THM 4T40-E

TRANSAXLE CASE, CHANNEL PLATE AND CHECKBALL LOCATION CHANGES FOR 1997

CHANGE: Beginning in the middle of the 1997 model year, the transaxle case, channel plate and the checkball locations were changed on all THM 4T40-E transaxles, that may create some confusion for service.

REASON: Improved clutch durability, and improved 4-2 downshift.

PARTS AFFECTED:

(1) TRANSAXLE CASE - Added boss and the second threaded hole to the case in the area shown in Figure 2, to accommodate valve body bolt and channel plate changes for improved clamping. The previous design case, with the single boss and hole is shown in Figure 1.

(2) CHANNEL PLATE - New casting with an added boss, and one of the threaded holes in the channel plate changes to a non-threaded hole to accomodate the valve body bolt changes for improved clamping force. The previous design channel plate is shown in Figure 3, and the new design channel plate is shown in Figure 4.

(3) CHECKBALL LOCATIONS - The number 6 checkball moves from the direct clutch apply circuit, and into the 2-3 accumulator circuit. There were no changes in worm track configuration, however we also show the "Threaded" hole that changed to a "Non-Threaded" hole in the channel plate. Refer to Figure 5 for 1995-1996 checkball locations, and Figure 6 for the 1997-Up checkball locations.

(4) SPACER PLATE - The number 45 exhaust passage in the spacer plate has changed from a rectangular hole to a small oval hole, as shown in Figure 7.

(5) DRIVEN SPROCKET SUPPORT - Ball capsule added in the direct clutch circuit to act as an air bleed to improve direct clutch apply, as shown in Figure 8.

INTERCHANGEABILITY:

NONE of the parts listed above will interchange with previous design level transaxles. Any transaxle using the ball capsule in the direct clutch circuit must use the 1997 channel plate and all associated parts listed above.

"SPECIAL ASSEMBLY NOTE":

When using the 1997 and later case with the two threaded holes in the case, as shown in Figure 2, the Turbine Speed Sensor must be installed in the hole closest to the turbine shaft hole, as shown in Figure 2.

If you install it into the threaded hole for the added channel plate bolt, you will break the channel plate as you tighten it down to the case. Some people will break two!

