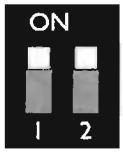
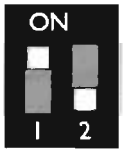
Selecting an Intensity/Power Setting

Pulse settings on Avlite lights 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 light. Setting the light 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.

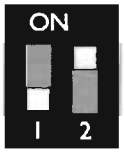
The following diagrams indicate pulse settings:-



100%



75%



50%

25%

Intensity Setting	Power	White cd	Green cd	Red cd	Blue cd
100%	120mA	32.9	39.6	21.6	13.2
75%	94mA	25.0	30.1	16.4	9.5
50%	64mA	17.0	20.3	11.1	6.2
25%	35mA	8.8	10.5	5.7	3.4

Total power used per night (mA)		Solar Panel Charge		Number of Full Sunlight hours required to recharge battery
	/	296	=	

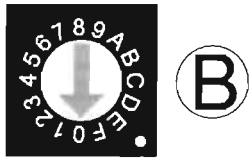
If the number of Full Sunlight hours is greater than 3-3.5 hours, please consider reducing the intensity (Power) or reducing the Duty Cycle.

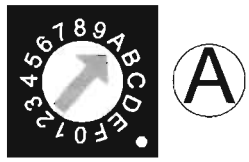
Selecting a Flash Code- Rotary Switches A and B

All lights 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. The unit may take up to one minute to activate a new flash code. Set switches to 0,0 for steady-on.

Example:

SWITCH		FLASH CODE	ON	OFF
A	B			
A	0	FL 3 S	0.3	2.7





Flash Codes

AVLITE® code reference is listed by number of flashes

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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 light 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.

Please note, Avlite models will retain full autonomy in normal operating conditions with duty-cycles up to approximately 30%. In applications whereby duty cycles exceed this limit, a reduction in light intensity is recommended. Please contact a Avlite consultant if assistance is required.

SWITCH		FLASH CODE	ON	OFF
A	B			
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	0.3	0.3
7	3	Q 1 S	0.2	0.8
8	3	Q 1 S	0.3	0.7
9	3	Q 1 S	0.4	0.6
A	3	Q 1 S	0.5	0.5
8	4	Q 1 S	0.8	0.2
B	3	Q 1.2 S	0.3	0.9
9	4	Q 1.2 S	0.5	0.7
C	3	Q 1.2 S	0.6	0.6
F	4	FL 1.5 S	0.2	1.3
1	0	FL 1.5 S	0.3	1.2
0	5	FL 1.5 S	0.4	1.1
0	4	FL 1.5 S	0.5	1.0
2	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	FL 3 S	0.2	2.8
A	0	FL 3 S	0.3	2.7
2	5	FL 3 S	0.4	2.6
B	0	FL 3 S	0.5	2.5
3	5	FL 3 S	0.6	2.4
C	0	FL 3 S	0.7	2.3
D	0	FL 3 S	1.0	2.0
2	2	ISO 3 S	1.5	1.5
5	4	OC 3 S	2.0	1.0
E	2	OC 3 S	2.5	0.5
4	6	OC 3.5 S	2.5	1.0
4	5	FL 4 S	0.2	3.8
5	5	FL 4 S	0.3	3.7
E	0	FL 4 S	0.4	3.6
F	0	FL 4 S	0.5	3.5
6	5	FL 4 S	0.6	3.4
0	1	FL 4 S	0.8	3.2
1	1	FL 4 S	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

SWITCH		FLASH CODE	ON	OFF
A	B			
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
C	6	FL 6 S	0.2	5.8
B	5	FL 6 S	0.3	5.7
C	5	FL 6 S	0.4	5.6
8	1	FL 6 S	0.5	5.5
9	1	FL 6 S	0.6	5.4
A	1	FL 6 S	1.0	5.0
7	5	FL 6 S	1.2	4.8
B	1	FL 6 S	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
A	4	FL 7 S	1.0	6.0
9	6	FL 7 S	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	FL 8 S	0.5	7.5
B	4	FL 8 S	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	3.0
B	2	LFL 8 S	3.0	5.0
F	5	FL 9 S	0.9	8.1
C	4	FL 9 S	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
C	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

