

Getting a Better Look at the Toyota A761E Valve Body



by Mike Brown

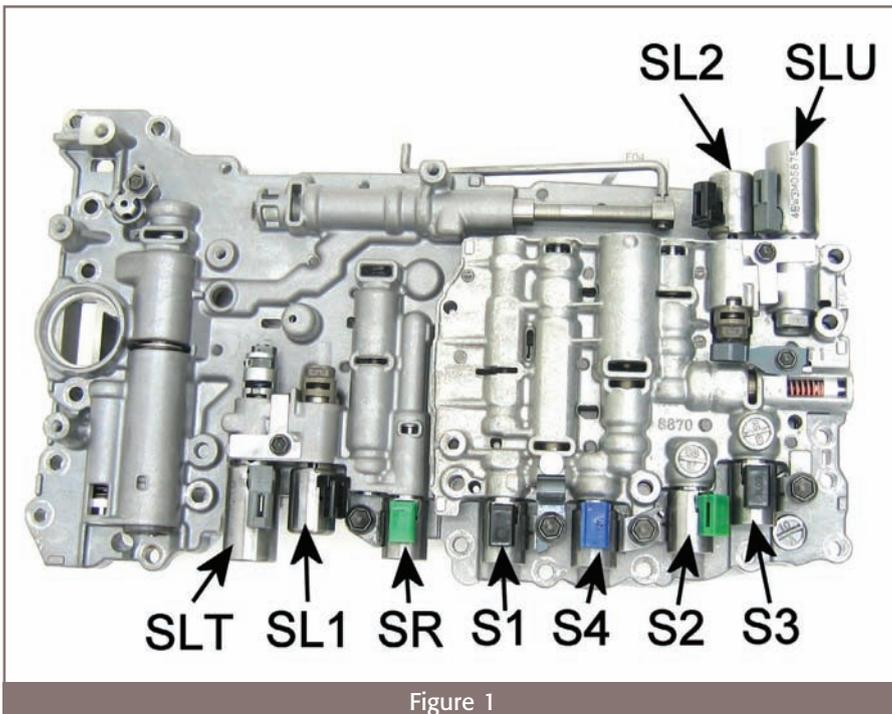


Figure 1

Repair Manual Solenoid Name	Parts Catalog Description
S1	Shift Solenoid A
S2	Shift Solenoid B
S3	Shift Solenoid C
S4	Shift Solenoid D
SR	Shift Solenoid E
SL1	Pressure Control Solenoid A
SL2	Pressure Control Solenoid B
SLT	Pressure Control Solenoid D
SLU	Torque Converter Clutch Pressure Control Solenoid

Chart 1

Very few have seen or worked on one, but believe me they're out there and they're coming! Introduced in 2004 in the Lexus LS430, the A761E has been around four years. Now these cars are getting traded in and are getting a lot of miles on them. And for those of you that step up to the call, you will be standing tall!

The main thing you'll want to keep a close eye on is the valve body. That's where this information will come in very handy. You may have already noticed Toyota won't print any information on valve body breakdown and checkball locations. Solenoid identification (figure 1) is a problem of its own.

