

United States of America  
Department of Transportation—Federal Aviation Administration  
**Supplemental Type Certificate**

*Number* SH3817NM

*This certificate, issued to* **Rosen Sunvisor Systems  
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 29 of the Federal Aviation Regulations.*

*Original Product—Type Certificate Number:* H9SW  
*Make:* Bell  
*Model:* 222

*Description of the Type Design Change:* Cockpit Sun Visor installation in accordance with FAA approved Rosen Drawing List Number RB 222-00DL, dated November 15, 1986, or later FAA approved revisions.

*Limitations and Conditions:* Approval of this change in type design applies to the above model rotorcraft only. This approval should not be extended to other rotorcraft of this model on which other previously approved modifications are incorporated unless it is determined that the interrelationship between this change and any other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that rotorcraft. A copy of this Certificate and FAA approved Rosen Drawing List Number RB 222-00DL shall be maintained as part of the permanent records for the modified rotorcraft.

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:* November 15, 1986

*Date reissued:* March 24, 2003

*Date of issuance:* March 26, 1987

*Date amended:* March 24, 2003



*By direction of the Administrator*

*Jeffrey A. Morfitt*  
(Signature)

for 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.



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

**Transport Airplane Directorate  
Aircraft Certification Service**

1601 Lind Avenue S.W.  
Renton, Washington 98055-4056

In Reply  
Refer To: 190S-03-200

Rosen Sunvisor Systems  
86365 College View Road  
Eugene, OR 97405

Gentlemen:

Per the transfer endorsements on the following Supplemental Type Certificates (STC), we have reissued these documents in your new name and address with a reissue date of March 24, 2003.

SA1637NM	SA3067NM	SA3650NM	SA4147NM	SR00014SE
SA2128NM	SA3068NM	SA3681NM	SA4148NM	
SA2151NM	SA3301NM	SA3687NM	SA4381NM	
SA2367NM	SA3302NM	SA3688NM	SA4391NM	
SA2383NM	SA3304NM	SA3689NM	SA4960NM	
SA2614NM	SA3305NM	SA3690NM	SA4962NM	
SA2650NM	SA3306NM	SA3691NM	SA4963NM	
SA2652NM	SA3335NM	SA3692NM	SA5136NM	
SA2672NM	SA3336NM	SA3693NM	SA5934NM	
SA2678NM	SA3342NM	SA3694NM	SH2695NM	
SA2917NM	SA3529NM	SA3695NM	SH3533NM	
SA2942NM	SA3597NM	SA3696NM	SH3817NM	
SA3066NM	SA3598NM	SA3850NM	SA00682SE	

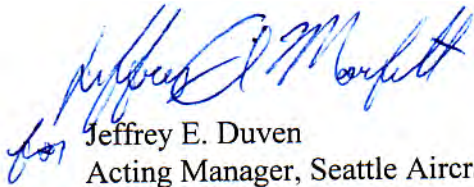
As recipient of this approval, please review your responsibilities under the requirements of Federal Aviation Regulation (FAR) 21.3, regarding the reporting of any failure, malfunction, or defect in any article manufactured under this STC. You are required to report such occurrences except as provided in FAR 21.3(d), to the Manager, Seattle Aircraft Certification Office, at 1601 Lind Ave. SW, Renton, WA 98055-4056. The report should be communicated initially by telephone to the Manager, (425) 917-6400, within 24 hours after it has been determined that the failure has occurred. In addition, written notification to the Manager, Seattle Aircraft Certification Office, ANM-100S, at the above address is required. Federal Aviation Administration (FAA) Form 8010-4 (Malfunction or Defect Report) or any other appropriate format is acceptable in transmitting the required details.

If you plan to manufacture replacement or modification parts for sale in conformance with approved data listed on the STC, you are required to comply with FAR 21.303. A Parts Manufacturer Approval (PMA) may be issued under the provisions of FAR 21.303(d) when you submit a statement certifying you have established the fabrication inspection system as required by FAR 21.303(h). The identification requirements for parts produced under a PMA are in FAR 45.15. Your statement should be in letter form, with reference to the STC number, and should be addressed to the Federal Aviation Administration, Northwest Mountain Region, Attention: Manager, Seattle Manufacturing Inspection District Office, 2500 E. Valley Road, Suite C-2, Renton, WA 98055-4056.

