



MATRIX BRUSH GUARD SYSTEM™

PN XG-K201

PN XG-K221/221B

PN XG-K240

PN XG-K261

PN XG-K281

INSTALLATION INSTRUCTIONS

Please read the entirety of this document before you begin installation.

Thank you for purchasing this accessory from 4xGuard. We certainly hope it provides the functionality and enhanced appearance you are expecting. If you have any questions, or wish to provide us feedback on this product, please contact us at:

info@4xguard.com.

The most recent version of these instructions is always available on our website:

www.4xguard.com.

SAFETY STATEMENT

It is the buyer's responsibility to exercise caution in the use of this product, and to take all necessary steps to maintain its safety and appearance.

As with any aftermarket product, there is the potential for vibration to loosen any of the screws, bolts, or other items involved in the installation of this item. The buyer therefore accepts responsibility to **check all components for tightness** after the first 100 miles, after each period of extensive off-road use, and then as part of routine vehicle maintenance for off-road use (Schedule B in your owner's manual).

A tube of **Threadlocker** is enclosed as a thank you gift from 4xGuard. It should be used during product installation in order to help ensure that the product does not loosen and fall from the vehicle — an event that could result in significant vehicle damage or even an accident.

4xGuard makes no claims regarding the effect of this product on airbag capability.

Regardless of finishing methods, steel parts will inevitably rust. The buyer assumes responsibility to help delay the formation of corrosion by regularly cleaning this product and tending to any visible rust as soon as it is seen.

Please note the Limited Warranty at the end of these instructions.

MATRIX MOUNTING PLATFORM (XG-K221/221B)

The Matrix Brush Guard System requires installation of the Mounting Platform. Installation procedures for optional Matrix accessories follows this procedure.

MOUNTING PLATFORM PARTS LIST

Before beginning installation, verify all parts and hardware with the list below. Be advised that part numbers are often stamped on metal components.

Major Components

Product	Number	Part	Part Number	Quantity
Mounting Platform	XG-K221, XG-K221B	Outside mounting bracket	XG-K220.01	1
		Outside mounting bracket	XG-K220.02	1
		Inside mounting bracket	XG-K220.03	1
		Inside mounting bracket	XG-K220.04	1
		Bow shackle bracket	XG-K221.05	2
		Backing plate	XG-K220.06	2
		Light tab bracket	XG-K221.07	1
		Light tab bracket	XG-K221.08	1
		Center bracket w/4xGuard logo	XG-K220.09	1
			XG-K201.10	
		Instructions	XG-K201.17	1
		Standard Sticker	XG-K020	1
		Hardware Bag	XG-K221.13	1

Hardware Bag Contents

Part	Quantity
1.5" x 1/2" hex bolt gr8	6
1/2" lock flange nut	6
1.25" x 7/16" hex bolt gr8	4
7/16" lock flange nut	4
3/4" x 3/8" hex bolt gr5	4
3/8" lock flange nut	8
1.25" x 3/8" hex bolt gr8	4
1/2" black plastic hole plug	2
3/8" black plastic hole plug	2
Threadlocker	1

BASIC INSTALLATION PROCEDURE

The use of touch-up paint is recommended whenever metal is cut, and the use of **Threadlocker** to ensure the security of attachment points is encouraged.

1. If the vehicle is equipped with Original Equipment of Manufacture (OEM) tow hooks you will need to remove them. There are three bolts for each tow-hook, two on the outside and one on the inside. Remove all three nuts holding the tow-hook bracket. The OEM, or aftermarket, tow hooks can be re-installed later if desired.
 - Retain the two OEM bolts located on the outside rail. Clips hold these fastening systems in place. If these clips are very loose, bend over the clip **to the outside** so the bolts will not recede into the unibody when the Matrix is installed.
 - Remove the inside bolt/bracket. This can be done by breaking off the mounting clip and pushing/prying the bolt head up into the cavity of the crossmember. After removing this bracket via the access hole, clean the inside bottom of the crossmember.

Note: If your vehicle does **not** have OEM tow hooks, you will need to buy and install **PN 52090140AA**, which is a "stud plate" available from any Jeep dealer. The required nuts must be obtained separately as they are no longer provided as part of the stud-plate kit. Installation instructions are available on our website.

2. Install the outside mounting brackets (**XG-K200.01** and **XG-K200.02**) using the OEM fastening bolt/nut located along each end of the large crossmember behind the front fascia. Do not fully tighten at this time. See Photo 1.

