

**IB-15.3.1.7-1**

ISSUE A

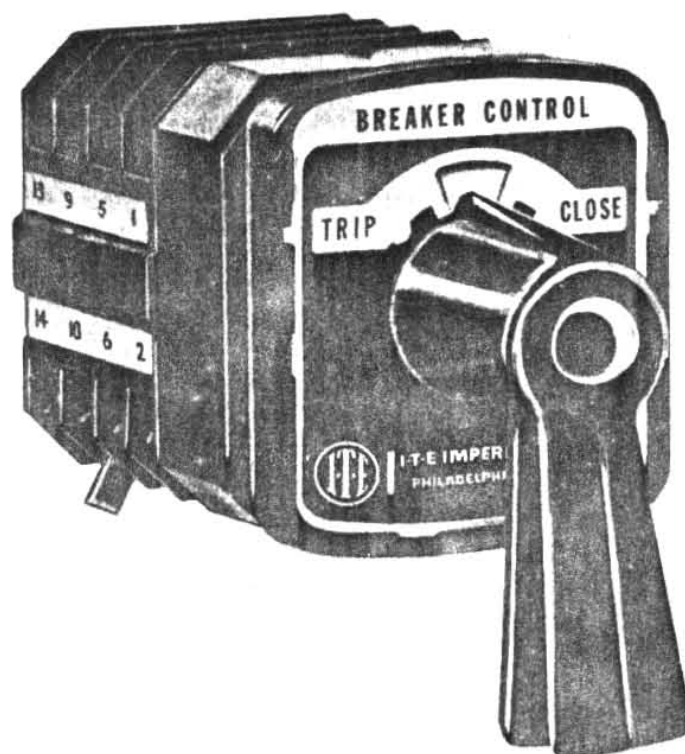
## SWITCHGEAR COMPONENTS

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## INSTRUCTIONS

**C77**

### INSTRUMENT AND CONTROL SWITCHES



***ITE Imperial Corporation***



C77  
INSTRUMENT AND CONTROL SWITCHES

INTRODUCTION

The C77 switch is primarily intended for control of electrically operated circuit breakers, small motors, magnetic switches and similar devices, and also for the use with meters, instruments, and relays.

RATINGS

INTERRUPTING RATINGS OF SINGLE CONTACTS		
CONTROL VOLTAGE	NON-INDUCTIVE	INDUCTIVE
24 V. D-C	10.	8.
48 V. D-C	8.	6.
125 V. D-C	5.	4.
250 V. D-C	1.	1.
600 V. D-C	0.25	0.25
115 V. A-C	40.	24.
230 V. A-C	25.	15.
480 V. A-C	15.	10.
550 V. A-C	8.	6.

MOUNTING

A. PREPARATION

Preliminary preparation requires drilling the mounting panel as in Fig. 3 (Shown on Back Cover).

Dismantle the shipped switches as follows:  
(Refer to Fig. 1)

1. For fixed handle type, remove handle molding (2) by removing a Phillips head screw (1).

2. For removal handle type (not shown), rotate handle to removable position and remove. Use care as this can be done only at specified removal positions of handle assembly.

B. INSTALLATION

For fixed handle types, the tapped support plate (7) of the switch body should be mounted flush on the rear of the mounting panel surface.

For removable handle types, a spacer tube (not shown) furnished with the switch, is inserted between the tapped support plate (7) and the rear of the mounting panel surface.

Install switch on mounting panel as follows:

1. Hold the switch body against rear mounting surface with shaft protruding through center hole. Terminal markings should be right side up.

2. Place escutcheon molding (5) on shaft (6) with nameplate slot at top.

3. Insert the four 10-32 mounting screws (4) through escutcheon molding and mounting panel into the tapped support plate (7) of switch body.

