

**ZF6HP19/26/32 (Gen. 1),  
FORD 6R60/75, 6R80 (1st & 2nd Design '09-'14),  
ZF6HP21/28/34 (Gen. 2) ZIP KIT®.**

**PART NUMBER ZF6-6R60-ZIP**

**IDENTIFICATION GUIDE**

**Valve Body Identification**

Valve components differ between Generation 1 (ZF6HP19/26/32), Ford 6R60, 6R75, 6R80 and Generation 2 (ZF6HP21/28/34) valve bodies. Please use this identification guide to determine which generation you have to ensure correct valve kits and components are selected for your rebuild.

**Does NOT Fit**  
3rd & 4th Design 6R80 2015-Up

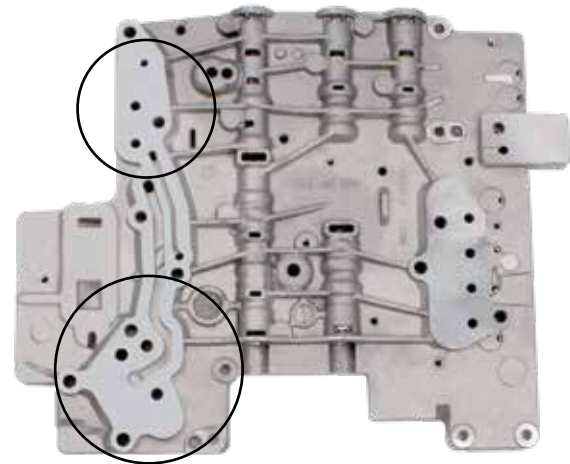
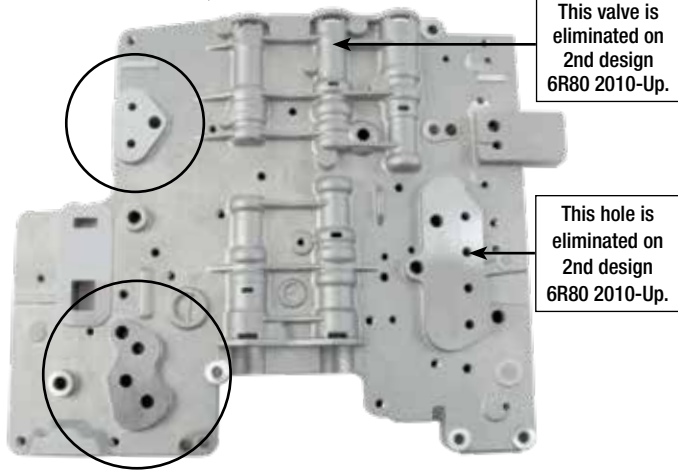
**Generation 1 (ZF6HP19, 26 & 32),  
Ford 6R60, 6R75, '09-'14 6R80**

**Generation 2 (ZF6HP21, 28 & 34)**

**1st Generation Case Side**  
Includes 19, 26 & 32

**1. IDENTIFY!**

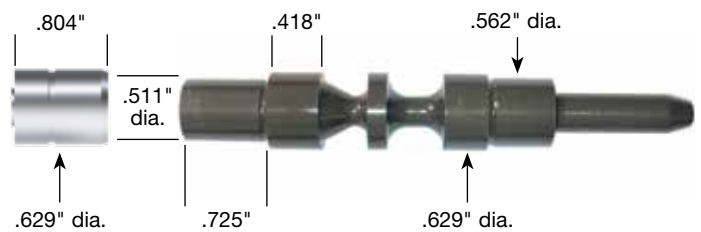
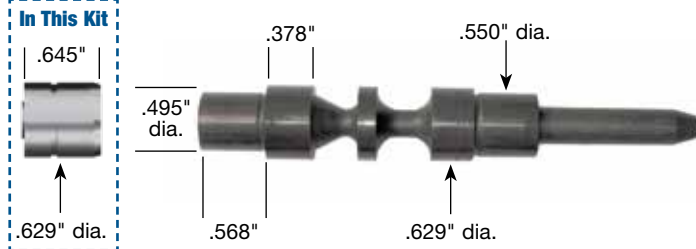
**2nd Generation Case Side**  
Includes 21, 28 & 34



**Different Sized Pressure Regulator  
Valves and Sleeves**

**2. VERIFY!**

**Pressure Regulator Valves and Sleeves  
Cannot Be Interchanged**



**Generation 1 (ZF6HP19, 26 & 32),  
with 053 Separator Plate**

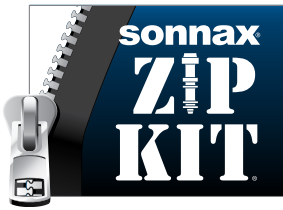
**6R80L & 6R100  
3rd Design, 2015-Up**



**NOTE:** Some BMW 6 & 7 series with six accumulators have a different sized pressure regulator valve. This is most commonly seen on the A053/B053 separator plate applications.

**CAUTION:** Some valve sizes and locations differ from non-053 plate Generation 1 units. Reference 053 plate vacuum test guide and exploded view for details.

Verify OE dimensions indicated in order to select correct Sonnax parts.



# ZF6HP19/26/32 (Gen. 1), FORD 6R60, 6R75, 6R80 (2009-2014) ZIP KIT®

PART NUMBER ZF6-6R60-ZIP

QUICK GUIDE

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

## INSTALLATION DIAGRAM

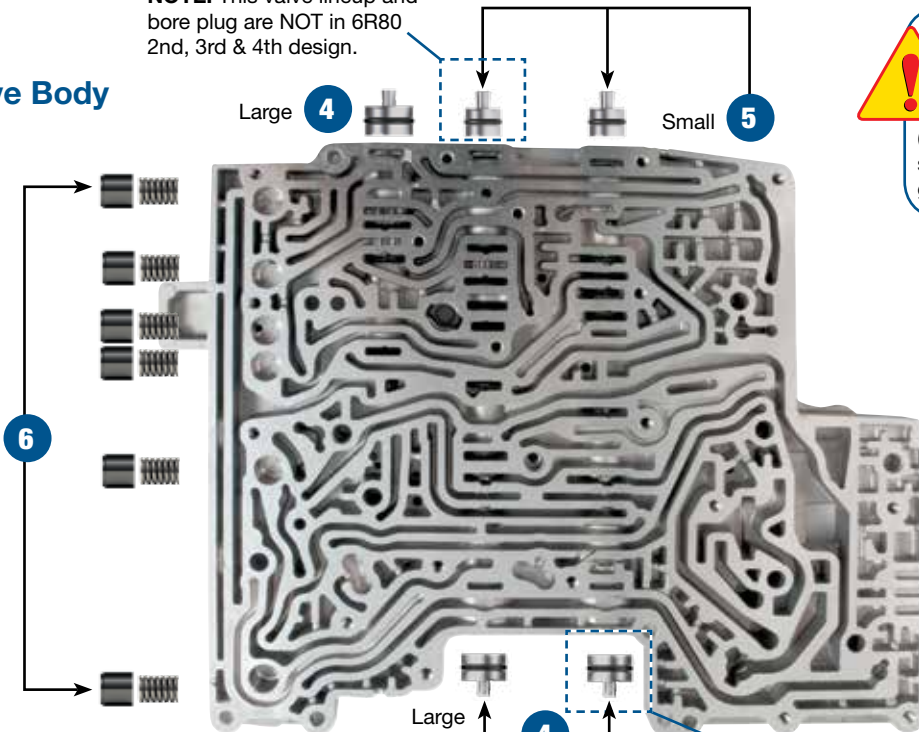
\*NOTE: This valve lineup and bore plug are NOT in 6R80 2nd, 3rd & 4th design.

