



P.O. Box 247, 4320 Aerotech Center Way  
 Paso Robles, CA 93447  
 Telephone: (800) 350-2223 Fax: (805) 238-4201  
 PAGE 1 OF 10 Page Rev. Date: 03-18-22  
 P/N: 303030

## JEEP JL & JT ATLAS CABLE SHIFTER

### KIT CONSISTS OF:

No.	Qty	Part No.	Description
1	1	302061	ATLAS LOGO 2 STICKERS NEW KNOBS
2	1	302084	SHIFTER STICKER - ATLAS REV PATTERN (H-N-L)
3	1	302400	ATLAS JK/JL CASE CABLE MOUNT BRKT
4	1	302401	ATLAS JK/JL CASE CABLE LOCKING TAB
5	1	302420	SHIFTER BASE- JL CABLE SHIFTER ASSEMBLY
6	1	302420A	CAP FOR SHIFTER BASE- JL CABLE SHIFTER ASSEMBLY
7	2	302422	LEVER (HANDLE)- JK/JL CABLE SHIFTER
8	2	302423	BARREL NUT- CABLE END 1/4-28
9	1	302424	KNOB- INJ MOLD (SLIP ON) JK/JL
10	1	302425	SHIFT LEVER SPACER
11	1	302427	BOLT- SHOULDER 1/2 x 1 3/4 (3/8-16)
12	1	302450	FLANGE BOLT- 5/16 -18 x 1/2 SERRATED
13	3	302451	FLANGE BOLT- 3/8-16 x .875
14	2	302452	TORX FLAT HEAD SCREW- JL SHIFT KNOB
15	3	302453	FLANGE BOLT- 1/4-20 x 1"
16	2	302454	CLEVIS PIN- 1/4 x 1"
17	2	302455	COTTER PIN- 3/32 x 3/4"
18	4	302456	BOLT-6mm X 1 X 30mm S.H.C.S.
19	4	302457	WASHER-6.4 mm ID, 18 mm OD
20	2	302460	CABLE- JL SHIFTER
21	2	303318	BLOCK- ATLAS SHIFT RAIL CABLE MOUNT
22	2	303319	NUT- RETAINING CABLE 42RLE ATLAS
23	4	42R508	1/2 X 1/4 IGUS BUSHING
24	1	723103	LOCK WASHER 5/16 PLATED
25	1	723104	H.H.C.S. 5/16 -18 X 3/4 LG
26	1	723701	NUT 3/8 -16 PLATED GRD 5
27	1	723704	LOCK WASHER 3/8 ZINC
28	1	723735	WASHER 3/8 SAE FLAT PLT
29	1	723773	SCREW 1/2 X 2 HEX SOCKET HEAD SHOULDER SCREW
30	2	726208	BOLT-5/8 -11 X 4 H.H.C.S.( Used to form modified boot for handles)

**Jeep JL & JT to Atlas 2 speed:** The Jeep JL with the 850RE 8-speed automatic or D478 manual 6 speed is coupled to a Magna transfer case. This is the first year Jeep went away from its standard circular bolt pattern when coupling these two gear boxes. To couple these transmission to the Atlas, they will require a new adapter. **P/N 50-9900** is for the Automatic and **P/N 50-9901** if for the manual. (same adapter, different spline needed) The adapter is 7.75" which provides the needed length to clear the transmission cooling system.

We offer a new yoke to retain the stock GKN driveshafts **P/N AFJL**. The adapter puts the Atlas in a similar location as factory, allowing you to retain the factory driveshafts. These yokes can be swapped out for any Spicer yoke down the road, but it now allows the Jeep equipped Atlas to be back on the road within a day. The complete install of the transfer case is approximately 6 hours and the shifter 1 to 2 hours. The pre-configured unit we offer comes complete with the parts listed above. The Atlas is built with a **23 spline standard input**.

**Cable shifter instructions:** The shifter bracket and cables need to be installed to the front of the Atlas before the unit is installed into the vehicle. The stock transfer case, shifter and cable will also need to be removed. The removal of the console is the starting point.



Remove the console. There are 4 10MM bolts, two in the front and two in the rear that the seats need to be slid forward to access. Also under the passenger seat there are 3 leads that need to be unplugged to allow the console to be removed.



The transmission shifter needs to be placed in neutral and the boot ring needs to be pulled up out of the console. You can pull the boot up over the knob to access the bolt to remove the knob.

