

# Bawarrion®



## ACTIONTRUCK PICK UP KIT INSTALL INSTRUCTIONS

The Bawarrion® ActionTruck conversion kit will transform your Jeep Wrangler JK Unlimited (4 door) and give it the utility of a pickup truck, as a nice side effect the vehicle weight is reduced by 300 pounds (136 KG). The ActionTruck conversion kit is designed for the Jeep Wrangler JK Unlimited (4 door). The design and function of the JK ActionTruck is primarily to enhance the aesthetic appearance of the Jeep Wrangler JK. No safety characteristics are expressed or implied and should not be relied upon to contain, or protect occupants in the event of an accident, or falling objects. Never operate the vehicle in excess of the vehicle manufacturer's specifications. This kit requires cutting and removal of the factory rear sport bar. A new two-piece hard top and sport bar reinforcement braces are included with this kit, but are not rated to be used as a safety restraint or device. This kit is designed as a permanent installation, but can be restored to factory-like condition with minimal effort.

Even though this conversion kit is the least intrusive in the market, it should only be undertaken by qualified individuals. If your Jeep was involved in an accident or any jumping, this kit may not fit at all. Also be careful when you're removing the kit from the shipping crate to prevent scratches and damage to the components. Please verify that no parts are missing. Check the attached paperwork that came with your "Installation Hardware"

**IF YOU SPOT ANY SCRATCHES OR DAMAGES DUE TO THE TRANSPORTATION, PLEASE TAKE PICTURES AND CONTACT US BEFORE YOU CONTINUE UNPACKING. THAT WAY WE CAN HOLD THE CARRIER LIABLE FOR THESE PROBLEMS. YOU WANT A PERFECT RESULT!**

### Required tools:

- Retainer removal tool or panel removal tool (looks like a screwdriver with a bend and slotted tip)
- 2mm screw or pin (to remove the floor panel spring latch)
- Straight edge 180cm or 70" long (a piece of the packing crate could be used instead)
- Caliper (ideal is an electronic model with metric/standard switch)
- Measuring tape
- Black marker
- Sockets: 10mm, 13mm, 15mm, 17mm, 18mm, 19mm and a ratchet wrench or better an impact wrench
- 17mm wrench or adjustable wrench (Crescent wrench)
- Torx sockets: T-25, T-30, T-40, T-50
- Plastic hammer
- 2 vise grips or C-clamps
- Grinding machine with grinding and cutting blades
- Reciprocating saw with metal blade (Sawzall)
- 3mm or 1/8" metal drill // 13mm or 1/2" metal drill // drill stop
- 2mm nail
- Safety glasses for all the cutting, drilling and grinding
- Antirust flat black paint spray can
- Masking paper
- Masking tape 25mm or 1" duct tape
- Utility knife
- Super Glue
- Caulking gun
- Black sealant caulking
- Silicone spray or wax
- Cleaning cloth
- Vacuum cleaner
- Air compressor
- Air gun



-> Use Loctite on all screws.

• Let's start with removing the rear doors. **(Picture 1)** Remove on the inside the B-pillar access panel, disconnect the wiring harness and unhook the rear door strap. **(2)** Using a T-50 Torx remove the rear door hinge bolts, then lift off the rear doors. Use a 13mm socket to remove the hinge bracket bolts, 3 bolts per side will be reused to install the half doors. Remove the door strikers using a T-40 Torx.

• Remove the freedom tops and then the six bolts **(3)** at the bottom of the hard top close out plate inside and the two bolts **(4)** above the B-pillar outside, disconnect the rear wiper harness **(5)** and water hose, close the hose on the chassis side with the integrated plug (so you don't squirt water if use accidentally the rear wiper controls). Next take off the hard top, lay it down on carpetstrips to save the edges. If you have a soft top remove all related parts and brackets.

