



JEEP JK WRANGLER FRONT CRAWLER BUMPER

Part Number: 102145, 102146, 102510, 102520

BEFORE YOU BEGIN

THIS IS A 2-SIDED INSTRUCTION.

This side is for the the *Jeep JK Wrangler*.

Be sure to choose your precise application before you begin.

GENERAL SAFETY PRECAUTIONS

Your safety, and the safety of others, is very important. To help you make informed decisions about safety, we have provided installation and operating instructions and other information on labels and in this guide. This information alerts you to potential hazards that could hurt you or others. It is not possible to warn you about all potential hazards associated with this product, you must use your own good judgment.

CARELESS INSTALLATION AND OPERATION CAN RESULT IN SERIOUS INJURY OR EQUIPMENT DAMAGE. READ AND UNDERSTAND ALL SAFETY PRECAUTIONS AND OPERATING INSTRUCTIONS BEFORE INSTALLING AND OPERATING THIS PRODUCT.

This guide identifies potential hazards and has important safety messages that help you and others avoid personal injury or death. WARNING and CAUTION are signal words that identify the level of hazard. These signal words mean:

▲WARNING signals a hazard that could cause serious injury or death, if you do not follow recommendations. ▲CAUTION signals a hazard that may cause minor to moderate injury, if you do not follow recommendations.

This guide uses NOTICE to call attention to important mechanical information, and Note: to emphasize general information worthy of special attention.

▲ WARNING

IMPACT AND MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to severe injury or death

- **Always** take time to fully read the Instructions and/or Operations Guide, and/or Basic Guide to Winching Techniques, in order to understand your winch and its operations.
- **Always** use extreme caution when drilling on any vehicle. Make sure that all fuel lines, brake lines, electrical wires, and other objects are not punctured or damaged when/if drilling on the vehicle. Thoroughly inspect the area to be drilled (on both sides of material) prior to drilling, and relocate any objects that may be damaged. Failure to inspect the area to be drilled may result in vehicle damage, electrical shock, fire or personal injury.
- **Always** wear safety glasses when installing this kit. A drilling operation will cause flying metal chips. Flying chips can cause eye injury.
- **Always** use extreme caution when cutting and trimming during fitting.
- **Always** remove jewelry and wear eye protection.
- **Never** lean over battery while making connections.
- **Never** route electrical cables:
 - Across any sharp edges.
 - Through or near moving parts.
 - Near parts that become hot.
- **Always** insulate and protect all exposed wiring and electrical terminals.
- **Always** install terminal boots as directed in installation instructions.
- **Always** use appropriate and adequate care in lifting components into place.
- **Always** ensure components will remain secure during installation and operation.
- **Always** tighten all nuts and bolts securely, per the installation instructions.
- **Always** perform regular inspections and maintenance on the plow mechanism, fasteners, cable and related hardware.
- **Always** replace all worn or damaged parts before operating.
- **Never** operate this WARN product with damaged or missing parts.

Read installation and operating instructions thoroughly.

⚠ CAUTION

MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to minor or moderate injury

- **Always** take time to fully read and understand the installation and Operations Guide included with this product.
- **Never** operate this product if you are under 16 years of age.
- **Never** operate this product when under the influence of drugs, alcohol or medications.

Read installation and operating instructions thoroughly.

NOTICE

EQUIPMENT DAMAGE

- **Never** tow vehicle by attaching a tow bar to the eyelets on the bumper.
- **Never** attach tow bars directly to the bumper. Damage to bumper may occur. WARN bumpers are not designed to be used for flat towing. Consult with the manufacturer of your tow bar system for the proper vehicle tow bar brackets..

Read installation and operating instructions thoroughly.

NOTICE



This product may interfere with driver assist systems such as adaptive cruise control and parking assist systems that have sensors or cameras installed in the bumpers or front grill area. If your vehicle is equipped with any of these systems or features, consult your vehicle owner's manual before installing this product. These systems may need to be disabled as a result of installing this product.

NOTES

- The Warn Crawler Bumper will accept a large range of mid frame winches with up to 12,000 lb. capacities. The Bumper has been designed to accommodate the standard 4-1/2 x 10" feet down mounting pattern as well as the 4-1/2 x 6" short drum pattern. The Warn PowerPlant, 8274 and 9.5 CTI are NOT compatible with this bumper.
- Crawler Bumpers are compatible with factory fog lamps using provided brackets. Both Crawler Bumpers provide mounting locations for aftermarket lights on the top of the bumper.
- Both Crawler Bumper styles are not compatible with the factory skid plate and will not be reinstalled after installation of the Crawler Bumper.

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TORQUE SPECIFICATIONS

Please use the recommended torque specifications when assembling this product unless otherwise specified in the instructions.

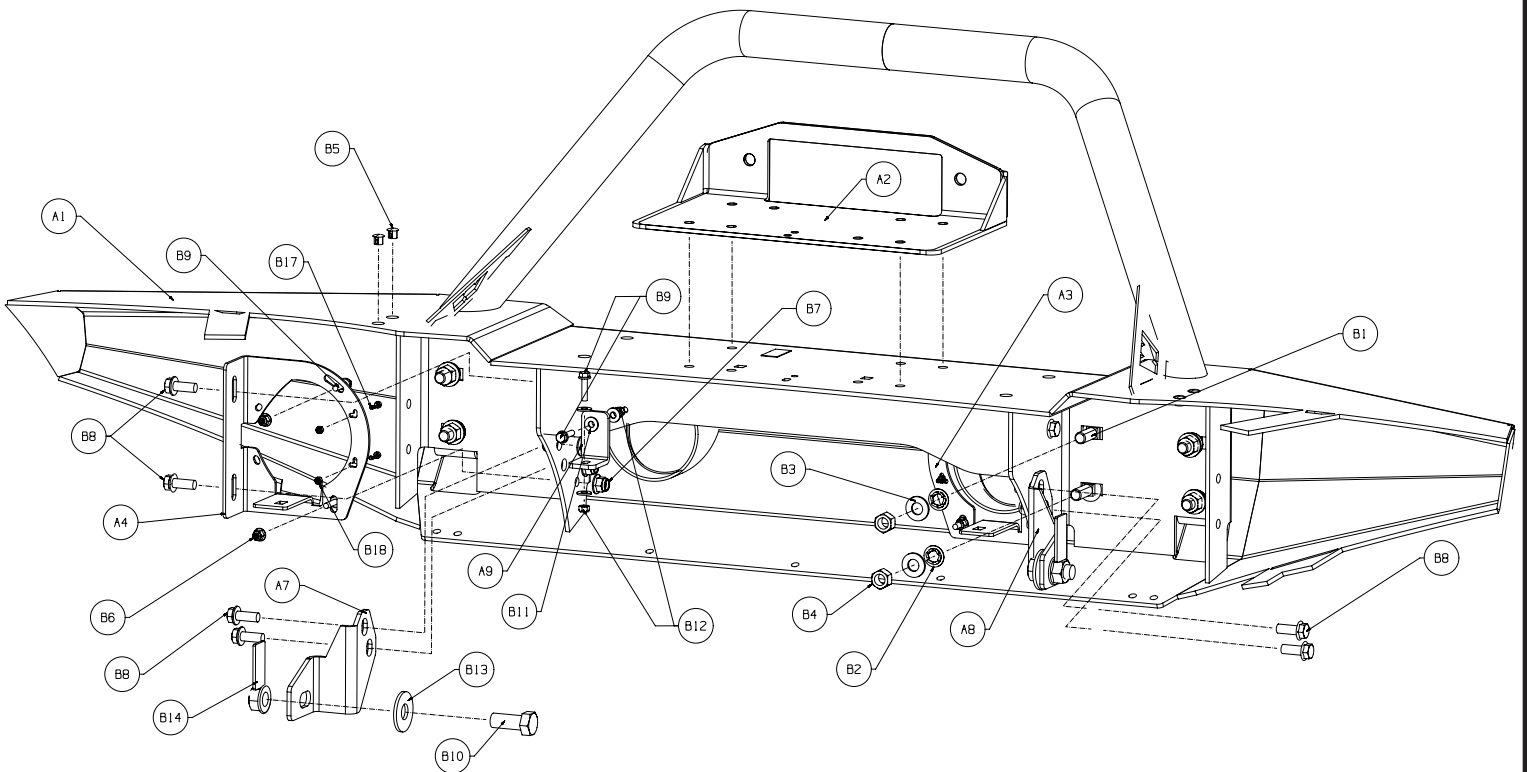
FASTENER SIZE	FASTENER TORQUE		FASTENER SIZE	FASTENER TORQUE	
	lb-ft	(N.m)		lb-ft	(N.m)
1/4"	8	(11)	M4	(2)	3
5/16"	17	(23)	M5	(4.5)	6
3/8"	30	(40)	M6	(7.5)	10
7/16"	48	(66)	M8	(18)	25
1/2"	74	(100)	M10	(37)	50
9/16"	106	(144)			
5/8"	148	(200)			
3/4"	269	(364)			

