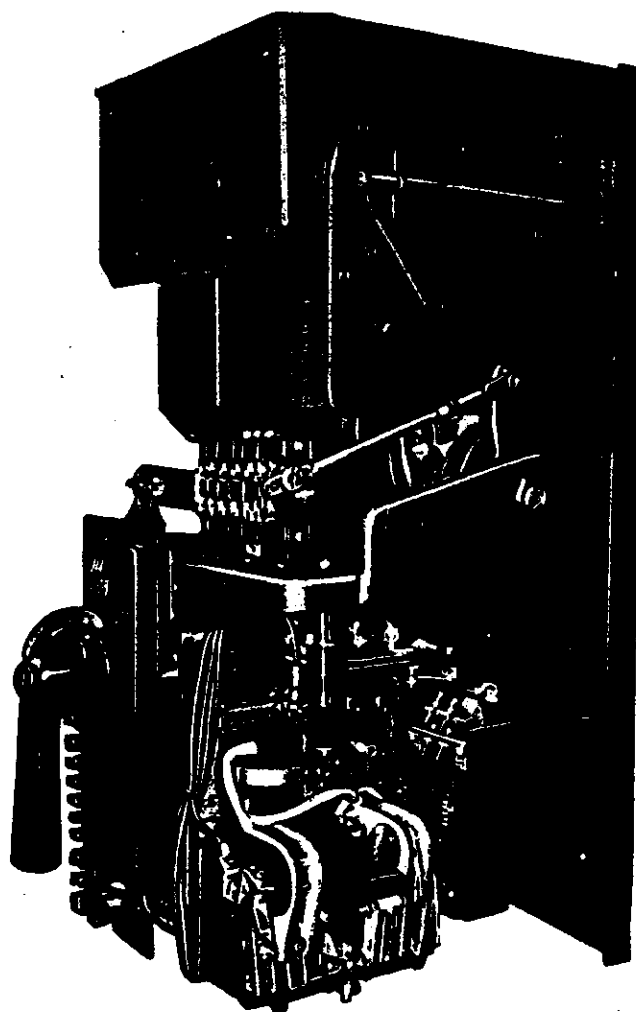


# LOW VOLTAGE SWITCHGEAR INSTRUCTIONS

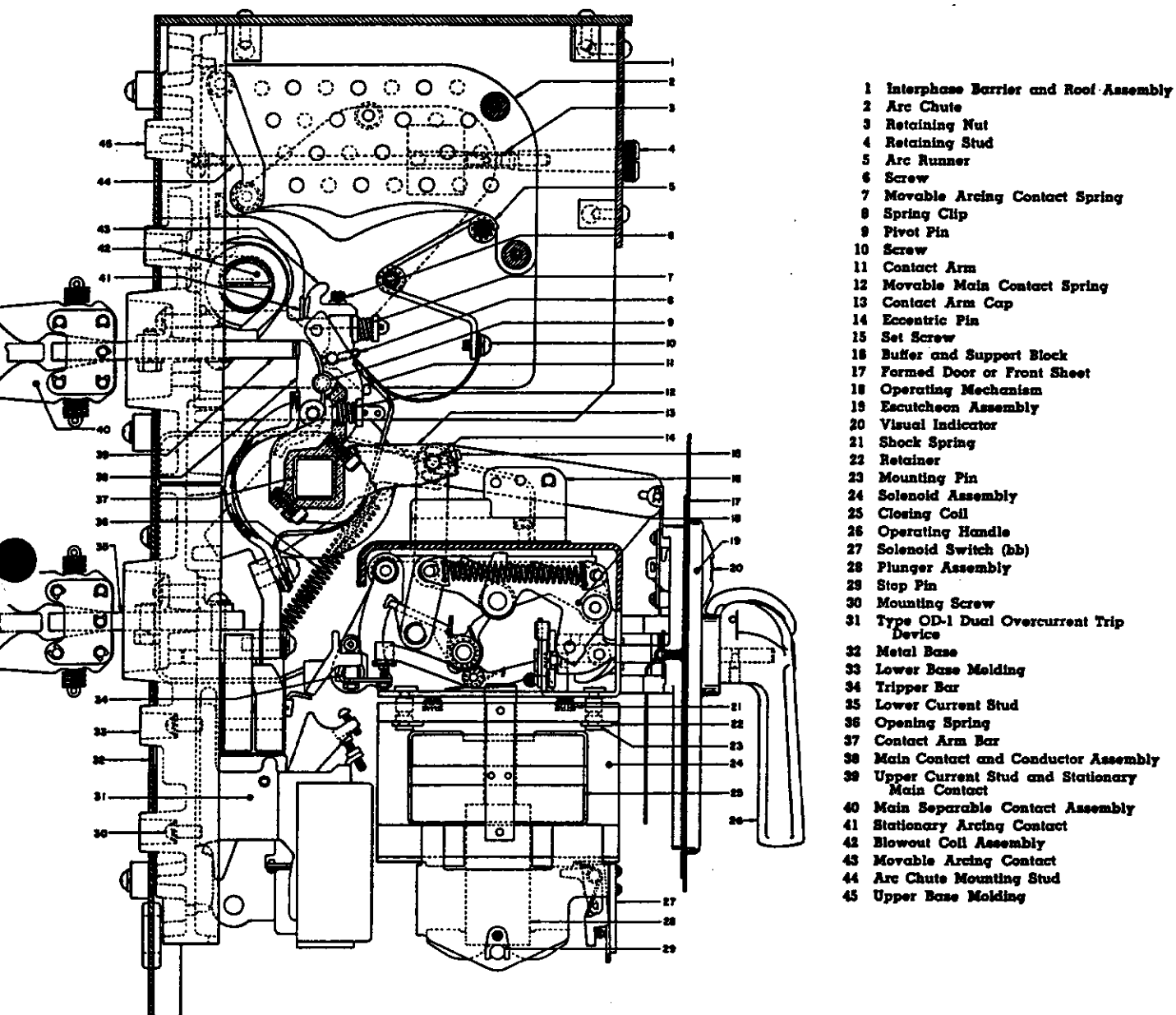


## TYPE KB CIRCUIT BREAKERS

(MODEL D)



**A-E CIRCUIT BREAKER COMPANY • PHILADELPHIA 30, PENNSYLVANIA**



MODEL D

Fig. 1—Type KB Electrically Operated Circuit Breaker  
with A-C Solenoid Assembly

Dwg. S-14311



## INSTRUCTIONS FOR TYPE KB CIRCUIT BREAKERS

(MODEL D)

### INTRODUCTION

These instructions are a supplement to instruction bulletin IB-5403, which is included with this bulletin. The combination of the two form complete instructions for the Type KB circuit breakers having serial numbers with the prefix D (Model D).

The Model D and Models B and C circuit breakers are similar, except as described in the following sections. For example, the Type L auxiliary switch described in IB-5403 is replaced by the Type L2 auxiliary switch described in section AUXILIARY SWITCHES and shown on the wiring diagram, Fig. 3, of this supplement.

### DESCRIPTION

A three-pole electrically operated circuit breaker, with the Type L2 auxiliary switch and Dimenso finish, is shown on the cover.

