

# TURBO ACTION

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## CHEETAH POWER SHIFTS

### A Shift Improvement Program

The following KIT FITS all Torqueflite and Torque Command "727", "904", "998" & "999" transmissions that come behind V8 Engines.

#17812 - 1974-77 Torqueflite and Torque Command

FIRST, READ INSTRUCTIONS CAREFULLY, THEN PROCEED TO INSTALL KIT BY FOLLOWING EACH STEP INDIVIDUALLY. THIS KIT WILL REQUIRE 5-7 QUARTS OF TRANSMISSION FLUID. IF CONVERTER IS DRAINED, 9-11 QUARTS.

Note: Passing gear linkage must be hooked up and adjusted properly, whether with our kit or without, otherwise transmission will burn up.

#17812 Kit Includes: 1 - 17033 Special Valve Body Separator Plate  
1 - 17126A Special Plug  
1 - 17128A Special Rod  
1 - 17270 Pan Gasket "727"  
1 - 19063 Pan Gasket "904"

IMPORTANT: This kit will give excellent results when properly installed, but care must be taken to read these instructions very carefully. This kit can be installed much easier if transmission is cool. A new transmission filter is recommended. Use a Turbo Action #17010 "Full Flow" Filter (reusable) or a #17011 Dacron Filter. Be sure you adjust the front band per specifications on Page 4.

STEP #1: Vehicle should have four wheels off ground in case drive-shaft needs to be turned as mentioned in Step #3 & #16. Place vehicle's shift selector in reverse range. Remove throttle pressure linkage and gear selector linkage located on the driver's side of the vehicle. Disconnect only at the shaft coming out of the transmission case. You will note the two linkage levers on the shaft are fastened by a bolt in each case. Loosen these bolts but do not remove bolts completely. After loosening bolts, carefully pry levers upwards with a screwdriver.

STEP #2: Remove all pan bolts but two on one end. This way you will be able to drain the transmission without getting soaked with oil. These two bolts can be gradually loosened off after most of the oil has been drained.



- STEP #3:** Carefully remove the ten 7/16" bolts which hold the valve body in place. Slowly pull valve body out of transmission, noting the hole that the long swinging rod came out of. It may be necessary to turn driveshaft to remove the rod. This rod controls your park function. Most Torqueflites will have a large spring between one end of the valve body and the case (Fig.#1). This spring should not be put back in the vehicle when using this kit. Some models will not have this large spring, if so, check the accumulator piston by pushing to see if a small spring is under it. If so, remove accumulator piston spring from transmission case. Then replace the accumulator piston only into the transmission case.
- STEP #4:** The transmission valve body is a very intricate piece of your transmission, and therefore, care should be taken to keeping it clean while working on it. Lay valve body on a bench or table so that the swinging arm is laying on the bottom. Remove three screws from transmission filter. Remove filter and place to one side with the three screws which held it. These screws must be used in the filter only. **CAUTION:** Note position of filter before removing (Fig.#2).
- STEP #5:** Remove 14 screws that hold the transfer plate to the valve body. **CAUTION:** Some valve bodies contain a ball on top of a spring, which will pop out of the valve body, when loosening last screw. This can be prevented by holding the valve body and transfer plate together while removing last screw.
- STEP #6:** Lift transfer plate carefully and note location of spring and ball (if it has one). See Figure #5 which shows location of balls and of ball and spring. Ball and spring will no longer be used so discard at this point. If your unit does not have ball and spring, merely go on to next step.
- STEP #7:** Lay transfer plate on bench with valve body separator plate showing. Then remove 4 screws that hold the valve body separator plate on the transfer plate. Note position of the small piece of steel support on valve body separator plate. See Figure #4 for proper steel support location.
- STEP #8:** Remove old valve body separator plate. Remove ball check located in transfer plate (Figure #3). Remove plastic filter if your unit has one and discard. Install new valve body separator plate with the 4 screws and the small steel support. Make sure while tightening the screws that the transfer plate and valve body separator plate line up accurately (Figure #4).
- STEP #9:** Take valve body, remove six balls and set to one side (Fig. #5).
- STEP #10:** Carefully remove 5 screws holding Governor Plug End Plate shown in Figure #6. Then remove Shuttle Valve Throttle Plug shown in Figure #6. Insert the Special Rod inside of spring shown in Figure #6. Now, place Shuttle Valve Throttle Plug back in hole as it was originally.
- STEP #11:** Place 5 screws and Governor Plug End Plate back over valves in valve body and tighten. Be sure that this plate sits perfectly flat. If it shouldn't, grind small amount off of Special Rod that was in the kit. This normally should not be necessary, so double check your work.



