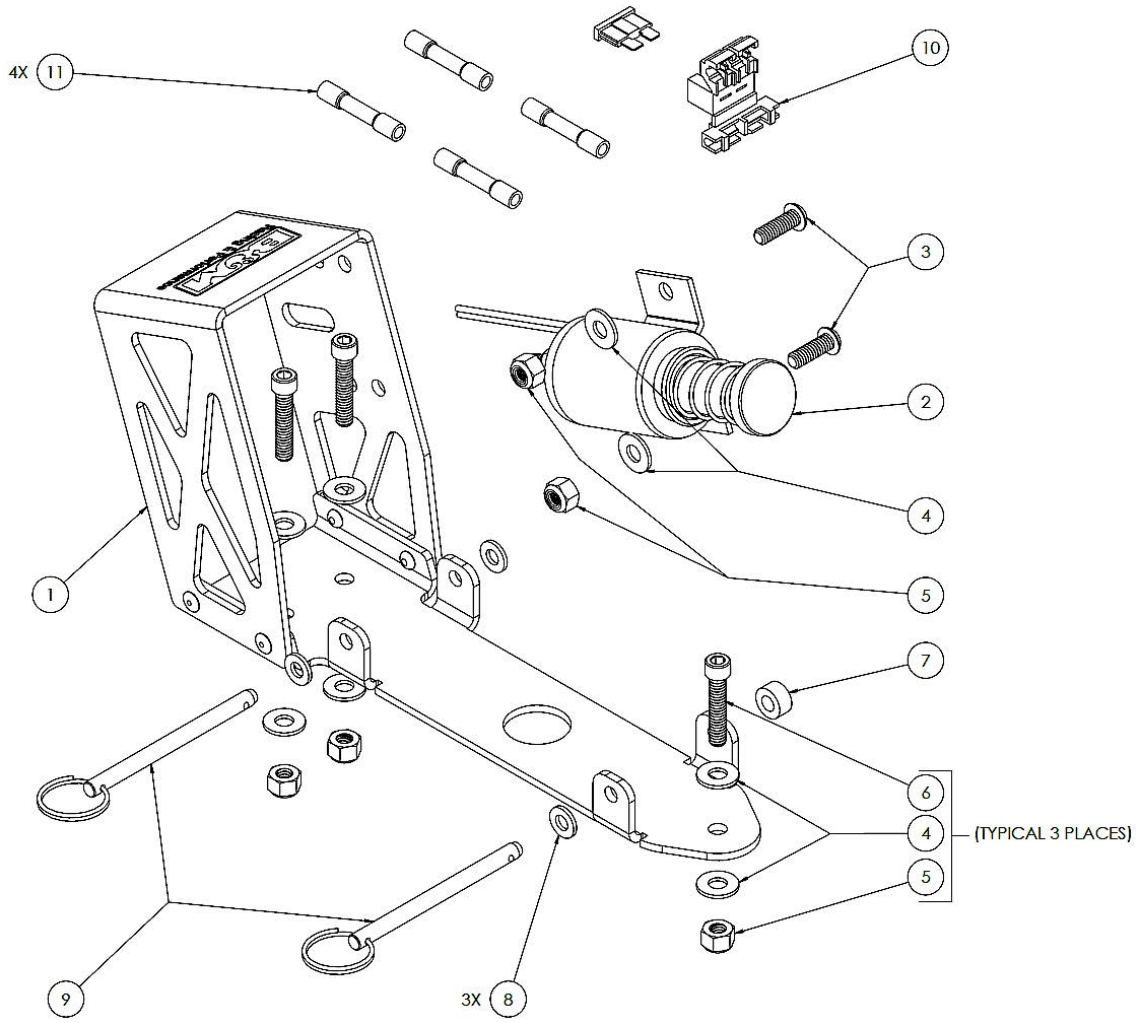
INSTALLATION INSTRUCTIONS

Part No. 80903

SOLENOID SHIFTER KIT for B&M PRO STICK™ SHIFTERS

For use with 2- and 3-speed transmissions only.



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	4001963	BRACKET, SHIFT SOLENOID, BLACK	1
2	2260003	SOLENOID, 12V Q STK KIT	1
3	3401682	SCREW, 1/4-20 × 3/4" HEX BUTTON HEAD	2
4	3401683	WASHER, FLAT, 1/4" I.D. × 5/8" O.D.	8
5	3401684	NUT, LOCK, NYLON INSERT 1/4-20	5
6	3401571	SCREW, 1/4-20 × 1-1/4" SOCKET HEAD CAP	3
7	3401690	SPACER, NYLON 1/4" I.D. × 1/4" THK	1
8	3401688	SPACER, NYLON 1/4" I.D. × 1/16" THK	3
9	1890082	PIN, QUICK RELEASE 1/4" DIA × 3" REACH	2
10	97001847	IN-LINE FUSE HOLDER WITH 4A FUSE	1
11	5000056	ELECTRICAL CONNECTOR, BUTT 14-16 AWG	4

REVIEW THE INSTRUCTIONS AND VERIFY THE KIT CONTENTS

Before starting, take a moment to read and understand these instructions.