A side section view of an electrically operated circuit breaker with an a-c solenoid is shown in Fig. 1. A left-side view of the d-c solenoid is shown in Fig. 2.

A typical diagram of connections for a-c and d-c control applications is shown in Fig. 3.

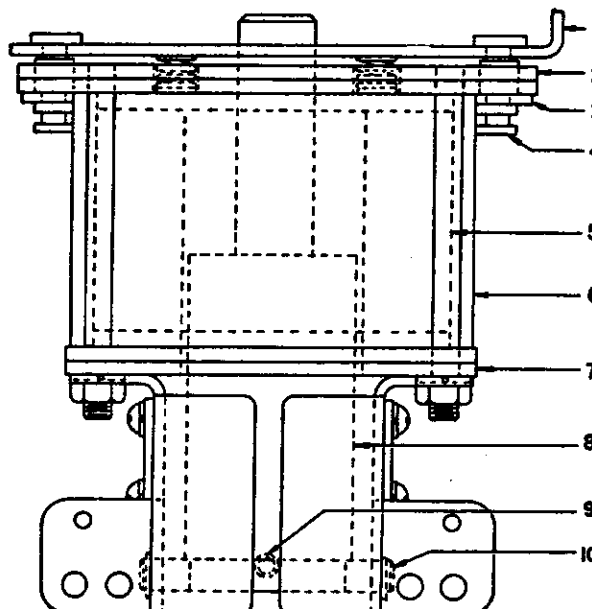
### AUXILIARY SWITCHES

The Type L2 auxiliary switch is a front-connected switch with double-break contacts. The four-contact switch, furnished as standard on electrically operated circuit breakers, is mounted on the right-hand side of the mechanism shelf. If more than four contacts are required, a switch having an additional two contacts can be furnished in the same location. On applications requiring 7 to 12 contacts, an additional two, four, or six contact switch can be mounted on the left-hand side of the mechanism shelf.

The auxiliary switch is used primarily to protect the coil of the shunt trip device by opening the trip coil circuit. The auxiliary switch may also be used to control indicating lamps and interlocking or alarm circuits. For more specific information

on the Type L2 auxiliary switch, refer to IB-5504.

