

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 three 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

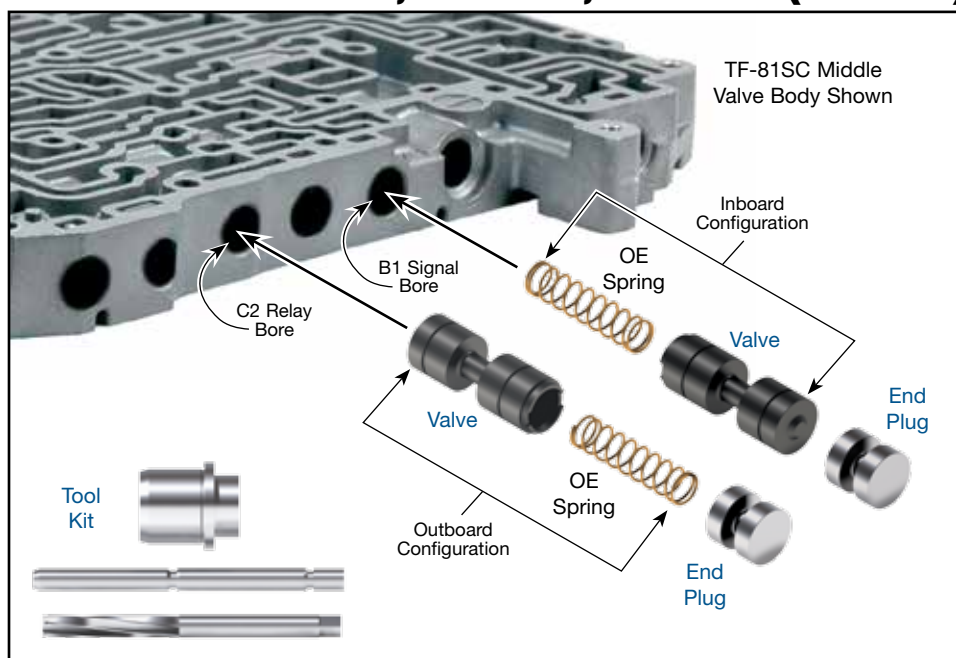
NOTE: Sonnax “F-Tool” kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions can be found online at www.sonnax.com.

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

Also Available

Oversized Three-Spool Relay/Control/Switch Valve Kit
15741-50K

Aisin AW TF-80SC, TF-81SC, TF-60SN (VW 09G)



1. Valve Bore I.D. & 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.

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

Two-Spool Relay/Signal Valve Chart				Figure 1
Application	Valve Body Section	Valve Name	Spring Install Orientation	Affected Gears
TF-60SN (VW 09G)	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.

