

# ACL XTREME

## Product Installation Instructions



### General Information

1. A qualified electrician, in accordance with IEE wiring regulations should carry out connection to mains wiring.
2. Luminaire must be isolated before commencing any necessary maintenance work or battery connection.
3. Observe ESD precautions during installation.
4. All luminaires must be EARTHED. (Excluding Class II luminaires)
5. Ensure that the rated voltage and frequency requirements are compatible with the available mains supply.
6. Cleaning of lenses should be carried out using clean, soft and lint free cloths and anti-static cleaning fluid.
7. Do not carry out high voltage insulation test, i.e. 500/1000v this may damage internal components.
8. Batteries must be replaced by a qualified electrician when they do not meet the required duration.
9. Dali control cables must be double insulated & have an equivalent rating to the supply cable.
10. The light source contained in this luminaire shall only be replaced by the manufacturer, his agent or similar qualified person.
11. Luminaire body may become hot under normal operating conditions. Allow to cool before undertaking any necessary work.
12. Ensure that the specified ceiling system is of sufficient strength to support the weight of the luminaire.
13. Do not cover luminaire with any thermally insulating materials.
14. Surpassing the maximum admissible ambient temperature will reduce the service life & pose a risk of early failure.
15. This luminaire is not suitable for saline or corrosive environments.
16. Ensure that the mounting surface is of sufficient strength to support the weight of the luminaire.



2 person install

REV	DATE
2	12/03/25

056907 - REV 2

**Whitecroft Lighting Limited**  
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Lancashire OL7 0AX

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technical@whitecroftlight.com  
<http://www.whitecroftlighting.com>

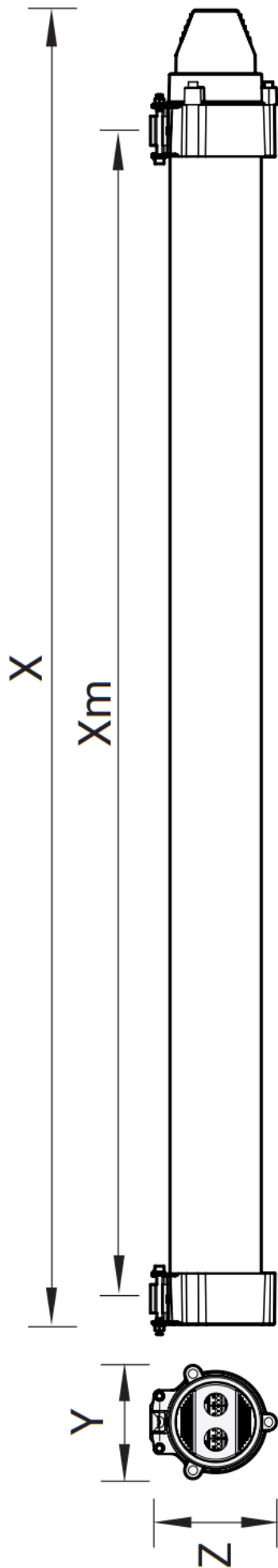


ACL XTREME

Product Installation Instructions



PRODUCT DIMENSIONS



Luminaire Dimensions (mm) & Weights (Kg)						
Luminaire Type	Length X	Susp. Crs. Xm	Width Y	Height Z	Weight Std.	Weight Em.
AZL*14K***	888	725	125	138	3.6	4.8
AZL*24K***	1451	1287	125	138	5.3	6.5
AZL*34K***	1732	1569	125	138	6.2	7.4

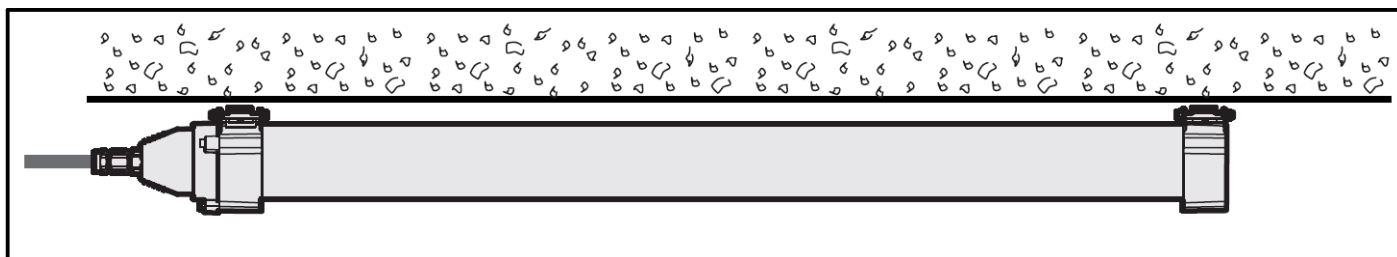
### INSTALLATION ORIENTATION

ACL Xtreme luminaires are designed for installation in a variety of different orientations as detailed below.

