AD/ELECT/67 Aerospace Lighting Corporation Cabin Fluorescent Lighting System Components 3/96

Applicability: This Directive is applicable to the following Aerospace Lighting Corporation (ALC) products:

Lamp Connectors part number (P/N) 31.85.1.A;

Series 66 fluorescent lamps;

Power Units P/N TR-991, TR-992, AL-0546 and AL-0514; and

Power Supplies P/N 18-95D and AL-0598.

Note 1: These products are utilised in cabin fluorescent lighting systems and are known to be installed on, but not limited to, the following aircraft series:

Airbus Industrie	*A310*
Avion Marcel Dassault Aviation	*Falcon 10*
Boeing	*727, 737, 747 and 757*
Raytheon Corporate Jets (formerly BAe)	*HS 125-600, -700, -800 and -1000*
Bombardier Canadair	*CL-600-1A11, -2A12, -2B16, -2B19, CL-601, CL-601-3A and -3R*
Cessna	*550 and 560*
Dassault Aviation	*Mystere-Falcon 20 and 50*
Embraer	*EMB-120*
Gulfstream	*G-159, G-1159, G-1159A and G-IV*
Israel Aircraft Industries	*1124 and 1125*
Jetstream	*3100*
Learjet	*35 and 36*
Saab	*SF 340A*
Sikorsky	*S-76A*

Note 2: The following information is provided as an aid to the identification of fluorescent lighting system components manufactured by ALC. Components manufactured by ALC and those manufactured by SELA Laboratoire Abadie (SELA) are very similar in size, shape, colour and part number, however they may be identified by trademark. The ALC power unit can be identified by a stylised ALC logo with `Aerospace Lighting Corp' in smaller print beneath the logo while the SELA power unit can be identified by a starburst pattern incorporating the text `laboratoire, abadie, France'. The ALC lamp connector has ALC moulded into the body of the conical piece of the connector while the SELA lamp connector is only stamped in yellow ink. The ALC lamp can be positively identified by the presence of a small hole in the locking channel of each blue plastic end piece.

Requirement:

1. Inspect the cabin fluorescent lighting system in accordance with ALC Information Bulletin IB 90-001 dated 15 August 1992 Part IV `Fluorescent Lighting System Components Identification and Inspection Procedures' sub-paragraphs B.1, 2, 3, 5, 6 and 7.

2. Remove and replace, in accordance with the procedures in Part IV sub-paragraphs B.4, 8 and 9 of IB 90-001 dated 15 August 1992, any part or parts found to be damaged or improperly configured.

Note: FAA AD 95-22-01 Amdt 39-9408 refers.

Compliance: For Requirement 1 - If not previously accomplished in accordance with AD/ELECT/56, then prior to 29 April 1996.

For Requirement 2 - Before further flight, if any part or parts are found to be damaged or improperly configured during the Requirement 1 inspection or within five flights or 10 hours time in service, whichever occurs first, of a cabin fluorescent lighting system component failure.

Replacement of the following ALC parts, in accordance with the following instructions, constitutes terminating action for the repetitive inspection requirement following failure of a lighting system component:

a. Remove power units, P/N TR-991 or AL-0546, and replace with protected power unit, P/N AL-5117, in accordance with ALC Installation Instruction No AL-11025M dated 15 March 1992.

b. Remove power units, P/N TR-992 or AL-0514, and replace with protected power unit, P/N AL-5112, in accordance with ALC Installation Instruction No AL-11024M dated 15 March 1992.

c. Remove power supplies, P/N 18-95D or AL-0598 and dimmer, P/N 22-311 or AL-0542, and replace with protected power supply, unit P/N AL-5118 or AL-5130, in accordance with ALC Installation Instruction No AL-11023M, Revision A dated 20 May 1994.

Background: Numerous incidents of smoke and fire have been reported on aircraft using SELA Laboratoire Abadie and ALC fluorescent lighting system components. The cause of these incidents has been attributed to high voltage arcing or overheating of the lamp connector or remote power unit and prompted the issuing of AD/ELECT/56.

This Directive partially supersedes AD/ELECT/56 and is applicable to components manufactured by ALC. This Directive clarifies both the requirement and compliance statements, whilst also providing an optional terminating action to the repetitive inspection following failure of a lighting system component. Actions specified by this Directive are necessary in order to prevent smoke, fire and possible electric shock or electromagnetic interference to flight critical or essential systems.