*Optional Accessories shown

Installation Manual:

Sprinter Rear Ladder System

Base Kit - Driver side

SKU: 1006-MK90-00-DS REV 2

Date: 10/22/25

Revision: 2

Notes

180 Degree Cargo Door Hinges: This system is designed and intended to be installed in conjunction with Mercedes Sprinter 180 Degree hinges. Failure to do so will result in physical damage to your vehicle.

Rear Windshield Wipers: On rare occasions some vehicles come equipped with rear windshield wipers. Due to the close form fit of the rear ladder system, we recommend removing or disabling the windshield wiper arm before installation.

Rear Ladder System (RLS) Accessories: All RLS accessories can be installed after the base kit but in some cases it will be much easier to install them before the base kit installation is complete.

- RLS Upper Ladder Add On: We recommend installing the upper ladder weldment to the base kit before it is bolted to the van for easier installation

Disclaimer: Unaka Gear Co. is committed to providing high-quality products, but it is important to note that we are not liable for any damage, failure, or loss resulting from incorrect installation or safety precautions taken during installation or use of our products. Proper installation is crucial to ensure safety and functionality. We strongly recommend that all installation be performed by a qualified professional or according to the detailed instructions provided with the product. By using our products, you acknowledge and accept that Unaka Gear Co. is not responsible for any issues arising from improper installation. For any questions or concerns, please contact our customer service team.

Installation Safety: A second person for a portion of this installation will make it easier, safer, and minimize the chances of hitting your van with the product during install.

Terms of Service & Warranty: To see our complete terms, conditions, as well as warranty information use the link below or head over to our website. https://unakagearco.com/policies/terms-of-service

Preventative Maintenance: In order to ensure proper performance of products, you must do an initial torque check after 4 to 7 days, follow up checks after 1 month, routine checks every 3 to 4 months, and after moderate driving on bumpy or gravel roads.

Installation Overview

- Check packaging, some parts are located under foam packaging covers
- Layout and identify all parts
  - *Keep hardware separate, some pieces may be only slightly different and are **not** interchangeable*
- Install Upper Ladder Extension accessory kit (sold separately) - see RLS Upper Ladder Extension manual
- Use rubber template to locate and mark the center support point
- Drill out 3rd inside and outside of 3rd contact points, clean and seal bare metal edges
- Loosely bolt frame to upper and lower door hinges
- Loosely bolt frame to 3rd mounting point
- Position frame on door, tighten hardware
- Check install and make final torques

This kit does not include any of the required tools for installation

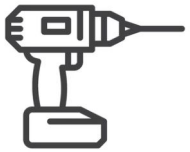
TOOLS REQUIRED FOR INSTALLATION

Torque Wrench (15 ft-lbs)

SAE Socket set – 9/16" socket required

7/32 Allen

2 x



Drill

3/16" Drill Bit

3/8" Drill Bit

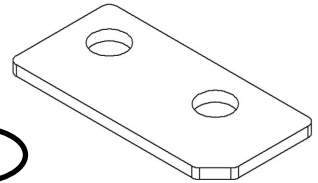
File

Sandpaper

Paint Cleaning/Prep Materials

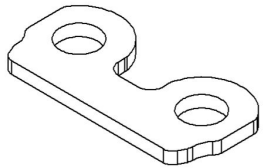
Components

Note, Images are not to scale. Item numbers 13, 14, and 18 are caps or plugs that should already be installed on the frame



