

# 4L80-D3-BRKIT



The TransGo TransBrake kit gives you the best of both worlds. It retains the factory electronic controls for street driving and optional manual upshifting for the drag strip. It provides a lightning-fast release that can be used to launch in either D3 (auto upshifts) or D1 (manual upshifting) ranges. The kit also incorporates a safety pressure switch to prevent accidental engagement when the transmission is not in first gear. To ensure maximum holding power the kit is designed to have fixed 180 psi of line pressure forward with boosted reverse pressure of 250 psi.

**Like all pro TransBrakes, the TransBrakes must be activated to go into reverse.** This kit contains everything you need to convert your stock valve body into a TransBrake valve body. **Compatible with OE and Aftermarket transmission controllers.**

## How to use the TransBrake:

1. Engage shifter into D1 or D3 (never in D4)
2. Activate TransBrake by pressing the button
3. Rev engine to desired launch RPM
4. Release button to deactivate the TransBrake
5. In D3, let the computer do the shifting
6. In D1, manually shift the transmission

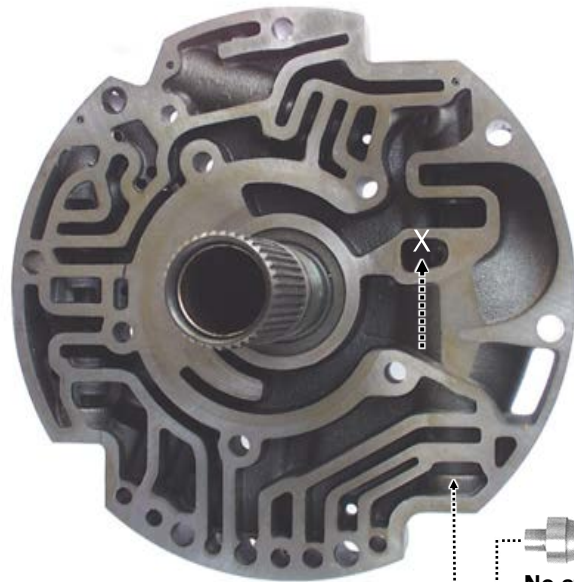
**Listen Up! Do not launch your vehicle in overdrive range or sprag damage may occur!**

1. Using a 1/16" drill bit, drill a 0.062" hole Under "X" through side of wall in direction of arrow.

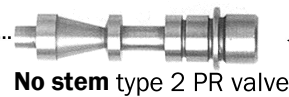
Remove the PR valve lineup from the pump and discard everything except for the PR valve itself and thoroughly clean the bore.

Install PR valve, **purple and white springs, washer, boost valve, boost bushing, and snap ring.**

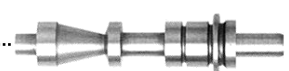
- **No stem** type 2 PR valve: **do not** install spacer\*
- **Stem** type 1 PR valve: **install** spacer\* on PR valve stem



Pump stator



No stem type 2 PR valve



Stem type 1 PR valve



Spacer\*



White spring



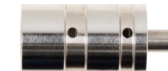
Purple spring



Washer



Boost valve



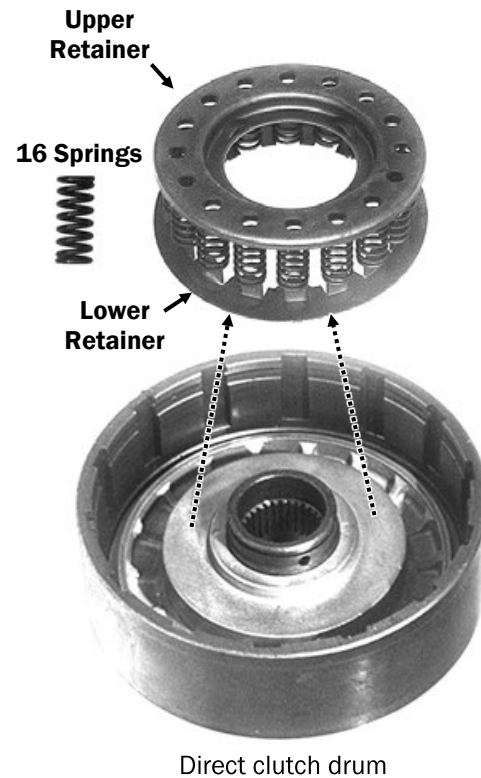
Boost bushing



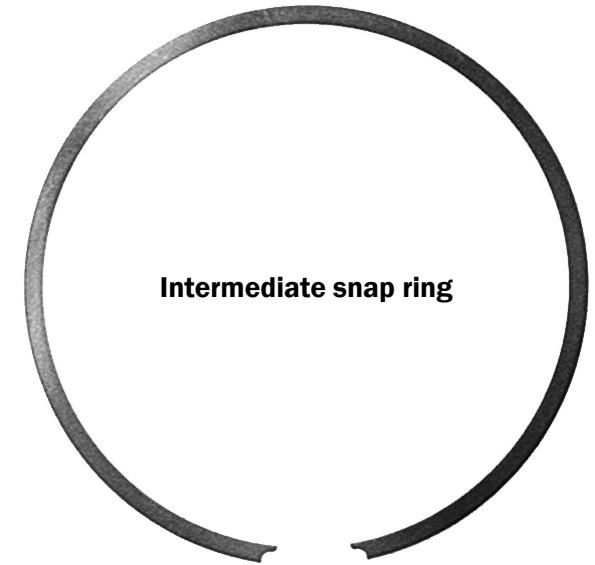
Snap ring

\* **Note:** If your PR valve requires the **spacer**, first do step 4 to 11 and then come back here to finish the pump afterward.

