

# PowerCost Monitor™

## Installation Guide

### Welcome

Congratulations on your purchase of the **PowerCost Monitor™**, a new electricity-monitoring device that informs you in real time of the amount of electricity your household is consuming. This Guide explains how to get your system ready for use. Please follow the instructions in the order shown without skipping any steps.

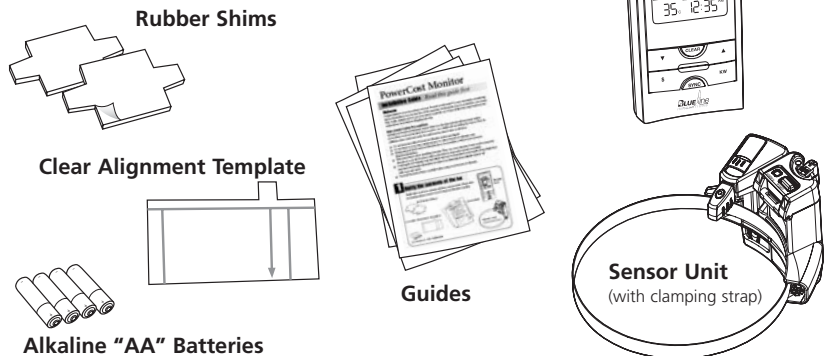
### Important Safety Precautions

Install your PowerCost Monitor Sensor Unit on a dry day and take all necessary safety precautions, particularly if you need to use a ladder for installing the Sensor Unit. In addition, please read and apply the safety instructions below at all times.

- Do not immerse either PowerCost Monitor unit in any liquid.
- Do not drop or cause any sudden impact to either PowerCost Monitor unit.
- If disposing of the PowerCost Monitor, do so in accordance with your local waste disposal regulations.
- Take precautions when handling batteries. They can cause injuries, burns, and/or property damage as a result of contact with metal objects, heat, and corrosive materials.
- A damaged LCD display may leak fluids that can be harmful to your health. If any fluid leaks from the Display Unit after you drop it accidentally, immediately wash it off with soap and water.
- Read all the instructions carefully before using your PowerCost Monitor.

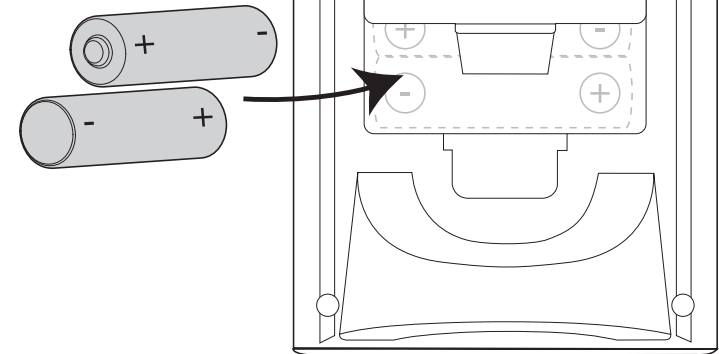
## 1 Verify the Contents of the Box

Verify that your box contains all these components. If any item is missing, please contact your PowerCost Monitor reseller.



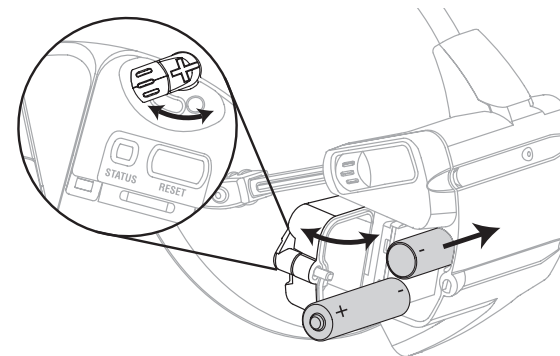
## 2 Install the Batteries in the Display Unit

Remove the battery compartment cover on the back of the Display Unit, insert two AA batteries in the proper orientation, and replace the battery compartment cover.



## 3 Install the Batteries in the Sensor Unit

Unlock and open the Sensor Unit battery compartment cover, insert two AA batteries in the orientation indicated, then close and lock the cover. The red STATUS indicator should light up without flashing within 10 seconds. It stays lit until you install it on the meter, at which time it starts flashing.