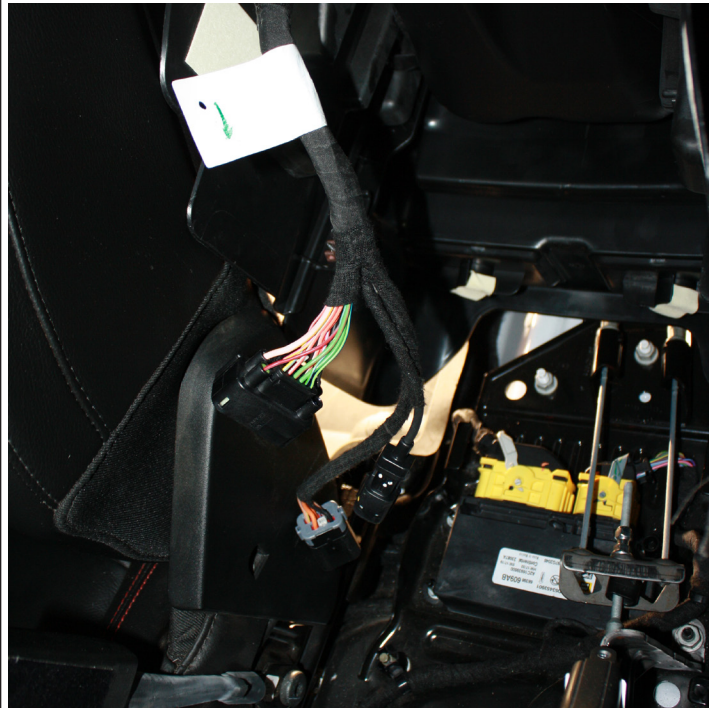
There is also a plug that needs to be disconnected that lights the shifter indicator, Jeep did provide an access panel for this plug towards the front of the console passenger side.



The transfer case lever also has a snap in cover that must be removed.



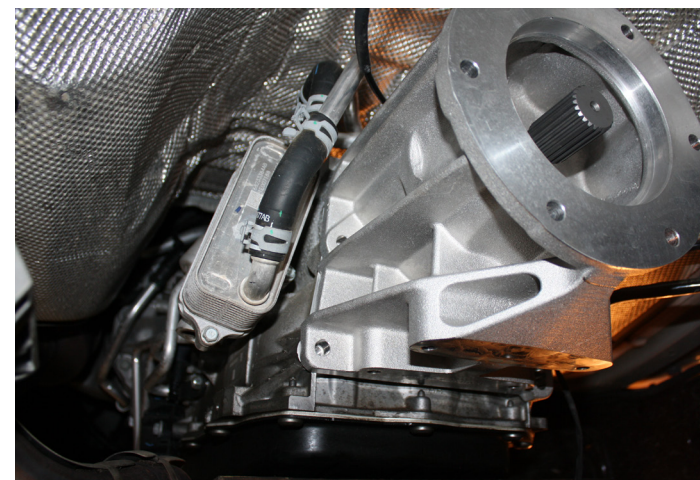
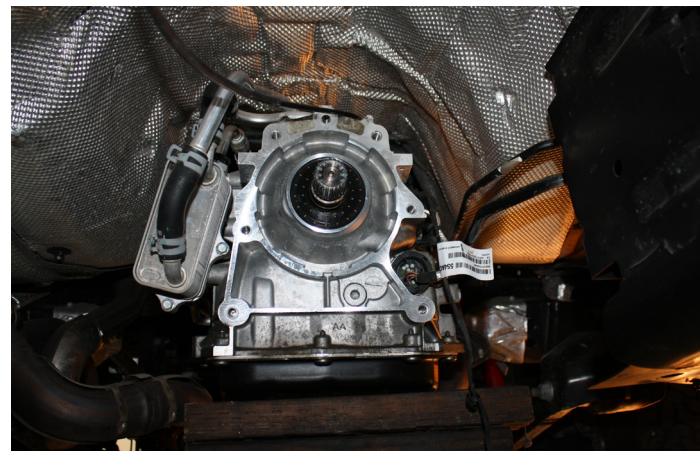
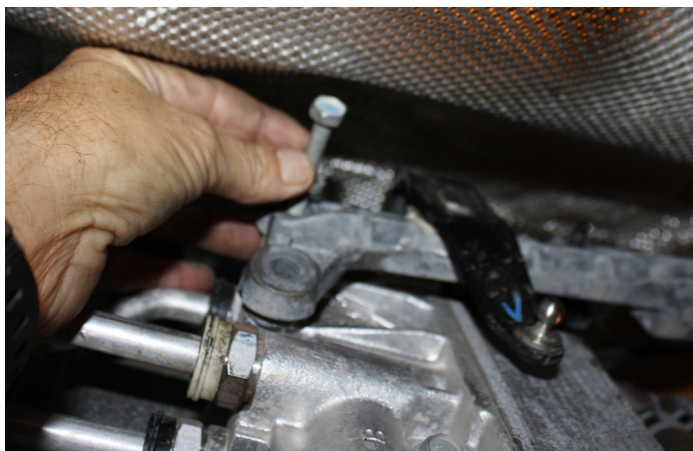
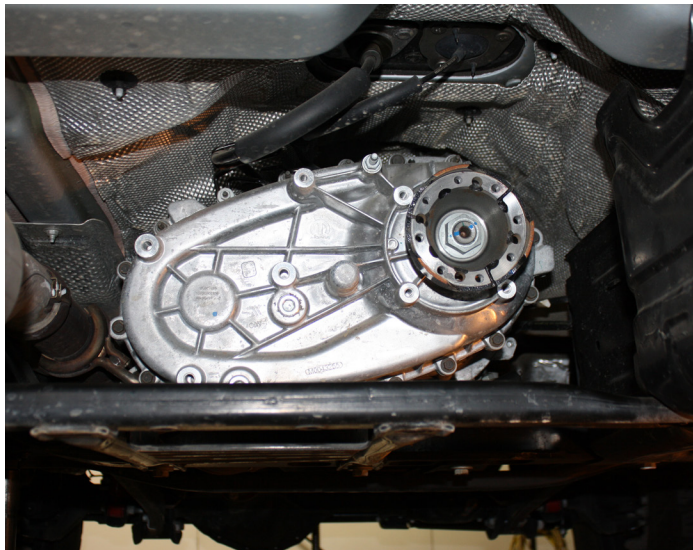
The three plugs that were under the passengers seat need to be pushed under the seat mounting rail and they will allow the console to be lifted. Once the console is removed, the transmission shifter has a small white button that can be pulled out to allow the shifter to be shifted into any gear without the ignition on.  
Note: the button is spring loaded and will pop back as the lever is shifted.



