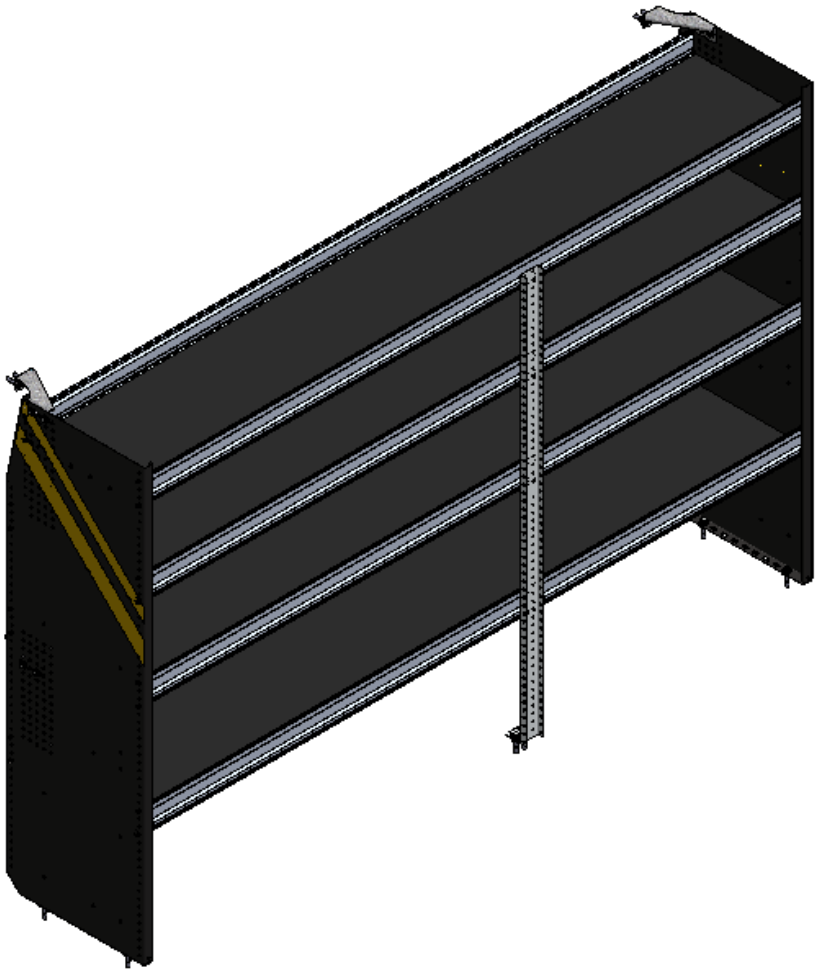
INSTALLATION GUIDE



N5-DS84-4 Shelving (STEEL)

Transit High Roof & Medium Roof
Promaster Standard Roof & High Roof
Nissan NV High Roof
Sprinter Low Roof & High Roof
Box Truck / Trailer

RANGER DESIGN

QUICK START GUIDE

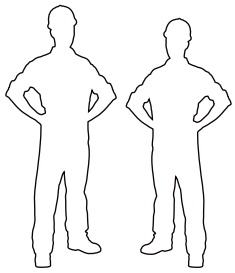
Phase 1 - Assembly

❑ 1.1 Setup..... 3 - 4
❑ 1.2 Shelf Assembly..... 5 - 6

Phase 2 - Installation

❑ 2.1 Attach Wall Brackets To The End Panels..... 7
❑ 2.2 Mark Holes For Plus Nuts..... 8
❑ 2.3 Attach Plus Nut..... 9 - 10
❑ 2.4 Attach Shelf Unit To the Floor..... 11 - 12
❑ 2.5 Attach Wall Brackets..... 13 - 14

