



**YAMAHA VIKING CREW
ClearView Cab p/n: 1YAMVK6CV
fits model years up thru 2018
(fits Yanmar Longhorn model years up thru 2018)**

The contents of this envelope are the property of the owner.
Be sure to leave with the owner when installation is complete.

Warning! This vehicle is capable of traveling at high speed. Do not attempt to drive the vehicle with the cab doors removed. If the cab doors are intentionally removed, the O.E.M. (Original Equipment Manufacturer) vehicle half doors or netting must be re-installed prior to driving the vehicle. Failure to do so could result in serious injury or death.

Caution! Do not operate vehicle with windshield in the full open position.

Approximate Installation Time *

Experienced Dealer Technician – 4.0 Hours

Average Dealer Technician – 5.0 Hours

Do-It-Yourself – 6.0 Hours

(* = Not including accessories)



A windshield wiper is not included with this cab kit. It is available as a separate additional option (p/n: 1YAMVK6CVWPR).

Door mirrors are not included, but are available as a separate additional option (p/n: 9PM6).

revised: 12-7-2018



NOTICE

Curtis Cabs, blades and general accessories add additional weight to the base vehicle. All Curtis accessory weights are listed in product brochures. Deduct the accessory's total weight from the vehicle's rated capacity and never exceed the vehicle's rated capacity including driver and passenger.



WARNING Exposure to Carbon Monoxide can Cause illness, serious injury or death. Never operate vehicle if suspicious of Carbon Monoxide. Inspect exhaust system for leaks monthly. Leaks can result from loose connections, corrosion, cracks or other damage to the exhaust manifold. If leaks are found, repair or replace exhaust system. Do not use vehicle until repair or replacement is complete.



WARNING

Serious Injury or Death



This cab enclosure does not provide protection from rollover or other accidents.



This cab enclosure does not provide protection from flying objects including golf balls.



This cab enclosure does not provide protection from lightning. When lightning threatens take cover and do not operate vehicle.

California Proposition 65



WARNING



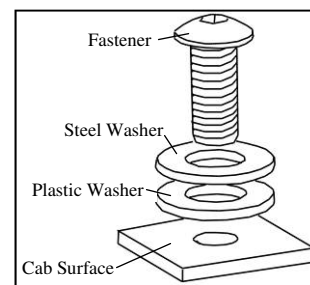
Engine exhaust, some of its constituents, certain vehicle components and fluids, contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

CAB INSTALLATION

BEFORE YOU START

HELPFUL HINTS:

- Refer to parts diagram toward the back of this manual to help identify parts during the assembly process.
- To assist with the cab installation, leave all bolts loose for later adjustment unless otherwise specified. Install nut covers as a very last step after finishing the installation.
- Read and understand all instructions before beginning.
- Plastic washers have been supplied to provide a weather seal under the heads of all exterior bolts. The plastic washer should be installed under each bolt head directly against the outside cab surface. Care should be taken not to over tighten the fasteners and damage the plastic washer. Also use steel washers as required. See diagram. Tip: the black plastic washers can be difficult to distinguish from the black steel washers. Use a magnet or look for round witness marks left on the plastic washers from the mold ejector pins.
- Apply a clear silicone sealant to seal any minor gaps that may occur due to vehicle variations.
- Use caution to avoid damaging any factory installed threaded inserts or weldnuts. Begin the bolt engagement by hand to guard against potential cross threading.



SAFETY INSTRUCTIONS

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

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

Assembly of product requires use of hand tools. If you are not experienced in using these types of tools, have a product dealer do the installation 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 below.

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

Do not operate the vehicle with the cab doors removed. If the cab doors are intentionally removed, the vehicle original half doors or nets must be re-installed prior to moving the vehicle. Failure to do so before moving the vehicle could result in serious injury or death.

Never drive your UTV with the cab front windshield in the open position. Failure to properly latch/lock the front windshield before driving the vehicle could result in serious injury.

Plastic washers have been supplied to provide a weather seal around all exterior fasteners. The plastic washer should be installed under each bolt head directly against the outside cab surface. Care should be taken not to over tighten the fasteners and damaging the plastic washer. Use metal washers as required.

MAINTENANCE AND CLEANING

The inside surface of the windshield is coated with a plasticized safety film. Use care when cleaning the windshield to avoid scratching the inside surface.

To clean polycarbonate surfaces, use a soapy water solution or other gentle means.

Dirt and dust can be removed with a gentle water stream and wiping only with a wet or damp soft cloth from top to bottom.

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

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

Do not remove impurities from surfaces with a razor blade or other sharp items.

Do not clean the cab when the polycarbonate surfaces are heated by the sun.

Do not use a squeegee, it could scratch surfaces.

The mfr. is not responsible for surface scratches caused by failure to comply with the above instructions.

Check and tighten hardware after 40 hours of operation. Periodically inspect and tighten hardware for the remainder of the unit's life.

1. VEHICLE PREP

1.1 Remove all additional systems from the R.O.P.S. (Roll-Over Protective Structure) including work lights, rear mirrors, drink holders etc.. Remove the OEM roof and the OEM half doors or nets from the vehicle.

1.2 Front half door detail view (white rectangle)

1.3 Back half door detail view (white rectangle)



Fig. 1.1



Fig. 1.2



Fig. 1.3

2. CAB PREVIEW

2.1 Preview model for reference

3. FRONT PANEL

3.1 Install the door stop assembly into the correct door stop bracket (left or right.) Attach the door stop bracket with 3x SCREWS M8x20

3.2 Remove the original bottom screws (in white circles) one by one from the front bottom part of the roll cage. Place the thick metal rectangular spacer and the left bracket assembly (from previous figure) onto the roll cage. Attach with 2x SCREWS 10X60 and repeat for the right side of the UTV



Fig. 2.1

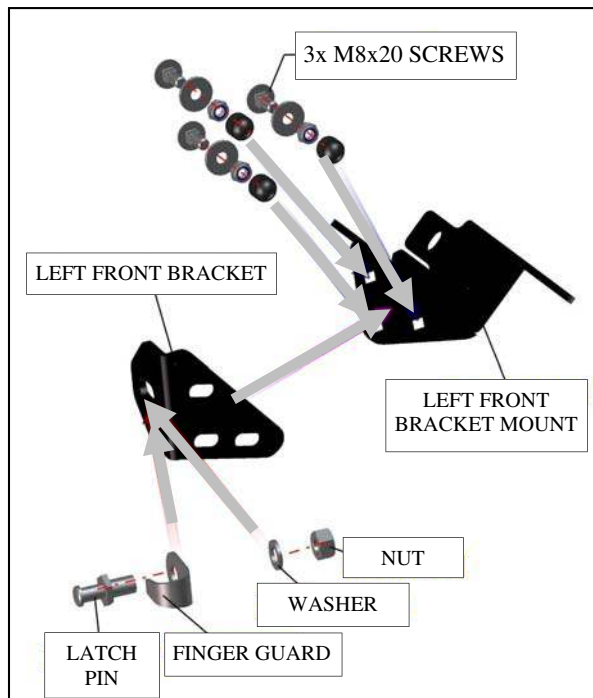


Fig. 3.1

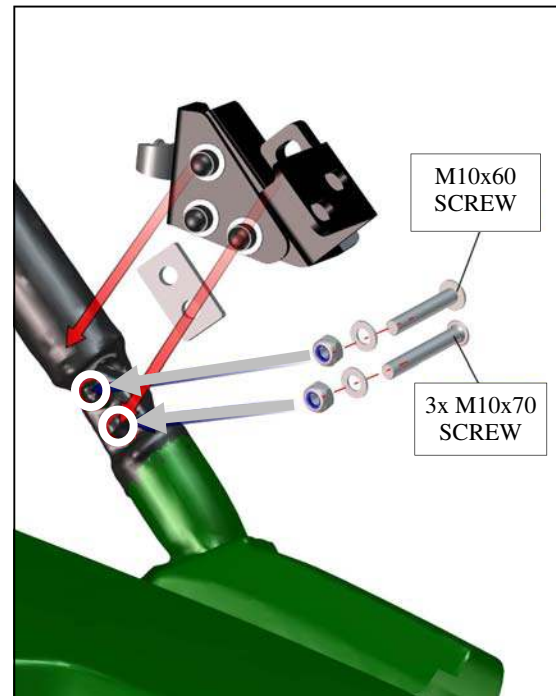


Fig. 3.2

3. FRONT PANEL (cont'd.)

3.3 Install the front bottom ledge onto the brackets on the hood of the UTV

3.4 Attach the ledge to the bracket with 2x SCREWS M8x35

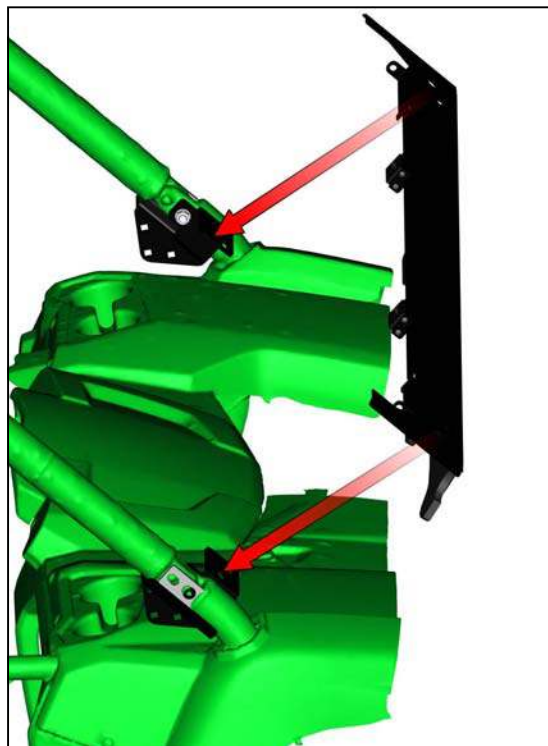


Fig. 3.3

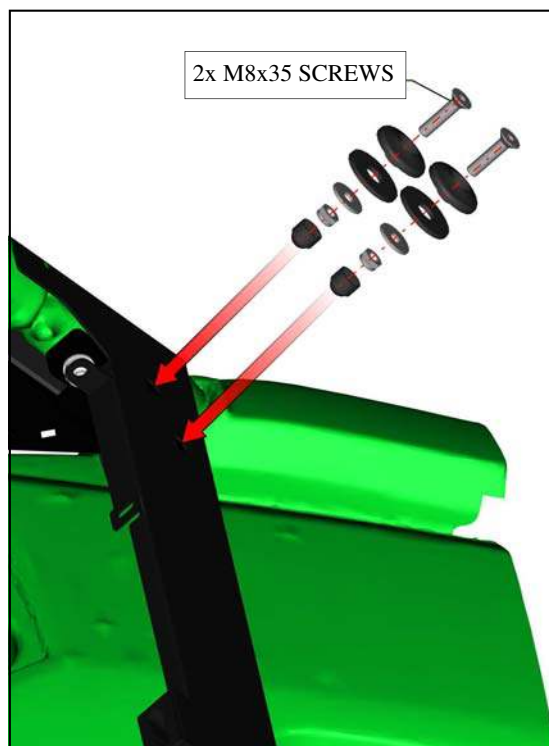


Fig. 3.4

3. FRONT PANEL (cont'd.)

3.5 NOTE: (manufacturing variances): your windshield set up (the lower portion) may come with the plastic cowl latches shown in fig. 3.5a or they may come with the metal version shown in fig. 3.5b (which mounts to the windshield instead of the cowl). Proceed accordingly.