Remove the stock transfer case shifter. The parking brake will also need to be removed to access the floorboard mount that the cable runs through. The cable will need to be cut and pulled out of the rubber grommet.

Once the console is removed, the stock transfer case need to be removed. Support the stock drivetrain up by the transmission as you will need to remove the transmission crossmember and skid pan. After the skid pan is removed, you should be able to remove the driveshafts from the stock transfer case. If retaining the stock driveshafts, these can be left connected to the axles. Remove the crossmember and then unbolt and remove the transfer case. Note: If you are able to lower the rear side of the drivetrain a bit, it will provide better access to the transfer case to transmission bolts. The stock transfer case shifter linkage also needs to be removed.

Install the new adapter housing using the factory bolts. We recommend not connecting the crossmember back to the frame until the Atlas is installed. The bolts that are closest to the floorboard are hard to tighten if the drivetrain is back in the stock position.





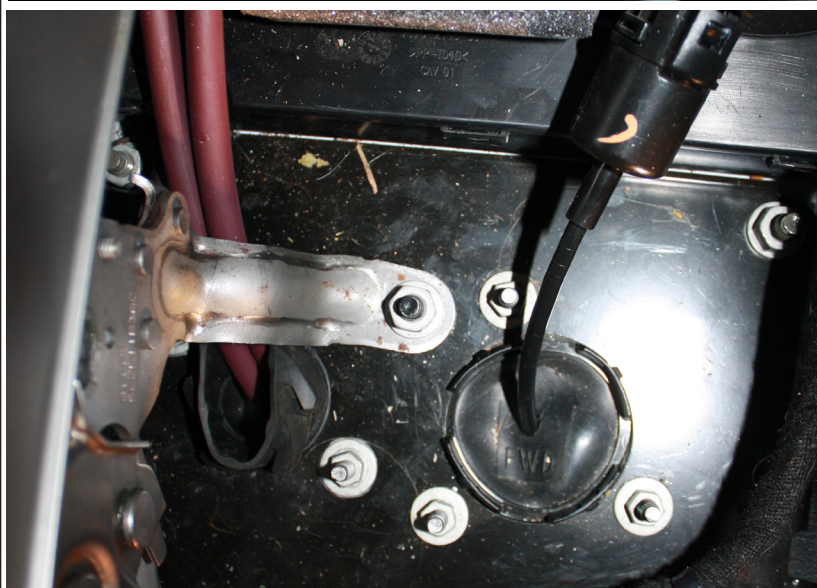
Once the console and the stock shifter cable are removed you will need to route the new shifter cables.

