# RHINO-RACK<sup>®</sup> ROOF RACK MOUNT KIT

## P/N 2889233; 2889234

## **BEFORE YOU BEGIN**

Read these instructions and check to be sure all parts and tools are accounted for. Please retain these installation instructions for future reference and parts ordering information.

P#LARIS

ENGINEERED PARTS ACCESSORIES & APPAREL

## APPLICATION

Verify accessory fitment at www.polaris.com.

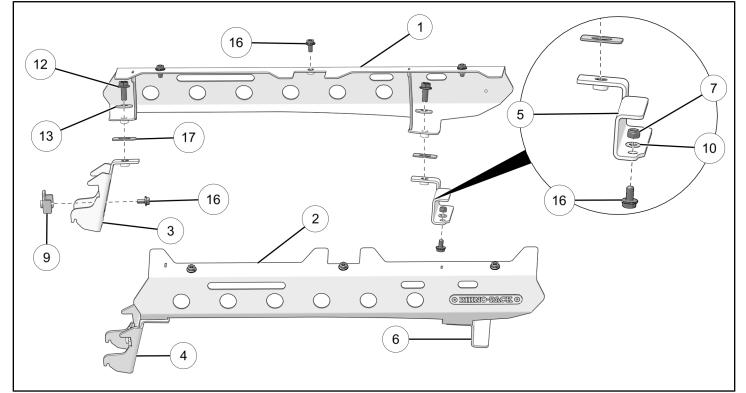
## **REQUIRED SOLD SEPARATELY**

Only parts for installation of the Rhino-Rack<sup>®</sup> Roof Rack Mount Kit are included. For complete installation, the following additional kit is required (sold separately):

- Platform Rack Kit Three passenger, P/N 2889236
- Platform Rack Kit Crew, P/N 2889237

## **KIT CONTENTS**

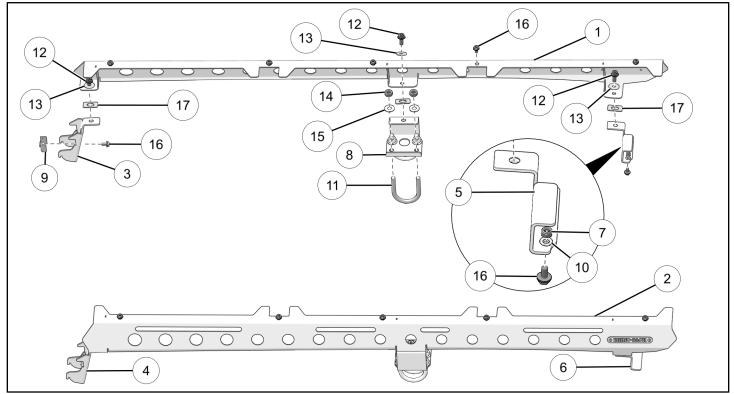
#### PLATFORM ROOF RACK BACKBONE-THREE PASSENGER P/N 2889233



REF	QTY	PART DESCRIPTION	P/N AVAILABLE SEPARATELY	AVAILABLE SERVICE KIT
1	1	Weld – Cab Backbone, Crew, Left	n/a	n/a
2	1	Weld – Cab Backbone, Crew, Right	n/a	n/a
3	1	Weld – Front Internal Bracket, Left	n/a	2209070
4	1	Weld – Front Internal Bracket, Right	n/a	2209070

REF	QTY	PART DESCRIPTION	P/N AVAILABLE SEPARATELY	AVAILABLE SERVICE KIT
5	1	Weld – Rear Internal Bracket, Left	n/a	2209070
6	1	Weld – Rear Internal Bracket, Right	n/a	2209070
7	2	Nut – M6 x 1.0 mm	n/a	n/a
8	—	— unused	—	—
9	2	Weld – Rear Internal Backer Plate	n/a	2209070
10	2	Washer – M6 x 12.4 x 1.1 mm	n/a	n/a
11	_	— unused	—	—
12	4	Screw – Hex Bolt, M8 x 1.25 x 20 mm	n/a	2209072
13	4	Washer – M8 x 25.1 x 1.9 mm	n/a	n/a
14	—	— unused	—	—
15		— unused	—	—
16	10	Screw – Hex Flange, M6 x 1.0 x 12 mm	n/a	2209070
17	4	Seal – Backbone Base	n/a	2209337

