Instruction Leaflet **IL019214EN** Effective July 2018

Shutter and rail locking device for low-voltage switchgear

⚠ DANGER

HAZARDOUS VOLTAGE. WILL CAUSE SEVERE INJURY OR DEATH. DO NOT OPEN SHUTTER IF THE EQUIPMENT IS ENERGIZED.

⚠ WARNING

(1) ONLY QUALIFIED ELECTRICAL PERSONNEL SHOULD BE PERMITTED TO WORK ON THE EQUIPMENT.

(2) DO NOT ATTEMPT TO INSTALL OR PERFORM MAINTENANCE ON THE EQUIPMENT WHILE ENERGIZED. ALWAYS VERIFY THAT NO VOLTAGE IS PRESENT BEFORE PROCEEDING.

(3) ALWAYS DE-ENERGIZE PRIMARY AND SECONDARY CIRCUITS BEFORE REMOVING CIRCUIT BREAKER.

FAILURE TO FOLLOW THESE STEPS FOR ALL PROCEDURES DESCRIBED IN THIS INSTRUCTION LEAFLET COULD RESULT IN DEATH, BODILY INJURY, OR PROPERTY DAMAGE.

⚠ CAUTION

SPECIFIC OPERATING PROCEDURES MUST BE DEVELOPED BY THE RESPONSIBLE PARTY, BECAUSE OF THE UNIQUE APPLICATION AND VAST VARIETY OF SYSTEM AND USER REQUIREMENTS. FAILURE TO DEVELOP SPECIFIC PROCEDURES COULD LEAD TO IMPROPER USE OR OTHER MORE SERIOUS CONSEQUENCES.

This document provides instructions for how to properly install Eaton's breaker shutter and rail locking device.

Rail locking device

Step 1. Identify the slot for the rail locking device.

Figure 1.

Step 2. Slide device into slot from inside the cassette.

Figure 2.

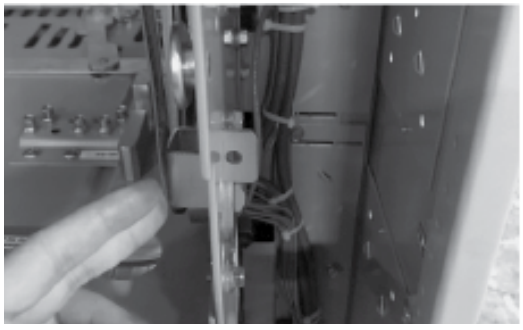

Figure 3.

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Step 3. Install and lock a lock-out/tag-out compliant padlock according to company protocol.

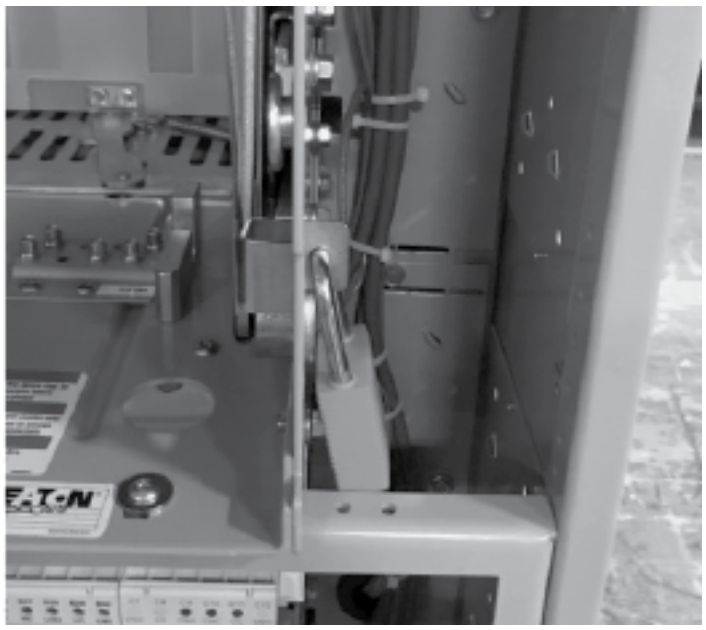


Figure 4.

Step 4. Verify that the cassette rail cannot be extended.

Figure 5.

Shutter locking device

Step 1. There are three sizes of shutter locking devices available depending on the type of circuit breaker cassette. Choose the correct shutter locking device based on the cassette size. The correct size must be chosen for the shutters to be properly locked.

