



# Field Mounting Of Auxiliary Switch Accessories

To TYPES TFJ, TFK or THFK Circuit Breakers

**IMPORTANT NOTE:—UL listing is voided when the circuit breaker is modified to add an accessory. The UL label must be destroyed.**

## KIT CONTENTS

- 1 Barrier: Pt. Number 566B165P1
- 1 Auxiliary Switch Assembly:
  - (Pt. No. 566B264G2 for Cat. No. TFKAS2AB2)
  - (Pt. No. 566B264G3 for Cat. No. TFKAS2AB4)
  - (Pt. No. 566B264G1 for Cat. No. TFKAS6AB1)

## Auxiliary Switch Kits

Max A-c Voltage of Switch	Type of Switch Element	Number of Switch Elements	Ampere Rating of Switch Element						Cat. No.
			A-c Voltage				D-c Voltage		
			120 V	240 V	480 V	600 V	125 V	250 V	
240	AB	2	5	5	—	—	—	—	TFKAS2AB2
240	AB	4	5	5	—	—	—	—	TFKAS2AB4
480	AB	1	6	6	6	—	½	¼	TFKAS6AB1

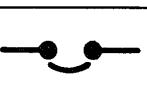


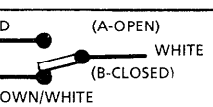



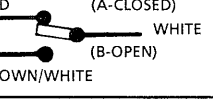
## DESCRIPTION

Auxiliary switch accessories are installed in circuit breakers to operate relay, control or indicating light circuits simultaneously with the operation of the breaker.

The position of the circuit breaker main contacts is indicated by closed or open auxiliary switch contacts as follows:

Normally-open, "A" contacts — open when the breaker is open or tripped, closed when the breaker is closed.

Normally-closed, "B" contacts — closed when the breaker is open or tripped, open when the breaker is closed.

CIRCUIT BREAKER MAIN CONTACTS	AUXILIARY SWITCH CONTACTS		
	"A"	"B"	"AB"
 OPEN OR TRIPPED	 OPEN	 CLOSED	 RED (A-OPEN) WHITE (B-CLOSED) BROWN/WHITE
 CLOSED	 CLOSED	 OPEN	 RED (A-CLOSED) WHITE (B-OPEN) BROWN/WHITE

Position of main contacts as indicated by auxiliary-switch contacts

\*Formerly Green

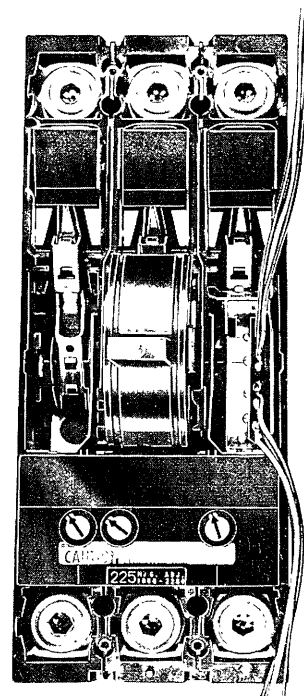


Fig. 1. Auxiliary switch, right pole-mounted in breaker

Auxiliary switches for the Types TFJ, TFK or THFK circuit breakers consist of one to four "AB" elements. Each "AB" element is one 3-terminal, single pole, double-throw switch with three color-coded wire leads connected to the switch terminals and brought out through the circuit breaker case, extending a minimum of 24 inches outside the breaker. An "AB" switch element can be used in an auxiliary circuit as a single "A" contact, using only the red and white leads, or a single "B" contact, using only the brown/white and white leads. It can also be used as both an "A" contact and a "B" contact, using all three leads, provided there is a common connection in the auxiliary circuit wiring between the "A" and "B" contacts.

A standard auxiliary switch assembly is left or right pole mounted, occupying the space to the left or right of the breaker operating mechanism inside the breaker case. It is attached to the trip unit case and is actuated by the breaker movable contact arm carrier. The auxiliary switch will not interfere with the automatic operation of the breaker trip unit or operating mechanism under over-current conditions.

