



# Installation Instructions

## *Short Throw Shifter*

### *2002-2003 Mini Cooper 1.6L*

### *(including 'S')*

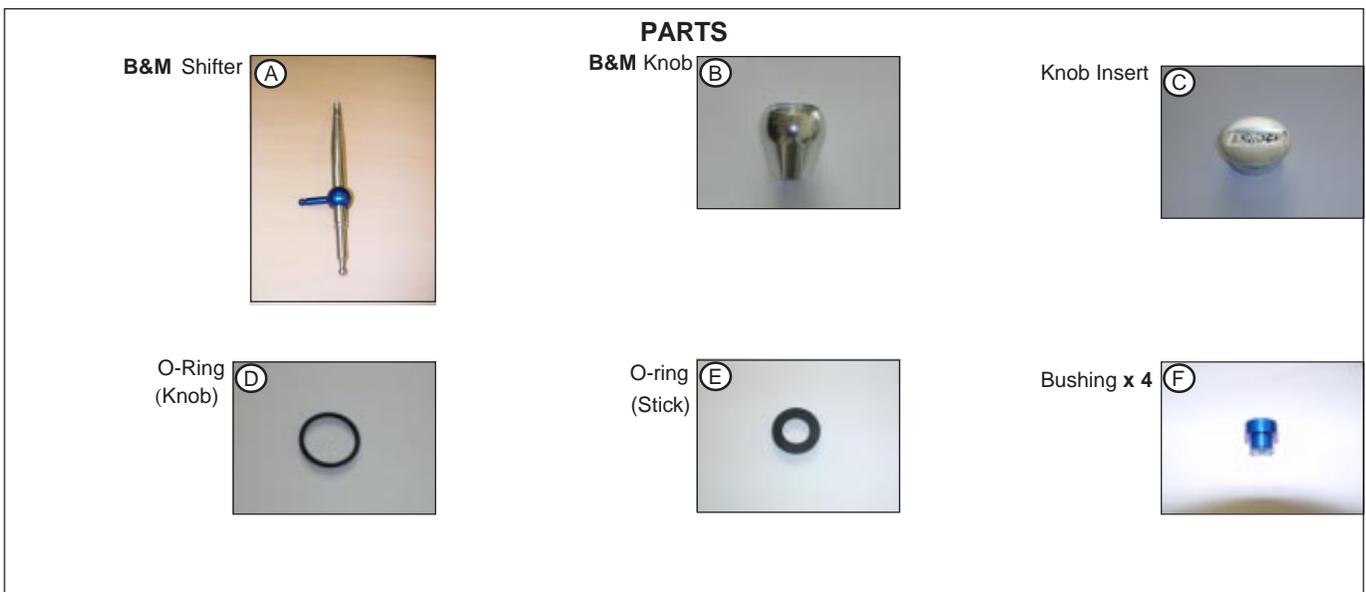
*Part Number 45129*

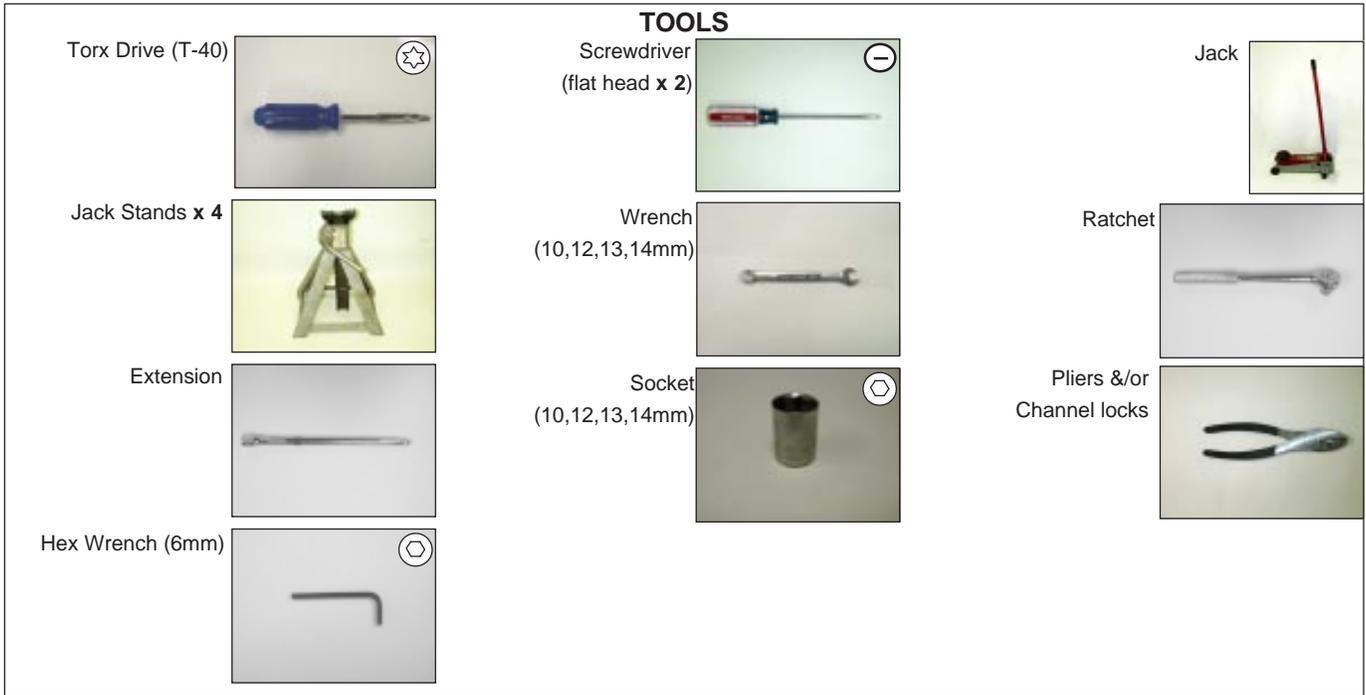
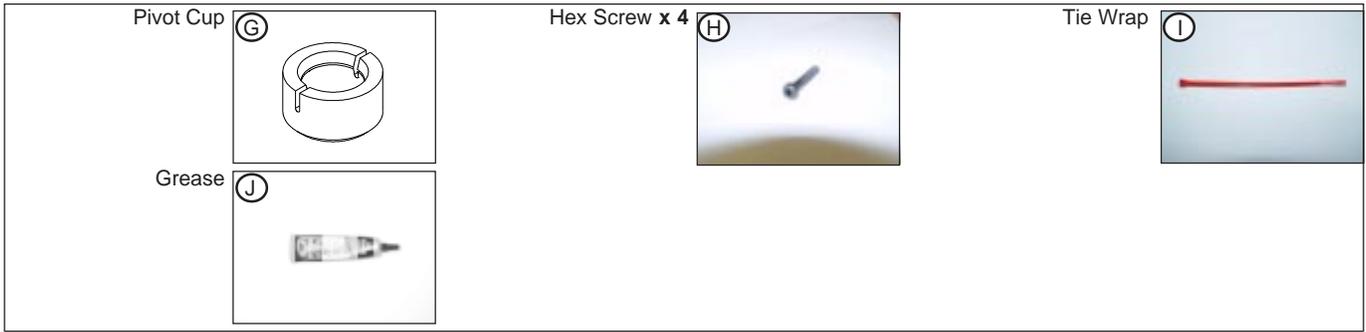
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This **B&M Short Throw Shifter** has been designed to work on 2002-2003 Mini Cooper including 'S' models. It has been engineered to greatly reduce shift throw and improve shifter feel. Check the parts and tools lists at the beginning of these instructions for the supplied parts and the tools required to install your **B&M Short Throw Shifter**. Installation of the **B&M Short Throw Shifter** can be accomplished by anyone with minimal mechanical experience.

