



Installation Instructions

Console Megashifter

1968-1969 Camaro

Part Number 81035

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This **B&M Megashifter** is designed to fit in the console of a 1968-1969 Chevrolet Camaro. In 1968, these vehicles were equipped with three speed automatic transmissions. Since 1983, they have been equipped with four speed automatic transmissions. Shifter #81035 is for three speed automatic and four speed automatic transmissions. The shifters are equipped with neutral start and backup light switches and a five foot shift cable. If the shifter is used with a four speed automatic transmission (TH-700-R4, 4L60, 4L60E, or 4L65E), the blocker pin and E-clips must be removed.

Please read the instructions and review the illustrations before beginning the installation.

The mechanical components of this shifter are precision made. Any modification or disassembly of these parts can cause the shifter to malfunction and will void the warranty. You should disassemble only those items outlined in the instructions.

If the console has factory gauges, it is advised that the negative battery cable is disconnected from the battery.

The vehicle should be about 2 feet off the ground for ease of installation. Use jack stands, wheel ramps or a vehicle lift. Make sure the vehicle is firmly supported before attempting to work on it.

INSTALLATION

STEP 1. Remove the top cover of the console. Remove the retaining screws and lift the cover from the center console.

STEP 2. Remove the console light from the cover.

STEP 3. Disconnect the cables from the shifter. Unbolt and remove the shifter mechanism. Remove the cable bracket and the selector lever from the transmission. Remove the shift cable from the vehicle.

STEP 4. The Park lock cable must be wired in the Park position (fully in) so that the



steering column lock will work and will allow the key to be removed. The cable should also be secured inside of the console out of the way. After wiring the cable in this position, check to see that the steering column lock works correctly, and that you can remove the key. **WARNING: With the interlock disabled in this manner, it is possible to lock the steering column at any time, so be careful not to turn the key to the "LOCK" position while the car is moving.**

STEP 5. 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 lock washers, and two (2) 4-40 hex nuts. **Caution,** over tightening the switch attachment screws will crack the switch housings.

STEP 6. Install the cable on the shifter. The cable attachment tab should be bolted to the outside surface of the shifter base using

1/4-20 x 3/4" hex bolt, 1/4" flat washer, 1/4" lock washer, and 1/4-20 hex nut. Install the E-clip that secures the cable to the cable pin.

STEP 7. Before installing the mounting bracket to the floor, insert four (4) 1/4-20 x 3/4" screws from the bottom of the bracket. To prevent the screws from loosening, apply a drop of Loctite® to the last 2-3 threads of each screw. Wait 10 mins for Loctite® to set.

(Refer to photos on page 3).

STEP 8. Install the **B&M** mounting bracket to the floor with four (4) 5/16-18 x 7/8" screws and four (4) 5/16" lockwashers.

STEP 9. Just before the final installation of the shifter in the vehicle, attach the indicator cable to the side of the shifter. (The other end of the indicator cable is attached to the **B&M** cover plate.) The indicator cable bracket is secured to the shifter mechanism with two (2) #6 x 1/4" sheet metal screws and two (2) #8 washers. The eyelet on the end of the

indicator cable is secured to the cable pin by a supplied small E-clip. If the shifter is being used with the four speed automatic transmission, the blocker pin and E-clips must be removed (Refer to photo on page 3). Secure shifter to floor bracket with four (4) 1/4" washers, four (4) 1/4" lockwashers, and four (4) 1/4" nuts.

STEP 10. Route the shifter cable as shown in the figure on page 4. Avoid sharp bends that will kink and damage the cable.

STEP 11. 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 12. 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 the two (2) supplied 5/16 x 1" bolts (or M8 x 25 mm for metric transmissions) and tighten 12-13 ft. lbs. Do not overtighten as this can damage the pan gasket.

STEP 13. Route the shifter cable. Avoid kinks and sharp bends and route the cable away from hot engine or exhaust parts. Remove the two rubber boots, one large part, 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 14. 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). Reinsert 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.** Forcing the shifter will dam-

age the cable, the shifter, or the transmission. Simply start at the beginning and carefully check all your steps.

STEP 15. Disconnect the battery ground cable before beginning to wire the neutral start and reverse light switches. 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 the shifter is in the "Park" or "Neutral" position.** Check the reverse light operation. Adjust the switches if required. Reconnect the coil wire.

STEP 16. Cut the bulb socket from the stock console light. These wires will be connected to the indicator light on the shifter.