REQUIRED ITEMS



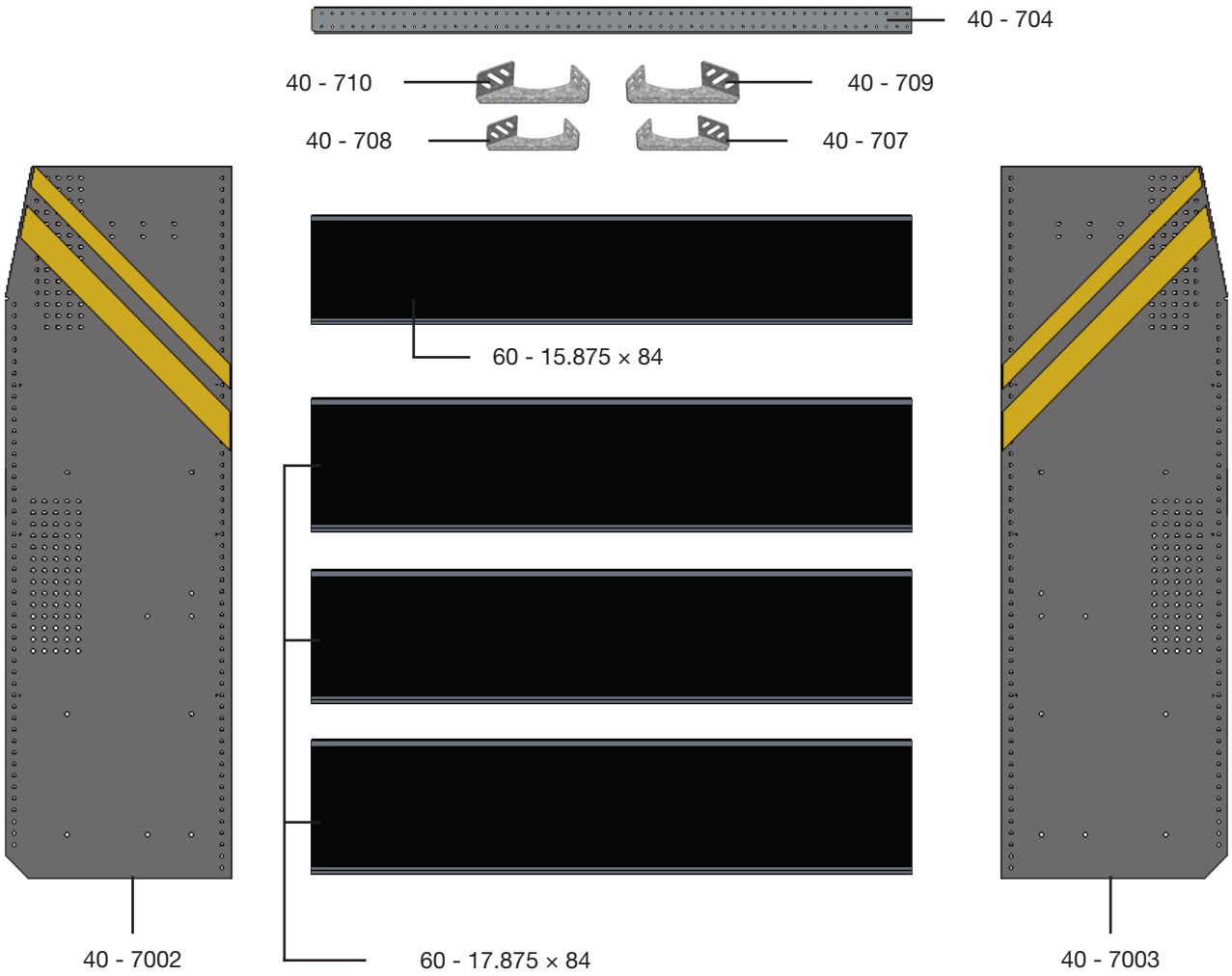
2
PERSONS

- ❑ 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 - 704	Center Post	1
40 - 707	Short Corner Bracket (Left)	1
40 - 708	Short Corner Bracket (Right)	1
40 - 709	Long Corner Bracket (Left)	1
40 - 710	Long Corner Bracket (Right)	1
40 - 7002	End Panel (Left)	1
40 - 7003	End Panel (Right)	1
60 - 15.875 × 84	Shelf Tray, Black Plywood, Usable 16" × 84"	1
60 - 17.875 × 84	Shelf Tray, Black Plywood, Usable 18" × 84"	3
94 - 4026	Assembly Fastener Kit	1
96 - 4026	Install Fastener Kit	1

1.1.3 Fastener kits.

94 - 4026 Fastener Kit → Fastener Assembly

8×		**# 90-204**	Hex Bolt 5/16"-18 × 3/4" GR-5 ZINC
8×		**# 92-200**	Screw HFH #10 - 16 × 3/4" ZINC
32×		**# 92-102**	Screw HWH #14 × 1" ZINC
8×		**# 94-116**	Serrated Nut 5/16"-18 ZINC
8×		**# 98-116**	Flat Washer 5/16" - 18 × 1" ZINC

8×

#90-204 Hex Bolt 5/16" × 3/4"

#98-116 Flat Washer

#94-116 Serrated Nut

8×

#92-200 Screw #10 - 16 × 3/4"

32×

#92-102 Screw #14 × 1"

96 - 4026 Fastener Kit → Fastener Assembly

6×		**# 90-011**	Hex Bolt 5/16"-18 × 1-3/4" GR-5 ZINC
8×		**# 90-212**	Hex Bolt 5/16"-18 × 1-1/4" GR-5 ZINC
14×		**# 94-132**	Plusnut
14×		**# 98-116**	Flat Washer 5/16", O.D. 7/8" ZINC
14×		**# 98-122**	Lock Washer 5/16" ZINC
6×		**# 98-157**	Spacer 0.375" ID, × 1.0" OD × 0.25" LONG NYLON

8×

#90-212 Hex Bolt 5/16" × 1-1/4"

