

## C3 Clutch Control Valve Kit



Part No.

**39741-08K**

- Valve
- Sleeve
- Spring

**NOTE:** Also fits Volvo (AM6), Opel (AF40), Peugeot (TF-80), Saab (AF40/6), Land Rover (TF-80), Ford (AF21) and Mazda (AW6A-EL).

## Tool Kit



Part No.

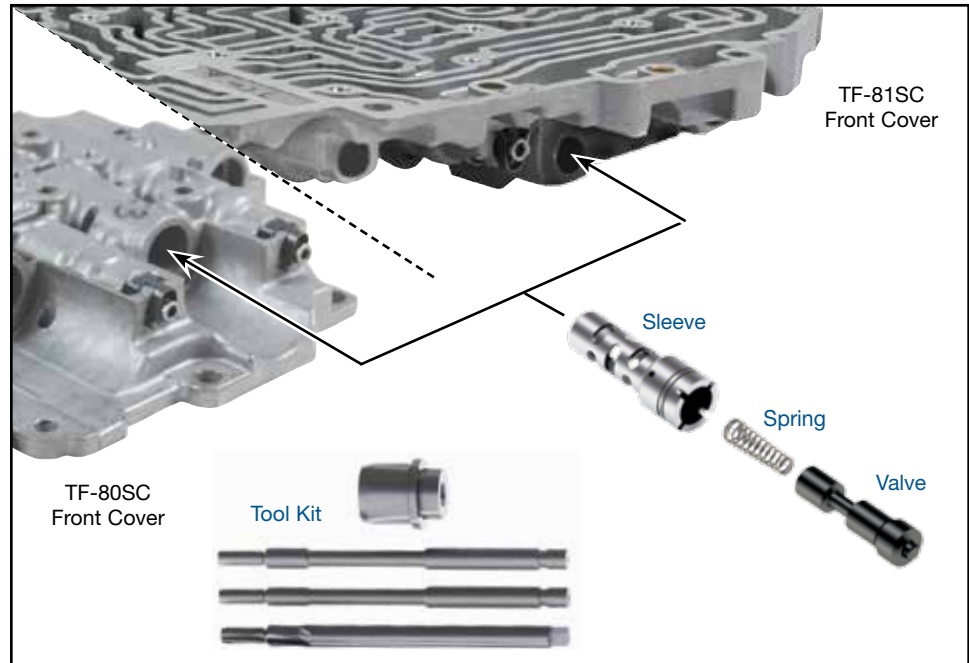
**F-39741-TL5**

- Reamer
- Reamer Jig
- C2 & C3 Guide Pin

**NOTE:** This tool kit also can be used to install C2 clutch control valve kit **39741-05K**.

**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](http://www.sonnax.com).

## Aisin AW TF-80SC, TF-81SC



**NOTE:** Prior to removal of any control valve adjustment plug, measure and record the distance from plug to casting. This measurement must be duplicated upon assembly (**Figure 1**).

### 1. Disassembly

- Remove and save OE retaining clip.
- Measure and record adjustment plug to casting distance, then remove and save OE adjuster.
- Remove the OE retaining pin, solenoid, valve and spring, discarding valve and spring.
- Reinstall adjustment plug into empty bore, such that the inboard nub is just visible at the casting port (**Figure 2**). The approximate measurement from casting face to the end of plug is .270". Hold in place with OE clip. The end plug will serve as the stop for the guide pin and reamer.

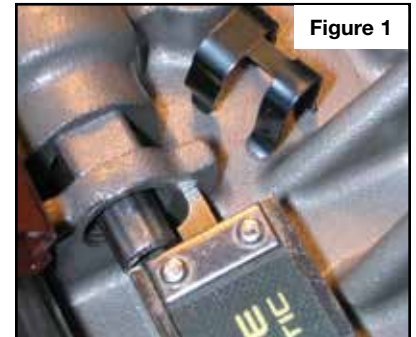


Figure 1

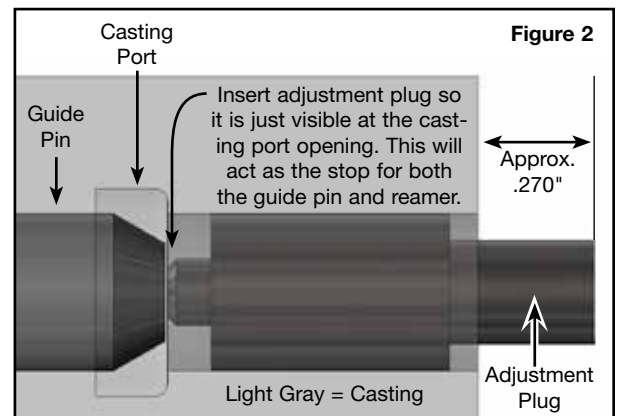


Figure 2

## 2. Bore Reaming

Ream C3 clutch control valve bore (for reaming instructions/reamer care, please visit [www.sonnax.com](http://www.sonnax.com)). Sonnax reaming tool kit **F-39741-TL5** and **VB-FIX** are required for this operation.