Verify valve body is ZF Generation 1 model without 053 plate, 6R60, 6R75 or 6R80 (2009-2014) model. See separate identification guide for details.

### Upper Valve Body



NOTE: Some 6R60 and 6R80 units only have 2 accumulators.



### Lower Valve Body



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 OE Sleeve



**CAUTION:** Verify OE pressure regulator valve and sleeve measurements. See separate Identification Guide for details.

#### Packaging Pocket 1

- Sleeve (.629" dia. x .645" length)

### Step 2 Replace OE Sleeve & Valve

#### Packaging Pocket 2

- Valve
- Sleeve

### Step 3 Replace Internal OE End Plugs



**NOTE:** Insert the internal end plug with the hole facing outboard.

#### Packaging Pocket 3

- Internal End Plugs (4)
- O-Rings (11) 3 Extra

### Step 4 Replace Large OE End Plugs

#### Packaging Pocket 4

- End Plugs, Large (6)
- O-Rings, Large (9) 3 Extra



**\*\*NOTE:** If valve body is a 6R80 Design 2 application, do not install a Sonnax large O-ringed end plug into the noted bore in upper casting. Instead, install a small Sonnax O-ringed end plug in this location.

### Step 5 Replace Small OE End Plugs

#### Packaging Pocket 5

- End Plugs, Small (6)
- O-Rings, Small (9) 3 Extra



**\*\*NOTE:** If valve body is a 6R80 Design 2 application, do not install a Sonnax small o-ringed end plug into the empty bore in upper casting. Instead, install it in the other indicated bore (\*\*) in the upper casting.

### Step 6 Replace OE Pistons

#### Packaging Pocket 6

- Accumulator Pistons (6)
- Matching Springs (6)



**NOTE:** Some 6R60 and 6R80 models only have 2 accumulators.

### Step 7 Replace OE Solenoid O-Rings

#### Packaging Pocket 7

- O-Rings, Size 10.5 x 2mm thick, Smaller (8)
- O-Rings, Size 13 x 2mm thick, Larger (7)

#### Packaging Pocket 8

- O-Rings, Size 13.5 x 2mm thick (4)

#### Packaging Pocket 9

- O-Rings, Size 14.5 x 1.5mm thick (5)

#### Packaging Pocket 10

- O-Rings, Size 14.5 x 2mm thick (3)

#### Packaging Pocket 11

- O-Ring, OR-014, Smaller (2)
- O-Ring, OR-016, Larger (2)



**NOTE:** See page 3 in the technical booklet included with this Zip Kit for details on replacement solenoid O-ring locations.

### Step 8 Vacuum Testing

#### Packaging Pocket 12

- Testing Spring
- Testing End Plug

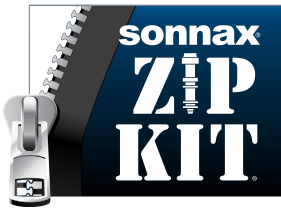


**NOTE:** See page 4 in the technical booklet included with this Zip Kit for instructions on how to vacuum test valve body castings with these two parts.

**NOTE:** Solenoids should be vacuum tested to ensure internal sealing integrity that cannot be determined with resistance check.

**NOTE:** Solenoid test manifold kit **95430-VTK** is available separately, and requires the **VACTEST-01K** vacuum test stand kit. Visit [www.sonnax.com](http://www.sonnax.com) for more details.

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



# ZF6HP19/26/32 (Gen. 1), FORD 6R60, 6R75, 6R80 (2009-2014) ZIP KIT®

PART NUMBER **ZF6-6R60-ZIP**

**INSTALLATION & TESTING BOOKLET**

## Valve Body Identification

This Zip Kit **ZF6-6R60-ZIP** is designed for ZF6HP19, ZF6HP26, ZF6HP32 (Generation 1) units without an 053 separator plate, and Ford 6R60, 6R75, 6R80 (2009-2014) applications only. A separate Zip Kit **ZF6-GEN2-ZIP** is available for ZF6HP21, ZF6HP28, ZF6HP34 (Generation 2), **ZF6-053-ZIP** is available for ZF6HP19, ZF6HP26, ZF6HP32 (Generation 1) units with an 053 separator plate. For 2015-later 6R80 and 6R100 units, please see Zip Kit **6R80L-6R100-ZIP**. To verify valve bodies, see identification guide for further details.

## Torque Specifications

<b>Mechatronic-to-Case or Valve Body Halves Bolts</b> 8Nm/71 in-lb	<b>Metal Oil Pan to Case</b> 14Nm/10 ft-lb
<b>Plastic Oil Pan to Case</b> 10Nm/89 in-lb	<b>Pump Bolts to Case</b> 10Nm/89 in-lb
<b>Output Shaft Flange Nut</b> 60Nm/44 ft-lb	

## Clearance & Endplay

<b>Rear Unit Endplay</b> (flanged output) 0.15-0.35mm/.006-.013"	<b>Input Shaft Endplay</b> 0.2-0.4mm/.008-.015"
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**Clutch clearance and material** is critical (refer to OE clutch travel specifications). These have fluid balanced clutch pistons.

## Fluid

**Ford 6R60 extension housing** has an allen head fill plug and/or the front corner of the case has a hex head fill plug. A dipstick lives within this plug.

**Note:** *The thermal element must open (88°C, 190°F) to purge the cooler before verifying the fluid level!*

<b>Complete Fill Required</b> 9.5 qt./9 ltr.	<b>Service Fill Approx.</b> 4.2 qt./4 ltr.
<b>Ford Fluid</b> XT-6-QSP, Mercon SP	<b>ZF Fluid</b> S671 090 0255- Shell M-1375.4

## Drive-Cycle Relearn

Ford requires six light throttle up and coastdown shift cycles (after obtaining 80°C/175°F) for a partial relearn.

## Cautions Electronics

Do not use an ohm meter with more than .6 voltage supply. The TCM is capable of limited solenoid adaptation without reprogramming. After any service, resetting adapts/clearing KAM is suggested. In many instances, solenoids can be replaced with new OE or with qualified used. Original solenoids, if reused, should be returned to their same location due to a learned flow rate by the TCM. Make every effort to avoid mixing up the solenoids.

It is not advised to attempt circuit testing through the 16-pin connector. Check the solenoid resistance (5.0 ohms at 20°C/68°F) with the circuit board removed.