STEP 17. Install the indicator light bulb in its socket on the shifter cover plate. Connect the wires that were cut in Step 16.

STEP 18. Snap the shift position window into the cover plate. The window snaps in from the top with the tabs inserting into the slots at either end of the window opening. Place the shifter in the Park position then remove the T-Handle from the shifter. Place the cover plate over the stick and onto the top of the center console. Route the indicator cable around the front of the shifter so that it has a free radius and will not bind. Run the shifter through all of the gears to check the operation of the indicator. If the indicator needs adjustment, loosen the screws holding the indicator cable clamp to the cover plate and slide the cable

bracket to adjust the indicator position. (Retighten these screws carefully since they are threaded into plastic.) Attach the cover plate to the center console with four (4) finishing washers, and four (4) 3/4" phillips head screws.

STEP 19. Slide the boot over the stick and install it into the cover plate. After the boot is installed in the cover plate and into the stick, install the T-Handle and the jam nut. Tighten the jam nut when the handle is properly oriented.

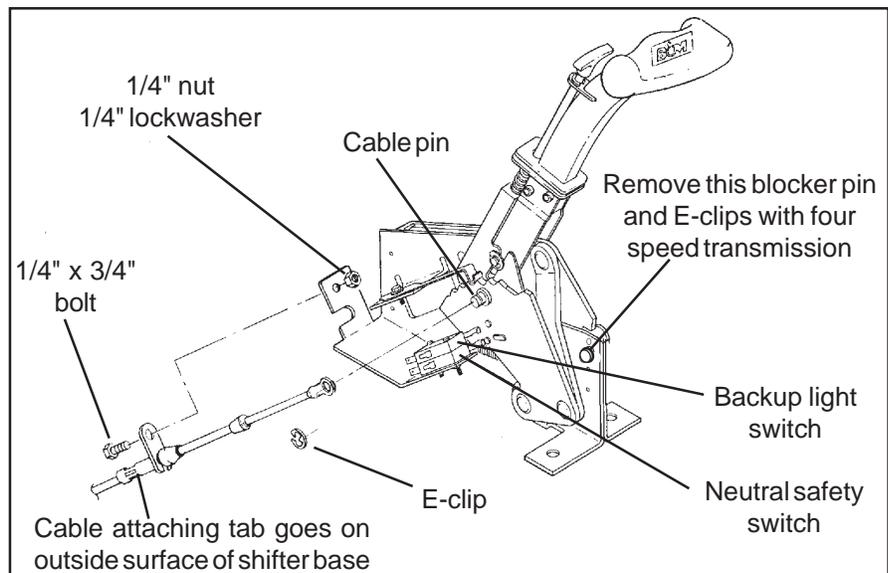
OPERATION

The **B&M Megashifter** normally functions as a straight gate detent shifter from "Park" through "Drive", and as a ratchet shifter from "Neutral" to all forward gears. Refer to the following instructions for proper operation:

STRAIGHT GATE MODE: With the trigger 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 trigger must be raised up to clear the stop gates while going through the gear positions.

RATCHETSHIFTMODE: The RATCHETSHIFT MODE allows firm, positive no-miss upshifts and downshifts through all positions from 1 (Low gear) to "Neutral". To switch from STRAIGHT GATE to RATCHET operation, first operate shifter to the "Drive" position. The trigger will snap down approximately 3/4". The shifter is now in the RATCHET MODE, "Drive" gear position. The shifter will only operate in the RATCHET mode between "Neutral" and "Low". It will not ratchet to "Reverse" or "Park". This is done to prevent accidental shifting into "Reverse".