STEP #12: Remove 3 screws holding End Plate and Housing as shown in Figure #6. Be careful and remove only the one spring indicated in Figure #6. DO NOT remove any valves from valve body. Insert the Special Plug given with kit into the hole where the spring was located. Carefully place End Plate and Housing back in place making sure other two springs are in their proper position. Tighten screws making sure Housing is flat against valve body. If it shouldn't fit flat, grind small amount off of Special Plug. This normally should not be necessary, so double check your work.

STEP #13: This step gives you a choice of what kind of shift you desire:

HIGH PERFORMANCE (Performance Street Vehicle)

Very Firm 1-2 Shift

Place balls back in valve body as in Fig.#5,  
LEAVING OUT #6 BALL.

HEAVY DUTY

(Tow Vehicle, Van, Pick-up Truck)

Place all balls back in valve body  
as in Fig.# 5. This will give firm  
shifts but not aggressive as with the  
high performance mode.

CAUTION: Do Not replace spring and #7 Ball as shown in Figure #5 & #6. Remember some valve bodies do not have this spring & ball.

STEP #14: Place transfer plate assembly carefully on top of valve body. Replace 14 long screws and tighten securely. Then replace transmission filter with the three filter screws and tighten(Fig. #2). Recommend changing filter.

STEP #15: Before re-installing valve body into transmission, take note of the plastic neutral-switch on the driver's side of the transmission, inside of the transmission case. When installing the valve body, make sure this switch does not get damaged. Either remove the switch assembly or merely slide the valve body carefully over the switch. The ball will retract as the valve body puts pressure on it.

STEP #16: Place valve body back into transmission pushing rod into hole that was mentioned in STEP #3. The swinging rod should be angled toward the outside of the rear of transmission and towards the center of the transmission in the front. Push rod firmly towards rear while turning drive shaft. BUT DO NOT FORCE ROD OR VALVE BODY.

STEP #17: With valve body in place, install 10 valve body bolts and tighten to 8-10 ft./lbs. Clean pan, install new pan gasket and bolt up oil pan.

STEP #18: Replace shift linkage (large piece), then the throttle linkage (small piece). Tighten bolts on linkage.

STEP #19: Refill transmission with a good brand of Dexron fluid. Warm transmission up and place in all gears, then check to make sure transmission level is on the add mark. CAUTION: If vehicle off ground, remember brake must be applied under same principle as if wheels on the ground. Take vehicle out and drive 2 or 3 miles. Then recheck oil level. Add oil if necessary to bring to the full mark. DO NOT OVERFILL! Always check level of transmission fluid when in neutral, but put parking brake on as a safety measure.





