

Department of Transportation—Federal Aviation Administration

# Supplemental Type Certificate

Number SA01437SE

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 therefor as specified hereon meets the airworthiness requirements of Part 23 of the Federal Aviation Regulations.

Original Product—Type Certificate Number:	A12SO
Make:	Commander Aircraft Company
Model:	112, 112B, 112TC, 112TCA, 114, 114A, 114B, 114TC

*Description of the Type Design Change:* The manufacture of a Commander Sunvisor System in accordance with Rosen Sunvisor Systems Drawing List No. 1430000-DL, Revision D, dated July 19, 2004, or later Federal Aviation Administration (FAA) approved revision. The sunvisor system must be installed and maintained in accordance with Rosen Sunvisor Systems Installation and Continued Airworthiness Instructions Document 9050-0143-001, Revision C, dated June 29, 2004, or later FAA approved revision.

*Limitations and Conditions:* Approval of this change in type design applies to the aircraft models listed above only. 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 relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effects upon the airworthiness of that aircraft. A copy of this Certificate must be maintained as part of the permanent record 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: January 28, 2004  
Date of issuance: August 2, 2004

Date reissued:  
Date amended:



By direction of the Administrator

*James A. Rehr*

(Signature)  
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.



**Sunvisor System for  
Commander 112, 114,  
112TC, 112B, 112TCA,  
114A, 114B, 114TC  
Aircraft**

Date	Revision	Aprv
2/20/24	M	SYS

**Drawing List**  
**FAA STC SA01437SE      1430000-DL      Doc.# 9050-0143-001**

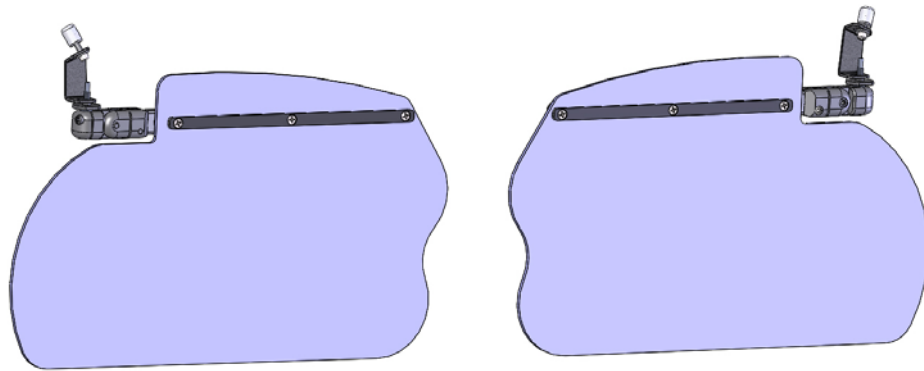
<b>Drawings</b>	<b>Description</b>	<b>Rev.</b>
1430000	Complete System	E
1010000-5	Complete Slide Assembly	G
1010001-5	Female Slide	M
1010002-3	Male Slide	U
1010003	Lens Strip	H
1020100-001	NSA Modified Block Assembly	F
1020002-001	Modified 'A' Block	P
1020003-001	Modified 'B' Block	V
1430104	Bracket	B
1430202	Mounting Stud	F
1430302	Washer	B
1430401-2	Lens	D
	<b>Kits</b>	
<b>R1010000-KIT-5</b>	<b>Universal Slide with Lens Strip Kit</b>	<b>A</b>
1010000-5	Complete Slide Assembly	G
1010003	Lens Strip	H
MS24693-C48BP	#8-32 X .375 Flat Head Phillips SS Black Patch Screw	
<b>R1430401-2</b>	<b>Lens Kit</b>	<b>D</b>
9051-0143-001	Commander 112, 114 Sunvisor System CMM	E

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1430000-0)**



***Commander Monorail Sunvisor System***

***Rosen Part Number R1430000-0***



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

**Manual Number  
Rosen 9051-0143-001  
Revision E**

November 12, 2015

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

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1430000-0)**

This ICA must be followed when the R1430000 Sunvisor system is installed in accordance with Supplemental Type Certificate, (STC) No. SA01437SE, dated August 2, 2004, amended \_\_\_\_\_.

