

Supplemental Type Certificate

Number SA4339NM

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 25 of the Federal Aviation Regulations.

Original Product—Type Certificate Number:	A13NM
Make:	Rombardier
Model:	DHC-8-100 Series, DHC-8-200 Series, DHC-8-300 Series and DHC-8-400 Series

Description of the Type Design Change: Installation of a Rosen Sun Visor in accordance with Rosen Drawing List 201R0000, Revision New, dated June 4, 2001, or later FAA approved revision.

Limitations and Conditions: Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to other aircraft of these models 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 effect upon the airworthiness of that aircraft. A copy of this Certificate must be maintained as part of the permanent records for 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: June 3, 1988

Date reissued: October 31, 2002

Date of issuance: July 27, 1988

Date amended: 12/2/88; 3/27/91, 3/23/93; 6/22/01;
10/31/02



By direction of the Administrator

[Handwritten Signature]
(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.



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Rosen Sunvisor Systems
86365 College View Road
Eugene, Oregon
United States of America 97405

Number: SA92-16

Issue No.: 4

Approval Date: February 04, 1992

Issue Date: September 24, 2020

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

DeHavilland DHC-8-101, DHC-8-102,
DHC-8-103, DHC-8-106, DHC-8-201, DHC-8-202,
DHC-8-301, DHC-8-311, DHC-8-314, DHC-8-315,
DHC-8-400, DHC-8-401, DHC-8-402

Canadian Type Certificate or Equivalent:

A-142

Description of Type Design Change:

Installation of adjustable sun visor in cockpit in accordance with STC SA4339NM.

**Installation/Operating Data,
Required Equipment and Limitations:**

Cockpit sun visor installation is to be done in accordance with FAA approved Rosen Master Drawing List 201R0000, Revision M, dated August 2, 2019, or later FAA approved revisions.

Basis of Certification: unchanged from type certificate A-142

-End-

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.



Ihor Szelemej
Senior Aircraft Certification Engineer
For Minister of Transport



Transport
Canada

Transports
Canada

P.O. Box 8550
344 Edmonton Street
Winnipeg, MB R3C 0P6

Your file Votre référence
781-20-9384

Wednesday, September 23, 2020

Our file Notre référence
C-20-0522
SA92-16

Rosen Sunvisor Systems
86365 College View Road
Eugene, Oregon
United States of America, 97405

SUBJECT: Transmittal of Canadian Supplemental Type Certificate (STC)

This Supplemental Type Certificate (STC) is issued to:

Holder:	Rosen Sunvisor Systems	CDN/US TCs: A-142
Make & Model:	Bombardier DHC-8-315, DHC-8-400, DHC-8-401, DHC-8-402, Dehavilland DHC-8-101, DHC-8-102, DHC-8-103, DHC-8-106, DHC-8-201, DHC-8-202, DHC-8-301, DHC-8-311, DHC-8-314	Project Description: Installation of adjustable sun visor in cockpit in accordance with STC SA4339NM.
Approval:	SA92-16 Issue 4	

The enclosed is issued in response the application submitted either through your office or indirectly.

The transfer of this document in the name of another person requires a prior approval from the Minister. For further details, refer to CAR 521.357 which specifies STC transfer procedures.

In accordance with the Bilateral Airworthiness Agreement, it is requested that any defect, malfunction or failure associated with this STC installation which may affect the Airworthiness of the modified aeronautical product, be communicated to Transport Canada.

Respectfully,

Ihor Szelemej
Aircraft Certification Engineer
Prairie and Northern Region
Phone: 204-333-2007
Email: neil.smith@tc.gc.ca

Enclosure(s)

CC: FAA Seattle ACO Branch

Canada 



European Aviation Safety Agency

SUPPLEMENTAL TYPE CERTIFICATE

EASA.IM.A.S.03173

This Supplemental Type Certificate is issued by EASA, acting in accordance with Regulation (EC) No. 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation and in accordance with Commission Regulation (EC) No. 1702/2003 to

Rosen Sunvisor Systems LLC

86365 College View Road

Eugene

OR 97401

United States

and certifies that the change in the type design for the product listed below with the limitations and conditions specified meets the applicable Type Certification Basis and environmental protection requirements when operated within the conditions and limitations specified below:

Original Product Type Certificate Number: EASA.IM.A.191; TCCA A-142

Type Certificate Holder: Bombardier Inc.