## Visual Identification

The ZF6 has two generations:

- 2002–2005 ZF6HP19, ZF6HP26, ZF6HP32 = Generation 1
- 2006-later ZF6HP21, ZF6HP28, ZF6HP34 = Generation 2

The 19, 26 and 32 of Generation 1 ZF6 units refer to the sequentially larger amounts of torque capacity. In 2006, the mechatronic was upgraded to increase oil flow, which reduced the duration of the shift. These units became known as Generation 2, and were given the numbers 21, 28 and 34. The photos on the separate identification guide show how to identify and verify the valve body as a Generation 1 or Generation 2 version with the updated solenoids.

Within both vintages, there is an “M” version for the manual valve and an “E” solenoid controlled manual valve. The “E” version in both the early and late generations will have two additional solenoids, for a total of 9.

## Technical Tips

### 2-1 Clunk (6R60 & 6R80 Only)

Ford 6R60 and 6R80 units commonly display a 2-1 down shift clunk. In mid-2010, a manufacturing change was made eliminating this clunk on models produced after mid-2010. However, in mid-2010 and earlier models, there is NO known OE or aftermarket remedy.

## Reprogramming

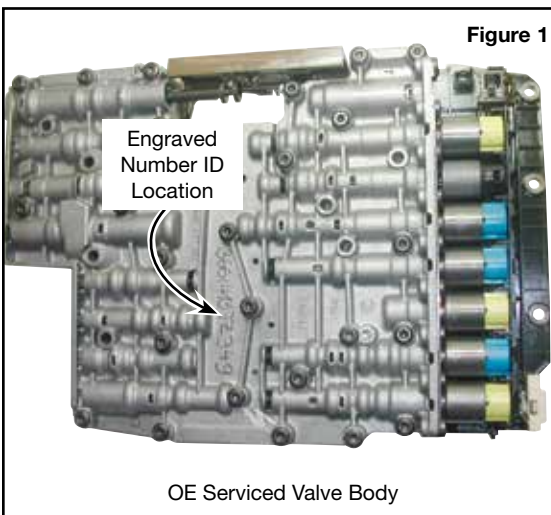
As indicated on the photo (**Figure 1**) an engraved number identifies this mechatronic as a service unit. This exchange unit may also have a blue paint dot, (**Figure 2**) on the solenoid end of the plastic frame, next to the bar code part number. This blue dot indicates it is NOT programmed and that the unit must be flashed with vehicle application prior to installation.

A white dot in the same area indicates the unit HAS been programmed without the transmission.

A pin dot identification in the same area with a fifth, sixth or seventh digit of 128 indicates this is a NEW unit, not a serviced mechatronic.

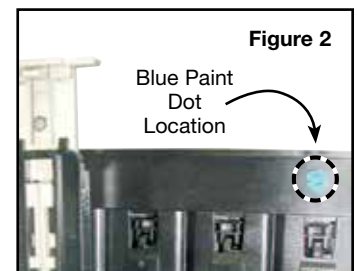


**NOTE:** The number engraved on the 6R80 valve body is the calibration number. Years 2010-Up do NOT have a TCM internal to the transmission.



**Figure 1**

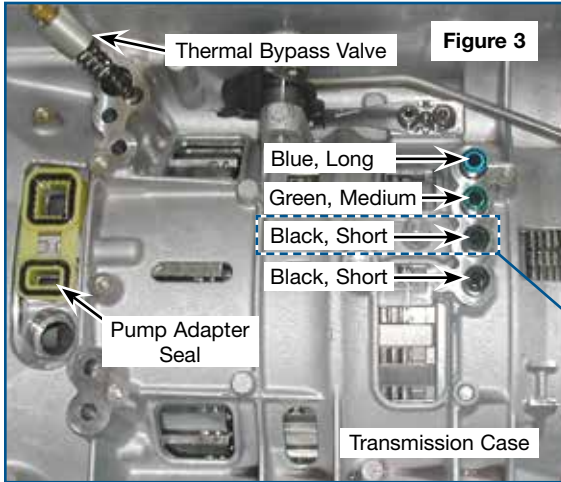
OE Serviced Valve Body



**Figure 2**

Blue Paint Dot Location





## Technical Tips (continued)

### Transmission Specifications & Reassembly Tips

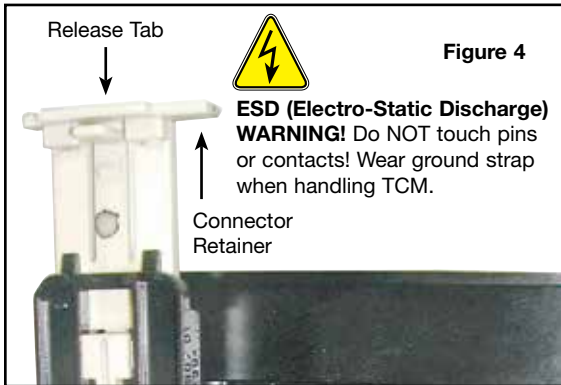
ZF suggests the body-to-case, pump in/out adapter seal be replaced on every valve body R-R (Figure 3). The overall seal height on these vary depending on application. Make sure you have the correct size.

There are four mechatronic-to-case center support seals. The longest (blue) resides next to the manual linkage, medium (green) next to it. The two shortest ones (black) are furthest from the linkage (Figure 3).



**NOTE:** 2010-Up Valve bodies equipped with the Diode do NOT have 1 black adapter seal (Figure 3)

The Ford 6R60 thermal bypass valve lives in the front corner, between case and valve body. The spring installs into the case, followed by the thermal valve – small tip end up.



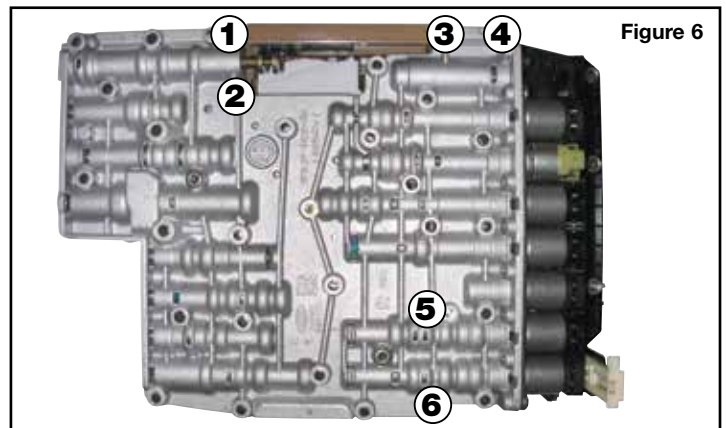
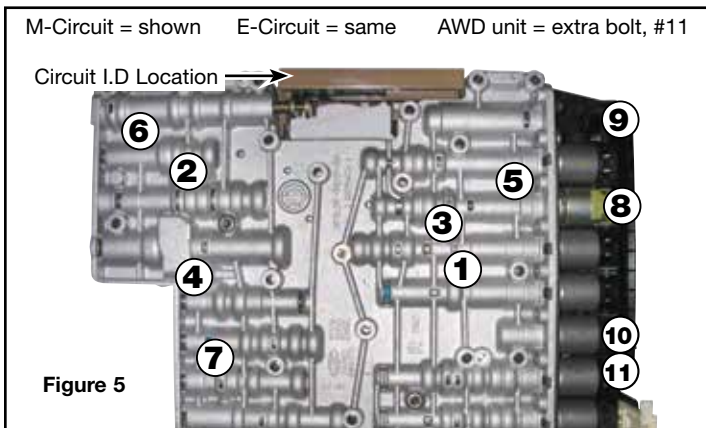
## Zip Kit Instructions

### 1. Valve Body Removal from Case

- a. Press release tab and lift connector retainer (Figure 4).
- b. Pull connector sleeve out of case.
- c. Remove 10 or 11 bolts to drop valve body from case (Figure 5).

