

Billet Pro Series shifter installation

***Holden Commodore VE V8 / Pontiac G8
Chevrolet Lumina SS VE / Vauxhall VXR8***



Kit contents:

1 x completely assembled shifter ready for installation

Tools and other items required for installation

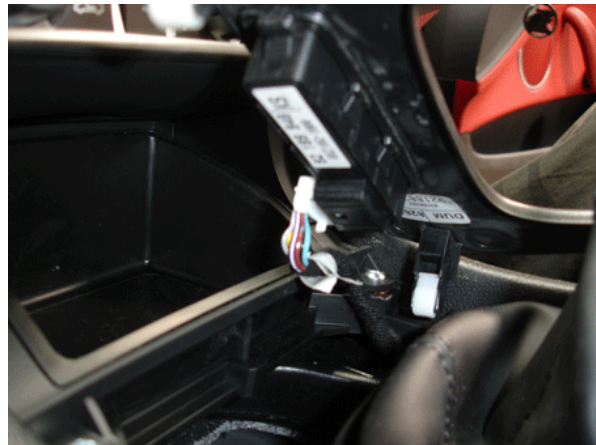
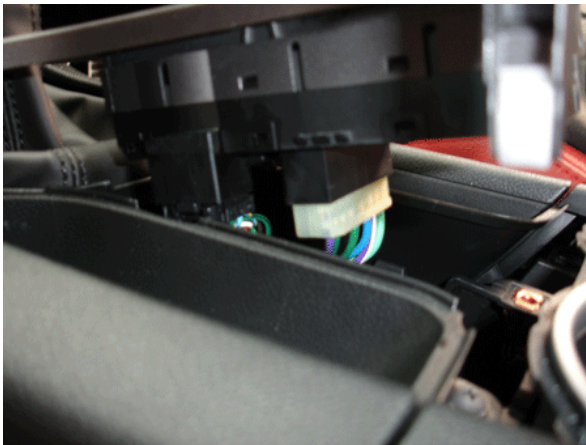
- Car ramps or jack and stands
- Phillips head screw driver
- 1/2" drive ratchet
- 10mm socket
- 15mm socket
- 13mm spanner
- 15mm spanner
- 18mm spanner
- 19mm spanner
- Long nose pliers
- T-30 torx bit and driver
- 4mm allen key
- Rubber mallet
- Small tube of Sikaflex black silicone construction glue, or similar silicone based adhesive

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.

Carefully lift the interior console surround from around gearstick, it is normal to hear a 'click' sound when releasing the retaining clips that hold the console in place, however be careful whilst pulling upwards. Please note that under the console section the power window/power mirrors/traction control switches are connected, do not lift the console piece with great force so as to not damage the wires/connections.



Step 2: Disconnect the traction control plug from under the front and the two rearward plugs for the power mirrors and window controls from beneath the interior console section. Once disconnected, remove the console section and place in a safe spot.

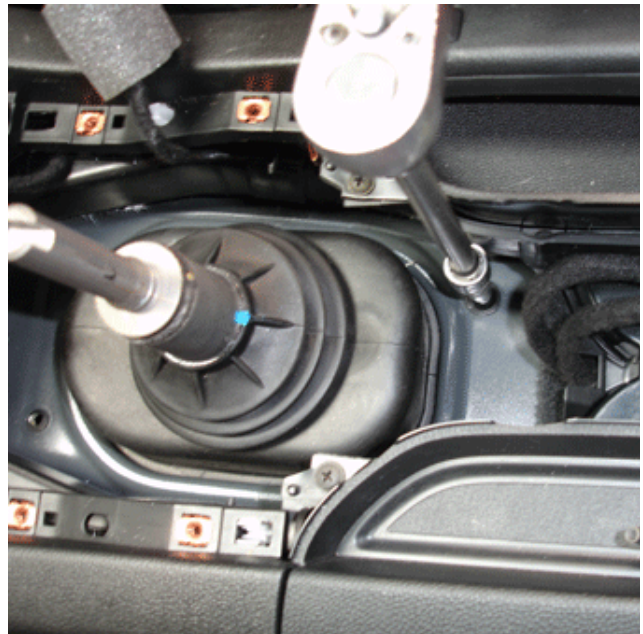


Step 3: Using a phillips head screw driver, undo the 4 retaining screws that hold the boot surround in place.



