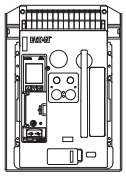
Instruction Leaflet **IL01301040E**

Supersedes June 2016
Effective January 2019

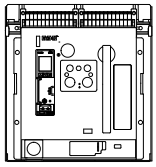
Power Defense – ICCB
Series NRX
IZMX

# Ronis key interlock kit

## Instructions apply to:



**UL489** : **PD-NF, Series NRX NF**
**IEC** : **PD-NF, IZMX16**
**UL1066/ANSI** : **Series NRX NF**



**UL489** : **PD-RF**
**IEC** : **PD-RF, IZMX40**

**⚠ 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**

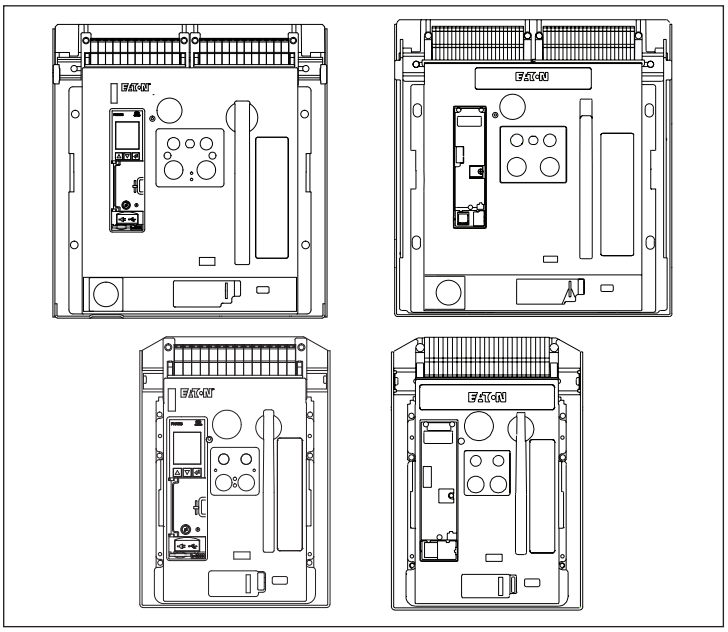
**THE INSTRUCTIONS CONTAINED IN THIS IL AND ON PRODUCT LABELS HAVE TO BE FOLLOWED. OBSERVE THE FIVE SAFETY RULES:**
- **DISCONNECTING**
- **ENSURE THAT DEVICES CANNOT BE ACCIDENTALLY RESTARTED**
- **VERIFY ISOLATION FROM THE SUPPLY**
- **EARTHING AND SHORT-CIRCUITING**
- **COVERING OR PROVIDING BARRIERS TO ADJACENT LIVE PARTS**

**DISCONNECT THE EQUIPMENT FROM THE SUPPLY. USE ONLY AUTHORIZED SPARE PARTS IN THE REPAIR OF THE EQUIPMENT. THE SPECIFIED MAINTENANCE INTERVALS AS WELL AS THE INSTRUCTIONS FOR REPAIR AND EXCHANGE MUST BE STRICTLY ADHERED TO PREVENT INJURY TO PERSONNEL AND DAMAGE TO THE SWITCHBOARD.**

Power Defense™

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**Note:** The content of this IL applies to both PXR and Digitrip equipped breakers. Appearance of product may vary.



## Section 1: General information

The key interlock secures the breaker in the "OFF" position. It is mounted in the upper portion of the breaker and can be viewed from the front cover. The customer supplies the keylock. The following safety features are provided.

1. With NO key, the breaker is "OPEN" and cannot close.
2. With the key ON (key in the cylinder) and rotated, the breaker is fully functional.
3. The key cannot be removed when the breaker is ON (closed).

**Note:** To remove the key, press the breaker "OFF" button, and rotate the key 90 degrees counterclockwise.

### Kit parts identification

Refer to (Figure 1) for visual identification of the parts listed below.

(A) External protective ring (self-adhesive) (1)

(B) Ronis lock 1351-10B (Dim A = 7 mm) with key (Ronis keylock not supplied)

(C) Metal mounting bracket (1)

(D) M3 x 5 mm mounting screw (2)

(E) Fiber retaining washer (2)

(F) Large locking nut (1) (not part of kit, supplied with keylock)

(G) Key lock lever (1)

(H) Small locking nut (1) (not part of kit, supplied with keylock)

(I) Spacer (1) for RF frame use only.