### 2. Valve Body Disassembly

- a. Remove seven bolts to remove TCM from valve body (Figure 6).
- b. Remove TCM (Figure 7).
- c. Pry valve body halves from separator plate where indicated (Figure 8).



## 2. Valve Body Disassembly (continued)

**NOTES:** The separator plate has a bonded gasket which may delaminate during disassembly (Figure 9). If any damage or delamination to the gasket is present, a new Sonnax separator plate should be used.

These separator plates are specifically calibrated, requiring either the OE valve body code or an identification number stamped on original plate (Figures 10 & 11) for reorder. See Sonnax application chart for cross-reference numbers (Figure 12).

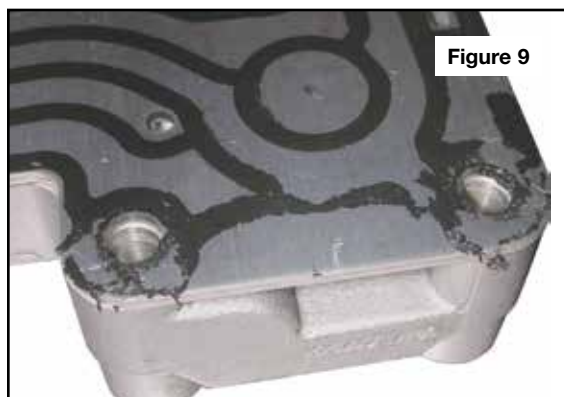


Figure 9

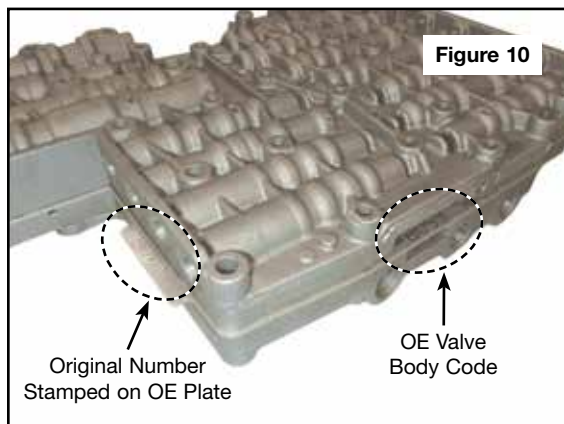


Figure 10

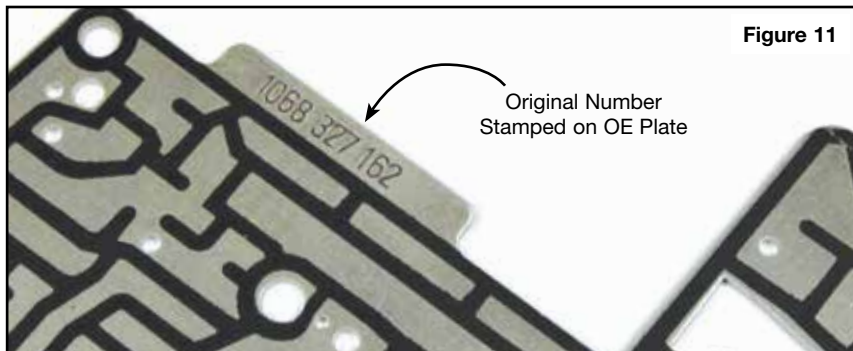


Figure 11

### Valve Body Separator Plate Application Chart

Figure 12

OE Valve Body Code	Number Stamped on Original Plate	Order Sonnax Part Number	Valve Body Generation
E510F	6L2P-7Z490-FC or 6L2P-7Z490-FB	95740-510**	Ford 6R60
A035/B035	1068-327-141	95740-035	ZF6HP19/26/32 (Generation 1)
A036/B036	1068-327-145	95740-051*	
A046/B046	1068-327-162	95740-046	
A047/B047	1068-327-163	95740-047	
A051/B051	1068-327-179	95740-051*	
A052/B052	1068-327-180	95740-052	
A053/B053	1068-327-189	95740-053	ZF6HP21/28/34 (Generation 2)
A063/B063	1068-327-210	95740-063	
A065/B065	1068-327-224	95740-065	

\*Sonnax valve body plate **95740-051** is a direct replacement for both OE valve body codes A036/B036 and A051/B051, due to supersession by ZF.

\*\*Sonnax valve body plate **95740-510** is a replacement for OE plates stamped with part number 6L2P-7Z490-FB or 6L2P-7Z490-FC.

## 3. Installation

Install Zip Kit parts as shown on diagram of separate quick guide sheet included in this Zip Kit. The locations of the replacement solenoid O-rings are shown at left (Figure 13). For additional solenoid information see Solenoid O-Ring Sizes charts and Solenoid Function charts (Figures 14–17) on page 8 of this booklet.

Sonnax recommends vacuum testing critical wear areas not covered by this kit to determine whether additional Sonnax parts are required (see pages 4–5).

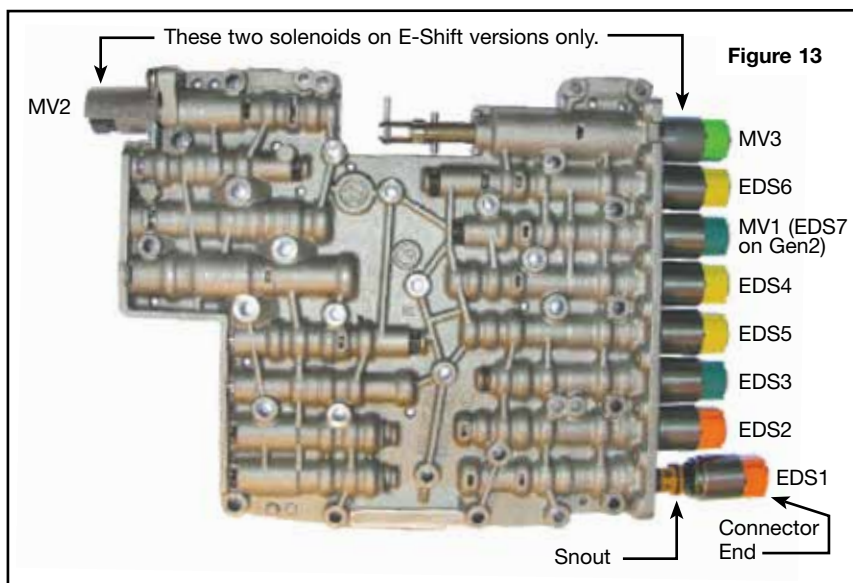


Figure 13

**NOTE:** O-ring sizes vary depending upon solenoid, location, make, model and generation version. Included in this Zip Kit are 31 standard replacement-size O-rings for the various solenoids. It is recommended to verify the size of the replacement O-ring by physically comparing it against the OE. The chart (Figure 14, page 8) provides some general guidance.