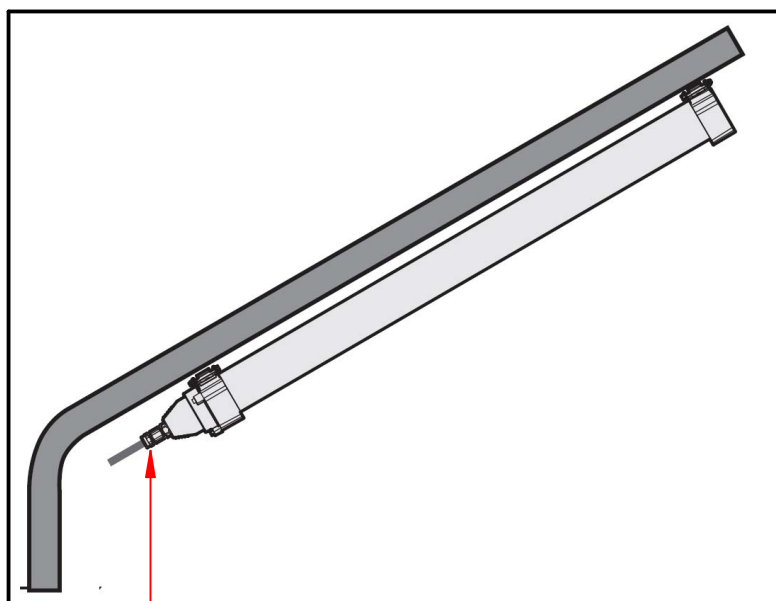
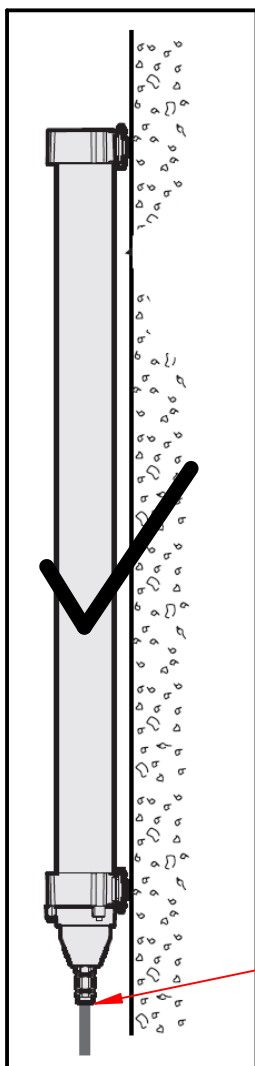
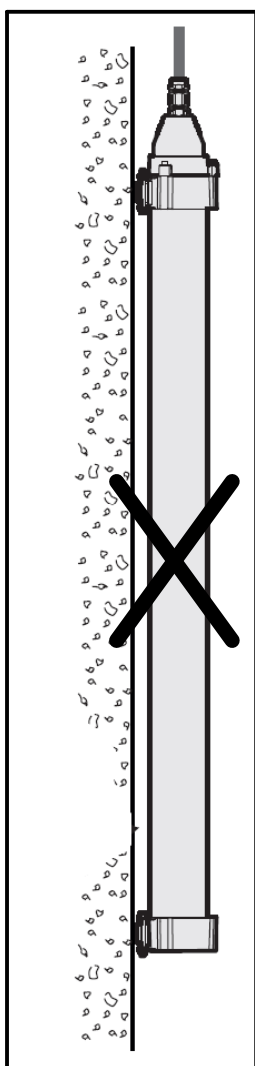
With the supplied mounting accessory clipss the luminaire can be surface mounted to ceilings, walls, beams & columns etc.

NB Where luminaires are intended to be installed vertically or at an angle on walls & columns etc it is important that the cable entry is positioned at the bottom / lowest point of the luminaire.

It is the responsibility of the installer to check that the mounting brackets supplied & fixings (by others) selected are compatible for the application.