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1995-1996 TRANSAXLE CASE

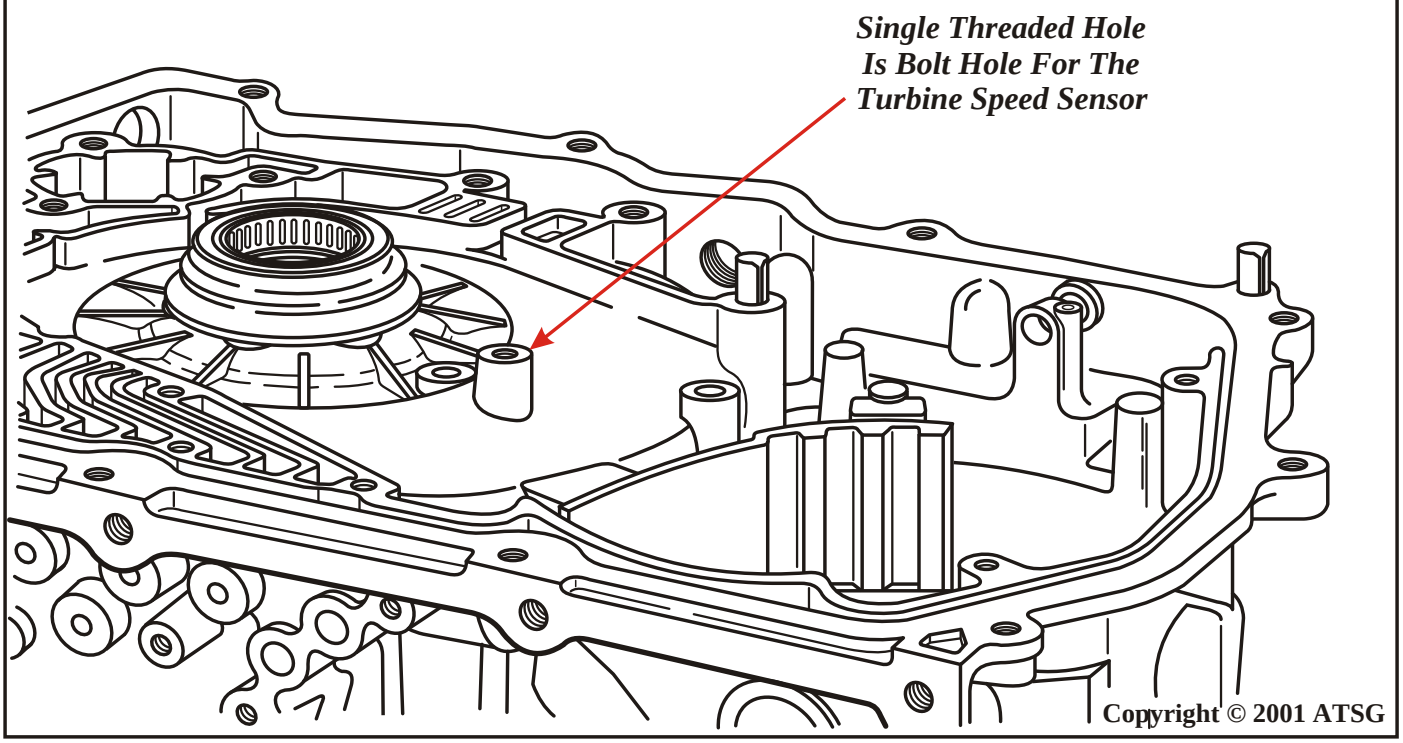

Figure 1

1997-UP TRANSAXLE CASE

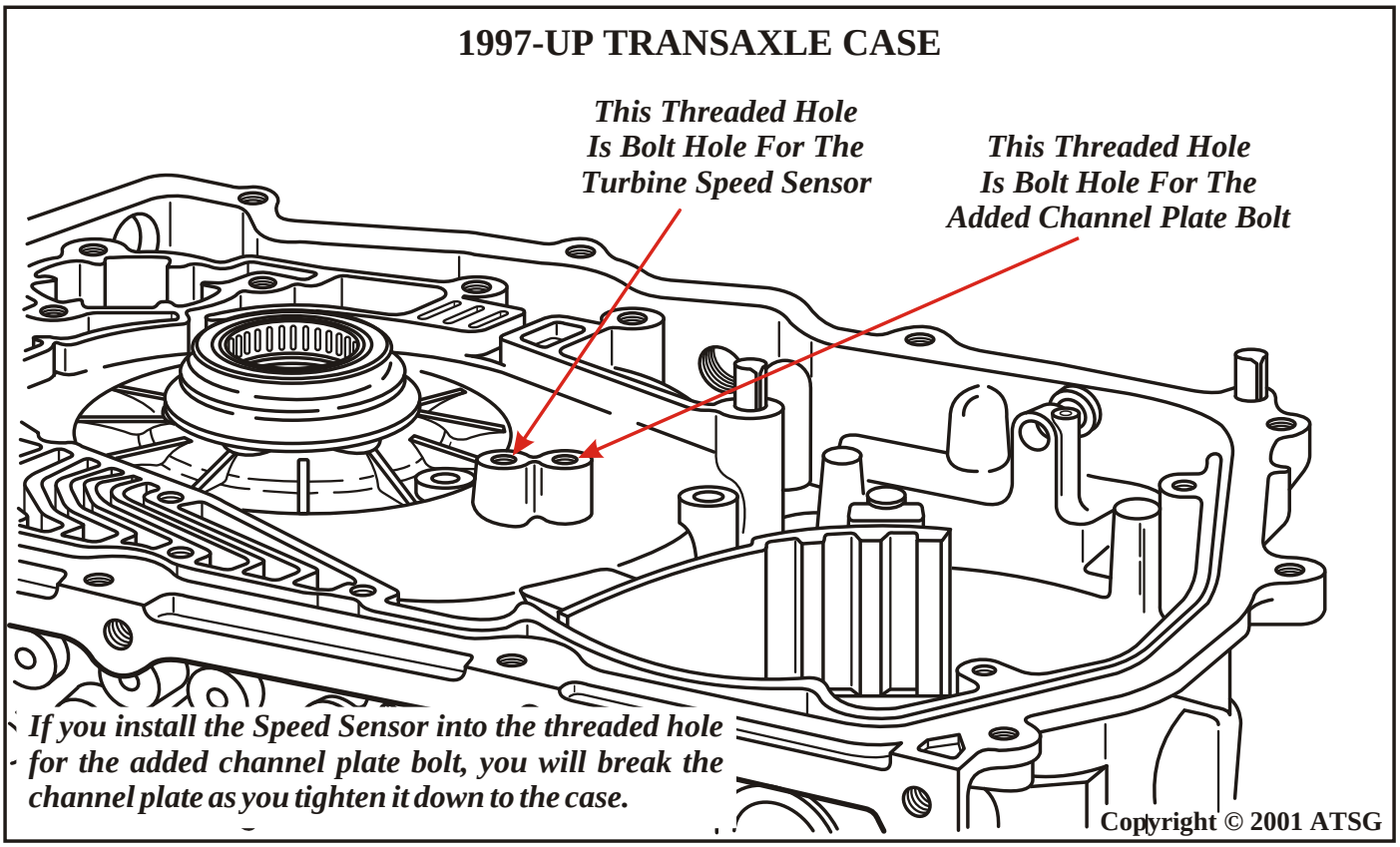

Figure 2

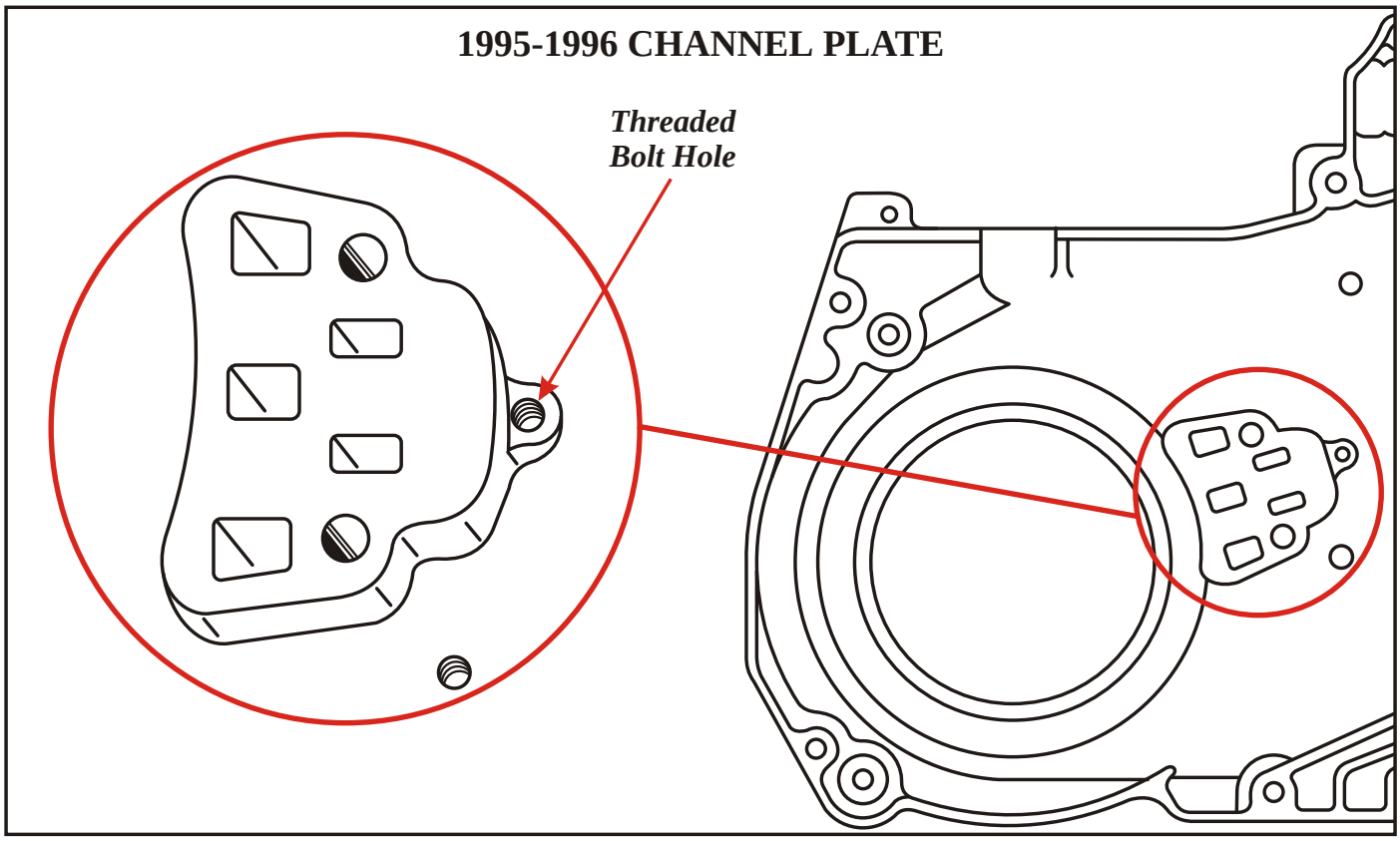

