

**Fits 2005-2010 six speed models.
Six speed identification: the range sensor is internal
and the shifter indicator reads: P R N D M**

Working trucks — Competition — Street show off

Corrects/Prevents/Reduces:

- **Goes to neutral under high load**
- **No move forward or reverse**
- **Stuck in one gear**
- **Sets trouble codes**
- **Short crisp perfect shifts**

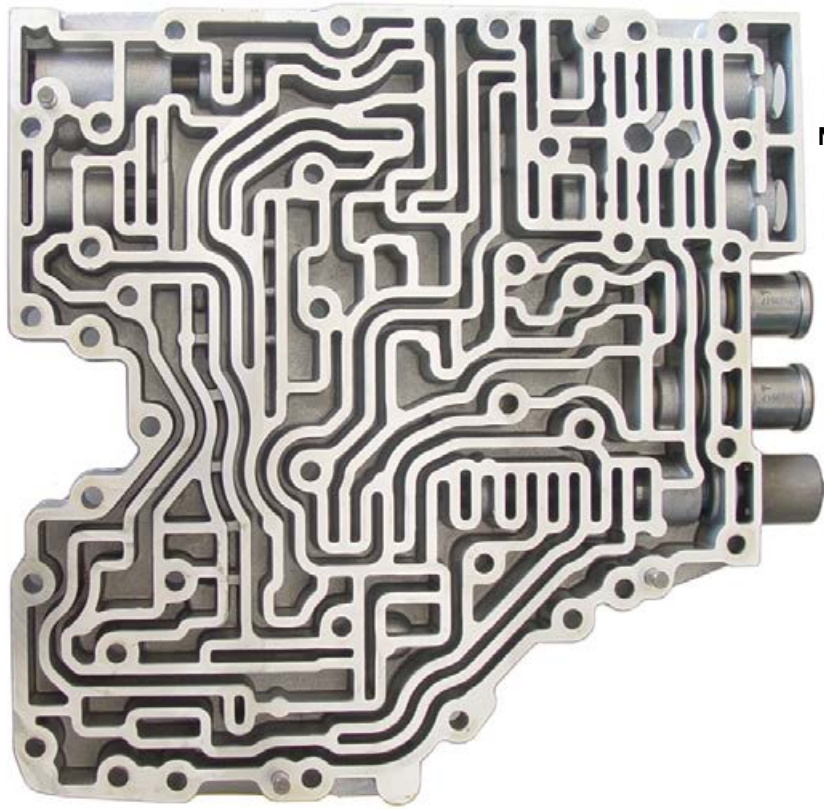
Modified engine? Without this kit, more engine power usually causes codes, stuck in neutral, stuck in one gear and burned clutches.



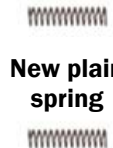
SK Allison-Jr installs from the bottom without trans removal. Install it before adding horsepower to prevent internal damage.

World Champ
Made in USA

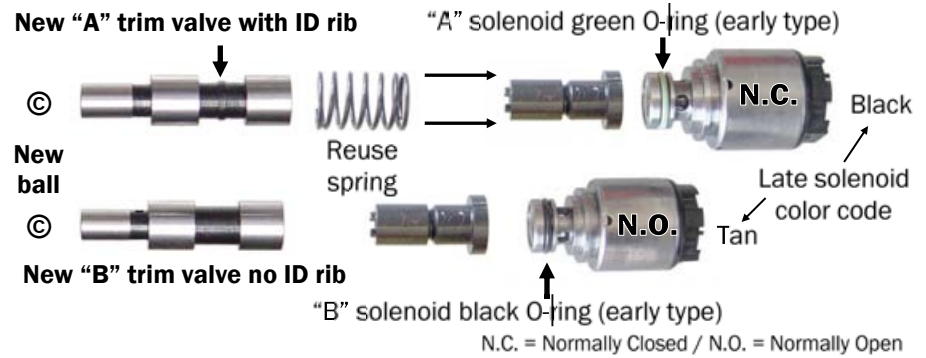




New orange spring



New plain spring



1. Discard the original trim valves and the springs on the small end. Place the **new ball** then **new small spring** into hollow end of each **new trim valves**. using assembly gel to hold them in place. Place the **new orange springs** over small end of the **new trim valves** and install them into valve body. Don't force them, a little wiggling and they will go in. Install the original "A" outer spring, solenoid valves and solenoids as shown. **The outer spring must only be installed in the "A" line up.**

