TURBO ACTION

1535 OWENS ROAD, JACKSONVILLE, FLORIDA 32218 (904) 741-4850

WWW.turboaction.com

IMPORTANT

READ BEFORE PROCEEDING

The enclosed sheets cover Kit Installation Instructions for the following year applications. Be sure you pick the correct instructions for your year application. They are as follows:

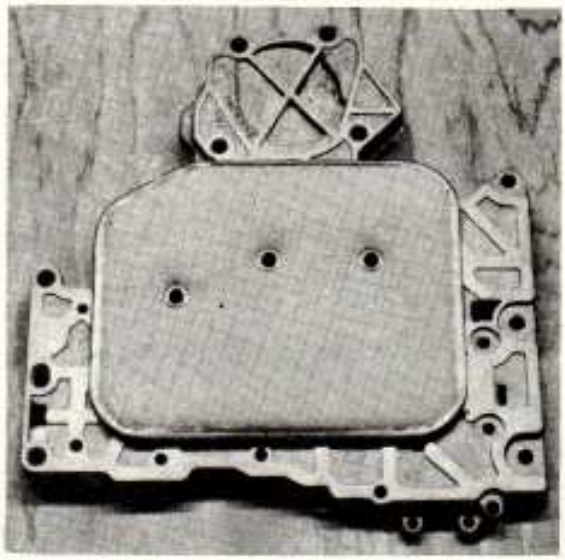
1966-70 - Kit Installation Instructions - Use pages 1, 2, 3 and 4. These pages are marked in the upper righthand corner 1966-70 for identification purposes. In addition, use the reverse side of this sheet for Proper Filter Location, Steel Support Location and How & Which Band to Adjust.

1962-65 Kit Installation Instructions - Use pages 1B, 2B, 3B and 4B. These pages are marked in the upper righthand corner 1962-65 for identification purposes. In addition, use the reverse side of this sheet for Proper Filter Location, Steel Support Location and How & Which Band to Adjust.

Important - Information on the back of this sheet is for all years 1962-70.

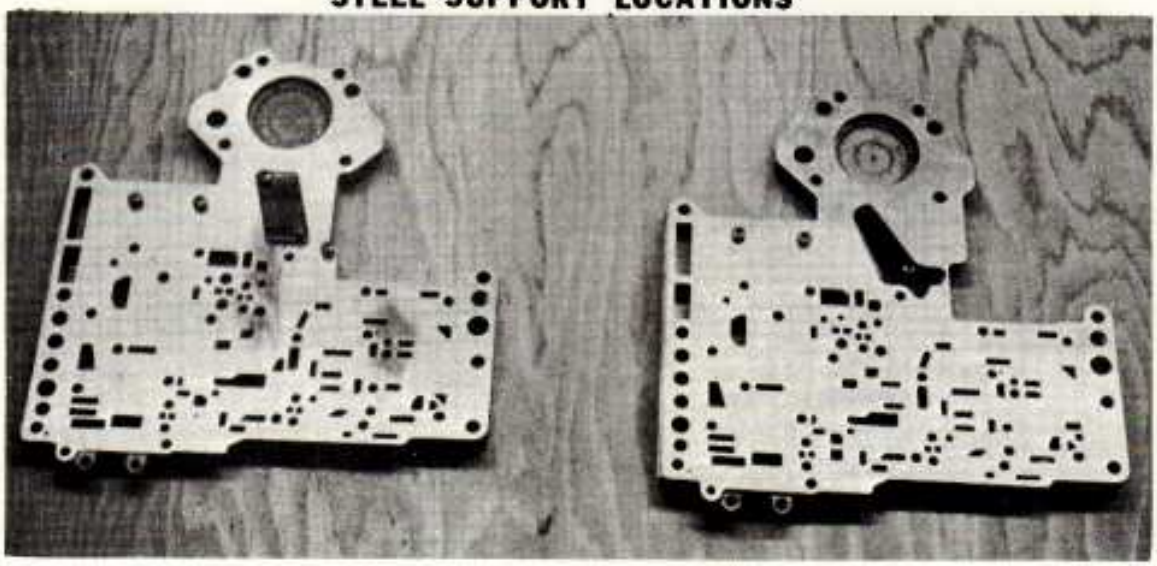
11/73,4/82,5/86
4/5/91

PROPER FILTER LOCATION



All Torqueflite "727" & "904" Valve Bodies

STEEL SUPPORT LOCATIONS



1962-70 Valve Bodies

1971-73 Valve Bodies

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.

