*Optional Accessories shown

Installation Manual:

Sprinter Rear Ladder System

Base Kit - Driver side

SKU: 1006-MK90-00-DS REV 2

Date: 8/5/25

Revision: 0

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 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

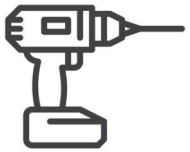
TOOLS REQUIRED FOR INSTALLATION

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

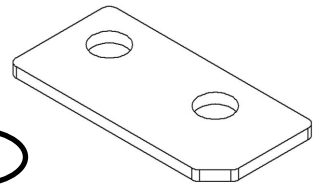
Loctite C5-A Anti-Seize

Customer may desire to dab anti-seize to the side of each bolt that will be paired with a nylock nut. Nylock nuts have a small plastic insert to make them vibration resistant. - (not included with kit)

Paint Cleaning/Prep Materials

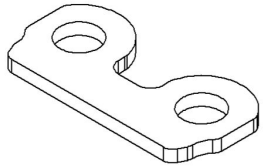
Components

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



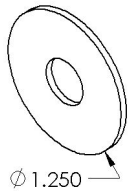
1

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



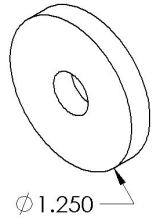
2

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



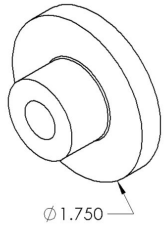
3

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



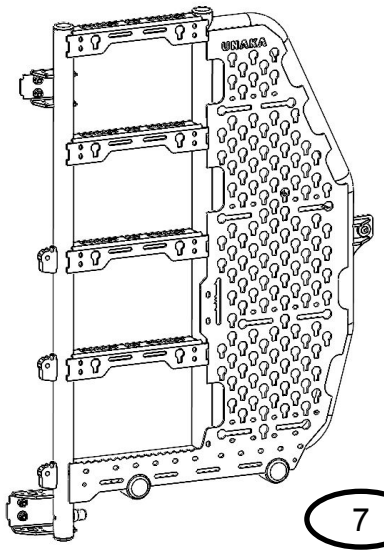
4

RUBBER DAMPENER
[ITEM 4] {QTY. 1}



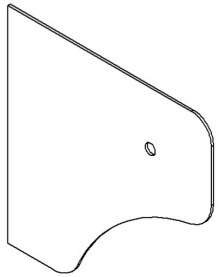
5

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



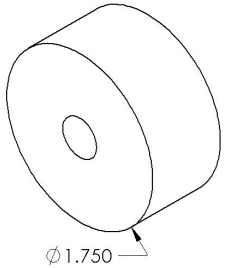
7

