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INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

FOR

P176 DIMMER POWER SUPPLY

G13075

FOR

EUROCOPTER MODEL AS350 HELICOPTERS

Report No.: ICA107-5

STC No.: SH4747NM

APPROVED BY: C. Bonar

Rev. N/C DATE: 09/02/10

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INSTRUCTIONS FOR CONTINUED AIRWORTHINESS	G13075	ICA107-5 Rev. N/C 09/02/10

DETAILS OF REVISIONS

<u>REV.</u>	<u>DATE</u>	<u>PAGE</u>	<u>DESCRIPTION</u>	<u>APPROVED</u>
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RECORD OF SERVICE BULLETINS

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None

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LIST OF FIGURES

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None

LIST OF APPLICABLE DOCUMENTS

Document Number Description

None



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Section 1.0 Introduction

1.1 Scope

This manual provides description, operation, removal, inspection, and installation, for the P176 Dimmer Power Supply.

1.2 Purpose

The purpose of this manual is to maintain the P176 Dimmer Power Supply in peak operating efficiency with the greatest service life.

1.3 Revision Control Procedure

All revisions to this document shall be identified in the Details of Revisions. All pages will be summarized on page 2, "List of Effective Pages."

1.4 Service Difficulty Reporting

A record of sales shall be maintained by Geneva Aviation. Any changes to these instructions resulting from service difficulties (ref: 14 CFR § 21.3) shall be distributed to all previous recipients.

1.5 Applicability

This manual shall be used to maintain the P176 Dimmer Power Supply for Eurocopter AS350 series Helicopters manufactured Post-MOD 350A07-1182.

1.6 Abbreviations and Units of Measure

in	=	inches
lbs	=	pounds
P/N	=	part number
I/N	=	item number
LH	=	left hand
RH	=	right hand

1.7 Orientation

All references to direction, such as left, right, up, down, forward and aft, are in reference to the airframe. Forward is toward the nose of the aircraft, etc.



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1.8 Precautions

The following precaution definitions will be used to indicate the seriousness of the hazard or condition.

WARNING: May be a maintenance procedure, practice, condition, etc., which could result in personal injury or loss of life.

CAUTION: May be a maintenance procedure, practice, condition, etc., which could result in damage or destruction of equipment.

NOTE: May be a maintenance procedure, practice, condition, etc., or a statement that needs to be highlighted

1.9 Distribution

This manual will be distributed to end users (or their mechanics or maintenance departments). A copy of this ICA shall be provided by Geneva Aviation with each kit sold.

1.10 Description

Geneva Aviation P176 (G13075) Dimmer Power Supply is designed as a direct plug-in replacement for Eurocopter P/N 55670 used in all AS350 models manufactured Post-MOD 350A07-1182. The Geneva Dimmer provides the following added features over the factory unit to improve reliability and safety:

- Improved circuitry with short circuit protection. A short in the post lights or console lights will not damage the unit.
- Thermally protected.
- Glass fuses have been replaced with automatic resetting fuses.
- Lighter weight.
- Improved mounting design for easier installation.

Section 2.0 Airworthiness Limitations

There are no Airworthiness Limitations associated with the STC.

The Airworthiness Limitation Section is FAA approved and specifies inspections and other maintenance required under 14 CFR Part 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.



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Section 3.0 Inspection Requirements and Overhaul Schedule

3.1 Inspection Requirements

3.1.1 500 Hour Inspection

Inspect all fasteners and hardware for security and condition.

3.1.2 6 year Inspection

- a. This inspection should coincide with the primary 6 year inspection for the aircraft.
- b. Remove the P176 Dimmer Power Supply from the aircraft. See Section 4.0.
- c. Inspect all sheet metal components for damage and corrosion. If damage or excessive corrosion is found, replace the affected parts per Section 4.0. Corrosion that has penetrated more than 0.02" is cause for replacement of sheet metal components.
- d. Inspect all wiring for damage and proper security. Any wires that are damaged need to be repaired or completely replaced.
- e. Reinstall dimmer per Section 4.0, and return the aircraft to operational condition.

3.2 Overhaul Schedule

There is no Overhaul Schedule for this kit.



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Section 4.0 Removal, Inspection and Re-Installation

4.1 Removal

- 4.1.1** Follow all safety precautions and procedures as called out in the Eurocopter Maintenance Manuals before servicing the Power Supply. Be sure to disconnect the battery power before disconnecting the Dimmer Power Supply. Remove the LH side panel from the instrument panel pedestal to gain access to the Power Supply.
- 4.1.2** Disconnect the cable harness from the Dimmer Power Supply.
- 4.1.3** Remove the (4ea) 4mm screws holding the Dimmer Power Supply onto the avionics shelf and remove Power Supply.

4.2 Inspection

CAUTION

The P176 Dimmer Power Supply contains a circuit board assembly. Like most electronic devices, these may be subject to damage by electrostatic discharge (ESD). Inspection of the P176 Dimmer Power Supply should follow the guidelines in AC43.13-1b Par 12-2 and AC 43-206 Par 905, which are summarized below:

When removing ESD-sensitive equipment from the aircraft, the aircraft should be grounded and power removed. Prior to disconnecting the cables from the equipment, personnel should touch the metal case of the equipment to equalize any electrostatic potential. Once the cables are disconnected, conductive dust caps or conductive grid tape should be placed on the connector receptacles.

Circuit cards and components should be packaged in ESD-protective packaging prior to leaving the ESD workstation. Static shielding bags which have a static-dissipative inner layer and a conductive outer layer are used for this purpose. They should be noncorrosive and should zip-lock or heat seal closed. Cushion wrap (bubble wrap) used around circuit cards should also be made of static-dissipative material.



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- 4.2.1** Inspect the metal parts of the dimmer enclosure for cracks or excessive corrosion. If any of the parts are cracked or excessively corroded (refer to Section 3.1.2c for corrosion limits), the dimmer should be returned to the factory for repair.
- 4.2.2** The Dimmer contains no internal user serviceable parts. If it is inoperable, it should be returned to the factory for service.
- 4.2.3** The Dimmer uses standard aircraft wiring harness. Refer to the aircraft maintenance manual for wire harness and connector continued airworthiness requirements.

4.3 Reinstallation

- 4.3.1** Install the Dimmer Power Supply using the (4ea) 4mm x 8mm screws (22208BC040008L) and washers (23111AG040LE).
- 4.3.2** Connect the cable harness to Geneva Dimmer Power Supply.

Section 5.0 Weight and Balance

The P176 Dimmer Power Supply is 1.5 lbs located at STA 20.92.

The weight of the Factory Dimmer it replaces is 1.7 lbs at STA 20.92.