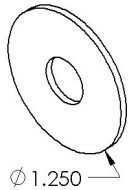
1

LOWER DOOR BRACKET WASHER
[ITEM 1] {QTY. 1}



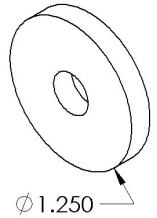
2

UPPER DOOR BRACKET WASHER
[ITEM 2] {QTY. 1}



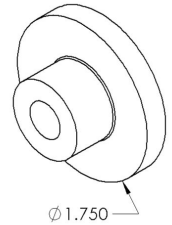
3

OVERSIZED WASHER, .406 ID X 1.25 OD
[ITEM 3] {QTY. 1}



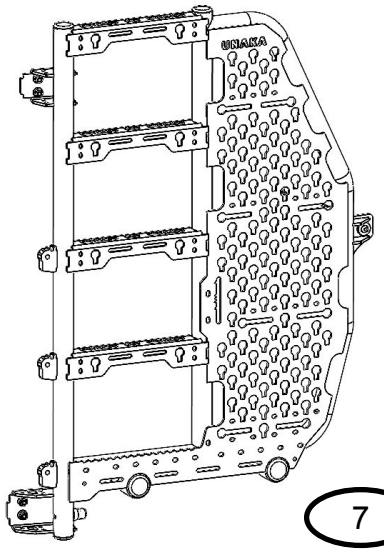
4

RUBBER DAMPENER
[ITEM 4] {QTY. 1}



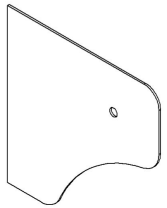
5

REAR RACK MAIN BOSS
[ITEM 5] {QTY. 1}



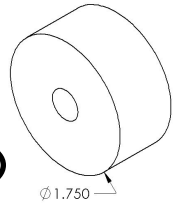
7

FRAME, DRIVER SIDE
[ITEM 7] {QTY. 1}



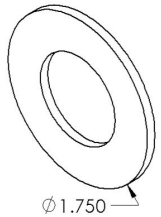
6

DRILL TEMPLATE
[ITEM 6] {QTY. 1}



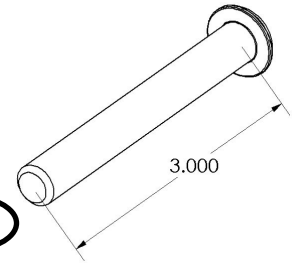
8

Rubber Sealing Washers for
3/8" Screw
[ITEM 8] {QTY. 1}



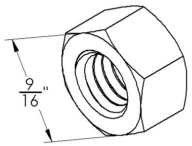
9

Rubber Sealing Washers for
7/8" Screw
[ITEM 9] {QTY. 1}



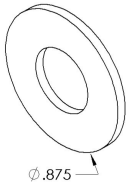
10

3/8-16 x 3” Screw
[ITEM 10] {QTY. 1}



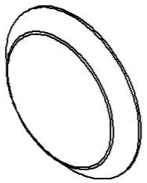
11

3/8-16 Hex Nut
[ITEM 11] {QTY. 5}



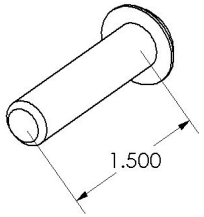
12

3/8 WASHER
[ITEM 12] {QTY. 5}



