

Oversized Safety Valve



Part No.
33741B-01

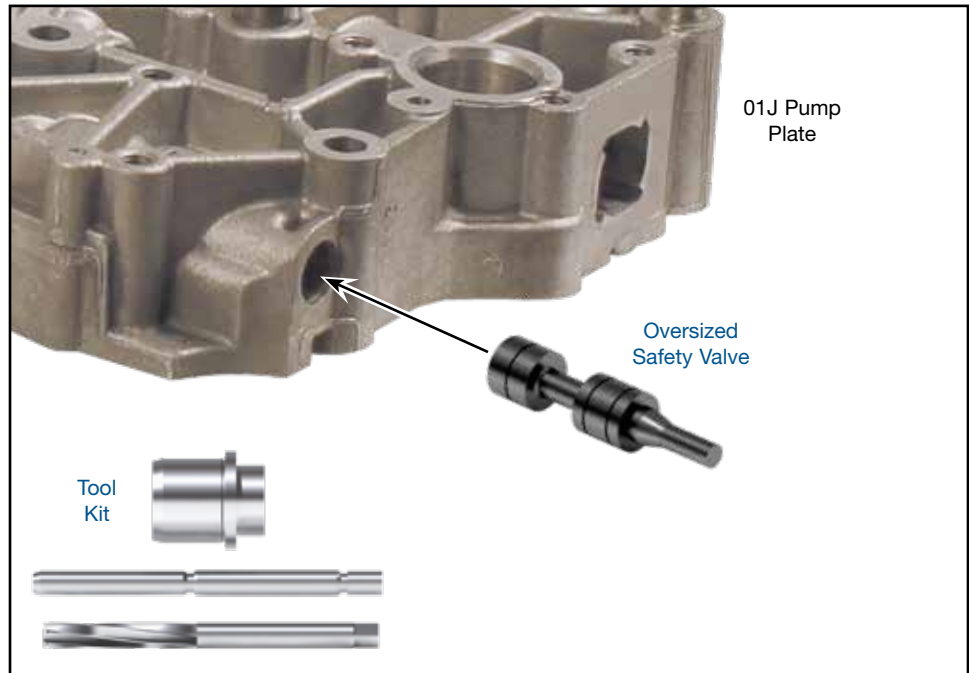
Tool Kit



Part No.
F-33741B-TL1

- Reamer
- Reamer Jig
- Guide Pin

NOTE: Sonnax “F-Tool” kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions can be found online at www.sonnax.com.



VW/Audi 01J, 01T

- 1. Disassembly**
 - Remove OE retainer and spring. Save for reuse.
 - Remove and discard OE valve.

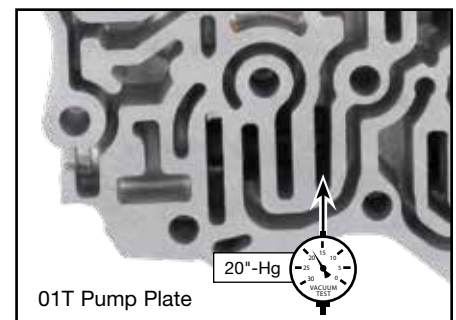
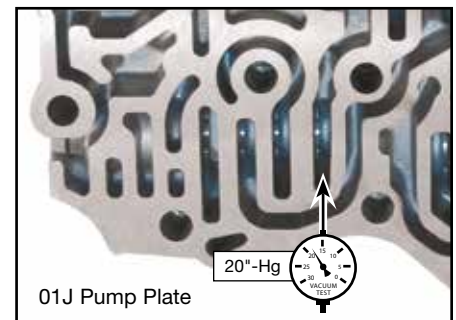
- 2. Bore Reaming**

Ream safety valve bore (for reaming instructions/reamer care, please visit www.sonnax.com). Sonnax reaming tool kit **F-33741B-TL1** and **VB-FIX** are required for this operation.

