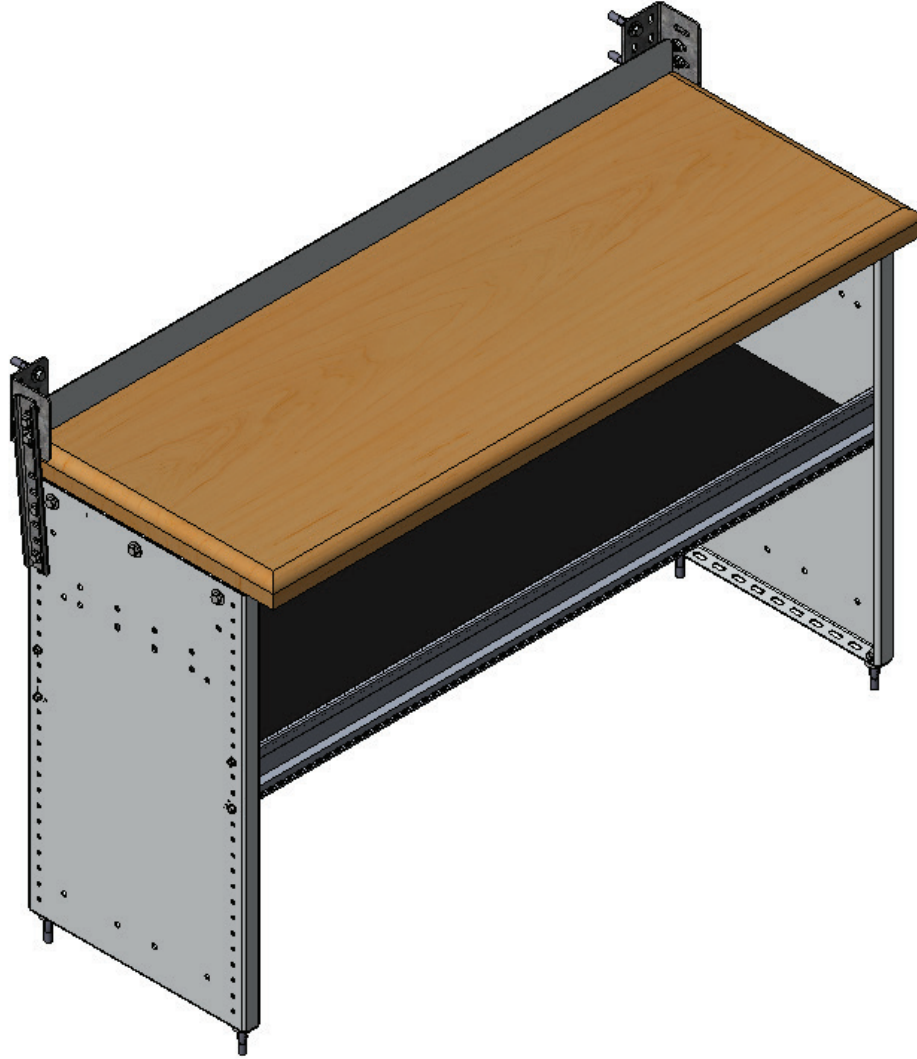


INSTALLATION GUIDE



S2-WA48-1C WORKBENCH

w/ Hardwood Top & One Shelf (Aluminum)



Scan the QR for the latest Install-Guide.



Warnings

READ, UNDERSTAND, AND FOLLOW ALL WARNINGS AND INSTRUCTIONS BEFORE USING THIS PRODUCT. FAILURE TO FOLLOW THESE DIRECTIONS MAY RESULT IN PROPERTY DAMAGE, SERIOUS BODILY INJURY, AND/OR DEATH. RANGER DESIGN IS NOT RESPONSIBLE FOR ANY PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH THAT OCCURS WHILE USING ANY RANGER DESIGN PRODUCTS. THE FINAL ALTERER AND/OR MODIFIER SHOULD REVIEW THE WARNING SHEET WITH THE CUSTOMER BEFORE THE VEHICLE IS RELEASED TO THE CUSTOMER FOR GENERAL USE. THESE INSTRUCTIONS SHOULD REMAIN WITH THE VEHICLE AT ALL TIMES.

WARNINGS – Prior To Starting

- Ranger Design products must be assembled and installed by individuals qualified to use the tools required and have experience with similar products. If there is any question as to competence or experience, please contact a professional alterer or modifier.
- Failure to use Ranger Design-provided fasteners, brackets, and proper installation guidelines could increase risk of serious personal injury and/or death.
- Prior to installation, inspect the vehicle to ensure that installation will not interfere with, or cause obstruction of, any critical components such as electrical wiring, fuel tanks, fuel cells, locks, latches, etc.
- The final alterer and/or modifier is responsible for ensuring all equipment is sufficiently secured to wall and floor structures or suitable anchorages.
- Do not install systems into any weak or unsound materials such as plastics, woods, thin-walled metals, etc., without proper reinforcement.
- Do not install this product where it could interfere with the deployment of airbags. Failure to comply could result in death or serious injury.
- Do not install this product where it could ingress on the Vehicle Occupant Protection Zone. Failure to comply could result in death or serious injury.
- Incorrect installation could cause water leaks, electric shock, or fire.
- Any cargo vehicle with any cargo or equipment should use a certified partition which can be found on the Ranger Design website. (<https://rangerdesign.com>)
- Mounting rails and floors are strongly recommended for any attachment to the vehicle and can be found on the Ranger Design website. (<https://rangerdesign.com>)
- Any modification or unintended use of this product voids any warranty and could create a hazardous condition.
- Ranger Design provides recommended assembly and installation instructions which must be followed to ensure correct operation. Failure to do so could invalidate the product's compliance and/or warranty and cause injury.
- The final stage vehicle alterer and/or modifier is responsible for the integration, installation, and compliance of the product in its final location with all applicable regulations and standards. Failure to maintain compliance of the vehicle with applicable regulations and standards could be punishable by law. Alterers and/or modifiers should consult with all local authorities prior to commissioning.

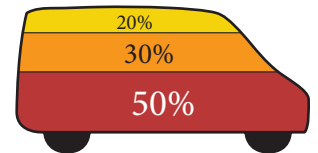
- Any materials, padding, or glazing installed in the vehicle must comply with FMVSS/CMVSS 201/205/302, as applicable.

WARNINGS – Prior To Drilling

- Improper drilling can cause property damage to vehicles and could lead to electric shock, fire, or even death.
- Ensure that drilling is only performed on areas of the vehicle allowed by the vehicle's Original Equipment Manufacturer's Body Builders Layout Book (or equivalent document).
- Ensure that you will not hit any critical parts of the vehicle like the gas tank, wiring harnesses, or hoses. Consult the vehicle's OEM documentation as necessary. When drilling, use a drill collar to reduce the risk of damage to the vehicle.

WARNINGS – Prior To Operating Vehicle


- The heaviest items must be placed towards the bottom of the vehicle, while the lightest ones can be arranged upwards. Vehicle cargo loading weight proportion should follow the guidelines shown here.
- Check your vehicle's tare weight and remaining load capacity with all equipment installed. Never exceed the maximum Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Ratings (GAWRs), or other maximum loads permitted by the vehicle's Original Equipment Manufacturer (OEM) and required by law.
- All items in the cargo area should be properly secured and partition doors closed while the vehicle is in motion.
- All system components should be regularly inspected, cleaned, and maintained pursuant to Ranger Design guidelines.