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



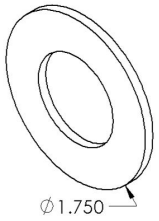
6

DRILL TEMPLATE
[ITEM 6] {QTY. 1}



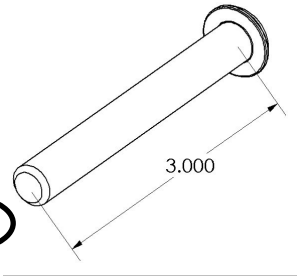
8

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



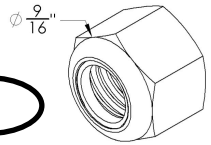
9

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



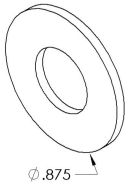
10

3/8-16 x 3” Screw
[ITEM 10] {QTY. 1}



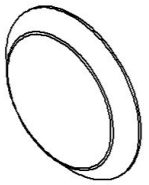
11

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



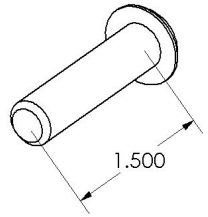
12

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



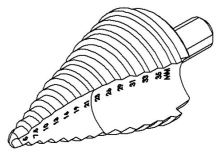
15

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



16

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

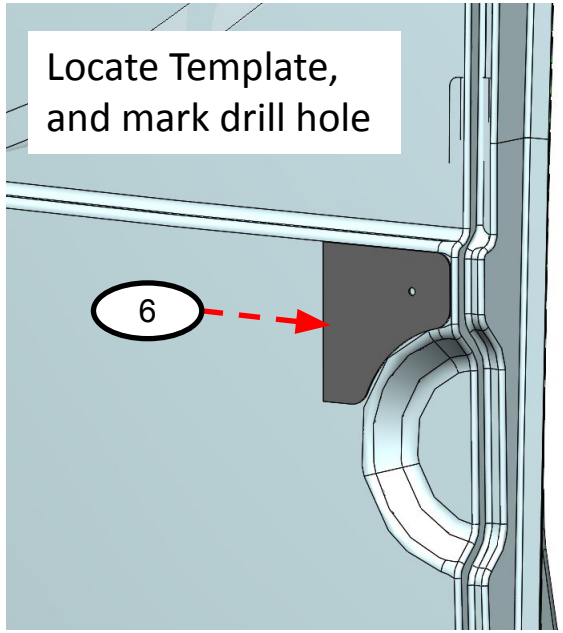


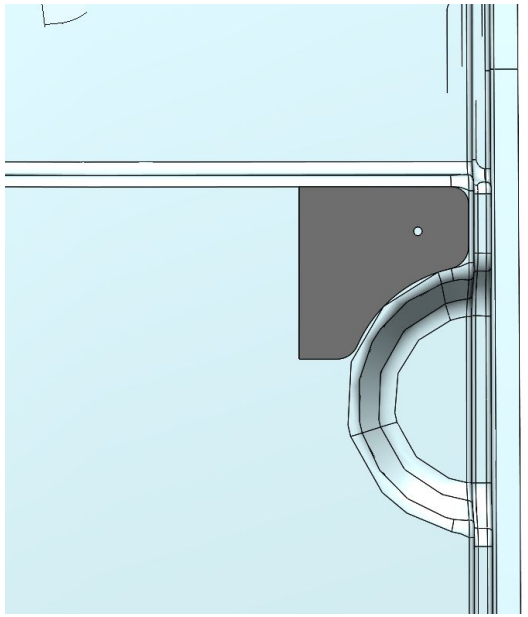
17

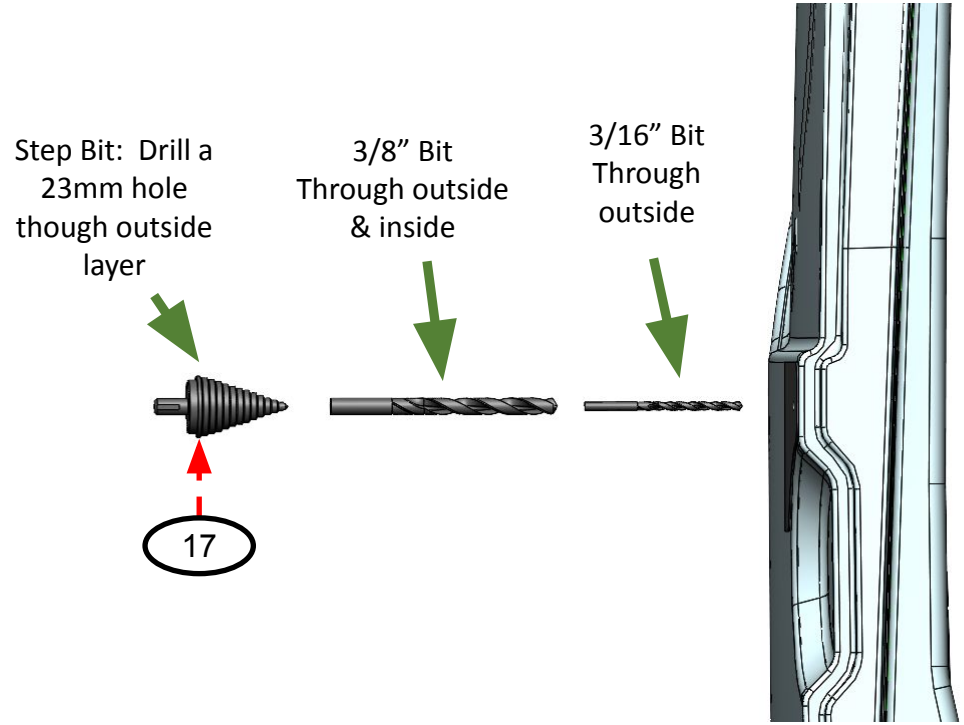
Drill Bit
[ITEM 17] {QTY. 1}

3rd Mounting Point Outside Preparation

- Hold rubber template in place, mark the drill location with a sharpie, remove the rubber template
- If available, use a center punch and hammer to locate the center of the drill point to prevent drifting of drill bit
- 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 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 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





