

PW240 SWITCH

INSTALLATION INSTRUCTIONS

PowderWatts.com

WARNING: This switch should only be installed by a qualified electrician. This product requires handling of high voltage wiring. Please turn off your circuit breaker and follow instructions carefully.

Turn off your circuit breakers and follow safety precautions in order to avoid fire, personal injury, or death.

REQUIREMENTS: The PW240 communicates with the Powder Watts Smart Hub and this Hub is required for the smart switching operation of the PW240.

WHAT'S IN THE BOX: PW240, Mounting lugs (2), Mounting screws (2), closure plugs (4)

WHAT YOU'LL NEED: Phillips head #2 screwdriver, flat head screwdriver, voltmeter, non-contact voltage sensor, and pliers (optional).

COMPATIBILITY: PW240 requires a 30 amp circuit with a minimum of 10 gauge wire and can support up to 8 gauge wire. Requires an upstream GFEP circuit breaker.

RATING:

Cat. No.	ANSI/NEMA Config and Electrical Rating
PW240	5-30 R 30A, 240V

TURN OFF YOUR BREAKERS: Turn off the circuit breaker. If breakers aren't labeled, turn off the master breaker. Before proceeding - confirm wires are not hot with both a voltmeter and a non-contact voltage sensor.

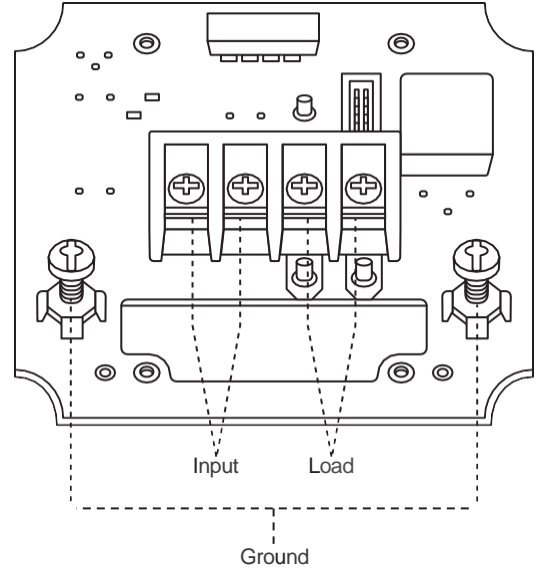
PREPARE INSTALLATION LOCATION: Remove old device (such as a thermostat, timer, or switch, if applicable). Carefully disconnect wires attached to the existing switch or run wire to the installation location.

DISASSEMBLE THE PW240: Open the clear cover and set the plastic bag aside. Remove the four screws from the black housing. Gently disconnect the ribbon cable that holds two assemblies together - the gang box (containing the high power electronic board) and top cover (containing the low power electronic board).

ATTACH MOUNTING LUGS: Open the plastic bag that was set aside on the previous step. The plastic bag has lugs, screws, and closure plugs. Screw in the contacts to the rear of the closure housing. Gently mount the closure to your preferred location using the lug holes. To avoid damage to the metal or possible stripping, be sure not to over torque these screws.

IDENTIFY & STRIP WIRES: You should see 3 types of wires in your wall: Line (Black) • Neutral (White) • Ground (Green or Bare Copper). Be sure your wires have a ½ inch stripped at the end of each wire. If using stranded wire, ensure that all strands are properly fastened to the connector.

FEED INPUT CABLES THROUGH BOX: Route the input wire to the input terminals. Attach the supply (input) ground wire to the ground screw. Here is what the connection should look like:



INSERT WIRE AND TIGHTEN SCREWS: Insert wires into terminals. Tighten the screws to a proper torque value of 3IN/LB. Tighten the contact screws so that the wire stays in place. Be sure to also connect the ground wire by using the ground screw closest to the input contacts. Use a flathead screwdriver to tighten the terminal screws.

INSERT HEAT CABLE WIRES: Insert stripped wire into terminal (recommended 0.32 in. or 8 mm). Use a #2 screwdriver to tighten to 16lb-in (1.8Nm). Tighten the contact screws so that the wire stays in place. To make feeding the heat cable wires into the box and controller easier, we recommend temporarily twisting them all together, then folding them over back onto themselves fully about 4 inches up - this will result in a hook-like shape that you can then insert, twist and they will pop up through the channel. Please carefully wind all of the strands together using your fingers in a twisting motion. It is important to be sure that no strands of wire are hanging free and not secured by the screw/ lugs. Free strands of wire not secure can lead to shorts and are dangerous. Be sure to also connect the ground wire by using the ground screw closest to the load contacts. Use a proper screwdriver to tighten the terminal screws.

