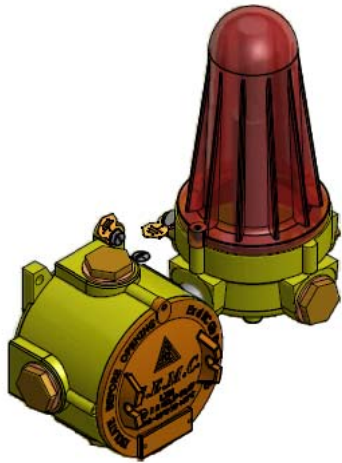




*Shomal Engineering & Manufacturing Co.*

**Operating Instruction for explosion Protected Aircraft warning:**



**LJB-LIOL/32cd &  
LJB-LV-LIOL/32cd**



**LJB-2xLIOL/32cd**



**LJB-2xMIOL/300cd**



**PHOTOCELL-AIRCRAFT WARNING LIGHT/32cd**

**WI-25(PCD-P-01)**



THIS GUIDE SHOULD BE READ CAREFULLY BEFORE INSTALLATION.  
INCORRECT INSTALLATION AND USE OF THE TERMINAL BLOCK CAN INVALIDATE THE  
GUARANTEE!

**Important notes:**

This guide should be read carefully before operating the Aircraft warning light.

Incorrect installation and use of the equipment Protect can invalid guarantee.

This document subjects to alternations.

**Application:**

These lights generally come in LED form that are either aircraft warning constantly or turn on and off in cycle of a few seconds for appearing height of towers at night.

Actually these are alarm devices for airplanes.

**Conformity with standards:**

The explosion Aircraft warning light meet the requirements of the following standards:

EN 60079-0; 2012+A11:2013

IEC 60079-0:2011 ISI: 2013

EN 60079-1:2014

IEC 60079-1:2014

EN 60079-31:2014

IEC 60079-31:2014

EN 60529: 1991 + A2:2013

IEC 60529:1989+AMD1:1999+AMD2:2013 CSV/COR2:2015

And according to directive 2014/34/EU for use in potentially explosive atmosphere.

**Safety instructions:** 

Note: for skilled electricians and instructed personnel in accordance with national regulations, including the relevant standards and where

Applicable, in accordance with IEC 60079-17 on electrical apparatus for explosive gas atmospheres.

1. The luminaries must not be operated in zone 0 and zone 20 hazardous areas.
2. Change hanged of design and modifications to the luminaries are not permitted.
3. The luminaries shall be operated as intended and only in undamaged and perfect conditions.
4. Only genuine shomal spare parts shall be used for repair and replacement.
5. The apparatus shall not be used in dust layers > 50 mm in accordance with IEC 60079-31.
6. The technical data indicated on the luminaries are to be observed.
7. The equipment shall be operated as intended and only in undamaged and perfect condition.
8. Repairs that effect the explosion protection may only be carried out by S.E.M.C or qualified electricians and will subsequently have to be checked by an expert in compliance with the respective national regulations.
9. Prior to putting protect light into operation, they shall be checked in accordance with the "putting into operation" section of this manual.
10. All foreign matter shall be removed from the equipment before the initial operation.
11. Remove these operating instruction before operation.

Observe the national safety rules and regulations for prevention of accidents as well as safety instruction included in this operating instructions.

**Putting into operation:**

Prior to operation check the aircraft warning light for its proper functioning and installation in compliance with these operating instruction and others applicable regulations.

Incorrect installation and use of the equipment can invalidate the guarantee.

- The IP rating of the equipment must be maintained for the area of use, using the correct arrangement of Cable/gland/sealing arrangements and in accordance with the installation codes as detailed in IEC 60079-14, and these operating instructions.
- All unused entry holes must be sealed by a suitable certified stopping plug with the same protection level of the equipment.

The apparatus must not be modified without reference to S.E.M.C. as this will invalidate certification.

\* LED-based lamps have a significantly longer life time than incandescent bulbs, thus reducing maintenance costs and increasing reliability.

**Field of application:**

GROUP IIC FOR USE IN ZONES 1 OR ZONE 2.

