

AC Remote Control Panels

Overview

This document highlights common AC General Power Control Panels, interconnect diagrams, wiring and specifications.

These panels are designed to work with any of our PDUs operating at 60Hz or 400Hz. All panels operate at low voltage and possess rugged industrial control switches.

Interconnecting to the PDU(s) is easy and secure with circular plastic control connectors.

Standard remote control cable length is 8 feet and is provided with any PDU with Remote Control option.

If you don't see a control panel that works for your application, contact us... AC General has a large set of control panel designs to leverage a solution for your unique needs.

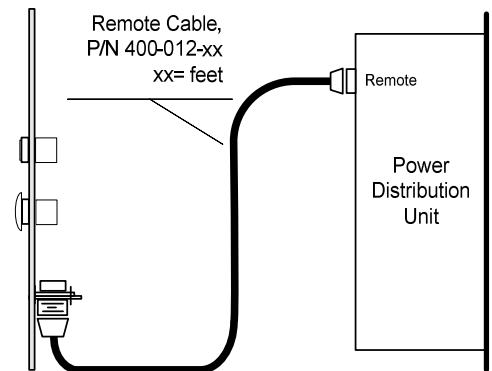
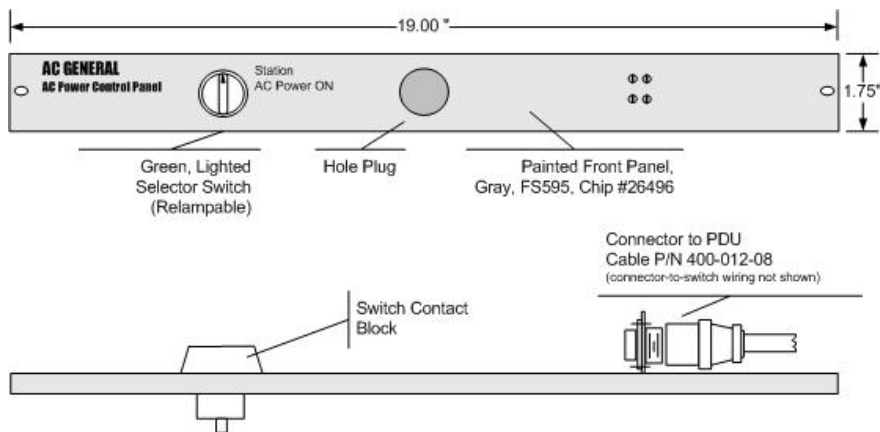
Part Number List

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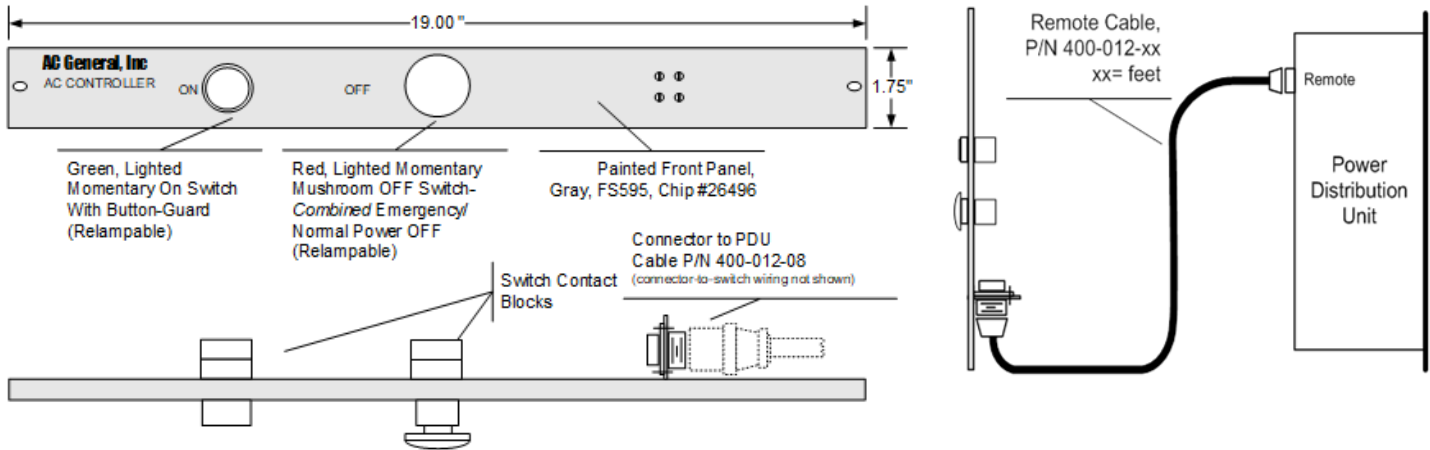
Part Number 020-011