**NOTE:** Ensure that the battery closest to the Sensor Arm goes in with its positive end (+) facing inward.

# 4

## Determine Your Meter Type and Power Factor

Your Sensor Unit has an extensible arm that you may have to adjust to fit to your particular meter in Step 8. Therefore, it is extremely important to determine exactly what kind of meter is installed on your premises.

**IMPORTANT:** To determine your meter type, study the illustrations and descriptions below as well as in any other meter-specific installation guide that may be included in your box. For more information on meter types, see the *Troubleshooting* section in the *User Guide*.

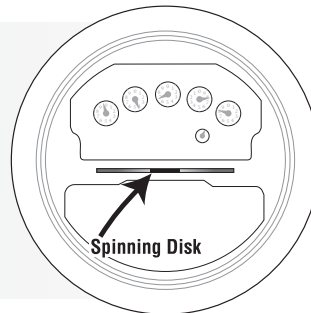
1. Locate your utility meter.
2. Determine which of the following illustrations most closely matches your meter. Remember your meter type.
3. Find your meter's power factor and write it down in the box labeled "Power Factor" next to the illustration below which matches your meter. Your meter's power factor is indicated on the face of the meter, most often next to the letters Kh (less often the letters Ks or Kt). In most cases, your meter's power factor is 7.2 if it has dials and a spinning disk, or 1.0 if it has a digital readout.
4. When you are done, go to *Step 5 - Determine your Billing Mode*.

### Type 1 Meter: Electromechanical

This type of meter has dials and a spinning disk.

The Sensor Unit reads the revolutions of the disk and transmits that information to the Display Unit.

Power Factor

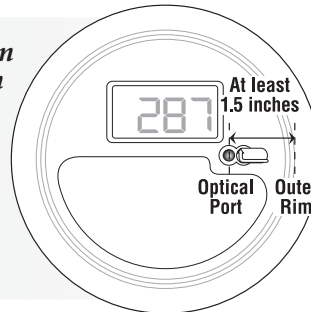


### Type 2 Meter: Electronic with optical port on the face, 1.5 inches or more from the outer rim

On this type of meter, the optical port is located at least 1.5 inches (37 mm) from the meter's outer rim.

If in doubt, measure the distance using the ruler below.

Power Factor



### Type 3 Meter:

**Electronic with optical port on the face, less than 1.5 inches from the outer rim**

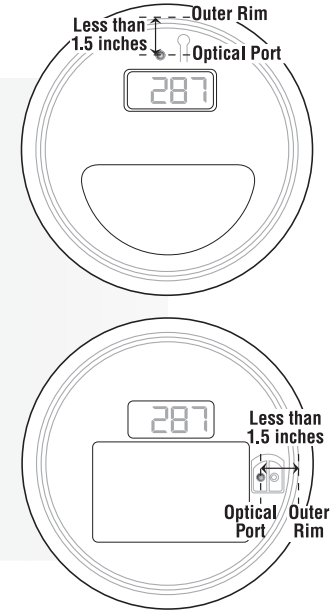
On these electronic meters, the optical port is on the face, located less than 1.5 inches (37 mm) from the meter's outer rim.

If in doubt, measure the distance using the ruler below.

This type of meter requires that you mount the supplied rubber shims on the underside of the Sensor Unit .

*NOTE: If your meter seems to have two ports, the one closest to the center of the meter is the optical port.*

Power Factor



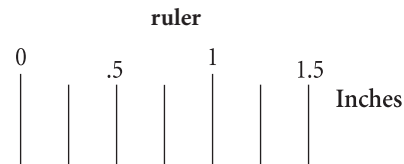
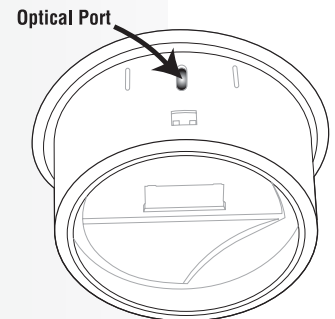
### Type 4 Meter:

**Electronic with optical port on the top**

On this type of meter, the optical port is protruding from the top portion of the meter.

This kind of meter requires you to reconfigure the Sensor Unit and install the Clear Alignment template.

Power Factor



## Determine Your Billing Mode

Find a recent electricity bill and determine which of the following three billing modes your electricity supplier is applying to your account. Then, write the appropriate value(s) in the box(es) provided as a quick reference.

