Instruction Leaflet **IL29C233B**

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Instructions for Key Interlock Installation on J and K Frame Series C Circuit Breakers and Molded Case Switches

Contents

Powering Business Worldwide

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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 CON TACT WITH ENERGIZED EQUIPMENT. ALWAYS VERIFY THAT NO VOLTAGE IS PRESENT BEFORE PROCEEDING WITH THE TASK, AND ALWAYS FOLLOW GENERALLY ACCEPTED SAFETY PROCEDURES.

EATON IS NOT LIABLE FOR THE MISAPPLICATION OR MISINSTALLATION OF ITS PRODDUCTS.

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.

Figure 1-1 Key Interlock Installed on Series C Circuit Breaker (K-Frame Shown).

The recommendations and information contained herein are based on Eaton experience and judgment, but should not be considered to be all-inclusive or covering every application or circumstance which may arise. If any questions arise, contact Eaton 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 (Figure **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 assembly is Underwriters Laboratories, Inc. listed for field installation under UL File E64983. It consists of a mounting kit supplied by Eaton and a key interlock supplied by the customer. The mounting kit comprises a mounting plate, which is secured by two screws (provided) to the circuit breaker cover in either the left- or right-pole position, a deadbolt extension with setscrew, key interlock mounting screws, a wire seal, a nameplate and, where required, a mounting spacer. See Figure **2-2**. The key interlock itself is supplied by the customer. Specific mounting kits are required for individual key interlock types and are listed in Frame Books 29-102 (J-frame) and 29-103 (K-frame).

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

2. INSTALLATION

The key interlock can be mounted in the left- or right-pole position of a 2-, 3-, and 4-pole circuit breaker. 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.

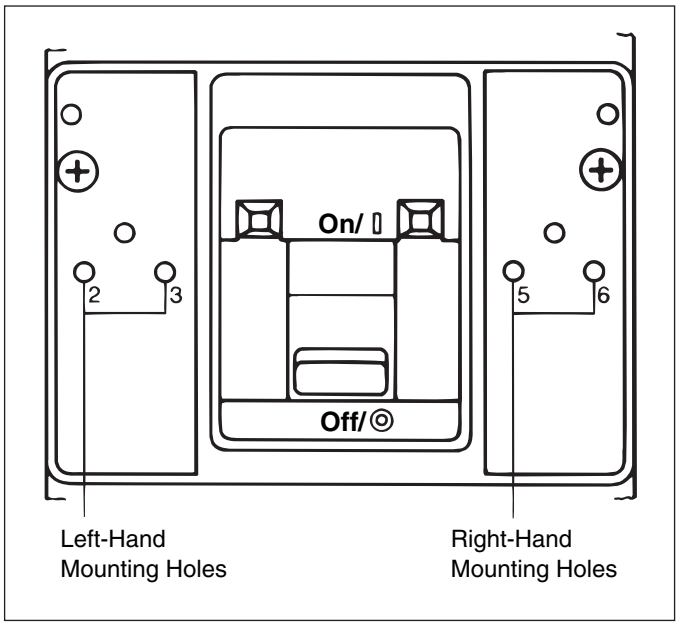


Figure 2-1 Mounting Hole Locations (K-Frame Shown).

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 VOLT AGES 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 any other convenient location 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 procedure is used for mounting the key interlock in the left-pole position.

2-1. Mounting holes are located in the cover under the name plate. Find the mounting holes using the locating marks in the nameplate (see Figure **2-1**).

2-2. Using a pencil or similar pointed tool, punch through the area of the nameplate covering holes 5 and 6 (2 and 3 for left hand mounting).

WARNING

MAKE SURE THAT MOUNTING PLATE IS POSITIONED ON THE CIRCUIT BREAKER COVER SO THAT THE WORD ON MARKED ON THE MOUNTING PLATE IS TOWARD THE LINE END OF THE CIRCUIT BREAKER. 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.

2-3. Position mounting plate on circuit breaker cover. Align mounting holes (see Figure **2-2**).

