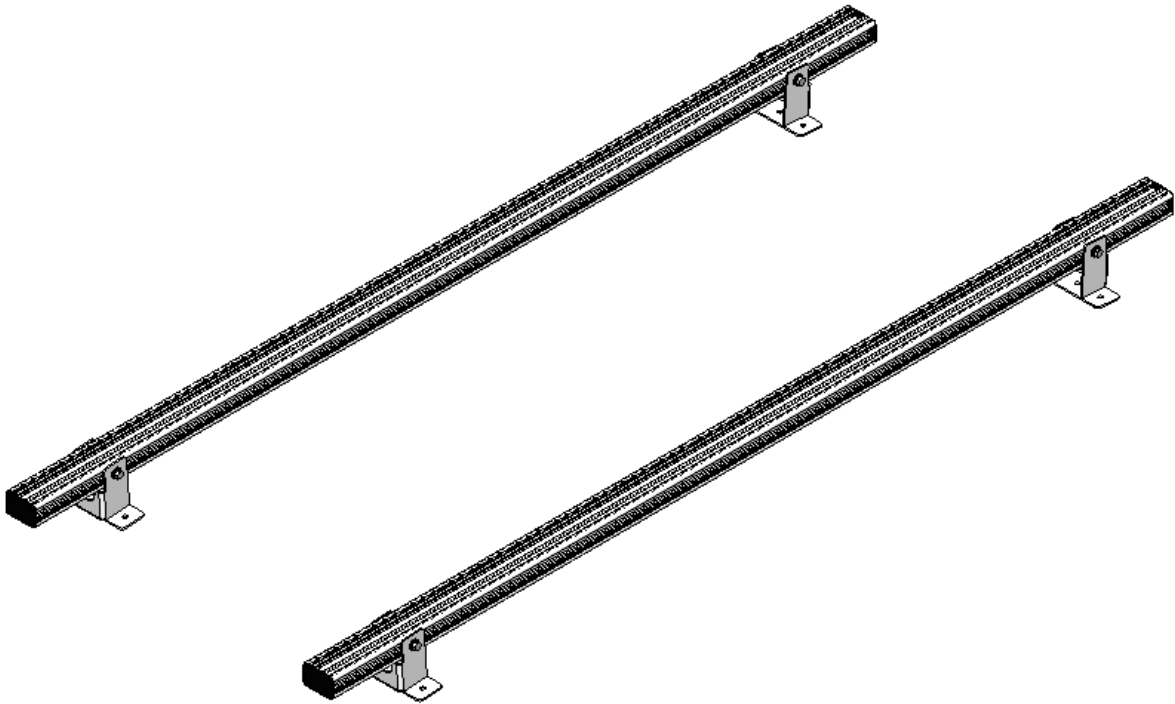


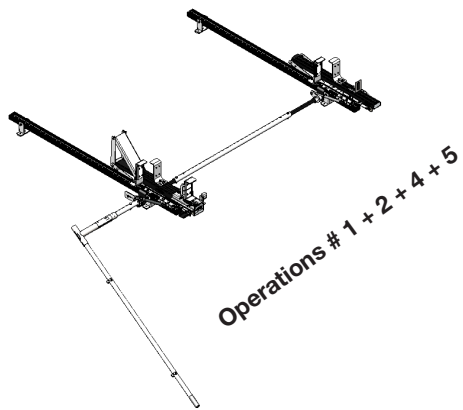
# INSTALLATION GUIDE



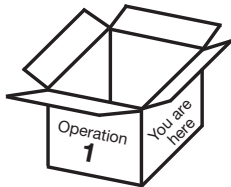
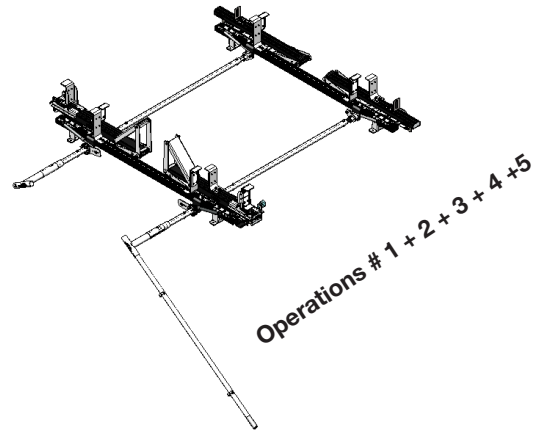
**18-U1806 Max Rack Crossbar**  
( Max Rack )

# ORDER OF OPERATION

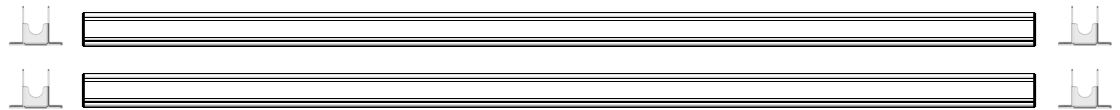
## MAX RACK SINGLE SIDE



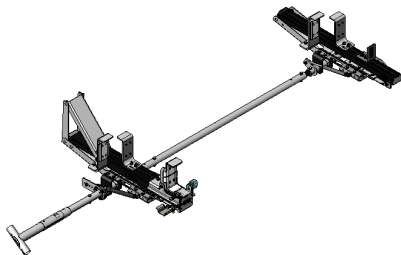
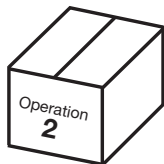
## MAX RACK DOUBLE SIDE



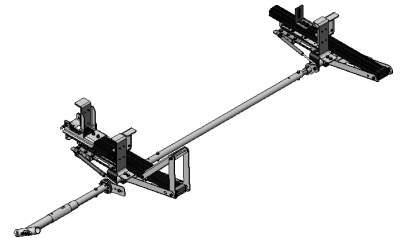
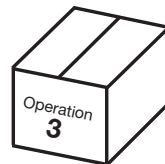
18-U1806



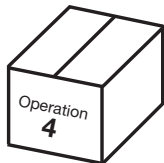
18-U1810



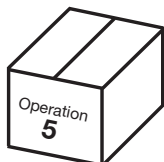
18-U1815



**OPTIONAL:** Applicable only for Max Rack Double Side.



MOUNTING TRACK

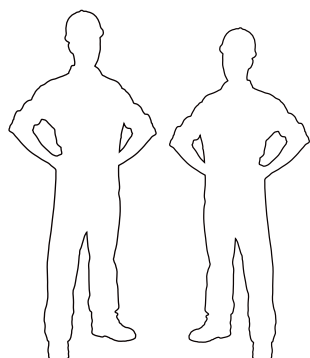


18-U1807



# REQUIRED ITEMS FOR COMPLETE MAX RACK

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



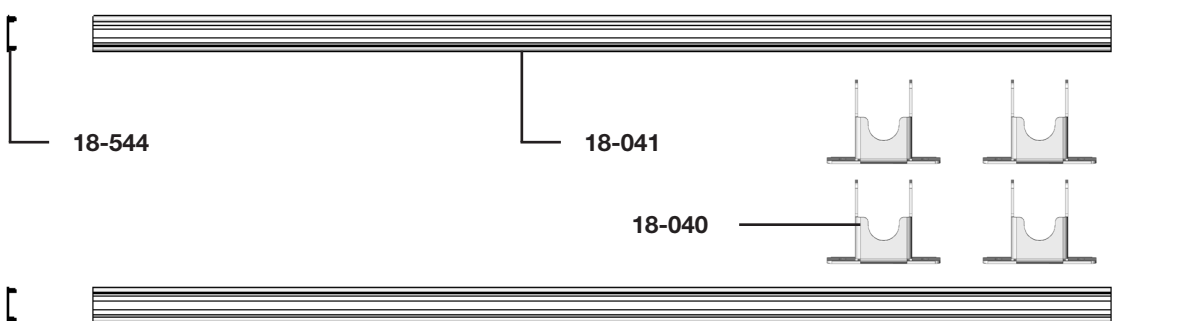
**2  
PERSONS**

- ☐ 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.

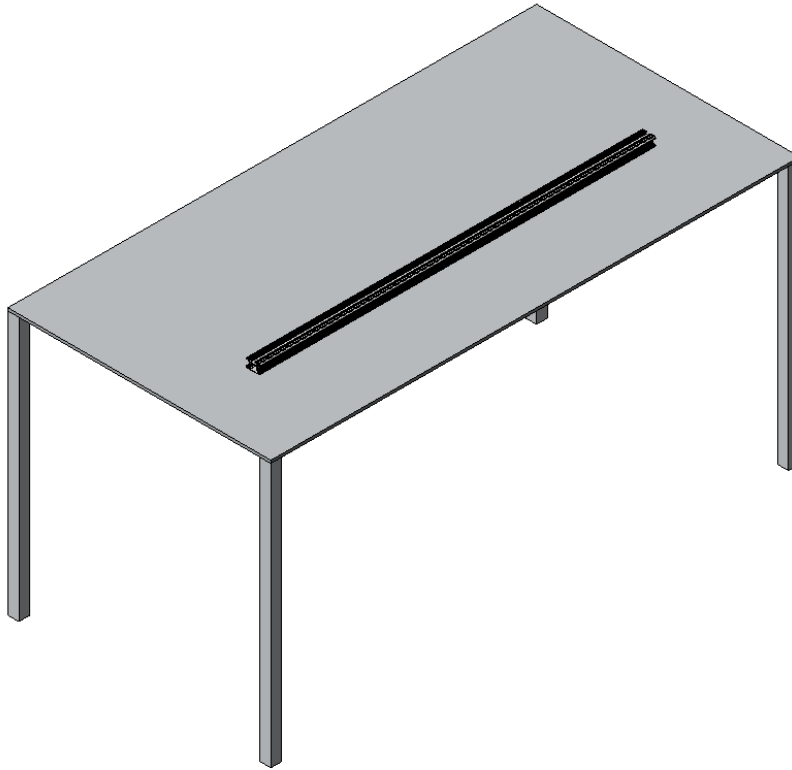
#### BILL OF MATERIALS

Item No.	Description	Qty.
18-040	Foot	4
18-041	Max Rack Crossbar	2
18-544	End Plastic Plug	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**

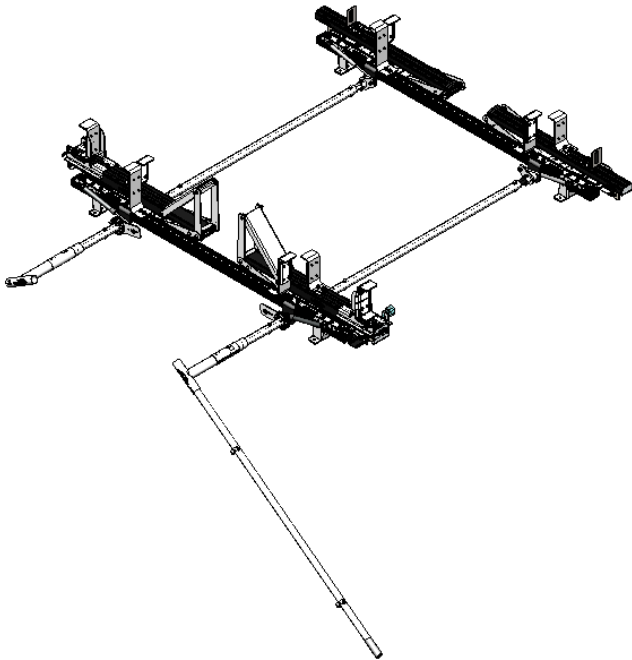
**Thank you for doing business with us.”**

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

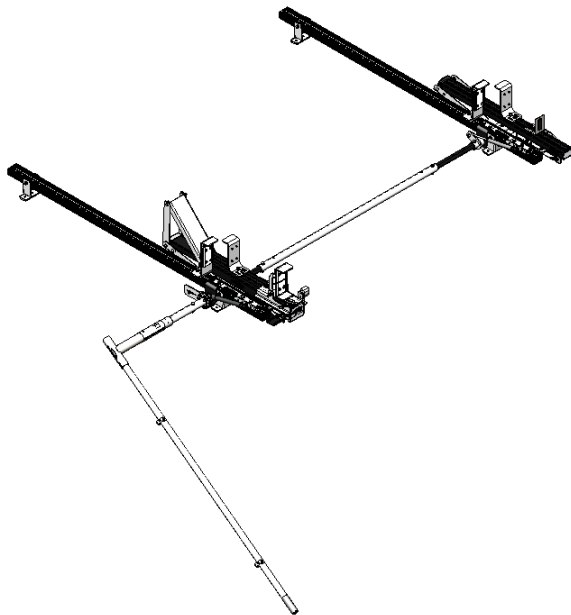


# INSTALLATION GUIDE

## MAX RACK DOUBLE SIDE



## MAX RACK SINGLE SIDE



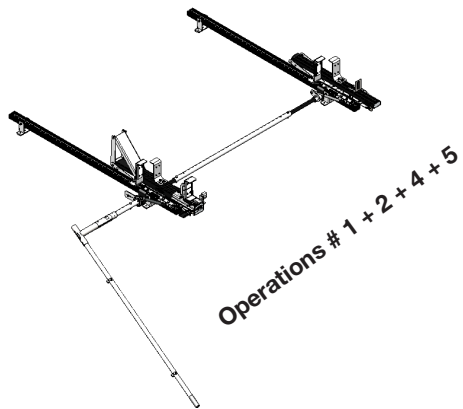
## 18-U1810 Max Rack

Passenger Side

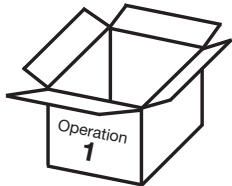
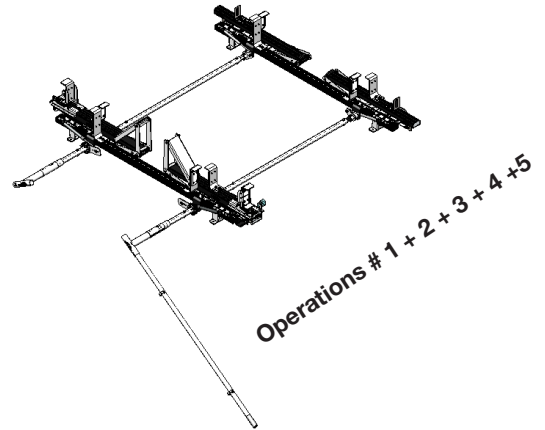


# ORDER OF OPERATION

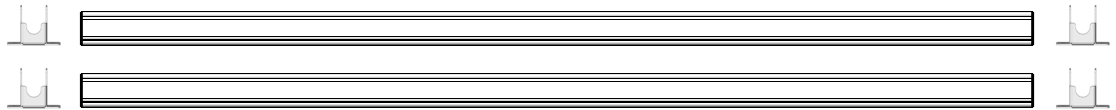
## MAX RACK SINGLE SIDE



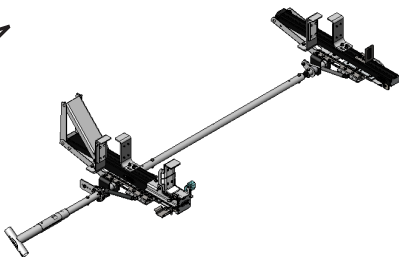
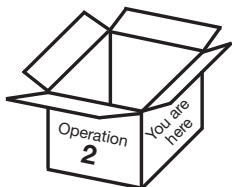
## MAX RACK DOUBLE SIDE



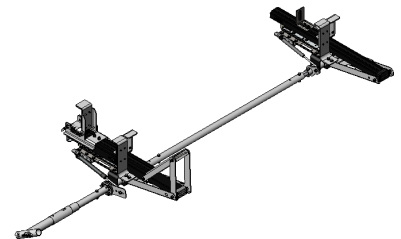
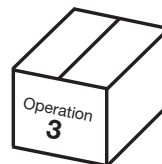
18-U1806



18-U1810

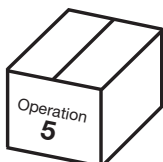
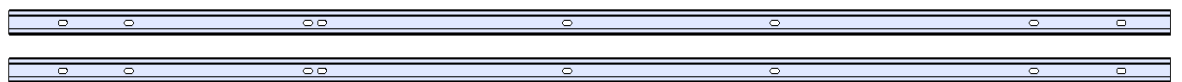
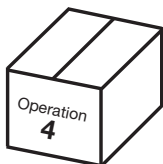


18-U1815



**OPTIONAL:** Applicable only  
for Max Rack Double Side.

MOUNTING TRACK



18-U1807



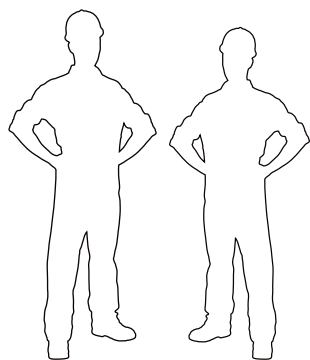
# QUICK START GUIDE

## Phase 1 - Assembly

<input type="checkbox"/> 1.1 Setup.....	4 TO 5
<input type="checkbox"/> 1.2 Front Crossbar Assembly.....	6 TO 14
<input type="checkbox"/> 1.3 Rear Crossbar Assembly.....	15 TO 25
<input type="checkbox"/> 1.4 For Assembly With Overhead Lift.....	26
<input type="checkbox"/> 1.5 Assembly Validation.....	27

## 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.



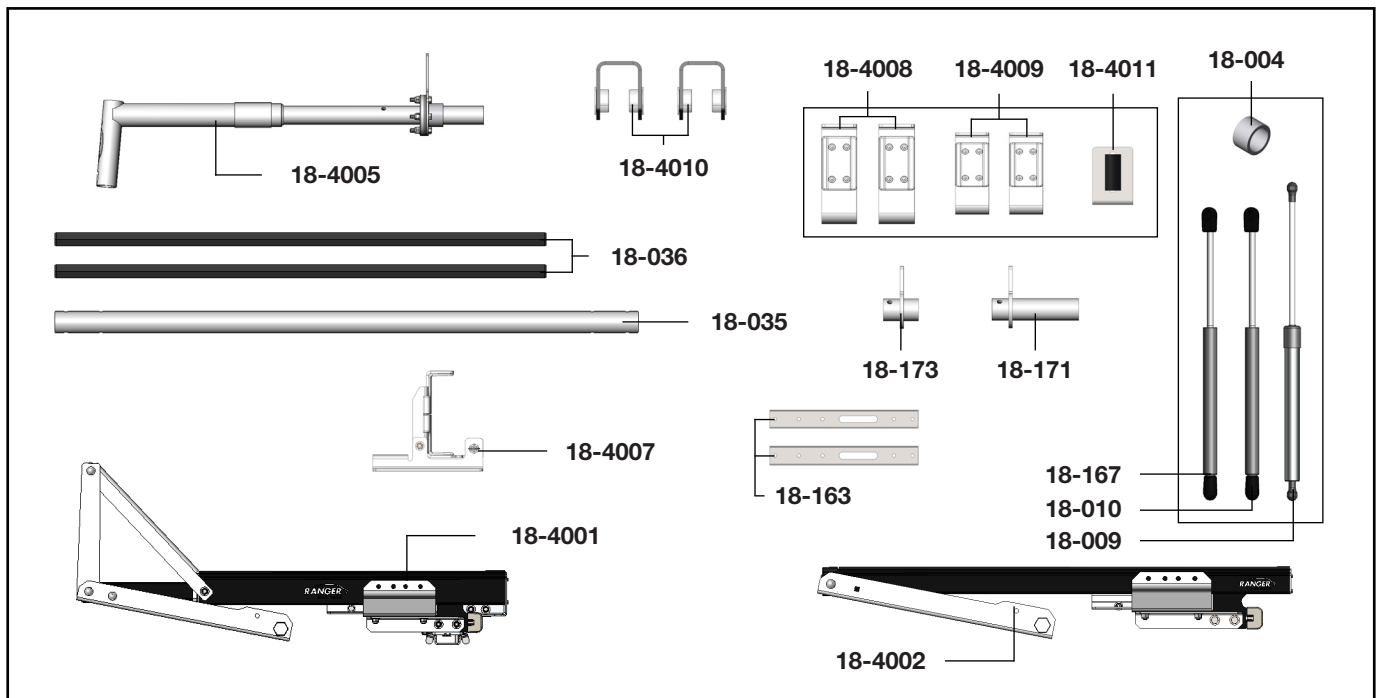
**2  
PERSONS**

- ☐ 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.
18-004	Spacer	1
18-009	Damper	1
18-010	Gas Spring	1
18-035	Center Tube	1
18-036	Pivot Bar	2
18-163	Washer Plate	2
18-167	Gas Spring Combo	1
18-171	Passenger Side Linkage, Front	1
18-173	Passenger Side Linkage, Rear	1
18-4001	Passenger Side Rear Mechanism	1
18-4002	Passenger Side Front Mechanism	1
18-4005	Passenger Side Damper kit	1
18-4007	Anti-theft, Lock	1
18-4008	Long Hook	2
18-4009	Small Hook	2
18-4010	Shaft Support Bracket	2
18-4011	Front Ladder Retainer	1
94-0810	Customer Assembly Fastener Kit	1

### 1.1.3 Fastener kits.

#### 94-0810



#### Fastener Assembly

5x		# 40-665	Ball Stud 3/4" Zinc Plated
14x		# 90-205	Hex Bolt 5/16" - 18 x 3/4" SS304
7x		# 90-225	Hex Bolt 5/16" - 18 x 2" SS304
8x		# 90-491	Carriage Bolt 5/16" - 18 x 1" SS304
8x		# 94-105	Hex Nut 5/16" - 18 SS316 WAX
12x		# 94-111	Lock Nut 5/16" SS304 WAX
14x		# 94-250	Channel Nut 5/16" - 18 SST
32x		# 98-117	Flat Washer 5/16", 3/4" O.D. SS18 - 8
22x		# 98-123	Lock Washer 5/16" SS304

#### 5x



#40-665 Ball Stud 3/4"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

#### 14x



#90-205 Hex Bolt 3/4"



#98-123 Lock Washer 5/16"



#Channel Nut 5/16"

#### 7x



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

#### 8x



#90-491 Carriage Bolt 1"



#98-117 Flat Washer 5/16"



#98-123 Lock Washer 5/16"



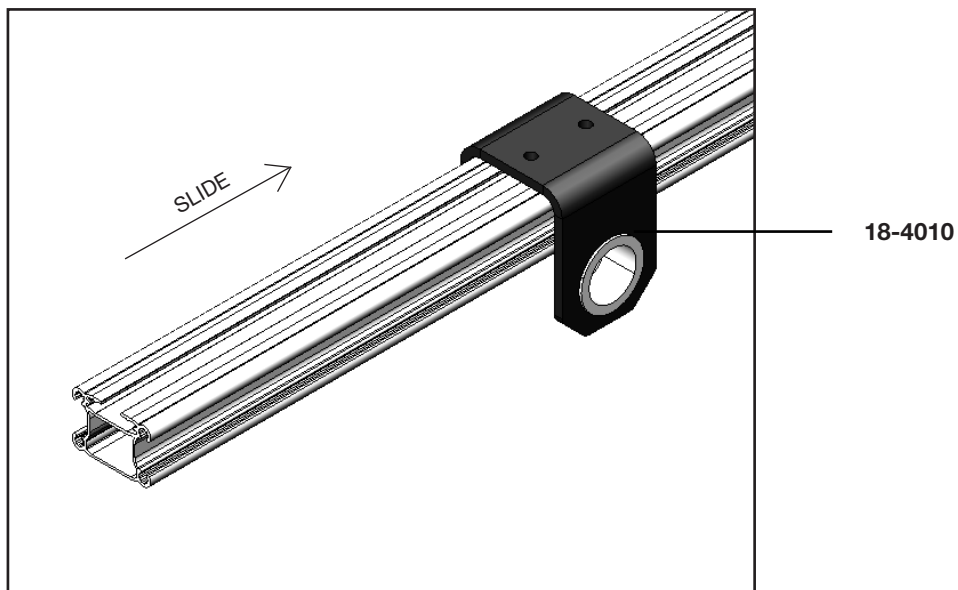
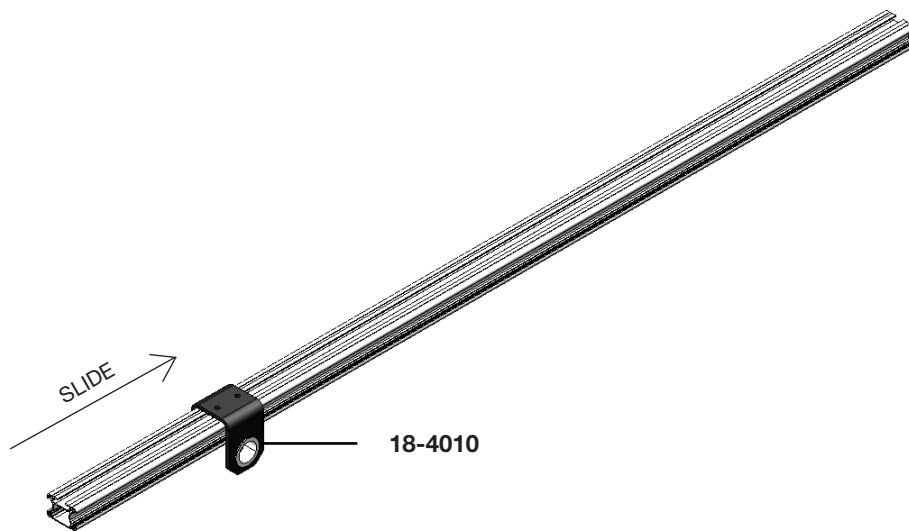
#94-105 Hex Nut 5/16"

# PHASE 1 – ASSEMBLY

## 1.2 FRONT CROSSBAR ASSEMBLY

**1.2.1** Slide the shaft support bracket onto the Crossbar.

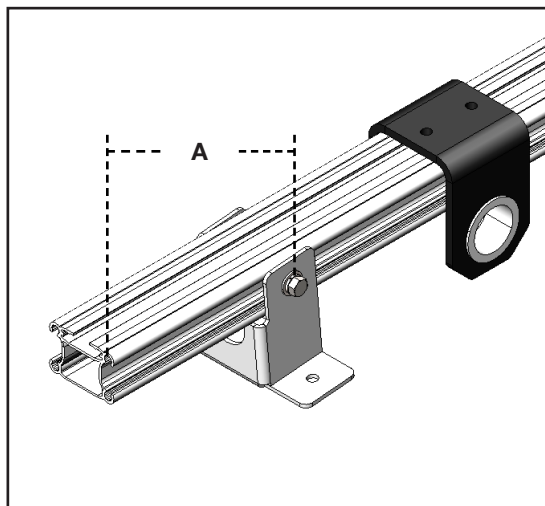
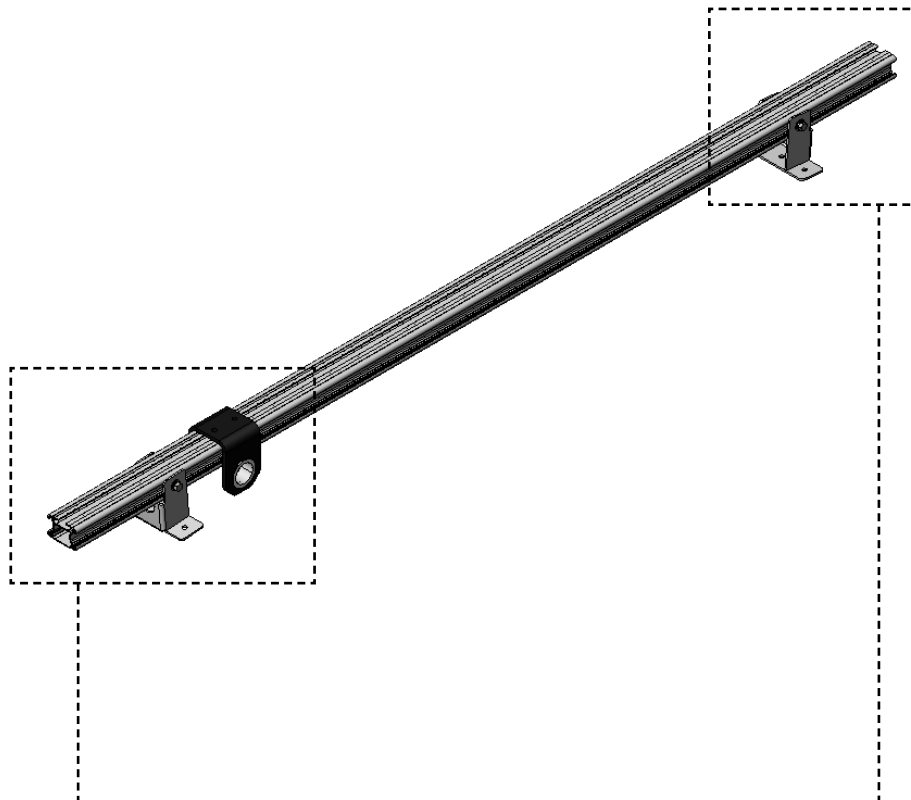
**NOTE:** Slide 2 shaft support brackets if you are assembling a double sided rack.



1.2.2 Attach the 2 feet from mounting track box 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"



### 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"

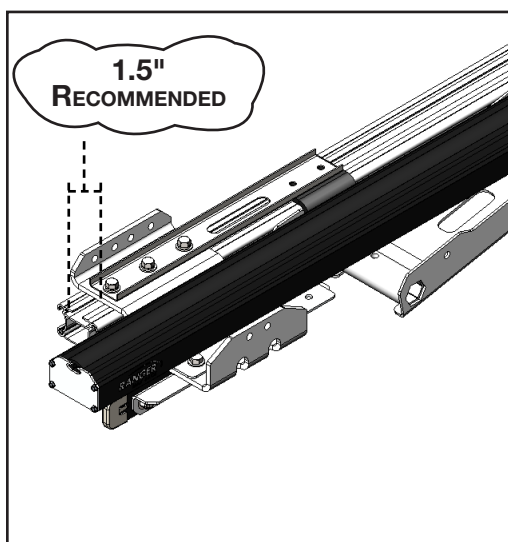
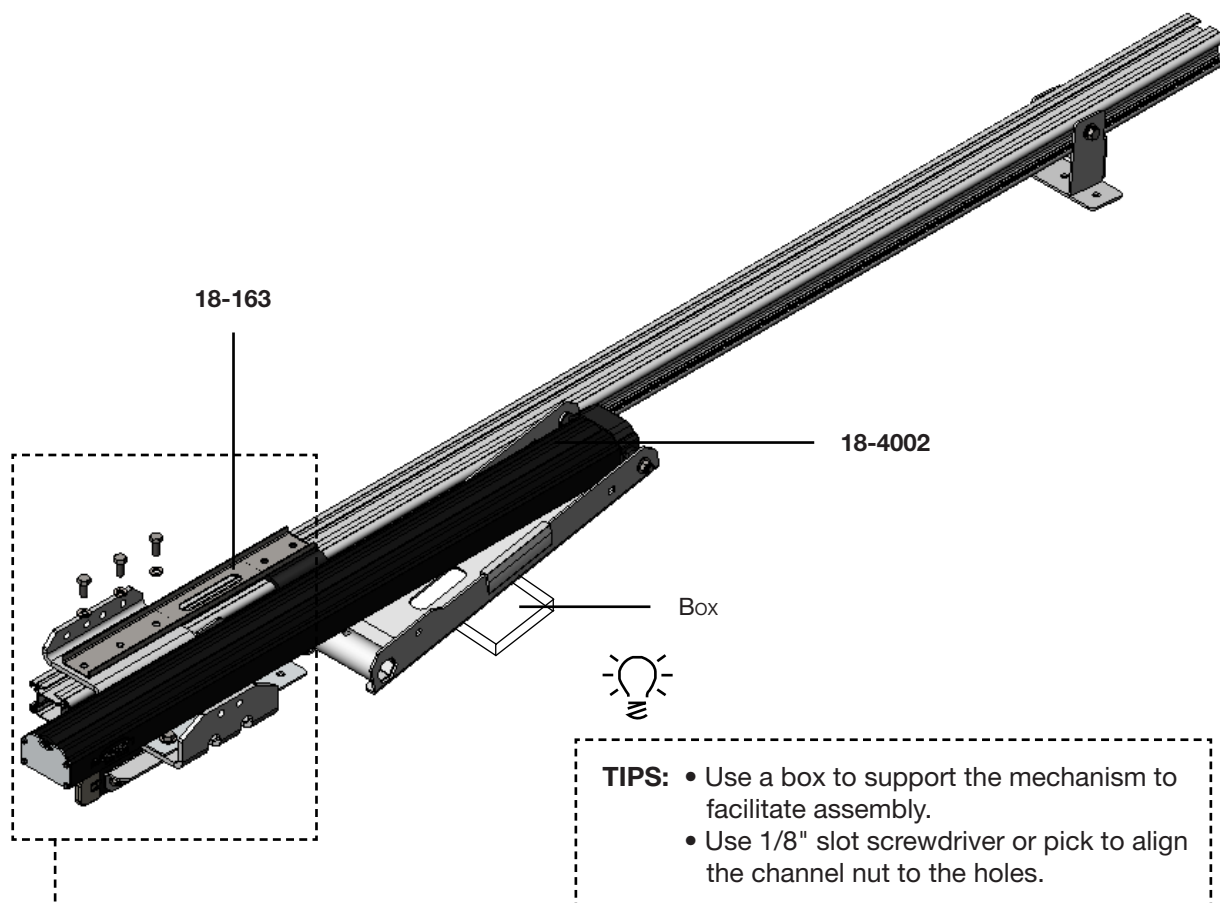


#98-117 Flat Washer 5/16"



#Channel Nut 5/16"

- 1.2.3** • Slide 3 channel nuts into the top channel of the crossbar.  
 • Attach the passenger side front mechanism to the crossbar with washer plate using the 3 channel nuts.



