ATI PERFORMANCE PRODUCTS

6747 Whitestone Road • Baltimore, MD 21207 • (410) 298-4343 • FAX: (410) 298-3579
www.atiracing.com

Installation Instructions

TH400 PRO-START TRANSBRAKE VALVEBODY

Part # 403081

Packing List

- ☐ 1 x Billet 400 Valve Body
- ☐ 1 x Separator Plate
- ☐ 1 x Solenoid
- ☐ 1 x Modulator Plug
- ☐ 5 x Teflon Sealing Rings
- ☐ 1 x Electrical Connector
- ☐ 16 x Springs
- ☐ 1 x 1/2” Nylon Ball
- ☐ 6 x (5/16 - 18) - 1 3/4” Hex Head Bolts
- ☐ 1 x (5/16 - 18) - 1” Hex Head Bolts
- ☐ 2 x (1/4 - 20) - 1 3/4” Hex Head Bolts
- ☐ 1 x (1/4 - 20) - 1 1/4” Hex Head Bolt
- ☐ 1 x (1/4 - 20) - 1” Hex Head Bolt
- ☐ 1 x (5/16 - 18) - 3/4” Button Head Bolt
- ☐ 3 x (1/4 - 20) - 5/8” Hex Head Bolts
- ☐ 1 x Instruction Sheet

Packed by _____

IMPORTANT

This valvebody incorporates a Reverse Safety Feature which means there are two things that must be done in order to back up:

PLACE THE SHIFTER IN “REVERSE”
PRESS THE TRANSBRAKE BUTTON

The car will back-up as long as the button is held down. If the button is pushed while the trans is in neutral, the car will also back-up. Whichever method used is a matter of personal preference and will impose no ill effects on the trans.

WARNING

1.) Under no circumstance is this Turbo 400 Transmission to be neutraled during shutdown. Ride the transmission down in high gear only.
2.) Always start burnout in 2nd gear, then shift to high gear. Failure to comply may possibly cause extreme damage to transmission and/or possible injury or death to driver.
Don’t even think about running without a shield or a trans blanket!

IMPORTANT - ALL MODIFICATIONS ARE ESSENTIAL

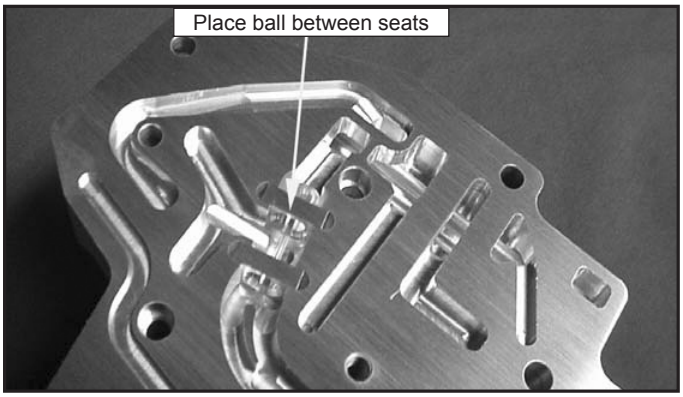
CASE PREPARATION
Try to find a complete transmission, or core that has not been messed with and try to keep the parts together (Prevents problems). This valvebody requires no case modifications.

REAR SERVO
The rear servo is installed in the normal manner. The two accumulator rings may be removed if desired. (Use stock springs and parts)

INTERMEDIATE SERVO
Leave out the intermediate servo, the servo spring, parts and the intermediate band.

CLUTCH PACK CLEARANCE

Forward and High	.050 - .070
Intermediate	.030 - .050



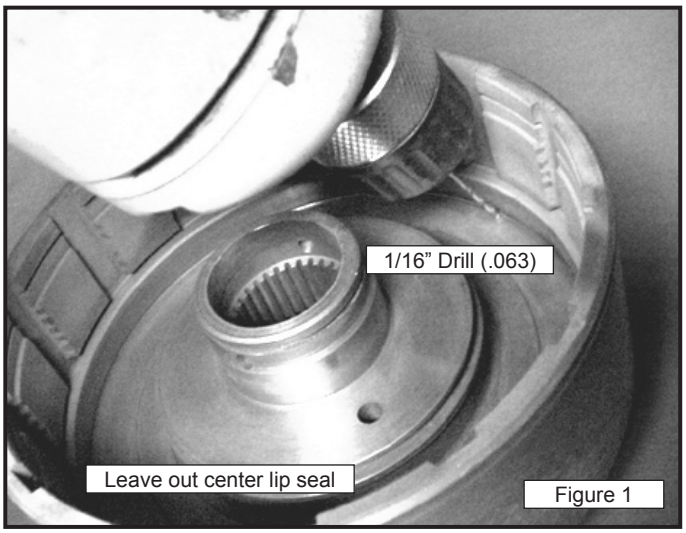


Figure 1

HIGH DRUM
Preparation of the high clutch drum is extremely important. Removal of piston is necessary. A 1/16 inch (.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 as possible (big lip seal). The drill may be held at an angle for more drilling room. (see figure 1).

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

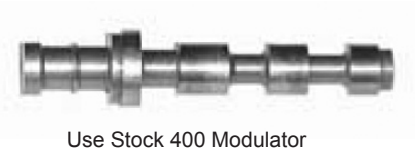
CLUTCH INFORMATION - NUMBER OF CLUTCHES
5-5-3 in normal applications. Nitrous or Blown use 6-6-4. Raybestos, B/W or Alto clutches are OK. High gear clutches must be waffled or slotted. Intermediate clutches are preferred to be smooth, to reduce shock load on intermediate sprag.