• Let's remove the rear seat. There are 11 bolts mounting that seat. Use an 18mm socket and start with the seat back in the upright position. Remove the 4 floor bolts at the front of the seat, lift both seats to access the remaining bolts, one on each side as well as the center seatbelt bolt on the double seat. Next remove the 15mm nut **(6)** that holds the seatbelt latch of the single seat in place. Remove the 13mm nut **(6)** that joins the two seat halves, this will make it possible to remove the rear seats individually. Remove on single seat the final 18mm under seat bracket bolt and lay the seat down. Remove the rear 18mm bolt holding the single seat in place and lift it out. With the remaining double seat laid down, remove the two 18mm bracket bolts as well as the seatbelt harness nut and remove the seat.

• Remove the rear seatbelt plastic covers. **(7)** Covers may vary depending on the model year. Start with the top trim pieces, they will pop straight up making it possible to separate the seatbelt retractor covers, after removing the outer panels you gain access to the 10mm nut **(8)** that holds the lower trim panels. Use a T-30 Torx and remove the two bolts **(9)** each on the floor which hold the trim panels. Use a 10mm socket to remove the tailgate guide and a T-40 Torx to remove the striker. Remove the lower trim panels.

-> If your Jeep has a sub-woofer, you will need to remove it instead of the right trim panel. Reroute the wiring forward for future sub-woofer reinstallation.

• Remove both seatbelts by removing the lower T-50 Torx seatbelt bolts. They are glued therefore push hard, don't slip. To gain access to the upper seatbelt bolts, pop off the plastic trim and remove the remaining seatbelt bolts.

• Remove the four rear cargo and carpet bolts with cargo tie downs using a T-30 Torx and lift out the carpet as well as the tool compartment plastic liner.

-> These bolts could later be used as cargo tie downs instead of the six upper truck bed bolts.



- The floor panel **(1)** spring latch can be removed by pushing out the steel pin with a 2mm nail, then everything comes apart. Remove the floor jack and tools and **(2)** pull out both drain plugs. Leave as much carpet under the truck bed as possible for noise and cargo padding so we trimmed the **(3)** lower edge of the carpet to allow for the truck bed to sit into place. It can be completely removed if you would like.

- Remove the sound bar bolts using a 10mm socket, disconnect the light and speaker harness on the passenger side, we'll modify and reuse it later. Unzip the roll bar padding and remove it in preparation for sport bar removal. There's a cargo light snapped into the cross brace, it will simply pop out. Remove all six harness retainers from the sport bar using a retainer removal tool and disconnect the cargo light. Pull off the sport bar foam padding.

- The satellite antenna is held in place with a 10mm specialty nut, snap out the antenna and unplug the harness. The connector is tucked down into the B-pillar padding a bit, but it's accessible, disconnect the antenna harness.

- For the next step we use a **(4)** straight edge or a piece of the packing crate to mark the upper roll bar brace before cutting. The idea is to remove and cut the sport bar brace just so that it's parallel and even with the cross member's rear edge, it's not a critical cut, but you don't want the brace extending past the cross member. Retain the **(5)** original antenna mount by leaving a 25 x 50mm / 1" x 2" tab around the antenna mounting holes. Unbolt the 13mm bolts, remove the roll bar braces, cut along the drawn lines, grind all edges and paint with antirust paint.

-> **Go ahead and lift the carpet. Lay an old sheet from the windshield over the cross member and tuck it under the carpet. On the sides tape the sheet to the doors, just to save yourself some cleanup.**

- We measured from the back side of the sport bar cross member **(6)** 63mm or a little less than 2.5" and marked it. Find a good consistent surface to measure, avoid welds. We wrapped a **(7)** tape around the roll bar at the marked line, to give us a good straight edge to cut. Be careful to make a **(8)** square clean cut, while pressing the saw shoe against the tube.

-> **Wrap tape around the cuts to hold the roll bar in place while cutting in the rear tubes.**

- To mark the rear tubes for cutting, simply look for the **(9)** square holes facing towards the center, align tape along the bottom of these holes, wrap the tape around the roll bar to give us a good straight edge to cut. Be careful to make a square clean cut, while pressing the saw shoe against the tube.

