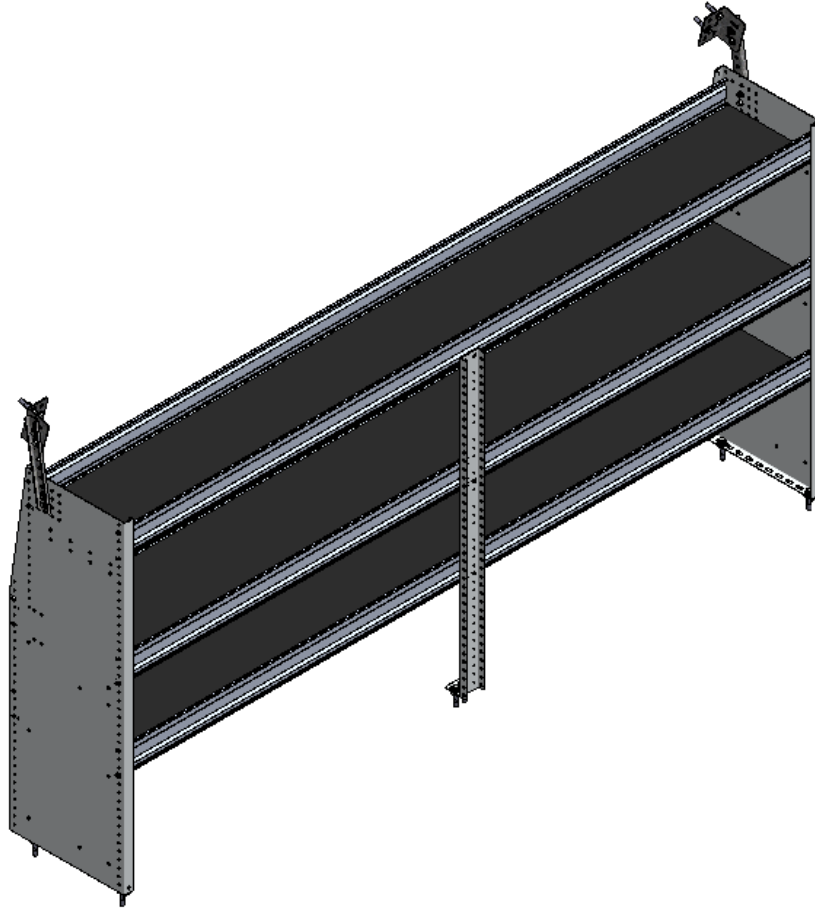


# INSTALLATION GUIDE



## N4-RA96-3 Shelving (ALUMINUM)

Transit Low Roof

Nissan NV Low Roof

GM Savana

# QUICK START GUIDE

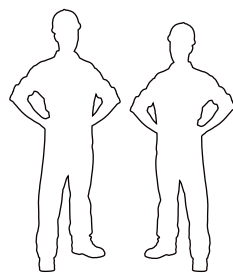
## Phase 1 - Assembly

❑ 1.1 Setup.....	3 - 4
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## Phase 2 - Installation

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# REQUIRED ITEMS



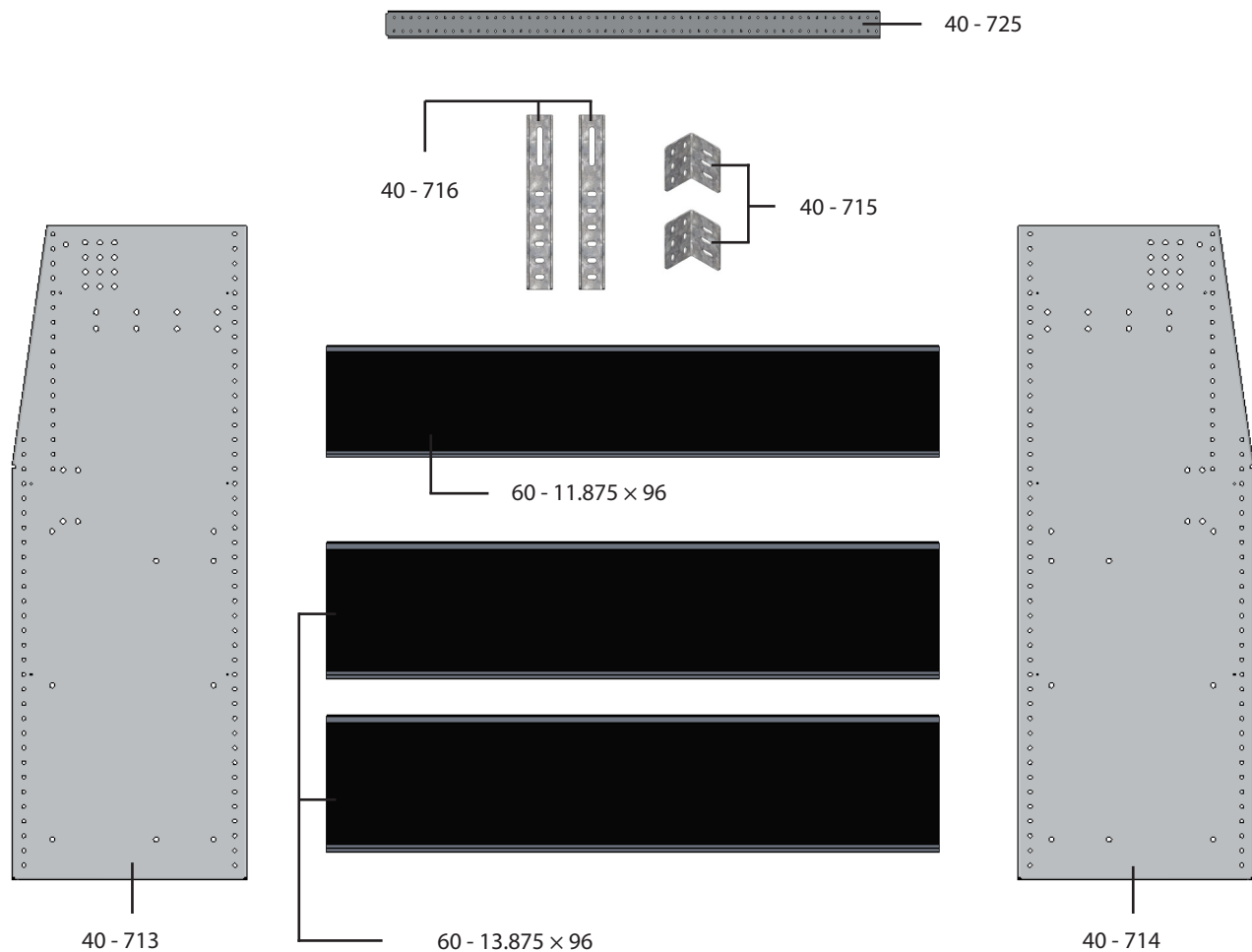
2  
PERSONS

- ❑ Cordless Impact
- ❑ Cordless Drill
- ❑ Tape Measure
- ❑ Marker
- ❑ 1/2" Socket
- ❑ 1/2" Drill Bit w/ Drill Collar ( Set at 1/2" )
- ❑ 3/8" Driver Bit
- ❑ Knife
- ❑ Plusnut Tool / Plusnut Gun ( 5/16" )

