

Remote 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 External version used for remote indication consists of 1 Form C contact wired to the circuit breaker secondary contacts for integration into external control schemes.

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

Note: Wiring the LCS for remote indication directly in series with the SR accessory is not recommended as this will override the “anti-pump” feature.

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:

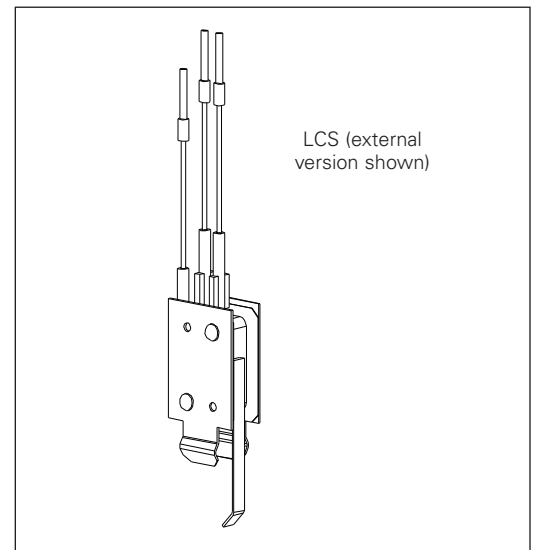


Figure 1. Contents of kit.

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 external 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".

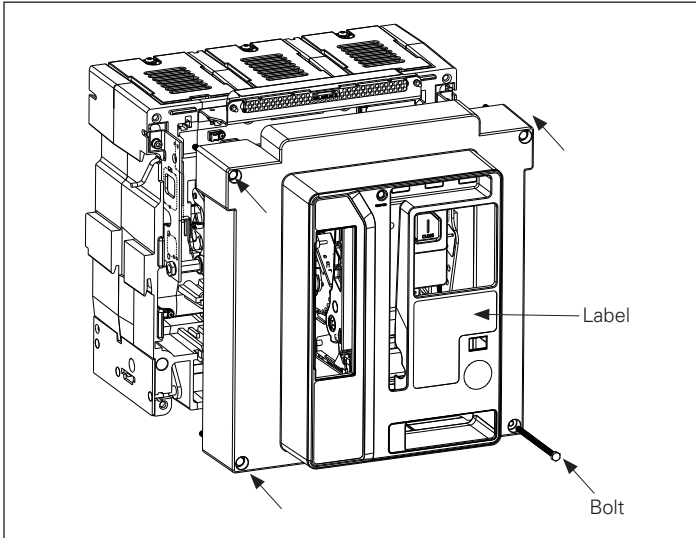


Figure 2. Steps 1 and 2.

Step 3: Remove the accessory (if installed) from the indicated position 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.

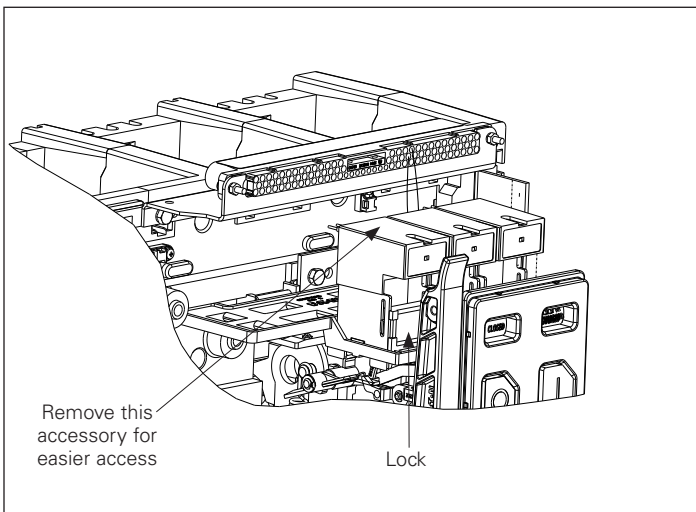


Figure 3. Step 3.

Step 4: Connect wires from LCS to the secondary connector, referring to **Table 1**, in keeping with the wire markings. Terminal maps for the secondary connectors are located on top of the secondary connectors. Check that all wire terminals are secure by pulling gently. Then push the LCS into center slot in the accessory tray. Make sure the LCS is fully seated.

Table 1. Secondary connector latch check positions

Trip unit	Make	Common	Break
Digitrip (Fig. 4)	B30	B29	B28
PXR (Fig. 5)	C58	C59	C60

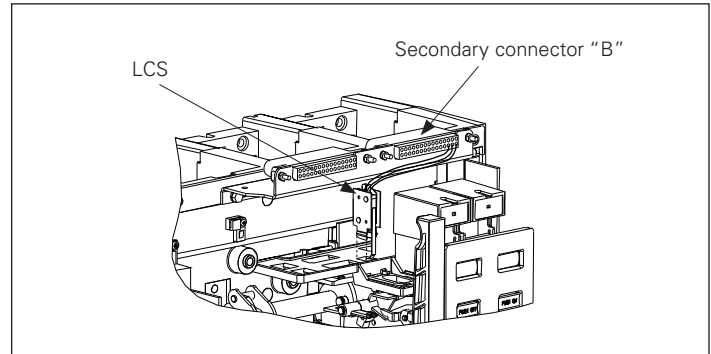


Figure 4. Step 4 Magnum with Digitrip.

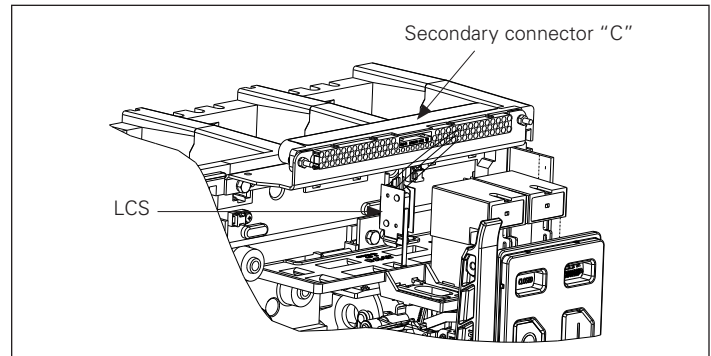


Figure 5. Step 4 Magnum with PXR.

Step 5: Reinstall any accessory that was removed in Step 2.

Step 6: Test the installation.

⚠ CAUTION

DO NOT TOUCH THE INTERIOR OF THE BREAKER WHILE THE SPRING IS CHARGED. 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.

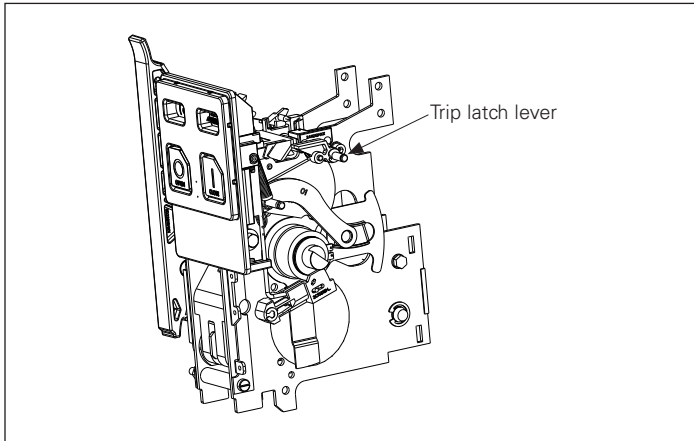


Figure 6. Step 6.

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.

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