

# INSTALLATION GUIDE



## 1505-DH Cargo Rack

Sprinter Universal Wheelbase ( Aluminum )



# QUICK START GUIDE

## Phase 1 - Assembly

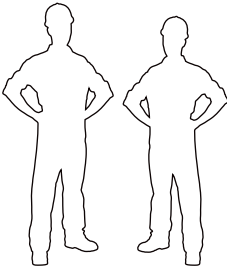
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## Phase 2 - Installation

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# REQUIRED ITEMS

**NOTE:** Use Sawhorses if possible, or use the box as a flat protective surface on the ground or table.



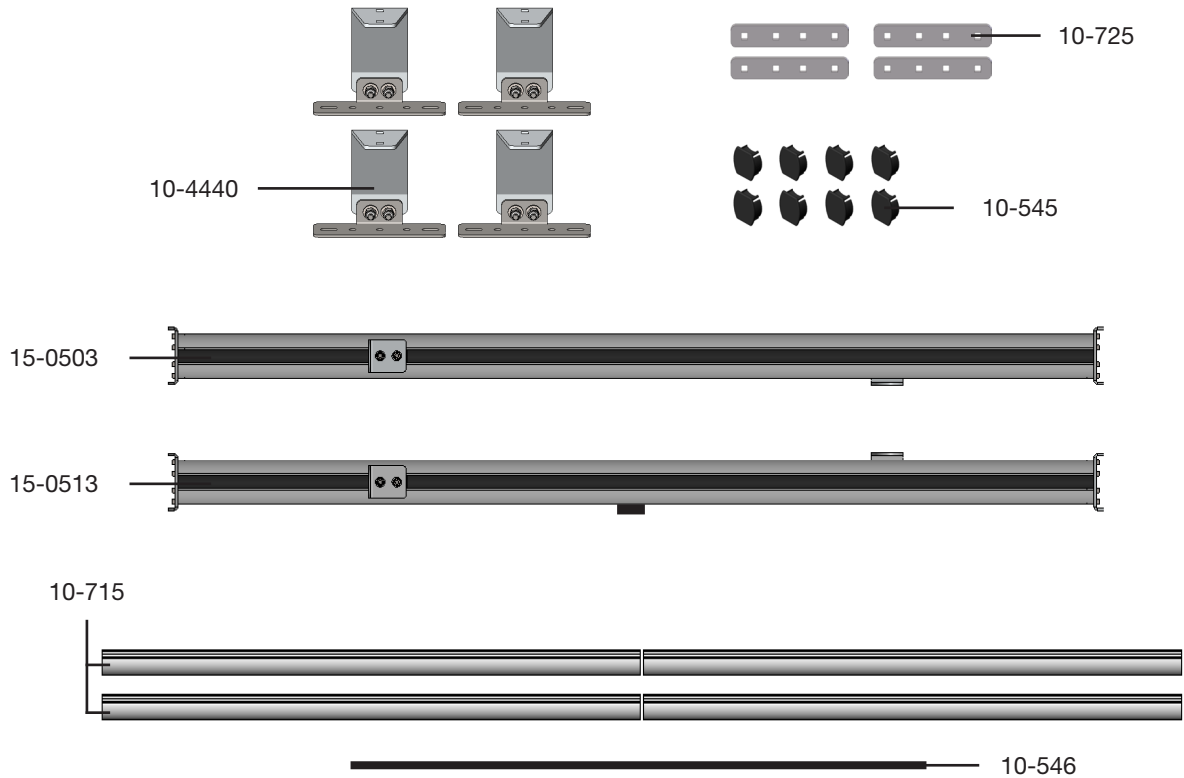
**2  
PERSONS**

- Cordless Impact
- Ratchet
- Tape Measure
- Marker
- Ladder
- Cutter
- 1/2" Socket
- Sawhorse ( Optional )
- Box
- Knife
- 1/2" Wrench
- Silicone

# PHASE 1 – ASSEMBLY

## 1.1 SETUP

1.1.1 Unpack components; compare with the bill of materials.



1.1.2 Verify all parts are present.

### BILL OF MATERIALS

Item No.	Description	Qty.
10-545	Ski Plastic Plug	8
10-546	Track Plug Extrusion ( QTY in Inches )	48
10-715	Mounting Track	4
10-725	Support Plate	4
10-4440	“C” Foot	4
15-0503	Front Crossbar	1
15-0513	Rear Crossbar	1
94-1008	Assembly Fastener Kit	1
96-1001	Install Fastener Kit	1

1.1.3 Fastener kits.





**94-1008 Fastener Kit**



**Fastener Assembly**

- 8x  # 90-491 Carriage Bolt  
5/16"-18 x 1"  
SS304
- 8x  # 94-105 Hex Nut  
5/16"-18  
SS316wax
- 8x  # 98-117 Flat Washer  
5/16", O.D 3/4"  
SS18-8
- 8x  # 98-123 Lock Washer  
Regular 5/16"  
SS304

**8x**

-  #90-491 Carriage Bolt 5/16" x 1"
-  #98-117 Flat Washer
-  #98-123 Lock Washer
-  #94-105 Hex Nut





**96-1001 Fastener Kit**







**Fastener Assembly**

- 8x  # 90-491 Carriage Bolt  
5/16"-18 x 1"  
SS304
- 16x  # 90-495 Carriage Bolt  
5/16"-18 x 1-1/4"  
SS304
- 8x  # 94-105 Hex Nut  
5/16"-18  
SS316wax
- 16x  # 94-116 Serrated Nut  
5/16"-18  
ZINC
- 16x  # 98-109 Flat Washer  
SAE 3/8"  
SS304
- 8x  # 98-117 Flat Washer  
5/16", OD 3/4"  
SS18-8
- 8x  # 98-123 Lock Washer  
5/16"  
SS304
- 16x  # 98-149 Spacer  
0.290" ID x 1.375" OD x 0.125" L  
NEOPRENE

**8x**

-  #90-491 Carriage Bolt 5/16" x 1"
-  #98-117 Flat Washer
-  #98-123 Lock Washer
-  #94-105 Hex Nut

