

SWITCHGEAR COMPONENTS

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.

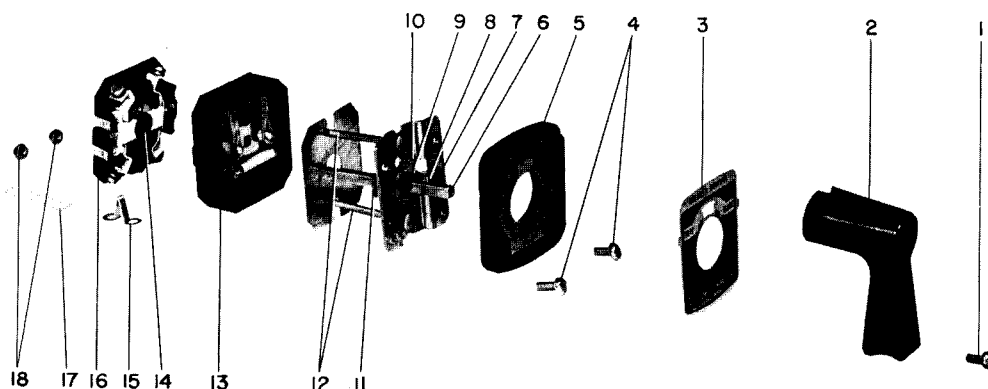


Fig. 1—Exploded View of C77 Control Switch (Fixed Handle Type)



MAINTENANCE

A. INSPECTION

At regular intervals of one year or less, switches should be inspected for badly pitted or bent contacts, weak 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