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 E CERTIFICATION**

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

FAA Acceptance: Thane Rockhill MKC-AEG Date: 3/31/16  
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 R1430000-0)**

**Record of Revisions**

Rev	Description	Date	Approved
E	Update to CMM/IPC format. Correct typos	11/12/15	GH

**Table of Contents**

Record of Revisions	3
Introduction	4
General	4
Revision Service	4
Fault Isolation	5
Product Description	6
Installation Instructions	6
Removal	8
Weight and Balance	8
Repair	9
Instructions for Continues Airworthiness	9
Airworthiness Limitations	9
System Images	10-12
Parts List	13

# Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1430000-0)

## Introduction

### 1. General

- a. This Rosen Component Maintenance Manual provides use, maintenance and supplemental airworthiness instructions for the cockpit Sunvisor system used on the Commander aircraft models 112, 114, 112TC, 112B, 112TCA, 114A, 114B, 114TC.
- 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](http://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 R1430000-0)**

**Fault Isolation**

**1. General**

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

<b>Problem</b>	<b>Probable Cause</b>	<b>Corrective Action</b>
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.8)
Lens does not rotate smoothly on horizontal axis	Horizontal pivot tension incorrectly set	Re-tension horizontal pivot(see p.8)

# Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1430000-0)

## 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.

## Installation Instructions

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

Installing the Rosen NSA Sunvisor System is easily performed and should take approximately 1 to 2 hours.

### Installation Hardware (included)

Qty: (1) 9/64 Allen Key	for #8-32 Cap Screw
Qty: (1) 5/32 Allen Key	for #10-32 Cap Screw
Qty: (1) 11/32 Flat Closed End Tightening Wrench	
Qty: (2) VC-343-8	Plastic Nut Cap
Qty: (2) 1430302	Washer
Qty: (2) 1430104	Bracket
Qty: (2) 1430202	Mounting Stud
Qty: (2) 832NLINS	#8-32 Nylon Insert Nut
Qty: (4) AN960-C8L	#8 Washer
Qty: (4) MS16995-27B	#8-32 X .625 Hex Socket Head Cap Screw
Qty: (2) 8HCLW	#8 High Collar Lock Washer

- The Rosen Sunvisor System is very easy to install but needs a few tools to complete the job. 1) A short Phillips screwdriver, 2) Allen wrenches (included in installation package), 3) a 3/16 drill, 4) a 3/8 drill (for some models) to enlarge the trim hole for the visor mounting stud, 5) a tool to remove the 'C' clips on the trim of some models, 6) a 5/16" open end wrench, 7) a 3/4" open end wrench.

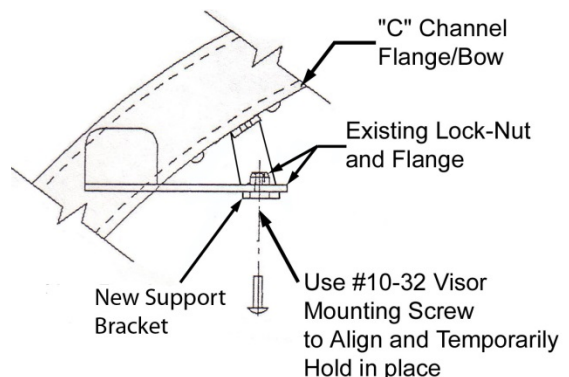
- Remove the original visors from the aircraft with a Phillips screwdriver.
  - Starting on the pilot's side remove the trim exposing the existing visor mounting flange.

**Note: All illustrations are of the pilot's side.**

- Position the support bracket (1430104) on the existing lock nut and flange and hold it in position with a #10-32 screw as shown (not provided).

**NOTE:** The beveled edges mark the upper end of the bracket.

Use the slot to provide the best fit condition



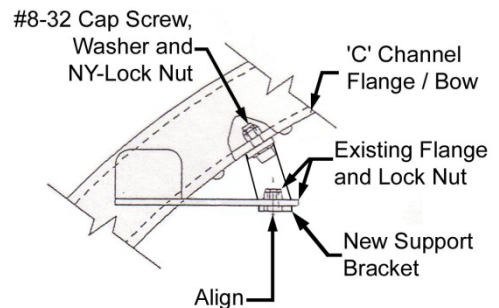


## Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1430000-0)

between the support bracket and the "C" channel flange.

