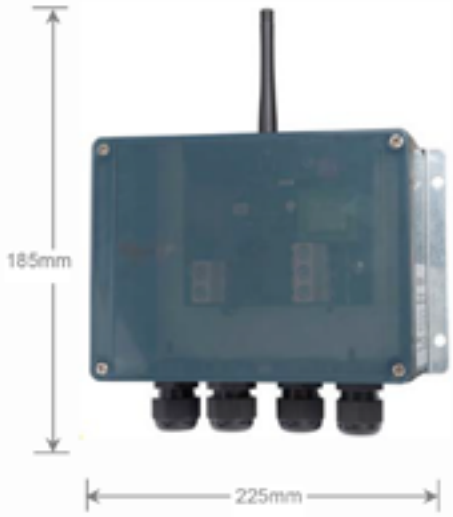
Light Symphony

Signal Repeaters with Gate-interface

Gate Interface & Signal Repeater



Features

- IP66 Tough ABS enclosure
- Isolated gate input
- Adjustable on-time 1-15mins
- Does not over-ride user's control
- 1000M* range
- Signal Booster (repeater)
- Dusk sensor

Part No. LS30800REP

Description

The wireless Gate Interface & Signal Repeater can perform two separate functions;

1. Interfacing to electric gates or other sensor to provide automated lighting control when vehicles approach. When triggered, it wirelessly signals to the Lighting Control Modules an on-time of 1 to 15 minutes. It contains an adjustable dusk sensor to prevent trigger during daylight.
2. The signal repeater echo's commands received from any of Light Symphony's wireless transmitters. Up to 5 repeaters may be used together to extend Light Symphony's range by 1000 meters* radius *each*.

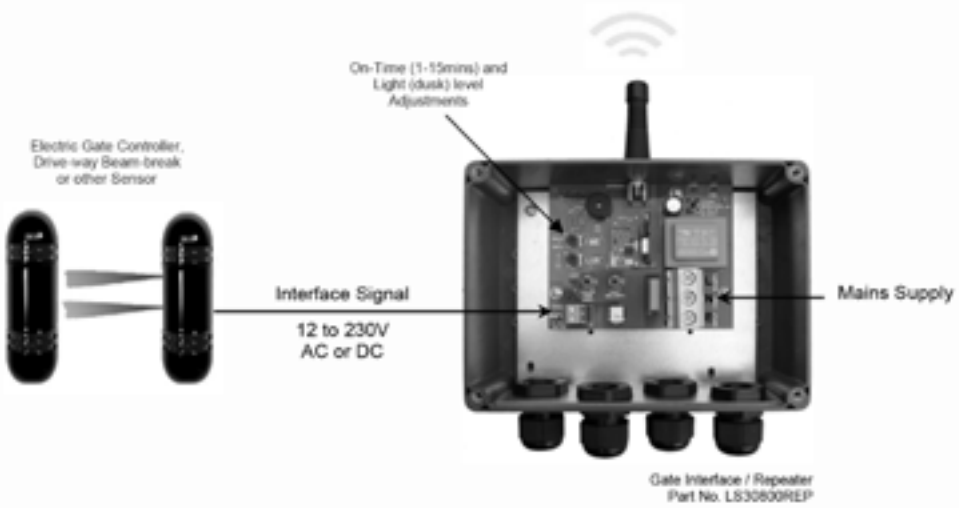
Specification

Input	-	Isolated 12-230VAC/DC Trigger, <20mA
Enclosure	-	IP66, UV stable, ABS plastic with non-penetrating wall-mounts
	-	semi-clear lid & neoprene o-ring. Colour RAL7011
RF	-	Signal Repeater using 434.075MHz Narrow Band FM
Coding	-	Security channels 1–16
Power	-	Supply: 230VAC +/-10% 50Hz Standby <1W.
Size	-	225 x 185 x 85mm
CE Compliance	-	EN 50081 – 1, To EN 50082 – 1
Range	-	1000 metre wireless range*. Note* stated range is line-of-site, obstacles will reduce this.

Light Symphony

Signal Repeaters with Gate-interface

Application Example



How to use it

The Gate-Interface provides a wide voltage, isolated input which can be connected to a variety of 'triggers' such as an electric gate controller or driveway light-beam detector. Using this interface, the lighting can automatically be switched on for a short time when, for example, a vehicle approaches.

Its on-time is adjustable from 1 to 15 minutes and it includes a dusk sensor to prevent unwanted triggers in daylight hours. It will *not* interfere with the user's control, meaning that lights that have been switched on manually will not be affected.

