



Installation Manual

Ford C4 Reverse Pattern Trans-Brake Billet Valve Body

RTS-VBC4-TB

Included Items	QTY
Billet Valve Body Assembly Ford C4	1
Modulator pin and spring	1
1/8" NPT Plug	1

WARNING: PLEASE READ ALL INSTRUCTIONS BEFORE PROCEEDING. RTS WILL NOT BE RESPONSIBLE FOR ANY DAMAGE AS A RESULT OF THE INCORRECT INSTALLATION OF THIS PRODUCT. IT IS RECOMMENDED THAT A QUALIFIED AUTOMOTIVE TECHNICIAN PERFORMS THIS INSTALLATION.

Typical Installation

1. Remove the oil pan from the transmission.
2. Remove the factory valve body by unbolting the 8 or 9 bolts (they have either 7/16" or 3/8" heads depending on early or late transmissions).
3. Remove the vacuum modulator, valve and pin from the rear of the case and discard.
4. For the rear band adjustment:
 - a. Remove the locknut
 - b. Tighten the adjusting screw to 10 ft-lbs (13.5 Nm)
 - c. Back out three turns
 - d. Install the locknut and tighten
5. Install the brake spring, brake valve and solenoid according to figure 1.
6. Install the RTS solenoid bracket (RTS-TBS200-BKT sold separately) with the supplied screw and washers supplied with the bracket. You may have to shim or remove some material from the bracket to get a good seal on the o-ring.

You also may need to shim or remove material from the back of the solenoid pin to ensure it fits correctly. Make sure the valve is adjusted as shown in figure 2.

Note: ensure the solenoid is positioned so the wires are in the clearance notch on the bracket before tightening.

7. Remove and discard the smaller of the two o-rings on the front servo piston, and then grind a flat for fluid flow past the unused o-ring land. Plug the factory drain back hole in the case next to the piston bore with the supplied 1/8" allen plug and re-install the original spring (unless you are using an RTS servo assembly) – refer to figures 4 and 5.

