Chapter 32

MANUALLY OPERATED SWITCH, TYPE 7B, No. 2

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LEADING PARTICULARS

Switch, manually operated, Type 7B, No. 2 ..	Stores Ref. 5CW/4524
Current rating	15 amp. d.c.
Rating	Continuous
Mounting	Two 2 B.A. holes spaced 1·8 in. at centres
Weight	3·25 oz.

Fig. 1. Type 7B, No. 2, manually operated switch

Introduction

1. The Type 7B, No. 2 manually operated selector switch has three separate ON positions and a central OFF position.

DESCRIPTION

2. The switch consists of a casing and mounting plate assembly, a Bakelite moulding carrying the three contacts and four terminals, a contact plate locating insert, a contact plate with silver contacts on three equispaced arms which fit in slots in the locating insert, and the switch lever, containing a spring loaded insulated plunger. There is also a cover to fit over the terminals at the base of the switch.

Operation

3. When the switch lever is moved from the central OFF position to any one of the three ON positions the spring loaded plunger travels from the centre of the contact plate along the arm selected. This arm of the contact plate then pivots on the bottom edge of the slot in the contact plate locating insert, so that the contact on the arm makes with the adjacent fixed contact. In this way the centre terminal can be connected to any one of the three outer terminals as required.

INSTALLATION

4. The switch should be screwed to the panel by means of the two 2 B.A. holes, spaced 1·8 in. at centres, in the mounting plate at the front end. The terminal cover should be removed, the leads connected and the cover replaced.

SERVICING

5. Without removing it from the aircraft the switch should be visually inspected for wear and cleaned where necessary. The terminals should then be disconnected, if accessible, and the following tests carried out.

6. The switch should be operated ten times in each position; the action must be positive and it should show no tendency to jump off. A current of 15 amp. d.c. should then be passed through each pair of contacts in turn. The millivolt drop across each pair of terminals must not exceed 50 millivolt.

7. The three outer terminals should be connected together and then in series with a battery and lamp to the centre terminal. The switch should be moved around the centre within the limits of free movement and the lamp must not light.

Insulation resistance test

8. The insulation resistance between the centre terminal and the body must not be less than 2 megohm, measured on a 250 volt insulation resistance tester. This test should be carried out in all three ON positions of the switch. With the switch in the OFF position the insulation resistance between the centre and outer terminals must not be less than 2 megohm measured on a 250 volt insulation resistance tester.

Note . . .

The values of resistance quoted in para. 8 above apply to units being tested under normal workshop conditions. Due allowance should be made for climatic conditions of the locality and of the aircraft servicing area or dispersal point. In particularly damp or humid climates the reading will be low enough to give apparent cause for rejection, and in these instances discretion should be exercised.

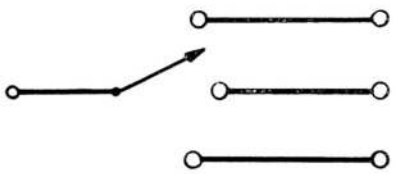

Fig. 2. Diagram of connections

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