- Use this control panel for any PDU equipped with an “R” style remote control
- A single selector switch provides ON/OFF control for the PDU

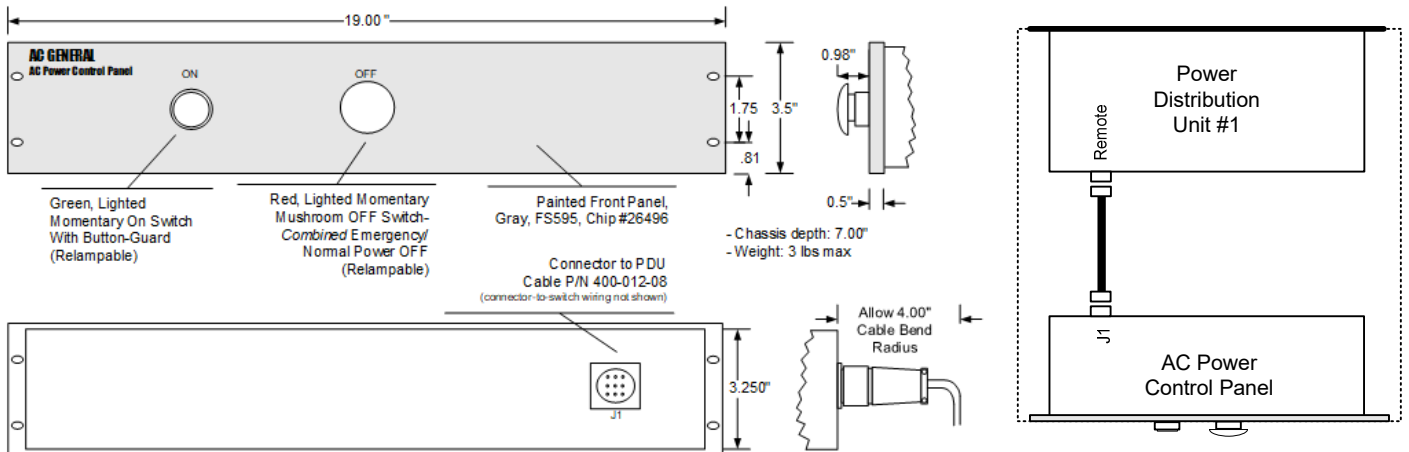
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Part Number 020-145



- Use this compact 1U control panel for any PDU equipped with an “R1” style remote control
- Momentary ON switch enables PDU power
- Momentary OFF switch provides a combined normal system Off and Emergency Off

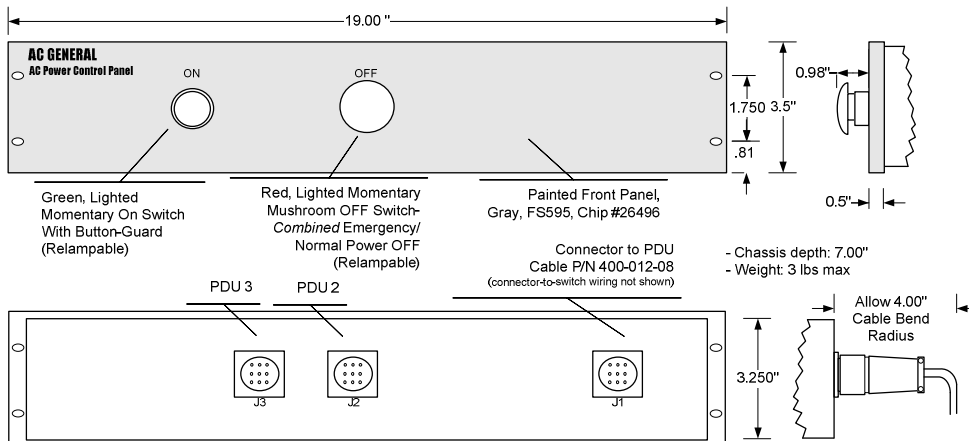
Part Number 020-019



- Use this 2U control panel for any PDU equipped with an “R1” style remote control
- Momentary ON switch enables PDU power
- Momentary OFF switch provides a combined normal system Off and Emergency Off