You, as the STC holder, are responsible for any design changes necessary to correct unsafe conditions as well as for submitting those design changes for approval. This requirement is contained in FAR 21.99.

By acceptance of this certificate, you acknowledge that you have read and understand your responsibilities as an STC holder and are in effect certifying that you have received and hold all the available data from the previous holder.

Sincerely,



Jeffrey E. Duven  
Acting Manager, Seattle Aircraft  
Certification Office

Enclosures



**Monorail Sunvisor System**

**For**  
**Bell 222 Helicopter**

Date	Revision	Approved
2/18/22	G	SYS

Drawing List  
**RB222-00 DL**

**Doc. #9040-0142-001**

Drawing	Replaces	Description	Rev
<b>1420000</b>	<b>RB222-300-1</b>	<b>Complete System</b>	<b>B</b>
1420100	RB222-100	Monorail Assembly	A
1420101	RB222-100-1	Monorail	A
1420102	RB222-100-2	End Bracket	A
1420103	RB222-100-3	Mid Bracket	A
1420104	RB222-100-4	Front Bracket	A
<b>1350400</b>	<b>R1350400</b>	<b>Visor Assembly</b>	<b>N</b>
1350401	R1350401	Lens	K
	RB222-200		
1110202		Swivel Nut Plate	E
1120203	R1120203	Swivel, Clamping Block	P
1120000-001	R1120000-001	Complete Clamping Block Assembly	K
1120101-001	R1120101-001	Standard Nut Plate	L
1120102-001	R1120102-001	Clamping Block Body	L
1120104	R1120104-002	Thumb Knob –Standard	M
	<b>KITS</b>		
<b>RCBS-300-11M</b>		<b>Thumb Knob Kit</b>	<b>D</b>
1120104	RCBS-300-11M	Thumb Knob - Standard	M
1130016	PCS-1000-14STZO	E-Clip	C
RCBS-300-18		Spring	
<b>RCBS-100</b>		<b>Clamping Block Assembly</b>	<b>E</b>
1120000-001		Complete Assembly	K
1110202		Plate, Swivel Nut	E
<b>R1350401</b>		<b>Lens Kit</b>	<b>K</b>
9041-0142-001		Installation Instructions	B



## Installation Instructions for Bell 222 Series Monorail Sunvisor Systems (Kit R1420000)

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

Doc: 9041-0142-001

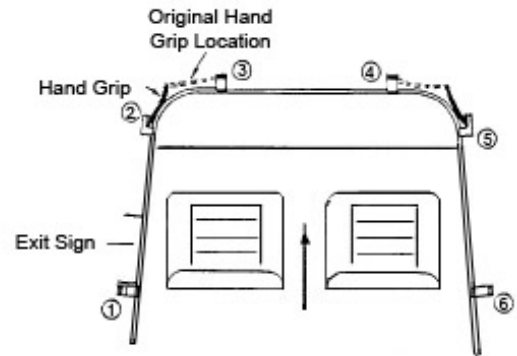
Rev	Date	Approved
B	11/9/10	GH

Please read through these instructions completely before beginning.

### Installation Hardware (included):

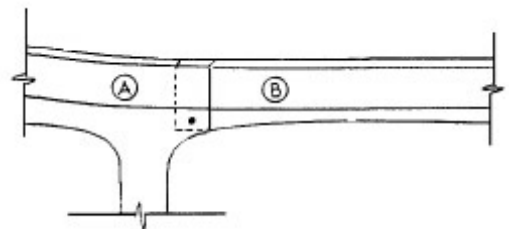
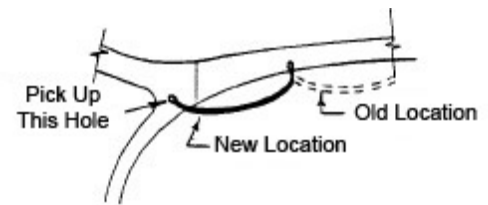
Qty:	(4)	AN526C832R10	#8-32 x 5/8 Truss Head SS Screw
	(2)	AN526C1032R16	#10-32 x 1 Truss Head SS Screw
	(4)	A8K75	#8-32 Rivnut
	(2)	A10K80	#10-32 Rivnut
	(1)	3/32 Hex Key	
	(1)	7/64 Hex Key	
	(2)	PCS-1000-14-STZ	E-Clips

