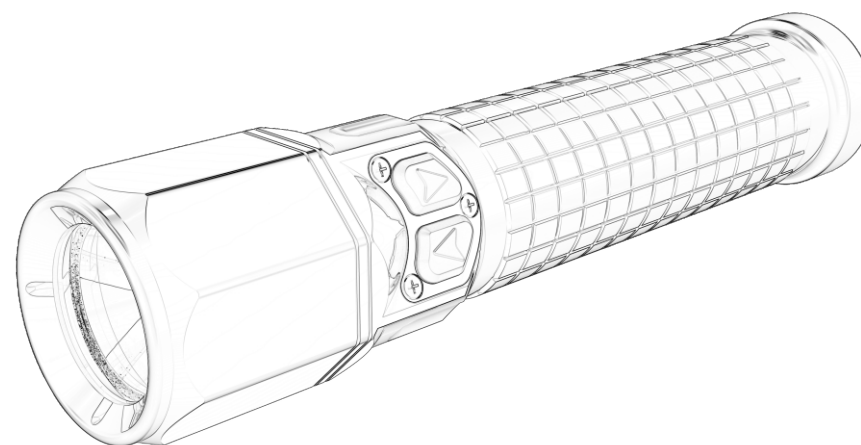




## Operation & Maintenance Manual KAlcidae Series-NV1.0



### Contact

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### Important information:

These instructions contain safety information, read and follow them carefully. KHJ will not accept any responsibility for injury, damage or loss which may occur due to incorrect installation, operation or maintenance

Product Important Information

Type Of Protection	Ex ib
Protection Standards	(IEC)EN 60079-0, (IEC)EN 60079-11 EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3, EN 60598-1, EN 60598-2-5, EN 62031, EN 62493, IEC 62321-4, IEC 62321-5, IEC 62321-6, IEC 62321-7-1, IEC 62321-7-2, IEC 62321-8
Area Classfction	Zone 2 Areas to (IEC)EN 60079-10-1,Zone 22 Areas to (IEC)EN 60079-10-2
Installation	(IEC)EN 60079-14
Certificate	TÜV 15 ATEX 7713 X
Equipment Coding	Ex ib IIC T4 Fb Ex ib IIIC T130°C Db IP68 (3m,according to En 60529)
Temperature Class	-20℃ ≤ TA ≤ +55℃
ATEX Coding	 II 2 G / II 2 D
Ingress Protection	IP66 (IEC)EN 60529
CE Mark	The CE marking of this product applies to EU directives 2014/35/EU, 2014/30/EU, 2012/19/EU and 2014/34/EU respectively. The Equipment is declared to meet the provisions of the ATEX directive(2014/34/EU)by reason of the EU Type Examination and compliance with the Essential Health and Safety Requirements

01.Introduction-Alcidae Series Portable LED Torch Light

- This user manual covers the range of ATEX and IECEx Alcidae series Proof Portable LED Torch light. These luminaires are constructed with corrosion resistant epoxy coated free aluminum alloy body and high impact resistance tempered glass diffuser.
- Alcidae series Proof Portable LED Torch Light are available from 2.52W providing ideal solutions for a wide range of harsh and hazardous applications.

02.Electrical Supplies

Emergency parameters	
Voltage Range(VDC)	3.6VDC
Power Watts(W)	2.52W
Standard Current Range(A)	700mA
Battery	UR 18650A
Light Duration	≥6 hours
Charge time	<3 hours
Charge Voltage(VAC)	100-240 VAC
Power Factor	≥0.5

03.General

- These instructions should be read fully and carefully before attempting to install the luminaire. For details of servicing operations, opening etc. see section 6.
- Copies of these instructions should be held in a safe place for future reference. It is the responsibility of the installer to ensure that the apparatus selected is fit for it is intended purpose and that the installation, operation and maintenance of the apparatus complies with applicable regulations, standards or codes of practice. Installation should be carried out in accordance with (IEC)EN60079-14 or with a local hazardous area code of practice, whichever is appropriate.
- Risk of electrostatic discharge:
  - a.Avoid mounting near fast moving streams of air
- Any specific installation instructions must be referred to The luminaire should be considered Class I to EN 60598 and effectively earthed. Certification details on the nameplate must be verified against the application requirements before installation.
- The information in this leaflet is correct at the time of publication. The company reserves the right to make specifications changes as required without notice. The luminaire are shipped with the battery pack disconnected, connection must be made on the initial insulation.
- Use in Combustible Dust Atmospheres.
  - a.De-rating of the surface temperature will be required where dust clouds may be present
  - b.Do not allow dust to accumulate in layers
  - c.Dust in layers has the potential to form ignitable clouds and to burn at lower temperatures
- Refer to EN(IEC)60079-10-1,EN(IEC)60079-10-2&EN(IEC)60079-14 for additional details of selection and installation.