**If you have trouble determining your electricity rate(s), please contact your electricity supplier directly!**

### Billing Mode 1: Single (Flat) Rate and Tiered Rates

Your bill shows a single **value in cents per kilowatt-hour (¢/kWh) or more than one value in ¢/kWh** for increasingly higher consumption thresholds.

#### EXAMPLES:

- **SINGLE (FLAT) RATE**  
\$0.063/kWh

You are paying 6.3 ¢/kWh at all times.

- **TIERED RATE**

1200 kWh @ \$0.063 ¢/kWh  
and 1369 kWh @ \$0.075 ¢/kWh

You consumed 2,569 kWh in total,  
paying the first 1,200 kWh at  
the rate of 6.3 ¢/kWh and the  
following 1,369 kWh at the  
second rate of 7.5 ¢/kWh.

	RATE	THRESHOLD
1	<input type="text"/> ¢/kWh	<input type="text"/> kWh
2	<input type="text"/> ¢/kWh	<input type="text"/> kWh
3	<input type="text"/> ¢/kWh	<input type="text"/> kWh
4	<input type="text"/> ¢/kWh	<input type="text"/> kWh
5	<input type="text"/> ¢/kWh	<input type="text"/> kWh
6	<input type="text"/> ¢/kWh	<input type="text"/> kWh
7	<input type="text"/> ¢/kWh	<input type="text"/> kWh
8	<input type="text"/> ¢/kWh	<input type="text"/> kWh
9	<input type="text"/> ¢/kWh	<input type="text"/> kWh

#### Instructions:

In the table to the right, enter the rate(s) and threshold(s) that are reported on your electricity bill.

*NOTE: The PowerCost Monitor system allows for up to nine different rates. If you pay a single rate, simply write it down in the RATE 1 box for reference purposes and ignore the rest of the table.*

### Billing Mode 2: Time-based (ON PEAK / OFF PEAK)

Your bill shows **TWO time-based rates in cents per kilowatt-hour (¢/kWh)** — Your base rate is a low **OFF PEAK** rate, and the higher **ON PEAK** rate only applies between certain hours on given days of the week.

#### EXAMPLE:

- **OFF PEAK** 342 kWh @ \$0.063/kWh  
➤ **ON PEAK\*** 988 kWh @ \$0.075 /kWh

\*ON PEAK Period: 3:30 PM - 10:30 PM,  
and applies Mon to Fri.

From Monday through Friday, from 3:30 PM to 10:30 PM, you pay 7.5 cents per kilowatt-hour (the ON PEAK rate); outside these hours and on weekends, you pay 6.3 cents per kilowatt-hour (the OFF PEAK rate).

#### Instructions:

In the table to the right, enter the numbers and check the boxes according to your electricity bill.

OFF PEAK rate	<input type="text"/> ¢/kWh
ON PEAK rate	<input type="text"/> ¢/kWh
Starts at	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM
Ends at	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM
Applies on	<input type="checkbox"/> Mon <input type="checkbox"/> Tues <input type="checkbox"/> Wed <input type="checkbox"/> Thurs <input type="checkbox"/> Fri <input type="checkbox"/> Sat <input type="checkbox"/> Sun

### Billing Mode 3: Time-based (ON PEAK / MID PEAK / OFF PEAK)

Your bill shows **THREE time-based rates that are applied at different periods of the day on given days** — Your base rate is a low **OFF PEAK** rate, the **MID PEAK** rate is higher and the **ON PEAK** rate is the highest.

#### EXAMPLE:

- **OFF PEAK** 342 kWh @ \$0.063/kWh  
➤ **MID PEAK\*** 399 kWh @ \$0.069/kWh  
➤ **ON PEAK\*\*** 988 kWh @ \$0.075 /kWh

MID/ON PEAK applies Mon to Fri.

\* MID PEAK Periods: 9:30 AM to 4:20 PM and 7:00 PM to 11:00 PM

\*\* ON PEAK Periods: 6:10 AM to 9:30 AM and 4:20 PM to 7:00 PM

From Monday through Friday, you pay:

- 7.5 ¢/kWh from 6:10 AM to 9:30 AM;
- 6.9 ¢/kWh from 9:30 to 4:20 PM;
- 7.5 ¢/kWh again from 4:20 PM to 7:00 PM;
- 6.9 ¢/kWh again from 7:00 PM to 11:00 PM;  
and finally
- 6.3 ¢/kWh from 11:00 PM until the 6:10 AM the next day.