Your instructions will refer to brackets numbered per the following Figure:



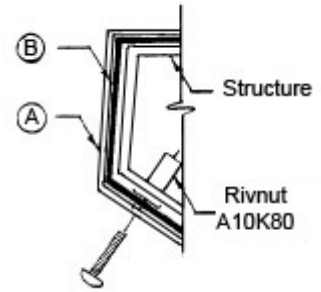
The monorail will run above the door on the sides and has been contoured to travel underneath the front trim with a minimum of clearance (to keep light from coming over the top).

- Remove the inboard screws from the leather hand grips on the front overhead and loosen the outboard screws. (If your helicopter is one of the few without this hand grip, continue to read the instructions.)
- The hand grip will be relocated by swinging the original inboard end so that it now becomes the outboard end. This is to give the rail more clearance. To fasten the hand grip and the #2 and #5 brackets, you will install the A10K80 rivnut in the box structure where the existing hole has already been drilled (to provide clearance for the fastener that is used to hold trim sections A and B together). The rivnut is to be installed in the structure while the trim only needs holes large enough for the head of the rivnut to be slipped through. Before installing the rivnuts, check to make sure that when brackets #3 and #4 are temporarily fastened to the position of the inboard screws that the slots in brackets #2 and #5 align where you will install the rivnuts. Also check that bracket #1 is aft of the exit sign. In the position that you want to install the #10 rivnut, you will notice that Bell may have installed a #6 rivnut in trim section B. If this

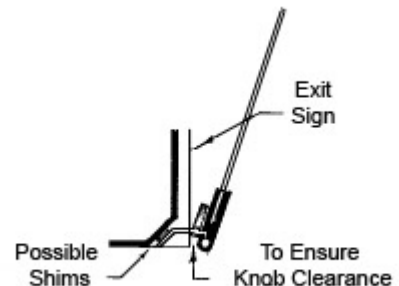
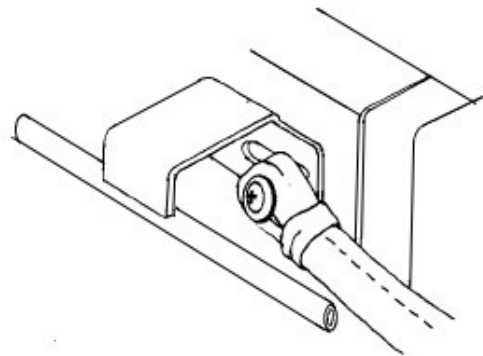


is the case, it is easily knocked out.

- If your Bell 222 does not have hand grips, the location of the #10 rivnut where trim sections A and B meet will be the method by which you locate the rail's position. Without the fastener for the grip, you will need to install the A8K75 rivnut provided to attach brackets #3 and #4. (You can do this in the Royalite since the other four brackets are picking up the structure or you can go into the structure and use a spacer. If you go into the structure you will need longer fasteners.)



- Using the screws from the inboard hand strap, temporarily fasten brackets #3 and #4.
- Using the 10/32 screws provided, temporarily fasten brackets #2 and #5 (don't worry about the hand grip at this time).
- Mark the bracket locations for #1 and #6 and make sure that the bottom of the brackets are in line with the bottom of the 45 slope of the side trim.
- Install the A8K75 rivnuts for brackets #1 and #6 in the box structure while drilling a large enough hole for the head in trim section B. (This trim section B is easy to remove if you want to install the rivnut with the trim off.)
- Reinstall the rail and this time fasten the hand grips between the rail and brackets #2 and #5 using the AN526C832R10's for brackets #1 and #6. Use the washer from the original hand grip screw to hold the hand grip with the AN526C1032R16 provided.
- Check bracket #1 with the visor assembly attached to the rail to ensure that sufficient clearance exists between the thumb tension knob and the exit sign so that there is no contact when the visor is rotated up to stow. If there is contact, shim bracket #1 as required. The visor is transparent so does not interfere with the ability to read or observe the exit sign when the visor is stowed.



