

## ASSEMBLY INSTRUCTION SHEET

Page Rev. Date: 09-15-14

# EXPLORER/BRONCO II ATLAS 4SP. SHIFTER

### KIT CONSISTS OF:

No.	Qty	Part No.	Description
1.	1 kit	302010	ATLAS BAGGED HARDWARE KIT
2.	1 kit	302011	ATLAS BOOT & KNOB KIT
3.	1	302051	TWIN STICK BASE MOUNT
4.	10"	303100	3/8" HEAT SHRINK
5.	1	303120	HEX LOCK NUT 1/2"-13 PLATED
6.	1	303134	TWIN STICK HANDLE FRONT
7.	1	303135	TWIN STICK HANDLE REAR
8.	1	303143	TWIN STICK EXTENSION TUBE 8.750"
9.	1	303144	1/2"-13 x 12.5" STUD BOLT
10.	2	723771	3/8"-24 x 9" ALL THREAD GRD 5

Additional parts boxed with shifter kits, but part of Atlas T/C assembly.

1.	5	720037	10mm-1.5x35mm
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Floorboard clearance for the shifter linkage is required.



### NOTE:

**For the complete shifter installation procedures, please refer to the Final Installation section located in the Atlas manual.**



A new hole must be cut into your floorboard to fit the new handle assembly.



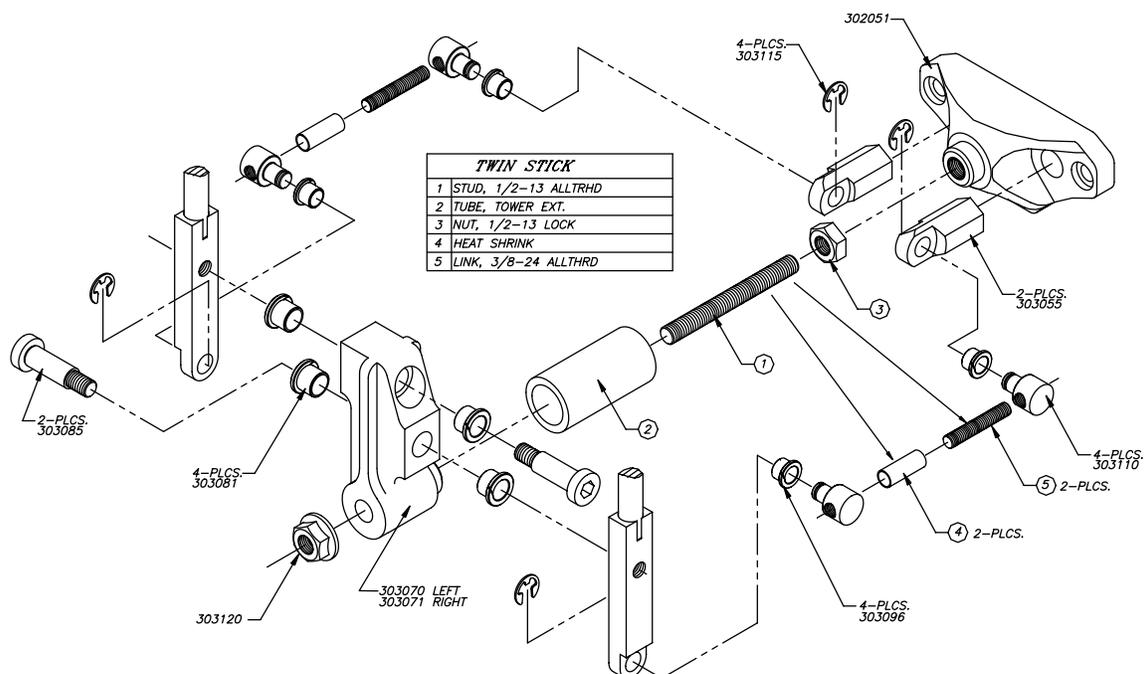
The Atlas boot and handle assembly installed. The carpet must be modified to fit over the shifter assembly.