In the chart, you'll see that the solenoids have two names: One that

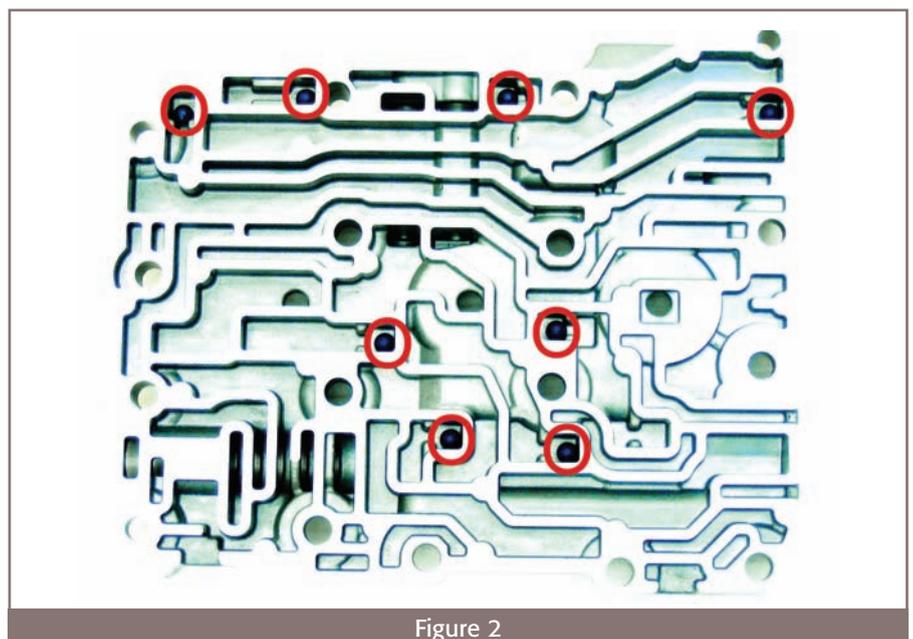


Figure 2

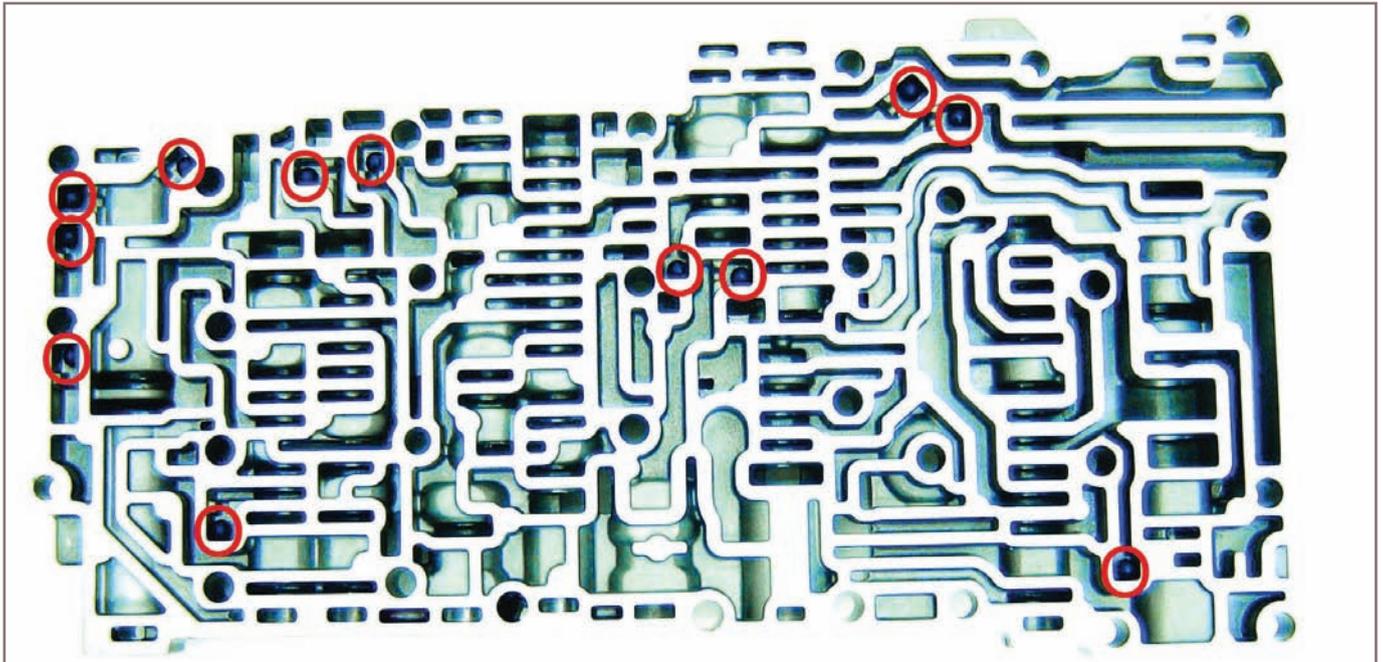


Figure 3

you'll get from the scan tool and repair manual, and the second one, which is the one you'll need to use at the parts counter. (Chart 1)

Checkball Locations

There are eight checkballs in the upper valve body (figure 2), and 12 checkballs in the main valve body (figure 3).

All of the checkballs are composite; make sure during the rebuild that the checkballs seat on the valve body separator plate and haven't decomposed.

