



LightSymphony™



**Smart solutions for
outdoor lighting control**

Enjoy complete control over your garden lighting with **Light Symphony**

Key fob
with master
on/off
page 12

Make use of
existing cables
& supplies
page 8

Wireless
switches to
match internal
décor
page 13

Timers for each
zone with dusk
and dawn option
page 17

PIRs that do
not override
client's control
page 14

Dimmable
LED drivers
page 7

Wow-factor!
Driveway lights
automatically
triggered
page 15

Colour LED
control
page 10



Simple but impressive wireless touch controller page 12



Smart phone control page 17

From 10 lights to 10 acres, Light Symphony provides flexible & cost saving **wireless control**

Simple Control

Combine lighting of all types, from any manufacturer, into a single, versatile, energy efficient solution that perfectly complements your garden.

Wireless

Wirelessly control individual lights or group them into friendly 'zones', which are then controlled from a single button on the handset. Unlike conventional wiring, 'zones' are programmed and are easy to change or add to, which can greatly simplify control. For example, group all the lighting around a pond with the water-feature pump and assign it to one button on the handset.

Wireless Zoning

Create up to 29 individual lighting zones using the wide selection of wireless lighting controllers. Their 1km range ensures professional reliability.

Impressive

Lighting can switch or gently fade on creating an impressive theatrical effect, whilst greatly extending lamp-life in cold weather.

Choice

Light Symphony offers the widest choice of control, from a simple keyfob to an iPhone or wireless touch-panel.

1km Range

The long 1km wireless range creates new installation possibilities and can often eliminate expensive cable runs. Up to 5km range is possible using 5 signal repeaters.

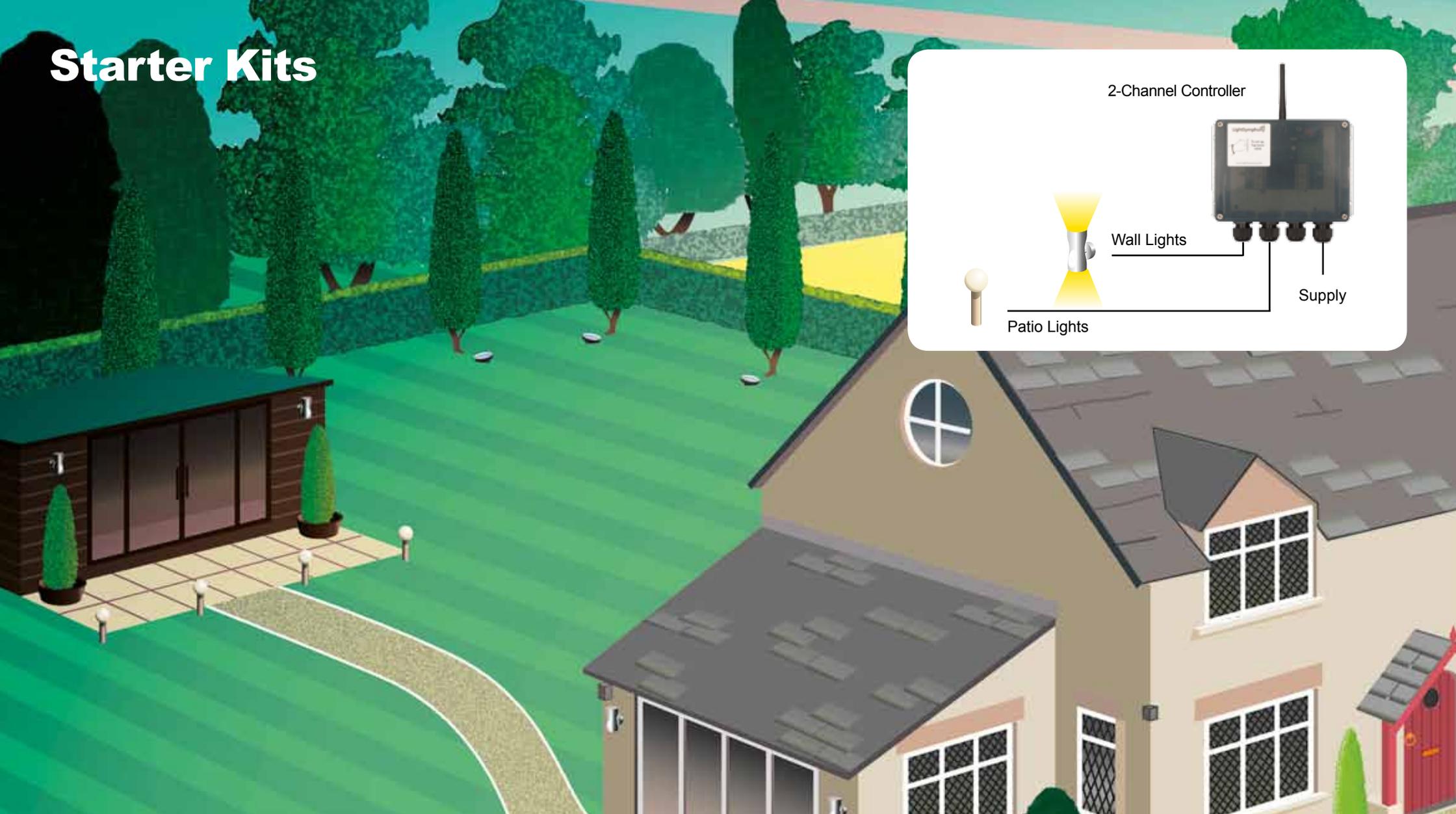
Modular

Select only the components you need to fit your project's requirements.

Automation

Wireless timers and driveway sensors ensure lighting is only on when required. For example, driveway lights could be timed to switch on at Dusk at a reduced level (e.g. 25%) to save running cost and lamp-life. When a car enters, lights are ramped to full brightness, creating the perfect welcome home wow-factor.

Starter Kits



These kits offer a simple way to get started. **The keyfobs have a powerful range of 350m** (line of sight) and all the lighting controllers offer the option of smooth on/off. Expand the kits by adding more lighting controllers or any of the other products in this catalogue.



Features

- Fast, simple start-up
- Compatible with all lighting types
- Add more lighting controllers and transmitters as required
- Smooth on/off option
- Rugged IP66/68 housings
- Powerful 350m range (line of sight)
- Range extendable with repeaters
- Add driveway sensors, dusk/dawn timers, PIRs etc. as required

A 2-channel starter kit has been used here to control the lighting around a summer house. The two output channels provide individual control from the keyfob with a convenient master on/off.