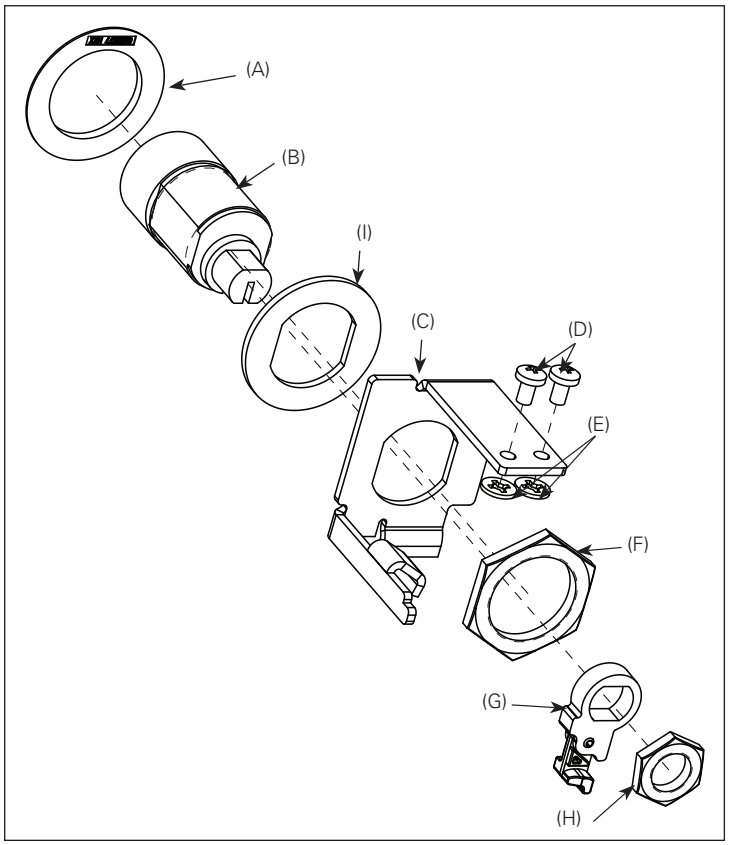



**Figure 1. Contents of kit.**

## Section 2: Installation of key interlock

Proceed with the following 10 steps.

**Step 1:** Remove the four screws (six for 4-pole breaker) holding the front cover in place, two on each side of the cover.

