

# ETC Service Note

## Power Control Processor Mk2 Replacement

### Overview



**Note:** *The Power Control Processor Mk2 Replacement Kit is for use with panels where a Power Control Processor Mk2 is already installed.*

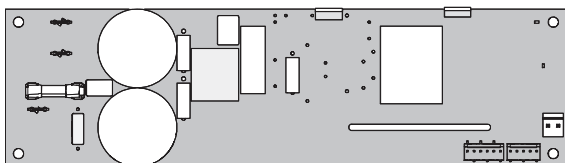
The Power Control Processor Mk2 (PCP-Mk2) is used in Echo Relay Panel Mains Feed and Elaho Relay Panel Mains Feed (ERP Mains Feed), Echo Relay Panel Feedthrough and Elaho Relay Panel Feedthrough (ERP Feedthrough), and Sensor IQ systems. These systems support field-replacement of the PCP-Mk2 and the Termination Board to which it connects. To replace the PCP-Mk2, complete all of the procedures:

1. [Replace the Power Control Processor Mk2](#)
2. [Configure the Processor on page 3](#)
  - a. [Access the Factory Menu on page 3](#)
  - b. [Power Calibration on page 4](#)

If you are replacing the Termination Board, you only need to complete the [Power Calibration on page 4](#).

#### Termination Board

7123B5607 for ERP Mains Feed 120V  
7123B5609 for ERP Mains Feed 277 V



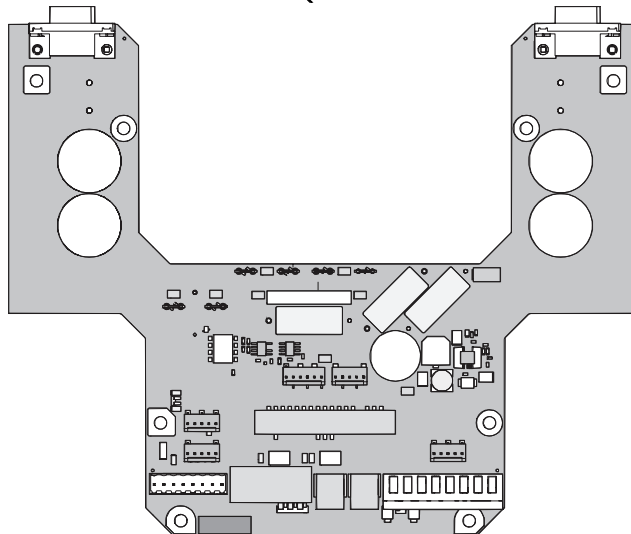
Power Control System	User Interface Part Number	Power Board Part Number
ERP Mains Feed 120 V	7123K1028-REPLC	7123B5607
ERP Mains Feed 277 V	7123K1028-REPLC	7123B5609
ERP Feedthrough	7123K1028-REPLC	not applicable
Sensor IQ	7123K1028-REPLC	7131B5607

#### Power Control Processor Mk2



#### Termination Board

7131B5607 for Sensor IQ



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**WARNING: RISK OF DEATH BY ELECTRIC SHOCK!** Failure to disconnect all power to the panel before working inside could result in serious injury or death.

**AVERTISSEMENT : RISQUE D'ELECTROCUTION!** Travailler à l'intérieur du panneau sans avoir déconnecté le courant peut entraîner des blessures graves, voire mortelles.

De-energize main feed to the panel and follow appropriate Lockout/Tagout procedures as mandated by NFPA 70E. It is important to note that electrical equipment such as relay panels can present an arc flash hazard if improperly serviced. This is due to the high amounts of short-circuit current available on the electrical supply to this equipment. Any work must comply with OSHA Safe Working Practices.

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### Included in the Replacement Kit

Description	ETC Part Number	Quantity	Notes
PCP-Mk2 user interface	7123A2216-CFG	1	
Retainer clip	HW7519	1	for the user interface ribbon cable
Nylon spacer	HW9444	2	for moving a RideThru Option Card from an old user interface to a new user interface in ERP Mains Feed or ERP Feedthrough, if necessary

### Required Tools

- Phillips screwdriver

## Replace the Power Control Processor Mk2

### Disconnect the Wiring from the Old User Interface

1. Disconnect the network patch cable and six-color power wiring harness from the old user interface.
2. Remove the retainer clip securing the gray ribbon cable to the header on the old user interface and gently pull the ribbon cable from the header.
  - You may discard the retainer clip from the old user interface. A new retainer clip (HW7519) is provided in the kit.
3. If your ERP Mains Feed or ERP Feedthrough panel has a RideThru Option Card installed complete the steps at [Move a RideThru Option Card - ERP Mains Feed or ERP Feedthrough on page 3](#).
  - If you have a Sensor IQ panel or if you do not have a RideThru Option Card, continue with [Connect the Wiring to the PCP-Mk2 on page 3](#).