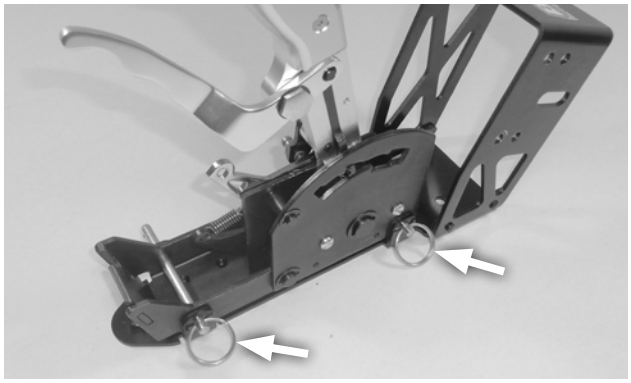
Use the parts drawing and list to verify your kit's contents. In the unlikely event that any parts are missing, please contact B&M Technical Support for replacements.

> **NOTE:** This solenoid kit is only compatible with shifters controlling 2- and 3-speed transmissions.

MATERIALS REQUIRED

- Nylon-compatible epoxy or CA (cyanoacrylate) adhesive
- Stainless steel-compatible anti-seize compound

INSTALLATION



1. **Pin the shifter to the bracket** with the two **quick release pins.**

2. **Locate the assembled shifter and bracket in your vehicle.** Pull the carpet (if any) away from the floorboard where the shifter will be mounted. If the vehicle has a bench seat, move it to the full forward position. Then place the shifter and bracket on the floor, locating it for ease and convenience of operation.

   When the shift handle is pulled fully rearward, there must be at least 1" clearance between the handle and the seat when the seat is in the full forward position. Make sure the handle will clear the dash and seat when it is pushed forward and rearward.

   When you are satisfied with the position of the shifter, mark the location of the bracket's three mount holes on the floor.

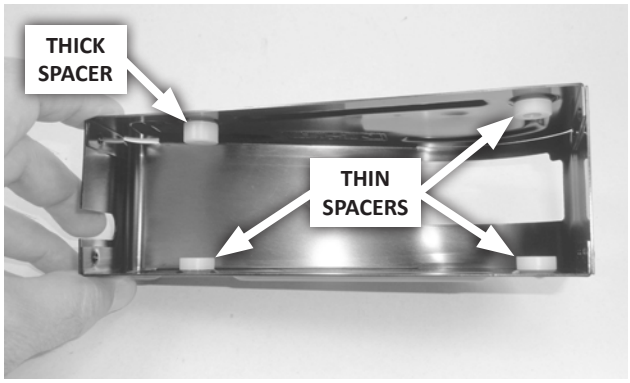
3. **Drill three 9/32" mount holes** through the floor.

   > **NOTE:** If your vehicle's floor is too thin to properly support the shifter mechanism when installed, fabricate a sheet metal stiffener to reinforce it.

4. **FOR NEW SHIFTERS:** Put the shifter and bracket in place, and temporarily hold them with the three **1/4-20 × 1-1/4" screws.** Follow the shifter instructions to mark and drill the cable hole, install the microswitch(es), and assemble the cable and shifter.

5. **Unpin the bracket from the shifter and bolt it to the floor** using the three **1/4-20 × 1-1/4" screws** and **lock nuts**, and the six **1/4" washers**. (Use anti-seize compound to prevent galling.) Then pin the shifter back to the bracket.

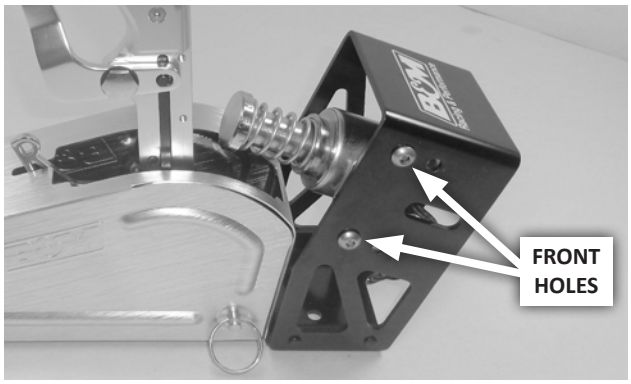
6. **FOR NEW SHIFTERS:** Route the cable, and continue with shifter installation, according the shifter instructions.