- 3. Installation & Assembly**
 - Ensure valve bore and valve body is cleaned and clear of all debris.
 - Install Sonnax valve.
 - Reinstall OE spring and secure with OE retainer.

- 4. Final Testing**

Vacuum testing at the port(s) indicated holds the recommended minimum 20 in-Hg.



Aisin AW TF-60SN, TF-80SC, TF-81SC; Mini 6F21WA; VW/Audi 09G, 09K, 09M

Oversized Two-Spool Relay/Signal Valve Kit



Part No.

15741-49K

- Valve
- End Plug

NOTE: This kit can be used in any of nine locations in five different valve body applications. See chart **Figure 1** and identification photos **Figures 2, 3 & 4** for details.

Tool Kit



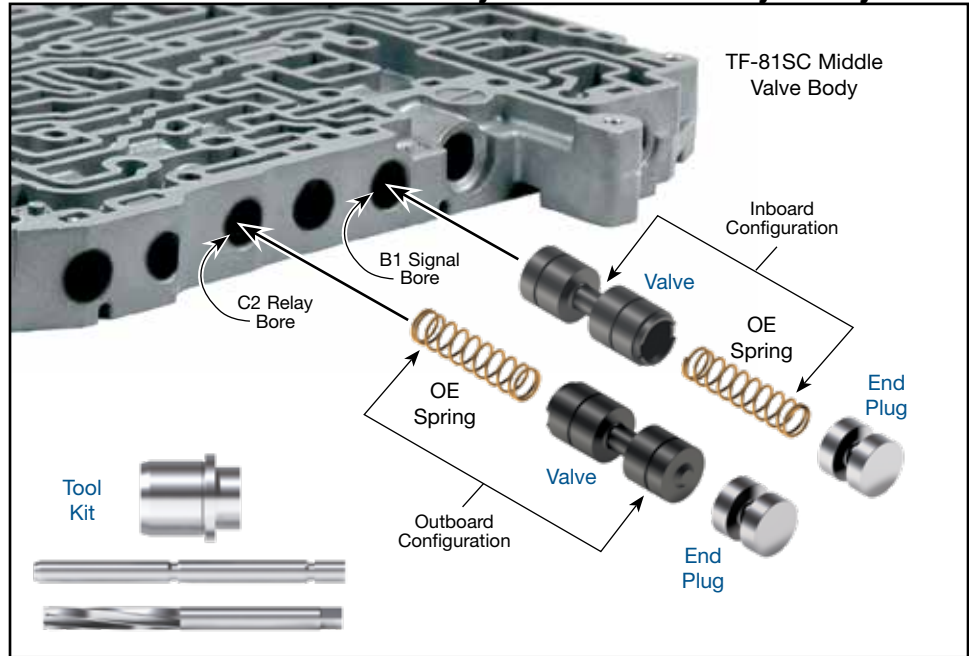
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- Reamer
- Reamer Jig
- Guide Pin

NOTE: Sonnax “F-Tool” kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions can be found online at www.sonnax.com.

This tool kit also can be used with Sonnax kits **15741-50K** and **33741B-01**.



Two-Spool Relay/Signal Valve Chart

Figure 1

Application	Valve Body Section	Valve Name	Spring Install Orientation	Affected Gears
TF-60SN (VW 09G) 6F21WA	Middle Valve Body	K1 Relay*	Inboard	1st, 2nd, 3rd & 4th
		K2 Relay	Inboard	4th, 5th & 6th
	Upper Valve Body #1	B1 Relay	Inboard	2nd & 6th
TF-80SC	Main Accumulator Casting	C1 Relay	Inboard	1st, 2nd, 3rd & 4th
		B1 Signal**	Outboard	2nd & 6th
		C2 Relay	Outboard	4th, 5th & 6th
TF-81SC	Rear Cover	C1 Relay	Inboard	1st, 2nd, 3rd & 4th
	Middle Valve Body	C2 Relay	Inboard	4th, 5th & 6th
		B1 Signal	Outboard	2nd & 6th