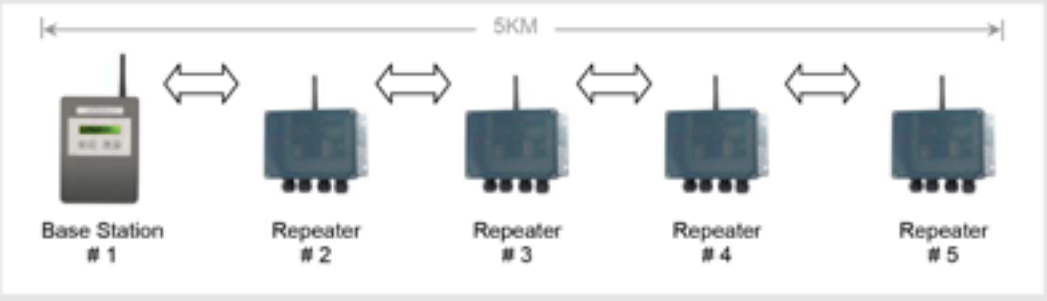
Its1000 meter* signal-repeater extends Light Symphony's wireless range as detailed below.

Signal Repeating

Uniquely, Light Symphony can be scaled to suit almost any sized project with the use of a few signal repeaters. Each signal repeater will add a 1000 meters* radius of extra coverage to a system. Up to 5 signal repeaters can be used together to achieve over a 5KM* range.

Each repeater will echo commands to all other repeaters on the system. This guarantees commands are reliably relayed over the *entire* site, wherever they originate from.

To achieve this and avoid interference, all repeaters are assigned a unique ID number from 1 to 5. For reliable operation, it is important to install repeaters so that adjacent numbered units are within good wireless range of each other, as shown below;



Light Symphony

Signal Repeaters with Gate-interface

LightSymphony™

Gate Interface / Repeater

CE

SPECIFICATIONS

Supply	220-240V AC / 50Hz, 2W
Trigger Input	12 – 230V AC or DC
Dusk Sensor	Adjustable level
Timed-On	1-15 Mins
Weather Resistance	IP66
Physical	185 x 122 x 78mm / 0.8Kg
Ambient Temp.	-10°C to +40°C

INTRODUCTION

The 'Gate Interface / Repeater' performs two separate functions;

1. Trigger Input, for switching a lighting zone for a pre-set time
2. Echo's wireless commands from any transmitter

Each of these functions may be enabled or disabled separately. Both functions must be configured before use.

The unit is designed for outdoor installation but take note of the safety instructions below.

SAFETY INSTRUCTIONS

REMEMBER ELECTRICITY CAN KILL
IF IN DOUBT CONSULT A QUALIFIED ELECTRICIAN

1. Mount the unit in a safe position to avoid possible damage by mowers or other garden tools. This unit must not be buried without proper protection.
2. The unit requires connecting to a properly installed electrical supply with an EARTH.
3. The electrical supply must be protected at source by an 'Earth Leakage' circuit breaker and suitably low rated fuse (0.5A per 100W's of load).
4. Where 230V power is routed outside, national wiring regulations must be adhered to. For UK installations rugged 'Concentric' type cable is recommended above ground.
5. Where 230V power cable is buried, 'Steel Wire Armoured' cable must be used. Buried cables must be *at least* 450mm (18") below the surface.
6. BURN HAZARD: Take care not to touch hot lamps and keep children away.
7. Always isolate the electrical supply before removing the cover.

Light Symphony

Signal Repeaters with Gate-interface

REPEATER - TESTING & SET-UP

1. The LED2 (adjacent to 'Learn Repeater' button) shows the Repeater's status. If it is OFF, the repeater function is disabled. If it's on the repeater function is enabled and will blink when a command is received and repeated.
2. For correct operation each repeater must be assigned a unique number from 1 to 5. Where fitted, the Base-Station is always repeater #1. Repeaters must be installed so *adjacently* numbered units are within reliable range of each other. i.e. Repeater #2 must be in reliable range of *both*, repeater #1 (base-station) and repeater #3 etc.
3. To enable the repeater and program its number, press and hold the 'Learn Repeater No' button for approx. 5 seconds, until LED2 flashes.
4. Next, press a number key on the remote control from 1 to 5. The unit will beep to acknowledge the code has been stored.

(To disable the repeater function, store repeater number 0 by using the "Garden Off" key on the remote.)