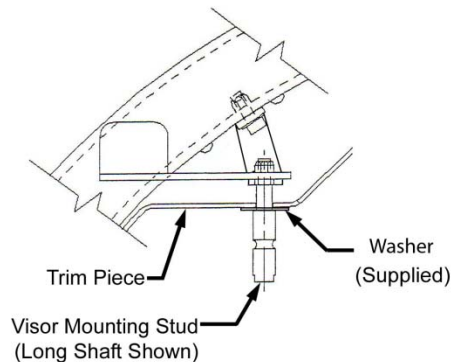
- Mark the center of the upper bracket flange slot on the structural channel flange. Remove the temporarily installed bracket.
- Check behind the structural channel flange to clear any wiring or other materials that may be disturbed. Reposition anything that may be damaged. If necessary add additional protection for any wiring in the vicinity of the fastener.
- Drill a 3/16" diameter hole at the marked location in the channel flange.  
**Be careful not to penetrate the structural outer surface.**

- Using (1) #8-32 X .625 Hex Head Cap Screw, (2) #8 Washers (AN960-C8L), and (1) #8-32 Nylon Insert Nut, install the bracket as shown. Check the alignment of the bottom flange slot in relationship to the existing mounting flange hole and lock nut prior to tightening the cap screw fastener on the new bracket support. Use the 11/32 closed end tightening wrench (provided) to tighten the screw/nut.



- Fit the plastic cap over the Nylon Insert nut to protect the wiring.
- Remove the Rosen mounting stud (1430202) and washer (1430302) from the hardware packet and verify that the raised internal threaded section of the washer fits into the trim clearance hole prior to installing the trim.
  - Use a 3/8 inch drill to enlarge the hole in the trim if needed, and reinstall the trim, covering the visor mounting bracket you have just prepared.

- Screw the washer (1430302) onto the mounting stud (1430202) until the flat surface of the washer is in contact with the base of the stud. Install the mounting stud through the trim hole and new bracket into the original mounting nut. Tighten the stud using a 5/16 open end wrench. Be sure the raised diameter of the washer is located through the hole in the trim piece. After the stud is tightened, use a 3/4" open end wrench to tighten the washer against the bracket.



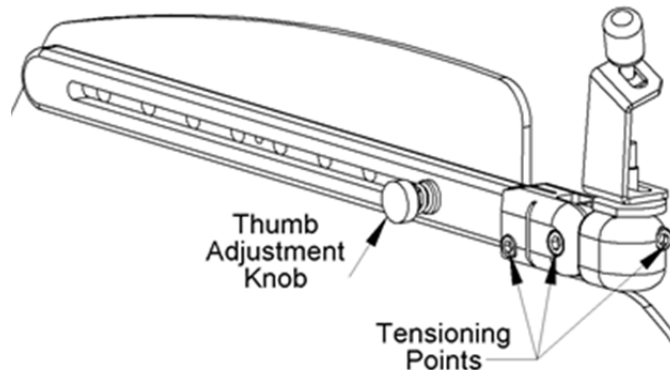
- Use the supplied packet of lube to lubricate the mounting stud. Attach the lubed stud to the visor block on the pilot assembly with (1) #8-32 X .625 Hex Cap Screw and (1) #8 High Collar Lock Washer (8HCLW). Wipe off any excess grease around the mounting hole on the visor block. When installed and in position for operation, the red tensioning knob should be towards the windscreen and not visible to the operator.

## Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly (p/n R1430000-0)

- Repeat this procedure for the co-pilot's side.
- Place the FAA STC in the Aircraft Maintenance Log and make an installation entry in the Log.

### 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) this system adds 1.08 lbs. located at the mount point of the visor. When the original visors are removed they must be weighed and removed from the calculation.

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1430000-0)**

**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. 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**

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.

Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1430000-0)