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Valve Body Disassembly

As with any valve body, there are a few common practices you should always keep in mind:

- Always inspect the valves and springs thoroughly during disassembly.
- Check the valves for scoring and make sure the valve bore is clean of debris.
- Pay close attention to the valve layout, and make sure

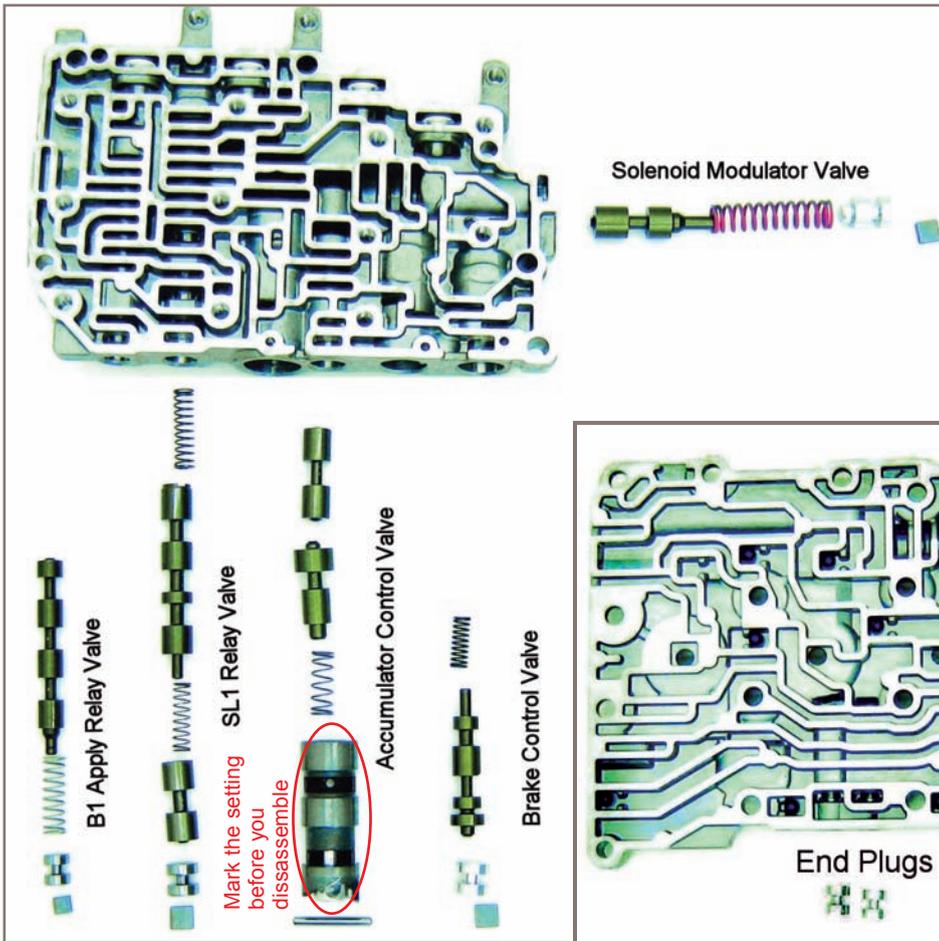


Figure 4

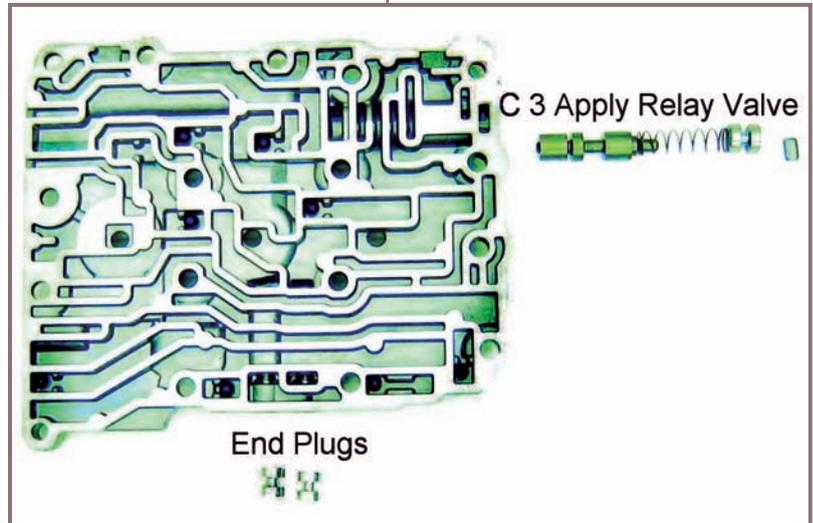


Figure 5

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you put them back together the way they came out.

Start with the lower #2 valve body (figure 4).

CAUTION: Mark the setting before you remove the accumulator control valve. There are no factory settings for this valve; it's model-dependent, and will vary from vehicle to vehicle.

Upper #2 valve body (figure 5).

Lower #1 valve body (figure 6).