TOOLS REQUIRED

- Ratchet, extensions, universal
- Sockets: Standard and Metric
- End Wrenches: Standard and Metric
- Open End Wrenches
- Metal cutting saw

PARTS LIST

ID	PN	Description	Qty.	ID	PN	Description	Qty.
A1	<i>Varies</i>	Rock Crawler Bumper	1	B1	102491	Carriage Bolt - 1/2" - 13 x 1.25	8
A2	87398	Winch Mount Plate	1	B2	101259	Pushnut Bolt Retainer - 1/2"	8
A3	102148	RH Foglight Bracket	1	B3	9213	Washer - 1/2" Plain Narrow	8
A4	102147	LH Foglight Bracket	1	B4	29060	Locking Hex Nut - 1/2" - 13	8
A7	102521	LH Anti-Nod	1	B5	100772	Locking Plastic Plug - 3/8"	4
A8	102522	RH Anti-Nod	1	B6	83125	Flange Hex Nut - M6 x 1.0	4
A9	102727	Vacuum pump bracket	1	B7	87166	Flange Nut Elastic Insert - M10 x 1.5	12
				B8	93078	Flange Head Bolt - M10 x 1.5 x 25	8
				B9	64108	Flange Head Capscrew - M6 x 1.0 x 25	6
				B10	6819	Hex Head Capscrew - 5/8" - 11 x 1 1/2"	2
				B11	82930	Washer- M6 plain flat	4
				B12	87167	Nut Elastic M6	2
				B13	9471	Washer - 5/8" Plain Wide	2
				B14	88041	Nut Plate Weldment - 5/8" - 11	2
				B17	82351	Socket Head Capscrew - M4 x 0.7 x 16	4
				B18	93675	Locking Hex Nut - M4 x 0.7 Nylon Insert	4



INSTALLATION INSTRUCTIONS

1. Remove factory bumper.

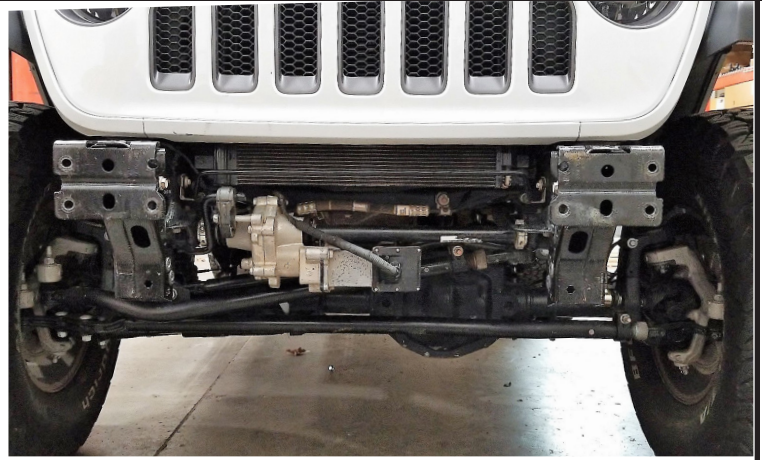


Figure 1

2. If reusing fog lights, be sure to remove from stock bumper.

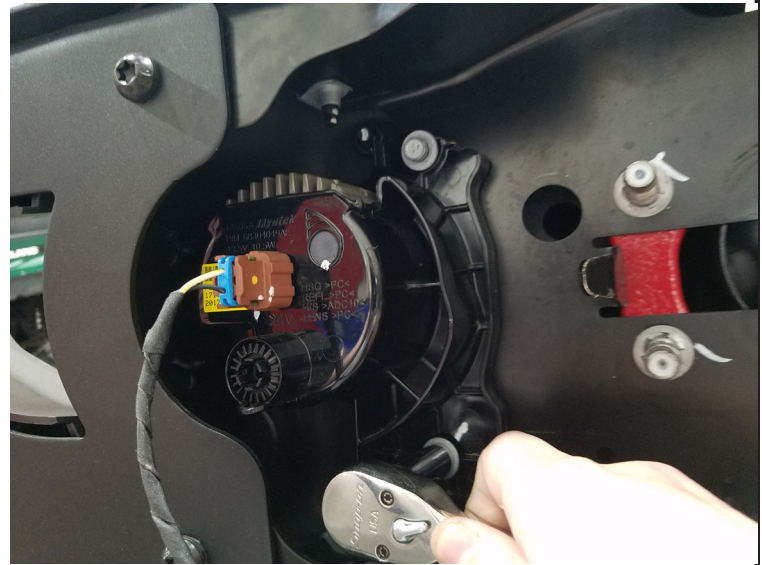


Figure 2

3. Use a small flat head screwdriver to pry wire harness clips upward.
4. Disconnect fog light harness Christmas tree clips from the factory bumper.

