Chapter 41

BUZZER, KLAXON, TYPE OB – S98

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LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Buzzer, Klaxon, Type OB – S98	Ref. No. 5CZ/6003
Operating voltage	28 volt d.c.
Coil Resistance	20 ohm
Turns	1400
SWG	30
Wire covering	Enamel
Overall dimensions	2⅝ in. dia. x 2 ⅜ in.
Weight	6 oz. approx.

Introduction

1. The Klaxon, Type OB buzzer is used as an audible signal in aircraft warning systems and is of the vibrating-diaphragm type which is driven by a self-interrupted solenoid. The buzzer is shown in fig. 1 with the cover removed, and a circuit diagram is given in fig. 2.

DESCRIPTION

2. The buzzer consists of a solenoid and a diaphragm-vibrator mounted on a base moulding, and enclosed by a cylindrical cover. The solenoid is wound on a round phenolic bobbin which is secured to the base of two 6BA studs, which also carry the diaphragm and the contact bridge across the top of the solenoid on two tubular spacers. The moving contact of the interrupter contacts is riveted to the centre of the steel spring diaphragm, and the stationary contact positioned on the contact bridge. The solenoid bobbin, the spacers, and the diaphragm are insulated from the mounting studs, one of which is connected to the stationary contact and accommodates the wire to the terminal block; the other is a longer stud insulated from the whole assembly and accommodates the knurled nut by which the cover is secured.

3. The circuit of the solenoid coil is via one terminal screw to the coil and thence via the magnet frame, the spacers and the diaphragm to the moving contact; and from the stationary contact to the second terminal screw. When current passes through the coil, the armature and diaphragm are attracted and open the interrupter contacts, thus de-energizing the coil so that the diaphragm returns to the normal position closing the contacts. This sequence then continues until such time as the supply is switched off. The diaphragm thus acts as a large sounding plate emitting the signal.

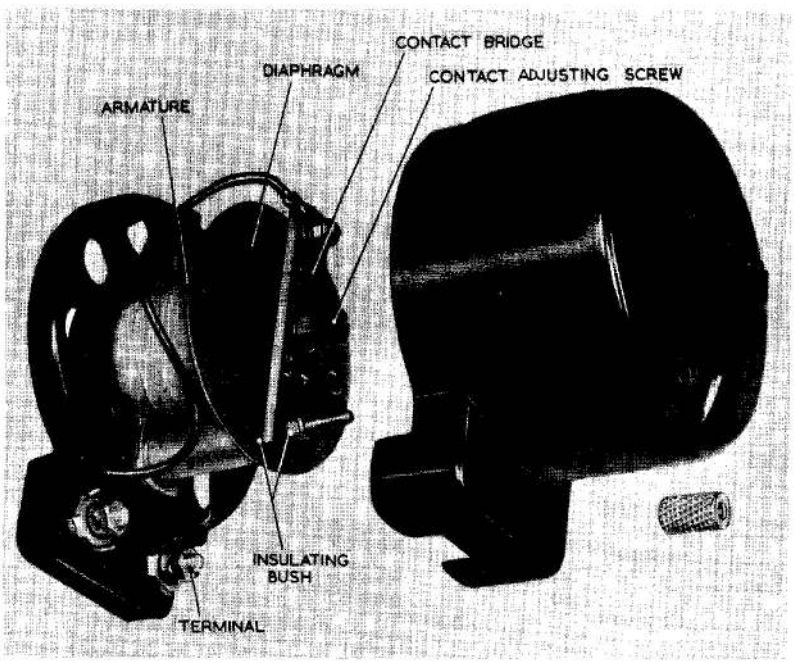

Fig. 1. Buzzer, Type OB, with cover removed

SERVICING

4. The cover of the buzzer should be removed and the buzzer inspected for freedom from damage and corrosion. The contacts should be cleaned using contact cleaners or emery paper, and then adjusted by unlocking the locknut of the stationary contact and screwing the contact screw through the bridge as required. As this adjustment is very fine the tightening of the locknut may affect the setting, due to axial movement of the contact screw as the slack in the threads is taken up. To compensate for this, the contact screw should be turned slightly clockwise from the optimum position before locking.

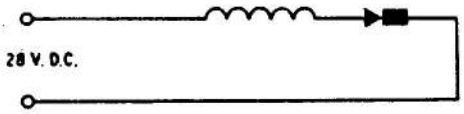

Fig. 2. Circuit diagram

Note...

The sound will be considerably increased when the cover is re-fitted.

Insulation resistance test

5. The insulation resistance of the buzzer, measured with a 250 volt insulation resistance tester between one terminal and the knurled nut, should be not less than 5 megohm.