

Instructions for Continued Airworthiness

3M™ Polyurethane Protective Light Lens Boots

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1.0 INTRODUCTION

1.1 PURPOSE

The purpose of these Instructions for Continued Airworthiness (ICA) is to provide the owner/operators with the information necessary to ensure proper installation and maintenance of 3M's light lens boots. These instructions serve as the principal manual for installation and maintenance of these products but must be used in conjunction with 3M document number Record-06-768898, *3M™ Polyurethane Protective Light Lens Boots, Installation and Maintenance Instructions* (Section 1.9.2).

These Instructions for Continued Airworthiness have been authored in compliance with FAA Regulations and Orders for their preparation (Section 1.9.1).

NOTE

These Instructions for Continued Airworthiness must be placed in the aircraft operator's maintenance manual and incorporated into the operator's scheduled maintenance program.

1.2 INSTALLATION DESCRIPTION

The purpose of light lens boots is to protect and prevent damage to aircraft light lenses. The boots prevent damage caused by high velocity impacts with environmental effects such as rain, sand, dust, and smog.

3M's protective light lens boots are manufactured from an adhesive-backed, ultraviolet stable polyurethane material formed over rigid molds that replicate the light lens surface contours for installation eligible make and model airplanes. Figure 1 below depicts a light lens boot being installed.



Figure 1
In Process Installation of Light Lens Boot

1.3 PROGRAM FOR THE DISTRIBUTION OF CHANGES TO THESE INSTRUCTIONS

Significant changes to these ICA are envisioned only in the event of a change to the components that comprise the protective boots which results in modification of any of the guidance in this document. In the case of significant changes, the latest version of these instructions will be distributed directly to the aircraft owner/operator in hard copy and/or electronic format upon completion of the changes. For minor typographical or grammatical changes where no functional or operational characteristics are affected, no notice of change will be made. If the change is of a more severe nature and is considered critical to flight safety or system operation, the FAA will be notified in accordance with 14 CFR 21.3, *Reporting of Failures, Malfunctions and*

Defects. Upon determination by the FAA, an Airworthiness Directive may be issued describing the nature of the change, including instructions regarding document updates and any additional service requirements.

1.4 APPLICABILITY

These Instructions for Continued Airworthiness are applicable to those aircraft makes and models listed on the FAA Approved PMA Supplement(s) the articles described herein.

1.5 DEFINITIONS

Airworthiness Directive – Airworthiness Directives are legally enforceable rules issued by the FAA in accordance with 14 CFR 39 to correct an unsafe condition in a product. 14 CFR 39 defines a product as an aircraft, aircraft engine, propeller, or appliance.

Parts Manufacturer Approval (PMA) – A Parts Manufacturer Approval is a combined design and production approval for modification and replacement articles. It allows a manufacturer to produce and sell these articles for installation on type certificated products.

1.6 ABBREVIATIONS

CFR – United States Code of Federal Regulations

FAA – United States Federal Aviation Administration

ICA – Instructions for Continued Airworthiness

PLM – Product Lifecycle Management

PMA – Parts Manufacturer Approval

1.7 WARNINGS, CAUTIONS AND NOTES

Warnings, cautions, and notes may be used throughout this manual to emphasize important and critical instructions as follows:

WARNING

**AN OPERATING PROCEDURE, PRACTICE, ETC.,
WHICH, IF NOT CORRECTLY FOLLOWED,
COULD RESULT IN PERSONAL INJURY OR LOSS OF LIFE**

CAUTION

**AN OPERATING, PROCEDURE, PRACTICE, ETC.
WHICH, IF NOT STRICTLY OBSERVED,
COULD RESULT IN DAMAGE TO, OR DESTRUCTION OF EQUIPMENT**

NOTE

An operating procedure, condition, etc., which is essential to highlight

1.8 UNITS OF MEASUREMENT

United States customary units of measurements are utilized in this and referenced documents. Equivalent metric units of length are enclosed in parentheses where important.

1.9 REFERENCES

1.9.1 Federal Aviation Administration

14 CFR 21.3	Reporting of Failures, Malfunctions and Defects
14 CFR 21.41	Type Certificates
14 CFR 21.50	Instructions for Continued Airworthiness and Manufacturer's Maintenance Manuals Having Airworthiness Limitations Sections
14 CFR 25.1529	Instructions for Continued Airworthiness
14 CFR 25 Appendix H	Instructions for Continued Airworthiness
14 CFR 39	Airworthiness Directives
Order 8110.54	Instructions for Continued Airworthiness Responsibilities, Requirements and Contents

1.9.2 3M Company

Record-06-768898 3M™ Polyurethane Protective Light Lens Boots, Installation and Maintenance Instructions

1.10 CONTROL AND OPERATION INFORMATION

NOT APPLICABLE – This section is not applicable as the light lens boots described herein in no way directly, or indirectly, contribute to the control or operation of the aircraft models upon which they are installed.