**16x RANGER DESIGN TRACKS ONLY**

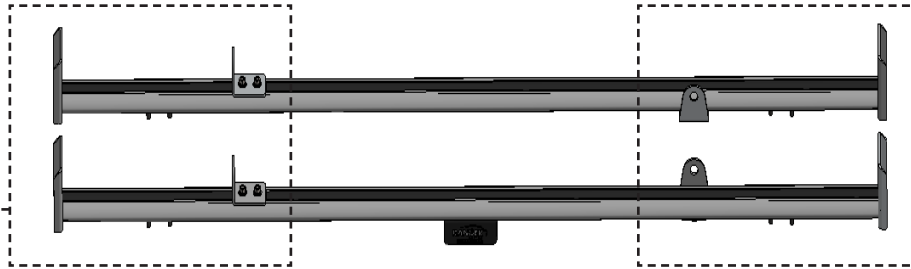
-  #90-495 Carriage Bolt 5/16" x 1-1/4"
-  #98-109 Flat Washer
-  #98-149 Neoprene Spacer
-  #94-116 Serrated Nut

# PHASE 1 – ASSEMBLY

## 1.2 CARGO RACK ASSEMBLY

1.2.1 Slide carriage bolts on the bottom face of the crossbars.

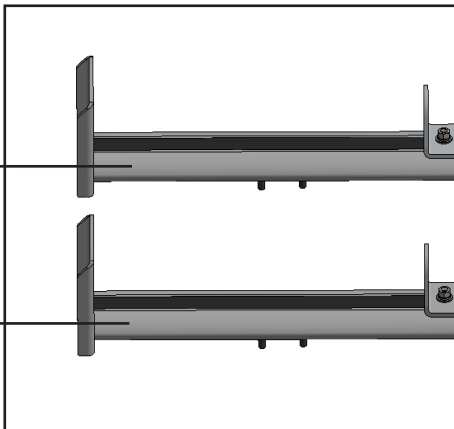
**NOTE:** The track plug must be removed from the underneath of the front crossbar, and reinstalled after the feet have been installed in the final position, see 2.3.4.



### DRIVER SIDE

#### Front crossbar

- Slide 2 pcs. of 1" carriage bolts.



#### Rear crossbar

- Slide 2 pcs. of 1" carriage bolts.

#### HARDWARE USED

4x

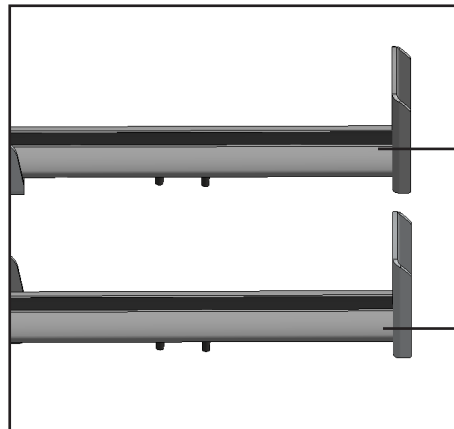


#90-491 Carriage Bolt  
5/16" x 1" SS304

### PASSENGER SIDE

#### Front crossbar

- Slide 2 pcs. of 1" carriage bolts.



#### Rear crossbar

- Slide 2 pcs. of 1" carriage bolts.

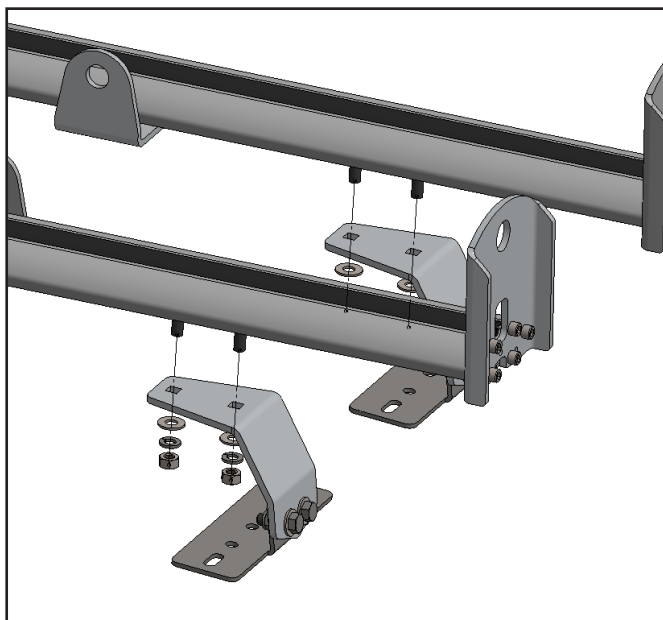
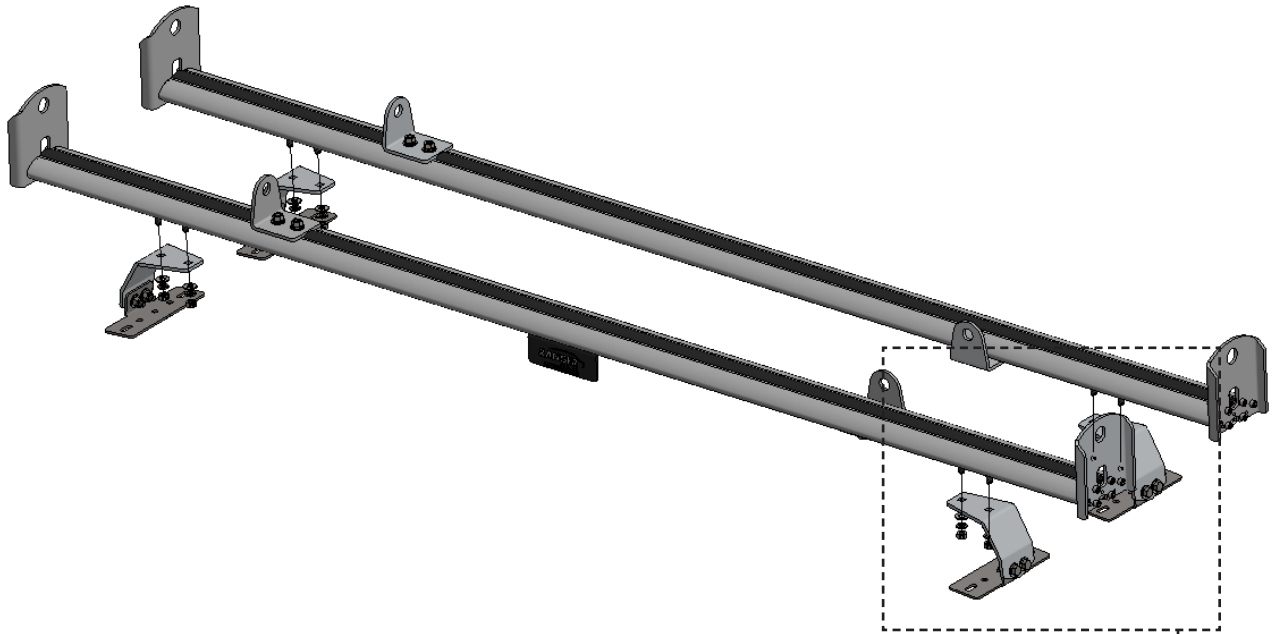
#### HARDWARE USED