REPEATER RANGE TEST

The repeater must be in good range of adjacent numbered repeaters (see 2 above) *and* the lighting it is controlling. The range can easily be tested using the 'Learn Repater No.' button;

Each press of the 'Learn Repeater' button will alternately transmit Garden On, Garden Off commands. Use this test to confirm all Lighting Control Modules respond to the Repeater's on/off commands.

Where fitted, also check that the base-station and other repeaters are also 'seeing' the on/off commands.

The base-station can be checked by watching its LCD display. The display should show "ALL ON/OFF" each time the 'Learn Repeater' button is pressed.

Other repeaters will indicate a command has been received by blinking their Repeater LED2.

MAINTENANCE

To prevent premature failure of the unit please take note of the following recommendations;

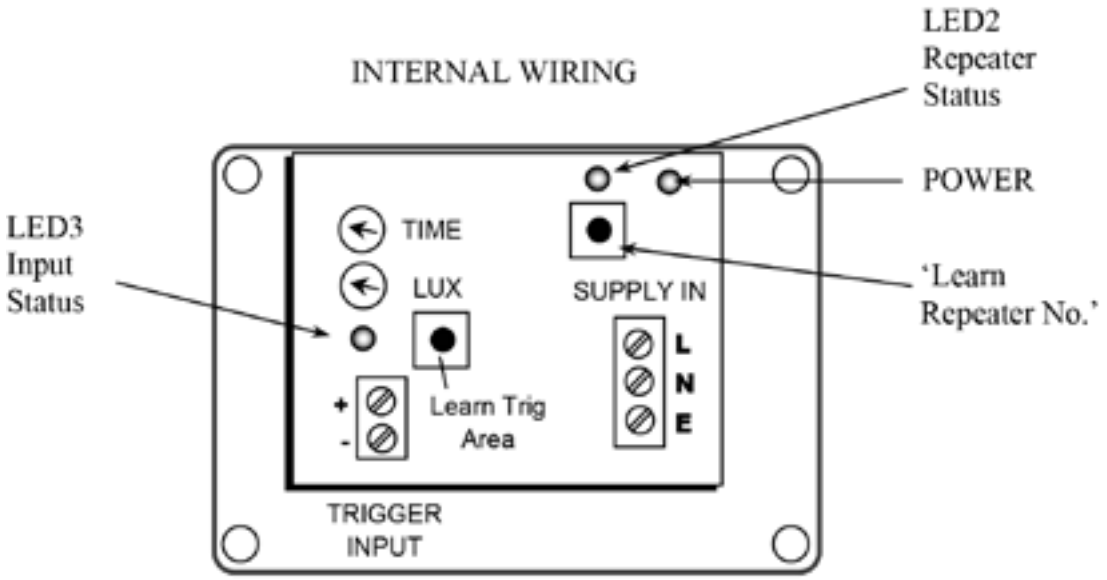
1. Never leave a module outdoors unless the lid is properly secured and the rubber gasket installed.
2. Ensure the 4 lid-screws are properly tightened after installation.
3. A smear of (Silicon) grease around the rubber gasket will protect it and help guarantee a long reliable life.

Light Symphony

Signal Repeaters with Gate-interface

ELECTRICAL INSTALLATION

The unit must be installed by a qualified electrician working to national Electrical Regulations.



Ensure all cables enter the enclosure from below or have a 'drip-loop'.

NOTE: The Earth screw in the unit bonds all the metal parts to ground including the Steel Wire Armouring (via the metal chassis).

GATE TRIGGER - TESTING & SET-UP

5. LED3 (adjacent to the trigger input) shows the input status. It will be on when a valid voltage is applied to the INPUT (12-230V AC or DC).
6. The unit can be programmed to trigger the Whole Garden (ALL) or an individual Area. The remote control (part no. LS30050WRC) is used to teach the control function. Press and hold the "Learn Trig" button for approx. 5 seconds, until LED3 flashes.
7. Press an Area key on the remote control to teach the function of the trigger input e.g. Area 1. The unit will beep to acknowledge the function has been stored. (use 'Garden Off' to disable the Trigger input).
8. To test the trigger unit, first adjust the LUX setting fully anti-clockwise (light), because the unit only transmits when the ambient light-level is below this setting. Set the TIME adjustment fully clock-wise (1 minute).
9. Each short press of the 'Lean Trig' button will now trigger the programmed lighting Area for a short time. This allows the range and function to be confirmed. Test the unit also triggers when the gate is opened.
10. Finally, adjust the LUX and TIME settings to your preference. The Test button will not operate if the LUX setting is below the ambient light level. This feature enables the LUX level to be adjusted and tested. Note: the translucent lid will have little effect to the LUX setting.