**Instructions:** Enter the numbers and check the boxes according to your electricity bill first in the table to the right, then in the table below.

**Important:** In the table below, first enter all your all your ON PEAK and MID PEAK time slots; enter your OFF PEAK time slot LAST.

OFF PEAK rate	<input type="text"/> ¢/kWh
MID PEAK rate	<input type="text"/> ¢/kWh
ON PEAK rate	<input type="text"/> ¢/kWh
MID/ON PEAK Applies on	<input type="checkbox"/> Mon <input type="checkbox"/> Tues <input type="checkbox"/> Wed <input type="checkbox"/> Thurs <input type="checkbox"/> Fri <input type="checkbox"/> Sat <input type="checkbox"/> Sun

TIME SLOT	START TIME	END TIME	RATE TYPE
1	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="checkbox"/> ON PEAK <input type="checkbox"/> OFF PEAK <input type="checkbox"/> MID PEAK
2	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="checkbox"/> ON PEAK <input type="checkbox"/> OFF PEAK <input type="checkbox"/> MID PEAK
3	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="checkbox"/> ON PEAK <input type="checkbox"/> OFF PEAK <input type="checkbox"/> MID PEAK
4	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="checkbox"/> ON PEAK <input type="checkbox"/> OFF PEAK <input type="checkbox"/> MID PEAK
5	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="checkbox"/> ON PEAK <input type="checkbox"/> OFF PEAK <input type="checkbox"/> MID PEAK
6	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="checkbox"/> ON PEAK <input type="checkbox"/> OFF PEAK <input type="checkbox"/> MID PEAK
7	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="checkbox"/> ON PEAK <input type="checkbox"/> OFF PEAK <input type="checkbox"/> MID PEAK
8	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="checkbox"/> ON PEAK <input type="checkbox"/> OFF PEAK <input type="checkbox"/> MID PEAK
9	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="text"/> : <input type="text"/> AM <input type="text"/> : <input type="text"/> PM	<input type="checkbox"/> ON PEAK <input type="checkbox"/> OFF PEAK <input type="checkbox"/> MID PEAK

# 6

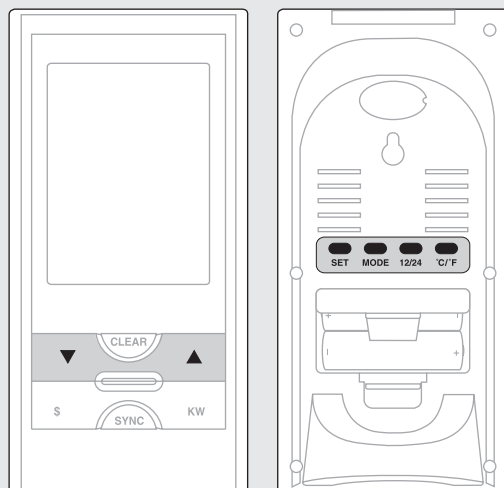
## Configure Your Display Unit

You will now configure your Display Unit so it will be ready to provide you with real time information as soon as you install your Sensor Unit.

**Important:** Your Display Unit has three buttons you will use during configuration: the ▲ and ▼ buttons on the front of the unit, and the SET button on the back. In the configuration instructions that follow, “Enter” means pressing the ▲ and ▼ buttons to select the appropriate value, then pressing SET to record the value in memory. The next parameter will then automatically start flashing.

The Display Unit automatically exits Configuration Mode after one minute of inactivity, saving whatever values you set up to that point. If you are interrupted before you have finished entering all your values, return to Configuration Mode and press SET successively until you get to the value(s) you need to modify.

Also note that pressing the 12/24 and C/F buttons alternate the display between AM/PM and 24-hour format and degrees Celsius/Fahrenheit respectively.



### Set your billing mode, the internal clock and the meter's Power Factor

1. Press and hold SET for 3 seconds to enter Configuration Mode. As soon as you enter Configuration Mode, a set of billing mode indicators will flash (as illustrated on the right).