The new cables have two different ends on them, a long end and then a short end about 1" shorter. The short end of both of the cables is the ends that connect to the transfer case and the longer ends connect to the shifter. We recommend marking one cable (both ends) with a piece of tape or a marker. The cables are very long and are looped around the top of the transmission, identifying one from the other is very important.

Starting in the cab of the Jeep, insert one cable at a time into the floor grommet leaving about one foot of cable on the inside of the Jeep. Note: the cables will slide through the grommet easier with a splash of grease or oil on the ID of the grommet.

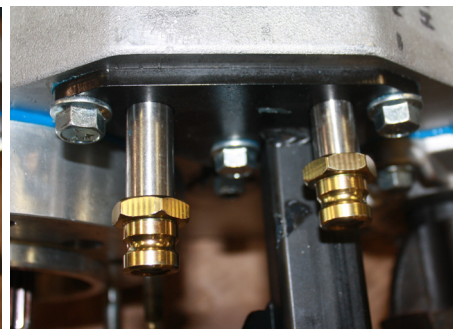
Once the cables are both showing on the bottom tunnel area of the Jeep, route them up the passenger side of the transmission and then over the top of the transmission heading back towards the rear of the vehicle.

Before moving the Atlas under the Jeep and connecting the cables, install the brackets as shown on the next page. This is also a good time to put oil into the Atlas.

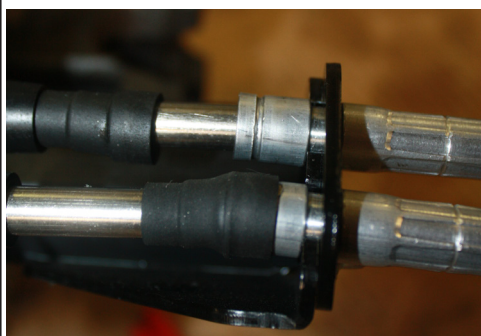
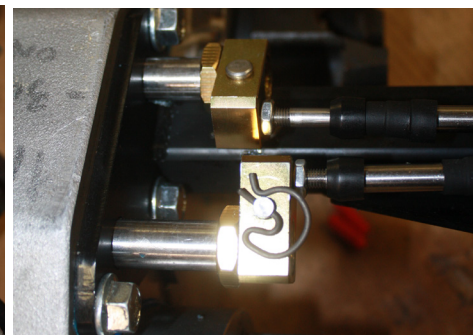
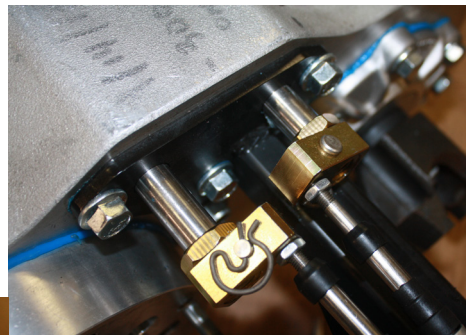
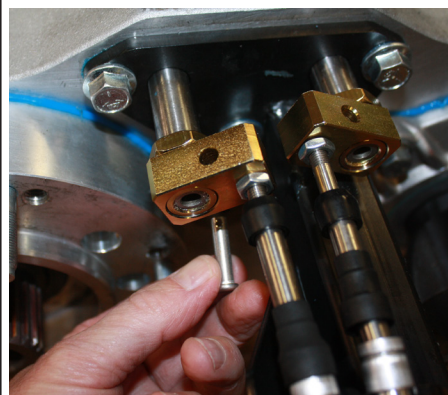
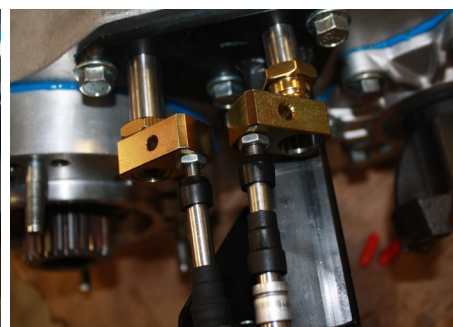
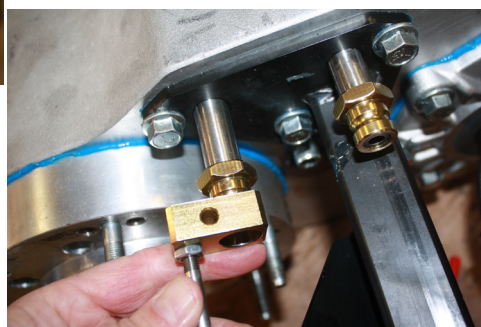