3.5b Attach the front window assembly and the hinge bases onto the upper ledge. **Caution!** The inside surface of the front panel is coated with a plasticized safety film. Use care when cleaning the front panel to avoid scratching the inside surface.

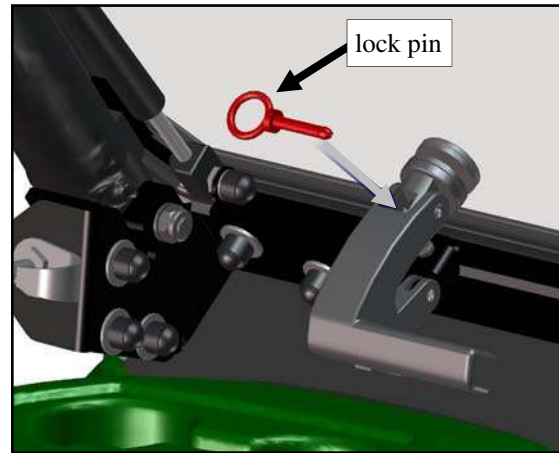


Fig. 3.5a

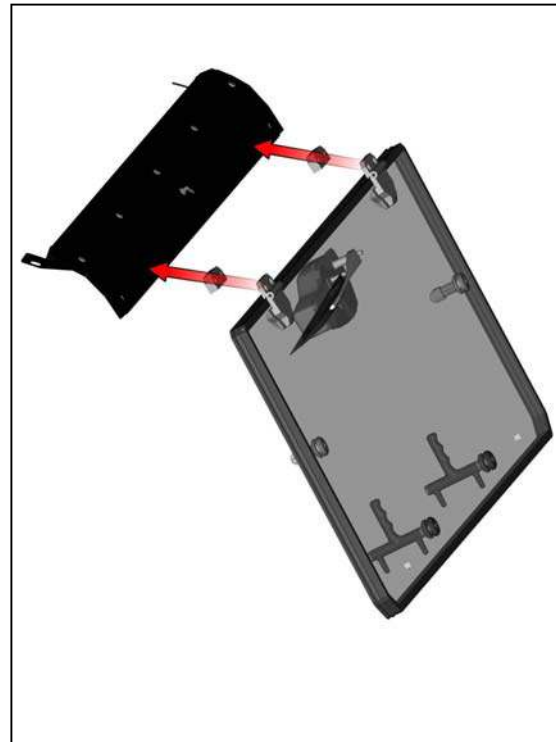


Fig. 3.5b

3. FRONT PANEL (cont'd.)

3.6 Attach the hinges and bases to the upper front ledge with 4x SCREWS M8x45

Per the photo on the top right, keep the flat head screws loose/snug. When it's time to tighten these screws, use care to avoid cracking the countersink. **Caution: the front panel hinges are plastic components. Do not over tighten the flat head screws. Torque to 7 ft.-lbs. max.**

3.7 Remove the original screws from the upper roll cage reinforcement and insert 3x 10mm washers (shown in white circle) and reinstall screws on both sides

3.8 Align the front window with the ledge onto the roll cage

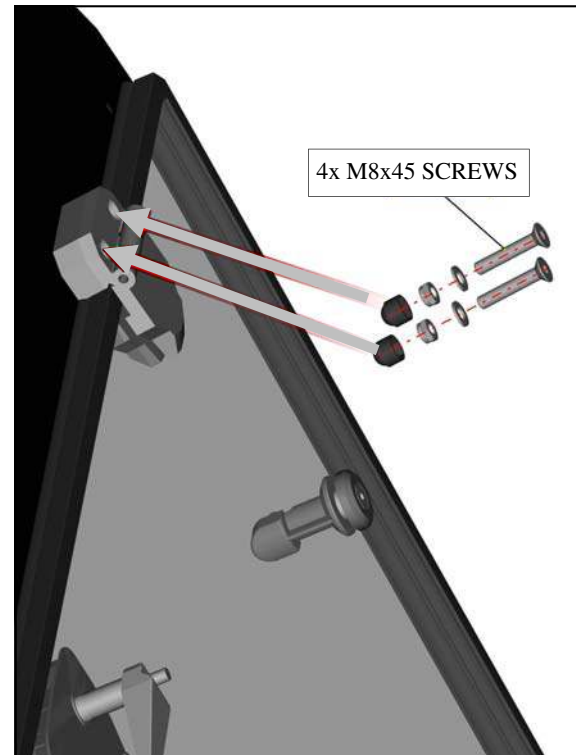


Fig. 3.6



Fig. 3.7

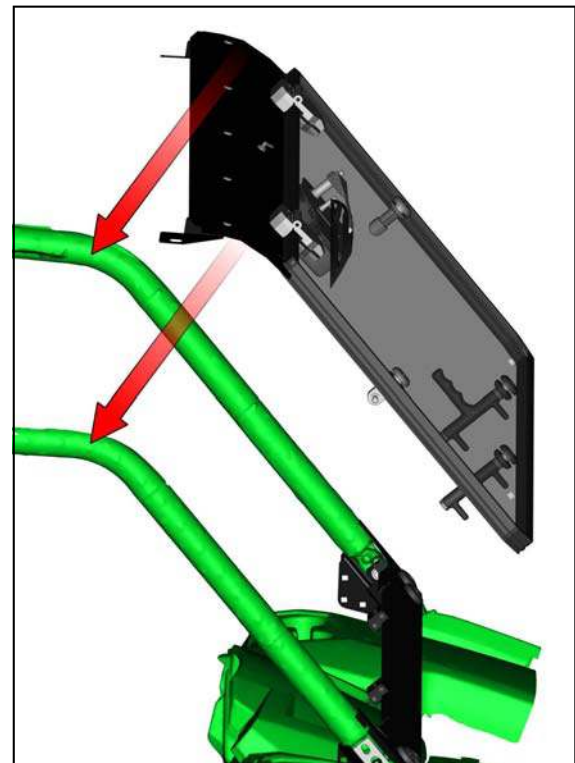


Fig. 3.8

3. FRONT PANEL (cont'd.)

3.9 Attach the upper ledge to the roll cage reinforcement with 2x SCREWS M8x50

3.10 Align the front upper brackets onto the front upper ledge and the roll cage

3.11 Attach the brackets with 2x SCREWS M8x20



Fig. 3.9

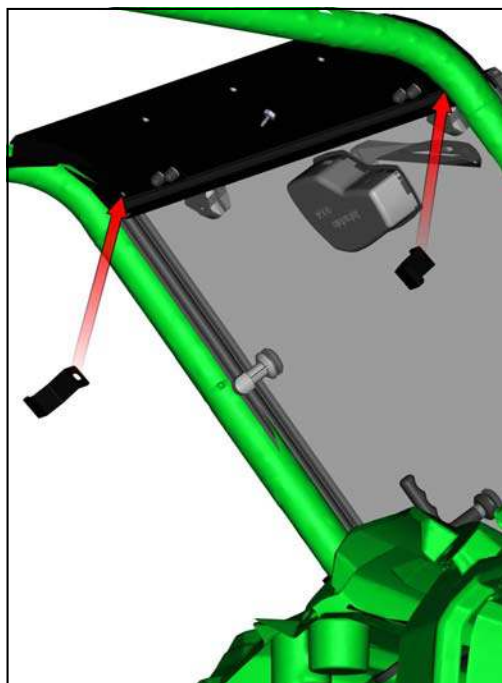


Fig. 3.10

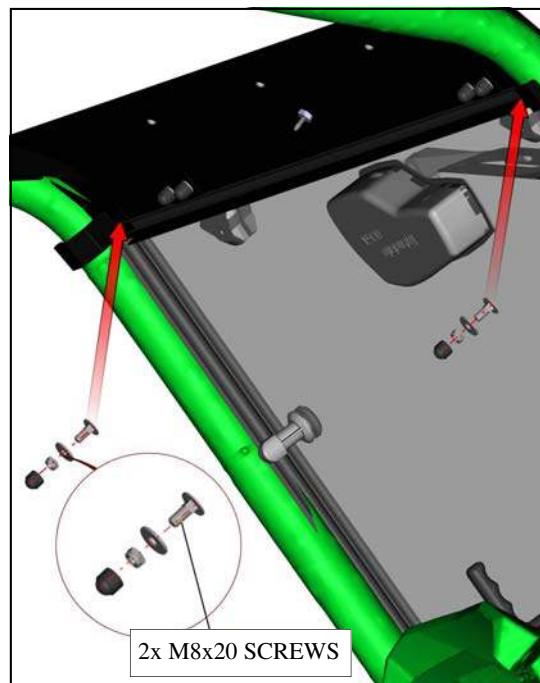


Fig. 3.11

3. FRONT PANEL (cont'd.)

3.12 NOTE: there should be 2 out of 6 gas shocks that are shorter than the others. The short gas shocks are for the front doors only. Per the photo to the right, orient the gas shock so that the piston rod is pointing down for best, continuous seal lubrication and longest gas shock life.