#98-122 Lock Washer

#98-116 Flat Washer

#94-132 5/16" Plusnut

6×

#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

PHASE 1 – ASSEMBLY

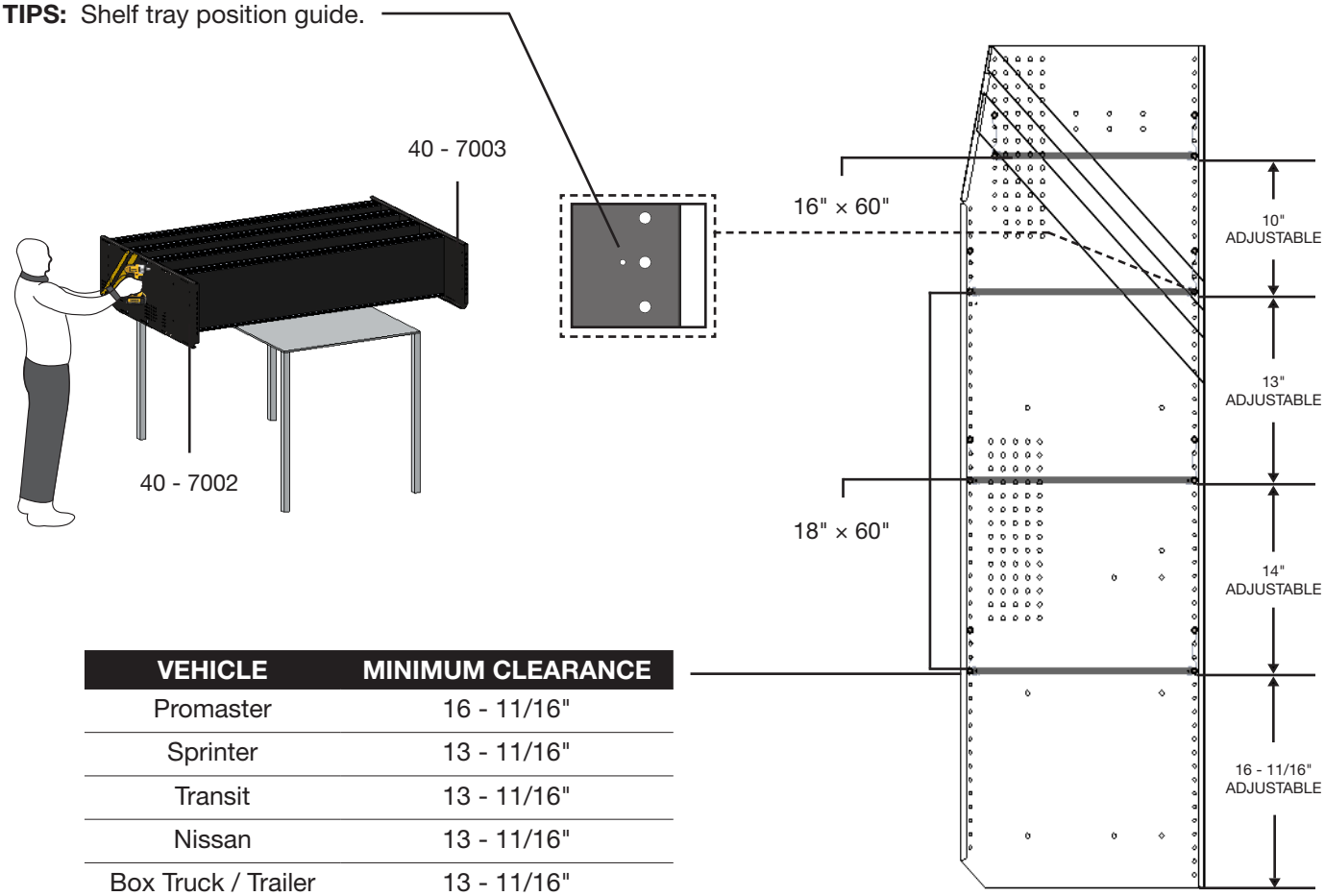
1.2 SHELF ASSEMBLY

1.2.1 Attach both panels to the shelf trays.

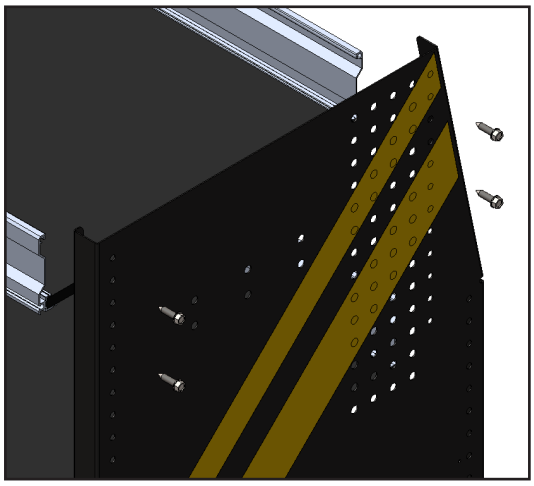
NOTE: You can adjust the bottom shelf location to maximize or minimize your space over the wheel.

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

TIPS: Shelf tray position guide.



VEHICLE	MINIMUM CLEARANCE
Promaster	16 - 11/16"
Sprinter	13 - 11/16"
Transit	13 - 11/16"
Nissan	13 - 11/16"
Box Truck / Trailer	13 - 11/16"



TOOLS

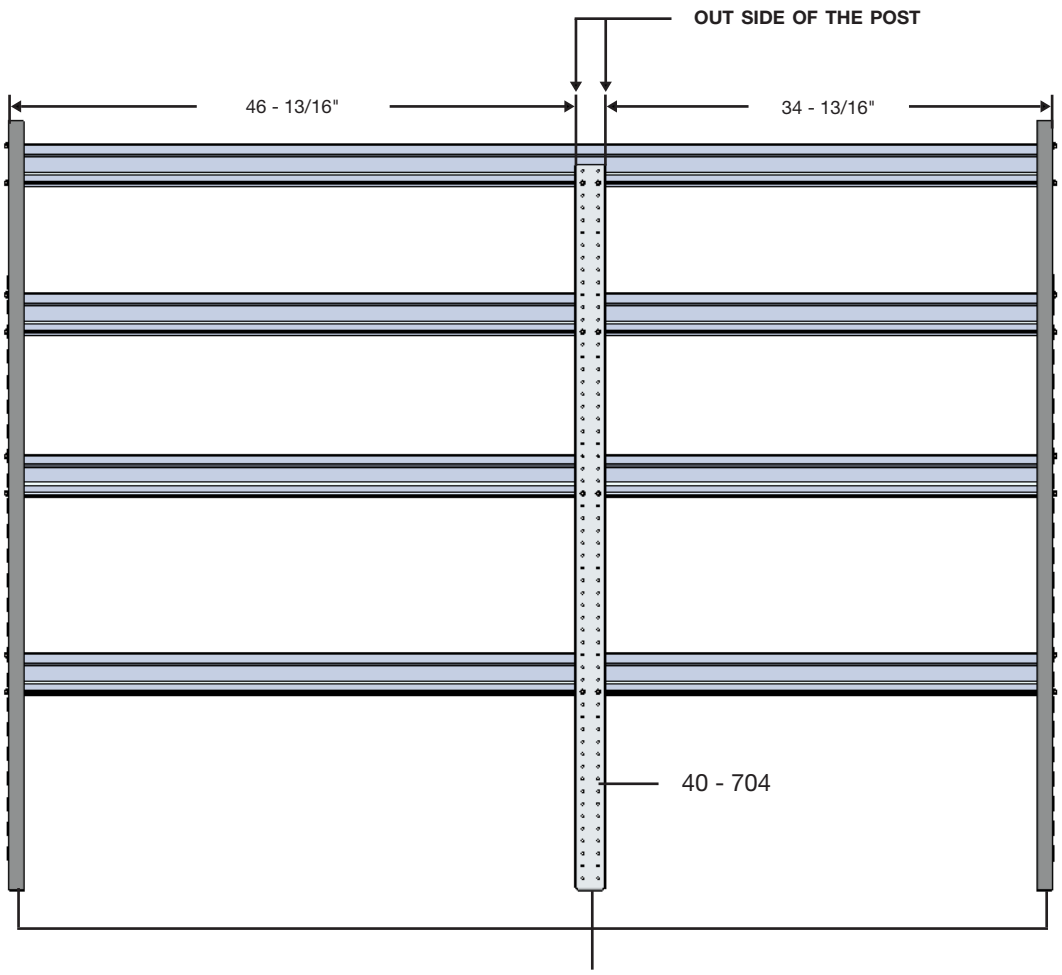
- ❑ Cordless Impact
- ❑ 3/8" Driver Bit

HARDWARE USED

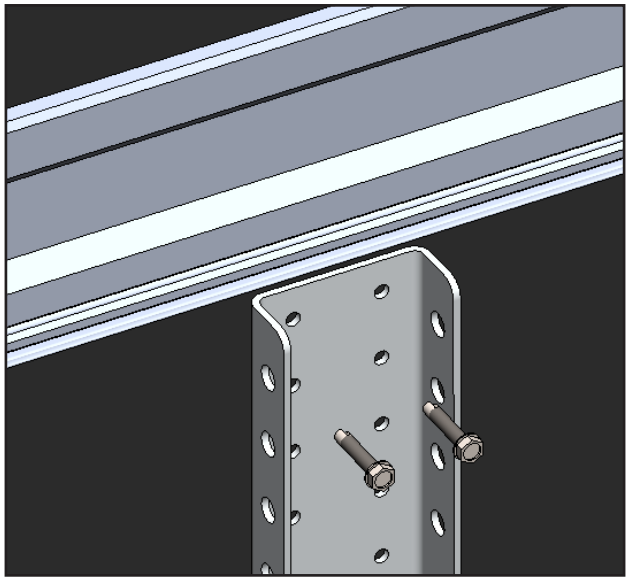
32×

#92-102 Screw #14 × 1"

