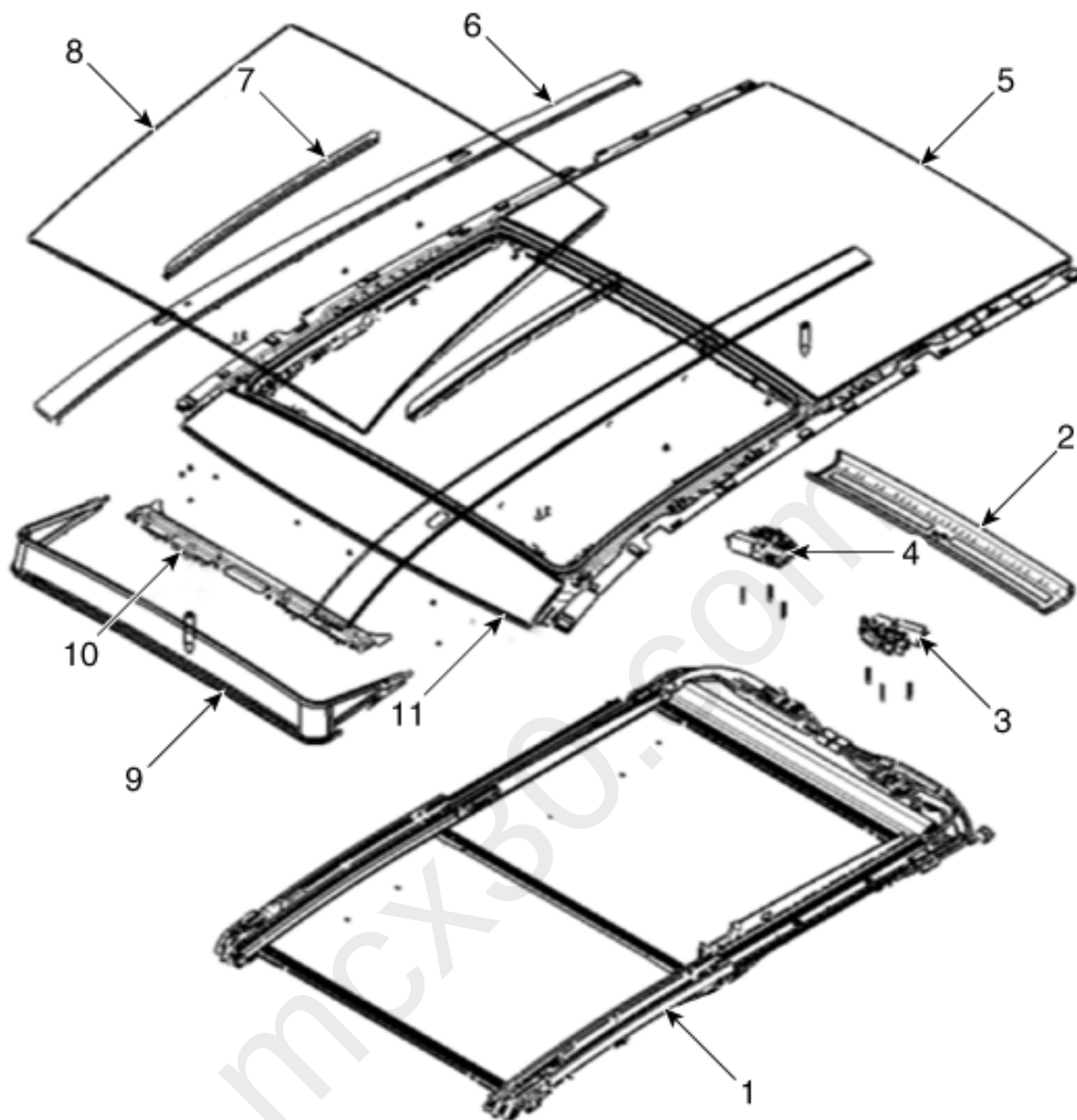




1. Mechanism rail assembly

2. Center cover assembly

3. Roller blind motor

4. Glass motor

5. Panorama sunroof frame assembly

6. Roof side molding

7. Decoration cover

8. Moveable glass

9. Wind deflector

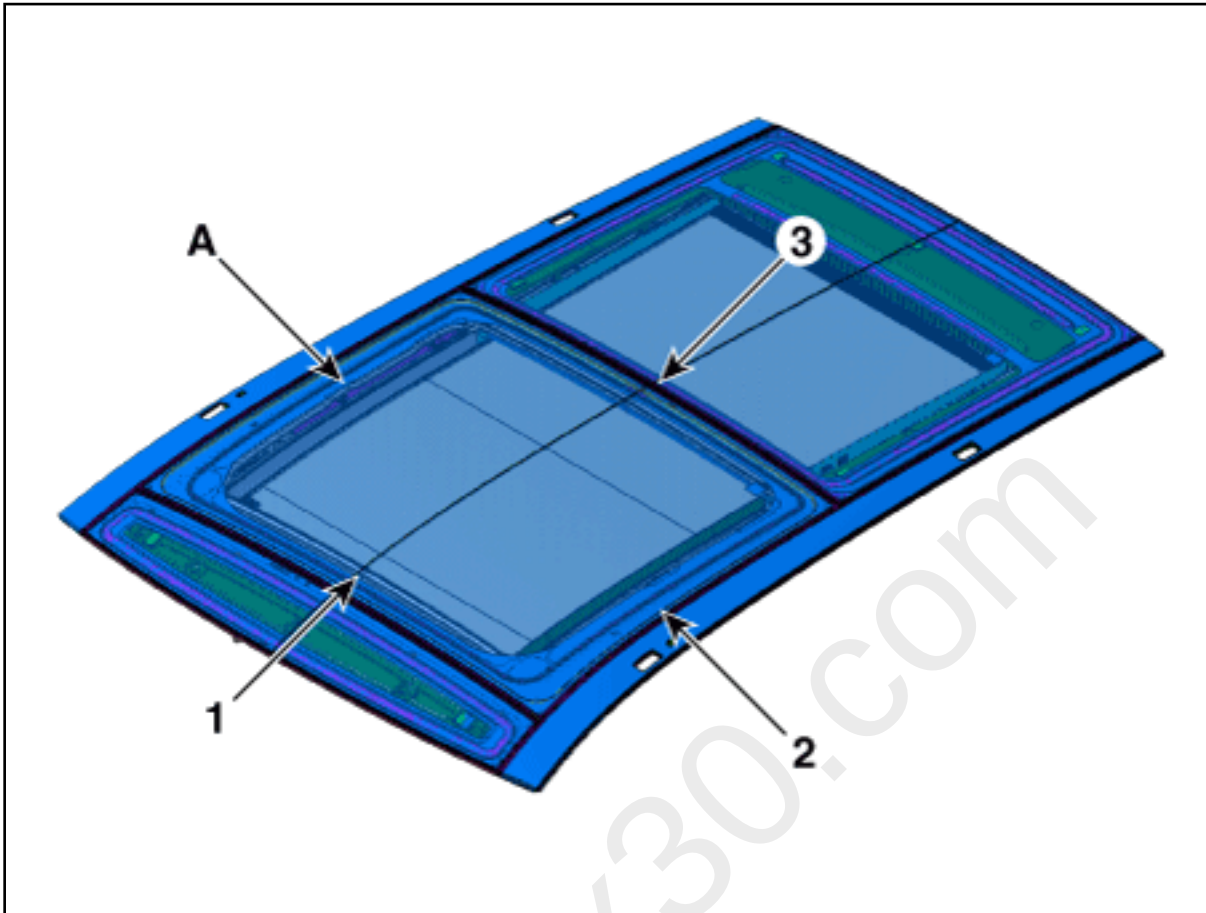
10. Front cover assembly

11. Front glass

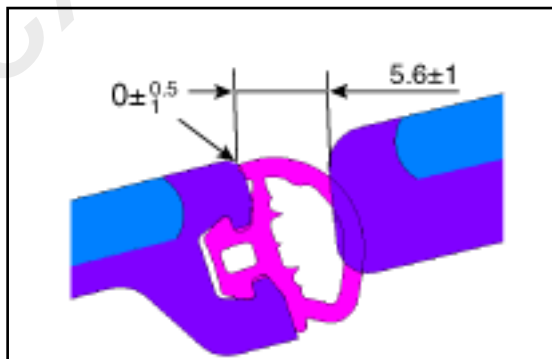
## Alignment

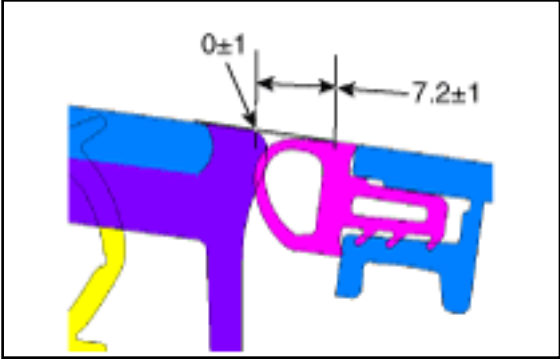
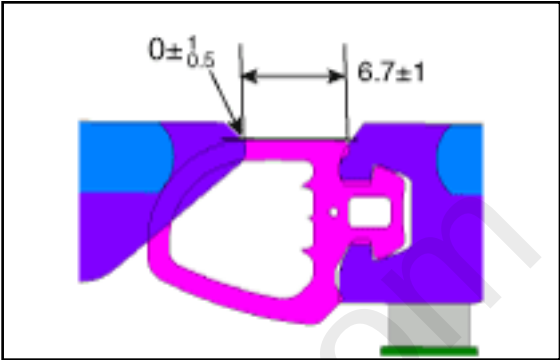
### Glass step alignment

1. Perform considerable step alignment after replacing movable glass (A).



①

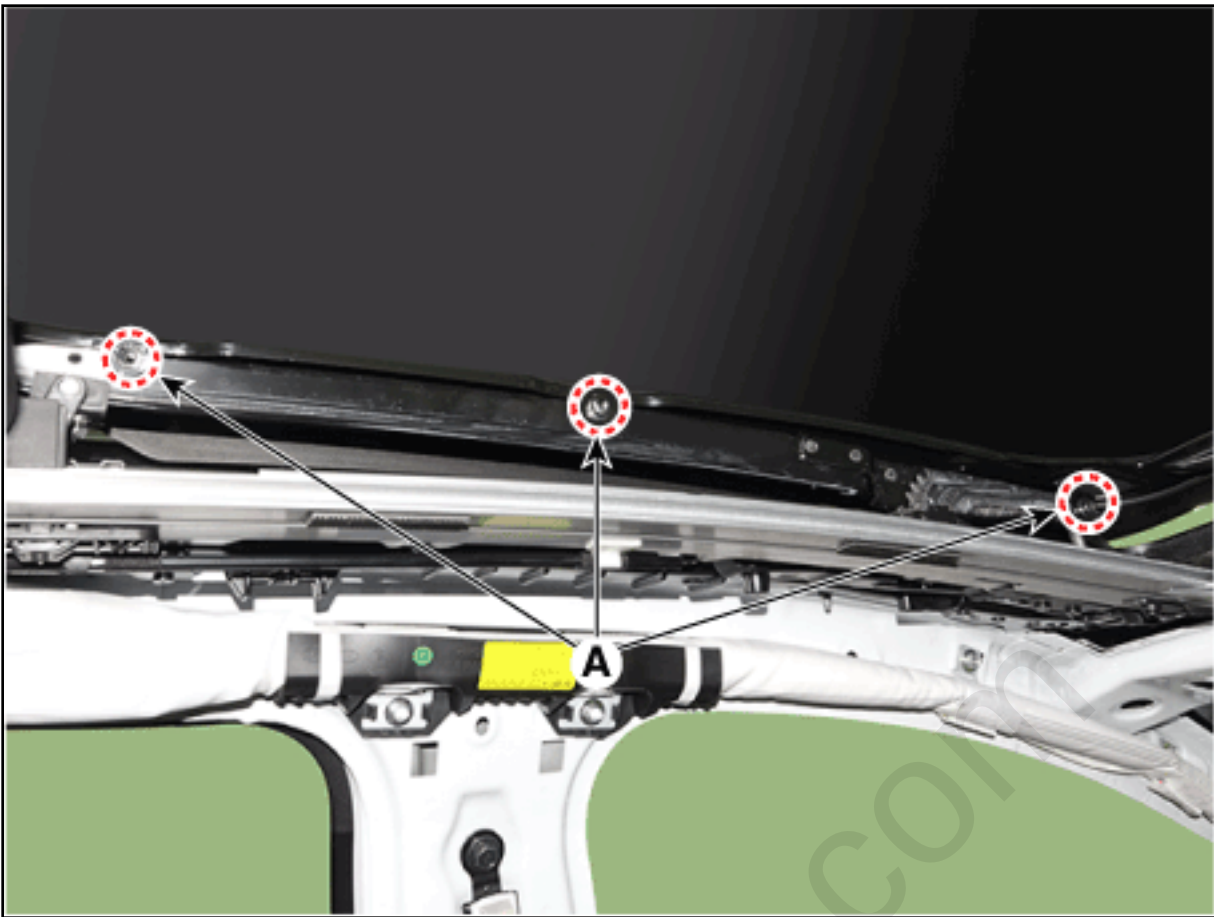


|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ② |  <p>Technical drawing of a mechanical part, likely a bracket or support. It features a central vertical post and a horizontal base. A dimension line indicates a distance of <math>0 \pm 1</math> from the top edge to a specific feature. Another dimension line indicates a distance of <math>7.2 \pm 1</math> from the same feature to the right edge. The part is colored in blue, purple, and yellow.</p>   |
| ③ |  <p>Technical drawing of a mechanical part, likely a bracket or support. It features a central vertical post and a horizontal base. A dimension line indicates a distance of <math>0 \pm 0.5</math> from the top edge to a specific feature. Another dimension line indicates a distance of <math>6.7 \pm 1</math> from the same feature to the right edge. The part is colored in blue, purple, and yellow.</p> |

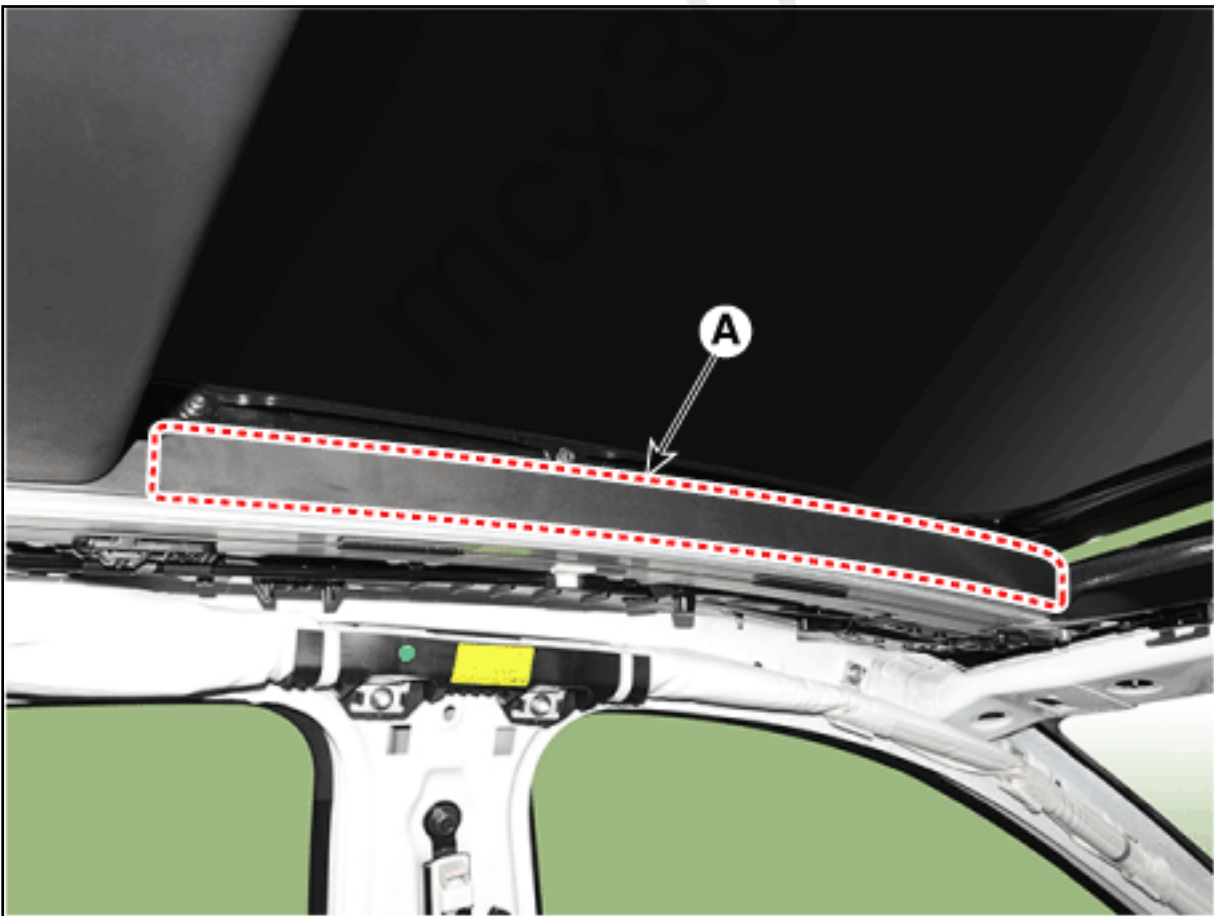
2. Perfrom height adjustment releasing screw (A) a bit.



- Be careful not to damage screws.



3. Remove the decoration cover (A).



4. Tighten the screw (A) completely after adjusting the height and then install the decoration cover.

#### Initializing motor

1. Turn the ignition switch to the ON position or start the engine.
2. Close the blind and glass completely if opened.
3. Release the sunroof control lever.
4. Push the sunroof control lever forward in the direction of close (about 10 seconds) until the blind slightly moves. Then, release the lever.
5. Push the sunroof control lever forward in the direction of close, until the sunroof operates as follows again : Blind Open → Glass Slide Open → Glass Slide Close → Blind Close Then, release the lever. When this is complete, the sunroof system has been reset. (Do not release the lever until the operation is completed. If you release the lever during operation, try again from step 2.)

#### In case of motor initializing

1. First operation after manufactured
2. When rest value is initialized or damaged by power failure or discharging
3. After operating emergency handle
4. When replacing battery and fuse
5. After replacing motor and repairing sunroof

#### Emergency operation

1. Emergency operation of panorama sunroof should not be performed except in case of closing or opening panorama sunroof when motor is defected.
2. Panorama sunroof should be closed or opened after removing roof trim using hexgonal wrench. Do not use excessive force.
3. Perform initialization when necessary according the initialization procedure..

[Movable glass motor]



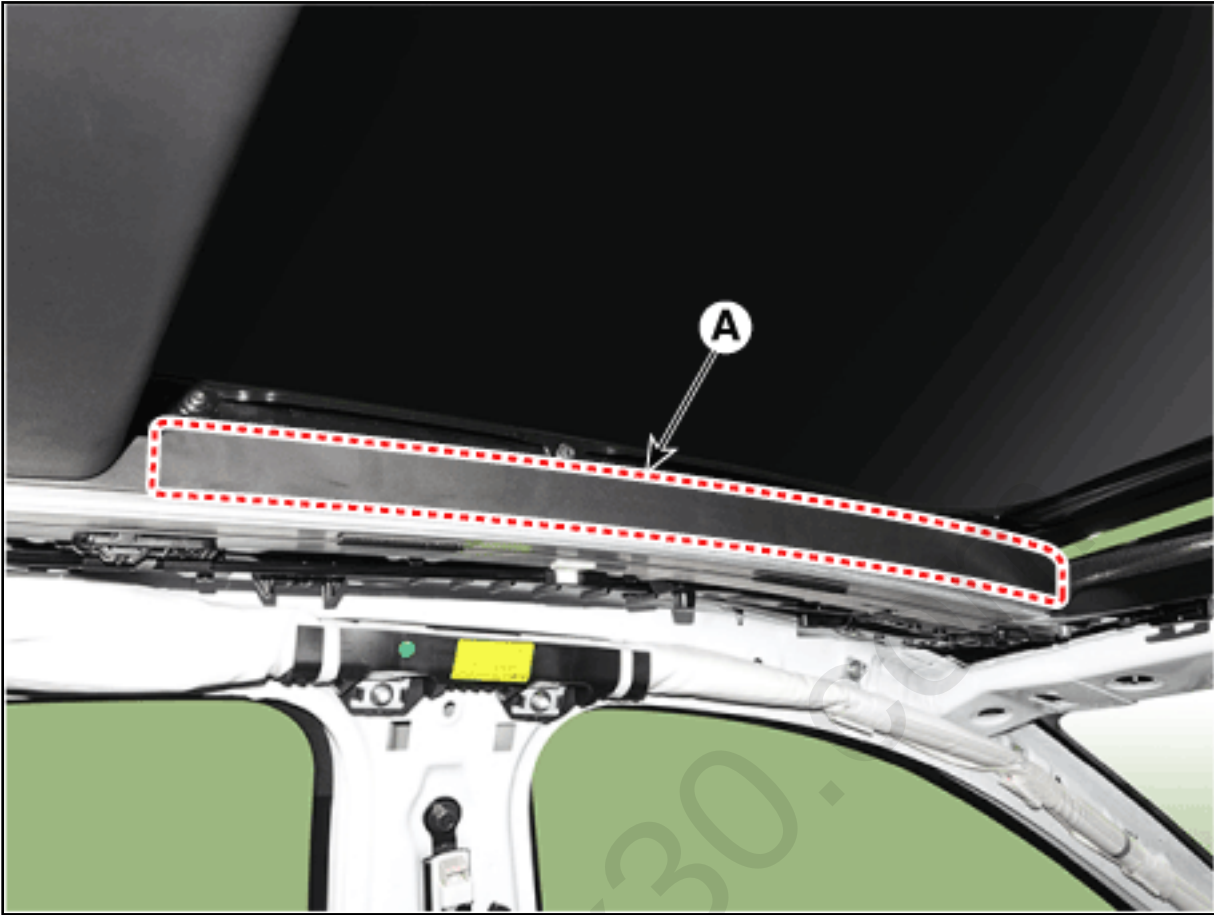
[Roller blind motor]





## Replacement

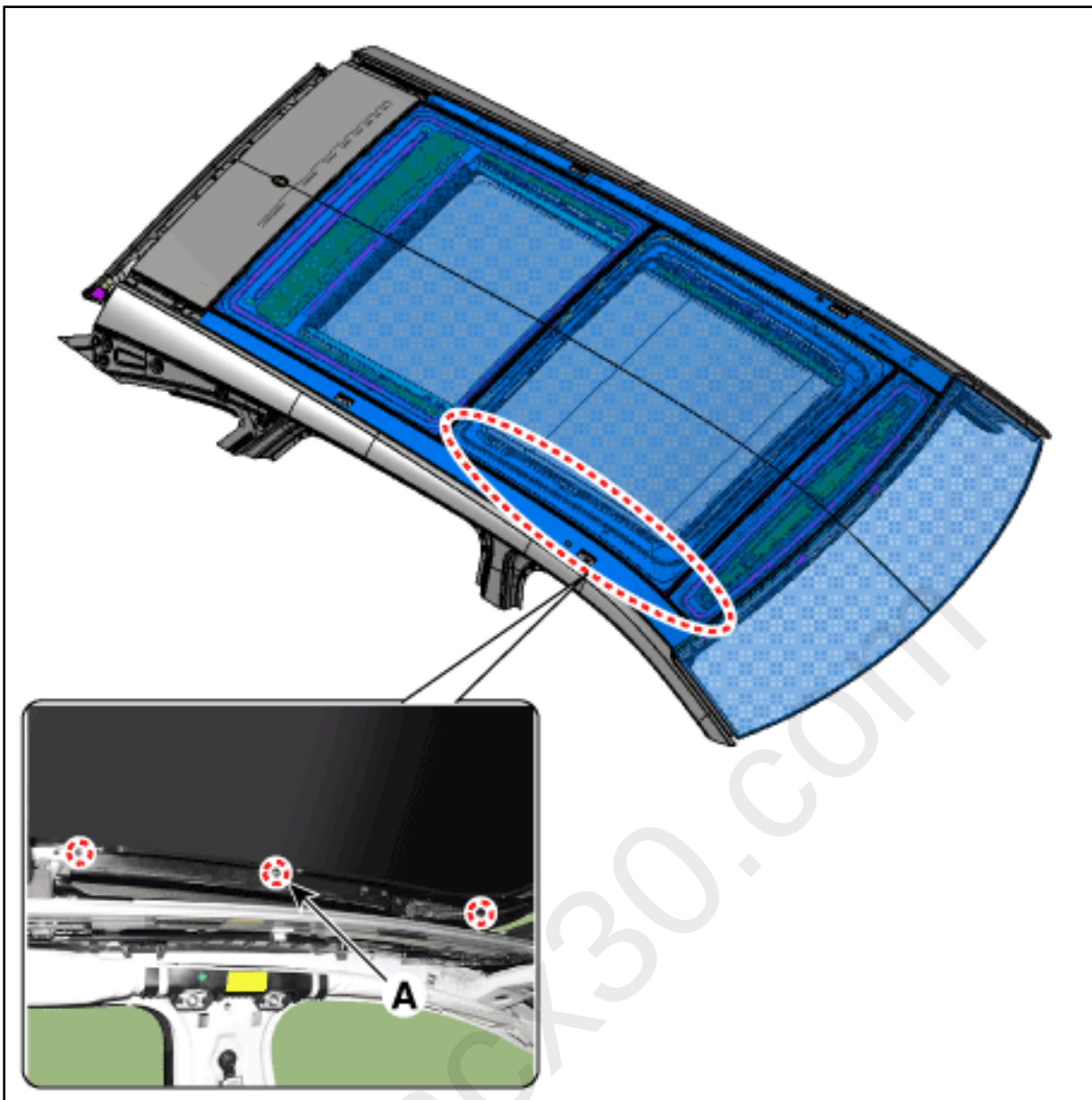
1. Open movable glass completely pressing panorama sunroof switch.
2. Remove the decoration cover (A).



3. Close movable glass completely pressing panorama sunroof switch .
4. Loosen the height adjustment releasing screw (A).



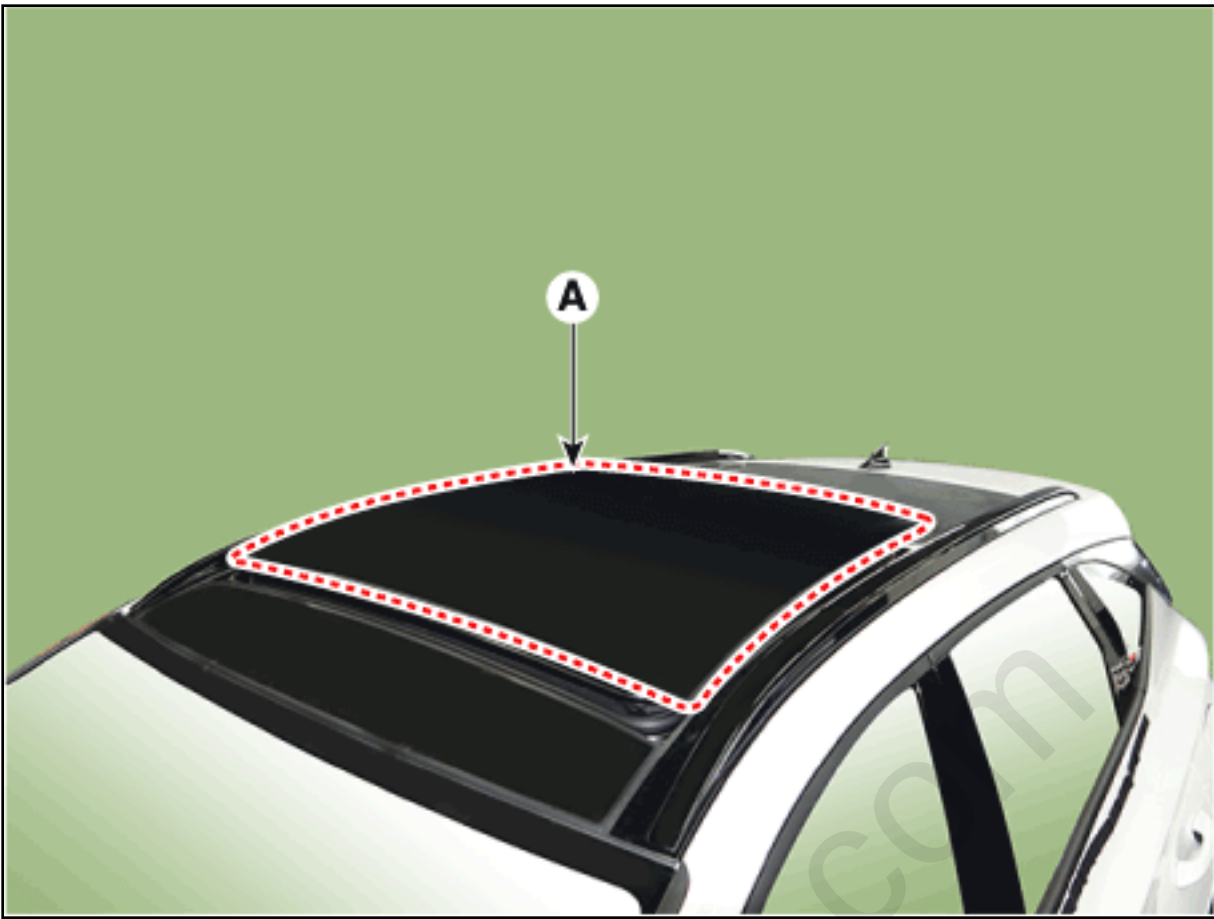
•Be careful not to damage screws.