NOTE: You will need to secure wiring up in new bumper with zip ties.

5. Install the eight 1/2" carriage bolts (B1) into the bumper mounting slot (four each side).
IMPORTANT: Be sure that bolts are completely seated in bumper (with square edges lined up with slot) before securing push nut.

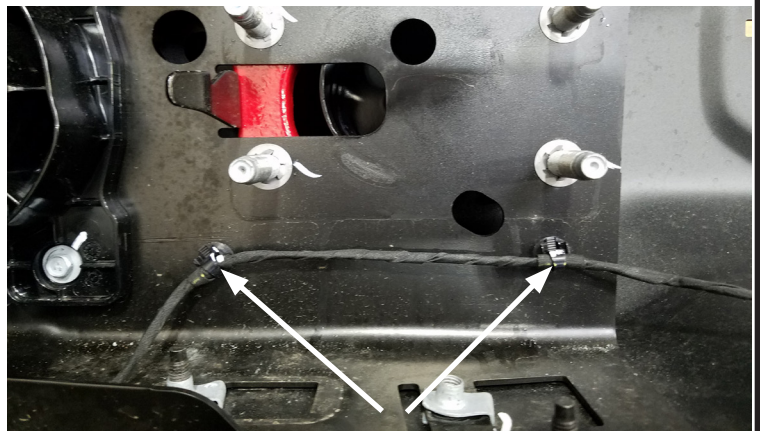


Figure 3

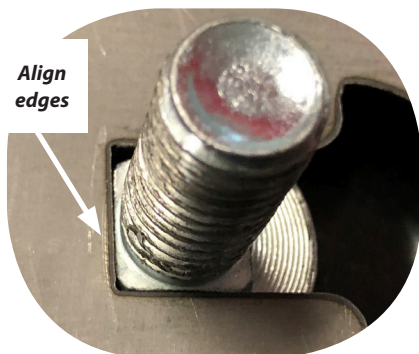


Figure 4

INSTALLATION INSTRUCTIONS

6. Using a socket, secure bolt to bumper with push nut (B2).
TIP: Use an end of a tool to hold the back side of each bolt in place while you secure push nut.

NOTE: The head of bolt will be in the inside of bumper hull and the push nut will be on the outside.



Figure 5

7. Attach fog light to brackets (A3 and A4). **NOTE: The fog light may need to be trimmed to match the supplied fog light bracket.**
- For LED fog lights: Secure light with two M6 flange head bolts (B9) and M6 locking flange nuts (B6).
 - For HALOGEN fog lights: Secure with two M4 screws (B15) and M4 locking nut (B16).
NOTE: Halogen Fog light housing may need to be trimmed to install further forward into bumper light shroud.

NOTE: Your bracket may look different than image shows.

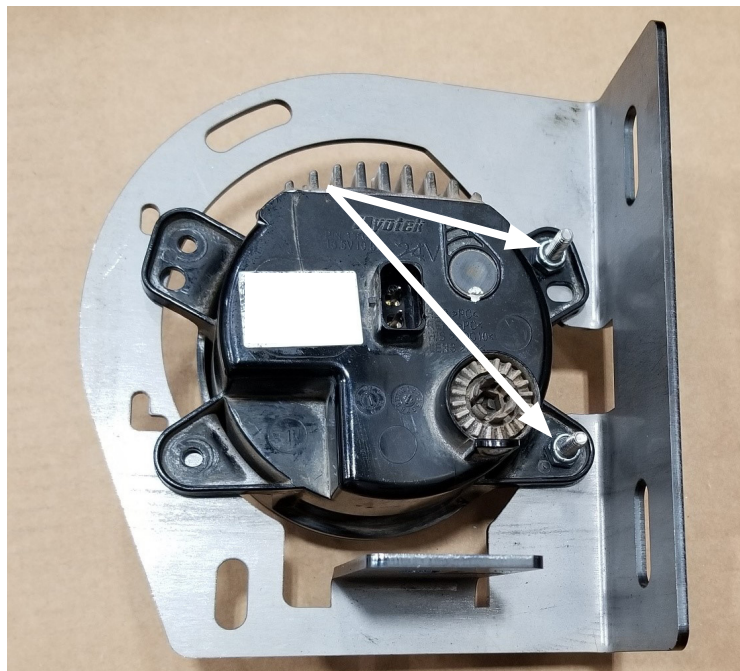


Figure 6

8. Attach fog light assemblies to bumper with two M10 flange bolts (B8) and nuts (B7).

NOTE: Bracket mounting location may differ depending on type of light.

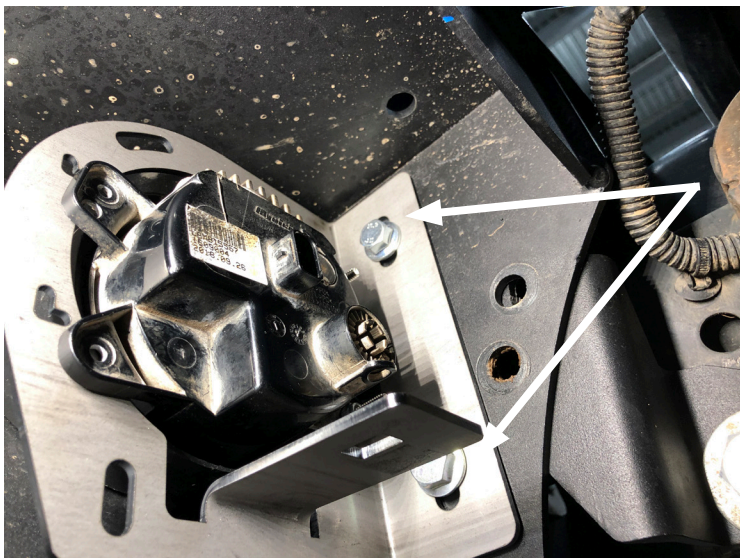


Figure 7

INSTALLATION INSTRUCTIONS

NOTE: The next few steps are for the removal of the vacuum pump. If your vehicle is not equipped with a vacuum pump, move to step 14.

9. Remove the vacuum pump from factory bracket. Do not remove any connections. Place pump up and out of the way for now. *Retain hardware for later reinstall.*

⚠ WARNING Always use extreme caution when cutting and trimming.

10. Use a saw to trim the right pump bracket arm. Be careful not to damage any lines or wires.
11. Touch up raw edge with paint to prevent rust.
12. Carefully disconnect the hoses and electrical connection. Be careful not to strain or kink the lines, wires or fittings.



