TRANSMISSION PARTS

Instructions

# Aisin AW TF60-SN, TF-80SC, TF-81SC; VW/Audi 09G, 09K, 09M

# **Lockup Clutch Control Valve Kit**

## Part No. 15741-29K

- Lockup Clutch Control Valve
- Lockup Clutch Control Sleeve
- Valve Cap
- Spring
- Spacer
- Shims (3)
- Plunger Valve
- Plunger Sleeve

**NOTE:** Also fits Volvo (AM6); Opel (AF40); Saab (AF40/6); Ford (AF21): Mazda (AW6A-EL).

## Tool Kit Part No.



### F-15741-TL29

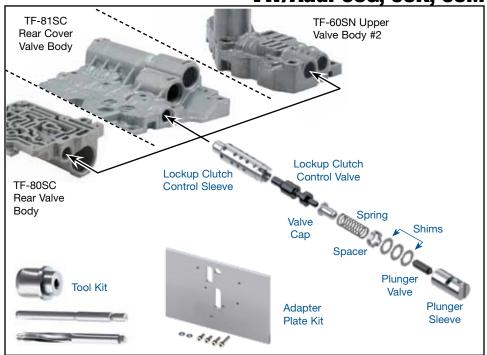
- Reamer
- Reamer Jig
- Guide Pin

**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.

# Adapter Plate Kit Part No. F-15741-TL29PL

- Adapter Plate Washers (2)
- Screws (2), 12mm
- Screw, 15mm Screw, 25mm

**NOTE:** Required for securing TF-80SC and TF-60SN castings to VB-FIX.



#### 1. Disassembly

- a. Remove the OE retainer, plunger sleeve with plunger valve, spring and lockup valve.
- b. Keep the retainer for reuse and discard all other OE pieces.

#### 2. Bore Reaming



NOTE: TF-80SC and TF-60SN castings are low-profile and must be secured 1/2" above the VB-FIX base plate in order to establish alignment with the bore. Sonnax adapter plate kit F-15741-TL29PL can be used for this function; pressure plates stacked under the valve body also work well.

If pressure plates are used, the valve body securing clamp MUST be placed directly over the plate stack. Clamping on an unsupported area of the valve body or over the bore to be reamed will cause distortion and result in irreparable damage to valve body.

Ream lockup clutch control bore (for reaming instructions/reamer care, please visit www.sonnax.com). Sonnax reaming tool kit **F-15741-TL29** and **VB-FIX** are required for this operation. Clean valve bore and body thoroughly before and after reaming.

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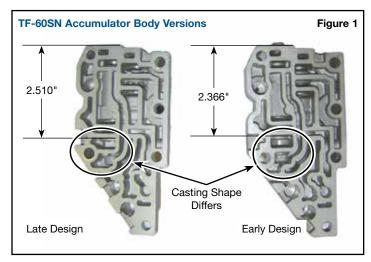
LOCKUP CLUTCH CONTROL VALVE KIT 15741-29K, F-15741-TL29, F-15741-TL29PL

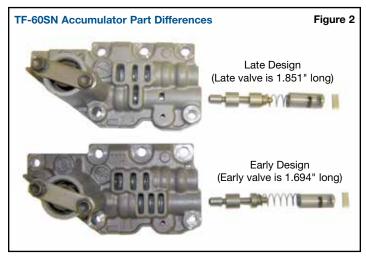
#### 3. Installation & Assembly



WARNING: 09G/TF60SN valve train lineup differs according to which accumulator body is in use (Figures 1 & 2).

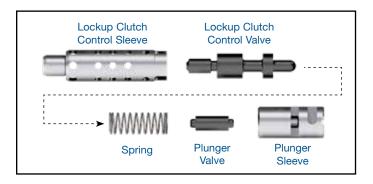
#### **TF-60SN Accumulator Body Identification**





#### • For 2003-Early 2005 TF-60SN Only (Early Design):

- a. Insert Sonnax lockup clutch control valve and sleeve assembly into bore with smaller O.D. facing inboard.
- b. Insert Sonnax spring.
- c. Install Sonnax plunger valve/plunger sleeve assembly, open end facing inboard.
- d. Install OE plunger sleeve retainer.

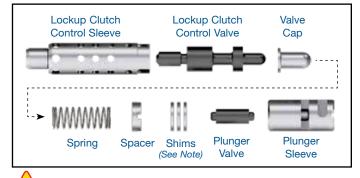


#### • For TF-80/81SC & Late 2005-Later (Late Design) TF-60SN:

- a. Install Sonnax lockup clutch sleeve, valve and cap into bore with smaller sleeve O.D. facing inboard.
- b. Insert Sonnax spring.
- c. Insert Sonnax sleeve spacer into bore, castellated side facing out.
- d. Install shims (*most often 2 shims are required*) between spacer sleeve and plunger to eliminate backlash. Number of shims required varies by transmission.

NOTE: If retainer can't be installed, remove enough shims allowing clip to be installed into plunger sleeve.

- e. Install Sonnax plunger valve/plunger sleeve assembly, open end facing inboard.
- f. Install OE plunger sleeve retainer.





**NOTE:** The number of shims needed is based on unit and casting variations. Most transmissions require 2 shims.



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