WARNING – In Event Of An Accident

- In the event of a motor vehicle accident or collision where a Ranger Design system has been installed, especially ones where the vehicle's structure has been damaged and/or the air bags have deployed and/or the vehicle has been towed, the system must be inspected to ensure continued soundness and safety before returning the vehicle to service. Damaged components should be replaced as necessary.

FR: Si vous avez besoin de ces instructions en français, s'il vous plait contacter notre service à la clientèle. +1-800-565-5321

ES: Si necesita estas instrucciones en español, comuníquese con el Servicio de atención al cliente de Ranger Design. +1-800-565-5321

QUICK START GUIDE

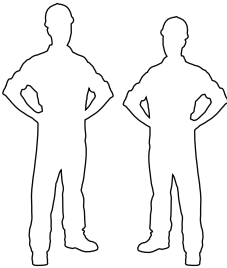
Phase 1 - Assembly

- 1.1 Setup..... 3 - 5
- 1.2 Workbench Assembly..... 5 - 8

Phase 2 - Installation

- 2.1 Attach Wall Brackets To The End Panels..... 9
- 2.2 Mark Holes For Plus Nuts..... 10
- 2.3 Attach Plus Nut..... 11 - 12
- 2.4 Attach Partskeeper Cabinet To the Floor..... 13 - 14
- 2.5 Attach Wall Brackets..... 15 - 16

REQUIRED ITEMS



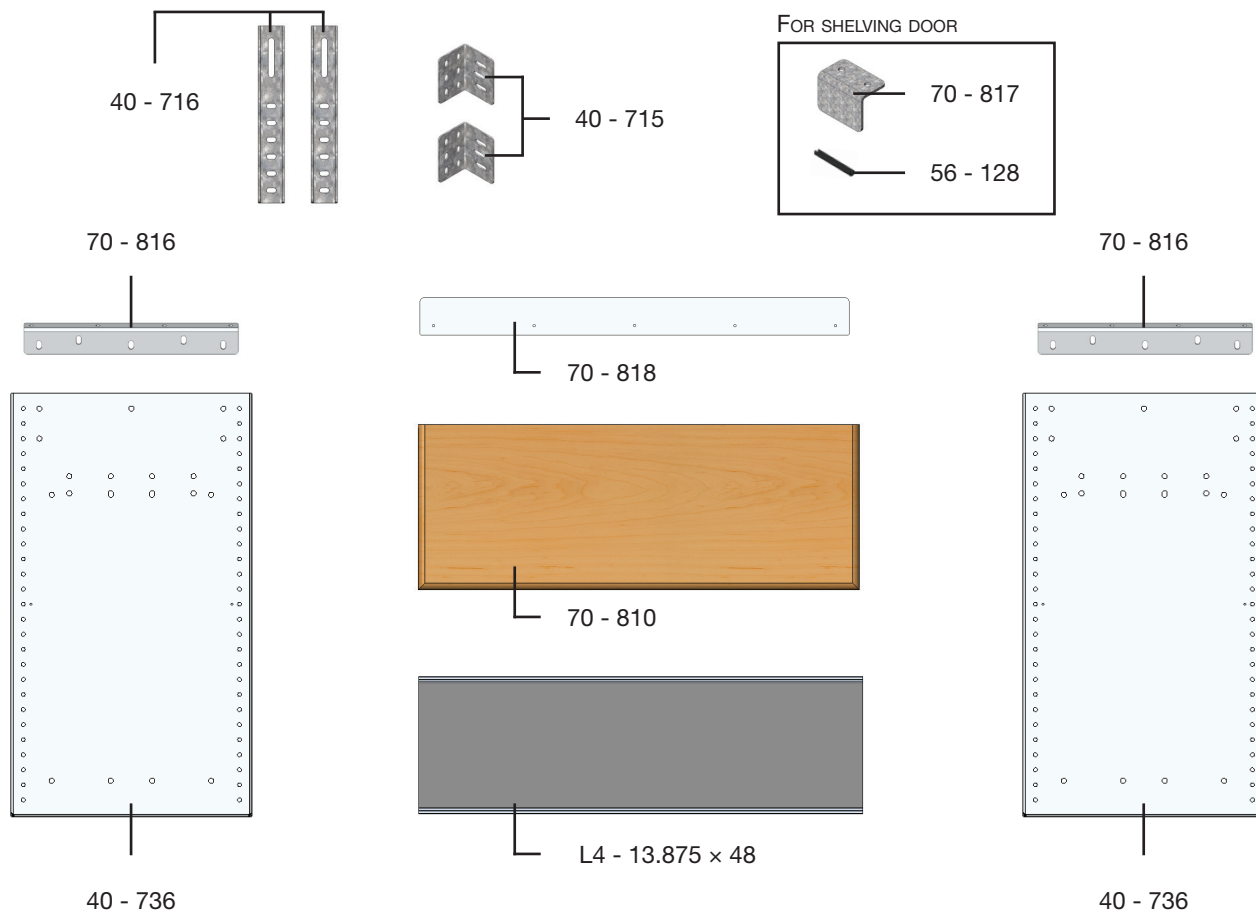
**2
PERSONS**

- Cordless Impact
- Cordless Drill
- Tape Measure
- Marker
- 1/2" Socket
- 1/2" Drill Bit w/ Drill Collar (Set at 1/2")
- 3/16" Drill Bit
- 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.



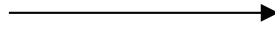
1.1.2 Verify all parts are present.

BILL OF MATERIALS

Item No.	Description	Qty.
40-715	Bracket - Shelving	2
40-716	Bracket - Shelving	2
40-736	End - Panel	2
56-128	Rubber Edge Trim (QTY IN INCHES)	2
L4-13.875x48	Shelf Tray Composite	1
70-810	Hardwood Top	1
70-816	Side Panel Bracket	2
70-817	Steel Striker Plate	1
70-818	Straight Backsplash	1
96-4801	Install Fastener Kit	1
94-4801	Assembly Fastener Kit	1

1.1.3 Fastener kits.




96 - 4801 Fastener Kit





Fastener Assembly

4x		# 90-110	Hex Bolt 1/4"-20 x 3/4" ZINC
4x		# 90-204	Hex Bolt 5/16"-18 x 3/4" ZINC
8x		# 90-212	Hex Bolt 5/16"-18 x 1-1/4" ZINC
4x		# 94-112	Serrated Nut 1/4"-20 ZINC
4x		# 94-116	Serrated Nut 5/16"-18 ZINC
8x		# 94-132	Plusnut
4x		# 98-112	Flat Washer 1/4" ZINC
12x		# 98-116	Flat Washer 5/16", O.D. 7/8" ZINC
8x		# 98-122	Lock Washer 5/16" ZINC
4x		# 98-157	Spacer 0.375" ID, x 1.0" OD x 0.25" LONG NYLON