Figure 8

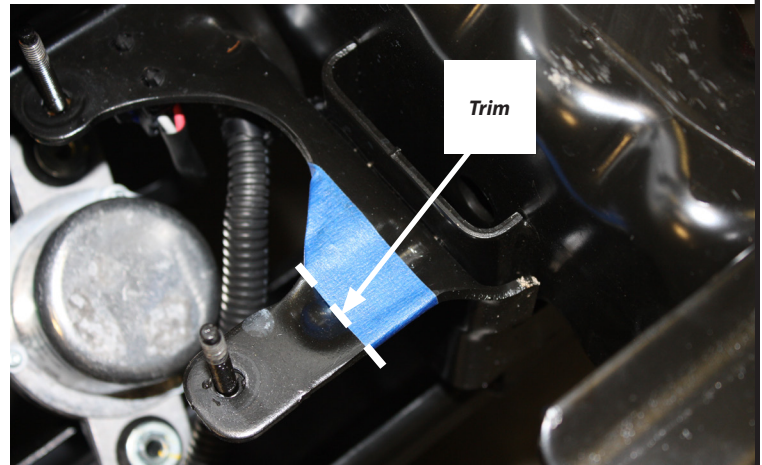


Figure 9

13. Use a grinder or file to enlarge the slot in the factory pump bracket to match the frame hole behind it, about 5/8" diameter. Touch up raw edge with paint to prevent rust.

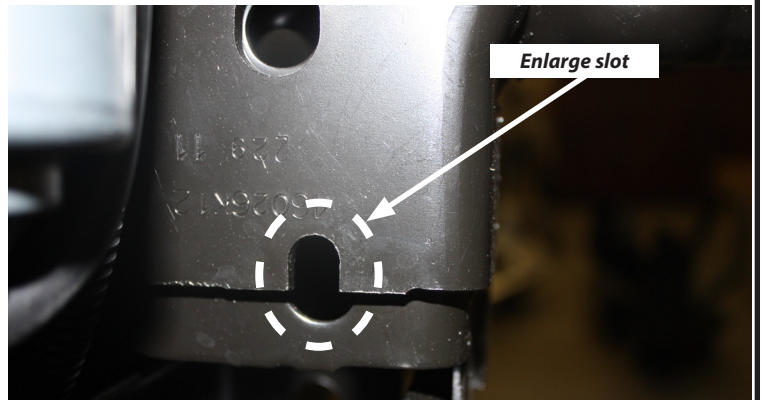


Figure 10

BUMPER INSTALLATION

⚠ CAUTION

- Always use assistance when moving or lifting heavy parts.

15. With assistance, lift bumper in place (threading bolts through frame mounting brackets).
16. Secure bumper to factory frame horns, using eight washers (B3) and lock nuts (B4) (four each side).

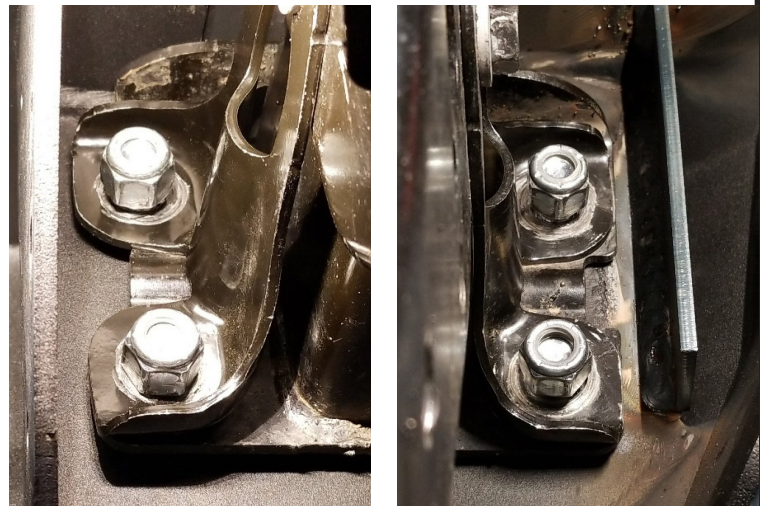


Figure 11

ANTI-NOD INSTALLATION

14. To install the anti-nod bracket, first insert the nut plate (A6) into the frame (driver's side).

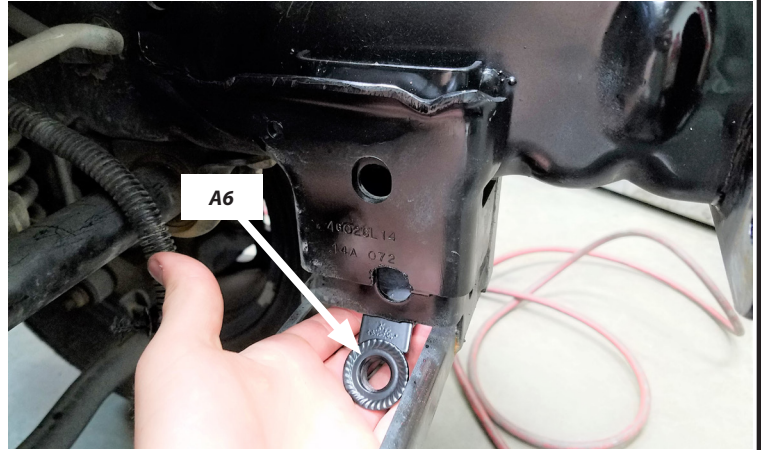


Figure 12

17. Loosely secure **top** portion of anti-nod bracket between bumper and frame using bolts (B8).
18. Line anti-nod bracket (A7) holes up with nut plate.
19. Insert bolt (B10) and washer (B13) through bracket, frame and nut plate and tighten.
20. Tighten top bolts.
21. Repeat steps 17-20 for passenger side bracket (A8).
NOTE: You will not have a nut plate for passenger side installation.

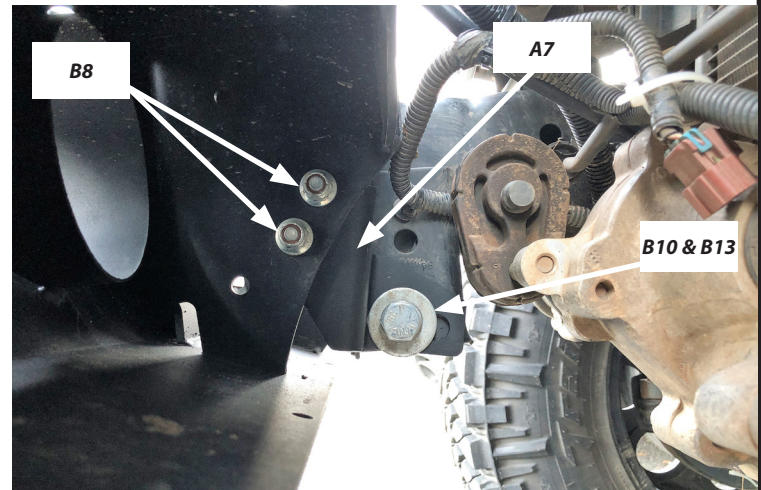


Figure 13

NOTE: The next few steps are for the installation of the vacuum pump. If your vehicle is not equipped with a vacuum pump, move to step 25.

