

## 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	2	302424	KNOB- INJ MOLD (SLIP ON) JK/JL
10	1	302425	SHIFT LEVER SPACER
11	1	302450	FLANGE BOLT- 5/16 -18 x 1/2 SERRATED
12	3	302451	FLANGE BOLT- 3/8-16 x .875
13	2	302452	TORX FLAT HEAD SCREW- JL SHIFT KNOB
14	3	302453	FLANGE BOLT- 1/4-20 x 1"
15	2	302454	CLEVIS PIN- 1/4 x 1"
16	2	302455	COTTER PIN- 3/32 x 3/4"
17	2	302460	CABLE- JL SHIFTER
18	2	303318	BLOCK- ATLAS SHIFT RAIL CABLE MOUNT
19	2	303319	NUT- SHIFT RAIL NUT RETAINING CABLE
20	4	42R508	1/2 X 1/4 IGUS BUSHING
21	4	42R726	24" HEAT SHIELD FOR SHIFTER CABLES
22	1	723703	NUT 3/8 -16 PLATED GRD 5
23	1	723735	WASHER 3/8 SAE FLAT PLT
24	1	723773	SCREW 1/2 X 2 HEX SOCKET HEAD SHOULDER BOLT
25	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 & JT with 8-speed automatic, D478 manual 6 speed, Hemi 392, Diesel, and 8HP70 or 95 coupled to a Magna transfer case. This is the first year Jeep went away from its standard circular bolt pattern when coupling these gear boxes. To couple these transmissions to the Atlas, they will require a new adapter. **P/N 50-9900** is for the Automatic and **P/N 50-9901** is for the manual, The 392 Hemi, 8HP 70 or 95, and the Diesel are also available **P/N 50-9903, 50-9904, 50-9905 and 50-9906** (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 or so. 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**.

The removal of the stock transfer case does have a few hard-to-reach bolts which will require socket extensions and long and short gear wrenches.

**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. To access these bolts the seats need to be slid forward. Also under the passenger seat there are 3 leads that need to be unplugged to allow the console to be removed. Removing the two rear passenger seat bolts will help with access to these plugs.



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.



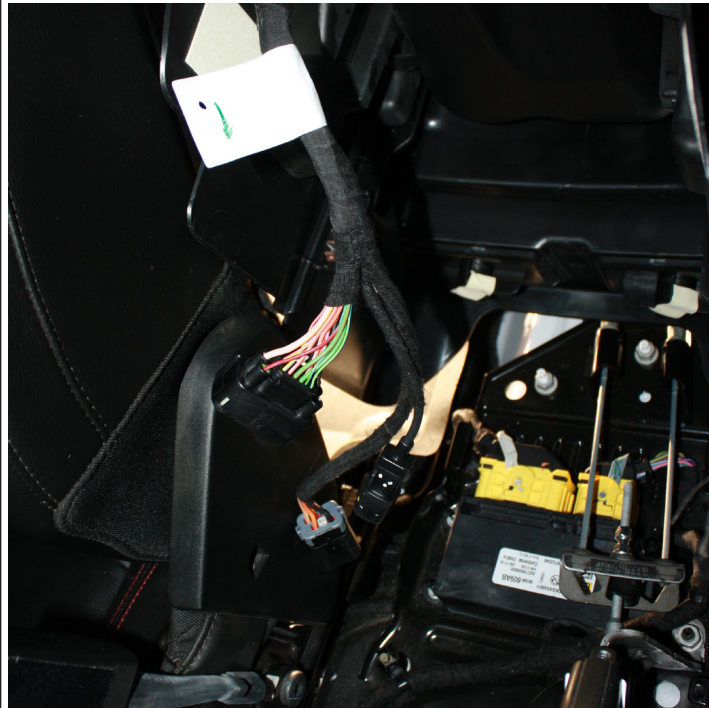


The transfer case lever also has a snap in cover that must be removed.



The three plugs that were under the passengers seat need to be pushed under the seat mounting rail which 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.

