



POWER-BREAK® FIELD INSTALLABLE ACCESSORIES

GEH-4540
Rev. A

Circuit Protective Devices Department — Plainville, Connecticut 06062

SHUNT TRIP DEVICE FOR 600-1600A FRAMES

NOTE: UL Listing is voided when the circuit breaker is modified to add an accessory.

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

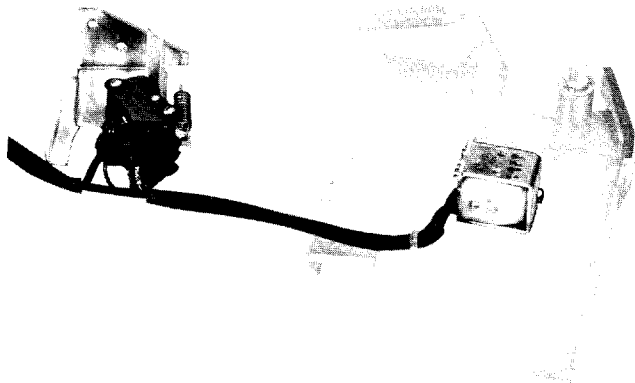


Fig. 1 Shunt trip and cut-off switch. Coil is shown assembled to mounting plate.

ELECTRICAL DATA

Cat. No.	Voltage Rating	Max. Inrush Current-Amperes
TPST12S	120Vac	2.25
	240Vac	4.50
	125Vdc	2.35
TPST13S	480Vac	1.64
	600Vac	2.05
TPST7S	12Vdc	4.00
TPST8S	24Vdc	2.18
TPST9S	48Vdc	1.09
TPST11S	250Vdc	0.21

GENERAL DESCRIPTION

The shunt trip provides the capability of electrically tripping the breaker from a remote location. A cutoff switch is supplied as part of the shunt trip to automatically remove power from its coil when the circuit breaker is tripped.

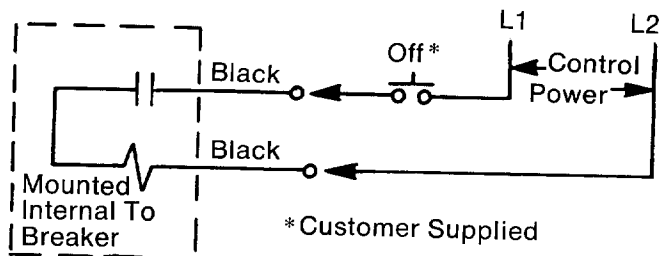


Fig. 2 Wiring Diagram

INSTALLATION

1. Disassemble the circuit breaker cover(s) and remove accessory mounting plate as outlined in instructions GEH-4393.
2. If an existing shunt trip is being replaced its coil must be removed from the mounting plate. Do this by using a heat gun to soften the epoxy around its mounting screws (Fig. 3). Remove the defective shunt trip with its cut-off switch assembly and discard. Clean mounting plate of old epoxy.

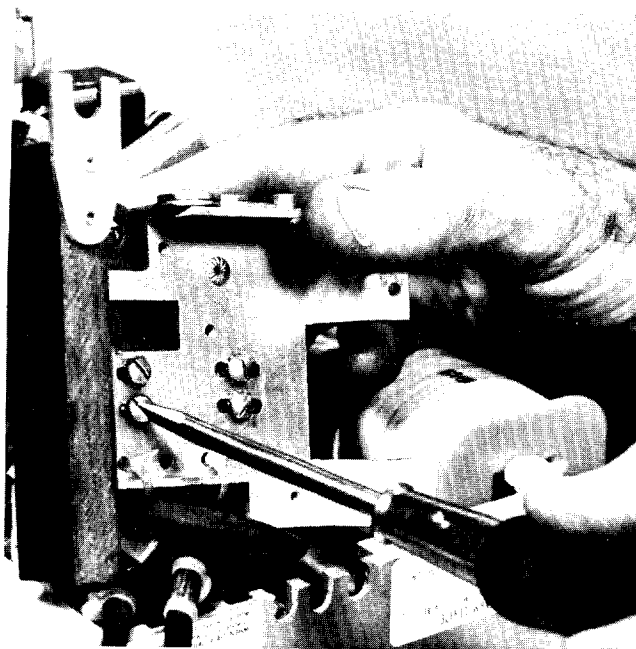


Fig. 3

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.