*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 General Electric Company.*

## INSTALLATION

**Precaution:** The circuit breaker contacts must be in the open position, and de-energized before installing accessories. Circuit breakers and components should be handled, inspected, installed or removed only by qualified personnel and in accordance with accepted safety precautions.

1. Move breaker handle to **OFF**. Remove the cover from the breaker by unscrewing the four cover screws.
2. To bring the accessory leads out of the side of the circuit breaker, file necessary openings in the circuit breaker cover at any point  $3\frac{1}{2}$ " to  $5\frac{3}{4}$ " from the load end of the breaker. For single switches one opening will be sufficient, but for multiple switches one or more openings may be used. Clean filings from the circuit breaker cover.

**Note:** Accessory leads out the rear of the breaker are available on a Factory Installed basis. Consult General Electric Catalog for ordering information.

3. Install insulation barrier B (Fig. 2). Bottom of long slot in barrier should be slipped over small boss A on trip unit case. Insulation must be between accessory and operating mechanism of breaker.
4. Insert notch C into hole D (Fig. 3) on top of trip unit. Press accessory into breaker frame. Be sure U-shape indentation in rear of accessory's base fits around trip unit's small boss (item A in Fig. 2).
5. Top of metal notch tab E (Fig. 4) should be flush with top edge of breaker base. Insert screw driver in tab E, and bend tab firmly toward line end of breaker, securing a tight fit for tab E.
6. Replace circuit breaker cover (arranging the leads neatly through the side opening) and tighten the cover screws.
7. To check for proper electrical continuity of operation of accessory after assembly, see that: "A" contacts (red and white leads) are open when the breaker is open or tripped, and closed when the breaker is closed; "B" contacts (brown/white and white leads) are closed when the breaker is open or tripped and open when the breaker is closed. For future identification of the respective "AB" elements after the breaker cover is replaced, the leads associated with each "AB" switch element should be marked or taped together during the continuity check.

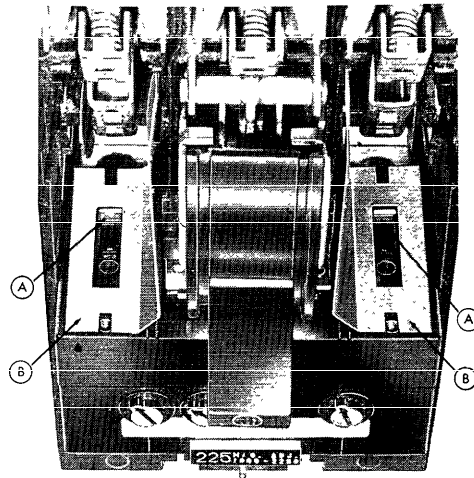


Fig. 2. Top, front view of open breaker

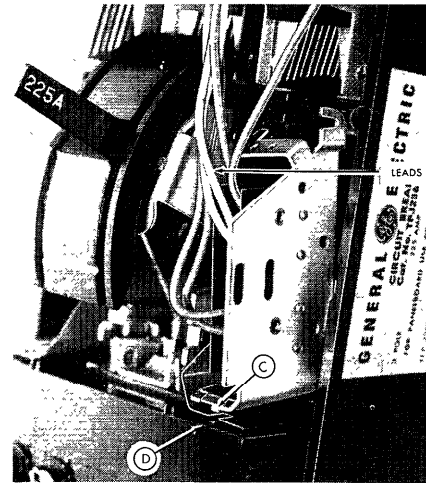


Fig. 3

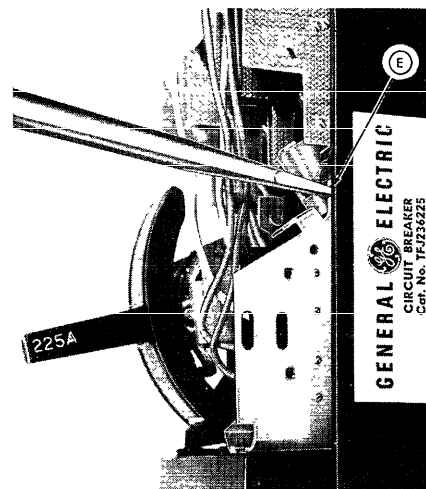


Fig. 4