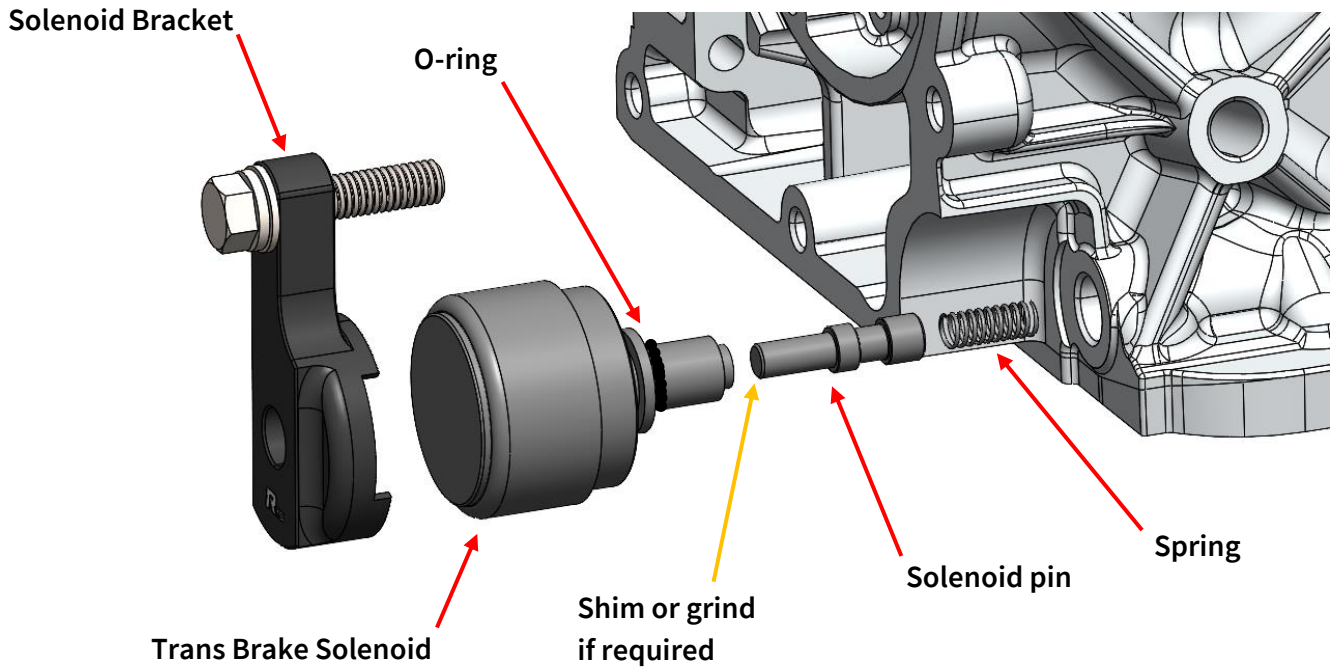


Figure 1

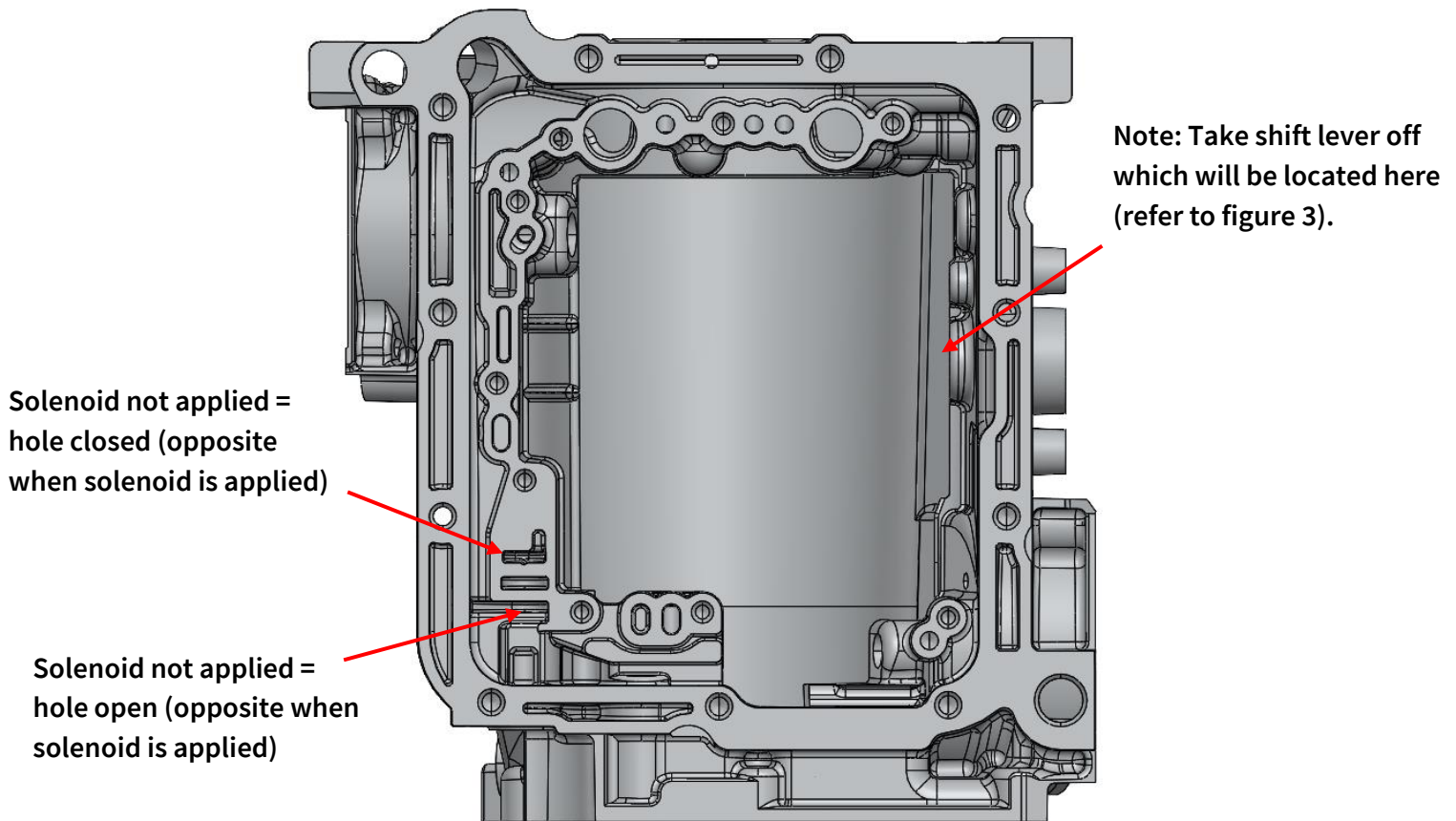


Figure 2



- Remove and discard the inner kickdown lever by removing the 7/8" nut and quad seal which will be no longer required. The shift lever will now be left hollow and will require to be plugged to prevent leaks, usually with a custom made machined plug (or RTS-KDLP sold separately).

