



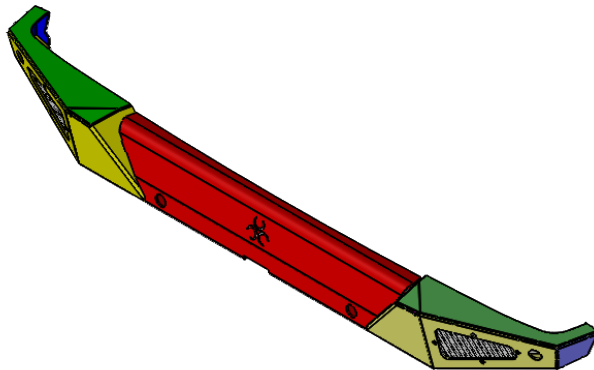
NEMESIS INDUSTRIES

DARE TO ADVENTURE

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INSTALLATION INSTRUCTIONS

Part Number

141540-1

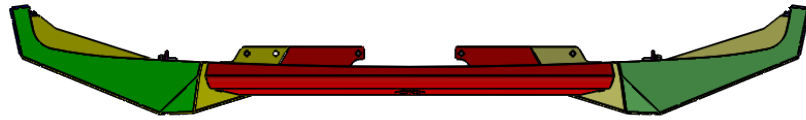
**JL - JLU Rear
Bumper**

"Kelvin"

Hitch & Sensors

Box Contents:

Hardware Kit(s)



14154-91 - H&S

14154-10 (x2)

Hardware List:

Nemesis Kit Part # 141540-01

Part Description	Size	Length	Quantity	Part #
Hex Head GR5	M14-1.5	30mm	4	MH2690030ZP0000
Split Lock Washer	M14	N/A	4	40386
Flat Washer	M14	N/A	4	40360
Flat Head (SS)	M10 - 1.5	25mm	4	M42600025A4000
Nutsert	M10-1.5	N/A	4	BTI-AHS4T-1015-3.8

Nemesis Kit Part # 141541-01

Part Description	Size	Length	Quantity	Part #
Flat Head (SS)	#10-24	0.625	8	73862
Nylock Nut	#10-24	N/A	8	37014

Pre-Install Notes:

Before you start it is imperative that you read these instructions carefully. Failure to do so may result in damage to your vehicle, unsatisfactory installation, or personal injury.

1. Your personal safety is of the utmost importance. Please, exercise extreme caution when working around and under your vehicle.
2. Wear personal protective equipment such as safety glasses, hearing protection and gloves when working on your vehicle.
3. Carefully read the Product Warranty and Assumption of Risk Agreement at the end of this document.
4. It is the purchasers/installers responsibility to inspect the package for any missing or damaged pieces prior to beginning installation. If any discrepancies are discovered please contact us immediately so we may rectify the situation.
5. This document is also available on our website in .pdf format with high resolution images that can be enlarged for greater clarity.
www.nem-ind.com/tech
6. Any reference to Drivers or Passenger sides are based on a left hand drive vehicle.

Precautions:

1. Make sure the vehicle is in park or first gear with the parking brake set. Vehicle should be on a level, sturdy surface and properly secured to prevent movement while working on it. We recommend using wheel chocks or blocks to ensure the vehicle does not move during the installation process.
2. If lifting of the vehicle is required please consult the vehicle owner's manual for proper lifting techniques and jack placement. Use jack stands to support the vehicle when working under it.
3. Always wear appropriate personal protective equipment: gloves, hearing, and eye protection at a minimum.
4. Use caution when lifting components into place, make sure components are secured during installation.
5. If drilling is required, eye protection is especially important to avoid injury. Also be sure to thoroughly inspect the area around where you are drilling to avoid damaging wiring or other components.
6. Use extreme caution when cutting or trimming is required.
7. Please follow the recommended specifications for torque on all hardware. We recommend checking the torque during regular routine maintenance on all aftermarket accessories.
8. Use caution when routing electrical cables and lines. Avoid moving parts, components that become hot and rough or sharp edges.
9. Always insulate and protect all exposed wiring and electrical terminals.
10. Disconnect the battery cables from both terminals with caution, and ensure that they do not touch.
11. When installing hardware use anti-seize or brake caliper grease to minimize the risk of damaging threads and allow for easy removal at a later time.
12. When making electrical connections use dielectric grease to avoid damage from moisture and ensure a long lasting connection.

Required Tools:

- 3/8" Wrench
- 22mm Socket
- 6mm Allen Wrench
- 1/8" Allen Wrench
- Side Cut Pliers
- Nutsert Tool (or Bolt and Washers)

Bolt Torque Recommendations :

	Grade 5		Grade 8		Stainless Steel	
	Coarse	Fine	Coarse	Fine	Coarse	Fine
#10	-	-	-	-	22.8	31.7
1/4	6.3	7.3	9	10	6.3	7.8
5/16	13	14	18	20	11	11.8
3/8	23	26	33	37	20	22
7/16	37	41	52	58	31	33
1/2	57	64	80	90	43	45
9/16	82	91	115	129	57	63
5/8	112	128	159	180	93	104
3/4	200	223	282	315	128	124
7/8	322	355	454	501	194	193
1	483	541	682	764	287	289

*** Sizes from 4 to 10 are in lb-in. * Sizes from 1/4 up are in lb-ft.**

Install Procedure:

Please follow these instructions only, if you are having difficulty with a particular step or a part is not fitting as described STOP and contact us before proceeding. Taking actions outside of these instructions can result in damage to your vehicle.

