



RAM FRONT BUMPER

2019+ RAM HD

PLEASE READ ENTIRELY BEFORE YOU START

To guarantee a quality installation, we recommend reading these instructions thoroughly before beginning any work. These instructions assume a certain amount of mechanical ability and are not written nor intended for someone not familiar with auto repair.

NOTE: 4500/5500 Customers will need to purchase a unique frame extension kit. AEV Product 11060216AA

5500 Customers will need to purchase AEV products 110602016AA and 10308013AA

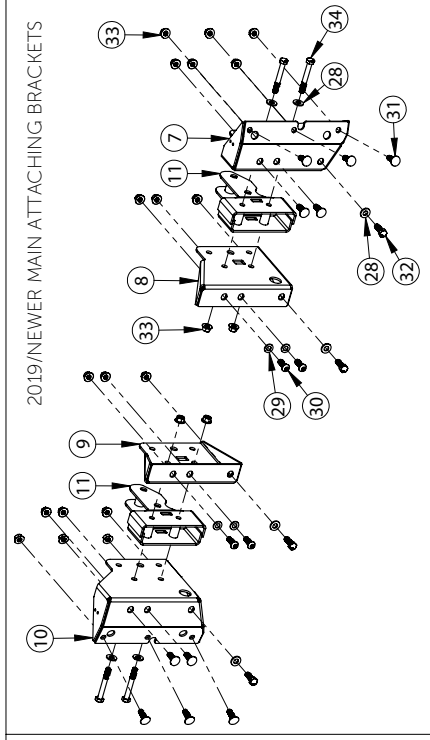
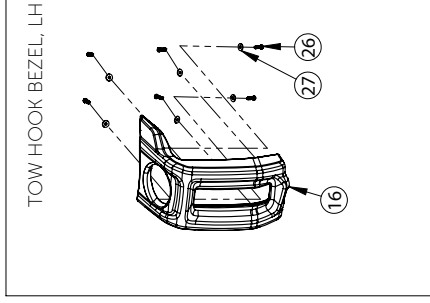
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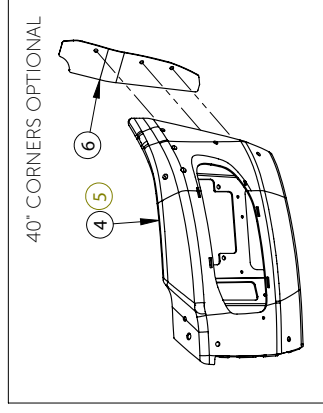
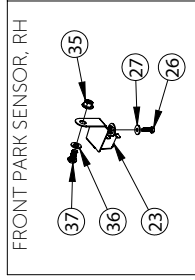
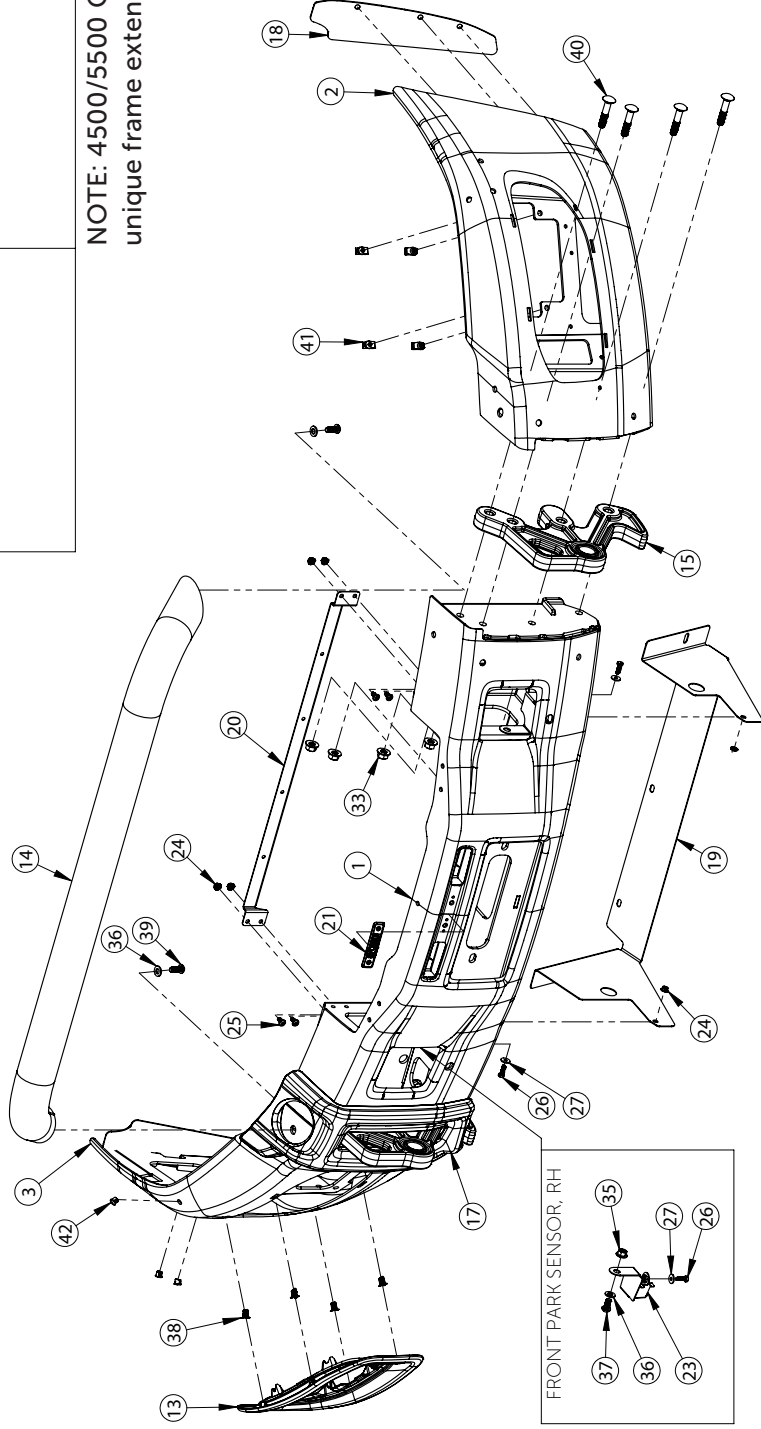


FRONT BUMPER

2019+ RAM 2500/3500



NOTE: 4500/5500 Customers will need to purchase a unique frame extension kit. AEV Product 11060216AA



HANDED PARTS ARE SYMMETRICALLY OPPOSITE



FRONT BUMPER

2019+ RAM 2500/3500

ITEM NO.	PartNo		40"	37"	OPTIONAL
1	ARMB0160AA	BUMPER CENTER	1	1	-
2	ARMB0313AA	37" LH CORNER	-	1	-
3	ARMB0312AA	37" RH CORNER	-	1	-
4	ARMB0315AA	40" LH CORNER	1	-	-
5	ARMB0314AA	40" RH CORNER	1	-	-
6	ARMB1220AA	40" LINER CAPTURE PLATE	2	-	-
7	ARMB1201AA	OTR MAIN BRACKET LH	1	1	-
8	ARMB1203AA	INR MAIN BRACKET LH	1	1	-
9	ARMB1202AA	INR MAIN BRACKET RH	1	1	-
10	ARMB1200AA	ORT MAIN BRACKET RH	1	1	-
11	ARMB0311AA	FRAME EXTENSION BRACKET	2	2	-
12	ARMB1039AA	FOG LIGHT BEZEL LH	1	1	-
13	ARMB1038AA	FOG LIGHT BEZEL RH	1	1	-
14	ARMB0101AB	LOW TUBE	1	1	-
15	ARMB1018AC	TOW LOOP	2	2	-
16	ARMB1217AA	TOW LOOP BEZEL LH	1	1	-
17	ARMB1218AA	TOW LOOP BEZEL RH	1	1	-
18	ARMB1054AA	37" LINER CAPTURE PLATE	-	2	-
19	ARMB1219AA	DIESEL INTERCOOLER SHROUD	-	-	1
20	ARMB1223AA	GAS RADIATOR SHROUD INTERFACE	-	-	1
21	60406204AA	BADGE	1	1	-
22	ARMB0011AA	PARK SENSOR BRACKET LH	1	1	-
23	ARMB0010AA	PARK SENSOR BRACKET RH	1	1	-