4x

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






4x

 #90-110 Hex Bolt 1/4" x 3/4"
 #98-112 Flat Washer
 #94-112 Serrated Nut

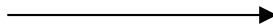
4x

 #90-212 Hex Bolt 5/16" x 1-1/4"
 #98-122 Lock Washer
 #98-116 Flat Washer
 #94-132 5/16" Plusnut

4x

 #90-212 Hex Bolt 5/16" x 1-1/4"
 #98-122 Lock Washer
 #98-116 Flat Washer
 #98-157 Spacers
(QTY = GAP BETWEEN FLOOR AND END PANEL)
 #94-132 5/16" Plusnut




94-4801 Fastener Kit




Fastener Assembly

- 6x  # 90-204 Hex Bolt 5/16"-18 x 3/4" ZINC
- 23x  # 92-102 #14 x 1" ZINC
- 6x  # 94-116 Serrated Nut 5/16"-18 ZINC
- 6x  # 98-116 Flat Washer 5/16" - 18 x 1" ZINC

6x

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

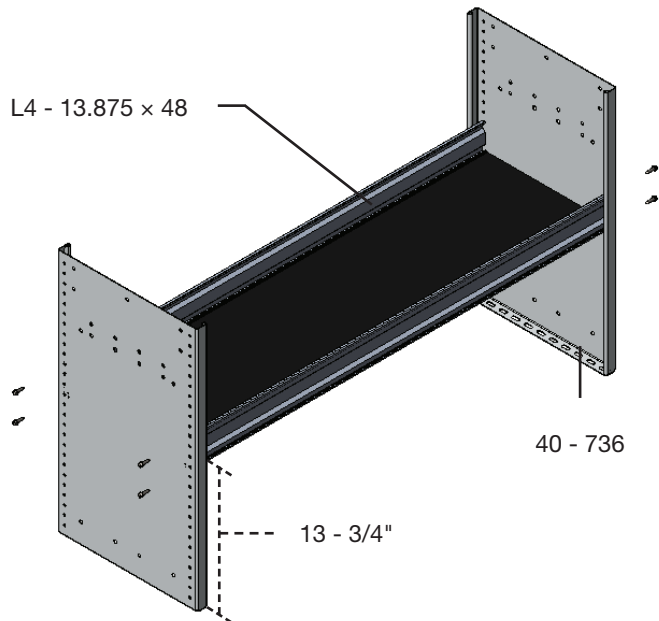
23x

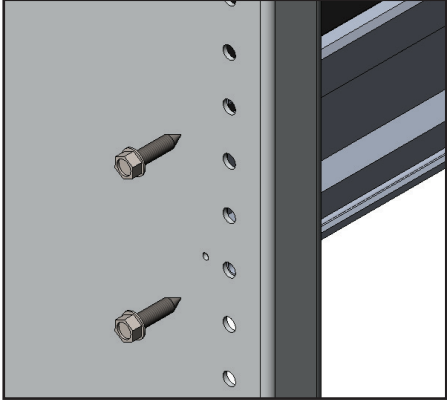
-  #92-102 Screw #14 x 1"

PHASE 1 – ASSEMBLY

1.2 WORKBENCH ASSEMBLY

1.2.1 Attach both panels to the shelf tray.






TOOLS

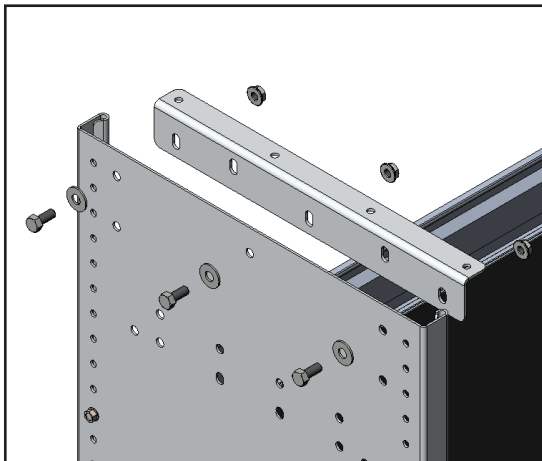
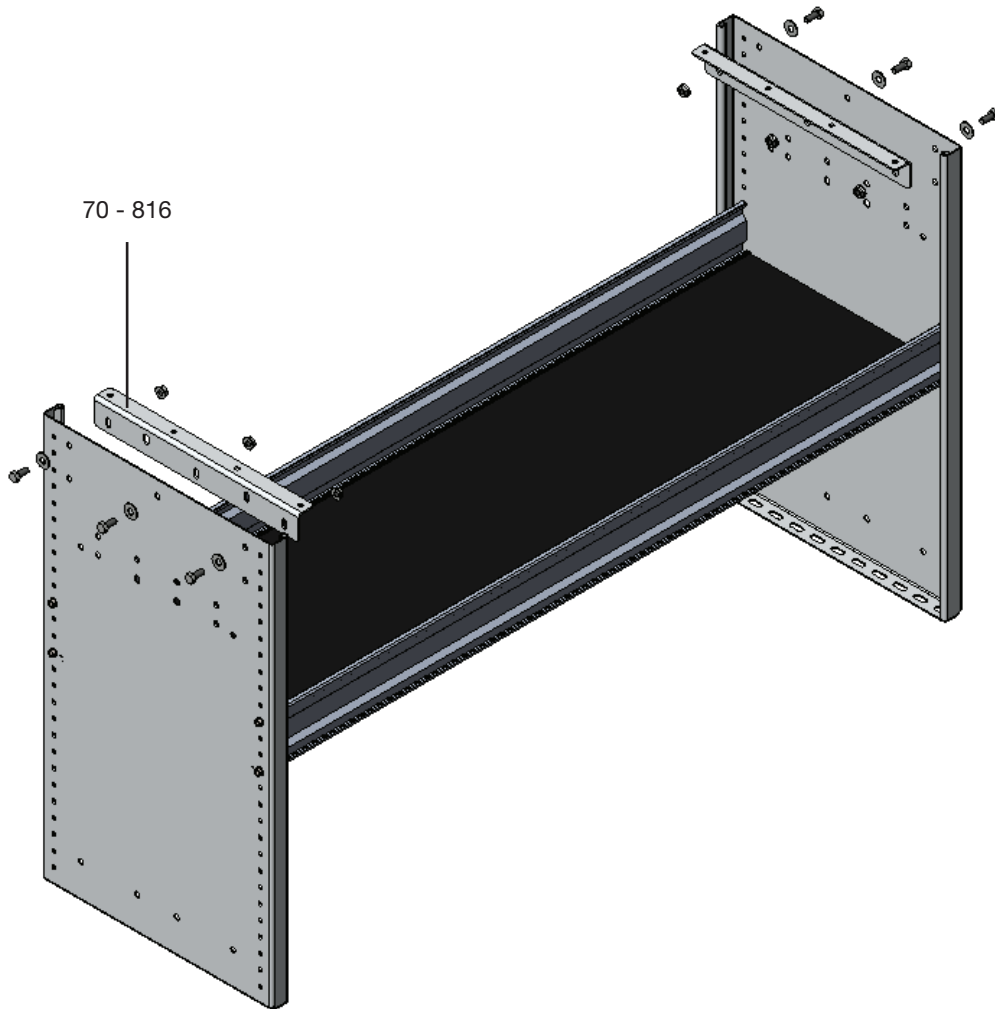
- Cordless Impact
- 3/8" Driver Bit