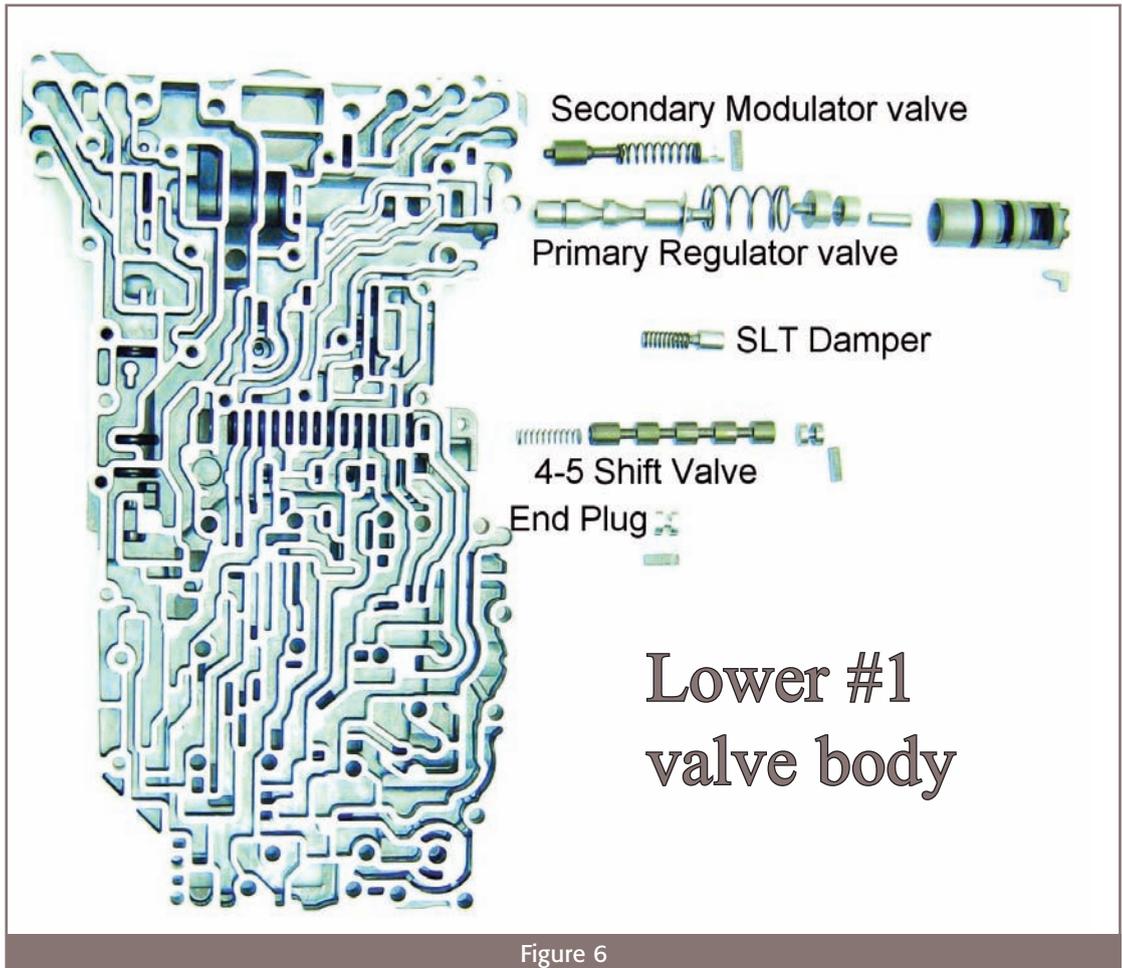


Figure 6

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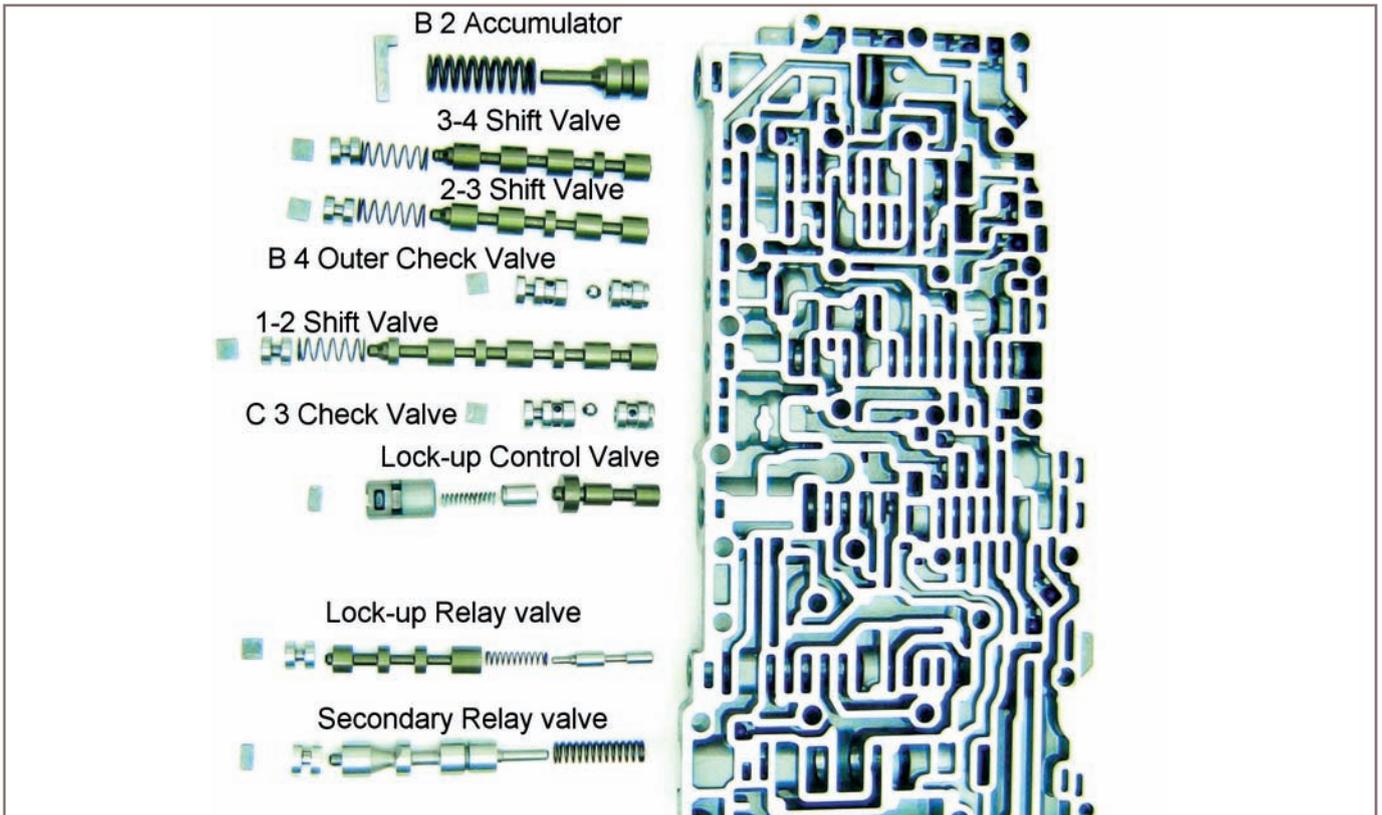


Figure 7

Be careful not to overlook the B1 accumulator in figure 9.

Upper #1 valve body left side (figure 7) and the right side of the valve body (figure 8).

Be careful not to overlook the B1 accumulator in figure 9.

Now that we've covered all the solenoids, control valves and checkballs in the valve body, use the appropriate charts to identify the bolts and install them in the right locations (figure 10), using the proper torque (figure 11).