ITEM NO.	PartNo		40"	37"	OPTIONAL
24	AEV93020AB	M6 X 1.0 FLANGE NUT	-	-	6
25	AEV91121AA	M6 X 1.0 X 16 BHCS	-	-	4
26	AEV91017AA	M6 X 1.0 X 20 HCS	14	14	2
27	AEV98016AB	M6 WASHER	14	14	2
28	AEV98008AC	1/2" WASHER	8	8	-
29	AEV98004AC	M12 WASHER	4	4	-
30	AEV91001AB	M12 X 1.75 X 35 BHCS	4	4	-
31	AEV91026AB	M12 X 1.75 X 35 CARRIAGE BOLT	10	10	-
32	AEV91016AA	M12 X 1.75 X 35 HCS	4	4	-
33	AEV93001AB	M12 X 1.75 FLANGE NUT	30	30	-
34	AEV91033AA	M12 X 1.75 X 90 HCS	4	4	-
35	AEV93008AA	M10 X 1.5 LOCKING FLANGE NUT	2	2	-
36	AEV98006AA	M10 WASHER	4	4	-
37	AEV91010AA	M10 X 1.5 X 20 RHCS	2	2	-
38	11570751	PANEL CLIP	8	8	-
39	AEV91029AA	M10 X 1.5 X 25 BHCS	2	2	-
40	AEV91130AA	M12 X 1.75 X 60 CARRIAGE BOLT	8	8	-
41	11548583	M6 X 1.0 U-NUT	8	8	-
42	DOP-437	PLUG	6	6	-
43	ARMP0100AA	BRUSH GUARD	-	-	1
44	AEV93002AB	M10 X 1.5 FLANGE NUT	-	-	-
45	11571052	M10 X 1.5 X 38 PAN HEAD BOLT	-	-	-
46	ARMZ0010AA	DIESEL INTERCOOLER SKID	-	-	-

NOT SHOWN: AEV97006AA

3/8 PUSH PIN

6 6



I. REMOVAL OF FACTORY COMPONENTS –SAVE ALL HARDWARE

1. Disconnect the bumper wiring harness. The connector is located between the driver's side headlight and the fog light assemblies (fig. 1).
2. Disconnect the block heater plug from the bumper, if equipped (fig. 2).

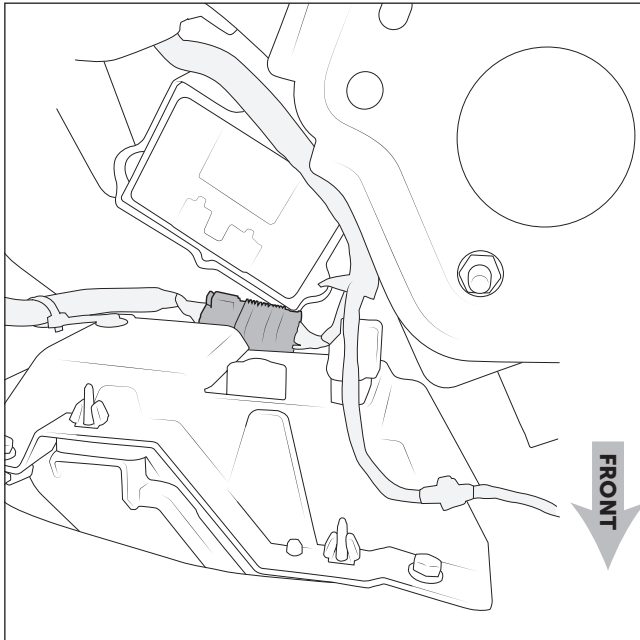


Figure 1

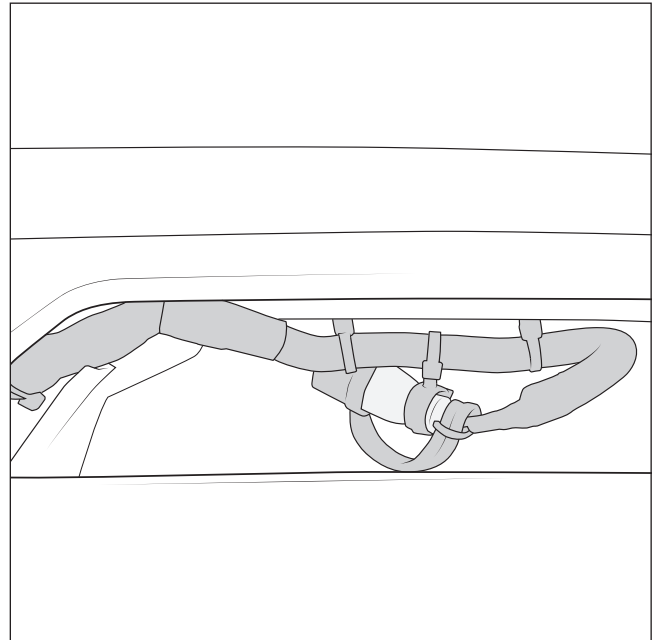


Figure 2

3. Remove the factory tow hooks (if equipped) by removing the four M16 bolts (2 per side) and SAVE hardware for later use. Remove the four M12 bolts (2 per side) holding the factory front bumper to the frame rail and SAVE for later use (fig. 3). Carefully remove the bumper. Having a helper is recommended.

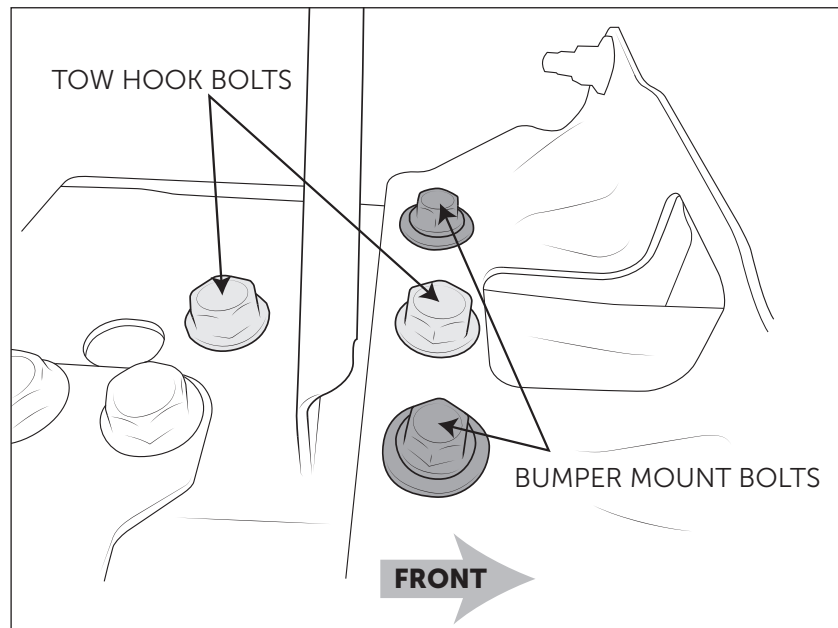


Figure 3



4. If equipped, remove the factory fog light assemblies by removing the four 10mm bolts. SAVE hardware for later use (fig. 4).

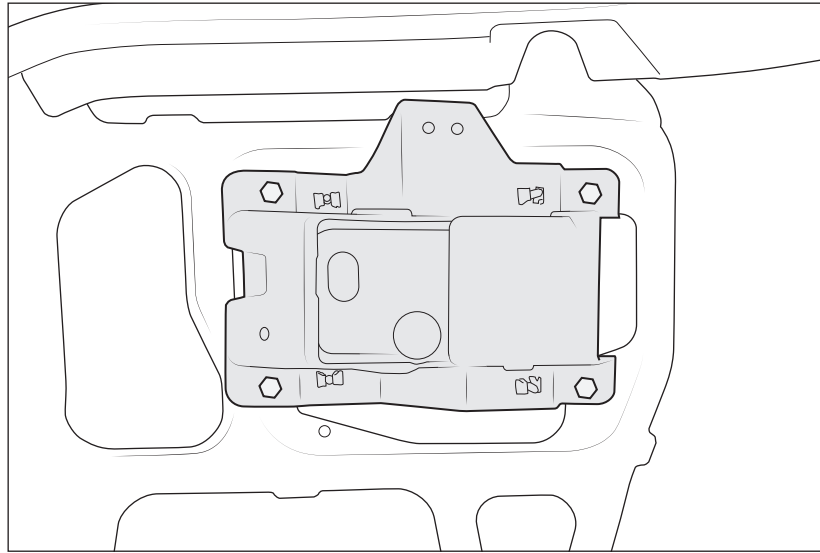


Figure 4

5. Remove the factory fog lamp bezel or block off plate by removing the five 10mm nuts and square head bolts. Snap the bezel or block off through the front side of the bumper (fig. 5). SAVE hardware and bezel or block off plate for later use.

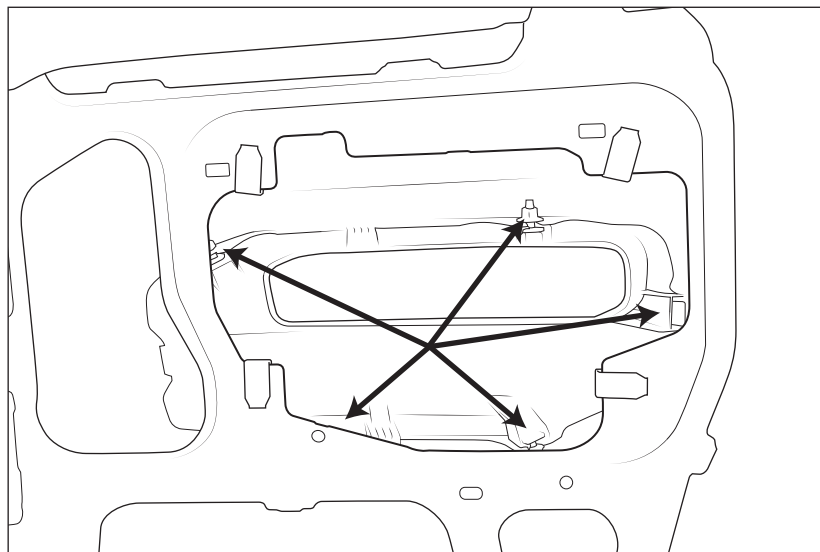


Figure 5



6. **For Diesel Trucks:** Remove the front intercooler shroud. **SAVE** hardware for later use (fig. 6).

