

Extreme 400 Billet Valvebody

Part# EX400 1+2

You have purchased the Fastest Shifting Fastest Pro Release Transmission Brake for the TH400 in the industry. Your New Valvebody is a 3 speed Reverse Pattern with Transbrake turned on in 1st and 2nd gear positions. It upgradeable to 2 speed PG pattern and 3 speed reverse Clean neutral simply by changing manual valves. Please take a few minutes to read the instructions before installation.

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VERY IMPORTANT!

This Aluminum Billet Valve Body Incorporates The Reverse Safety Feature
which means there are two things that must be done in order to back up...

**PLACE THE SHIFTER IN “REVERSE” or “NUETRAL”
PRESS THE TRANSBRAKE BUTTON.**

The car will back up in either position as long as the button is held down.

Packing List

- 1 – Valvebody
- 1 – Separator Plate
- 1 – Solenoid
- 1 – Modulator Cup Plug
- 1- Modulator slug
- 1 – Single Electrical Connector
- 16 – HD Direct return springs
- 1 – ½” Nylon Checkball
- 3 – 5/16 1-3/4” Bolts
- 4 – 5/16 1-1/4” Bolts
- 1 – 5/16 ¾” Button Head Bolt
- 1 – ¼” 1-1/2” Bolt
- 3 – ¼” 7/8” Bolts
- 3 - ¼” 1-1/4” Bolts
- 1 – Large Servo Return Spring

TRANSMISSION PREPARATION

Case Modification

This Valvebody requires no case modifications and will work with both available SFI Transmission cases. (Reid and ATI.)

INTERMEDIATE SERVO

Leave out intermediate servo, servo spring, parts, and intermediate band.

REAR LOW BAND SERVO

Remove inner piston and Large return spring. Install the new HD spring provided. Check seal on the large servo piston for damage and replace if needed. Reinstall rear servo.



USE STOCK MANUAL VALVE - Must be free of nicks and burrs. Must be no modifications to the manual valve.

NO VALVE BODY GASKETS – Personal preference Run a flat file or a wet stone over the case to remove any high spots that might cause a crossover leak.

Electrical Connector Provided – Install connector in the case with new seal where the original kick down electrical connector is located.

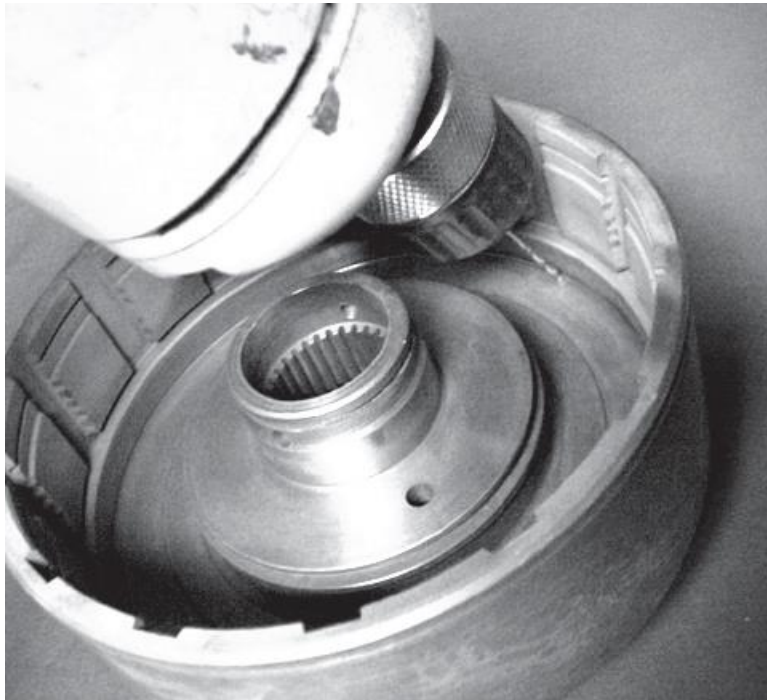
Transbrake Electrical Connection - is activated by applying 12 (or 16) volts into the spade Terminal Use minimum 16 gauge wire and a 15 AMP fuse. Solenoid pulls about 10 to 12 AMPS.

DIRECT DRUM

Preparation of the high clutch drum is extremely important. Removal of piston is necessary.

A (.040 - .063) bleed hole is drilled through the drum in the area behind the piston. It is best to drill from the inside-out placing the hole as close to the outer sealing portion of the drum as possible (big lip seal). The drill may be held at an angle for more drilling room.

Reinstall piston in the drum using only two lip seals, the outer and the inner. (Do not use the center seal on the Drum). Discard the 16 original piston springs and replace them with the special springs provided with the kit.



