

## ***Billet Pro Series shifter installation***

***Holden Commodore VT-VZ / Pontiac GTO  
Chevrolet Lumina SS VT-VZ / Vauxhall Monaro VXR***



### **Kit contents:**

Along with the assembled shift body, you should also find the following contents in each box:

- 1 x shift lever
- 2 x 5mm hex bolts (countersunk heads)

### **Tools and other items required for installation**

- Car ramps or jack and stands
- Phillips head screw driver
- 3/8" ratchet (straight and flex)
- 3/8" ratchet extensions
- 3/8" universal joint
- 16mm socket
- 13mm deep socket
- 10mm socket
- 13mm ratcheting wrench
- T25 torx bit driver
- 5mm allen head socket
- 6mm allen head socket
- 6mm allen key
- 2.5mm allen key
- Pliers
- RTV sealant (Permatex Ultra blue or any other high temp engine construction sealant is recommended)
- Blue or Red Locktite
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## ***Stage 1 - Interior Dissassembly***



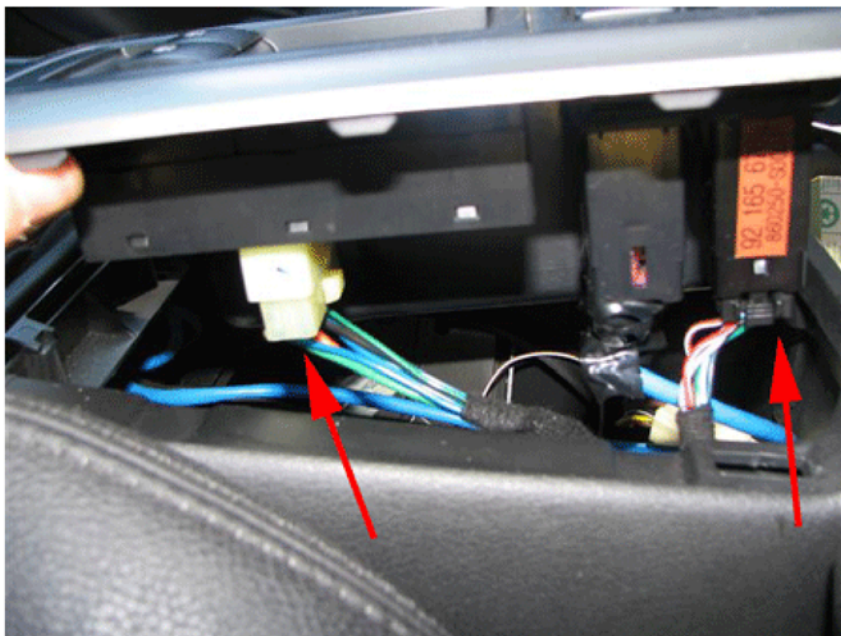
**Step 1:** With the gearbox in neutral, jack the vehicle up and support with jackstands under chassis rails, or alternatively drive your vehicle onto ramps. Safety is always the key, so please double check your jack stands and vehicle are on stable ground.



**Step 2:** Using a phillips head screwdriver, remove the single screw located under the headunit area in front of the gearshift.



**Step 3:** As you pull the console section upwards, you will notice the sound of clips ‘unclipping’, this is normal, however do take care not to damage these by pulling too hard.

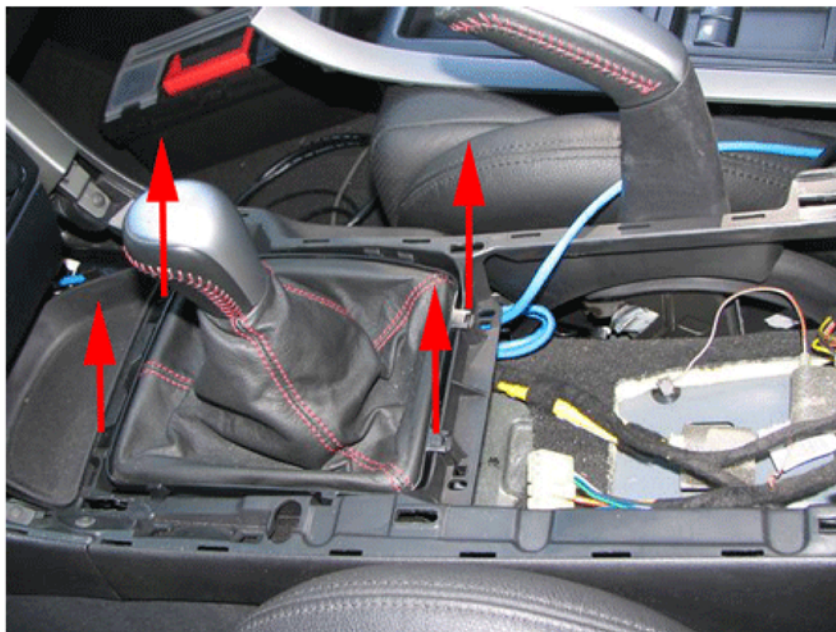


**Step 4:** Under the console section, you will note several looms/loom plugs, of which you need to unclip these from the switch interfaces on the console. These are the power window and traction control switches.