SWITCH		FLASH CODE	ON	OFF	ON	OFF
A	B					
0	A	FL (2) 4 S	0.5	1.0	0.5	2.0
E	B	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	0.2	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	0.4	0.6	0.4	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	B	Q (2) 5 S	0.3	0.7	0.3	3.7
2	9	Q (2) 5 S	0.5	0.5	0.5	3.5
5	A	FL (2) 5.5 S	0.4	1.4	0.4	3.3
7	8	FL (2) 6 S	0.3	0.6	1.0	4.1
A	A	FL (2) 6 S	0.3	0.9	0.3	4.5
6	A	FL (2) 6 S	0.3	1.0	0.3	4.4
7	A	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	B	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	C	OC (2) 8 S	3.0	2.0	1.0	2.0
5	C	OC (2) 8 S	5.0	1.0	1.0	1.0
F	B	VQ (2) 8 S	0.2	1.0	0.2	6.6
9	A	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
B	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
B	A	FL (2) 12 S	0.4	1.0	0.4	10.2
C	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
A	8	FL (2) 15 S	0.5	1.5	2.0	11.0
A	7	FL (2) 15 S	1.0	2.0	1.0	11.0
8	B	Q (2) 15 S	0.2	0.8	0.2	13.8
C	A	FL (2) 20 S	1.0	3.0	1.0	15.0
D	A	FL (2) 25 S	1.0	1.0	1.0	22.0

SWITCH		FLASH CODE	ON	OFF	ON	OFF	ON	OFF
A	B							
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	C	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	C	FL (3) 6 S	0.5	1.0	0.5	1.0	0.5	2.5
2	B	FL (2+1) 6 S	0.3	0.4	0.3	1.2	0.3	3.5

SWITCH		FLASH CODE	ON	OFF	ON	OFF	ON	OFF
A	B							
A	B	Q (3) 6 S	0.3	0.7	0.3	0.7	0.3	3.7
F	A	FL (3) 8 S	0.5	1.0	0.5	1.0	0.5	4.5
0	B	FL (3) 9 S	0.3	1.0	0.3	1.0	0.3	6.1
B	7	FL (3) 9 S	0.8	1.2	0.8	1.2	0.8	4.2
B	8	FL (3) 10 S	0.3	0.7	0.3	0.7	0.9	7.1
C	8	FL (3) 10 S	0.4	0.6	0.4	0.6	1.2	6.8
C	B	FL (3) 10 S	0.5	0.5	0.5	0.5	0.5	7.5
C	7	FL (3) 10 S	0.5	1.5	0.5	1.5	0.5	5.5
D	B	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
B	B	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	B	FL (3) 12 S	0.5	1.5	0.5	1.5	0.5	7.5
E	A	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
B	6	FL (3) 12 S	1.0	1.0	1.0	3.0	1.0	5.0
4	8	FL (2+1) 12 S	0.8	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	C	VQ (3) 15 S	0.1	0.5	0.1	0.5	0.1	13.7
4	B	FL (3) 20 S	0.5	3.0	0.5	3.0	0.5	12.5
3	B	FL (3) 20 S	0.5	1.5	0.5	1.5	0.5	15.5
5	B	FL (3) 20 S	0.8	1.2	0.8	1.2	0.8	15.2
6	B	FL (3) 20 S	1.0	1.0	1.0	1.0	1.0	15.0

SWITCH		FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF
A	B									
B	F	VQ (4) 4 S	0.3	0.3	0.3	0.3	0.3	0.3	0.3	2.3
B	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	0.8	3.2
F	E	Q (4) 10 S	0.3	0.7	0.3	0.7	0.3	0.7	0.3	6.7
B	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
C	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
A	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
C	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
E	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

SWITCH A	SWITCH B	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
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
E	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	E	FL (5) 20 S	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	11.0

SWITCH A	SWITCH B	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
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
A	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
A	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

SWITCH A	SWITCH B	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
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

SWITCH A	SWITCH B	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
4	E	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	E	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	E	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	E	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

SWITCH A	SWITCH B	FLASH CODE	ON	OFF	ON	OFF	ON	OFF	ON	OFF
MORSE CODE ( ) INDICATES LETTER										
7	8	MO (A) 6 S	0.3	0.6	1.0	4.1				
7	B	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				
B	8	MO (U) 10 S	0.3	0.7	0.3	0.7	0.9	7.1		
C	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		
A	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

Maintenance and Servicing

Designed to be almost maintenance-free, the AV310 requires minimal attention, though the following maintenance and servicing information is provided to help ensure the life of your Avlite Systems product.

1. 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.
2. 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 12 volts under 100MA load, and ensure all terminals are clear of foreign matter.
3. O-Ring Check- inspect the condition of the o-ring for damage, wear or if it is brittle, and replace if necessary. The o-ring should be a rubber texture to ensure a complete and even seal.

Replacing the Battery

The AV310 has an internal battery compartment, which provides the user with the ability to change the battery after years of operation.

