

Department of Transportation Federal Aviation Administration

Supplemental Type Certificate

Number SA00072SE

This certificate, issued to

**Rosen Sunvisor Systems, LLC
86365 College View Road
Eugene, OR 97405**

*certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part * of the * Regulations.*

Original Product—Type Certificate Number:

*See attached FAA Approved Model List (AML)

Make:

No. SA00072SE for a list of approved aircraft

Model:

models and applicable airworthiness regulations.

Description of the Type Design Change: Cockpit sunvisor installation in accordance with FAA approved Rosen Drawing List Number RPF-00DL, Revision C, dated March 3, 2005, or later FAA approved revision.

Limitations and Conditions: The approval of this change in type design applies to only those Piper Models listed on FAA AML No. SA00072SE with the following exception. This STC is not valid for Piper PA-28-161 serial number (S/N) 2816110 through 2816119 and after S/N 2842000. This STC is not valid for Piper PA-28-181 S/N 2890206 through 2890231 and after S/N 2843000. This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined that the interrelationships between this change and any other previously approved modifications will introduce no adverse effect upon the airworthiness of that aircraft. A copy of this certificate, AML SA00072SE, and FAA approved Rosen Drawing List Number RPF-00DL, Revision C, or later FAA approved revision, shall be maintained as part of the permanent records of the modified aircraft.

If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: February 1, 1994

Date reissued: March 24, 2003

Date of issuance: April 8, 1994

Date amended: June 2, 2005



By direction of the Administrator

Don M Anderson

(Signature)

Acting Manager, Seattle Aircraft Certification Office
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

**FAA APPROVED MODEL LIST (AML) SA00072SE
FOR
INSTALLATION OF ROSEN SUNVISOR SYSTEMS COCKPIT SUN VISOR**

ISSUE DATE: April 4, 1994

ITEM	AIRPLANE MAKE	AIRPLANE MODEL	TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	FAA APPROVED DRAWING LIST		AML AMENDED DATE
					NUMBER	REVISION NO. AND DATE	
1.	Piper	PA-44-180, PA-44-180T	A19SO	FAR 23	RPF-00DL, Revision C	3/3/05	4/14/05
2.	Piper	PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-235, PA-28S-160, PA-28S-180, PA-28R-180, PA-28-181, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201, PA-28RT-201T, PA-28-201T, PA-28-236	2A13	CAR 3	RPF-00DL, Revision C	3/3/05	4/14/05
3.	Piper	PA-32-260, PA-32-300, PA-32S-300, PA-32R-300, PA-32RT-300, PA-32RT-300T, PA-32R-301, PA-32R-301T, PA-32-301, PA-32-301T	A3SO	CAR 3	RPF-00DL, Revision C	3/3/05	4/14/05
4.	Piper	PA-34-200, PA-34-200T, PA-34-220T	A7SO	FAR 23	RPF-00DL, Revision C	3/3/05	4/14/05

FAA APPROVED:

Darr M Anderson
Acting Manager, Seattle Aircraft
Certification Office

REISSUED: April 14, 2005; June 2, 2005

AMENDED: April 14, 2005



**NSA Sunvisor System for
Piper PA28, PA-32, PA-34 &
PA-44**

Date	Revision	Approved
2/20/24	M	SYS

**Drawing List
RPF-00 DL**

FAA STC SA00072SE

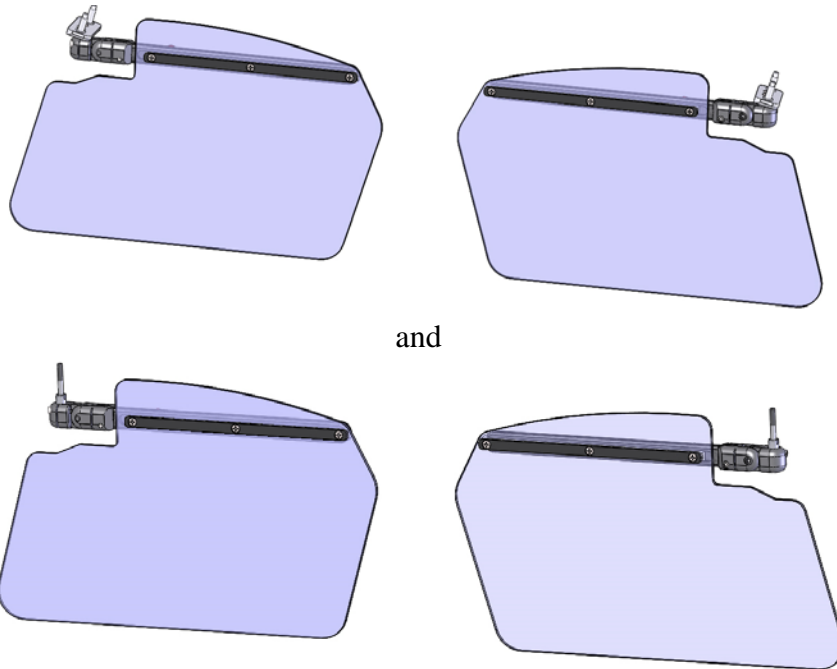
Doc. #9050-0139-001

RPF-300			Drawing	Replaces	Description	Rev
-1	-2	-3				
1			1390001	RPF-300-1	Center Mount NSA (Piper -1 Top Level Assembly)	F
	1	1	1390002	RPF-300-2, RPF-300-3	Swivel Stud Off Side NSA (Piper -2, -3 Top Level Assembly)	F
2	2	2	1010000-5		Complete Slide Assembly	G
			1010001-5		Female Slide	M
			1010002-3		Male Slide	U
2	2	2	1010003		Lens Strip	H
2	2	2	1020100-001		NSA Modified Block Assembly	F
			1020002-001		Modified 'A' Block – Standard	P
			1020003-001		Modified 'B' Block – Standard	V
2			1390101	RPF-200-3	Mounting Plate	E
2			1390102	RPF-200-6	Swivel	D
	2	2	1390208	RPF-200-2	Piper 2 Mounting Stud	G
2	2	2	1390201	RPF-200-1	Piper Lens	E
			R1010000-KIT-5	Kits	Universal Slide with Lens Strip Kit	A
			1010000-5		Complete Slide Assembly	G
			1010003		Lens Strip	H
			MS24693-C48BP		#8-32 X .375 Flat Head Phillips SS Black Patch Screw	
			R1390201		Piper Lens Kit	E
1	1	1	9051-0139-004		Piper PA-28, PA-32, PA-34 & PA-44 CMM/IPC	D



Piper PA-28, PA-32, PA-34 & PA-44 NSA Sunvisor System

Rosen Kit Number RPF-300-1, RPF-300-2, RPF-300-3



**Component Maintenance Manual
with Illustrated Parts List
and Instructions for Continued Airworthiness**

**Manual Number
Rosen 9051-0139-004
Revision D**

July 15, 2015

Rosen Sunvisor Systems LLC
86365 College View Road
Eugene, Oregon 97405 USA

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001,
R1390002)**

This ICA must be followed when the R1390001 and R1390002 Sunvisor systems are installed in accordance with Supplemental Type Certificate, (STC) No. SA00072SE, dated April 8, 1994, amended June 2, 2005.

The information contained in this document supplements or supersedes the basic manual only in those areas listed herein. For limitations, procedures, and performance information not contained in this manual, consult the basic aircraft ICA or Maintenance Manual.

STATEMENT OF Rev D CERTIFICATION

This manual complies with Federal Aviation Association (FAA) Airworthiness Requirements Part 23.

FAA Acceptance: Chris McVay (ASI KC AEG Date: 10/15/15

The above certification does not apply to revisions or amendments made after the date of initial certification by other Approved Organizations. Revisions or amendments made by other Approved Organizations must be separately certified and recorded on separate record sheets

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001,
R1390002)**

Record of Revisions

Rev	Description	Date	Approved
D	Update to CMM/IPC format. Combine installation instructions 9051-0139-004 and 9051-0139-005.	7/15/15	GH

Table of Contents

Record of Revisions	3
Introduction	4
General	4
Revision Service	4
Fault Isolation	5
Product Description	6
Installation Instructions Kit RPF-300-1	6
Installation Instructions Kit RPF-300-2, RPF-300-3	8
Removal	10
Weight and Balance	10
System Images	10
Repair	10
Instructions for Continued Airworthiness	10
Airworthiness Limitations	10
System Images	11-13
Parts List	14-15

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001,
R1390002)**

Introduction

1. General

- a. This Rosen Component Maintenance Manual provides use, maintenance and supplemental airworthiness instructions for the cockpit Sunvisor system used on the Piper PA-28, PA-32, PA-34 and PA-44 model series aircraft. For a complete list of applicable models see FAA Approved Model List (AML) SA00072SE.
- b. Rosen reserves the right to revise this document for changed procedures, improved parts or changes to the system or components.
- c. All technical support, spare sales, repairs or modifications are to be directed directly to Rosen Sunvisor Systems LLC. RSS must be contacted for future revision of this document as it is possible this does not contain the latest revisions.

