



# Radio Controller System

## Installation & Operation Manual



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## Introduction

**Congratulations! By choosing to purchase a Radio Controlled Sealite Lantern you have become the owner of one of the most advanced LED marine lanterns in the world.**

Sealite Pty Ltd has been manufacturing lanterns for over 25 years, and particular care has been taken to ensure your lantern gives years of service.

As a commitment to producing the highest quality products for our customers, Sealite has been independently certified as complying with the requirements of ISO 9001:2008 quality management system.

Sealite lanterns comply with requirements of the US Coast Guard in 33 CFR part 66 for Private Aids To Navigation.

By taking a few moments to browse through this booklet, you will become familiar with the versatility of your lantern, and be able to maximise its operating function.

## Operating Principle

The solar module of the lantern converts sunlight to an electrical current that is used to charge the battery. The battery provides power to operate the lantern at night.

The flasher unit has very low current requirements. A microprocessor drives an array of ultra bright LED's through a DC/DC converter, which enables the LED's to operate within the manufacturer's specifications. The battery is protected from over-charging within the circuit to ensure maximum battery life.

On darkness, the microprocessor will initiate a program check and after approximately 1 minute begin flashing to the set code.

The Sealite Radio Controlled Lighting System works by using a hand held radio controller to activate and setup an entire port, harbour or channel. The system utilises an embedded RF module operating in the 2.4Ghz ISM Band.

The lights can be configured for up to 15 different light groups. This allows the Harbour Master to independently control different areas, such as multiple channels.

Due to the handheld nature of the Radio Controller, it can be used from any position in the port or harbour. This can allow for easy and efficient inspection or activation of different light groups without affecting other lights.

The standard radio controller broadcasts a command message to all lights within range. This range is approximately 1.4km (0.7 nautical miles). If a higher gain antenna is used the range can be extended.

Each light within range will receive, decode and re-send the message to all surrounding lights. Each light also has an operational range of 1.4km.

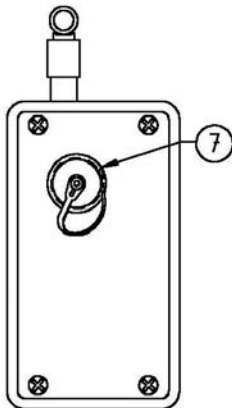
For distances, greater than 1.4km there may be a delay in those lights receiving the command. The further away the lights are from the controller the longer it will take the command to propagate to all lights.

# Sealite Radio Controller

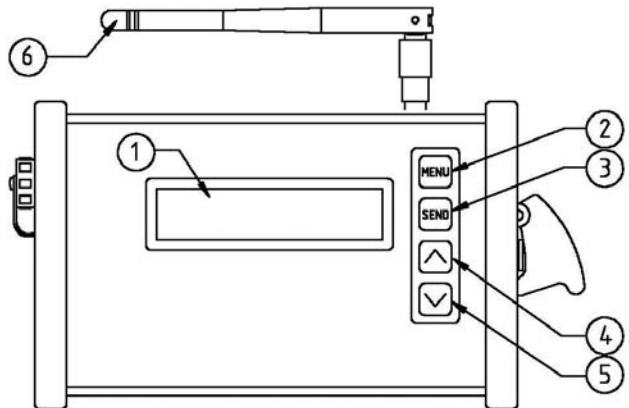
The Sealite Radio Controller is a compact handheld unit that allows complete control of the Navigational lighting system. The unit allows you to roam around the port for easy activation, inspection and testing of the marine lights. The Sealite Radio Controller works on the 2.4GHz ISM Band using a low power RF module. The backlit, LCD can be seen during day or night. The straightforward menu makes it easy to operate.

The Sealite Radio Controller comes standard with an IP68 rated charging plug, omni-directional antenna and ON/OFF switch. It can also be optioned with an RS232 input.

The Radio Controller and charger come in an IP68 'Pelican' Case to protect it from the harsh environment, to which, it may be subjected.



**Fig 8 Radio Controller Side View**



**Fig 9 Radio Controller Front View**

- 1 LCD Screen
- 2 MENU Button
- 3 SEND Button
- 4 UP Button
- 5 DOWN Button
- 6 Antenna
- 7 Charging Port – IP68 sealed plug. (Charger not shown)



## Assembly & Installation of Radio Controller

The installation of the Radio Controller includes the following steps:-

- Unpacking
- Initial Inspection
- Assembling & Charging the Radio Controller
- Using the Radio Controller

### Unpacking instructions

Unpack all hardware and verify container contents in accordance with Fig. 8 & 9 on page 8. Please contact your Sealite office if there is any hardware missing.

### Initial inspection

Inspect the Radio Controller for damage. If there is any damage, please contact your Sealite Office. Retain original packing material for possible future use.

### Assembly & Charging

The Radio Controller can be activated after raising the aerial into the upright position. It may be necessary to charge the Radio Controller before use.

### Turning the unit On

To turn the unit on, lift the red missile cover and flick the switch.

The radio controller will take 5 seconds to start up and it may take up to 30 seconds for the imbedded RF Module to be configured, before a command can be sent.

### Charging the Radio Controller

- a. Unscrew the protective cap from the charging port, on the left side of the Radio Controller.
- b. Insert the charging terminal into the Radio Controller.
- c. Plug the charger into a wall socket and turn the charger on.
- d. The light on the charger will flash Green, Orange, Red then back to Orange.
- e. The charger has a LED to indicate the charge sequence.
  - i. Green – Unit is fully charged. The Radio Controller can be left connected in state.
  - ii. Orange – Unit is charging. The unit will charge for a maximum of 8 hours before automatically shutting down.
  - iii. Red – A fault is occurring, please contact Sealite Office.



## Radio Controller Menu

This section of the document will provide a short explanation of all the menu screens on the control unit.

### Modes of Operation

The operational Mode defines how the light will respond to different environmental conditions & user inputs.

There are three operational modes, that can be selected via the controller:

*ON, STANDBY & DUSK till DAWN.*

#### **ALWAYS ON Operational Mode**

The light will be lit both day & night. While the light is in this mode it will only turn off when the battery drops below the Flat Battery Voltage level.

#### **STANDBY Operational Mode**

The light is *Always Off*. While the light is in this mode it will still respond to and pass on commands, sent by the controller. This mode should be used if the lights have been installed outside but are not currently required.