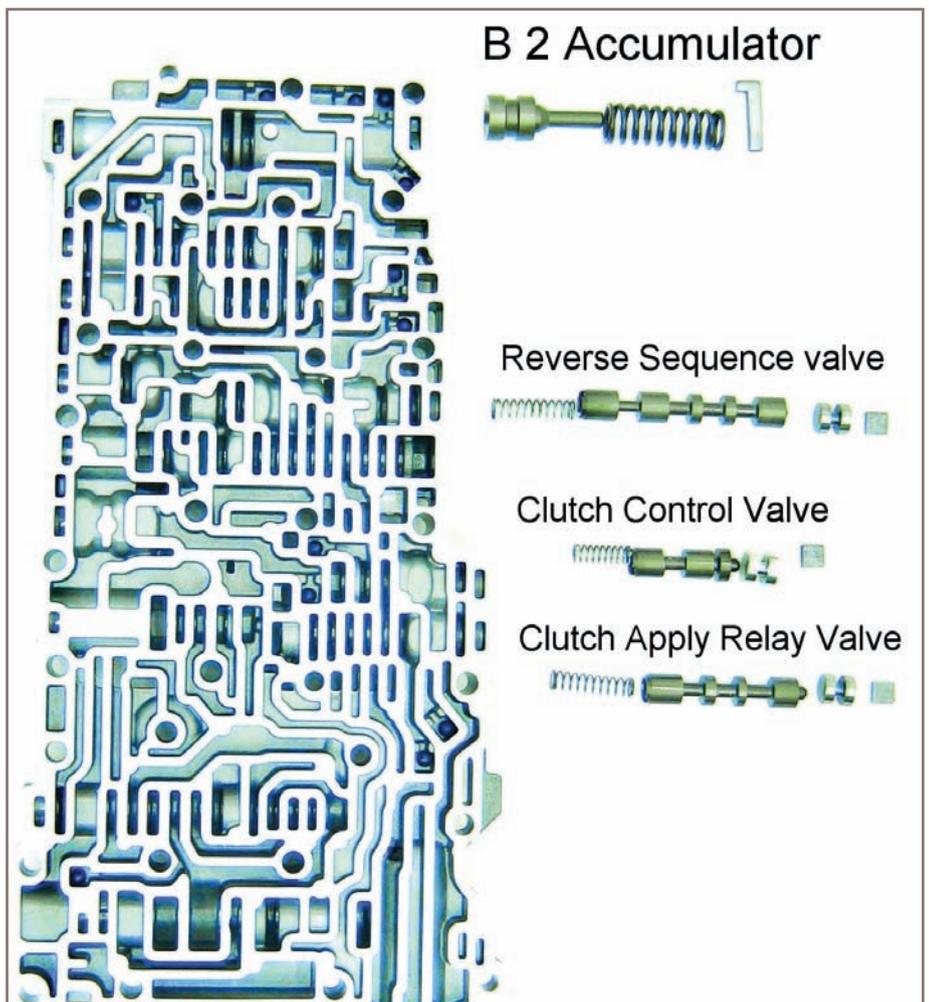


Figure 8

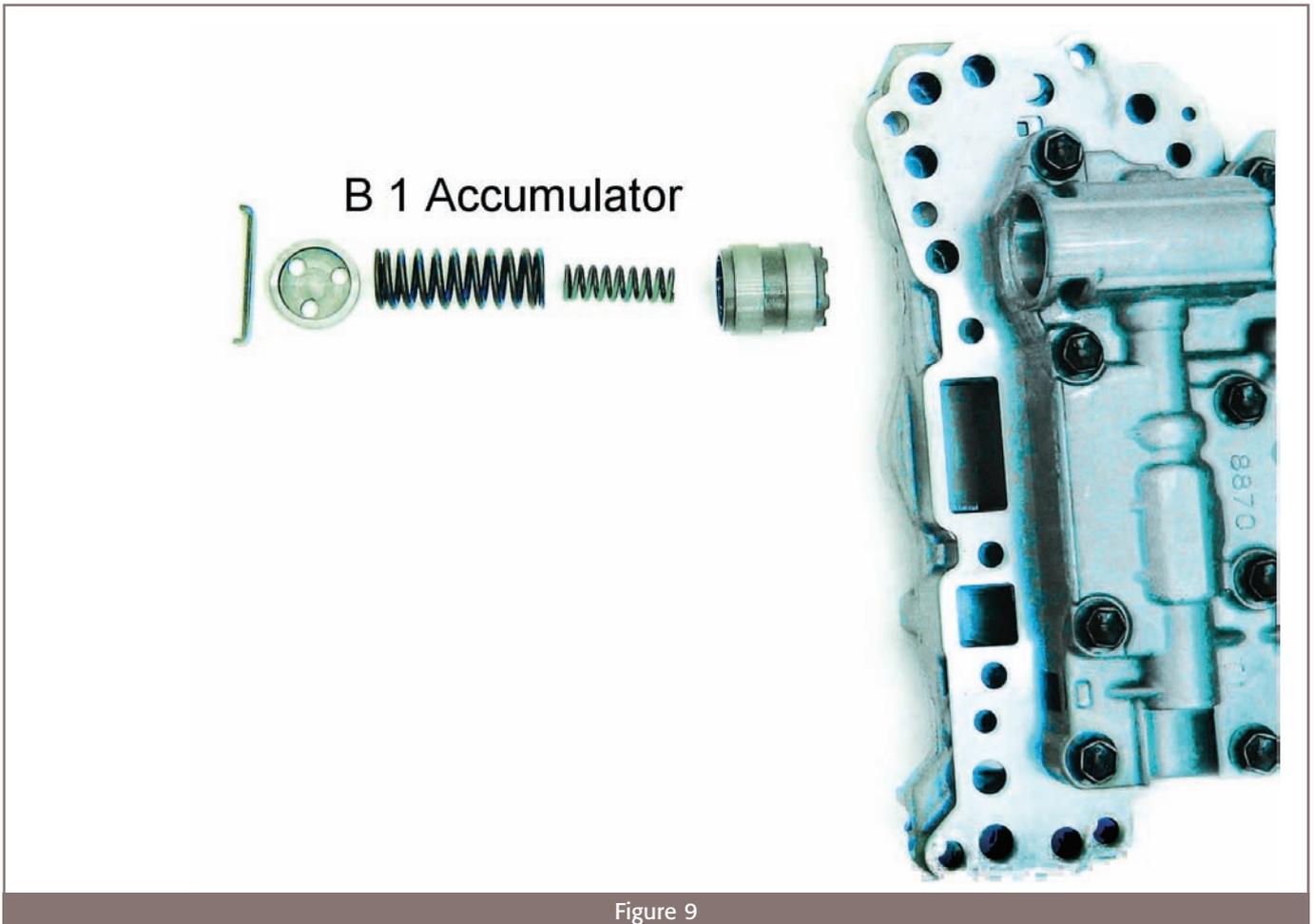


Figure 9

Valve Body Bolt Length and Position

- A: 20mm Qty 1
- B: 25mm Qty 10
- C: 32mm Qty 4
- D: 36mm Qty 13