Model: DHC-8-102, -103, -106
DHC-8-201, -202
DHC-8-301, -311, -314, -315
DHC-8-401, -402

Original STC Number: FAA STC SA4339NM

Description of Design Change:

Sunvisor System

FAA STC SA4339NM dated October 31. 2008

Associated Technical Documentation:

Installation in accordance with Rosen Drawing List 201R0000, Revision D

*) or later revisions of the above listed documents approved by EASA in accordance with EASA ED Decision 2004/04/CF (or subsequent revisions of this decision).

Limitations and Conditions:

1. Prior to installation of this modification the installer must determine that the interrelationship between this modification and any other previously installed modification will introduce no adverse effect upon the airworthiness of the product.
2. The installation of this modification by third persons is subject to written permission of the approval holder and holding and disposal of the approved appropriate documentation.

This Certificate shall remain valid unless otherwise surrendered or revoked.

For the European Aviation Safety Agency,

Date of issue: 08 May 2009


Henry WILDEGANS
Project Certification Manager
Large Aeroplanes

STC – EASA.IM.A.S.03173 – Rosen Sunvisor Systems LLC

国土交通省

追加型式設計承認書

第STC-165-HQT号

- | | | |
|---|--|--|
| 1 | 航空機の種類 | 飛行機 |
| 2 | 航空機の型式 | デハビランド・エアクラフト・オブ・カナダ式 DHC-8-100,
DHC-8-200, DHC-8-300, DHC-8-400 系列型 |
| 3 | 航空機の耐空類別 | 飛行機 輸送T |
| 4 | 追加型式設計の内容 | Installation of Rosen Sun Visor |
| 5 | 設計者氏名又は名称 | Rosen Sunvisor Systems LLC |
| 6 | 設計者住所 | 86365 College, View Road, Eugene, OR, USA, 97405 |
| 7 | 備考 | 適用基準：デハビランド・エアクラフト・オブ・カナダ式 DHC-8-100, -200, -300
及び-400 型系列型の型式証明データシート No.43 に規定される基準
に FAA STC 承認書 No.SA4339NM (2002年10月31日付) に規定さ
れる基準を追加した基準。
作業区分：小改造
参 考：FAA STC No.SA4339NM (2002年10月31日付) と同等である。
制限事項等については、上記 FAA Supplemental Type Certificate の
“Limitations and Conditions” に従うこと。 |
| 8 | 上記の追加型式設計は、航空法（昭和27年法律第231号）第10条第4項の基準に
適合するものであることを承認する。 | |

国土交通大臣

赤羽 一 嘉



発行年月日 令和2年3月25日

注 備考には適用される航空法第10条第4項の基準等について記入することとする。

Supplemental Type Certificate

Number STC-165-HQT

1. *Kind of aircraft*; Airplane
2. *Model of aircraft*; De Havilland Aircraft of Canada Model
DHC-8-100, DHC-8-200, DHC-8-300 and DHC-8-400Series
3. *Airworthiness category*; Airplane, Transport Category
4. *Content of Supplemental Type Design*; Installation of a Rosen Sun Visor
5. *Name or title of designer*; Rosen Sunvisor Systems LLC
6. *Address of designer*; 86365 College, View Road, Eugene, OR, USA, 97405
7. *Remarks*;
Certification Basis; Certification Basis specified on the Japan Type Certificate Data Sheet No.43 for De Havilland Aircraft of Canada Model DHC-8-100,DHC-8-200,DHC-300 and DHC-400 Series and "Certification Basis" described in the FAA STC.No. SA4339NM dated October 31, 2002.
Classification of Work; Minor Alteration.
Reference; Equivalent to FAA STC.No. SA4339NM dated October 31, 2002.
The Installer must follow "Limitations and Conditions" described in the above FAA Supplemental Type Certificate.
8. *This is to certify that the above-mentioned supplemental type design complies with the standards of Article 10 paragraph 4 of Civil Aeronautics Law of Japan.*

AKABA Kazuyoshi
Minister of Land, Infrastructure, Transport and Tourism

Date of issue; March 25, 2020

Note: This is a translation of the Approval of Supplemental Type Certificate issued in Japanese MLIT and shall not be construed as an official text.