4x



#90-491 Carriage Bolt  
5/16" x 1" SS304

1.2.2 Install the feet on the Front, and Rear Crossbars.



**HARDWARE USED**

**8x** HAND-TIGHTEN THE NUTS.



Carriage bolts are already on the crossbars.



#98-117 Flat Washer



#98-123 Lock Washer



#94-105 Hex Nut

# PHASE 2 – INSTALLATION

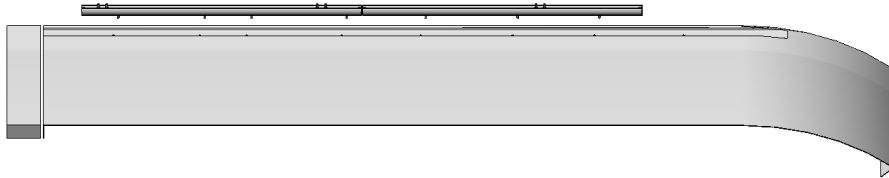
## 2.1 MOUNTING TRACKS PREPARATION FOR CARGO RACK WITH 3<sup>RD</sup> CROSSBAR

**NOTE:** This mounting preparation is for cargo rack with 3<sup>RD</sup> crossbar only.

### 2.1.1 Mounting tracks preparation for cargo rack with 3<sup>RD</sup> crossbar.

#### Ranger Design Tracks

Regular



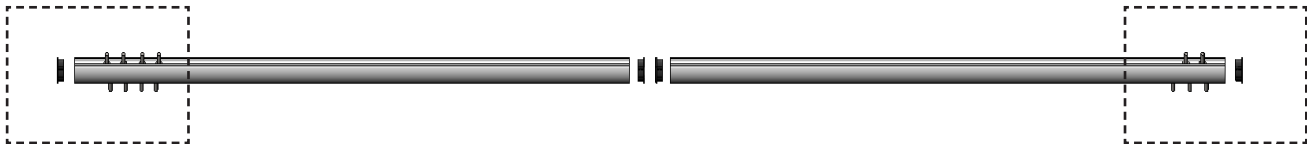
2x

Slide bolts on top and bottom side of the mounting tracks, then attach the end caps on both ends of the mounting tracks.

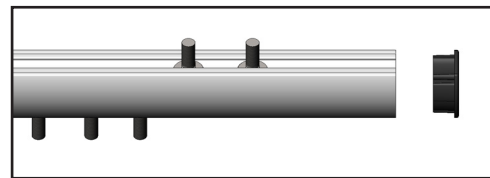
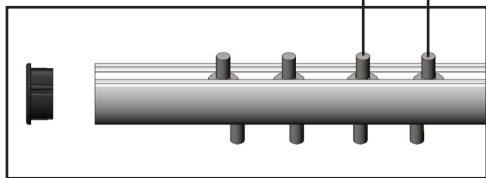
**NOTE:** Use the bolts in 96-1020 fastener kit of the 3<sup>RD</sup> crossbar for the top of the rear tracks.

Rear

Front



USE THE BOLTS IN 96-1020 FASTENER KIT OF 3<sup>RD</sup> CROSSBAR



#### HARDWARE USED

4x TOP



#90-491 Carriage Bolt  
5/16" x 1" SS304

4x BOTTOM



#90-495 Hex Bolt  
5/16" x 1 - 1/4" SS304

#### HARDWARE USED

2x TOP



#90-491 Carriage Bolt  
5/16" x 1" SS304

3x BOTTOM



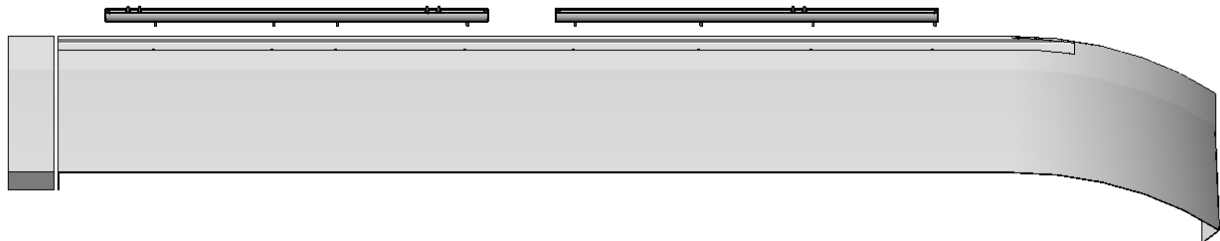
#90-495 Hex Bolt  
5/16" x 1 - 1/4" SS304

**NOTE:** This mounting preparation is for cargo rack with 3<sup>RD</sup> crossbar only.

### 2.1.2 Mounting tracks preparation for cargo rack with 3<sup>rd</sup> crossbar.

## Ranger Design Tracks

Extended



**2x**

Slide bolts on top and bottom side of the mounting tracks, then attach the end caps on both ends of the mounting tracks.

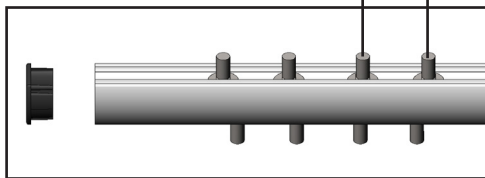
**NOTE:** Use the bolts in 96-1020 fastener kit of the 3<sup>rd</sup> crossbar for the top of the rear tracks.

