

INSTALLATION INSTRUCTIONS

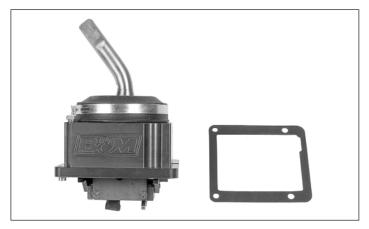
Part No. 45195

PRECISION MANUAL SPORTSHIFTER™

for 2005-2006 Jeep Wrangler TJ and 2007-2018 Jeep Wrangler JK with NSG370 manual transmission

> NOTE: FOR USE ONLY ON VEHICLES WITH NO TRANSFER CASE DROP OR BODY LIFT.

• If you do not understand any part of these instructions, please call **B&M Technical Support** for assistance.



REQUIRED ITEMS

- Rubber strap wrench
- Vehicle lift or jack; jack stands
- Heat gun or blow dryer
- Plastic trim tools

PARTS LIST

DESCRIPTION	QTY
SHIFTER ASSEMBLY	1
GASKET, SHIFTER	1

BEFORE STARTING

This kit is not compatible with vehicles with lowered transfer cases or lifted bodies.

Take a moment to read and understand the instructions for your vehicle. TJ instructions start on this page; JK instructions start on p. 5.

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

We recommend that you retain all factory parts.

WORK SAFELY! Park the vehicle on a clean, level surface. Turn the ignition switch OFF. Chock the wheels, and set the parking brake before starting. Before working under the vehicle, support it with jack stands. NEVER work under a vehicle that is supported only with a jack.

NOTES

- Installation requires moderate mechanical skill. If this job is beyond your abilities, seek the services of a qualified technician.
- The shifter mechanism is precision-assembled at our factory. Any modification or disassembly of the shifter will void its warranty, and may cause it to malfunction.

2005-2006 (TJ) MODELS

REMOVE THE STOCK SHIFTER



Remove the shift-pattern insert from the shift knob with a plastic trim tool or a small, flat-tipped screwdriver.

> NOTE: Warming the knob with a heat gun or blow dryer will make it more pliable and help avoid chipping around the insert.



Remove the nut from inside the knob, then unscrew the knob from the stick.



3. Separate the shift boot bezel from the console, lift the boot over the lever, and set it aside.



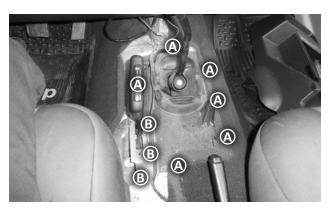
6. Remove the center console.



4. Remove the front console screw.



5. Remove the cup holder, then remove the rear console screw.



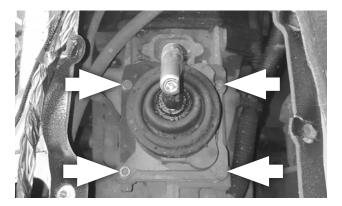
7. Remove the 9 screws shown: first, all 6 screws "A" around the floor pan cover; then 3 screws "B" at the transfer case shifter (2 on the right side and 1 at the rear).



8. Remove the shift lever screw, then pull the lever off the shifter. (Vise-grip pliers and a hammer may be needed.)

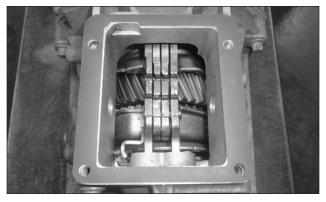


9. Remove the floor pan cover.

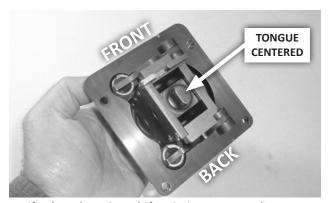


10. Make sure the shifter is still in NEUTRAL. Then remove its 4 mount screws, followed by the shifter.

INSTALL THE B&M PRECISION SPORTSHIFTER



11. Clean the shifter mount pad on the transmission and install the new **gasket.**



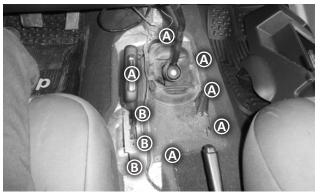
12. Verify that the B&M shifter is in NEUTRAL (its tongue is centered front-to-back). If not, use a flat-tip screwdriver to pry the tongue to center.



