



# Instructions for Key Interlock Installation on R-Frame Series C Circuit Breakers and Molded Case Switches



## WARNING

**DO NOT ATTEMPT TO INSTALL OR PERFORM MAINTENANCE ON EQUIPMENT WHILE IT IS ENERGIZED. DEATH, SEVERE PERSONAL INJURY, OR SUBSTANTIAL PROPERTY DAMAGE CAN RESULT FROM CONTACT WITH ENERGIZED EQUIPMENT. ALWAYS VERIFY THAT NO VOLTAGE IS PRESENT BEFORE PROCEEDING WITH THE TASK, AND ALWAYS FOLLOW GENERALLY ACCEPTED SAFETY PROCEDURES.**

**CUTLER-HAMMER IS NOT LIABLE FOR THE MISAPPLICATION OR MISINSTALLATION OF ITS PRODUCTS.**

The user is cautioned to observe all recommendations, warnings, and cautions relating to the safety of personnel and equipment as well as all general and local health and safety laws, codes, and procedures.

The recommendations and information contained herein are based on Cutler-Hammer experience and judgement, but should not be considered to be all-inclusive or covering every application or circumstance which may arise. If any questions arise, contact Cutler-Hammer for further information or instructions.

## 1. INTRODUCTION

### General Information

Coded key interlocks are normally used in security systems where it is important that only certain circuit breakers or combinations of circuit breakers are switched ON at the same time.

The key interlock (Fig. 1-1) is used to externally lock the circuit breaker handle in the OFF position. When the key interlock is locked, an extended deadbolt blocks movement of the circuit breaker handle. Uniquely coded keys are removable only with the deadbolt extended. Each coded key controls a specific group of circuit breakers.

The key interlock has been evaluated by Underwriters Laboratories as an Unlisted Component for use with R-Frame breakers. It consists of a mounting kit supplied by Cutler-Hammer and a key interlock supplied by the customer. The mounting kit is comprised of a mounting plate, key interlock mounting screws, two thread cutting screws, deadbolt extension, and a wire seal. Specific mounting kits are required for individual key interlock types and are listed in Selection Data 29-120R.

This instruction leaflet (IL) gives detailed procedures for installing the key interlock.

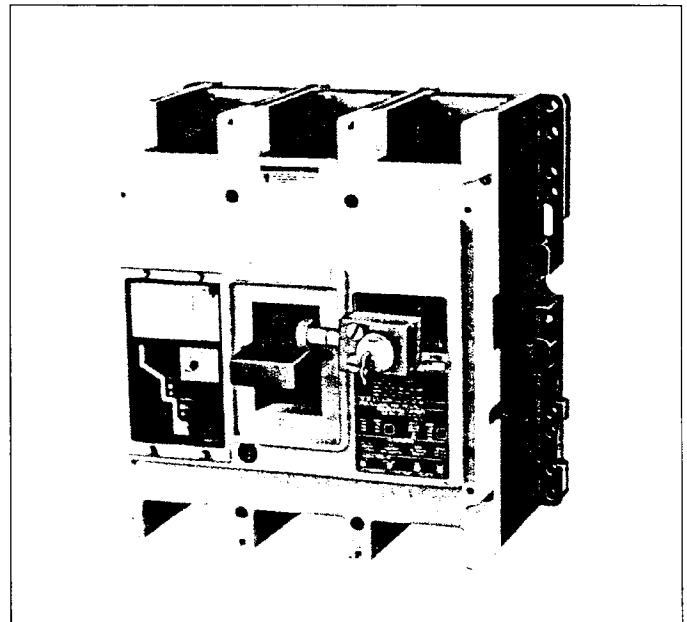


Fig. 1-1 Key Interlock Installed on R-Frame Series C Circuit Breaker

## 2. INSTALLATION

The key interlock is mounted in the right-pole position of both 3-, and 4-pole circuit breakers. A key interlock should normally be mounted on the circuit breaker cover before the circuit breaker is installed in an electrical system. To install the key interlock, perform the following steps.