**Horizontal Mounting**

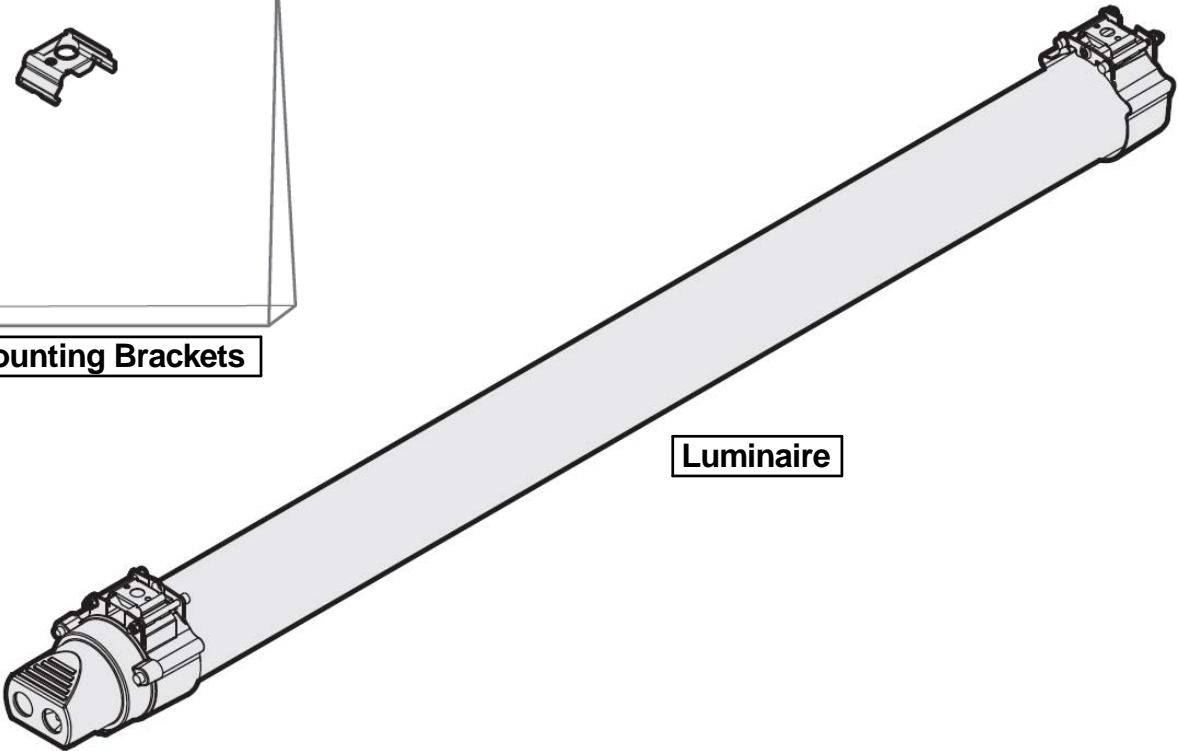
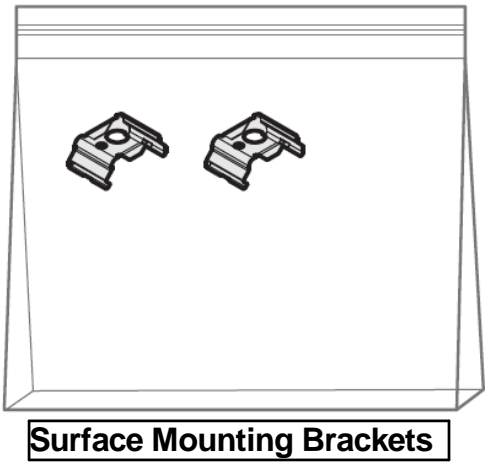