Illustrations and IPC

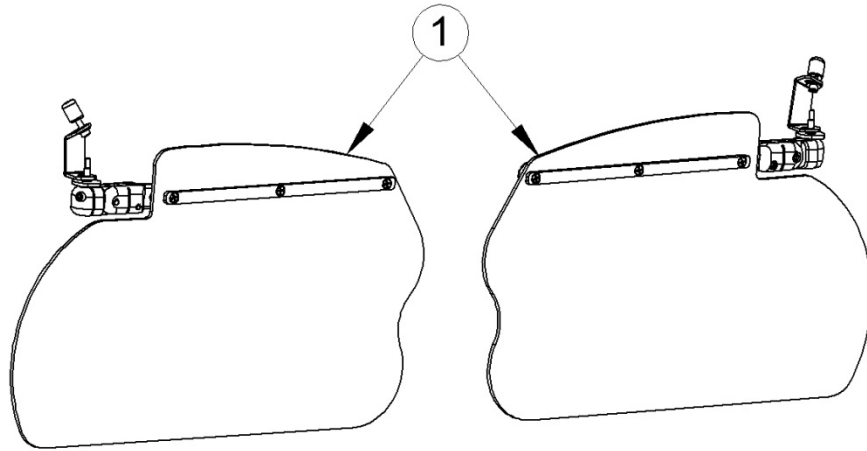


Fig 1

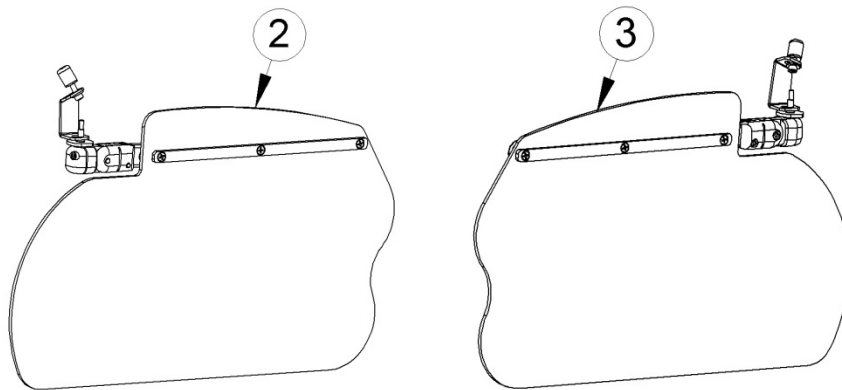


Fig 2

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1430000-0)**

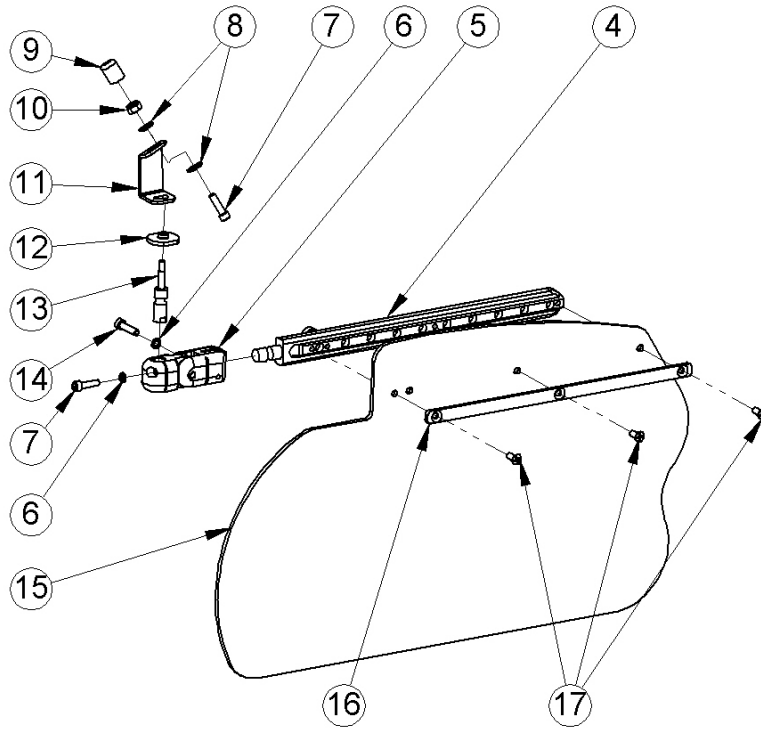


Fig 3

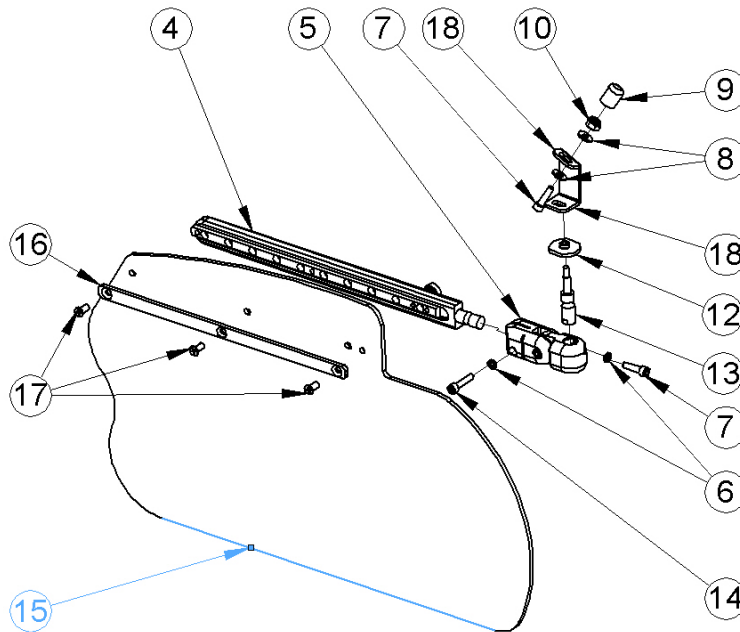


Fig 4

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1430000-0)**

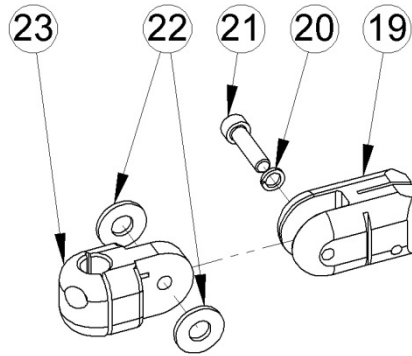


Fig 5

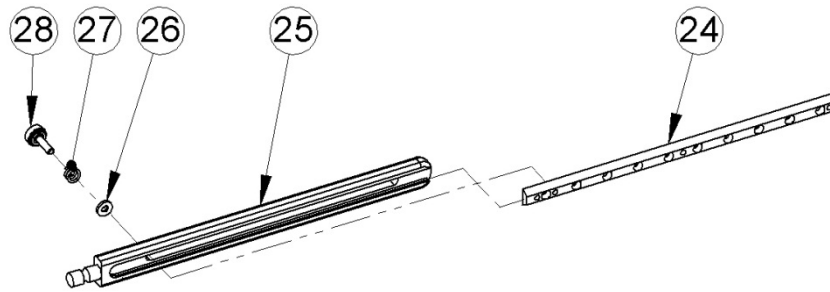


Fig 6

**Rosen Sunvisor Systems CMM / IPC for Sunvisor Assembly  
(p/n R1430000-0)**

**Part List**

<b>Fig. No</b>	<b>Fig. Item</b>	<b>Part Number</b>	<b>Description</b>	<b>Reference</b>	<b>Eff</b>	<b>QTY</b>
1	1	1430000-0	Complete System			1
2	2	1430000-1	Assembly, Pilot Side			1
2	3	1430000-2	Assembly, Copilot Side			1
3,4	4	1010000-5	Slide Assembly – Universal			2
3,4	5	1020100-001	Assembly, Mod Block			2
3,4	6	8HCLW	Washer #8 High Collar Lock			4
