



TCI® 121700

Manual Control Valve Body for 1962 & Later Torqueflite 727 Shift Pattern: Park-Reverse-Neutral-1st -2nd-3rd

This Kit Contains:

| Qty. | Description |
|---------|----------------------------|
| One (1) | TCI Full Manual Valve Body |
| One (1) | Rear Servo Spring |
| One (1) | Rear Servo Shim |

Note: If your stock transmission has a stock 2.9 ratio lever, it is recommended that you replace it with a Stock 3.8 ratio, a TCI 146901 4.2 ratio lever or a TCI 146900 5.0 ratio lever for the 2nd Gear Band apply.

Important: Before you begin installation allow transmission to cool to avoid burns from hot fluid or parts. Select a well-lighted work area and it is very important to keep all parts clean. Use a box or pan to keep transmission parts from getting misplaced. Wash parts thoroughly with a good solvent.

Step 1 Place the vehicle in Park. Drain and remove oil pan from vehicle. (Remember to dispose of fluid in a proper, safe way to protect our environment).

Step 2 Loosen clamp bolts and remove throttle and/or gear selector levers from manual lever.

Step 3 Loosen the neutral safety switch.

Step 4 Valve body removal: Place a drain pan under trans. mission and remove the ten- (10) 7/16" valve body to transmission bolts. Hold the valve body securely in place while removing these bolts.

Step 5 After bolts are removed, lower the valve body. Pull the valve body forward to disengage parking contract rod. It may be necessary to rotate the output shaft to permit parking control rod to clear parking pawl.

Step 6 Remove the 1.2 accumulator piston. To remove, pull straight down. Remove and discard 1-2 accumulator spring. Remove and discard the small sealing ring at the end of the accumulator piston. (**See Illustration #1**)

Step 7 From your old valve body remove parking arm. Take care not to bend the arm. Remove small clip that holds the parking arm in place, Install this arm on the new TCI Full Manual Valve Body. This arm will fit in the same location as the old valve body.

Reinstall without: Spring and Small Sealing Ring

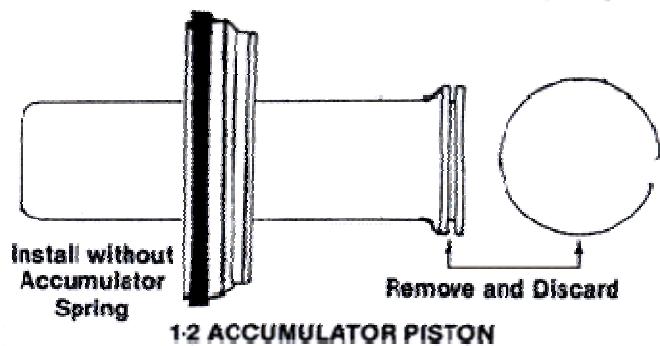


Illustration #1

Step 7 From your old valve body remove parking arm. Take care not to bend the arm. Remove small clip that holds the parking arm in place, Install this arm on the new TCI Full Manual Valve Body. This arm will fit in the same location as the old valve body.

Step 8 Remove the filter from the old valve body. TCI recommends replacing the old filter with a new TCI 128500 filter and pan gasket. Using the three - (3) filter retaining screws install filter on TCI Full Manual Valve Body.

