

OkSL70 Model

The OkSL70 2-3nm+ solar marine lantern is exceptional in its unique ability to 'track the sun', operating reliably in low sunlight conditions. Made from tough, durable polycarbonate and using the latest high-intensity LED's, the SL70 lantern boasts dual high-performance solar modules incorporated into Sealite's world-first Solar Collection Lens.

SPECIFICATIONS •

Light Characteristics

Light Source Available Colours

Maximum Available Intensity (cd) Δ

Visible Range (nm)

Horizontal Output (degrees) Vertical Divergence (degrees)

Reflector Type

Available Flash Characteristics

Intensity Adjustments

LED Life Expectancy (hours)

Electrical Characteristics

Current Draw (mA) Circuit Protection Nominal Voltage (v)

Autonomy (days)
Temperature Range

Solar Characteristics

Solar Module Type Output (watts)

Solar Module Efficiency (%)

Charging Regulation

Power Supply

Battery Type
Battery Capacity (Ah)
Nominal Voltage (v)

Battery Service Life

Physical Characteristics

Body Material Lens Material

Lens Diameter (mm/inches)

Lens Design Mounting

Height (mm/inches) Width (mm/inches) Mass (kg/lbs)

Product Life Expectancy

Certifications

CE Quality Assurance

Waterproof
Intellectual Property

Trademarks

Warranty *

Patents

Options Available

Specifications subject to change or variation without notice.

6 ultra-high intensity LEDs

Red, Green, White, Yellow, Blue

Red - 19.1 Green - 22.1 White - 20.2 Yellow - 16.3

2-3+ 360

a

Omnidirectional 360° LED Reflector (US Pat. No. 6,667,582. AU Pat. No. 778,918)

Up to 256 IALA recommended (user adjustable)

Adjustable in 25% increments

>100,000

Refer to Sealite Power Calculator

Integrated

3.6

30 (14 hour darkness, 12.5% duty cycle)

-40 to 80°C

Multicrystalline

2.5 (2 x 1.25watt)

14

Microprocessor controlled

High grade NiMH - Environment friendly

8

3.6

Average 5 years

LEXAN® Polycarbonate - UV-stabilised

LEXAN® Polycarbonate - UV-stabilised 150 / 5⁷/₈

External Optics with interior flute design

200mm OD base pattern

240 / 9¹/₂ 231 / 9¹/₈

1.4 / 31/8 (SL70/16Ah 1.6 / 31/2)

Up to 12 years

EN61000-6-3:1997, EN61000-6-1:1997

ISO9001:2000

IP68

US Pat. No. 6.667.582, AU Pat. No. 778.918

SEALITE® is a registered trademark of Sealite Pty Ltd

Full 3 years

- · 16Ah battery (SL70/16Ah)
- 12 LEDs (SL70-12)
- 50mm pole mount adapter plate (MC/03)
- RF communication synchronisation (SL70-CS)
- Remote radio control (SL70-RC) with handheld radio controller (SL-RC-2.4)

* Subject to standard terms and conditions A Intensity setting subject to solar availability

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Installation

Charging the Battery

New lanterns should be left in the sun for 1-2 days to ensure battery is charged before placing in service. Please note, lantern will re-charge even when toggle switch os turned to 'OFF' position.

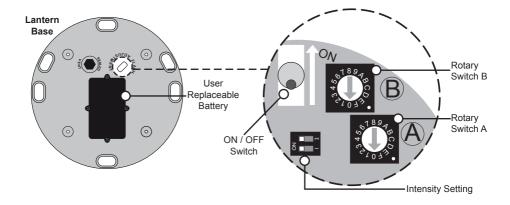
Preferred Installation Location

For best lantern performance, ensure solar modules are not covered and are in clear view of the sky with no shadows.

Lantern Operation

Lantern is activated by ON/OFF Switch. Intensity and flash settings need to be set prior to activation.

- Remove the marked flash adjustment bung from the base of the lantern and set internal toggle switch to 'ON'.
- 2. The power and range settings of the lantern are adjusted by setting the DIP switches inside the lantern. Your lantern is normally set to maximum range (see 'Selecting an Intensity/Power Setting' section of this manual).
- 3. Set rotary switches to the required flash code (see 'Selecting a Flash Code' section of this manual).
- 4. Replace flash adjustment bung.
- 5. A sealed vent on the base allows air transfer without moisture intake, and should not be disturbed.
- 6. To test place dark cover (towel or jacket) on top of light to activate sensor, light will come on.
- 7. Ensure that the unit is bolted to an even, flat surface.