-> **Make sure to orient the saw so that the saw blade doesn't hit the cables under the fender rail.**



• When cutting the sport cage there can be some binding of the blade, have someone to help reduce the bind by prying open the cut slightly with the **(1)** screw driver or similar tool. With all the cuts made, we are ready to lift out the bar.

-> **Some models have thread studs sticking out the right rear corner, where the sub-woofer was mounted and a pin with ball head on the left side, cut these off flush. If you forget to do that, you will not be able to install the truck bed.**

• Clean up the surfaces of the **(2)** cuts with a grinder. Test fit the **(3)** rear sports bar mounting caps on all four sport bar mounts. You'll probably need to **(4)** grind the tubes to get a smooth fit. On some Jeeps they slide over with zero force, on some it takes a lot of grinding because the tubes are not perfectly round and in the rear the welds are sometimes way bigger than normal.

-> **Caution, the mounting caps are tuff to get back off if you pound them on while test fitting.**

• Use a **(5)** straight edge to determine the vertical position of the rear sport bar caps. The edge of our straight edge should meet and rest on the step down surface at the outer edge, because there will be weather strip on the bed side. We made the step down surface just to take this into account. The front sport bar caps are pre-welded into the H-shaped sport bar frame. Test fit the frame by sliding it into place, the caps should slide easily into position. If this frame and the rear caps fit perfectly, take all off, paint all areas where you made cuts and grinded with antirust paint. Allow the paint to dry.

• Install the **(6)** rear sport bar caps using the M10 x 80mm bolts, M10 washers for both ends and the M10 Nylock nuts. The bolts go from the front to the back, through the bushing where the seatbelt was mounted. The bolt needs to be rotated when stuck at the internal thread of the bushing. Don't use a hammer. The washer and the Nylock nut have to be on the rear side. Tighten the nut / bolt with a 17mm socket and wrench. Now you may find that the cap tends to work its way up as you tighten, just tap it down into place with a plastic hammer. You may have to do that several times as you tighten up. Check with the straight edge again if the position is right when the nuts and bolts are tight.

-> **When bolting on the external sport bar braces, we don't want the surface of the tub to be pulled down to meet the newly installed sport bar cap, it will be unattractive, we don't want the mounting point to be very far off because of the way it would pull or push on the new fiberglass bed.**

• Place the H-shaped sport bar frame. Grab the **(7)** external sport bar braces and do a quick test fit. Tighten the **(8)** front M12 mounting bolts and snug up the rear M12 mounting bolts. The external sport bar braces have long holes to allow back and forth adjustment, **(9)** tap the H-bar forward until the step down surfaces of the caps are 68mm or about 2 and 11/16 inches behind the sport bar cross member.



- When you're certain that everything is in the right position, tighten up that rear bolt. It will hold the H-bar in place. If the measurements on both sides are correct, you're ready to drill the cross holes through the front of the sport bar. Use a 3mm or 1/8" drill along with the provided **(1)** aluminum guide sleeve and drill a pilot hole. Position the guide in the 13mm hole, drill pilot holes on both sides of the sport cage caps, on both the driver's and the passenger side. This will help with the final drilling and provide a guide hole for the larger **(2)** 13mm or 1/2" drill. Now again drill from each side for better alignment. After drilling the final hole, the drill should pass through the sport bar and the cups. Stick through the M10 x 80mm bolts to keep the H-bar in place.

- Measure from the **(3)** edge of the rear door opening to the outside wall of the H-bar. The idea is to position the legs of the H-bar equally to the sides of the Jeep. Use a marker to draw a line around the legs. If your Jeep model has a sound reduction material within these lines, scrape it off so that the legs will be in contact with the metal of the floor.

- Position the H-bar as measured before, hold firmly in position while drilling with a **(4)** 13mm or 1/2" drill the first hole on the driver's side. Stick a M12 bolt through the hole, drill the other hole. On the passenger side we highly recommend to use a **(5)** drill stop because the floor is soft and will grab that drill.