9/73

TURBO ACTION

1535 OWENS ROAD, JACKSONVILLE, FLORIDA 32218 (904) 741-4850

1966 - 1970

CHEETAH POWER SHIFTS

A Shift Improvement Program

The following KIT FITS all Torqueflite "727" and "904" transmissions 1966-70.

Kit Installation Instructions

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.

#17810 Kit Includes:
1 - 17030 Special Valve Body Separator Plate
1 - 17127A Special Rod
1 - 17270 "727" Pan Gasket
1 - 19063 "904" Pan Gasket

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). Be sure you adjust the front band per specifications on white sheet.

STEP #1: *If vehicle is on the ground, secure so it will not roll. Place vehicle's shift selector in reverse range. Remove throttle pressure linkage and gear selector linkage located on the driver's side of 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 upward 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. This rod controls your vehicle's park function. Most Torqueflites will have a large spring between one end of the valve body and the case. This spring should not be put back in transmission when using this kit.

*Preferably, vehicle should have all four wheels off the ground.
**May be necessary to turn drive shaft to release long swinging rod.

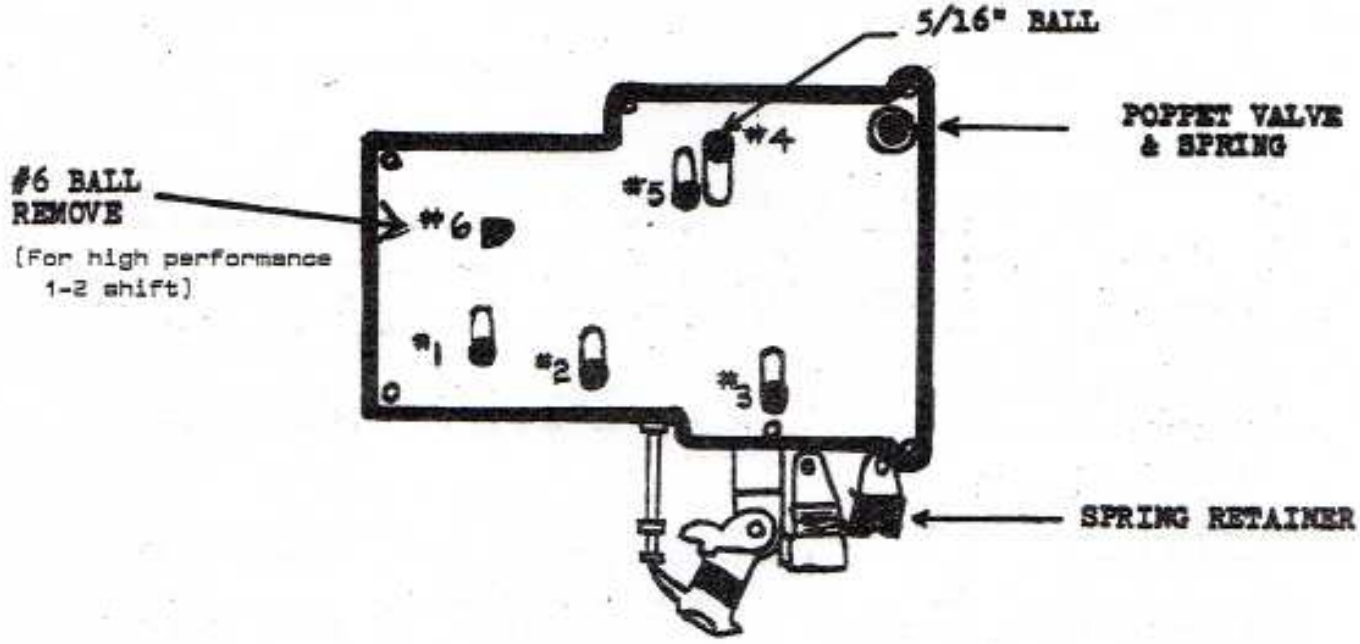

5/16" BALL
POPPET VALVE & SPRING
#6 BALL REMOVE
(For high performance 1-2 shift)
#4
#5
#6
#1
#2
#3
SPRING RETAINER

