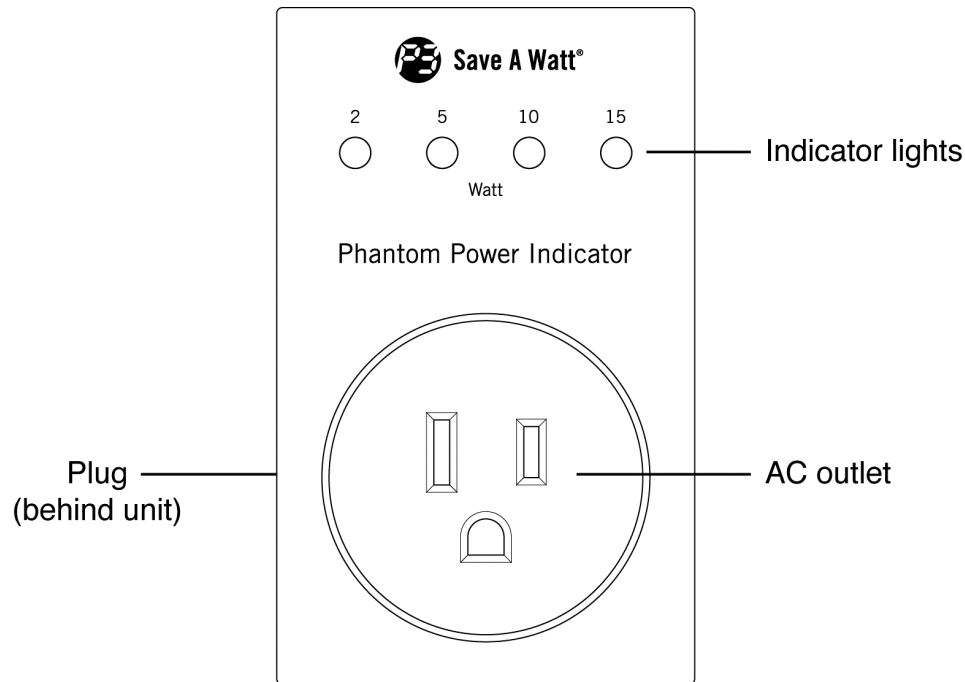


# P4190 Save A Watt™ Phantom Power Indicator Operating Manual

Thank you for purchasing the P4190 Save A Watt™ Phantom Power Indicator. This operating manual will provide an overview of the product, safety instructions, a quick guide to operation, and complete instructions for correct usage. Take the time to completely review these instructions as well as all safety warnings to ensure your best use of the product.

The P4190 Save A Watt™ Phantom Power Indicator offers an easy way to save money by showing you how much power your electronics are using in standby mode. Whether it's a cell phone charger using 5 watts, or a video game using up to 15 watts, this simple device will show you how much power they are wasting. Built-in LED indicators quickly show how much electricity is being wasted and help you identify the best places to save. Great for parents who want to teach their kids to stop wasting money. Just plug it into any grounded outlet and attach the item you want to test. Don't be fooled by "standby" mode any more. With the P4190 Save A Watt™ Phantom Power Indicator, knowledge is power.



## Safety Instructions:

### CAUTION

#### RISK OF ELECTRIC SHOCK

#### DO NOT OPEN

#### CAUTION:

**TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

#### WARNING:

**TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

**Read Instructions** – All the safety and operating instructions should be read before the product is operated.

**Retain Instructions** – The safety and operating instructions should be retained for future reference.

**Heed Warnings** – All warnings on the product and in the operating instructions should be adhered to.

**Follow Instructions** – All operating and use instructions should be followed.

**Cleaning** – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.

**Attachments** – Do not use attachments not recommended by the product manufacturer as they may cause hazards.

**Water and Moisture** – Do not use this product near water – for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool and the like.

**Accessories** – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Any mounting of the product should follow the manufacturer's instructions.

**Ventilation** – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings (if any) must not be blocked or covered. The openings (if any) should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

**Power Sources** – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

**Grounding or Polarization** – This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other).

This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

**Power-Cord Protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

**Lightning** – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.

**Overloading** – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

**Object and Liquid Entry** – Never push objects of any kind into this product through openings (if any) as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

**Servicing** – Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

**Damage Requiring Service** – Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the product has been dropped or damaged in any way.
- When the product exhibits a distinct change in performance – this indicates a need for service.

