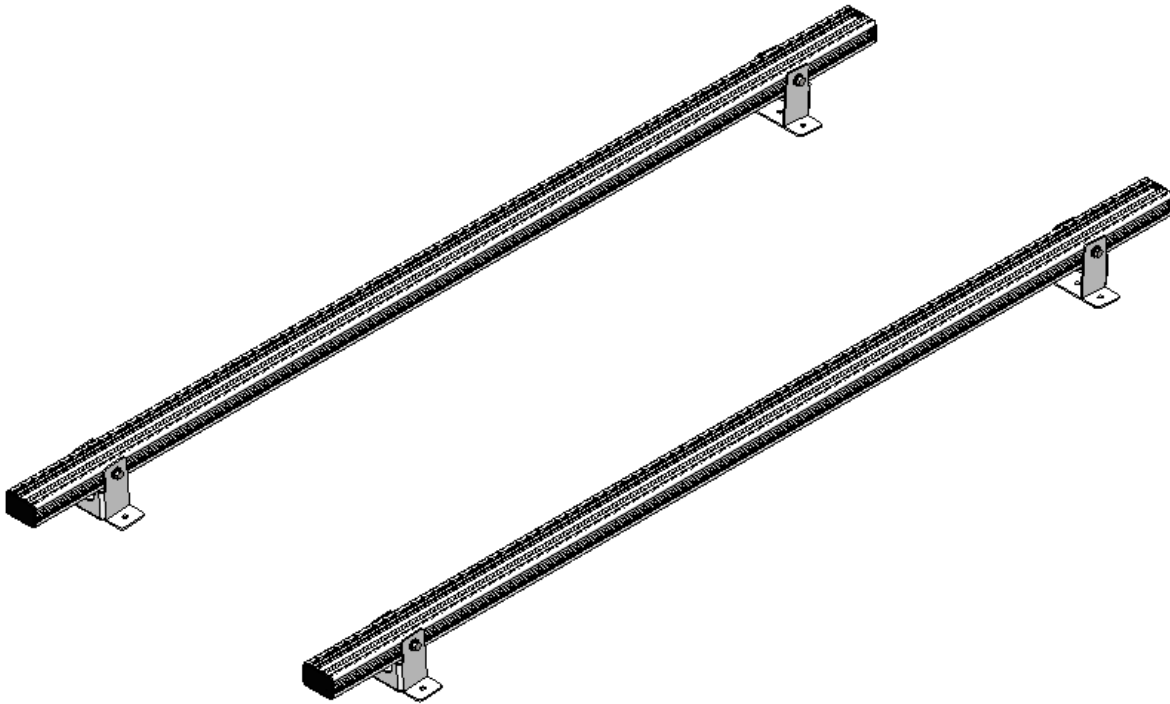


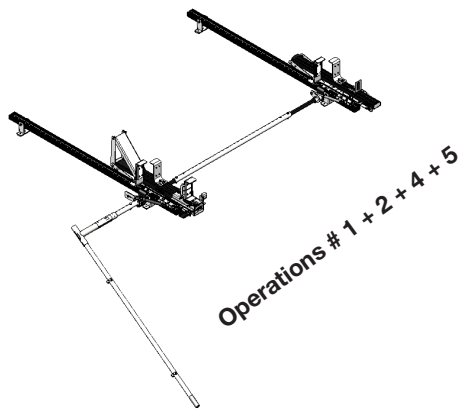
INSTALLATION GUIDE



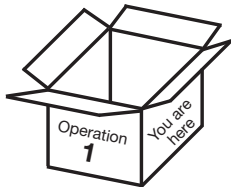
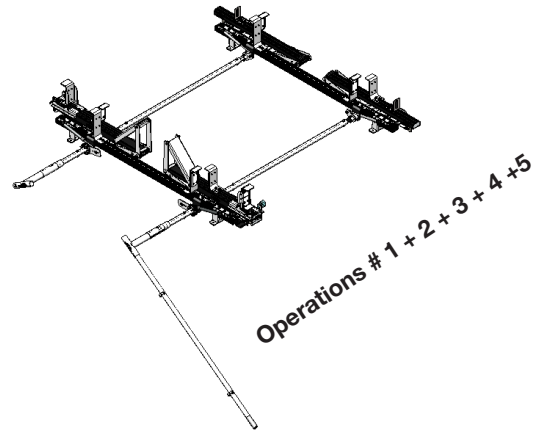
18-U1806 Max Rack Crossbar
(Max Rack)

ORDER OF OPERATION

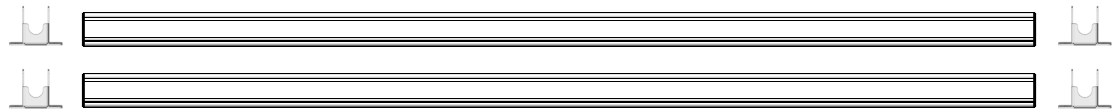
MAX RACK SINGLE SIDE



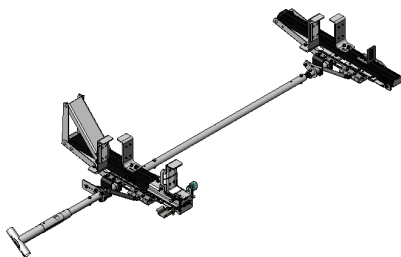
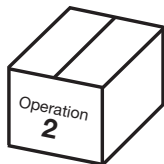
MAX RACK DOUBLE SIDE



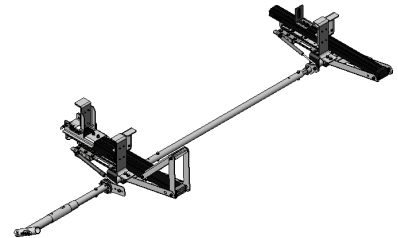
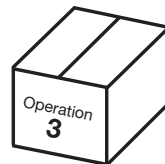
18-U1806



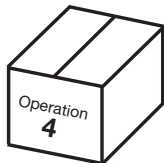
18-U1810



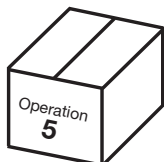
18-U1815



OPTIONAL: Applicable only for Max Rack Double Side.



MOUNTING TRACK

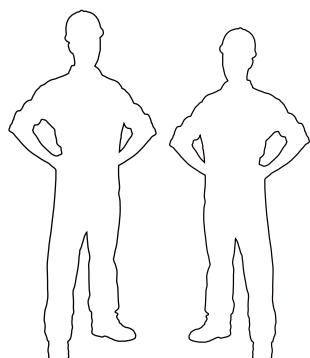


18-U1807



REQUIRED ITEMS FOR COMPLETE MAX RACK

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



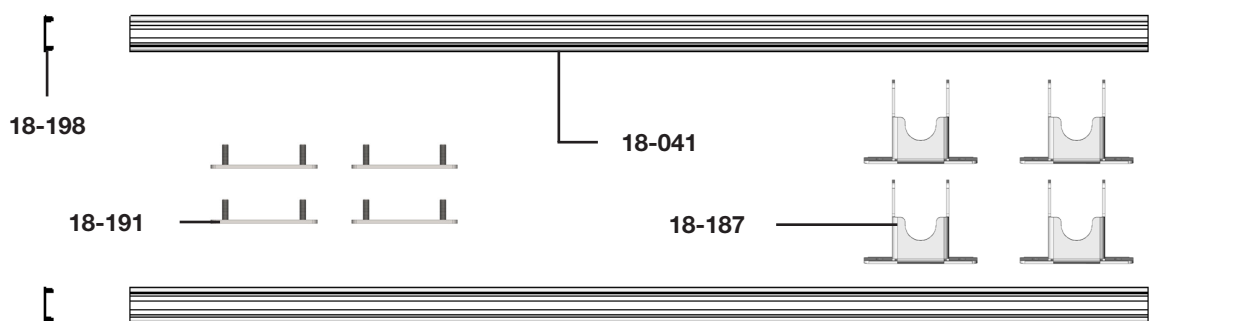
**2
PERSONS**

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

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.

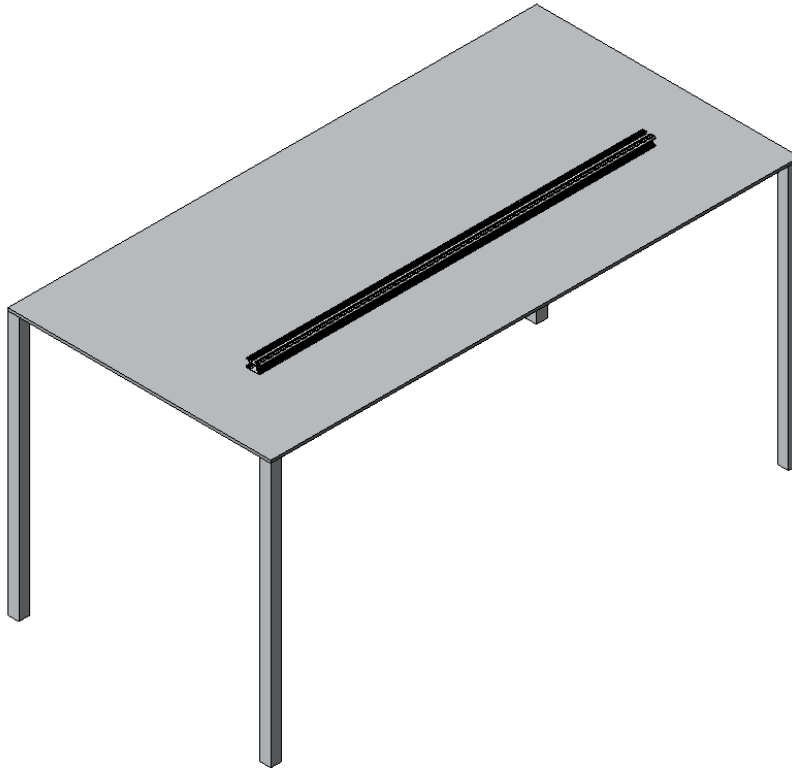
BILL OF MATERIALS

Item No.	Description	Qty.
18-187	Foot	4
18-041	Max Rack Crossbar	2
18-198	End Plastic Plug	4
18-191	Stud Plate	4
94-1806	Fastener kit	1

PHASE 1 – ASSEMBLY

1.2 MAX RACK PREPARATION

1.2.1 Pull one Crossbar on the box 18-U1806 and put the Crossbar on the table.



**“You have successfully completed Operation 1
Max Rack Crossbar!
Open the passenger side mechanism (18-U1810) box to continue
assembling the Max Rack**

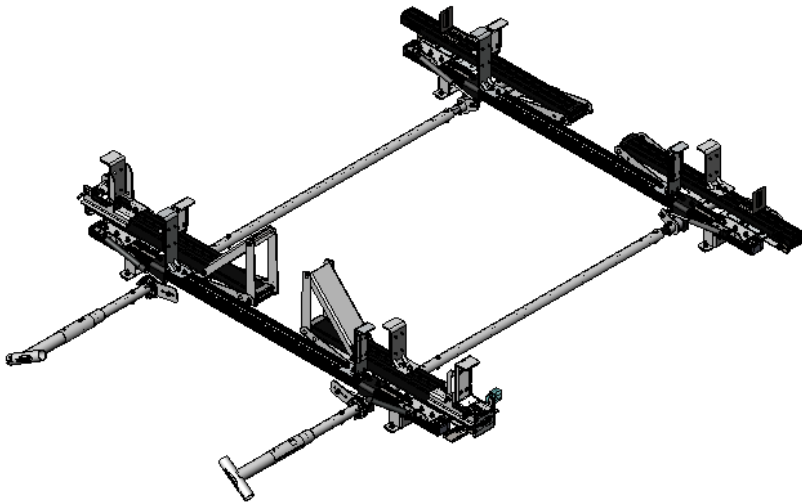
Thank you for doing business with us.”

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

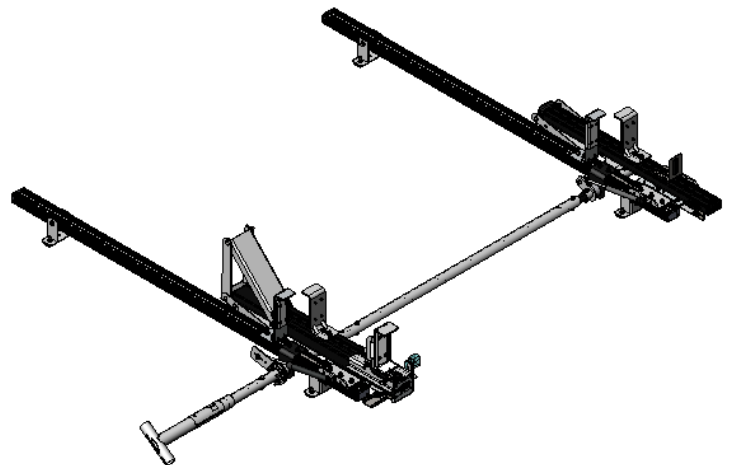


INSTALLATION GUIDE

MAX RACK DOUBLE SIDE



RACK SINGLE SIDE



18-U1810 Max Rack

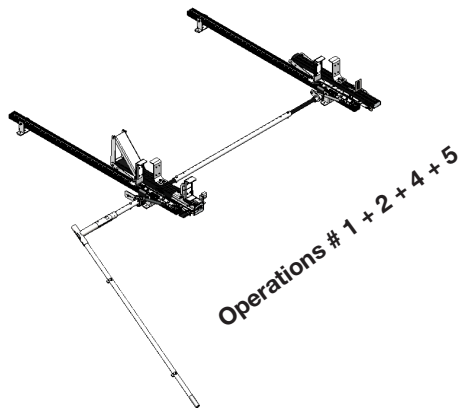
Passenger Side

39" Drop Height From The Roof

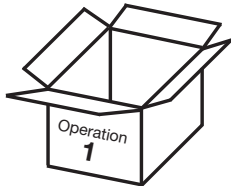
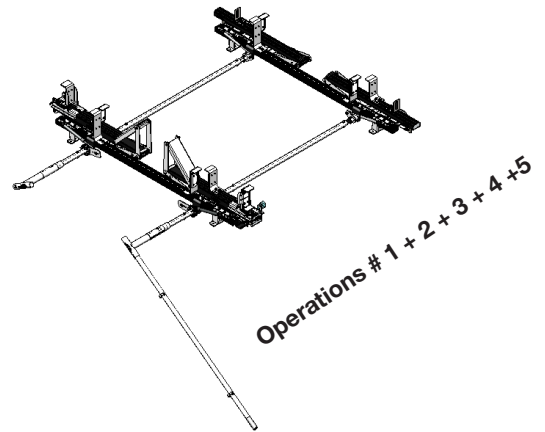


ORDER OF OPERATION

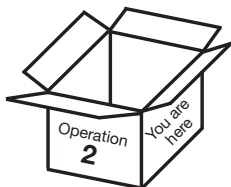
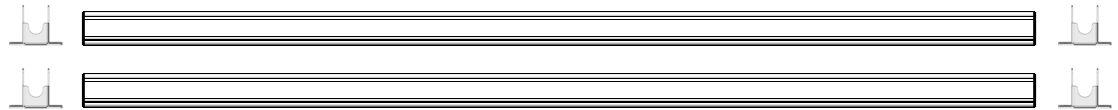
MAX RACK SINGLE SIDE



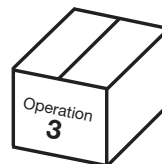
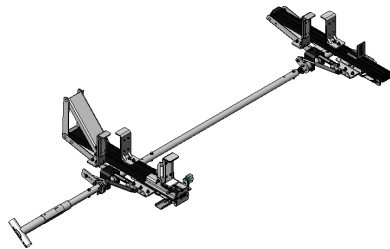
MAX RACK DOUBLE SIDE



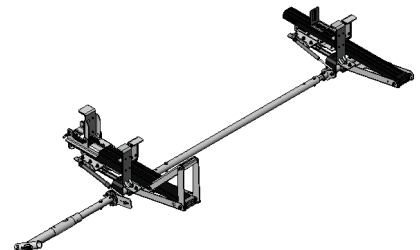
18-U1806



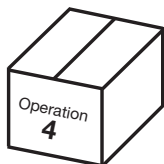
18-U1810



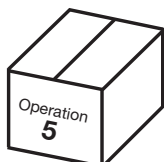
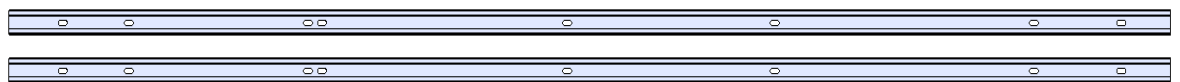
18-U1815



OPTIONAL: Applicable only
for Max Rack Double Side.



MOUNTING TRACK



18-U1807



QUICK START GUIDE

Phase 1 - Assembly

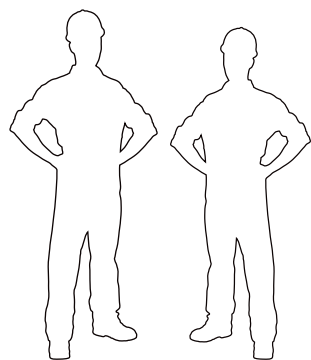
❑ 1.1 Setup.....	4 - 5
❑ 1.2 Front Crossbar Assembly.....	6 - 11
❑ 1.3 Rear Crossbar Assembly.....	12 - 20
❑ 1.4 For Assembly With Overhead Lift.....	21
❑ 1.5 Assembly Validation.....	22

Phase 2 - Ladder Installation

❑ 2.1 Extension Ladder Installation.....	23
❑ 2.2 Step Ladder Installation.....	24

REQUIRED ITEMS FOR COMPLETE MAX RACK

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



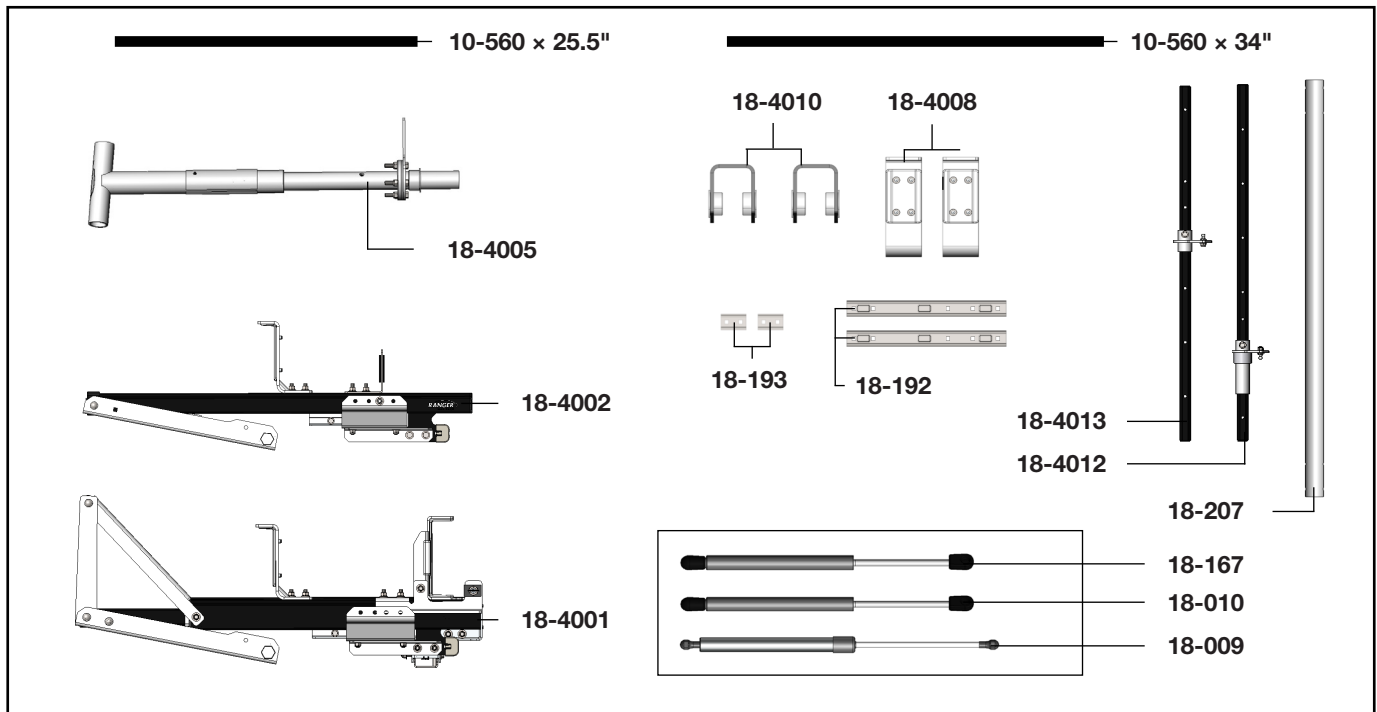
**2
PERSONS**

- ❑ Cordless Impact
- ❑ Ratchet
- ❑ Tape Measure
- ❑ Marker
- ❑ Ladder
- ❑ 1/2" Wrench
- ❑ 1/2" Socket
- ❑ Sawhorse (Optional)
- ❑ Box
- ❑ 1/8" Slot Screwdriver or Pick

PHASE 1 – ASSEMBLY

1.1 SETUP

1.1.1 Unpack components; compare with the bill of materials.

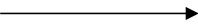


1.1.2 Verify all parts are present.

Item No.	Description	Qty.
18-009	Damper	1
18-010	Gas Spring	1
18-207	Center Tube	1
18-167	Gas Spring Combo	1
18-192	Insert Plate, 5 Bolts	2
18-193	Insert Plate, 2 Bolts	2
18-4013	PS - Rear Linkage	1
18-4012	PS - Front Linkage	1
18-4001	Passenger Side Rear Mechanism	1
18-4002	Passenger Side Front Mechanism	1
18-4005	Passenger Side Damper kit	1
18-4008	Long Hook	2
18-4010	Shaft Support Bracket	2
10-560x25.5"	Track Plug (25.5")	1
10-560x34"	Track Plug (34")	1
94-0810	Customer Assembly Fastener Kit	1

1.1.3 Fastener kits.

94-0810



Fastener Assembly

1x



40-665

Ball Stud
3/4"
Zinc Plated

5x



90-225

Hex Bolt
5/16" - 18 x 2"
SS304

14x



90-491

Carriage Bolt
5/16" - 18 x 1"
SS304

17x



94-111

Lock Nut
5/16"
SS304 WAX

24x



98-117

Flat Washer
5/16", 3/4" O.D.
SS18 - 8

1x



#40-665 Ball Stud 3/4"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

5x



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

12x



#90-491 Carriage Bolt 1"



#98-117 Flat Washer 5/16"

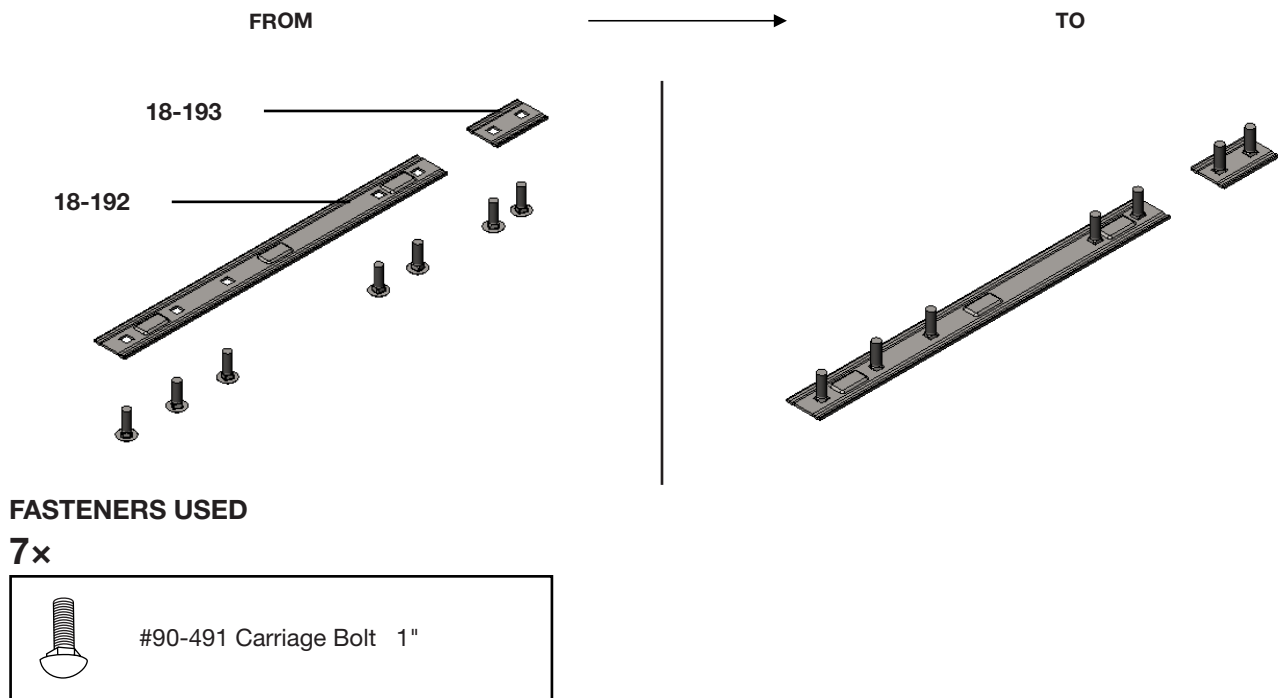


#94-111 Lock Nut 5/16"

PHASE 1 – ASSEMBLY

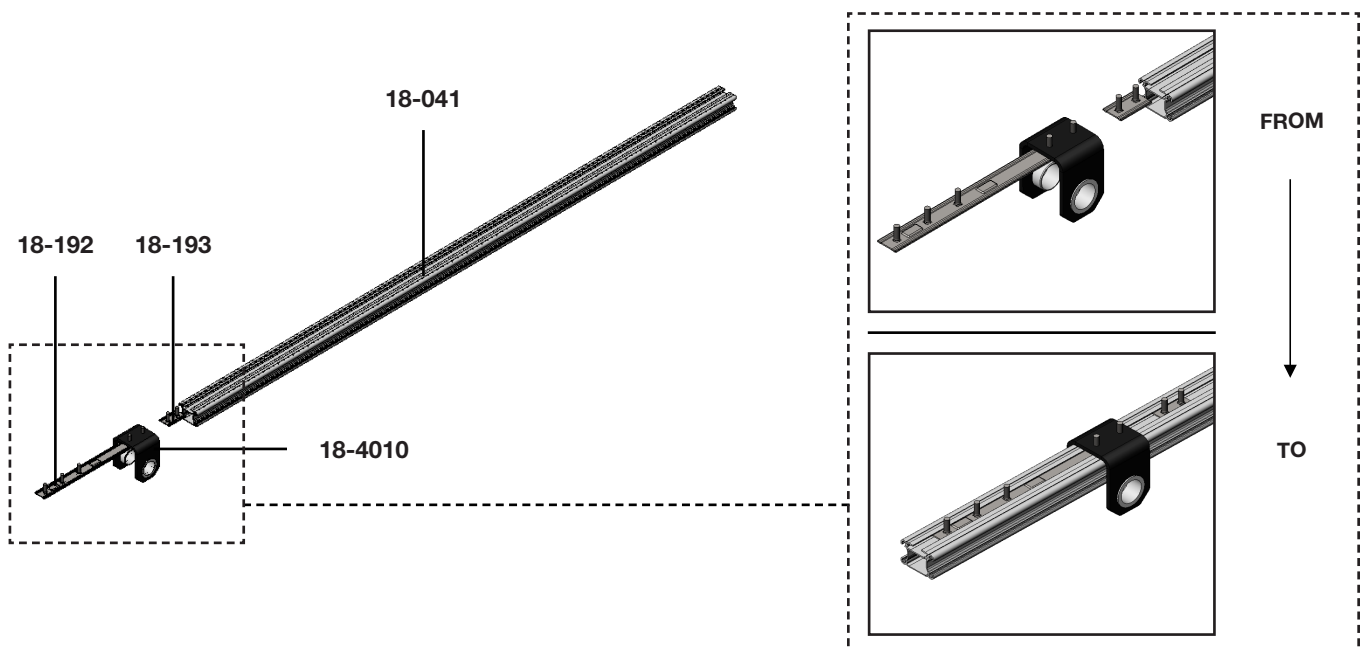
1.2 FRONT CROSSBAR ASSEMBLY

1.2.1 Attach carriage bolts to the insert plate.



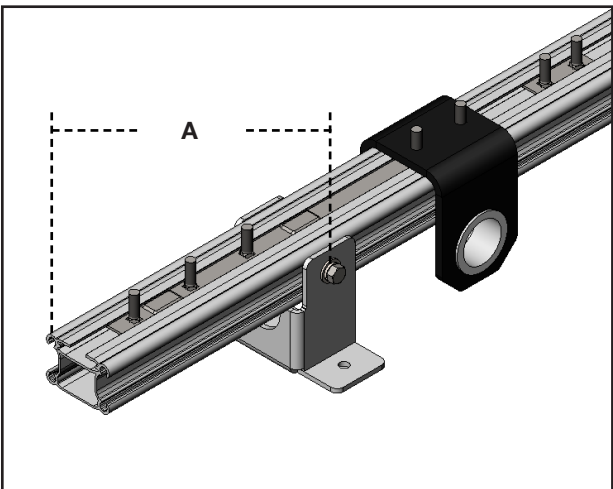
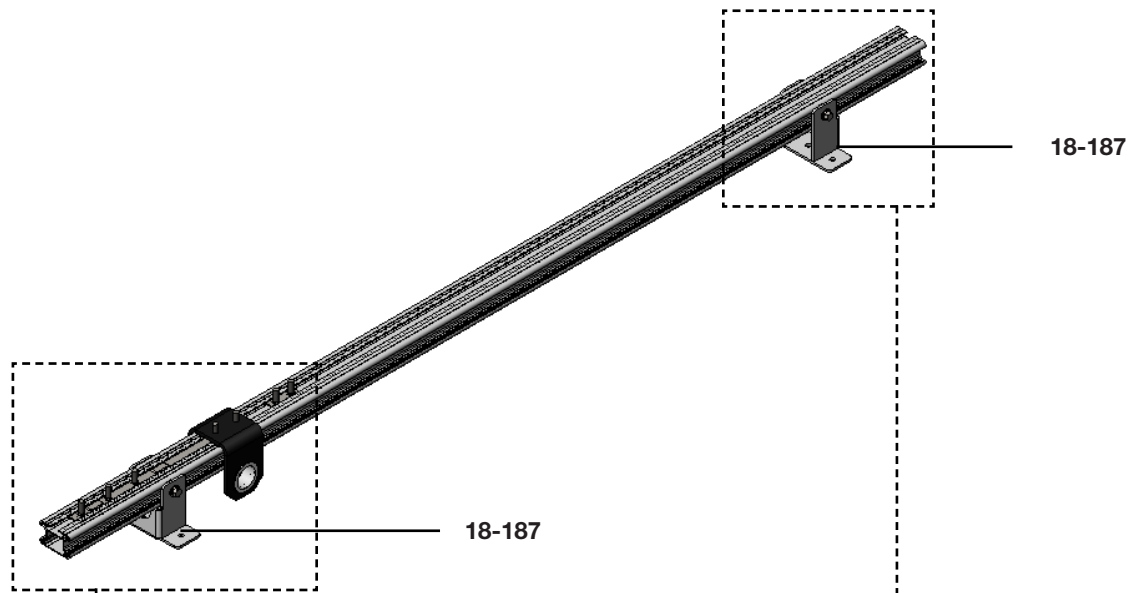
1.2.2 Slide the insert plate to the crossbar w/ shaft support bracket.

NOTE: Repeat this step on the other side of the crossbar if you are assembling a double sided rack.



