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TRANSMISSION PARTS

Instructions

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

C1/K1 Clutch Control Valve Kit

TOOL REQUIRED

Part No.
15741-25K

- Valve
- Sleeve
- Springs (2) — Selective Yellow or Red See Chart Figure 2, page 2

NOTE: Fits C1 clutch control bore for TF-80SC & TF-81SC. Fits K1 clutch control bore for TF-60SN, 09G, 09K, 09M and Mini 6F21WA. Also fits Volvo (AM6), Opel (AF40), Saab (AF40/6), Ford (AF21) and Mazda (AW6A-EL).

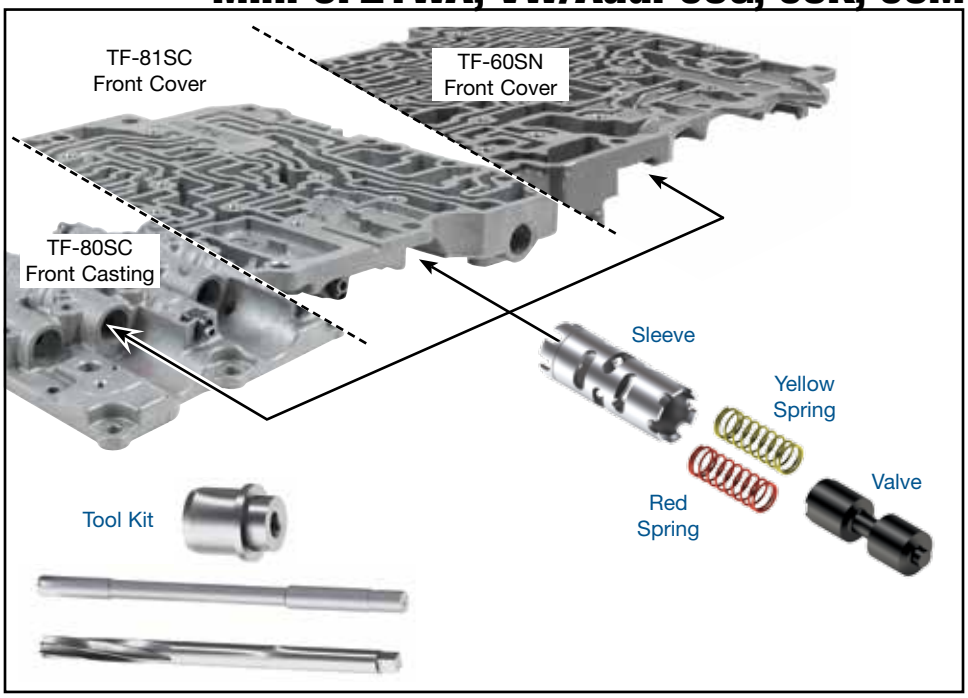
Tool Kit

VALVE BODY FIXTURE REQUIRED

Part No.
F-15741-TL25

- Reamer Jig
- Guide Pin
- Reamer

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.



1. Disassembly

a. Take and record a reference dimension from the end of the spring adjuster to the casting as shown in (**Figure 1**). This measurement will be required when assembling the new valve assembly.

b. Remove the OE retaining pin, solenoid, valve, spring, adjuster clip and the adjuster.

c. Discard OE valve and spring.

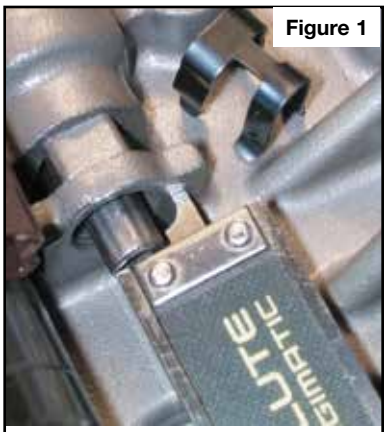


Figure 1

Location shown may not match your particular application; picture is to illustrate measuring procedure only.

2. Bore Reaming

Ream C1/K1 clutch control valve bore (for reaming instructions/reamer care, please visit www.sonnax.com). Sonnax reaming tool kit **F-15741-TL25** and **VB-FIX** are required for this operation.

3. Installation & Assembly

a. After reaming, remove OE retaining clip and adjustment plug from the bore for a thorough cleaning.

b. Reinstall OE spring adjuster and adjust to the reference dimension noted in disassembly procedure, then reinstall OE retaining clip.

NOTE: Component apply pressure leakage past the adjuster threads can be reduced by using an ATF compatible thread sealant, such as Permatex® 24163 surface prep and 24206 Threadlocker, on the spring adjuster. Compound must not create a permanent set.

