

LightSymphony™

iPort

Operating Manual & Installation Guide

Model: LS30970PORT



Create A Scene Outdoors!

Section 1

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Section 1

Installation

Introduction

The Light Symphony iPort provides a link between the iSymphony app on your smart phone, tablet or computer and the wireless Light Symphony system. If you do not have the app already, please search for 'iSymphony' for a free download from the relevant app store or see our web site.

The iPort connects to a spare port on your existing network router (or switch) and receives commands from the app, which it wirelessly relays outdoors to any number of lighting controllers (receivers).

The iPort is a one-way device, sending messages from the app to the lighting controllers.

By default, it automatically configures itself (using DHCP) and so requires no knowledge of networking or other complex configuration. This default mode allows the iSymphony app to work from home only, while it is connected to the local WiFi network.

The iPort's network settings can also be configured manually via a web browser to allow external control from anywhere in the world or via the mobile phone network. To achieve this, the router and iPort must both be configured to allow an external connection and the home's IP address must be known. This requires some knowledge of networking and adjustments to the router, which are unfortunately outside the scope of this manual.

Section 1

Installation

Installation

Please check you have all the following parts...



Power Adaptor

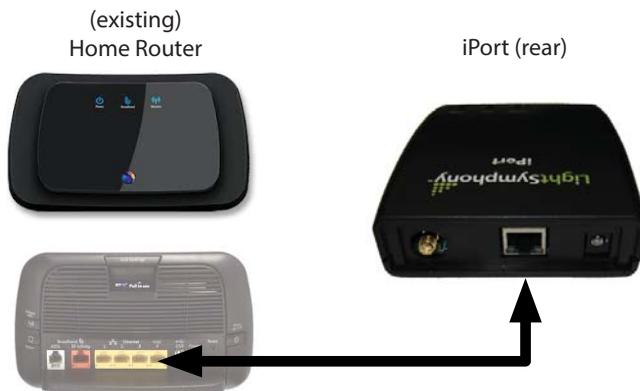


RJ45 Cable



iPort

Using the supplied cable, connect the iPort to a spare LAN port on the back of your existing WiFi router and connect the aerial and power adaptor;



Section 1

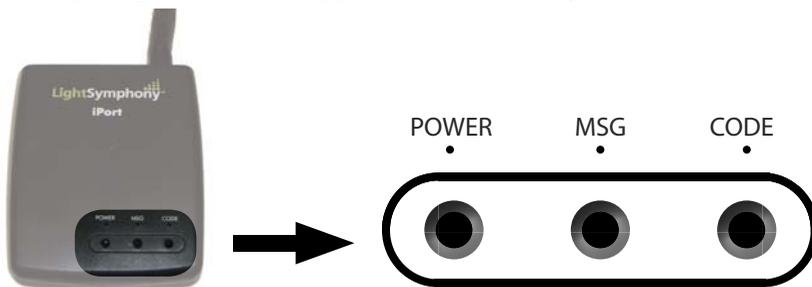
Installation

Installation Location

Please give some thought to the physical location of your iPort. It has a wireless range of 1,000m but walls and other obstacles can reduce this considerably. Consider that it needs to transmit reliably to the lighting controllers, which are often located in the garden or garage etc.

For example, radio signals always take the shortest path and are completely blocked by ground or earth, so in general the iPort can not be installed in a basement etc. If the router is in an unsuitable location for radio signals to reach the lighting controllers, then the iPort should be installed elsewhere and connected to the router using a longer RJ45 cable or WiFi extender.

The iPort includes a simple test feature to check the wireless range. Each press of the POWER button will send a (master) Garden On / Garden Off command to *all* the lighting controllers, which can be used to test the range and reliability. Press the POWER button 10-20 times and check that ALL the lighting controllers toggle on/off with *every* press*.



*Note: Set the 'System Code' first! see page 9

Garden On/Off
Test Button

Section 2

Setup

Getting Started

The iPort requires very little setup, please follow these steps:

1. Connect & power the iPort - page 4
2. Set the System Code - page 9
3. Check the wireless range / reliability - page 5
4. Create or control your lighting zones - page 7

Step 1 - Connect & power iPort

After you've connected and powered the iPort it's POWER indicator will flash for a few seconds, whilst it connects to your network. When it has successfully connected (IP address obtained) the POWER indicator will light solidly, which means its ready to use!

Step 2 - Set System Code

Change the System Code to avoid interfering with your neighbour's Light Symphony system or visa-versa, see page 9.

Step 3 - Check the wireless range and reliability

Please see page 5.

Section 2

Setup

Getting Started continued..

Step 4 ...- Create or control your lighting zones...