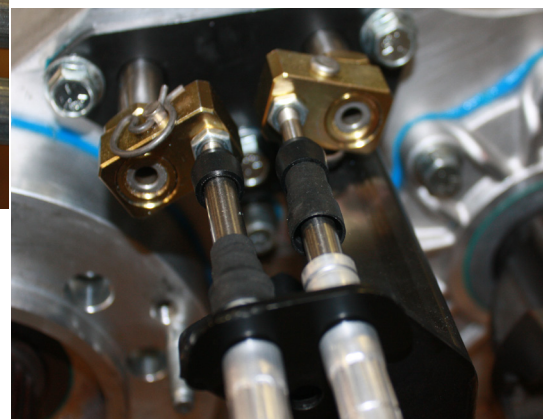
The cable bracket needs to be installed on the front of the Atlas and silicone on the threads of the bolts. Install the retaining nuts until they are fully threaded on the shifter rails.



The cables have a long and short connecting end on them, the shorter side gets connected to the Atlas. We use a connector block that need to be connected to the cables. The threads of the cable should be flush with the back side of the block or protrude slightly. You can then use the 1/4- 20 jam nut to lock in place. These blocks allow the cables to be installed closer together and provides more clearance. Move the Atlas under the Jeep to connect the blocks & cables to the shift rails. We like to match the marked (taped or marked) cable to the rear output side of the Atlas. Once the link block is slipped in place, install the clevis pin and cotter pin to retain.



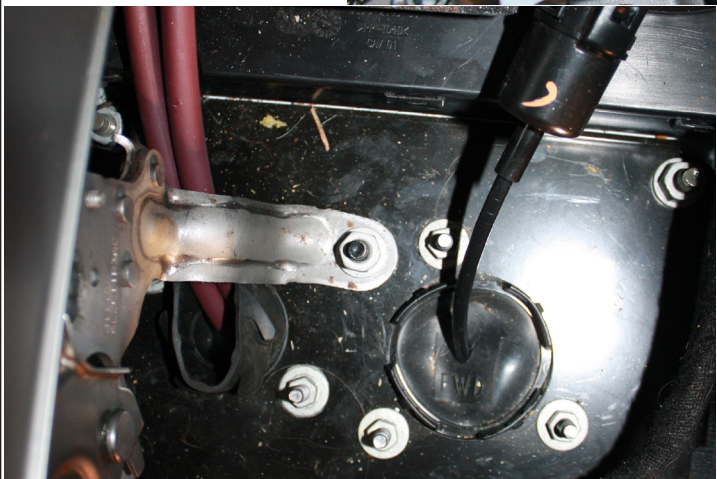
Once the cable are connected to the Atlas line up the mounting groves of the cables with the cable mount bracket and install the retaining bracket and bolt.



The Atlas is now ready to be installed. We recommend that the Atlas is shifter into gear. This will help line up the input splines of the Atlas with the output splines of the adapter during installation. The photos above show the rear output shifter into high range. Install the Atlas into the Jeep. You can re-install the crossmembers and connect the driveshafts.

New cables routed (under vehicle) into the cab of the Jeep through the stock rubber grommet.  
Park brake re-installed with the new cables routed.

Before connecting the cables to the shifter base, decide which handle you want to control the rear output of the Atlas. The Taped cable should be connected to the rear output. We prefer connecting the rear out to the handle that is closest to the transmission shifter.



Install the cable connector ends so that the threads are flush.

Assemble the handles into the new shifter base, see assembly on page 8.