On applications requiring alarm contacts, a Type ML latched-contact switch is mounted on the rear of the circuit breaker escutcheon plate. For more specific information on the Type ML latched-contact switch, refer to IB-5500.



Dwg. S-14309

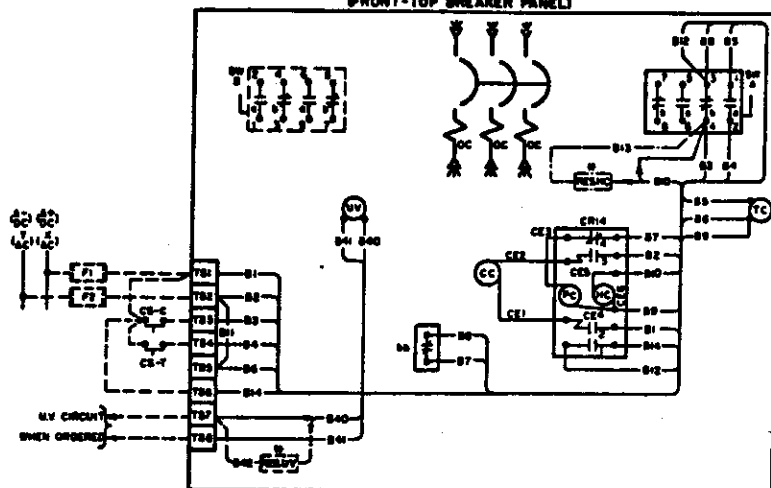
- |                     |                    |
|---------------------|--------------------|
| 1 Mechanism Housing | 6 Housing          |
| 2 Top Plate         | 7 Bottom Plate     |
| 3 Retainer          | 8 Plunger Assembly |
| 4 Mounting Pin      | 9 Pin              |
| 5 Closing Coil      | 10 Stop Pin        |

Fig. 2—D-C Solenoid Assembly for  
Type KB Circuit Breakers

*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 Circuit Breaker Company.*



PHYSICAL DIAGRAM  
(FRONT-TOP BREAKER PANEL)



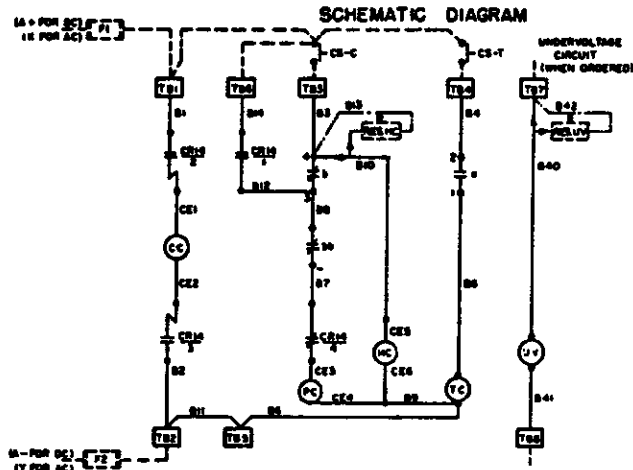
# LEGEND

- a — Contact Closed When Circuit Breaker Is Closed.
- b — Contact Closed When Circuit Breaker Is Open.
- bb — Contact Closed When Closing Solenoid Is in Non-operative Position.
- CC — Closing Coil.
- CE — Coil End.
- CR14 — Closing Control Relay (Trip Free).
- CR14/1 } Contacts Close When Pickup Coil Is Energized.
- CR14/2 }
- CR14/3 }
- CR14/4 — Contact Open Only when Pickup Coil Is De-energized and Holding Coil Is Energized.
- CS — Control Switch.
- CS-C — Control Switch Close Contact— Maintained or Momentary.
- CS-T — Control Switch Trip Contact.
- HC — Holding Coil of Closing Control Relay.
- OC — Overcurrent Trip Coil (Omit for Non-automatic Breakers).
- PC — Pickup Coil of Closing Control Relay.
- TB — Terminal Block.
- TC — Shunt Trip Coil.
- UV — Undervoltage Trip Coil.

# NOTES

1. Use #16-7 Strand Wire on All Circuits, except #12-7 Strand on Closing Solenoid.
2. Pole Positions Reading Left to Right:  
One-pole Breakers Use #2 Pole Only.  
Two-pole Breakers Use #1 & #3 Poles.  
Three-pole Breakers Use #1, #2, & #3 Poles.  
Four-pole Breakers Use #1, #2, #3 Poles As Shown & #4 Pole in Addition.
3. Main Separable Contacts on Individually Enclosed Pullout Breakers and Switchgear.

SCHEMATIC DIAGRAM



MODEL D

Dwg. 701373

Fig. 3—Typical Diagram of Connections for Type KB Circuit Breakers