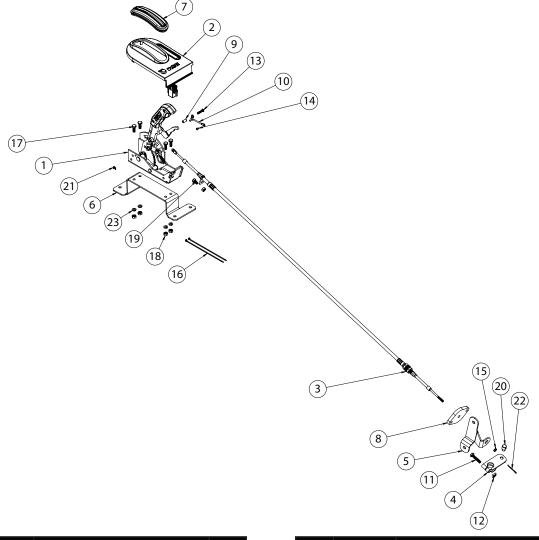
# BESTA Performance & Off-Road

## **Installation Instructions**

# 81177 2007-10 JEEP WRANGLER JK 3.8L ENGINE



ITM#	PART #	DESCRIPTION	QTY.
1	4001826	Shifter Assembly	1
2	4001834	Console Cover	1
3	4000991	Race-Spr DTY 4 ft Cable	1
N/A	81177BA	Hardware Package includes:	1
4	4001811	Cable Jeep 42RLE Lever	1
5	4001812	Cable Jeep 42RLE Bracket	1
6	4001813	Mounting Bracket	1
7	4001816	Console Boot	1
8	4101396	Cable Weather Seal	1
9	4001843	Linkage Spacer	1
10	4001844	Linkage Indicator	1
11	3401631	¼-20 x 1¾" Screw	1

ITM#	PART #	DESCRIPTION	QTY.
12	3401632	1/4-20 Square Nut	1
13	3401634	10-24 x %" Hex Screw	1
14	3400724	Plastic Push Rivet	1
15	3400636	Hex #10-32 Nut	1
16	5000250	6" Tie Cable	2
17	3400226	1/4-20x3/4 Hex Zinc Screw	4
18	3401555	1/4-20 Nut SS	5
19	3400104	1/4-20x1/2 Hex GR5 Screw	1
20	1940005	Cable Pivot	1
21	3400115	E-Clip	1
22	3400119	⅓ <sub>6</sub> x 1.0 Cotter Pin	1
23	3401557	1/4" Split Lock Washer	4

#### **PRODUCT FEATURES:**

PARK BRAKE INTERLOCK: This feature is a safety mechanism which prevents driver (with key on) from shifting out of "PARK" without first depressing the brake. On this B&M shifter, the trigger lever will take the place of the park brake interlock function. Make note of this before you go on your first test drive after completing installation.

**REVERSE LOCKOUT:** On typical B&M racing shifters, this feature is a safety mechanism which prevents driver from shifting into reverse once neutral or any forward gear has been selected. On this B&M shifter, the trigger level performs the reverse lockout function. Make note of this before you go on your first test drive after completing installation.

#### **OVERVIEW:**



 Take a moment to read and understand these instructions before installing your B&M Console Pro Stick Shifter.

**NOTE:** Please inventory all parts now before continuing and if necessary, report any missing items to our tech line. This will avoid potentially stranding your vehicle until any missing replacement parts arrive.

2. Raise vehicle up on a hoist or rack to working height. If you don't have access to a hoist or rack, support vehicle with jack stands.

#### **WARNING:**

Avoid serious burns! Allow vehicle time to cool completely before handling any stock components.

#### PREPARE VEHICLE CAB FOR INSTALL:



3. Set transfer case shifter into "4H" then remove handle from stem by pulling directly upward.



4. Open console compartment lid then release console top and remove it up and off of shifter.



Remove screws (x6) from each side securing lower console and retain them for later use.

**NOTE:** The two forward screws are different from the remaining screws fastening console back portion.



Remove console case from vehicle and set it aside for later use.



9. Remove and retain nuts (x4) securing shifter to transmission tunnel.



 Unseat park-interlock cable connector from shifter assembly, release locking tab then disconnect cable and move it aside. Lift cable from notch under shifter.



10. Remove shifter assembly from vehicle.





 Unseat gearshift cable connector from shifter assembly then disconnect cable from shifter passenger side. Release locking tab using flat screwdriver. Finally, disconnect wire harness from shifter.



**NOTE:** If key is locked in ignition, the retainer may have been opened on key interlock. To solve this; compress spring, remove key, then release spring. Compress spring again just enough to allow a little travel, then press retainer firmly into place. The ignition should now function normally.





11. Beneath center controls, remove nuts (x2) then lift shift cable seal off of studs. Retain nuts for later use.

#### PREPARE UNDER VEHICLE FOR INSTALL:



12. Under driver side front of vehicle, remove bolts (x4) to disconnect front drive shaft from front axle.



13. Pull shifter cable end down, off of transmission lever, then release collar from bracket by pinching spring clamp.

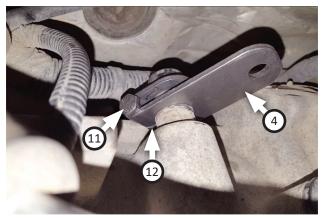


14. Remove bracket from transmission. Retain fasteners for later use.



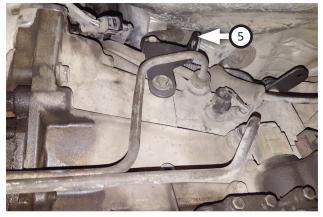
15. Loosen screw then remove cable lever from transmission.