Selecting an Intensity/Power Setting

Pulse settings on Sealite lanterns operate via DIP switches, located near the rotary switches on the flasher unit. The pulse settings may be used to reduce the power consumption and intensity of the lantern. Setting the lantern to 25% pulse will reduce the power consumption to 25% of the normal 100% setting and the range by 50%. This setting may be used to adjust to local sunlight conditions.

The following diagrams indicate pulse settings:-









Intensity Setting	Power mA / hour
100%	85mA
75%	64mA
50%	43mA
25%	22mA

Power Consumption Calculator

Night Hours (use 13.7 if unknown)		Power mA/hour		Duty Cycle (e.g. 20% = 0.2)		Total power used per night (mA)
	X		X		=	

Total power used per night (mA)		Solar Panel Charge		Number of Full Sunlight hours required to recharge battery
	/	279	=	

If the number of Full Sunlight hours is greater than 3-3.5 hours, please consider reducing the intensity (Power) or reducing the Duty Cycle.

Selecting a Flash Code - Rotary Switches A & B

All lanterns have 2 rotary switches marked A and B on the flasher unit. Turning the small arrows to the appropriate number or letter will set the code (see *'Flash Codes'* section, of this manual). The unit may take up to one minute to activate a new flash code. A comprehensive list of available flash codes is listed on pages in the *'Flash Codes'* section of this manual.





Example:

SWI	ТСН	FLASH CODE	ON	OFF
Α	В			
Α	0	FL3S	0.3	2.7





Flash Codes

The OkSL70 may be set to any of 256 IALA recommended flash settings which are user-adjustable onsite without the need for external devices.

S® code reference is listed by number of flashes

For the latest version of this document visit www.sealite.com, or email Sales@OkSolar.com

Symbols

FL Flash followed by number Eq. 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
Port Hand & Starboard Marks:	Any, other than Composite Group Flashing (2+1)
Preferred Channel Starboard:	Composite Group Flashing (2+1)
Preferred Channel Port:	Composite Group Flashing (2+1)
North Cardinal Mark:	Very quick or quick
East Cardinal Mark:	Very quick (3) every 5 seconds or quick (3) every 10 seconds
South Cardinal Mark:	Very quick (6) + long flash every 10 seconds or quick (6) + long flash every 15 seconds
West Cardinal Mark:	Very quick (9) every 10 seconds or quick (9) every 15 seconds
Isolated Danger Mark:	Group flashing (2)
Safe Water Mark:	Isophase, occulting, one long flash every 10 seconds or Morse Code "A"
Special Marks:	Any, other than those described for Cardinal, Isolated Danger or Safe Water Marks

SWI	тсн	FLASH CODE	ON	OFF
Α	В	12/10/11 0002	<u> </u>	
0	0	F (Steady light)		
D	3	VQ 0.5 S	0.2	0.3
E	3	VQ 0.6 S	0.2	0.4
F	3	VQ 0.6 S	0.2	0.4
7	3	Q 1 S	0.3	0.8
8	3	Q1S	0.2	0.7
9	3	Q1S	0.3	0.6
A	3	Q1S	0.4	0.5
8	4	Q1S	0.8	0.3
В	3	Q 1.2 S	0.8	0.2
9	4	Q 1.2 S	0.5	0.5
C	3	Q 1.2 S	0.6	0.7
F	4	FL 1.5 S	0.0	1.3
1	0	FL 1.5 S	0.2	1.2
-	-			
0	5	FL 1.5 S	0.4	1.1
2	4	FL 1.5 S	0.5	1.0
	0	FL 2 S	0.2	1.8
3	0	FL 2 S	0.3	1.7
4	0	FL 2 S	0.4	1.6
5	0	FL 2 S	0.5	1.5
6	0	FL 2 S	0.7	1.3
7	0	FL 2 S	0.8	1.2
1	2	ISO 2 S	1.0	1.0
8	0	FL 2.5 S	0.3	2.2
9	0	FL 2.5 S	0.5	2.0
D	6	FL 2.5 S	1.0	1.5
1	5	FL3S	0.2	2.8
Α	0	FL3S	0.3	2.7
2	5	FL3S	0.4	2.6
В	0	FL3S	0.5	2.5
3	5	FL3S	0.6	2.4
С	0	FL3S	0.7	2.3
D	0	FL3S	1.0	2.0
2	2	ISO 3 S	1.5	1.5
5	4	OC 3 S	2.0	1.0
Е	2	OC 3 S	2.5	0.5
4	6	OC 3.5 S	2.5	1.0
4	5	FL4S	0.2	3.8
5	5	FL4S	0.3	3.7
Е	0	FL4S	0.4	3.6
F	0	FL4S	0.5	3.5
6	5	FL4S	0.6	3.4
0	1	FL4S	0.8	3.2
1	1	FL4S	1.0	3.0
2	1	FL 4 S	1.5	2.5
3	2	ISO 4 S	2.0	2.0
3	6	OC 4 S	2.5	1.5
F	2	OC 4 S	3.0	1.0
3	1	FL 4.3 S	1.3	3.0
8	5	FL 5 S	0.2	4.8
4	1	FL 5 S	0.3	4.7
5	1	FL 5 S	0.5	4.5
9	5	FL 5 S	0.9	4.1
6	1	FL 5 S	1.0	4.0