1. Remove the four socket-head screws on the top lens assembly and separate the AV310 lens assembly from the body/base section.
2. Remove 2 x M4 cap screws & washers from the top of the chassis.
3. Separate the light head and battery via the 4Pin connector.
4. Lift the upper battery bracket out of the AV310.
5. Remove the old battery from the chassis.
6. Contact Avlite if you require a battery.
7. Discard old battery in a safe manner.
8. Reconnect the new battery.
9. Place battery back inside light body, and position the upper battery bracket in the top of the chassis.
10. Secure using 2 x M4 cap screws & washers.
11. Feed all wiring back inside light body, and make sure the o-ring is properly placed at the top of the light body.
12. Place the top lens assembly back onto the light body and replace 4 socket head screws. Half tighten all 4 socket head screws, and then fully tighten each socket head screw to ensure an even seal.
13. To test place dark cover (towel or jacket) on top of light for a minimum 30 seconds to activate the light.

Care must be taken to observe the polarity of each wire before they are connected.
To ensure waterproofing of the unit, make sure that there is an even seal.

AV310 Long Term Battery Storage

If the AV310 is to be placed in storage for an extended period please follow the below information.

The Sealed Lead Acid batteries inside the lights must always be stored in a fully charged state.

Always make sure the ON/OFF switch is in the OFF position.

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 regularly and recharge if necessary,

Either/

Re-connect the light-head and battery and place unit in the sun for 2-4 days

Or/

Re-connect light-head and battery and place in front of a halogen lamp for 1-3 days. (Do not place the halogen light too close to the solar panel or the panel may be overheated)

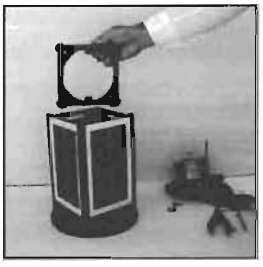
Solar Panel Replacement

The AV310 is built around an internal aluminium chassis.

The solar panels can be user-replaced in the unlikely event that one is broken or damaged during the product life.

Follow the steps below or contact support@avlite.com for more details.

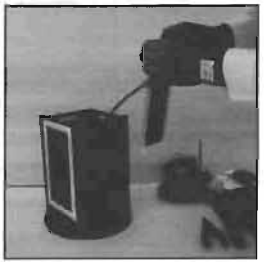
1. Remove 4 x socket head cap screws and disconnect the light head from the chassis.
2. Remove the upper battery bracket, containing the junction box and regulator.
3. Disconnect the battery.



4. Remove 4 x M6-35mm long socket head cap screws, to remove the top casting from the chassis.

   Note:
   Be careful not to damage the o-rings on each of these screws.
   If replacements are required please use standard 6x1.0mm o-ring.

5. Slide the rubber corner out of the chassis. It may be necessary to lubricate the edges of the solar panels with grease or oil based lubricant if this is difficult to remove.
6. Remove the junction box cover from the upper battery bracket. Unsolder or disconnect the solar panel and remove it from the chassis.



7. Clean any silicon off the chassis from the solar panel junction box hole and add a new seal to ensure the solar panel is watertight when assembled.
8. Repeat the process in the reverse order to replace a new panel.

   Note:
   Make sure the O-rings on the top casting and 4 x M6-35mm long socket head cap screws are coated in silicon grease before re-assembling.

The replacement of a solar panel should only be performed by a confident technician.

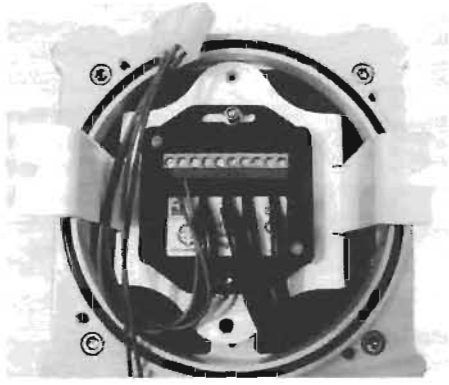
Solar panel replacement is undertaken at customer's own risk. Avlite will only guarantee an IP68 rating if this is undertaken by Avlite Personnel.

To test for any leaks remove the gore vent and pressurise the assembled light to 1.5psi.