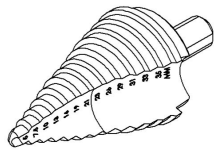
15

Sprinter Inside Panel Plug
[ITEM 15] {QTY. 1}



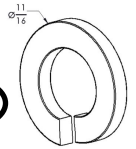
16

3/8-16 x 1-1/2” Screw
[ITEM 16] {QTY. 4}



17

Drill Bit
[ITEM 17] {QTY. 1}



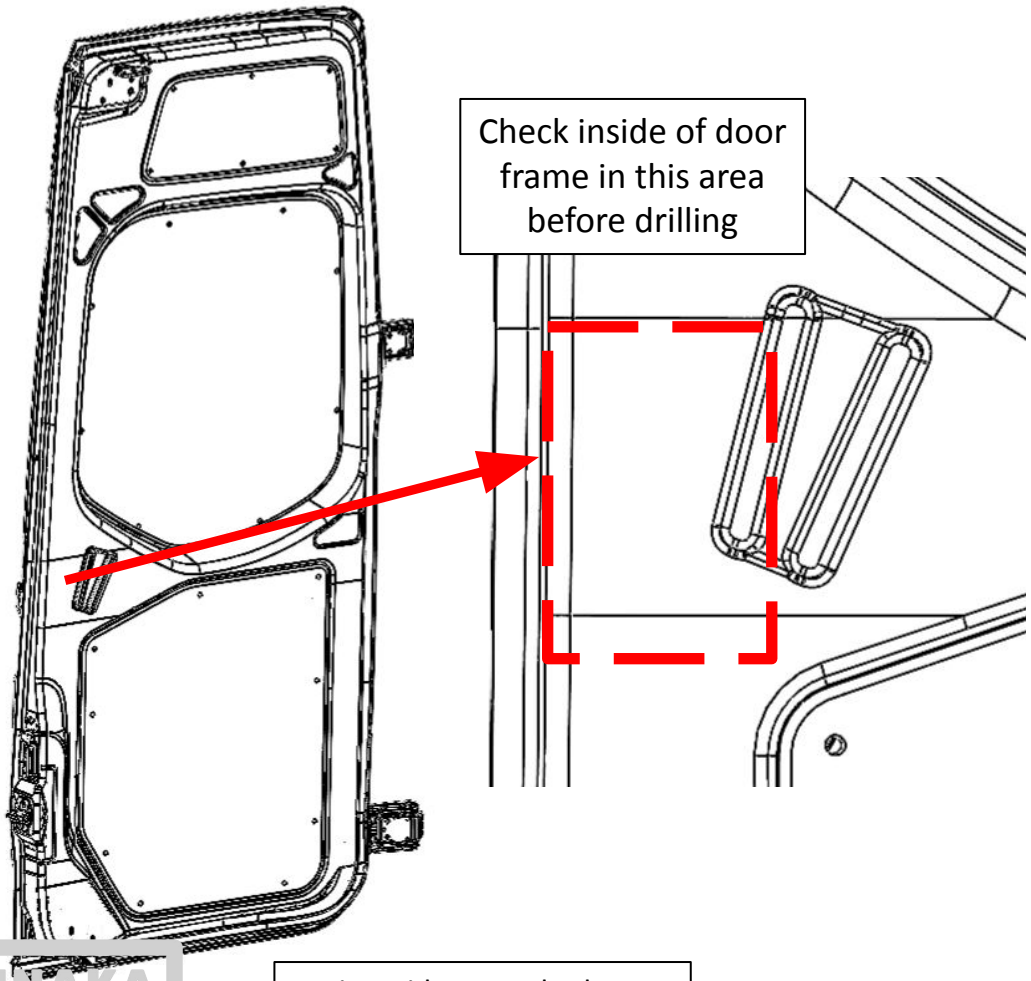
19

3/8 LOCK WASHER
[ITEM 6] {QTY. 5}

Door Preparation

1 x • Trim removal tool NA

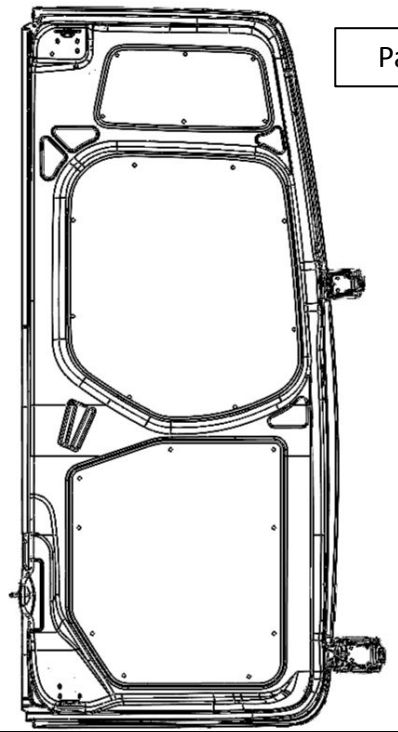
- Before drilling, gain access to the inside of the door body to ensure no cables, wire, insulation, or other obstructions in the drill area



Driver side example shown

Door panel types

- Your exact installation process may vary slightly depending on the Sprinter model, or how you, or a builder may have finished the rear doors
- If you have trim or finishing panels preventing access to the inside of the door structure, they may need to be removed
- Factory panels can be removed with trim removal tools, but non factory panels may require additional tools or processes
- The panel-style trimmed door requires drilling on the door interior, and use of a provided plug