014	T	51 A 911 9 9 5 5	ON	055
	тсн	FLASH CODE	ON	OFF
Α	В			
7	1	FL 5 S	1.5	3.5
4	2	ISO 5 S	2.5	2.5
8	2	LFL 5 S	2.0	3.0
0	3	OC 5 S	3.0	2.0
1	3	OC 5 S	4.0	1.0
2	3	OC 5 S	4.5	0.5
С	6	FL6S	0.2	5.8
В	5	FL6S	0.3	5.7
С	5	FL6S	0.4	5.6
8	1	FL6S	0.5	5.5
9	1	FL6S	0.6	5.4
Α	1	FL6S	1.0	5.0
7	5	FL6S	1.2	4.8
В	1	FL6S	1.5	4.5
5	2	ISO 6 S	3.0	3.0
9	2	LFL 6 S	2.0	4.0
6	4	OC 6 S	4.0	2.0
3	3	OC 6 S	4.5	1.5
4	3	OC 6 S	5.0	1.0
Α	4	FL7S	1.0	6.0
9	6	FL7S	2.0	5.0
5	6	OC 7 S	4.5	2.5
D	5	FL 7.5 S	0.5	7.0
C	1	FL 7.5 S	0.8	6.7
E	5	FL8S	0.5	7.5
В	4	FL8S	1.0	7.0
6	2	ISO 8 S	4.0	4.0
A	2	LFL 8 S	2.0	6.0
6	6	OC 8 S	5.0	
В	2	LFL 8 S		3.0
F			3.0	5.0
	5	FL9S	0.9	8.1
C	4	FL9S	1.0	8.0
7	6	OC 9 S	6.0	3.0
0	6	FL 10 S	0.2	9.8
1	6	FL 10 S	0.3	9.7
D	1	FL 10 S	0.5	9.5
2	6	FL 10 S	0.8	9.2
E	1	FL 10 S	1.0	9.0
1	4	FL 10 S	1.5	8.5
С	2	LFL 10 S	2.0	8.0
D	2	LFL 10 S	3.0	7.0
7	2	ISO 10 S	5.0	5.0
2	4	LFL 10 S	4.0	6.0
8	6	OC 10 S	6.0	4.0
5	3	OC 10 S	7.0	3.0
6	3	OC 10 S	7.5	2.5
F	1	FL 12 S	1.2	10.8
D	4	FL 12 S	2.5	9.5
3	4	LFL 12 S	2.0	10.0
0	2	FL 15 S	1.0	14.0
4	4	LFL 15 S	4.0	11.0
7	4	OC 15 S	10	5.0
A	6	LFL 20 S	2.0	18.0
E	4	FL 26 S	1.0	25.0
_	7	1 L 20 0	1.0	20.0

