# **SSV KIT - Power Flip Windshield**

Part number (SKU): 715003658,715006272

Product: Side-by-side 487802160 rev4 Project no: Instruction Sheet P/N: 487802160

Revision no:

Revision date: October, 2020

**Power Flip Windshield** Item covered:

#### The following symbols may be used in this document:



Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

▲ CAUTION: Indicates a hazard situation which, if not avoided, could result in minor or moderate injury.

Indicates an instruction which, if not followed, could severely damage vehicle NOTICE components or other property.

### **!** WARNING

- For safety reasons, this kit must be installed by an authorized BRP dealer.
- This kit is designed for specific applicable models only (authorized BRP dealers will confirm model(s)). It is not recommended for units other than the one (those) for which it was sold.
- Should removal of a locking device (e.g. lock tabs, self-locking fasteners, etc.) be required when undergoing disassembly/ assembly, always replace with a new one.
- Torque wrench tightening specifications must strictly be adhered to.
- Always wear EYE PROTECTION AND APPROPRIATE GLOVES when using power tools.

### **A** WARNING

Some important safety information and/or operating instructions dedicated to the end user might be included in this instruction sheet. Make sure to give the kit part number as well as the instruction sheet included with this kit to the customer. Verify that the customer has access to all the information required for proper use of the accessory.

Always disconnect the battery before doing any electrical modifications. Do not NOTICE place tools on the battery. Proceed exactly in this specific order:

- Disconnect BLACK cable (-) first.
- Disconnect RED cable (+) after.
- Secure battery by covering poles with isolating material.

NOTE: USE TIGHTENING TORQUES IN THE FOLLOWING TABLE IF NOT OTHERWISE SPECIFIED.

_					
	GRADE				
	5.8	8.8	10.9	12.9	
M4	1.8 ± 0.2 N•m (16	2.8 ± 0.2 N•m (25	3.8 ± 0.2 N•m (34	4.5 ± 0.5 N•m (40	
	± 2 lbf• <b>in</b> )	± 2 lbf•in)	± 2 lbf•in)	± 4 lbf•in)	
M5	3.3 ± 0.2 N•m (29 ± 2 lbf•in)	5 ± 0.5 N•m (44 ± 4 lbf•in)	7.8 ± 0.7 N•m (69 ± 6 lbf• <b>in</b> )	9 ± 1 N•m (80 ± 9 lbf•in)	
M6	7.5 ± 1 N•m (66 ± 9	10 ± 2 N•m (89	12.8 ± 2.2 N•m (113	16 ± 2 N•m (142	
	lbf•in)	± 18 lbf•in)	± 19 lbf•in)	± 18 lbf•in)	
M8	15.3 ± 1.7 N•m (135 ± 15 lbf•in)	24.5 ± 3.5 N•m (18 ± 3 lbf•ft)	31.5 ± 3.5 N•m (23 ± 3 lbf•ft)	40 ± 5 N•m (30 ± 4 lbf•ft)	
M10	29 ± 3 N•m (21 ± 2 lbf•ft)	48 ± 6 N•m (35 ± 4 lbf•ft)	61 ± 9 N•m (45 ± 7 lbf•ft)	73 ± 7 N•m (54 ± 5 lbf•ft)	
M12	52 ± 6 N•m (38 ± 4	85 ± 10 N•m (63	105 ± 15 N•m (77	128 ± 17 N•m (94	
	lbf•ft)	± 7 lbf•ft)	± 11 lbf•ft)	± 13 lbf•ft)	
M14	85 ± 10 N•m (63 ± 7	135 ± 15 N•m (100	170 ± 20 N•m (125	200 ± 25 N•m (148	
	lbf•ft)	± 11 lbf•ft)	± 15 lbf•ft)	± 18 lbf•ft)	
M16	126 ± 14 N•m (93	205 ± 25 N•m (151	255 ± 30 N•m (188	305 ± 35 N•m (225	
	± 10 lbf•ft)	± 18 lbf•ft)	± 22 lbf•ft)	± 26 lbf•ft)	
M18	170 ± 20 N•m (125	273 ± 32 N•m (201	330 ± 25 N•m (243	413 ± 47 N•m (305	
	± 15 lbf•ft)	± 24 lbf•ft)	± 18 lbf•ft)	± 35 lbf•ft)	

