

## JEEP TJ & (XJ 84-01) ATLAS 2 SPEED CABLE SHIFTER units built before 4/30/12

### KIT CONSISTS OF:

No.	Qty	Part No.	Description
1	1	302051-RLE	BASE- TWIN STICK MOUNT 42RLE
2	1	302080	STUD BOLT 1/2"-13 X 7 (XJ)
3	1	303120	SERRATED LOCK NUT 1/2"- 13
4	1	303121	NUT-1/2-13 HX JAM BLACK ZINC
5	1	303303	RETAINER- SHIFTER BODY BARREL
6	2	303305	BARREL- ATLAS SHIFTER CABLE
7	2	303306	CONNECTOR- ATLAS CABLE SHIFTER
8	1	303307	ATLAS CABLE BRACKET
(THIS BRACKET HAS 3 CABLE SUPPORT HOLES, USE THE TWO THAT ARE IN LINE WITH THE MOUNTING STUD HOLE FOR ALL APPLICATIONS EXCEPT 42RLE)			
9	1	303308	TUBE- ATLAS SHIFTER EXTENSION 4.85"
10	2	303309-2	CABLE-ATLAS SHIFTER 48" LENGTH 1" TRAVEL
(We use several vendors, cable colors can be dark green/ Purple/or Blue)			
11	4	303312	BUSHING- IGUS 3/8"
12	2	303313	ROD END- FEMALE 1/4"-28
13	1	303330	HOUSING- ATLAS TJ CABLE SHIFTER
14	1	303331	TJ CABLE SHIFTER HANDLE RIGHT
15	1	303332	LEVER- ATLAS CABLE SHIFTER TJ LEFT
16	2	303333	MOUNT- ATLAS CABLE SHIFTER TJ PIVOT
17	1	303334	TJ CABLE SHIFTER BOTTOM COVER
18	2	303335	KNOB MOUNT-CABLE SHIFTER TJ
19	1	303336	ALUMINUM KNOB TJ CABLE FRONT
20	1	303337	ALUMINUM KNOB TJ CABLE REAR
21	4	303339	BOLT- 1/4"-28 x .75" F.H.C.S.
22	3	303341	BOLT- 1/4"-28 X 5/8" B.H.C.S.
23	2	303343	Access plug
24	1	303344	Pivot Dowel Pin (Ground) 2.25"
25	15	303345	Sealant - Butyl Tape
26	3	303346	BOLT- 1/4"-28 X 5/8" S.H.C.S. plain
27	2	303351	LOW S.H.C.S. 3/8"-16 X 1-3/4"
28	6	340615	BOLT- 1/4"-20 X 5/8" B.H.C.S.
29	1	303318	BLOCK- CABLE ADAPTER 42RLE ATLAS
30	1	303319	NUT- RETAINING CABLE 42RLE ATLAS
31	1	302454	CLEVIS PIN- 1/4 x 1"
32.	1	302455	COTTER PIN- 3/32 x 3/4"

Jeep XJ's may require a bit of trimming on the console bezel insert.

#### 42RLE Transmissions note:

42RLE Transmissions have some clearance issues with the tailhousing on one of the new shifter cables. If you have the 42RLE transmission, you will need to use the upper cable support hole on bracket 303307. This cable support hole moves the inside cable away from the transmission tailhousing give you the needed clearance. We have also included a shift rail link bar that provides the correct alinement of the Atlas shift rail to the new cable location. Install the link bar to the shift rail with the 1/4-28 fastener, flat and lock washers. The Atlas base mount 302051-RLE has also been modified to clear the new link bar.