#### TOOLS

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

#### FASTENERS USED

**3x ( 17 ft • lbs )**

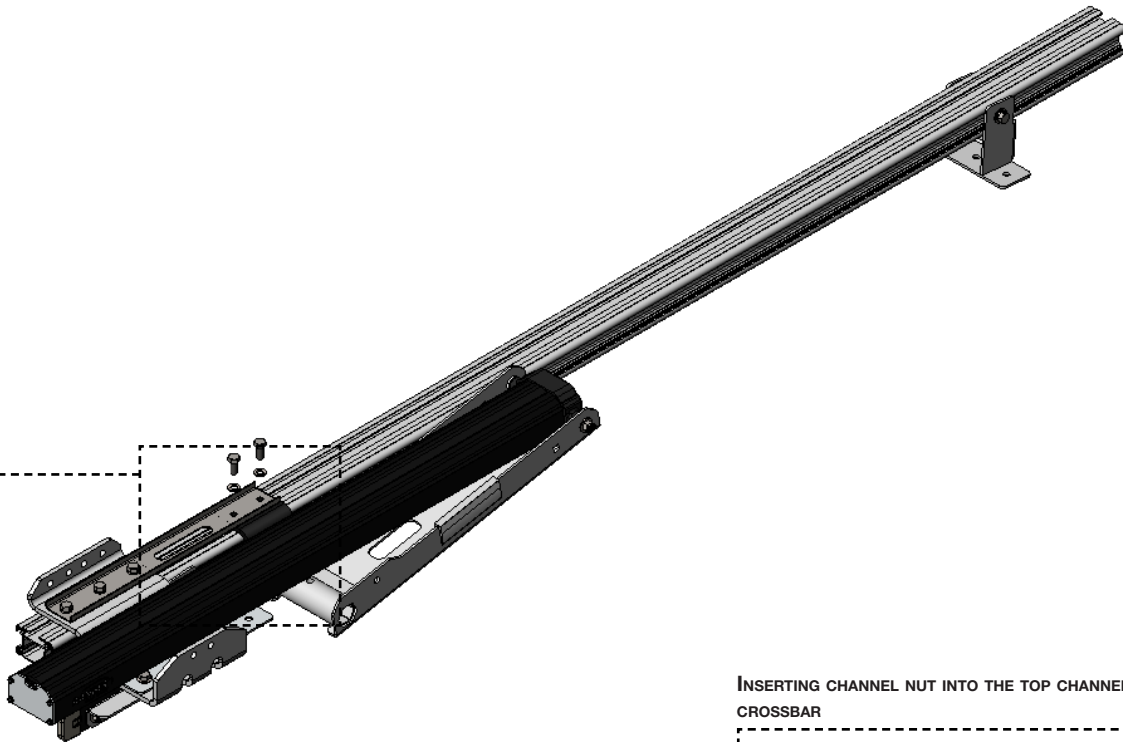


#90-205 Hex Bolt 3/4"

#98-123 Lock Washer 5/16"

#Channel Nut 5/16"

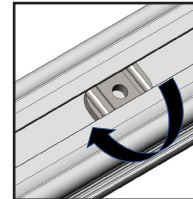
- 1.2.4** • Insert 2 channel nuts into the top channel of the crossbar, then align them to the shaft support bracket holes.
- Attach the shaft support bracket to the crossbar with the washer plate using the 2 channel nuts.



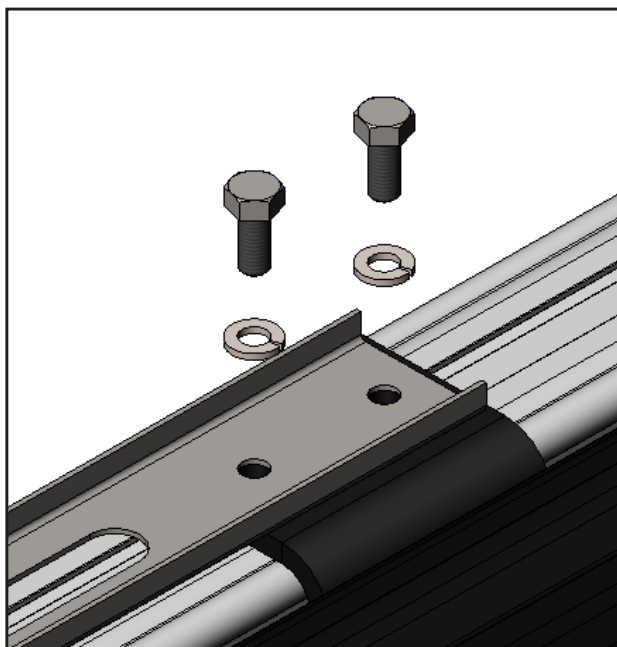
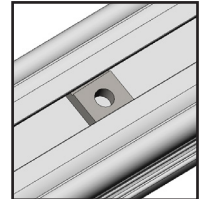
**TIPS:** • Use 1/8" slot screwdriver or pick to align the channel nut to the holes.

**INSERTING CHANNEL NUT INTO THE TOP CHANNEL OF THE CROSSBAR**

**FROM**



**TO**



#### TOOLS

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

#### FASTENERS USED

**2x ( 17 ft • lbs )**



#90-205 Hex Bolt 3/4"

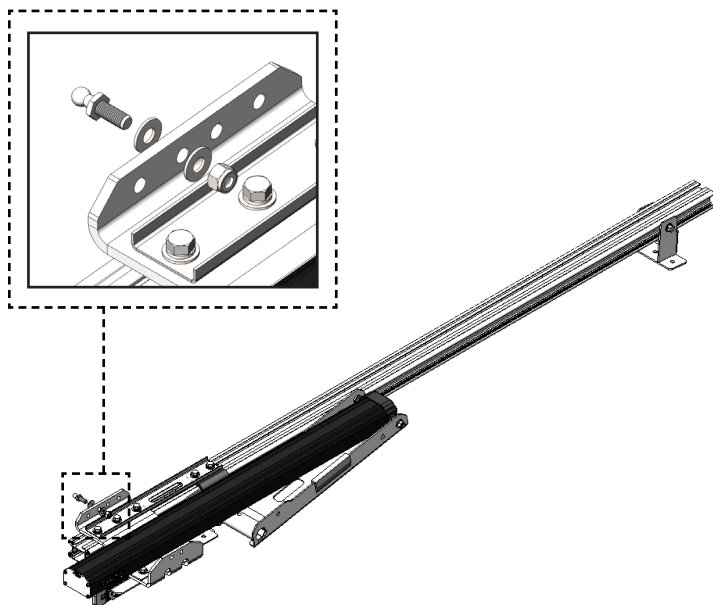


#98-123 Lock Washer 5/16"



#Channel Nut 5/16"

### 1.2.5 Attach ball stud to the frame of front mechanism.



#### 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"

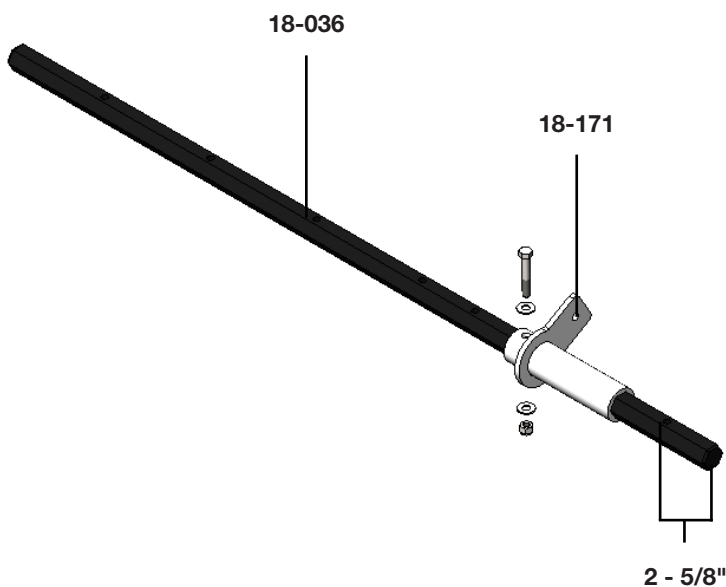
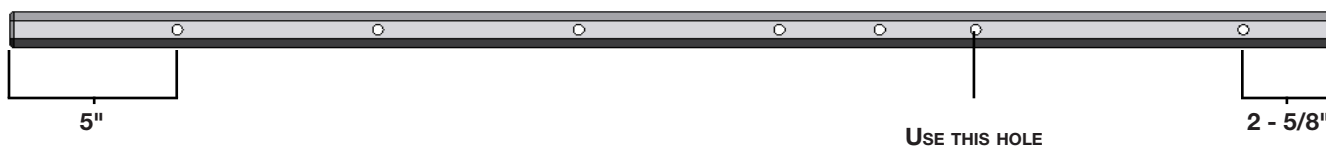


#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

### 1.2.6 Attach the passenger side front linkage to the pivot bar.



#### TOOLS

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

#### FASTENERS USED

**1x ( 17 ft • lbs )**



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"

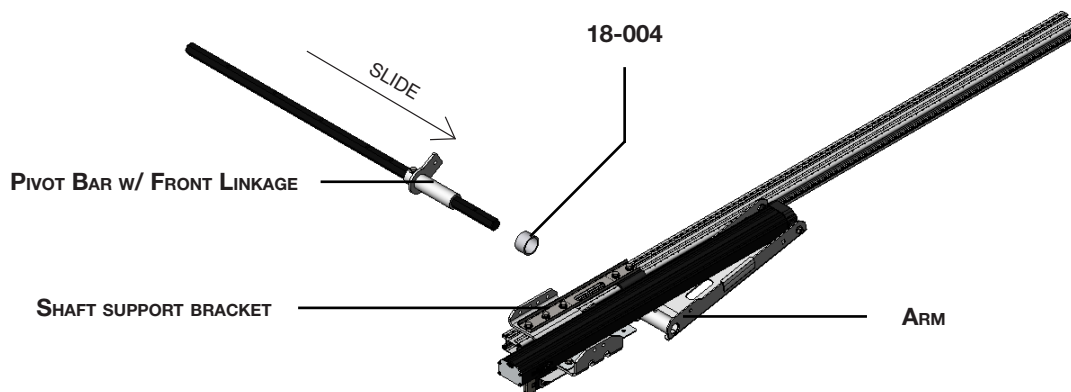


#98-117 Flat Washer 5/16"



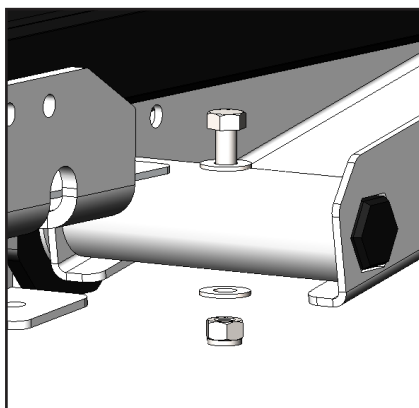
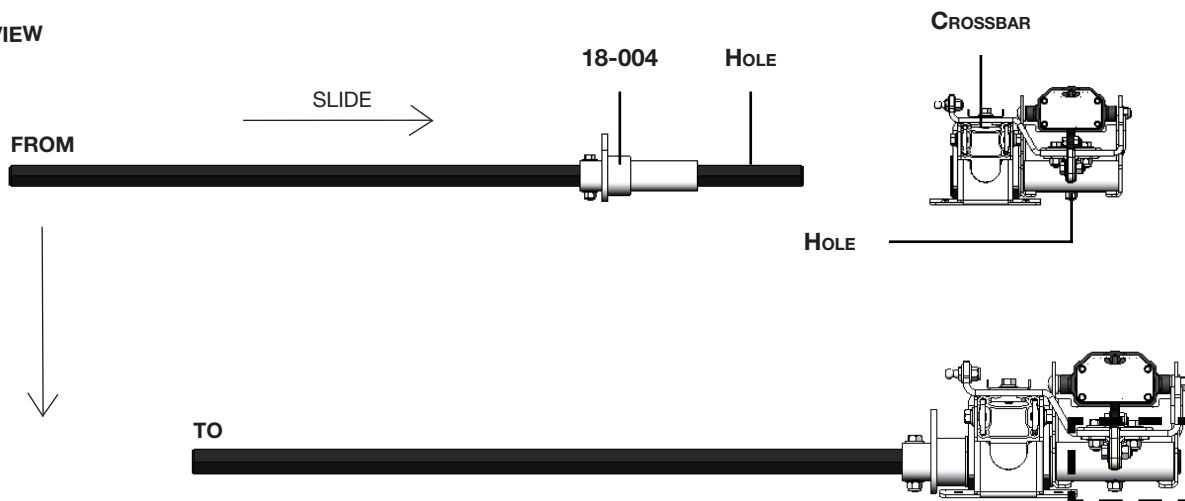
#94-111 Lock Nut 5/16"

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



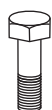
**NOTE:** Line up the hole of the front pivot bar to the hole of the arm.

#### FRONT VIEW



#### FASTENERS USED

**1x ( 17 ft • lbs )**



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"

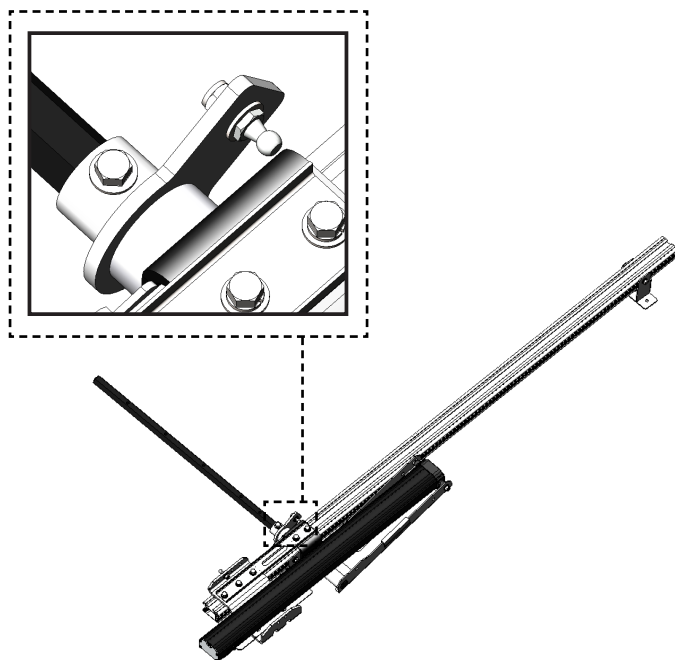


#94-111 Lock Nut 5/16"

#### TOOLS

□ 1/2" Wrench 2x

### 1.2.8 Attach ball stud to the passenger side front linkage.



#### 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"



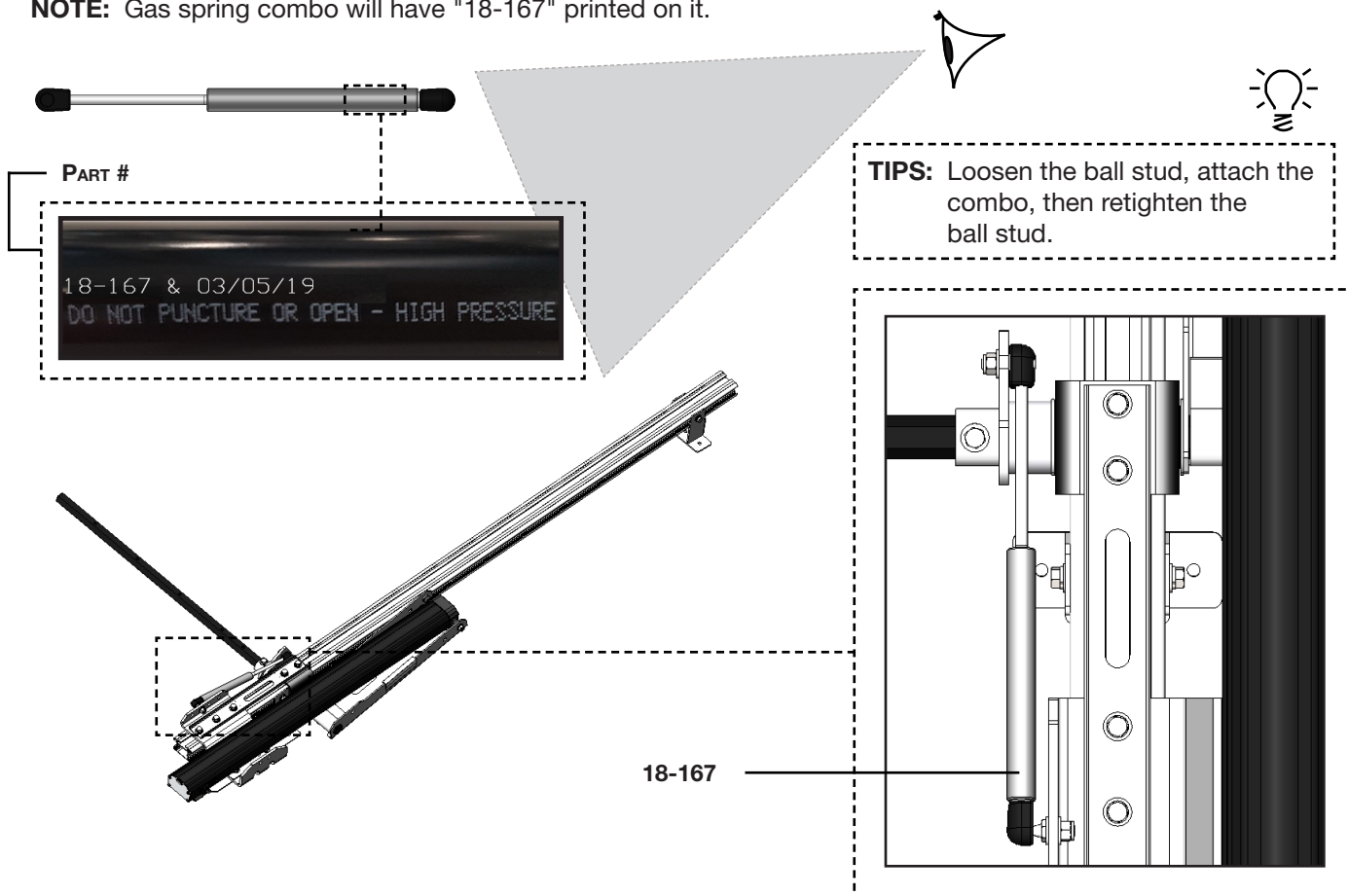
#98-117 Flat Washer 5/16"



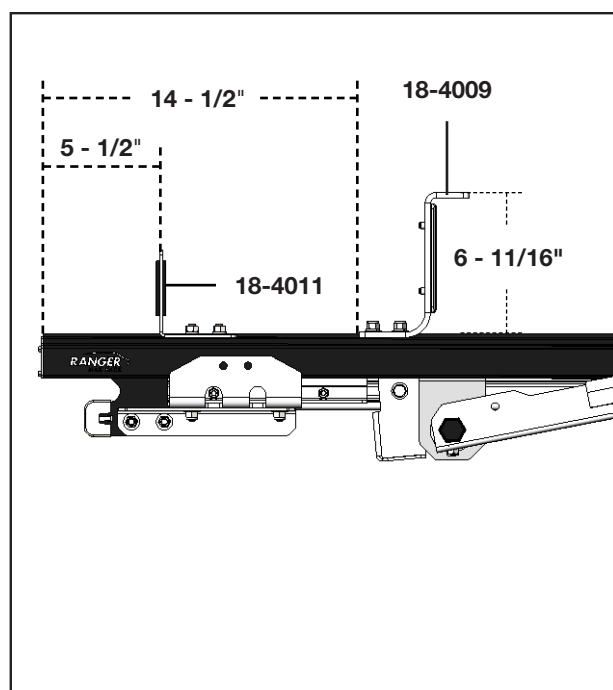
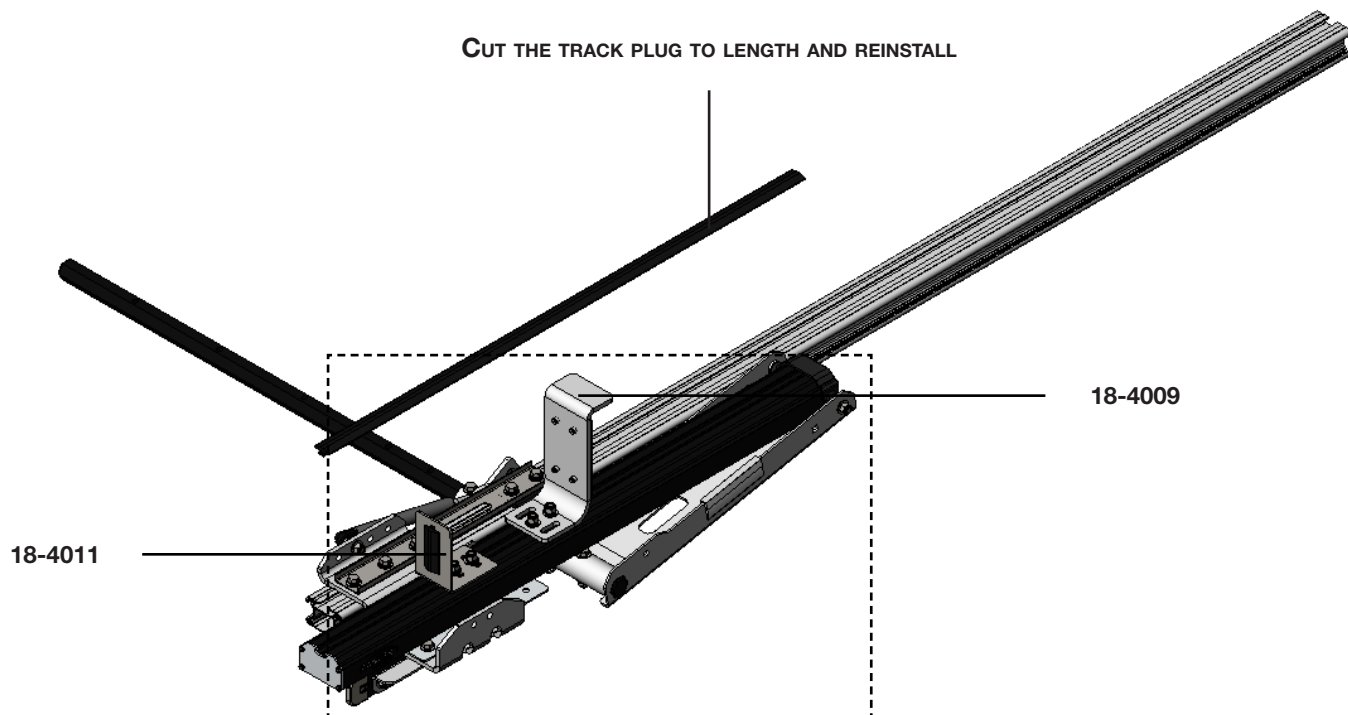
#94-111 Lock Nut 5/16"

### 1.2.9 Attach the gas spring combo to the ball studs.

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



- 1.2.10** • Pull the track plug off.  
 • Attach one small hook and front ladder retainer to the front mechanism.  
 • Cut the track plug to length and reinstall.



**NOTE:** Pull the track plug off, cut to length, then reinstall.

#### TOOLS

- ☐ Cordless Impact
- ☐ 1/2" Socket

#### FASTENERS USED

**4x ( 17 ft • lbs )**



#90-491 Carriage Bolt 1"



#98-117 Flat Washer 5/16"



#98-123 Lock Washer 5/16"



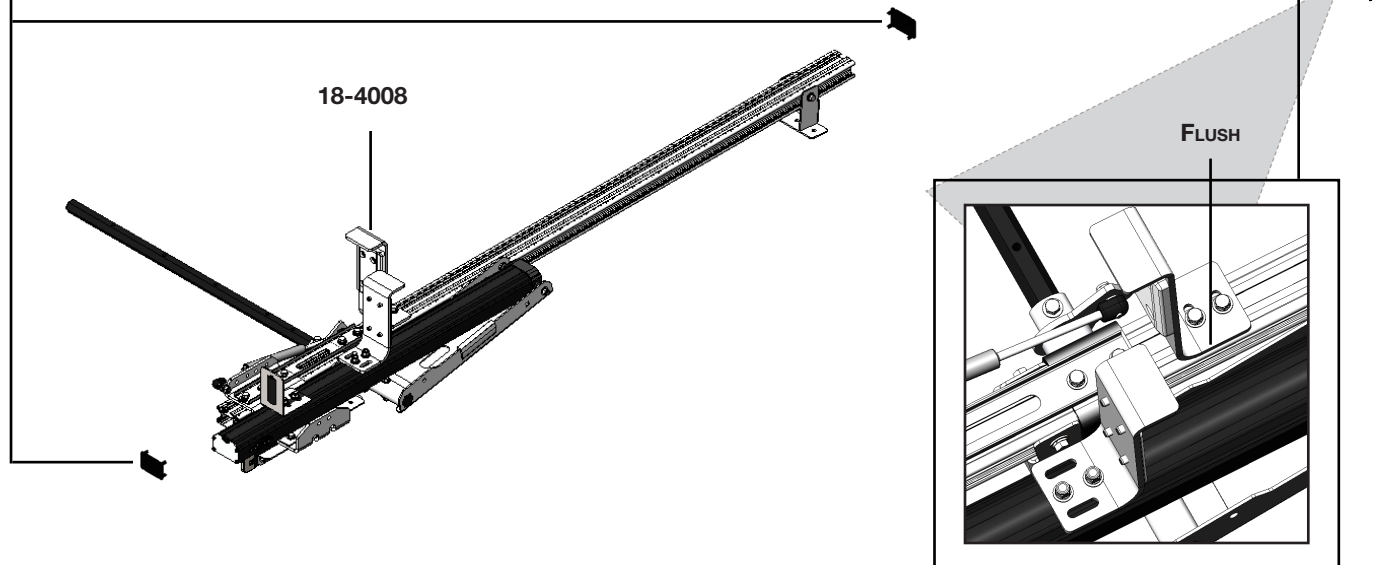
#94-105 Hex Nut 5/16"

- 1.2.11** • Attach the long hook to the crossbar, facing to the small hook.  
 • Apply a bead of silicone on the end cap, then attach the end cap to the crossbar.

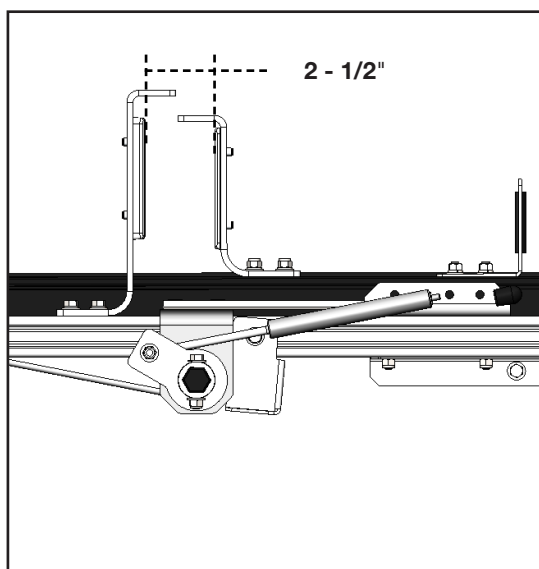
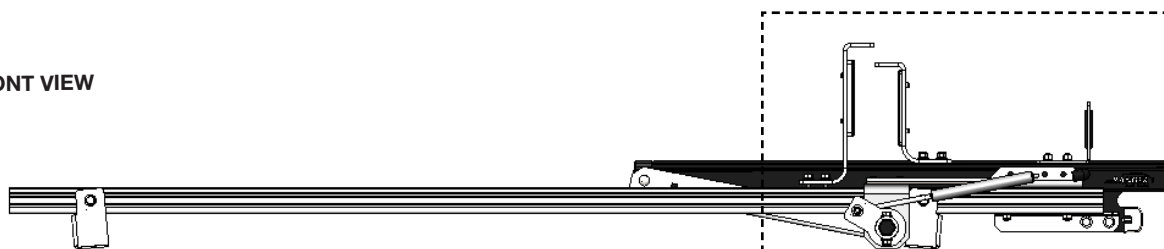
**IMPORTANT:** *The one side of the long hook should be flush to the crossbar.*

**IMPORTANT:** *Apply a bead of silicone on the end cap.*

**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"

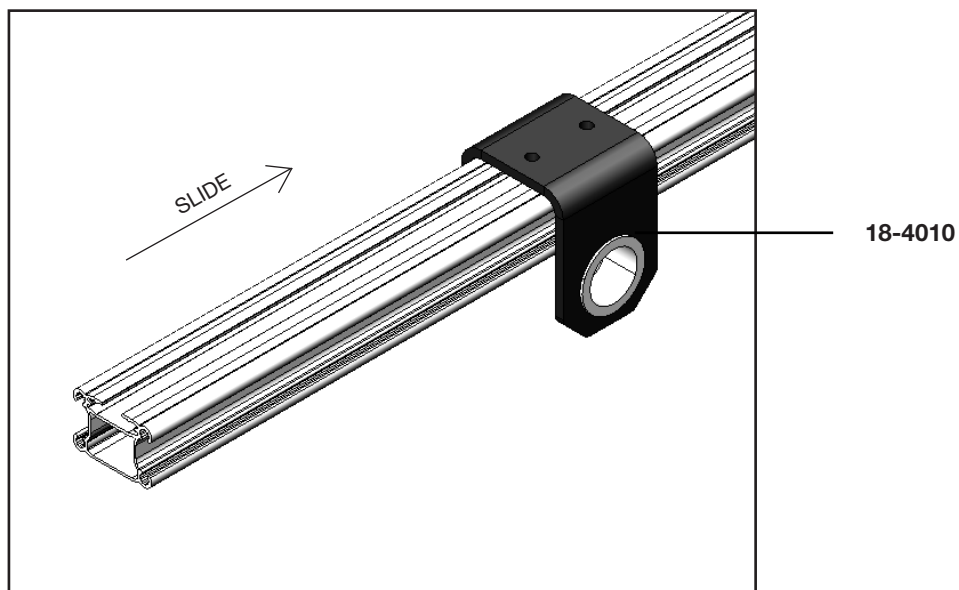
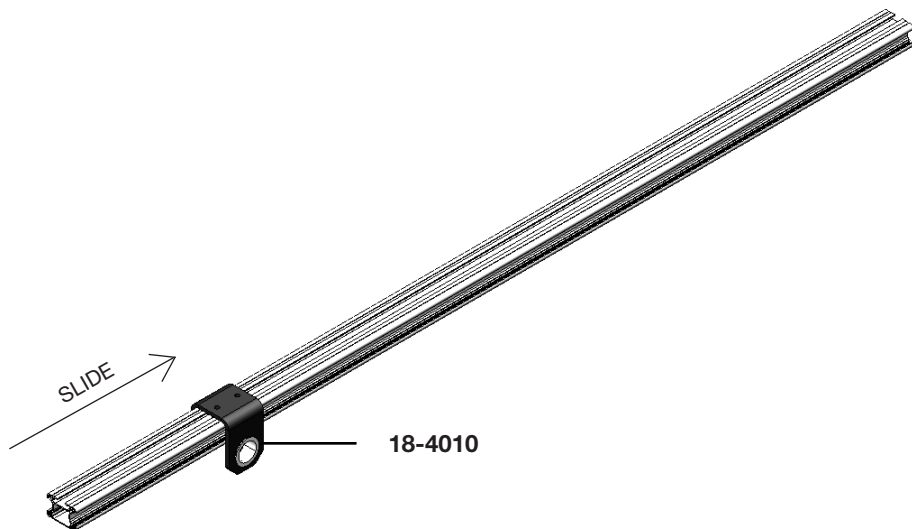
#Channel Nut 5/16"

# PHASE 1 – ASSEMBLY

## 1.3 REAR CROSSBAR ASSEMBLY

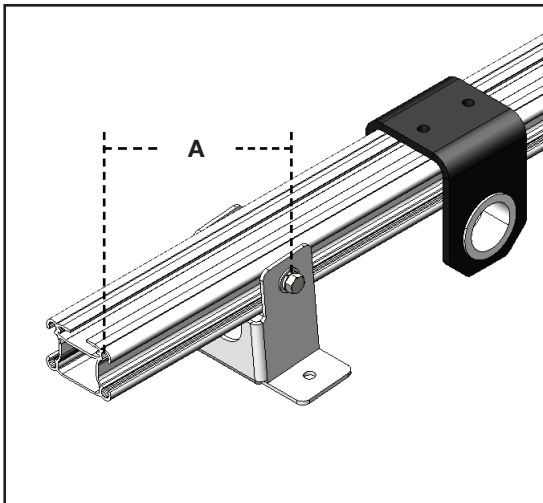
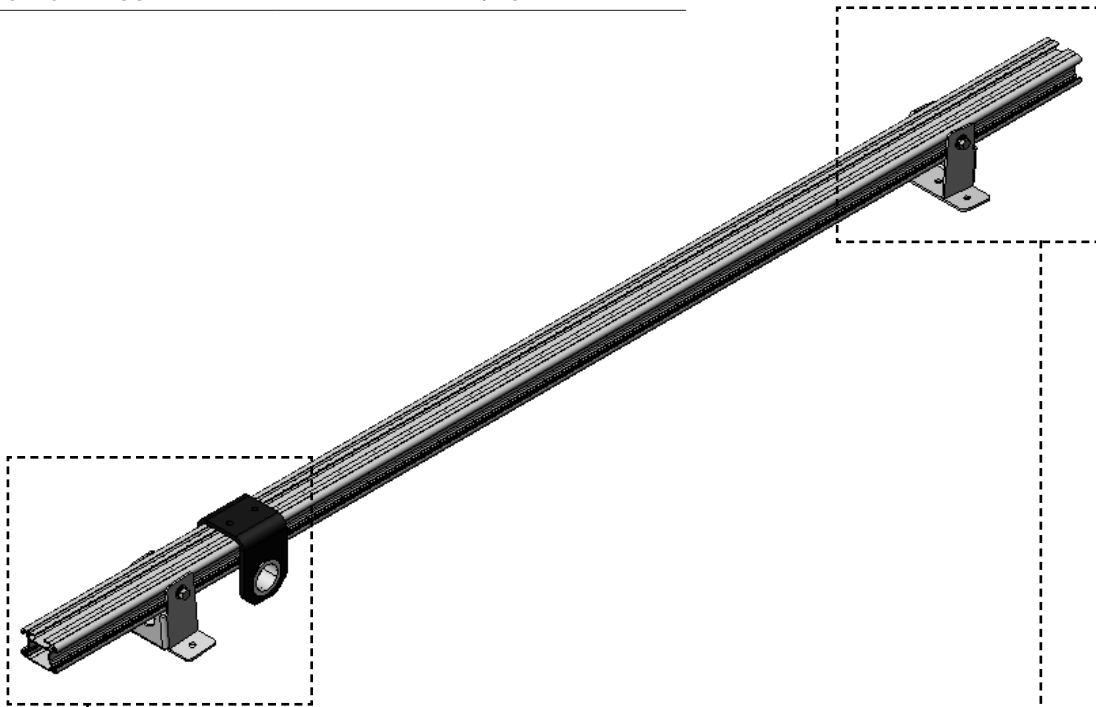
**1.3.1** Slide the shaft support bracket onto the crossbar.