Note: If a maintained push-to-set/twist-to-release OFF switch is needed instead of a momentary OFF switch, then use alternative P/N 020-019-01

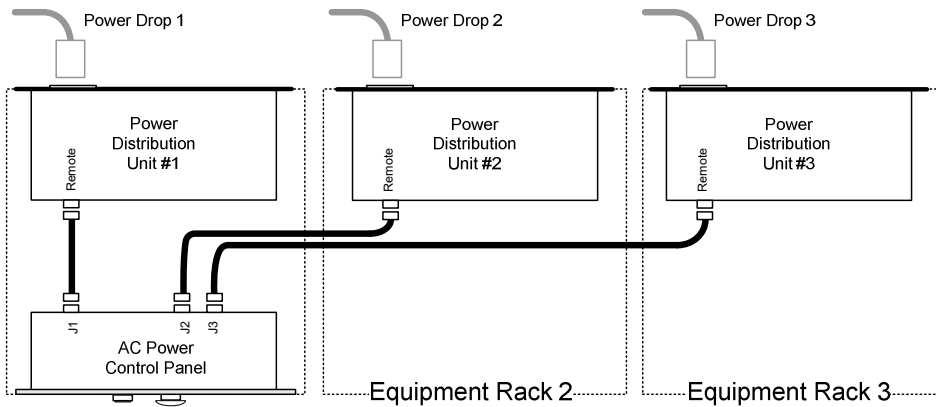
Part Number 020-020



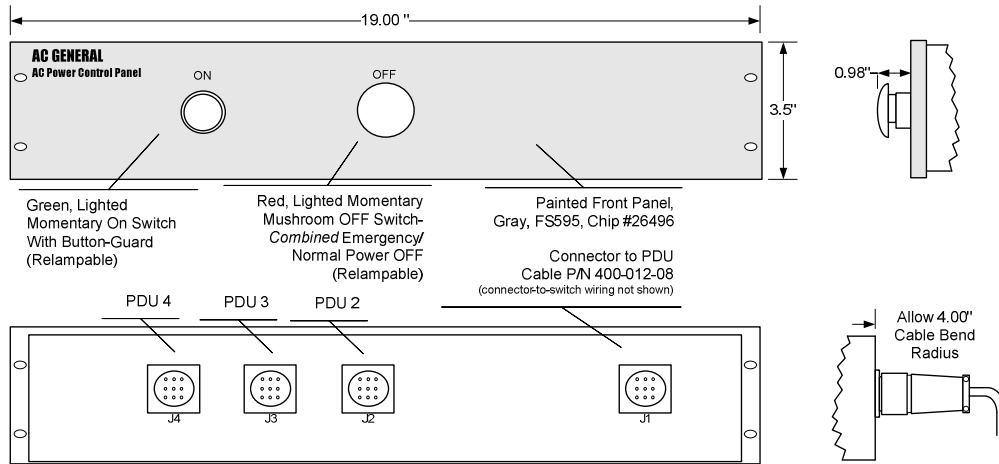
- Use this 3U control panel for any PDU equipped with an “R1” style remote control
- Provides On/Off control for one primary PDU plus up to two additional PDUs
- On/Off lamps are reflect the status of the primary PDU (PDU #1)
- One set of switches controls all three PDUs

Note: If a maintained push-to-set/twist-to-release OFF switch is needed instead of a momentary OFF switch, then use alternative P/N 020-020-01

