PowerCost Monitor™

User Manual

Please read before using this equipment.

BLUEline INNOVATIONS

FCC COMPLIANCE STATEMENT (USA)

FCC Class B Part 15

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.

Warning: *Changes or modifications not expressly approved by Blue Line Innovations Inc. void the user's authority to operate the equipment.*

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.

Industry Canada Certification

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.

Table of Contents

1 Introduction

The ***PowerCost Monitor***™ from Blue Line Innovations can help you reduce your electricity bill. Our goal is to empower householders like you to reduce the amount of electricity you use without seriously changing your lifestyle. All of our products and services are developed with that goal in mind.

By using this manual and making the ***PowerCost Monitor***™ a regular part of your daily household management, you can significantly reduce the amount of electricity you consume without dramatically altering day-to-day living.

Your ***PowerCost Monitor***™ gives you the advantage of real-time feedback. Tests have proven that householders who use real-time feedback can reduce electricity needs by as much as 5 - 20% .

Real-time feedback means being able to:

- see how much energy your home is using from minute to minute.
- immediately see the effect of turning on or off various electrical appliances in your home.

It is important to remember that the ***PowerCost Monitor***™ is just a tool. The amount of savings are up to you. By striving to keep the Current, Total and Predicted values of the Display Unit as low as possible you will use less electricity - up to 20% less every month.

That will translate into:

- real savings on your monthly bill
- reduced green-house gas emissions
- reduced demand on the power grid

2 Features

2.1 Main Features

- Displays electricity cost-per-hour in dollars and cents
- Displays total cost of energy in dollars and cents
- Displays predicted cost of energy in dollars and cents

2.2 Extended Features

- Displays Greenhouse Gas (CO_2) emissions (optional)
- Displays kWh consumption
- Displays outside Temperature
- Clock with Time and Date
- Ability to be programmed for various electricity rates

Important: *This manual contains important safety and care information, and provides step-by-step instructions for using this product. Read this manual thoroughly, and keep it in a safe place in case you need to refer to it later.*

3 Safety Instructions

To ensure your ***PowerCost Monitor***™ is used properly and safely, read these Safety Instructions and the rest of the User Manual thoroughly before using the product. **These instructions must be followed at all times.**

- Do not attempt to repair the ***PowerCost Monitor***™ yourself. If you have a problem, please call our toll free number **1-866-607-2583** or visit **www.bluelineinnovations.com** for assistance.
- Take precautions when handling all battery types. They can cause injuries, burns and/or property damage as a result of contact with conducting materials, heat, corrosive materials or explosives.
- Do not immerse the ***PowerCost Monitor***™ in water.

- Only place the Display Unit indoors. Placing the Display Unit outdoors will result in damage to the product and void the warranty.
- Do not use the Display Unit in high moisture areas such as a bathroom.
- Keep this product away from heat sources such as stoves and heaters.
- To avoid shock, do not under any circumstances touch any exposed electronic circuitry of the device.
- Take special care when handling a damaged LCD display as the liquid crystals can be harmful to your health.
- Do not use this device in aircrafts or hospitals. The use of radio frequency can cause malfunctions in the control devices of other equipment.
- Do not drop the ***PowerCost Monitor***™ or cause any sudden impact to it.
- When disposing of this product, do so in accordance with your local waste disposal regulations.

4 Installation

It is very important to follow the installation instructions for the ***PowerCost Monitor***™ exactly as outlined in this User Manual. Failure to do so will provide incorrect consumption data and may void the product warranty.

4.1 You Will Need

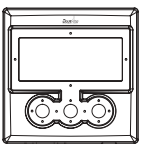
- User Manual
- 1 large Flat Head screwdriver
- 1 small Philip's Head screwdriver
- 2 screws or nails (optional)

4.2 Unpacking the Product

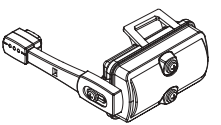
After you unpack the ***PowerCost Monitor***™, keep all packing materials in a safe place in case you have to return the product for servicing.

