

TURBO ACTION

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CHEETAH POWER SHIFTS
A Shift Improvement Program

Part #17814 - 1978-Up

Kit fits all Torqueflite 727, 904, 998 & 999 transmissions without lock up converter which come behind V8 engines.

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.

Kit Includes:

- 1 - 17036 Special Valve Body Separator Plate
- 1 - 17126A Special Plug
- 1 - 17128A Special Rod
- 1 - 17270C Pan Gasket 727
- 1 - 19063C 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.
NOTE: If replacing your filter, be sure filter is a single hole style. Be sure you adjust the front band per specifications. **NOTE:** Some late models require the use of a TORX-T25 Screwdriver.

STEP #1: Vehicle should have four wheels off the ground in case driveshaft 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 so be sure to check the accumulator piston by pushing to see if a small spring is under it. If so, remove accumulator piston and 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 transfer plate to the valve body (Fig #3). **CAUTION:** A plastic filter is under transfer plate and makes it necessary to back off the spring retainer screw a couple of turns (Fig #4). Also leave valve body laying down while removing transfer plate or you will lose some of the balls in valve body (Fig #5).
- STEP #6:** Slide transfer plate to side and up. **NOTE:** The plastic filter can be thrown away when separator plate is removed (Fig #6).
- STEP #7:** Lay transfer plate on bench with valve body separator plate showing. **NOTE POSITION of the small steel support** on valve body separator plate. **NOW REMOVE 6 screws** that hold valve body separator plate on the transfer plate. **NOTE:** Some will only have 5 screws (Fig #7). **If 1978 model valve body, see (Fig #8) for spring and plug location. Remove spring and plug.**
- STEP #8:** Remove old valve body separator plate. Remove ball or ball checks located in transfer plate and discard (Fig #9). Remove plastic filter if your unit has one and discard. Install new valve body separator plate with the 5 or 6 screws and small steel support. Remove spring and plug on **1978 models**. **MAKE SURE** while tightening the screws that the transfer plate and valve body separator plate line up accurately (Fig #7).
- STEP #9:** Take valve body, remove seven balls and set one side (Fig #5).
- STEP #10:** Carefully remove 5 screws holding Governor Plug End Plate shown in Fig #10 and then remove Shuttle Valve Throttle Plug shown in Fig #10. Insert the Special Rod inside of spring shown in Fig #10. Now place the Spring, the Rod and the 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 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 Fig #11. Be careful and remove only the spring which is the third one in from the outside edge of valve body (spring is approx. 2" long). **DO NOT** remove any valves from valve body. Insert the Special Plug given with the kit into the hole where the spring was originally located. Carefully place end plate and housing back in place, **MAKING SURE** the 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. **Discard 2" spring.**

STEP #13: This step gives you a choice of what kind of a 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 circled in red.

HEAVY DUTY (Two 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.

STEP #14: Place transfer plate assembly carefully on top of valve body. Reinstall 14 long screws. If you loosened spring retainer screw in Step #5, be sure to tighten. Then replace transmission filter with a new Turbo Action #17013. Be sure to use special filter screws (Fig #2). Must be a one hole 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 driveshaft. **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: HOW and WHICH BAND TO ADJUST

There are two bands in a Torqueflite transmission: (A) Front Band - Kickdown Band and (B) Rear Band - Low/Reverse 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 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 (10 in/lbs). Make sure locknut does not 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.

STEP #19: Replace shift linkage (large piece), then the throttle linkage (small piece). Tighten bolts on linkage.

