

ADVANCE ADAPTERS INC.

P.O. Box 247, 4320 Aerotech Center Way

Paso Robles, CA 93447

Telephone: (800) 350-2223 Fax: (805) 238-4201

P/N: 303009A

New Item: (05/04)

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Page Rev. Date: 04-25-12

ATLAS TRANSFER CASE CABLE SHIFTER SOLD WITHOUT AN ATLAS

KIT CONSISTS OF:

No.	Qty	Part No.	Description
1.	1	302051	TWIN STICK BASE MOUNT
2.	1	302060	TWIN STICK SHIFT BOOT
3.	1	302061	FRONT SHIFT KNOB
4.	1	302062	REAR SHIFT KNOB
5.	1	302063	BOOTRING
6.	1	302080	1/2" - 13 x 7" ALL THREAD
7.	1	303120	1/2" - 13 SERRATED LOCK NUT
8.	3	303121	1/2" - 13 JAM NUT
9.	1	303301	SHIFTER BODY
10.	1	303303	BARREL RETAINER PLATE
11.	2	303304	SHIFTER HANDLE
12.	2	303305	CABLE BARREL
13.	2	303306	SHIFT RAIL ADAPTER
14.	1	303307	EXTENSION TUBE BRACKET
(THIS BRACKET HAS 3 CABLE SUPPORT HOLES, USE THE TWO THAT ARE IN LINE WITH THE MOUNTING STUD HOLE)			
15.	1	303308	EXTENSION TUBE 4.85" LONG
16.	2	303309	SHIFTER CABLE - 48" LONG
17.	1	303310A	PIVOT SHOULDER BOLT - 5/16" x 3"
18.	4	303312	HANDLE PIVOT BUSHINGS
19.	2	303313	1/4" FEMALE HEIM JOINT
20.	3	340615	1/4" - 20 x 5/8" BUTTON HEAD CAP SCREW
21.	1	722523	1/4" FLAT WASHER
22.	4	722546	#10 x 1" SELF TAPPING SCREWS
23.	1	723141	5/16" - 18 LOCKNUT
24.	3	723731	3/8" - 16 x 1" SOCKET HEAD CAP SCREW
25.	2	340617	1/4-28 X 1" SHCS (HANDLE TO HEIM BOLTS)

The shifter body, handles, and pivot bolt were updated 11-10-11. These items retained the same part numbers, but will not fit as replacement parts for older shifter units. If a replacement handle or body is needed then you will need the new style components. The old pivot bolt can be obtained from McMaster Carr.

SPECIAL NOTE: The components packaged in this kit have been assembled and machined for specific type of conversions. Modifications to any of the components will void any possible warranty or return privileges. If you do not fully understand modifications or changes that will be required to complete your conversion, we strongly recommend that you contact our sales department for more information. This instruction sheet is only to be used for the assembly of Advance Adapter components. We recommend that a service manual pertaining to your vehicle be obtained for specific torque values, wiring diagrams and other related equipment. These manuals are normally available at automotive dealerships and parts stores.

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Depending on the orientation of the shifter housing in the vehicle, the black shift knobs may be labeled backwards. Unfortunately, we are unable to get a small quantity of the black knobs with a shift pattern labeled opposite compared to the knobs included in this kit. We can offer a set of aluminum knobs which are labeled either way.



P/N 303152AA \$42.95 set

reverse pattern



P/N 303152 \$42.95 set



P/N 303150AA \$42.95 each



P/N 303150 \$42.95 each

This shifter will not fit the Allison transmission due to cable interference with the stock adapter housing.

standard pattern

NOTE ON THIS KIT: This kit is a universal-type cable shifter assembly. Mounting the shifter is left to the installer. The shifter can be mounted flush with the floor so that the cables exit underneath the floor, and the shift boot flange is bolted directly to the floor. Otherwise, the shift cables will need to be routed through the floor and the shifter bolted wherever you desire.

NOTE ON SHIFTING: The Atlas Transfer case is a synchronized unit. The transfer case shifts best when the shafts are spinning. Note that when the transfer case is shifted when not in motion, the teeth may or may not be aligned. If the teeth are aligned, then the unit will slip into gear easily. If the unit does not slip into gear easily, then no amount of pulling on the handle will cause the unit to shift. The transfer case must be spun slightly and then it will shift.

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ASSEMBLY

Transfer Case End:

1. Bolt the twin stick base to the transfer case with the 3/8"-16 socket head cap screws.
2. Thread the 1/2"-13 all thread completely into the twin stick base. Install the 1/2"-13 jam nut. Tighten the jam nut against the twin stick base.
- 2A. Thread the shift rail adapters completely onto the shift rails
3. Slide the extension tube and the extension tube bracket over the all thread and fasten with the 1/2"-13 serrated lock nut.
4. Insert the shift cable through the extension tube bracket and fasten by sandwiching the bracket between the two jam nuts. Repeat for second cable.
5. Thread the cable's inner rod completely into the threaded adapter that fits on the shift rails. Tighten the jam nut. Repeat for second cable.



Shifter End:

1. Remove 1 of the 5/8" jam nuts and the lock washer from each cable and discard.
2. Slide the Barrel Retainer plate over both shifter cables. Then thread both cable barrels onto the shift cables.
3. Now thread the heim joints onto the shift cables inner rod, and tighten the jam nuts. (This should look like the photo to the right.)
4. Using a mallet, hammer the pivot bushings into the shifter handles. Start the bushing into the handle, hold the handle with the bushing side down on the table, hit the top side of the handle with the dead blow hammer to install the bushing. Repeat for the remaining bushings.

