



# **XOPlate**

## **Chin Guard Stage 1**

**For the Jeep Cherokee KL  
Second Generation (2019+)**

(XO-KL2-CHIN-STG-1)

## **Installation and Owners Guide**

Revision A

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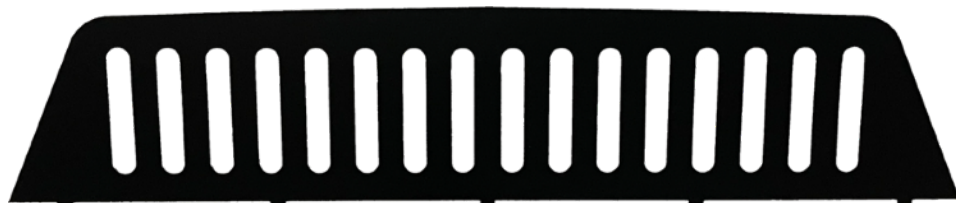
## Welcome to the Gleaming Alloy Family!

We'd like to sincerely thank you for purchasing this XOPlate Chin Guard Stage 1 for the Jeep Cherokee KL! Even though it is our fifth XOPlate product, It has been in conceptual development for a very long time. With your continued support, there will be many more similar products for the Jeep Cherokee KL and other platforms.



## Get to Know Your XOPlate...

Grill Insert



Main Plate



Grill Crossbar

Right Tow Hook  
Bracket



Left Tow Hook  
Bracket



## Installation Instructions

Please read completely through the following guide before attempting the installation. It will give you a good feel for what is involved to install the XOPlate. Some steps offer optional procedures and or tips, so reading through the entire steps first will prepare you if there are any alternate actions to take.

### Parts List

1x XOPlate main plate  
1x XOPlate grill insert  
1x XOPlate left tow hook bracket  
1x XOPlate right tow hook bracket  
1x XOPlate grill crossbar

Step 8: 3x M8x1.25x40 flange head bolts, 3x oversized M8 washers, 3x large aluminum spacers.

Step 9: 2x M8x1.25x30 carriage bolts, 2x M8x1.25 flange nuts, 2x 6mm steel spacers

Step 11: 6x M8 oversize steel washers, 3x M8 rubber washers, 4x 6mm steel spacers, 3x M8x1.25 wing nuts.

### Required Tools

Socket wrench  
10mm socket  
13mm socket  
16mm socket  
13mm open end or box wrench (ratcheting box-end wrench strongly recommended)  
Torque wrench  
Sharp Razor Knife  
Masking Tape  
Paint-pen or marker

### Optional

Two short ratchet straps (highly recommended)  
Needle nose pliers  
An assistant

### Estimated Install Time: Two hours

This installation guide is targeted at the DIY'er who is installing the skid plate at a home workshop, either inside a garage or in the driveway. If you are a professional mechanic and/or have access to a professional facility and tools, you might be able to replace some of the steps with more efficient techniques and equipment.

## Where To Get Help

Should you have any questions about installation, or problems during the installation process, feel free to reach out to us for assistance. You can send email to [info@gleaming-alloy.com](mailto:info@gleaming-alloy.com) or use Facebook Messenger to message “Gleaming Alloy” directly. You can also message us on Instagram at [@gleaming\\_alloy](https://www.instagram.com/gleaming_alloy). If you have a particular issue, please accompany it with photographs showing the nature of the problem.

The following resources are also available on the internet.  
Just scan the QR code to take you there:



[Gleaming Alloy  
Owners Group](#)



[Gleaming Alloy  
Support Documents](#)



[Gleaming Alloy  
YouTube Channel](#)



## Step 1: Prepare the vehicle

Park your Jeep on level ground. This installation does not require you to raise the vehicle, but we still recommend engaging the parking brake. Open the hood to expose access to the front radiator area.