# 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.
40 - 725	Center Post, Low roof	1
40 - 715	Bracket head	2
40 - 716	Bracket arm	2
40 - 713	End Panel ( Left )	1
40 - 714	End Panel ( Right )	1
60 - 11.875 x 96	Shelf Tray, Black Plywood, Usable 12" x 96"	1
60 - 13.875 x 96	Shelf Tray, Black Plywood, Usable 14" x 96"	2
94 - 4028	Assembly Fastener Kit	1
96 - 4028	Install Fastener Kit	1

1.1.3 Fastener kits.

94 - 4028 Fastener Kit				Fastener Assembly
8×		# 90-204	Hex Bolt 5/16"-18 × 3/4" GR-5 ZINC	<div>8×</div> <div><div>#90-204 Hex Bolt 5/16" × 3/4"</div><div>#98-116 Flat Washer</div><div>#94-116 Serrated Nut</div></div>
6×		# 92-200	Screw HFH #10 - 16 × 3/4" ZINC	
24×		# 92-102	Screw HWH #14 × 1" ZINC	
8×		# 94-116	Serrated Nut 5/16"-18 ZINC	<div>6×</div> <div><div>#92-200 Screw #10 - 16 × 3/4"</div></div>
8×		# 98-116	Flat Washer 5/16" - 18 × 1" ZINC	<div>24×</div> <div><div>#92-102 Screw #14 × 1"</div></div>

96 - 4028 Fastener Kit				Fastener Assembly
4×		# 90-212	Hex Bolt 5/16"-18 × 1-1/4" GR-5 ZINC	<div>4×</div> <div><div>#90-212 Hex Bolt 5/16" × 1-1/4"</div><div>#98-122 Lock Washer</div><div>#98-116 Flat Washer</div><div>#94-132 5/16" Plusnut</div></div>
6×		# 90-011	Hex Bolt 5/16"-18 × 1-3/4" GR-5 ZINC	
10×		# 94-132	Plusnut	
10×		# 98-116	Flat Washer 5/16", O.D. 7/8" ZINC	<div>6×</div> <div><div>#90-011 Hex Bolt 5/16" × 1-3/4"</div><div>#98-122 Lock Washer</div><div>#98-116 Flat Washer</div><div>#98-157 Spacers ( QTY = GAP BETWEEN FLOOR AND END PANEL )</div><div>#94-132 5/16" Plusnut</div></div>
10×		# 98-122	Lock Washer 5/16" ZINC	
6×		# 98-157	Spacer 0.375" ID, × 1.0" OD × 0.25" LONG NYLON	

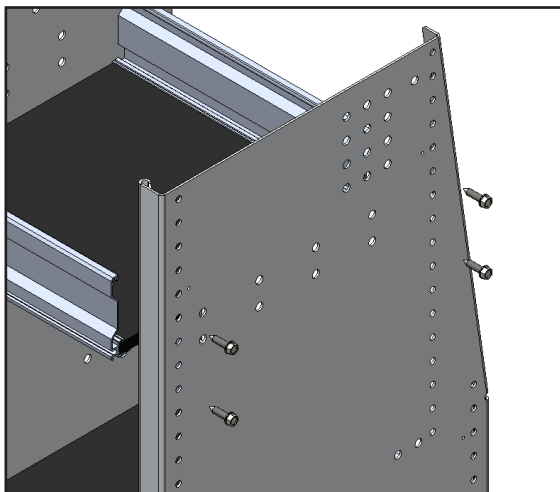
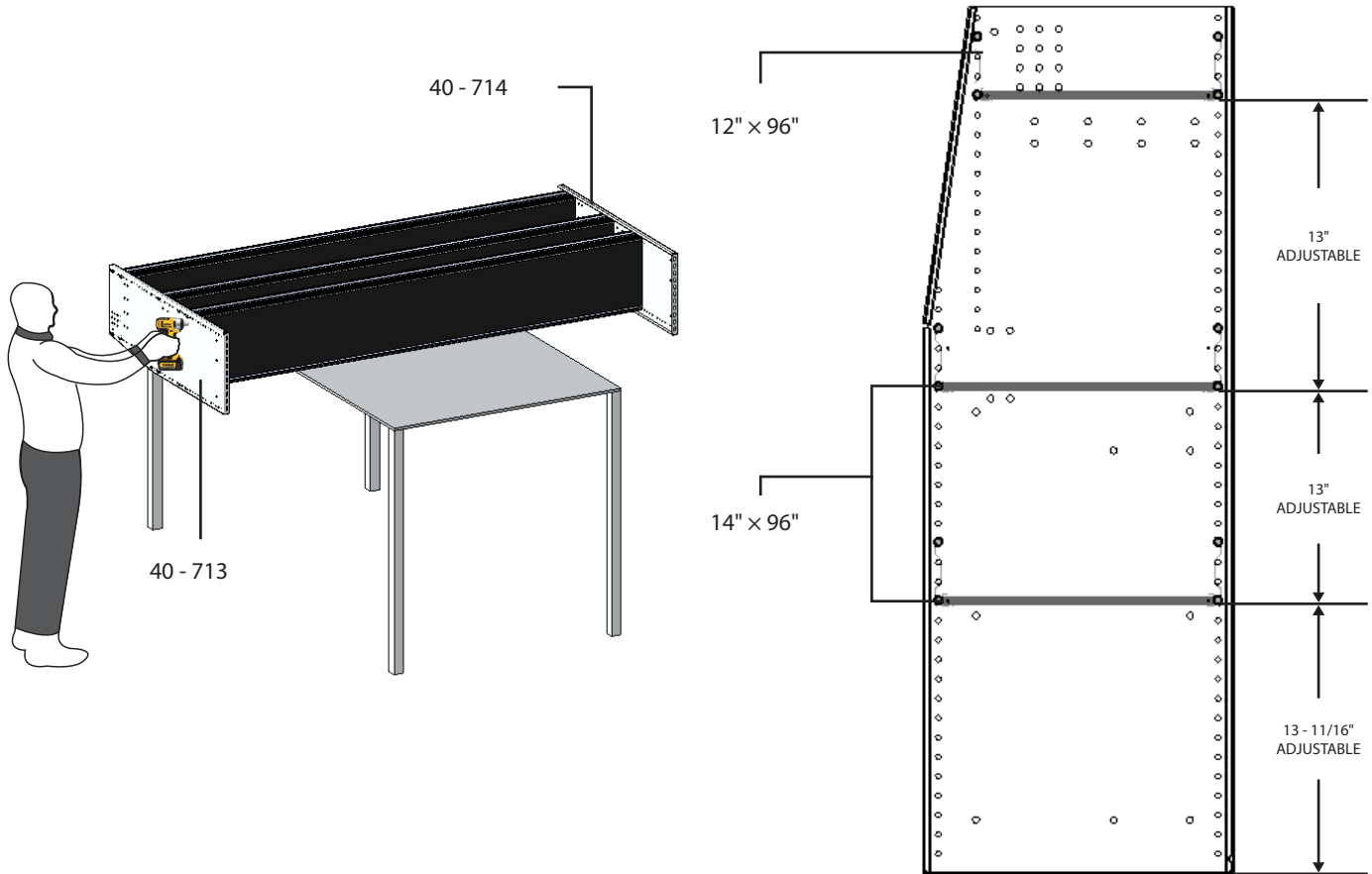
# PHASE 1 – ASSEMBLY

## 1.2 SHELF ASSEMBLY

1.2.1 Attach both panels to the shelf trays.

NOTE: You can adjust the bottom shelf location to maximize or minimize your space over the wheel.