**Note:** The light is not completely powered down in a manner suitable for storage. If the light is to be stored in a warehouse or other dark environment the ON/OFF switch should be turned off.

#### **DUSK till DAWN Operational Mode**

The light is turned on and off based on the light sensor internal to each light. If the light is in the darkness, it will turn on. If the light is in daylight, it will turn off.

### Light Group

This menu is used to select the current light group. The light group of each light is selected via rotary switch A found on the bottom of the circuit board, in the Light Head. The controller can select any one of the 15 individual light groups

( 0 -> 9, A -> E ) or select all radio lights at once.

**Note:** all units are set with a light group of 0 in the factory.

### Flash Code

This menu is used to select any of the 256 preset flash codes in the lights, for a full list please see pages 15-19.

**Note:** Flash Code '00' is steady on.

### LED Intensity

This menu is used to select the intensity of the LEDs on the light. The options include Low, Medium & High.

- a. **HARDWARE** – the intensity is set on the Light circuit board using the DIP Switches.
- b. **Low** – LED intensity is set to low setting
- c. **Medium** - LED intensity is set to medium intensity (approx 50%).
- d. **High** - LED intensity is set to high intensity (approx 100%)

**Note:** this menu will not be enabled if the selected operational mode is *STANDBY*



## **Timeout Mode**

### **Default = Enabled, LOW**

This menu is used to setup the LED high intensity timeout feature found in each light.

The options include *Enabled LOW, Disable*.

- a. Enabled LOW – The immediate LED intensity is selected via the LED Intensity menu, after Timer Duration the LED Intensity will revert back to the LOW setting
- b. Disable – The high intensity LED timeout is disabled. The LED intensity will be selected via the LED intensity menu.

**Note:** this menu will not be enabled if the selected operational mode is STANDBY

## **Timeout Duration**

### **Default = 15 Minutes**

This menu is only visible when the timeout Mode is enabled. This menu is used to select the timeout duration, the time before the LED intensity reverts back to its LOW intensity state. The timeout duration can be set from 1 minute to 60 minutes.

## **LED Banks (Optional)**

Sealite radio controlled lights can have the option of having multiple colours, in different LED banks.

This menu is used to select which LEDs on the light should be used to flash the selected flash code. The options include; *All LED Banks, LED Bank 1 Only, LED Bank 2 Only, LED Bank 3 Only, LED Bank 4 Only, Alternating 1, 2 & Cycle 1, 2, 3, 4*.

- a. ALL LED Banks – All LED Banks are used when on.
- b. LED Bank 1 Only – LED bank 1 only is used when on. LED banks 2, 3 & 4 are always off.
- c. LED Bank 2 Only – LED bank 2 only is used when on. LED banks 1, 3 & 4 are always off.
- d. LED Bank 3 Only – LED bank 3 only is used when on. LED banks 1, 2 & 4 are always off.
- e. LED Bank 4 Only – LED bank 4 only is used when on. LED banks 1, 2 & 3 are always off.
- f. Alternating 1, 2 – LED bank 1 & 2 will alternate at the end of each flash sequence. The light will start by flashing using LED bank 1, then it will flash an entire sequence using LED bank 2, then LED bank 1, and so on....
- g. Cycle 1, 2, 3, 4 – LED bank 1, 2, 3 & 4 will alternate at the end of each flash sequence. The light will start by flashing using LED bank 1, then it will flash an entire sequence using LED bank 2, then LED bank 3, then LED bank 4, then LED bank 1 and so on....

**Note:** this menu will not be enabled if the selected operational mode is STANDBY

## **Flare Path Setup**

This menu is used when the lights are required to flash sequentially, in either direction in a channel.

To use this setting each light in the group will need to set sequentially using Rotary Switch B.

- On each light set the rotary switch to A=0 B=Set the first pair of lights = 0, next set of lights = 1, etc... If you have, more than 16 sets along the runway just continue the setting, e.g. D, E, F, 0, 1 this will allow all lights to continue the flare path

### **FORWARD Flare Path**

Each set of lights will sequence from 0 to F.

### **REVERSE Flare Path**

Each set of lights will sequence from F to 0.

### **SYNCHRONISATION OVERRIDE Flare Path**

Rotary Switch B will be ignored and all lights with the same flash code will synchronise.



### Light Sensor

Used to enable or disable the light sensor internal to each Light.

**Note:** this menu will only be enabled if the selected Operational Mode is *DUSK till DAWN*.

### External Input

Used to enable or disable the external input line to the control unit.

**Note:** this menu will only be enabled if the selected operational mode is *DUSK till DAWN*

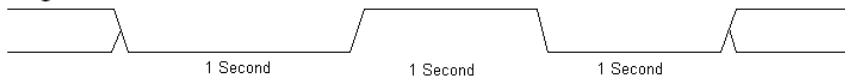
### Battery Diagnostic

#### Default = Disable

This feature can be used to check the battery voltage in every light in the system. The command can be sent any time and it will not affect the current state of the light. If the light is in STANDBY mode the light will turn on as shown below and revert to STANDBY mode after the diagnostic has been completed.

- If the battery voltage is within operational range the light will turn off for 1 second, flash once, then turn off for 1 second.
- If the battery voltage is low the light will turn off for 1 second, flash twice, then turn off for 1 second.

#### Diagnostic Pass



#### Diagnostic Fail



### Controller Battery Voltage

This menu displays the current battery voltage of the controller unit.

Any voltage above 7.2V is within operational range.

If the voltage is below 7V the controller should be charged immediately. See Step Page 15, Charging the Radio Controller

The Radio Controller can be left, permanently plugged into the charger, if required.

**Note:** The Radio Controller can still be used while it is charging.

### Sending Commands

Every time the SEND button is pressed a command is sent containing all the current settings in the Radio Controller.

The SEND button can be used after changing one setting or after changing multiple settings.



## Using the Radio Control to Activate the Radio Controlled System

The Radio Controller is very easy to use and by reading through the How To section below all of the advanced features will be well within your grasp.

Make sure that all the lights in the same Light Group have had the rotary switches set correctly, see page 7 for details.

### Turn all the lights ON

- Turn the Radio Controller On
- Use the arrow keys to adjust the Operational Mode to *Always ON*
- Press *MENU* button once to reach *Light Group*
- Use the arrow keys to set the Light Group to *ALL*
- Press *SEND* button
- Every radio light within range of the control unit will now turn on.

