

## Important Information

**We recommend that luminaires are installed by a qualified electrician ensuring the installation complies with current IEE wiring regulations BS7671:2018 & local building control.**

- All tests should be carried out in accordance to EN 50172:2004.
- BELL will not accept responsibility for any claims arising from a poor installation.
- The light source of this luminaire is not replaceable: when the light source reaches end of life, the whole luminaire must be replaced.
- Operating Temperature 0°C to +35°C.
- You are advised to test 5 samples before mass application of sensor in a new lighting project. The distance between any inductive sensors should be greater than 3m.
- Microwave maximum operating height 3.2m

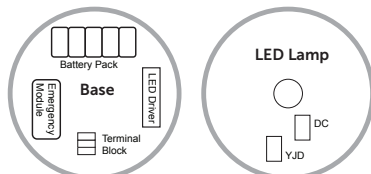
## Safety

- Before installation/maintenance, ensure that the supply to the luminaire is switched off and the circuit breakers or fuses are removed or switched off
- This product is IP20 rated and not suitable for external applications
- This product is class II rated
- This product is non-dimmable / 230V 50Hz

## Important

The LED driver lead **must** be connected to the socket marked **DC**

The **emergency module lead** must be connected to the socket marked **YJD**



**Read these instructions before installation and retain for future reference**



**This equipment should be installed by a competent electrician**

## Installation:

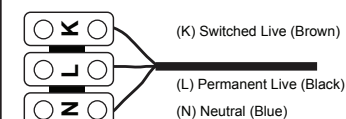
- Pull away the diffuser from the base of luminaire
- Loosen but do not remove the 4 x lamp retaining screws
- Adjust the position of the lamp to align the hole in the keyhole slots with the retaining screws, and remove the lamp from the base
- Unplug the driver and emergency module leads from the lamp
- Select a suitable cable entry point already provided or by drilling into the base
- Prepare the ceiling/mounting points and mains supply cable, ensuring the fixing surface/mechanism is sufficient to support the luminaire weight.

## Maintained operation:

**(In this mode the luminaire is continuously on. In the event of power failure the luminaire will revert to emergency mode).**

Connections:

- NEUTRAL to (N)
- Permanent 230V mains to PERMANENT LIVE (L)
- SWITCHED LIVE (K) -link to PERMANENT LIVE

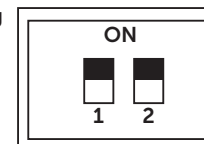


## Non maintained operation

**(In this mode the luminaire can be lit and controlled by a switched live enabling the luminaire to be switched on and off. In the event of power failure the luminaire will revert to emergency mode).**

Connections:

- Live from the light switch to SWITCHED LIVE (K)
- NEUTRAL to N
- Permanent 230v mains to PERMANENT LIVE (L)
- Connect the battery plug into the emergency module observing correct polarity
- Reconnect the LED driver lead to the socket marked DC on the lamp
- Reconnect the emergency module lead to the socket marked YJD on the lamp
- Replace the lamp by aligning the holes in the keyhole slots with the retaining screws on the base, tests as this may cause damage to the electronics adjust the lamp so the retaining screws now are aligned with the slots of the keyhole slots, and retightened the retaining screws
- Set the colour temperature on LED plate
- Re-fit the diffuser by placing over the base and push it into the right position
- Reconnect the power supply and check for correct operation
- Luminaires fitted with an electronic ballast or LED driver are exempt from insulation resistance tests as this may cause damage to the electronics



| ON  | 1  | 2  |       |
|-----|----|----|-------|
| I   | ON | -  | 3000K |
| II  | ON | ON | 4000K |
| III | -  | ON | 5700K |

## Maintenance:

This emergency luminaire can be operated in maintained or non-maintained mode, but when operated in emergency (battery back-up) mode, the lamp will illuminate at reduced light output.

This product may contain substances that can be hazardous to the environment if not disposed of properly. Electrical and electronic equipment should never be disposed of with general household waste but must be separated for its correct treatment and recovery. Where possible recycle your packaging.



