

# *HardCabs* →

*INSTALLATION INSTRUCTIONS*

## **ARCTIC CAT**

**PROWLER PRO - PROTECTOR**

**UTV TRACKER OFFROAD - 800**

**SX(LE) - PROTECTOR**



## **SAFETY INSTRUCTIONS**

***Warning: Failure to heed all safety and operating instructions and warnings regarding use of this product can result in serious bodily injury.***

### ***READ PROPERLY COMPLETE ASSEMBLY INSTRUCTIONS BEFORE STARTING OF ASSEMBLY***

***Install all parts indicated in assembly instructions. Failure to fully assemble product before use could result in personal injury.***

***Assembly of product requires use of hand or power tools. If you are not experienced in using these types of tools, have product dealer do the install for you.***

***Some parts contain sharp edges, wear protective gloves if necessary.***

***Always keep your assembly area clean, uncluttered and well lit.***

***Keep visitors and children a safe distance away from the assembly area. Visitors should wear the same safety equipment described under.***

***Never operate your UTV with the cab doors open. Failure to properly latch the doors before moving the vehicle could result in serious injury.***

***Dress for safety. DO NOT wear loose clothing, gloves, neckties or jewelry if using power tools to assemble this product.***

***Insert all nut covers after you finish installation.***

***Never drive your UTV with the cab front window in open position. Failure of improperly latched/locked front window before driving the vehicle could result in serious injury.***

## **MAINTENANCE AND CLEANING**

***To clean polycarbonate surface use soapy water solution or other subtle means.***

***Dirt and dust wash by gently water stream and swipe only with wet or damp means in the direction from top to bottom.***

***The recommended frequency of cleaning of polycarbonate part is about 1 time per month or according to the actual degree of pollution.***

***Do not use detergents that could scratch the surface plates.  
(abrasives, harsh fabrics, etc.)***

***Do not use solvents or alkaline detergents or cleaners with ammonia  
(ammonium hydroxide).***

***Do not remove the impurities from the surface of the razor blades or other sharp items.***

***Do not clean cabin, when the polycarbonate plates are heated by the sun.***

***Do not use the squeegee, it could be scratched surface plates.***

***Do not clean the water current strength greater than 50 bar (WAP)***

***The manufacturer is not responsible for scratching the surface in case of failure to comply with the above instructions.***

***All bolted connections of cab must be by user at regular intervals checked and tightened.***

***Please be careful to not broken the plastic washers, if you tightening screws with plastic washers use maximal power 3,7 foot-pound force ( 5Nm)!!!***

**PREPARATION FOR INSTALLATION:**

Uninstall all additional systems from the roller cages (work lights, rear mirrors, drink holders etc.)

Uninstall original doors from the vehicle (both sides).

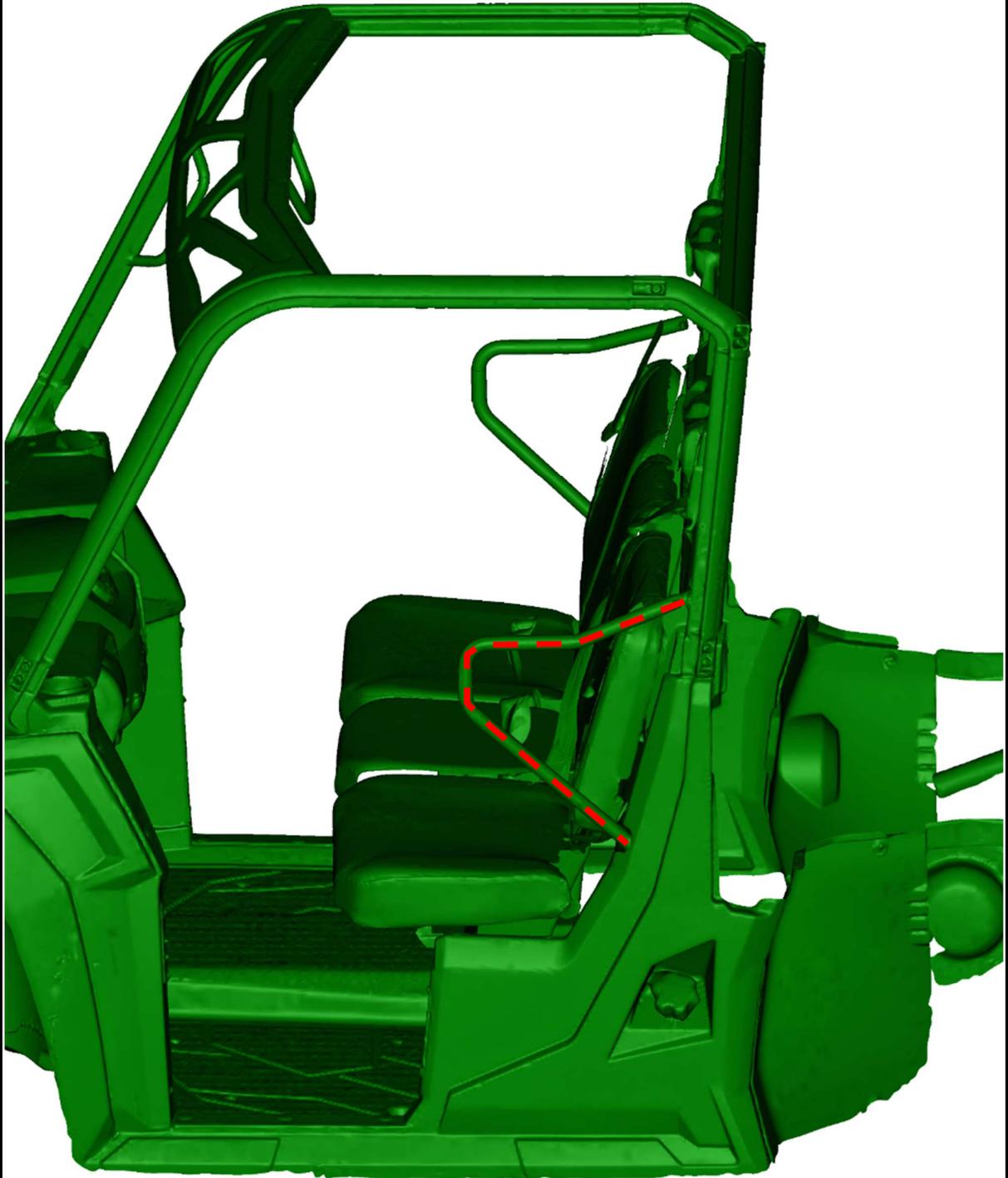


Loose original plastic cover.



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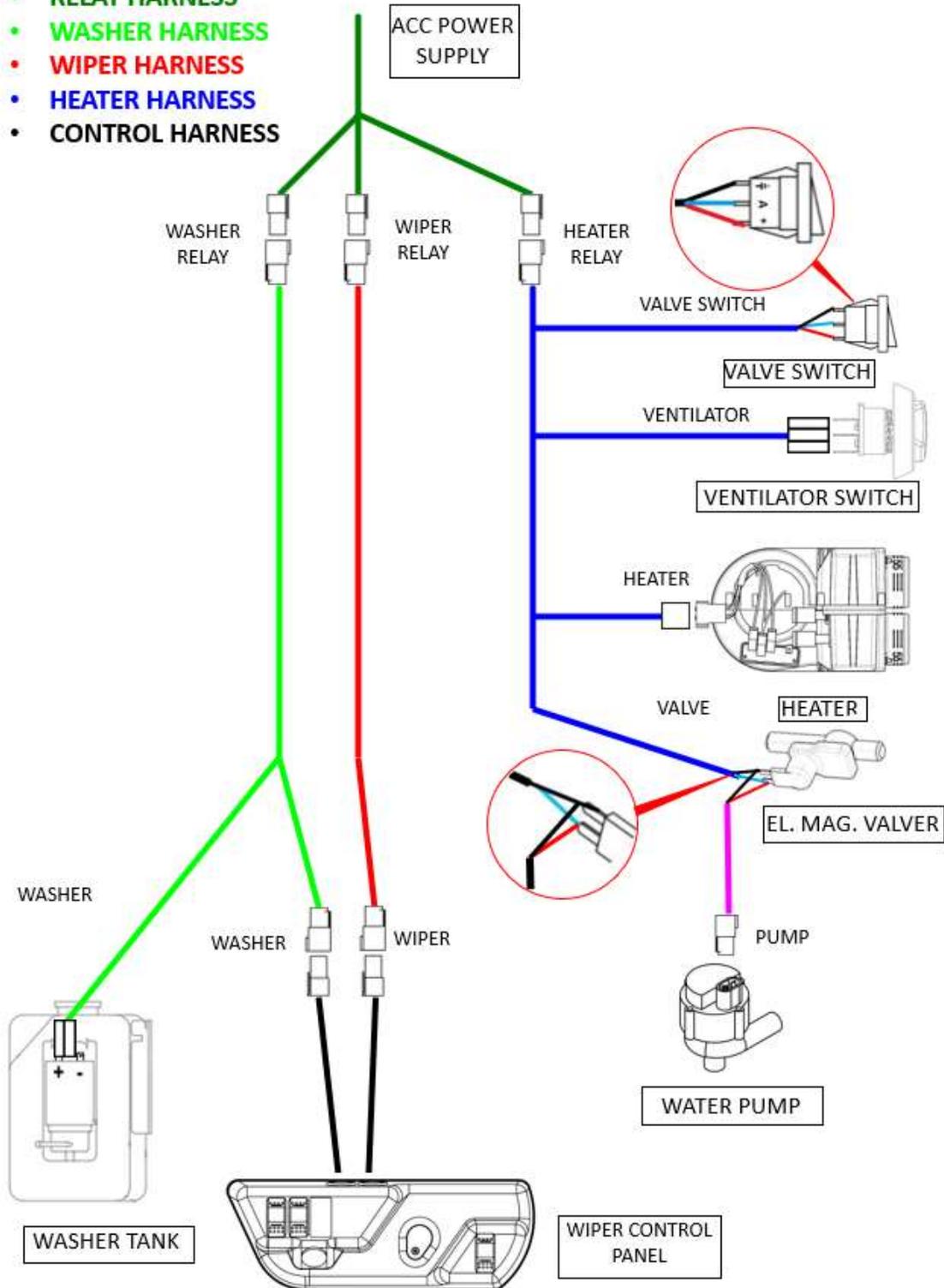
Uninstall original handles from the vehicle (both side).



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**ELECTROINSTALLATION 1.**  
**OVERALL WIRING DIAGRAM**

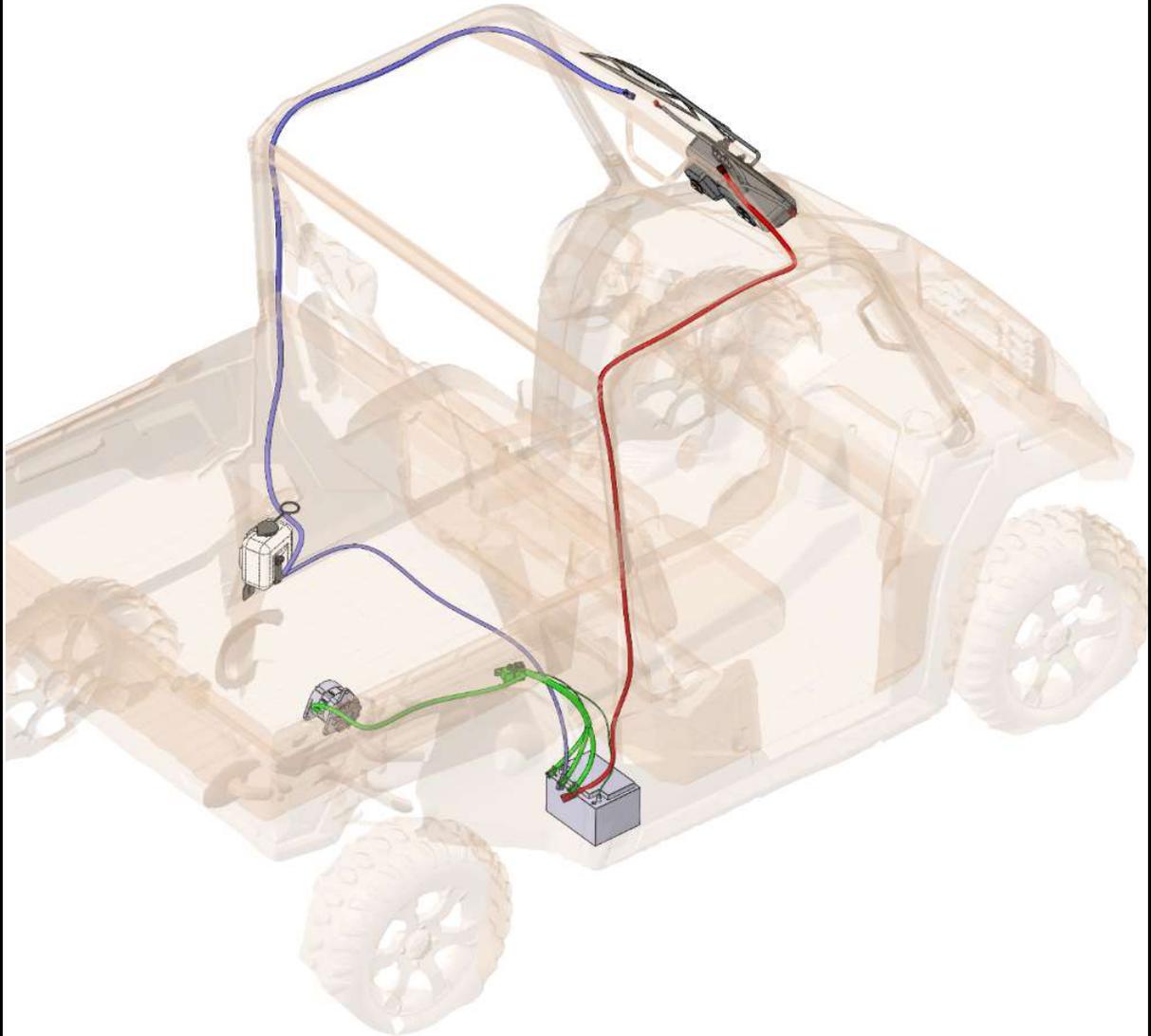
- **RELAY HARNESS**
- **WASHER HARNESS**
- **WIPER HARNESS**
- **HEATER HARNESS**
- **CONTROL HARNESS**



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SUPPLY, WIPER AND WASHER HARNESS RUN DIAGRAM

- WIPER HARNESS
- WASHER HARNESS
- SUPPLY HARNESS



Place the washer harness on the vehicle.



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Run the washer harness through the left plastic cover.



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SEE NEXT PAGE

Run the wiper harness through the right plastic cover.

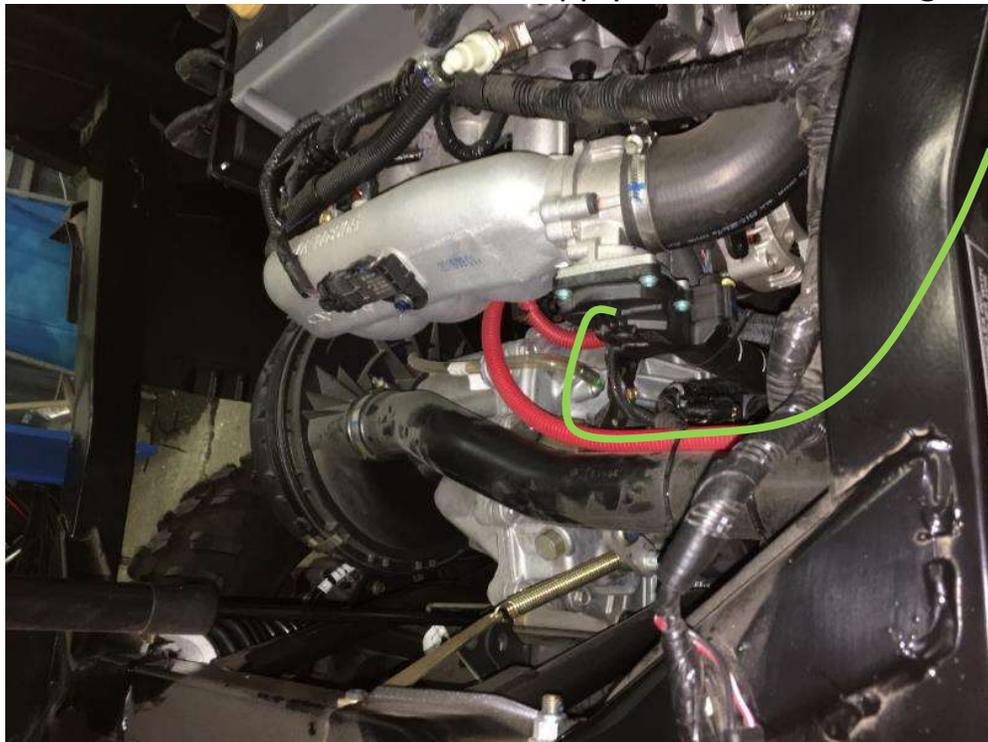


Install side cover back to position.

Place the supply harness into the vehicle right front engine space.



Run the ACC harness branch from the supply harness to the engine space.

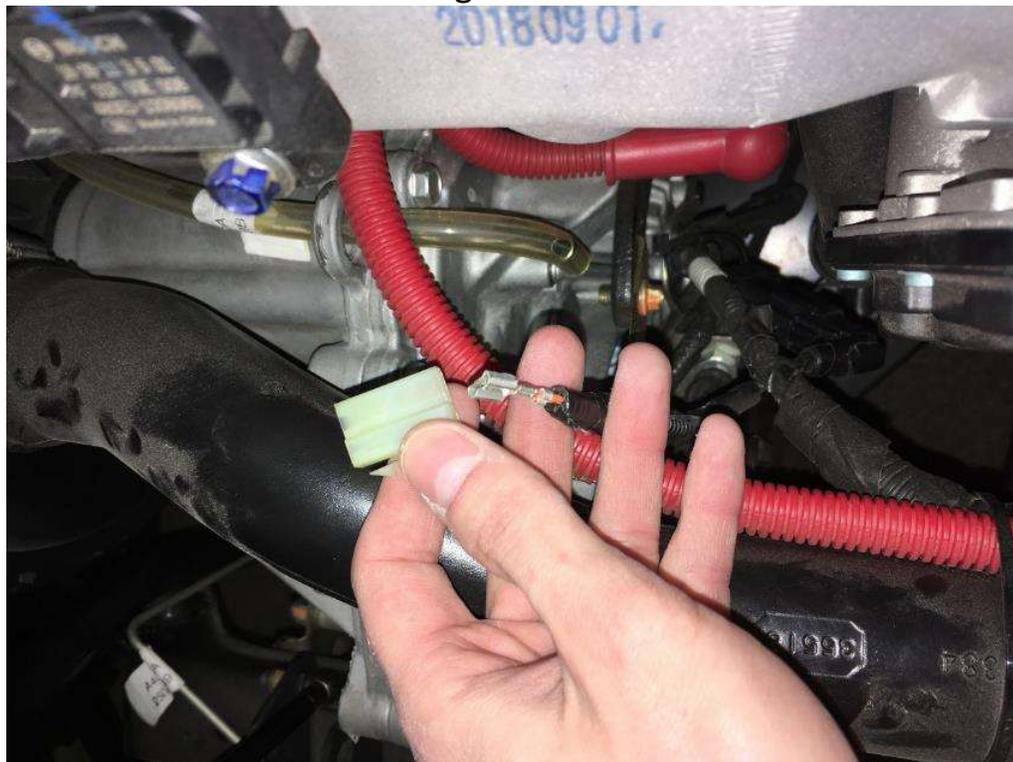


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Find the original connector from alternator.



Take out the original connector and carefully uninstall the connector from the original harness.