*Note: this installation will require working very close to your radiator cooling fins, which are somewhat delicate. It would not be a bad idea to cut a piece of cardboard to place in front of your radiator to prevent an errant wrench from causing accidental damage to your radiator fins!*



## Step 2: Install Left Tow Hook Bracket

Using a 16mm socket, remove the inner bolt from your left tow hook.

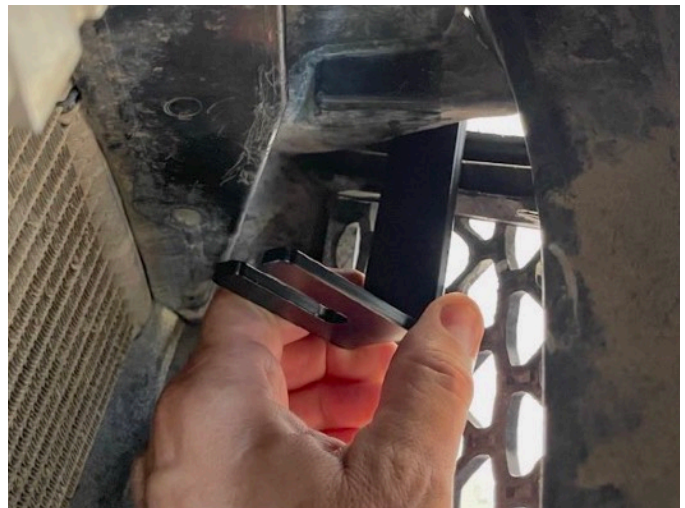
**Important Note:** These instructions use standard automotive terminology referring to the left and right side of the vehicle as *seen from the perspective of the driver*. When installing the Chin Guard, you will be facing the vehicle, so your right will be the driver's left, and vice versa. Keep that in mind when following these instructions.



Looking inside the cavity in front of the radiator, locate the rubber shroud on the left side of the radiator, adjacent to the tow hook (which is on the other side of the shroud). You'll notice a gap at the front of the shroud, up against the bumper.



Investigating further, you'll notice that you can push the shroud to enlarge the gap. Take the left tow hook bracket and push it through this gap. Push the small forked end through the gap so it aligns with the side of the tow-hook where you removed the bolt. This may take some finagling, but it is not difficult once you figure out the correct angles to insert the bracket.



Reinstall the tow-hook bolt you removed but only lightly tighten it at this time. You want the bracket to be able to slide on this bolt until the grill crossbar is fully installed (Step 4).





### Step 3: Install the Right Tow Hook Bracket

Repeat the procedure in Step 2 for the right-side tow hook & tow hook bracket. If your Jeep is equipped with the Technology Package, be very careful not to damage the sensors in the grill. Those sensors make it a little more challenging, but it is still possible once you figure out the correct angle to insert the bracket through the gap.

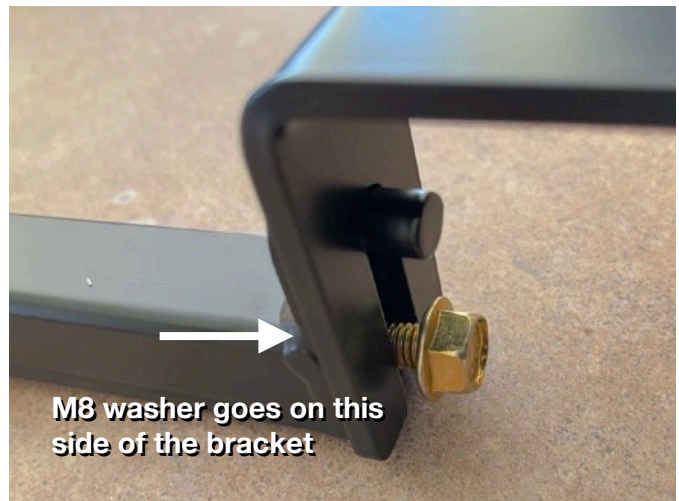


#### Step 4: Install the Grill Crossbar

Make sure the tow hook brackets you installed in Steps 2 & 3 are oriented as shown in the photos below. The grill crossbar is designed to slide onto these brackets, which should be perpendicular to the mesh grill.