1.2.2 Attach the center post to the center front face 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

8×

#92-200 Screw #10 - 16 × 3/4"

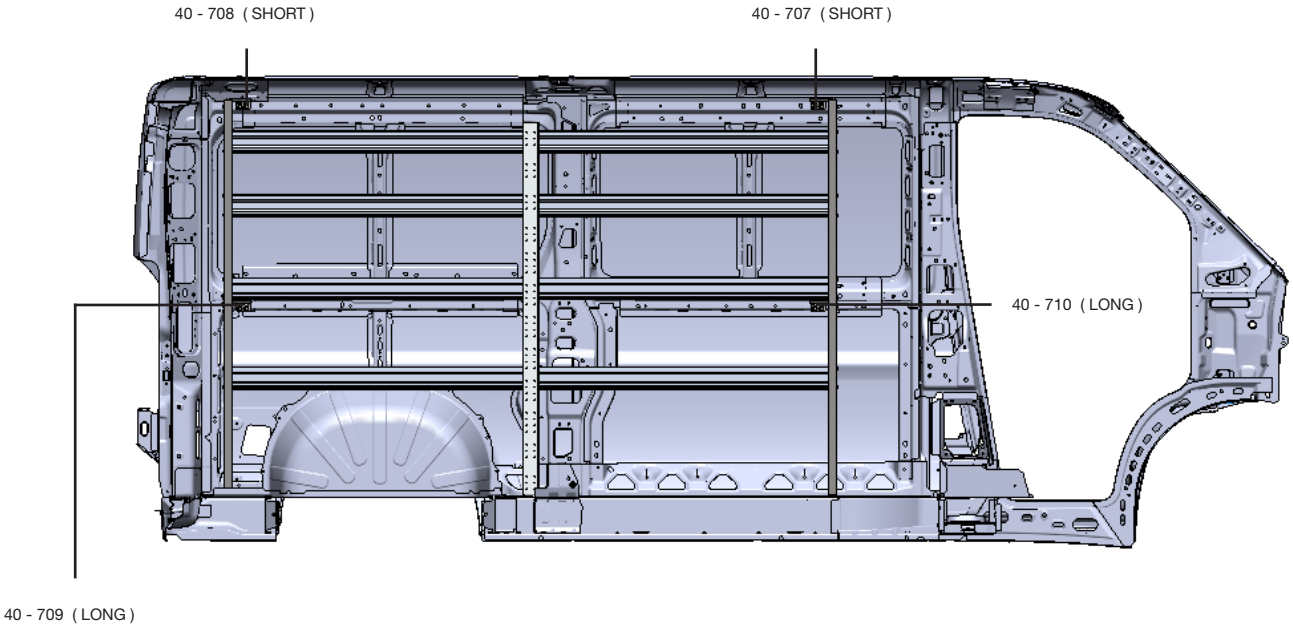
PHASE 2 – INSTALLATION

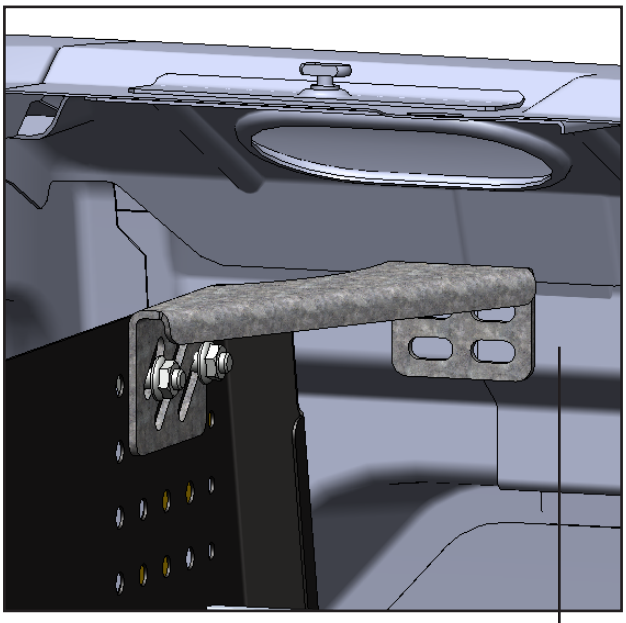
2.1 ATTACH WALL BRACKETS TO THE END PANELS

IMPORTANT: For all **Box Trucks**, make sure that the shelving is securely fastened to the structure of the truck.

2.1.1 • Lift the assembled shelf to the vehicle, then put it in place.
• Attach the short and long brackets to the panels aligning the brackets to the horizontal rim of the vehicle.

NOTE: Handle with care.





Attach the short and long brackets to the panels aligning the brackets to the horizontal rim of the vehicle.

NOTE: You can install the brackets inside or outside the panel.