#### INTRODUCTION

This **B&M Short Throw Shifter** can be installed in less than a few hours by carefully following the instructions. Read all instructions first to familiarize yourself with the parts, tools, and procedures. This kit contains all the parts necessary to install the shifter.

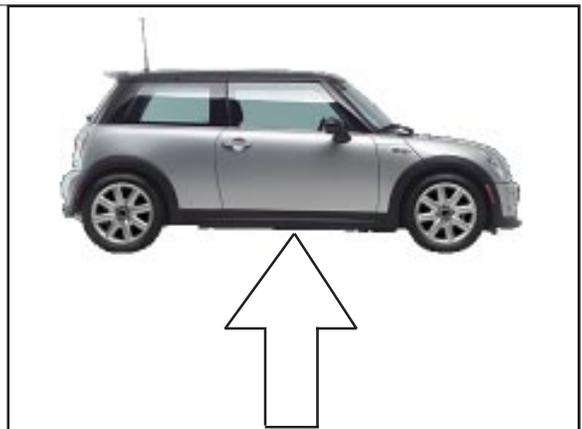




### DISASSEMBLY

**STEP 1.** Park vehicle on a level area and allow time to let cool. Carefully raise and support vehicle.

TOOLS: Floor Jack, Jack Stands x4



**STEP 2.** Remove O2 sensor wire from the wire hanger.

Note: Entire O2 sensor does NOT need to be removed!