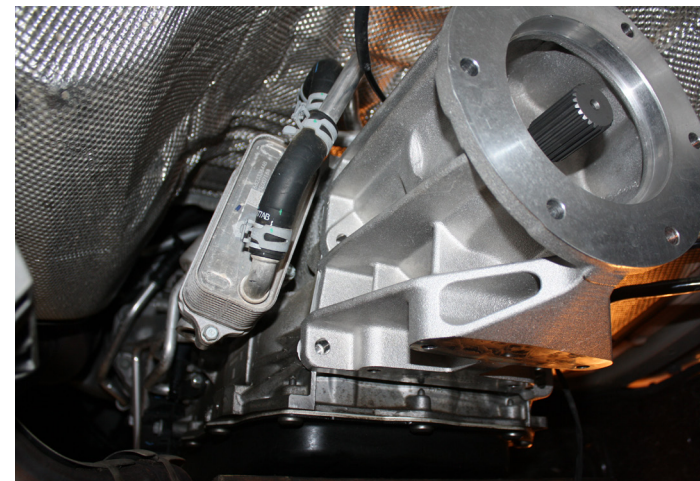
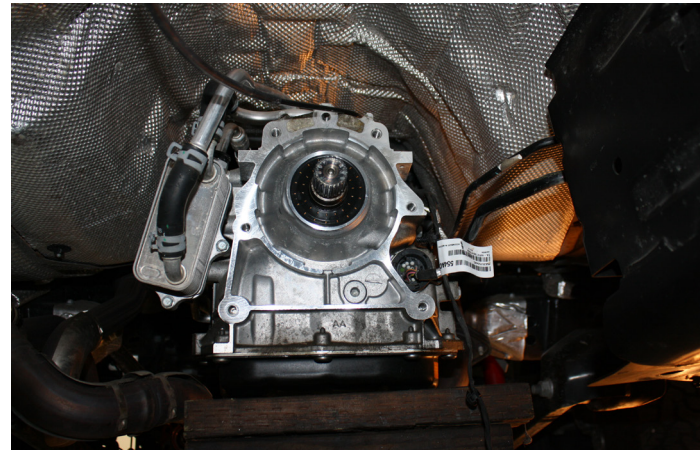
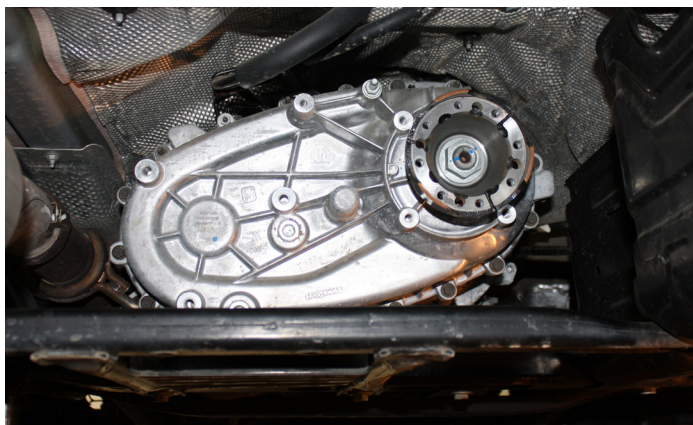


Once the console is removed, the stock transfer case needs to be removed. Support the stock drivetrain up by the transmission as you will need to remove the skid pan. The transmission crossmember can be removed or left in place, but the rubber support must be removed to allow the drivetrain to be lowered to gain access to transmission bolts. Remove the driveshafts from the stock transfer case. If retaining the stock driveshafts, the rear can be left connected to the axles and the front must be removed to gain access to the stock transfer case linkage.

Remove the transfer case from the transmission. The top bolts can be accessed from the top back side of the transfer case with long extensions. 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 (torque to 45 Ft.-Lbs.). We recommend not connecting the crossmember back to the frame or installing the rubber support 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.

Note: The stock transfer case breather (shown in the bottom left photo) needs to be removed and installed on the Atlas. The Atlas is shipped with a red cap that covers the elbow that the breather should be connected to.







With the Atlas on the bench, the cable shifters need to be installed. 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 (303319) until they are fully threaded on the shifter rails.