STEP #20: Refill transmission with a good brand of Dexron or Type F fluid. Type F will give firmer shifts, but must be changed more often. Add 4-5 qts of transmission fluid before starting. Before starting, secure emergency brake and start then in neutral. Add oil till dipstick reads about a pint low. Torqueflites must be checked in neutral. Now select all gears and then return to neutral and recheck level. **CAUTION:** If vehicle is off the ground, remember brake must be applied under same principle as if wheels were on the ground. Take vehicle out and drive 2-3 miles. Then recheck oil level. Add oil to bring to the full mark. **DO NOT OVERFILL!**

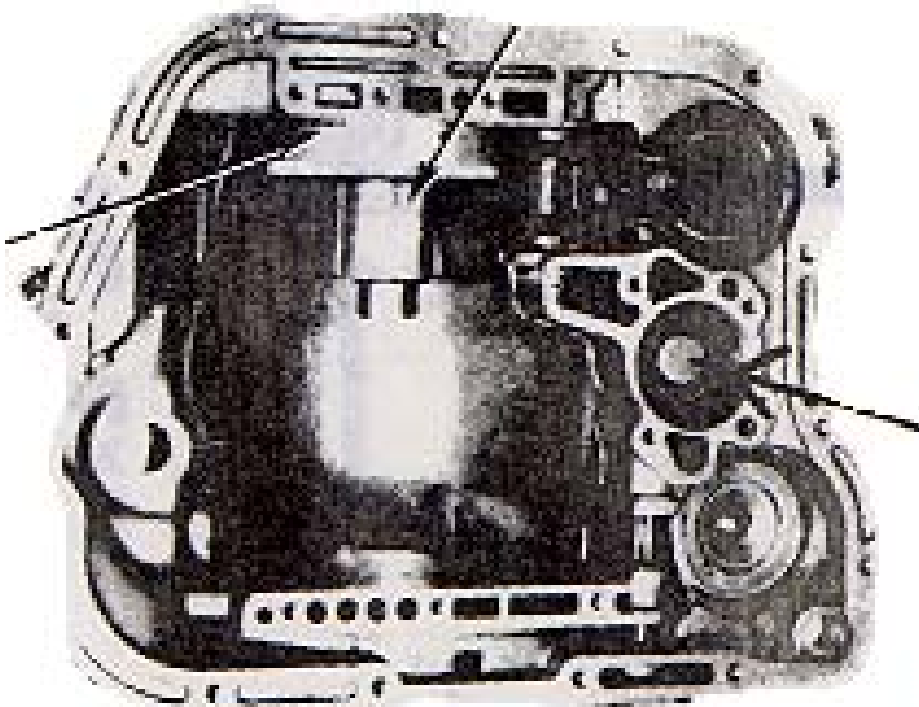


Figure #1
Accumulator Piston

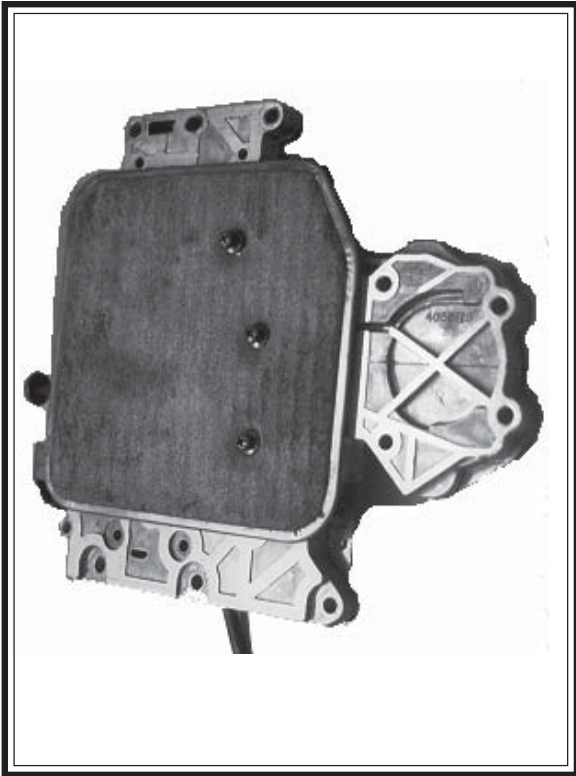


Figure #2
Position of Filter Before Removing

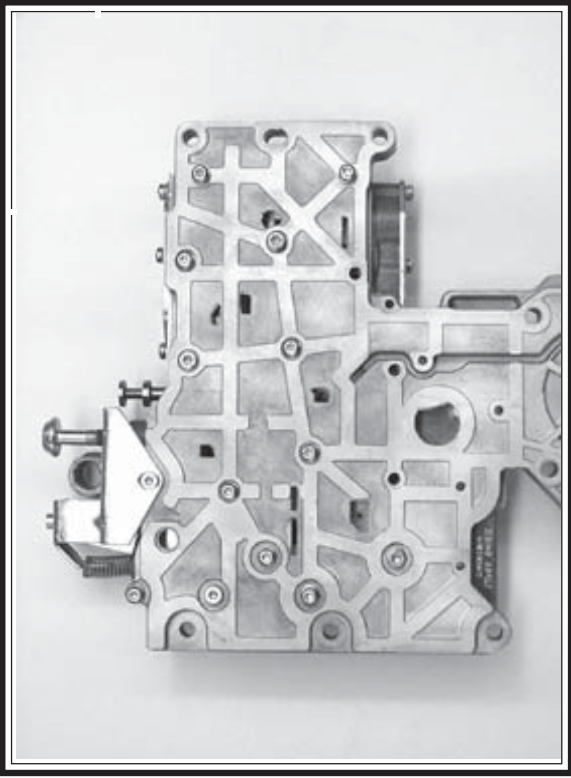


Figure #3
Remove 14 Screws



Figure #4
Location of Spring Retainer Screw

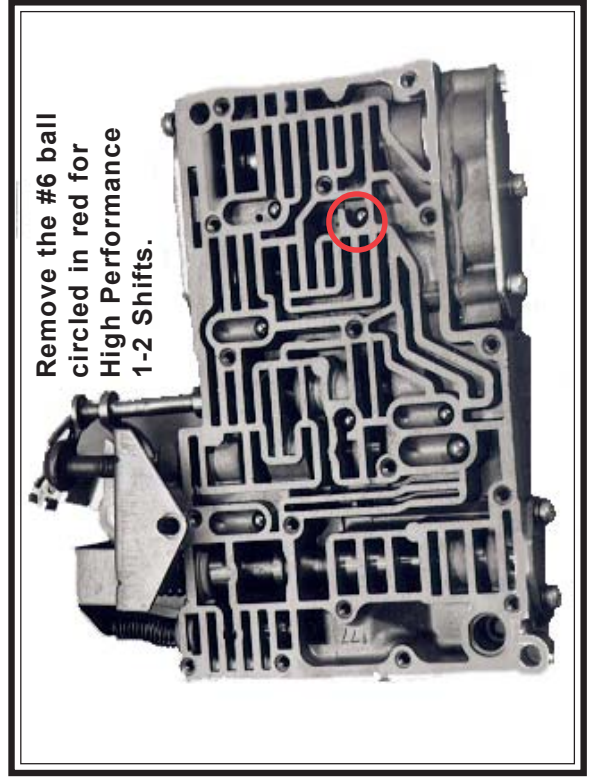


Figure #5
Location of Balls in Valve Body

Remove the #6 ball circled in red for High Performance 1-2 Shifts.