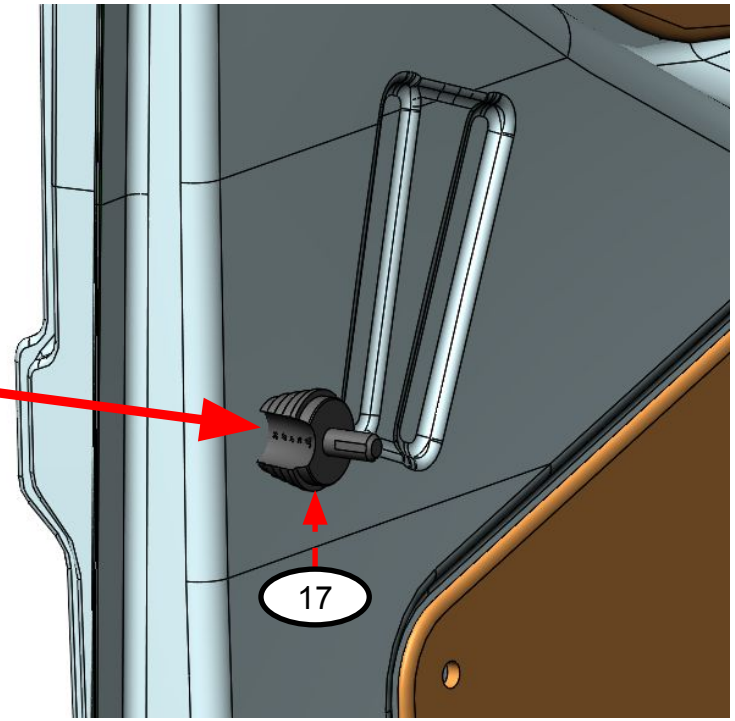


3rd Mounting Point Inside Preparation

- 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, drill a 23mm hole through the inside layer
  - **Pro tip**: Mark the bit using a sharpie, some painters tape, or similar to ensure you do not drill past the required hole size

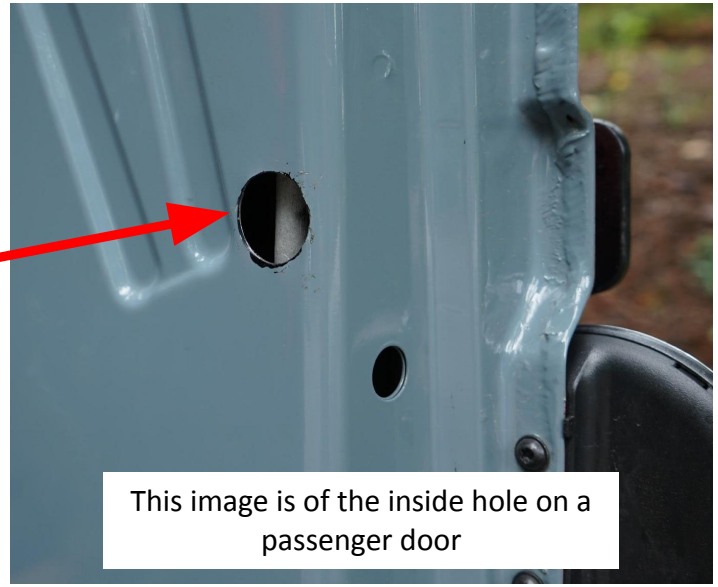
Step Bit: Drill a 23mm hole through outside layer



