

S799 Servo Bore Repair System:
Torque Flight Detent



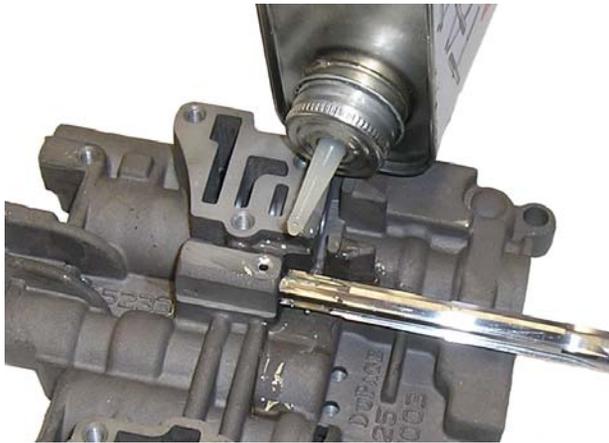
This tool is for use on **Chrysler Torque Flight (72-08, Big and Small)** transmissions.

**READ ALL APPLICABLE INSTRUCTIONS
BEFORE ATTEMPTING TO USE THE TOOL**

Northland Transmission Inc.

105 E. Poplar Ave Phone: (715) 458-2617
Cameron, WI 54822 Fax: (715) 458-2611

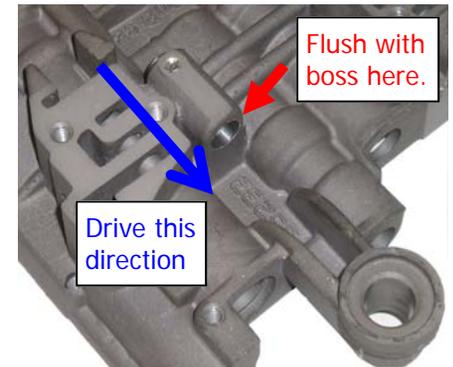
www.servobore.com



1. Remove the spring stop pin from the detent bore. See the next page for more detailed instructions on removing the pin.
2. Oil the valve bore with cutting oil.
3. Install the reamer in your drill. Slide the reamer pilot into the detent bore to the first step, without running the drill.
4. Ream out the bore with both steps of the reamer. Make sure to apply ample lubrication while reaming.* Stop the drill when the second step clears the end of the detent bore closest to the manual shaft support. Remove the reamer by hand, without running the drill. **DO NOT REAM ABOVE 500 RPM.**

5. Wash the valve body.

6. Place a narrow bead of **GREEN** Loctite® (preferably #680) on the end of the sleeve (doesn't mater which end), and drive it towards the manual shaft support. Install the sleeve flush with the end of the casting boss.

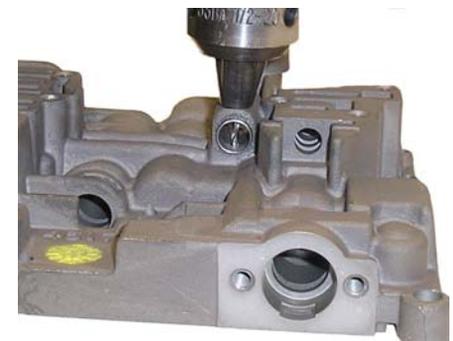


7. Drill spring stop pin hole. Use provided .093" drill. Take care not to drill the casting when you pass through the bottom of the bushing. As a safety precaution, set your bit deeper in the chuck. At .600" you will safely drill only the sleeve on all valve bodies.

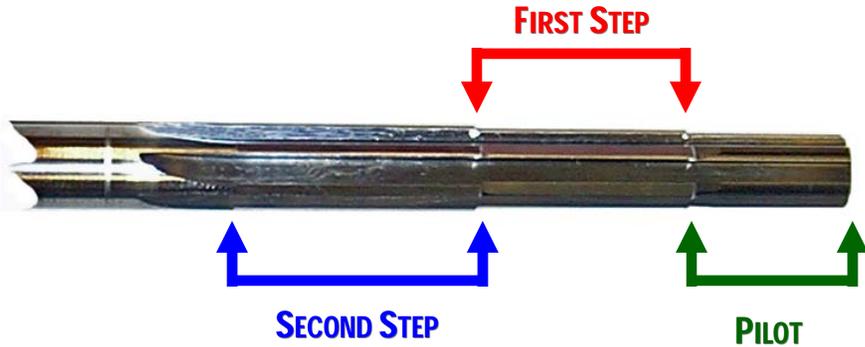
8. Drive included gauge pin through the bushing. Check to make sure that the ball is free in the end of the sleeve.