5. Remove the movable glass (A).



- Be careful not to damage movable glass.



6. To install, reverse the removal procedure.



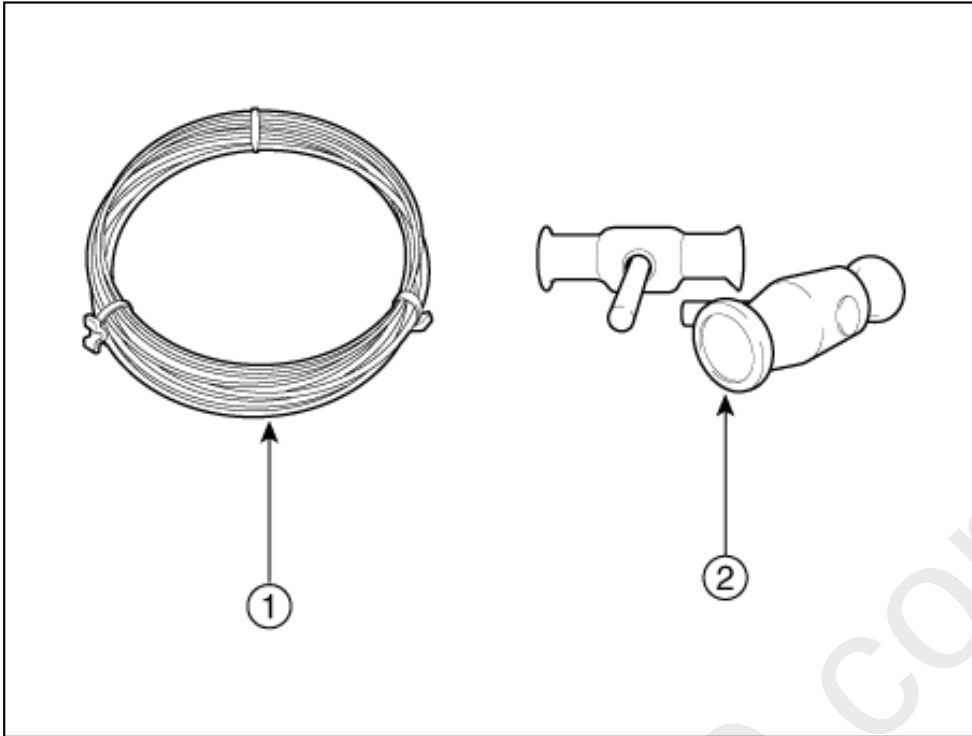
- Carry out considerable step adjustment after exchanging movable glass.

## Removal



- In order to remove the front glass, use the tools shown in the following figure:

### [Tooling Diagram]

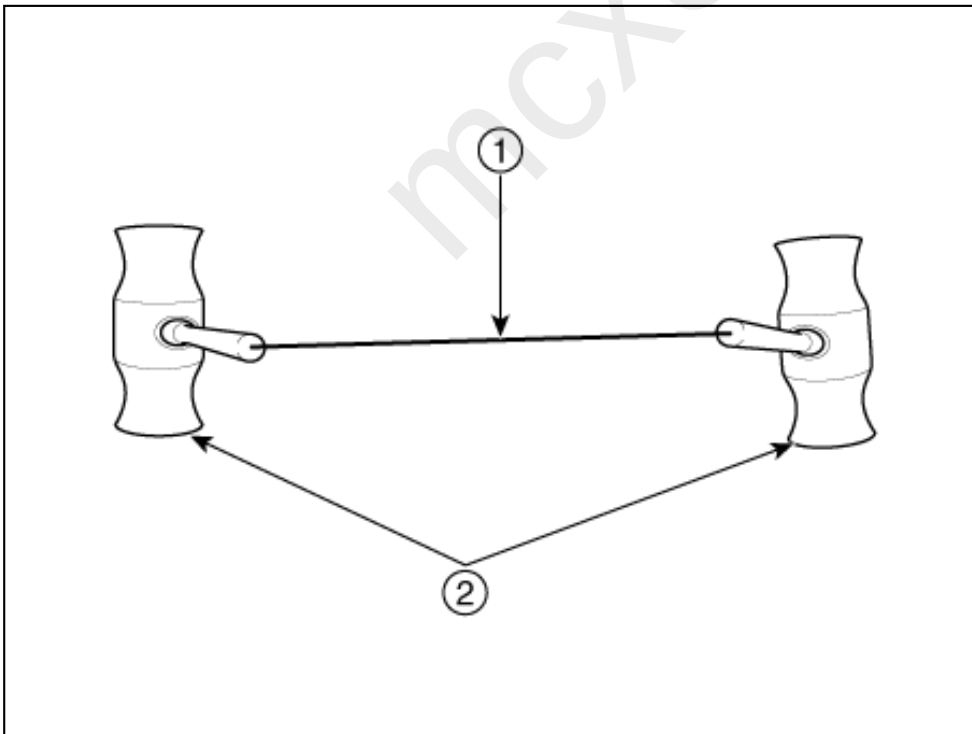


① Square wire

② Insert-type wire grip

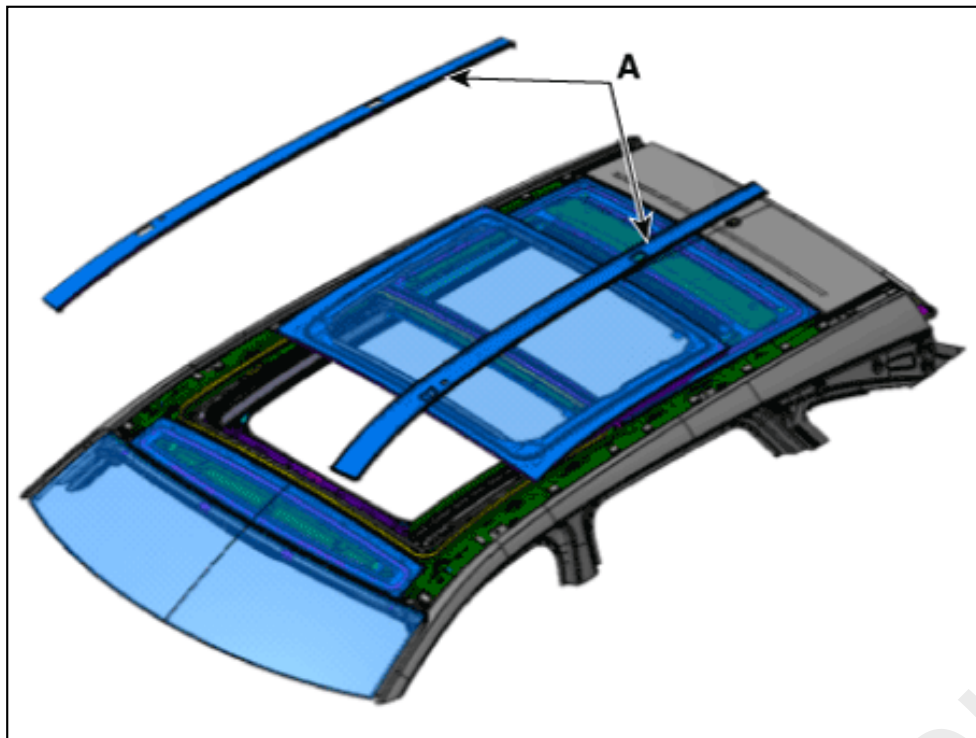
### [Tooling Assembly Diagram]

- Insert and affix square wire ① into the insert hole of the wire grip ②.



1. Press panorama sunroof switch to fully open the movable glass.

2. Remove the roof side molding (A).



3. Pull the square wire (A) to the left and right, then apply a force in the direction of the arrow to cut off the residual sealant.



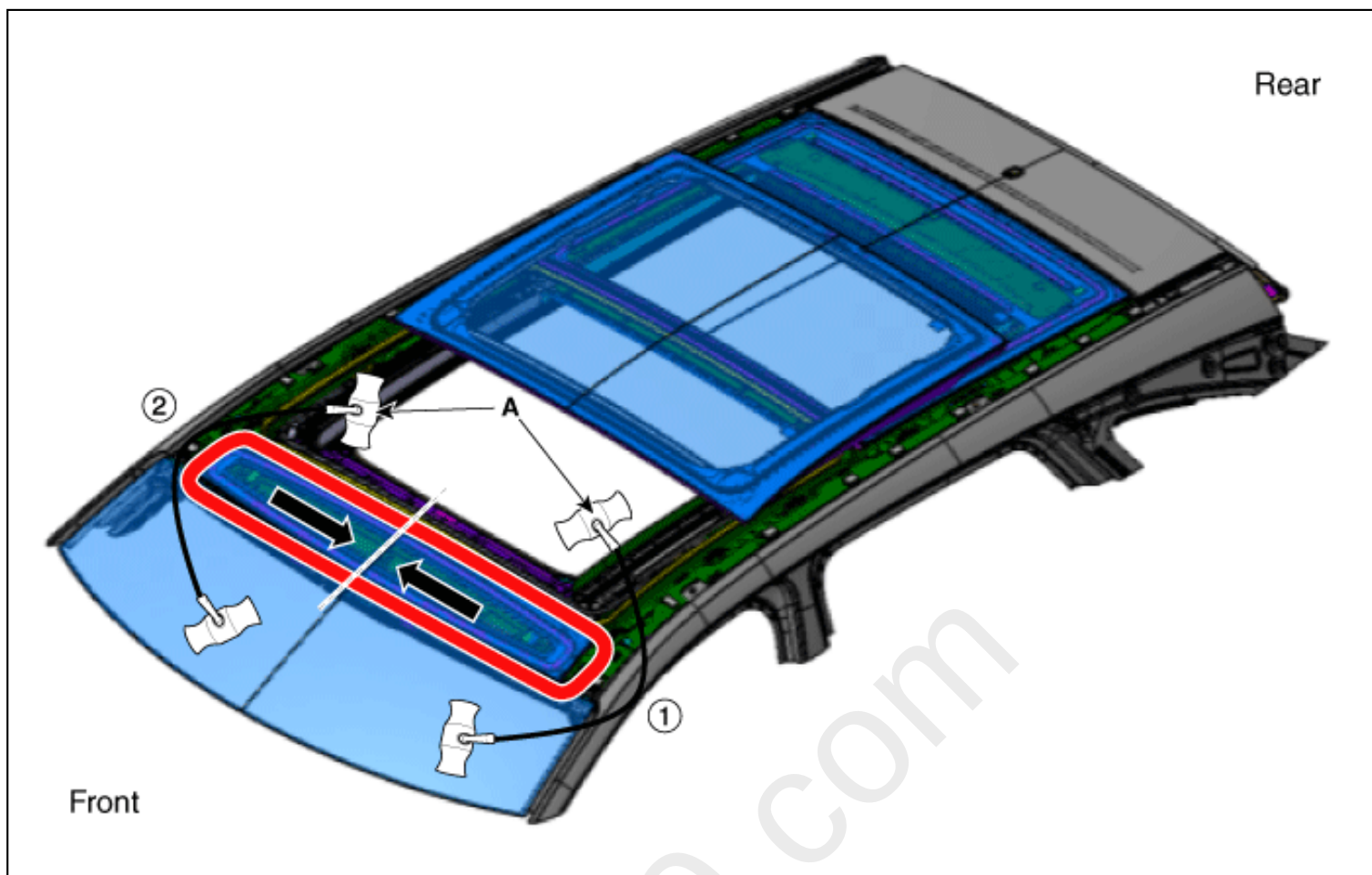
- Longer wires require more power, so divide Section ① and ② in half to cut off residual sealant.



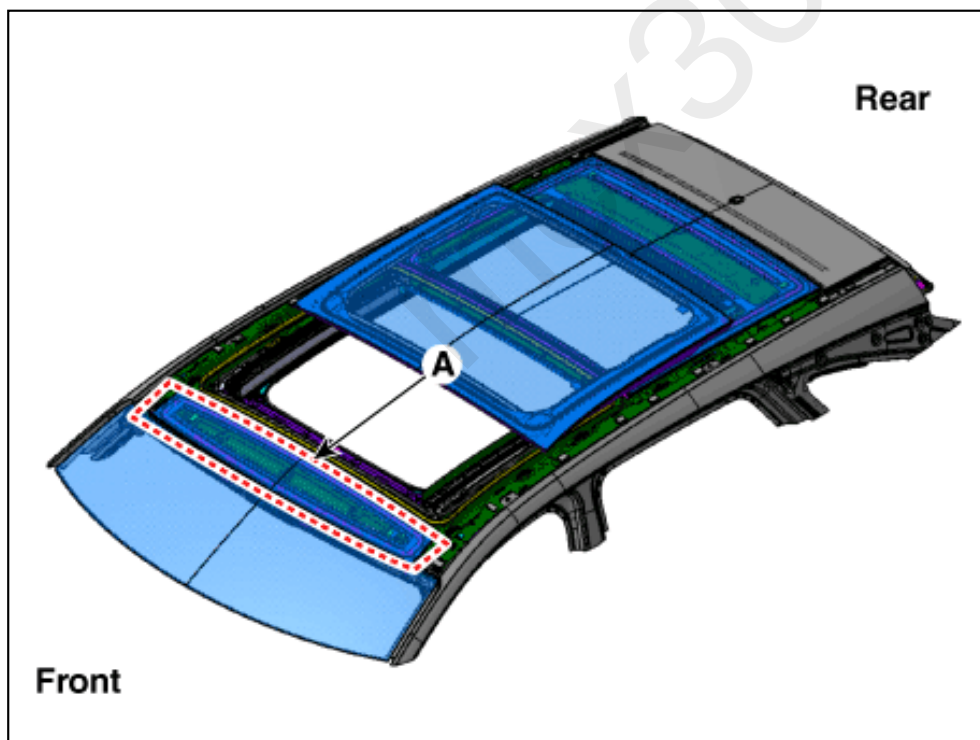
- Make sure that you put on gloves to protect your hands from potential injury.
- Be careful about potentially burning your hands due to the heat generated from the wire in use.
- Be careful when working with wiring because it may be cut.



- Be careful not to damage the body.



4. Remove the front glass (A) carefully without damaging it.

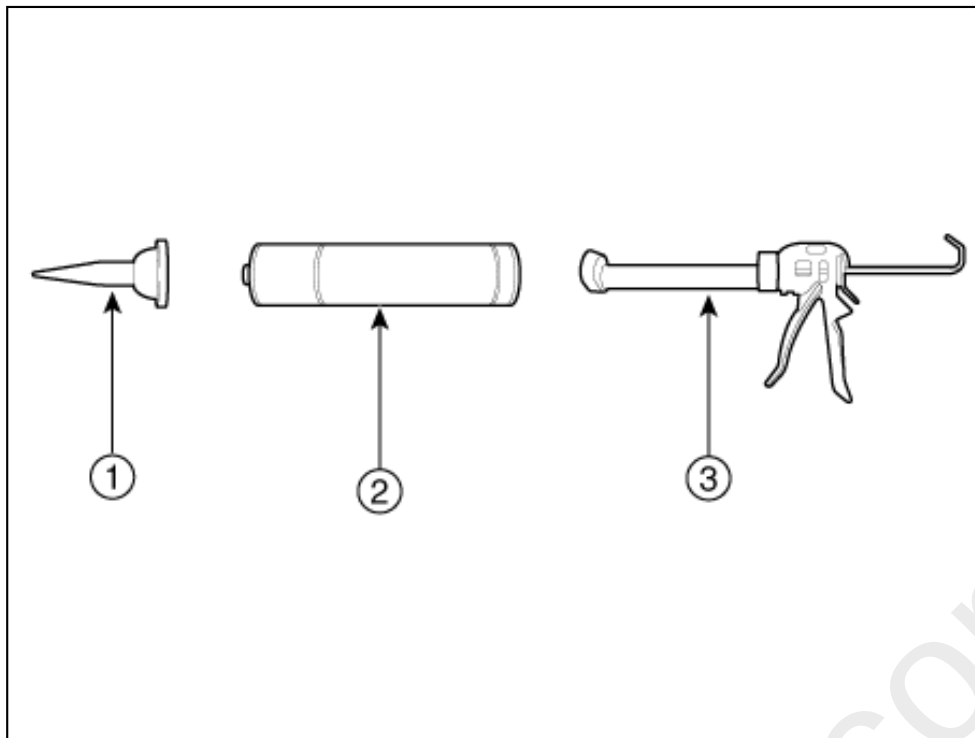


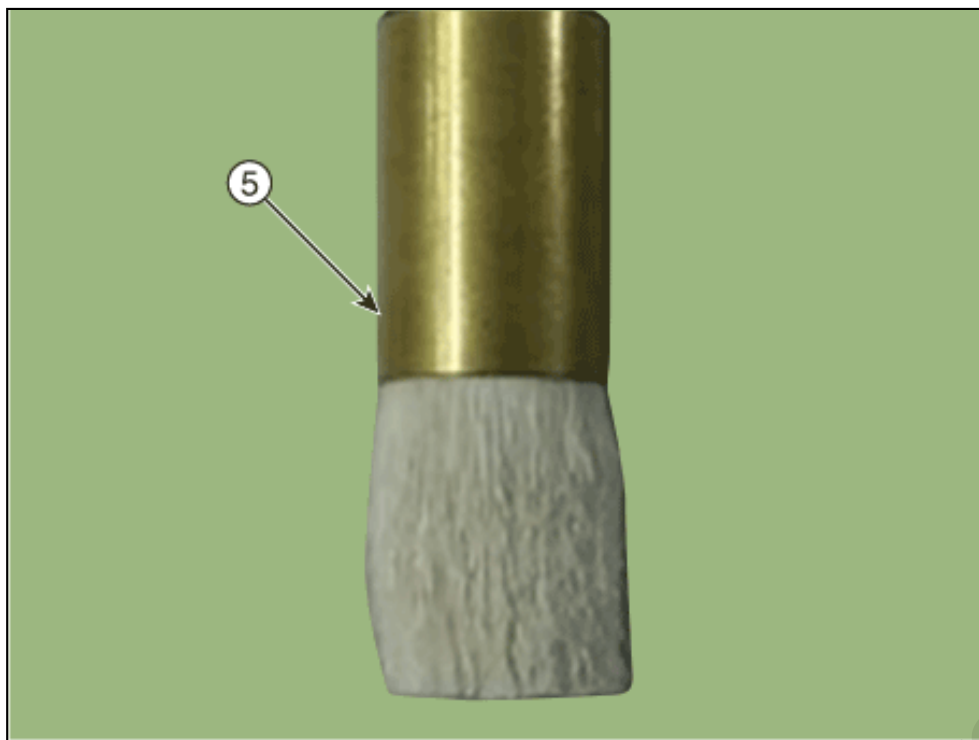
Installation



•In order to mount the front glass, use the tools shown in the following figure :

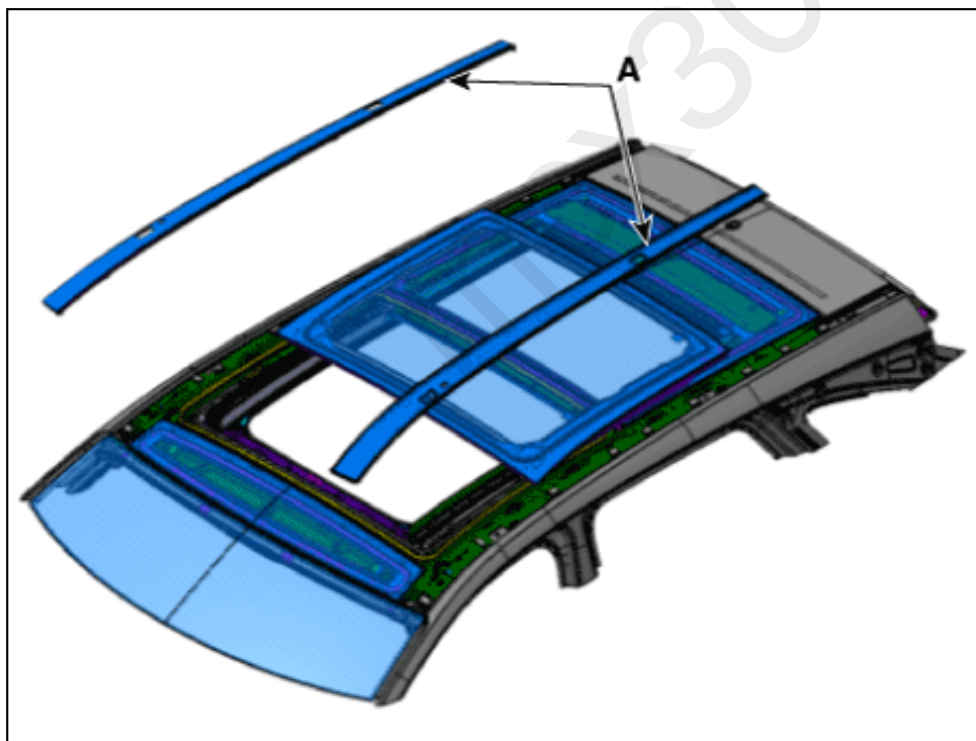
**[Tooling Diagram]**





- ① Sealant nozzle
- ② Adhesive sealant for car windows
- ③ Sealant gun
- ④ Primer
- ⑤ Primer application brush

1. Install the roof side molding (A).



2. Press panorama sunroof switch to fully close the movable glass.

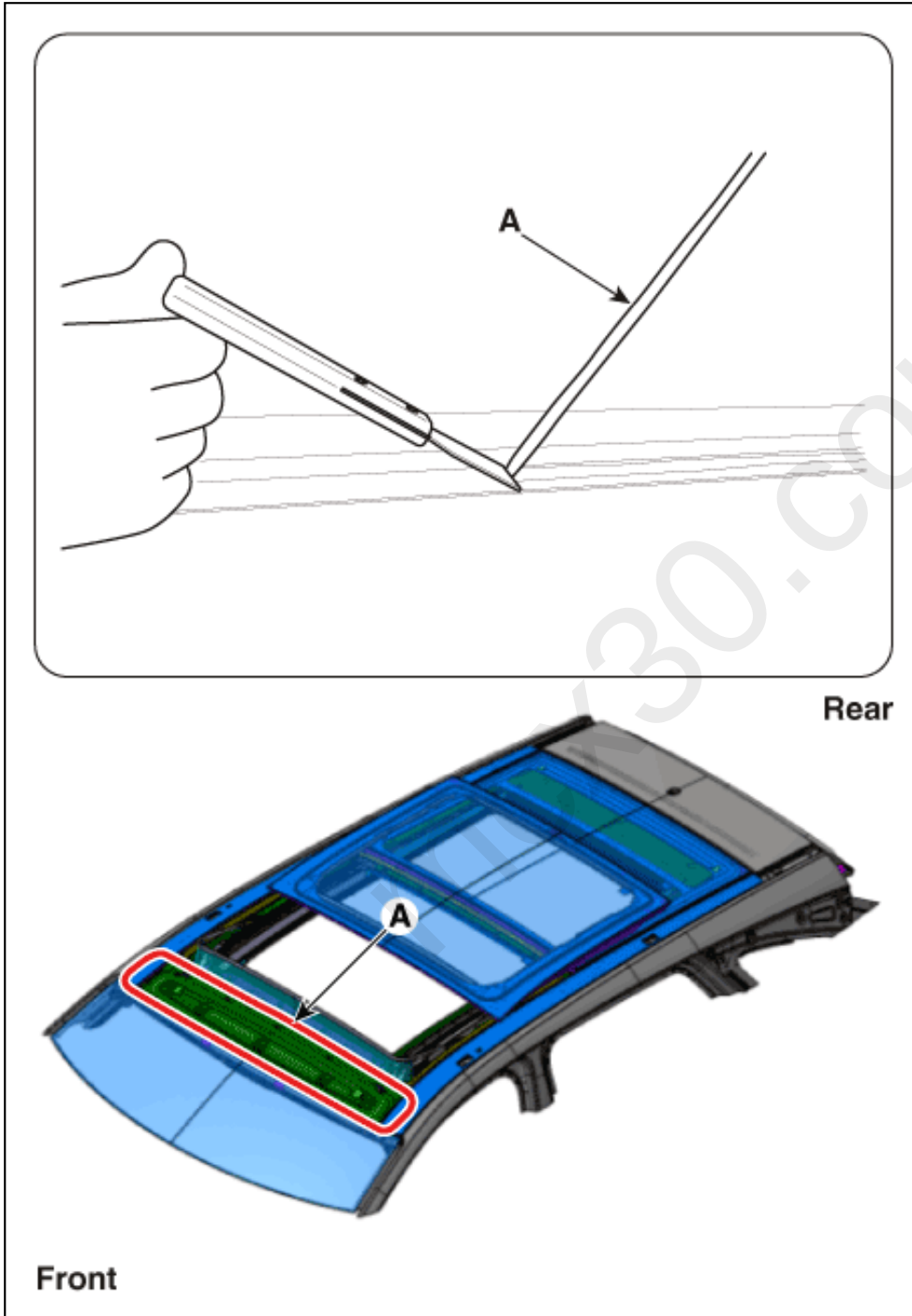
3. Use a blade to cut off residual sealant (A) around the front glass attachment area.



- When cutting off the residual sealant around the body panel, make sure to leave about 2mm of sealant from the adhesive surface.



- Make sure that the body paint surface is not damaged at all.
- If it is damaged, apply paint or rust inhibitor for maintenance.



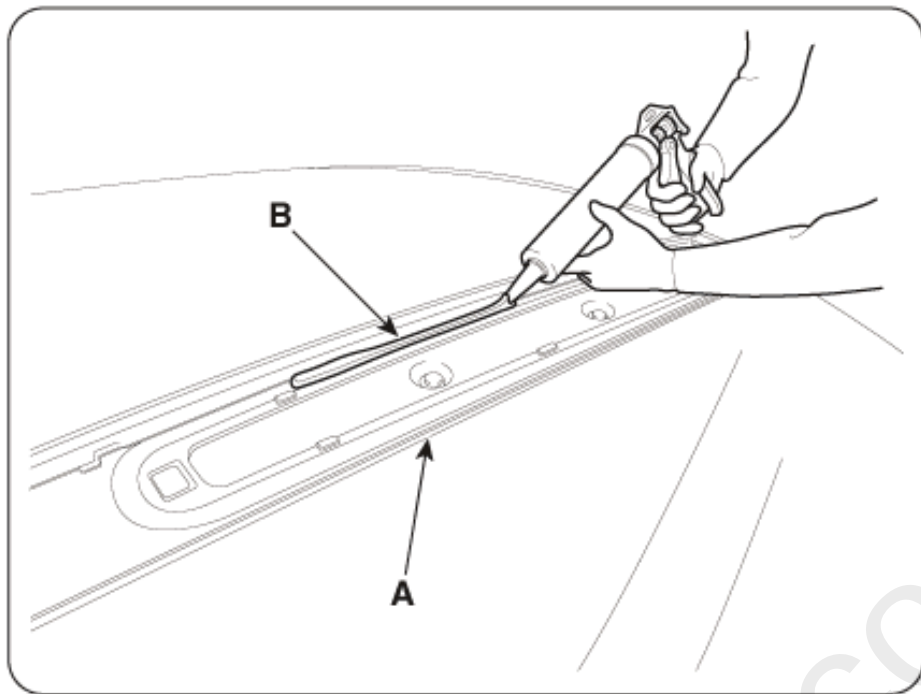
4. Use alcohol or an air gun to clean up the edges of the panorama sunroof frame and front glass.