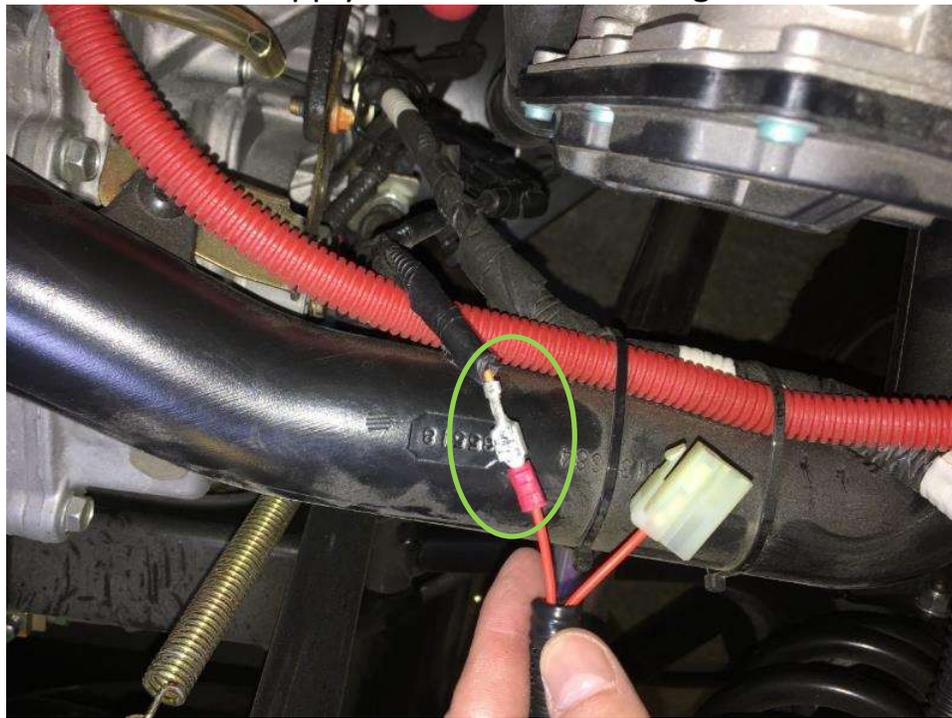


13

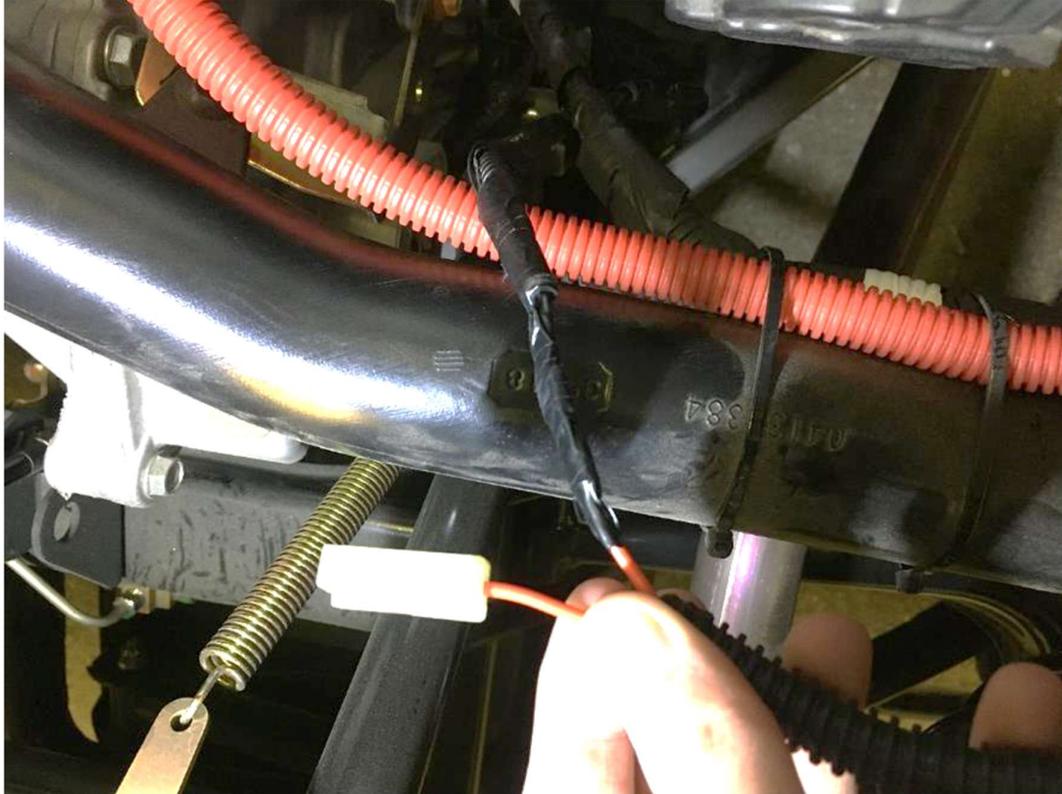
Install the pin from new harness into the same position as the removed pin from previous step.



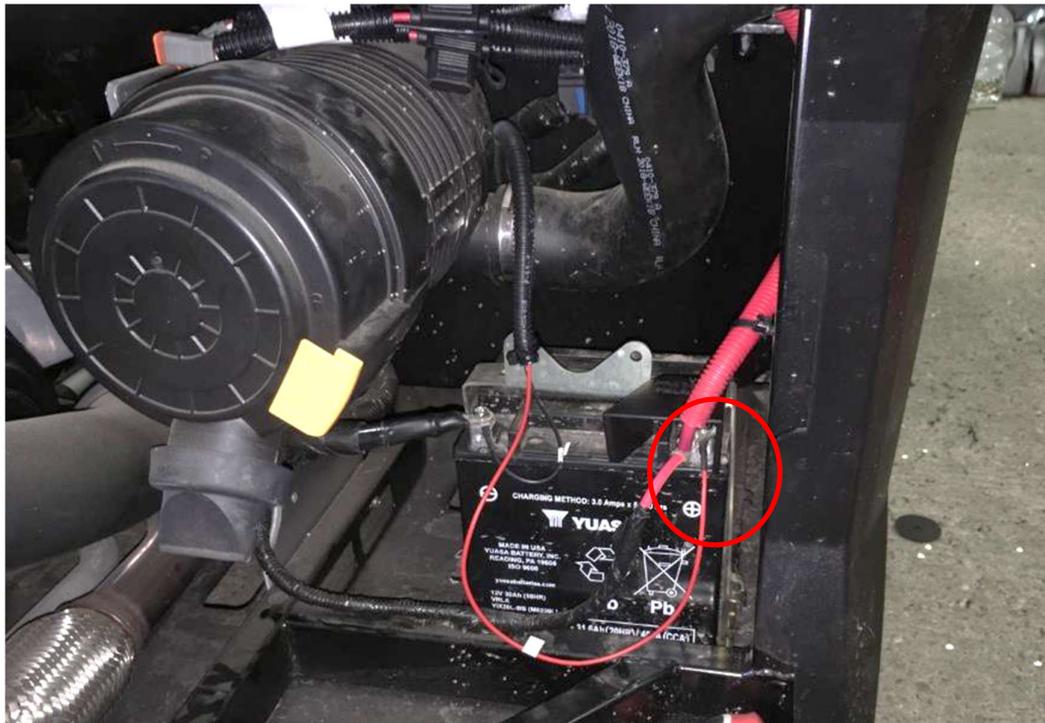
Connect the supply harness with the original harness.



Isolate the connection to prevent shortcut.



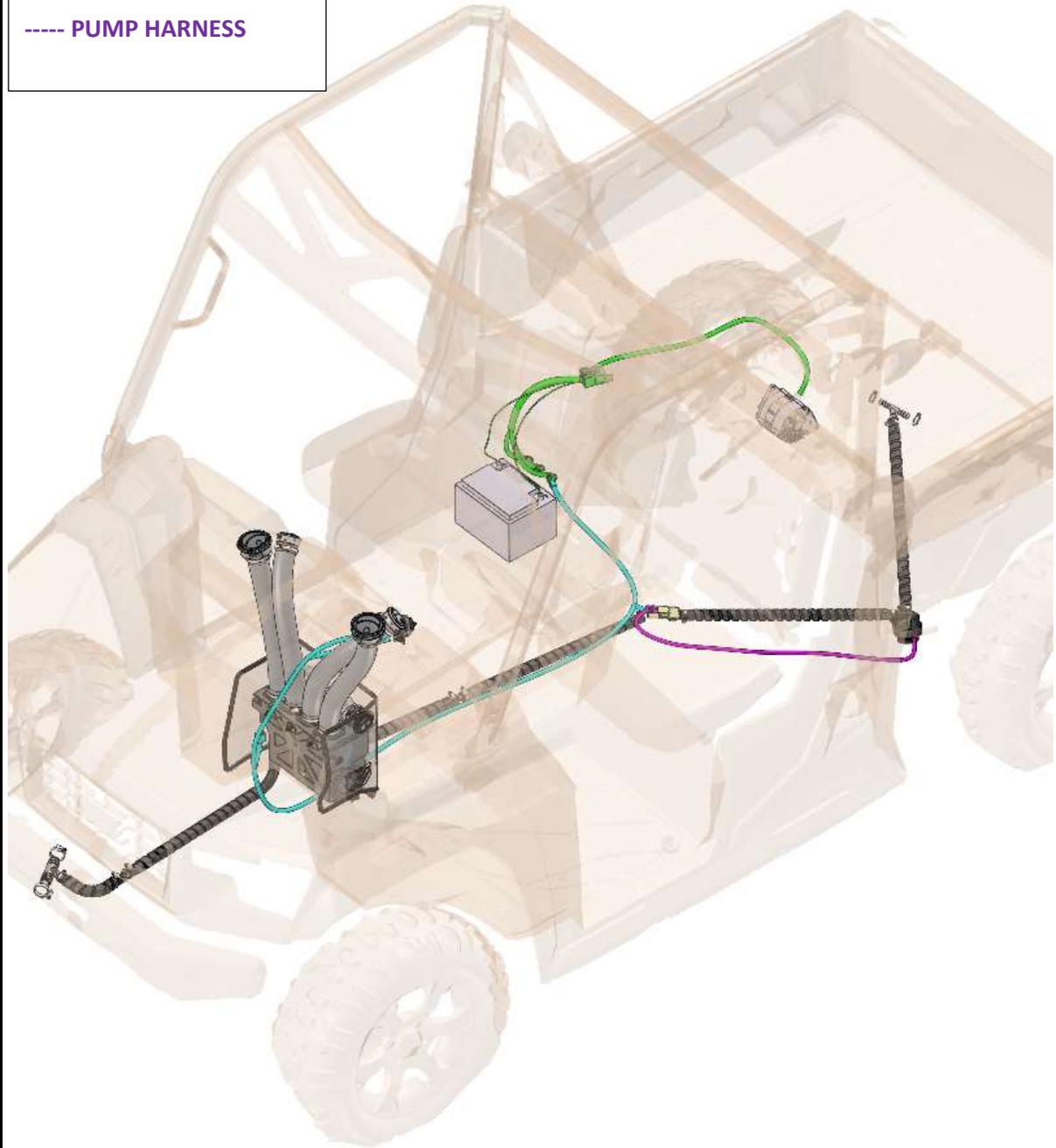
Connect the supply harness with the battery.  
Red wire with **+12V**, black wire with **-12V**.



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**HEATER**  
HEATER SCHEMATIC DIAGRAM

- SUPPLY HARNESS
- HEATER HARNESS
- PUMP HARNESS



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Uninstall front dashboard cover from the dashboard.



Detail view onto original fixing points.



Detail view onto original fixing points.



Detail view onto original fixing points.



Detail view onto original fixing points.



Carefully lift up the dashboard upper cover.  
Detail view from right side.



It is recommended to get the heater close to the floor tunnel edge, so the heater cover is in line with aforementioned edge.



Make marks on the tunnel floor and front cover in accordance with the heater holder holes.



View from dashboard side.



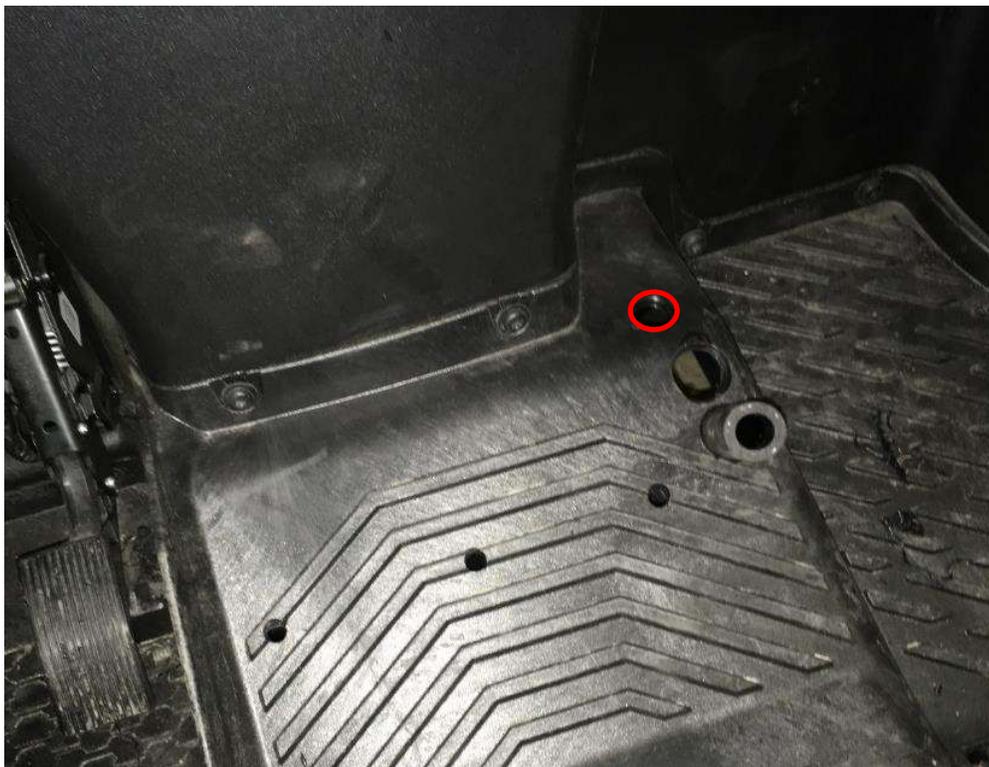
Drill 6 holes  $\varnothing$  8mm in marks centers from previous steps.



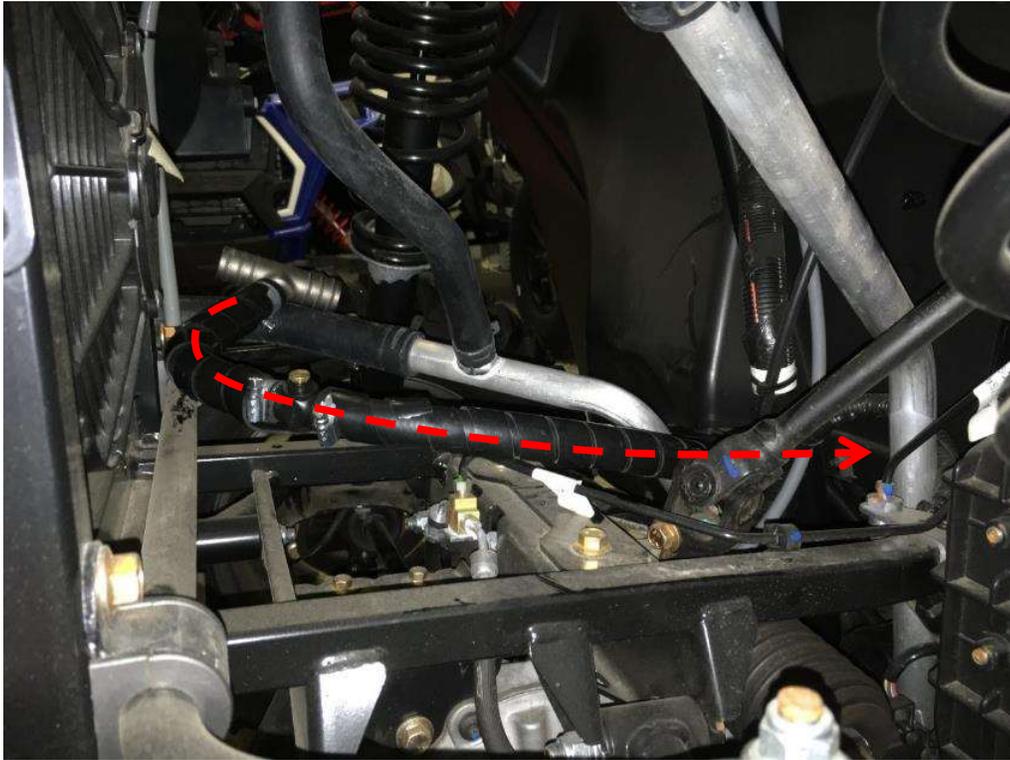
Drill holes  $\varnothing$  25mm for heater hoses.



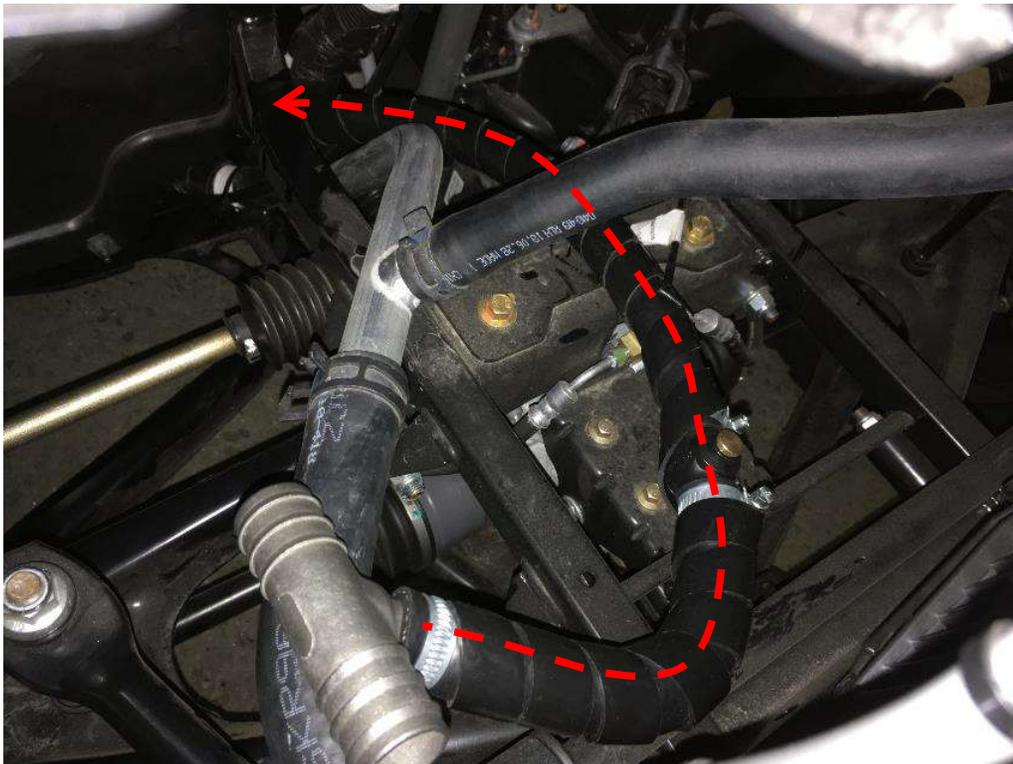
Drill hole  $\varnothing$ 20mm for heater harness.



Run the output heater hose with the air bleeding valve from the front cooler to the heater position.

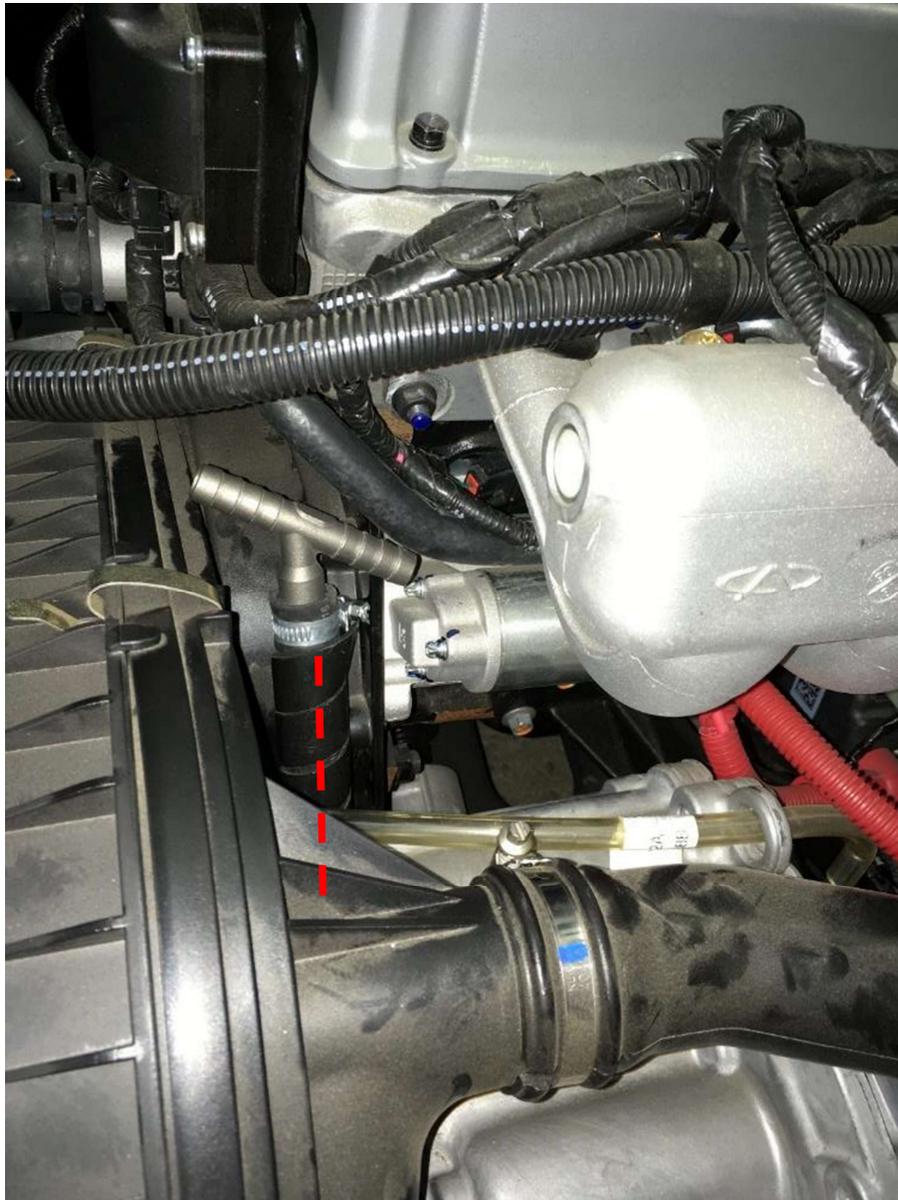


VIEW FROM UPPER SIDE



Run the input heater hose (with el. Valve and water pump) from the rear engine space position to the heater through the central floor tunnel.