**NOTE:** Slide 2 shaft support brackets if you are assembling a double sided rack.



**1.3.2** Attach the 2 feet from mounting track box 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"



#### 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"

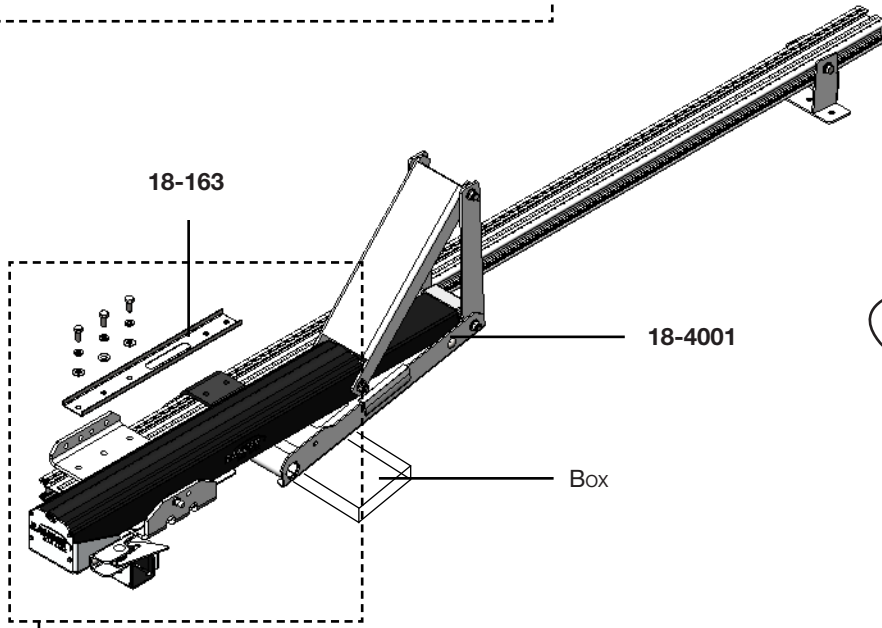
#98-117 Flat Washer 5/16"

#Channel Nut 5/16"

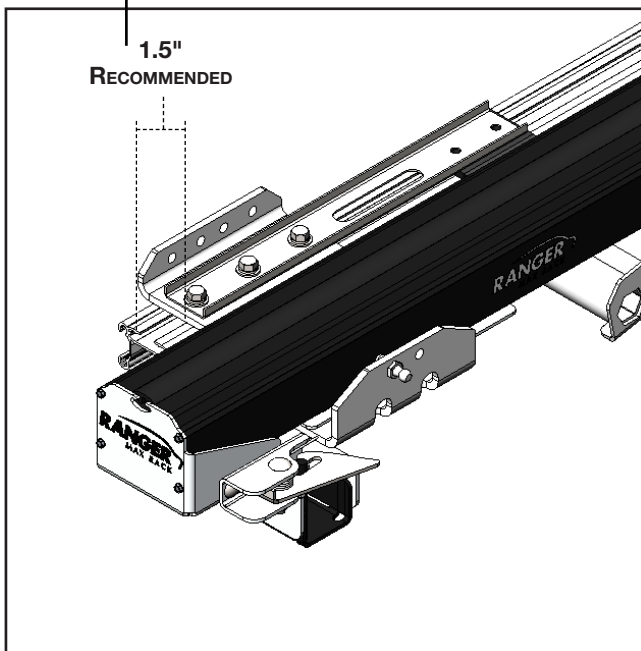
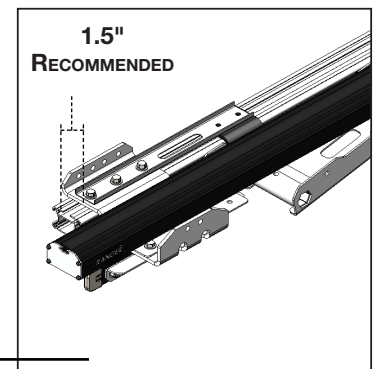
- 1.3.3** • Slide 3 channel nuts into the top channel of the crossbar.  
 • Attach the passenger side rear mechanism to the crossbar with washer plate using the 3 channel nuts.



**TIPS:** • Use a box to support the mechanism to facilitate assembly.  
 • Use 1/8" slot screwdriver or pick to align the channel nut to the holes.



**NOTE:** Front & rear should have same dimension.



#### TOOLS

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

#### FASTENERS USED

**3x ( 17 ft • lbs )**

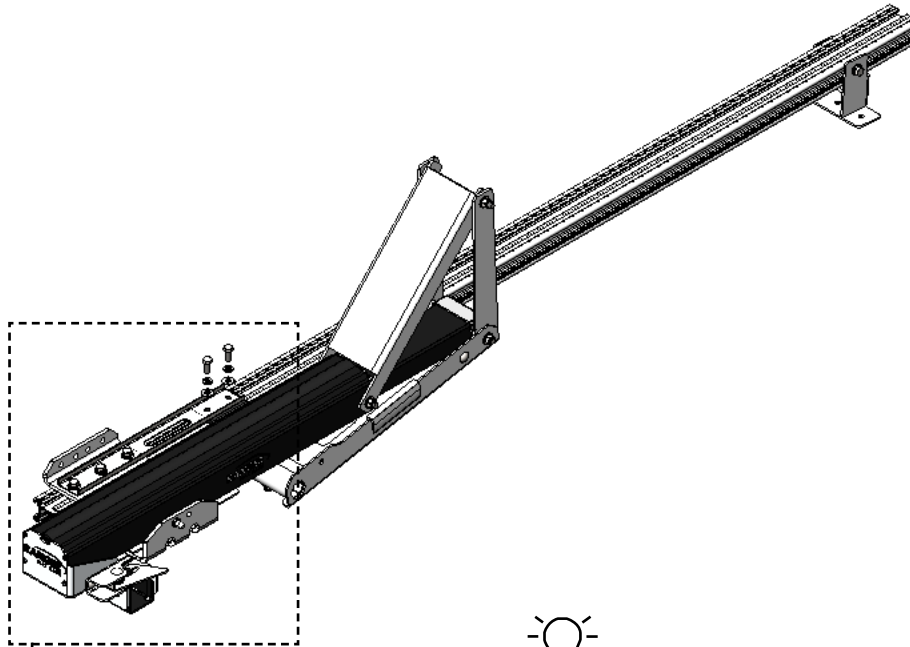


#90-205 Hex Bolt 3/4"

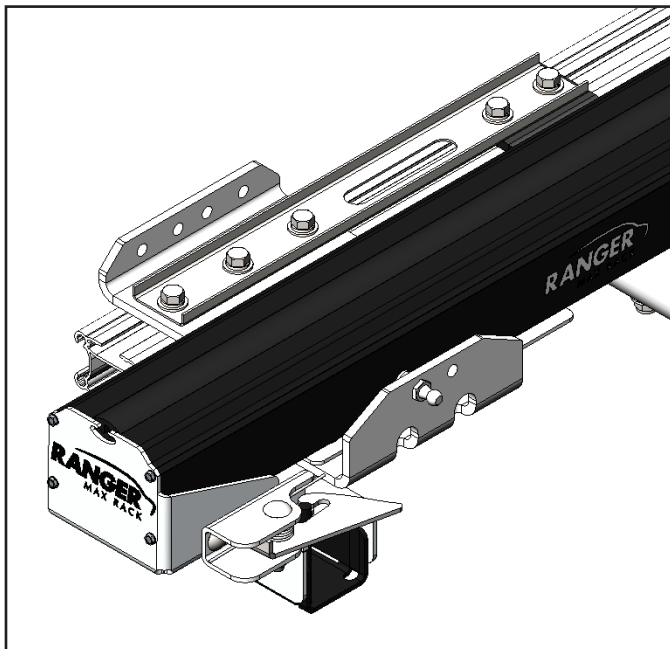
#98-123 Lock Washer 5/16"

#Channel Nut 5/16"

- 1.3.4** • Insert 2 channel nuts into the top channel of the crossbar, then align them to the shaft support bracket holes.
- Attach the shaft support bracket to the crossbar with the washer plate using the 2 channel nuts.



**TIPS:** • Use 1/8" slot screwdriver or pick to align the channel nut to the holes.



#### TOOLS

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

#### FASTENERS USED

**2x ( 17 ft • lbs )**



#90-205 Hex Bolt 3/4"

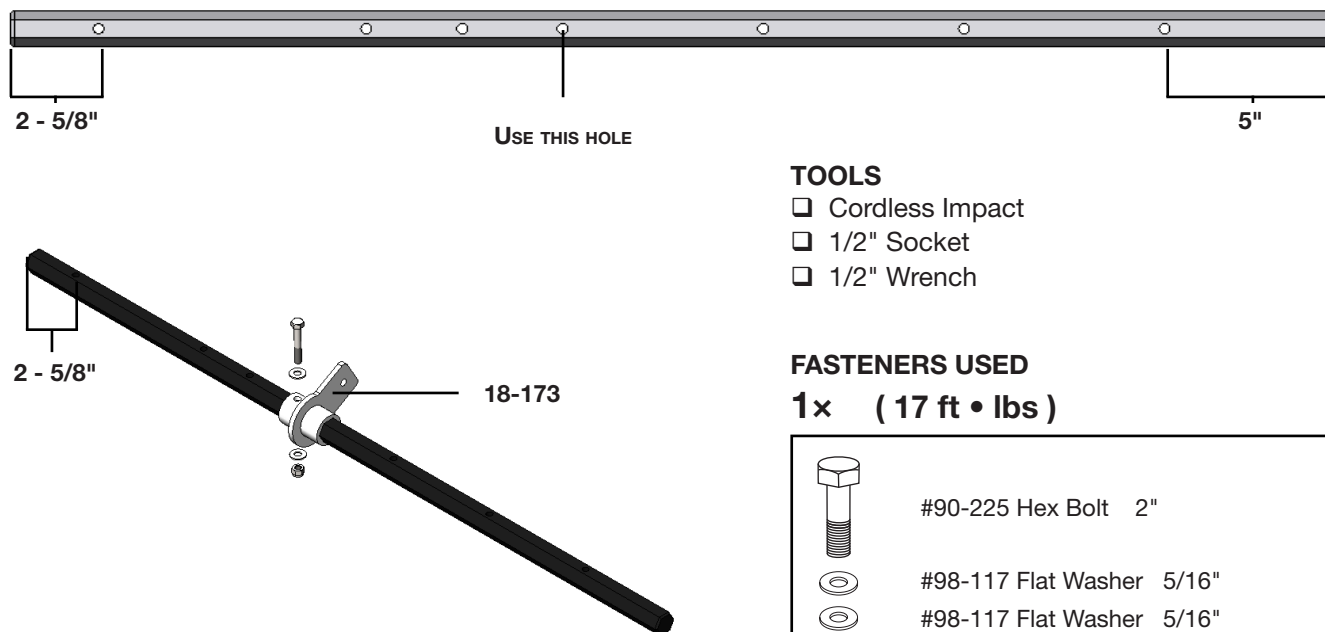


#98-123 Lock Washer 5/16"



#Channel Nut 5/16"

### 1.3.5 Attach the passenger side rear linkage to the pivot bar.



#### TOOLS

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

#### FASTENERS USED

**1x ( 17 ft • lbs )**



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"



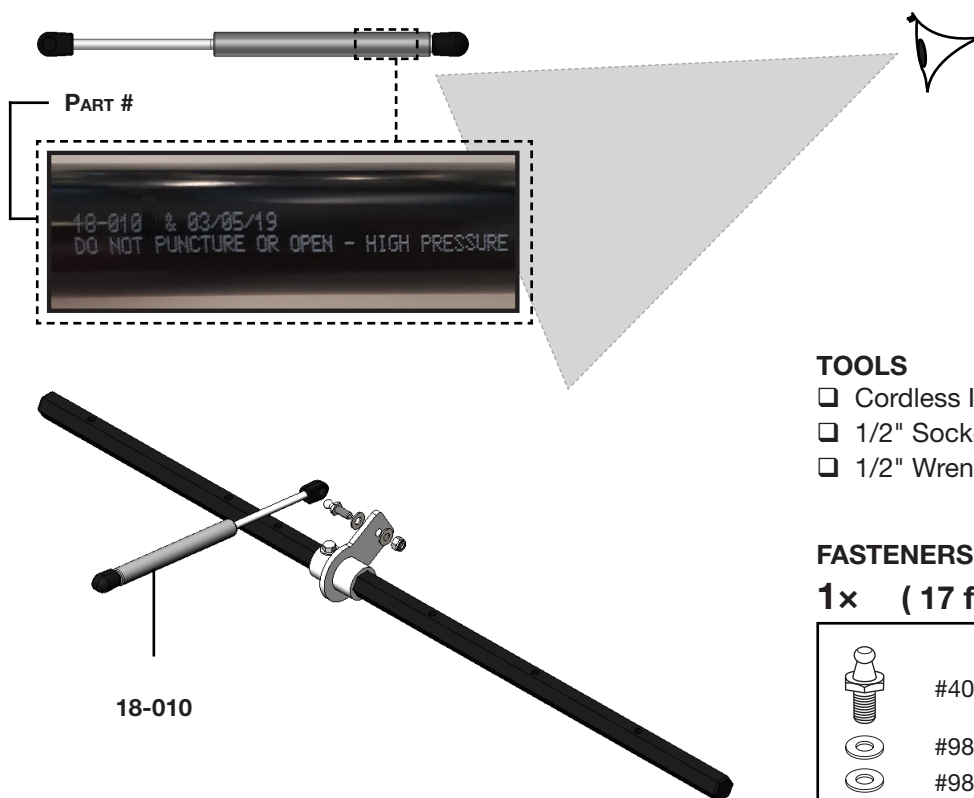
#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

### 1.3.6 Attach the passenger side rear linkage to the pivot bar.

**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"

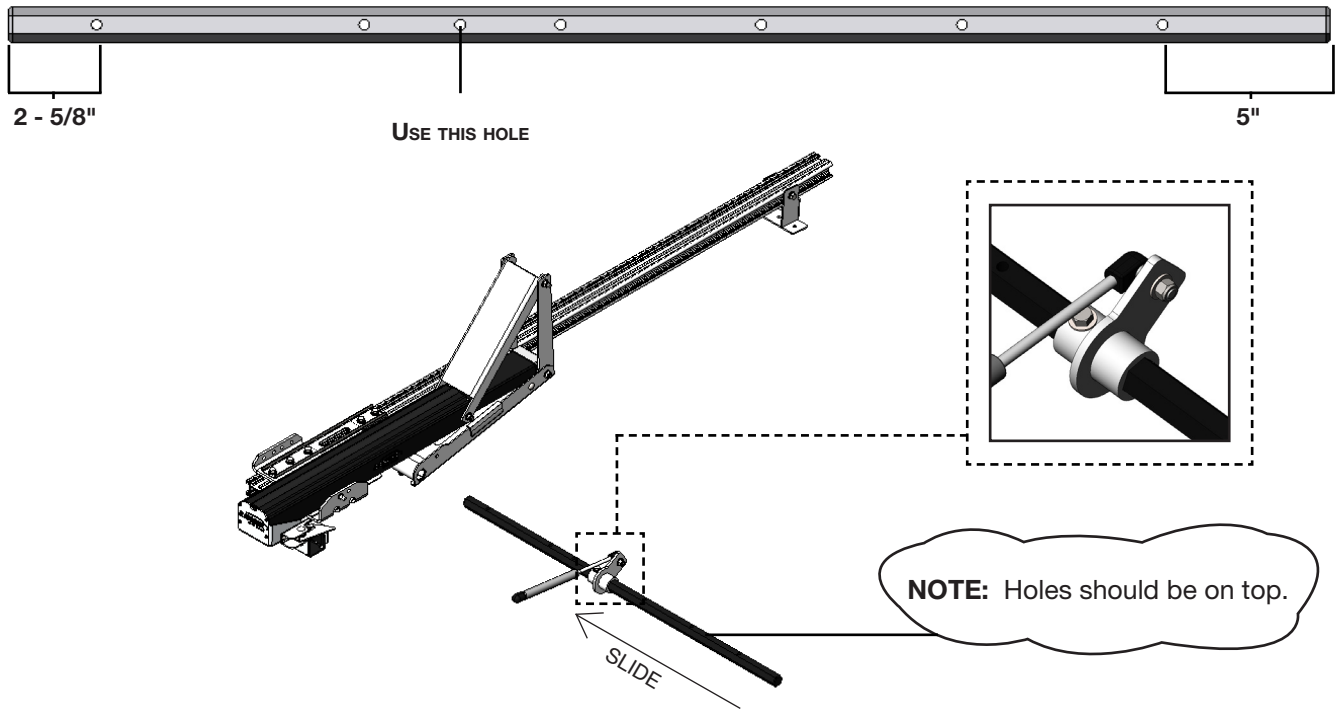


#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

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

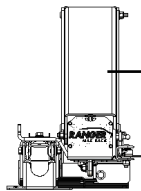


FRONT VIEW

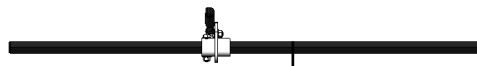
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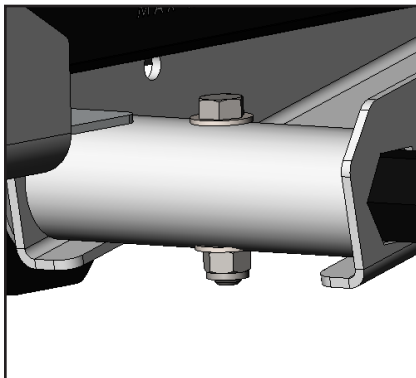
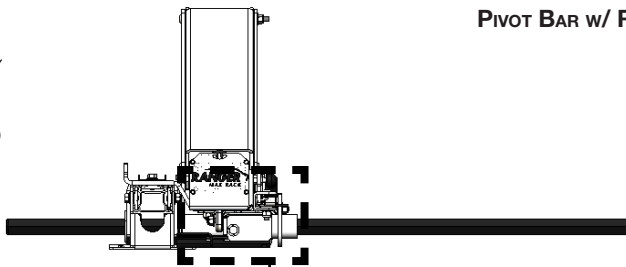
TO



REAR MECHANISM

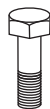


PIVOT BAR W/ REAR LINKAGE



**FASTENERS USED**

**1x ( 17 ft • lbs )**



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"

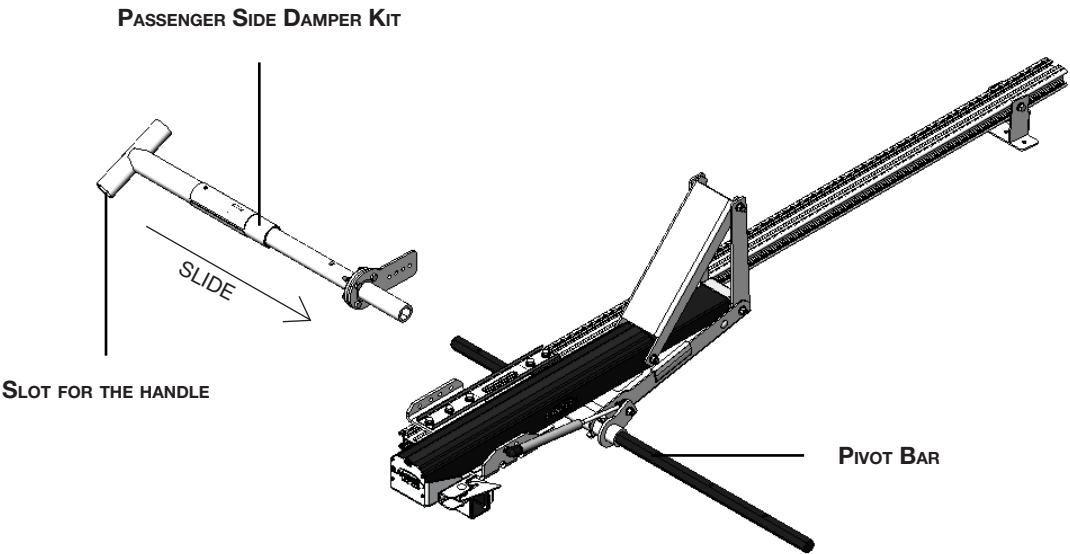


#94-111 Lock Nut 5/16"

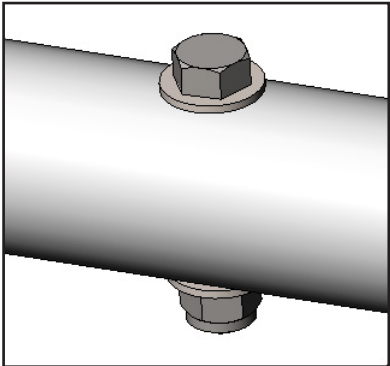
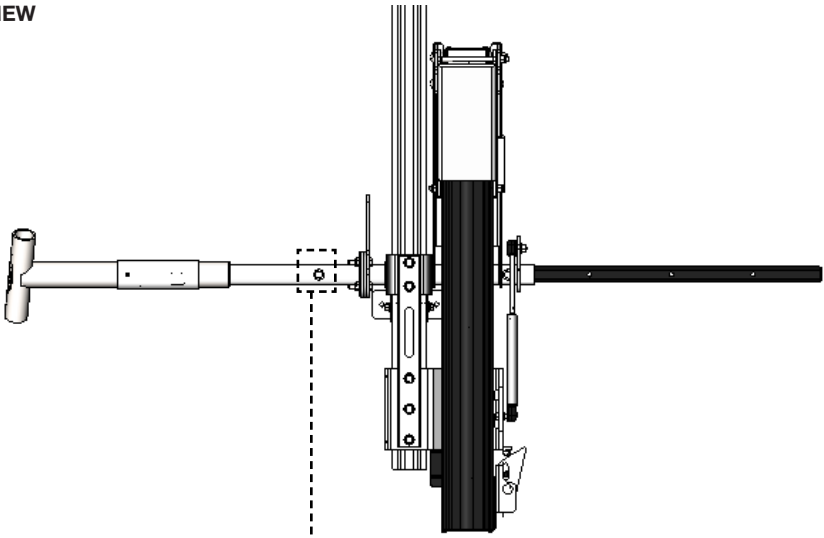
**TOOLS**

□ 1/2" Wrench 2x

**1.3.8** 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 )**

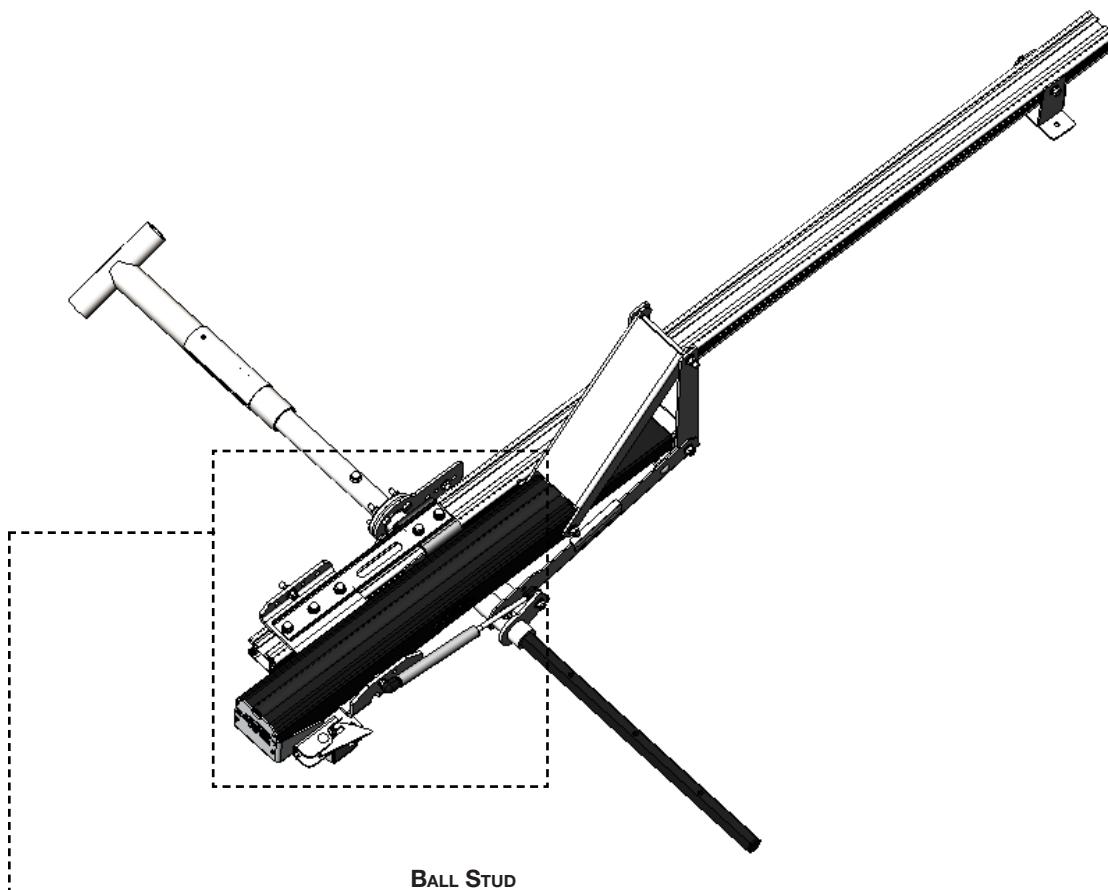


- #90-225 Hex Bolt 2"
- #98-117 Flat Washer 5/16"
- #98-117 Flat Washer 5/16"
- #94-111 Lock Nut 5/16"

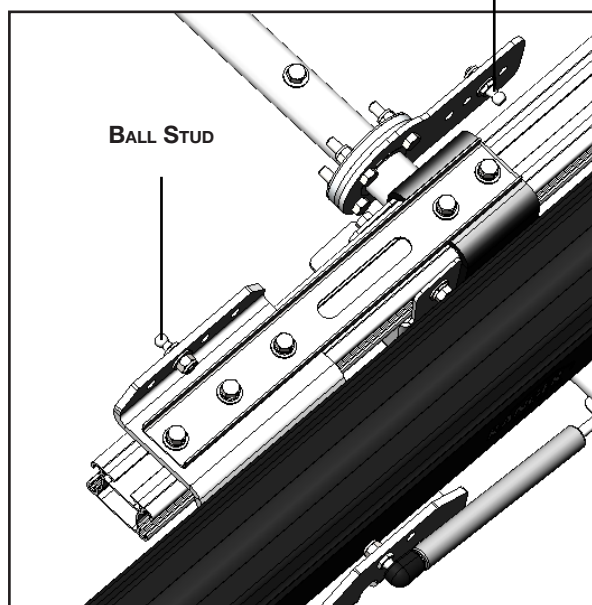
**TOOLS**

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

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



**BALL STUD**



**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"

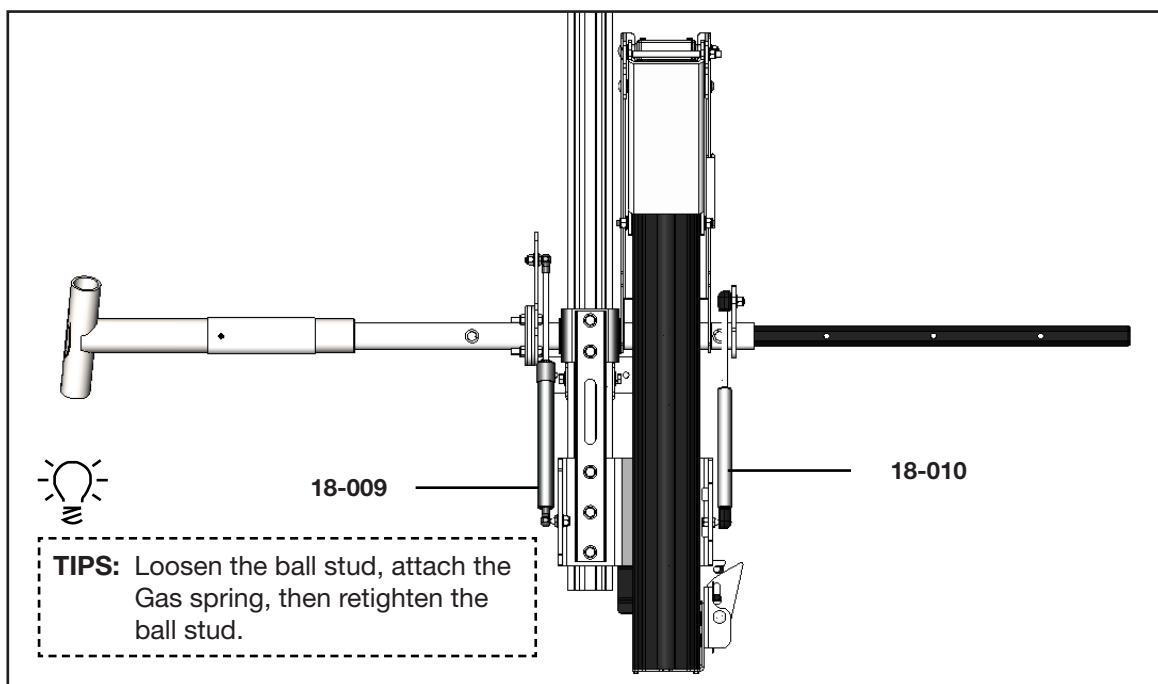
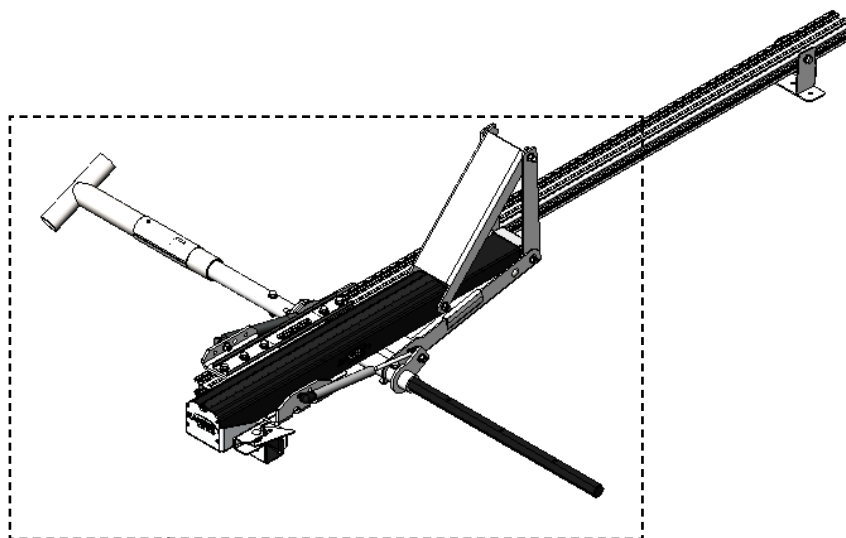
#98-117 Flat Washer 5/16"

#94-111 Lock Nut 5/16"

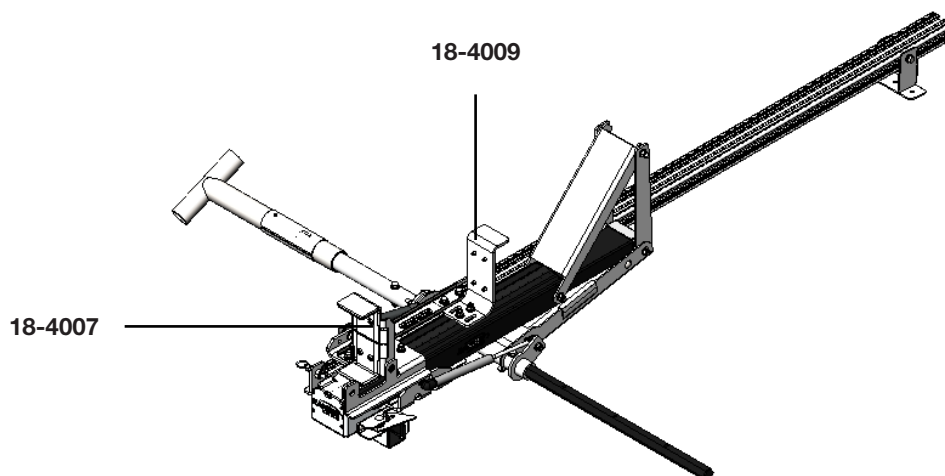
### 1.3.10 Attach the damper and gas spring to the ball stud.