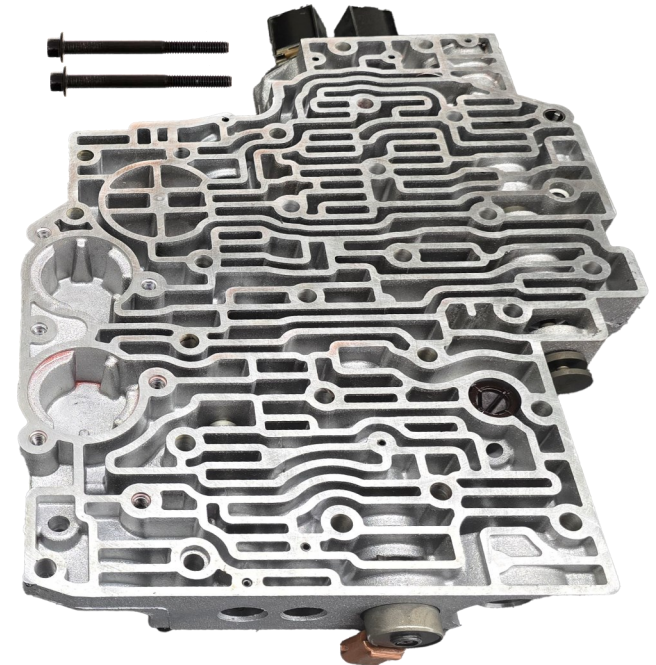
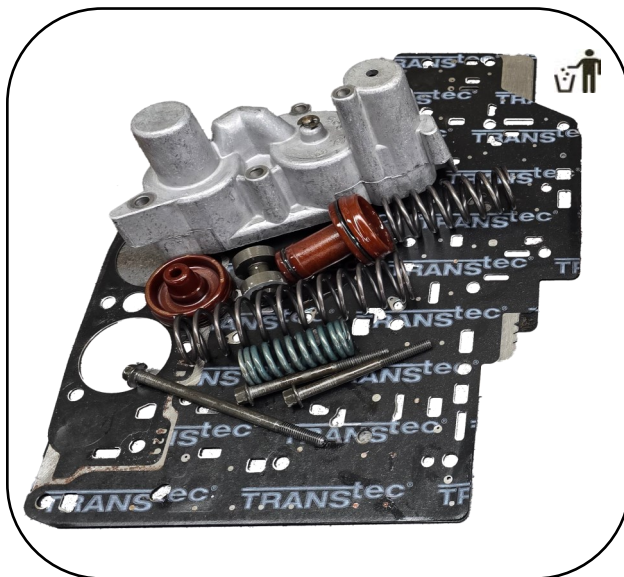
**2.** Carefully pry the **lower retainer** out of the springs. Then with side cutters grab each spring up close to **upper retainer** and twist and pull at the same time to remove the springs. Install the **16 springs** furnished into the old retainers.



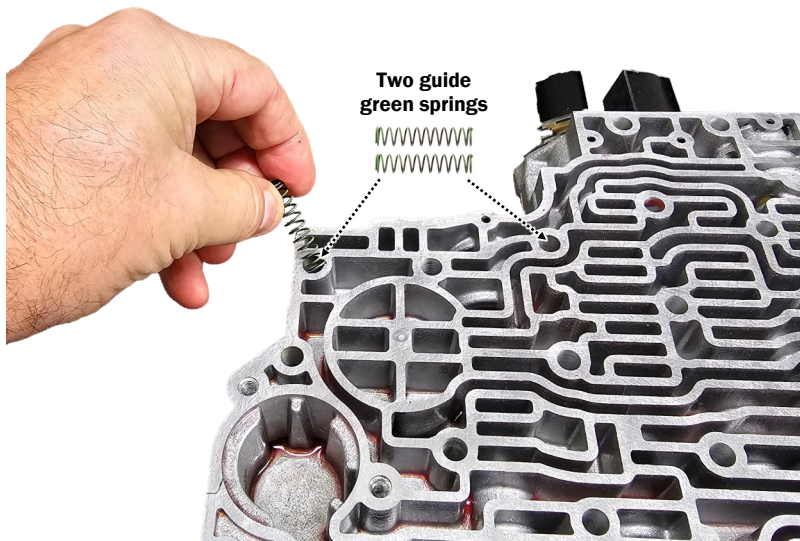
**3.** Replace intermediate snap ring in the case with new thicker **intermediate snap ring**. This is the last snap ring that goes in the case. It stops wear on the lugs which reduces lug blowout.



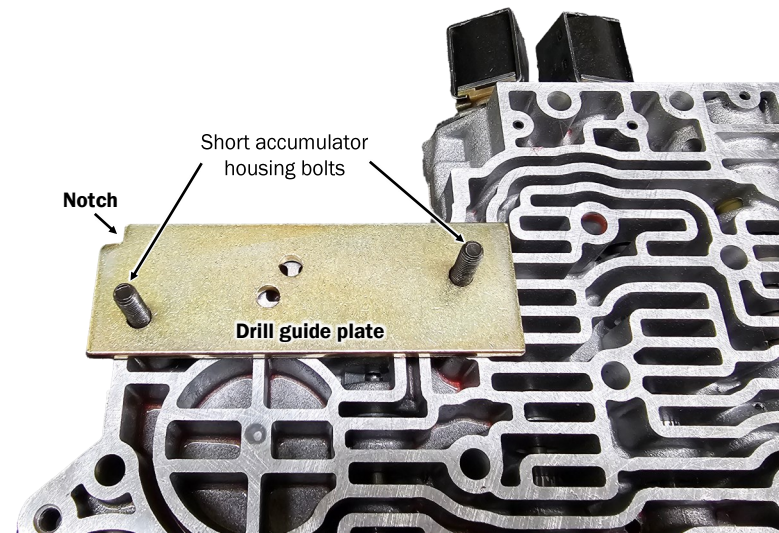
**4.** Remove and discard the valve body separator plate, accumulator housing, springs, pistons and long bolts. Keep the shorter ones for step 6.



