

## TCI® 748200

## Transmission Brake Kit (Powerglide) Forward Shift Pattern: P - R - N - 2 - 1

This kit should be installed by someone familiar with automatic transmission repair and assembly. We recommend following a transmission Repair Manual for disassembly and assembly.

TCI's<sup>®</sup> Trans-Brake<sup>®</sup> functions only in low gear when Trans-Brake<sup>®</sup> button is activated.

This kit <u>will not</u> repair a transmission that is not working properly. Inspect front pump - it MUST be in excellent condition to allow the Trans-Brake® to work properly.

## This TCI® 748200 Kit Contains:

Qty. Description

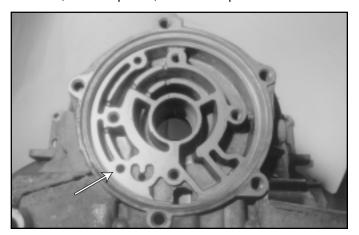
One (1) Powerglide Trans-Brake® Valve Body

One (1) Solenoid

One (1) Brake Valve

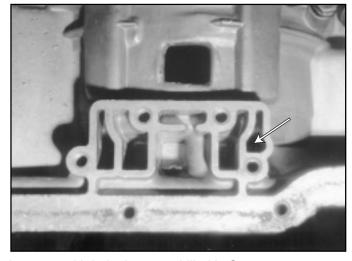
One (1) Brake Valve Spring

**Step 1** Remove pan, valve body, tailhousing, governor support, front pump, band, clutch drum, planetary, reverse clutches, reverse piston, and detent plate.



**Step 2** Enlarge this hole with 5/16" drill. Drill through back of case, smooth and deburr both ends of hole. **NOTE:** This hole will go through to the reverse piston area.

**Step 3** Drill this hole with 5/16" drill. This hole will



intersect with hole that was drilled in Step 2.

**NOTE:** If Trans-Brake® kit is to be installed in a TCI® Full Manual Transmission - case will *not* need to be drilled.

**Step 4** Clean case thoroughly to remove aluminum shavings.

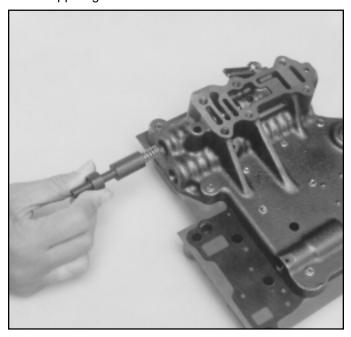
**Step 5** DO NOT bolt stock detent plate on Trans-Brake® valve body. TCl's® design does not require this stock item. Install reverse piston. Next, install (five) 5 lined and five (5) or more steel reverse clutch plates as needed for proper clearance. DO NOT use the wavy cushion plate, if equipped. It should be .050" to .080".

**Step 6** Check HIGH clutches. If there is a wavy cushion plate present, discard it and replace with two (2) flat steel ones. We recommend using our fully grooved competition clutch lining and unbreakable steel or aluminum clutch hub...clutch clearance should be from .050" to .070".

**Step 7** Before assembling transmission, discard: Governor assembly (if equipped), rear pump gears (if 1962-66 model), vacuum modulator, modulator valve and spring.



Governor support must be left in transmission. Shorty transmission, discard: Governor support. Use round governor support gasket to seal rear of case.



**Step 8** Install servo tube, OEM Manual Control Valve and valve body.

SYMPTOM

DDODI EM

**Step 9** Torque valve body bolts to 16 (sixteen) foot pounds.

**Step 10** Install brake valve spring, valve and solenoid as shown in Photo to the left.

**Step 11** Connect solenoid to micro switch. Trans-Brake® button using a 12-gauge wire.

**Step 12** Adjust LOW BAND and fill transmission using Type F or TCI's® RTF Transmission Fluid (Part #950600). DO NOT OVERFILL.

BAND ADJUSTMENT: 72-Inch/Pounds and Back off 4 turns.

**Step 13** Trans-Brake® must have a HOT 12-Volt battery fully charged to make solenoid work properly. See solenoid instructions for more information.

**Step 14** A transmission cooler is to be used. Many sizes and styles are available through TCI<sup>®</sup>.

**NOTE:** When freshening up transmission that already has this valve body installed, you can use the stock late model valve body gaskets.

## **Troubleshooting Guide**

SYMPIOM	PROBLEM
No Gears	Fluid Level
	Pump Gear Broken
	Pressure Regulator Valve
	Manual Valve Loose
	Pump Cooler Valve Pin
	Sheared
	Manual Valve Loose
	Converter Turbine Splines
	Sheared
Reverse In All Gears	Manual Valve Not Con-
	nected
No 1st, All Others OK	Low Band Adjustment
	Servo Tube Not Installed
	Sealing Ring on Servo
	Left Off
	Band Strut Left Off
	Band Burnt
No 2nd, All Others OK	No Sealing Ring on Pump
	Sealing Rings Worn or Cut
	Cut Piston Seal
	Check Ball in Drum Stuck
	Bushing Left Out of Drum
	Bad Bushing in Drum
	Stator Support has Spun
Slips In All Gears	Low Band
	Low Band Servo
	Converter Stator
Slips or Chatters in 1st	Servo Seal

SYMPTOM	PROBLEM
Backs Up When Trans	Worn Pump
Brake Applied	Low Gear Servo Sealing
	Ring
	Servo Bore Worn or
	Cracked
	Too Much Clearance In
	Reverse
All Foward Gears OK But	Wrong Gasket at Rear of
No Reverse or Trans Brake Case	
	Early Plate on Late Case
	Late Plate on Early Case
	Detent Cover Reinstalled
	C-Clip Broke on Detent Valve
	Low Current to Solenoid
	Brake Valve Stuck
	Wrong Governor
	Low/Drive Valve Stuck
	Case Not Drilled for Trans Brake
	Solenoid has Wrong Stroke
	Exposed Block Hole in
	Low/Drive Valve
	Reverse Servo
Brake Won't Release	Aluminum Valve Stuck
or is Slow	Solenoid Stuck
	Spring Too Short or
	Improper Spring