SWI	ТСН	FLASH CODE	ON	OFF	ON	OFF
Α	В	TEAGITOODE	<u> </u>			<u> </u>
0	A	FL (2) 4 S	0.5	1.0	0.5	2.0
Ē	В	VQ (2) 4 S	0.2	1.0	0.2	2.6
1	A	FL (2) 4.5 S	0.3	1.0	0.3	2.9
2	A	FL (2) 4.5 S	0.4	1.0	0.4	2.7
3	A	FL (2) 4.5 S	0.5	1.0	0.5	2.5
F	9	FL (2) 5 S	0.3	0.8	0.2	3.8
2	C	FL (2) 5 S	0.2	1.2	0.2	3.4
4	A	FL (2) 5 S	0.2	0.6	0.2	3.6
0	7	FL (2) 5 S	0.5	1.0	0.5	3.0
1	7	FL (2) 5 S	1.0	1.0	1.0	2.0
9	В	Q (2) 5 S	0.3	0.7	0.3	3.7
2	9	Q (2) 5 S	0.5	0.7	0.5	3.5
	A		0.5	1.4	0.5	
5 7	8 8	FL (2) 5.5 S FL (2) 6 S	0.4	0.6	1.0	3.3 4.1
A	A					
		FL (2) 6 S	0.3	0.9	0.3	4.5
7	A	FL (2) 6 S	0.3	1.0	0.3	4.4
		FL (2) 6 S	0.4	1.0	0.4	4.2
9	9	FL (2) 6 S	0.5	1.0	0.5	4.0
2	8	FL (2) 6 S	0.8	1.2	0.8	3.2
3	7	FL (2) 6 S	1.0	1.0	1.0	3.0
3	9	Q (2) 6 S	0.3	0.7	0.3	4.7
A	9	FL (2) 7 S	1.0	1.0	1.0	4.0
7	В	FL (2) 8 S	0.4	0.6	2.0	5.0
8	A	FL (2) 8 S	0.4	1.0	0.4	6.2
4	7	FL (2) 8 S	0.5	1.0	0.5	6.0
8	8	FL (2) 8 S	0.8	1.2	2.4	3.6
5	7	FL (2) 8 S	1.0	1.0	1.0	5.0
4	С	OC (2) 8 S	3.0	2.0	1.0	2.0
5	С	OC (2) 8 S	5.0	1.0	1.0	1.0
F	В	VQ (2) 8 S	0.2	1.0	0.2	6.6
9	Α	FL (2) 10 S	0.4	1.6	0.4	7.6
9	8	FL (2) 10 S	0.5	0.5	1.5	7.5
6	7	FL (2) 10 S	0.5	1.0	0.5	8.0
7	7	FL (2) 10 S	0.5	1.5	0.5	7.5
6	9	FL (2) 10 S	0.5	2.0	0.5	7.0
8	7	FL (2) 10 S	0.8	1.2	0.8	7.2
В	9	FL (2) 10 S	1.0	1.0	1.0	7.0
9	7	FL (2) 10 S	1.0	1.5	1.0	6.5
4	9	Q (2) 10 S	0.6	0.4	0.6	8.4
В	Α	FL (2) 12 S	0.4	1.0	0.4	10.2
С	9	FL (2) 12 S	0.5	1.0	0.5	10.0
D	9	FL (2) 12 S	1.5	2.0	1.5	7.0
Α	8	FL (2) 15 S	0.5	1.5	2.0	11.0
Α	7	FL (2) 15 S	1.0	2.0	1.0	11.0
8	В	Q (2) 15 S	0.2	0.8	0.2	13.8
С	Α	FL (2) 20 S	1.0	3.0	1.0	15.0
D	Α	FL (2) 25 S	1.0	1.0	1.0	22.0
SWI	ТСН	FLASH CODE	ON (OFF	ON (OFF

SWI	ТСН	FLASH CODE	ON	OFF	ON	OFF	ON	OFF
Α	В							
7	9	Q (3) 5 S	0.5	0.5	0.5	0.5	0.5	2.5
5	9	VQ (3) 5 S	0.2	0.3	0.2	0.3	0.2	3.8
0	С	VQ (3) 5 S	0.3	0.2	0.3	0.2	0.3	3.7
E	9	VQ (3) 5 S	0.3	0.3	0.3	0.3	0.3	3.5
3	С	FL (3) 6 S	0.5	1.0	0.5	1.0	0.5	2.5
2	В	FL (2+1) 6 S	0.3	0.4	0.3	1.2	0.3	3.5

