

INSTALLATION INSTRUCTIONS Part No. 81184 TRANSFER CASE SHIFT KIT for the following Jeeps with 231 & 242 transfer cases: 1997-2006 TJ Wrangler • 2004-2006 LJ Wrangler Unlimited • 1984-2001 XJ Cherokee •

1986-1992 MJ Comanche



ITEM	DESCRIPTION	QTY
1	RANGE LEVER	1
2	FLOOR BRACKET	1
3	TRANSMISSION BRACKET	1
4	BUSHING	1
5	CABLE	1
6	CLEVIS (SET, INCLUDES CLEVIS PIN & COTTER PIN)	2
7	BOLT, 1/4-20 × 1"	4
8	WELL NUT, 1/4-20	4
9	WASHER, 1/4" I.D. × 1" O.D.	4
10	JAM NUT, 1/4-28	2

#### INTRODUCTION

This B&M Transfer Case Cable Shifter replaces the problematic stock Jeep "Z-link" shift mechanism with a smooth, reliable push-pull cable. This kit is especially suited for Jeeps with engine / transmission conversions, suspension lifts, and / or body lifts.

Before starting, take the time to read and understand these instructions.

Also, 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.

### NOTES

- Installation requires minimum mechanical skill. If this job is beyond your abilities, seek the services of a qualified technician.
- If you do not understand any part of these instructions, please call **B&M Technical Support** for assistance.
- WORK SAFELY! Park the vehicle on a clean, level surface, and support it on jack stands so that all four wheels are off the ground. This will help both during installation, and when checking adjustment.

CAUTION: NEVER work under a vehicle that is supported only by jacks!



# **REMOVE THE STOCK SHIFT MECHANISM**

The appearance of shift mechanism components (brackets, rods, and pivot shaft) varies among Jeep models, so your stock components may look different from those shown in the removal photos. But all "Z-link" mechanisms have the same basic components as described in **Fig. 1**.



**1.** Loosen the driver-side carpet sufficiently to expose the 4 floor bracket bolts and washers, then remove them.

**NOTE:** Bolt access differs among Jeep models. Refer to your vehicle's service manual for instructions.



2. Pull the floor bracket off the pivot shaft to ease removal of the remaining mechanism.



3. Remove and retain the nut and washer securing the range lever to the transfer case selector shaft, then pull the lever off of the shaft.



4. Pry the shifter rod end and rubber grommet out of the shift lever. If the grommet does not come out with the rod end, remove it separately.



5. Remove the transmission bracket, and retain the attaching hardware.



**6. Remove the assembled transmission bracket,** pivot shaft, and linkage rods from the vehicle.

#### **INSTALL THE B&M CABLE SHIFTER**



7. Push the 4 well nuts [item 8] through the back side of the floor bracket [2] as shown.



8. Assemble the cable [5] and transmission bracket [3] as shown. Pull the large dust boot off the joint to allow removal and installation of the jam nut. Situate the bracket in the middle of the threaded section, and run the nuts finger tight against it. Then push the dust boot back over its joint.



**9. Install the jam nut [10] on the cable end.** Then install the clevis [6] a **minimum of 7 full turns** onto the cable, and run the jam nut up against the clevis finger tight.



10. Assemble the range lever [1] to the clevis using the clevis pin and cotter pin. Note the orientation of the selector shaft slot (though this can easily be adjusted at final installation if the clevis should rotate during installation).



**11.** At the other end of the cable, remove the large jam nut and 2 washers, and set them aside. Then run the other nut down to the end of the threads.



**12. Install the floor bracket** using 4 bolts [7] and washers [9]. Tighten the bolts until 5-6 threads protrude through the well nut.

**NOTE:** A helper may be required to install the bolts while the bracket is held in place under the vehicle.



**13.** Install the assembled transmission bracket and cable on the transmission-transfer case split-line.

**NOTE:** The B&M bracket may attach at different points than the stock bracket. Reinstall any unused bracket hardware as required.



**14.** Attach the range lever to the selector shaft using the stock nut and washer. Then tighten the jam nut against the clevis.



**15.** Install 1 washer (removed at Step 11) on the cable housing. Then route the cable forward along the transmission and back through the floor pan bracket, toward the shift lever. Avoid any obstacles (such as wiring harnesses, fluid lines, the transmission shift mechanism, etc.).

**CAUTION: Do not kink the cable.** Minimum bend radius is 8 inches.



**16. Install the second washer and jam nut on the cable housing.** Center the bracket in the middle of the threaded section, run the nuts finger tight against it, and push the dust boot back over its joint.



**17. Install the jam nut [10],** then install the clevis only [6] (no clevis pin or cotter pin), turning it a **minimum of 7 full turns** onto the cable.

**NOTE:** When installation and adjustment is complete, each clevis must have at least 7 threads engaged.



**18.** Before adjusting the cable, verify that the shifter handle is in the "2H" position (fully lowered), and that the range lever is moved fully-forward.



**19. Install the bushing [4] in the shift lever.** A dab of grease or RTV will keep it in place until the clevis is connected.



**20.** Adjust the cable length as required, until the clevis pin moves freely in and out of the clevis and shift lever bushing. Then finger-tighten the jam nut.

**NOTE:** If the clevises reach their 7-thread minimum engagement but more cable length is required, turn the floor bracket jam nuts away from the cable end.

**21. ADJUSTMENT CHECK:** With the clevis pin installed, and all 4 wheels off the ground, move the shifter handle through each position. Check the driveshafts in each position, to see whether or not they are engaged with the transfer case as described below. Adjust the cable if necessary.

POSITION	FRONT SHAFT	REAR SHAFT
2 High	Disengaged	Engaged
4 High	Engaged	Engaged
Neutral	Disengaged	Disengaged
4 Low	Engaged	Engaged



**22.** After verifying adjustment, tighten the large jam nuts at both brackets, and the small jam nut at the shift lever clevis.



23. Install the cotter pin in the shift lever clevis pin.



**24.** Verify that the cable is situated safely between the transmission and floor pan, and that it's not interfering with any moving parts.



25. Return the driver-side carpet to its place.

Congratulations, your B&M Transfer Case Shift Kit 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**