### Setup the lights to operate in DUSK till DAWN mode.

- Turn the Radio Controller unit On
- Use the arrow keys to adjust the operational Mode to *Dusk till Dawn*
- Press *MENU* button once to reach *Light Group*
- Set the Light Group to *ALL*
- Press *MENU* button until you reach *Light Sensor*
- Use the arrow keys to adjust the Light Sensor to *Enable*
- Press *SEND* button
- Every radio light within range of the control unit will now turn on at night, during the day the lights will turn off automatically.

**Note:** if the lights were already in *Always ON* mode they will stay on for up to 60 seconds while the light sensor activates.

### Channel B only is to be HIGH Intensity, but Channel A will remain in current configuration.

- On Channel A, set the rotary switches to A=0 B=0 inside the light head.
- On Channel B, set the rotary switches to A=1 B=0 inside the light head.  
*Rotary Switch A can be set to any value that is different from Channel A.*
- Turn the Control unit On
- Use the arrow keys to adjust the operational Mode to *Always On*
- Press *MENU* button once to reach *Light Group*
- Set the Light Group to 1
- Press *MENU* button once to reach *LED Intensity*
- Use the arrow keys to adjust the LED Intensity to *HIGH*
- Press *MENU* button until you reach *LED Bank Setup*
- Use the arrow keys to adjust the LED Bank to *Visible*
- Press *SEND* button
- *Channel A will not change state.*
- *Channel B will now be High Intensity.*



**Channel is to be set as a Flare Path using Flash Code F,0 and High Intensity.**

**The channel will be tested in Always On mode then change to Dusk till Dawn.**

- On each light set the rotary switch to A=0 B=Set the first pair of lights = 0, next set of lights = 1, next set of lights = 2, etc... If you have, more than 16 sets along the channel just continue the setting, e.g. D, E, F, 0, 1, 2, 3, this will allow all lights to continue the flare path.
- Turn the Control unit On
- Use the arrow keys to adjust the Operational Mode to *Always On*
- Press *MENU* button once to reach *Light Group*
- Set the Light Group to 0 (or whichever number matches Rotary Switch A)
- Press *MENU* button to Flash Code
- Set the Flash Code to F,0 (This flash code can be set to any of the 256 listed on p???)
- Press *MENU* button to reach *LED Intensity*
- Use the arrow keys to adjust the LED Intensity to *HIGH*
- Press *MENU* button to reach *Flare Path Direction*
- Use the arrow keys to adjust the Flare Path Direction to *FORWARD*
- Press *SEND* button
  - *The Channel will now start a Flare Path set in the desired Flash Code. It is in Always ON Mode.*
- Press *MENU* button to reach *Operational Mode*
- Use the arrow keys to adjust the Operational Mode to *Dusk till Dawn*.
- Press *SEND* button
  - *The Channel will now be set to operate automatically in Dusk till Dawn mode.*

# Flash Codes

Sealite marine lanterns may be set to any of IALA recommended flash settings. These can be set via rotary switches inside the lantern or the IR remote or via the Sealite Configuration Tool.

**SEALITE® code reference is listed by number of flashes**

**For the latest version of this document visit [www.sealite.com](http://www.sealite.com)  
or email [info@sealite.com](mailto:info@sealite.com)**

## Symbols

FL	Flash followed by number Eg. FL 1 S, one flash every second
F	Fixed
Q	Quick flash
VQ	Very quick flash
OC	Occulting; greater period on than off
ISO	Isophase; equal period on and off
LFL	Long flash long
MO	Morse code ( ) contains letter

For example, VQ (6) + LFL 10 S means 6 very quick flashes followed by a long flash, during a 10-second interval.

The amount of power your lantern draws through the night depends on the duty cycle, i.e. the amount of time on as a proportion to the timing cycle. For example, 0.5 seconds on and 4.5 seconds off equals a 10% duty cycle.

It is best to operate at the lowest duty cycle appropriate to the actual needs of the application.

## Recommended Rhythm for Flashing Light - IALA Regions A and B

MARK DESCRIPTION	RHYTHM
<b>Port Hand &amp; Starboard Marks:</b>	Any, other than Composite Group Flashing (2+1)
<b>Preferred Channel Starboard:</b>	Composite Group Flashing (2+1)
<b>Preferred Channel Port:</b>	Composite Group Flashing (2+1)
<b>North Cardinal Mark:</b>	Very quick or quick
<b>East Cardinal Mark:</b>	Very quick (3) every 5 seconds or quick (3) every 10 seconds
<b>South Cardinal Mark:</b>	Very quick (6) + long flash every 10 seconds or quick (6) + long flash every 15 seconds
<b>West Cardinal Mark:</b>	Very quick (9) every 10 seconds or quick (9) every 15 seconds
<b>Isolated Danger Mark:</b>	Group flashing (2)
<b>Safe Water Mark:</b>	Isophase, occulting, one long flash every 10 seconds or Morse Code "A"
<b>Special Marks:</b>	Any, other than those described for Cardinal, Isolated Danger or Safe Water Marks