1-Channel Starter Kit

2-zone keyfob with IP68 rated controller for a single lighting or pump circuit up to 350 Watts
Order code: LS1KIT



2-Channel Starter Kit

2-zone key-fob with IP66 rated controller for two lighting or pump circuits of up to 1kW each
Order code: LS2KIT



4-Channel Starter Kit

4-zone keyfob with IP66 rated controller for four lighting or pump circuits of up to 1kW each. Space inside for optional, dimmable LED drivers (see pg 7)
Order code: LS4KIT



iPhone Starter Kit

Same as 4-channel kit above but including WiFi base-station and dusk/dawn timer for interface to iPhone, iPod, iTouch or Android devices
Note: does not include iPhone but app is free!
Order code: LSiKIT



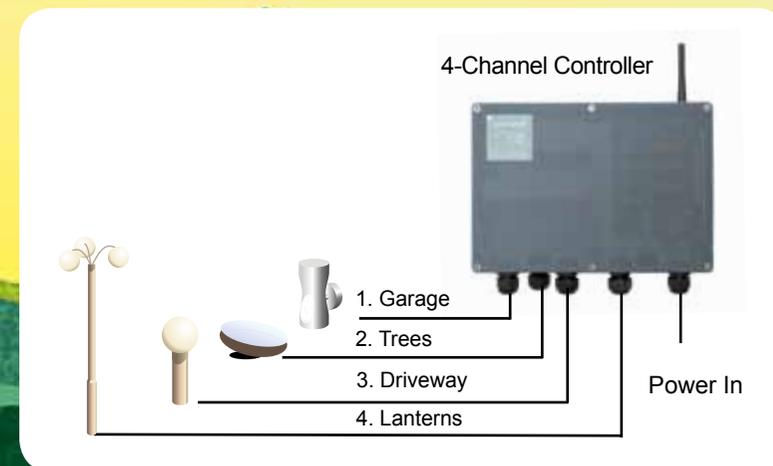
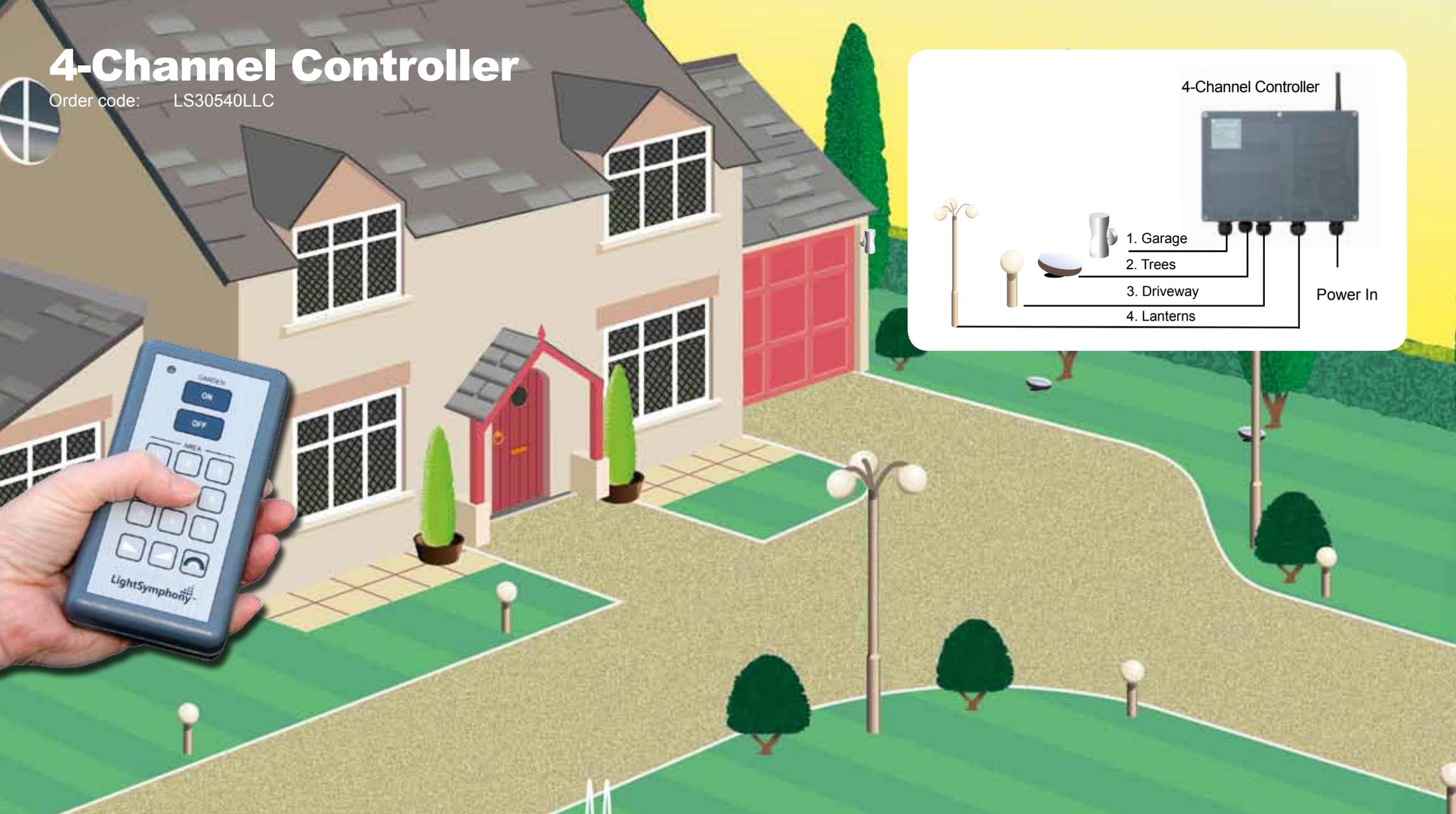
Colour LED Kits

Please see page 11



4-Channel Controller

Order code: LS30540LLC



This unit's four **wirelessly controllable** outputs make it perfect for a garden like this. Each output can drive up to 1kW of mains or low voltage lighting and includes the option of fading smoothly on and off. Compatible, dimmable LED drivers are also available.



4-Channel Controller
with optional LED drivers installed



Features

- IP66 tough ABS enclosure
- Compatible with all lighting types
- Each output rated at 1kW
- Smooth on/off option on all 4 outputs
- 2-4 dimmable channels
- Earth bonded gland holes
- Operates wirelessly requiring only a mains supply
- Rugged, separately fused outputs
- Fast, Lid-On programming
- Up to 5km range (with repeaters)

Accessory

Spike Mounting Kit (see page 8) LS30010SPK

Transmitter Choice

The 4-channel controllers can be used with any combination of transmitter(s) in this catalogue, such as the 9-zone remote control shown opposite.

29 Zone Memories

The 29 zone memories can be used for switching individual circuits or creating wireless groups (zones), with a master on/off function.

Dimmable LED Drivers

There is space inside for up to 3 dimmable LED drivers, which come with mounting brackets.