13. Install the B&M shifter using the stock screws.



14. Reinstall the floor pan cover, tucking the rear half of its left side under the transfer case shifter flange. Then install the shift lever on the shifter.



15. Reinstall the 9 stock screws through the floor pan cover and transfer case shifter flanges.



16. Reinstall the console with the 2 stock screws, then reinstall the cup holder.



17. Reinstall the leather boot.



Reinstall the shift knob, nut and shift pattern insert.
 Congratulations, your B&M Precision Sportshifter™ is now

installed and ready to enjoy!

2007-2018 (JK) MODELS

REMOVE THE STOCK SHIFTER



19. Open the center console storage lid, then pull the parking brake handle back fully (as far as it will go).



20. Put both the transfer case and transmission shifters in **NEUTRAL.** Then use a plastic trim tool to separate the bezels from the bottoms of the shifter knobs.



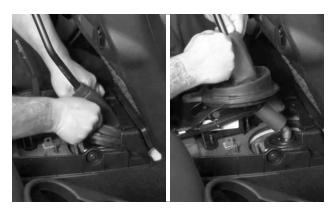
21. Pull each shifter knob straight off its lever. (A rubber strap wrench and dead-blow hammer may be needed.)



22. Grasp the cup holders and lift up sharply on the rear of the center console to detach it from the floor. Then lift the center console up and back, off of the shift lever.



23. Remove the sheet metal retainer by unscrewing it.
CAUTION: The retainer's edges are sharp. Use gloves to avoid injury.



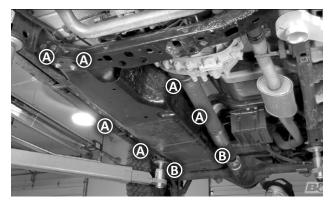
24. Separate the inner boot from the shifter hole, then remove it from the shift lever.



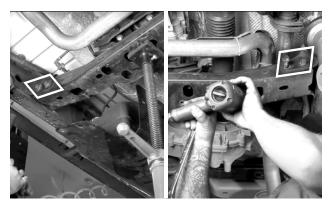
25. Remove the screw at the bottom of the shift lever, then pull the lever off of the shifter. (Vise-grip pliers and a hammer may be needed.)



26. Under the vehicle, remove the transfer case skid plate (4 screws as shown).



27. Support the fuel tank with a jack or jack stand. Remove the 6 front fuel tank screws "A" (2 at the crossmember, and 2 on each side of the tank). Then loosen — **do not remove!** — the last 2 screws "B" at the back of the tank.

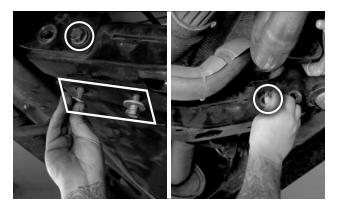


28. Lower the front of the fuel tank about 5 inches (to allow access to the passenger-side crossmember nuts). Support the center of the crossmember with a jack or jack stand, and remove the 4 crossmember nuts and bolts.



29. Lower the crossmember and transmission about 4 inches. Reach around both sides of the transmission and work the foam rubber seal up through the shifter hole in the floor pan. (If the seal gets damaged during removal, it is a low-cost replacement part available through any Mopar/Jeep dealer.)

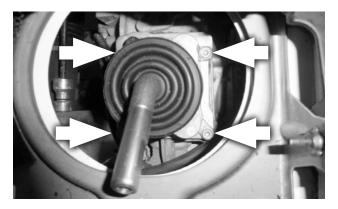
NOTE: It may be helpful to have an assistant working on the seal from inside the vehicle.



30. Raise the crossmember and transmission back into place, and temporarily reinstall 1 bolt and nut at each end of the crossmember. Then raise the fuel tank, and temporarily reinstall its two front screws (into the crossmember).