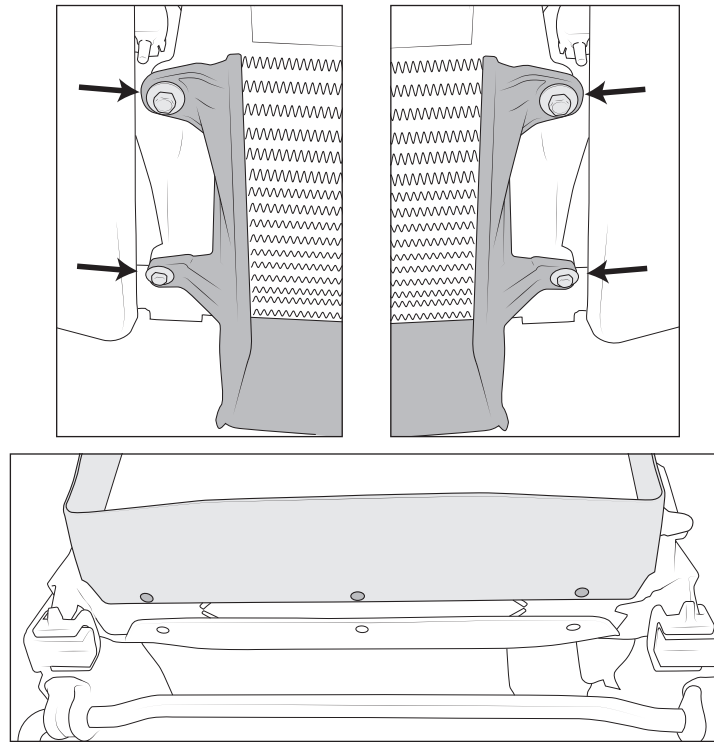


Figure 6

II. PREPARE AEV BUMPER FOR INSTALLATION

Install the inner and outer frame rail brackets along with the frame rail extension as shown below. Reuse factory hardware in rearward locations, and supplied M12 x 90 bolts, washers, and flange nuts in the front locations (fig. 7).

NOTE: 4500/5500 Customers will need to purchase a unique frame extension kit. AEV Product 11060216AA

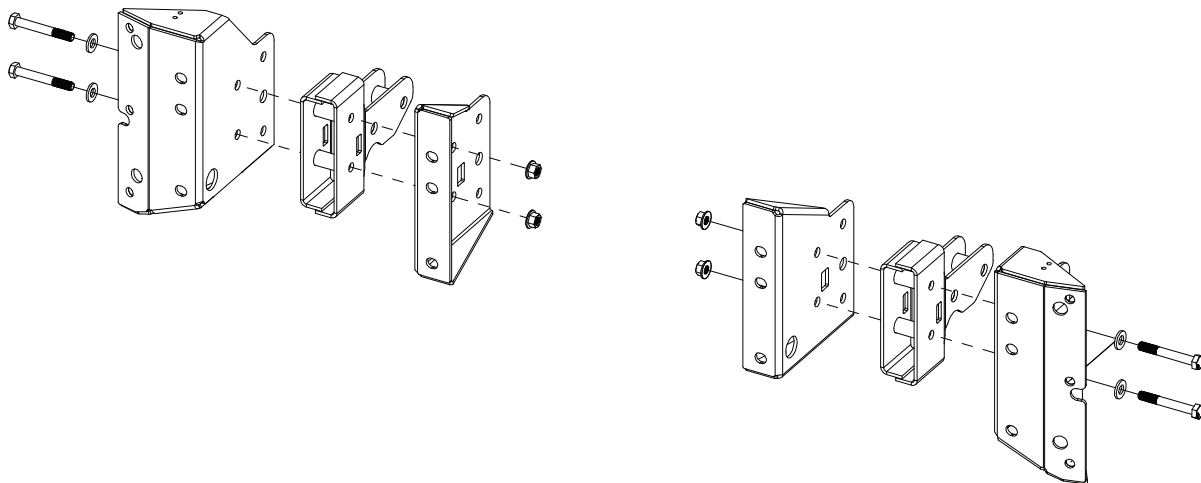


Figure 7-A

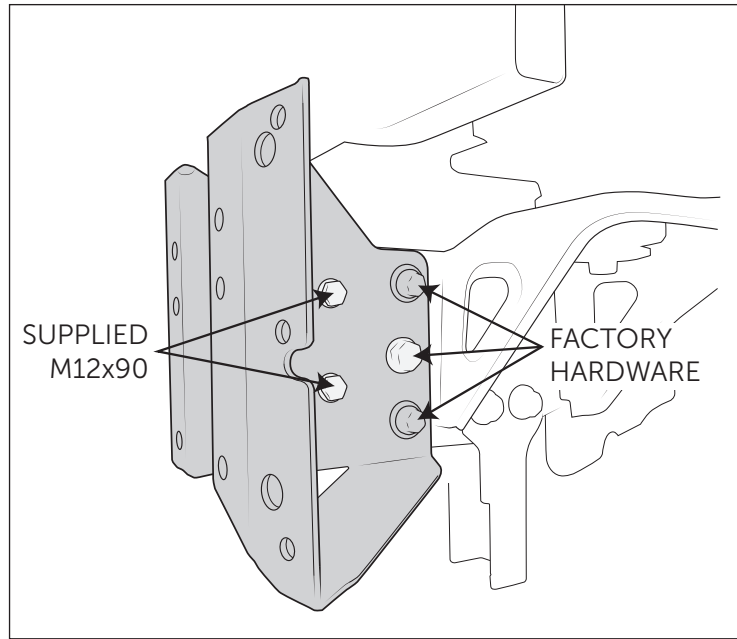


Figure 7-B

7. Place the Center Section on a protected surface.
8. If installing a Warn 16.5 winch, install the winch fairlead using the fasteners provided with the winch. Torque as instructed by the winch manufacturer. Use the AEV provided spacers between the winch and the bumper (fig. 8). NOTE: For Warn M12000 or M15000 winches see Appendix A.

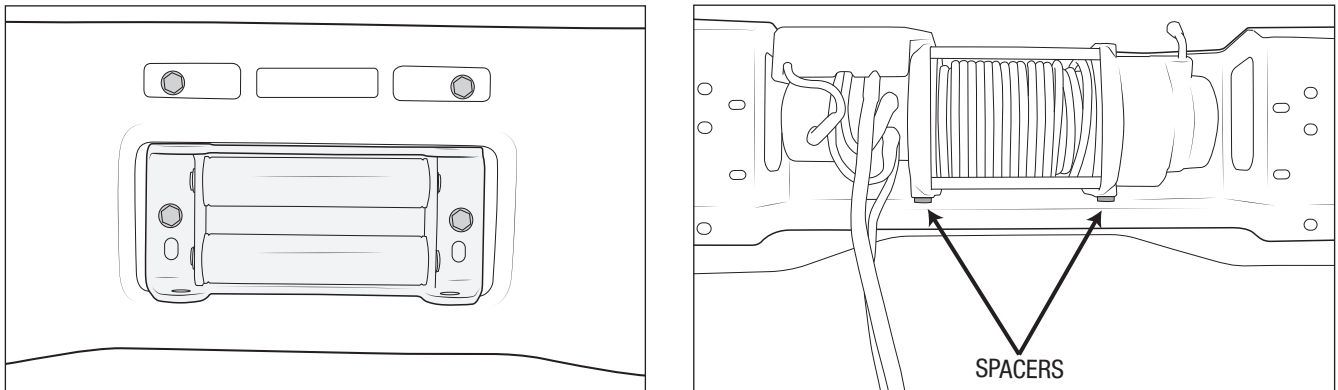


Figure 8



9. Install two M12x35 carriage bolts in the upper-outside corners of the Center Section and secure with push nuts (fig. 9)

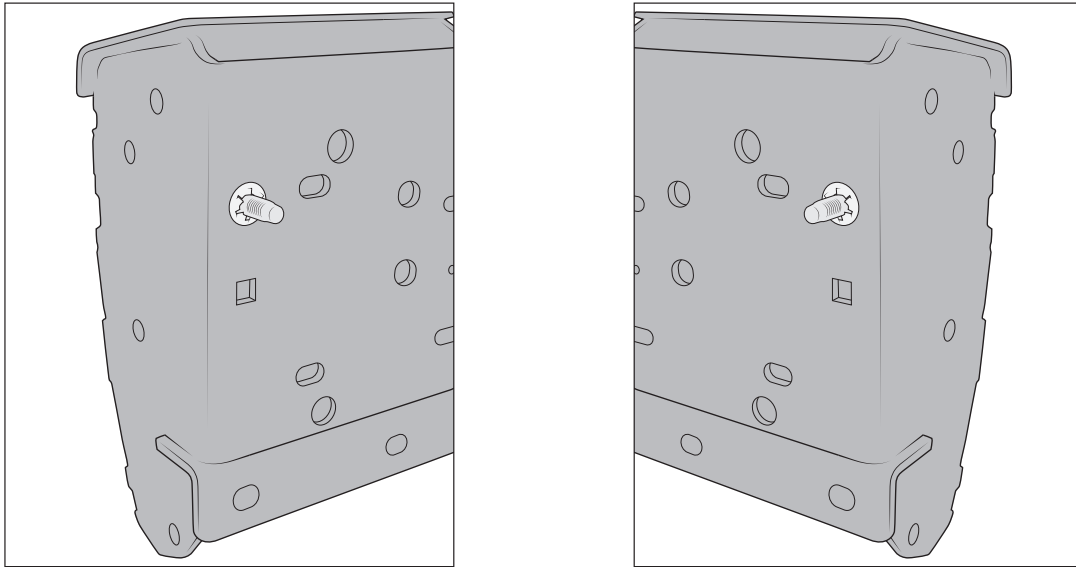


Figure 9

III. INSTALL CENTER SECTION

ATTENTION: If you are installing the AEV Front Camera Relocation Kit, follow the instructions for that product **BEFORE** installing the Center Section on to the vehicle.

