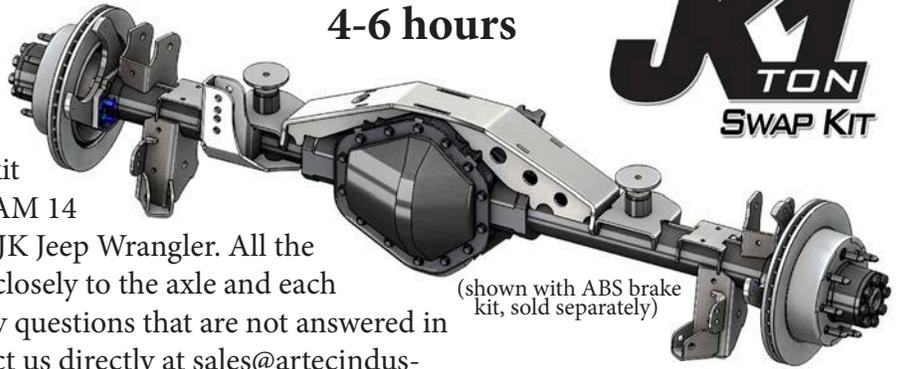


ARTEC INDUSTRIES JK 1 TON - REAR AXLE SWAP KIT INSTALL INSTRUCTIONS

TYPICAL INSTALL TIME:
4-6 hours

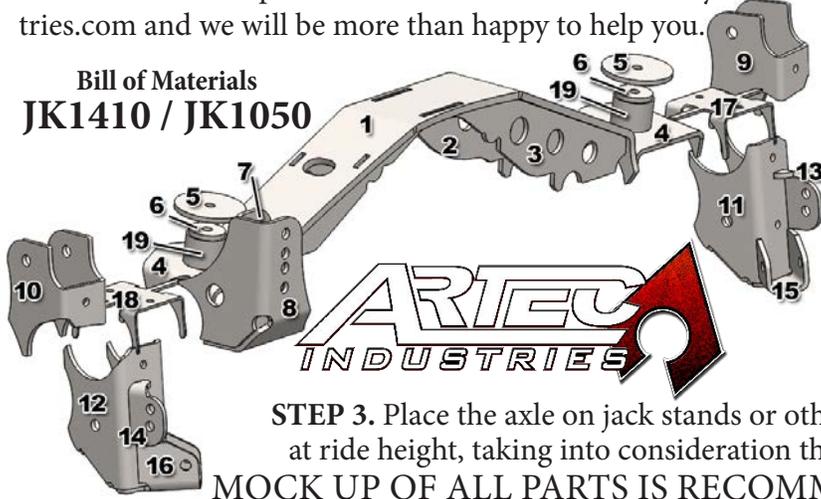


Thank you for your purchase of our swap kit specifically designed to easily install the AAM 14 bolt 10.5" or Sterling 10.5" rear axle in the JK Jeep Wrangler. All the pieces of this truss are designed to fit very closely to the axle and each other for a simple assembly. If you have any questions that are not answered in these instructions, please feel free to contact us directly at sales@artecindustries.com and we will be more than happy to help you.



(shown with ABS brake kit, sold separately)

Bill of Materials JK1410 / JK1050



STEP 1. Unpack contents of shipment. Make sure that all of the parts required are included with your kit. If any items are missing, and packaging is damaged, KEEP ORIGINAL PACKAGING and contact us.

STEP 2. Remove any OEM bracketry from axle. Take care not to grind into the axle tube. Remove any rust or paint on top of casting and on axle tubes using a flap disc or wire wheel.

STEP 3. Place the axle on jack stands or other support. Rotate the pinion to the desired angle at ride height, taking into consideration the type of drive shaft you are using. Secure pinion. **MOCK UP OF ALL PARTS IS RECOMMENDED PRIOR TO FINAL WELDING.**

STEP 4. Slide pieces 2 and 3 into jiggling slots of piece 1. All jiggling slots are directional and can only be installed one way. Place assembly 123 on the axle. Ensure the pinion angle is set for desired ride height. Rotate until the truss top is LEVEL. Clamp the truss assembly to the axle tube to get tight fitment. Having the truss top level is especially important if you plan to use a 3-link bracket on top of the truss (**STEP 8A**).