1.2.3 Attach the 2 feet to the crossbar.

FOOT PLACEMENT GUIDE	
VEHICLE	DIMENSION (A)
NISSAN NV	7"
SPRINTER	10" HIGH ROOF, 6 - 1/2" STANDARD ROOF
TRANSIT	8 - 7/8"
PROMASTER	7 - 1/16"



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/8" Slot Screwdriver or Pick

FASTENERS USED

4x (CROSSBAR FASTENER KIT) (17 ft • lbs)



#90-203 Hex Bolt 5/8"



#98-123 Lock Washer 5/16"

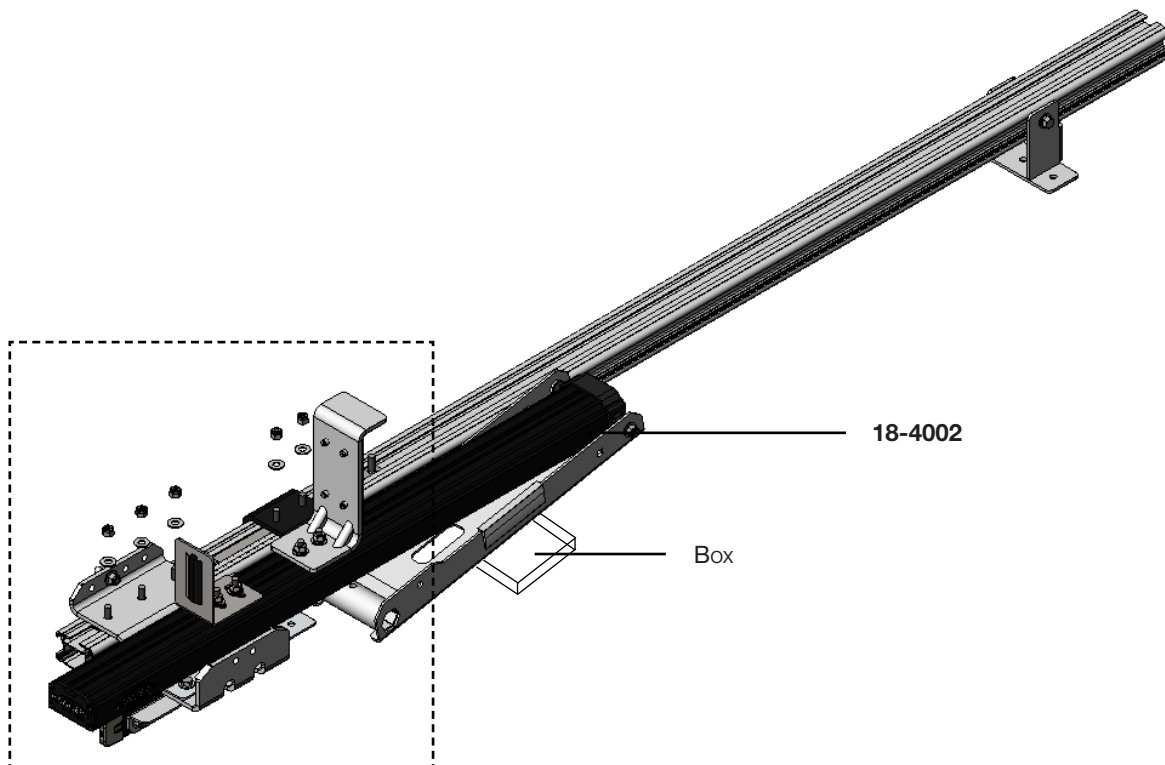


#98-117 Flat Washer 5/16"

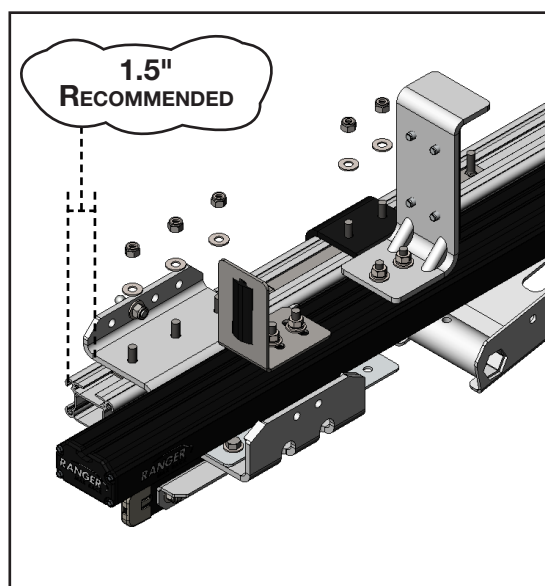


#Channel Nut 5/16"

1.2.4 Attach the passenger side front mechanism to the crossbar using the insert plate w/ 5 holes, then add flat washers and lock nuts to the shaft support bracket.



TIPS: • Use a box to support the mechanism to facilitate assembly.



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

FASTENERS USED

5x (17 ft • lbs)



#94-111 Lock Nut 5/16"



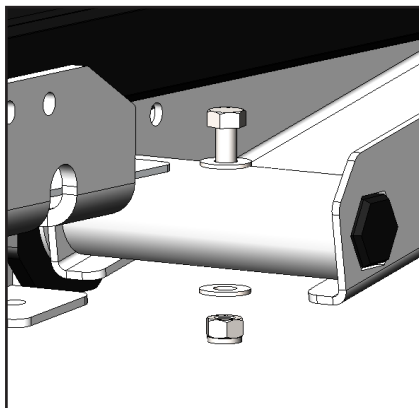
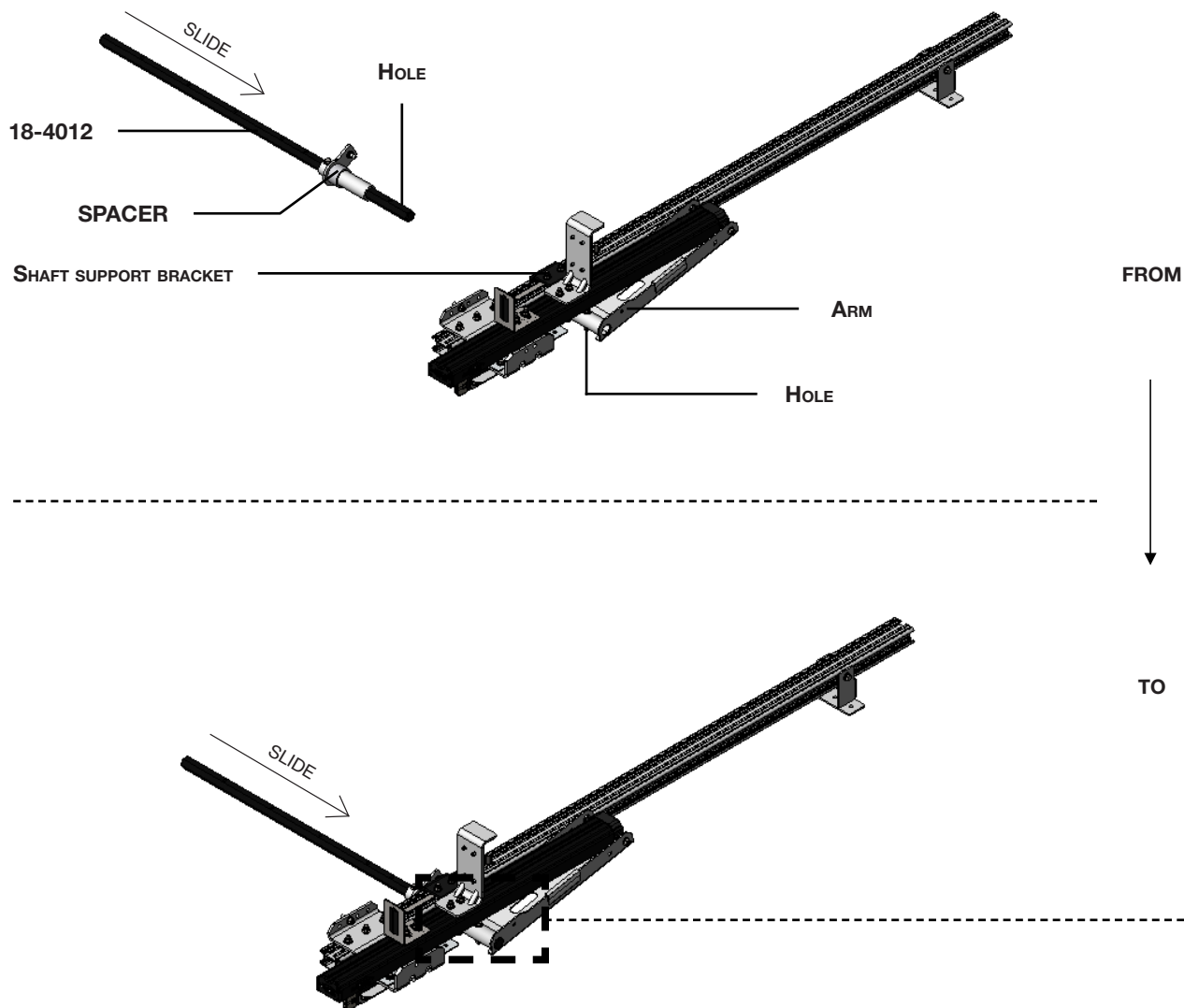
#98-117 Flat Washer 5/16"



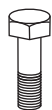
#90-491 Carriage Bolt 1"

1.2.5 Slide the pivot bar with front linkage and spacer through the shaft support bracket and arm, then attach the pivot bar to the arm.

NOTE: Line up the hole of the front pivot bar to the hole of the arm.



FASTENERS USED
1x (17 ft • lbs)



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"



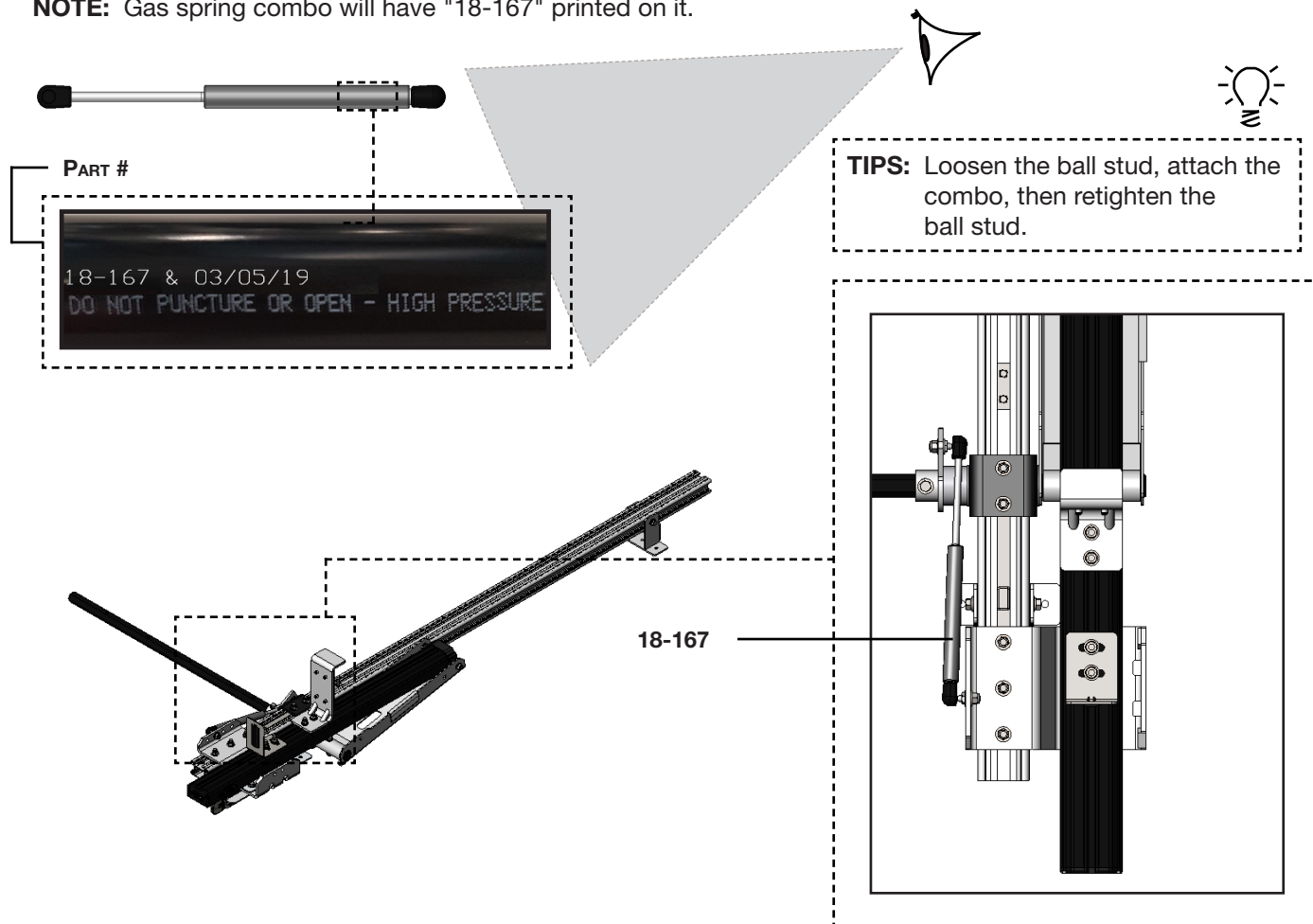
#94-111 Lock Nut 5/16"

TOOLS

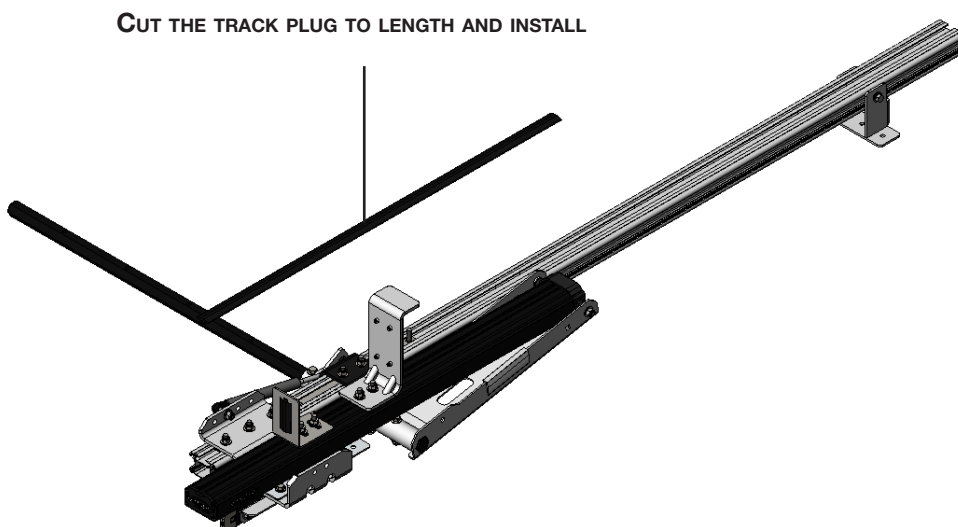
□ 1/2" Wrench 2x

1.2.6 Attach the gas spring combo to the ball studs.

NOTE: Gas spring combo will have "18-167" printed on it.

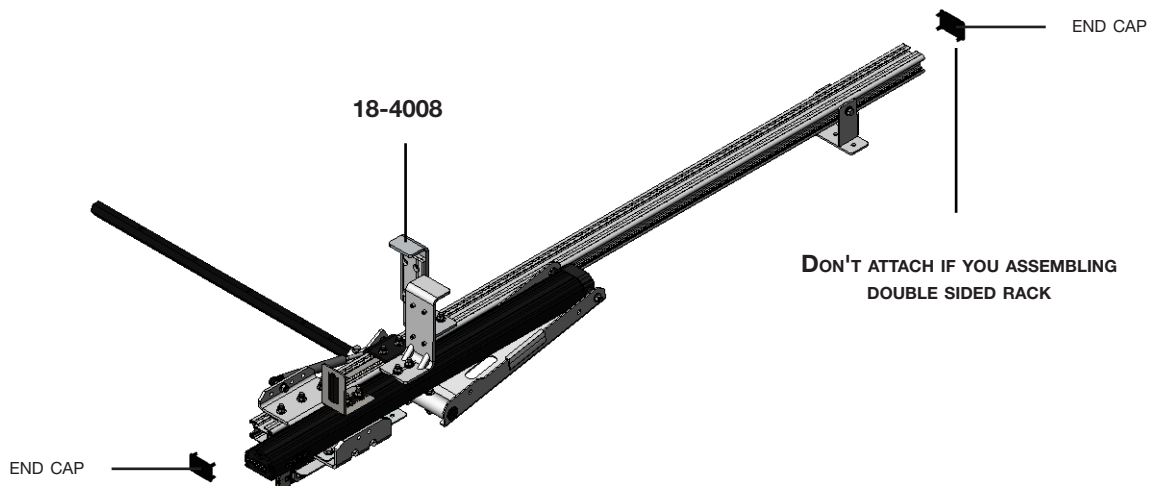


- ### 1.2.7
- Attach one small hook and front ladder retainer to the front mechanism.
 - Cut the track plug to length and install.

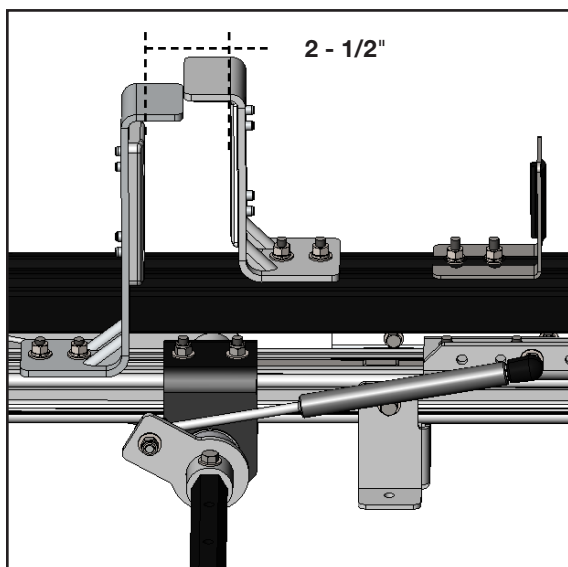
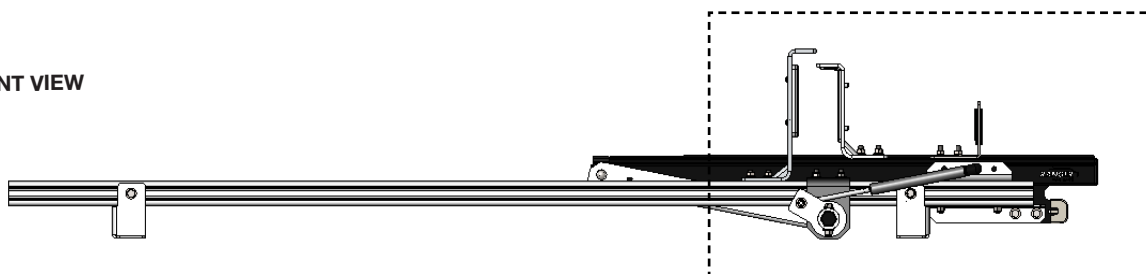


1.2.8 Attach the long hook to the crossbar, facing to the small hook.

NOTE: If you are using a step ladder, the hook position will need to be adjusted.
(Follow the mounting track installation guide).



FRONT VIEW



NOTE: Use the insert plate w/ 2 holes.

TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

FASTENERS USED

2x (17 ft • lbs)

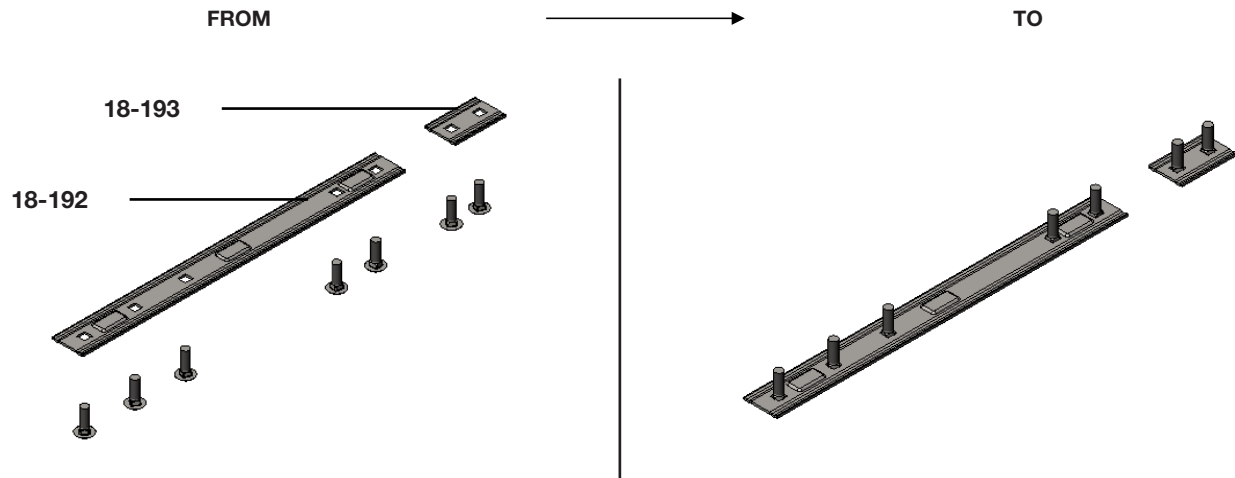


- #94-105 Hex Nut 5/16"
- #98-123 Lock Washer 5/16"
- #98-117 Flat Washer 5/16"
- #90-491 Carriage Bolt 1"

PHASE 1 – ASSEMBLY

1.3 REAR CROSSBAR ASSEMBLY

1.3.1 Attach carriage bolts to the insert plate.



FASTENERS USED

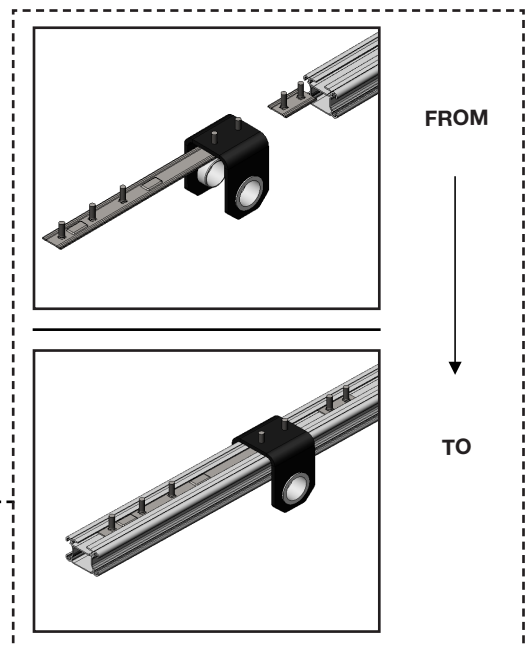
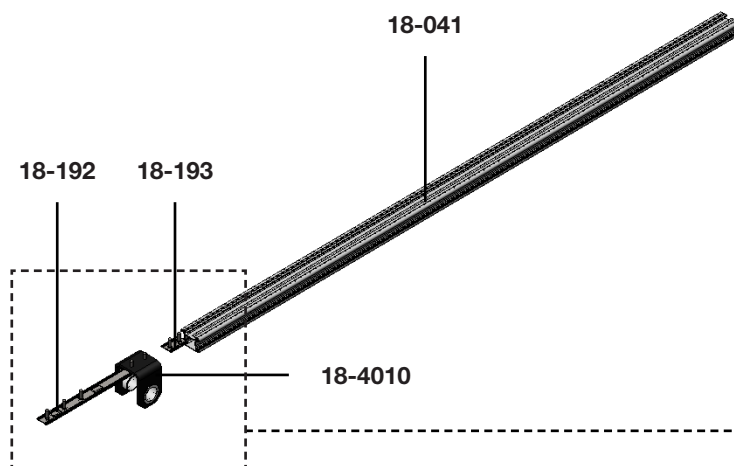
7x



#90-491 Carriage Bolt 1"

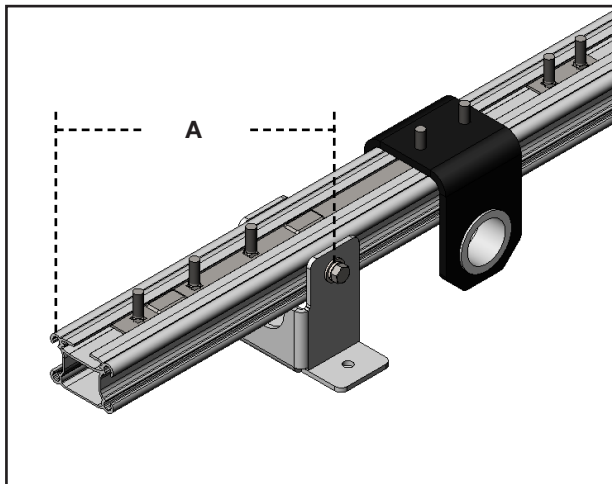
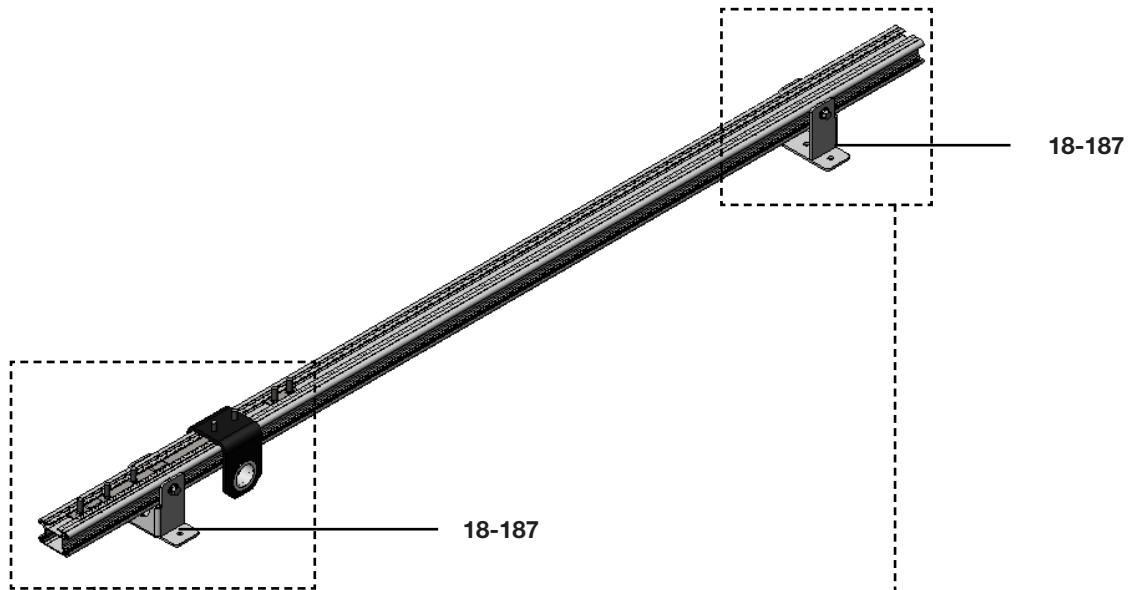
1.3.2 Slide the insert plate to the crossbar w/ shaft support bracket.

NOTE: Repeat this step on the other side of the crossbar if you are assembling a double sided rack.



1.3.3 Attach the 2 feet to the crossbar.

FOOT PLACEMENT GUIDE	
VEHICLE	DIMENSION (A)
NISSAN NV	7"
SPRINTER	10" HIGH ROOF, 6 - 1/2" STANDARD ROOF
TRANSIT 130" WB	8 - 7/8"
TRANSIT 148" & 148" EXT. WB	8 - 7/8"
PROMASTER 118" WB	7 - 1/16"
PROMASTER 136" WB	7 - 1/16"
PROMASTER 159" WB	7 - 1/16"
PROMASTER 159" EXT. WB	7 - 1/16"



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/8" Slot Screwdriver or Pick

FASTENERS USED

4x (CROSSBAR FASTENER KIT) (17 ft • lbs)



#90-203 Hex Bolt 5/8"

#98-123 Lock Washer 5/16"

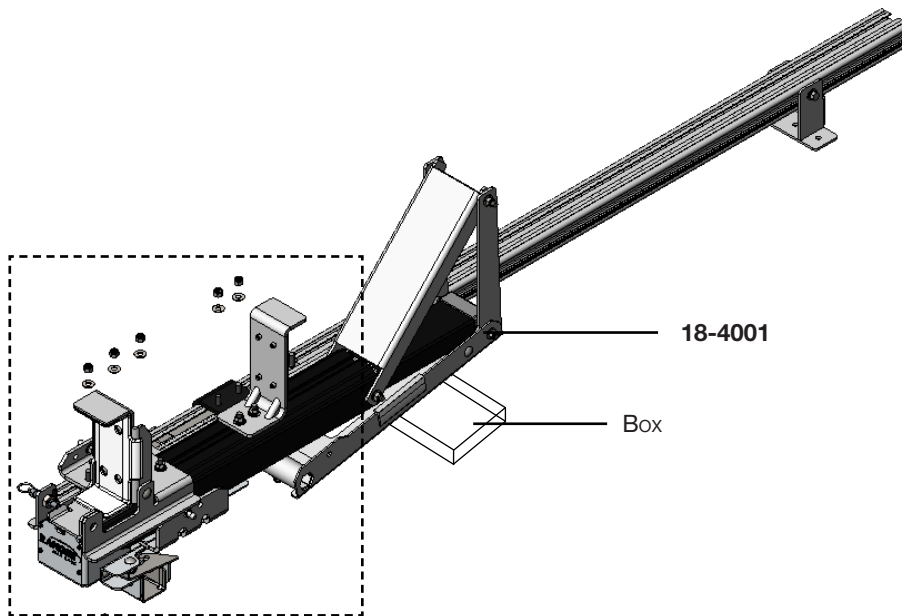
#98-117 Flat Washer 5/16"

#Channel Nut 5/16"

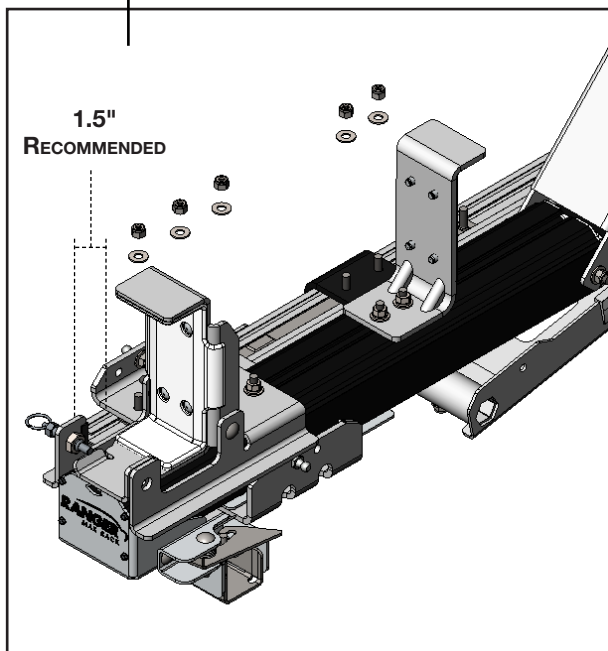
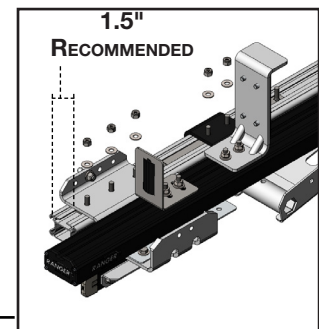
1.3.4 Attach the passenger side rear mechanism to the crossbar using the insert plate w/ 5 holes, then add flat washers and lock nuts to the shaft support bracket.



TIPS: • Use a box to support the mechanism to facilitate assembly.



NOTE: Front & rear should have same dimension.






