Instructional Leaflet **IL2C14761**

Effective December 2021
Supersedes June 2009

Spring release kit 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 spring release (SR) (closing coil) remotely closes the circuit breaker when the coil is energized by a voltage input. When the spring release is used in conjunction with a latch check switch, the closing spring must be fully charged and the trip latch reset (not held in the tripped position) for the spring release to operate. If these conditions are not met, the close signal will be ignored until it is removed and re-applied.

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 socket
- 10 mm socket

Section 2: Installation of spring release

To install the spring release, 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.

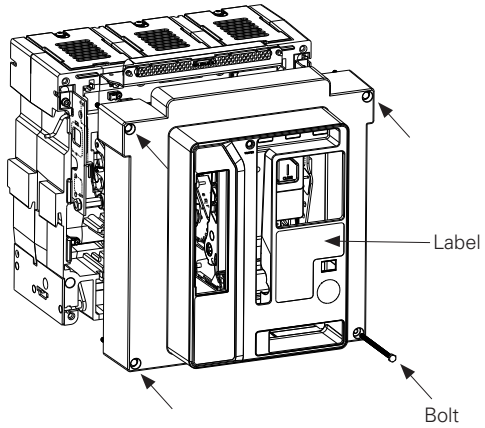

Figure 1. Step 1.

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

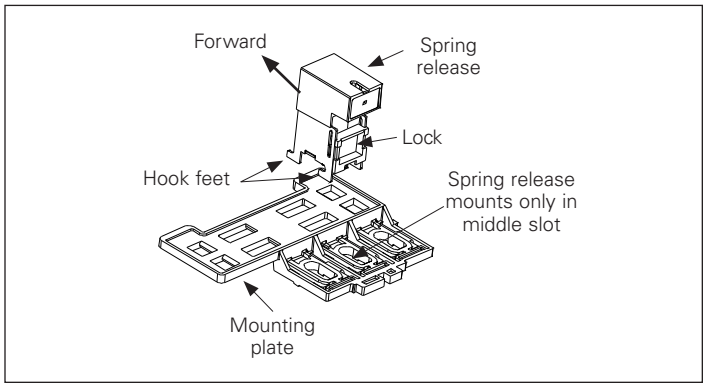
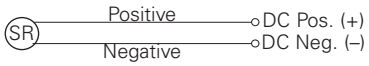


Figure 2. Step 2.

⚠ CAUTION

BECOME FAMILIAR WITH THIS CAUTION ON POLARITY BEFORE PROCEEDING WITH STEPS 3 OR 4. FAILURE TO APPLY THE CORRECT POLARITY WILL RESULT IN DAMAGE TO THE DEVICE.



When connecting a 24 Vdc or 48 Vdc Spring Release Device, be certain to apply positive (+) voltage to the secondary terminal in accordance with Table 1.

For a breaker with a Digitrip 1150 trip unit and a 24 Vdc or 48 Vdc Spring Release Device, be certain to apply positive voltage to secondary terminal "A13" for INCOM Close

Step 3: If the breaker has an 1150 trip unit, skip this step and proceed directly to Step 4. Otherwise, connect wires from the spring release 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.

Table 1. Secondary connector spring release positions

Trip unit	Positive	Negative
Digitrip (Fig.3)	B12	B13
PXR (Fig. 4)	C52	C53

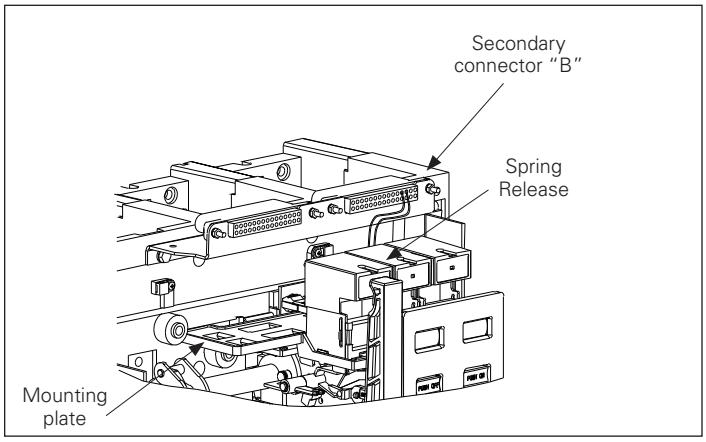


Figure 3. Step 3 Magnum with Digitrip.

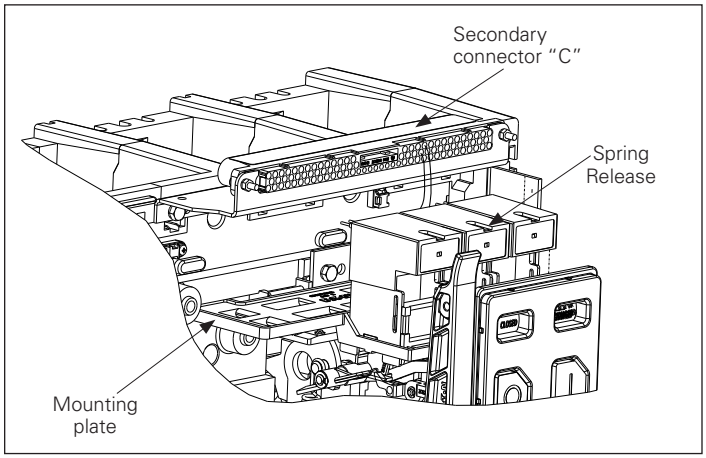


Figure 4. Step 3 Magnum with PXR.

Step 4: For a breaker **with a Digitrip 1150** trip unit only, find the rust colored connector in the vicinity of where the spring release device is mounted. This two-piece connector will easily separate by pulling apart on the two ends. Insert the spring release wire marked "B12" into the connector until it snaps into place. Re-connect the rust-colored connector. Insert the spring release wire "B13" into the breaker connector "B" at position 13.

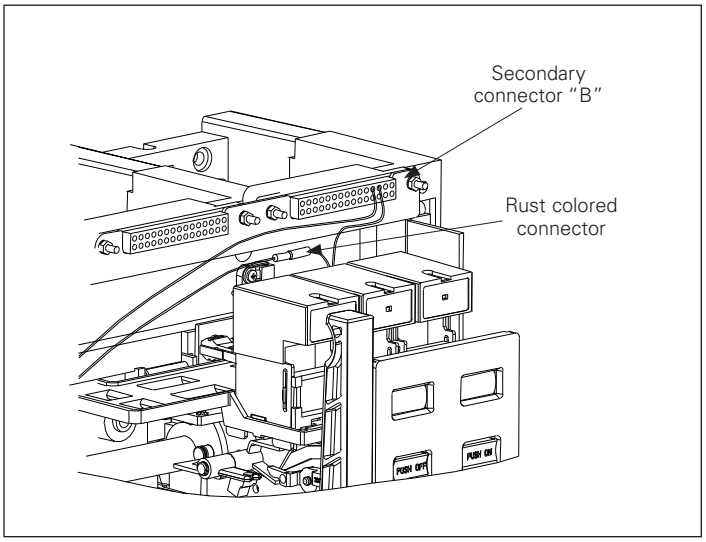


Figure 5. Step 4.

Step 5: Reinstall front cover removed in Step 1.

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