4. Place nameplate (3) over shaft (6) and snap into escutcheon molding (5).

5. For fixed handle types—replace handle molding over roll pin (8) in shaft (6) and secure with screw (1).

6. For removable handle types—slide in handle assembly at specified handle position.

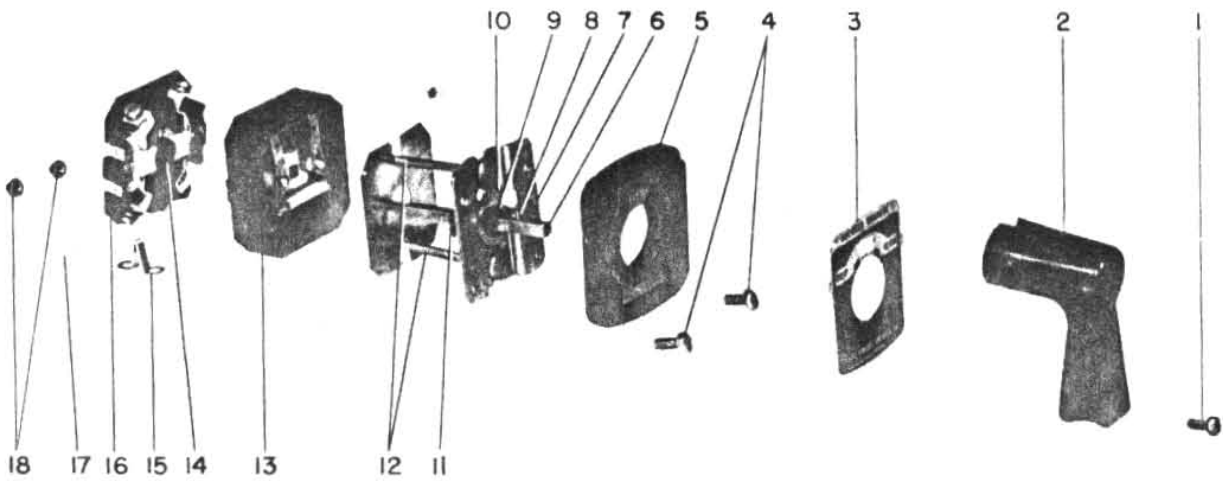


Fig. 1—Exploded View of C77 Control Switch (Fixed Handle Type)



## MAINTENANCE

### A. INSPECTION

At regular intervals of one year or less, switches should be inspected for badly pitted or bent contacts, or broken springs, cracked moldings, worn cams, rollers and pins.

### B. CONTACT REPLACEMENT

(Refer to Fig. 1)

1. If the contacts are burned, replace both the stationary and moving contacts. To do this, remove two retaining nuts (18) from tie bolts (12) and pull each contact cam and housing assembly (16) off of shaft (6). Disconnect jumpers (15), remove windows (17) (These may be removed by inserting punch in window hole and sliding out). Keep stages in proper order.

(Refer to Fig. 2)

2. Lift spring (1) out and remove moving contact (2) and lift out stationary contact (3) from its recessed molding (5). Replace stationary contact (3), moving contact (2) and spring (1). Re-assemble entire stages as before.

**NOTE:** (Refer to Fig. 1)

When re-assembling the switch, do not change the original relationship of the shaft (6) to the cam hubs (14) which are coded and positioned for required sequence of operation.

### C. SHAFT REPLACEMENT

(Refer to Fig. 1)

When it is necessary to change the switch shaft (6) for a shorter or longer shaft, the switch may be disassembled as follows:

1. Remove entire switch from mounting panel (Refer to Section for Mounting Preparation).

2. Remove two retaining nuts (18) and both tie bolts (12).

3. From the shaft-support assembly (7) remove roll pin (8), retainer (9) and stop detent (10).

4. Remove two retainer rings (11) and remove shaft (6). **NOTE:** When removing old shaft, use new shaft as follower. Add or remove stages, then re-assemble switch as before.

## RENEWAL PARTS

It is recommended that complete switches be carried in stock for convenience of replacement when required.

When ordering complete replacement switches, give the data from the service label attached to the switch and also give stage number.

The following listing of component parts and assemblies is presented as a Renewal Parts Bulletin.

### Contact Stage Assembly (Refer to Fig. 2)

- 1 Spring
- 2 Moving Contact
- 3 Stationary Contact Terminal
- 4 Carrier, Roller, Pin Assembly
- 5 Contact Housing & Cam Assembly

(Refer to Fig. 1)

- 13 Detent Assembly
- 6 to 12 Support & Shaft Assembly
- 6 Shaft
- 12 Tie Bolts
- 5 Escutcheon Assembly
- 2 Handle
- 15 Jumper