3,4	7	MS16995-27B	#8-32 X .625 Hex Socket Head Screw			4
3,4	8	AN960-C8L	Washer #8			4
3,4	9	VC-343-8	Plastic Cap			2
3,4	10	832NLINS	Nut, #8-32 Nylon Insert			2
3	11	1430104-1	Bracket, Pilot			1
3,4	12	1430302	Washer			2
3,4	13	1430202	Mounting Stud			2
3,4	14	MS16995-28B	#8-32 X .75 Hex Socket Head Cap Screw			2
3,4	15	1430401-2	Lens			2
3,4	16	1010003	Lens Strip			2
3,4	17	MS24693-C48BP MS24671-14BP	#8-32 X .375 Flathead Phillips Screw			6
4	18	1430104-2	Bracket, Copilot			1
5	19	1020002-001	Mod Block A			2
5	20	10HCLW	Washer #10 High Collar Lock			2
5	21	MS16996-12B	SCR #10-32 X .75 HEX SHCS			2
5	22	2801-0010	Washer (5710-61-30 Seastrom) SST			4
5	23	1020003-001	Mod Block B			2
6	24	1010002-3	Male Slide Universal			2
6	25	1010001-5	Female Slide Universal			2
6	26	90295A110	Washer Nylon .06 x .405 OD - .175 ID			2
6	27	B-19679	Compression Spring (Red Knob)			2
6	28	99-701	½ Dia Knurled Red Knob 8-32 x .75			2