

**IB-5507 A**

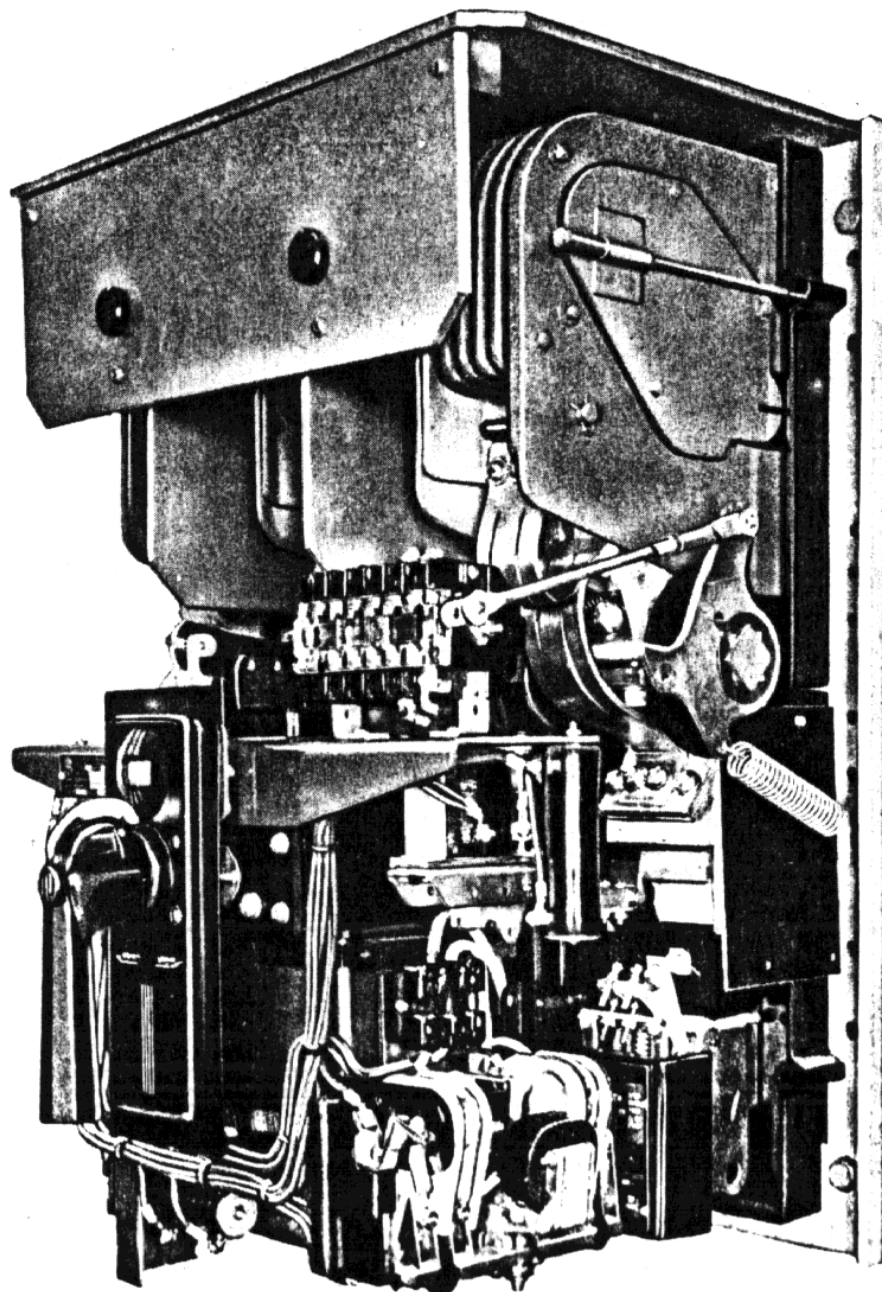
& IB-5504

# LOW VOLTAGE SWITCHGEAR