HEATER HOSE END WITH HEATER "Y TUBE" VIEW

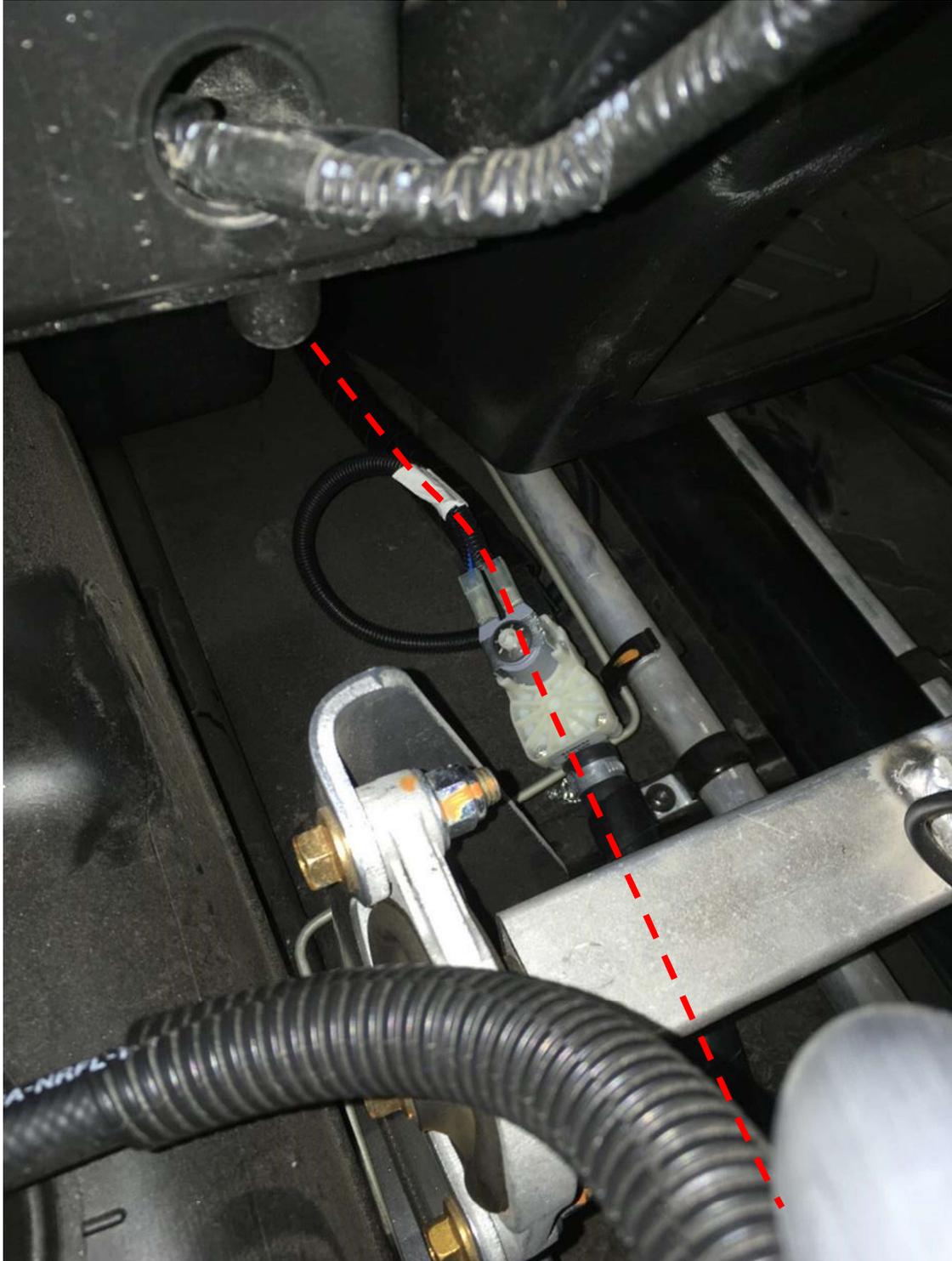


WATER PUMP DETAIL VIEW



SEE NEXT PAGE

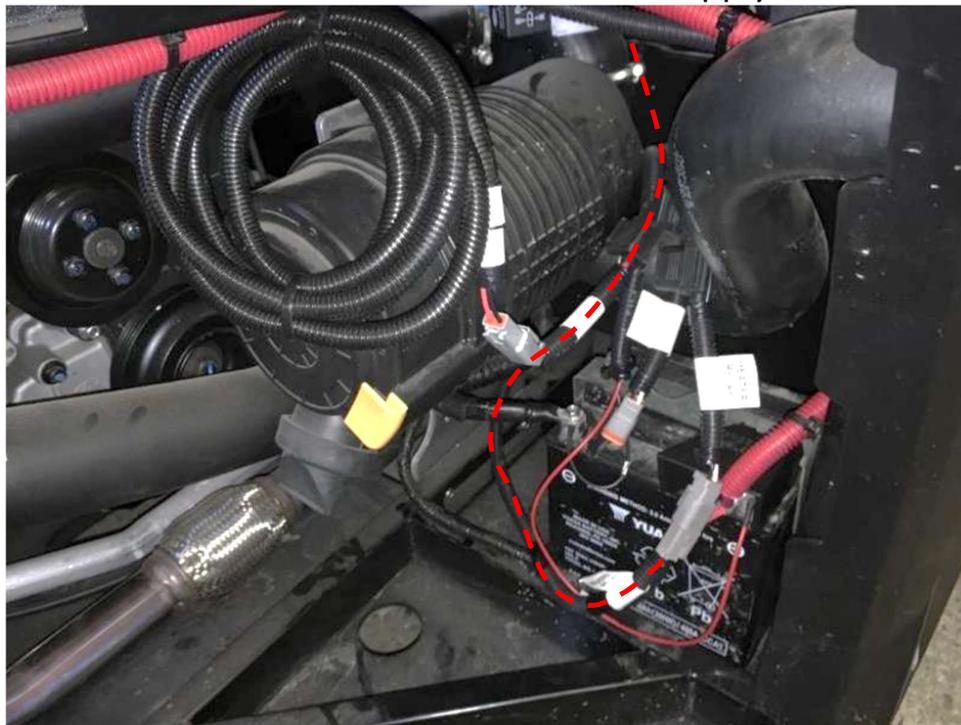
EL. VALVE VIEW



Place the heater harness into the vehicle. Run the heater harness branch “el. Valve” and branch “supply” through the hole.



Run the heater harness from the heater to the supply harness. Connect the heater harness with the supply harness.



Run the heater hoses through the holes and connect the heater hoses with the heater. Secure heater hoses by included tightening straps.



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It is recommended to cut out the tip of the plastic rivet.



Fix the heater holder with the vehicle by included plastic rivets.



SEE NEXT PAGE

**CAUTION**

**DO NOT MANIPULATE WITH ENGINE OR WITH ENGINE COOLING SYSTEM IF THAT PARTS OF MACHINE IS HOT! WHEN ENGINE IS HOT, ANY MANIPULATION CAN RESULT IN SERIOUS BODY INJURY!**

FRONT COOLER SPACE VIEW

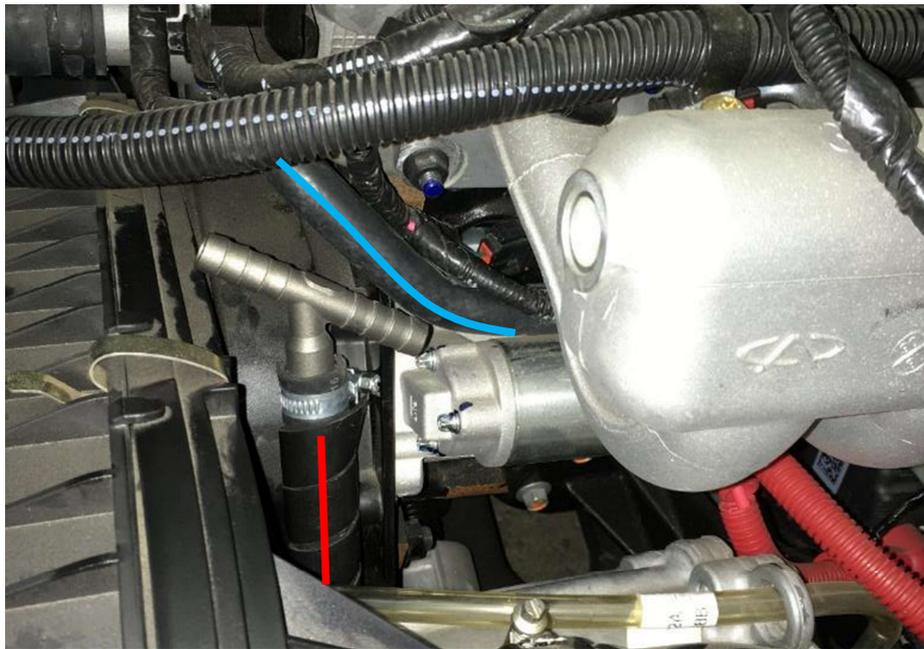
Secure the engine cooling hose by clamps or pliers. Cut the cooling hose between the clamps. Insert the "Y tube" into the cooling hose. Secure the hoses with the coupling by included tightening straps.



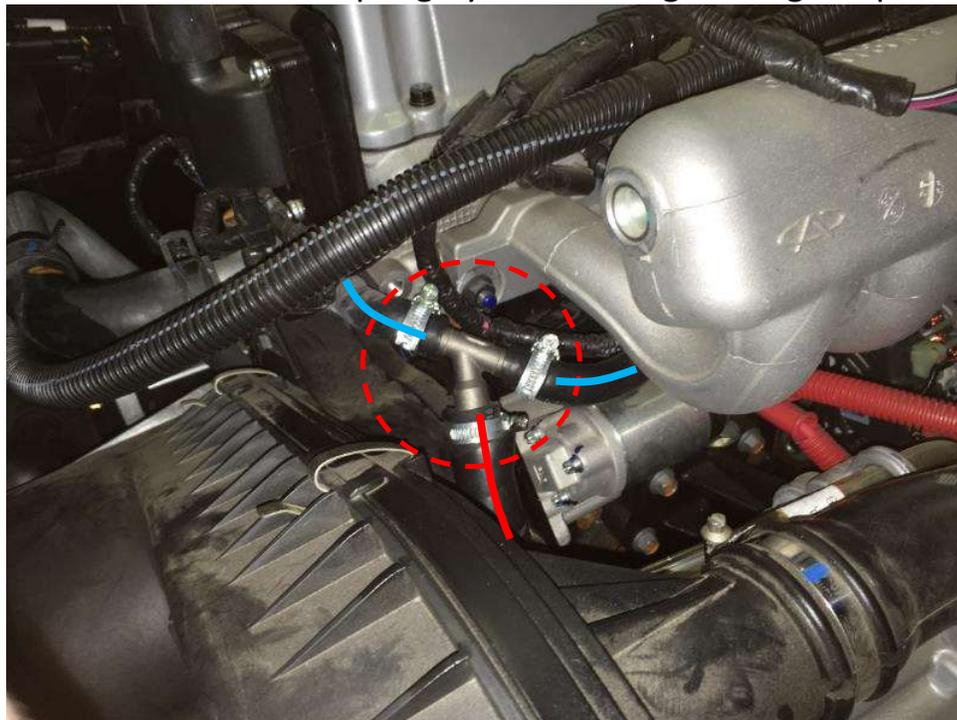
SEE NEXT PAGES

ENGINE SPACE VIEW

Install the "Y tube" into the heater hose.



Secure the engine cooling hose by clamps or pliers. Cut the cooling hose between the clamps. Insert the "Y tube" into the cooling hose. Secure the hoses with the coupling by included tightening straps.



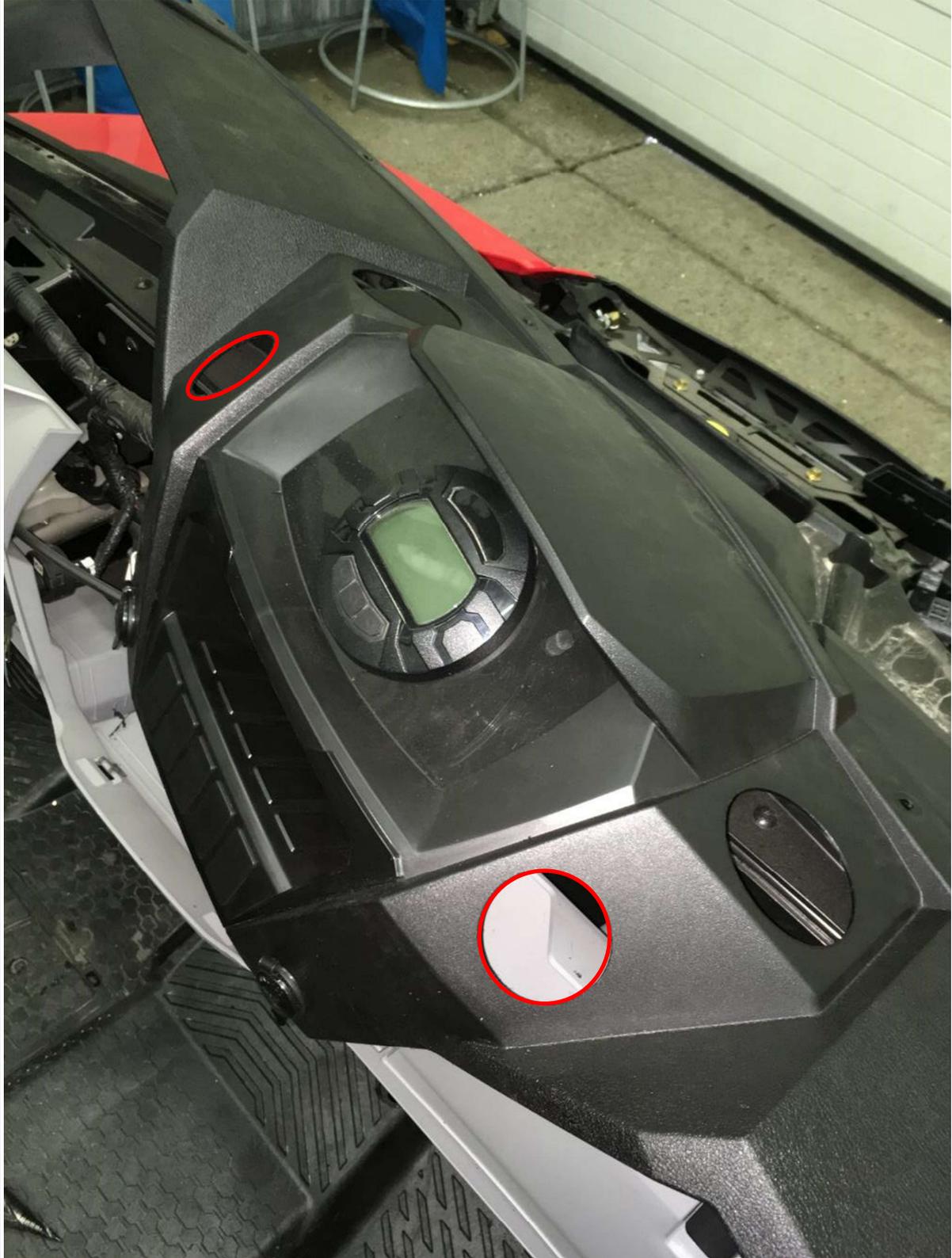
31

Drill 2 holes  $\varnothing 77\text{mm}$  into the dashboard cover.



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Drill 2 holes  $\varnothing$ 55mm into the dashboard cover.



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Run the heater air hoses into the vehicle dashboard space.



View from bottom side.



Drill hole  $\varnothing$  14mm and holes  $\varnothing$  2mm for the fan switch (red marks).  
Drill hole  $\varnothing$  21mm for el. Valve switch (green mark).



Install switches into the holes.

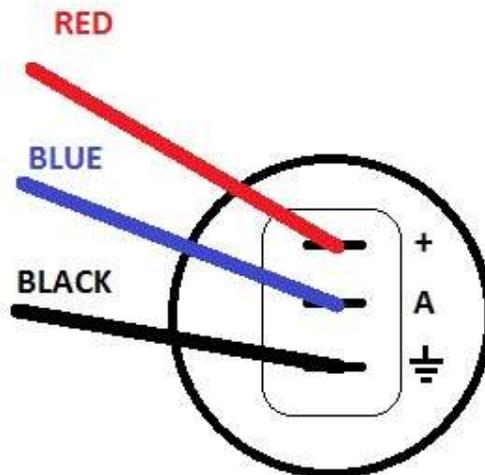


Connect the heater harness with the fan switch.  
Connect the heater harness with the el. Valve switch.



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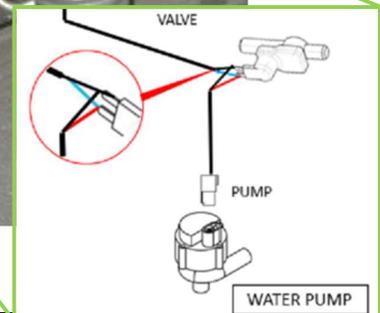
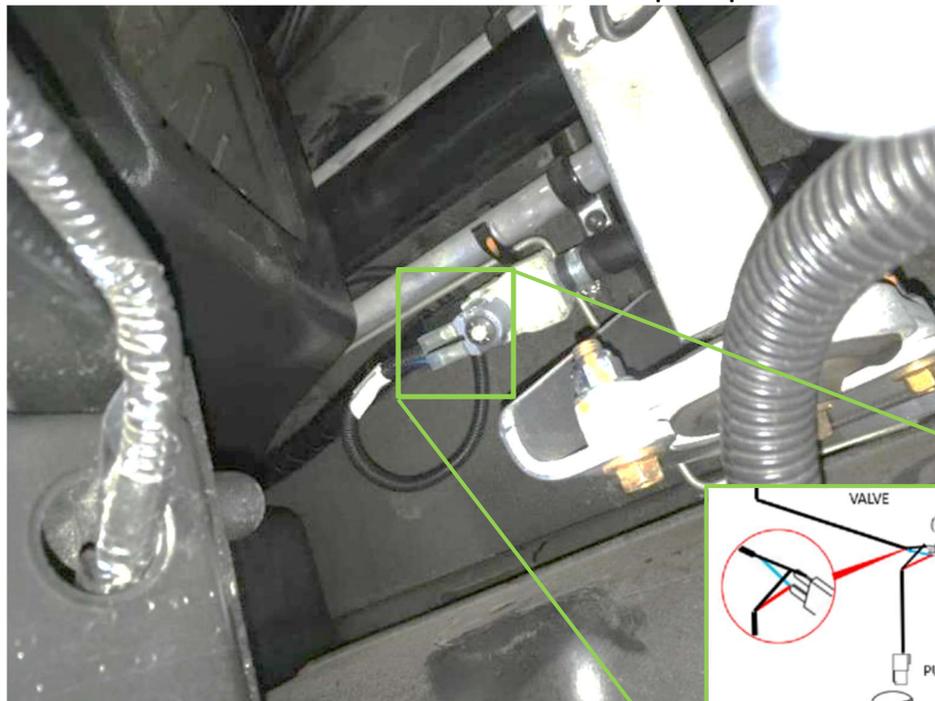
Schematic diagram of the el. valve switch connection.



Connect the heater harness with the heater.



Connect the pump harness with the el. Valve.  
Connect the heater harness with the pump harness.



Connect the pump harness with the water pump.



Install the dashboard cover back to position. Run the air hose through the holes. Install the air vents onto the air hoses and secure the air vents with the hoses by included tightening straps.



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Insert the air vents into the dashboard.



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Install the heater air hoses onto the heater. Place the heater cover onto the heater. Run the air hoses through the cover holes.



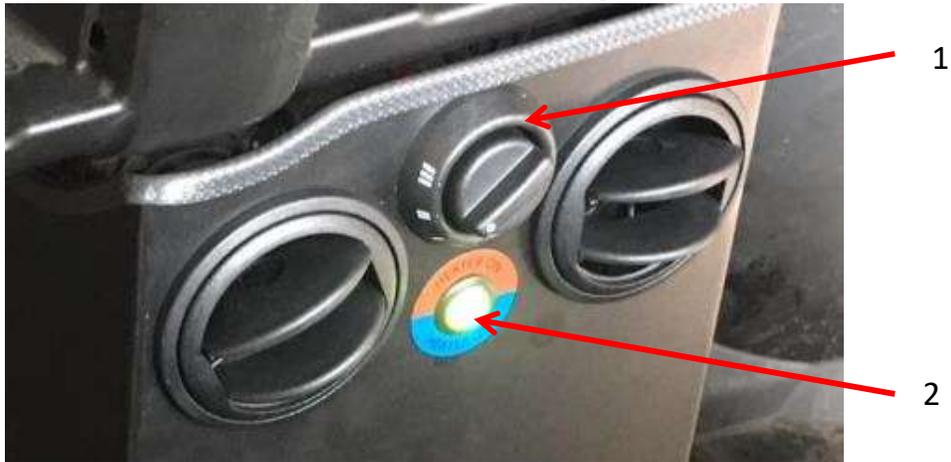
Install the air vents onto the hoses. Secure the vents with the hoses by included tightening straps. Push the air vents into the heater cover.



SEE NEXT PAGES

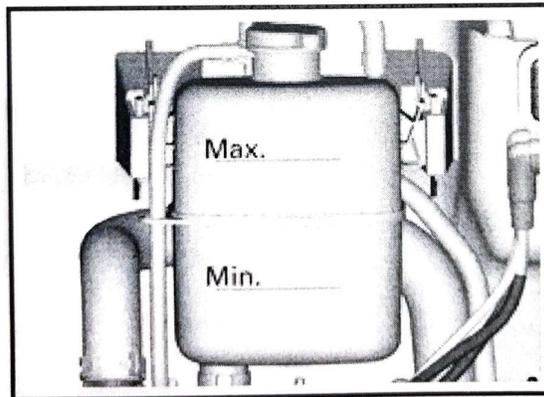
**BLEEDING THE COOLING SYSTEM**

1. Activate heater fan and put the electromagnetic valve on.



1 – Heater fan speed control button  
2 – Electromagnetic valve switch

2. Remove the coolant reservoir cap.
3. Fill the cooling system until the coolant level is up to the MAX line of the coolant reservoir.



4. Install coolant reservoir cap.
5. Run the engine at idle with the coolant reservoir cap ON until the cooling fan cycles two times.
6. Check for heat coming out of the heater unit.
7. Stop the engine and let it cool down.
8. After the next ride following this procedure, check coolant level. Add coolant as required.

**ELECTROINSTALLATION 2.**

Install the washer holder on the vehicle frame.



Place the washer tank onto the holder.



Connect the washer harness and washer hose with the washer tank.



Run the washer harness from the washer tank to the supply harness. Fix the washer harness with the original harness by included tightening straps.



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Connect the washer harness with the supply harness.



