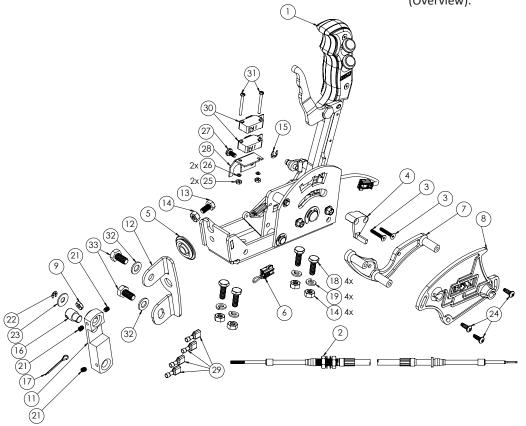


# **Installation Instructions**

# 81188

# SWAP SHIFTER UNIVERSAL FIT: NAG1/W5A580/WA580

Additional installation requirements located on page 2 (Overview).



ITM #	PART #	DESCRIPTION	QTY.
1	4001949	Magnum Grip Pro Stick Shifter	1
2	4000991	4 ft Cable	1
N/A	81162BA-01	Hardware Package includes:	1
3	3401719	6-32 x % Screw	2
4	4002007	Sensor Pin	1
5	4101414	Rubber Grommet	1
6	5000069	Park Jump Assembly	1
7	4001945	Switch Bracket Base	1
8	4001946	Switch Bracket Carrier	1
9	3400636	#10-32 Hex Nut	1
10	3401158	Red Thread Lock	1
11	4001857	Cable Lever Adapter	1
12	4002010	Cable Bracket	1
13	3400104	1/4-20 x 1/2 Screw	1
14	3401555	1/4-20 Nut	5
15	3400115	Retainer Ring	1
16	1940005	Cable Pivot	1

ITM #	PART #	DESCRIPTION	QTY.
17	3400119	⅓ <sub>6</sub> x 1 Cotter Pin	1
18	3400226	1/4-20 x 3/4 Screw	4
19	3401557	1/4" Split Lock Washer	4
20	5000250	6" Zip Tie	2
21	3401547	10-32 x ¼ Cup Point Set Screw	3
22	3401661	External Retaining Ring	1
23	3401662	.255 ID, .687 O.D. Disk Spring	1
24	3401717	#8 x ½" Screw	3
25	3400098	Hex Nut	2
26	3400185	Split Lock Washer	2
27	3400406	10-24 x % Slot Pan Screw	1
28	4000579	Mounting Bracket	1
29	5000298	1/4" Blue Electric Terminal	4
30	5000173	Micro Switch	2
31	3401625	4-40 x 1 1/8" Screw	2
32	3401200	5/16" Flat Washer	2
33	3401725	M8-1.25 x 16MM Screw	2

# **OVERVIEW:**

**CUSTOMER REQUIRED COMPONENTS:** This swap shifter is designed to interface with a required electronic gear position module found in factory shifter assemblies 4578584AD and 4779653AG, found in vehicles 2008-2014 Charger, Challenger, Chrysler 300 and 2008 Dodge Magnum (V6 & V8).

**RECOMMENDED:** Use a matching ECU and gear position module from the same car.

# **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.



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

**NOTE:** Please inventory all parts before starting the installation process and call our tech line to report any missing parts. This will help avoid potentially stranding your vehicle until any missing replacement parts arrive.

# PRODUCT ASSEMBLY ON-BENCH:



2. Remove retainer from corresponding powertrain shifter then pull pin securing components.



3. Remove stick assembly from housing, then disconnect all connectors (plus one inside front).



4. Press tabs and remove gear position module from shifter housing.

**NOTE:** If you wish to install micro switches, complete step 5 through 9, otherwise, skip to step 10.





 Assemble (x2) micro switches (30) to mounting bracket (28) using (x2 ea.) screws (31), split lock washers (26) and nuts (25) orienting them properly as shown.