3rd Mounting Point Finish

- 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



This image is of the inside hole on a passenger door

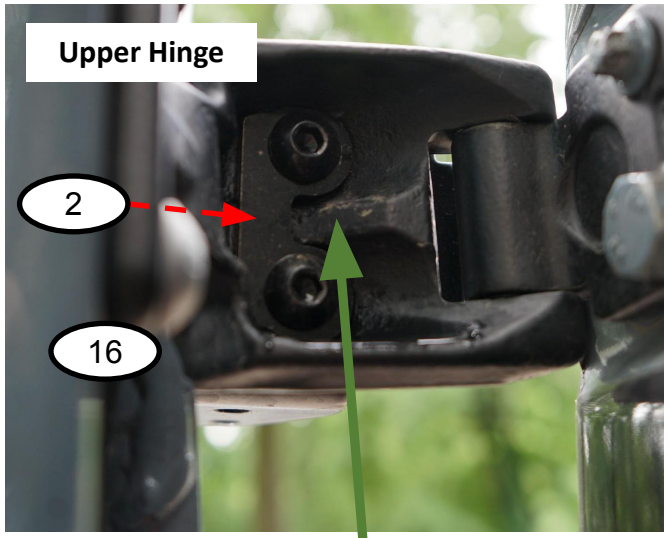
Loosely Bolt Frame to Hinges

2 x

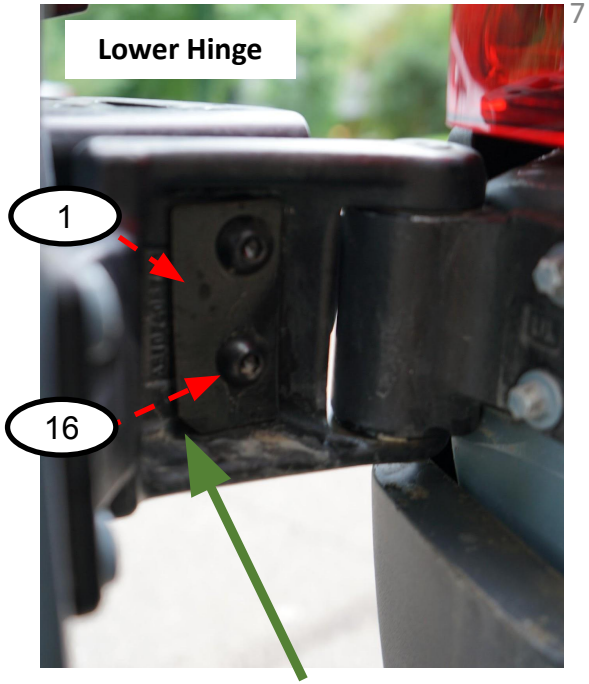
- 7/32 Allen
- 9/16 Shallow Socket
- Socket Extension & wrench

Wait

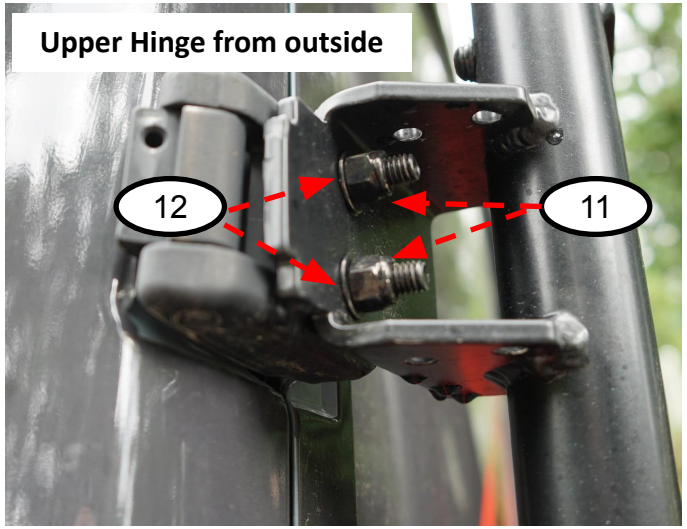
- Open the rear door
- Insert the bolts through the washer plates, and through the holes in the hinges from inside of the hinges
  - *Note, the orientation of the washer plates is critical
- Carefully lift the RLS frame up and position the brackets over the bolts sticking through the hinges.
- **Apply Anti-seize to the side of each bolt**
- Add a washer, and locknut to each bolt, snug the bolts up so the frame can easily move around, but do not tighten yet.