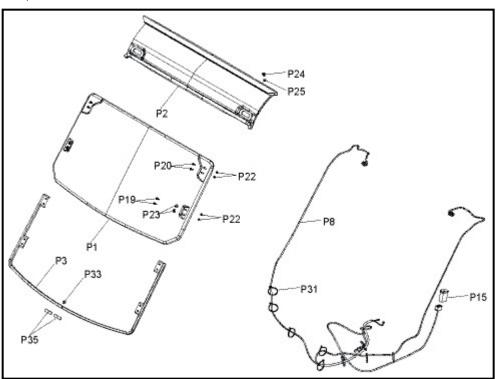
The illustrations in this document show typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts; however, they represent parts that have the same or similar function.

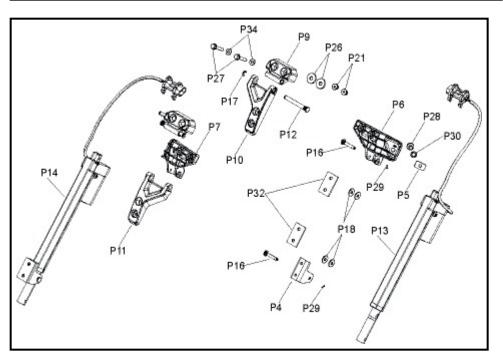
In the pictures below, parts may have been removed for clarity purposes.

Installation time is approximately 2.0 hours.

Two person are required to install this kit.

# PARTS TO BE INSTALLED





ITEM	DESCRIPTION	Part number	QTY
P1	Plastic flip windshield	705012104	1
P2	Flip windshield visor assembly	Not available separately	1
P3	Flip windshield stiffener frame assembly	Not available separately	1
P4	Lower cylinder bracket	Not available separately	2
P5	M8 Panel nut mounting plate	Not available separately	2
P6	LH Cylinder support	Not available separately	1

P7	RH Cylinder support	Not available separately	1
P8	Flip windshield wiring	Not available separately	1
P9	Flip windshield support hinge	Not available separately	2
P10	LH flip windshield moving hinge	Not available separately	1
P11	RH flip windshield moving hinge	Not available separately	1
P12	Flip windshield hinge pin	Not available separately	2
P13	Left electric cylinder	710004123	1
P14	Right electric cylinder	710006109	1
P15	Actuator switch	Not available separately	1
P16	Flip windshield cylinder pin	Not available separately	4
P17	Circlip	705601030	2
P18	M6 plastic flat washer	234062100	8
P19	M5 x 20 Torx screw	250000792	4
P20	M5 x 25 Torx screw	250000762	4
P21	M6 Hex. flanged elastic nut	233261494	4
P22	M5 flanged elastic nut	233251494	8
P23	M6 flat washer	250200164	4
P24	Plastic rivet	293150230	2
P25	M8 stainless flat washer	234081670	2
P26	M8 washer	Not available separately	4
P27	M6 x 30 Hex. flanged screw	207663054	4
P28	M8 x 30 Torx screw	250001060	2
P29	Cotter pin	250400032	4
P30	M8 serrated lock washer	234481608	2
P31	Locking tie 368mm	293750008	18
P32	Neoprene seal	Not available separately	4
P33	Pop rivet 3/16	293150103	1
P34	M6 flat washer	250200039	4
P35	Neoprene gasket	293250087	1
P36	Ring seal 1965 mm (not illustrated)	Not available separately	1
P37	Promoter	Not available separately	1

# **SERVICE KIT**

Service Kit	ITEM	Parts include in kit	
	P9	Flip windshield support hinge	2
	P10	LH flip windshield moving hinge	1
	P11	RH flip windshield moving hinge	1
715006272	P12	Flip windshield hinge pin	2
713000272	P16	Flip windshield cylinder pin	4
	P17	Circlip	2
	P18	M6 plastic flat washer	8
	P29	Cotter pin	4
Service Kit	ITEM	Parts include in kit	QTY