**Rear**

**Front**



USE THE BOLTS IN 96-1020 FASTENER KIT OF 3<sup>RD</sup> CROSSBAR



**HARDWARE USED**

**4x TOP**

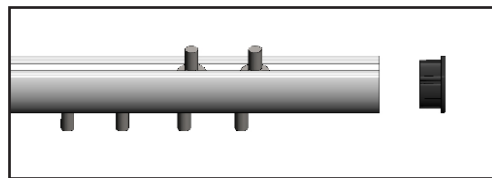


#90-487 Carriage Bolt  
5/16" x 3/4" SS304

**4x BOTTOM**



#90-495 Hex Bolt  
5/16" x 1 - 1/4" SS304



**HARDWARE USED**

**2x TOP**



#90-487 Carriage Bolt  
5/16" x 3/4" SS304

**4x BOTTOM**



#90-495 Hex Bolt  
5/16" x 1 - 1/4" SS304



# PHASE 2 – INSTALLATION

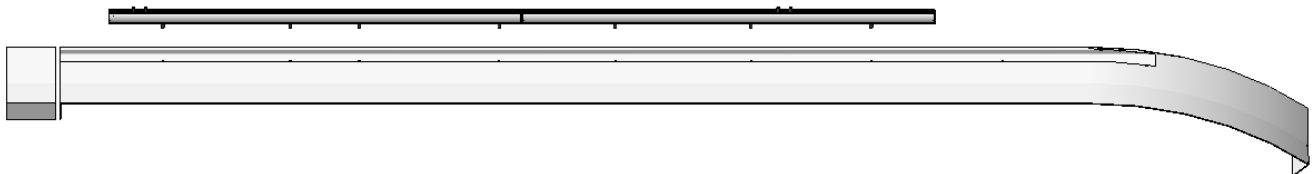
## 2.2 MOUNTING TRACKS PREPARATION FOR CARGO RACK WITHOUT 3<sup>RD</sup> CROSSBAR

**NOTE:** This mounting preparation is for cargo rack without 3<sup>rd</sup> crossbar only.

### 2.2.1 Mounting tracks preparation for cargo rack without 3<sup>rd</sup> crossbar.

#### Ranger Design Tracks

Regular

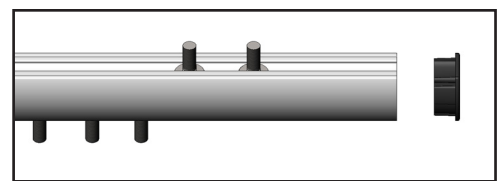
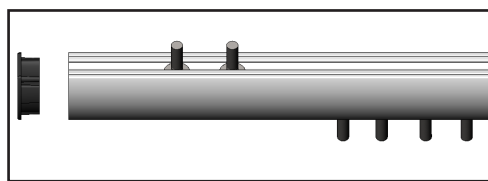
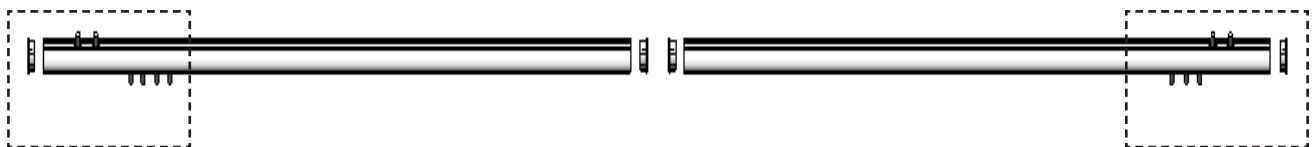


**2x**

Slide bolts on top and bottom side of the mounting tracks, then attach the end caps on both ends of the mounting tracks.

**Rear**

**Front**



#### HARDWARE USED

**2x TOP**



#90-491 Carriage Bolt  
5/16" x 1" SS304

**4x BOTTOM**



#90-495 Hex Bolt  
5/16" x 1 - 1/4" SS304

#### HARDWARE USED

**2x TOP**



#90-491 Carriage Bolt  
5/16" x 1" SS304

**3x BOTTOM**



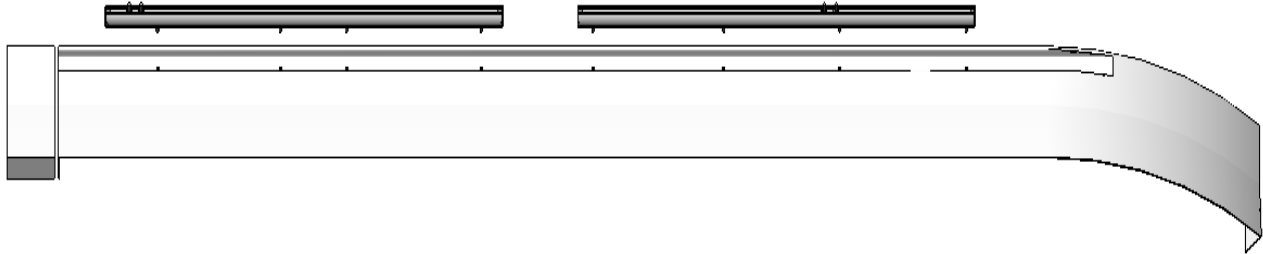
#90-495 Hex Bolt  
5/16" x 1 - 1/4" SS304

**NOTE:** This mounting preparation is for cargo rack without 3<sup>rd</sup> crossbar only.

### 2.2.2 Mounting tracks preparation for cargo rack without 3<sup>rd</sup> crossbar.

## Ranger Design Tracks

Extended

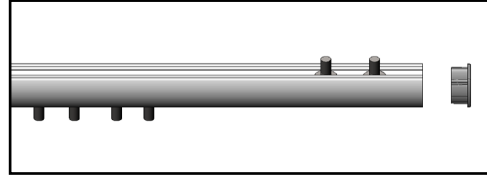
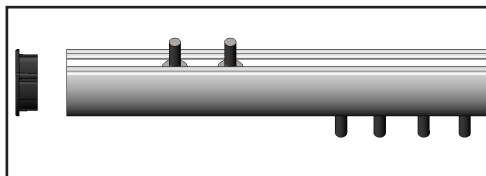


2x

Slide bolts on top and bottom side of the mounting tracks, then attach the end caps on both ends of the mounting tracks.