Cut out in washer plate faces the van



Clipped corner on washer plate faces down and towards the door



Loosely Bolt Frame to 3rd Mounting Point

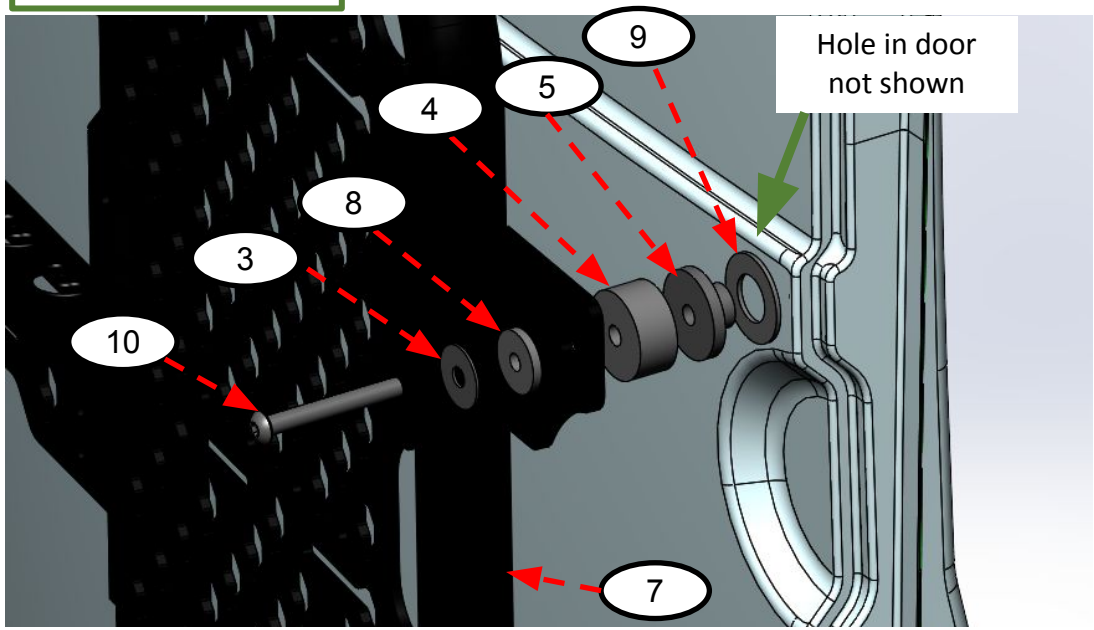
1 x

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

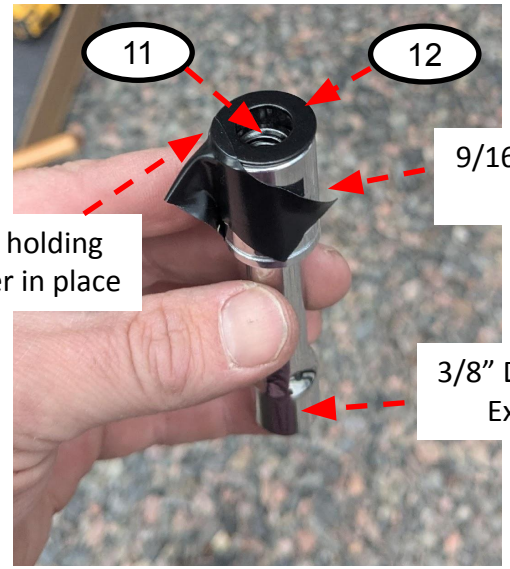
Wait

- Install 3rd point mounting hardware from the outside as shown
- Insert the 3/8” nut into a normal 9/16” shallow socket
- Place the 3/8” washer on the face of the shallow socket, and place a small piece of painters tape (preferable) or similar across the edge of the washer securing it to the shallow socket
- Use a 7/32 allen wrench to hold the bolt from the outside, and carefully insert the washer + nut + socket combination through the 23mm hole, and carefully start it onto the bolt inside of the door by hand.
- 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
- Snug up the hardware stack, but leave it loose so the hardware stack can lightly float around

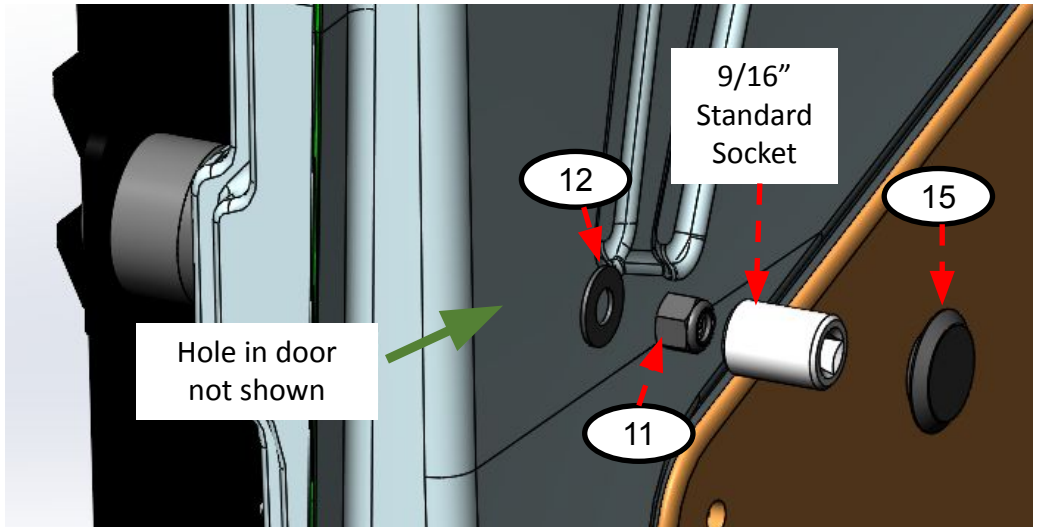
Exterior Hardware



Interior Hardware Prep



Interior Hardware



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