Service Kit	ITEM	Parts include in kit	QTY
715006194	P36	Ring seal 1965 mm (not illustrated)	1
715006194	P37	Promoter	1
705012104	P1	Replacement windshield	

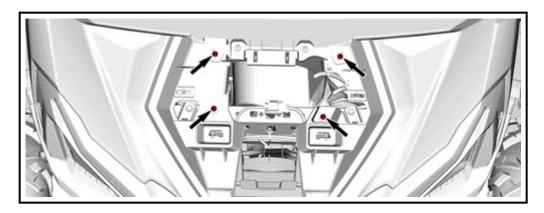
# **INSTRUCTIONS**

# **Vehicle Preparation**

Refer to the shop manual and remove the following parts.

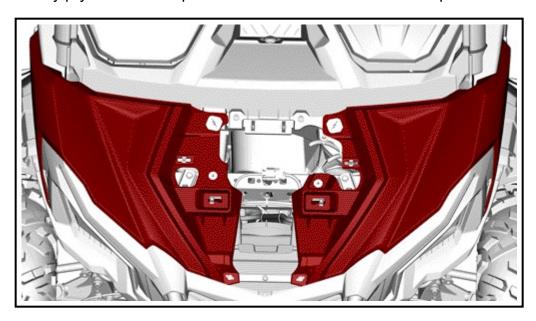
- Passenger seat
- Center console
- Console side panels
- Front service cover.

Remove the following fasteners.



NOTE: Do not remove the screw near the headlight to simplify reassembly.

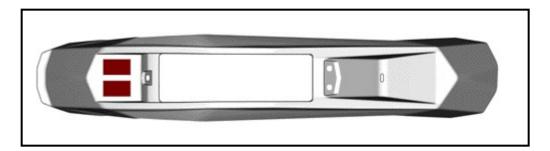
Gently pry the two side panels to route the harness to the A pillars.



Cut an opening for switch location. Follow the molded outside line as shown. Choose one (1) of the molded outline.

**NOTE**: Harness wiring is long enough to install switch on dash or central console. However it is recommended to install it in the central console as shown.

**NOTICE** Before drilling or cutting make sure there are no wires underneath that could be cut.

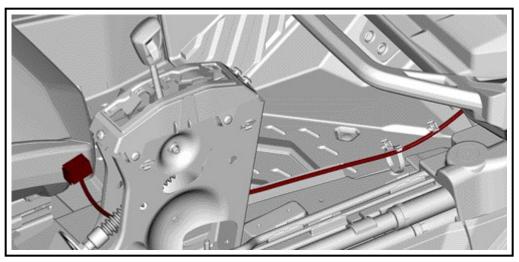


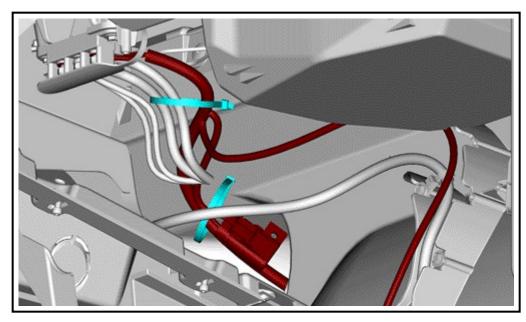
## Wiring Harness Installation

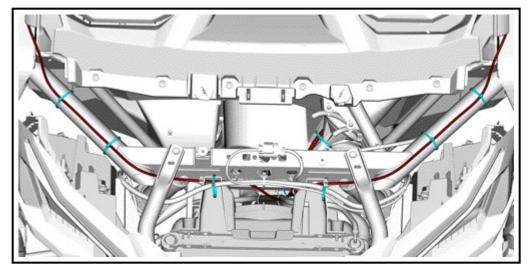
Disconnect vehicle battery.