**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 and Sonnax parts are noted for replacement.

**Lower Valve Body • Jaguar ZF6HP26, M-Shift Shown**

**Solenoid Pressure Regulator Valve**

- Flare/Harsh shifts • Wrong gear starts TCC slip
- Harsh upshifts/downshifts • Delayed Forward/Reverse
- Solenoid performance codes • Gear ratio codes

**Replace with Sonnax Part No. 95740-17K**  
 Requires F-95740-TL17 & VB-FIX

**!** There are numerous OE circuit/worm-track configurations. They are make, model, generation and E- vs. M-Shift dependent. Use the illustrated port locations as a guide for identifying specific valve spools to vacuum test on alternate circuit configurations.

**Clutch A Control Pressure Regulator Valve**

- Downshift bind-ups • 4-5 Shift concerns
- Flare shifts • Delayed/Harsh Forward
- Excess clutch overlap & clutch distress
- Pressure control out-of-range codes

**Replace with Sonnax Part Nos. 95740-09K Oversized Clutch A Control Valve Kit or 95740-21K\* Clutch A Control Boost Valve Kit**  
 95740-09K Requires F-95740-TL8 & VB-FIX

**Clutch E Control Pressure Regulator Valve\*\***

- Excess clutch overlap & clutch distress
- Pressure control out-of-range codes • 3-2 Harsh
- Downshift bind-ups • 1-2 Bind-up • Coastdown Neutral

**Replace with Sonnax Part No. 95740-08K\*\*** Requires F-95740-TL8 & VB-FIX

**Bypass Clutch Control Regulator Valve**

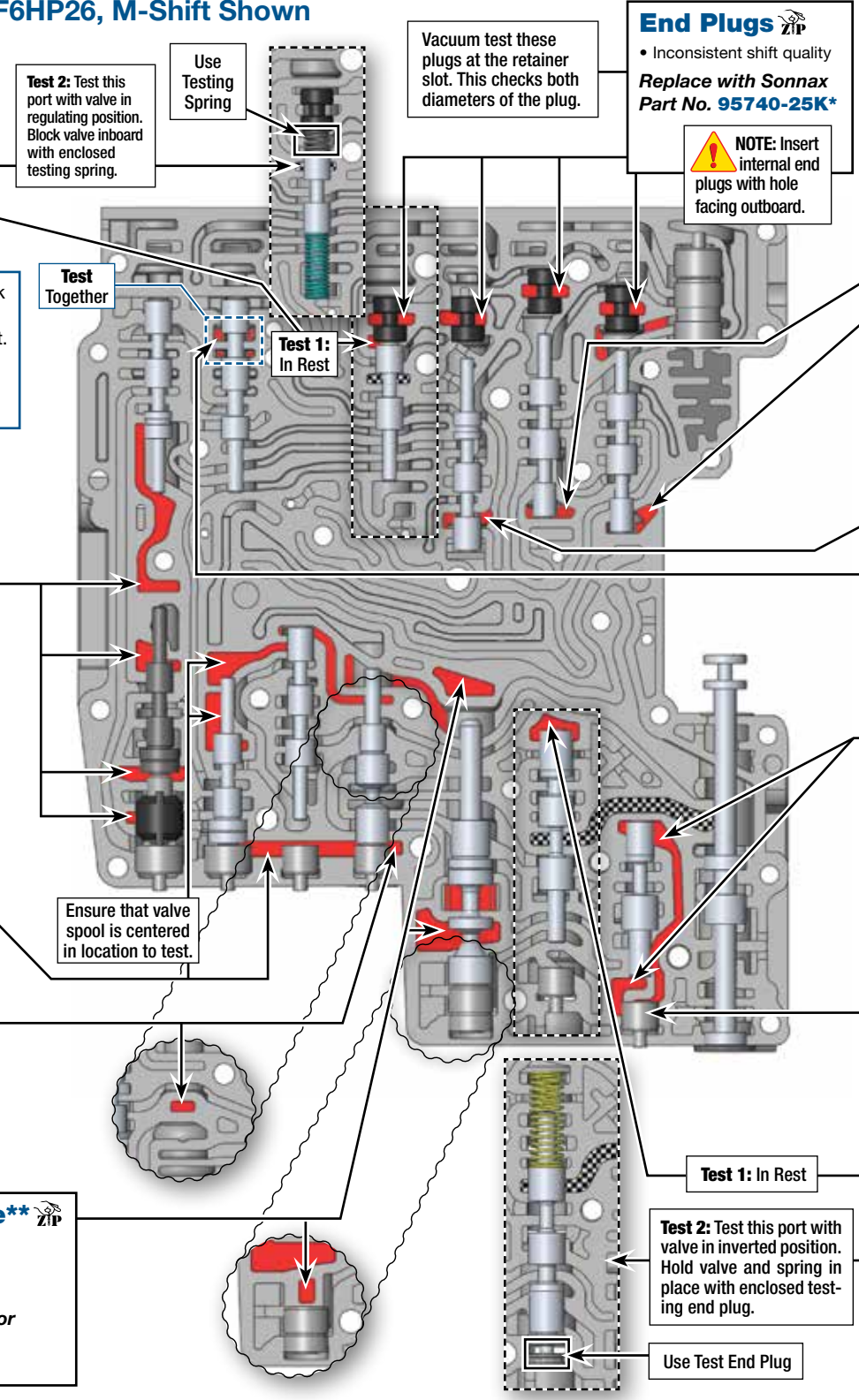
- TCC codes • Excess TCC slip • Cycling RPM
- Flare/Harsh shifts • Low TCC release pressure
- Rough idle in Reverse • Overheated converter

**Replace with Sonnax Part No. 95740-13K** Requires F-95740-TL13 & VB-FIX

**Main Pressure Regulator Valve\*\***

- Poor shift quality • Flare/Harsh shifts
- Erratic line pressure • Delayed/No Reverse

**Replace with Sonnax Part Nos. 95740-01K Oversized Pressure Regulator Valve Kit or 95740-03\* Pressure Regulator Sleeve**  
 95740-01K Requires F-95740-TL & VB-FIX



\*\*NOTE: ZF6HP19/26/32 (Gen. 1) applications with an 053 separator plate have significantly different valve lineups and locations. Reference [Vacuum Test Guide for 053 plate](#) for test locations and replacement parts.



For specific vacuum test information, refer to individual part instructions included in kits and available at [www.sonnax.com](http://www.sonnax.com).

