Retrofit Panelboard Applications

Installers often face many obstacles when attempting to upgrade an existing electrical service with a standard panelboard.

Consider the Challenges
Installation of a new panelboard could involve cutting or breaking cinder block walls to remove the old enclosure. Conduits and cables must be severed, and existing connections rewired in the new box without damage. The opening in the finished wall may need to be enlarged to accommodate a larger panelboard, resulting in additional labor and clean-up costs.

Consider the Problems
Is there adequate space available to fit a new, larger panelboard? Is there a safety or financial risk incurred by a lengthy disruption in electrical service to the building’s occupants or operations?

Consider Retrofitting
A Cutler-Hammer Retrofit Panelboard allows you to upgrade a select devices to higher interrupting ratings with a minimum of interference to the existing panelboard. A Retrofit Panelboard provides an easy and cost-effective transition to new functionality. The end result is a system that is more efficiently operating while minimizing overall reconfiguration, cleanup and downtime during the upgrade.

Codes and Standards
The Pow-R-Line Retrofit Panelboard is designed to meet the following applicable codes and standards:
- UL 1447 listed
- CSA C22.2 No. 099 approved
- The Retrofit Panelboard is also designed to meet the applicable enclosure of:
  - National Electric Code (NEC)
  - Canadian Electrical Code (CEC)
  - NFMA 551

Eaton Corporation is a diversified industrial manufacturer ranked among the largest Fortune 500 companies. The electrical group in Eaton’s largest division and is a global leader in electrical control, power distribution, power quality, automation, and monitoring products and services. Eaton’s electrical products include brands such as Cutler-Hammer®, MGE Office Protection Systems, Powerware®, Holec® and MEM®. Eaton provides PowerChain Management® solutions to serve the needs of the industrial, institutional, IT, data center, mission critical, utility, residential and OEM markets worldwide.

PowerChain Management solutions help enterprises achieve sustainable and competitive advantages through proactive management of the power system as a strategic, integrated asset throughout its life cycle. With Eaton’s distribution, generation and power quality equipment, full-scale engineering services and information management systems, the power system is positioned to deliver powerful results: greater reliability, operating cost efficiencies, effective use of capital, enhanced safety and risk mitigation.
Pow-R-Line Retrofit Panelboards

Upgrade the Easy Way

Eaton’s Cutler-Hammer® Pow-R-Line Retrofit Panelboard is the first product of its kind designed specifically for use in the renovation of existing electrical systems. This innovative solution employs a chassis design that enables the use of the existing back box, conduit and cables. An exclusive depth-adjusting mechanism and an integrated trim assembly provides for fast, trouble-free mounting of the new panelboard interior into any existing enclosure. The NER Pow-R-Line Retrofit Panelboard minimizes demolition of existing walls and eventual repair costs when upgrading electrical distribution systems in older facilities.

Local Satellite Services and Capabilities

Eaton’s electrical business provides technical expertise through a network of regional satellite facilities offering unique capabilities. Satellite facilities can provide special configurations to meet the unusual needs encountered in retrofit applications. Custom-built panelboard interiors and trims can be provided to retrofit most any manufacturer’s existing panelboard enclosures. Provided with the necessary information regarding the existing installation, our network of satellites can provide you with application and technical support to ensure you receive an accurate quotation and on-time delivery of a quality retrofit product.

The Pow-R-Line 1R Retrofit Panelboard is rated at 240 Vac maximum for single-phase or three-phase applications. The Pow-R-Line 2R Retrofit Panelboard is rated at 480Y/277 Vac or 600Y/347 Vac for three-phase, four-wire applications. Both are available with 225 amperes main lugs only. Various chassis sizes are available from 18 to 42 circuits.

Chassis Features

− Designed to accommodate minimal box widths at 14 inches.
− Innovative telescoping chassis accommodates depths from 4.50 to 6 inches (4.75 to 6 inches for Pow-R-Line 2R) without the need for box modifications.
− Universal mounting locations allow the neutral and grounds to be relocated from top to bottom or left to right side of back plate.
− High-quality laser cut trim with lock.
− Concealed trim hardware is not dependent on back box for mounting.
− Special trims available to fit any size enclosures.

Interchangeable Neutral and Ground

The neutrals and grounds are interchangeable and can be separated on the back plate to accommodate existing cable routings. Optional neutral kits are also available to line up with shorter neutral cables that do not reach the opposite side of the panel.

Easy Depth Adjustment

The enclosure depth is set by adjusting the panelboard chassis up or down on sliders using the permanently attached depth gauge. Trim fastening hardware is concealed behind a lockable door.