**WARNING, CAUTION:**

**There is a gas tank directly under the passenger side mounting position, as well as some brake lines and a wiring harness. Instead of a drill stop you could drill a hole into a piece of wood with a thickness just a little shorter than the drill length to use it as drill spacer. The drill should just barely go through the sheet metal.**

- Take off the H-bar, de-burr the holes, clean the floor and paint with antirust paint. Allow the paint to dry.

- Final install the H-bar using the **(6)** M10 x 80mm bolts, M10 washers for both ends and the M10 Nylock nuts. Install the bolts from the **(7)** inside of the sports bar out, so later you can use a wrench on the inside, to clear the **(8)** satellite antenna and use the socket on the Nylock nut outside.

-> **Tighten the nuts and bolts just enough so you can still tap the H-bar back and forth with a plastic hammer. The idea is to make sure that the H-bar will sit firm against the inside of the hard top, without putting any stress to the area where the cups stick through the hard top holes.**

- Grab a sports bar **(9)** treaded sandwich plate and hold it under the floor in position of the H-bar leg, get the two M12 bolts with M12 washers started, then tighten on both the driver's and passenger side.



• Wipe down the floor of the Jeep and use some duct tape to block all the holes on the floor. Now remove with a retainer removal tool the **(1)** corner door rubber gasket from the front fender rail. Remove the tailgate gasket using the same tool. We'll trim the gasket and reinstall it later. We chose to keep the **(2)** carpets so we trimmed it to make it fit around the sport bar support bar legs.

• We'll use the existing bolt holes from the door hinges and door latch to mount the doors. Fit **(3)** both doors by loosely installing with the original hardware. Check for alignment by laying a straight edge along the top of the fender rail and then lifting the door up to meet the straight edge. We want to have a good seal between the panel and the tub. Check for door gaps and make sure that the panel is pushed flush with the exterior of the Jeep. With the door properly positioned and pushing in the rear corner with your knee, final tighten the bolts. Repeat the process on the other side.

• Install the **(4)** gasket in the bed, position the seal with the lip facing toward the rear. We're simply trying to give the bed of the jeep a barrier against any moisture or dirt that may find its way in.

-> **Make sure that the gasket is firmly pushed into all corners and radiuses to function properly.**

• Newer Jeeps have a tailgate door retainer. Remove the whole assembly by using a T-30 Torx. Cover the holes and the rectangular opening with overlapping strips of duct tape.

• Now is a good time to **(5)** paint that striker plate surface just to match the truck bed color. With all wiring tucked away also remember to run your sub-woofer wiring under the carpet and toward the front if you do want to reuse it later.

• We're ready to install the tub. When installing the fiberglass tub, the **(6)** tub will drop in with the forward part of the tub higher. The rear sides of the tub need to be squeezed together slightly just to allow the tub to drop into place. Once the back is dropped into place carefully lower the front and align the **(7)** two studs on the floor of the bed with the holes in the tub, with all the holes lined up, you can install the **(8)** bedrail bolts. Make sure the **(9)** front bed corner has the same gap towards the B-pillar as the half door. Use black sealant caulking around the two studs on the floor of the bed, push the washers down into the caulking and then tighten the floor nuts. Wipe off and clean excess caulking.

• Trim the upper end and the corner areas of the tailgate gasket with a utility knife and install it. Glue the upper ends with Super Glue. Mask and re-paint the striker opening of the truck bed if necessary. Use black sealant caulking to fill and seal the opening gap. Wipe off excess caulking and clean that area.



- Grab the roll bar padding that was removed and spread it out on the floor. We are going to separate the seams so that the entire rear section of the padding is removed. Use the **(1)** factory seam as a guide and kind of pull it and separate with a utility knife the two sections. This will require cutting thru the closed zippers. Don't worry this edge will be tucked away so it won't be visible.

- Install the Satellite antenna and connect its harness.