**DeHavilland Dash 8
Monorail System**

Date	Revision	Approved
8/2/19	M	SYS

**Drawing List
201R0000**

Doc. # 9040-0111-001

R1110000				
-001	Drawing Number	Replaces	Description	Rev
◆	1110000-001	RDH-8-300-1 R1110000-001	Complete Monorail System	F
1	1110100-001	RDH-8-100-1	Monorail Assembly	D
1	1110100-002	RDH-8-100-2	Monorail Assembly	D
1	1110104-001		Monorail	D
2	1110101	RDH-8-100-5	Front Bracket	C
2	1110102	RDH-8-100-4	Mid Rail Bracket	C
4	1110103	RDH-8-100-3 R1110103	Aft Bracket	F
2	1110300-001	RDH-8-300-3 R1110300-001	Visor Assembly	F
2	1110201-001	RDH-8-200-1 R1110201-001	Lens	F
2	1110202		Swivel Nut Plate	C
2	1120000-001	R1120000-001	Complete Assembly - Original	K
2	1120101-001		Nut Plate Standard	L
2	1120102-001		Clamping Block Body	L
2	1120104-002	RCBS-300-11M	Thumb Knob - Standard	M
2	1120203		Swivel, Clamping Block, Standard Monorail	P
1	9041-0111-001		Installation Instructions	C

Continued ...



**DeHavilland Dash 8
Monorail System**

**Drawing List
201R0000**

Doc. # 9040-0111-001

R1110000				
-002	Drawing Number	Reference Number	Description	Rev
◆	1110000-002	RDH-8HUD-300-1 R1110000-002	Complete Monorail HUD System	C
1	1110100-002	RDH-8-100-2	Monorail Assembly	D
1	1110104-001		Monorail	D
1	1110100-003		Monorail Assembly	B
1	1110104-003		Monorail HUD	B
1	1110101	RDH-8-100-5	Front Bracket	C
2	1110102	RDH-8-100-4	Mid Rail Bracket	C
4	1110103	RDH-8-100-3 R1110103	Aft Bracket	F
1	1110300-001	RDH-8-300-3 R1110300-001	Visor Assembly	F
1	1110201-001	RDH-8-200-1 R1110201-001	Lens	F
1	1110202		Swivel Nut Plate	C
1	1110300-002	RDH-8-300-9 R1110300-002	Visor Assembly - HUD	F
1	1110201-002	RDH8-200-1HUD R1110201-002	Lens - HUD	E
1	1150202		Plate, Top	M
1	1150203		Plate, Nut	M
1	1120204		Swivel, Nut Plate	F
1	1150304		Insert, Universal Neck	N
2	1120000-001	R1120000-001	Complete Assembly - Original	K
2	1120101-001		Nut Plate Standard	L
2	1120102-001		Clamping Block Body	L
2	1120104-002	RCBS-300-11M	Thumb Knob - Standard	M
2	1120203		Swivel, Clamping Block, Standard Monorail	P
1	9041-0111-001		Installation Instructions	C

Continued ...