Instructions

- Coat the new shunt trip coil mounting screws with Loctite provided in kit. Assemble coil to mounting plate as shown in Fig. 4 but do not tighten screws. If the mounting plate is equipped with a blown-fuse trip device, mount the shunt trip as shown in Fig. 5.

NOTE: Shunt trip coils rated 12V dc or 24V dc must be mounted in a position nearest the latch. These coil ratings may not develop enough force to drive both the latch and blown-fuse trip device.

- Fully retract the coil plunger so that its stop nut is in contact with the body of the coil. Push the coil body forward leaving a 0.010" maximum gap between plunger stop nut and latch (Fig. 4). When supplied with a blown-fuse trip device, the shunt trip plunger stop-nut is placed in contact with the plunger of the blown fuse trip device. A 0.010" max. clearance, however, is retained between its stop-nut and the latch (Fig. 5). Tighten the coil's mounting screws.

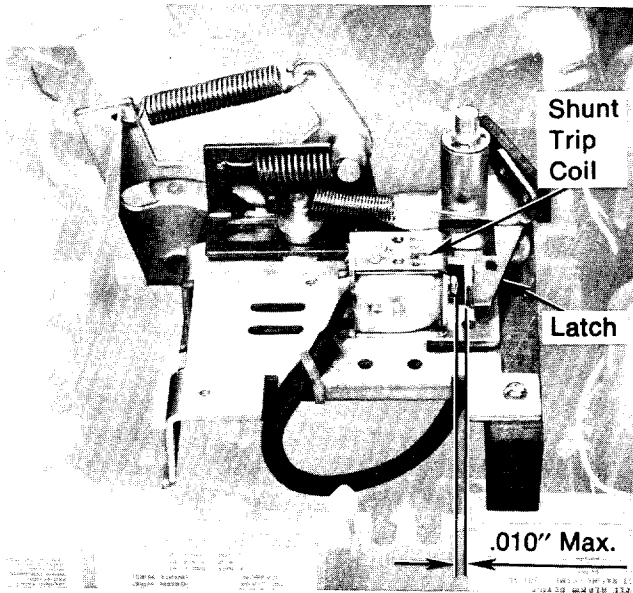


Fig. 4

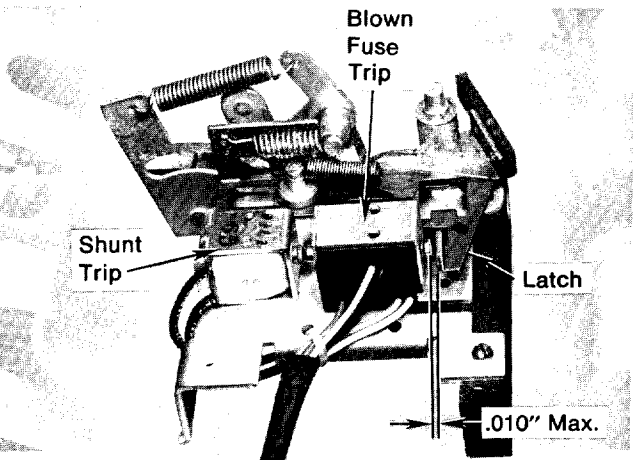


Fig. 5

- Mount cut-off switch by first depressing the switch actuator. Align tapped holes in switch bracket with holes in arm stop and secure with No. 8 x 1/16 screws and lock washers. Tighten to 23 inch pounds (Fig. 6).