Figure 3

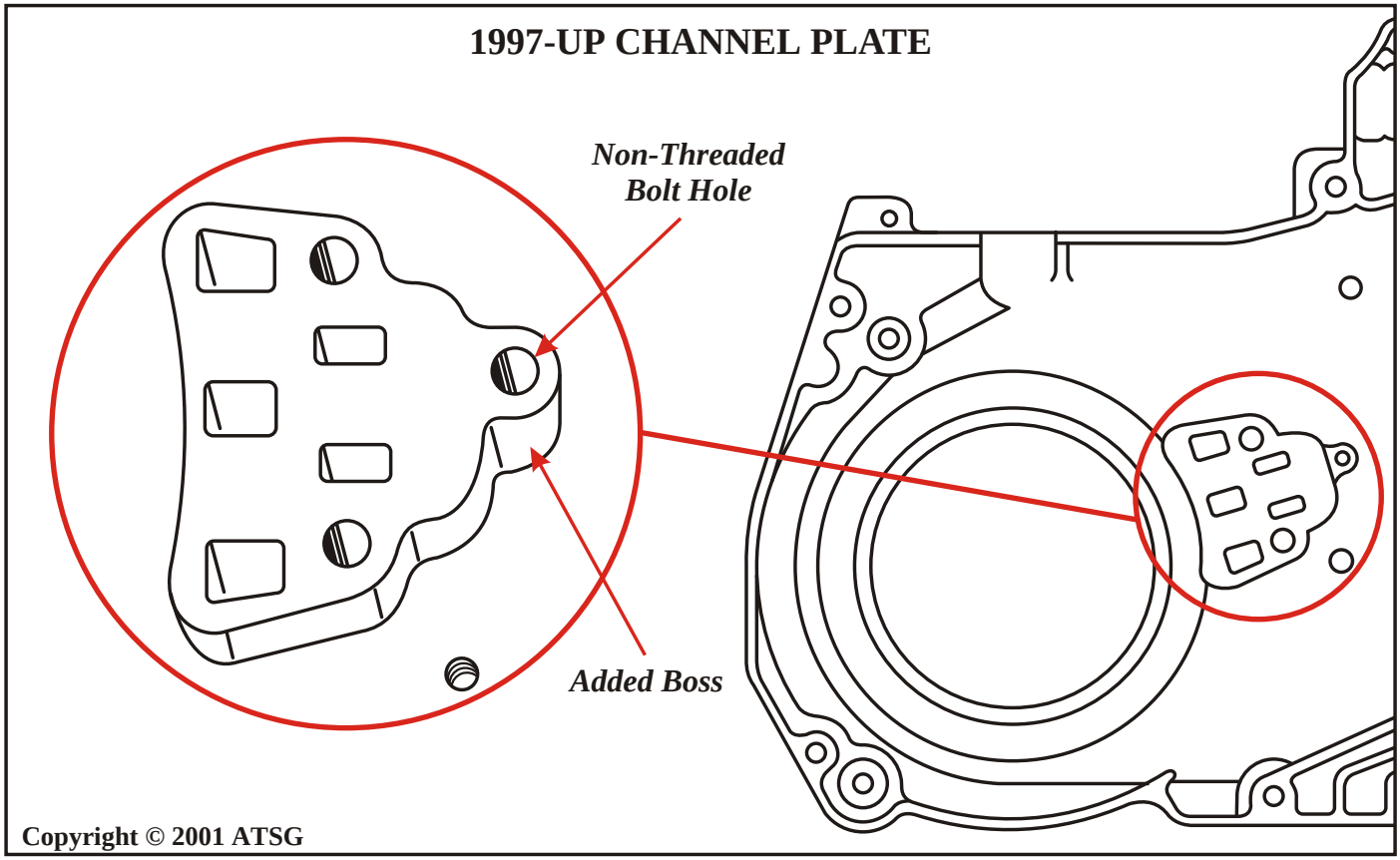

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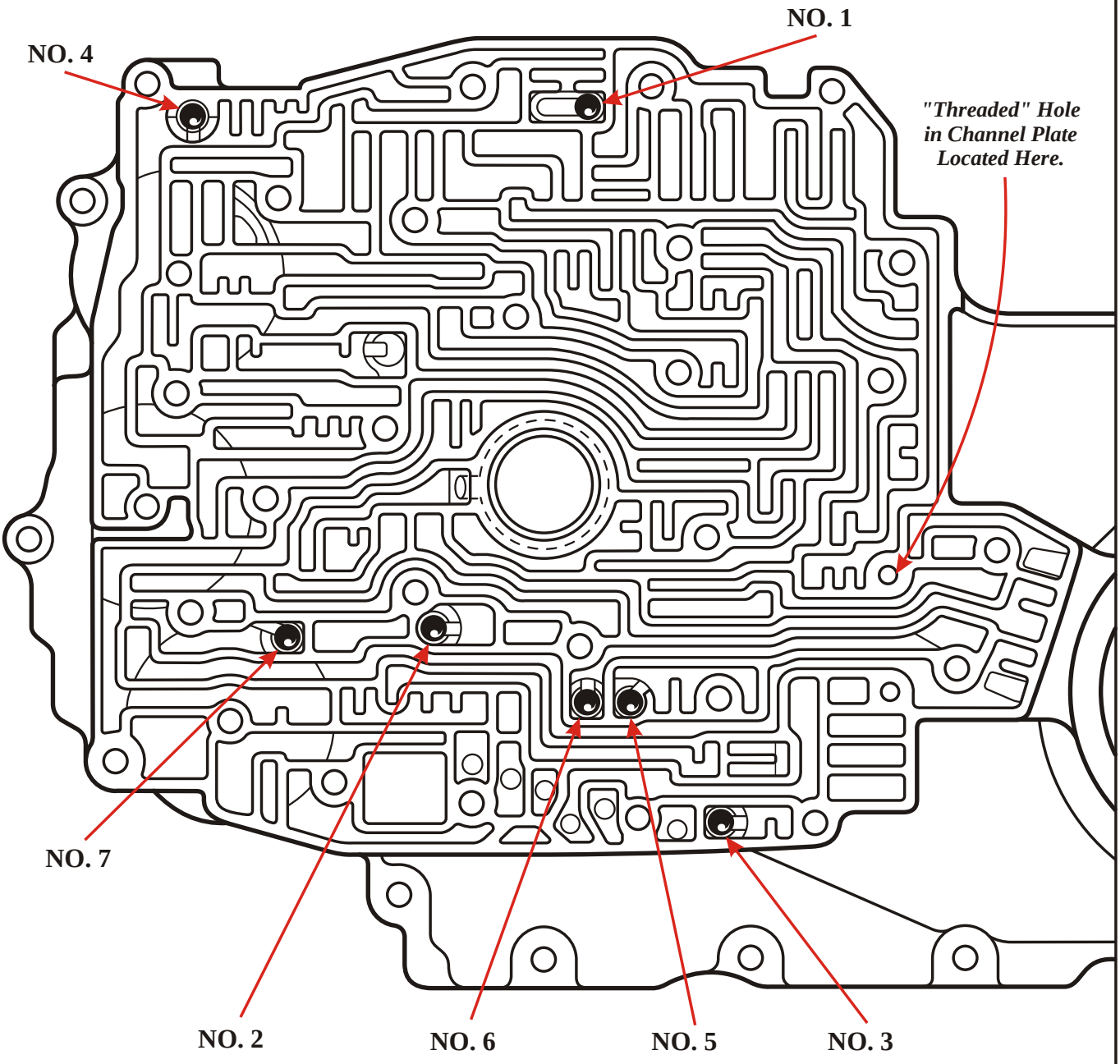
Figure 4

THM 4T40-E *1995-1996 MODELS ONLY*
CHECKBALL LOCATIONS



NO. 1 SEPERATES LO/PRN FLUID CIRCUITS.
NO. 2 FORCES 2-3 DRIVE FLUID THRU ORIFICE #3 TO CONTROL 1-2 SHIFT FEEL.
NO. 3 FORCES INTERMEDIATE BAND APPLY OIL THRU ORIFICE #8 FOR APPLY FEEL.
NO. 4 FORCES ACCUMULATOR OIL THRU ORIFICE #24 TO THE 1-2 ACCUMULATOR.
NO. 5 FORCES 3-4 DRIVE OIL THRU ORIFICE #26 TO CONTROL 2-3 SHIFT FEEL.
NO. 6 FORCES EXHAUSTING DIRECT CLUTCH OIL THRU ORIFICE #25 TO CONTROL RELEASE. OF DIRECT CLUTCH.
NO. 7 FORCES ACCUMULATOR OIL THRU ORIFICE #28 TO THE 3-4 ACCUMULATOR.