3. Installation & Assembly (continued)

c. Select correct spring for the application (**Figure 2**). Install Sonnax spring, ensuring spring I.D. goes over spring adjuster nub and spring is secured in spring pocket during installation.

d. Install Sonnax valve/sleeve assembly with the O.D. groove end of the sleeve entering the valve body bore first. A deep well socket can be used for pressing the sleeve into place.

e. Reinstall OE solenoid and retaining pin.

4. Fit Verification

Ensure the sleeve ports align correctly with the valve body ports (**Figures 3** and **4**). If significant misalignment is noted (= .015"), shimming or sanding of components may be necessary.

NOTE: Individual bore components vary dependent upon application; tuning of sleeve slot to casting port location is what is critical.

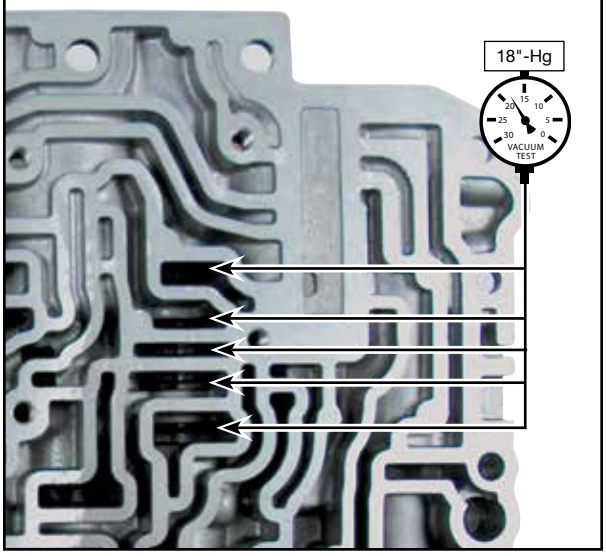
5. Final Testing

Vacuum testing at the port(s) indicated holds the recommended minimum 18 in-Hg (**Figure 5**).

Figure 2

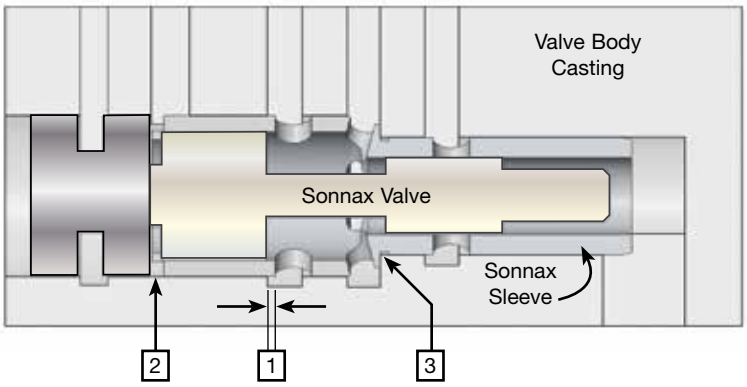
Spring Color	Unit
Red	TF-60SN, 6F21WA, 09G, 09K, 09M
Yellow	TF-80SC, TF-81SC (also fits: Volvo AM6, Opel AF40, Saab AF40/6, Ford AF21, Mazda AW6A-EL)

TF-81SC Front Cover **Figure 5**



Part Misalignment - Sleeve too far Inboard

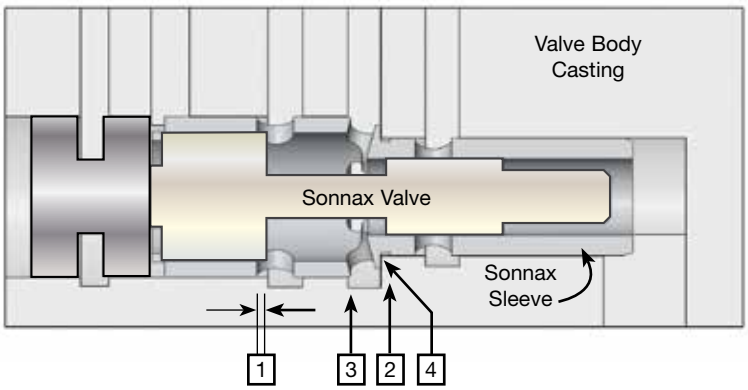
Figure 3



1. Note how the ports are positioned. A portion is under the casting, shifted right. This is incorrect; shift sleeve **left** by this distance.
2. Material will need to be removed from either this end of the sleeve or from the inboard of end plug.
3. Once material has been removed and sleeve is shifted left, the holes in sleeve should align with casting. The sleeve must be shimmed or Loctited at this location. Shim can be made from coil wire cut from spring.

Part Misalignment - Sleeve too far Outboard

Figure 4



1. This condition can occur due to reamer not traveling deep enough into the bore.
2. Casting variance and "valley-flashing" also can short-stop reamer travel.
3. To correct this and move sleeve to the right, remove material from the casting face and valley. A Dremel® 194 cutter works well.
4. In some situations, remove material from edge stop on sleeve.