HARDWARE USED

8x

-  #92-102 Screw #14 x 1"

1.2.2 Attach side panels bracket to the end panel.






TOOLS

- Cordless Impact
- 1/2" Socket

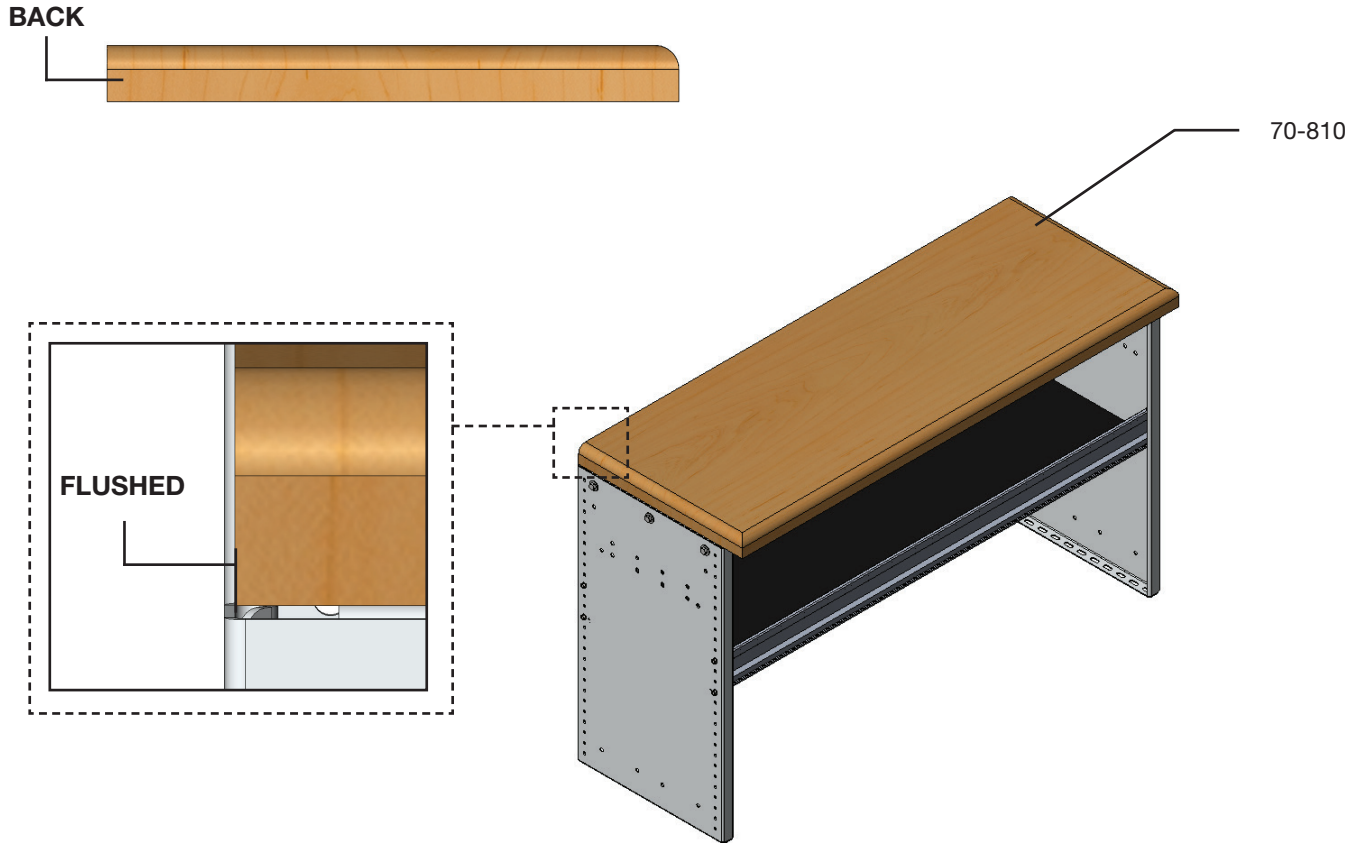
HARDWARE USED

6x

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

1.2.2 Screw the hardwood top on the side panel brackets with the back of the hardwood top flushed against one end of the panels.

NOTE: Pre-drill the hardwood using 3/16" drill bit first before screwing the side panel brackets to the hardwood to prevent splitting the wood.

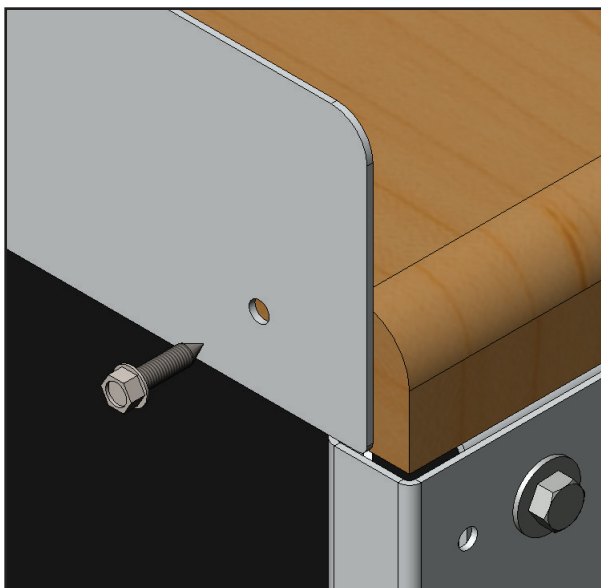
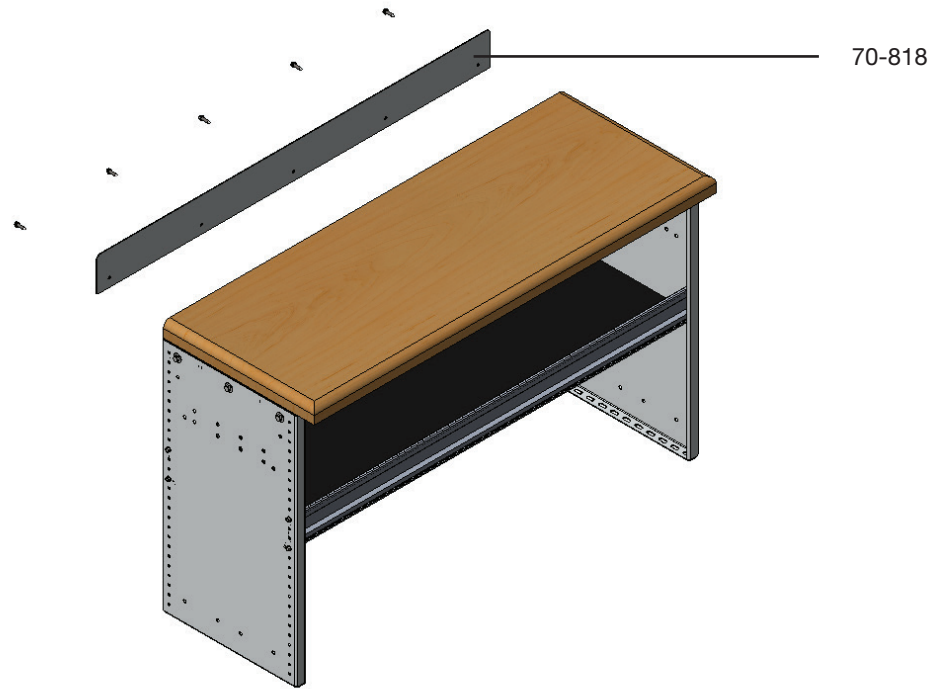


NOTE: Use slots to avoid screwing into the splits in the hardwood top.