**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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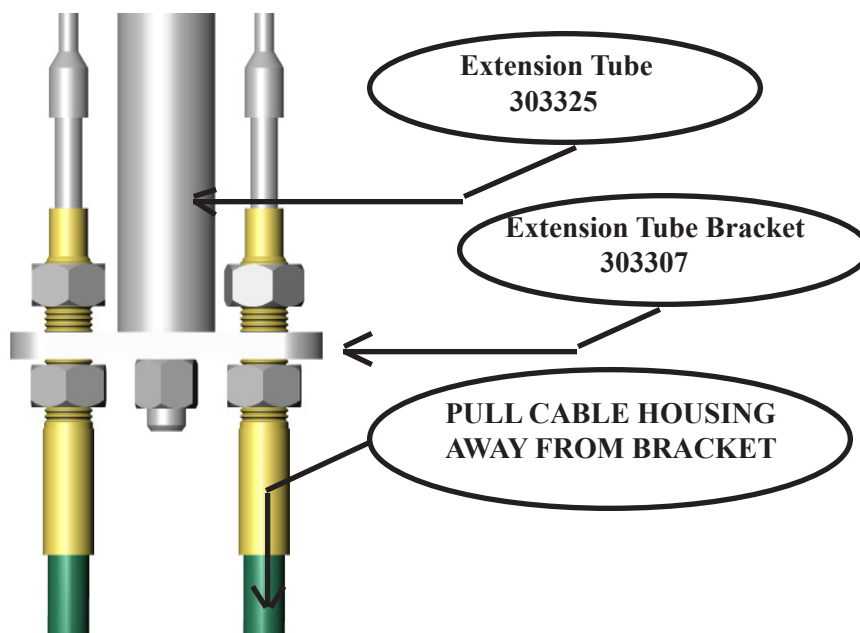
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### Transfer Case End:

**\*\*\*For new first time Atlas installations, we recommend installing the shifter to the Atlas on the bench to test for full shift engagement. All other applications can be completed with the Atlas installed in the vehicle.**

1. Bolt the twin stick base to the transfer case with the supplied 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" star washer and a 1/2"-13 jam nut. Firmly tighten the jam nut against the twin stick base.
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. **Remove one of the jam nuts and star washers from the cable assembly.** Insert the shift cable through the extension tube bracket. Re-install the large jam nut and thread the cable **COMPLETELY** into the end of the Atlas shift rails. Tighten the 1/4-28 jam nut against the shift rail.
5. **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 5 is not completed properly the Atlas will not fully shift into gear.**
6. Route the new cables by the transmission and up through the floor shifter opening.

NOTE: We recommend temporarily protecting the shifter cables with rubber hose or duct tape when routing through the shifter floor hole as this will prevent damaging the outer cable housing.

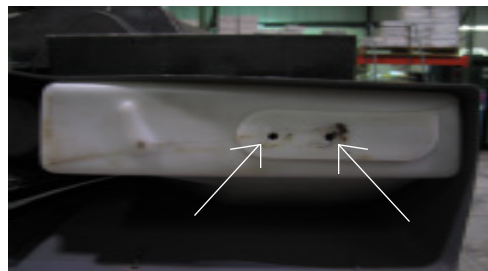


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**NOTE: Refer to factory service manual for detailed disassembly instructions**

1. For Jeeps with factory automatic transmission the first step is to remove the shift button/spring detent assembly from the shifter handle. This can be done by using a small flat head screw driver to "pry off" the shift button end cap. To remove the handle, firmly grab and pull up until it releases from the shift lever.
2. Using the same flat head screw driver, remove the factory shift indicator assembly from the console. Carefully remove indicator light bulb assembly and set aside.
3. Depending on console style, you may have up to five bolts securing the console. Two piece consoles only require removal of two or possibly three bolts. One is located in the front cup holder possibly under the rubber insert. The second is found just to the right of the transmission shift lever. Although uncommon, a third bolt or plastic push pin is sometimes found on the front of the console under the carpet.
4. Maneuver the console so that the stock transfer case shift lever slips through the slot in the console. Remove console and set aside for later.
5. Remove five mounting bolts securing the stock transfer case shifter mount and save for later. These bolts will sometimes be hard to remove because of corrosion in the threads. Prior to removal, spray threads with a thread lubricant. This step will ensure that the threads of the factory "nut-serts" remain undamaged for installation of new shifter assembly.
6. With the five mounting bolts removed, pull the shifter assembly out of the floor far enough to access the nut.



**NOTE: If the stock shifter bolts are missing or have been discarded. Replace with five 10-32" X .625" bolts or screws and washers.**