Driver side example shown

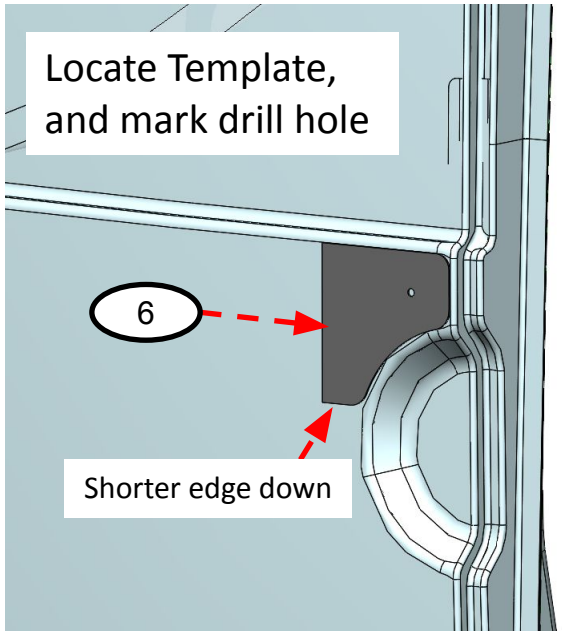
3rd Mounting Point Outside Preparation

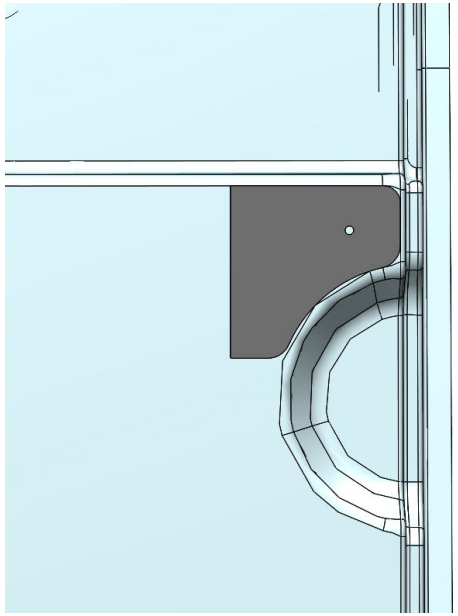
1 x

- Marker
- Drill
- 3/16 & 3/8 Drill Bits

NA

- Hold rubber template in place, double check orientation and note that driver side and passenger side are different shapes
- Confirm orientation, mark the drill location with a sharpie, remove the rubber template
- Use a center punch and hammer to locate the center of the drill point to prevent drifting of drill bit





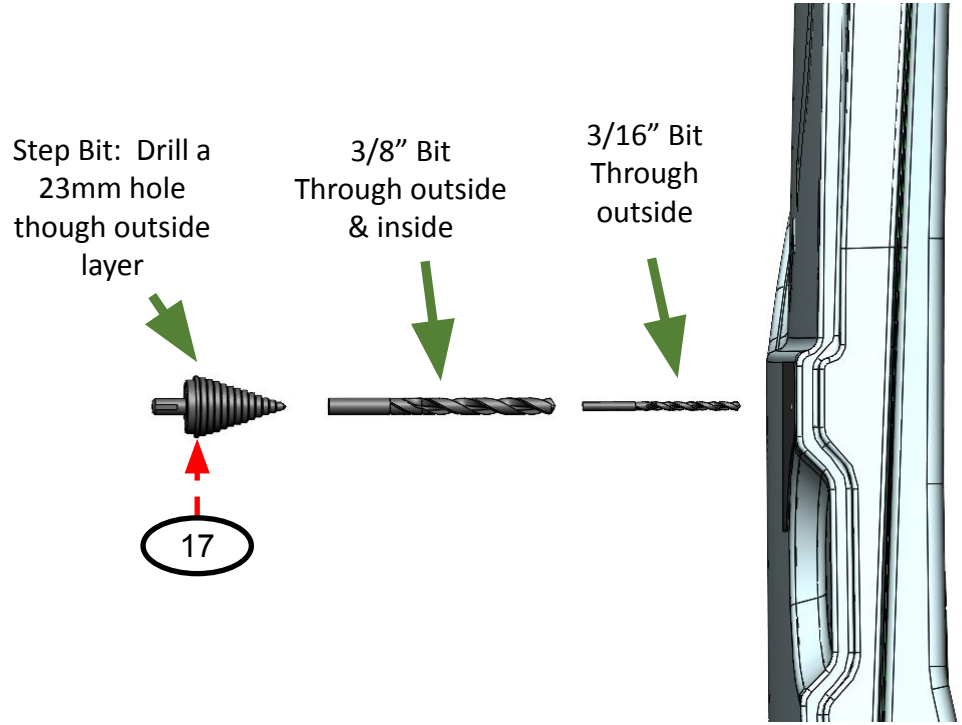
3rd Mounting Point Outside Preparation

1 x

- Marker
- Drill
- 3/16 & 3/8 Drill Bits

NA

- Using a 3/16” drill bit, create a pilot hole through the outside layer of sheet metal
- Using a 3/8” drill bit, drill through the outside, the internal, and the for panel-style trimmed doors, drill through the inside layers of sheet metal.
- *Use care to drill perpendicular to the van door
- Using the provided Step drill bit, drill a 23mm hole through the outside layer
  - **Pro tip**: Mark the step bit using a sharpie, some painters tape, or similar to ensure you do not drill past the required hole size
  - Carefully open up the outside hole to 23mm, note this will also slightly increase the hole through the middle door panel layer