	TOOLS
	<input type="checkbox"/> Cordless Impact <input type="checkbox"/> Cordless Drill <input type="checkbox"/> 3/8" Driver Bit <input type="checkbox"/> 3/16" Drill Bit
	HARDWARE USED 8x
	#92-102 Screw #14 x 1"

1.2.3 Screw the backsplash on the back end of the workbench.

NOTE: Pre-drill the hardwood using 1/8" drill bit first before screwing the backsplash to the hardwood to prevent splitting the wood.



TOOLS

- Cordless Impact
- Cordless Drill
- 3/8" Driver Bit
- 3/16" Drill Bit

HARDWARE USED

5x



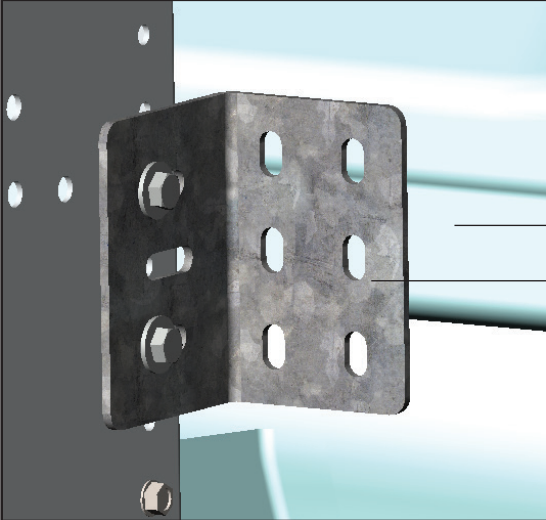
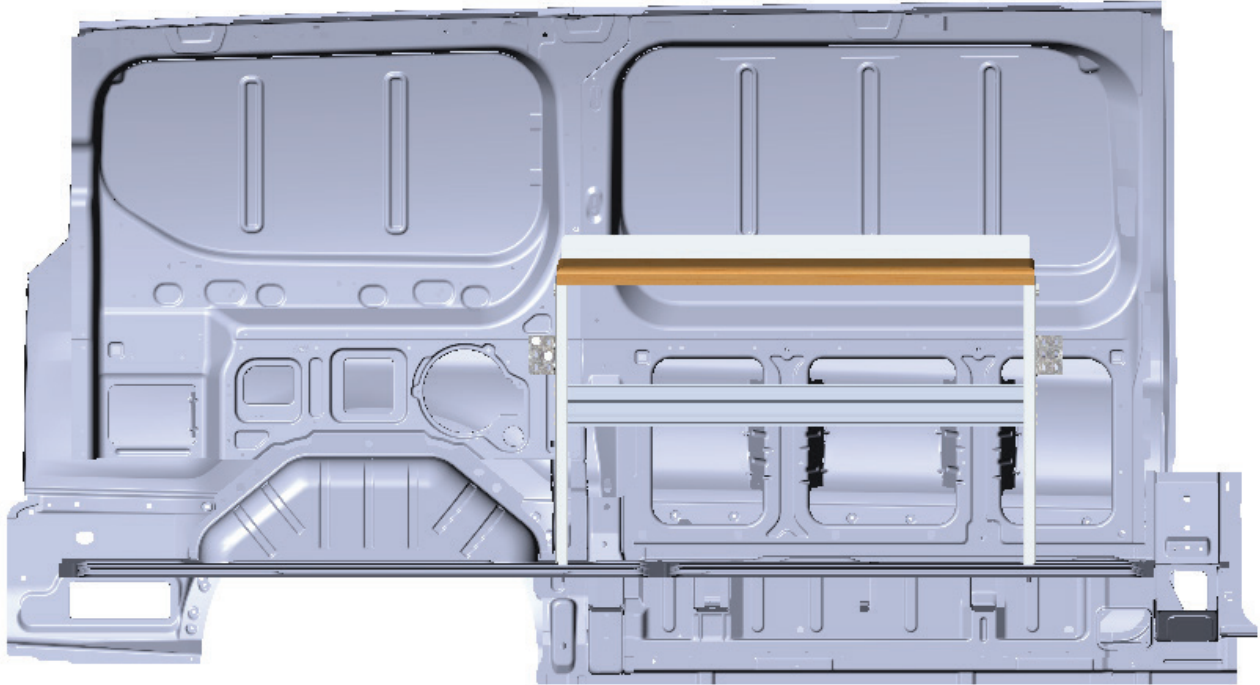
#92-102 Screw #14 x 1"

PHASE 2 – INSTALLATION

2.1 ATTACH WALL BRACKETS TO THE END PANELS

- 2.1.1 • Lift the assembled workbench to the vehicle, then put it in place.
- Attach the bracket arm or bracket head 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

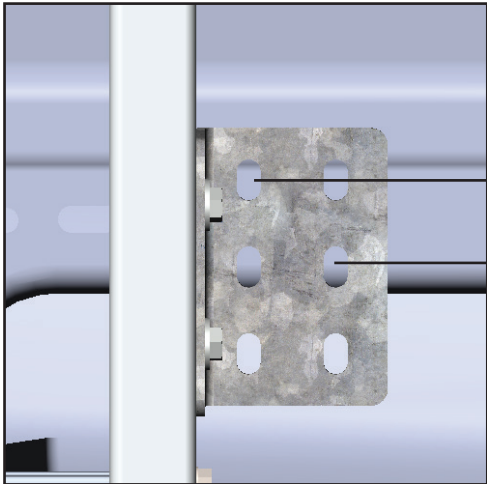
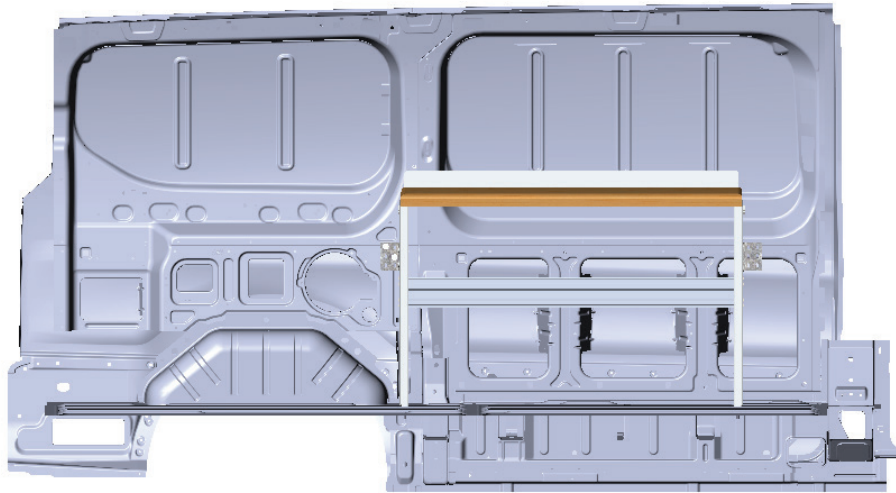
4x HAND-TIGHTEN THE BOLTS

