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ATD BILLET 4L80 REVERSE MANUAL VALVEBODY W/ ENGINE BRAKING & 4TH GEAR TCC (P/N: 82148A)

CAUTION

Please read all of these instructions before proceeding with installation.

This or any valvebody should only be installed by a qualified race transmission technician. If you are unfamiliar with any of the operations or terms, take your transmission to a qualified race transmission shop. Improper installation may cause property damage and/or death.

Your 82148A Reverse Manual Valvebody kit includes the following parts:

- (1) ATD 4L80 Billet Reverse Manual Valvebody w/ Manual Valve,
- (3) 1/4" Torlon Check Balls,
- (1) Separator Plate,
- (1) Heavy Duty Pressure Regulator Spring & ATD Boost Valve Eliminator,
- (16) Heavy Duty Drum Springs,
- (1) Billet Aluminum Case Plug & Retention Screw,
- Installation Hardware: (25) M6x40 Bolts, (2) M6x50 Bolts, (1) M6x35 Bolt.
- Instructions & Decals.

SHIFT PATTERN

This valvebody employs a reverse shift pattern: **Park - Reverse - Neutral - 1- 2 - 3 - 4.**

This valvebody is designed with engine braking.

Do not neutral this transmission at speed or the transmission may explode!

TORQUE CONVERTER CLUTCH/LOCK UP

TCC is automatically engaged in when in 4th gear. This valvebody does not have a provision for TCC in any other range. No wiring is required for TCC function. *Do not come to a stop in 4th gear or TCC will stall the engine.*

EARLY/LATE LUBE

This valvebody will work universally with all cases - Early, Late, or Reid Super80. Modification to the lube tube is required for late lube applications. See the included instructions and diagrams for proper lubrication for your application.

WARRANTY

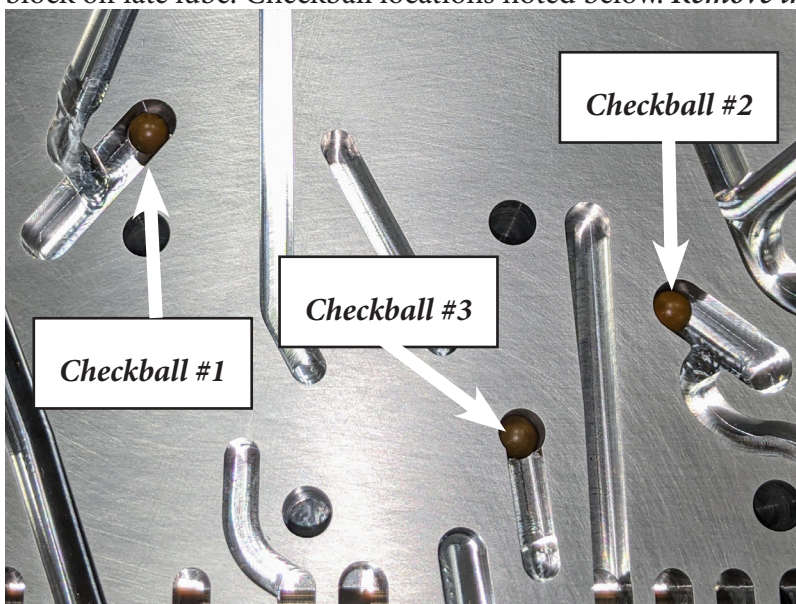
This product is warranted for 12 months from date of purchase against defects in material and workmanship. During this period such defects will be repaired or replaced at manufacturer's option. Do NOT return any defective products to your supplier. This warranty does not cover damage caused by misuse, alteration, or negligence. All implied warranties, including but not limited to implied warranties of fitness and merchantability are limited in duration. Under no circumstances will manufacturer be responsible for special, incidental, or consequential damages or costs arising from or in conjunction with the installation or use of any product of the manufacturer.