4. REAR PANEL

4.1 Per fig. 4.1, remove and discard the lower plastic OEM rear panel which is wire tied in place.

4.2 Align the left rear ledge into position on the rear window assembly

4.3 Attach the side ledge to the rear window assembly with 4x SCREWS M6x25

Note: Be careful not to break plastic washers, they can only withstand a maximum of 3.7 foot pounds (5 Nm) of force

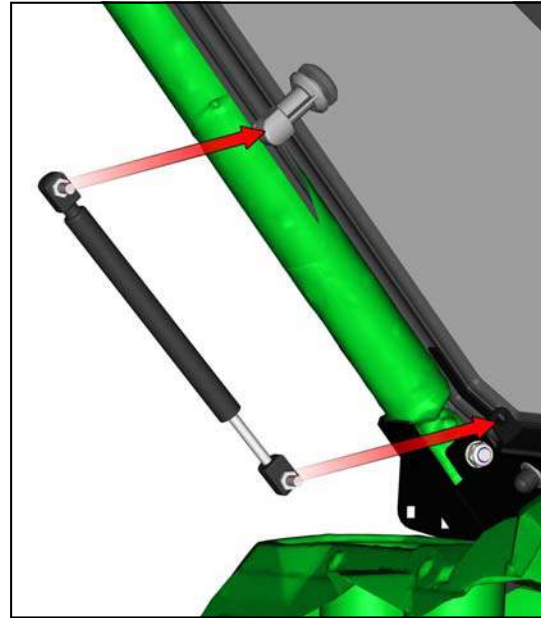


Fig. 3.12



Fig. 4.1

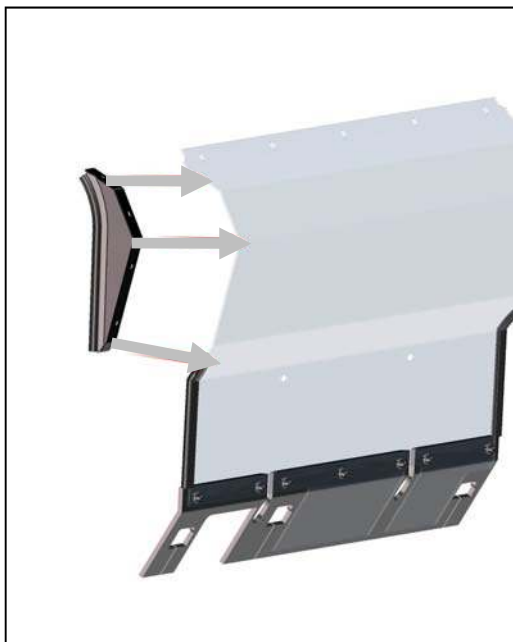


Fig. 4.2

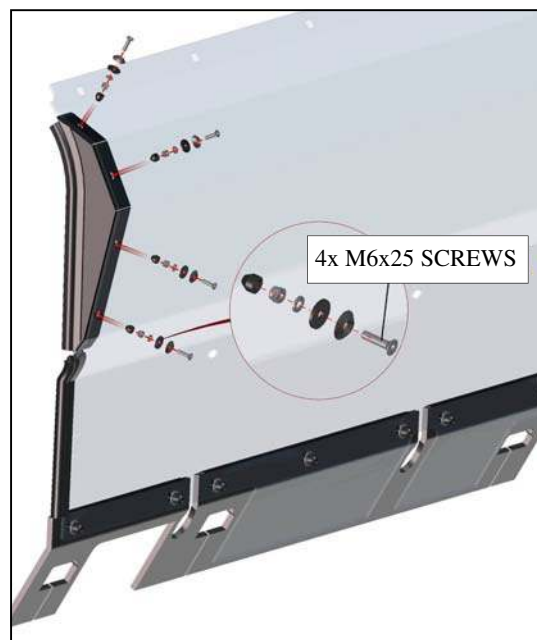


Fig. 4.3

4. REAR PANEL (cont'd.)

4.4 Repeat the previous steps for the right rear side ledge and attach the rear window assembly onto the roll cage

4.5 Attach the rear upper ledge to the roll cage

4.6 Attach the rear left upper mounting bracket onto the roll cage using the larger bracket, not the smaller bracket.



Fig.4.4



Fig. 4.5

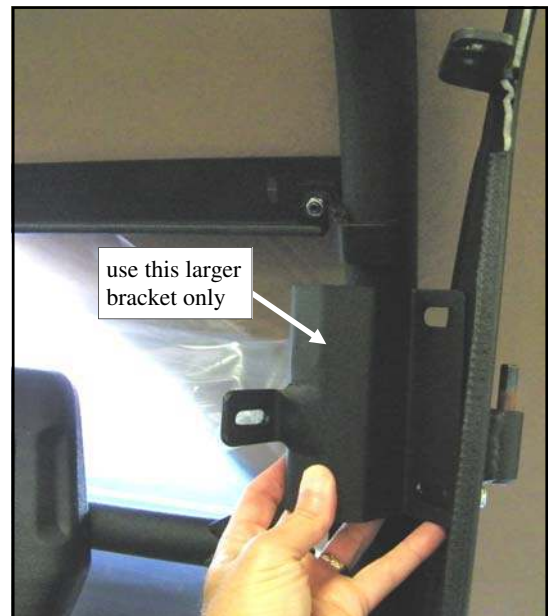


Fig. 4.6

4. REAR PANEL (cont'd.)

4.7 Fasten the right rear upper bracket onto the upper ledge and roll cage using SELF LOCKING NUT M8

4.8 Align the middle brackets onto the rear window and roll cage

4.9 Fasten middle brackets with 4x M8x20 SCREWS

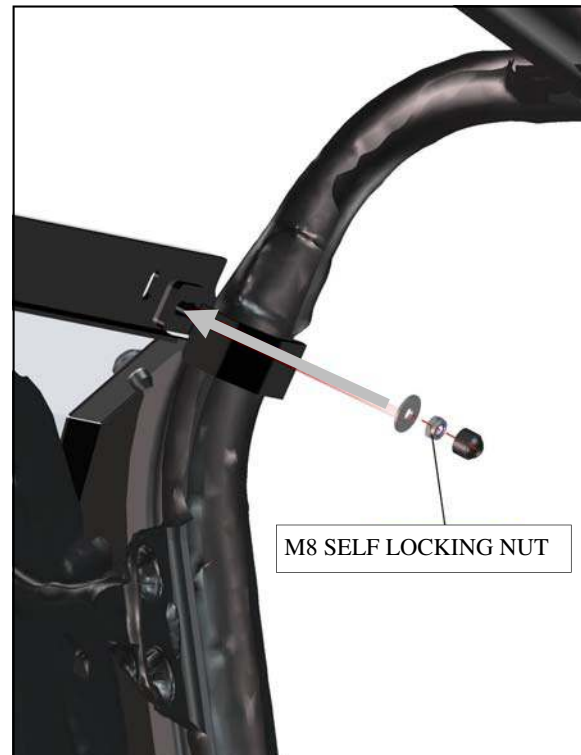


Fig. 4.7



Fig. 4.8

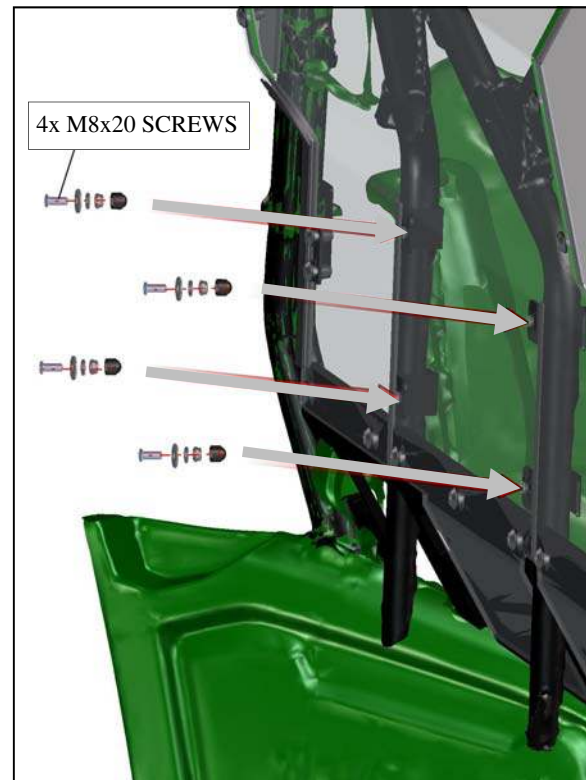


Fig.4.9

5. LEFT AND RIGHT DOOR

5.1 Align the left hinges into position on the left rear door base

5.2 Fasten hinges with the rear door base with 4x M8x20 SCREWS

