5L40-E

PART NUMBERS 55211-04K, F-55211-TL4

TCC Regulator Valve & Sleeve Kit

55211-04K

TOOL REQUIRED

1 Sleeve
1 Valve
2 Retaining Clips
1 Spring
1 Solenoid Protector

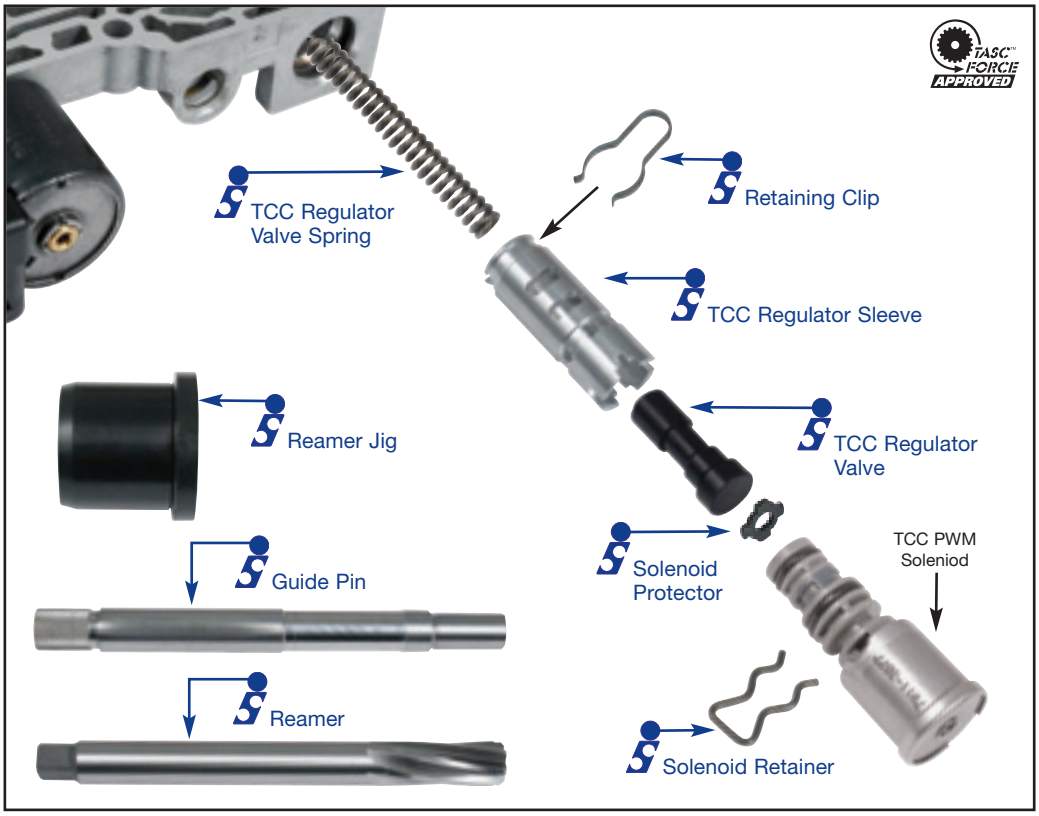
F-55211-TL4

VALVE BODY FIXTURE REQUIRED

1 Reamer Jig
1 Guide Pin
1 Reamer

Note: The TCC PWM solenoid is critical! Minimal leakage can cause converter overheat and reduced cooler flow. Significant leakage can cause delayed or no reverse.

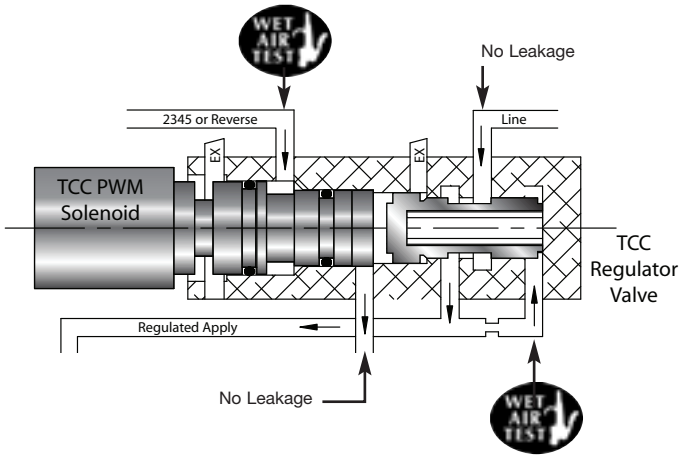
Inspect the pressure regulator valve and TCC enable valve bores for wear. The 5L40-E can run extreme line pressure, causing clutch, converter and transmission overheat.



INSPECTION

Place a small amount of oil into the balance end port and follow with low air pressure. There should be little to no leakage past the valve spool and out the line port.

Place a small amount of oil into the TCC signal port and follow with low air pressure. There should be little/no leakage past the valve spool and out the exhaust port on the opposite side of the valve body.