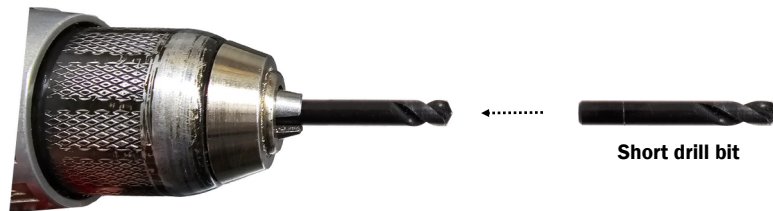




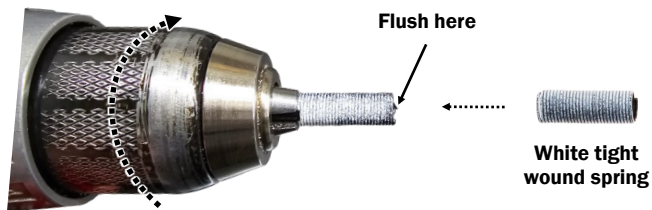
**5.** Insert the **two guide green springs** into the bolts holes as shown from on the channel side of the valve body casting.



**6.** Insert two original accumulator housing bolts saved from step 4 into holes with two green guide springs in them from underside of the valve body, and then install the **drill guide plate** on top of the channels with the **notch** on the upper left as shown.



**7.** Slightly insert the provided **short drill bit** into a drill leaving the chuck loose.

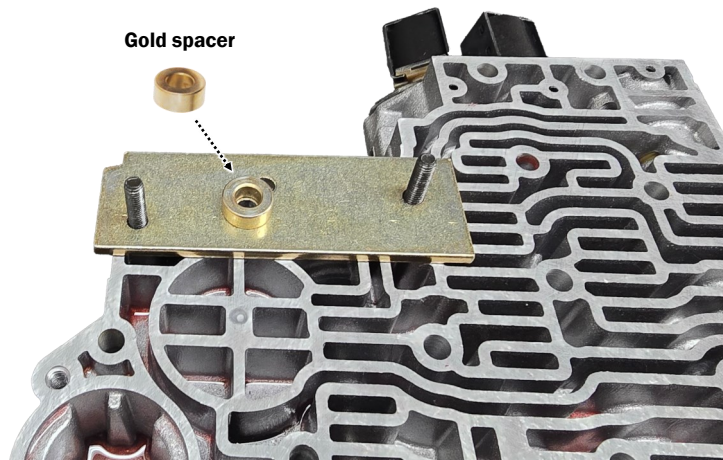


**8.** Slide the **white tight wound white** on the drill bit and then push the drill bit further in until the tip of the drill bit is just flush with the spring and tighten the drill chuck.

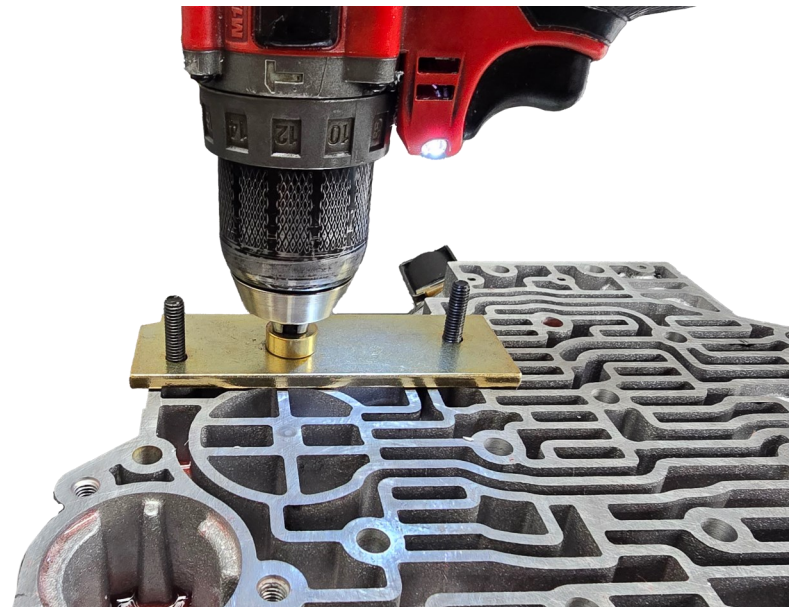


**9.** Remove **white tight wound spring**.





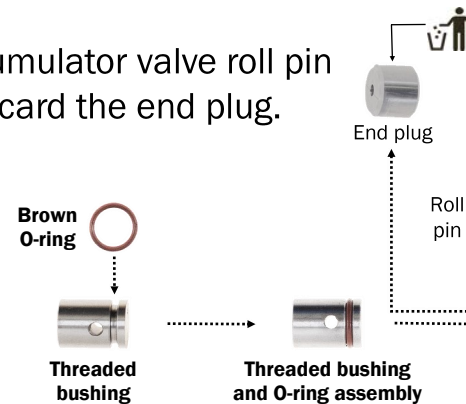
**10.** Position the **gold spacer** over one of the two holes in the drill guide plate.



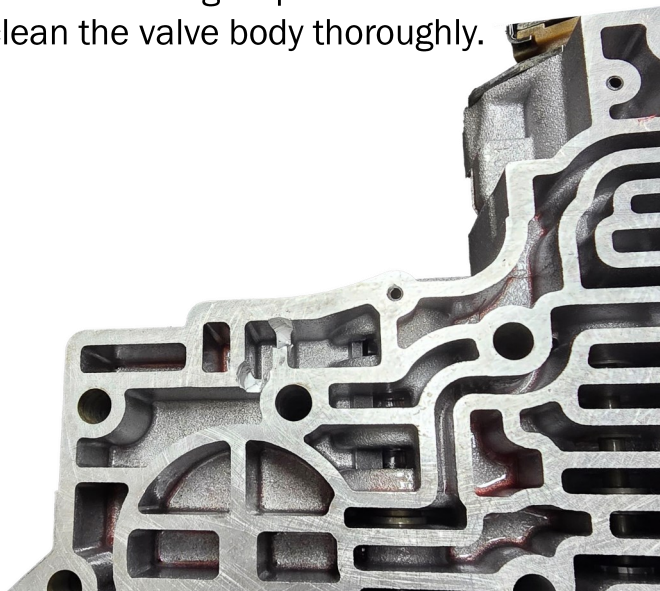
**11.** Drill down until just before the drill bottoms out on the spacer. Repeat for the second hole.

**12.** Remove drill guide plate, bolts and two green springs. Blow all drilling chips out and clean the valve body thoroughly.

