



Installation Instructions

QuickSilver Shifter

1968-1969 Camaro

Part Number 81025

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The **B&M QuickSilver** shifter is a dual action shifter incorporating straight gate operation and ratchet operation in one mechanism. The styling and appearance will definitely add to the interior of your vehicle.

The straight gate operation allows you to quickly and smoothly select any gear you want for daily driving from Park to Drive. The ratchet shift feature provides crisp, error free upshifting and downshifting on the street or track. In the ratchet shift mode, it is impossible to overshift or miss a gear. The vertical lockout design prevents accidental engagement of Reverse during ratchet shifting.

This shifter is designed to work with an automatic, manual valve body utilizing standard or reversed shift patterns. Your shifter also comes supplied with all brackets and parts to work with your transmission.

We feel that these instructions are as complete and clear as possible. The installation of this shifter can be handled by anyone with a minimum of mechanical experience and basic hand tools. It is important to closely follow the instructions. Read each step and if you don't understand it, go back and read it again.

Before beginning your installation, check the parts list on page 7 to see that all necessary parts have been included in your kit. If anything is missing, see your **B&M** dealer.

Also check the tool requirement list to make sure you have all the necessary tools and supplies before starting your installation.

Printed in the U.S.A.



INTRODUCTION

The main mechanical components of this shifter are factory assembled. Any modification or disassembly of these parts can cause shifter malfunction and will void the warranty.

NOTE: This shifter has been configured from the factory for 3-speed automatic transmissions. For 4-speed automatic transmission use, remove the E-clips at the back of the shifter and the attached cross-pin (See Figure #5). The e-clip and cross pin will NOT be used in 4-speed operation.

Step 1. Disconnect the battery ground cable with a ratchet and socket (most likely 10mm or 13/32" socket). Place the shifter in Neutral. Remove four (4) phillips screws on the shifter cover plate with a phillips screwdriver. Remove shifter cover plate. Then remove the one (1) Phillips screw
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holding Shift indicator plate. Remove Shift indicator plate.

Step 2. Remove the control cable clips. Remove the four (4) shifter mounting bolts. Remove the shifter.

Step 3. Skip this step if you plan on using the B&M shift cable (The B&M shift cable does not require the adapter). Align the cable adapter holes with the U-shaped notch on the **B&M QuickSilver** shifter and fasten it with a 1/4-20 x 3/4" bolt, 1/4" washer, and 1/4" nut supplied with the kit. Place the **B&M QuickSilver** shifter in Neutral.

Step 4. Mount the indicator light socket to the B&M mounting bracket with the 6-32 x .25" screw using a 5/64" hex key. Wire the indicator light. Connect one wire from the socket to a shifter mounting bolt. If your car had an indicator light on the shifter, cut the old socket off and connect the wire to the new light socket. Otherwise, run a length of wire from the instrument panel light switch to the new light socket. Tape all connections and splices to avoid shorts. Install the supplied light bulb.

Step 5. Install the **B&M** mounting bracket to the floor. Fasten it with four (4) 5/16-18 x 7/8" bolts, four (4) 5/16" washers, and four (4) 5/16" lockwashers supplied in the kit.

Step 6. Assemble the neutral safety and reverse light switches to the bracket using two (2) 4-40 x 1-1/4" screws, two (2) 4-40 lockwashers, and two (2) 4-40 nuts.