#### Billing Mode 1

RATE	THRESHOLD
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#### Billing Mode 2

OFF-PEAK	ON-PEAK
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#### Billing Mode 3

OFF-PEAK	MD-PEAK	ON-PEAK
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- 1a. If required, press the MODE button on the back of the Display Unit for 3 seconds to cycle through the sets of indicators, then press SET to select the appropriate set of indicators for your billing mode

2. Enter the current hour of the day.



3. Enter the current minutes of the day.



4. Enter the current day of the week.



5. Enter the Power Factor you wrote down in Step 4. If you have a meter with dials and a spinning disk, this value is most likely 7.2. If you have a meter with a digital readout, it is most likely 1.0.



6. You will now enter your billing rates. While still in Configuration Mode, and referring to the numbers you wrote down in Step 5, set up your Display Unit for your billing mode by following the instructions in the appropriate table under Step 7 - Set Your Billing Rates.

## Set Your Billing Rates

### For Billing Mode 1: Single (Flat) Rate and Tiered Rates

- Number "1" is displayed under RATE. Enter your (first) electricity rate.  
*Go to 2a or 2b.*
- The THRESHOLD value is now flashing.
  - If you pay a flat rate...**  
Press the ▼ button until a series of dashes is displayed, then press SET. Your Display Unit exits Configuration Mode.  
*Go to Step 8 - Prepare your Sensor Unit.*
  - If you pay more than one rate...**  
Enter your (first) threshold value. *Go to 3.*
- Number "2" is displayed under RATE. Enter your second electricity rate.  
*Go to 4a or 4b.*
- If you pay only two rates...**  
When the THRESHOLD value is flashing, press the ▼ button until a series of dashes is displayed, then press SET. Your Display Unit exits Configuration Mode. *Go to Step 8 - Prepare your Sensor Unit.*
  - If you pay more than two rates...**  
Number "3" is displayed under RATE. Enter your third electricity rate. Repeat the process, entering successive thresholds and rates, until you have entered your last rate. Next, with the THRESHOLD value flashing, press the ▼ button until a series of dashes is displayed, and then press SET. Your Display Unit exits Configuration Mode.  
*Go to Step 8 - Prepare your Sensor Unit.*

RATE 1 119 c/kWh

THRESHOLD 1 1000 kWh

THRESHOLD 1 ---- kWh

THRESHOLD 1 1300 kWh

RATE 2 168 c/kWh

THRESHOLD 2 1800 kWh

THRESHOLD 2 ---- kWh

RATE 3 171 c/kWh

### For Billing Mode 2: Time-based (ON PEAK / OFF PEAK)

- Enter your OFF PEAK RATE.
- Enter your ON PEAK RATE.
- Enter the HOURS and then MINUTES when your On Peak rate **STARTS**.
- Enter the HOURS and then MINUTES when your On Peak rate **ENDS** (Off Peak rate starts).
- The SUN (Sunday) segment is flashing.  
*Go to 7 to the right.*

OFF-PEAK 78 c/kWh ON-PEAK 141 c/kWh

ON-PEAK 183 c/kWh 183 c/kWh  
-7°C 11:00 AM -7°C 9:00 AM

ON-PEAK 93 c/kWh 93 c/kWh  
-7°C 10:00 PM -7°C 11:00 PM

ON-PEAK 183 c/kWh  
-7°C 9:30 AM

### For Billing Mode 3: Time-based (ON PEAK / MID PEAK / OFF PEAK)

- Enter your OFF PEAK RATE.
  - Enter your MID PEAK RATE.
  - Enter your ON PEAK RATE.
  - Number "1" is flashing above the time, indicating the 1st time slot.  
Enter the HOURS when your 1st time slot starts.  
Next, enter the MINUTES when your 1st time slot starts.
  - Enter the RATE TYPE of your 1st time slot.  
(Important: Only select OFF PEAK for your LAST time slot.)
  - Number "2" is flashing above the time, indicating the 2nd time slot.  
Repeat the process for all your time slots, entering the start time hours, and minutes, and the rate type for each slot.
- As soon as you enter OFF PEAK as the rate type for your last time slot, the SUN (Sunday) segment should start flashing. *Go to 7 below.*

OFF-PEAK 78 c/kWh MID-PEAK 83 c/kWh ON-PEAK 141 c/kWh

OFF-PEAK MID-PEAK ON-PEAK 1  
-7°C 7:00 AM -7°C 6:00 AM

ON-PEAK 1  
-7°C 6:30 AM

OFF-PEAK MID-PEAK ON-PEAK 2  
-7°C 11:00 AM

- The SUN (Sunday) segment is now flashing, indicating the beginning of the sequence where you specify the days on which your electricity supplier is charging you any rate other than the lowest rate.