- Orient the cover so that the **(2)** form section of the cover surrounds the roll bar padding on the bottom. Then work it around until it looks and fits best. You will have to restart the **(3)** zipper which is a bit of a pain but it's doable. Tuck in any of the loose edges. Make sure that the roll bar cups are cleared.

- Sound bar modifications. Remove the speakers from the sound bar and disconnect them. The sound bar needs to be modified so that the speakers are no longer part of the sound bar. First we lay out all the **(4)** necessary cuts with masking tape. Probably the easiest thing to do will be to reference those images and apply your tape in a similar manner. The goal here is to gain enough clearance between the sound bar and the new hard top. We're simply **(5)** trimming off excess pieces of the sound bar, using a grinding machine with cutting blade.

-> **When making the cuts be cautious not to cut through the wiring harness, it's wrapped in foam.**

- The connector in the light bar is hard to remove, **(6)** drill out the rivets and pull the connector housing out of the light bar, or just break it and cut it free from the connector. With the connector free, pull the harness from the light bar, disconnect the connector, cut off the connector housing then lay the harness in the remaining section that we just modified. Clean up all cut edges. Tape the connector ends to the harness. Tape the harness to the light bar and use **(7)** several strips of tape, connect and close the rear open edges of the light bar. The only reason we're doing this is to keep the harness from bouncing out of the sound bar. The cut will be up against the top and completely hidden.

- Install the **(8)** modified light bar with the original hardware. The speaker harness should be tucked up, out of the way and ready for future use. Use wire loom or some tape to create a harness, reconnect the original connector and **(9)** conceal the wiring under the roll bar padding.

- Let's move the truck bed and clean the vertical surface along the bolt holes where the hard top will connect to the bed, so that the weather stripping of the hard top will later stick to this surface.

-> **Don't pull off the factory installed weather strip protection yet, we want to check the fit first.**



• Test install the rear hard top. Start the **(1)** top M6 bolts first to help with proper alignment at the top, you'll have to stand on the truck bed and push with your belly against the hard top to achieve that. This is a very tight fit in order to seal properly, so this is rather hard to do. **(2)** Clamp the hard top to the truck bed on the inside with two vise grips. If the roll bar is too far forward, tap it with a plastic hammer until it is flush with the recessed area on the rear of the hard top. Some Jeeps are a little off here and there, so you may have to do some minor grinding where the **(3)** roll bar sticks through the hard top in the rear. Once all looks to be aligned, tighten the top M6 bolts and check the alignment along the B-pillar.

-> Use a dollar bill to check the gap by inserting it between the rubber seal and the B-pillar. Run the dollar bill from top to bottom. If it's tight, you'll not have a leak. Maybe this doesn't seem high tech, but it works.

• Once the alignment is perfect, tighten the M10 bolts of the roll bar, draw with a marker a line on the sport bar, along the cups of the H-bar for reference when end tightening later. Take off the hard top, lay it with the rear side down on a blanket to access the bottom side. Peel off the protective paper from all hard top weather stripping without getting any dust on it.

• End tighten M10 bolts and nuts while keeping an eye on the marker line. You don't want the roll bar to relocate, since this would put stress on the hard top. The roll bar cups will crush, but keep going until they are squished against the Jeep roll bar. You can later tighten them if you discover a knocking sound when driving over wash board, it's just a lot harder to do from inside the Jeep.

• The final install is same as the above described test install, just now use all **(4)** 7 M6 bolts and nut plates. When all the bolts are started and in place, tighten them each up a little at a time, just to pull the two sections together without damage. Go ahead and final tighten all 7 M6 bolts.

-> Perform again the high tech dollar bill leakage test and make sure all is aligned right.