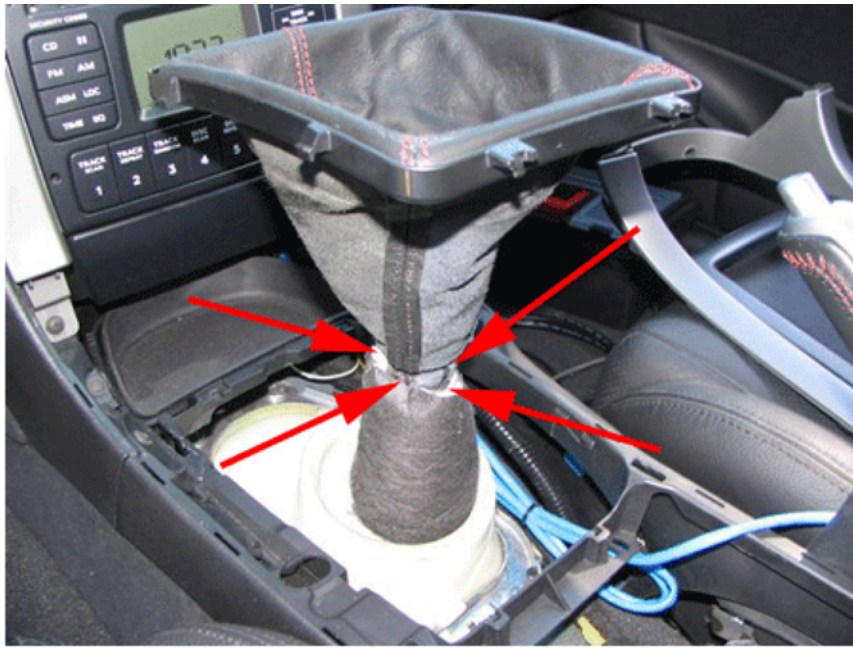


**Step5:** Now the console is free of obstruction, carefully lift the back section upwards to free the front section where it hooks up under the center dash as indicated by the arrows in the picture above. Place the console section aside where it won't be damaged.

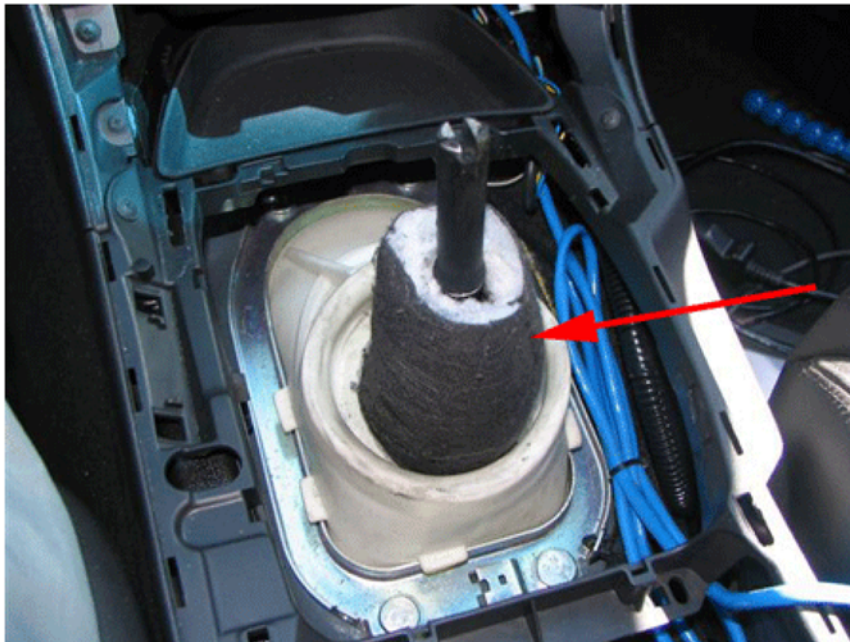


**Step 6:** Using a screwdriver, remove the retaining clips for the leather gear boot.





**Step 7:** Using a flathead screwdriver, carefully pry the clips away from the to unhook the boot from the shaft, then firmly holding the gear knob, pull upwards to remove the factory knob. Please note that hte knob is glued from factory and takes some force to remove, be mindful not to injure yourself in the upward motion.aside where it wont be damaged.