22. If your vehicle is equipped with a vacuum pump, install the vacuum pump bracket (A9) (just behind the anti-nod bracket) through bumper with bolt (B9), two washers (B11) and nut (B12). Refer to exploded view on page 3.
23. Secure pump to bracket with one screw (B9), two washers (B11) and nut (B12).
24. Secure pump to factory arm with factory hardware.

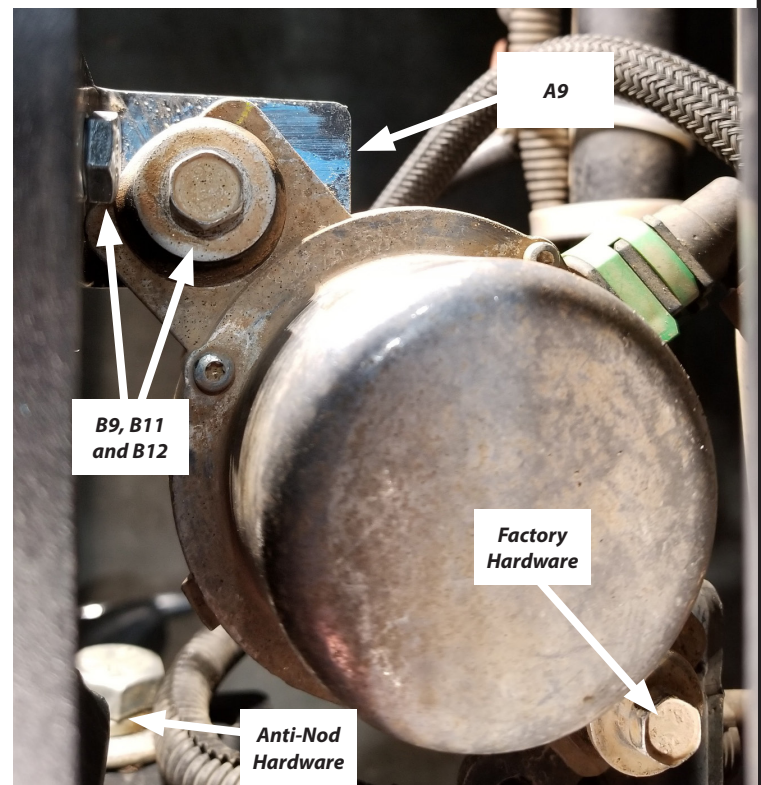


Figure 14

25. Install fairlead to winch mounting bracket (A2).
26. Place winch mounting bracket on top of bumper (aligning mounting holes). **NOTE: We recommend getting assistance to hold mounting bracket/fairlead in place to avoid tipping hazard.**
27. Install winch and wire to mounting bracket and bumper per your winch installation instructions.
28. Tighten **ALL** hardware to specifications on page 2.
29. Your installation is now complete.



Figure 15



Figure 16

MAINTENANCE / CARE

1. Inspect all parts on the winch, winch mount, and related hardware prior to each use. Replace all hardware that appears rusted or deformed.
2. Inspect all nuts and bolts on the winch, winch mount and related hardware prior to each use. Tighten all nuts that appear to be loose. Stripped, fractured, or bent bolts or nuts need to be replaced.
3. Check all cables prior to use. Replace cables that look worn or frayed.
4. Check all moving or rotating parts. Remove debris that may inhibit the part from moving freely.

(FOR ALL BUMPER MODELS)

15. Loosely secure **top** portion of anti-nod bracket (A5 and A6) between bumper and frame using bolts (B8).
16. Secure lower portion of anti-nod bracket:
 - Steel bumper: over the factory skid plate mounting bracket and between the bumper and frame. Using factory hardware **NOTE: Be sure to install hardware in the same orientation as removed.**
 - Plastic bumper: using two flange nuts (B7).
17. Tighten top bolts now.

18. Install fairlead to winch mounting bracket (A2).
19. Place winch mounting bracket on top of bumper (aligning mounting holes). **NOTE: We recommend getting assistance to hold mounting bracket/fairlead in place to avoid tipping hazard.**
20. Install winch and wire to mounting bracket and bumper per your winch installation instructions.
21. Tighten **ALL** hardware to specifications on page 2.
22. Your installation is now complete.

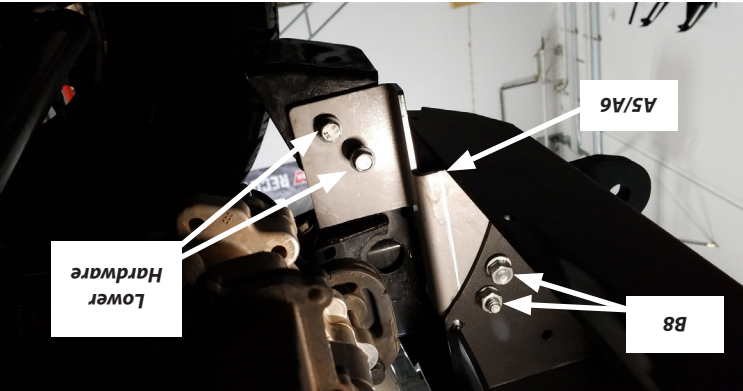


Figure 11



Figure 12



Figure 13

MAINTENANCE / CARE

1. Inspect all parts on the winch, winch mount, and related hardware prior to each use. Replace all hardware that appears rusted or deformed.
2. Inspect all nuts and bolts on the winch, winch mount and related hardware prior to each use. Tighten all nuts that appear to be loose. Stripped, fractured, or bent bolts or nuts need to be replaced.
3. Check all cables prior to use. Replace cables that look worn or frayed.
4. Check all moving or rotating parts. Remove debris that may inhibit the part from moving freely.

BUMPER INSTALLATION

⚠ CAUTION

- Always use assistance when moving or lifting heavy parts.

9. With assistance, lift bumper in place (threading bolts through frame mounting brackets).
10. Secure bumper to factory frame horns, using eight washers (B3) and lock nuts (B4) (four each side).

