



U.S. Department
of Transportation

**Federal Aviation
Administration**

Compliance and Airworthiness Division
Chicago Aircraft Certification Branch
2300 E. Devon Avenue, Room 107
Des Plaines, IL 60018

May 22, 2019

Gary Hanson (Dave Walko)
Operations Manager,
Rosen Sun Visor Systems LLC
4884 Franklin Blvd
Eugene, Oregon 97405

Dear Mr. Hanson,

We received your letters and data transmittals dated January 31, 2019, March 18, 2019 and May 22, 2019 with your statement certifying your Rosen Sunvisors meet the design and performance requirements of FAA Policy PS-AIR-21.8-1602 for Non Required Safety Enhancing Equipment (NORSEE) and is produced under a quality system that satisfies the requirements of the same policy. The FAA requires you to have a quality manual that verifies your process and follows the guidance outlined in the NORSEE policy. In addition, we have communicated to the Seattle MIDO your intent to produce NORSEE and PMA articles in the same facility. Based on our acceptance of your statement and 14 CFR 21.8(d), we authorize manufacturing of your equipment as detailed by the part numbers listed in the following table:

<u>Article Name</u>	<u>Part Number</u>	<u>Authorized Function</u>	<u>Approved Replacement for</u>	<u>FAA Approval Basis and Approved Design Data</u>	<u>Installation Eligibility:</u>
RPAZ-300	R1370000	Sunvisor	Alteration Part	FAA memorandum number PS-AIR-21.8-1602 and Drawing: 1370000 Rev.: E Date: 2/22/2019 or later FAA-approved revisions	Provided that the requirements of 14 CFR 1.1 and 14 CFR 43 Appendix A are met and the installation does not detrimentally obstruct the pilots view of required instrumentation, equipment may be installed as a minor alteration on a nonpressurized Aircraft Certified under 14 CFR 23 or precursor regulations, as outlined in FAA memorandum number PS-AIR-21.8-1602.
RPAP-300	R1371000	Sunvisor	Alteration Part	FAA memorandum number PS-AIR-21.8-1602 and Drawing: 1371000 Rev.: E Date: 2/22/2019 or later FAA-approved revisions	Provided that the requirements of 14 CFR 1.1 and 14 CFR 43 Appendix A are met and the installation does not detrimentally obstruct the pilots view of required instrumentation, equipment may be installed as a minor alteration on a nonpressurized Aircraft Certified under 14 CFR 23 or precursor regulations, as outlined in FAA memorandum number PS-AIR-21.8-1602.

It is critical for users of the above equipment to understand that NORSEE is considered secondary or non-essential to the required equipment. It is vital for the pilot in command to understand its functionality, limitations, and intent to provide only additional, non-contradictory information. It is the pilot's responsibility to use basic airmanship to operate the aircraft safely with or without the aid of NORSEE.

This approval is based on the authorized function as stated in the above table. Uses outside of this authorized function have not been reviewed by the FAA to comply with the requirements of FAA Policy PS-AIR-21.8-1602 and may require additional evaluation. It should also be noted that NORSEE production approval does not grant Installation Approval, Product Manufacturer Authorization (PMA) or Technical Standard Order Authorization (TSOA).

We also accept the statement that your quality system meets the requirements of FAA Policy PS-AIR-21.8-1602. We authorize production of this NORSEE equipment at your Rosen Sunvisor Systems LLC facility located at 4884 Franklin Blvd, Eugene Oregon, 97405.

All major components of the articles produced under this approval must be permanently and legibly marked with the authorization holder's name or trademark or symbol, part number and "21.8(d)".

You must allow the FAA to inspect your quality system, facilities, technical data, and any manufactured articles and witness any tests, including any inspections or test at a supplier facility, necessary to investigate any service difficulty or possible non-compliance with FAA Policy PS-AIR-21.8-1602. Any service difficulties with the equipment should be reported to the Chicago ACO Branch.