5.3 Remove original screws, washers, and nuts from the roll cage on both sides (white circle)



Fig. 5.1

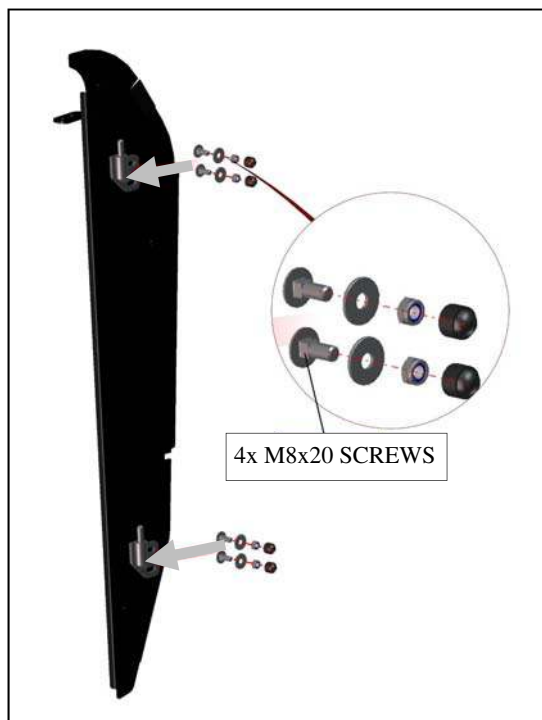


Fig. 5.2

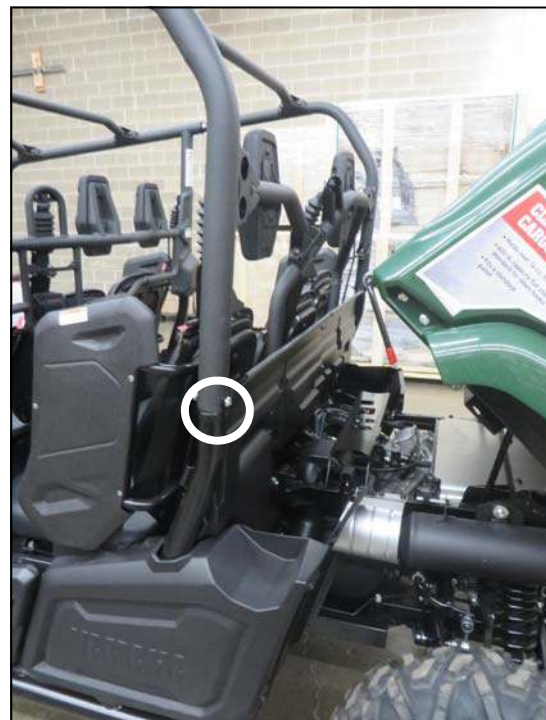


Fig. 5.3

5. LEFT AND RIGHT DOOR

5.4 Detailed view (white circle)

5.5 Align the rear door bases with the roll cage as shown

5.6 Align the rear bracket with the rear window ledge pin on the rear door base



Fig. 5.4



Fig. 5.5



Fig. 5.6

5. LEFT AND RIGHT DOOR

5.7 Fasten bracket with a SELF-LOCKING NUT M8

5.8 Fasten the rear door base with 2x M8x20 SCREWS

5.9 Align the bracket onto the rear door base.



Fig. 5.7

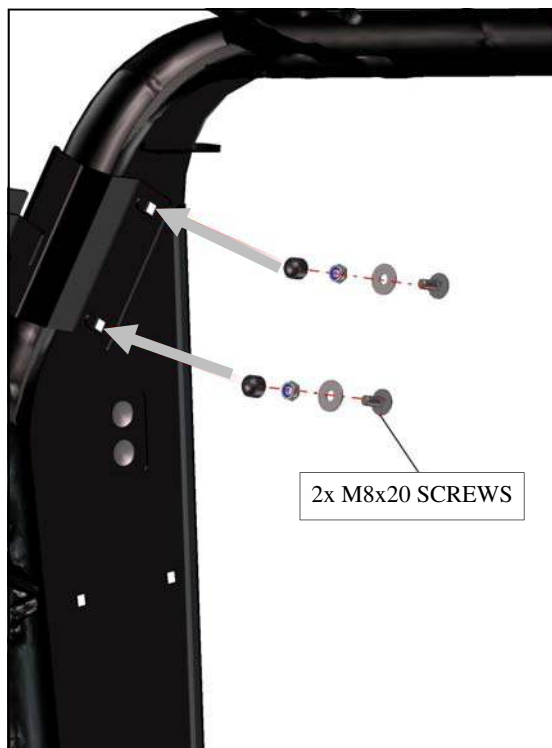


Fig. 5.8



Fig. 5.9

5. LEFT AND RIGHT DOOR

5.10 Fasten the bracket to the rear door base with 2x M8x20 SCREWS

5.11 Attach the bracket to the ROPS cross brace bracket with the hardware shown (M8 x 30). NOTE: feed the bolt in from the rear of the vehicle so that the washer and nut are towards the front of the vehicle for ease of assembly.

5.12 Detailed view of bracket reinforcement (shown in white circle)

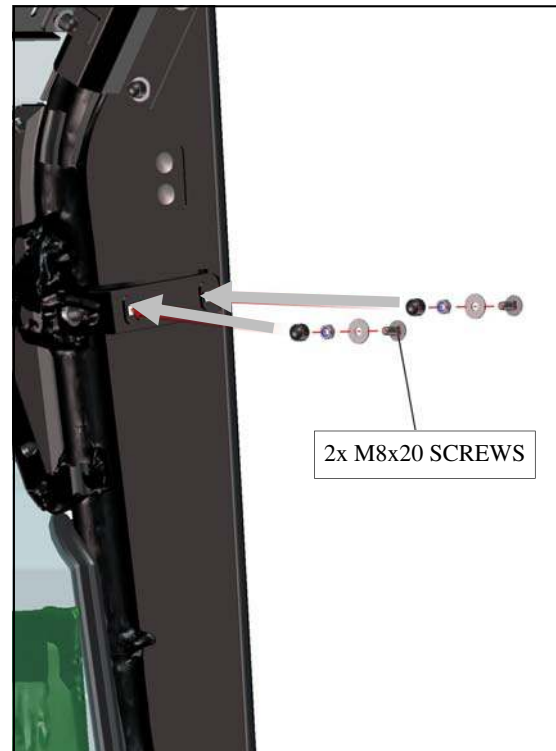


Fig. 5.10



Fig. 5.11



Fig. 5.12

5.13 Place the left rear bracket onto the rear panel and onto the ROPS.

5.14 Attach using the hardware shown (M6 x 25).

5.15 Attach the rear bracket and door hinge plate to the ROPS using the OEM screw (shown in the white circle), washers, and nut.

Repeat above steps for the right side of the vehicle.