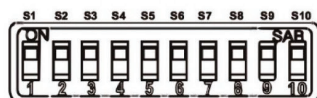
**Technical Helpline +44 (0)1924 893380**

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## 1 Reach setting (sensitivity)

Reach is the term used to describe the radius of the circular detection zone produced on the ground after mounting the sensor light at a height of 2.5m



| S1 | S2 | distance | S1 | S2 | distance |
|----|----|----------|----|----|----------|
| -  | -  | 25%      | 0N | -  | 75%      |
| -  | 0N | 50%      | 0N | 0N | 100%     |

NOTE: The above detection distance is measured using a person who is between 1.6m~1.7m tall with an average build, moving at a speed of 1.0~1.5m/sec. if any of these variables are changed, the detection distance will also resultantly change.

## 2 Time setting

Time can be set 10s to 12min. Any movement detected before this time elapse will re-start the timer. It is recommended to select the shortest time for adjusting the detection zone and for performing the walk test.

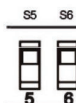


| S3 | S4 | time | S3 | S4 | time  |
|----|----|------|----|----|-------|
| -  | -  | 10s  | 0N | -  | 6min  |
| -  | 0N | 1min | 0N | 0N | 12min |

NOTE: after the light switches OFF, it takes approx. 1sec before it is able to start detecting movement again. The light will only switch on in response to movement once this period has elapsed.

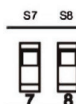
## 3 Light-control setting

The chosen light response threshold can be infinitely from approx. 10lux-50lux.



| S5 | S6 | Light | S5 | S6 | Light |
|----|----|-------|----|----|-------|
| -  | -  | 24H   | 0N | -  | 30LUX |
| -  | 0N | 10LUX | 0N | 0N | 50LUX |

## 4 Semi bright brightness setting



| S7 | S8 | Semi bright brightness | S7 | S8 | Semi bright brightness |
|----|----|------------------------|----|----|------------------------|
| -  | -  | 0                      | 0N | -  | 20%                    |
| -  | 0N | 10%                    | 0N | 0N | 30%                    |

## 5 Semi bright brightness time setting



| S9 | S10 | Semi bright brightness time | S9 | S10 | Semi bright brightness time |
|----|-----|-----------------------------|----|-----|-----------------------------|
| -  | -   | 24H                         | 0N | -   | 30MIN                       |
| -  | 0N  | 1MIN                        | 0N | 0N  | 60MIN                       |

### Technical Data

|                       |   |
|-----------------------|---|
| Operating voltage     | 20~60VDC ( If the LED driver output is above 20V or below 60V, SK612V1 may work properly) |
| Input current         | 100mA(Min.)~3000mA(Max.) this current range must be strictly followed                     |
| Switched power        | Max.180W  |
| Standby power         | <0.5W   |
| Detection range       | 25/50/75/100%, can be customized  |
| Daylight threshold    | 10~50Lux, disable, can be customized  |
| Hold time             | 10s/1min/6min/12min, can be customized  |
| Standby period        | 1min/30min/60min/24H, can be customized   |
| Standby dimming level | 10%/20%/30%, can be customized  |
| Microwave frequency   | 5.8GHz +/-75MHz   |
| Microwave power       | <0.2mW  |
| Detection range       | ( Φ x H ): 8m x 4m  |
| Detection angle       | 360°  |
| Mounting height       | Max.4m  |
| Operating temperature | 0°C to +35°C  |

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## Testing / Commissioning (self test)

### Functionality of the test switch.

- 1) A short press (>1s) on the button start a function test lasting 5 seconds (The battery's capacity should be more than 5% = charging 30 mins)
- 2) Holding down the button(>10s) resets the timer(System-resets)

### Functional test

The 5 second long, each 7 days' function test serves to check the functionality of the emergency unit, the batteries and LED Module.

### Notice.

If a mains supply failure occurs whilst a functional test is in progress, the test shall be postponed and the system shall enter emergency operation. Following restoration of the mains supply, a postponed functional test shall re-commence automatically as soon as conditions permit.

