Instruction Data Sheet

AODE, 4R70W, 4R75W

PART NUMBERS 76948-16K, -17K, -BST, -TL4, F-76948-TL

Oversized PR Valve

76948-16K '91-'95
76948-17K '96-up

Each kit includes the following

1 Oversized Pressure Regulator Valve
1 Oversized Reverse Boost Valve & Sleeve

TOOL REQUIRED

NOTE: The oversized reverse boost valve and sleeve supplied in these kits must be used when replacing the PR valve.

76948-TL4

2 Reamers

Note: This tool kit allows the bore to be oversized at the bench to fit both **76948-16K** and **76948-17K**.

76948-BST

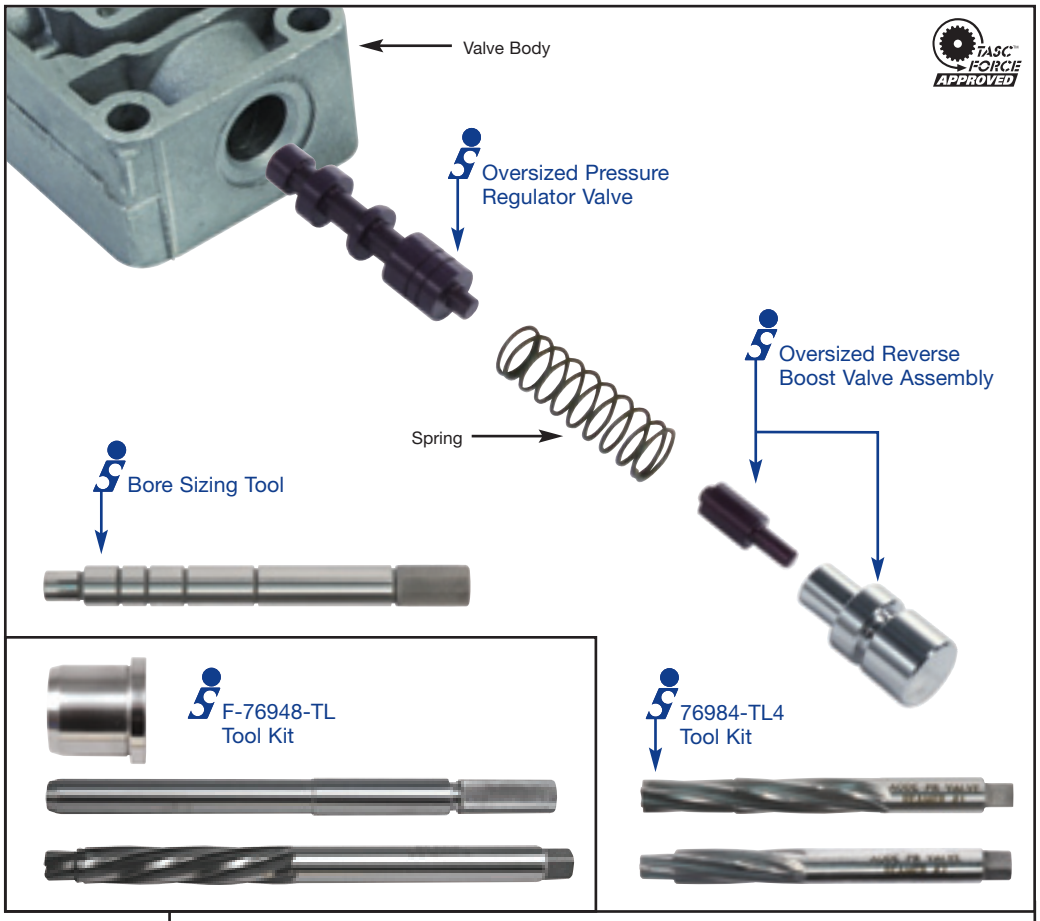
1 Bore Sizing Tool

Note: This bore sizing tool is highly recommended to provide exact sizing and better bore surface finish after the reaming with **76948-TL4**.

