COVER PAGE

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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.
- See the effect of turning on or off various electrical devices in your home.

It is important to remember that the PowerCost Monitor™ is just a tool. The amount of savings is up to you. By striving to keep the values shown on 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 electricity bill
- Reduced green-house gas emissions
- Reduced demand on the power grid

To help you maximize energy savings, you will find relatively inexpensive and effective tips at www.save-electricity.ca. These tips, when used in conjunction with the PowerCost Monitor™, will help you attain your conservation goals.

The PowerCost Monitor™ is straight-forward and easy to use. Should you happen to experience any difficulties with your system please refer to the

troubleshooting section at the end of this manual. If problems persist or you have a question that is not answered there, additional information is available online at www.bluelineinnovations.com. You may also contact our toll free line at 1-866-607-2583 and one of our customer support staff will be happy to assist you.

This device has been approved for use on your utility meter by your local power company. If you have any questions or concerns please contact your utility company directly or call Blue Line Innovations toll free at1-866-607-2583.

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

2 Features

- Displays current electricity consumption in dollars and cents per hour.
- Displays total cost of energy consumed in dollars and cents
- Displays current energy consumption in kilowatts
- Displays total energy consumed in kilowatt-hours
- Displays outdoor temperature in Celsius and Fahrenheit
- Has an easy-to-read screen that lights up at the touch of a button

This device does not interfere with your utility meter readings in anyway. After the PowerCost Monitor™ is installed meter readers can still access your readings.

3 Safety Instructions

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

- Do not attempt to repair the PowerCost Monitor™ yourself. If you experience any difficulties please refer to the troubleshooting section of this manual or visit www.bluelineinnovations.com for assistance. If you are still having difficulty please feel free to call our customer support department toll-free at (866) 607-2583.
- Take precautions when handling batteries. They can cause injuries, burns, and/or property damage as a result of contact with metal objects, heat, corrosive materials.
- Should the Display Unit be dropped, take special care when handling a damaged LCD display as the liquid crystals can be harmful to your health. If any fluid does leak from the Display Unit, immediately wash it off with soap and water.
- Do not use this device in aircraft or hospitals. The use of radio frequency devices can cause malfunctions in the control devices of other sensitive equipment.

4 Care and Maintenance

To ensure your PowerCost Monitor™ provides trouble-free service, please read the following tips and the rest of the User Manual thoroughly before using the system.

- Do not immerse the PowerCost Monitor™ in water.
- Do not use the Display Unit in high moisture areas such as a bathroom.
- Place the Display Unit indoors only. Placing the Display Unit outdoors can result in damage to the product and will void the warranty.
- Keep this product away from heat sources such as stoves and heaters.
- 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.

5 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 result in incorrect consumption data being displayed and may void the product warranty. To install this device, you will need direct access to your utility meter. In addition to the tools listed below, you may need a step ladder or stepping stool if your utility meter is not located at ground level. In such a situation please take all necessary precautions to install this product safely.

You Will Need

- User Manual
- 1 large Flat Head screwdriver

5.1. Unpacking the PowerCost Monitor™

Figure 5.1 shows all of the items that are included with your PowerCost Monitor™ system. After you unpack your PowerCost Monitor™, keep all packing materials in a safe place.

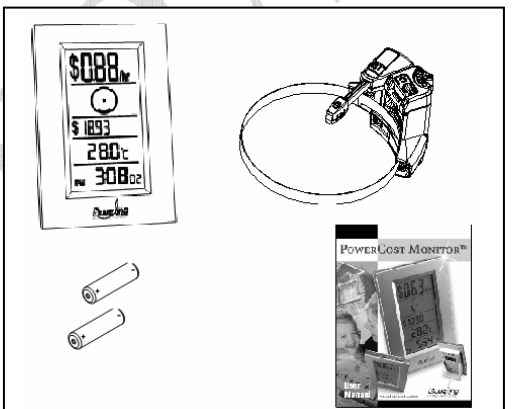

Figure 5.1 – Package Contents

5.2. Powering the Display Unit

To power the Display Unit, follow these steps:

1. Remove the Display Unit from the box.
2. Find an appropriate location for the Display Unit. It must be an indoor location 30 meters (100 ft.) or less from your home's utility meter.
3. To set the Display Unit on a horizontal surface, such as a countertop, pull out the built-in stand located on the back of the unit.
4. To apply power to the Display Unit, you can use 2 standard "AA" batteries or the optional wall adapter.

   Your Display Unit comes with 2 alkaline "AA" batteries already installed. Simply remove the plastic insert that separates one of the batteries from its contact point and replace the cover.

   To use the optional wall adapter, plug adapter cord into the side of the Display Unit, as shown below, and then plug the adapter into any standard 110V electrical outlet.

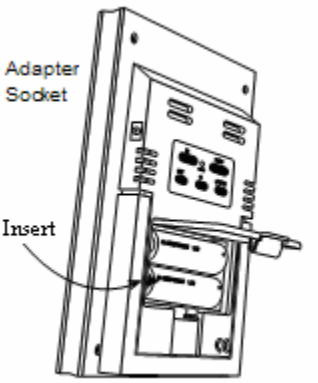

Figure 5.2 – Display Unit Batteries

When you apply power to the Display Unit it will beep several times rapidly and after approximately 5 seconds you will see the start-up screen shown in figure 5.3, below.

