



# TURBO ACTION

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## **CHEETAH PRO SERIES** **POWERGLIDE TRANZ BRAKE VALVE BODY** **(Manual Control Only)** **(1962-73)**

**Part #22997 - Stock Shift Pattern PRN21**  
**Part #22998 - Reverse Shift Pattern PRN12**

Parts Included:	1	-	22997	Valve Body (Stock Shift Pattern PRN21)
			or	
	1	-	22998	Valve Body (Reverse Shift Pattern PRN12)
	1	-	22280B	Solenoid (Two Wire)
	1	-	22072	Pan Gasket
	1	-	22076	Filter Gasket
	1	-	22077-1	Modulator Gasket
	2	-	00781A	Terminal Female Snapplug
	2	-	00782A	Terminal Male Snapplug

FIRST, READ INSTRUCTIONS CAREFULLY, THEN PROCEED TO INSTALL VALVE BODY BY FOLLOWING EACH STEP INDIVIDUALLY.

It is suggested that you do all modifications for maximum performance.

**STEP #1:** Place transmission in park.

**STEP #2:** Remove drain plug and drain oil. Remove pan.

**STEP #3:** Remove modulator and small rod if so equipped.

**STEP #4:** Remove 2 bolts holding shift lever guide plate. **NOTE** position of shift lever and manual valve. Also note position of the small spring that gives detent pressure for shift lever, (See Fig. #1).

**STEP #5:** Remove six valve body bolts that hold valve body in place (See holes in new valve body included). (See Fig. #2)

**STEP #6:** If transmission in car, hold one hand on valve body and carefully pry with screwdriver under the Servo Tube connecting the valve body to the servo. (See Fig. #3)

**STEP #7:** Let valve body drop down towards the converter.

**STEP #8:** Remove E-Clip and Detent Bracket from old valve body.

STEP #9: Place E-Clip and Detent Bracket on new valve body.

STEP #10: Remove Manual Slide Valve from old valve body.

STEP #11: Install Manual Slide Valve into new valve body.

**Steps #12 thru #20 should be done for best results.**

STEP #12: Remove front pump assembly.

STEP #13: Remove front drum assembly.

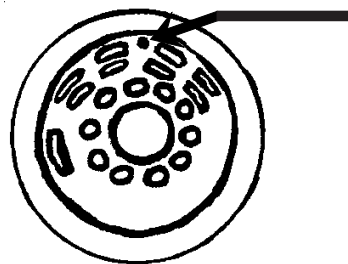
STEP #14: Remove planetary assembly.

STEP #15: Remove rear clutches.

STEP #16: Remove rear piston.

STEP #17: The back of the case will have a small hole in it. Enlarge to 1/4".

STEP #18: Rear piston - drill a 1/16" bleed hole near outer edge of piston.



**1/16" hole to be drilled.**

STEP #19: Reinstall rear piston with bleed hole towards top of case and set rear clutch clearance to 0.080-0.100 using five clutches. It will most likely be necessary to switch around different thickness steels or machine piston for proper clearance.

STEP #20: Reassemble rest of transmission to stock specifications. Suggest a #22043 Direct Clutch Steel Hub for added dependability.

STEP #21: Installing valve body should be done very carefully.

STEP #22: It may be necessary to remove special modulator valve and spring from valve body to install valve body in the case.

STEP #23: Being very careful, place new valve body into transmission, guiding the Servo Tube, the Manual Valve Body and the Detent Spring Bracket into place. Sometimes it may be necessary to tap on Servo Tube to get into hole in case. Also be careful not to damage gasket. (See Fig. #2 & #3)

STEP #24: Start six bolts in valve body. Be sure Servo Tube, Manual Valve and Detent Spring Bracket are properly in place. (See Fig. #2)

STEP #25: Tighten six bolts to 8-10 ft./lbs.

- STEP #26:** Place shift lever guide plate and two bolts into place being sure the Manual Valve is properly lined up with the shift lever. (See Fig. #1)
- STEP #27:** Tighten bolts to 8-10 ft./lbs.
- STEP #28:** Connect Detent Spring to Detent Spring Bracket and Valve Body Bracket with pair of needle nose pliers. (See Fig. #2)
- STEP #29:** Install special modulator valve and spring back into valve body. If you did not remove, go on to **STEP #31**.
- STEP #30:** Install solenoid #22280B and modulator gasket #22077-1 using a large pair of pliers and tighten (10-15 ft./lbs. is adequate). Release time can be adjusted by shimming solenoid back towards rear of car.
- STEP #31:** Manually push back of solenoid in and release to see if modulator valve is working freely and that it springs back when released. **Note** - Our two wire solenoid must be hooked up as follows: One wire to 12 volt source, the other wire to ground.
- STEP #32:** Take old filter and new filter gasket #22076 and install on new valve body. If filter needs replacing, use a Turbo Action #22006. Be sure old filter is clean.
- STEP #33:** Install new pan gasket #22072 and reinstall pan.
- STEP #34:** **IMPORTANT! *Adjust Front Band:***  
Back off lock nut with 9/16" box end wrench. Use a 7/32" hex key wrench and turn clockwise to 10 in./lbs. Be sure lock nut doesn't turn in while turning hex key wrench. Now turn hex key wrench counter clockwise four (4) full turns and tighten lock nut being sure hex key wrench doesn't turn.
- STEP #35:** Depending on your preference install a 10-20 AMP momentary switch. Turbo Action offers a completely sealed micro switch with industrial stretch cord for the steering wheel #00774. Use a good 12 volt source with #14 gauge wire (See Fig. #4).
- STEP #36:** Refill transmission with a good brand of type "F" or Dexron Mercon transmission fluid. Add approximately only three quarts. Warm transmission up and place in all gears, then check to make sure transmission level is on the add mark. Add oil if necessary to bring to the full mark. ***DO NOT OVERFILL!***