5. Use a primer application brush to apply primer around the panorama sunroof frame (A) and front glass.

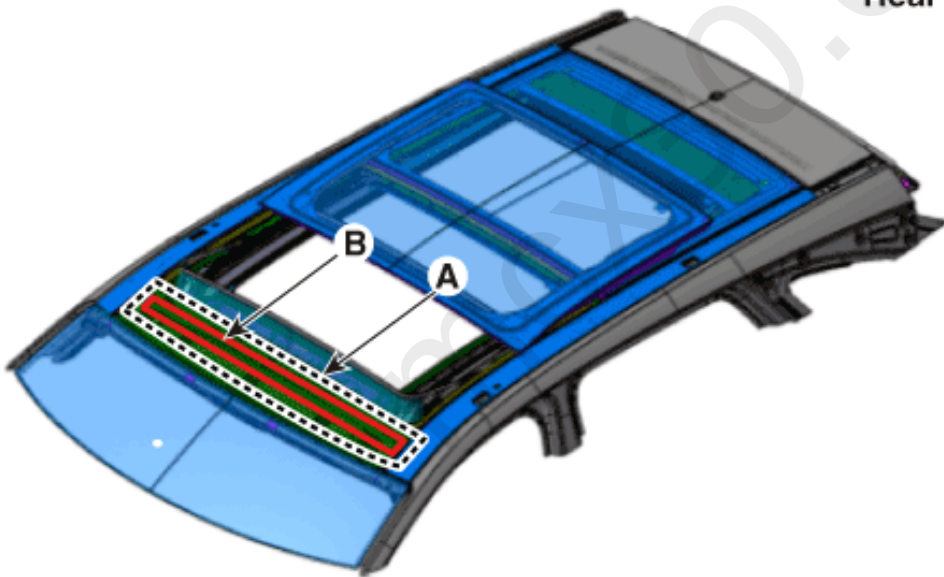
6. Use a sealant gun to apply sealant (B) around the panorama sunroof frame (A) after applying the primer.



- When using a sealant gun to apply the sealant, make sure that the sealant is not cracked to prevent water leaks.

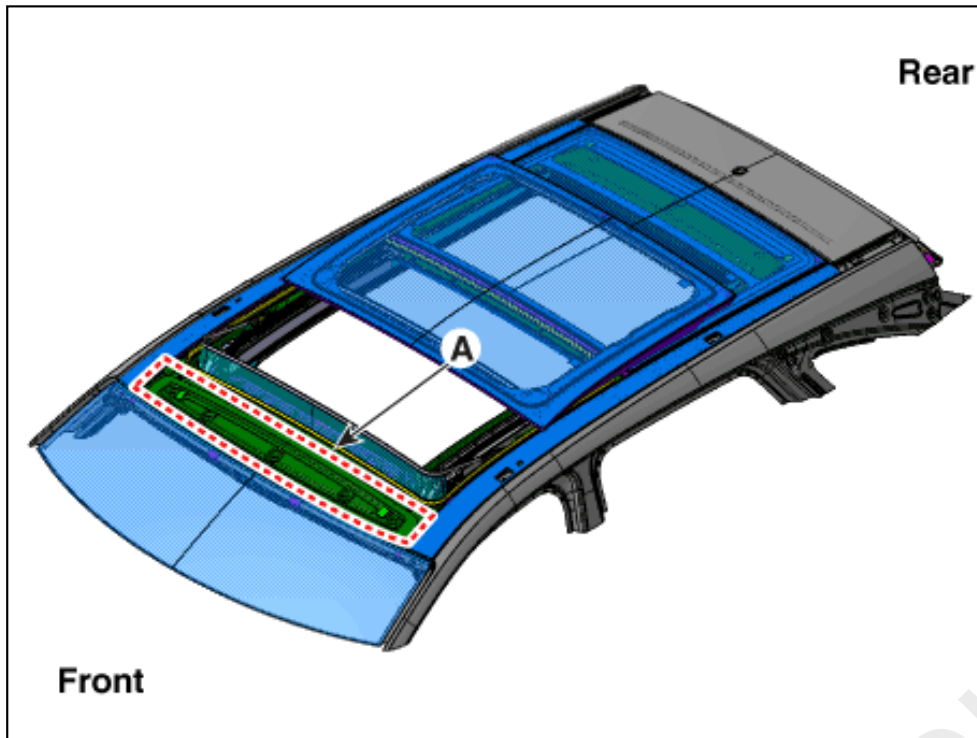


Rear



Front

7. Install the front glass (A) loosely on the panorama sunroof frame.

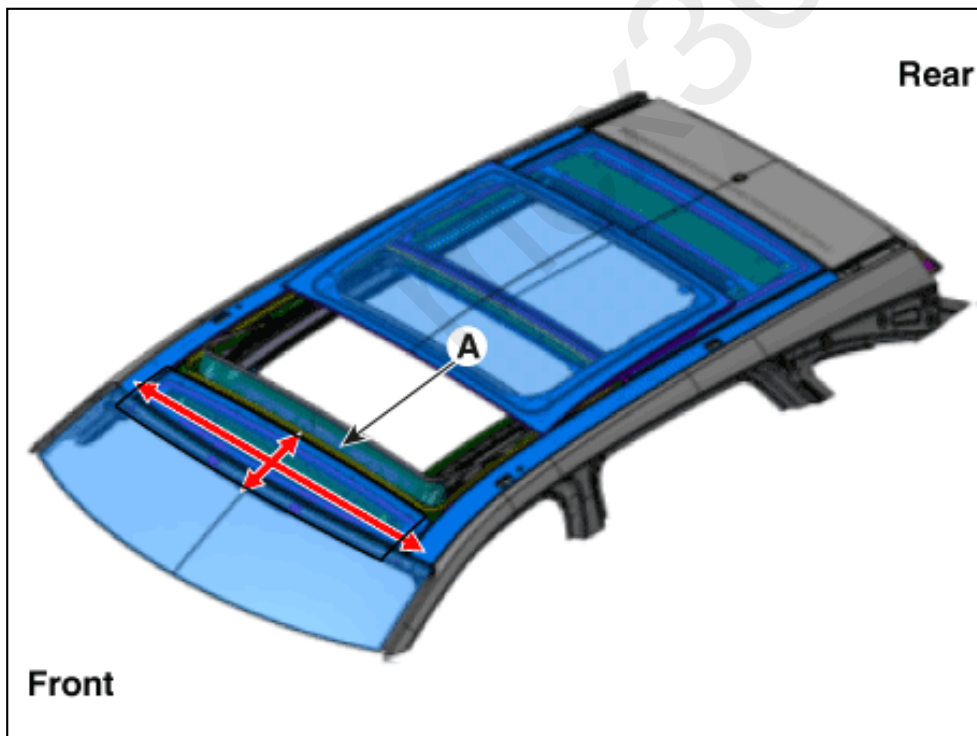


8. Check step and gap before front glass (A) is fully mounted.

9. Apply tape to around the front glass to prevent the glass from coming off.



- If sealant is excessively applied, it may ooze out of the body. Use alcohol or a cleaning agent to wipe off the residual sealant.



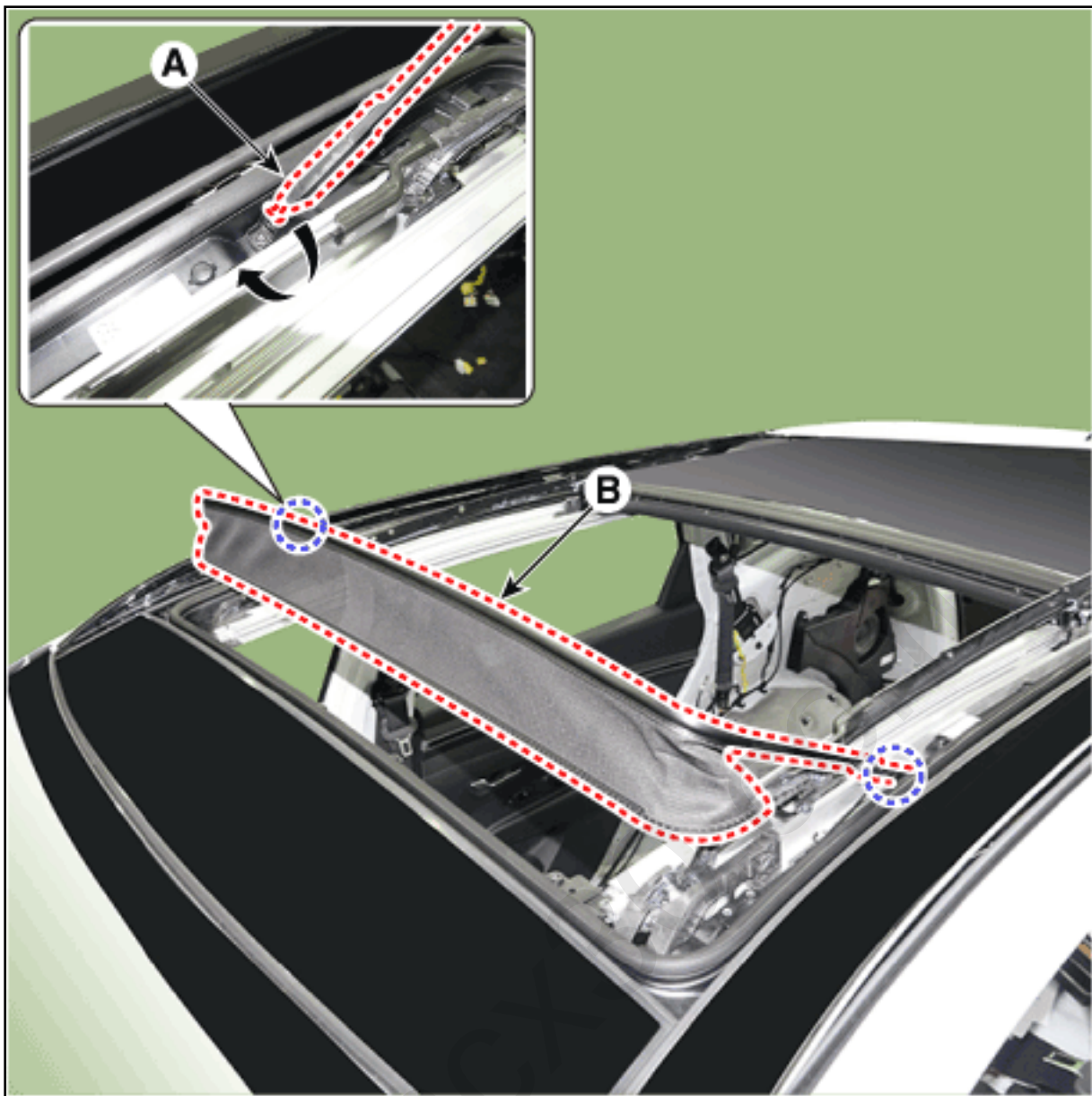
- Mount front glass and set the car on a flat surface at least for 4 hours.
- If you have to drive the car, be sure to SLOWLY drive the car for at least 8 hours after mounting.
- Alert the driver to avoid driving the car aggressively for 2-3 days, or avoid driving it on irregular road surfaces.



1. Open movable glass completely pressing panorama sunroof switch.

- 
- An aerial photograph of a highway interchange. A red dotted line traces a path along the edge of the interchange, following the curve of the overpass. An arrow labeled 'A' points to a specific location on this path, near the center of the interchange. The surrounding area includes various colored zones (blue, green, purple) and infrastructure like roads and buildings.

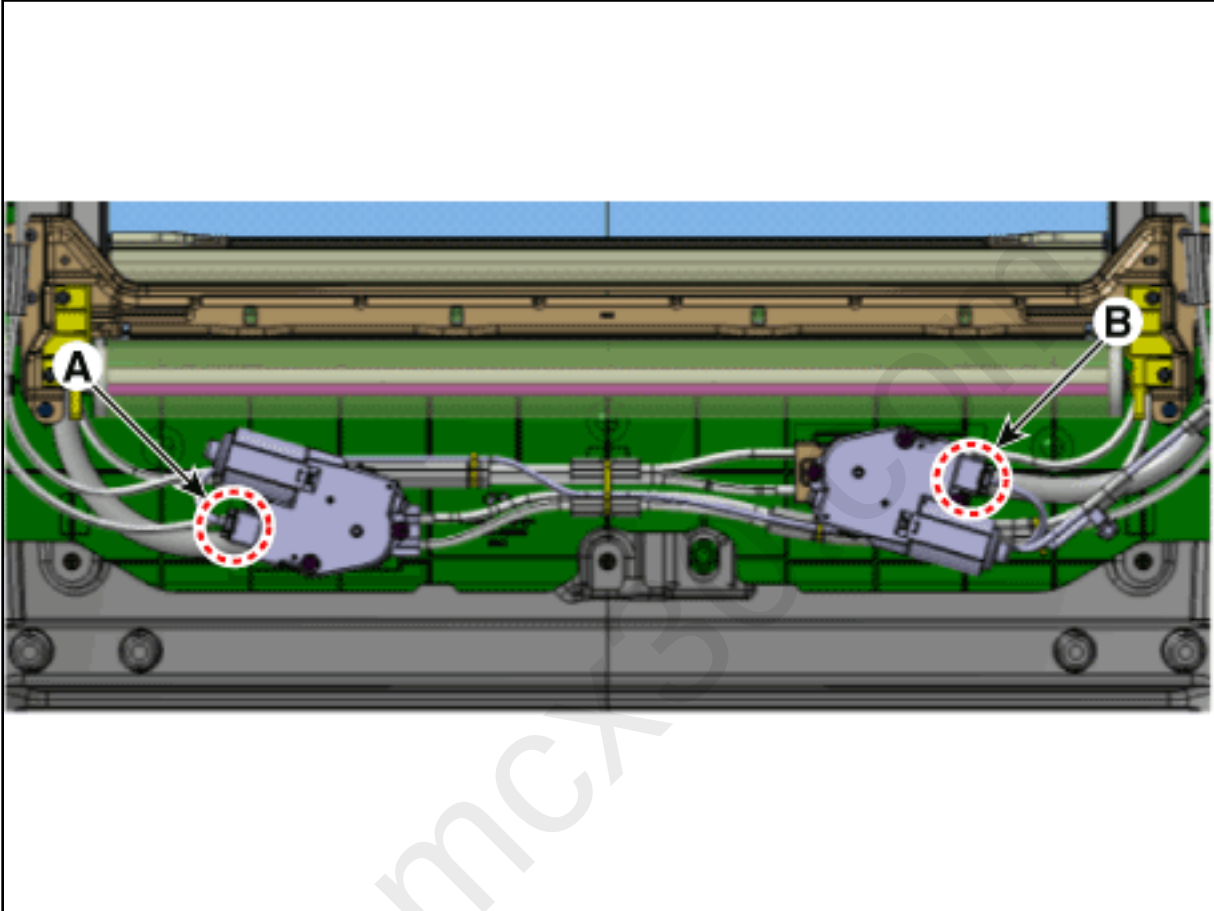
3. Separate the panorama sunroof deflector link (A) and remove the panorama sunroof deflector (B).



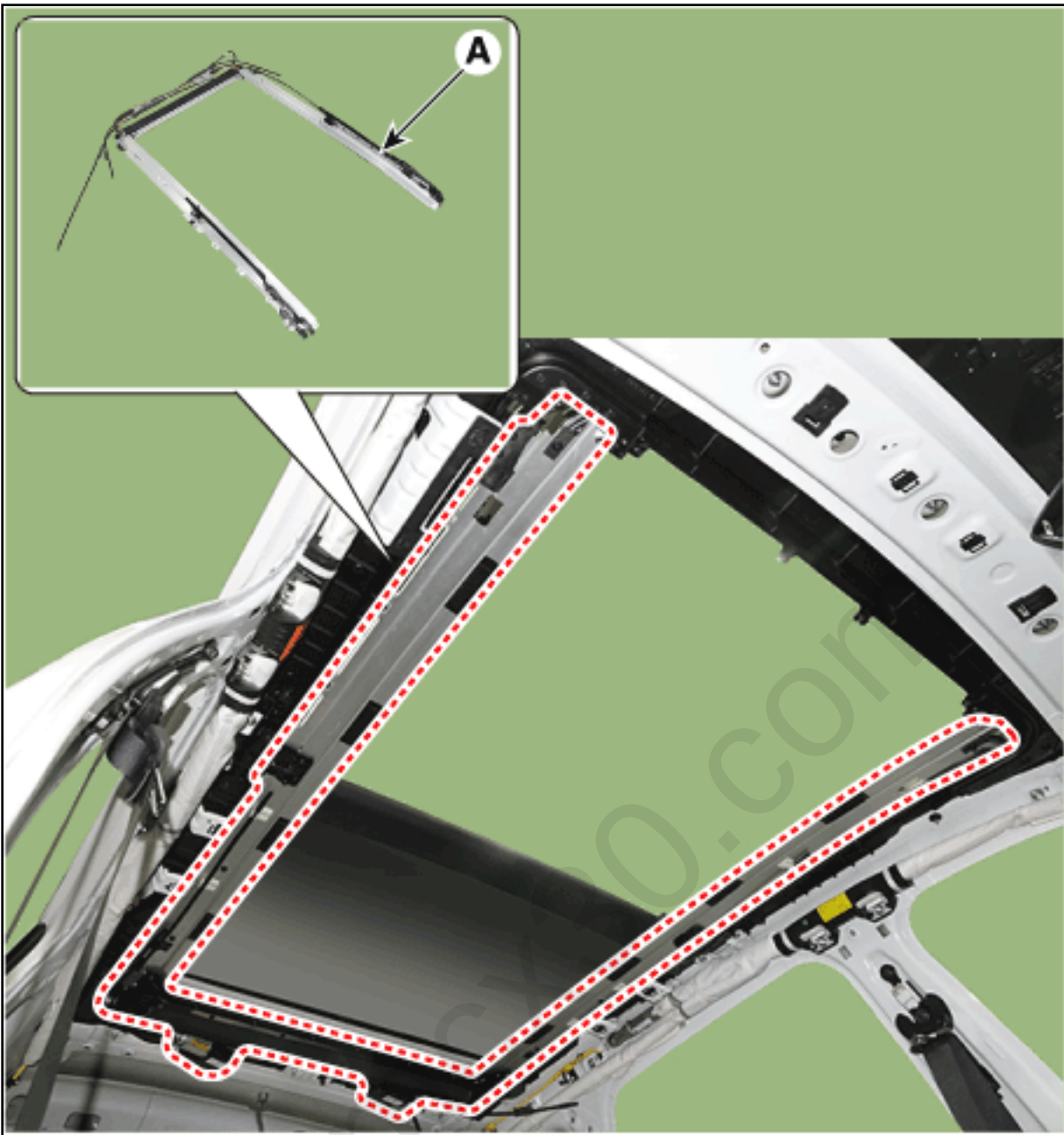
4. To install, reverse the removal procedure.

## Replacement

1. Remove the roof trim.  
**(Refer to Roof Trim - "Roof Trim Assembly")**
2. Remove the movable glass.  
**(Refer to Panorama Sunroof - "Movable Glass")**
3. Remove the panorama sunroof deflector.  
**(Refer to Panorama Sunroof - "Panorama Sunroof Deflector")**
4. Remove the glass motor (B) and roller blind motor (A) loosening mounting screws.



5. Loosen the mounting bolts and nuts, remove the mechanism assembly (A).



6. To install, reverse the removal procedure.



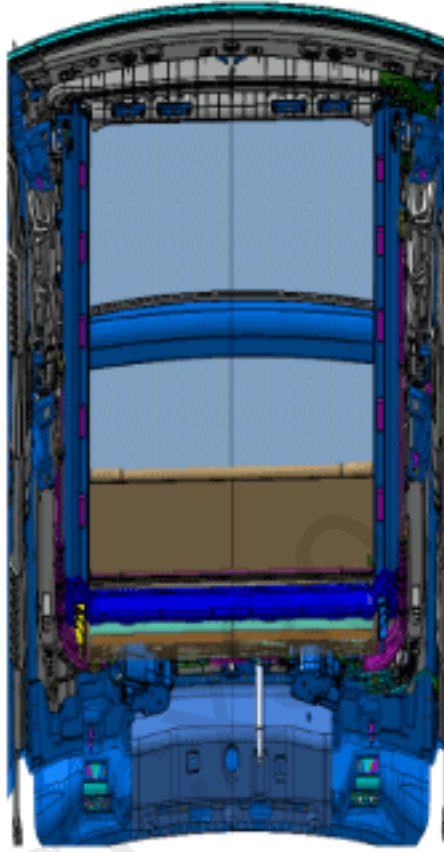
- Make sure the connectors are connected in properly.

## Removal

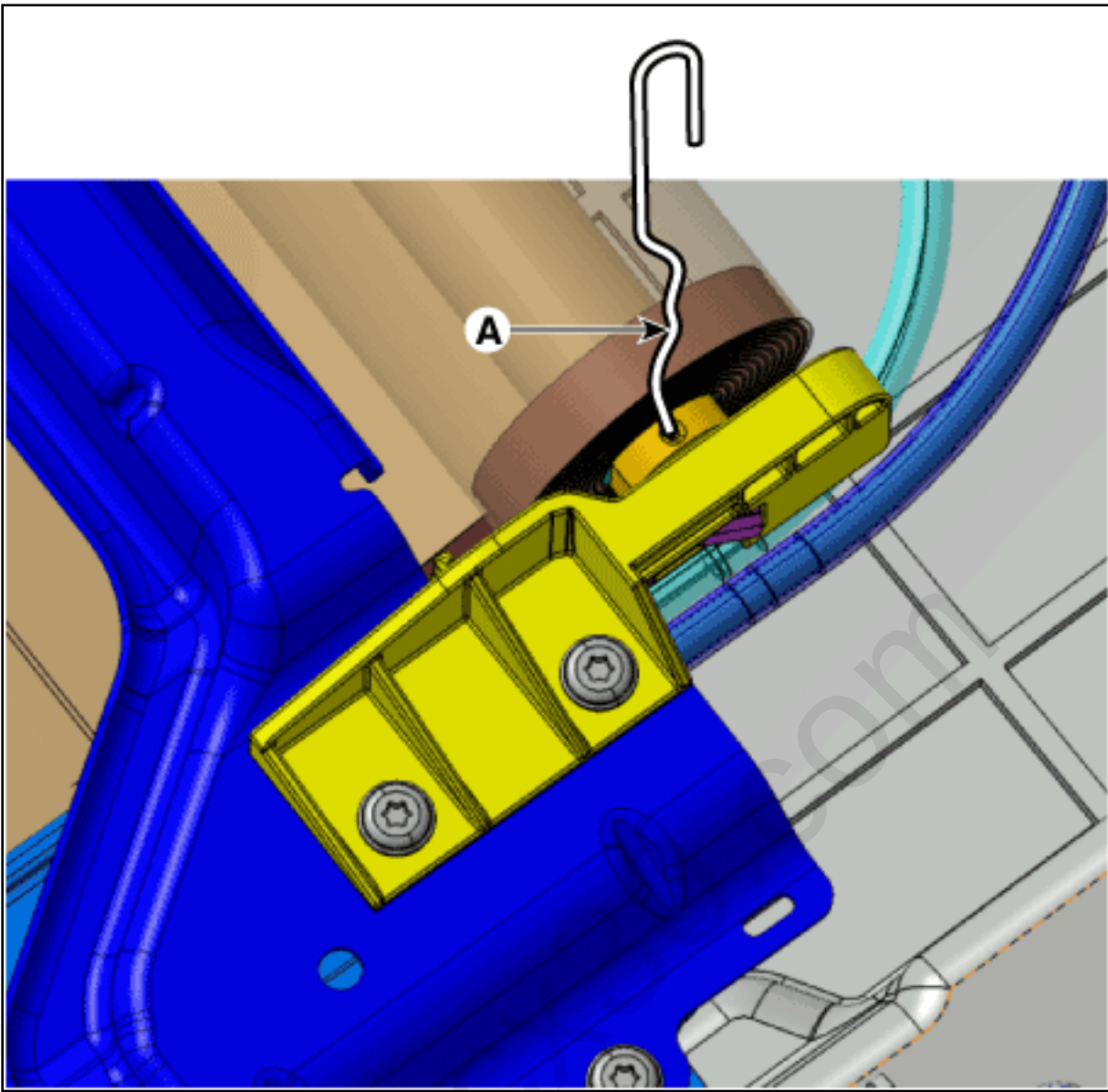
1. Remove the roof trim.  
**(Refer to Roof Trim - "Roof Trim Assembly")**
2. Open the roller blind using the panorama sunroof switch.