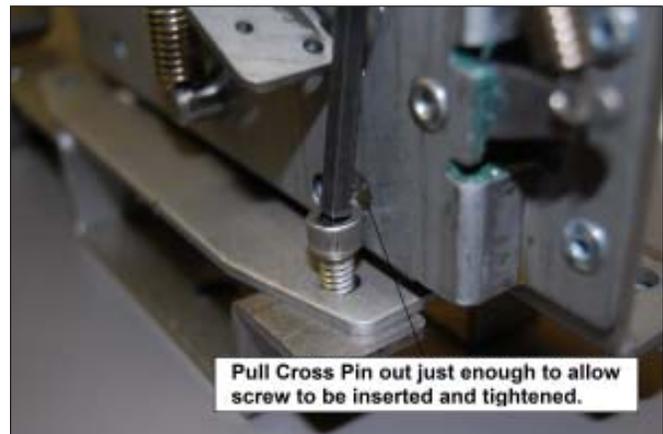
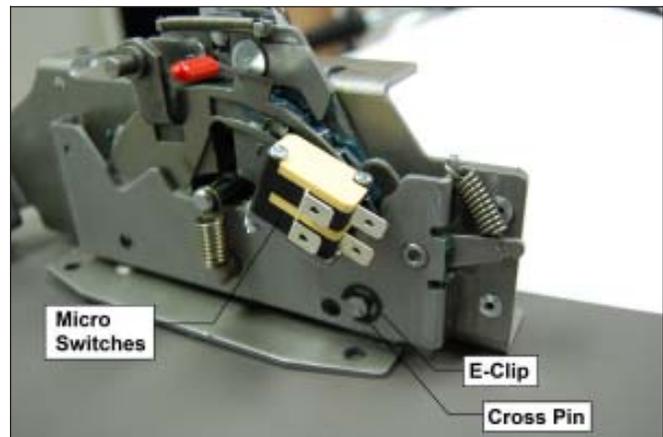
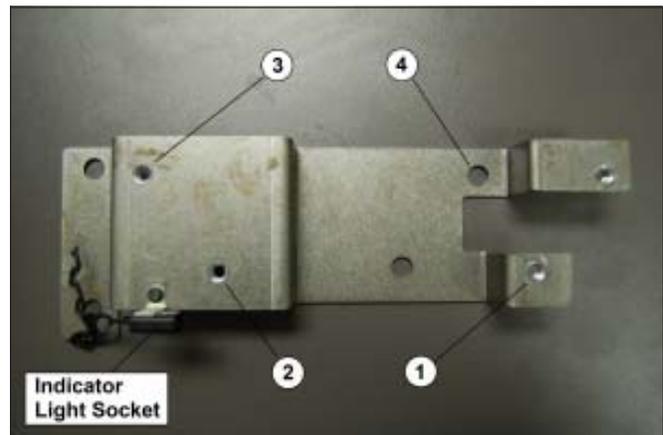
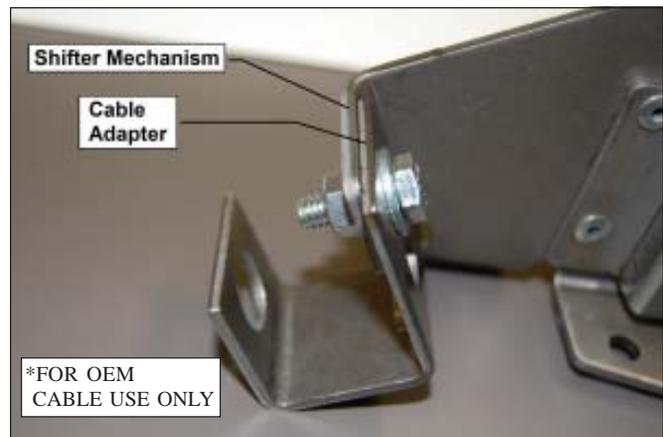
Step 7. Remove cross pin to allow screw to be installed in location #1. First remove the e-clip with a small flat head screwdriver (be careful not to lose e-clip). Magnetic tool along with screwdriver may be used. Slide pin out just enough to allow screw to be inserted and tightened.

Step 8. Insert the cable through the **B&M QuickSilver** shifter and install the appropriate hardware depending on which cable is being used.

(B&M Cable: Attach the cable to the shifter with 1/4-20 x 1/2" Hex Bolt and 1/4" washer). Install the E-Clip that secures the cable to the cable pin.

(Factory Cable: install the stock cable clip on the cable fitting. Slip the cable eyelet over the cable pin on the shifter and install the stock clip (**See Figure #5**)).

Step 9. Screw the shifter to the mounting bracket with a 3/16" hex key. (Note: Thread lock may be used on threads for added security). Insert a 1/4-20 x 3/4" socket head screw through location #1. Screw to bracket. Insert cross pin back through shifter, and re-install the e-clip removed in Step 7. Insert a 1/4-20 x 3/4" socket head screw along with a 1/4" split lock washer to location #2. Screw to bracket. Insert 1/4-20 x 3/4" socket head cap screw, 1/4" washer, and 1/4" lockwasher to the remaining two mounting holes (Location 3 and 4). Screw to bracket.



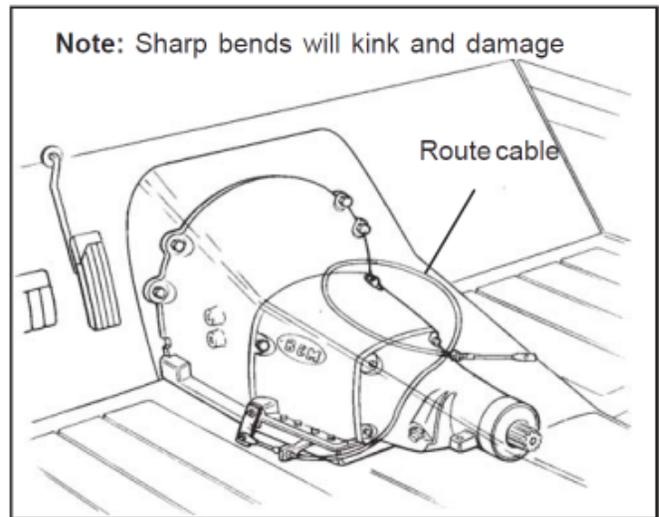
If using stock shift cable, skip steps 10 to 13.

STEP 10. From underneath the vehicle, install the **B&M** selector lever in position on the transmission using the stock selector lever nut. Torque the nut to 23 ft. lbs. The lever should move smoothly front to back with a positive click in each gear position.

STEP 11. Remove the two transmission oil pan bolts from the middle of the left side of the oil pan. Install the cable bracket in position. The bracket must be installed with spacers between the pan and the bracket. Install two 5/16x1.00" bolts (or M8 x 25 mm for metric transmissions) supplied and tighten 12-13 ft. lbs. Do not overtighten as this can damage the pan gasket.

STEP 12. Route the shifter cable according to the figure at the top right of the page. Avoid kinks and sharp bends, and route the cable away from hot engine or exhaust parts. Remove the two rubber boots, one large nut, and a large lockwasher from the threaded end of the shifter cable. Slide the end of the cable into the cable bracket. Install the large nut and the lockwasher loosely over the end of the cable. Install two rubber boots onto the end of the cable. Install the swivel on the threaded end of the cable and position it in the center of the threaded portion.