The grill crossbar has two M8 flanged head bolts pre-threaded onto the end caps. The end caps feature a guide pin that is meant to slide onto the tow hook brackets. The M8 bolt will then engage the same slot as the guide pin. When installed, it should appear like the photo to the right.



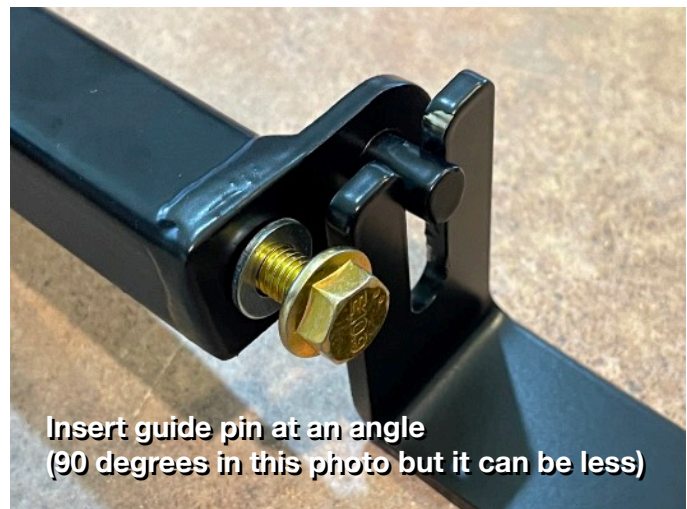


Make sure about 1/2" (12mm) of thread is exposed on the end cap bolts and then carefully maneuver the crossbar into the radiator cavity. The two extension brackets at the middle of the crossbar should be pointing towards the front of the vehicle and away from the radiator. The slotted ends should also be pointing upward, as shown in this photo.



The guide pins on the end caps of the crossbar should be engaged in the slots of both the left and right tow hook brackets. The proper way to do this is to position the crossbar end caps at an angle from the slot. Once the guide pin has been inserted on both sides, rotate the entire crossbar about the guide pin and then push downwards so the M8 bolt engages the slot. The pictures to the right show the proper sequence.

Note: The pictures show a washer on the crossbar side of the flange-head bolt. This is not necessary and is not included with your Chin Guard.



Insert guide pin at an angle  
(90 degrees in this photo but it can be less)



Rotate crossbar upwards until the  
Guide pin and bolt are in line with the slot

When fully engaged, the end of the slotted tow hook bracket is more-or-less flush with the back of the crossbar.



When engaging the crossbar into both tow hook brackets **simultaneously**, you will almost certainly need to shift each tow hook bracket left-to-right in order for the crossbar to fit between them. If the tow hook bolts are too tight to do this, loosen them so you can get the crossbar to fit. Snug them back up when it comes time to fully engage the ends of the crossbar into the tow hook brackets.

Once the crossbar is seated fully into the tow hook slots, try to finger tighten the bolts as much as possible before switching to a 13mm open-end or box-end wrench to tighten the bolts. You will have VERY limited room to turn the wrench, so be patient. A ratcheting box-end wrench is very useful in this situation.

You don't want to fully tighten these bolts at this time. Just make them snug.



