



INSTALLATION GUIDE

SPRINTER VAN CORE FRONT BUMPER

SP1147B



TOOLS REQUIRED (NOT INCLUDED)

+ 1/4" RATCHET	+ 3/4" SOCKET
+ 3/8" RATCHET	+ 9/16" SOCKET AND WRENCH
+ T25 TORX	+ 7/16" SOCKET AND WRENCH
+ T30 TORX	+ 3/8" SOCKET AND WRENCH
+ 7/32" ALLEN WRENCH	+ 13MM SOCKET
+ 5/32" ALLEN WRENCH	+ POWER DRILL
+ AUTO TRIM REMOVAL TOOL	+ BODY SAW
+ SNAP RING PLIERS	+ PAINTERS TAPE
+ SIDE CUTTERS	+ MARKER
+ 12" EXTENSION	+ TAPE MEASURE
+ 4" EXTENSION	

INSTALL INFO

TIME TO INSTALL THIS PRODUCT: 5-6 HOURS

Additional help is suggested for a few of the install steps.

BEFORE YOU START

Please inspect the product and packaging upon delivery to ensure there are no issues and that all parts and hardware are accounted for.

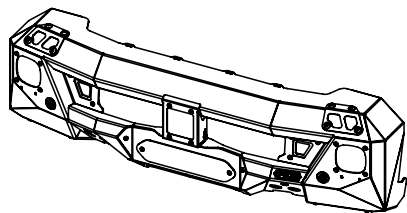
Contact us ASAP if anything is missing at:
support@flatlinevanco.com

BEFORE YOU START

All Flatline Van Co products must be properly assembled and secured before attaching to your vehicle. Improper attachment could result in an automobile accident, and could cause serious bodily injury or death to you or to others involved. You are responsible for assembling and securing Flatline Van Co products to your vehicle, checking the mounting points and attachments prior to use, and regularly inspecting the products for wear and or damage. We always recommend you use a professional to install any aftermarket accessories to your vehicle. If you have no mechanical experience and are not thoroughly familiar with the installation procedures, you must have the product installed by a professional installer or other qualified persons. The responsibility is yours and must be taken seriously for everyone's safety.

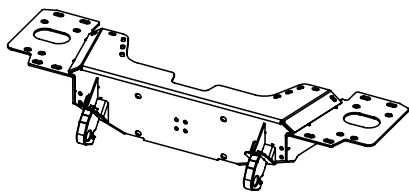


BUMPER PACKAGE CONTENTS



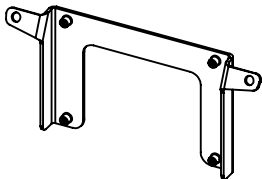
CENTER WELDMENT

QTY: 1



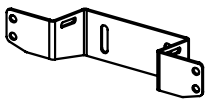
WINCH CRADLE

QTY: 1



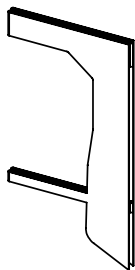
LICENSE PLATE BRACKET

QTY: 1



CENTER LIGHT BRACKET

QTY: 2



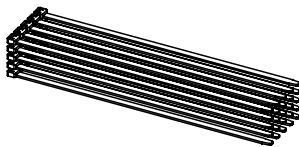
CUT TEMPLATE

QTY: 1



GASKET TRIM

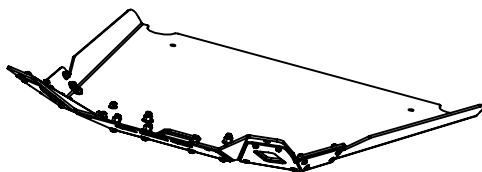
QTY: 2



CABLE TIES

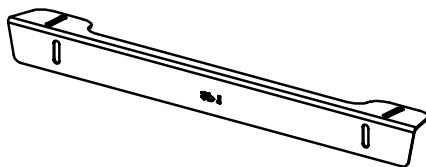
QTY: 25

SKID PLATE PACKAGE CONTENTS



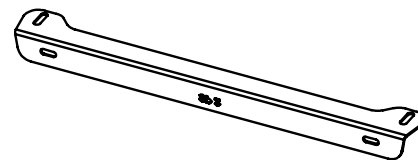
SKID PLATE ASSEMBLY

QTY: 1



SKID PLATE BRACKET 1

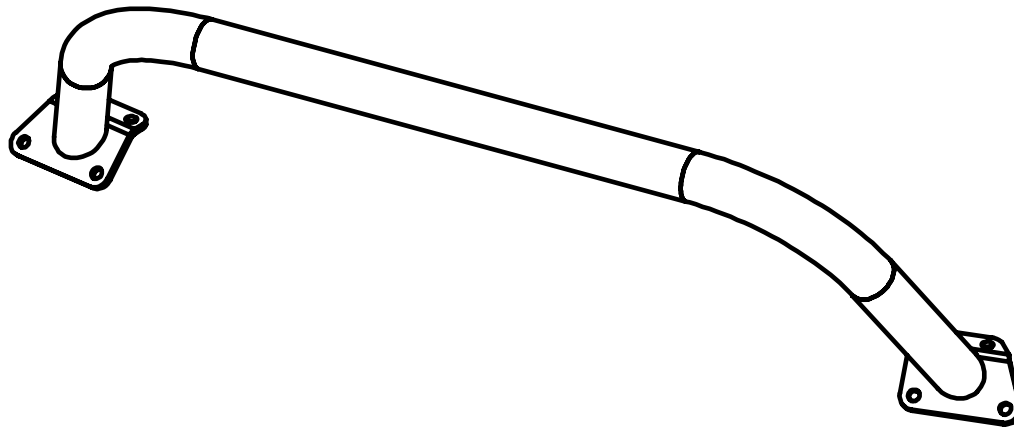
QTY: 1



FAIRLEAD HOOK PIN

QTY: 1

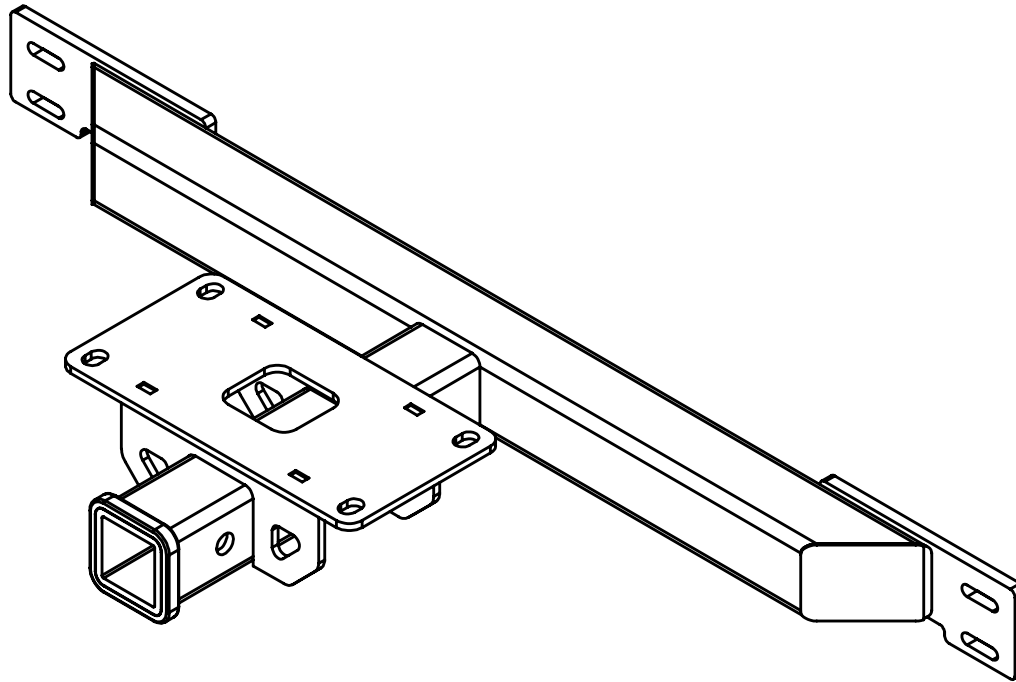
BULL BAR PACKAGE CONTENTS



BULL BAR

QTY: 1

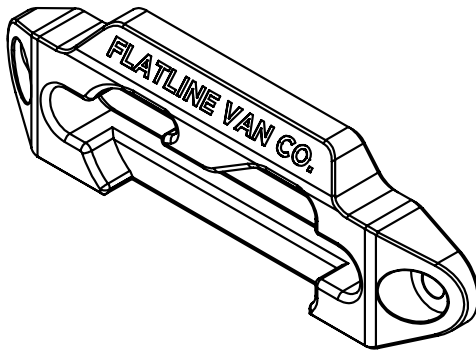
FRONT HITCH ADAPTER



FRONT HITCH

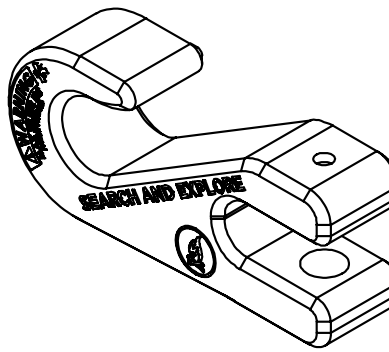
QTY: 1

WINCH FAIRLEAD CONTENTS



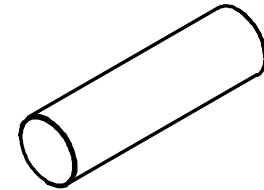
WINCH FAIRLEAD

QTY: 1



FAIRLEAD HOOK

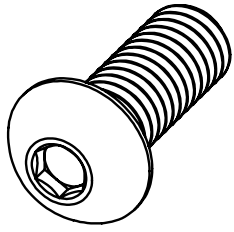
QTY: 1



FAIRLEAD HOOK PIN

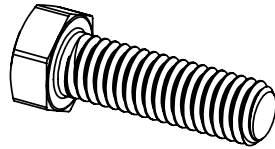
QTY: 1

BUMPER HARDWARE



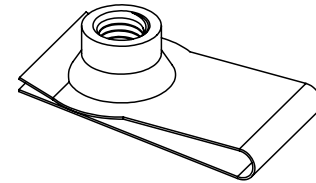
3/8-16 X 1 BUTTON HEAD HEX
DRIVE SCREW

QTY: 10



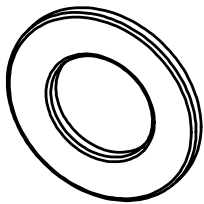
3/8-16 X 1.25 HEX BOLT

QTY: 6



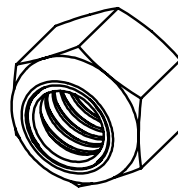
3/8-16 X 1.125 CLIP NUT

QTY: 6



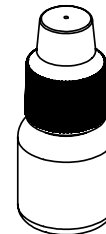
3/8 SCREW X 0.75 O.D. FLAT
WASHER

QTY: 6



3/8-16 NYLON INSERT LOCKNUT

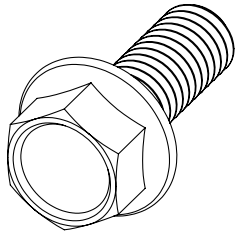
QTY: 8



THREADLOCKER

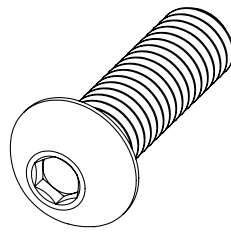
QTY: 1

SKID PLATE HARDWARE



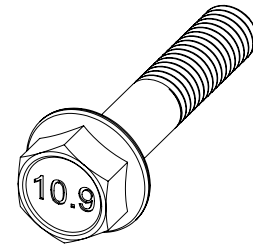
3/8-16 X 1 FLANGED HEX
HEAD SCREW

QTY: 2



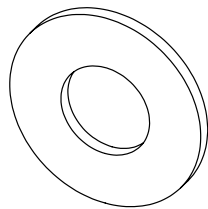
3/8-16 X 1.25 BUTTON HEAD HEX
DRIVE SCREW

