GREEN POWERLINK
Smart Energy Monitoring & Surge Protecting Solution

R9P014 / R9P125 / R9P602

User Manual

All Versions

April 2010

Thank you for purchasing the GREEN POWERLINK Energy Saving Solution, an innovative product which is designed to manage home electricity usage efficiently and reduce home electricity bill.

In an effort to reduce your electricity bills, why not first check out what appliance uses most energy in your home.

The New GREEN POWERLINK Energy Monitor allows you to take control of home electricity usage while saving you money in the process.

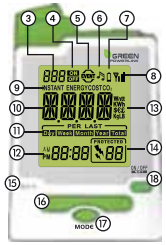
With GREEN POWERLINK, you can see how much electricity you are using and with greater awareness you'll become more energy efficient.

Fully educated with the critical energy information, you are naturally motivated to adopt new energy saving habits and reduce harmful carbon emission for our environment.

Besides energy conservation, the GREEN POWERLINK surge protectors are also equipped with fireproof Surge MOV technology and this ensures your home appliances are well protected and free of fire hazard during catastrophic surge events.

The GREEN POWERLINK is the total solution for green inspiration, energy conservation, and surge protection for your everyday life.

Smart Energy Monitor Features R9P014 Series

Top View	Front View	Side View	Back View
			

1. RESET Key: restore factory default
2. LEARNING Key: add new channel
3. Channel indicator
4. Indicates ON/OFF status of energy saver outlets
5. Power failure event indicator
6. Indicates audible alarm is ON
7. Energy monitor low battery indicator
8. Wireless signal strength indicator
9. Indicates what display mode the monitor displays: **INSTANT ENERGY / ENERGY / COST/ CO2**
10. Data display
11. Projected and historical data display
12. Clock display
13. Measurement units for display modes
14. Surge event counter display
15. Embedded alarm speaker
16. Cursor selector Key
17. **MODE** Key: switch to different display mode
18. **ON&OFF** Key: control energy saver outlet
    SET Key: confirmation button
19. **AC/DC** power adaptor input (Optional)
20. Battery compartment

Smart Energy Monitor Specification

Radio Frequency 915MHz		915MHz
Wireless Range		Up to 100 Ft
Functions	Control Energy Saver outlets ON/OFF	Yes
	Audible Alarm Alert	Yes
	Channels control and monitoring	Up to 9 Channels
	Learning Function	Yes
	Wall Mountable	Yes
LCD Dimension		45mm x 55mm
Replaceable Battery		AA Battery X4
DC Input		9V / 1000 mA
Operating Temperature		5℃~45℃ at 85% relative humidity

Wall Tap Surge Protector Features | R9P125 Series

1. Surge Protection LED Indicator

- The lighted green LED indicates the surge protection is working

2. Manual ON/OFF & LEARNING Key

- Manual ON/OFF Mode: press the Manual ON/OFF Key to turn ON/OFF the AC outlet
- Learning Mode: press the LEARNING key to pair up the surge protector with the energy monitor

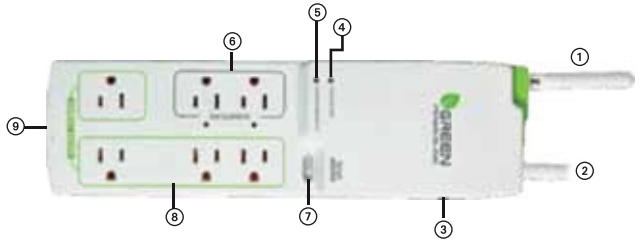
3. AC Outlet

- Monitor individual home appliance electricity usage

Wall Tap Surge Protector Specification

Radio Frequency	915MHz
Wireless Range	Up to 100 Ft
Energy Saver Outlet	1
AC Rating	15A / 125V / 1875W
Surge Suppression Rating	540J
Clamping Voltage	500V
Surge Protected LED Indicator	Green
Energy Saver Outlet Power ON LED Indicator	Green
Manual ON/OFF , LEARNING Key	yes
Stand-by Power	< 1 W
Operating Temperature	5℃~45℃ at 85% relative humidity
Storage Temperature	-5℃~60℃ at 85% relative humidity