• Let's seal all 4 external roll bar attachment points with black sealant caulking. Apply it around the **(5)** 2 roll bar cups that stick through the hard top and the **(6)** 2 cups on top of the truck bed. Make sure the gaps are filled properly then push the **(7)** **(8)** large rubber washers down into the caulking. Wipe off excess caulking and clean that area. Install the external roll bars by using the M12 bolts and M12 washers. Tighten the bolts on the hard top side first, because the external roll bars have long holes in the rear to allow adjustability. Then tighten the **(9)** bolts on the truck bed side.

• Reinstall the tailgate door latch hardware, it may require some minor adjustment for the latch. The original tailgate gasket will be reused with some modifications.





- Follow the contour of the bed and trim off the excess (1) upper corner molding from the harness. Push the gasket into place and trim the bottom corners to make it fit. Use Super Glue to glue the upper corners to the metal.
  - Use a T-25 Torx to remove the factory hard (2) top windshield latch brackets and replace them with the (3) provided brackets. Apply silicone spray or wax on the windshield rubber gasket to make it slippery.
  - When installing the targa top, you'll need to tuck the (4) thick rubber gaskets (here the slippery helps) at the corners of the windshield into the top to allow it to seat and seal. It's tight but tight doesn't leak. We'll do the interior and adjust the (5) latches to pull the targa top into place, starting with the rear latches, to close the gap to the rear hard top. This is very important to perfectly seal. If you start with the front latches the gap will never close and you'll have a leak!!
- > **Don't get carried away with the latch tightening, it should be firm to latch down but not so tight that they rip themselves out of the top.**
- Adjust the latches a little bit at a time until you have a good seal along all four sides. Park the Jeep in the sun to warm up all seals so they can seat themselves. Re-adjust all latches. If you live in a cold area, make sure to re-adjust all latches once it gets warm!
  - Install the #22 plastic angles at the rear upper corner of the door, between the metal and the gasket. This will move the gasket just enough inward, so it would be in contact with the targa top. Otherwise you'll have a leak!!
  - Perform again the high tech dollar bill leakage test by holding it into the open door, closing the door and pulling it out. You should feel a resistance. Work your way from the front to the back and down along the B-pillar, to make sure all is aligned and seals right.

**Bawarrion® ActionTruck** by Thaler Design

[www.meinjeep.de](http://www.meinjeep.de)

If you need some more help, check the video below:

<https://www.youtube.com/watch?v=f7oYgLy9nKU>



## Installation Hardware

<u>Position</u>	<u>units</u>	<u>product</u>	<u>description/ location</u>
1	1	hard top rear	
2	1	hard top targa	
3	1	truck bed	
4	1	truck door RE	use stock hardware to mount
5	1	truck door LE	use stock hardware to mount
6	1	roll bar main	roll bar internal
7	2	roll bar tubes	roll bar external
8	2	roll bar sleeves	sleeves connect to seat belt bushing
9	2	roll bar floor plates	roll bar main floor/ under Jeep floor

### following are packaged hardware/ install kit

10	8	M12 bolt	roll bar external/ roll bar main floor
11	8	M12 washer	roll bar external/ roll bar main floor
12	4	M12 rubber washer	roll bar external/ roll bar main floor
13	4	M10 bolt	roll bar main top and rear sleeve
14	4	M10 nylock nut	roll bar main top and rear sleeve
15	8	M10 washer	roll bar main top and rear sleeve
16	1	drill guide	roll bar main top/ drill pilot holes
17	1	floor rubber profile	6' long D with lip/ glue across trunk
18	9	M6 nut plates	connect the hard top parts
19	9	M6 bolts	connect the hard top parts
20	9	M6 washers	connect the hard top parts
21	2	foot loops	replace the stock loops a windshield
22	2	plastic angle for front doors	JK door RE + LE upper rear corner

### following items are **not** packaged

23	2	door tubes
24	1	window knob
25	1	window knob aluminum pin
26	1	window knob aluminum pin rubber washer
27	1	window knob set screw
28	2	half door locks w/ key
29	2	keytag washer
30	2	stainless wire
31	2	aluminum compression sleeve
32	2	aluminum oval compression sleeve
33	4	aluminum hinges powder coated black