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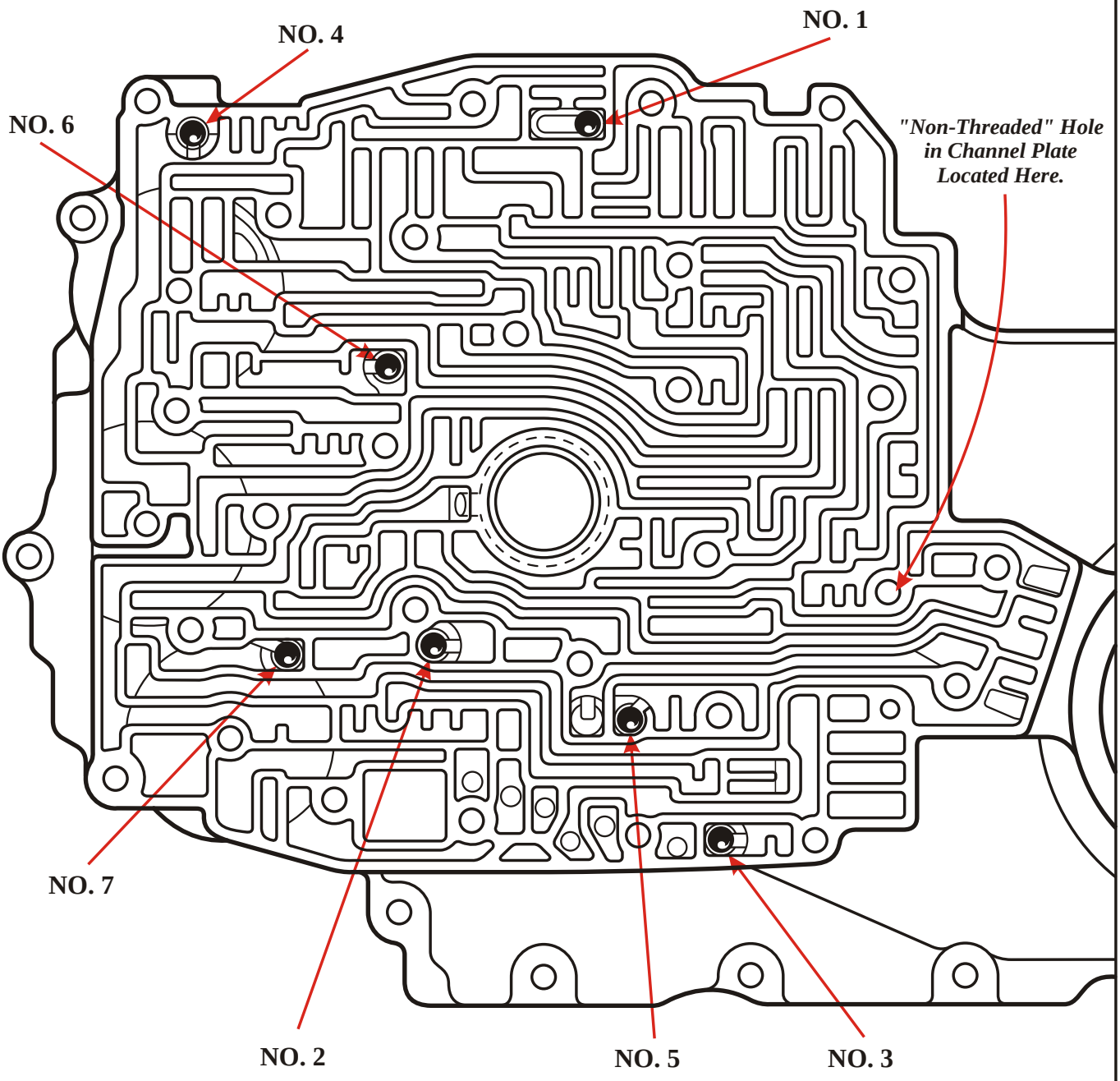
Figure 5