IMPORTANT: Always handle panels on a smooth, protected and clean surface to avoid unnecessary scratching.



### TOOLS

- Cordless Impact
- 3/8" Driver Bit

### HARDWARE USED

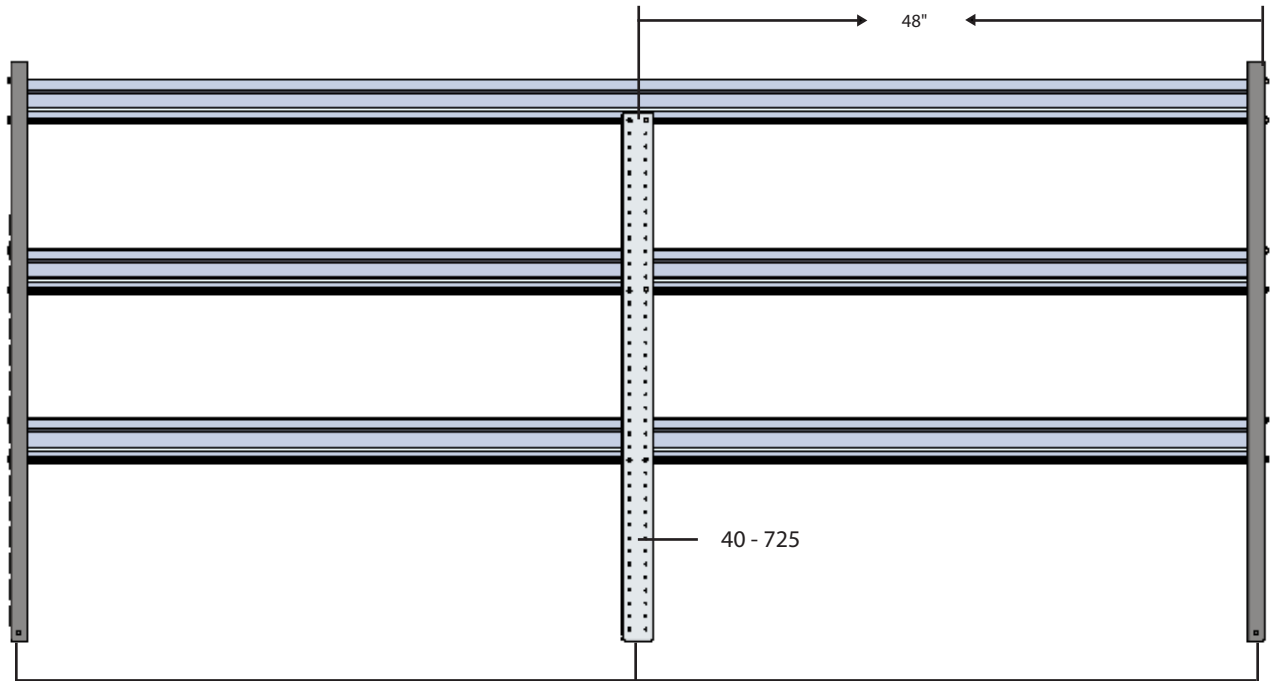
24x



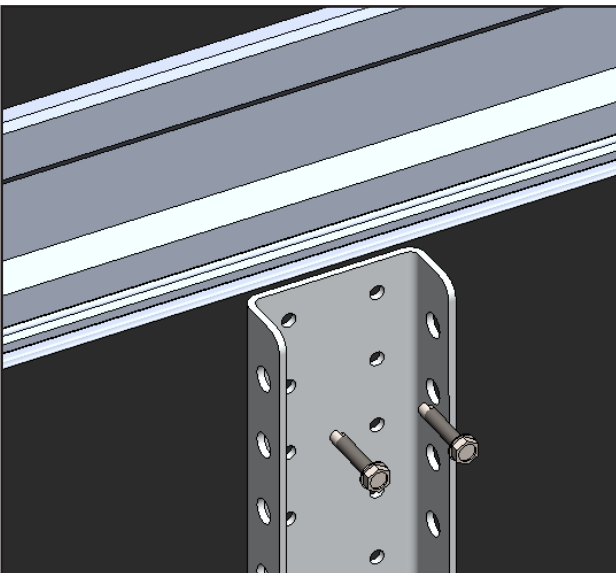
#92-102 Screw #14 x 1"

1.2.2 Attach the center post to the center front face of the shelf.

**IMPORTANT:** The center post should be attached in the center of the shelf.



NOTE: The bottom flange of the center post need to be flush with the bottom of the end panel.



#### TOOLS

- ☐ Cordless Impact
- ☐ 3/8" Driver Bit

#### HARDWARE USED

6X

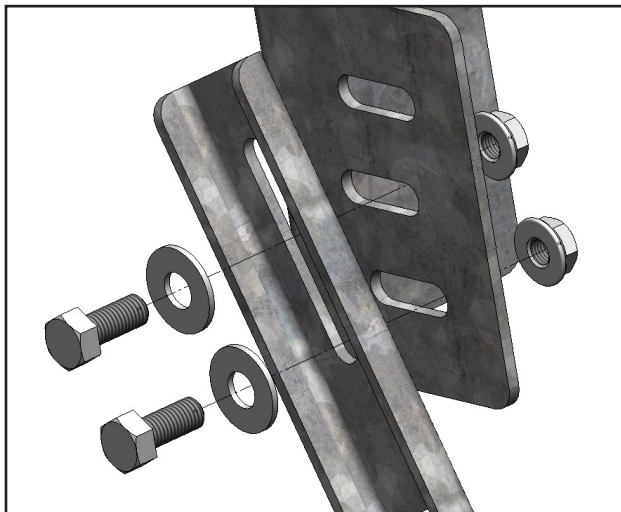
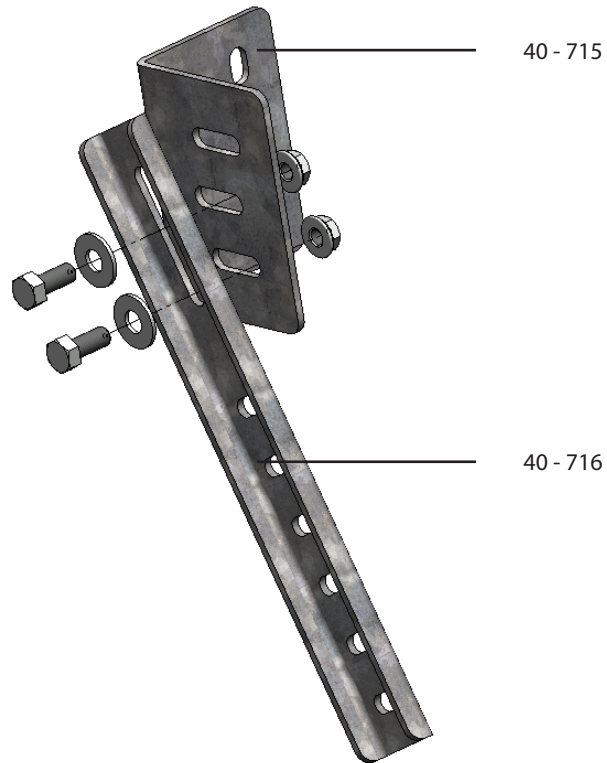