INSTRUCTIONS



## TYPE KC CIRCUIT BREAKERS

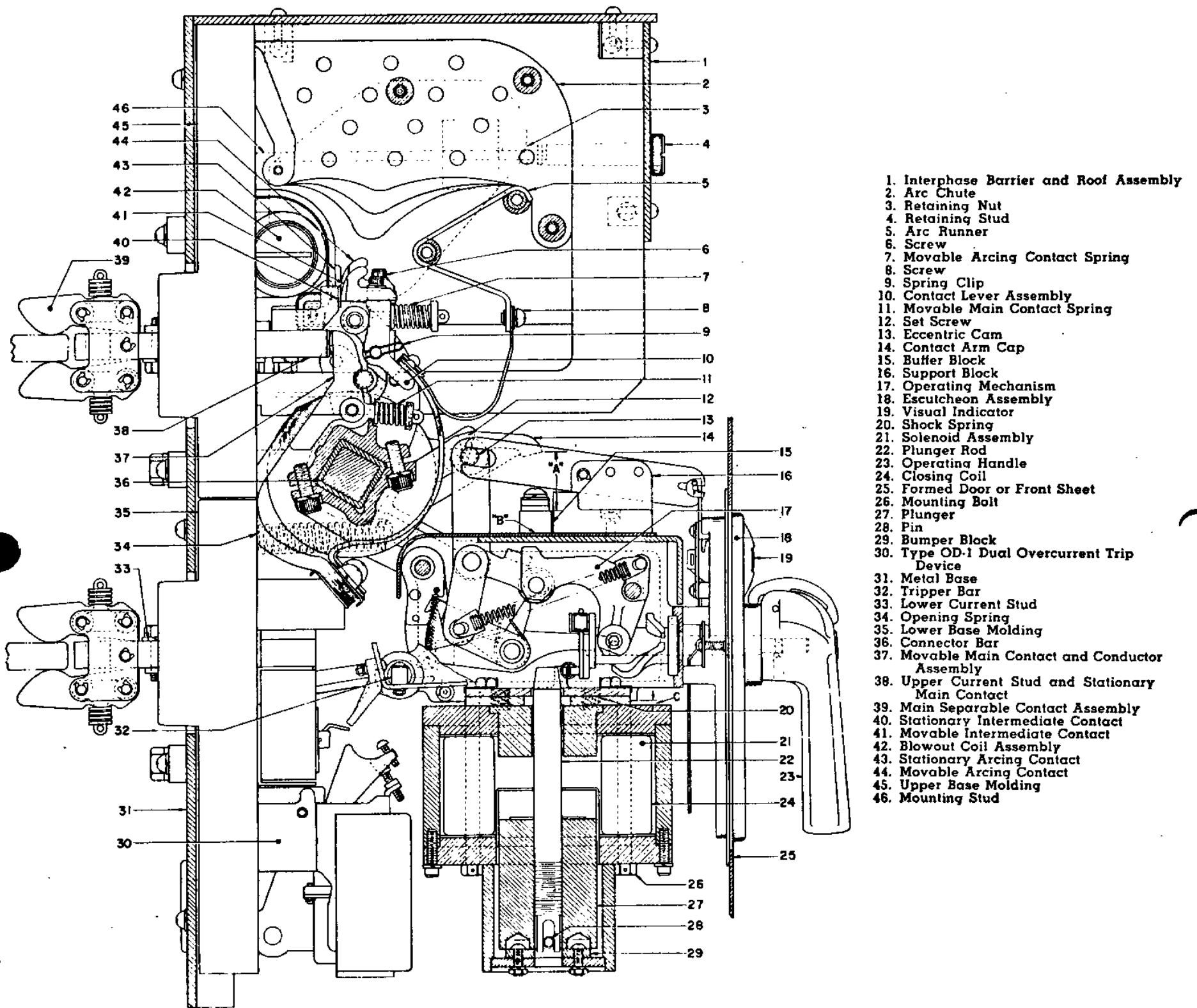
(MODELS F AND G)