TOOLS

- ❑ Cordless Impact
- ❑ 1/2" Socket

HARDWARE USED

8× **HAND-TIGHTEN THE BOLTS**

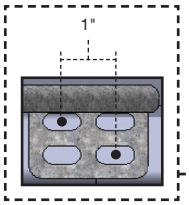
	#90-204 Hex Bolt 5/16" × 3/4"
	#98-116 Flat Washer
	#94-116 Serrated Nut

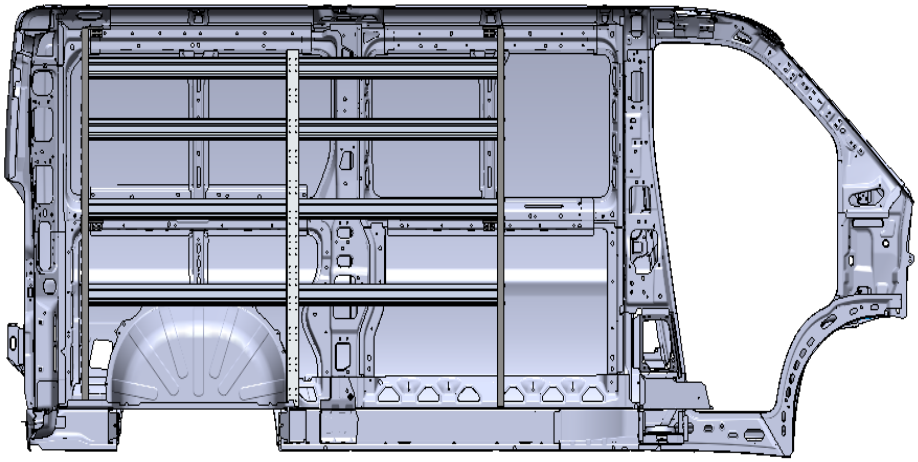
PHASE 2 – INSTALLATION

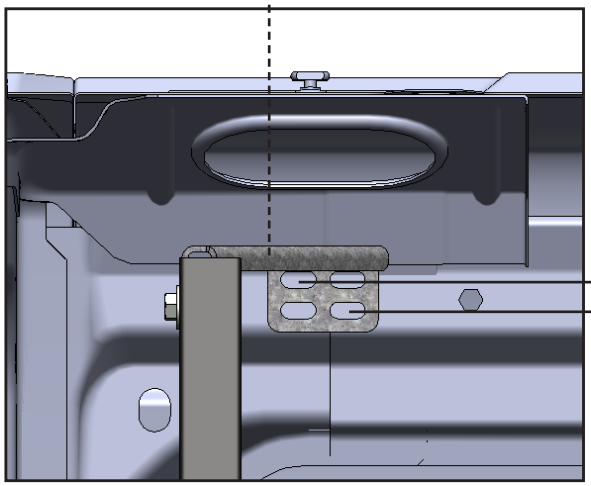
2.2 MARK HOLES FOR PLUS NUTS

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

NOTE: The distance between the two holes should be no less than 1", to avoid plus nut overlap







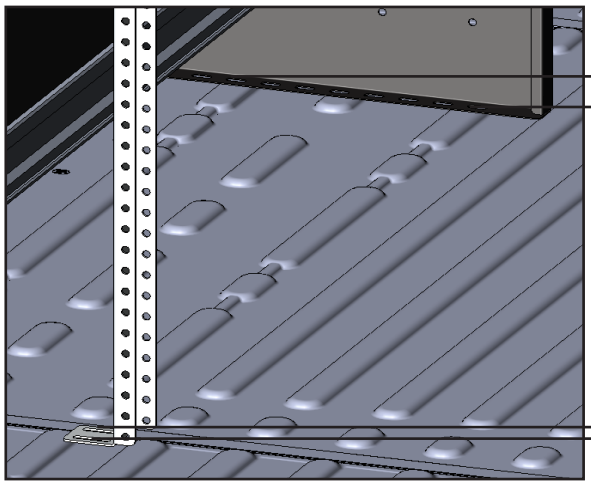
Mark 2 holes of the short and long brackets on the vehicle horizontal rim.

NOTE: If you are using Ranger wall kits, please go to **PAGE 14.**

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 12.**

TOOLS

❑ Marker

MARK

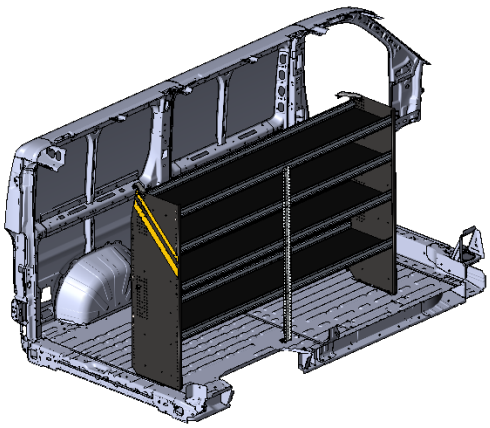
PHASE 2 – INSTALLATION

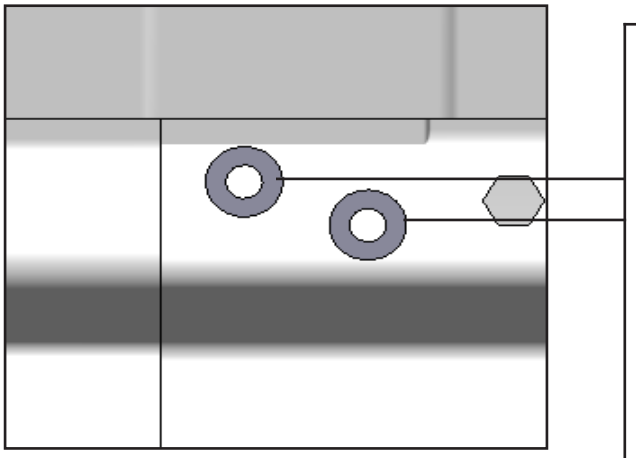
2.3 ATTACH PLUS NUTS

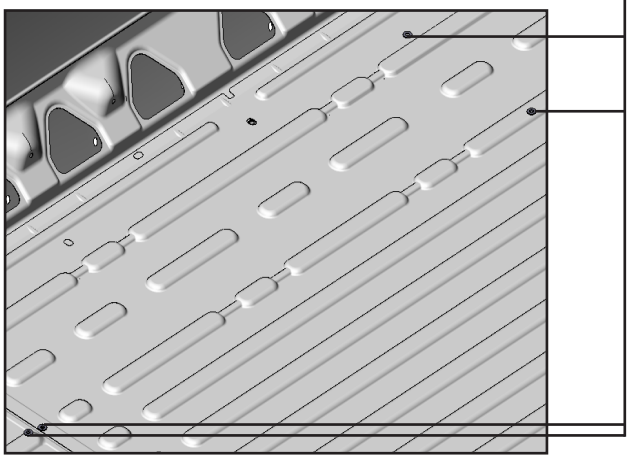
2.3.1 • Lift the assembled shelf on the side.
• Drill all the marks using 1/2" drill bit w/ drill collar, then attach plus nuts to the holes.