Strip Type Surge Protector Features | R9P602 Series



1. Wireless Antenna

- External antenna for better reception

2. AC Power Cord

3. Overload Resettable Circuit Breaker

- Protects against current overload at 15 Amps
- Press to reset the circuit breaker

4. Surge Protection LED Indicator

- The lighted green LED indicates the surge protection is working

5. Grounded Fault LED Indicator

- The Red LED light only illuminates to indicate the power outlets are not properly grounded

6. 2 "Always On" outlets

- Provide continuous power for connected devices

7. Manual ON/OFF & LEARNING Key

- Manual ON/OFF Mode: press the Manual ON/OFF Key to turn ON/OFF the energy saver outlets
- Learning Mode: press the LEARNING key to pair up the surge protector with the energy monitor

8. 4 "Energy Saver" outlets

- The Energy Saver outlets can be wirelessly turned ON/OFF by the smart energy monitor to eliminate stand-by power waste

9. Secondary Protection (Optional)

- Phone / Data line or Coax protection

Strip Type Surge Protector Specification	
Radio Frequency	915MHz
Wireless Range	Up to 100 Ft
Always On Outlets	2
Energy Saver Outlets	4
AC Rating	15A / 125V / 1875W
Surge Suppression Rating	1080J
Clamping Voltage	400V
Surge Protected LED Indicator	Green
Grounded Fault LED Indicator	Red
Always On LED Indicator	Green
External Antenna	Yes
Manual ON/OFF , LEARNING Key	Yes
Stand-by Power	<1 W
Operating Temperature	5℃~45℃ at 85% relative humidity
Storage Temperature	-5℃~60℃ at 85% relative humidity

Wireless Setup Range

The energy monitor and surge protector communicate in two-way. To ensure energy monitor and surge protector communicate with no interruption, please locate and setup both devices within 100 Ft of range.

Install Wall Tap Surge Protector

The single outlet wall tap surge protector allows the user to track electricity consumption of individual home appliance and protect it against surge and voltage spikes.

1. Plug in the wall tap surge protector to a powered 125V AC outlet.
2. Plug in the appliance into the wall tap surge protector outlet.
3. The outlet power can be manually turned ON/OFF by pressing the "Manual ON/OFF" button on the wall tap surge protector. You may also turn ON/OFF the outlet power remotely by using the energy monitor **(see the operating instruction – channel mode).**

Note: The outlet on the surge protector is default at power off status.

Install Strip Surge Protector

The strip type surge protector allows the user to track electricity consumption of group home appliances by area and protect them against surge and voltage spike.

1. Connect home appliances to the "ENERGY SAVER" outlets. These outlets are for appliances which do not need to be on all the time and can be completely turned off when not in use to eliminate stand-by power waste. The "ENERGY SAVER" outlets can be controlled ON/OFF by remote energy monitor **(see the operating instruction – channel mode).**
2. Connect home devices to the "ALWAYS ON" outlets. These outlets are not switchable and provide continuous power for appliances which always need to stay on at all time.

3. Plug in the AC power cord of the strip surge protector to a powered 125V AC outlet.
4. The "ENERGY SAVER" outlets power can be manually turned ON/OFF by pressing the "Manual ON/OFF" button on the strip surge protector.

Note: The ENERGY SAVER outlets on the surge protector are default at power off status.

Wall Mount the Strip Surge Protector

1. There are mounting holes on the back of the strip surge protector for wall or base board mounting.
2. Install screws (not included) on wall or baseboard surface (leaving at least 1/4 inch of the screw exposed).
3. Place and secure the Surge Protector on mounted screws.

Install Battery in Energy Monitor

Open the battery compartment on the back of the energy monitor and install 4 x AA 1.5V alkaline batteries with right polarity.

Warning: Reversing the polarity may damage the product.

Once batteries are installed, the energy monitor will turn on and enter initial setup mode. Please proceed and refer to the next instruction for initial setup.