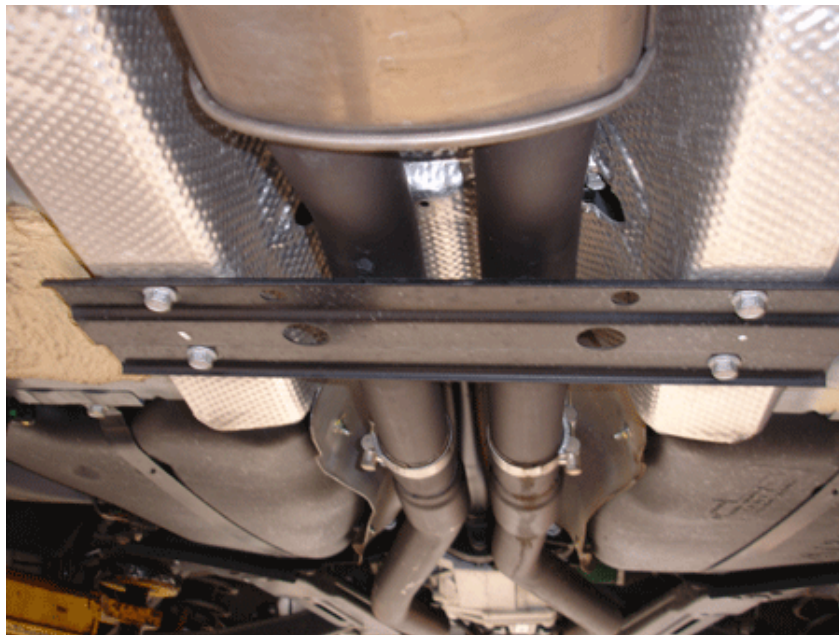
Step 4: Lift the boot up off the mounts, and carefully holding the gearknob only (do not hold/put force on gear-boot surround or it may tear) firmly pull the gearknob off the standard gearstick. Once the gearknob and boot are removed together, place in a safe spot.

Note: It's a good idea to have someone keep their hands above the knob as you pull it from the stick, so as to not damage the car/yourself when the gear knob releases.



Step 5: Using a T-30 torx bit and driver, remove the 4 retaining screws for the shift body to the gearbox tunnel. Once all 4 screws are removed the shifter assembly will ‘drop’ down a little.

Stage 2 - Undercar

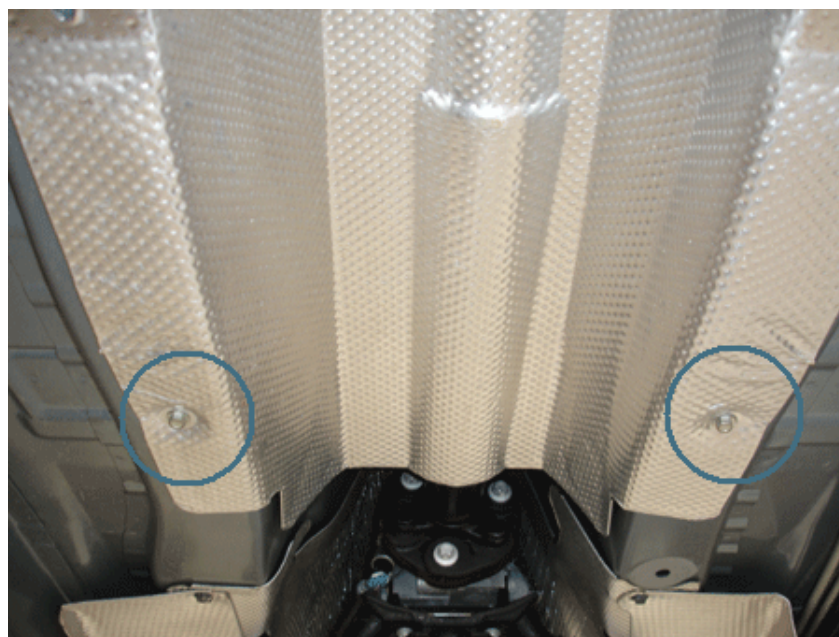


Step 6: Under the center section of the car you will note a black bracket below the exhaust system, this needs to be removed using a 15mm socket piece and ratchet.