#92-200 Screw #10 - 16 x 3/4"

1.2.3 Attach the bracket head to the bracket arm.

NOTE: Hand-tighten the bolts for adjustment.

2x



#### TOOLS

- Cordless Impact
- 1/2" Socket

#### HARDWARE USED

4x HAND-TIGHTEN THE BOLTS



#90-204 Hex Bolt 5/16" x 3/4"



#98-116 Flat Washer



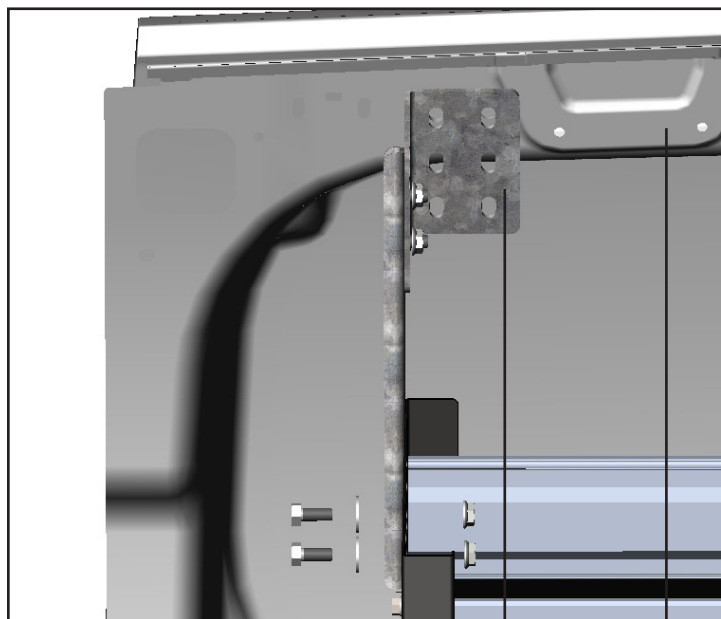
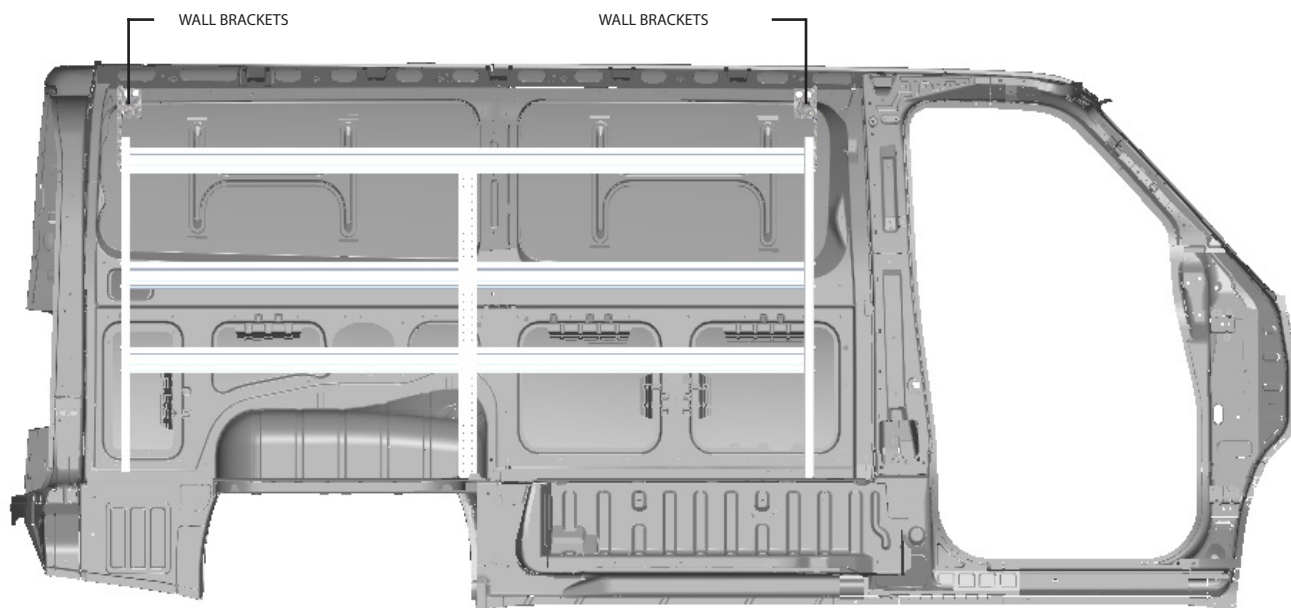
#94-116 Serrated Nut

# PHASE 2 – INSTALLATION

## 2.1 ATTACH WALL BRACKETS TO THE END PANELS

- 2.1.1 • Lift the assembled shelf to the vehicle, then put it in place.  
• Attach the bracket arm to the panels aligning the brackets head to the horizontal rim of the vehicle.

NOTE: Handle with care.



