

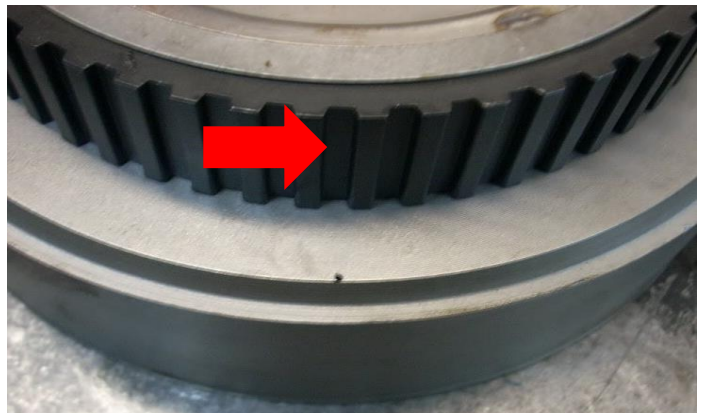
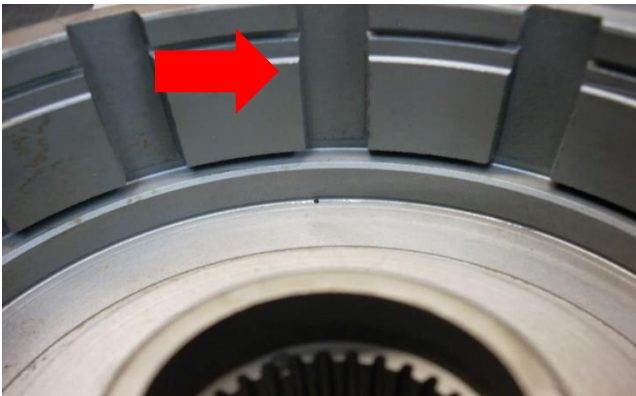
Jake's Performance TH400 Billet Transbrake Instructions

Installation of the Jake's Performance billet TH400 Trans brake will require some internal modifications. These are relatively simple but are best done during a rebuild by a professional transmission technician.

Parts included:

- Valve body
- separator plate
- Solenoid
- Hi Rate Direct Clutch Return Springs
- (2) ½" checkballs
- Brake Valve Spring
- Instructions

As for internal mods, you will need to drill a bleed/release hole in the direct drum. We recommend drilling a .055-.070" hole at a slight angle as outboard as possible on the drum as seen here (see the small black hole):

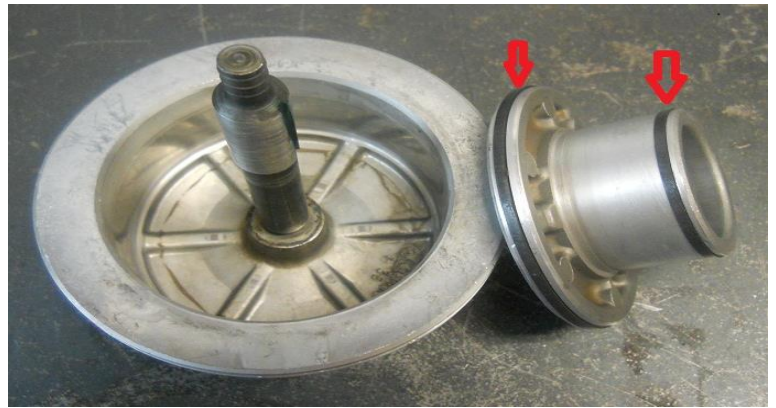


We also leave the center seal off the direct drum as part of the "dual feed" process. The "center" seal seen here on the inside of direct drum should be removed. Also remove the second sealing ring from the front of the center support.

You will also remove the front band and leave out.



Remove the two seals on the 1-2 accumulator piston (inner piston) shown here.



We recommend flat sanding the servo cover to ensure the surface is flat for better sealing. Re-install the servo assembly, checking for band clearance as follows. Disassemble the rear servo. Place apply piston on the pin with washer between them but no return spring, accumulator piston, or seals.

Parts shown here:



Assembled:



This gives you the overall length with no interference while checking. Check band clearance by installing piston and pin in case. (Note that the bore is actually slightly angled from the cover mating surface, the actual bore begins at the ridge.)

You should feel it engage the band, when it is in the bore push by hand firmly to judge travel. If it goes into bore too deep, you need a longer pin. Rotate output shaft both directions to judge band engagement. Ideally you want no drag when the servo is JUST in the bore but drag as soon as you start to depress further into bore. This helps prevent a possible no reverse condition and faster transbrake setup. Once the proper clearance is achieved you can assemble the rear servo. Approximately .070" travel is good.

Once you have attained proper band clearance. Assemble the rear servo for installation.

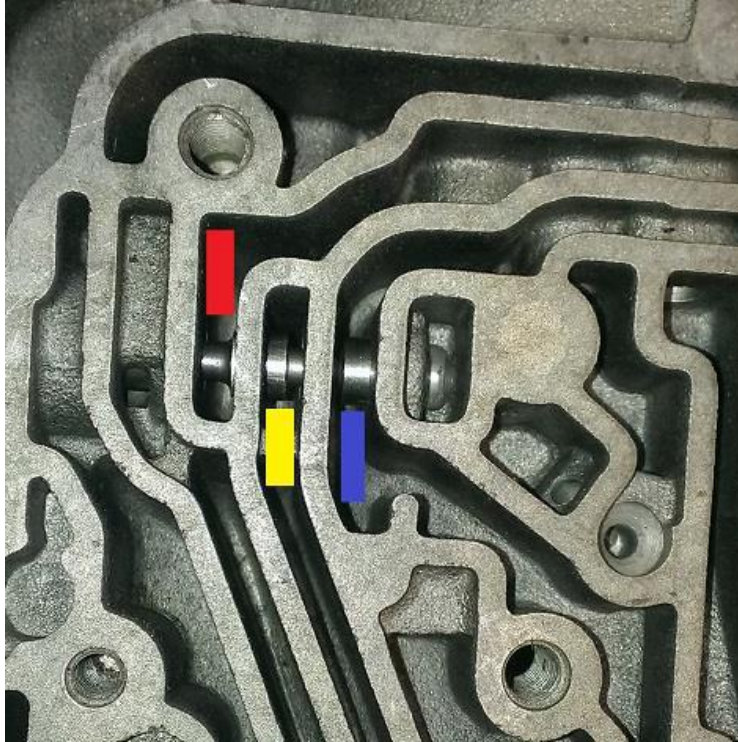
An OEM unmodified modulator valve is necessary. You will grind .090" off the outboard (solenoid) end.

Install the small spring on the inboard side of valve and install valve in case. Check for free movement. Next the valve timing can be checked.

Red is line pressure, yellow is brake, blue is exhaust.

With the brake valve and solenoid installed, and the solenoid completely depressed, line pressure should be open to brake, but brake should not be open to exhaust.

With the solenoid in the relaxed (off) position, line shouldn't be open to brake, but brake must be open to exhaust.



Ensure the two ½" nylon balls are installed in the valve body as shown.



Grind or machine .070"

We recommend grinding a radius on the manual valve and two flats as shown.



Install valve body and separator plate. No gaskets are needed if the case is properly prepped by flat stoning.

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