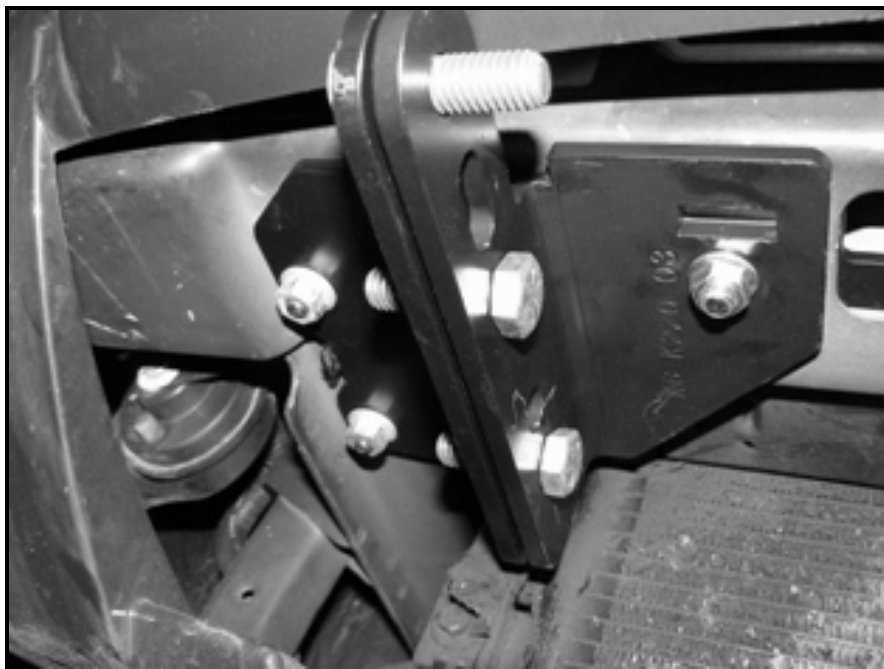


Photo 1. Passenger-side view showing location of outside (left) and inside mounting brackets (right).



Photo 2. Passenger-side view (rear of vehicle toward bottom of image), showing location of inside mounting bracket and the backing plate visible through hole in crossmember.

3. Install the backing plates (**XG-K220.06**) inside the crossmember. Note the distances between the holes and the large rectangular opening in the crossmember, and insert the plates such that the end with the greatest distance is outside and with the mounting holes rearward. Maneuver each plate until the holes in the plate align with the holes in the cross member. See Photo 2.
 - Note: If you are also installing the **optional Matrix Receiver Kit** at this time, then discard XG-K200.03 and XG-K200.04 and replace them with XG-K261.91, the Receiver assembly. Refer to the **Supplemental Installation Procedures** for the Receiver Kit at the end of these instructions.
4. Install the inside mounting brackets (**XG-K200.03** and **XG-K200.04**) using two **1.25" x 7/16" hex bolts**. Use the large rectangular opening in the crossmember to hold the backing plate in place while slipping each bolt up into a hole. A **7/16" lock flange nut** can then be fed through the opening and secured to the bolt. Do not fully tighten at this time. See Photos 1 and 2.
5. Install the bow shackle brackets (**XG-K221.05**) on the **outside** of the flange created by the joining of the inside and outside mounting brackets using three **1.5" x 1/2" hex bolts** with **1/2" lock flange nuts** on each side. Do not fully tighten at this time. See Photo 3.
 - For **2005-2008** vehicles, align the rear-most hole of the bow shackle brackets with the rear-most hole of the mounting brackets.
 - For **2008+** vehicles, align the rear-most hole of the bow shackle brackets with the **second** hole from the rear-most hole of the mounting brackets.