Note:
Batteries are not included in the product kit.
Please do not mix and match different types / new & old batteries in use with the energy monitor.

Use an AC/DC Adapter (Optional)

The energy monitor can operate with a 9V AC/DC adapter, which can be purchased separately.
When the AC/DC adaptor is used in conjunction with batteries installed, the energy monitor will be powered by the AC/DC adaptor to save batteries life in the energy monitor.

Wall Mount the Energy Monitor

1. Select a spot within the wireless range to mount the supplied wall bracket for the energy monitor.
2. The ideal locations for the energy monitor wall mount are entrance of a room or location where the energy monitor can be easily seem and accessed.
3. Use adhesive tape or supplied screws to securely attach the supplied wall bracket to a wall.

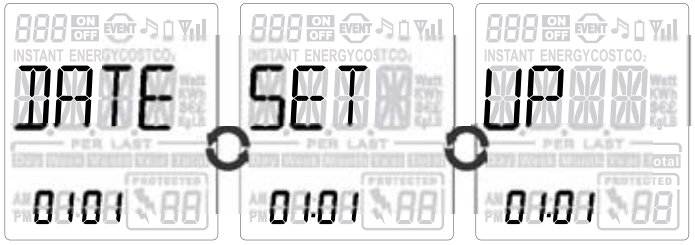
Perform Energy Monitor Initial Setup

Please perform the following initial setup steps for first time operation

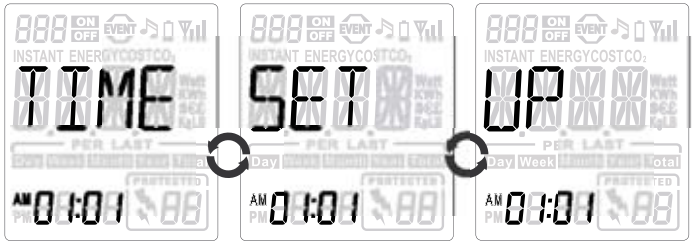
1. Date & Time Setup
2. Currency Setup
3. Electricity Rate Setup
4. Carbon Emission Setup
5. Audible Alarm Setup

Date & Time Setup

1. In year setup page, **"YEAR→SET→UP"** displays in looping.
2. The year value blinks. Use the **arrow key** to change the year value.
3. Press the **SET** button to proceed to Date setup page.



1. In date setup page, **"DATE→SET→UP"** displays in looping.
2. The month value blinks first. Use the **arrow key** to change the month value first then press the **SET** button to proceed to day setup.
3. The day value blinks. Use the **arrow** key to change the day value. Press the **SET** button to proceed to Time setup page.

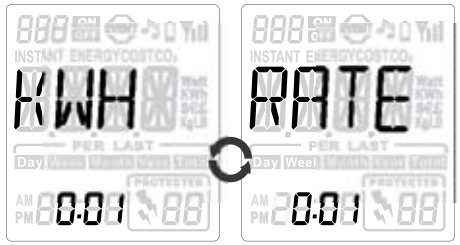


Currency Setup

1. In Currency setup page, "**CURR→SET→UP"** displays in looping.
2. The $ symbol blinks first. Use the **arrow key** to select currency symbol in $ /€ /£.
3. Press the **SET** button to proceed to Electricity Utility Rate setup page.

Electricity Rate Setup

There are more than 4,000 electric utilities across the US and Canada. In the event your local utility uses a tariff calculation other than flat electricity rate, please key in the average rate that most nearly resembles your utility's tariff schedule.



1. In Electricity Rate setup page, **"KWH→RATE"** in looping display represents cost of KWH of your electricity rate.
2. The rate value blinks. Use the **arrow key** to change the rate value.
3. Press the **SET** button to proceed to Carbon Emission setup page.