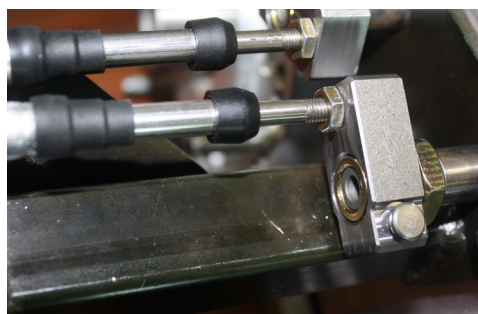
Long



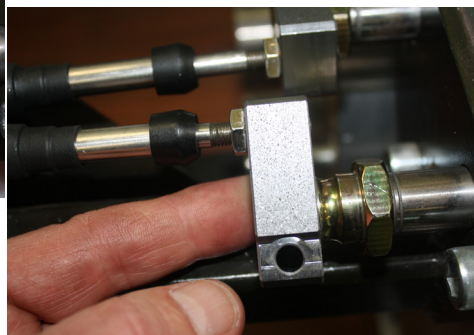
Short



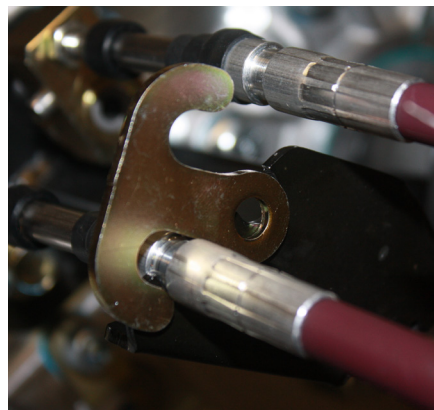
The cables have a long and short connecting end on them. The shorter side gets connected to the Atlas. We use a connector block that need to be attached to the cables. The threads of the cable should be flush with the back side of the block or protruded slightly. You can then use the 1/4- 20 jam nut to lock in place. These blocks allow the cables to be installed closer together and provides more transmission clearance. We suggest marking the rear output side cable of the Atlas on the end that goes inside the Jeep to identify it for connecting to the shifter. Connect the link block by slipping it on to the retaining nut and then install the clevis pin and cotter pin to retain.



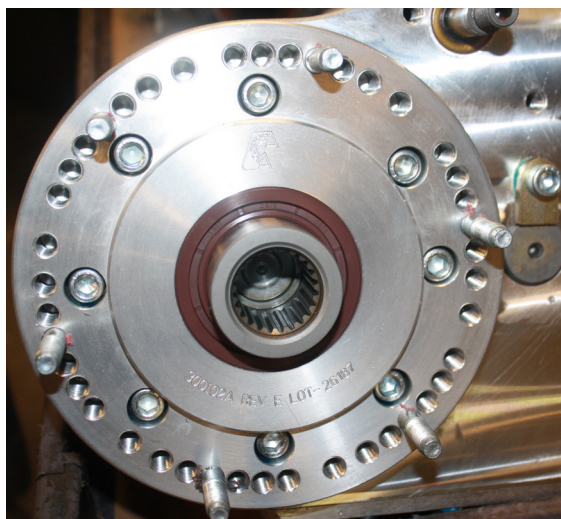
Note: The link blocks have had a couple different designs. The clevis pin was moved on the block in 2023. All of the link block designs work the same.



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







Install the studs to the front of the Atlas. The photo shows the best fit for the installation on a Jeep JL/JT.

Install the stock breather from your transfer case to the brass elbow on the Atlas.

Fill the Atlas with the supplied oil (2 quarts). A quart hand pump that fits the bottle works well. Use the site tube or site tube fitting to add the oil.

The transfer case should now have the shifter connected, the studs installed, breather installed, and oil in the new unit.

Note: Before installing the Atlas you should shift the rear output into either high or low gear. This allow you to turn the yoke during installation to help align the splines on the T/C to the adapter.

Install the Atlas to the new adapter and install the 6 nuts. Note: If you removed the crossmember, the cables will fit or hang next to the transmission as you install the Atlas. If you left the crossmember in place, then the cables will need to be routed over the crossmember before the Atlas will fit up to the adapter. Once the Atlas is secured then you can route the cables up over the transmission and the threaded ends back by the Atlas.

The cables will need to be pulled back a bit more toward the rear of the Jeep and then, one at a time, slipped into the rubber grommet that the stock cable was removed from. Applying a bit of lubricant to the grommet will allow the cables to slide in smoothly.