**13.** Remove accumulator valve roll pin and end plug. Discard the end plug.

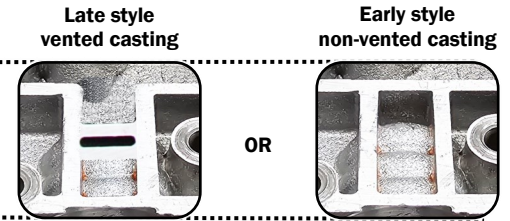
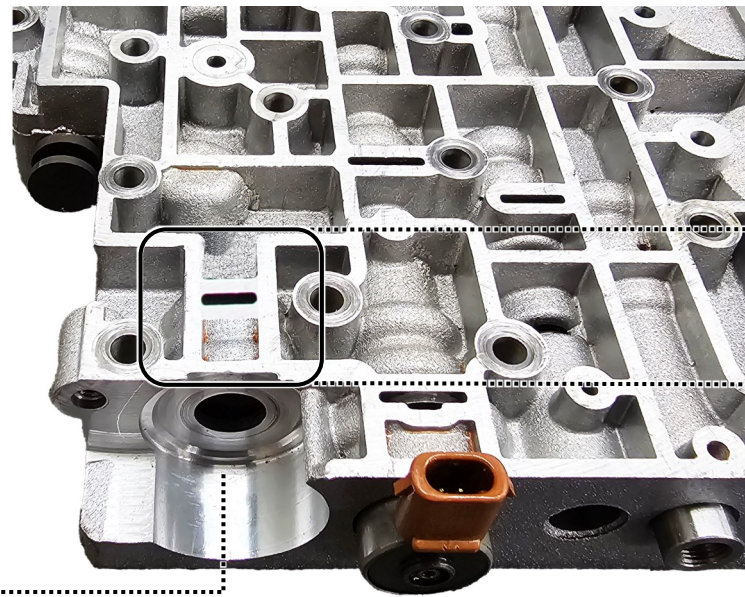
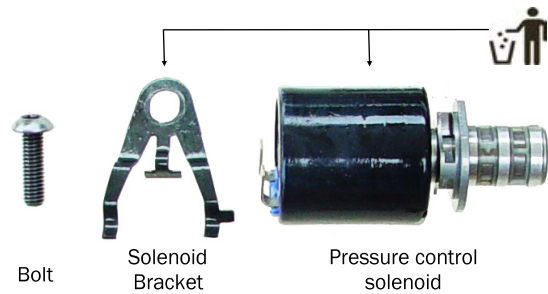


**14.** Install **Brown O-ring** in the groove of the **threaded bushing** coating it with assembly lube. Insert the **threaded bushing and O-ring assembly** O-ring end first, lining up the bushing and valve body holes and reinsert the roll pin.





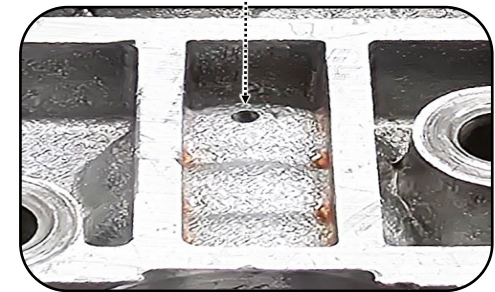
**15.** Remove and discard the pressure control solenoid and its retainer, saving the bolt for later.



Go to step 17

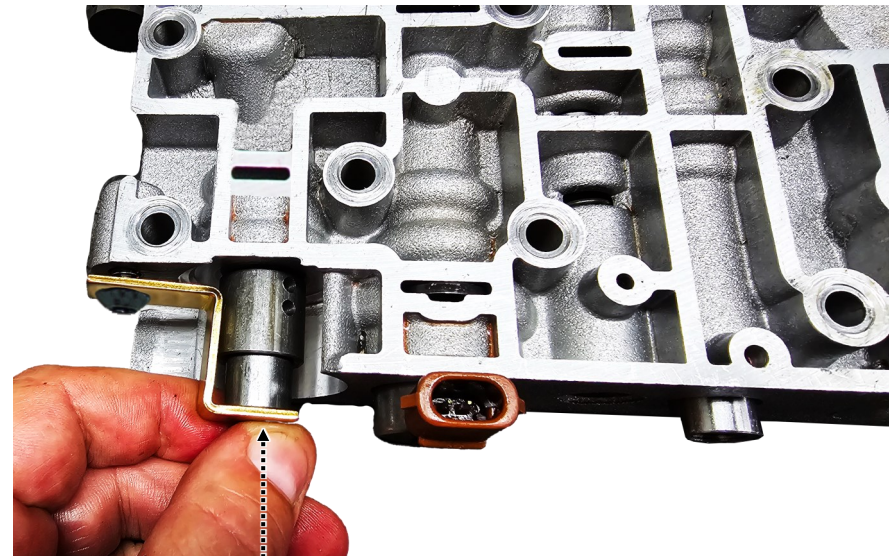
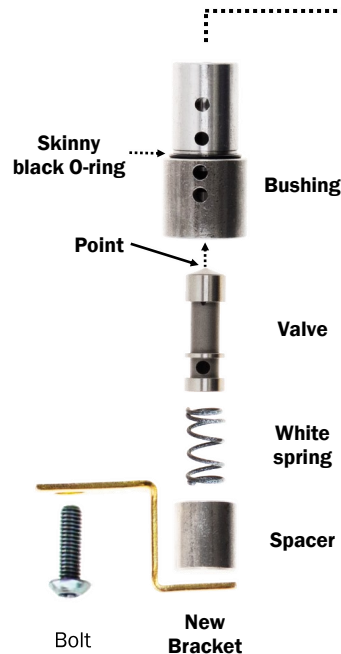
Must drill hole