SWITCH		IR Controller	FLASH CODE	ON	OFF
A	B				
0	0	00	F (Steady light)		
D	3	211	VQ 0.5 S	0.2	0.3
-	-	274	VQ 0.5 S	0.25	0.25
E	3	227	VQ 0.6 S	0.2	0.4
F	3	243	VQ 0.6 S	0.3	0.3
7	3	115	Q 1 S	0.2	0.8
8	3	131	Q 1 S	0.3	0.7
9	3	147	Q 1 S	0.4	0.6
A	3	163	Q 1 S	0.5	0.5
8	4	132	Q 1 S	0.8	0.2
B	3	179	Q 1.2 S	0.3	0.9
-	-	293	FL 1.2 S	0.4	0.8
9	4	148	Q 1.2 S	0.5	0.7
C	3	195	Q 1.2 S	0.6	0.6
F	4	244	FL 1.5 S	0.2	1.3
1	0	16	FL 1.5 S	0.3	1.2
0	5	05	FL 1.5 S	0.4	1.1
0	4	04	FL 1.5 S	0.5	1.0
2	0	32	FL 2 S	0.2	1.8
3	0	48	FL 2 S	0.3	1.7
4	0	64	FL 2 S	0.4	1.6
5	0	80	FL 2 S	0.5	1.5
6	0	96	FL 2 S	0.7	1.3
7	0	112	FL 2 S	0.8	1.2
1	2	18	ISO 2 S	1.0	1.0
8	0	128	FL 2.5 S	0.3	2.2
9	0	144	FL 2.5 S	0.5	2.0
D	6	214	FL 2.5 S	1.0	1.5
1	5	21	FL 3 S	0.2	2.8
A	0	160	FL 3 S	0.3	2.7
2	5	37	FL 3 S	0.4	2.6
B	0	176	FL 3 S	0.5	2.5
3	5	53	FL 3 S	0.6	2.4
C	0	192	FL 3 S	0.7	2.3
D	0	208	FL 3 S	1.0	2.0
2	2	34	ISO 3 S	1.5	1.5
5	4	84	OC 3 S	2.0	1.0
E	2	226	OC 3 S	2.5	0.5
4	6	70	OC 3.5 S	2.5	1.0
4	5	69	FL 4 S	0.2	3.8
5	5	85	FL 4 S	0.3	3.7
E	0	224	FL 4 S	0.4	3.6
F	0	240	FL 4 S	0.5	3.5
6	5	101	FL 4 S	0.6	3.4
0	1	01	FL 4 S	0.8	3.2
1	1	17	FL 4 S	1.0	3.0
2	1	33	FL 4 S	1.5	2.5
3	2	50	ISO 4 S	2.0	2.0
3	6	54	OC 4 S	2.5	1.5
F	2	242	OC 4 S	3.0	1.0
3	1	49	FL 4.3 S	1.3	3.0
8	5	133	FL 5 S	0.2	4.8
4	1	65	FL 5 S	0.3	4.7
-	-	279	FL 5 S	0.4	4.6
5	1	81	FL 5 S	0.5	4.5
9	5	149	FL 5 S	0.9	4.1
6	1	97	FL 5 S	1.0	4.0
7	1	113	FL 5 S	1.5	3.5

SWITCH		IR Controller	FLASH CODE	ON	OFF
A	B				
4	2	66	ISO 5 S	2.5	2.5
8	2	130	LFL 5 S	2.0	3.0
0	3	03	OC 5 S	3.0	2.0
1	3	19	OC 5 S	4.0	1.0
2	3	35	OC 5 S	4.5	0.5
C	6	198	FL 6 S	0.2	5.8
B	5	181	FL 6 S	0.3	5.7
C	5	197	FL 6 S	0.4	5.6
8	1	129	FL 6 S	0.5	5.5
9	1	145	FL 6 S	0.6	5.4
A	1	161	FL 6 S	1.0	5.0
7	5	117	FL 6 S	1.2	4.8
B	1	177	FL 6 S	1.5	4.5
5	2	82	ISO 6 S	3.0	3.0
9	2	146	LFL 6 S	2.0	4.0
6	4	100	OC 6 S	4.0	2.0
3	3	51	OC 6 S	4.5	1.5
4	3	67	OC 6 S	5.0	1.0
-	-	280	FL 7 S	0.4	6.6
A	4	164	FL 7 S	1.0	6.0
9	6	150	FL 7 S	2.0	5.0
5	6	86	OC 7 S	4.5	2.5
D	5	213	FL 7.5 S	0.5	7.0
C	1	193	FL 7.5 S	0.8	6.7
E	5	229	FL 8 S	0.5	7.5
B	4	180	FL 8 S	1.0	7.0
6	2	98	ISO 8 S	4.0	4.0
A	2	162	LFL 8 S	2.0	6.0
6	6	102	OC 8 S	5.0	3.0
-	-	294	OC 8 S	6.0	2.0
B	2	178	LFL 8 S	3.0	5.0
F	5	245	FL 9 S	0.9	8.1
C	4	196	FL 9 S	1.0	8.0
7	6	118	OC 9 S	6.0	3.0
0	6	06	FL 10 S	0.2	9.8
1	6	22	FL 10 S	0.3	9.7
-	-	281	FL 10 S	0.4	9.6
D	1	209	FL 10 S	0.5	9.5
2	6	38	FL 10 S	0.8	9.2
E	1	225	FL 10 S	1.0	9.0
1	4	20	FL 10 S	1.5	8.5
C	2	194	LFL 10 S	2.0	8.0
D	2	210	LFL 10 S	3.0	7.0
7	2	114	ISO 10 S	5.0	5.0
2	4	36	LFL 10 S	4.0	6.0
8	6	134	OC 10 S	6.0	4.0
5	3	83	OC 10 S	7.0	3.0
6	3	99	OC 10 S	7.5	2.5
-	-	303	FL 11 S	1.0	10.0
-	-	302	FL 12 S	1.0	11.0
F	1	241	FL 12 S	1.2	10.8
D	4	212	FL 12 S	2.5	9.5
3	4	52	LFL 12 S	2.0	10.0
0	2	02	FL 15 S	1.0	14.0
4	4	68	LFL 15 S	4.0	11.0
7	4	116	OC 15 S	10	5.0
A	6	166	LFL 20 S	2.0	18.0
E	4	228	FL 26 S	1.0	25.0