#### NOTE:

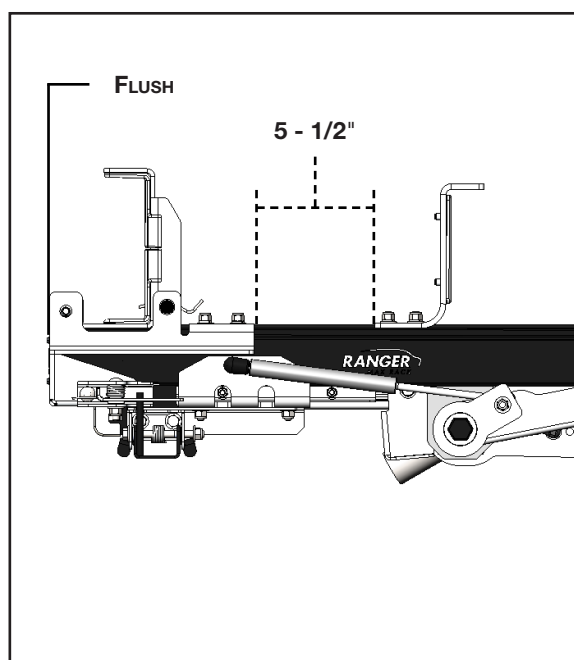
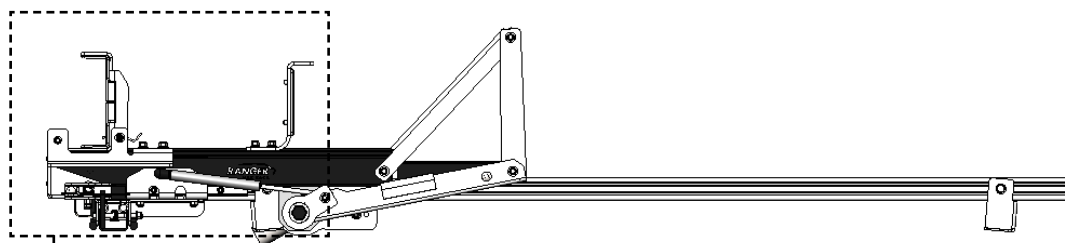
**DAMPER: YOU CAN COMPRESS**



- 1.3.11** • Pull the track plug off.  
 • Attach one small hook and anti-theft lock to the rear mechanism.  
 • Cut the track plug to length and reinstall.



#### FRONT VIEW



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

#### TOOLS

- Cordless Impact
- 1/2" Socket

#### FASTENERS USED

**4x ( 17 ft • lbs )**



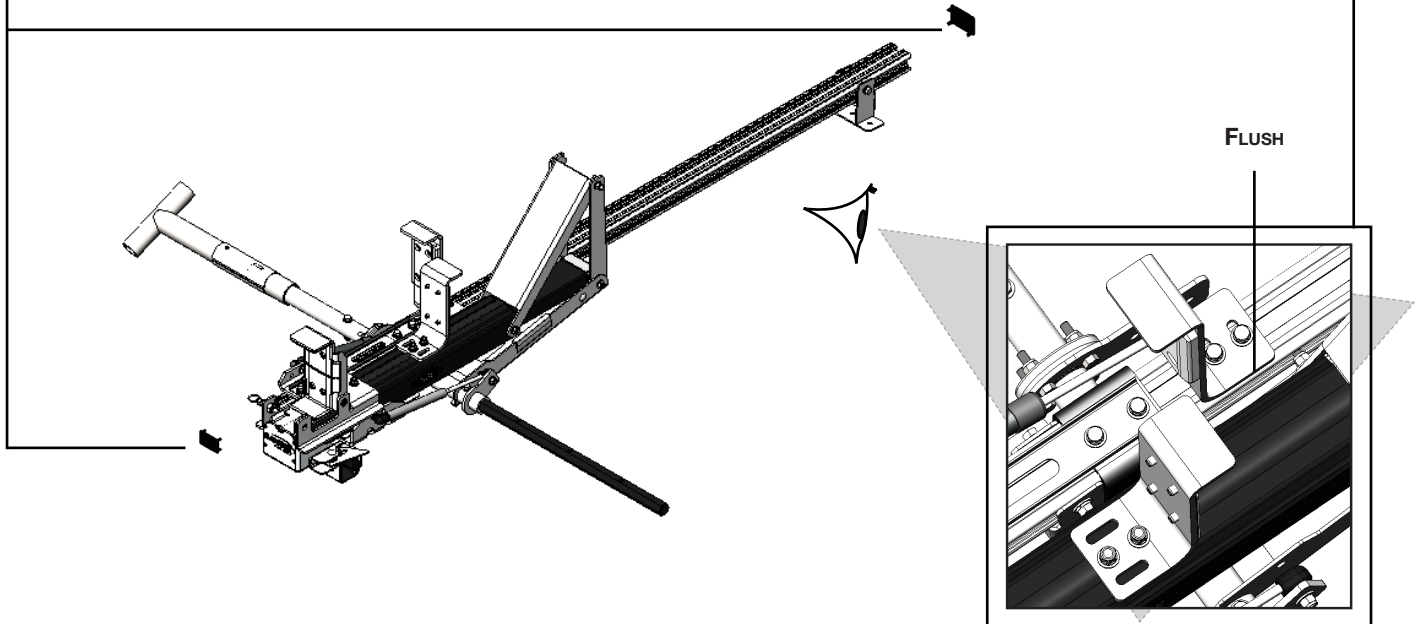
- #90-491 Carriage Bolt 1"
- #98-117 Flat Washer 5/16"
- #98-123 Lock Washer 5/16"
- #94-105 Hex Nut 5/16"

- 1.3.12** • Attach the long hook to the crossbar, facing to the small hook.  
 • Apply a bead of silicone on the end cap, then attach the end cap to the crossbar.

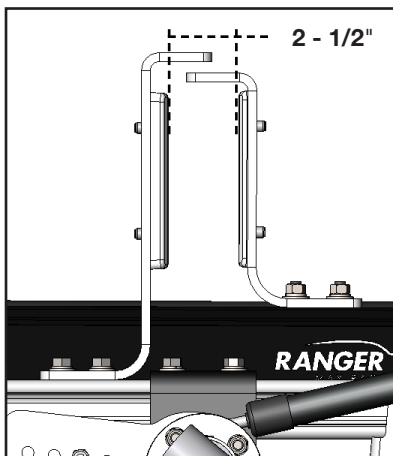
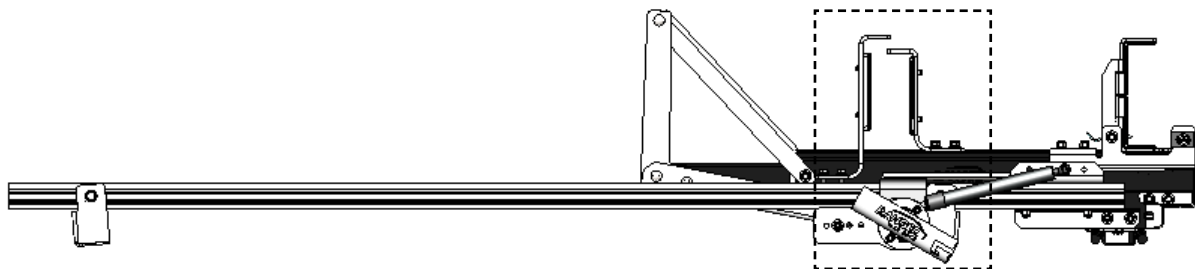
**IMPORTANT:** *The one side of the long hook should be flush to the crossbar.*

**IMPORTANT:** *Apply a bead of silicone on the end cap.*

**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 )**



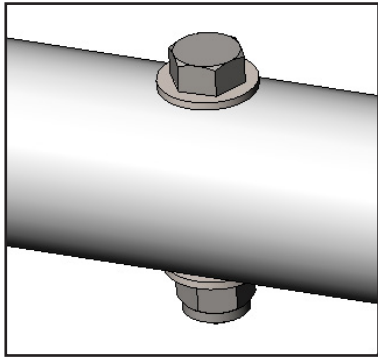
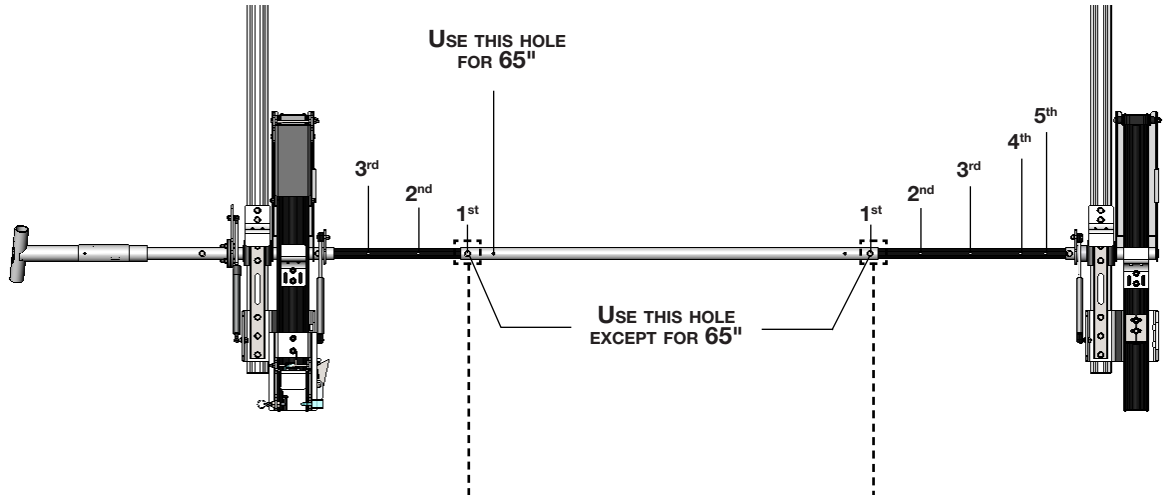
- #90-205 Hex Bolt 3/4"
- #98-123 Lock Washer 5/16"
- #98-117 Flat Washer 5/16"
- #Channel Nut 5/16"

# PHASE 1 – ASSEMBLY

## 1.4 FOR ASSEMBLY WITH OVERHEAD LIFT

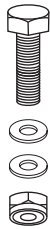
1.4.1 Attach the ends of the front and rear bars to the center tube.

**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"

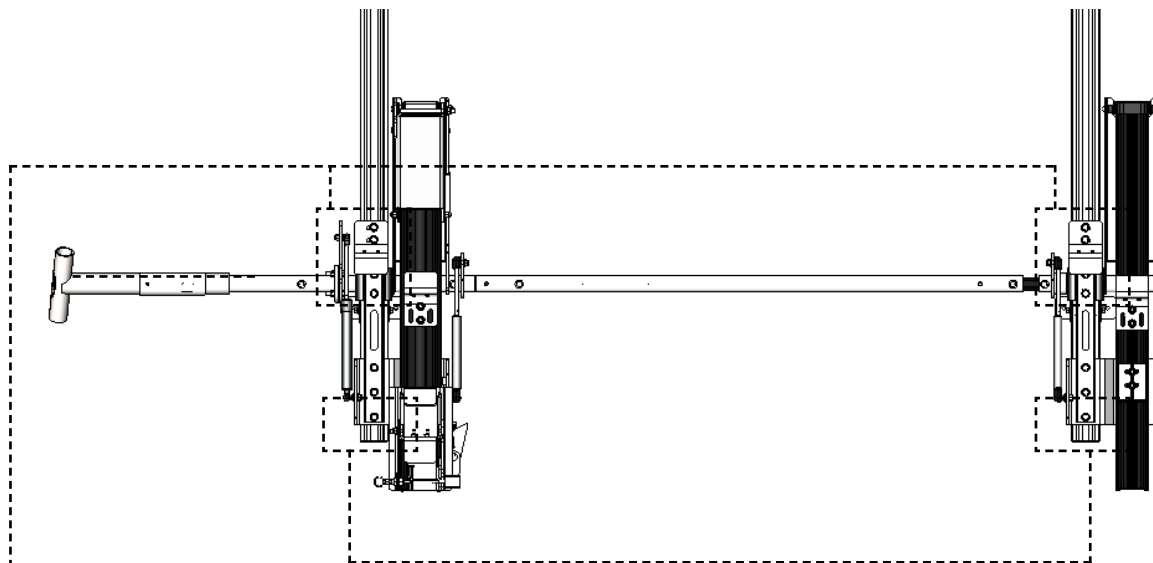
- ### TOOLS
- ☐ Cordless Impact
  - ☐ 1/2" Socket
  - ☐ 1/2" Wrench

VEHICLE	CROSSBAR CENTER TO CENTER DISTANCE	LADDER SIZE
NISSAN NV ( NH )	MAXIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
SPRINTER ( DH )	MAXIMUM: 101" ( 1 <sup>ST</sup> & 1 <sup>ST</sup> HOLES )	MAXIMUM: EXTENSION 32', STEP 10'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
TRANSIT 130" WB ( FTR )	MAXIMUM: 77" ( 3 <sup>RD</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 28', STEP 8'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
TRANSIT 148" & 148" EXT. WB ( FTL )	MAXIMUM: 89" ( 2 <sup>ND</sup> & 2 <sup>ND</sup> HOLES )	MAXIMUM: EXTENSION 32', STEP 10'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
PROMASTER 118" WB ( PHS )	MAXIMUM: 77" ( 3 <sup>RD</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 28', STEP 8'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
PROMASTER 136" WB ( PHM )	MAXIMUM: 89" ( 2 <sup>ND</sup> & 2 <sup>ND</sup> HOLES )	MAXIMUM: EXTENSION 32', STEP 10'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
PROMASTER 159" WB ( PHL )	MAXIMUM: 101" ( 1 <sup>ST</sup> & 1 <sup>ST</sup> HOLES )	MAXIMUM: EXTENSION 32', STEP 10'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
PROMASTER 159" EXT. WB ( PHX )	MAXIMUM: 101" ( 1 <sup>ST</sup> & 1 <sup>ST</sup> HOLES )	MAXIMUM: EXTENSION 32', STEP 10'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'

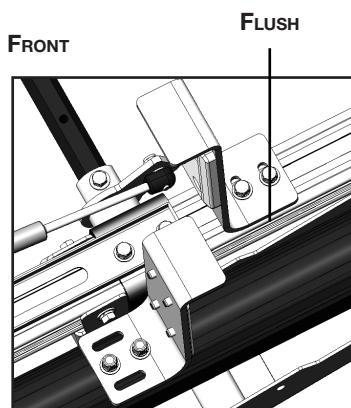
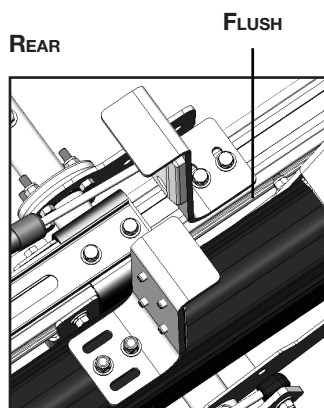
# PHASE 1 – ASSEMBLY

## 1.5 ASSEMBLY VALIDATION

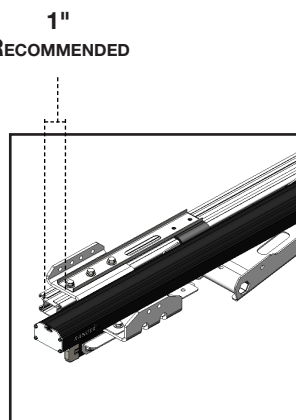
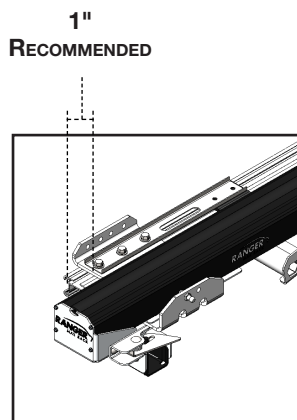
1.5.1 Validate your assembly to ensure smooth operation of your Max Rack.

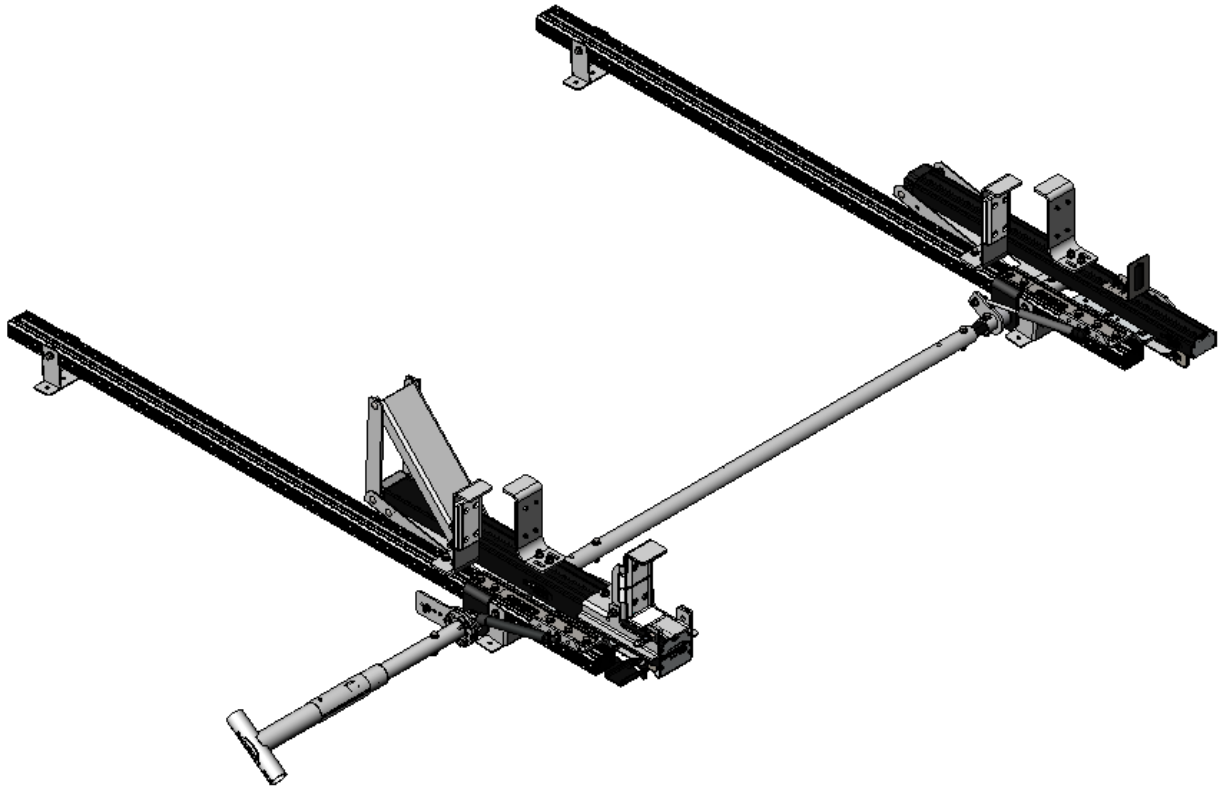


**IMPORTANT:** *The one side of the long hook should be flush to the crossbar.*



**NOTE:** Front & Rear Should have same dimension.





**“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.**

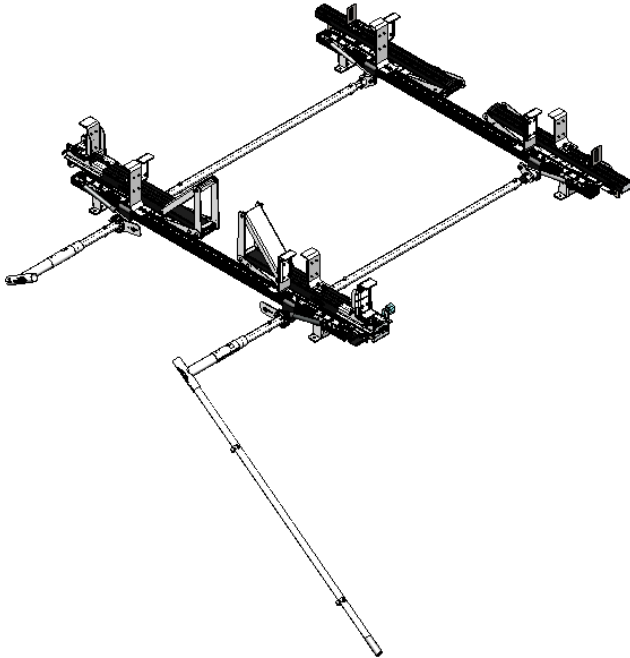
**Thank you for doing business with us.”**

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

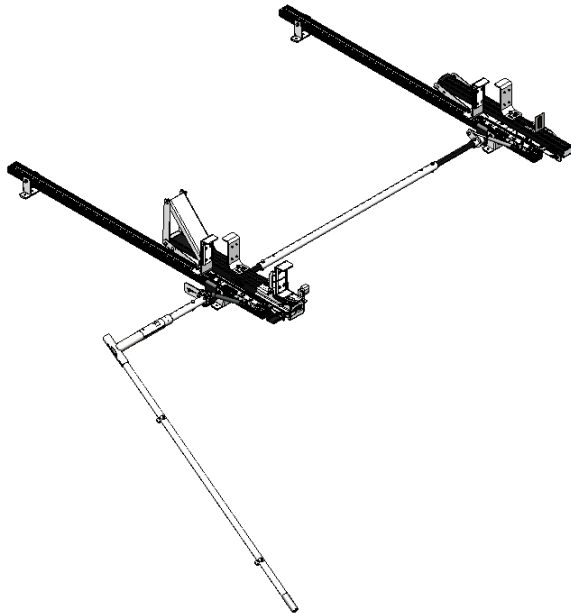


# INSTALLATION GUIDE

## MAX RACK DOUBLE SIDE



## MAX RACK SINGLE SIDE



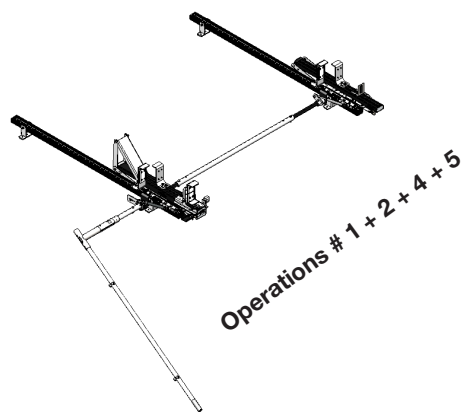
## 18-U1815 Max Rack

Driver Side

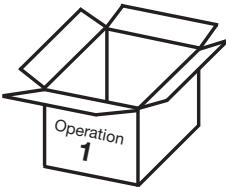
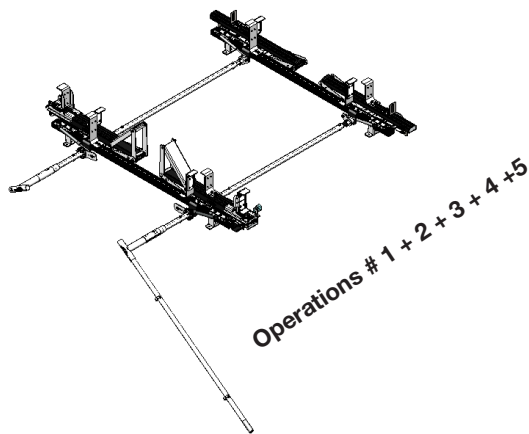


# ORDER OF OPERATION

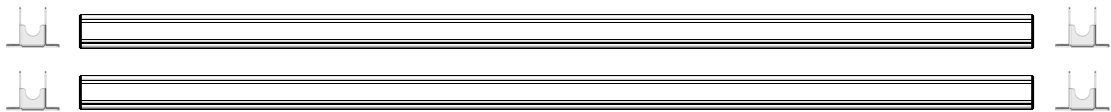
## MAX RACK SINGLE SIDE



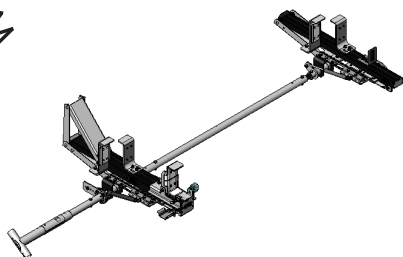
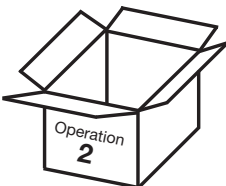
## MAX RACK DOUBLE SIDE



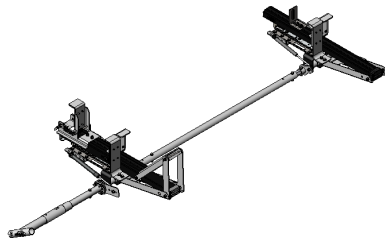
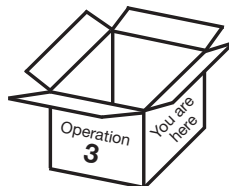
18-U1806



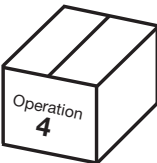
18-U1810



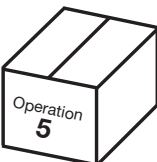
18-U1815



**OPTIONAL:** Applicable only for Max Rack Double Side.



MOUNTING TRACK



18-U1807



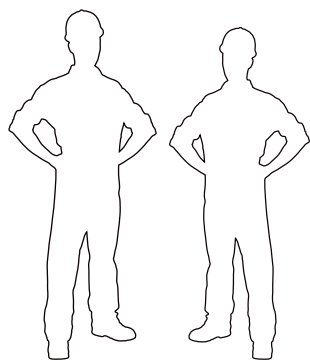
# QUICK START GUIDE

## Phase 1 - Assembly

❑ 1.1 Setup.....	4 TO 5
❑ 1.2 Front Crossbar Assembly.....	6 TO 13
❑ 1.3 Rear Crossbar Assembly.....	14 TO 23
❑ 1.4 For Assembly With Overhead Lift.....	24
❑ 1.5 Assembly Validation.....	25