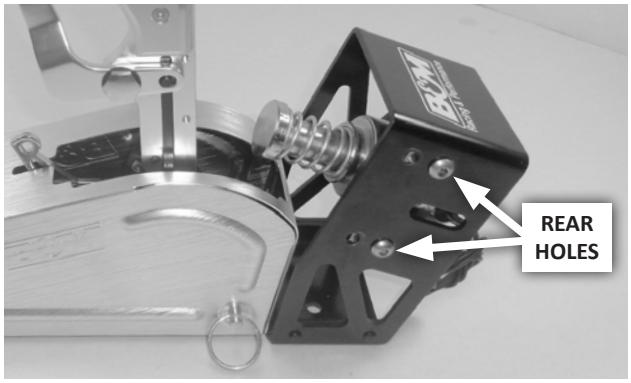
7. **Install the spacers on the shifter cover.** Bond the **thick spacer** over the front left hole, and bond the three **thin spacers** over the remaining holes. Allow to dry thoroughly.

8. **Verify the shifter mechanism is free of any debris** or loose hardware. Then **secure the cover to the shifter** with the quick-release pins.

9. **Assemble the solenoid to the bracket** using the two **1/4-20 × 3/4" screws** against the bracket, and the two **1/4" washers** and **nuts** against the solenoid. (Use anti-seize compound to prevent galling.)

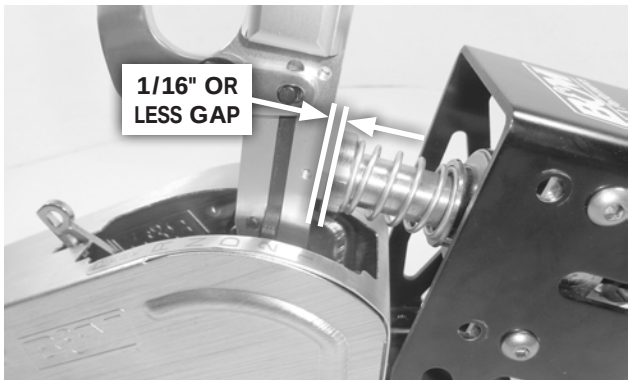


A. Use the front holes with 2-speed transmissions.



B. Use the rear holes with 3-speed transmissions.

ADJUSTMENT



10. **Move the shift lever** to SECOND gear. While holding the solenoid plunger, adjust the nut on the back of the solenoid until there is a visible gap not greater than 1/16" between the plunger and the lever.

    NOTE: The plunger must not touch the lever after it shifts the lever from FIRST to SECOND gear.

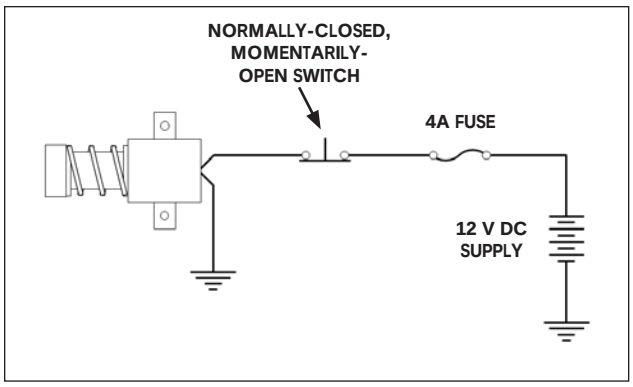
WIRING

NOTES

- Use only GPT automotive primary wire, 14-16 AWG.
- The solenoid has no polarity requirement, so either wire can be used for power, and the other for the ground.

11. **Disconnect** the vehicle's negative (–) battery cable.

12. **If you are controlling the solenoid with an timer- or RPM-activated switch,** refer to the manufacturer's instructions for proper wiring.



13. **If you are using a manually-activated switch,** it must be a normally closed switch that opens momentarily when activated.

14. **Reconnect** the vehicle's negative battery cable.

OPERATION

When the solenoid is powered and the shifter is pulled into FIRST gear, the solenoid will hold the spring-loaded plunger back. When power to the solenoid is temporarily interrupted (by your timer-, RPM-, or manually-activated switch), the plunger will be released, pushing the shifter from FIRST to SECOND gear.

NOTE: Verify that, after the solenoid shifts from FIRST to SECOND, there is a visible gap not greater than 1/16" between the plunger and the lever. **The plunger must not touch the lever after the shift from FIRST to SECOND gear.** If necessary, re-adjust the plunger as described at Step 10.

KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

B&M Performance & Off-Road maintains a highly-trained technical service department to answer your technical questions, provide additional product information and offer various recommendations.

B&M Performance & Off-Road