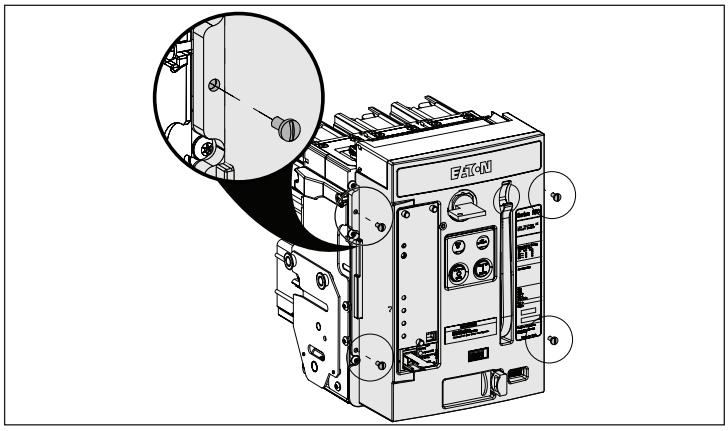


**Figure 2. Step 1 – NF frame.**

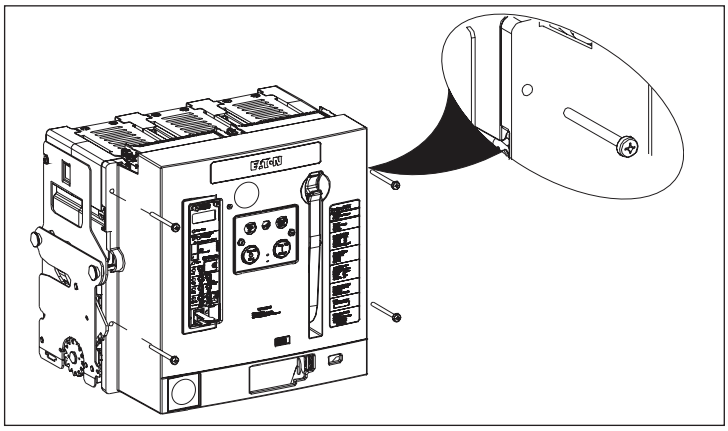


**Figure 3. Step 1 – RF frame.**

**Step 2:** Remove the front cover. Pull down on the charging handle to simplify removal.

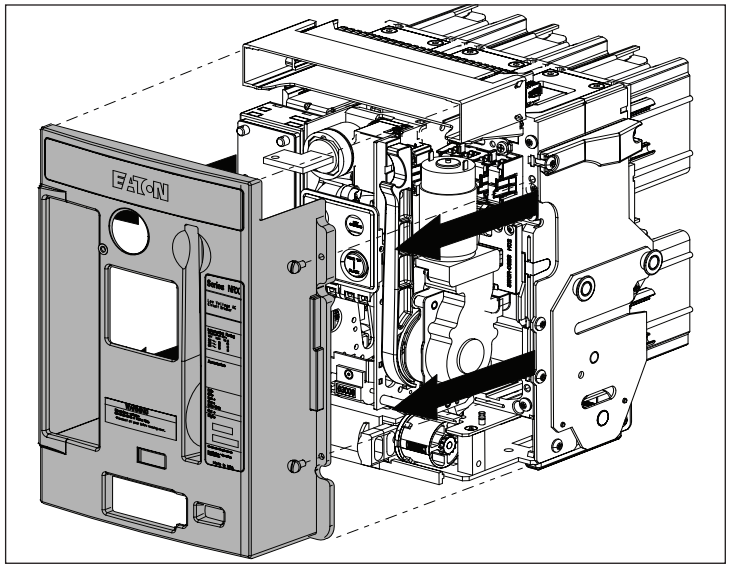


**Figure 4. Step 2 – NF frame.**

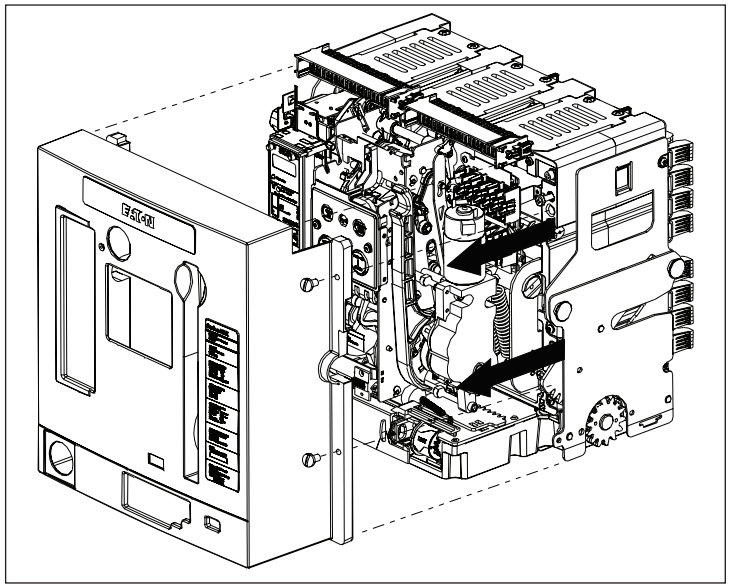


**Figure 5. Step 2 – RF frame.**

**Step 3: (NF frame only)** If this is a fixed circuit breaker, skip this step and proceed directly to Step 4. If this is a drawout circuit breaker, unscrew the three captive screws holding the secondary mounting bracket in place. This will permit the secondary mounting bracket to be moved down, providing access to the key interlock assembly's threaded mounting holes. No wires or connectors need to be removed or unplugged.