Drill 1/8" vent hole

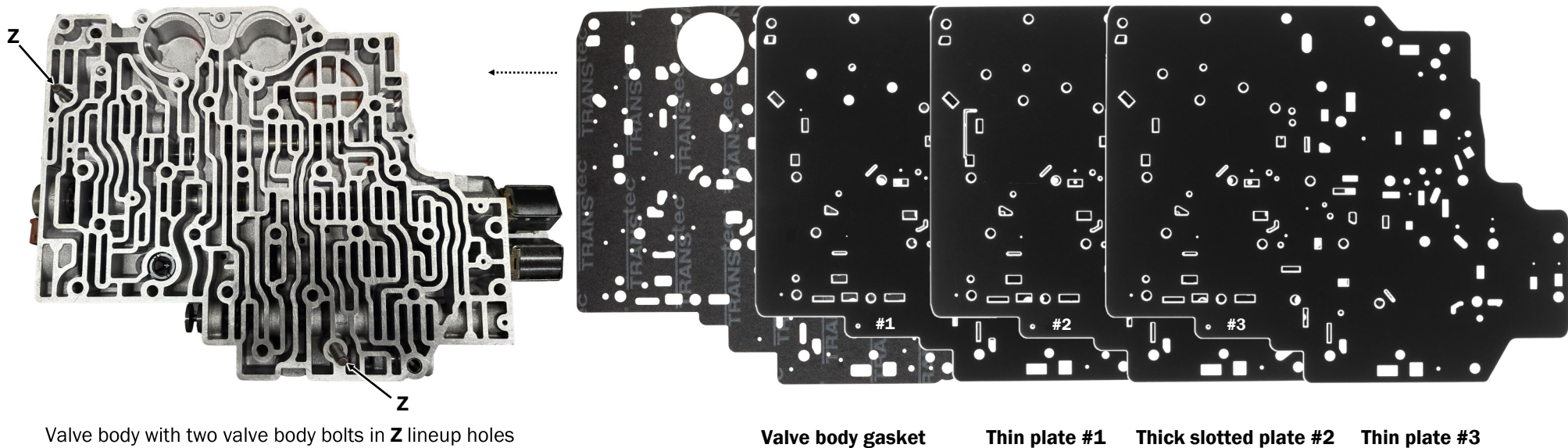


**16.** Look at the valve body casting in this area to identify your valve body. If you have a **late style vented casting**, shown in the image on the left, **go to step 17**. If you have an **early style non-vented casting**, shown in the image on the right, then using a 1/8" drill bit drill a vent hole in the casting at the location shown in the picture on the right.

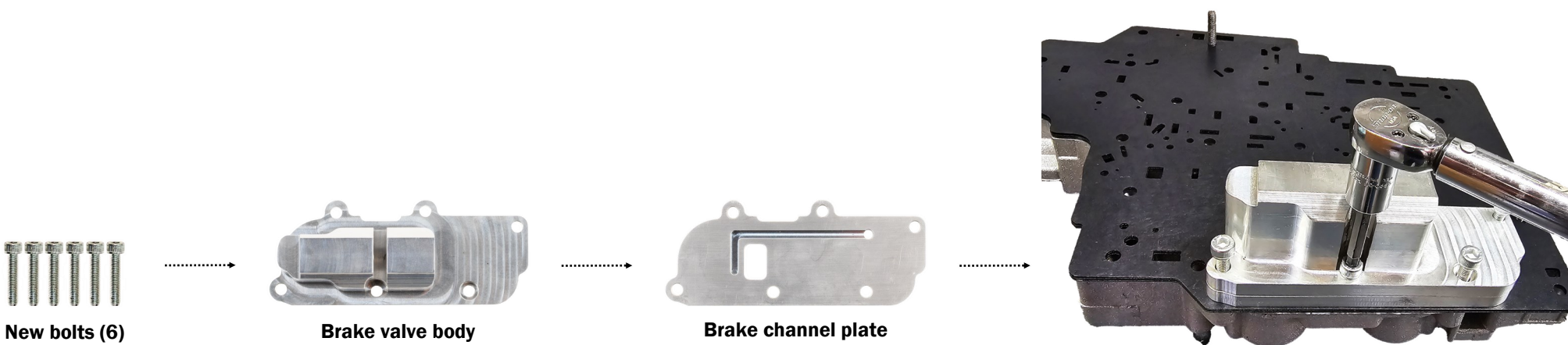
**17.** Install **skinny black O-ring** on **bushing**, then insert **bushing** in the valve body where the pressure control solenoid used to go, followed by the **valve point side in first** into the **bushing**, then **white spring**, **spacer**, **new bracket** and bolt tightening it down.



**18.** Insert two bolts from the back side in **Z** lineup holes, then install the **valve body gasket** followed by the three separator plates provided in the following order: **thin plate #1**, followed by **thick slotted plate #2**, and lastly **thin plate #3**.

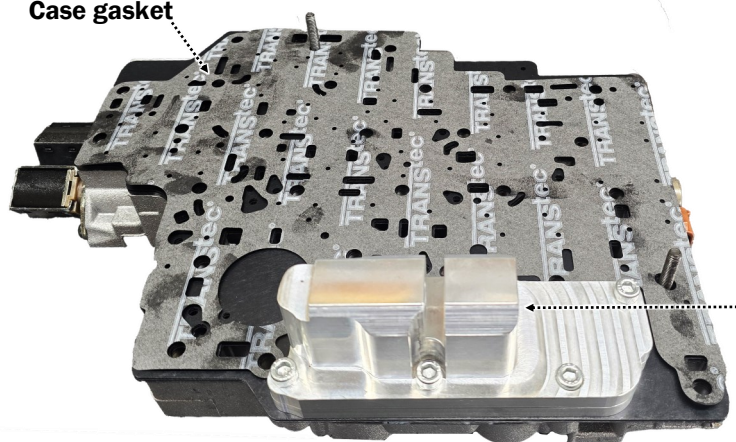


**19.** Add the **brake channel plate** as shown, followed by the **brake valve body** and the **six new bolts** torquing them to 97 lb-in.





Case gasket



**20.** Insert **plain spring** and **brake valve** in brake body, then screw in the **brake solenoid**. Add the **case gasket** to the valve body using assembly gel on the separator plate so that the gasket remains in place and lineup once you remove the two **Z** lineup bolts.