	#90-110 Hex Bolt 1/4" x 3/4"
	#98-112 Flat Washer
	#94-112 Serrated Nut

PHASE 2 – INSTALLATION

2.2 MARK HOLES FOR PLUS NUTS

2.2.1 After attaching the brackets, mark the holes from the brackets and bottom shelf to the vehicle.

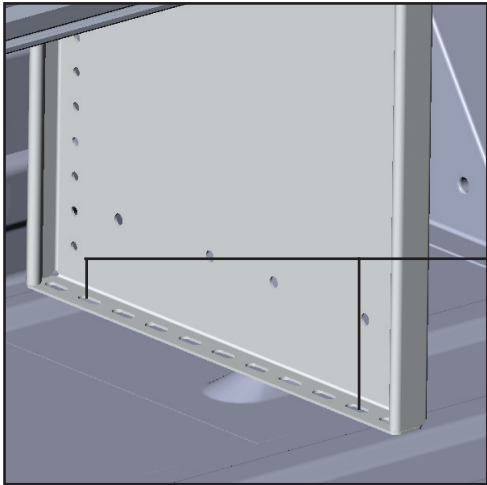


Mark 2 holes of the brackets head on the vehicle horizontal rim.

NOTE: If you are using Ranger wall kit, please go to **PAGE 16**.

TOOLS
 Marker

MARK



Mark 2 holes of each end panel on the vehicle floor.

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

TOOLS
 Marker

MARK

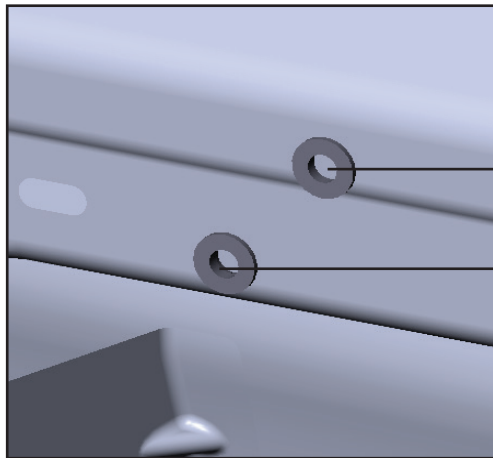
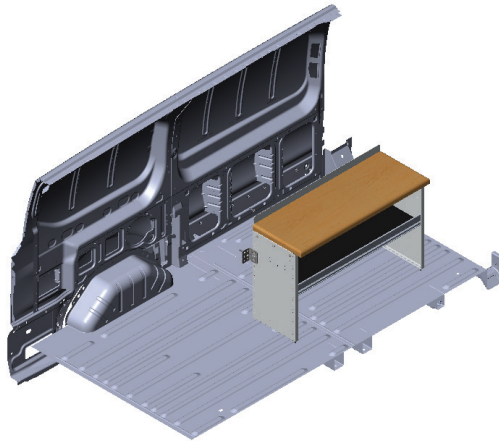
PHASE 2 – INSTALLATION

2.3 ATTACH PLUS NUTS

- 2.3.1** • Remove the assembled workbench and place 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

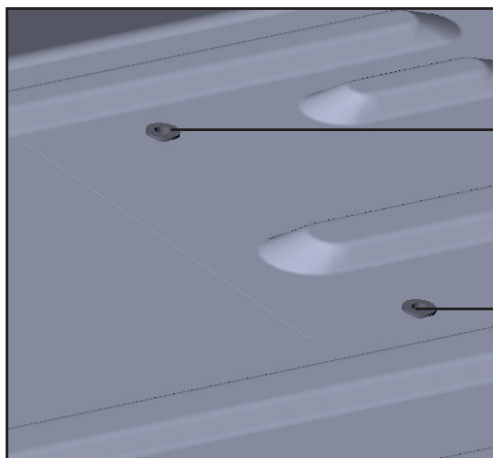
- Cordless Drill
- 1/2" Drill Bit w/ Drill Collar (Set at 1/2")
- Plus Nut Tool (5/16")

HARDWARE USED

8x



#94-132 Plus Nut

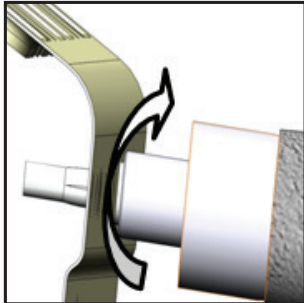


DRILL COLLAR
(SET AT 1/2")

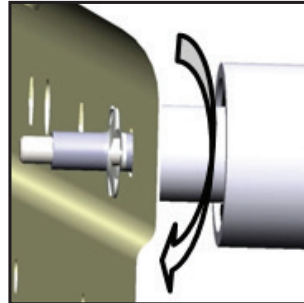
2.3.2 How to attach plus nut.

• 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.



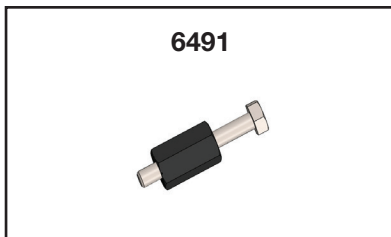
FORWARD



REVERSE



• USING THE 6491 PLUSNUT TOOL

NOTE: The hardware used for the 6491 plusnut tool is not included in the fastener bag.
The 6491 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

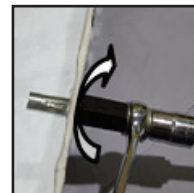
STEP 1:

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



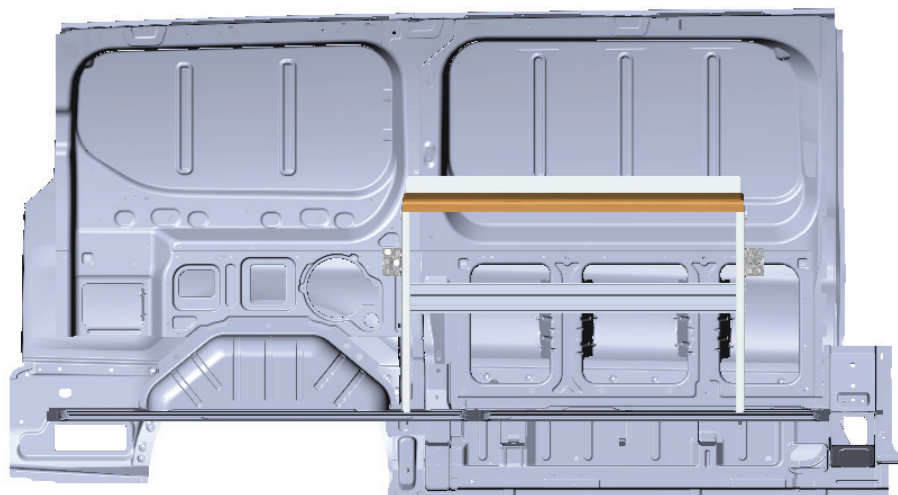
REVERSE

PHASE 2 – INSTALLATION

2.4 ATTACH SHELF UNIT TO THE FLOOR

WITHOUT RANGER FLOOR

2.4.1 Put the assembled workbench back in place aligning the holes to the plusnuts, then install the bottom shelf to the plus nuts.