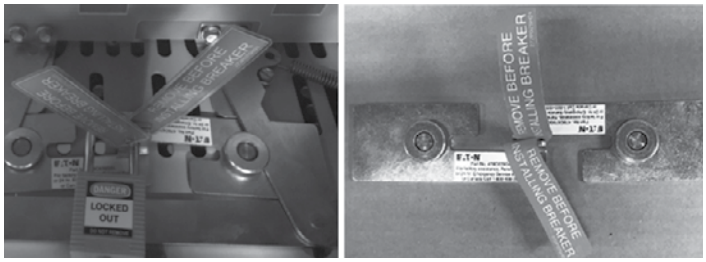
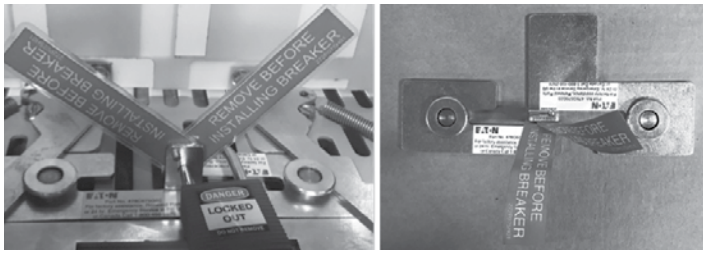


Figure 6. Shutter lock for Magnum DS cassette



The larger of the two pieces will always be placed to the rear of the smaller piece regardless of the side of the cassette it is being installed in.

Figure 7. Shutter lock for double-wide three-pole breaker cassette

Figure 8. Shutter lock for Magnum™ narrow frame cassette

Step 2. Place first piece nested between shutter arms and bottom of the cassette with the "remove before installing breaker" label toward the middle of the two arms.

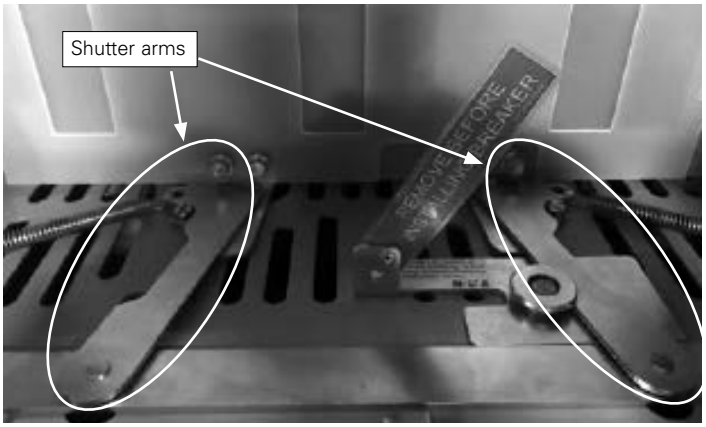


Figure 9.

Step 3. Repeat with the other side.

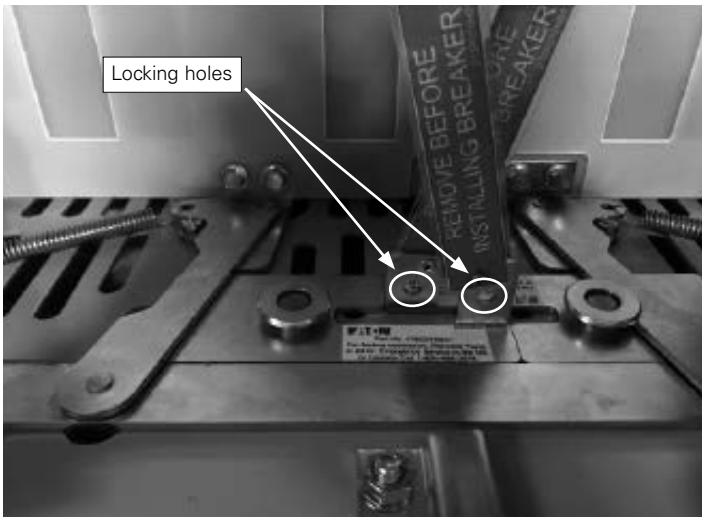


Figure 10.

Step 4. Pull both pieces flush to the arms and line up locking holes.

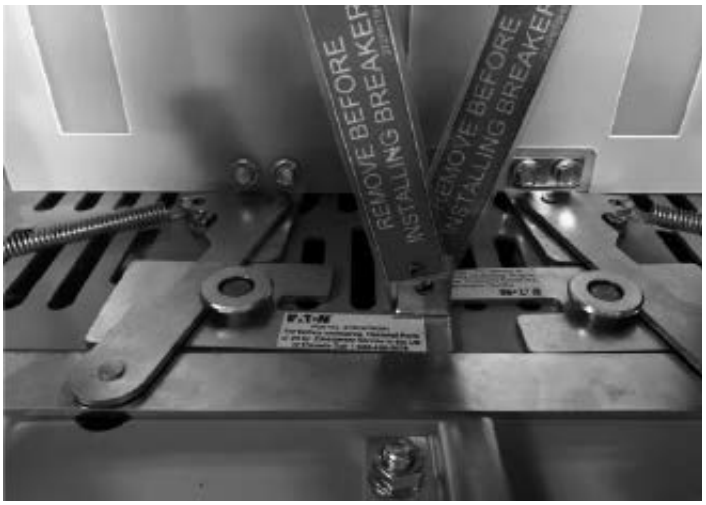


Figure 11.

Step 5. Install and lock a lock-out/tag-out compliant padlock according to company protocol.

Figure 12.

Step 6. Verify shutter cannot be opened to access breaker stabs.

Figure 13.

Cassette modification instructions

This section provides instructions for how to properly modify a Magnum DS cassette for use with Eaton's rail locking device. The cassette will only need to be modified if the switchgear you have was produced before January 2018, and does not already have this slot as a feature.