**STEP 3.** Unbolt the (6) exhaust support plate bolts. Maneuver the (2) rubber exhaust hangers and lower the exhaust support plate. Remove the (2) rubber exhaust hangers from the rear hangers near the muffler.

TOOLS: Socket (10mm) , Ratchet, and Extension.



**STEP 4.** Unbolt center exhaust flange (2) bolts for easy access to the shifter. Remove the front and rear heat shields.

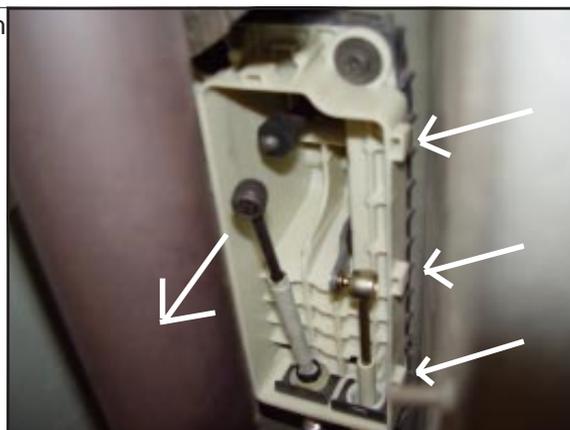
OPTIONAL: Rear exhaust may be dropped and hung.

TOOLS: 14mm Wrench, 14mm Socket, 10mm Socket, Ratchet



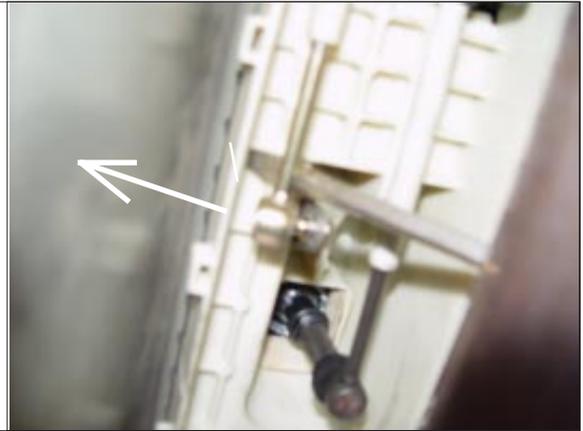
**STEP 5.** Un-clip and remove the lower shifter base plate with a flat head screwdriver. Pull down and remove the fore-aft cable.

TOOL: Flat head screwdriver



**STEP 6.** Pry the left-right cable off with a flat head screwdriver.

TOOL: Flat head screwdriver



**STEP 7.** Remove the cable clips and detach both cables from shifter housing with channel lock pliers.

TOOL: Channel lock pliers



**STEP 8.** Remove knob by pulling up. Excessive force may be required. BE CAREFUL!

Note: There are two prongs inside the knob that may be pryed apart with a flathead screwdriver to ease the removal.

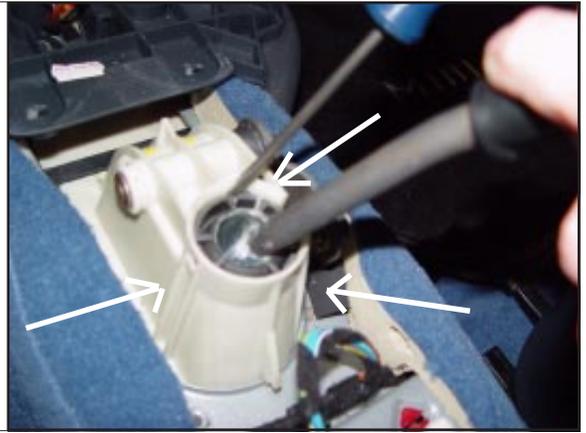


**STEP 9.** Remove shifter bezel by pulling up carefully. Cut off the tie strap to remove shift boot from the shifter stick.