OPTIONAL Dimmable LED drivers (IP40)	
12V / 19W	LS301219VLED
24V / 19W	LS302419VLED
350mA / 13.5W	LS303513CLED
700mA / 18W	LS307018CLED



Gentle Control

Each output can be configured for switching or dimming. Outputs configured for dimming will smoothly fade lights on/off to create an impressive theatrical effect, which also greatly increases lamp life and prevents nuisance fuse trips in cold weather. Channels 3 and 4 are not user dimmable by default, but do include the smooth on/off option. Full user dimming can be enabled if the load is under 500W per channel (2kW total).

Robust

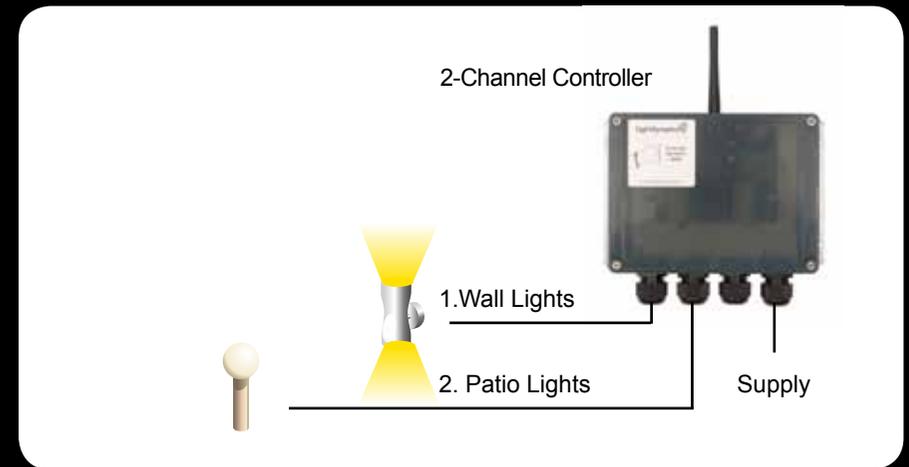
Each output is fused and surge rated for driving low-voltage transformers and halogen lighting. They are also compatible with very low-power LEDs, discharge lighting and water pumps. Pre-drilled, standard (20mm), earthed gland-holes simplify installation. Lid-on programming avoids water ingress during installation (see the video on our web site).

2-Channel Controller

Order code: LS30500LCM



This 2-channel controller is perfect for small projects like this garden patio where two lighting circuits are required, perhaps **making use of existing cables and supplies**. Each output can be configured for switching or dimming with smooth on/off. By default, output 2 is for switching only but full dimming is possible if both loads are under 500W.



Features

- IP66 tough ABS enclosure
- Compatible with all lighting types
- 2 Outputs rated 1kW each Switched or Dimmable
- Smooth on/off option
- Earth bonded gland-holes
- Operates wirelessly requiring only a mains supply
- Rugged, separately fused outputs
- Fast, Lid-On programming
- Up to 5km range (with repeaters)



Spike Mounting Kit

Order code:

LS30010SPK

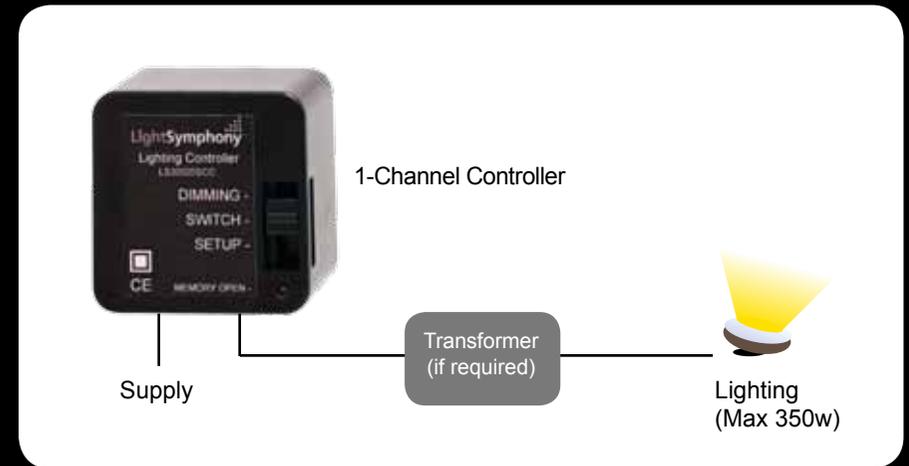
It's also compatible with our dimmable LED drivers and perfect for building larger systems too. For example, install a unit by an existing electric-gate to control lighting at the entrance to a property, which could avoid the cost of burying a new power cable the length of the driveway! The entrance lights can then be 'grouped' with the rest of the garden.

1-Channel Controller

Order code: LS30505SCC

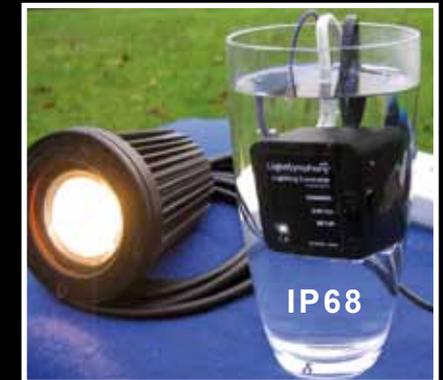


A miniature, single channel, 350W lighting controller that can be used by itself or (as in the example above) as part of a larger scheme to avoid running cables back to a central controller. It is **small enough to fit inside a junction box** or even inside a light fitting.



Features

- IP68 ABS enclosure
- Tiny: 50 x 50 x 25mm
- Compatible with all lighting types including LEDs and pumps
- Rated 350W Switched or Dimmable
- Operates wirelessly requiring only a mains supply
- Fast, simple programming
- Up to 5km range (with repeaters)



This IP68 water-proofed controller can be configured as a simple switch or can ramp dimmable lighting smoothly on/off.

