30-40RH, 42-46-47-48RH/RE

PART NUMBER **22771-12K**

Valve Body Detent Ball & Sleeve Kit

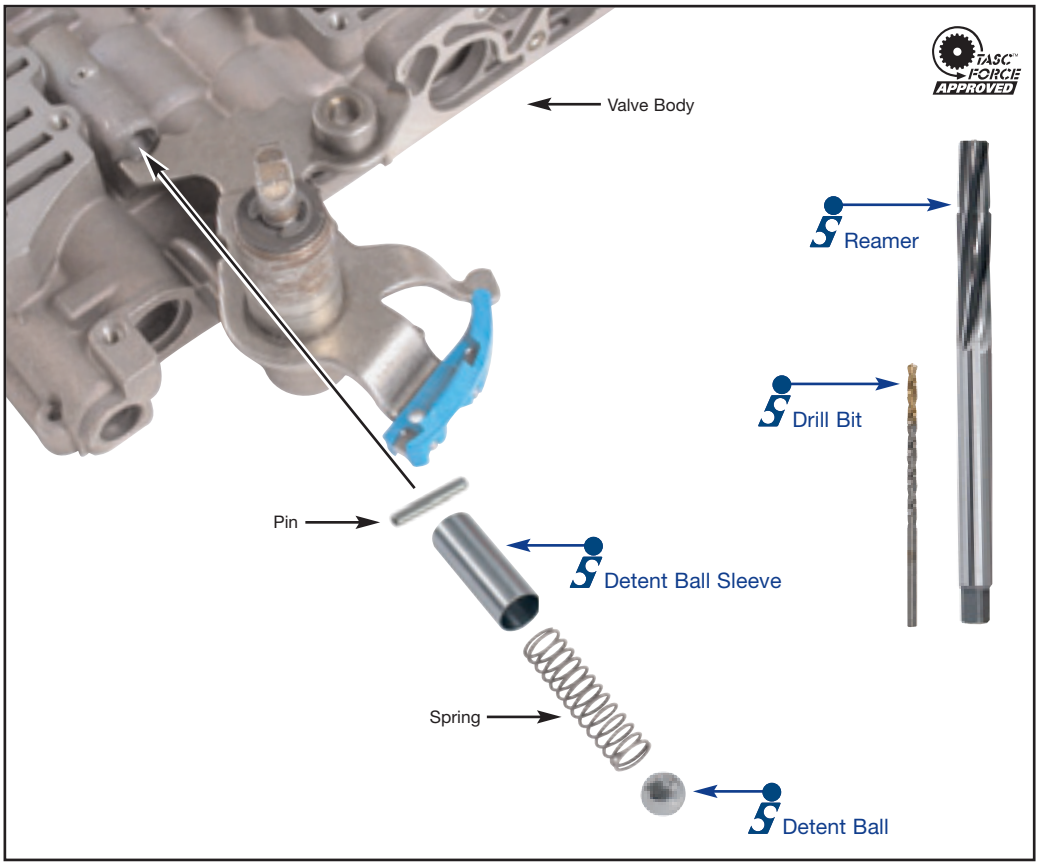
22771-12K

1 Sleeve
1 Ball

22771-TL12

1 Reamer
1 Drill Bit

Note: Although this fix is compatible with 48RE units, the bore diameter in some units will be smaller and may cause potential reamer piloting issues.



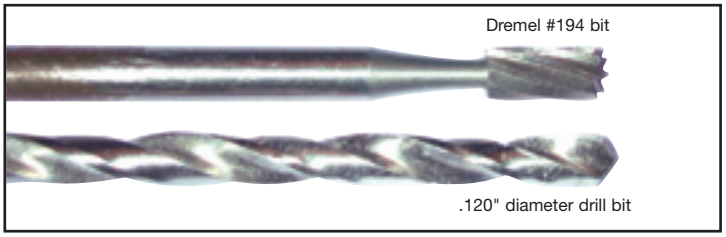
CAUTIONS:

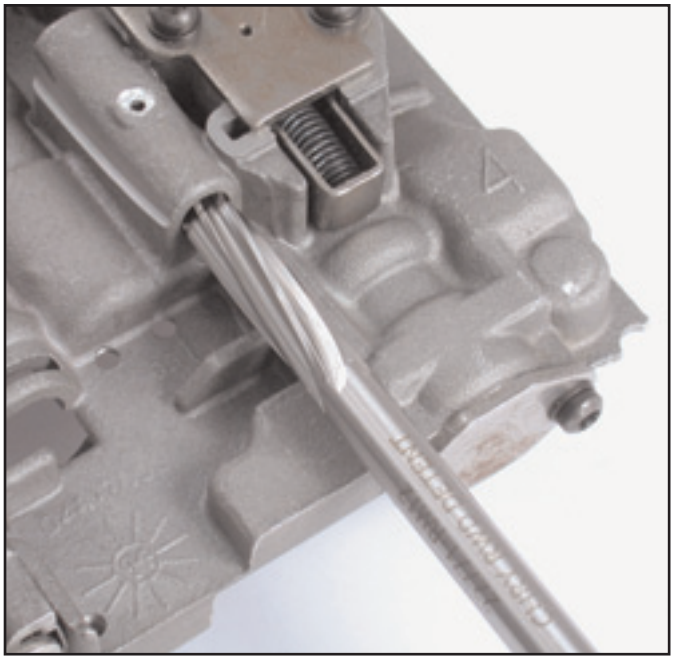
Never reuse the original detent ball with this sleeve. The Sonnax replacement ball is specially toleranced to work with this sleeve and prevent binding of the ball in the bore.

DISASSEMBLY:

1. Remove and discard the OEM detent ball.
2. Remove and retain the OEM detent spring and retaining pin.

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





PART NUMBER **22771-12K**

REAMING INSTRUCTIONS:

1. Clean the valve body bore thoroughly in a solvent tank.
2. Securely clamp the valve body to the bench.
3. Soak the bore and reamer with cutting fluid.
4. Insert the pilot on the self-guiding reamer into the retaining pin end of the detent bore, until the cutting chamfer contacts the face of the bore.
5. Use a speed handle to turn the reamer in the bore. The reaming action should be clockwise in a smooth and continuous motion, 60-120 rpm.
6. Continue reaming until the reamer cutting chamfer passes fully through the opposite end of the detent bore.
7. Using low air pressure, blow the chips free prior to removing the reamer.
8. To remove the reamer, turn clockwise while slowly pulling outward on the reamer.
9. Remove any remaining debris from the bore with air pressure and clean in a solvent tank.

CAUTIONS:

1. Never turn the reamer backward. This will dull the reamer.
2. 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.
3. Clean the reamer after each use and store in its protective tube.

INSTALLATION / ASSEMBLY STEPS:

Note: The sleeve is designed as a slip fit, and is secured by drilling through the sleeve with the tool kit drill bit and reinstalling the OEM retaining pin. However, it is highly recommended that a Loctite™ (or equivalent) retaining compound be used with the sleeve.

1. Secure the sleeve in the detent bore per the manufacturer's directions, using Loctite™ sleeve retaining compound.
2. The sleeve should be pushed in until the face is flush with the face of the ball end of the detent bore.
3. After the Loctite™ has cured, use the existing retaining pin-hole in the casting to guide the drill bit through both sides of the sleeve. Before drilling, it helps to use the retaining pin as a center punch and make a slight indentation in the sleeve to hold the drill bit on center and prevent the drill bit from walking off and making the pin-hole in the casting larger.

Note: Do not drill any deeper than the depth of the pin.

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