THM 4T40-E *1997-UP MODELS ONLY*
CHECKBALL LOCATIONS



NO. 1 SEPERATES LO/PRN FLUID CIRCUITS.
NO. 2 FORCES 2-3 DRIVE FLUID THRU ORIFICE #3 TO CONTROL 1-2 SHIFT FEEL.
NO. 3 FORCES INTERMEDIATE BAND APPLY OIL THRU ORIFICE #8 FOR APPLY FEEL.
NO. 4 FORCES ACCUMULATOR OIL THRU ORIFICE #24 TO THE 1-2 ACCUMULATOR.
NO. 5 FORCES 3-4 DRIVE OIL THRU ORIFICE #26 TO CONTROL 2-3 SHIFT FEEL.
NO. 6 FORCES ACCUMULATOR OIL THRU ORIFICE #27 TO THE 2-3 ACCUMULATOR.
NO. 7 FORCES ACCUMULATOR OIL THRU ORIFICE #28 TO THE 3-4 ACCUMULATOR.

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Figure 6

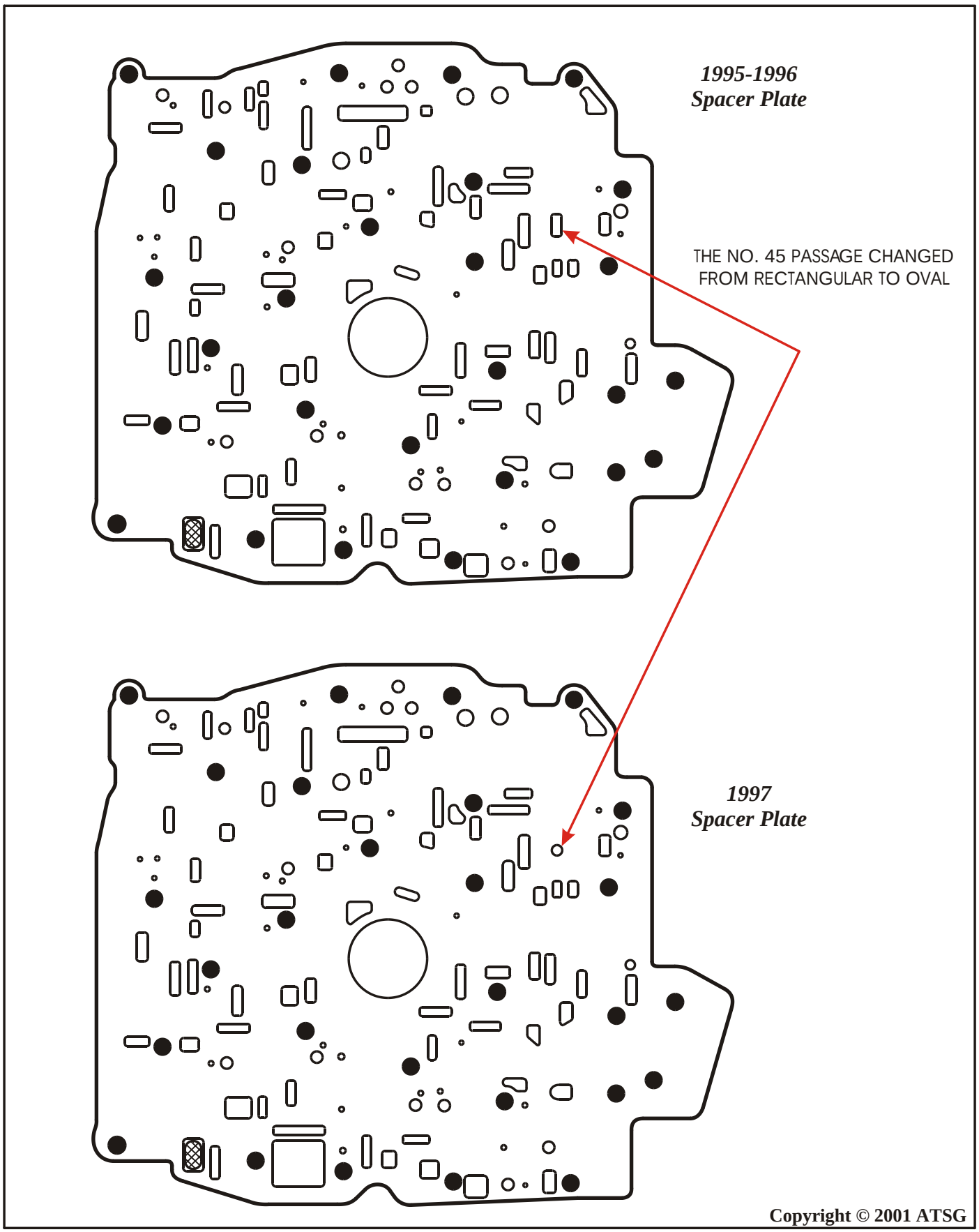

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Figure 7

THM 4T40-E *1997-UP MODELS ONLY*
DRIVEN SPROCKET SUPPORT

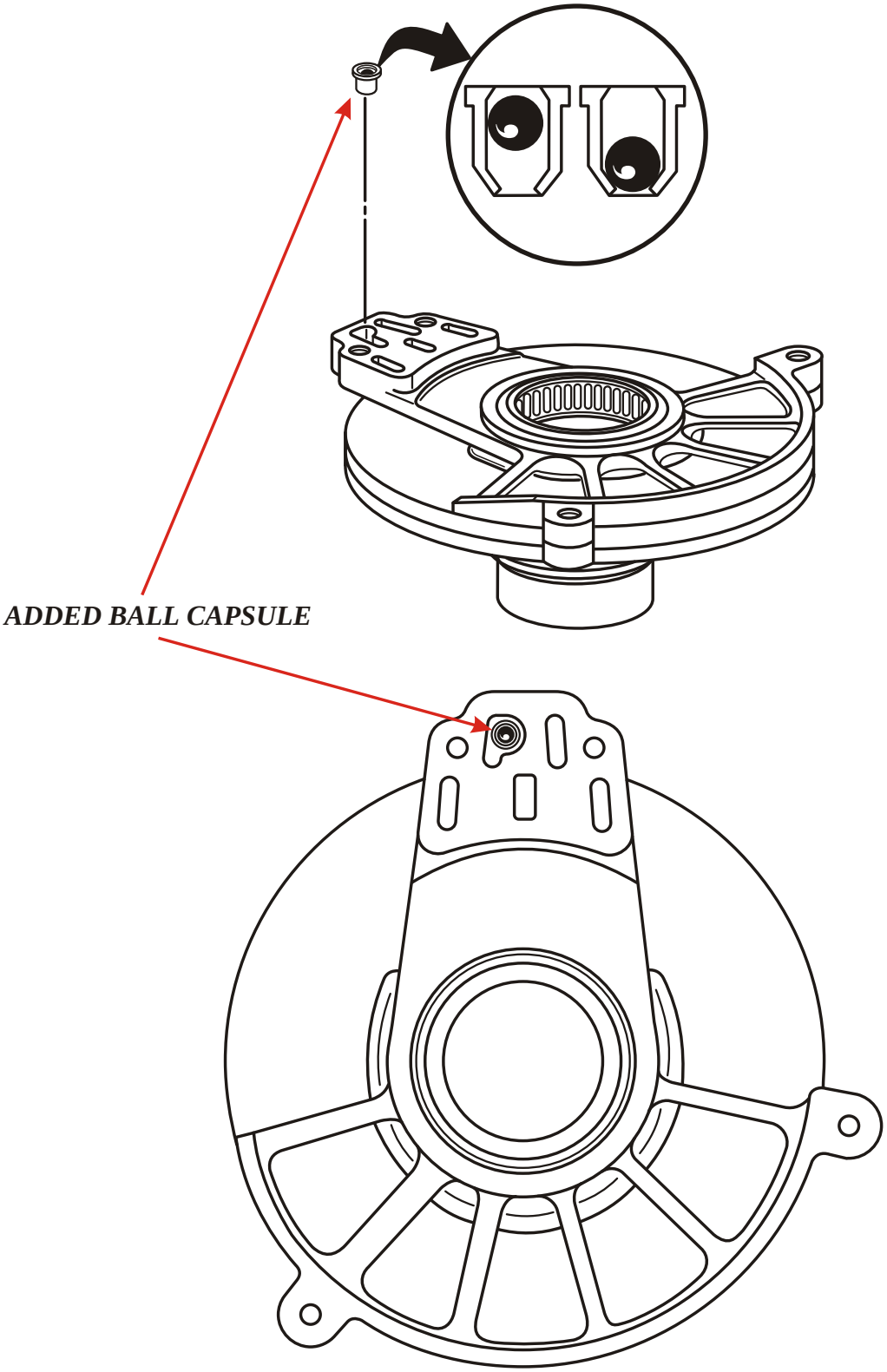

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Figure 8