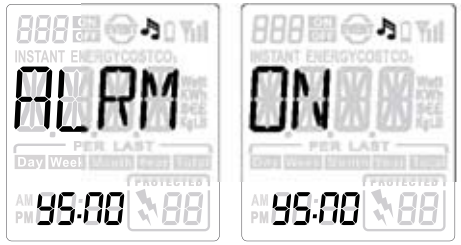
Carbon Emission Setup

Carbon dioxide is emitted in the process of producing electricity by burning coal & fossil fuel. This is usually referred to CO2 footprint or carbon emission, which in turn has contributed global warming and caused abnormal weather.

The average carbon emission rate is 0.43Kg (0.95lbs) of carbon emission for every 1 KWH of electricity produced. This can be changed depending upon your local electric utility. Please contact your local utility for carbon emission rate.

1. In Carbon Emission Setup page, **"CO2→SET→UP"** displays in looping.
2. The **Kg** symbol blinks first. Use the **arrow key** to select the weight symbol in **Kg** or **LB**. Then press the **SET** button to proceed to carbon emission rate setup.
3. The carbon emission rate blinks. Use the **arrow key** to change the value. Press the **SET** button to proceed to Audible Alarm setup page

Audible Alarm Setup



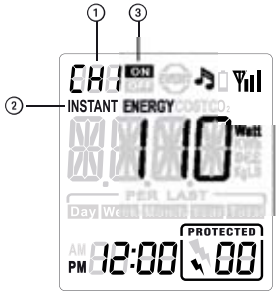
1. In Audible Alarm setup page, **"ALRM→ON"** displays in looping.
2. The YES [**YS**] option blinks first. Use the **arrow key** to select Yes or NO to enable or disable audible alarm for surge and event alert.
3. Press the **SET** button finish the initial setup and the page will proceed to default Channel mode automatically.

Energy Monitor Display Mode

The energy monitor provides 6 types of display modes. Press the MODE button to scroll thru different display modes.

Channel Mode (Default page)

The energy monitor will return to the default Channel Mode page when it is idle for 30 seconds.



1. Change channel in channel mode

The energy monitor can control and monitor up to 9 energy tracking surge protectors. Each CH number represents an energy tracking surge protector.
Use the arrow key to change the channel from CH1 to CH9 to ALL channels.

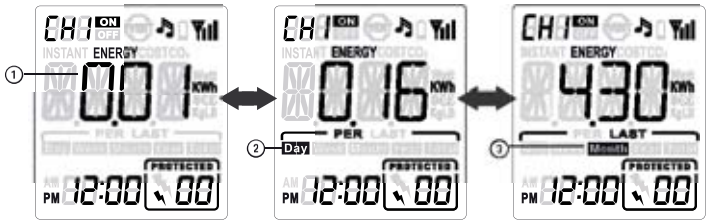
2. View instant energy consumption of each channel

The energy monitor can display instant energy consumption in watt of each channel. When CH number is changed to ALL, the energy consumption of ALL available Channels will be displayed.
"NOT AVAL" (not available) will be displayed when the Channel does not exit.

3. Turn ON/OFF the energy saver outlets on the surge protector

The energy monitor can display the ON/OFF Status of the surge protector. Use the **ON/OFF** Key on the energy monitor to turn ON and OFF the energy saver outlets of the surge protector.
When CH number is changed to ALL, press the ON/OFF key will turn ON/OFF the control outlets on ALL surge protectors simultaneously.

Energy Mode



Energy Consumption in kWh | Proj ected Energy Consumption in kWh | Historic Energy Consumption in kWh

1. View energy consumption in kWh for the channel

In Energy Mode, the energy monitor will first display the energy consumption in kWh for the Channel.

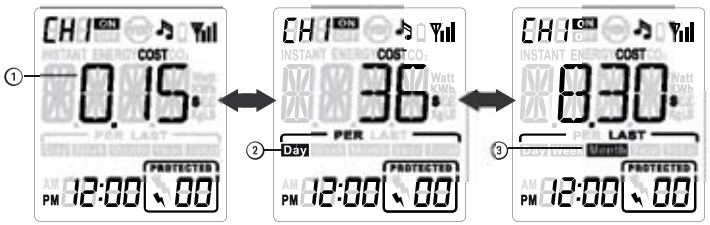
2. View projected energy consumption for the channel

The energy monitor can calculate and display the projected energy consumption. Use the **right arrow** key to change from energy consumption in kWh to projected energy consumption **PER Day→PER Week→PER Month→PER Year.**

3. View historic energy consumption for the channel

The energy monitor can store and display the historic energy consumption. Use the **right arrow** key to change from projected energy consumption to historic energy consumption **LAST Day→LAST Week→LAST Month→LAST Year→Total** (up to date).