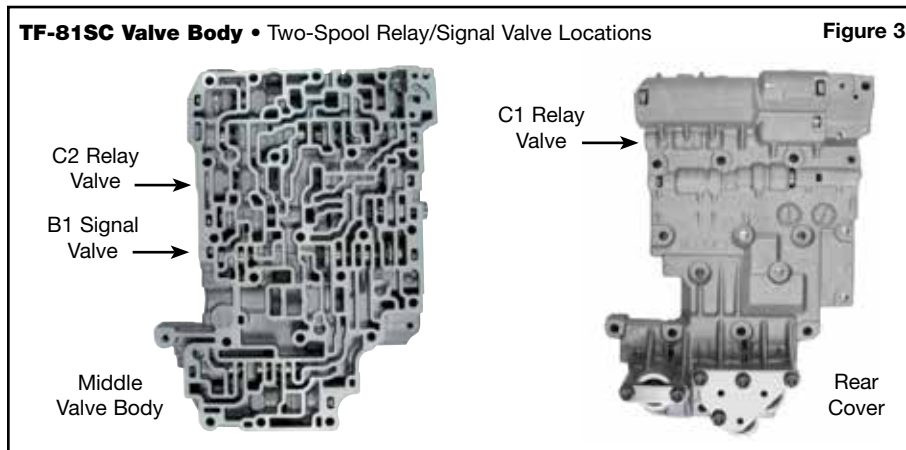
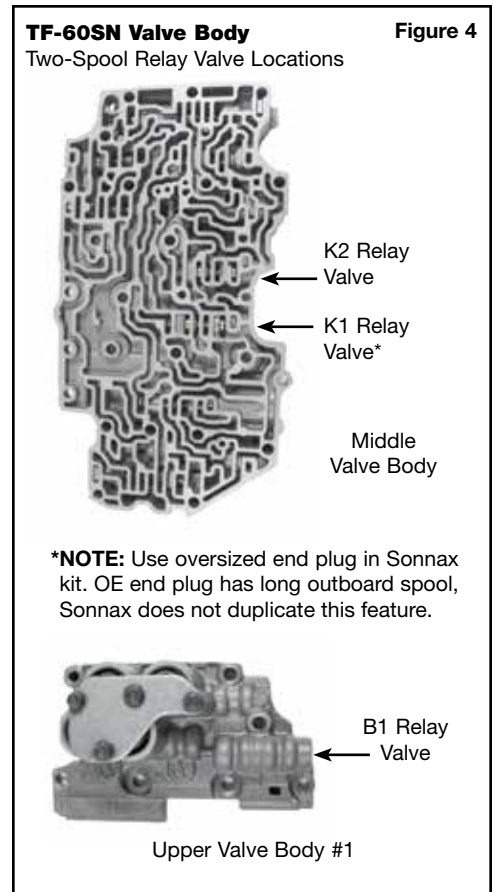
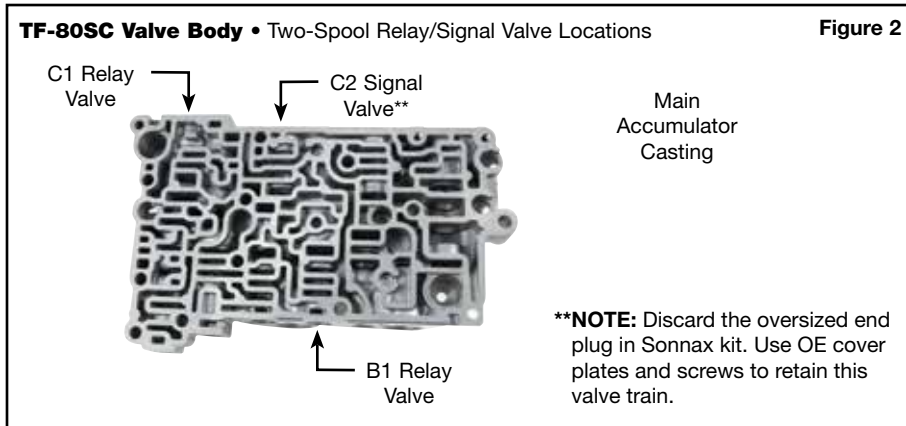
* TF-60SN, K1 Relay Location: Use oversized end plug in Sonnax kit. OE end plug has long outboard spool, Sonnax does not duplicate this feature.