Now would be a good time to install the crossmember back and the rubber support to the adapter. Make sure the transmission cooler is tighten in place and install the stock driveshafts or the a new aftermarket drive-line. Before installing the skid pans, install the 300377A Control Module. This unit will allow the stock functions of the Jeep when shifting into 4WD or Low Range.

Secure the control module to the Jeep frame and then you can install the skid pans back in place.

The bottom on the vehicle should be complete with the exception of securing the cable away from the rear driveshaft, but that has to be done after the cables are install on the interior.



New cables routed (under vehicle) into the cab of the Jeep through the stock rubber grommet.

Heat shield: Quantity 4 that are 24" long should be installed on the shifter cables near the vehicle's exhaust. **The cable need to be protected from extreme heat.**

392 applications see the last page



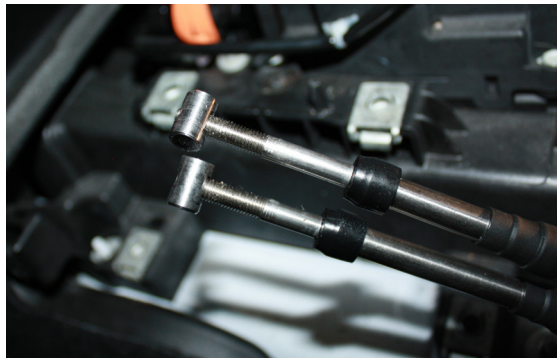
Assemble the shift handle into the shift housing. The handles have two black bushing per handle that need to be installed and the black spacer is a spacer between them. The shoulder bolt will be a tight fit through the handles, and as the bolt goes through you will need to align the handles with the bolt and then install the nut to retain. See assembly on Page 12.

Install the cable connector ends so that the threads are flush and **remove the stock cable 1/4-28 jam nut that was on the cable**. If the threads protrude past the nut, it will jam the handle and possibly break the cable.

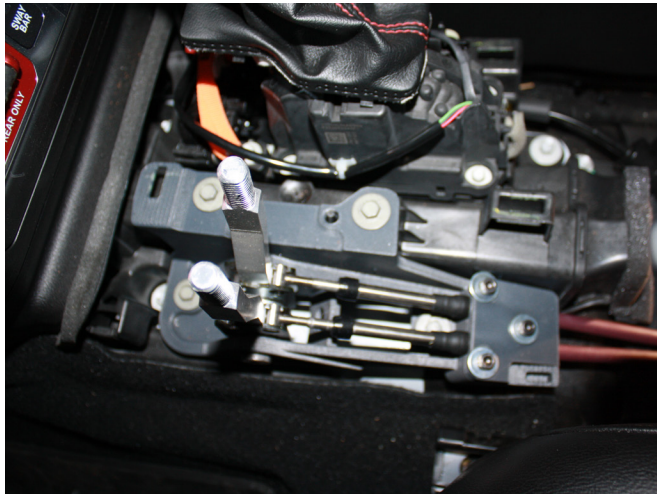
It should look like this photo (Right)  
Note: Jam nut removed

Before installing the the handle assembly into the console, line the cable connectors to the handles. Make sure the marked cable (rear) is connected to the handle closest to the transmission shifter.

Once connected, the shifter base can be install into the Jeep console. As you put the assembly down, the cables may need to be pulled into the interior or pushed out to allow the handle assembly to fit properly. Use the new socket head bolts & washers to retain the assembly to the Jeep console.