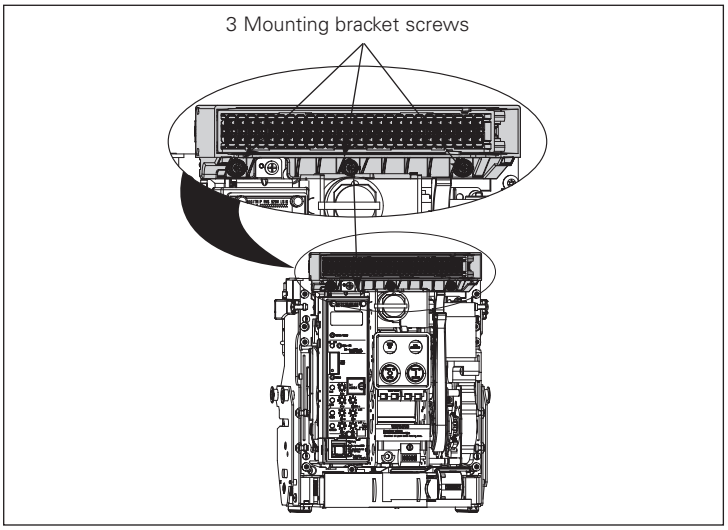



**Figure 6. Step 3 – NF frame.**

**Step 4.1: (NF frame only)** Refer to (Figure 1) for assembly orientation. Mount the lock (B) to the mounting bracket (C). Secure it in place with the large locking nut (F). Ensure that the large locking nut is firmly tightened.

**Step 4.2: (RF frame only)** Refer to (Figure 1) for assembly orientation. Install the spacer (I) onto the back of the lock (B) and then mount the mounting bracket (C). Be sure the spacer is trapped between the lock and the mounting bracket. Secure it in place with the large locking nut (F). Ensure that the large locking nut is firmly tightened.

**Note:** Check for the proper key rotation direction. The key should be removable after rotating it all the way counterclockwise

**Step 5:** Install the key lock lever (G) onto the back of the lock and secure it in place with the small locking nut (H). Ensure that the small locking nut is firmly tightened. Three different assembled lock orientations are presented here for reference purposes.

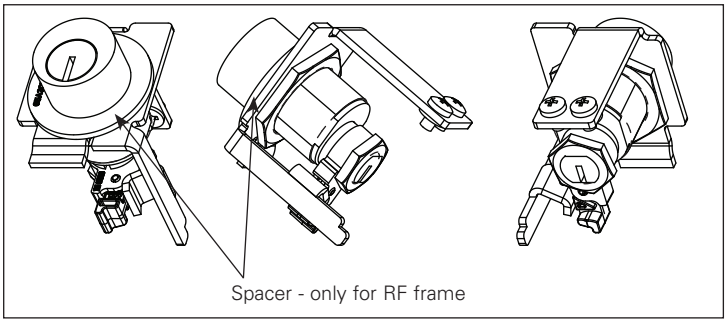



**Figure 7. Steps 4 and 5.**

**Step 6:** Identify the mounting location for the key lock assembly. Two threaded mounting holes are provided in the mounting tab to accommodate the two mounting screws (D) and two fiber retaining washers (E), which serve as spring washers when tightened. Position the key lock assembly and make sure the key lock lever (G) is trapped between the side plate and mounting bracket leg before tightening the two mounting screws. When properly positioned, secure it in place by tightening the mounting screws. Confirm the mounting bracket's sheet metal tab is positioned under the plastic of the pushbutton plate. Use a small flat screwdriver to get the metal tab under the plastic.