ANTI-NOD INSTALLATION

(FOR STEEL BUMPER MODELS)

11. Remove the two bolts (each side) that attach the skid plate mounting brackets to the frame. **NOTE: Retain hardware and brackets for anti-nod bracket installation.**

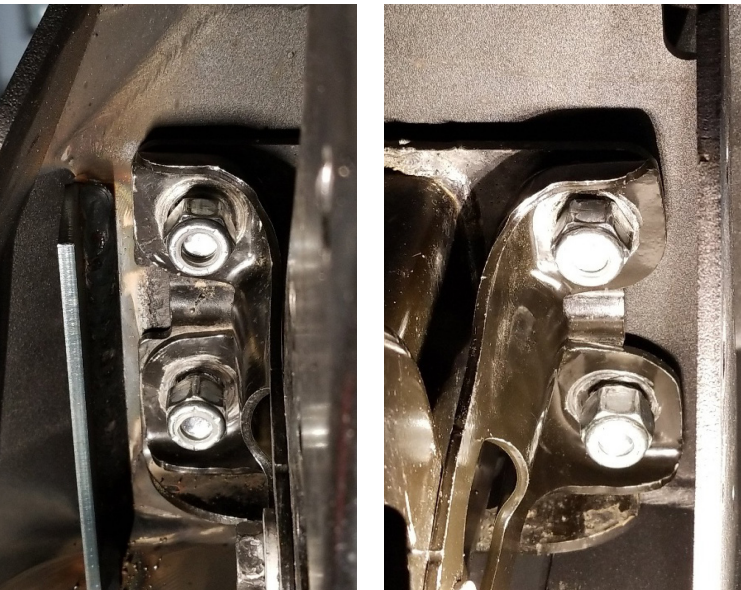
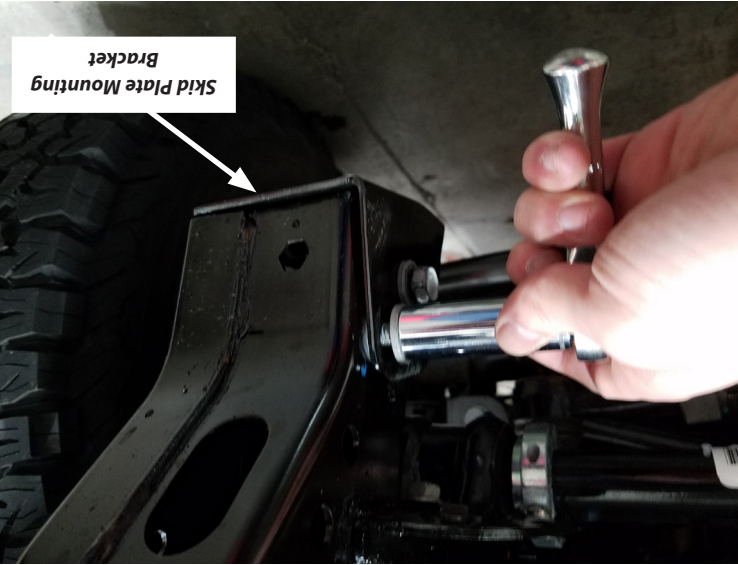


Figure 8



Skid Plate Mounting Bracket

Figure 9

(FOR PLASTIC BUMPER MODELS)

12. Insert one carriage bolt (B15) into the upper hole of frame doubler plate (B16).
13. Place doubler plate onto frame, inserting carriage bolt into upper frame hole.
14. Insert second carriage bolt through doubler plate and lower frame hole. Repeat for both sides of vehicle.

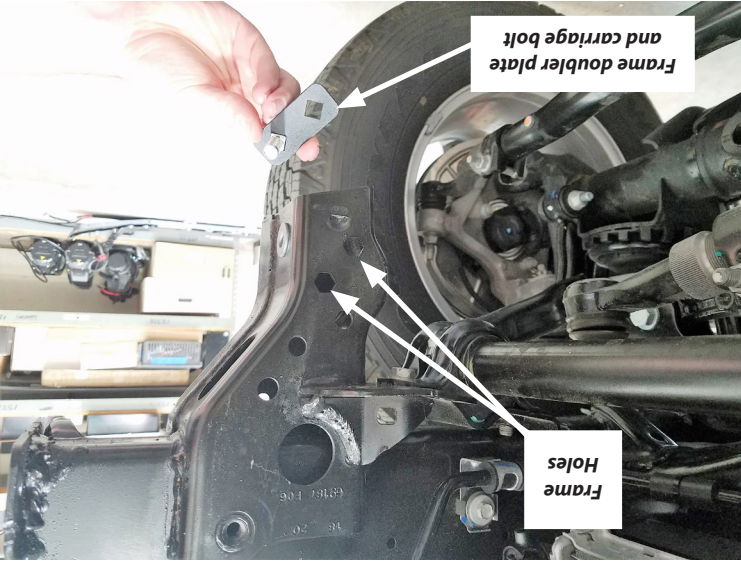


Figure 10

6. Using a socket, secure bolt to bumper with push nut (B2).
 TIP: Use an end of a tool to hold the back side of each bolt in place while you secure push nut.
 NOTE: The head of bolt will be in the inside of bumper hull and the push nut will be on the outside.



Figure 5

7. Attach fog light to brackets (A3 and A4). NOTE: The fog light may need to be trimmed to match the supplied fog light bracket.

- a. For LED fog lights: Secure light with two M6 flange head bolts (B9) and M6 locking flange nuts (B6).

- b. For HALOGEN fog lights: Secure with two M4 screws (B15) and M4 locking nut (B16).
 NOTE: Halogen Fog light housing may need to be trimmed to install further forward into bumper light shroud.

NOTE: Your bracket may look different than image shows.

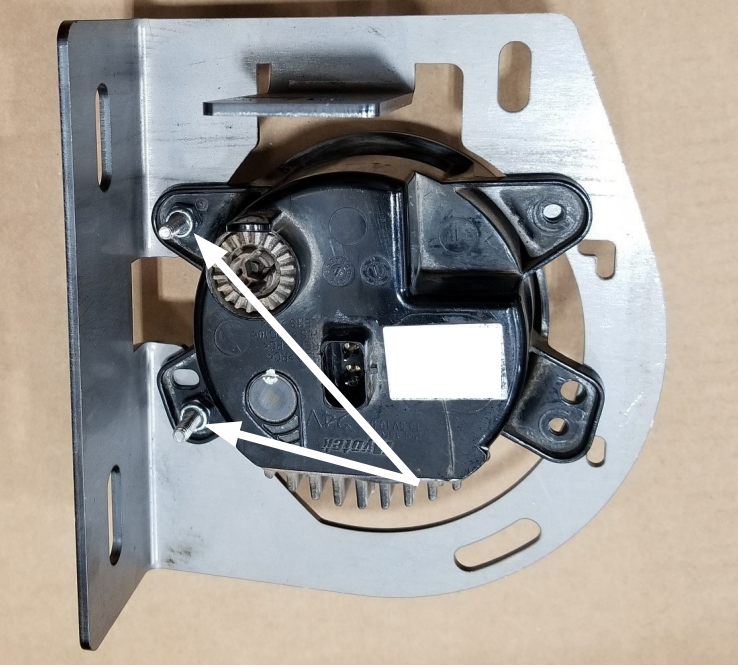


Figure 6

8. Attach fog light assemblies to bumper with two M10 flange bolts (B8) and nuts (B7).
 NOTE: Bracket mounting location may differ depending on type of light.