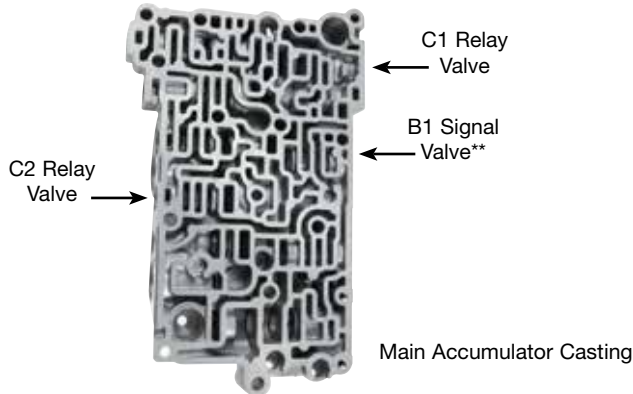
TRANSMISSION PARTS

OVERSIZED TWO-SPOOL RELAY/SIGNAL VALVE KIT 15741-49K, F-33741B-TL1

Instructions

TF-80SC Valve Body • Two-Spool Relay/Signal Valve Locations

Figure 2

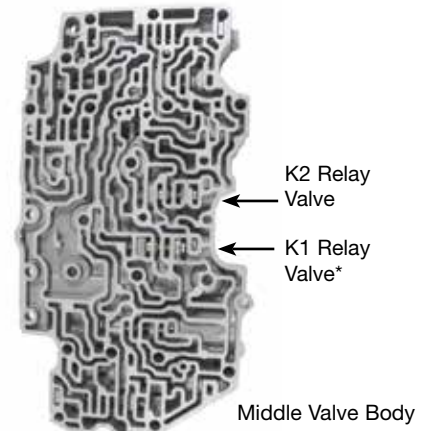


**** NOTE:** Discard the oversized end plug in Sonnax kit.
Use OE cover plates and screws to retain this valve train.

TF-60SN Valve Body

Figure 4

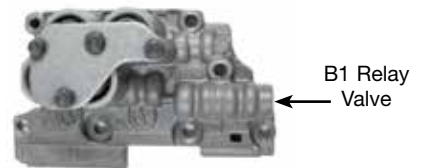
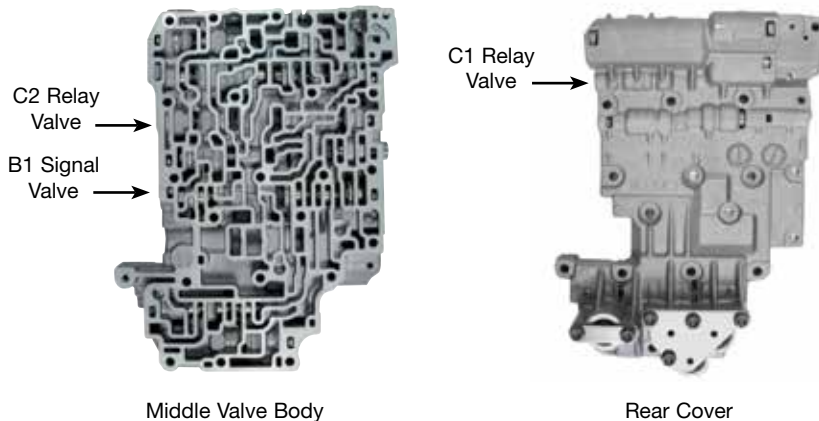
Two-Spool Relay Valve Locations



*** NOTE:** Use oversized end plug in Sonnax kit. OE end plug has long outboard spool, Sonnax does not duplicate this feature.

TF-81SC Valve Body • Two-Spool Relay/Signal Valve Locations

Figure 3



Upper Valve Body #1

2. Bore Preparation

- Clean the bore thoroughly in a solvent tank.
- Generously lubricate the bore and reamer with cutting fluid (i.e. Mobilmet S-122, Lubegard® Bio-Tap, Tap Magic™, etc.). For best results, provide a continuous flow of water-soluble cutting fluid (i.e. Mobilmet S-122) during the reaming process.
- The reamers should be turned using a low RPM, high-torque air drill regulated to a maximum of 200 RPM.
- Examine the bore after cleaning for surface finish, debris and burrs. Flashing and burrs on the exit side of land and in bores must be carefully removed. A small piece of Scotch-Brite™ material attached to a wire and powered with a drill motor is ideal for the task. Scotch-Brite™ is a very abrasive material and all residual debris must be cleaned to ensure particles do not migrate or remain imbedded into the surface. Post cleaning involves several progressive steps with solvent on a lint-free rag.

CAUTIONS AND SUGGESTIONS:

- Turning the reamer backward will dull it prematurely.
- Pushing on the reamer will result in poor surface finish and inadequate and sporadic material removal.
- Never use a crescent wrench, ratchet or pliers to turn the reamer.
- A dull reamer will cut a smaller hole. Reamers can be sharpened, but should only be done by a professional tool sharpener. Actual life of a Sonnax reamer before resharpening or replacing averages 50-70 bores.