1.11 SERVICING INFORMATION

NOT APPLICABLE – This section is not applicable as the light lens boots described herein do not require servicing to maintain their continued airworthiness.

2.0 MAINTENANCE INSTRUCTIONS

2.1 SCHEDULING INFORMATION

The light lens boots described herein do not require periodic inspection, cleaning, adjustment, test, etc. to maintain their continued airworthiness. Replacement may occur as determined necessary during ordinary aircraft maintenance activities.

2.2 RECOMMENDED OVERHAUL PERIODS

As with any product, environmental factors, age and use affect the materials and performance of the light lens boots described herein. Typically, the manufacturer recommends replacing these at approximately 5 (five) year intervals. Use in harsh environments may necessitate more frequent replacement.

This replacement interval, however, is optional, at the owner/operator's discretion, and is in no way mandatory to achieve the continued operational safety of the aircraft.

2.3 INSPECTION PROGRAM

NOT APPLICABLE – This section is not applicable as the light lens boots described herein do not require a periodic inspection to maintain their continued airworthiness.

2.4 TROUBLESHOOTING

Damaged part criteria for the light lens boots described herein are presented in 3M document number Record-06-768898, Section 5.0.

2.5 ORDER AND METHOD FOR REMOVAL AND REPLACEMENT

Part removal and part replacement is accomplished in accordance with 3M document Record-06-768898, Sections 7.0 and 8.0, respectively.

2.6 SYSTEMS TESTING

No systems testing is required to ensure the continued airworthiness of the light lens boots described herein.

2.7 WEIGHING AND DETERMINING CENTER OF GRAVITY

Installation of the light lens boots described herein does not measurably affect the weight nor center of gravity of the aircraft upon which they are installed.

2.8 PARTS AND CONFIGURATION CONTROL

All owner/operators who purchase the light lens boots described herein for installation aboard an aircraft receive an electronic copy, or hard copy if desired, of the Installation and Maintenance Instructions, (Section 1.9.2). This document is utilized by owner/operators to identify the methods of installation upon an aircraft, to correctly identify damage types and actions, to order additional materials from 3M, etc. 3M manages these documents using its Product Lifecycle Management (PLM) configuration management system. Significant changes to this document will be distributed to all owner/operators in accordance with Section 1.3.

3.0 ACCESS

The light lens boots described herein are installed on the exterior surfaces of the airplane. No modification of the airplane is required to gain access for inspection or installation.

4.0 SPECIAL INSPECTION TECHNIQUES

NOT APPLICABLE – The light lens boots described herein do not require any special inspection techniques to determine their suitability for their continued use or replacement.

5.0 PROTECTIVE TREATMENTS

NOT APPLICABLE – The light lens boots described herein do not require any protective treatments to be applied to their, or the airplane's, surfaces for their installation, maintenance, removal, or replacement.

6.0 FASTENERS

NOT APPLICABLE – The light lens boots described herein do not require the use of fasteners of any type.

7.0 SPECIAL TOOLS

A "3M Aerospace Yellow Squeegee" is recommended to facilitate installation of the light lens boots described herein as described in 3M document Record-06-768898, Section 14.0.

8.0 SYSTEMS WIRING DIAGRAMS

NOT APPLICABLE – system schematics and wiring diagrams are not applicable for the installation of the light lens boots described herein.

9.0 AIRWORTHINESS LIMITATIONS

“The Airworthiness Limitations section is FAA-approved and specifies maintenance required under Sec. 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved.”

No airworthiness limitations are imposed on an aircraft because of the installation of the light lens boots described herein.

Further, the repair or alteration of any aircraft using the light lens boots described herein, and the procedures described in this, and associated documents, does not constitute an Airworthiness Authority installation approval which is the responsibility of the aircraft owner/operator to obtain prior to an aircraft's return to service.

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10.0 MANUFACTURER CONTACT INFORMATION

Aircraft owner/operators may contact the manufacturer at:



3M Company

3M Corporate Headquarters
3M Center
St. Paul, MN 55144-1000

3M Aerospace Customer Service
1-800-235-2376 Call Monday - Friday
8AM to 5PM Central Time

Website: www.3M.com/Aerospace

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11.0 REVISION HISTORY

Page No.	Version	Description of Revision
All	1	Initial Issue