TOOLS

- Cordless Impact
- 1/2" Socket

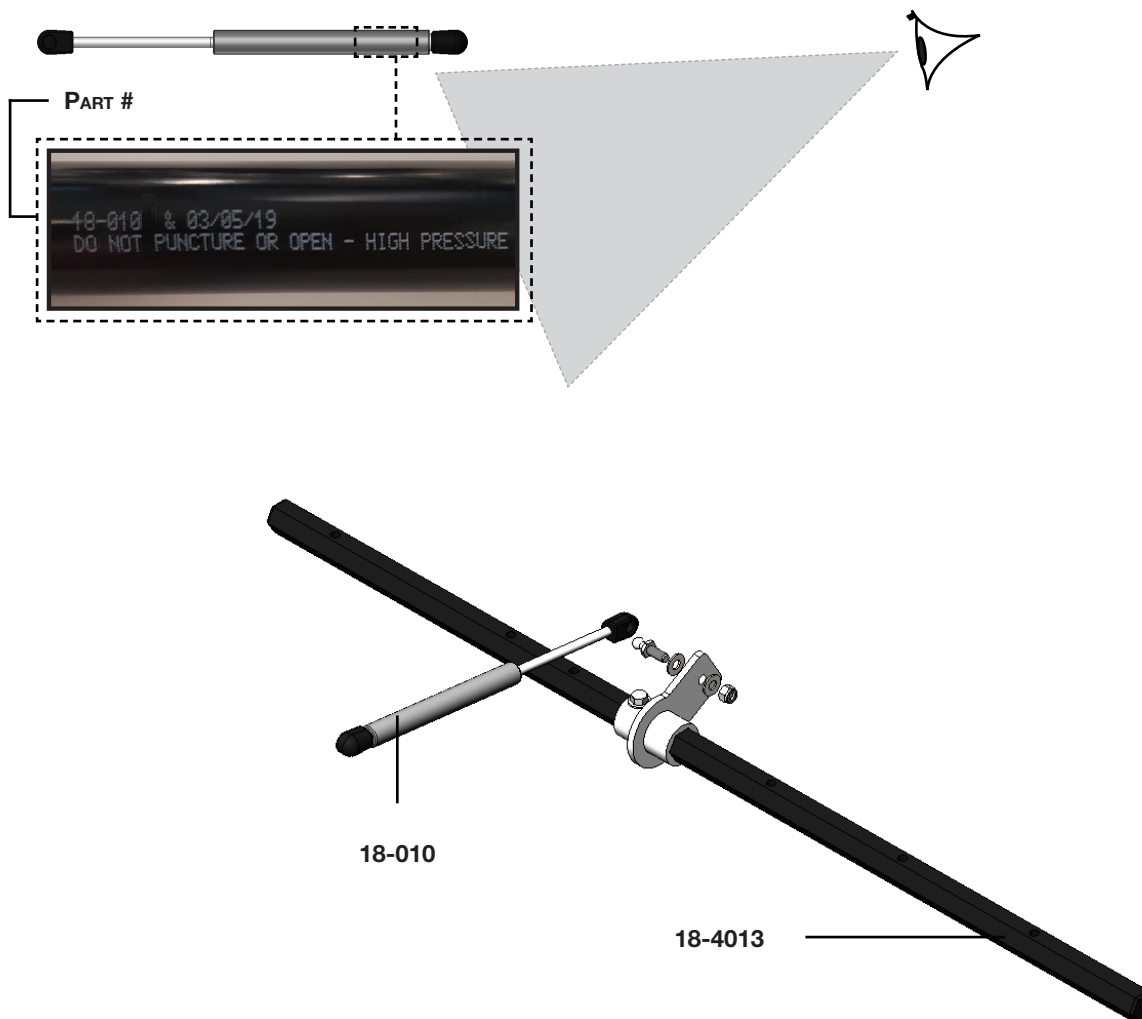
FASTENERS USED

5x (17 ft • lbs)

- | | |
|---|---------------------------|
|  | #94-111 Lock Nut 5/16" |
|  | #98-117 Flat Washer 5/16" |
|  | #90-491 Carriage Bolt 1" |

1.3.5 Attach the gas spring to the rear linkage.

NOTE: Gas spring will have "18-010" printed on it.



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/2" Wrench

FASTENERS USED

1x (17 ft • lbs)



#40-665 Ball Stud 3/4"



#98-117 Flat Washer 5/16"

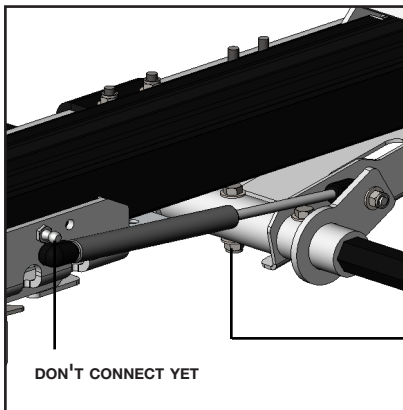
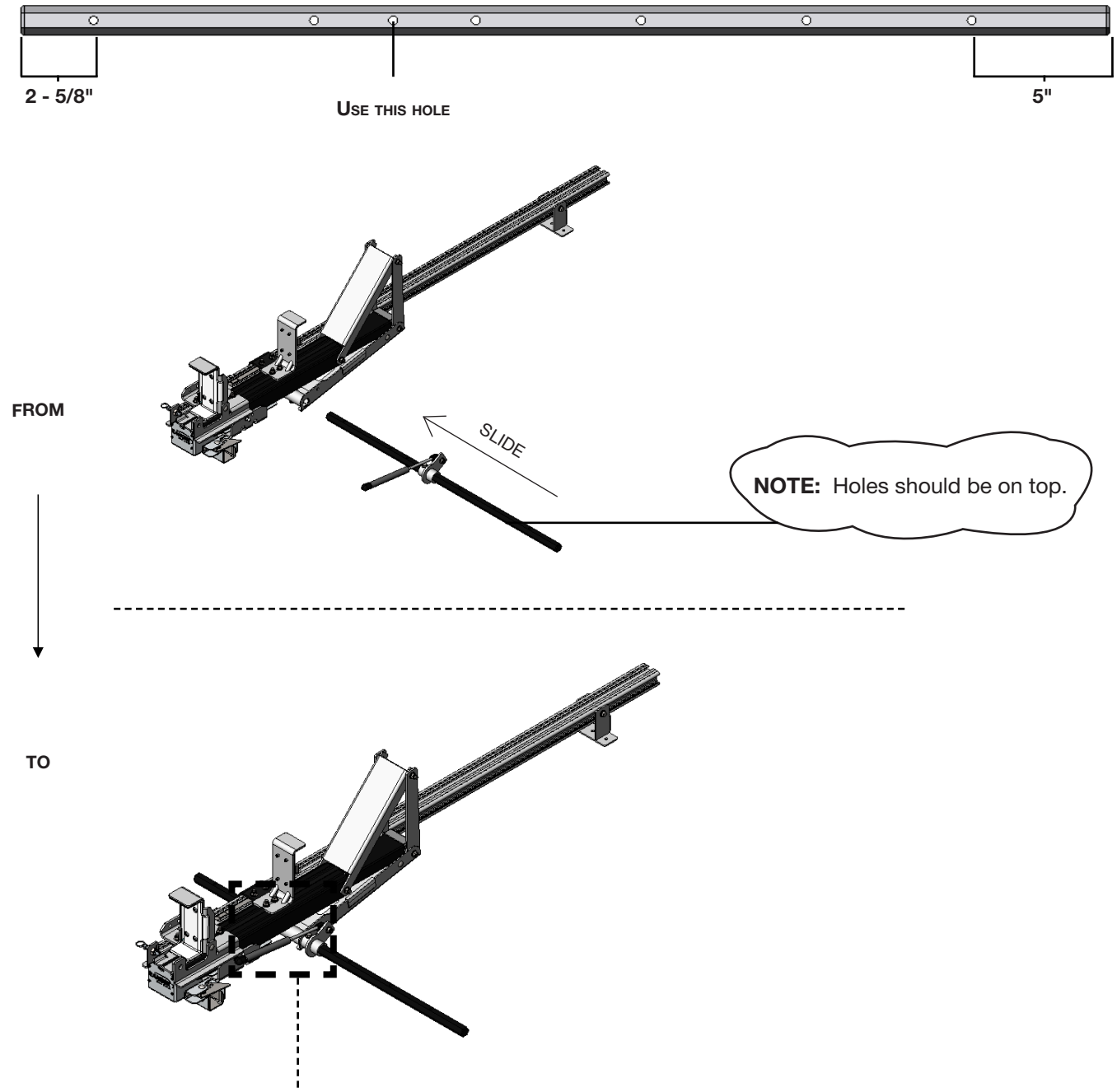


#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

1.3.6 Slide the pivot bar with rear linkage through the arm and shaft support bracket, then attach the pivot bar to the arm.



FASTENERS USED
1x (17 ft • lbs)



#90-225 Hex Bolt 2"

#98-117 Flat Washer 5/16"

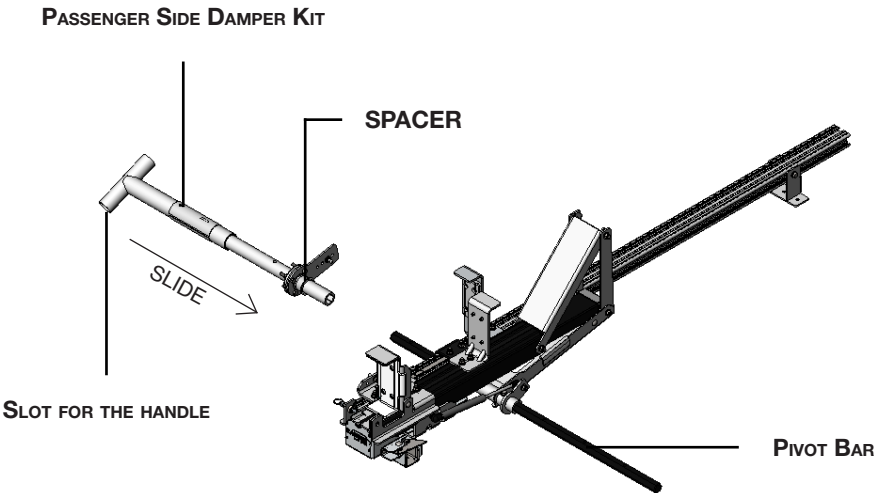
#98-117 Flat Washer 5/16"

#94-111 Lock Nut 5/16"

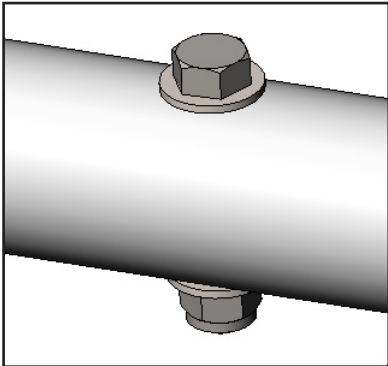
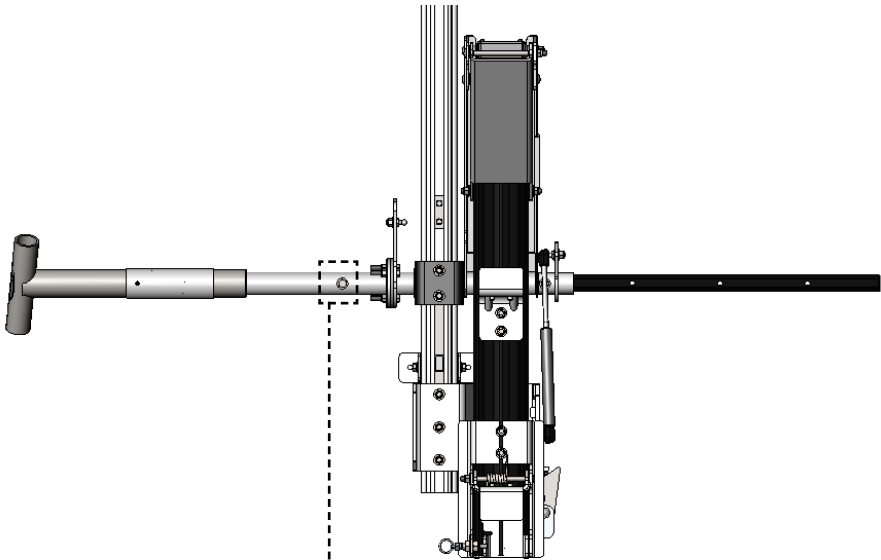
TOOLS

□ 1/2" Wrench 2x

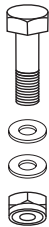
1.3.7 Slide the passenger side damper kit to the pivot bar, then attach the passenger side damper kit to the pivot bar.



TOP VIEW



FASTENERS USED
1x (17 ft • lbs)

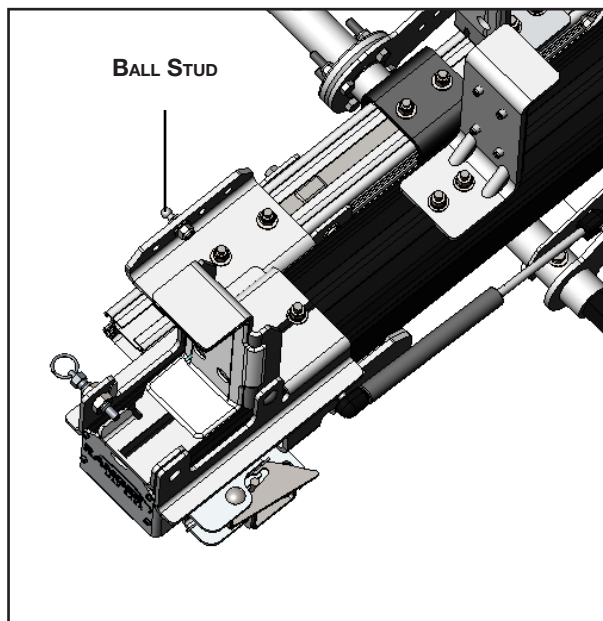
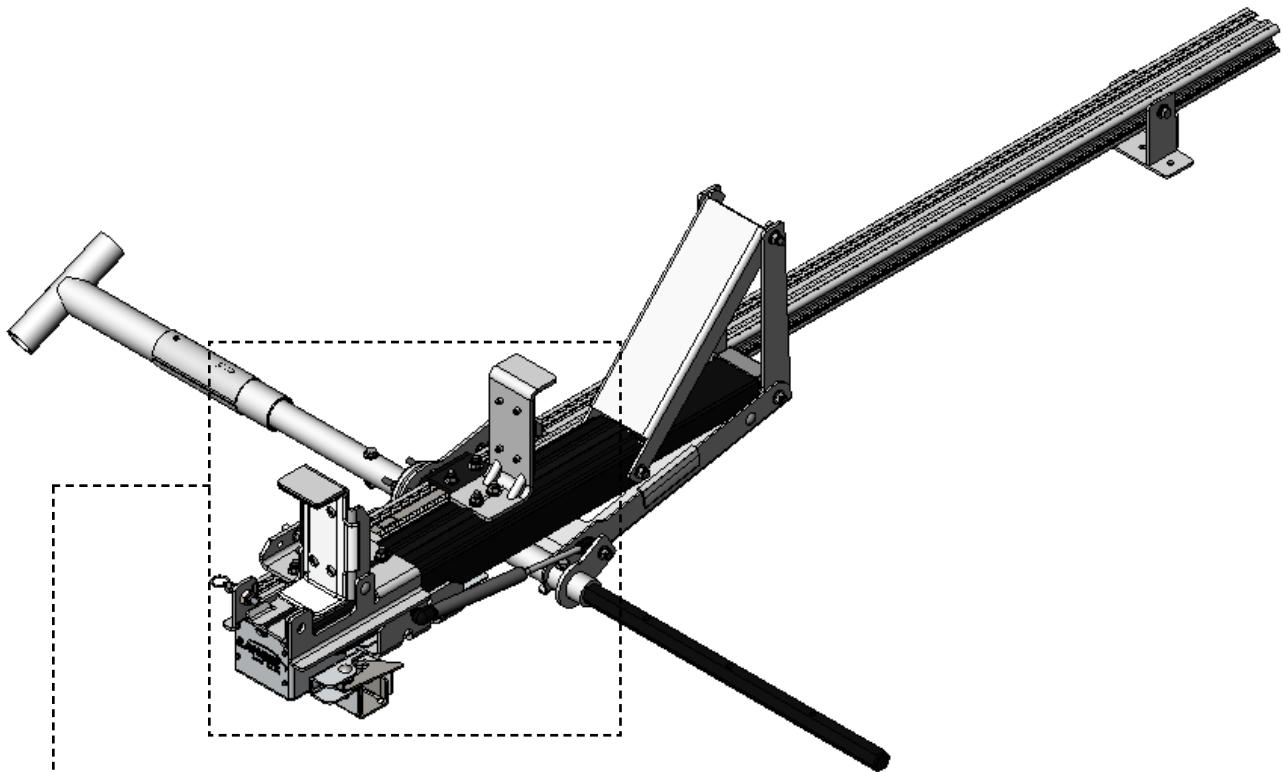


- #90-225 Hex Bolt 2"
- #98-117 Flat Washer 5/16"
- #98-117 Flat Washer 5/16"
- #94-111 Lock Nut 5/16"

TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/2" Wrench

1.3.8 Attach ball stud to the passenger side damper kit and rear mechanism frame.



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/2" Wrench x2

FASTENERS USED

2x (17 ft • lbs)



#40-665 Ball Stud 3/4"

#98-117 Flat Washer 5/16"

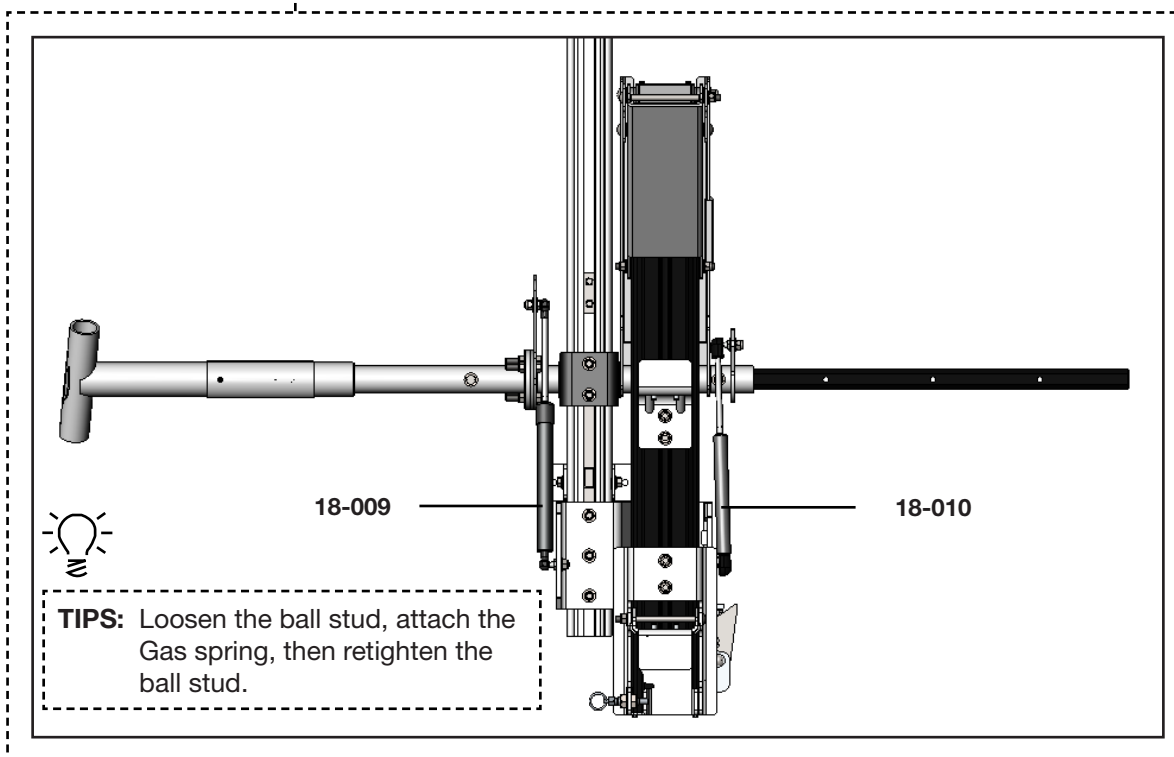
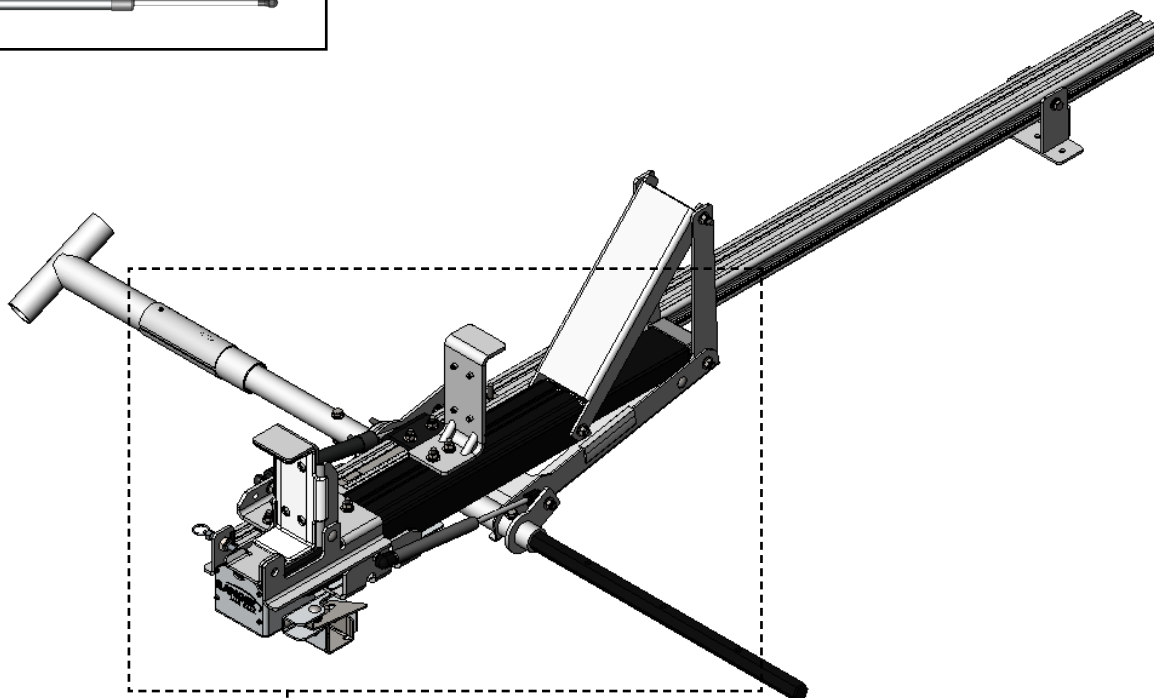
#98-117 Flat Washer 5/16"

#94-111 Lock Nut 5/16"

1.3.9 Attach the damper and gas spring to the ball stud.

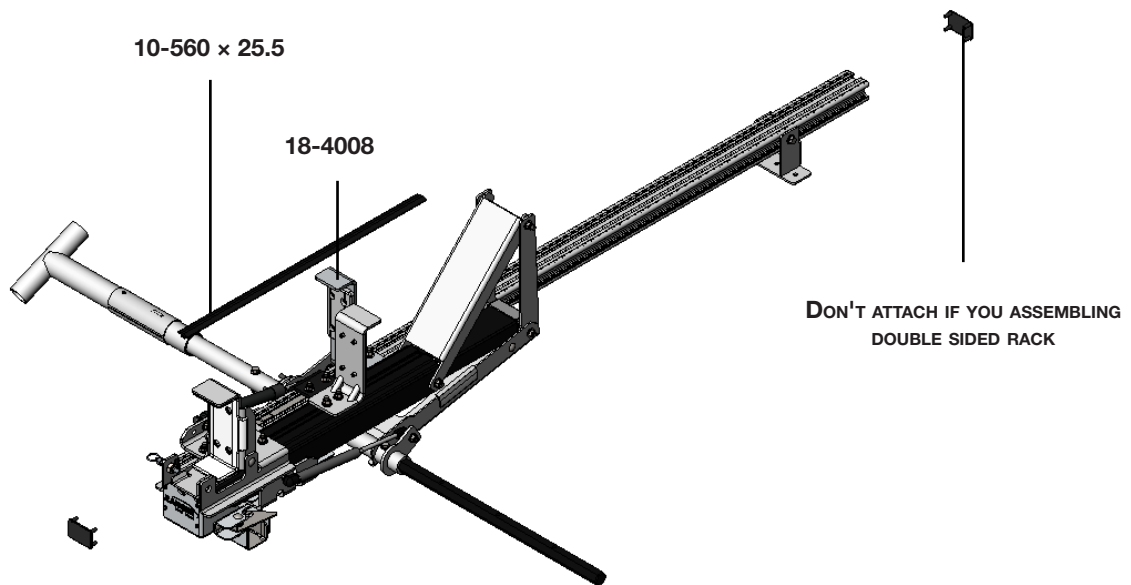
NOTE:

DAMPER: YOU CAN COMPRESS

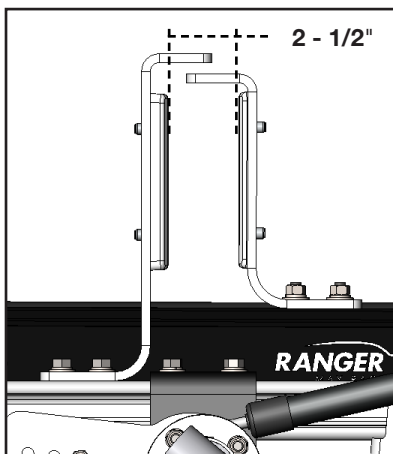
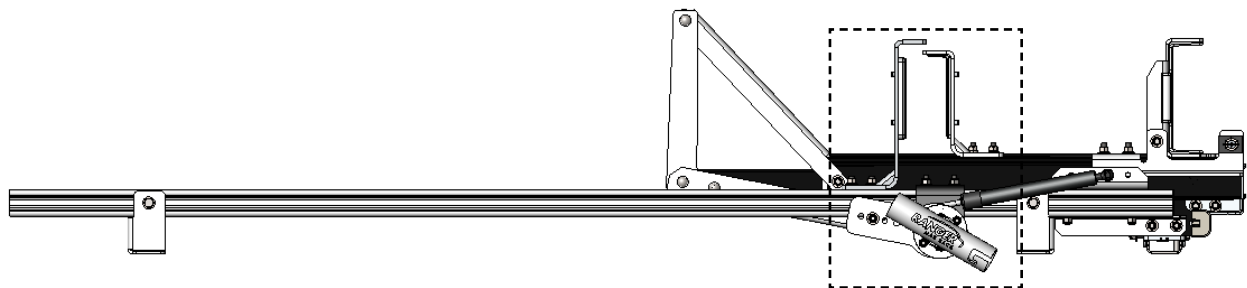


- 1.3.10** • Attach the long hook to the crossbar, facing to the small hook.
• Cut the track plug to length and install.

NOTE: If you are using a step ladder, the hook position will need to be adjusted.
(Follow the mounting track installation guide).



FRONT VIEW



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

FASTENERS USED

2x (17 ft • lbs)



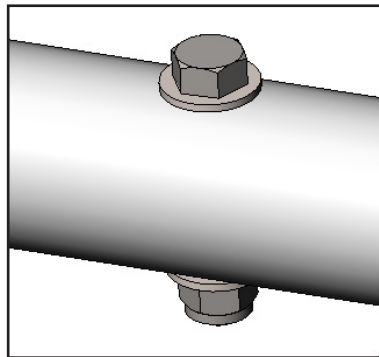
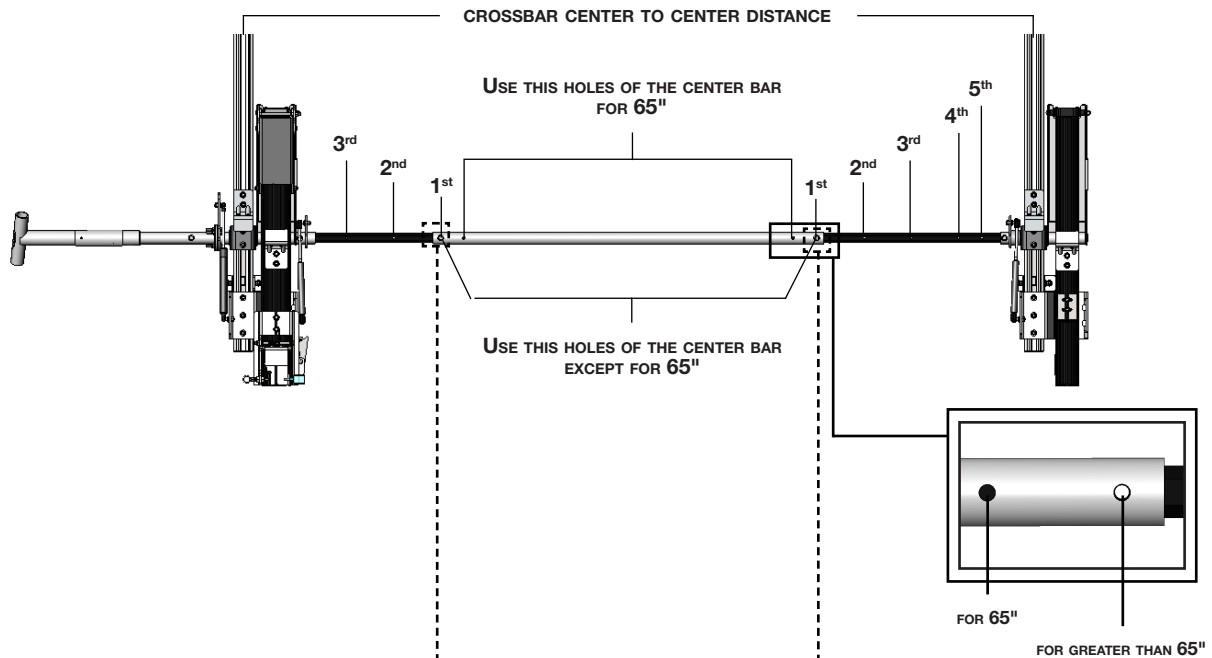
- #94-105 Hex Nut 5/16"
- #98-123 Lock Washer 5/16"
- #98-117 Flat Washer 5/16"
- #90-491 Carriage Bolt 1"

PHASE 1 – ASSEMBLY

1.4 FOR ASSEMBLY WITH OVERHEAD LIFT

1.4.1 Attach the ends of the front and rear bars to the center tube.

NOTE: Skip this step if you don't have an overhead lift or if you have a Max Rack double side.



FASTENERS USED 2x (17 ft • lbs)



- #90-225 Hex Bolt 2"
- #98-117 Flat Washer 5/16"
- #98-117 Flat Washer 5/16"
- #94-111 Lock Nut 5/16"

TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/2" Wrench

RECOMMENDED SET-UP

VEHICLE	CROSSBAR CENTER TO CENTER DISTANCE	LADDER SIZE
NISSAN NV	65" (3 RD & 4 TH HOLES)	UP TO EXTENSION 24' & STEP 8' TO 10' ONLY
FORD TRANSIT	65" (3 RD & 4 TH HOLES)	UP TO EXTENSION 24' & STEP 8' TO 10' ONLY
Mercedes-Benz SPRINTER	65" (3 RD & 3 RD HOLES)	UP TO EXTENSION 24' & STEP 8' TO 10' ONLY
RAM PROMASTER	65" (3 RD & 3 RD HOLES)	UP TO EXTENSION 24' & STEP 8' TO 10' ONLY

FOR LONGER EXTENSION LADDER SET-UP

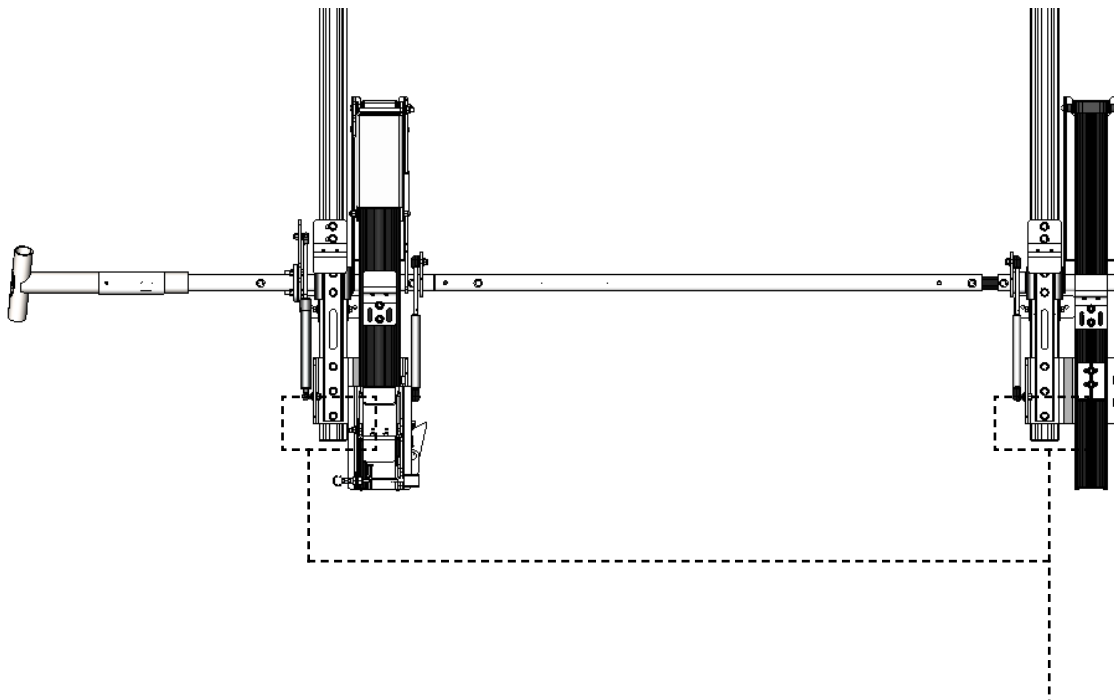
WORKS ONLY ON: FORD TRANSIT (148" & 148" EX. WB), RAM PROMASTER (136", 159" & 159" EX. WB) & MERCEDES-BENS SPRINTER.