** TF-80SC, B1 Signal Location: Discard the oversized end plug in Sonnax kit. Use OE cover plates and screws to retain the valve train.

1. Valve Bore ID

Locate and positively identify the valve body bore that needs repair.

NOTE: See chart **Figure 1** and photo identifications **Figures 2, 3 & 4** for important information on applications, bore locations, installation orientations and affected gears.



2. Disassembly

- Remove OE valve train, saving OE spring and end plug retainer (if present) for reuse.
- Discard OE valve and end plug.

3. Bore Reaming

Ream desired bore (for reaming instructions/reamer care, please visit www.sonnax.com). Sonnax reaming tool kit **F-33741B-TL1** and **VB-FIX** are required for this operation.

4. Installation & Assembly

- Ensure all debris has been removed from the valve bore and body.
 - Consult chart (**Figure 1**) to determine installed orientation of Sonnax valve.
 - If spring orientation is listed as “Inboard,” install OE spring into the bore first, followed by Sonnax valve with spring pocket end of the valve leading into bore.
 - If spring orientation is listed as “Outboard,” install Sonnax valve first with spring pocket outboard, then install OE spring.
- Ensure spring sits into valve spring pocket and doesn't catch on edge of valve adjacent to spring pocket.

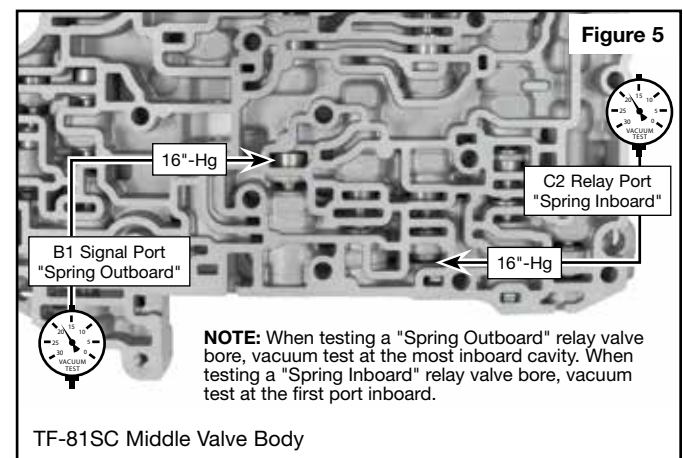
- Install Sonnax end plug.

NOTE: See **Figures 1 & 2** on how to secure B1 signal location.

- Reinstall OE end plug retainer to secure Sonnax end plug.

5. Final Testing

Vacuum testing at the port(s) indicated holds the recommended minimum 16 in.-Hg.



Aisin AW TF-60SN, TF-80SC, TF-81SC; Mini 6F21WA; VW/Audi 09G, 09K, 09M

Oversized Three-Spool Relay/Control/Switch Valve Kit



Part No.

15741-50K

- Valve
- End Plug

NOTE: This kit can be used in any of six locations in five different valve body applications. See chart **Figure 1** and identification photos **Figures 2, 3 & 4** for details.