F-76948-TL

1 Reamer Jig
1 Guide Pin
1 Reamer

VALVE BODY FIXTURE REQUIRED



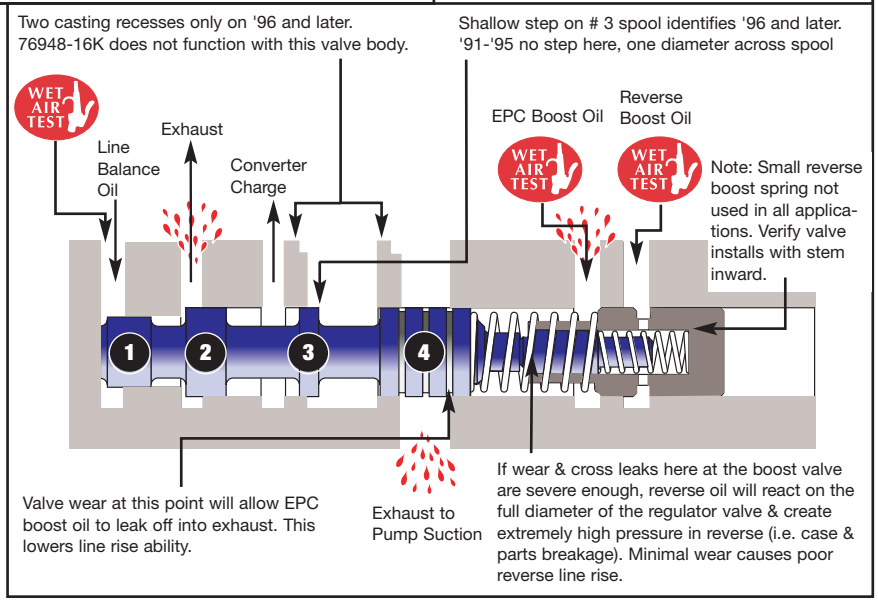
Disassembly Steps

1. Remove all components for the pressure regulator valve bore.
2. Retain the pressure regulator valve spring and the retaining clip.
3. Discard the reverse boost assembly and pressure regulator valve.

NOTE: 76948-TL4 tool kit reaming instructions are used here. Go to www.sonnax.com for the **F-76948-TL** tool kit reaming Instructions.

Reaming Instructions

1. Clean the valve body thoroughly in a solvent tank.
2. Securely clamp the valve body horizontally to a bench, making sure not to clamp directly over the bore to be reamed.
3. Soak the bore and Reamer #1 with cutting fluid.



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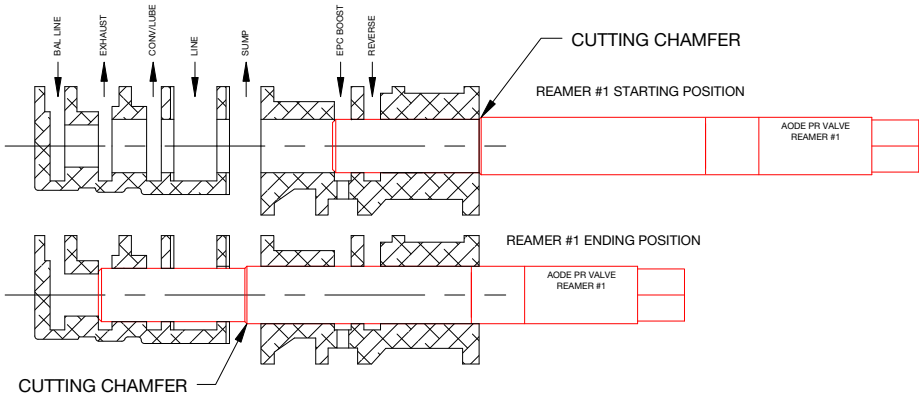
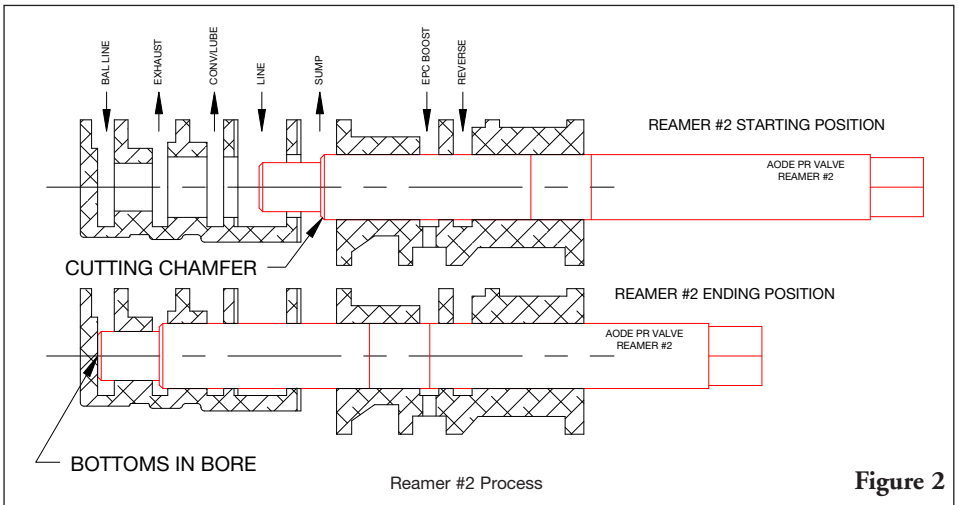
4. Insert the self-guiding reamer into the bore, until the cutting chamfer contacts the outside face.
5. Use a speed handle to turn the reamer in the bore. The reaming action should be clockwise in a smooth continuous motion, at 60-120 rpm.
6. Continue reaming until the reamer bottoms against the outboard face of the balance line bore (see Figure 1).
7. Using low air pressure, blow the chips free prior to removing the reamer. Remove the reamer by turning clockwise while pulling outboard. Remove any remaining chips from the bore.
8. Repeat steps 3-7, using Reamer #2. This reamer will begin cutting in the middle of the sump port, and will bottom in the bore when reaming is completed (see Figure 2).