CROSSBAR CENTER TO CENTER DISTANCE	LADDER SIZE
89" (2 ND & 2 ND HOLES)	UP TO EXTENSION 32'

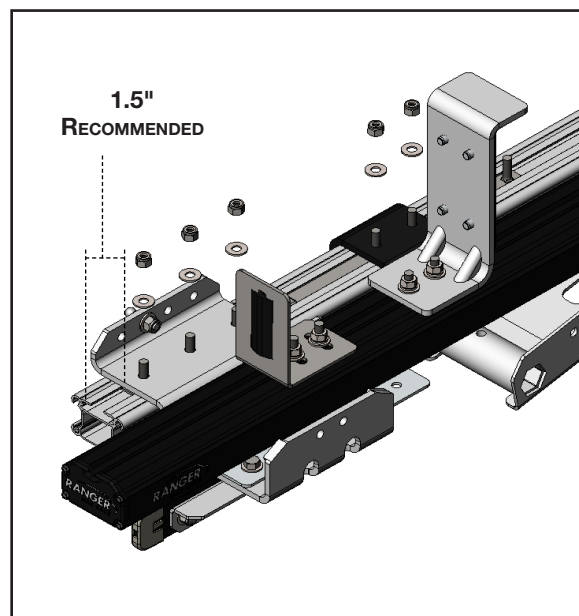
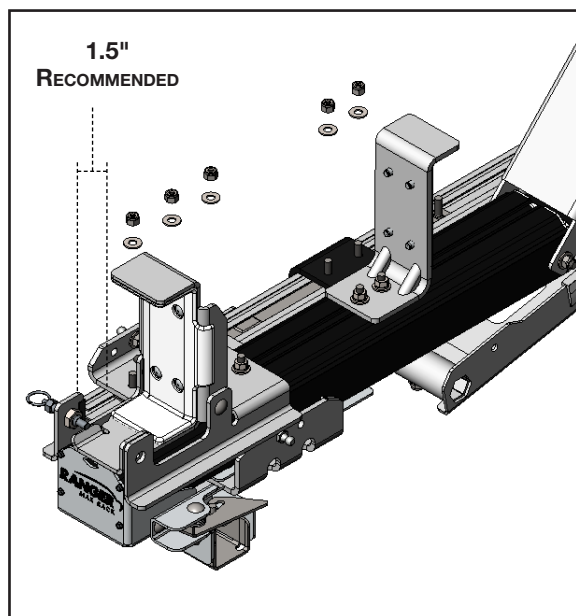
PHASE 1 – ASSEMBLY

1.5 ASSEMBLY VALIDATION

1.5.1 Validate your assembly to ensure smooth operation of your Max Rack.



NOTE: Front & Rear Should have same dimension.



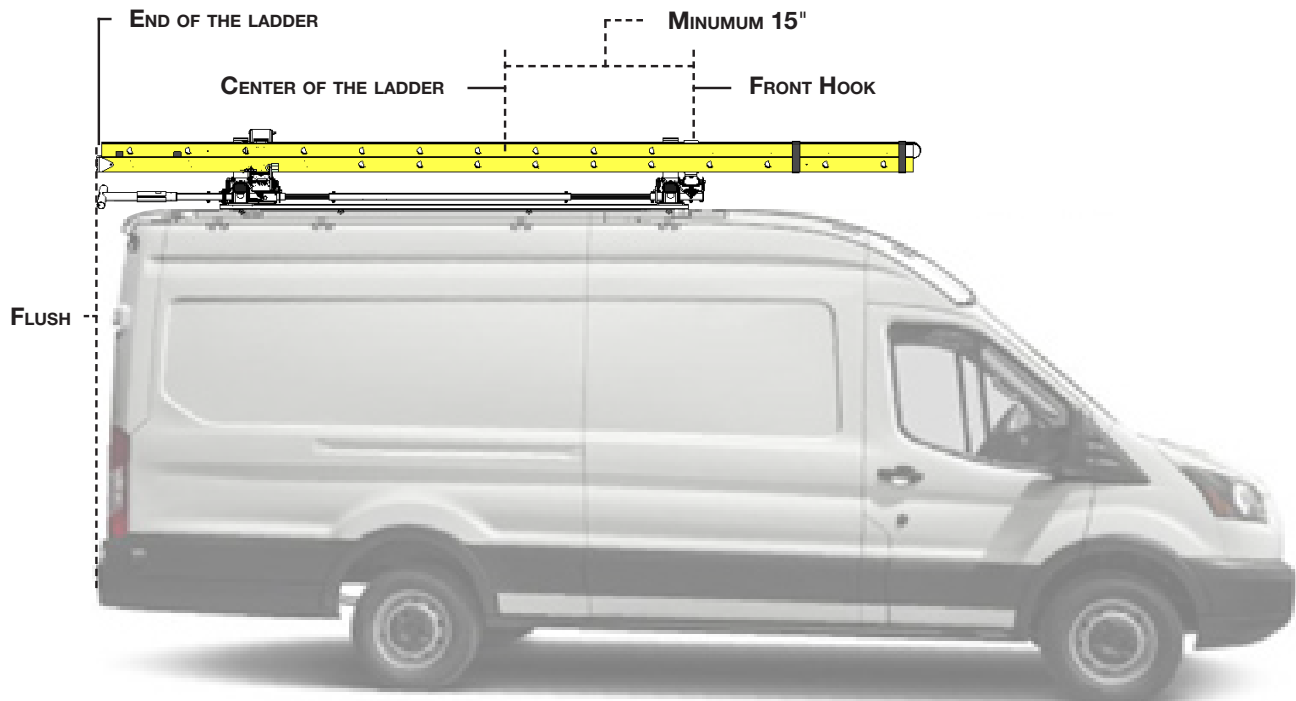
PHASE 2 – LADDER INSTALLATION

2.1 EXTENDED LADDER INSTALLATION

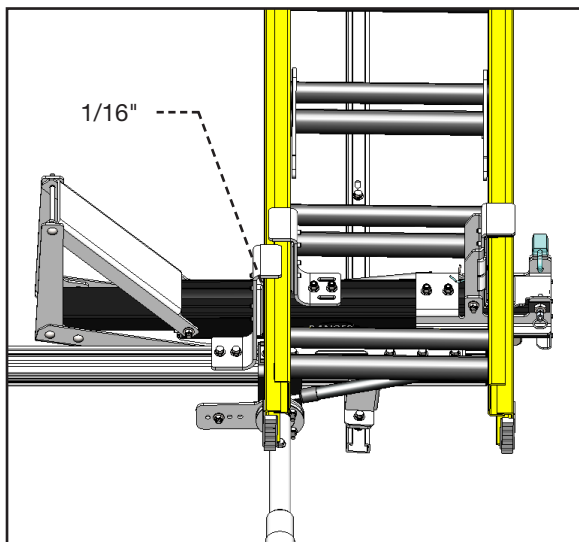
- STEP**
- Place the Max Rack in the down position.
 - Load the ladder onto the Max Rack.

NOTE: These conditions must be respected:

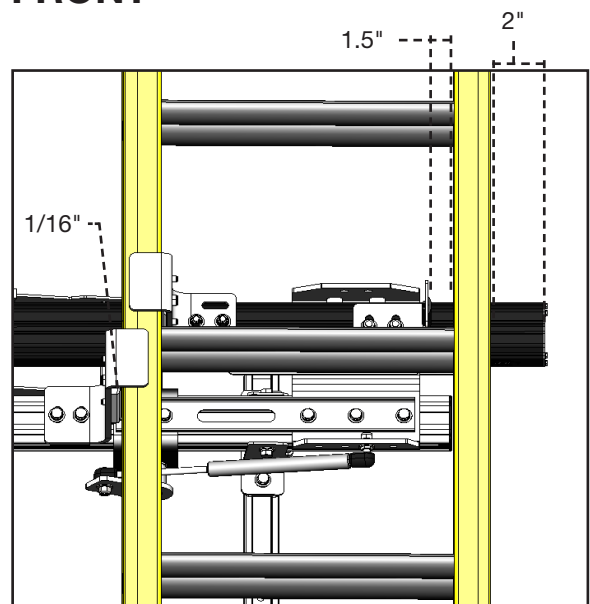
- The arm socket and the ladder cannot extend beyond the rear bumper of the vehicle.
- The center of the ladder must be behind the front hook when the ladder is loaded.



REAR



FRONT

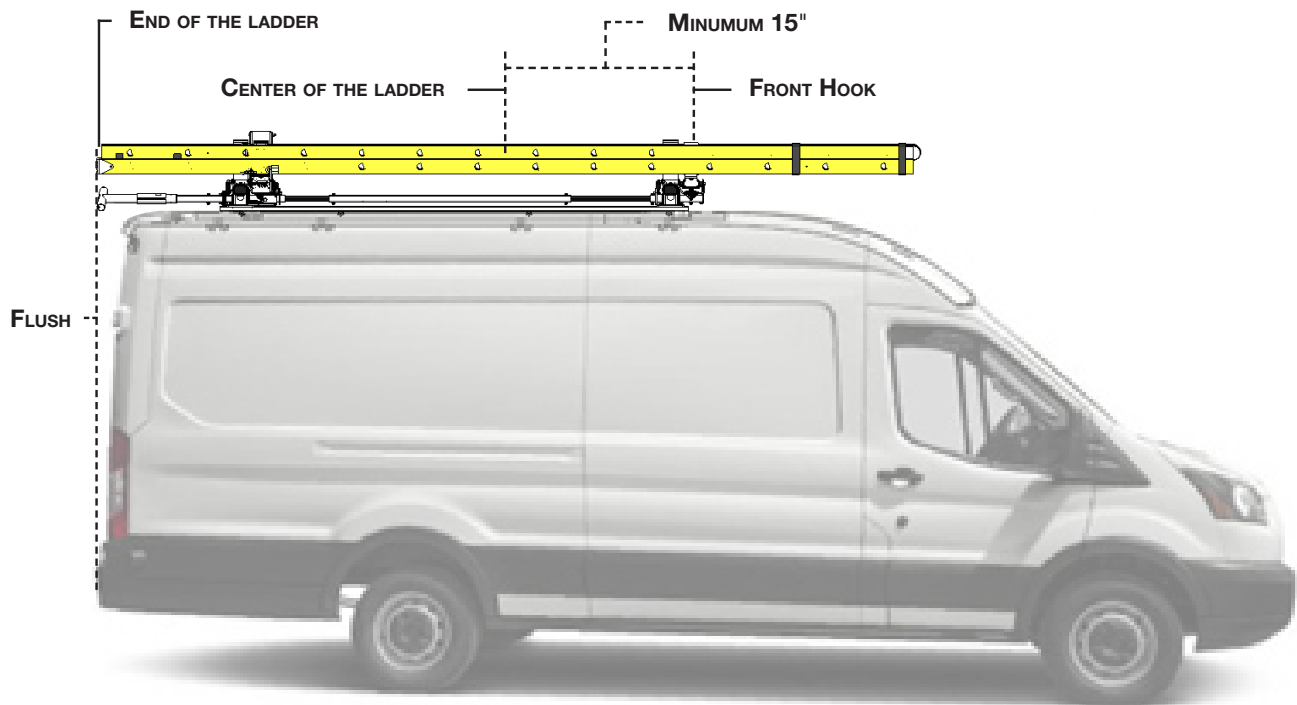


PHASE 2 – LADDER INSTALLATION

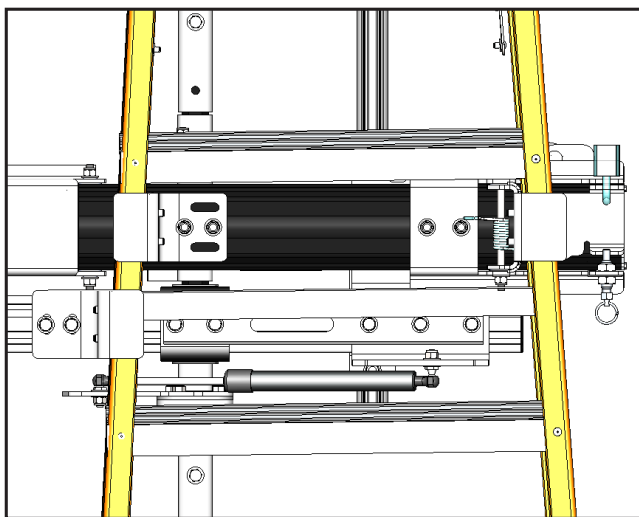
2.2 STEP LADDER INSTALLATION

NOTE: These conditions must be respected:

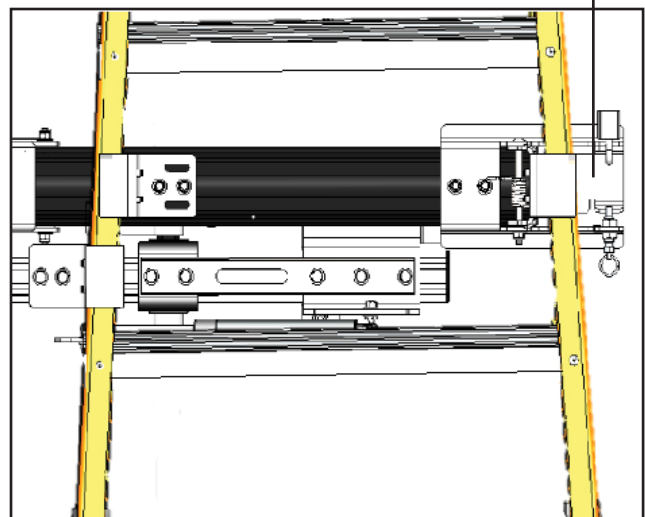
- The arm socket and the ladder cannot extend beyond the rear bumper of the vehicle.
- The center of the ladder must be behind the front hook when the ladder is loaded.



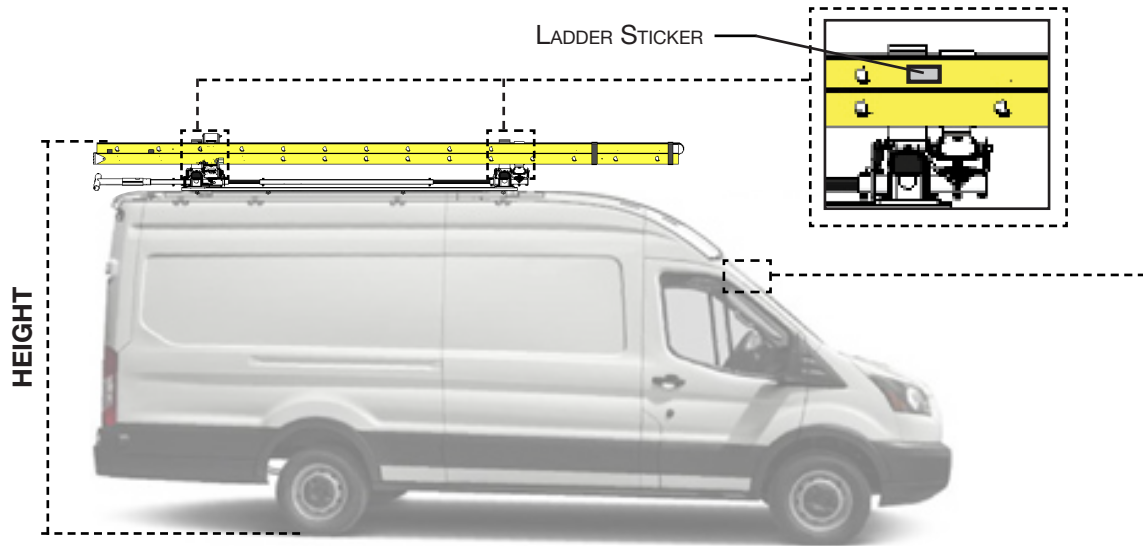
8' STEP LADDER



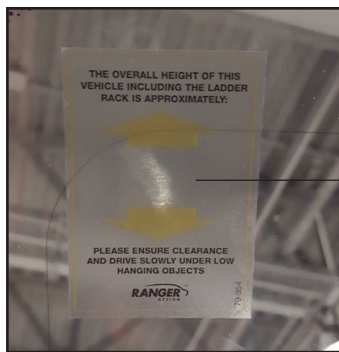
10' STEP LADDER



- NOTE:
- After installation be sure to put the **Operator's Manual** in the cab for the end user.
 - If you don't have the ladder of the end user, explain to end user where to put the **Ladder sticker**.



MAX RACK HEIGHT LABEL INSTALLATION INSIDE



NOTE: Make sure that the label doesn't block the driver's visibility while driving.

Write the height of the vehicle with the Max Rack here.

**“You have successfully completed Operation 2
Max Rack Passenger Side Mechanism!”**

Open the driver side mechanism (18-U1815) box or follow the Install Guide of the mounting track to install the Max Rack on your vehicle.

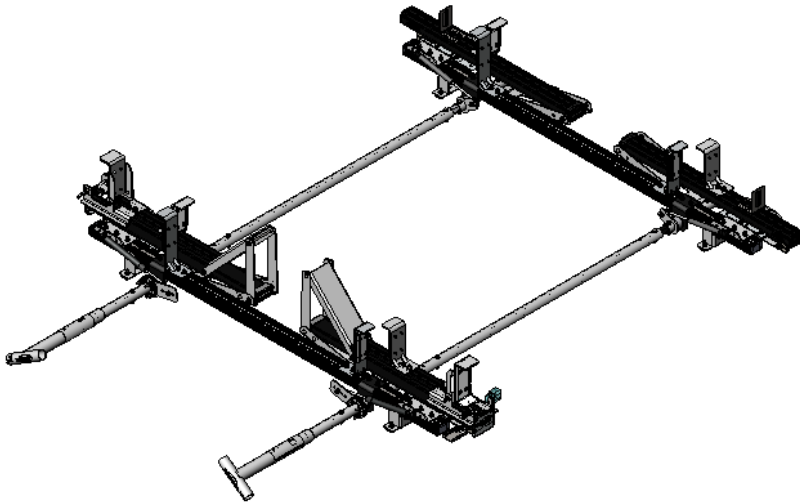
Thank you for doing business with us.”

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

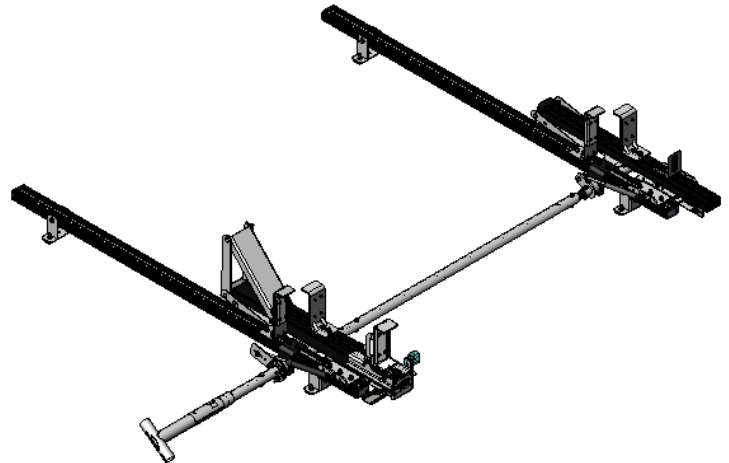


INSTALLATION GUIDE

MAX RACK DOUBLE SIDE



RACK SINGLE SIDE



18-U1815 Max Rack

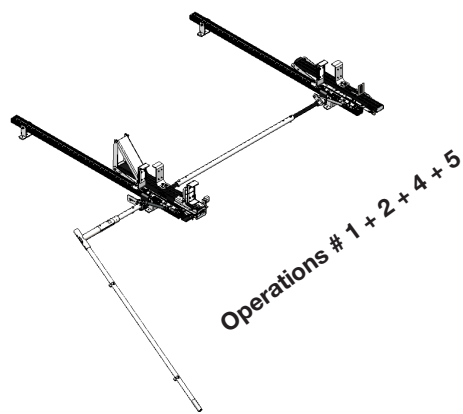
Driver Side

39" Drop Height From The Roof

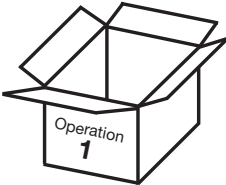
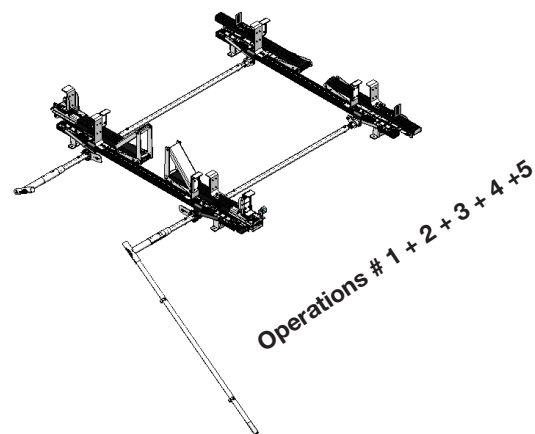


ORDER OF OPERATION

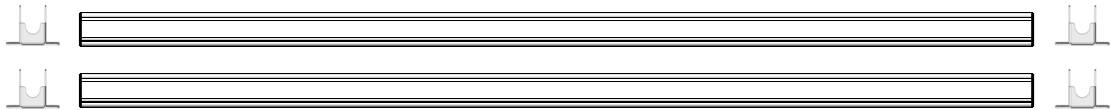
MAX RACK SINGLE SIDE



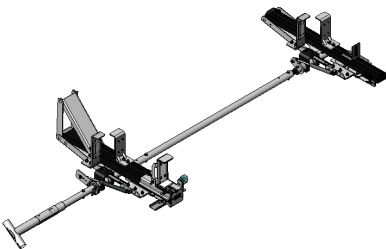
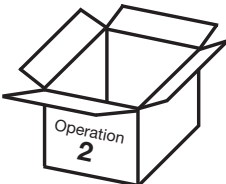
MAX RACK DOUBLE SIDE



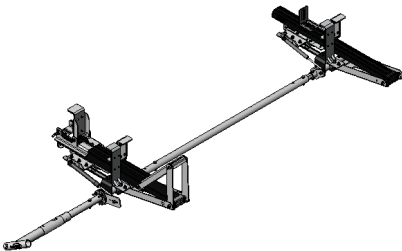
18-U1806



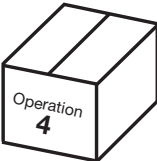
18-U1810



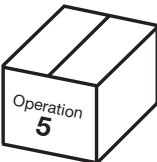
18-U1815



OPTIONAL: Applicable only for Max Rack Double Side.



MOUNTING TRACK



18-U1807



QUICK START GUIDE

Phase 1 - Assembly

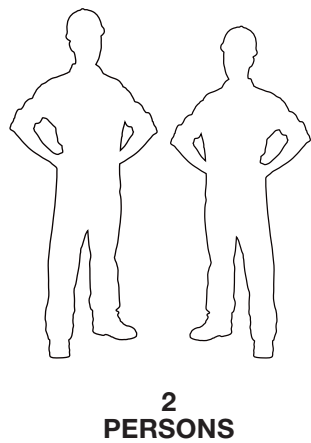
❑ 1.1 Setup.....	4 - 5
❑ 1.2 Front Crossbar Assembly.....	6 - 11
❑ 1.3 Rear Crossbar Assembly.....	12 - 20
❑ 1.4 For Assembly With Overhead Lift.....	21
❑ 1.5 Assembly Validation.....	22

Phase 2 - Ladder Installation

❑ 2.1 Extension Ladder Installation.....	23
❑ 2.2 Step Ladder Installation.....	24

REQUIRED ITEMS FOR COMPLETE MAX RACK

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

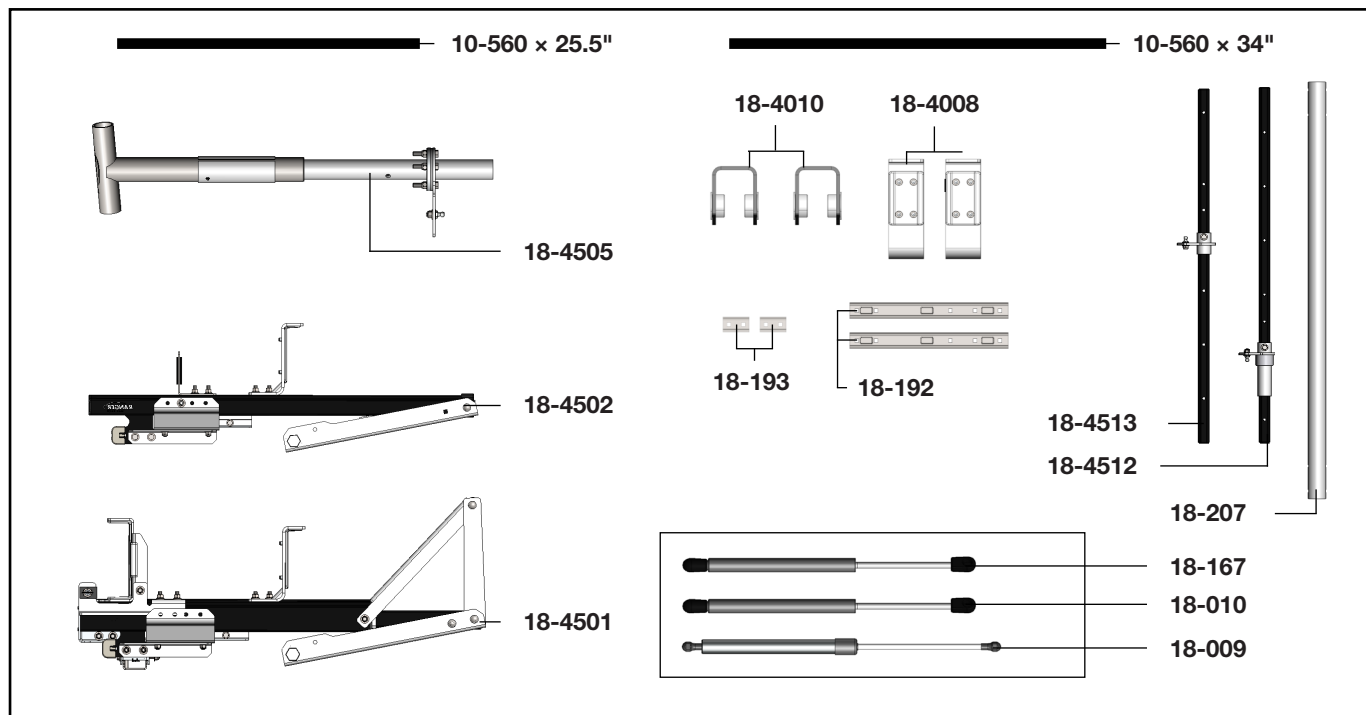


- ❑ Cordless Impact
- ❑ Ratchet
- ❑ Tape Measure
- ❑ Marker
- ❑ Ladder
- ❑ 1/2" Wrench
- ❑ 1/2" Socket
- ❑ Sawhorse (Optional)
- ❑ Box
- ❑ 1/8" Slot Screwdriver or Pick
- ❑ Cutter

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.