You must notify the FAA before making any changes to the location of any of your manufacturing facilities, company name or ownership. This approval is transferable to another U.S. manufacturer subject to the transferee complying with the NORSEE policy PS-AIR-21.8-1602 (or later policy revision) and design approval holders responsibilities stated in this letter of authorization.

This approval is effective until surrendered, withdrawn or otherwise terminated by the FAA. If you have any questions, please call John Raspanti, at (847) 294-7379, fax (847) 294-7834, email john.raspanti@faa.gov.

Sincerely,



John Raspanti
Aerospace Engineer / Program Manager
Chicago ACO Branch,
Propulsion and Program Management, AIR-7C3
Compliance and Airworthiness Division, FAA



Piper Aztec/Apache NSA
Sunvisor System

Date	Revision	Aprv
2/15/22	F	SYS

Drawing List
1370000-00DL

Doc. #9050-0137-001

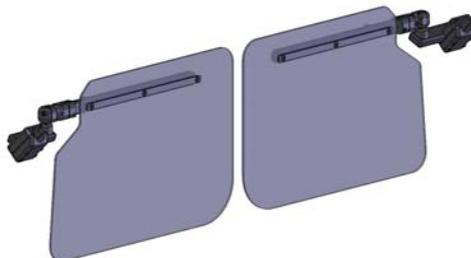
Drawing	Reference	Description	Rev.
1370000	RPAZ-300	Complete Assembly – Aztec	E
1371000	RPAP-300	Complete Assembly – Apache	E
1370101		Mounting Bracket, Top	C
1370102		Mounting Bracket, Bottom	C
1370103		Extension	D
1160102-1		Bonanza Style Swivel	H
1370401		Lens – Aztec	H
1370402		Lens – Apache	G
1020100-001		Assembly, Mod Block NSA	F
1020002-001		Mod Block A	P
1020003-001		Modified 'B' Block Standard	V
1010000-5		Complete Slide Assembly	F
1010001-5		Female Slide, Universal	M
1010002-3		Male Slide	T
1010003		Lens Strip	G
9051-0137-001		Aztec/Apache Product Maintenance Manual/IPL/ICA	F

**Rosen Sunvisor Systems PMM / IPC for Sunvisor Assembly
(p/n R1370000-0, R1371000-0)**

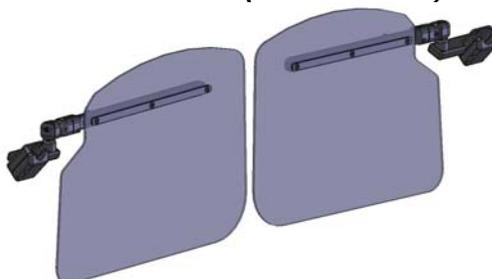


Piper Aztec / Apache Sunvisor Systems

***Rosen Part Numbers
R1370000-0 (RPAZ-300-1)***



***And
R1371000-0 (RPAP-300-1)***



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

**Manual Number
9051-0137-001
Revision F**

May 30, 2019

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

**Rosen Sunvisor Systems PMM / IPC for Sunvisor Assembly
(p/n R1370000-0, R1371000-0)**

This ICA must be followed when the R1370000 or R1371000 sunvisor system is installed in accordance with the NORSEE (Non-Required Safety Enhancing Equipment) conditions.

It is critical for users of this equipment to understand that NORSEE is considered secondary or non-essential to the required equipment. It is vital for the pilot in command to understand its functionality, limitations, and intent to provide only additional non-essential function and use in the aircraft. It is the pilot's responsibility to use basic airmanship to operate the aircraft safely with or without the aid of this NORSEE certified system.

This equipment is manufactured under the guidance of FAA Policy PS-AIR-21.8-1602.

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.