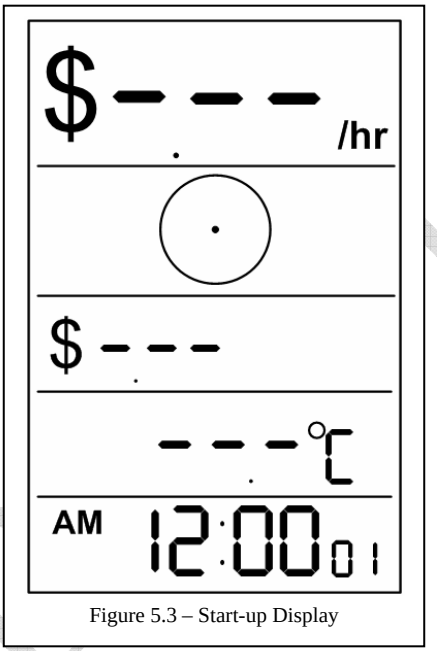

Figure 5.3 – Start-up Display

Note: When switching from AC power to battery operation unplug the AC adapter from the PowerCost™ monitor BEFORE unplugging the adapter from the wall outlet. Failure to do so will interrupt power to the display causing the clock to reset to 12:00.

Note: To ensure your PowerCost Monitor operates at a peak performance, you should place your Display Unit in a room near your utility meter. Ideally, it should be on the same side of the house where the utility meter is situated.

5.3. Putting Batteries in the Sensor Unit

To install batteries in the Sensor Unit open the battery cover by moving the cover latch to the unlocked position. Install the two AA alkaline batteries provided in the direction indicated. Note that the battery closest to the Sensor Arm goes in positive (+) end first. Close the cover and move the cover latch back to the locked position.

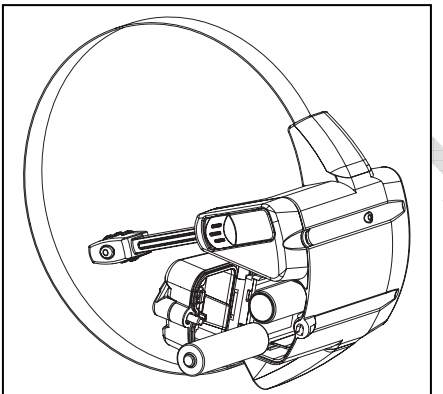

Figure 5.4 – Installing Sensor Batteries

5.4. Determining your Utility Meter Type

The Sensor Unit of the PowerCost Monitor™ system is compatible with older "electromechanical meters" (e.g.: the ones with the spinning disk) and with many of the newer electronic meters. Depending on the type of meter you have, the installation process will be slightly different.

Check your utility meter and compare it to the two meters depicted in figure 5.5, below. If your meter has a spinning disc and several dials on its face, similar to that shown on the left, then proceed to section 5.5 – Electromechanical Meter Installation. If your meter has a digital face like the one shown on the right proceed to section 5.6 – Electronic Meter Installation.

Electromechanical Electronic

Figure 5.5 – Utility Meter Types

5.5. Electromechanical Meter Installation

It is very important that you follow the steps below exactly as outlined to ensure that your PowerCost Monitor™ works properly. Be sure to bring your tools and your Display Unit to your utility meter before starting the installation process. For best results, install your Sensor Unit on a dry day using the following procedure:

1. Locate your household utility meter. The meter may be located outdoors or indoors. If the glass on the utility meter is dirty, wipe it clean with a damp cloth.
2. Adjust the sensor mounting strap by turning the adjustment screw several turns with a flat head screwdriver until it is approximately 15cm (6 inches) in diameter.
3. Lift the Sensor Arm latch and extend the Sensor Arm to its maximum length. It is possible to pull the Sensor Arm completely out of the Sensor Unit housing. If this happens simply re-insert it and push it in to the first click-stop position. This is the correct position for electromechanical meters. Close the Sensor Arm latch.

4. Fit Sensor Unit over your utility meter as shown in figure 5.6, below. Ensure that the Sensor Arm is as close to the front of the utility meter glass dome as possible.

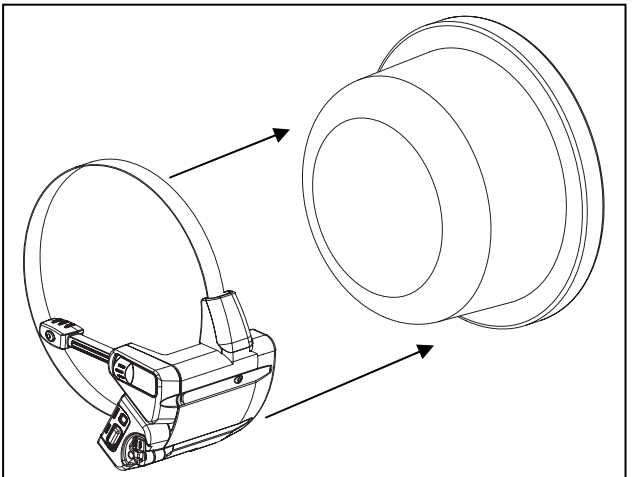

Figure 5.6 – Sensor Unit Installation

5. Tighten the sensor-strap adjustment screw until snug. 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 positioned with the disk on the utility meter. It should be positioned so that the end of the Sensor Arm is inline with the disk and centered from side-to-side. If the Sensor Arm is not properly positioned the Sensor Unit may not detect the black mark on the disk passing by and will result in incorrect readings. Refer to figure 5.7, below, for correct Sensor Arm positioning.