TOOLS

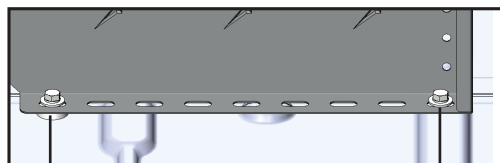
- Cordless Impact
- 1/2" Socket

HARDWARE USED

4x

	#90-212 Hex Bolt 5/16" x 1-1/4"
	#98-122 Lock Washer
	#98-116 Flat Washer
	#98-157 Spacers (QTY = GAP BETWEEN FLOOR AND END PANEL)
	#94-132 5/16" Plusnut

TIPS WHEN TO USE SPACER:
MOST VEHICLE USE 1 SPACER WHEN NOT OVER RIBS

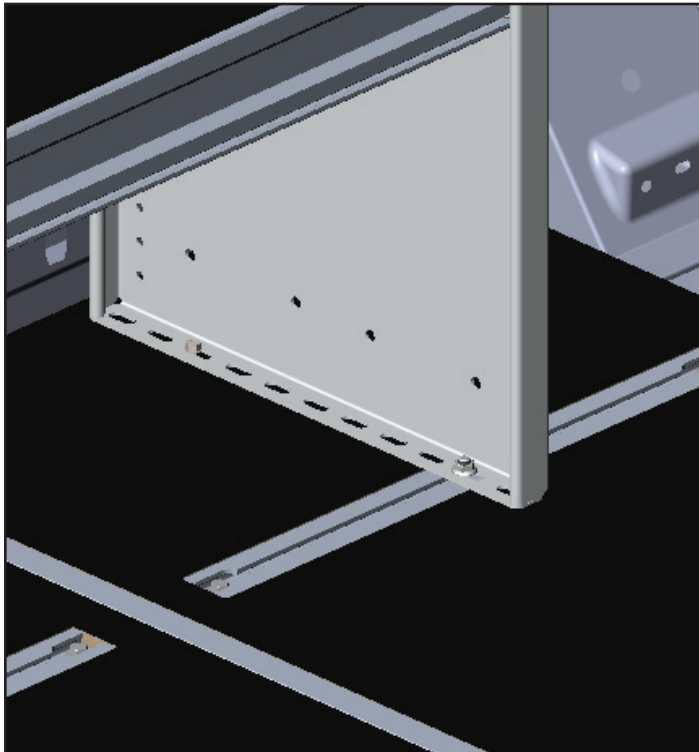
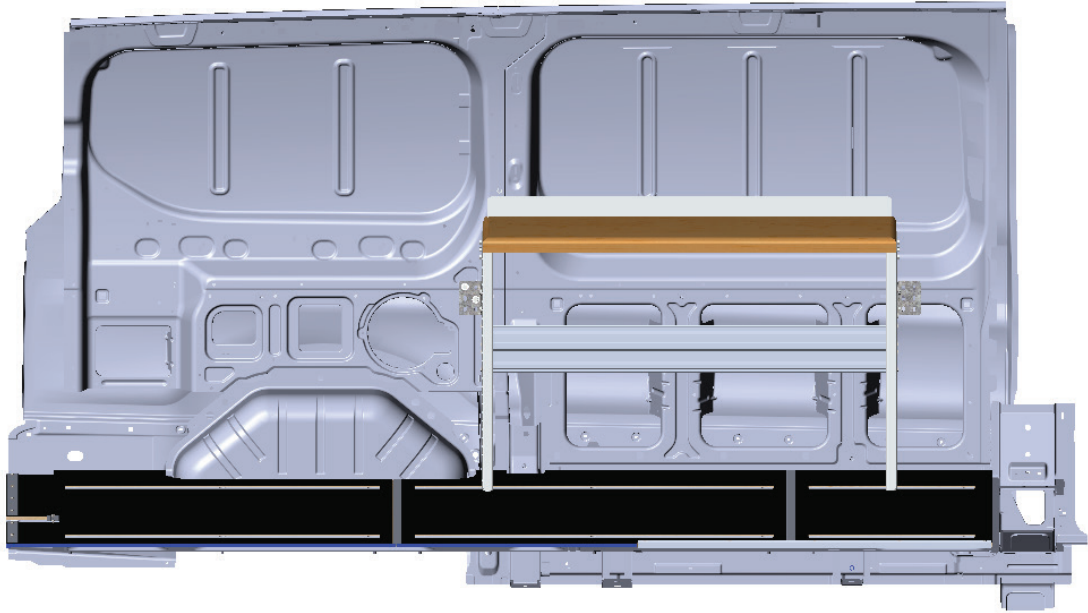


W/ Spacer

W/O Spacer

WITH RANGER FLOOR

- 2.4.2 • Lift the workbench inside the van, then put it in place.
- Install the workbench to the floor mounting track by sliding bolts in the mounting tracks, and screwing the bottom shelf to the floor.



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

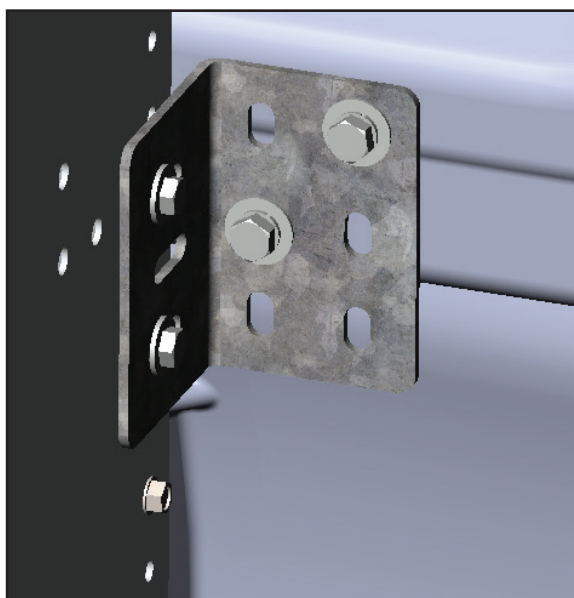
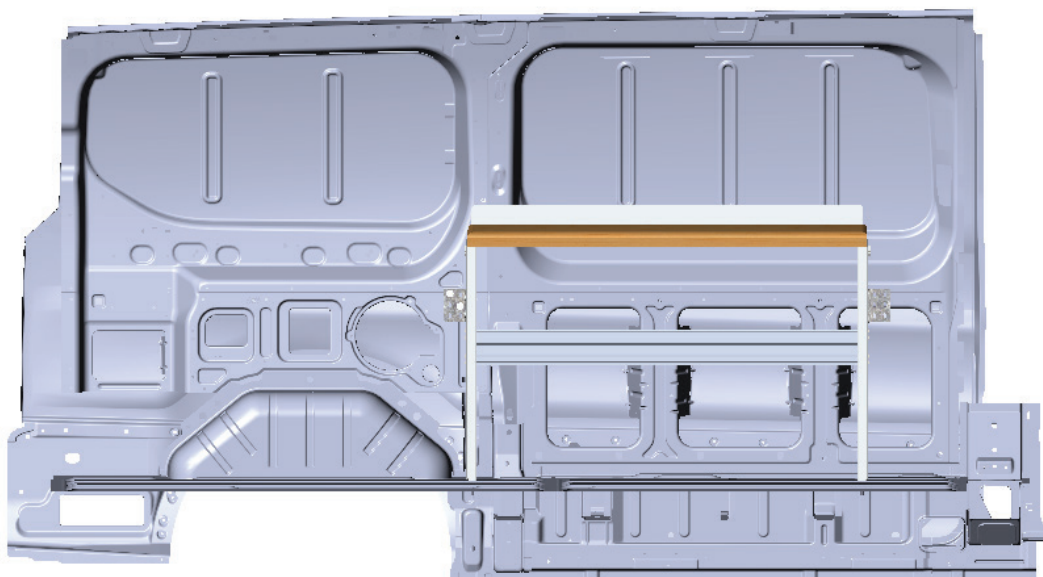
2.5 ATTACH WALL BRACKETS