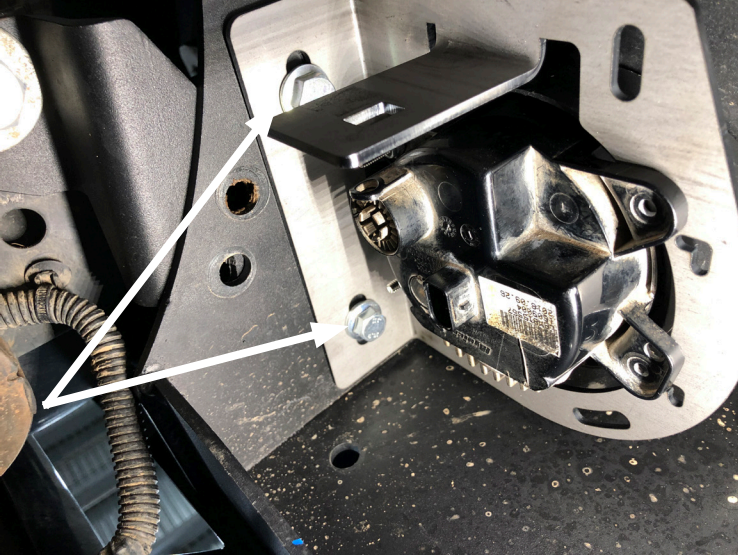


Figure 7

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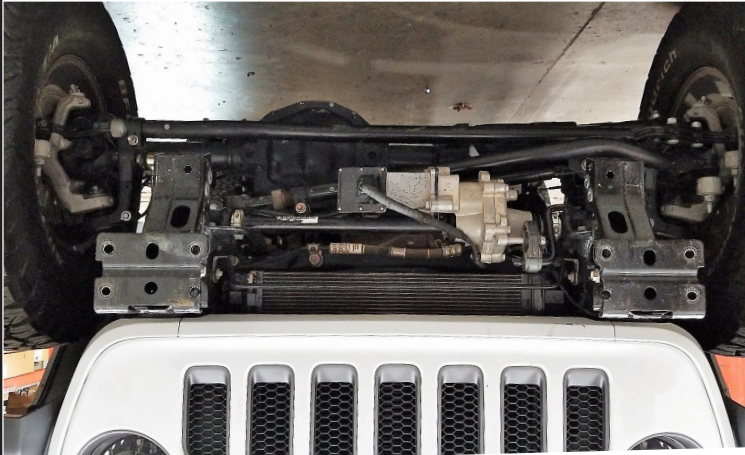


Figure 1

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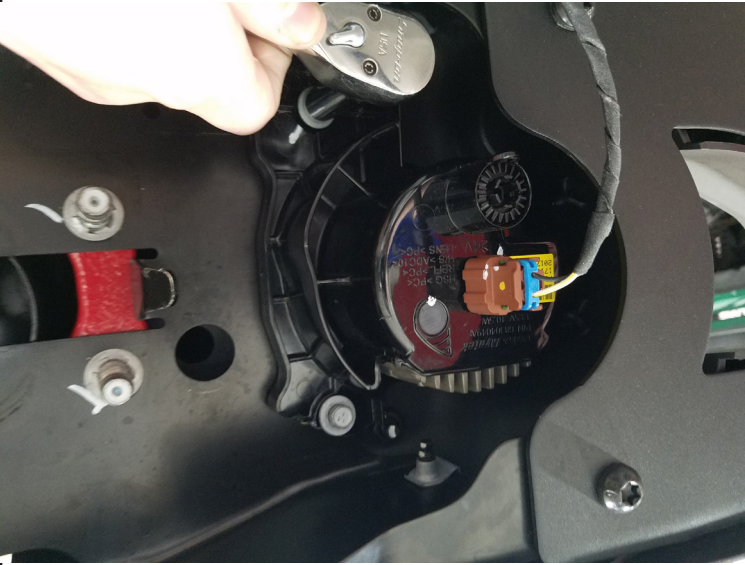


Figure 2

3. Use a small flat head screwdriver to pry wire harness clips upward.
 4. Disconnect fog light harness Christmas tree clips from the factory bumper.

NOTE: You will need to secure wiring up in new bumper with zip ties.

5. Install the eight 1/2" carriage bolts (B1) into the bumper mounting slot (four each side).
IMPORTANT: Be sure that bolts are completely seated in bumper (with square edges lined up with slot) before securing push nut.

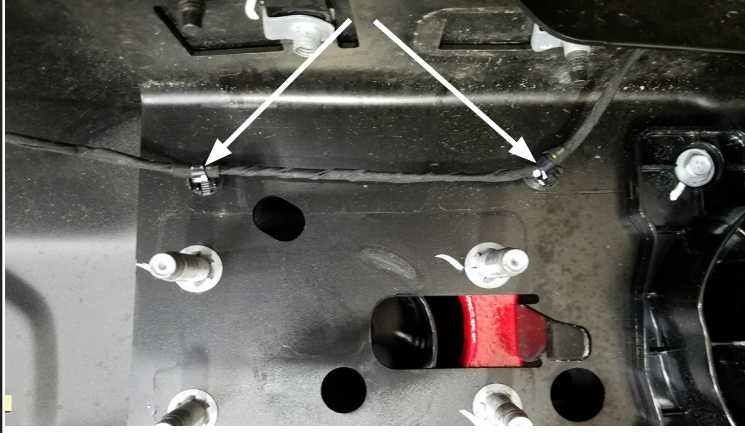
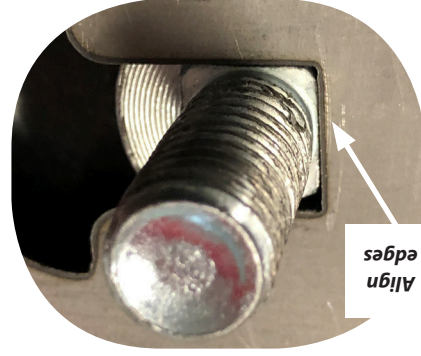