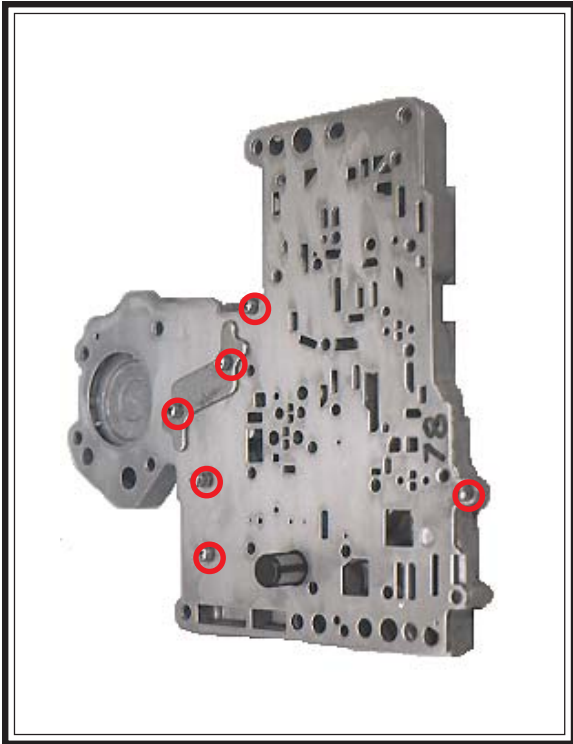


Figure #7
Location of Six Screws

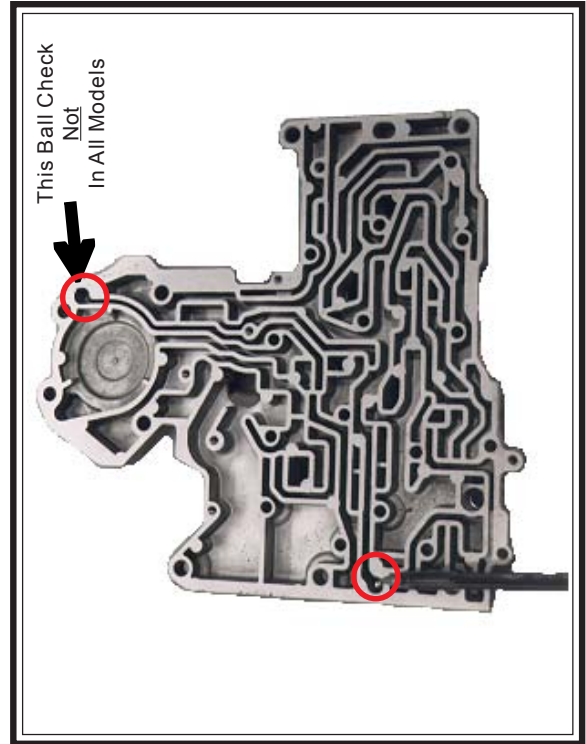


Figure #9
Location of Transfer Plate Ball or Balls



Figure #6
Location of Plastic Filter