**NB Cable Entry To Be  
Positined At The Bottom  
Of The Luminaire When  
Installed**

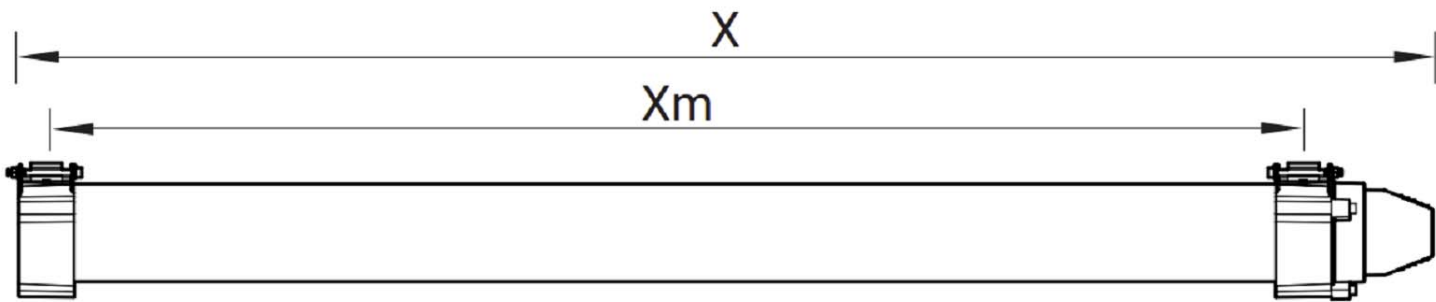


**Vertical Mounting**

PACKAGE CONTENTS



FIXING CENTRES



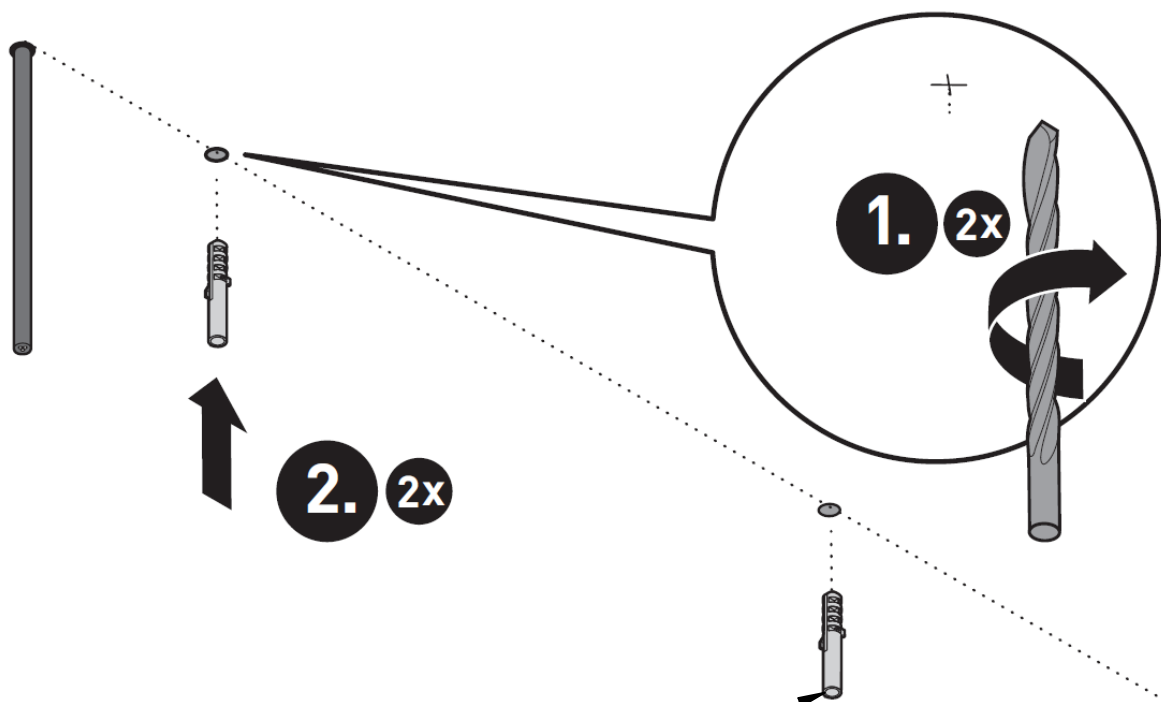
Luminaire Dimensions (mm) & Weights (Kg)				
Luminaire Type	Length X	Suspn. Crs. Xm	Weight Std.	Weight Em.
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# ACL XTREME