3.1 Tools

- 4 mm and 5 mm flat blade screwdriver, large cross head screwdriver and inner hexagon counter wrench, suitable spanners for installing cable gland, pliers, knife, wire stripper and cutter.

3.2 Mounting

- Luminaire should be installed where access for maintenance is practical and in accordance with lighting design information. Refer to the note in 3. concerning electrostatic charge.
- See 6.1 installation diagram for installation mode and method.

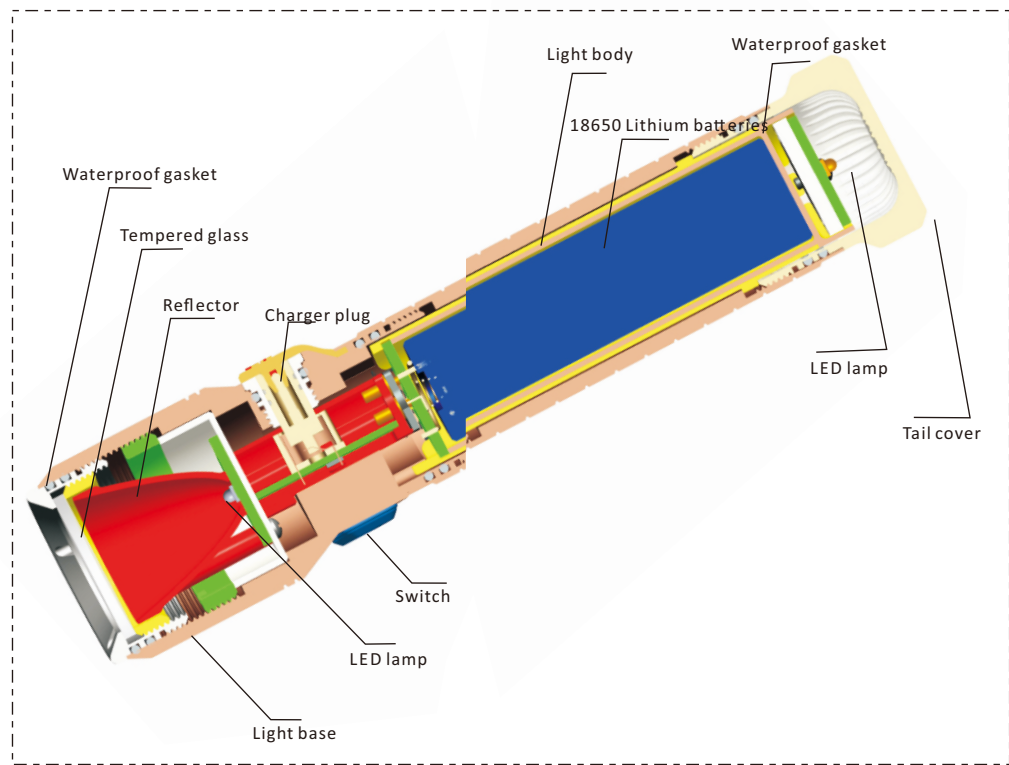
04.Safety instruction

- Read this leaflet carefully before commencing to install the luminaire unit and retain it for future use. Installation can only be carried out by suitably qualified personnel.
- Check the certification to ensure that the Zone, mains supply, ambient temperature present and "T" rating are suitable for the environment the unit is being installed in.
- Do Not Open When Energised,After De-Energising,Delay10 Minutes Before Opening.
- Potential Electrostatic Charging Hazard-See Instructions .
- Do Not Open When An Explosive Gas Atmosphere Is Present.
- To ensure the safety of the equipment, ensure that the 'flame-path' on Zone 1 variants are free from any corrosion. No repairs are possible to flameproof joints if in doubt please consult the manufacturer.
- External fasteners must have a yield strength of at least 450N/mm<sup>2</sup>
- On Zone 1 variants the LED assembly contains no user service able parts, the luminaire must not be operated without all the individual LED covers in position, the IP66 rating must be maintained.

