Dynamic Racing Transmissions C6 Transbrake Valve Body

Parts List

Modified Valve Body

Spool Valve & Spring

2 wire Solenoid

SAFETY WARNING

With this valve body you have the ability to shift into ANY gear at ANY speed. This can pose a hazard if not used properly. Driver must assume full responsibility for these risks. Never engage transbrake while the vehicle is moving, it will lock the rear tires instantly. Never operate any transbrake equipped transmission without proper safety devices in place. This includes both an SFI approved transmission safety shield and a flexplate shield.

If you are unfamiliar with transmission repair and modifications, do not install this part. Instead, have it installed by a competent transmission technician who is familiar with such devices.

Failure to follow these directions and follow all safety procedures can result in serious injury or death!

Note:

- To install this valve body in a case that has never been modified the transmission must be totally disassembled.
- If your transmission has been previously modified to accept a transbrake please carefully check to be sure that the modifications are the same as detailed here.
- Adjust the Intermediate band to 120-inch lbs, then back off 1-½ turns
- The valve body is installed without any modifications other than adding your manual valve and detent roller.
- This valve body does not require gaskets
- This valve body has a reversed shift pattern :PRN123
- You will not reuse the following components:
    - Governor, governor tubes
    - Original valve body, separator plate and gaskets
    - Modulator or valve
- Set forward clutch clearance to .020-.035
- Set Direct Drum clearance to .050-.070
- Set Low/Reverse clearance to .060-.100.

- Drill a .020-.040 diameter hole through the low/reverse piston 180 degrees from the checkball. The location is not critical. This is to create a small air bleed. Position this hole in the 12 o'clock position when installing it into the case.
- Do not modify your servo to only use 1 seal. Release side of the servo MUST be larger than the apply side to allow the servo to release quickly on the 2-3 shift. Use of single sided servos will cause bind up in the 2-3 shift.
- After replacing the valve body, be sure to align your shifter properly in ALL gear positions. A slight misalignment will cause transmission failure and may even pose a safety issue as well. OEM shifters are not recommended.
- Internal detent alignment MUST be checked and corrected or you will have problems.

Installation

Solenoid & Spool Valve

1. Replace original modulator valve with the supplied spool valve and spring. Install the spring, then the spool valve, then the solenoid.
2. Ensure that the spool valve moves freely in the bore. Failure to insure free movement of the valve can result in transmission failure.
3. Wire one side of the solenoid to a 12V switch, ground the other wire to a solid ground. Poor grounding can damage the solenoid.

Install Valve Body to Case

1. Ensure that the mounting surface of the case is flat. A large fine tooth flat file can be used to carefully remove any high spots.
2. Place the valve body assembly into the case and align the manual valve with the selector pin.
3. Place the shifter in Reverse. The manual valve should be flush to slightly recessed with the chamfer on the back of the valve body.
4. Now, using a dial caliper, measure the amount of manual valve that protrudes from the valve body as you put the shifter in each gear. Follow the chart below.

Measurements	
Reverse	**.000"**
Neutral	**.250"**
Drive	**.500"**
2nd	**.750"**
1st	**1.000"**

Transmission Installation

1. Do not use a solid mount! An OEM rubber mount should be used to protect the case from cracking due to vibration and chassis flex.
2. You must use a shifter designed for reverse pattern valve bodies. Ratchet shifters are not recommended.

3. Shifter cables should only be attached at the shifter housing and the transmission pan. Do not attach the shifter cable to any body or chassis components. The shifter must be adjusted in all positions. Shifter adjustment is critical and must not be overlooked. Any misalignment in the shifter adjustment can cause transmission failure.
4. A deep cast aluminum pan is recommended to stiffen the lower part of the case and add additional fluid capacity.
5. A brass screen filter is recommended to enhance fluid flow.
6. A transmission cooler is recommended due to the increased heat generated by the use of the transbrake.

Operation of Transbrake

Note that the shift pattern is reversed. Low gear is now in the OEM “Drive” position. High gear is now in the OEM “Low” position.

Transbrake will only apply in 1st gear. The line pressure with the transbrake applied is approximately 200 psi. It is recommended that you perform a pressure test after the transmission is installed to ensure proper operation.

Setting the Transbrake

1. The car should be staged with the foot brake at 1000 rpm or more. This will insure enough fluid flow to operate the additional circuit required with the transbrake
2. On a Full-Tree it is recommended that you wait until the tree is coming down to go full throttle. This will minimize the amount of heat generated in the converter.
3. Due to the increased heat generated with the use of the transbrake the fluid should be inspected often. We recommend Dynamic’s Synthetic Racing ATF available from us online.
4. The solenoid requires a full 12 volts to operate correctly. The supplied solenoid is compatible with 16 volt systems also.

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