WITHOUT RANGER WALL KITS

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

NOTE: Tighten the bolts that attach the bracket to the wall or wall rails 1st before tightening the bolts from the brackets to the end panels.

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



TOOLS

- Cordless Impact
- 1/2" Socket

HARDWARE USED

4x



#90-212 Hex Bolt 5/16" x 1-1/4"

#98-122 Lock Washer

#98-116 Flat Washer

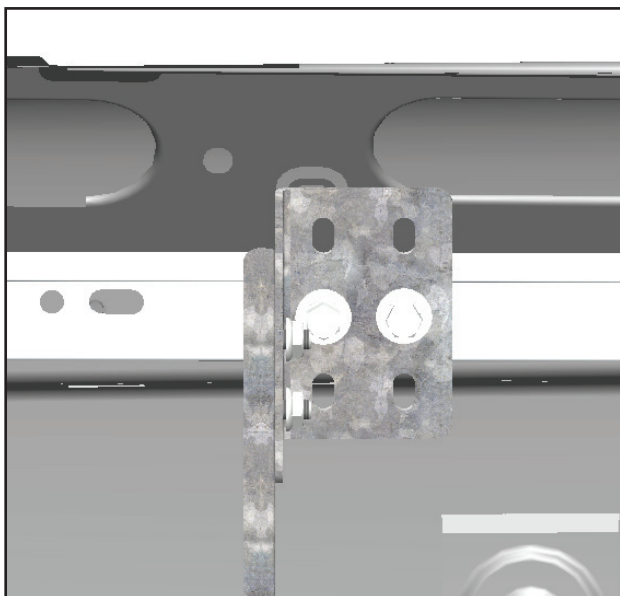
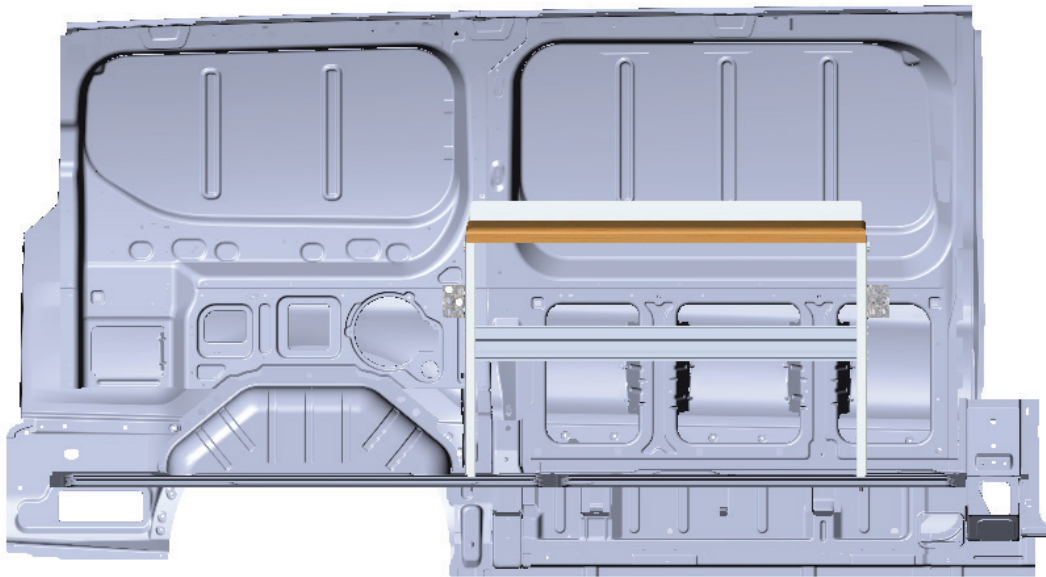
#94-132 5/16" Plusnut

WITH RANGER WALL KITS

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

NOTE: Tighten the bolts that attach the bracket to the wall or wall rails 1st before tightening the bolts from the brackets to the end panels.

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



TOOLS

- Cordless Impact
- 1/2" Socket

FASTENERS USED

4x WALL KITS FASTENER KIT



#90-212 Hex Bolt 5/16" x 1-1/4"



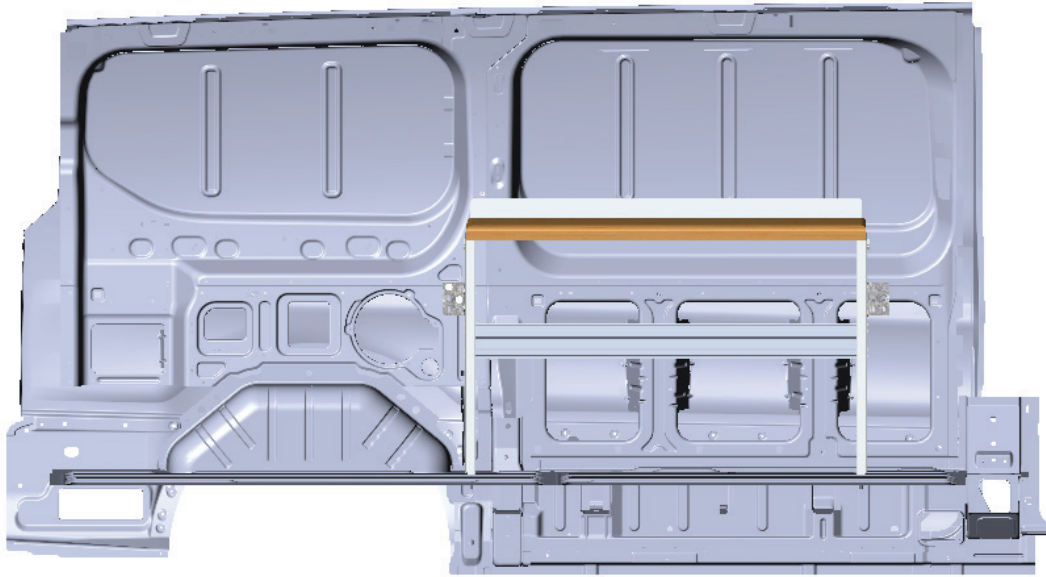
#98-122 Lock Washer



#98-116 Flat Washer



#94-150 Channel Nut



**“You have successfully installed your
Workbench**

Thank you for doing business with us.”

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