Dimmable LED drivers (see page 7)

12V / 19W

LS301219VLED

24V / 19W

LS302419VLED

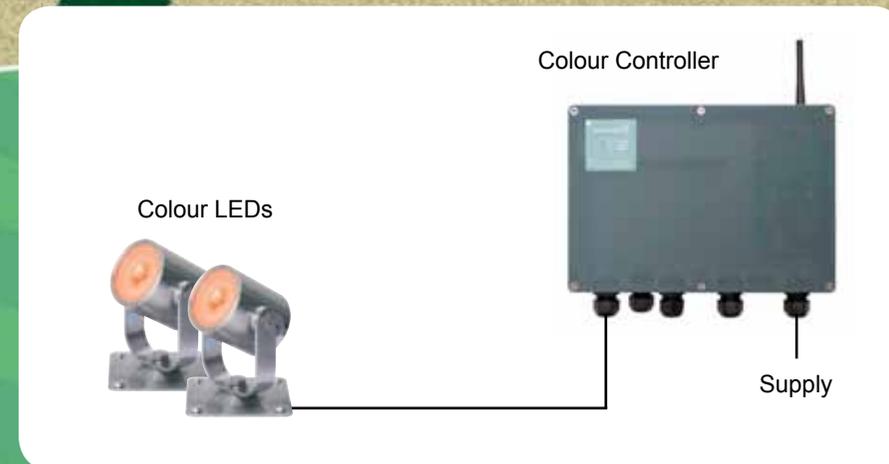
350mA / 13.5W

LS303513CLED

700mA / 18W

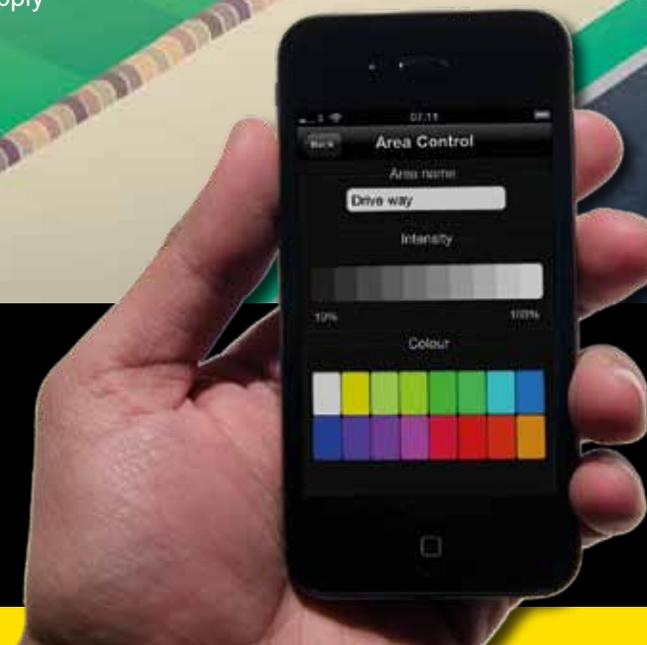
LS307018CLED

Colour LED Controller



Features

- Tough IP66 ABS enclosure
- Compatible with most RGB LEDs including Collingwood
- 16 colours with smooth mixing
- Built-in colour light-show
- Control with iPhone, keyfob, touch-panel, timer and wireless switch
- Operates wirelessly requiring only a mains supply



The colour controller provides **ultra smooth wireless control** over coloured LEDs whilst being seamlessly compatible with Light Symphony's other controllers, such as the iPhone (via WiFi base-station on page 17).



The colour controller integrates seamlessly with Light Symphony's other controls and is **compatible with most types of colour LEDs**, including Collingwood's range.

Features include a built-in colour blender, smooth on/off, dimming and **easy colour control**. For example, holding a button pressed on the keyfob overrides the light blender (if enabled) to provide manual colour selection.

Using the base-station's light-show feature, multiple units can wirelessly synchronise colour-changing across a wide area.

Built-in drivers, large 10mm² mains terminals and earthed gland holes simplify installation. Zones are programmed by just 'tapping' the lid!

Accessories

Spike mounting kit (see page 8)
 Driver 350mA/ 50W
 Driver 24V/ 55W

LS30010SPK
 LS303550RGB
 LS302455RGB

Colour LED Controller

IP66 rated colour controller supplied with one built-in 50W RGB driver

Order code: (350mA) LS30635RGB
 (24V) LS30624RGB



+

Complete RGB Kit 1

Including colour controller, 4-zone keyfob and 3x stainless steel IP68 3W RGB LEDs

Order code: LSKITRGB1
 Collingwood fittings: 3x UL010RGB



Complete RGB Kit 2

Including colour controller, 4-zone keyfob and 3x stainless steel IP68 3W RGB LEDs

Order code: LSKITRGB2
 Collingwood fittings: 3x GL016RGB



Complete RGB Kit 3

Including colour controller, 4-zone keyfob and 3x stainless steel IP68 6.7W RGB LEDs

Order code: LSKITRGB3
 Collingwood fittings: 3x GL050RGB



Complete RGB Kit 4

Including colour controller, 4-zone keyfob and 3x 3W IP54 RGB LEDs

Order code: LSKITRGB4
 Collingwood fittings: 3x SL020BLK3LEDRGB



Transmitters



Picture Touch-Panel
Flush mount back-box
Keyfob 2 Zone + Master on/off
Keyfob 4 Zone
Long Range Remote

LS3030400WTS
LS30450WBX
LS30032FOB
LS30034FOB
LS30050WRC

Wireless Picture Touch Panel

The wireless picture Touch Panel provides an easily customised, bespoke user interface. Like an ordinary picture frame, simply place your own photo, design or artwork behind the glass to create an intuitive, wall-mounted, control centre. Add up to 30 touch-buttons anywhere on the glass. 1km range. Landscape and portrait sample templates available from our website.

Long Range Remote

9-zone remote with dimming, master on/off and colour change key for LED lighting. 1km wireless range. Supplied with wall cradle. (programming tool for PIRs and wireless switches). See page 6.

iPhone & Android App

Use your iPhone, iPad, iPod or Android device as a neat wireless remote control. Download the free app and interface it using the WiFi base-station on page 17. Download the app today; it's a great demo tool.

Keyfobs

Hard wearing stainless steel fascia, sliding key cover and powerful 350m range. Available in two pre-programmed versions to control either Areas 1-4 or Areas 1-2 with whole garden (master) on/off.



Create your own wireless switches

Order code: LS30060WSI



Wireless Wall Switch
Part No. LS30060WSI



Lighting Control Module
Part No. LS30500LCM



Features

- Wireless wall switch
- Use any 1 to 4 gang switch-plate (2-way type)
- Programmable functions
- Slim (4mm) internal module for flush or surface mounting
- Standard 'AAA' batteries for long 2+ years life.
- 'Lid-On' programming

The wireless switch module is supplied with a white 2-gang plate which can be flush mounted using a standard 25mm back-box.

However, the internal wireless module can be removed and fitted to a new switch plate to match the existing décor. The module can be used with any 1 to 4 gang switch-plate (of 2-way switch type) or push buttons.