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

14×

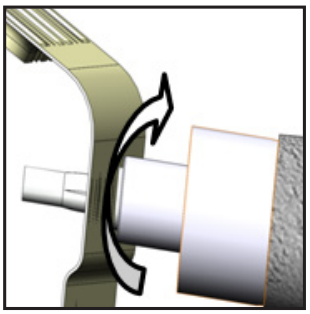
#94-132 Plus Nut

DRILL COLLAR
(SET AT 1/2")

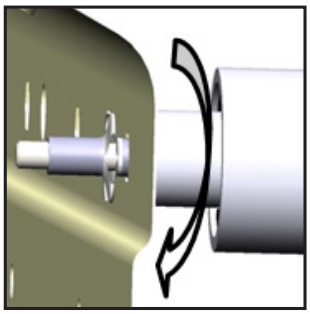
2.3.2 How to attach plus nut.

- **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

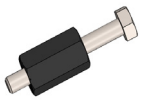


REVERSE

- **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 × 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

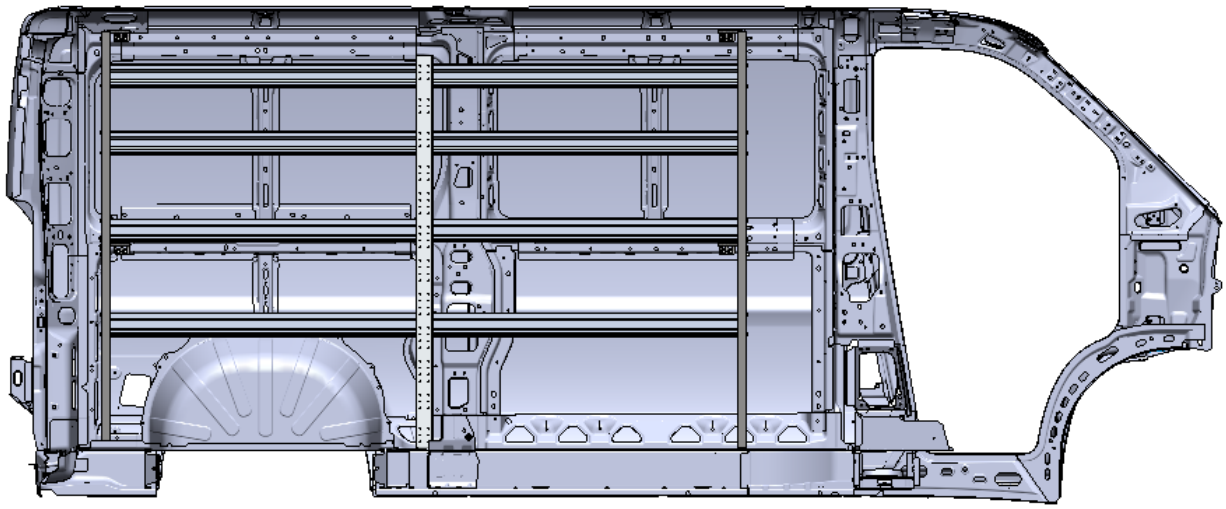
REVERSE

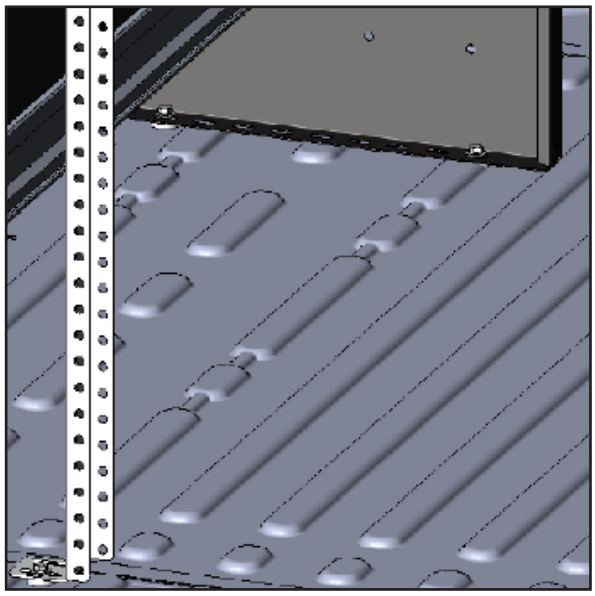
PHASE 2 – INSTALLATION

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

6×

#90-011 Hex Bolt 5/16" × 1-3/4"

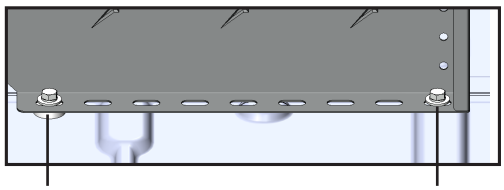
#98-122 Lock Washer

#98-116 Flat Washer

#98-157 Spacers
(QTY = Gap between floor and end panel)