05.Charge display

- When the power adapter indicates the LED light "red", charging.
- When the power adapter indicates the LED light "green" charging is complete.

06.Structure diagram

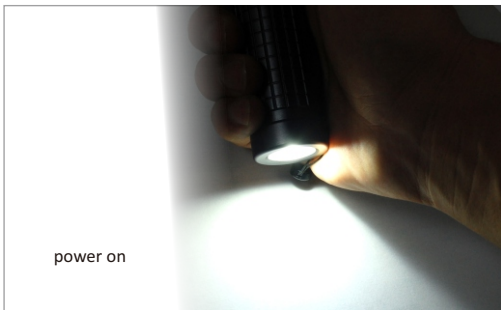


07.Usage

7.1.The front spot light.  
Press the button marked up arrow for high output, press it again for working output, press it third time for power off.  
Hold down it more than three seconds for flash model.



7.2.The rear flood light.  
Press the button marked down arrow for power on, again for off.  
When power off, hold down it for three seconds,the times of flashing indicates the capacity of battery.  
Flashing five times means full.



7.3.Adaptive helmet  
• Fix the snap to the safety helmet  
• Install the lamp on the snap

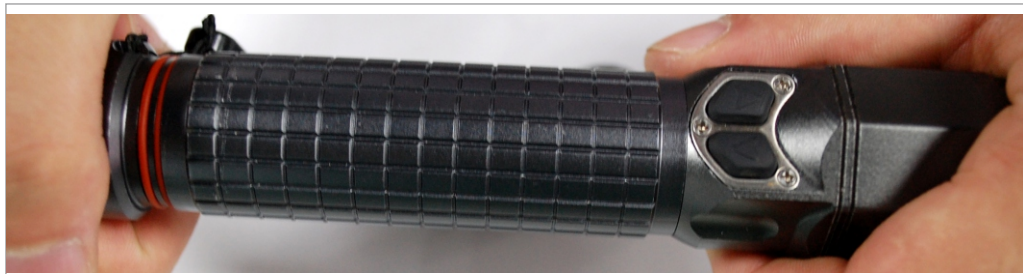


#### 7.4.Charging.

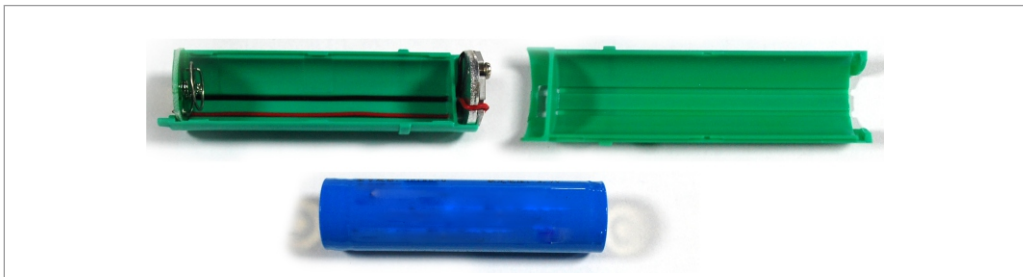
- Charger has built-in intellectual protection function. The indicator lamp is green when it is connected to AC and no loading. It is red when it is connected to torch light. It turns to green from red when the battery become to be full.
- Charger hole has a protection rubber plug. After charging, please tuck it immediately to avoid dust and other matters.
- Suggest that carry out a full discharge and recharge cycle per half a year if it is stored for a long time.