2. Revision Service

Current revision status and revisions to this document may be obtained from Rosen Sunvisor Systems' website: www.rosenvisor.com. We recommend that you periodically check to make sure you are using the most current version.

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001,
R1390002)**

Fault Isolation

1. General

- a. This section identifies Probable Causes and Corrections for possible faults.

Problem	Probable Cause	Corrective Action
Visor does not extend on arm	Tension Thumb knob too tight	Loosen knob and slide using knob
Lens does not rotate smoothly on vertical axis	Vertical pivot tension incorrectly set	Re-tension vertical pivot
Lens does not rotate smoothly on horizontal axis	Horizontal pivot tension incorrectly set	Re-tension horizontal pivot

Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001, R1390002)

Product Description

General

- a. The Rosen Sunvisor System consists of two visor assemblies which have been designed to improve pilot comfort during standard cockpit operations. The visor assemblies are fastened to the airframe in the same mounting positions as the factory installed visors.

Installation Instructions for Kit RPF-300-1 Piper PA-28, PA-32, PA-44 with OEM Center Mount Installations

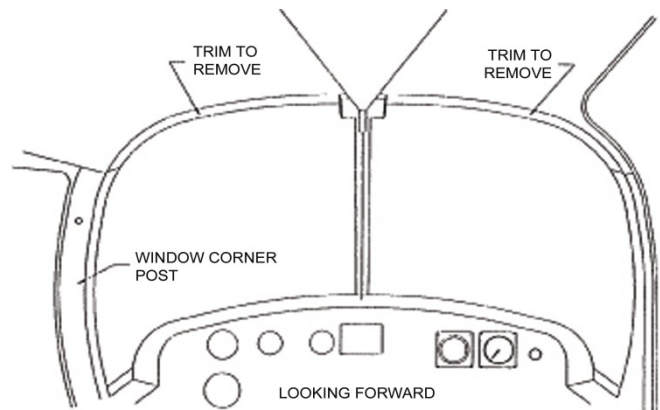
This is an FAA STC'd Installation requiring a log book entry upon completion.

Pease read through these instructions completely before beginning.

Hardware (included):

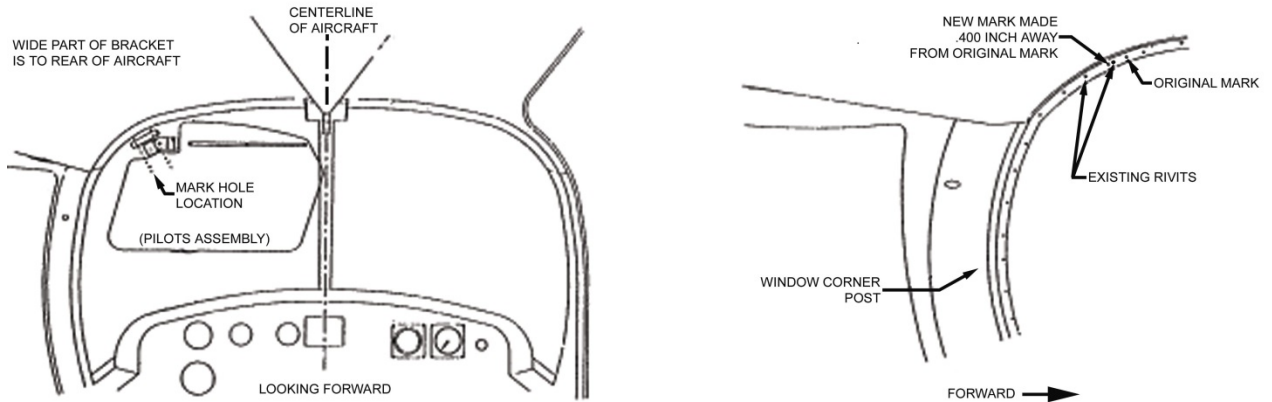
- 4 MS24693-C276B #10-32 X 1 Screw
- 4 A10K80 #10 Rivnut
- 1 5/32 Hex Key
- 1 9/64 Hex Key

- Remove the overhead trim piece that runs by the top of the windscreen in front of the pilot and co-pilot's position.
- Take the visor marked 'Pilot', and hold it across the center of the aircraft just short of the centerline to determine the mounting location. The bracket should be between the existing rivets, aligned with the windshield frame and oriented so the thick side is pointing towards the rear of the aircraft. The mounting bracket should be above and inboard of the trim piece on the window corner post. Mark both mounting holes.