## PLATFORM ROOF RACK BACKBONE-CREW P/N 2889234



REF	QTY	PART DESCRIPTION	P/N AVAILABLE SEPARATELY	AVAILABLE SERVICE KIT
1	1	Weld – Cab Backbone, Crew, Left	n/a	n/a
2	1	Weld – Cab Backbone, Crew, Right	n/a	n/a
3	1	Weld – Rear Internal Bracket, Left	n/a	2209070
4	1	Weld – Rear Internal Bracket, Right	n/a	2209070

REF	QTY	PART DESCRIPTION	P/N AVAILABLE SEPARATELY	AVAILABLE SERVICE KIT
5	1	Weld – Front Internal Bracket, Left	n/a	2209070
6	1	Weld – Front Internal Bracket, Right	n/a	2209070
7	2	Nut – M6 x 1.0 mm	n/a	n/a
8	2	Weld – Center Mount Bracket	n/a	2209071
9	2	Weld – Rear Internal Backer Plate	n/a	2209070
10	2	Washer – M6 x 12.4 x 1.1 mm	n/a	n/a
11	4	U-Bolt – M10 x 1.5 x 5/16 inch ID	n/a	2209071
12	6	Screw – Hex Bolt, M8 x 1.25 x 20 mm	n/a	2209072
13	6	Washer – M8 x 25.1 x 1.9 mm	n/a	n/a
14	8	Nut – Hex, M10 x 1.5 mm	n/a	n/a
15	8	Washer – 10.5 x 24 x 2.4 mm	n/a	n/a
16	14	Screw – Hex Flange, M6 x 1.0 x 12 mm	n/a	2209070
17	6	Seals – Backbone Base	n/a	2209337

# **TOOLS REQUIRED**

- Safety Glasses
- Drill
- Drill Bit:
  - 1/4 in (6 mm)
  - 3/8 in (9 mm)
- Pliers, Push Pin Rivet
- Pry Tool
- Push Dart (Panel Clip) Tool

## **CONSUMABLES REQUIRED**

- · Cloth, Non-Abrasive (Cheesecloth or equivalent)
- Isopropyl Alcohol (IPA)
- Gloves, Chemical Resistant

## **IMPORTANT**

Your Rhino-Rack<sup>®</sup> Roof Rack Mount Kit is exclusively designed for your vehicle. Please read the installation instructions thoroughly before beginning. Installation is easier if the vehicle is clean and free of debris. For your safety, and to ensure a satisfactory installation, perform all installation steps correctly in the sequence shown.

# INSTALLATION INSTRUCTIONS

#### **VEHICLE PREPARATION**

GENERAL

- 2. Shift vehicle into PARK.
- 3. Turn key to OFF position and remove key.

1. Park vehicle on a flat surface.

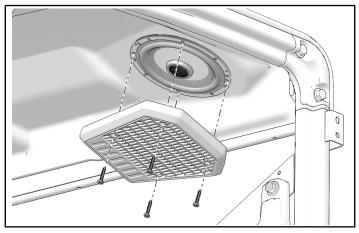
- Scissors
- Screwdriver Set, Torx®
- Socket Set, Hex Bit, Metric
- Socket Set, Metric
- Socket Set, Torx® Bit
- Torque Wrench
- Wrench Set, Metric

## ACCESSORY REMOVAL IF EQUIPPED

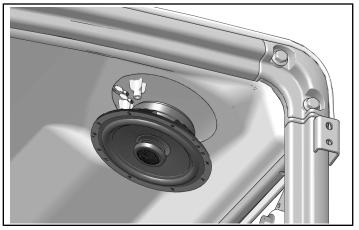
#### REAR SPEAKER REMOVAL

NOTICE Left side shown; right side similar.

1. Remove and keep four screws holding speaker grill and speaker. Set speaker grill aside.



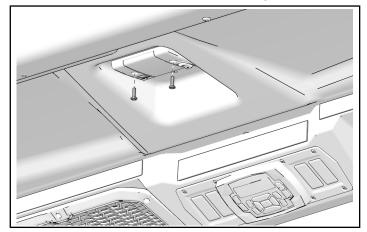
2. Disconnect speaker harness from negative (–) terminal and positive (+) terminal on speaker.