STEP 5. Place large tack welds between the axle and pieces 2 and 3 to secure these pieces in place. Tack weld pieces 2 and 3 to piece 1 in the slots on top of the truss. Tack weld piece 1 to the axle tube on the INSIDE of the truss. DO NOT WELD ON THE OUTSIDE EDGE OF PIECE 1 (TRUSS TOP) WHERE IT TOUCHES PIECES 4. The coil buckets (pieces 4) directly contact the truss top sides (1) to align the coils with OEM frame side mounts. Fully weld the truss to the axle using the methods described in the *GENERAL WELDING SUGGESTIONS* box below. It is not necessary to fully weld every seam and too much heat can also warp the steel. Using a True bar can assist with keeping the axle straight. For best results, weld each slot and grind smooth.

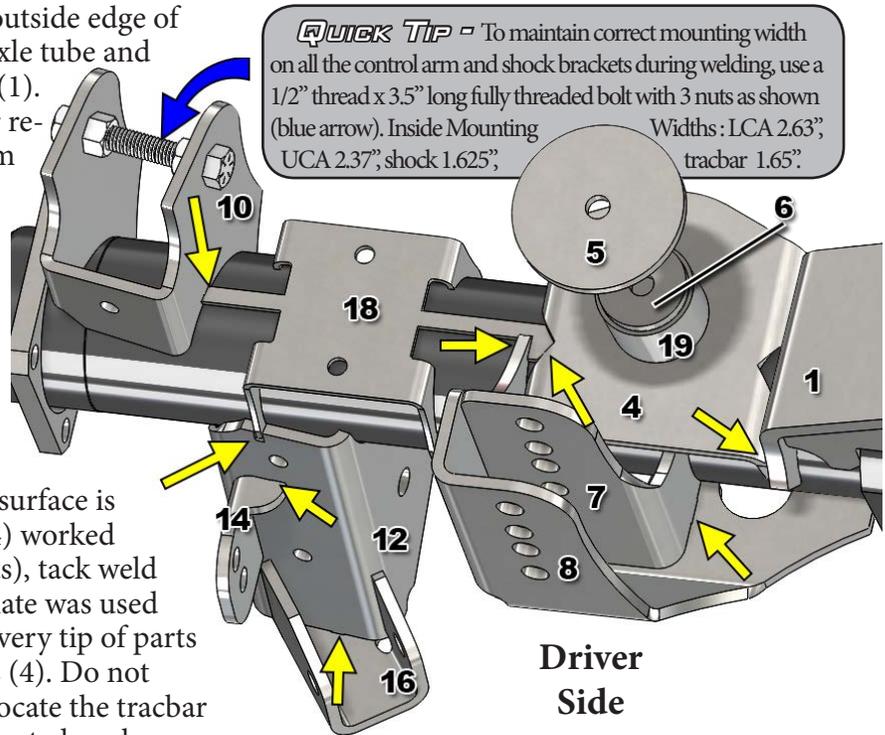
GENERAL WELDING SUGGESTIONS

Place about 1" long stitch welds between the axle tube and the truss pieces taking care to not let axle tube heat up too much in one area. For best results, weld one stitch and then weld a completely different part of the axle. This will allow the first area to cool. Take your time. If welded too hot, the axle may warp upon cooling. A welding blanket may help slow the cooling and reduce the chance of warpage. To weld truss to cast section with best results, preheat casting evenly around where truss contacts to approximately 400 degrees. DO NOT HEAT UNTIL GLOWING RED AS THIS MAY DAMAGE THE CASTING. Once preheated, weld truss to casting before it cools. For best results, use a needle scaler or peening hammer to stress relieve the weld immediately after welding. Post heat the area to approximately the same temp you used to preheat. Wrap axle in a welding blanket to slow the cooling process, the cooling should be slow (18-24hrs.) and uniform. The idea behind this method is to relieve the stresses in the materials, and ensure that the plate steel does not cool quicker than the cast resulting in stress cracks. MIG works fine since most of the loads are not transferred to the casting itself but rather to the structure of the truss, but high nickel content rod is a more proven method.