1. With a helper, lift Center Section into position inserting carriage bolts from the previous step through the upper holes in the outer frame mounting brackets (fig. 10).
2. Thread two M12 nuts onto the bolts going through the frame brackets to secure the Center Section.

NOTE: The use of a floor jack (if working on the ground) or a transmission jack (if working on a hoist) to assist with positioning the bumper is recommended. Be sure to protect the bumper's finish.

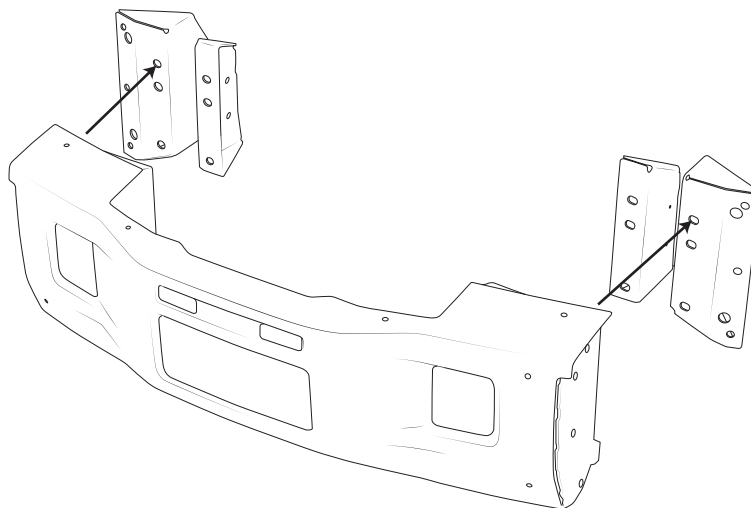


Figure 10



3. Install the remaining ten bolts and hand tighten. There should now be six bolts in each side of the Center Section (fig. 11).

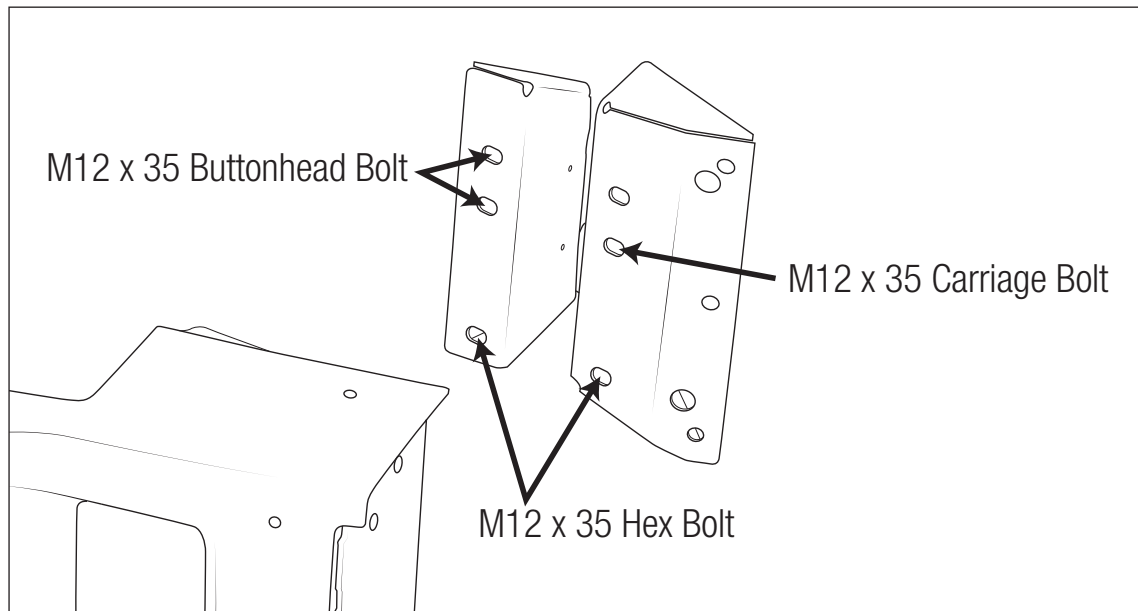


Figure 11

IV. INSTALL TOW LOOPS AND CORNERS

1. Assemble the tow loops and corners using M12x60 carriage bolts and push nuts as shown (fig.12).
NOTE: Start ALL bolts through the corner and town loops before installing the push nuts.

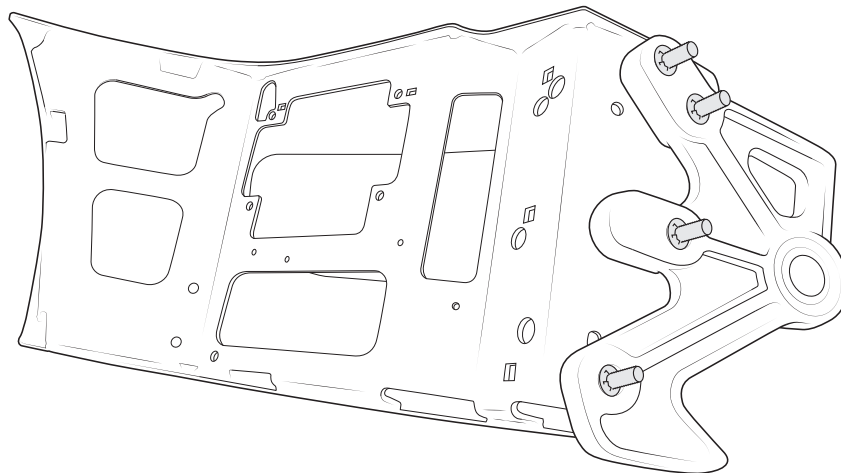


Figure 12



2. Lift the corner assembly onto the center section, inserting four bolts from the previous step into the corresponding holes in the center section (fig. 13). Secure using M12 nuts and hand tighten.

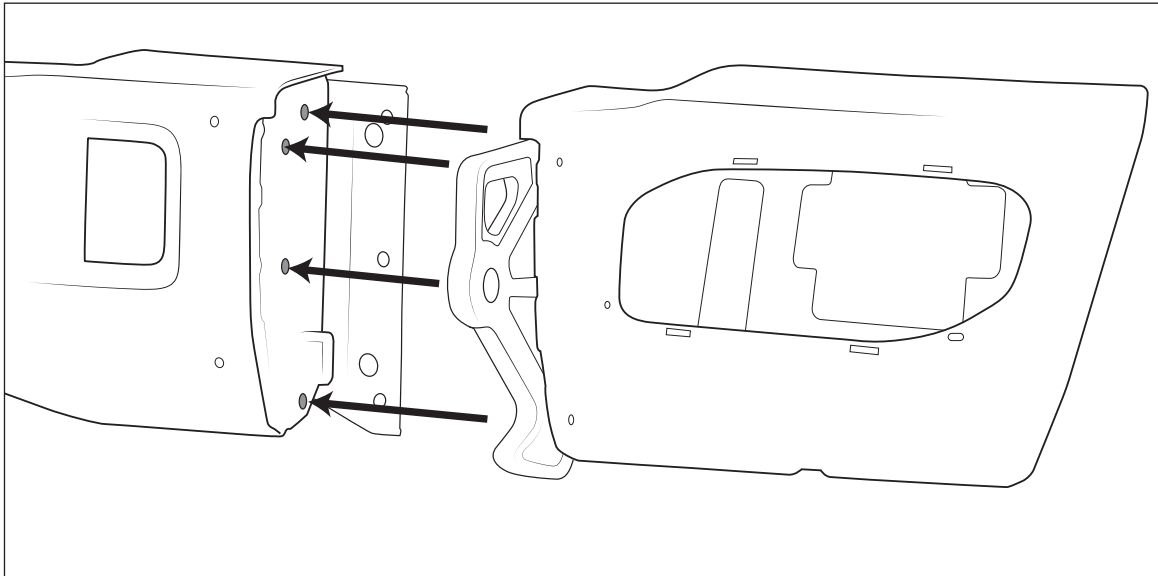


Figure 13

3. Insert three M12x35 carriage bolts into the bumper corner and through the holes in the outer frame bracket (fig. 14). Secure with M12 nuts and hand tighten.