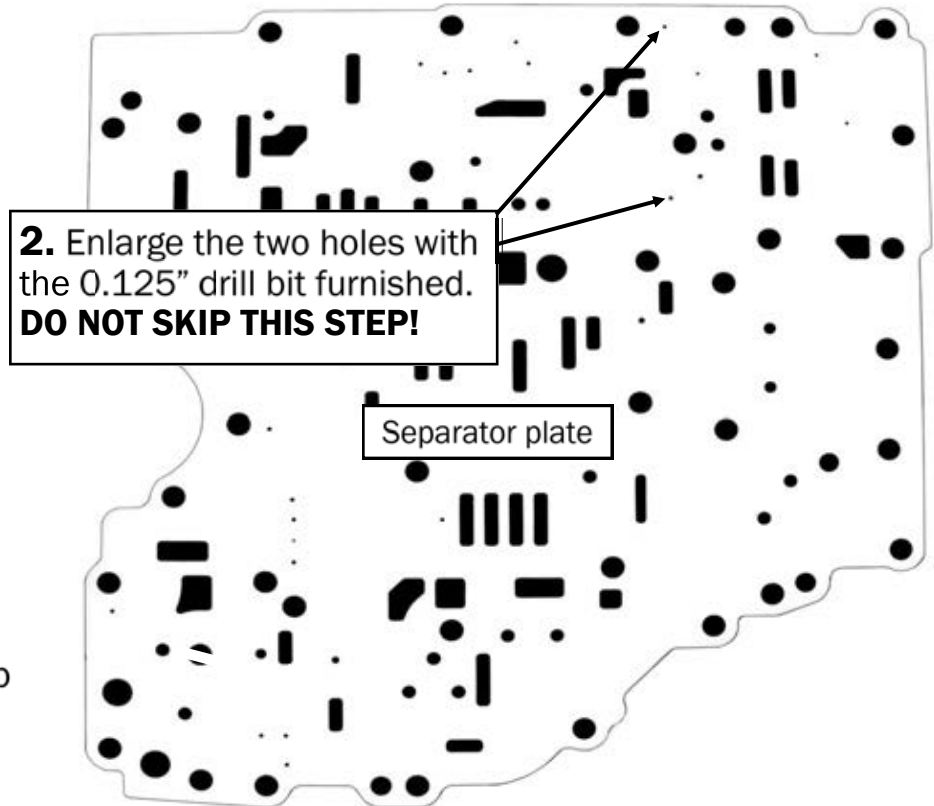
Valve body and plate upgrades

To read and clear codes use scan tool and generic OBD-II software.
To read live trans data you will need a scan tool with compatible software.

To read & reset shift adaptive tables (fast learn) use Allison diagnostic software or Tech 2 scan tool.

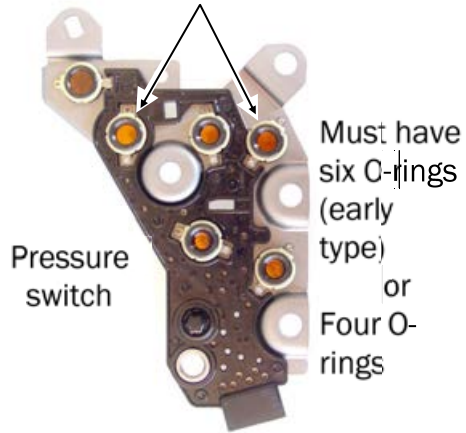
Codes you might see:

P0731 = 1st gear slip, P0732 = 2nd gear slip, P0733 = 3rd gear slip, P0734 = 4th gear slip, P0735 = 5th gear slip, P0741 = TCC slip