QTY: 4



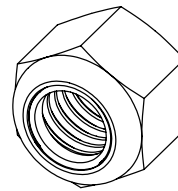
M8-1.25 X 40 FLANGED HEX
HEAD SCREW

QTY: 2



3/8 SCREW FLAT WASHER

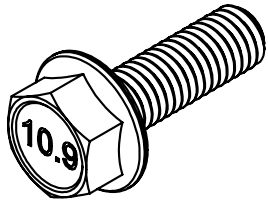
QTY: 4



3/8-16 NYLON INSERT LOCKNUT

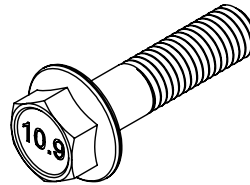
QTY: 4

FRONT HITCH ADAPTER HARDWARE



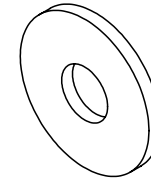
M8-1.25 X 25 FLANGED GRADE 10.9 HEX
HEAD SCREW

QTY: 4



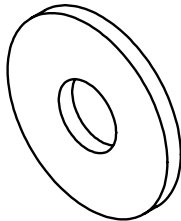
M10-1.5 x 40 FLANGED GRADE 10.9 HEX
HEAD SCREW

QTY: 4



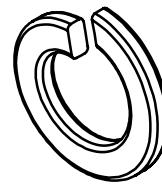
M8 SCREW X 24 OVERSIZED
WASHER

QTY: 4



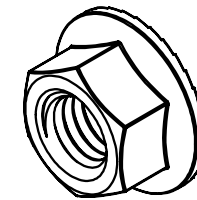
M10 SCREW X 24 OVERSIZED
WASHER

QTY: 4



M10 SCREW SPLIT LOCK WASHER

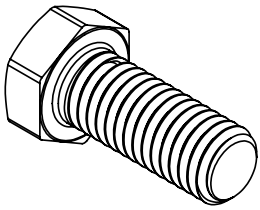
QTY: 4



M10-1.5 SERRATED FLANGED
HEX NUT

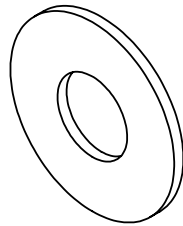
QTY: 4

WINCH FAIRLEAD HARDWARE



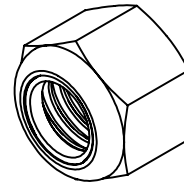
1/2-13 X 1.25 HEX HEAD
SCREW

QTY: 2



1/2" FLAT WASHER

QTY: 4



1/2-13 NYLON LOCKNUT

QTY: 2



0.625 RETAINING RING

QTY: 1

INSTALL

STEP | 01 LAYOUT & INSTALL PREP

1.1 Safety Check: Disconnect battery (both if applicable) prior to performing any electrical work and ensure you are working on a flat surface (FIG 1).

1.2 Review Install Outline: Thoroughly read all instructions and warnings before beginning installation. This product requires modifications to factory parts **done at your own risk**. If you don't feel comfortable installing this on your own, see our **Find a Builder or Upfitter** page to locate an approved installer near you. We also highly recommend watching the **Install Video** alongside the written instructions.

1.3 Bumper Accessories: If you plan on running a **Winch** or **Off-Road Lights** (FIG 2), waiting to install the **Bumper** until those parts are ready to install as well is advised.

TOOLS REQUIRED FOR THIS STEP:



FIG 1

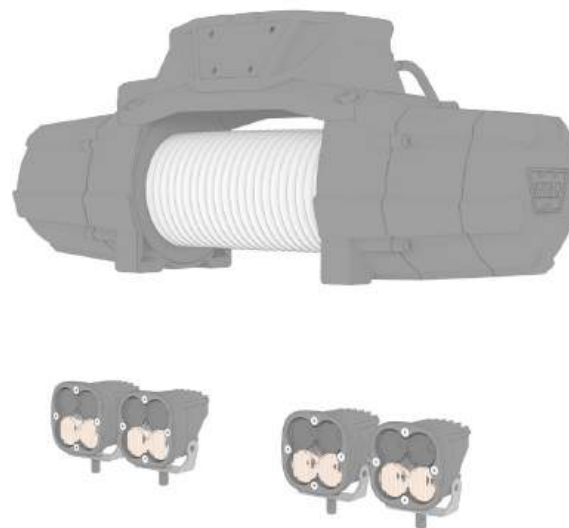


FIG 2

TOOLS REQUIRED FOR THIS STEP: + MASKING TAPE

STEP | 02 BUMPER COVER CUT LINES

2.1 Cut Line: Align **Cut Line Template** to body lines (**FIG 3**) and lay flat against the surface (**FIG 4**). Use **Masking Tape** to hold in place.



FIG 3



FIG 4



FIG 5



FIG 6

STEP | 03 BUMPER COVER REMOVAL

3.1 Remove Grill: Remove 3 screws on top of the grill with a T25 Torx. *Retain these screws for future steps (FIG 7).*

3.2 Bumper Cover Removal (Side): Remove fender well plastic rivets with a pry tool. There are four per side; one vertical along the top edge and three along the low side (FIG 8).

PRO-TIP: Use a pry tool to pop the center plastic rivet pin out first before prying from the bottom.

3.3 Bumper Cover Removal (Bottom): Remove bottom plastic rivets; two per each side (FIG 9).

3.4 Bumper Cover Removal (Front): Remove two screws hidden behind the grill with a T30 Torx (FIG 10).

TOOLS REQUIRED FOR THIS STEP: +

T25 TORX

+ T30 TORX

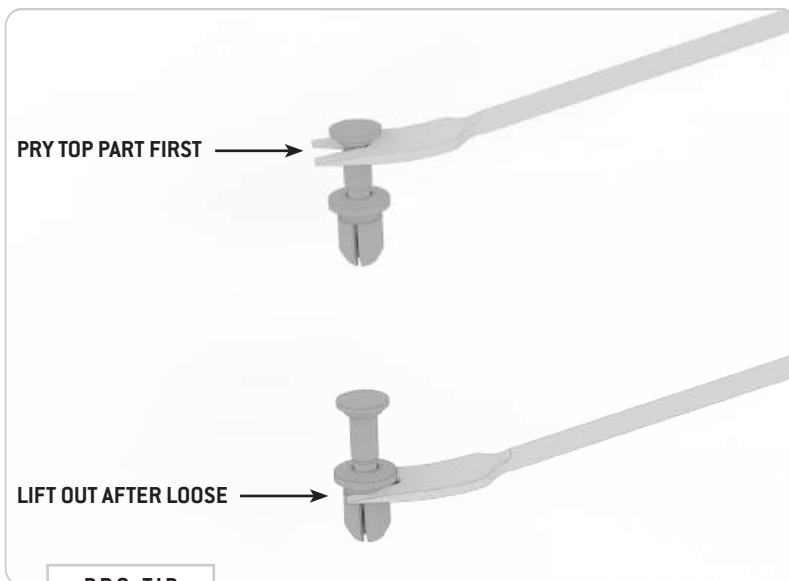
+ PRY TOOL



FIG 7



FIG 8



PRO-TIP



FIG 9



FIG 10

TOOLS REQUIRED FOR THIS STEP:

STEP | 03 BUMPER COVER REMOVAL

3.5 Release Bumper Cover (Sides): Pull outwards at the top corner of the fender well to release the clips on both sides of the Bumper Cover (FIG 11).

3.6 Release Bumper Cover (Front): Pull upwards around the center step area to help release the bumper (FIG 12). Once the bumper is free, leave it hanging in place (FIG 13-14) in order to release electrical components from the bumper housing (no need to disconnect wires).



FIG 11



FIG 12



FIG 13

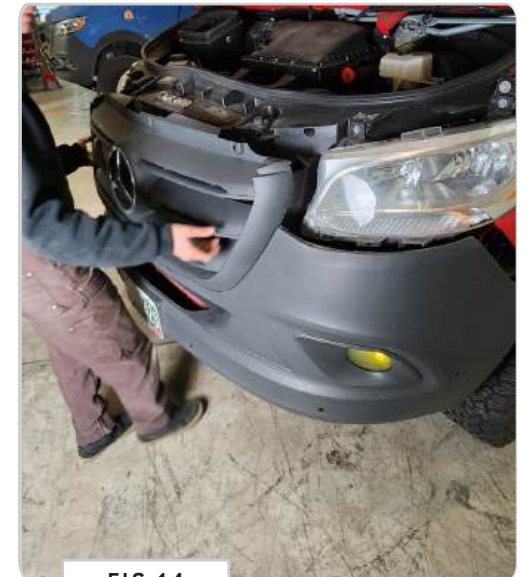


FIG 14

STEP | 03 BUMPER COVER REMOVAL

3.7 Release Ambient Air Sensor: Remove Ambient Air Sensor from grill (FIG 15).

3.8 Release Fog Light Harnesses: Disconnect Fog Light Harnesses before fully removing the Factory Bumper Skin. Squeeze the tabs on both sides and pull downwards to release (FIG 16).

3.9 Release Park Sensor Harness: On Park Sensor Harness, use a small Flathead Screwdriver (FIG 17) to gently pry white clip outwards (do not remove), then push down on white clip and pull apart to release electrical connector (FIG 18).



FIG 15

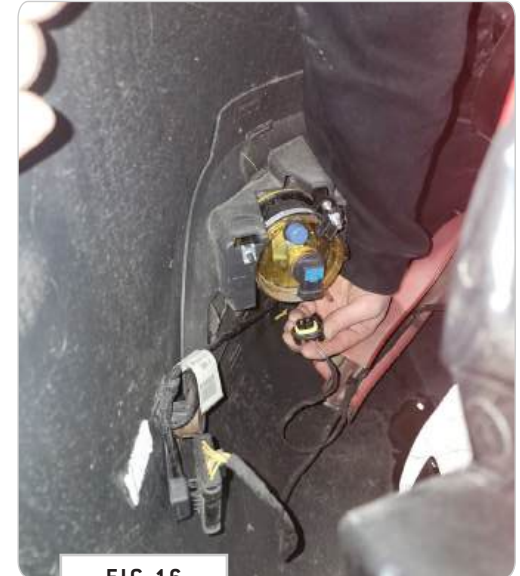


FIG 16



FIG 17

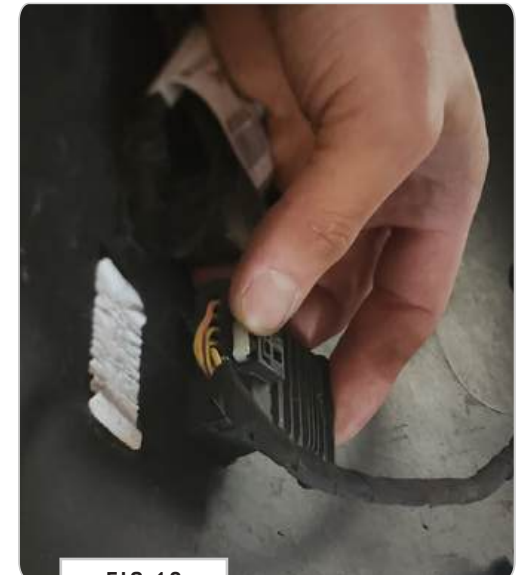


FIG 18

STEP | 03 BUMPER COVER REMOVAL

3.10 Release Camera Bezel (if applicable): If you aren't able to disconnect the **Camera** from the **Camera Bezel**, use a small screwdriver to gently pry on the tabs of both sides of the **Camera Bezel** until it releases (**FIG 19-20**).

