



# Three-Coil Shunt Trip Device

For Type F 225 Circuit Breaker

**NOTE:** U/L listing is voided when the circuit breaker is modified to add an accessory. The U/L label must be destroyed.

CAT. NO. TFKST316  
RATING 208-600 VAC

THREE-COIL SHUNT TRIP

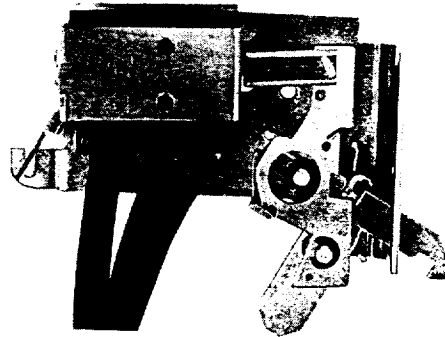


FIGURE 1

## GENERAL DESCRIPTION AND APPLICATION

The three-coil shunt trip is designed for the molded case circuit breaker in applications with current-limiting fuses. The accessory prevents single-phasing on a three-phase system when a single fuse blows.

Each coil of the shunt trip is wired across a fuse so that the voltage across an open fuse will trip the breaker. When a coil is energized, the solenoid core releases the spring biased latch, allowing the slide to rotate the breaker trip bar to trip breaker. The fuse must be replaced, and the breaker reset, before it can be reclosed.

If the breaker is closed on an open fuse, the shunt trip will reopen it immediately.

If trip unit must be replaced after installation of three-coil shunt trip, observe the following caution note: Care must be taken that accessory leads are not clamped beneath the center pole trip unit strap when securing strap mounting bolts.

Apply descriptive label to left side of breaker base.

The shunt trip can be installed only on the left pole of the breaker. It wedges into the breaker base and occupies the space adjacent to the operating mechanism of the breaker. The spring-loaded plunger extends through a knockout in the trip unit case to operate the breaker trip bar. The accessory does not interfere with normal tripping.

Six leads are brought through the side of the breaker case.

### CAUTION

When installing accessories, the breaker must be completely deenergized and disconnected from the electrical circuit. This is mandatory because breaker must be "ON" during certain stages of installation and testing.

2-POLE SINGLE-PHASE APPLICATION  
Three-Coil Shunt Trip

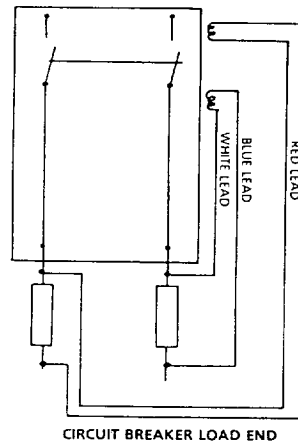


FIGURE 2

3-POLE THREE-PHASE APPLICATION  
Three-Coil Shunt Trip

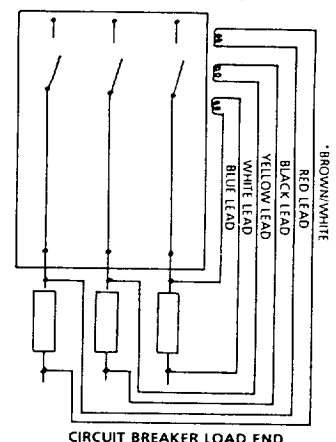


FIGURE 3

\*Formerly Green

Leads must be connected exactly as shown. Shunt Trip Device may not operate correctly if phase sequence is changed.

### STEP 1

Remove the cover from the breaker by unscrewing the four cover screws. (Screws closest to breaker handle.) **DO NOT REMOVE TRIP UNIT.**

### STEP 2

Trip the breaker by pushing the trip button. **Caution:** Hold the handle firmly when tripping; otherwise, mechanism spring action may move handle from the rocker arm of the breaker. (Fig. 4)

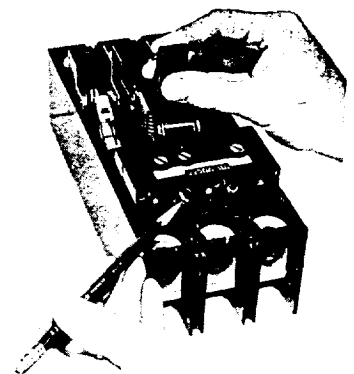


Fig. 4. Tripping the breaker

*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

### STEP 3

Insert a small screwdriver into the slot and pry outward to remove knockout. Clean chips from the breaker case. (Fig. 5)