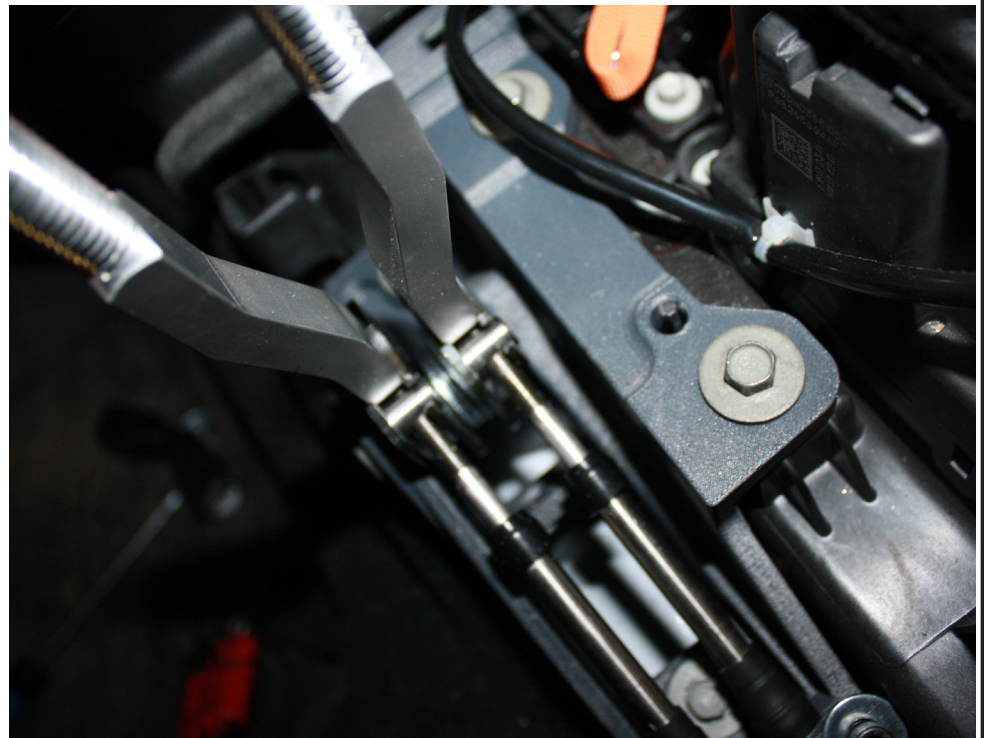
With the shifter in your hand you will need to connect cable connectors to the handles.

Once these are connected, you will need to line up the cables