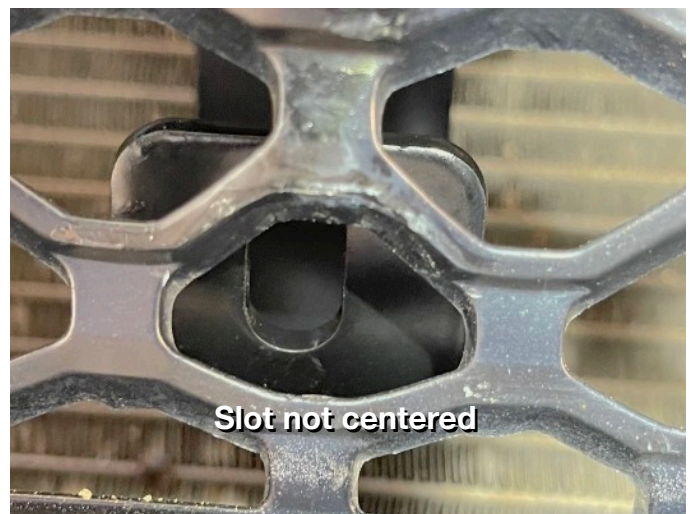


### Step 5: Center the Grill Crossbar

In this step, you must position the crossbar so that the vertical slots on the crossbar extension brackets are horizontally centered behind the grill mesh holes shown in the picture to the right. Note: the tape in the picture is not part of the install. They are there to help locate these holes for this picture!

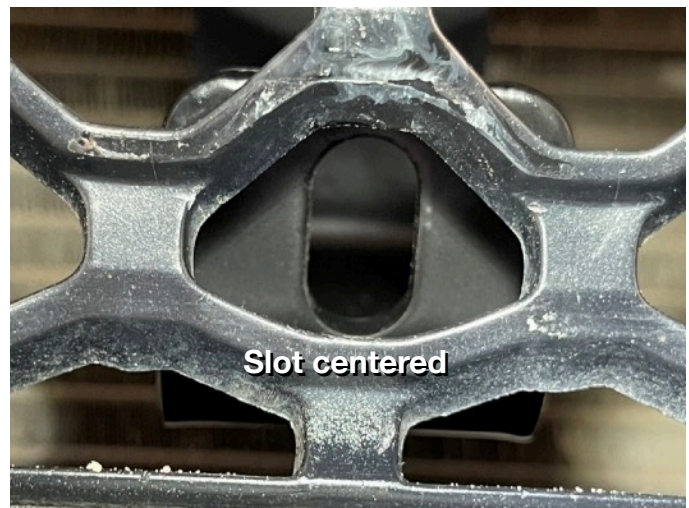


With the tow hook bolts loose, you should have enough left-to-right adjustability to center the slots. If the slots do not align perfectly with the center of the mesh holes, try to “split the difference” and make them line up as symmetrically as possible. They should be very close to centered but may be off by a millimeter or two.



Once centered, you may tighten the tow hook bolts to hold the crossbar firmly in place. Do not fully torque them just yet because you may need to make further adjustments after attaching the main plate.

You should also fully tighten the crossbar end cap bolts (from Step 4) at this time. Since space is tight, you will not be able to get a torque wrench in there. Two solid ‘grunts’ should do the job.





### Step 6: Prepare to Cut the Bumper

Find the center point of the lower grill by measuring the total width along its bottom and dividing that in half. Mark the center point on the bumper lip as shown in the photo. The center point should be approximately 15 9/16" (39.5 cm) from the edge of the grill.



On the bottom/underside of the bumper, use the position of the front-center skid plate bolt to draw a mark on the bumper, as shown in the photo.



Now draw a vertical line connecting the two marks as shown here.



On the lower edge of the bumper, measure approximately 19" (48.3 cm) away from the vertical, center line and draw a mark on the bumper. Do this extending both to the left and right of the center line.



Apply some masking tape in a straight line connecting the edge of the lower grill to the marks you made in the lower bumper. Do this for both the left and right sides as shown here.





From the edge of the masking tape, measure approximately 7/8" (23 mm) inward. Do this in several places along the edge of the tape and draw marks on the bumper at those points, as shown here. Do this for both the left and right sides.



Do the same along the top edge of the bumper, below the grill. Draw several marks, each approximately 7/8" (23 mm) from the edge of the bumper.



Apply masking tape along the dotted lines you just marked.



## Step 7: Cut the Bumper

This step is going to involve cutting the bumper along the inside edges of the masking tape you just applied. Before proceeding, make sure your masking tape appears as pictured here. It is important that the masking tape edges are on the *inside* of an imaginary line drawn downward along the edges of the lower grill. It wouldn't hurt to hold the Main Plate up against the lower portion of the bumper to make sure the inside edges of the masking tape is completely obscured by the Main Plate.



