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# **INSTALLATION MANUAL**

# **AEROFLOW PERFORMANCE**

## **GM BRACKET & LEVER**

### WARNING!

BEFORE PROCEEDING WITH INSTALLATION PLEASE READ INSTRUCTIONS CAREFULLY. THIS PRODUCT REQUIRES DETAILED KNOWLEDGE OF AUTOMOTIVE SYSTEMS. WE RECOMMEND THAT THIS INSTALLATION BE CARRIED OUT BY A QUALIFIED AUTOMOTIVE TECHNICIAN.

#### INTRODUCTION

Congratulations on your purchase of Aeroflow Performance GM bracket and lever kit. Aeroflow Performance products cannot and will not be responsible for any damage, or other conditions resulting from misapplication of the parts described herein. However, it is our intention to provide the best possible products for our customer, products that perform properly and satisfy your expectations. Should you have any questions? Please call technical support at +61 2 8825 1900 and have the product part number on hand when calling.

This Bracket and Lever kit is designed to suit GM 4L60E, 4L65E, 4L80E & 4L85E with the external PRNDL switch attached to the side of the gearbox. For forward exit cable shifters only, with shift lever oriented at the factory 6 o'clock position pulling the cable rearward.

### PARTS LIST

DESCRIPTION	QUANTITY
GM CABLE BRACKET	1
GM SHIFTER LEVER	1
7/16" I.D. SPACER ( 9/32" LONG )	2
1/16" COTTER PIN ( 1" LONG )	1
CABLE SWIVEL	1

For more information or technical enquires

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#### SAFTEY WARNINGS

- AVOID SERIOUS INJURY OR DEATH BY CRUSHING! When you raise the vehicle to work under it, securely support it on a lift or jack stands. NEVER work under a vehicle that is supported only by jacks. DO NOT attempt installation until you are confident the vehicle is safely secured.
- o Perform this installation with the engine turned off and negative battery terminal is off
- This shifter uses a cable to shift the transmission only. It is NOT intended or designed to operate a locking steering column.
- PERIODIC INSPECTION AND MAINTENANCE OF YOUR SHIFTER IS RECOMMENDED TO ENSURE THAT THE MECHANISM IS WELL LUBRICATED, FREE FROM DIRT OR RUST AND THAT THE CABLE IS PROPERLY ADJUSTED. LACK OF MAINTENANCE COULD RESULT IN A FAILURE INCLUDING A FAILURE OF THE REVERSE LOCKOUT SAFETY FEATURE.

<u>These installations listed below are general guidelines based off each manufacture transmissions. Installations may</u> vary between each year and model transmission.

#### GENERAL MOTORS (4L60e, 4L65e, 4L80e, 4L85e)

**1.** Get the GM selector lever and cable bracket from the parts kit supplied.

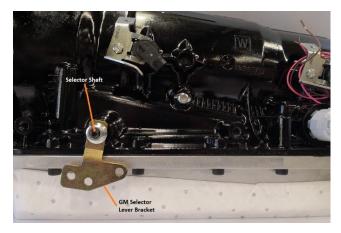


- 2. Disconnect the stock linkage bracket from the side of the transmission. Remove and retain the selector lever nut. Remove and discard the selector lever and shifter linkage.
  - I. Do not remove PRNDL switch this kit is designed to work with this switch installed onto the gearbox.

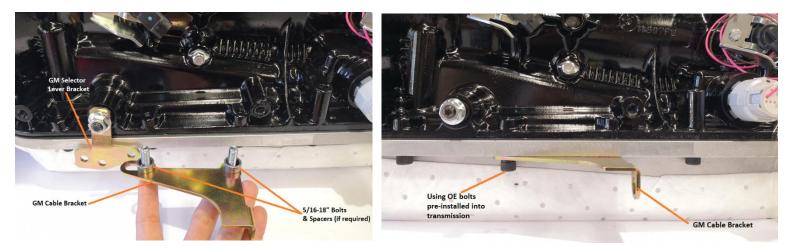


3. Install the selector lever bracket using the stock selector lever nut, and tighten the nut to 23 ft-lbs (30 Nm) torque. The lever should travel smoothly back and forth, with a positive "click" in each detent. Note this gearbox is shown without a PRNDL switch installed to show how the brackets are installed onto the gearbox. The PRNDL switch will still be installed onto the selector shaft of the gearbox.

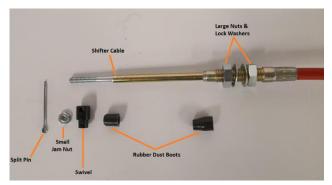


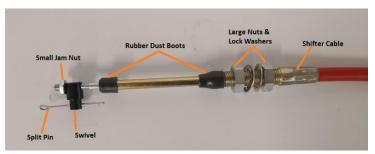


- 4. Route the shifter cable to avoid kinks and sharp bends to allow a smooth operation. Route the cable away from hot engine or exhaust parts. We recommend the use of a heat guard or heat shield to protect the shifter cable from extreme heat components on the vehicle. Be sure to correctly secure your shifter cable so it does not contact any moving objects.
- 5. Remove the two oil pan bolts to the rear of the selector shaft. These bolts may or may not be used depending on the transmission oil pan used in your application. Get the GM cable bracket and use the two bolt holes provided.
- 6. Install the GM cable bracket using either the factory OEM oil pan bolts or the 5/16"-18 (UHL 1") bolts only use these bolts if you plan to run the spacers.
  - I. For stamped steel pans, install the two spacers between the pan and bracket using the supplied bolts.
  - **II.** For cast aluminium pans with thick pan rails, you may have to purchase aftermarket length bolts to suit or reuse the original bolts that are preinstalled into your application.