SWITCH		IR Controller	FLASH CODE	ON	OFF	ON	OFF
A	B						
0	A	10	FL (2) 4 S	0.5	1.0	0.5	2.0
E	B	235	VQ (2) 4 S	0.2	1.0	0.2	2.6
1	A	26	FL (2) 4.5 S	0.3	1.0	0.3	2.9
2	A	42	FL (2) 4.5 S	0.4	1.0	0.4	2.7
3	A	58	FL (2) 4.5 S	0.5	1.0	0.5	2.5
-	-	277	FL (2) 4.6 S	0.3	0.3	0.3	3.7
F	9	249	FL (2) 5 S	0.2	0.8	0.2	3.8
2	C	44	FL (2) 5 S	0.2	1.2	0.2	3.4
4	A	74	FL (2) 5 S	0.4	0.6	0.4	3.6
-	-	282	FL (2) 5 S	0.4	1.1	0.4	3.1
0	7	07	FL (2) 5 S	0.5	1.0	0.5	3.0
1	7	23	FL (2) 5 S	1.0	1.0	1.0	2.0
-	-	257	FL (2) 5 S	0.3	1.0	0.3	3.4
9	B	155	Q (2) 5 S	0.3	0.7	0.3	3.7
2	9	41	Q (2) 5 S	0.5	0.5	0.5	3.5
-	-	305	FL (2) 5 S	0.5	0.7	0.5	3.3
5	A	90	FL (2) 5.5 S	0.4	1.4	0.4	3.3
7	8	120	FL (2) 6 S	0.3	0.6	1.0	4.1
A	A	170	FL (2) 6 S	0.3	0.9	0.3	4.5
6	A	106	FL (2) 6 S	0.3	1.0	0.3	4.4
7	A	122	FL (2) 6 S	0.4	1.0	0.4	4.2
-	-	283	FL (2) 6 S	0.4	1.2	0.4	4.0
9	9	153	FL (2) 6 S	0.5	1.0	0.5	4.0
2	8	40	FL (2) 6 S	0.8	1.2	0.8	3.2
-	-	256	FL (2) 6 S	0.8	0.8	0.8	3.6
3	7	55	FL (2) 6 S	1.0	1.0	1.0	3.0
3	9	57	Q (2) 6 S	0.3	0.7	0.3	4.7
-	-	295	LFL + FL 6 S	3.0	1.0	1.0	1.0
-	-	273	FL (2) 6.5 S	0.5	1.0	0.5	4.5
-	-	283	FL (2) 7 S	0.4	1.2	0.4	5.0
-	-	311	FL (2) 7 S	0.5	1.5	0.5	4.5
A	9	169	FL (2) 7 S	1.0	1.0	1.0	4.0
7	B	123	FL (2) 8 S	0.4	0.6	2.0	5.0
8	A	138	FL (2) 8 S	0.4	1.0	0.4	6.2
-	-	285	FL (2) 8 S	0.4	1.7	0.4	5.5
4	7	71	FL (2) 8 S	0.5	1.0	0.5	6.0
-	-	297	FL (2) 8 S	0.5	0.5	1.5	5.5
8	8	136	FL (2) 8 S	0.8	1.2	2.4	3.6
5	7	87	FL (2) 8 S	1.0	1.0	1.0	5.0
4	C	76	OC (2) 8 S	3.0	2.0	1.0	2.0
5	C	92	OC (2) 8 S	5.0	1.0	1.0	1.0
F	B	251	VQ (2) 8 S	0.2	1.0	0.2	6.6
-	-	286	FL (2) 9 S	0.4	1.7	0.4	6.5
9	A	154	FL (2) 10 S	0.4	1.6	0.4	7.6
-	-	287	FL (2) 10 S	0.4	2.2	0.4	7.0
6	7	103	FL (2) 10 S	0.5	1.0	0.5	8.0
7	7	119	FL (2) 10 S	0.5	1.5	0.5	7.5
6	9	105	FL (2) 10 S	0.5	2.0	0.5	7.0
-	-	298	FL (2) 10 S	0.5	0.5	1.5	7.5
8	7	135	FL (2) 10 S	0.8	1.2	0.8	7.2
B	9	185	FL (2) 10 S	1.0	1.0	1.0	7.0
9	7	151	FL (2) 10 S	1.0	1.5	1.0	6.5
4	9	73	Q (2) 10 S	0.6	0.4	0.6	8.4
B	A	186	FL (2) 12 S	0.4	1.0	0.4	10.2
C	9	201	FL (2) 12 S	0.5	1.0	0.5	10.0
D	9	217	FL (2) 12 S	1.5	2.0	1.5	7.0
A	8	168	FL (2) 15 S	0.5	1.5	2.0	11.0
A	7	167	FL (2) 15 S	1.0	2.0	1.0	11.0
8	B	139	Q (2) 15 S	0.2	0.8	0.2	13.8
C	A	202	FL (2) 20 S	1.0	3.0	1.0	15.0
D	A	218	FL (2) 25 S	1.0	1.0	1.0	22.0