## 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.



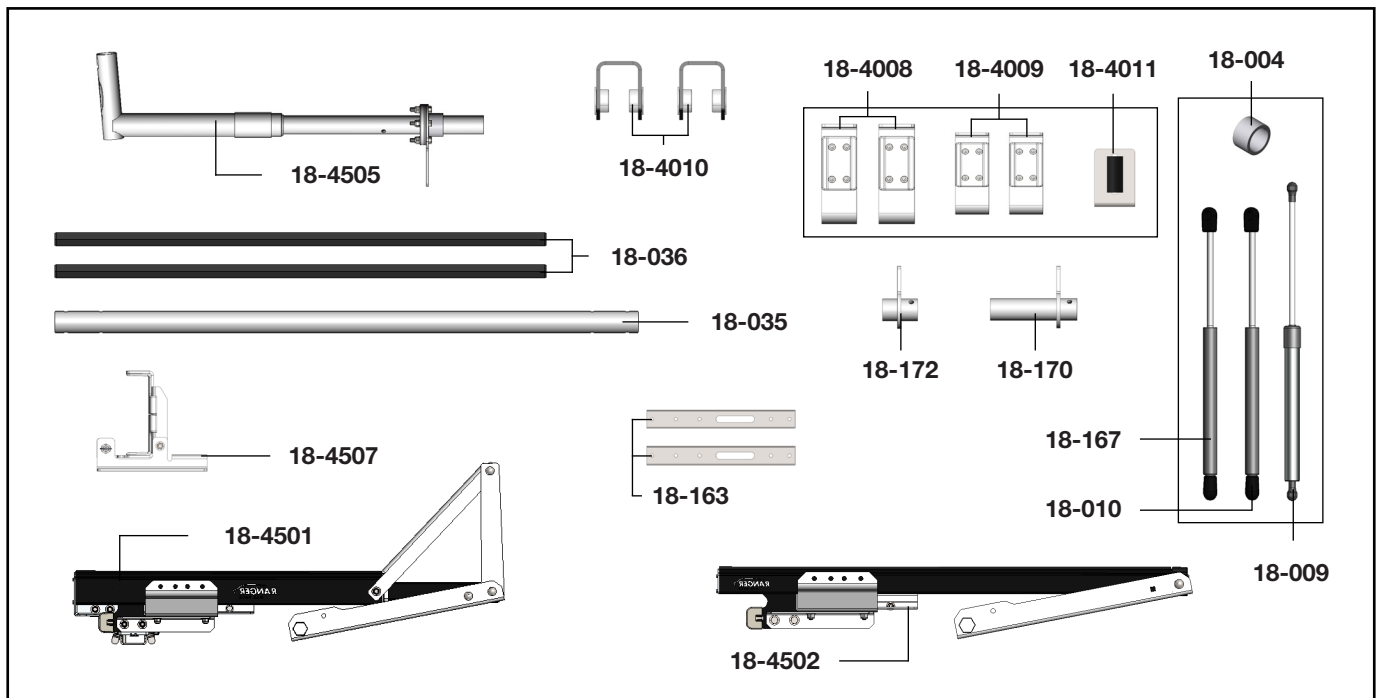
**2  
PERSONS**

- ❑ Cordless Impact
- ❑ Ratchet
- ❑ Tape Measure
- ❑ Marker
- ❑ Ladder
- ❑ 1/2" Wrench
- ❑ 1/2" Socket
- ❑ Sawhorse ( Optional )
- ❑ Box
- ❑ 1/8" Slot Screwdriver or Pick
- ❑ 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.
18-004	Spacer	1
18-009	Damper	1
18-010	Gas Spring	1
18-035	Center Tube	1
18-036	Pivot Bar	2
18-163	Washer Plate	2
18-167	Gas Spring Combo	1
18-170	Driver Side Linkage, Front	1
18-172	Driver Side Linkage, Rear	1
18-4501	Driver Side Rear Mechanism	1
18-4502	Driver Side Front Mechanism	1
18-4505	Driver Side Damper kit	1
18-4507	Anti-theft, Lock	1
18-4008	Long Hook	2
18-4009	Small Hook	2
18-4010	Shaft Support Bracket	2
18-4011	Front Ladder Retainer	1
94-0815	Customer Assembly Fastener Kit	1

### 1.1.3 Fastener kits.

#### 94-0815



#### Fastener Assembly

5x



# 40-665

Ball Stud  
3/4"  
Zinc Plated

14x



# 90-205

Hex Bolt  
5/16" - 18 x 3/4"  
SS304

7x



# 90-225

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

8x



# 90-491

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

8x



# 94-105

Hex Nut  
5/16" - 18  
SS316 WAX

12x



# 94-111

Lock Nut  
5/16"  
SS304 WAX

14x



# 94-250

Channel Nut  
5/16" - 18  
SST

32x



# 98-117

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

22x



# 98-123

Lock Washer  
5/16"  
SS304

5x



#40-665 Ball Stud 3/4"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

14x



#90-205 Hex Bolt 3/4"

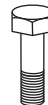


#98-123 Lock Washer 5/16"



#Channel Nut 5/16"

7x



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

8x



#90-491 Carriage Bolt 1"



#98-117 Flat Washer 5/16"



#98-123 Lock Washer 5/16"



#94-105 Hex Nut 5/16"

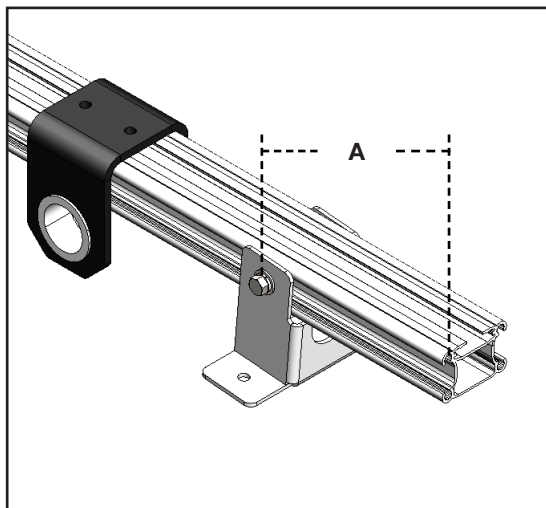
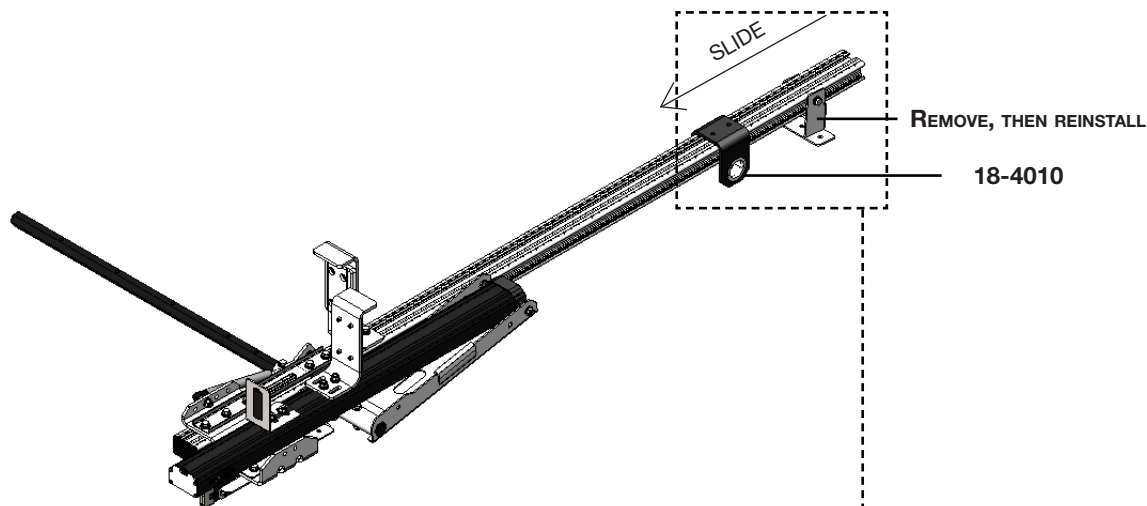
# PHASE 1 – ASSEMBLY

## 1.2 FRONT CROSSBAR ASSEMBLY

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

**1.2.1** Remove the driver side feet, slide the shaft support bracket, then reinstall the feet.

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"



### TOOLS

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

### FASTENERS USED

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



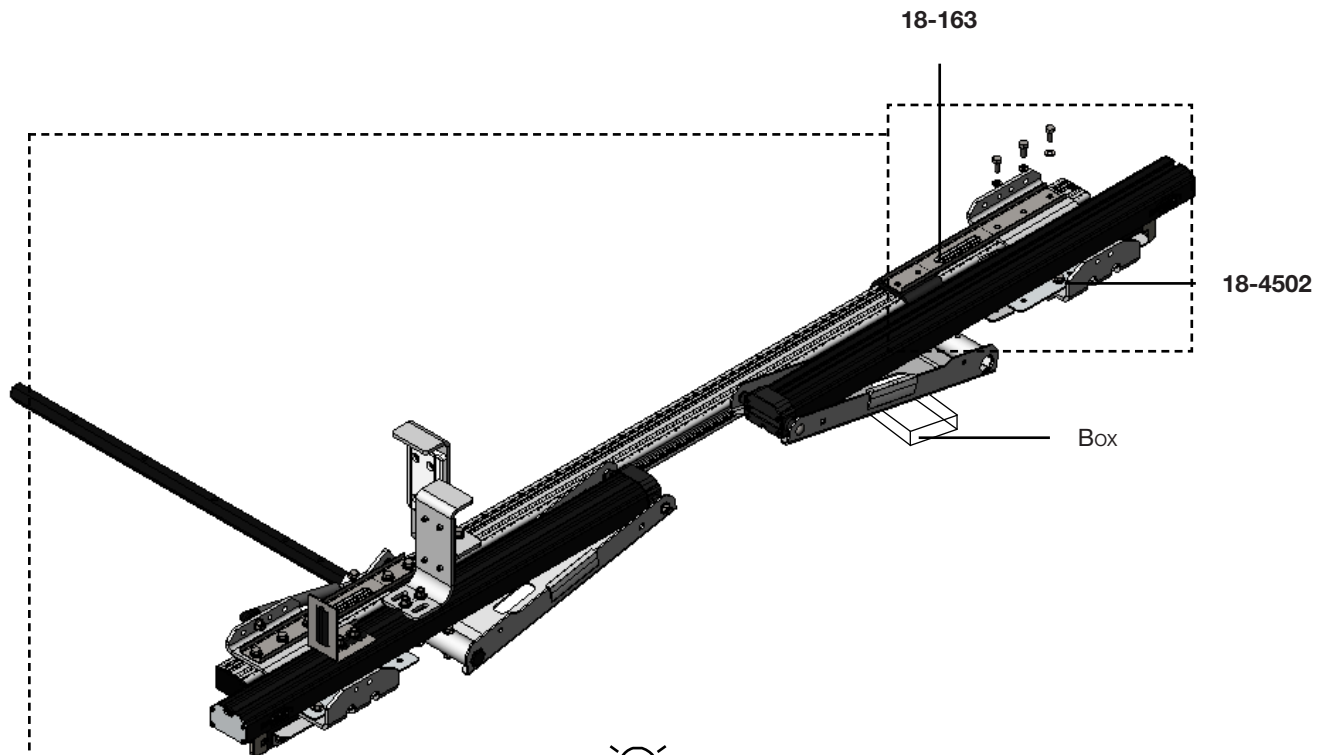
#90-203 Hex Bolt 5/8"

#98-123 Lock Washer 5/16"

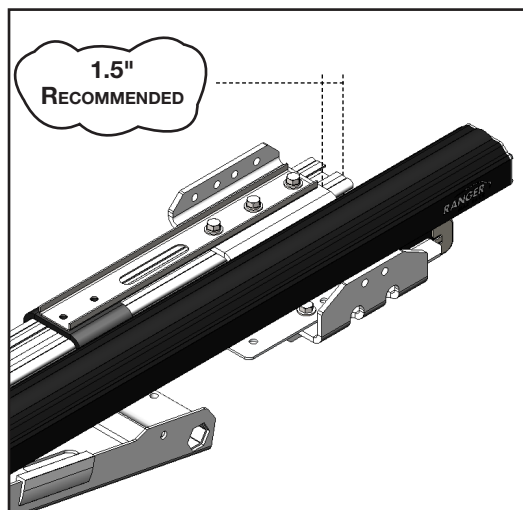
#98-117 Flat Washer 5/16"

#Channel Nut 5/16"

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



- TIPS:** • Use a box to support the mechanism to facilitate assembly.  
 • Use 1/8" slot screwdriver or pick to align the channel nut to the holes.



#### TOOLS

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

#### FASTENERS USED

**3x ( 17 ft • lbs )**

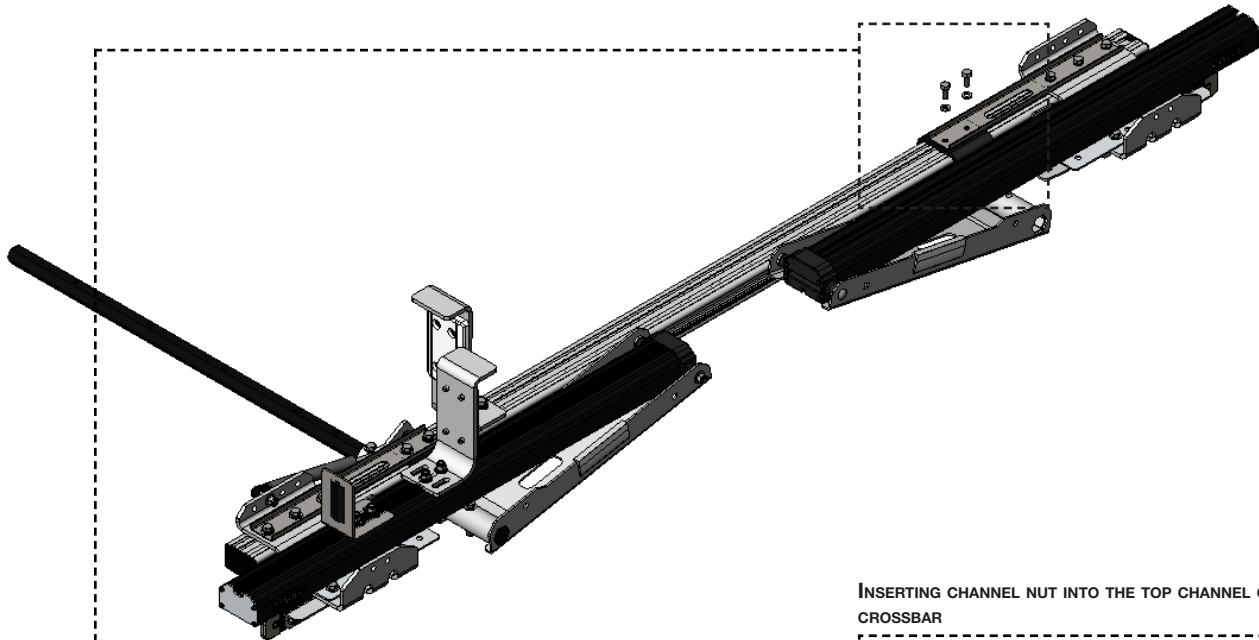


#90-205 Hex Bolt 3/4"

#98-123 Lock Washer 5/16"

#Channel Nut 5/16"

- 1.2.3** • Insert 2 channel nuts into the top channel of the crossbar, then align them to the shaft support bracket holes.
- Attach the shaft support bracket to the crossbar with the washer plate using the 2 channel nuts.

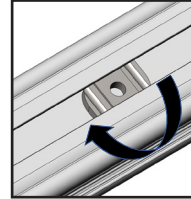


INSERTING CHANNEL NUT INTO THE TOP CHANNEL OF THE CROSSBAR

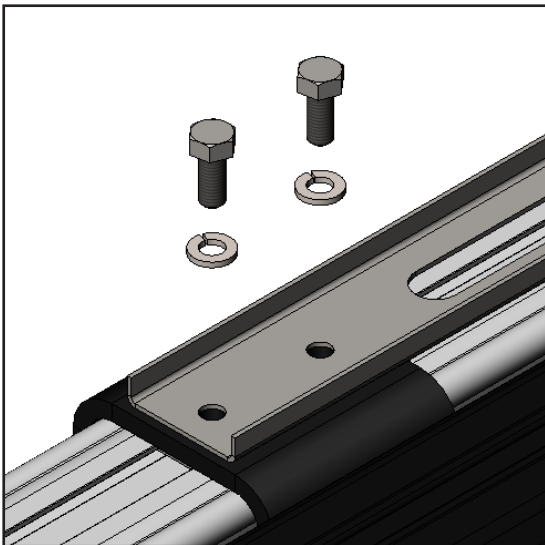
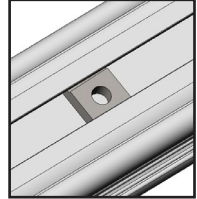


**TIPS:** • Use 1/8" slot screwdriver or pick to align the channel nut to the holes.

FROM



TO



#### TOOLS

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

#### FASTENERS USED

**2x ( 17 ft • lbs )**

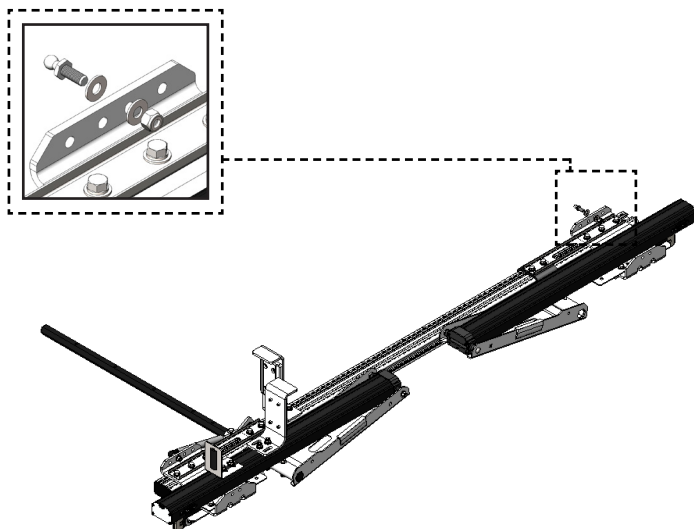


#90-205 Hex Bolt 3/4"

#98-123 Lock Washer 5/16"

#Channel Nut 5/16"

#### 1.2.4 Attach ball stud to the frame of front mechanism.



##### 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"

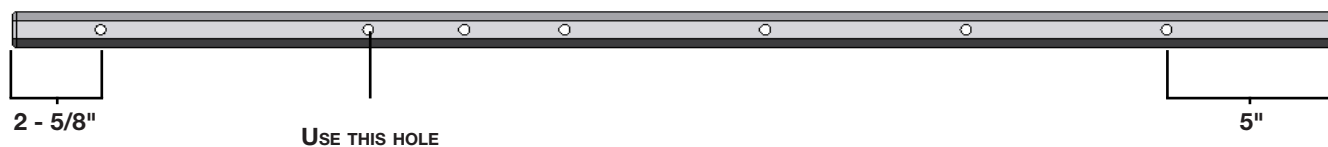


#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

#### 1.2.5 Attach the driver side front linkage to the pivot bar.

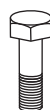


##### TOOLS

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

##### FASTENERS USED

**1x ( 17 ft • lbs )**



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"

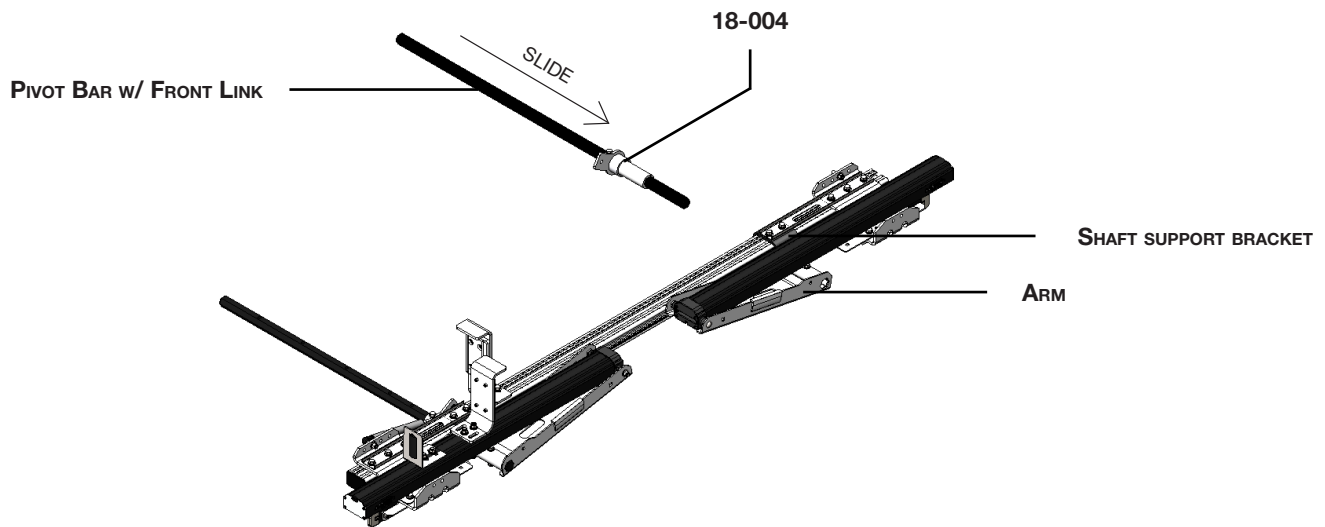


#98-117 Flat Washer 5/16"

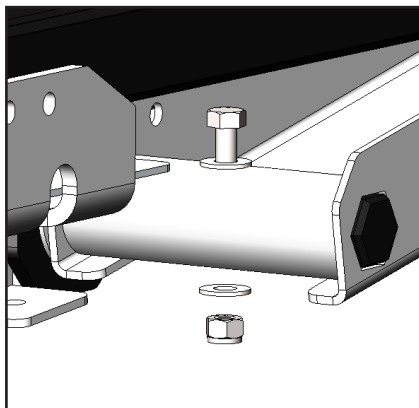
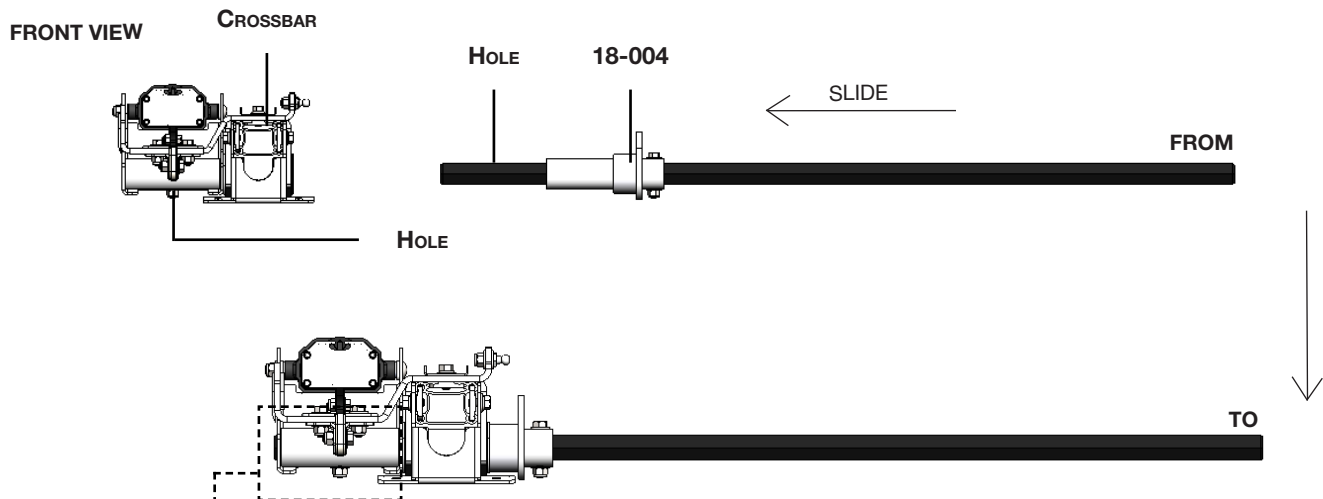


#94-111 Lock Nut 5/16"

**1.2.6** 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"

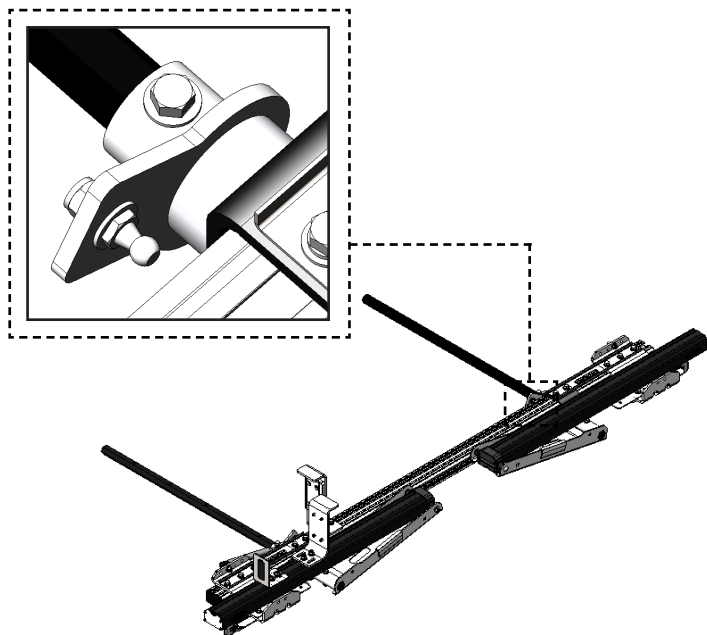
#98-117 Flat Washer 5/16"

#94-111 Lock Nut 5/16"

**TOOLS**

□ 1/2" Wrench 2x

### 1.2.7 Attach ball stud to the driver side front linkage.



#### 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"



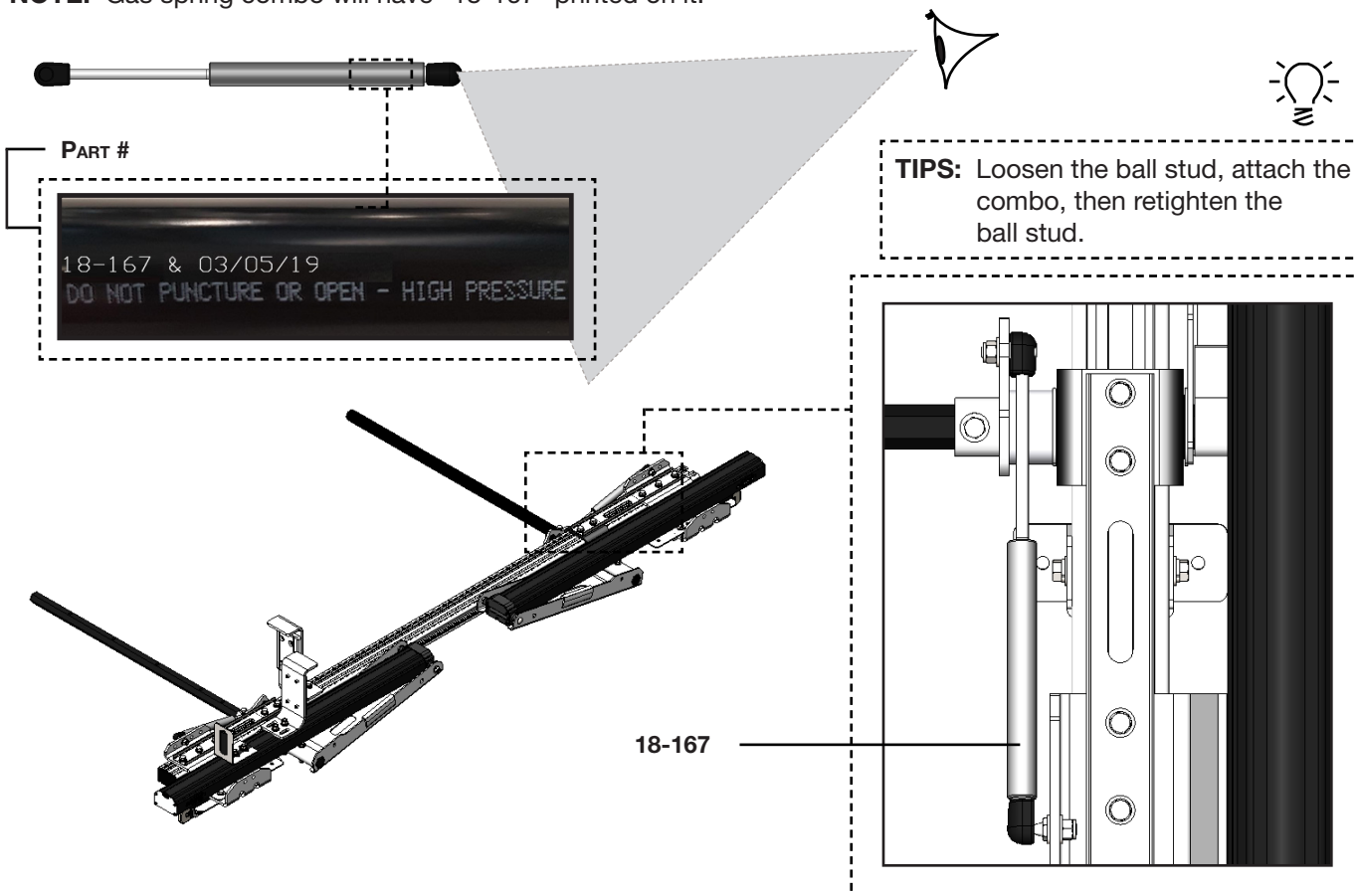
#98-117 Flat Washer 5/16"



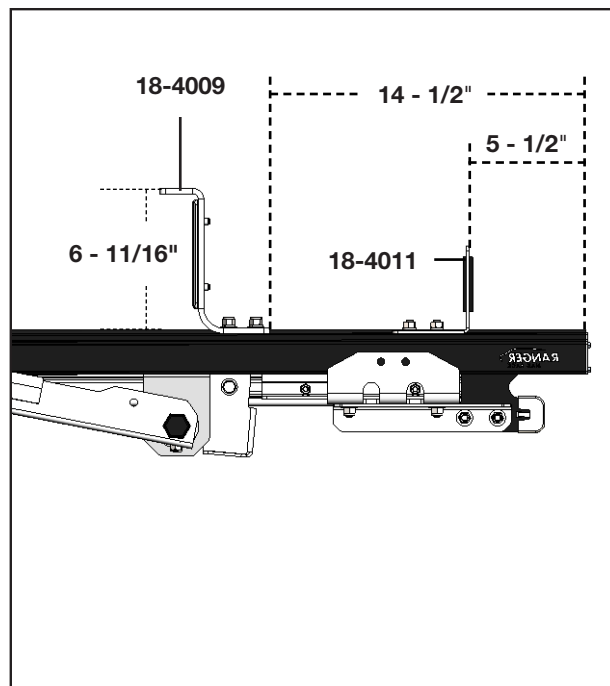
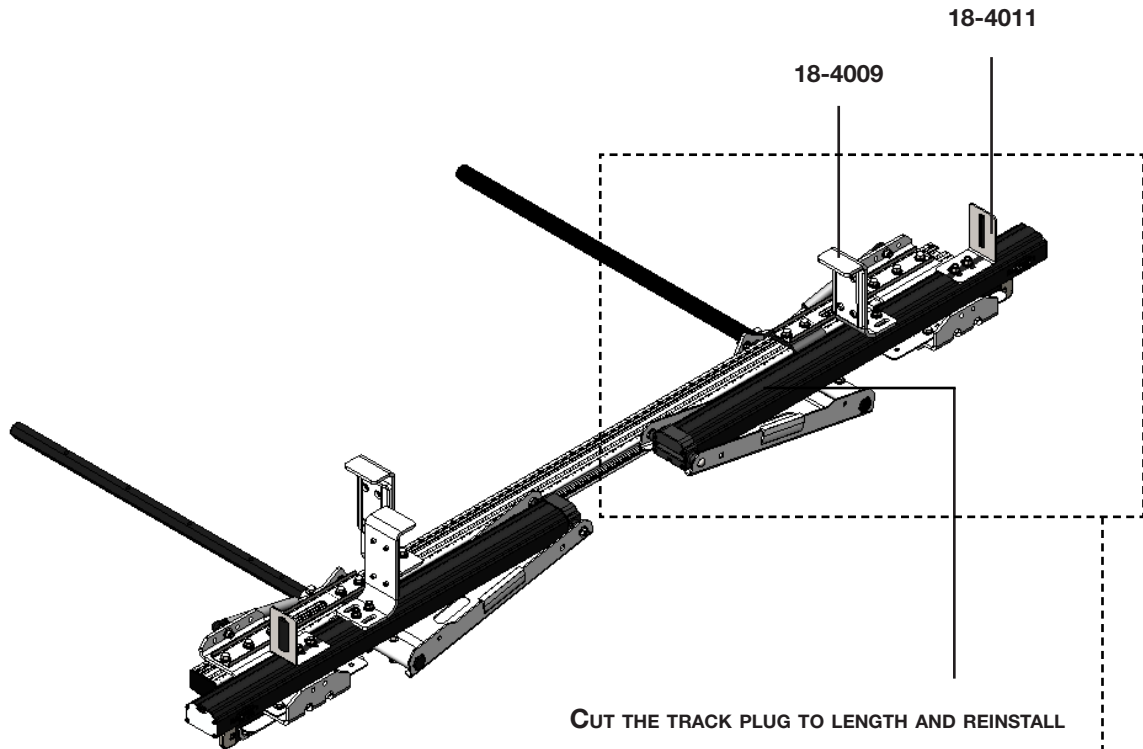
#94-111 Lock Nut 5/16"

### 1.2.8 Attach the gas spring combo to the ball studs.

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



- 1.2.9** • Pull the track plug off.  
 • Attach one small hook and front ladder retainer to the front mechanism.  
 • Cut the track plug to length and reinstall.