Item No.	Description	Qty.
18-009	Damper	1
18-010	Gas Spring	1
18-207	Center Tube	1
18-167	Gas Spring Combo	1
18-192	Insert Plate, 5 Bolts	2
18-193	Insert Plate, 2 Bolts	2
18-4513	DS - Rear Linkage	1
18-4512	DS - Front Linkage	1
18-4501	Driver Side Rear Mechanism	1
18-4502	Driver Side Front Mechanism	1
18-4505	Driver Side Damper kit	1
18-4008	Long Hook	2
18-4010	Shaft Support Bracket	2
10-560x25.5"	Track Plug (25.5")	1
10-560x34"	Track Plug (34")	1
94-0815	Customer Assembly Fastener Kit	1

1.1.3 Fastener kits.

94-0815



Fastener Assembly

1x



40-665

Ball Stud
3/4"
Zinc Plated

5x



90-225

Hex Bolt
5/16" - 18 x 2"
SS304

14x



90-491

Carriage Bolt
5/16" - 18 x 1"
SS304

17x



94-111

Lock Nut
5/16"
SS304 WAX

24x



98-117

Flat Washer
5/16", 3/4" O.D.
SS18 - 8

1x



#40-665 Ball Stud 3/4"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

5x



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

12x



#90-491 Carriage Bolt 1"



#98-117 Flat Washer 5/16"

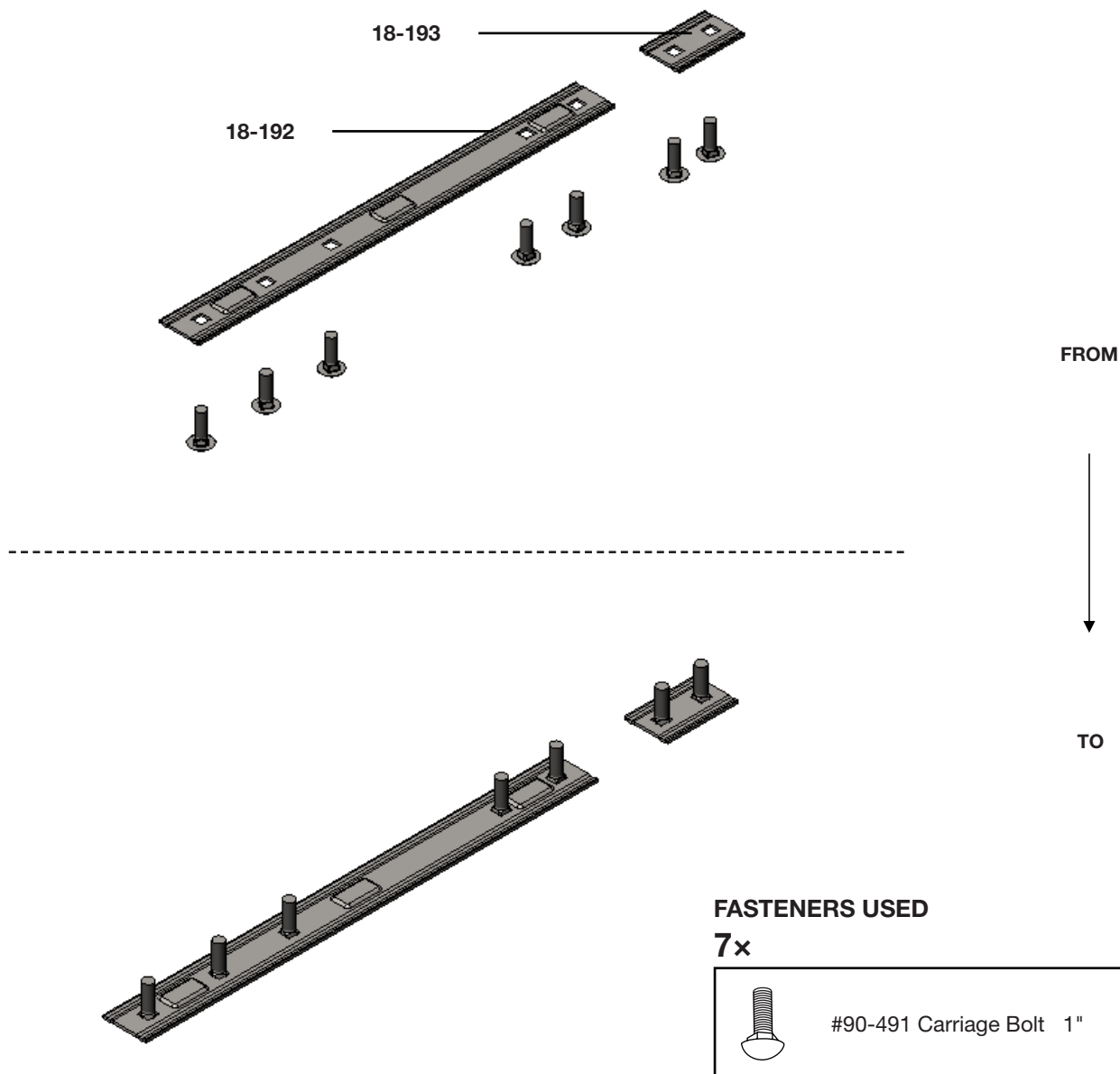
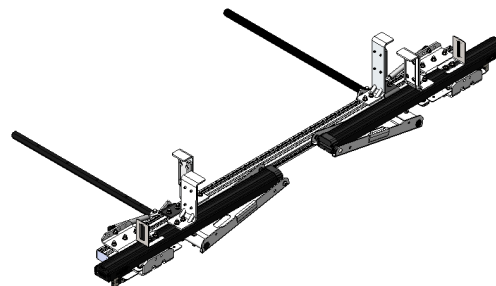


#94-111 Lock Nut 5/16"

PHASE 1 – ASSEMBLY

1.2 FRONT CROSSBAR ASSEMBLY

1.2.1 Attach carriage bolts to the insert plate.

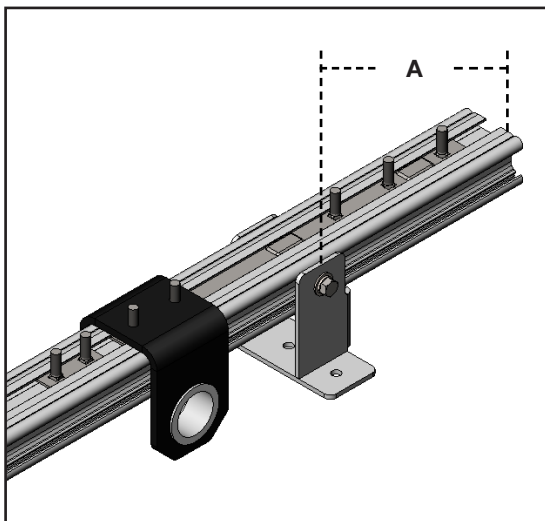
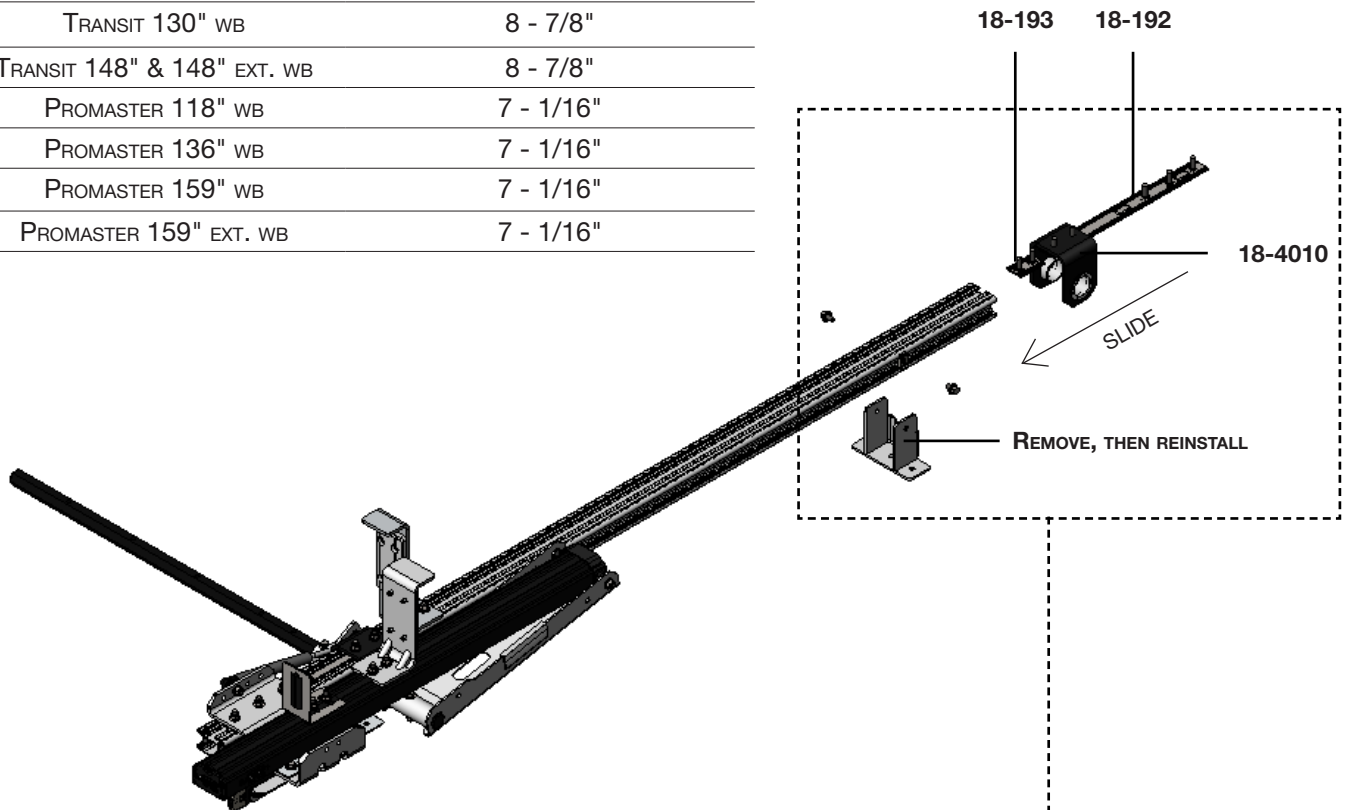


NOTE: Skip this step if you slide 2 shaft support bracket for double sided rack already.

- 1.2.2** • Remove the driver side feet, then slide the insert plate to the crossbar w/ shaft support bracket.
• Reinstall the feet after slinding the plate w/ shaft support bracket.

FOOT PLACEMENT GUIDE

VEHICLE	DIMENSION (A)
NISSAN NV	7"
SPRINTER	10" HIGH ROOF, 6 - 1/2" STANDARD ROOF
TRANSIT 130" WB	8 - 7/8"
TRANSIT 148" & 148" EXT. WB	8 - 7/8"
PROMASTER 118" WB	7 - 1/16"
PROMASTER 136" WB	7 - 1/16"
PROMASTER 159" WB	7 - 1/16"
PROMASTER 159" EXT. WB	7 - 1/16"



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/8" Slot Screwdriver or Pick

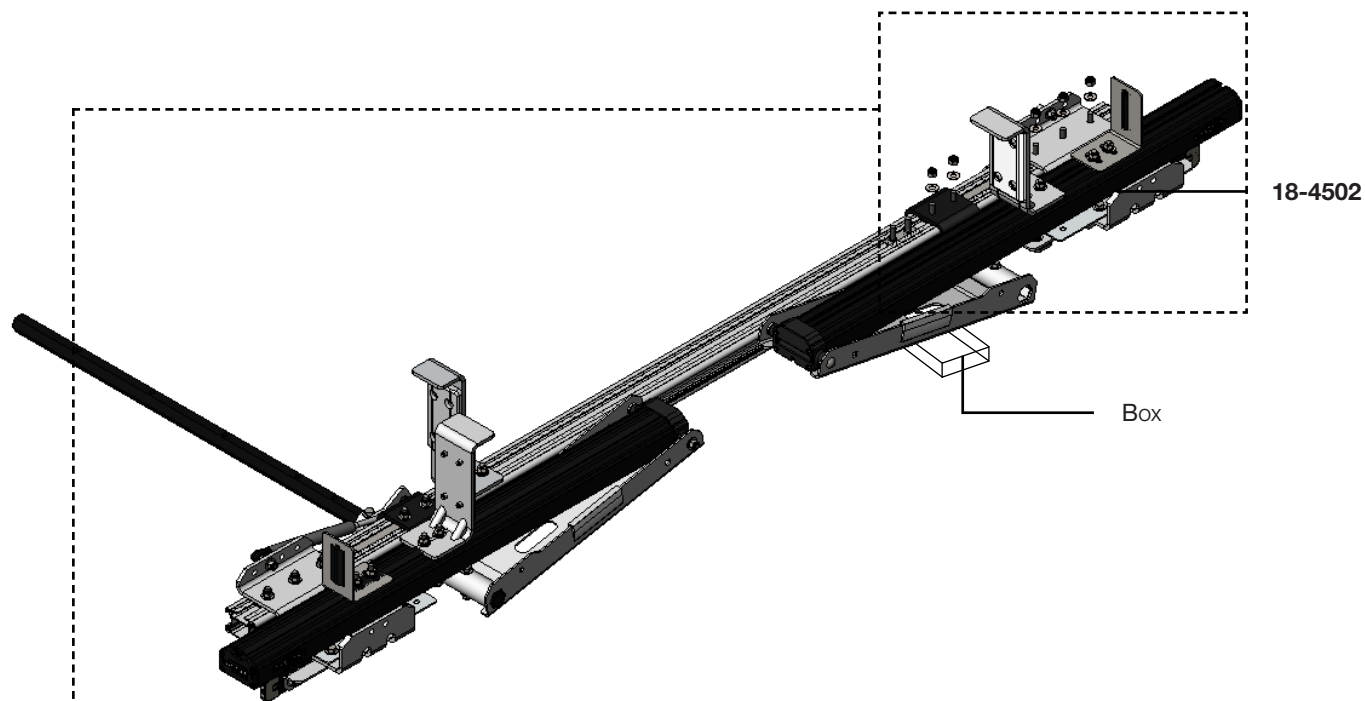
FASTENERS USED

2x (CROSSBAR FASTENER KIT) (17 ft • lbs)

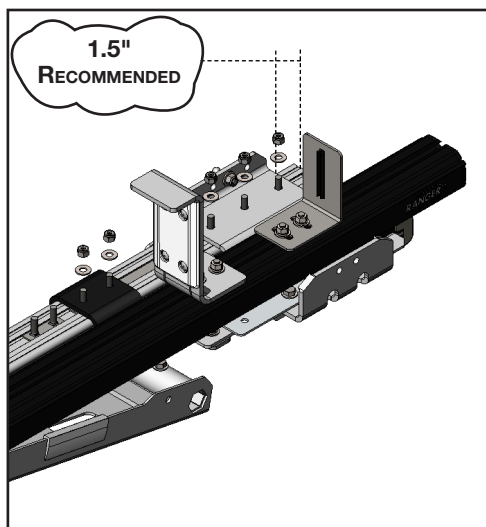


- #90-203 Hex Bolt 5/8"
- #98-123 Lock Washer 5/16"
- #98-117 Flat Washer 5/16"
- #Channel Nut 5/16"

1.2.3 Attach the driver side front mechanism to the crossbar using the insert plate w/ 5 holes, then add flat washers and lock nuts to the shaft support bracket.



TIPS: • Use a box to support the mechanism to facilitate assembly.



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

FASTENERS USED

5x (17 ft • lbs)



#94-111 Lock Nut 5/16"



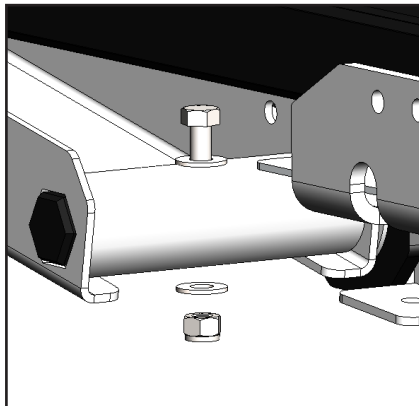
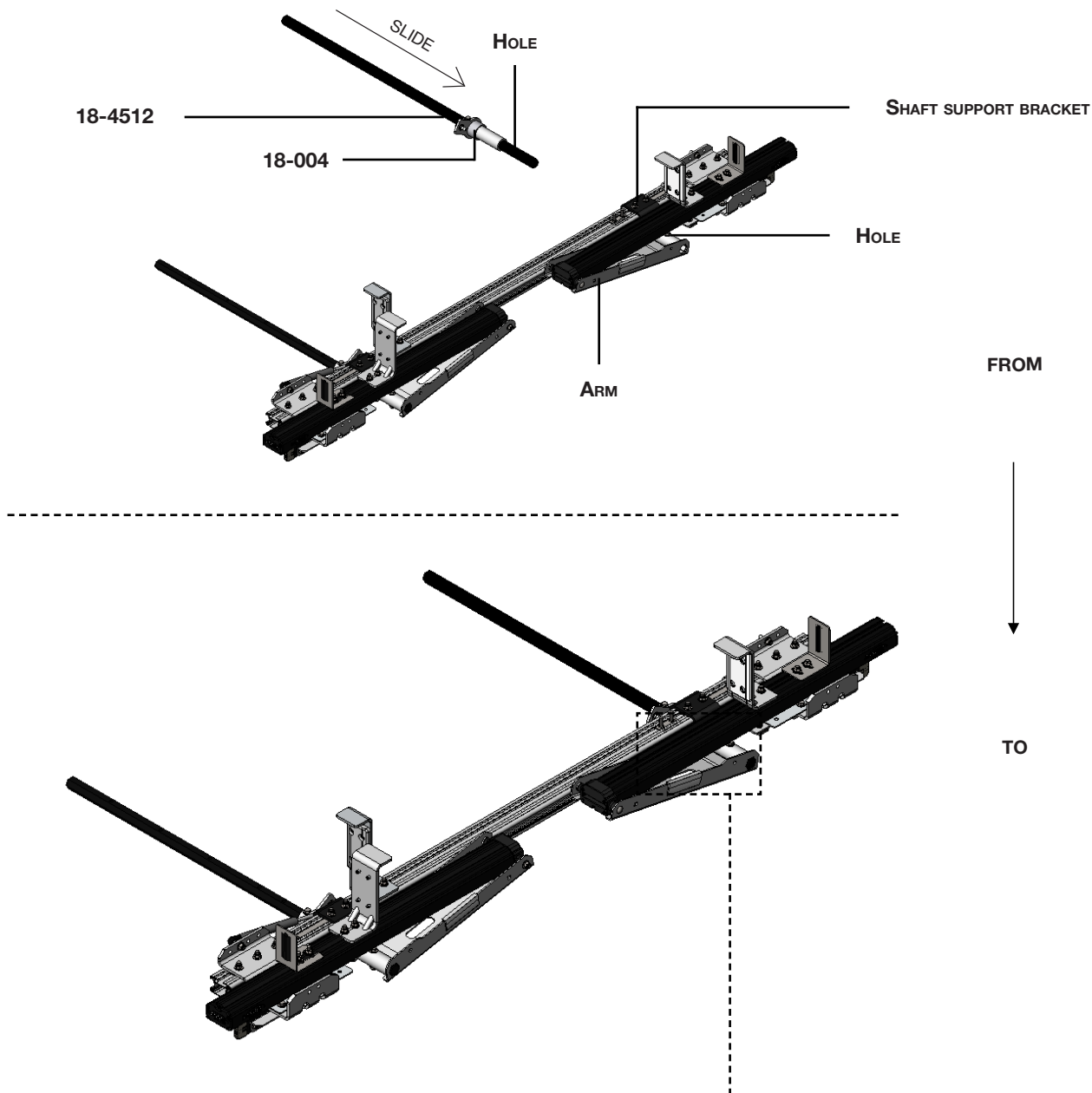
#98-117 Flat Washer 5/16"



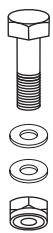
#90-491 Carriage Bolt 1"

1.2.4 Slide the pivot bar with front linkage and spacer through the shaft support bracket and arm, then attach the pivot bar to the arm.

NOTE: Line up the hole of the front pivot bar to the hole of the arm.



FASTENERS USED
1x (17 ft • lbs)



#90-225 Hex Bolt 2"

#98-117 Flat Washer 5/16"

#98-117 Flat Washer 5/16"

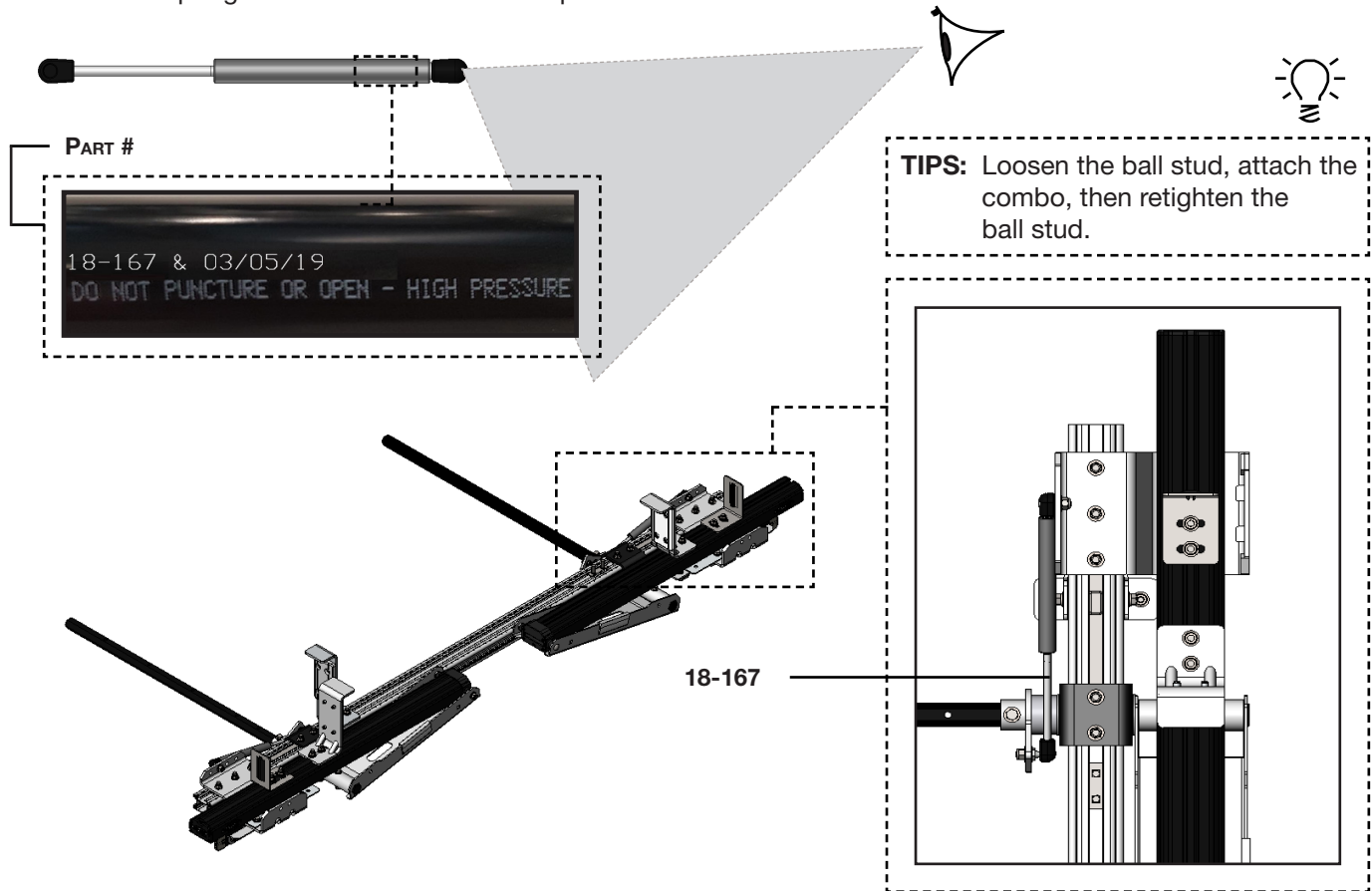
#94-111 Lock Nut 5/16"

TOOLS

□ 1/2" Wrench 2x

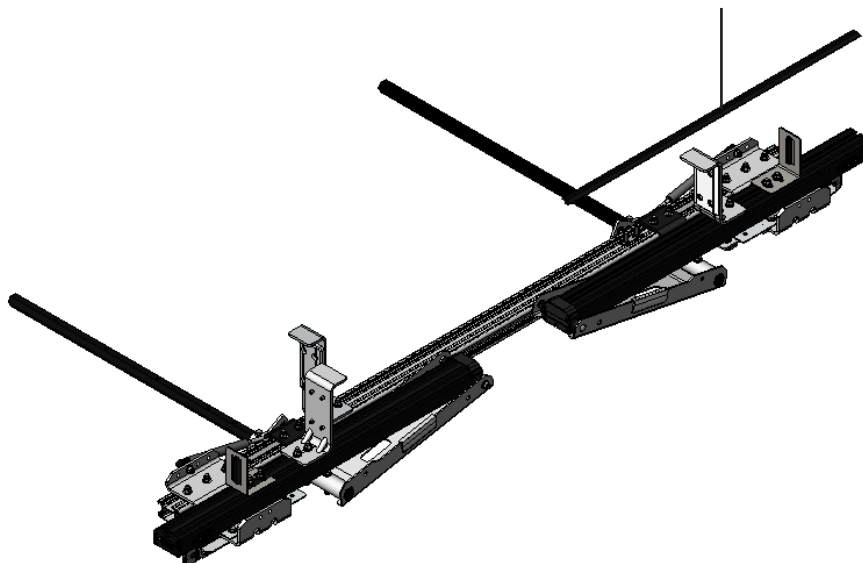
1.2.5 Attach the gas spring combo to the ball studs.

NOTE: Gas spring combo will have "18-167" printed on it.



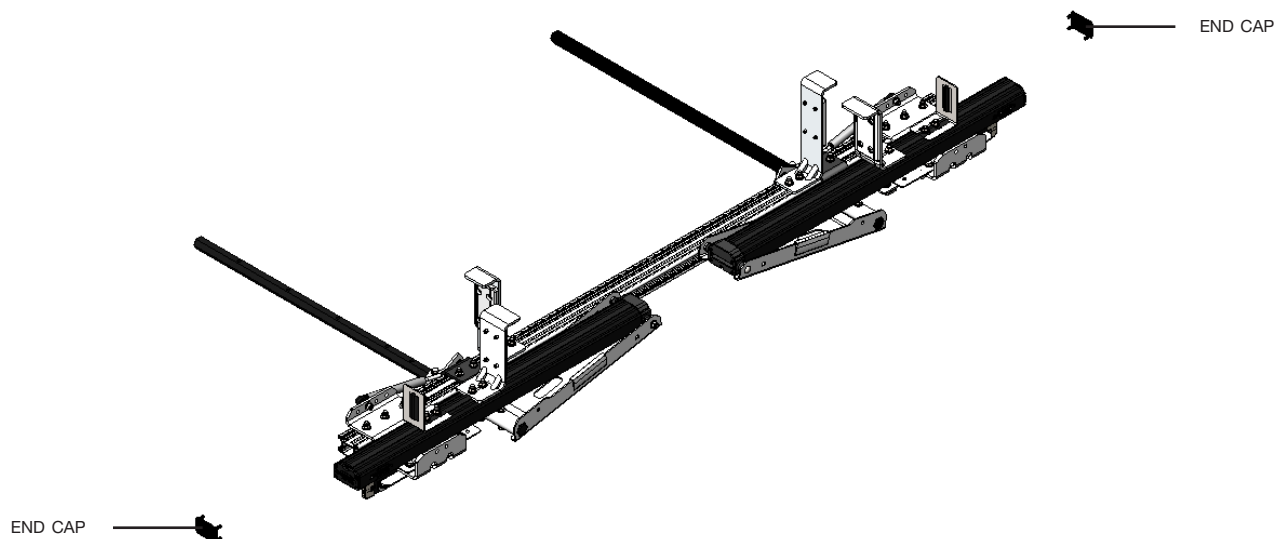
- 1.2.6** • Attach one small hook and front ladder retainer to the front mechanism.
• Cut the track plug to length, then install.

CUT THE TRACK PLUG TO LENGTH, THEN INSTALL

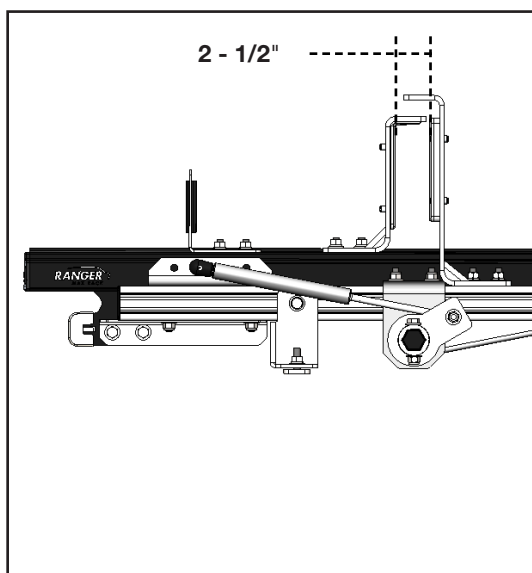
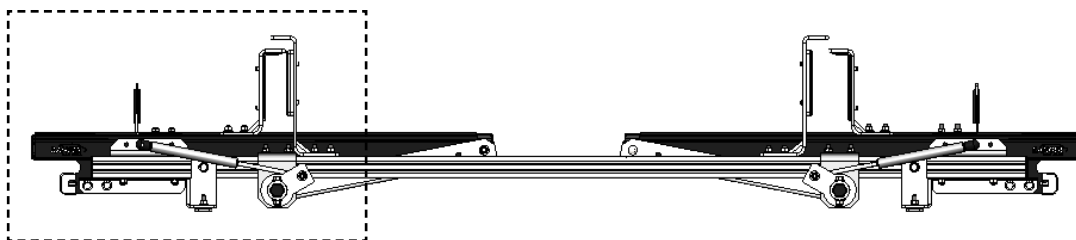


1.2.7 Attach the long hook to the crossbar, facing to the small hook.

NOTE: If you are using a step ladder, the hook position will need to be adjusted.
(Follow the mounting track installation guide).



FRONT VIEW



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

FASTENERS USED

2x (17 ft • lbs)



#90-205 Hex Bolt 3/4"



#98-123 Lock Washer 5/16"



#98-117 Flat Washer 5/16"

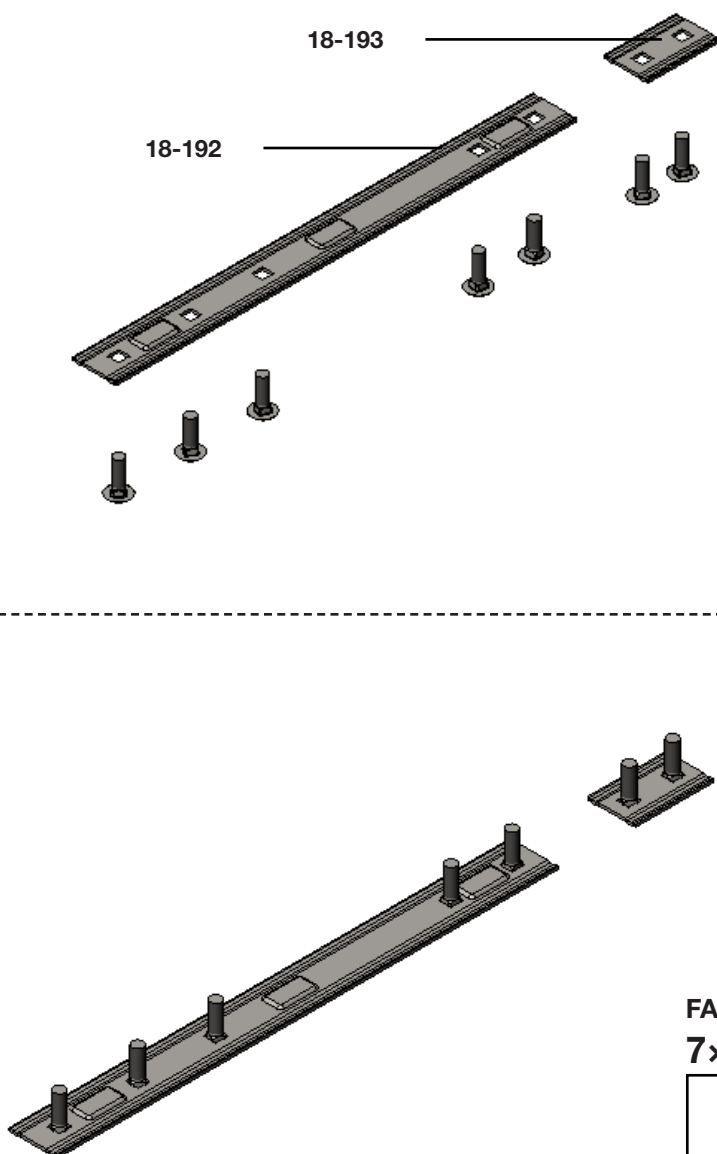
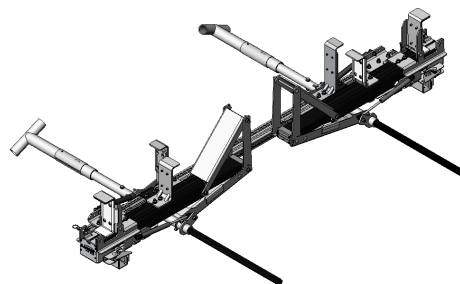


#Channel Nut 5/16"

PHASE 1 – ASSEMBLY

1.3 REAR CROSSBAR ASSEMBLY

1.3.1 Attach carriage bolts to the insert plate.



FASTENERS USED

7x

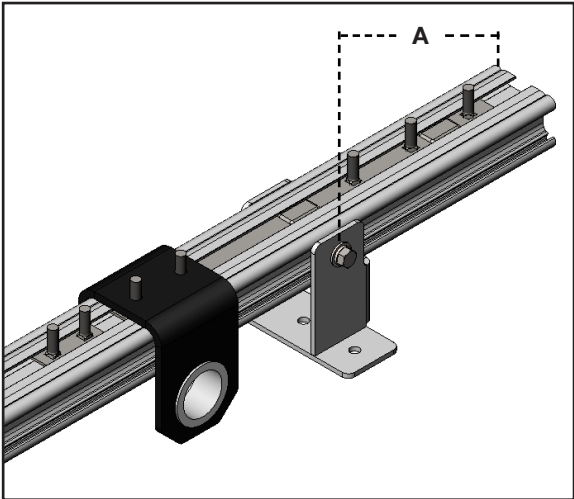
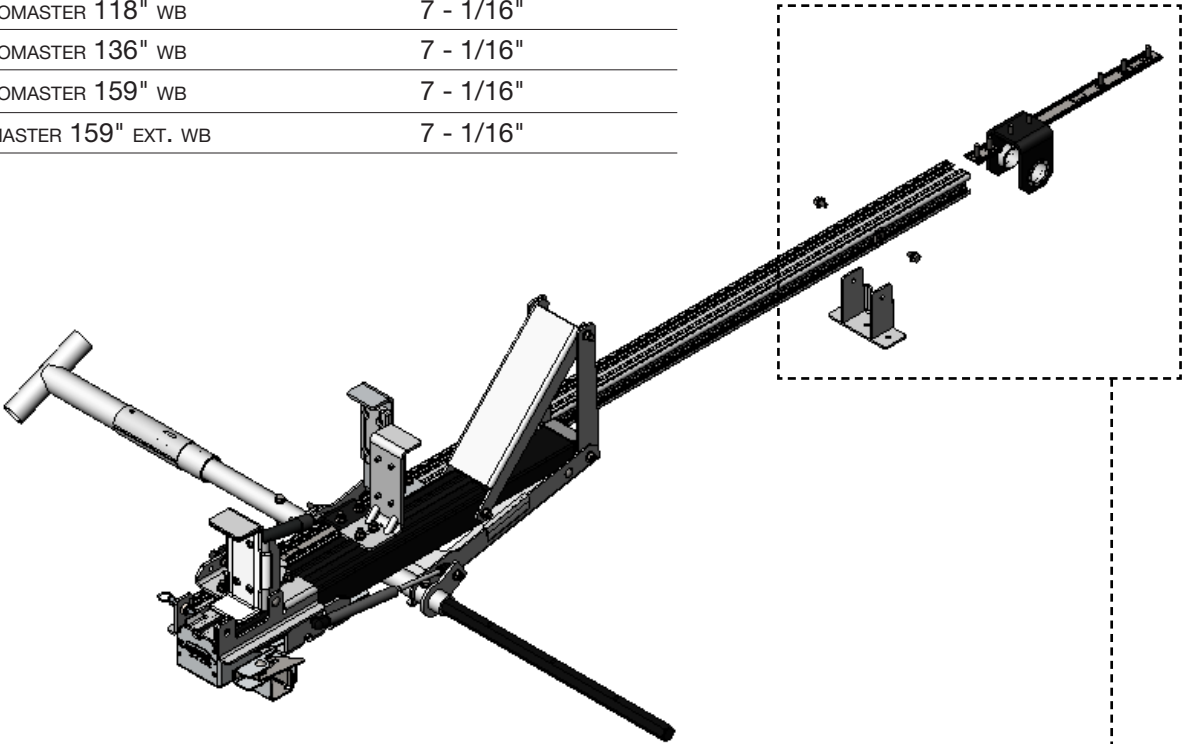


#90-491 Carriage Bolt 1"

NOTE: Skip this step if you slide 2 shaft support bracket for double sided rack already.