If it's a new installation, first create some lighting Areas (zones) to control. This means teaching each Lighting Controller (receiver) which outputs to include in each Area (zone) e.g.

Area (zone) 1	=	Output 1
Area (zone) 2	=	Output 2

To include a lighting circuit in an Area (zone), switch on the output supplying it using the 'Memory Button' inside the lighting controller (or double-tap the lid), then press an Area 'On' key using the app (or keyfob etc) to store it.

For example, to store lighting controller output #1 in to Area (zone) #5; switch on Output #1 using the 'Memory button #1' inside the Lighting Controller (or double-tap it's lid). Within 15 seconds, press the Area 5 ON button using the App (or other remote). The controller will beep to acknowledge its been stored.

Area 5 will now control output #1. Repeat the process for the other outputs to create the Areas and groups (zones) you require.

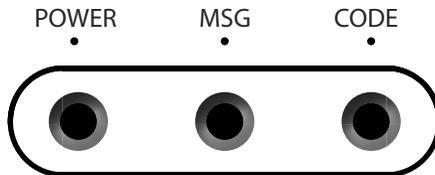
Please see the lighting controller's instructions for more information about storing and erasing Area's (zones).

Section 2

Setup

Front Panel

The iPort includes a few simple set-up buttons, as shown below;



The indicators provide the following information;

POWER

On : Power is on and iPort is ready for use.
Flashing : no connection to network (RJ45 cable)
or the DHCP server is not found.

PRESS : Sends a test Garden On/Off command

MSG

Blinks : When a command is transmitted.

PRESS : No. of flashes indicates 'Light Show' Area. *

CODE

PRESS : No. of flashes indicates 'System Code'. *

*Briefly pressing the MSG or CODE button causes the respective indicator to flash. Count the number of flashes, the number represents the System Code or Light Show area (zone) that is currently stored e.g. 20.

Section 2

Setup

Set the 'System Code'

The 'System Code' prevents your iPort from interfering with your neighbour's Light Symphony system and vice-versa. Factory default is System Code = 1, so it's important that it is changed to avoid interference.

Pick any new random number from 2 to 31, for example your house number. All installed Lighting Controllers must be set to the same code, or they will ignore the iPort's commands. Lighting controllers will adopt the System Code from the iPort (or keyfob) automatically when their Areas (zones) are programmed, so its important to set the iPort's System Code first.

To Set a new system code, hold the CODE button in for 5 seconds, until the indicator lights solidly. Next press the CODE button a number of times to set a new value e.g. 10 presses will set the System Code = 10.

When you've finished (no button presses for 3 seconds), the iPort will flash the code back to confirm the value entered. Count the flashes to check it matches the value you set. Repeat the processes if you wish to enter a new value.

The System Code is stored permanently, even when the power is off.

Ensure all Light Symphony components are set to the same System Code, including keyfobs, remotes, touch-panels, PIRs and lighting controllers.

Section 2

Setup

Light Show setup

The iPort includes a Light Show feature, which is only required for controlling and synchronising coloured (RGB) LEDs. By default this feature is disabled.

To use the Light Show feature you must first create an *Area* (zone) to be controlled. This is just a lighting group that includes all the RGB lights you wish to be controlled by the Light Show. It may be one lighting circuit or a whole group.

To include an RGB lighting controller in an Area (zone), switch it on using the 'Memory Button' inside the RGB controller then press an Area (zone) 'ON' key using the App (or other remote) to store it, e.g. Area 9. The RGB controller will beep to acknowledge it's been stored. Please see the lighting controller's instructions for more information about storing Areas (zones).

Lastly, enable the Light Show feature by telling the iPort the Area (zone) your RGB lights are in, e.g. Area 9. Do this by holding the MSG button in for 5 seconds, until the indicator lights solidly, then pressing the MSG button the number of times required to represent the Area e.g. 9 presses = Area 9. Now, when the app turns on/off Area 9, the Light Show will also start/stop (the master Garden On/Off will also control it).

When you've finished (no button presses for 3 seconds), the iPort will flash the value back. Count the flashes to check it matches the value you set.

Notes:

When Light Show = 0 (no presses), it is controlled only by the master Garden On/Off zone.
When Light Show = 30 (30 presses) the Light Show feature is disabled.

Section 3

Advanced Setup

Introduction

By default, the iSymphony app only works when it's at home and connected to your home WiFi network. To allow control from elsewhere the router and iPort must be configured to accept a connection originating from outside the home i.e. the internet.

For this to work, the iSymphony app must be configured with the home's (fixed) IP address, and the home's router must be configured to pass commands received from internet to the iPort.

When a fixed IP address is not available, an external (DNS) service such as DynDNS.com can be used to create a routable 'name' (URL) for the property. Some of this is beyond the scope of this manual but this section will show how to connect to the iPort's configuration pages using a web browser and configure it for external control.