Rear

Front



#### HARDWARE USED

2x TOP



#90-487 Carriage Bolt  
5/16" x 3/4" SS304

4x BOTTOM



#90-495 Hex Bolt  
5/16" x 1 - 1/4" SS304

#### HARDWARE USED

2x TOP



#90-487 Carriage Bolt  
5/16" x 3/4" SS304

4x BOTTOM



#90-495 Hex Bolt  
5/16" x 1 - 1/4" SS304

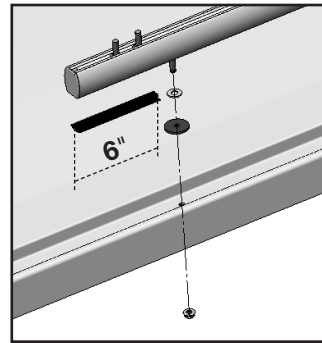
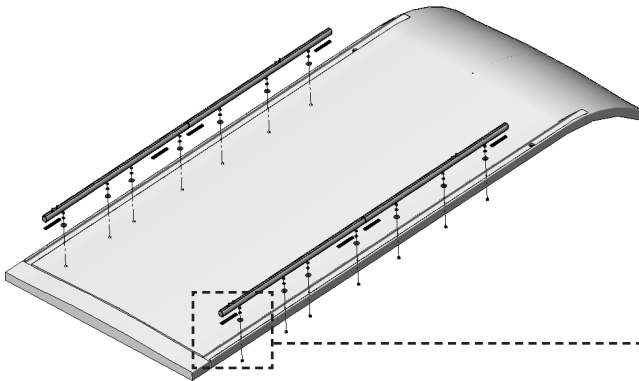
# PHASE 2 – INSTALLATION

## 2.3 MOUNTING TRACKS INSTALLATION

### Ranger Design Tracks

- 2.3.1
- Remove the plugs on the roof holes, then apply a bead of silicone around each hole.
  - Put flat washers and neoprene spacers on the bottom bolts, then cut the plug extrusion into 8 pieces of 6" and attach one piece on both ends of the mounting tracks.
  - Align the bottom bolts to the roof holes, then install the mounting tracks onto the roof.

Regular



**TOOLS**

- Cordless Impact
- 1/2" Socket
- Knife

14x



#90-495 Carriage Bolt 5/16" x 1-1/4"



#98-109 Flat Washer

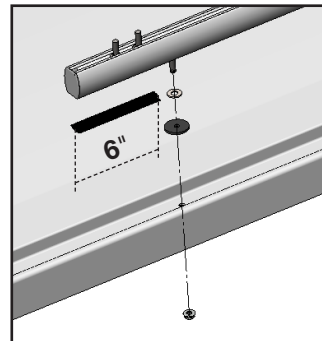
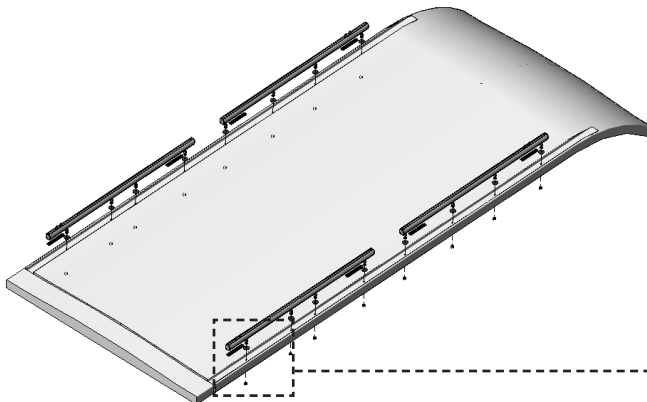


#98-149 Neoprene Spacer



#94-116 Serrated Nut

Extended



**TOOLS**

- Cordless Impact
- 1/2" Socket
- Knife

16x



#90-495 Carriage Bolt 5/16" x 1-1/4"



#98-109 Flat Washer



#98-149 Neoprene Spacer

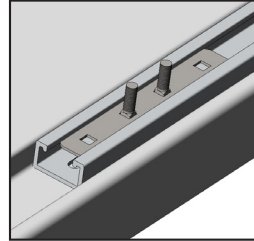
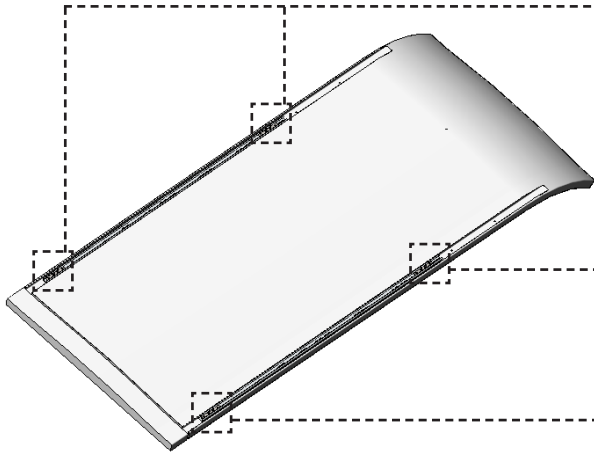


#94-116 Serrated Nut

## With OEM Tracks

2.3.2 Put bolts on the 2 middle holes of the support plates, then slide the plates on the ends of the OEM mounting tracks.