6. Attach micro switch assembly to **shifter (1)** with **slot pan screw (27)**.



**NOTE:** Do NOT overtighten micro switch screws or you can crack the case.

7. To adjust, set shifter into "PARK", then slide switches in until you hear a click. Tighten screws just enough to hold them in place.



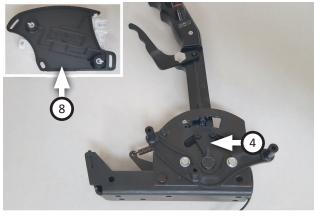
8. Using multi meter, check for continuity of each switch. Follow diagram in next step to verify.

GEAR	UPPER SWITCH	LOWER SWITCH
PARK	OPEN	COMPLETE
REVERSE	COMPLETE	OPEN
NEUTRAL	OPEN	COMPLETE
DRIVE	OPEN	OPEN

9. Verify each gear according to diagram above, then tighten screws completely.



10. Remove (x2) screws from gate plate then use them to attach **switch bracket base (7)**.



11. Snap gear position module into switch bracket carrier (8) oriented properly. Fasten sensor pin (4) to shift stick through slot using (x2) screws (3).



12. Fasten carrier onto shifter using (x3) screws (24). Thread in all screws only partially to allow for later bracket adjustment.



13. Connect shift buttons into gear position module rear then plug **park jump (6)** in to front.





14. The shifter handle can break down to fit through narrow consoles. To do this, remove (x2) screws and driver side grip plate, (x2) screws through sub plate and passenger plate. Floss grip plate through drivers side sub plate. After fitting assembly through console, re-assemble handle.

# **VEHICLE PREPARATION FOR INSTALL:**

15. 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:

For maximum safety, perform this installation on a clean, level surface with engine turned off.

16. Remove factory shift linkage.

**COLUMN SHIFTERS:** Remove all rods, levers or cables from column and transmission. Place column shift lever in PARK position. Remove pin holding shift lever in column and remove lever assembly. If your vehicle is equipped with a locking steering column, secure column lock lever in full up position.

**CONSOLE SHIFTERS:** Remove shifter mechanism from console. Disconnect rod or cable from transmission. Remove cable bracket if equipped. If there is a cable or linkage from console shifter or transmission to steering column lock, it must be secured in PARK position as described above.

**SWITCH WIRES:** While removing stock shift linkage, look for neutral safety and/or backup light switches and wiring. Label any such wires to simplify installation.

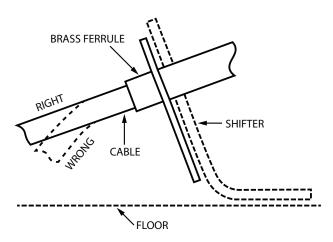
17. Locate shifter in your vehicle. Pull carpet (if any) away from floorboard where shifter will be mounted. Vehicles equipped with factory console shifter location will be determined by console. Ensure that shifter has proper range of motion and is comfortable. If vehicle has a bench seat, move it full forward then place shifter on floor, locating it for ease and convenience of operation. Make sure shifter clears dash and all other components. Maintain about one inch between seat and shifter in its tightest position.

Once satisfied with position of shifter, mark location of (x4) mount holes on floor.

18. Drill (x4) %2" mount holes through floor. Put shifter in place and temporarily hold it with (x4) %-20 × 1%" bolts.

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

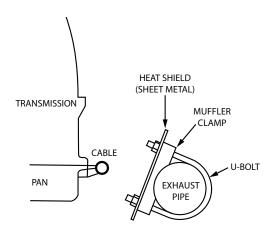
19. Locate shifter cable hole for ideal cable routing: Mark center for cable hole at least 4½" from front of shifter base, and in line with shifter's cable notch. Drill or cut a 1" hole for provided grommet.



# **CAUTION:**

Do not kink cable anywhere along its length, or it will lock up. The cable should be kept straight for at least 2" after it leaves the brass ferrule at each end.

20. Route cable based on your application. Avoid sharp bends that kink or otherwise damage cable. Use your own clamps/cable ties to keep cable housing away from exhaust, engine, or moving parts.