Using a sharp razor knife, begin scoring the plastic bumper along the inside edge of the masking tape guides. Making perfectly straight cuts isn't necessary, but you can use a metal straight-edge to help keep the cuts straight.



Repeatedly cut along the lines you have scored with the knife. On each pass, you can apply slightly more pressure. Be very careful not to cut into the masking tape guides. With a sharp blade, it should take about 5-6 passes before you have completely penetrated the plastic bumper.

Work carefully and methodically until you have cut around the entire perimeter where you applied the masking tape. Don't hesitate to change the razor blade in your knife if it begins to feel dull and less effective at cutting. A sharp blade is much safer to use than a dull one!





When the perimeter has been completely cut, shift your focus to the bottom of the bumper along the far right & left edges of what you masked. You will want to cut around the bolt on each side so that the bolt will still be securing your bumper in place. In this photo, we've marked where you should cut with the paint-pen.



Using a 10mm socket, remove the two hex-head screws that are securing the bottom of the bumper section that you have just cut.



When the two screws have been removed, the center portion of the bumper that you have just cut should fall away, exposing the metal radiator support and reinforcement bracket behind it.





## Step 8: Hang the Main Plate

*Note: An extra set of hands is very useful for this next step, but it can be done solo if you are very careful.*

Remove the three bolts from the front skid plate using a 13mm socket. It may be useful to use a floor jack underneath the skid plate to prevent it from hanging once the three bolts are removed.

Hang the top flange of the Chin Guard's main plate on the lip of the lower mesh grill area as if you were going to bolt the upper tabs to the grill crossbar extension brackets. This will hold the main plate more-or-less in place. If you have a helper, have them push against the upper flange to keep it from falling off the lip.

Push the lower portion of the main plate back until the three slots in the lower main plate align with the three skid plate bolt holes you just exposed.

**Important: when positioning the main plate, be sure not to catch the edges of the bumper with the two threaded studs on the sides of the main plate (these studs are for the Stage 2 upgrade). These studs need to go behind the bumper. You may need to angle the main plate in place on one side so the studs go behind the bumper, and then shift the entire main plate to one side so the opposite studs can clear the bumper.**

Once the main plate is in position, starting with the lower center bolt, place one of the large aluminum spacers between the main plate and the skid plate, then thread one of the supplied M8x1.25x40 flange head bolts (and oversized washer) into the hole. You simply want to start the bolt so the plate is held in place. You'll come back and tighten them later. Repeat this process for the outer two holes.



At this point, do your best to make sure the main plate is centered to the mesh grill. Look at both the left and right upper corners and make sure the distance to the edge of the mesh grill is the same. With the lower three bolts loose, you should have enough play to make sure the plate can be centered.



### Step 9: Bolt the Upper Plate in Place

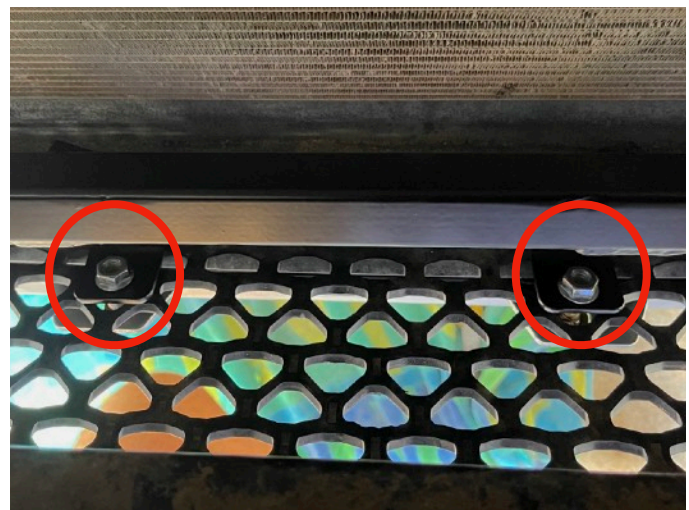
Insert the two M8 carriage bolts through the slots on the two tabs at the top of the main plate. You also need to pass these bolts through a 6mm spacer before they pass through the mesh grill and into the slot of the crossbar extension brackets.