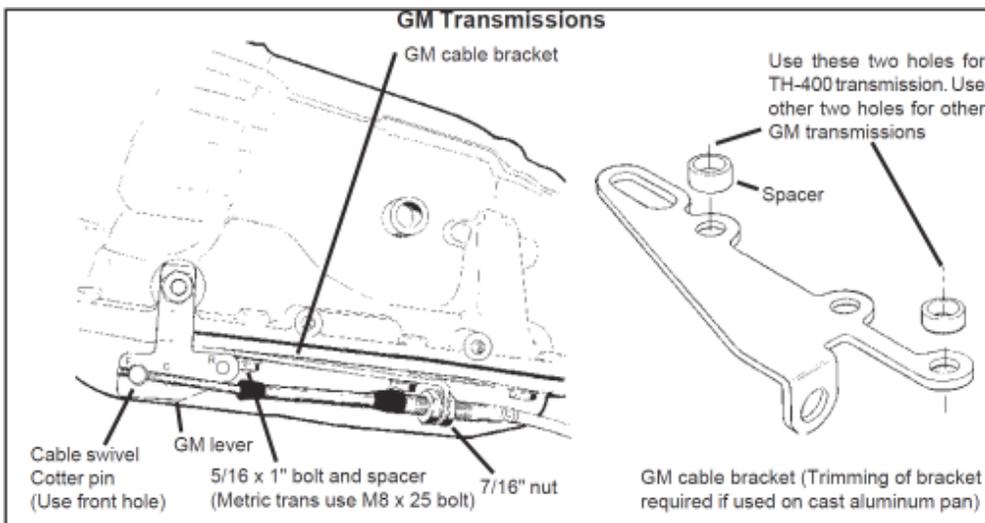
STEP 13. Move the transmission selector lever by hand to full rear position (Low). Operate the shifter lever to the Low gear position (ratcheted all the way back). Adjust the large nuts on the cable so that the swivel will slide into the **front** hole on the selector lever. Tighten the large nuts completely. 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 front hole in the shift lever is used.**



Leave the swivel out of the hole and move the selector lever to Park, all the way forward. Also move the shifter to the Park position (all the way forward). Re-insert the swivel into the **front** hole in the selector lever. Check to see that the swivel will slide freely in and out of the **front** 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.

Move the shifter back to the Low gear position and check that the swivel will still slide easily in and out of the **front** hole in the selector lever. Operate the shifter through all the gear positions. Check to make sure the swivel will slide in and out of the **front** selector lever hole in each gear position. The shift cable is now correctly adjusted. Install the cotter key supplied with the shifter into the swivel and spread the key ends.

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.



Step 14. Locate and identify the neutral start and reverse light wires on the stock wiring plug. Cut wires from plug then strip 1/4" insulation off the wires and lengthen them with 4-6" of additional wire. Put slip-on terminals on the end of the lengthened wire. Crimp the terminals onto the wires using a crimping tool or pliers. Connect the neutral start wires to the **LOWER** switch and the reverse light wires to the **UPPER** switch. Tape the terminal connections to prevent shorts. Reconnect the battery ground cable, disconnect the coil wire and set the parking brake. Check the switch operation by attempting to start the motor in each shifter position. **The starter must crank only when shifter is in the Park or Neutral position.** Check the reverse light operation. Adjust the switches if required. Reconnect the coil wire.

Step 15. Snap the indicator window in place on the chrome shifter cover (**See Figure #6**). The window snaps in from the top with the tabs inserted under the cover. Insert the black boot into the lip of the chrome cover. Make sure it is retained on all four sides. Slip the cover over the shifter handle and fasten it to the console with four (4) 6-32 x 3/4" Phillips screws supplied in the kit. **Do not overtighten the screws** or you may crack the cover or strip the threads in the center console.

Step 16. With the **B&M QuickSilver** shifter in the Neutral position, check the cable adjustment on the transmission (**See Figure #7**). If you must raise the vehicle, use jack stands, wheel ramps or a hoist and make sure the vehicle is well supported. Remove the cable clip and pull the cable eyelet off. The eyelet must slide off and on the pin without binding. If not, adjust the cable pin by loosening the nut and moving the cable pin until the eyelet will slide on. Retighten the cable pin nut. Move the shifter to the First Gear position. (Third Gear on reverse pattern valve bodies.) Recheck the cable pin to eyelet fit. Readjust if necessary, and check the Park position. Install the cable clip.

Note: The stock linkage to the steering column must be left intact or the neutral safety switch, backup light switch, and column lock will not function.

Step 17. Lower the vehicle. Start the engine and check the shifter installation. **The engine must start in Park or Neutral only. The backup lights should work in Reverse only.** Turn the lights on and check the indicator light. If your **B&M QuickSilver** shifter is not working properly, do not drive your vehicle. Make certain you have followed all instructions. If the shifter is broken or does not function properly, contact your **B&M** dealer.

Step 18. Tighten the knob on the handle. You may wish to use a small amount of Loctite or a similar product on the threads to keep the knob tight. Position the knob insert and align the **B&M QuickSilver** name, push down on the insert to snap it in place.