**DeHavilland Dash 8
Monorail System**

**Drawing List
201R0000**

Doc. # 9040-0111-001

R1110000				
-003	Drawing Number	Reference Number	Description	Rev
◆	1110000-003	R1110000-003	Complete Monorail System	D
1	1110400-005		Monorail Assembly - Pilot Side	H
1	1110400-006		Monorail Assembly- Copilot Side	J
1	1110104-005		Monorail	E
2	1110102		Mid Rail Bracket	C
4	1110103	R1110103	Aft Bracket	F
1	1110105		Front Bracket - Pilot Side	C
1	1110106		Front Bracket - Copilot Side	C
2	1110300-003		Knurled End Stop Assembly	C
2	1110108-002		Knurled End Stop - Powder Coated	E
2	1110108-001		Knurled End Stop	E
2	1110300-001	R1110300-001	Visor Assembly	F
2	1110201-001	R1110201-001	Lens	F
2	1110202		Swivel Nut Plate	C
2	1120000-001	R1120000-001	Complete Assembly - Original	K
2	1120101-001		Nut Plate Standard	L
2	1120102-001		Clamping Block Body	L
2	1120104-002	RCBS-300-11M	Thumb Knob - Standard	M
2	1120203		Swivel, Clamping Block, Standard Monorail	P
1	9041-0111-001		Installation Instructions	C

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**DeHavilland Dash 8
Monorail System**

**Drawing List
201R0000**

Doc. # 9040-0111-001

1110000				
-005	Drawing Number	Reference Number	Description	Rev
◆	1110000-005	R1110000-005	Complete Monorail HUD System	C
1	1110400-007		Monorail Assembly - HUD	F
1	1110104-007		Monorail - HUD	D
1	1110400-006		Monorail Assembly –Copilot Side	J
1	1110104-005		Monorail	E
1	1110102		Mid Rail Bracket	C
4	1110103	R1110103	Aft Bracket	F
1	1110106		Front Bracket - Copilot Side	C
1	1110109		Front Bracket - HUD	C
1	1110110	R1110110	Rail Stop	D
2	1110300-003		Knurled End Stop Assembly	C
2	1110108-002		Knurled End Stop - Powder Coated	E
2	1110108-001		Knurled End Stop	E
1	1110300-001	R1110300-001	Visor Assembly	F
1	1110201-001	R1110201-001	Lens	F
1	1110202		Swivel Nut Plate	C
1	1110300-002	RDH-8-300-9 R1110300-002	Visor Assembly - HUD	F
1	1110201-002	RDH8-200-1HUD	Lens - HUD	E
1	1150202		Plate, Top	M
1	1150203		Plate, Nut	M
1	1120204		Swivel Nut Plate	F
1	1150304		Insert, Universal Neck	N
2	1120000-001	R1120000-001	Complete Assembly - Original	K
2	1120101-001		Nut Plate Standard	L
2	1120102-001		Clamping Block Body	L
2	1120104-002	RCBS-300-11M	Thumb Knob - Original (Powder Coated)	M
2	1120203		Swivel, Clamping Block, Standard Monorail	P
1	9041-0111-001		Installation Instructions	C

Continued...



**DeHavilland Dash 8
Monorail System**

**Drawing List
201R0000**

Doc. # 9040-0111-001

1110000				
-006	Drawing Number	Reference Number	Description	Rev
◆	1110000-006	R1110000-006	Complete Monorail HUD System	D
1	1110400-006		Monorail Assembly- Copilot Side	J
1	1110104-005		Monorail	E
1	1110400-009		Monorail Assembly - HUD	H
1	1110104-009		Monorail - HUD	D
1	1110102		Mid Rail Bracket	C
4	1110103	R1110103	Aft Bracket	F
1	1110106		Front Bracket - Copilot Side	C
1	1110111		Front Bracket - HUD	B
2	1110300-003		Knurled End Stop Assembly	C
2	1110108-002		Knurled End Stop - Powder Coated	E
2	1110108-001		Knurled End Stop	E
1	1110300-001	R1110300-001	Visor Assembly	F
1	1110201-001	R1110201-001	Lens	F
1	1110202		Swivel Nut Plate	C
1	1110300-002	R1110300-002	Visor Assembly - HUD	F
1	1110201-002	R1110201-002	Lens - HUD	E
1	1150202		Plate, Top	M
1	1150203		Plate, Nut	M
1	1120204		Swivel Nut Plate	F
1	1150304		Insert, Universal Neck	N
2	1120000-001	R1120000-001	Complete Assembly - Original	K
2	1120101-001		Nut Plate Standard	L
2	1120102-001		Clamping Block Body	L
2	1120104-002	RCBS-300-11M	Thumb Knob - Original (Powder Coated)	M
2	1120203		Swivel, Clamping Block, Standard Monorail	P
1	9041-0111-001		Installation Instructions	C