INSTALLATION INSTRUCTIONS FOR ATD BILLET 4L80 REVERSE MANUAL VALVEBODY

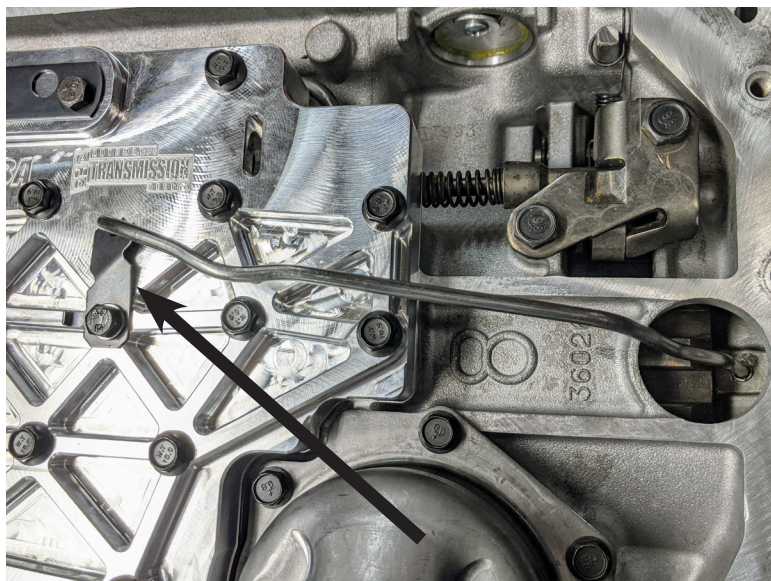
1. Disassemble and thoroughly clean transmission. Set aside stock valvebody assembly and wiring harness.
2. Disassemble direct drum. Drill 1/16" hole in direct drum at 45 degree angle as shown below.



3. Replace piston lip seals and discard center seal in drum. *Be sure to install both seals on the piston, and none in the drum.*
4. Install piston in direct drum using 16 new included return springs, and install new clutches. Clutch pack clearance: .050" to .070".
5. Check pump for wear and replace as needed.
6. Replace stock PR spring with the one provided. Omit boost valve and replace with the included boost valve eliminator. Use no shims for 200-210 psi. One shim for 240+ psi. *Do NOT omit any other pump component. Note: This valvebody utilizes fixed line pressure - there is no pressure rise or reverse boost vent.*
7. Reinstall gear train, drums, OD components, and pump assembly. *Note: This valvebody requires the intermediate band to be installed for engine braking functionality.*
8. Wet stone or flat file entire channel passage area of case. *Absolutely no high spots or burrs allowed especially at the center support area.*
9. Install intermediate band apply servo with new ring, 1-2 accumulator with new rings and factory spring, and low/reverse band servo with new seal and steel gasket as per stock. Air check to ensure proper apply.
10. Omit/remove PWM Solenoid Filter in case passages.
11. Do NOT install checkballs in any stock locations in case. There should be two 1/4" checkballs in the valvebody, and none in the case. The third ball should be preinstalled in the valvebody, greased in place to block off late lube. Checkball locations noted below. *Remove the third checkball for late lube applications.*



12. If the manual valve is not installed, install it into the bore. *Use stock OE manual valve only!*
Install the valvebody. **Do NOT install any gaskets on the case or valvebody!**
Start all valvebody bolts by hand before tightening! The M6x35 (short) bolt is for early lube applications only, or if your case has the boss for it. The (2) M6x50 bolts are for the detent spring location.
13. *Early lube* applications, install the tube and clip as per stock. For *Late lube* applications, slight tube modification is required. Carefully bend the tube approximately as shown below.



Before tightening/torquing bolts, note locations for late lube clip and filter support shown below. Use (1) stock wiring harness clip to support the filter.



14. Torque all bolts to 10-12 ft-lbs (14-16 Nm).
15. Omit all of wiring harness, solenoids, and install case plug using new green wiring harness o-ring from an overhaul kit or reuse from the case connector. Retain the case plug with the included screw and washer.
16. Install new filter and pan.
17. Smoke the competition.