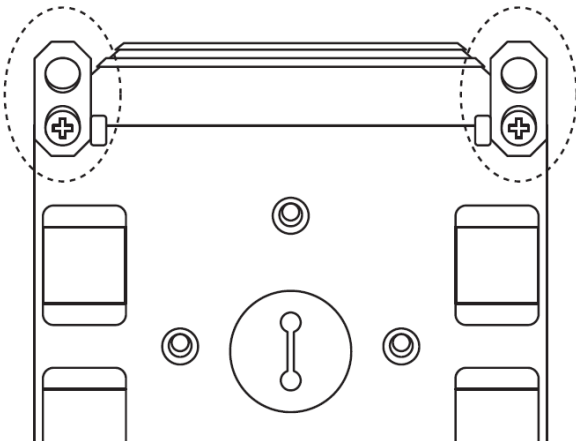
RECONNECT RIBBON CABLE AND REASSEMBLE: Reconnect the ribbon cable and screw the assembly back together using the (4) 2-inch screws that were removed during disassembly.

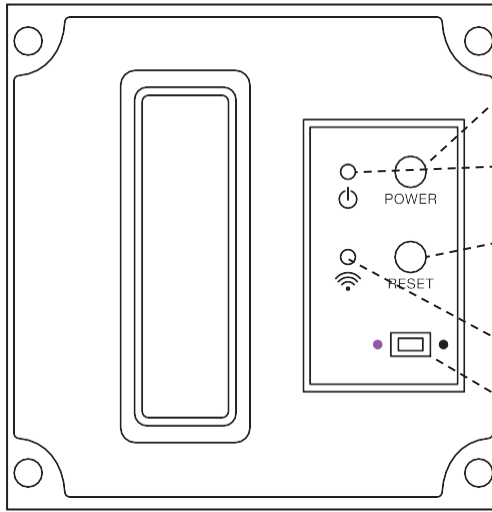
SAFETY CHECK: Double check all wires, look for loose strands, and make sure all screws are tightened.

POWER ON SYSTEM: Return to circuit breaker and turn on power.

TEST YOUR PW240: Test PW240 by firmly pressing the power button. Green LED indicates the relay has been turned on.

INSTALLATION COMPLETE! Download the Powder Watts app and login to your installer account to register the device as part of a Powder Watts Smart Roof system.





Power Button

Relay On/Off - Soft Press
Identify - Hold for 10 seconds

Power Indicator

Reset Button

Factory Reset - Hold for 15 seconds
Wi-Fi Reset - Hold for 10 seconds

Reset Indicator

Switch

Purple - Default LED Brightness
Black - Dimmed LED Brightness

RESET LED

LED State	Description
Yellow - Slow Blink	Device ready to add to hub
Yellow - Fast Blink	Connecting to hub
Green - Slow Blink	Connected to hub
Green - Solid On, then Off	Setup complete
Red - Fast Blink	Failed connection can't connect to hub
Red - Slow Blink	Setup process failed
Blue - Slow Flash	Identifies the device

TROUBLESHOOTING: To factory reset your PW240, hold the reset button for 15 seconds.

For commonly asked questions about the PW240, visit PowderWatts.com/PW240FAQ

For patent information, visit powderwatts.com/patent

For support, please reach out to Support@PowderWatts.com
We are here to help! PowderWatts.com

Don't forget to scan the QR code in the Powder Watts app as part of setting up the Powder Watts system before leaving the site of this switch.



POWDER WATTS

PW240 SWITCH

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PART NUMBER: PW240
FCC ID: 2AFC3-PW240
IC: 22503-PW240



POWER LED

LED State	Description
Solid Green	Relay State is On
Off	Relay State if Off
Blue - Slow Flash	Identify

FCC Statement

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must be at least 20 cm from the user and must not be co-located or operating in conjunction with any other antenna or transmitter.

The information in this guide may change without notice. The manufacturer assumes no responsibility for any errors that may appear in this guide.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ISED Statement

This device complies with Innovation, Science and Economic Development Canada's license-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme aux flux RSS exemptés de licence d'Innovation, Science et Développement économique Canada. L'opération est soumise aux deux conditions suivantes:

- (1) Cet appareil ne doit pas provoquer d'interférence; et
- (2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

Radiation Exposure Statement: This equipment complies with the IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Énoncé d'exposition aux rayonnements: Cet équipement est conforme aux limites d'exposition aux rayonnements ioniques RSS-102 Pour un environnement incontrôlé. Cet équipement doit être installé et utilisé avec un Distance minimale de 20 cm entre le radiateur et votre corps.