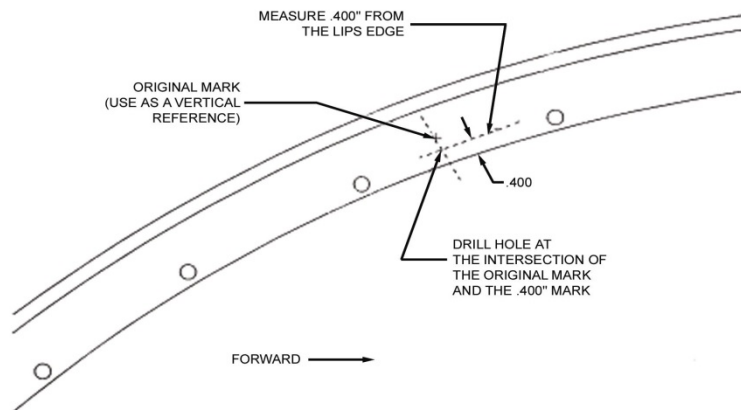


Note: The red knob should face the windshield and should not be visible to the pilot when the visor is in use.

Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001, R1390002)



- Measure to the rear of the forward metal lip where you just marked the outboard hole .40" and verify that when the visor is held up to this position the end of the lens is not across the centerline of the aircraft. The mark should not be on any existing rivets but between or beside one of them.

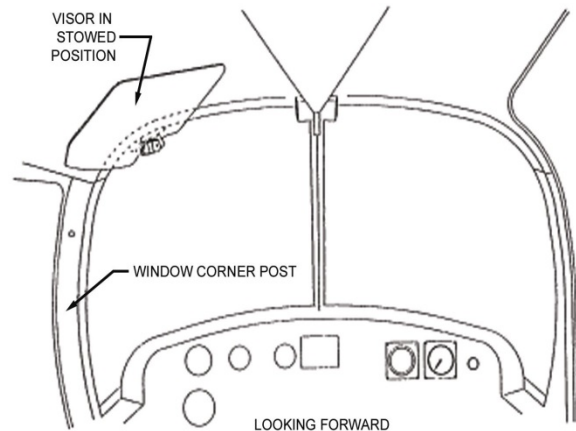


- Install AK80 rivnuts (supplied) in the marked locations using an appropriate procedure and tools. **Do not drill into the aircraft structure.** If you are unfamiliar with the installation of a rivnut fastener seek qualified assistance.
- Repeat this procedure for the co-pilot's side.
- Re-install the overhead Royalite trim piece and when properly located feel for the heads of the rivnuts. Mark the center and with a sharp object such as an awl. Loosen or remove the trim piece and drill a 7/32 hole for each location. **On older aircraft the Royalite can be very brittle. Use caution when drilling.**
- Re-install the trim and mount both pilot and co-pilot visors with the MS24693-C276B screws provided. (Caution: Do not over tighten any of the fasteners.)

Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001, R1390002)

System use:

- To stow: Swing to the side and rotate tight to the overhead. In some Pipers you may want to rotate up in front, but in many models the trim handle may be in the way.
- To move: The visor will move to just about any position that the sun will interfere with your vision. Every axis can be adjusted with the Allen wrenches provided for the right feel for every individual.
- If the mounting block for each visor has a slight rock to it the unit is moving on the heads of the rivnuts. If this is happening, either shim around the head of the rivnut or increase the clearance hole in the Royalite to clear the rivnut.



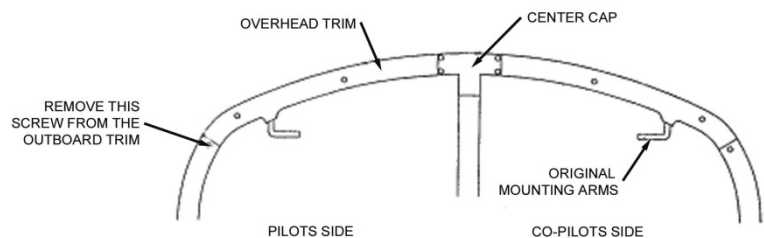
Installation Instructions for Kit RPF-300-2, RPF-300-3 Piper PA-28, -32, -34, -44 with OEM Side Mount Installations

Please read through these instructions completely before beginning.