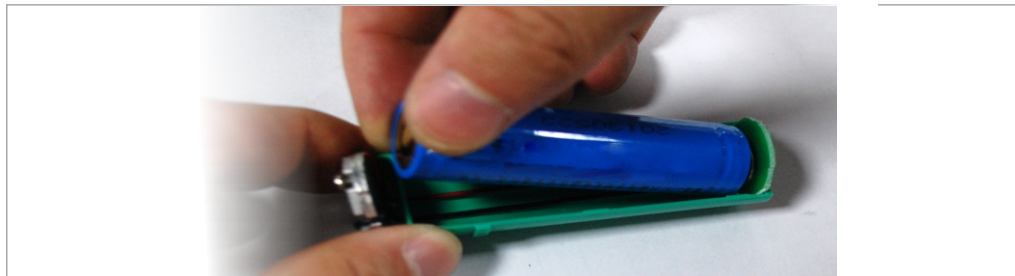
#### 7.5.Replace batteries



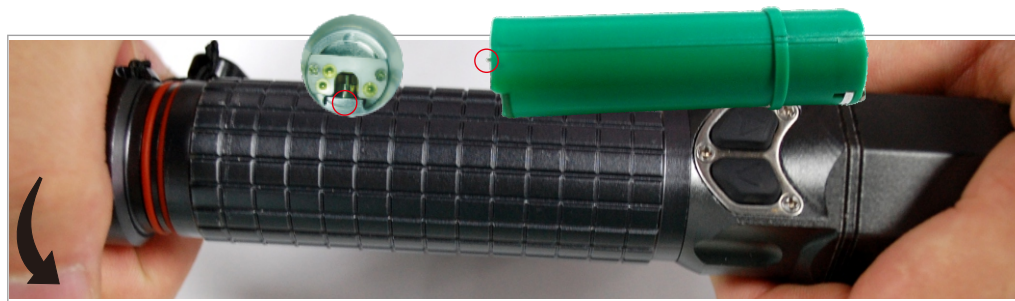
- Loosen the tail cover, take out the battery part. Caution: tail cover must be loosened before battery part is taken out.



- Take out the battery part, battery bracket has two parts linked by connector. Open any one of them and take out the battery.



- Replace the battery, assemble the PCB board with spring and battery bracket firstly, and then put one side of battery into PCB board with spring tightly, after that press the battery into the battery bracket, cover the other part of battery bracket.



## 08.Repairs Maintenance

Visual tests and checks should be cared out at intervals described by the appropriate regulations, EN 60079-17, and should include the following (including but not limited to).

- Check for mechanical damage/corrosion.
- Check connections, fixings.
- Check for undue accumulations of dust, dirt or moisture.
- Check for unauthorized modifications.

Periodic inspection of the enclosure seal should be checked out to ensure that the seal is sound. If the luminaire has been subject to abnormal conditions, for example, severe mechanical impact or chemical spillage, it must be de-energised until it has been inspected by an authorized and competent person.

## 09.Cleaning of luminaire

- The complete luminaire (without disassemble) can be cleaned with neutral water solution. After cleaning, rinse or wipe dry with clean water.
- It is forbidden to use any chemical or hydrocarbon solvent cleaner to clean the diffuser, otherwise serious damage may be caused.
- Please clean the luminaire regularly if it is used under dust environment.



# 10.Disposal of Material

General  
Disposal of the luminaire as waste should be carried out in accordance with national regulations.  
Any disposal must satisfy the requirements of the WEEE directive [2012/19/EU] and therefore must not be treated as commercial waste.  
The unit is mainly made from incombustible materials.  
The control gear contains plastic, resin and electronic components.  
All electrical components may give off noxious fumes if incinerated.

## 10.1 .Battery Disposal

Ni-Cd batteries are defined as 'controlled waste' under the hazardous waste regulations and the person disposing needs to observe a 'duty of care'.  
They must be stored and transported safely and any necessary pollution control forms completed prior to transportation.  
Take care to fully discharge batteries before transporting, or otherwise ensure that there can be no release of stored energy in transit.  
For further details refer to our technical department.



To comply with the Waste Electrical and Electronic Equipment directive 2012/19/EU the apparatus cannot be classified as commercial waste and as such must be disposed of or recycled in such a manner as to reduce the environmental impact.

# 11.Transportation

Weatherproof measures should be taken during transportation.  
It is strictly forbidden to load and unload violently, and it is strictly forbidden to drop and roll from high altitude, so as to prevent mechanical damage.

# 12.Storage

The luminaire should be stored in ventilated, non-dropping and non-liquid warehouse at the temperature of -20°C to +40°C and relative humidity ≤95%RH.  
The surroundings should be kept from corrosive gases which may damage metal and insulation.  
The battery should be fully charged and discharged at least once every 6 months.