*Fill the washer liquid into the washer tank before first usage.*

CAB PREVIEW

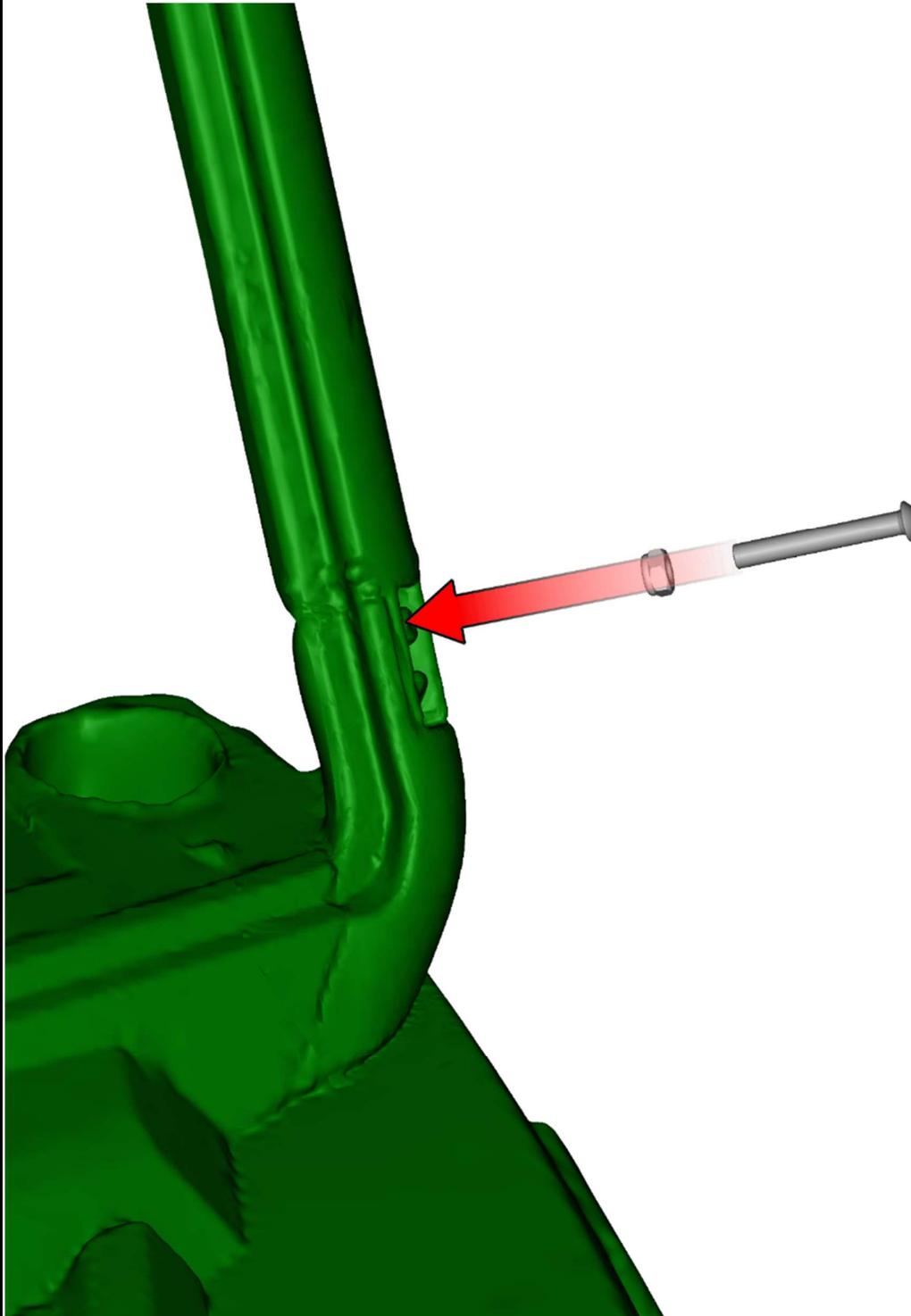


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FRONT PANEL

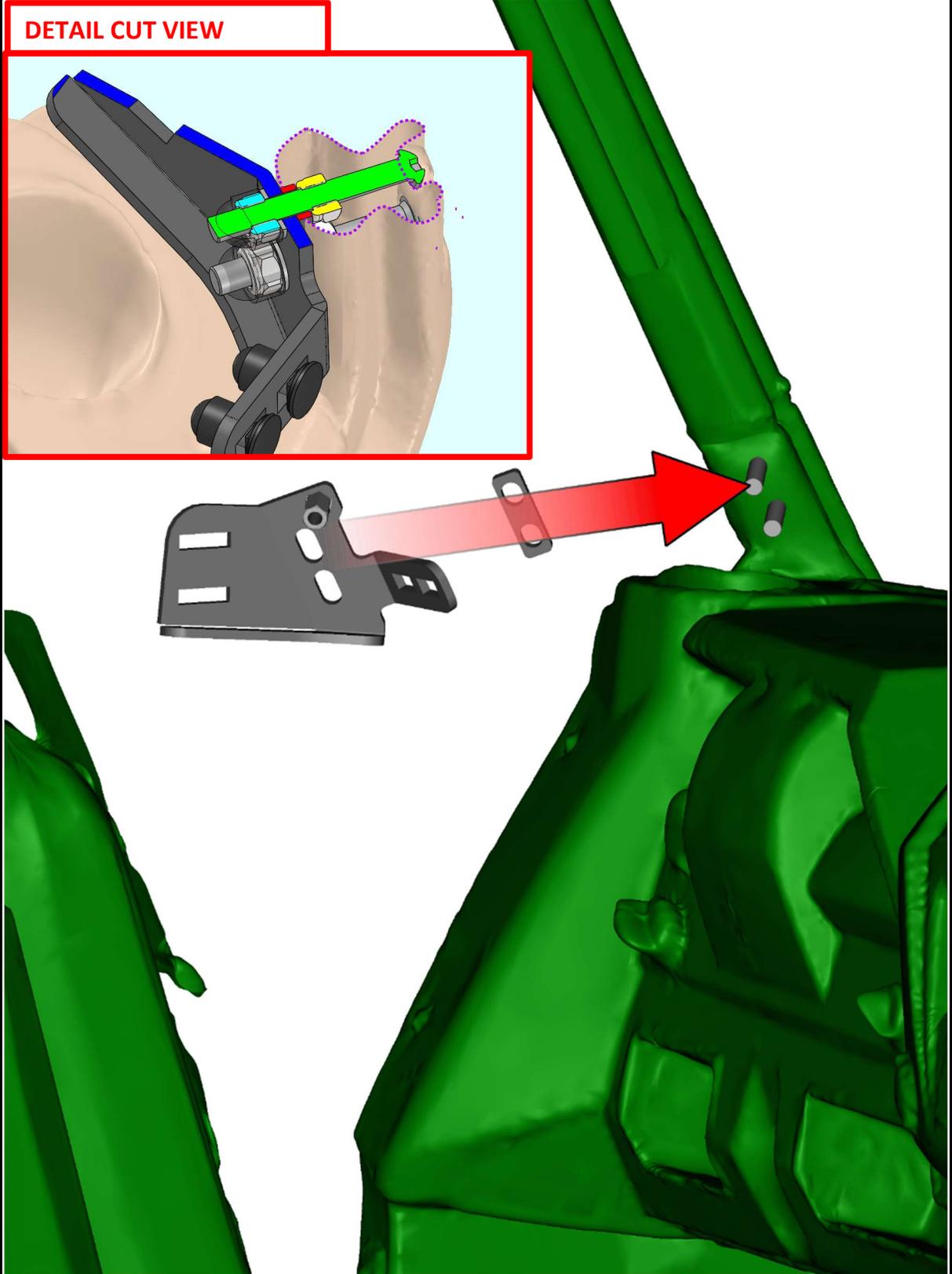
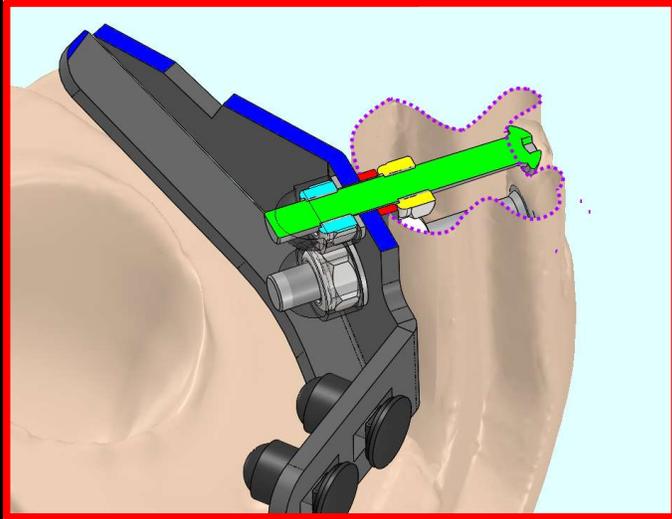
Loose original frame screw and replace the original screw by included screw **one by one**. Repeat with the second screw.

Fix the screws with included nuts.

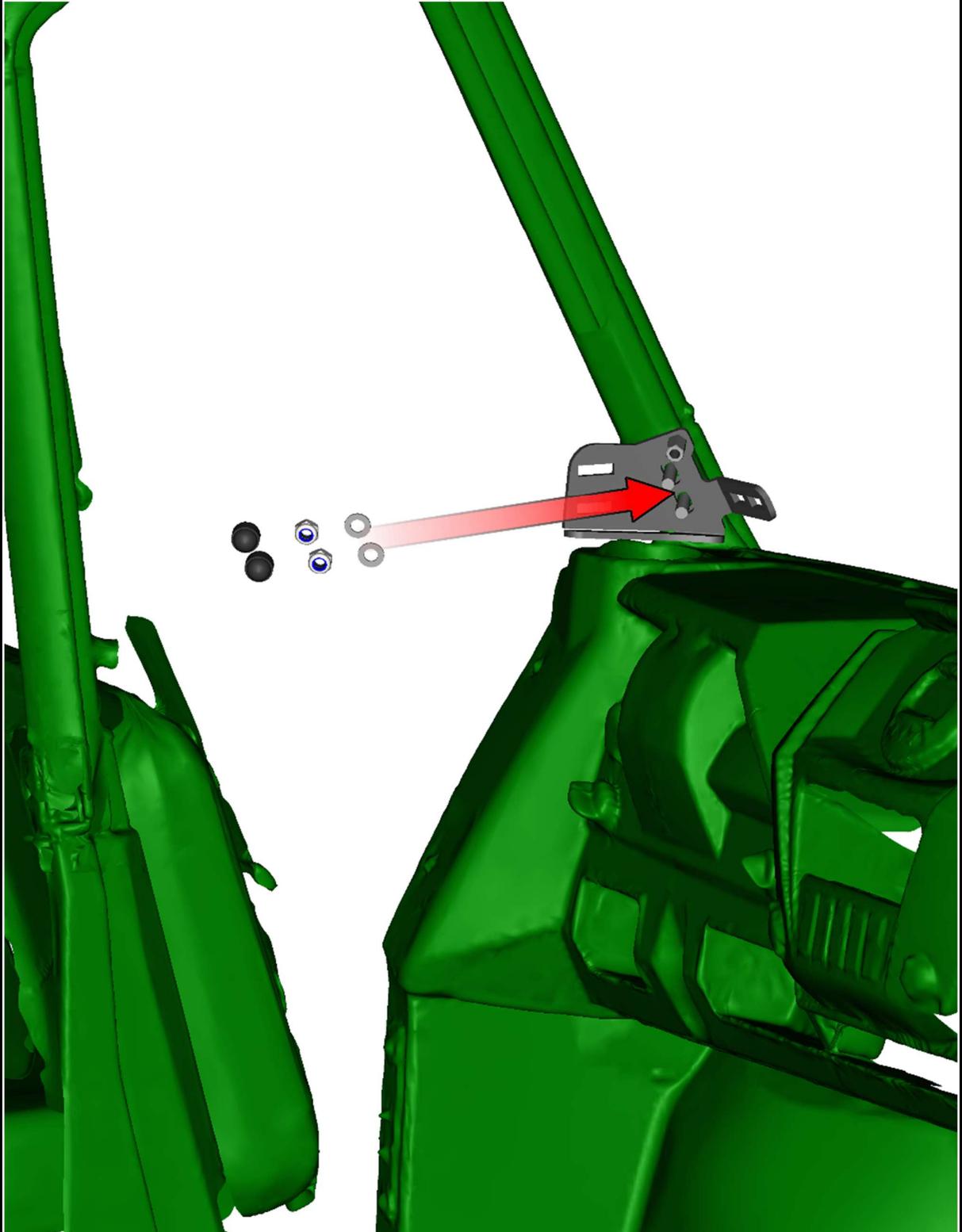


Place the front bottom holder with the washer onto the frame.

**DETAIL CUT VIEW**



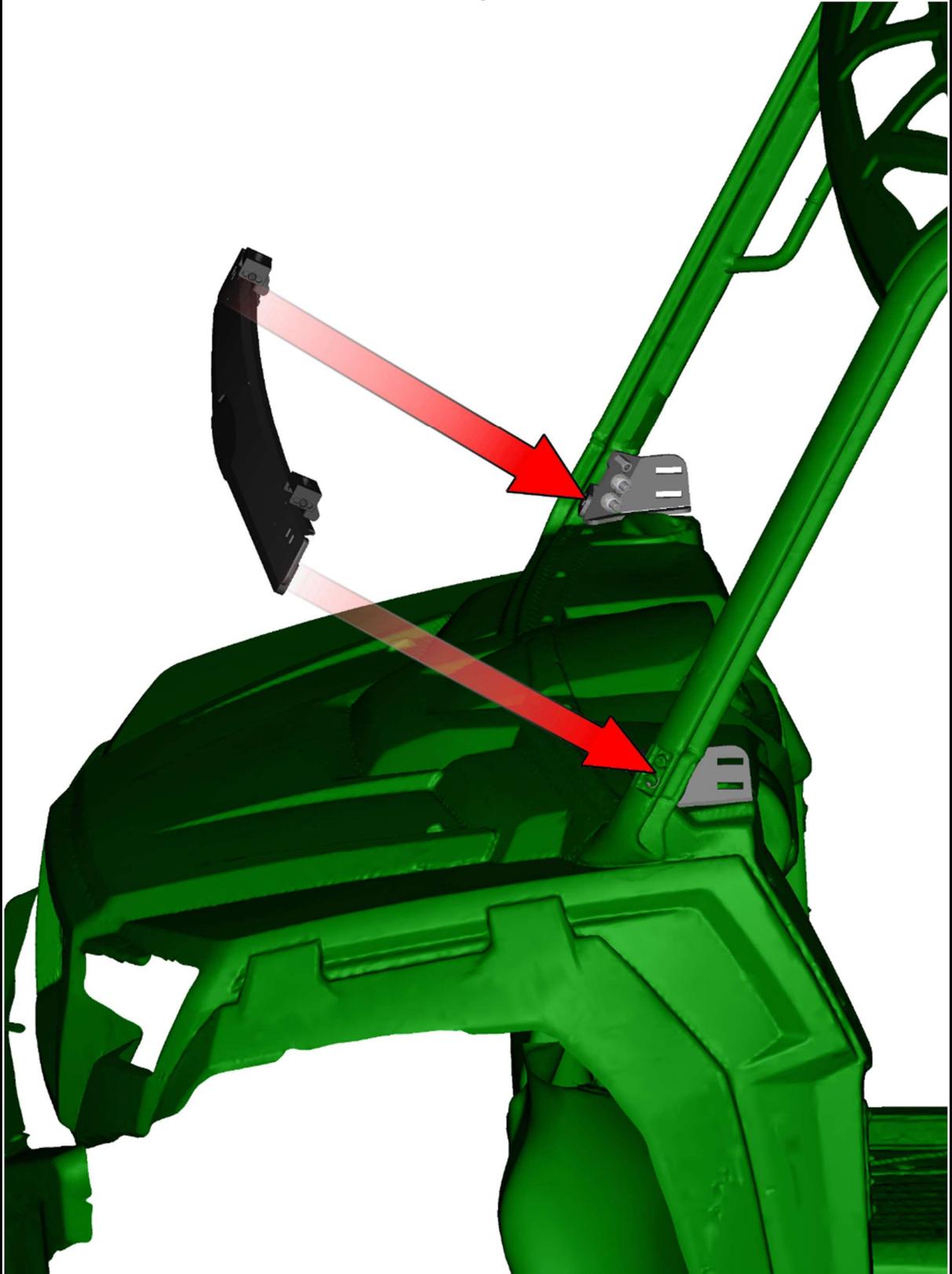
Fix the holder with the frame by included nuts, washers and covers.



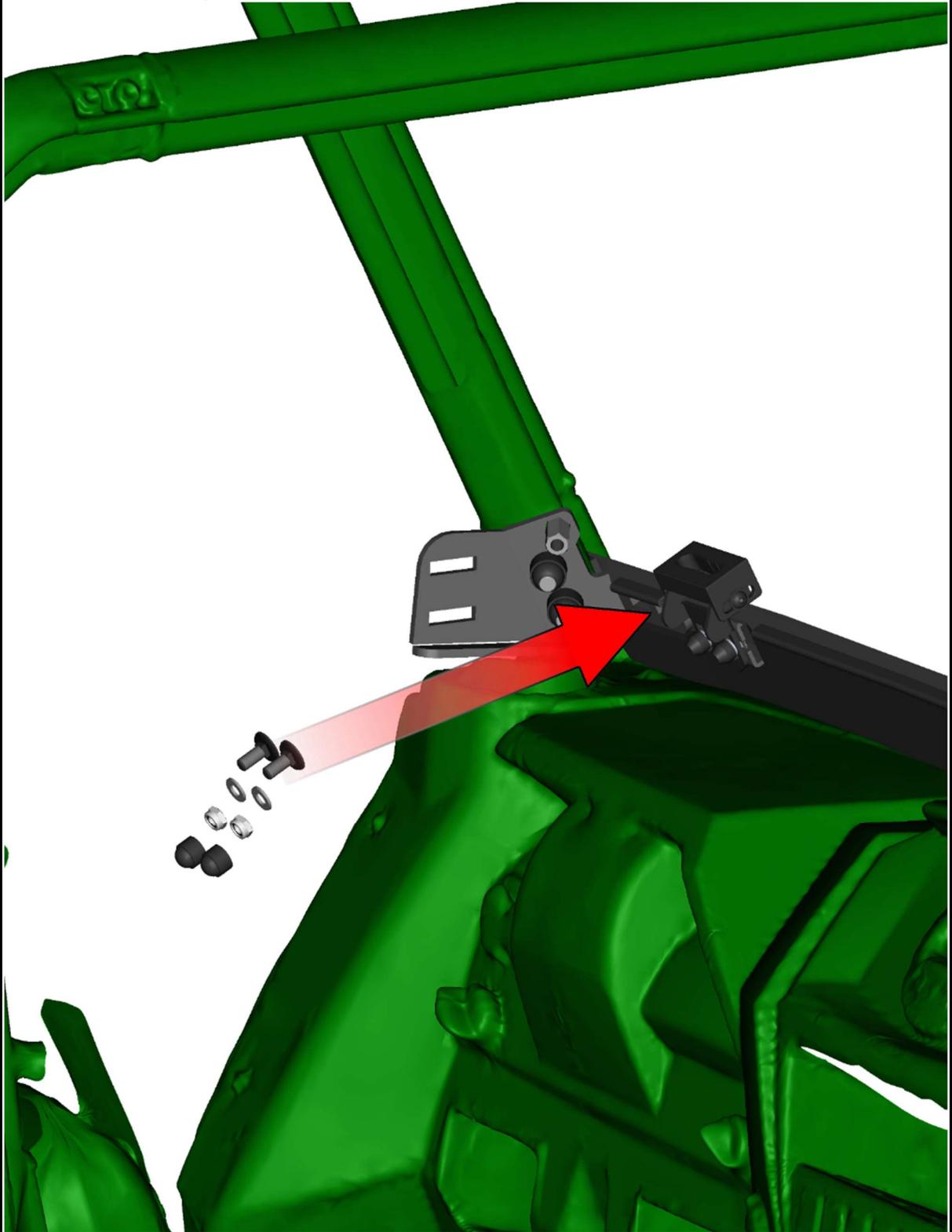
48

Repeat previous steps on the right side of the vehicle.

Place the bottom front ledge onto the vehicle frame.



Fix the holder with the ledge  
by included screws, washers, nuts and covers.



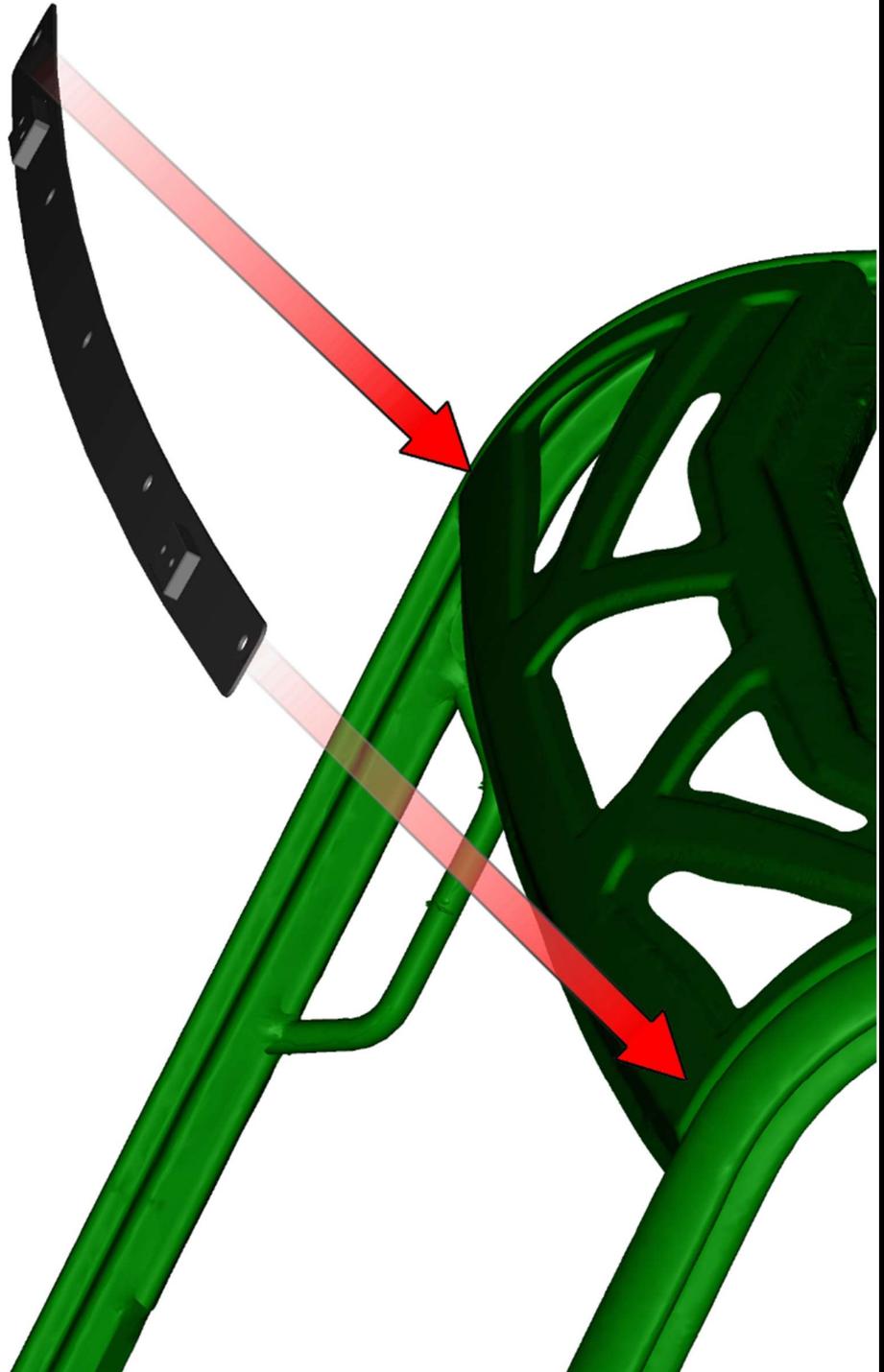
50

Repeat previous steps on the right side.