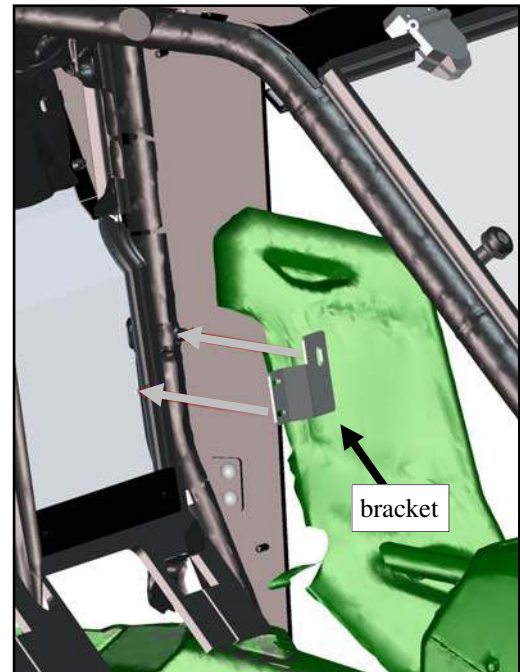


Fig. 5.13

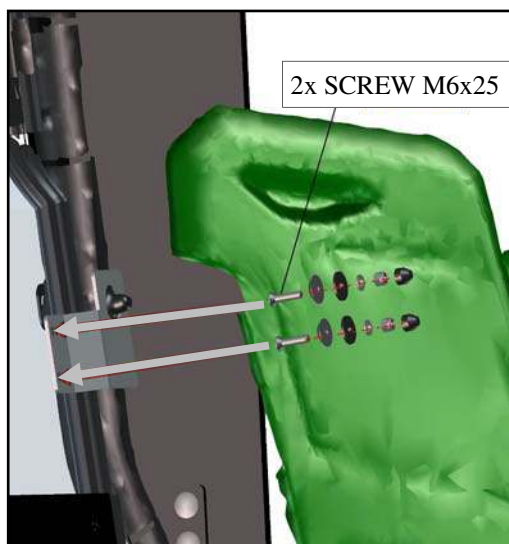


Fig. 5.14

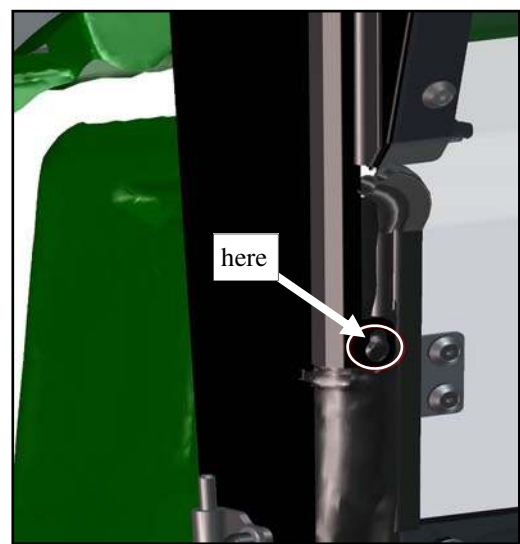


Fig. 5.15

5. LEFT AND RIGHT DOOR

5.16 Fasten the rear door base to the roll cage with the original screw (shown in white circle)

5.17 Adjust the rear door base and tighten all fasteners

5.18 Repeat previous steps on the right side

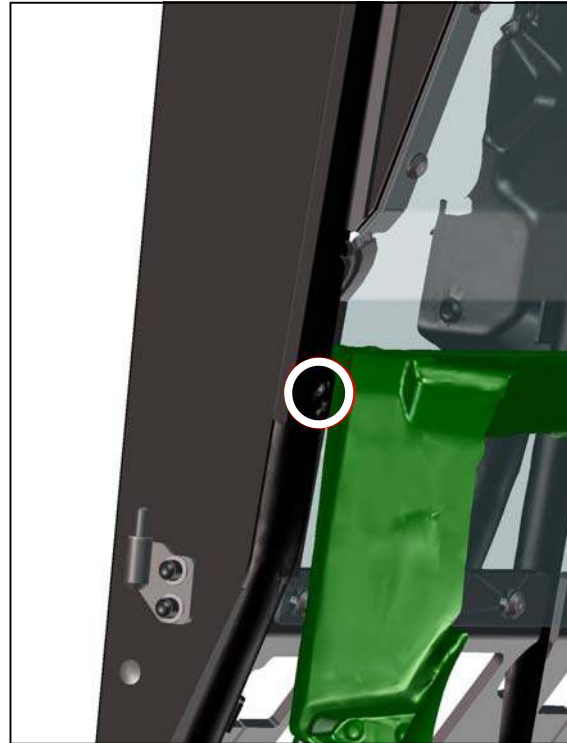


Fig. 5.16



Fig. 5.17

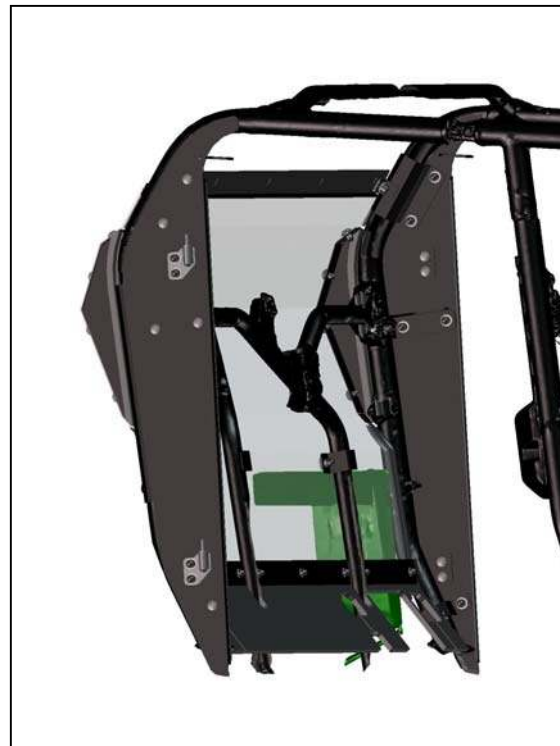


Fig. 5.18

5. LEFT AND RIGHT DOOR

5.19 Remove original plastic cover from UTV roll cage (white rectangle) on both sides

5.20 Remove original screw from UTV roll cage (white circle) on both sides

5.21 Detailed view of original screw to be removed (white circle)

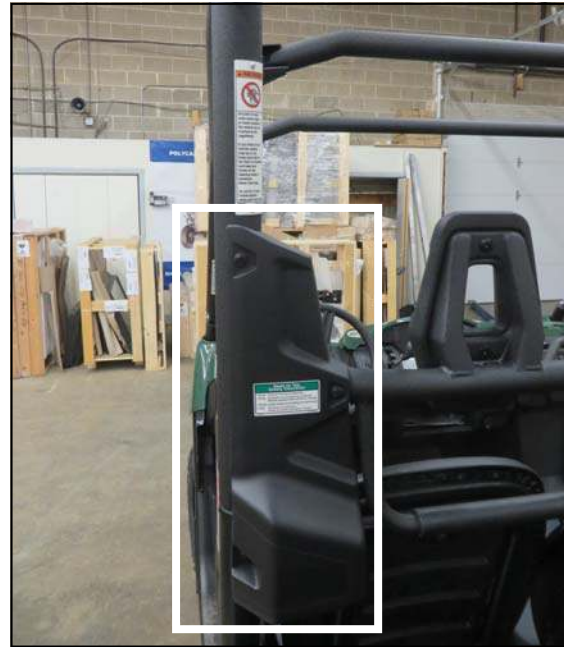


Fig. 5.19



Fig. 5.20



Fig. 5.21

5. LEFT AND RIGHT DOOR

5.22 Align the LEFT hinges on the LEFT front door base

5.23 Fasten the hinges to the front door base with 4x M8x20 SCREWS

5.24 Fasten the front door base onto the UTV roll cage with 1x M10x60 SCREW

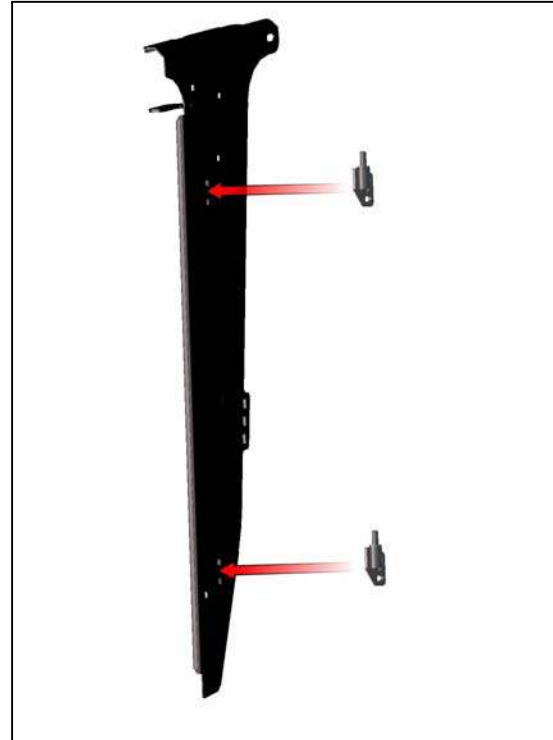


Fig. 5.22

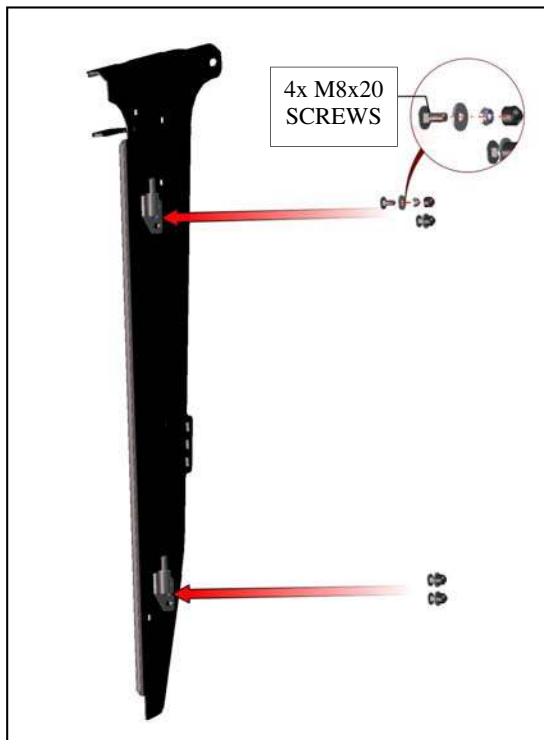


Fig. 5.23



Fig. 5.24

5. LEFT AND RIGHT DOOR

5.25 Fasten the front door base to the UTV roll cage with 1x M10x60

5.26 Align the middle bracket into position on the front door base

5.27 Fasten the middle bracket to the UTV roll cage with 2x M8x20 SCREWS

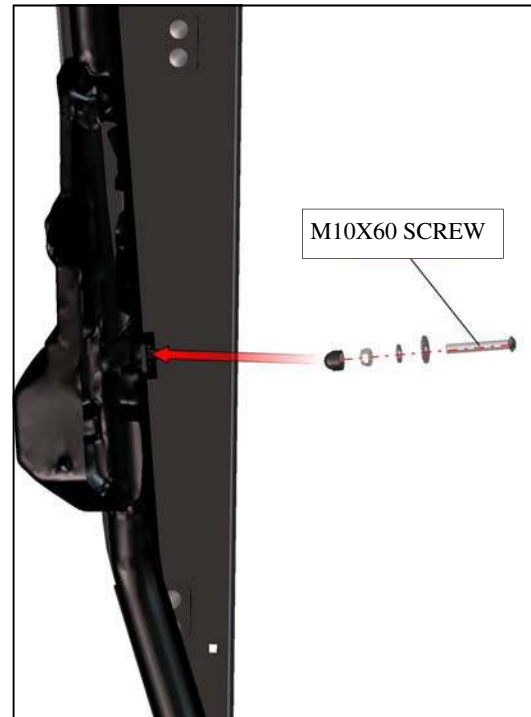


Fig. 5.225



Fig. 5.26

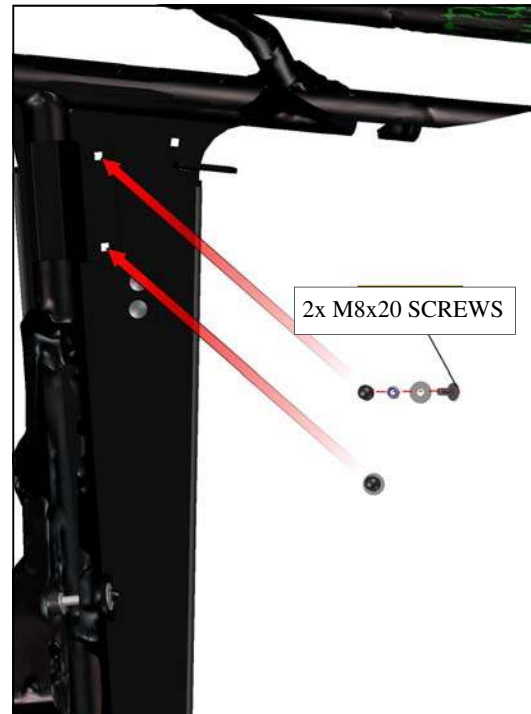


Fig. 5.27

5. LEFT AND RIGHT DOOR