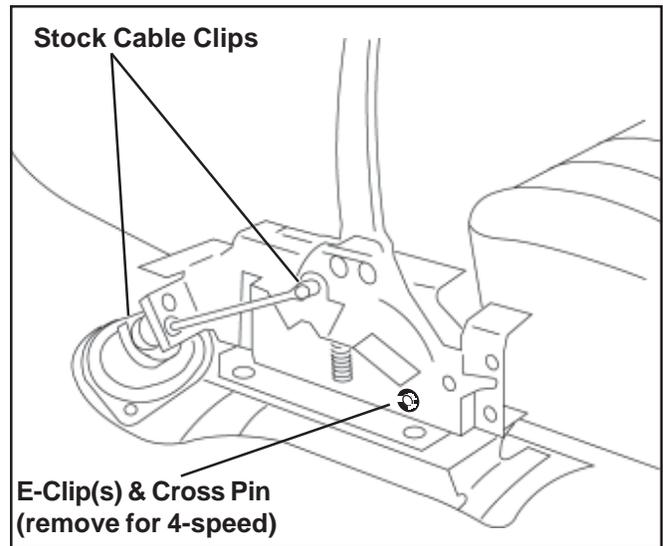


Figure #5

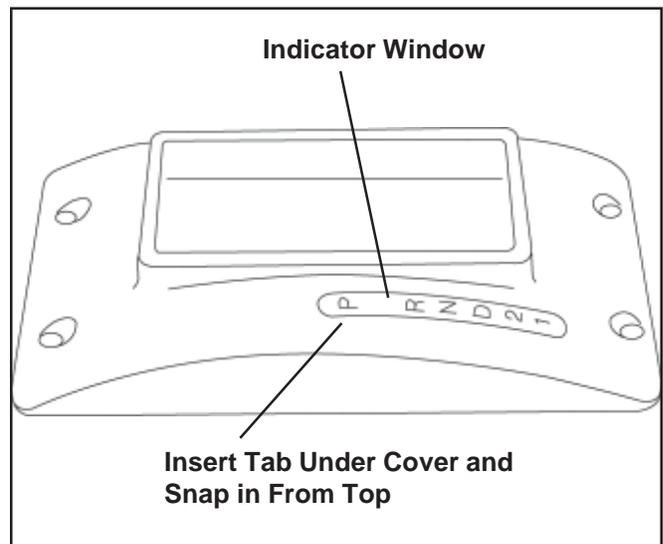


Figure #6

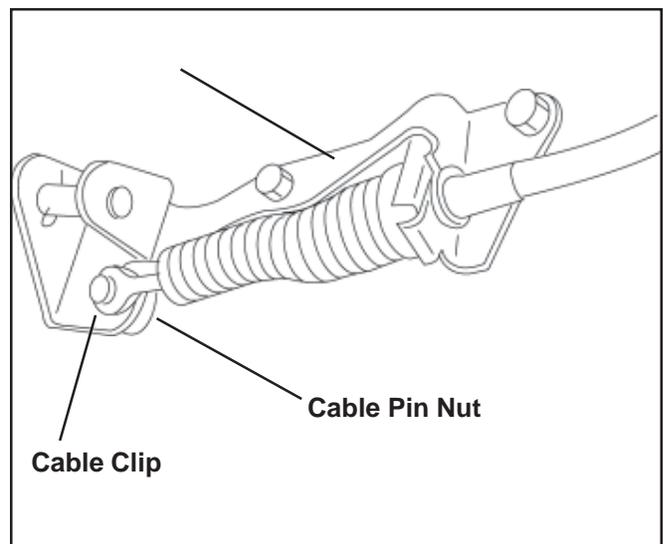


Figure #7

SHIFTER OPERATION

The **B&M QuickSilver** shifter combines a straight gate and a ratchet shifter into one mechanism. Refer to the following instructions for proper operation:

Straight Gate Mode: In the upper position, the shifter functions in the straight gate mode. The handle travels in a direct line forward and backward from Park to Drive. The shifter handle must be raised up to clear the stop gates while going through the gear positions (**See Figure #8**).

Park: To get to park from any straight gate position, lift the handle all the way up and push forward. The transmission will find its own Park position. Release the handle and the shifter is locked in Park. To get any other gear position, you must raise the shifter handle to clear the stop gate.

Reverse: Raise the shifter handle to clear the stop and move the shifter handle to the Reverse position.

Neutral: Move the shifter handle to Neutral. You do not have to raise the shifter handle unless you are in Park.

Drive: Move the shifter handle to Drive. You do not have to raise the shifter handle unless you are in Park.

Second and First gear cannot be selected with the shifter in the straight gate mode.

Ratchet Shift Mode: The ratchet shift mode allows firm, positive, no-miss upshifts and downshifts in First, Second, Third (Drive) and Neutral. Reverse and Park cannot be selected in the ratchet shift mode.

To switch from straight gate to ratchet operation, first have the shifter handle in the Drive position. With the shift handle in the Drive position, push down firmly on the knob to engage the ratchet mode. The handle will snap down approximately 3/4". The shifter is now in the Drive (Third) gear position for automatic valve bodies or the First gear position for full manual valve bodies (**See Figure #9**).

