

**Specializing in Racing Transmissions and Valve Bodies**

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**GRINER**  
**ENGINEERING**

**P/N 34G15-SN**

**( SAFE NEUTRAL )**

**turbo-400 billet valvebody**

**Shift Pattern P N 1 2 3 N**

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**34G10-SN (SAFE-NEUTRAL) FEATURE (or shutdown neutral)**

It can save your engine, (and your ass) by providing a safe clean neutral without spinning up the internal transmission parts beyond their burst speed. This works because the shift sequence is changed to ( **P N 1 2 3 N** ). The first neutral shares reverse, to back up hold the transbrake button down. The transbrake works in the normal manner (1st gear only). Launch the car, 2nd, 3rd, through the traps then shift to the final neutral position. This allows the engine to idle while the high clutch stays engaged. Both clutch drums rotate safely with the engine without the fear of an explosion.

**\* DO NOT SHUT OFF ENGINE IN THE TRAPS \***

**PACKING LIST**

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

**••• DISCLAIMER and WARNINGS •••**

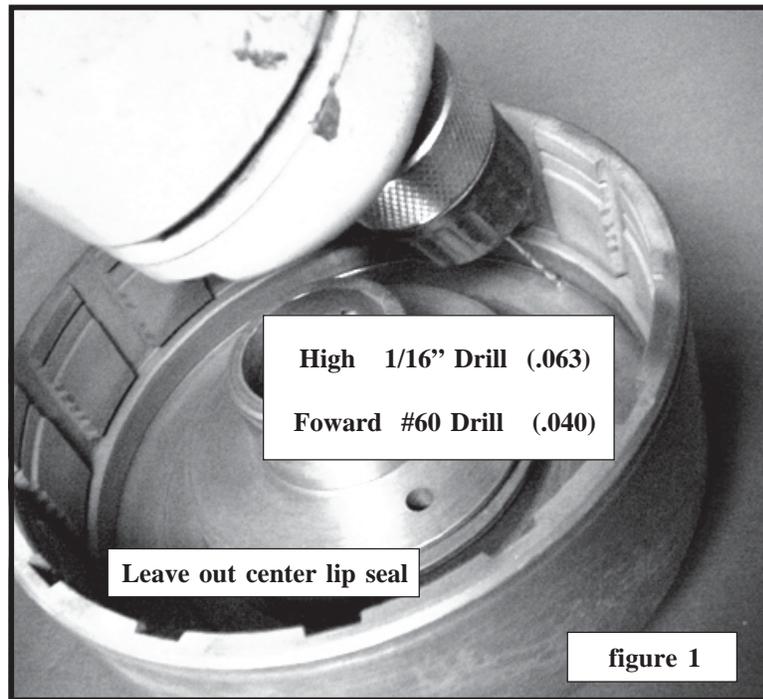
**Griner Engineering can assume no responsibility for workmanship or driving procedures that are out of our control. Read all the instructions carefully.**

**Failure to comply may cause extreme damage, possible explosion of the transmission and / or possible injury or death to the driver.**