NOTE - Make sure to note which side of the camera is up when you remove it (**FIG 21**). You can mark the orientation with masking tape until it is ready to be reinstalled

3.11 Remove Bumper Cover: Fully remove factory bumper cover and set aside (**FIG 22**).



FIG 19



FIG 20

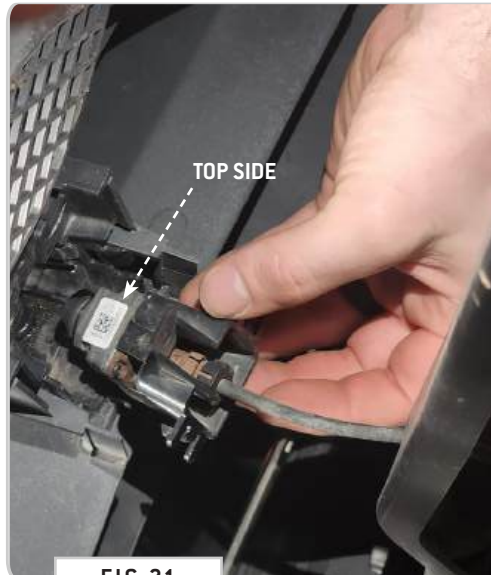


FIG 21

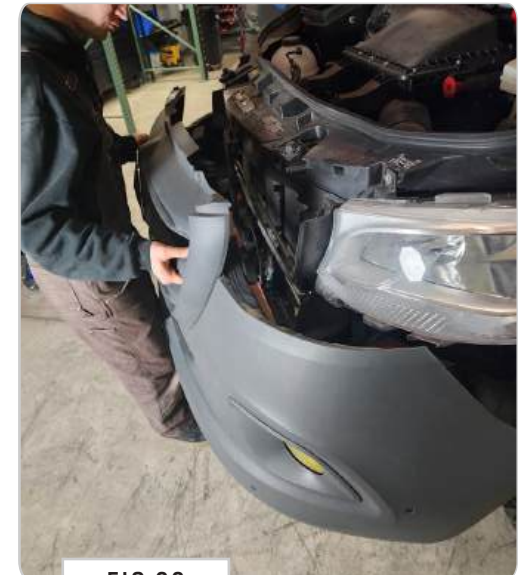


FIG 22

STEP | 04 REMOVE INTERNALS

4.1 Identify Internals: See FIG 23 to identify components to be released in the following steps: **Camera, Cruise Control Radar Sensor, Center Support, Factory Bumper and Splash Guard.**

4.2 Disconnect Camera: Press tabs on **Camera Bezel (FIG 24)** to disconnect from the wiring harness (**FIG 25**). Pass wire back through center support and disconnect from the back (**FIG 26**).



FIG 23

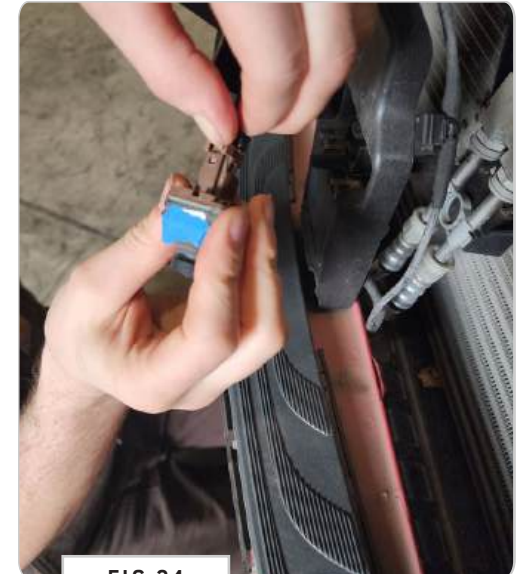


FIG 24



FIG 25



FIG 26

TOOLS REQUIRED FOR THIS STEP: + FLATHEAD SCREWDRIVER
+ T25 TORX

STEP | 04 REMOVE INTERNALS

4.3 Adaptive Radar Sensor: Use a small **Flathead Screwdriver** to gently pry the **Adaptive Radar Sensor** tab upwards (**FIG 27**). Push the sensor out of the center support from the back (**FIG 28**) and disconnect from the harness by pressing in tabs and pulling apart (**FIG 29**).

4.4 Center Support: Use a **T25 Torx** to remove the two bolts holding the **Center Support** in place (**FIG 30**). Pull up to remove **Center Support** and discard.



FIG 27



FIG 28



FIG 29



FIG 30

TOOLS REQUIRED FOR THIS STEP: + PRY TOOL
+ 13MM SOCKET
+ FLATHEAD SCREWDRIVER

STEP | 04 REMOVE INTERNALS

4.5 Removing Factory Bumper Wiring: Unclip wiring harnesses to free visible wires from the factory bumper (FIG 31).

4.6 Removing Factory Bumper: Use a 13mm Socket to remove the (8) M8 bolts securing the factory bumper in place (FIG 32). Carefully pull back the factory bumper to reveal the two central clips that hold the last of your wires in place (FIG 33). Unclip using a small flat screwdriver (FIG 34).

NOTE - Save bolts for installing the Winch Cradle in Step 6.



FIG 31

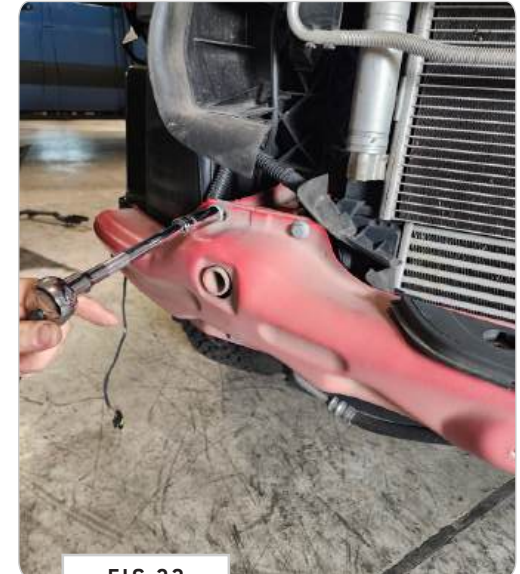


FIG 32



FIG 33



FIG 34

STEP | 04 REMOVE INTERNALS

4.7 Remove Splash Guard: Use a small **Flathead Screwdriver** to gently pry the **Splash Guard (FIG 36)** out from the van using the two tabs on either side (**FIG 37**). You may discard this piece after removal (**FIG 38**).

NOTE - The components shown in **FIG 38** (Factory Bumper, Center Support and Splash Guard) can be discarded as they will not be needed after install of your new bumper.

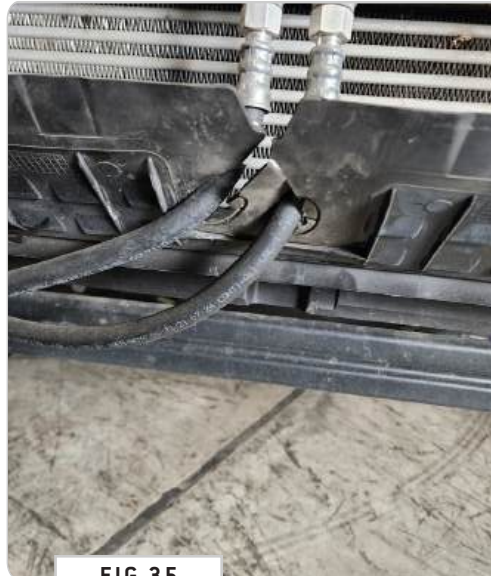


FIG 35



FIG 36



FIG 37



FIG 38

TOOLS REQUIRED FOR THIS STEP: + 7/32" ALLEN WRENCH
+ 9/16" WRENCH OR SOCKET

STEP | 05 FVC BUMPER ASSEMBLY

5.1 Install Bull Bar (Optional): If you ordered the **Bumper** with **Bull Bar**, you will attach it to the assembly at this time. Remove the plates covering the access points as shown in **FIG 39-40** and install the **Bull Bar** using the same hardware.

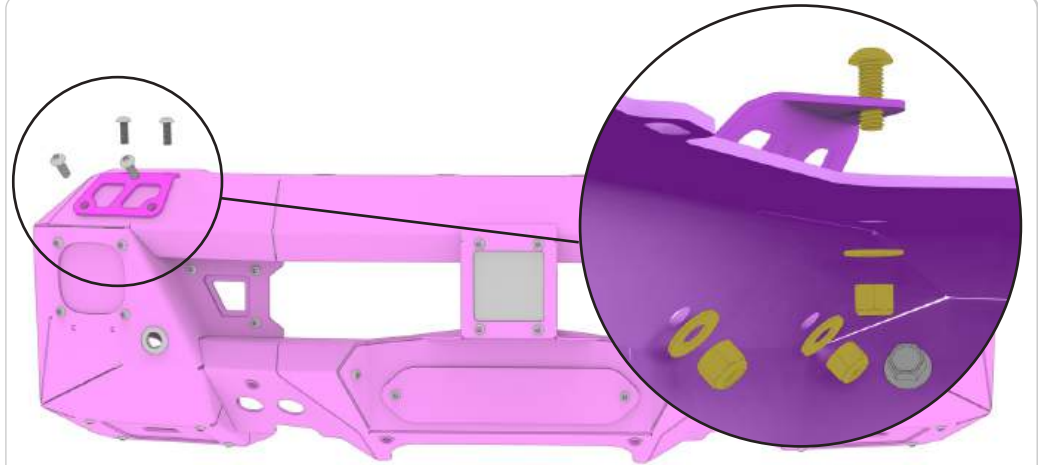


FIG 39

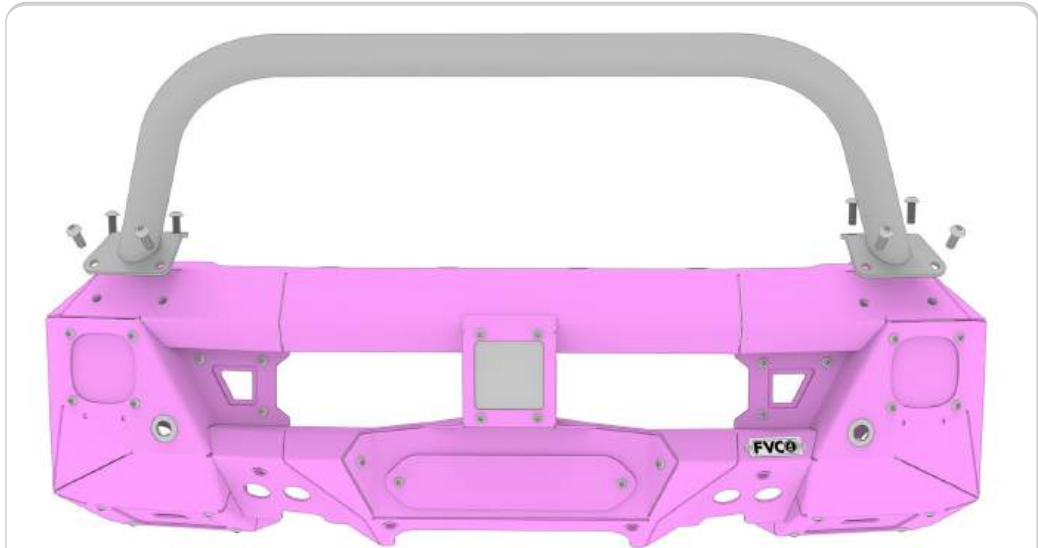


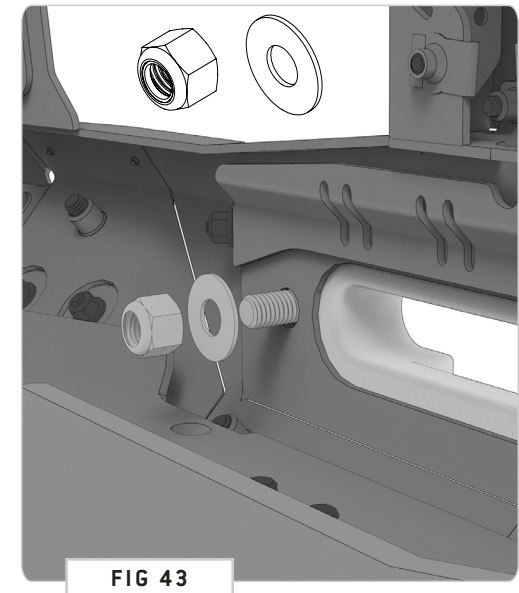
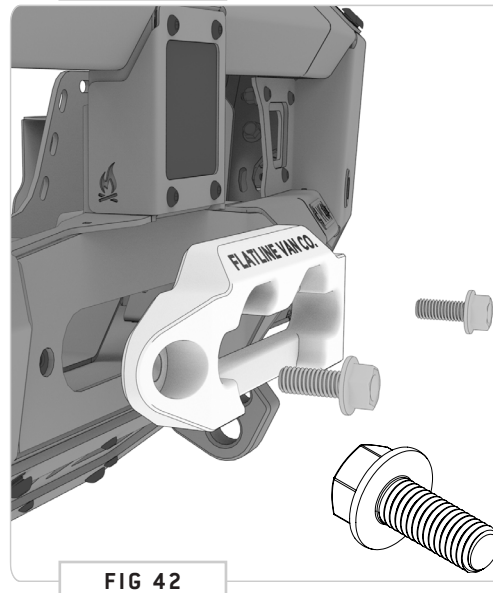
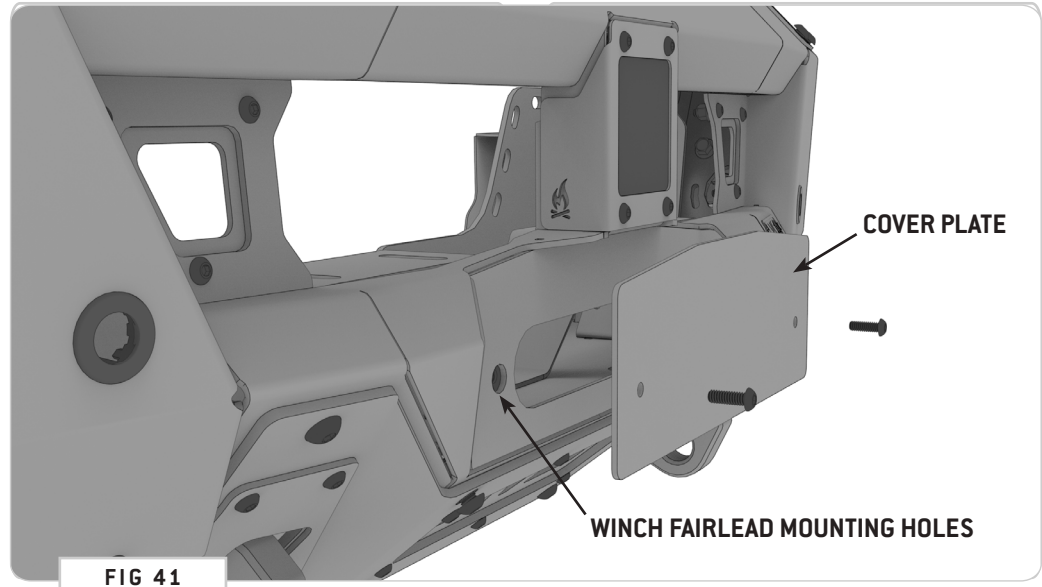
FIG 40