CAUTION

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

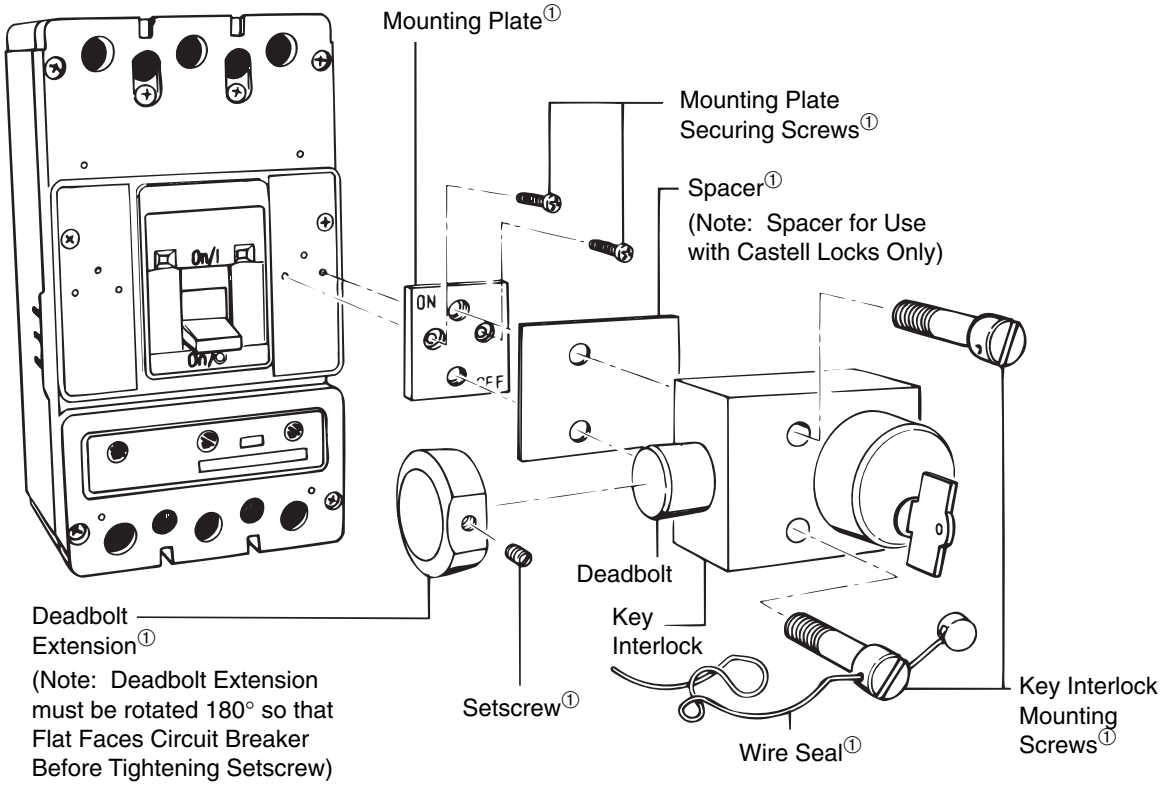
2-4. Secure mounting plate with two special #8 (4.2 mm) cross recessed head, thread-cutting screws provided. Use only hardware provided, do not substitute.

2-5. Assemble bolt extension to deadbolt with flat area towards circuit breaker. Secure with setscrew provided (see Figure **2-2**).

2-6. Position key interlock (deadbolt in withdrawn position) on mounting plate. Align mounting holes (see Figure **2-2**).

CAUTION

USE THE HARDWARE SUPPLIED WITH MOUNTING KIT TO SECURE THE KEY INTERLOCK. HARDWARE



① Included in Mounting Kit supplied by Eaton.

Figure 2-2 Key Interlock Installation (K-Frame Shown).

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.

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The instructions for installation, testing, maintenance, or repair herein are provided for the use of the product in general commercial applications and may not be appropriate for use in nuclear applications. Additional instructions may be available upon specific request to replace, amend, or supplement these instructions to qualify them for use with the product in safety-related applications in a nuclear facility.

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