**\*\*\* FOR YOUR PROTECTION \*\*\***

**DON'T EVEN THINK ABOUT RUNNING WITHOUT A SHIELD OR A TRANS BLANKET!**

## **IMPORTANT - ALL MODIFICATIONS ARE ESSENTIAL**



### **\*\*\* HIGH DRUM \*\*\***

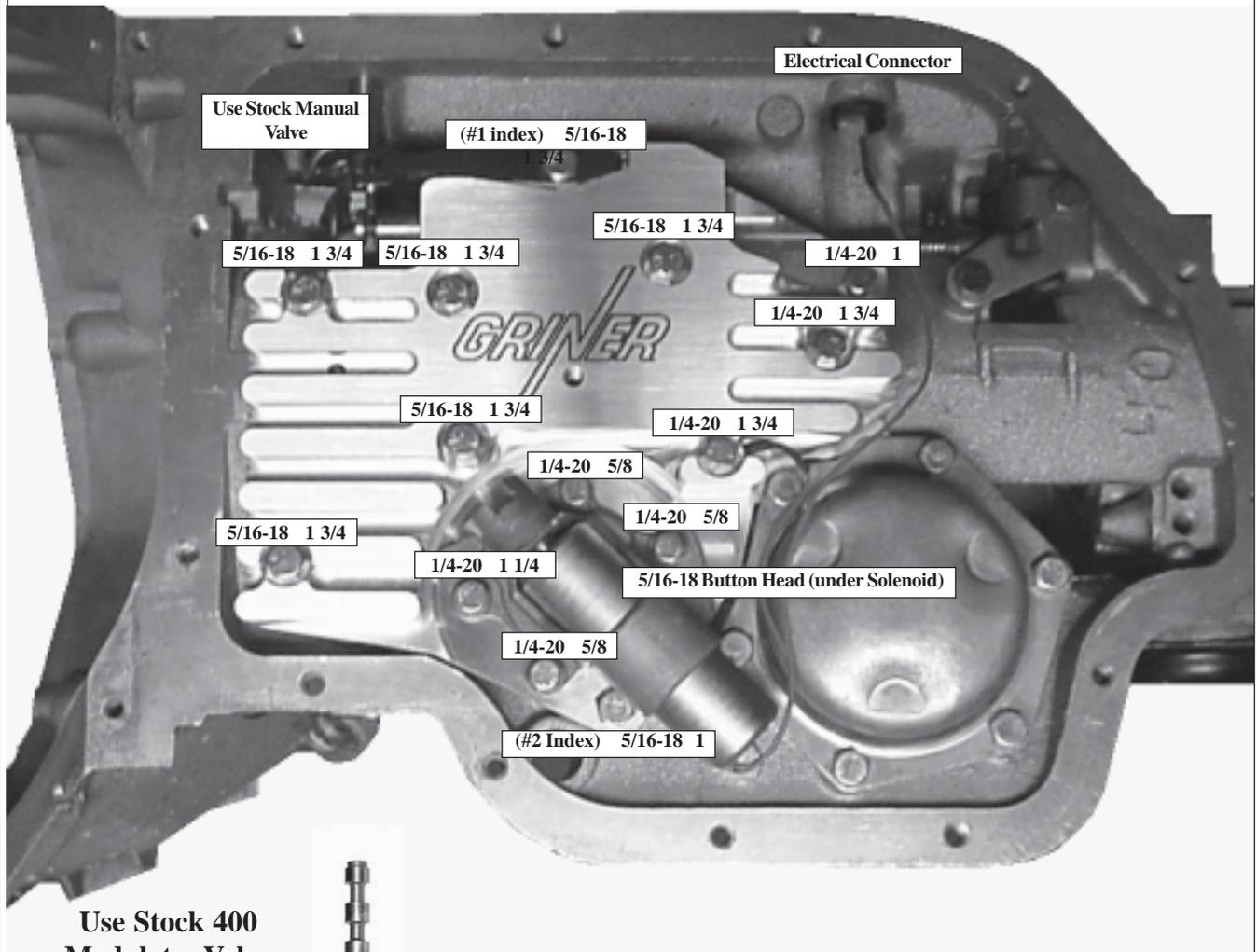
Preparation of the high clutch drum is extremely important. Removal of piston is necessary. A 1/16 inch (.063) bleed hole is drilled through the drum in the area behind the piston. It is best to drill from the inside-out placing the hole as close to the outer sealing portion as possible (big lip seal). The drill may be held at an angle for more drilling room. ( ...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.

### **\*\*\* FORWARD DRUM \*\*\***

Preparation of the forward drum is also important. Removal of piston is necessary. A #60 (.040) 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 (use figure 1 as a reference). 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.

**\*\*\* Install ALL 16 Springs \*\*\***

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



Use Stock 400 Modulator Valve

\*\*\* NOTE \*\*\*  
INSPECT VALVE

Cannot be modified or ground on in any way.  
Cannot be someone elses after-market valve.



Aluminum Modulator Plug

**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**.

**\* CLUTCH INFORMATION \***

# of clutches 5-5-3 in normal applications

NO2 or Blown, 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 the intermediate sprag).

**\* CLUTCH PACK CLEARANCE \***

Forward and High - .050 - .070

Intermediate - .030 - .050

**\* 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

**\* INTERMEDIATE SERVO \***

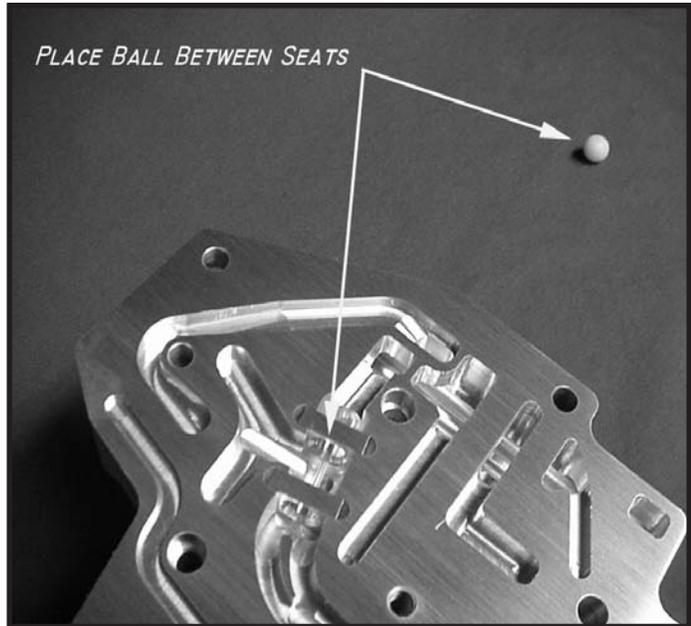
Leave out intermediate servo, servo spring, parts, and intermediate band.

**\* 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.

**\* USE STOCK MANUAL VALVE \***

Must be free of nicks and burrs.



**\* REAR SERVO \***

Rear servo is installed in normal manner, the two accumulator rings may be removed if desired. (use stock springs and parts)

**\* OIL PAN \***

Use 1968-up pan and filter (2 dimple) (aftermarket pans are OK)

**\* 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.