How to Change the Regulator

- Undo the 4 x M6 SHCS and remove the light head.
- Disconnect the battery.
- Remove the 2 x M4 BHCS holding the top battery bracket and lift up the top battery bracket.
- Take note of the wire colours and location in the regulator.
- Disconnect the wires from the regulator.
- Remove the 2 x M4 CSSSK screws that retain the regulator to the top battery bracket and remove the regulator.
- Fit the new regulator using the 2 x M4 CSSK screws.
- Connect the solar positive wires to the solar + points on the regulator.
- Connect the solar negative wires to the solar – points on the regulator.
- Connect the battery positive wires to the Battery + point on the regulator.
- Connect the battery negative wire to the battery – point on the regulator.
- Refit the battery top bracket into the solar unit using the 2 x M4 BHCS.
- Reconnect the battery.
- Refit the light head and tighten the 4 x M6 x 60 SHCS evenly.

Use the label to ensure correct location of wires during assembly



SL10 AMP Regulator shown when correctly fitted

Trouble Shooting

Problem	Remedy
Light will not activate.	• Ensure light is in darkness. • Wait at least 60 seconds for the program to initialise in darkness. • Ensure switch setting is on a valid code (not unused flash code). • Ensure battery terminals are properly connected. • Ensure battery voltage is above 12volts. • Check the Status LED's on the base of the PCB to determine what type of fault the light is activating.
Flash Codes will not change.	• Turn rotary switches several times to ensure contacts are clear.
Light will not operate for the entire night.	• Expose light to direct sunlight and monitor operation for several days. *Avlite products typically require 2.5 hours of direct sunlight per day to retain full autonomy. From a discharged state, the light 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.

All AV310 Lights are fitted with two Indicator LED's. These are positioned near the rotary switches. Use the table below to help determine operational status.

LED Combinations		Light Status	Light	Comment
YELLOW LED	RED LED			
OFF	**OFF**	Normal	OFF	Normal running condition in daylight.
Flashing **ON 0.1 seconds** **OFF 0.1 seconds**	**OFF**	Normal	ON	Normal running condition.
Flashing **ON 0.1 seconds** **OFF 0.1 seconds**	**OFF**	Normal – synchronised light	ON	Normal running condition but light is not synchronised to GPS-enabled lights.
Flashing **ON 1 second** **OFF 1 second**	**OFF**	Normal – synchronised light	ON	Normal running condition and light is synchronised to GPS-enabled lights.
	Fixed-on	Flat Battery (<8v)	OFF	Battery is flat. Battery must receive charge (above 11.5v) and light must see daylight for at least 1 minute before operation.
	Flashing **ON 0.1 seconds** **OFF 0.1 seconds**	Low Battery Voltage (<10.5v)	ON	Battery is low. Battery must receive charge (above 11.5v) for at least 1 minute.
Fixed-on	**OFF**	High Battery Voltage / Battery Fully Charged (>15v)	ON	Battery is charged.
Flashing **ON 1 second** **OFF 0.2 seconds**	**Flashing** **ON 1 second** **OFF 0.2 seconds**	Factory Setup Mode	ON	Light is in factory setup mode (0xFF). Please change the flash code.

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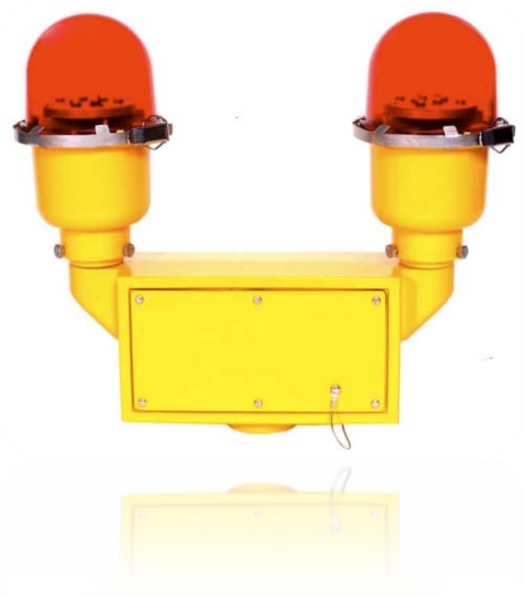

Contact information www.IQAirport.com/Contact/ – Email: info@IQAirport.com

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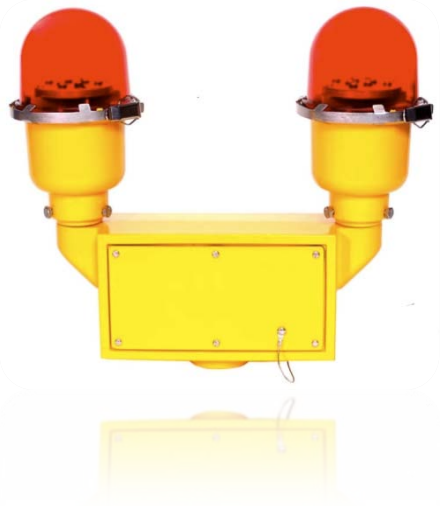
Have you checked the *IQ* of your Airport Lighting systems?