**WARNING:** If you have ladder rack 3<sup>rd</sup> crossbow slide 3 support plates each OEM mounting track.



**FASTENERS USED**

**8x**



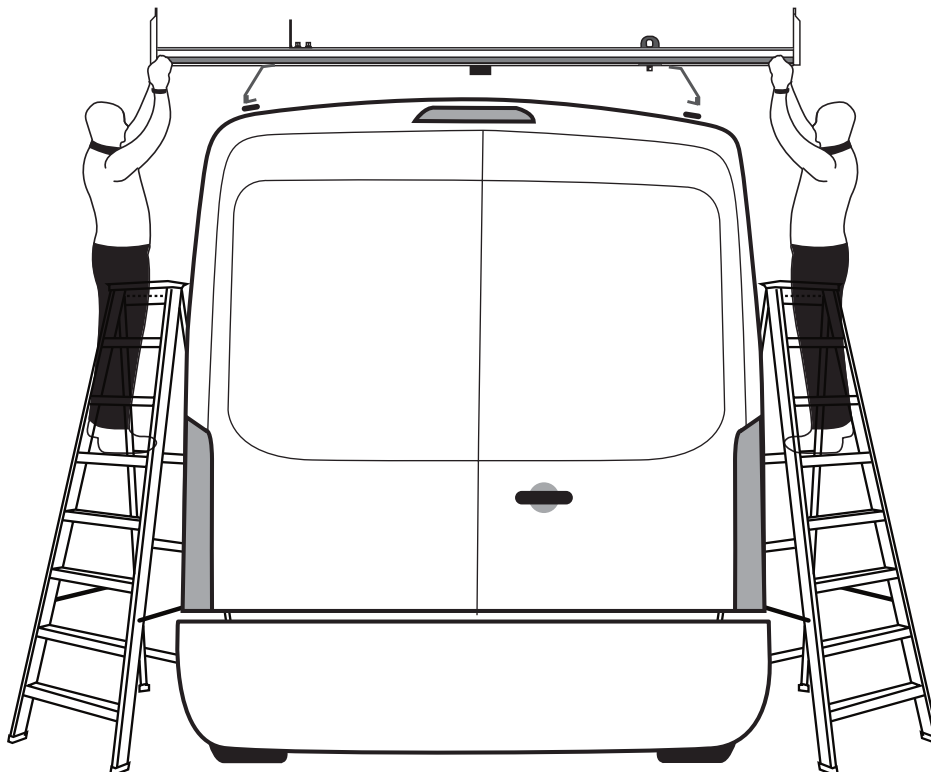
#90-491 Carriage Bolt 5/16" x 1"

## PHASE 2 – INSTALLATION

### 2.4 CARGO RACK INSTALLATION

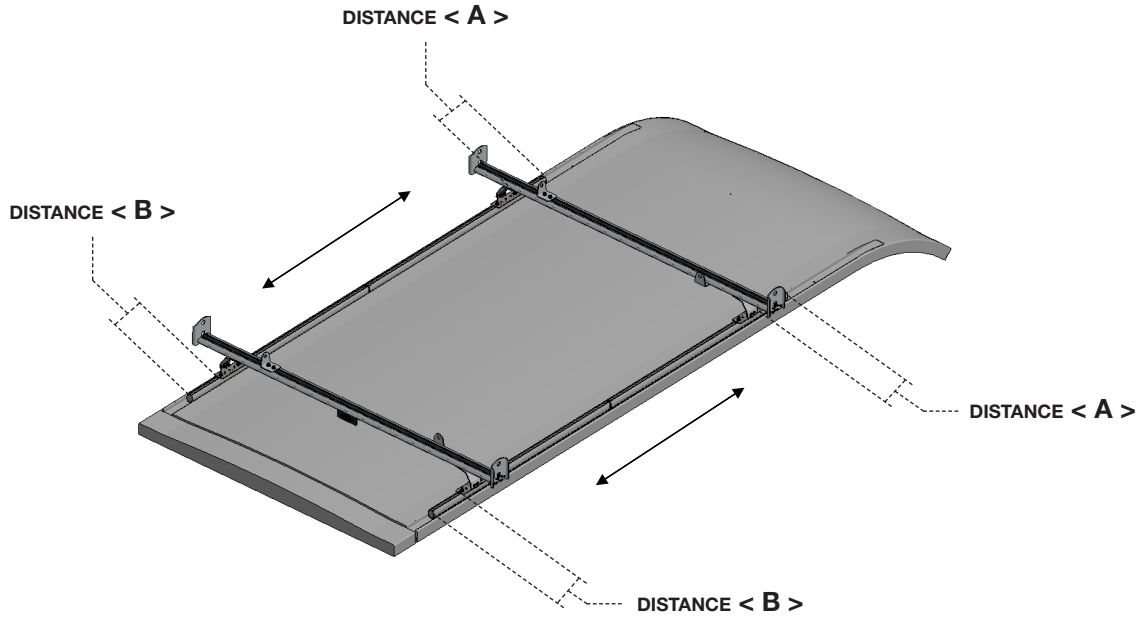
2.4.1 Position the front and rear crossbars ( **minimum two persons** ) on the vehicle so that the feet are on the mounting tracks.

#### Cargo Rack

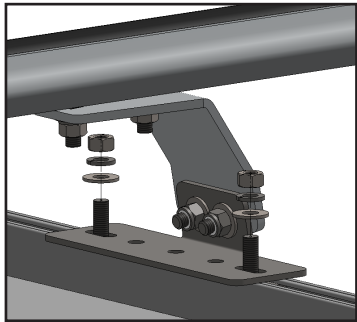


- 2.4.2**
- Make sure the crossbars are parallel to each other at the desired distance apart, then attach all the “C” feet to the mounting tracks.
  - Tighten the bolts that attach the foot plate to the ladder rack leg.