5.28 Align the bottom bracket onto the front door base

5.29 Fasten the bottom bracket to the front door base with 1x M8x20 SCREW

5.30 Align the upper bracket onto the upper front door base



Fig. 5.28



Fig. 5.29



Fig. 5.30

5. LEFT AND RIGHT DOOR

5.31 Fasten the upper bracket to the front door base with 1x M8x20 SCREW

5.32 Repeat previous steps for the right front door base

6. ROOF

6.1 Align the rear roof panel onto the roll cage



Fig. 5.31

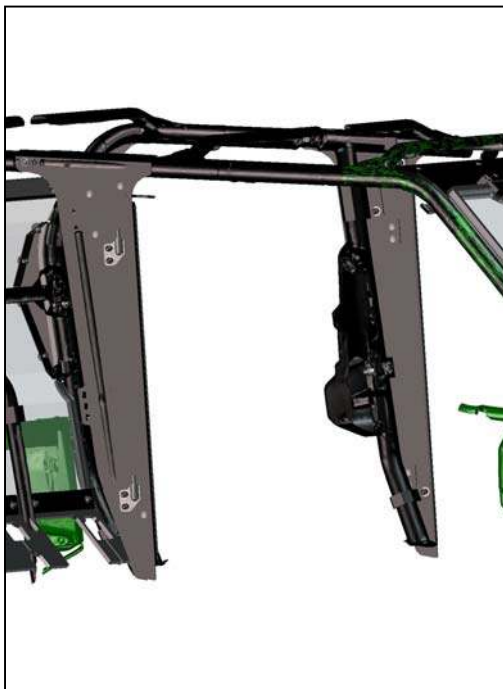


Fig. 5.32



Fig. 6.1

6. ROOF (cont'd.)

6.2 Align the roof brackets onto the rear roof panel and onto the roll cage

6.3 Fasten the rear roof brackets to the roll cage with M8x35 SCREWS

6.4 Align the rear roof side brackets with the roll cage



Fig. 6.2



Fig. 6.3



Fig. 6.4

6. ROOF (cont'd.)

6.5 Fasten the rear roof brackets with 2x M6x12 SCREWS

6.6 Attach the rear roof panel to the rear upper ledge with 5x M8x35 SCREWS

6.7 Detailed view of cross section

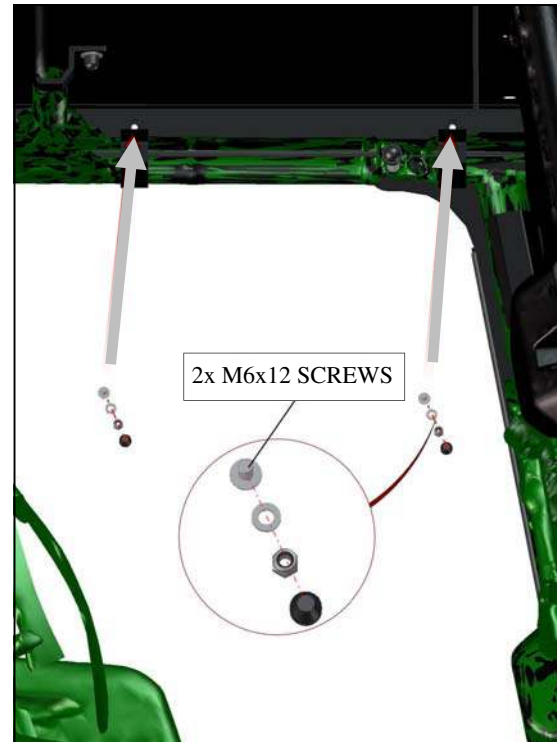


Fig. 6.5

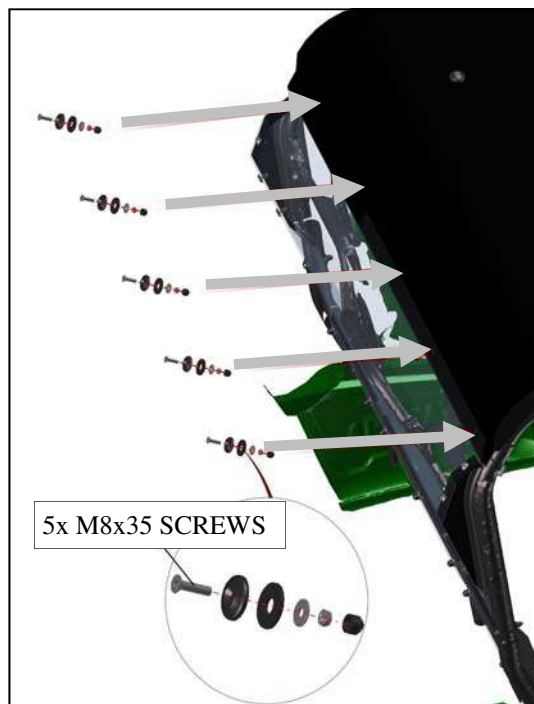


Fig. 6.6

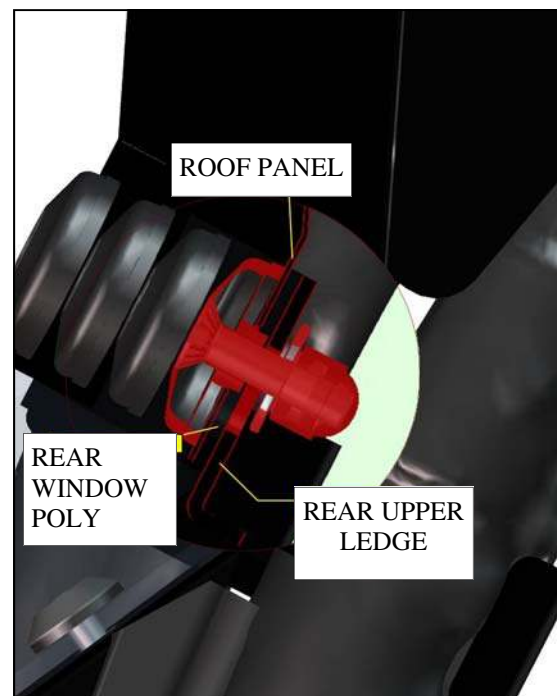


Fig. 6.7

6. ROOF (cont'd.)

6.8 Align the front roof panel onto the roll cage

6.9 Align the front roof brackets onto the roll cage

6.10 Fasten the front roof brackets with 2x M8x35 SCREWS

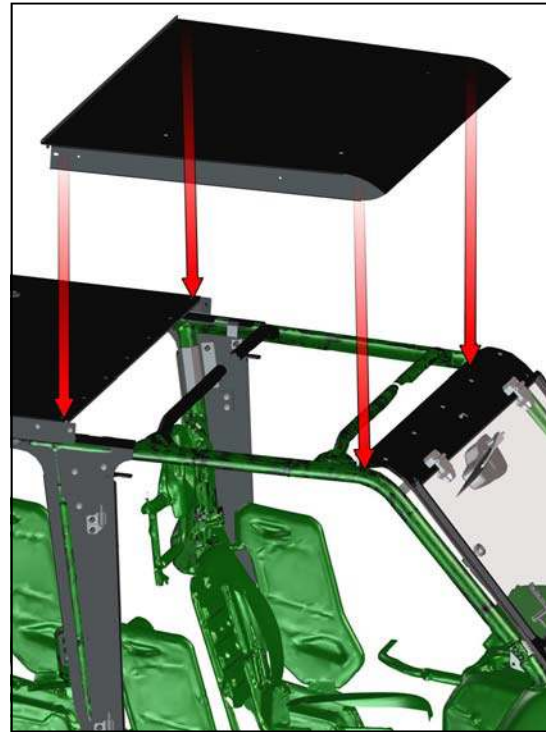


Fig. 6.8



Fig. 6.9

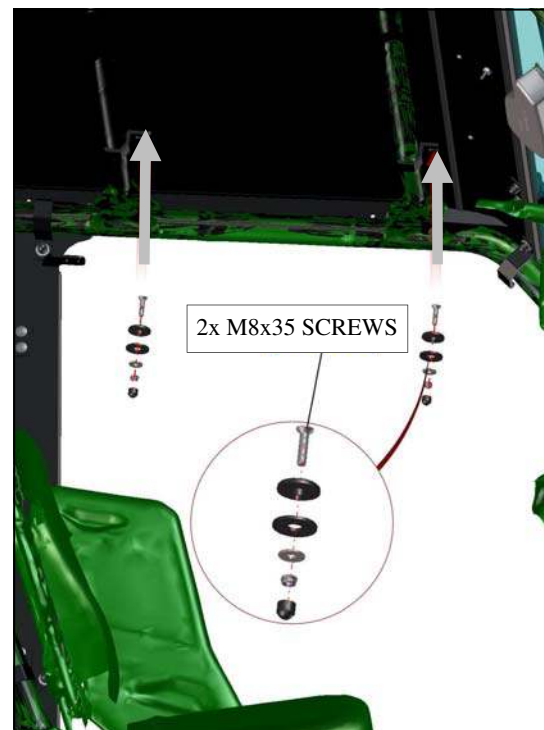


Fig. 6.10

6. ROOF (cont'd.)

6.11 Plug the unused hole in the side of the roof where shown. Use a bolt, nut, and washer as needed. Repeat for opposite side of vehicle.