Always disconnect negative (-) terminal first. NOTICE

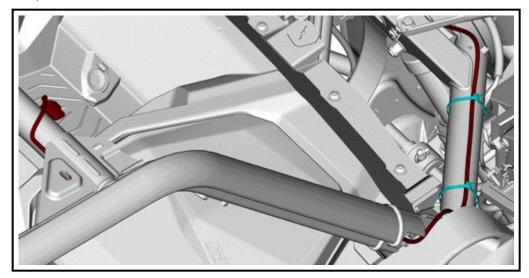
Route flip windshield wiring [P8] from rear to front as shown. Secure with locking ties 368 mm [P31].



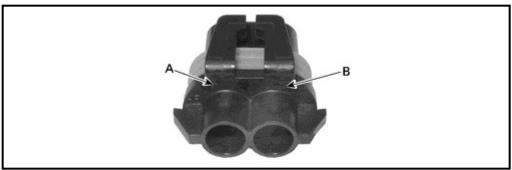




Route wire through the A pillar pipe of the cage on both sides.

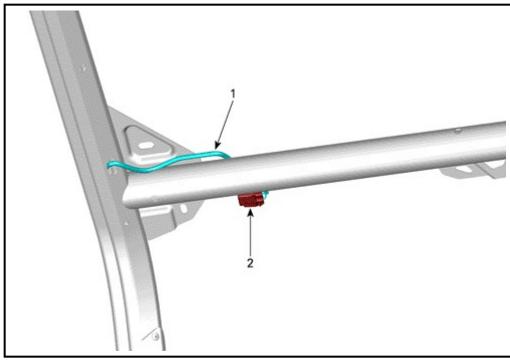


Assemble cylinder connector making sure RED/WHITE wire is connected to B side of connector and RED/BROWN wire is connected to A side of connector.



FLIP WINDSHIELD WIRING CYLINDER CONNECTOR

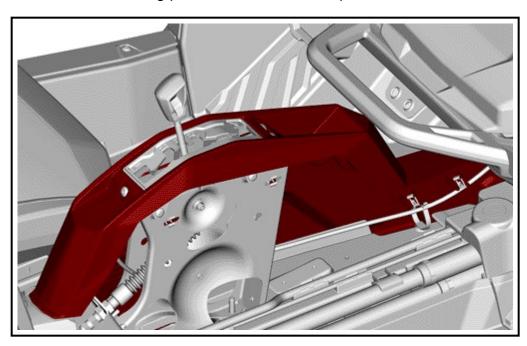
- A. RED/BROWN wire must be connected to A
- B. RED/WHITE wire must be connected to B



FRONT LH SIDE VIEW

- 1. Flip windshield wiring [P8]
- 2. Flip windshield wiring [P8] cylinder connector

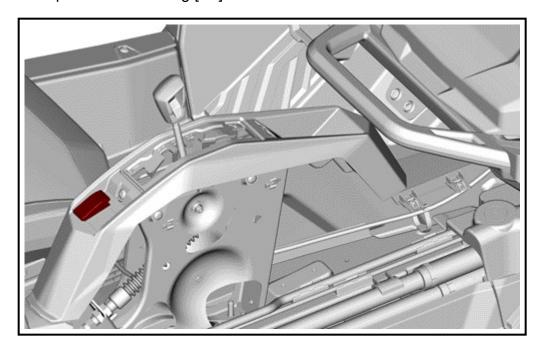
Reinstall the following panels. Refer to the shop manual.

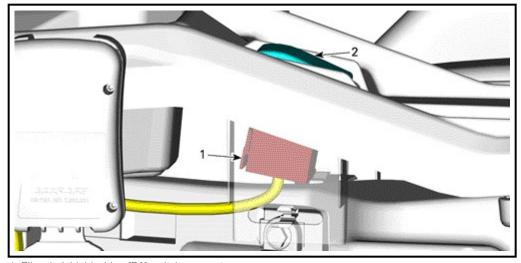


**NOTE**: Dark grey plastic part can be pried to free the cable.

Install actuator switch [P15] in the molded outline previously cut out. Plug flip windshield wiring [P8] switch connector then wrap and secure excess wire with a locking tie 368 mm [P31].

NOTE: Make sure to keep enough free wire to be able to lift the central console without over pulling the flip windshield wiring [P8].