Shifting and the ratchet mode: Move the shift handle forward or backward with a quick firm action until it hits the internal stop. **Caution:** Do not lift the shifter handle when making ratchet shifts. Release the shifter handle and allow it to spring return to the center position. The shifter is now ready for the next shift (**See Figure #10**). Refer to the shift indicator for gear position in the ratchet mode.

When the shifter has reached the extreme rear gear indicator position, the shift lever will contact an internal

stop and you will not be able to ratchet the shift handle towards the rear.

The shifter is capable of ratcheting all the way to Neutral. When the shifter has reached the Neutral position, the handle will no longer push forward. Ford and Chrysler applications have only one ratchet step between the Reverse and Park position. General Motors applications require two ratchet steps between Reverse and Park. Do not attempt to force the shift lever ratchet steps on Ford or Chrysler applications as this may cause damage to the cable and/or shifter mechanism.

To switch the shifter from the Ratchet mode back to straight gate operation, operate the shifter to the Drive (automatic valve bodies) or the First (manual valve bodies) gear position, pull firmly on the knob to engage the straight gate mode. You are now in Drive (automatic valve bodies) or First (manual valve bodies) in the straight gate mode (**See Figure #11**).

Remember: To switch from Straight Gate to Ratchet mode or Ratchet mode to Straight Gate you must be in the Drive (automatic valve bodies) or the First (manual valve bodies) gear position. Refer to the shift indicator for the gear position (**See Figure #9 & #11**).

SPECIAL NOTE: If the instructions for operating your shifter seem complicated, do not be alarmed. You will find that, in actual use, the shifter will be extremely easy to operate after a minimal amount of experience.

Caution: The shifter is an important controlling mechanism of your vehicle and can create serious driving hazards when any part is loose, missing or misadjusted. After you have installed your **B&M QuickSilver** shifter we recommend you review the following check list and mark each point to assure a complete and proper installation.

*NOTE: 3-speed shown. 4-speed action identical with one extra ratchet gate position in Fig #10.