Hardware (included):

- 1 5/32 Hex Key
- 1 9/64 Hex Key

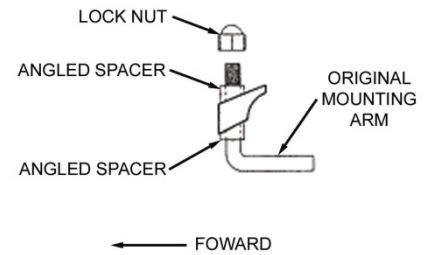
- Remove the original Piper sunvisors. To do this you will need a Phillips screwdriver and a crescent wrench. When the screws are removed the spring loaded clamp should release from the mounting arm.



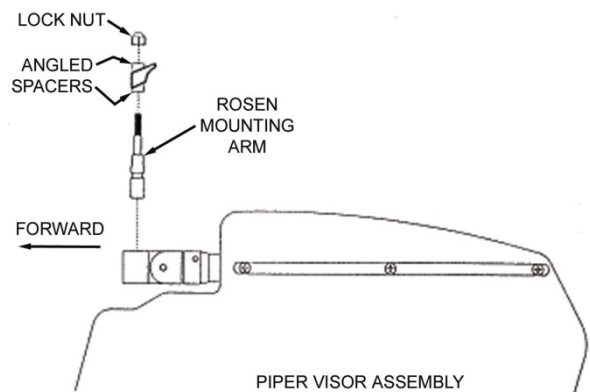
- Using a Phillips screwdriver, remove the center cap.
- Remove the outboard trim screws and both overhead trim pieces, pilot side first.

Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001, R1390002)

- Using the crescent wrench to hold the OEM arm, use a 5/16 inch wrench to remove the lock nut on the top of the arm.
- Once the mounting has been removed, retain both of the angled washers and the lock nut. These will be used in the installation.



- Install the Rosen mounting arm into the same location as the original. Be sure to locate the angled spaces in the same orientation as they were. Refer to the figure below. Verify the arm is close to vertical prior to tightening. If adjustment is necessary rotate the angled washer as required.
- With the Rosen arm in place the overhead trim pieces can be re-installed.
- With the #8-32 socket head cap screw removed from the end of the mounting block, place the visor assembly on the mounting arm and replace the #8-32 x 5/8 SHCS. Tension the screw with the 9/64 hex key (provided) until the visor moves freely but not loosely.

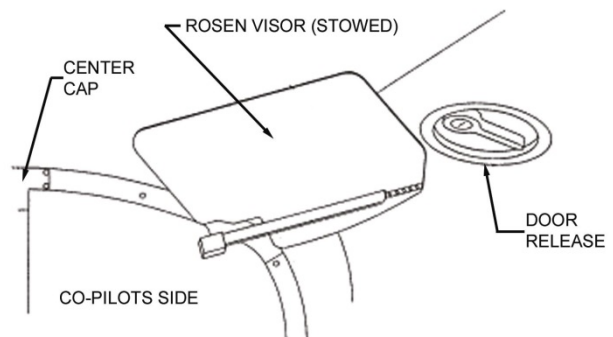


NOTE: The red knob should face the windshield.

- Repeat the procedure for the co-pilots side
- Replace the center trim cap.

Stowing:

- Visors will stow in different positions but generally the Piper system will stow aft and overhead.



**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001,
R1390002)**

Removal

- a. Reverse installation procedure.

Weight and Balance

Because operators calculate Weight and Balance differently the actual station number must be determined by the installer's calculations.

With the visor located in the stow position (in forward position and folded up) the R1390001 system adds 2.12 lbs., and the R1390002 system adds 2.06 lbs, located at the mount point of the visor. When the original visors are removed they must be weighed and removed from the calculation.

Repair

General

- a. All components that do not meet the requirements for continued use must be replaced.

Instructions for Continued Airworthiness

- **(On the ground only)**
 - Periodically clean the lenses with a soft cloth, mild soap and water or Rosen Cleaner, Polisher and Protectant. Do not use abrasives on the lens.
 - Periodically adjust the pivot tensions on the visor assemblies.

Airworthiness Limitations

The Airworthiness Limitations Section is FAA approved and specifies maintenance required under §43.16 and §91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

There are no airworthiness limitations associated with this installation.