Record of Revisions

Rev	Description	Date	Approved
A	Initial Release	2/22/10	GH
B	New illustration	1/19/11	GH
C	Revised to PMM format	7/16/18	GH
D	Updated part numbers and qtys in BOM	1/23/19	SYS
E	Pages 2, 4, 6, and 7: add NORSEE statement; Page 11: add component availability in Eff column.	2/21/19	GH
F	Page 11, item 30:Change 77-901 to 99-701. Page 1: Change part numbers 1370000-0 to R1370000-0 and 1371000-0 to R137000-0. On Header block change 1370000-0 to R1370000-0 and 1371000-0 to R137000-0.	5/31/19	GH

**Rosen Sunvisor Systems PMM / IPC for Sunvisor Assembly
(p/n R1370000-0, R1371000-0)**

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Rosen Sunvisor Systems PMM / IPC for Sunvisor Assembly (p/n R1370000-0, R1371000-0)

Introduction

1. General

- a. This Rosen Product Maintenance Manual provides use, maintenance and airworthiness instructions for the cockpit Sunvisor system used on the PA-23 Aztec and Apache aircraft models.
- 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.
- d. These R1370000 and R1371000 sunvisor systems are manufactured under the guidance and control of 14CFR21.8(d) for NORSEE articles.

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 PMM / IPC for Sunvisor Assembly
(p/n R1370000-0, R1371000-0)**

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	Thumb knob tension 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 (see p.7)
Lens does not rotate smoothly on horizontal axis	Horizontal pivot tension incorrectly set	Re-tension horizontal pivot (see p.7)

Rosen Sunvisor Systems PMM / IPC for Sunvisor Assembly (p/n R1370000-0, R1371000-0)

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.
- b. Installation of the R1370000 and R1371000 systems are supplemental only.

Installation Instructions

*Please read these short instructions **COMPLETELY** before starting.*

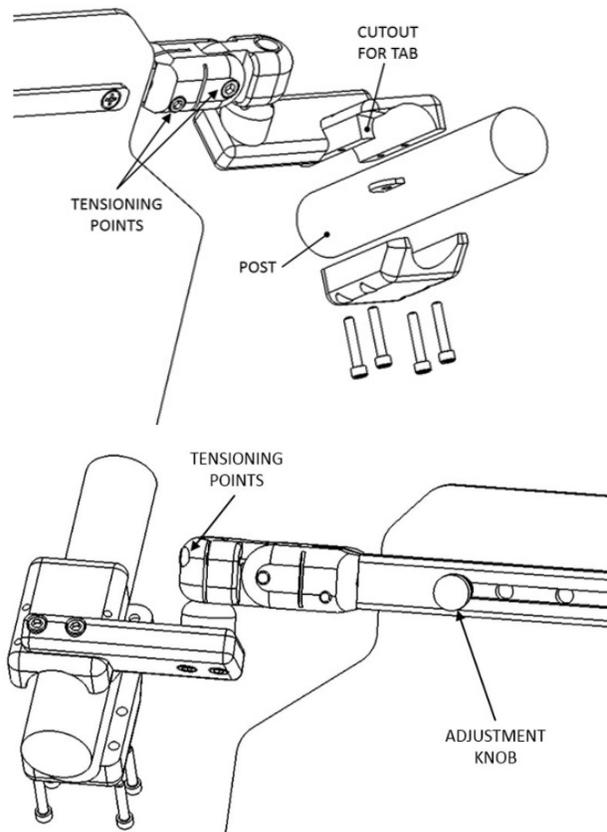
Installing the Rosen NSA Sunvisor System is easily performed and should take less than 1 hour.

Installation Hardware (included)

Qty: (1) 7/64 Hex Key for #6-32 Cap Screw
(1) 9/64 Hex Key for #8-32 Cap Screw (tensioning)
(1) 5/32 Hex Key for #10-32 Cap Screw (tensioning)

Installation Procedure:

1. Unscrew and remove existing visors.
2. Install onto diagonal tube post as shown for copilot's side making sure the tab cutout aligns with the existing tab on the post.
3. Loosely install the four #6-32 screws provided. Slide up to the tab and tighten the screws evenly.
4. Repeat for other side.
5. Installation is now complete.



Copilot side view from outside.