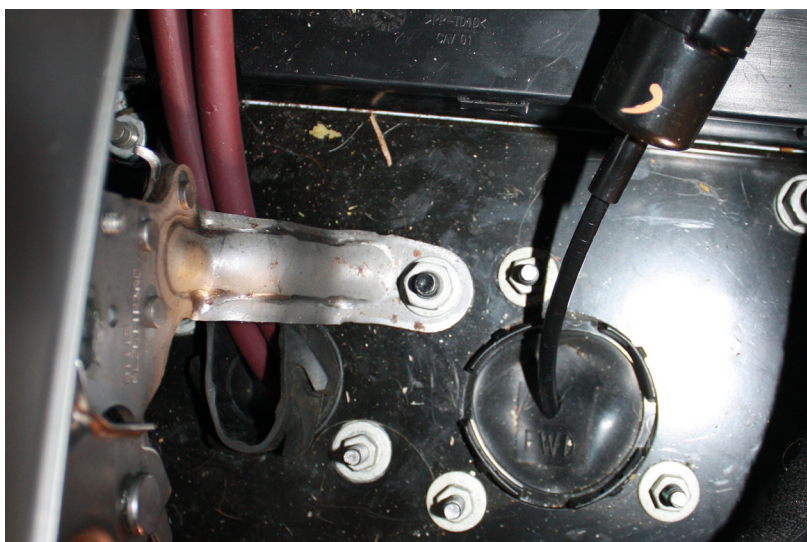


You will need to line up the cable grooves to the grooves in the shifter base. Clamp cables in place by installing the shifter base cap.



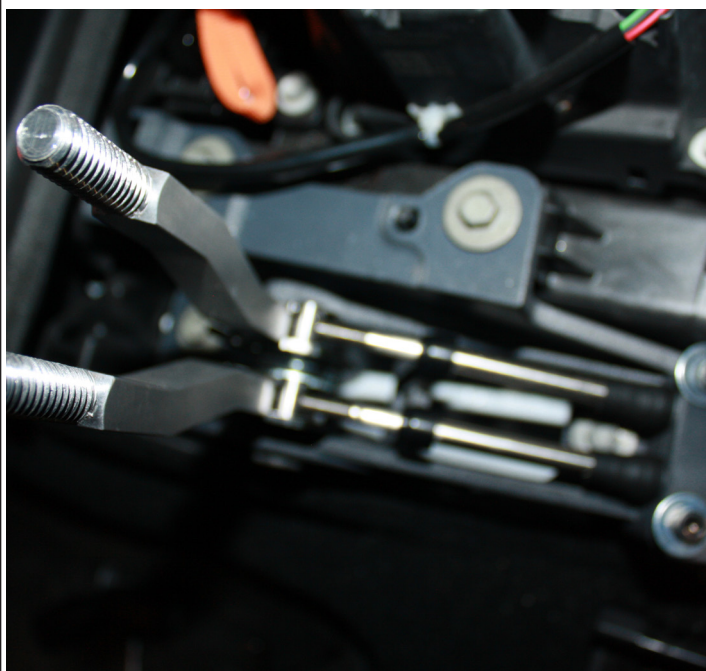


Park brake re-installed with the new cables routed.



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 at the transfer case if needed.



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

You must also climb back under the vehicle and secure the cables so they are safe from the rear drive shaft.







#### 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 because you will need it about 2" on the front and back.



**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 recommend once the leather glue is dried, unscrewing the bolts and adding a couple stitches to secure the shape. You can stitch the seam in between the two handles or leave it open. The boot stays together on the seam once the boot is installed over the handles.

Install the knobs. There is a flat spot on both sides 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.