groves to the groves in the shifter base. Clamp cables in place by installiing the shifter base cap.



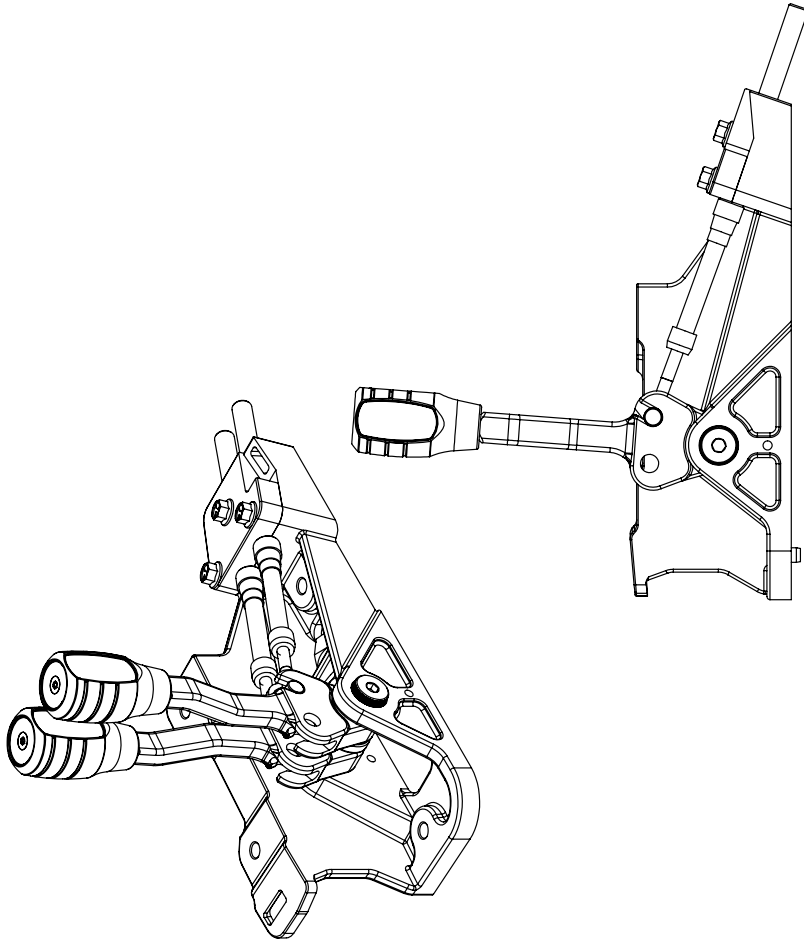
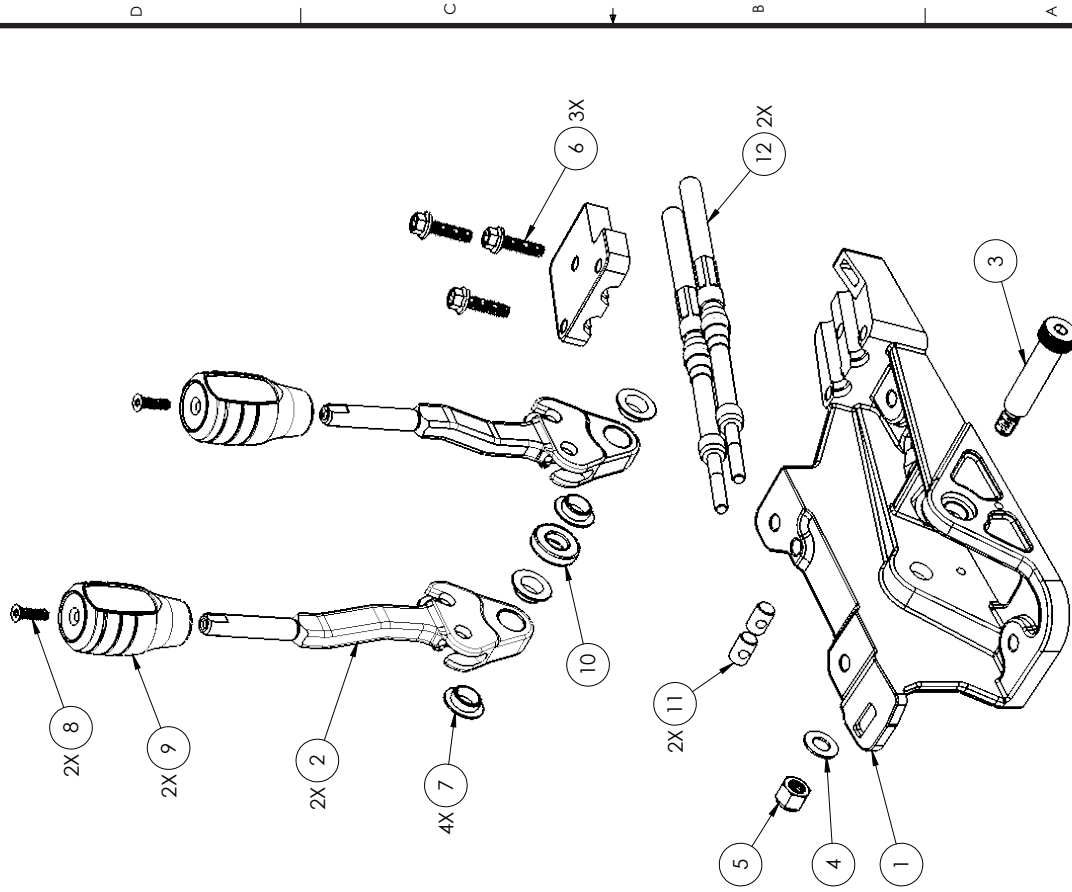