3rd Mounting Point Inside Preparation

1 x

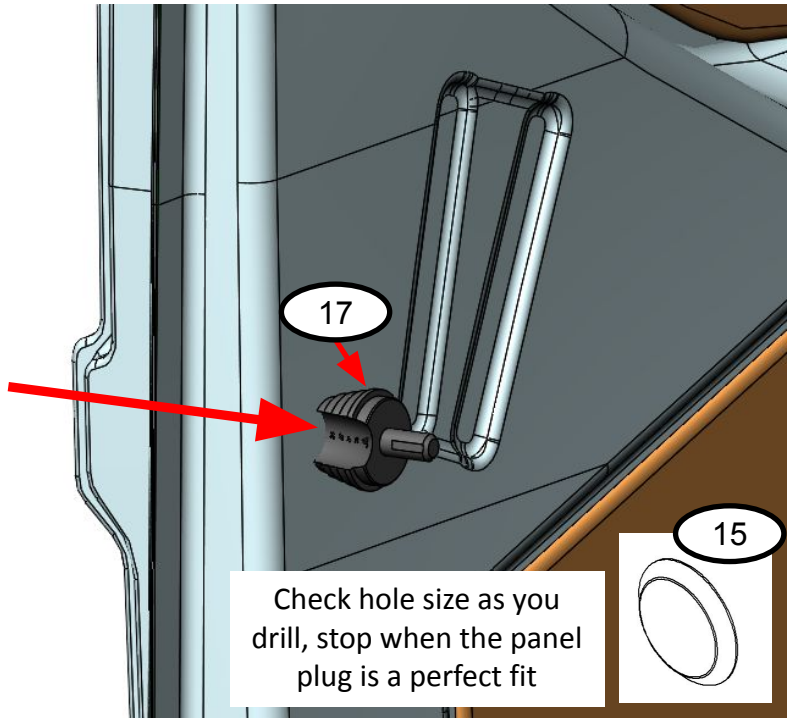
- Drill
- Step Drill Bit

NA

*This step is required for the panel style door

- Use the 3/8” hole that was drilled all the way through the door to locate the step drill bit
- Using the provided Step drill bit. Open up the inside hole until it is a perfect fit for the panel plug. This is approximately a 24.5 to 25mm hole through the inside layer. Note this requires stopping halfway between the 23mm step and 26mm step on the bit. Go slow and test fit the plug as you go to ensure a good fit
  - **Pro tip**: Mark the bit using a sharpie, some painters tape, or similar to ensure you do not drill past the required hole size

Step Bit: Drill a 23mm hole through outside layer



3rd Mounting Point Finish

1 x

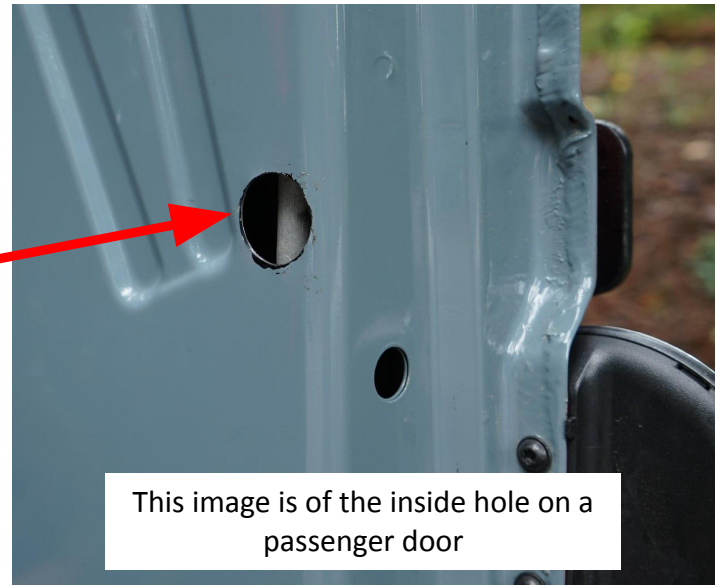
- File / Sand Paper
- Cleaner
- Paint

NA

*This step is required for the panel style door

- Use a file, deburr tool, and or sandpaper to clean any rough edges in the sheet metal from drilling
- Clean the exposed metal to remove any dirt and oils
- Paint the exposed edges to prevent rust