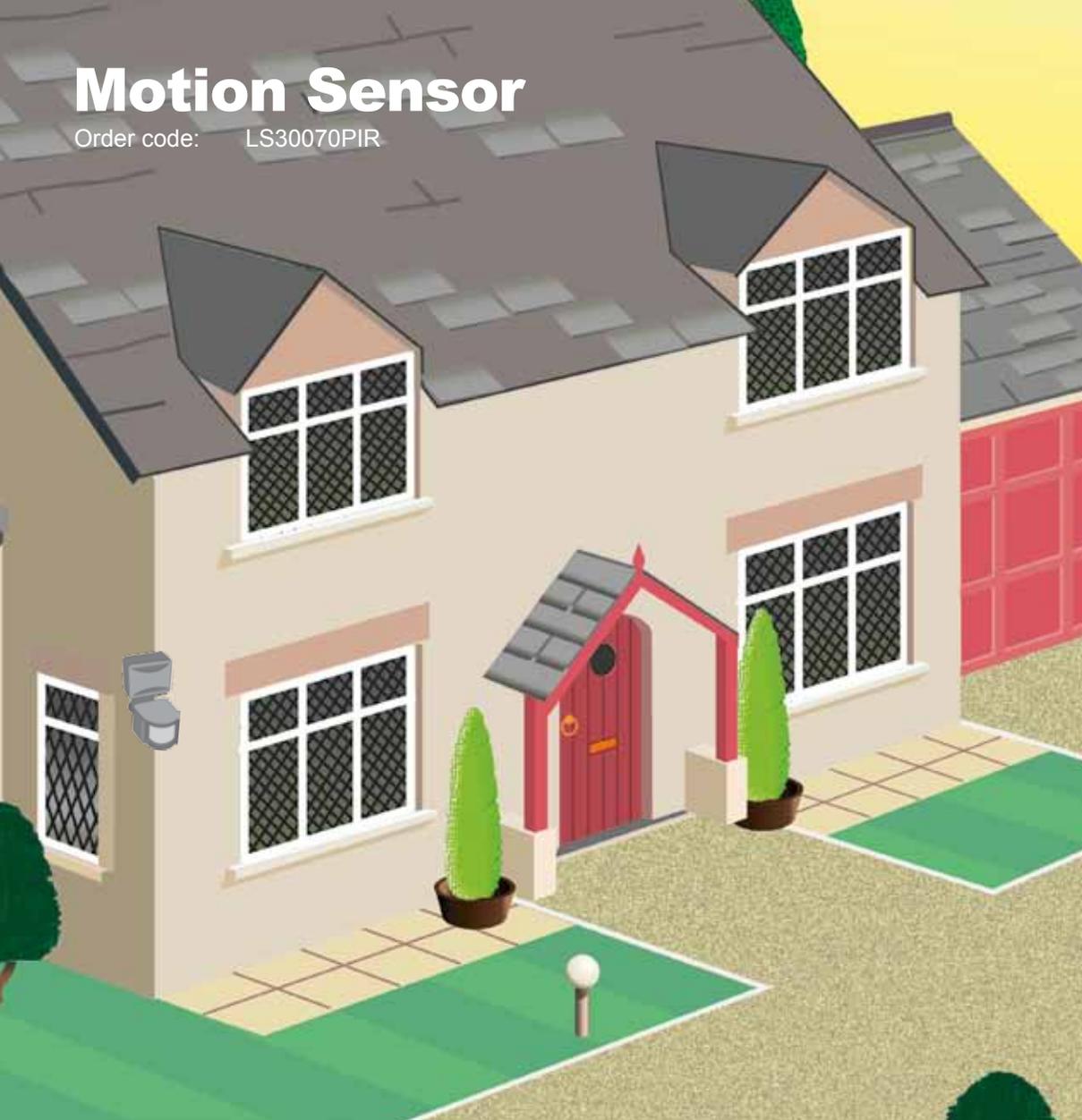
The module provides 1km line-of-sight range. Each switch can be programmed to control the whole garden or a selected zone. Multiple wireless switches may be installed and will operate as 2-way switches.

For fast, 'lid-on' programming we recommend using the long-range remote control (LS30500WRC). The module can also be configured manually using the internal push buttons.

A wireless switch provides the convenience of a standard wall switch without the mess and cost of installation. This neat adaptor can be used to **convert a standard switch into a wireless switch** which can be installed anywhere.

Motion Sensor

Order code: LS30070PIR



The PIR motion sensors **wirelessly trigger the lighting** controllers but do not override the client's manual control, meaning lights which have been switched on by a timer or other remote will not be switched off by a PIR trigger.

Any supply



Lighting Control Module
Part No. LS30500LCM



Features

- IP 55
- Adjustable 1–15 minutes
- Does not override user's control
- Triggers dimmed lights to full brightness
- Adjustable sensitivity
- 1km wireless range
- Mains powered (1W)
- 'Lid-On' programming using Remote Control



IMPORTANT:
A Remote-Control (part number LS30050WRC) is required for programming. A PIR cannot be programmed manually or using a key-fob or iPhone.

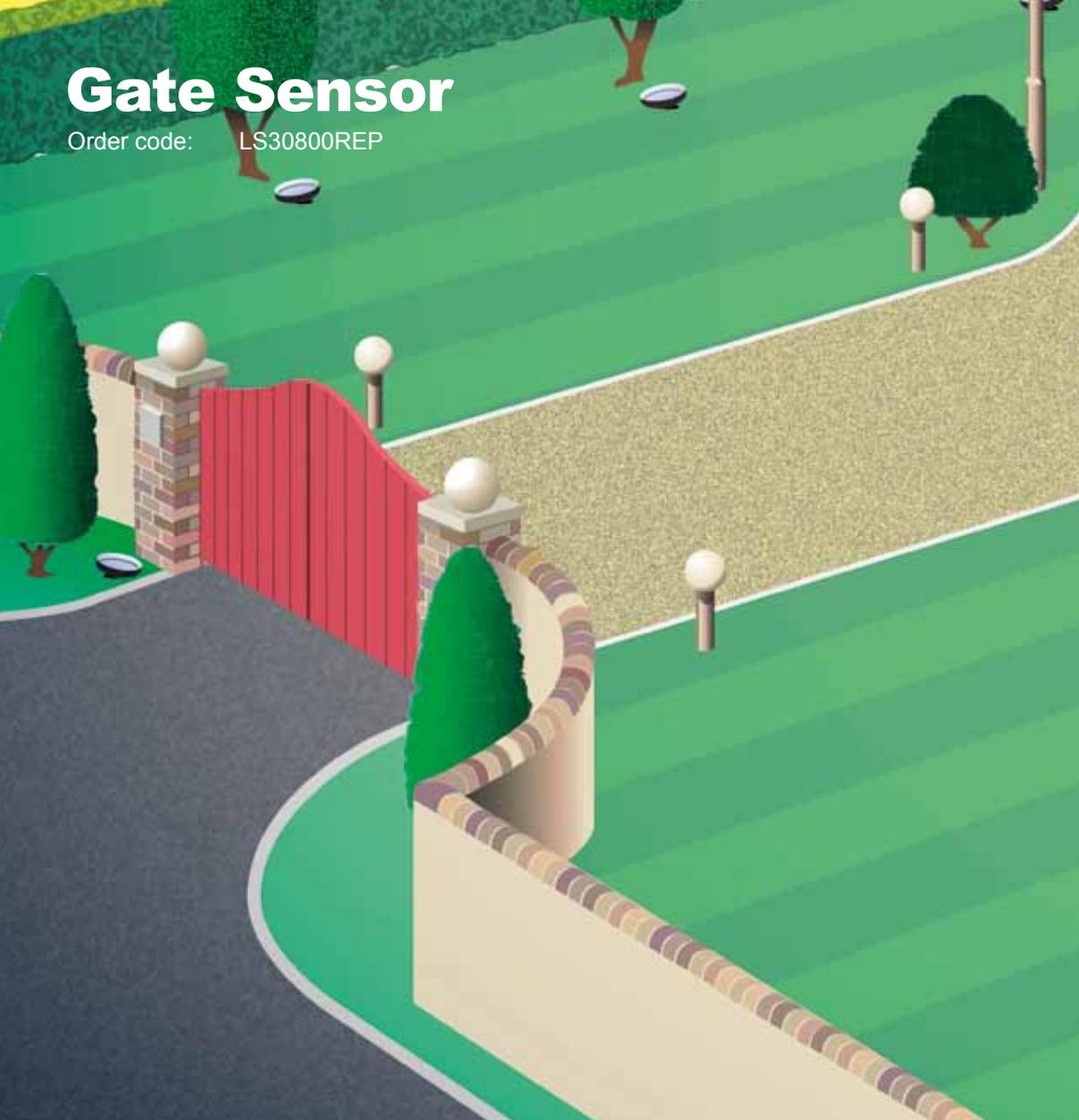
They can be programmed to trigger the whole garden, an individual zone or group for a pre-set time and any number of PIRs can be installed together.