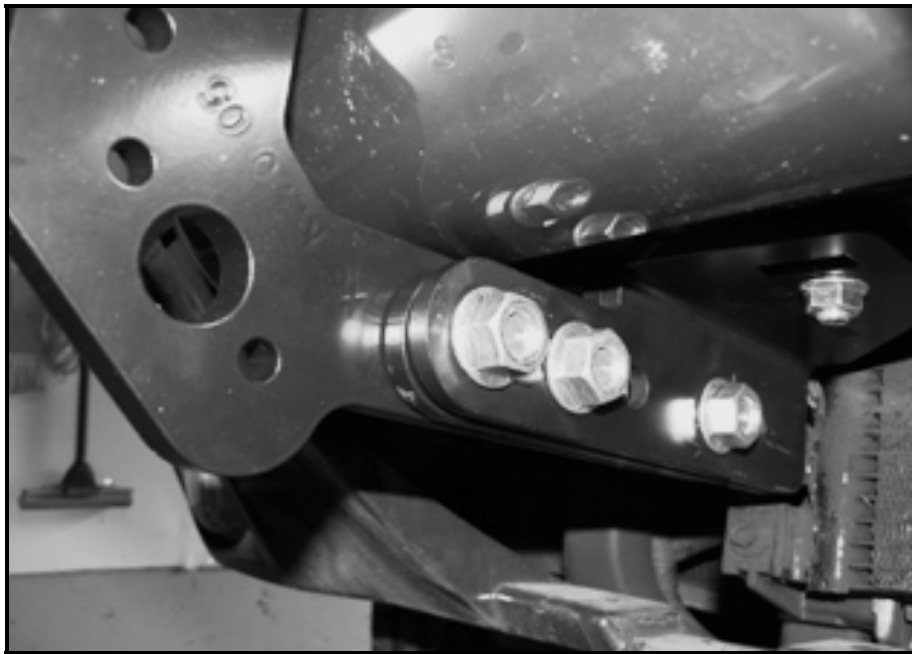


Photo 3. Passenger-side view showing location of bow shackle bracket relative to where the outside and inside mounting brackets meet.

6. Moderately tighten the six (6) bolts and four (4) nuts securing the mounting brackets to the unibody (adjustment may later be required before final tightening).
7. Off the vehicle, install the center bracket w/4xGuard logo (**XG-K220.09** [Silver] or **XG-K220.10** [Black]) to the light tab brackets (**XG-K221.07** and **XG-K221.08**) using the provided **3/4" x 3/8" hex bolts** and **3/8" lock nuts**. Protect the fronts of these parts to avoid abrasions during assembly. Fully tighten at this time (30 ft-lbs).
 - Note: If you are installing the **optional Hoop Kit** or **optional Rail Kit** at this time, proceed to Step 3 of the **Supplemental Installation Procedures** for those kits at the end of these instructions.
8. Mount the unit assembled in the previous step to the bow shackle brackets (**XG-K221.05**) using four (4) **3/4" x 3/8" hex bolts** and **3/8" lock nuts**. It is easiest to temporarily fasten one end with the nut on the outside and then move to the other end. Do not fully tighten at this time.
9. Check alignment and fascia clearance of the product.
10. Fully tighten (65 ft-lbs.) the eight (8) nuts/bolts securing the mounting brackets to the unibody.
11. Again check overall alignments and tighten (70 ft-lbs.) the six (6) **1.5" x 1/2" hex bolts** with **1/2" lock nuts**. Lastly, tighten the four **3/4" x 3/8" hex bolts** from Step 8. There is some front/rear angle adjustment in the design, and generally the assembly needs to tilt forward for proper positioning. This is particularly critical when equipped with the **optional Brush Rail Kit** (see Photo 4), as improper alignment of the assembly will result in the tube ends having a downward profile.



Photo 4. Passenger-side view showing completed installation and proper alignment of optional Matrix Brush Rail (note the slight forward tilt of the top of the light tab brackets).

12. The **1/2"** and **3/8"** **black plastic hole plugs** are provided for the unused holes in the light tab gusset (used if the **optional Hoop Kit** is installed) and/or the unused upper holes along the outside of the light tab brackets (used if the **optional Rail Kit** is installed).

NOTE: Be aware that this product may limit access to certain vehicle components. As a result there may be an extra charge for its removal by some service providers. Customers may wish to remove it before related service.

MATRIX HOOP KIT (XG-K240)

The Matrix Brush Guard System requires installation of the Mounting Platform.

HOOP KIT PARTS LIST

Before beginning installation, verify all parts and hardware with the list below.
Be advised that part numbers are often stamped on metal components.

Major Components

Product	Number	Part	Part Number	Quantity
Hoop Kit	XG-K240	Hoop tube assembly	XG-K240.91	1
		Instructions	XG-K201.17	1
		Standard Sticker	XG-K020	1
		Hardware Bag	XG-K240.09	1

Hardware Bag Contents

Part	Quantity
1" x 1/2" hex bolt gr5	2
1.25" x 3/8" hex head bolt gr8	2
3/8" lock flange nuts	2
1/2" splitlock washer	2
Threadlocker	1

BASIC INSTALLATION PROCEDURE

The use of touch-up paint is recommended whenever metal is cut, and the use of **Threadlocker** to ensure the security of attachment points is encouraged.