Accumulator Piston

FIGURE #1

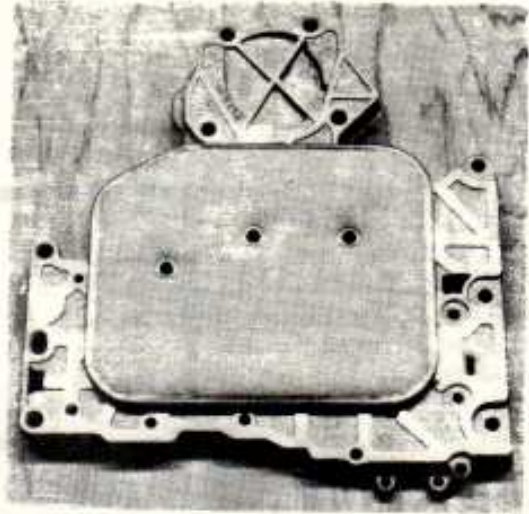


FIGURE #2

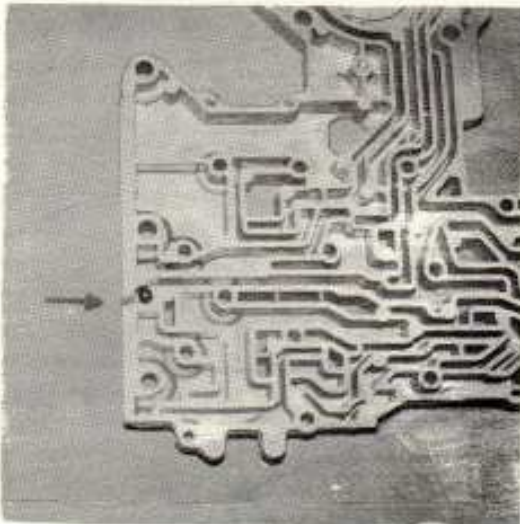


FIGURE #3

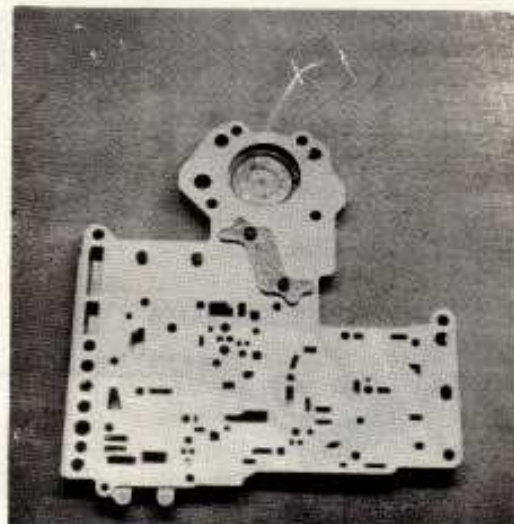


FIGURE #4

HOW and WHICH BAND TO ADJUST

1. There are two bands in a Torqueflite transmission: (A) Front Band - kickdown band; (B) Rear Band - low/rev. band. DO NOT ADJUST REAR BAND. DO ADJUST FRONT BAND as follows:
  - a. Locate the adjustment on driver's side on the outside of the transmission, just ahead of the linkage.
  - b. You will need a  $3/4$ " wrench and an open end  $5/16$ " wrench. Break the locknut loose ( $3/4$ " nut). Now holding the locknut, turn the square lug in the center of the locknut with your  $5/16$ " open end wrench. Turn wrench clockwise until wrench becomes snug. Make sure locknut doesn't move while tightening the square lug.
  - c. Now carefully turn  $5/16$ " wrench counter clockwise  $1\ 1/2$  turns. Holding the  $5/16$ " wrench, tighten the  $3/4$ " wrench to 35 ft. lbs. (very tight). DO NOT allow the square lug to move while tightening the  $3/4$ " locknut.

