

Chapter 21

ULTRA-VIOLET COCKPIT LAMP, TYPE B

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LEADING PARTICULARS

Ultra-violet cockpit lamp

Type B, No. 1 (50 deg. divergence)	Stores Ref. 5CX/2454
Type B, No. 2 (90 deg. divergence)	Stores Ref. 5CX/2676
Filament lamp—	
7-watt, clear (S.B.C.), 12-volt	Stores Ref. 5L/X.952261
Reflector—	
50 deg. divergence (for No. 1)	Stores Ref. 5CX/2677
90 deg. divergence (for No. 2)	Stores Ref. 5CX/2678

Introduction

1. The ultra-violet cockpit lamp, Type B (*fig. 1*), provides a source of U/V radiation for cockpits fitted with fluorescent instruments. This forms part of the dual system of cockpit lighting, as described in A.P.4343, Vol. 1, Sect. 21.

2. Two types are available, No. 1 and No. 2, the only difference being in the shape of the reflector upon which the angle of divergence depends.

DESCRIPTION

3. The lighting source is a 12-volt, 7-watt gas-filled filament lamp, which is fitted into an S.B.C. lampholder, Type B (Stores Ref. 5CX/2680). The lampholder carries an aluminium reflector, finished externally with black enamel, and internally with a chemically-protected diffusing surface. In the ultra-violet lamp, Type B, No. 1, the reflector is designed to give a beam the

divergence of which is 50 deg.; in Type B, No. 2, the divergence is 90 deg.

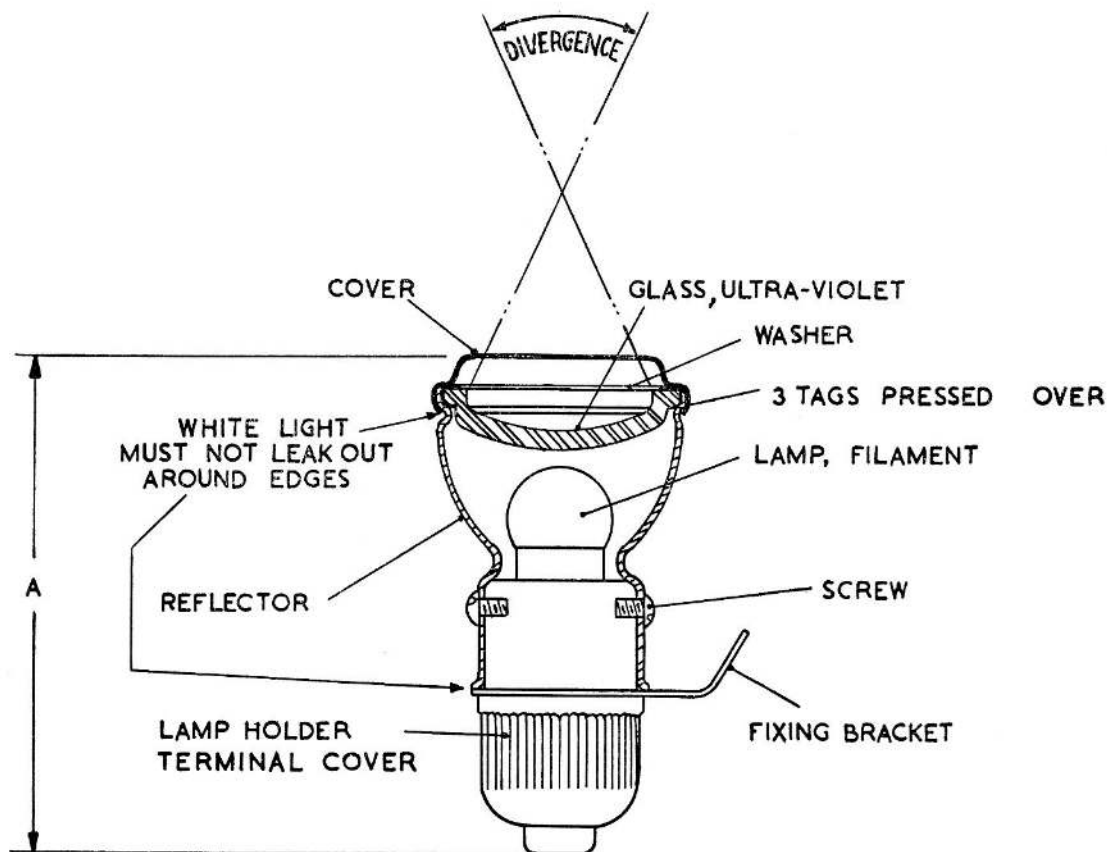
4. The reflector is covered by a glass which transmits ultra-violet radiation, but not visible light. This filter glass is concave, and has a flange which fits into the reflector. A paper washer lies between the glass and the black metal cover which has three tags, pressed under the rim of the reflector to keep the glass in place. This cover also acts as a screen to prevent the leakage of light round the edge of the U/V filter.

INSTALLATION

5. The cockpit lamp should be installed in such a position that it is completely screened from the pilot, its rays being directed to the fluorescent markings which require irradiation. A drilled fixing bracket, which may be used either way up, is held in place between the lampholder terminal cover and the reflector. When wiring up, bare no

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Nº 1 - 50° DIVERGENCE, A = 3.32 INCHES

Nº 2 - 90° DIVERGENCE, A = 3.4 INCHES

Fig. 1. Ultra-violet cockpit lamp, Type B

more of the wire than is necessary, and insert the wire on the left side of the terminal screw.

6. This ultra-violet cockpit lamp is designed for use with a 12-volt filament lamp. In 24-volt systems, therefore, it is necessary to use two lamps in series.

SERVICING

7. It is important to ensure that no light leaks out round the U/V filter glass, nor at the bracket connection, as shown in fig. 1. The metal cover must be a good tight fit over the reflector, and the terminal cover must be kept well screwed home on to the lampholder body.

8. When it is necessary to renew the filament lamp, unscrew the terminal cover slightly, and rotate the lamp until the two screws holding the reflector to the body of the lampholder become accessible. Take out these screws, remove the reflector, and the filament lamp is then exposed. On no account should the filament lamp be reached by opening the three metal tags and removing the metal screen and U/V filter glass.

9. The mounting bracket of the lamp is split, and the lamp may be removed by undoing the moulded terminal cover and pushing the lamp forward until the leads pass through the split.

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