GROUP IIIC FOR USE IN ZONES 21 OR ZONE 22.

**Ambient temperature:**

-30°C TO +55°C

**Technical specification:**

**Ex d IIC T6 Gb**

**Ex t IIIC tb T85°C Db**

Ingress protection Acc to IEC60529: IP 66

Cable Entry: Standard: 3/4"-14 per inch or M25x1.5 mm Available on request 1/2"-14 per inch or M20x1.5 mm Available on request

Make sure that the cable is fitted properly through the inlet!

Follow the manufacture installation manual of cable glands!

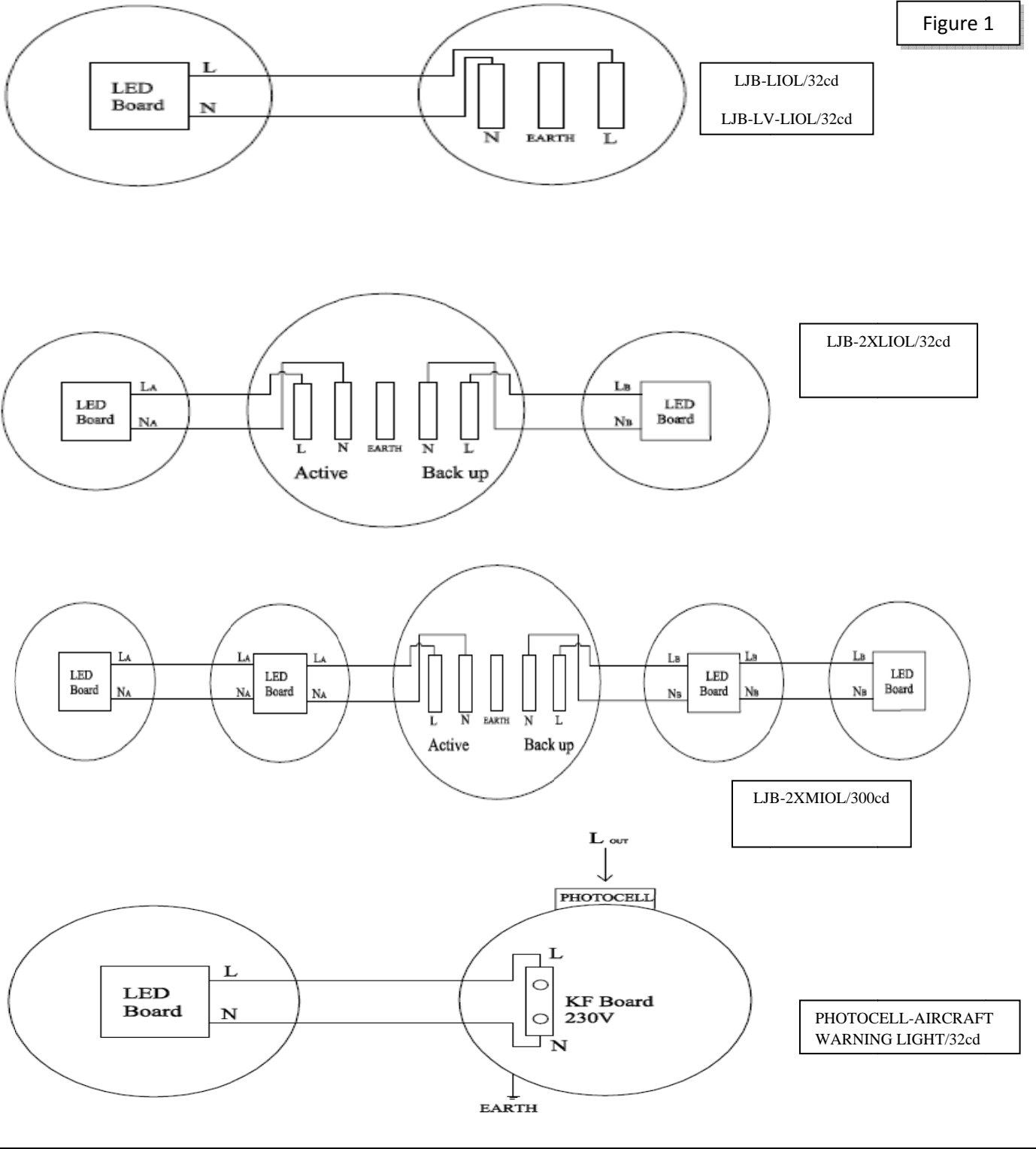
Connecting terminals: Board KF-8500 2 pole for PHOTOCCELL and (3\*RTP 2.5 + 1\* RET 2.5) RAAD for others, current 50mA Max. , Rated voltage according to following table, Wire ranges 0.5 to 4 mm<sup>2</sup>.