## Product Installation Instructions

### PREPARE MOUNTING HOLES

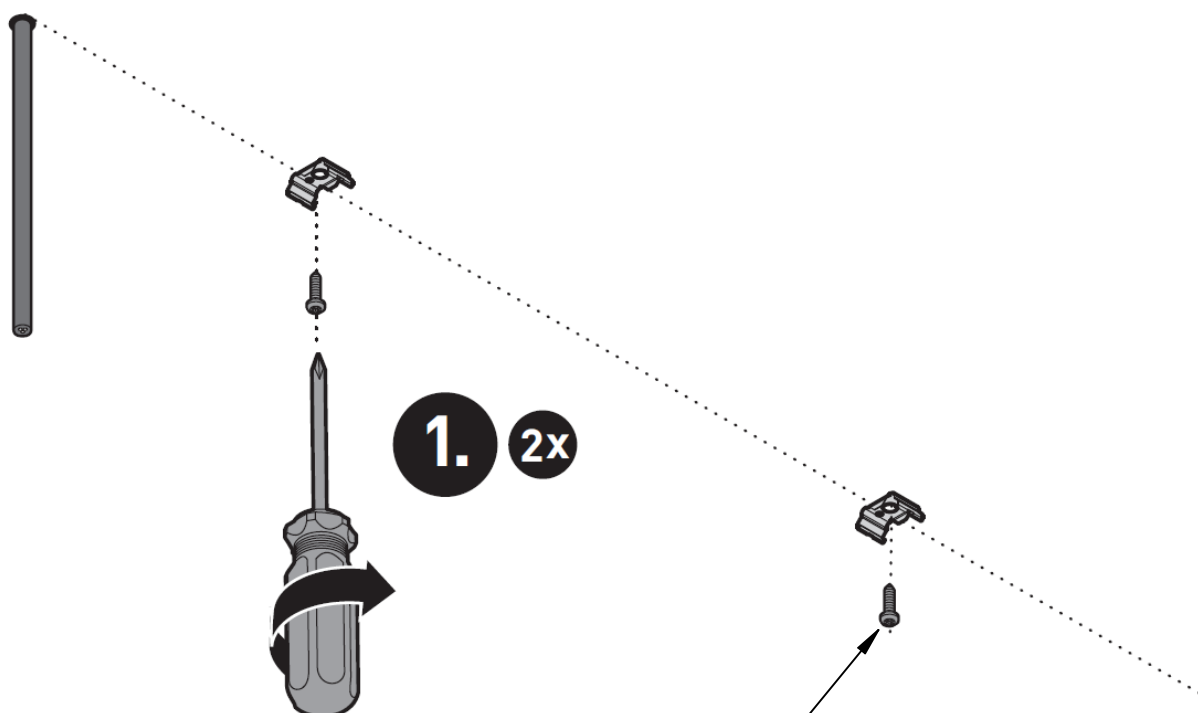
01



NOTE  
Fixings By Others

### FIX MOUNTING BRACKETS

02



NOTE  
Fixings By Others

# ACL XTREME

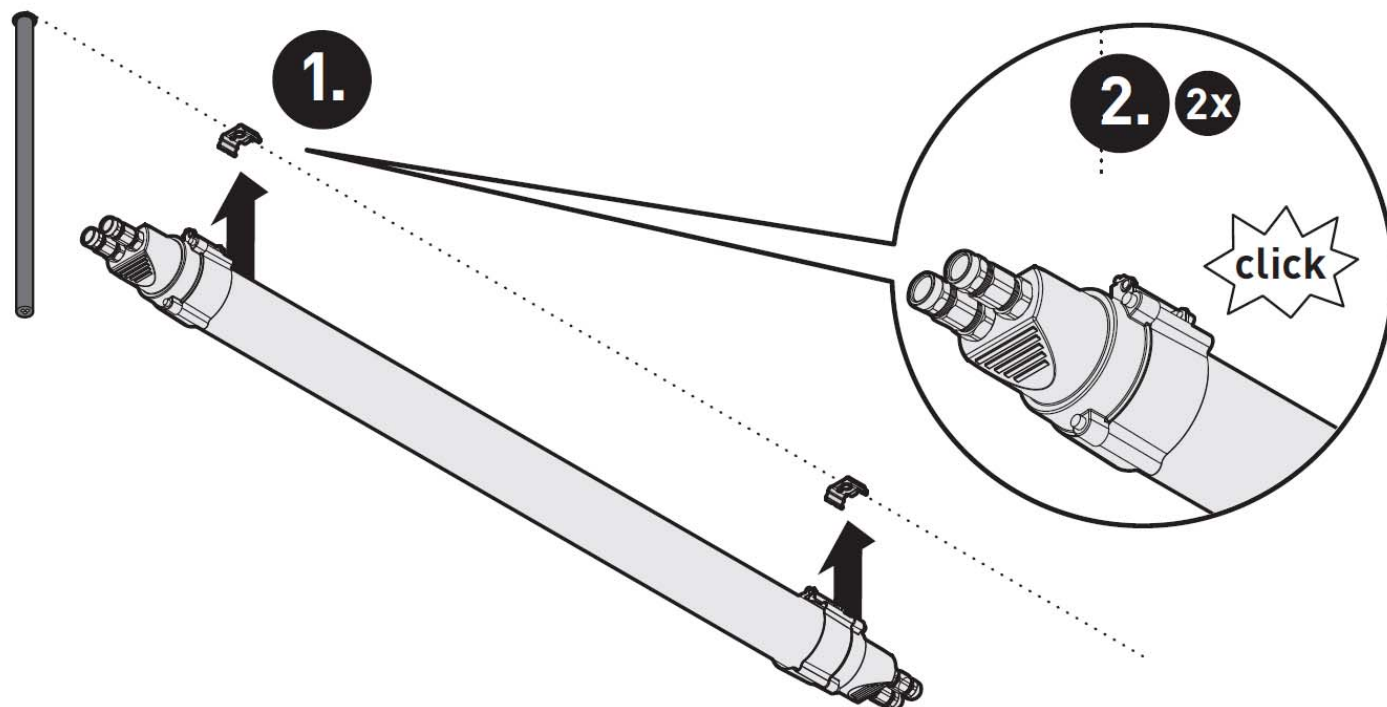