Figure 3



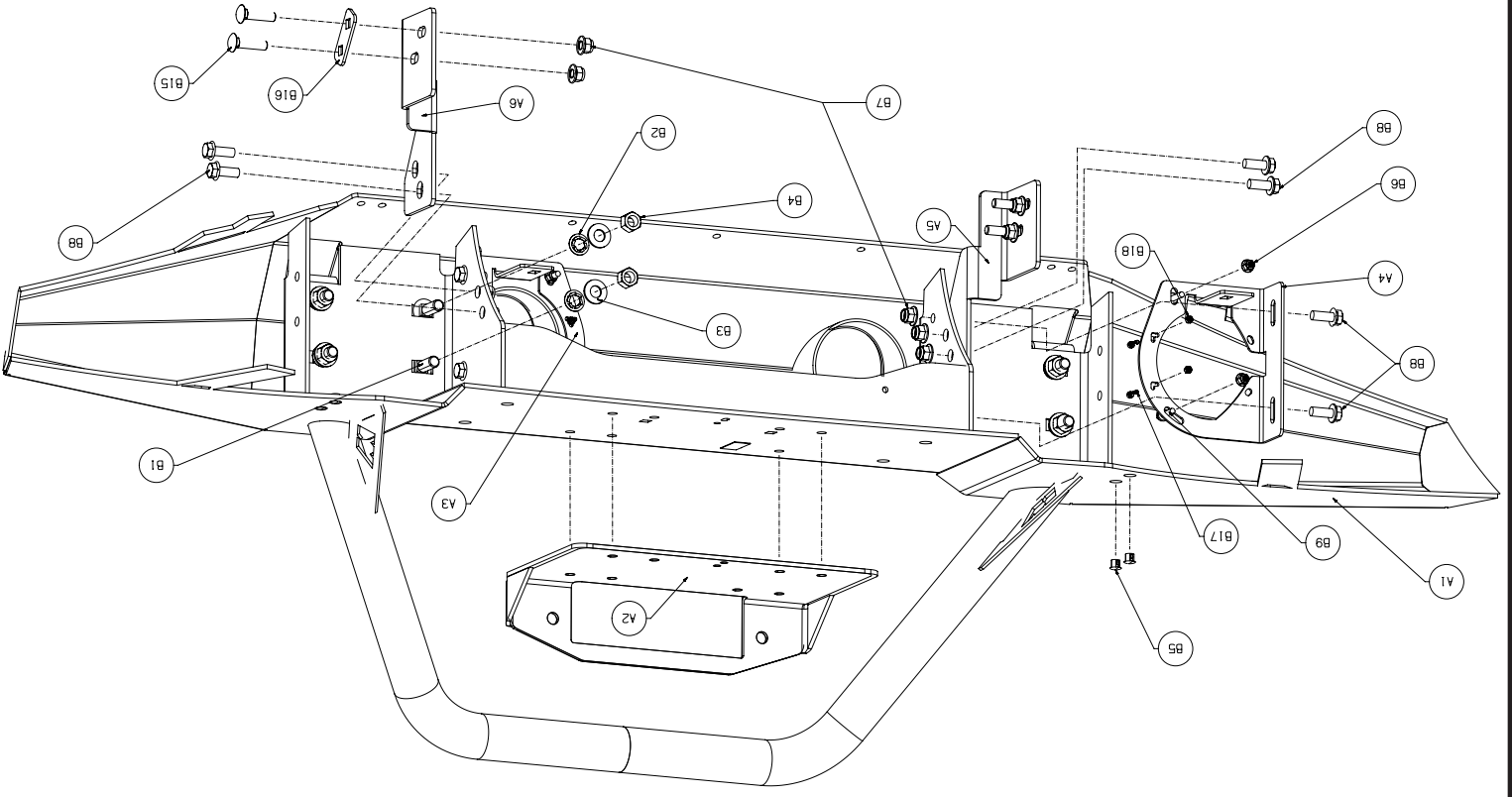
Figure 4

TOOLS REQUIRED

- Ratchet, extensions, universal
- Sockets: Standard and Metric
- End Wrenches: Standard and Metric
- Open End Wrenches

PARTS LIST

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A1	Varies	Crawler Bumper	1	B1	102491	Carriage Bolt - 1/2" - 13 x 1.25	8
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A4	102147	LH Foglight Bracket	1	B4	29060	Locking Hex Nut - 1/2" - 13	8
A5	102487	LH Anti-Nod (JL)	1	B5	100772	Locking Plastic Plug - 3/8"	4
A6	102488	RH Anti-Nod (JL)	1	B6	83125	Flange Hex Nut - M6 x 1.0	4
B7	87166	Flange Nut Elastic Insert - M10 x 1.5	12	B7	87166	Flange Nut Elastic Insert - M10 x 1.5	12
B8	93078	Flange Head Bolt - M10 x 1.5 x 25	8	B8	93078	Flange Head Bolt - M10 x 1.5 x 25	8
B9	64108	Flange Head Capscrew - M6 x 1.0 x 25	6	B9	64108	Flange Head Capscrew - M6 x 1.0 x 25	6
B15	81707	Carriage Bolt - M10 x 1.5 x 40	4	B15	81707	Carriage Bolt - M10 x 1.5 x 40	4
B16	101447	Doubler Bracket JL Sport	2	B16	101447	Doubler Bracket JL Sport	2
B17	82351	Socket Head Capscrew - M4 x 0.7 x 16	4	B17	82351	Socket Head Capscrew - M4 x 0.7 x 16	4
B18	93675	Locking Hex Nut - M4 x 0.7 Nylon Insert	4	B18	93675	Locking Hex Nut - M4 x 0.7 Nylon Insert	4



CAUTION

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FASTENER SIZE	lb-ft	(N.m)	FASTENER TORQUE	FASTENER SIZE	FASTENER TORQUE
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5/16"	17	(23)	M5	(4.5)	6
3/8"	30	(40)	M6	(7.5)	10
7/16"	48	(66)	M8	(18)	25
1/2"	74	(100)	M10	(37)	50
9/16"	106	(144)			
5/8"	148	(200)			
3/4"	269	(364)			



Part Number: 102145, 102146, 102510, 102520

JEEP JL WRANGLER FRONT CRAWLER BUMPER

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THIS IS A 2-SIDED INSTRUCTION.
This side is for the *Jeep JL Wrangler*.

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⚠ WARNING

IMPACT AND MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to severe injury or death

- **Always** take time to fully read the Instructions and/or Operations Guide, and/or Basic Guide to Winching Techniques, in order to understand your winch and its operations.
- **Always** use extreme caution when drilling on any vehicle. Make sure that all fuel lines, brake lines, electrical wires, and other objects are not punctured or damaged when/drilling on the vehicle. Thoroughly inspect the area to be drilled (on both sides of material) prior to drilling, and relocate any objects that may be damaged. Failure to inspect the area to be drilled may result in vehicle damage, electrical shock, fire or personal injury.
- **Always** wear safety glasses when installing this kit. A drilling operation will cause flying metal chips. Flying metal chips can cause eye injury.
- **Always** use extreme caution when cutting and trimming during fitting.
- **Always** remove jewelry and wear eye protection.
- **Never** lean over battery while making connections.
- **Never** route electrical cables:
- o Across any sharp edges.
- o Through or near moving parts.
- o Near parts that become hot.
- **Always** insulate and protect all exposed wiring and electrical terminals.
- **Always** install terminal boots as directed in installation instructions.
- **Always** use appropriate and adequate care in lifting components into place.
- **Always** ensure components will remain secure during installation and operation.
- **Always** tighten all nuts and bolts securely, per the installation instructions.
- **Always** perform regular inspections and maintenance on the plow mechanism, fasteners, cable and related hardware.
- **Always** replace all worn or damaged parts before operating.
- **Never** operate this WARN product with damaged or missing parts.

Read installation and operating instructions thoroughly.