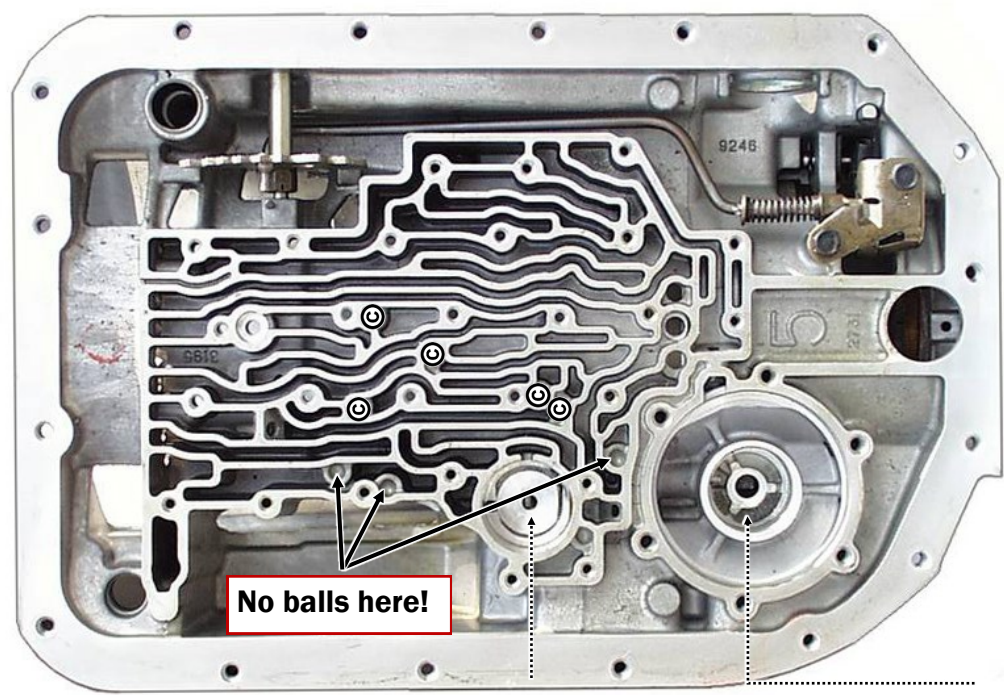
Plain spring



Brake valve



Brake solenoid

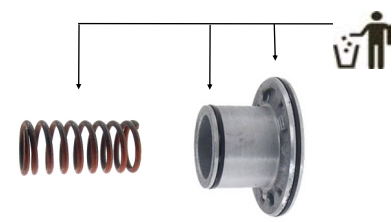


No balls here!

© = 5 Checkballs



No change to manual 2-1 band servo and spring.



**21.** First remove and discard low reverse servo spring and both sealing rings from the 1-2 accumulator piston. Next install **orange spring**, 1-2 accumulator **without sealing rings**, servo with seal, gasket and cover. No change to the manual 2-1 band servo and spring. Install 5 checkballs in the case as shown.



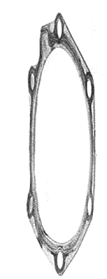
Orange spring



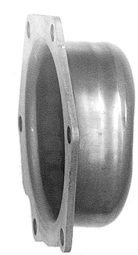
1-2 accumulator without sealing rings



Servo with seal



Gasket



Cover



**22.** Bolt the assembled valve body on the case carefully routing the brake solenoid wires under the separator plate in the case recess . Screw in the **elbow** into the threaded bushing in the valve body by hand until it stops. Using an open wrench tighten the **elbow** one extra turn and plus what is needed so that the open end of the elbow faces up.

Screw the **pressure switch** into the **elbow** by hand until it stops. Using an open wrench give it an extra turn and a half.

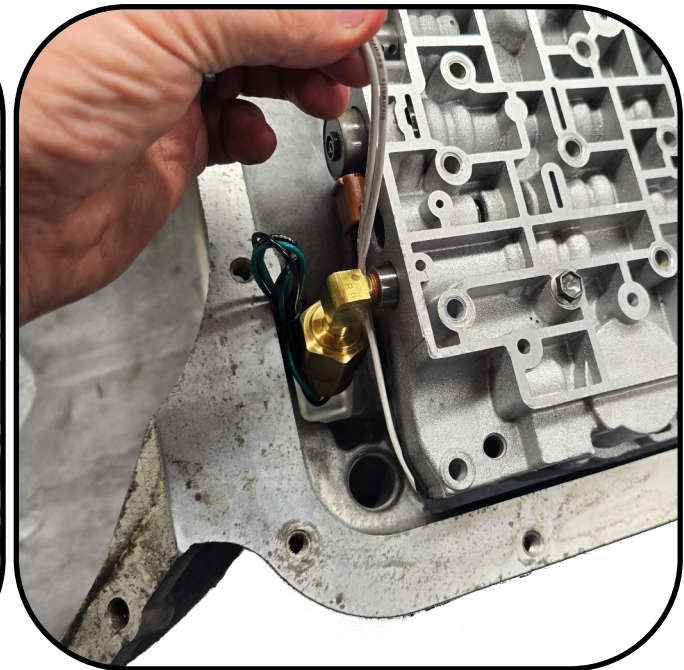
Grab the pressure switch by hand and give the **elbow** and an extra half turn so that the pressure switch wires now points down as shown. Route the brake solenoid wires under the **elbow** as shown.



