

## Chapter 42

### SWITCH, MAGNETIC, TYPE 3B (ROTAX F3106)

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#### LEADING PARTICULARS

Voltage ... ..	28 volt d.c.
Minimum pull-in voltage (20 deg. C)... ..	14.5 volt d.c.
Drop-out voltage ... ..	5 to 2 volt d.c.
Current rating ... ..	5 amp.
Operating coil resistance ... ..	179 ohm.
Pilot coil resistance ... ..	50.5 ohm.
Delay ... ..	55 to 75 milliseconds
Overall dimensions of base ... ..	3.218 in. by 3.000 in.
Height ... ..	3.468 in.
Weight ... ..	16 oz.

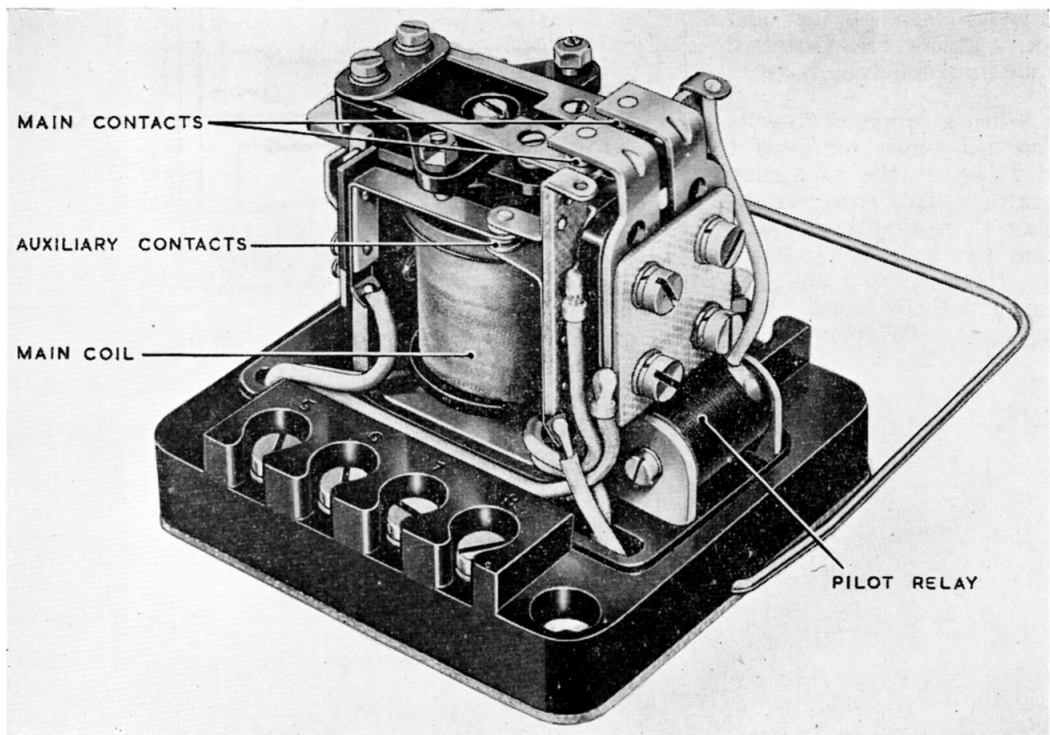


Fig. 1. Type 3B, magnetic switch

## Introduction

1. The Type 3 B magnetic switch (*fig. 1*) is designed for use in aircraft electrical systems as a time delay relay. The relay operates one set of main changeover contacts and one pair of auxiliary, normally open, contacts. Provision is made to use the latter as change-over contacts if required. Time delay is achieved by a slugged coil on the main relay, and by a pilot relay which operates to bring in the main relay coil, the pilot relay being taken out of circuit by the operation of cut-out contacts.

## DESCRIPTION

2. The Type 3B magnetic switch is physically similar to that described in A.P.4343, Vol. 1, Sect. 11, Chap. 3.

3. The time delay relay is secured direct to the unit baseplate by a single screw, and is so arranged that the coil and contacts lie above and below the baseplate respectively. The wiring and pilot contacts are protected by an insulated base board.

4. When a supply of 28 volts is applied across terminals 1 and 2 (*fig. 2*), the pilot relay operates. This energizes the main coil, causing the contacts across terminals 7 and 8 to close, those across 3 and 4 to close, and those across 5 and 6 to open. The pilot coil is

open circuited and a further pair of contacts closed to maintain the supply to the main coil. The main contacts are across terminals 3, 4, 5 and 6, while the auxiliary contacts are across terminals 7 and 8.

5. Details of installation and servicing are also given in the chapter referred to in para. 2.

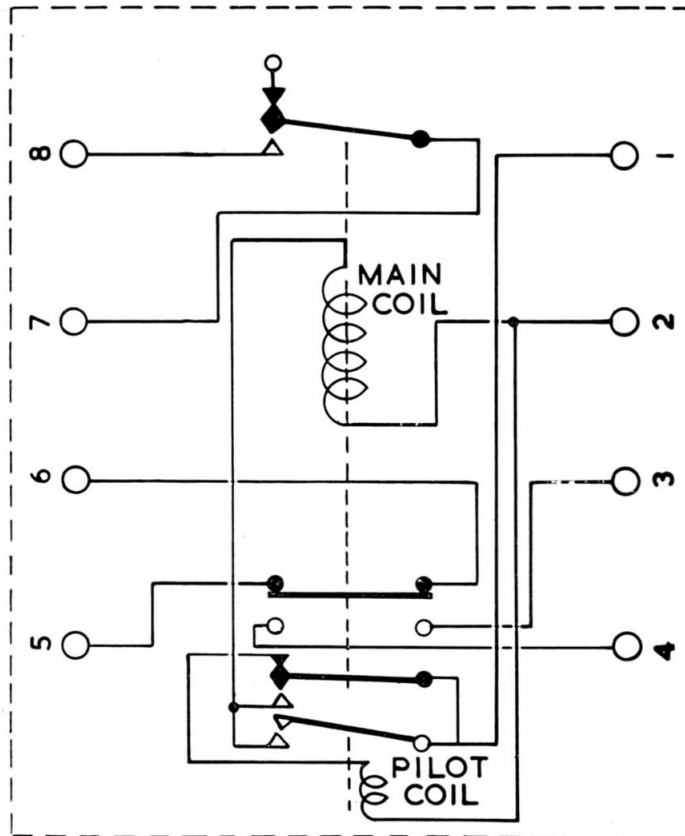


Fig. 2. Diagram of connections