**Upper Valve Body • Jaguar ZF6HP26, M-Shift Shown**

**Accumulator Pistons**

- Downshift clunk • Firm shifts
  - Erratic EDS solenoid control/EDS codes
- Replace with Sonnax Part No. 95740-15K\*** Patent No. 8,794,108

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

Each of these pistons can be vacuum tested from the exhaust hole on the opposite side of the casting.

Test accumulator pistons inverted and off center.

**Drive Enable Valve**

- Delayed Forward
- Harsh Forward

**Solenoid Multiplex Valve**

- Wrong gear starts
- Gear ratio codes

**Clutch D1 Latch Valve**

- D Clutch burned
- Slips on take off

**Clutch B Latch Valve**

- B Clutch burned
- No 3rd & 5th

**Lubrication Control Valve**

- Planetary/Bushing failure • Lube failures
- Overheating • Low converter pressure
- Bump/Flare shifts

**Replace with Sonnax Part No. 95740-11K** Requires F-95740-TL11 & VB-FIX

**End Plugs, Multiple Locations**

- Inconsistent shift quality

**Replace with Sonnax Part No. 95740-19K\***

Can be vacuum tested from the outside bore face. Use the large rubber cone found in many hand pump kits, or drill a hole through a rubber ball.

**Converter Release Regulator Valve**

- Excess TCC slip RPM & related codes
- Harsh TCC apply & release • Low TCC release pressure
- Rough idle in Reverse

**Replace with Sonnax Part No. 95740-05K**  
 Requires F-95740-TL5 & VB-FIX

**Clutch B Regulator Valve**

- B Clutch burned
- 3rd & 5th Slips
- Slips in Reverse

**Clutch C Regulator Valve**

- 2nd & 6th Slip
- Clutch failure
- Poor shift quality
- Ratio errors

**Replace with Sonnax Part No. 95740-40K** Requires F-95740-TL40 & VB-FIX

**Clutch D2 Regulator Valve**

- 1-2 Bind-up
  - Downshift clunk
  - D Clutch burned
- NOTE:** This valve train was eliminated on 2010-Up 6R80.

**Clutch D2 Latch Valve\*\*\***

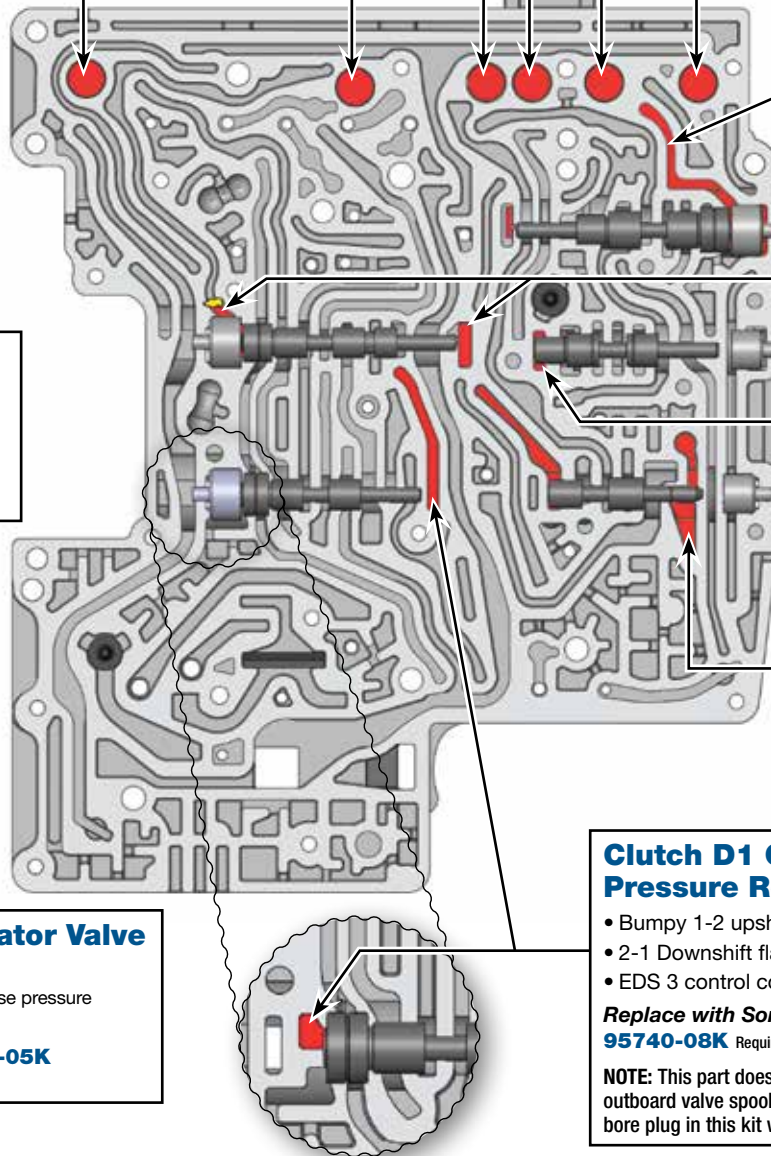
- Downshift clunk
- 1-2 Bind-up

**Clutch D1 Control Pressure Regulator Valve\*\*\***

- Bumpy 1-2 upshift
- 2-1 Downshift flare or neutral
- EDS 3 control code

**Replace with Sonnax Part No. 95740-08K** Requires F-95740-TL8 & VB-FIX

**NOTE:** This part does NOT fit 2nd design 6R80. The outboard valve spool is smaller. The small O-ring bore plug in this kit will fit in this location.



\*Part numbers with an asterisk (\*) are included in this Zip Kit. Other part numbers are available separately.

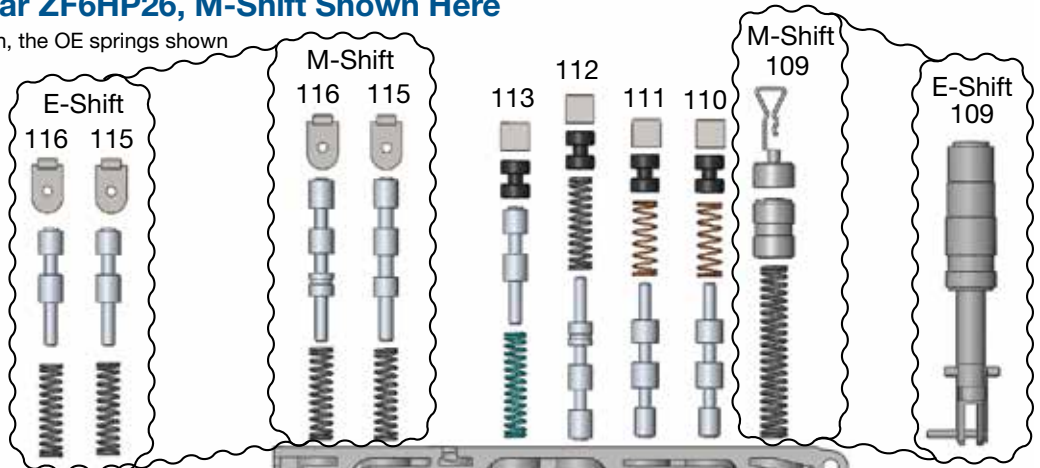
\*\*\*6R80 applications, 2010-later, have a different design clutch D1 pressure regulator valve. Sonnax part 95740-08K will not work in that application. A quick identification of this valve body is lack of clutch D2 regulator valve.