FIG. 1

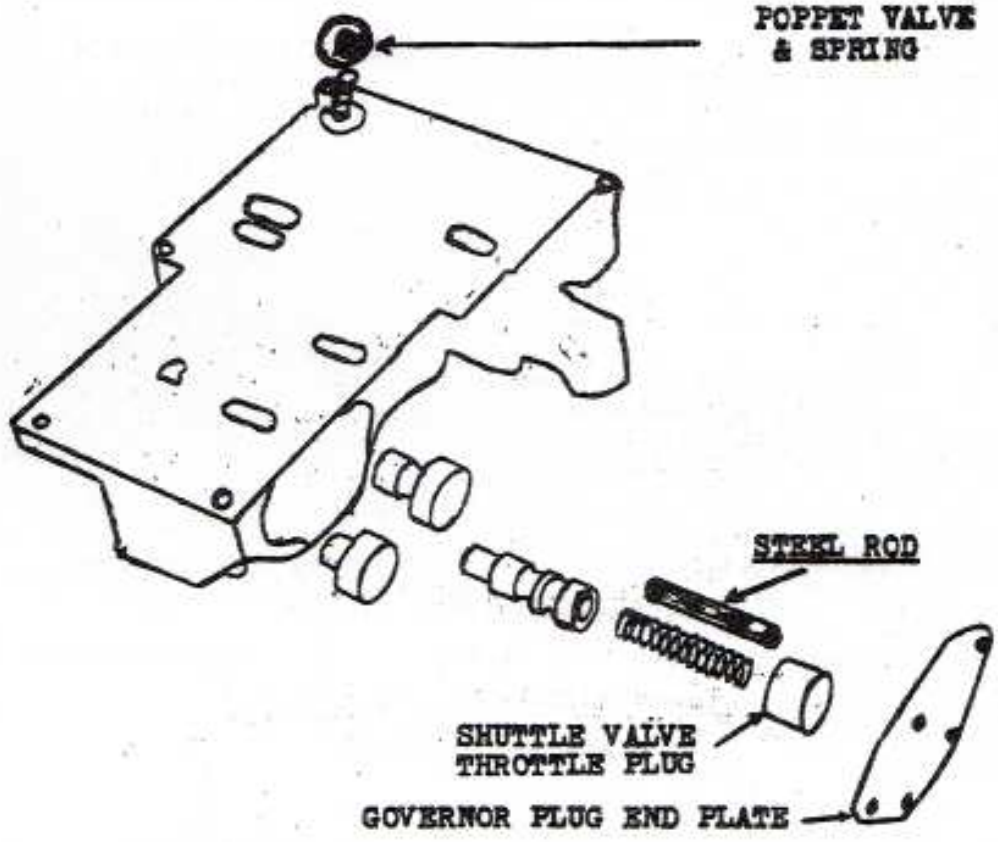

POPPET VALVE & SPRING
STEEL ROD
SHUTTLE VALVE THROTTLE PLUG
GOVERNOR PLUG END PLATE

FIG. 2

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. #3)

STEP #5: Carefully remove two Phillips head screws which hold the spring retainer bracket (See Figure #1). CAUTION: DO NOT move spring retainer's position.

STEP #6: Remove 14 screws that hold the transfer plate to the valve body. CAUTION: 1968 late, 1969 and 1970 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 #7: Lift transfer plate carefully and note location of spring and ball if 1968 late, 1969 or 1970 model transmission. See Figure #1 which shows location of balls and of ball and spring. If valve body has spring and ball, lay ball and spring to one side.

STEP #8: Lay transfer plate on bench with valve body separator plate showing. Then remove 5 Phillips 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.