Elbow

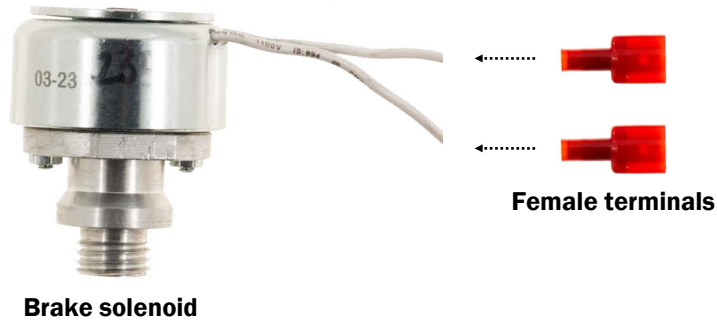


Pressure switch

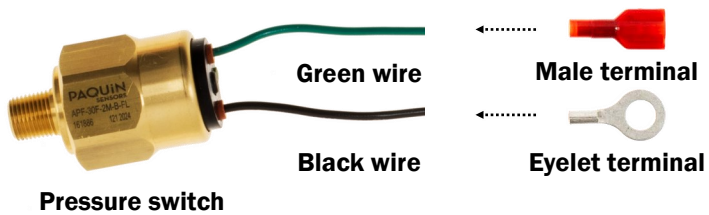




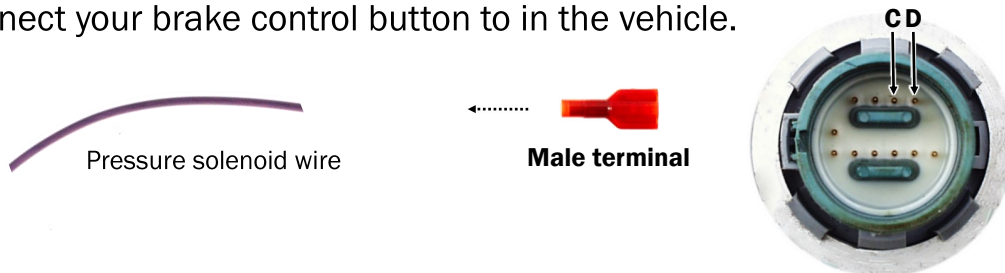
**23.** One of the **brake solenoid** wires needs to connect to the **green pressure switch wire**. The other one needs to connect to either one of the two original pressure control solenoid wires (Pin C or D) that are no longer used. Mockup and then cut both wires to the desired length and add **female terminal** to each one.



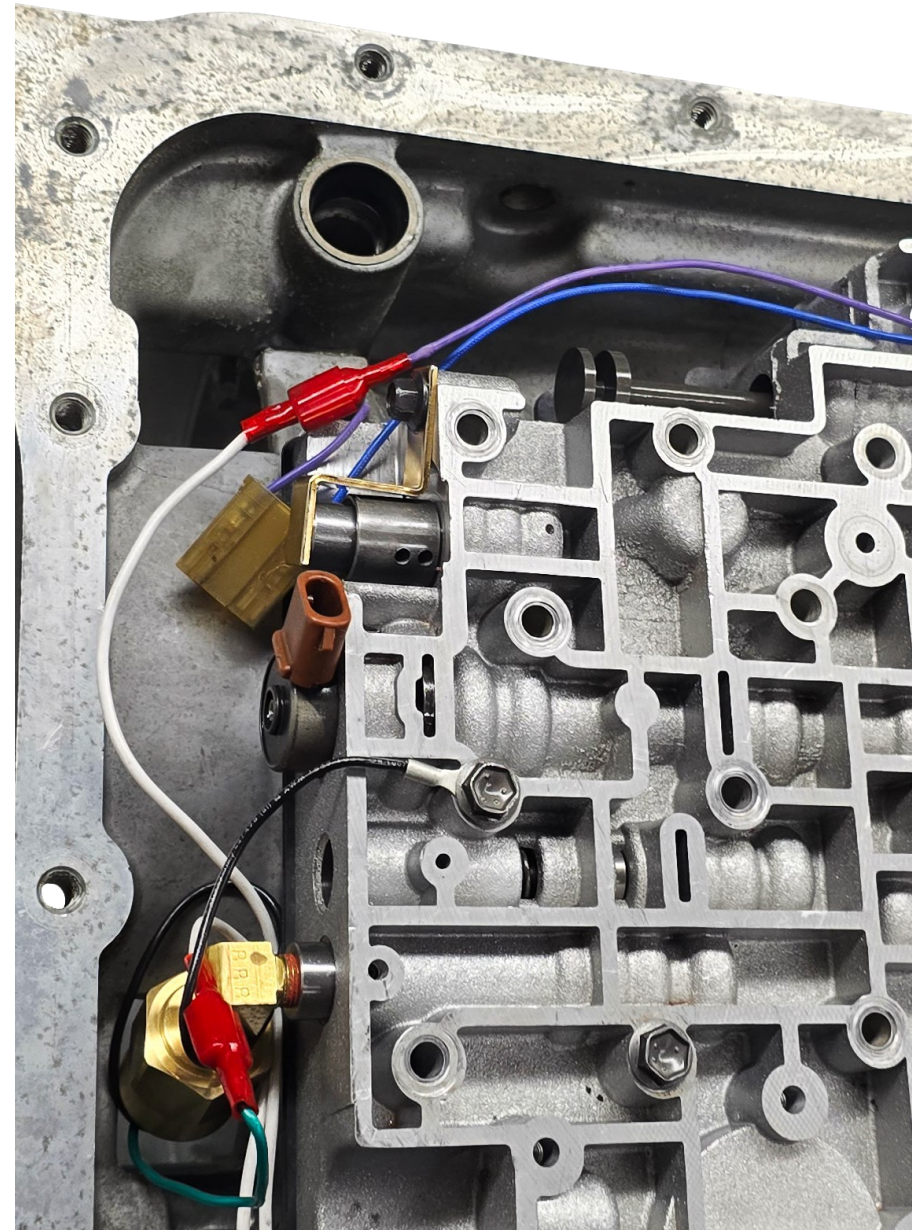
**24.** Add **male terminal** to the **pressure switch green wire**. Cut the **black wire** to the length require to reach a valve body bolt and add **eyelet terminal** to it.



**25.** Cut either one of the two original pressure control solenoid wires an inch or so from the connector and add **male terminal** to it. Follow the wire back to the pass through connector and note if it is going to pin **C** or **D**. That way you can figure out which pin/wire you need to connect your brake control button to in the vehicle.