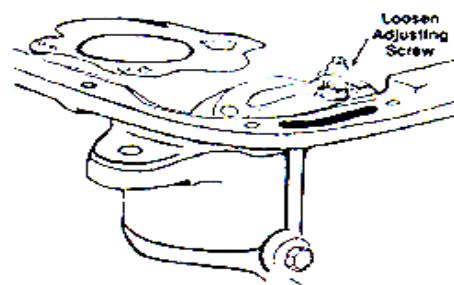


Illustration #2

Step 9 Rear Servo Piston Assembly must be removed. Loosen adjusting screw on low-reverse band lever. (**See Illustration #2**) This will allow you to pivot lever up. Use a long thin screwdriver to push in on the rear band. This will allow the band apply strut to drop out of place for removal. After the strut has been removed, the band apply lever can be rotated to gain access to the rear servo. Remove the rear servo, (retainer snap ring) with a screwdriver. Hold the retainer in place with your other hand so the spring does not jump out and cause injury or lost parts. Remove the retainer, servo return spring and servo piston. Discard servo return spring. After you have removed the flat aluminum piston, place piston assembly in a vise and compress spring slightly so snap ring can be removed with a pair of snap ring pliers. Remove servo from vise and carefully separate halves. (**See Illustration #3**) Install servo shim supplied with TCI Full Manual Valve Body. Shim will slip over servo shaft. Reassemble servo using old spring and snap ring. Do not spread snap ring any more than is necessary. Reinstall rear servo piston back into case as removed. Install special rear servo spring supplied with the TCI Full Manual Valve Body. Install servo spring retainer and snap ring. Make sure snap ring is fully seated into its groove. Rotate the band apply lever into position. Insert rear band apply strut into place. Adjust as required. (See Band Adjustment, Step 10)

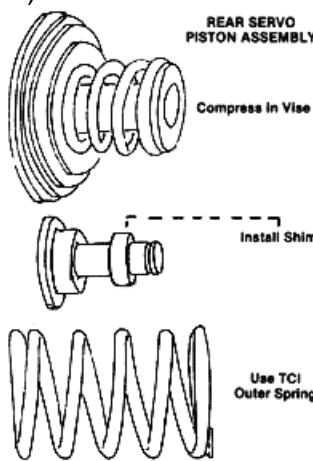


Illustration #3

Note: Replace stock 2.9 lever with 4.2, 5.0 or stock 3.8 ratio lever. This lever is located at the front servo.

Step 10 Reinstall New TCI Full Manual Valve Body:

Note: Do not damage neutral safety switch during installation of valve body. While placing the new TCI Full Manual Valve Body back into the transmission, push the parking rod into the rod hole located in valve body. Angle the parking rod toward the outside in the rear of the transmission towards the center of the transmission front. Push parking rod firmly towards rear while turning the drive shaft. **DO NOT FORCE ROD OR VALVE BODY.** Rotating the drive shaft will help align the parking rod.

Front Band and Rear Band Adjustment: The Front Band and Rear Band adjustment are to the same specifications. The front band screw is located on the left (driver side) of the transmission case near the

throttle lever shaft. (**See Illustration #4**) Loosen the locknut (3/4") and hold the lock nut while turning the adjusting nut with a 5/16" wrench, tighten to 72 inch pounds. Next, back off the adjusting screw counterclockwise two (2) turns. Hold the adjusting screw place (5/16" wrench) torque the lock nut (3/4") 35 foot pounds.

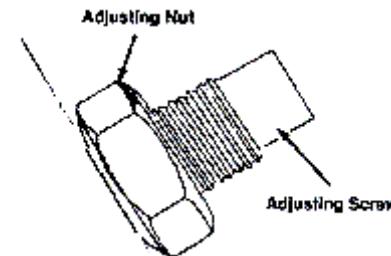


Illustration #4

Step 11 Reinstall the ten (10) valve body to transmission attaching bolts. Tighten and torque to 100 inch pounds. **DO NOT OVER TORQUE.**

Step 12 Clean transmission oil pan. Remove old gasket material from pan and case. Install pan with a new gasket.

Step 13 Reinstall the gear shift linkage and tighten bolt. Adjust linkage to be sure that the shifter is selecting all gears properly. This is critical to the 2-3 shift adjustment. Move the selector into all gear locations and check to see that the transmission detent corresponds with shifter locations.

Step 14 Remove throttle linkage from carburetor down to transmission. The TCI[®] Full Manual Valve Body will only operate manually. It does not have any automatic features.

Step 15 Refill the transmission with automatic transmission fluid (select a quality fluid). **DO NOT OVER FILL.** It will usually take about five (5) quarts if using a stock transmission pan. Warm transmission up, shift into all gear locations and then recheck oil level on transmission dipstick. Always check fluid level with the transmission in neutral after placing the emergency park brake on.

Note: When testing transmission shift points, it will be necessary to apply brake pressure to feel second gear shift while vehicle's rear wheels are off the ground (on jack stands). Once the vehicle is on the ground and there is resistance on the wheels, you will be able to feel second gear shift.