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### Move a RideThru Option Card - ERP Mains Feed or ERP Feedthrough

If your ERP Mains Feed or ERP-Feedthrough panel has a RideThru Option Card, follow the instructions below to move it to the new PCP-Mk2.

1. Disconnect the red-and-black harness from the old user interface's two-pin "ride thru" header.
2. Remove the three screws securing the RideThru Option Card to the old user interface.
  - Set the three screws aside for reinstallation.
  - Keep any spacers that were installed with these screws. You will need a total of three spacers to install the RideThru Option Card on the new user interface. Two spare spacers (ETC part number HW9444) are included in the Power Control Processor Mk2 Replacement Kit.
3. Secure the RideThru Option card to the new user interface with the three screws you removed above, placing one spacer on each screw between the user interface and the RideThru Option Card bracket.
4. Connect the free end of the red-and-black harness on the RideThru Option Card to the two-pin "ride thru" header on the new user interface.

### Connect the Wiring to the PCP-Mk2

1. Install the gray ribbon cable to the header on the new user interface and secure it with the retainer clip (included, ETC part number HW7519).
2. Install the free end of six-color power wiring harness to the new user interface.
3. Connect the network patch cable to the new user interface.

## Configure the Processor

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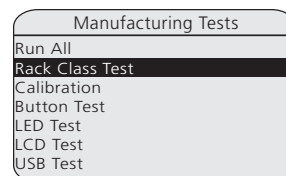


**Note:** After configuring the PCP-Mk2 via the UI, save the configuration file and reboot the PCP-Mk2.

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### Access the Factory Menu

1. Hold down the [1] key while rebooting the processor until the **Manufacturing Tests** menu appears.
  - To reboot the processor: Press the reset switch at the bottom right with a non-sharp, pointed object (e.g. a pen).
2. Release the [1] key.
  - You will now have access to the **Manufacturing Tests** menu.
3. Use [Up] (▲) and [Down] (▼) to navigate to the **Rack Class Test** menu.
4. Press [Enter] (✓) to confirm the selection.
5. Use [Up] (▲) and [Down] (▼) to select the appropriate rack type and press enter to commit the selection.
  - **ERP** - for US ERP racks
  - **ERPCE** - for CE EchoDIN systems
  - **Sensor IQ** - for Sensor IQ Intelligent Breaker Panels
  - **ERP-FT** - for ERP-FT racks
6. Press [Back] ( ) two times to exit the factory menu.



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### Power Calibration

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**Note:** Power supply calibration only applies to ERP Mains Feed and Sensor IQ panels. If the power supply is not correctly calibrated, the unit will display **BACK UP POWER ACTIVE** on the screen, or will display incorrect voltage values.

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To calibrate a panel, you will need a measurement of the incoming voltage. Voltage measurement should only be undertaken by trained personnel wearing appropriate protective equipment.

1. Access the Factory Menu. See [Access the Factory Menu on the previous page](#).
2. Use **[Up]** (▲) and **[Down]** (▼) to navigate to **Calibration**.
3. Use the numeric key pad to enter the measured voltage, multiplied by 100.
  - For example, if your measured voltage was 120.26 V, you would enter 12026.
4. Press **[Back]** ( ) to exit the **Calibration** screen.
5. Press **[Back]** ( ) a second time to boot to the main software.

### Save Configuration

Saving a panel configuration creates a file for storage to the root directory of a connected USB storage device.

1. Insert a USB storage device in the USB port on the left side of the front of the user interface.
2. Navigate to **File Operations**.
3. Press **[Enter]** (✓) to select **Save Configuration**.
4. The Save Configuration screen displays and the default "Filename: Echo1" is selected. You can save your file under a name between Echo1 and Echo16.
5. To select a different filename, press **[Enter]** (✓). The selection will focus on "Echo#".
6. Use **[Up]** (▲) and **[Down]** (▼) to scroll through the list. Press **[Enter]** (✓) to make the selection.
7. Scroll to **Save to USB key** and press **[Enter]** (✓). The dialog will display "Saving to USB". The file will always be saved to the root directory of the USB device.

### Reboot the Processor

Reboot the PCP-Mk2.

### Compliance

For complete product documentation, including compliance documentation, visit [etcconnect.com/products](http://etcconnect.com/products).