They are mains powered for zero maintenance and, because they are wireless, power can be taken from any source.

Their 'on' time, sensitivity and built-in dusk sensor are all adjustable.

Gate Sensor

Order code: LS30800REP



For the **ultimate welcome home and wow-factor**, install an electric gate sensor. It sends a wireless trigger to the lighting controllers when the gates open to switch the lighting on or to full brightness for a few minutes.

Gate Interface / Repeater
Part No. LS30800REP

Lighting Controller
Part No. LS30500LCM



Features

- Nuisance-free triggering
- Adjustable 'on' time 1-15mins
- Triggers dimmed lights to full brightness
- Does not override user's control
- Triggers a zone or whole garden
- 1km wireless range
- Built-in Signal Booster (repeater)
- Dusk sensor
- IP66 Tough ABS enclosure

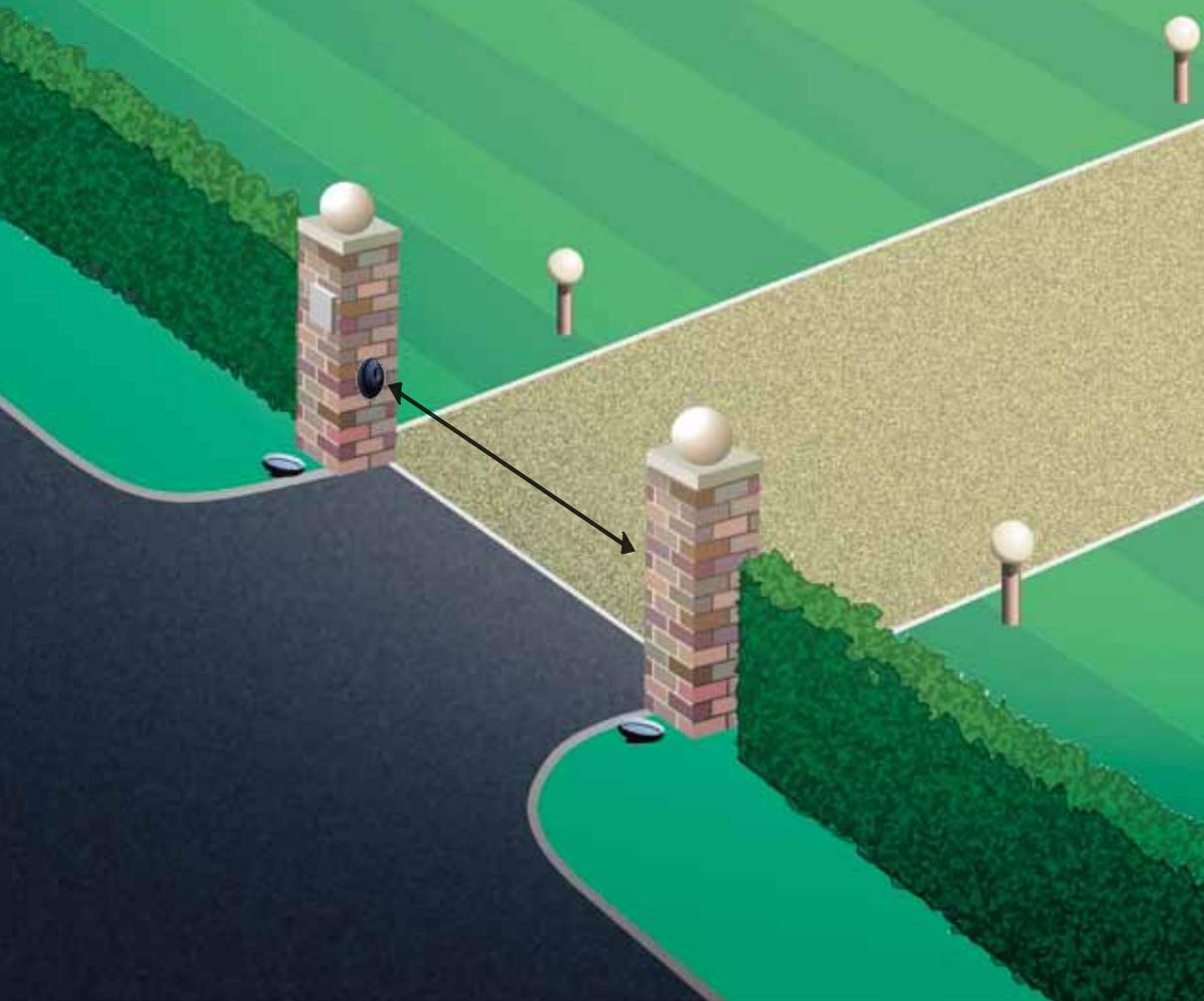
When used with the base-station's timers and dimmable lighting a simple but impressive effect can be created. For example, **the base-station's timer can switch the driveway lights on at dusk but at a reduced level (e.g. 25%) to save running cost and lamp-life.** When the gates open, the lights are gently ramped to full brightness, creating a grand entrance effect.

After the timer has switched off the lights, say at midnight, the gate sensor will still trigger the lighting, ensuring a lit drive whenever you arrive.