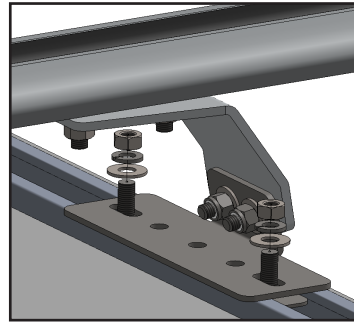
DISTANCE < FOOT TO END OF TRACK >



### Ranger Design Tracks



### With OEM Tracks



#### TOOLS

- Ratchet
- 1/2" Socket
- Tape Measure

#### FASTENERS USED

8x



Carriage bolts are already on the tracks or plates



#98-117 Flat Washer



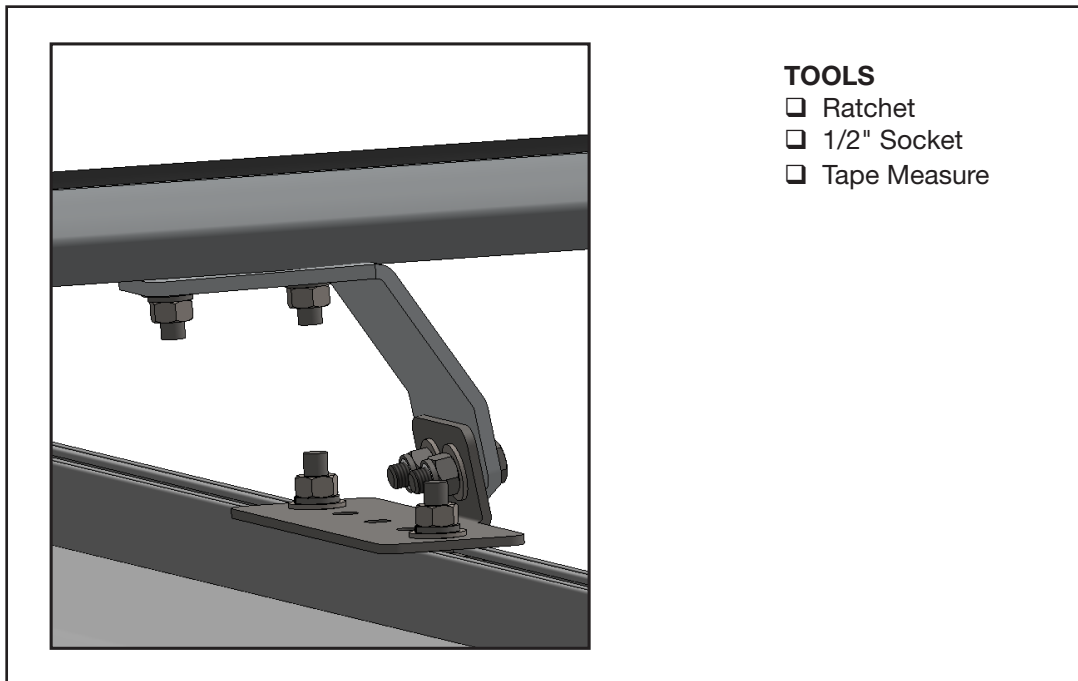
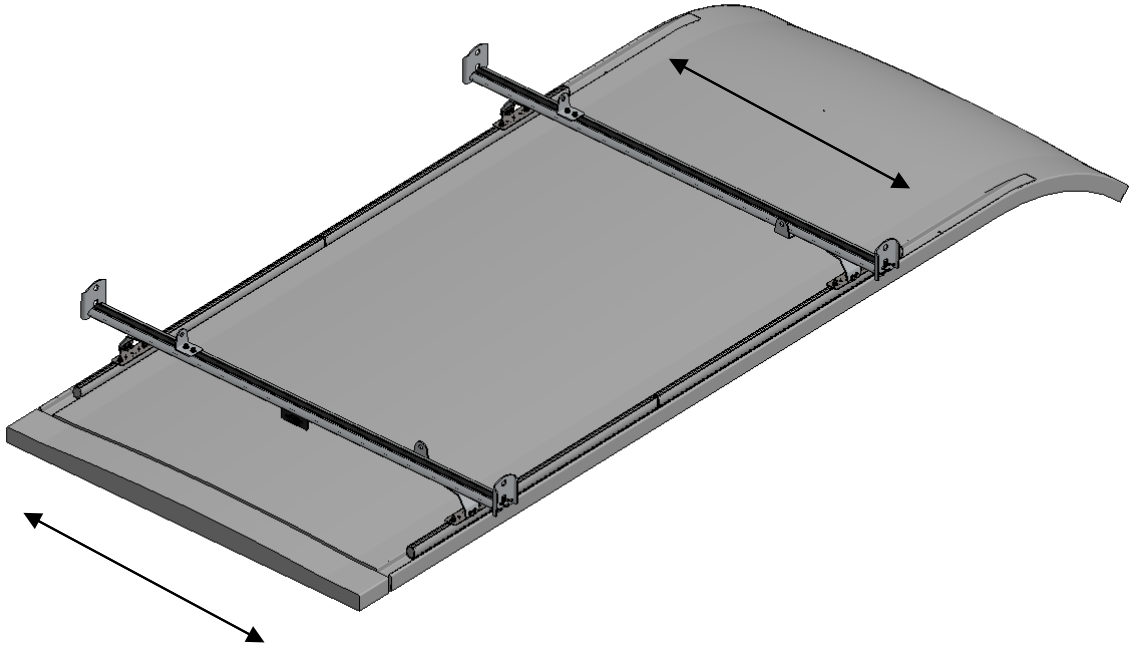
#98-123 Lock Washer