Item#: 103400
Solar Powered obstruction lighting
Manufacturer: IQAirport
Solar powered L-810 Aviation Obstruction Light, FAA approved L-810, certified and tested the

OkSolar.com Green Alternative



Solar FAA approved L-810, certified and tested Solar Powered obstruction lighting.
FAA L-810 Double Obstruction IQAirport.com has developed the 103400 (Solar-powered L-810 Aviation Obstruction Light) packaged system to provide obstruction lighting for towers and structures. The 103400 (Solar-powered L-810 Aviation Obstruction Light) is a complete packaged solar power system and LED High Power Obstruction Light.
The system uses an FAA type L-810 single or double red LED obstruction light. Power to the light is supplied by an IQUPS VDC solar power system consisting of a solar module, sealed maintenance-free batteries, and a temperature-compensated Microprocessor charge controller with day/night detection. The entire system is designed for quick installation and can be mounted to a 2 SCH40 pole (2.375 O.D.). An LED light is used for low power consumption. Day/night detection of the obstruction light is controlled by the Microprocessor solar charge regulator which uses the solar array to sense day/night conditions. The solar regulator also prevents the battery from being overcharged or deep discharged. An integral temperature sensor automatically adjusts the battery charge voltage to compensate for temperature fluctuations for extended battery life. The 103400 (Solar-powered L-810 Aviation Obstruction Light) packaged system is the optimal choice for FAA obstruction lighting applications where reliability is a must.

Complete packaged solar power system and Obstruction Light. The system uses an FAA type L-810 single or double red LED obstruction light. IQAirport.com 103400 series (Solar-powered L-810 Aviation Obstruction Light) system are the optimal choice for obstruction lighting applications where reliability is a must.