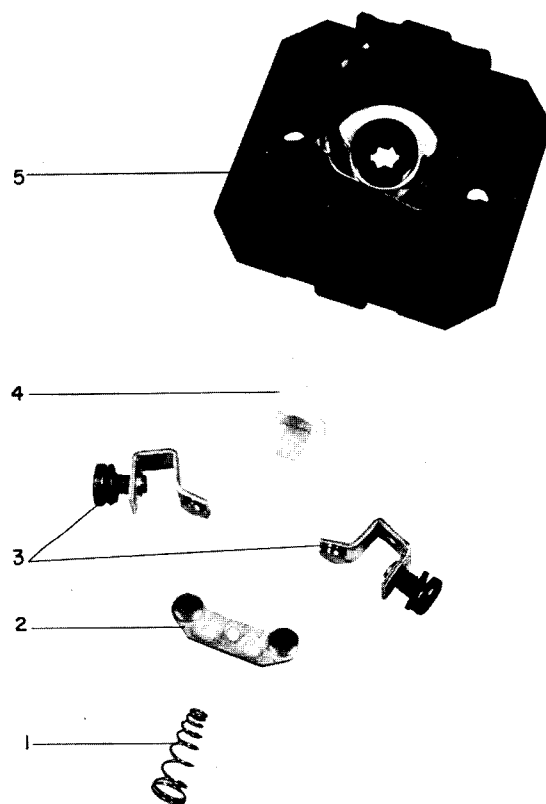


Fig. 2—Contact Stage Assembly

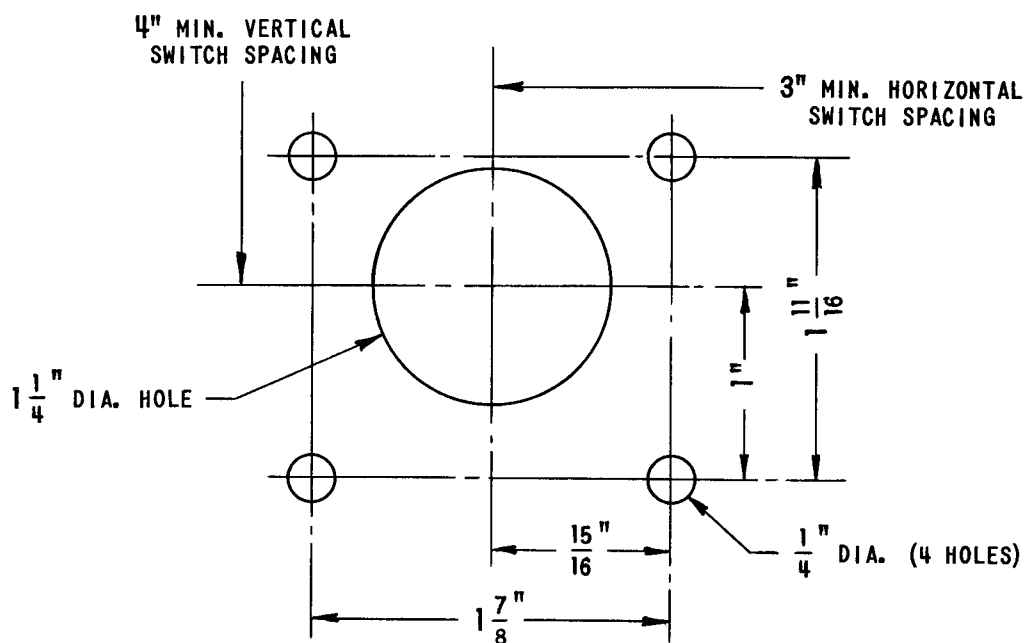


Fig. 3—Mounting Panel Drilling Template



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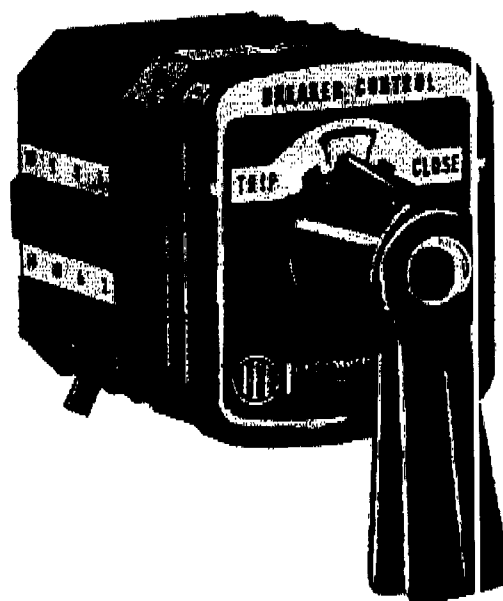
IB 15.3.1.7-1B

Installation/Maintenance Instructions and Renewal Parts

I-T-E Switchgear Components

C77
Instrument and
Control Switches

SBM
10AAT08
200-00



STANTON

INDUSTRIAL
ELECTRIC SUPPLY INC.

521 PENN AVENUE, PITTSBURGH, PA 15221

JOHN STANTON III
FAX: (412) 242-9311

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(412) 242-9300

Brown Boveri Electric

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Page 2

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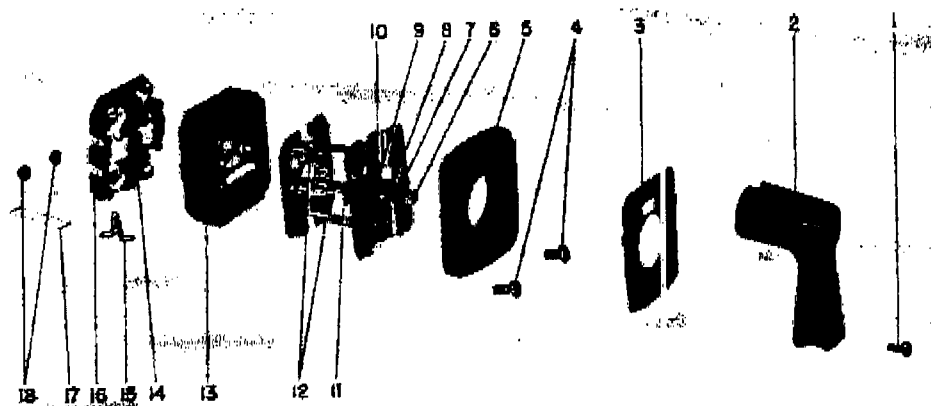
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Page 3

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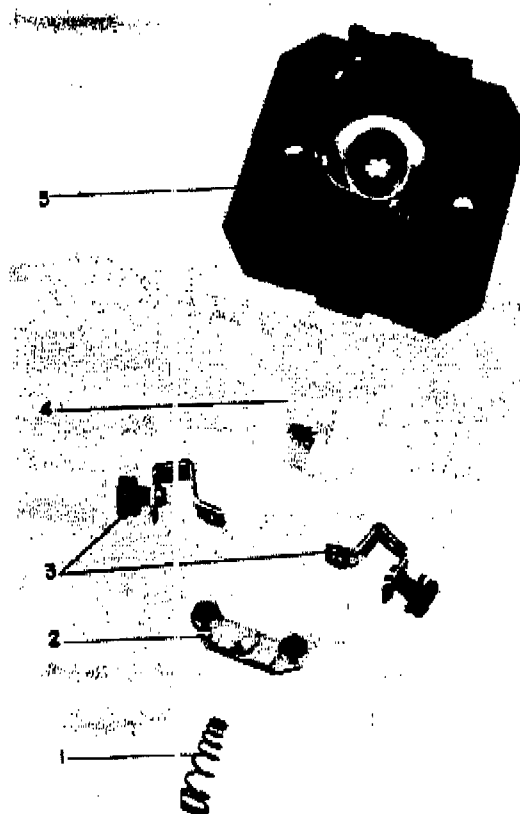


Fig. 2—Contact Stage Assembly

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Brown Boveri Electric, Inc.
Distribution Apparatus Division
W. Columbia, SC 29169