Deburr, clean, and paint outside & inside holes to prevent corrosion



Loosely Bolt Frame to Hinges

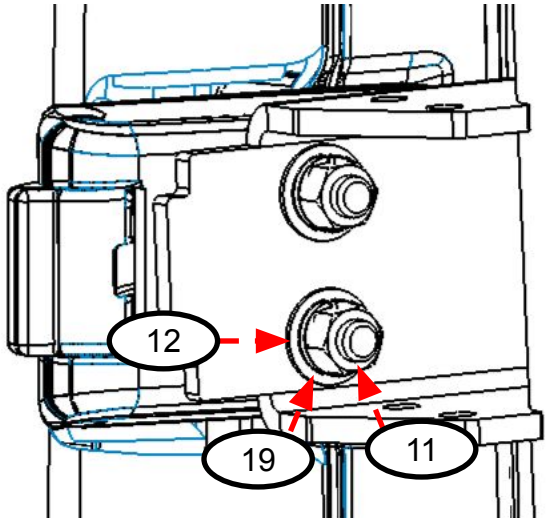
2 x

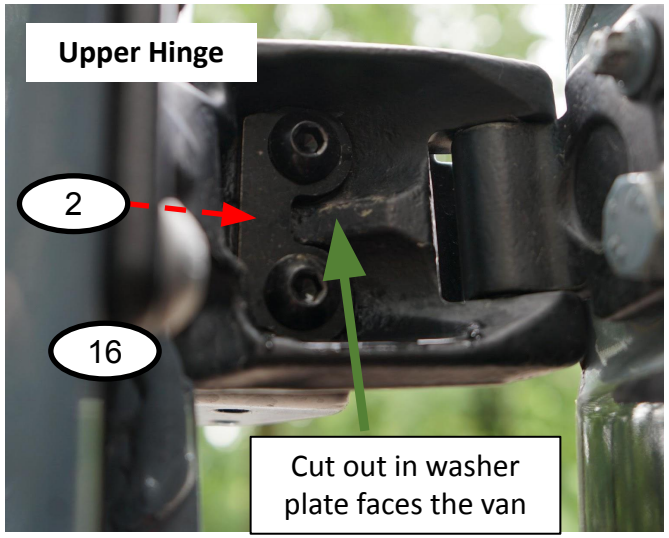
- 7/32 Allen
- 9/16 Shallow Socket
- Socket Extension & wrench

Wait

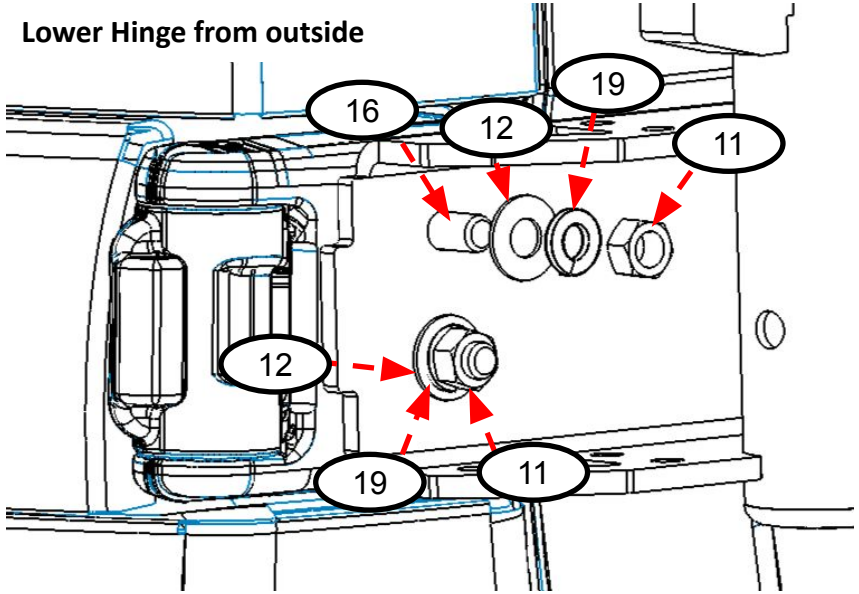
- **Tip: If you are going to install an upper ladder extension, it will be easier to do it now**
- Open the rear door
- Insert the bolts through the washer plates, and through the holes in the hinges from inside of the hinges
  - *Note, the orientation of the washer plates is critical
- Carefully lift the RLS frame up and position the brackets over the bolts sticking through the hinges.
- Add a washer, then lock washer, then nut to each bolt, snug the bolts up so the frame can easily move around, but do not tighten yet.