Single and Double Red Obstruction Lights Solar Powered

Contact information www.IQAirport.com/Contact/ – Email: info@IQAirport.com

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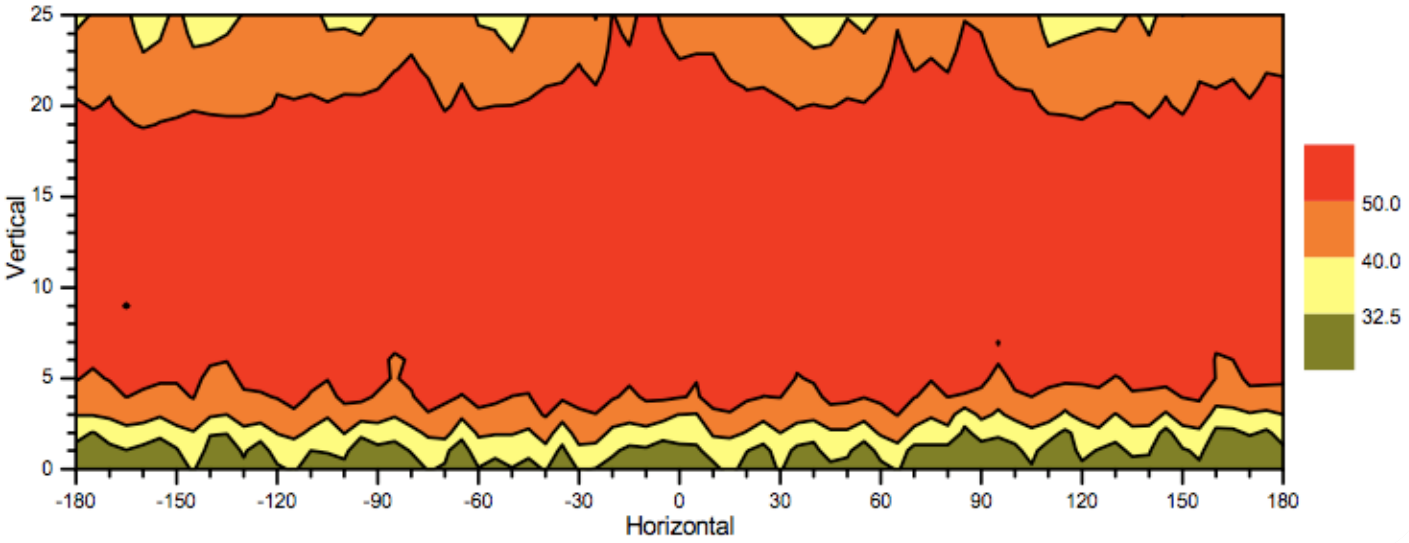
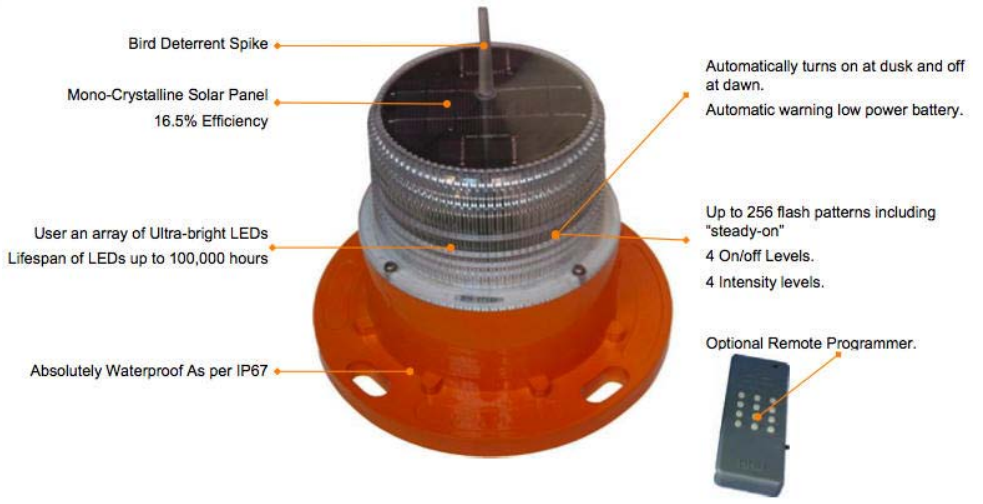
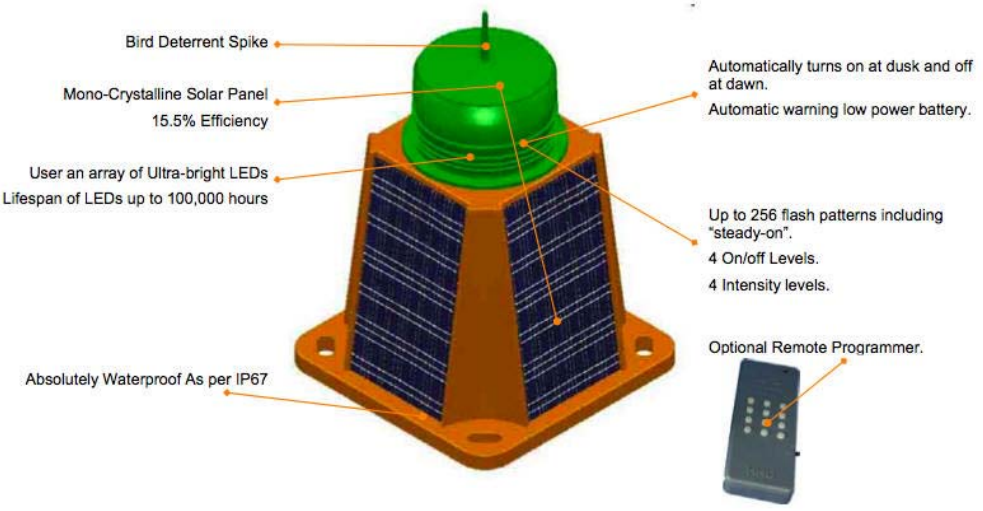
PHOTOMETRIC DATA

FAA VERSION

FAA L-810 requires 32.5 candelas minimum over 10-deg vertical beam spread
Exceeds the recommendation of ICAO Low Intensity Type B (32 candelas)




Bird Deterrent Spike
Mono-Crystalline Solar Panel
16.5% Efficiency
User an array of Ultra-bright LEDs
Lifespan of LEDs up to 100,000 hours
Absolutely Waterproof As per IP67
Automatically turns on at dusk and off at dawn.
Automatic warning low power battery.
Up to 256 flash patterns including "steady-on"
4 On/off Levels.
4 Intensity levels.
Optional Remote Programmer.