Cost Mode



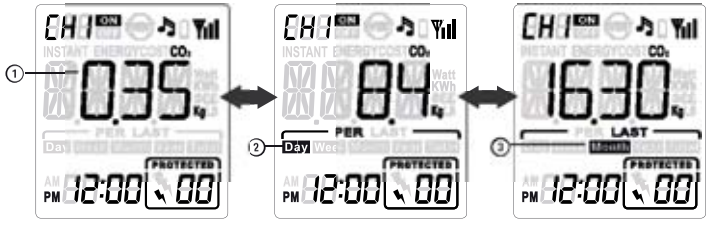
Energy Cost per hour in $ | Projected Energy Cost in $ | Historic Energy Cost in $

1. View energy cost per hour for the channel
In Cost Mode, the energy monitor will first display the energy cost per hour for the Channel.

2. View projected energy cost for the channel
The energy monitor can calculate and display the projected energy cost. Use the **right arrow** key to change from energy cost per hour to projected energy cost **PER Day→PER Week→PER Month→PER Year.**

3. View historic energy cost for the channel
The energy monitor can store and display the historic energy cost. Use the **right arrow** key to change from projected energy cost to historic energy cost **LAST Day→LAST Week→LAST Month→LAST Year→Total (up to date).**

CO2 Mode



Carbon Emission per hour in KG | Projected Carbon Emission in KG | Historic Carbon Emission in KG

1. View carbon emission per hour for the channel
In CO2 Mode, the energy monitor will first display the carbon emission per hour for the Channel.

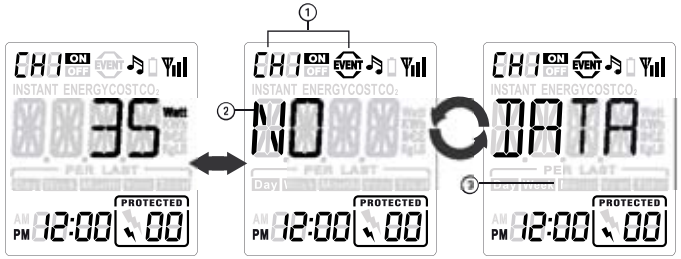
2. View projected carbon emission for the channel
The energy monitor can calculate and display the projected energy cost. Use the **right arrow** key to change from carbon emission per hour to projected carbon emission **PER Day→PER Week→PER Month→PER Year.**

3. View historic carbon emission for the channel
The energy monitor can store and display the historic carbon emission. Use the **right arrow** key to change from projected carbon emission to historic carbon emission **LAST Day→LAST Week→LAST Month→LAST Year→Total** (up to date).

Event Mode

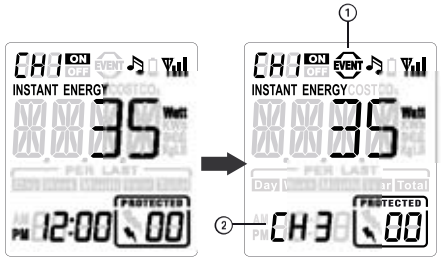
In the event of power failure or power overload happening to the energy tracking surge protector, the energy monitor will alert with beeping and event icon on the screen. This allows the user to be aware of the unusual power failure conditions of home electricity.