SWI	тсн	FLASH CODE	ON	OFF	ON	OFF	ON	OFF
Α	В							
Α	В	Q (3) 6 S	0.3	0.7	0.3	0.7	0.3	3.7
F	Α	FL (3) 8 S	0.5	1.0	0.5	1.0	0.5	4.5
0	В	FL (3) 9 S	0.3	1.0	0.3	1.0	0.3	6.1
В	7	FL (3) 9 S	8.0	1.2	0.8	1.2	0.8	4.2
В	8	FL (3) 10 S	0.3	0.7	0.3	0.7	0.9	7.1
С	8	FL (3) 10 S	0.4	0.6	0.4	0.6	1.2	6.8
С	В	FL (3) 10 S	0.5	0.5	0.5	0.5	0.5	7.5
С	7	FL (3) 10 S	0.5	1.5	0.5	1.5	0.5	5.5
D	В	FL (3) 10 S	0.6	0.6	0.6	0.6	0.6	7.0
D	7	FL (3) 10 S	1.0	1.0	1.0	1.0	1.0	5.0
3	8	FL (2+1) 10 S	0.5	0.7	0.5	2.1	0.5	5.7
8	9	OC (3) 10 S	5.0	1.0	1.0	1.0	1.0	1.0
В	В	Q (3) 10 S	0.3	0.7	0.3	0.7	0.3	7.7
D	8	FL (2 + 1) 10 S	0.5	0.5	0.5	0.5	1.5	6.5
1	В	FL (3) 12 S	0.5	1.5	0.5	1.5	0.5	7.5
E	Α	FL (3) 12 S	0.5	2.0	0.5	2.0	0.5	6.5
E	7	FL (3) 12 S	0.8	1.2	0.8	1.2	0.8	7.2
В	6	FL (3) 12 S	1.0	1.0	1.0	3.0	1.0	5.0
4	8	FL (2+1) 12 S	8.0	1.2	0.8	2.4	0.8	6.0
5	8	FL (2+1) 12 S	1.0	1.0	1.0	4.0	1.0	4.0
1	8	FL (2+1) 13.5 S	1.0	1.0	1.0	4.0	1.0	5.5
F	7	FL (3) 15 S	0.3	1.7	0.3	1.7	0.3	10.7
9	D	FL (3) 15 S	0.4	1.0	0.4	1.0	0.4	11.8
0	8	FL (3) 15 S	0.5	1.5	0.5	1.5	0.5	10.5
F	8	FL (2+1) 15 S	0.6	0.3	0.6	0.3	1.4	11.8
0	9	FL (2+1) 15 S	0.7	0.5	0.7	0.5	1.9	10.7
1	9	FL (2+1) 15 S	0.7	0.7	0.7	0.7	2.1	10.1
6	8	FL (2+1) 15 S	1.0	2.0	1.0	5.0	1.0	5.0
1	С	VQ (3) 15 S	0.1	0.5	0.1	0.5	0.1	13.7
4	В	FL (3) 20 S	0.5	3.0	0.5	3.0	0.5	12.5
3	В	FL (3) 20 S	0.5	1.5	0.5	1.5	0.5	15.5
5	В	FL (3) 20 S	0.8	1.2	0.8	1.2	0.8	15.2
6	В	FL (3) 20 S	1.0	1.0	1.0	1.0	1.0	15.0
	тсн	EL ACH CODE	ON	OFF	ON	OFF	ON	OFF

SW	ITCH	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Α	В									
В	F	VQ (4) 4 S	0.3	0.3	0.3	0.3	0.3	0.3	0.3	2.3
В	D	Q (4) 6 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	2.7
8	D	Q (4) 6 S	0.4	0.6	0.4	0.6	0.4	0.6	0.4	2.6
1	D	FL (4) 10 S	0.5	1.0	0.5	1.0	0.5	1.0	0.5	5.0
2	D	FL (4) 10 S	0.8	1.2	0.8	1.2	0.8	1.2	8.0	3.2
F	E	Q (4) 10 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	6.7
В	E	FL (4) 12 S	0.3	1.7	0.3	1.7	0.3	1.7	0.3	5.7
4	F	FL (4) 12 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	8.5
С	E	FL (4) 12 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	5.5
3	D	FL (4) 12 S	0.8	1.2	0.8	1.2	0.8	1.2	0.8	5.2
Α	D	Q (4) 12 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	8.7
4	D	FL (4) 15 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	8.5
8	E	FL (4) 15 S	1.0	1.0	1.0	1.0	1.0	1.0	1.0	8.0
7	D	FL (4) 15 S	1.5	0.5	0.5	0.5	0.5	0.5	0.5	10.5
D	E	FL (4) 16 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	9.5
С	D	FL (4) 20 S	0.3	3.0	0.3	3.0	0.3	3.0	0.3	9.8
5	D	FL (4) 20 S	0.5	1.5	0.5	1.5	0.5	1.5	0.5	13.5
0	D	FL (4) 20 S	0.5	1.5	0.5	1.5	0.5	4.5	0.5	10.5
3	F	FL (4) 20 S	1.5	1.5	1.5	1.5	1.5	1.5	1.5	9.5
0	F	Q (4) 20 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	16.5
Е	E	Q (4) 28 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	24.5
6	F	FL (4) 30 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	26.5