Bird Deterrent Spike
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15.5% Efficiency
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Lifespan of LEDs up to 100,000 hours
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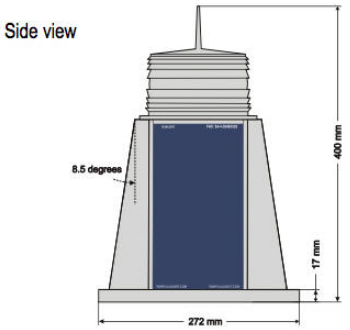
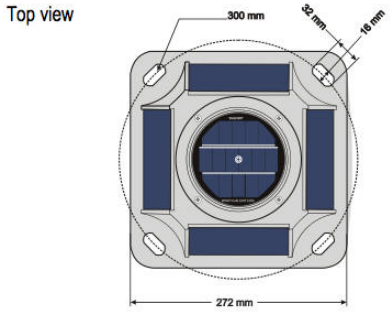
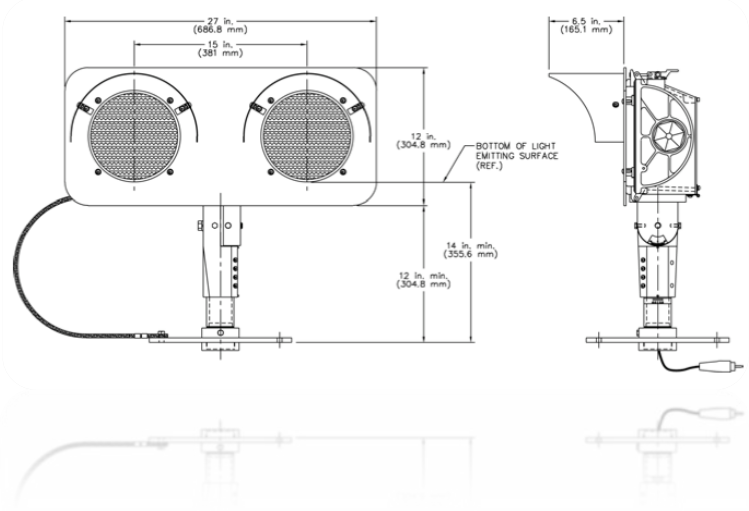

Side view
8.5 degrees
400 mm
17 mm
272 mm


Top view
300 mm
32 mm
16 mm
272 mm

Solar Powered Approach Navigational Aids Elevated Runway Guard Light

Elevated Runway Guard Light IQERGL is a 24 hour flashing, unidirectional LED lamp fixture combined with a remotely mounted solar engine. It is designed to satisfy the structural and environment requirements of FAA Advisory Circular 150– 5345 – 46B (L-804) and ICAO Annex 14 using solar power. The IQERGL solar engine contains the energy management system, solar panels and batteries. It is located on a robust tilting mount which is field adjustable between zero and sixty degrees to suit deployment at various latitudes. Solar Airfield Solutions L-804 runway guard light. The L-804 runway guard light is an elevated light fixture consisting of two lamps mounted side by side in the same housing that alternately flash 45-50 times per minute in yellow or red light to identify taxiway holding position lines.

The light fixture is unidirectional and can be aimed in elevation vertically from 0 to +20 degrees, and horizontally ±20 degrees. The L-804 is manufactured in accordance with FAA specification AC 150/5345-46B and the International Civil Aviation Organization (ICAO) specification Annex 14.



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How To Solar Windsock Lighting by IQAirport.com Manufacturer and Exporter of FAA approved Solar Windsock Lighting L-806 and L-807