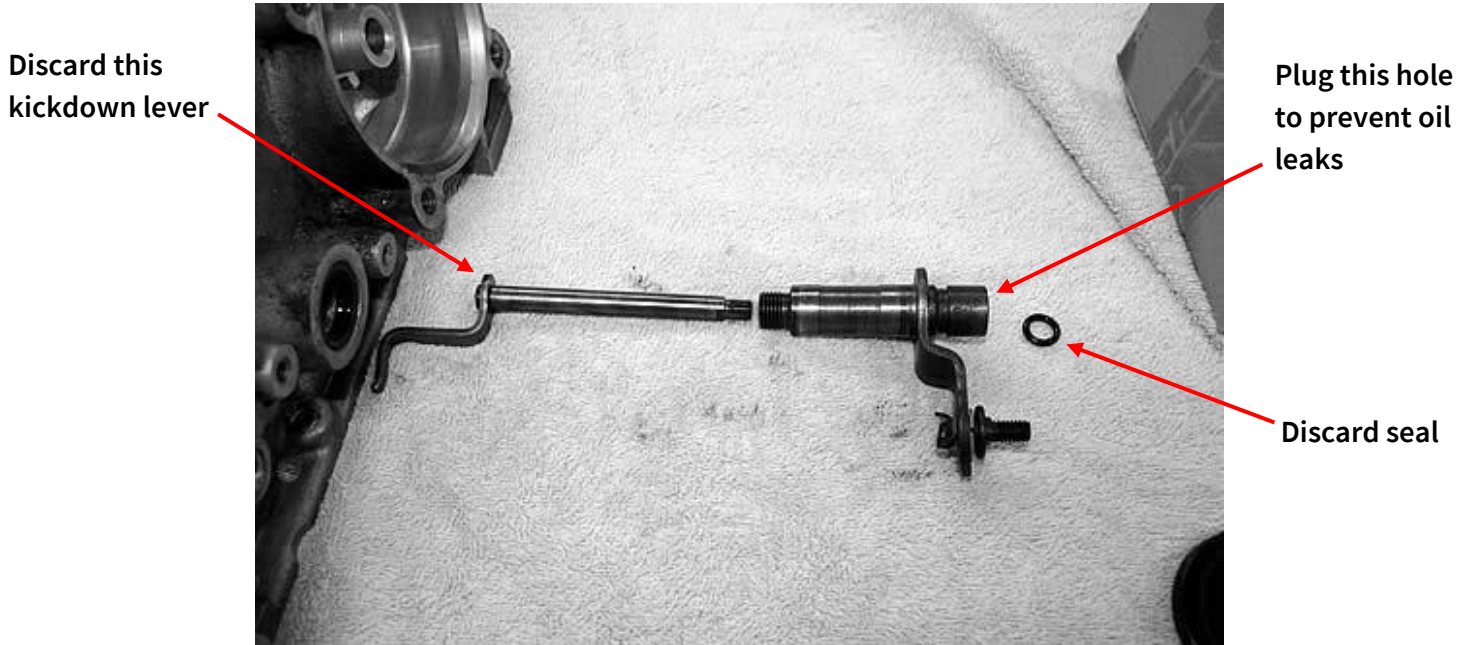


Figure 3

This operation shown below (step 7) must be completed before installing the new billet valve body. Note that if you are using an RTS performance C4 servo kit (RTS-SERV1C4 / RTS-SERV2C4), the 1/8" NPT plug does not need to be installed. Ensure the servo strut is properly installed or 2nd gear will not be operational.