STEP #9: Remove old valve body separator plate and replace with one which is included in the kit. Then replace 5 Phillips screws and small steel support as found on old valve body separator plate. Make sure while tightening the screws that the transfer plate and valve body separator plate line up accurately.

STEP #10: Take valve body and remove six balls. CAUTION: DO NOT move spring retainer bracket (See Figure #1).

STEP #11: Carefully remove 5 Phillips screws holding governor plug end plate shown in Figure #2. Then remove shuttle valve throttle plug shown in Figure #2. Insert the steel rod which was given with the kit, inside of the spring (Shown in Figure #2). Place shuttle valve throttle plug back in hole as it was originally.

STEP #12: 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 steel rod that was in the kit. 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. #1 & #2.
LEAVING OUT #6 BALL.

HEAVY DUTY (Tow Vehicle, Van, Pick-up Truck)
Place all balls back in valve body as in Fig. #1 & #2. This will give firm shifts but not aggressive as with the high performance mode.

STEP #15: Place transfer plate assembly carefully on top of valve body being sure that the poppet valve and spring are in place.

STEP #16: Replace 14 long screws and two short screws which hold spring retainer. Tighten securely. Then replace transmission filter and tighten the three screws.

STEP #17: Before re-installing valve body into transmission, take note of the plastic half ball shaped neutral - switch on the driver's side of the transmission inside of the transmission case. When installing the valve body, make sure this ball does not get damaged. Either remove the switch or merely slide the valve body carefully over the ball. The ball will retract as the valve body puts pressure on it. Also, do not install large spring which was between valve body and case.

STEP #18: Place valve body back into transmission, lining up the cable adapter linkage piece with the hole in the valve body control lever. CAUTION: A small rubber seal is located in the case and may come loose as you push valve body up into case. If it comes loose, merely slide over valve body shaft.

STEP #19: With valve body in place, install 10 valve body bolts and tighten to 8-10 ft./lbs. Also, place clip or 3/8" nut on cable adapter linkage to control lever, and secure. CAUTION: If 3/8" nut, do not over-tighten as the pin will break easily.

STEP #20: Clean pan and install with new pan gasket.

STEP #21: Replace thick flat washer over valve body shaft, and then slide throttle linkage over shaft. Tighten bolt on linkage.

STEP #22: Refill transmission with a good brand of Dexron transmission fluid. It will usually take about 5 quarts of oil. DO NOT OVERFILL! Warm transmission up, select all gears, and then check oil to make sure transmission level is on the add mark. Take vehicle out and drive 2 or 3 miles. Then re-check oil level. Add oil if necessary to bring to the full mark, but DO NOT OVERFILL! Always check level of transmission fluid when in neutral, but put parking brake on as a safety measure.

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STEP #14: Place transfer plate assembly carefully on top of valve body being sure that if a late model the ball on the spring lines up on the hole in the valve body separator plate.

STEP #15: Replace 14 long screws and two short screws which hold spring retainer. Tighten securely. Then replace transmission filter and tighten the three screws.

STEP #16: Before re-installing valve body into transmission, take note of the plastic half ball shaped neutral - switch on the driver's side of the transmission inside of the transmission case. When installing the valve body, make sure this ball does not get damaged. Either remove the switch or merely slide the valve body carefully over the ball. The ball will retract as the valve body puts pressure on it. Also, do not install large spring which was between valve body and case.

STEP #17: Place valve body back into transmission pushing rod into hole that was mentioned in STEP #3. The rod should be angled toward the outside in 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 #18: With valve body in place, install 10 valve body bolts and tighten to 8-10 ft./lbs.

STEP #19: Clean pan and install new pan gasket.

STEP #20: Replace shift linkage (large piece), and then throttle linkage (small piece). Tighten bolts on linkage.

STEP #21: Refill transmission with a good brand of Dexron transmission or type F fluid. It will usually take about 4-5 quarts of oil. DO NOT OVERFILL! Warm transmission up, select all gears, and then check oil to make sure transmission level is on the add mark. Take vehicle out and drive 2 or 3 miles. Then recheck oil level. Add oil if necessary, to bring to the full mark, but DO NOT OVERFILL! Always check level of transmission fluid when in neutral, but put parking brake on as a safety measure.