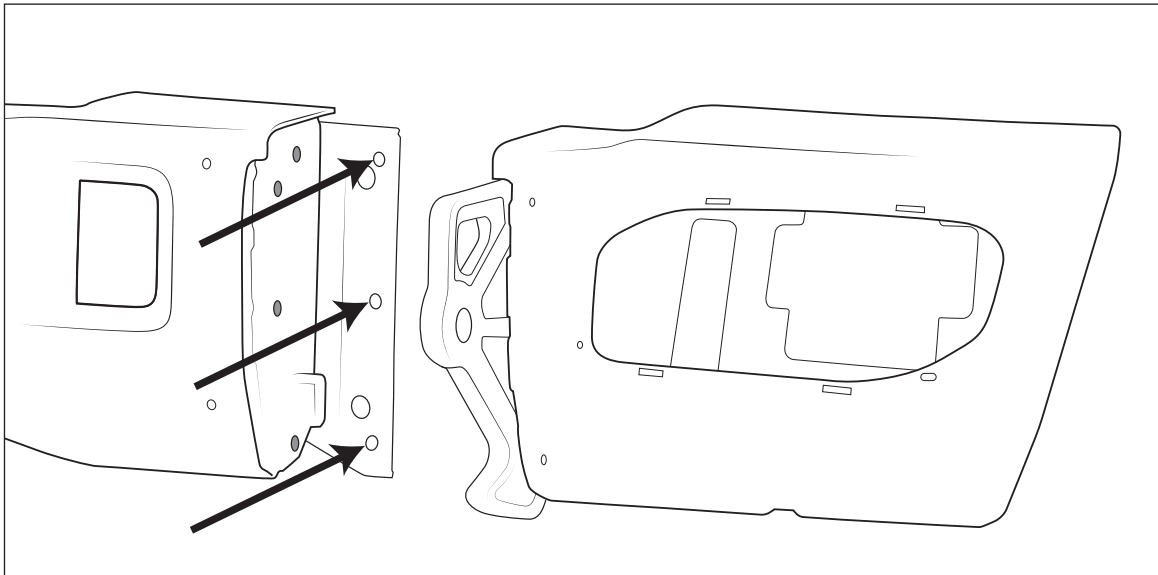


Figure 14

4. Repeat steps for the opposite corner.



V. ADJUST, ALIGN, & TORQUE

1. Before installing the tow loop bezels, tube, and lighting, the bumper must be adjusted and all fasteners tightened. Be sure spacing between the bumper and the truck body is even. (fig. 15).

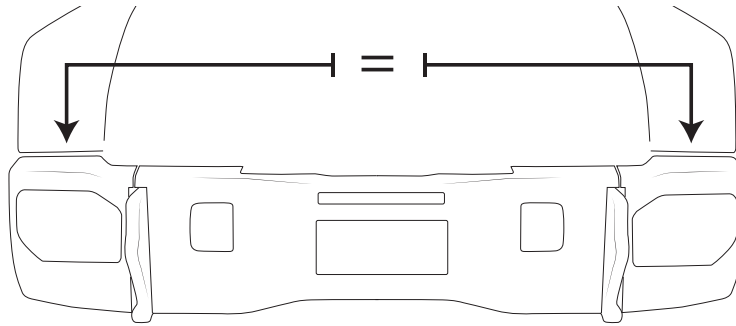


Figure 15

2. Tighten all hardware in this order: 1) Center Section to Frame Brackets. 2) Frame Brackets to Frame. 3) Tow Loops to Center Section. 4) Corners to Center Section. Torque all nuts to 70 lb-ft.
3. Route winch wiring as shown (fig. 16).

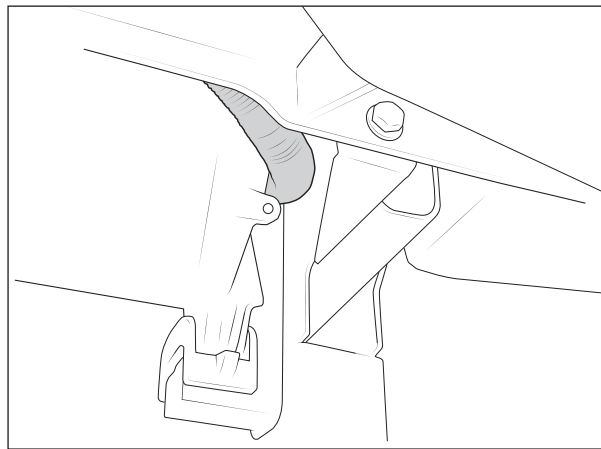


Figure 16

4. Diesel trucks continue to Section VI. Gas trucks, install the air dam bracket to the bumper using the four M6 nuts and bolts supplied in the air dam bracket kit. Torque to 9 lb-ft (fig. 17).

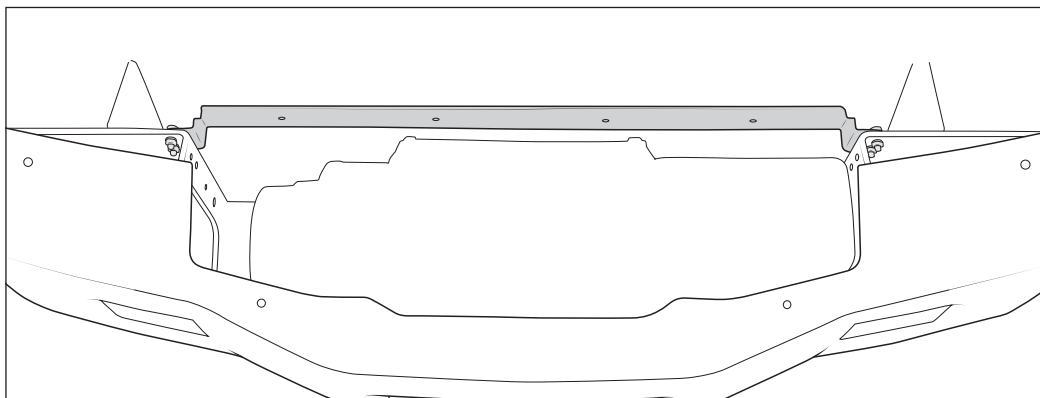


Figure 17

5. Install factory push pins to secure the factory air dam to the bracket.



VI. INSTALL FRONT PARK ASSIST SENSORS

1. The two inboard sensors are installed using the supplied AEV brackets:
Using the supplied M10x20 button head bolts, washers, and nuts (upper hole) and one of the M6x20 hex head bolts and washer (lower hole) mount the AEV park sensor bracket with sensor onto the bumper center section as shown (fig. 18). **NOTE: The connectors on each sensor should be pointed inboard of the vehicle.** The sensor will be held in position between the AEV supplied bracket and the backside of the bumper. Ensure that the park sensor grommet is not pinched and that the sensor sits parallel to the face of the bumper

If the vehicle is not equipped with front park assist, install the provided plastic plug into the bumper. It is recommended to use a small amount of black RTV when installing.

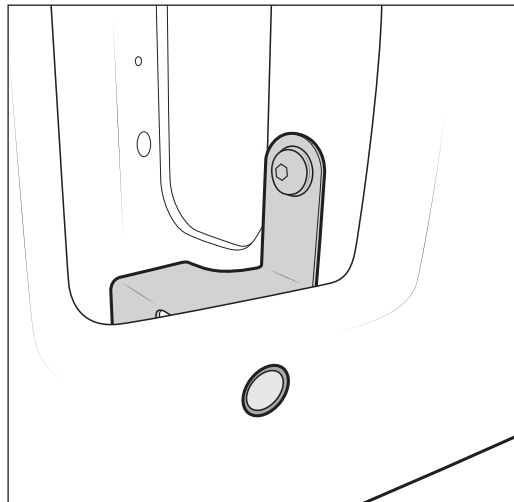


Figure 18

2. The four outboard sensors will remain in the factory fog light assembly and will be installed later.



VII. INSTALL TOW LOOP BEZELS AND LOW TUBE.

If Installing the AEV Front Brush Guard skip to Section VIII.

1. Install one of the tow loop bezels using M6x20 bolts and washers (fig. 19). Hand tighten.
2. Slide the second bezel on to the end of the low tube then position together in place on the bumper (fig. 20).