## 3. Installation & Assembly

- Be certain all debris has been removed from the valve bore and valve body.
- Reinstall OE spring adjuster and adjust to the reference dimension noted in disassembly procedure, then reinstall the 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.

- Install the Sonnax spring, large end inboard, ensuring spring I.D. goes over spring adjuster nub.
- Install the Sonnax valve/sleeve assembly. A deep well socket can be used for pressing the sleeve into place.
- Install OE solenoid and retaining pin.

## 4. Fit Verification

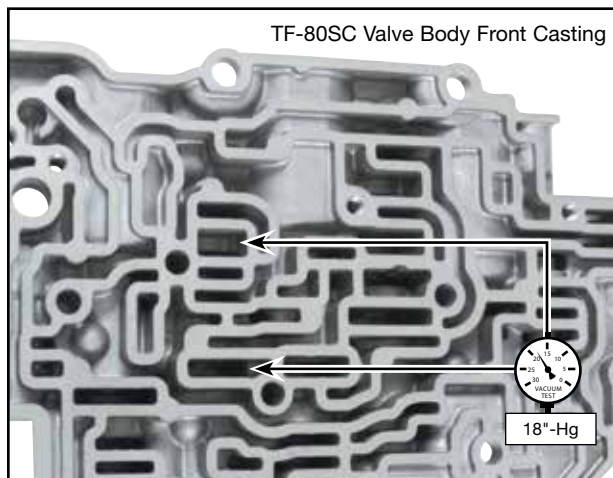
Ensure sleeve ports align correctly with the valve body ports (**Figures 3 and 4**). If significant misalignment is noted ( $= .015"$ ), shimming or sanding of components may be necessary.



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

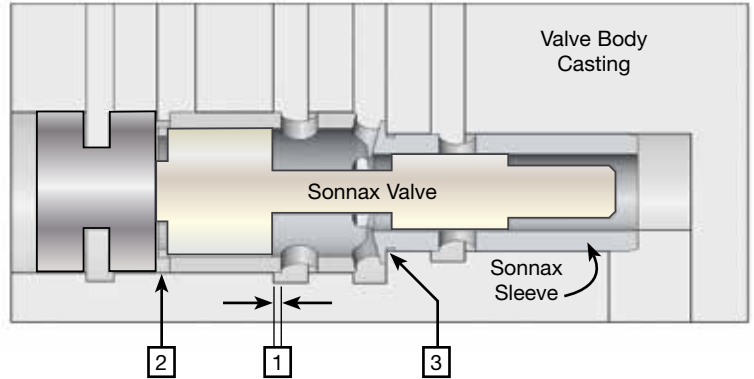
## 5. Final Testing

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



### Part Misalignment - Sleeve too far Inboard

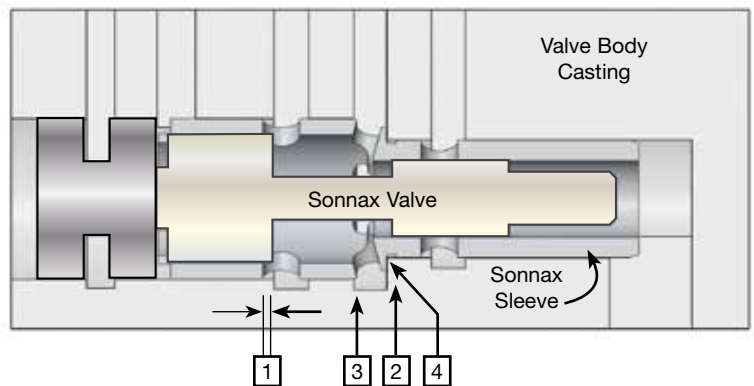
Figure 3



- Note how the ports are positioned. A portion is under the casting, shifted right. This is incorrect; shift sleeve **left** by this distance.
- Material will need to be removed from either this end of the sleeve or from the inboard of end plug.
- 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



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