In the box you will find:

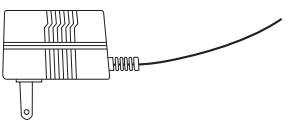
Display Unit



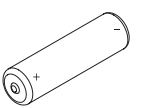
Sensor Unit



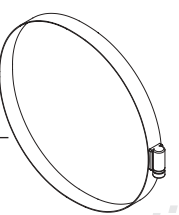
Adapter



Battery



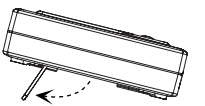
Sensor Unit Clamp



4.3 Installing the Display Unit

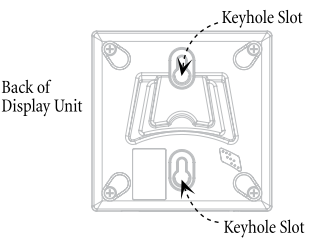
The Display Unit may be placed on a flat surface or mounted on the wall.

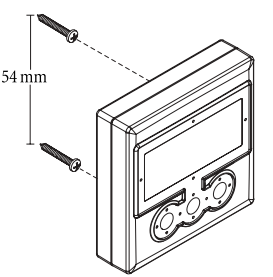
1. Remove Display Unit and adapter from box.
2. Find an appropriate location for the Display Unit. It must be an interior location within 20-30 meters (60-90 feet) of the home's exterior Utility Meter. The Display Unit must be located indoors.
3. To stand the Display Unit on a horizontal surface such as a countertop, fold out the built-in stand located on the back of the unit.



4. To mount the Display Unit on a wall find a location within 120 cm (4 feet) of a wall outlet. The preferred location would be over a wall stud. You will need two screws or nails (not supplied). Before installing the screws or nails, make sure the heads fit into the keyhole slots on the back of the Display Unit.

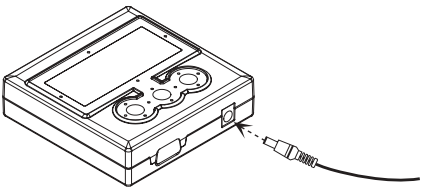
   Make two marks on the wall (one directly above the other) 54 mm (2 1/8 inches) apart. Insert the screws or nails until the heads protrude 7mm (1/4 inch).





   Position the keyhole slots over the screws or nails and slide the Display Unit down to secure it.

5. To apply power to the Display Unit, plug the power adapter into a standard 110V outlet and insert the adapter into the bottom of the Display Unit as shown below.



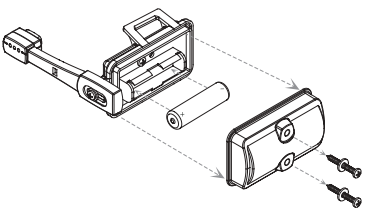
4.4 Synchronizing the Display Unit with the Sensor Unit

Your Sensor Unit comes pre-programmed with a unique ID code so it will only work with your Display Unit. Your Unit comes pre-synchronized. If however, your Display Unit has been plugged in and after a few minutes shows only zeros, you will have to resynchronize the Unit.

To synchronize the Display Unit and Sensor Unit follow these steps:

1. Unplug the Display Unit.
2. Press the center button on the Display Unit and continue to press as you plug the Display Unit back in. The Display Unit will display "BLUE" then "LINE" then "ID" as shown below. Once "ID" is displayed release the button.

3. With a Philip's Head screwdriver, remove cover from Sensor Unit and then insert battery as shown below:



4. Display Unit should now show "OK". The Display Unit and Sensor Unit are now synchronized.

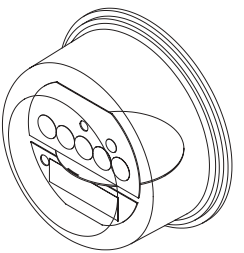
5. Remove the battery from the Sensor Unit until it is installed on the Utility Meter.

Note: *Multiple Display Units can be synchronized and placed throughout the home to read from the same Sensor Unit. Additional Display Units must be purchased separately from Blue Line Innovations. To install multiple Display Units follow the synchronization procedure as outlined above for each unit.*

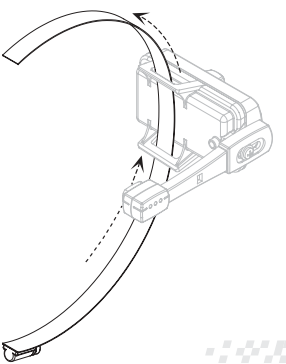
4.5 Installing the Sensor Unit

Your Sensor Unit has been professionally installed therefore you do not need to complete the steps in Sections 4.5 or 4.6. You can proceed to *Section 5: Using the Display Unit*. In case you experience future problems, we have included the installation instructions to make troubleshooting easier.