### TOOLS

- ❑ Cordless Impact
- ❑ 1/2" Socket

### HARDWARE USED

4X HAND-TIGHTEN THE BOLTS



#90-204 Hex Bolt 5/16" × 3/4"



#98-116 Flat Washer



#94-116 Serrated Nut

BRACKET HEAD

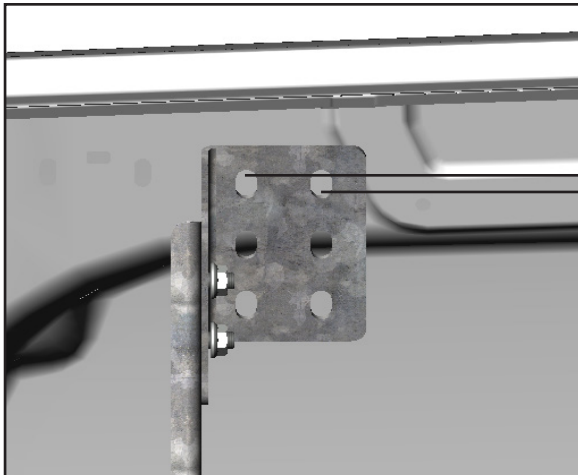
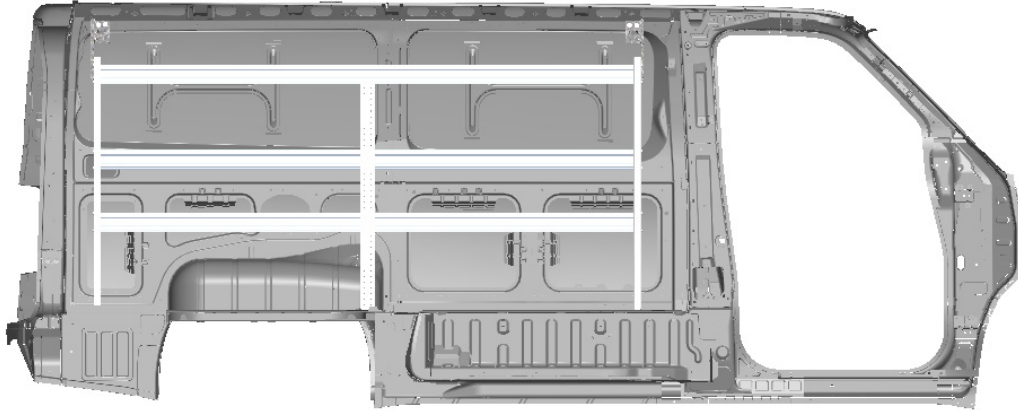
HORIZONTAL RIM



# PHASE 2 – INSTALLATION

## 2.2 MARK HOLES FOR PLUS NUTS

2.2.1 After attaching the brackets mark the holes on the brackets, end panels and center post to the vehicle.



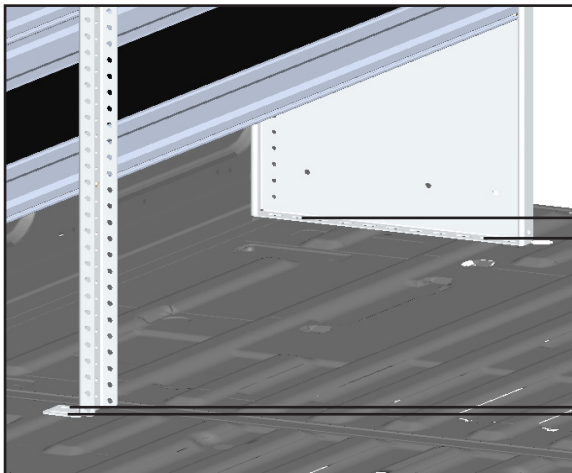
Mark 2 holes of the brackets head on the vehicle horizontal rim.

NOTE: If you are using Ranger wall kit, please go to PAGE 15.

### TOOLS

☐ Marker

MARK



Mark 2 holes of each end panel and mark also the 2 holes of the center post on the vehicle floor.

NOTE: If you are using Ranger floor, please go to PAGE 13.

### TOOLS

☐ Marker

MARK

# PHASE 2 – INSTALLATION

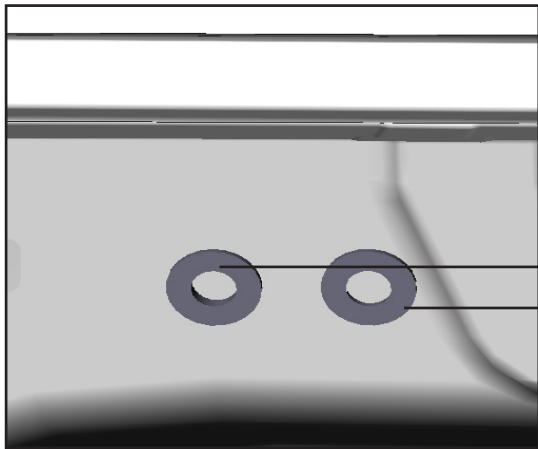
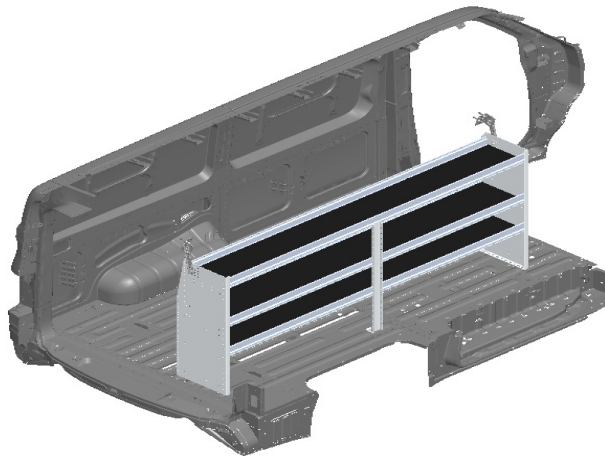
## 2.3 ATTACH PLUS NUTS

2.3.1 • Lift the assembled shelf on the side.

- Drill all the marks using 1/2" drill bit w/ drill collar, then attach plus nuts to the holes.

NOTE: Use 1/2" drill bit with drill collar to stop drill at 1/2" depth.

WARNING: Before drilling, ensure that you will not hit any critical parts of the vehicle like the Gas tank, Wiring Harness and Hose.



### PLUSNUT

Drill all the marks then, attach plus nuts to the holes.

### TOOLS

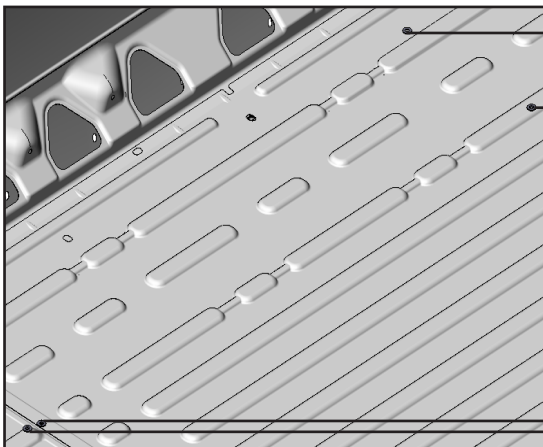
- ☐ Cordless Drill
- ☐ 1/2" Drill Bit w/ Drill Collar ( Set at 1/2" )
- ☐ Plus Nut Tool ( 5/16" )

### HARDWARE USED

10x



#94-132 Plus Nut

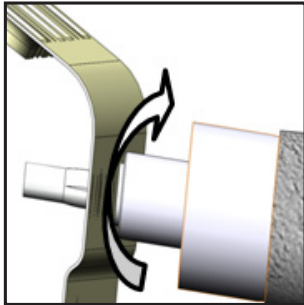


DRILL COLLAR  
( SET AT 1/2" )

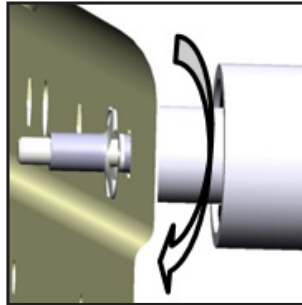
### 2.3.2 How to attach plus nut.