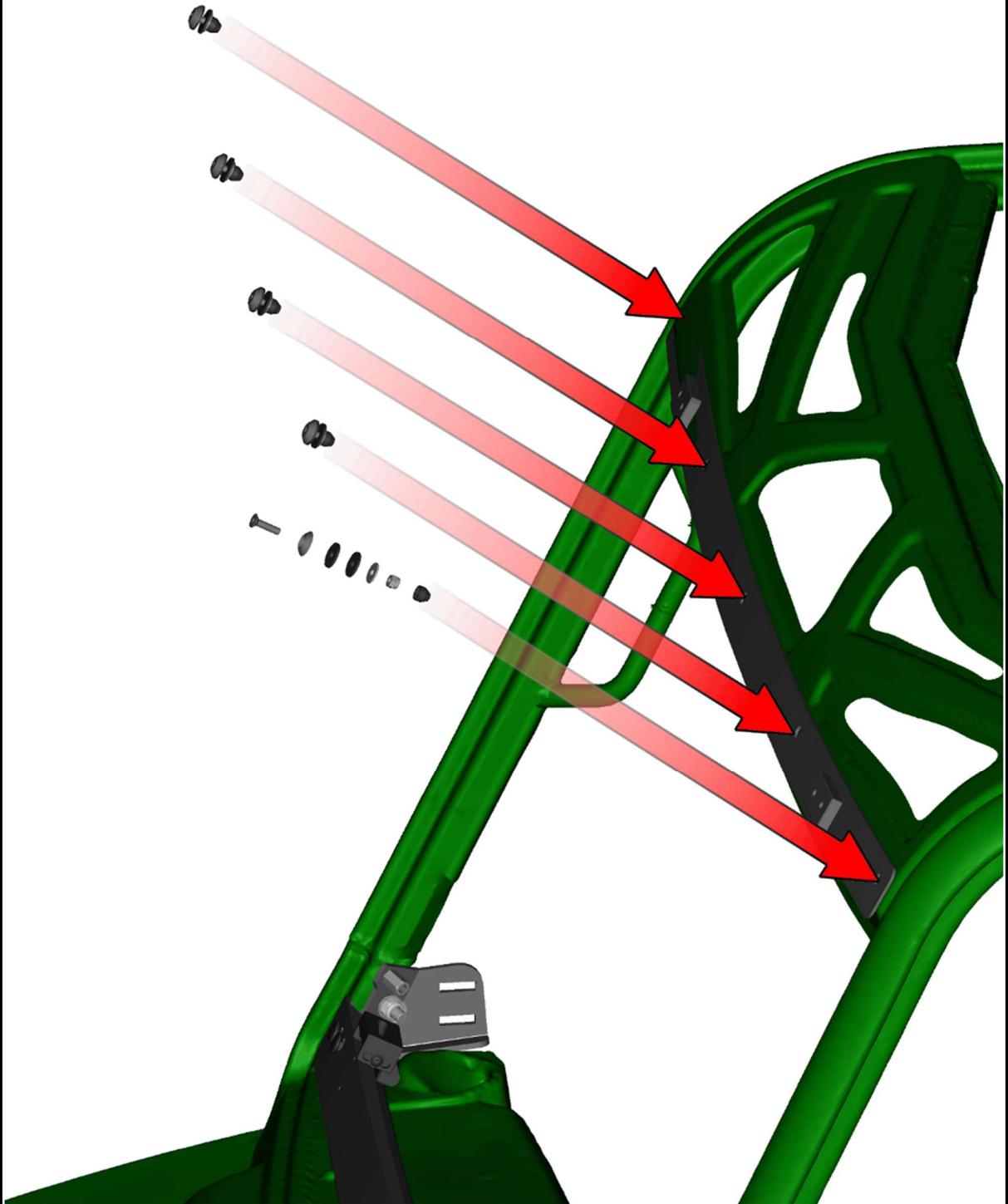
51

Place the front upper ledge onto the vehicle frame.  
It is necessary to install upper ledge in same orientation like on picture  
(5 holes has to be on upper part of the ledge).



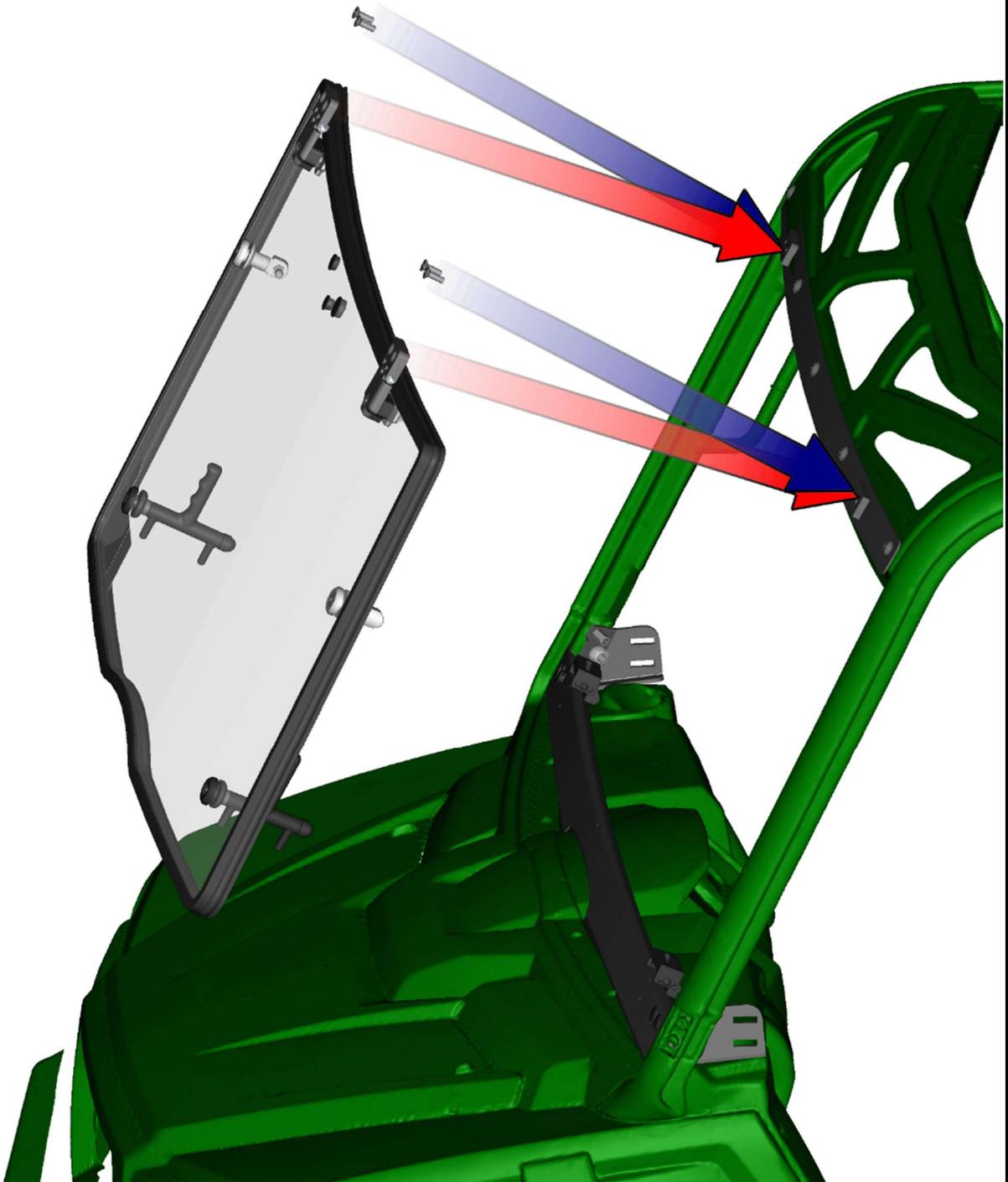
52

Fix the front upper ledge with the vehicle frame by included screws, washers, nuts and covers.



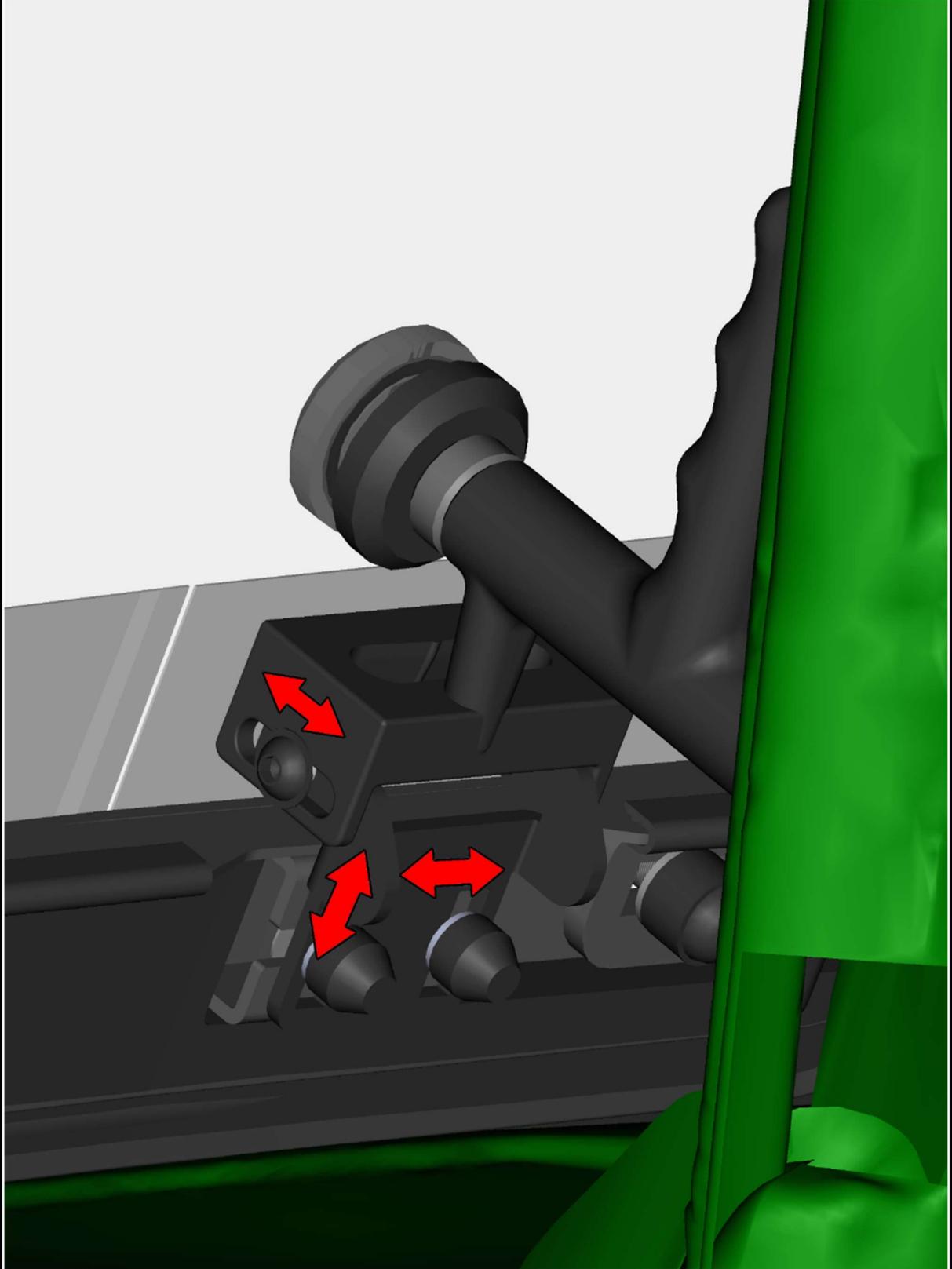
53

Place the front window assembly onto the front upper ledge.  
Fix the hinges with the ledge by included screws.



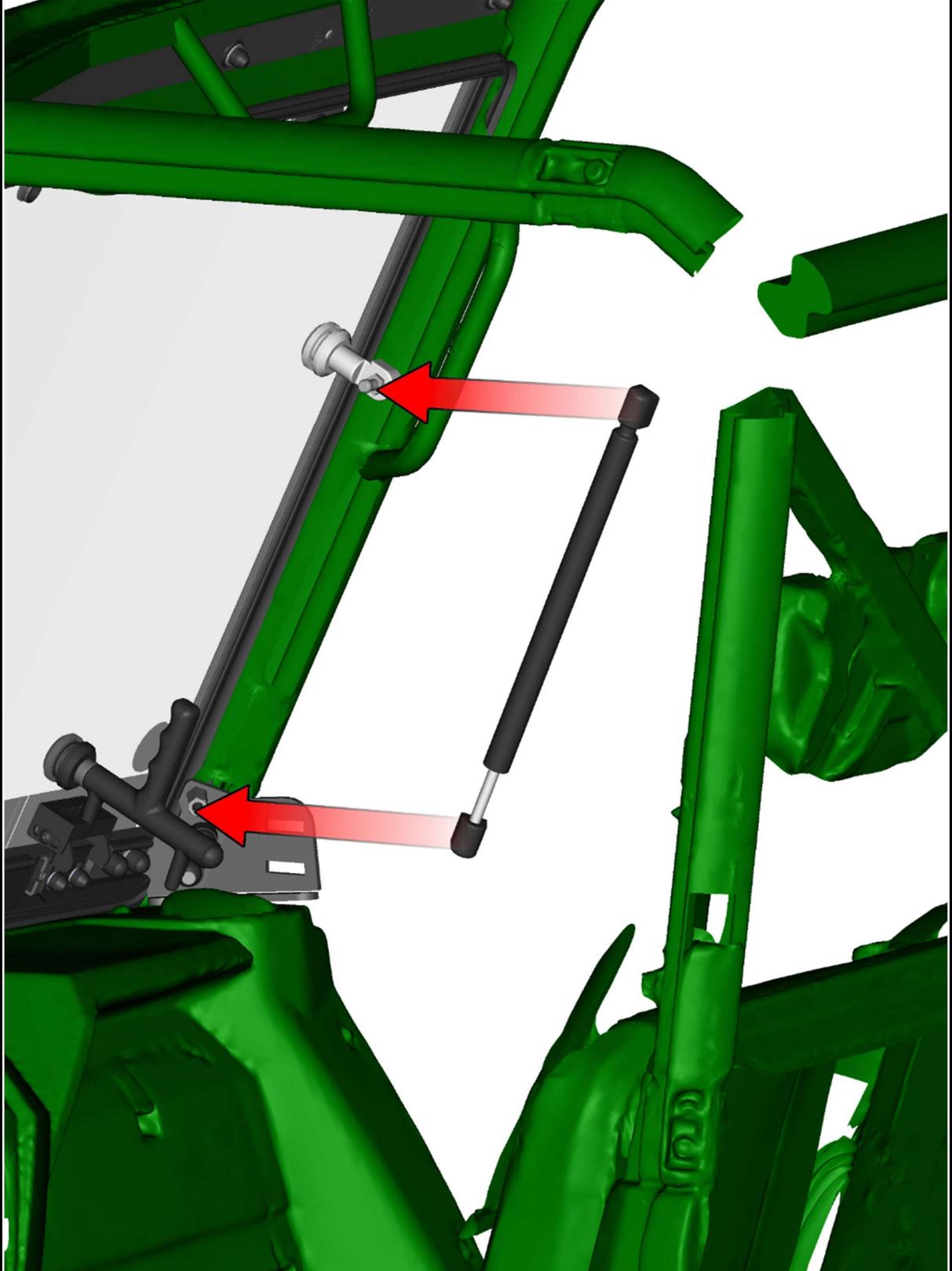
54

Adjust the front glass stop assembly to the best position on both sides.



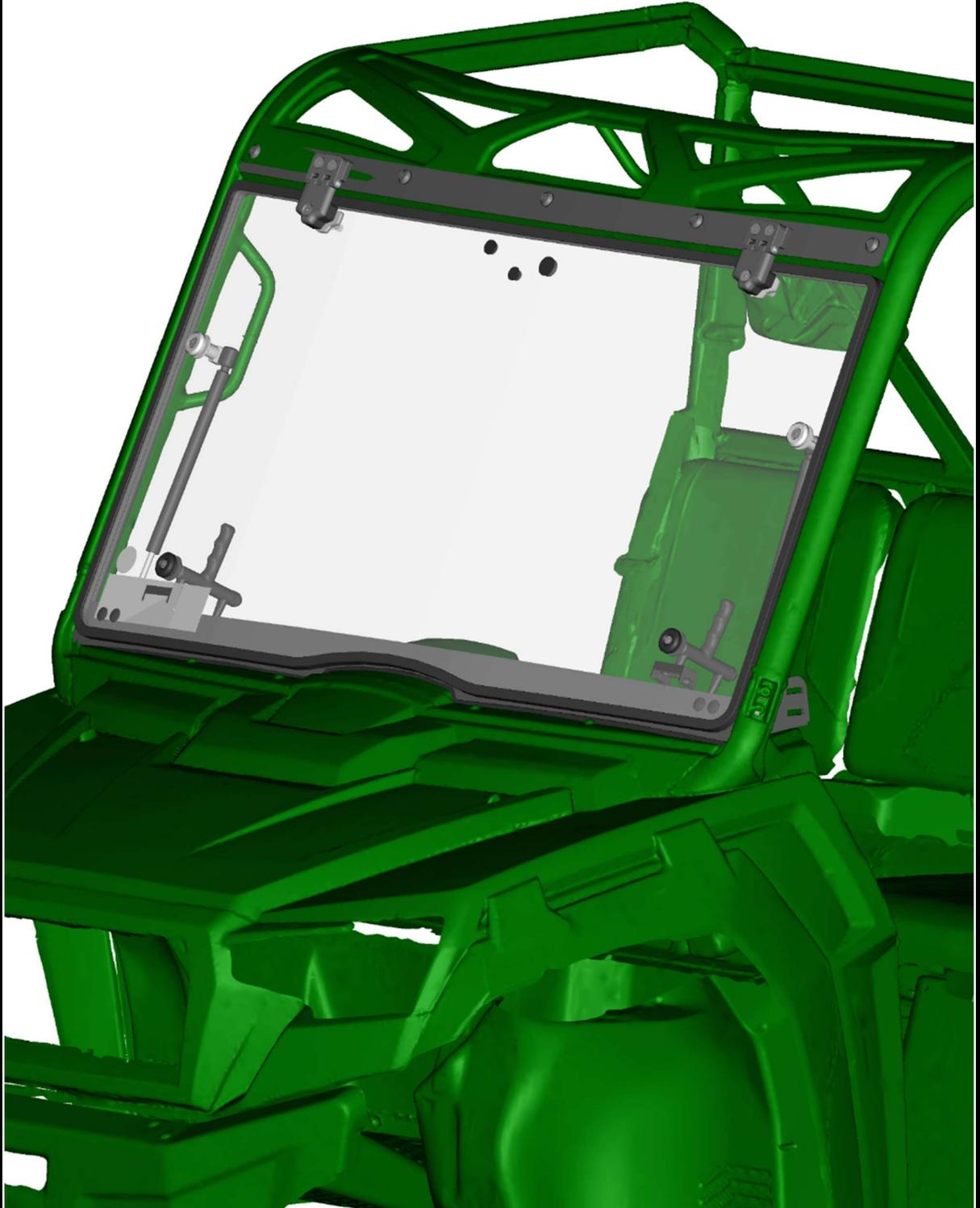
55

Install the gas spring into the gas spring holders.