3. Set speaker aside.

## DOME LIGHT REMOVAL

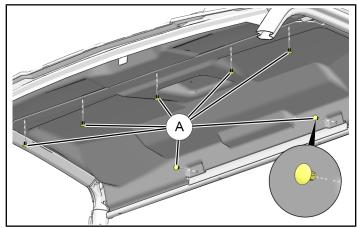
1. Remove two screws to from dome light.



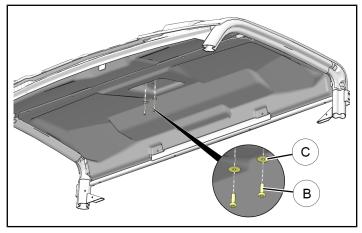
- 2. Pull dome light away from roof liner.
- 3. Disconnect dome light harness.

## ROOF LINER REMOVAL-THREE PASSENGER

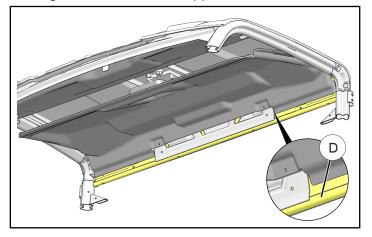
- 1. Remove optional (roof mounted) speakers and/or dome light, if installed.
- 2. Remove seven push darts (A), two from rear edge and five from front edge. Retain push darts.



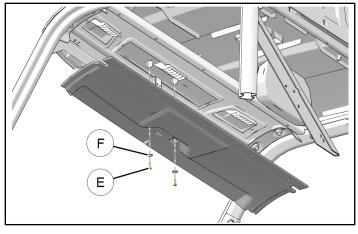
3. Remove two each screws (B) and washers (C) (if installed).



4. Carefully pull LH and RH edges of liner from between ROPS and roof seal, then remove rear edge of liner from roof support channel D.



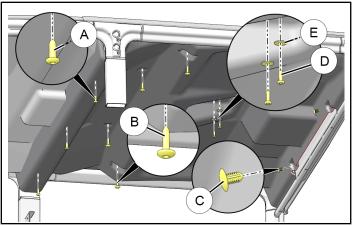
5. Remove visor liner by removing two each screws
(E) and washers (F). Retain hardware.



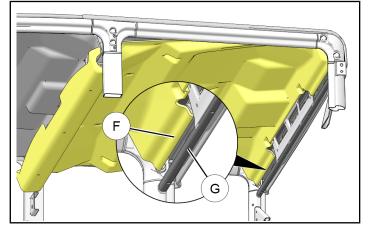
## ROOF LINER REMOVAL-CREW

#### REAR LINER

- 1. Remove optional (roof mounted) speakers and/or dome light, if installed.
- 2. Remove three screws (A) beneath B-pillar crossmember, four screws (B), two push darts (C), and two each screws (D) and washers (E) (if installed). Retain hardware.

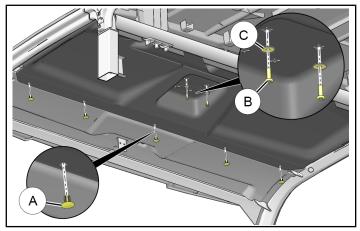


 Carefully pull LH and RH edges of liner down from between ROPS and roof seal, then remove rear edge of liner (f) from roof support channel (g).

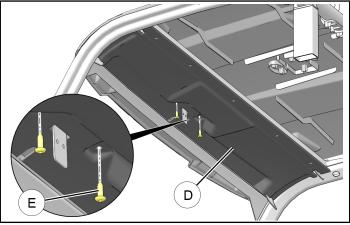


#### FRONT LINER

- 1. Remove optional (roof mounted) speakers and/or dome light, if installed.
- Remove five push darts (A), and two each screws
   (B) and washers (C) (if installed).



- 3. Carefully pull LH and RH edges of liner from between ROPS and roof seal.
- 4. Remove visor liner (1) by removing two each screws (E). Retain hardware.