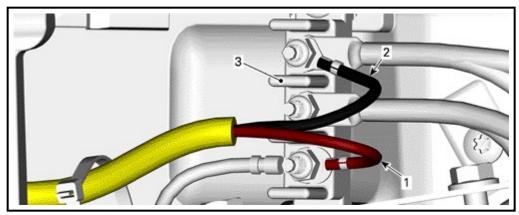


1. Flip windshield wiring [P8] switch connector

2. Actuator Switch [P15]

Connect flip windshield wiring [P8] eyelet terminals to the 3-pin terminal housing.

- Red terminal on "12 volt key-on" stud (lower position).
- Black terminal on ground stud (upper position).



- 1. RED terminal wire
- 2. BLACK terminal wire
- 3. 3-pin Terminal housing

Reconnect vehicle battery.

#### NOTICE Always connect the positive terminal first.

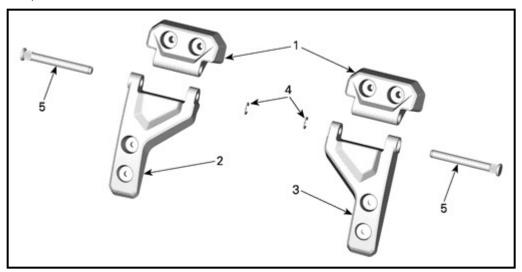
Secure flip windshield wiring [P8] with locking tie 368 mm [P31].

Reinstall previously removed vehicle parts. Refer to the shop manual.

## Windshield Assembly

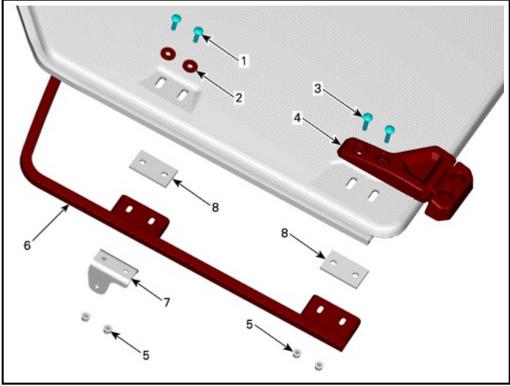
Apply grease on flip windshield hinge pin [P12]. Place flip windshield support hinge [P9] into the legs of the LH flip windshield moving hinge [P10]. Press the flip windshield hinge pin [P12] into the holes. Head of the pin to be as shown. Secure it with circlip [P17]. Repeat for RH flip windshield moving hinge [P11].

NOTICE A rubber hammer must be used to properly press the pin in place.



- 1. Flip windshield support hinge [P9]
- 2. RH flip windshield moving hinge [P11]
- 3. LH flip windshield moving hinge [P10]
- 4. Circlip [P17]
- 5. Flip windshield hinge pin [P12]

Assemble flip windshield stiffener frame assembly [P3], lower cylinder bracket [P4] and hinges previously assembled to the plastic flip windshield assembly [P1] using M5 x 25 Torx screws [P20] on top, M5 x 20 Torx screw [P19] and M6 flat washers [P23] on bottom and M5 flanged elastic nuts [P22]. Place neoprene seal [P32] between flip windshield stiffener frame assembly [P3] and plastic flip windshield assembly [P1].

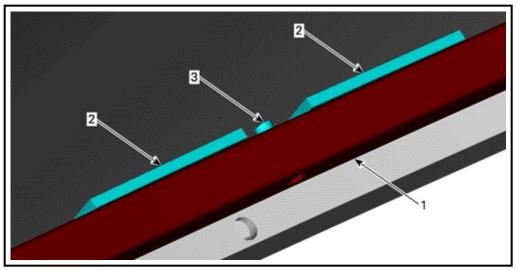


- 1. M5 x 20 Torx screw [P19]
- 2. M6 flat washer [P23]
- 3. M5 x 25 Torx screw [P20]
- 4. Hinge assembly
- 5. M5 flanged elastic nut [P22]
- 6. Flip windshield stiffener frame assembly [P3]
- 7. Lower cylinder bracket [P4]
- 8. Neoprene seal [P32]

Use the frame as a template to drill the windshield.

