Chapter 106

ROTARY SWITCH, TYPE M2870

LIST OF CONTENTS

LIST OF ILLUSTRATIONS

LIST OF APPENDICES

LEADING PARTICULARS

Rotary switch, Type M2870	**Ref. No. 5CW/10105**
Maximum working voltage	300V a.c./d.c.
Maximum current carrying capacity	5A a.c./d.c.
Contact resistance (new)	0·005 ohm
Diameter	$1\frac{9}{32}$ *in.*
Length behind mounting panel	$\frac{27}{32}$ *in.*
Spindle length	$\frac{5}{16}$ *in.*

Introduction

1. The rotary switch, Type M2870, is designed to operate on a maximum d.c. loading of 15W at 300V, or a maximum a.c. loading of 40W at 300V. Any combination of voltage and current (i.e. 100mA at 150V d.c. or 200mA at 200V a.c.) may be used, provided that the maximum current carrying capacity is not exceeded.

DESCRIPTION

2. The switch is a single pole wafer switch having four positions including OFF, with a break—before—make action. A mechanical stop is incorporated at the off position. Mounting is effected by means of a $\frac{3}{8}$" Whitworth nut over the spindle, whilst electrical connection is by means of soldered tags situated at the rear of the switch.

SERVICING

3. Since the item is not repairable, servicing is limited to the following:—

(1) Ensure that the switch is clean, secure, and free from cracks, distortion, and corrosion.

(2) Ensure that the spindle revolves with a positive action.

Testing

4. The switch may be tested in accordance with the standard serviceability test, Appendix A to this chapter.

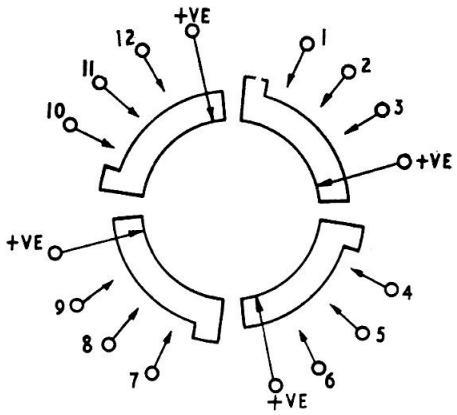

Fig. 1. Circuit diagram

Appendix A
STANDARD SERVICEABILITY TEST
for
ROTARY SWITCH, TYPE M2870

Introduction

1. The following test may be applied to ascertain the serviceability of the switch.

TEST EQUIPMENT

2. The following test equipment will be required:—

(1) 500V insulation resistance tester, Type A (Ref. No. 5G/1621).

(2) 24V d.c. supply.

(3) 2 Multimeters Type 12889 (Ref. No. 5QP/17447).

Millivolt drop test

3. With 625mA flowing, measure the millivolt drop across each pair of made contacts in turn. The millivolt drop across each pair of contacts should not exceed 5mV.

Insulation resistance test

4. With the switch set to the off position, measure the insulation resistance between each soldered tag and the centre spindle, and between all tags. The minimum reading obtained should be not less than 5 megohm.

Printed for Her Majesty's Stationery Office by George Over Ltd., London and Rugby. 91545 1700 12/65 G.483/5