**Step 8:** Remove the foam padded surround from the shaft to reveal the bolts for the factory shaft mount.



**Step 9:** Using a 10mm socket piece on a ratchet, undo the two bolts holding the shaft to the factory shifter.



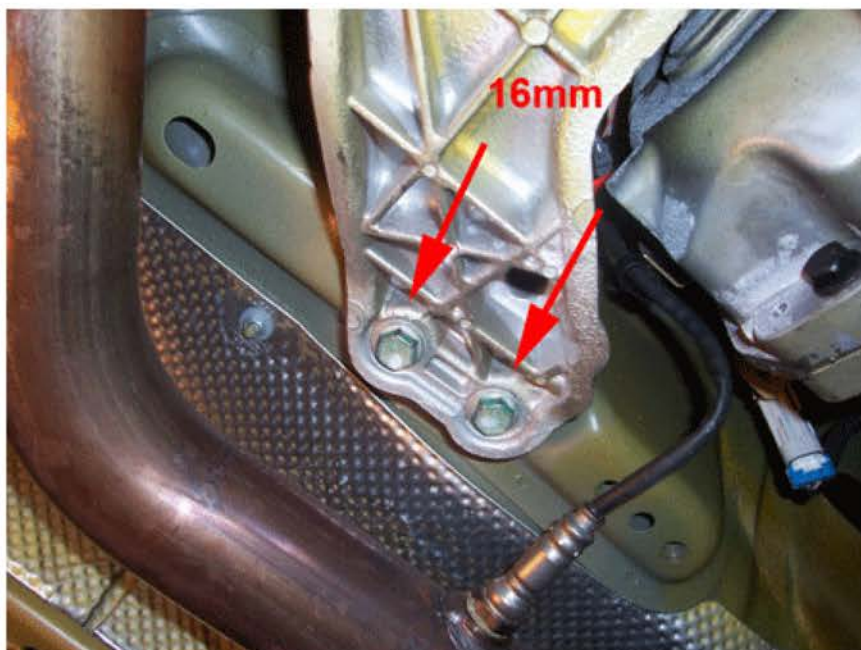
**Step 10:** Using pliers, carefully unclip the loom clips holding the wiring to the dust boot.



## *Stage 2 - Undercar*

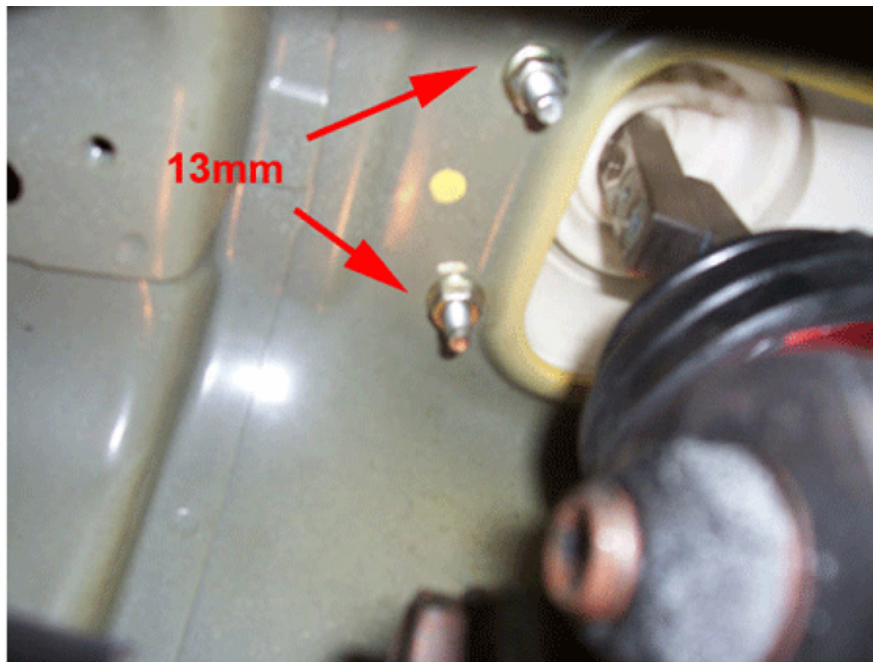


**Step 11:** Locate your jack under the gearbox, in order to support the weight of the box when loosening off the gearbox cross member bolts to aid in installation.