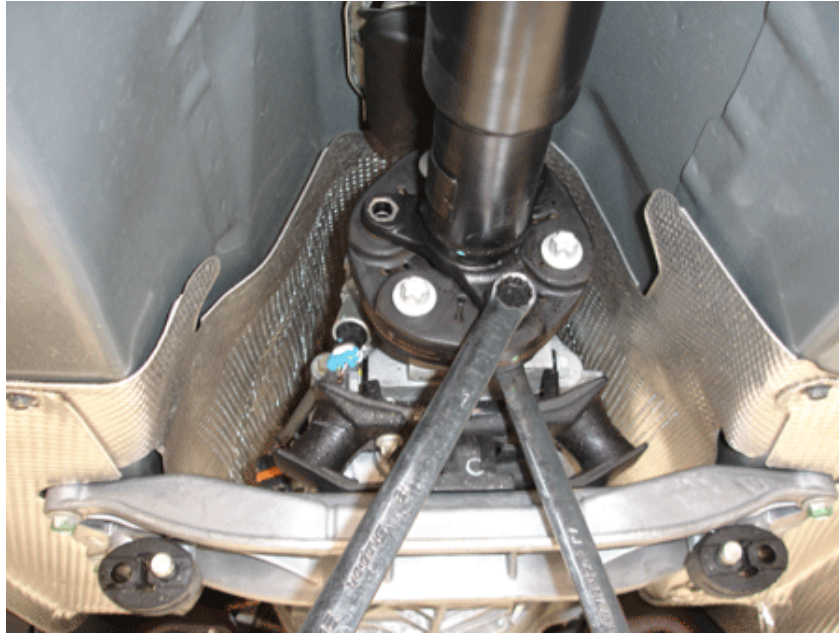


Step 7: From the catalytic converters, and just aft of the location of the black bracket you just removed, undo the exhaust system. Remove this section of the exhaust system and place aside. **Exhaust pictured not standard item**

Note: On HSV or international vehicle model's with extended lower rear bar, if you have no one to support the exhaust weight, it is a good idea to place rag's between the exhaust tips and the rear bar exhaust outlets so the exhaust tips do not scratch the paint when the weight of the center exhaust section is removed causing the tips to point upwards.



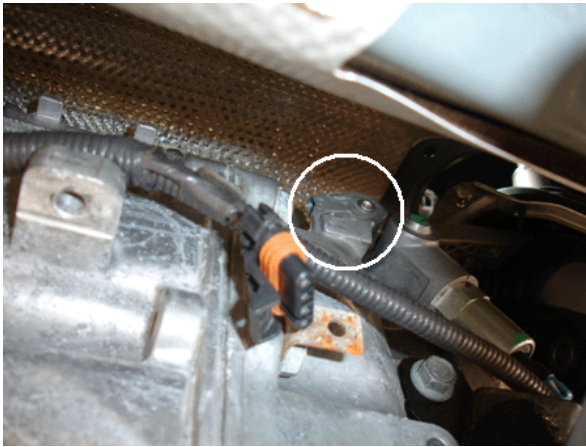
Step 8: Using a 10mm socket piece and ratchet, remove the exhaust heat shield.



Step 9: Using 18mm and 19mm long handle ring spanners, undo the three tailshaft bolts in the rectangular pattern on the rearward side of the rubber join as pictured. Once undone, slide the tailshaft rearward slightly and support/let hang so as to create enough access to the shifter area.



Step 10: Using a 15mm socket and ratchet, undo the 4 gearbox crossmember bolts around 3/4's of the way out. Using some support under the gear box (car jack works fine), remove all four bolts. Allow the gearbox to hang enough to gain as much access to the shift area as possible without allowing any cables or sensor looms to be strained (around the catalytic converter area, and rearside of the block there is several sensors/looms).



Step 11: On the top sides of the gearbox, you will note the two front legs of the shift body meet the gearbox and are retained by two pin's with slide clips. To remove these clips, you need to push the tab towards the center of the car and push the clips upwards to undo the lock. Once the clip is pointing upwards, simply pull each pin outwards to remove.



