



POWER BREAK[®] Manual Quick- Close Circuit Breaker

2500–4000A Frames

- “A” INDICATOR
“OFF” Green—“ON” Red
- “B” BREAKER “ON” BUTTON
Push to turn breaker “ON”
- “C” BREAKER “OFF” BUTTON
Push to turn breaker “OFF”
- “D” CHARGED INDICATOR
“O” Discharged. “CHG” Charged.
- “E” CHARGE HANDLE
- “F” REMOVABLE ESCUTCHEON

DESCRIPTION

The Manual Quick-Close Power Break Breaker provides 5 cycle (83 ms) closing capability in a manual frame construction. This is accomplished by restraining contact arms from closing while storing energy and latching the breaker with the charging handle. Closing is then accomplished locally by pushing the breaker “ON” button (B), or remotely by energizing an optional remote closing solenoid accessory.

CAUTION: Do not trip the breaker from a charged position. Equipment damage may result.

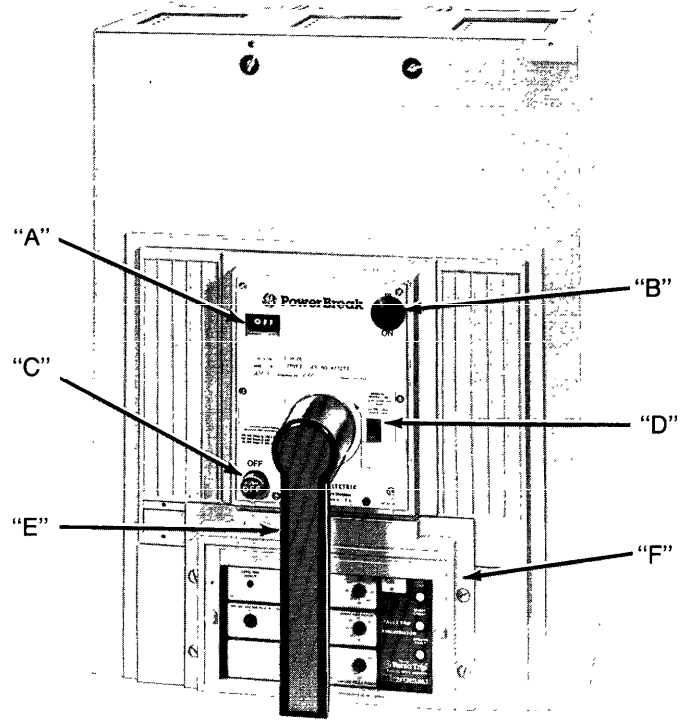


Figure 1.
2500A Frame Shown

Table 1—Sequence of Operation

Indicator “A”	Breaker Contacts	Indicator “D”	Mechanism Spring Condition	Permissible Operating Function
Off	Open	O	Discharged or Partially Charged	Mechanism may be charged
Off	Open	CHG	Fully Charged	Handle is freewheeling Contacts may be closed
On	Closed	O	Partially Discharged Holding Contacts Closed	Handle is freewheeling Contacts may be opened

OPERATING INSTRUCTIONS

1. CHARGING THE MECHANISM SPRINGS

From the circuit breaker "OFF" (contacts open) condition with indicator window (A) showing "OFF" and charge indicator window (D) showing "O";

- a. Charge the mechanism springs by cycling the charging handle at least 3 times 120° counter-clockwise, then 120° clockwise.
At the end of the charging sequence, the charge indicator window will show "CHG" and the charging handle will disengage.
- b. If the breaker latch is held tripped by any of the following accessories, the mechanism springs will discharge at the end of the third charging stroke and the breaker will revert to the discharged "OFF" condition.
 1. Kirk lock or padlock devices in locked "OFF" condition.
 2. Drawout interlock with carriage in any position except "TEST" or "ENGAGED."
 3. Bell alarm lockout not reset after overcurrent lockout.
 4. Undervoltage release device not energized.

CAUTION: The above conditions must be corrected to unlock the latch before repeating the charging cycle. Failure to do so may result in equipment damage.

2. CLOSING THE CIRCUIT BREAKER

From the charged condition with window (A) showing "OFF" and window (D) showing "CHG":

- a. Close the breaker contacts by pushing the breaker "ON" button (B).

CAUTION: Do not trip the breaker from a charged position. Equipment damage may result.

