

Chapter 14

COCKPIT WARNING LAMP, ROTAX, TYPE H4401

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LEADING PARTICULARS

Lamp, cockpit warning, Rotax, Type H4401	Stores Ref.
Bulb (3.5 watt)	Interservice Ref. 5LX.951271
Voltage	28V, d.c.
Operational ceiling	60,000 ft.
Operational temperature range	- 65 deg. C. to + 70 deg. C.
Length	2.262 in.
Diameter	0.600 in.
Weight	1.1 oz.

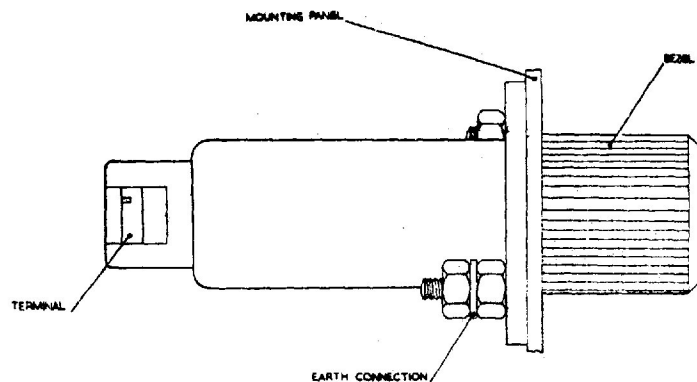


Fig. 1. Type H4401 warning lamp

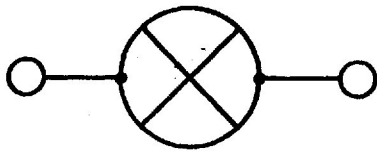


Fig. 2. Diagram of internal connections

Introduction

1. The Type H4401 cockpit warning lamp is intended for use in 28V d.c. systems. It has a colourless window. Satisfactory operation is obtained at altitudes up to 60,000 ft. and in temperatures ranging from -65 deg. C. to $+70$ deg. C.

DESCRIPTION

2. The lamp is housed by a cylindrical brass body having a moulded insert at one end. A single terminal (6 B.A.) for connection to positive is set axially in the moulded insert and is protected by a shroud integral with the insert. The terminal stud projects through to the interior of the lamp, and the inner end is hollow where it receives a plunger loaded by a helical spring. The bulb holder, which is retained in the body by the insert, is of a miniature "bayonet" type and the bulb (*Interservice Ref. 5LX.951271*) has a single end contact which makes with the plunger. Connection to "earth" is made via the frame of the lamp. Full illumination of the bulb is obtained when a 28V d.c. signal is applied to the 6 B.A. terminal.

3. A mounting flange, having two mounting holes, is threaded to the body. One of the screws which secure the unit to the mounting panel is used for bonding the lamp to aircraft "earth." The colourless window is mounted in a bezel which screws onto the open end of the body.

INSTALLATION

4. The unit requires a cut-out in the mounting panel, 0.565 in. in diameter. The

fixing holes are spaced 0.800 in. at centres and set symmetrically on a diameter of the cut out.

5. For mounting, remove the bezel and offer the unit to the panel from behind. Align the fixing holes of the flange with those of the panel and secure the unit with two screws (inserted from the front) and nuts. One of the screws should be long enough to receive a second nut which is to secure the external "earth" connection. The unit is finally secured by replacing the bezel.

SERVICING

6. Little servicing is required, except to ensure that the lamp is secure on its mounting that the electrical connections are secure and that no damage has been sustained. Ensure that when 28V d.c. is applied to the 6 B.A. terminal full illumination of the bulb is obtained.

Note . . .

To renew an unserviceable bulb (Interservice Ref. 5LX.951721) unscrew the window bezel and remove the bulb. Fit the new bulb and replace the bezel.

Insulation resistance test

7. The insulation resistance between the terminal and frame (bulb removed), measured with a 250V insulation resistance tester, should not be less than 50,000 ohm.

Note . . .

The value of insulation resistance given in para. 7 applies to units being tested under normal workshop conditions. Due allowance should be made for the climatic conditions of the locality and those of the aircraft servicing area or dispersal point where the tests are being applied. In particularly damp climates, the readings obtained may be low enough to give apparently sufficient reason for rejection and, in these instances, discretion should be exercised.

RESTRICTED