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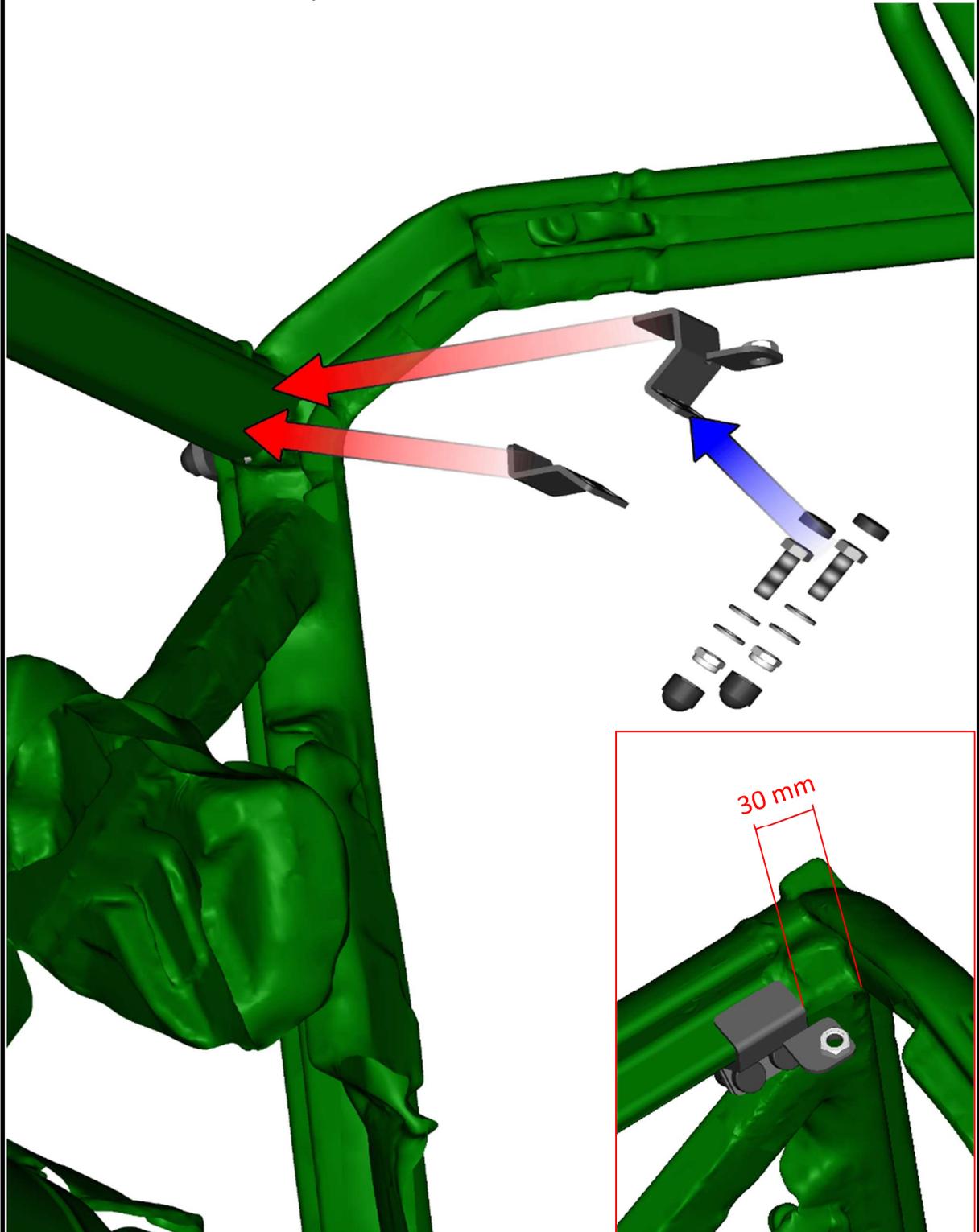
Tighten all screws and nuts.



57

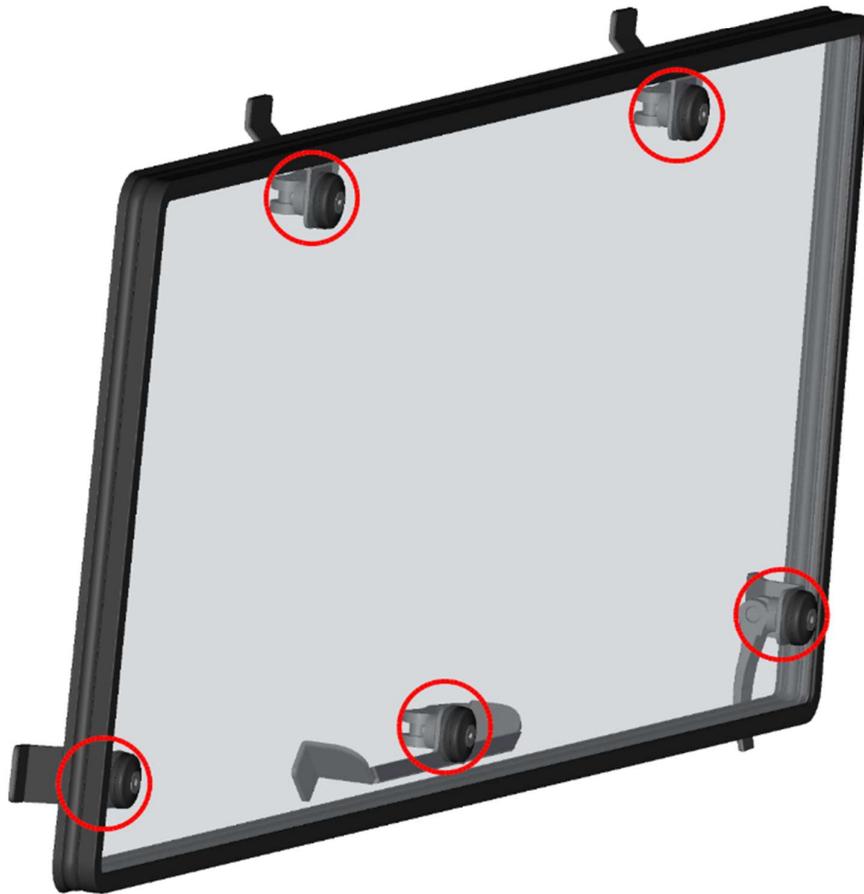
LEFT DOOR + RIGHT DOOR 1.

Place the left gas spring holders onto the vehicle frame. Fix the holders with the frame by included screws, washers, nuts and covers.

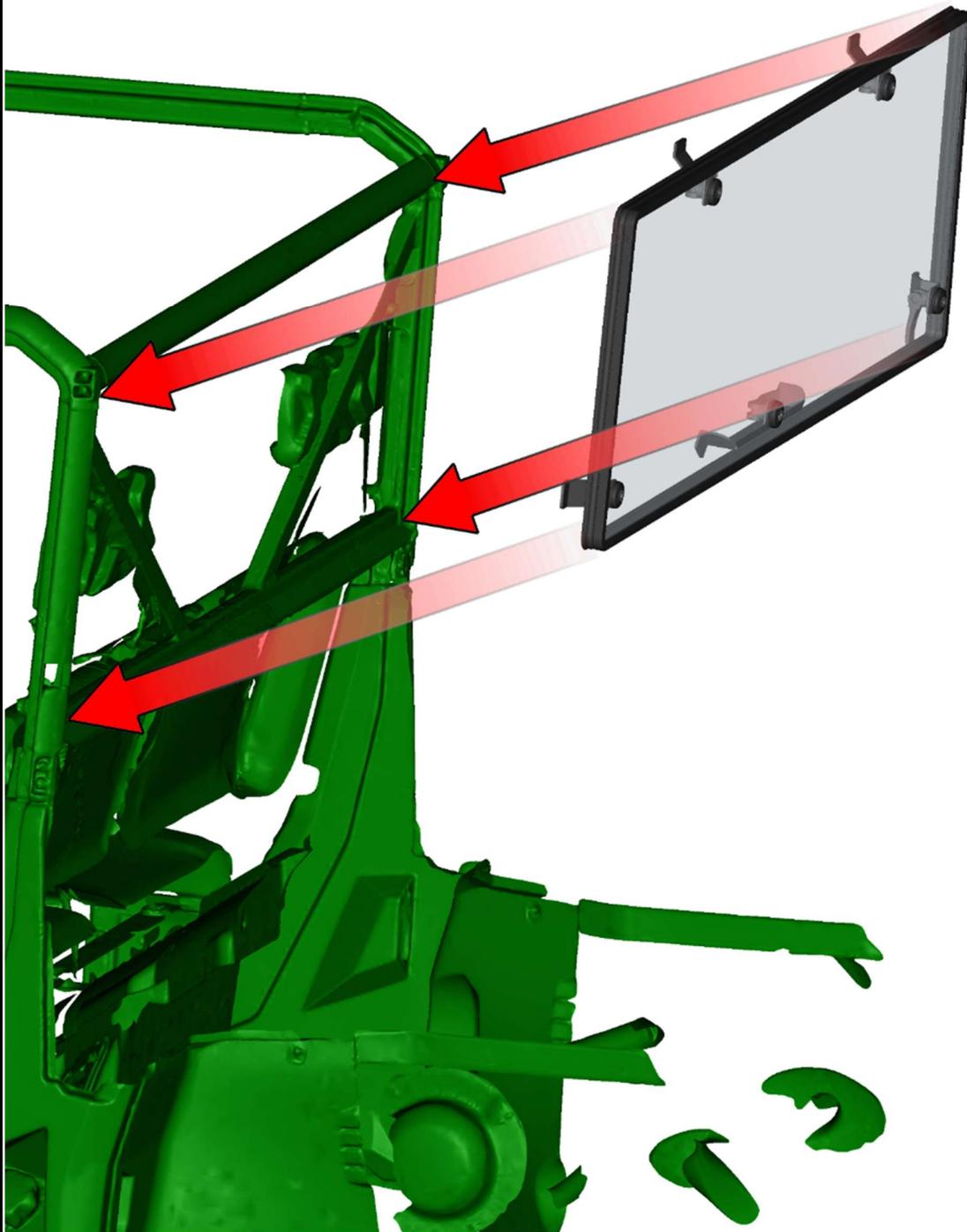


REAR PANEL

Loose the holders screws and turn the side and upper holders to neutral position.

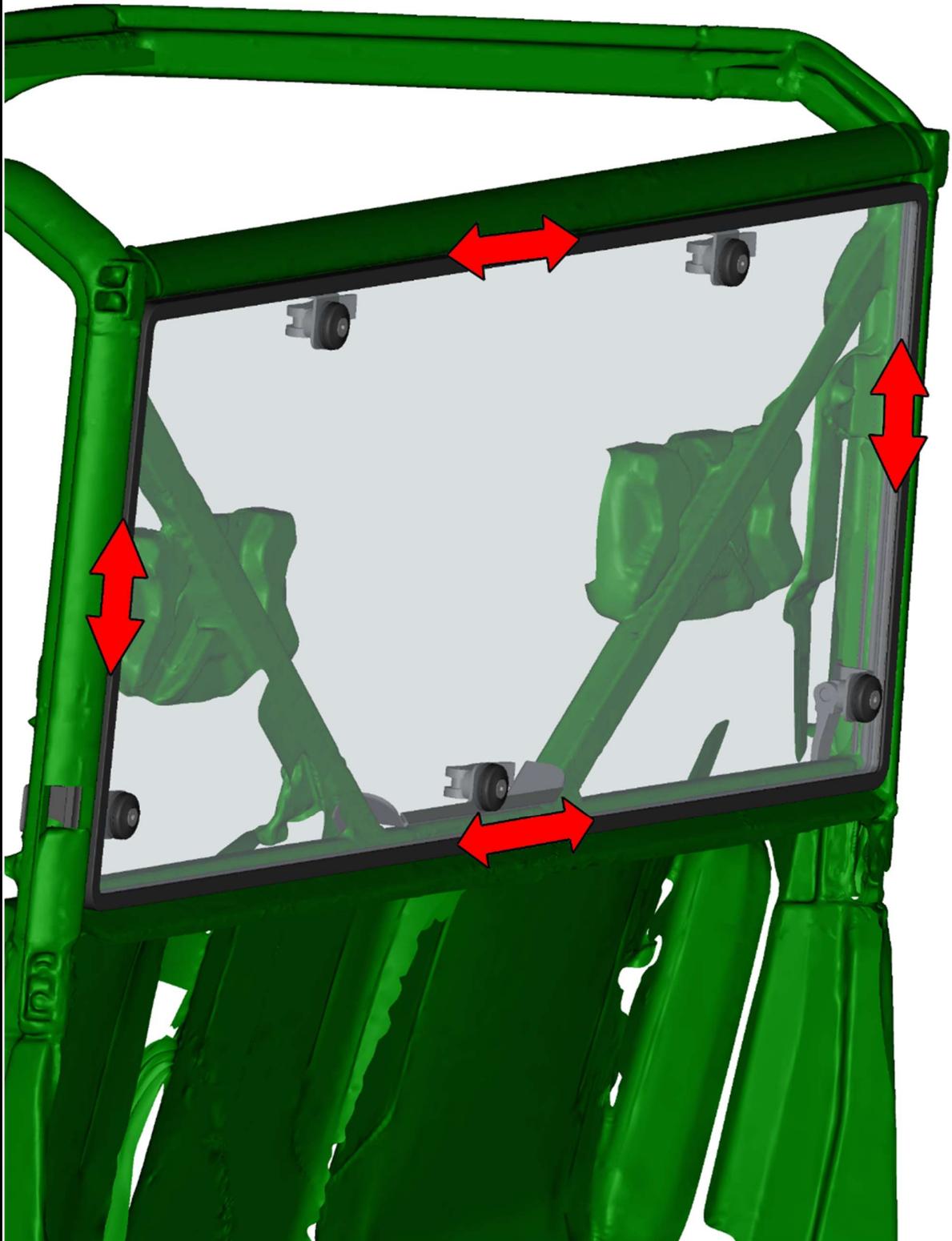


Place the rear window assembly onto the vehicle frame.  
It is recommended to install bottom central holder first.



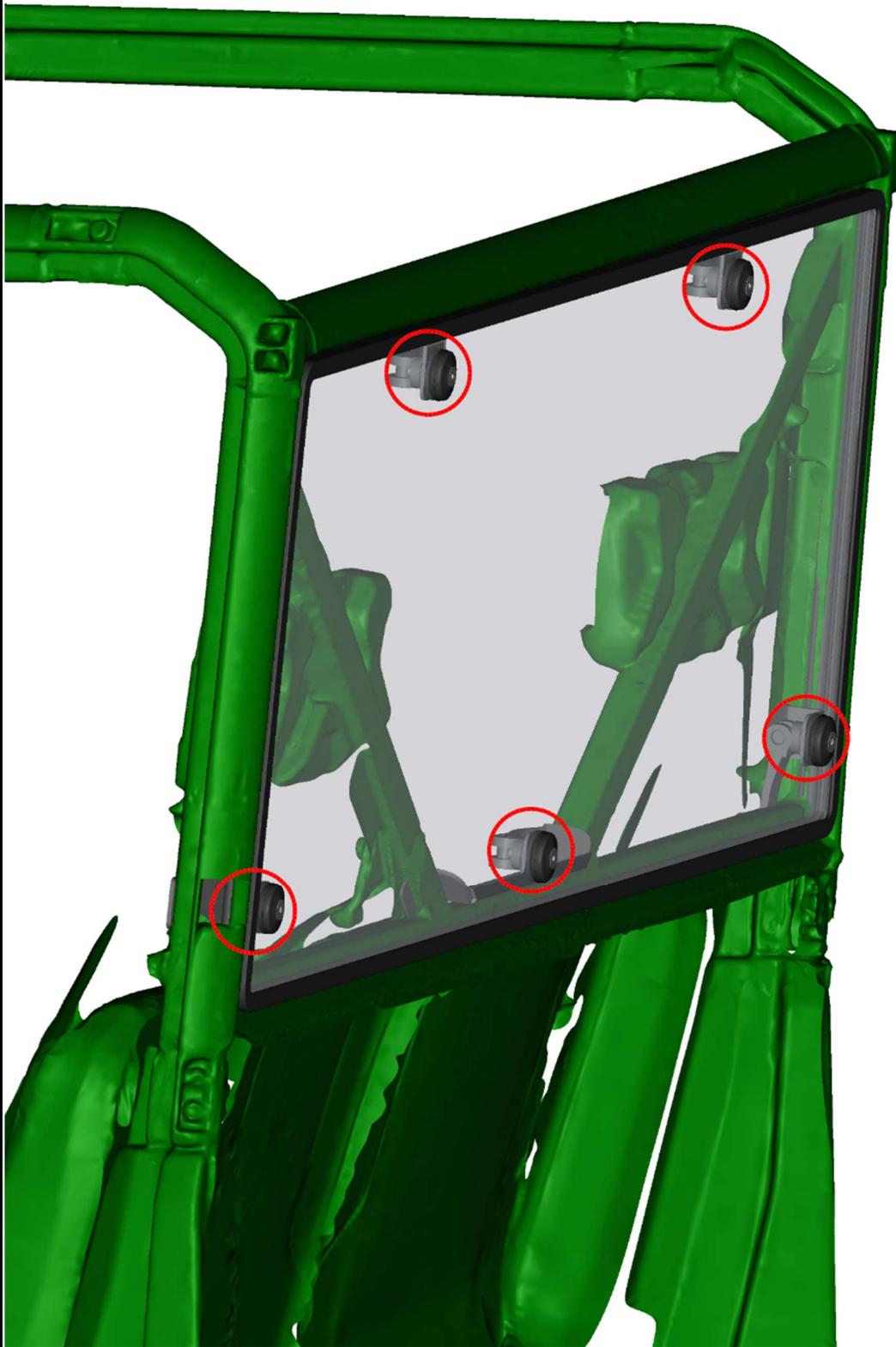
60

Adjust the rear window assembly to the best position.



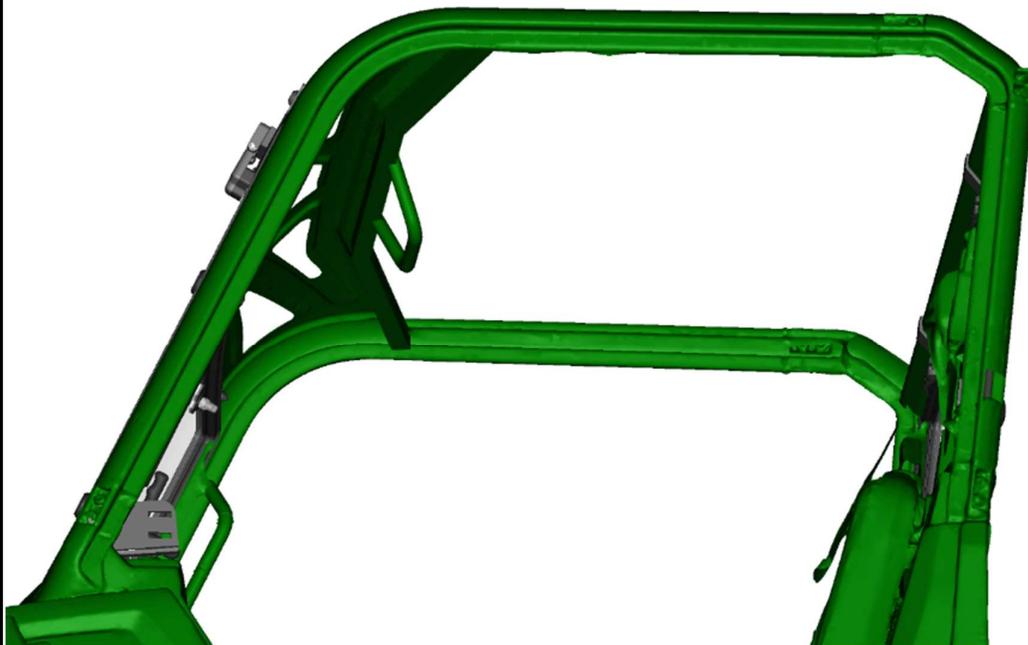
61

Secure the rear holders to the frame and tighten all screws.

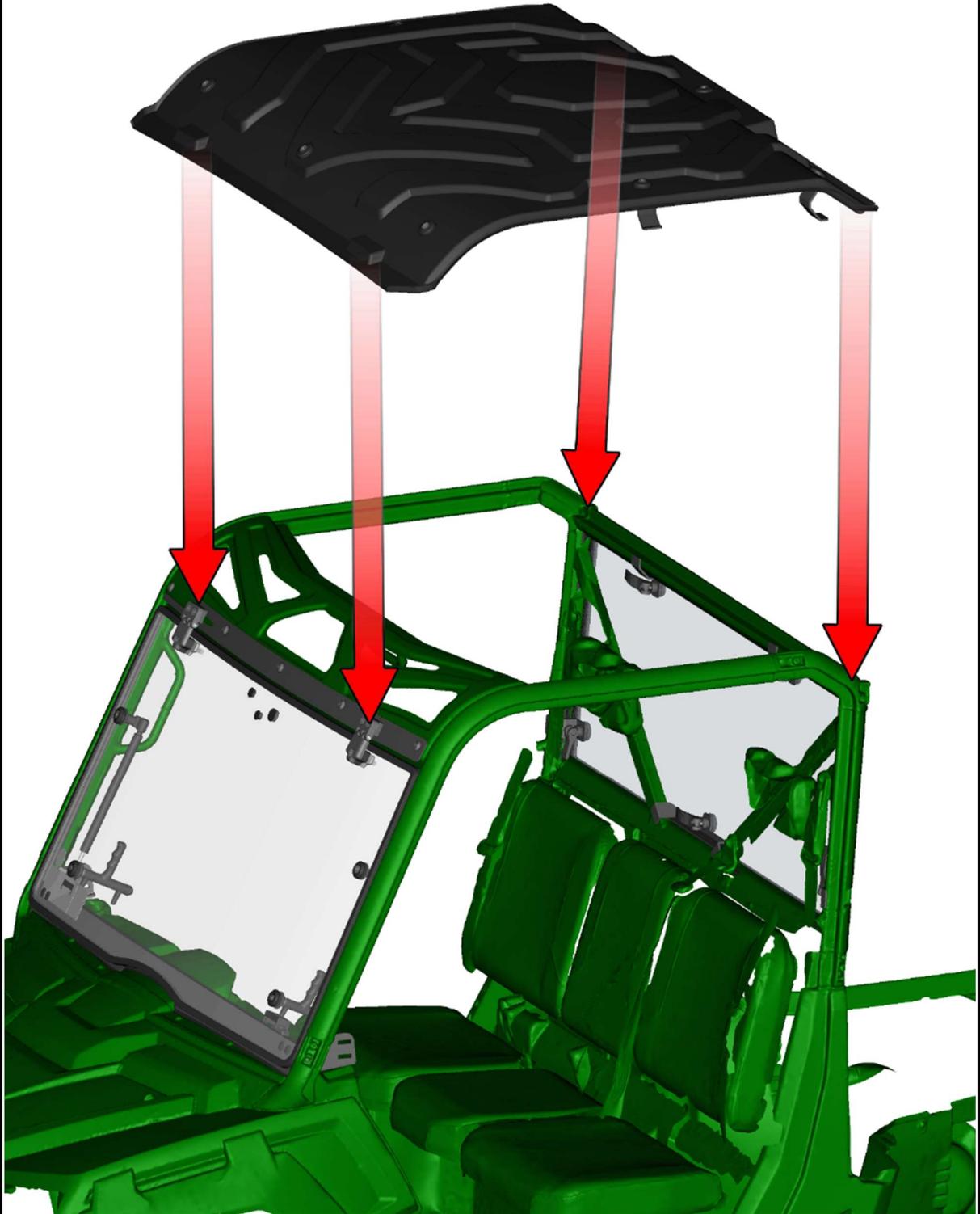


ROOF

Loose the roof holders screws and turn the holders to the neutral position.