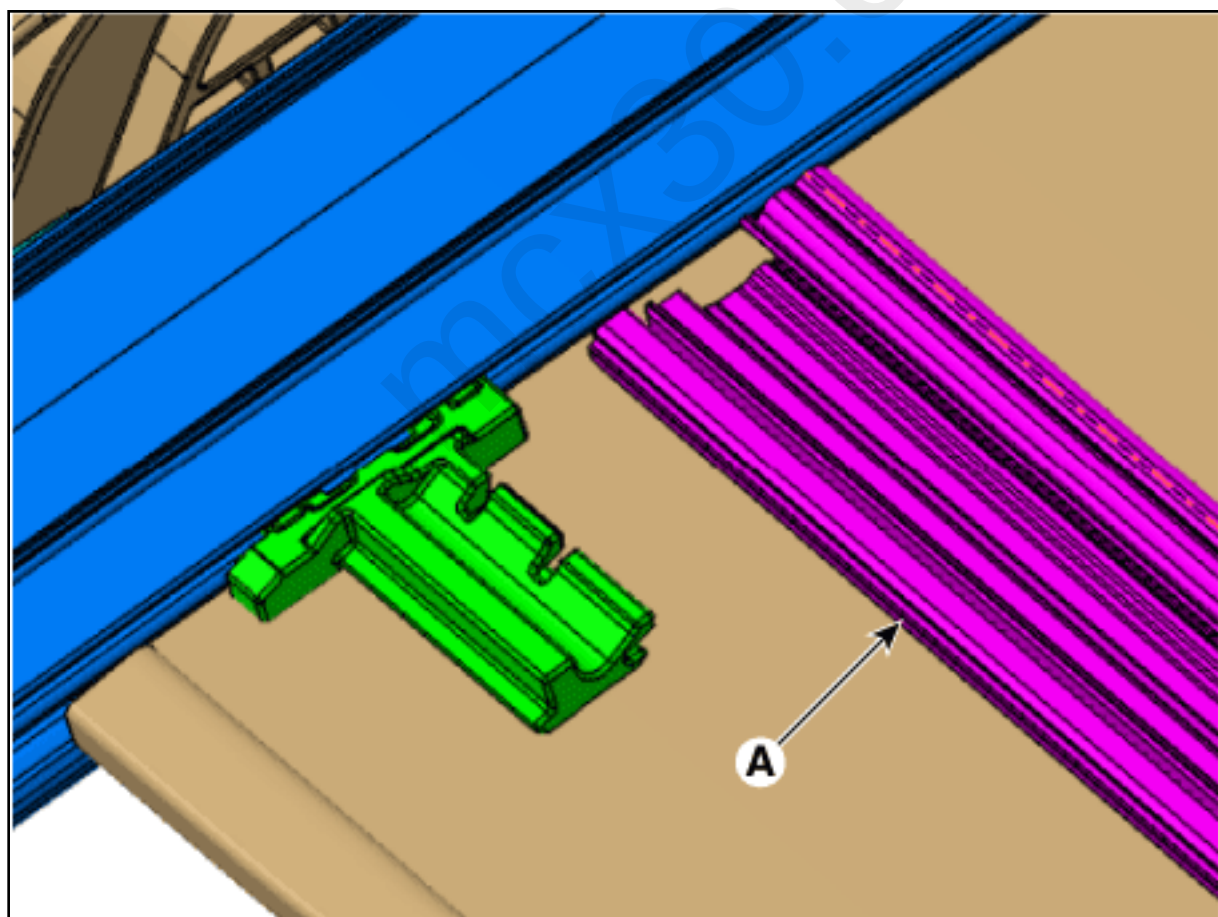
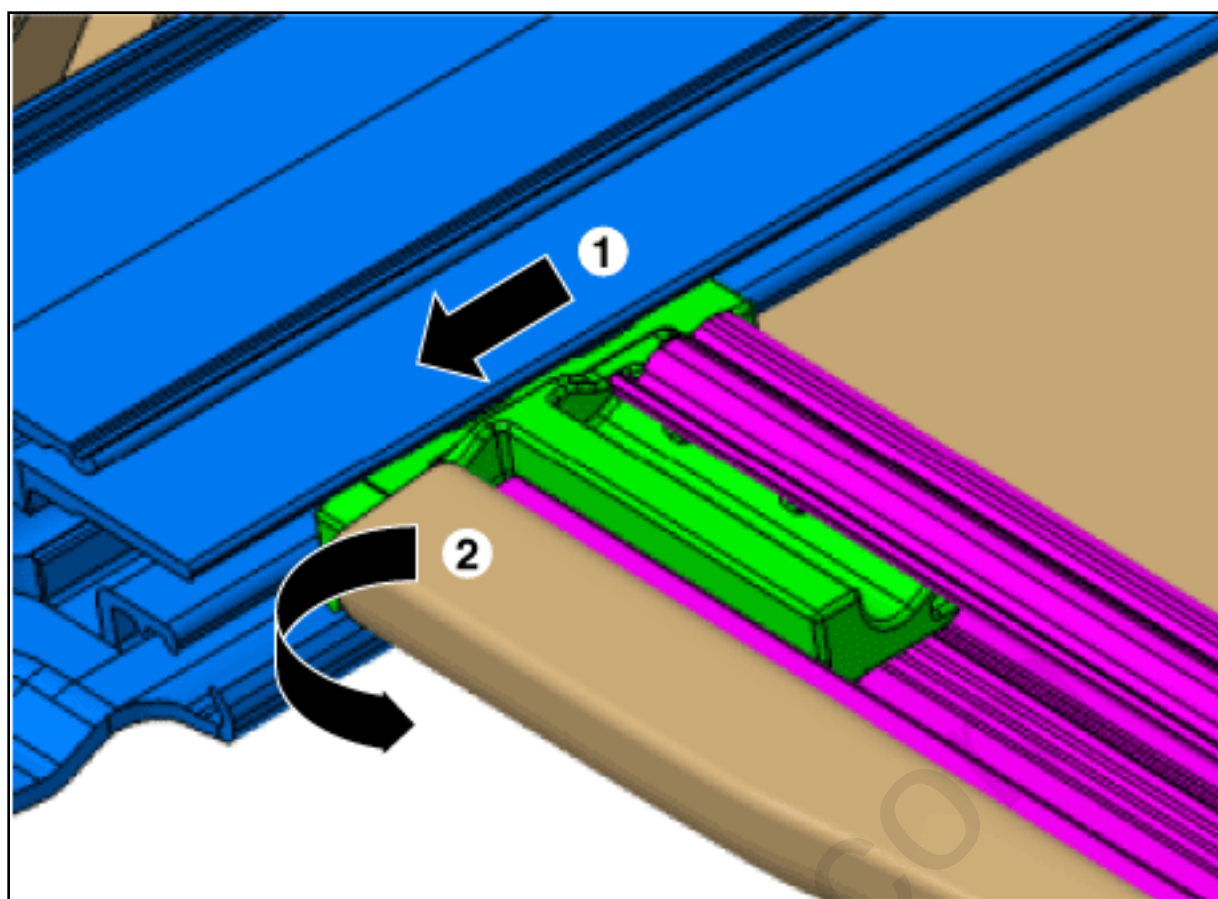
- Leave 10 - 20cm (0.3937 - 0.7874 in) of the roller blind unopened.



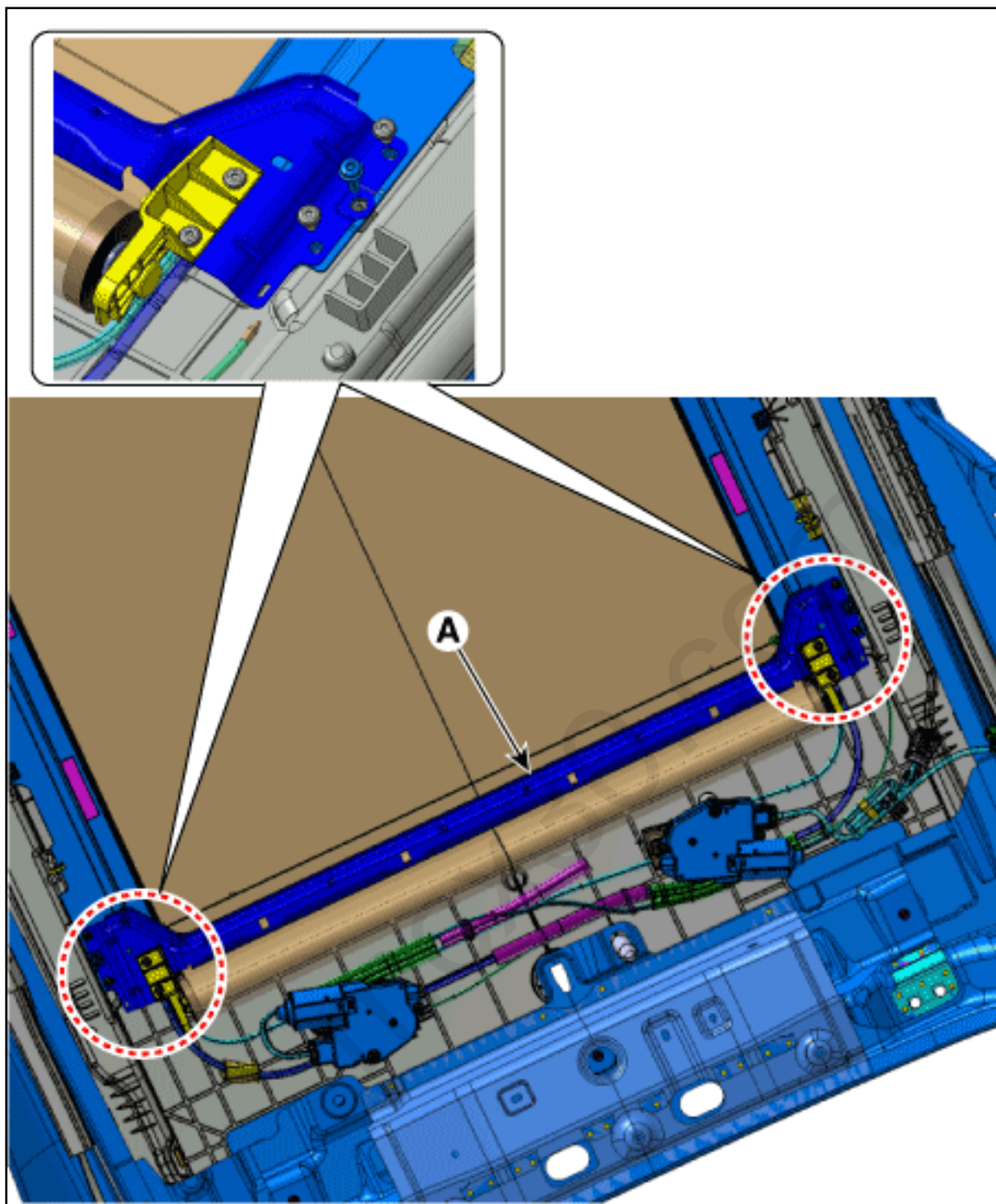
3. Remove the roller blind bars (A) by pulling (①) and rotating (②) both the roller blind bars.



4. Put a fixed pin (A) into the hole located inside the groove of the right side roller blade side bracket. Be careful not to release tension.

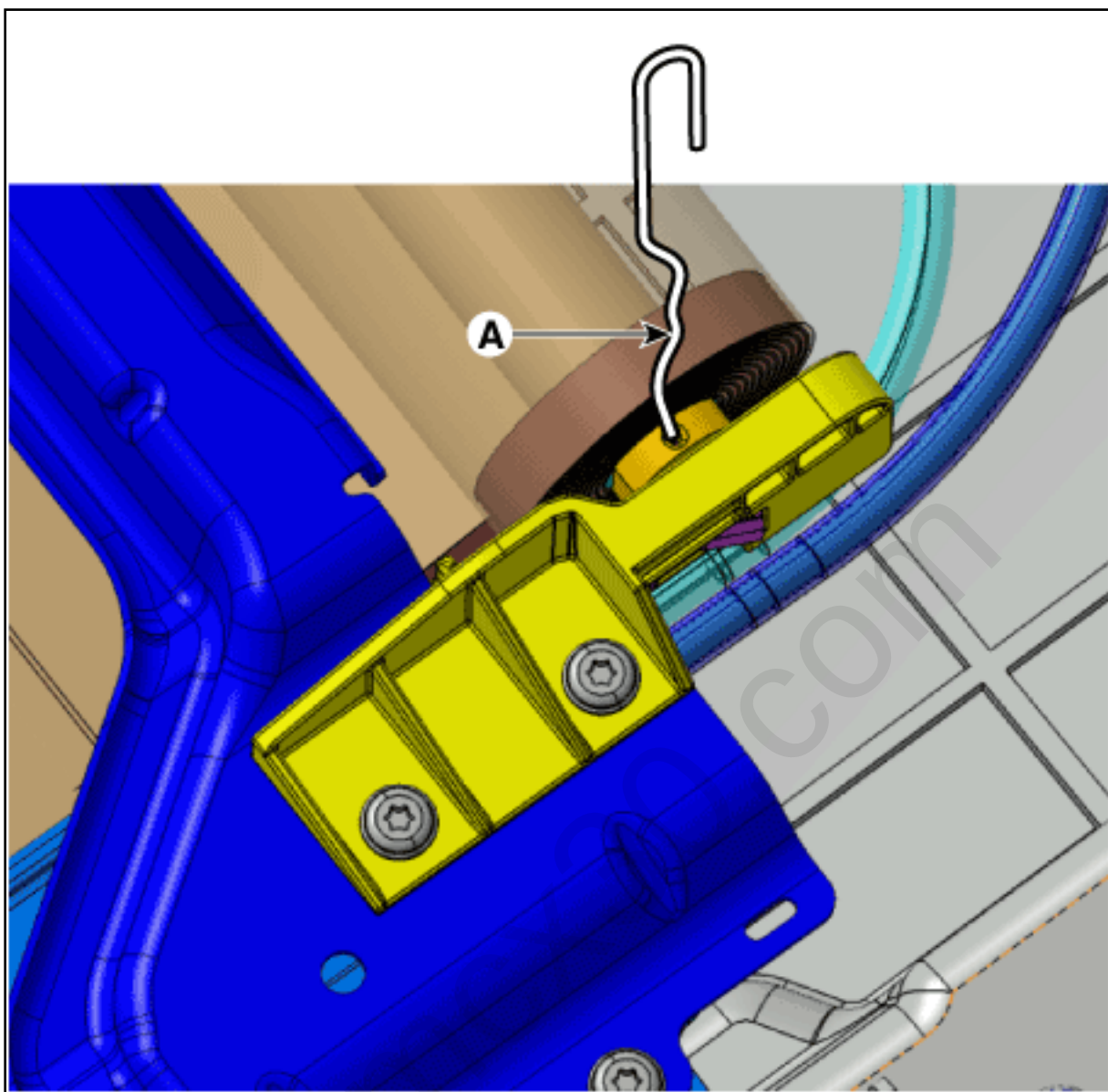


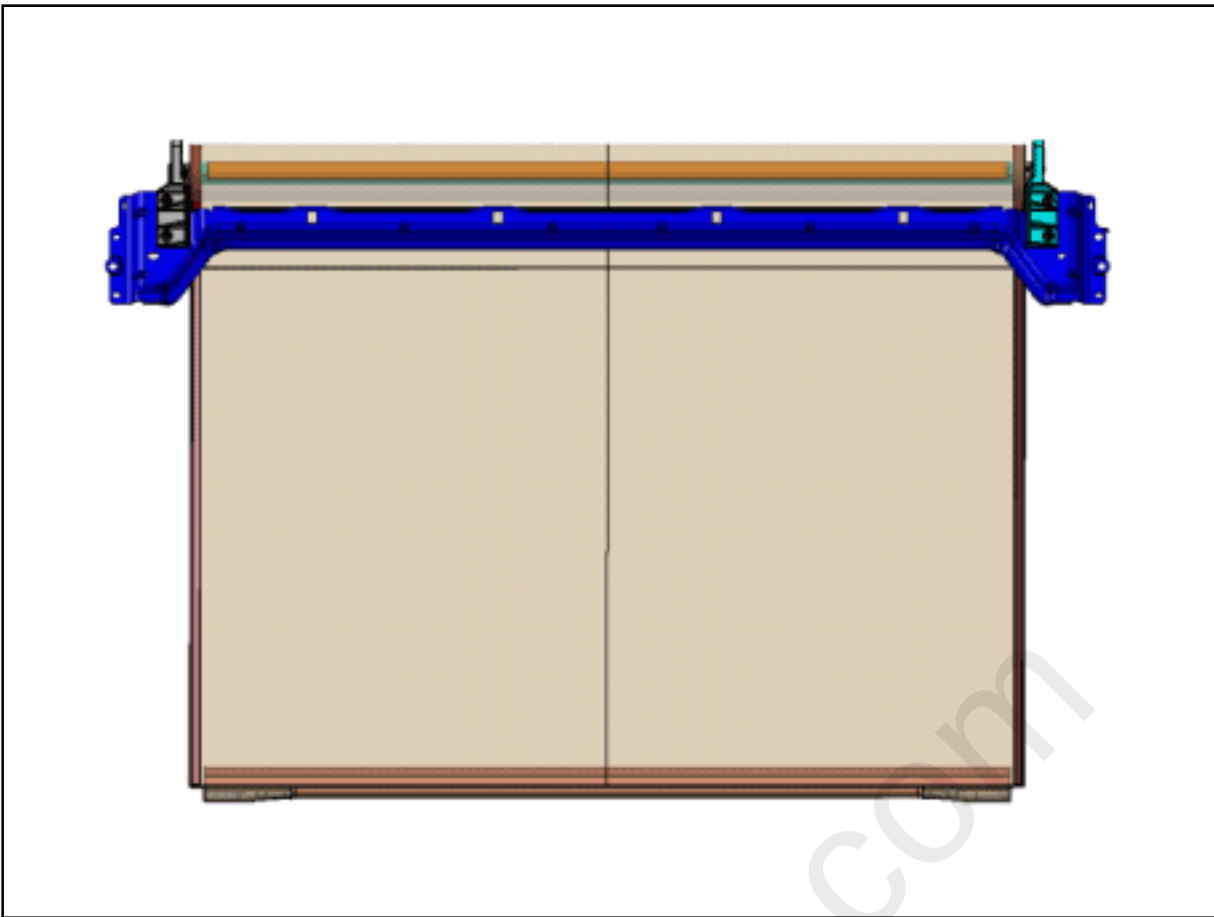
5. Loosen the mounting screws, remove the roller blind lower support panel (A).



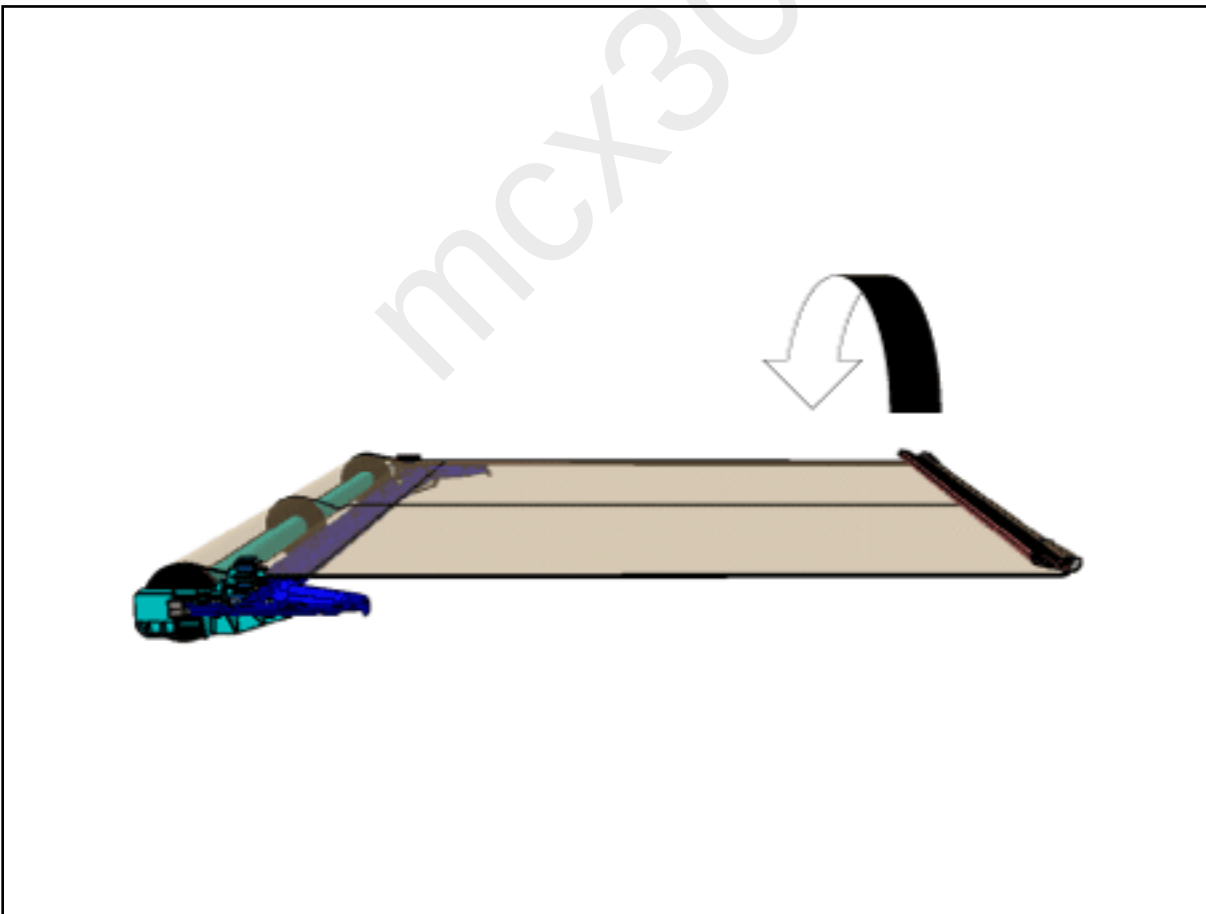
Installation

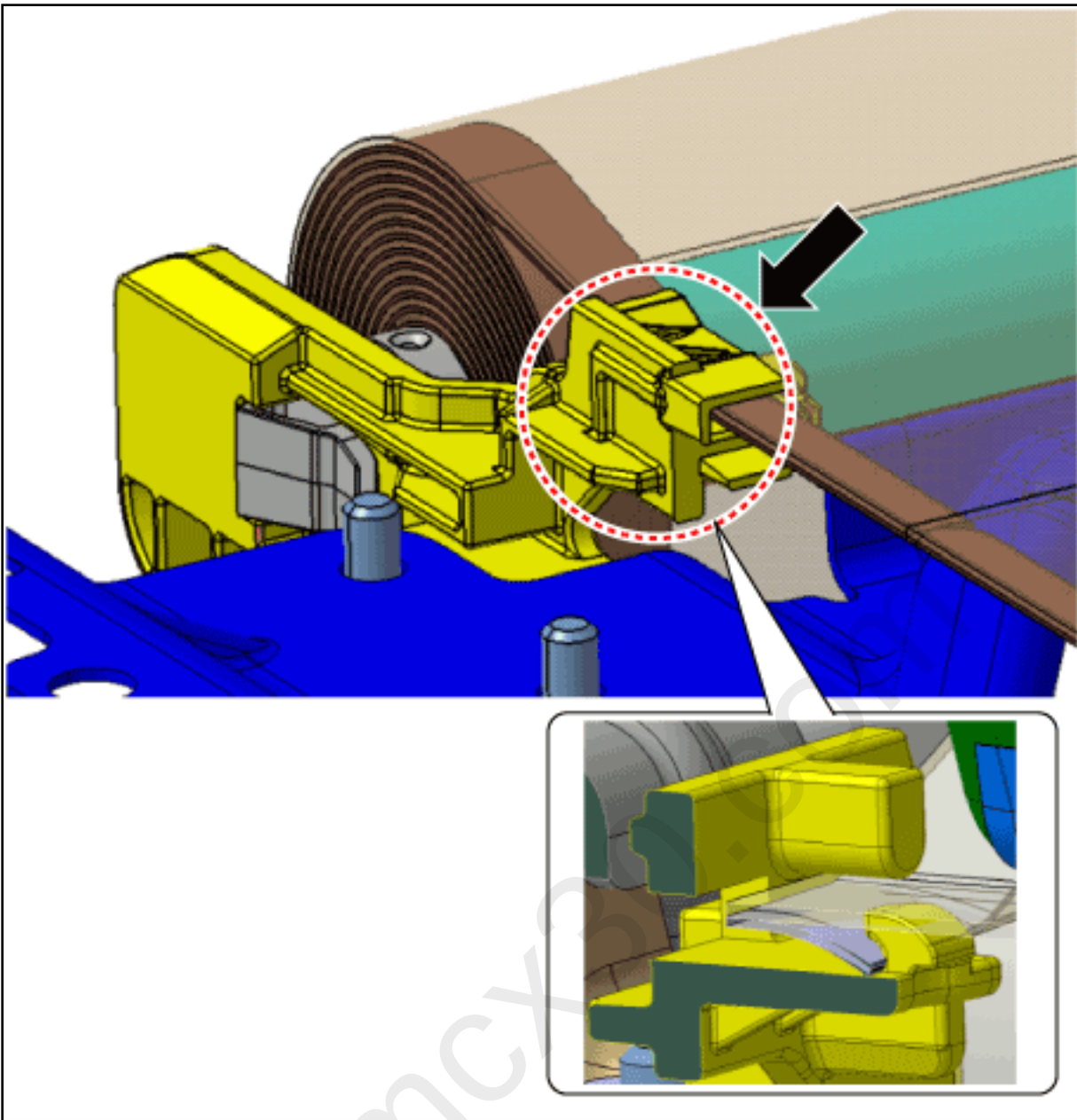
1. Remove the roller blind fixing fin (A) and then pull out the roller blind by approximate 100cm. After that, reinstall the fixing pin.



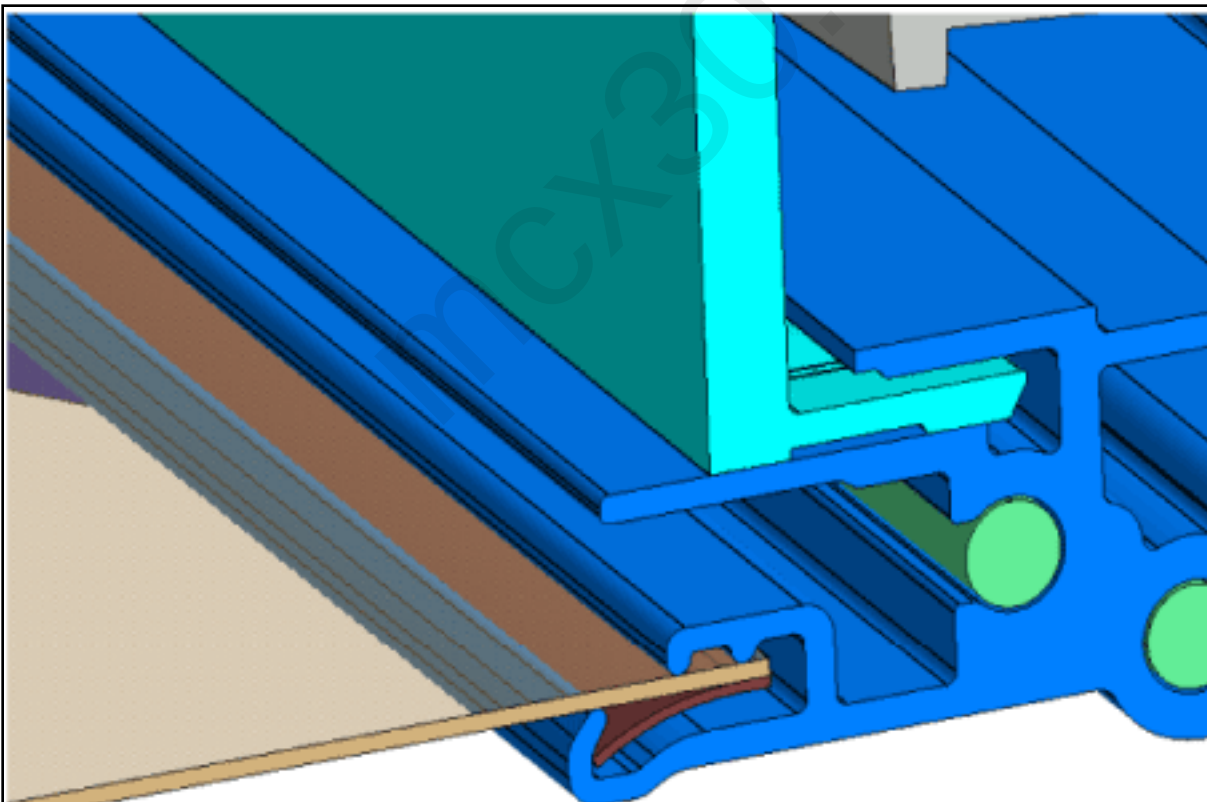
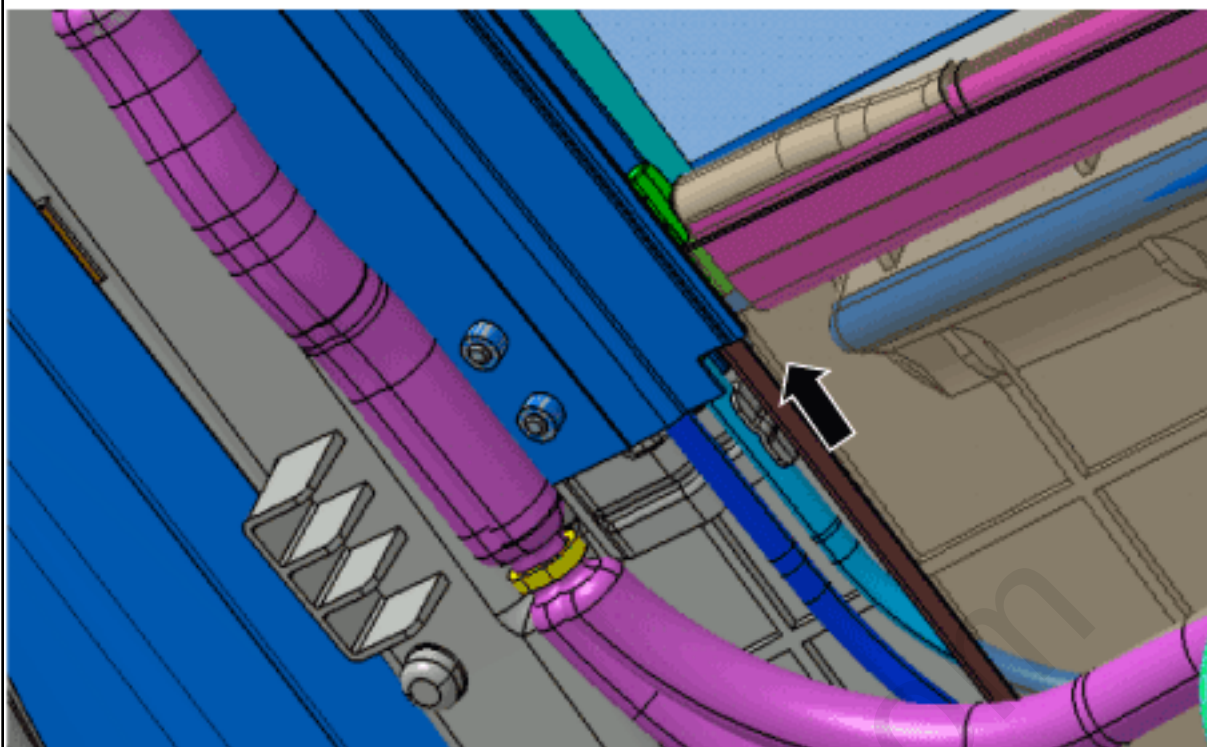