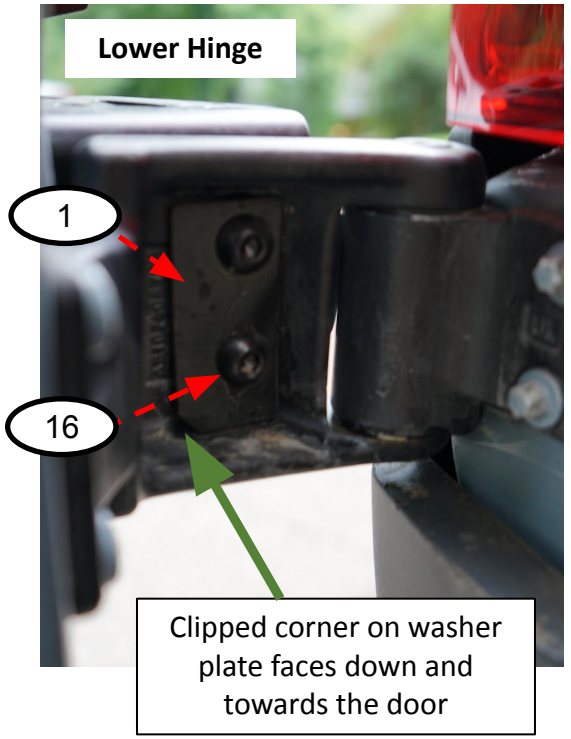
Upper Hinge from outside





Lower Hinge from outside





Loosely Bolt Frame to 3rd Mounting Point

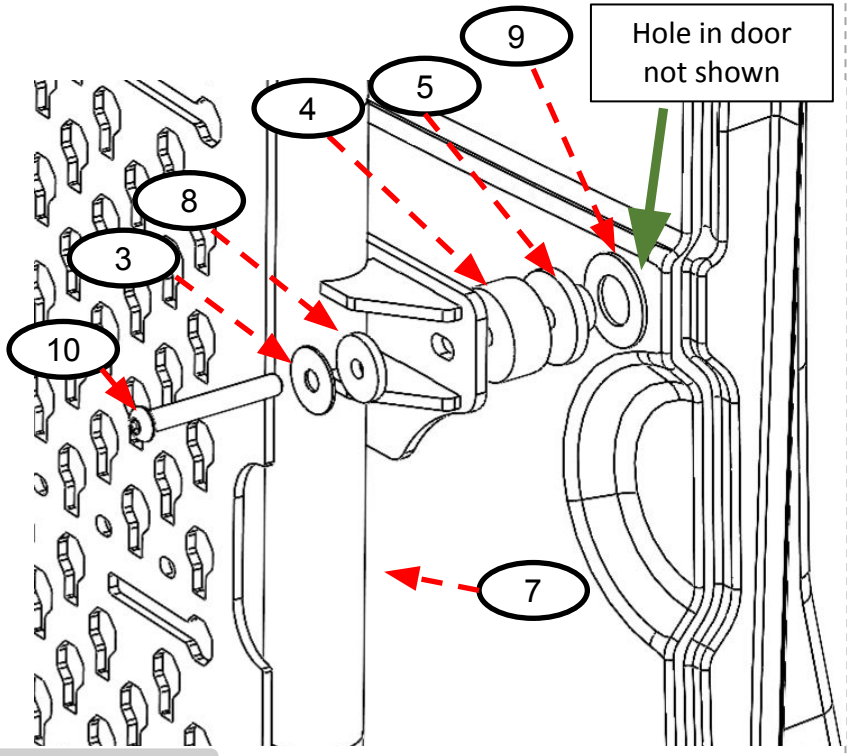
1 x

- 7/32 Allen
- 9/16 Shallow Socket
- 9/16 Deep Socket
- Socket Extension & wrench