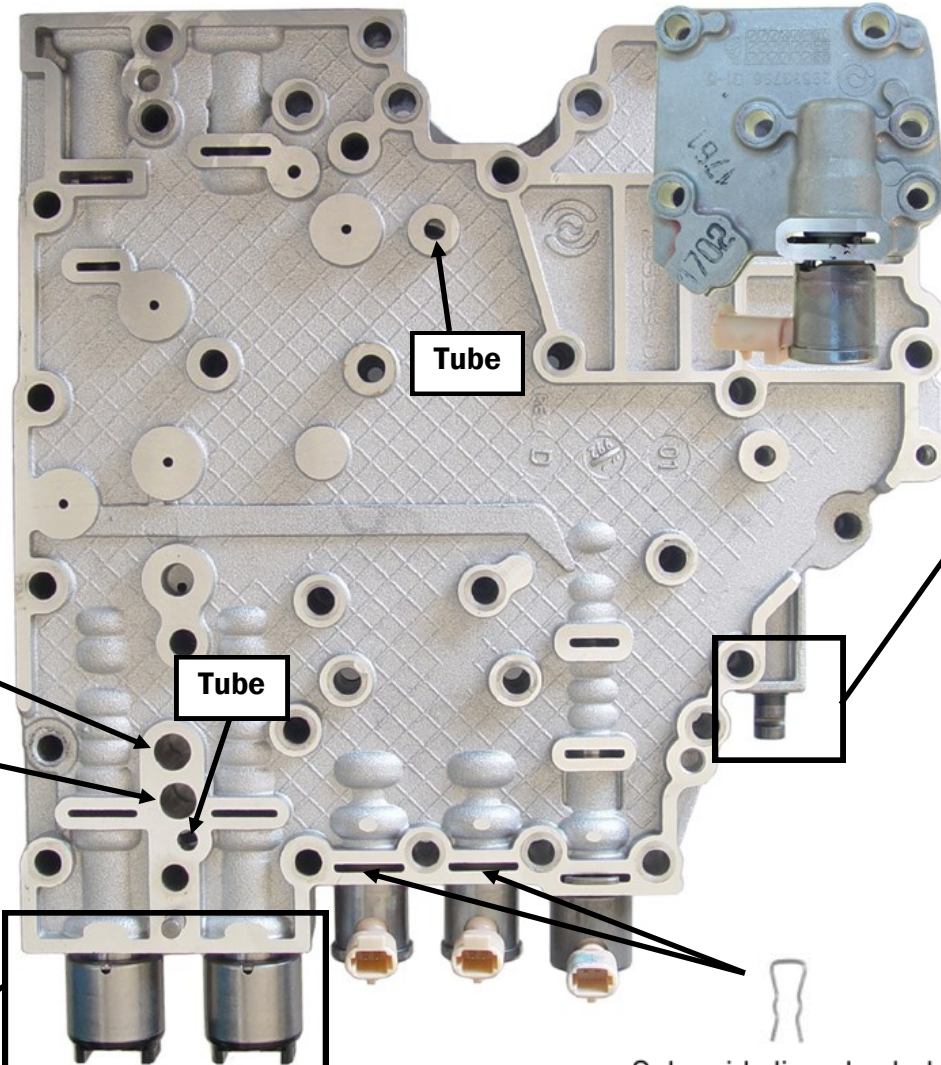


These 2 switches were deleted on late type pressure switch assy.

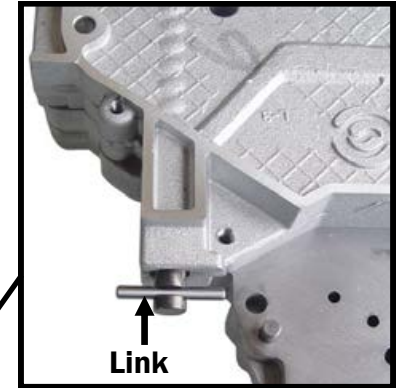
Valve body reassemble



Accumulators install first hollow end out, then springs.



Valve body viewed from back side



Place link into groove, slide valve into the valve body to hold it in place.

Solenoid bracket



Push the solenoids firmly into the valve body when installing solenoid bracket.

Solenoid clips also hold wiring harness.



Install tube after accumulators and solenoid bracket.

Relearn is required when adding horsepower or working on the trans: This trans is a tough piece, with intelligent computer control. The computer has adaptive strategy that constantly adjusts shift clutch pressures to match engine torque and vehicle load. With increased horsepower, you must allow time for relearning.

Start relearn by making at least six sets of light throttle upshifts through all gears. Next, make six sets of shifts at 1/3 throttle, then 1/2 throttle, 3/4 throttle, and so on. Treat downshifts the same way by starting with light throttle and working up to full throttle. When the shifts are quick and smooth, hit the tow haul button and start over with the relearn.

During the relearn expect some clunks, bumps and or short flares, especially during the 3-4 shift. Bumps and flares are normal during the relearn. **Always do relearn** with any power change or when there has been any repair or change in the pump, valve body or clutches. **Installation of the TransGo Shift Kit® requires relearn.**

Explanation: The computerized control system on this truck is watching and recording everything, it stores data in lookup tables similar to a spread sheet. For example how long, in time, it takes for a gear change to complete under various conditions. It looks at and records the relationship between rate of acceleration and throttle opening, it calculates the engine torque output based on inputs like fuel consumption, boost pressure, air density, temperature, throttle position, and many other factors. It then uses this to calculate the load or weight that is being accelerated at a given time. **It learns and remembers.**

All this information is used by the computer to calculate the optimum gear change apply rate.

A perfect shift is as short, in time, as possible with minimum feel and stress to the drivetrain.

For every gear change the computer system must release one gear and bring on the next. If the release and apply is too slow for a given torque and load, a cut loose / slipping will occur.

If release is too slow or apply too quick a bind up will occur — two gears at the same time.

Both of these conditions can cause major damage — clutch failure.

Relearn usually takes about 2 hours. This can be greatly reduced by using Tech 2 or PC based Allison software to clear memory and place the TCM in the fast learn mode.

Give this transmission respect and it will give you appreciation and service.

“Thanks for listening”

TransGo tech team