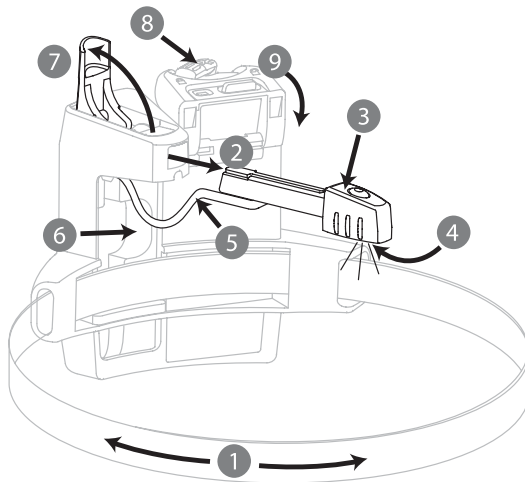
#### RULES:

- Day segments can be either in a **visible** (higher rate applies on that day) or **hidden** (higher rate does not apply on that day) state.
- The default states are MON to FRI = visible; SAT and SUN = hidden.
- Pressing ▲ moves the pointer to the next day of the week without changing the state of the current day.
- Pressing ▼ changes the state of the current day before moving the pointer to the next day.
- You are done when the only segments that are visible are all the days on which your utility company charges you a higher rate.

**Example:** By default, Sunday is not a day subjected to higher rates. If you **DO NOT** pay higher rates on Sundays, press ▲ to move the flashing pointer to the MON segment while keeping the same state for the SUN segment. The MON segment then begins flashing, and the SUN segment is no longer visible — this means that Sunday is a day where higher rates do not apply. On the other hand, if you **DO PAY** higher rates on Sundays, press ▼ to change the state of SUN before moving the flashing pointer to the MON segment. The MON segment is now flashing, but the SUN segment is still displayed — meaning that you have set Sunday as a day where higher rates apply.

- Referring to your entries in Step 5, set all the days of the week which are subjected to the higher rate(s).
- When you are done, press SET to exit the Configuration process.

## Prepare Your Sensor Unit

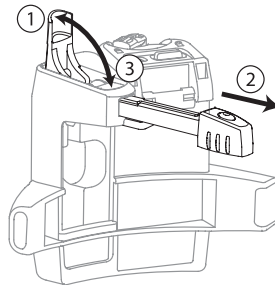


- ① Clamp
- ② Sensor Arm (Extended)
- ③ Sensor Head
- ④ Sensor LED
- ⑤ Wire
- ⑥ Wire Cavity
- ⑦ Sensor Arm Latch Cover
- ⑧ Battery Compartment Latch
- ⑨ Battery Compartment Cover

**Instructions:** Perform the operations in the block that corresponds to your meter type. When you are done, go to *Step 9- Install your Sensor Unit*.

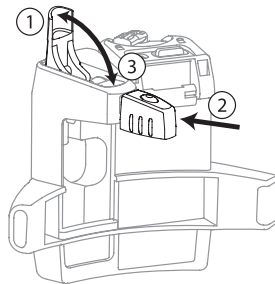
### Type 1 Meter: Electromechanical

1. Open the Sensor Unit latch cover by pulling upward.
2. Extend the Sensor Arm to its full length by pulling on it firmly, but gently. If you accidentally pull it out completely, push it back into the casing.
3. Close the latch cover.



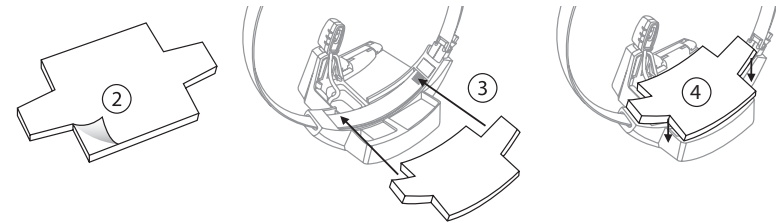
### Type 2 Meter: Electronic with optical port on the face, 1.5 inches or more from the outer rim

1. Pull the Sensor Unit latch cover upward to open it.
2. Verify that the Sensor Arm is pushed in as far as it will go into the body of the Sensor Unit.
3. Close the latch cover.



