

Dynamic Racing Transmissions C6 Reverse Manual Valve Body

Parts List

1) Modified C6 Valve Body 1) 1/8" NPT Plug

Instructions

The Dynamic Racing Transmissions C6 Reverse Manual Valve Body has been designed to allow full manual control over transmission shifts using a reversed shift pattern.

The stock pattern is P-R-N-3-2-1. This valve body requires a shifter that can work with the modified pattern of P-R-N-1-2-3.

This valve body DOES NOT have engine braking in any of the gears. It is designed for Drag Racing and Off Road competition where engine braking is not needed.

Please read these instructions thoroughly and understand what is needed to install

Safety Warning

This valve body gives the user the ability to change gears at any speed. This can pose a hazard if not used properly. User assumes all responsibility for these risks.

Installation

- 1. Drain the fluid from the transmission into a suitable container. Be careful as the fluid may be hot if you are working on a vehicle that has been recently driven.
- 2. Remove the pan and and check it for excessive metal and/or crud.

If there is a concerning amount of matter in the pan, stop the installation and remove the unit for servicing. If everything looks good, proceed to step 3.

- 3. Loosen and remove the 8 valve body attaching bolts with a 3/8" socket. Slowly drop the valve body down and watch for extra fluid in the case to come out with it.
- 4. You may now remove the kickdown lever from the center of shift arm in the case. We recommend plugging the open center of the shift arm with RTV gasket sealer.
- 5. Clean the valve body mounting surfaces in the case with a clean rag.
- 6. Place the Dynamic Modified valve body into place in the case remembering to align the pin on the shift arm with the notch on the valve body's manual valve.

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7. With the manual valve on the shift arm pin, begin to reinstall the 8 valve body bolts.

You will need to install a new filter at this time as well using the supplied 5/16" headed fasteners.

The longest fastener goes through the filter into the valve body at the location shown in the picture below.



8. With all the bolts installed, tighten them to the following torque specs:

3/8" heads - 10 ft/lbs

5/16" heads - 80 in/lbs

9. Check that the valve body is not binding by rotating the shift lever through all the detents, checking that they are positive in feel. If they are not, loosen the 3/8" headed bolts and ensure that the valve is engaged in the pin for the shift arm. Retighten and try again.

Intermediate servo installation

Our valve body requires the use of an aluminum servo for the intermediate band apply.

If you have a rubber servo installed, remove it and replace it with a modified aluminum style piston or you can install a Superior Transmissions C6 Super Servo.

Installation of a modified Factory Aluminum Piston will require tapping a port in the case and removing the top sealing ring from the piston as shown on the following page.

Modifying the Case and Piston

If you choose to use a factory Ford aluminum piston, you must do the following mods to ensure proper functions of the valve body:

1. Tap the bore shown in the image below with a 1/8" NPT tap. Clean out any chips and install the supplied 1/8" NPT Allen head pipe plug. It should be flush with the case when properly installed.



2. Remove the small top sealing ring from the aluminum servo piston as shown on image.

Keep the large sealing ring in place.



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3. Install the piston assembly as normal, lubricating the bore with Transgel or transmission fluid.

For the best performance and shift feel, we recommend a E or F lever for the band actuation.

Band Adjustment

- 1. With the proper band lever installed and the servo piston in place and the cover sealed, loosen the band adjustment jam nut and tighten the square adjusting screw clockwise, tightening to 45 in/lbs.
- 2. Now back out the square adjusting screw 1 turn out.
- 3. Holding the square screw in position, tighten the large jam nut in place.

You may now install the oil pan and gasket and fill the unit with fluid.

We recommend Type F ATF or Redline Synthetic Racing ATF.

Start the vehicle with a competent person in the driver's seat. With their foot firmly on the brake pedal, have them move the shifter through the gears as you check fluid level.

Check for leaks at this time.

DO NOT RUN THE VEHICLE WITH THE REAR WHEELS OFF THE GROUND! THIS CAN CAUSE SEVERE INTERNAL DAMAGE

Make sure the transmission dipstick reads full before attempting to drive the vehicle.

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