Instant event alert on currently browsing channel



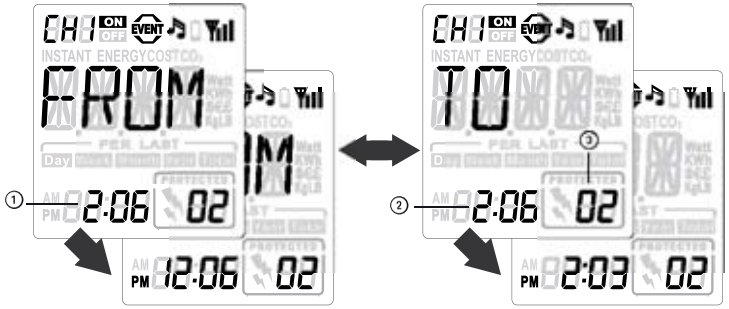
1. When power failure / power overload happens to the currently browsing channel, the energy monitor will alert with beeping and event icon flashing on the screen.
2. Since the remote surge protector stops working due to power failure / power overload, NO DATA will be shown on the energy monitor.

Instant event alert insertion from other channels



1. The energy monitor will insert the event alert on the screen and alert with beeping when event happening to other channels.
2. The event icon and CH number in lower left corner will flash to indicate what CH is experiencing power failure / power overload conditions.

View historic events for the channel



1. View what date & time the events occurred
The energy monitor can store and display historic events. In event mode, the event icon will be flashing and first display FROM what date & time the events occurred.

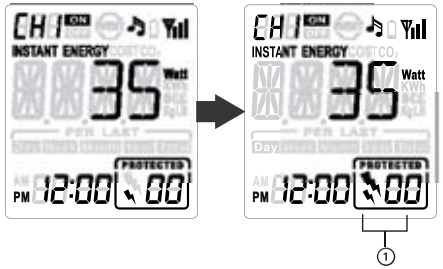
2. View what date & time the events ended
The energy monitor will then display TO what date & time the events ended.
The above example shows that the event occurred from Feb 6th at 12:06PM and ended on Feb 6th at 2:03PM.

3. View historic events for the channel in sequence
The number in lower right corner indicates how many times the events happened.
Use the **arrow** key to change and view events in sequence.

Surge Alert Mode

When energy tracking surge protector encounters surge events, the energy monitor will alert with beeping and icon on the screen. This allows the user to be aware of the unusual surge conditions of home electricity.

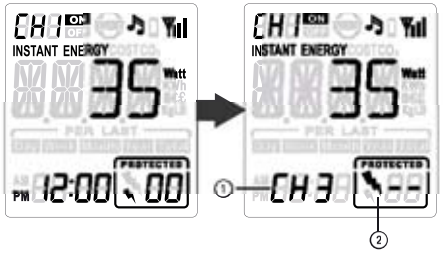
Instant surge alert on currently browsing channel



1. When surge events happen to the currently browsing channel, the energy monitor will alert with beeping and icon flashing on the screen. The energy monitor will display the surge event frequency in numbers and store the surge event data for later review.

Note:
The energy tracking surge protector can detect the intensity of the surge events and display surge alert in minor surge (small icon) or major surge (big icon).

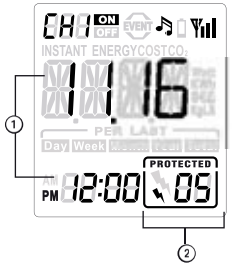
Instant surge alert insertion from other channels



1. When surge event happens to other channel, the energy monitor will alert with beeping and display what Channel is encountering surge event in lower left corner.
2. The icon in the lower right corner will flash and display the intensity of surge event in minor surge (small icon) or major surge (big icon).

Note:
The instant surge alert insertion will display for short time and return to previous display mode.

View historic surge events for the channel



1. View what date and time the surge events occurred
The energy monitor will first display what date and time the last surge event occurred. The above example shows that the 5th surge event occurred at 12:00pm in Nov. 16th.

2. View historic surge events for the channel in sequence
The energy monitor will store and display the surge events frequency in numbers. Use the arrow key to change and view historic surge events in sequence.

Note:
When viewing historic surge events, the energy monitor will first display minor surge event data. Press the mode button to go to major surge event page for detail major surge event information.

Advance Setup Instruction

In set-up menu, the user can perform the following setup procedures for the energy monitor.