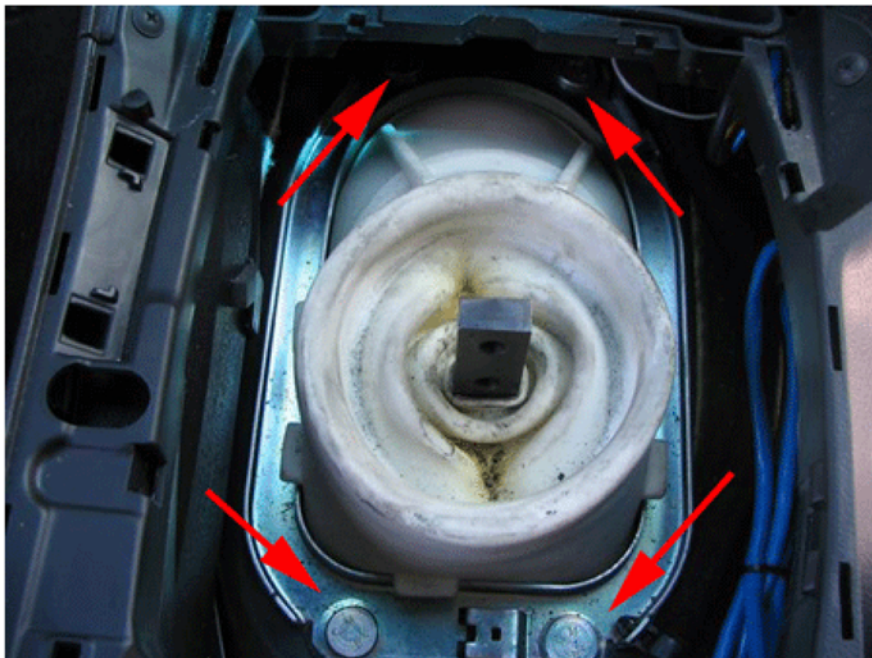


**Step 12:** Using a 16mm socket, remove the 4 gearbox cross member bolts

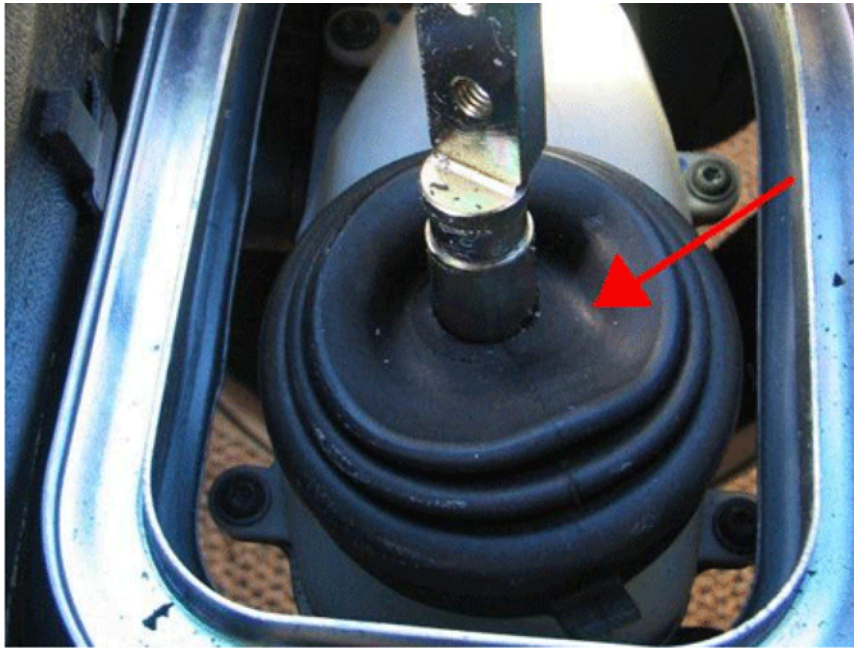




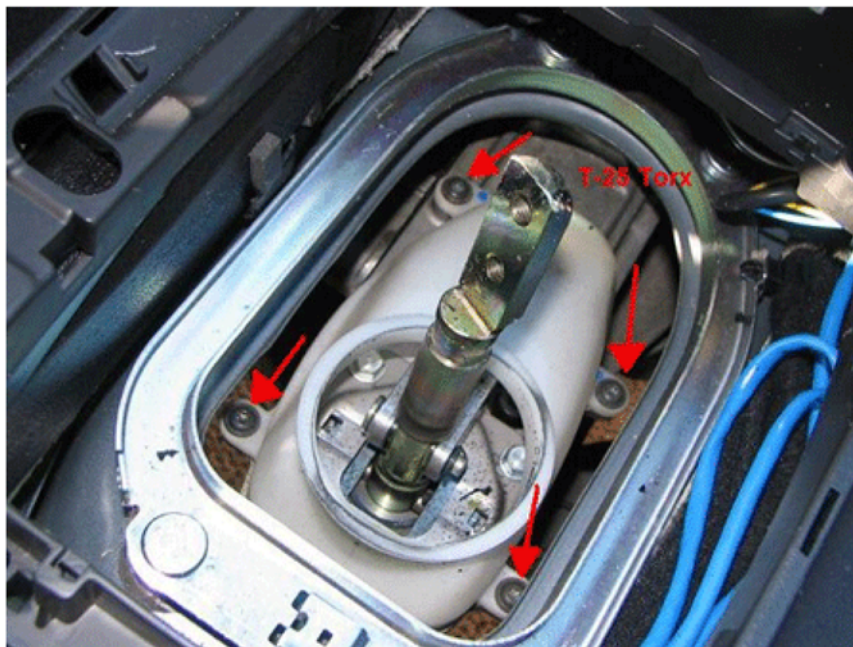
**Step 13:** Using any combination of ratchet extensions, universal joints, and wrenches/spanners, remove the 4 13mm nuts securing the white dust boot to the chassis.