2. Insert the techlon on both ends of roller blind to the guide (Preparation of roller blind is finished).

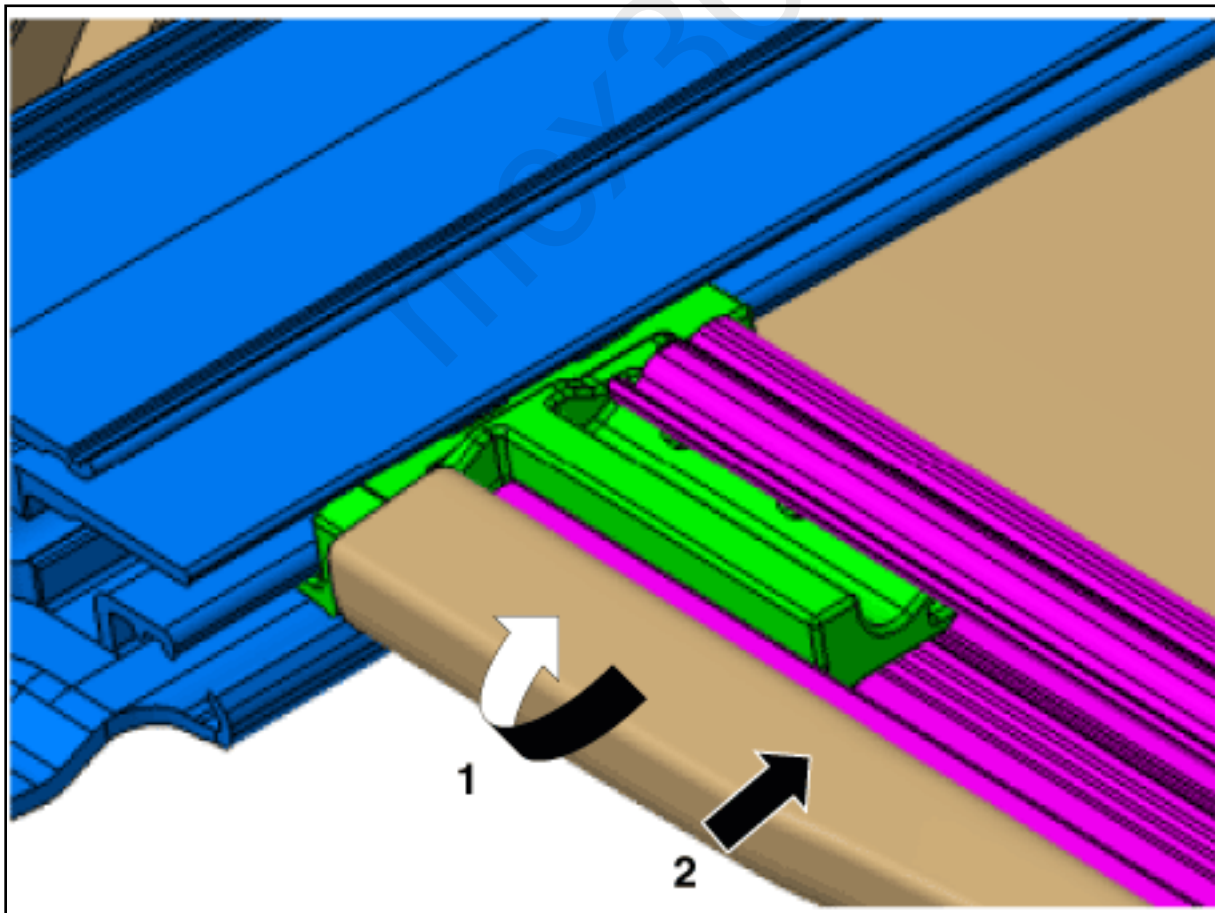
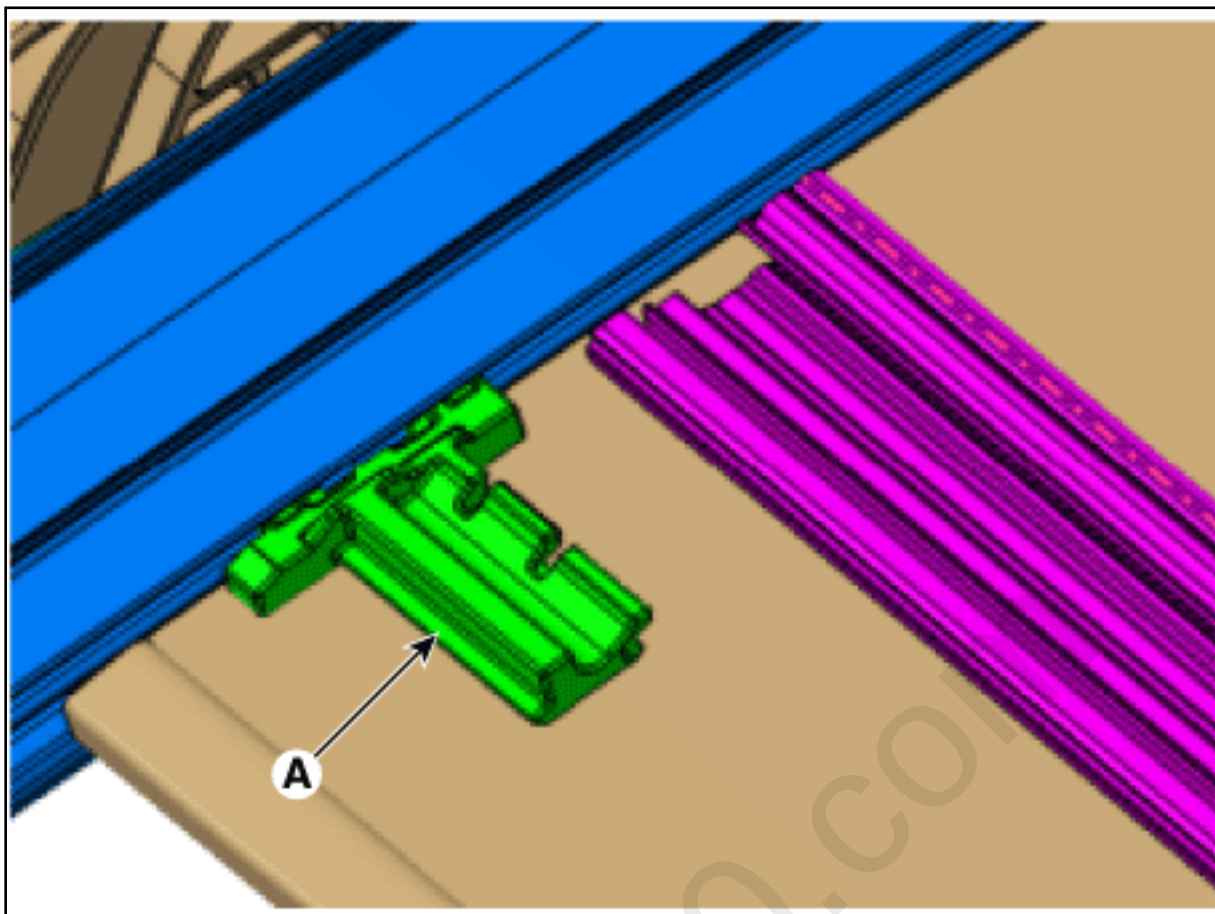




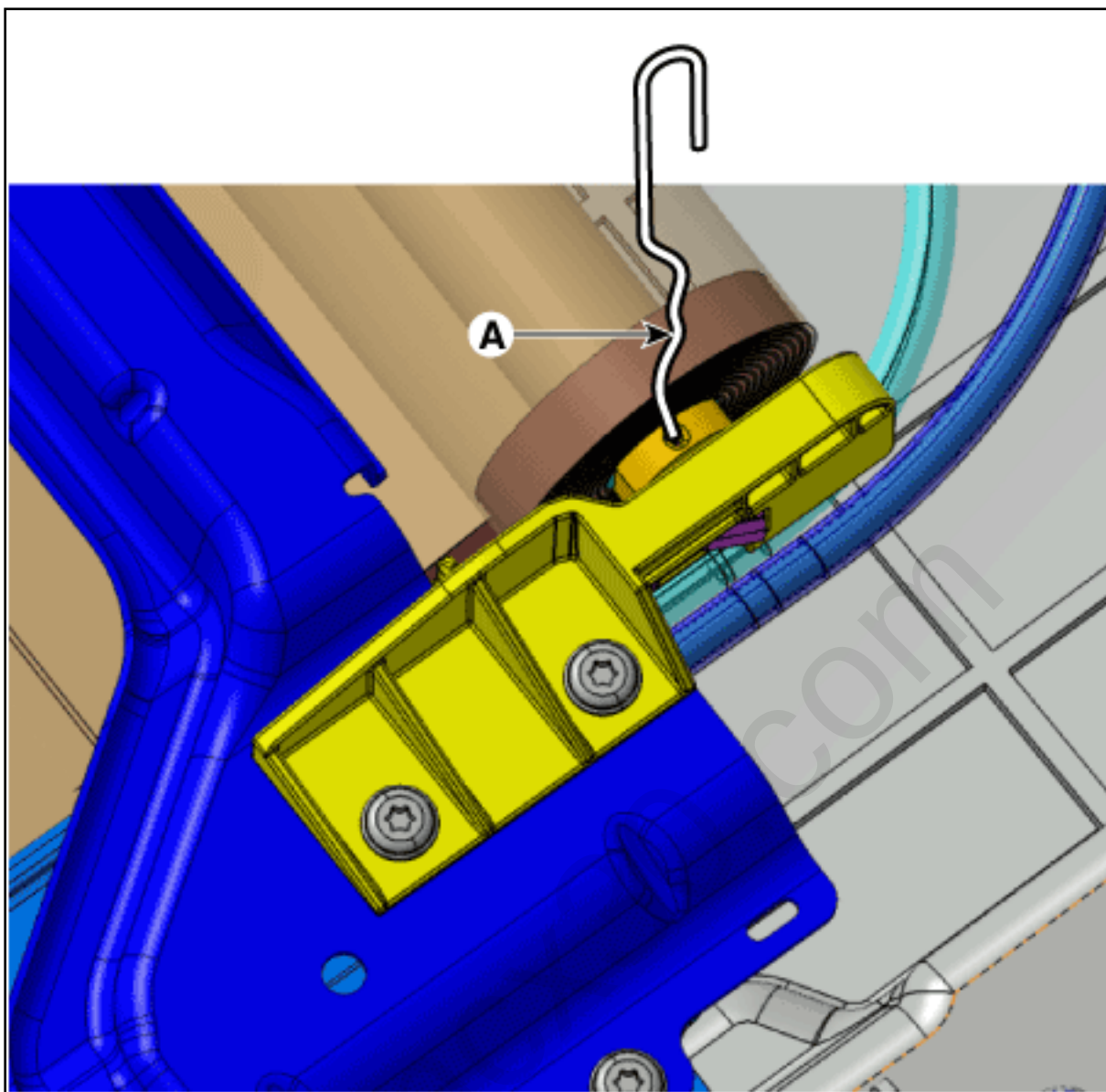
3. Insert the techlon portion of blind to the rail.



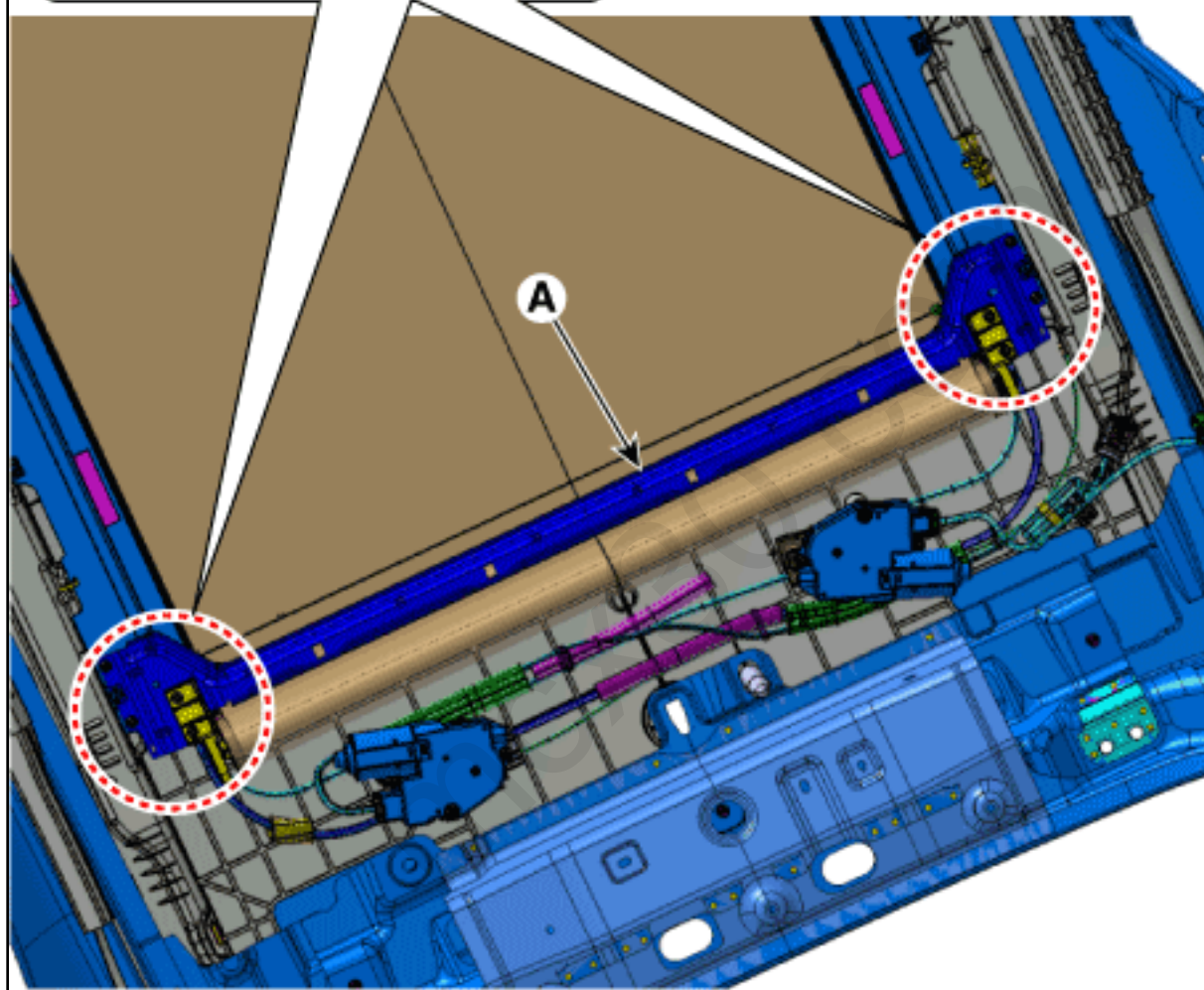
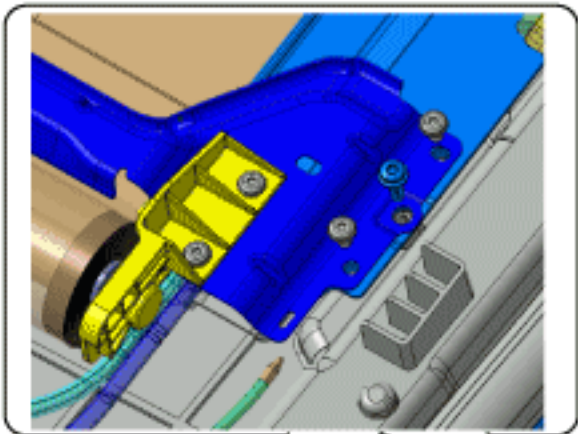
4. Fix the handle to the roller blind shoe (A).



5. Remove the roller blind fixing pin (A) and then insert the roller blind to rail.



6. Tighten the mounting screws after installing the roller blind lower support (A).

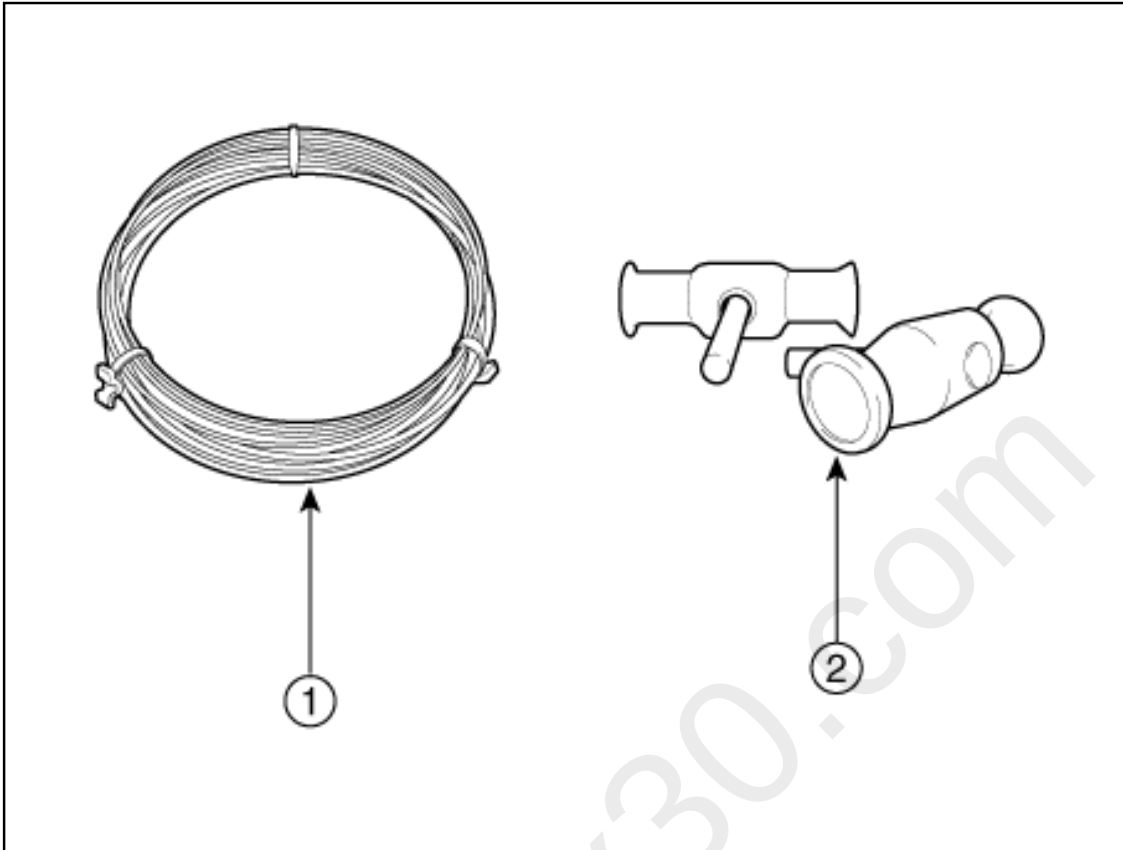


## Removal



- In order to remove panorama sunroof assembly use tools as follows.

### [Tooling Diagram]

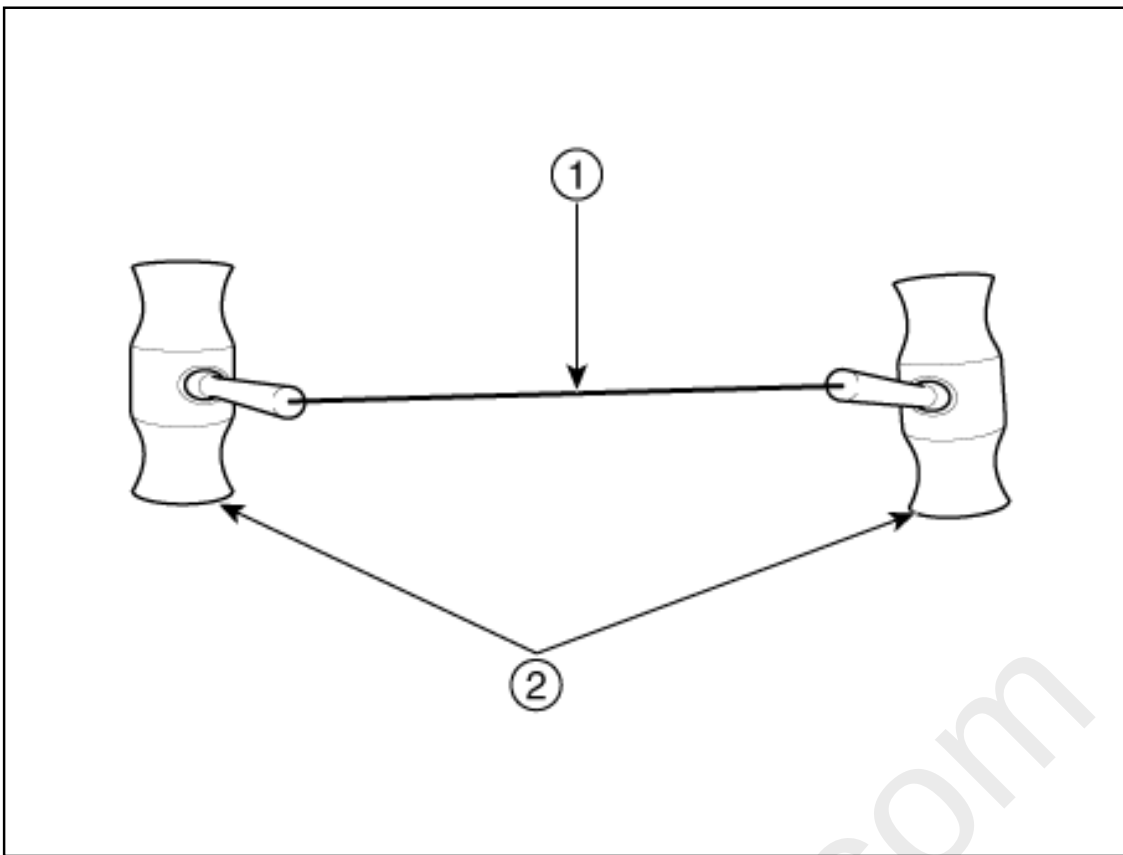


① Square wire

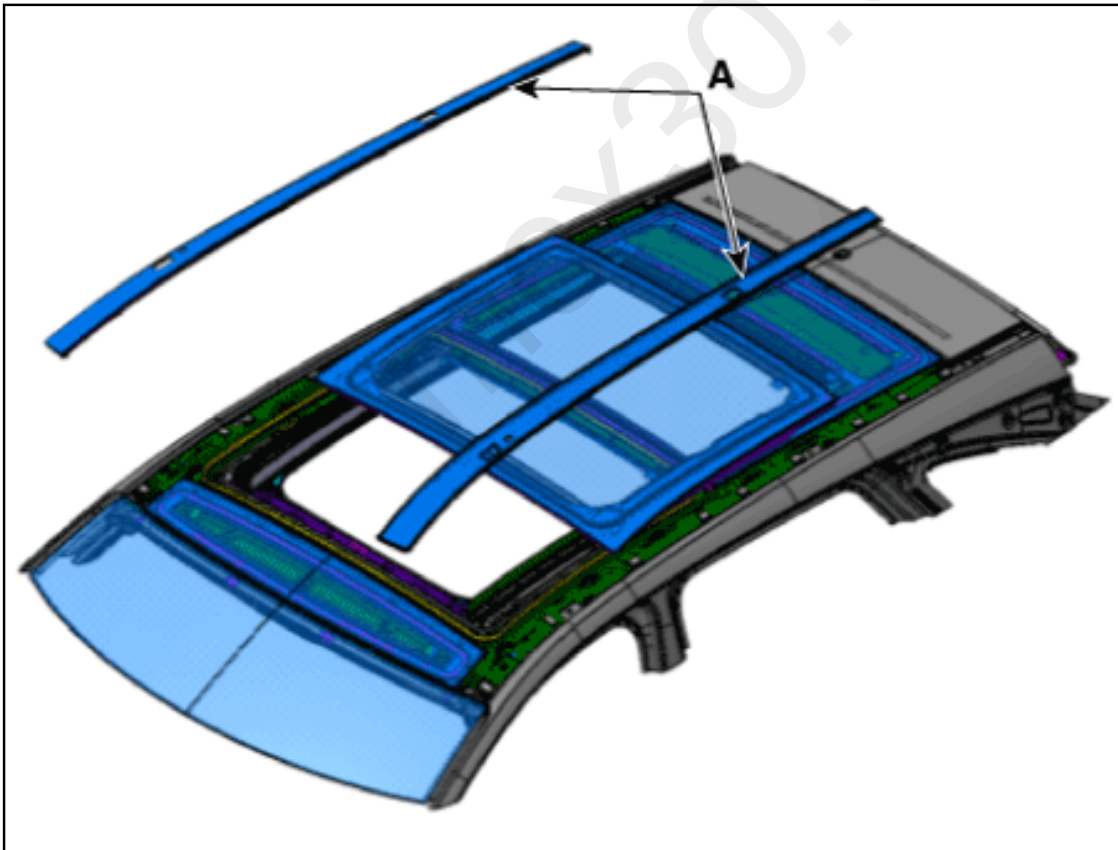
② Insert type wire grip

### [Tooling Assembly Diagram]

- Tighten square wire ① inserting it in the hole of Insert type wire grip ②



1. Remove the roof side molding (A).



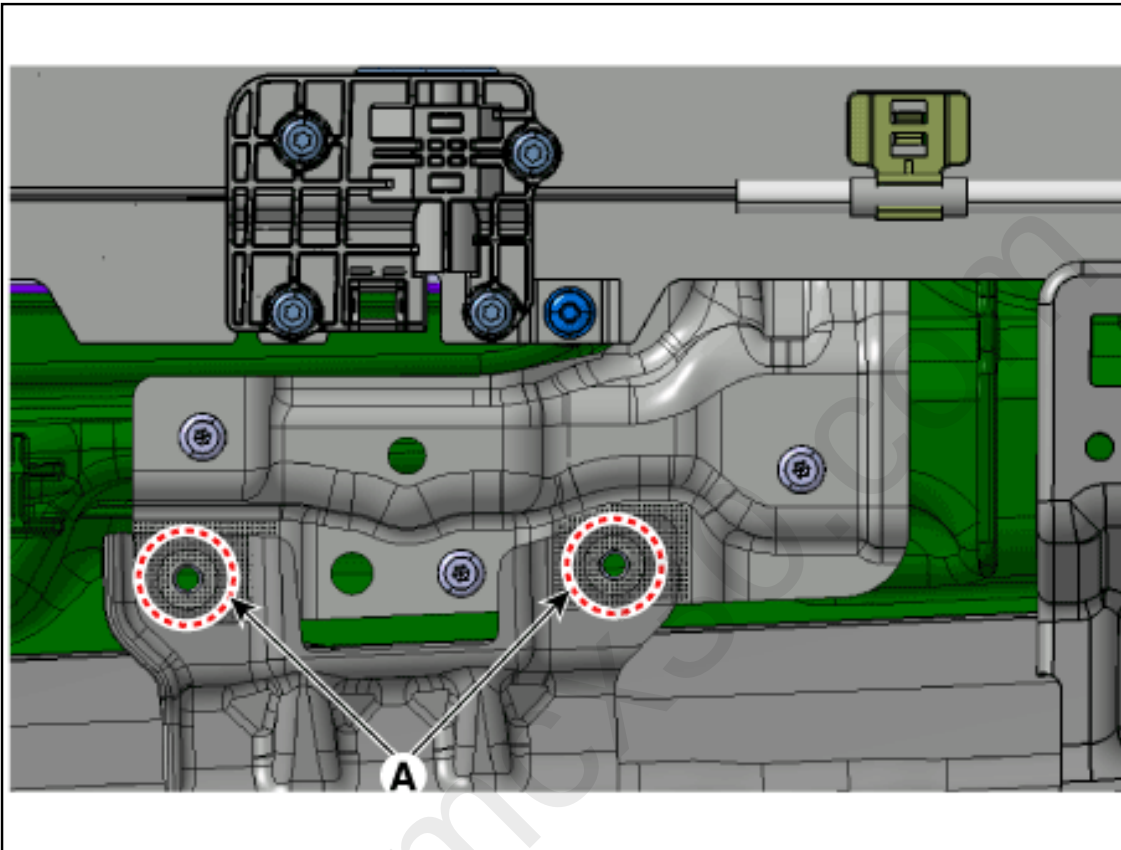
2. Remove the roof trim.  
(Refer to Roof Trim - "Roof Trim Assembly")