# REMOVE ROOF ONLY IF AUDIO VISOR IS INSTALLED

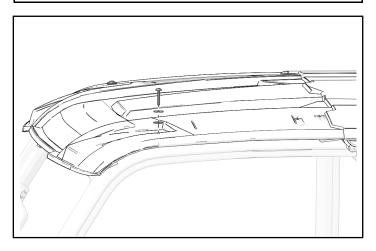
## ROOF REMOVAL-THREE PASSENGER

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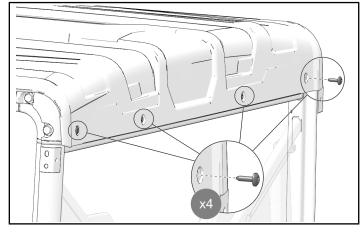
1. Remove and keep two screws and four washers holding front roof panel to upper front ROPS bar.

#### NOTICE

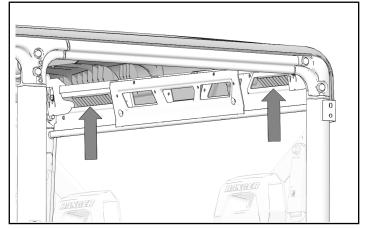
Some vehicle models may have speed nuts located in upper front ROPS inside the vehicle.



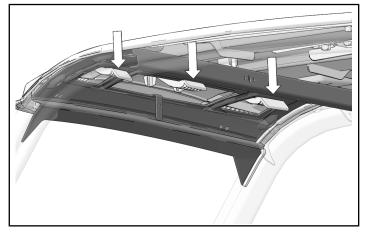
2. Remove and keep four screws holding rear roof panel to upper rear ROPS bar.



3. Bend rear edge of roof panel to unlock rear tabs from upper rear ROPS bar.



4. Move roof panel forward until three front hooks unlock from upper front ROPS bar.



5. Remove roof and set aside.

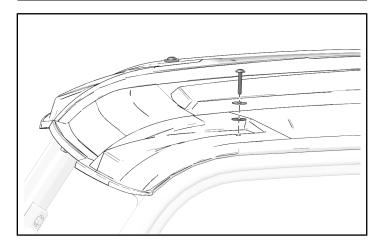
#### ROOF REMOVAL-CREW

#### ROOF REMOVAL-CREW

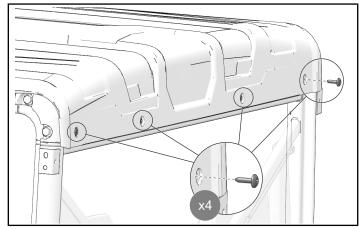
1. Remove and keep two screws and four washers holding front roof panel to upper front ROPS bar.

#### NOTICE

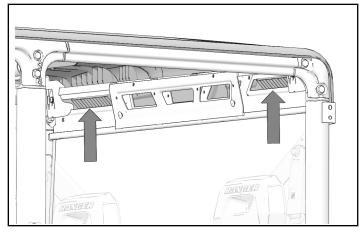
Some vehicle models may have speed nuts located in upper front ROPS inside the vehicle.



2. Remove and keep four screws holding rear roof panel to upper rear ROPS bar.

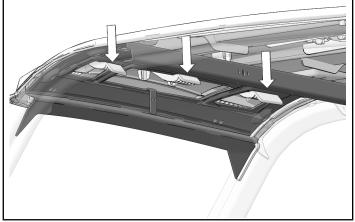


3. Bend rear edge of roof panel to unlock rear tabs from upper rear ROPS bar.



4. Remove roof panel hooks from middle ROPS bar.

5. Move roof panel forward until three front hooks unlock from upper front ROPS bar.



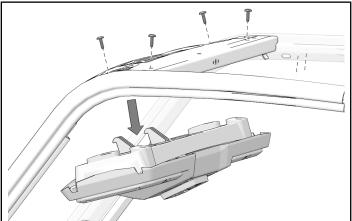
6. Remove roof and set aside.

#### AUDIO VISOR REMOVAL

#### IMPORTANT

It is recommended that two people remove the audio visor from the ROPS. The audio visor is heavy and may be difficult for one person to easily handle.

- 1. Disconnect audio visor electrical harness.
- 2. Remove and keep four screws from ROPS and audio visor.



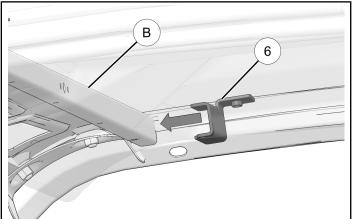
3. Set aside audio visor.