**Step 14:** With the dust cover nuts now removed, from the inside of the vehicle you can remove the dust cover.

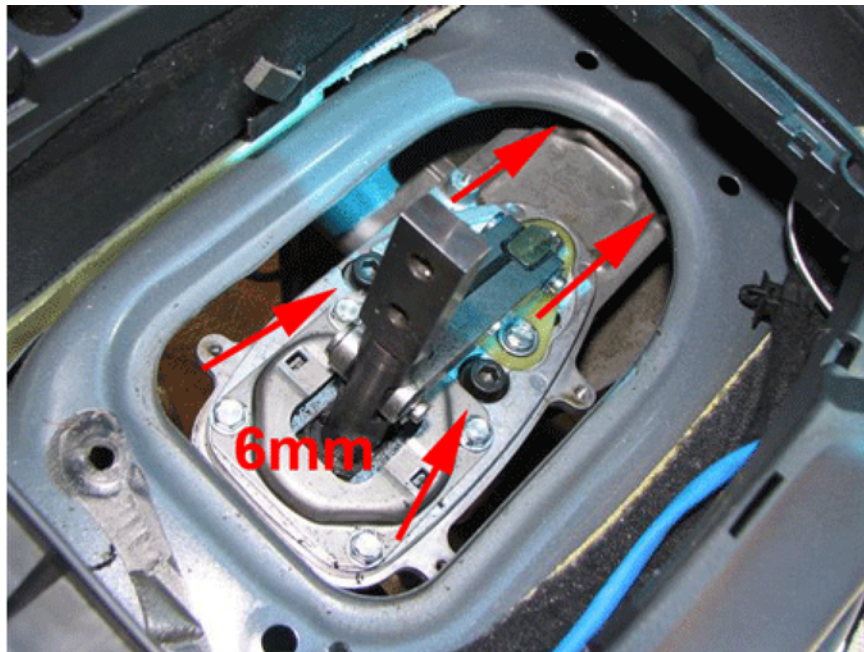


**Step 15:** Remove the factory black rubber dust cover. (no longer needed for installation)

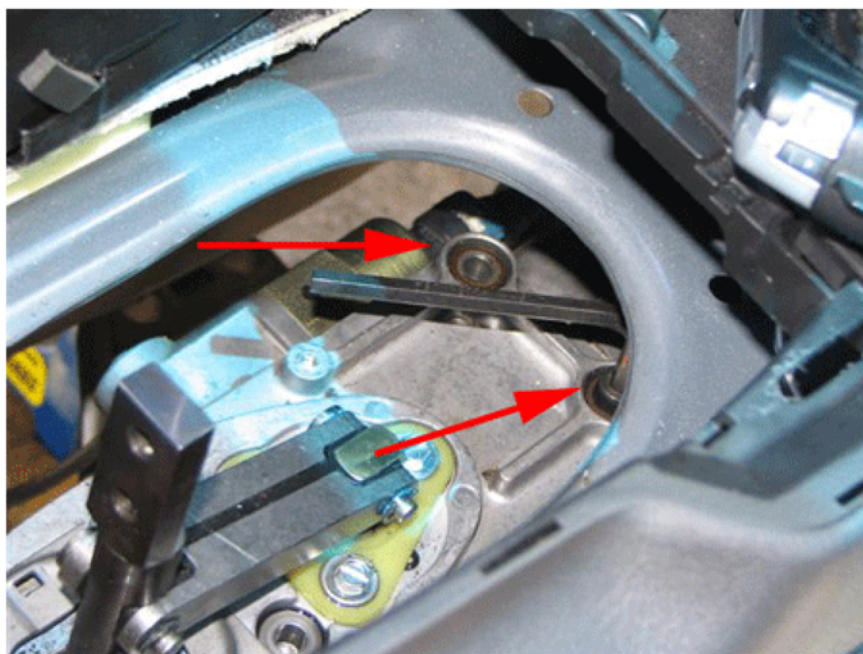


**Step 16:** Using a T25 torx driver, or a normal screw driver if accessible, remove the four screws holding the plastic dust cover.





**Step 17:** Using a 6mm allen wrench and allen head socket, remove the 4 bolts holding the factory shifter to the gearbox.