6.12 Attach the front roof panel with the rear roof panel using the included nuts and washers on both sides.



Fig. 6.11

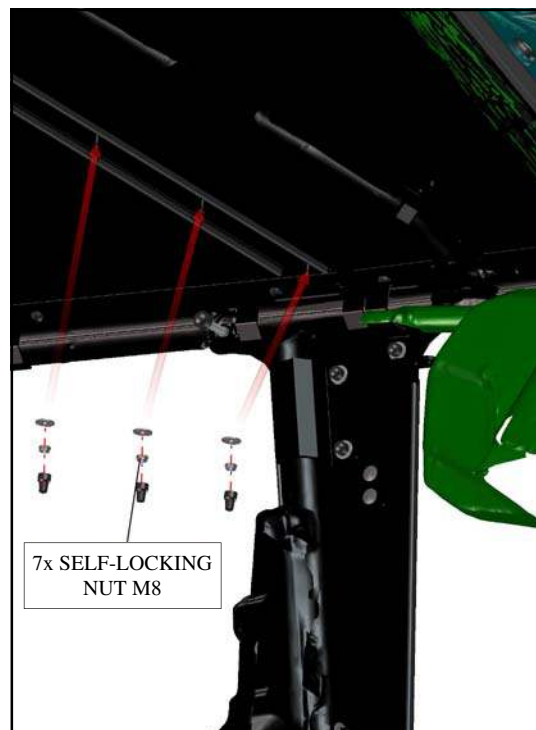


Fig. 6.12

7. LEFT AND RIGHT DOOR 2

7.1 Install the left door stop assembly

7.2 Align the left door stop assembly

7.3 Fasten the left rear door stop assembly to the left front door base with 3x M8x20 SCREWS

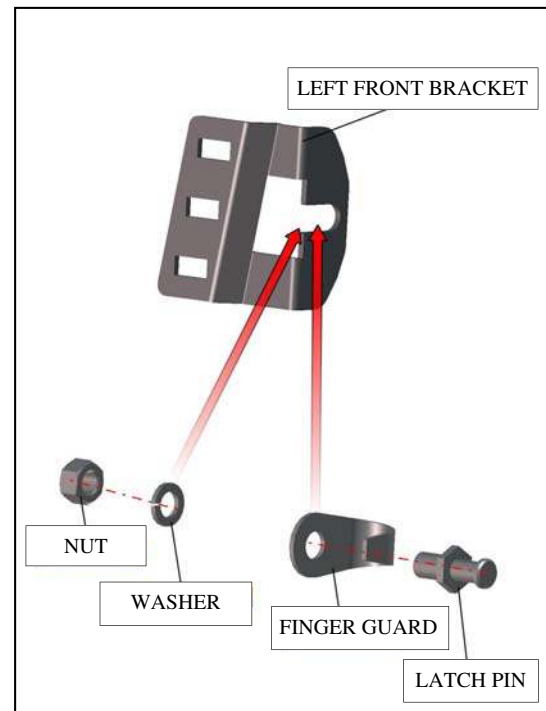


Fig. 7.1

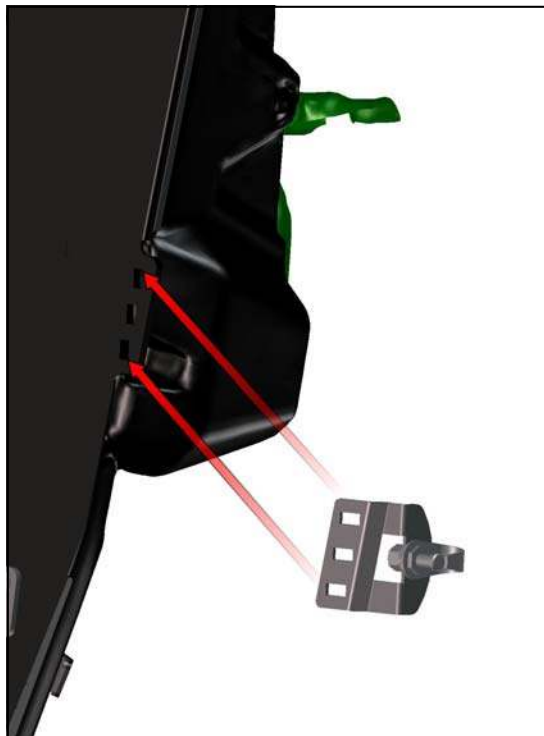


Fig. 7.2

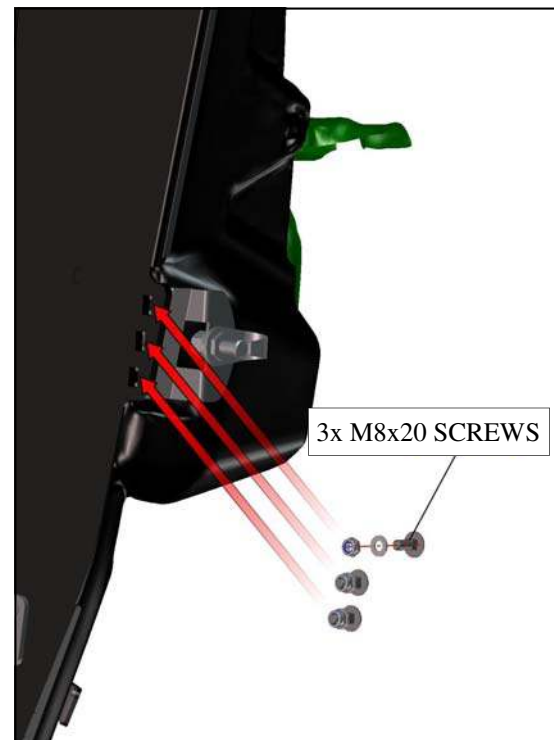


Fig. 7.3

7. LEFT AND RIGHT DOOR 2 (cont'd.)

7.4 Lubricate the rear hinge pins and insert 2x 10mm WASHERS, then install the rear door onto the hinge pins

7.5 Align the rear door with the rear hinges and fasten nuts tightly

7.6 Adjust the rear door stop bracket and fasten nuts tightly

NOTE: If you adjust the door stop correctly, you should be able to hear 2 mechanical clicks. If you only hear 1 mechanical click, the door will not be able to be locked with the key.

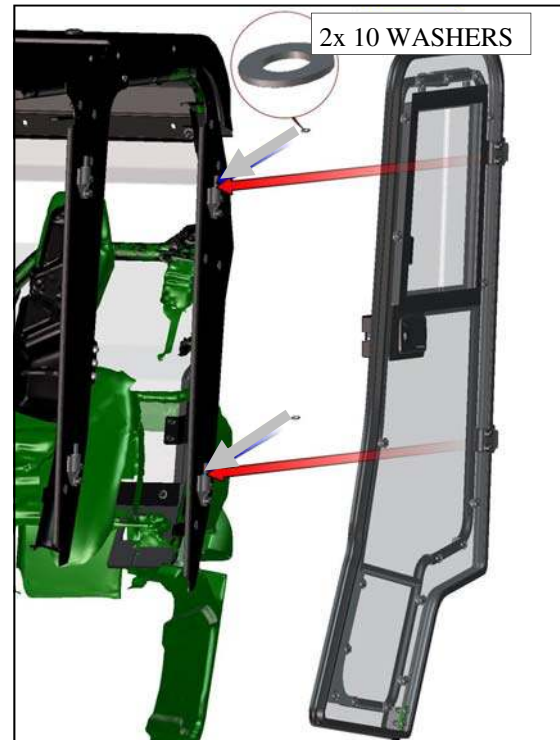


Fig. 7.4



Fig. 7.5

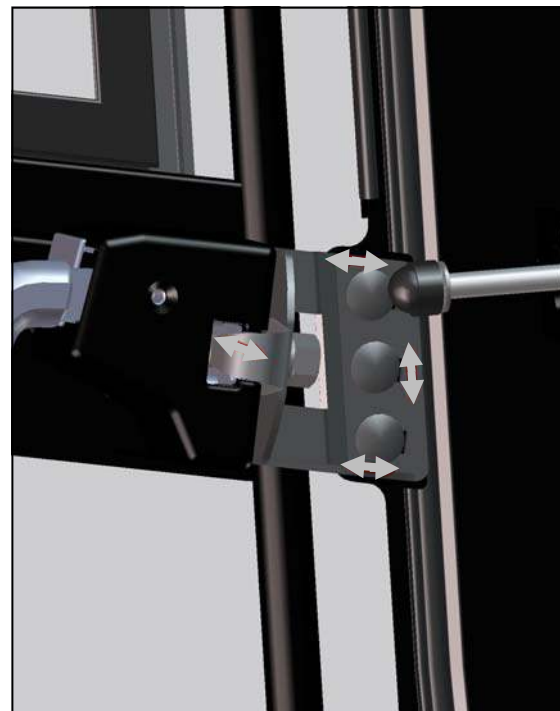


Fig. 7.6

7. LEFT AND RIGHT DOOR 2 (cont'd.)

7.7 NOTE: there should be 2 out of 6 gas springs that are shorter than the others. The short gas springs are for the front doors only. Install the gas spring into the gas spring brackets. Orient the piston rod so that it is forward for best, continuous seal lubrication and longest gas spring life.

7.8 Fasten the gas springs with 2x M8 SELF-LOCKING NUTS

7.9 Repeat the previous steps with the rear right door

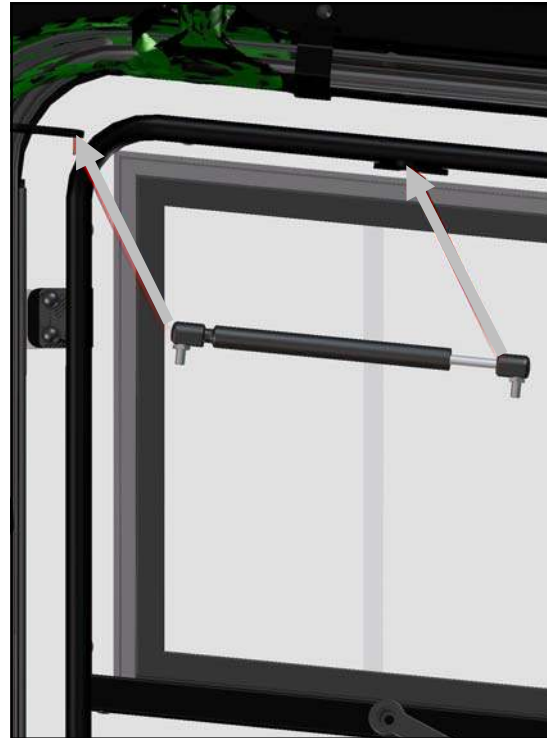


Fig. 7.7

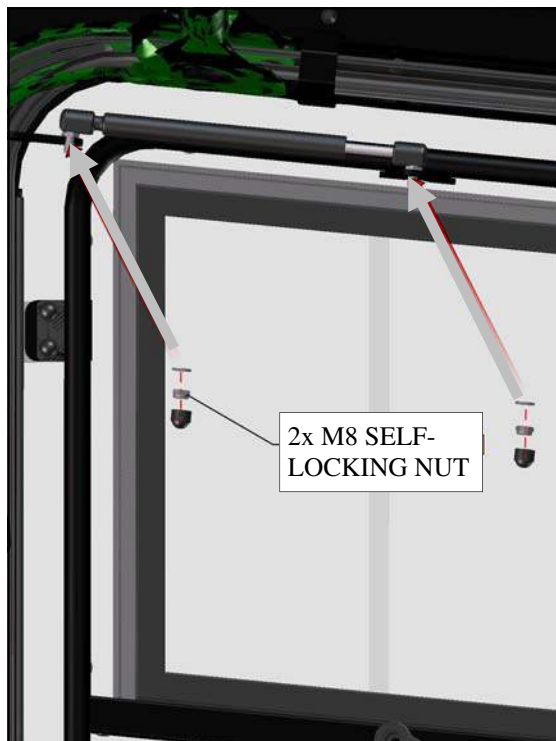


Fig. 7.8

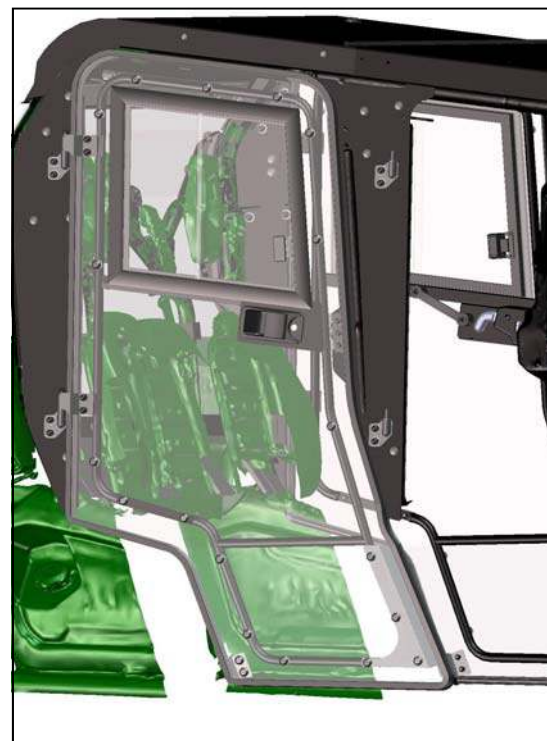


Fig. 7.9

7. LEFT AND RIGHT DOOR 2 (cont'd.)

7.10 Lubricate the hinge pins and insert 2x 10 WASHERS

7.11 Adjust the door into position, fasten nuts tightly

7.12 Adjust the front door stop bracket and fasten nuts tightly

NOTE: If you adjust the door stop correctly, you should be able to hear 2 mechanical clicks. If you only hear 1 mechanical click, the door will not be able to be locked with the key.