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STEP #5: 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 filter is laying up. 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.

STEP #6: Carefully remove two Phillips head screws which hold the spring retainer bracket (See Figure #1). CAUTION: DO NOT move spring retainer's position.

STEP #7: Remove 14 screws that hold the transfer plate to the valve body. CAUTION: Note location of spring and poppet valve (See Figure #1).

STEP #8: Lift transfer plate carefully. See Figure #1 which shows location of balls and of the poppet valve and spring.

STEP #9: Lay transfer plate on bench with valve body separator plate showing. Then remove 6 Phillips 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. CAUTION: Note location of poppet valve and spring which is located under valve body separator plate.

STEP #10: Remove old valve body separator plate and replace with one which is included in the kit. Then replace 6 Phillips screws and small steel support as found on old valve body separator plate. Make sure while tightening the screws that the transfer plate and valve body separator plate line up accurately.

STEP #11: Take valve body and remove six balls. CAUTION: DO NOT move spring retainer bracket (See Figure #1).

STEP #12: Carefully remove 6 Phillips screws holding governor plug end plate shown in Figure #2. Then remove shuttle valve throttle plug shown in Figure #2. Insert the steel rod which was given with the kit, inside of the spring (Shown in Figure #2). Place shuttle valve throttle plug back in hole as it was originelly.

STEP #13: 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 steel rod that was in the kit. This normally should not be necessary, so double check your work.

STEP #14: 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 as in Fig.#1,
LEAVING OUT #6 BALL.

HEAVY DUTY (Tow Vehicle, Van, Pick-up Truck)
Place all balls back in valve body as in Fig. #1 & #2. This will give firm shifts but not aggressive as with the high performance.

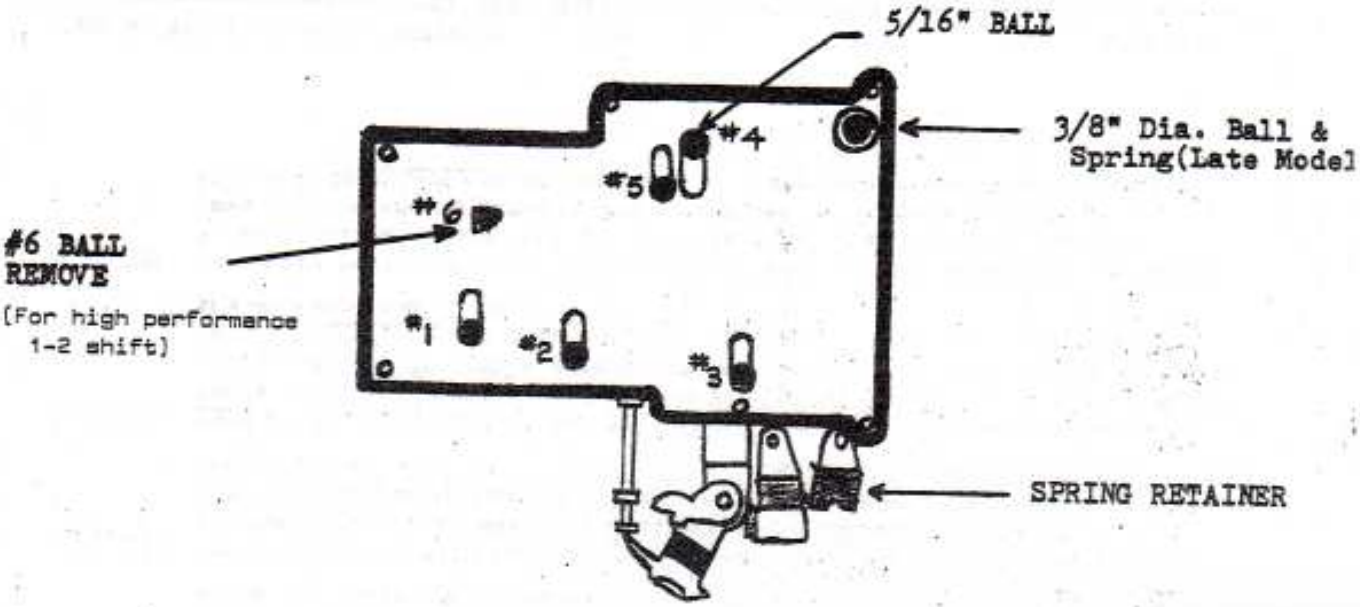
5/16" BALL
3/8" Dia. Ball & Spring(Late Model
#6 BALL REMOVE
(For high performance 1-2 shift)
#1
#2
#3
#4
#5
#6
SPRING RETAINER