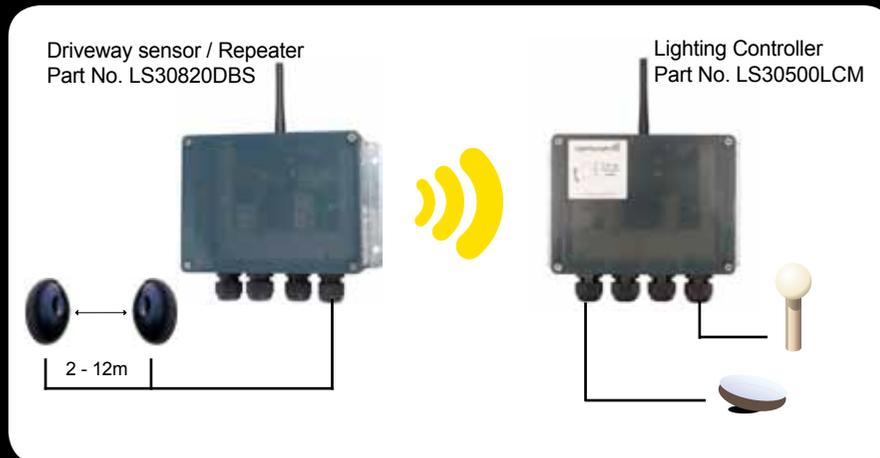
Its wide trigger-input voltage range (12V-230V ac/dc) ensures it is 100% compatible with all makes and types of electric gate (or any other sensor). Its 1km wireless range means it can be installed neatly alongside the gate controller.

Driveway Sensor

Order code: LS30820DBS



The driveway sensor works the same way as the gate sensor on page 15, but is triggered when the invisible light beam is broken. The beam can be 2-12m wide and **prevents nuisance triggers** caused by wind and wildlife, which PIRs would be vulnerable to.



Features

- Nuisance-free triggering
- Adjustable 'on' time 1-15mins
- Triggers dimmed lights to full brightness
- Does not override user's control
- Triggers a zone or whole garden
- 2-12m beam range
- 1km wireless range
- Built-in signal booster (repeater)
- Dusk sensor
- Tough ABS IP66 enclosure



The neat sensors must both be connected by a low-voltage cable to the controller, which requires mains power. It includes an adjustable dusk sensor to ensure lighting is only triggered at night.

The 'on' time can be adjusted from 1-15 minutes and will not override the user's control or timers, meaning if the lights are already on when a car enters they will remain on. Includes a signal repeater.

Dusk/Dawn Timers



This clever wireless accessory **brings your garden to life.** Use the 6 built-in timers to switch selected zones of the garden on at dusk and off at the required time.

Base-station timer
Base-station with WiFi

LS30900BSR
LS309050WIFI



Base-station (timer)

Features

- 6 Independent timers
- Calculates astronomical sunset and sunrise times
- iPhone (WiFi) interface option
- Colour light show controller
- Signal booster (repeater)
- Battery protected clock
- Serial interface
- Operates wirelessly (requires only a mains supply)

NOTE: WiFi base-station connects to the home's WiFi router. The router's security password must be entered and the router must be configured to accept b/g type wireless devices.



For example, light the driveway from dusk, giving presence and security until you arrive home, then after midnight, dim it down until dawn or switch it off completely.

A pump could be timed separately to keep a pond aerated during the day and off after 8pm to reduce noise.

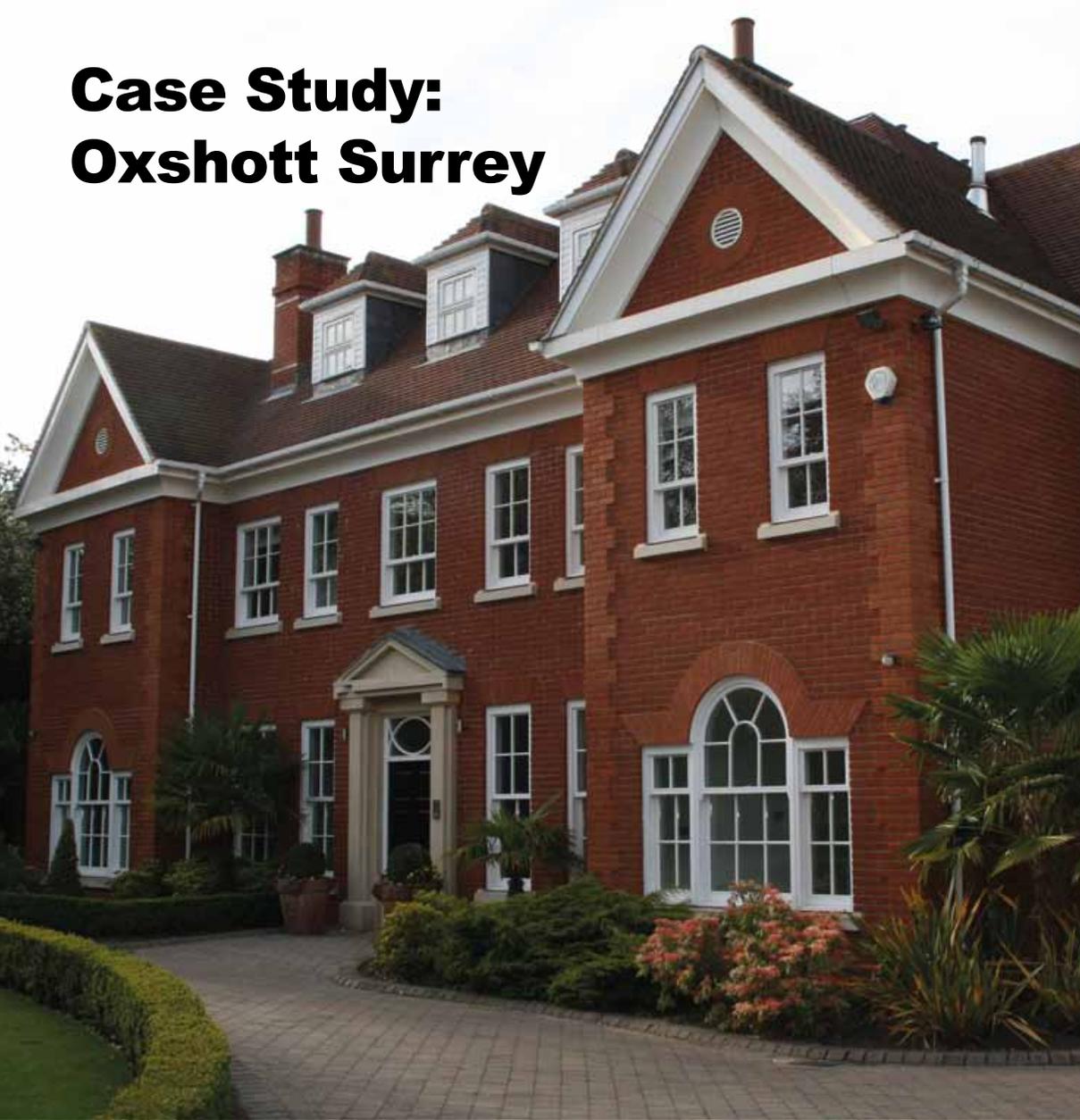
Each day the clever (astronomical) timers auto-adjust for dusk and dawn time, guaranteeing reliable switching without the nuisance of conventional sensors.