**STEP 10.** Pry the 3 tabs on the shifter cup using 2 small Flat head Screwdrivers simultaneously.

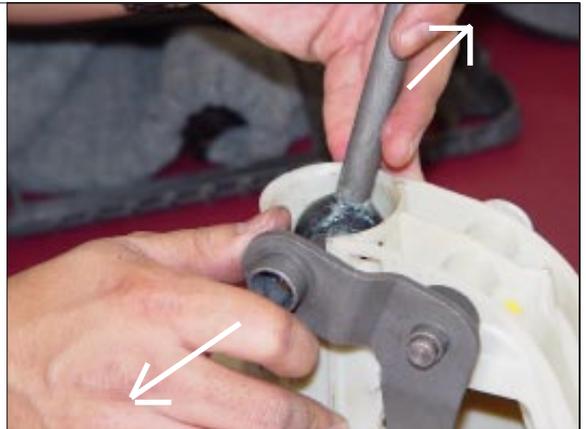
TOOLS: (2) small flat head screwdrivers.



**STEP 11.** Pull up and remove the pivot retainer.



**STEP 12.** Maneuver the shifter stick and pivot arm in opposing directions. Pull up on the shifter stick to remove.



**STEP 13.** Remove the (4) screws and lower the shifter base from the bottom of the car.

TOOLS: Flat head screwdriver and Torx driver (T-40)



**STEP 14.** Remove stud/bushings (4) assembly from the shifter base.



**STEP 15.**

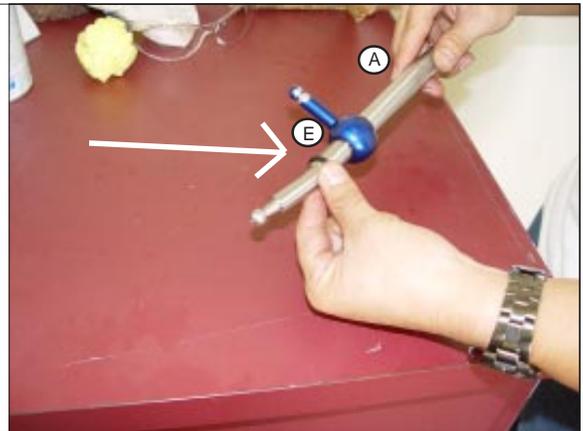
\*OPTIONAL: For best performance, use the B&M solid bushings. However, vibration may occur. Detach the rubber bushings from the shifter base gasket. Place the rubber gasket back onto the shifter base.

NOTE: The rubber bushings will be replaced with the **B&M** solid bushings when bolting the shifter base back into the car. Keep the old rubber bushings.

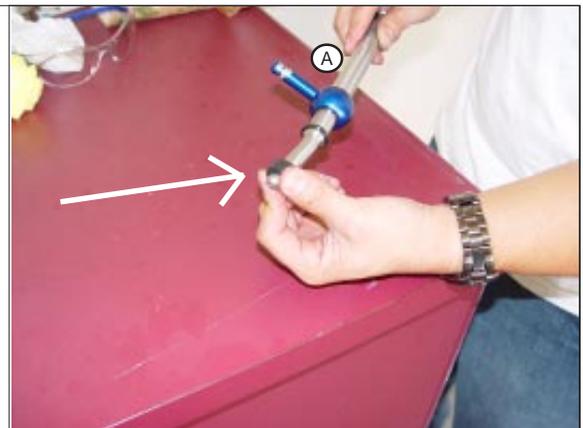


### ASSEMBLY

**STEP 16.** Slide the new **B&M** O-ring (stick) **(E)** from the bottom of the **B&M** Shifter **(A)** to the groove right below the pivot ball.



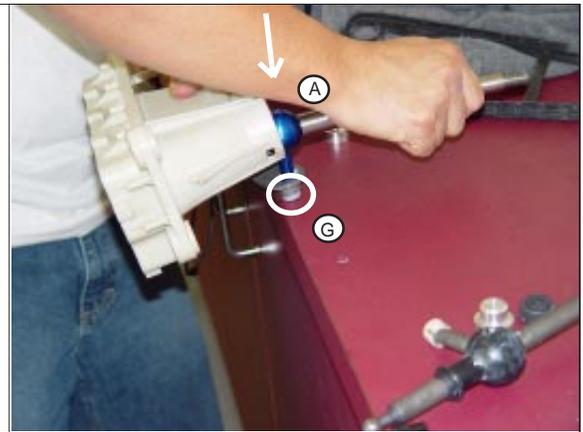
**STEP 17.** Remove the (2) foam spacers from the stock Mini Cooper stick and re-install them on the **B&M** shifter **(A)**.



**STEP 18.** Lubricate the pivot ball on all areas of movement with the Grease (J) and insert **B&M Shifter (A)** into the shifter base.