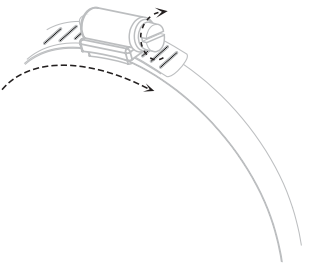
1. Locate your household Utility Meter outside the house.



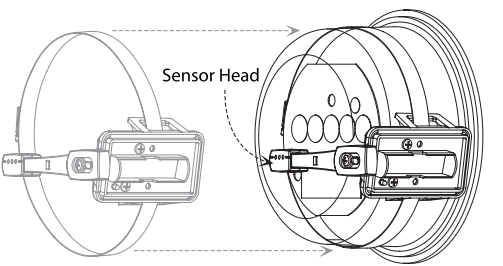
2. Fit sensor strap into legs of Sensor Unit as shown.



3. Engage sensor strap by turning the sensor-strap screw several turns with a Flat Head screwdriver.

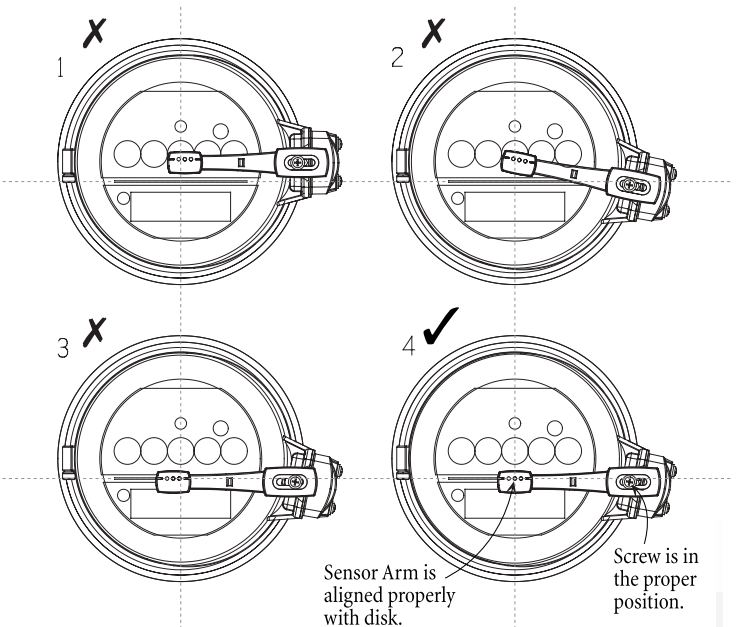


4. Fit sensor strap over Utility Meter as shown below. Ensure that the Sensor Head is touching the glass in front of the Utility Meter.



5. Tighten the sensor-strap screw several turns. The Sensor Unit should still be able to move so adjustments can be made. *Do not over-tighten!*

6. Make sure that the Sensor Arm is properly aligned with the disk on the Utility Meter. If the Sensor Arm is not properly aligned, the device will not work. Please see the diagrams below:



7. Once the Sensor Arm is properly aligned, tighten the sensor-strap screw until the strap is snug and the Sensor Unit cannot move freely. *Do not over-tighten!*

8. Insert the lithium battery provided by matching the correct polarity. Do not use any other battery type. Using another battery type may damage the product and void the warranty.

4.6 Sensor Alignment

Following this section is critical to ensuring that your ***PowerCost Monitor***™ functions properly. If the Sensor Unit is not properly aligned, the device will not work correctly. It is essential that you follow the steps exactly as they are outlined below.

The aim is to align the Sensor Head with the large black mark on the edge of the disk in the Utility Meter. The ***PowerCost Monitor***™ measures your electrical consumption by counting the revolutions of this disk.

1. Watch for the black mark on the disk in the meter to pass in front of the Sensor Head.