SWITCH		IR Controller	FLASH CODE	ON	OFF	ON	OFF	ON	OFF
A	B								
7	9	121	Q (3) 5 S	0.5	0.5	0.5	0.5	0.5	2.5
5	9	89	VQ (3) 5 S	0.2	0.3	0.2	0.3	0.2	3.8
0	C	12	VQ (3) 5 S	0.3	0.2	0.3	0.2	0.3	3.7
E	9	233	VQ (3) 5 S	0.3	0.3	0.3	0.3	0.3	3.5
-	-	308	FL (3) 5 S	0.3	0.7	0.3	0.7	0.3	3.7
0.3	3.7	60	FL (3) 6 S	0.5	1.0	0.5	1.0	0.5	2.5
2	B	43	FL (2+1) 6 S	0.3	0.4	0.3	1.2	0.3	3.5
A	B	171	Q (3) 6 S	0.3	0.7	0.3	0.7	0.3	3.7
F	A	250	FL (3) 8 S	0.5	1.0	0.5	1.0	0.5	4.5
-	-	301	FL (3) 8 S	1.5	0.5	0.5	0.5	0.5	4.5
-	-	266	Q (3) 9 S	0.5	0.5	0.5	1.0	0.5	6.0
0	B	11	FL (3) 9 S	0.3	1.0	0.3	1.0	0.3	6.1
-	-	306	FL (3) 9 S	0.5	1.5	0.5	1.5	0.5	4.5
B	7	183	FL (3) 9 S	0.8	1.2	0.8	1.2	0.8	4.2
B	8	184	FL (3) 10 S	0.3	0.7	0.3	0.7	0.9	7.1
C	8	200	FL (3) 10 S	0.4	0.6	0.4	0.6	1.2	6.8
-	-	290	FL (3) 10 S	0.4	0.8	0.4	0.8	0.4	7.2
C	B	203	FL (3) 10 S	0.5	0.5	0.5	0.5	0.5	7.5
C	7	199	FL (3) 10 S	0.5	1.5	0.5	1.5	0.5	5.5
D	B	219	FL (3) 10 S	0.6	0.6	0.6	0.6	0.6	7.0
-	-	278	FL (3) 10 S	0.9	1.1	0.9	1.1	0.9	5.1
D	7	215	FL (3) 10 S	1.0	1.0	1.0	1.0	1.0	5.0
-	-	261	FL (3) 10 S	0.35	0.65	0.35	0.65	0.35	7.65
3	8	56	FL (2+1) 10 S	0.5	0.7	0.5	2.1	0.5	5.7
8	9	137	OC (3) 10 S	5.0	1.0	1.0	1.0	1.0	1.0
B	B	187	Q (3) 10 S	0.3	0.7	0.3	0.7	0.3	7.7
D	8	216	FL (2 + 1) 10 S	0.5	0.5	0.5	0.5	1.5	6.5
-	-	288	FL (3) 12 S	0.4	2.1	0.4	2.1	0.4	6.6
1	B	27	FL (3) 12 S	0.5	1.5	0.5	1.5	0.5	7.5
E	A	234	FL (3) 12 S	0.5	2.0	0.5	2.0	0.5	6.5
E	7	231	FL (3) 12 S	0.8	1.2	0.8	1.2	0.8	7.2
B	6	182	FL (3) 12 S	1.0	1.0	1.0	3.0	1.0	5.0
4	8	72	FL (2+1) 12 S	0.8	1.2	0.8	2.4	0.8	6.0
5	8	88	FL (2+1) 12 S	1.0	1.0	1.0	4.0	1.0	4.0
-	-	272	FL (3) 12.5 S	0.5	1.0	0.5	1.0	0.5	9.0
-	-	289	FL (3) 13 S	0.4	2.1	0.4	2.1	0.4	7.6
-	-	296	LFL + FL(2) 13 S	6.0	1.0	2.0	1.0	2.0	1.0
1	8	24	FL (2+1) 13.5 S	1.0	1.0	1.0	4.0	1.0	5.5
-	-	307	FL (3) 14.5 S	0.5	1.0	1.5	3.0	0.5	9.0
F	7	247	FL (3) 15 S	0.3	1.7	0.3	1.7	0.3	10.7
9	D	157	FL (3) 15 S	0.4	1.0	0.4	1.0	0.4	11.8
0	8	08	FL (3) 15 S	0.5	1.5	0.5	1.5	0.5	10.5
-	-	259	FL (3) 15 S	0.5	2.0	0.5	2.0	0.5	9.5
-	-	260	FL (3) 15 S	1.0	1.0	1.30	1.0	1.0	10.0
F	8	248	FL (2+1) 15 S	0.6	0.3	0.6	0.3	1.4	11.8
0	9	09	FL (2+1) 15 S	0.7	0.5	0.7	0.5	1.9	10.7
1	9	25	FL (2+1) 15 S	0.7	0.7	0.7	0.7	2.1	10.1
6	8	104	FL (2+1) 15 S	1.0	2.0	1.0	5.0	1.0	5.0
-	-	265	FL (2+1) 15 S	1.3	0.7	1.3	0.7	3.3	7.7
-	-	264	FL (2+1) 15.75 S	0.55	0.35	0.55	0.35	1.45	12.5
1	C	28	VQ (3) 15 S	0.1	0.5	0.1	0.5	0.1	13.7
-	-	313	FL (2) + LFL 16 S	2.0	2.0	2.0	2.0	6.0	2.0
4	B	75	FL (3) 20 S	0.5	3.0	0.5	3.0	0.5	12.5
3	B	59	FL (3) 20 S	0.5	1.5	0.5	1.5	0.5	15.5
-	-	263	FL (3) 20 S	0.5	2.0	0.5	2.0	0.5	12.0
5	B	91	FL (3) 20 S	0.8	1.2	0.8	1.2	0.8	15.2
6	B	107	FL (3) 20 S	1.0	1.0	1.0	1.0	1.0	15.0

SWITCH		Controller	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
A	B											
-	-	271	VQ (4) 2 S	0.10	0.13	0.10	0.13	0.10	0.13	0.10	1.21	
B	F	191	VQ (4) 4 S	0.3	0.3	0.3	0.3	0.3	0.3	0.3	2.3	
B	D	189	Q (4) 6 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	2.7	
8	D	141	Q (4) 6 S	0.4	0.6	0.4	0.6	0.4	0.6	0.4	2.6	
-	-	299	FL (1+3) 8 S	1.5	0.5	0.5	0.5	0.5	0.5	0.5	3.5	
-	-	309	FL (4) 7 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	3.7	
1	D	29	FL (4) 10 S	0.5	1.0	0.5	1.0	0.5	1.0	0.5	5.0	
2	D	45	FL (4) 10 S	0.8	1.2	0.8	1.2	0.8	1.2	0.8	3.2	
F	E	254	Q (4) 10 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	6.7	
-	-	300	FL (4) 10 S	1.5	0.5	0.5	0.5	0.5	0.5	0.5	4.5	
-	-	312	FL (4) 11 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	4.5	
B	E	190	FL (4) 12 S	0.3	1.7	0.3	1.7	0.3	1.7	0.3	5.7	
4	F	79	FL (4) 12 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	8.5	
C	E	206	FL (4) 12 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	5.5	
3	D	61	FL (4) 12 S	0.8	1.2	0.8	1.2	0.8	1.2	0.8	5.2	
A	D	173	Q (4) 12 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	8.7	
4	D	77	FL (4) 15 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	8.5	
8	E	142	FL (4) 15 S	1.0	1.0	1.0	1.0	1.0	1.0	1.0	8.0	
7	D	125	FL (4) 15 S	1.5	0.5	0.5	0.5	0.5	0.5	0.5	10.5	
D	E	222	FL (4) 16 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	9.5	
-	-	314	FL (3+1) 18 S	1.5	1.5	1.5	1.5	1.5	1.5	4.5	1.5	4.5
-	-	304	FL (4) 19 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	15.7	
C	D	205	FL (4) 20 S	0.3	3.0	0.3	3.0	0.3	3.0	0.3	9.8	
5	D	93	FL (4) 20 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	13.5	
0	D	13	FL (4) 20 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	10.5	
3	F	63	FL (4) 20 S	1.5	1.5	1.5	1.5	1.5	1.5	1.5	9.5	
0	F	15	Q (4) 20 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	16.5	
-	-	263	FL (4) 20 S	0.5	2.0	0.5	2.0	0.5	2.0	0.5	12.0	
E	E	238	Q (4) 28 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	24.5	
6	F	111	FL (4) 30 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	26.5	



SWITCH		IR		FLASH CODE		ON	OFF	ON	OFF	ON	OFF	ON	OFF
A	B	Controller	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
D	D	221	Q (5) 7 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7
-	-	310	Q (5) 9 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
E	D	237	Q (5) 10 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7
E	8	232	FL (5) 12 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5
-	-	276	FL (5) 16 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5
5	F	95	FL (5) 20 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
9	F	159	FL (5) 20 S	0.8	1.2	0.8	1.2	0.8	1.2	0.8	1.2	0.8	1.2
9	E	158	FL (5) 20 S	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