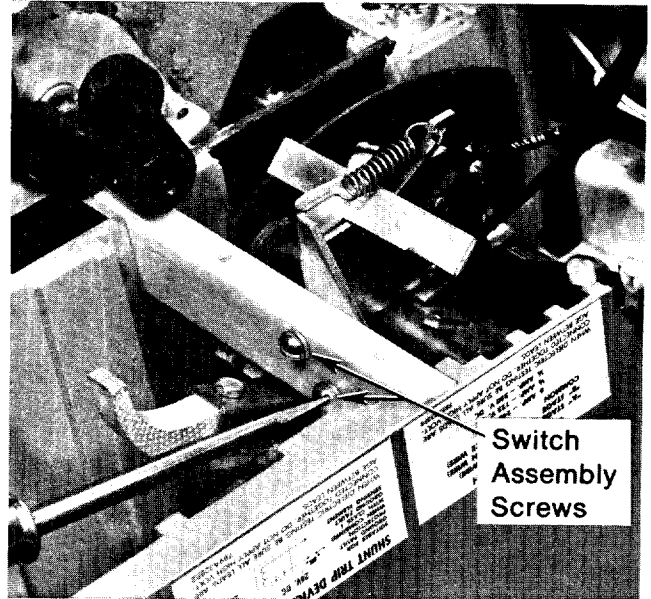


Fig. 6

- Remove knockouts as required in side of base. Each knockout will accommodate up to three bundles of wires (Fig. 7). Remove all sharp edges with a file.
- Clean all debris from inside of breaker.

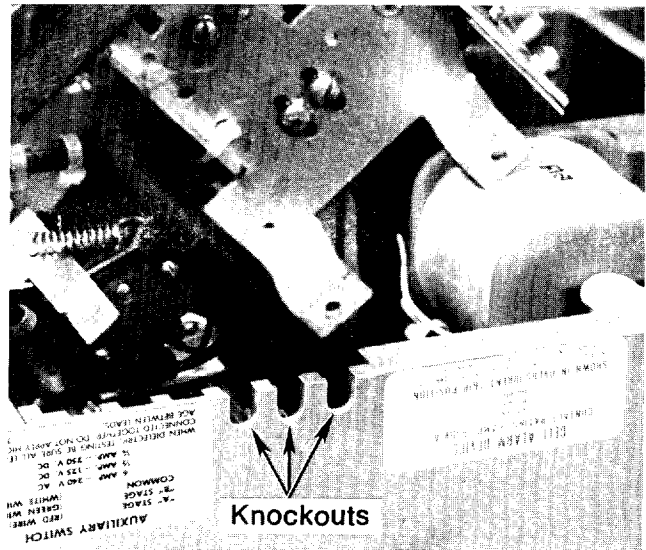


Fig. 7

8. Replace accessory mounting plate as outlined in GEH-4393.
9. Use the wrap provided to secure leads to mounting plate as shown in Fig. 8.

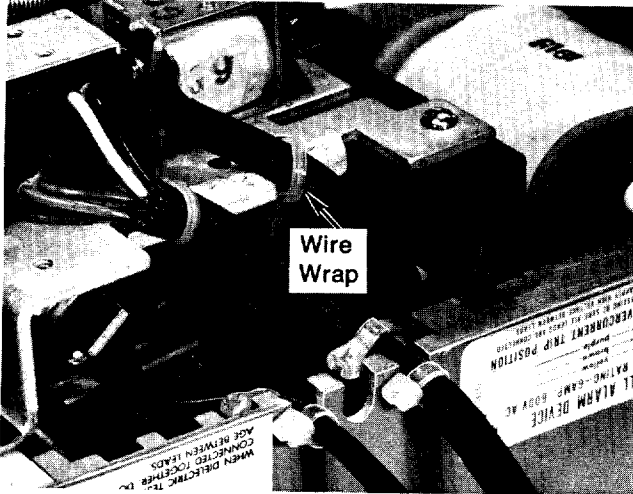


Fig. 8

10. Reassemble the breaker as outlined in instructions GEH-4393.
11. Functional Check
 - a. Turn the circuit breaker "ON".
 - b. Apply 75% of rated control voltage to the shunt trip leads to trip the circuit breaker.
 - c. After the breaker has opened, check the shunt trip leads with an ohmmeter to verify that the cut-off switch has opened the circuit.
12. Apply the shunt trip descriptive label to the left side of the breaker near the lead exit area.

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