## **ACCESSORY INSTALLATION**

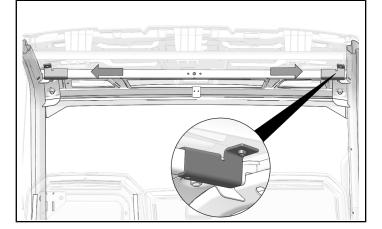
#### FRONT INTERNAL BRACKET INSTALLATION

NOTE Right side shown; left side similar.

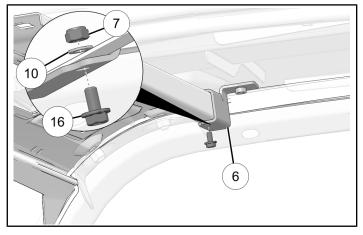
 Install front internal bracket 6 onto upper front ROPS bar 
 B.



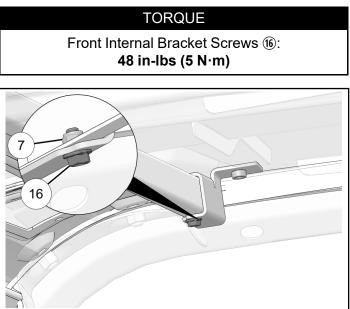
2. Slide each bracket to outside edges of vehicle.



- 3. Align hole on bottom of bracket with hole on upper ROPS bar.
- 4. Install front internal bracket (6) to upper front ROPS with washer (10), screw (16), and nut (7).



5. Counter-hold nut ⑦ and torque front internal bracket screws ⓑ to specification.

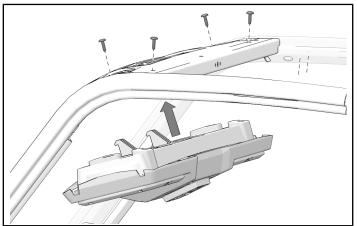


#### AUDIO VISOR INSTALLATION

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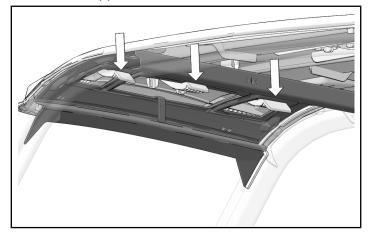
1. Install audio visor to upper front ROPS with four screws.



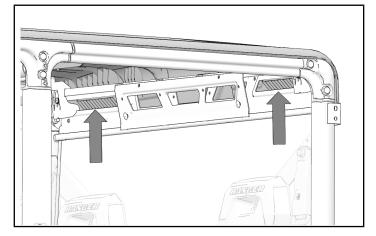
2. Connect audio visor electrical harness.

#### **ROOF INSTALLATION-THREE PASSENGER**

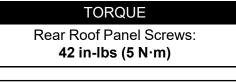
1. Move roof panel rearward until three front hooks lock into upper front ROPS bar.

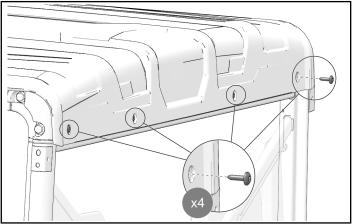


2. Install rear edge of roof panel into rear tabs on upper rear ROPS bar.



3. Install four screws to rear roof panel and upper rear ROPS bar. Torque to specification.





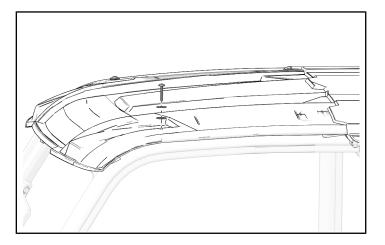
4. Install roof to front ROPS with two screws and four washers. Torque to specification.

NOTICE

Some vehicle models may have speed nuts located in upper front ROPS inside the vehicle.

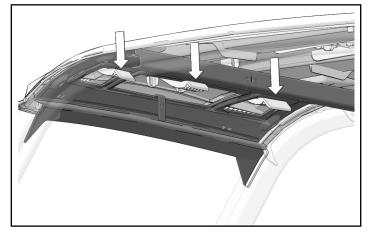
#### TORQUE

Front Roof Panel Screws: 42 in-Ibs (5 N·m)

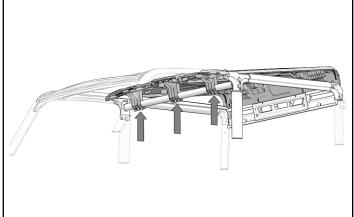


## **ROOF INSTALLATION-CREW**

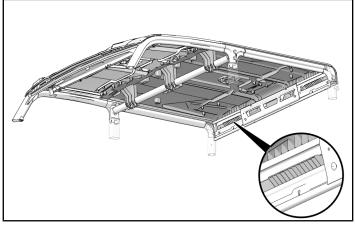
1. Install tabs on front roof panel through openings on front upper ROPS bar. Move roof panel rearward until hooks lock into upper ROPS bar.