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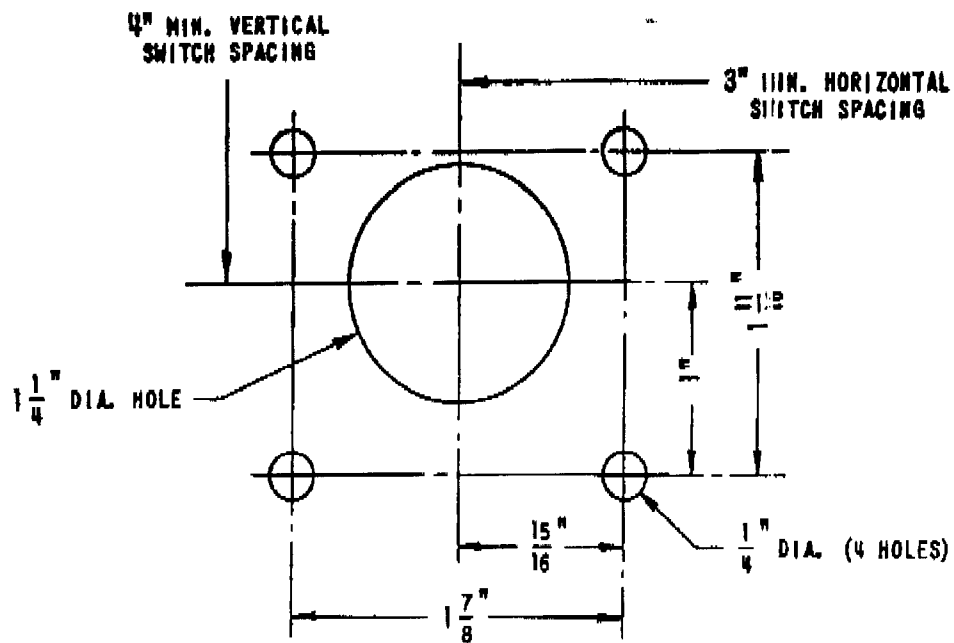


Fig. 3—Mounting Panel Drilling Template

DATE: 03/27/95 1-19-0024 CUB DC FD BRK ABB FBK-H TRIP/CLOSE CON PAGE: 1

| | | | |
|-----|---------------------------------------------------|-----------|-------------------|
| ST | NO 1-19-0024 | ACTIVE: Y | LOCATION: 5104017 |
| EQU | DESCRIPTION | | QUANT |
| SUB | CUB DC FD BRK ABB FBK-H TRIP/CLOSE CONTROL SWITCH | | LOT |
| | | 0 | EA |

STOCK TO: 2

REORDER ON: 1

LAST OUT: 04/06/92

PART #

LAST IN: 04/05/92

VENDOR ABB SERVICE COMPANY

LAST REORDER: 03/25/91

PART #

PREV REORDER: / /

VENDOR ABB SWITCHGEAR DIVISION

NOTES: 3RD VENDOR WESCO

STANTON

EQUIPMENT NAMEPLATE DATA

COMPONENT DATA

ABB DC SWITCHGEAR

MANU: ABB/ITE/GOULD

SHOP ORDER #'S 48-54930 THROUGH
48-54937

TYPE: C77

SHOP ORDER #'S 48-55125 THROUGH
48-55130

CAT # 1001-1CC1-002

DEVICE #: 172CS

ITEM #: 43

PATENT: 3201533

TYPE: C77 \ CAT: #C77-1001-1CC1-0002 \ PATENT: #3201533
MFG: ITE/GOULD \ EQUIP. LOCATION: PM

greg@voyten.com

From: <AnilKSharma@eaton.com>
To: <greg@voyten.com>
Cc: <ChristopherRCampbell@eaton.com>
Sent: Thursday, January 14, 2010 9:04 AM
Subject: Eaton Set/Reset Relays
Relay CAT# D3PR5T1
Base CAT# D3PA3-A2

717-529-2511
CR134 CR1034
9083CG

Regards,

Anil Sharma
Advisory Automation Engineer-PSA
Eaton Corporation
PCSO-EESS
317-334-4585 (Office)
317-334-4544 (Fax)
317-414-2720 (Cell)
AnilKSharma@eaton.com
<http://www.eaton.com>

743.00
422.26

Tom

From: Craig Kalkhof [CKalkhof@tsbi.edu]
Sent: Tuesday, January 05, 2010 6:56 PM
To: ken@voyten.com
Subject: control components

Ken this is Craig kalkhof from Tri-State we were planning on coming down to purchase an order possibly twice what we bought last time. Could You please let me know what your stock of pushbuttons, dc contactors, relays and other control components 250volts dc and motor control both 24 and 120 volts ac. I'm still in the market for a small MCC and would also like to purchase a 250volt 5000watt or better full wave rectifier. If you have any pricing or availability of any or all of these products please let me know? Thanks Craig