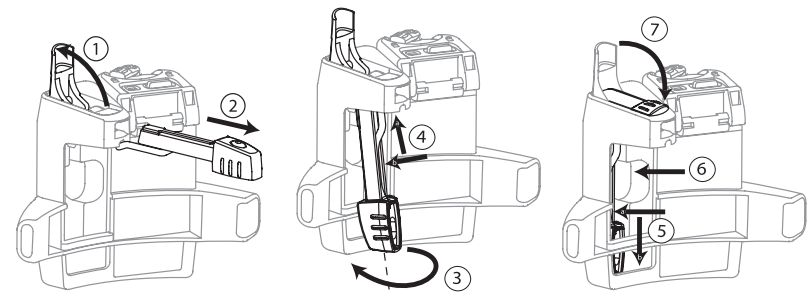
### Type 3 Meter: Electronic with front optical port closer than 1.5 inches to the meter's outer rim

1. Verify that the Sensor Arm is fully pushed in as described for Type 2 meters.
2. Peel off the adhesive backing from one of the shims.
3. Position the shim on the underside of the Sensor Unit casing with the adhesive side down.
4. Press the shim in place onto the underside of the Sensor Unit body. If required, repeat the process to adhere the second shim to the underside of the first.



### Type 4 Meter: Electronic - optical port on top

1. Pull the latch cover up to open it.
2. Gently pull the Sensor Arm completely out of the Sensor Body.
3. Turn over the Sensor Arm.
4. Push the smaller end of the Sensor Arm upwards through the latch opening and press the Sensor Arm firmly into the cavity.
5. Firmly push the Sensor Head behind the strap, and as far down as it will go into the bottom cavity of the body. The Sensor Head LED must be clearly visible below the clamping strap. If necessary, use a dull pointed object, such as a ballpoint pen to push the head down.
6. Tuck the wire neatly into the side cavity.
7. Close the latch.





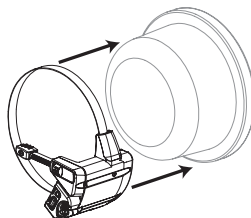
**START – Read SAFETY PRECAUTIONS first**

1. Turn on a high energy-consuming appliance in your house, such as your electric stove or dryer. This will temporarily increase your electricity consumption and enable the Sensor Unit to begin reading your meter's output in less time.
2. Go to your meter, taking the following items with you:
  - This Guide
  - Sensor Unit
  - Display Unit
  - A clean damp cloth
  - 1 large Flat Head screwdriver
  - Clear Alignment Template (if you have a Type 4 meter)
  - Stepping stool or ladder if your utility meter is located higher than eye level
3. Perform the installation steps for your type of meter (which you determined in Step 4).

**NOTE: The red STATUS indicator on your Sensor Unit should be lit. If it is flashing rapidly, press the RESET button. After 10 seconds, it should light up without flashing.**

**Type 1, 2 & 3 Meters:**

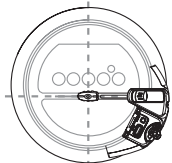
1. After carefully wiping the meter dome clean with the damp cloth, fit the Sensor Unit over your utility meter as shown, so that the Sensor Head sits as close as possible to the front of the glass dome.



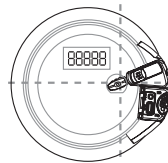
2. Tighten the hose clamp until the Sensor Unit is snug, but can move just enough to allow for slight adjustments.

3. Position the Sensor Arm LED:

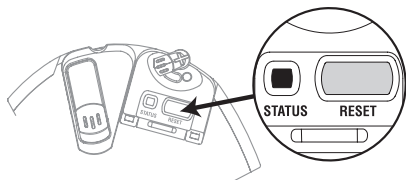
**TYPE 1:** The Sensor Arm must be inline with the disk (use the line on the Sensor Arm as a reference) and the LED must be centered from side-to-side.



**TYPES 2, 3:** The LED at the end of the Sensor Arm must be located exactly above the optical port.



4. When you have positioned the Sensor head correctly, the red STATUS indicator starts flashing.



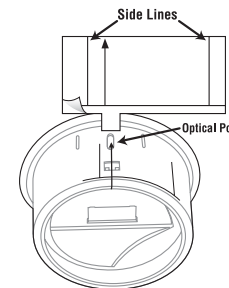
**TYPE 1** - The red STATUS indicator starts flashing once per disk revolution. This is an indication that your Sensor Unit is correctly reading the meter.