1. Remove Existing Rear Bumper

2. Route Sensor Wires through the Frame Horns using existing Holes.
Needs to run from Driver side to Passenger Side

3. Install sensors into the new Bumper. The three parts go the same as they were in the Factory bumper. Larger angled ones go in the outside holes. Make the face of the sensor as vertical as possible. They won't be exact but close is good.

4. Install Nutserts in Lower Crossmember. Some holes will already be threaded. The HEX ones will need Nutserts installed. The number of these vary from Frame to Frame. Line the bumper up to make sure which holes need to be done.

5. Install the Bumper using the 4 - M14-1.5 x 30mm Hex Head bolts. Use Lock Washer and Flat Washer on each Bolt. Do Not tighten bolts at This time. Make sure to install the Plugs to each Sensor while doing this step.

Install Procedure:

Continued

5. Install the Bumper using the 4 - M14-1.5 x 30mm Hex Head bolts. Use Lock Washer and Flat Washer on each Bolt. Do Not tighten bolts at this time. Make sure to install the Plugs to each Sensor while doing this step.

6. Install 4 - M10-1.5 x 25mm Flat Head Bolts into the 4 Lower Holes. If you are going to use the Trailer Plug Housing, Install this at this time too. Use Factory hardware on these two holes.

7. Align Bumper to the Jeep and Tighten all Hardware.

8. Install Inserts to each opening. Tighten all Hardware.

Troubleshooting:

1. Please check our technical support page for additional resources pertaining to the install of this product.
2. Nut insert alignment:
If a nut insert is installed slightly out of alignment with the space frame you can follow the below steps to avoid ruining the nut insert.
 - a. Bolt the space frame to the Jeep using all of the holes that are properly aligned.
 - b. Use a 1/4" - 20 tap and gently thread it into the nut insert. The tapered end of the tap must be able to align to the nut insert for this to work.
 - c. Gently run the tap through the nut insert and allow it to cut away some of the aluminum from the space frame.
 - d. Remove the tap and clean out any debris left over from the inside of the nut insert.
 - e. Reinstall the bolt into the nut insert.
3. Removing a damaged nut insert:
Nut inserts can be drilled out if they are damaged during the install process, you can follow the below steps to remove a damaged nut insert.
 - a. Remove the space frame and tub armor from the vehicle.
 - b. Using the W size drill bit carefully drill into the nut insert. This will cut away the front lip that holds the nut insert to the body. Be careful not to enlarge the hole since you will need to install a new nut insert into the existing location.
 - c. The nut insert will drop into the body cavity of the Jeep and most likely will not be able to be removed.

Warranty:

The goal of all of us at Nemesis Industries, Inc.™ is to ensure you are delighted not only with this purchase, but also with any additional purchases and to that end Nemesis offers a five (5) day from delivery date no questions asked return policy if products are returned in an "unused" condition. However, this return policy excludes custom parts or parts with powder coat. In addition, Nemesis warrants your product for one (1) years from the date of sale to be free from defects in material and workmanship under normal installation and use. This warranty is limited to the costs of repair and replacement of the Nemesis Industries product only. Therefore, no type of labor or shipping allowance is available in connection with a customer's repair, removal, reinstallation or return of a damaged product. Should any questions arise, please call Nemesis at (303) 974-2440. We remind you that all finishes, painted or powder coated, must be cleaned and waxed regularly and the portion of the warranty concerning the products' finish does not apply to products that have been chipped, scratched or damaged in any way. All warranty claims are subject to inspection by Nemesis. Following such inspection, the product in question may either be repaired or replaced when found defective. Prior to any replacement or repair, written authorization as to the action to be taken shall be issued by Nemesis. Failure to contact Nemesis prior to having warranty work performed shall immediately void all applicable warranties.

THE WARRANTY EXPRESSED ABOVE IS THE SOLE WARRANTY OF NEMESIS AND ANY OTHER EXPRESSED OR IMPLIED WARRANTIES ARE HEREBY SPECIFICALLY EXCLUDED AND DISCLAIMED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. EXCEPT FOR THE LIMITED WARRANTY DESCRIBED HEREIN, NEMESIS SHALL NOT BE LIABLE TO ANYONE FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, SPECIAL OR EXEMPLARY DAMAGES OR OTHER DIRECT OR INDIRECT DAMAGES OF ANY TYPE OR KIND ARISING FROM ANY BREACH OF WARRANTY ARISING FROM OR IN CONNECTION WITH THE PURCHASE OF NEMESIS PRODUCTS.

