

# Spring release latch check switch (LCS) for Magnum low voltage circuit breakers

## ⚠ WARNING

- (1) ONLY QUALIFIED ELECTRICAL PERSONNEL SHOULD BE PERMITTED TO WORK ON THE EQUIPMENT
- (2) ALWAYS DE-ENERGIZE PRIMARY AND SECONDARY CIRCUITS IF A CIRCUIT BREAKER CANNOT BE REMOVED TO A SAFE WORK LOCATION
- (3) DRAWOUT CIRCUIT BREAKERS SHOULD BE LEVERED (RACKED) OUT TO THE DISCONNECT POSITION.
- (4) ALL CIRCUIT BREAKERS SHOULD BE SWITCHED TO THE OFF POSITION AND MECHANISM SPRINGS DISCHARGED.

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

## ⚠ WARNING

THE INSTRUCTIONS CONTAINED IN THIS IL AND ON PRODUCT LABELS MUST BE FOLLOWED. OBSERVE THE FIVE SAFETY RULES.

- DISCONNECTING;
- ENSURE THAT DEVICES CANNOT BE ACCIDENTALLY RESTARTED;
- VERIFY ISOLATION FROM THE SUPPLY;
- EARTHING AND SHORT-CIRCUITING; AND;
- COVERING OR PROVIDING BARRIERS TO ADJACENT LIVE PARTS.

## Section 1: General information

A latch check switch (LCS) indicates when the circuit breaker is “ready to close” (**Figure 1**). The Internal version of the LCS is wired to the spring release. It will not permit activation of the spring release until the circuit breaker is fully charged and the trip latch is reset.

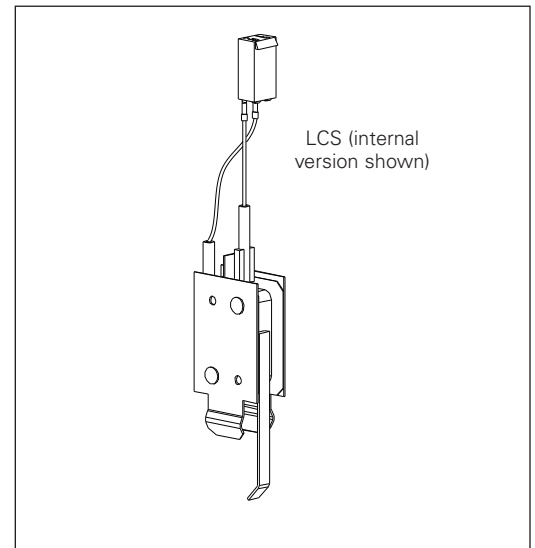
This product is intended for use in Magnum circuit breakers with PXR or Digitrip trip units.

### Required tools

- 1/4-inch drive ratchet
- 10 mm socket

### Kit parts identification

Refer to **Figure 1** for visual identification of the contents of kit:



**Figure 1. Contents of kit.**

**Note:** All images show a Magnum circuit breaker with a PXR trip unit unless stated otherwise. Some components, such as the trip unit, not shown for clarity.

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## Section 2: Installation of internal remote LCS

To install the LCS, proceed with the following steps:

**Step 1:** Remove the front cover by unscrewing the hex-head captive bolts (four for three-pole, six for four-pole) that join the cover to the breaker housing using a 10 mm 1/4-inch drive socket. Then hold the charge handle down at about a 45-degree angle to pull off the cover.

**Step 2:** Place the appropriate label on the front cover nameplate space located under "Accessories".

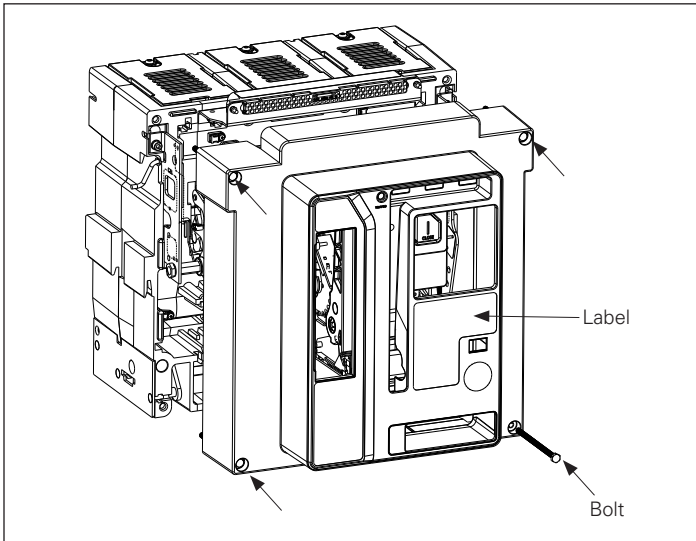


Figure 2. Steps 1 and 2.

