ADVANCE ADAPTERS, INC.

P/N: 303005L

ASSEMBLY INSTRUCTION SHEET

Page 1 - Rev. Date: 09-15-14

6" L-H DROP "ZJ" ATLAS 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.	1	302054	TWIN STICK EXTENSION TUBE 6"
5.	1	302076	1/2"-13 x 7-1/4" STUD BOLT
6	2	303075	3/8"-24 x 6.5" ALL THREAD GRD 5
7.	12"	303100	3/8" HEAT SHRINK
8.	3	303121	HEX JAM NUT 1/2"-13 PLATED
9.	1	303128	TWIN STICK LEVER (ZJ)
10.	1	303129	TWIN STICK LEVER (ZJ)
11.	1	302060	BOOT- TWIN STICK
12.	1	302063	BOOT RING- ATLAS TWIN STICK

The shift tower in this photo as shown would index onto the D.O.M. tubing and would fit a left drop case. Right drop cases would require the tower to be flip to the other side to index over the D.O.M. tubing.

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

As of January 1, 2005, we have changed the design of our shifter tower. We no longer us a set of Zerk fittings on the tower and have omitted the white nylon bushings. The new design uses a Igus black bushing which does not require grease. These bushings are not interchangeable.

White bushings:	303080 (large) 4 required
	303095 (small) 4 required
Black bushings:	303081 (large) 4 required
	303096 (small) 4 required

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Stock hole width dimension.

The stock hole opened up at the sides for shift lever clearance.

We opened up the stock hole for side clearance and made a plate from 16 gage sheet metal to fill the front & back open space. We also used the stock shifter mounting holes to secure the new plate. A second boot was included to permanently mount to the floor positioned inside of the console boot. (On our application, we cut the top bellow off the inner floor boot.)

We chose the side-by-side twin stick configuration, positioned as far forward as possible. This gives you easy operation and eliminates confusion if the stock shifter plate were left in place.

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The plastic console was opened up by removing the center section of the support tabs. Notice the circled areas near the levers. You need enough room for the boot thickness, so remove the support lip and round the edge to the outer inside profile of the console slot.

An inside shot of the stock console opened up for lever & boot clearance, and new metal support plate with the tabs bent to secure it into position. **(See last page of this instruction sheet for template of new panel).**

With the metal plate in position and a new panel made from ABS to match the metal plate shape, the outer (cosmetic) boot can be installed. **(Note: A good source for the ABS textured plastic is usually found at your local stereo shop).**

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With the Atlas in neutral, adjust the links so that the levers are parallel to the shift tower casting at the lever pivot point.

The final installed componets with the Atlas transfer case in 2WD High position.

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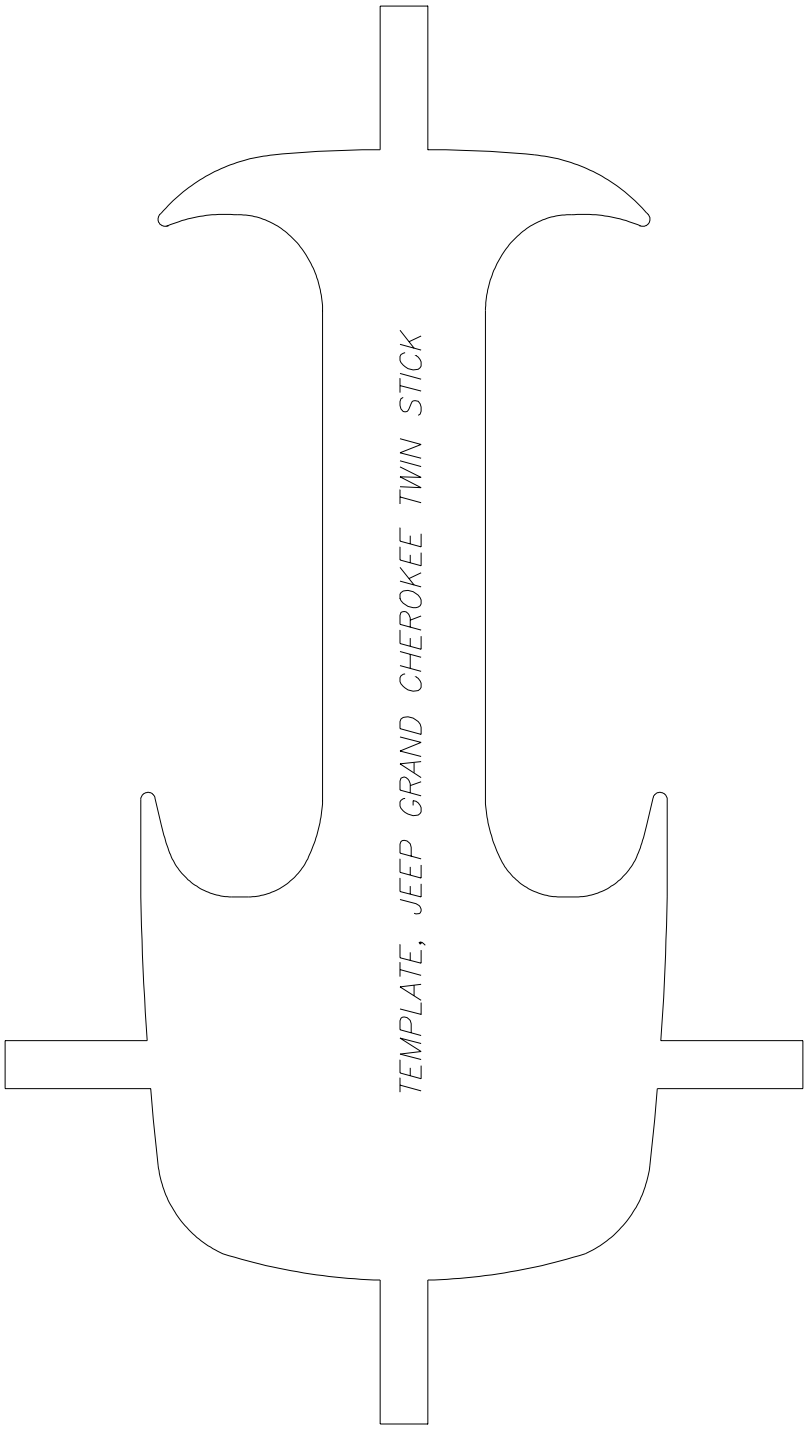
Template - actual size