**I-T-E CIRCUIT BREAKER COMPANY • PHILADELPHIA 30, PENNSYLVANIA**

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Supersedes IB-5507  
Dated 6-55



1. Interphase Barrier and Roof Assembly
2. Arc Chute
3. Retaining Nut
4. Retaining Stud
5. Arc Runner
6. Screw
7. Movable Arcing Contact Spring
8. Screw
9. Spring Clip
10. Contact Lever Assembly
11. Movable Main Contact Spring
12. Set Screw
13. Eccentric Cam
14. Contact Arm Cap
15. Buffer Block
16. Support Block
17. Operating Mechanism
18. Escutcheon Assembly
19. Visual Indicator
20. Shock Spring
21. Solenoid Assembly
22. Plunger Rod
23. Operating Handle
24. Closing Coil
25. Formed Door or Front Sheet
26. Mounting Bolt
27. Plunger
28. Pin
29. Bumper Block
30. Type OD-1 Dual Overcurrent Trip Device
31. Metal Base
32. Tripper Bar
33. Lower Current Stud
34. Opening Spring
35. Lower Base Molding
36. Connector Bar
37. Movable Main Contact and Conductor Assembly
38. Upper Current Stud and Stationary Main Contact
39. Main Separable Contact Assembly
40. Stationary Intermediate Contact
41. Movable Intermediate Contact
42. Blowout Coil Assembly
43. Stationary Arcing Contact
44. Movable Arcing Contact
45. Upper Base Molding
46. Mounting Stud

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Fig. 1—Type KC Electrically Operated Circuit Breaker



## INSTRUCTIONS FOR TYPE KC CIRCUIT BREAKERS

(MODELS F AND G)

### INTRODUCTION

These instructions are a supplement to instruction bulletin IB-5404, which is included with this bulletin. The combination of the two form complete instructions for the Type KC circuit breakers having serial numbers with the prefixes F and G (Models F and G).

The Models F and G and Models C, D, and E are similar, except as described in the following sections. For example, the Type L auxiliary switch described in IB-5404 is replaced by the Type L2 auxiliary switch described in section AUXILIARY SWITCHES and shown on the wiring diagrams, Figs. 2 and 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 front cover.

A side section view of an electrically operated circuit breaker is shown in Fig. 1.

Typical diagrams of connections for rectified a-c

and d-c control applications are shown in Figs. 2 and 3, respectively.

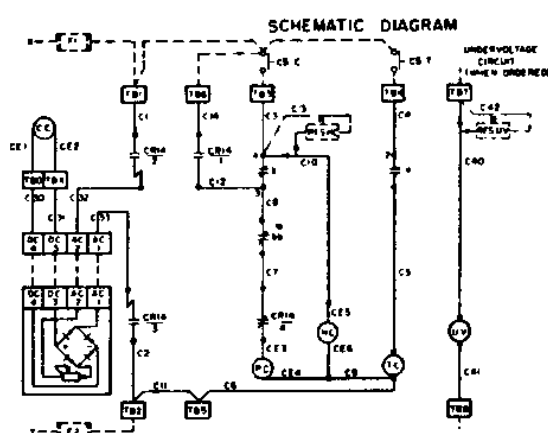
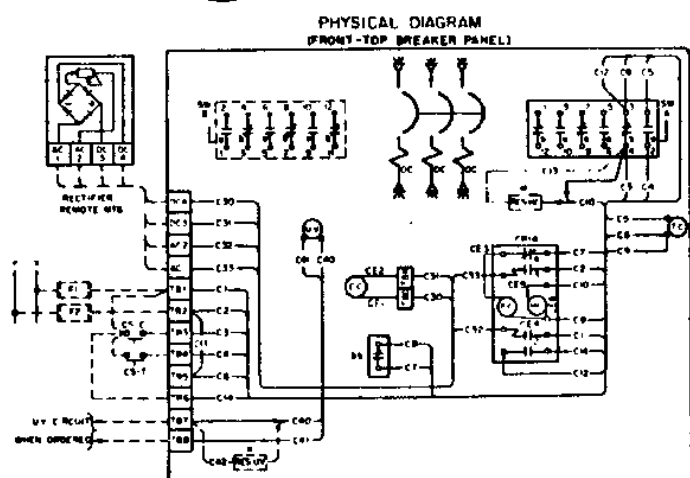
### AUXILIARY SWITCHES

