

# Undervoltage release in 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

The undervoltage release (UVR) opens the circuit breaker when its supply voltage falls to between 35–60% of rated voltage. If the release is not energized to 85% of its supply voltage, the circuit breaker cannot be closed electrically or manually.

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

**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.

### Required tools

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

## Section 2: Installation of UVR

To install the UVR, 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 approximately 45-degrees to pull off the cover.

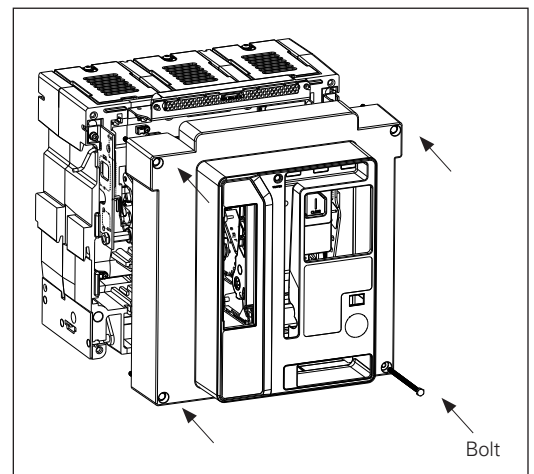


Figure 1. Step 1.

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**Step 2:** Slide the lock on the UVR to the unlocked (up) position. Install the hook feet down through openings as shown. Then slide the UVR forward towards the rear of the breaker until the feet engage the mounting plate. Slide the lock down into the locked position.

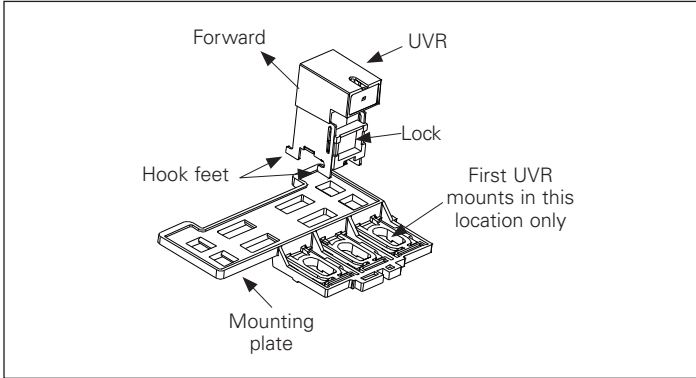


Figure 2. Step 2.

**Step 3:** Connect wires from the UVR to secondary connector referring to **Table 1**, in keeping with the wire markings. Terminal maps for the secondary connectors are located on the top of secondary connectors.

Table 1. Secondary connector UVR position

Trip unit	UVR 1		UVR 2	
	Positive	Negative	Positive	Negative
Digitrip (Fig. 3)	A7	A8	B10	B11
PXR (Fig. 4)	C56	C57	C50	C51

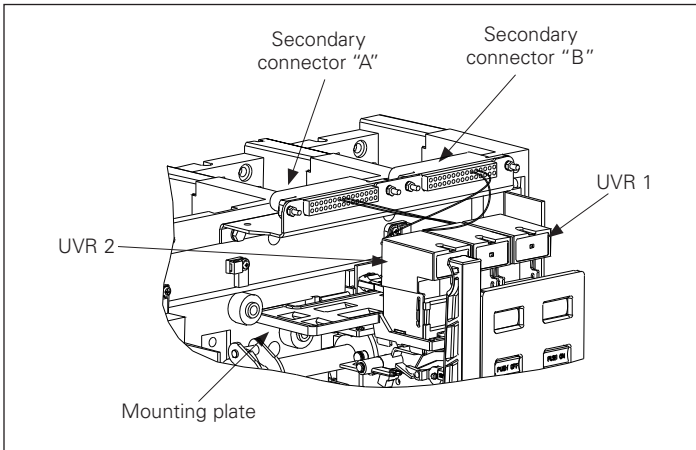


Figure 3. Step 3 Magnum with Digitrip.

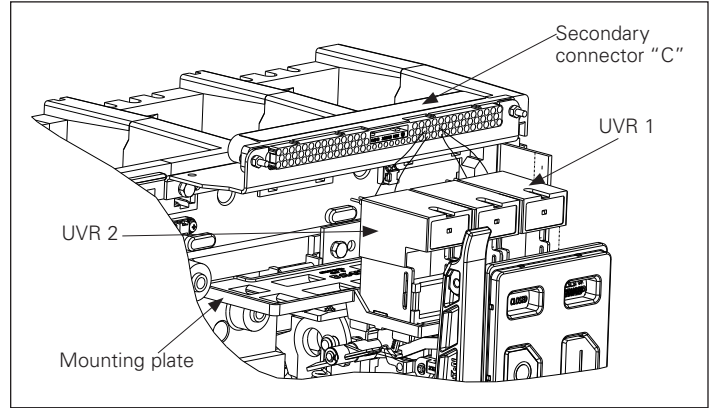


Figure 4. Step 3 Magnum with PXR.

**Step 4:** If a second UVR is to be installed, repeat Step 2 and wire to secondary connector in accordance with **Table 1**.

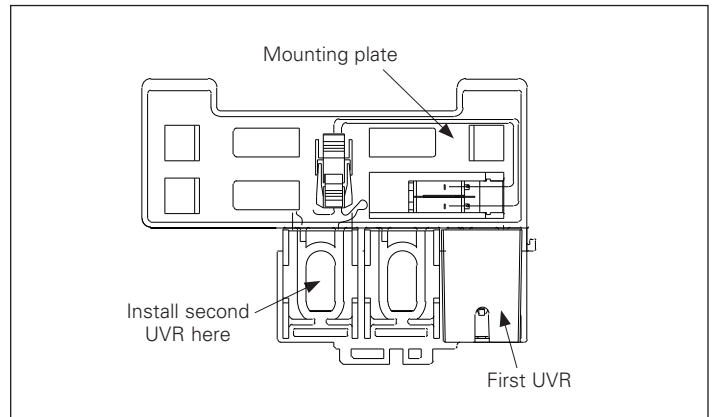


Figure 5. Step 4.

**Step 5:** Reinstall the front cover removed in Step 1.

**Notes:**

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