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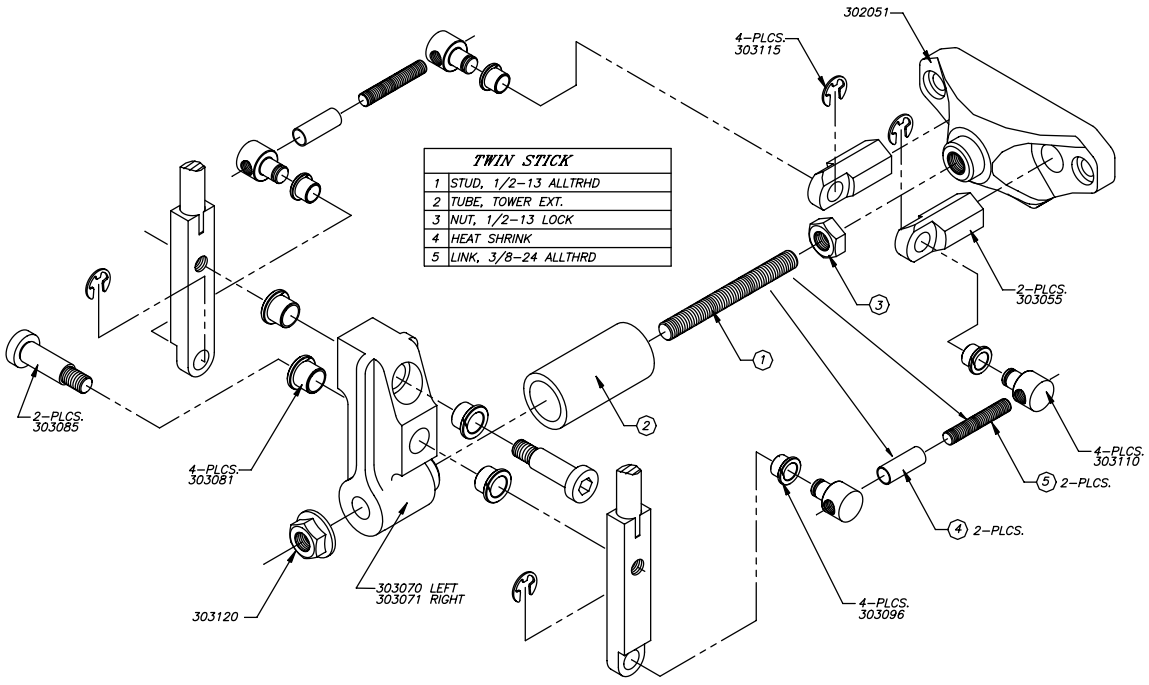
SHIFTER INSTALLATION (2sp and 4sp main case)

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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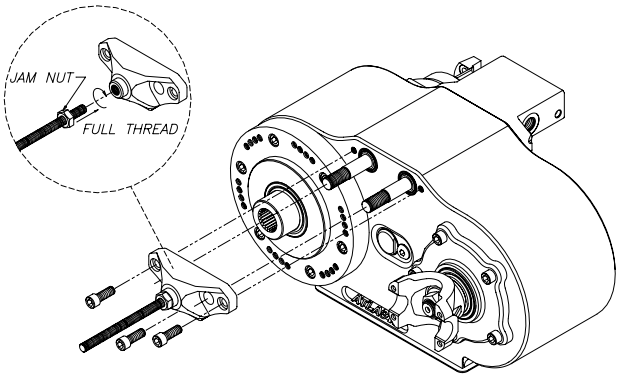

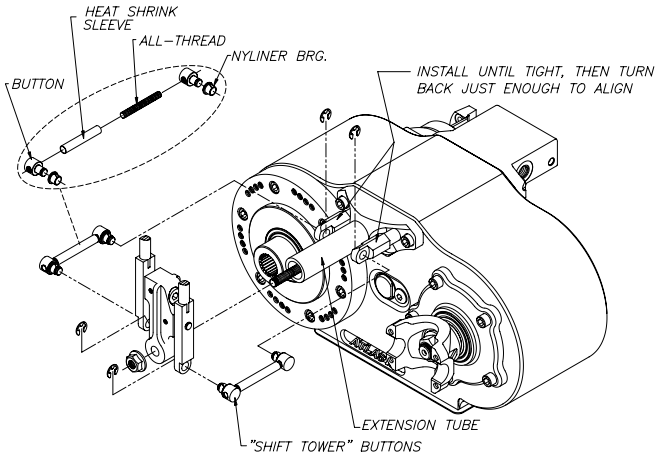

Atlas shifter problem check list: When installing the twin stick shifters, there are a few key areas that must be addressed. One of the most common difficulties we hear is that "my unit isn't shifting fully into one of the gear ratios". Incorrect adjustment of the shift handles to the linkage rods is 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.