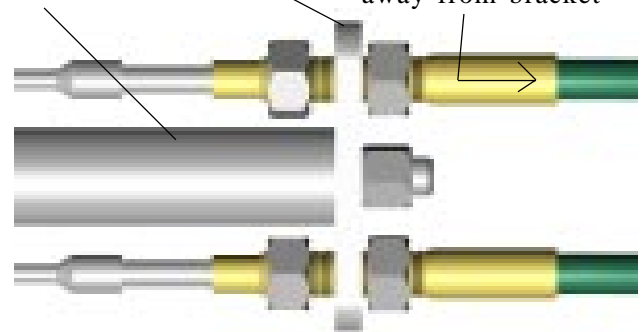


extension tube

extension tube bracket

pull cable housing away from bracket

Adjustments *IMPORTANT STEP: Shift the Atlas into low range. Next loosen the 1/2"-13 jam nuts to the far thread ends of the cable assembly. Pull the cable housing away from the Atlas. The forward nut should have an **INITIAL GAP of 1/8"** (SEE FIGURE BELOW). Next tighten the same nut up until it contacts the plate. With the nut flush against the plate, tighten 1/2 turn more. Then tighten the rear nut against the opposite side of the plate (REPEAT PROCESS FOR BOTH CABLES). **NOTE: If step this not completed properly the Atlas will not fully shift into gear.**



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5. Slide the cables into the back of the shifter body.
6. Orient the shifter handles so they bend away from each other, and slide the handles into the top of the shifter body.
7. Insert the pivot shoulder bolt through the shifter body and the shifter handles. Fasten with the 1/4" flat washer and the 5/16" locknut.



8. Slide the heim joint meet the tapped hole in the shift handle and insert the bolt from the bottom of the shifter box to secure the handles to the cables.
9. Slide the cable barrel retainer plate up the shifter body and fasten it with the 1/4"-20 button head cap screws.
9. First adjust the cables with the adjustment on the transfer case end by changing the position of the two 5/8" jam nuts. Fine tuning of the adjustment can be done from the passenger compartment of the vehicle with the shifter assembled in the following manner. Loosen the cable barrel retainer plate and the shift cable 5/8" jam nuts. By rotating the cable barrel in either direction, the cable adjustment will change. The twin stick handles should be straight up and down within the shifter body while the Atlas is in neutral. When the shifter is adjusted properly, tighten the jam nuts and the cable barrel retainer plate screws.
10. Slide the shift boot over the handles and stretch it over the shifter body. Depending on how the shifter is mounted, you may want to bolt the shift boot through the shifter body. If the shifter will be flush mounted in the floor, you may bolt through the shift boot, shifter body, and the floor with one set of bolts.
12. Once the boot is in place, thread the 1/2"-13 jam nuts, and then thread the shift knobs onto the shifter handles.

***Note:** The first cable shifters used an shift rail adapter on the shift rail for coupling the cables to the Atlas. The shift rails were changed 7-1-07. This new style of rail is drilled and tapped to directly accept the threaded cable end and eliminate the shift rail adapter. We switched back to the adapters fittings 8-16-10 for ease of installation of the cable to the Atlas. Some shift rails still have the thread on the end of the shiftrail.

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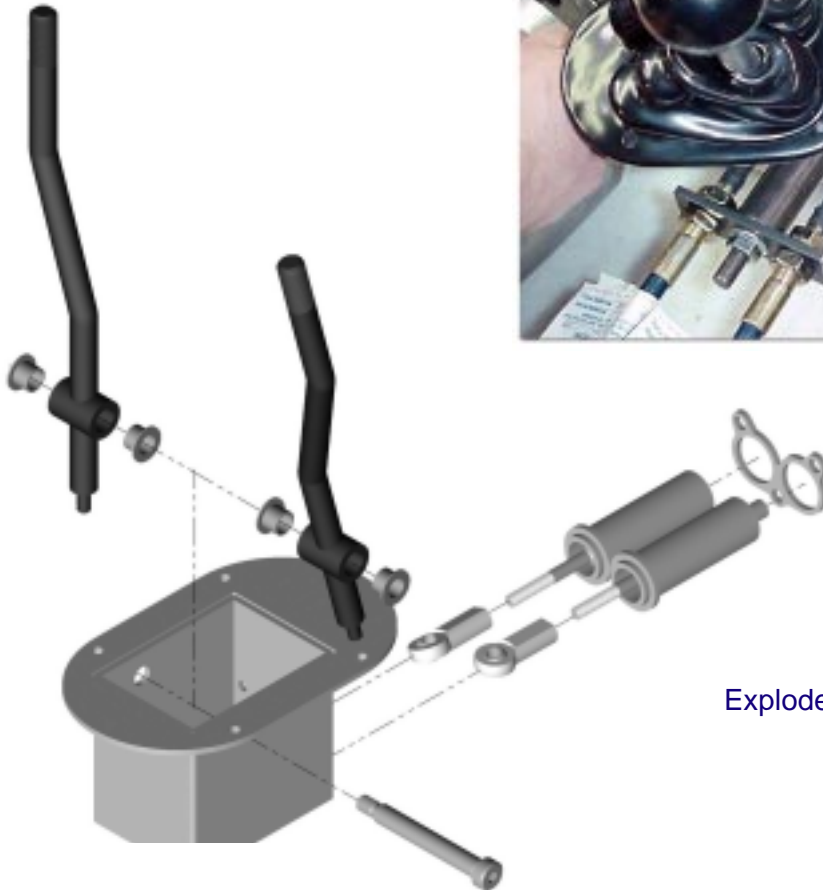
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ATLAS TRANSFER CASE CABLE SHIFTER SOLD WITHOUT AN ATLAS



Exploded View

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