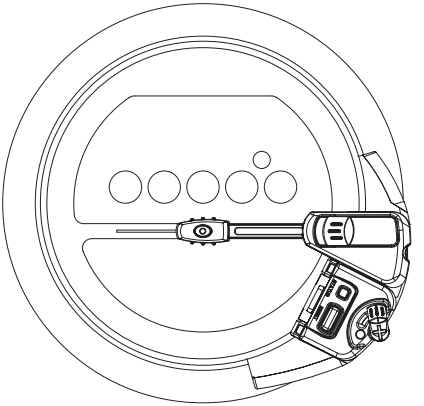

Figure 5.7 – Proper Electromechanical Alignment

7. Once the Sensor Arm is properly positioned, tighten the sensor-strap adjustment screw until the Sensor Unit cannot be moved easily. Do not over-tighten!

8. Press and release the RESET button on the battery cover of the Sensor Unit, as shown in figure 5.7. The red indicator on the Sensor Unit will begin to flash once per second. It will take approximately 15-30 seconds for the Sensor Unit to determine that it is installed on an electromechanical meter. Once it has determined this, the red indicator light will begin to flash every time the black mark on the disk passes in front of the Sensor Arm.

   If, after a few minutes, the Sensor Unit indicator does not flash when the black mark passes, or if it flashes while the black mark is not visible, then the Sensor Arm is not properly aligned and must be re-adjusted. To adjust the Sensor Arm, open the Sensor Arm latch and gently move the Sensor Arm up or down a few millimeters to align it with the meter disk. Close the Sensor Arm latch then repeat this step. Continue to do this

until the Sensor Unit consistently and only flashes when the black mark passes the Sensor Head. After 2 minutes the Sensor Unit will stop flashing in order to maximize battery life.

Once the Sensor Arm is properly aligned continue with section 5.7 – Synchronizing the Display and Sensor Units.

5.6. Electronic Meter Installation

Depending on the electronic meter type you have, the Sensor Unit may need to be reconfigured. Electronic meters have an optical output that flashes invisible light through an optical port in a specific pattern that indicates how much electricity is being consumed at any point in time. The PowerCost Monitor Sensor Unit will detect this light output automatically.

Some electronic meters have their optical port on the top, in which case the Sensor Unit will need to be reconfigured. Other meters have their optical ports on the front. Refer to figure 5.8 to help determine the type of electronic meter you have.

Figure 5.8 – Top-Mounted and Side-Mounted Electronic Meters

5.6.1. Top-Mounted Electronic Installation

If you have a top-mounted mounted meter follow the steps below exactly as outlined to ensure that your PowerCost Monitor™ works properly. Be sure to

bring your tools and your Display Unit to your utility meter before starting the installation process. For best results, install your Sensor Unit on a dry day using the following procedure:

1. Reconfigure your sensor unit by opening the Sensor Arm latch fully and gentle pulling the Sensor Arm all the way out. Refer to figure 5.9 for a pictorial view of the reconfiguration process.
2. Insert the wired end of the Sensor Arm up through the Sensor Arm latch opening from the bottom.
3. Gently tuck the Sensor Arm down into its holster in the bottom cavity of the Sensor Unit. Close the Sensor Arm latch.
4. Locate your household utility meter. The meter may be located outdoors or indoors. If the glass on the utility meter is dirty, wipe it clean with a damp cloth.
5. Adjust the sensor mounting strap by turning the adjustment screw several turns with a flat head screwdriver until it is approximately 15cm (6 inches) in diameter.
6. Fit the Sensor Unit over utility meter as shown in figure 5.10 below. Ensure that it is seated as far back on the utility meter glass dome as possible and centered on the top of the meter.

Figure 5.9 – Sensor Unit Reconfiguration (coming)

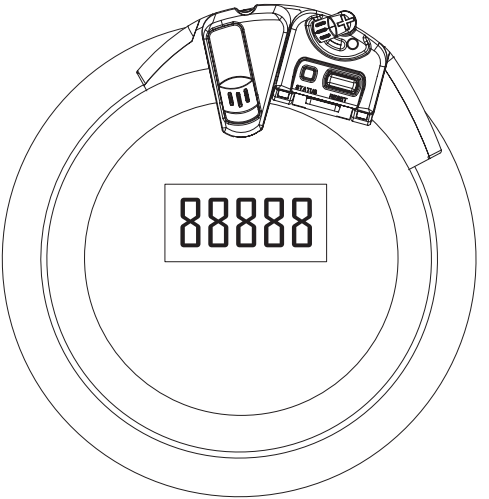

Figure 5.10 – Top-mounted Electronic Meter Installation
(Sensor Arm removed)

7. Once the Sensor Unit is properly positioned, tighten the sensor-strap adjustment screw until the Sensor Unit cannot be moved easily. Do not over-tighten!

8. Press and release the RESET button on the battery cover of the Sensor Unit, as shown in figure 5.10. The red indicator on the Sensor Unit will begin to flash once per second. It will take up to15 seconds for the Sensor Unit to determine that it is installed on an electronic meter. Once it has determined this, the red indicator light will flash at a steady rate approximately 3 times per second.

   Note: You cannot see the light emitted from the utility meter's optical port. It is Infrared (IR) light just like your television remote control.