**Step 3:** Remove the accessory (if installed) and the spring release (SR) from the indicated positions on the accessory tray by lifting its lock up and sliding the accessory toward the front of the breaker. Then lift accessory up and out of tray. Do not disconnect the wiring.

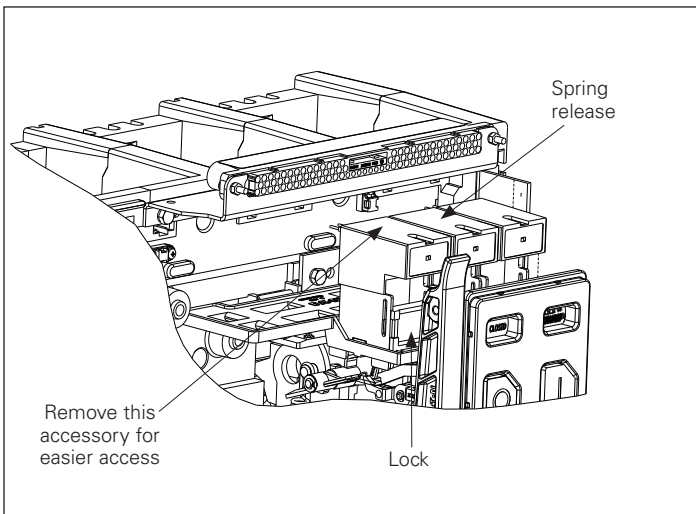


Figure 3. Step 3.

**Step 4:** Plug the connector from the LCS onto the two pins of the spring release circuit board. Then push the LCS into the slot in the accessory tray. Make sure the LCS is fully seated.

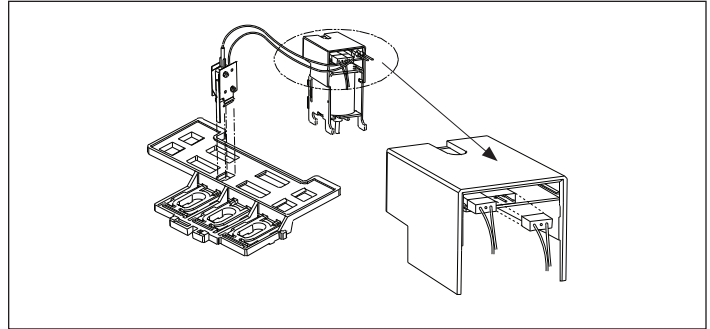


Figure 4. Step 4.

**Step 5:** Reinstall any accessory that was removed in Step 3.

**Step 6:** Test the installation.

### CAUTION

**PUSH THE OFF BUTTON FIRST TO ENSURE THAT THE BREAKER IS NOT CLOSED. FAILURE TO FOLLOW THIS ACTION COULD RESULT IN A SERIOUS INJURY.**

With the breaker OPEN and DISCHARGED, push down on the trip lever platform (to its stop) and release. The LCS should not operate. This is indicated by the absence of an audible "click" from the switch.

Now charge the breaker using the manual handle. When the breaker is fully charged, the trip lever will return to the latched (platform level) position. Repeat the above test by pushing the trip lever platform down and releasing it. An audible "click" from the switch should be heard.

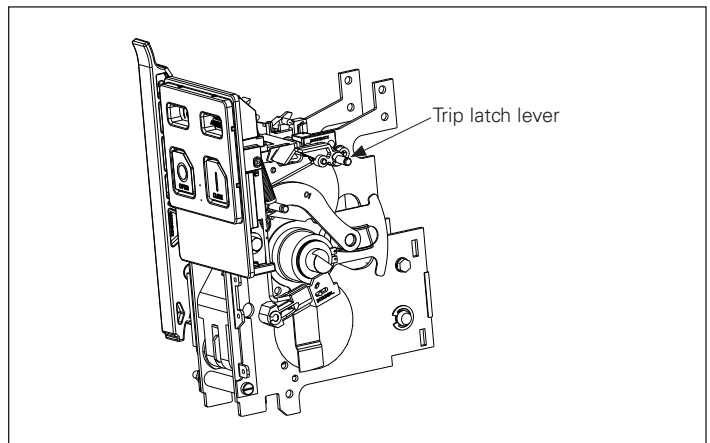


Figure 5. Step 6.

**Step 7:** Reinstall the front cover. Push the CLOSE and then the OPEN pushbuttons to discharge all energy from the mechanism, leaving it in an OPEN and DISCHARGED status.

**Notes:**

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