STEP | 05 FVC BUMPER ASSEMBLY

5.2 Install Winch Fairlead: Remove the 1/4-20 Hardware that hold the plate covering the **Winch Fairlead Mounting Holes** (FIG 41) and install Fairlead using (2) 1/2-13 x 1.25 Flanged Hex Head Bolts, Flat Washers and Nylon Locknuts as shown in FIG 42-43.

NOTE - It is recommended to install the Winch Fairlead on Bumper **before** the bumper has been installed to the van.

TOOLS REQUIRED FOR THIS STEP: + 5/32" ALLEN WRENCH
+ 7/16" WRENCH OR SOCKET
+ 3/4" WRENCH OR SOCKET



TOOLS REQUIRED FOR THIS STEP: + 13MM WRENCH OR SOCKET

STEP | 06 WINCH CRADLE INSTALL

6.1 Install Winch Cradle: Attach the **Winch Cradle** to the van's frame by using factory hardware with **Loctite** from the locations shown in **FIG 44**. Attach your **Clip Nuts** in the locations shown at this time. The **Barrel** of the **Clip Nut** should be on the backside of the **Winch Cradle** (**FIG 45**).



FIG 44

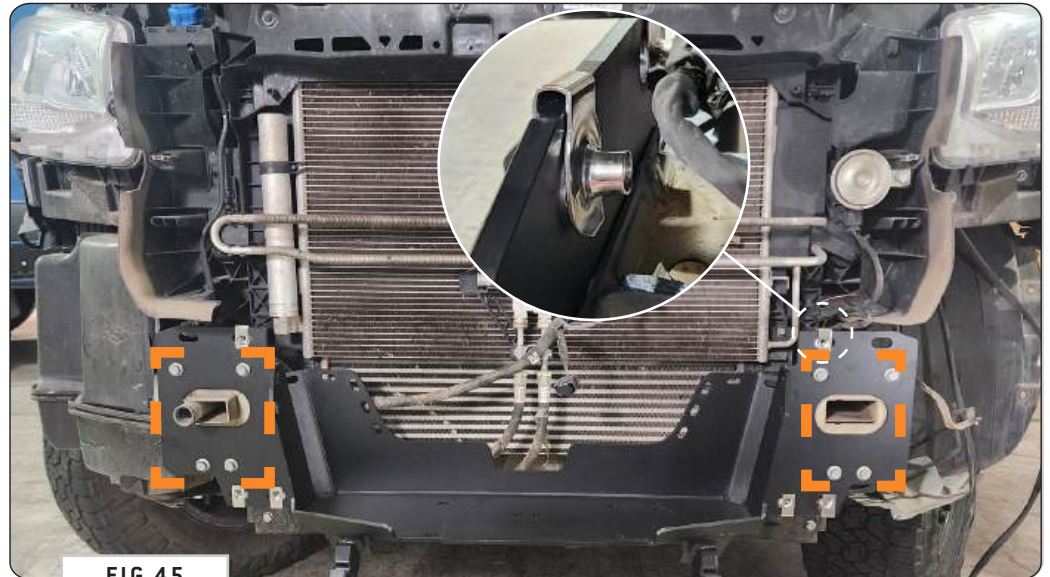


FIG 45

STEP | 06 WINCH CRADLE INSTALL

6.2 Remove Lower Frame Cross-Member (Optional): If you purchased the **Front Hitch Adapter**, prep the area of install by removing the **(4) Factory Hex Head Bolts** holding the **Lower Frame Cross-Member** to the **Frame Braces** (FIG 46).

NOTE - If you are installing this in conjunction with a **Winch**, proceed to **Step 6.4**.

NOTE - If you are installing this in conjunction with **Center Lights**, proceed to **Step 6.5** and come back to finish this step after the **Center Light Brackets** are installed.

6.3 Install Front Hitch Adapter (Optional): If you are *only* installing the **Front Hitch Adapter** (without **Center Lights** or **Winch**) attach it to the **Winch Cradle** now using the supplied **M10-1.5 X 40 Flanged Hex Head Screws**, **Split Lock Washers**, **Oversized Flat Washers** and **Flanged Head Head Nuts** (FIG 47).

Finish by attaching to the pre-threaded holes along the **Frame Braces** using the supplied **M8-1.25 x 25 Flanged Hex Head Screws** and **Washers** (FIG 47).

TOOLS REQUIRED FOR THIS STEP: + 13MM WRENCH OR SOCKET
+ 17MM WRENCH OR SOCKET

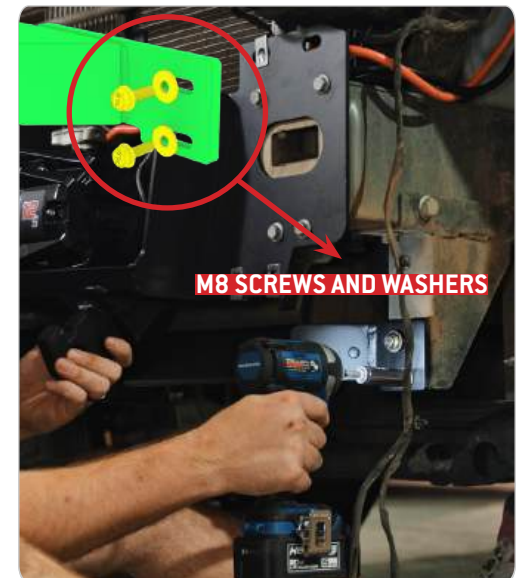


FIG 46



M10 SCREWS, WASHERS AND NUTS

FIG 47



M8 SCREWS AND WASHERS

STEP | 06 WINCH CRADLE INSTALL

6.4 Install Winch: If running a **Winch**, attach the **Winch** to the **Winch Cradle** using the hardware provided with the **Winch** into the locations shown in **FIG 48**.

NOTE - If you are installing this in conjunction with the **Front Hitch Adapter**, use the same mounting holes and hardware provided with the **Front Hitch Adapter** (**FIG 49**).

NOTE - The **Winch Cradle** fits winches up to 24.25" L x 7.15" D x 10.52" H with a 10" x 4.5" bolt pattern. We like the Warn VR Evo 12-S or Zeon 12-S Platinum winch.

TOOLS REQUIRED FOR THIS STEP:

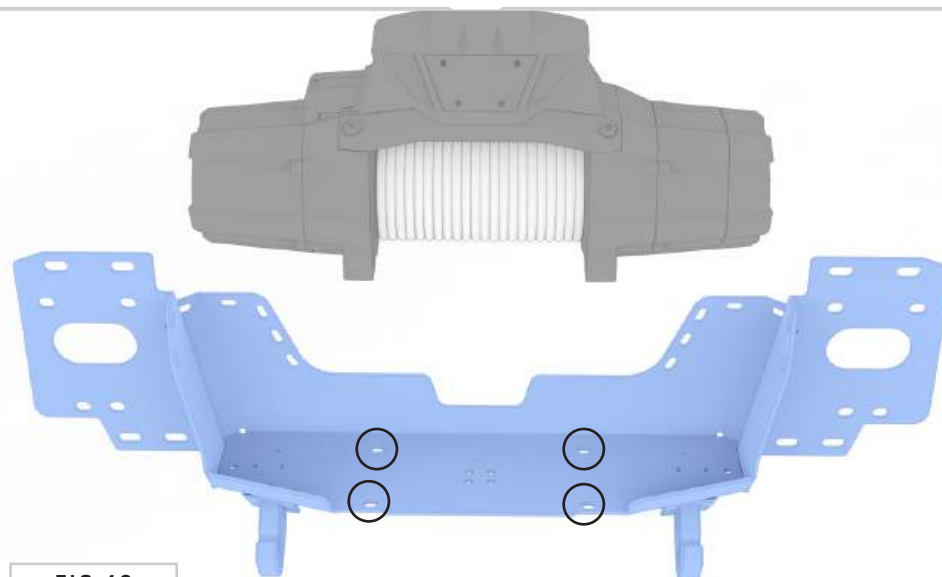


FIG 48



M10 SCREWS, WASHERS AND NUTS

FIG 49



M8 SCREWS AND WASHERS

TOOLS REQUIRED FOR THIS STEP: + 9/16" WRENCH OR SOCKET

STEP | 06 WINCH CRADLE INSTALL

6.5 Install Center Light Brackets: If running Off-Road Lights, attach the **Center Light Brackets** to the **Winch Cradle** using **(8) 3/8-16 Flanged Hex Head Screws, Washers and Nylon Locknuts** into the locations shown in FIG 50-51.