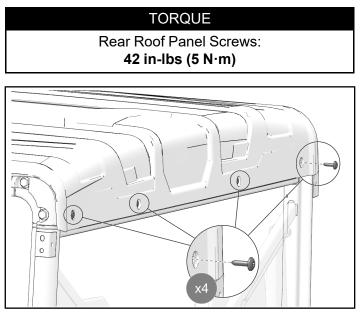
2. Install roof panel hooks onto middle ROPS bar.



3. Push down on rear edge of roof panel to lock the rear tabs into upper rear ROPS bar.



4. Attach rear edge of roof panel to vehicle with four screws. Torque to specification.



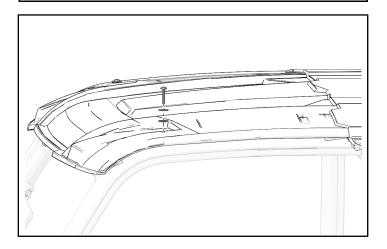
5. Install roof to front ROPS with two screws and four washers. Torque to specification.

NOTICE

Some vehicle models may have speed nuts located in upper front ROPS inside the vehicle.

#### TORQUE

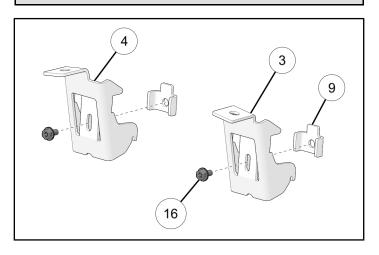
Front Roof Panel Screws: 42 in-lbs (5 N·m)



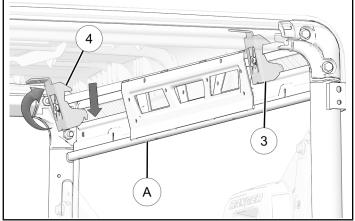
# REAR INTERNAL BRACKET ASSEMBLY AND INSTALLATION

1. Loosely install screw (6) and rear internal bracket clamps (9) to left rear internal bracket (3) and right rear internal bracket (4).

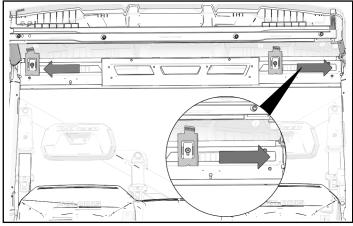
Do not torque screws at this time.



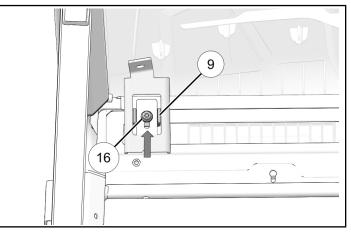
 Install left rear internal bracket ③ and right rear internal bracket ④ to upper rear Roll Over Protection System (ROPS) ④.



3. Move each bracket toward outer edges of upper rear ROPS.



4. Move bracket clamp (9) up and hand tighten screw(6). Repeat for opposite side.



## DRILL FRONT INTERNAL BRACKET HOLES

NOTICE

Audio visor hidden for clarity.

#### NOTICE

Right side shown; left side similar.

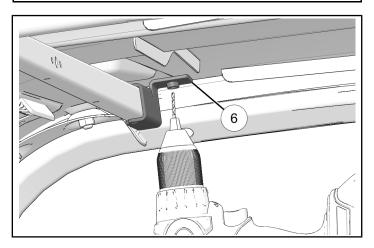
- 1. Use front internal bracket as a template.
- 2. Drill hole through threaded hole on front internal bracket <sup>(6)</sup> and through the underside of the roof.

## MEASUREMENT

Drill Bit Size: 1/4 in (6 mm)

#### IMPORTANT

Be careful not to damage the threads in the weld nut on the internal brackets.