1. If you have previously installed the Matrix Mounting Platform you will need to begin by removing the six (6) **1.5" x 1/2" hex bolts** and **1/2" lock flange nuts** that secure the Matrix assembly to the mounting brackets.
2. Lift the assembly from the vehicle and place the face of the Matrix assembly on a clean, non-abrasive surface to protect its finish.
3. Mount hoop assembly (**XG-K240.91**) to the Matrix light tab brackets (**XG-K221.07** and **XG-K221.08**) using two (2) **1" x 1/2" hex bolts** from the underside (be very careful not to cross thread) and two (2) **1.25" x 3/8" hex head bolts** from the front side.
4. Tighten the 3/8" bolts first (30 ft-lbs) and then the 1/2" bolts (70 ft-lbs).
5. Proceed to either Step 8 of the **Matrix Mounting Platform** Installation Instructions or to Step 3 of the **optional Rail Kit** if it is also being installed at this time.

MATRIX RECEIVER KIT (XG-K261)

The Matrix Brush Guard System requires installation of the Mounting Platform.

RECEIVER KIT PARTS LIST

Before beginning installation, verify all parts and hardware with the list below.
Be advised that part numbers are often stamped on metal components.

Major Components

Product	Number	Part	Part Number	Quantity
Receiver Kit	XG-K261	Receiver bracket assembly	XG-K261.91	1
		Instructions	XG-K201.17	1
		Standard Sticker	XG-K020	1
		Hardware Bag	XG-K260.05	1

Hardware Bag Contents

Part	Quantity
Threadlocker	1

BASIC INSTALLATION PROCEDURE

The use of touch-up paint is recommended whenever metal is cut, and the use of **Threadlocker** to ensure the security of attachment points is encouraged.

1. If this accessory is being installed at the same time as the Matrix Mounting Platform, proceed to Step 3.
2. Removal of the Matrix inside mounting brackets:
 - **If equipped with the Matrix-Basic:** carefully remove the two bow shackle brackets (**XG-K220.11**), and then the two **inside** mounting brackets (**XG-K200.03** and **XG-K200.04**). Retain hardware only.
 - **If equipped with the Matrix Mounting Platform:** carefully remove the entire Matrix assembly from the mounting brackets by unbolting the bow shackle brackets (**XG-K220.05**) and then removing the two **inside** mounting brackets (**XG-K200.03** and **XG-K200.04**). Retain all parts but the mounting brackets.
3. Installation on a Commander (XK) requires that the fascia be removed (instructions are on our website). Minor fascia modification is also required:
 - As shown below, you will need to remove from your fascia a "box" 7.5" wide and 2.5" tall. The center "support" will also need to be cut out (just nip it off at the base), but it makes for a great way to center your marking.



Commander fascia showing necessary alterations to fit optional receiver mount.

4. Place the receiver bracket assembly (**XG-K261.91**) up against the crossmember and temporarily secure by inserting several **1.5" x 1/2" hex bolts** into **1/2" nuts** through the remaining **outside** mounting brackets. Finger tighten only at this time.

5. On each side align the holes in the receiver bracket assembly with the holes in the crossmember and backing plate. Attach the receiver bracket assembly to the crossmember using two **1.25" x 7/16" hex bolts**. Use the large rectangular opening in the crossmember to hold the backing plate in place while slipping each bolt into a hole. Once in the hole, **7/16" lock flange nuts** can be fed through the opening and secured to the bolt. Do not fully tighten at this time.
6. Complete the installation of the six (6) bolts connecting the receiver assembly, the outside mounting brackets, and the bow shackle brackets of the Matrix.
7. Adjust the assembly for proper fit and tighten the 7/16" bolts (65 ft-lbs).
8. Reinstall fascia if removed.
9. Go to Step 11 of the Matrix Mounting Platform installation procedures above.

MATRIX RAIL KIT (XG-K280)

The Matrix Brush Guard System requires installation of the Mounting Platform.

RAIL KIT PARTS LIST

Before beginning installation, verify all parts and hardware with the list below.
Be advised that part numbers are often stamped on metal components.

Major Components

Product	Number	Part	Part Number	Quantity
Rail Kit	XG-K280	Brush-rail assembly (RS)	XG-K241.95	1
		Brush-rail assembly (LS)	XG-K241.96	1
		Instructions	XG-K201.17	1
		Standard Sticker	XG-K020	1
		Hardware Bag	XG-K280.09	1

Hardware Bag Contents

Part	Quantity
3/8" x 1" hex bolt grade 5	2
Round tubing plug	2
Threadlocker	1

BASIC INSTALLATION PROCEDURE

The use of touch-up paint is recommended whenever metal is cut, and the use of **Threadlocker** to ensure the security of attachment points is encouraged.