   If the Sensor Unit indicator does not begin to flash at a faster rate after about 5 minutes, then the Sensor Unit is not properly positioned over the optical port or the glass is dirty. To adjust the Sensor Unit, loosen the

sensor-step slightly and position the Sensor Unit so that the Sensor Arm in the bottom of the unit is directly on top of the meter and that the Sensor Unit is as far back on the glass dome as possible. Re-tighten the sensor-strap and then repeat this step.

After 2 minutes the Sensor Unit will stop flashing in order to maximize battery life.

Once the Sensor Unit is properly mounted continue with section 5.7 – Synchronizing the Display and Sensor Units.

5.6.2. Side-Mounted Electronic Installation

If you have a side-mounted mounted meter follow the steps below exactly as outlined to ensure that your PowerCost Monitor™ works properly. Be sure to bring your tools and your Display Unit to your utility meter before starting the installation process. For best results, install your Sensor Unit on a dry day using the following procedure:

1. Lift the Sensor Arm latch and gently push the Sensor Arm all the way in so that it is at its shortest possible length. Close the Sensor Arm latch.
2. Locate your household utility meter. The meter may be located outdoors or indoors. If the glass on the utility meter is dirty, wipe it clean with a damp cloth.
3. Adjust the sensor mounting strap by turning the adjustment screw several turns with a flat head screwdriver until it is approximately 15cm (6 inches) in diameter.
4. Fit the Sensor Unit over utility meter as shown in figure 5.11, below. Ensure that the Sensor Arm is as close to the front of the utility meter glass dome as possible. Position the Sensor Unit so that the Sensor Arm is over top of the optical port. If needed, you can adjust the tilt of the Sensor Arm. To do this, open the Sensor Arm latch, move the Sensor Arm slightly up or down, and then close the Sensor Arm latch.

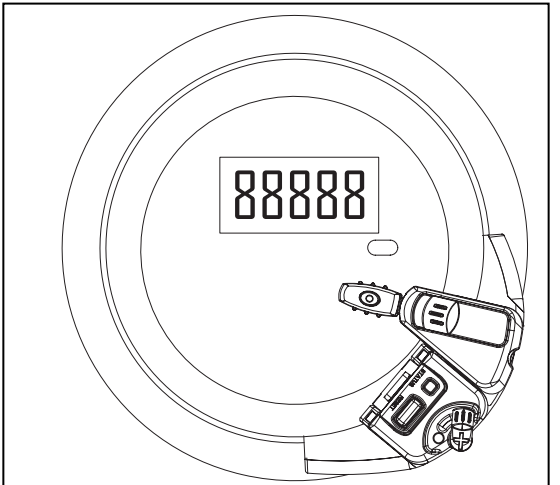

Figure 5.11 – Side Mounted Electronic Meter Installation

5. Once the Sensor Unit is properly positioned, tighten the sensor-strap adjustment screw until the Sensor Unit cannot be moved easily. Do not over-tighten!

6. Press and release the RESET button on the battery cover of the Sensor Unit, as shown in figure 5.11. The red indicator on the Sensor Unit will begin to flash once per second. It will take up to 15 seconds for the Sensor Unit to determine that it is installed on an electronic meter. Once it has determined this, the red indicator light will flash at a steady rate approximately 3 times per second.

   Note: You cannot see the light emitted from the utility meter's optical port. It is Infrared (IR) light just like your television remote control.

   If the Sensor Unit indicator does not begin to flash at a faster rate after about 5 minutes, then the Sensor Arm is not properly positioned over the optical port or the glass dome is dirty. To adjust the Sensor Arm, open the Sensor Arm latch and gently move the Sensor Arm up or down a few millimeters to align it with the optical. Close the Sensor Arm latch then repeat this step.

After 2 minutes the Sensor Unit will stop flashing in order to maximize battery life.

Once the Sensor Unit is properly mounted continue with section 5.7 – Synchronizing the Display and Sensor Units.

5.7. Synchronizing the Display and Sensor Units

Your Sensor Unit comes pre-programmed with a unique ID code so it will only work with your Display Unit. The Display Unit and Sensor Unit must be synchronized before the system will function properly.

To synchronize follow these steps:

1. Make sure the display unit is on.
2. Press and hold the ID button on the back of the Display Unit until it beeps (approx. 3 seconds). This will place the Display Unit into ID Mode and it will begin to search for your Sensor Unit. You will see a screen similar to the one shown in figure 5.12, below.

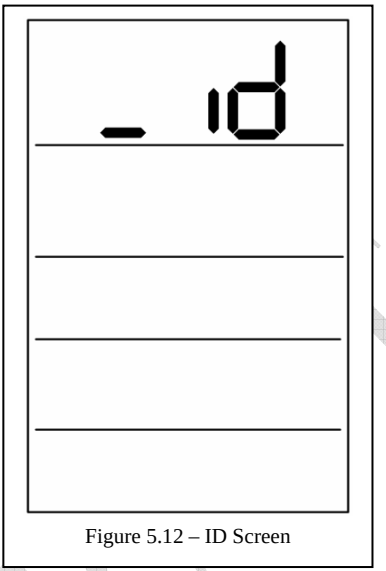

Figure 5.12 – ID Screen

3. Press and release the RESET button on the battery cover of the Sensor Unit, as you did in the installation process. You will see the indicator light on the battery cover begin to flash as the Sensor Unit begins to identify the meter type is it installed on. At this point the display should exit ID mode. If it does not then press the RESET button again.
4. The first time you synchronize your PowerCost Monitor system, the Display Unit will show the start-up screen like the one depicted in figure 5.13, below. **If you do not see this screen, synchronization has not been successful and you need to repeat steps 1 -3, above.**