**Replacement Parts** – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

**Safety Check** – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

**Heat** – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products that produce heat.

## Quick Start Guide:

Use these quick start instructions to get up and running in just a few minutes. Be sure to review all the operating instructions later to ensure full enjoyment of the product.

1. Connect the Save A Watt™ Phantom Power Indicator unit to the outlet.
2. Be sure the target appliance is turned off or in standby mode.
3. Plug the power cord for the target appliance into the Save A Watt™ unit.
4. After the LED display settles, observe the LED measurement indication.
5. Remove the power cord from the Save A Watt™ unit. Do not leave the power cord plugged in. Remove the unit from the power outlet.

## Standby Power:

1. Many of today's appliances consume significant power even when switched "off". The power required to keep the appliance ready to be switched into "on" mode is known as standby power or phantom power.
2. Typically standby power is used to keep some portion of the appliance's circuitry energized and ready for use. Most often this standby circuitry is powered so that it can receive signals from remote controls or to perform other background functions.
3. Although this power consumption is often significantly smaller than the power consumed when the appliance is turned on, most often the appliance will consume this power 24 hours per day, every day. Over time this wasted energy will add up and will cost you money.
4. Our homes and offices are filled with devices and appliances that constantly draw power from the grid – even when they are switched off! Dozens of devices in your home, hundreds in your neighborhood, thousands or even millions in your town or city.
5. All this standby power not only costs consumers millions of dollars -- it can harm the environment, with the generation of greenhouse gases and other byproducts of power generation.
6. The Save A Watt™ Phantom Power Indicator will allow you to identify how much energy is consumed by your appliances – even when they are turned off.

## Installation:

1. It is important that the appliance that you will measure (the "target" appliance) is switched off or in standby mode. **Do not measure the target appliance when it is switched on. Do not measure appliances that do not have an "off" or standby mode (e.g. a refrigerator)**
2. Remove the target appliance's power cord from the electrical outlet.
3. Connect the Save A Watt™ Phantom Power Indicator to the newly

opened outlet. Connect the unit only to a grounded power outlet that has been installed properly and is proper working order.

4. You will note the LED indicators will flash momentarily upon installation of the unit. This is normal operation. Wait for the flashing to finish before proceeding.
5. Plug the power cord of the target appliance into the Save A Watt™ Phantom Power Indicator. Be sure the target appliance is turned off or in standby mode.
6. Observe the LED indicators. They will illuminate from left to right as the standby power increases. The printed legends (2, 5, 10, 15) indicate, in watts, the range of power the target appliance is consuming when in standby.
7. If none of the indicators are illuminated be sure the appliance is in standby mode. If the indicators are still dark then the target appliance does not draw significant standby power.
8. It is possible that the LED indicators will fluctuate as the target appliance varies its power demands. Observe the pattern and determine the indicator that is lit most often or an average value.
9. When your measurement is complete, remove the power cord from the Save A Watt™ Phantom Power Indicator, unplug the unit from the wall and reconnect your appliance to the outlet for normal operation. **Remove the power cord as soon as you receive your measurement. Do not leave the power cord plugged in for extended periods.**
10. The Save A Watt™ Phantom Power Indicator is not designed for continuous use. Use it to conduct short term measurements and remove it from the outlet when these brief testing periods are completed.

**Measurements:**

1. To interpret the meaning of the LED indicator displays on the Save A Watt™ Phantom Power Indicator, consider the normal use of the connected appliance. How often and for how long is it plugged in? How long is the target appliance in standby mode? You can then determine the cost and environmental impact your appliance is generating.
2. Example 1 – Television: An older rarely-used television is measured according to the preceding instructions. You observe the first 3 LED indicators on the unit are illuminated, showing standby power consumption of 10 Watts. 10 Watts of standby power for 24 hours a day, 365 days a year accumulates to 87,600 Watt Hours per year (10W X 24 hours X 365 days). As electrical power is typically billed by the Kilowatt Hour (1000 Watt Hours) we divide 87,600 by 1000 to get 87.6 KWH per year. Depending on your electrical rates, you could be spending over \$26.00 per year – just for one appliance! Time to unplug the old TV.
3. Example 2 – Cable Box: Measuring the standby power of a typical cable box you note that all 4 indicators are illuminated which tells you that the

cable box is using at least 15 Watts of standby power. Even if you use the cable box for 6 hours a day, it is wasting almost 100 KWH a year when not in use!  $15W \times (24-6 = 18 \text{ hours}) \times 365 \text{ days} / 1000 = 98.6KWH$