**DeHavilland Dash 8
Monorail System**

**Drawing List
201R0000**

Doc. # 9040-0111-001

KITS				
	Drawing Number	Reference Number	Description	Rev
	RCBS-300-11M		Thumb Knob Kit	
1	1120104-002	RCBS-300-11M	Thumb Knob - Original	M
1	1130016	PCS-1000-14STZO	E-Clip	C
1	RCBS-300-18		Spring	NA
	RCBS-100		Clamping Block Assembly	
1	1120000-001		Complete Assembly	K
1	1110202		Plate, Swivel Nut	C
	832X716FSHCSSBP		8-32 x 7/16 FSHC B/P Screw	
	832X1/4BSHCSSBP		8-32 x 1/4 BSHC B/P Screw	
1	R1110201-001		Lens	F
1	R1110201-002		Lens, HUD	E

Installation Instructions for DeHavilland Dash 8 Monorail Systems

Rev	Date	Approved
C	6/12/2008	GH

(R1110000-001)(R1110000-002)
(R1110000-003)(R1110000-005)(R1110000-006)

This is an FAA STC'd installation requiring a logbook entry upon completion.

Doc: 9041-0111-001

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

Installing your Rosen Sunvisor System is easily performed and should take approximately 15 to 30 minutes.

Tools required:

Screwdriver

Installation Hardware (included):

Qty:	(7) or (8)*	AN960-C6L	Washer
	(7) or (8)*	AN526C632R12	#6-32 x 3/4 Screw

*(The HUD Systems will have seven (7) washers and screws: R1110000-002, R1110000-005 R1110000-006)

Your Rosen monorail sunvisor system consists of two rails and two visor assemblies as shown in Figure 1. The HUD style monorail systems looks identical to the standard monorail system except that the rail has been cut 1-1/2" past bracket # 3, eliminating bracket # 4. The Pilot Side Rail does not extend beyond the bracket on the R1110000-006 system.

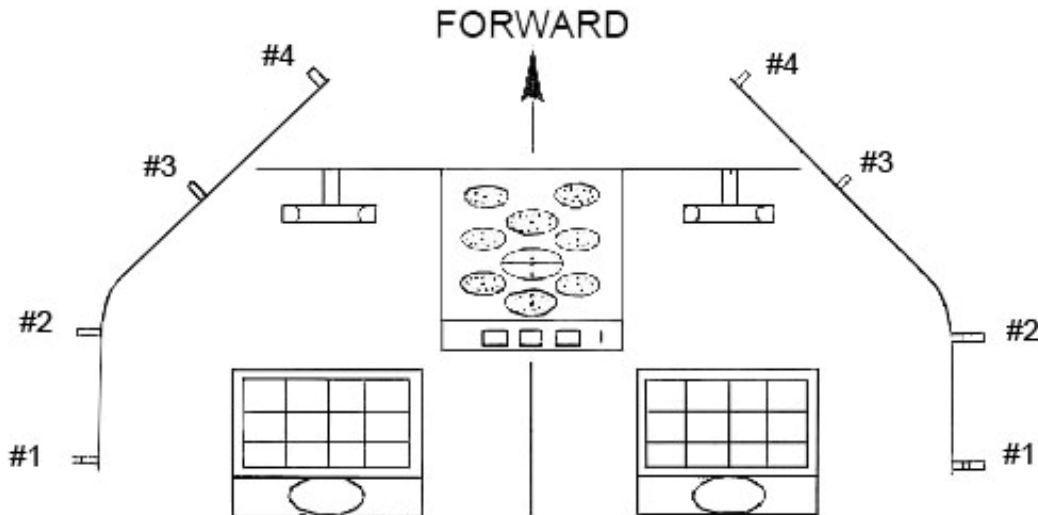


Figure 1

Remove the pilot's side from the shipping container (pilot's side is the unit with aft brackets as shown in Figure 2.)