Step 12: Pull the underside rubber boot away from the shift body to reveal the shift selector arm connection. Similar to the front shift body legs, the selector arm is connected to the shift lever with a pin and two clips (one on either side). Using some long nose pliers, pull both clips off and remove the pin. The shifter should now be totally disconnected from the vehicle.



Step 13: Carefully manouver the shifter out of the vehicle. It can be a little tricky, so don't force it it just requires a little bit of patience.

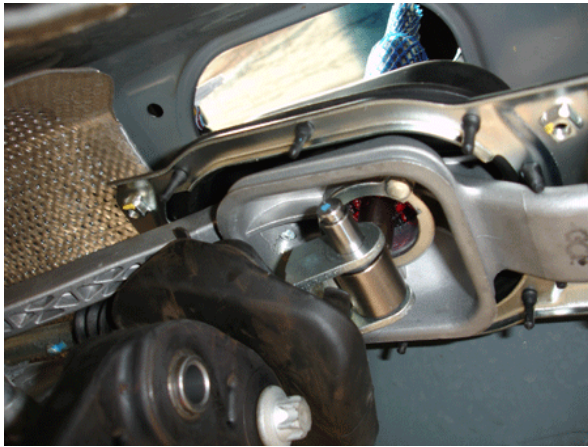
Stage 3 - Installation of Billet Pro shifter



Step 14: Take your new Billet Pro series shifter, and as per the removal of the standard shifter, carefully manoeuvre the assembly back into the same location. Once again, each car is different, but it can be a little tricky to get it in sometimes, but be patient.



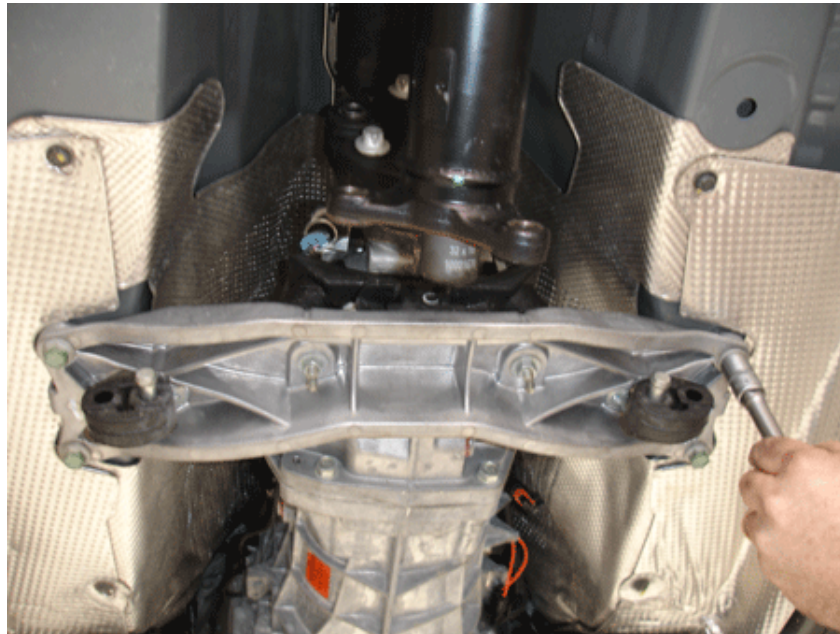
Step 15: With the shift assembly resting in place, re-insert the front two fork leg pins. be sure to push them downwards to clip back into the gearbox casing as per removal.



