



## FUNCTION

The PIM-U Powerline Interface Module - USB is the de facto interface between a computer and the Universal Powerline Bus (UPB). The PIM-U connects to the USB port of your computer with a standard serial cable (provided) and sends and receives UPB communication packets on the existing house wiring. The PIM-U can be plugged into any free wall outlet throughout the home. The device also provides a pass-thru outlet for other electronic devices. No additional wiring is required and no radio frequency signals are used for communication.

## DRIVER INSTALLATION

The very first time that the PIM-U is used with a computer it is very likely that you will need to install software driver as soon as the device is plugged into the computer

1. Windows 7 or Windows 10 will automatically search for the correct driver via Windows Update search. It may take up to **5 to 10 minutes** for the installation process. Please be patient. A dialog will prompt.
2. If Windows fail to search for driver update, please use the following link to download the driver, <http://www.ftdichip.com/Drivers/VCP.htm>

**NOTE:** For **Windows XP** users, the driver's link also applies.

## IMPORTANT SAFETY INSTRUCTIONS

When using electrical products, basic safety precautions should always be followed, including the following:

1. READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
2. Keep away from water. If the product comes in contact with water or other liquid, turn off the circuit breaker and unplug the product immediately.

3. Never use products that have been dropped or damaged.
4. Do not use this product outdoors.
5. Do not use this product for other than its intended purpose.
6. To avoid any risk of fire, burns, personal injury or electric shock, install this product out of the reach of small children.
7. Do not cover this product with any material when in use.
8. This product uses grounded plugs and sockets to reduce the risk of electric shock. These plugs and sockets fit only one way. If they do not fit, consult an electrician.
9. SAVE THESE INSTRUCTIONS.

## INSTALLATION

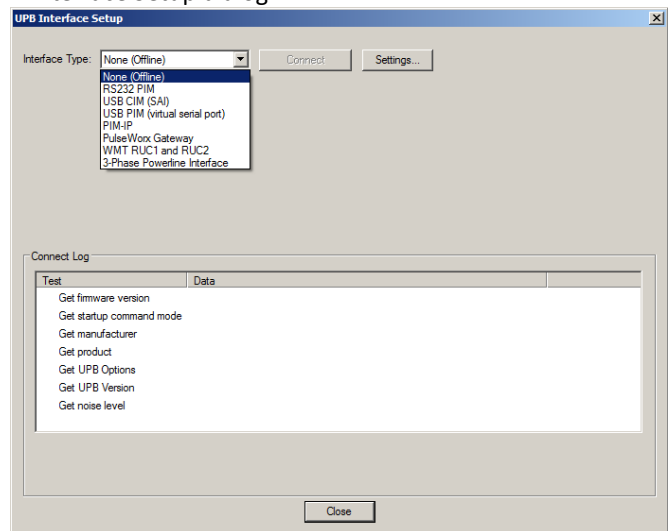
The Powerline Interface Module is designed for indoor use with devices that provide a USB serial port. To install the PIM-U module follow these steps:

1. Connect the serial cable (provided) between the PIM's USB serial connector and any open USB port of the computer.
2. Plug the PIM-U into any grounded wall outlet. The Status LED should start blinking and then stay solid blue.

## OPERATION

The PIM-U is the perfect interface device for use with PCS' UPStart Setup Software. UPStart allows you to easily configure all of your PulseWorx Lighting System devices. The UPStart User's Guide (available at <http://www.pcslighting.com/pulseworx/resources>) explains how to configure your system using UPStart software.