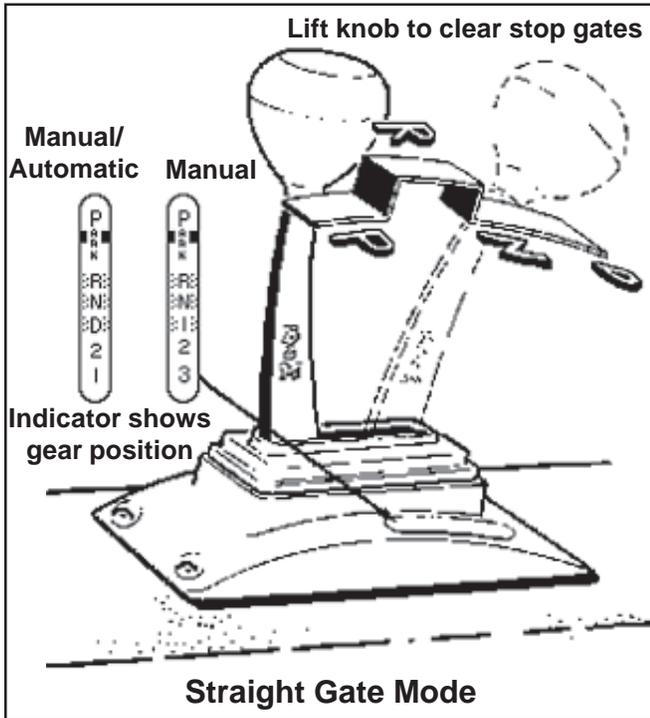


Figure #8

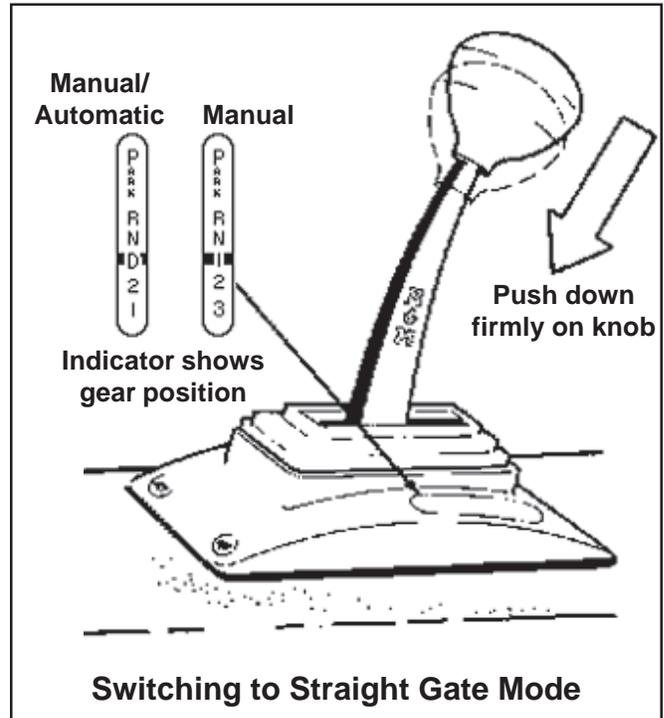


Figure #9

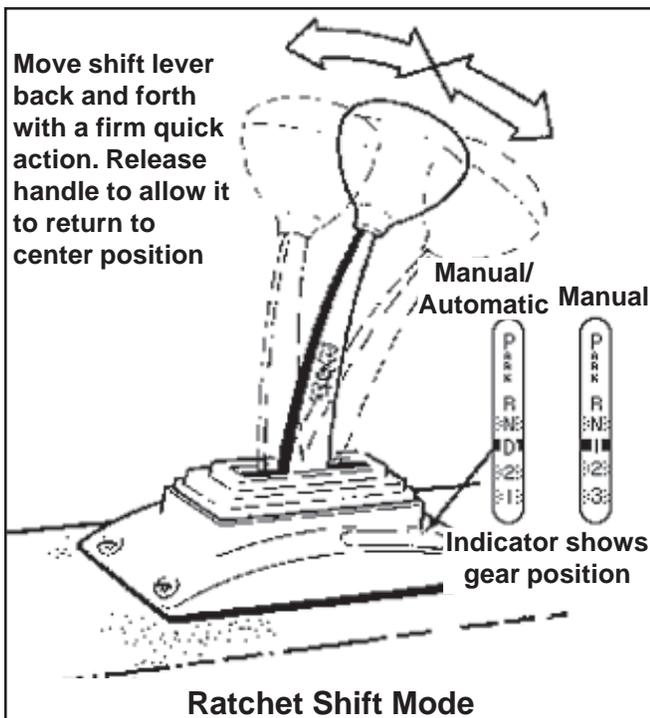


Figure #10

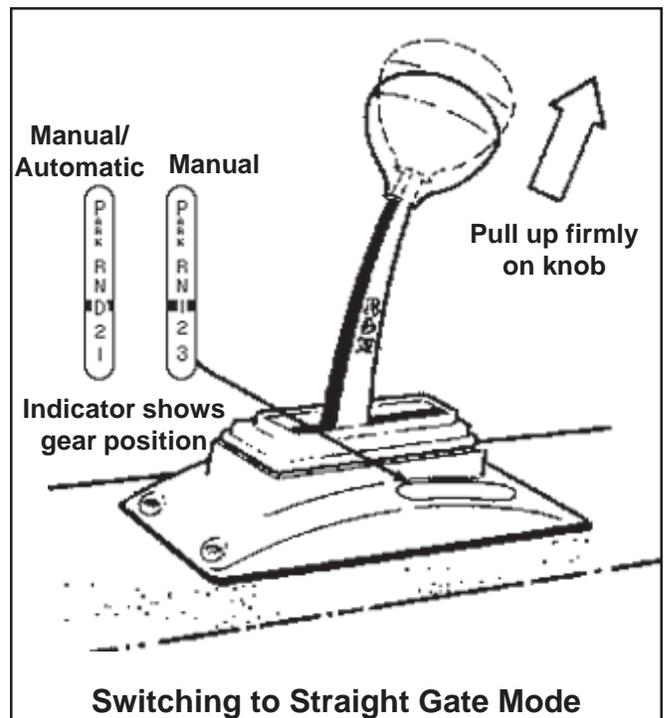


Figure #11

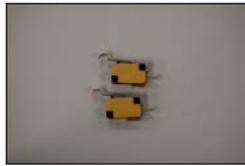
PARTS LIST



BRACKET
(1)



LEVER
(1)



MICROSWITCH
(2)



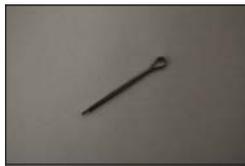
5/16-18 X 1.00" (2)
M8-1.25 X 25MM (2)



5/16-18 X 7/8"
(4)



CABLE SWIVEL
(1)



COTTERPIN
(1)



ELECTRICAL TERMINAL
(4)



1/4-20 X 3/4"
(1)



1/4-20 X 3/4"
(4)



PANSPACER
(2)



5/16" LOCKWASHER
(4)



1/4" LOCKWASHER
(5)



1/4-20 HEX NUT
(1)



4-40 X 1-1/4"
(2)



4-40 HEX NUT
(2)



6-32 x 3/4"
(4)



4-40 LOCKWASHER
(2)



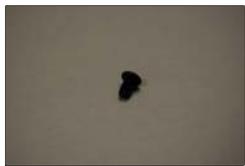
INDICATOR LIGHT
SOCKET



INDICATOR WINDOW
3 SPEED AND 4 SPEED



INDICATOR LIGHT
BULB



6-32 x .25"
(1)



5/16" WASHER
(4)



1/4" WASHER
(6)



1/4-20 X 1/2"
(1)



E-Clip
(2)