NOTE: THIS KIT INVOLVES EXTENSIVE WELDING AND GENERAL FABRICATION SKILLS. ONLY COMPETENT WELDERS SHOULD ATTEMPT TO INSTALL THIS KIT.*

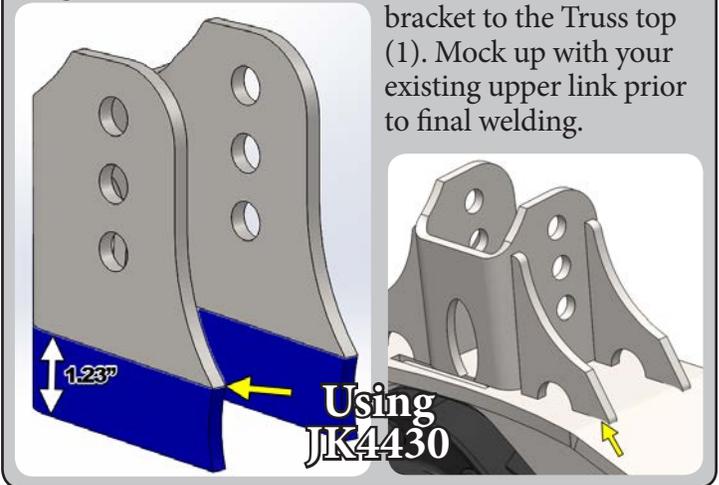
STEP 6. When completely cooled, check for any cracks in the welds especially around the casting. If cracks are discovered repeat the necessary steps above, grinding out any cracked welds and prepping the area.

STEP 7. With an unwelded surface on the outside edge of the truss, place the coil buckets (4) on the axle tube and slide until they contact the end of the truss (1). Place the bumpstop pads (17 & 18) on their respective sides of the axle tube and slide them until the pointed tab nestles into the coil bucket's (4) axle tube cutout. These parts will not have parallel top surfaces. Rotate both parts together until the surface of the bumpstop pads (17 & 18) are LEVEL. The coil bucket should be angled back between 5 and 6 degrees. This is stock angle, but may be altered depending on the need to correct coil spring arch. Tack weld parts 17 & 18 to the axle tube, ensuring that the top surface is LEVEL. If stock angle on the coil buckets (4) worked on your previous axle (typical of smaller lifts), tack weld them in place here. If an angle correction plate was used previously (typical of higher lifts), trim the very tip of parts 17 & 18 to allow rotation of the coil buckets (4). Do not trim the whole tab as you will need this to locate the tracbar bracket (7&8). Tack weld coil bucket at corrected angle. Mock up under the vehicle may be needed after all the other components are tack welded on the axle to determine a corrected angle and is recommended for best fit.



STEP 8. The rest of the parts all jig into specific locations in the correct position using the bumpstop pads (17 & 18) as the base. Follow the diagram to locate the jig and slot that locates each of the pieces (arrows). Parts 19 do not jig but sit on top of the coil bucket (4) and align to the etched lines in either the stock location (back) or a 1 inch wheelbase stretch location (forward). Weld a 1/2" nut or bolt to the underside of piece 6 before welding to piece 19. Tack weld all brackets to the axle tube. For best results, mock up axle in vehicle to ensure proper locations. Once correct, trim long tabs on part 18 for clean look. Weld all parts using the same techniques as before. Repeat STEPS 7 & 8 for the passenger side using the parts shown in the BOM which exclude the tracbar brackets (7&8). Ensure all parts match the location and angle of their mirrored parts on the opposite side of the axle.

STEP 8A. If using a 3-link style suspension such as RockKrawler's, you will need to purchase Artec part JK4430 to place on top of the truss. This bracket was intended to be used on our factory axle truss. This swap kit however has a higher truss due to the differential size, so trimming of this bracket is needed to maintain correct suspension geometry. Follow the diagram for trimming off the bottom of the bracket. Using the point indicated, mark a line parallel to the bottom, and trim. The gussets will also require a small amount of trimming as shown. Center the bracket and tack weld the



STEP 9. Once axle is welded and cooled, paint truss and axle where bare steel is exposed to prevent rusting. After paint is dry, reinstall axle breather hose, and other components. Install axle to manufacturers specs.

*Artec Industries, LLC is not responsible or liable for improper installation of this kit. Use common sense when installing. This swap pairs axles with a vehicle that were not intended from either OEM manufacturers. Use at your own risk.

NOTE: THIS KIT INVOLVES EXTENSIVE WELDING AND GENERAL FABRICATION SKILLS. ONLY COMPETENT WELDERS SHOULD ATTEMPT TO INSTALL THIS KIT.*