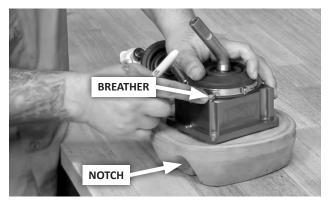


31. Inside the vehicle, remove the seal from around the shifter.

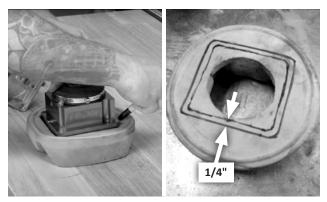


32. Make sure the shifter is still in NEUTRAL. Then remove its 4 mount screws, followed by the shifter.

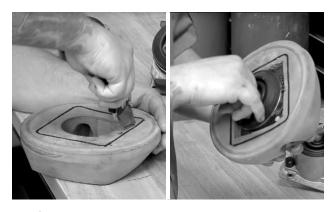
INSTALL THE B&M PRECISION SPORTSHIFTER



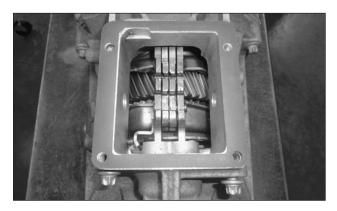
33. On a bench, place the B&M shifter on top of the foam rubber seal, aligning the brass breather with the notch in the bottom of the seal.



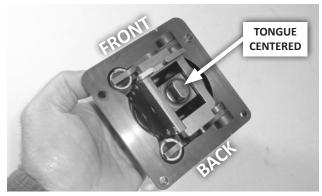
34. Trace the shifter's outline onto the seal. Then remove the shifter, and draw another square inside the first, about 1/4" smaller all around.



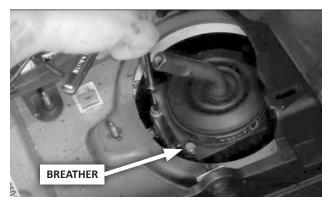
35. Carefully cut through the seal along the inner line, to allow the B&M shifter to fit snugly inside the seal.



36. Clean the shifter mount pad on the transmission and install the new gasket.



37. Verify that the B&M shifter is in NEUTRAL (its tongue is centered front-to-back). If not, use a flat-tip screwdriver to pry the tongue to center.



38. Install the shifter using the stock bolts. Note the location of the breather for Step 39.



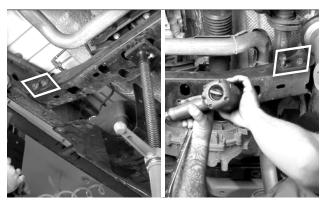
39. Reinstall the foam rubber seal over the shifter, carefully pressing it around the shifter as far as it will go.

NOTE: Be sure to align the seal's notch with the shifter's breather.

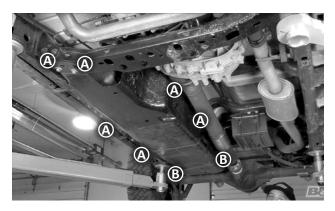


40. Under the vehicle, support the fuel tank and crossmember with jacks or jack stands. Remove the 4 temporarily reinstalled fasteners, lower the tank and crossmember 4-5 inches, and work the seal in around the shifter.

NOTE: It may be helpful to have an assistant working on the seal from inside the vehicle.



41. Raise and reinstall the crossmember (4 bolts and nuts). Verify all fasteners are properly installed, then remove the jack stand.



42. Raise and reinstall the fuel tank, reinstalling 6 screws "A," and tightening 2 screws "B". Verify all screws are properly installed, then remove the jack stand.



43. Reinstall the transfer case skid plate.



44. Inside the vehicle, reinstall the shift lever on the B&M shifter with the stock screw.

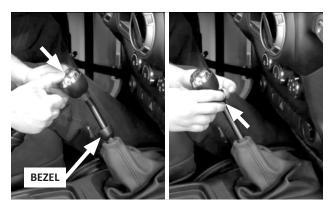


45. Slide the inner boot over the shift lever, work its tabs into the hole so that it sits flat, and reinstall the sheet metal retainer.

CAUTION: The retainer's edges are sharp. Use gloves to avoid injury.



46. With both the transmission and transfer case shifters in **NEUTRAL**, reinstall the center console.



47. Slide both shift knob bezels back onto their levers, press each shift knob onto its lever, then snap each bezels back onto the bottom of the knobs.

Congratulations, your B&M Precision Sportshifter™ is now installed and ready to enjoy!

KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

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

B&M TECHNICAL SUPPORT: (866) 464-6553