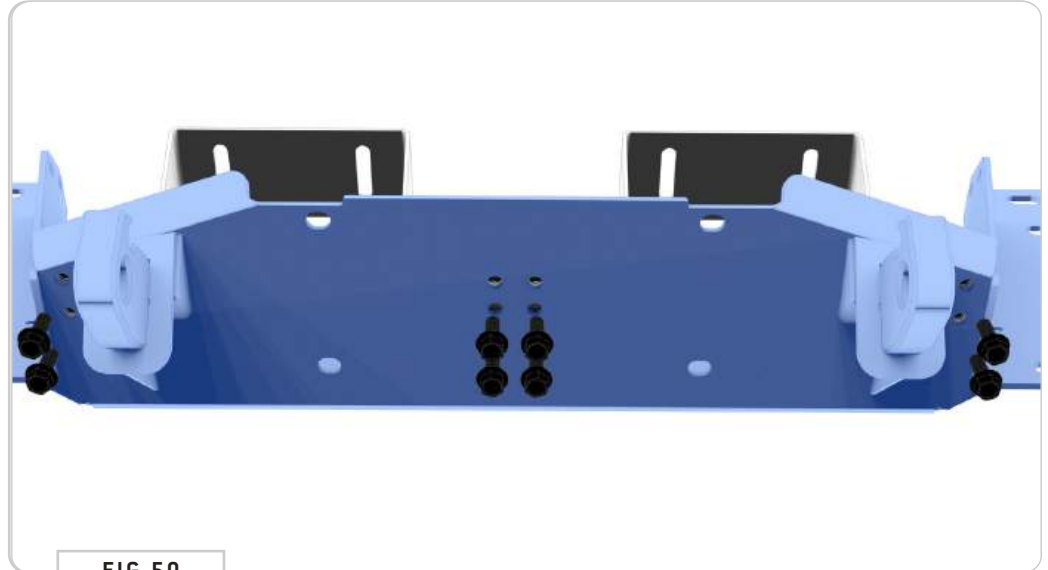


FIG 50

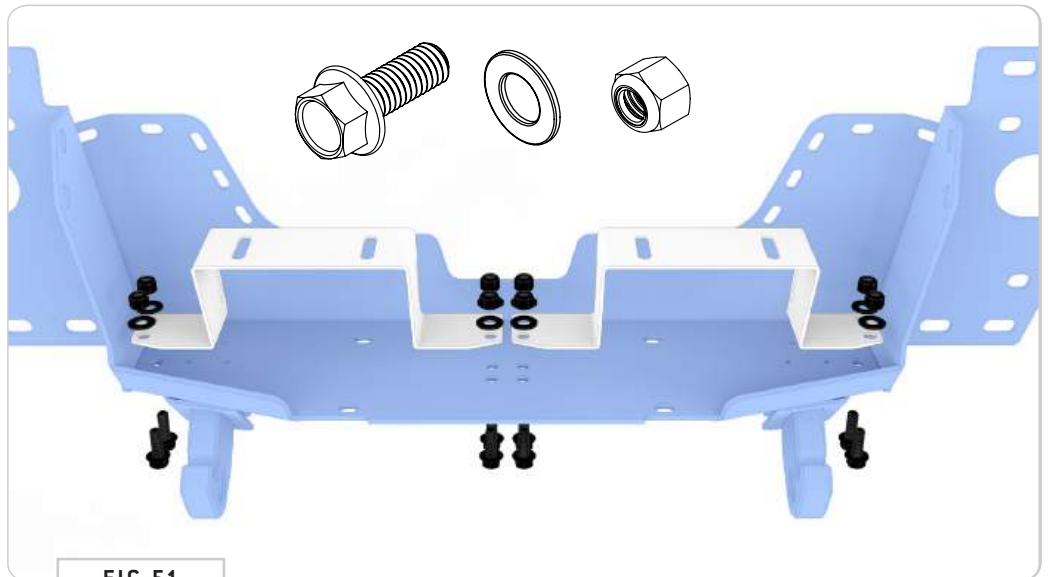


FIG 51

STEP | 06 WINCH CRADLE INSTALL

6.6 Install Center Lights: If running **Off-Road Lights**, attach the **Center Lights** to the **Center Light Brackets** using the hardware provided with the lights in the locations shown in FIG 52-53.

TOOLS REQUIRED FOR THIS STEP:

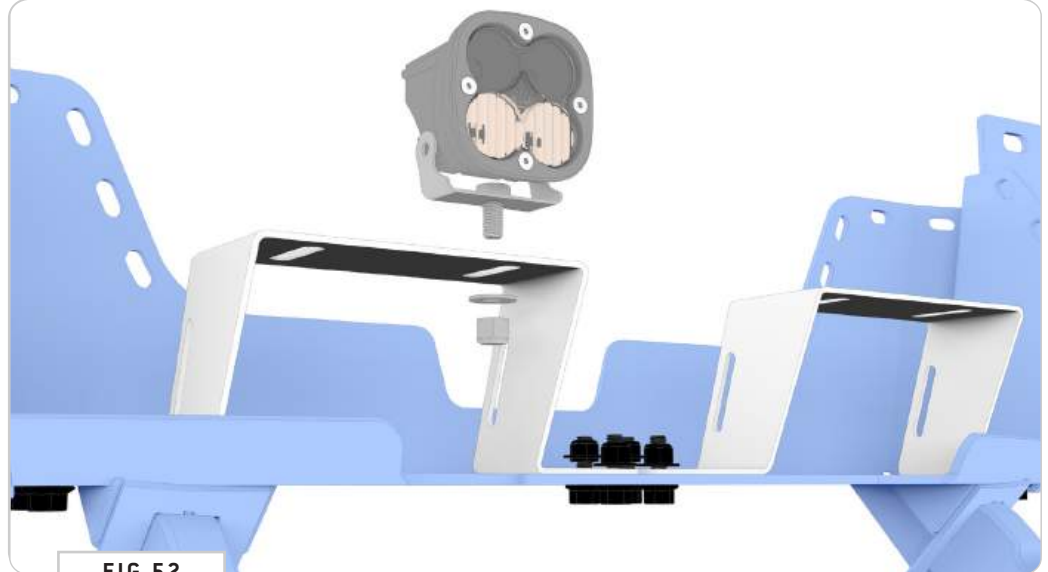


FIG 52

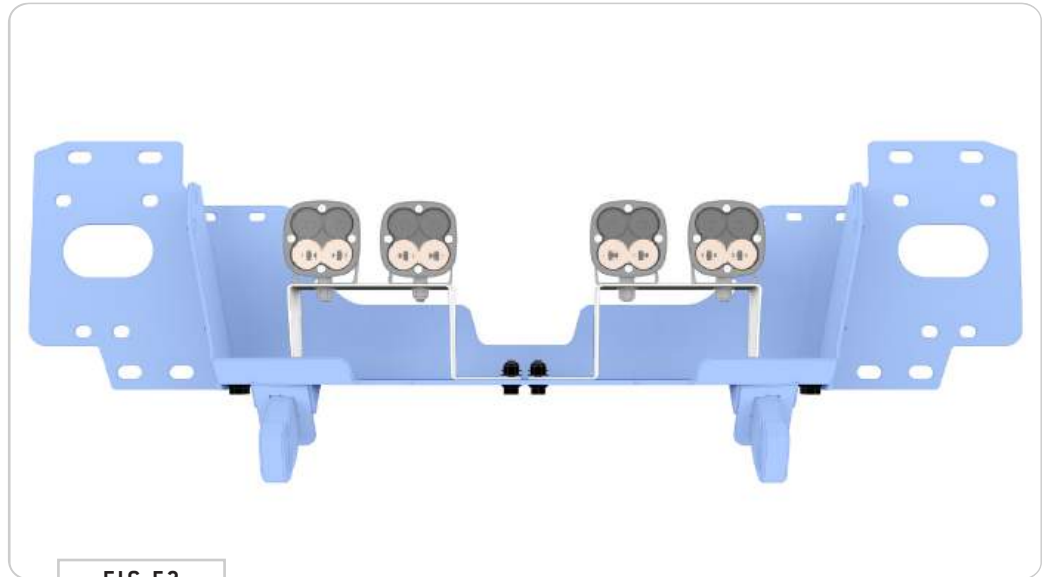


FIG 53

STEP | 07 MIGRATING WIRING HARNESSES

7.1 Disconnect Park Sensor Harness: Gently pry open the **Park Sensor Bezel (FIG 54)** that houses the **Park Sensor** to remove it from the **Factory Bumper Skin (FIG 55)**. See FIG 56 for locations.

NOTE - Make sure to take note of what direction each of the park sensors are facing when you remove them as they will need to be reinstalled in the same configuration to the new Bumper. You could even mark the back of the sensor with a marker to notate its direction.



FIG 54

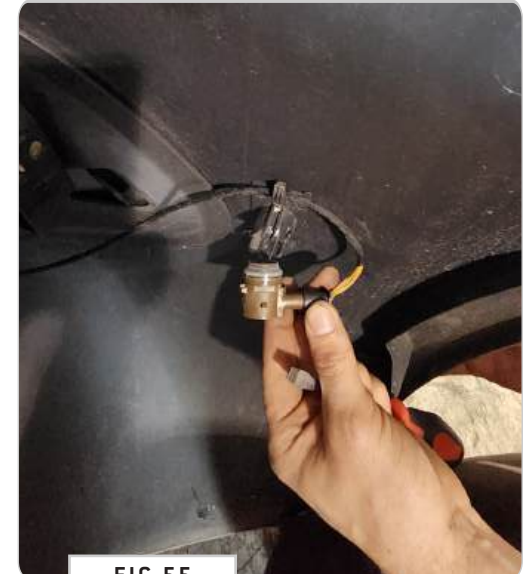


FIG 55



FIG 56

TOOLS REQUIRED FOR THIS STEP:

STEP | 07 MIGRATING WIRING HARNESSES

7.2 Install New Park Sensor Bezels: See FIG 57 for new **Park Sensor Bezel** locations. Install by aligning the notches in the **Park Sensor Bezel** to the cutouts in the Bumper.

NOTE - The orientation of the **Bezel** corresponds to the direction in which the **Park Sensor** will be installed. See FIG 58-59 to observe how the molding of the **Park Sensor** aligns to the cutouts in the **Bezel**.

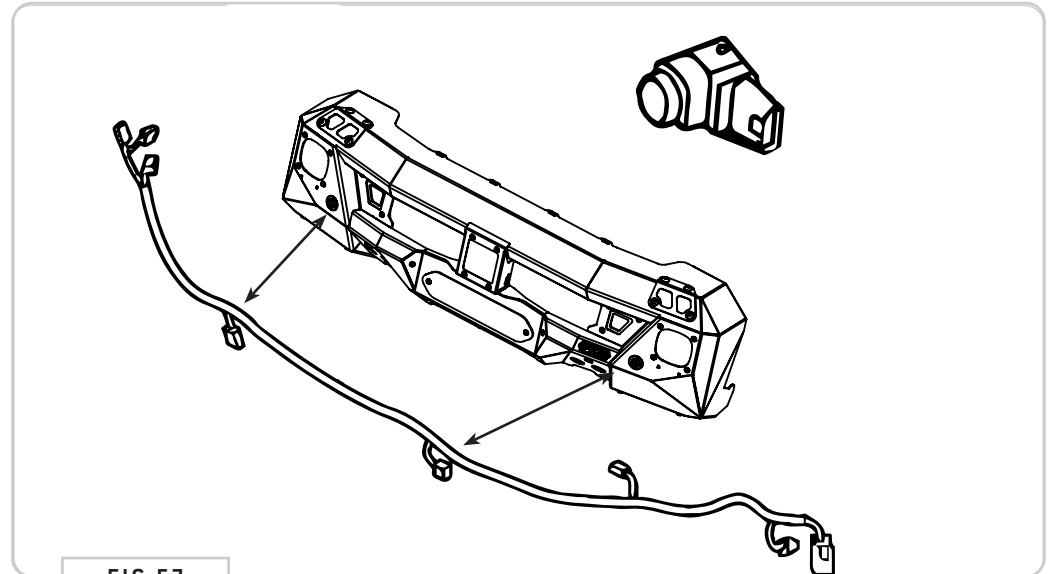


FIG 57

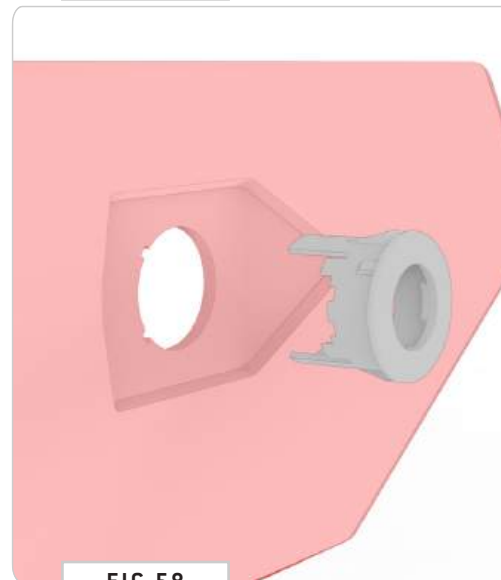


FIG 58

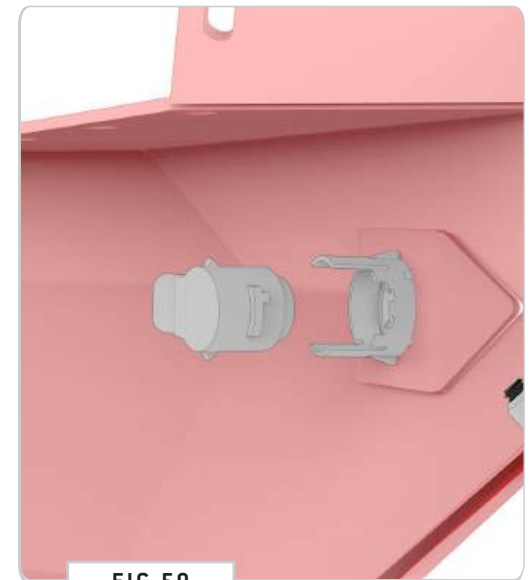
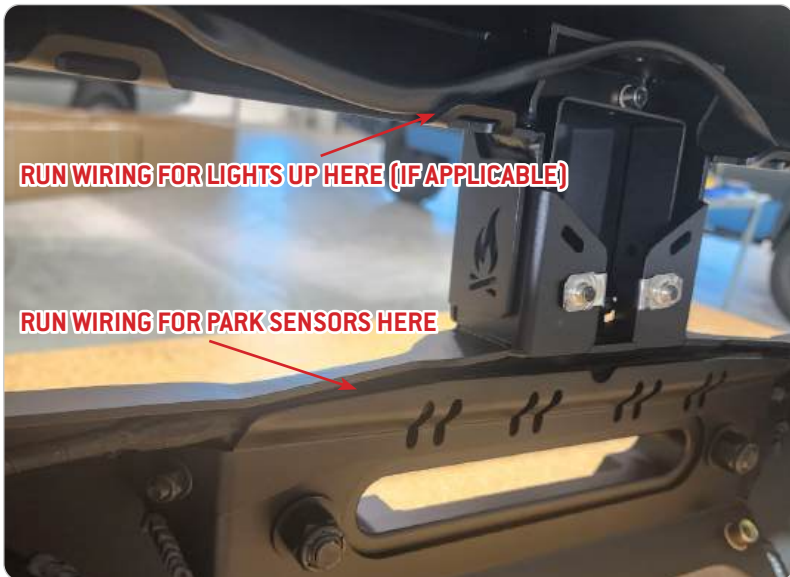


FIG 59

STEP | 07 MIGRATING WIRING HARNESSES

7.3 Relocate Park Sensor Harness to FVC Bumper: Set the **Park Sensor Harness** alongside the **Front Bumper Skin**, and fish the harness through the **Driver's Side Access Holes** shown in **FIG 61**. Loosely secure using the supplied **Cable Ties** in the available slots (**FIG 60**).