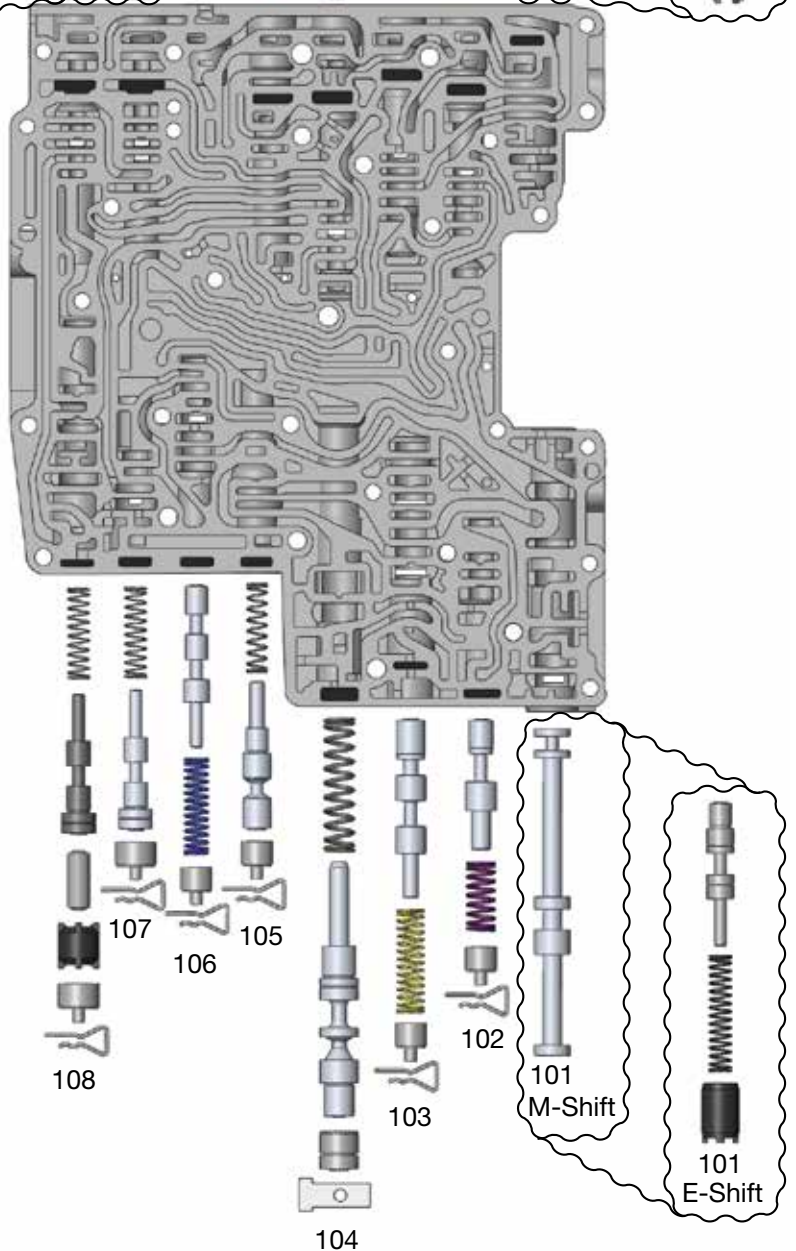
# OE Exploded View

## Lower Valve Body • Jaguar ZF6HP26, M-Shift Shown Here

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



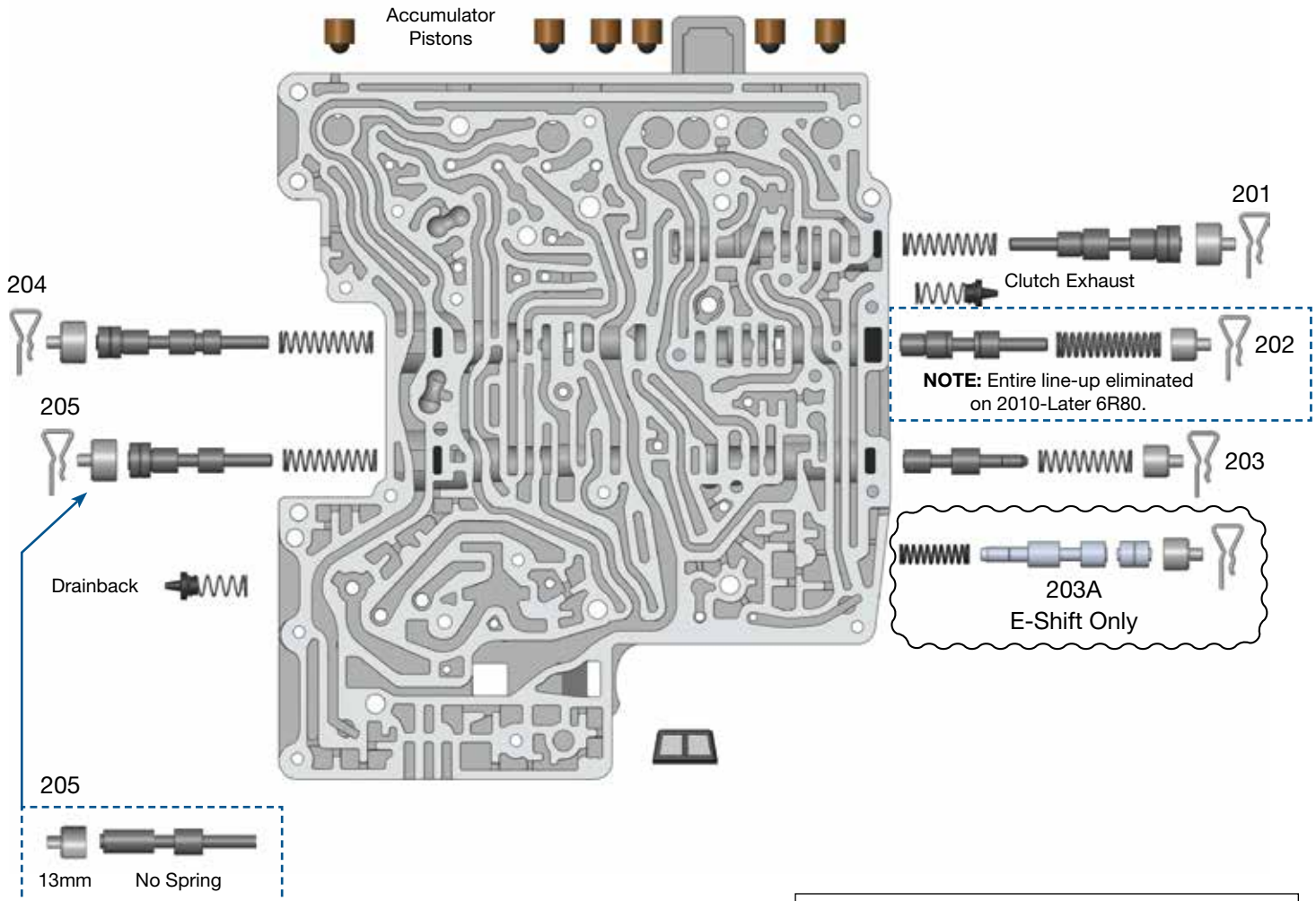
Lower Valve Body Descriptions	
I.D No.	Description
101	Manual Valve (M-Shift)
	Parking Lock Valve (E-Shift)
102	Lubrication Control Valve
103	Converter Release Regulator Valve
104	Main Pressure Regulator Valve
105	Bypass Clutch Control Regulator Valve
106	Clutch E Latch Valve
107**	Clutch E Control Pressure Regulator Valve
108	Clutch A Control Pressure Regulator Valve
	Delay Accumulator Piston (M-Shift)**
109	Park Lock Cylinder (E-Shift)
110	Solenoid Multiplex Valve
111	Drive Enable Valve
112	Clutch D1 Latch Valve
113	Solenoid Pressure Regulator Valve
115	Clutch B Latch Valve (M-Shift)
	Clutch B Latch Valve (E-Shift)
116	Clutch A Latch Valve (M-Shift)
	Clutch A Latch Valve (E-Shift)