Rosen Sunvisor Systems PMM / IPC for Sunvisor Assembly (p/n R1370000-0, R1371000-0)

Operation and Care Instructions

- Do not use the visor to try to shield the cockpit from heat while parked on the ramp for extended times. Excessive heat buildup in the lens can cause damage.
- Adjust the tension on the red visor slide knob so the visor can be slid using the red knob. This should be tight enough that the visor will not slide during takeoff, landing or maneuvering.
- Adjust the tension on all the pivot points with the provided hex keys so that they can be moved freely but not loosely. The tension should support the weight of the visor in the fully extended position without drooping.
- Tension the visor 'flip up' pivot so that it will support the visor when rotated into the stow position.

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 1370000-0 system adds 2.84 lbs. located at the mount point of the visor. The 1371000-0 system adds 2.92 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. Do not use abrasives on the lens.
 - Periodically adjust the pivot tensions on the visor assemblies.
 - Periodically clean slide with a no residue alcohol based cleaner and inspect for wear and damage.

Airworthiness Limitations

There are no airworthiness limitations associated with this installation.

The R1370000 and R1371000 sunvisor systems are not required systems.

Rosen Sunvisor Systems PMM / IPC for Sunvisor Assembly
(p/n R1370000-0, R1371000-0)

Illustrations and IPC

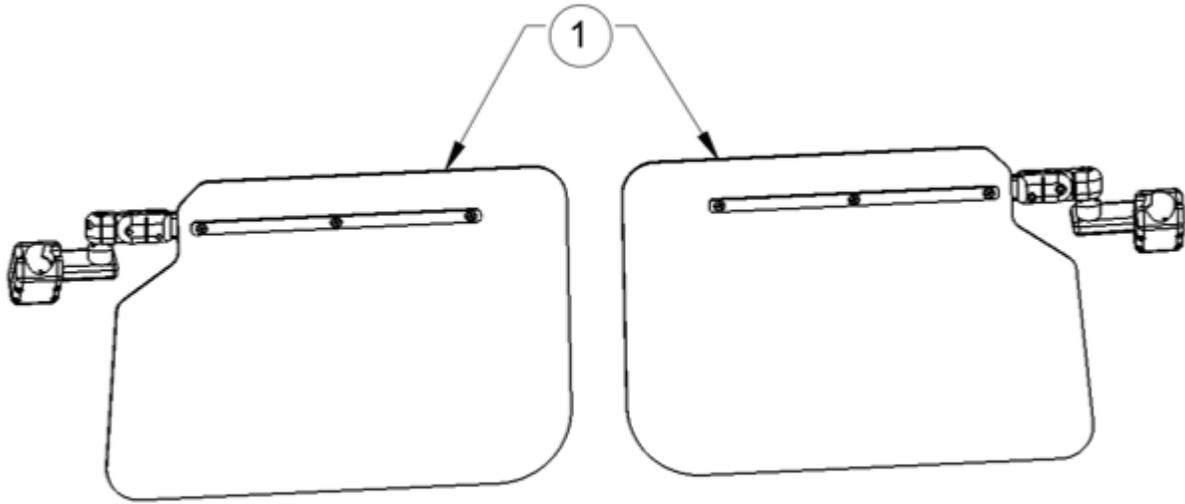


Fig 1

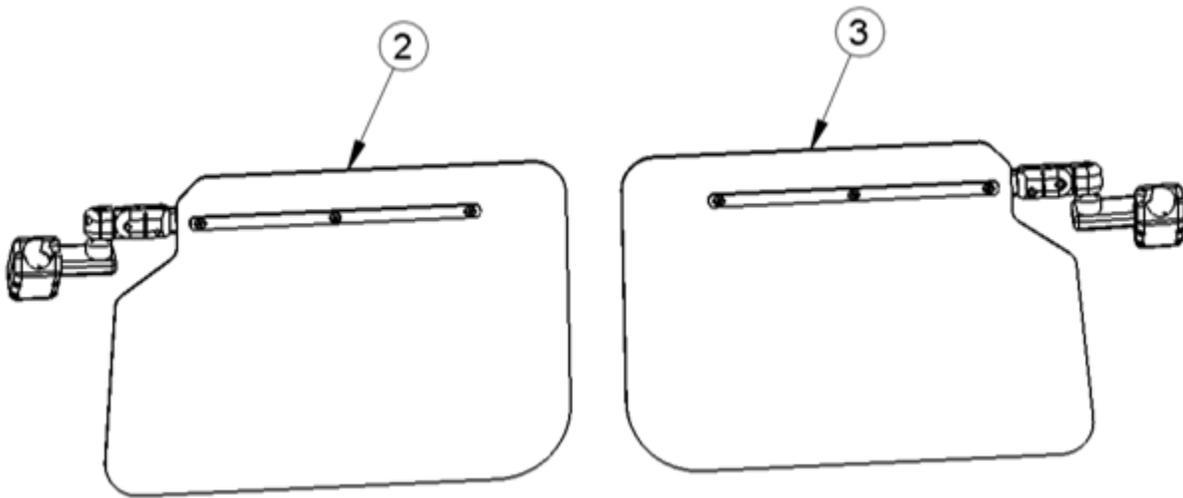


Fig 2

**Rosen Sunvisor Systems PMM / IPC for Sunvisor Assembly
(p/n R1370000-0, R1371000-0)**

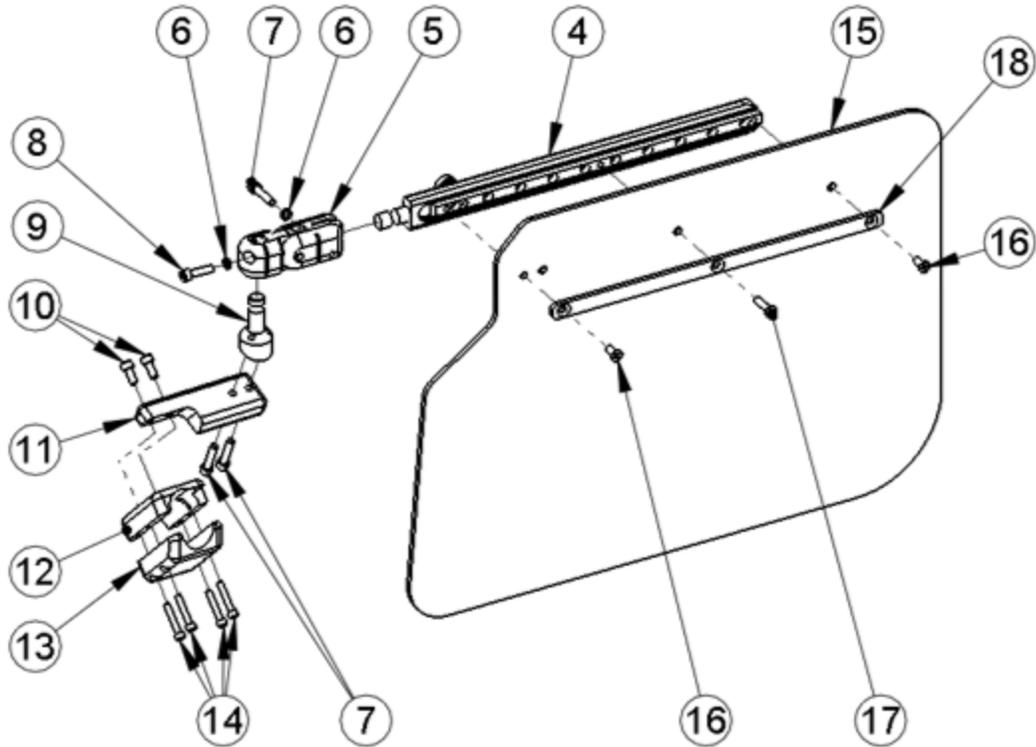


Fig 3 – Pilot side

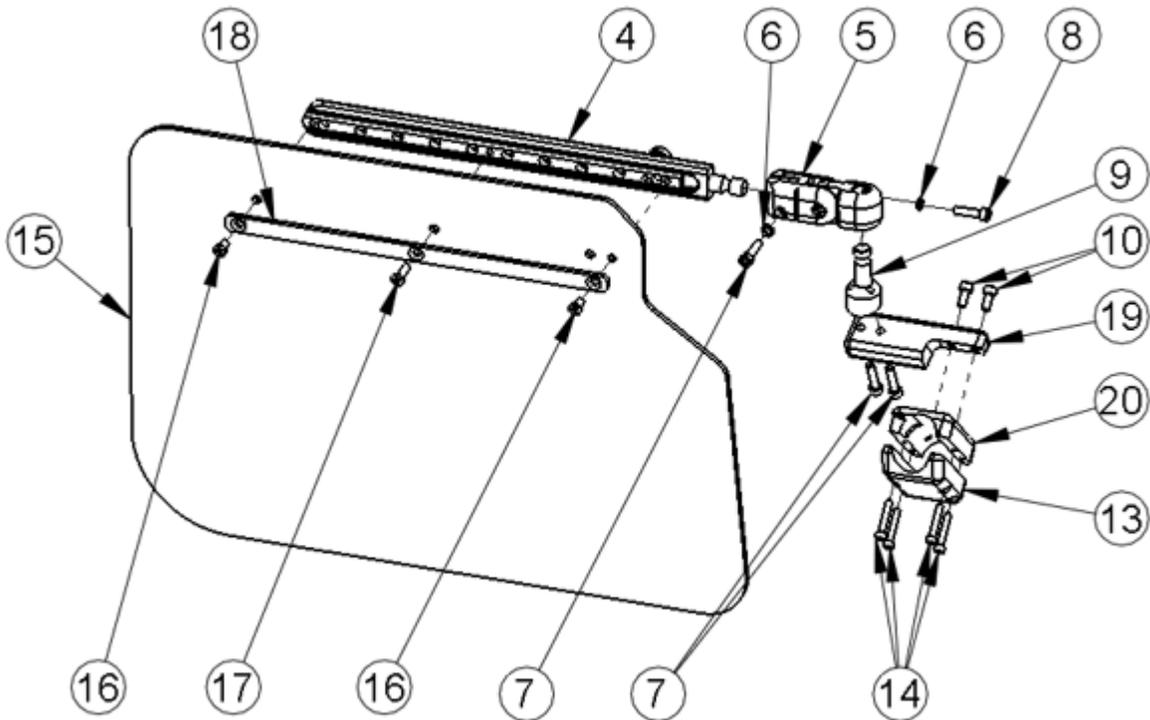


Fig 4 – Copilot side

**Rosen Sunvisor Systems PMM / IPC for Sunvisor Assembly
(p/n R1370000-0, R1371000-0)**

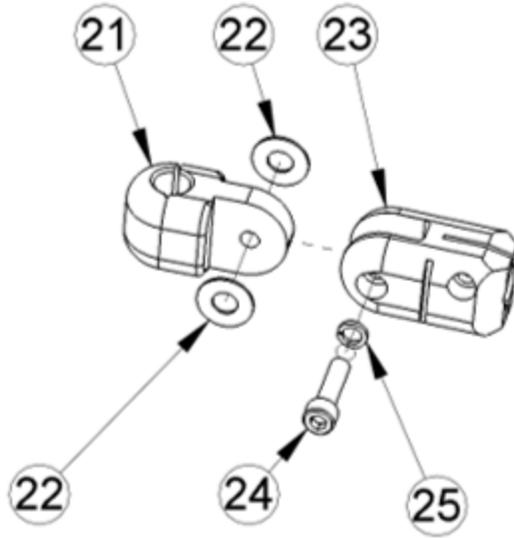


Fig 5