TOOLS REQUIRED FOR THIS STEP: + 7/16" WRENCH OR SOCKET
+ 5/32" ALLEN WRENCH

RUN WIRING FOR LIGHTS UP HERE (IF APPLICABLE)

YOU MAY NEED TO LOOSEN THIS TO CLEAR HARNESS

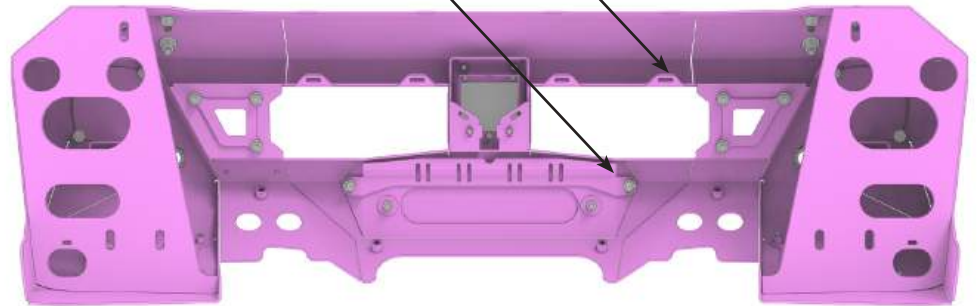


FIG 60

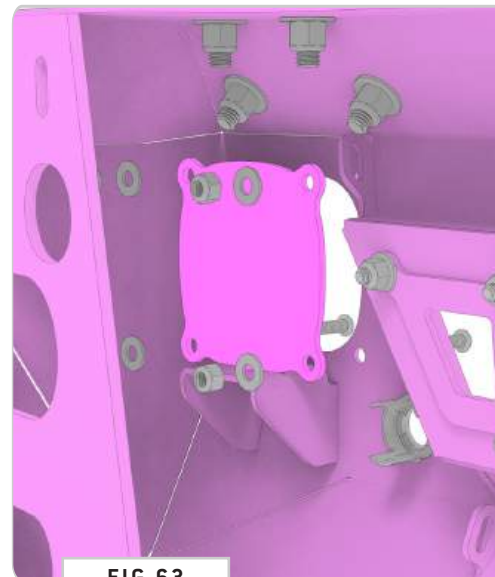


FIG 61

TOOLS REQUIRED FOR THIS STEP: + 7/16" WRENCH OR SOCKET
+ 5/32" ALLEN WRENCH

STEP | 07 MIGRATING WIRING HARNESSES

7.4 Install Off-Road Lights (optional): If you have additional **Off-Road Lights** to install, do so at this time and consolidate your wiring before attaching the assembled **FVC Bumper** to your **Van**. See **FIG 62** for the location of the **Off-Road Light Bracket** within the **Wing** of the Bumper Assembly. Remove **(4ea) 1/4-20 x 0.75 Button Head Screws, Flat Washers and Nylon Locknuts** that hold the **Cover Plates** in place (**FIG 63**).



TOOLS REQUIRED FOR THIS STEP: + BODY SAW OR CUTOFF WHEEL

STEP | 07 MIGRATING WIRING HARNESSES

8.1 Cutting Factory Bumper: Place your **Factory Bumper Cover** on the ground or set of saw horses, (**FIG 65**) connect your cut lines if necessary (**FIG 66**) begin to make your cuts along the marked cut lines using a body saw or cutoff wheel (**FIG 67**).

NOTE - *This cut doesn't have to be perfect! Just take your time and err on the inside of the cutline. It will be covered by a **Rubber Gasket Trim** by the end of the install.*



FIG 65



FIG 66



FIG 67

TOOLS REQUIRED FOR THIS STEP: + BODY SAW OR CUTOFF WHEEL

STEP | 08 CUTTING FACTORY BUMPER

8.2 Cutting Factory Bumper (cont.): Finish making your cut through the middle of the **Bumper Skin (FIG 68)** and clean up any rough edges with a **File or Dremel Tool (FIG 69)**.

NOTE - *This cut doesn't have to be perfect! Just take your time and err on the inside of the cutline. It will be covered by a Rubber Gasket Trim by the end of the install.*



FIG 68



FIG 69

TOOLS REQUIRED FOR THIS STEP: + 9/16" WRENCH OR SOCKET

STEP | 09 INSTALL FVC BUMPER

9.1 Install FVC Bumper: To attach the **FVC Front Bumper Assembly** to the **Winch Cradle**, remove the **Access Covers** (FIG 70) and insert (6) **3/8-16 x 1.25 Hex Head Bolts with Washers and Loctite** through the **Center Weldment** and into the **Clip Nuts** on the **Winch Cradle** (FIG 71).

NOTE - A second set of hands will make this much easier.



ACCESS MOUNTING POINTS
THROUGH HERE

FIG 70

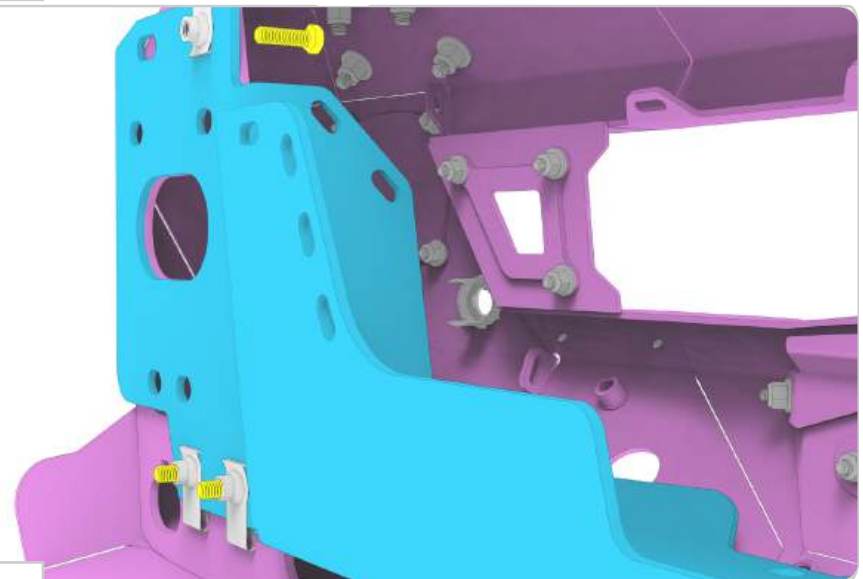


FIG 71

STEP | 10 SKID PLATE ASSEMBLY

[SKIP TO PAGE 39 IF 2023+ AWD]

10.1 Skid Plate Bracket 1: Loosely attach Skid Plate Bracket 1 using (2ea) 3/8-16 x 1 Button Head Hex Drive Screws, 3/8" Flat Washers and Nylon Locknuts (FIG 72).

10.2 Skid Plate Bracket 2: Loosely attach Skid Plate Bracket 2 using (2ea) 3/8-16 x 1 Hex Drive Screws, 3/8" Flat Washers and Nylon Locknuts (FIG 73).

TOOLS REQUIRED FOR THIS STEP: + 7/32" ALLEN WRENCH
+ 5/32" ALLEN WRENCH
+ 9/16" WRENCH OR SOCKET
+ 7/16" WRENCH OR SOCKET

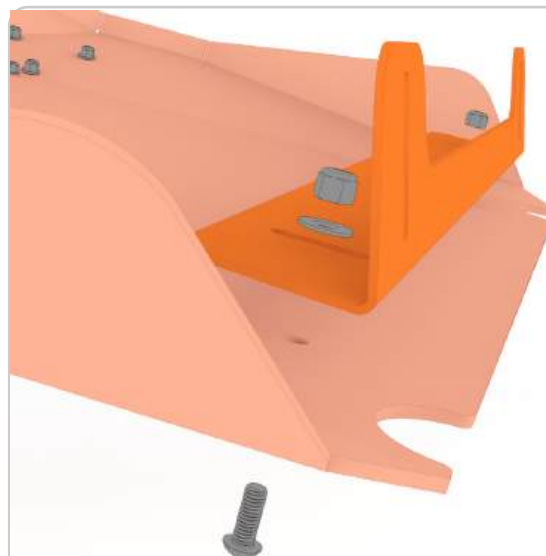


FIG 72

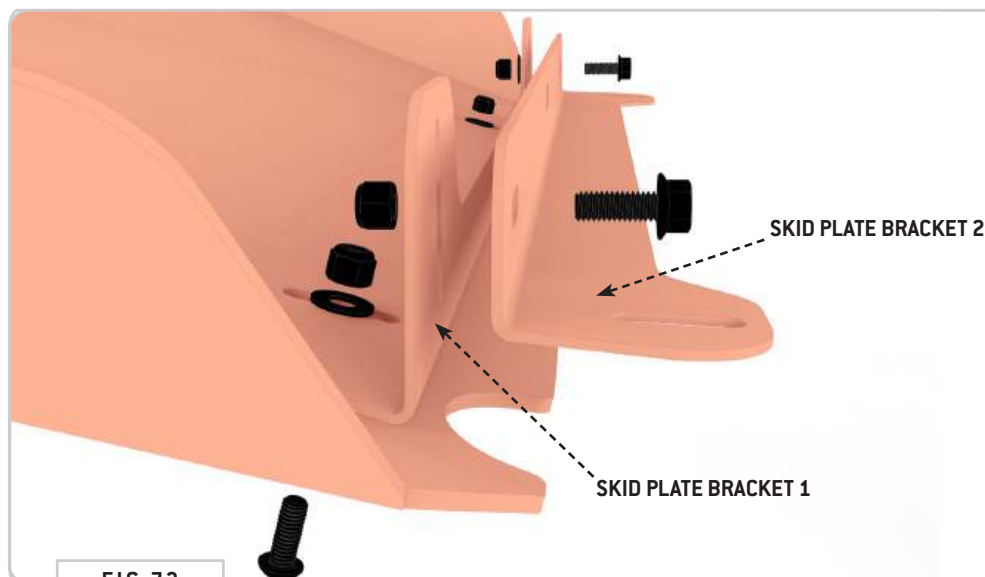


FIG 73

STEP | 10 SKID PLATE ASSEMBLY

[SKIP TO PAGE 39 IF 2023+ AWD]

10.3a Locate Van Mounts (4WD Vans): There are slots of adjustment built in to **Skid Plates 1 and 2** that will make alignment to the van's mounting points easier. See **FIG 74A** for locations of the threaded mounts that the **Skid Plate** will be attached to. Remove the bolts threaded into these mounts and discard.

10.4a Remove Front Hitch Cover Plate (if applicable): If you are installing the **Skid Plate** alongside a **Front Hitch Adapter**, there are **(6) 3/8-16 x 1 Button Head Screws, Flat Washers and Nylon Locknuts** holding the **Cover Plate** that will need to be removed to provide clearance (**FIG 75A**).

TOOLS REQUIRED FOR THIS STEP: + 7/32" ALLEN WRENCH
+ 9/16" WRENCH OR SOCKET



FIG 74A



FIG 75A

STEP | 11 SKID PLATE INSTALL

[SKIP TO PAGE 39 IF 2023+ AWD]

11.1a Attach Skid Plate to Van: With help, attach the **Skid Plate** to the **Van Mounts** using the provided **M8-1.25 X 40 Flanged Hex Head Screws** through the available mounting slots of **Skid Plate Bracket 2** (FIG 76A+77A).