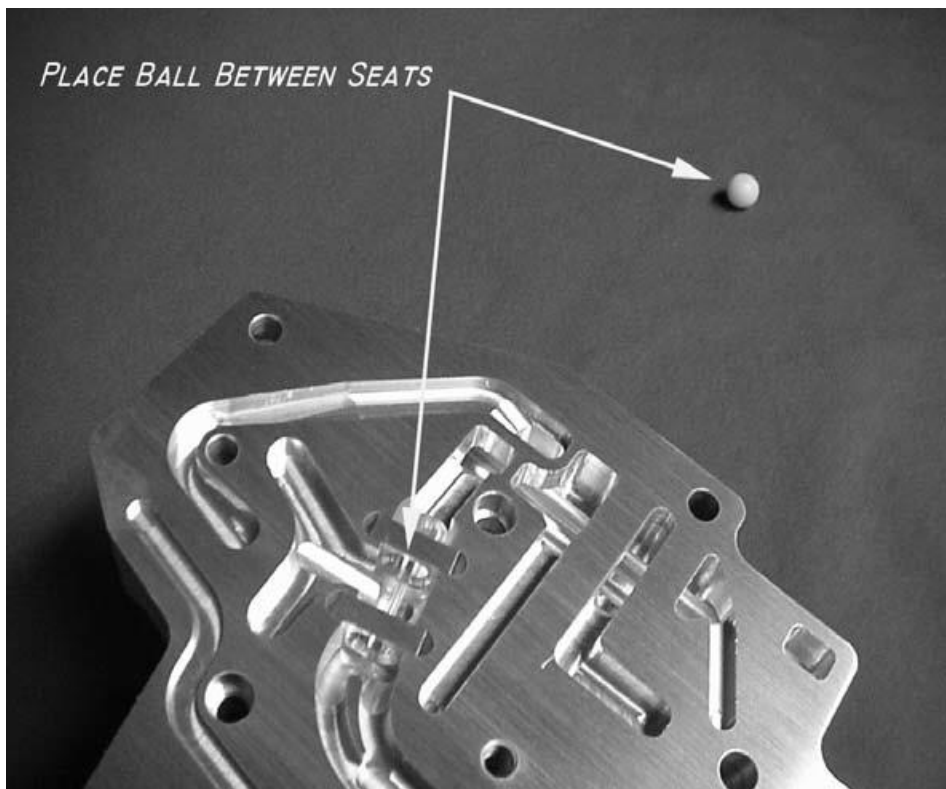
Modulator Valve - Use Stock 400 Modulator Valve or EA Gauge Plug Included

The Gauge plug round marked .352 replaces the very hard to find Stock untouched modulator valve. Push the valve down into the bore. Install the Mod plug with Strap.

Center Support – We prefer the Scarf Cut rings. You can use whatever your preference is. Leave off 2nd ring from the top.