Assumption of Risk, Indemnity and Release:

Customer's Acknowledgments. Customer understands and acknowledges that products purchased from Nemesis Industries, Inc.TM ("Nemesis") are designed to protect against certain types of property damage from minor impacts, but are not designed as a crash safety device, or as an impact resistant product designed for the protection of occupants, but instead are cosmetic enhancements to assist in protecting against minor impact damage with certain stationary obstacles. As a result, Customer also understands and acknowledges that the installation of Nemesis products on a Vehicle and the voluntary use of that Vehicle for off-road activities (each, hereinafter, and "an Off-Road Activity") is inherently dangerous and hazardous and can result in damage to the Vehicle, to others, to the property of others and in the serious bodily injury or death to Customer or others.

Use in an Off-Road Activity. By accepting a Nemesis product and using such product in any Off-Road Activity, Customer accepts and agrees to all of the terms described below (the "Release"); provided that Customer may in lieu of accepting the terms of this Release and prior to installation, elect to return any Nemesis product and receive a full refund. Such return may be initiated by contacting a Nemesis sales representative or by directly contacting Nemesis at (303) 974-2440 or at www.nem-ind.com for the issuance of a call tag for the product in question. Once the product being returned has been received by Nemesis in good condition, a full refund will be issued minus shipping charges.

Assumption of Risk and Release. Customer assumes all risk and responsibility of engaging in an Off-Road Activity which is acknowledged as being inherently dangerous. Customer understands that persons participating in an Off-Road Activity must possess specialized knowledge and skills, and in voluntarily deciding to do so, Customer assumes all risks inherent therein which may be encountered at any time in connection with an Off- Road Activity. With full knowledge of the above and all risks inherent therein, Customer and others who may voluntarily choose to engage in an Off-Road Activity accept full responsibility for and assume all risks associated with engaging in an Off-Road Activity, whether known, unknown, or inherent, and acknowledge and agree that such persons are assuming all responsibility for any and all consequences resulting from the participation in an Off-Road Activity, including, but not limited to, injury and/or death to Customer or others and damage to the Vehicle and other property. Customer and each other participant in any Off-Road Activity hereby release, and forever discharge and shall hold harmless each other and Nemesis, including all of their respective predecessors, affiliates, successors, assigns, partners, venturers, principals, officers, directors, managers, shareholders, attorneys and agents and their respective insurance carriers (the "Released Parties") and hereby release and forever discharge, indemnify and hold harmless the Released Parties, and any and all persons claiming under them, however involved, of and from any and all liability for any and all claims, demands, damages and costs, liabilities, losses, expenses, obligations, compensations, reimbursements, actions, rights, loss of profits, and rights and causes of action, of every kind and nature whatsoever, including court costs and attorney fees, whether known or unknown, which Customer and any other participant may now have, or claim at any future time to have, arising from or growing out of, or by reason of, or based in whole or in part upon, any act, omission, event, transaction, matter or thing involved, alleged or referred to, whether direct or indirect, involving an Off-Road Activity.

Release of Unknown Claims. Customer and any other participant fully realize that in participating in an Off- Road Activity they may sustain unknown and unforeseen losses, costs, expenses, damages, liabilities, and claims, and the consequences thereof, which may be at this time, and hereafter unknown, unrecognized and not contemplated by them. By participating in an Off-Road Activity, Customer and any other participant intend to release the Released Parties from any and all liability for any and all such unknown and unforeseen losses, expenses, damages, costs, liabilities, and the consequences thereof, not known, recognized nor contemplated at any time by them, which result or may result from an Off-Road Activity. Customer and any other participant expressly and forever waive any right to assert that this Release was the result of a mistake of any kind, waiving all claims based upon the doctrine of mistake.

Covenant Not to Sue. Customer and any other participant specifically covenant and agree, each with the other, never to institute or participate in any suit or action, including class actions, at law or in equity, whether sounding in tort or contract, against the Released Parties and all persons claiming under them or any of them by reason of any claim, demand, action, or cause of action described in this Release.

Miscellaneous Provisions. This Release shall be binding in all respects upon, and shall inure to the benefit of the Released Parties and their heirs, successors and assigns. This Release shall be governed by the laws of the State of Colorado, and the sole and exclusive jurisdiction for the determination of any controversy or claim arising out of the purchase of any Nemesis product shall be in the District Court of Elbert County, Colorado. In the event that a court of competent jurisdiction enters judgment declaring any material provision of this Release invalid or unenforceable, the remainder of this Release shall remain in full force and effect and such provision shall be limited or eliminated to the minimum extent necessary so that such invalid or unenforceable provision shall otherwise remain in force or effect. Neither Customer nor any other participant shall be entitled to any favorable construction of any provision of this Release because the Release was drafted by Nemesis or by an attorney for Nemesis. The acceptance of a Nemesis product constitutes Customer's voluntary acceptance of this Release, Customer's acknowledgement that no oral statements or inducements have been made and that full and adequate consideration has been received for this Release.