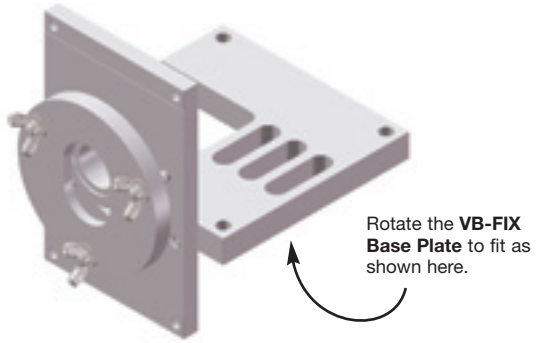


DISASSEMBLY

1. Remove the retainer, solenoid, valve and spring from the bore.
2. Retain the solenoid and retainer.
3. Discard the valve and spring.

REAMING INSTRUCTIONS

We suggest the **VB-FIX** base plate to be remounted 90 degrees from its standard position for the **55211-04K** reaming. Use the four holes in the front plate as a guide to drill and tap new holes for the socket head screws. Tap 5/16-18 UNC at least 3/4" deep. (If the **VB-FIX** is used as supplied, the casting is not supported well in the area of the TCC bore. Upon clamping the casting, it distorts and the reamed bore results in a loose sleeve.)



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Prep and Set-Up

1. Clean the bore thoroughly.
2. To align the TCC regulator bore with the fixture, follow the **VB-FIX** instructions. From tool kit **F-55211-TL4**, use jig **F-55211-RJ4** and guide pin **F-55211-GP4**, then ream with reamer **F-55211-RM4**.

NOTE: Extra attention should be paid to alignment and securing the valve body to the fixture on this bore. A very smooth action to insert and remove the guide pin after final securing is a must to provide easy, on-center reaming of this bore.

3. Soak the bore and reamer with cutting fluid (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.
4. Gently insert the reamer through the jig and into the bore until the cutting tip contacts the first bore to be reamed.
5. Select the correct sized socket to fit the square shank of the reamer, and attach it to a wobble/swivel socket drive.

Reaming

NOTE: Once a valve body alignment has been established on the **VB-FIX**, do not disturb or loosen the valve body setting or guide setting in any way until the reaming process is complete. Be sure to use plenty of continuously supplied cutting fluid while reaming these bores.

1. The reamer should be turned by hand using a speed handle or by a low rpm, high torque air drill regulated to a maximum of 200rpm.
2. The reaming action should be clockwise in a smooth and continuous motion, at 60-200 rpm. The reamer should actually pull itself through the bore, so little or no forward force should be applied.
3. Continue reaming until the reamer stop is reached.

Finish and Clean-up

1. Using low air pressure, blow the chips free before removing the reamer.
2. To remove the reamer, turn clockwise while slowly pulling outward on the reamer.
3. Remove any remaining debris from the bore with low air pressure and clean in a solvent tank.
4. Examine the bore after cleaning for surface finish, debris, and burrs. Flashing and burrs on the exit side of casting bores can be carefully removed with a small piece of Scotchbrite™ on the end of a long wire.
5. Clean the reamer after each use and store in its protective tube.

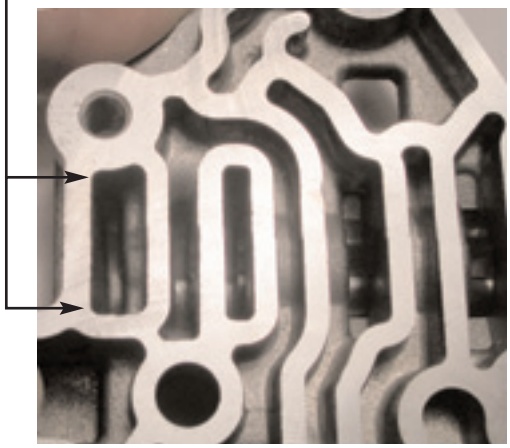
Cautions and Suggestions

Turning the reamer backward will dull it prematurely.

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.

A dull reamer will cut a smaller hole.



INSTALLATION

1. Insert the replacement spring into the long, internal pocket in the valve.
2. Push the valve/sleeve/spring assembly into the reamed bore. The sleeve end with 2 notches should go inboard, and the end with 4 notches should face outboard.
3. Install the small enclosed retaining clip into the inboard sleeve groove.
4. Install the enclosed solenoid protector into the sleeve, ensuring the tangs are seated in the four sleeve notches.
5. Return the solenoid to the valve bore. The end of the solenoid snout should contact the solenoid protector.
6. Install the enclosed large retaining clip to secure the solenoid.
7. If the Sonnax retainer does not fit into the solenoid groove, use a #194 Dremel bit and remove only enough material from the inboard casting walls to allow the sleeve to set deeper. This will allow the solenoid to move in as well.