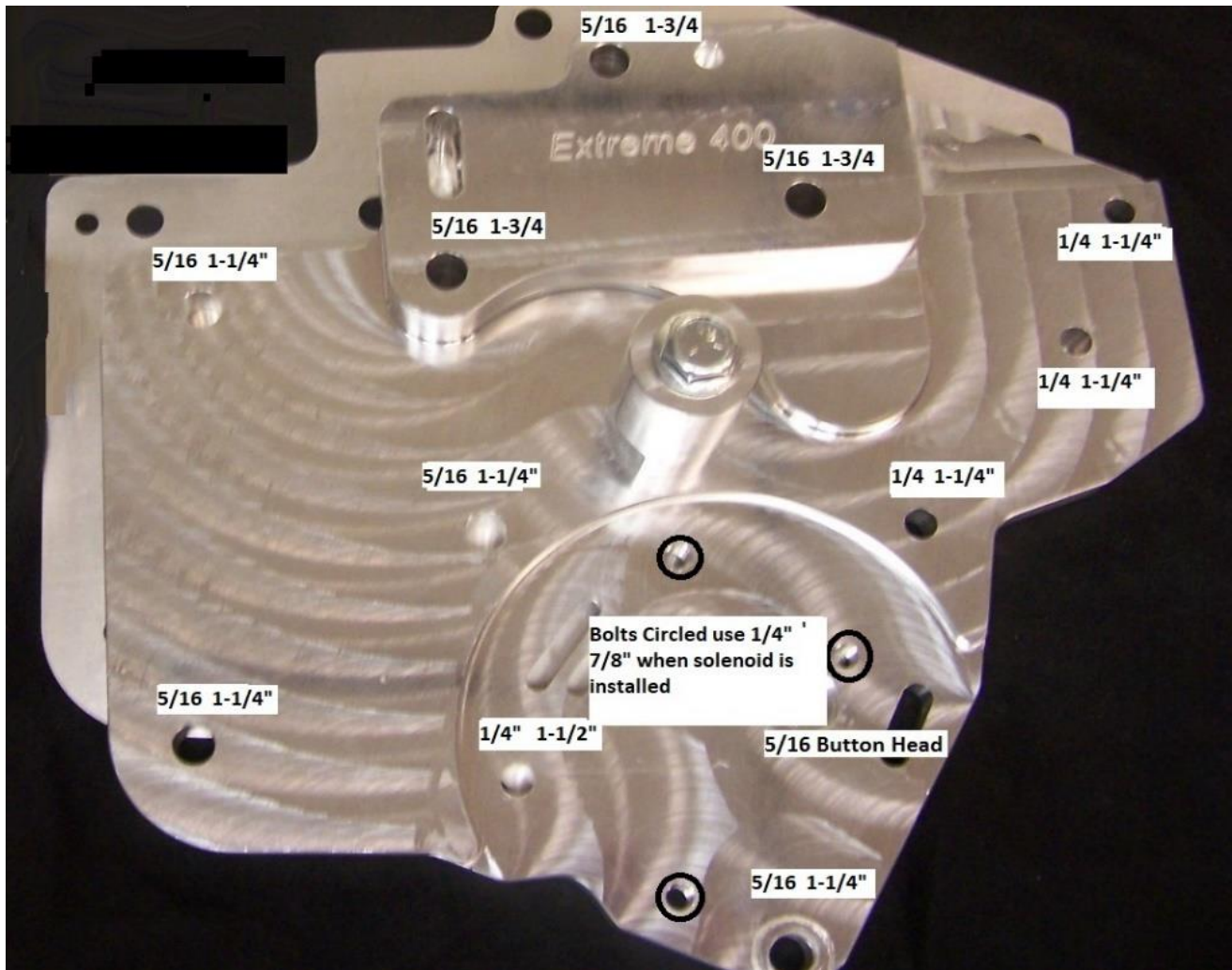


Valvebody Shuttle Ball – Place Nylon Ball between the seats as shown. Use grease to hold in place.



Solenoid Bolt Placement – Pay close attention to bolt placement!!! There are 3 solenoid bolts that hold the solenoid to the valvebody. They come very close to spacer plate when installed. Before installing

valvebody put solenoid in place and hand tighten the bolts. Look on the back side of the VB to be sure they do not protrude past the surface. We make every effort to supply bolts $\frac{1}{4}$ -20 $\frac{7}{8}$ " length and check before sending out. Slight variance in manufactures can cause a problem. To prevent a problem please verify length. *** If bolts were supplied with Yellow heads they have been pre-checked and are to be used in the 3 solenoid to VB locations.***



Filter Stand – We have provided a filter stand with your new valvebody. The filter stand is an aluminum extension that holds the filter in the proper location. The extension should have the mounting stud and the Filter bolt installed. Install the stud side into valvebody and tighten using the flats at the bottom. Use common sense tight. When installing the filter remove the bolt from the top. Install filter , adjust location and tighten into place. The supplied filter extension will only work with a Deep Pan. The filter Stand can be seen in the picture above.

Bolting the Valvebody into Place – Install all bolts, You have a small button head bolt that will install under the solenoid. Tighten bolt to following specs.

5/16” Bolts 200 Inch lb ¼” Bolts 100 Inch lb

After valvebody is installed you can now bolt the Solenoid into place. Use one of the solenoid locations for solenoid ground wire. Use the above ¼” Torque specs. **DO NOT CUT THE GROUND WIRE.** Take ground wire and coil around your finger to shorten length. In the event a bump box requires ground wire to be routed outside of transmission. Cut wire connector from the groundside. Scratch the wire so all the coating is removed and copper is exposed before crimping or soldering the on the new female connector. Failure to use this method will result in a solenoid that will not ground. **WE WILL NOT** replace a solenoid with the wires cut. Solenoids are checked before they go in the box. 100% of solenoid replacement has been from improperly terminated shortened ground wire. Run positive wire to the bulkhead connector. Take care to be sure the wire is routed out of the way of internal parts.

Your install should now be complete. Listed are some suggestions to aid in reliability in performance. Every builder has their own way. The suggestions listed are not required.

CLUTCH PACK CLEARNCE

Forward and High - .050 - .070

Intermediate - .030 - .050

Clutch Count - 5-5-3. in normal applications

Big HP, NO2, Blown, 6-6-4 High gear clutches should be slotted. Intermediate clutches are preferred to be smooth, (to reduce shock load on intermediate sprag). Clutch type is Builder preference.

Transmission Pressure – 200lb is good number for most applications. The Valvebody will work with any pressure. For Big HP applications pressure should be increased.

Forward Drum – We drill .040 hole in forward drum same as direct drum and use HD return springs. This help prevent the clutch from centrifugal apply causing the car to move when revving engine in neutral. Will also aid in drop out when used with a clean neutral option or 2 speed 400 option.