NO VALVE BODY GASKETS
Run a flat file or a wetstone over the case to remove any high spots that might cause a crossover leak.

OIL PAN
Use 1968-&-up pan and filter (2 dimple). Aftermarket pans are acceptable.

USE STOCK MANUAL VALVE
Must be free of nicks and burrs.

NOTE: INSPECT VALVE
Cannot be modified or ground on in any way. Cannot be someone elses aftermarket valve.



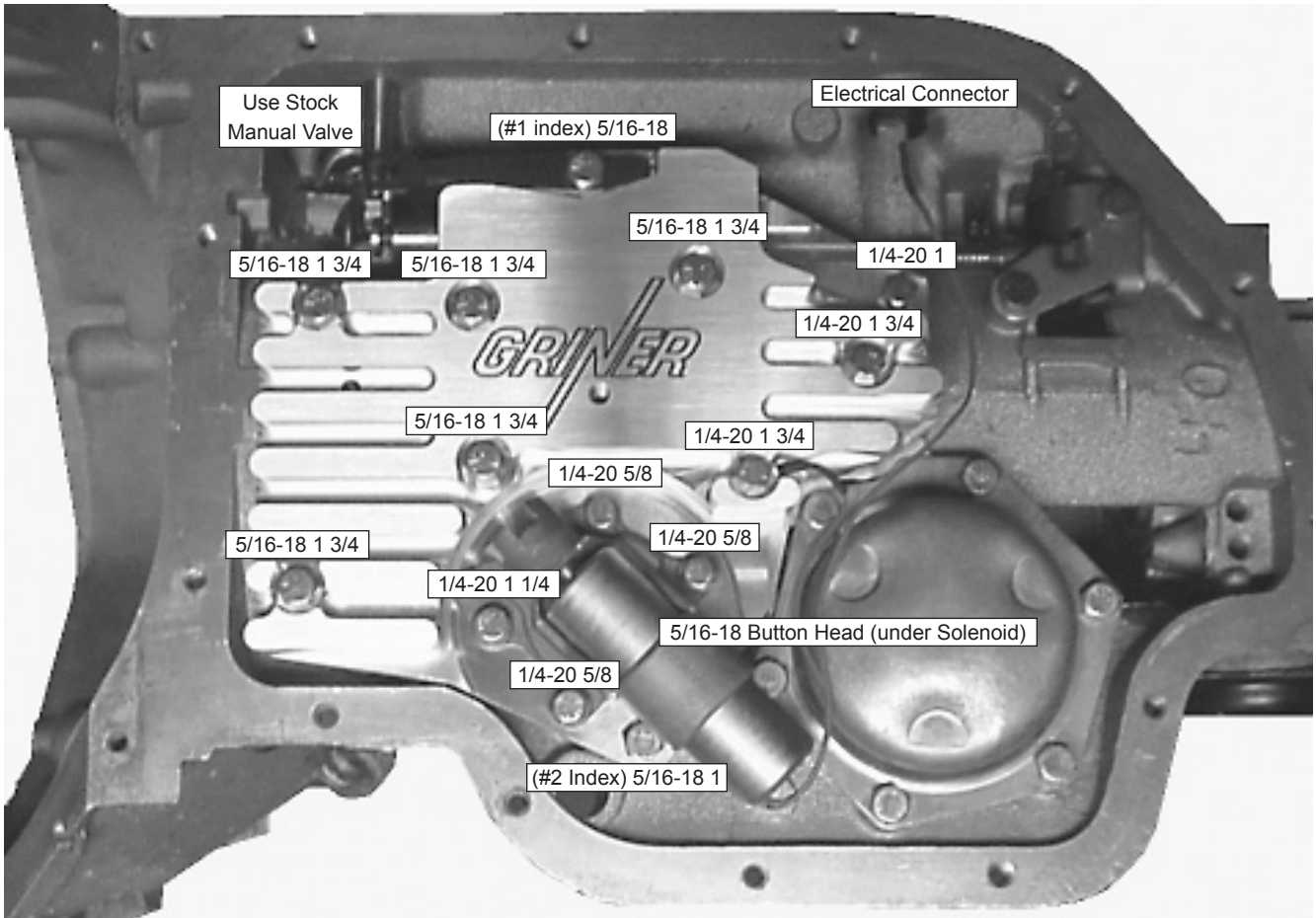
Use Stock 400 Modulator Valve Modulator Plug

Aluminum Modulator Plug

CENTER SUPPORT - INSTALLATION OF TEFLON RINGS
1 - Fill the groove with assembly lube. (Don't worry about 2nd groove)
2 - Hand shape rings as round as possible.
3 - Fit ring into groove.
4 - Same thing for the front pump.

The assembly lube will hold the rings in place during assembly. They will not seal until the transmission has been run, so don't expect them to pass an air check.

TRANSBRAKE ELECTRICAL CONNECTION
Transbrake Electrical Connection is activated by applying 12 (or 16) volts into the spade connector where the kickdown used to be. Use minimum 16 gauge wire and a 20 AMP fuse. Solenoid pulls about 6 to 8 AMPS.



A SIMPLE TRICK To make sure the valve body is properly aligned, start all the bolts by hand. First tighten the 5/16" bolt marked #1 Index. And then, tighten the bolt marked #2 Index.