## **Operating Instructions**

To operate your visors, loosen the thumb tension knob by turning it counterclockwise, and slide the visor in the desired direction while holding on to the knob. (A snap ring is installed on the rear of the thumb knob to prevent the pilot from inadvertently over-loosening the visor assembly.)

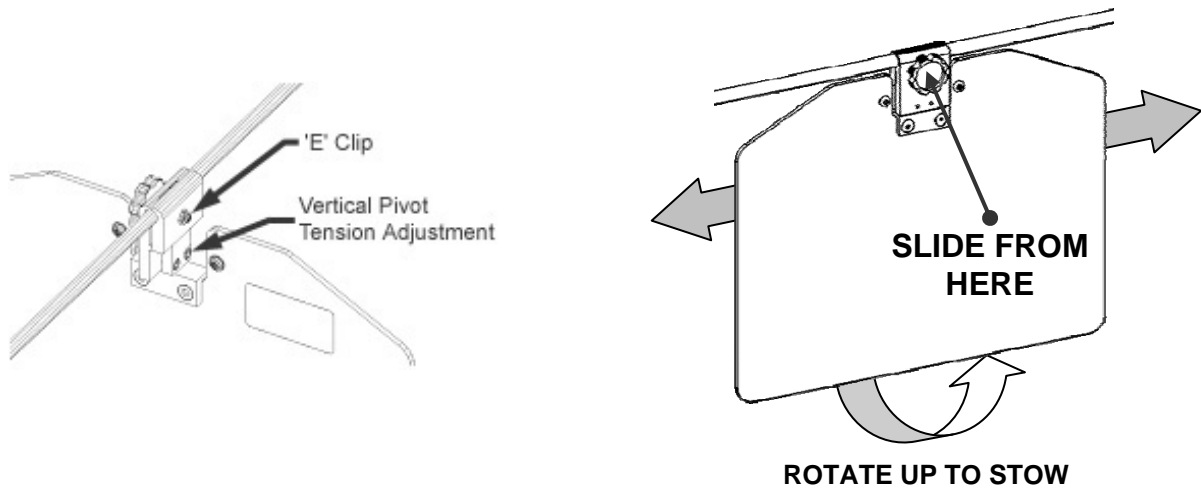
Because of the fairly sharp bends in some parts of the rail, the thumb tension knob must be turned all the way counterclockwise to negotiate these areas.

To lock the visor in place, simply tighten the thumb knob by turning it clockwise.

Your visors incorporate a swivel modification that allows the visor to rotate in the vertical axis. Swivel tension can be increased or decreased by adjusting the set screw on the side of the visor clamping block.

The visor assembly will stow almost anywhere on the rail, but for the most head room, it is suggested that the visor be stowed just forward of the middle side bracket.

To stow the visors simply tighten the thumb tension knob and rotate the visor up. There is a small learning curve in determining how tight the visor should be. After several operations the visor assembly can be stowed with ease and the correct tension used.



The above figures show where to rotate the visor for storage and that the thumb tension knob is held to push/pull the visor assembly.

### **Continued Airworthiness Instructions**

- **(On the ground only)**
  - Periodically clean the lenses with a soft cloth and Rosen Plastic Cleaner, Polisher and Protectant, or mild soap and water. Do not use abrasives on the lens.
  - Periodically adjust the pivot tensions on the visor assemblies.
- Updates to this continued airworthiness section are available on the Rosen Website. ([www.rosenvisor.com](http://www.rosenvisor.com))

The most up to date version of this document is available on the Rosen Website. ([www.rosenvisor.com](http://www.rosenvisor.com))

### **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.