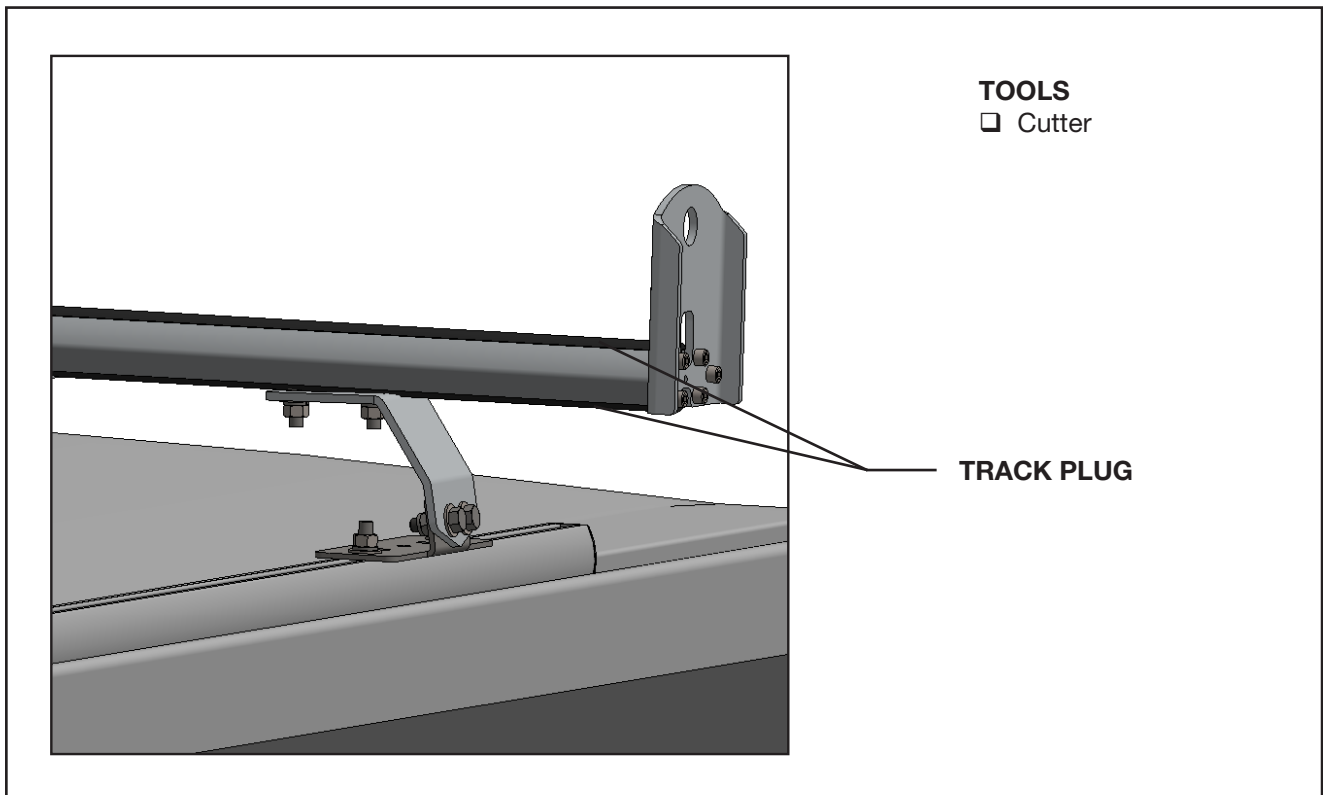
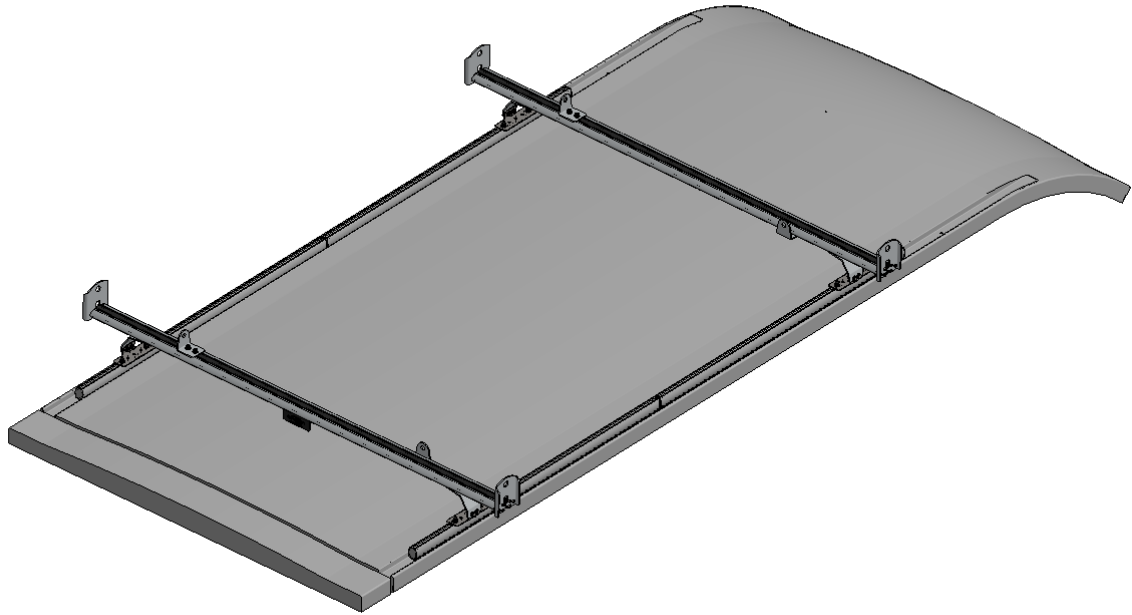
#94-105 Hex Nut

**2.4.3** Center the crossbars on the vehicle, then tighten all the “C” feet to the crossbars.

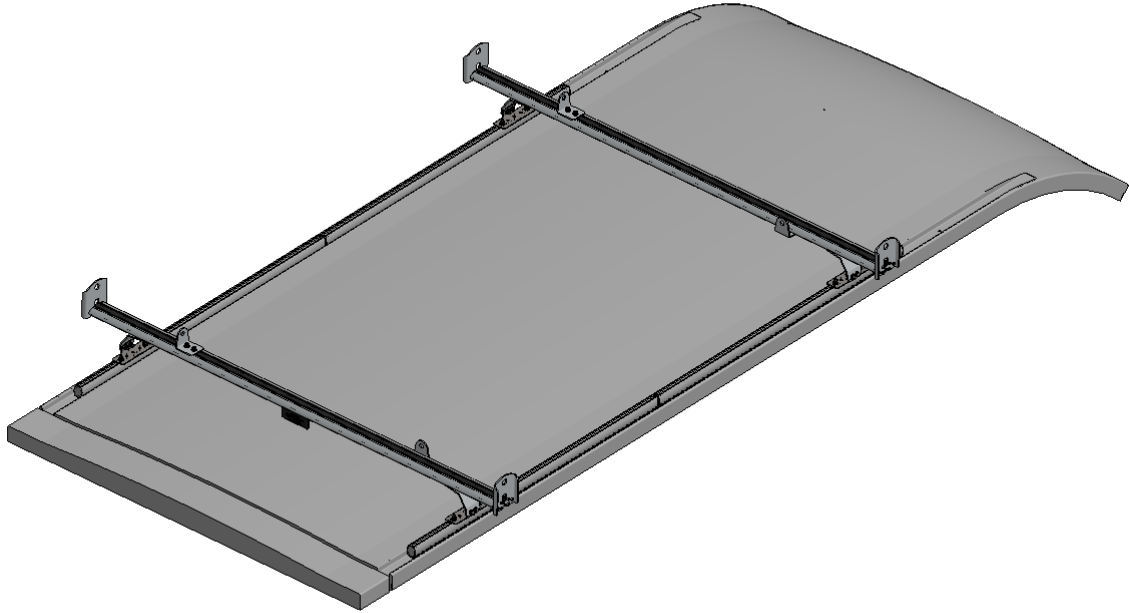
**IMPORTANT:** Place the cargo rack warning label on a visible area, recommended on a partition.



**2.4.4** After installation is complete, cut the track plug underneath the front crossbar to fill all the unused space. Failure to do so will result in excessive wind noise.



**IMPORTANT:** If you have the third crossbar, open your third crossbar box, then follow the installation guide to guide you how to install your third crossbar.



**“You have successfully installed your  
1505-DH Cargo Rack**

**Thank you for doing business with us.”**

For any feedback or suggestions you may have, please contact: [cs@rangerdesign.com](mailto:cs@rangerdesign.com)

