



## Power Break® II Circuit Breaker Accessories

### Mechanical Counter

#### Introduction

The Mechanical Counter, shown in Figure 1, can be installed in 800–4000 ampere frame Power Break® II circuit breakers. Its function is to count the number of times the breaker is closed. The catalog number when ordered with a circuit breaker for factory installation is SPCOUNTER. The catalog number of the field-installable Mechanical Counter kit is SPCOUNTERR.

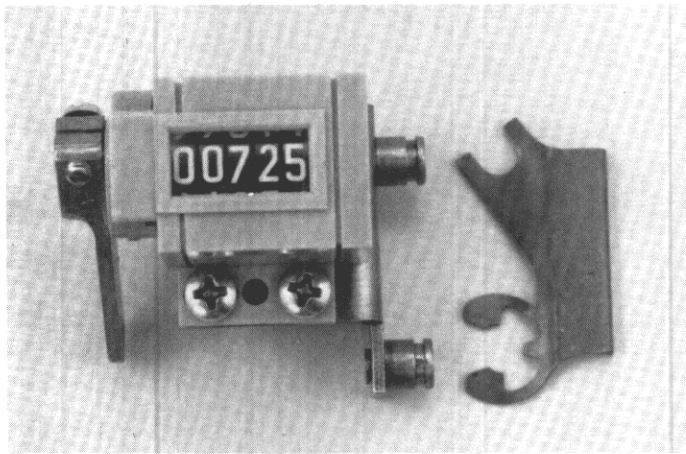


Figure 1. Mechanical Counter.

#### Operation

The count displayed by the Mechanical Counter is incremented each time the circuit breaker is closed.

#### Installation

**WARNING:** Before installing any accessories, turn the breaker OFF, disconnect it from all voltage sources, and discharge the closing springs.

**AVERTISSEMENT:** Avant d'installer tout accessoire, mettre le disjoncteur en position OFF, le déconnecter de toute tension d'alimentation, et décharger les ressorts d'armement

Install the Mechanical Counter with the following procedure.

1. Turn off the breaker, discharge the springs, and turn off control power to the accessories and motor operator (if present). If it is a draw-out breaker, rack it out.
2. Loosen the four #8–32 screws on the trim-plate assembly and remove the trim plate.

3. Loosen the four screws at the corners of the breaker cover. Remove the cover from the breaker face.
4. On the breaker cover, use a screwdriver to punch out the knockout above the CHARGE-DISCHARGE flag opening.
5. Hold the ON-OFF flag towards the ON position, then carefully insert the flag lockout plate to retain the flag in this position. The flag lockout plate should be installed close to the side frame on which the ON-OFF flag pivots and over the larger diameter portion of the mechanism cross pin. The installed flag lockout plate is shown in Figure 2.



Figure 2. Flag lockout plate installed in breaker.

6. Locate the two mounting holes through the side frame, behind the CHARGE-DISCHARGE flag. Place the spring-loaded Mechanical Counter arm above the tab on the ON-OFF flag, while simultaneously inserting the two pins on the Mechanical Counter through the holes in the side frame.
7. Slide the straight legs of the provided clip over the pin on the Mechanical Counter furthest from the ON-OFF flag. Rotate the clip counter-clockwise until the circular part of the clip snaps over the second pin on the Mechanical Counter.
8. Carefully remove the flag lockout plate, allowing the ON-OFF flag to return to the OFF position. The installed Mechanical Counter is shown in Figure 3.

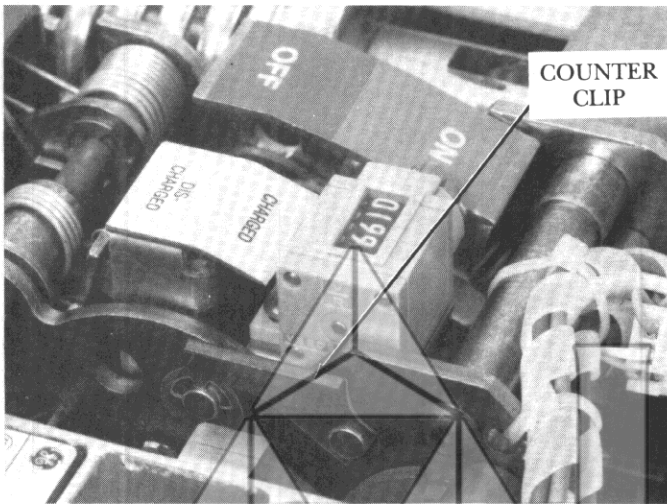


Figure 3. Mechanical counter installed in breaker.

9. Reinstall the breaker top cover, ensuring that the Trip Unit and aluminum accessory sleeve are properly aligned with the cover. Tighten the four #10-32 screws to 32 in-lbs.
10. Replace the trim plate and tighten the four #8-32 screws to 20 in-lbs.
11. If it is a draw-out breaker, rack it back in.

12. Apply control power to the accessories, then follow the normal procedure to recharge the springs and turn the breaker on.

## Trouble-Shooting

The following guide is provided for trouble-shooting and isolating common problems. It does not cover every possible situation. Contact the ED&C Customer Support Center at 800-843-3742 if any problem is not resolved by these procedures.

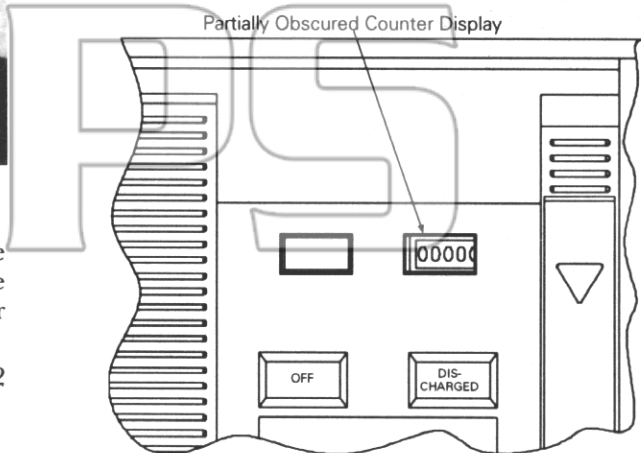


Figure 4. Counter partially obscured in top cover window.

Symptom	Possible Cause	Corrective Action
The Mechanical Counter does not advance with operation of the breaker.	The spring-loaded Mechanical Counter arm is not above the tab on the ON-OFF flag.	See step 6 of the installation instructions.
The first digit of the Mechanical Counter is partially obscured in the top cover window, as in Figure 4.	The Mechanical Counter is out of adjustment on the mounting plate.	Measure the interference. Remove the breaker top cover and the Mechanical Counter assembly. Loosen the two screws holding the Counter to the mounting plate. Slide the Counter over by the amount of the interference. Tighten the two Counter mounting screws to 10 in-lbs, then reinstall the Counter as per the installation instructions.

These instructions do not cover all details or variations in equipment nor do they provide for every possible contingency that may be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise that are not covered sufficiently for the purchaser's purposes, the matter should be referred to the GE Company.



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GEH-6280B 0296

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