Illustrations and IPC

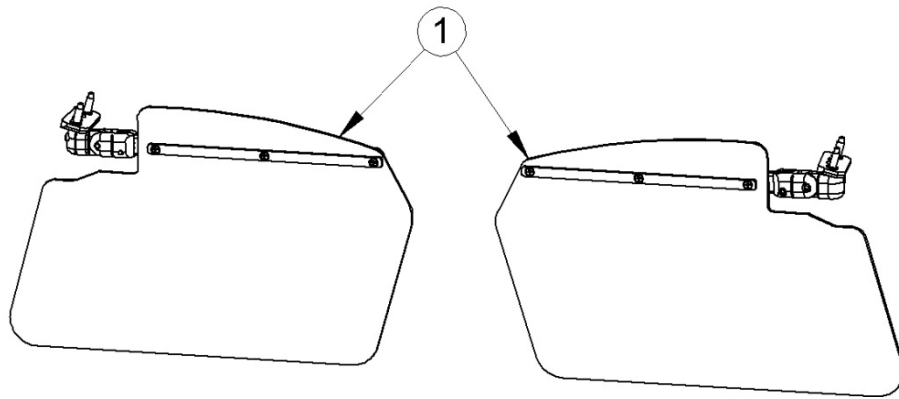


Fig 1

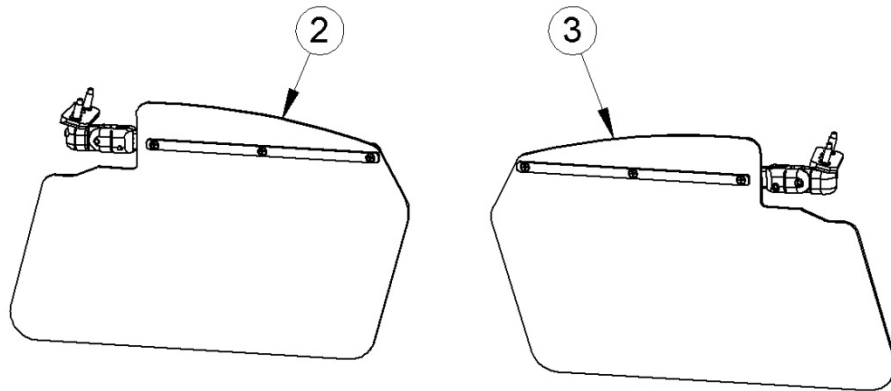


Fig 2

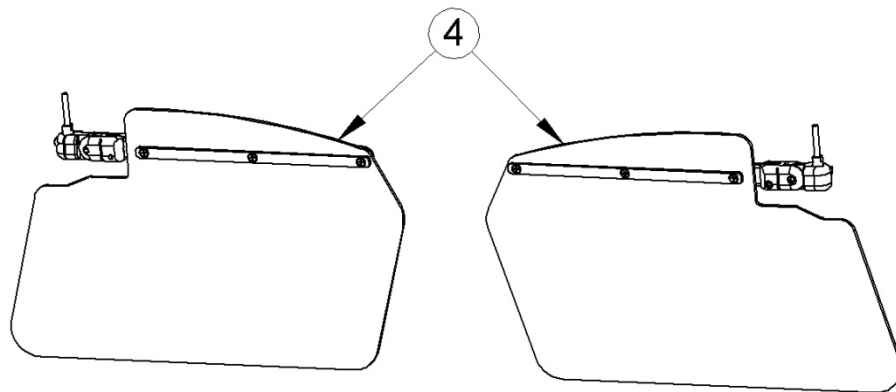


Fig 3

Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001, R1390002)