### **INSTALL CONSOLE PRO STICK SHIFTER:**



16. Install cable lever (4) onto transmission then use screw (11) and square nut (12) to fasten it.

**NOTE:** The cable lever upper hole has a flat spot for indexing shift shaft, so make sure shaft protrudes through top of lever.



17. Install cable bracket (5) using fasteners (x2) removed step 14.



cable (3), then put cable weather seal (8) onto it.



18. Move back into vehicle cab, then carefully pull factory shifter cable out through entry point under center controls.

**NOTE:** Twisting cable as you pull can help remove it.



21. Route threaded end of cable down through entry point under center controls.



19. Separate shift cable seal plate from shift cable and retain it for later use.



22. Under vehicle, use (x2 ea.) nuts and washers to secure cable through cable bracket. Position bracket in middle of threads as shown, then reinstall remaining components (removed step 20).



23. Thread **nut (15)** and **cable pivot (20)** onto cable, approximately to middle of threaded cable end.



26. Fasten **shifter assembly (1)** to mounting bracket using (x4 ea.) **screws (17)**, **split lock washers (23)** and **nuts (18)**.





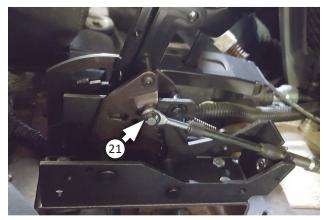
24. In vehicle cab, fit shift cable seal plate (removed step 19) onto cable and fit it over cable weather seal then fasten it down using nuts (x2) (removed step 11).



27. Set cable in front shifter notch then secure it in place using **screw (19)** and **nut (18)**.



25. Fasten **mounting bracket (6)** to shifter location using nuts (x4) (removed step 9).



28. Fit cable onto side of shifter assembly and secure it in place using **e-clip (21)**.

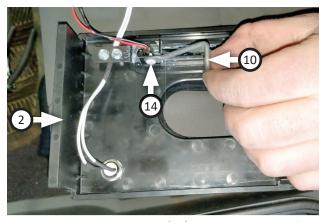


29. Set console case (removed step 6) over shifter then mark locations where cable touches it.

Remove case and trim marked locations, then reinstall it to check modifications.



30. Remove console case then use **tie cables (x2) (16)** to secure factory cable to electric wiring.



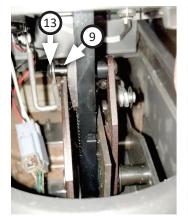
32. Install linkage indicator (10) onto bottom side of console cover (2) using push rivet (14) to secure it to small hole, oriented as shown.



31. Install console case (removed step 6) using fasteners (x10) (step 5), then install console top (step 4). (As shown in following picture)



33. Connect console cover connector to factory cable but do not close console cover yet.





34. Working under console cover, insert screw (13) through linkage indicator, linkage spacer (9) and into shifter assembly. Tighten screw to secure all components then close console cover.



35. Place **console boot (7)** over shifter assembly and fit it into place in console cover. Move shifter into "Neutral".



36. Under vehicle, pull cable lever back twice to put it into neutral position. If necessary, thread cable pivot in or out until it fits down into cable lever.



**NOTE:** This image displays bracket location for step 37.



**NOTE:** As you verify cable and shifter positioning, make sure each gear has no bind except for "Park", which will have a small bind. Go through each gear multiple times until you are fully satisfied with operation of shifter.

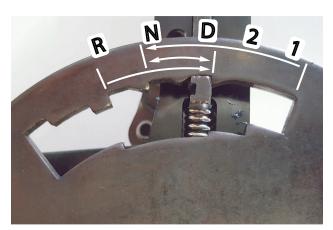
37. You can now make fine adjustments to your cable at bracket location, moving nuts towards either end until "Neutral" feels correct. Then check cable position and shifter position in "Drive", "2", "1", "Reverse" and "Park". Once satisfied that your shifter is working smoothly, secure cable using cotter pin (22).



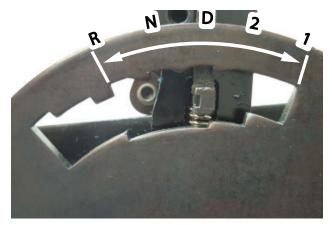
38. Your gear indicator illuminates when you turn on your headlights. If you prefer it light up with ignition; disconnect L.E.D. power supply from connector, lengthen wiring, then connect it to a keyed power behind dash (reference fuse cover diagram).

#### **OPERATING CONSOLE PRO STICK SHIFTER:**

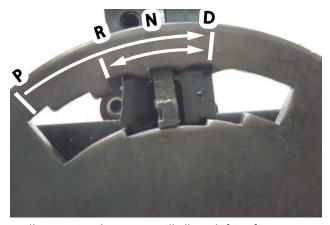
The B&M Console Pro Stick Shifter is designed with offroad utility specifically in mind. In particular, the gated shifter and trigger mechanism make selecting between certain gears easier which can help a driver traverse tough terrain. Read and understand the following operation details before you take your vehicle for a drive and engage your Pro Stick Shifter.



Without engaging the trigger, you can shift easily between "Neutral" and "Drive", from "Reverse" through to "Drive" or from "1" through to "Neutral".



You will need to partially engage the trigger when shifting to park. If fully engaging trigger while pulling backward from "Drive"; driver will encounter a positive stop in "2" to avoid gearing down too rapidly.



Fully engaging the trigger will allow shifting from "Park" to "Drive" and from "Drive" to "Reverse", which can be very useful, particularly when escaping ruts, deep snow and mud.



Congratulations, the installation of your B&M Console Pro Stick Shifter now complete!