- 1.3.2** • Remove the driver side feet, then slide the insert plate to the crossbar w/ shaft support bracket.
• Reinstall the feet after slinding the plate w/ shaft support bracket.

FOOT PLACEMENT GUIDE	
VEHICLE	DIMENSION (A)
NISSAN NV	7"
SPRINTER	10" HIGH ROOF, 6 - 1/2" STANDARD ROOF
TRANSIT 130" WB	8 - 7/8"
TRANSIT 148" & 148" EXT. WB	8 - 7/8"
PROMASTER 118" WB	7 - 1/16"
PROMASTER 136" WB	7 - 1/16"
PROMASTER 159" WB	7 - 1/16"
PROMASTER 159" EXT. WB	7 - 1/16"



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/8" Slot Screwdriver or Pick

FASTENERS USED

2x (MOUNTING TRACK FASTENER KIT) (17 ft • lbs)

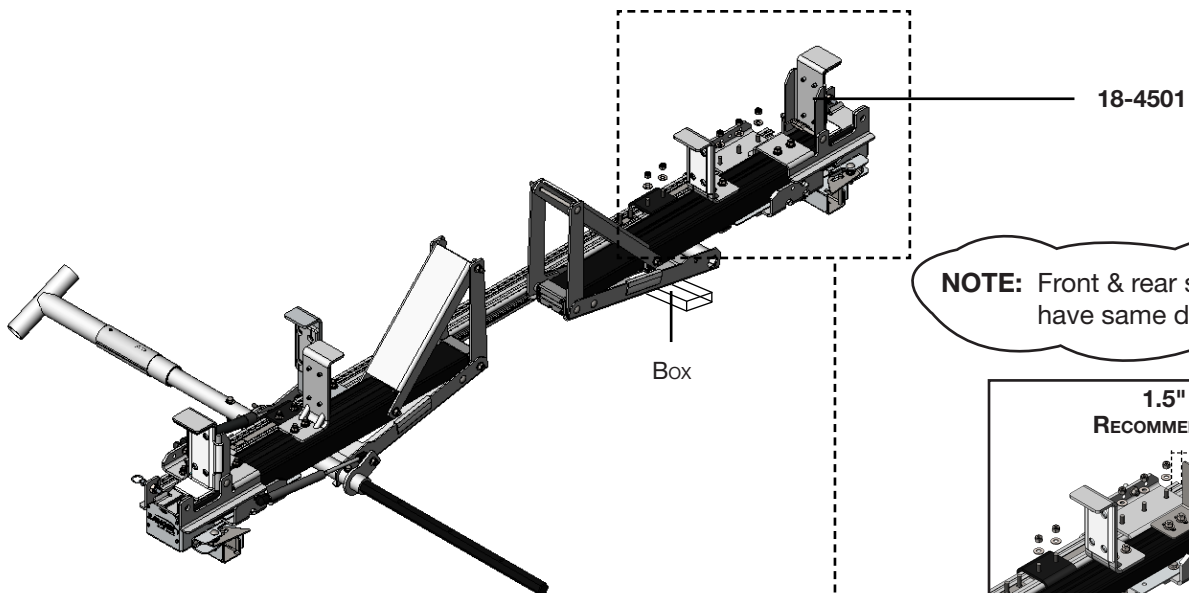


- #90-203 Hex Bolt 5/8"
- #98-123 Lock Washer 5/16"
- #98-117 Flat Washer 5/16"
- #Channel Nut 5/16"

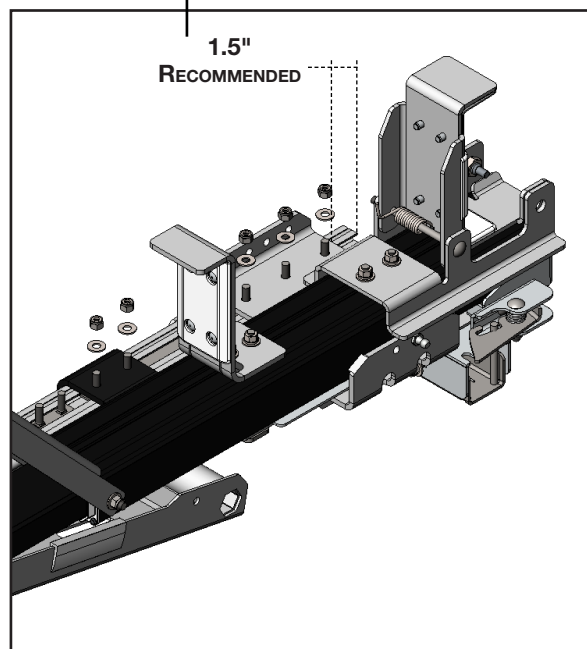
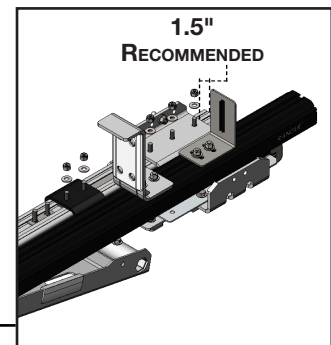
- 1.3.3** • Slide 3 channel nuts into the top channel of the crossbar.
 • Attach the driver side rear mechanism to the crossbar with washer plate using the 3 channel nuts.



TIPS: • Use a box to support the mechanism to facilitate assembly.



NOTE: Front & rear should have same dimension.






TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

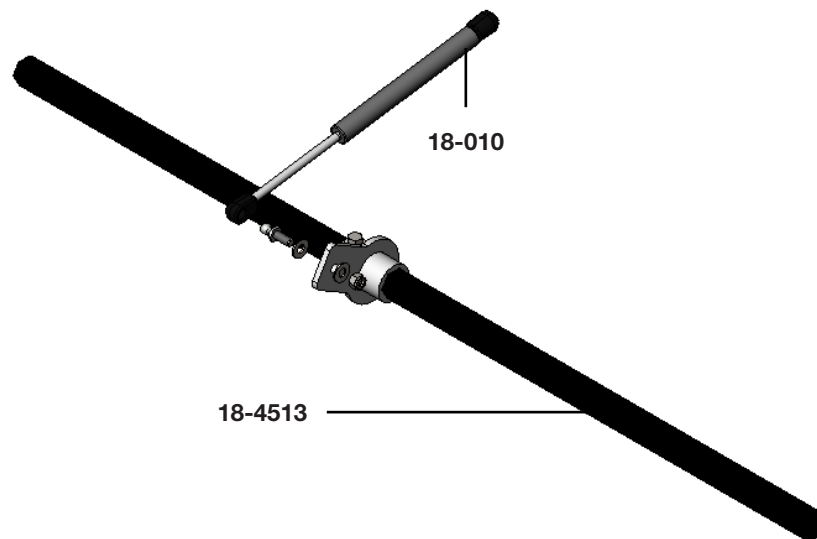
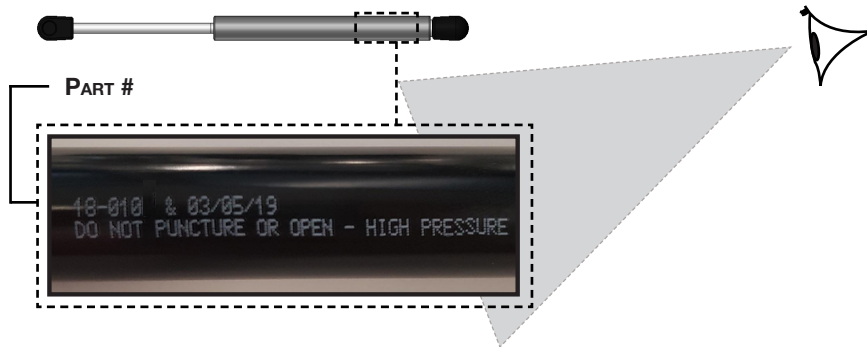
FASTENERS USED

5x (17 ft • lbs)

- | | |
|---|---------------------------|
|  | #94-111 Lock Nut 5/16" |
|  | #98-117 Flat Washer 5/16" |
|  | #90-491 Carriage Bolt 1" |

1.3.4 Attach the gas spring to the rear linkage.

NOTE: Gas spring will have "18-010" printed on it.







TOOLS

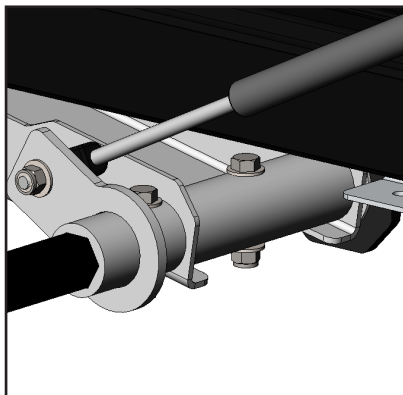
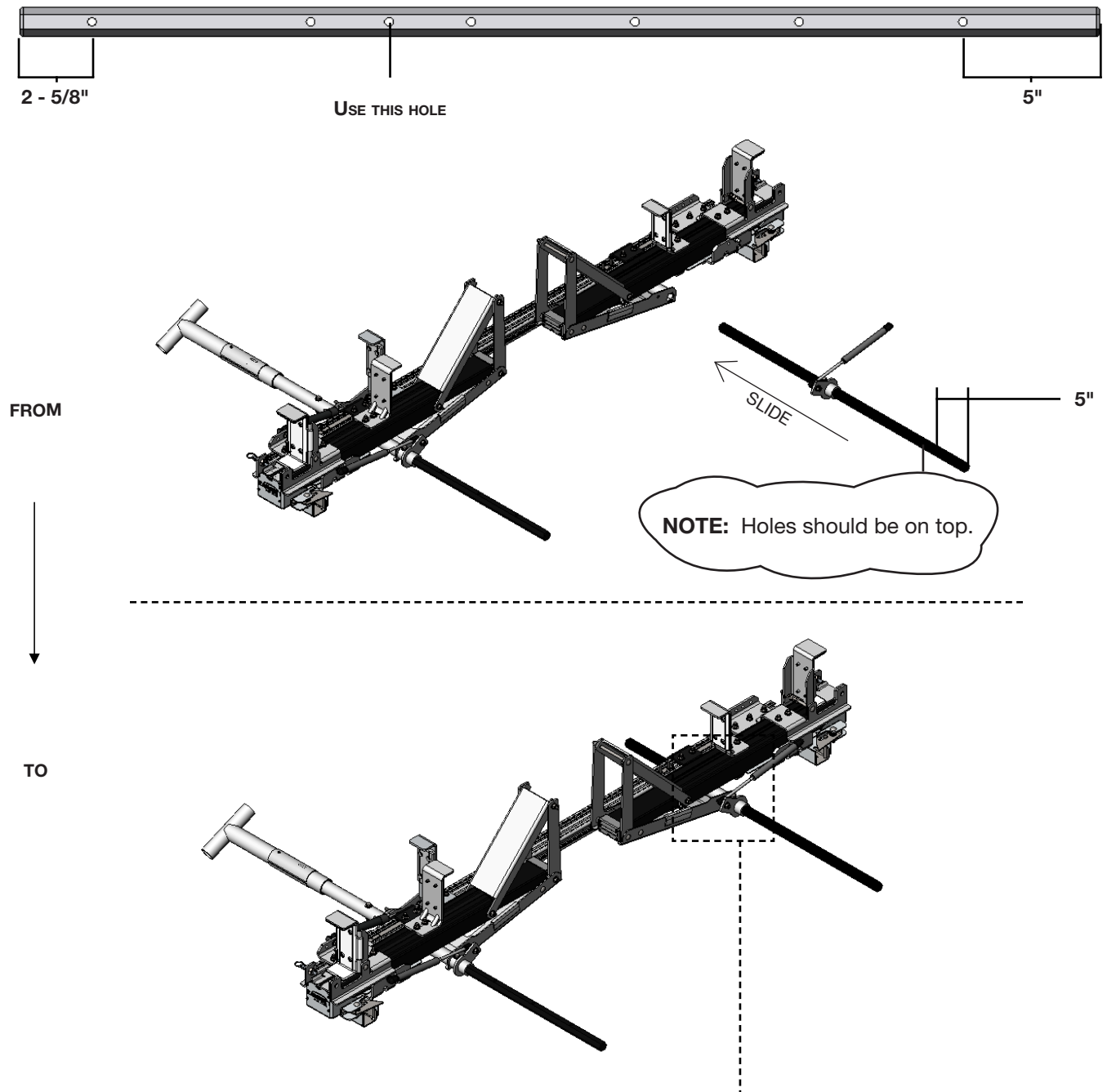
- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/2" Wrench

FASTENERS USED

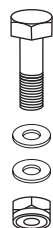
1x (17 ft • lbs)

	#40-665 Ball Stud 3/4"
	#98-117 Flat Washer 5/16"
	#98-117 Flat Washer 5/16"
	#94-111 Lock Nut 5/16"

1.3.5 Slide the pivot bar with rear linkage through the arm and shaft support bracket, then attach the pivot bar to the arm.



FASTENERS USED
1x (17 ft • lbs)



#90-225 Hex Bolt 2"

#98-117 Flat Washer 5/16"

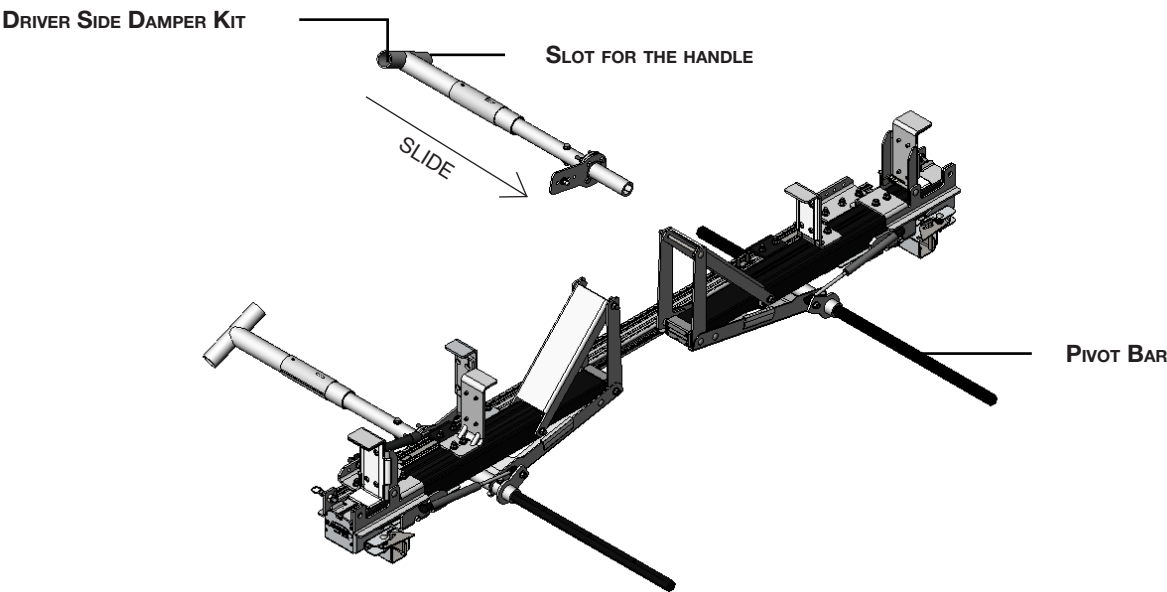
#98-117 Flat Washer 5/16"

#94-111 Lock Nut 5/16"

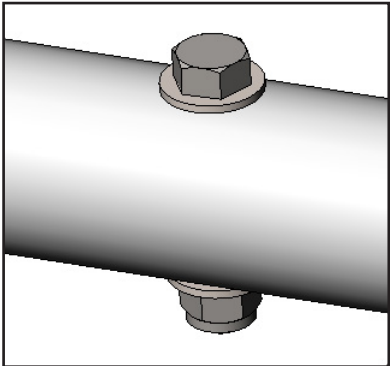
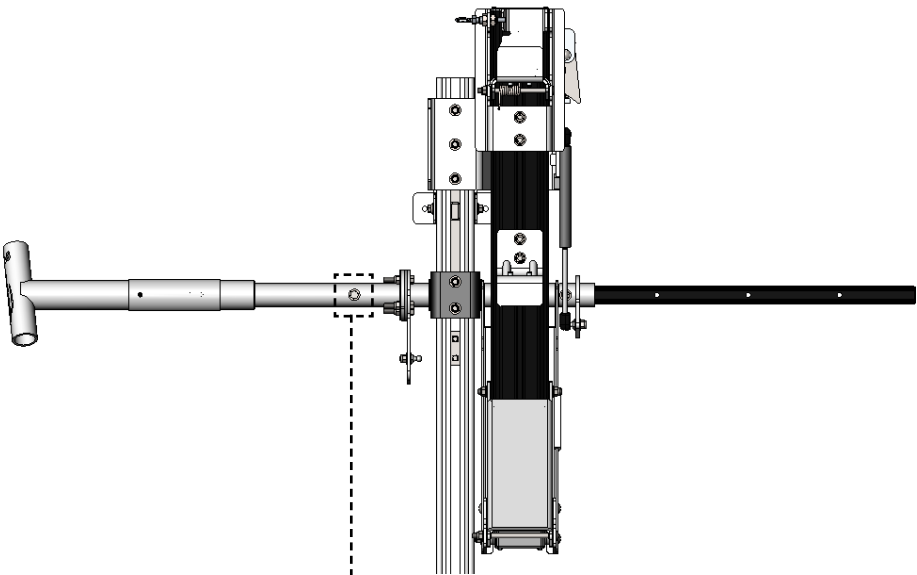
TOOLS

□ 1/2" Wrench 2x

1.3.6 Slide the driver side damper kit to the pivot bar, then attach the driver side damper kit to the pivot bar.



TOP VIEW



FASTENERS USED
1x (17 ft • lbs)



#90-225 Hex Bolt 2"

#98-117 Flat Washer 5/16"

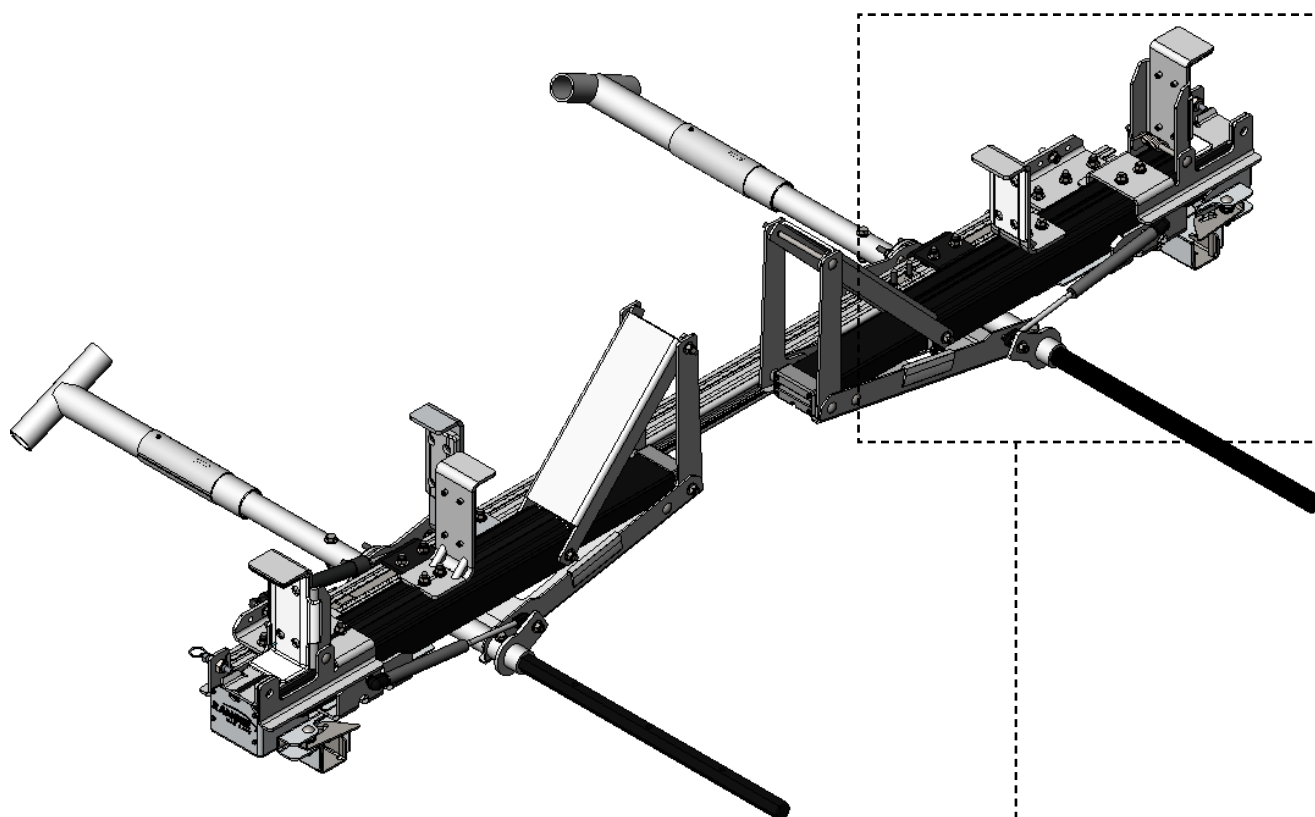
#98-117 Flat Washer 5/16"

#94-111 Lock Nut 5/16"

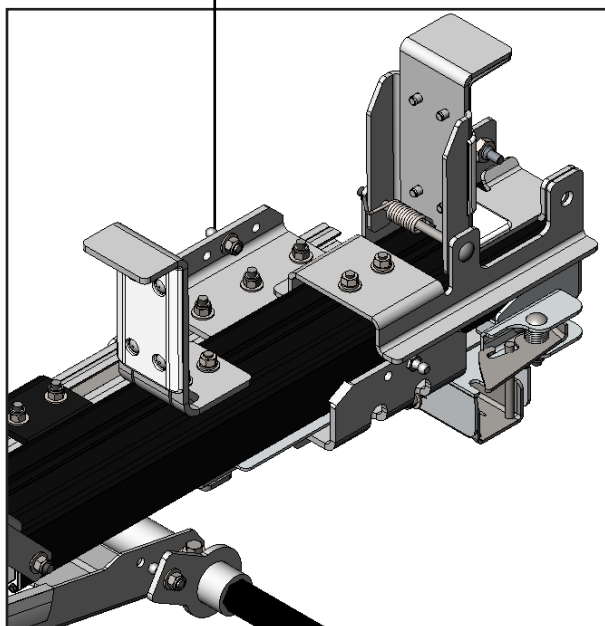
TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/2" Wrench

1.3.7 Attach ball stud to the driver side damper kit and rear mechanism frame.



BALL STUD



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/2" Wrench x2

FASTENERS USED

2x (17 ft • lbs)



#40-665 Ball Stud 3/4"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"

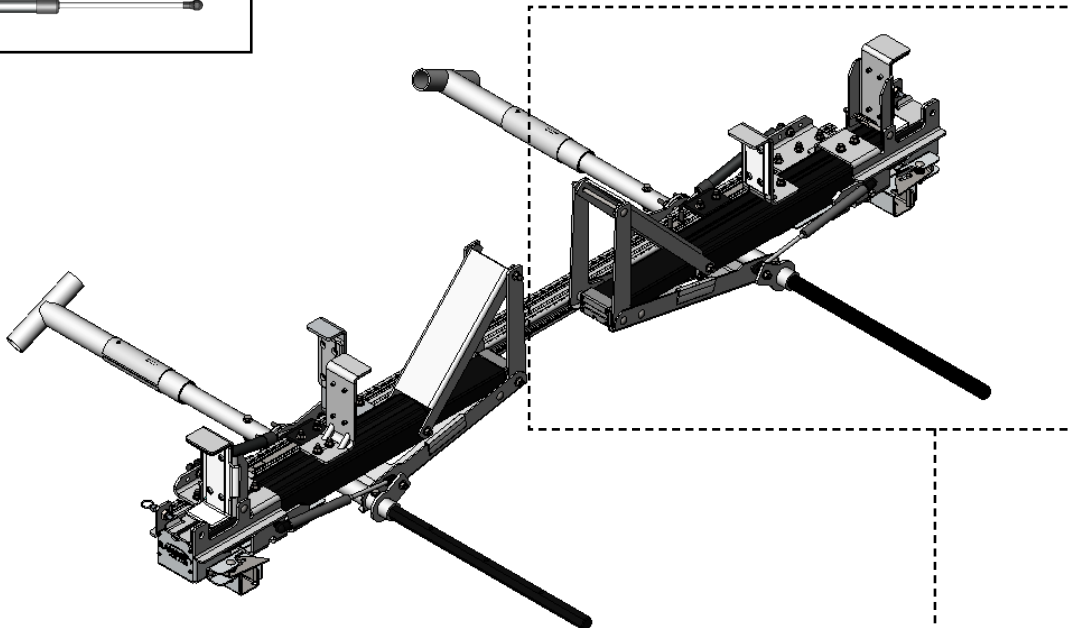


#94-111 Lock Nut 5/16"

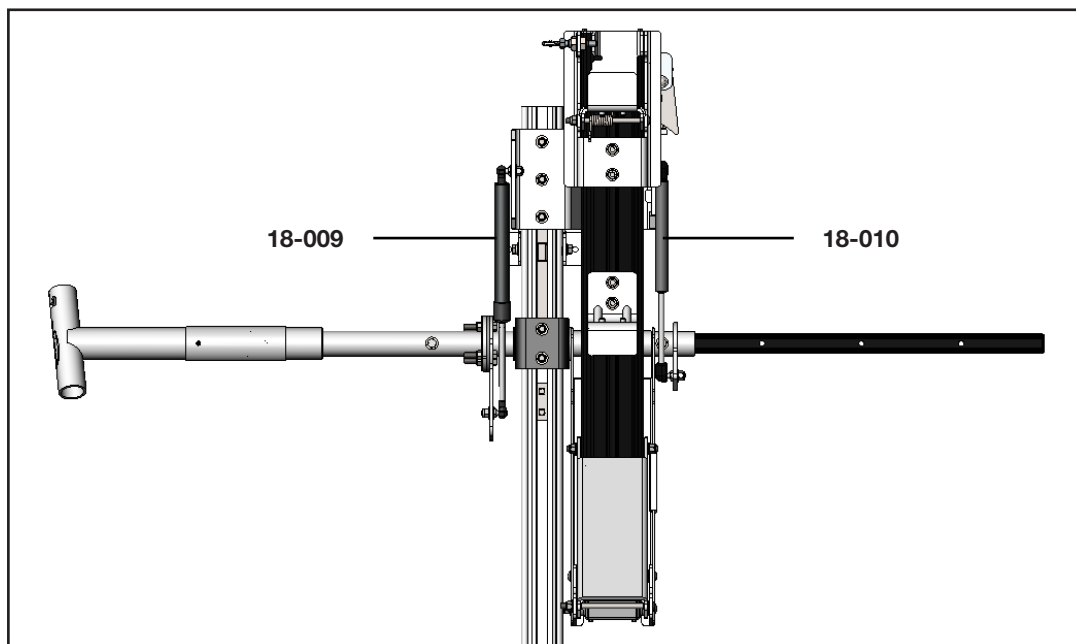
1.3.8 Attach the damper and gas spring to the ball stud.

NOTE:

DAMPER: YOU CAN COMPRESS

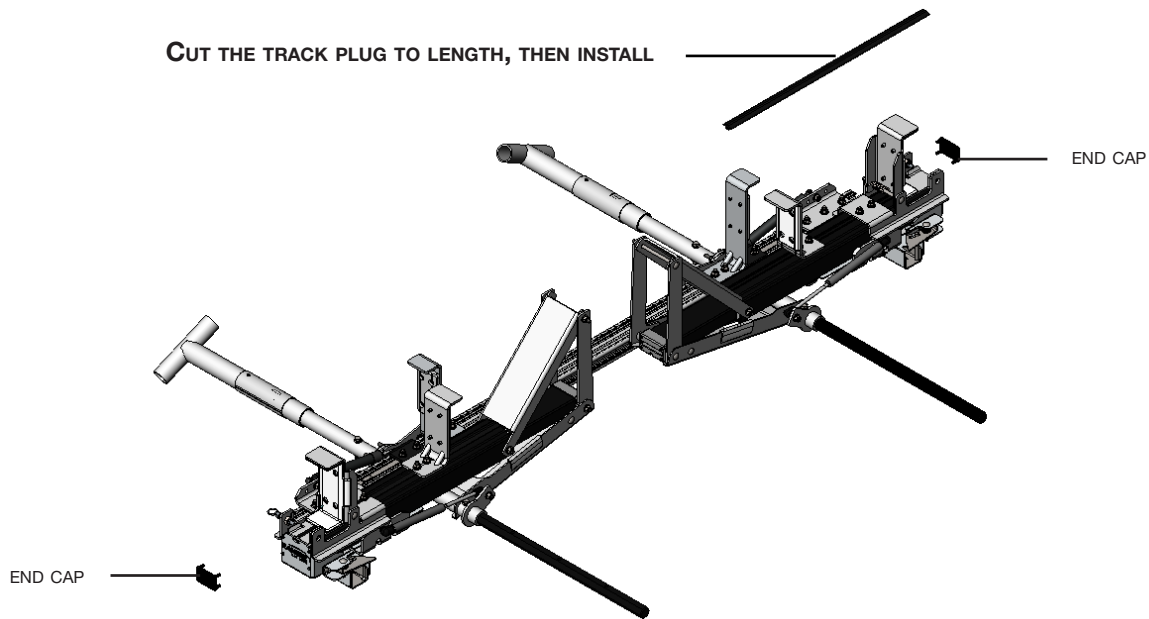


TIPS: Loosen the ball stud, attach the Gas spring, then retighten the ball stud.

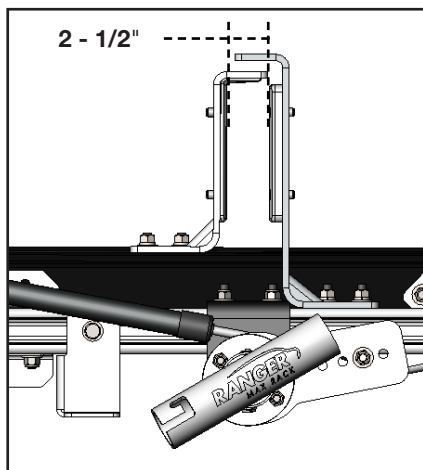
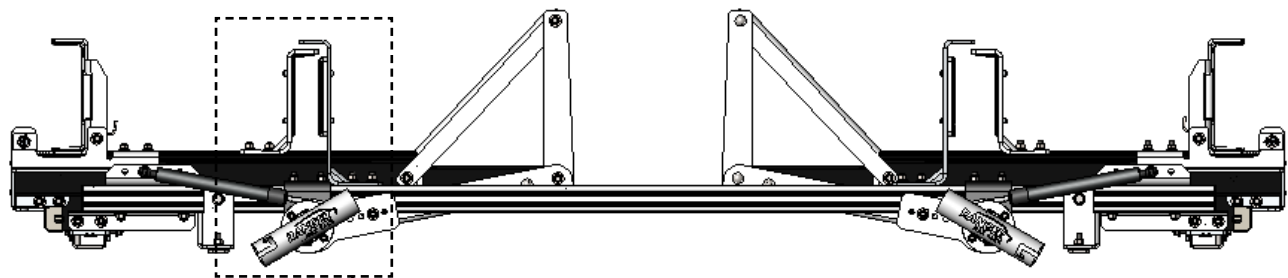


- 1.3.9** • Attach the long hook to the crossbar, facing to the small hook.
• Cut the track plug to length, then install.

NOTE: If you are using a step ladder, the hook position will need to be adjusted.
(Follow the mounting track installation guide).