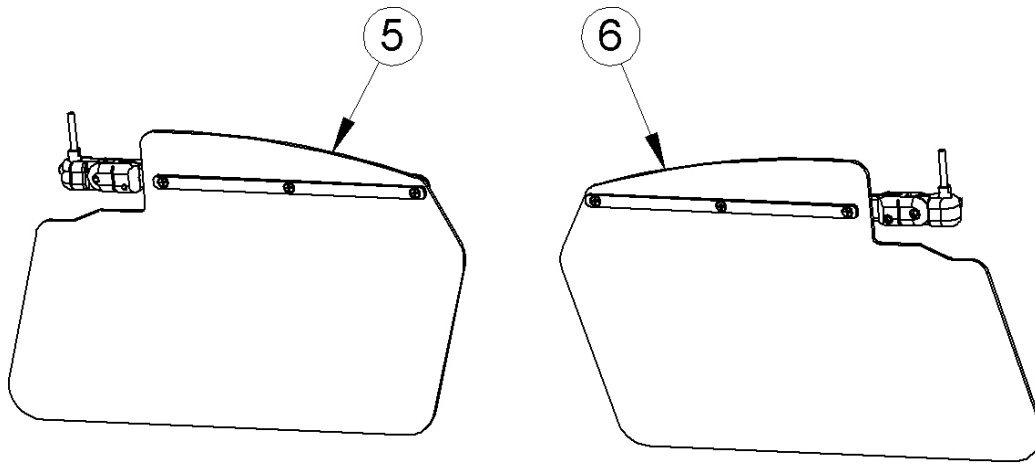


Fig 4

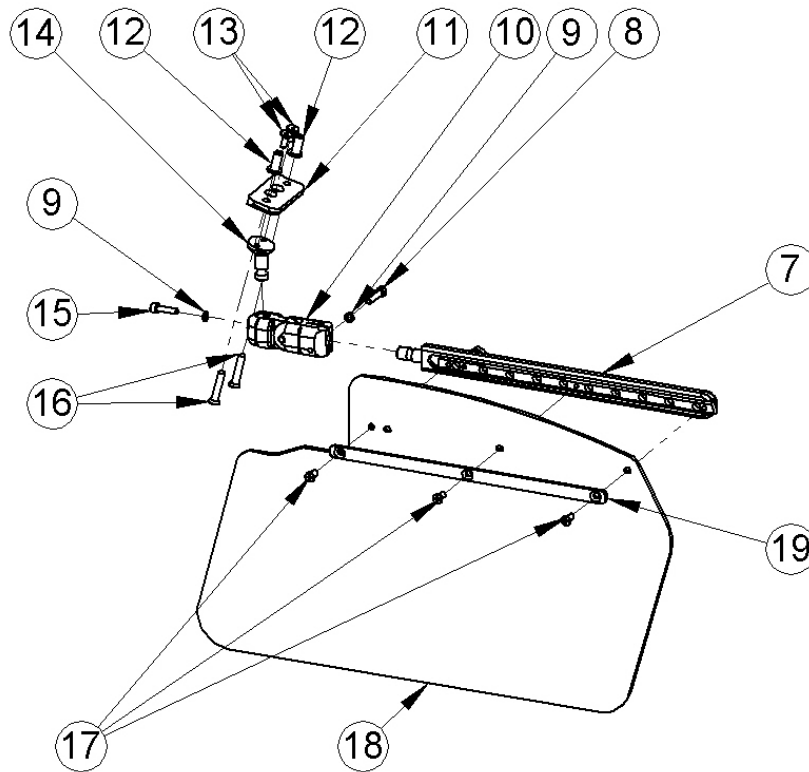


Fig 5

Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001, R1390002)