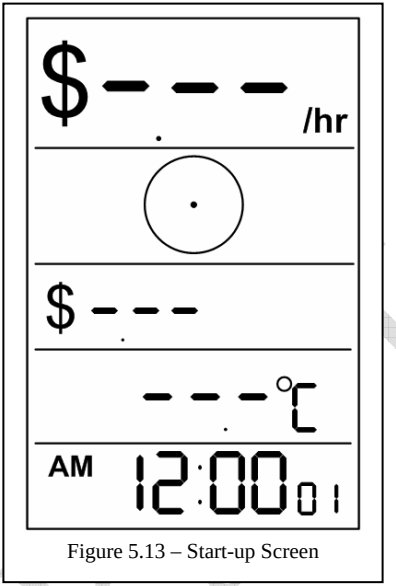

Figure 5.13 – Start-up Screen

5. To setup your display perform the steps in Sections 7.2 & 7.3 before proceeding.

   NOTE: You normally only need to synchronize your Display and Sensor Units once. If you unplug your Display Unit or replace the batteries, the system will start working normally again when power is restored.

6 Using the Display Unit

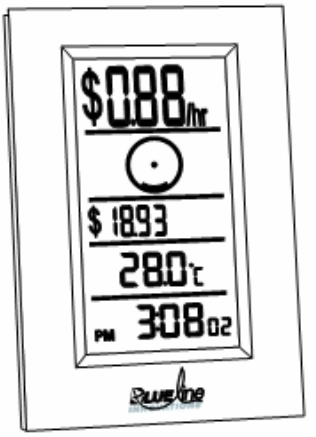

Figure 6.1 – PowerCost Monitor™ Display

Your PowerCost Monitor™:

- Displays current electricity cost-per-hour in dollars and cents
- Displays total cost of energy consumed in dollars and cents
- Displays current energy consumed in kilowatts
- Displays total energy consumed in kilowatt hours
- Displays temperature at the meter in Celsius and Fahrenheit
- Displays a Disk Emulator that spins at the same rate as the disk on your Utility Meter
- Has an easy-to-read screen that lights up at the touch of a button

The diagrams on the following pages explain each screen and the features that are displayed.

6.1. Start-up

Once the Sensor Unit begins to detect power usage from your utility meter the Display Unit inside will automatically start showing information after a short time. A typical display is shown in figure 6.2, below. The actual numbers displayed will vary depending on the amount of electricity you are using at the time.

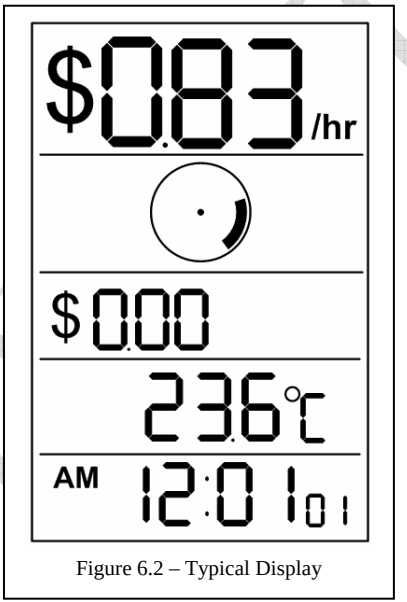

Figure 6.2 – Typical Display

At first, you will see a screen showing dashes. After a short delay, the screen will show the current cost of electricity in dollars-per-hour in the top row (Demand Row). The screen above shows the current cost as $0.83/hour (your actual amount shown will vary). The Disk Emulator spins at approximately

the same rate as the disk on your utility meter. The faster the Disk Emulator spins, the greater the rate of energy consumption and the higher the dollars-per-hour value you will see on the screen. After a few minutes, the second value on the screen in the third row (Total Row), showing as $0.00 above, will start increasing and provides the total cost of electricity used.

If your Sensor Unit loses its alignment, possibly as the result of snow or ice falling on it, it will be apparent if the display shows unusually low consumption (0.4KWor less) for an extended period of time when you are performing normal household tasks such as cooking, laundry, or turning on other appliances.

If, after a few minutes the value displayed is still dashes and the Disk Emulator has not started spinning it is possible that the Display Unit is out of range of the Sensor Unit. Try moving the Display Unit closer to the Sensor Unit. If this does not work, then you should check the alignment of the Sensor Unit and you may need to resynchronize your PowerCost Monitor system. To do this, refer Section 5.7 – Synchronizing the Display and Sensor Units.

6.2. Dollar & Cents Display Mode

The first screen you will see once the PowerCost Monitor starts functioning will be similar to the one depicted in figure 6.3, below. The top row (Demand Row) on the screen shows how much electricity you are currently consuming in dollars and cents. In this example you are currently using $1.08/hour worth of electricity.