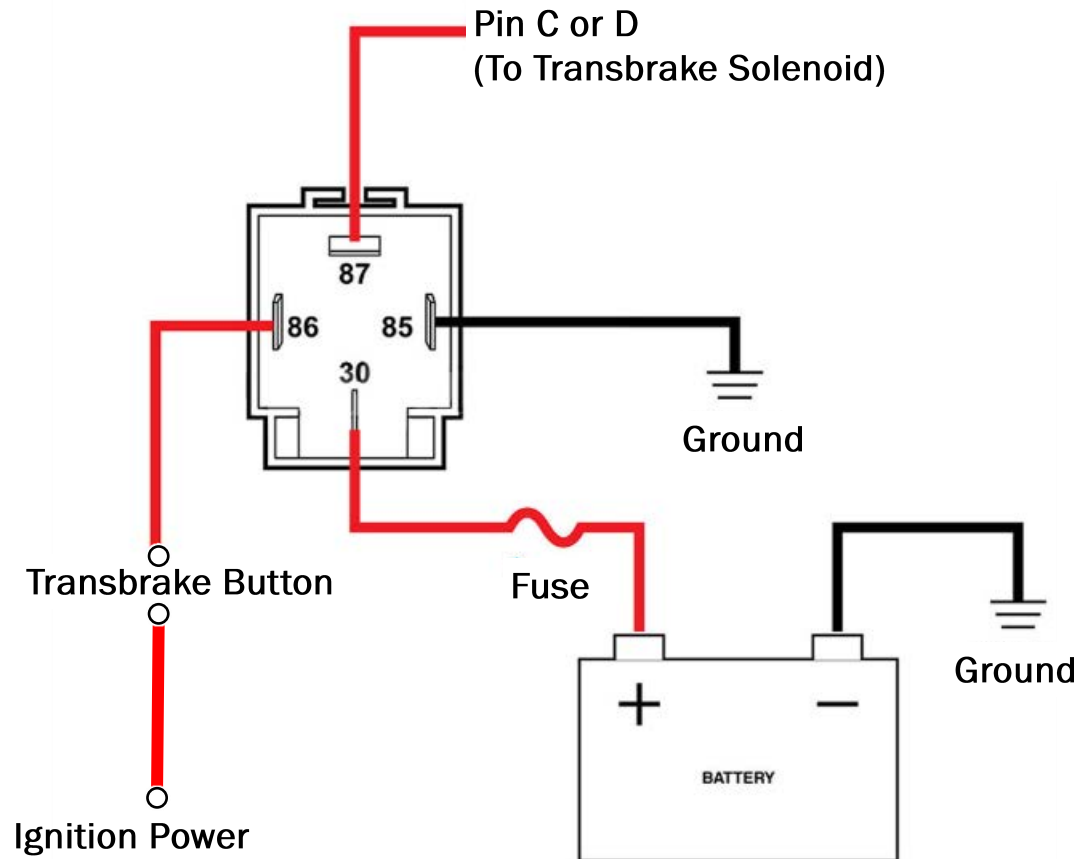
**26.** Secure the **black pressure switch wire** under a valve body bolt. Connect the **green pressure switch wire** to one of the **white brake solenoid wires**. Connect the other **white brake solenoid wire** to the pressure control solenoid you chose in the previous step.



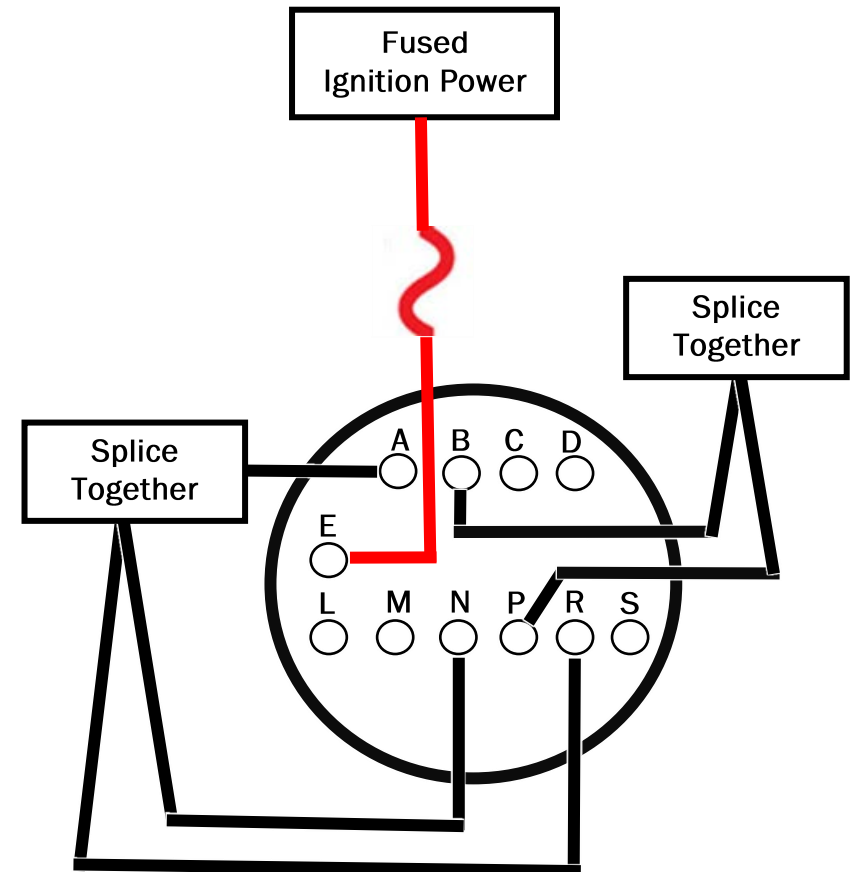
# 4L80-D3-BRKIT



2621 Merced Ave. El Monte, CA 91733  
Product Support (626) 443-7451



**Typical 4 Pin Relay Wiring**



## Optional: Full Manual Wiring

If full manual shifts are desired you can purchase an external wiring harness part # 12154288 or aftermarket equivalent. Connect fused ignition power to PIN E, Then splice the wires coming out of A,N,R together. Finally splice wires out of B and P together. You can also add a toggle switch and a 20 ohm 100 watt resistor to ground PIN S and have TCC or you can use our part# 48-CCV and use a non lock-up converter.