Cut the overall length of the neoprene in 2 and add neoprene gasket [P35] between flip windshield stiffener frame assembly [P3] and plastic flip windshield assembly [P1] as shown.

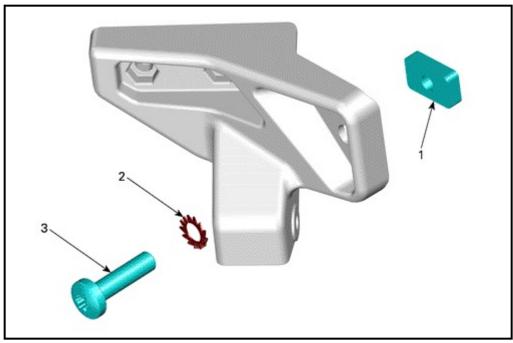
Secure with pop rivet 3/16 [P33].



- 1. Flip windshield stiffener frame assembly [P3]
- 2. Neoprene gasket [P35]
- 3. Pop rivet 3/16 [P33]

Pass M8 x 30 Torx screw [P28] in M8 serrated lock washer [P30] and the hole of the LH cylinder support [P6] and apply medium threadlocker LOCTITE 243 (BLUE) (P/N 293 800 060) on the threads. Screw bolt into M8 panel nut mounting plate [P5]. Repeat on the RH cylinder support [P7].

#### NOTICE Do not completely screw the thread, the M8 panel nut mounting plate [P5] needs to rotate freely.

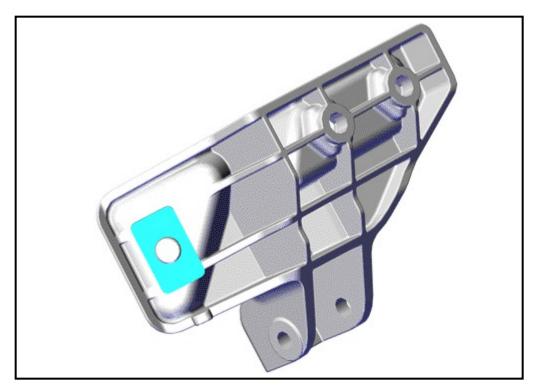


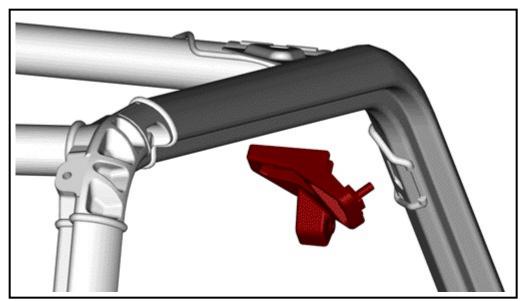
- 1. M8 panel nut mounting plate [P5]
- 2. M8 serrated lock washer [P30]
- 3. M8 x 30 Torx screw [P28]

## Assembly on the Vehicle

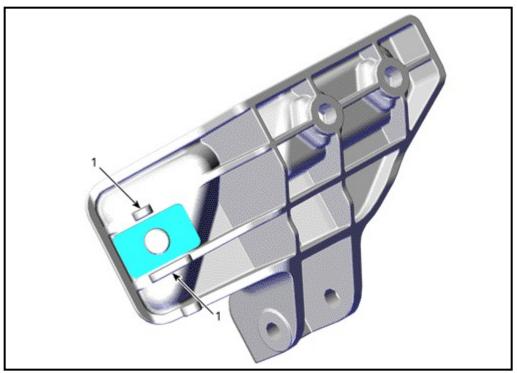
Assemble the LH and RH cylinders mounting support [P6] and [P7] on the frame of the vehicle using M8 x 30 Torx screws [P28] and M8 panel nut mounting plate [P5].

Turn the M8 panel nut mounting plate [P5] until it can pass through the rectangular hole in the frame.





With small electrical screwdriver turn M8 panel nut mounting plate [P5] 90 degrees until it can pass between tabs in the casting as shown.