*- For lubrication, use cutting oil.

ATF WILL cause an oversized bore.



Reamer Explanation



This kit only uses one reamer. The reamer has three sections. Each section serves as a pilot for the one behind it.

Spring Stop Pin Removal

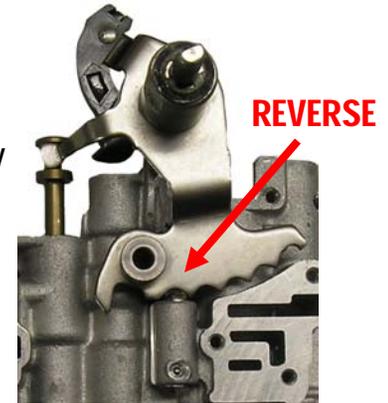
In a word, removing the spring stop pin can be a pain. What we've found to be the easiest way, is to use the web of a 1/4" drill bit to sort of counter-bore the staking around the top of the pin. Once this has been accomplished, a needle-nose pliers is used to work the pin up and down. Work the pin until enough of it protrudes from the casting to pull the pin directly out.



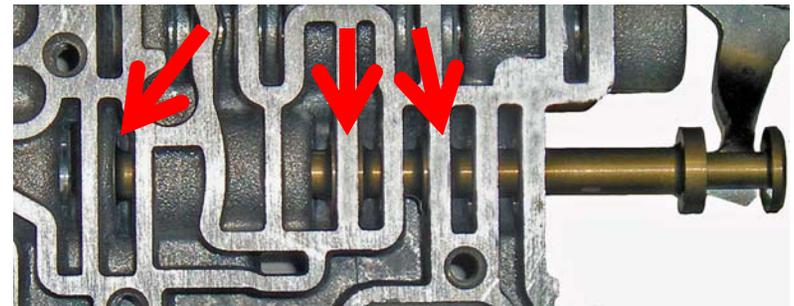
Manual Valve Alignment

While proper installation of this kit will actually correct many manual valve alignment issues, it's always a good idea to check alignment on these valve bodies. The alignment provided is for the stock manual valve, if you are installing an aftermarket valve, follow the valve manufacturer's instructions.

1. Install the manual linkage parts (valve, rooster comb, ball, and spring) on the valve body. You may want to install the T.V. plunger to hold the linkage together while checking adjustment. Place the linkage in reverse.



Valve Lands



2. Flip the valve body over and inspect the manual valve. The valve lands should look like the above picture. Adjustments can be made with a 3/8" fitting wrench.



Important Reamer Info



Inspect for aluminum buildups on the cutting edges as pictured left.



To clean the reamers, we offer a stone for \$17.

Thirty Seconds of maintenance saves hours of aggravation.

Reamers are like drills, if you use them repeatedly in aluminum they develop build-ups on the cutting edges. These build-ups effectively make the reamer larger, causing a larger hole. This causes the valve to be loose in the bore, which defeats the entire purpose. To prevent this, you need to (1) keep your reamers sharp and (2) use plenty of CUTTING OIL when reaming.

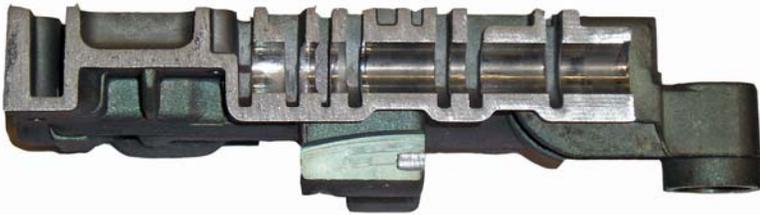


We Recommend Tap Magic for Lubrication.

MSC #00261933

Phone: 800-645-7270

Check the Throttle Valve...



Torque Flights tend to wear out the throttle valve bore. Check out our TFTV kit to repair this in Torque Flights, 48RE's, and 31TE's.

A Little Friendly Tech

Anodized aluminum pressure regulator valve can cause a buzzing sound (see Chrysler Bulletin 21-08-99). Always replace with original steel pressure regulator valve.

If you have run out of used valves, new ones are available from Chrysler for about \$9.00. Chrysler # 04130169



Worn out Servo Pin Bore?

We have a comprehensive line of kits that allow you easily and effectively repair the cases better than new. See our web site or talk to your distributor today.