FIG. 1

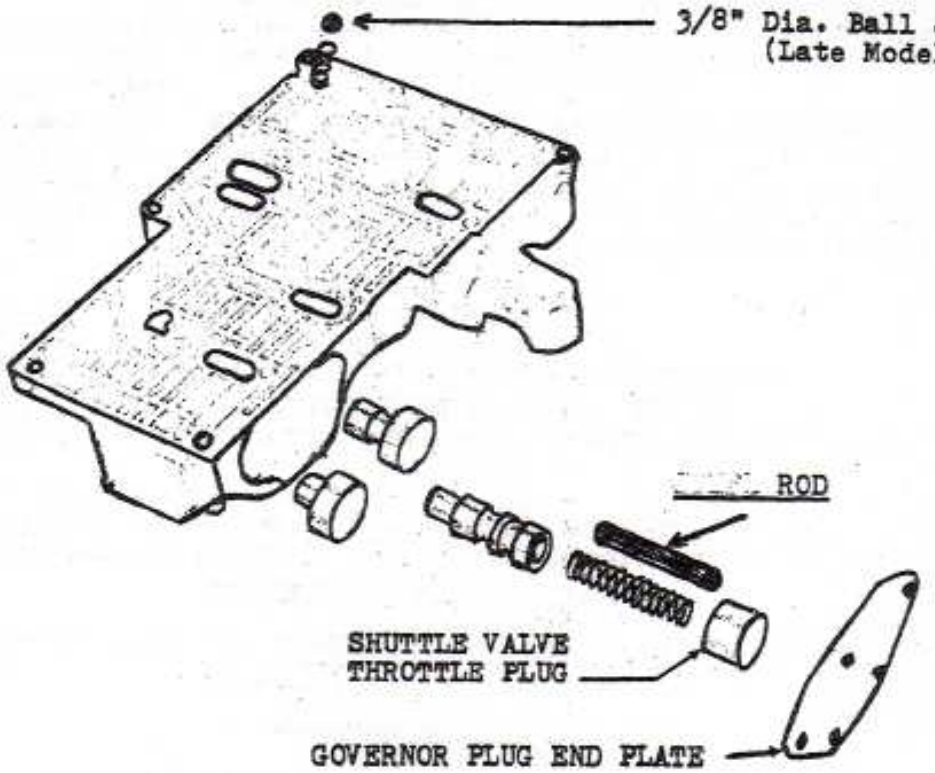
3/8" Dia. Ball & Spring (Late Model)
ROD
SHUTTLE VALVE THROTTLE PLUG
GOVERNOR PLUG END PLATE

FIG. 2

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1962-65

CHEETAH POWER SHIFTS

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

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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 (reuseable). Be sure you adjust the front band per specifications on white sheet.

STEP #1: If vehicle is on the ground, secure so it will not roll. Place push button selector in low range. Remove throttle pressure 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 linkage lever on the shaft is fastened by a bolt. Loosen bolt but do not remove bolt completely. After loosening bolt, carefully pry lever upward with a screwdriver. Also, remove thick flat washer which lies between the case and where the flat washer which lies between the case and where the lever was located.

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: Note on driver's side of transmission, inside of the transmission case there is either a small E-Clip or a 3/8" nut. This clip or nut is holding a piece of the cable adapter shift linkage to the valve body control lever. Carefully pry clip loose or remove 3/8" nut whichever your transmission has in it.

STEP #4: Carefully remove the ten 7/16" bolts which hold the valve body in place. Slowly pull valve body out of transmission. Most Torqueflites will have a large spring between one end of the valve body and the case. This spring should not be put back in transmission when using this kit.