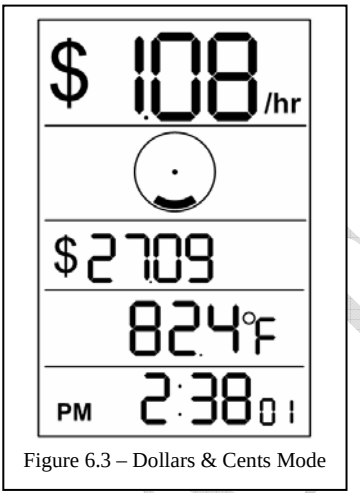

Figure 6.3 – Dollars & Cents Mode

The third row (Total Row) on the screen represents the total dollars worth of electricity consumed since the total was last reset. In the example above you have used $27.09 worth of electricity since the total was last reset.

To reset Total Dollar value, refer Section 8.4 – Resetting the Total Values.

6.3. Kilowatt and Kilowatt-Hours Mode

To enter the Kilowatt and Kilowatt-Hours screen, press and release the MODE button located on the top of the Display Unit. You will then see a screen similar to the one shown in Figure 6.4, below (your actual values will vary).

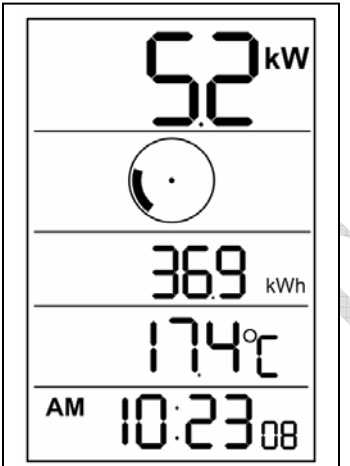

Figure 6.4 – Kilowatt Mode

The top row (Demand Row) on the screen shows how much electricity you are currently consuming in kilowatts. In the example above, you are currently using 5.2 kW of electricity.

The third row (Total Row) on the screen represents the Total Kilowatt-Hours (kWh) of electricity consumed since the value was last reset. In the example you gave used 36.9 kWh of electricity since the total was last reset.

To reset Total kWh value, refer Section 8.4 – Resetting the Total Values.

6.4. Temperature Display

The PowerCost Monitor™ displays the temperature reading at the location of the Sensor Unit. The temperature can be displayed in either °C or °F, as shown in figure 6.5 below. To change the temperature reading between Celsius and Fahrenheit, press and release the **- °C/°F** button on the back of the Display Unit.

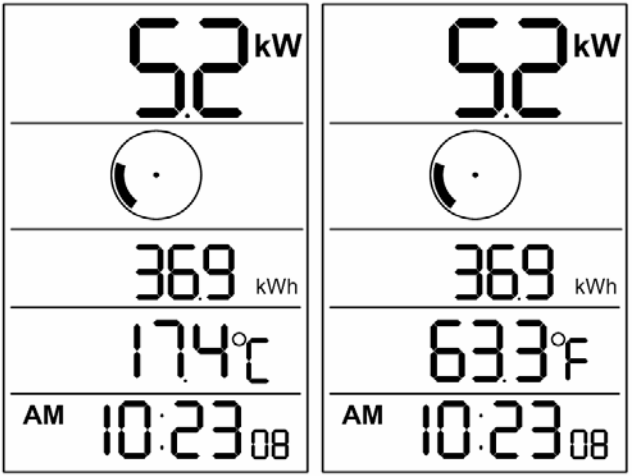

Figure 6.5 – Temperature Display (Celsius & Fahrenheit)

NOTE: *If your utility meter is located indoors, this function will NOT show outside temperature. It only shows the temperature at the utility meter where the Sensor Unit is situated.*

6.5. Loss of Signal Display

In the event that your Display Unit loses the signal from the Sensor Unit you will see a screen similar to those depicted in figure 6.6, below, depending on the mode your Display Unit is currently operating in. This event may occur if, for example, you move the Display Unit somewhere else in your house that is too far from the Sensor Unit.

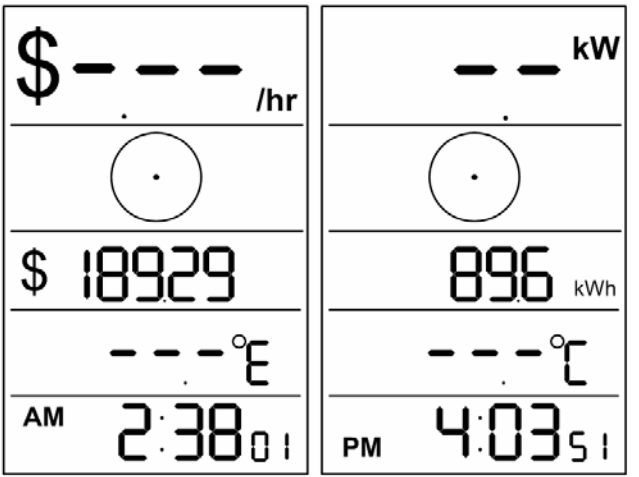

Figure 6.6 – Loss of Signal Indication

A loss of signal can be caused by:

- Sensor Unit battery is exhausted
- The Display Unit has been moved out of range of the Sensor Unit
- Strong interference from other electronic devices, such as wireless weather stations

To resolve the problem, press any button on the **back** of the Display Unit and then move the Display Unit closer to your Utility Meter. If this does not solve the problem, try re-synchronizing the Display and Sensor Units. Refer to the instructions in Section 5.7 – Synchronizing the Display and Sensor Units. If the problem persists, more information is available online at http://www.bluelineinnovations.com. If you are still unable to resolve the problem please feel free to call our toll-free supports line at 1-866-607-2583.

