

## Chapter 30

# SWITCH, MAGNETIC, TYPE 3A, No. 3 (ROTAX F 3116)

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### LEADING PARTICULARS

Switch, magnetic, Type 3A, No. 3 ... ..	Stores Ref. 5CW/5695
Coil voltage ... ..	112-V, d.c.
Operating coil resistance (112 V.) ... ..	179 ohm $\pm$ 7 per cent
Economy resistance (112 V.) ... ..	1500 ohm
Swamp resistance (112 V.) ... ..	410 ohm
Contacts	
1 pair normally open ... ..	112 volt, 1 amp. or 28 volt, 5 amp.
1 pair normally closed ... ..	28 volt, 5 amp.
Rating ... ..	Continuous
Overall dimensions of base ... ..	3.218 in. by 3.000 in.
Height ... ..	3.468 in.
Weight ... ..	16 oz.

#### Introduction

1. This magnetic switch (fig. 1) has been designed to serve as a general purpose relay in aircraft electrical systems and is fitted with a 112 volt operating coil.

#### DESCRIPTION

2. The Type 3A, No. 3 switch is similar in construction to that described in A.P.4343, Vol. 1, Sect. 11, Chap. 3, but differs from the latter in that the terminal positions normally marked 7 and 8 are not used for external connections and are sealed off. The position marked 8 is utilized for internal connections only.

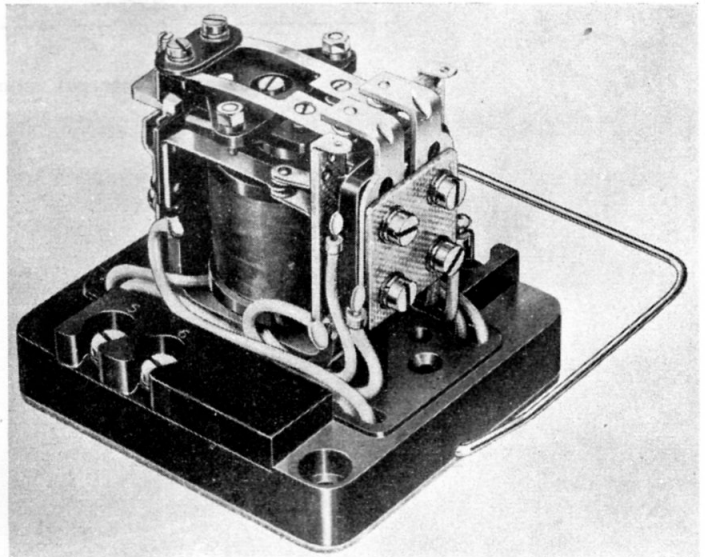


Fig. 1. Switch, magnetic, Type 3A, No. 3 (cover removed)

(A.L.62, Mar. 56)

3. A swamp resistance (410 ohm) is formed by connecting two resistors (820 ohm, 12 watt each) in parallel between terminal 1 and the terminal normally identified as 8 (*para.* 2). This arrangement is in series with a 1500 ohm, 12 watt economy resistor (which is shorted out until the relay is closed) and the operating coil. (*fig.* 2).

4. A pair of contacts, normally open and rated at 1 ampere (112 V.) or 5 amperes (28 V.), are connected to terminals 3 and 4 of the switch. The normally closed contacts are rated at 5 amperes (28 volt) and are connected to terminals 5 and 6.

5. Other information relating to the installation and servicing of these switches will be found in A.P.4343, Vol. 1, Sect. 11, Chap. 3.

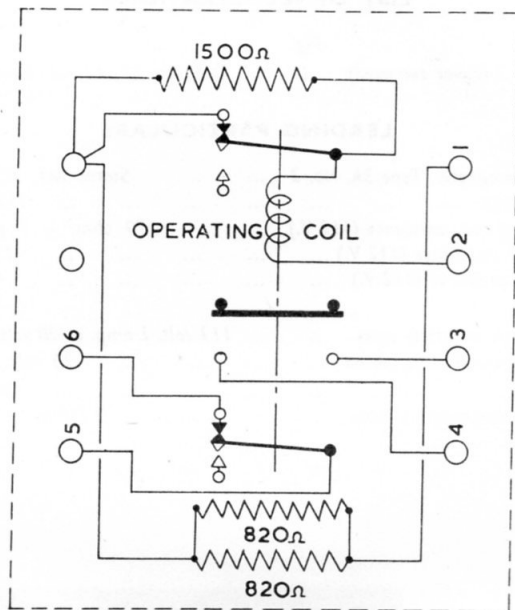


Fig. 2. Diagram of internal connections