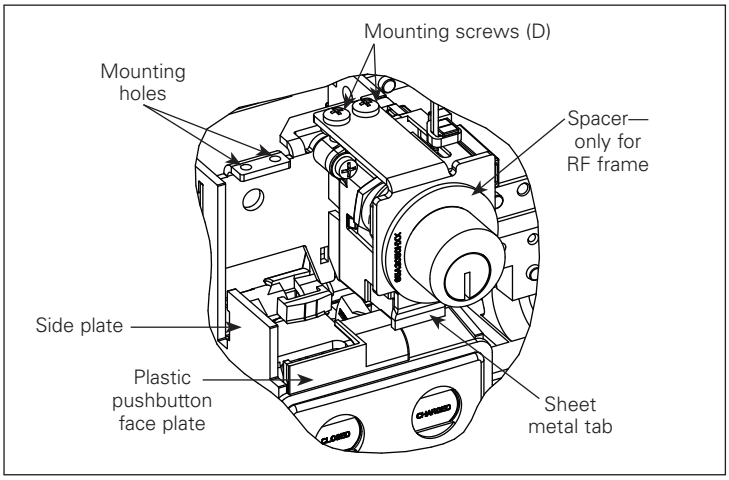



**Figure 8. Step 6 – NF frame.**

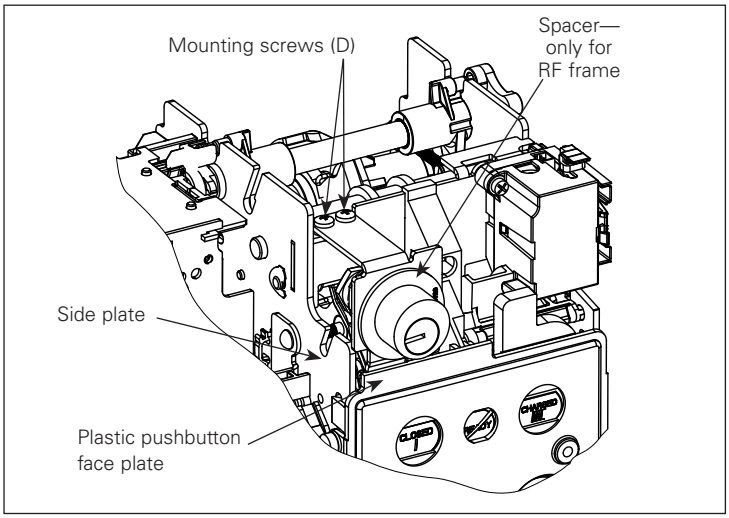



**Figure 9. Step 6 – RF frame.**

**Step 7: (NF frame only)** If this is a fixed circuit breaker, skip this step and proceed to Step 8. If this is a drawout circuit breaker, put back and re-tighten the three captive secondary mounting bracket screws previously removed in Step 3 of this section starting with the center screw.

**Note:** If any connectors were accidentally loosened, ensure they are pushed back into place.

**Step 8:** With the key lock assembly now installed, place the front cover previously removed in Step 2 on an appropriate work surface back side up. Using a 26 mm unibit, preferably with a 26 mm upper size, carefully drill out a hole for the lock in the front cover. A drill point is provided in the back of the cover. Make certain that all particles are cleaned up.

**Step 9:** Replace the front cover, and secure it in place with the mounting screws previously removed in Step 1. Remove the adhesive backing from the external protective ring (A), and press it onto the front cover over the key lock.

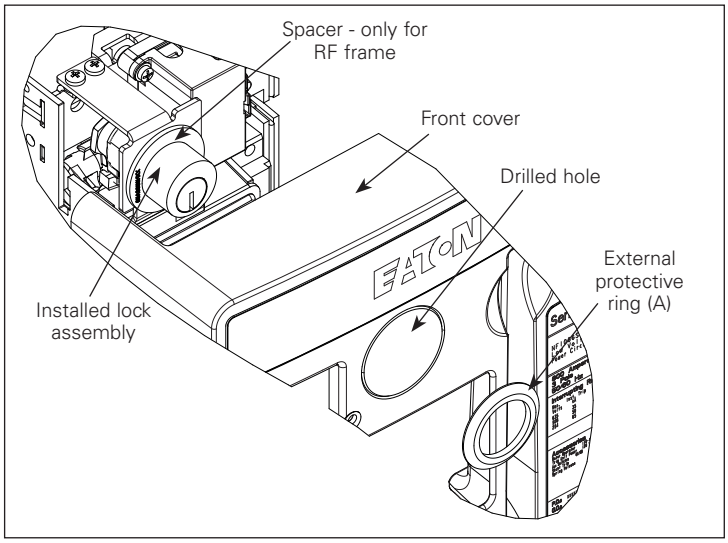



**Figure 10. Step 9.**

**Step 10:** Perform a functional test:

1. With the key in the cylinder, press the red "Push To Open" button down and rotate the key counterclockwise. Remove the key. Charge the breaker.
2. Push the green "Push To Close" button. The breaker should not close.
3. Insert the key and rotate 90 degrees clockwise. Press the green button to close. The breaker should close.

**Note:** A slight resistance might be felt and a click sound heard toward the end of the rotations clockwise or counterclockwise. This is perfectly normal.

## Section 3: Removal of key interlock

To remove the key interlock, perform Steps 1 and 2 of Section 2. Complete the removal process by reversing the process as described in Steps 3 through 7 of Section 2. Replace the front cover.

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