

S799 Servo Bore Repair System:

Torque Flight TV



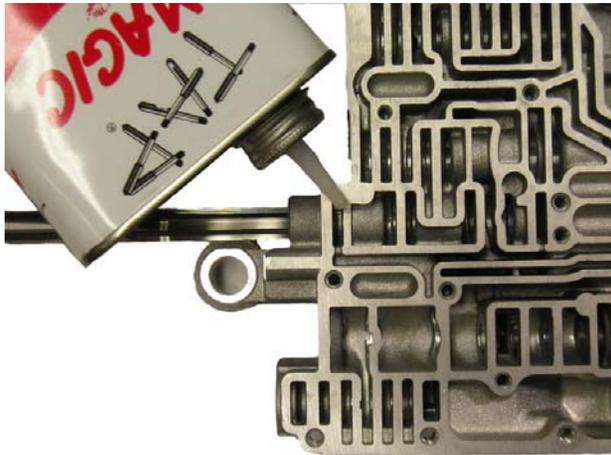
This tool is for use on **Chrysler Torque Flight (72-03, Big and Small)** transmissions.
Available separate valve kits expand this transmission to **48RE** and **31TE** respectively

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

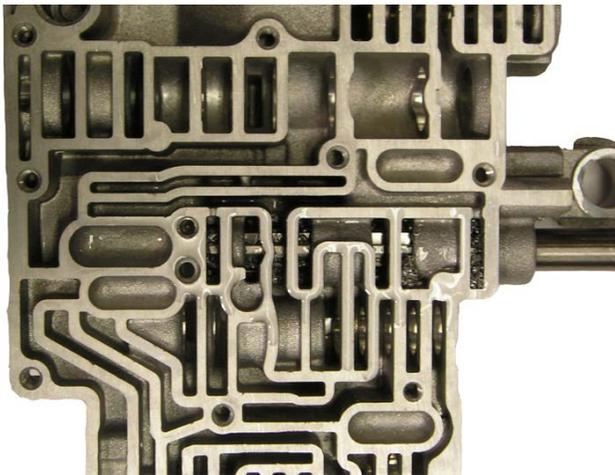
Northland Transmission Inc.

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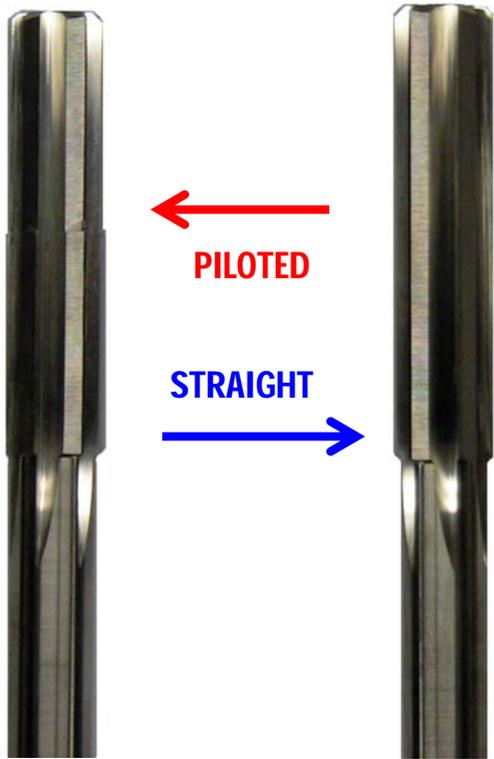
1. Oil the valve bore with cutting oil.
2. Install **PILOTED** reamer (#81183 printed on shank) in drill. Slide the reamer into the valve bore to the pilot, without running the drill.
3. Ream out the bore until the piloted reamer bottoms, applying ample lubrication.* Stop the drill when bottomed and remove by hand, without running the drill. **DO NOT REAM ABOVE 500 RPM.**
4. Replace the piloted reamer with the straight reamer (#81182 printed on shank) , slide the straight reamer in until it bottoms without running the drill.
5. Ream the rest of the bore out with the straight reamer, stop when you hit the end of the bore and remove the reamer by hand. **DO NOT TURN THE REAMER WITH THE DRILL WHEN REMOVING.**
6. Wash the valve body. Install the new throttle valve followed by the original spring, than the new plunger and guide. Take time to inspect the new valve train for any nicks that may have been incurred during shipping.



Re-Use Original Spring.

Or Use Your Favorite Aftermarket Spring.
Valve dimensions are the same as stock.

*- For lubrication, use cutting oil. **ATF can cause an oversized bore.**



The **PILOTED** reamer has "#811183" printed on the shank and has two regions that have different outside diameters. The smaller tip or, "pilot" guides the reamer down the original bore for the first half of the ream.

The **STRAIGHT** reamer has "#811182" printed on the shank and has only one outside diameter and uses the area reamed by the piloted reamer as its guide to ream the bottom of the bore.



Sometimes the new throttle valve can be a little sticky. When you run into this, first check the valve for burrs, then stroke it in the bore to free. Vacuum line works great.

A Note on Valve Kits

Three different valve re-fill kits are available for your TFTV kit. With these different refills, you can expand your kit to work on 48RE and 31TH (413, 670, etc.) transmissions. Your kit came with three sets of what we refer to as TF Valves. These valves fit all small valve Torque Flights from the early 727's and 904's all the way to the last 42 and 47RE's. The 48RE refill kit comes with a different plunger and bushing that are specific to the 48RE. Refer to the next page for info on identifying the correct kit for the correct valve body. The 413 kit fits all 31TH series transmissions.



48RE **TF** **413**

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

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

48RE's use a different throttle stop than previous design Torque Flights (see picture at left). Use the **48RE** valve kit if your stop looks like the one on the right. Use the **TF** valve kit if it looks like the one on the left.



Look **HERE**

TF

48RE

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.