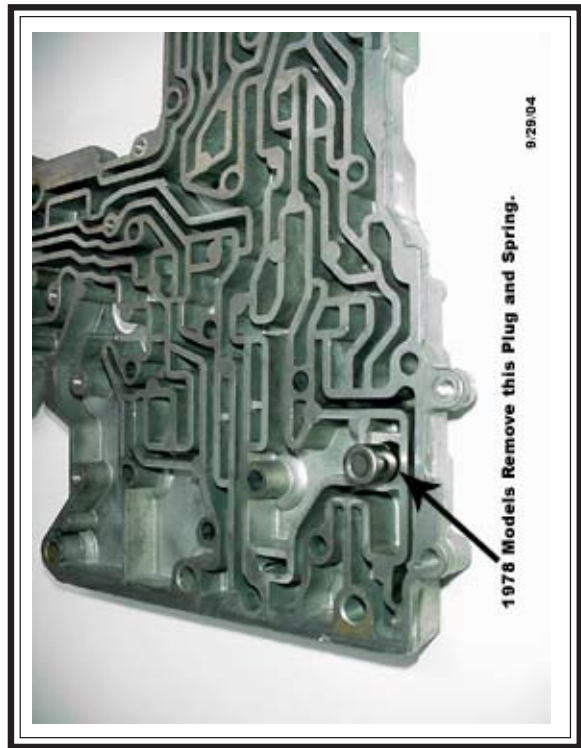


Figure #8
Location of Spring & Plug if 1978

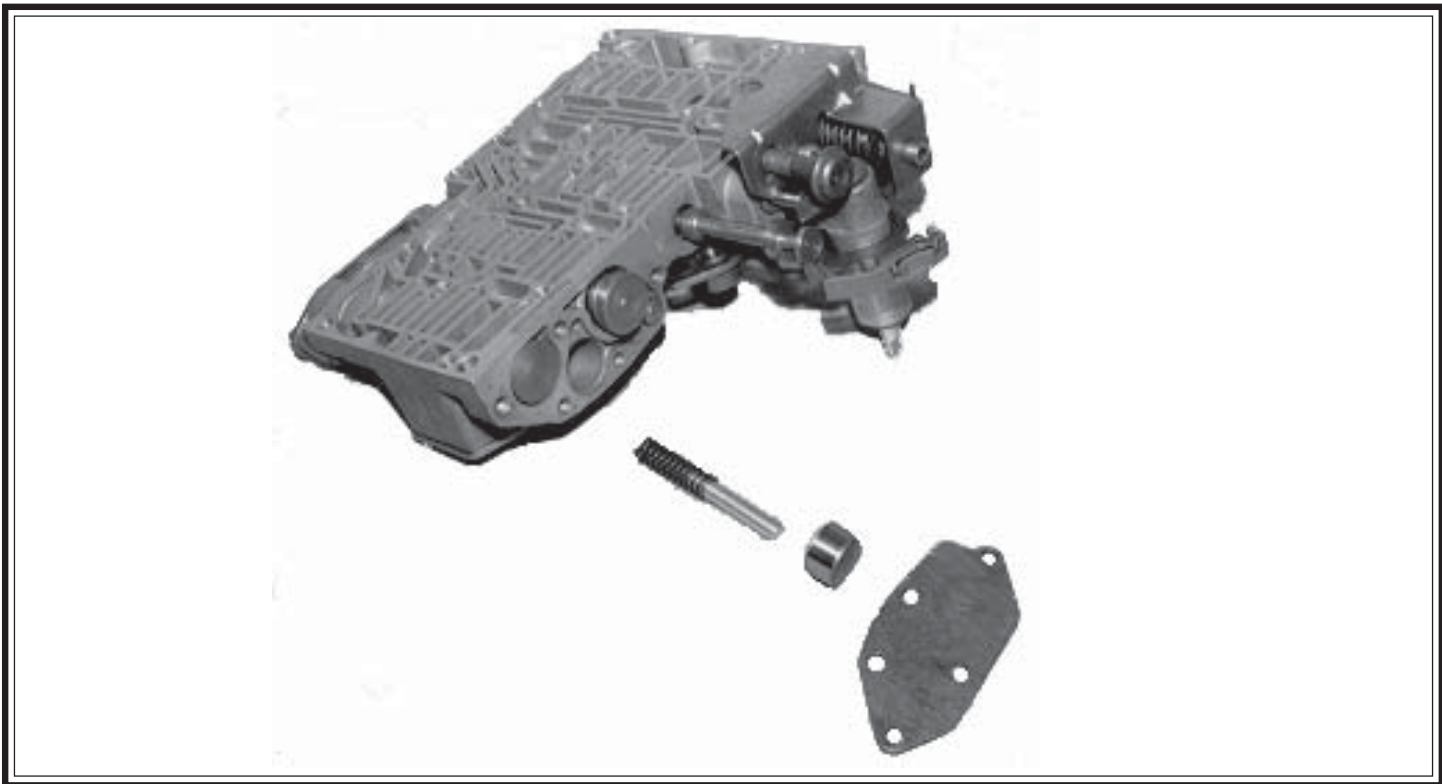


Figure #10
How to Install Special Rod 17128A,
Included with this kit.