1. Tab

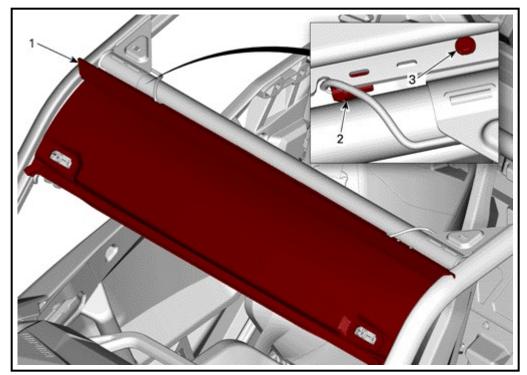
### Torque screws to specifications

Tightening Torque		
M5 x 20 Torx screw [P19] and M5 x 25 Torx screw [P20]	2.3 ± 0.3 N•m (20 ± 3 lbf•in)	
M8 x 30 Torx screw [28]	31.5 ± 3.5 N•m (23 ± 3 lbf•ft)	

#### Tips for installation:

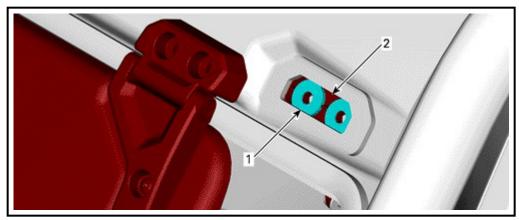
- Put the casting in place and insert the plate in the cage notch, rotate the plate so it is locked in the cage.
- Use a plastic rivet remover tool to keep pressure on the bolt and screw the bolt.

Assemble the flip windshield visor assembly [P2] on the vehicle using Tuflok plastic rivet [P24] and M8 stainless flat washers [P25], put the electric harness over the tube and the wire in the visor notch as shown.



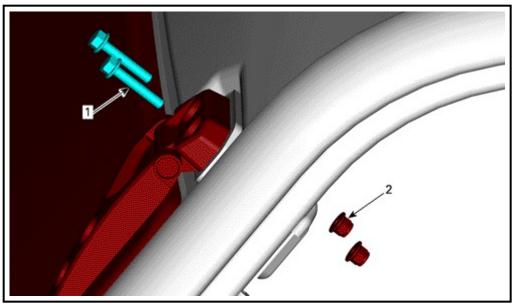
- 1. Flip windshield visor assembly [P2]
- 2. Flip windshield wiring [P8] cylinder connector
- 3. Plastic rivet [P24] with M8 stainless flat washers [P25]

Place M8 washers [P26] as shown on flip windshield support hinge [P9].



- 1. M8 washers [P26]
- 2. Flip windshield support hinge [P9]

Assemble plastic flip windshield assembly [P1] on flip windshield visor assembly [P2] with M6 x 30 Hex. flanged screw[P27] and M6 Hex. flanged elastic nut [P21].

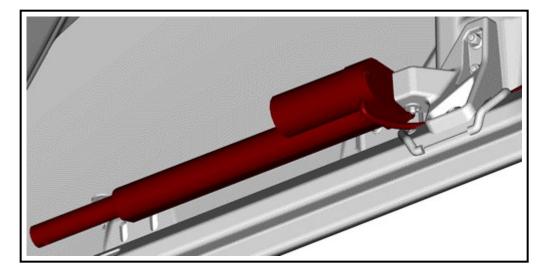


1. M6 x 30 Hex. flanged screw [P27] 2. M6 Hex. flanged elastic nut [P21]

Torque screws to specification.

Tightening Torque		
M6 x 30 Hex. flanged screw [P27]	10 ± 2 N•m (89 ± 18 lbf•in)	

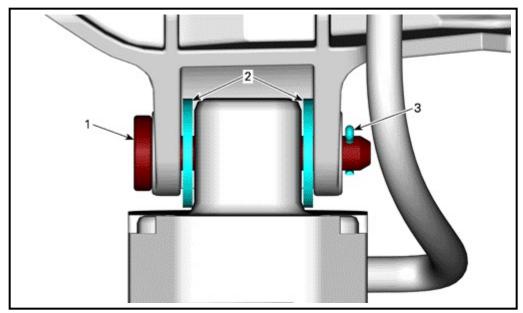
Assemble the left electric cylinder [P13] in the LH cylinder support [P6] and right electric cylinder [P14] in the RH cylinder support [P7].