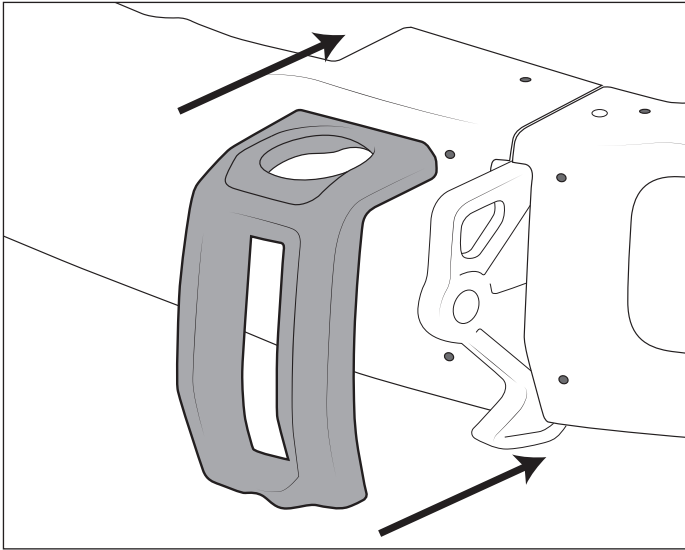


Figure 19

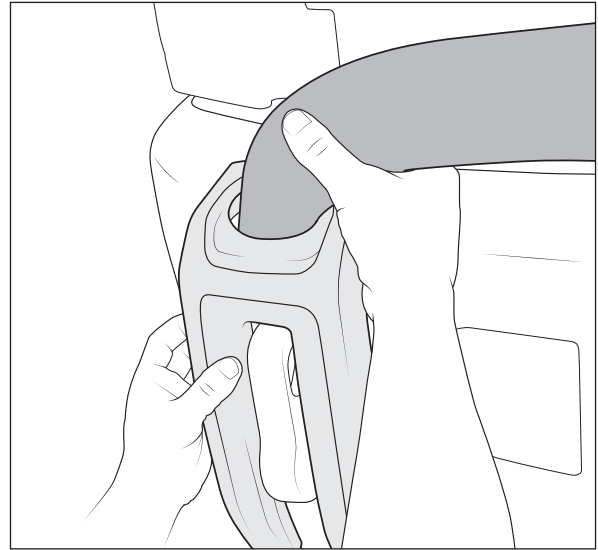


Figure 20

3. Install the M10x25 button head bolts and washers into the tube ends and hand tighten (fig. 21).

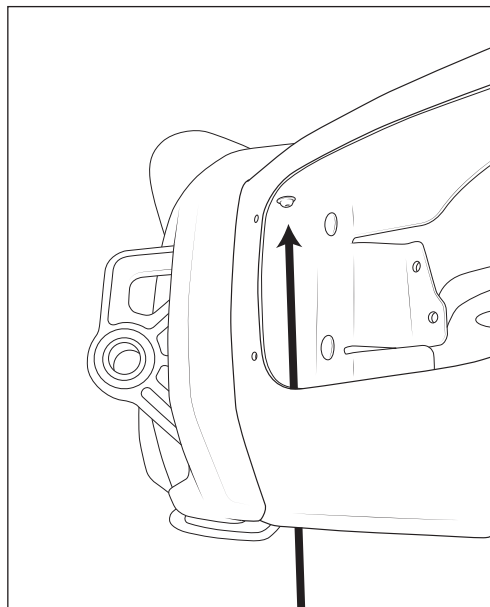


Figure 21

4. Fasten the second tow loop bezel and tighten both bezels to 9 lb-ft.
5. Tighten tube bolts to 30 lb-ft.



VIII. INSTALL TOW LOOP BEZELS BRUSH GUARD

1. Install one of the tow loop bezels using M6x20 bolts and washers (fig. 22). Hand tighten.
2. Slide the second bezel on the brush guard then position together in place on the bumper (fig. 23).

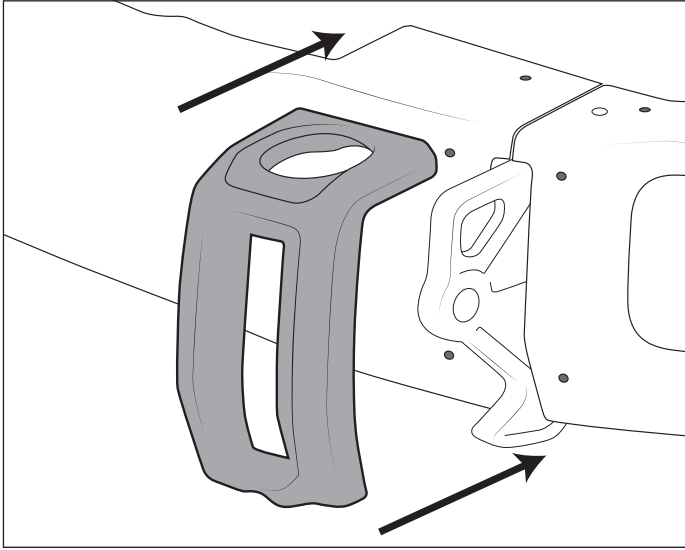


Figure 22

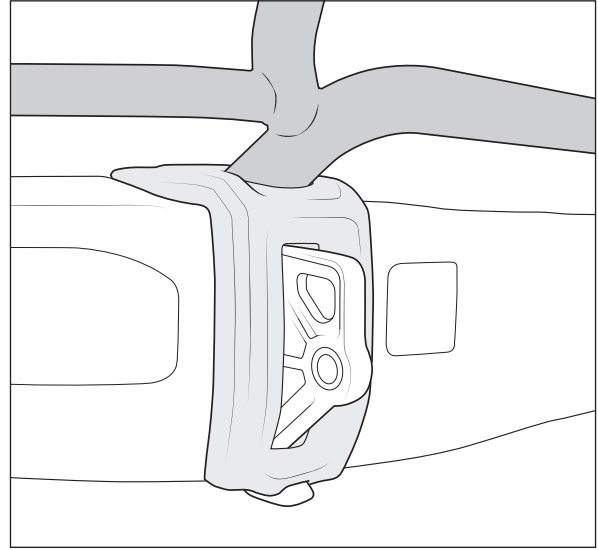


Figure 23

3. Install the M10x25 button head bolts and washers into the guards ends and hand tighten (fig. 24).

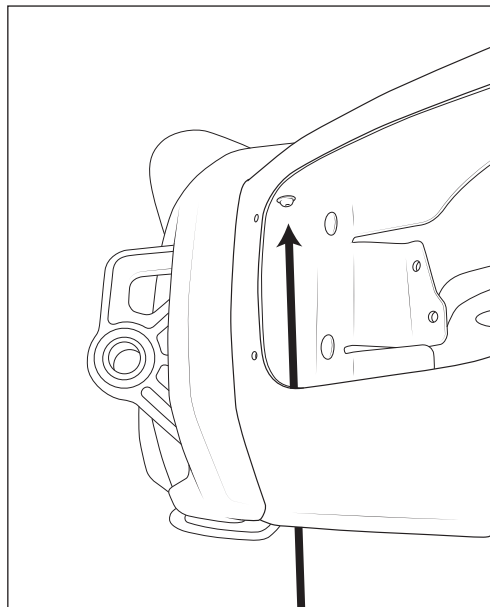


Figure 24



4. Fasten the three M10x38 6-lobed bolts and flange nuts on both the right and left side (fig 25).
NOTE: A small batch of bumpers require hole to be drilled in the left and right corners of the front bumper where the brush guard meets metal.

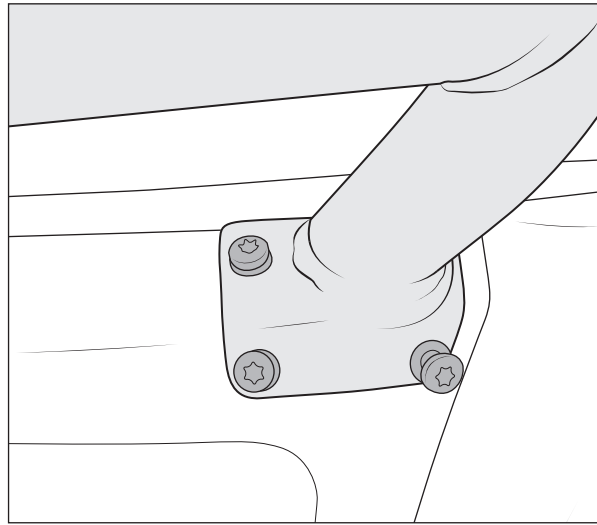


Figure 25

5. Tighten brush guards to 30 lb-ft.
6. Fasten the second tow loop bezel and tighten both bezels to 9 lb-ft.



IX. INSTALL BLOCK HEATER & FRONT BADGE

1. Attach the block heater wiring (if equipped) to the bumper as shown (fig. 26).

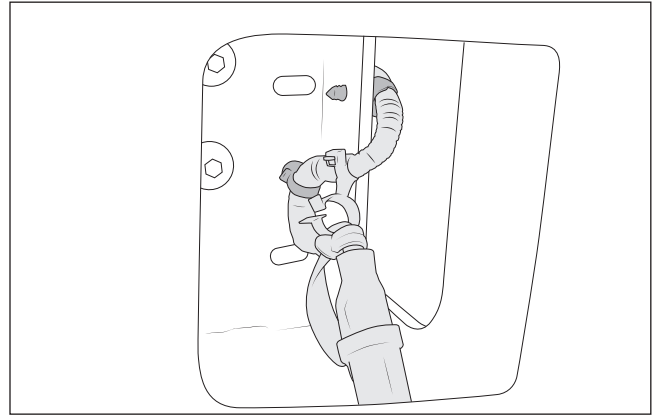
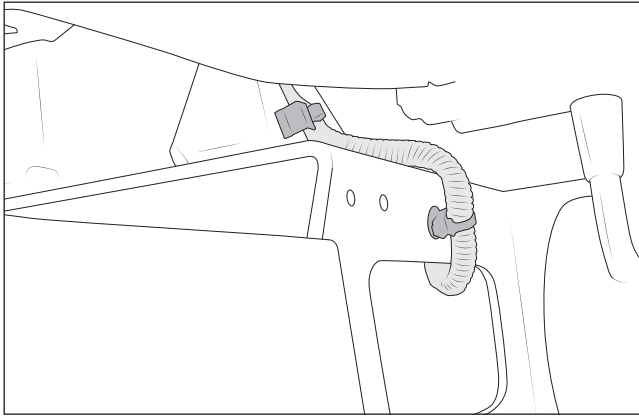


Figure 26

2. Use the supplied alcohol wipe to clean the badge recess on the center section (fig. 27). Install the adhesive backed AEV badge into the recess, holding with firm pressure for 30 seconds.