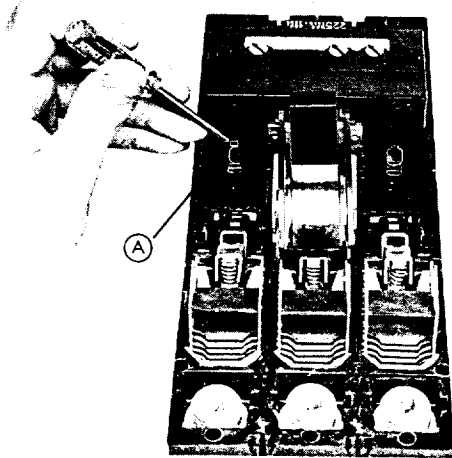


Fig. 5. Removing trip unit knockout

### STEP 4

Install the insulating barrier as shown. The bottom of the long slot in the barrier should slip over small boss on the trip unit case. Make sure insulation is between the accessory and the operating mechanism of the breaker. (Fig. 6)

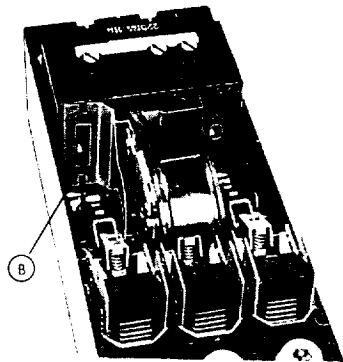


Fig. 6. Installing insulating barrier

### STEP 5

Grasp the accessory and force the plunger back until it latches. (Fig. 7)



Fig. 7. Inserting latched plunger

### STEP 6

Insert the latched plunger into the trip unit knockout. Press into place — this unlatches the plunger, allowing it to contact the breaker trip bar. Small bent tab (D) should fit into hole (E) in the trip unit case. (Fig. 8)

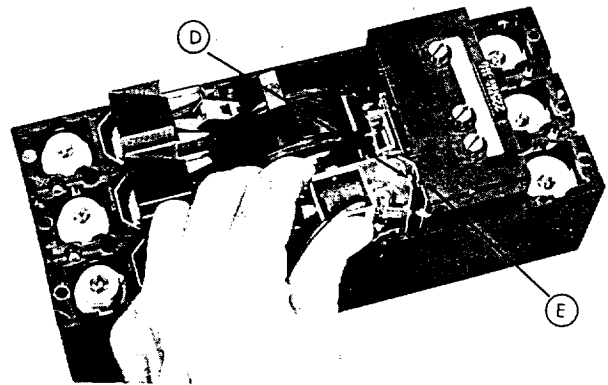


Fig. 8. Installing shunt trip in left pole

### STEP 7

Insert a small screwdriver in Notch F and pry outward to wedge the accessory into place. (Fig. 9)

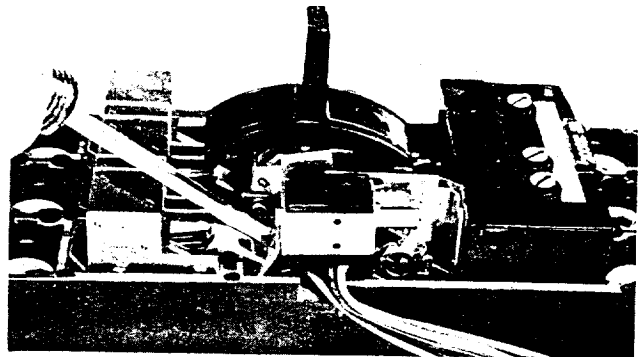


Fig. 9. Wedging shunt trip in place

### STEP 8

File opening for leads in breaker cover at point 4½" to 5¼" from the trip unit end of the breaker. Clean filings from breaker cover. Replace breaker cover as described in GEH-3371 or GEH-3379.

## INSTALLATION CHECK

**CAUTION:** Keep the breaker electrically disconnected during check-out.

Reset and turn ON. Keep fingers clear of breaker mechanism during entire test.

- (1) When 120 VAC is placed across BLUE and WHITE leads for a period not to exceed 1 sec., breaker must trip.
- (2) Reset and turn ON. Repeat Step 1 with YELLOW and BLACK leads. Breaker must trip.
- (3) Reset and turn ON. Repeat Step 1 with RED and BROWN/WHITE leads. Breaker must trip.