3. Remove the front glass.  
**(Refer to Panorama Sunroof - "Front Glass")**
  4. Completely close the movable glass using the panorama sunroof switch.
  5. Remove the rear glass.  
**(Refer to Panorama Sunroof - "Rear Glass")**
  6. Remove the panorama sunroof side bracket.
- 

**Tightening torque :**

7.8 - 11.8 N.m (0.8 - 1.2 kgf.m, 5.8 - 8.7 lb-ft)

---



7. Loosen the panorama sunroof mounting nuts (A).  
**[Front]**
- 

**Tightening torque :**

7.8 - 11.8 N.m (0.8 - 1.2 kgf.m, 5.8 - 8.7 lb-ft)

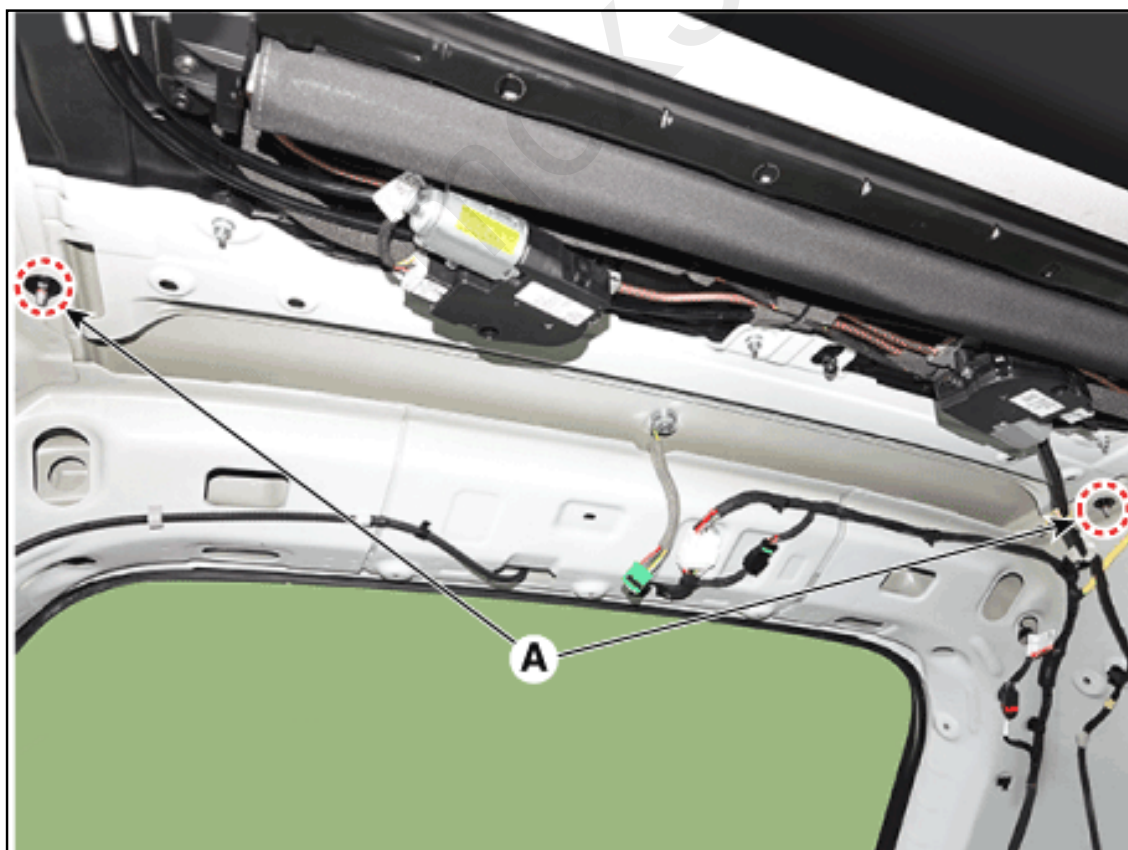
---



[Rear]

**Tightening torque :**

7.8 - 11.8 N.m (0.8 - 1.2 kgf.m, 5.8 - 8.7 lb-ft)



8. Cut sealant in edge side front (A) pulling wire (B) from left to right.



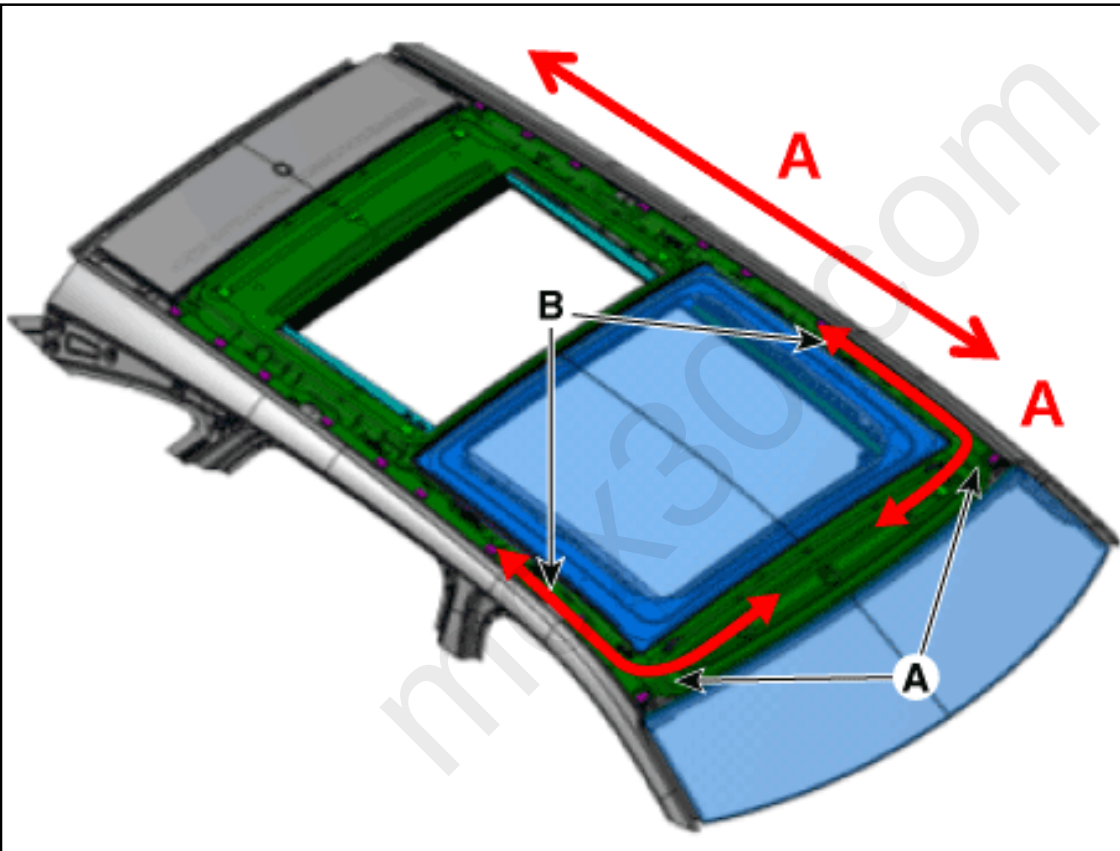
- Wear gloves not to get hurt in the hand.
- Be careful not to be burned in the hand by too much heat using wire.
- Work carefully because wire can be cut.



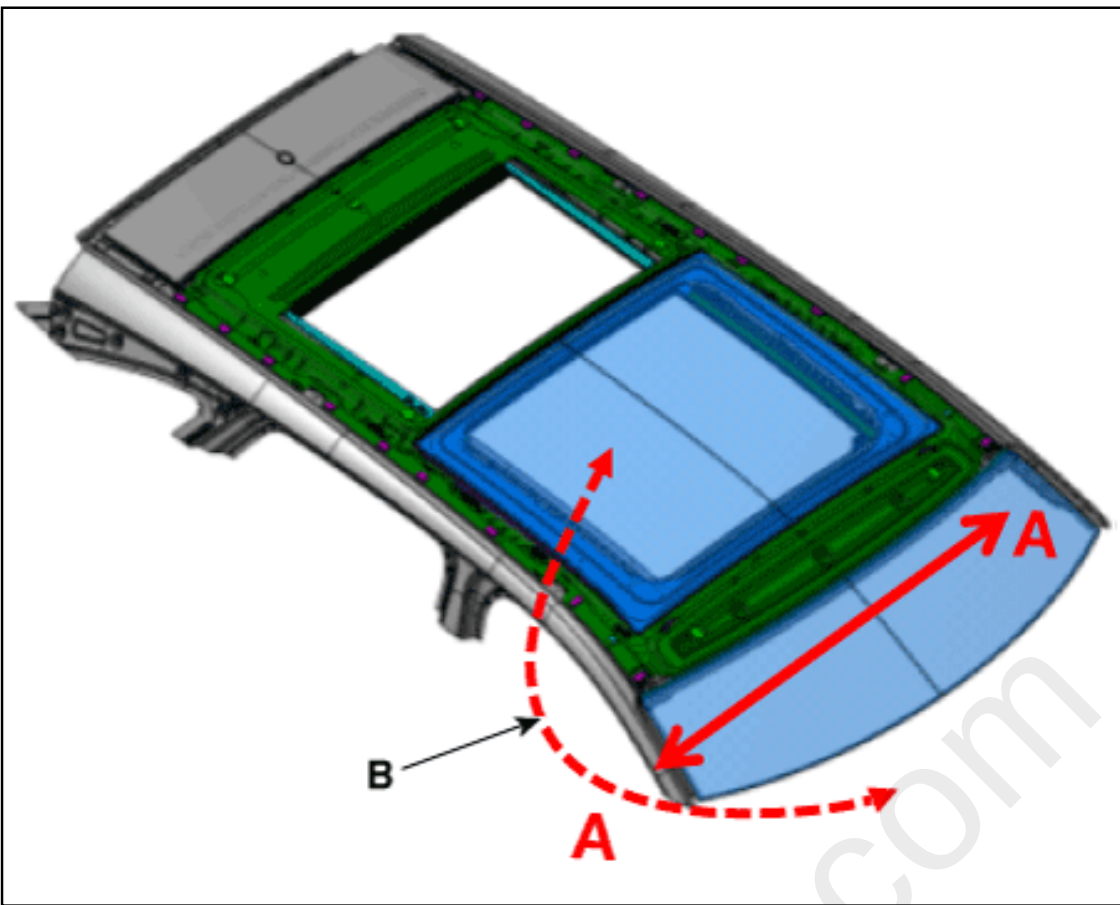
- Use protective tape when removing parts with screw driver or remover not to damage the parts.
- Give attention not to damage body.



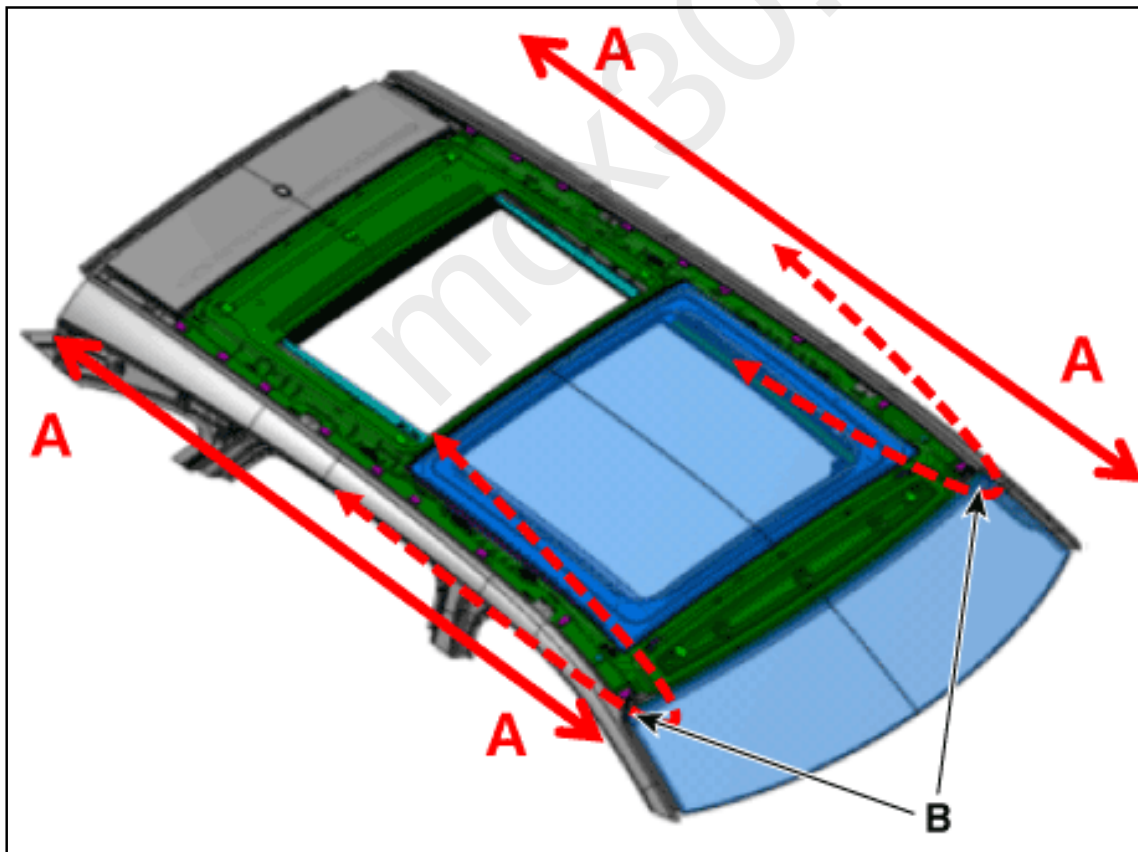
- More than two people should work together when using wire.



9. Cut sealant between edge side front (A-A) pulling wire (B) from left to right.



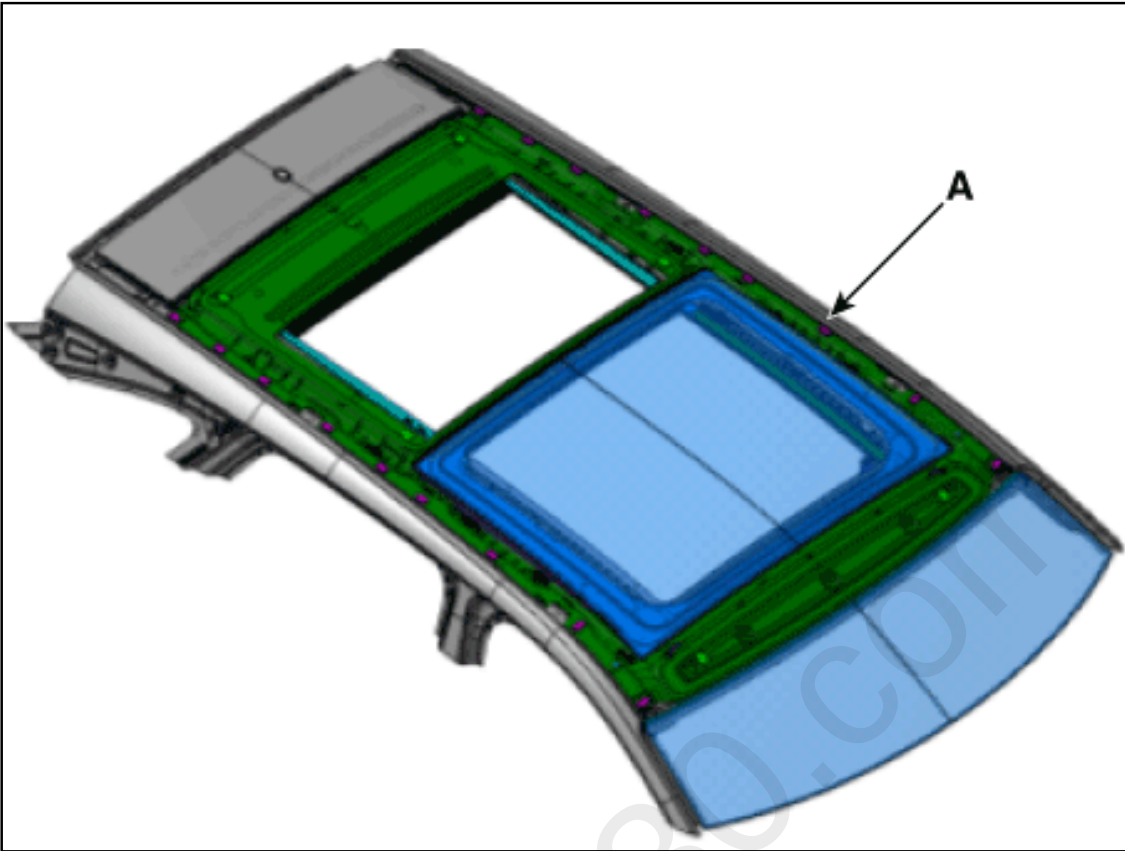
10. Cut sealant between edge side (A-A) pulling wire (B) from left to right.



11. After every edge side sealant is cut, remove panorama sunroof assembly (A).



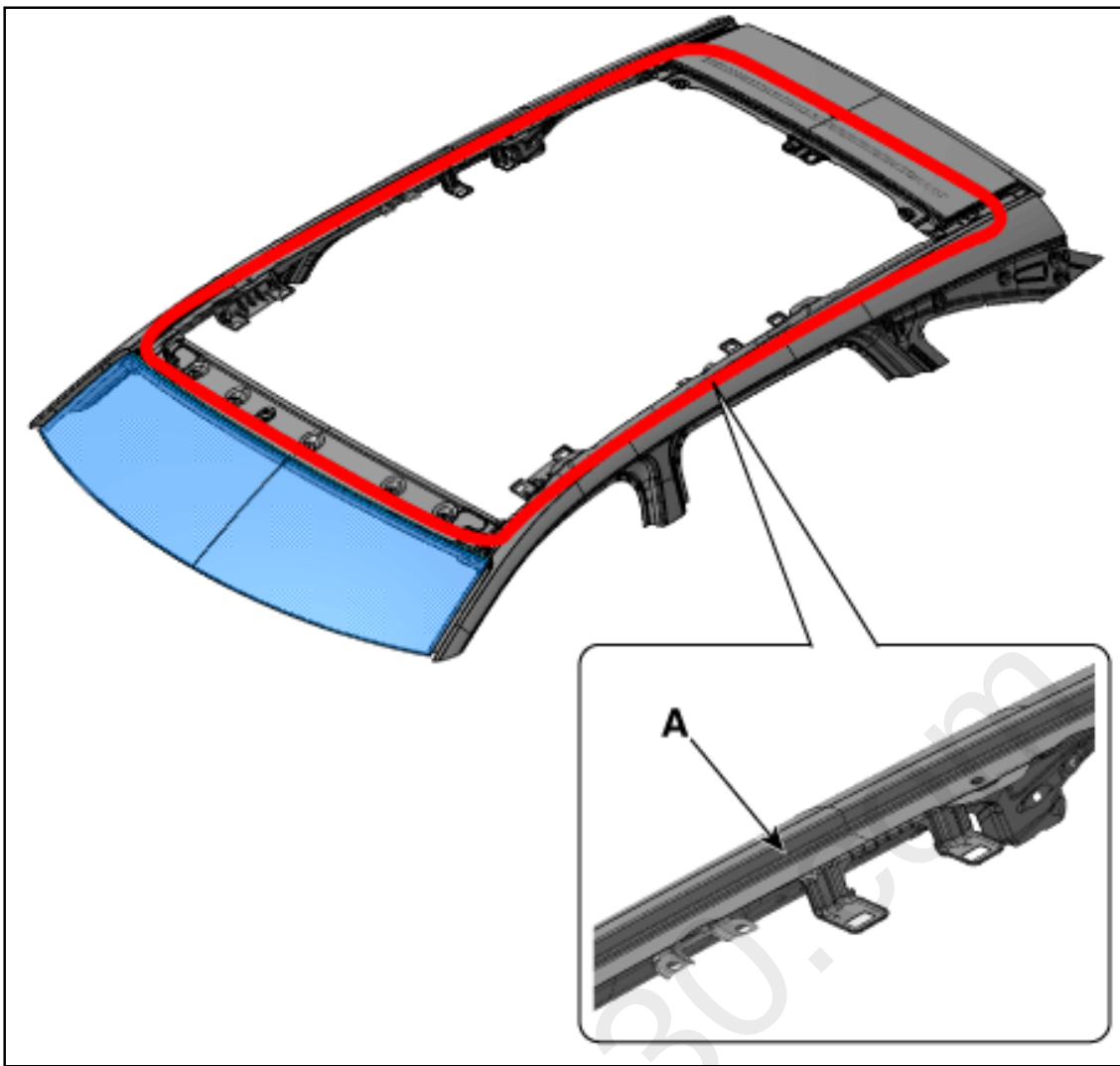
- When removal of the panorama sunroof assembly be careful not to damage.



12. Use a blade to cut off residual sealant (A) around body panel.



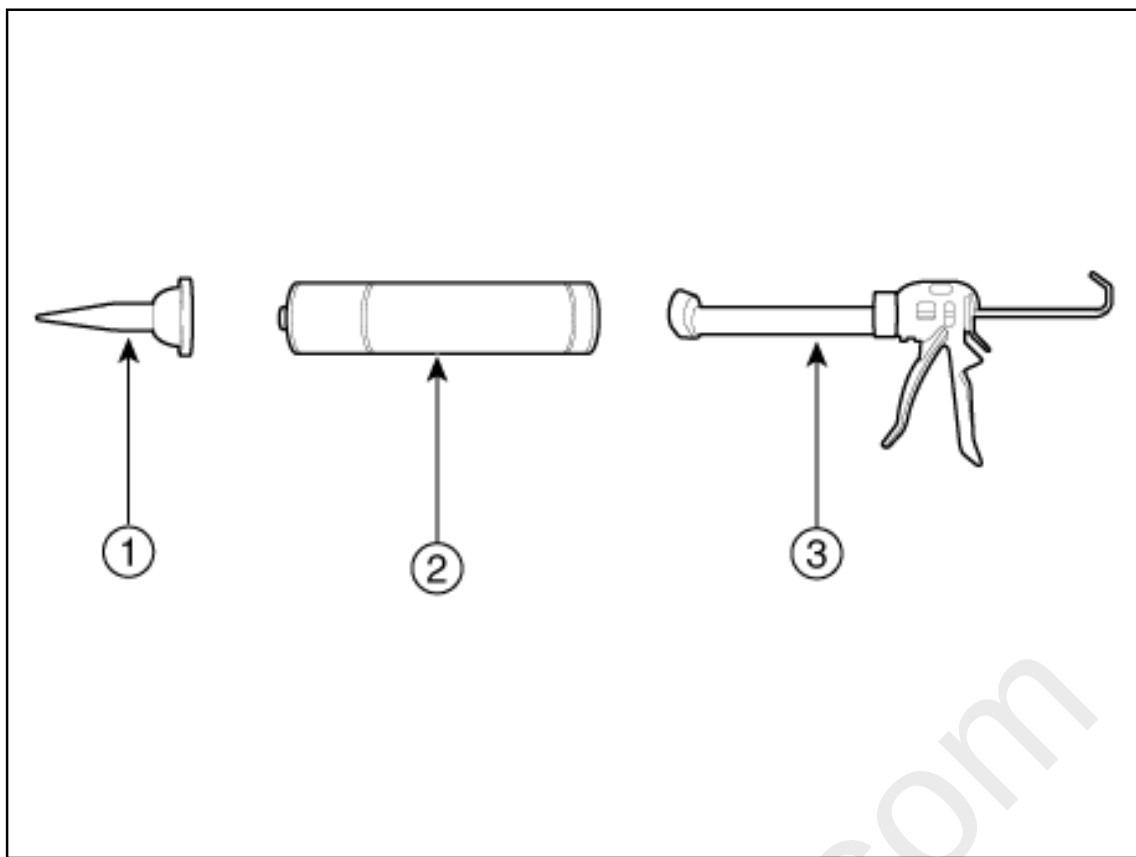
- Make sure that the body paint surface is not damaged at all.
- If it is damaged, apply paint or rust inhibitor for maintenance.

