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Petites pièces, gros problèmes (little pieces, big problems)

The language does not matter here. If you build transmissions, you know that little pieces of just about anything can cause big problems in an automatic transmission. This story may be brief, but it is important for two reasons. The first, of course, is that it is true. The second, and even more important, is that we have received several calls like this at our tech department.

The story goes something like this. The customer came into the shop, complaining of no overdrive in a 4R70W. There are no codes or obvious external causes, but the complaint is verified on the road test. The unit will not go into overdrive.

Teardown and inspection show nothing more than one small problem. The snap ring on the Overdrive servo pin had broken into many pieces. With a new clip installed, the servo checked out fine and the transmission was put back together. The road test after the repair showed that the problem had not been corrected. Again, the unit will not go into overdrive. Once again back in the shop, we removed the valve body and found that a piece of the original snap ring was stuck in the Overdrive servo regulator valve.

Follow the trail traveled by the broken piece, as shown in the photos below. It may seem hard to believe, but we have seen it more than once. Our message: if you find something broken, make sure to find all those little pieces. Protect yourself from those big problems.

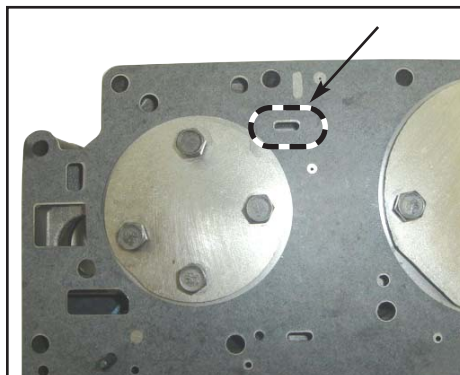


Figure 1: The piece enters the valve body here.

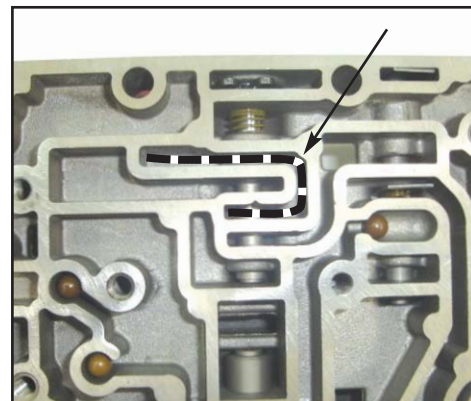


Figure 2: The piece works its way through the circuit.

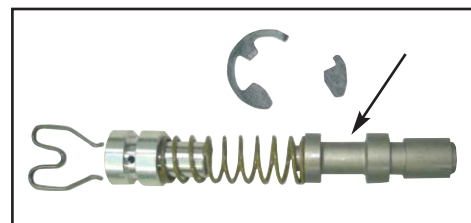


Figure 3: The broken piece of clip slides in enough to jam the valve.



Figure 4: If you find a clip that looks like this one, make sure to find the missing piece as well.

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