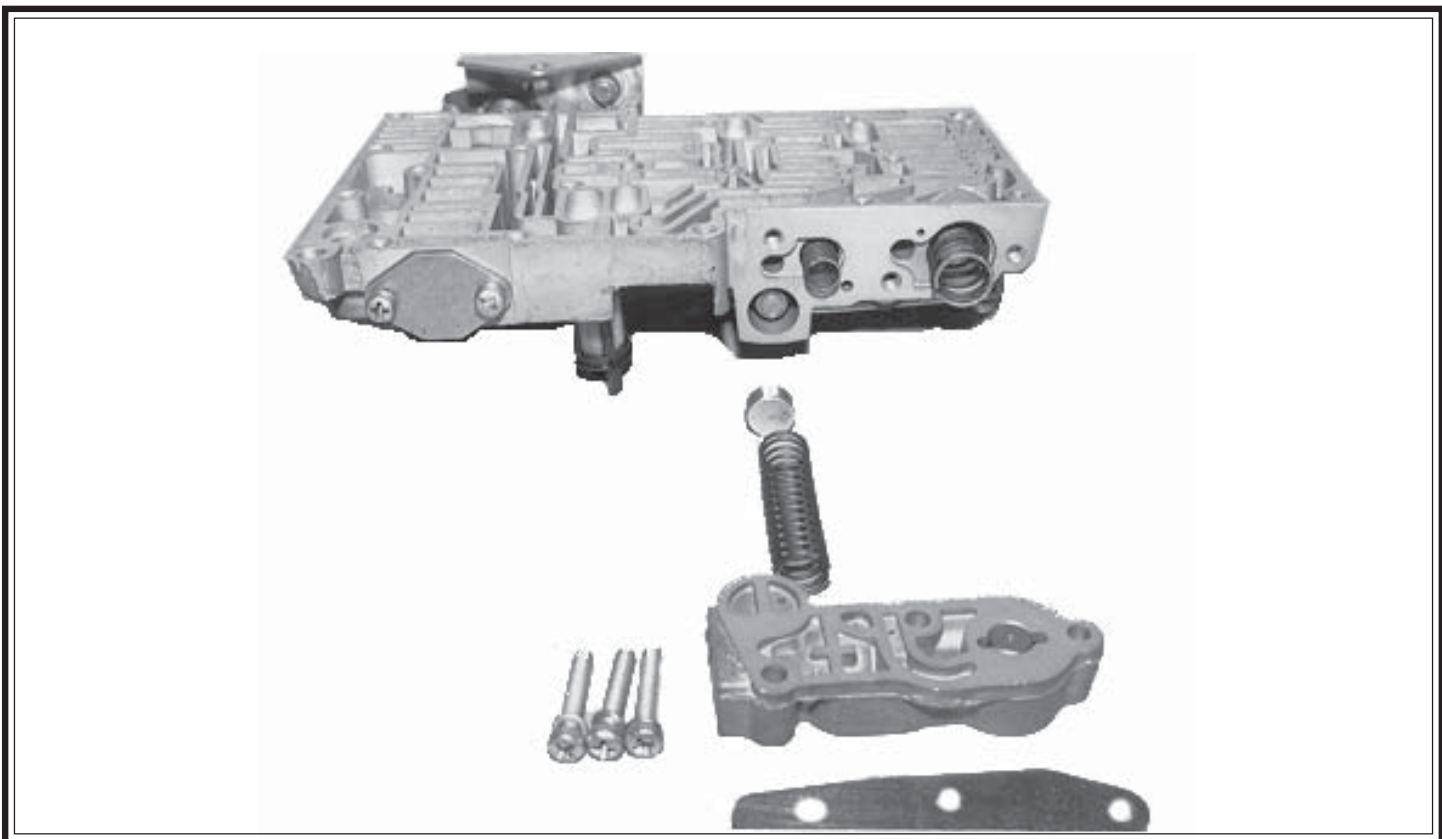


Figure #11
How to Install Special Plug 17126A,
Included with this kit.

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for

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