The WiFi version allows control from an iPhone®, iPad®, iTouch® or Android device using the free iSymphony application. It also includes a serial port for interfacing to third party control systems, such as Lutron's GrafikEye®.

The base-station also contains a signal repeater, which echoes wireless commands received from other transmitters to double the 1km line-of-sight range.

The 30 built-in light shows can wirelessly keep colour changing LEDs synchronised, creating a uniform effect throughout the garden. Smart phone adjustable from subtle colour blends to dramatic mood changes - it's sure to amaze and impress.

Case Study: Oxshott Surrey



Case Study

Project

Control of lighting to front and rear of property including interface to electric gates.

Control

Client wanted simple control of all lighting with the minimum of effort.

Lighting

Low-voltage, LED and Metal Halide.

Installer

Moonlight Design Ltd, London.

Light Symphony's wireless system

allowed the installation of new lighting and enabled the reuse of all existing cabling. The many separate circuits became one, neat, simple to use system.

Four simple lighting zones were created: the front garden, the driveway and two zones in the rear garden. Two 2-channel lighting controllers were installed, making use of existing power and cabling, one located in the garage and one at the bottom of the rear garden (A).



The driveway lights were automated using a **wireless dusk/dawn timer (B)** and set to a dimmed level of 30% for most of the night to save electricity and greatly increase lamp-life.

A wireless gate trigger (C) was used to smoothly ramp the lighting to 100% when the gates opened, creating a great welcome home effect and wow-factor. Together, these two units ensure the lighting is only on when required, throughout the year.

Light Symphony has allowed the new and existing lighting circuits to be neatly controlled as a single system, both automatically by the timers and gate, and manually by the client using wireless switches or his iPhone. At the same time, it has left the system open for further expansion in the future.

FAQs

What do I need to buy?

Light Symphony is very modular with many options and all this choice can be confusing! Generally, you'll need at least one lighting controller (e.g. 2-channel LS30500LCM) and at least one transmitter (e.g. Keyfob LS30032FOB)

What lighting can I control?

Light Symphony can control all lighting types from any manufacturer. Not all lighting types are dimmable so our controllers can operate as simple (on/off) switches or dimmers.

Can LEDs be dimmed?

YES! A little known fact is that all LEDs are dimmable. However, an LED requires a driver and most drivers are not dimmable. A solution is to use Light Symphony's dimmable drivers. We're happy to give advice, just let us know which LEDs you plan to use. Note, mains powered LED lamps (e.g. GU10 equiv.) have built-in drivers, which cannot usually be dimmed.

Why is Light Symphony so reliable?

We understand life is harsh outdoors and so have not skimped on the water-tight enclosures we use or the components inside. This ruggedness adds cost but we believe that it's worth

the peace of mind. In fact, it's the only system of its kind on the market designed exclusively for outdoor use, so its ruggedness is second to none.

Why do I need 1km range?

Few gardens are this big but the long range is extremely beneficial even on smaller projects. This is because wireless (radio) signals only travel in straight lines (from transmitter to receiver), they don't bounce or bend, meaning any obstacles in the path, such as walls, windows and trees etc. will weaken the signal. Having a powerful 1km range ensures it's 100% reliable in the real world, where line-of-sight is rare. For more info see our web site.

Does it work through walls?

Yes, even thick ones! But every obstacle will reduce the range (see above) and there will be a limit. Roughly speaking, a typical cavity wall will halve the range, while a thicker stone wall will be worse and a thinner stud wall better. This is why systems with less range are often unreliable. A 'repeater' (or base-station) can also be used to boost the signal back up to full strength. Try to position equipment to create the best 'radio' path, with the fewest obstacles between the transmitter and lighting controllers.

Can more than one Remote or Keyfob be used?

Yes, any number of transmitters can be used together, including wireless switches, iPhone(s), touch-panels, remote controls, key-fobs etc.

Can I send my client an extra Keyfob in the post?

Yes. Since all Light Symphony's transmitters are security coded by the installer they can be configured away from site. Then, when they arrive on site no programming is required. All you need is a record of the 'System Code' used for the project.

Is it difficult to set-up?

No. The master garden On/Off buttons will work straight out of the box. To configure a system fully is a two step process; 1. set the transmitter's "System Code" by choosing any number 1-32 (to prevent interference with neighbouring systems). 2. use the transmitter to teach each lighting controller (channel) which zone you'd like it in. Most of our lighting controllers are configured by just tapping on the lid - see our web videos!

How does the dusk/dawn timer work?

The changes in dusk and dawn time throughout the year are caused by

the way the earth rotates around the sun. This never changes and can be predicted. By knowing your location (town), the timer calculates dusk and dawn time automatically every day. This avoids the need for external sensors, which can be confused by clouds and headlights affecting the ambient light.

Why is the keyfob range 350m?

The keyfob's small size limits the space available for batteries and the antenna, which both limit its wireless range. However, at 350m it is still one of the most powerful available today and when used with a base-station / repeater the signal is boosted to Light Symphony's usual 1km.

Can I use an iPad or Android device?

Yes, the same app works well on any iPhone or iPad and there's also an Android version.





Designed, Manufactured & Distributed by

PM International Ltd
4 Pine Road
Edlesborough
Buckinghamshire
LU6 2EJ

Sales: 0844 504 9204
Tech Support: 0844 504 9224
Fax: 0844 504 9230
www.LightSymphony.com

“The Light Symphony range has made my life very easy. It is very well made and its add-ons are excellent. The ease-of-use and well presented literature is also important for my business and customers. Technical backup, if required, is first class”.

Paul Naylor, Director, Greenlite Ltd

“Light Symphony provides our clients with ease-of-use, fun graphics, hassle free installation and a very personal service. That is why we will continue to recommend its products”.

Rebecca Weir, Design Director, Light IQ Ltd

“We use Light Symphony as their products allow us to offer our customers exciting, innovative garden lighting, which is both reliable and affordable”.

David Steel, Extrelec Services Ltd

“We use Light Symphony because of its ease of installation, the ability to ‘add’ to the system and the flexibility this offers our customers. Light Symphony is without doubt the best remote control available”.

David Haslehurst, MD, Moonlight Design Ltd