Wait

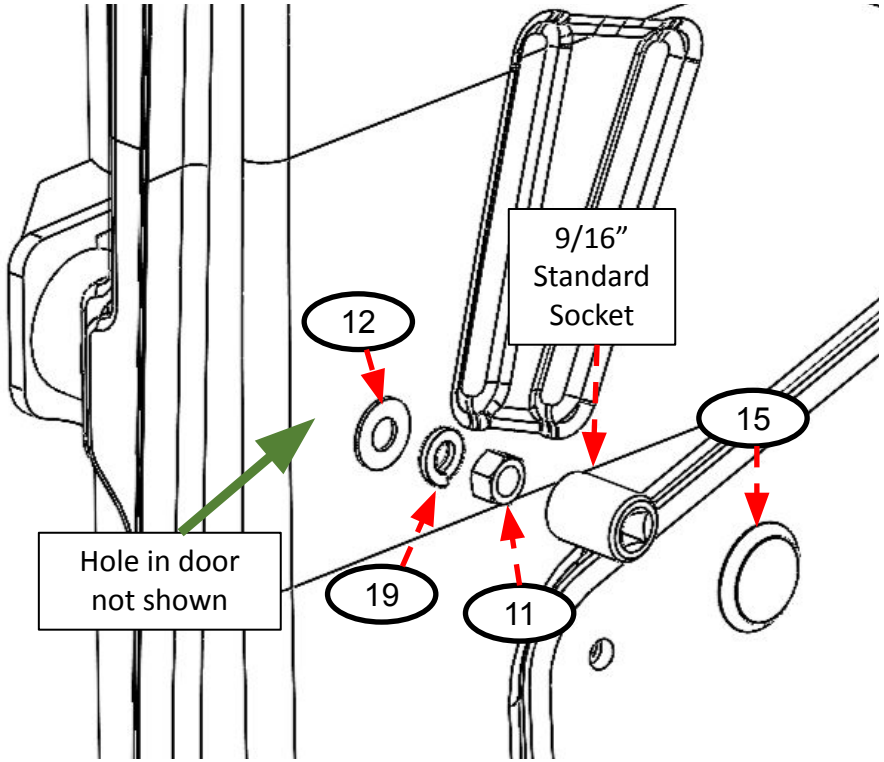
Exterior Hardware

- Install 3rd point mounting hardware from the outside as shown



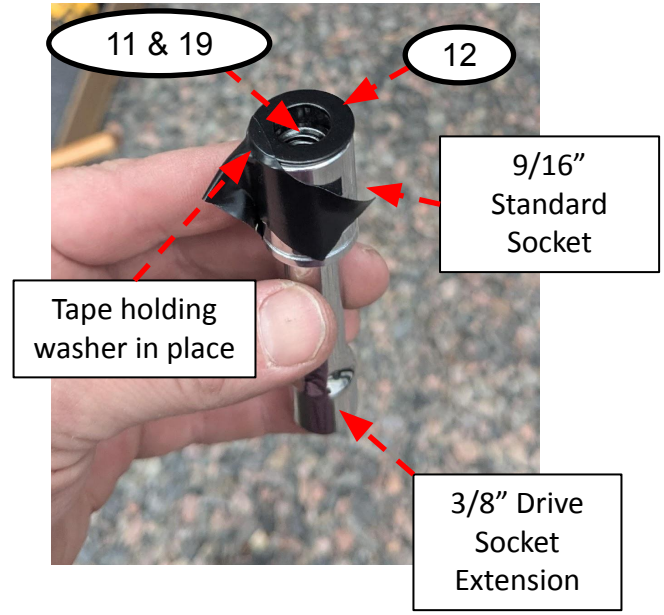
Interior Hardware

- Install 3rd point mounting hardware from the outside as shown
- Use a 7/32 allen wrench to hold the bolt from the outside, and carefully insert the washer + lock washer + nut + socket combination through the 23mm hole, and carefully start it onto the bolt inside of the door by hand. **See Pro tip to the right* □
- Once the nut is started, pull the socket out which should leave the washer and nut on the bolt inside of the door frame
- Remove the tape, replace the standard socket with a deep 9/16" socket and give it a turn or two to get things started
- Wait to install cap until full installation is complete
- Leave this set up very loose during this step



Pro Tip: Interior Hardware Prep

- Insert the 3/8" nut into a normal 9/16" shallow socket
- Place the 3/8" lock washer, then 3/8" washer on the face of the shallow socket, and place a small piece or two of painters tape (preferable) or similar across the edge of the washer securing it to the shallow socket



Position Frame, Tighten Hardware

1 x

- 7/32 Allen
- 9/16 Shallow Socket
- 9/16 Deep Socket
- Socket Extension & wrench

Wait

- Snug up the hinge hardware so that the frame can still be positioned as needed
- Position the frame so that the Rear Rack Main Boss, Item 5 is centered in the 23mm hole cut out using the Step Drill Bit
- Snug up the hinge hardware so the frame is now supported by the hinge hardware, then check the main boss alignment again
- Sung up the 3rd point hardware using a 7/32 allen and a 9/16” deep socket
- Check position & alignment
- Final tighten the hinge hardware
- Final tighten the 3rd point hardware, compressing the rubber seals / bosses slightly as shown
- Torque hinge hardware to 15 ft lbs.
- Do not torque the 3rd point hardware

Installation is Complete