The Type L2 auxiliary switch is a front-connected switch with double-break contacts. The six-contact switch, furnished as standard on electrically operated circuit breakers, is mounted on the right-hand side of the mechanism shelf. If more than six contacts are required, 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.

*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.*



## LEGEND

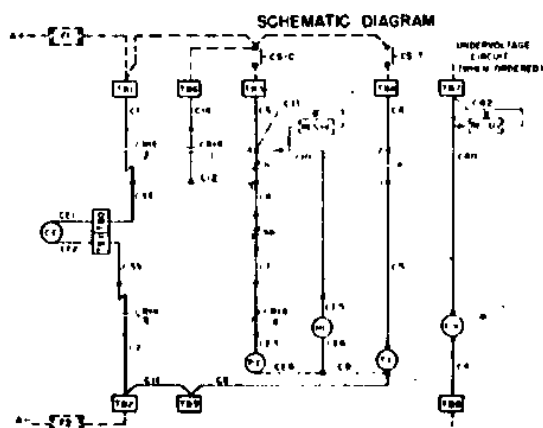
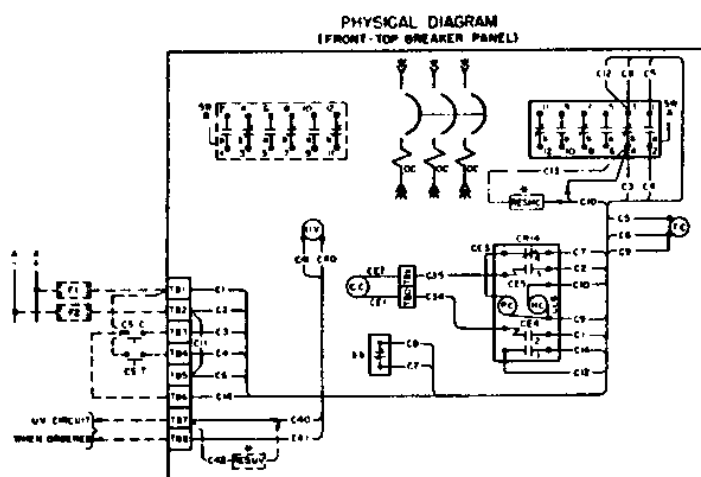
- a — Contact Closed when Circuit Breaker Is Closed.
- b — Contact Closed when Circuit Breaker Is Open.
- bb — Contact Closed When Closing Solenoid Is in Non-operative Position.
- CC — Closing Coil.
- CE — Coil End.
- CR14 — Closing Control Relay (Trip Free).
- CR14/1 } Contacts Close When Pickup Coil 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.
4. Adjustable Resistor-adjustment for Aging Rectifier.

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Fig. 2—Typical Diagram of Connections for Type KC Circuit Breakers Using A-C Control Voltage



## LEGEND

- a — Contact Closed when Circuit Breaker Is Closed.
- b — Contact Closed when Circuit Breaker Is Open.
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3. Main Separable Contacts on Individually Enclosed Pullout Breakers and Switchgear.
4. Adjustable Resistor-adjustment for Aging Rectifier.

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Fig. 3—Typical Diagram of Connections for Type KC Circuit Breakers Using D-C Control Voltage