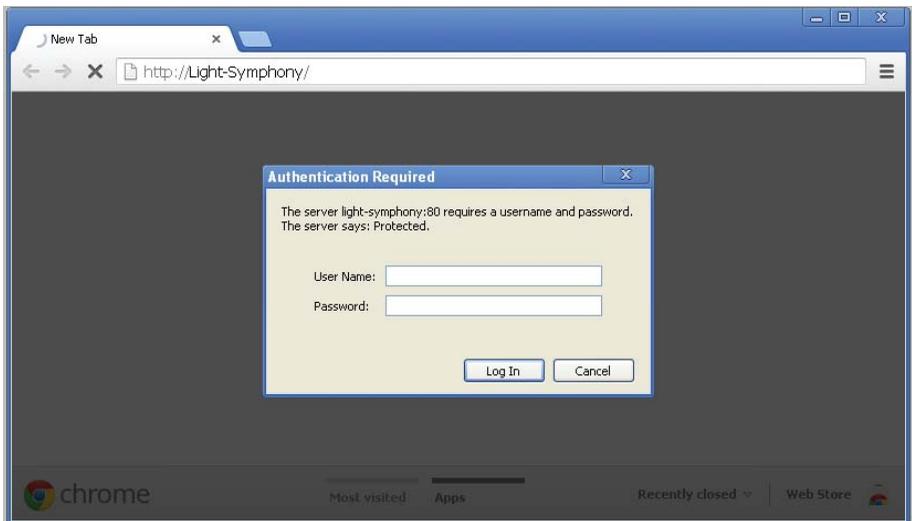
Section 3

Advanced Setup

Connecting via a Browser

The iPort contains a simple web server for configuration purposes. Please follow the installation steps in Sections 1 and 2 to connect it to the local network first.

Next, open a web browser on a PC connected to the same local network and enter the address 'http://light-symphony/' as shown below...



Enter the default Username = 'admin'
Password = 'admin'

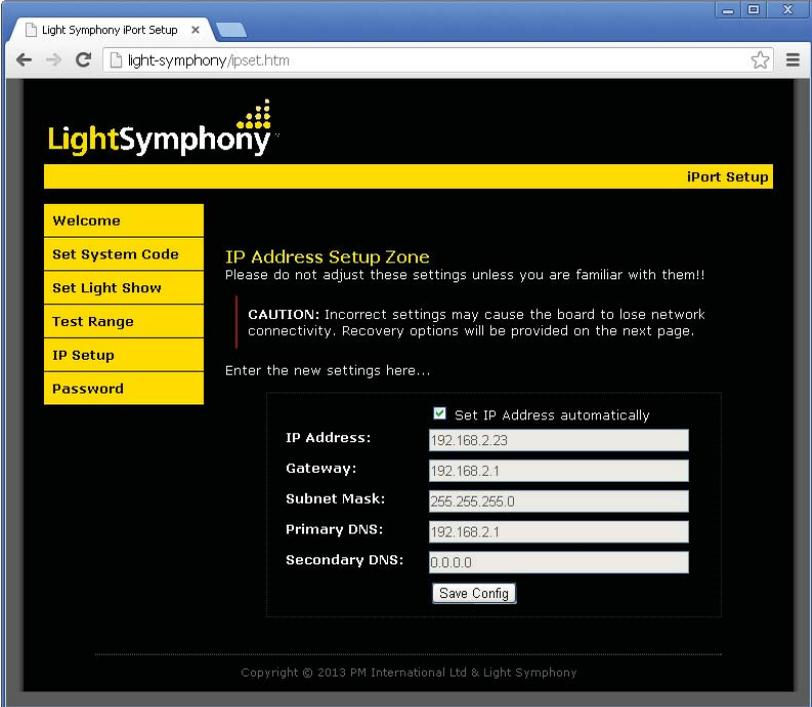
NOTE: 1. Be careful not to type `https` in the address line.
2. If the password is lost, press and hold the POWER button when applying power to reset the iPort to factory defaults.