3. From outside the vehicle, drill a larger hole through previously drilled front internal bracket hole.

#### IMPORTANT

Control drill depth to avoid thread damage to weld nut.

#### MEASUREMENT

Drill Bit Size: 3/8 in (9 mm)

## DRILL REAR INTERNAL BRACKET HOLES

#### NOTICE

Right side shown; left side similar.

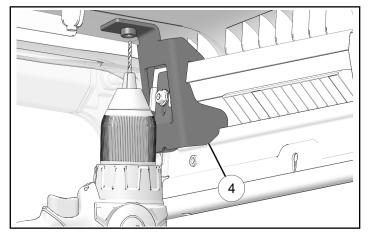
- 1. Use rear bracket as a template.
- 2. Drill hole through threaded hole on rear internal bracket ④ and through the underside of the roof.

#### MEASUREMENT

Drill Bit Size: 1/4 in (6 mm)

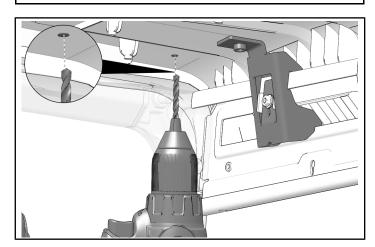
#### IMPORTANT

Be careful not to damage the threads in the clinch nut on the internal brackets.



- 3. Loosen screw on rear internal bracket and slide bracket aside.
- 4. From inside the vehicle, drill a larger hole through previously drilled rear internal bracket hole.

#### MEASUREMENT Drill Bit Size: 3/8 in (9 mm)



5. Align rear internal bracket hole with drilled hole.

#### BACKBONE SEAL INSTALLATION

1. Clean left and right backbone feet with soft cloth and isopropyl alcohol.

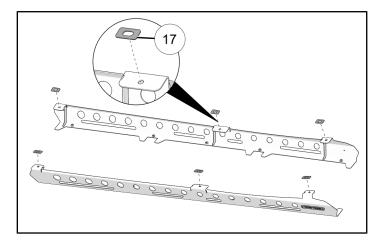
#### **WARNING**

Isopropyl alcohol is hazardous to your health. See isopropyl alcohol packaging for proper handling instruction, including recommended personal protective equipment such as goggles and chemical resistant gloves.

2. Remove backing and attach backbone seals (1) to left and right backbone feet, as shown.

#### IMPORTANT

Do not remove the backing from the roof side of the backbone seal.



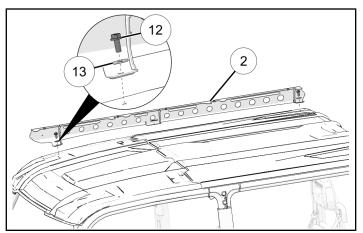
#### DRILL CENTER BACKBONE HOLES-CREW MODELS ONLY

#### NOTICE

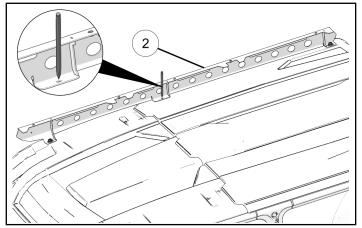
Right side shown; Left side similar.

1. Loosely install right side backbone ② to the roof with two washers ③ and two screws ④ through front and rear holes.

#### Do not torque screws at this time.

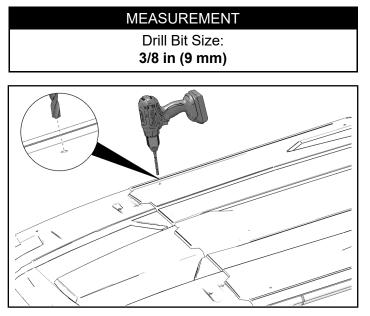


2. Use hole on center foot of right side backbone (2) as a template and mark hole onto roof.



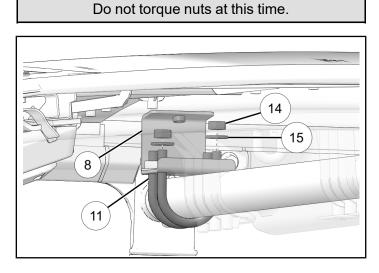
3. Remove screws, washers, and backbone.