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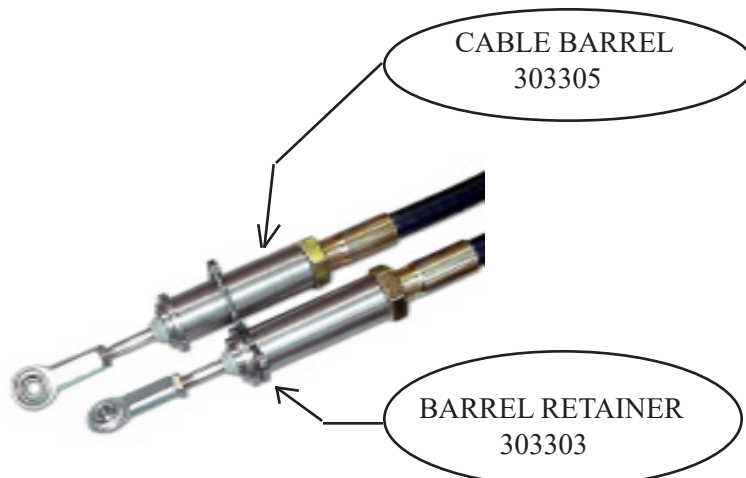
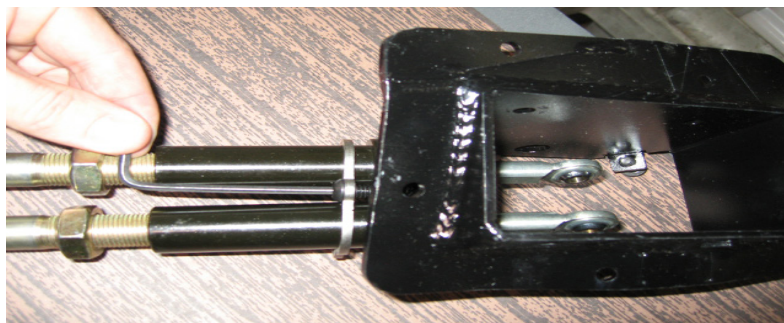


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### Shifter End:

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. If you want the front shift handle on the right or left side in the console, now is the time to make the choice. We prefer the front axle shift lever control on the left side and the rear shift control on the right.
3. Now thread the heim joints onto the shift cables inner rod until they bottom out and tighten the jam nuts.
4. Using a mallet or arbor press, gently press the pivot bushings into the shifter handle mounts.
5. Next, using the same mallet or arbor press, gently insert the ground pivot pin through the bushings making sure the handle mounts are centered on the pin.
6. Slide the pivot mounts onto each end of the exposed pivot pin and slide into the box mount attaching with the 1/4"-20 button head cap screws (Note: the handles should point in the forward direction).
7. Slide the cables into the front of the shifter body.
8. Slide the cable barrel retainer plate up the shifter body and loosely fasten it with the 1/4"-20 button head cap screws.

\*\*\*NOTE: FOR EXPLODED SHIFTER ASSEMBLY VIEW SEE PAGE 6



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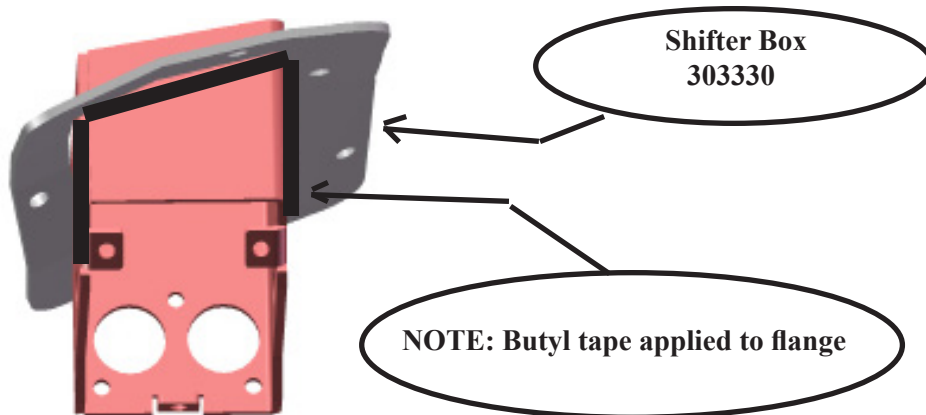
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### Shifter End Continued:

9. We have provided access holes(only accessible in neutral) in the shifter body to install the button head bolts through the heim joint and into the handle base. Once these bolts are installed and tight, then you will need to adjust the linkage. The cable barrels are used to adjust the position of the handles in relation to the box. Making sure the transfer case is in neutral, adjust the barrels so that the handle mounts point straight down through the box (this adjustment can be changed to gain more or less knee clearance). Temporarily install the shifter box to the floor and reinstall the console. Check to make sure that the shifter clears the console in all shift locations. You may want to get the vehicle in a running condition to check the shifting since the Atlas shifts easier while moving, when satisfied, tighten the barrel retainer and jam nuts.
10. Once adjusted install the bottom cover using the supplied button head cap screws and apply a bead of RTV silicone to seal the two.
11. Apply Butyl tape to bottom side of shifter box flange and slide the assembled shifter box down into the floor and secure using the stock bolts removed earlier.