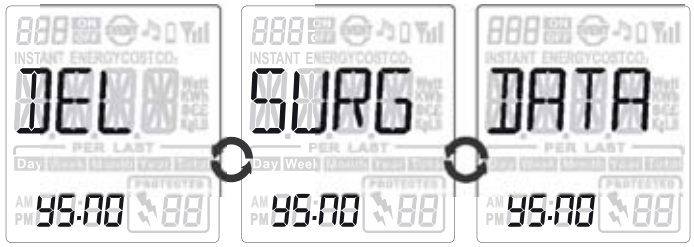
Press and hold the SET button for 3 seconds to access in the set-up menu. For the first 5 advance setup options, please refer to Initial Setup Instruction in the manual.

1. Date & Time Setup
2. Currency Setup
3. Electricity Rate Setup
4. Carbon Emission Setup
5. Audible Alarm Setup
6. Delete Event Data Setup
7. Delete Surge Event Data Setup
8. Delete History Energy Data Setup

Delete Event Data Setup

1. In Delete Event Data setup page, **"DEL→EVNT→DATA"** displays in looping. User may choose to delete all the previous event data.
2. The NO option blinks first. Use the **arrow key** to select Yes [**YS**] or NO for event data delete decision.
3. Press the **SET** button to proceed to Delete Surge Event Data Setup page.

Delete Surge Event Data Setup

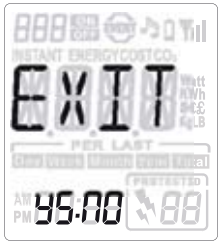


1. In Delete Surge Event Data setup page, **"DEL→SURG→DATA"** displays in looping. User may choose to delete all the previous surge event data.
2. The NO option blinks first. Use the **arrow key** to select Yes [**YS**] or NO for surge event data delete decision.
3. Press the **SET** button to proceed to Delete History Data Setup page.

Delete History Data Setup

1. In Delete History Data setup page, **"DEL→HIST→DATA"** displays in looping. User may choose to delete all the previously saved KWH / COST / CO2 historic database.
2. The NO option blinks first. Use the arrow key to select **Yes** [**YS**] or NO for history data delete decision.
3. Press the SET button to proceed to Exit page.

Exit the Setup Page



1. In Exit page, the NO option blinks first. Use the **arrow key** to select Yes [**YS**] then press the **SET** button to exit the setup menu.
2. Select NO then press **SET** button will allow the user to re-do setup steps.

Add Channels to the Energy Monitor by Learning

The energy monitor and the energy tracking surge protector in the kit are pre-paired and ready to use.
You can purchase more compatible energy tracking surge protectors and expand up to 9 CH by adding to the exiting energy monitor.

1. Hold the energy monitor close to the energy tracking surge protector.
2. In the energy monitor channel mode, use the **arrow key to** select which channel you wish to add the energy tracking surge protector.
3. On the energy tracking surge protector, press and hold the **LEARNING** button for 3 seconds until the green LED indicator light flashes and goes into learning mode.

Note : you can release the button once the indicator light goes flashing
4. Within 10 seconds, press the **LEARNING** button on the energy monitor to add energy tracking surge protector to the selected channel.

5. The Surge Protector will beep once to confirm that it has been successfully added to the channel on the energy monitor.

6. Redo step 3~5 if learning is not successful.

7. Repeat step 2~5 to add more energy tracking surge protectors to different channels on the energy monitor.

Reset the Energy Monitor to Factory Default

Please follow the instruction below to reset the energy monitor to its factory default setting.

Note:
By performing resetting energy monitor to factory default, all saved data, setup & channel settings will be erased.

1. Locate the reset point on top of the energy monitor.
2. Push a stylus or pen into the reset point for 5 seconds.
3. The energy monitor will be hard reset to factory default setting. Please perform all the necessary setup and channel setting.

FEDERAL COMMUNICATIONS COMMISSION
INTERFERENCE STATEMENT

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.

CAUTION:

To assure continued FCC compliance:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.