#### **CAUTION:**

Heat will severely damage shift cable, causing housing to melt or become brittle. If cable must be routed near exhaust system components, fabricate a heat shield. Do not wrap cable, as this retains heat.

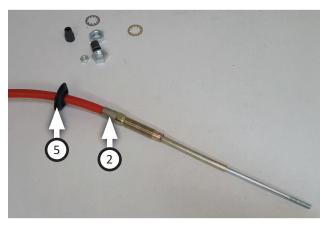
21. Once cable route is determined, temporarily return carpet to its original position, cut out shifter mount holes and cut suitable slit for cable. (Do not use a drill bit to make holes in carpet.)





22. Disconnect any factory cable components.

# **INSTALL CONSOLE PRO STICK SHIFTER:**



**NOTE:** Orient cable weather seal relative to cable.

- 23. Remove parts from threaded end of **cable (2)**. Then press **cable weather seal (5)** onto cable.
- 24. Route threaded end of cable down through entry point in cab out to bottom side of vehicle.





25. Apply thread locker then fasten (x3) set screws (21) almost fully into cable lever adapter (11).









**NOTE:** Complete this step as described in note below, depending on whether your pivot point on factory transmission lever is taller, shorter or bigger diameter.

26. Place cable lever adapter onto transmission lever and secure it by tightening set screws fully.

**NOTE:** Secure short pivot point using **retaining ring** (22) only. Secure tall pivot point using both **disk spring** (23) and **retaining ring** (22). Secure wide diameter pivot point by simply tightening set screws.



27. Fasten **cable bracket (12)** onto transmission using (x2 ea.) **flat washers (32)** and **bolts (33)**.

28. Route cable end over transmission. Thread nut and locking washer (removed step 16) onto shifter cable then insert cable through bracket.



29. Thread locking washer, **nut (9)**, cable cap and remaining nut onto cable as shown.

- 30. Install shifter in vehicle. Slide cable through carpet and hole drilled for grommet in floor. Then bolt shifter to floor using (x4)  $\frac{1}{4}$ -20 × 1 $\frac{1}{4}$ " bolts, lock washers and nuts. (If you've installed optional QR mount bracket, pin shifter to bracket.)
- 31. Set shifter cable into notch and fasten it to shifter with hex screw (13) and nut (14). Put shifter cable end onto shifter plate then secure it using retainer ring (15).

32. Connect any necessary wiring to shifter.



- 33. Set **cable pivot (16)** onto end of shifter cable then insert pivot into cable lever adapter.
- 34. 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. Make adjustments at bracket and adapter.

**NOTE:** Once adjustments under vehicle have been made, secure pivot to adapter with **cotter pin (17).** 

- 35. Verify cable and shifter positioning, making 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. Fasten cables using (x2) zip ties (20).
- 36. Verify that gear indicated by gear selector module matches gear selection of shifter. If not, adjust PRND switch as necessary until it does, then completely tighten screws (installed step 27) to tighten parts.

**NOTE:** Do NOT proceed until you are completely satisfied with the operation of your shifter. Reference "Operating Console Pro Stick Shifter" section for additional help.

If desired micro switches can be wired in to run back lights or other accessories on factory harness.

Tape or heat-shrink terminal-wire connections for added protection of the crimps. Connect backup light wires to UPPER switch (see install micro switches).

- 37. Verify switch function: Reconnect battery ground cable. Check backup light switch by verifying backup light is on only when shifter is in REVERSE. If required, adjust backup light switch as described (see install micro switches).
- 38. If your car is equipped with console, re-install it now

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

# **OPERATING CONSOLE PRO STICK SHIFTER:**



- To use the manual shift function, put shifter into "Drive" then press buttons on side plate grip to shift up or down.
- Without engaging the trigger, you can shift easily between "Neutral" and "Drive".
- Partially engage the trigger when shifting to park.
- Fully engaging the trigger will allow shifting between "Drive" and "Reverse".