REAR VIEW



TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

FASTENERS USED

2x (17 ft • lbs)



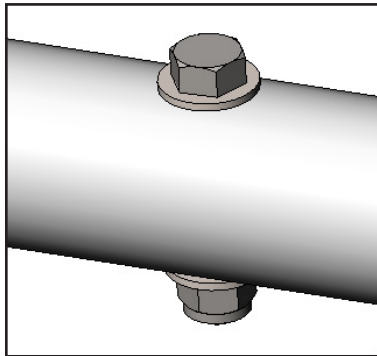
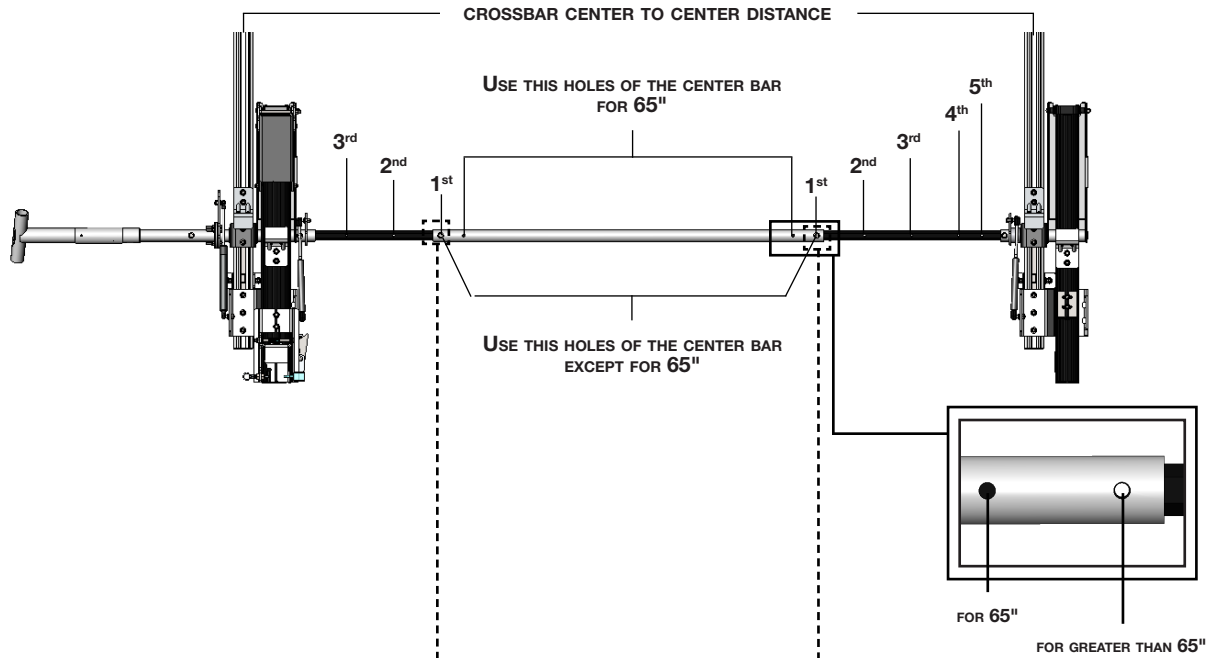
- #90-205 Hex Bolt 3/4"
- #98-123 Lock Washer 5/16"
- #98-117 Flat Washer 5/16"
- #Channel Nut 5/16"

PHASE 1 – ASSEMBLY

1.4 FOR ASSEMBLY WITH OVERHEAD LIFT

1.4.1 Attach the ends of the front and rear bars to the center tube.

NOTE: Skip this step if you don't have an overhead lift or if you have a Max Rack double side.



FASTENERS USED 2x (17 ft • lbs)



- #90-225 Hex Bolt 2"
- #98-117 Flat Washer 5/16"
- #98-117 Flat Washer 5/16"
- #94-111 Lock Nut 5/16"

TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/2" Wrench

RECOMMENDED SET-UP

VEHICLE	CROSSBAR CENTER TO CENTER DISTANCE	LADDER SIZE
NISSAN NV	65" (3 RD & 4 TH HOLES)	UP TO EXTENSION 24' & STEP 8' TO 10' ONLY
FORD TRANSIT	65" (3 RD & 4 TH HOLES)	UP TO EXTENSION 24' & STEP 8' TO 10' ONLY
Mercedes-Benz SPRINTER	65" (3 RD & 3 RD HOLES)	UP TO EXTENSION 24' & STEP 8' TO 10' ONLY
RAM PROMASTER	65" (3 RD & 3 RD HOLES)	UP TO EXTENSION 24' & STEP 8' TO 10' ONLY

FOR LONGER EXTENSION LADDER SET-UP

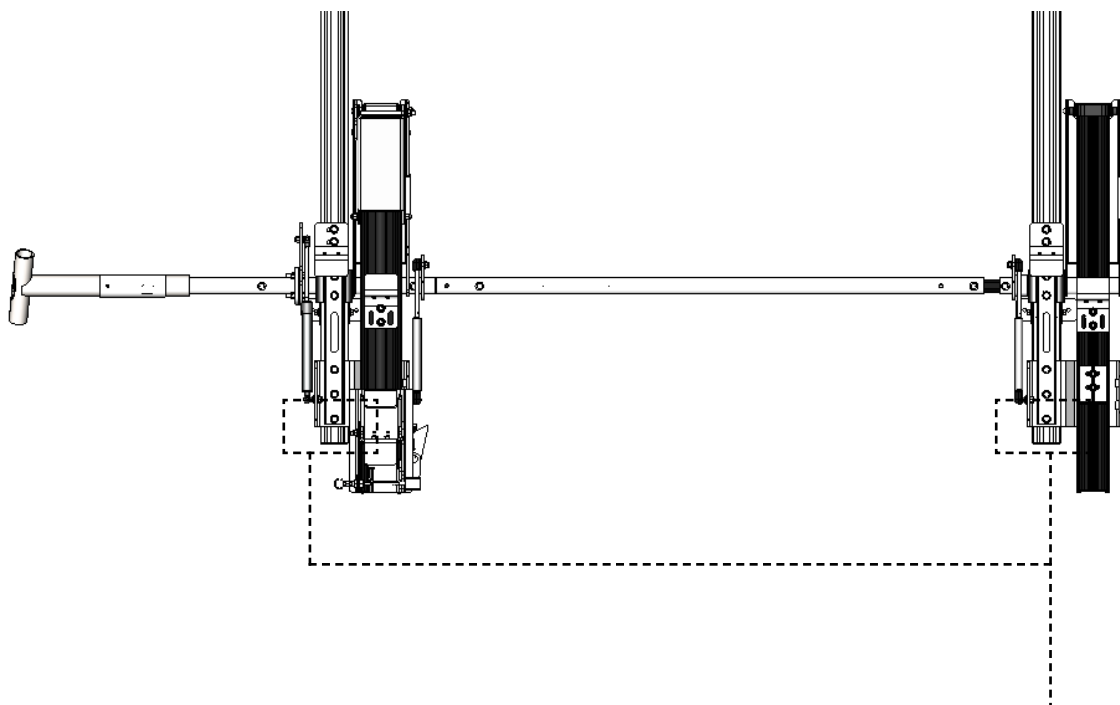
WORKS ONLY ON: FORD TRANSIT (148" & 148" EX. WB), RAM PROMASTER (136", 159" & 159" EX. WB) & MERCEDES-BENS SPRINTER.

CROSSBAR CENTER TO CENTER DISTANCE	LADDER SIZE
89" (2 ND & 2 ND HOLES)	UP TO EXTENSION 32'

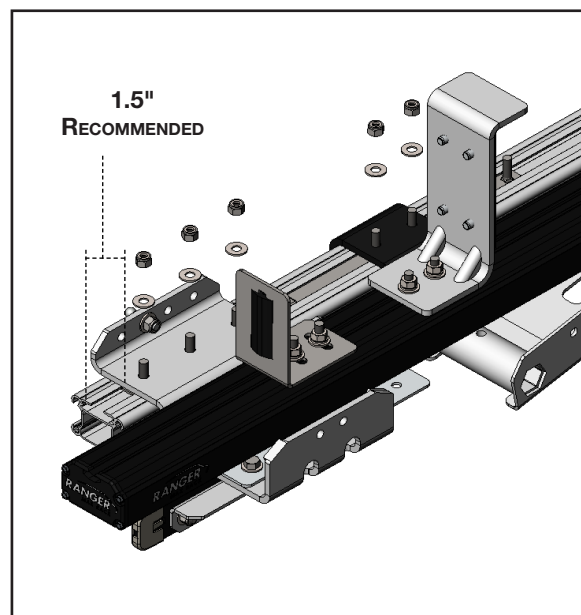
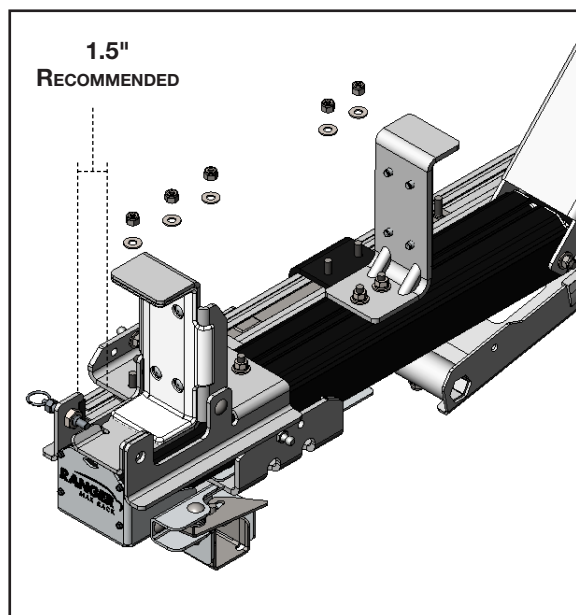
PHASE 1 – ASSEMBLY

1.5 ASSEMBLY VALIDATION

1.5.1 Validate your assembly to ensure smooth operation of your Max Rack.



NOTE: Front & Rear Should have same dimension.



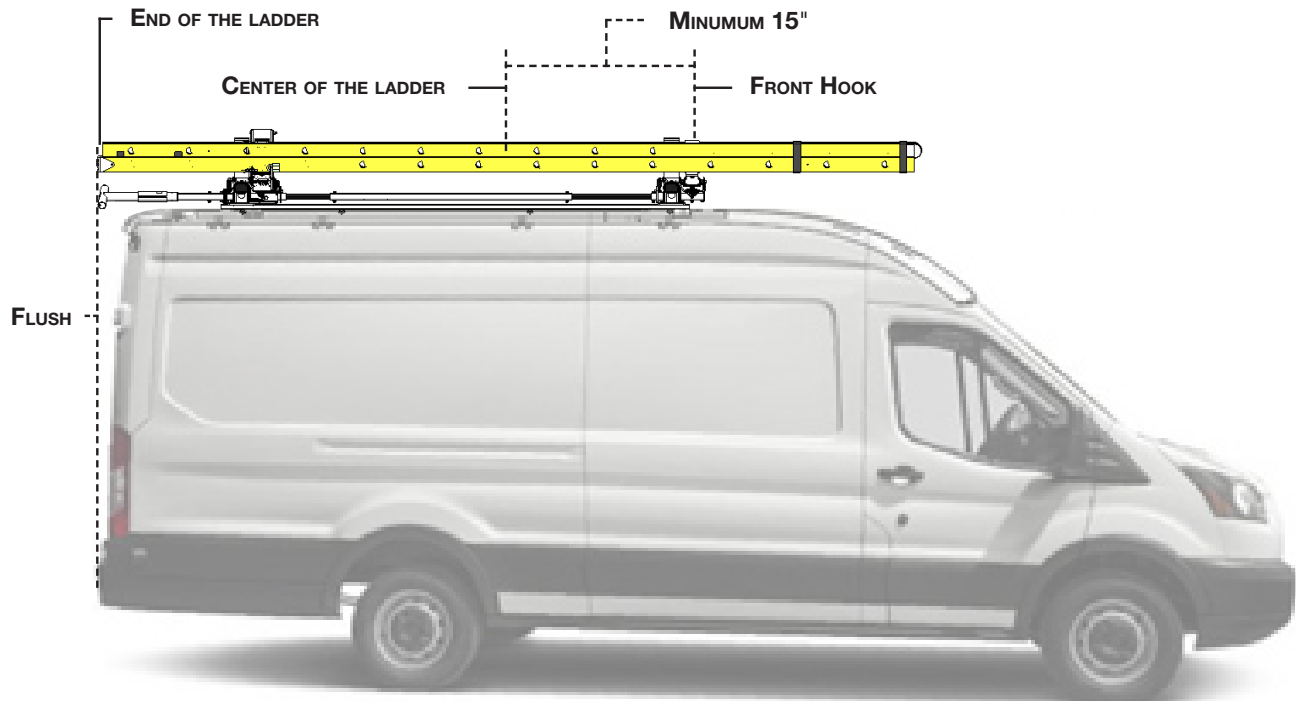
PHASE 2 – LADDER INSTALLATION

2.1 EXTENDED LADDER INSTALLATION

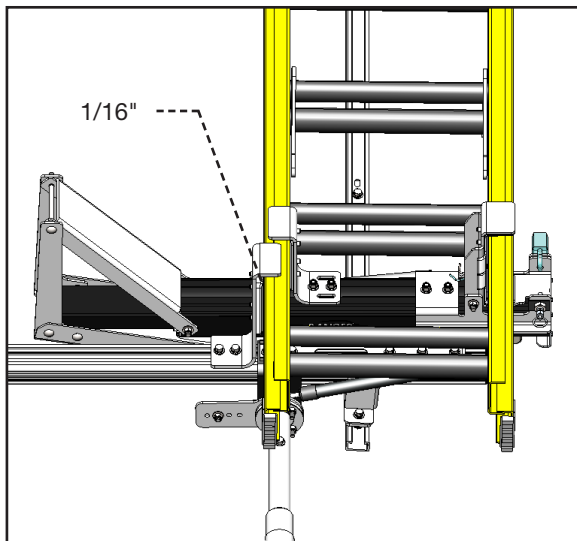
- STEP**
- Place the Max Rack in the down position.
 - Load the ladder onto the Max Rack.

NOTE: These conditions must be respected:

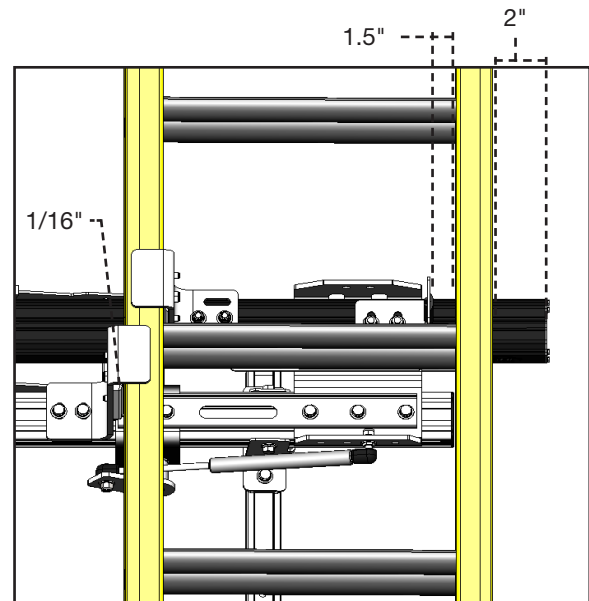
- The arm socket and the ladder cannot extend beyond the rear bumper of the vehicle.
- The center of the ladder must be behind the front hook when the ladder is loaded.



REAR



FRONT

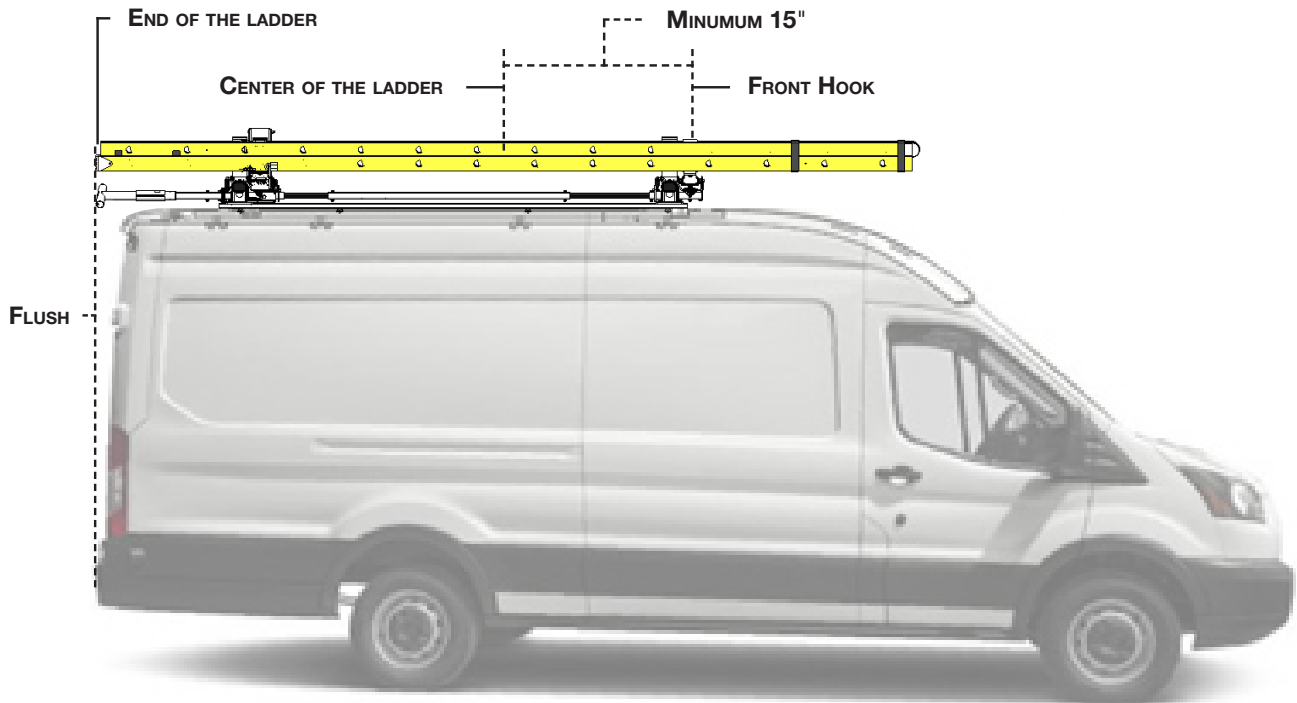


PHASE 2 – LADDER INSTALLATION

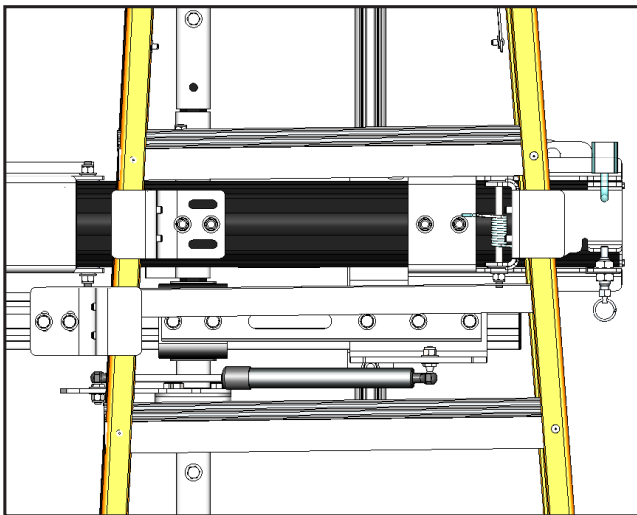
2.2 STEP LADDER INSTALLATION

NOTE: These conditions must be respected:

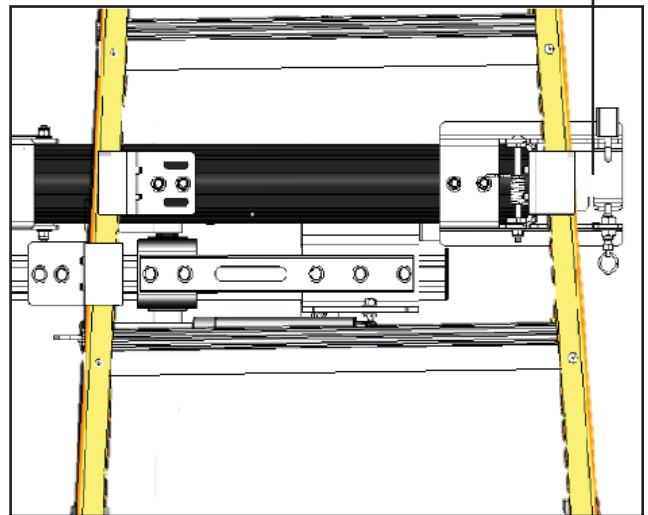
- The arm socket and the ladder cannot extend beyond the rear bumper of the vehicle.
- The center of the ladder must be behind the front hook when the ladder is loaded.



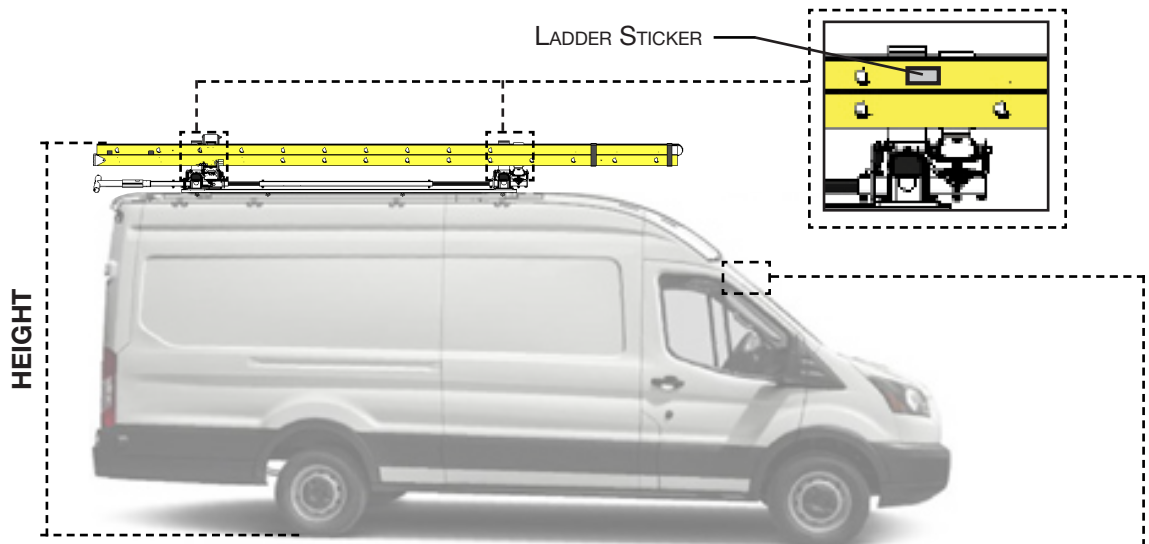
8' STEP LADDER



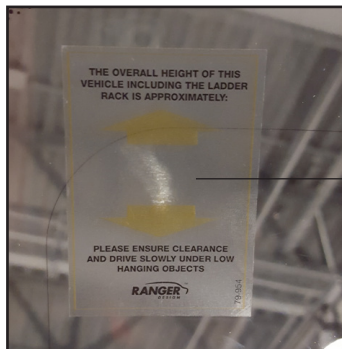
10' STEP LADDER



- NOTE:
- After installation be sure to put the **Operator's Manual** in the cab for the end user.
 - If you don't have the ladder of the end user, explain to end user where to put the **Ladder sticker**.



MAX RACK HEIGHT LABEL INSTALLATION INSIDE



NOTE: Make sure that the label doesn't block the driver's visibility while driving.

Write the height of the vehicle with the Max Rack here.

**“You have successfully completed Operation 3
Max Rack Driver Side Mechanism!**

Open the mounting track box, then follow the Install Guide of the mounting track to install the Max Rack on your vehicle.

Thank you for doing business with us.”

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



INSTALLATION GUIDE

WITH OEM TRACKS



WITH RANGER DESIGN TRACKS



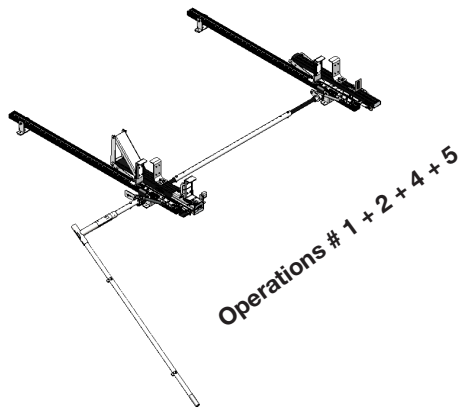
18-U0018 Mounting Tracks

Mercedes Sprinter (Standard & High Roof)

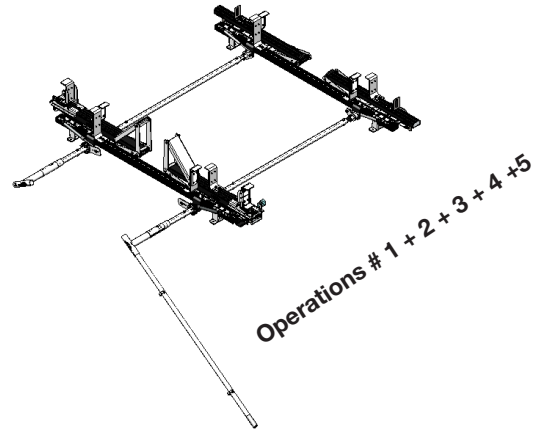


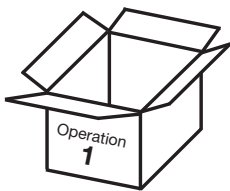

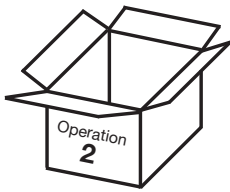
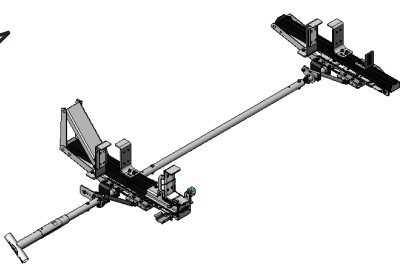
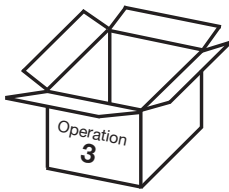
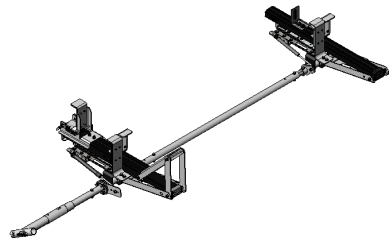
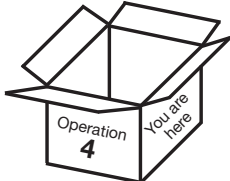
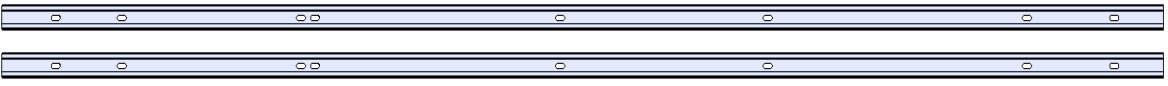
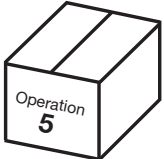

ORDER OF OPERATION

MAX RACK SINGLE SIDE



MAX RACK DOUBLE SIDE



 <p>Operation 1</p>	<p>18-U1806</p> 
<p>18-U1810</p>  <p>Operation 2</p> 	<p>BOX 5 OF 5</p> <p>18-U1815</p>  <p>Operation 3</p>  <div data-bbox="820 1459 1193 1554"><p>OPTIONAL: Applicable only for Max Rack Double Side.</p></div>
 <p>Operation 4</p> <p>You are here</p>	<p>MOUNTING TRACK</p> 
 <p>Operation 5</p>	<p>18-U1807</p> 

QUICK START GUIDE

Phase 1 - Assembly

❑ 1.1 Setup..... 4 TO 5

Phase 2 - Installation

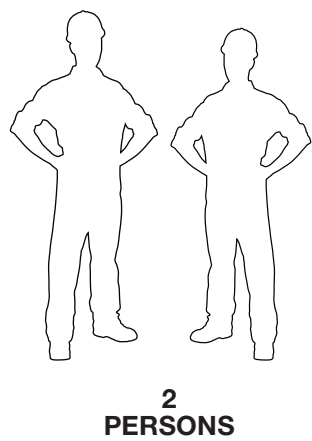
❑ 2.1 Mounting Tracks installation..... 6

❑ 2.2 Max Rack installation..... 7 - 10

Phase 3 - Adjustment

❑ 3.1 Adjustment for Max Rack..... 11 - 12

REQUIRED ITEMS FOR COMPLETE MAX RACK & LADDER RACK

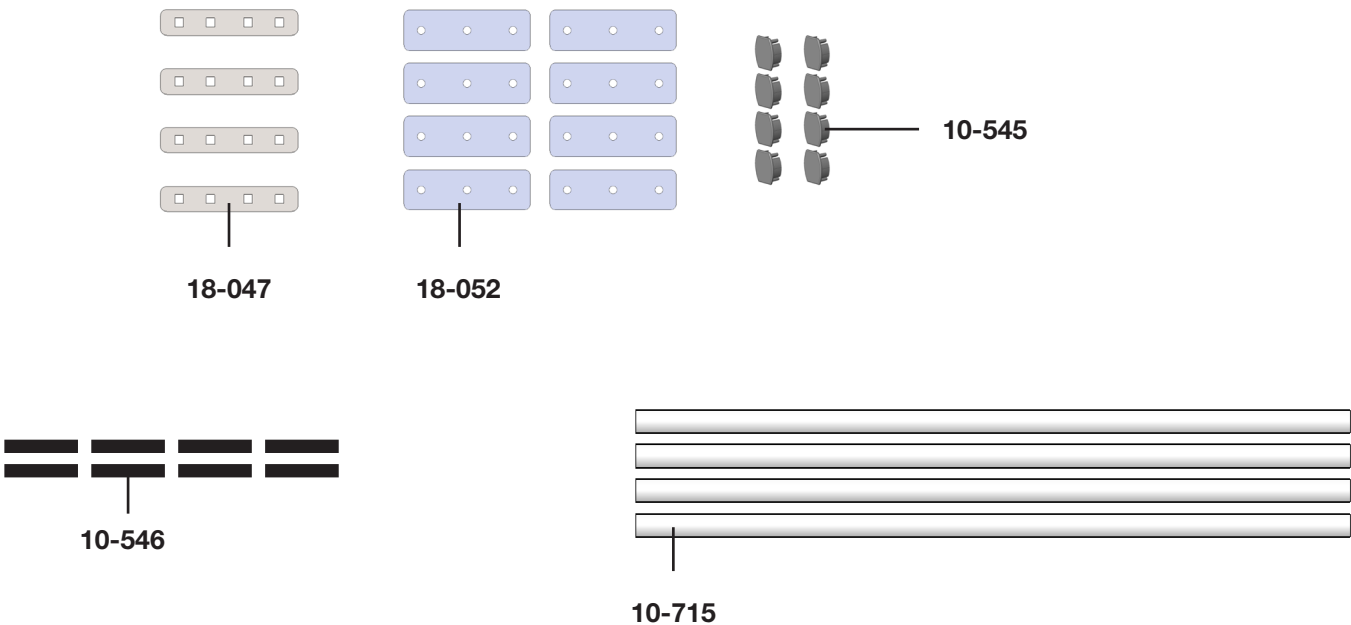


- ❑ Cordless Impact
- ❑ Ratchet
- ❑ Tape Measure
- ❑ Marker
- ❑ Ladder
- ❑ 9/16" Wrench
- ❑ 1/2" Wrench
- ❑ 7/16" Socket
- ❑ 1/2" Socket
- ❑ Sawhorse (Optional)
- ❑ Box
- ❑ Cutter

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.