4. To do your own calculations multiply the watts indicated on the display by the number of hours per year the appliance is in standby. Divide by 1000 to determine the approximate Kilowatt Hours (KWH) of electricity that are wasted. Refer to your electrical utility bill to determine what your electrical rate per KWH is. Typical rates in the US range from \$0.08 to \$0.32 per KWH.
5. For convenience you can refer to the chart below. Find the rate (cost/KWH) closest to your local billing rate and cross reference this line with the standby watts indicated by the LEDs when you measure your appliance. Be sure to consider that some utilities have multiple rates and will charge you more during peak usage hours. Use the higher rate or an average of your rates to determine your true costs.

**Annual Cost of Standby Power**

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**Actions:**

1. What can be done about standby power? Consider appliance replacement and the use of “power strips” and timers as below:
2. Unplug: Some standby power problems can be solved by simply unplugging the appliance when not in use. This simple act can save you hundreds of dollars over the lifetime of your appliances.
3. Power strips: Use a switched “power strip” or surge protector to conveniently switch off power to the connected appliances when not in use.
4. Timers: Use a programmable timer to automatically turn connected appliances on and off. With proper programming you can ensure your appliance is ready for use when you need it. Consider advanced models such as the P3 P4482 Kill A Watt™ Control.
5. Standby Killers: These intelligent devices will automatically cut off power to connected appliances when not in use. For your television consider the P3 P4150 Save A Watt™ TV Standby Killer.

**Specifications:**

Model	P4190
Input Voltage	120 VAC 60 Hz
Max Indicating Power	15W
Power Indicators	2W 5W 10W 15W
Accuracy	+/- 20%
Overload	60 sec max @ 15 Amp
Current Consumption	1W

**P3 INTERNATIONAL CORPORATION  
LIMITED WARRANTY**

P3 INTERNATIONAL CORPORATION ("P3") warrants to the original retail purchaser only, that its product is free from defects in material or workmanship under the condition of normal use and service for a period of six (6) months from the date of purchase. In the event that a defect, malfunction or failure occurs or is discovered during the warranty period, P3 will repair or replace at its option the product or component part(s) which shall appear in the reasonable judgment of P3 to be defective or not to factory specifications. A product requiring service is to be returned to P3 along with the sales receipt or other proof of purchase acceptable to P3 and a statement describing the defect or malfunction. All transportation costs shall be borne by the owner and the risk of loss shall be upon the party initiating the transportation. All items repaired or replaced thereunder shall be subjected to the same limited warranty for a period of six (6) months from the day P3 ships the repaired or replaced product. The warranty does not apply to any product that has been subject to misuse, tampering, neglect, or accident or as a result of unauthorized alterations or repairs to the product. This warranty is void if the serial number (if any) has been removed, altered, or defaced. This warranty is in lieu of all warranties expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose which are expressly excluded or disclaimed. P3 shall not be responsible for consequential, incidental or other damages, and P3 expressly excludes and disclaims liability for any damages resulting from the use, operation, improper application, malfunction or defeat of any P3 product covered by this limited warranty. P3's obligation is strictly and exclusively limited to the replacement or repair of any defective product or component part(s). Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. P3 does not assume or authorize anyone to assume for it any other obligation whatsoever. Some states do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you. It is the owner/user's responsibility to comply with local, state, or federal regulations, if any, that may pertain to P3 products or their use. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If you experience difficulty in the operation of your unit, or if your unit requires repair please contact:

P3 INTERNATIONAL CORPORATION  
TECHNICAL SUPPORT  
Tel: 212-741-7289  
Fax: 212-741-2288

Email: [techsupport@p3international.com](mailto:techsupport@p3international.com)

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