Instructions for Key Interlock Installation of F-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.

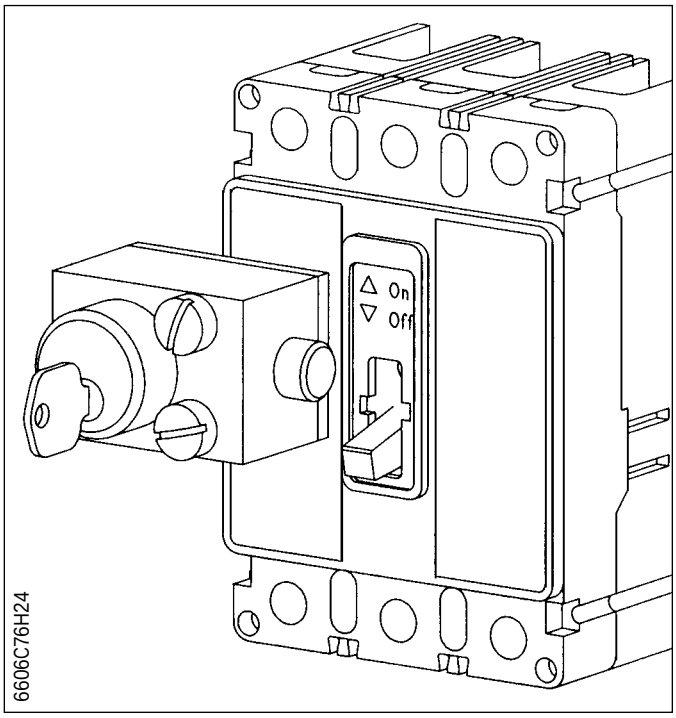

Figure 1-1 Key Interlock Installed on F-Frame Circuit Breaker

1-0 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 is used to externally lock the circuit breaker handle in the OFF position (Figure **1-1**). 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 assembly was evaluated by Underwriters Laboratories, Inc. as an unlisted component for field installation under UL File E64983. It consists of a mounting kit supplied by Cutler-Hammer and a key interlock supplied by the customer. The mounting kit comprises a mounting plate, which is secured with special screws to the circuit breaker cover in either the left- or right-pole position, key interlock mounting screws, and wire seal (see Figure **2-2**). Specific mounting kits are required for individual key interlock types and are listed in Frame Book 29-101.

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

2.0 INSTALLATION

The key interlock can be mounted in the right-pole position of a 2-pole circuit breaker or in the left- or right-pole position of 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.

NOTICE

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 on the side of the circuit breaker or on permanent surface adjacent to the circuit breaker.

The following steps describe how to mount the key interlock in the right-pole position of the circuit breaker. The same basic procedure is used for mounting the key interlock in the left pole position.

Step 1: Mounting holes are located in the cover under the nameplate (Figure **2-1**).

Step 2: Using a pencil or similar pointed tool, punch through the nameplate covering holes 4 and 6. (1 and 3 for left-hand mounting).

WARNING

CARE MUST BE TAKEN TO ENSURE THAT MOUNTING PLATE IS POSITIONED ON THE CIRCUIT BREAKER COVER SO THAT THE WORD "ON" MARKED ON THE MOUNTING PLATE IS ADJACENT TO THE CIRCUIT BREAKER HANDLE WHEN IN THE ON POSITION. IF THE MOUNTING PLATE IS NOT POSITIONED CORRECTLY, THE KEY INTERLOCK WILL NOT PROVIDE THE DESIRED INTERLOCKING FUNCTION. FAILURE OF THE INTERLOCKING FUNCTION CAN CAUSE DEATH, SEVERE PERSONAL INJURY OR EQUIPMENT DAMAGE.

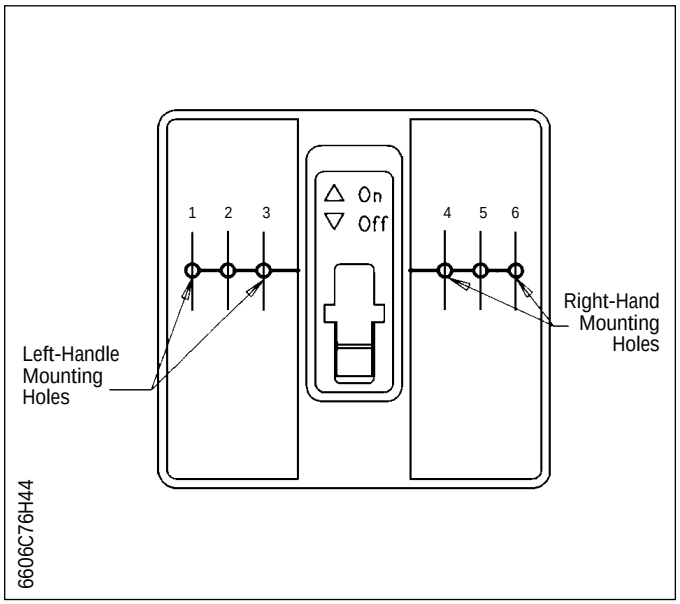

Figure 2-1 Mounting Hole Location

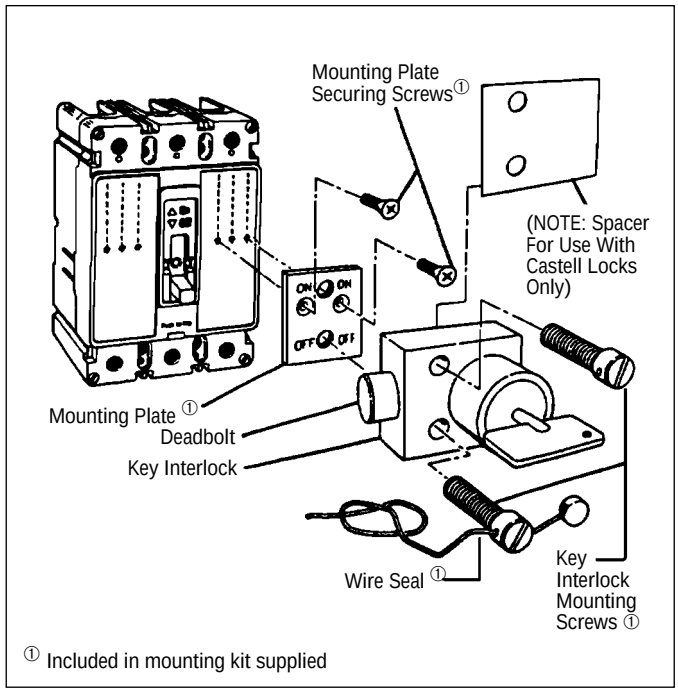

Figure 2-2 Key Interlock Installation

Step 3: Position mounting plate on circuit breaker cover. Line up mounting holes, see Figure **2-2**.

CAUTION

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

Step 4: Secure mounting plate with two special #8 (4.2mm) Phillips-head thread cutting screws provided. Use only hardware provided. Do not substitute.

Step 5: Position key interlock (deadbolt in withdrawn position) on mounting plate. Line up mounting holes. (See Figure **2-2**.)

CAUTION

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

Step 6: Secure key interlock with 3/8-inch mounting screws supplied.

Step 7: 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.

Step 8: 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.

Step 9: Install wire seal between lock mounting bolts to deter unauthorized removal of the key interlock.

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