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Tom using lockable hardware as a depth gauge.
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**Pow-R-Line Retrofit Panelboard Chassis**

- **Pow-R-Line 1R Retrofit Panelboard** is designed for single-phase or three-phase applications. The Pow-R-Line 1R Retrofit Panelboard is rated at 240 Vac maximum for single-phase or three-phase applications. Both are available with 225 amperes main lugs or main breakers, or 400 amperes main lugs only. Various chassis sizes are available from 18 to 62 circuits.

- **Pow-R-Line 2R Retrofit Panelboard** is rated at 480Y/277 Vac or 600Y/347 Vac for three-phase, four-wire applications. Both are available with 225 amperes main lugs or main breakers, or 400 amperes main lugs only. Various chassis sizes are available from 18 to 62 circuits.

**Chassis Features**

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- High quality laser cut trim with lock.
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**Interchangeable Neutral and Ground**

The neutral and grounds are interchangeable and can be repositioned on the backpan assembly to accommodate existing cable locations. Optional neutral kits are also available to line up with shorter neutral cables that do not reach the opposite side of the panel.

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**Retrofit Panelboard Features**

1. **14-Inch Wide Enclosure Flush Mounted in Concrete Wall**

2. **Retrofit Panelboard Chassis Accommodates 18, 30 or 42 Branch Circuits**

3. **Easy Depth Adjustment**

   The unique leveling feet can be adjusted to the depth of the box before installing the backpan assembly into the existing enclosure. The standard mounting pan allows for installation into 4.50 to 6-inch deep enclosures (4.75 inches deep minimum for Pow-R-Line 2R). Optional mounting brackets are available if your enclosure exceeds 6 inches deep.

4. **Chassis Mounted Trim**

   The new trim and door is designed to attach directly to the panelboard deadfront assembly. Trim fastening hardware does not need to be drilled and/or tapped into the existing box. With no drilling required, the panel trim is fast and easy to install.

5. **Mounting Brackets**

   The enclosure depth is set by adjusting the panelboard chassis to the maximum depth using the permanently attached depth gauge. Trim fastening hardware is concealed behind a lockable door.
Eaton’s Cutler-Hammer® Pow-R-Line Retrofit Panelboards is the first product of its kind designed specifically for use in the renovation of existing electrical systems. This innovative solution employs a chassis design that enables the use of the existing back box, conduit and cables. An exclusive depth-adjusting mechanism and an integrated trim assembly provides for fast, trouble-free mounting of the new panelboard interior into any existing enclosure.

The NEW Pow-R-Line Retrofit Panelboard minimizes demolition of existing walls and eventual repair costs when upgrading electrical distribution systems in older facilities.

**Local Satellite Services and Capabilities**
Eaton’s electrical business provides technical expertise through a network of regional satellite facilities offering unique capabilities. Satellite facilities can provide special configurations to meet the unusual needs encountered in retrofit applications. Custom-built panelboard interiors and trims can be provided to retrofit most any manufacturer’s existing panelboard enclosures. Provided with the necessary information regarding the enclosure, our network of satellites can provide you with application and technical support to ensure you receive an accurate quotation and on-time delivery of a quality retrofit product.

**Pow-R-Line Retrofit Panelboards**

**Upgrade the Easy Way**

**Retrofit Panelboard Chassis**

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3. **Relief Punch**
   The relief punch allows for punching holes in the chassis and/or main lugs for busbar or other accessories. The relief punch features do not weaken the main lugs and can be used to mount accessories directly to the chassis or main lugs.
Installers often face many obstacles when attempting to upgrade an existing electrical service with a standard panelboard.

Consider the Challenges
Installation of a new panelboard could involve cutting or breaking cinder block walls to remove the old enclosure. Conduits and cables must be cut back and terminated in the new box without damage. This opening is the functional electrical boundary for the upgrade and must be accommodated in a panelboard intended for standard wall and ceiling installations.

Consider the Problems
Is there adequate space available to fit a new, larger panelboard? Is there a safety or financial risk incurred by a lengthy disruption in electrical service to the building’s occupants or operations?

Consider Retrofitting
A Cutler-Hammer Retrofit Panelboard allows you to upgrade a service without the need to enlarge or remove finished walls, walls and enclosures.

A Retrofit Panelboard provides added value to the building, system efficiency, and system changes, as well as additional connections. The ideal solution, whether a new or existing panelboard is being retrofitted, is a Pow-R-Line® Retrofit Panelboard.

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Codes and Standards
The Pow-R-Line Retrofit Panelboard is designed to meet the following equivalent standards:
- UL 1447 listed
- C22.2 No. 249A approved
- The Retrofit Panelboard is also designed to meet the applicable enclosures of:
  - National Electrical Code® (NEC®)
  - Canadian Electrical Code (CEC)
  - NEMA Type 1

The Pow-R-Line Retrofit Panelboard is a Cutler-Hammer product. For more information, please contact your local Cutler-Hammer representative.

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