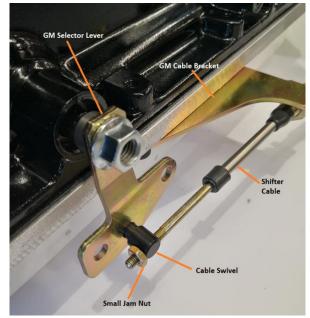


- 7. Tighten the bolts to 9 ft-lbs ( 12 Nm ) torque.
- Note: Do not over-tighten the bolts, as this can damage the transmission pan and gasket.
- 8. To attach the shifter cable to the cable bracket, remove the small jam nut, two small rubber dust boots, and one of the large nut and lock washer from the cable. Then insert the cable through the cable bracket, reinstall the lock washer and nut on the cable (loosely at this stage, to allow room for adjustment), and reinstall the two rubber dust boots.

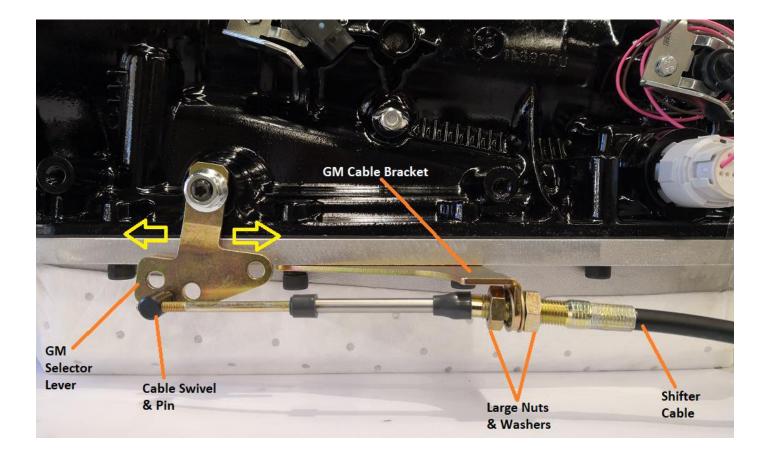




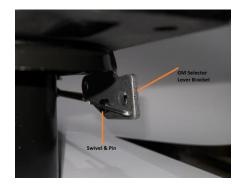
**9.** Thread the swivel & pin onto the cable to about the middle of the threaded section, then reinstall, but do not tighten the jam nut at this stage. Before proceeding, verify that forward gear selector pin and C-Clips are installed in the correct position that is required for you application.



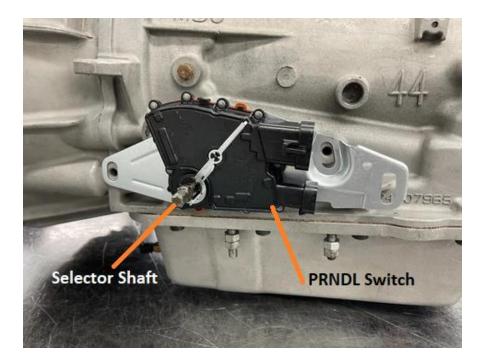
- 10. Move the transmission selector lever by hand to the full rear position (Low). Shift the shifter mechanism to the Low gear position (ratcheted all the way back). Adjust the large nuts on the cable so that the swivel will slide into the hole on the selector lever. Tighten the large nuts completely. Be sure that the swivel will slide freely in and out of the hole in the selector lever. Note: The shifter will not operate correctly unless the correct hole in the shift lever is used as shown in the step 1.
- 11. Leave the swivel out of the hole and move the selector lever to Park, all the way forward. Also move the shifter to Park position. Reinsert the swivel into the hole in the selector lever. Check to see that the swivel will slide freely in and out of the hole in the selector lever in this position. If it does not slip in freely, adjust the swivel slightly until it will slip into the hole in the lever.



12. Move the shifter back to the Low gear position and check that the swivel will still slide easily in and out of the hole in the selector lever. (If you do not use the hole in the lever, it will be impossible to correctly adjust the cable). Operate the shifter through all the gear positions. Check to make sure the swivel will slide in and out of the selector lever hole in each gear position. The shift cable is now correctly adjusted. Install the split pin supplied into the swivel and split the ends around in a loop to hold the swivel into place.



If you have a problem, DO NOT FORCE THE SHIFTER, this will damage the cable, the shifter or the transmission. Simply start at the beginning and carefully check all your steps.



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