SHIFTING IN THE RATCHET MODE: Move

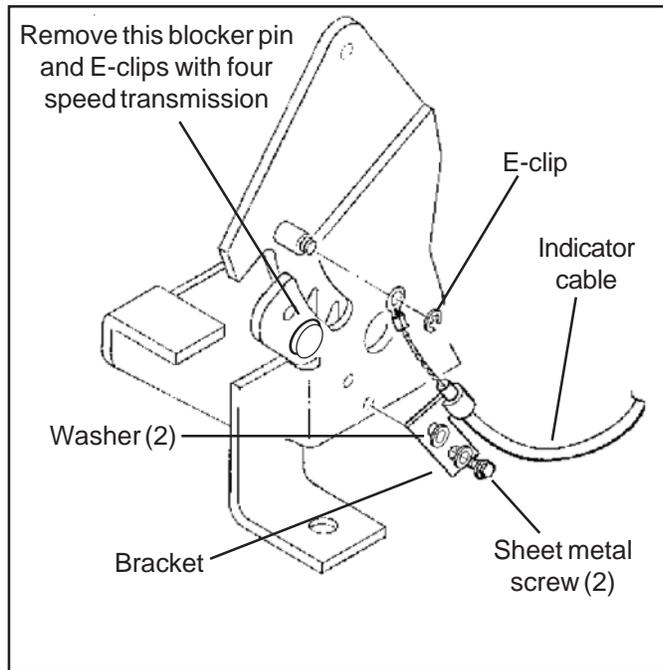


the shift handle forward or backward with a quick firm action until it hits the internal stops, and allow it to spring return to the center position. The shifter is now ready for the next shift.

To switch the shifter from RATCHET mode back to the STRAIGHT GATE mode, operate the shifter to the Drive gear position, pull up firmly on the trigger to engage the STRAIGHT GATE mode and move the handle forward to Neutral, Reverse and Park.

REMEMBER: To switch from the STRAIGHT GATE mode to the RATCHET mode or from RATCHET mode to STRAIGHT GATE mode you must be in the Drive gear position. Refer to the shift indicator gear position.

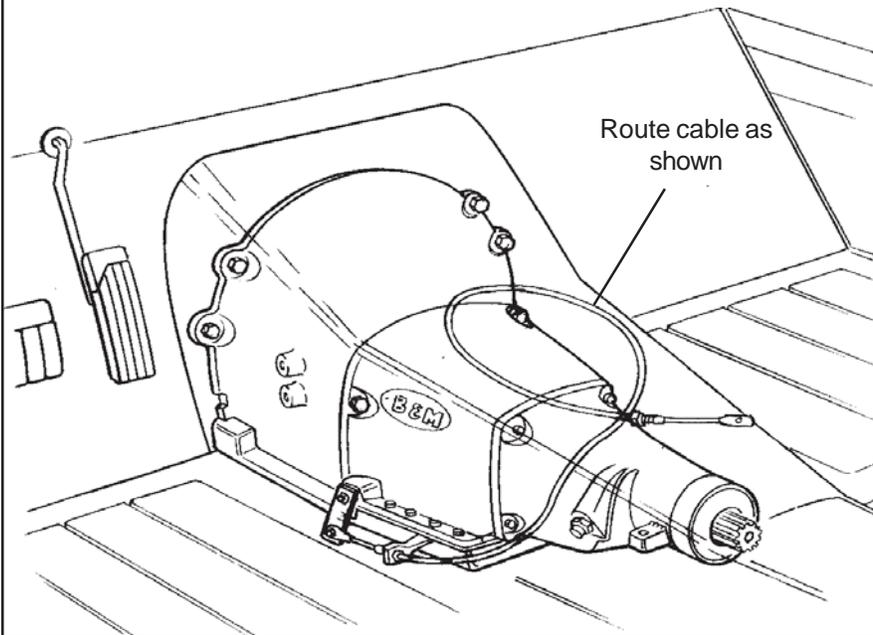
SPECIAL NOTE: If the instructions for operating your shifter seem complicated, **DO NOT BECOME ALARMED.** You will find that in actual use the shifter will be extremely easy to operate after a minimal amount of experience. Caution: The shifter is an important controlling mechanism of your vehicle and can create serious driving hazards when any part is loose, missing or misadjusted. After you have installed your shifter we recommend you review the instructions to assure a complete and proper installation.



WARNING

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.