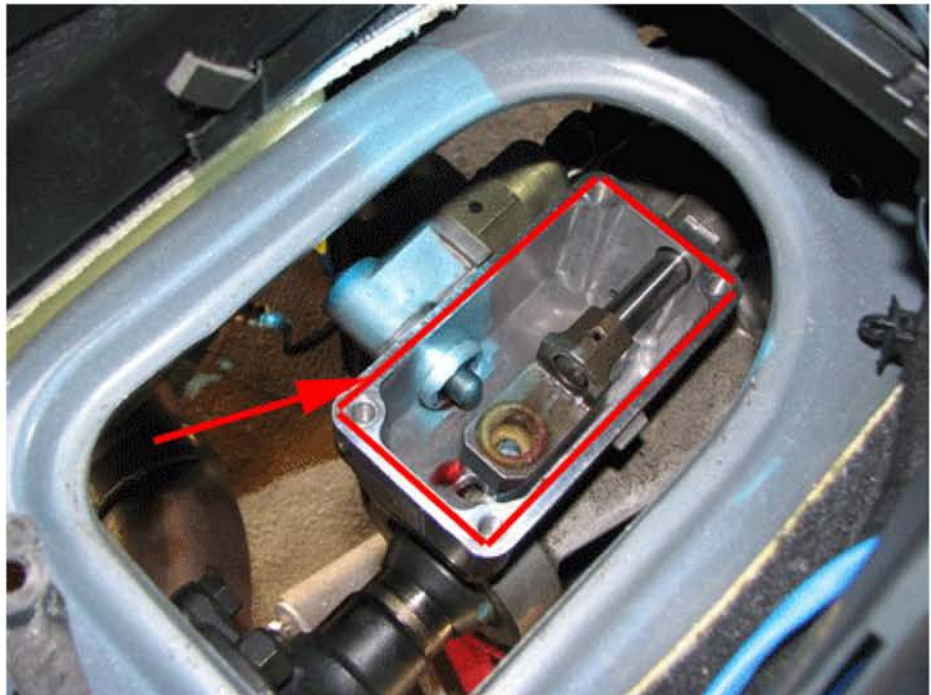
**Step 18:** To reach the front bolts, use an allen key as pictured to undo these bolts.