SWI	ТСН	FLASH CODE	ON	OFF								
Α	В											
D	D	Q (5) 7 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	2.7
E	D	Q (5) 10 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	0.7	0.3	5.7
Е	8	FL (5) 16.5 S	5.0	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5	3.5
5	F	FL (5) 20 S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	15.5
9	F	FL (5) 20 S	0.8	1.2	0.8	1.2	0.8	1.2	0.8	1.2	0.8	11.2
9	Е	FL (5) 20 S	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	11.0

SWI	TCH	FLASH CODE	ON	OFF										
Α	В													
F	D	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	4.7
Α	F	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	9.7
7	F	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	7.0
Α	E	FL (6) + LFL 15 S	0.5	1.0	0.5	1.0	0.5	1.0	0.5	1.0	0.5	1.0	0.5	7.0

SWIT	ГСН	FLASH CODE	ON	OFF												
Α	В															
6	E	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	2.0	5.0
7	E	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	2.0	4.4
2	F	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	2.0	7.0
2	E	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	2.0	7.0
3	E	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	2.0	5.8
8	F	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	2.0	9.4

SWI	ГСН	FLASH CODE	ON	OFF																
Α	В																			
4	Ε	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	5.8
5	Ε	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	4.9
1	F	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	6.8
0	Ε	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	6.7
1	Е	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	4.8

SW	ITCH	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF		
Α	В											
MO	MORSE CODE () INDICATES LETTER											
7	8	MO (A) 6 S	0.3	0.6	1.0	4.1						
7	В	MO (A) 8 S	0.4	0.6	2.0	5.0						
8	8	MO (A) 8 S	0.8	1.2	2.4	3.6						
В	8	MO (U) 10 S	0.3	0.7	0.3	0.7	0.9	7.1				
С	8	MO (U) 10 S	0.4	0.6	0.4	0.6	1.2	6.8				
D	8	MO (U) 10 S	0.5	0.5	0.5	0.5	1.5	6.5				
9	8	MO (A) 10 S	0.5	0.5	1.5	7.5						
8	9	MO (D) 10 S	5.0	1.0	1.0	1.0	1.0	1.0				
Α	8	MO (A) 15 S	0.5	1.5	2.0	11.0						
F	8	MO (U) 15 S	0.6	0.3	0.6	0.3	1.4	11.8				
0	9	MO (U) 15 S	0.7	0.5	0.7	0.5	1.9	10.7				
1	9	MO (U) 15 S	0.7	0.7	0.7	0.7	2.1	10.1				
7	D	MO (B) 15 S	1.5	0.5	0.5	0.5	0.5	0.5	0.5	10.5		
1	9	MO (U) 15 S	0.7	0.7	0.7	0.7	2.1	10.1	0.5	10.		

Maintenance and Servicing

Designed to be maintenance free, the OkSL70 requires minimal attention, though the following maintenance and servicing information is provided to help ensure the life of your Sealite product.

- Cleaning Solar Panels occasional cleaning of the solar panels may be required. Using a cloth and warm soapy water, wipe off any foreign matter before rinsing the panels with fresh water.
- Battery Check inspection of batteries should be performed every three years (minimum) to ensure
 that the charger, battery and ancillary electronics are functioning correctly. Using a voltage meter,
 check that the battery voltage is at least 3.6 volts under 100MA load, and ensure all terminals are
 clear of foreign matter.