Notional Interconnect for Control Panel P/N 020-020

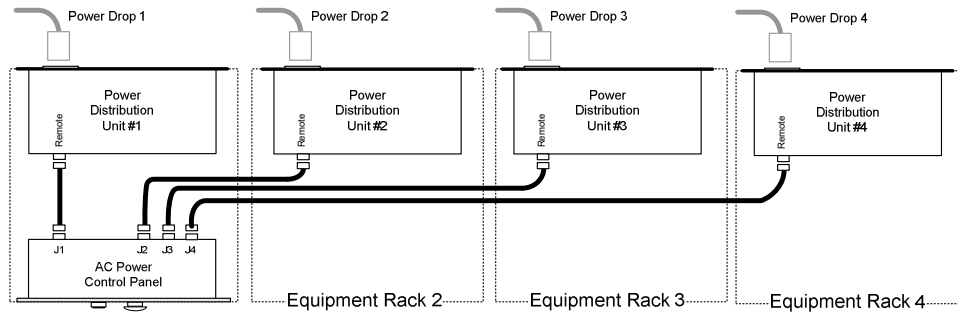


Part Number 020-053



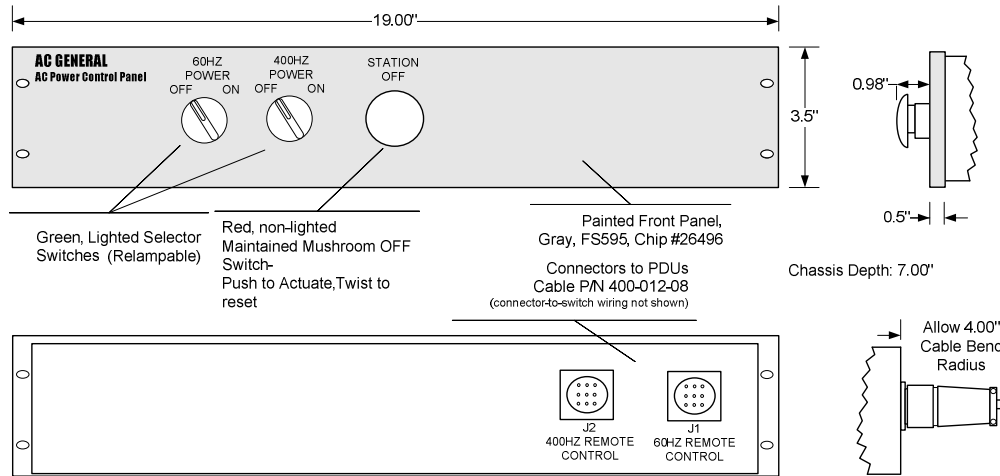
- Use this 3U control panel for any PDU equipped with an “R1” style remote control
- Provides On/Off control for one primary PDU plus up to three additional PDUs
- On/Off lamps are reflect the status of the primary PDU

Notional Interconnect for Control Panel P/N 020-053



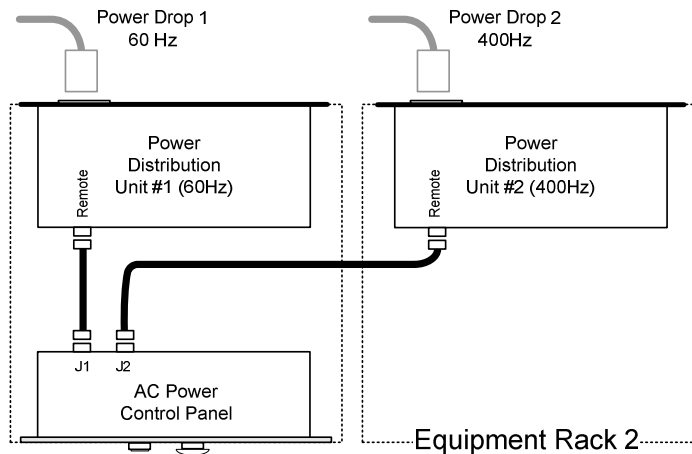
AC General, Inc.

Part Number 020-113



- Use this control panel to control 60/400Hz dual source power configurations (one PDU with 60Hz Power, one PDU with 400Hz Power)
- PDUs must be an "R" style remote control
- Individual ON/OFF control switches for each PDU
- Common Station OFF switch will remove all switched power from both PDUs
- Each ON/OFF switch is lighted with an LED lamp

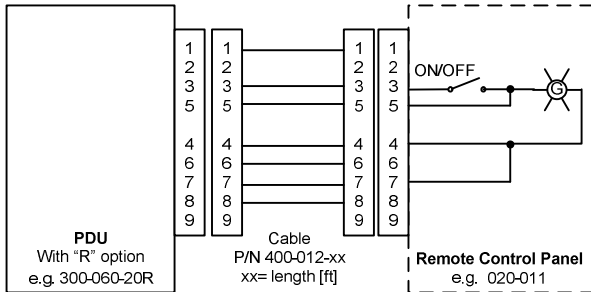
Notional Interconnect P/N 020-113



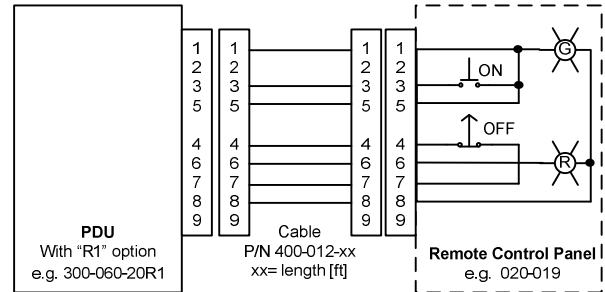
Basic Control Circuits

AC General control panel designs fall into one or two general design schemes: type "R" or type "R1" (schematically shown below).