Section 3

Advanced Setup

Network Settings

Select the 'IP Setup' tab to configure the iPort for external control, using a fixed IP address;



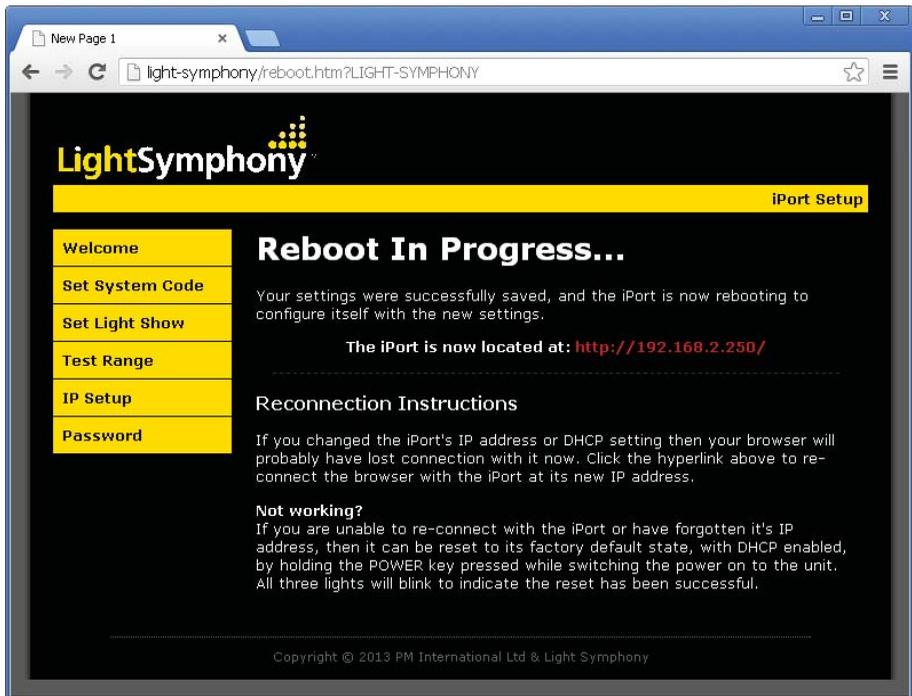
The screenshot shows a web browser window titled "Light Symphony iPort Setup" with the URL "light-symphony/ipset.htm". The page features the LightSymphony logo and a navigation menu on the left with the following items: Welcome, Set System Code, Set Light Show, Test Range, IP Setup, and Password. A large black arrow points to the "IP Setup" menu item. The main content area is titled "iPort Setup" and contains the "IP Address Setup Zone". A warning message states: "Please do not adjust these settings unless you are familiar with them!!" and "CAUTION: Incorrect settings may cause the board to lose network connectivity. Recovery options will be provided on the next page." Below the warning, it says "Enter the new settings here...". The form includes a checkbox for "Set IP Address automatically" (checked), and input fields for "IP Address" (192.168.2.23), "Gateway" (192.168.2.1), "Subnet Mask" (255.255.255.0), "Primary DNS" (192.168.2.1), and "Secondary DNS" (0.0.0.0). A "Save Config" button is located at the bottom of the form. The footer of the page reads "Copyright © 2013 PM International Ltd & Light Symphony".

Section 3

Advanced Setup

Fixed IP Address

Un-tick the “Set IP Address automatically” (see page 13) and set a fixed IP address for the iPort that’s away from the router’s DHCP range, e.g. 192.168.xxx.250. Click the SAVE button and the iPort will re-boot to the selected address...



If you're unable to re-connect to the iPort at the new IP address, then restore it to the factory settings by holding the POWER button pressed whilst applying power. Re-connect at 'http://light-symphony/'

Section 3

Advanced Setup

Router & App Configuration

The network router must also be configured to forward an incoming connection on UDP port 10001 to the iPort, at the IP address you set e.g. 192.168.xxx.250. For more information, please consult your router's documentation on 'port forwarding'.

Lastly, the iSymphony app must be configured to the home's fixed IP address.

Configuration without a fixed IP

If the home does not have a fixed IP address an external (DNS) service may be used to create a (URL) name for the property. For example, create a free (standard) account at www.DynDNS.com.

The DNS service will track changes to the home's IP address enabling the app to reliably connect via it's (URL) name. In this case, enter the URL name into the app's IP setting, for example; 'myhouse.dyndns.org'

Most modern routers include the option of auto-reporting IP changes to an external DNS service. Again, please consult your router's documentation on 'dynamic DNS' settings.

Specifications

Supply	9VDC (regulated) 200mA
Power Consumption	2W
RF	434.075MHz, 25mW Narrow Band FM
Protocol	Light Symphony
Weight	0.3Kg with PSU
Size	120mm x 100mm x 30mm
Electrical Safety :	Low-voltage, isolated device requiring no special electrical precautions or earth
EMC emission/immunity	EN 50081 - 1/ To EN 50082 - 1
Electrical safety	EN 60950 en 60065
Radio	EN 300-220
Ambient temperature	0°C to +40°C (operation)
Compliance	CE
Network	10BaseT
Services Required	DHCP
UDP Sockets	Ports 30718 (discovery) & 10001 (msg)



Environmental Information for Customers in the European Union European Directive 002/96/EC requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams.

It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

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