Tool Kit



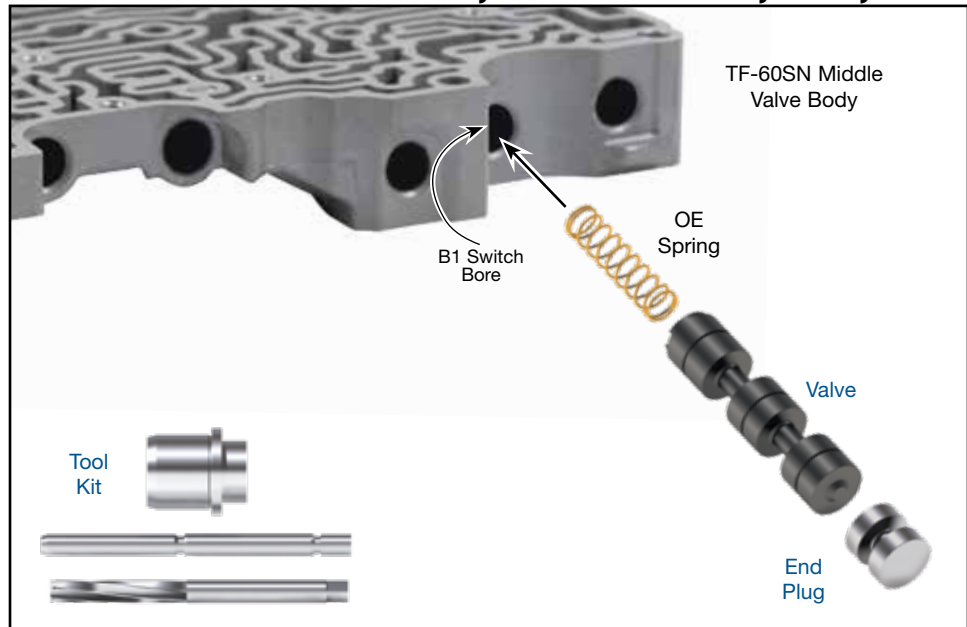
Part No.

F-33741B-TL1

- Reamer
- Reamer Jig
- Guide Pin

NOTE: Sonnax “F-Tool” kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions can be found online at www.sonnax.com.

This tool kit also can be used with Sonnax kits **15741-49K** and **33741B-01**.



Application	Valve Body Section	Valve Name	Affected Gears
TF-60SN (VW 09G) 6F21WA	Middle Valve Body	B1 Switch	2nd & 6th
	Upper Valve Body #1	K3 Control	3rd, 5th & Reverse
TF-80SC	Middle Casting	B1/C3 Relay	2-3, 3-2, 5-6 & 6-5
		B1/C3 Switch	2-3, 3-2, 5-6 & 6-5
TF-81SC	Middle Valve Body	B1/C3 Relay	2-3, 3-2, 5-6 & 6-5
		B1/C3 Switch	2-3, 3-2, 5-6 & 6-5

1. Valve Bore ID & Disassembly

Locate and positively identify the valve body bore that needs repair.



NOTE: See chart (**Figure 1**) and photo identifications (**Figures 2, 3 & 4**) for important information on applications, bore locations, installation orientations and affected gears.

2. Disassembly

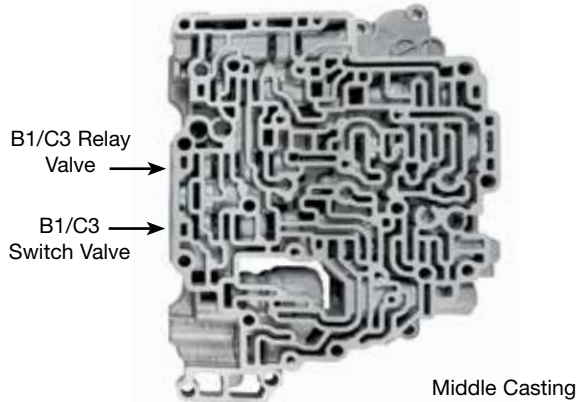
- Remove OE valve train.
- Save OE spring and end plug retainer for reuse, and discard OE valve and end plug.