Remote Control Type -R



Remote Control Type -R1



A "R" configured AC Control Panel contains (1) maintained style selector switch.

Turning the ON/OFF switch will cause the switched outputs in a PDU to supply output power and illuminate the Control Panel ON/OFF switch lamp.

Turning the OFF switch will disengage the switched outputs in each PDU and shut off ON/OFF indicator lamp.

A "R1" AC Control Panel contains (2) momentary style switches.

Depressing the ON switch will cause the switched outputs in a PDU to supply output power and illuminate the Control Panel ON switch lamp.

Depressing the OFF switch will disengage the switched outputs in each PDU and illuminate the OFF switch lamp.

More Advanced Control Options

Your design may be more complex and require additional control capability to accommodate:

- Multiple E-stops
- Sequenced outputs
- System inter-locks (doors, fans, external control switches, etc)
- Remote enabling or control of specific PDU outputs
- Digital control of outputs from a control computer, PC, VXI card, etc.

Please contact us to discuss your unique requirements: support@acgen.com

Important Usage information: E-Stop controls

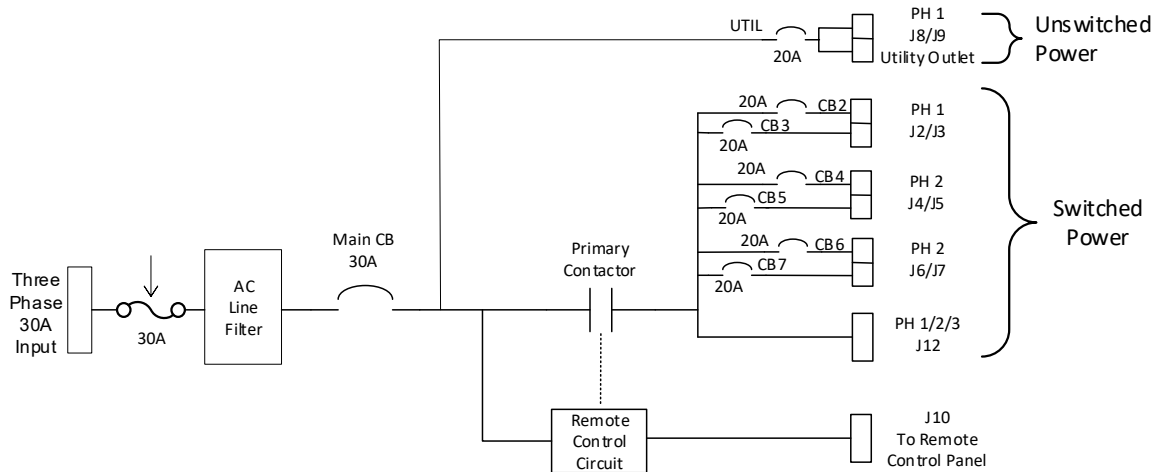
In general, all AC General control panels which contain OFF/Emergency OFF switch(s) will *not* trip the PDU circuit breaker when pressed. Instead, the primary contactor in the PDU is opened which removes all "switched" power.

A simplified notional schematic for a typical three phase 30A PDU is shown below to highlight "switched vs unswitched" power concept.

If the PDU is wired with Utility (ie "convenience") Outlets, those outlets will remain live even after the OFF switch is pressed. Typically, only important keep-alive equipment is plugged into the Utility outlet.

Control power is supplied by the PDU.

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Specifications

- Control Power (supplied by the PDU): 24VAC (60Hz PDUs), 24VDC (400Hz PDUs)
- Operating Temperature: 0°C to +50°C
- Non-operating Temperature: -40°C to +70°C
- Relative Humidity (non-condensing): 5 to 95% +/- 5%
- Operating & Non-operating Altitude: 15,000 Ft
- Operating Vibration: 5 to 55 Hz, 0.33 mm peak-to-peak displacement
- Functional Shock 15g, half-sine shock pulse, 11 mSec, 3 axes
- Avg. Bulb Life: 100K Hrs (LED)
- Bulb replacement: T 3 ¼ Mini-bayonet
- All components and wiring are UL listed/recognized components