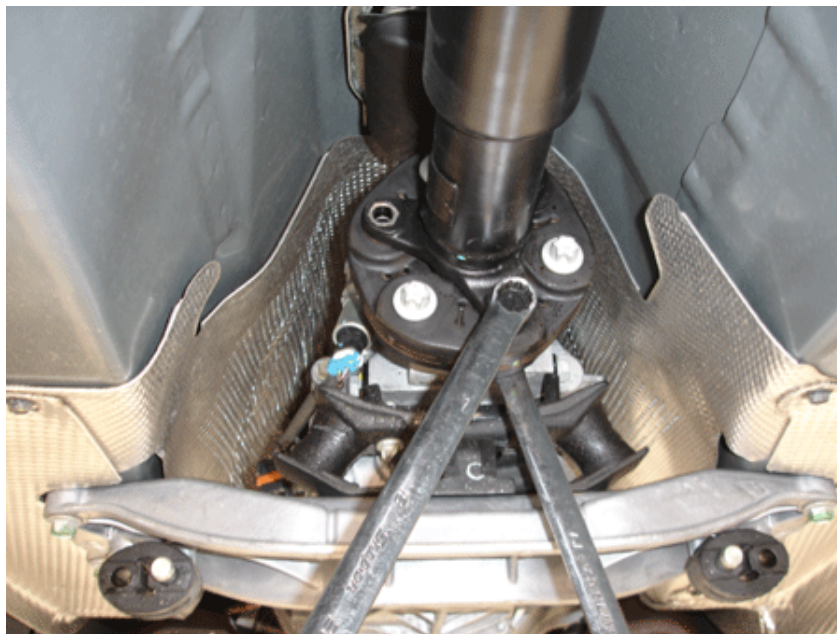
Step 16: With both clips removed from the selector arm connection pin, locate the selector arm on the the shift lever and re-install the pin. Clip both retaining clips on to either side of the pin.



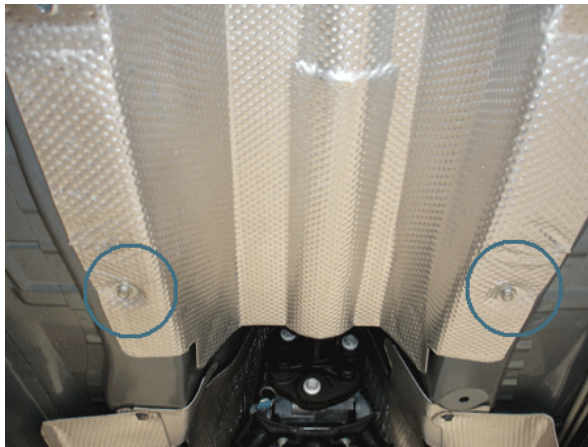
Step 17: Re-fit the factory selector arm boot to the groove located on the shift body as per OEM item.



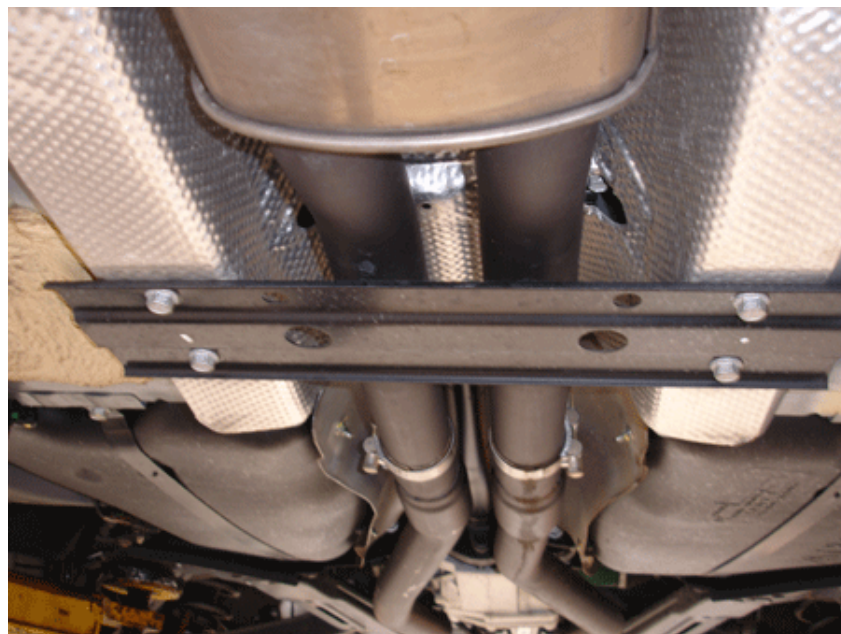
Step 18: Using a jack or person to assist, raise the gearbox/cross member back up to the vehicle, using a 15mm socket and ratchet, re-fit and tighten all 4 crossmember bolts. Be sure to check all bolts are securely installed.