We recommend holding the spacer behind the tab with needle nose pliers while pushing the carriage bolt through the slot, as shown to the right.



One at a time, push the carriage bolts through the mesh grill and through the slot on the crossbar extension bracket. **You will need to push very hard and actually deform the mesh grill slightly in order to reach the bracket slot.** Once inserted, and while continuing to push, reach into the radiator area and thread an M8 flange nut onto the other end of the carriage bolt. Repeat for the other carriage bolt.

Once both carriage bolts have been threaded through the extension bracket, hand tighten them as much as possible. Pushing the upper plate into the grill will make it easier to do this.





At this point, double check that the main plate is centered relative to the mesh grill. If it has shifted or just doesn't look right, you can loosen the tow hook bolts and slide the crossbar left-to-right to achieve the proper position. This won't be easy to do with the full weight of the main plate on the crossbar, but you can use a screwdriver to pry the bracket left or right as shown in this photo.



With the main plate properly centered, go ahead and fully tighten the flange nuts on the upper carriage bolts using a 13mm wrench. It's unlikely you can squeeze a torque wrench in there but if you do manage to do so, they should be torqued to 22 lb-ft (29 Nm). Otherwise, two 'grunts' with a small wrench will do.



### **Step 10: Push the Chin Guard Tight Against Bumper**

You now want to push the bottom of the chin guard flush against the lower bumper and tighten the three skid plate bolts. One approach is to have a helper push as hard as possible while you tighten each bolt. If you do this, make sure they wear clean gloves and/or use a towel to keep them from accidentally marring the finish.

A better approach, even if you have a helper, is to use a pair of ratchet straps to pull the Chin Guard tightly against the bumper. To do this, fasten one end of the ratchet strap to the large hole on the bottom of the Chin Guard, and the other to the subframe. Do this as shown in the photo, on both sides of the Chin Guard.



Slowly tighten each ratchet strap, alternating between sides to apply tension evenly to both sides of the Chin Guard. Monitor the bolt positions relative to the slots they pass through.

The photo to the right shows the center bolt's position before applying tension to the ratchet straps.



The photo to the right shows the same bolt's position after tightening the ratchet straps evenly.



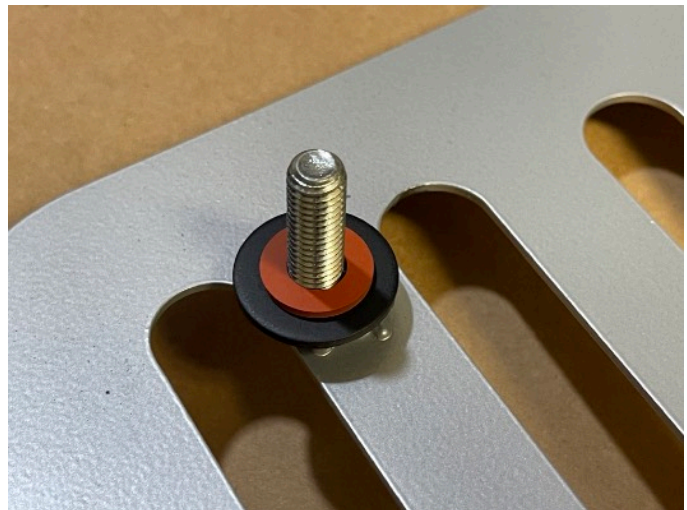
With the Chin Guard main plate pulled snugly against the bumper, go ahead and fully tighten the three skid plate bolts using a 13mm socket. They should be torqued to 22 lb-ft (29 Nm).

At this point you can also go ahead and fully tighten the tow hook bolts using a 16mm socket. They should be torqued to 50 lb-ft (68 Nm).