7 Display Settings

7.1. Display Unit Buttons

Below are illustrations of the buttons on the back and the top of the Display Unit. A brief explanation of each button follows on the next page.

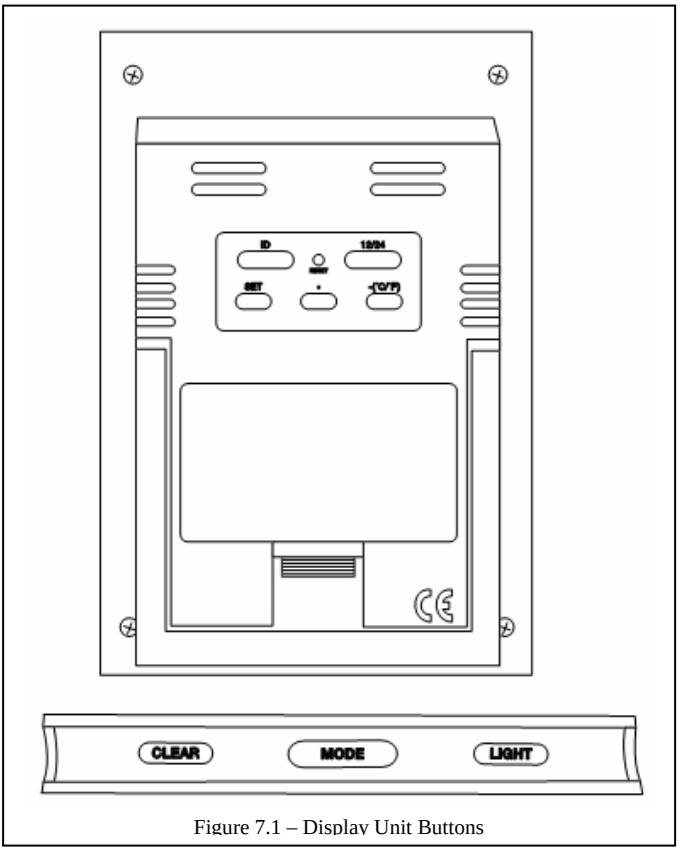

Figure 7.1 – Display Unit Buttons

ID	Used to synchronize the Display Unit and Sensor Unit.
SET	Used to enter Setup Mode to adjust clock, utility rate(s) and Kh factor.
+	Used to change clock and utility rate.
- ºC/ºF	Used to change clock and utility rate, or to switch temperature display between Celsius and Fahrenheit display modes.

12/24	Used to switch clock between 12-hour and 24-hour display modes.
Reset	Used in conjunction with SET button to return Display Unit to its factory settings.
CLEAR	Used to clear the total values.
MODE	Used to switch between Dollar Mode and Kilowatt Mode.
LIGHT	Used to light the screen.

7.2. Setting the Clock

To set the correct time on your Display Unit, follow these steps (refer to Figure 7.2):

1. Press-and-hold the SET Button located on the back of the Display Unit until you hear a single beep (approximately 3 seconds). After the beep, the hours portion of the clock will start flashing.
2. Press the + or - buttons to set the proper hour. Once the hours are correct, press-and-release the SET button to advance to the minutes setting.
3. Again, press the + or - buttons until the minutes are correct.
4. Press the SET button 3 more times to return to the main screen.
5. To switch time between 12-hour and 24-hour display modes press the 12/24 button on the back of the Display Unit.

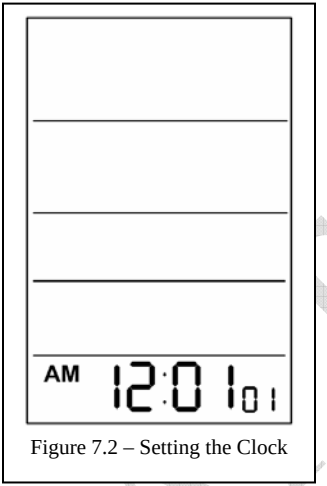

Figure 7.2 – Setting the Clock

7.3. Setting the Electricity Rate and Kh Factor

Some utility companies use a 2-tiered rate system to charge for electricity usage. This means that after you have consumed a certain amount of electricity during a billing period the amount you are charged for electricity typically goes up.

The PowerCost Monitor™ supports 2-tiered rates. The following procedure will enable you to enter these rates, referred to as Rate A and Rate B, along with the consumption threshold that determines when the rates change. When you receive your PowerCost Monitor™ the price-per-kilowatt-hour rate for Rate A and Rate B are factory set at 11.0 and 12.0 ¢/kWh, respectively. The consumption threshold is set at 1,000 kWh.