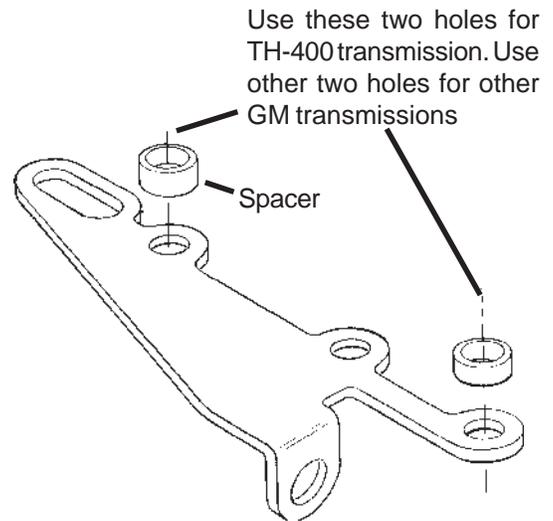
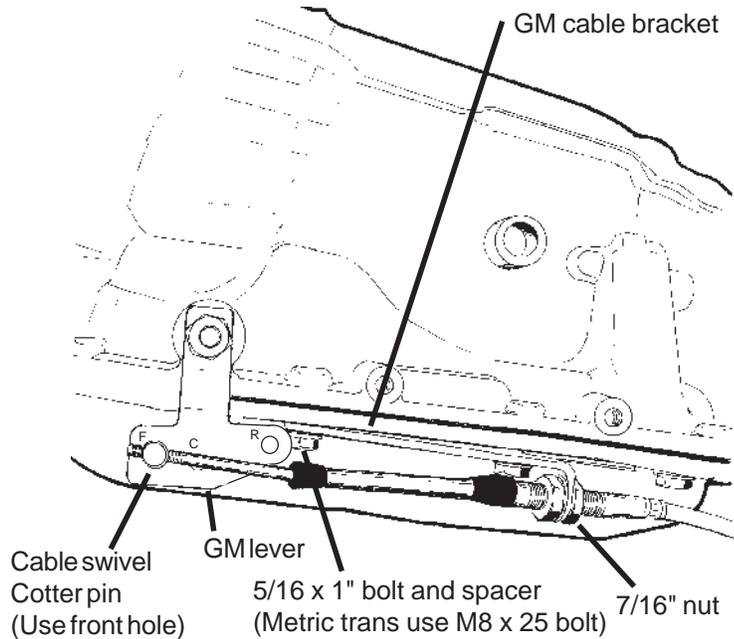
Note: Sharp bends will kink and damage cable.



Tool List

- 1 Floor Jack and Jack Stand(s)
- 1 Small Flat Head Screwdriver
- 1 Ratchet
- 1 1/4" socket
- 1 7/16" socket
- 1 1/2" socket
- 1 13mm socket
- 1 1/4" wrench
- 1 7/16" wrench
- 1 1/2" wrench
- 1 3/4" wrench
- 1 wire stripper
- 1 wire crimper
- 1 electrical tape

GM Transmissions



GM cable bracket (Trimming of bracket required if used on cast aluminum pan)

Check List

- ___ Ignition/steering column lock works correctly. Key can be removed and steering column locks when key is removed.
- ___ Cable is securely fastened to shifter and end is held with E-clip.
- ___ Cable is routed correctly, securely fastened to transmission, and swivel is held with cotter key.
- ___ Shifter is properly adjusted.
- ___ The neutral start and reverse light switches are connected and properly adjusted to prevent engine from starting in forward gears and reverse.
- ___ There is no debris in shifter mechanism.
- ___ Cover plate is securely fastened and shift position indicator is operating properly.
- ___ Shifter moves freely in all positions as described in Shifter Operation.
- ___ If your shifter is not working properly do not attempt to drive your vehicle. Make sure you have followed all instructions. If the shifter is broken or defective return it to your **B&M** dealer.

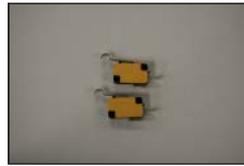
PARTS LIST



BRACKET
(1)



LEVER
(1)



MICROSWITCH
(2)



5/16-18 X 1" (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"
(5)



#6 X .25"
(2)



SPACER
(2)



5/16" LOCKWASHER
(4)



1/4" LOCKWASHER
(5)



1/4-20 HEX NUT
(5)



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



4-40 HEX NUT
(2)



#8 WASHER
(2)



4-40 LOCKWASHER
(2)



E-CLIP (2 EACH)
(LARGE & SMALL)



1/2-20
(1)



COVER SCREW &
WASHER
(4)



LOCTITE[®]
THREADLOCKER
(1)



INDICATOR WINDOW
3 SPD AND 4 SPD



INDICATOR LIGHT
BULB



1/4" FLAT WASHER
(5)



INDICATOR LIGHT
HOUSING
(1)



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/ 3-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)

SHIFTER
CABLE
BRASS
FLOOR

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!

TRANSMISSION
PAN
HEAT SHIELD (SHEET METAL)
MUFFLER CLAMP
EX-HAUST PIPE
U-BOLT

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!**

PARK POSITION
1ST GEAR POSITION
GM LEVER SHOWN

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.