

### INSTALLATION INSTRUCTIONS FOR POWERGLIDE CIRCLE TRACK VALVE BODY KIT REV. PATTERN-PRN12 COA-12012

Thank you for purchasing a Coan Racing performance product. For over 25 years Coan Engineering has been the leader in hi-performance race transmissions and converters. Our ongoing research and development assures that you have purchased the best products available.

**\* COMMITMENT \* PERFORMANCE \* RELIABILITY \***  
**\* A WINNING COMBINATION \***

This kit is designed to be used in applications which do not require the use of a torque converter. A converter eliminator drive kit, or direct drive converter is available separately, and is used instead of the torque converter. When eliminating the converter, the only way to apply power smoothly to first and reverse gear, is to control line pressure in the transmission. This is accomplished by using the original throttle valve assembly. The pressure control lever must be depressed to create a neutral condition, so that the transmission may be placed into gear. It is preferred that a clutch pedal or hand operated lever be fabricated to activate the lever. Operation of the pressure control is very similar to the use of a clutch on a manual transmission. The spring supplied will keep tension on the lever to keep it in its normal operation position for full pressure. The shift from first gear to high gear can be made without the use of pressure control.

The scope of these instructions will be aimed at the installation of this kit and it is assumed that the transmission will be rebuilt properly to work with this valve body. If necessary refer to a transmission manual for detailed instructions on disassembly and reassembly of the Powerglide transmission.

- Installation of the rear pump assembly is optional, but required for push starts.
- 1. Install the shift lever and attach the range selector inner lever.
- 2. Install the pressure control lever through the center of the shift lever using the oil seal and washer. Attach the throttle valve inner control lever and tighten to 30 in-lbs.
- 3. Install the circle track valve body making sure the manual selector valve is properly aligned with the linkage pin. Be sure to install the low servo apply tube, detent guide plate, and detent spring. Tighten valve body bolts to 132 in-lbs.
- 4. Install modulator plug with gasket/o-ring.
- 5. Attach spring to lower hole in pressure control lever and to casting boss at rear corner of the transmission case, check action of the pressure control lever and valve by hand activation.
- 6. Install filter and tighten to 36 in-lbs.
- 7. Reinstall pan and tighten bolts to 72-108 in-lbs.
- 8. Proper low band adjustment is crucial. Tighten adjusting screw to 70 in-lbs. Loosen screw 3 ½ turns and tighten lock nut.

9. When using a converter eliminator kit you will need to set the drive tube to front pump clearance. It is important that the pump drive tube has between 1/8" to 3/16" end play. The drive tube has three snap ring groove locations on the drive flange end of tube. Select the proper snap ring location to allow 1/8" to 3/16" end play of tube to front pump. If you are using a direct drive converter you will be required to maintain the same end play for converter to flexplate. This is checked by pushing the converter back into the pump of the transmission and measuring the distance between the converter and the flexplate. Be sure to maintain 1/8" to 3/16". **Incorrect engagement will cause transmission failure.**
10. After installation in car, check for linkage adjustments.
11. Check and maintain proper fluid level.
  - **\*NOTE:** Cooler fittings should never be plugged. If a cooler is not used, connect the lines together with a loop.

### Circle Track Kit Components

1. Valve body assembly.
2. Modulator plug.
3. Modulator gasket/o-ring.
4. Spring for pressure control lever.
5. Shift lever.
6. Pressure control lever with washer & oil seal.

If you have any questions regarding the proper installation and/or operation of a Coan Racing product, please call (765) 456-3957. You may also fax us at (765) 456-3960, or e-mail at [coan@coanracing.com](mailto:coan@coanracing.com).

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