**NOTE:** ZF6HP19/26/32 (Gen. 1) applications with an 053 separator plate have significantly different valve line-ups and locations. Reference [Vacuum Test Guide for 053 plate](#) for test locations and replacement parts.

**\*\*NOTE:** Late model 6R80 does NOT have this line-up.

**Upper Valve Body • Jaguar ZF6HP26, M-Shift Shown Here**



**NOTE:** The D1 Control Valve is dimensionally different on 2010-Later 6R80. The bore plug also reduced in size.

**Upper Valve Body Descriptions**

I.D. No.	Description
201	Clutch B Regulator Valve
202	Clutch D2 Regulator Valve**
203	Clutch D2 Latch Valve
203A	Position D Valve
204	Clutch C Regulator Valve
205	Clutch D1 Control Pressure Regulator Valve

**\*\*NOTE:** Entire line-up eliminated on 2010-Later 6R80.

**Technical Tips (continued from page 3)**

ZF Solenoid O-Ring Sizes			Figure 14
Connector Color	Snout Color	Inboard O-Ring Size	Outboard O-Ring Size
Yellow / Green**	Black	10.5 x 2mm	13.5 x 2mm
Blue / Black / Gray**	Yellow	10.5 x 2mm	13 x 2mm
Orange	Orange	10.5 x 2mm	14.5 x 2mm
Black (Typical MV1 solenoid in Gen 1 & MV2 solenoid on E-Shifts)	Short Black	14.5 x 1.5mm	14.5 x 1.5mm



**NOTE:** Solenoid connector colors can fade with high mileage and high temperature. Example: blue can look like green and yellow can look like tan.

ZF Solenoid Function					Figure 15
Connector Color	Location	Output	Resistance at 68°F (20°C)	Function	
<b>Generation 1: ZF6HP19, ZF6HP26, ZF6HP32</b>					
Yellow / Green**	EDS 1, 3, 6	0 psi (0 bar) at 0 mA	5.05 ohms	1 – A Clutch; 3 – C Brake; 6 – TCC	
Blue / Black / Gray**	EDS 2, 4, 5	67 psi (4.6 bar) at 0 mA	5.05 ohms	2 – B Clutch; 4 – D & E Clutch; 5 – EPC	
Black	MV1	Open/Closed	11.5 ohms	Selector Valve	
Black	MV2	Open/Closed	11.5 ohms	Park Lock Valve	
Green	MV3	Open/Closed	24-26 ohms	Park Lock Cylinder	
<b>Generation 2: ZF6HP21, ZF6HP28, ZF6HP34</b>					
Orange	EDS 1, 2	0 psi @ 0mA	5.05 ohms	1 – A Clutch; 2 – TCC	
Yellow	EDS 4, 5, 6	0 psi @ 0 mA	5.05 ohms	4 – E Clutch; 5 – C Clutch; 6 – D1 & D2 Brake	
Blue	EDS 3, 7	67 psi @ 0mA	5.05 ohms	3 – B Clutch; 7 – EPC	
Black	MV2	Open/Closed	11.5 ohms	Park Lock Valve	
Green	MV3	Open/Closed	24-26 ohms	Park Lock Cylinder	

\*\* = Found on some Audi applications

Ford Solenoid O-Ring Sizes				Figure 16
Connector Color	Snout Color	Inboard O-Ring Size	Outboard O-Ring Size	
<b>Ford 2007–2009: 6R60/6R75/6R80</b>				
Brown	Long Black	10.5 x 2mm	13.5 x 2mm	
Black	Long Black	10.5 x 2mm	13 x 2mm	
Cream	White	OR-014	OR-016	
<b>Ford 2010–Later: 6R60/6R75/6R80</b>				
Tan	Brown	10.5 x 2mm	13.5 x 2mm	
Tan	Black	10.5 x 2mm	13 x 2mm	
Tan (2010–2011)	White	OR-014	OR-016	
Tan (2012–Later)	Gray	OR-014	OR-016	



**TECH TIP:** Solenoids in these units (especially the more active solenoids) commonly malfunction, leading to hydraulic control trouble, requiring solenoid replacement in many cases.

Ford Solenoid Function					Figure 17
Connector or Snout Color	Location	Output	Resistance at 68°F (20°C)	Function	
<b>Ford 2007–2009: 6R60/6R75/6R80</b>					
Brown	SSA, SSC, TCC, VFS1, VFS3, VFS6	0 psi (0 bar) at 0 mA	5.05 ohms	1 – A Clutch; 3 – C Brake; 6 – TCC	
Black	SSB, SSD, PCA, VFS2, VFS4, VFS5	67 psi (4.6 bar) at 0 mA	5.05 ohms	2 – B Clutch; 4 – D & E Clutch; 5 – EPC	
Cream	SSE/SS1	Open/Closed	11.5 ohms	Solenoid Multiplex/Drive Enable Valve	
<b>Ford 2010 – Later: 6R60/6R75/6R80</b>					
Brown	SSA, SSC, TCC, VFS1, CFS3, VFS6	0 psi @ 0 mA	5.05 ohms	1 – A Clutch; 3 – C Brake; 6 – TCC	
Black	SSB, SSD, PCA, VFS2, VFS4, VFS5	67 psi (4.6 bar) at 0 mA	5.05 ohms	2 – B Clutch; 4 – D & E Clutch; 5 – EPC	
Cream (2010–2011)	SSE/SS1	Open/Closed	11.5 ohms	Solenoid Multiplex/Drive Enable Valve	
Gray (2012–Later)	SSE/SS1	Open/Closed	18 ohms	Solenoid Multiplex/Drive Enable Valve	

**NOTE:** 2010-Later 6R80 solenoids are banded. It is important to install the same band number back into the OE location on the valve body.