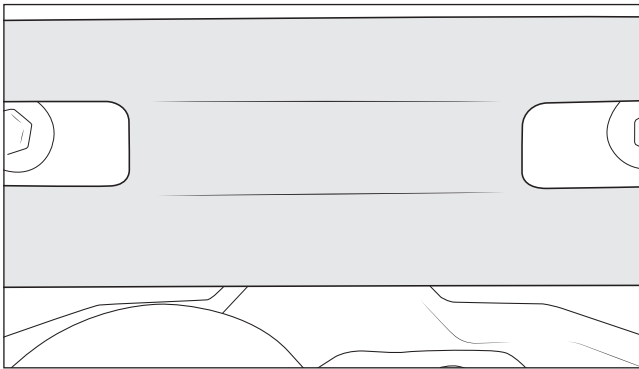


Figure 27

X. INSTALL FOG LAMPS & BEZELS

1. Install four of the supplied M6 U-Nuts onto each bumper corner (fig. 28).

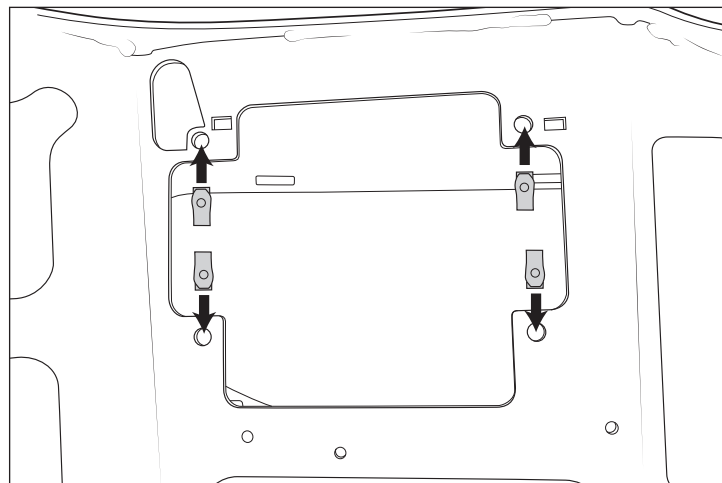


Figure 28



2. If equipped, install the factory fog lights into the bumper corners using factory hardware and torque to 9 lb-ft (fig. 29).

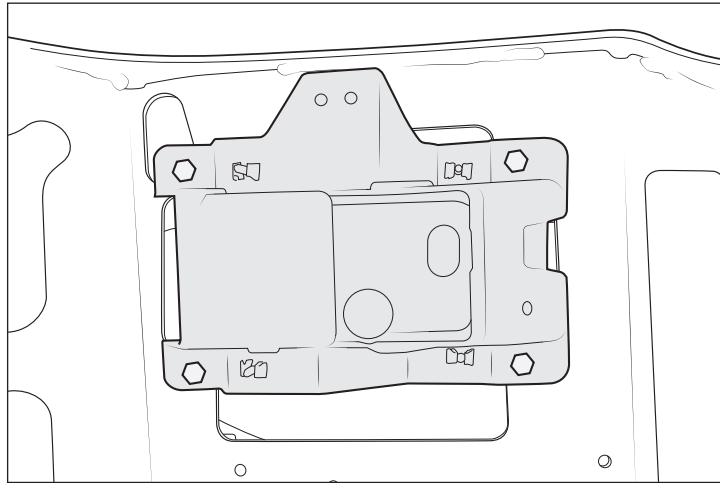


Figure 29

3. Install Lamp Bezels. NOTE: Hold the lamp bezel up to bumper corner to ensure it does not interfere with the lamp before installing. Adjust the lamp if necessary.
 - A. Install the supplied metal retention clips onto the four plastic tabs of each AEV lamp bezel. Make sure that the clip sits flush onto the backside of the lamp bezel (fig. 30).

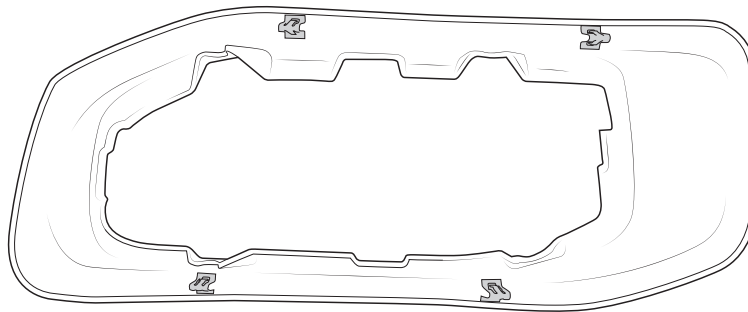


Figure 30

- B. Install factory bezel or block off cover into the AEV bezel, then secure with the factory square head bolts and 10mm nuts saved from step 5 of Disassembly (fig. 31).

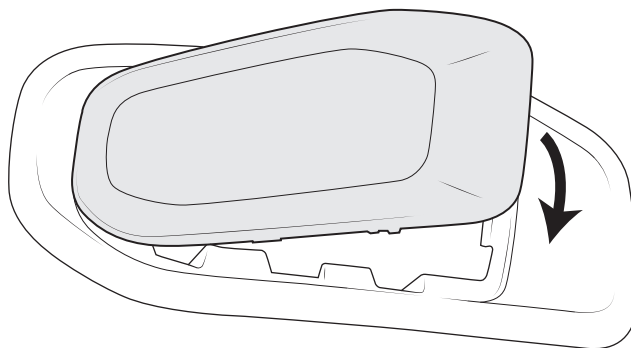


Figure 31



- C. Carefully position the bezel on the bumper corner and install. It helps to start by hooking one end of the bezel onto the corner and working across the bezel. Ensure that all metal clips are fully seated and both plastic tabs are snapped into place (fig. 32).