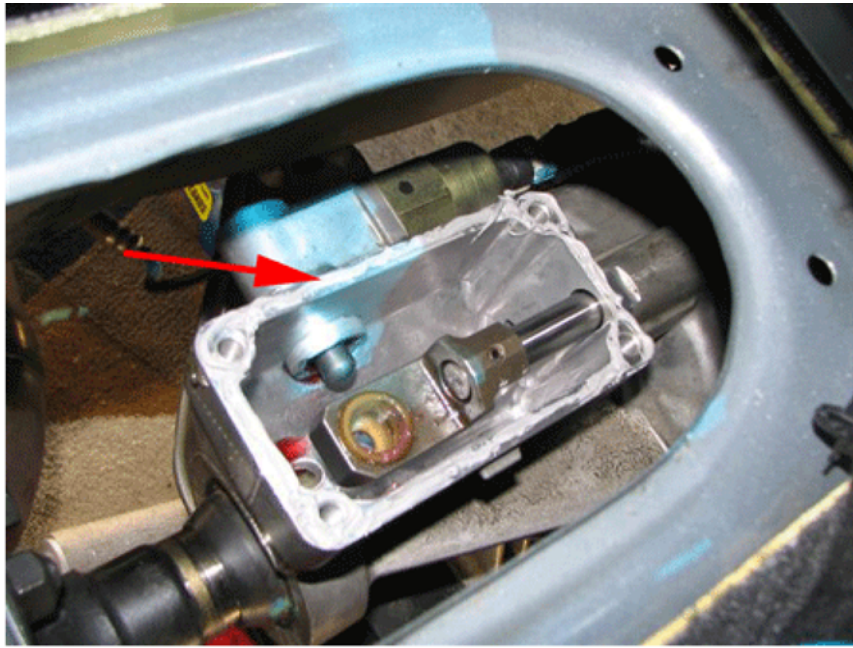


**Step 18:** You can now remove the stock shifter.

***Stage 3 - Installation of Billet Pro Shifter***



**Step 19:** Scrape and clean the mating surface of the gearbox where the shifter sits.

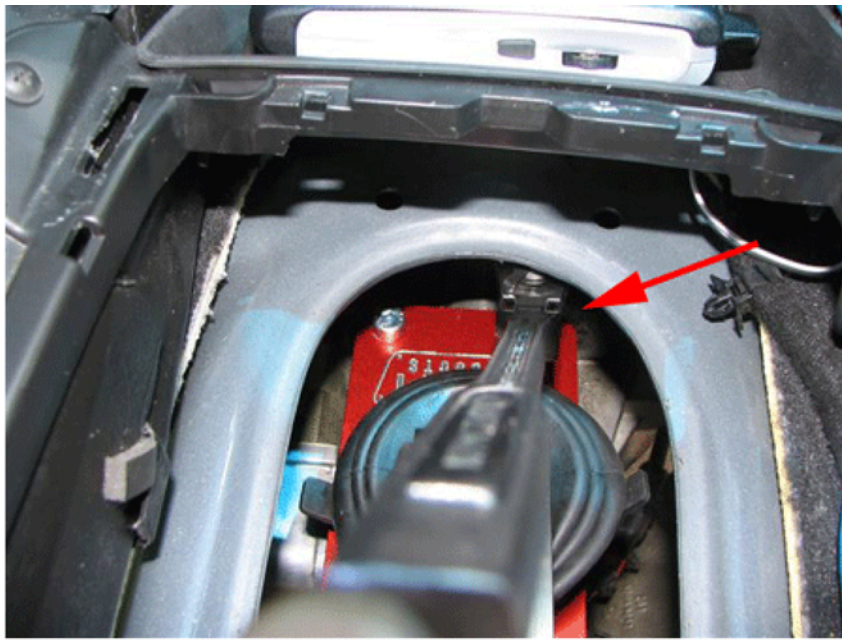


**Step 20:** Using high temp RTV engine construction sealant, place a small even bead across the entire mating surface. Be sure to leave no gaps.

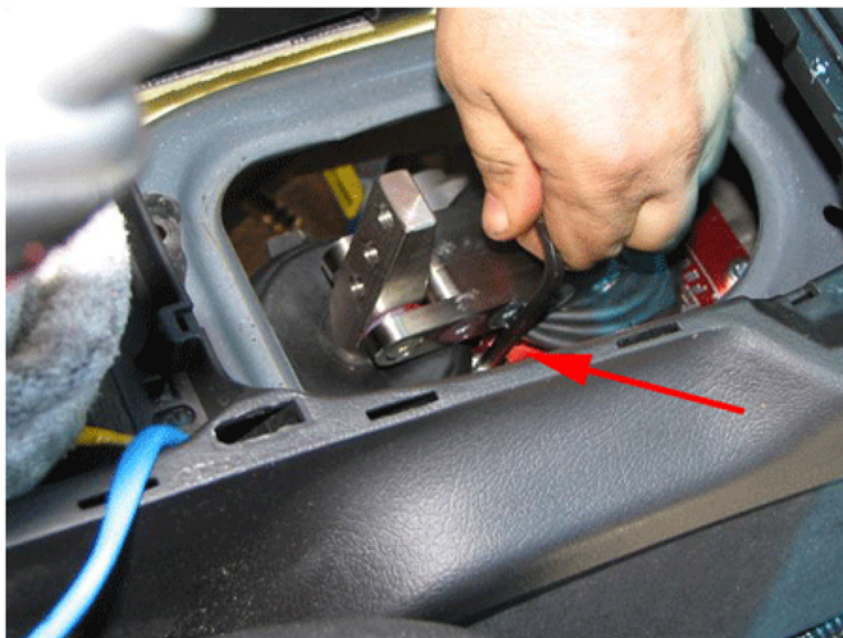


**Step 21:** Drop in your new Billet Pro series shifter, being careful not to move it around too much which may disperse the bead of sealant on the mating surface. Although not entirely necessary, it's a good idea to use locktite on the mount bolt threads to ensure secure fitment.





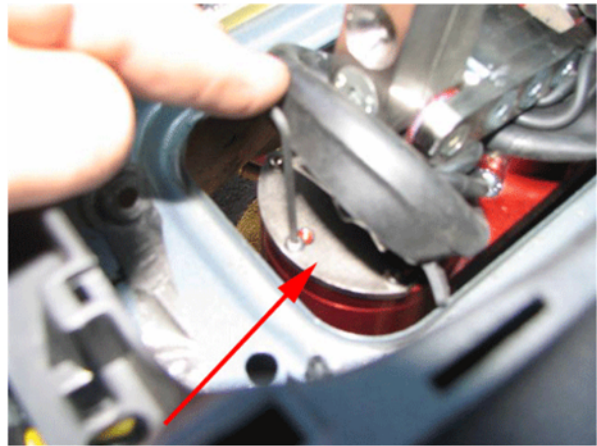
**Step 22:** Using a flex head ratchet with a 6mm allen head socket piece, tighten the three accessible mount bolts. Please note this method can also be used in the earlier process of removing the factory shifter if you have problems getting to the front bolts.



**Step 23:** Use a long 6mm allen key to tighten the last remaining bolt alongside the shift cap on the back right bolt. You can now also attach the lever to the main shaft at the desire height setting. (Note: the tallest setting is the factory knob position, and is the recommended setting to start with). The factory torque setting for these bolts is 58n-m or 43lb ft.