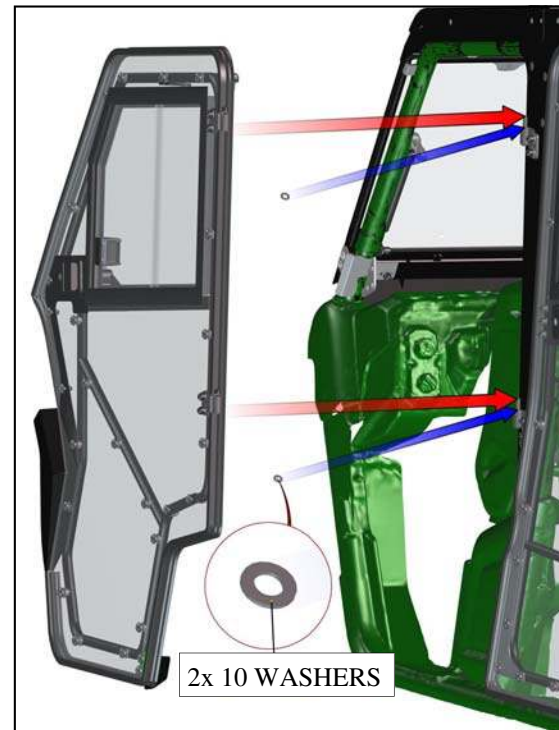


Fig. 7.10

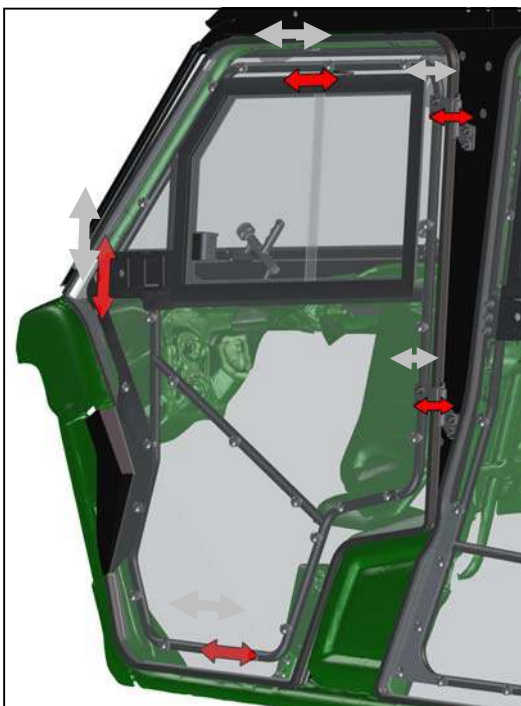


Fig. 7.11

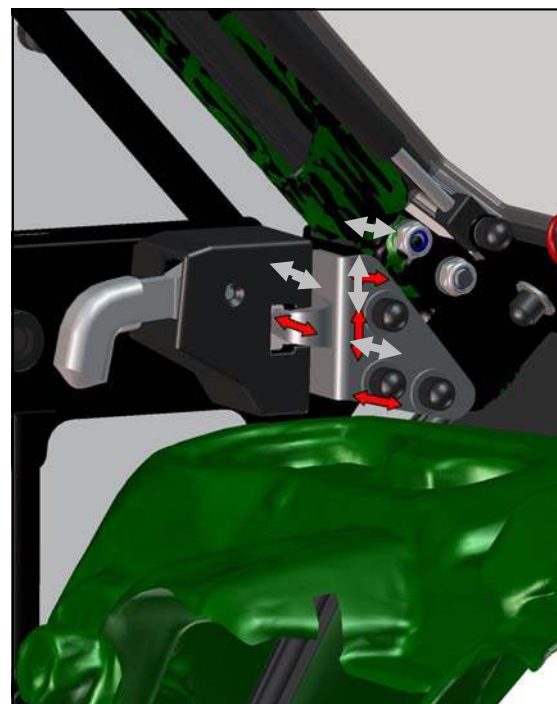


Fig. 7.12

7. LEFT AND RIGHT DOOR 2 (cont'd.)

7.13 NOTE: there should be 2 out of 6 gas springs that are shorter than the others. The short gas springs are for the front doors only. Install the gas spring into the gas spring brackets. Orient the piston rod so that it is forward for best, continuous seal lubrication and longest gas spring life.

7.14 Attach the gas spring with 2x M8 self-locking nut.

7.15 Repeat previous steps with the right door

Rear Door Alignment Tips:

- Place door on door hinges.
- Remove the door stop/striker pin assembly thereby allowing the door to close with no interference.
- Loosen nuts and bolts on both the door and the door base hinges to allow for free movement.
- Maneuver the freely moving door to the optimum position, making sure there are no gaps.
- Once the door is set in the optimum position, tighten down all the door hinge bolts and nuts completely.
- Reinstall the door stop/striker pin assembly. Loosen the adjustable bracket and door pin to allow free movement.
- Adjust the door stop/striker pin assembly to align with the door lock, then tighten completely.
- Make sure you hear **“two” clicks** when closing the door. If hearing only one click, readjust the door stop/striker pin. Two clicks ensures the maximum seal of the door.

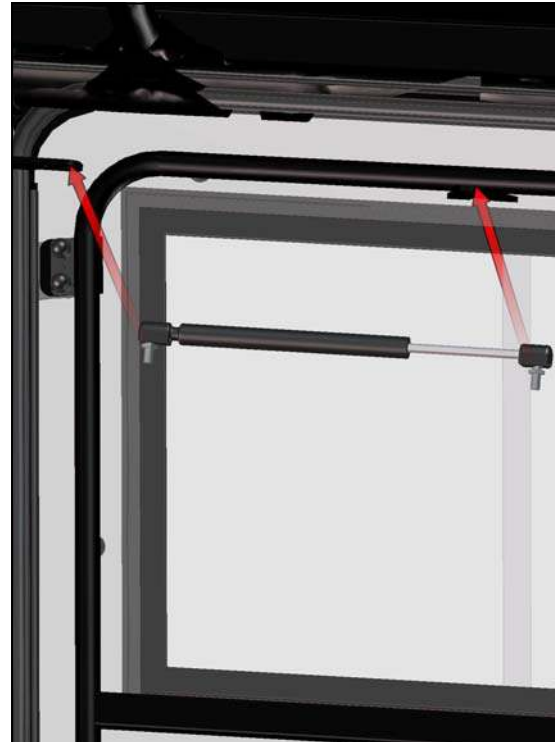


Fig. 7.13



Fig. 7.14



Fig. 7.15

8. OPTIONAL WIPER

8.1 If a separate wiper was purchased, follow the instructions included with that kit. **CAUTION:** the inside surface of the windshield is coated with a plasticized safety film. Use care to avoid scratching the inside surface.

9. FINISHING TOUCHES

9.1 At the top left and right sides of the rear panel, gaps can be filled with the supplied weatherseal. Apply to a clean, dry surface at room temperature for best adhesion.

Caution: use care when tightening any flat head screw in countersunk holes in plastic components to avoid cracking. **Torque to 7 ft.-lbs. max.**

IMPORTANT: ROPS hardware must be torqued to the appropriate values on the BOLT TORQUE chart at the end of this manual.

Tighten all hardware at this time

Silicone sealant can be used to close up any small surface transition areas/openings around the entire cab.

Per the lower photo, install a sufficient length of the pressure sensitive adhesive backed weatherseal on the front face of the ROPS tubing between the two arrowheads shown. Start and finish tight up against the upper and lower sheet metal edges for best sealing. Repeat for opposite side of vehicle. **NOTE:** for best adhesion, weatherseal should be applied to a clean, dry surface at room temperature.

If the doors do not seal properly, it is acceptable to use care and bend the door frames to fit better. For door gaps that remain after manually bending the door frame, those gaps can be closed off via the supplied arch PSA (Pressure Sensitive Adhesive) bulb rubber as needed to improve the condition.



Fig. 9.1



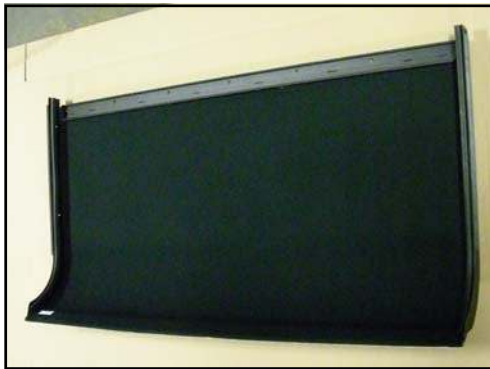
SERVICE PARTS



Front Roof Assembly
p/n: 8SV-4710-01F



Front Panel Assembly
p/n: 8SV-4710-02



Rear Roof Assembly
p/n: 8SV-4710-01R



Rear Panel Assembly
p/n: 8SV-4710-06

SERVICE PARTS



Left Front Door Assembly
p/n: 8SV-4710-07F-L



Right Front Door Assembly
p/n: 8SV-4710-07F-R



Left Rear Door Assembly
p/n: 8SV-4710-07R-L



Right Rear Door Assembly
p/n: 8SV-4710-07R-R

ADDITIONAL SERVICE PARTS

Yamaha Viking VI ClearView Cab p/n: 1YAMVK6CV

PART NUMBER:	DESCRIPTION:
9SV-00002	GAS SPRING (SET OF 2) (WINDSHIELD AND REAR DOORS)
9SV-00007	OUTER DOOR LATCH (QTY.: ONE)
9SV-00027	FRONT GLASS LOCK (QTY.: 2)
9SV-00030	LEFT FRAME HINGE (QTY.: 2)
9SV-00032	RIGHT FRAME HINGE (QTY.: 2)
9SV-00037	FRONT HINGE (QTY.: 2)
9SV-00038	GAS SPRING HOLDER (QTY.: ONE)
9SV-00040	DOOR HANDLE (QTY.: ONE)
9SV-00041	LEFT INNER DOOR LOCK (QTY.: ONE)
9SV-00042	LEFT REAR DOOR STOP ASSEMBLY (QTY.: ONE)
9SV-00043	RIGHT INNER DOOR LOCK (QTY.: ONE)
9SV-00044	RIGHT REAR DOOR STOP ASSEMBLY (QTY.: ONE)
9SV-00045	LEFT DOOR HINGE (QTY.: 2)
9SV-00046	RIGHT DOOR HINGE (QTY.: 2)
9SV-GS05	GAS SPRING (QTY.: 2) (FRONT DOORS)








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

METRIC BOLT TORQUE SPECIFICATIONS

		5.6			8.8			10.9		
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			