### Duration test (EN)

Initial duration test: The test will be carried out exactly 24 hours after the initial installation.

Half year duration test: The test will be carried out on each 180-182 days.

### Notice.

A duration test shall only be started when the battery supply is fully charged if a mains supply failure occurs whilst a duration test is in progress, the test shall be postponed and the system shall enter emergency operation. Following restoration of the mains supply, a postponed duration test shall re-commence automatically when the battery supply is fully re-charged.

The indicator will be slow flashing Green within 5 days if the duration test be carried out successfully.

### Indicator LED

System status is locally by a bi-color indicator LED.

| LED Indication                             | Status                   | Commentary   |
|--|--------------------------|--|
| Permanent green                            | Standby, System OK       | Mains Operation, battery is charged                        |
| Fast flashing green (0.25s on – 0.25s off) | Function test underway   | Function test underway                                     |
| Slow flashing green (1 s on – 1 s off)     | Duration test underway   | Duration test underway                                     |
| Permanent Red                              | Lamp failure             | Open Circuit or Short Circuit or LED failure               |
| Fast flashing red (0.25 s on – 0.25 s off) | Battery capacity failure | Battery failed duration test                               |
| Slow flashing red (1 s on – 1 s off)       | Battery fault            | Incorrect battery voltage or Short Circuit or Open Circuit |
| Green and red off                          | Battery Operation        | Emergency mode: Mains disconnected or Mains failure        |

### Notice Fault Status

If an error is detected, the indicator LED switches to RED. If the error has been corrected please re-connecting the battery after the mains power is switched off, the indicator LED immediately switches back to GREEN when mains power is switched on.

### Notice

Battery failed during test: After an exchange of the battery and holding down the button (>10S) reset the timer, the indicator LED switches to GREEN.

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## Testing & Commissioning for Emergency Luminaire

- Ensure the Load is connected.
- Connect the battery.
- Switch on the Unswitched Supply
  - Check the Charge LED illuminates.
- Switch on the Maintained Supply
  - Check the LED illuminates as normal.
- Switch off the Maintained Supply.
- Switch off the Unswitched Supply
  - Check the Charge LED extinguishes and the load LED illuminates at a reduced output.
- Enter the commissioning date on the Battery Pack.  
Switch on the Unswitched Supply

| Luminaire Ref/Location      | In Case of difficulty, contact the Installation Engineers:-<br>Tel: _____ |      |        |      |                 |      |        |      |        |      |
|-----------------------------|---|------|--------|------|-----------------|------|--------|------|--------|------|
| Full Recharge Time 24 Hours | Duration 3 Hours  |      |        |      | Lamp Type - LED |      |        |      |        |      |
| ROUTINE TEST RECORD         |   |      |        |      |                 |      |        |      |        |      |
|                             | Year 1  |      | Year 2 |      | Year 3          |      | Year 4 |      | Year 5 |      |
| Monthly Test                | Signed  | Date | Signed | Date | Signed          | Date | Signed | Date | Signed | Date |
| Functional                  |   |      |        |      |                 |      |        |      |        |      |
| Functional                  |   |      |        |      |                 |      |        |      |        |      |
| Functional                  |   |      |        |      |                 |      |        |      |        |      |
| Functional                  |   |      |        |      |                 |      |        |      |        |      |
| Functional                  |   |      |        |      |                 |      |        |      |        |      |
| Functional                  |   |      |        |      |                 |      |        |      |        |      |
| Functional                  |   |      |        |      |                 |      |        |      |        |      |
| Functional                  |   |      |        |      |                 |      |        |      |        |      |
| Functional                  |   |      |        |      |                 |      |        |      |        |      |
| Functional                  |   |      |        |      |                 |      |        |      |        |      |
| Functional                  |   |      |        |      |                 |      |        |      |        |      |
| Three Hour                  |   |      |        |      |                 |      |        |      |        |      |