2. Bore Preparation

- Ream intended bore (for reaming instructions/reamer care, please visit www.sonnax.com).
Sonnax reaming tool kit **F-33741B-TL1** and **VB-FIX** are required for this operation.

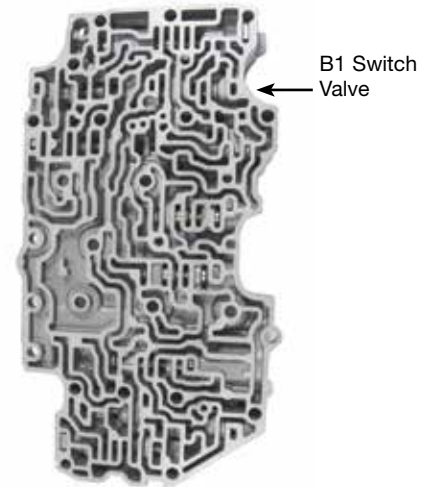
TF-80SC Valve Body • Three-Spool Relay/Control/Switch Valve Locations

Figure 2



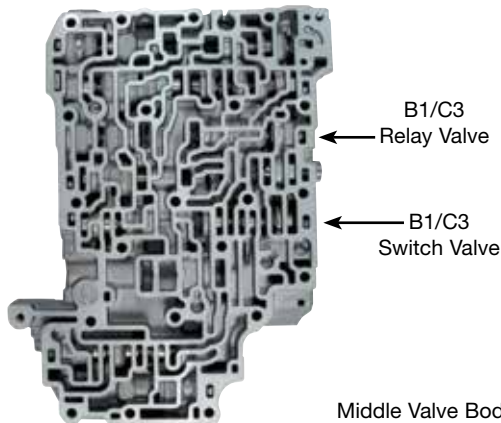
**TF-60SN Valve Body
Three-Spool Relay/Control/Switch
Valve Locations**

Figure 4



TF-81SC Valve Body • Three-Spool Relay/Control/Switch Valve Locations

Figure 3

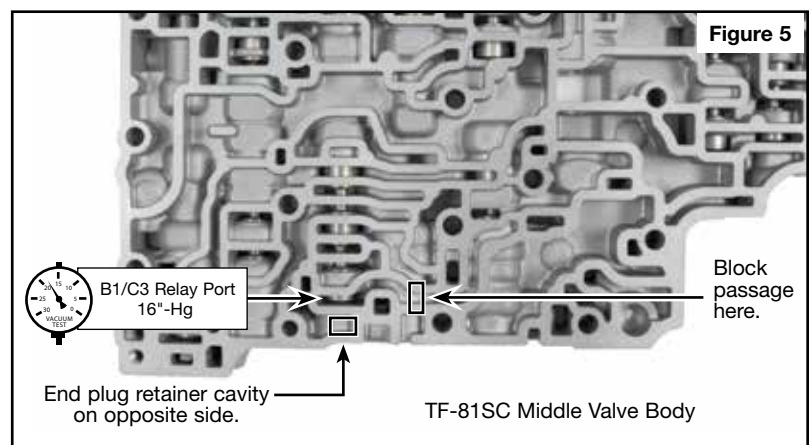


4. Installation & Assembly

- Reinstall OE spring into the reamed bore.
- Install Sonnax valve with the spring pocket end going into the bore first as shown (**main photo**).
- Be certain that the spring sits into the valve spring pocket and does not catch the edge of the valve adjacent to the spring pocket.
- Install Sonnax end plug.
- Reinstall OE end plug retainer to secure Sonnax end plug.

5. Final Testing

Vacuum testing at the port(s) indicated holds the recommended minimum 16 in-Hg (**Figure 5**).



NOTE: The vacuum test above for the B1/C3 Relay Port in TF-81SC application is an example of a typical port location. All the other valves should be checked similarly at the port associated with the plug-to-valve spool interface.