FITTMENT OF SHIFTER

Refer to Holden service manual for removal. (Brief instructions are attached.) Following same procedure to install new GM Motorsport RIP SHIFT.

Or you can view and print detailed step by step instructions on our website. Note some models vary slightly in fittment detail.

Web address. www.gmmotorsport.com

NOTES

You MUST use loctite on the gearstick bolts or they will come LOOSE

You can use the round rubber boot but you may have to cut the back of the boot for clearance between shifter handle and gold ring when in 2^{nd} & 4^{th} gear

SETTING STOP BOLTS

Select first gear. Hold the handle and keep tensionon on the lever. Adjust lock out bolt until it touches shifter handle and then back off ½ turn Set lock nut. Repeat process for 2nd gear.(.020 to 050 thou clearance with feeler gauge between stop bolt & shifter lever.) If clearance is to tight you may experience a noise increase. Better to have to much clearance than not enough.

Before fitting rubber sound boot select 1st gear with clutch pedal in, apply handbrake then start car & slowly release clutch pedal nearly all the way, push the pedal back in just before the car stalls. If the car does not jump out of gear you are ready to go.

If the car does jump out of gear back the positive stop bolt another 1/6 to 1/2 turn, then recheck.

Repeat process for 2nd gear

WARNING. This product is protected by Australian Design Registration. No 154581

GM MOTORSPORT. 2 NUSPAN CRT MELTON VIC AUSTRALIA 3337 Phone 0418 562 057 Visit our website for other performace products. www.gmmotorsport.com PH0418 562 057

Fitting Instructions

- 1. Remove gear knob by simply pulling straight up.It will take a good yank. Do not twist as it will break off inline locater.
- 2. Remove leather boot by applying pressure inwards to outer circle
- Remove front screws from front of console, this will allow you to remove the plastic power window control piece. Lift from rear, un clip power window loom.
- 4. Remove entire centre console. Flip lid, remove rubber mat, undo 10mm nuts, remove all other related phillip head screws related to console. Models do vary so take a good look for all screws. There are usually some hidden screws near seats.
- 5. Remove old gearstick by undoing both 10mm bolts
- 6. Remove rubber sound boot on early models by unscrew the four 10 mm bolts (later models are removed by undoing them from underneath the car.
- 7. Raise car safely
- 8. Undo transmission crossmember bolts and allow trans to come down about 3 inches.
- 9. Late model cars: remove four 12mm nuts holding on the rubber sound boot.
- 10.Lower car
- 11. Back inside car . Remove white plastic cover, 4 screws
- 12. Remove four 6 mm allen head bolts. (Use hex ball allen key)
- 13.Late model cars can use the 8mm rubber sound boot holes, they nearly line up with the front shifter bolts
- 14.Older cars will have to persist with top or try them from bottom of car.
- 15. Remove old shifter
- 16.Fit new RIP SHIFT into posistion. We put front bolts (use loctite on bolts) in holes before placing shifter into posistion. (Make sure shifter ball locates into trans cup.)
- 17.If fitting into car with early rubber boot we replace front allen bolts with normal hex head bolts so you can do them up under the car a little easier. You can use the allen bolts if you like.

- 18.Late model cars: tighten four main shifter bolts, use the button head supplied in drivers side rear location. (Normal bolt will not fit)
- 19. Early cars ,nip rear shifter bolts, then raise car to tighten front bolts, then tighet rear bolts aswell.
- 20. Raise car and re fit cross member bolts.

21. YOU MUST USE LOCTITE ON THE FOLLOWING BOLTS OR THEY WILL COME LOOSE

- 22. Fit new gearstick. supplied onto the drivers side on shifter input shaft. Fit hex head BOLTin top HOLE and hand tighten ,pull gear stick towards passenger side, now fit button head bolt in bottom hole & lightly tighten. Tighten top bolt completely and fit lock nut while still holding bolt tight. Tighten bottom bolt now.
- 23. Setting stop bolts: Refer to Page 2 for instructions.
- 24. Checking Body to shifter clearance: Fit steel outer ring from rubber sound boot. (Do not fit the rubber just yet). On late model cars just push the studs through. On early cars, bolt it up from the top. Check clearance of front positive stop bolt. Check also gold shifter ring clearance to body of car from 12 to 3 o'clock posistion. If the clearance is less than 3-4mm use a large screwdriver or prybar to push the body work away from the gold shifter ring. (You can lever off the gold ring to achieve clearance) About 6-8mm is enough clearance.
- 25. The above is done because some vechiles have slightly smaller tunnels & some cars have mounts that are worn. The result is the worn mounts or small clearance becomes an issue when the car is under heavy braking or cornering, the gearbox moves and the shifter ring can come into contact with the body. You will know if this happens as you will more than likely hear a noise.
- 26.Refit rubber sound boot (Late model cars will have to fit nuts under the car)
- 27. Refit console in the reverse order as removed.
- 28.Before fitting gear knob you may have to spray the shaft with C.R.C as the new shaft is a tighter fit.(If shaft is not a real tight fit do not use c.r.c ,use sikaflex to glue knob on. This helps with noisy gearknobs.)

29.Push down hard on knob and give it a sharp crack with your hand or soft hammer. Do not twist the knob when it is nearly all the way on as you could break the locating tag.
30.Enjoy your RIP SHIFT.

Handy Hints for fast shifting

Replace clutch fluid with high temp race fluid. (normal fluid will boil under heavy driving) available from GM Motorsport.

Change standard rubber clutch line from master cylinder to a braisfed steel GM Motorsport line. (this also removes the restrictor in the standard line allowing you to have full line pressure)

Braided unrestricted clutch line \$89.00

For fast 2nd to 3nd shifts. When in 2nd gear going to upchange into 3nd we simply push the gearstick straight up, we do not pull it over towards 5th gear at all. The spring action should guide you to the

Note. This is not recommended to everyone & should be practiced at low rom before trying at high rom.

'GM: Mosorsports Recirculating Clutch fluid Systems just the ticket for the serious car enthusiant with hard endurance triving in mind. The system allows the fluid to cool as it is

recirculated while self bleeding with every gear change. Can also be matched up with upgraded master cylinder. Ideal for heavy duty