PRO-TIP: Hang the assembled **Skid Plate** to the **Recovery Hooks** of the **Winch Cradle** to take some weight off while you attach it to the van mounts.

11.2a Install Skid Plate to FVC Bumper: With the **Skid Plate** loosely secured to the **Van Mounts**, attach the front of the **Skid Plate** to the **FVC Bumper** by threading (4) **3/8-16 x 1 Hex Drive Screws** into the locations shown in 78A.

11.3a Alignment and Fastening: Go back and tighten down all fasteners to hold the **Skid Plate** in place to the **Van Mounts** and **Bumper**.

PROCEED TO STEP 12 ON PAGE 41

TOOLS REQUIRED FOR THIS STEP: + 13MM WRENCH OR SOCKET
+ 7/32" ALLEN WRENCH



FIG 76A

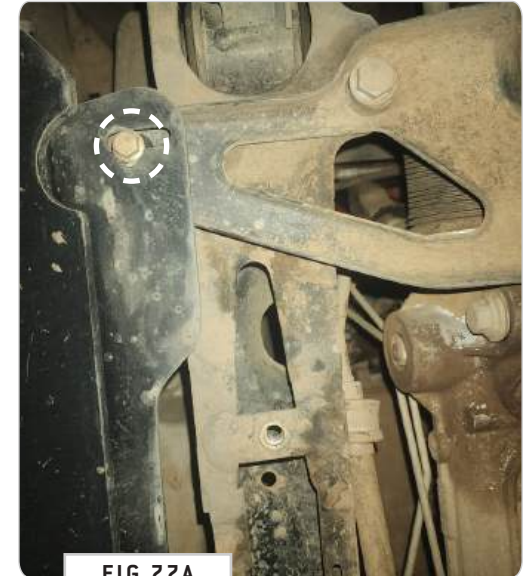


FIG 77A

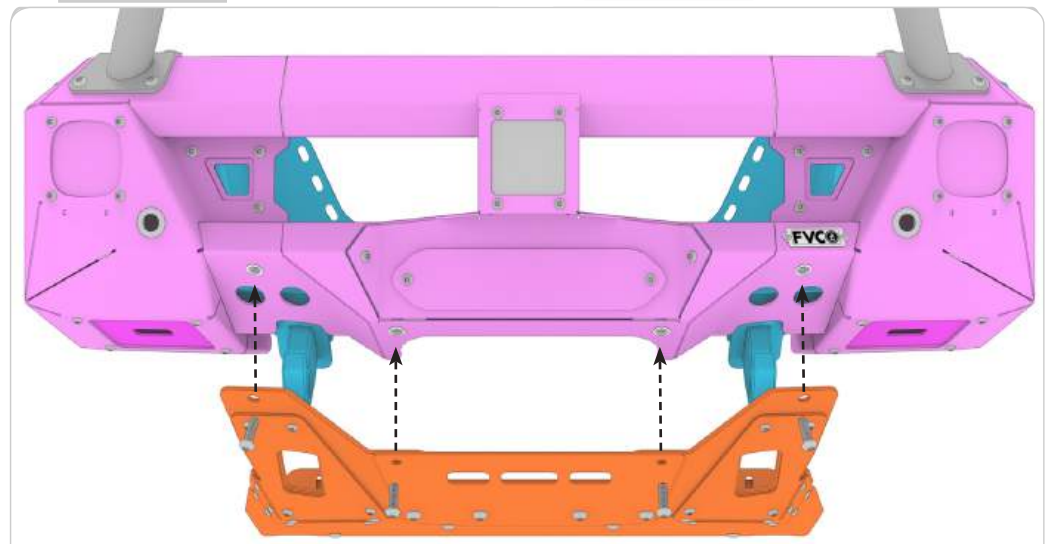


FIG 78A

STEP | 10 AWD SKID PLATE PREP

10.1b Attach Clip Nuts to Frame: Attach Clip Nuts to the Van's Frame in the locations shown in FIG 74B and 76B.

10.2b Remove Front Hitch Cover Plate (if applicable): If you are installing the Skid Plate alongside a Front Hitch Adapter, there are (6) 3/8-16 x 1 Button Head Screws, Flat Washers and Nylon Locknuts holding the Cover Plate that will need to be removed to provide clearance (FIG 75B).



FIG 75B

TOOLS REQUIRED FOR THIS STEP:
+

7/32" ALLEN WRENCH
9/16" WRENCH OR SOCKET

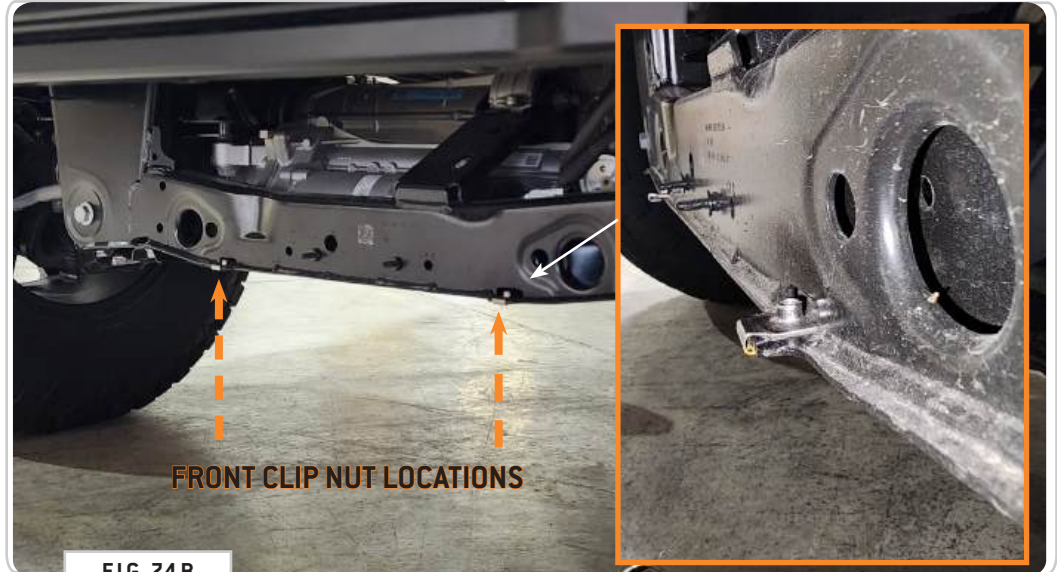


FIG 74B

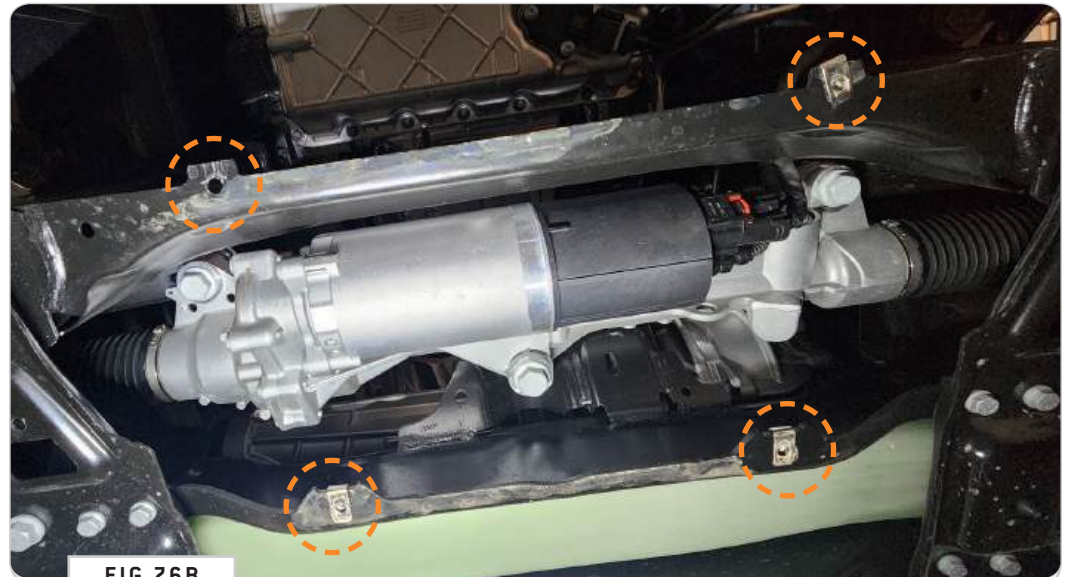


FIG 76B

STEP | 11 AWD SKID PLATE INSTALL

11.1b Attach AWD Skid Plate Bracket to Van: Loosely attach the **AWD Skid Plate Bracket** to the **Clip Nuts** using the **(4) 1/4 X 0.75 Flanged Hex Head Screws** through the available mounting slots of **Skid Plate Bracket 2** (FIG 76B).

11.2b Attach Skid Plate to AWD Bracket: With help, loosely attach the **Skid Plate** to the **AWD Bracket** using **(2ea) 3/8-16 x 1 Hex Head Screws, 3/8" Flat Washers and Nylon Locknuts** through the available mounting slots of **Skid Plate Bracket 1** (FIG 77B).

PRO-TIP: Hang the assembled **Skid Plate** to the **Recovery Hooks** of the **Winch Cradle** to take some weight off while you attach it to the van mounts.

11.3b Install Skid Plate to FVC Bumper: With the **Skid Plate** loosely secured to the **Van Mounts**, attach the front of the **Skid Plate** to the **FVC Bumper** by threading **(4) 3/8-16 x 1 Hex Drive Screws** into the locations shown in FIG 78B.

11.4b Alignment and Fastening: Go back and tighten down all fasteners to hold the **Skid Plate** in place to the **Van Mounts** and **Bumper**.

TOOLS REQUIRED FOR THIS STEP: + 13MM WRENCH OR SOCKET
+ 7/32" ALLEN WRENCH
+ 5/32" ALLEN WRENCH



FIG 76B

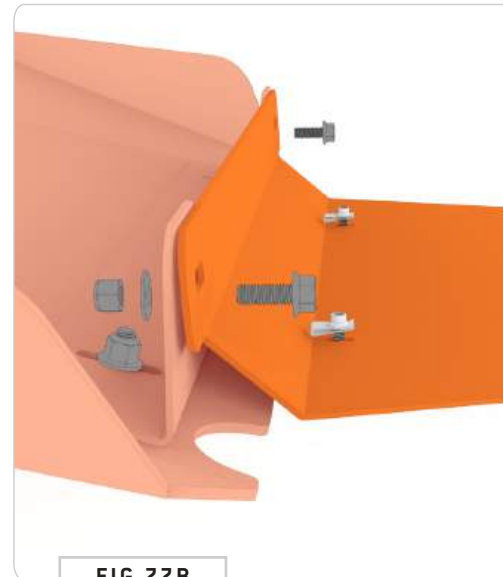


FIG 77B

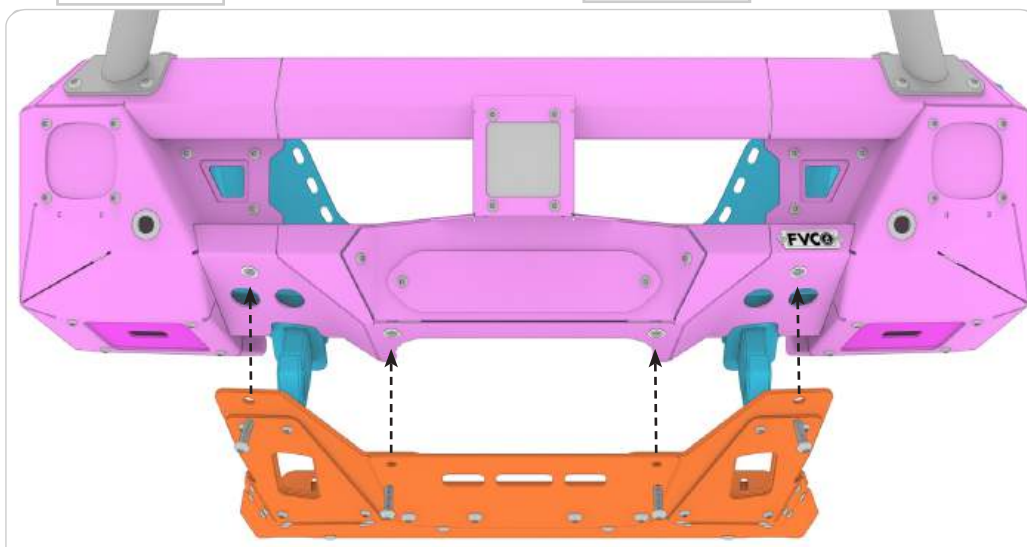


FIG 78B

TOOLS REQUIRED FOR THIS STEP: + 5/32" ALLEN WRENCH

STEP | 12 FINAL CHECKS AND TRIM

12.1 Remove Adaptive Radar Sensor Faceplate and Bracket: Remove the **Adaptive Radar Sensor Faceplate** and **Wrap-Around Bracket** to access the **Radar Sensor Cavity** (FIG 79).