**NOTE:** Pull the track plug off, cut to length, then reinstall.

#### TOOLS

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

#### FASTENERS USED

**4x ( 17 ft • lbs )**

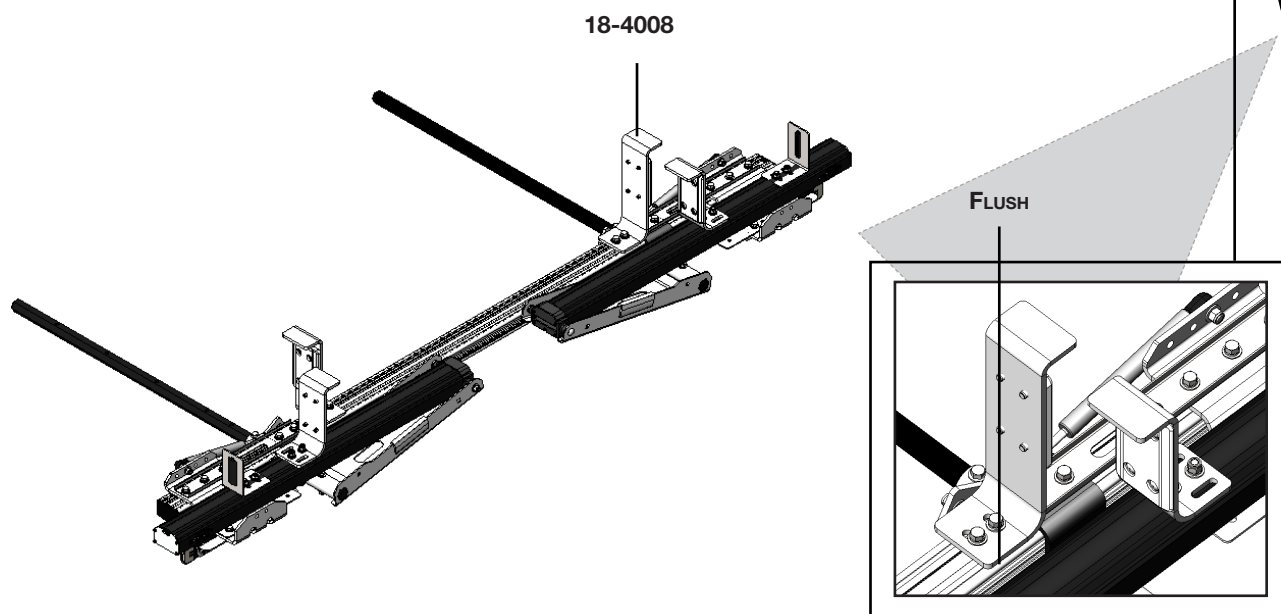


- #90-491 Carriage Bolt 1"
- #98-117 Flat Washer 5/16"
- #98-123 Lock Washer 5/16"
- #94-105 Hex Nut 5/16"

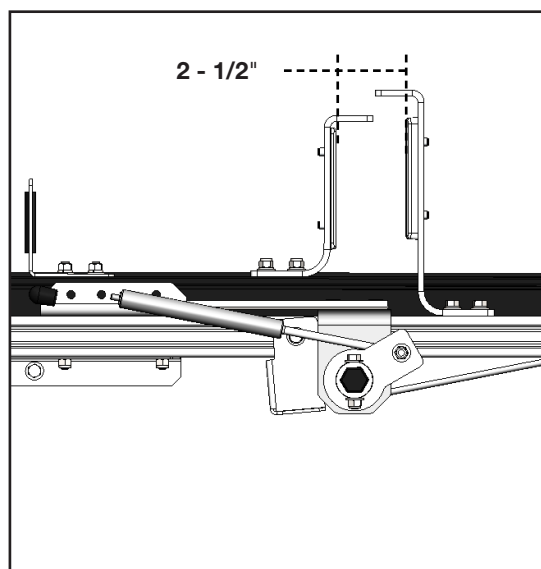
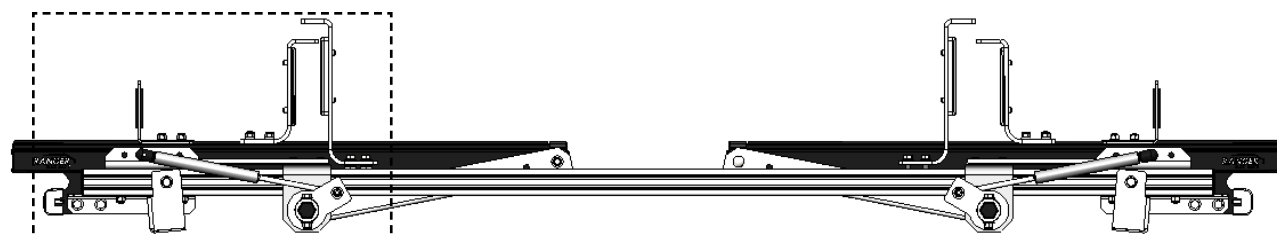
**1.2.10** Attach the long hook to the crossbar, facing to the small hook.

**IMPORTANT:** *The one side of the Long hook should be flush to the Crossbar.*

**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

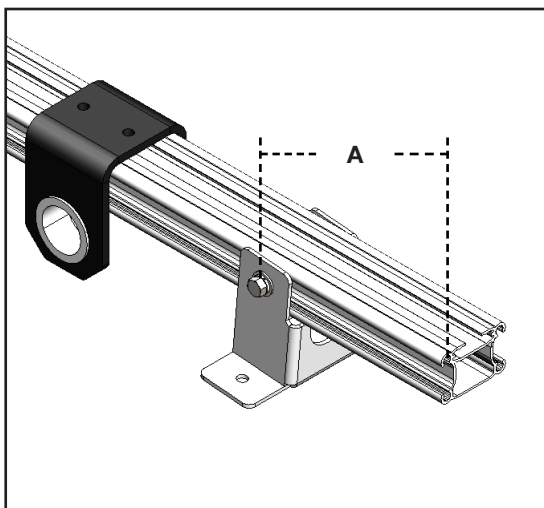
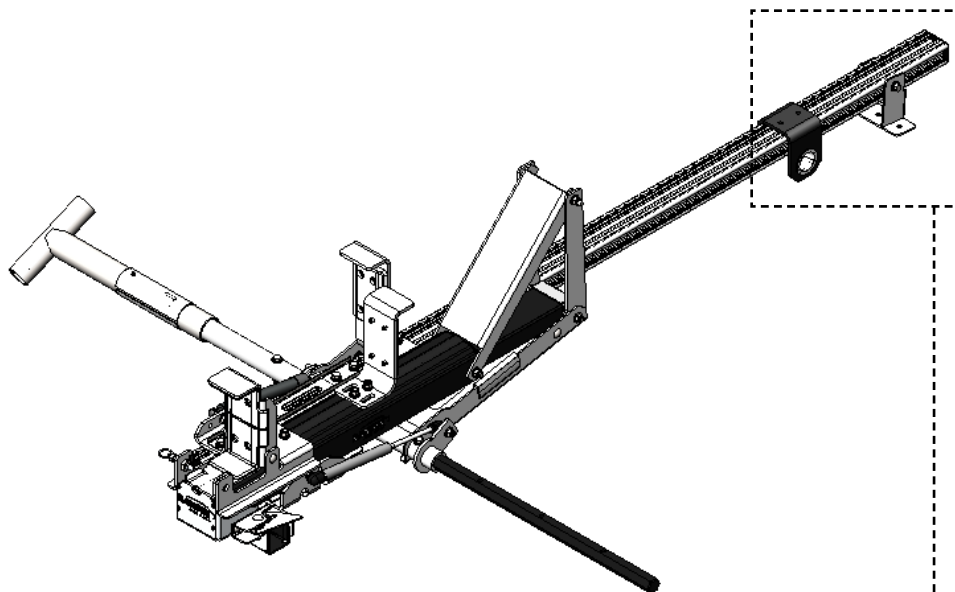
## 1.3 REAR CROSSBAR ASSEMBLY

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

**1.3.1** Remove the driver side feet, slide the shaft support bracket, then reinstall the feet.

### 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"



#### 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"

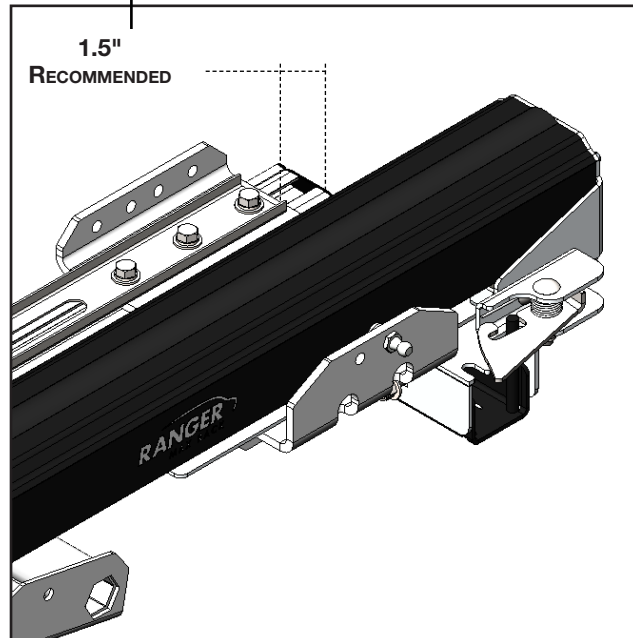
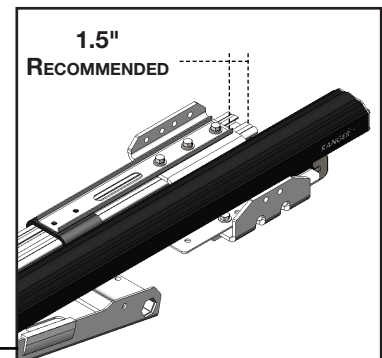
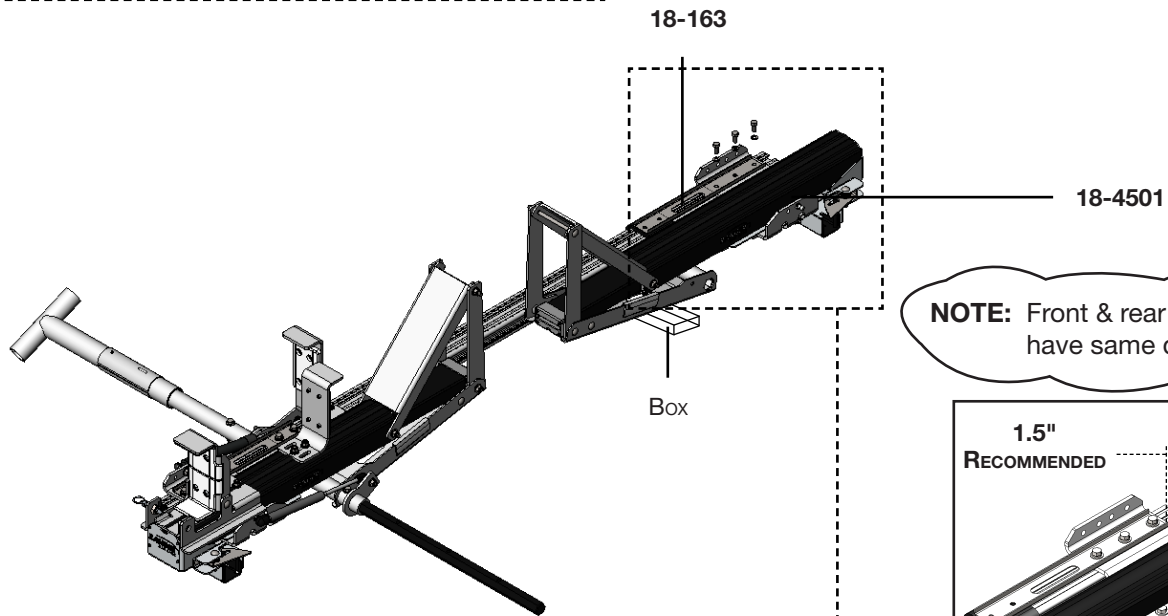
#98-117 Flat Washer 5/16"

#Channel Nut 5/16"

- 1.3.2** • 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.  
 • Use 1/8" slot screwdriver or pick to align the channel nut to the holes.



#### TOOLS

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

#### FASTENERS USED

**3x ( 17 ft • lbs )**



#90-205 Hex Bolt 3/4"

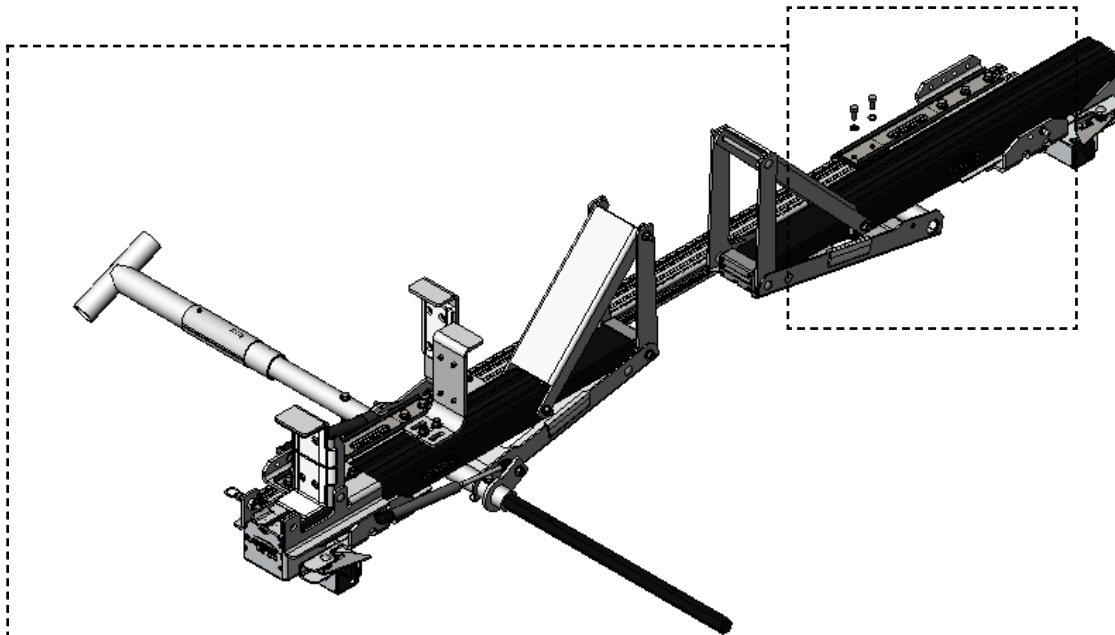


#98-123 Lock Washer 5/16"

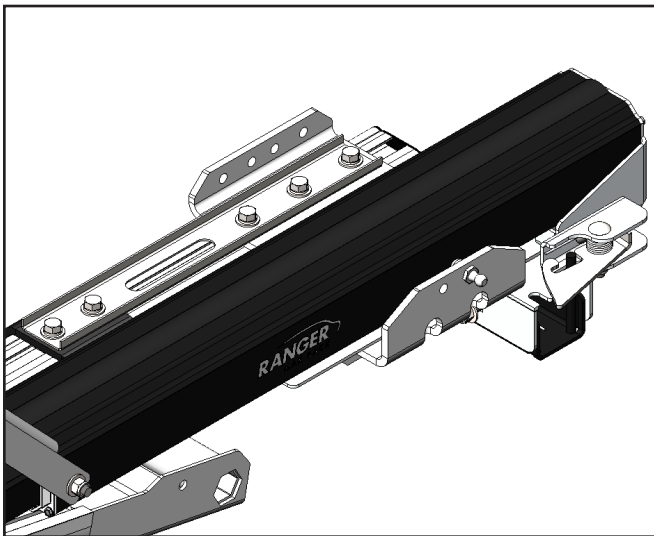


#Channel Nut 5/16"

- 1.3.3** • Insert 2 channel nuts into the top channel of the crossbar, then align them to the shaft support bracket holes.
- Attach the shaft support bracket to the crossbar with the washer plate using the 2 channel nuts.



**TIPS:** • Use 1/8" slot screwdriver or pick to align the channel nut to the holes.



#### TOOLS

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

#### FASTENERS USED

**2x ( 17 ft • lbs )**

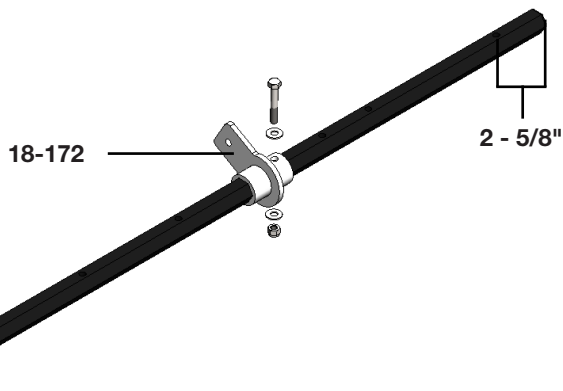
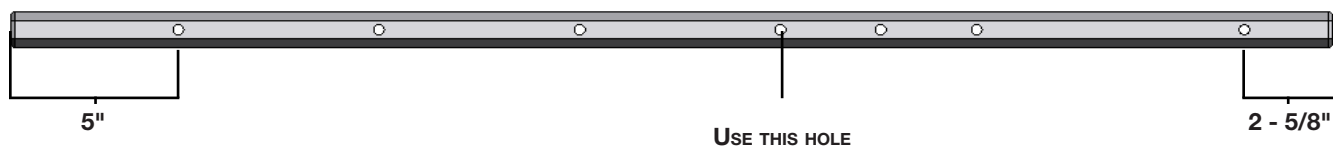


#90-205 Hex Bolt 3/4"

#98-123 Lock Washer 5/16"

#Channel Nut 5/16"

### 1.3.4 Attach the driver side rear linkage to the pivot bar.



#### TOOLS

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

#### FASTENERS USED

1x ( 17 ft • lbs )



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"



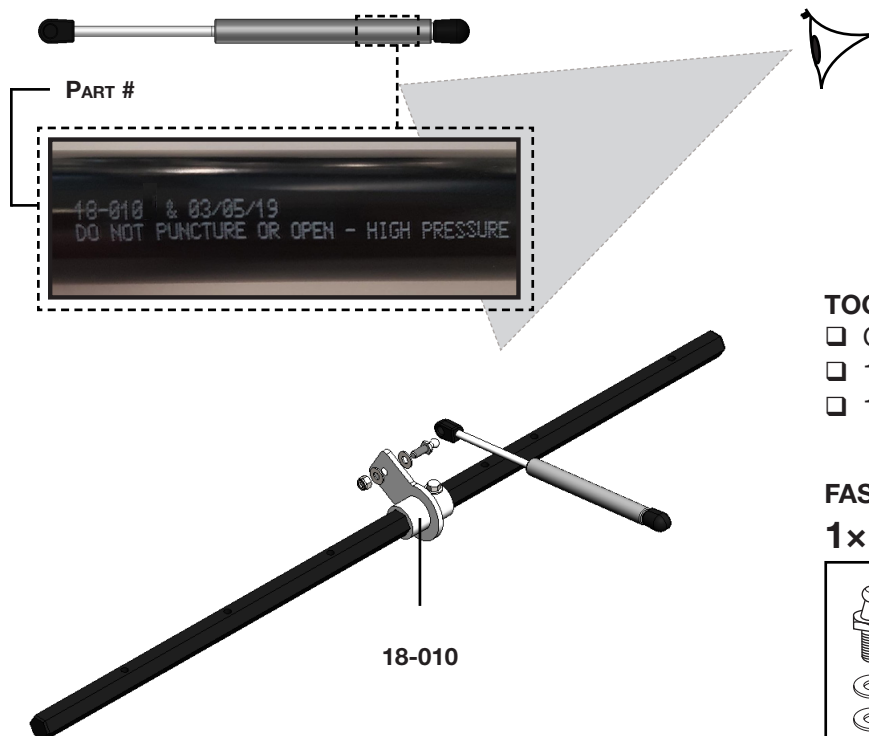
#98-117 Flat Washer 5/16"



#94-111 Lock Nut 5/16"

### 1.3.5 Attach the driver side rear linkage to the pivot bar.

**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"

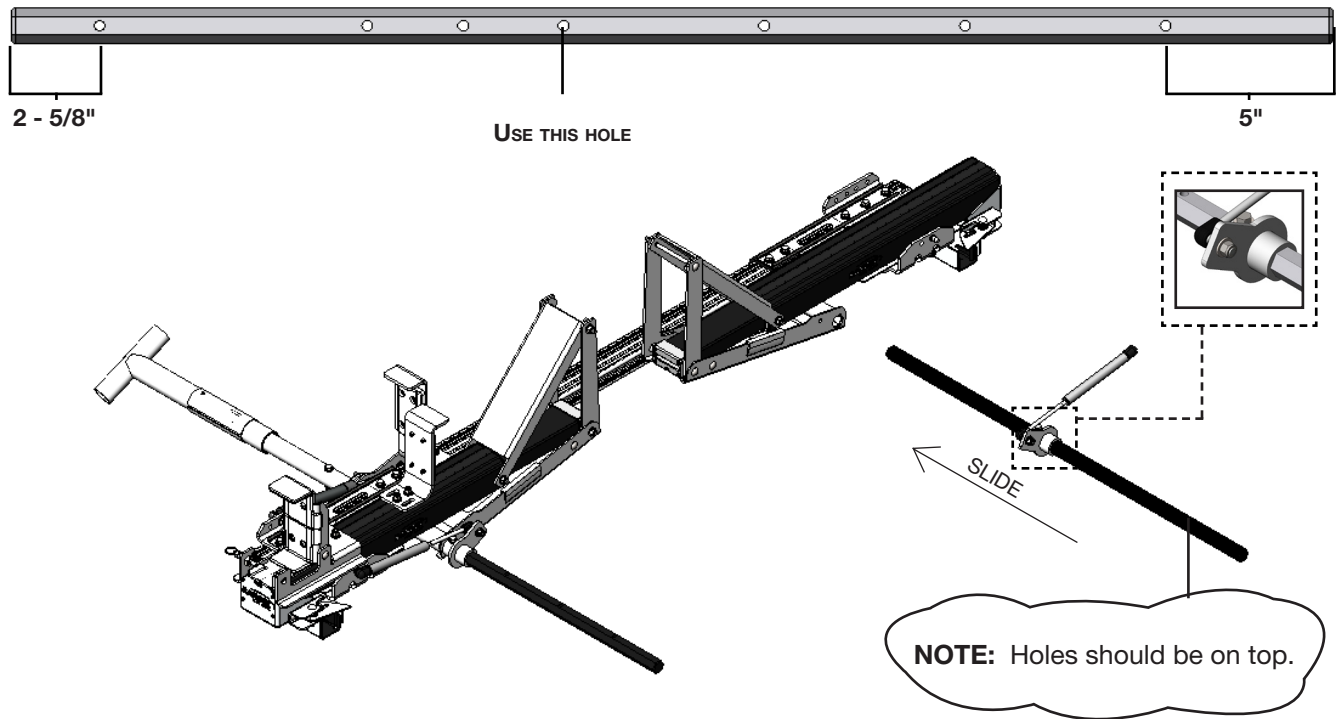


#98-117 Flat Washer 5/16"



#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.



#### FRONT VIEW

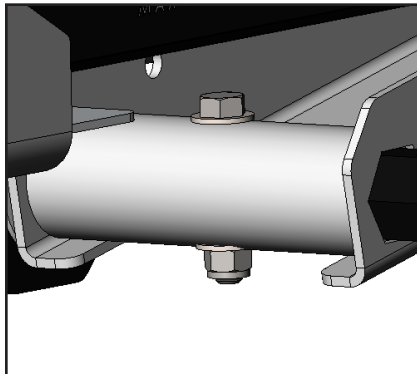
FROM



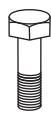
TO

**PIVOT BAR W/ REAR LINKAGE**

**REAR MECHANISM**



#### FASTENERS USED 1x (17 ft • lbs)



#90-225 Hex Bolt 2"



#98-117 Flat Washer 5/16"



#98-117 Flat Washer 5/16"

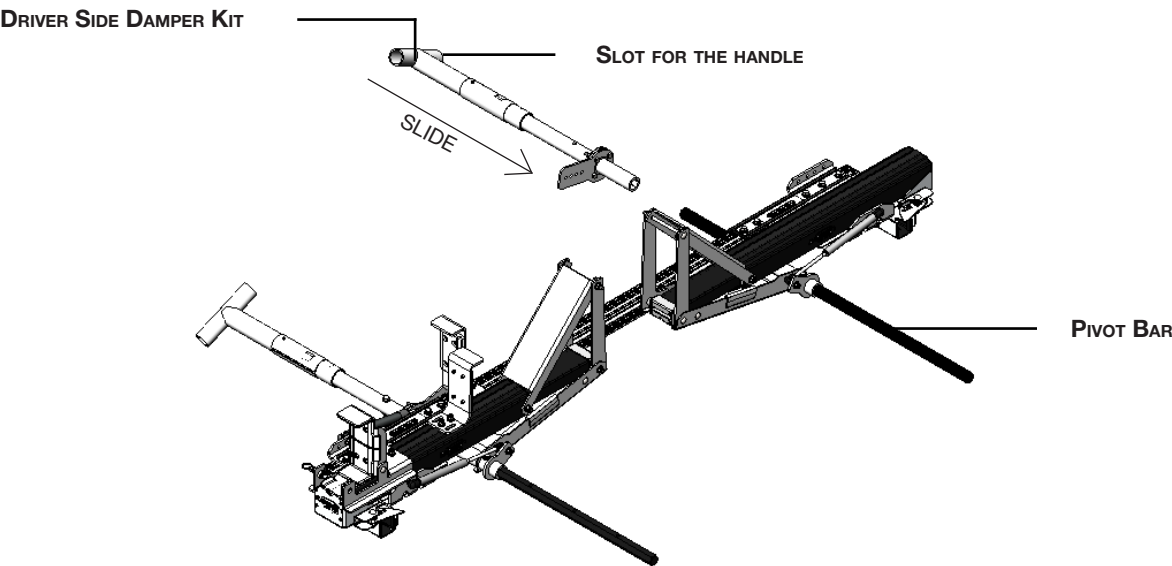


#94-111 Lock Nut 5/16"

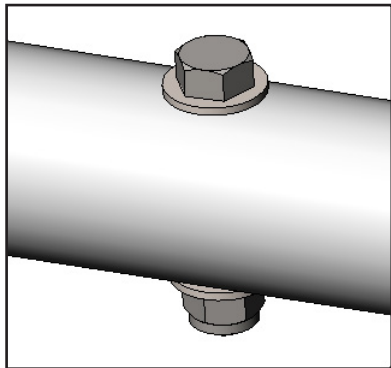
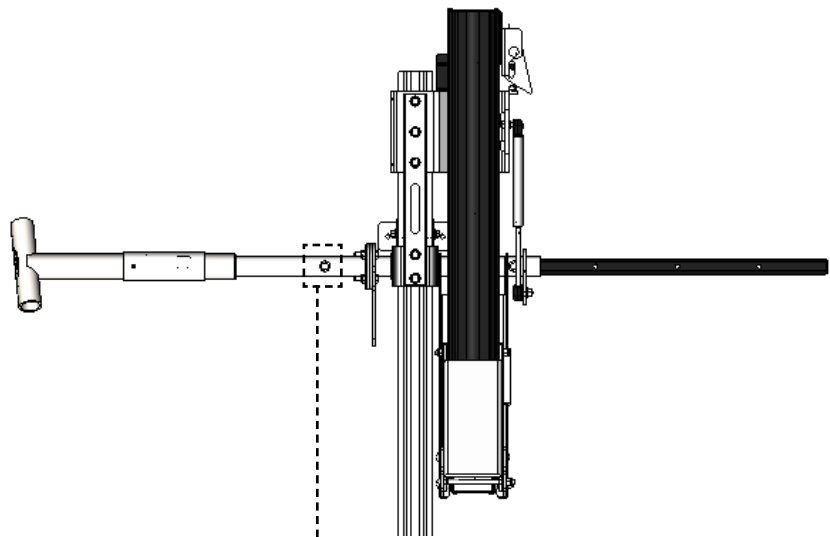
#### TOOLS

□ 1/2" Wrench 2x

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



TOP VIEW



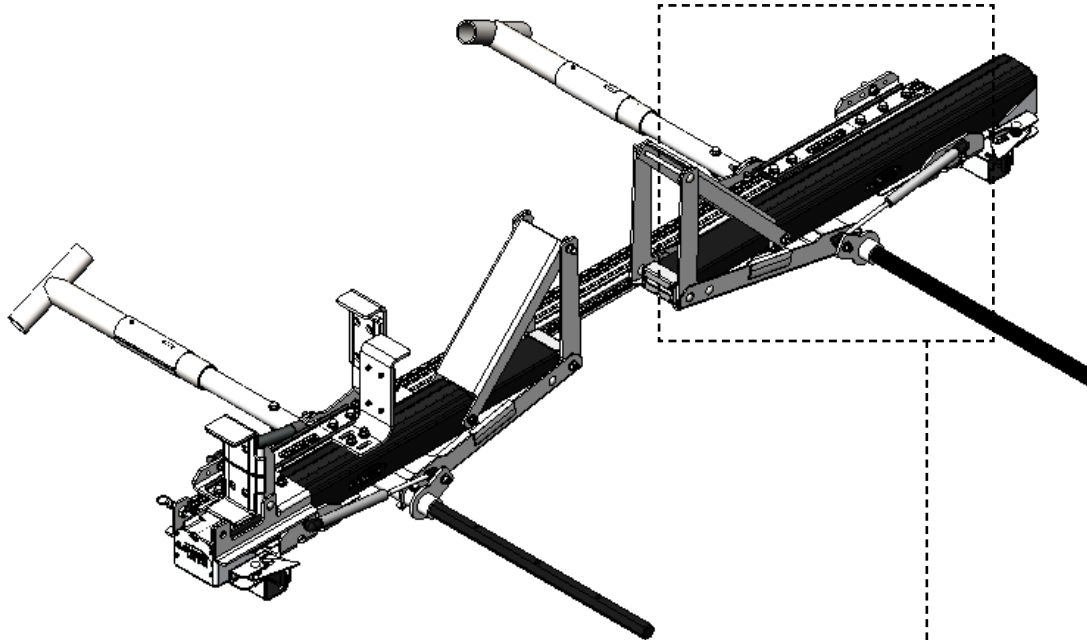
**FASTENERS USED**  
**1x ( 17 ft • lbs )**



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

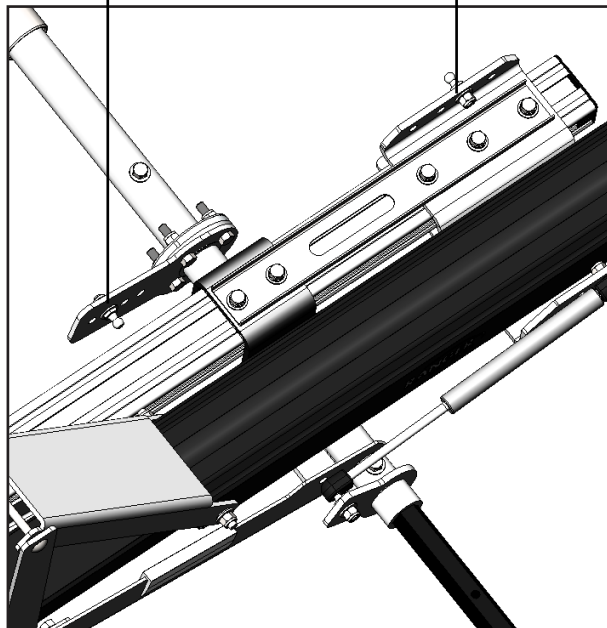
- TOOLS**
- ☐ Cordless Impact
  - ☐ 1/2" Socket
  - ☐ 1/2" Wrench