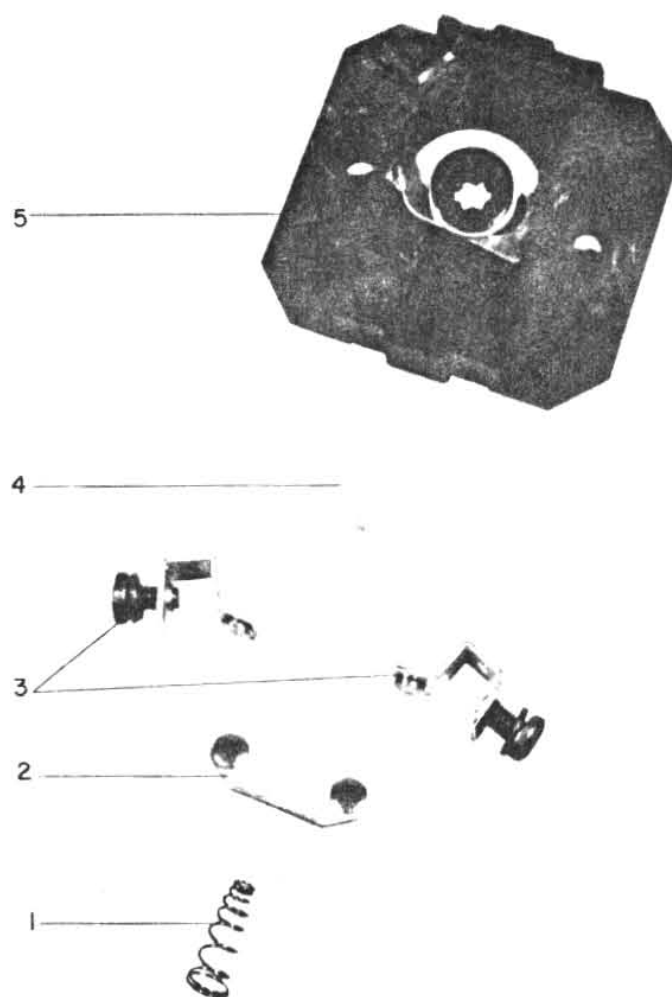


Fig. 2—Contact Stage Assembly

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes the matter should be referred to the I.T.E. Imperial Corporation.

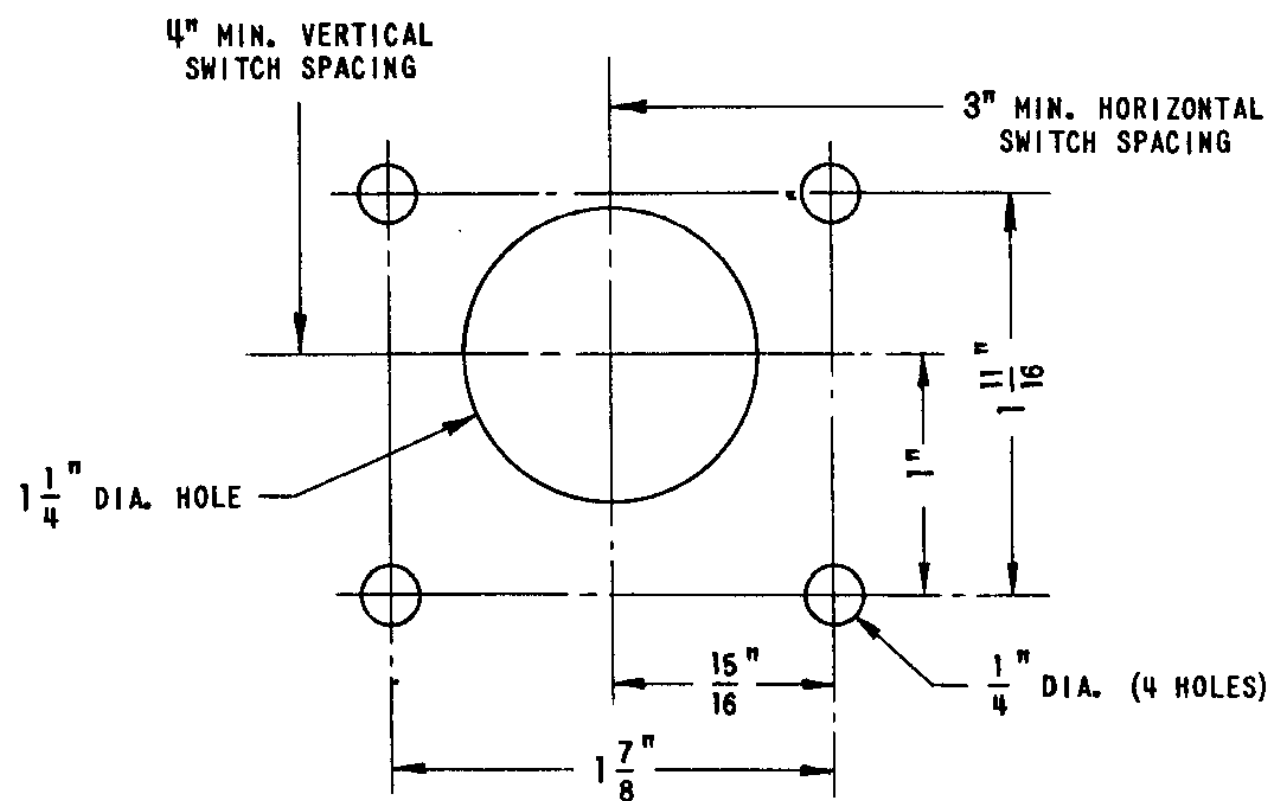


Fig. 3—Mounting Panel Drilling Template



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