WITH OEM TRACKS

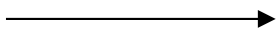
Item No.	Description	Qty.
18-047	Sprinter Support Plate	4
18-052	Shim - Foot	8
96-0018	Installation Fastener Bag	1

WITH RANGER DESIGN TRACKS









Item No.	Description	Qty.
10-545	Plastic Plug	8
10-546x6	Track Plug	8
10-715	Mounting Track 50"	4
96-0018	Installation Fastener Bag	1

1.1.3 Identify the **Assembly** and **Installation** fastener bags.





Installation Fastener Bag







Fastener Assembly

- | | | | |
|------------|---|-----------------|--|
| 24x |  | # 90-495 | Carriage Bolt
5/16"-18 x 1-1/4"
SS304 |
| 8x |  | # 90-503 | Carriage Bolt
5/16"-18 x 1-3/4"
SS304 |
| 24x |  | # 94-105 | Hex Nut
5/16"-18
SS316wax |
| 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 |
| 16x |  | # 98-169 | Flat Washer
External Shake Proof Washer
ZINC |







8x w/ OEM TRACK

- | | |
|---|------------------------------|
|  | #94-105 Hex Nut |
|  | #98-123 Lock Washer |
|  | #98-117 Flat Washer |
|  | #90-503 Carriage Bolt 1-3/4" |

8x w/ RANGER DESIGN TRACK

- | | |
|---|------------------------------|
|  | #94-105 Hex Nut |
|  | #98-123 Lock Washer |
|  | #98-117 Flat Washer |
|  | #90-495 Carriage Bolt 1-1/4" |

16x w/ RANGER DESIGN TRACK

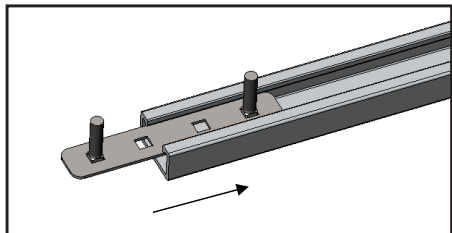
- | | |
|---|------------------------------|
|  | #90-495 Carriage Bolt 1-1/4" |
|  | #98-109 Flat Washer |
|  | #98-149 Neoprene Spacer |
|  | #98-169 Flat Washer |
|  | #98-123 Lock Washer |
|  | #94-105 Hex Nut |

PHASE 2 – INSTALLATION

2.1 MOUNTING TRACKS INSTALLATION

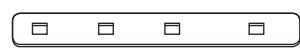
2.1.1 Install the hardware onto the mounting tracks.

WITH OEM TRACKS



FASTENERS USED

8x

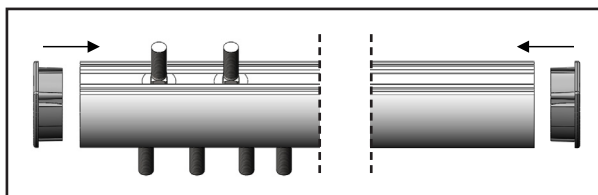


Support
Plate



#90-503 Carriage Bolt 5/16" x 1-3/4"

WITH RANGER DESIGN TRACKS



FASTENERS USED

8x



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

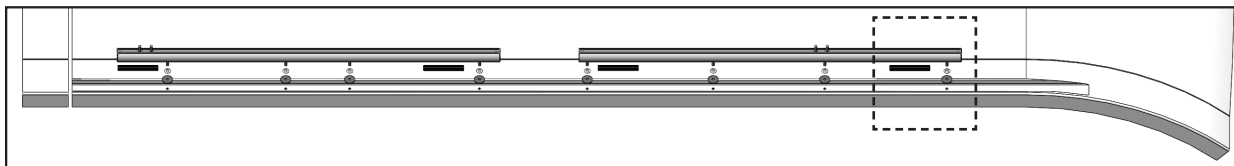
16x



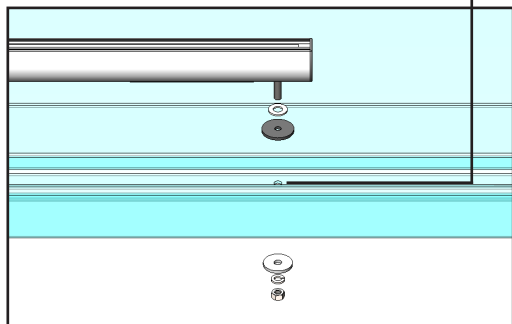
#90-495 Carriage Bolt 5/16" x 1-1/4"

- 2.1.2
- Align the bottom bolts to the roof holes.
 - Attach the plug extrusions on both ends of the mounting tracks.
 - Install the mounting tracks onto the roof.
 - **Apply a bead of silicone around each hole**, then fasten the tracks to the roof.

WITH RANGER DESIGN TRACKS



IMPORTANT: Apply a bead of silicone around each hole.



16x



#90-495 Carriage Bolt 1-1/4"



#98-109 Flat Washer



#98-149 Neoprene Spacer



#98-169 Flat Washer



#98-123 Lock Washer



#94-105 Hex Nut

TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

INSIDE

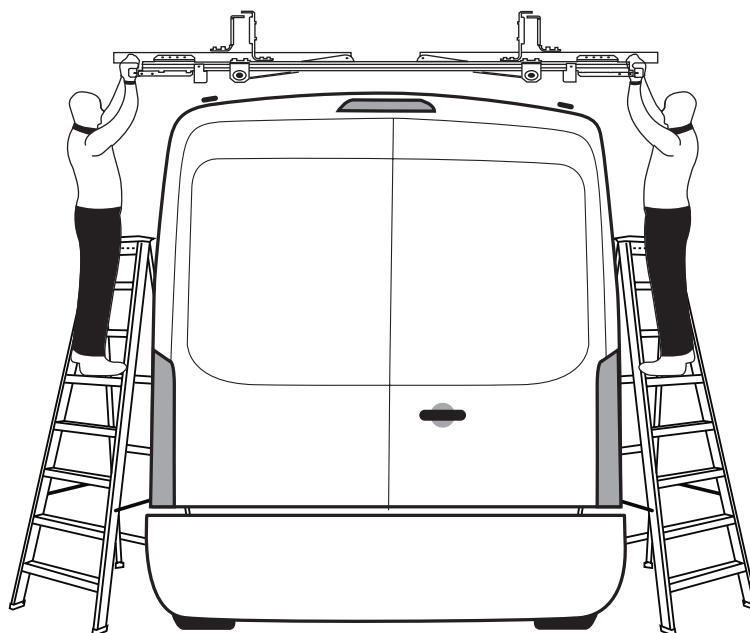
PHASE 2 – INSTALLATION

2.2 MAX RACK INSTALLATION

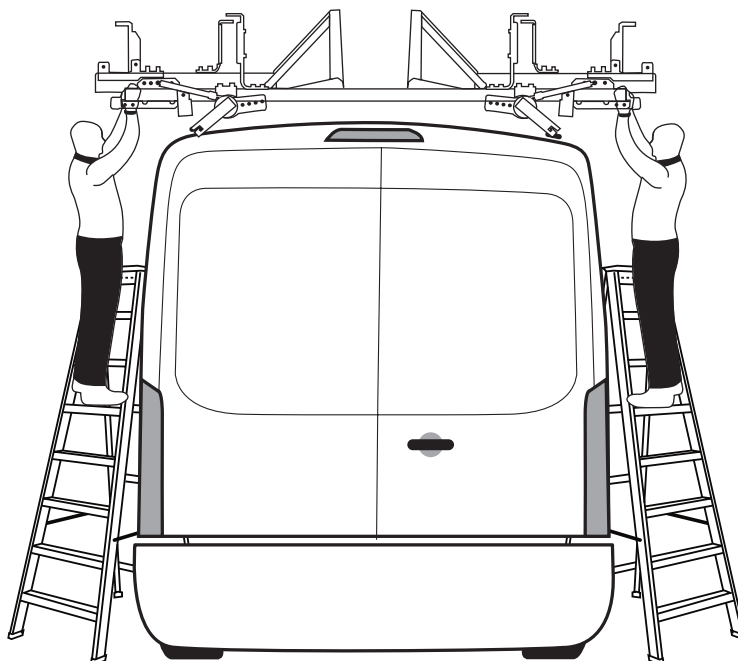
2.2.1 Position the Max Rack (**minimum two persons**) on the vehicle so that the feet are on the tracks.

NOTE: If you do not have an overhead lift, lift the front crossbar onto the roof first then the rear crossbar.

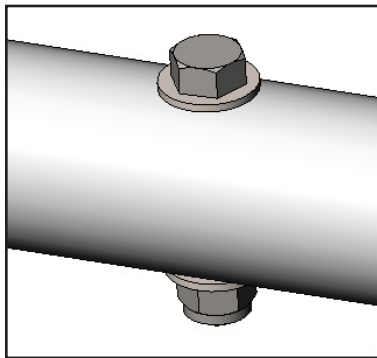
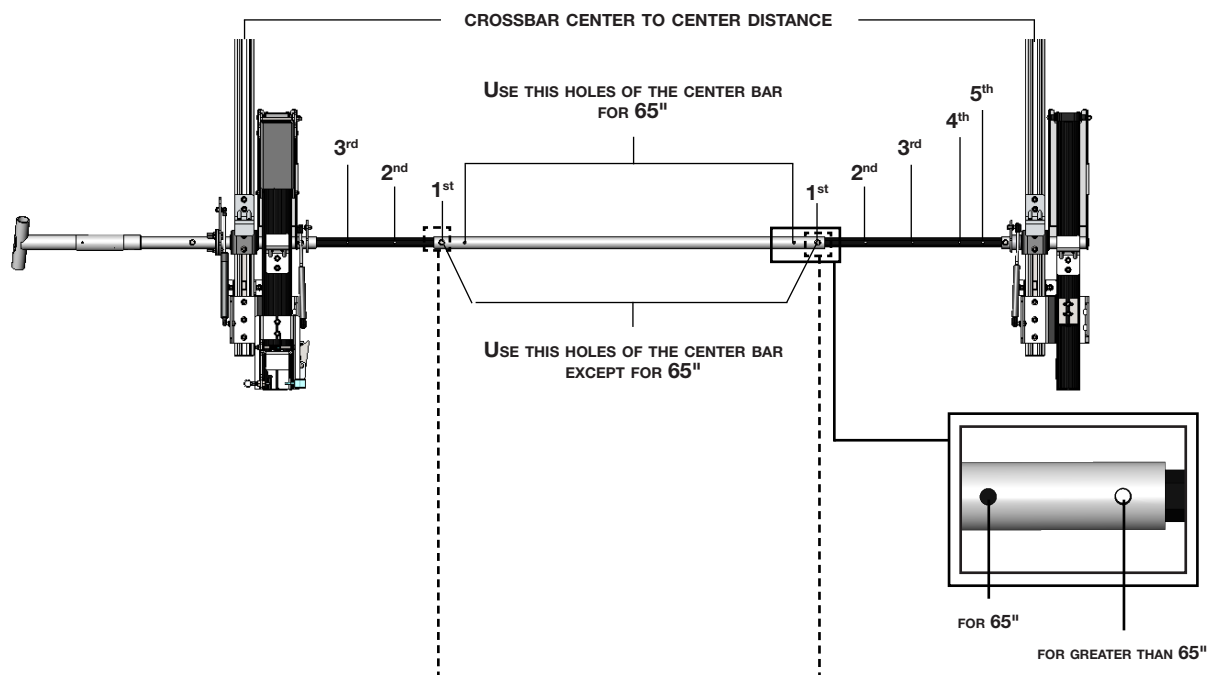
FRONT CROSSBOW



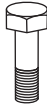



REAR CROSSBOW



2.2.2 Attach the ends of the front and rear bars to the center tube.



FASTENERS USED
2x (17 ft • lbs)

-  #90-225 Hex Bolt 2"
-  #98-117 Flat Washer 5/16"
-  #98-117 Flat Washer 5/16"
-  #94-111 Lock Nut 5/16"

- TOOLS**
- ☐ Cordless Impact
 - ☐ 1/2" Socket
 - ☐ 1/2" Wrench

RECOMMENDED SET-UP

VEHICLE	CROSSBAR CENTER TO CENTER DISTANCE	LADDER SIZE
Mercedes-Benz SPRINTER	65" (3 RD & 3 RD HOLES)	UP TO EXTENSION 24' & STEP 8' TO 10' ONLY

FOR LONGER EXTENSION LADDER SET-UP

WORKS ONLY ON: FORD TRANIT (148" & 148" EX. WB), RAM PROMASTER (136", 159" & 159" EX. WB) & MERCEDES-BENS SPRINTER.

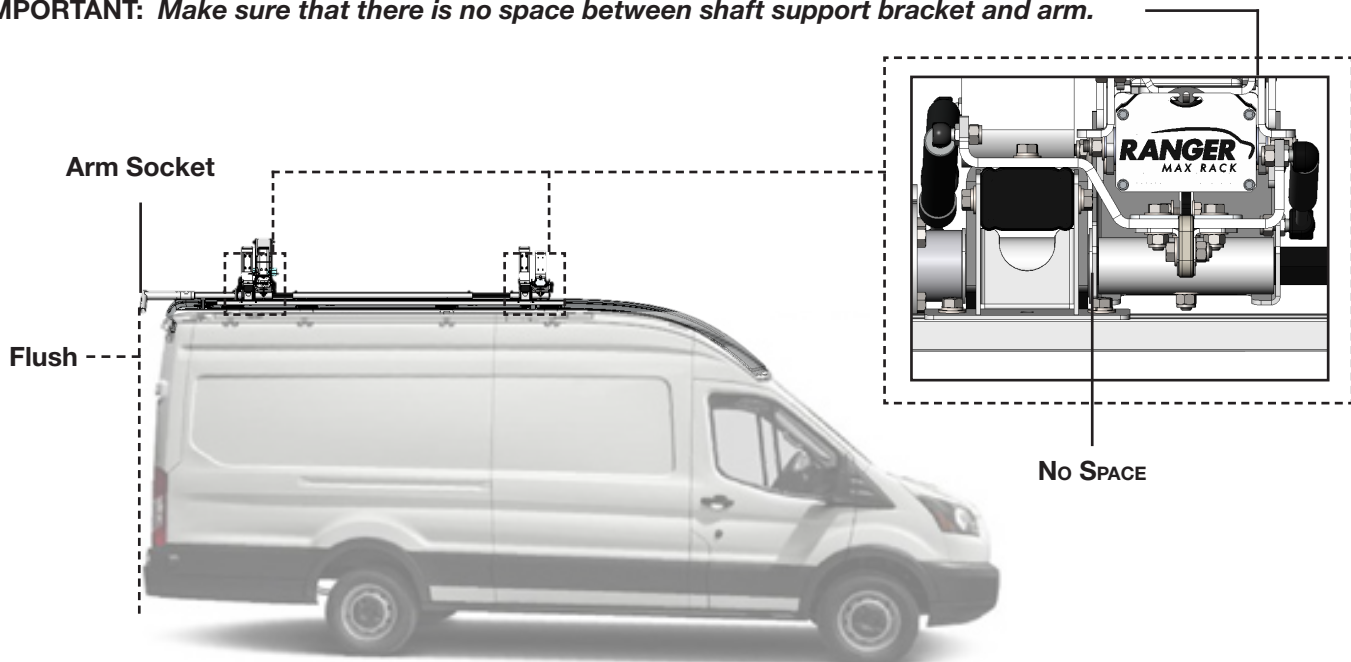
CROSSBAR CENTER TO CENTER DISTANCE	LADDER SIZE
89" (2 ND & 2 ND HOLES)	UP TO EXTENSION 32'

- 2.2.3** • Align the arm socket to the rear bumper of the vehicle.
• Attach all the feet w/ shim to the mounting tracks.

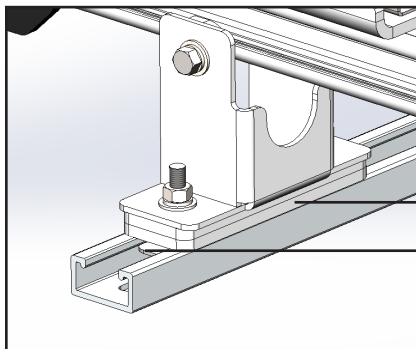
NOTE: These conditions must be respected:

- The arm socket and the ladder cannot extend beyond the rear bumper of the vehicle.
- The center of the ladder must be behind the front hook when the ladder is loaded.

IMPORTANT: *Make sure that there is no space between shaft support bracket and arm.*



WITH OEM TRACKS



TOOLS

- ☐ Ratchet
- ☐ 1/2" Socket

18-052

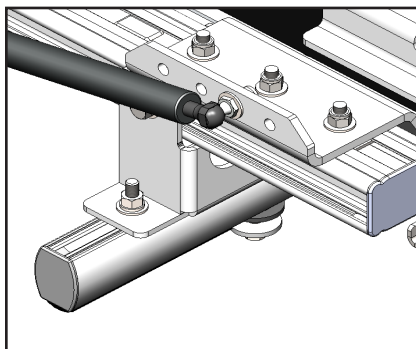
18-047

FASTENERS USED

8x (17 ft • lbs)

- #94-105 Hex Nut
- #98-123 Lock Washer
- #98-117 Flat Washer
- #90-503 Carriage Bolt 1-3/4"

WITH RANGER DESIGN TRACKS



TOOLS

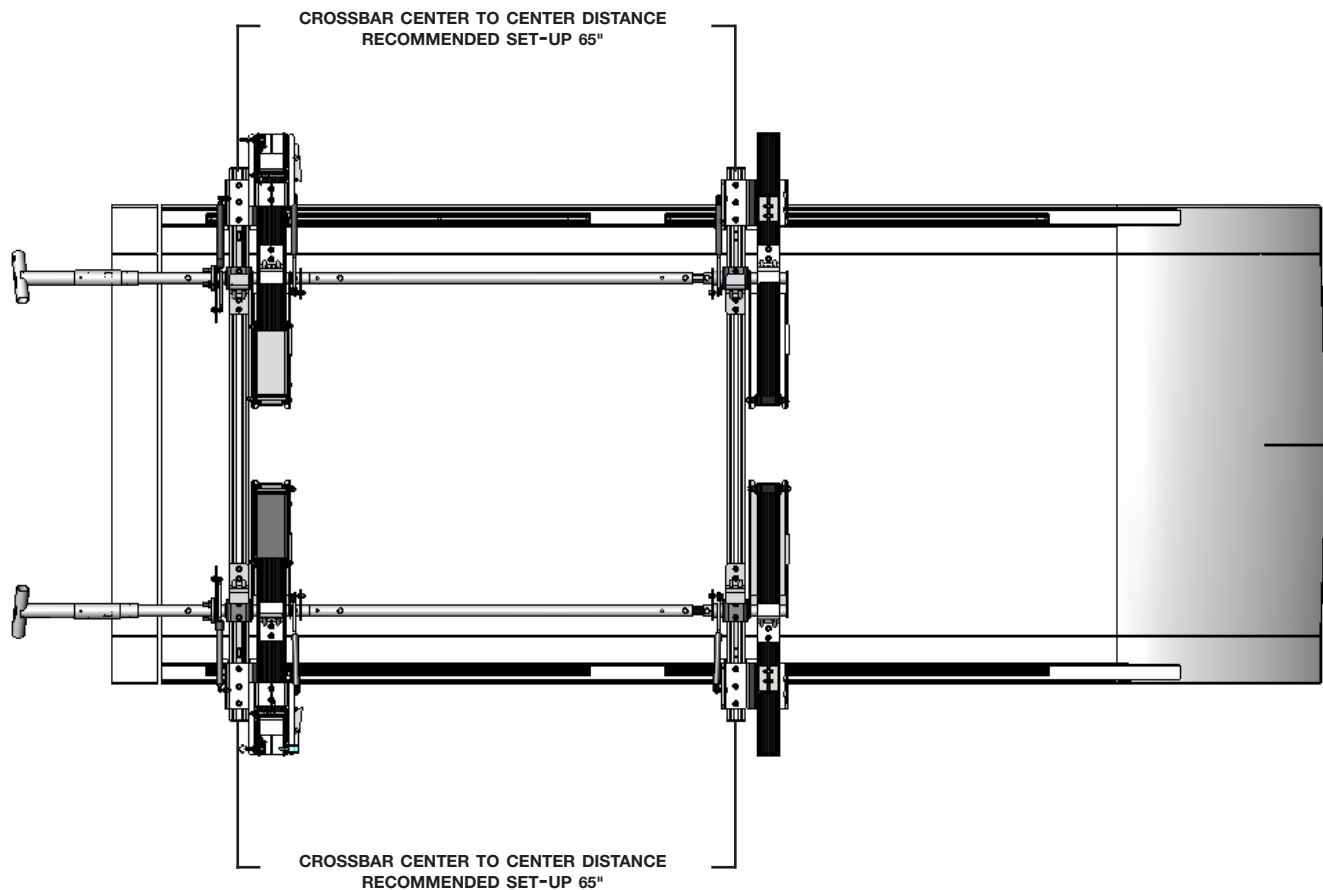
- ☐ Ratchet
- ☐ 1/2" Socket

FASTENERS USED

8x (17 ft • lbs)

- #94-105 Hex Nut
- #98-123 Lock Washer
- #98-117 Flat Washer
- #90-495 Carriage Bolt 1-1/4"

2.2.4 Before tightening the feet to the mounting track make sure that the 2 crossbar is parallel.



RECOMMENDED SET-UP

VEHICLE	CROSSBAR CENTER TO CENTER DISTANCE	LADDER SIZE
Mercedes-Benz SPRINTER	65" (3 RD & 3 RD HOLES)	UP TO EXTENSION 24' & STEP 8' TO 10' ONLY

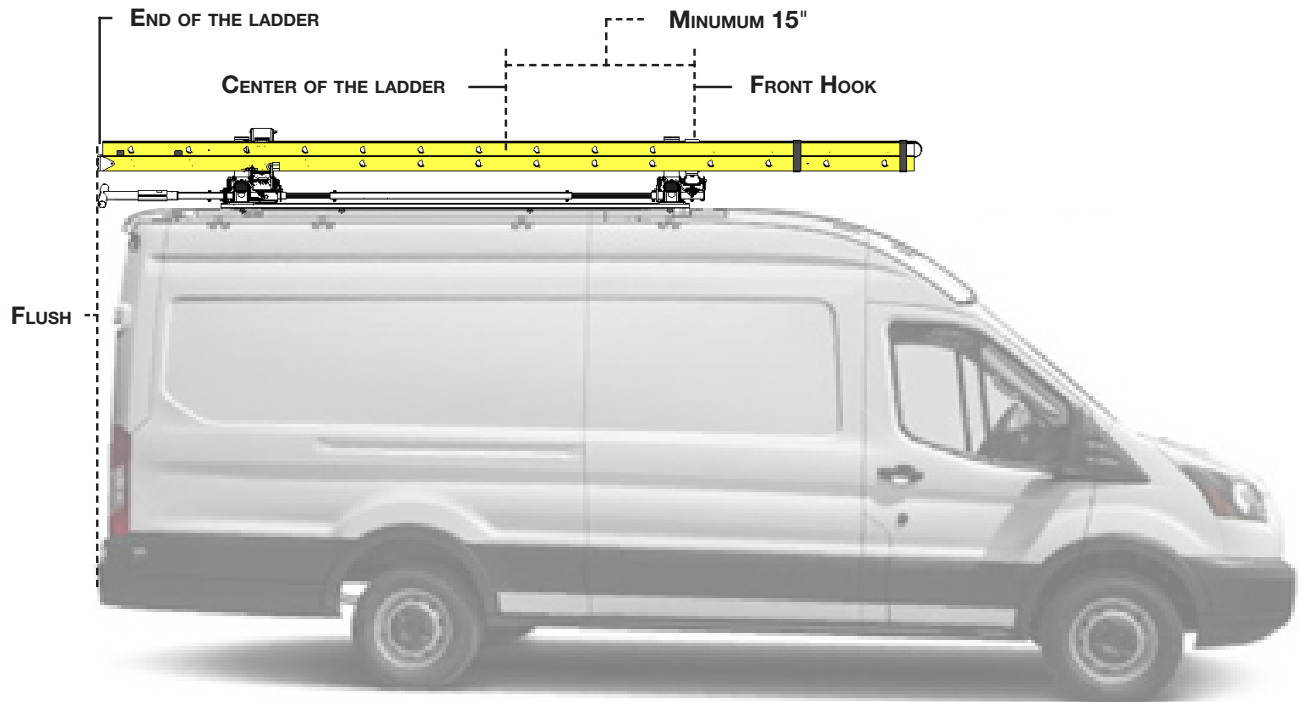
PHASE 3 – ADJUSTMENT

3.1 ADJUSTMENT FOR MAX RACK

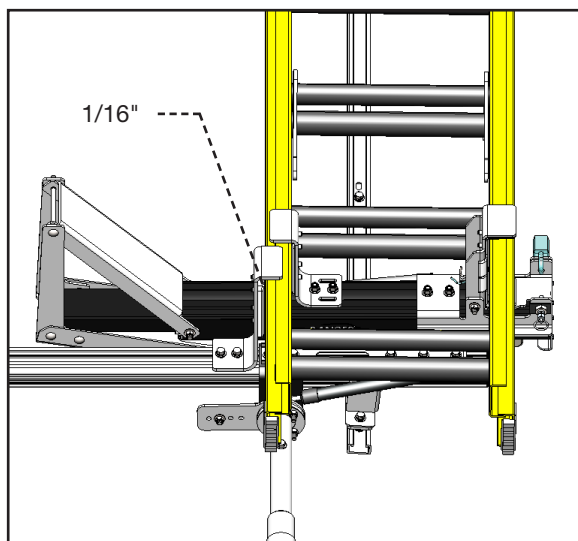
- 3.1.1** • Place the Max Rack in the down position.
• Load the ladder onto the Max Rack.

NOTE: These conditions must be respected:

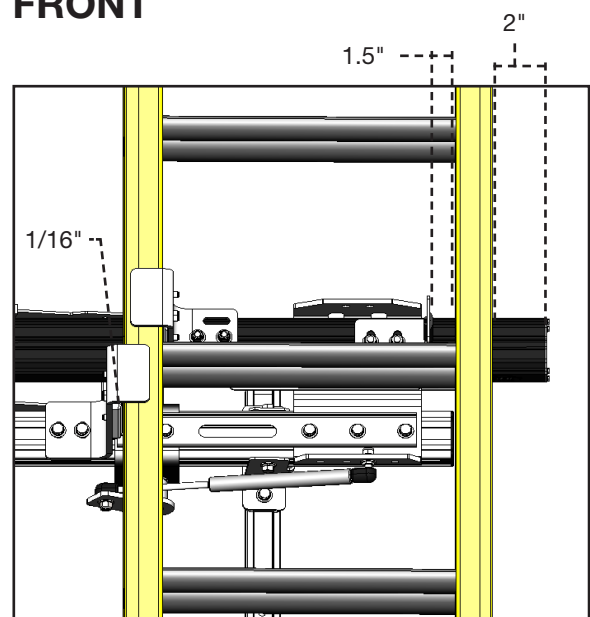
- The arm socket and the ladder cannot extend beyond the rear bumper of the vehicle.
- The center of the ladder must be behind the front hook when the ladder is loaded.



REAR



FRONT



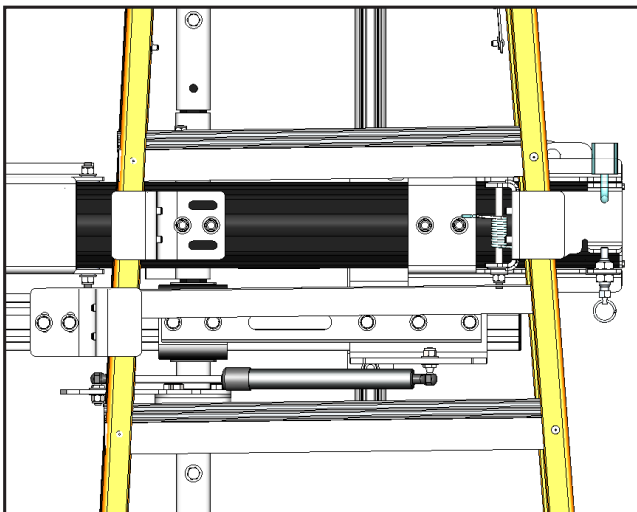
STEP LADDER INSTALLATION

NOTE: These conditions must be respected:

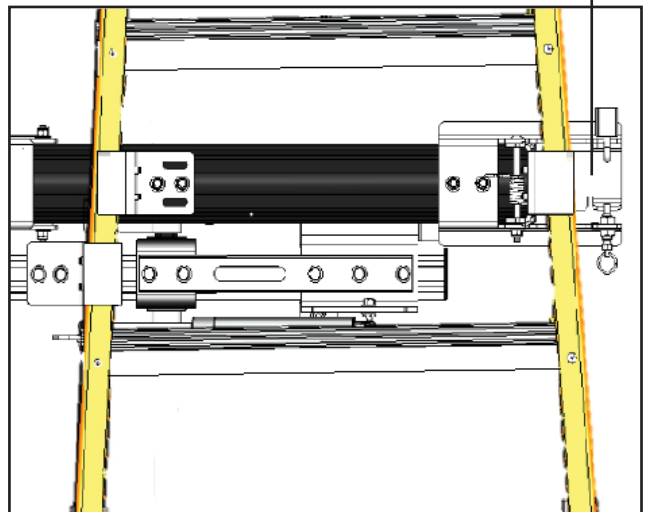
- The arm socket and the ladder cannot extend beyond the rear bumper of the vehicle.
- The center of the ladder must be behind the front hook when the ladder is loaded.



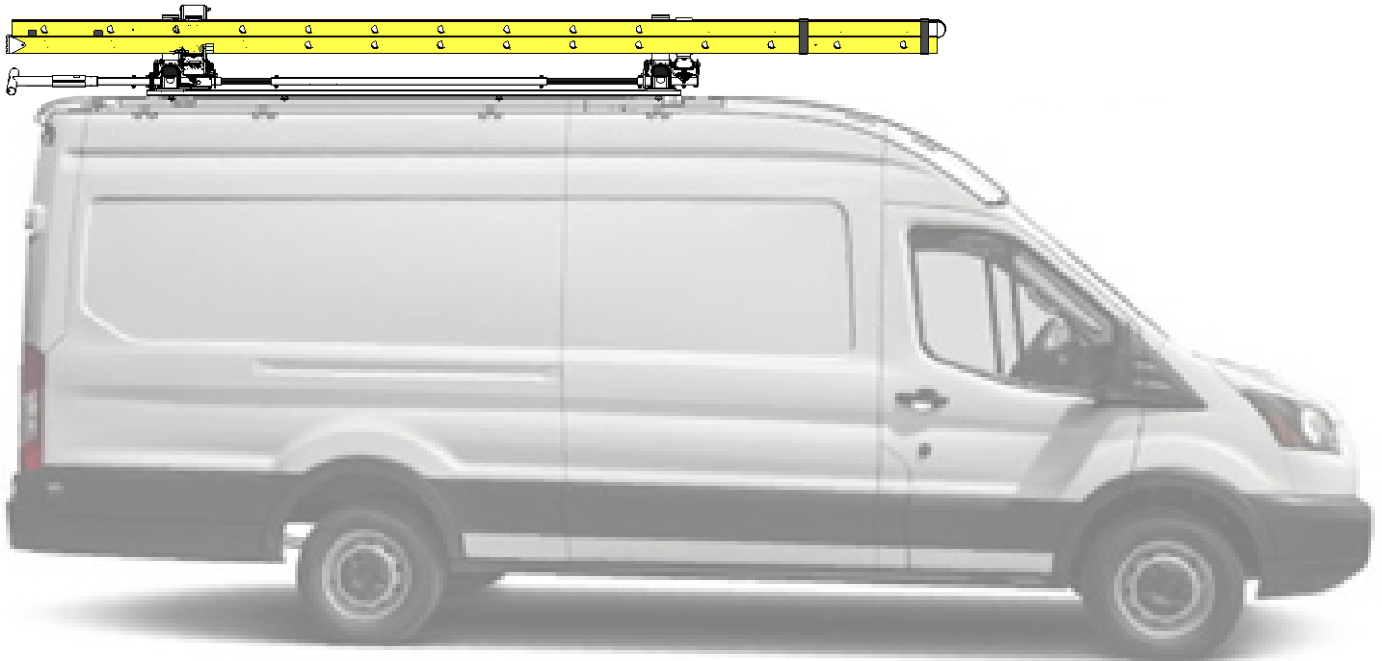
8' STEP LADDER



10' STEP LADDER



- NOTE:**
- Ensure that everything is safely assembled and fastened.
 - With the ladder locked, operate your Max Rack a few times, while carefully observing the moving parts.



**“Congratulations, you have successfully installed your
Mounting Tracks and your completed Max Rack on your vehicle!**

Thank you for doing business with us.”

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