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



**BALL STUD**

**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"

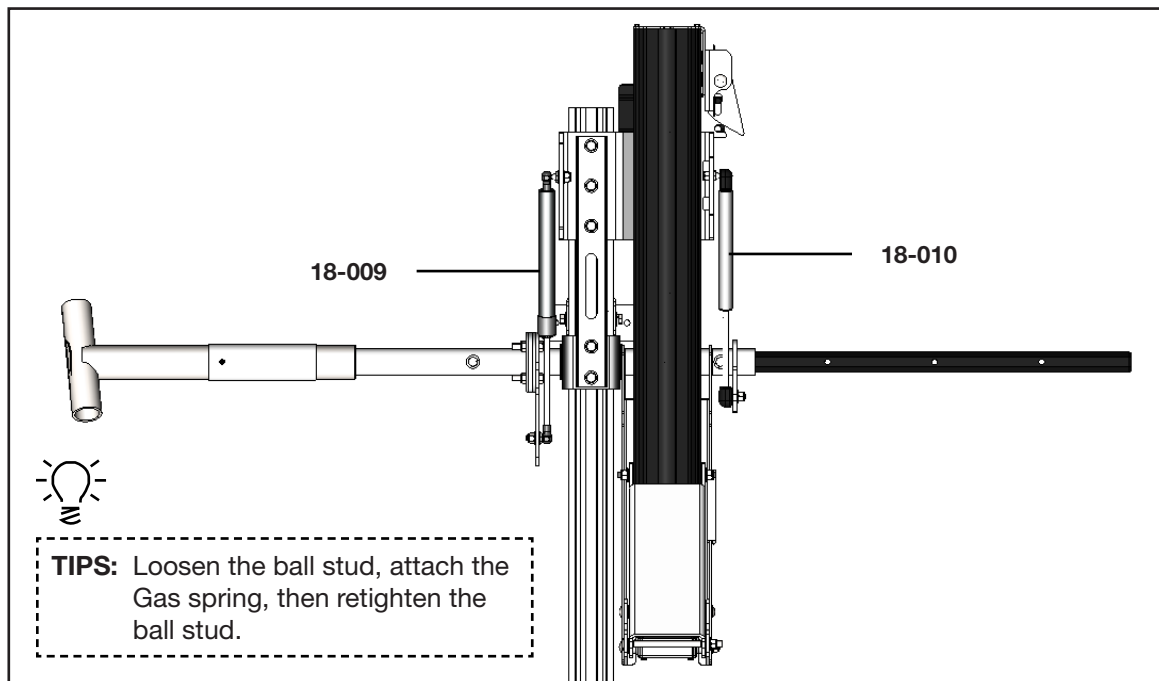
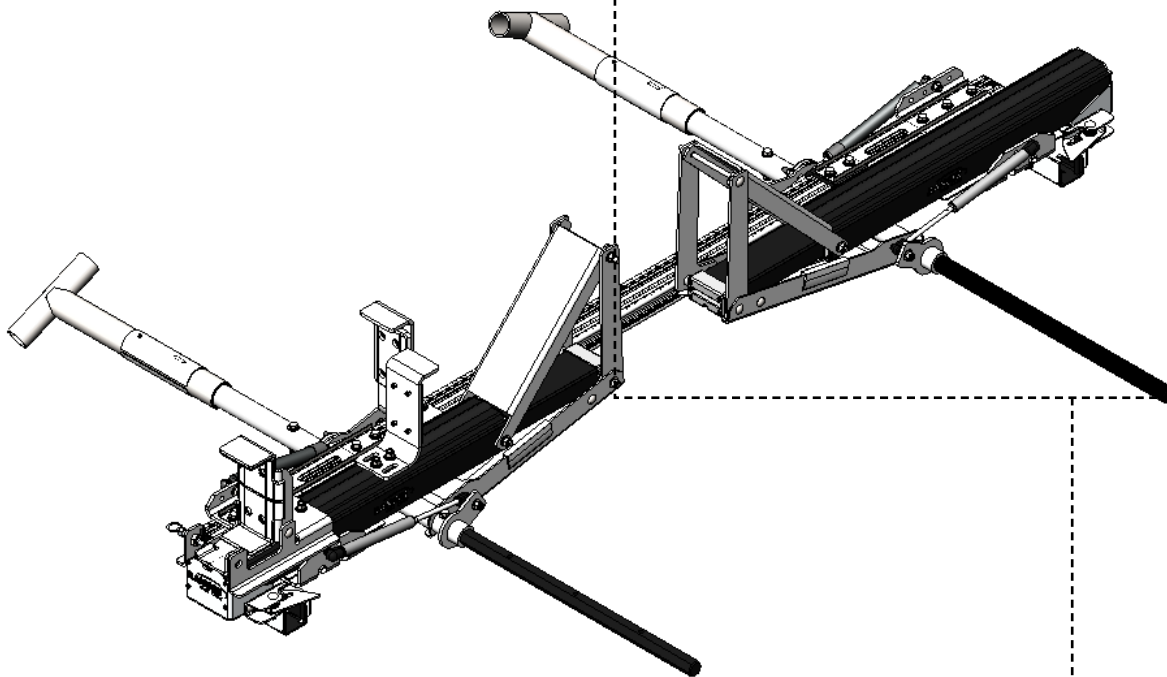


#94-111 Lock Nut 5/16"

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

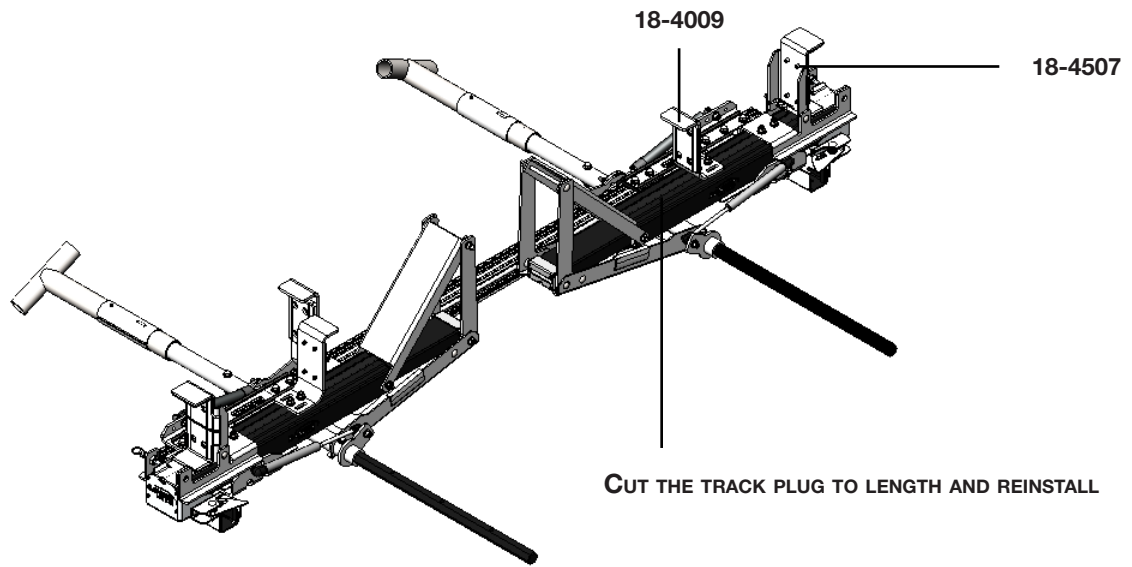
#### NOTE:

**DAMPER: YOU CAN COMPRESS**

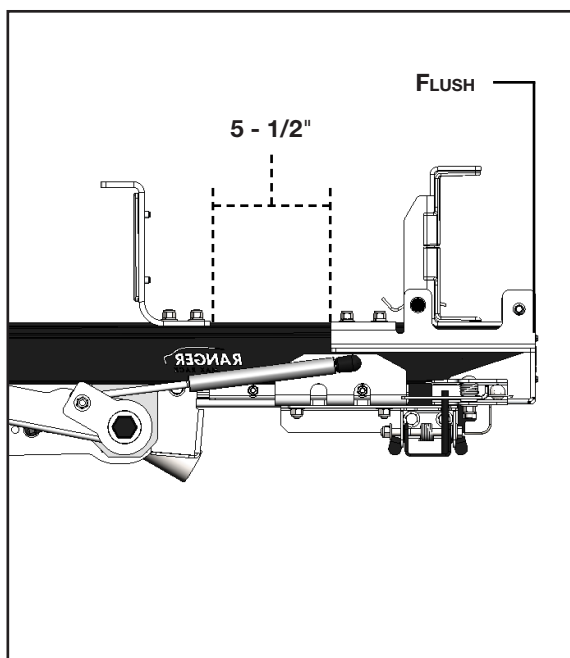
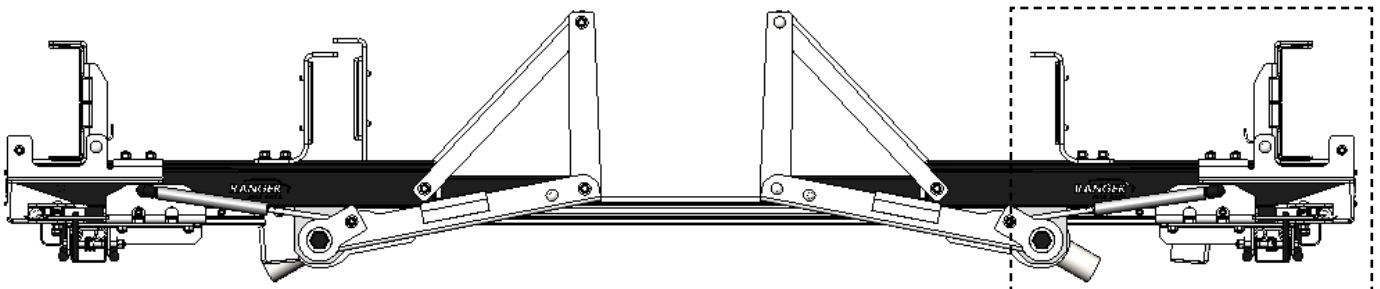


**TIPS:** Loosen the ball stud, attach the Gas spring, then retighten the ball stud.

- 1.3.10**
- Pull the track plug off.
  - Attach one small hook and anti-theft lock to the rear mechanism.
  - Cut the track plug to length and reinstall.



#### FRONT VIEW



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

#### TOOLS

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

#### FASTENERS USED

**4x ( 17 ft • lbs )**



#90-491 Carriage Bolt 1"



#98-117 Flat Washer 5/16"



#98-123 Lock Washer 5/16"

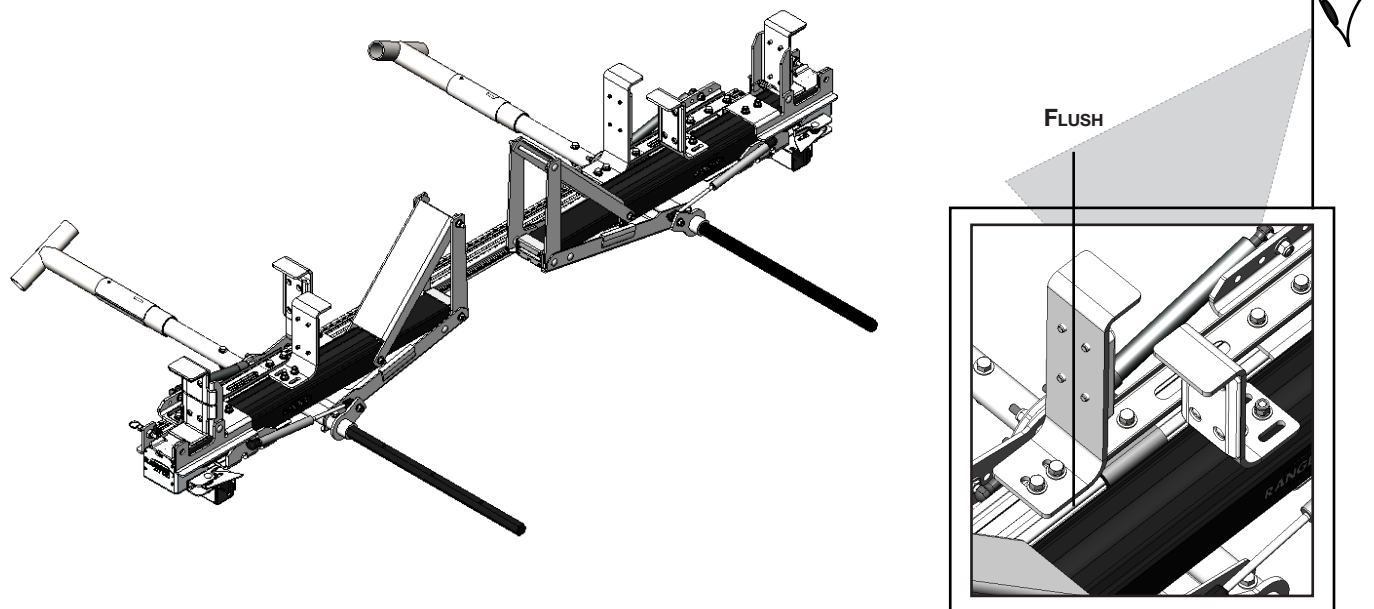


#94-105 Hex Nut 5/16"

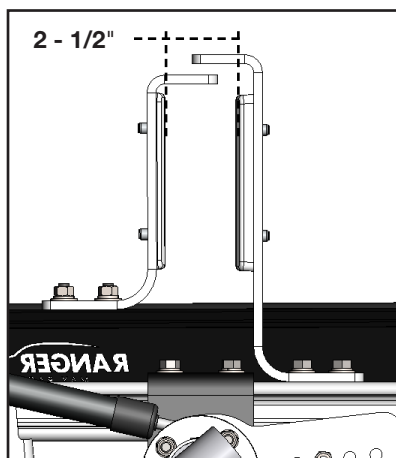
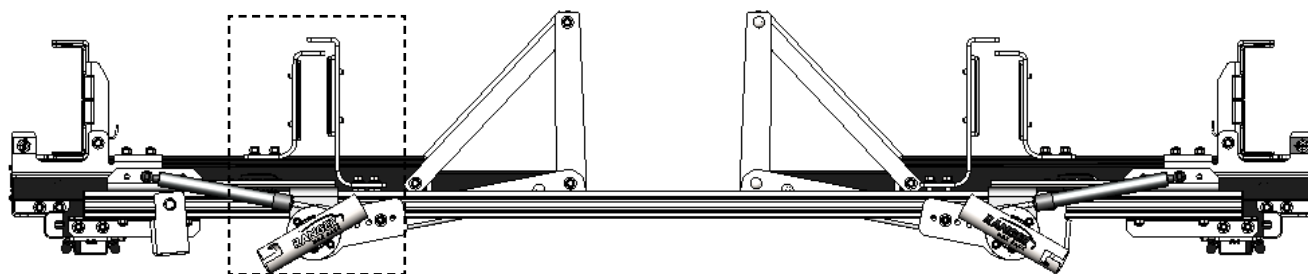
- 1.3.11** • Attach the long hook to the crossbar, facing to the small hook.  
 • Apply a bead of silicone on the end cap, then attach the end cap to the crossbar.

**IMPORTANT:** *The one side of the long hook should be flush to the crossbar.*

**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 )**



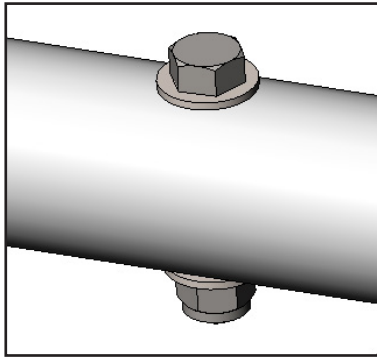
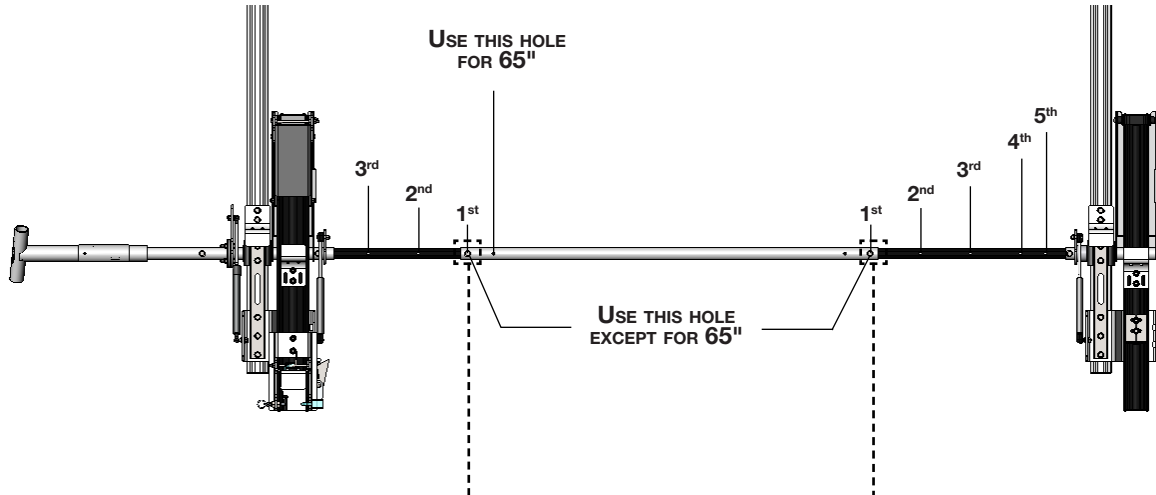
- #90-205 Hex Bolt 3/4"
- #98-123 Lock Washer 5/16"
- #98-117 Flat Washer 5/16"
- #Channel Nut 5/16"

# PHASE 1 – ASSEMBLY

## 1.4 FOR ASSEMBLY WITH OVERHEAD LIFT

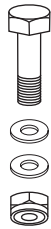
1.4.1 Attach the ends of the front and rear bars to the center tube.

**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

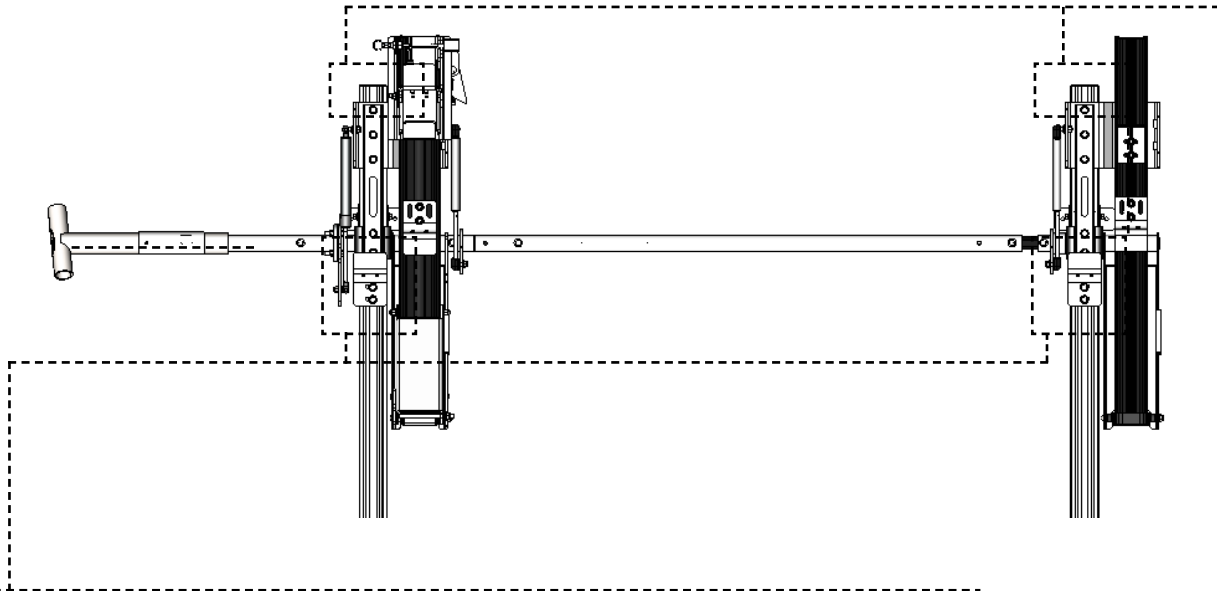
- ☐ Cordless Impact
- ☐ 1/2" Socket
- ☐ 1/2" Wrench

VEHICLE	CROSSBAR CENTER TO CENTER DISTANCE	LADDER SIZE
NISSAN NV ( NH )	MAXIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
SPRINTER ( DH )	MAXIMUM: 101" ( 1 <sup>ST</sup> & 1 <sup>ST</sup> HOLES )	MAXIMUM: EXTENSION 32', STEP 10'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
TRANSIT 130" WB ( FTR )	MAXIMUM: 77" ( 3 <sup>RD</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 28', STEP 8'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
TRANSIT 148" & 148" EXT. WB ( FTL )	MAXIMUM: 89" ( 2 <sup>ND</sup> & 2 <sup>ND</sup> HOLES )	MAXIMUM: EXTENSION 32', STEP 10'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
PROMASTER 118" WB ( PHS )	MAXIMUM: 77" ( 3 <sup>RD</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 28', STEP 8'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
PROMASTER 136" WB ( PHM )	MAXIMUM: 89" ( 2 <sup>ND</sup> & 2 <sup>ND</sup> HOLES )	MAXIMUM: EXTENSION 32', STEP 10'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
PROMASTER 159" WB ( PHL )	MAXIMUM: 101" ( 1 <sup>ST</sup> & 1 <sup>ST</sup> HOLES )	MAXIMUM: EXTENSION 32', STEP 10'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'
PROMASTER 159" EXT. WB ( PHX )	MAXIMUM: 101" ( 1 <sup>ST</sup> & 1 <sup>ST</sup> HOLES )	MAXIMUM: EXTENSION 32', STEP 10'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'

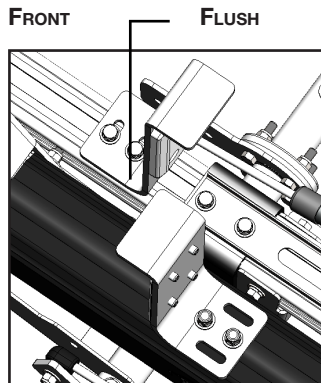
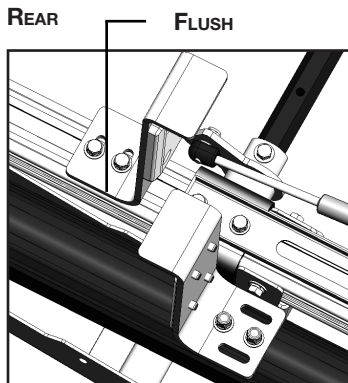
# PHASE 1 – ASSEMBLY

## 1.5 ASSEMBLY VALIDATION

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

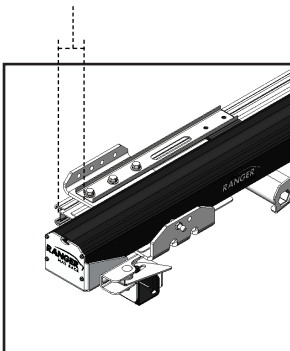


**IMPORTANT:** *The one side of the long hook should be flush to the crossbar.*

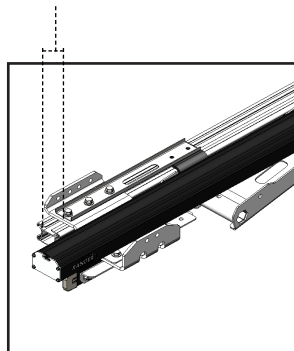


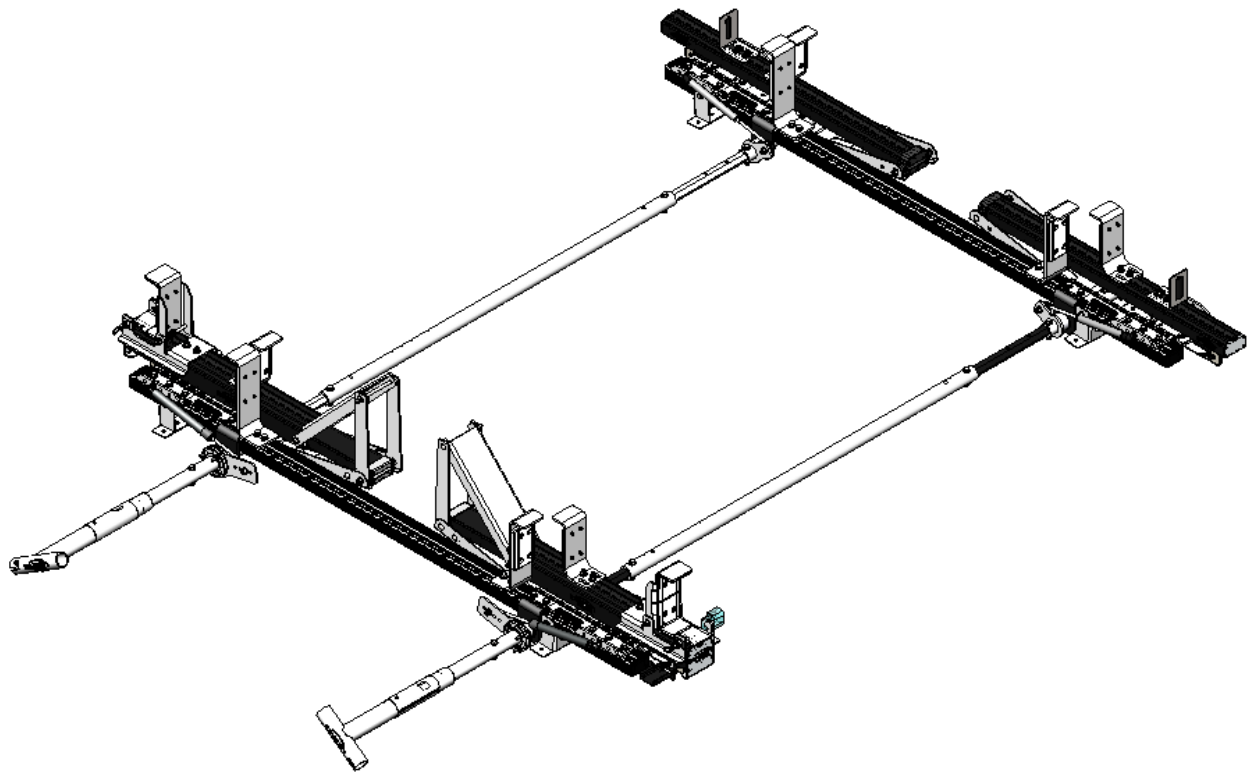
**NOTE:** Front & Rear Should have same dimension.

1"  
RECOMMENDED



1"  
RECOMMENDED





**“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](mailto:cs@rangerdesign.com)



# INSTALLATION GUIDE



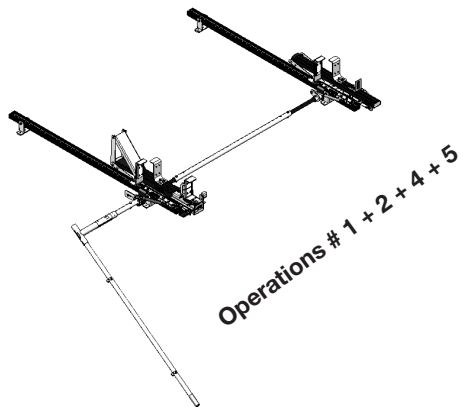
## 18-U0030 MOUNTING TRACKS

Ford Transit ( Long / Extended Wheelbase, Standard, Medium & High Roof )

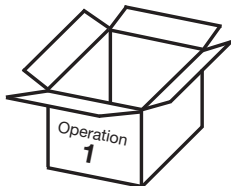
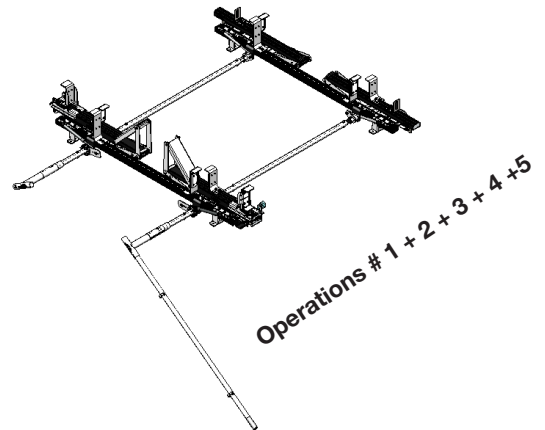


# ORDER OF OPERATION

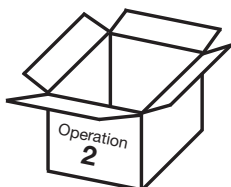
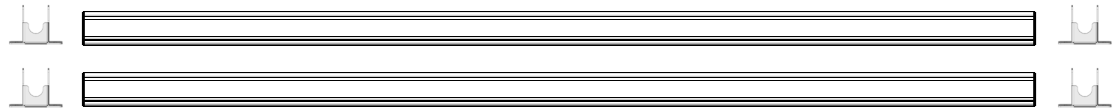
## MAX RACK SINGLE SIDE



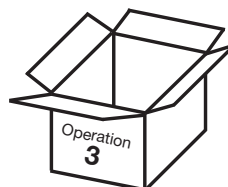
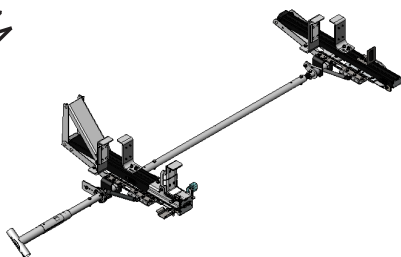
## MAX RACK DOUBLE SIDE



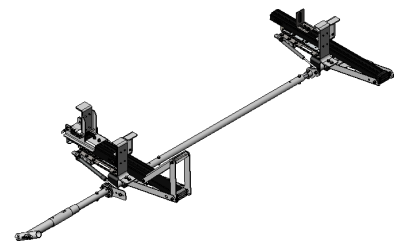
18-U1806



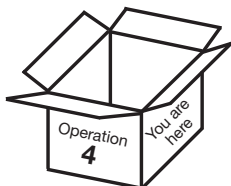
18-U1810



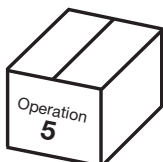
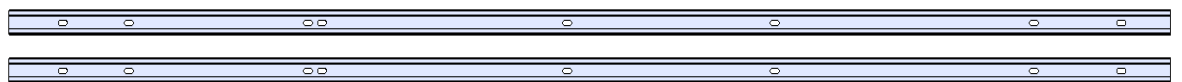
18-U1815



**OPTIONAL:** Applicable only for Max Rack Double Side.



MOUNTING TRACK



18-U1807



# QUICK START GUIDE

## Phase 1 - Assembly

❑ 1.1 Setup..... 4 TO 5

## Phase 2 - Installation

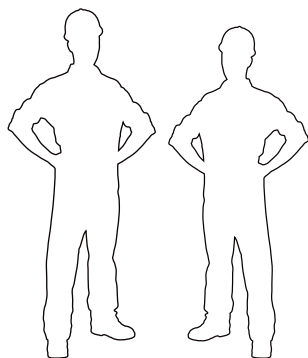
❑ 2.1 Mounting Tracks installation..... 6  
❑ 2.2 Max Rack installation..... 7 TO 9