- E: 40mm Qty 7
- F: 45mm Qty 2

- G: 50mm Qty 5
- H: 60mm Qty 1
- J: 64mm Qty 7
- K: 76mm Qty 1





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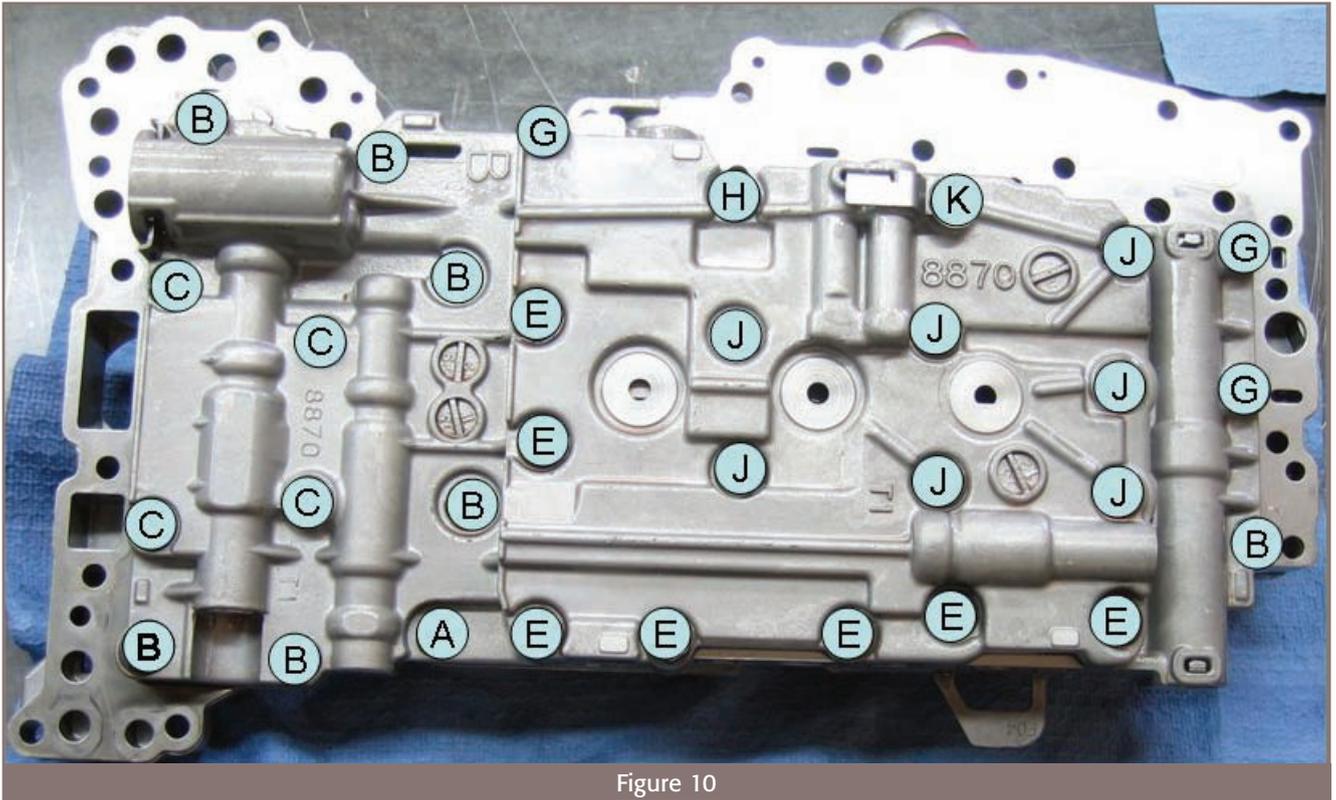


