Chapter 25

RESET RELAY SWITCH, TYPE A

LIST OF CONTENTS

LIST OF ILLUSTRATIONS

LEADING PARTICULARS

Reset relay switch, Type A	*Stores Ref. 5CW/3753*
Current rating	*5 amp.*
Weight	*11 oz.*

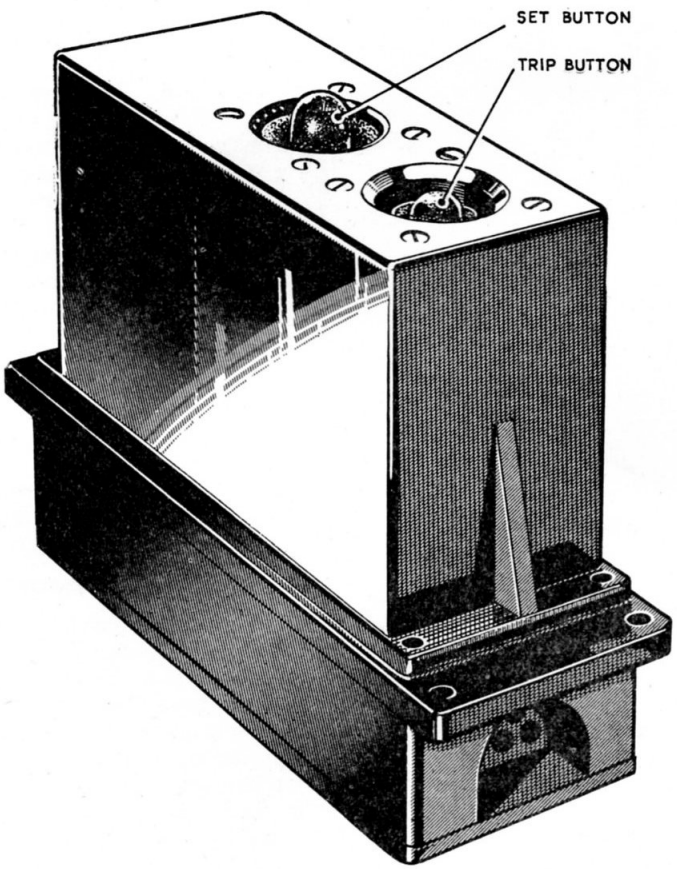

Fig. 1. External view of switch

Introduction

1. The Type A reset relay switch is a self-contained unit which may be applied to isolate certain sections of an electrical installation when other sections of the installation are in operation. It embodies a solenoid as well as a mechanical device for the operation of its switch contacts.

DESCRIPTION

2. The Type A reset relay switch (*fig.* 1) is mounted on a moulded base and is contained within a moulded cover. The terminals of the unit are contained within a recess in the base. The top and base covers seat on rubber seals. The press-buttons for manual operation are covered by rubber hoods, which together with the cover seals render the unit waterproof.

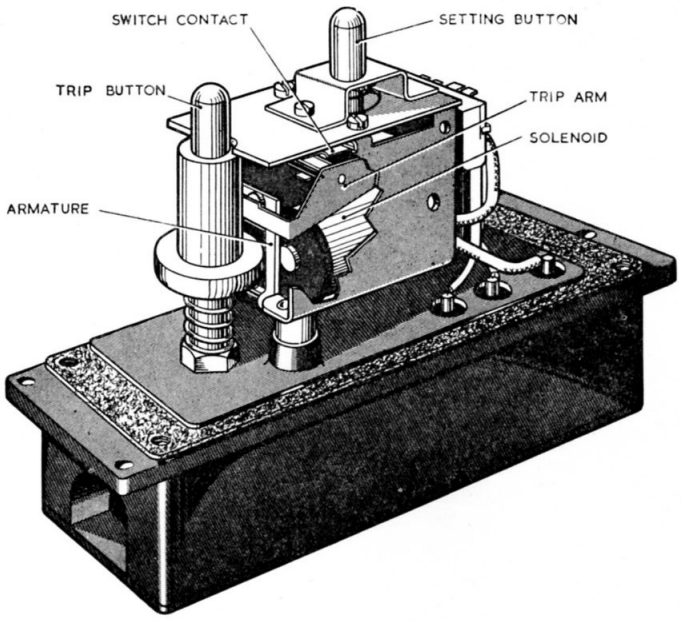

Fig. 2. Interior of switch

Mechanism

3. The mechanism (*fig.* 2) consists of a solenoid with a pivoted armature and four pairs of switch contacts. The contacts are arranged with two pairs of contacts located above and two pairs below an insulating rod carried by the U-shaped trip arm. The trip arm assembly is pivoted at one end and extends round the armature at the other end of the unit. When the trip arm is in the upper or tripped position, as shown in the illustration, the two upper pairs of contacts are closed and the lower two pairs are open.

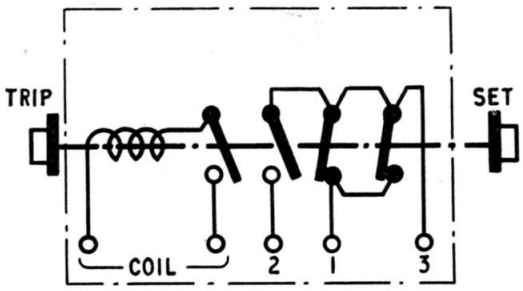

Fig. 3. Wiring diagram

The lower end of the setting button, when pressed, pushes the trip arm down, thus opening the top contacts but closing the lower contacts. When the trip arm is in the down position it allows the spring-loaded armature to pivot away from the solenoid. The stud on the armature then holds the trip arm in the set position. The arm can be tripped by pressing on the spring-loaded trip button, the flange on which then engages with and presses the armature towards the solenlold and so releases the trip arm to its original position.

4. Tripping may also be effected electrically. When the solenoid is energized, the armature is pulled towards the core and releases the trip arm to restore the switch contacts to their original setting, i.e., top contacts closed, bottom contacts open. The wiring of the unit is shown in fig. 3.

Note . . .

The term "setting" is used here only to describe the action of putting the unit into a condition whereby the switch contacts connecting to an external circuit will operate when the solenoid is energized.

SERVICING

5. Very little servicing of the reset relay switch is possible. It is possible to clean the switch contacts by removing the two screws holding down the plate on which the setting button is secured, and minor repairs to leads may be carried out. Worn parts of the mechanism or burnt out solenoid will warrant replacement of the unit. When replacing the top or bottom covers, care must be taken to ENSURE THAT THE RUBBER SEALS ARE IN GOOD CONDITION.