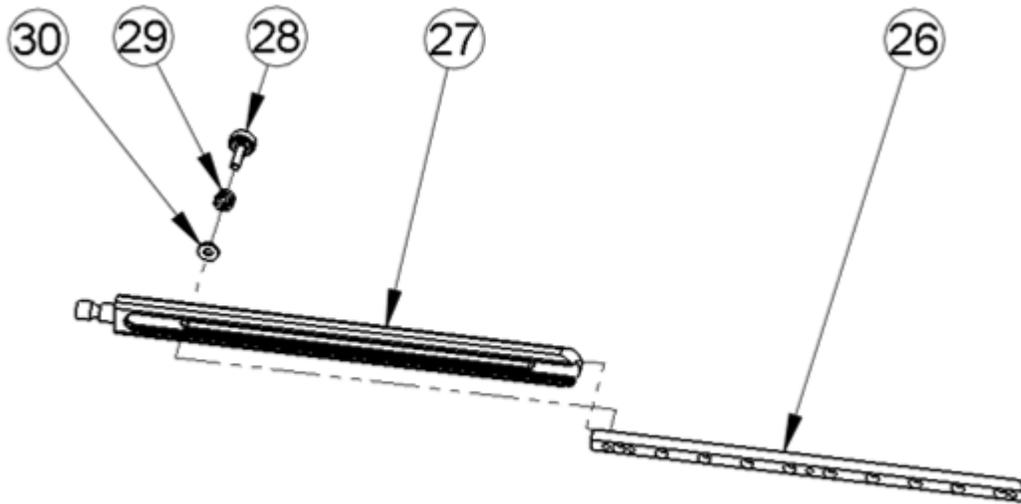


Fig 6

**Rosen Sunvisor Systems PMM / IPC for Sunvisor Assembly
(p/n R1370000-0, R1371000-0)**

Part List

Fig. No	Fig. Item	Part Number	Description	Reference	Eff	QTY
1	1	1370000-0	Complete System Aztec (Both sides)			1
2	2	1370000-1	Assembly, Pilot Side			1
2	3	1370000-2	Assembly, Copilot Side			1
		1371000-0	Complete System Apache (Both Sides)	<i>Not shown</i>		1
		1371000-1	Assembly, Pilot Side	<i>Not shown</i>		1
		1371000-2	Assembly, Copilot Side	<i>Not shown</i>		1
3,4	4	1010000-5	Slide Assembly – Universal		NAS	2
3,4	5	1020100-001	Assembly, Mod Block		NAS	2
3,4	6	8HCLW	Washer #8 High Collar Lock			4
3,4	7	MS16995-28B	#8-32 X .75 Hex Socket Head Cap Screw			6
3,4	8	MS16995-27B	#8-32 X .62 Hex Socket Head Cap Screw			2
3,4	9	1160102-1	Bonanza Style Swivel		NAS	2
3,4	10	MS16995-25B	#8-32 X .37 Hex Socket Head Cap Screw			4
3	11	1370103-001	Extension, Pilot		NAS	1
3	12	1370101-001	Mounting Bracket. Top -Pilot		NAS	1