### **Step 11: Install the Upper Grill Insert**

Place three oversized M8 washers onto each of the three studs on the backside of the grill insert. Then place three of the rubber washers over each stud, as shown in this photo.

These washers will prevent the studs from being inserted too far into the mesh grill and will result in the grill insert "floating" in front of the mesh grill by about 1/4" (6mm).





The upper grill insert is designed to slide into slots that are cut into the upper flange of the Chin Guard's main plate. Insert the tabs on the lower edge of the grill insert into the flange slots as shown here.



Once all the tabs have been fully inserted into the slots, pivot the grill insert into place so the three studs on the backside pass through the mesh holes in the grill. There may be some interference because you are pivoting at an angle. Just push down and force the studs through the mesh.



Reach around the back of the grill and place an M8 oversized washer onto the center stud, then hand tighten an M8 wing nut onto the same stud. Repeat for the outer two studs of the grill insert.

Note: On some vehicles, especially if you have the Technology Package sensors, you will not be able to tighten the outer wing-nuts completely against the washer. In these cases, use the supplied 6mm steel spacers between the washer and the wing-nut. This will allow the wing-nuts to be fully tightened. We've supplied four of these spacers so you can double-stack them, if necessary.





Check the position of the grill insert relative to the lower main plate and the mesh grill opening. There should be enough left-to-right play to allow you to achieve perfect centering. If not, you may need to loosen the lower main plate again and adjust its position.

With everything properly positioned, go ahead and fully tighten the three M8 wing-nuts. You do not need to go crazy tightening them - just good and snug will suffice.



**You have successfully completed installation of your  
XOPlate Chin Guard! Go have a beer!**

## Care and Use

Now that you've installed your XOPlate, you're probably anxious to head out onto the trails to put it to the test. Before you do that, however, there are a couple of steps you need to take to make sure that everything is performing properly.

### The 'Bang' Test

Once the final nut has been fully torqued, you should proceed to "bang" the XOPlate with the ball of your fist. It should feel firm and solid. If there is any rattling (aside from the bumper itself), something is likely not tight and you should try to isolate the source of the sound.



### Regular Maintenance

The XOPlate Chin Guard Stage 1 for Jeep Cherokee (KL) is generally maintenance-free. You will need to keep it clean, just like you would the rest of your front bumper. We recommend using a mild, all-purpose cleaner such as Simple Green to keep it clean.

You should also periodically check the upper grill insert to see if it is coming loose. If you find you have a problem with the three wing-nuts working their way loose, you might want to consider using a mild thread locking compound to make sure those nuts stay good and tight.

If you do some hard-core off-roading, you eventually will strike obstacles and may scratch the finish. While the powder coating is tough and durable, hard strikes against sharp obstacles (such as small boulders) will eventually chip and scratch the finish. If these become noticeable and bothersome, you can periodically touch it up with some automotive spray paint.

If you manage to hit an obstacle hard enough to actually dent the main plate, consider yourself lucky that the Chin Guard was there! A strike hard enough to dent it would almost certainly have done damage to your bumper and/or the components behind it, including (possibly) your radiator. If this happens, you can sometimes have luck removing the main plate and "hammering it out" from behind to eliminate the dent.

### Heavy Duty Service

If you have a particularly un-aerodynamic load, such as a trailer or rooftop tent, and use your Jeep in excessively warm temperatures and/or mountainous terrain, you may find the need to remove the grill insert to allow for maximum engine cooling. This is why we supplied wing-nuts to hold the grill insert in place. They make it very easy to pull over and remove the grill insert when maximum cooling is needed. Just be careful not to lose the 6mm steel spacers, on the outer studs, if you installed them!

### Spare Parts

Every component of the XOPlate Chin Guard Stage 1 for the Jeep Cherokee KL is available for purchase from Gleaming Alloy and can be easily replaced should they become damaged. This includes the main plate, should you happen to severely damage it by hitting a large obstacle very hard.