Replacing the battery- Don't throw the unit out!!

The SL70 lanterns are the only compact marine lantern with a double sealed battery compartment. This provides the user with the ability to change the battery after years of operation.

- Remove the marked flash adjustment bung from the base of the lantern and set internal toggle switch to 'OFF'.
- 2. Unscrew small screws to remove battery plate.
- 3. Remove battery from SL70 case and unscrew positive and negative leads.
- 4. Discard old battery in a safe manner.
- 5. Reattach positive and negative leads to new battery and then place back into case.
- 6. Reattach battery plate and switch lantern 'ON' via internal switch. Close the bung.
- 7. To test place dark cover (towel or jacket) on top of light to activate sensor, light will come on.

Care must be taken to observe the polarity of the battery before the leads are re-connected, and ensure the replacement battery is correctly fitted. Always discard old batteries in a safe manner.

Long Term Storage Instructions

If the SL70 is to be placed in storage for an extended period, being more than 5 months, please follow the below steps.

- 1. The 3.6V NiMH Battery must be stored in a fully charged condition.
- 2. Remove the Flash Adjustment plug and turn the ON/OFF switch to the OFF position.
- 3. Remove the battery cover and disconnect the Positive (+) Terminal.
- 4. Fold the Terminal away from the Negative Battery Terminal.
- 5. Replace the Battery Cover
- 6. Replace the Flash Adjustment Plug.

All batteries will discharge over time and the rate of discharge is dependent on temperature. If the light is being stored in temperatures greater than 40°C the battery will discharge faster.

Please check battery every 3-6 months and recharge if necessary.

Recharging the Battery

- 1. Remove the Battery Cover and connect the Positive Terminal.
- 2. Remove the Flash Adjustment Plug and turn the ON/OFF switch to the ON position.
- 3. Reconnect the Light Head and place unit in the sun for 2-4 days

Or

Reconnect Light Head and place in front of a halogen lamp for 2-3 days. (Do not place the halogen light too close to the solar panel or the panel may be overheated)

Check the battery voltage regularly to make sure the unit is charging correctly.

After the battery has been recharged, switch the light OFF.

Trouble Shooting

Problem	Remedy
Lantern will not activate.	 Ensure internal toggle switch is set to the 'ON position. Ensure lantern is in darkness. Wait at least 60 seconds for the program to initialise in darkness. Ensure switch setting is on a valid code (See 'Flash Codes' section of this manual). Ensure battery terminals are properly connected. Ensure battery voltage is above 3.4volts.
Timing codes will not change.	Turn rotary switches several times to ensure contacts are clear.
Lantern will not operate for the entire night.	 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. Reducing the light output intensity or duty cycle (flash code) will reduce current draw on the battery. Ensure solar module is clean and not covered by shading during the day.
Lanterns are constantly on during the day.	Ensure the flash code is not set to F F. This flash code is for testing purposes only and will be steady on for 24 hours a day.
Lanterns are not synchronising together. (Affects OkSL70-CS)	 The lanterns will take up to 3 minutes to synchronise with the surrounding lanterns. If you have a large number of lanterns they may start 'syncing' in groups. It may take up to 20 minutes for all lights to achieve full synchronisation. This is dependent on the distance between the entire set of lanterns, the closer the lanterns, the quicker full synchronisation will occur. Ensure every light is set to the same flash code. Lanterns will only synchronise to lanterns using the same flash code. Ensure the line of sight between two lanterns is clear of any obstruction. Trees, buildings, other structures or vessels will affect the lantern's ability to synchronise. Ensure the lanterns are no more than 1.5km apart over water.

All OSL70-RC lanterns are fitted with a red Status LED. This is found near the Flash Code Switches. It helps determine a fault with the unit depending on the flash rate of the Status LED.

Flash	Flash Rate		Status	Condition					
On (sec.)	OFF	Mode	Status	Condition					
Steady Off		Off	Normal	Normal running condition in daylight.					
1/10	1	On	Normal	Lantern is not synchronised to other lanterns.					
1	1	On	Normal	Lantern is synchronised to surrounding lanterns.					
Stead	dy On	Off	Flat Battery	Battery is flat.					
1/10	1/10	On	Low Battery	Battery is low.					
1	2/10	On	Factory Set.	Unit is in factory setup mode (FF). Change flash code					