**WARNING**

**BEFORE MOUNTING THE KEY INTERLOCK ON A CIRCUIT BREAKER INSTALLED IN AN ELECTRICAL SYSTEM, MAKE SURE THE CIRCUIT BREAKER IS SWITCHED TO THE OFF POSITION AND THAT THERE IS NO VOLTAGE PRESENT WHERE WORK IS TO BE PERFORMED. SPECIAL ATTENTION SHOULD BE PAID TO REVERSE FEED APPLICATIONS TO ENSURE NO VOLTAGE IS PRESENT. THE VOLTAGES IN ENERGIZED EQUIPMENT CAN CAUSE DEATH OR SEVERE PERSONAL INJURY.**

**Note:** When the key interlock is mounted on the circuit breaker cover, part of the nameplate information is covered. Before mounting the key interlock, make sure that the information is recorded for future reference. A blank nameplate is supplied to record hidden information. The nameplate should be placed in a convenient location on the circuit breaker cover.

- 2-1. Locate the mounting holes in the cover under the nameplate (see Fig. 2-1).
- 2-2. Using a pencil or similar pointed tool, punch through the area of the nameplate covering the mounting holes.
- 2-3. Position mounting plate on circuit breaker cover. Align mounting holes (see Fig. 2-2). Align pin in plate with corresponding hole in cover.

**CAUTION**

**FIRMLY TIGHTEN, BUT DO NOT OVERTIGHTEN, MOUNTING PLATE SCREWS. OVERTIGHTENING SCREWS CAN DAMAGE THE CIRCUIT BREAKER COVER.**

- 2-4. Secure mounting plate with two special #10 (4.8 mm) cross-recessed, pan-head screws provided. Torque screws to 30 lb-in. (3.5 N.m). Use only hardware provided, do not substitute.
- 2-5. Assemble deadbolt extension to deadbolt with flat area towards circuit breaker. Secure with setscrew provided. (Fig. 2-2.)

- 2-6. Position key interlock (deadbolt in withdrawn position) on base mounting plate. Align mounting holes. (Fig. 2-2.)

**CAUTION**

**USE THE HARDWARE SUPPLIED WITH MOUNTING KIT TO SECURE THE KEY INTERLOCK. HARDWARE OTHER THAN THAT SUPPLIED WITH THE MOUNTING KIT WILL NOT SECURE KEY INTERLOCK TIGHTLY AND MAY LOOSEN THE MOUNTING PLATE.**

- 2-7. Secure key interlock with 3/8-inch mounting screws supplied.
- 2-8. Move circuit breaker handle to the OFF position. Turn key, and check that deadbolt blocks circuit breaker handle path so that circuit breaker handle cannot be moved to the ON position.
- 2-9. Turn key, and check that deadbolt withdraws and that the circuit breaker handle can be moved to the ON position without interfering with the deadbolt.
- 2-10. Install wire seal between lock mounting bolts to deter unauthorized removal of the key interlock.