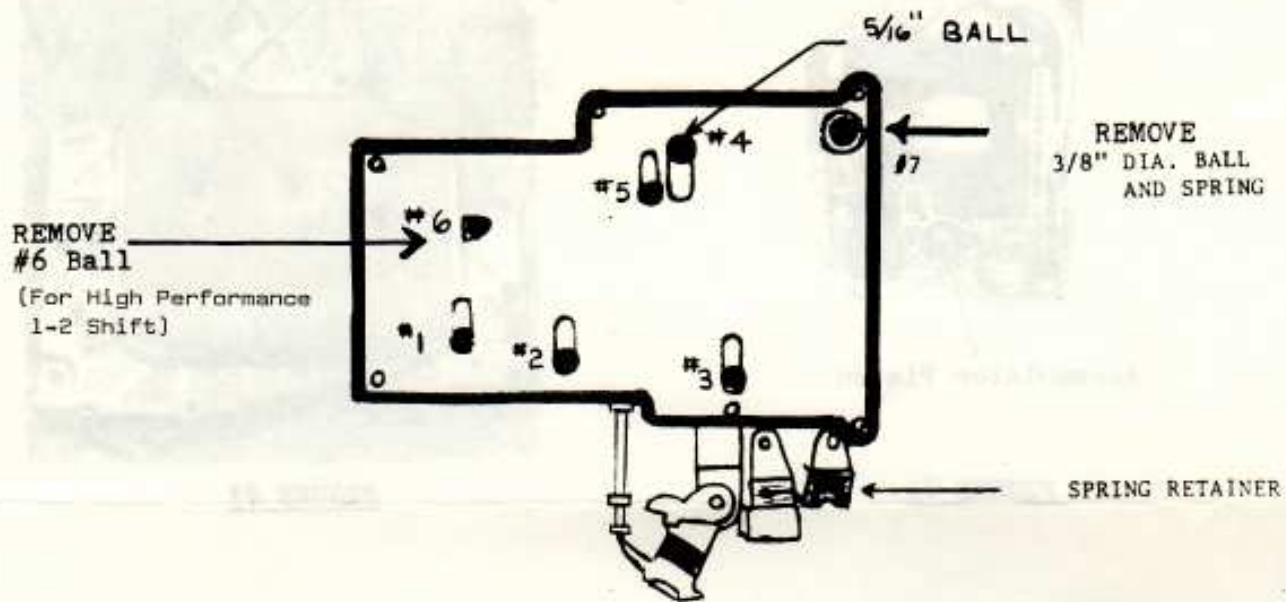
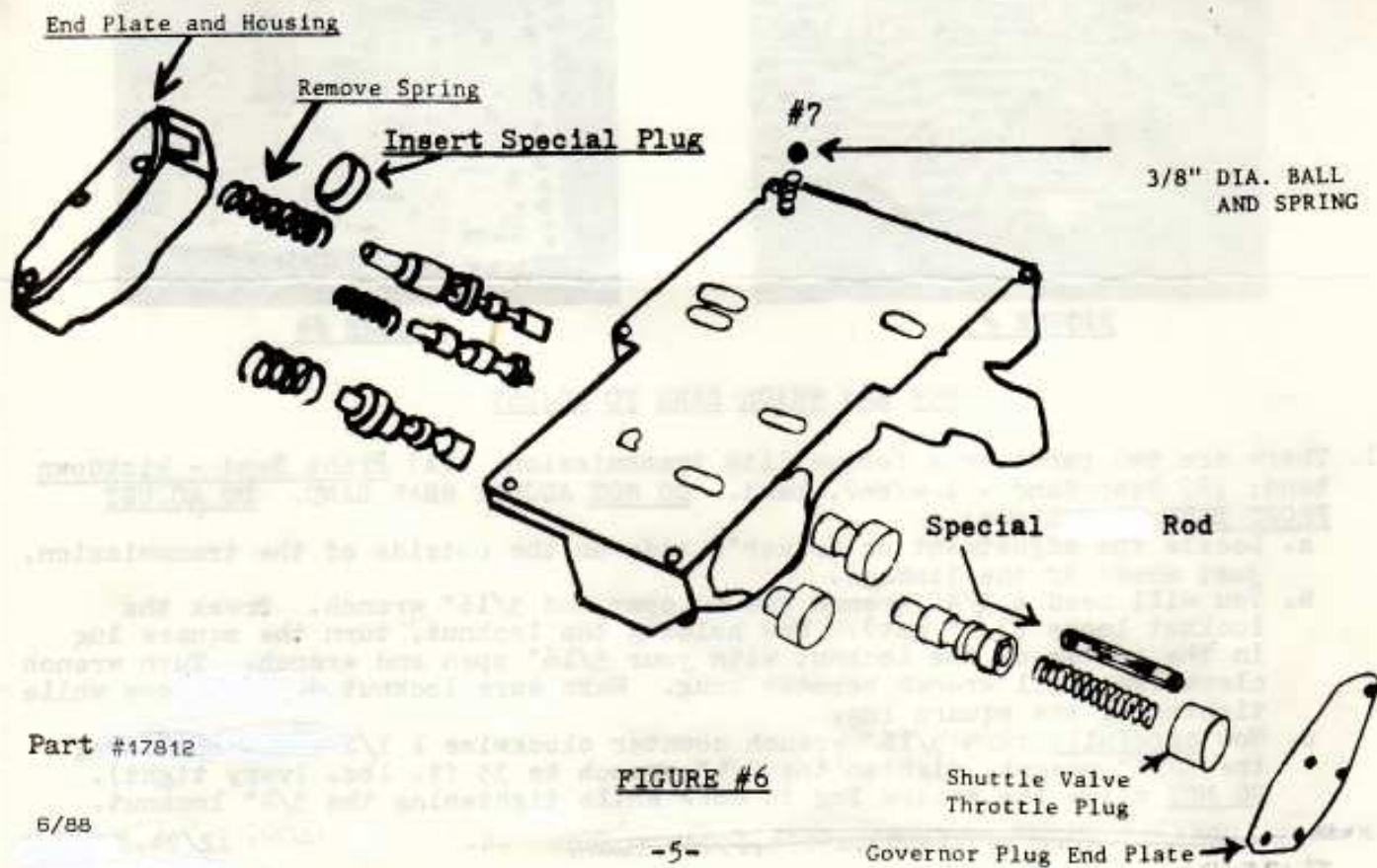


FIGURE #5



Part #17812

FIGURE #6

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