SWITCH		IR		FLASH CODE		ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
A	B	Controller	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
F	D	253	Q (6) 10 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7
A	F	175	FL (6) 15 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7
7	F	127	FL (6) 15 S	0.5	1.0	0.5	1.0	0.5	1.0	0.5	1.0	0.5	1.0	0.5	1.0

SWITCH		IR		FLASH CODE		ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
A	B	Controller	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
6	E	110	VQ (6) + LFL 10 S	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3
7	E	126	VQ (6) + LFL 10 S	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2	F	47	Q (6) + LFL 15 S	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8
2	E	46	Q (6) + LFL 15 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7
3	E	62	Q (6) + LFL 15 S	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
-	-	258	FL (6 + 1) 15 S	0.35	0.65	0.35	0.65	0.35	0.65	0.35	0.65	0.35	0.65	0.35	0.65	0.35	0.65
-	-	292	FL (6) + LFL 15 S	0.4	0.8	0.4	0.8	0.4	0.8	0.4	0.8	0.4	0.8	0.4	0.8	0.4	0.8
-	-	262	FL (6) + LFL 15 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
8	F	143	VQ (6) + LFL 15 S	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

SWITCH		IR		FLASH CODE		ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF		
A	B	Controller	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF		
-	-	275	FL (3+5) 12.2 S	0.9	0.3	0.9	1.0	0.9	0.3	0.3	0.3	1.0	0.3	0.3	0.3	0.3	0.3	0.3	4.5	-	-
4	E	78	VQ (9) 10 S	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3
5	E	94	VQ (9) 10 S	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1	F	31	Q (9) 15 S	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8
0	E	14	Q (9) 15 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7
-	-	267	Q (9) 15 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1	E	30	Q (9) 15 S	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
-	-	291	FL (9) 32.92 S	0.4	0.8	0.4	0.8	0.4	0.8	0.4	0.8	0.4	0.8	0.4	0.8	0.4	0.8	0.4	0.8	0.4	0.8

SWITCH		IR		FLASH CODE		ON	OFF	ON	OFF	ON	OFF
A	B	Controller	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF
MORSE CODE ( ) INDICATES LETTER											
7	8	120	MO (A) 6 S	0.3	0.6	1.0	4.1				
7	B	123	MO (A) 8 S	0.4	0.6	2.0	5.0				
8	8	136	MO (A) 8 S	0.8	1.2	2.4	3.6				
B	8	184	MO (U) 10 S	0.3	0.7	0.3	0.7	0.9	7.1		
C	8	200	MO (U) 10 S	0.4	0.6	0.4	0.6	1.2	6.8		
D	8	216	MO (U) 10 S	0.5	0.5	0.5	0.5	1.5	6.5		
9	8	152	MO (A) 10 S	0.5	0.5	1.5	7.5				
8	9	137	MO (D) 10 S	5.0	1.0	1.0	1.0	1.0	1.0		
A	8	168	MO (A) 15 S	0.5	1.5	2.0	11.0				
F	8	248	MO (U) 15 S	0.6	0.3	0.6	0.3	1.4	11.8		
0	9	09	MO (U) 15 S	0.7	0.5	0.7	0.5	1.9	10.7		
1	9	25	MO (U) 15 S	0.7	0.7	0.7	0.7	2.1	10.1		
7	D	125	MO (B) 15 S	1.5	0.5	0.5	0.5	0.5	0.5	0.5	10.5

## Trouble Shooting

Problem	Remedy
Lantern will not activate.	<ul style="list-style-type: none"> <li>• Ensure internal toggle switch is set to the 'ON' position.</li> <li>• Ensure lantern is in darkness.</li> <li>• Wait at least 60 seconds for the program to initialise in darkness.</li> <li>• Ensure battery terminals are properly connected.</li> <li>• Ensure battery voltage is above 3.6volts.</li> </ul>
Flash codes will not change.	<ul style="list-style-type: none"> <li>• This is a Radio Controlled light and any command must be sent from the Controller.</li> </ul>
Lantern will not operate for the entire night.	<ul style="list-style-type: none"> <li>• Expose lantern to direct sunlight and monitor operation for several days. Sealite products typically require 1.5 hours of direct sunlight per day to retain full autonomy. From a discharged state, the lantern may require several days of operational conditions to 'cycle' up to full autonomy.</li> <li>• Reducing the light output intensity or duty cycle (flash code) will reduce current draw on the battery.</li> <li>• Ensure solar module is clean and not covered by shading during the day.</li> </ul>
Lanterns are constantly on during the day.	<ul style="list-style-type: none"> <li>• Ensure the Rotary Switches are not set to F F. This flash code is for testing purposes only and will be steady on for 24 hours a day.</li> <li>• Ensure the lights are not set to "Always ON" through the Radio Controller. Set this to Dusk till Dawn for operation during night time only.</li> </ul>
Lanterns are not synchronizing together.	<ul style="list-style-type: none"> <li>• The lanterns will take up to 5 minutes to synchronize with the surrounding lanterns.</li> <li>• If you have a large number of lanterns, they may start 'syncing' in groups. It may up to take 20 minutes for all lights to achieve full synchronization. This is dependent on the distance between the entire set of lanterns, the closer the lanterns, the quicker full synchronization will occur.</li> <li>• Ensure every light is set to the same flash code. Lanterns will only synchronize to lanterns using the same flash code.</li> <li>• Ensure the line of sight between 2 lanterns is clear of any obstruction. Trees, buildings, other structures or vessels will affect the lanterns ability to synchronize.</li> <li>• Ensure the lanterns are no more than 1.4km apart over water.</li> </ul>

## Sealite LED Light Warranty V2.2

### Activating the Warranty

Upon purchase, the Sealite Pty Ltd warranty must be activated for recognition of future claims. To do this you need to register on-line. Please complete the Online Registration Form at:

www.sealite.com

**Sealite Pty Ltd will repair or replace your LED light in the event of electronic failure for a period of up to three years from the date of purchase, as per the terms & conditions below.**

**Sealite Pty Ltd will repair or replace any ancillary or accessory products in the event of failure for a period of up to one year from the date of purchase, as per the terms & conditions below.**