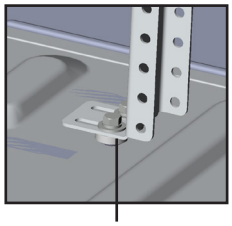
#94-132 5/16" Plusnut

MOST VEHICLE USE 1 SPACER WHEN NOT OVER RIBS

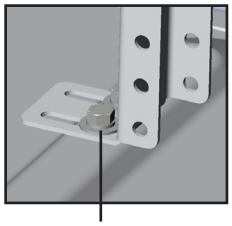


W/ Spacer W/O Spacer

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



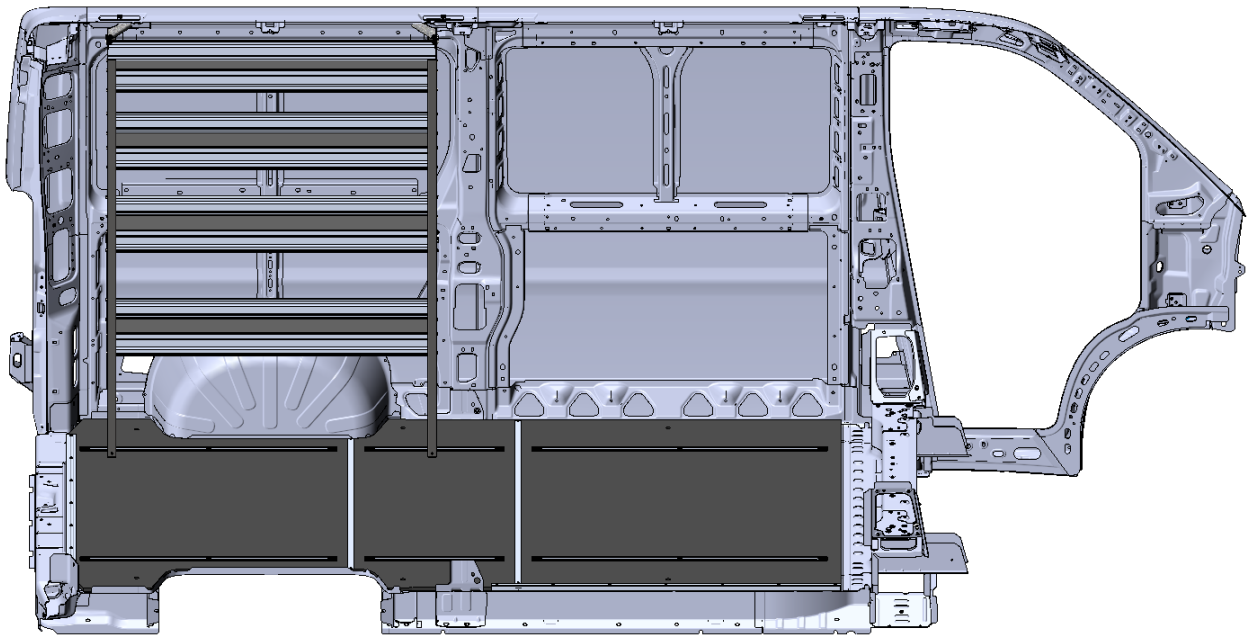
W/ Spacer



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

2× **FLOOR FASTENER KIT**

#92-102 Screw 1"

HARDWARE USED

2× **FLOOR FASTENER KIT**

#90-490 Carriage Bolt 5/16" × 1"

#98-116 Lock Washer

#98-122 Flat Washer

#94-104 Hex Nut

PHASE 2 – INSTALLATION

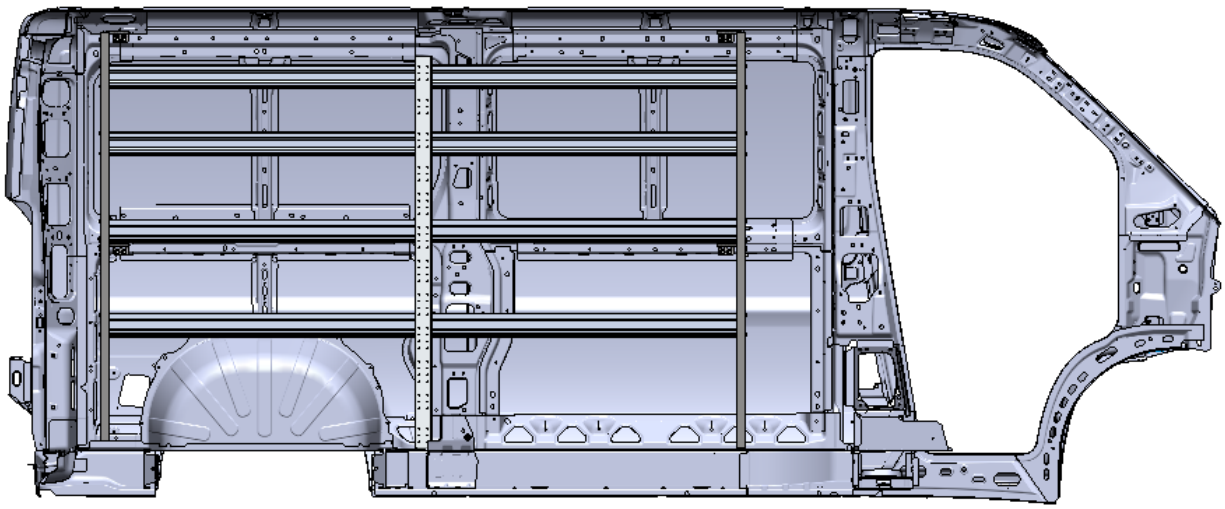
2.5 ATTACH WALL BRACKETS

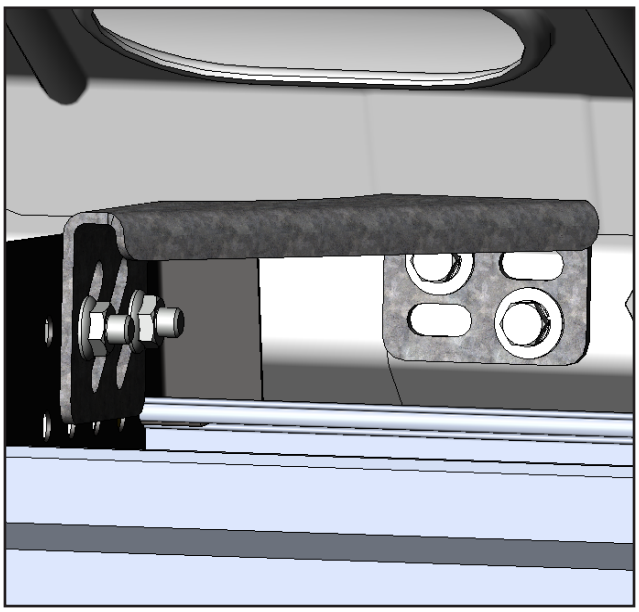
WITHOUT RANGER WALL KITS

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 1st before the bolts that used to attached the wall bracket to the end panel.

