

**Chrysler 42RE, 42RH, 46RE, 46RH,  
47RE, 47RH, 48RE, A727, A904**

**Valve Body Detent  
Ball & Sleeve Kit**

**Part No.**

**22771-12K**

- Sleeve
- Ball

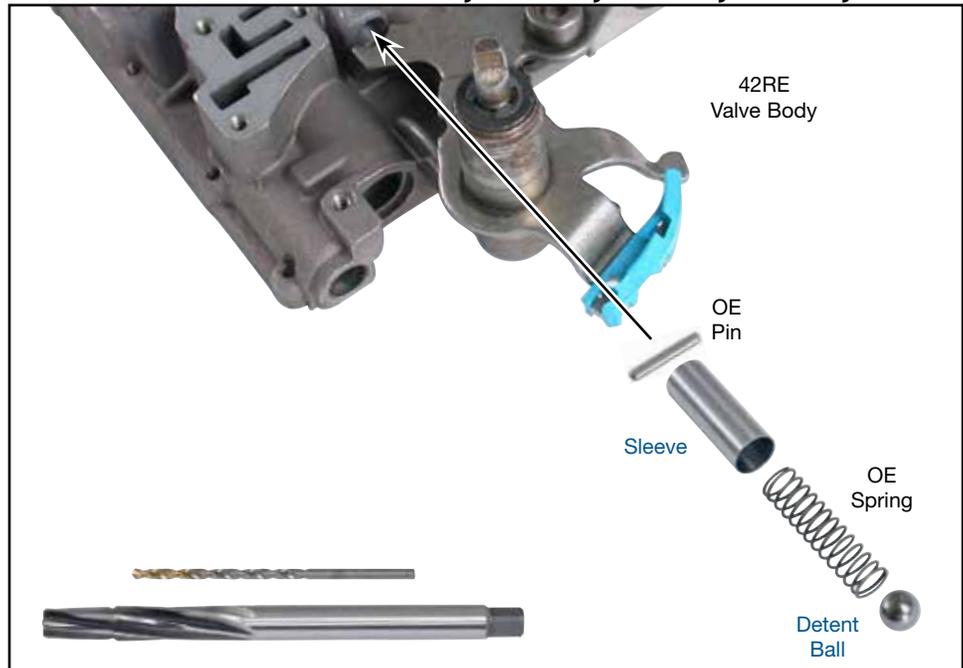
**NOTE:** Kit is compatible with 48RE units. However, the bore diameter in some units will be smaller and may cause potential reamer piloting issues. Kit fits both short and long OE detent bore designs.

**Tool Kit**

**Part No.**

**22771-TL12**

- Reamer
- Drill Bit



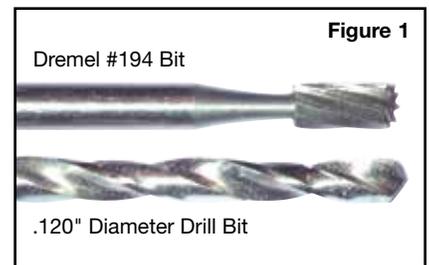
**NOTE:** Never reuse OE detent ball with Sonnax sleeve. The Sonnax replacement ball is specially toleranced to work with this sleeve and prevent binding of the ball in the bore.

**1. Disassembly**

- Remove and discard OE detent ball.
- Remove and retain OE detent spring and retaining pin for reuse.



**NOTE:** It's recommended to use a Dremel #194 bit or .120" diameter drill bit to remove some of the swaged aluminum over the top of retaining pin. Damage could occur to Sonnax .096" drill bit if used for material removal.

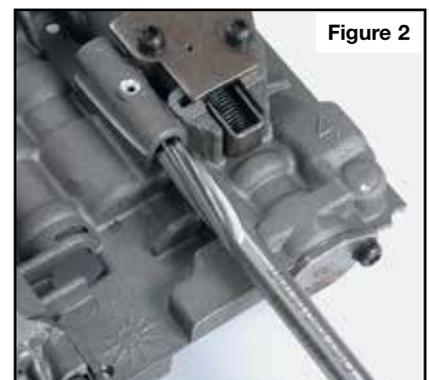


**2. Reaming**



**CAUTIONS & SUGGESTIONS:**

- The reaming action must be clockwise in a smooth and continuous motion.
- Turning the reamer backward will dull it prematurely.
- Pushing on the reamer results 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 resharpener or replacing averages 50-70 bores.



### 2. Reaming (continued)

- a. Clean valve body bore thoroughly in a solvent tank.
- b. Securely clamp valve body to bench.
- c. 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.
- d. Insert pilot on self-guiding reamer into retaining pin end of detent bore, until the cutting chamfer contacts the face of the bore.
- e. Use a speed handle to turn reamer in bore. The reaming action should be clockwise in a smooth and continuous motion, 60-120 RPM.
- f. Continue reaming until the reamer cutting chamfer passes fully through the opposite end of detent bore.
- g. Using low air pressure, blow the chips free prior to removing the reamer.
- h. To remove the reamer, turn clockwise while slowly pulling outward on the reamer.
- i. Remove any remaining debris from bore with air pressure and clean in a solvent tank.

### 4. Installation & Assembly

- a. Be certain all debris has been removed from the valve bore and valve body.
- b. Secure Sonnax sleeve in detent bore using Loctite® compound.
- c. Sonnax sleeve should be pushed in until face is flush with the face of the ball end of the detent bore.
- d. After the Loctite® has cured, use the existing retaining pin-hole in valve body casting to guide Sonnax drill bit through both sides of the sleeve.



**NOTE:** Before drilling, it helps to use OE retaining pin as a center punch to make a slight indentation in the sleeve, holding drill bit on-center and preventing drill bit from walking and making pin-hole in casting larger. Do NOT drill any deeper than the depth of the pin.

- e. Install OE retaining pin and use a flat blade screwdriver or other tool to swage the aluminum casting over the top of the pin. Verify pin is securely trapped in place.
- f. Assemble OE spring and Sonnax detent ball with other components per Chrysler specifications.