#### 4. Drill hole through top of roof.



# U-BOLT INSTALLATION-CREW MODELS ONLY

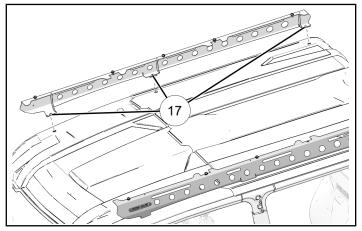
 Install two U-bolts ① around the middle ROPS bar and to the center mount bracket ⑧ with four washers ⑤ and fours nuts ⑭.



2. Repeat for opposite side.

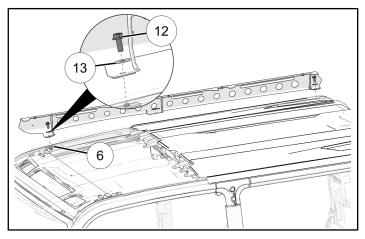
#### **ROOF BACKBONE INSTALLATION**

1. Remove backing from backbone seals ⑦ and align holes on backbone with drilled holes on roof.



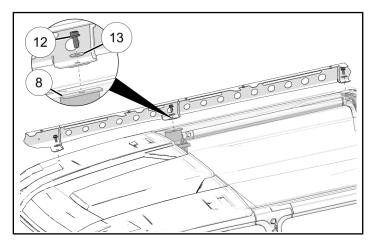
2. Loosely install backbone to roof with washers (3) and screws (1) through front internal bracket (6).

NOTICE Roof hidden for clarity.



- 3. Loosely install backbone to roof with washers (3) and screws (1) through rear internal bracket (4).
- NOTICE Roof hidden for clarity.
- Crew Only: Loosely install backbone to roof with washers (1) and screws (1) through center mount bracket (8).

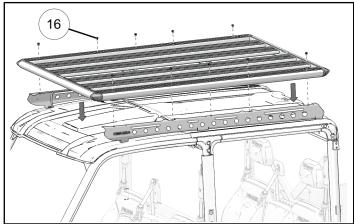
NOTICE Roof hidden for clarity.



- 5. Tighten each screw three turns at a time until they are seated against the roof.
- 6. Repeat for opposite side.

# PLATFORM RACK INSTALLATION

1. Install assembled platform tray to backbones with screws (6).



- 2. If needed, adjust platform rack and backbones for proper alignment.
- 3. Torque all screws with torque tool provided in Platform Rack Kit.

#### NOTICE

Turn each screw with torque tool until it clicks.

## TORQUE BACKBONES

#### NOTICE

Right side shown; left side similar.

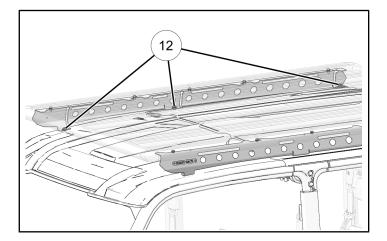
#### NOTICE

Platform roof rack and roof hidden for clarity.

1. Torque front, middle, and rear backbone screws 1 to specification.

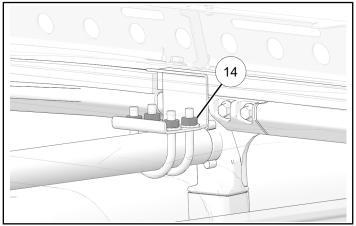
#### TORQUE

Front, Middle, and Rear Backbone Screws <sup>(1)</sup>: 88 in-Ibs (10 N·m)

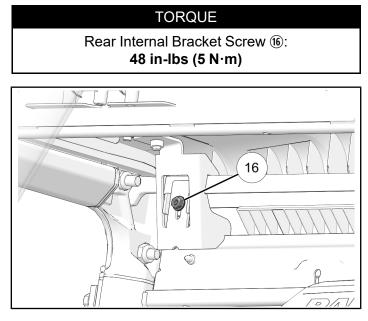


2. Torque U-bolt nuts (4) to specification.





3. Torque rear internal bracket screw (6) to specification.



#### **VEHICLE REASSEMBLY**

#### GENERAL

- 1. Install all cab accessories (if equipped):
  - Roof Liners
  - Dome Light
  - Rear Speakers

# INSTRUCTION FEEDBACK FORM

A feedback form has been created for the installer to provide any comments, questions or concerns about the installation instructions. The form is viewable on mobile devices by scanning the QR code or by clicking **HERE** if viewing on a PC.