**Electrical Characteristics**

Types of AIRCRAFT	LED (IV) (mcd)	Ta (°C)	Voltage (v)	Frequency (Hz)	Wire (mm <sup>2</sup> )
LJB-LV-LIOL/32cd	14000 for one LED	-30 to +55	12/24V AC/DC	50-60	AWG 18-20
LJB-LIOL/32cd LJB-2XLIOL/32cd LJB-2XMIOL/300cd			180 ~260 AC – 12/24V AC/DC		
PHOTOCCELL- AIRCRAFT WARNING LIGHT/32cd			190 -240 VAC		

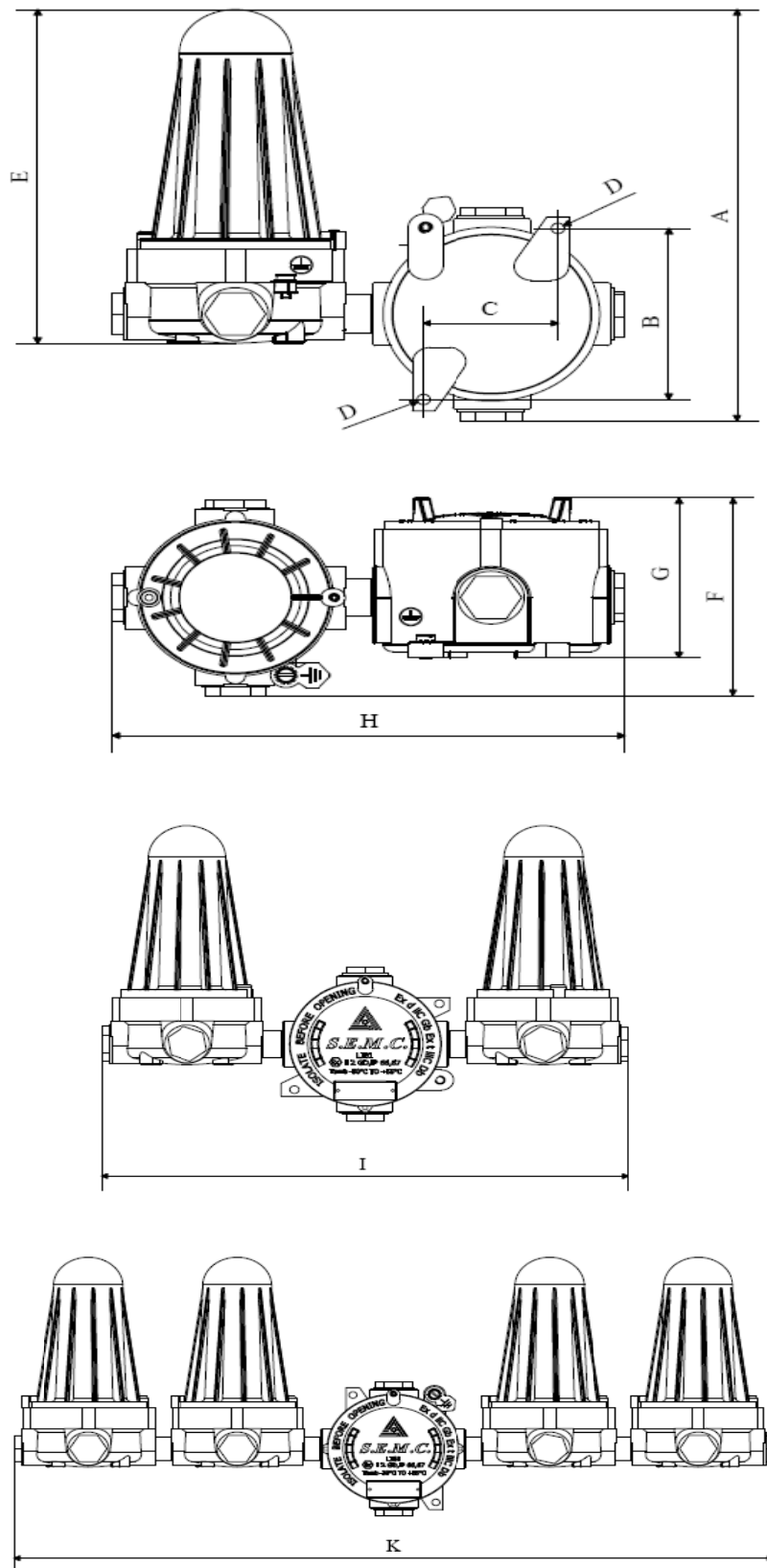
**Wiring diagram for Aircraft warning light:**