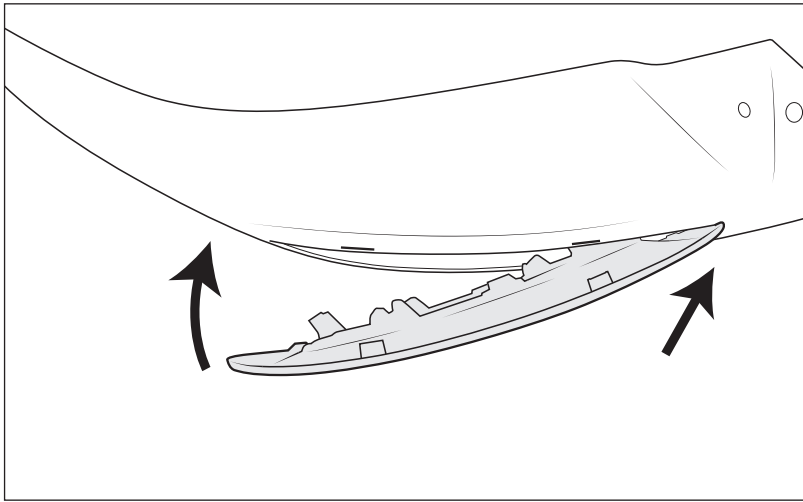


Figure 32

4. Connect the factory lighting and park sensor harness (fig. 33).

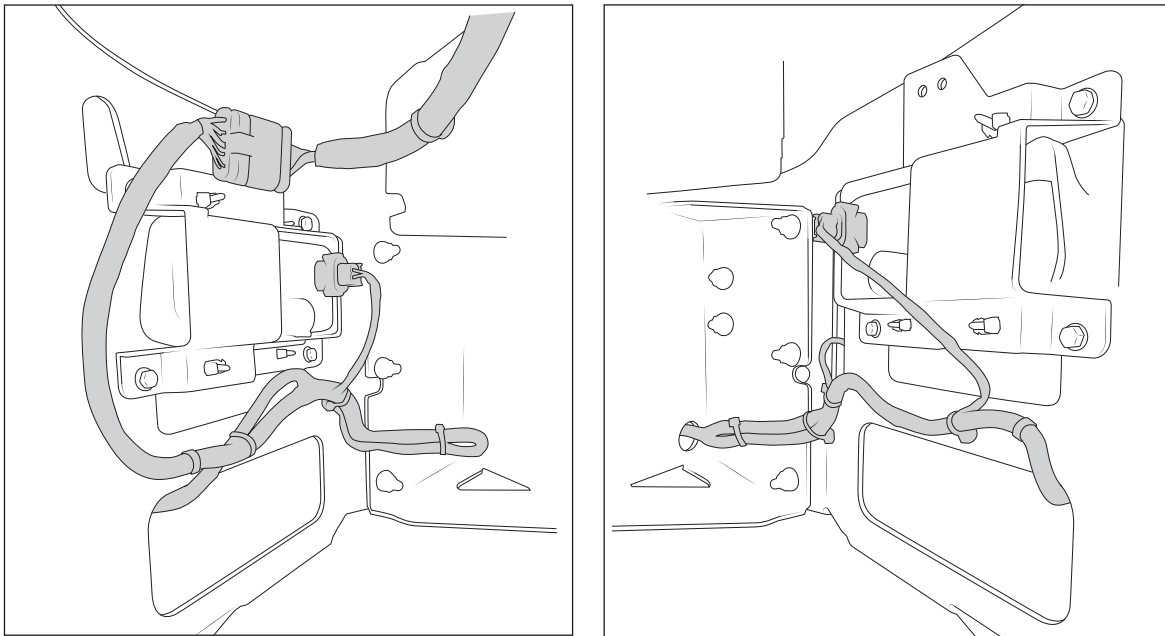


Figure 33



- Trim the front edge of both inner fender liners to provide approximately 1/2" of gap between the liner and the bumper corner (fig. 34).
- Install the fender liner retainer plates using three supplied 3/8" push pin fasteners per side (fig. 35).

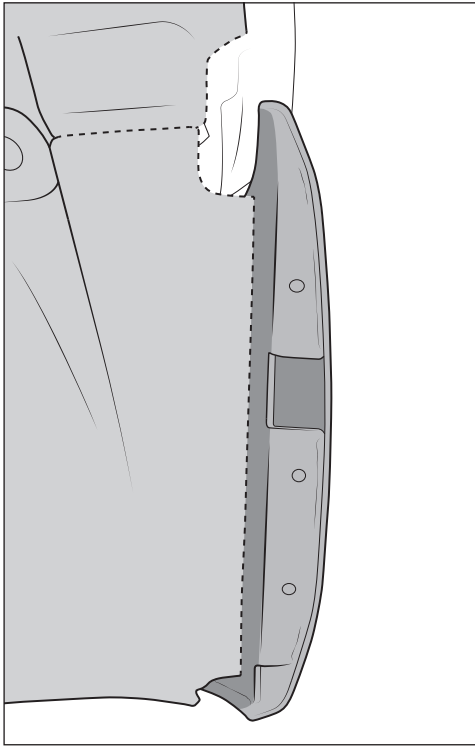


Figure 34

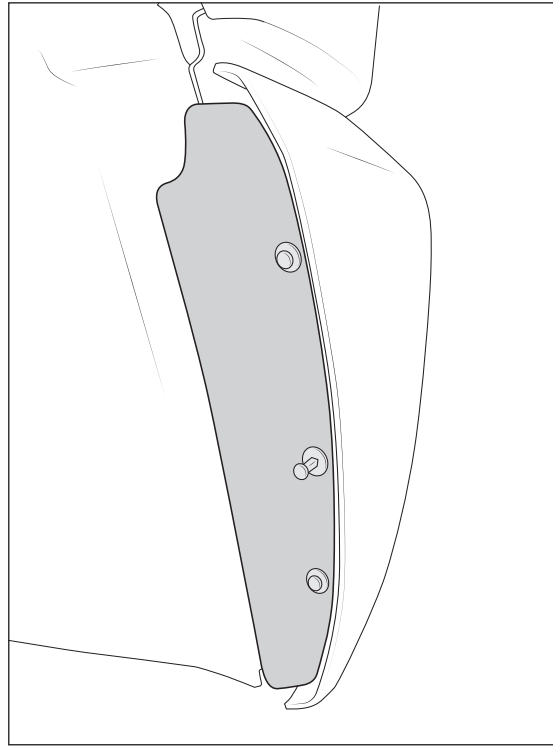


Figure 35

XI. INSTALL DIESEL INTERCOOLER SHROUD

- Install the edge guard found in the intercooler shroud kit onto the left side of the shroud to protect winch wiring (fig. 36).

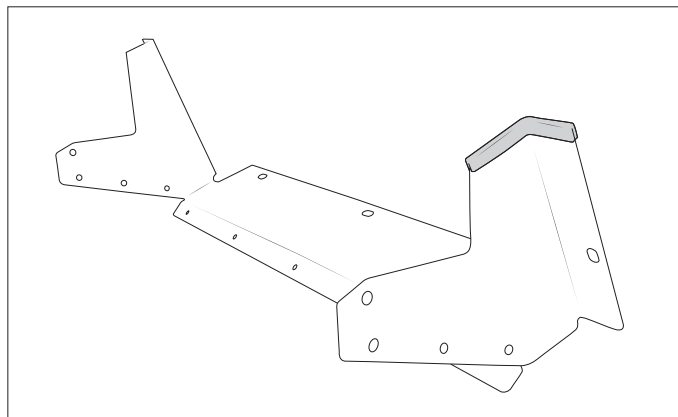


Figure 36



2. Attach AEV intercooler shroud to the intercooler at the two lower factory locations using the supplied hardware (fig. 37). Use the three factory push pins to secure the shroud along the bottom of the intercooler.

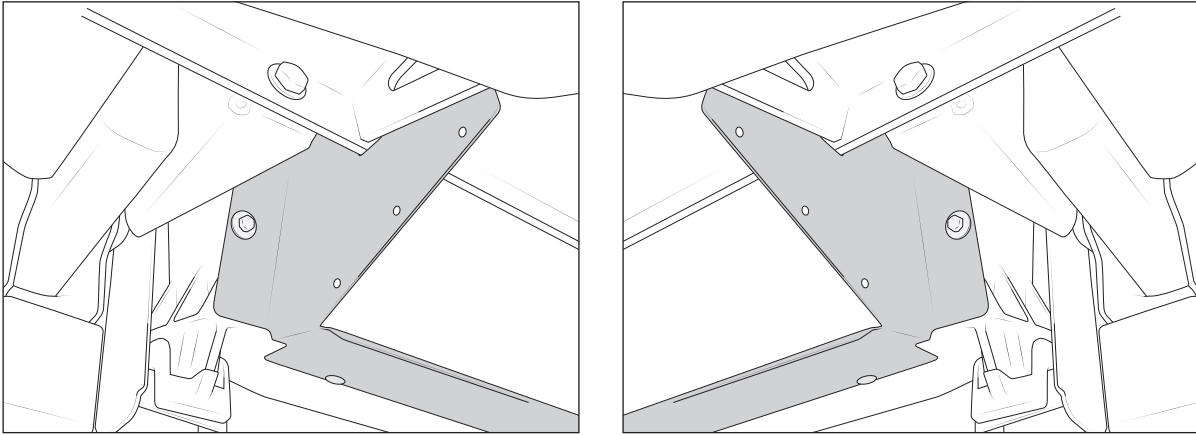


Figure 37

3. To attach the sides of the intercooler shroud to the bumper, use the upper shroud hole as a guide to drill out the bumper and secure with the M6x20 bolts, nuts, and washers supplied in the intercooler shroud kit (fig. 38). Torque to 9 lb-ft.

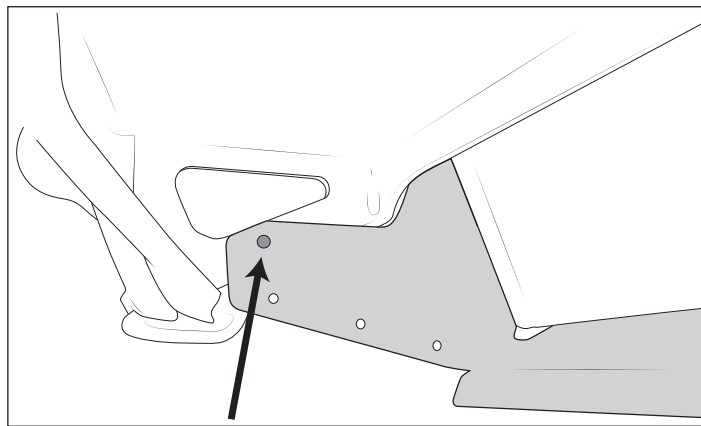


Figure 38



APPENDIX A — WARN M12000 & M15000 INSTALLATION

Requires AEV M12000 or M15000 Winch Mounting Kit (PN: 10308016)

1. Remove the four screws attaching the winch solenoid cover then remove cover (fig. 1).
2. Remove the two nuts holding the solenoid pack to the mounting plate (fig. 2).
3. Slide the solenoid pack out far enough to access the hold down bolts.
4. Remove the bolts and replace them with the supplied M6 x 15 bolts (fig. 3).
5. Reassemble the solenoid pack.
6. Attach the new solenoid bracket as shown (fig. 4). DO NOT put the washers back on.
7. Install the solenoid bracket to the bumper with the supplied M6 x 20 bolts, nuts, and flat washers (fig. 5).

