



Installation Instructions

6718 Whitestone Rd • Gwynn Oak, Maryland 21207 • (410) 298-4343
FAX: (410) 298-3579 • www.atiracing.com

PG COMPU-FLOW VALVE BODY

Part #203200 - Forward Shift Pattern Part #203220* - Reverse Shift Pattern

*Part # 203220 is obsolete and no longer made.

PACKING LIST

- | | |
|---|---|
| <input type="checkbox"/> (1) Compu-Flow Manual Valve Body | <input type="checkbox"/> (1) #207340 Modulator Case Plug & Gasket |
| | <input type="checkbox"/> Instruction Sheet |

Packed by: _____

1. Raise the vehicle and support with jackstands or raise on an automotive lift. Make sure that the vehicle is properly supported! Place a drain pan under the transmission.
2. If your transmission is equipped with a drain plug, remove the plug and allow the fluid to drain. If your unit does not have a drain plug, remove all pan bolts except the 2 at the front of the transmission. Remove bolts one at a time, working back to front. Exercise caution as transmission fluid will splatter erratically during oil pan removal. You might need to reposition the transmission crossmember in order to remove the rear oil pan bolts. If this becomes necessary, support the rear of the transmission to prevent the transmission / engine assembly from moving down and causing damage to the distributor cap and /or engine mounts. As you remove the bolts along the sides of the oil pan, the weight of the fluid will usually cause the oil pan to separate from the transmission case, allowing the fluid to drain from the rear of the oil pan. However, if the pan does not readily separate from the transmission case, insert a screwdriver between the oil pan and the case and pry gently to begin the draining process. Remove the two from oil bolts slowly (about one turn at a time) and fluid will drain at a steady rate from the rear of the oil pan. Drain the oil pan completely and keep it to hold bolts and small bolts and small parts.
3. Remove the vacuum modulator, modulator rod, dampening spring and modulator valve. The modulator is located at the rear of the transmission on the driver's side. Remove modulator vacuum line and block off vacuum at manifold. Install ATI modulator case plug with gasket.
4. Note the position of the detent guide plate, detent roller assembly, detent spring, and servo oil tube. Also note that there are seven (7) valve body attaching bolts. There is also one other bolt that is used to secure the detent guide plate to the transmission case.
5. Using a 1/2" socket, remove detent guide plate bolts and detent spring. Note the manner in which the inner lever selector pin engages the groove in manual valve.
6. Remove the detent spring. Also remove six remaining valve body retaining bolts using a 1/2" socket. Hold the valve body as you remove the last bolt. Additional oil will usually be trapped between the valve body and the case, so watch out for splattering fluid as the valve body is removed. If the valve body does not detach readily, insert a screwdriver between the servo tube and case and pry gently to remove the valve body. Do not allow the manual valve to fall as you lower the valve body.
7. Clean your stock manual valve by dipping it in clean transmission fluid and install into the ATI valve body.

8. Remove two (2) filter retaining screws, filter, and the filter gasket from your stock valve body and install onto your ATI valve body. If your filter screen is torn or clogged with debris, you should replace it with a new filter. Tighten the filter retaining screws securely.
9. Double check the transmission case and make sure that there are no pieces of old valve body gasket remaining on the valve body mating surface of the case. Use a single edge razor blade or a gasket scraper to remove any remaining debris. Install the servo supply tube into the ATI valve body and install the valve body while carefully guiding the tube into its bore in the transmission case. Also align the manual valve groove with the selector lever pin as you make the installation. Be sure to rotate the detent roller assembly so that the roller end is pointing towards the front of the case in order to line up the roller with the inner lever detents.
10. Install the detent guide plate and seven valve body retaining bolts and hand tighten. Make sure that the pin on the selector lever remains in the groove of the manual valve. You may need to tap lightly on the servo supply tube to completely seat it into the case. Install the remaining detent plate bolt and torque all eight bolts to 120 in. lbs. or 10 ft. lbs. Install the detent roller spring.
11. Adjust band: Adjustor is located on the driver's side on the outside of the transmission case. Use the appropriate size wrench to loosen the locknut. The most common wrench sizes for the lock nut are 9/16" and 11/16". Holding the locknut, use a 7/32" allen wrench and turn the round lug in the center of the locknut until the wrench becomes snug or torque to 80 in. lbs. Make sure that your locknut is not impeding the movement of the adjustor. Carefully turn the adjustor lug counter clockwise 3 1/2" full turns. Hold the adjustor with your allen wrench and tighten the locknut securely (35 ft. lbs.) Do not allow the adjustor lug to move while tightening the locknut.
12. Remove any pieces of old pan gasket from the transmission case and oil pan. Clean oil pan and install using a new pan gasket. Secure all pan bolts evenly and then torque them to 150 in. lbs. or 12 ft. lbs. If you have removed a drain plug, install it now and tighten securely.
13. Always check shifter adjustment after installation. Never adjust the shifter linkage or cable in "PARK" position. Always start adjustment / alignment with the shifter and the transmission in high gear. After setting the cable or linkage in high gear, make sure that your linkage or cable aligns perfectly with the transmission lever in all other gear positions. Proper shifter adjustment is vital and critical to proper operation of the transmission. Do not operate without verifying proper shifter adjustment! Secure your linkage or cable appropriately when finished.
14. Lower the vehicle. Keep the rear wheels off the ground if possible. Pour in four (4) quarts of automatic transmission fluid. ATI recommends using a quality brand of Type F fluid. Start the engine with the transmission in NEUTRAL. Check the fluid level with the dipstick and continue adding until it has reached the ADD mark on the dipstick. With the brakes on, select each gear position for several seconds each in order to fill all oil circuits. Select the neutral position again and recheck the fluid level. If the level is at the ADD mark when the fluid is cold, it will probable reach the FULL mark after the transmission has reached operating temperature. DO NOT OVERFILL!