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



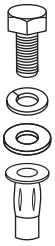


TOOLS

- ❑ Cordless Impact
- ❑ 1/2" Socket

HARDWARE USED

8×



#90-212 Hex Bolt 5/16" × 1-1/4"

#98-122 Lock Washer

#98-116 Flat Washer

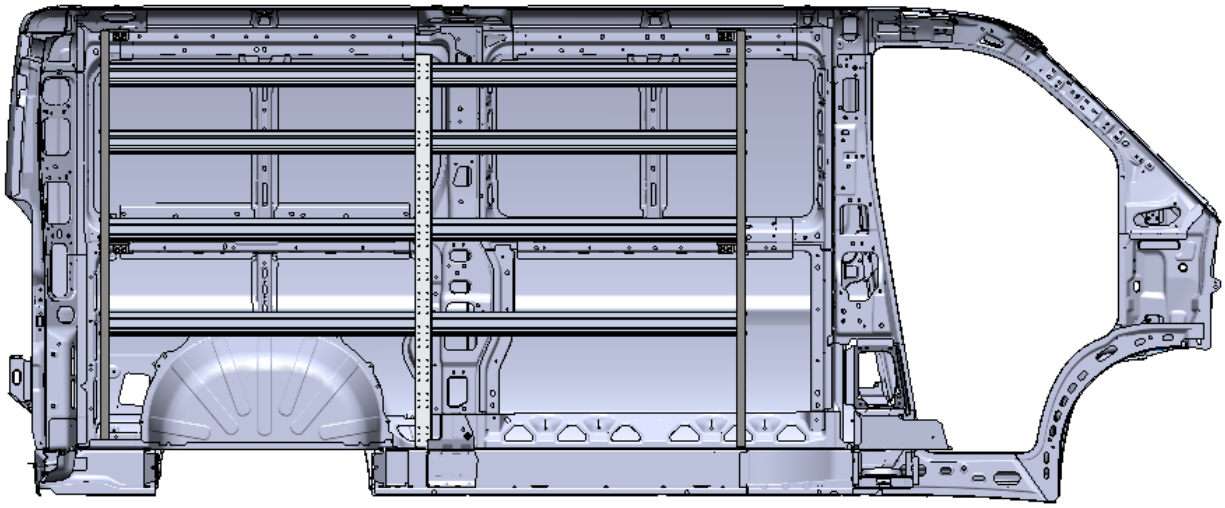
#94-132 5/16" Plusnut

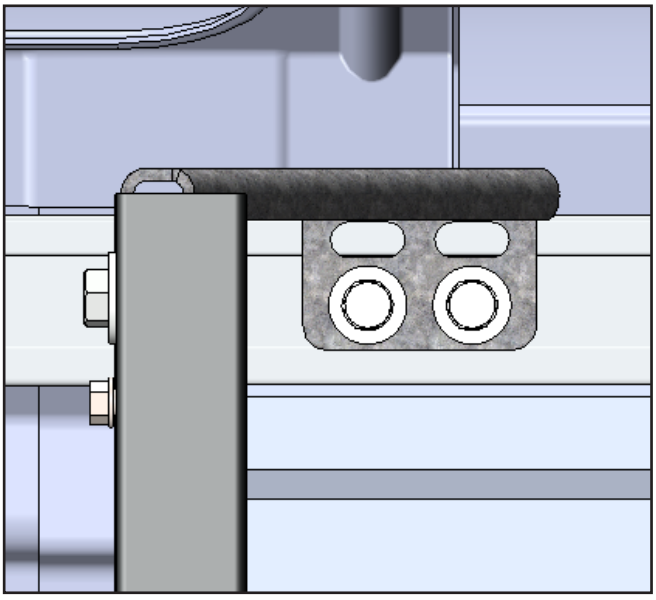
WITH RANGER WALL KITS

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 1st before the bolts that used to attached the wall bracket to the end panel.

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



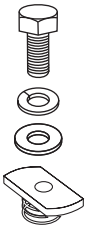


TOOLS

- ❑ Cordless Impact
- ❑ 1/2" Socket

FASTENERS USED

8× WALL KITS FASTENER KIT

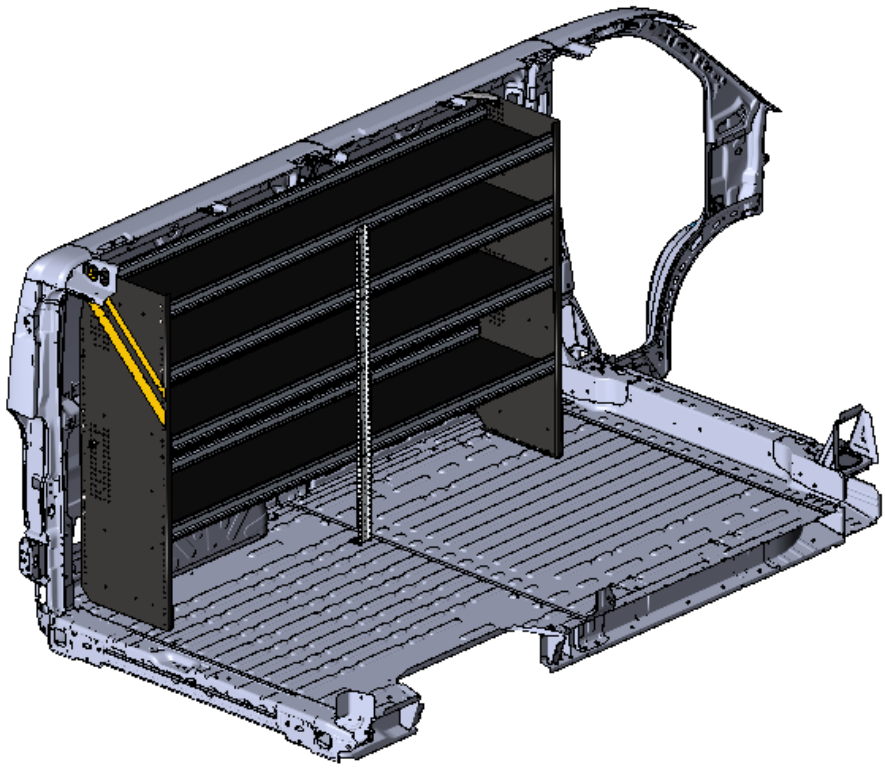


#90-208 Hex Bolt 5/16" × 1"

#98-122 Lock Washer

#98-116 Flat Washer

#94-150 Channel Nut



“You have successfully installed your N5-DS84-4

Thank you for doing business with us.”

For any feedback or suggestions you may have, please contact: cs@rangerdesign.com