**Figure 1**



Dimensional drawings and weight:

Figure 2



Dimension Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	K (mm)	Approximation weight (Kg)
LJB-LIOL/32cd	233.0	97.0	61.0	Ø6.0	189.0	112.0	90.5	112.0	-	-	~1.6
LJB-LV-LIOL/32cd											~1.6
Photocell-Aircraft warning light/32cd											~1.6
LJB-2XLIOL/32cd								-	343.0	-	~3.6
LJB-2XMIOL/300cd								-	-	565.0	~3.6

### Type of Alarm Devices and its application:

1. This is kind of LJB-LIOL/32cd type Low intensity
2. This is kind of LJB-2xLIOL/32cd type Low intensity and is presented in state of Back up.
3. This is kind of LJB-LV-LIOL/32cd type Low intensity and Low voltage.
4. This is kind of LJB-2xMIOL/300cd type Medium intensity and is presented in state of Back up.
5. This is kind of PHOTOCCELL-AIRCRAFT WARNING LIGHT/32cd that equipped by Photocell for turning on automatically. (The features of this product is when at night, turn off and when is as daylight ,turn on).

### Setting Up (Opening and closing the Junction Box):

First, open anti rotation screw with Allen wrench then open the lid only with turning as shown in figure3 (section 1),

Next, open one of plug around of Junction Box with wrench as shown in figure3 (section 2),

Finally, connect intended wire from electrical source of site to the terminal in Junction Box with screw driver.(pass the intended wire through the entry hole that had been opened its plug). as shown in figure3.

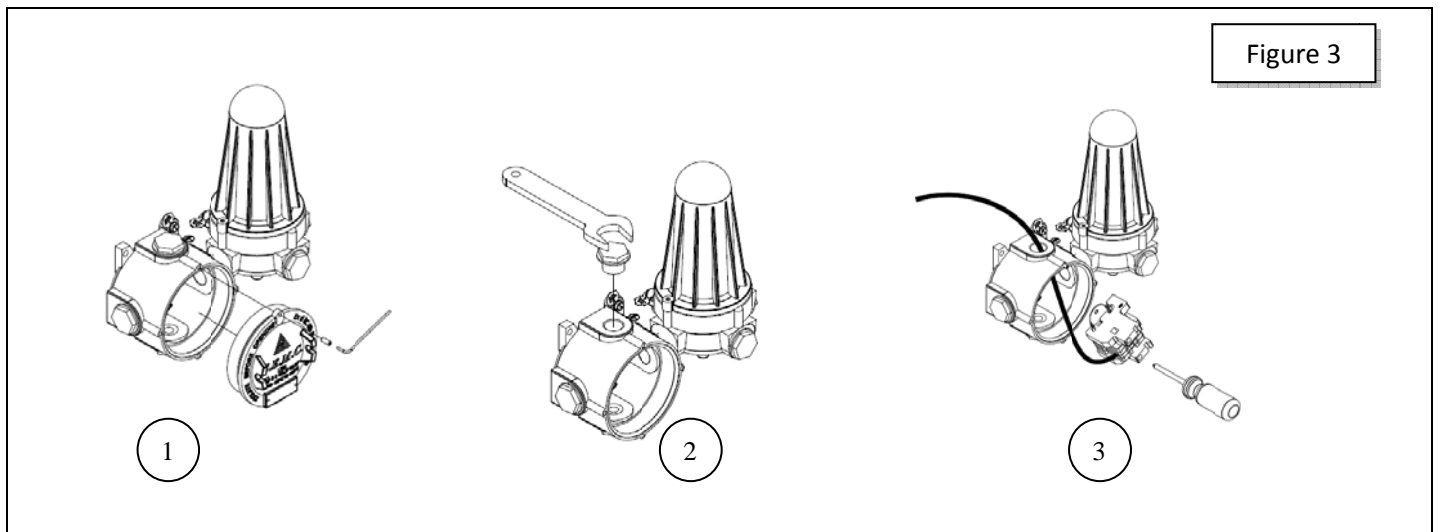
The wire must pass from plugged entry hole after opening the plug.