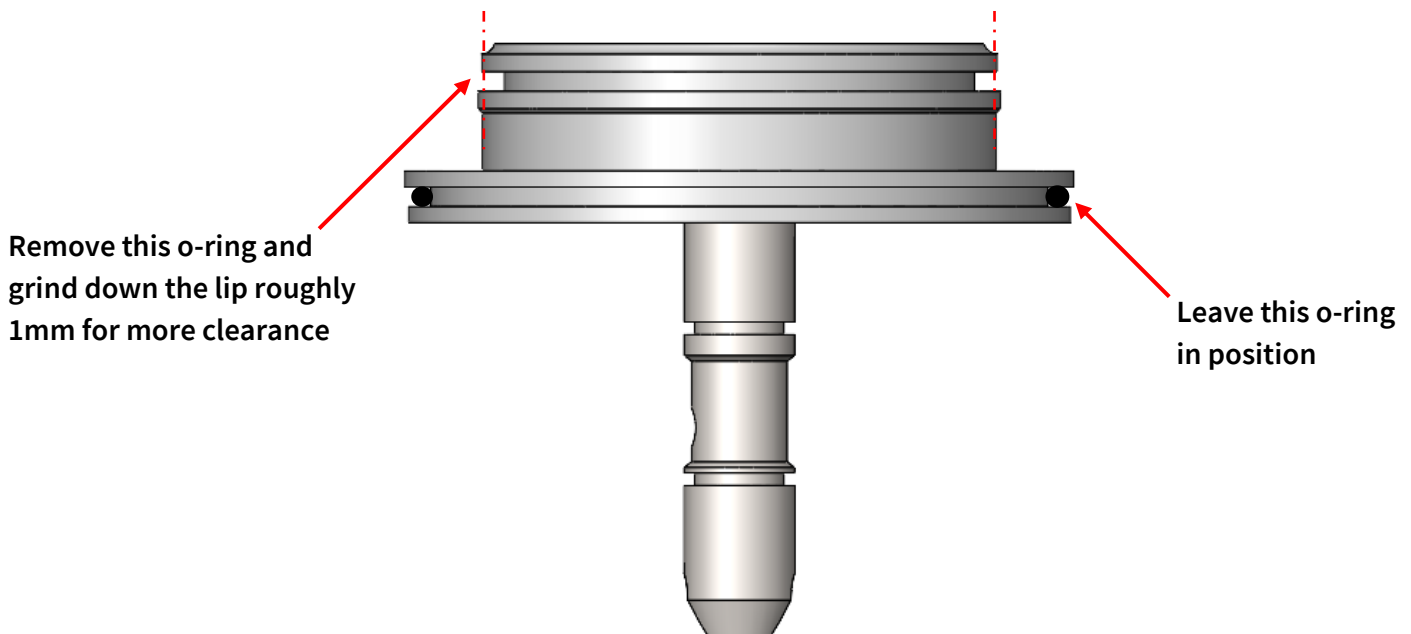
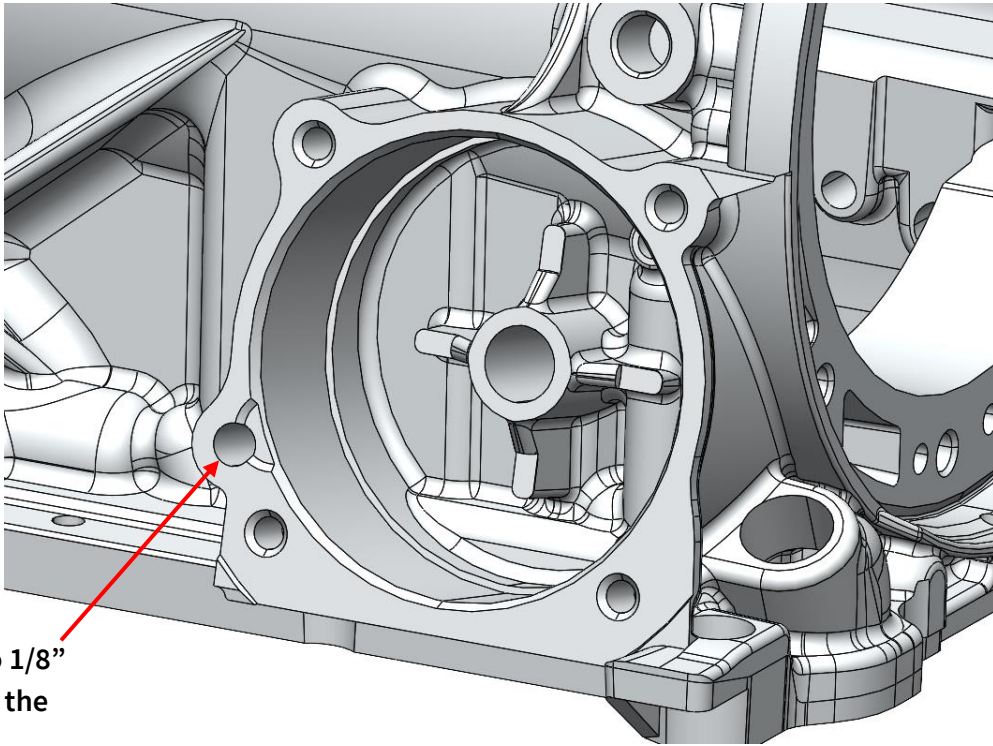