PLEASE NOTE!



- For reverse pattern valve bodies - Never attempt to NEUTRAL the transmission during a shut down. Keep the transmission in high gear while slowing the car.
- Always begin your burnout in first gear and then shift to high gear. Drive the car out of the water under power and lift before the tire hooks. Never allow the tires to hook during a burnout as this can cause sprag failure.
- For your own protection, never operate without an approved transmission shield.

ADJUSTABLE PRESSURE REGULATOR

U.S. PATENT #7,780,564

For use with Compu-Flow Valve Bodies #203050, 203051, 203200, 203220 & 203250

Your new ATI Valve Body features an exclusive Adjustable Pressure Regulator. The baseline pressure of this unit is 145 - 160 psi. The regulator has been factory pre-set at 165 psi.* This is the highest pressure ATI recommends for an OEM GM Powerglide case. Pressures exceeding 165 psi in a GM case have been known to break the case at the reverse piston bore. If you have a GM case, no adjustment is required. ATI further recommends that when using a GM cased transmission in cool weather (sub 60° F), that the unit be thoroughly warmed up before engaging Reverse or Brake to prevent case breakage.

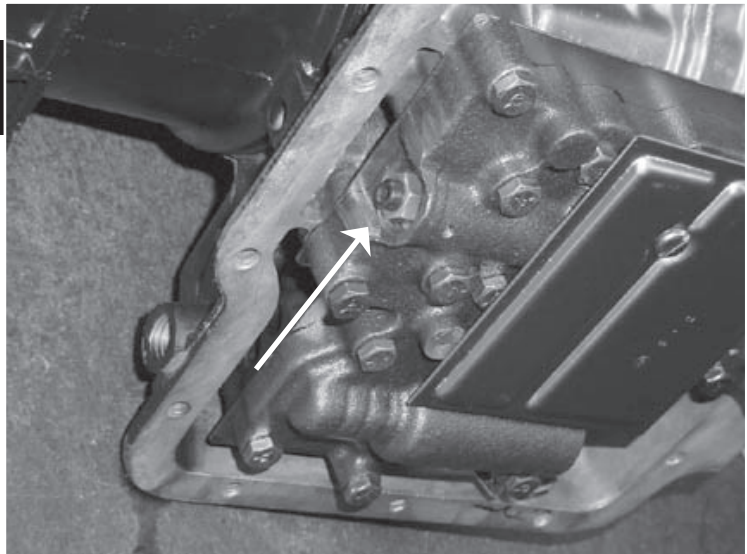
*See Page 6 for #203051 pre-set information.

ADJUSTMENT PROCEDURE FOR AFTERMARKET CASES ONLY

The pressure can be increased by loosening the lock nut with a 9/16" box wrench and turning the adjuster screw in (clockwise) with a 3/16" Allen Key. The rate of change is 16 psi per turn. Tighten the lock nut after adjusting.



NOTE! For Billet Aluminum Valve Body (#203051), the rate of change is 20 psi per turn!



ATI Pressure Recommendations

PRESSURE PSI	165	175	185	200	225	230 - 250 ⁺
HORSEPOWER	< 500	500-750	750-900	900-1500	1500-2500+	Not Recommended

Note!

1. Heavier cars generally require more pressure as horsepower amounts increase.
2. Generally, higher pressures may cause premature wear to occur on internal components and cause parasitic horsepower losses.

TESTING WITH A PRESSURE GAUGE

Use the test port at the Servo Cover. A reading may be obtained with the transmission in first or with the brake applied (if equipped). Bring the RPMs up until the pressure stops climbing and reads steady. This is the regulated pressure.

*The ATI Powerglide Adjustable Pressure Regulator is patented.
 Patent infringements will not be tolerated and are subject to legal action.*