3,4	13	1370102	Mounting Bracket, Bottom		NAS	2
3,4	14	MS16995-20BP	#6-32 X .75 Hex Socket Head Cap Screw Patched			8
3,4	15	1370401	Lens, Aztec			2
		1370402	Lens, Apache	<i>Not shown</i>		2
3,4	16	MS24693-C48BP	#8-32 X .37 Flat Head Phillips 100 deg Screw			4
3,4	17	MS24693-C51B	#8-32 X .62 Flat Head Phillips 100 deg Screw			2
3,4	18	1010003	Lens Strip			2
4	19	1370103-002	Extension, Copilot			1
4	20	1370101-002	Mounting Bracket, Top, Copilot		NAS	1
5	21	1020003-001	Mod Block B		NAS	2
5	22	2801-0010	Washer (5710-61-30 Seastrom) SST			4
5	23	1020002-001	Mod Block A		NAS	2
5	24	MS16996-12B	#10-32 X .75 Hex Socket Head Cap Screw			2
5	25	10HCLW	Washer #10 High Collar Lock			2
6	26	1010002-3	Male Slide Universal		NAS	2
6	27	1010001-5	Female Slide Universal		NAS	2
6	28	99-701	½ Dia Knurled Red Knob 8-32 x .75		Available as 99-701-KIT	2
6	29	B-19679	Compression Spring (Red Knob)			2
6	30	90295A110	Washer Nylon .06 x .405 OD - .175 ID			2

NAS: Not Available Separately