Place the roof assembly onto the vehicle frame.

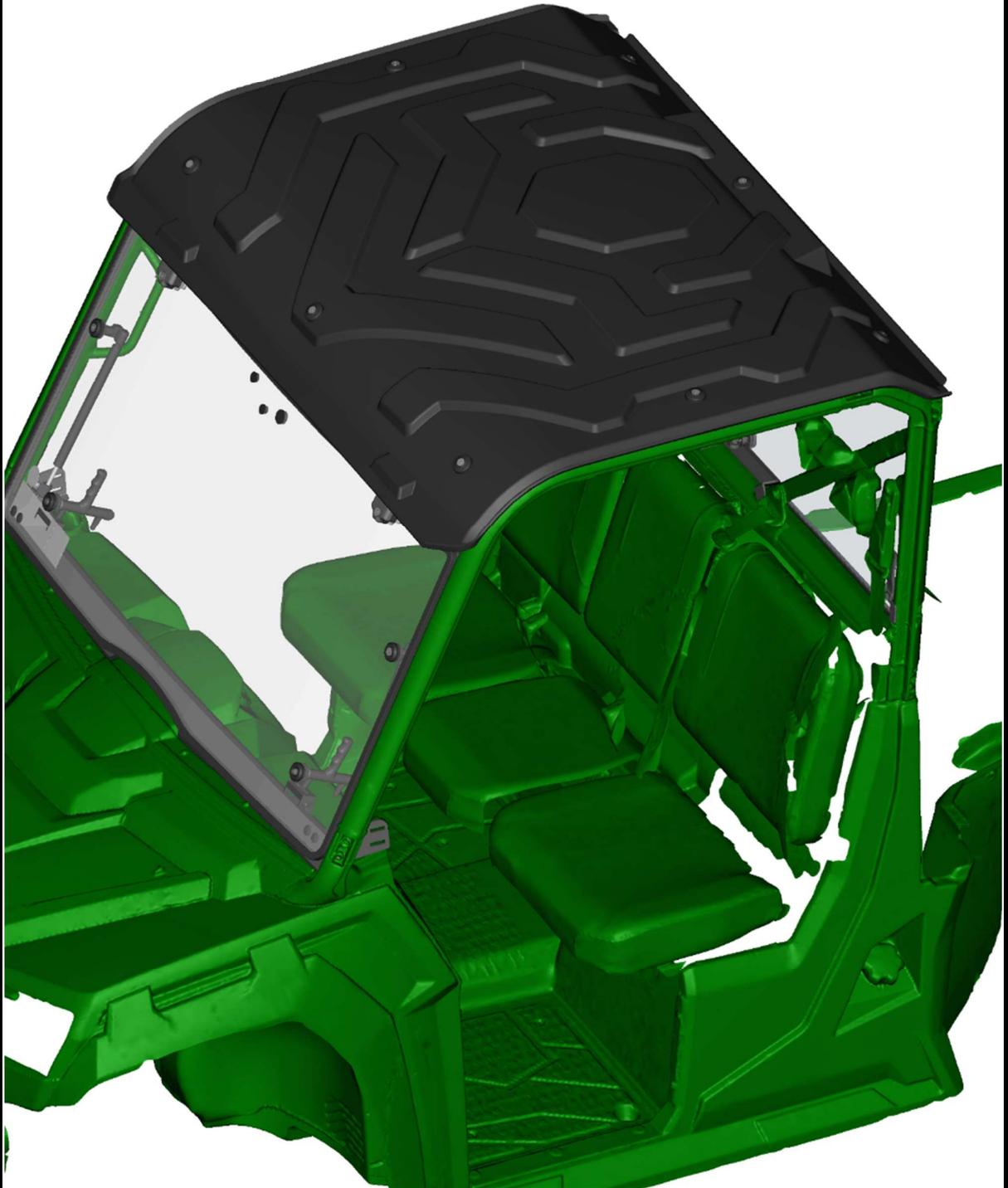


Adjust the roof holders to the best position.



65

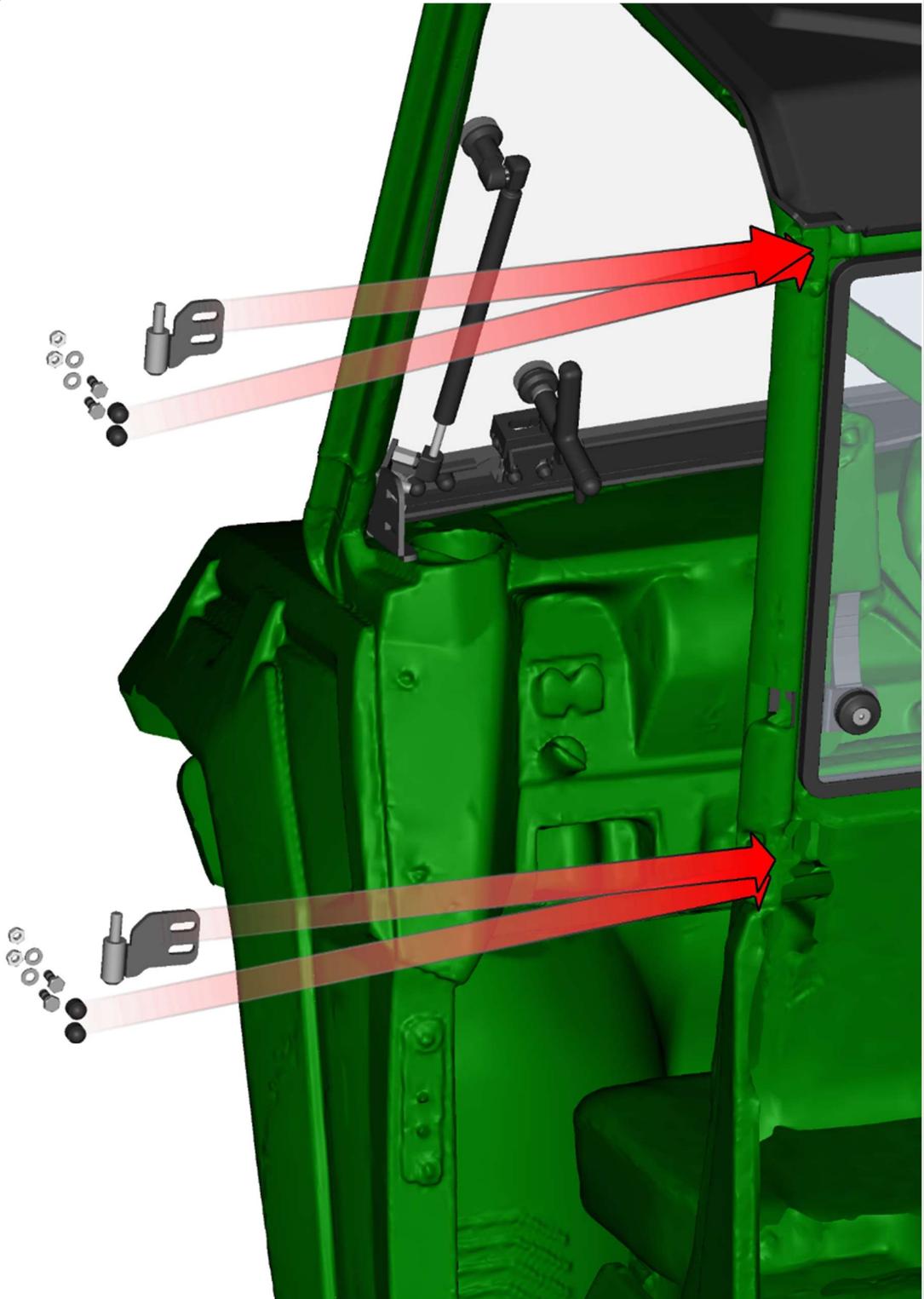
Adjust the roof to the best position and tighten holders screws.



66

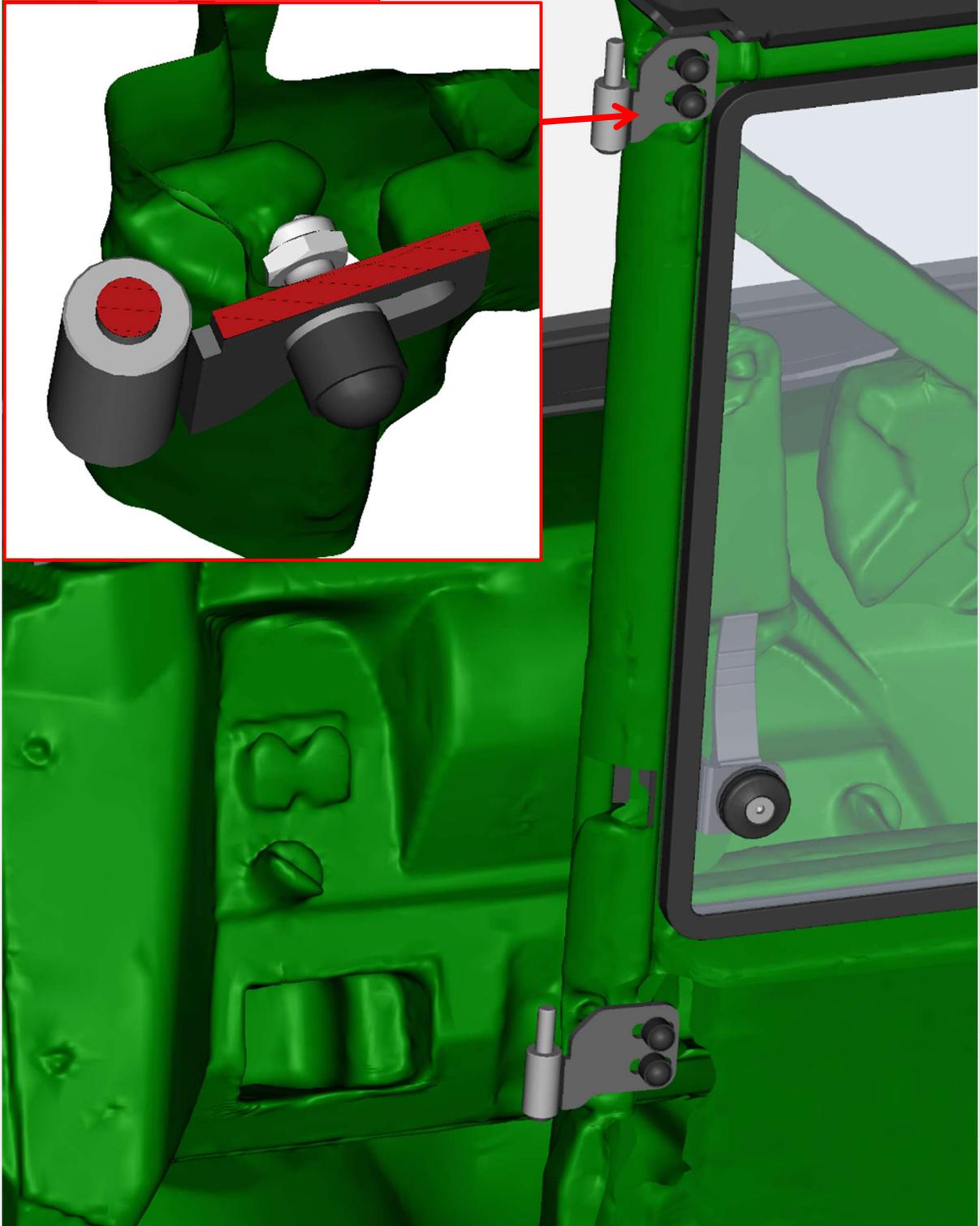
**LEFT DOOR + RIGHT DOOR 1.**

Place the left hinges onto the vehicle frame. Fix the hinges with the frame by included screws, washers, nuts and covers. SEE NEXT PAGES

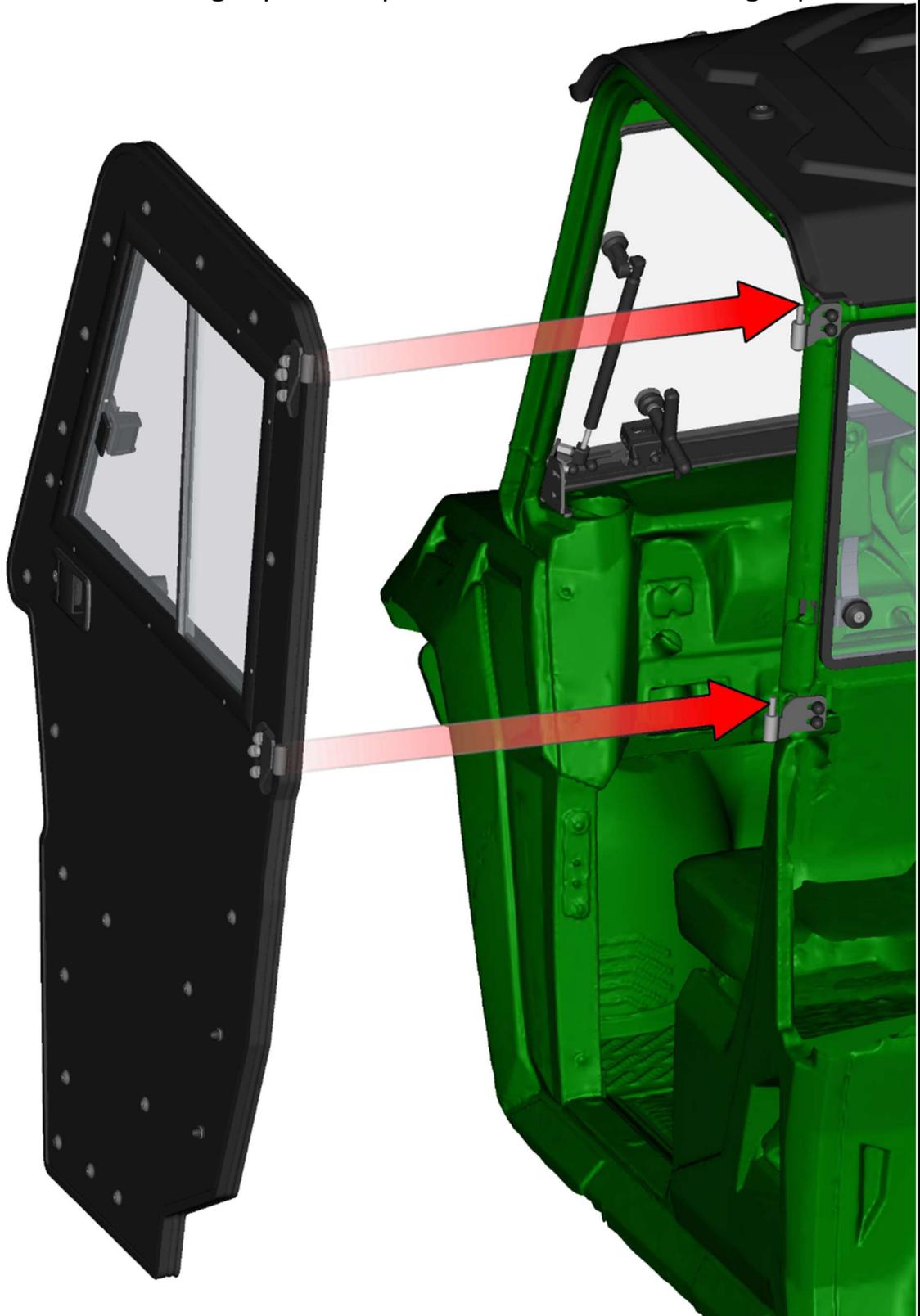


It is very important to install hinges like on picture.  
Upper and bottom hinges are different!

**DETAIL CUT VIEW**



Lubricate the hinges pins and place the door onto the hinges pins.



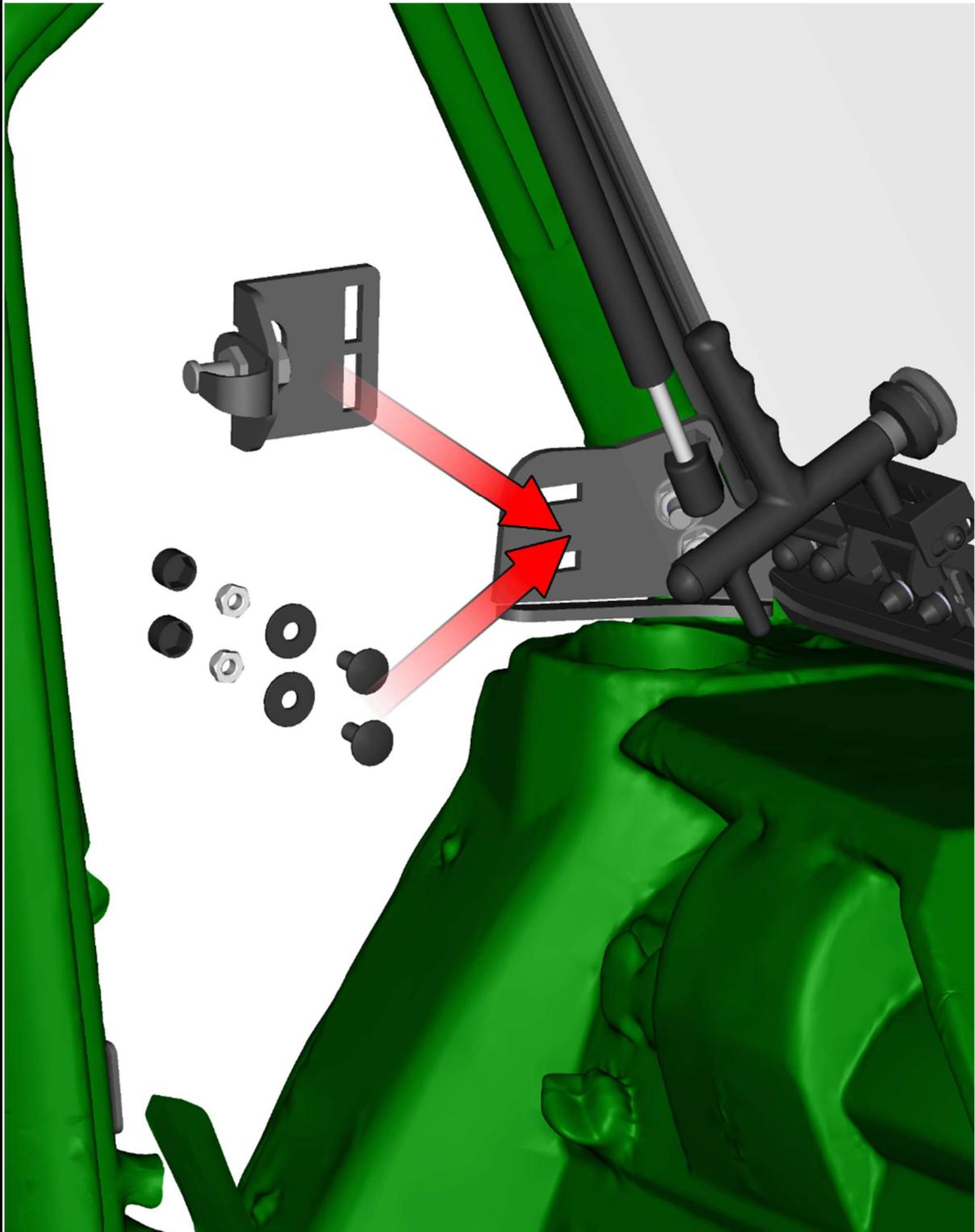
69

Adjust the door by the hinges to the best position.



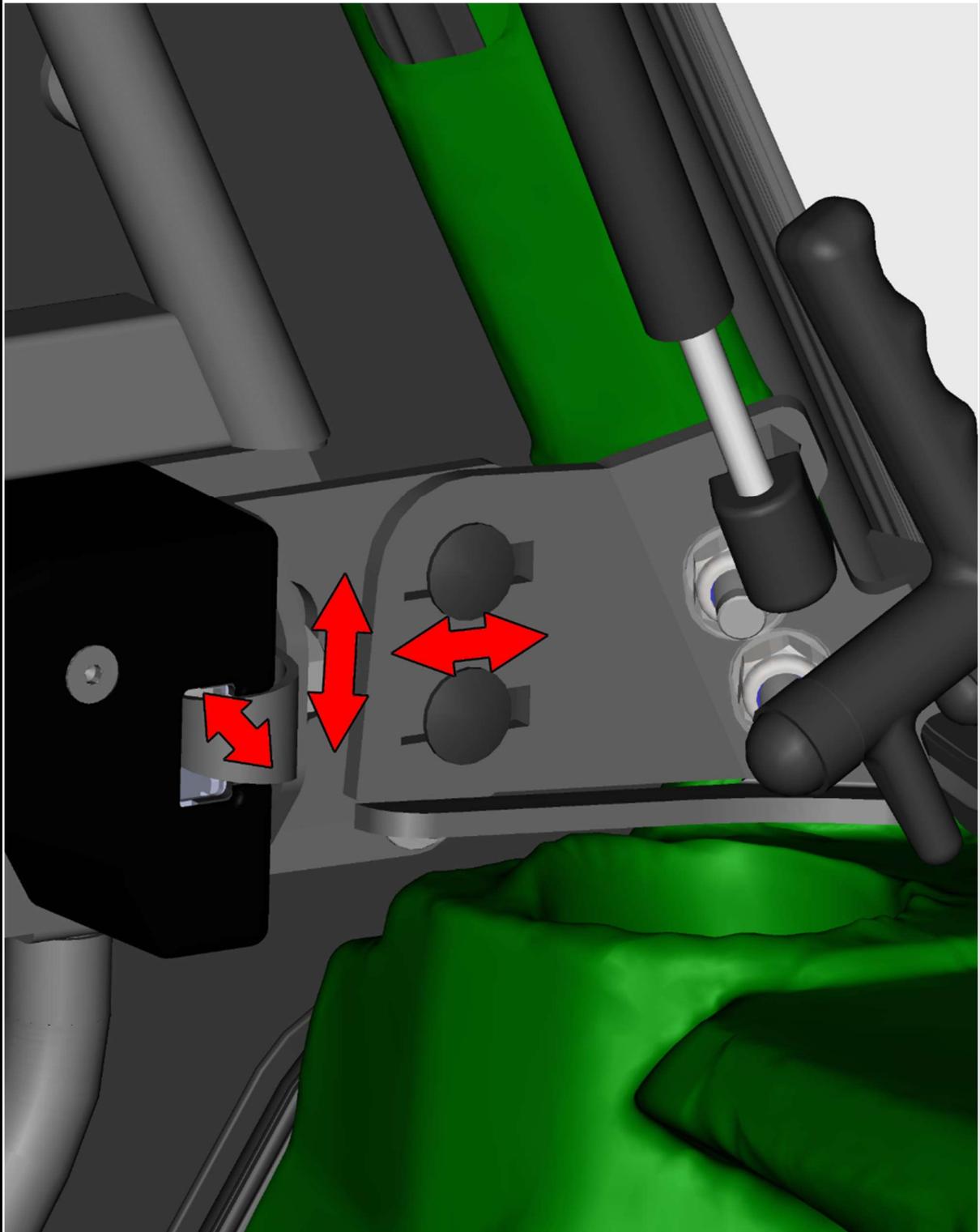
70

Place the door stop assembly from the outer side onto the front holder. Fix the door stop with the holder by included screws, washers, nuts and covers.