12.2 Position Adaptive Radar Sensor Harness: Fish the **Adaptive Radar Sensor Harness** down and through the new mounting location shown in FIG 80.

NOTE - If running a Winch, be sure to keep the wiring well out of the way of the Winch Rope by tying it off to the side (FIG 80).



FIG 79



FIG 80

STEP | 12 FINAL CHECKS AND TRIM

FOR 2019-2024 VANS:

12.3a Install Adaptive Radar Sensor to Bumper: Assemble the **Radar Sensor Mounting Bracket** to the **Radar Sensor** and reconnect to the **Wiring Harness**. Position the assembly within the cavity and secure to the pre-installed **Clip Nuts** with (2) **1/4-20 x 0.5" Button Head Screws**. Cover with the **Plastic Faceplate** and **Bezel** using (4) **1/4-20 x 0.75" Button Head Screws** (FIG 81). ****Use the provided spacers from the 2025 Kit if the Plastic Faceplate doesn't fit tight against the Bezel.**

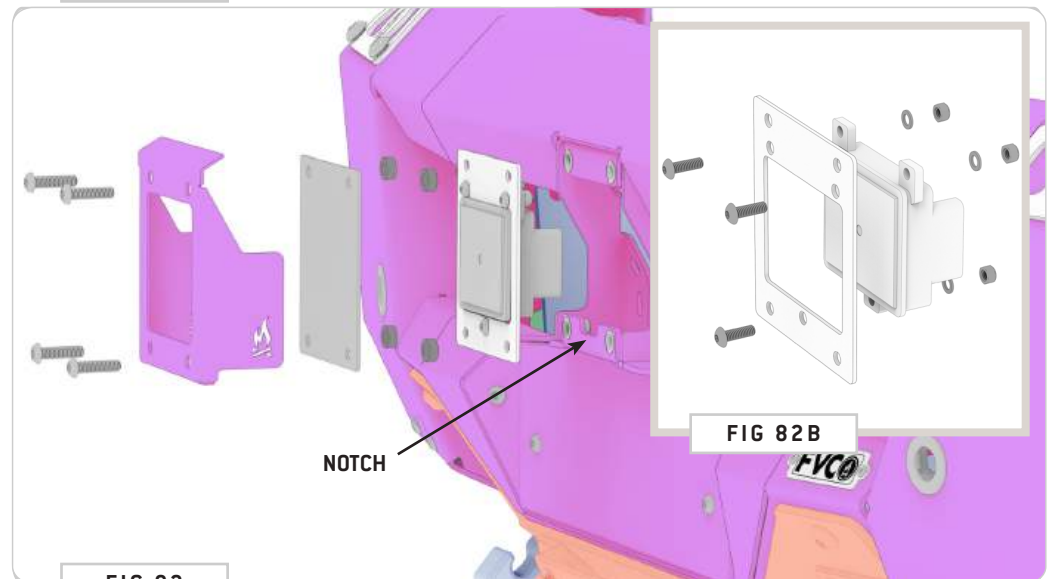
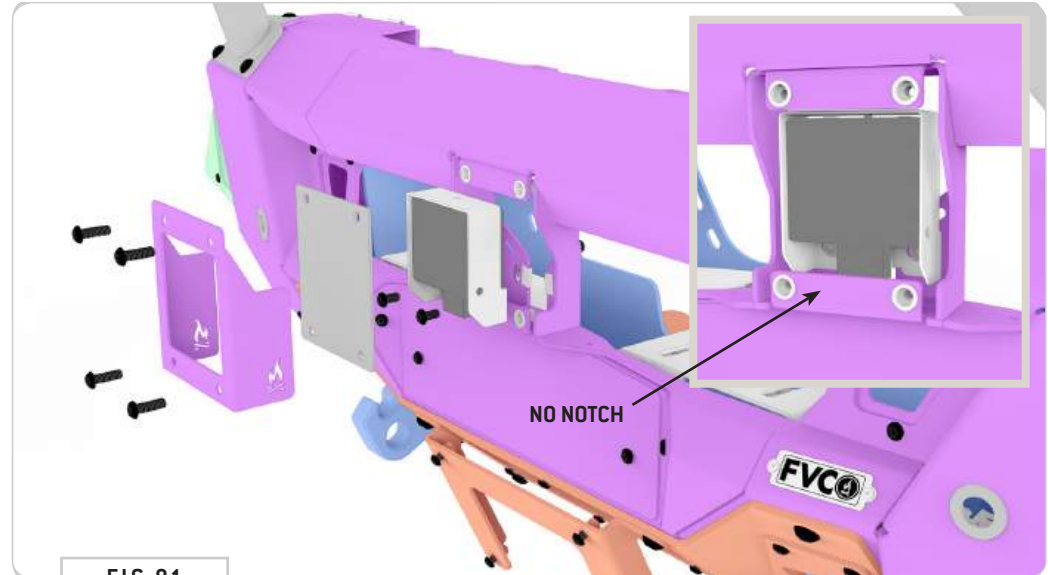
FOR 2025+ VANS:

12.3b Install Adaptive Radar Sensor to Bumper: Attach **Adapter Plate** to **Sensor** using (3ea) **M5-0.8 X 16 Button Head Hex Drive Screws**, **Flat Washers** and **Nylon Locknuts** (FIG 82).

See FIG 82B for an exploded view of the entire **Sensor Cover** assembly. Begin by inserting (4) **1/4-20 x 1 Button Head Hex Drive Screws** through the **Sensor Cover** and **Sensor Cover Faceplate**. Complete the stack with (4) **1/4" Spacers**.

Attach the **Sensor Adapter Plate** to the four protruding screws of the **Sensor Cover Assembly**.

Carefully position the **Sensor Cover Assembly** to the **Center Bezel** of the **Front Bumper** and thread in the screws to the pre-installed **Rivet Nuts**. Ensure alignment and tighten down using a **5/32" Allen Wrench**.



TOOLS REQUIRED FOR THIS STEP:

STEP | 12 FINAL CHECKS AND TRIM

12.4 Attach Trim Gaskets: Attach **Trim Gaskets** to the locations shown in FIG 83-85.

PRO-TIP: Drill a couple holes in the **Bumper Skin** and use the provided **Cable Ties** to hold the **Trim Gaskets** securely in place.



FIG 83



FIG 84

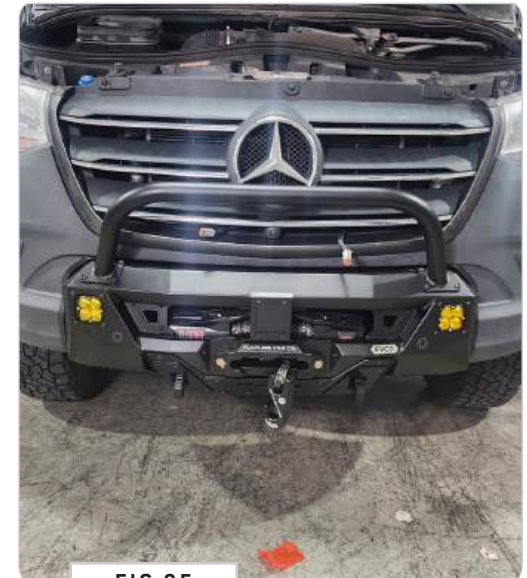


FIG 85

STEP | 12 FINAL CHECKS AND TRIM

12.5 Replace Upper Bumper Skin: Hold the **Upper Bumper Skin** (that houses the grille) back into place in order to reconnect wiring harnesses (FIG 86).

12.6 Reconnect Fog Lights: Reconnect **Fog Light Harness** to **Van Fog Lights** (FIG 87).

12.7 Reconnect Camera: Plug the **Front Camera Harness** (or **Camera** itself) back in to the **Camera Bezel** in the orientation that you removed it (FIG 88).

12.8 Reconnect Ambient Air Sensor: Reconnect the **Ambient Air Sensor** to its original location (FIG 89).

TOOLS REQUIRED FOR THIS STEP:

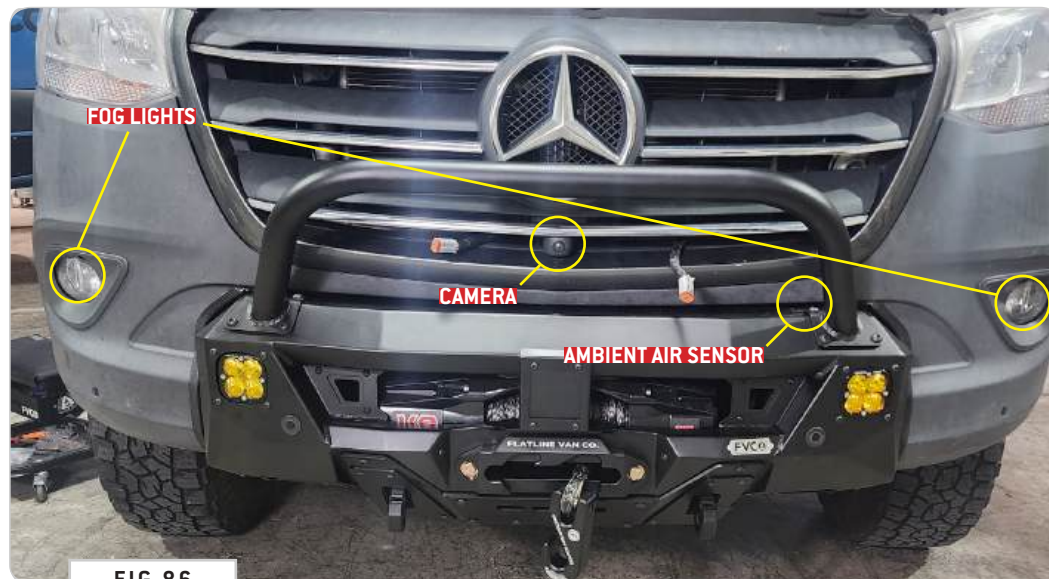


FIG 86



FIG 87



FIG 88



FIG 89

TOOLS REQUIRED FOR THIS STEP: + T25 TORX

STEP | 12 FINAL CHECKS AND TRIM

12.9 Reposition Park Sensors: Plug the **Park Sensors** back in to their original locations as shown in **FIG 90** and reconnect the **Park Sensor Harness** to back to the van.

12.10 Secure Upper Bumper Skin: Secure the **Upper Bumper Skin** to the van by using a **T25 Torx** and the three factory screws retained from step 3.1 (**FIG 91**).



FIG 90



INSTALL

STEP | 12 FINAL CHECKS AND TRIM

12.11 Install Winch Rope to Hook: If you installed a **Winch Fairlead**, install the **Winch Fairlead Hook** to the **Winch Rope** by installing the stainless steel **Pin** and **Internal Retaining Ring**.

NOTE - Snap ring pliers are required for this step. Make sure the retaining ring is fully seated in its groove.

12.12 Stow the Hook: Slowly retract the winch to stow the hook in place. Be careful not to retract too fast to avoid pinching fingers or damaging the bumper.

TOOLS REQUIRED FOR THIS STEP: + SNAP RING PLIERS



FIG 92



FIG 93

GET OUT AND EXPLORE!

+ LEAVE US A REVIEW

Happy with your new FVC product? We would love to hear (and see) from you! Head to the product page and click "Leave Review." Add a short review and upload a few photos to be showcased on the product page.

+ SHARE YOUR PICS

We love seeing how our customers use their FVC products and following along with your adventures. Tag us in your photos with: @flatlinevanco or send them to us via email. We love posting customer pictures in our feed!

+ NEED ANY HELP?

If you are having any issues with your product, please reach out, and we will make it right. FVC is a company of van and outdoor enthusiasts that design and use our own products, so we want you to be as stoked on your new parts as we are!



@FLATLINEVANCO