



Overview



Overview

Note there are 2 versions of this kit. The lower version is ~6.5" chop The tall version is ~4.5" chop

Fitment: This kit will fit 2019+ KRX models Should fit all windshields

See cage comparison page

Kaos XL fits best

Lower Kaos will require trimming or live with a slight overhang Works with tailgate

Roof file is available (.dxf file for cnc cutting) or easily made by hand to fit Coolers still work and open

Clears 35's etc

New ROOF lines

The front tube has been changed to have the roof roll around the front bend now, this is why we don't offer the roofs any more as they have to be formed to the cage and we can't ship them pre-formed. We occasionally have extras on hand and can ship un formed, but shipping is sometimes unreasonable which is why it's best to have someone local to cut it for you from our file.



Kaos Series Height

Shown is the factory cage (black) vs the KRX Kaos (green) and KRX Kaos XL (red). Depending on how you measure the amount of drop is different, we call the Kaos (green) 6.5" drop and Kaos XL (red) 4.5" drop. Most riders 6' and under should fit the lower version Kaos but recommend at least 4" above your head (with helmet) to the bottom of the tubing.

Measure from your head to the factory cage and subtract these "drop" values



Cage Height

Given this information you must decide if this is proper cage kit for you and your passengers safety. We recommend a minimum of 4" clearance between helmet and the cage when properly seated and harnessed in. Good harnesses worn at **ALL TIMES** is a **REQUIREMENT**. We don't want to see anyone get hurt, no one wants to see anyone hurt, if the key is in the ignition the harness is on and tight!! Teach your passengers how to secure themselves and their hands prior to leaving in your ride. Ride responsibly and live to ride again!

A quick and easy test of clearance is a closed fist on top of your helmet and a friend to measure the height from the seat.

All people are shaped difference, Personally I'm 5'10" but tall torso and sit taller than my 6'1" friend by several inches. We can't account for all shapes and sizes so you have to do a bit of homework before ordering, but this kit should fit the majority of people with proper clearance.

KRX Specific NOTES

First of all the mounting points on the KRX are all threaded unlike other machines. The factory bolts are M12 x 1.25 We HIGHLY suggest getting this tap before attempting a cage kit. We are trying to make them available on the site to add to your purchase.

The KRX A-pillar mounts are recessed into the dash a and angled inward and twisted a bit. Also there are a number of different windshield options available. For these reasons we decided to not offer windshield/intrusion bars with this kit. Not only do these bars make many windshields not able to fit and use of the upper dash storage compartment unusable but installation and removal of the cage is extremely difficult with out some flex in the A-pillar tubes. Not to mention the electrical bus bar is located under these plastics and access will be very limited with them installed.

Part Numbers



Part numbers are engraved within 3" of the start of the part. Part 9 is a front windshield gusset from 1.5 tubing Passenger parts are followed with an M (for Mirror) Before removal of the stock cage support the machine with weight off of the suspension. Yes this is a RZR shown but the same principal applies. Check your door fitment before and after. We have had many customers that skip this step and sometimes it works and other times the frame relaxes and doors have to be don't shut or open correctly anymore.



Even with proper support the factory cage will spring out of alignment depending on the condition of the machine as well as factory tolerances. Yes this is a RZR shown but the same principal applies



Directions

- 1. We recommend running a tap in all the bolt holes after the factory cage is removed to ensure good clean threads to start with.
- 2. Clean all the bungs before bolting to the machine/jig. Bungs have oils and contaminants from the manufacturing process that will affect the welding process. Bolt bungs on to the machine/jig loosely but inline. Small washers are suggest in between the bungs at the A and B pillars. This will help with removal and reassembly after welding. We use a custom shim from 0.100" mild steel but a thin washer on each bolt will work. This is optional but may be beneficial in the following steps as all machines are different
- 3. Clean all tubes, inside and outside around the areas to be welded. Again contaminates will be present from the manufacturing process. Now is a good time to check all the part numbers and lay them out for quick assembly.
- 4. #1 and #2 are shipped in 2 pieces due to size. They are joined with a provided slugs. There is a designed in gap of 3/16" and plug weld holes. There is some adjustment in this joint and it is accessible to weld with all the parts installed. Join these two parts and place on the A and B bungs.

UPDATE!! – We added ~ 1" to the bung side of part 2 to ensure there is enough length – trim to fit

5. Support #1 with #3. Place #4 between both #1 parts. #4 should have the part number on the passenger side with the hole for the tab facing rearward. A ratchet strap should hold this part in place while the other parts are fit.

Directions

- 6. Before welding on any machine with electronics disconnect the negative battery terminal.
- 7. We also suggest the removal of the seats and use of good welding blankets to prevent damage to your machine.
- 8. Place #6 between both #2 parts. #6 will be just aft of the gap at the joint, fully on #2 and not covering the plug weld hole on #2. The part number of #6 will be on the passenger side.
- 9. Place #5 between #4 and #6. #5 part number should be FWD and the tabs on the drivers side.
- 10. Tack #6 in place and tap #4 back until it fits with #5.
- 11. Place #8 and mirror in place centering them on #6.
- 12. Pull/tap all these into alignment and hold with straps for the time being. Check square and step back to ensure the whole assembly isn't racked to one side or another.