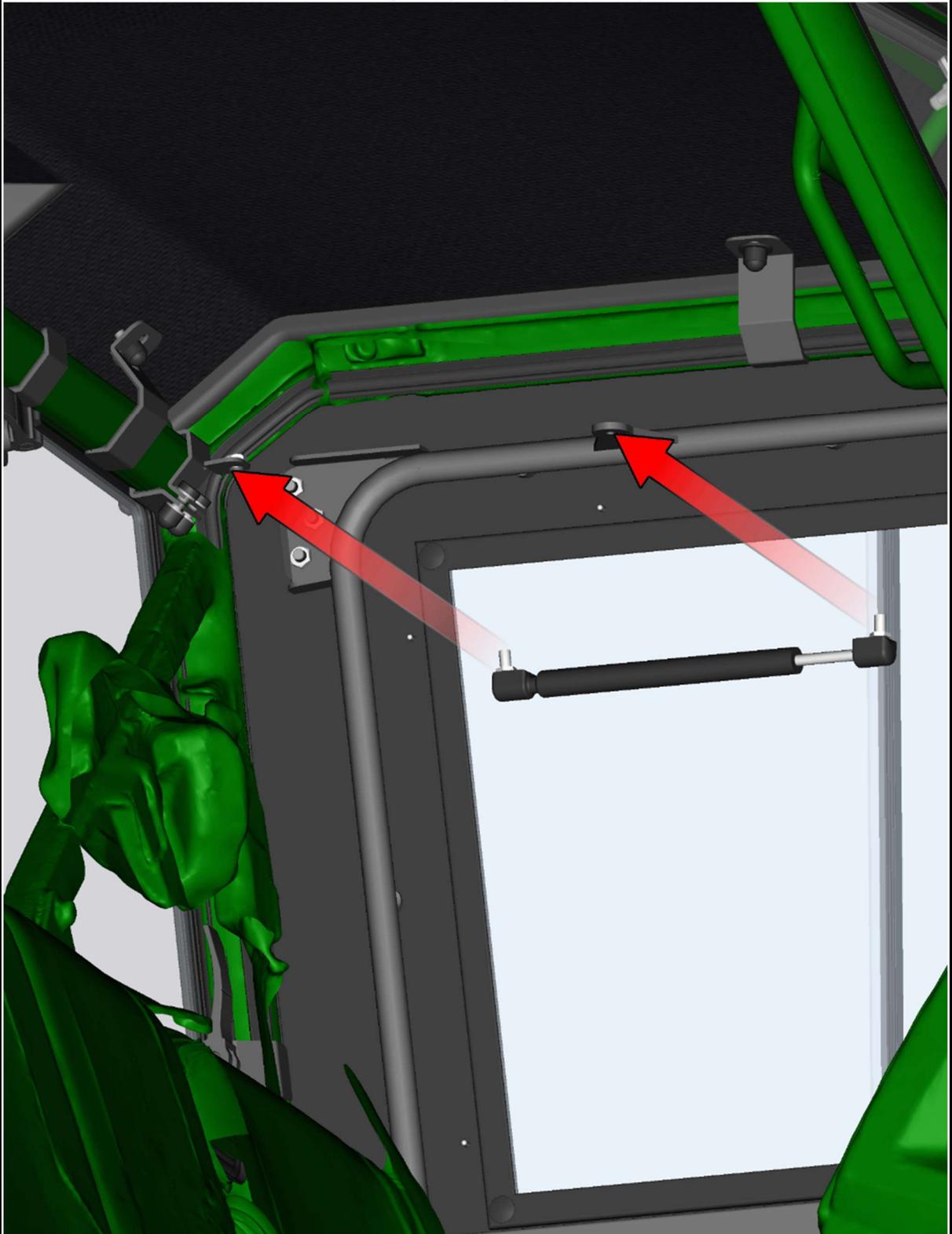
71

Adjust the door stop assembly to the best position.  
If you adjust the door correctly and close the door slowly, you can hear two metallic click.



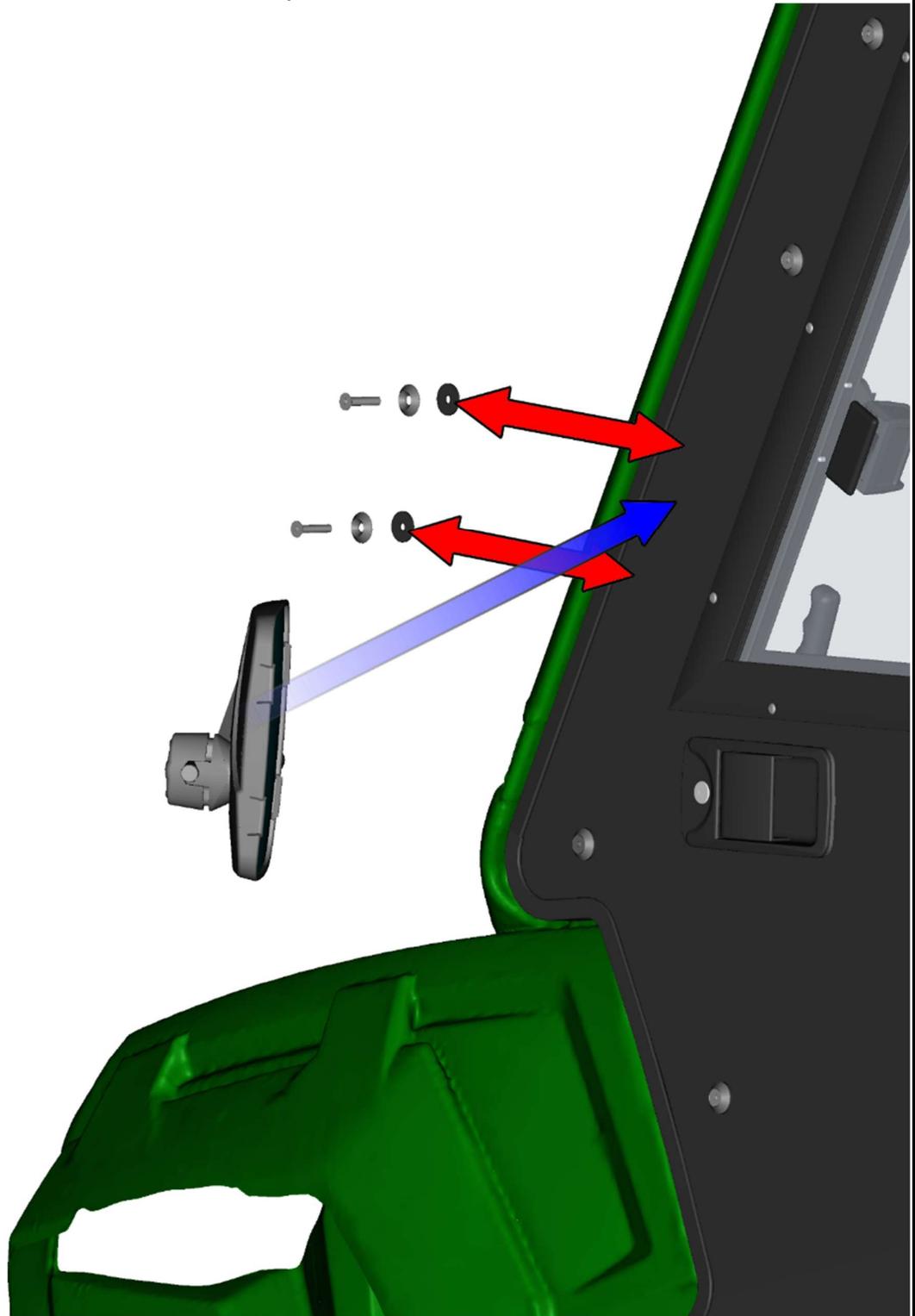
72

Install the gas spring pins into the holders.  
Install the gas spring onto the pins.



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Take out the screws and washers from the door.  
Place the mirror with the holder onto the door. Fix the holder with the door by screws and washers.



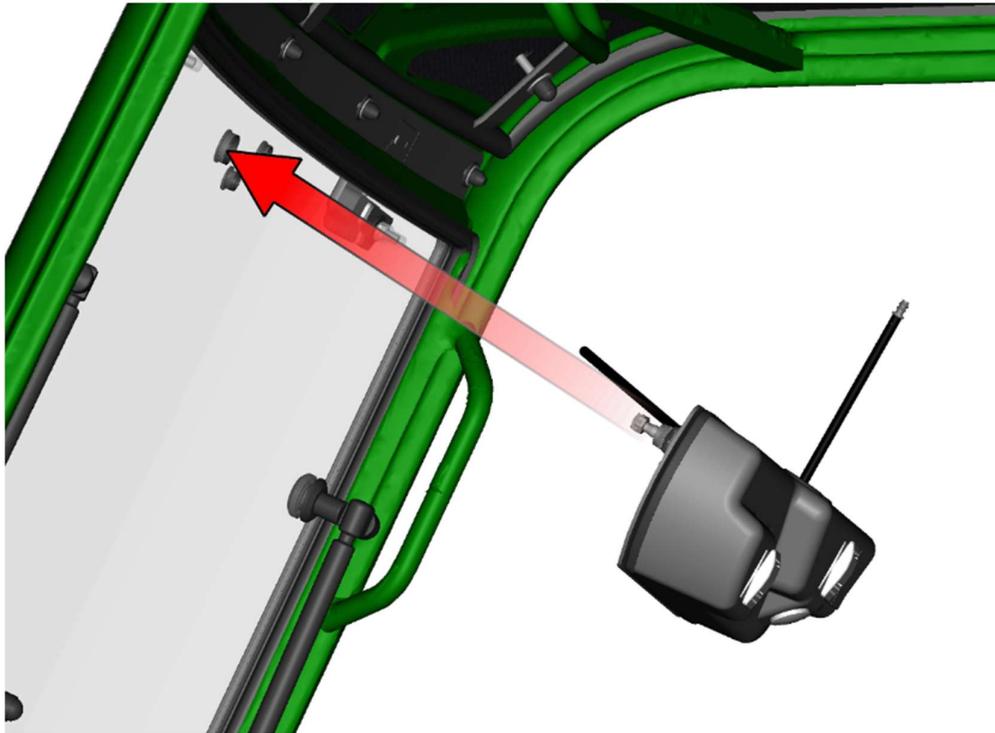
Repeat previous steps with the right door.



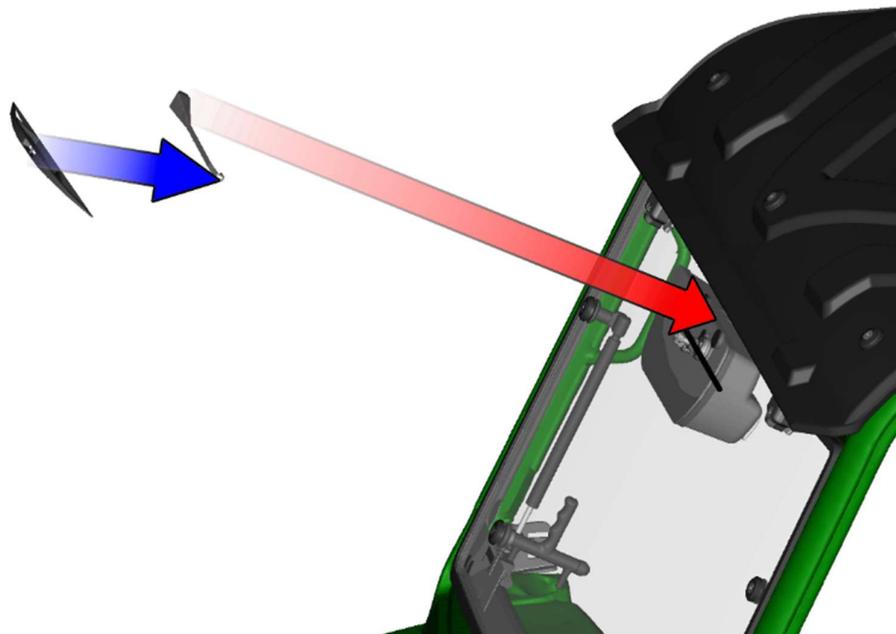
75

**ELECTROINSTALLATION 3.**

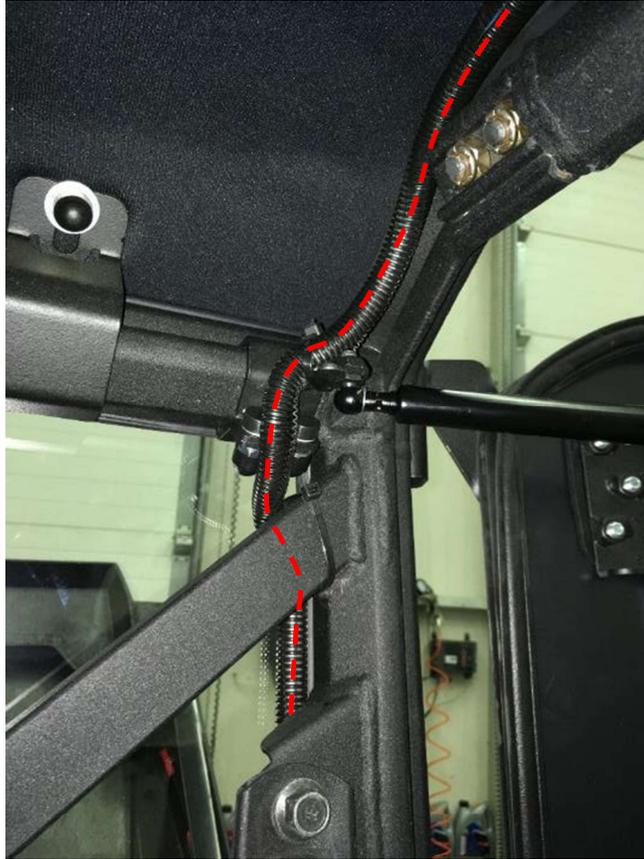
Install the front wiper motor assembly onto the front window.



Install the wiper arm with wiper blade onto the wiper motor.



Run the washer harness from the washer tank to the front upper ledge.



Run the washer harness from the washer tank to the front upper ledge.



Connect the washer harness with the front wiper assembly.



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SEE NEXT PAGES

Connect the wiper harness with the supply harness.



Run the wiper harness from the supply harness to the front wiper motor.

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Run the wiper harness from the supply harness to the front wiper motor.

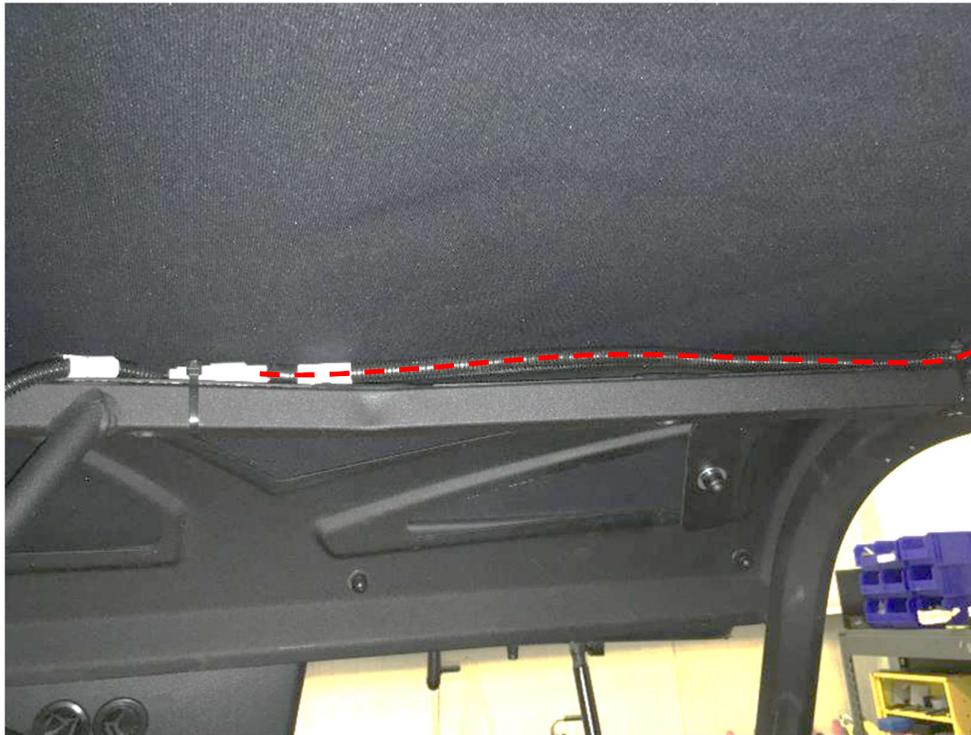


80

Run the wiper harness from the supply harness to the front wiper motor.



Run the wiper harness from the supply harness to the front wiper motor.  
Connect the wiper harness with the wiper assembly.



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# BOLT TORQUE

## BOLT TORQUE SPECIFICATIONS

### GENERAL TORQUE SPECIFICATION TABLE

Use the following torques when special torques are not given. These values apply to fasteners as received from suppliers, dry, or when lubricated with normal engine oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads. Remember to always use grade five or better when replacing bolts.

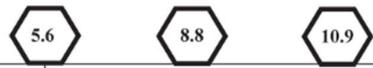
**IMPORTANT: On all PLATED GRADE 8 bolts, reduce torque 15% from listed bolt torque specification.**

SAE Grade No.		2				5				8*			
Bolt head identification mark as per grade. NOTE: Manufacturing Marks Will Vary													
Bolt Size		TORQUE				TORQUE				TORQUE			
		Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters	
Inches	Millimeters	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4	6.35	5	6	7	8	9	11	12	15	12	15	16	20
5/16	7.94	10	12	14	16	17	20.5	23	28	24	29	33	39
3/8	9.53	20	23	27	31	35	42	48	57	45	54	61	73
7/16	11.11	30	35	41	47	54	64	73	87	70	84	95	114
1/2	12.70	45	52	61	70	80	96	109	130	110	132	149	179
9/16	14.29	65	75	88	102	110	132	149	179	160	192	217	260
5/8	15.88	95	105	129	142	150	180	203	244	220	264	298	358
3/4	19.05	150	185	203	251	270	324	366	439	380	456	515	618
7/8	22.23	160	200	217	271	400	480	542	651	600	720	814	976
1	25.40	250	300	339	406	580	696	787	944	900	1080	1220	1464
1-1/8	25.58	-	-	-	-	800	880	1085	1193	1280	1440	1736	1953
1-1/4	31.75	-	-	-	-	1120	1240	1519	1681	1820	2000	2468	2712
1-3/8	34.93	-	-	-	-	1460	1680	1980	2278	2380	2720	3227	3688
1-1/2	38.10	-	-	-	-	1940	2200	2631	2983	3160	3560	4285	4827

\*Thick Nuts must be used with Grade 8 bolts

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### METRIC BOLT TORQUE SPECIFICATIONS



Size of Screw	Property Class	Course Thread			Fine Thread		
		Pitch (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters
M6	5.6	1.0	3.6-5.8	4.9-7.9	-	-	-
	8.8		5.8-9.4	7.9-12.7		-	-
	10.9		7.2-10	9.8-13.6		-	-
M8	5.6	1.25	7.2-14	9.8-19	1.0	12-17	16.3-23
	8.8		17-22	23-29.8		19-27	25.7-36.6
	10.9		20-26	27.1-35.2		22-31	29.8-42
M10	5.6	1.5	20-25	27.1-33.9	1.25	20-29	27.1-39.3
	8.8		34-40	46.1-54.2		35-47	47.4-63.7
	10.9		38-46	51.5-62.3		40-52	54.2-70.5
M12	5.6	1.75	28-34	37.9-46.1	1.25	31-41	42-55.6
	8.8		51-59	69.1-79.9		55-68	75.9-92.1
	10.9		57-66	77.2-89.4		62-75	84-101.6
M14	5.6	2.0	49-56	66.4-75.9	1.5	52-64	70.5-86.7
	8.8		81-93	109.8-126		90-106	122-143.6
	10.9		96-109	130.1-147.7		107-124	145-168
M16	5.6	2.0	67-77	90.8-104.3	1.5	69-83	93.6-112.5
	8.8		116-130	157.2-176.2		120-138	162.6-187
	10.9		129-145	174.8-196.5		140-158	189.7-214.1
M18	5.6	2.0	88-100	119.2-136	1.5	100-117	136-158.5
	8.8		150-168	203.3-227.6		177-199	239.8-269.6
	10.9		175-194	237.1-262.9		202-231	273.7-313
M20	5.6	2.5	108-130	146.3-176.2	1.5	132-150	178.9-203.3
	8.8		186-205	252-277.8		206-242	279.1-327.9
	10.9		213-249	288.6-337.4		246-289	333.3-391.6



## **Declaration of Conformity**



**DFK Cab, s.r.o.**

Za Olšávkou 391

686 01 Uherské Hradiště

Česká republika / Czech Republic