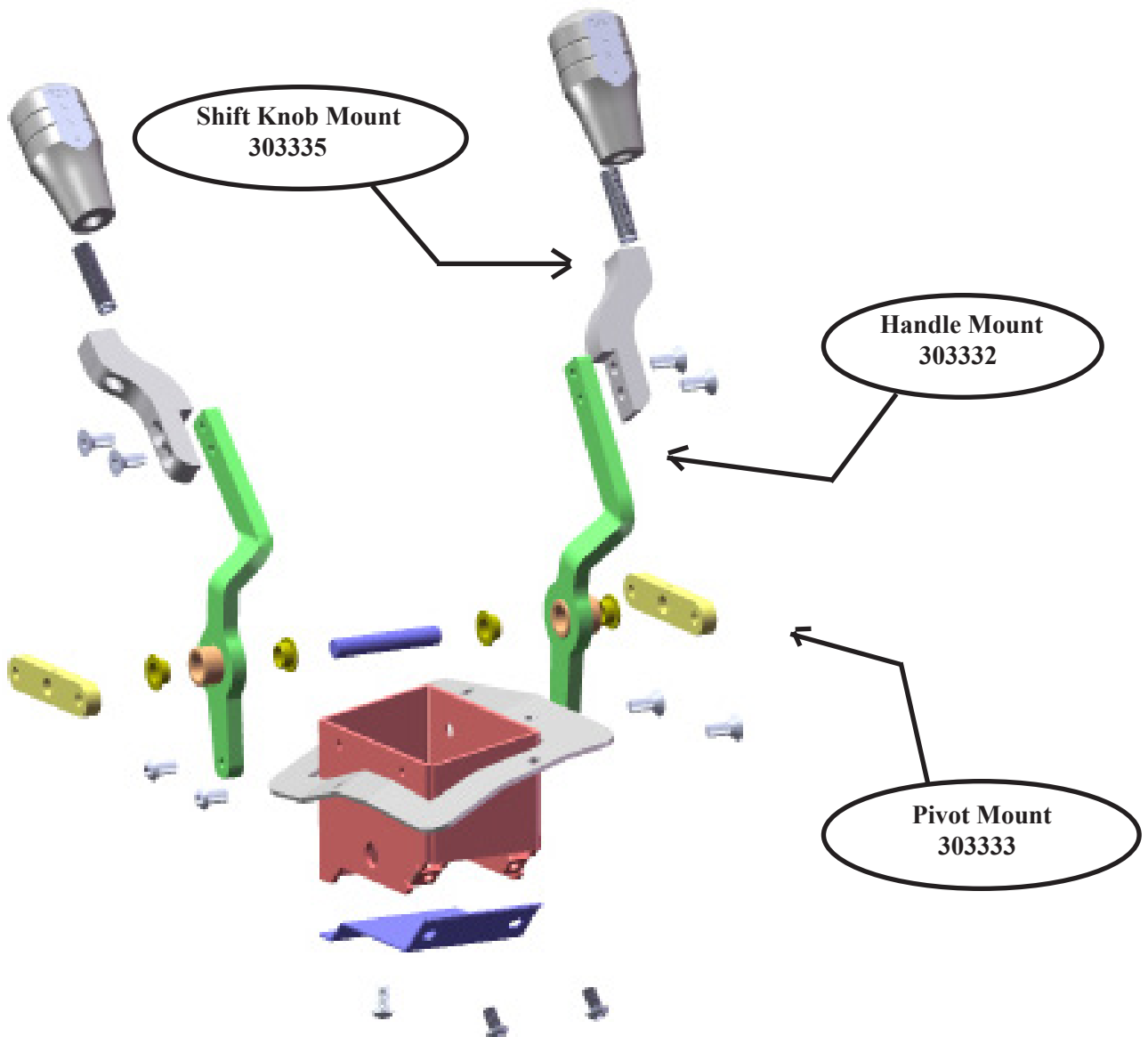
**\*\*\*NOTE: Due to slight variations in the stock floor, the shifter box mounting holes may require enlarging to get everything aligned correctly.**

12. If test shifting was successful, install one shift knob mounts onto the passenger handle and secure using the 1/4"-28 x 3/4" flat head cap screws and then reinstall the center console.
13. Install the second shift knob mount followed by the two 3/8"-16 x 1.5" shift knob studs (ALLEN END DOWN).
14. The aluminum shift knobs can be adjusted by tightening or loosening the studs with an allen wrench from the access hole.



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