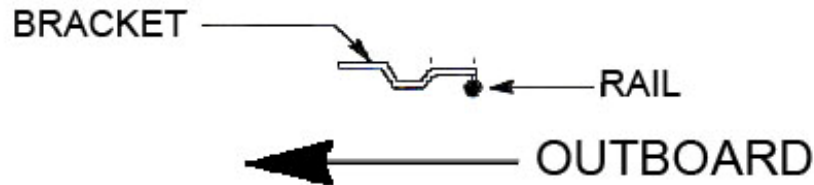


Figure 2

Loosely hold the rail up to the top side wall and it will be apparent which #6 fasteners need to be removed to install the system. Figure #3 is a rough idea of the exposed fasteners in your trim.

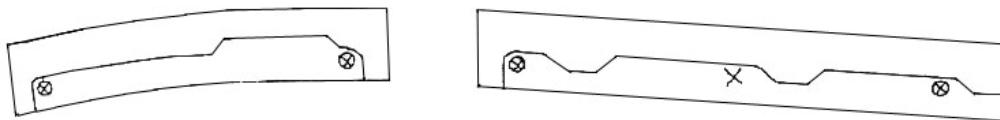


Figure 3

Remove the fasteners indicated and install the pilot's rail using the AN526C632R12 machine screws and AN960-C6L washers provided.

If the rail needs to be bent slightly, remember that the process of silver soldering the brackets to the tubing has annealed the 330 brass at that point and it will bend most easily there. A small bend will work but a large one will cause the chrome plating to wrinkle. **If a slight additional bend is necessary, use care.**

Repeat the same process with the co-pilot's rail.

Mount each visor assembly with the thumb tension inboard.

Operation and Care Instructions

- With the thumb knob inboard place both visor assemblies on the monorail, one on either side of the aircraft.
- To operate the visors loosen the thumb tensioning knob by turning in the counterclockwise direction until the visor can be slid in the desired direction while holding the knob. (A snap ring is installed on the rear of the thumb knob to prevent inadvertent over-loosening of the knob.) The unique split clamping block design allows travel past the mounting brackets.
- To lock the visors in place simply tighten the thumb knob by turning in the clockwise direction.

- To move the visor, slide by holding the thumb screw and **NOT** the lens!
- The visor assembly is equipped with a swivel action so that the visor can be rotated in the vertical axis. Rotational tension can be increased or decreased by simply adjusting the two (2) screws on the back of the clamping block assembly with provided hex keys. A small adjustment of the screws will change the tension drastically. (See Figure 4).

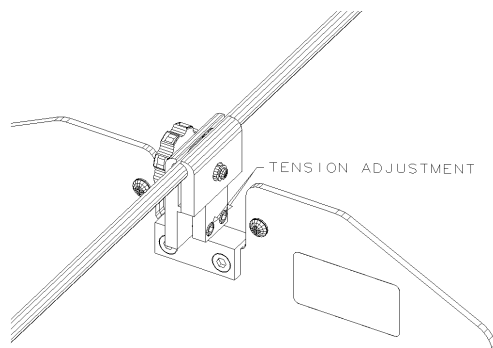


Figure 4

- The visors can be stored by tightening the thumb tension knob and rotating the lens up. In the Dash 8, the best position is approximately 2 to 3 inches forward of the 2nd aft bracket (Bracket #2). The lens has been shaped to fit between the speaker and the light control. Some may want to store the lens to the aft while still down.
- To stow the visors simply tighten the thumb knob and rotate the visor upward. 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 at an appropriate tension.

Continued Airworthiness Instructions:

- **(On the ground only)**
 - Periodically clean the lenses with Rosen Cleaner, Polisher and Protectant, or a soft cloth, 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)

The most up to date version of this document is available on the Rosen Website. (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.