## Phase 3 - Adjustment

❑ 3.1 Adjustment for Max Rack..... 10 TO 11

## 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.



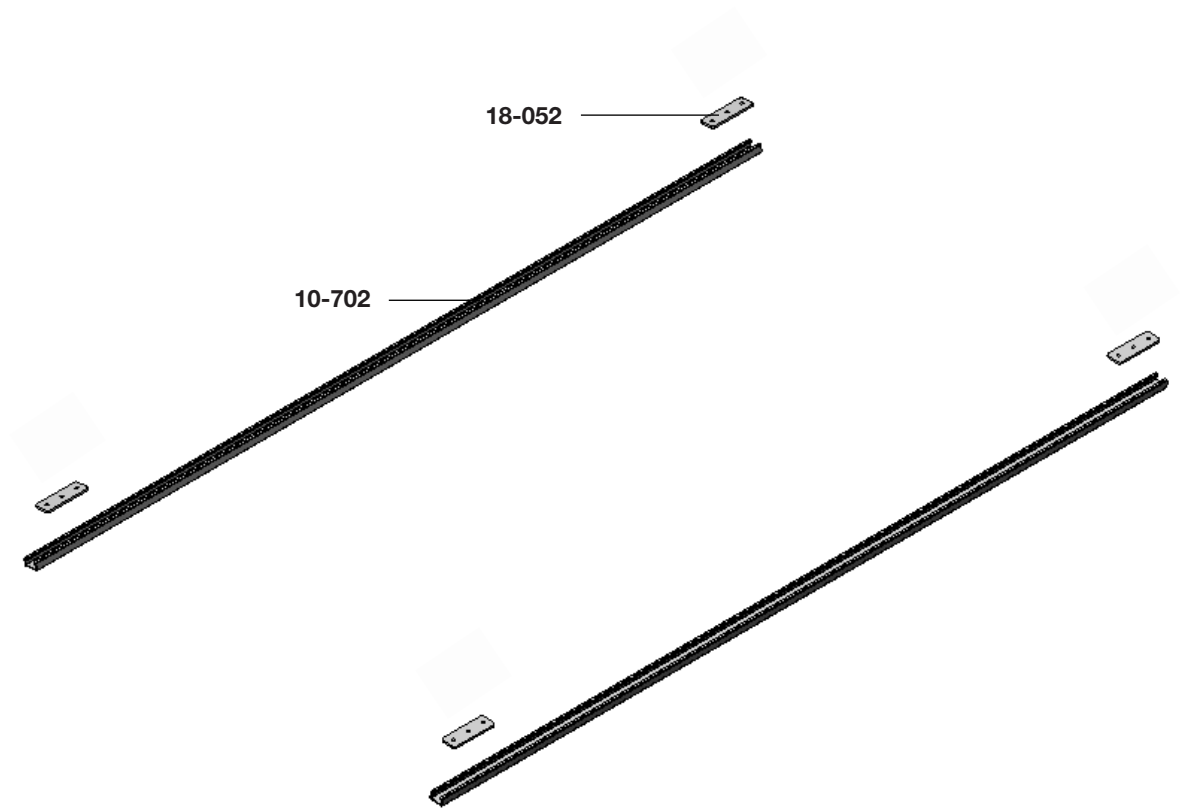
**2  
PERSONS**

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

# PHASE 1 – ASSEMBLY

## 1.1 SETUP

1.1.1 Unpack components; compare with the bill of materials.

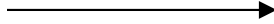


1.1.2 Verify all parts are present.

Item No.	Description	Qty.
10-702	Mounting Track 97" Long	2
18-052	Shim - Foot	4
96-0030	Fastener Kit	1

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

96-0030



**Fastener Assembly**

8x



# 90-209

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

8x



# 90-669

Hex Bolt  
M8-1.25 x 40mm  
SS304

8x



# 94-150

Channel Nut  
5/16"

16x



# 98-117

Flat Washer  
5/16" OD, 3/4"  
SS18-8

16x



# 98-123

Lock Washer  
5/16"  
SS304

16x



# 98-136

Spacer  
0.505" ID x 1" OD x 0.250" L  
NYLON

16x



# 98-149

Spacer  
0.290" ID x 1.375" OD x 0.125" L  
NEOPRENE

8x



#90-209 Hex Bolt 5/16" x 1"



#98-123 Lock Washer



#98-117 Flat Washer



#94-150 Channel Nut

8x



#90-669 Hex Bolt M8 x 40



#98-123 Lock Washer



#98-117 Flat Washer



#98-149 Neoprene Spacer



#98-136 Spacer (2x)



#98-149 Neoprene Spacer

# PHASE 2 – INSTALLATION

## 2.1 MOUNTING TRACKS INSTALLATION

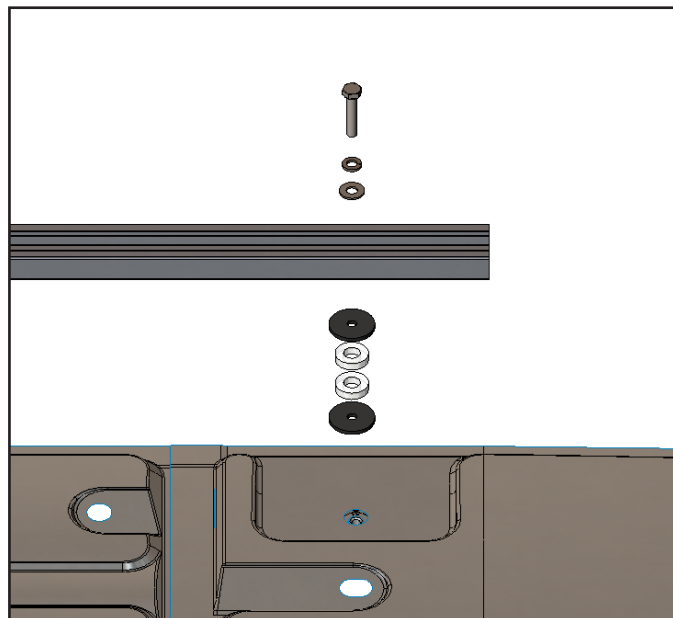
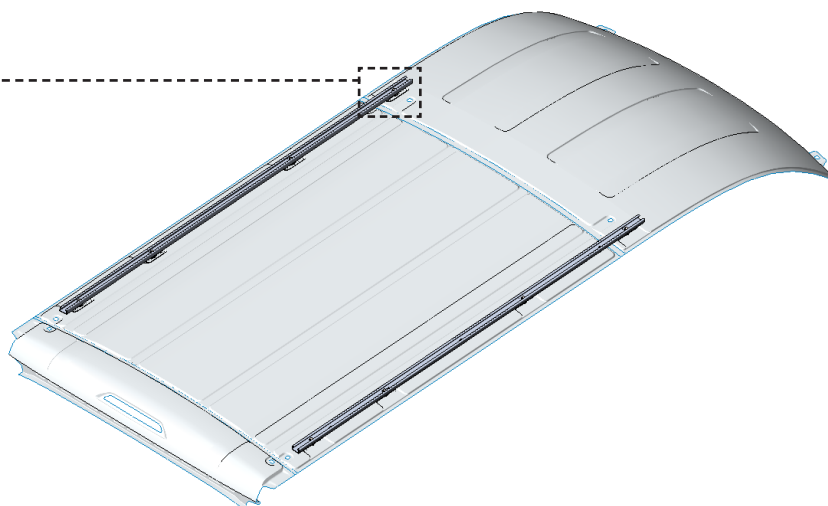
- 2.1.1**
- Remove existing plugs on the vehicle roof holes.
  - Use a tap ( M8 - 1.25 ) to remove the excess dirt/paint in the holes of the van.
  - **Apply a bead of silicone around each hole**, then fasten the tracks to the roof.

**TIPS:** It's easier to put the bolts, lock washers, flat washers and spacers on the tracks, first, then install the tracks to the roof.

### Mounting Track Orientation

**REAR**

**FRONT**









### TOOLS

- Cordless Impact
- 13mm Socket

### FASTENERS USED

**8x**

- |   |                          |
|---|--------------------------|
|  | #90-669 Hex Bolt M8 x 40 |
|  | #98-123 Lock Washer      |
|  | #98-117 Flat Washer      |
|  | #98-149 Neoprene Spacer  |
|  | #98-136 Spacer ( 2x )    |
|  | #98-149 Neoprene Spacer  |

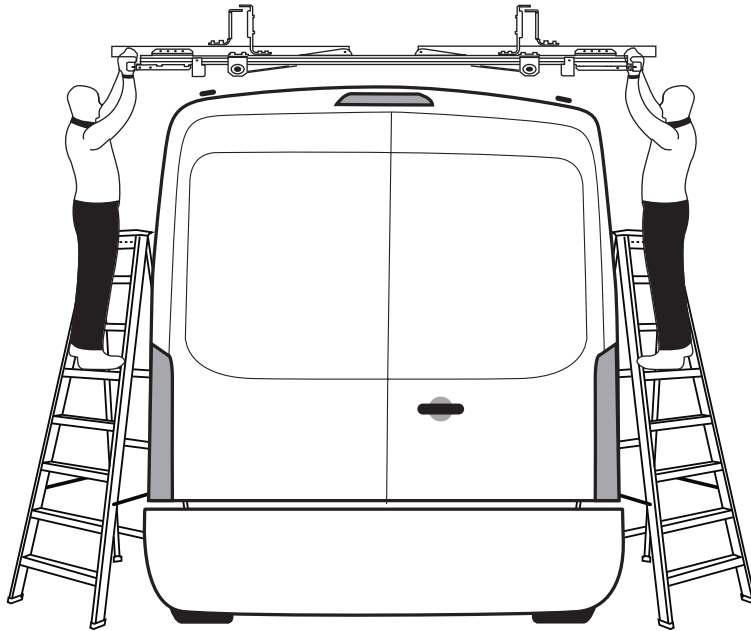
# PHASE 2 – INSTALLATION

## 2.2 MAX RACK INSTALLATION

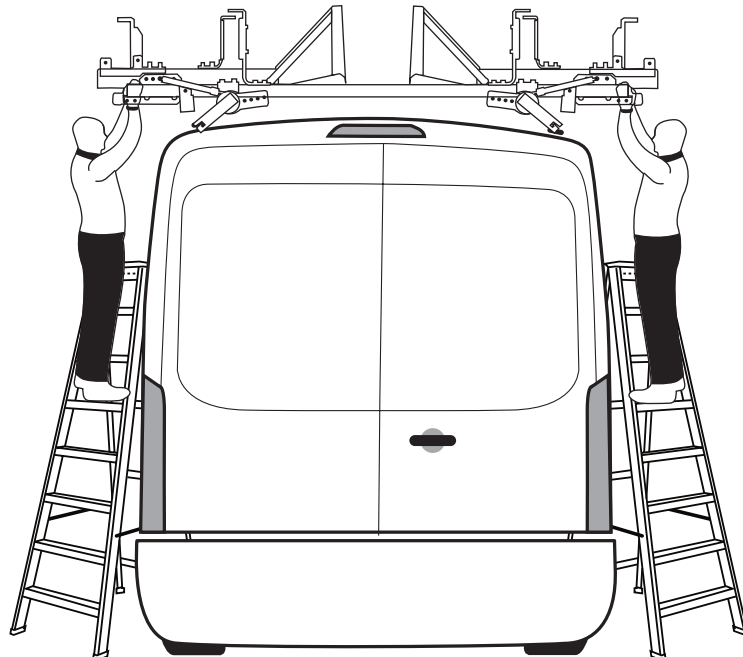
**2.2.1** Position the Max Rack ( **minimum two persons** ) on the vehicle so that the feet are on the tracks.

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

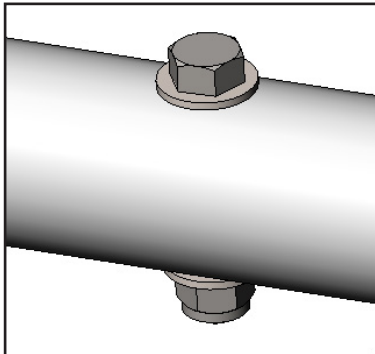
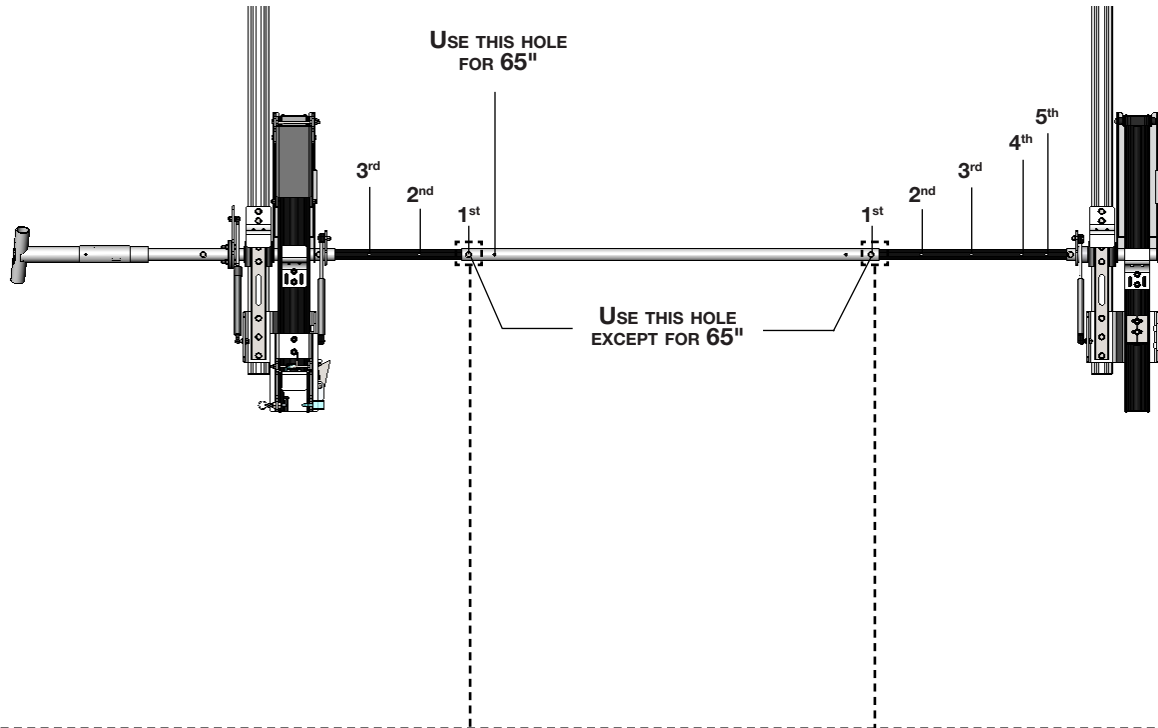
**FRONT CROSSBOW**



**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

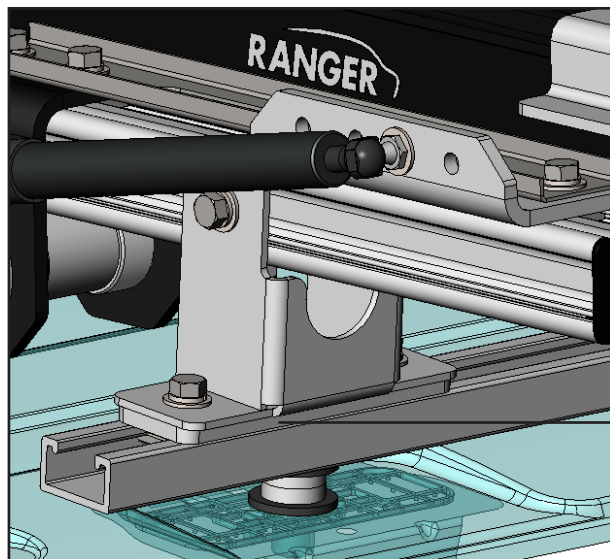
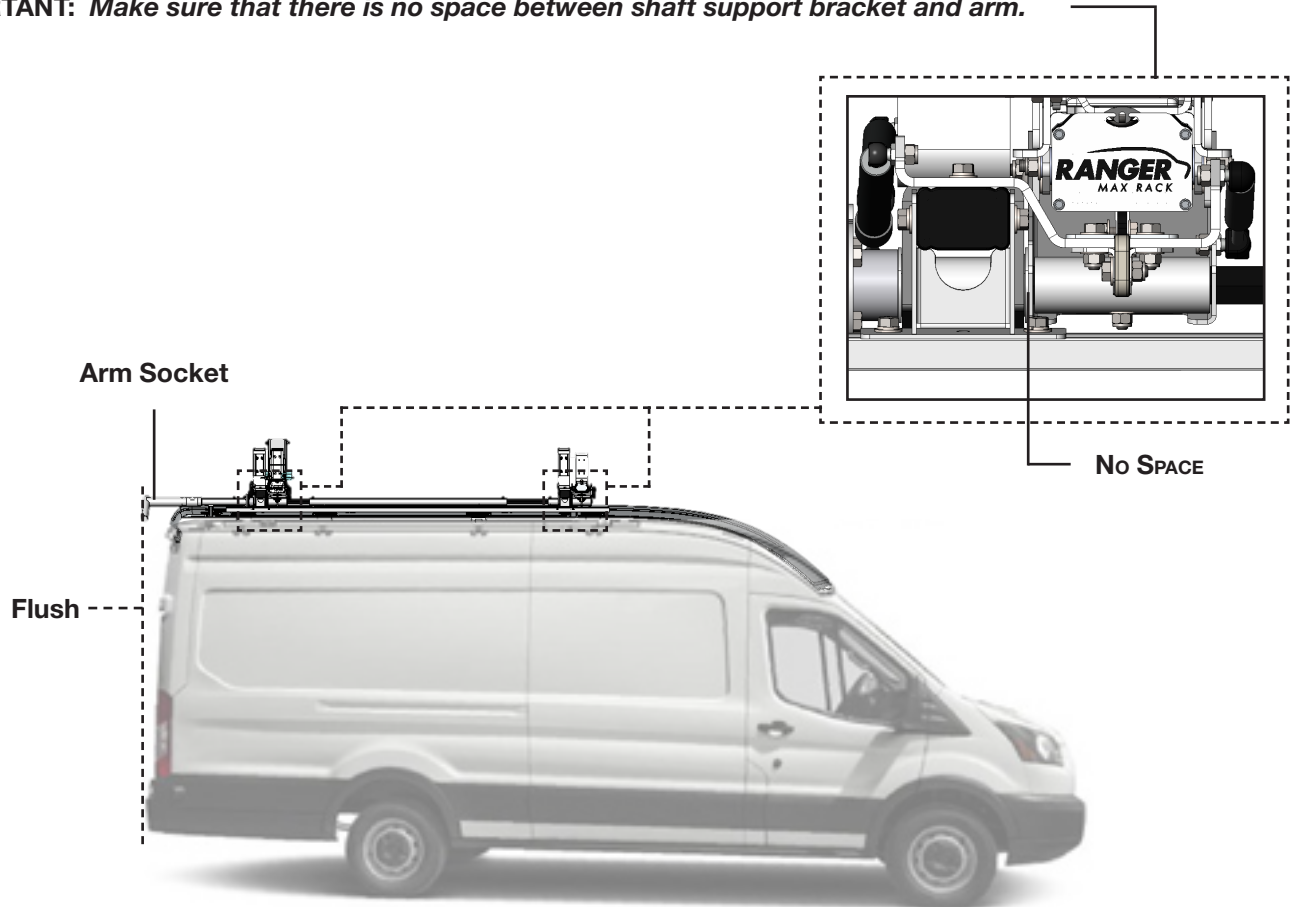
VEHICLE	CROSSBAR CENTER TO CENTER DISTANCE	LADDER SIZE
TRANSIT 148" & 148" EXT. WB (FTL)	MAXIMUM: 89" ( 2 <sup>ND</sup> & 2 <sup>ND</sup> HOLES )	MAXIMUM: EXTENSION 32', STEP 10'
	MINIMUM: 65" ( 5 <sup>TH</sup> & 3 <sup>RD</sup> HOLES )	MAXIMUM: EXTENSION 24', STEP 8'

- 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.*







#### TOOLS

- Ratchet
- 1/2" Socket

#### FASTENERS USED

**8x**

- |  |                             |
|--|-----------------------------|
|  | #90-209 Hex Bolt 5/16" x 1" |
|  | #98-123 Lock Washer         |
|  | #98-117 Flat Washer         |
|  | #94-150 Channel Nut         |

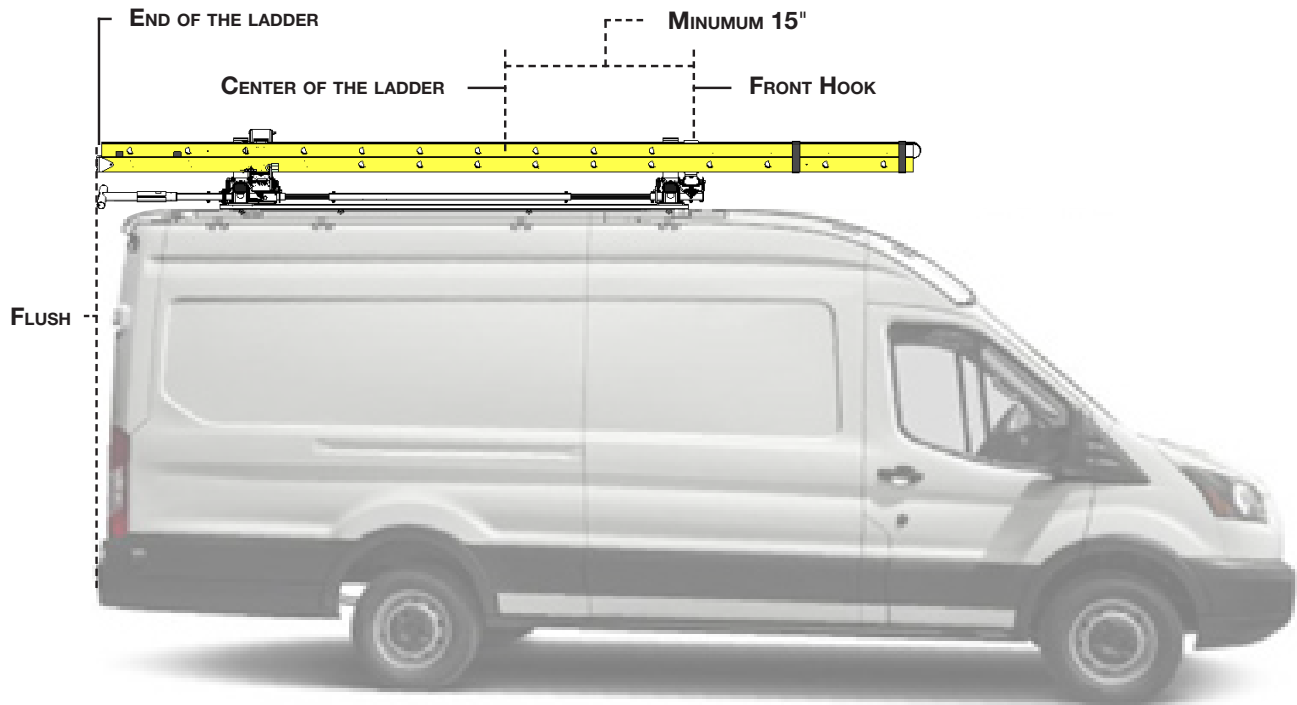
# PHASE 3 – ADJUSTMENT

## 3.1 ADJUSTMENT FOR MAX RACK

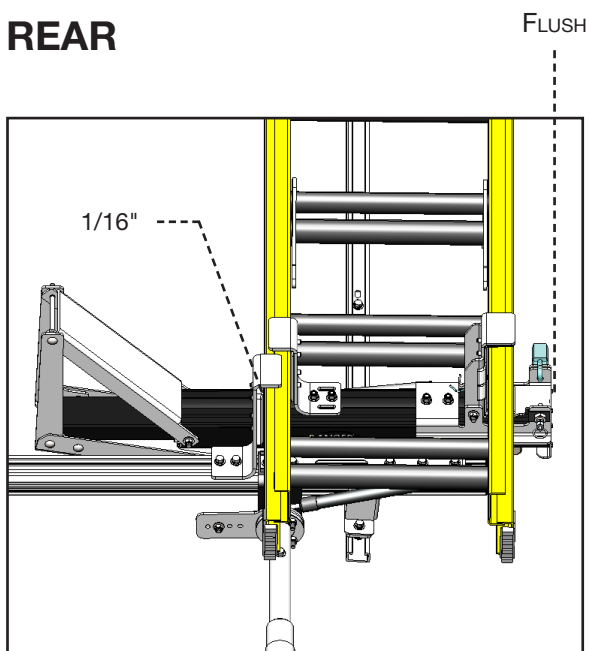
- 3.1.1** • Place the Max Rack in the down position.  
• Load the ladder onto the Max Rack.

**NOTE:** These conditions must be respected:

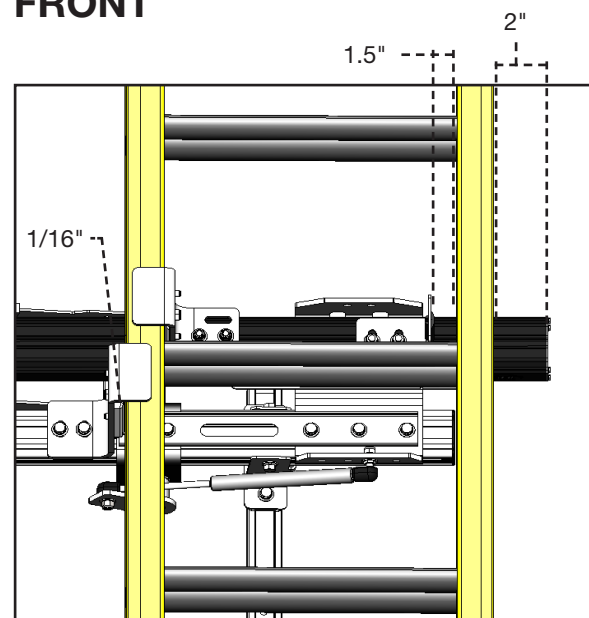
- The arm socket and the ladder cannot extend beyond the rear bumper of the vehicle.
- The center of the ladder must be behind the front hook when the ladder is loaded.



### REAR



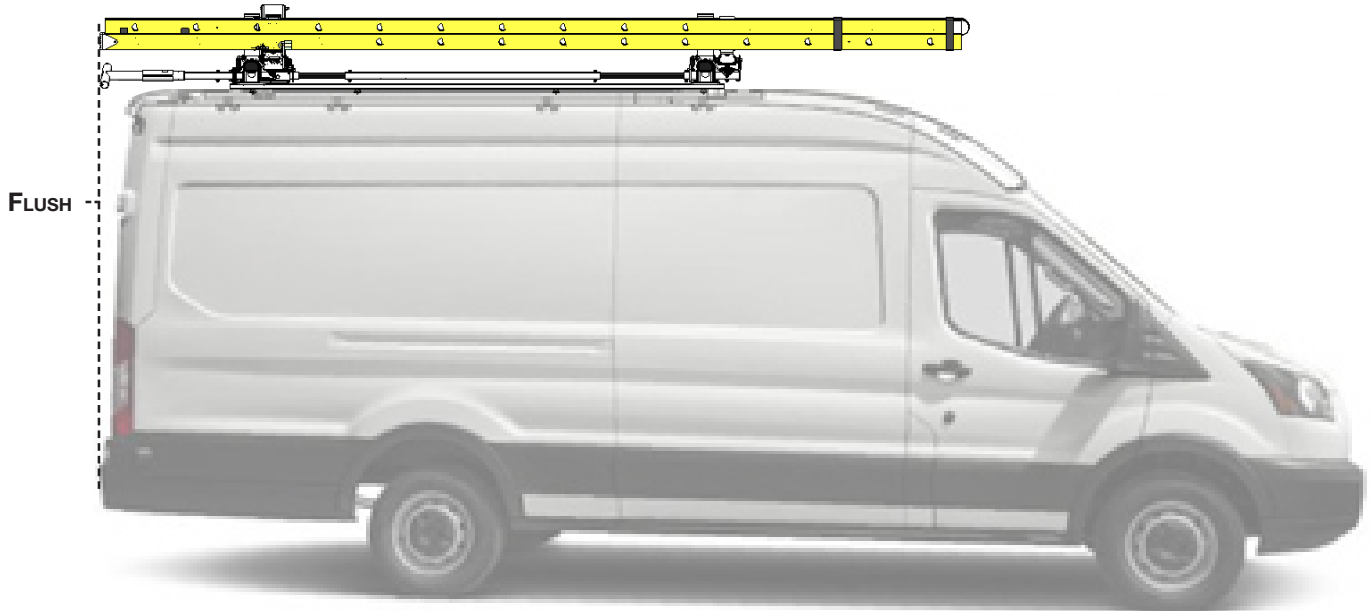
### FRONT



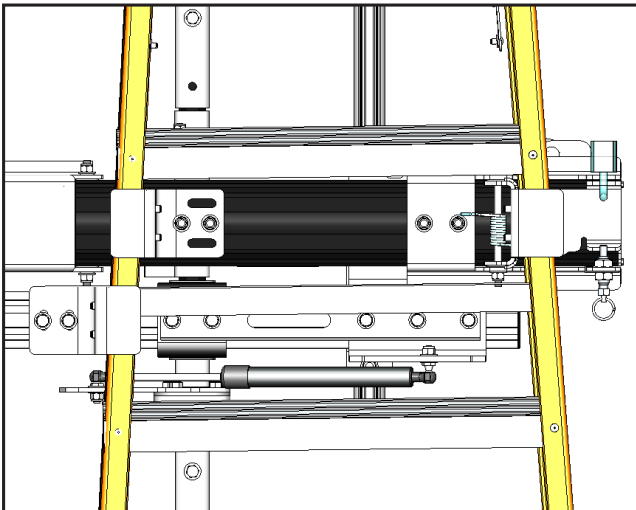
## STEP LADDER INSTALLATION

**NOTE:** These conditions must be respected:

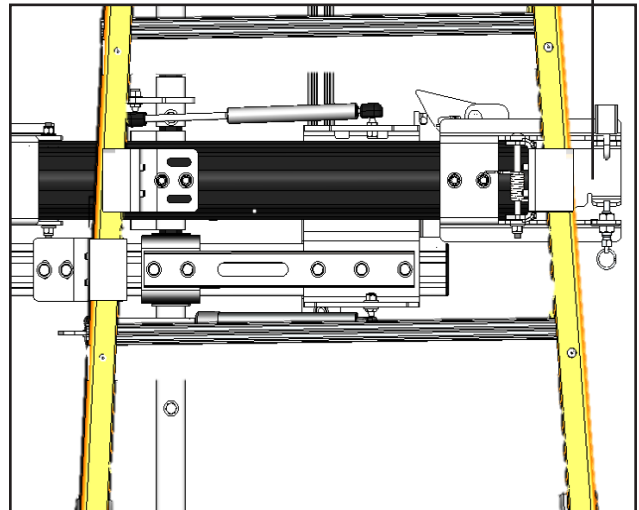
- The arm socket and the ladder cannot extend beyond the rear bumper of the vehicle.
- The center of the ladder must be behind the front hook when the ladder is loaded.



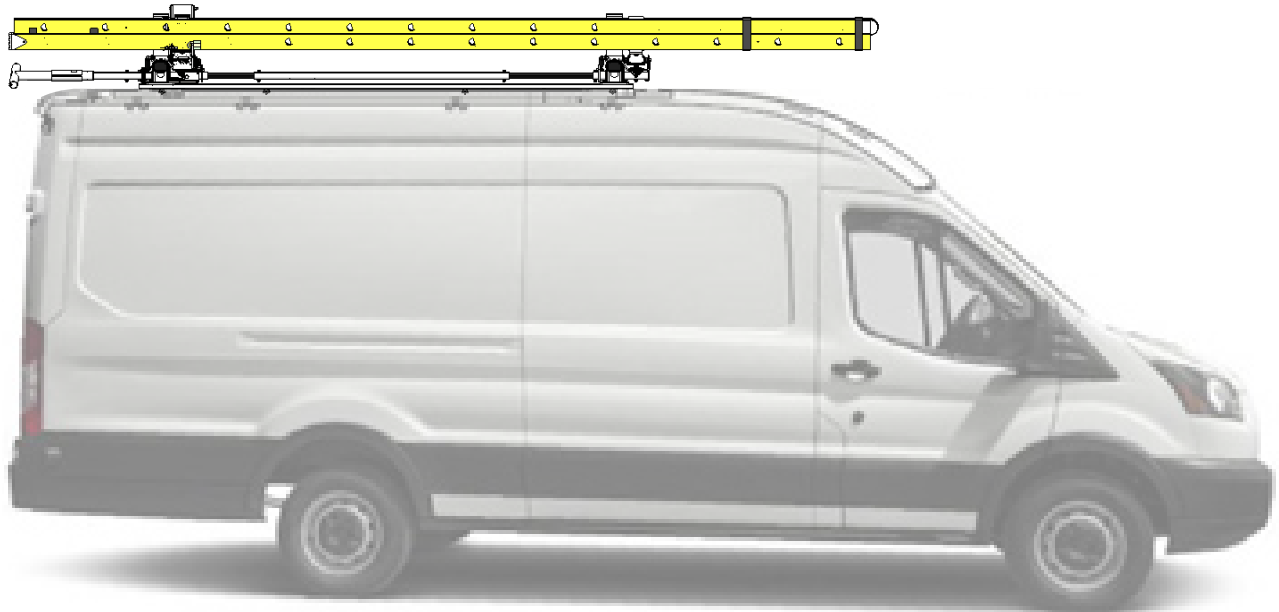
### 8' STEP LADDER



### 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 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)