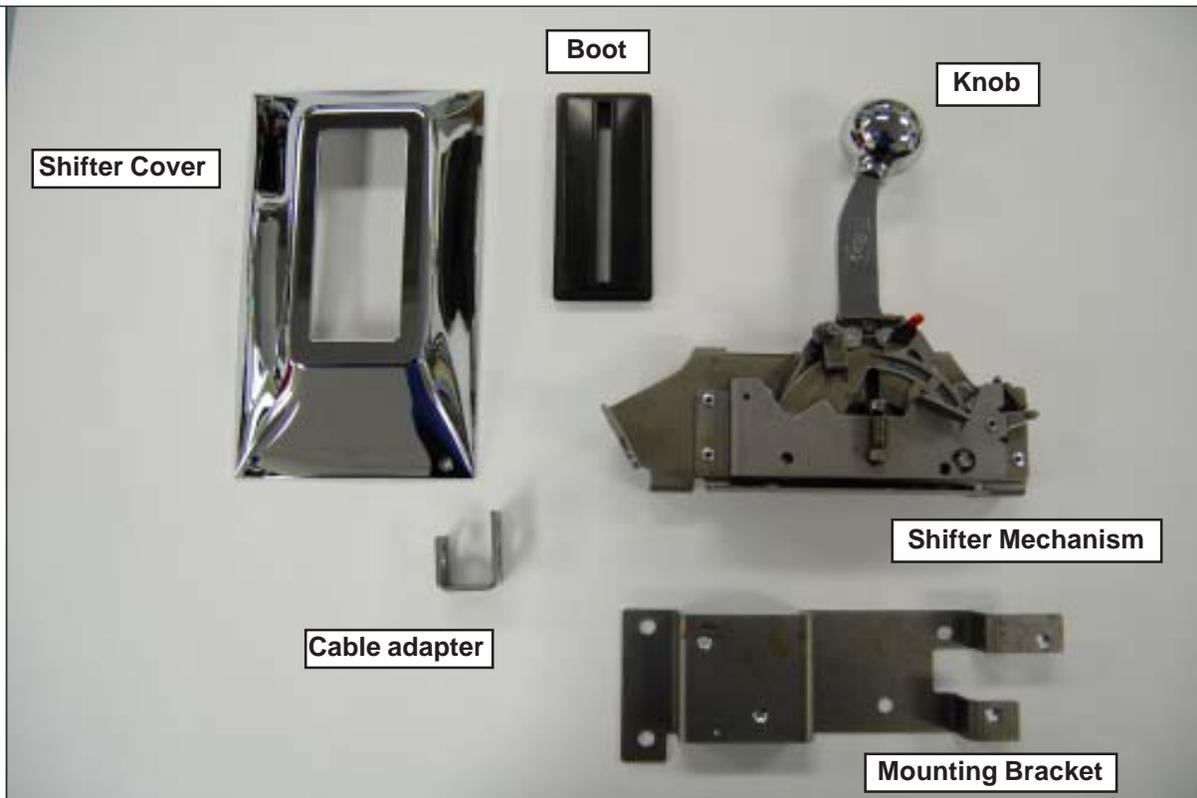
LOCTITE ADHESIVE
(1)

TOOL LIST

- | | | |
|---------------------------------|-------------------|---------------------|
| (1) Floor Jack and Jack Stands | (1) 13/32" Socket | (1) 3/16" Hex Key |
| (1) Phillips Screwdriver | (1) 7/16" Socket | (1) Wire Cutter |
| (1) Micro Phillips Screwdriver | (1) 1/2" Socket | (1) Electrical Tape |
| (1) Micro Flat Head Screwdriver | (1) 1/4" Wrench | |
| (1) Ratchet or Speed Handle | (1) 1/2" Wrench | |
| (1) 10mm Socket | (1) 7/16" Wrench | |
| (1) 13mm Socket | (1) 5/64" Hex Key | |

CHECK LIST

- 1) Cable is securely fastened to shifter and e-clip is in place.
- 2) Shifter and brackets are securely mounted to the floorboard by all eight mounting bolts.
- 3) Cable hole is sealed shut.
- 4) Cable is routed clear of exhaust system and moving parts.
- 5) Shifter is adjusted properly and spring clip is in place on transmission cable swivel.
- 6) The neutral safety switch is connected and functioning to prevent engine starts in drive gears and reverse.
- 7) There is no debris or dirt in the shifter mechanism.
- 8) Indicator clearly visible.
- 9) Knob is tight on shifter handle.
- 10) Shifter locks in Park and handle must be lifted to engage Reverse.
- 11) Shifter moves smoothly and freely through all positions as described in Shifter Operation.



WARNING!

Periodic inspection and maintenance of your **B&M Quicksilver** shifter is recommended to ensure that the mechanism is well lubricated, free from dirt or rust and the cable is properly adjusted. Lack of maintenance could result in a failure including a failure of the reverse lockout safety feature.



Cable Adjustment Warning

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GM TH-200, TH-350, TH-400, TH-200-4R
 TH-700-R4, 4L60, 4L60-E, 4L65-E, 4L80-E & 4L85-E
 lever shown.

MEGASHIFTER, UNIMATIC,
 PRO STICK, SPORT SHIFTER,
 HAMMER, QUICKSILVER #80683 W/ 4-SPD,
 PRO RATCHET #80842 W/ 4-SPD
 STEALTH PRO RATCHET #81120 W/ 4-SPD
 BANDIT SHIFTER W/ 4-SPD

Z-GATE, STARSHIFTER,
 QUICKSILVER #80683 W/ 3-SPD,
 PRO RATCHET #80842 W/ 3-SPD

INSTALLATION

Note: Be careful. Select the correct hole for your shifter. Wrong hole **will** destroy the cable, shifter and/or transmission in **one** shift! (GM trans. only)

DO NOT KINK CABLE

Note: Do not kink cable anywhere along its length. If cable has a kink, it will lock up. Cable should be kept straight for 2 inches on each end where it leaves the brass. Any of the above **will** destroy the cable, shifter and/or transmission in **one** shift!