For customization of this accessory, see Step 3.

1. If you have previously installed the Matrix Mounting Platform you will need to begin by removing the six **1.5" x 1/2" hex bolts** that secure the mounting platform assembly to the mounting brackets.
2. Lift the assembly from the vehicle and place the face of the assembly on a clean, non-abrasive surface to protect its finish.
3. **Customization of rails (XG-K241.95 and XG-K241.96)**. If the customer prefers the tubing portion of these parts to be shorter for whatever reason, the following steps should be followed.
 - Secure the portion of the tubing to be removed to avoid damaging the remaining product.
 - Wrap "blue" painter's masking tape around the tube where the cut is to be made.
 - Wrap a piece of heavy paper around the tube and secure with masking tape with one edge at the cut location. Use a marker or pen to carefully mark the tube. This method provides for marking a relatively perpendicular, circular cut.
 - Accurately cut the tube, taking care to avoid scarring the product.
 - File the inside and outside edges of the cut to remove burrs.
 - Use a quality spray primer and paint on the cut end to inhibit rust.
4. Install provided plastic end caps on the rails (**XG-K241.95** and **XG-K241.96**). These caps may be easier to install if lubricated with water. Use a rubber mallet or similar tool to avoid damaging the caps.
5. Mount rails (**XG-K241.95** and **XG-K241.96**) to the light tab brackets on the Matrix mounting platform (**XG-K221.07** and **XG-K221.08**) by installing the **3/8" x 1" hex bolt** in the top (round) end of the assembly.
6. Align the two remaining holes of the rails with the holes in the mounting platform and fully tighten only the hex bolt at this time (30 ft-lbs).
7. Proceed to either Step 8 of the **Matrix Mounting Platform** Installation Instructions or to Step 3 of the **optional Rail Kit** if it is also being installed at this time.

LIMITED WARRANTY

- A. There is no warranty on the finish of this product due to the nature of its intended use.
- B. Due to its intended off-road use and thus potential for damage, this product can be returned for a refund of original cost minus a **10% restocking fee** for a period of **7 calendar days** from date of receipt **if the product is in unused condition and returned in the original package with packing material**. This return policy covers defects in material and workmanship, as well as customer satisfaction. **Shipping and handling costs are non-refundable**.
- C. After the initial "product satisfaction" period (7 days), 4xGuard warrants the product to be free from defects in material and workmanship for a period of **1 year from date of purchase** and applicable to the original purchaser only. Exclusions apply:
 - 1. Any damage caused by acts of nature, improper installation (see D below), misuse, abuse, or neglect.
 - 2. Damage caused by impact with any object is not covered by this warranty.
- D. For any warranty issues an authorization must be first obtained from 4xGuard **PRIOR** to removal of the product from the vehicle. Claims require photographic evidence of the damage or defect taken **BEFORE** the product is removed.
- E. Determination of whether or not a product is covered by this warranty will be made by 4xGuard at its sole and exclusive discretion. If determined to be covered, 4xGuard's responsibility is limited to repair or replacement **of the damaged or defective part only**.
- F. 4xGuard is not responsible for any costs, losses, or damages incurred as the result of the installation and use of this product.

IMPORTANT PRODUCT USE INFORMATION

This product is designed and manufactured for off-road use, and as such 4xGuard makes no claims regarding this device and excludes any and all implied claims. 4xGuard will not be responsible for any altered products and any improper installation or use of our products. Specifically, the products are not designed to withstand more than 1,000 pounds of vehicle weight without the potential of breakage, and are not intended to increase occupant protection in the case of an accident or off-road incident.

IMPORTANT PRODUCT MAINTENANCE INFORMATION

Because of its intended off-road use, this product is potentially subject to vibrations and stresses that can cause the product to loosen over time. It is the buyer's ultimate and sole responsibility to use the supplied **Threadlocker** during the installation of this product, and to have all attachments checked for tightness after the first 100 miles, after each period of extensive off-road use, and then as part of routine vehicle maintenance for off-road use, which is Schedule B. **WARNING:** Failure to adhere to this maintenance requirement could result in the product falling from the vehicle, resulting in vehicle damage or even a serious accident.

Thank you for choosing 4xGuard. Please Tread Lightly on the trails.