PART NUMBERS 56947J-05K, F-56947J-TL2

# **Oversized TCC Control Valve Kit**

# 56947J-05K

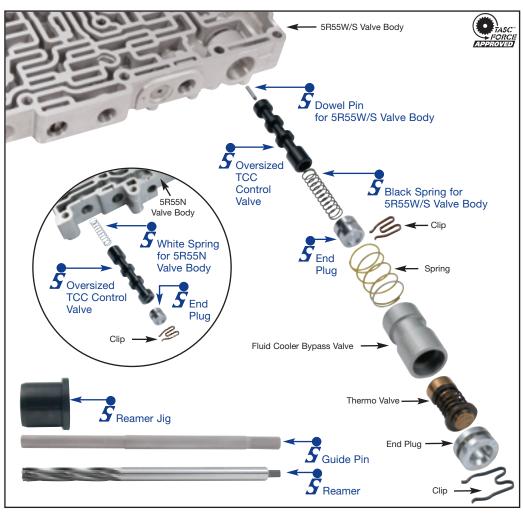
- 1 Valve
- 1 Plug
- 2 Springs
- 1 Dowel Pin

# F-56947J-TL2

- 1 Reamer
- 1 Reamer Jig
- 1 Guide Pin



**Note:** The modulator sleeve and inner modulator valve must be inspected for probable bore wear.



#### **INSPECTION:**

On the 5R55W/S, place a small amount of oil into the TCC/PWM solenoid port. Follow with low air pressure. There should be little or no leakage past the valve spool and out the TCC modulator port. Excessive leakage indicates wear.

# **NOTES OR CAUTIONS:**

Reduced converter slip depends on proper line rise: Inspect the pressure regulator bore and PCA modulator bore.

# **REAMING INSTRUCTIONS:**

# Prep and Set-Up

- 1. Remove all components from the bore.
- 2. Clean the bore thoroughly.
- 3. To align the line modulator valve bore in the fixture, follow the VB-FIX instructions.
- 4. From tool kit F-56947J-TL2, use jig F-56947J-RJ and guide pin F-56947J-GP, then ream with reamer F-56947J-RM3.

**NOTE:** Extra attention should be paid to aligning 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 the bore.



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- 5. Soak the bore and reamer with cutting fluid (Mobilmet S-122, Lubegard Bio-Tap, Tap Magic<sup>TM</sup>, etc.). For best results, provide a continuous flow of water-soluble cutting fluid during the reaming process.
- 6. Gently insert the reamer through the jig and into the bore until the cutting tip contacts the first bore to be reamed.
- 7. 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 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 200 rpm.
- 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 bottoms in the bore. The approximate reaming time is 2 minutes.

# 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<sup>TM</sup> 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:**

# 5R55N:

- 1. Remove and discard the OEM end plug, valve and spring. Keep the retaining clip.
- 2. Ream the bore according to the instructions.
- 3. Place the replacement white spring (10.5 coils, .240 O.D.) into the oversized valve spring pocket. Push the assembly into the bore, spring side first.
- 4. Insert the replacement two-directional end plug just far enough to reinstall the OEM retaining clip.

# 5R55W/S:

- 1. Remove and discard the OEM end plug, valve and spring. Keep the retaining clip and all thermal bypass control components.
- 2. Ream the bore according to the instructions.
- 3. Press the enclosed .062" diameter x .31" long steel pin into the balance feed hole in the valve, as shown. Use of an arbor press is the suggested method instead of hammering the pin in. Always verify the valve strokes well in the bore after pressing this pin.
- 4. Insert the replacement black spring (11.5 coils, .250 O.D) into the oversized valve spring pocket. Push the assembly into the bore, spring side outward.
- 5. Insert the replacement, two-directional end plug just far enough to reinstall the OEM retaining clip. Reference the illustration for proper retainer port.
- 6. Reinstall the thermal bypass control components as indicated.