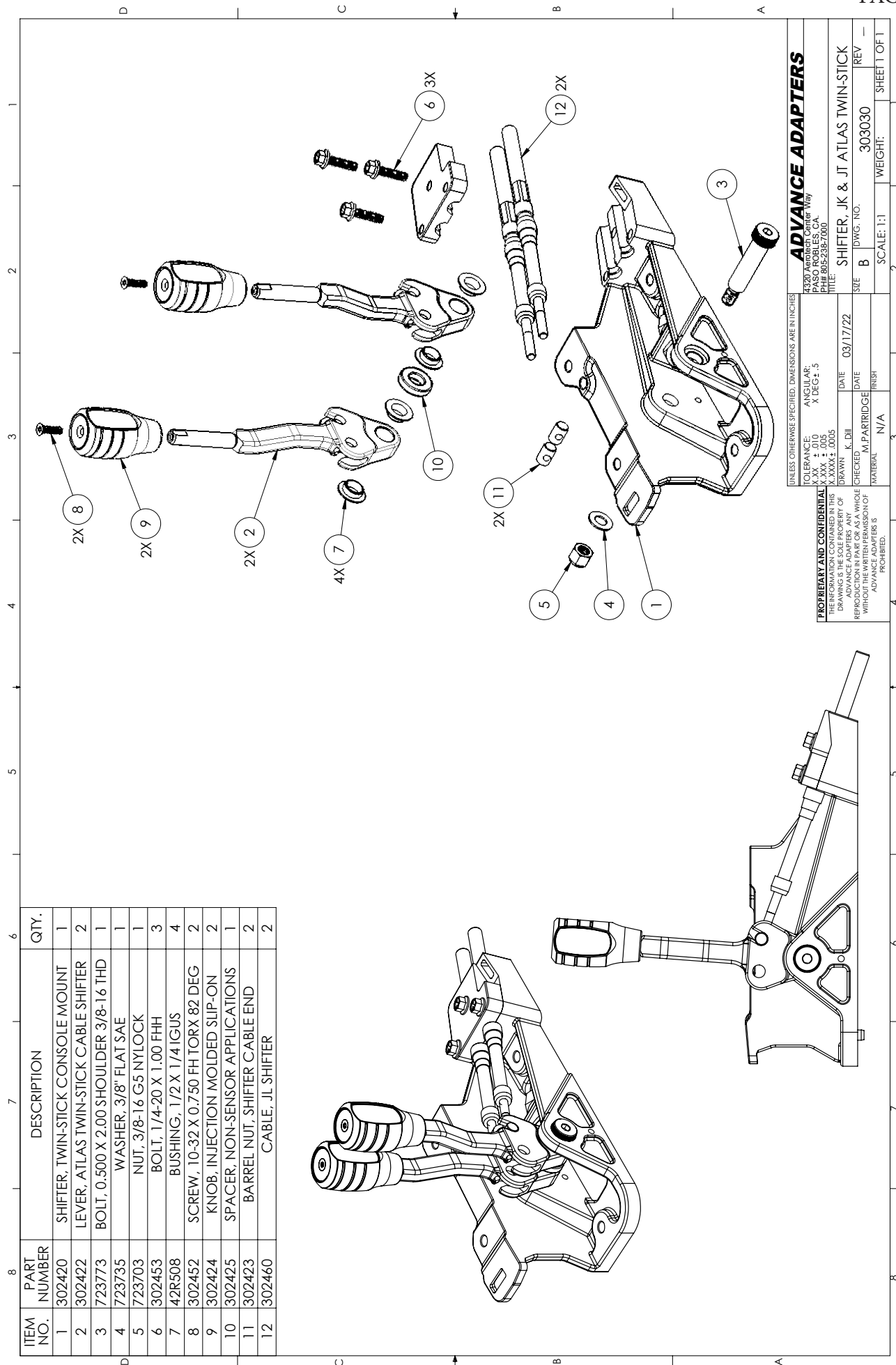
**Note:** The Jeep computer still thinks you have a low gear ratio of 2.72 or 4.00:1. If you test drive the Jeep before you flash the computer with the new low gear ratio, you should only drive it in high gear. Driving it in low without the flash will put the Jeep in limp mode. Reference our Kit 300377A-NEW.

