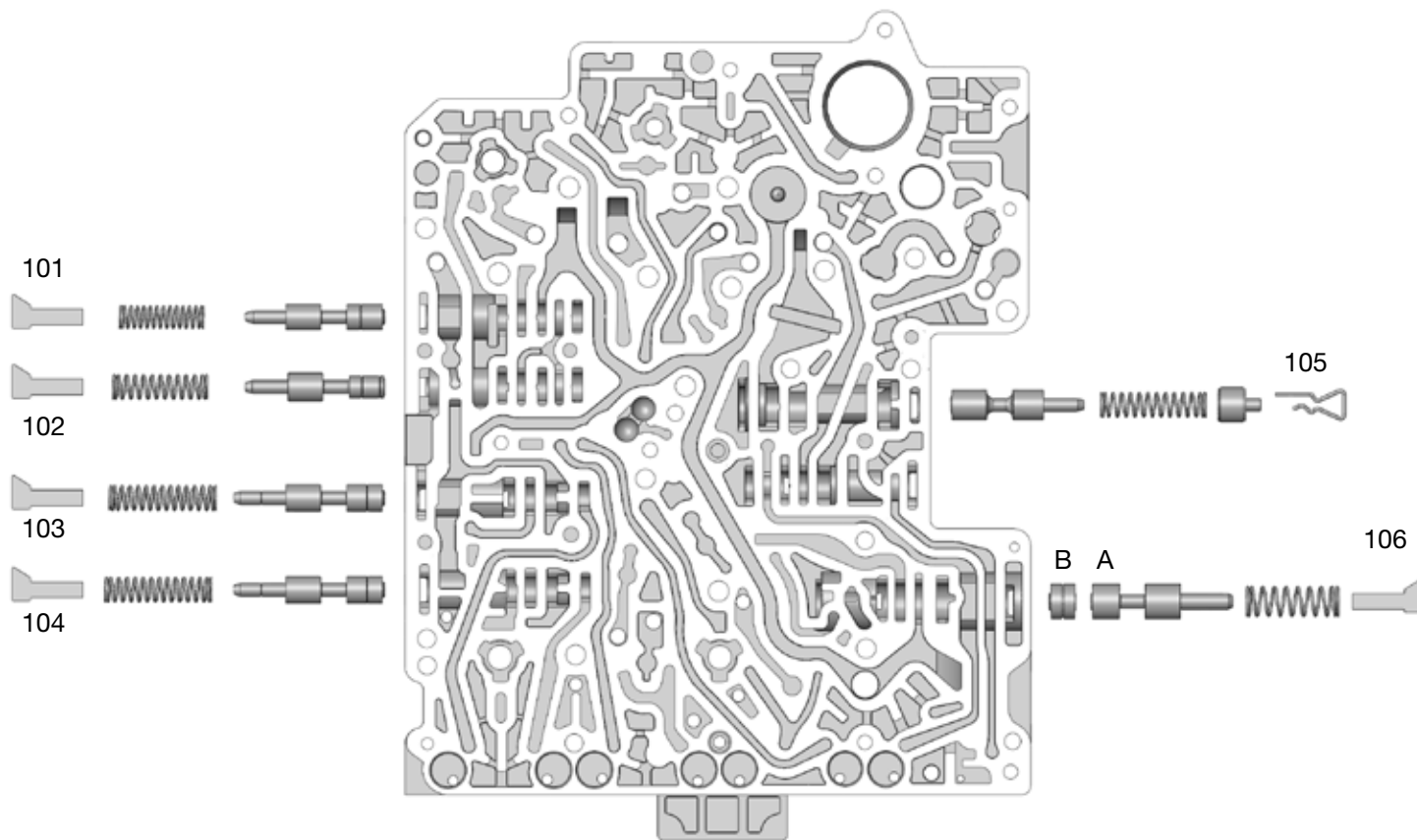
- Soft/Flare/Harsh shifts
- Burnt clutches
- Pressure loss

**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