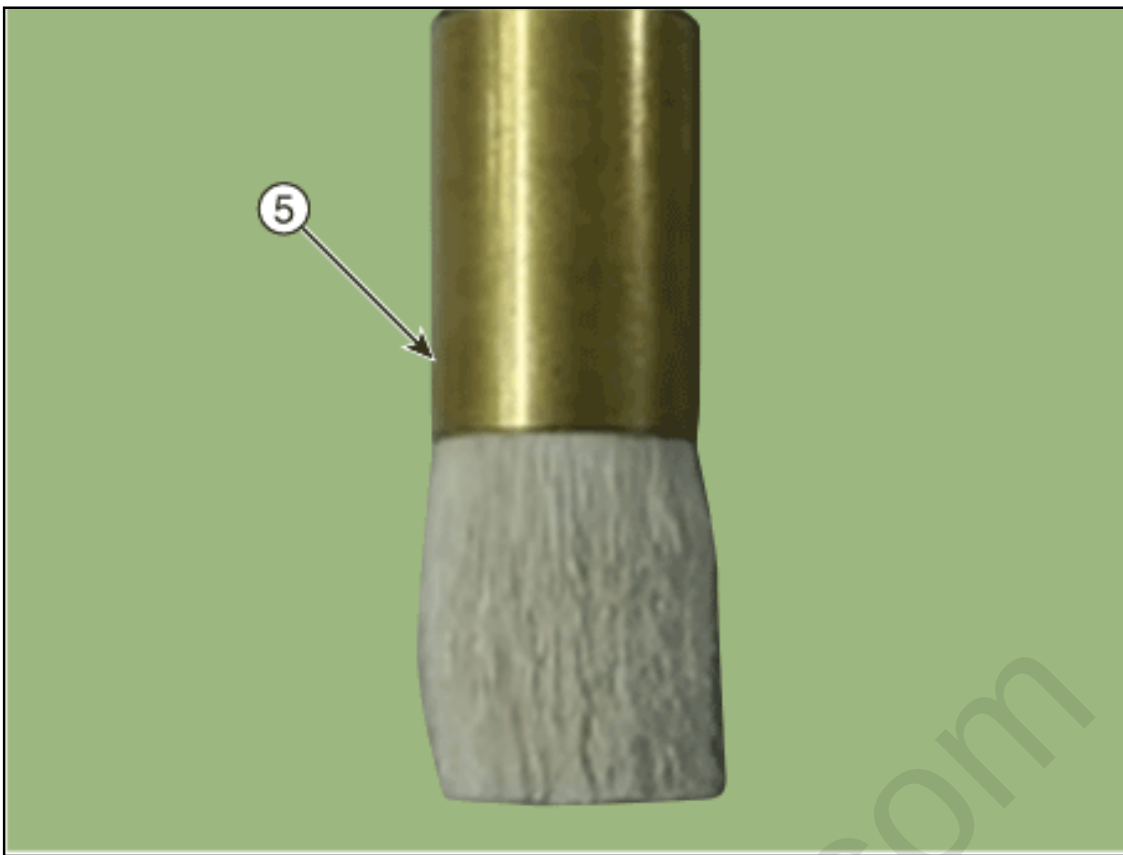


## Installation



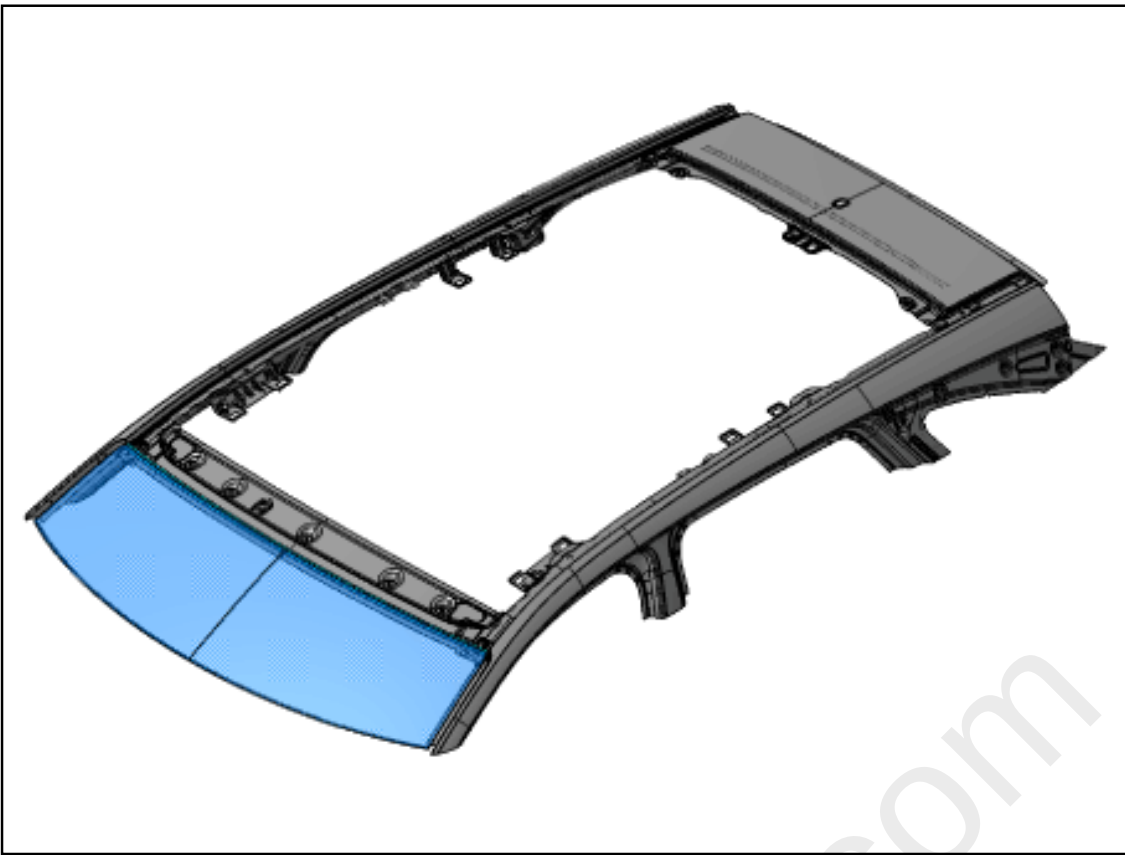
- In order to install panorama sunroof assembly use tools as follows.  
**[Tooling Diagram]**



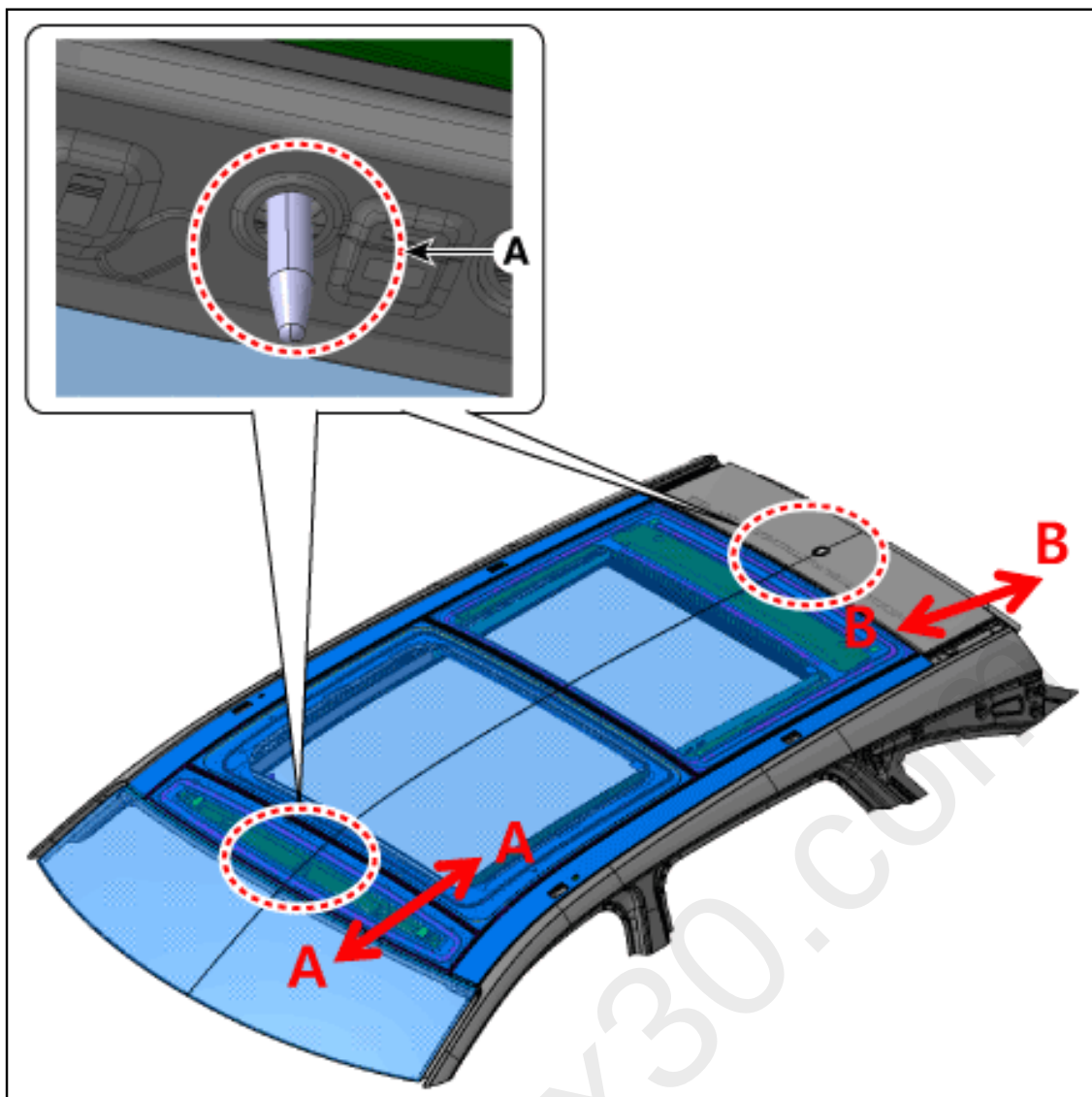


- ① Sealant nozzle
- ② Adhesive sealant only for glass
- ③ Sealant gun
- ④ Primer
- ⑤ Primer application brush

1. Use alcohol or an air gun to clean up the edges of the body panel and panorama sunroof frame.
2. Use a primer application brush to apply primer around the body panel and panorama sunroof frame.
3. Use a sealant gun to apply sealant around the body panel (A) after applying the primer.



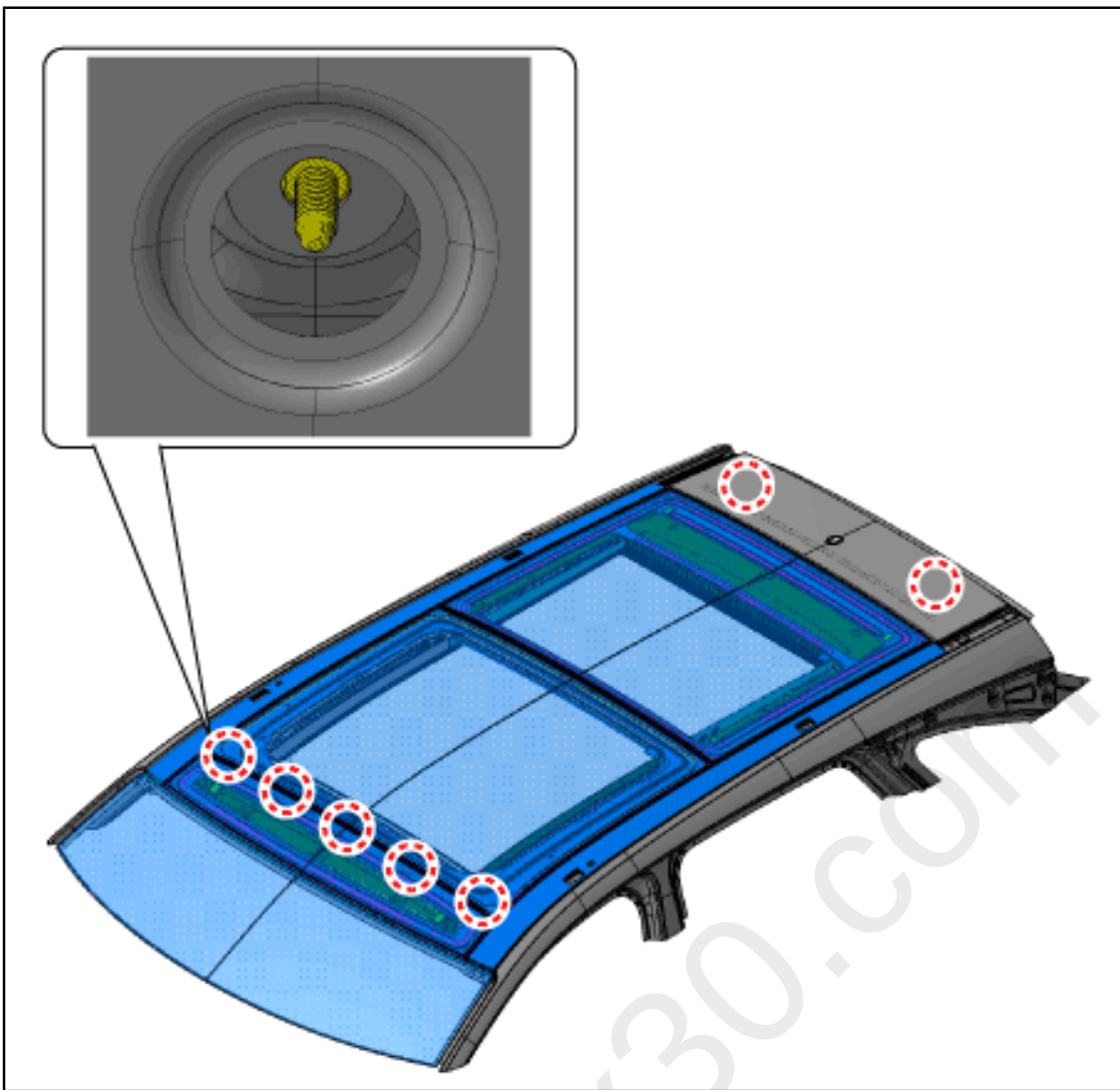
4. Carefully install panorama sunroof on body flange set by centering device hole (A).



5. Check steps and gaps for every side.

| Front | A - A | $1.5 \pm 1$ | $4.7 \pm 1$ |
|-------|-------|-------------|-------------|
| Rear  | B - B | $0 \pm 1$   | $5.9 \pm 1$ |

6. Tighten the panorama sunroof fixing nuts.



7. Perform water leak test.



- Avoid water flow to touch adhesive surface directly and let water flow to side of the glass.

8. If water leak occurs, apply sealant on leakage spot.



- After panorama sunroof is installed vehicle should be parked on flat place 4 hours at least.
- If vehicle should be run, drive slowly within 8 hours at least.
- Alert the driver to avoid driving the car aggressively for 2-3 days, or avoid driving in on irregular road surfaces.

9. Install the roof trim.

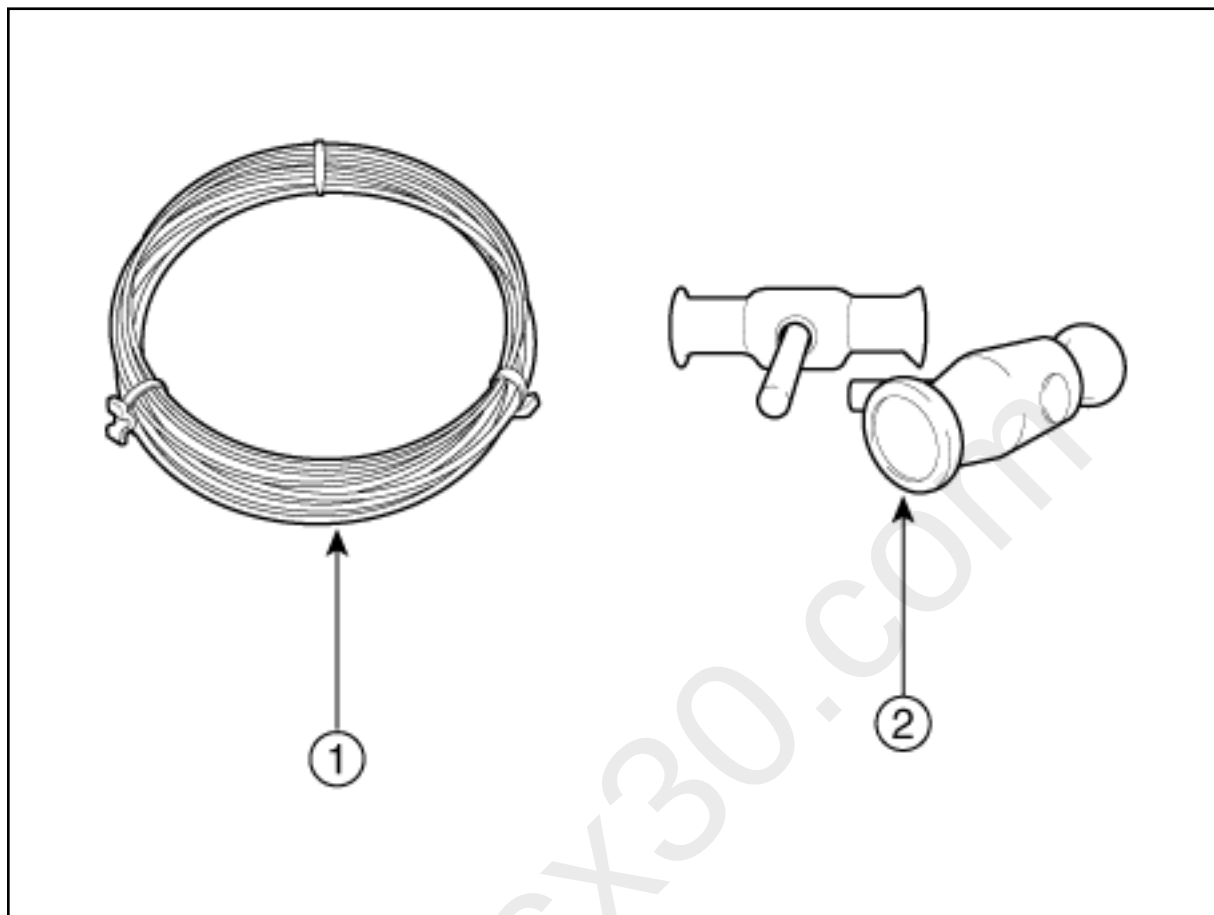
**(Refer to Roof Trim - "Roof Trim Assembly")**

## Removal



- In order to remove rear glass, use tools as follows shown in the picture.

### [Tooling Diagram]

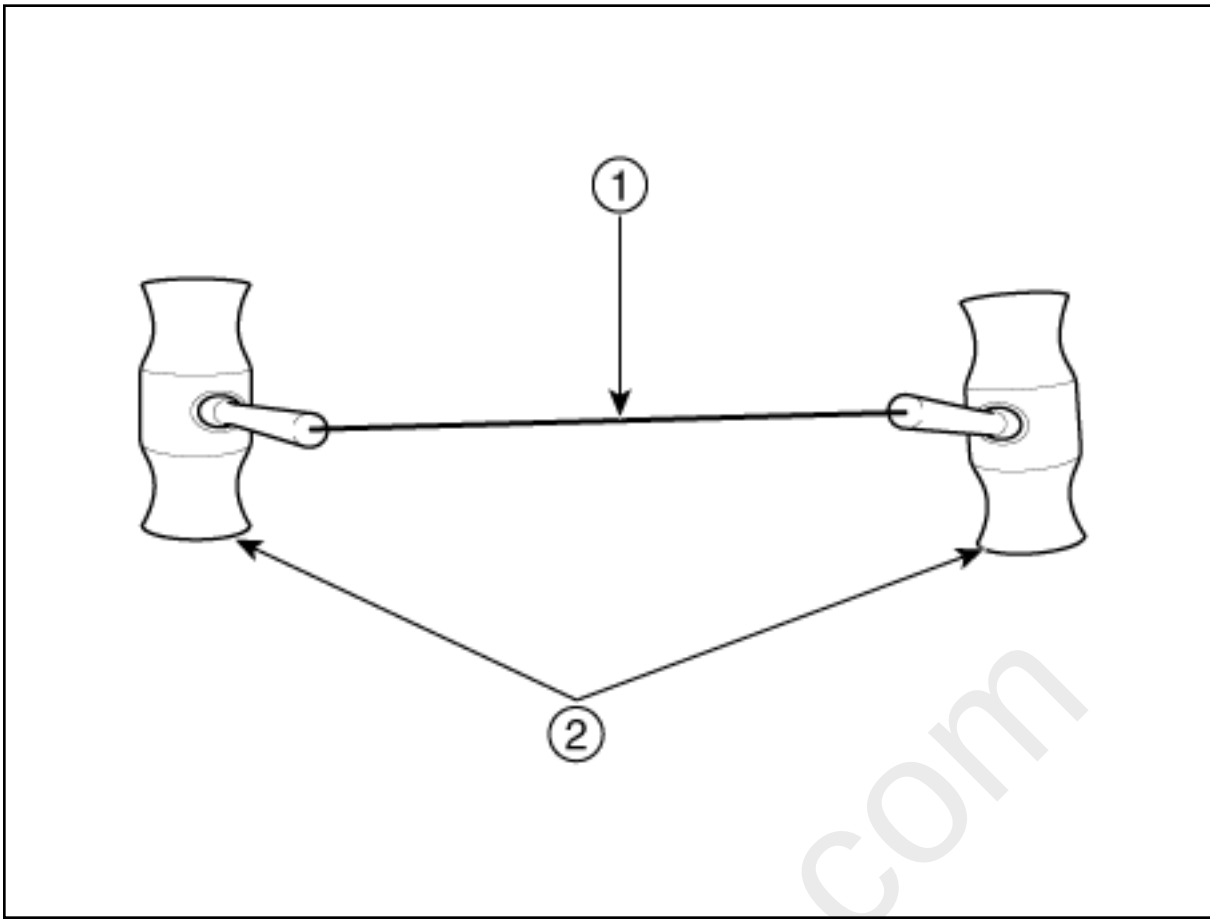


① Square wire

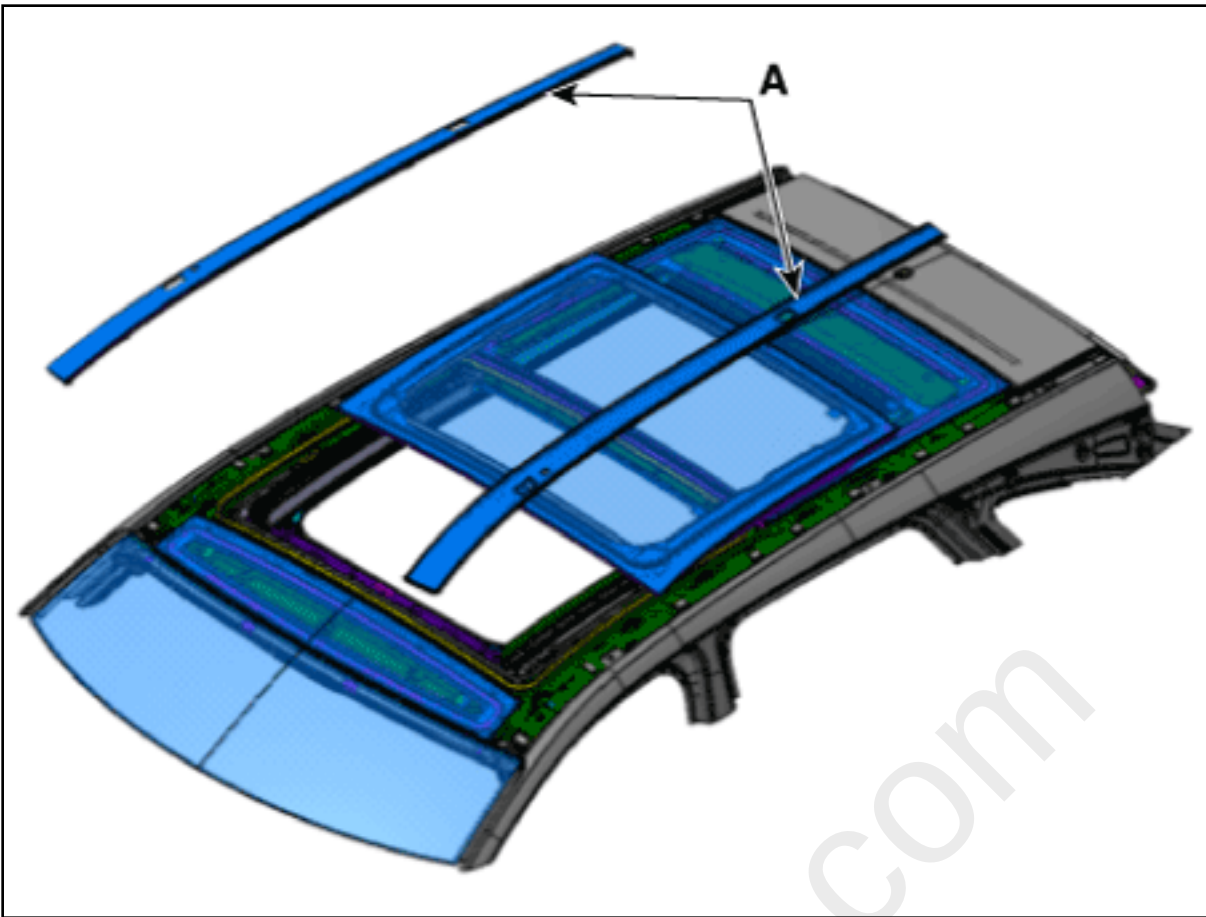
② Insert type wire grip

### [Tools Assembly Diagram]

- Tighten square wire ① inserting it in the hole of Insert type wire grip ②



1. Remove the movable glass.  
**(Refer to Panorama Sunroof - "Movable Glass")**
2. Remove the roof side molding (A).



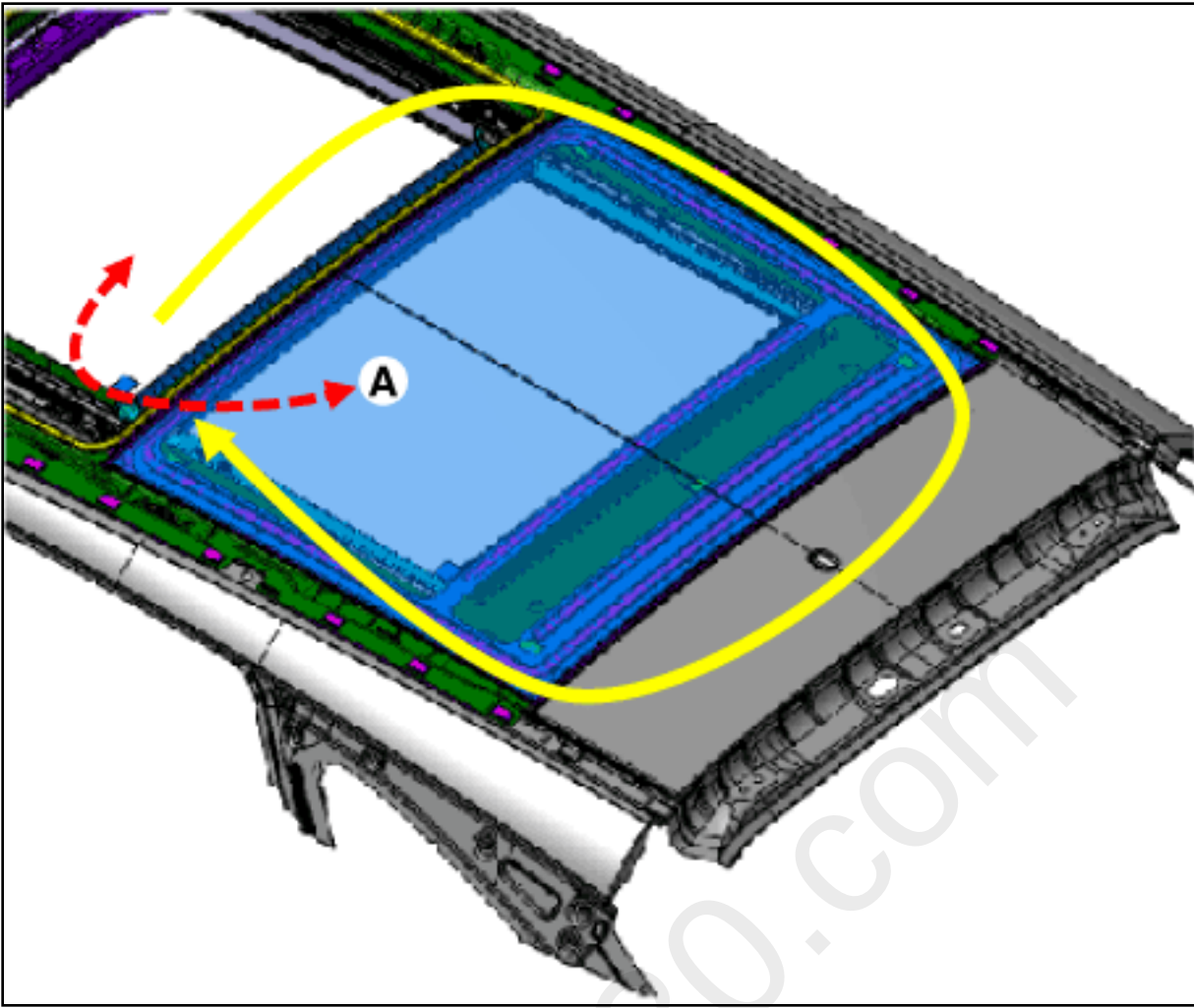
3. Cut sealant from front pulling square wire (A) from left to right.