- b. If the remote close option is installed, close the breaker contacts by energizing the remote closing circuit.

3. OPENING THE BREAKER CONTACTS

With indicator window (A) showing "ON", indicating window (D) showing "O":

- a. Breaker contacts may be opened manually by pushing the "OFF" button (C).
- b. Breaker contacts may be opened remotely by energizing a shunt trip device or de-energizing an undervoltage release device.

APPLICATION DATA

Cat. Nos. TSXCC12, TSXCC14, TSXCC08

Table 2—Closing Solenoid

Cat. No. Suffix	Rated Voltage	Operating Voltage Range*	Close Solenoid* Amperes @ Max. Voltage	Maximum Closing Time (Seconds)	Maximum Opening Time (Seconds)
12	120V ac, 50/60Hz	102-132	6A	.083	.083
14	240V ac, 50/60Hz	204-264	3A	.083	.083
08	24V dc	19-29	11A	.083	.083

The remote charge indicating switch is rated at 15A 250V ac and 1/2A 125V dc.

*The Power Source must stay within the rated operating voltage range of the close solenoid, from no load to the full peak current rating of the device.

WIRING DIAGRAMS

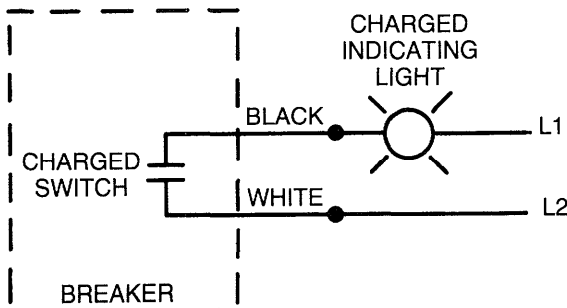


Figure 2.
Remote Charge Indication
TSXCAB

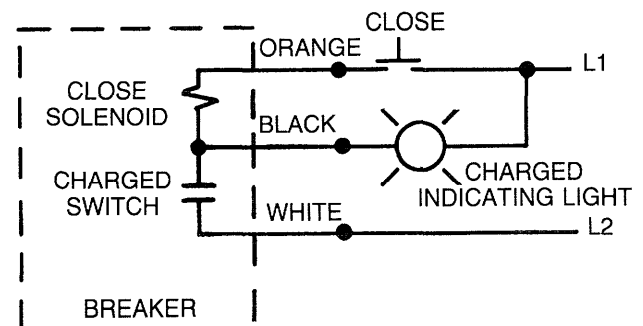


Figure 3.
Remote Close and Charge Indication
TSXCC12B TSXCC14B TSXCC08B

ACCESSORIES

PADLOCKABLE CLOSE BUTTON—CAT. NO. TSXPL

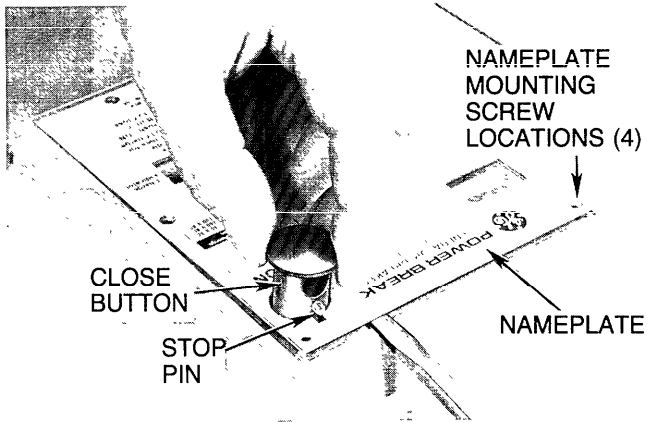


Figure 4.

1. Remove and save (4) nameplate mounting screws. (Figures 4 and 5 show screws removed).
2. Lift up close button and nameplate and wedge suitable tool into space as shown to hold nameplate up.
3. To remove close button supplied, rotate close button approximately 90° clockwise so stop pin passes thru notch in nameplate. (Figure 4).