\*Contrariwise execute the first step for closing

\*The opening of terminal enclosure always shall be without voltage.

\*Attention For instructions.

\*The respective national regulations as well as the general rules of engineering which apply to the installation and operation of explosion protected apparatus should be observed. Transport and storage of the luminaire is permitted in original packaging only.



### Maintenance /Servicing:

Observe the national rules applicable to maintenance, servicing, inspection and repairing of apparatus for explosive atmospheres, as well as the general rules of engineering.

For dust explosive application, pay special attention don't have present dust layers above 5 mm on side of the apparatus.

**NOTE:** Before opening the equipment enclosure that the apparatus is disconnected from the supply voltage! Or take appropriate protective measures.

The required maintenance intervals depend on the respective application and will therefore have to be determined by the user depending on the conditions of use.

When servicing, in particular those components that affect the explosion protection, will have to checked. e.g.:

- Housing and polycarbonate for any cracks or damage.
- The flameproof joints must be cleaned, undamaged, without corrosion and perfectly greased.
- Gaskets/O-rings must be examined for their perfect conditions.
- Cable entries must be without corrosion.
- Terminal and Blanking plugs must be examined for their firm fit.
- Warning! don't have permission to open polycarbonate. If there is problem in LED, consider return the product to company for servicing .

If during servicing it is discovered that repairs are necessary, the Repair/Overhaul/Modification section of this manual must be observed.

The flame paths of these apparatus must be permanently greased in order to ensure protection in front of the corrosion, water ingress and seize-up problems. The remaining grease and corrosion must be cleaned without using sharp metallic devices, which can damage the surface of the joint. Thermally and chemically stable grease with a drop point > 200°C must be used.

**Storage Preservation Guide:**

- The Products shall not be stored or left in a wet or damp environment.
- Do not store The Products under direct sun light.
- Permanent Storage Temperature In Original Package is: -40°C TO +60°C
- Transport and storage of equipment is permitted in original package only

**Inspection/Repair/Overhaul/Modification:**

The national regulations must be observed.

- The national regulations must be observed. The tasks of repairing must be carried out by “qualified” personnel.
- Repairs may only be carried out using genuine SHOMAL spare parts.
- Repairs that affect the explosion protection may only be carried out by SHOMAL or a qualified electrician in compliance with the applicable rules.

\*Modifications to the apparatus or design changes are strictly prohibited.

\*For repair electrical equipment in protection mode is suggested follow the instructions indicated in IEC 60079-19.

**Earth connection:**

These apparatus are provided with external and internal earth facility suitable for the largest conductor size.

**Disposal / Recycling:**

S.E.M.C. is concerned about environmental protection and will therefore take appropriate action with due consideration of relevant respect to terms and regulations of the goods' destination to ensure the proper disposal of its goods' packing and wrapping. Diversified waste disposal is strongly recommended.

When the equipment is disposed, the relevant waste and disposal national regulations must be observed.