NOTE: *If your utility does not utilize a 2-tier rate system then simply enter the same power rate for both Rate-A and Rate-B in the procedure below.*

In order to ensure your PowerCost Monitor™ provides accurate information, you need to input the correct rate(s) being charged by your utility. These rates

can be found on your electricity bill or by contacting the utility company by phone or the web. To set the rates follow these steps and refer to figure 7.3:

1. Press-and-hold the SET button located on the back of the Display Unit until you hear a single beep (approximately 3 seconds).
2. To set the 1st power rate (Rate A), press-and-release the SET Button two more times until the "¢/kWh" value starts flashing in the middle row of the screen and the letter "A" appears on the left side. The default rate is 11.0¢/KWh.
3. Use the + and - buttons to increase or decrease the value until the proper rate has been set.
4. To set the threshold when the display switches from Rate-A to Rate-B, press-and-release the SET Button. The KWh symbol begins to flash. The default value is 1,000 kWh.
5. Use the + and - buttons to increase or decrease the value until the proper threshold has been set.
6. To set the 2nd power rate (Rate B), press-and-release the SET button again. The ¢/kWh value starts flashing in the middle row of the screen and the letter "b" will appear on the left side. The default rate is 12.0¢/KWh.
7. Use the + and - buttons to increase or decrease the value until the proper rate has been set.
8. To set the Kh factor for your specific meter press and release the SET button again. The Kh symbol will begin to flash. The default value is 7.2, which is appropriate for most electromechanical meters. If you do not know which value to use, leave it set to 7.2.
9. Use the + and - buttons to increase or decrease the value until the proper Kh factor has been set.
10. Press the SET button again to exit to the main screen.

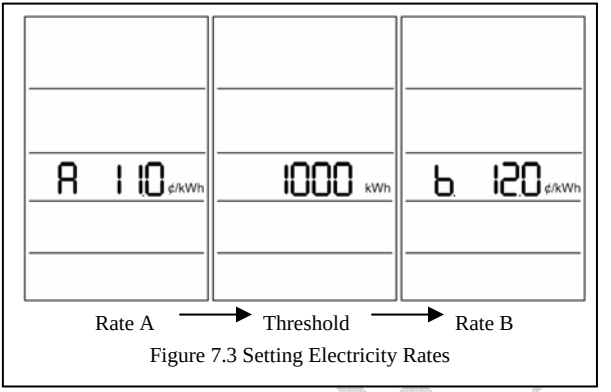

Figure 7.3 Setting Electricity Rates

7.4. Resetting the Total Values

To reset the Total values (Dollars and kW) that appear on the Total Row (third row) of the screen, press-and-hold the CLEAR button located on the top of the device until you hear a beep. Only the Total values will be reset to 0, as shown in figure 7.4, below. All other values will remain unchanged.

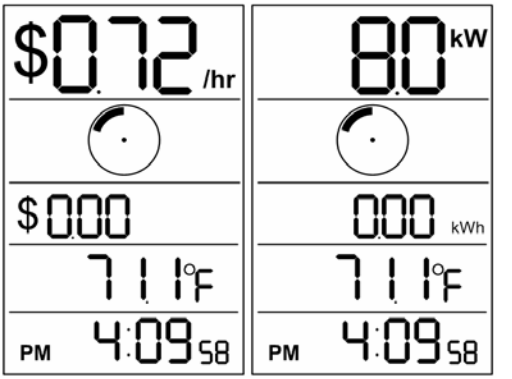

Figure 7.4 – Resetting Totals

7.5. Display Backlight

Your PowerCost Monitor™ has a backlight that can be used to see the screen in dimly lit conditions. To turn the backlight on, press the LIGHT button located on the top of the display unit. The screen will light up in blue and remain lit for approximately 5 seconds.

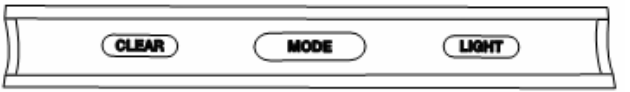

Figure 7.5 – Display Backlight Button

7.6. Restoring Default Values

To restore your PowerCost Monitor™ to its original settings you'll need a sharp pencil or straightened paper clip. Press and hold the SET button on the back of the Display Unit. While pressing the SET button, insert the pencil or paper clip into the RESET hole, also located on the back of the Display Unit, and then release the SET button. You will hear several fast beeps and then see the screen below. You will need to repeat the steps in Sections 7.2 and 7.3 to enter the correct time and electricity rate information.

8 Warranty

LIMITED ONE YEAR WARRANTY

Blue Line Innovations warrants this product to be free from defects in materials and workmanship for a period of one year from the date of sale to the original user or consumer purchaser. Blue Line Innovation's exclusive obligation under this warranty shall be, at its option, (a) to supply, without charge, a replacement of the product or (b) to refund the purchase price in respect of any product that is found to be defective and that is returned, with its proof of purchase, to the original supplier.

This warranty excludes and does not cover defects, malfunctions, or failures caused by misuse, unauthorized repairs, modifications or accidental damage.

Note: This warranty does not apply to batteries or damage to the product caused by the use of faulty batteries.

This warranty is only applicable to a product purchased through a Blue Line Innovations authorized dealer.

In no event shall Blue Line Innovations be liable for consequential or incidental damages.

This warranty is in lieu of all other expressed warranties. The duration of any implied warranty is limited to the period of the expressed warranty set forth above.

MANUFACTURED IN CHINA

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9 Specifications

Model# PCMTX02

Power	
Display Unit	2 AA Alkaline Batteries (LR6 or equivalent) Optional AC Adapter P/N: BLI-00083
Sensor Unit	2 AA Alkaline Batteries (LR6 or equivalent)

Wireless Communications	
Frequency	433.92MHz
Update Rate	Approximately every 30 seconds
Range	Up to 30m (100ft.) line-of-sight (Subtract 5m or 15 feet for each wall between Display and Sensor Units

Operating Temperature Range	
Display Unit	10°C to 45°C (50°F to 113°F) For indoor use only.
Sensor Unit	-40°C to 60°C (-40°F to 140°F)

10 Troubleshooting

TBD

11 FCC Information

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.

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