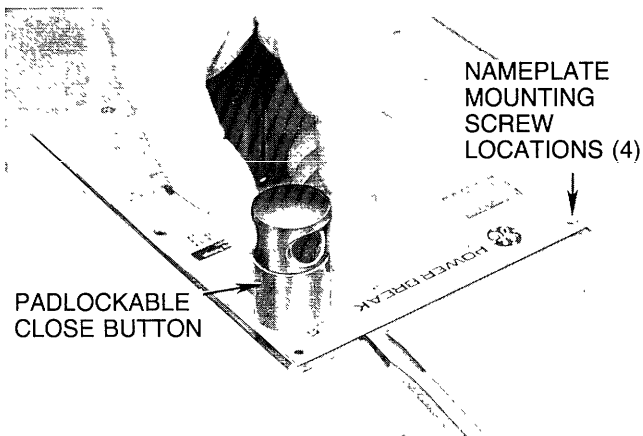


Figure 5.

4. Insert padlockable button as shown in Figure 5, passing stop pin thru notch in nameplate. Press button down and rotate 90° counterclockwise so pin enters slot in breaker cover. Continue holding button down while removing tool used to lift nameplate. Reinstall nameplate mounting screws—**Do not overtighten.**

REPLACEMENT SOLENOIDS

Cat. Nos.: TSXEC12 (120V ac)
TSXEC14 (240V ac)
TSXEC08 (24V dc)

Accessory Kit contains spare screw, lockwasher, spacer washer, and wire tie.

WARNING: Before inspecting or beginning any maintenance work on the breaker, it must be disconnected from all voltage sources, both power and control, and the breaker must be off (open).

1. Remove circuit breaker cover. See GEH-4694
2. Unscrew captive accessory cover screw Figure 6. While holding down the solenoid lever, pull the cover off in the direction shown Figure 6. Solenoid lever must be depressed to clear slot in cover.

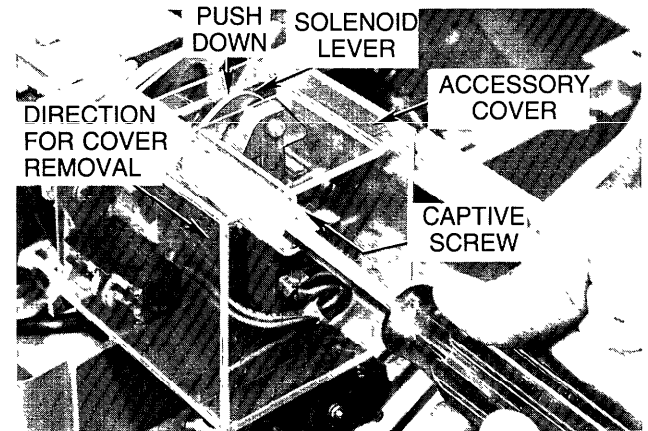


Figure 6.

3. Cut off wire tie and disconnect leads from solenoid wiring terminals Figure 7.

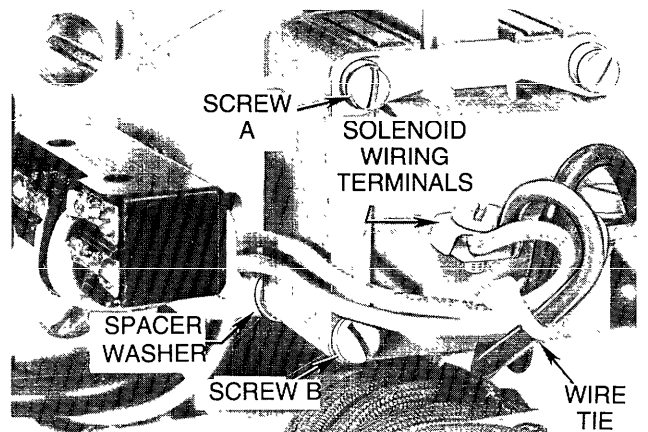


Figure 7.

4. Remove and save screws A & B, lockwashers, and spacer washer.
5. Rotate solenoid sufficiently to remove from plunger. (Plunger need not be replaced).
6. Cut and strip replacement solenoid leads to same length as old solenoid leads.
7. Remove and discard locknut from screw A of new solenoid. Swing plunger sideways sufficiently to slide new solenoid body onto plunger. Position and start screw A, do not tighten at this time.
8. Position spacer washer and install screw B with lockwasher. Tighten screws A and B firmly.
9. Install wiring making sure each terminal has one black and one orange lead.
10. Use wire tie supplied to bundle wires as before.
11. Reinstall accessory cover and breaker cover (see GEH-4694 for breaker cover installation instructions).

CAUTION: Accessory cover must be installed before returning breaker to service or equipment damage will result.

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.

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