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Page Rev. Date: 09-15-14

### SHIFTER INSTALLATION (2sp and 4sp main case)

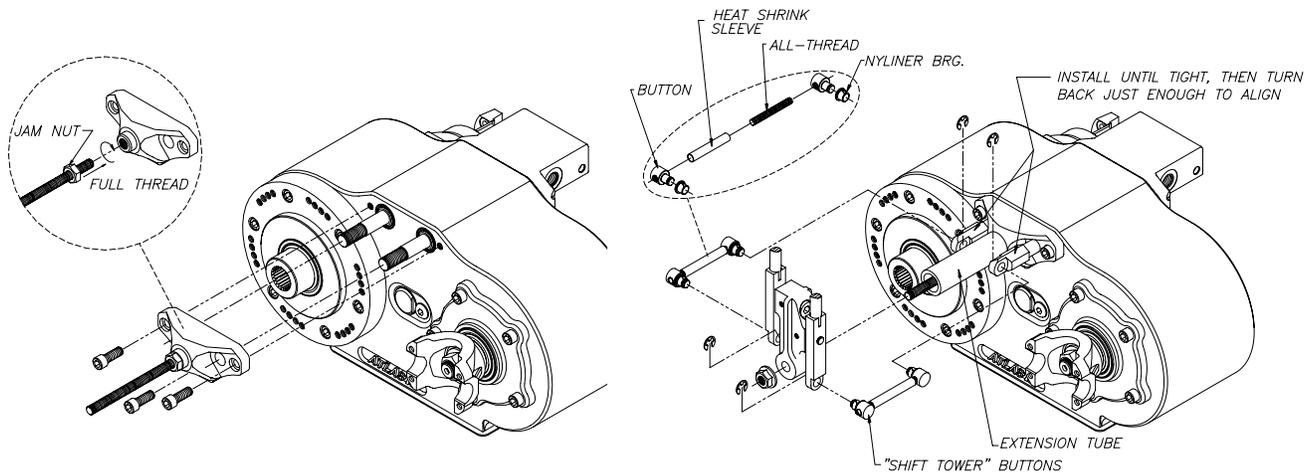
1. Install the shifter base to the face of the Atlas using the three S.H.C.S. 3/8"-16 x 1". These bolts have a sealant patch that will prevent leakage on the threads. This should be done before the Atlas is installed into the vehicle.
2. Install 1/2"-13 all-thread and jam nut to the shifter base.
3. Slide the shifter tower along the all-thread stud until the shifter arms are at the center of your stock floor cutout.
4. Measure between the tower and the base to obtain the correct extension tube length.
5. Remove the tower and install the extension tube.
6. Assemble the shift handles to the shift tower.
7. Install the shift tower assembly to the extension tube using the lock nut on 1/2"-13 all-thread to secure.
8. Install the brass shift rod ends to the Atlas shift rods. Teflon tape should be used on the threaded portion of the shift rod.
9. With the Atlas in neutral and the shift handles parallel with the shift tower, measure the distance for the linkage rods.
10. Connect the shift buttons and heat shrink tubing to the 3/8"-24 all-thread at the distance measured. Make sure that the all-thread is flush with the outside edge of the shift button. Cut all-thread if necessary.
11. Assemble the linkage rods to the shift handle and brass portion of the shift rod and verify the shift handles are parallel to the tower.
12. Install the e-clips to retain the buttons to the mating parts.
13. Make sure the brass shift rod ends are not too tight. They should be finger tight.
14. Modify the floorboard if necessary.
15. Install the rubber boot and boot ring to the floorboard. (Note: On some twin stick configurations, the boot ring may need to be cut in order to fit around the Atlas twin sticks).



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Page Rev. Date: 09-15-14

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Atlas shifter problem check list: When installing the twin stick shifters, there are a few key areas that must be addressed. One of the most common difficulties we hear is that "my unit isn't shifting fully into one of the gear ratios". Incorrect adjustment of the shift handles to the linkage rods is normally the cause. With both shift rods in neutral, the linkage rod (connected to the shift handles) must be parallel with the aluminum shift tower. Refer to the photo left.



Another concern that we've heard is that "my Atlas seems to be hard to shift". This problem could be one of two areas. The brass shift rod ends that the shifter linkage rods connect to are too tight, causing a binding effect on the shifter linkage. The brass shift rod ends should be installed until tight, then loosened enough to align to the shifter button.

If a unit has a tendency to pop out of gear, an area to check is proper floorboard clearance in relation with the shift handles. This problem mainly occurs on Jeep TJs, since floorboard modifications are required. Most reported problems have been overcome by simply providing additional clearance. The problem of popping out of gear can also be caused by incorrect alignment of the shifter handles as previously discussed and/or a unit in which the detent set screws have been loosened.

The last of the most common dilemmas we hear is that "the shifter linkage came apart while in operation". The area in question is the all-thread linkage rods. These rods fit into the two shift buttons. To prevent the all-thread from unscrewing out of the shift buttons, a portion of the heat shrink tubing should have been installed (o-rings on a TJ automatic). The heat shrink tubing or o-rings act as a jam nut to prevent the all-thread from unscrewing. **DO NOT** use a jam nut on these linkage rods because it will cause binding of the shifter linkage.