Reamer #1 Process

Figure 1



Reamer #2 Process

Figure 2

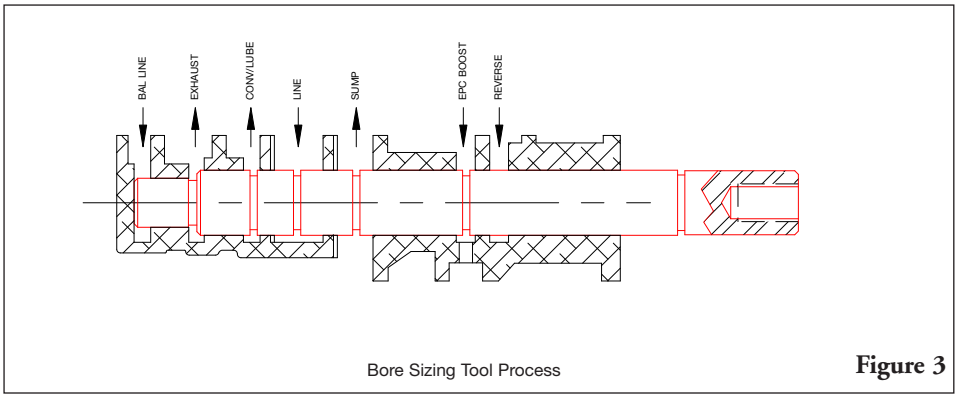
Notes or Cautions

1. Turning a reamer backward 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.

Bore Sizing Tool Instructions

NOTE: The end of the bore sizing tool has been tapped to allow use of a slide hammer with a 5/16-18 UNC threaded adapter.

1. Insert the end of the bore sizing tool into the reamed pressure regulator valve bore. Press it into the bore until it bottoms out (see Figure 3).
2. Remove the sizing tool and check to see if the valve and reverse boost sleeve move freely within the bore.



Bore Sizing Tool Process

Figure 3

3. If the valve and/or sleeve do not move freely, reinstall the bore sizing tool and tap the sizing tool up and down using a hammer and screwdriver inserted through the ports and into the tool grooves. This will smooth out any ridges in the bore. Repeat process until the valve strokes freely.

AODE, 4R70W, 4R75W

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Oversized PR Valve and Reverse Boost Valve & Sleeve Kit

Installation Instructions

Identify valve body and valve application (see Figures 4, 5, 6 & 7).

1. Lubricate the replacement valve prior to installing.
2. When returning the parts to the valve body, the oversized pressure regulator valve should be installed first with the smallest diameter spool at the bottom of the valve body bore.
3. Return the larger OEM spring to the bore.
4. The small reverse boost spring was eliminated in later applications. This spring is not required. If your application has the spring, you may reinstall it. The spring will return the boost valve and result in a slightly quicker reverse line rise.
5. Verify the reverse boost valve is assembled with smaller diameter stem into sleeve first.