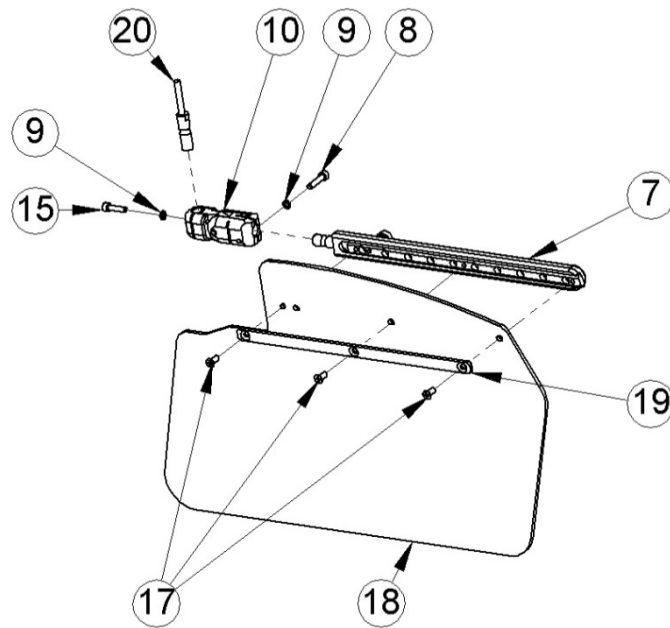


Fig 6

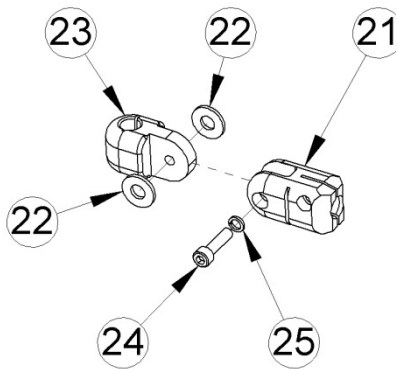


Fig 7

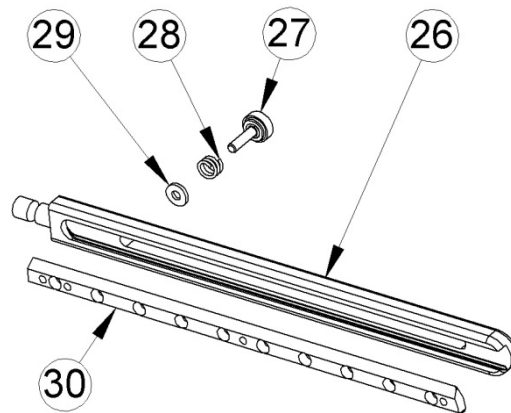


Fig 8

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001,
R1390002)**

Part List R1390001

Fig. No	Fig. Item	Part Number	Description	Reference	Eff	QTY
1	1	R1390001-0	Complete System, Center Mount	RPF-300-1		System
2	2	R1390001-1	Pilot Side	RPF-300-1P		1
2	3	R1390001-2	Copilot Side	RPF-300-1C		1
5	7	1010000-5	Slide Assembly			2
5	8	MS16995-28B	#8-32 X .75 Hex Socket Head Cap Screw SST Black			2
5	9	8HCLW	#8 High Collar Lock Washer			4
5	10	1020100-001	Mod Block Assembly			2
5	11	1390101	Plate, Mounting			2
5	12	A10K80	#10-32 Rivnut Grip .010-.075			4
5	13	832X716FSHCSSBP	#8-32 X .4375 Flat Socket Screw Black Patch			4
5	14	1390102	Swivel			2
5	15	MS16995-27B	#8-32 X .625 Hex Socket Head Cap Screw SST Black			2
5	16	MS24693-C276B	#10-32 X 1 Flat Head Phillips Screw SST Black			4
5	17	MS24693-C48BP	#8-32 X .375 Flat Head Phillips 100 Screw SST Black Patch			6
5	18	1390201	Lens			2
5	19	1010003	Lens Strip			2
7	21	1020002-001	Mod Block A			2
7	22	2801-0010	Stainless Steel Washer			4
7	23	1020003-001	Mod Block B			2
7	24	MS16996-12B	#10-32 X .750 Hexagon Socket Cap Screw			2
7	25	10HCLW	#10 High Collar Lock Washer			2
8	26	1010001-5	Female Slide			2
8	27	99-701	Ø1/2 Knurled Red Knob 8-32 X .75			2
8	28	B-19679	Compression Spring			2
8	29	90295A110	Nylon Washer .06 X .405 OD-.175 ID			2
8	30	1010002-3	Male Slide			2

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1390001,
R1390002)**

Part List R1390002

Fig. No	Fig. Item	Part Number	Description	Reference	Eff	QTY
3	4	R1390002-0	Complete System, Side Mount	RPF-300-2 RPF-300-3		System
4	5	R1390002-1	Pilot Side	RPF-300-2P RPF-300-3P		1
4	6	R1390002-2	Copilot Side	RPF-300-2C RPF-300-3C		1
6	7	1010000-5	Slide Assembly			2
	8	MS16995-28B	#8-32 X .75 Hex Socket Head Cap Screw SST Black			2
6	9	8HCLW	#8 High Collar Lock Washer			4
6	10	1020100-001	Mod Block Assembly			2
6	15	MS16995-27B	#8-32 X .625 Hex Socket Head Cap Screw SST Black			2
6	17	MS24693-C48BP	#8-32 X .375 Flat Head Phillips 100 Screw SST Black Patch			6
6	18	1390201	Lens			2
6	19	1010003	Lens Strip			2
6	20	1390208	Stud, Mounting			2
7	21	1020002-001	Mod Block A			2
7	22	2801-0010	Stainless Steel Washer			4
7	23	1020003-001	Mod Block B			2
7	24	MS16996-12B	#10-32 X .750 Hexagon Socket Cap Screw			2
7	25	10HCLW	#10 High Collar Lock Washer			2
8	26	1010001-5	Female Slide			2
8	27	99-701	Ø1/2 Knurled Red Knob 8-32 X .75			2
8	28	B-19679	Compression Spring			2
8	29	90295A110	Nylon Washer .06 X .405 OD-.175 ID			2
8	30	1010002-3	Male Slide			2