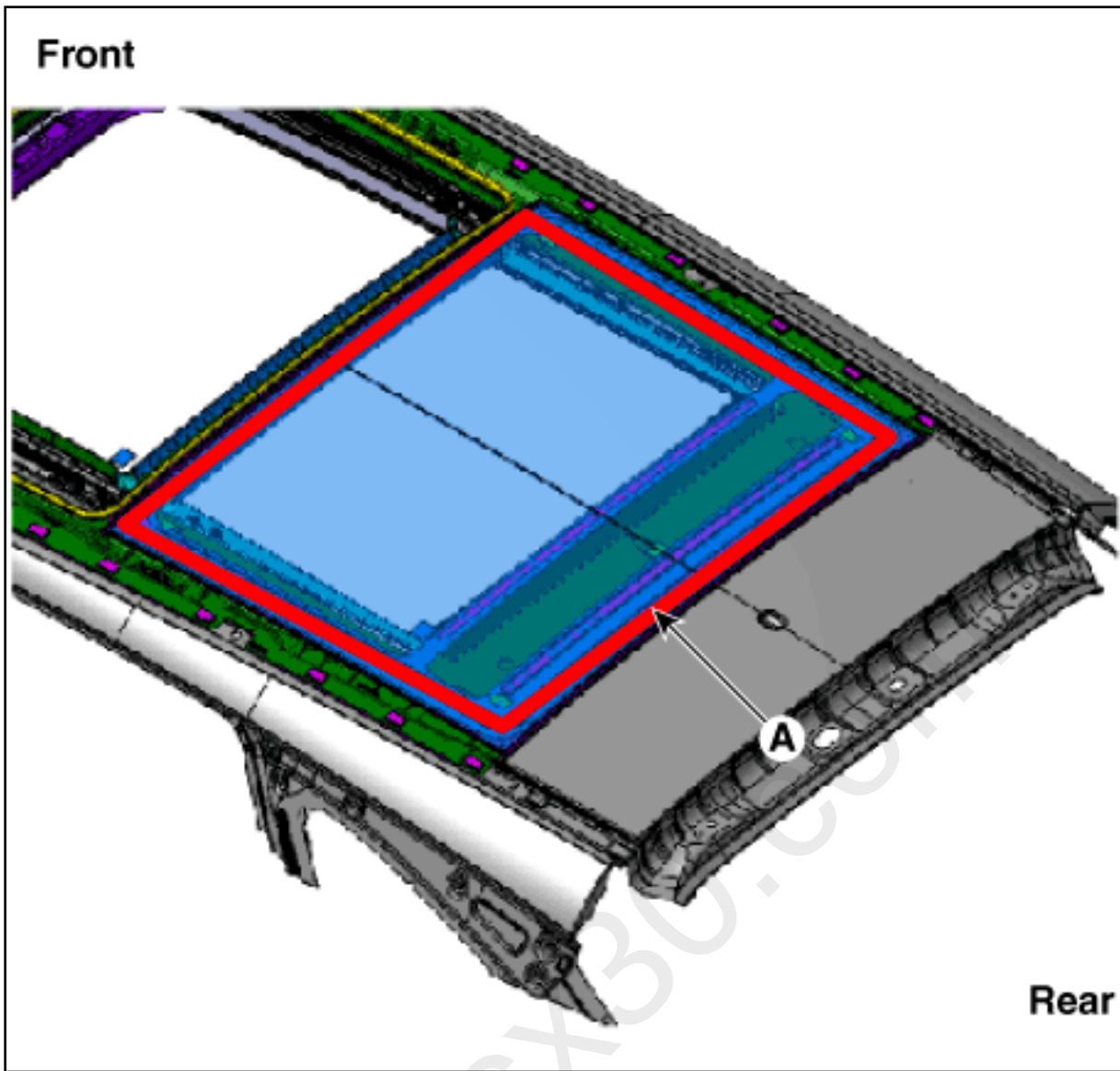
- Wear gloves not to get hurt in the hand.
- Be careful not to be burned in the hand by too much heat using wire.
- Work carefully because wire can be cut.



- Give attention not to damage body.



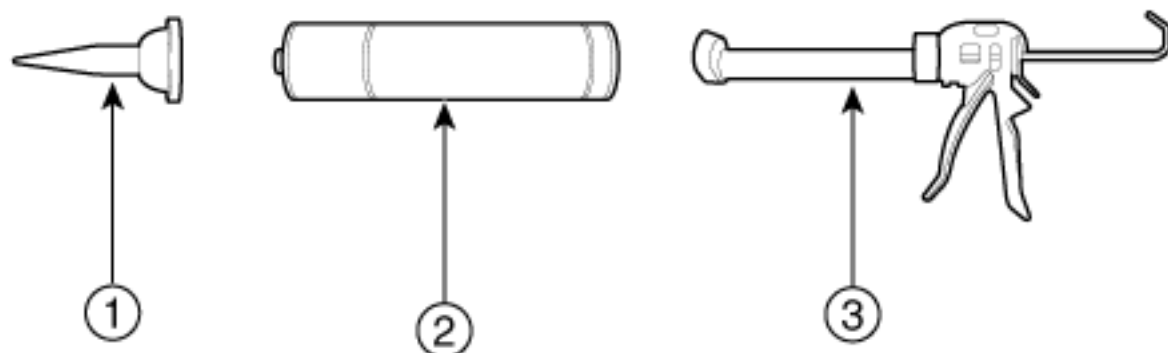
4. Carefully remove rear glass (A) not to be damaged.

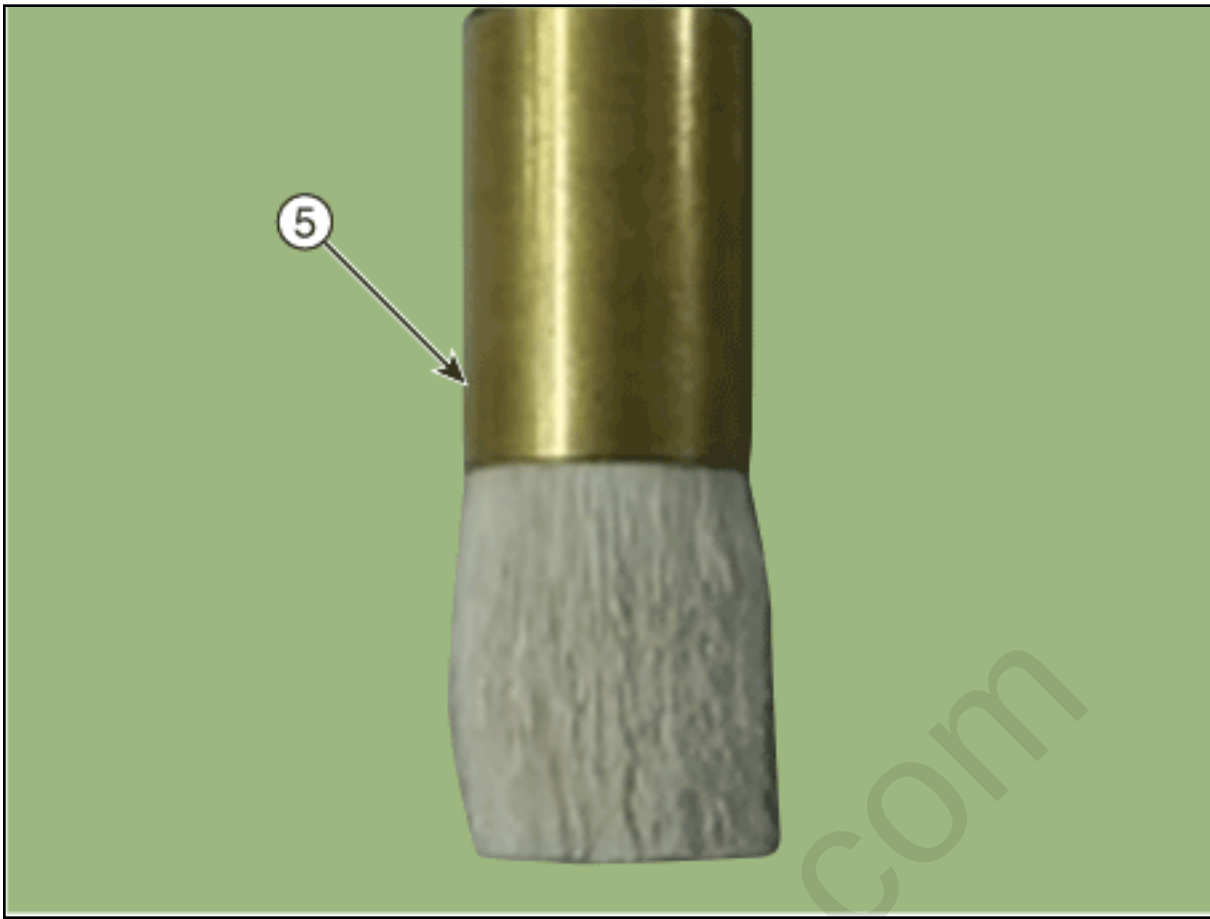


## Installation



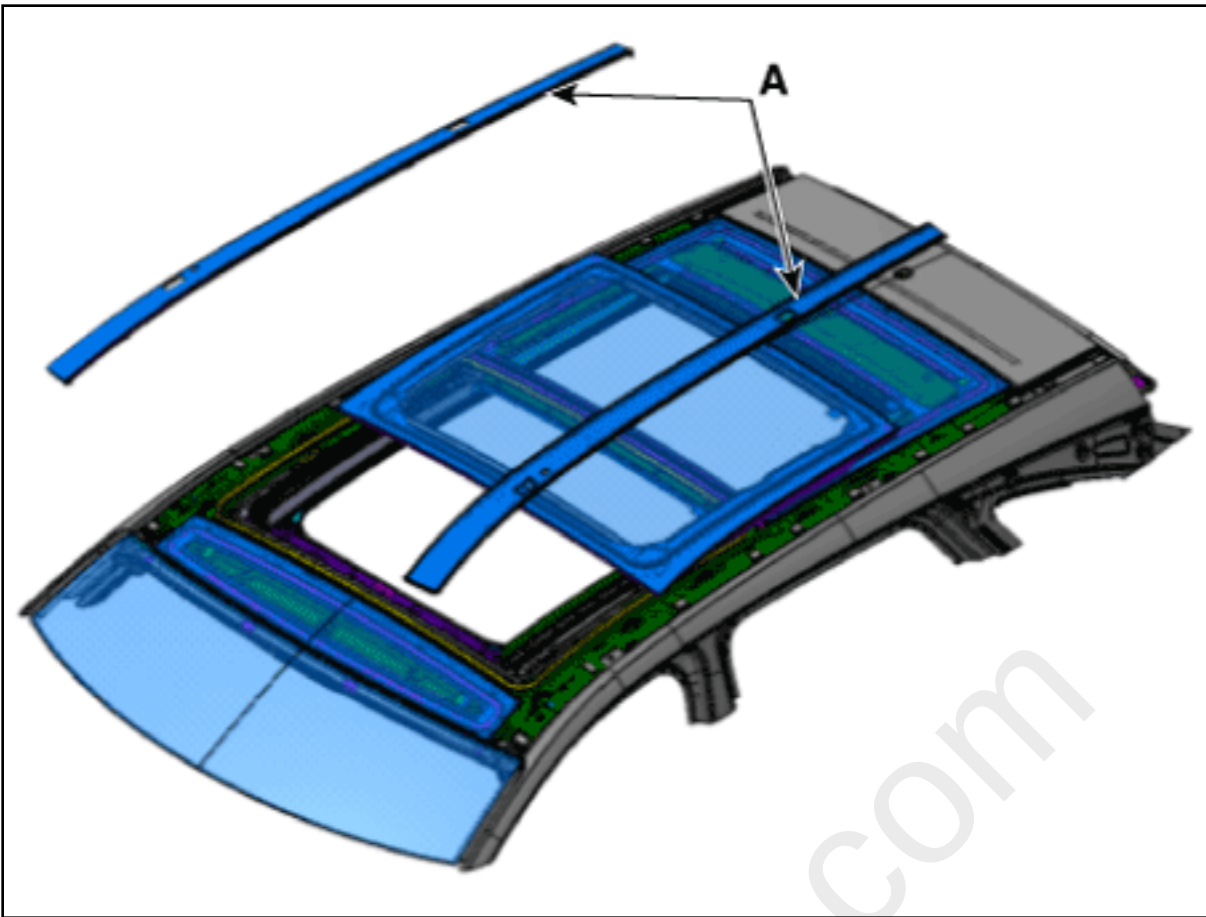
- In order to install rear glass, use tools as follows as shown in the picture.  
**[Tools Diagram]**





- ① Sealant nozzle
- ② Adhesive sealant only for glass
- ③ Sealant gun
- ④ Primer
- ⑤ Primer application brush

1. Install the roof side molding (A).



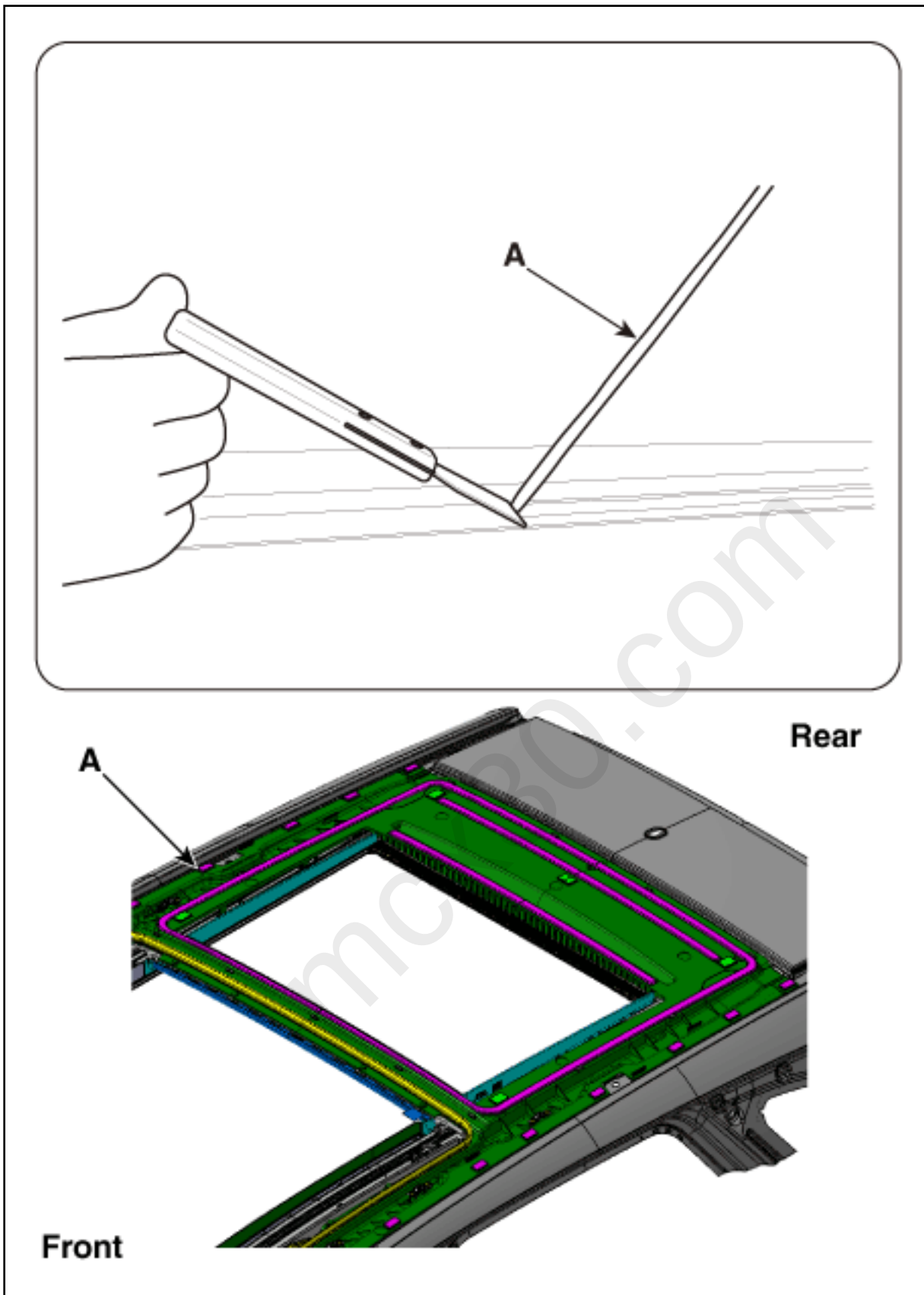
2. Cut remaining sealant (A) around body panel using knife blade.



- When cutting sealant around body panel, leave 2 mm thick from adhesive spot.



- Give attention not to damage painted area in the body.
- If found damaged area, apply protective paint or rust inhibitor.

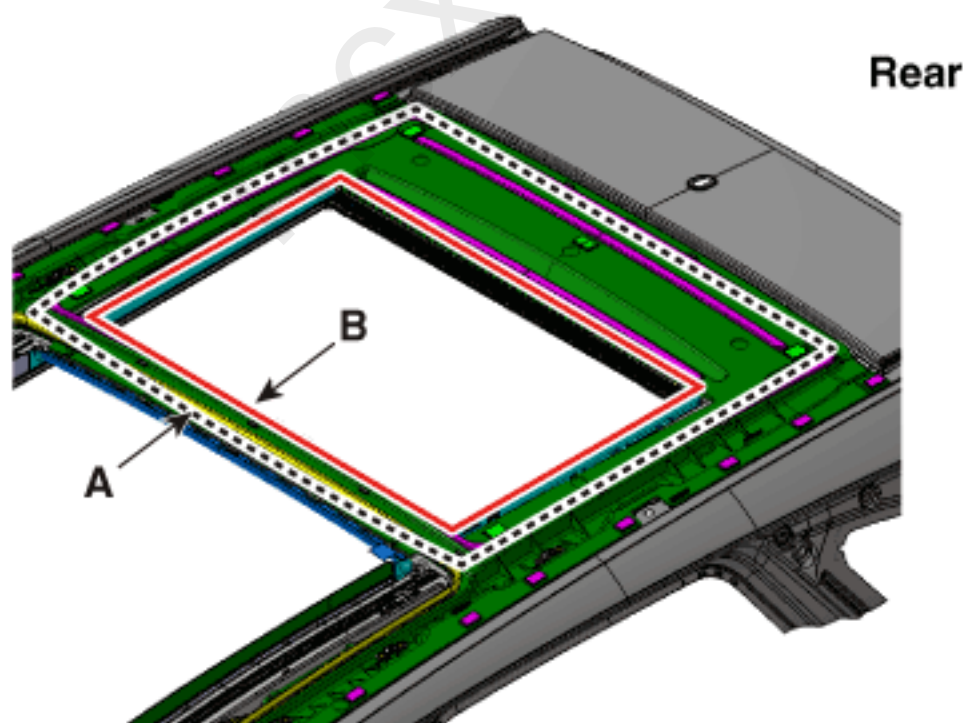
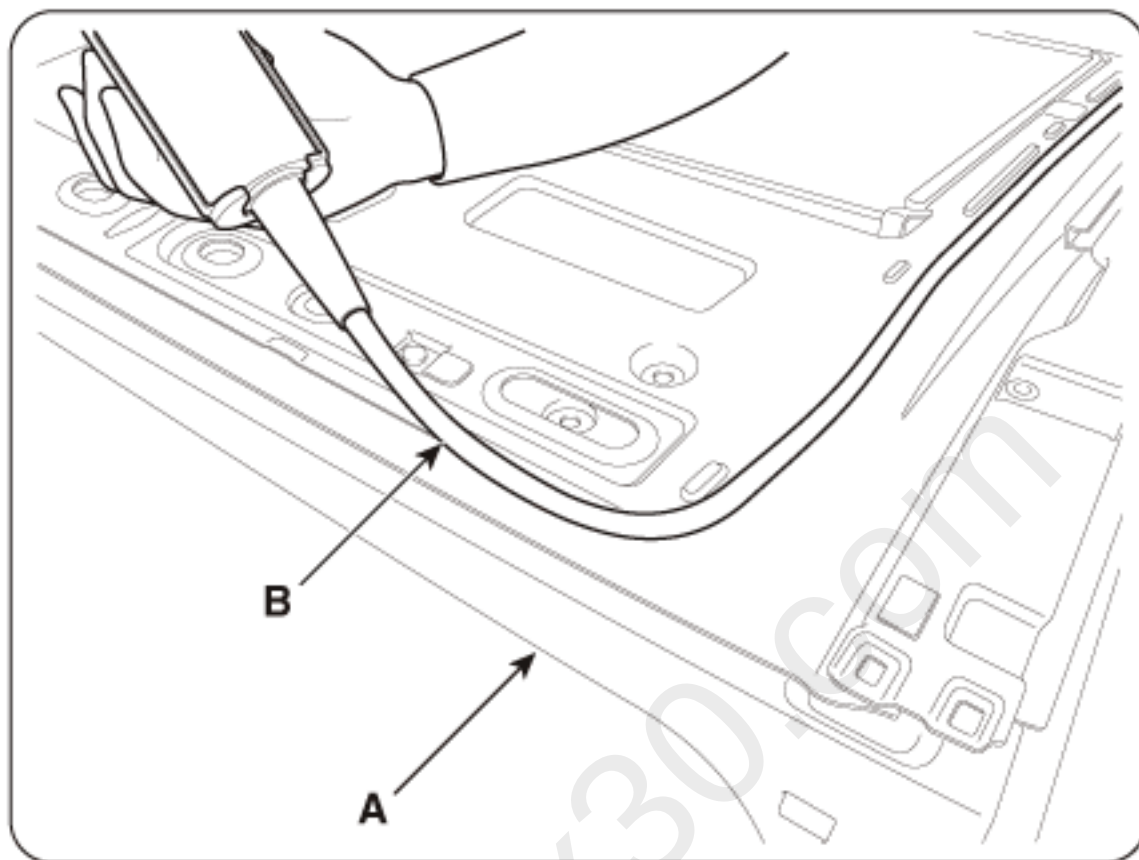


3. Clean edges of body panel and rear glass thoroughly with alcohol or air gun.
4. Use a primer application brush to apply primer around the panorama sunroof frame (A) and front glass.

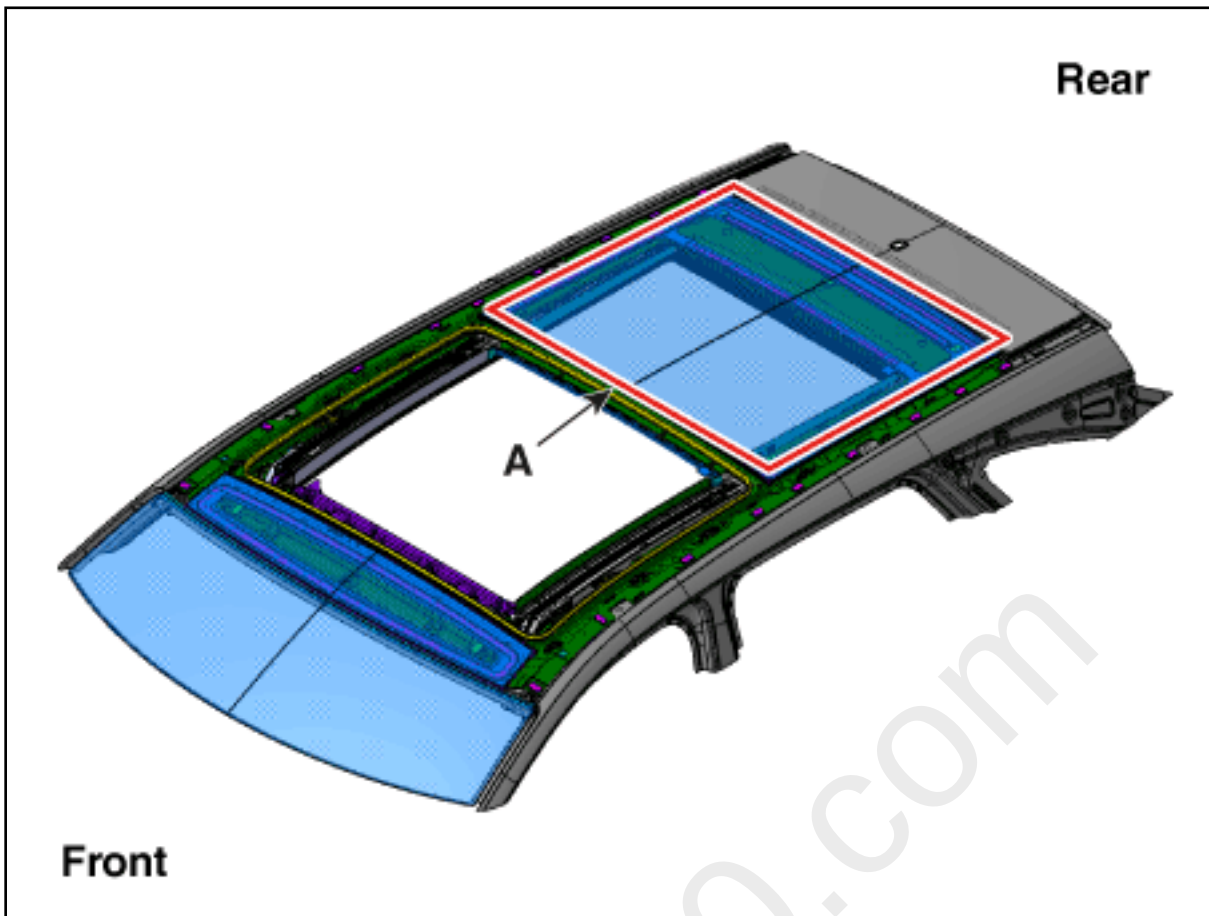
5. Apply sealant (B) around body panel (A) using sealant gun.



•When applying sealant using sealant gun avoid to cut off and water leak.



6. Install the rear glass (A) on the body panel.

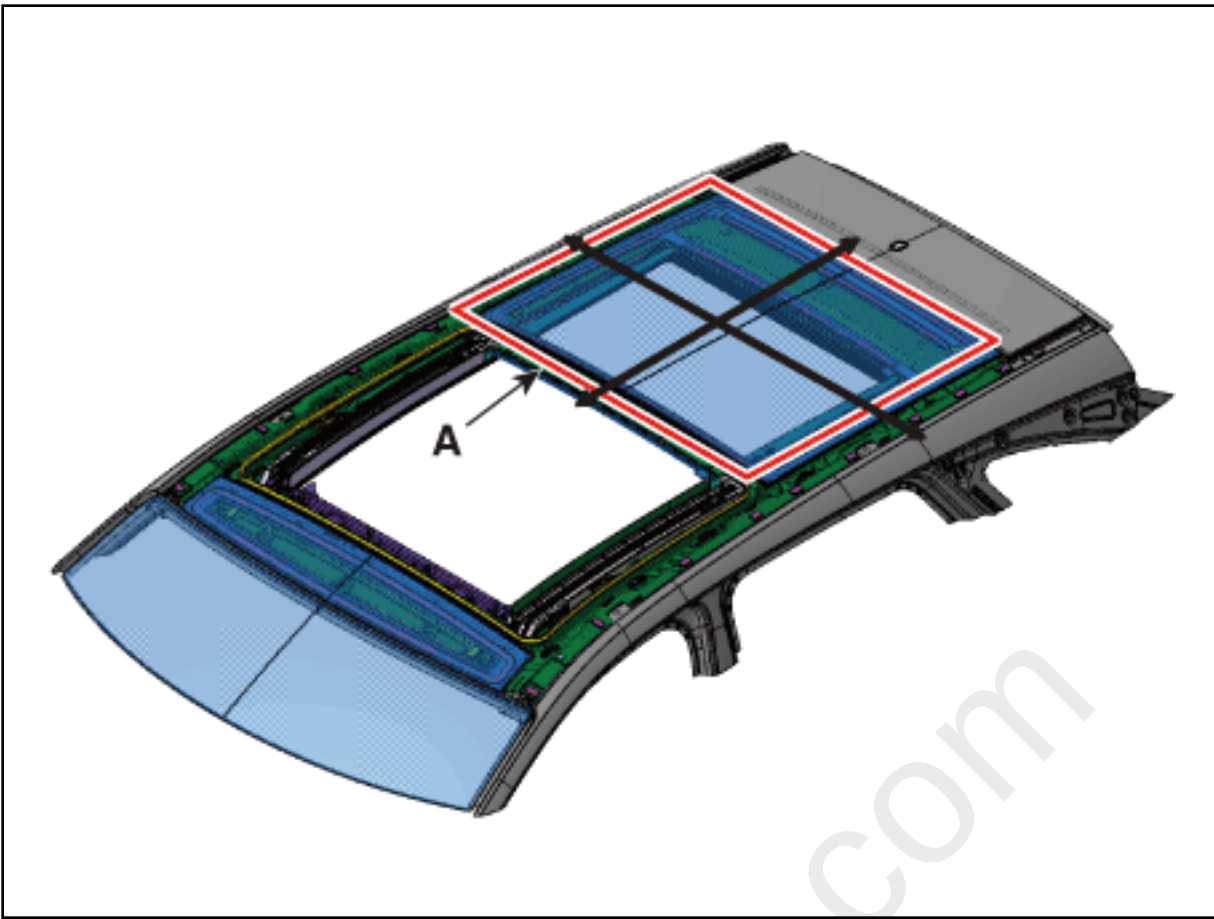


7. Install the rear glass (A) completely after checking step and gap.

8. Tape around rear glass not to make floating area.



- Clean thoroughly with alcohol or cleaner when sealant is over applied and seen from outside of the body.



- After rear glass is installed vehicle should be parked on flat place 4 hours at least.
- If vehicle should be run, drive slowly within 8 hours at least.
- Alert the driver to avoid driving the car aggressively for 2-3 days, or avoid driving in on irregular road surfaces.

9. Install the movable glass.

**(Refer to Panorama Sunroof - "Movable Glass")**