MELTED CABLES

Note: if your cable is close to your exhaust it will melt or become brittle. If this is the case, you will need to make a heat shield. **Do not wrap the cable, this retains heat. Heat will destroy the cable!**

CABLE ADJUSTMENT

Note: if you don't adjust the cable correctly, you **will** destroy the cable, shifter and/or transmission in **one** shift. Put the transmission in low gear and shifter in low gear, set the swivel so it slides in and out of the correct hole freely (See installation picture). Then move the transmission and shifter to park (all the way the other way) then rotate the cable swivel until it slips in and out of the hole freely. Now go back and forth between Park and low gear and fine tune the adjustment. See instructions for further details.

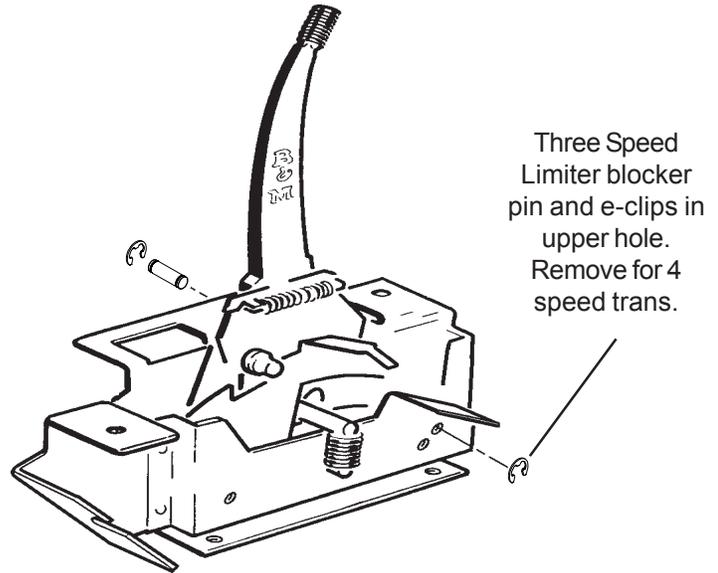


Addendum to Installation Instructions for
**QuickSilver Shifter for '73-'81
Camaro-'70-'81 Firebird**

Part No. 80688

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The looks of the new QuikSilver shifter is different from the picture in the instruction sheet. The only added feature is that the shifter could be used as a three or four speed. Converting the shifter to a four speed can be done by removing the blocker pin and e-clips towards the back of the shifter.



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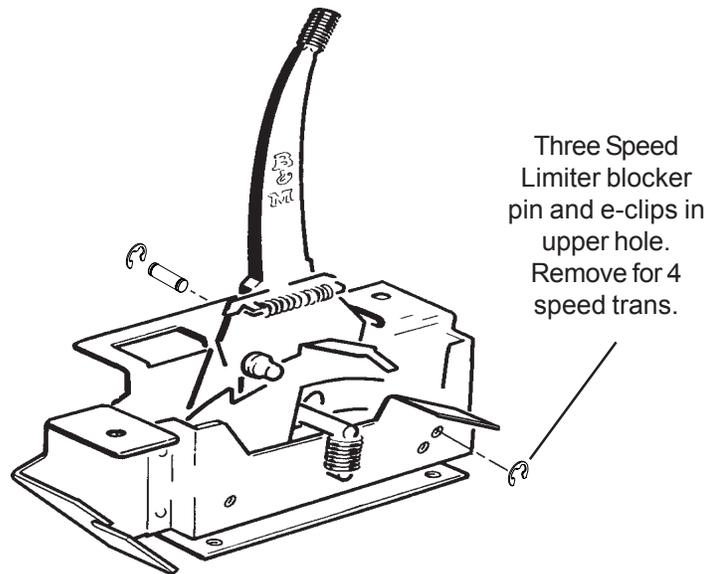


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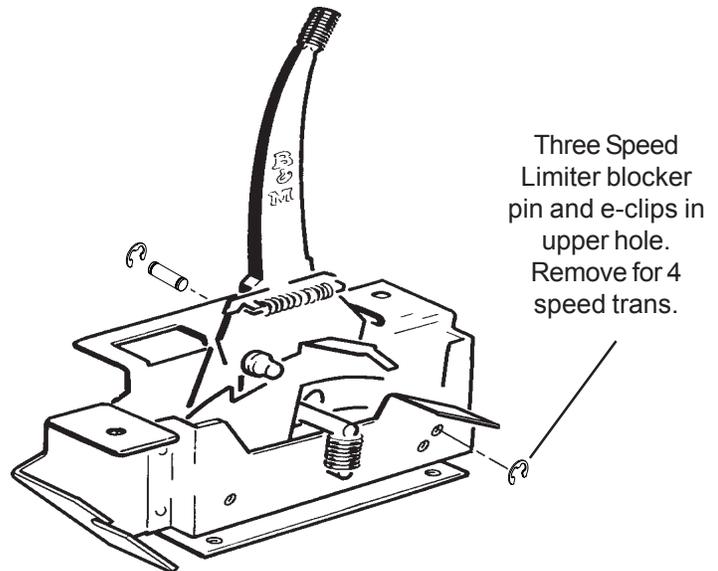


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