#### • USING PLUSNUT GUN

STEP: Put the plusnut on the plusnut gun, then attach the plus nut in the hole by turning the gun forward until the plus nut locks, then remove the gun by turning in reverse.



FORWARD

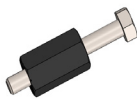


REVERSE



#### • USING THE 6491 PLUSNUT TOOL

NOTE: The hardware used for the 6490 plusnut tool is not included in the fastener bag.  
The 6490 plusnut tool can be ordered separately upon demand at no charge.




6491



#### HARDWARE USED

-  Flat washer 5/16"
-  Flat washer 5/16" BS x 7/8" OD

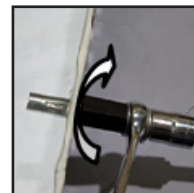
#### TOOLS

-  Cordless Impact
-  1/2" Socket
-  9/16" Wrench

STEP 1:  
Assemble the 6491 plusnut tool with the hardware needed, plus nut and the 9/16" wrench as shown.



STEP 2:  
Attach the plus nut in the hole by turning the bolt forward using an impact with a 1/2" socket until the plusnut locks, then remove the bolt by turning the impact in reverse.



FORWARD



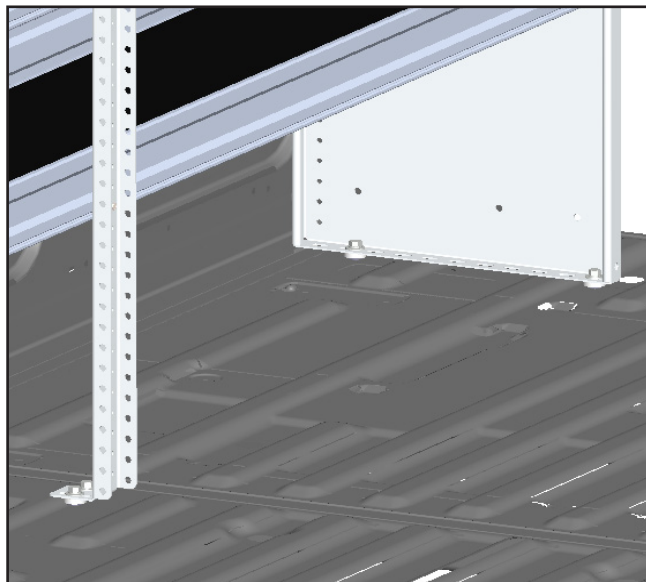
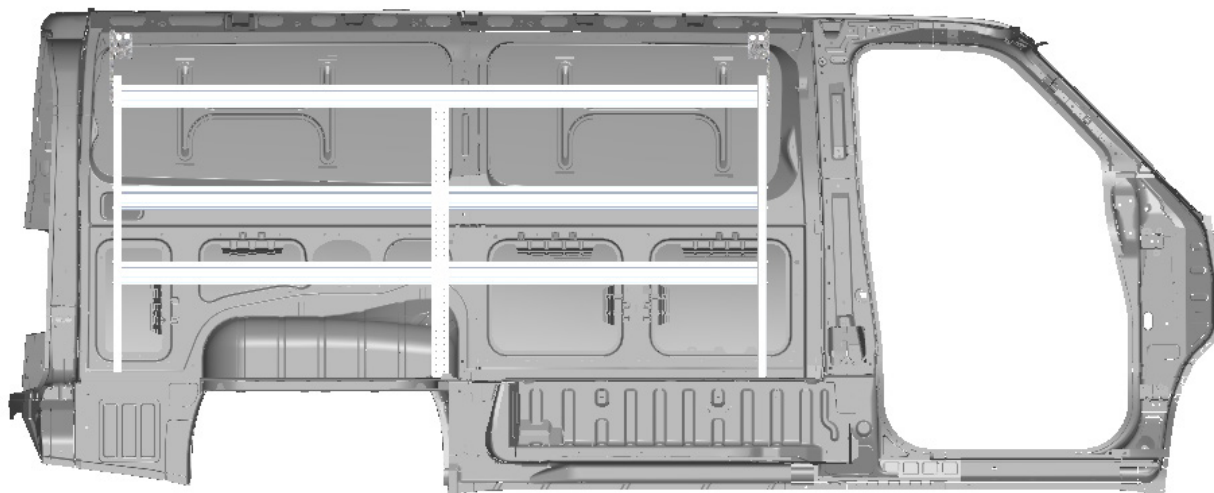
REVERSE

# PHASE 2 – INSTALLATION

## 2.4 ATTACH SHELF UNIT TO THE FLOOR

### WITHOUT RANGER FLOOR

2.4.1 Put the assembled shelf back in place aligning the holes to the plusnuts, then install the end panels and center post to the plus nuts.



#### TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

#### HARDWARE USED

6X



#90-011 Hex Bolt 5/16" × 1-3/4"



#98-122 Lock Washer



#98-116 Flat Washer

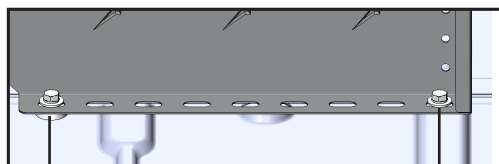


#98-157 Spacers  
( QTY = GAP BETWEEN FLOOR AND END PANEL )



#94-132 5/16" Plusnut

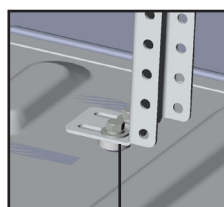
MOST VEHICLE USE 1 SPACER WHEN NOT OVER RIBS



W/ Spacer

W/O Spacer

NOTE: Fastener should always be installed as close to the vertical face as possible.