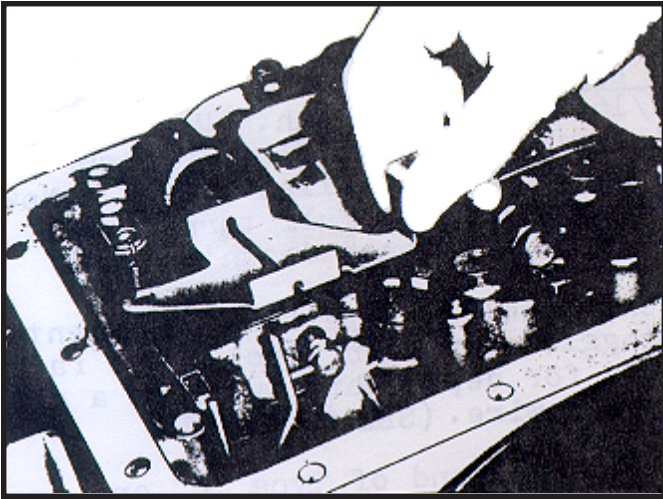
**Additional Information:**

The Tranz Brake takes some getting use too. This valve body works same as our standard Cheetah Valve Body if you do not engage momentary switch.

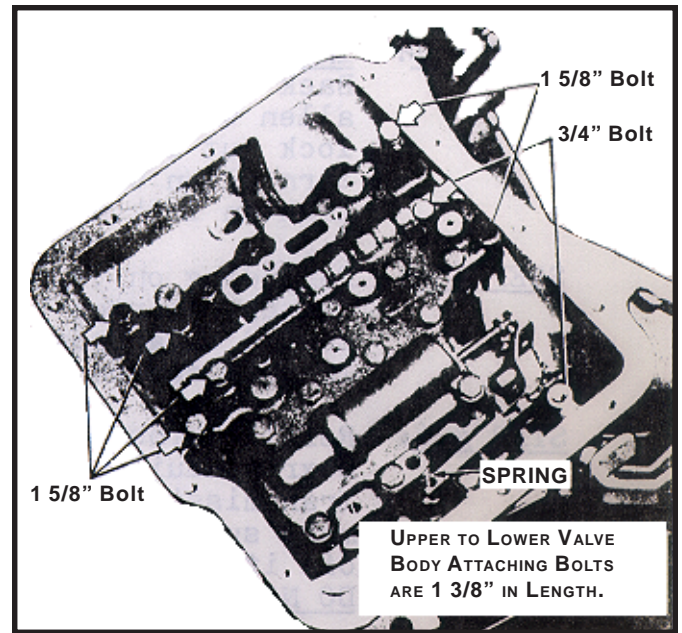
**CAUTION:** **Be sure when car is in low gear that you engage switch only when car is stopped!!!**

**OPTIONAL:**

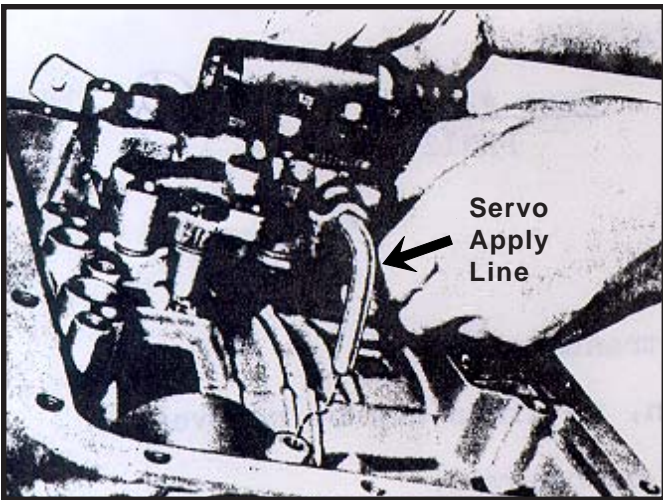
1. Governor assembly can be removed.
2. Remove vacuum modulator lines.
3. Passing gear (throttle) linkage may be removed.



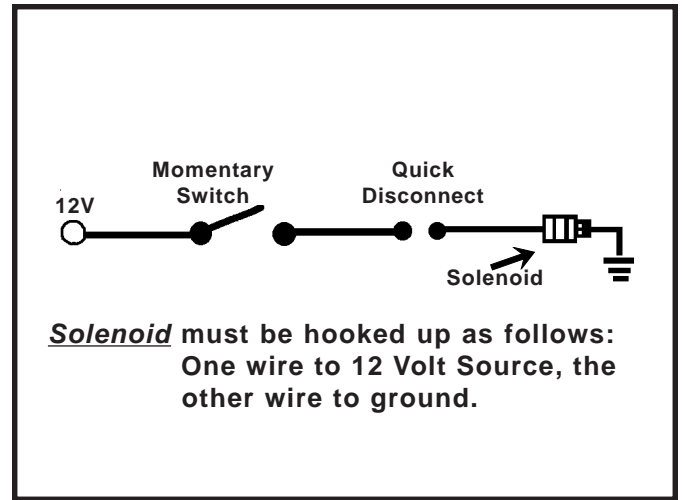
**Fig. #1**



**Fig. #2**



**Fig. #3**



**Fig. #4**