Directions

- 13. Once these main parts are fit well and aligned, double check square and true and start tacking them in place.
- 14. #7 can be fit to the #3. Sometimes a tack on one side and a light ratchet strap is needed to get the other side in alignment. This is due to tolerances in the machines and our manufacturing process.
- 15. We suggest fully welding the tube parts and then placing the supplied gusset in places to support the slugged joint. Some trimming may be necessary to clear previous welds. The gusset was designed for the Kaos and not the XL but it still works just not quite as perfect due to the change in angles.

SLOT AND TABS



Slot and tab cuts will locate the parts with these features.

It is a good practice to assemble ALL parts to ensure they fit prior to tacking any of the pieces. Good clamps, magnets, ratchet straps and a few extra hands make this easier.

It is possible to flip a part backwards and still fit, but the mating parts will not fit and you'll know something isn't right. Please check this before contacting us.

If necessary these tabs can be ground down and the tubes slightly moved from where they were intended but the mating slot will also need to be properly welded closed.

Welding

Again this is a crucial part of your machine's safety and should only be assembled by a qualified welder, don't skimp here. And please pay your welder fairly! These kits can and have been fit and welded in an hour but that isn't typical. Expect 4-5 hrs of shop time at a standard rate.

All tubes are mild steel and can be mig, tig or even stick welded.

Once the kit has been assembled/fit on the chassis with all the pieces you can start to tack pieces together. Having dry fit the kit once you should be able to figure out what pieces can be installed in what order. Some of our kits have tubes that can't fit back in after other pieces are installed – we try to avoid this though! It's recommended to fully weld every joint, even under joints that will be covered by another tube, slight grinding to clear the previous weld may be necessary.

There should be no excessive gaps or holes to fill, if there are STOP and check fitment of all the other tubes. If nothing is working please don't hesitate to contact us!

The Elite series kits are CNC cut and therefore the edges can have some scale from the cutting process. Tubes also have mill scale, contaminates and oils on or inside of them. For best results a light sanding of the outside/inside and edges to be welded is recommended. With any welding process bright shiny clean metal produces the best results.

Welding Tips

The bungs provided in this kit are solid steel chunks and therefore will draw more heat from the welding process. Preferably these should be preheated before welding as well as wiped clean from contaminants.

Welding tubing is different than most welding contact us for some practice pieces, we would be happy to send you something to hone your skills.

Additional parts

We prefer the wrap around harnesses for ease of adjustment and a clean look but if you need tabs to bolt on your harnesses we will be offering them on our miscellaneous parts page or you can order them from our suppliers.

Simple tabs we typically use these AA-028-C Trick Tab, 1/8" Steel, 1/2" Hole From <u>www.aa-mfg.com</u>

Harness recommendations

Just some opinions here, ignore them if you want.

These are the preferred type of harness latch for what we do with these machines.



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This style will fill with sand/mud/dirt and either not unlatch for you when needed or not properly click in easily.



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If you have either of these style already we recommend swapping them out or at the very least properly clean and lubricant them VERY often and ensure they are functioning properly BEFORE the time comes to test them.

RE-INSTALL

After the cage is fit to the vehicle and welded by a qualified professional, you may experience difficulty re-installing it onto the factory cage mounts. This is likely due to the factory chassis flexing and/or the cage moving from the welding process. The cage is now more rigid than the factory cage and the chassis will move some to accommodate this. It is a good idea to support the chassis (no weight on suspension) *PRIOR* to removing the factory cage and *DURING* assembly of the cage kit.

Since the cage is assembled and welded on the chassis it should fit back on nicely but may not fit a different vehicle of the same year/model. If there is excessive fitment issues please call us 636-271-5696 and we'll try to help but don't use anything more than a small ratchet strap and an alignment punch to locate the cage.

We find it best to re-install cages starting with the a-pillar mounts loosely then move rearward.

RE-INSTALL KRX Specific

Again the holes are threaded in the frame – **DON'T mess them up!!** When removing the cage for final welding go ahead and run the tap back in through the holes and check all the bolts. We recommend getting factory bolts from the dealer as they have a specific strength and rating for the application. The bolts do seem soft compared to grade 8 hardware and it's likely the bolt will be harmed rather than the bolt hole in the frame which is easier to replace.

When reinstalling the cage typically the B-pillar will need to be pulled down to be in alignment. Be very careful using and alignment punch to not damage the threads. It's been our experience that you should loosely install one bolt in each A-pillar then focus on the B-pillar location. Start one bolt in the B-pillar and keep the other aligned then tighten that bolt. Try to start the other bolt and if it's not aligned start over! Loosen the first bolt and re-align until it goes in smoothly.

Once you get the B-pillar bolts in the rest should be easy but remember it will be a real shame to damage threaded holes in your frame so don't rush it.