

## Oversized Pressure Regulator Valve

For application A540E (1998-2000)  
with "A540Y" stamped on valve body

### 89010-04K

- 1 Valve
- 1 Spring
- 1 Spacer



### 89010-TL

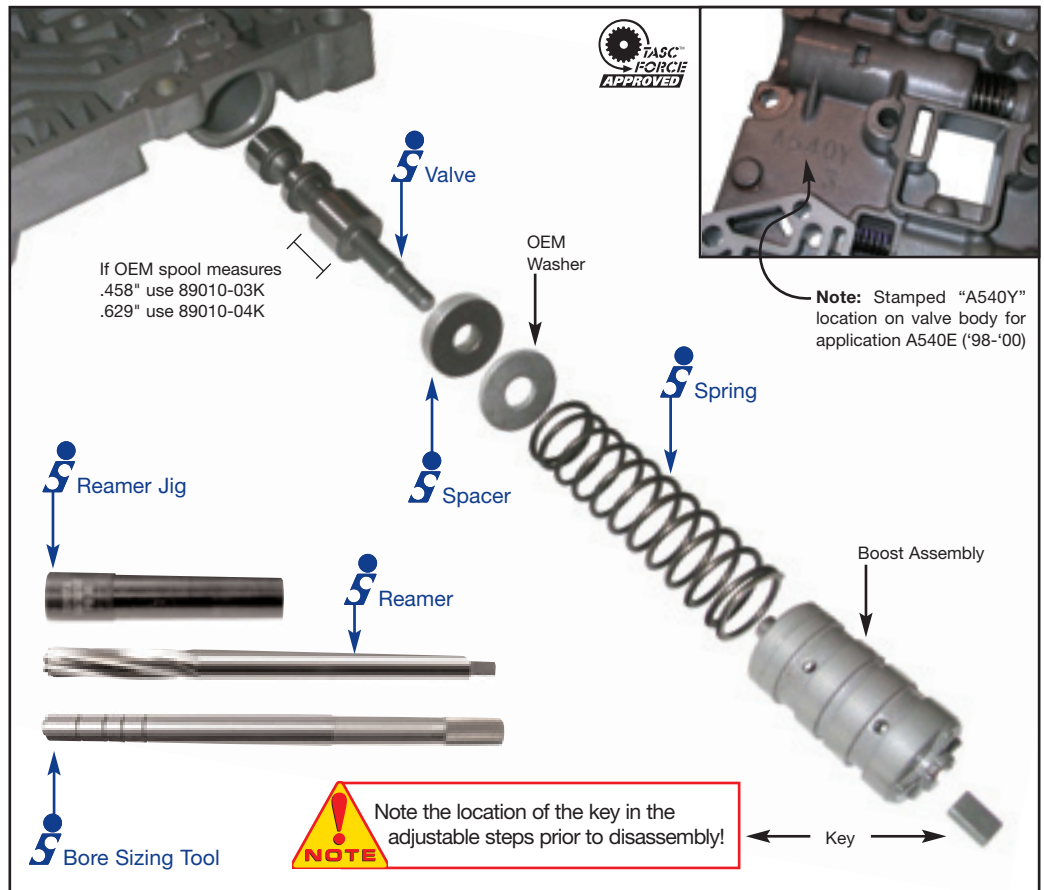
- 1 Reamer
- 1 Reamer Jig
- 1 Bore Sizing Tool

**Note:** 89010-TL can also be used to install 89010-03K and 97855-24K valve kits.

Also available for earlier A540E valve bodies without the A540Y stamp

### 89010-03K

- 1 Valve
- 1 Spring
- 1 Spacer



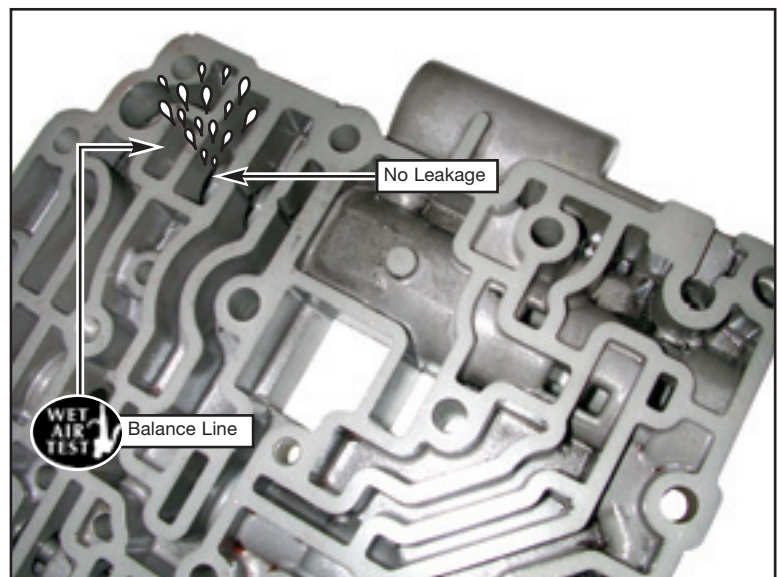
### INSPECTION:

Place a small amount of ATF into the balance line circuit. Follow with low air pressure while holding the valve inboard. There should be little or no leakage of air or oil past the valve spool and out the regulated line port.

### DISASSEMBLY:

Overall line pressure changes according to the part of the boost valve sleeve that comes into contact with the key. Take note of the existing position, and when reassembling the valve body, position the key in the same position. If the key comes out before the position is noticed, examine the original boost sleeve. Witness marks will usually indicate the original position used.

1. Remove all components.
2. Discard the OEM spring and pressure regulator valve.
3. Retain the washer/spring seat.



## **REAMING INSTRUCTIONS: Preparation and Set-up**

1. Remove all components from the bore.
2. Clean the bore thoroughly in a solvent tank.
3. Securely clamp the valve body to the bench, making sure not to clamp directly over the bore to be reamed.
4. Insert the reamer jig into the bore.
5. Soak the bore and reamer with cutting fluid (Mobilmet S-122, Lubeguard Bio-Tap, Tap Magic™, 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 such as Snap-On part number FXW-1 socket drive.

## **Reaming**

1. The reamer should be turned either 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. 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 with drill. If the valve goes in the bore with resistance, use the bore sizing tool as a final step.
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.

## **INSTALLATION:**

1. Ream and size the valve body bore according to the instructions.
2. Place the enclosed .175" thick spacer over the stem on the replacement valve.
3. Place the OEM washer over the stem on the replacement valve.
4. Push the valve/spacer/washer assembly into the bore, stem end out, until the valve bottoms in the bore.
5. Place the enclosed spring in the valve bore, over the valve stem.
6. Return the boost valve assembly to the bore, open end first, and secure with the OEM key. Ensure the key is positioned in the same adjustable step on the sleeve as noted prior to disassembly.