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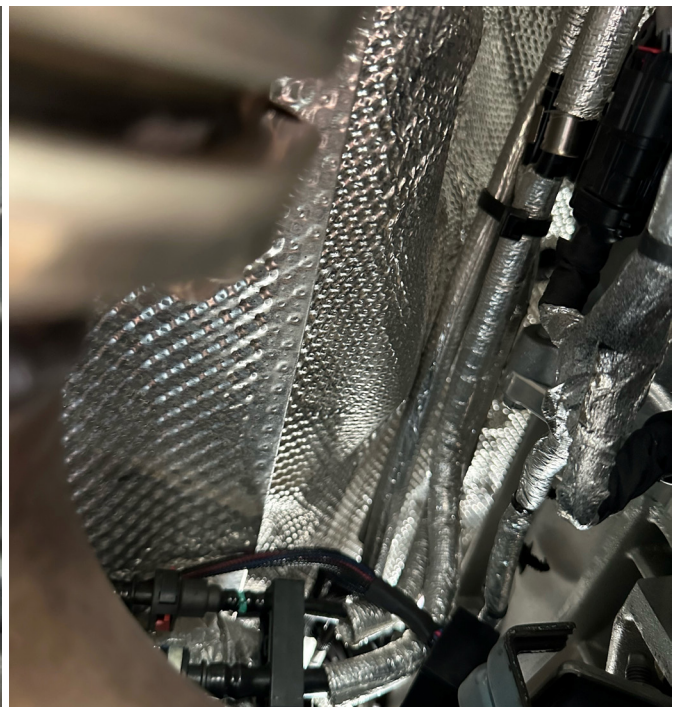
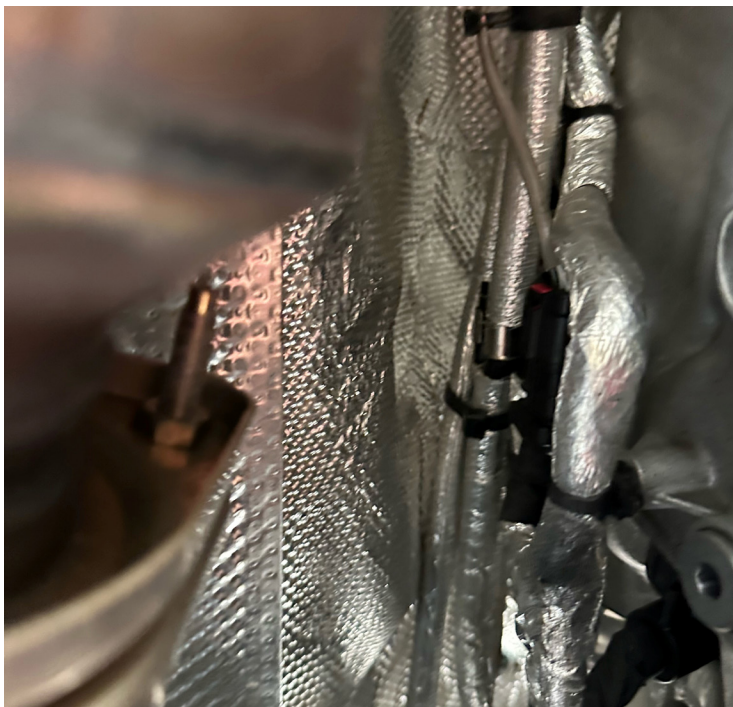
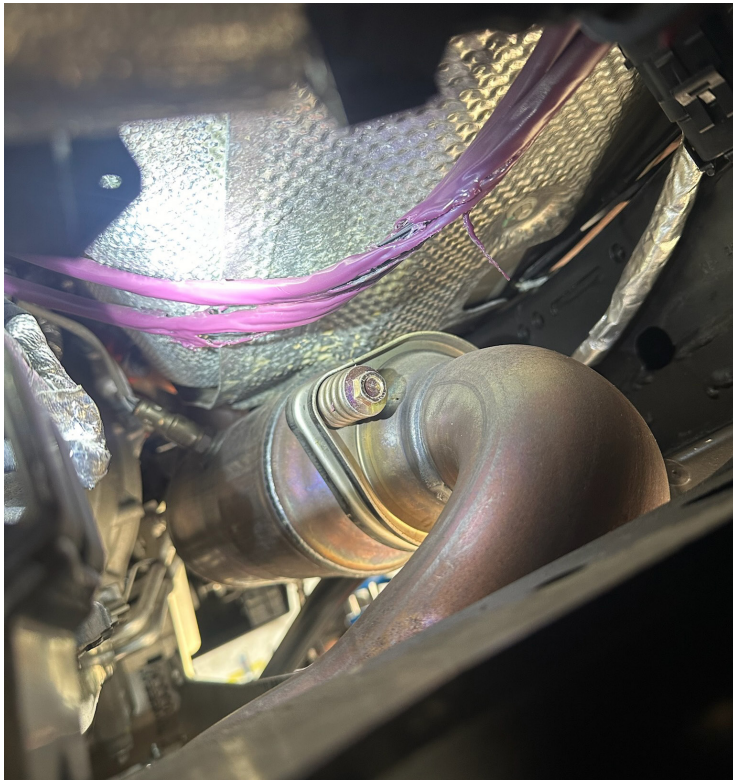








Jeeps with the 392 need to take precautions when routing the shifter cables around the exhaust. The heat shield needs to be installed and the cables routed to stay away from the exhaust system. The two photos below show the cables too close and the heat shield not used.



Cables should be wrapped with heat shield and routed to stay away from the exhaust.