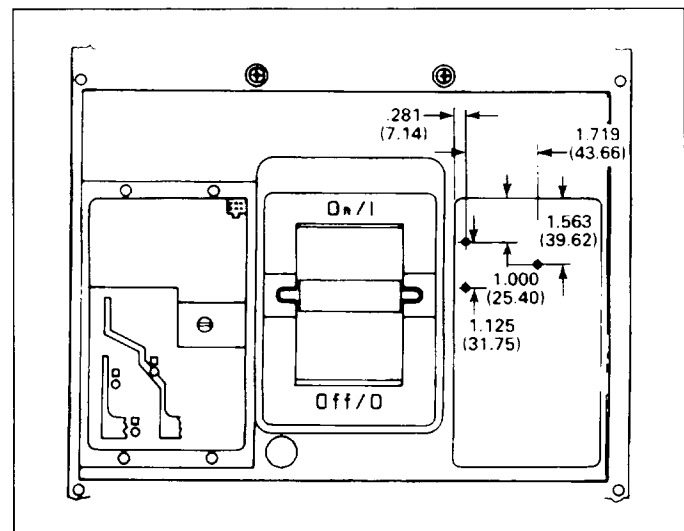


Fig. 2-1 Locating Mounting Holes

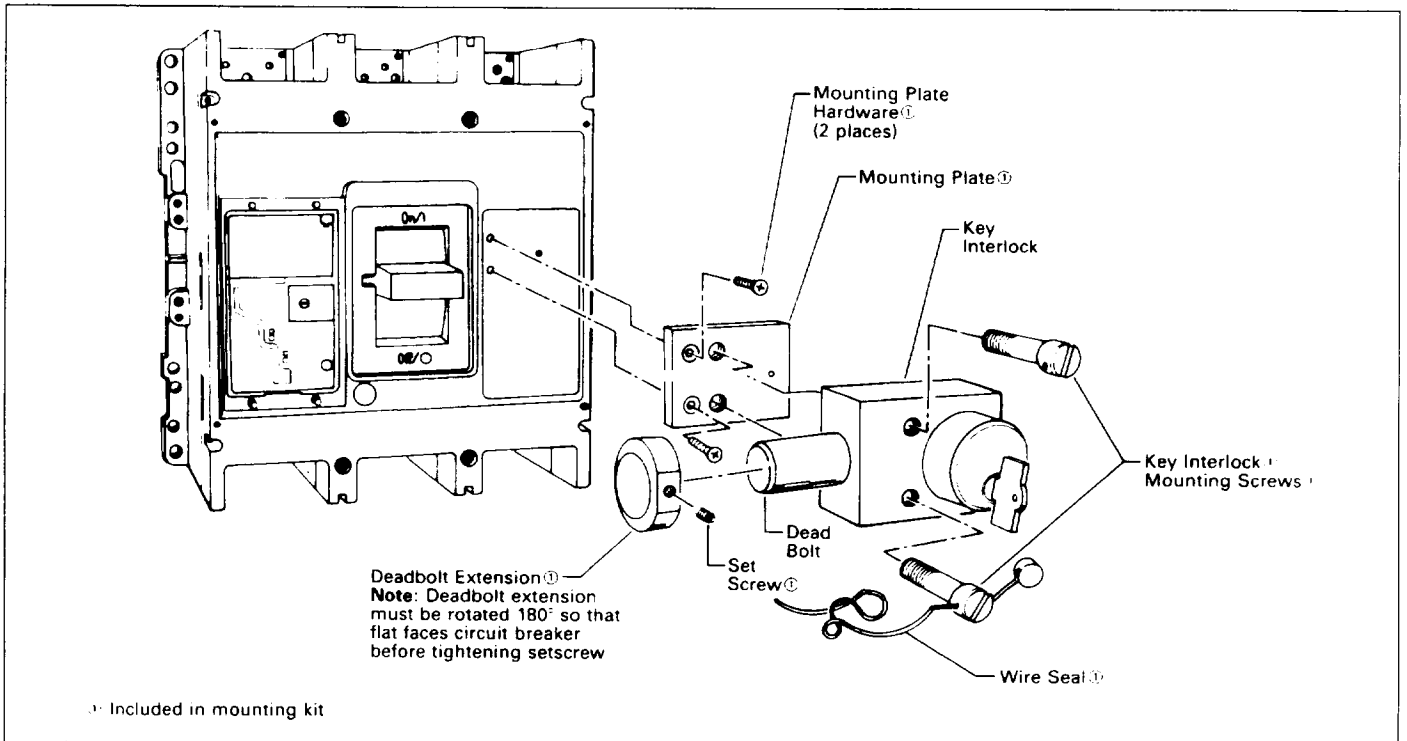


Fig. 2-2 Key Interlock Installation

**Cutler-Hammer**

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