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Parts

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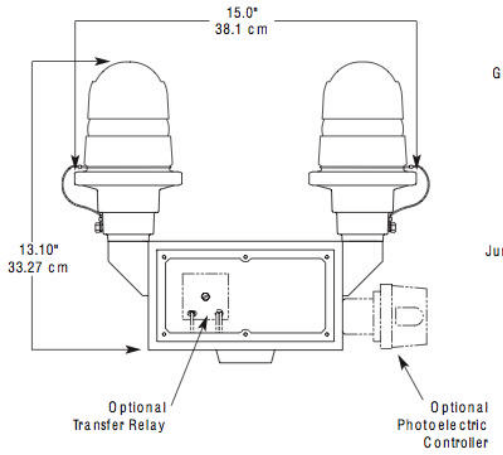
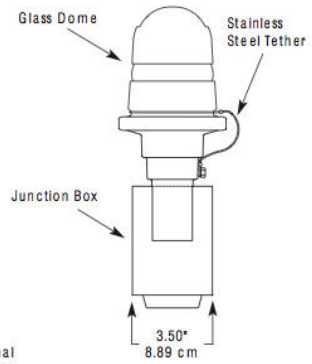
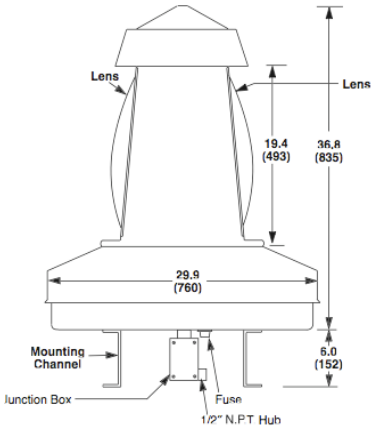
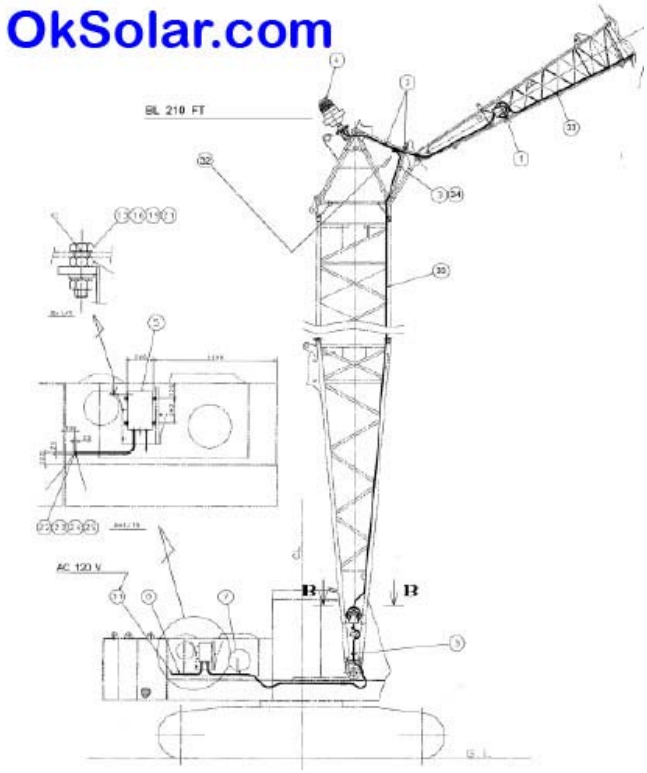

15.0"
38.1 cm
13.10"
33.27 cm
Optional
Transfer Relay
Optional
Photoelectric
Controller


Glass Dome
Stainless
Steel Tether
Junction Box
3.50"
8.89 cm


Lens
Lens
19.4
(493)
36.8
(835)
29.9
(760)
Mounting
Channel
6.0
(152)
Junction Box
Fuse
1/2" N.P.T. Hub


BL 210 FT
AC 120 V
B
B

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Have you checked the *IQ* of your Airport Lighting systems?

IQUPS Base stations cut diesel usage by 75 percent Increase Safety and Independence from the grid The IQ Green Option. Item# 2523

IQUPS.com has designed a base station for mobile networks that would run on sun, wind power and fuel cells.

If you company need an energy source and want a more environmentally friendly solution than the conventional diesel generators that usually power base stations out of reach from electricity grids.

IQ Base stations, comes with solar panels on the roof a wind turbine in the network tower and fuel cells in the interior of the unit. The (Solar Panels, Wind Generator and Fuel Cells) renewable energy sources charge a bank of battery that powers the base station day and night 24/7. As a complement, it has a small diesel generator.

The IQ Base Station has an IQ intelligent Power Management operating system, which learns and adapts to the local conditions. We offer with USB Biometric Password Manager provide users a convenient and secure way to manage and access multiple security phrases and codes. This product biometrically identifies users and gives them convenient access to password protected applications and web sites. IQUPS CommLink around the world!

Check the status of your PV-Wind-Fuel Cell plant from your home, your office or anywhere you may be. A PC with an internet browser is all that is needed to access the system.

Communications provides complete plant monitoring, remote diagnosis, data storage and display. It features an integrated HTTP web interface that allows you to access plant information via a PC, regardless of operating system or browser type.

IQUPS CommLink the link between the PV plant and its owner. It combines computing power, storage capacity, and versatile communications interfaces in a compact enclosure. The data-logger offers up-to-date display and control options on the internet.

Data transfer and plant configuration via the internet is handled either by Ethernet connection or telephone modem. Data transfer is automatic all you have to do is set the desired intervals. IQUPS View communicates PV system status from the IQUPS.com controller over a broadband or wireless internet connection to a website for 24/7 access. The website displays real- time and historic data as well as advance alerts of any potential system problems. All of the hardware and software is included to enable a simple plug and play installation. By avoiding expensive site visits, the IQUPS Web View will reduce the life cycle costs of off-grid PV systems. Battery Bank. http://www.oksolar.com/PDFiles/Airfield_Crouse-Hinds-Obstruction-Brochure.pdf

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