Once cable are secured the base can be installed into the console (Jeep tub) with the new socket head cap screws and washers.





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	302420	SHIFTER, TWIN-STICK CONSOLE MOUNT	1
2	302422	LEVER, ATLAS TWIN-STICK CABLE SHIFTER	2
3	723773	BOLT, 0.500 X 2.00 SHOULDER 3/8-16 THD	1
4	723735	WASHER, 3/8" FLAT SAE	1
5	723703	NUT, 3/8-16 G5 NYLOCK	1
6	302453	BOLT, 1/4-20 X 1.00 FHH	3
7	42R508	BUSHING, 1/2 X 1/4 IGUS	4
8	302452	SCREW, 10-32 X 0.750 FH TORX 82 DEG	2
9	302424	KNOB, INJECTION MOLDED SLIP-ON	2
10	302425	SPACER, NON-SENSOR APPLICATIONS	1
11	302423	BARREL NUT, SHIFTER CABLE END	2
12	302460	CABLE, JL SHIFTER	2



UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES

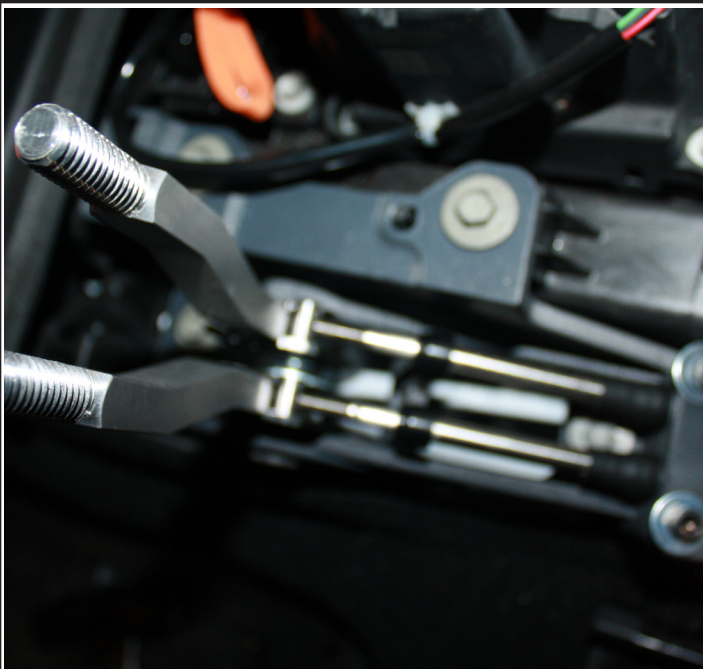
**PROPRIETARY AND CONFIDENTIAL**  
 THIS DRAWING IS THE SOLE PROPERTY OF  
 ADVANCE ADAPTERS. ANY  
 REPRODUCTION IN PART OR AS A WHOLE  
 WITHOUT THE WRITTEN PERMISSION OF  
 ADVANCE ADAPTERS IS  
 PROHIBITED.

**ADVANCE ADAPTERS**  
 4320 ARCADIA BLVD, 10TH FLOOR  
 PASO ROBLES, CA  
 PH: 805-238-7000

TOLERANCE:  
 .XXX ± .010 ANGLE:  
 X DEG ± .5

DRAWN: K.DILL  
 CHECKED: M.P. PARTRIDGE  
 DATE: 03/17/22

SIZE: B DWG. NO.: 303030  
 MATERIAL: N/A FINISH: —  
 SCALE: 1:1 WEIGHT: — SHEET 1 OF 1



Once all connected, test shift and check to make sure you have clearance of the handles to the dash. If you have hooked the rear cable to the handle closest to the transmission shifter, 2WD high should be forward and the handle closest to the driver should be slightly angled back. Photo shown below.

Adjustments should be made down a the transfer case if needed.



Once shifting is confirmed, install the console and make sure the auto transmission indicator light is re-connected and well as the plugs under the passengers seat.



#### Boot modifications:

Cut the boot off the stock transfer case handle just below the knob.

Cut the stitching both front and rear to allow the boot to be removed over the stock knob.

With the boot off, the leather needs to be trimmed at 5 to 5-1/4 inches long from the base.

Now that it has been trimmed you will want to check the un-stitched part you will need it about 2" on the front and back. (last photo on this page)

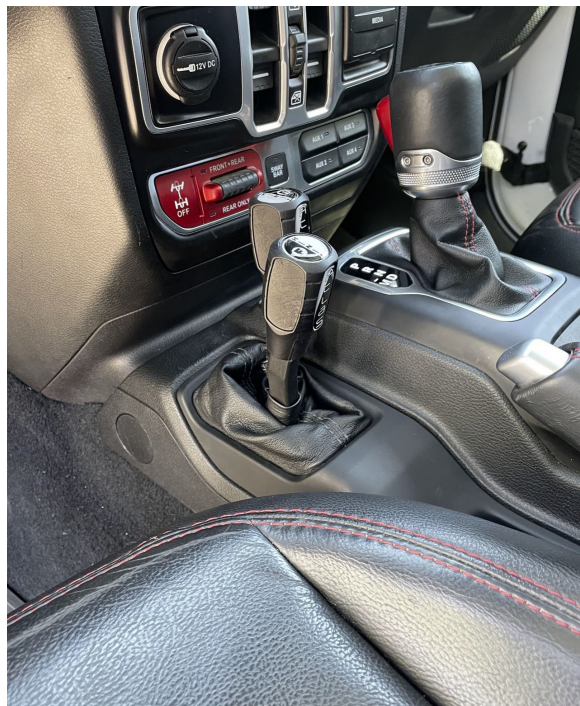


**SPECIAL NOTE:** The components packaged in this kit have been assembled and machined for specific type of conversions. Modifications to any of the components will void any possible warranty or return privileges. If you do not fully understand modifications or changes that will be required to complete 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.



The boot can now be formed around the 5/8" bolts and glued to retain the shape. We do recommend once the leather glue is dried to unscrew the bolts and add a couple stitches to secure the shape. You can stitch the seem in between the two handle or leave it open, the boot stays together on the seem once the boot is installed over the handles.

Install the knobs, there is a flat spot on both side to orientate the knob correctly and then a set screw to couple them to the handles, once installed and the screw is tight you can apply the shift indicator stickers.



**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.