**TYPES 2 and 3** - The red STATUS indicator starts flashing regularly, indicating that the Sensor Unit has detected the signal from your meter. Within 1 minute, in addition to the regular flashing, you should see an extra flash every now and then, depending on your rate of electricity consumption. These extra flashes are normal, and indicate that the Sensor Unit is reading the meter's output correctly.

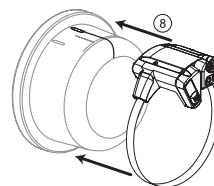
**NOTE: To maximize battery life, the indicator stops flashing after about 2 minutes in all cases.**

**Type 4 Meters:**

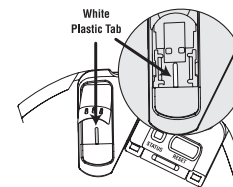
1. Stand directly in front of your meter, at a height where you can see the optical port. The optical port itself looks like a small protruding pipe in the center of the top portion of the meter. Carefully wipe the meter dome clean with the damp cloth.
2. Hold the template with the protruding tab facing you and the white arrow pointing away from you. Peel off the adhesive backing.
3. Position the template on the meter so that the horizontal white line on the template follows the front edge of the meter dome, and the white arrow points straight to the optical port.
4. Carefully stick the template to the dome, pressing it in place on top first, then on the protruding tab down the front of the dome.



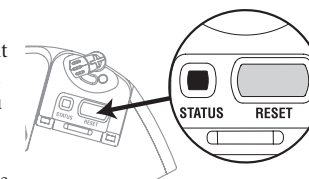
Verify the alignment. If needed, gently remove the template and try again.



5. Slide the Sensor Unit over the glass dome and align the edges of the Sensor Unit body with the white side lines.
6. Tighten the hose clamp until the Sensor Unit is snug, but can move just enough to allow for adjustments.
7. Open the Sensor Arm latch and sight down the opening. You see a vertical plastic tab painted white on the inside of the Sensor body.
8. Sighting through the opening, position the Sensor Unit so that the white plastic tab on the body is aligned with the arrow on the template.



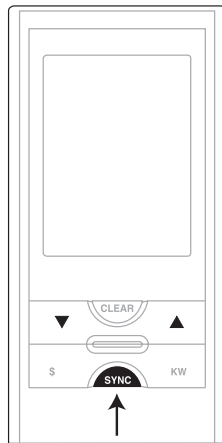
9. Keeping the white lines on the body and template aligned, pull the Sensor Unit towards you gently and slowly until the red STATUS indicator starts flashing regularly, indicating that the Sensor Unit has detected the signal from your meter. Within 1 minute, in addition to the regular flashing, you should see an extra flash every now and then, depending on your rate of electricity consumption. These extra flashes are normal, and indicate that the Sensor Unit is reading the meter's output correctly.



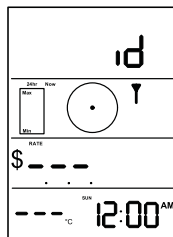
If you cannot get the STATUS indicator to react as described within 1 minute, keep repositioning your Sensor Unit slightly.

**NOTE: To maximize battery life, the indicator stops flashing after about 2 minutes.**

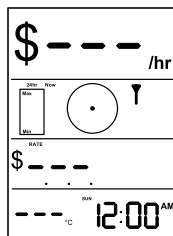
## 10 Synchronize Your Sensor and Display Units



1. The Display Unit should show the ID screen. If it does not, press and hold the SYNC button on the front of the unit until it beeps (approx. 3 seconds).



2. Press and release the RESET button on the battery cover of the Sensor Unit. The Display Unit now displays this screen.



## 11 Finalize the Installation

1. Tighten the hose clamp just enough so that the Sensor Unit cannot move.
2. Turn off the appliance you turned on when you started.

Your Sensor Unit should now be correctly installed and communicating with your Display Unit.

**If there is a problem, please read the Troubleshooting section in the User Guide.**

## Technical Specifications

### Power

Display Unit	2 AA Alkaline Batteries (LR6 or equivalent)
Sensor Unit	2 AA Alkaline Batteries (LR6 or equivalent) 2 AA Lithium Batteries for temperatures consistently below -20 °C

### 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)

### FCC INFORMATION

#### FCC Class B Part 15

This device complies with part 15 of the FCC Rules.

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:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.



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