Step 19: Lift and slide the tailshaft back into position. Again, using 18mm and 19mm long handle ring spanners,



Step 20: With the 10mm socket piece and ratchet, re-fit the exhaust heat shield to underbody. Once the heat shield is in place, re-fit the center section of exhaust removed earlier in installation. Please ensure to re-clip in the o2 sensor looms near the catalytic converters.



Step 21: Re-install black bracket to underbody using 15mm socket piece and ratchet.

Stage 4 - Final shifter installation and adjustment of positive stops



Step 22: Using the T-30 torx bit and driver, re-install the 4 shift body retaining screws to the vehicle body.



Step 23: With a 4mm allen key and 13mm spanner, adjust the positive stop's into position. To do this, it is best to adjust them in 3rd and 4th gears respectively. Selecting 4th gear, loosen off the 13mm nut on the positive stop and wind the stop to gently touch the the shifter shaft. Back the stop off around 1mm or enough to not allow the shaft to rest on the stop, or to touch the stop under accelleration/backing off to prevent any potential vibration between the two surfaces.

Repeat this process of adjustment for 3rd gear also.

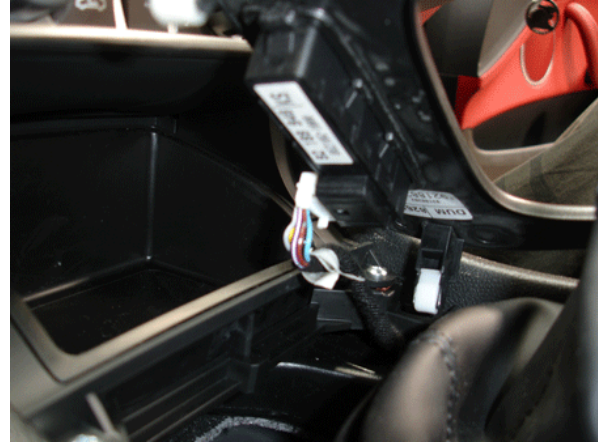
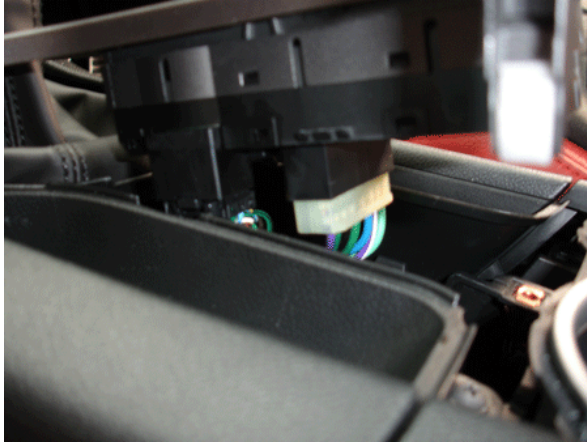


Step 24: Apply a small amount (as pictured) of black Sikaflex urethane adhesive silicone to the shaft, particularly the top gear knob location slot. Do not use too much glue or hydraulic compression will stop you from being able to push the gearknob back down to its correct seating position. Using a soft rubber mallet, place a rag over the gearknob and ensuring the gearknob is straight to make sure the location slot is in the correct position, firmly hit the gearknob downwards to pop back into its correct position. Check the gearknob is correctly installed by pulling upwards gently on the gearknob. If the gearknob slides up it is not seated correctly.



Step 25: Using a phillips head screw driver, re-fit and tighten the 4 gearboot retaining screws. Adjust the gear boot to sit neatly.

Stage 5 - Re-assembly of interior and test drive



Step 26: It's a good idea now to take the vehicle for a test drive prior to re-installing the console surround to ensure the positive stop's are set accurately and to eliminate shaft vibration if the shaft is making contact with the stops.

After any adjustments are made to the positive stops (if any), carefully re-fit the interior console section. be sure to clip back in the correct wiring looms to the underside plugs for power windows/power mirrors/traction control.



Step 27: The installation is now complete. Test drive your vehicle again to ensure everything is okay, and that gears select properly. It's now time to enjoy your new Billet Pro Series shifter, and to transform your slow, sloppy shifts into precise Billet Pro shifts!

Thank you for choosing Billet Products!