**The unit(s) must be returned to Sealite freight prepaid.**

### Warranty Terms

1. Sealite Pty Ltd warrants that any Sealite marine products fitted with telemetry equipment including but not limited to AIS, GSM, GPS or RF ("Telemetry Products") will be free from defective materials and workmanship under normal and intended use, subject to the conditions hereinafter set forth, for a period of twelve (12) months from the date of purchase by the original purchaser.
2. Sealite Pty Ltd warrants that any BargeSafe™ Series of LED barge light products ("BargeSafe™ Products") will be free from defective materials and workmanship under normal and intended use, subject to the conditions hereinafter set forth, for a period of twelve (12) months from the date of purchase by the original purchaser.
3. Sealite Pty Ltd warrants that any LED area lighting products ("Area Lighting Products") but not including sign lighting products will be free from defective materials and workmanship under normal and intended use, subject to the conditions hereinafter set forth, for a period of twelve (12) months from the date of purchase by the original purchaser.
4. Sealite Pty Ltd warrants that any ancillary products and accessories, not mentioned in other clauses in this section, will be free from defective materials and workmanship under normal and intended use, subject to the conditions hereinafter set forth, for a period of twelve (12) months from the date of purchase by the original purchaser.
5. Sealite Pty Ltd warrants that any LED sign lighting products ("Sign Lighting Products") will be free from defective materials and workmanship under normal and intended use, subject to the conditions hereinafter set forth, for a period of three (3) years from the date of purchase by the original purchaser.
6. Sealite Pty Ltd warrants that any Sealite marine lighting products other than the Telemetry Products, BargeSafe™ Products, and Area Lighting Products ("Sealite Products") will be free from defective materials and workmanship under normal and intended use, subject to the conditions hereinafter set forth, for a period of three (3) years from the date of purchase by the original purchaser.
7. Sealite Pty Ltd will repair or replace, at Sealite's sole discretion, any Telemetry Products, BargeSafe™ Products, Area Lighting Products or Sealite Products found to be defective in material and workmanship in the relevant warranty period so long as the Warranty Conditions (set out below) are satisfied.
8. If any Telemetry Products, BargeSafe™ Products, Area Lighting Products or Sealite Products are fitted with a rechargeable battery, Sealite Pty Ltd warrants the battery will be free from defect for a period of one (1) year when used within original manufacturer's specifications and instructions.
9. Buoy products are covered by a separate 'Sealite Buoy Warranty'.

### Warranty Conditions

This Warranty is subject to the following conditions and limitations;

1. The warranty is applicable to lanterns manufactured from 1/1/2009.
2. The warranty is void and inapplicable if:
  - a. the product has been used or handled other than in accordance with the instructions in the owner's manual and any other information or instructions provided to the customer by Sealite;
  - b. the product has been deliberately abused, or misused, damaged by accident or neglect or in being transported; or
  - c. the defect is due to the product being repaired or tampered with by anyone other than Sealite or



- authorised Sealite repair personnel.
3. The customer must give Sealite Pty Ltd notice of any defect with the product within 30 days of the customer becoming aware of the defect.
  4. Rechargeable batteries have a limited number of charge cycles and may eventually need to be replaced. Typical battery replacement period is 3-4 years. Long term exposure to high temperatures will shorten the battery life. Batteries used or stored in a manner inconsistent with the manufacturer's specifications and instructions shall not be covered by this warranty.
  5. No modifications to the original specifications determined by Sealite shall be made without written approval of Sealite Pty Ltd.
  6. Sealite lights can be fitted with 3rd party power supplies and accessories but are covered by the 3rd party warranty terms and conditions.
  7. The product must be packed and returned to Sealite Pty Ltd by the customer at his or her sole expense. Sealite Pty Ltd will pay return freight of its choice. A returned product must be accompanied by a written description of the defect and a photocopy of the original purchase receipt. This receipt must clearly list model and serial number, the date of purchase, the name and address of the purchaser and authorised dealer and the price paid by the purchaser. On receipt of the product, Sealite Pty Ltd will assess the product and advise the customer as to whether the claimed defect is covered by this warranty.
  8. Sealite Pty Ltd reserves the right to modify the design of any product without obligation to purchasers of previously manufactured products and to change the prices or specifications of any product without notice or obligation to any person.
  9. Input voltage shall not exceed those recommended for the product.
  10. Warranty does not cover damage caused by the incorrect replacement of battery in solar lantern models.
  11. This warranty does not cover any damage or defect caused to any product as a result of water flooding or any other acts of nature.
  12. There are no representations or warranties of any kind by Sealite or any other person who is an agent, employee, or other representative or affiliate of Sealite, express or implied, with respect to condition of performance of any product, their merchantability, or fitness for a particular purpose, or with respect to any other matter relating to any products.

### **Limitation of Liability**

To the extent permitted by acts and regulations applicable in the country of manufacture, the liability of Sealite Pty Ltd under this Warranty will be, at the option of Sealite Pty Ltd, limited to either the replacement or repair of any defective product covered by this Warranty. Sealite will not be liable to Buyer for consequential damages resulting from any defect or deficiencies.

### **Limited to Original Purchaser**

This Warranty is for the sole benefit of the original purchaser of the covered product and shall not extend to any subsequent purchaser of the product.

### **Miscellaneous**

Apart from the specific warranties provided under this warranty, all other express or implied warranties relating to the above product is hereby excluded to the fullest extent allowable under law. The warranty does not extend to any lost profits, loss of good will or any indirect, incidental or consequential costs or damages or losses incurred by the purchaser as a result of any defect with the covered product.

### **Warrantor**

Sealite Pty Ltd has authorised distribution in many countries of the world. In each country, the authorised importing distributor has accepted the responsibility for warranty of products sold by distributor. Warranty service should normally be obtained from the importing distributor from whom you purchased your product. In the event of service required beyond the capability of the importer, Sealite Pty Ltd will fulfil the conditions of the warranty. Such product must be returned at the owner's expense to the Sealite Pty Ltd factory, together with a photocopy of the bill of sale for that product, a detailed description of the problem, and any information necessary for return shipment.



**Notes**

**Other Sealite Products Available**



**Marine Lanterns  
(1–19NM)**



**Monitoring  
& Control Systems**



**Bridge & Barge Lights**



**Marine Buoys  
(up to 3mt in diameter)**



**Area Lighting**



**Mooring Systems  
& Accessories**