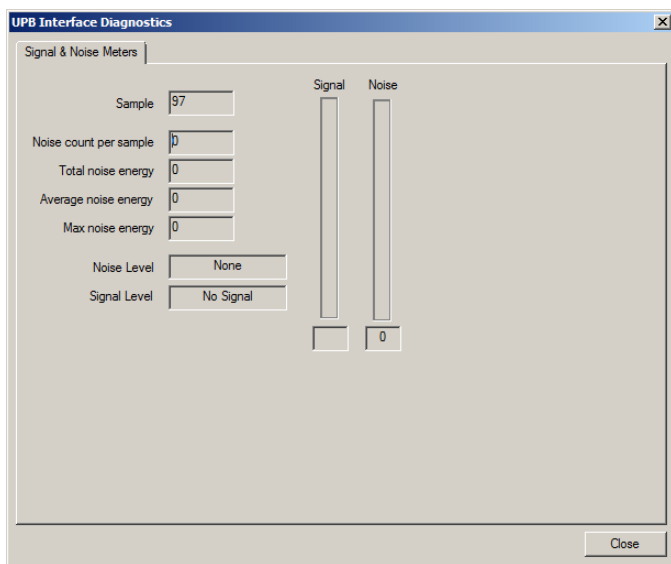
To use the PIM-U with UPStart select **Network ribbon** → **Powerline Interface Device** → **Configure** to bring up the UPB Interface Setup dialog.



Select the correct **Interface Type** and then press the “**Find UPB Interface port**” button. UPStart will automatically find the Communication Port that the PIM-U is connected to. Next, press the “**Connect**” button to have UPStart connect and test the PIM-U

## Signal & Noise Meters

Once connected, the PIM-U will constantly send reports to UPStart as to what is currently happening on the powerline. You can get a peek into the results of these reports by pressing the **Signal & Noise Meters** button to bring up the UPB Interface Diagnostics shown below.



The meters will display a real-time indication of what the PIM-U is reporting. UPStart will also classify the reports as either “Signal” or “Noise” and display them on the proper meter. The meters are very useful for troubleshooting problems on the powerline.

## Status LED Indications

The PIM-U contains a bi-color (blue/red) Status LED that will also give a visual indication of what UPB information is currently on the powerline.

- Blue: No UPB Signal
- Magenta: Received a UPB Message
- Red: Transmitted a UPB Message

## Push-button

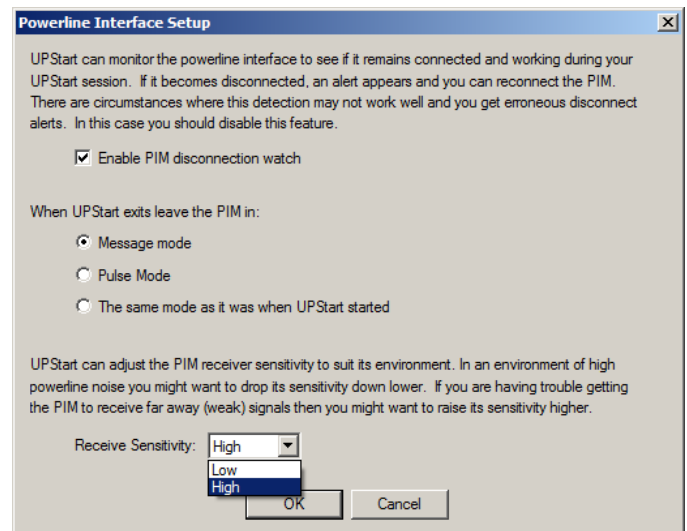
The push-button on the front of the PIM-U is used to put the device back to its factory default condition. To set the PIM-U back to factory defaults first press the pushbutton **5** times

rapidly. The Status LED will blink blue. Next, press the pushbutton **10** times. The Status LED will blink red. Finally, press the pushbutton **2** times. The Status LED will stop blinking. The device is now restored to its factory default state.

## CONFIGURATION

The PIM-U has an adjustment for UPB receive sensitivity. The factory default for this setting is “High”. If the PIM-U is to be used in severe powerline noise, you may find that it operates better in the “Low” receive sensitivity setting.

To adjust the receive sensitivity press the “Settings” button on the UPB Interface Setup dialog. Next, select the desired receive sensitivity setting and press the “OK” button.



## LIMITED WARRANTY

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in materials and workmanship for a period of five years from the date of purchase. Refer to the warranty information on the PulseWorx website ([www.PulseWorx.com](http://www.PulseWorx.com)) for exact details.