Figure 10

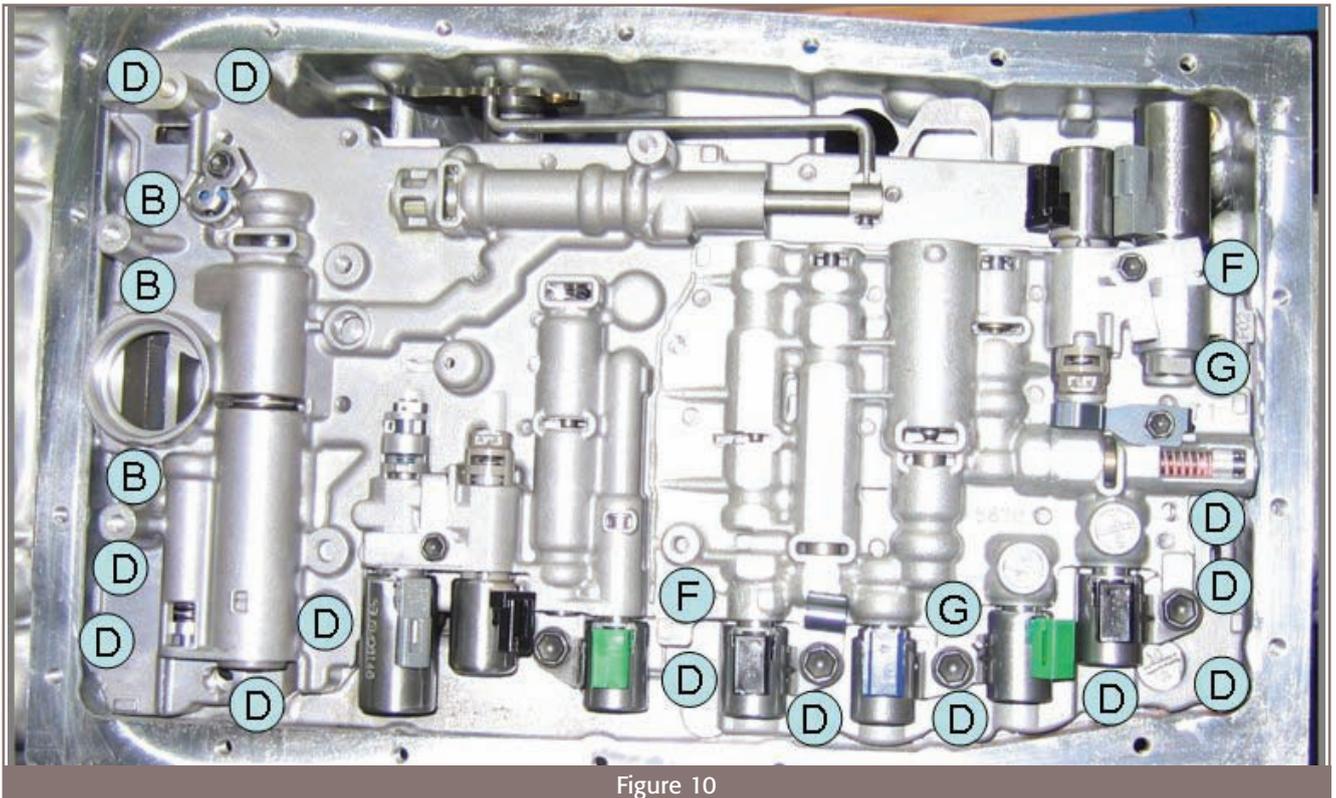


Figure 10

Torque Specifications

Valve body-to-case bolts.....	11 Nm (8 ft-lbs)
Upper valve body-to-lower valve body.....	6.4 Nm (57 in-lbs)
Solenoid bolts	6.4 Nm (57 in-lbs)
Solenoid bolts	10 Nm (7 ft-lbs)
Oil filter bolts.....	10 Nm (7 ft-lbs)

When you have the right information, reassembling the valve body is a snap. And that's why having the right information isn't just smart... it's *street smart!*



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