Note: Only the oversized reverse boost valve and sleeve supplied in these kits should be used.

6. Push the Sonnax boost sleeve assembly into the valve body, open end first, just far enough to reinstall the retaining ring.

Valve Identification

- **76948-16K** is designed to replace the valve identified below, for '91- '95 applications only! These units will not have a step on the #3 spool. Valve bodies will have alignment pins with 13mm heads (see Figure 6).
- **76948-17K** is designed for use with '96 & up transmissions. In 1996 the valve body was changed with the smaller diameter alignment pins. These later design pins are 10mm at the bolt head and .173" in diameter. The valve body casting is recessed in two places and the # 3 spool is stepped (see Figure 7).
- Installation of **76948-16K** in a '96 and later unit will result in low line pressure in drive and/or reverse. Pressure will increase with engine RPM but only to a maximum of 50 to 75 psi.

'95 & Earlier - no notches

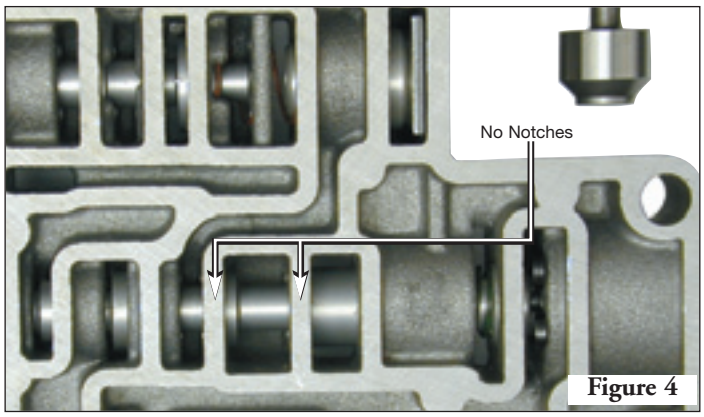

Figure 4

'96 & Later - notches

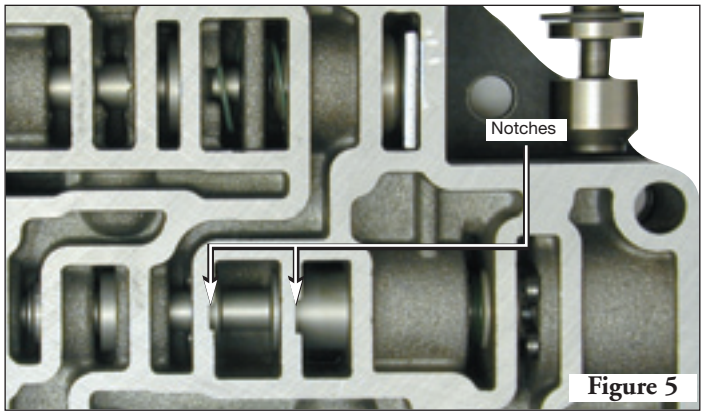

Figure 5

No Step

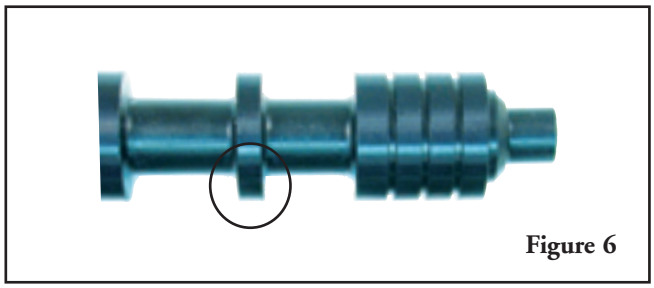

Figure 6

With Step

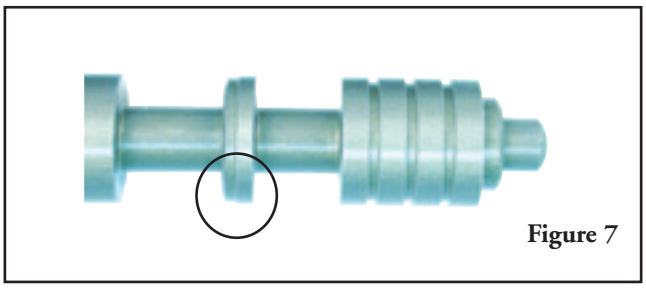

Figure 7

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