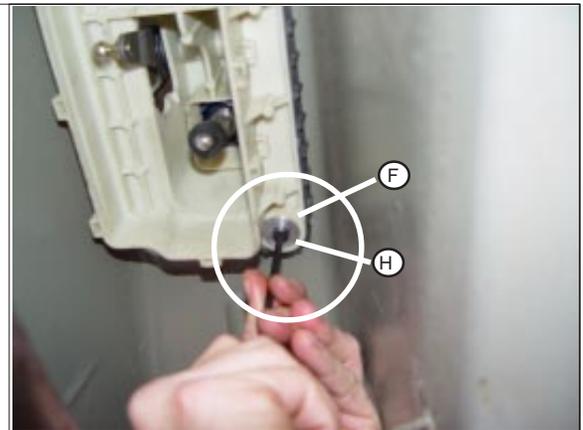


**STEP 19.** Install **B&M Pivot Cup (G)** to pivot ball of the **B&M Stick (A)** by pressing down on a hard table/surface.



**STEP 20.** Re-install the shifter base assembly and gasket from the bottom of the car using the (4) **B&M bushings (F)** and (4) **Hex screws (H)**.

TOOL: Hex Wrench (6mm)



**STEP 21.** Re-install the (2) shifter cable clips by pressing them up.



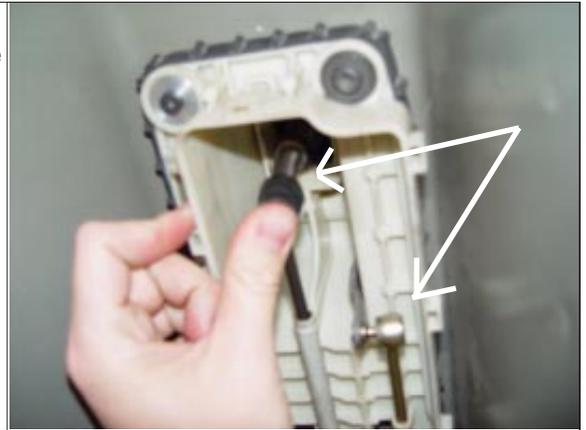
**STEP 22.** Re-install the original pivot retainer into the shifter base by aligning the 3 tabs and locking them in.

**NOTE:** Install the pivot retainer before re-attaching the shifter cables.



**STEP 23.** Re-install shifter cables to the pivot balls using pliers. Press the bottom shifter plate back onto the shifter base.

**TOOL:** Pliers



**STEP 24.** Re-install front and rear exhaust heat shields. Re-connect the exhaust and tighten exhaust flange (2) bolts securely. Insert O2 sensor wire back to its original secure position.

**TOOLS:** 14mm Wrench, 14mm Socket, 10mm Socket, Ratchet



**STEP 25.** Re-attach the (2) rubber exhaust hangers and the exhaust support plate. Bolt the (6) exhaust support plate bolts. Also, re-attach the (2) rear exhaust hangers located right before the muffler.

**TOOLS:** Socket (10mm) , Ratchet, and Extension.



**STEP 26.** Re-attach shift boot with a tie-strap ①.



**STEP 27.** Install the stock knob by pressing down firmly (**B&M Knob** ② is optional). Press down the shift boot bezel into the shifter console.

OPTIONAL: Stock OEM Knob may be used.



**STEP 28.** Install O-Ring (Knob) ③ onto Knob Insert ④.



**STEP 29.** Align and press Knob Insert ④ into **B&M knob** ②.

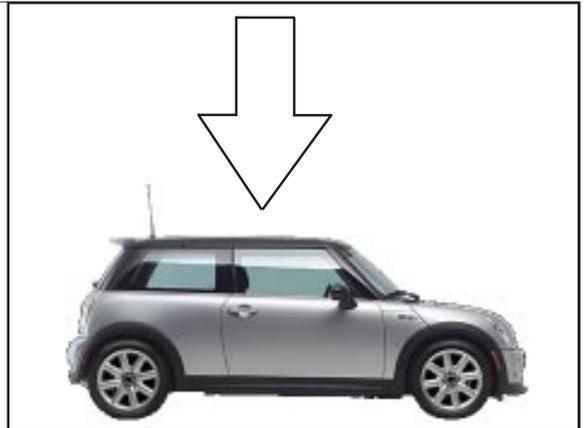


**STEP 30.** Test movement of shifter into all gears. DO NOT operate vehicle until all gears can be fully engaged smoothly.



**STEP 31.** Carefully raise vehicle, remove (4) Jack Stands, and lower vehicle.

TOOLS: Floor Jack, Jack Stands (4)



**STEP 32.** Be Safe and Enjoy!