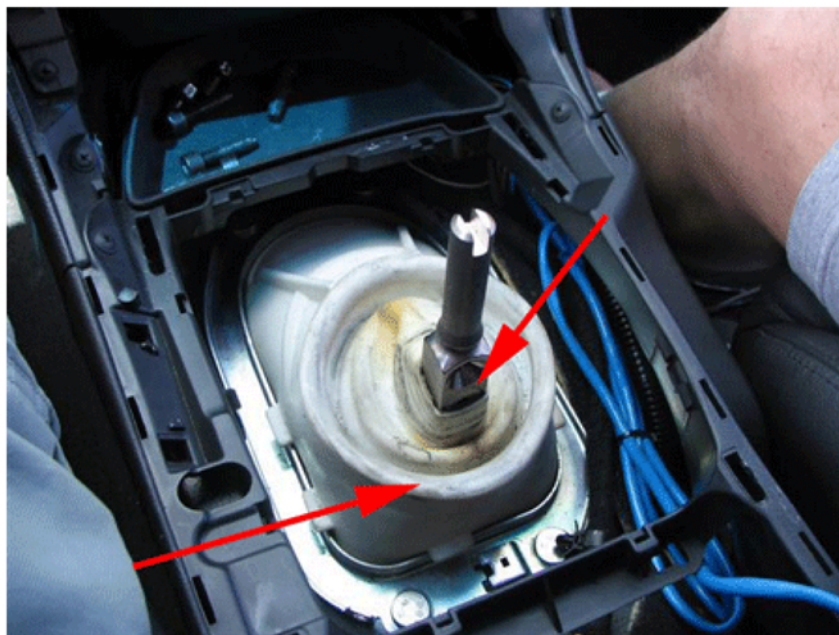


#### *Stage 4 - Adjustment of positive stops*



**Step 24:** Using a 2.5mm allen key, loosen up the three bolts holding the front and rear positive stops. Providing you have let the RTV sealant sit for long enough as indicated on the packaging, you can now start the car up. Selecting third gear, slide the front positive stop back to just touch the front shaft, and then allow around 0.5mm gap between it and the shaft. You may use feeler gauge if you wish to get this clearance perfect. Once you have completed this for the front stop, repeat the process for the rear stop with 4th gear selected. Using locktite for the 2.5mm bolts is optional. Note that over time its a good idea to re-check stop positions.

#### *Stage 5 - Re-assembly of interior*

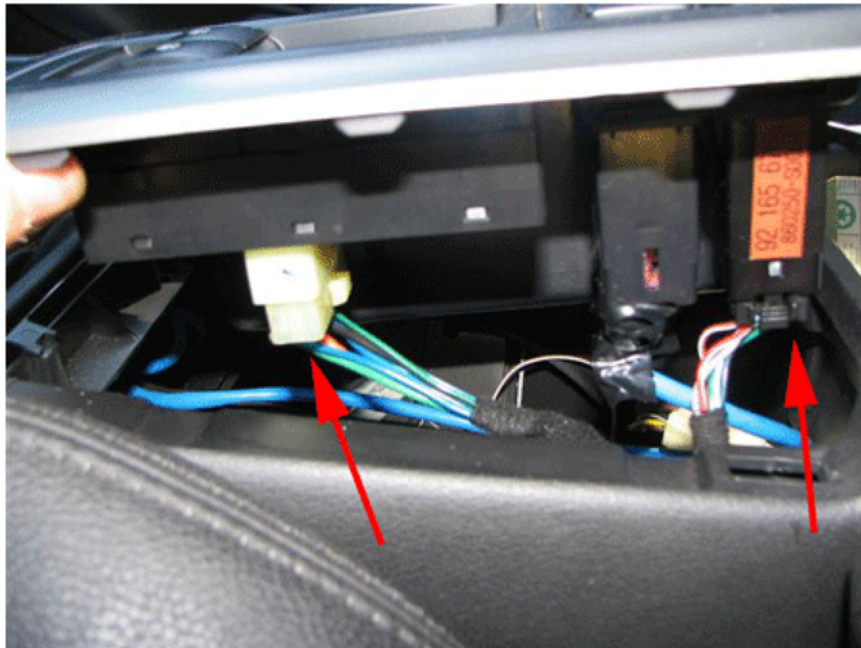


**Step 25:** You can now begin to re-assemble the interior parts. Starting with the white rubber dust boot. Remember the nuts for these on the underside of the vehicle.



**Step 26:** Re-install foam shaft pad and connect up the clips for the factory boot surround.

Using a silicone based glue like Sikaflex black construction sealant (as used by the manufacturer), apply a small amount on the shift knob keyway on the end of the gear shift lever before fitting the knob back onto the new Billet Pro Series shaft.



**Step 27:** Replace the console surround ensuring to plug in the loom clips for the power windows and traction control.





**Step 28:** Re-fit the front retaining screw for the console.

### *Stage 6 - Completion*



**Step 30:** Its now time to tighten up the 4 x 16mm gearbox crossmember bolts as loosened before to aid in installation. Remember to double check all bolts and ensure they are tight.

The installation is now complete. Test drive your vehicle to ensure everything is okay, and that gears select properly, also looking for any leaks around the mating surfaces of the shifter/gearbox. It's now time to enjoy your new Billet Pro Series shifter, and to transform your slow, sloppy shifts into Billet Pro shifts.

**Thank you for chosing Billet Products!**