W/ Spacer

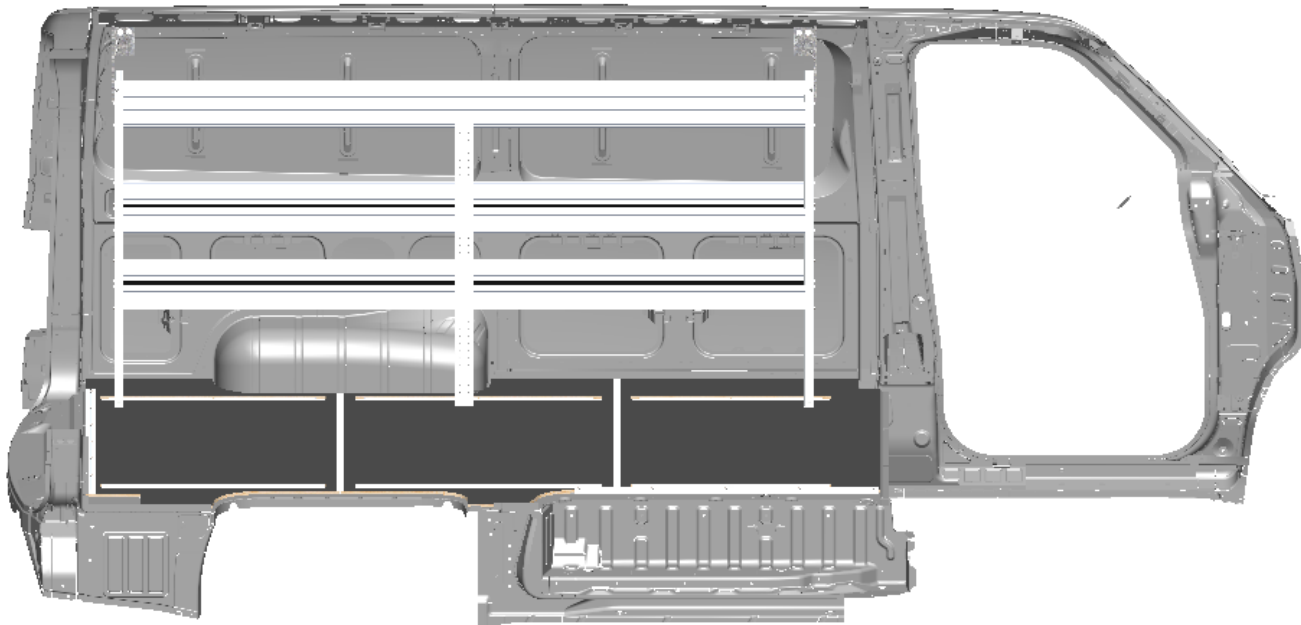


W/O Spacer

## WITH RANGER FLOOR

2.4.2 • Lift the shelving unit inside the van, then put it in place.

- Install the shelving unit to the floor mounting track by sliding bolts in the mounting tracks, and putting screw in the last rear slot of the end panels of the shelving unit.



### TOOLS

- Cordless Impact
- 3/8" Driver Bit
- 1/2" Socket

### HARDWARE USED

2X FLOOR FASTENER KIT



#92-102 Screw 1"

### HARDWARE USED

2X FLOOR FASTENER KIT



#90-490 Carriage Bolt 5/16" x 1"



#98-116 Lock Washer



#98-122 Flat Washer



#94-104 Hex Nut

# PHASE 2 – INSTALLATION

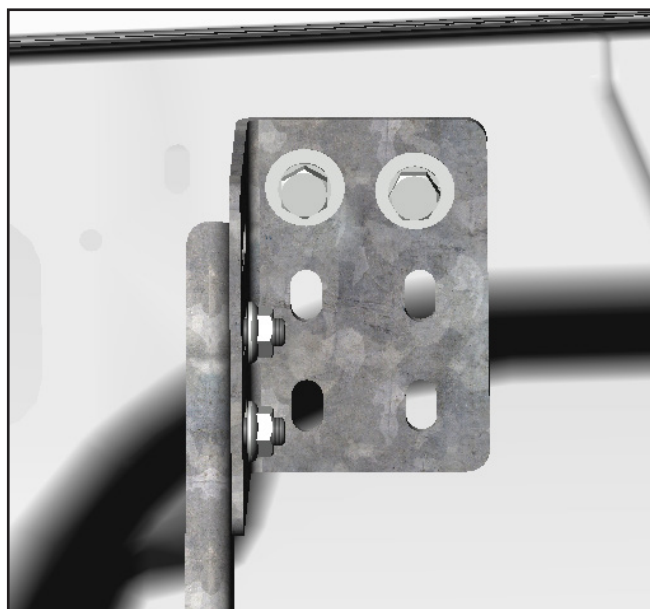
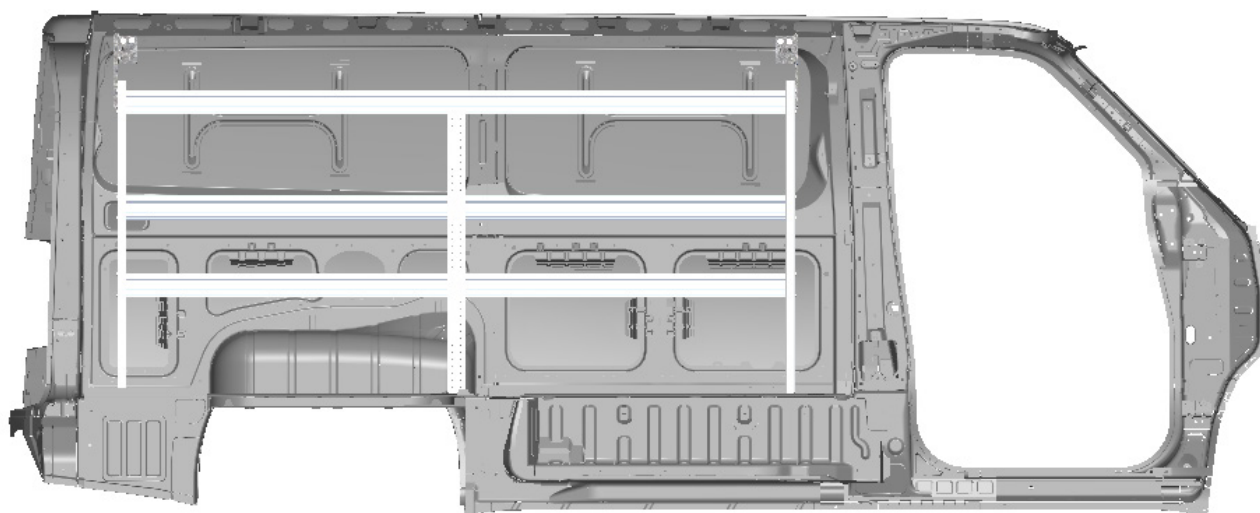
## 2.5 ATTACH WALL BRACKETS

### WITHOUT RANGER WALL KITS

2.5.1 Aligned the wall brackets to the plus nuts, then install the wall brackets to the wall.

NOTE: Tightened the bolts that used to attached the wall bracket to the wall or wall kits 1<sup>st</sup> before the bolts that used to attached the wall bracket to the end panel.

IMPORTANT: After installation is completed, ensure all bolts are tightened.



#### TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

#### HARDWARE USED

4×



#90-212 Hex Bolt 5/16" × 1-1/4"

#98-122 Lock Washer

#98-116 Flat Washer

#94-132 5/16" Plusnut

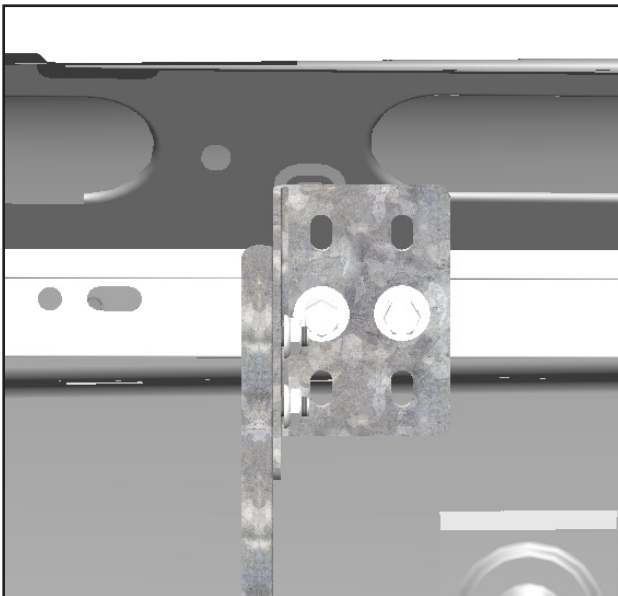
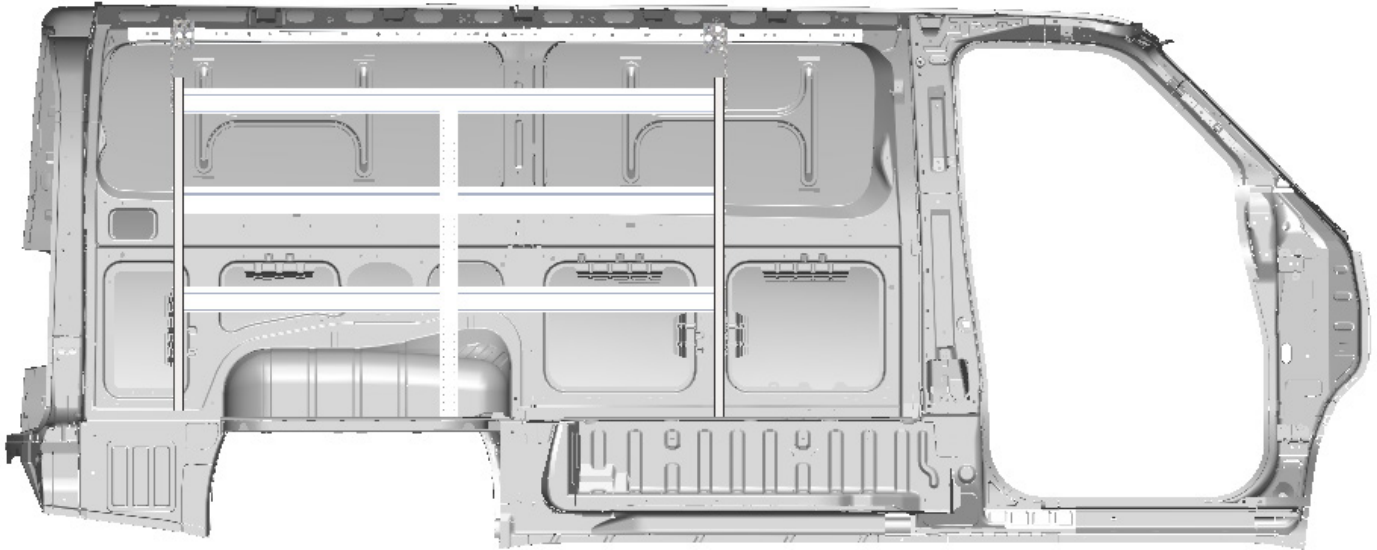


## WITH RANGER WALL KITS

2.5.2 Aligned the wall brackets to the wall mounting track kits, then install the wall brackets to the wall mounting track kits using channel nuts.

NOTE: Tightened the bolts that used to attached the wall bracket to the wall or wall kits 1<sup>st</sup> before the bolts that used to attached the wall bracket to the end panel.

IMPORTANT: After installation is completed, ensure all bolts are tightened.

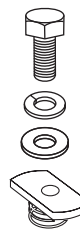


### TOOLS

- Cordless Impact
- 1/2" Socket

### FASTENERS USED

4X WALL KITS FASTENER KIT

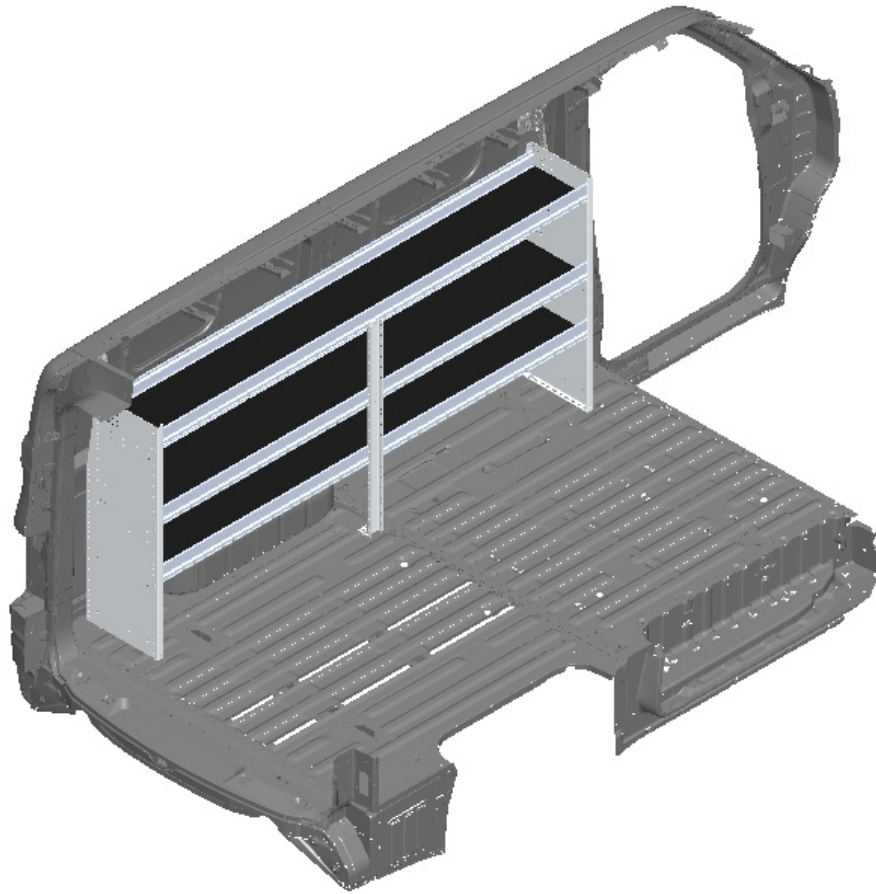


#90-208 Hex Bolt 5/16" x 1"

#98-122 Lock Washer

#98-116 Flat Washer

#94-150 Channel Nut



"You have successfully installed your  
N4-RA96-3

Thank you for doing business with us."

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