Shown in **Figure 14** is everything that will be used to modify the cassette. The kit includes: 1/4-20 x 5/8-inch hex head bolt, two 1/4-inch flat washers, 1/4-20 hex nut, and a cassette side sheet drill template.

Shown in **Figure 15** are the tools required for the modification: 7/16-inch open-ended wrench, 7/16-inch socket, 5/32-inch drill bit, ratchet; you will also need a power drill (not shown).

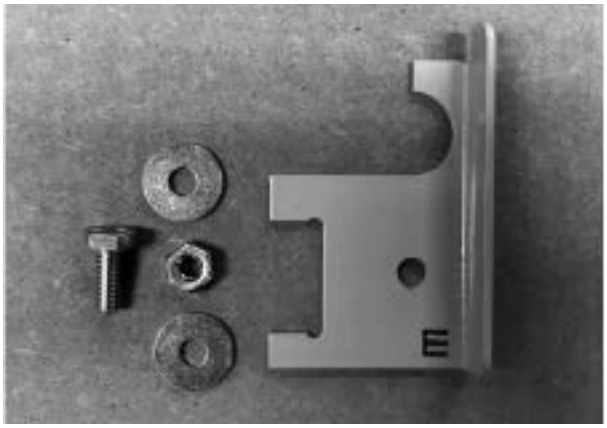


Figure 14.

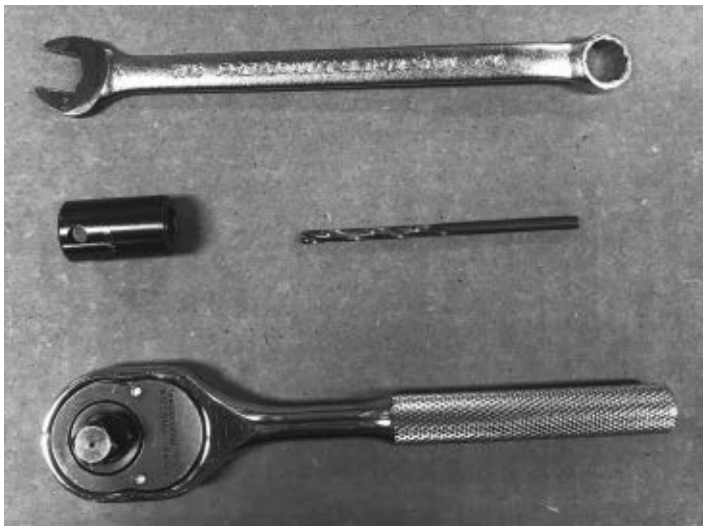


Figure 15.

Note: In the following photos, the cassette pictured has already been modified. The photos are for illustration purposes; the process and procedure for modification remains the same.

Step 1. Place the cassette side sheet drill template against the inside of the right wall of the cassette.

Figure 16.

Step 2. Install one washer and the hex bolt through the hole.

Figure 17.

Step 3. Place the other washer on the other end of the bolt, and secure the hex nut to the outside wall of the cassette.

Figure 18.

Step 4. Once the cassette side sheet drill template is securely in place, use the 5/32-inch drill to create holes through the side sheet top and bottom of the slot in the template.

Figure 19. Drilling the top edge of template

Figure 20. Drilling the bottom edge of template

Step 5. Using an angle grinder or Dremel tool, clear the remaining material between the two holes to create the slot. Be sure to follow your company's protocol for safe work practices with the tool you choose.

Note: The photos included in the step-by-step instructions above use a Magnum DS cassette; however, the modification steps do not vary based on the type of cassette.

Figure 21 and **Figure 22** show the cassette side sheet drill template secured to a Magnum Narrow Frame cassette with the modification kit components.

Figure 21. Inside view of cassette side sheet drill template secured to MDN cassette

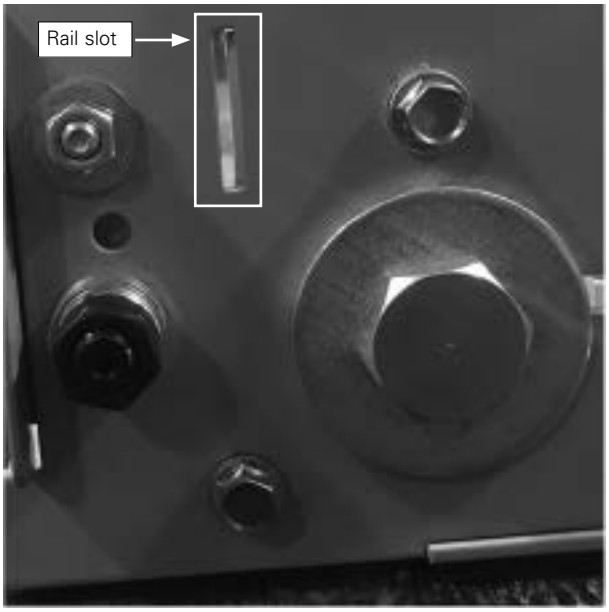


Figure 22. Outside view of cassette side sheet drill template secured to MDN cassette

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