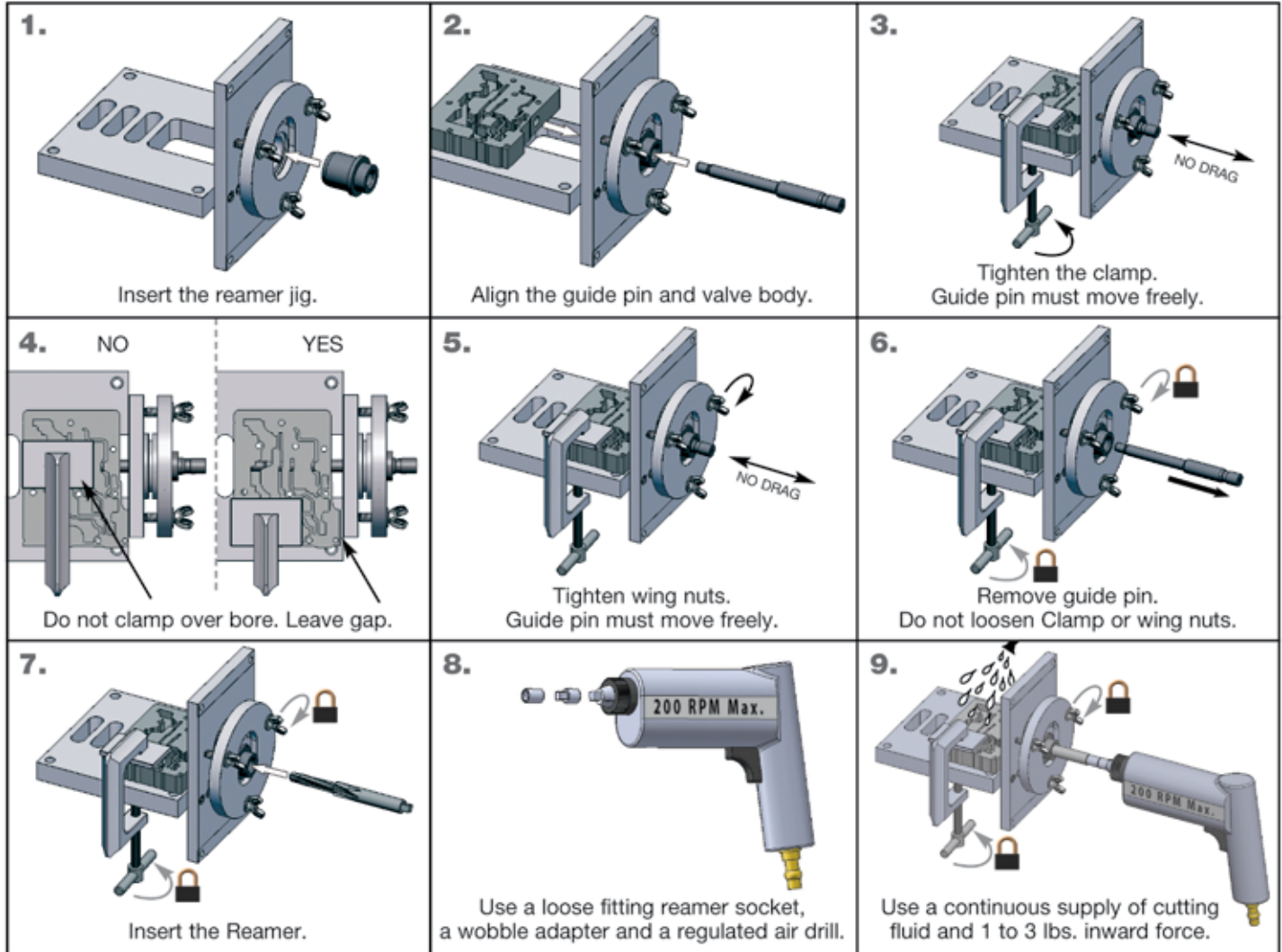
TRANSMISSION PARTS

OVERSIZED TWO-SPOOL RELAY/SIGNAL VALVE KIT 15741-49K, F-33741B-TL1

Instructions

3. Bore Reaming

Use the associated "F-Tool" F-33741B-TL1 kit and VB-FIX reaming fixture as illustrated below to ream the bore.



4. Installation & Assembly

- Consult chart **Figure 1** to determine the installed orientation of the Sonnax valve.
 - If the spring orientation is listed as "Inboard," install the OE spring into the bore first, followed by the Sonnax valve with the spring pocket end of the valve leading into the bore.
 - If the spring orientation is listed as "Outboard," install the Sonnax valve first with the spring pocket outboard, then install the OE spring
- Be certain that the spring sits into the valve spring pocket and doesn't catch on the edge of the valve adjacent the spring pocket.
- Install the Sonnax end plug.

NOTE: See **Figure 1 & 2** on how to secure B1 Signal location.
- Reinstall the OE end plug retainer to secure Sonnax end plug.

5. Final Testing

A vacuum test at the ports indicated hold 16 in.-Hg or more.