Apply grease on flip windshield cylinder pins [P16] and insert them toward the interior of the vehicle over the first lip of support.

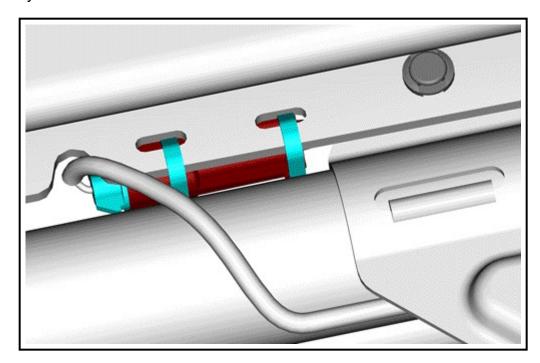
Insert one M6 plastic flat washer [P18] on both sides of the cylinder shaft as shown and pass flip windshield cylinder pin [P16] through all.

Press the flip windshield cylinder pin [P16] in place with a rubber hammer and secure it with cotter pin [P29].



- 1. Flip windshield cylinder pin [P16]
- 2. M6 plastic flat washer [P18]
- 3. Cotter pin [P29]

Install the connector under the visor and hold it in place with locking ties 368 mm [P31], plug both cylinders connection to the harness.



Put the vehicle on ACC mode and use the actuator switch [P15] to stroke cylinders two complete cycles and keep them completely extended.

Assemble the cylinders in the lower cylinder bracket [P4].

Repeat previous steps to secure the lower part of the cylinders.

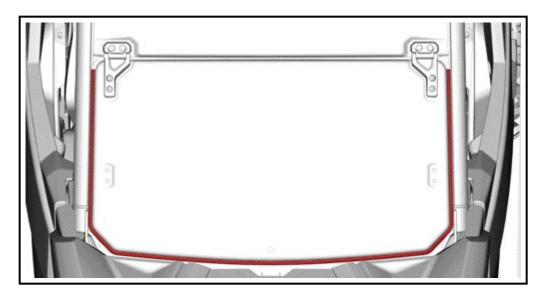
Test open/close a few times.

# **Seal Installation**

1. Close the windshield completely.

2. Clean the rops and the dash panels all around the windshield with rubbing alcohol.

3. Trace the outline of the windshield on the rops and the dash panels as shown.



- 4. Open the windshield.
- 5. Treat all traced surfaces with provided promoter [P37].
- 6. Install ring seal 1965 mm [P36] on treated surfaces by removing protective film.

### **Unit Maintenance**

- Check backlash in every movable pivot at every 50 hours of operating vehicle. Replace as required. A rebuild kit is available for all moving parts. All fasteners with a thread locking element must be replaced when re-installing the kit.
- Check torque on all fasteners every season.

#### NOTICE

- Because of the inherent design of the actuators, cylinders might be out of synchronization initially. The issue will disappear over time/usage. If the issue persists, verify all electrical connections, verify all torque values, check for any foreign body at all rotation points and regrease pins as needed.
- Do not power wash the cylinder directly. Clean cylinders with a wet soapy rag and rinse thoroughly by running tap water over the cylinder.
- Pins must be secured before activating the system.
- Windshield must be fully closed when trailering the vehicle.

### **!** WARNING

- Keep limbs away from all moving parts during operation.
- Operating the windshield can distract you from operating the vehicle. Ensure your environment is clear and free from obstacles before operating the windshield.

### SAFETY LABEL

This product comes with the following label containing important safety information.

The label should be considered a permanent part of this product. If the label come off or becomes hard to read, please contact an authorized dealer for FREE OF CHARGE replacement.

Any person who intends to use this product should read and understand the information contained on the label before doing so.

Clean the surface using isopropyl alcohol and dry thoroughly before installing the label.



- NEVER tow this vehicle oriented backwards with a windshield in place. Windshield could break
- ALWAYS tow this vehicle facing forward.



ENGLISH WARNING LABEL - CANADA/USA (P/N 704908690)



PICTOGRAM WARNING LABEL - INTERNATIONAL (P/N 704907960)