Figure 4



Tap this hole to 1/8"
NPT and install the
supplied plug

Figure 5

9. Ensure the apply strut is located in the servo pin and the anchor strut is connected to the adjustment bolt seen in figure 6.
10. Adjust the intermediate front band by loosening the lock nut and tightening the adjusting screw to 10 ft-lbs (13.5 Nm). Back out 1-1/2 turns for course threads and 2-1/2 turns for fine thread.
11. Install the brake valve body. As the valve body goes in, engage the manual valve with the inner control lever. The downshift linkage arm can be removed and discarded. Ensure the centre of the manual lever has been plugged or filled (as stated in figure 3).
12. Connect one wire from the solenoid to the ground wire (can be attached to any part of the transmission). Either wire will work. Connect the remaining solenoid wire to one side of the trans brake switch. Using a 30 amp fuse, connect the other side of the switch to the 12-volt power supply.



Apply Strut

Anchor Strut

Adjustment Bolt

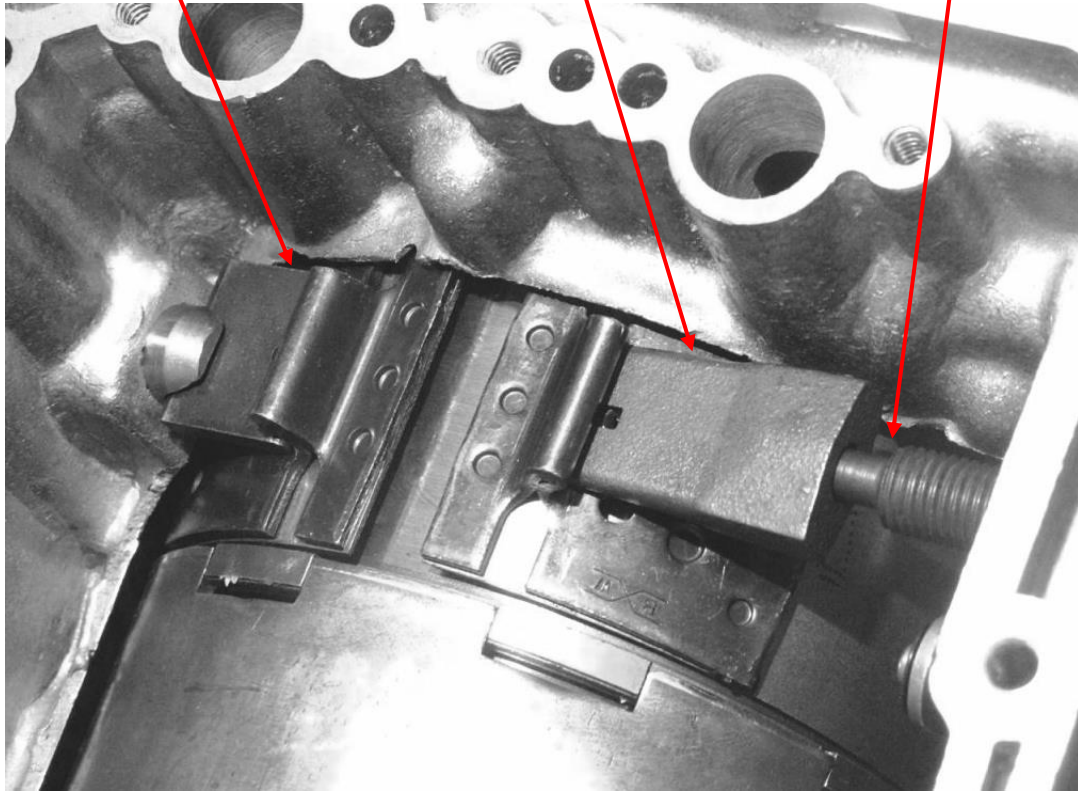


Figure 6