## Product Installation Instructions

Whitecroft  
lighting



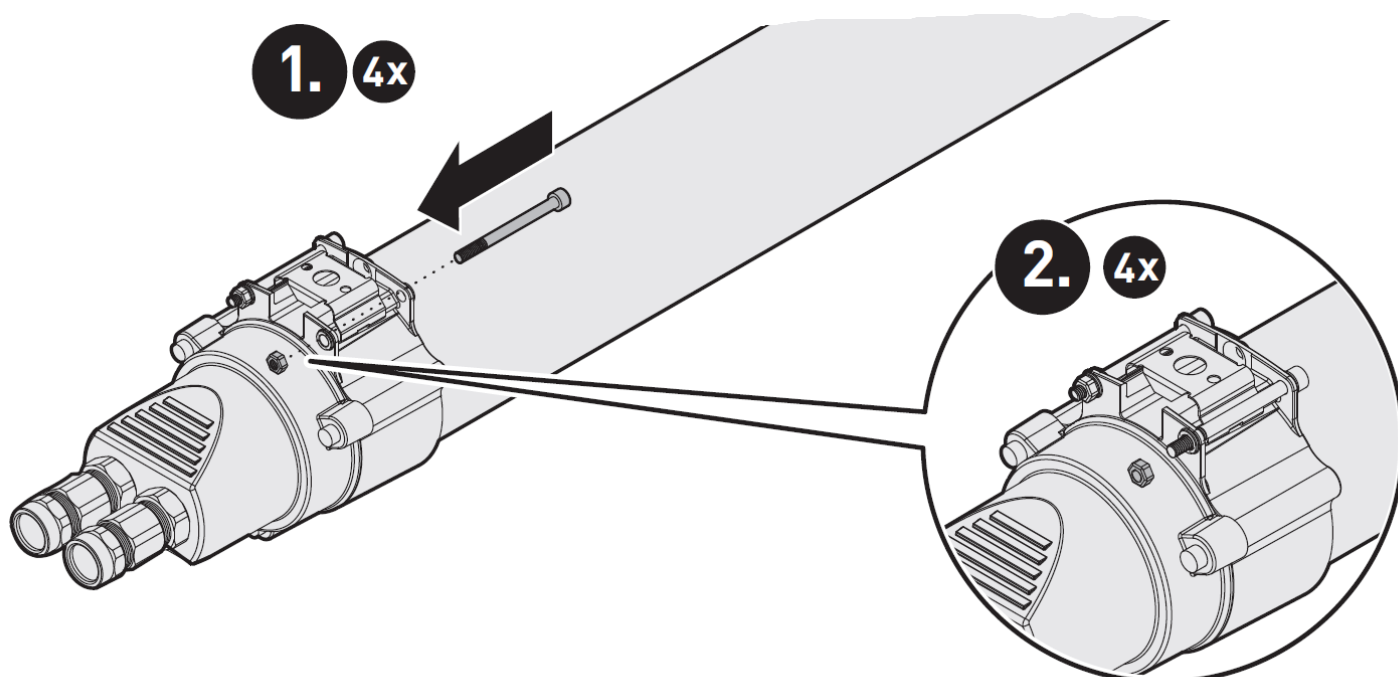
### CLIP LUMINAIRE ONTO MOUNTING BRACKETS

03



### OPTIONAL - FIT ANTI THEFT FIXINGS (NOT SUPPLIED - CONTACT WLL FOR DETAILS)

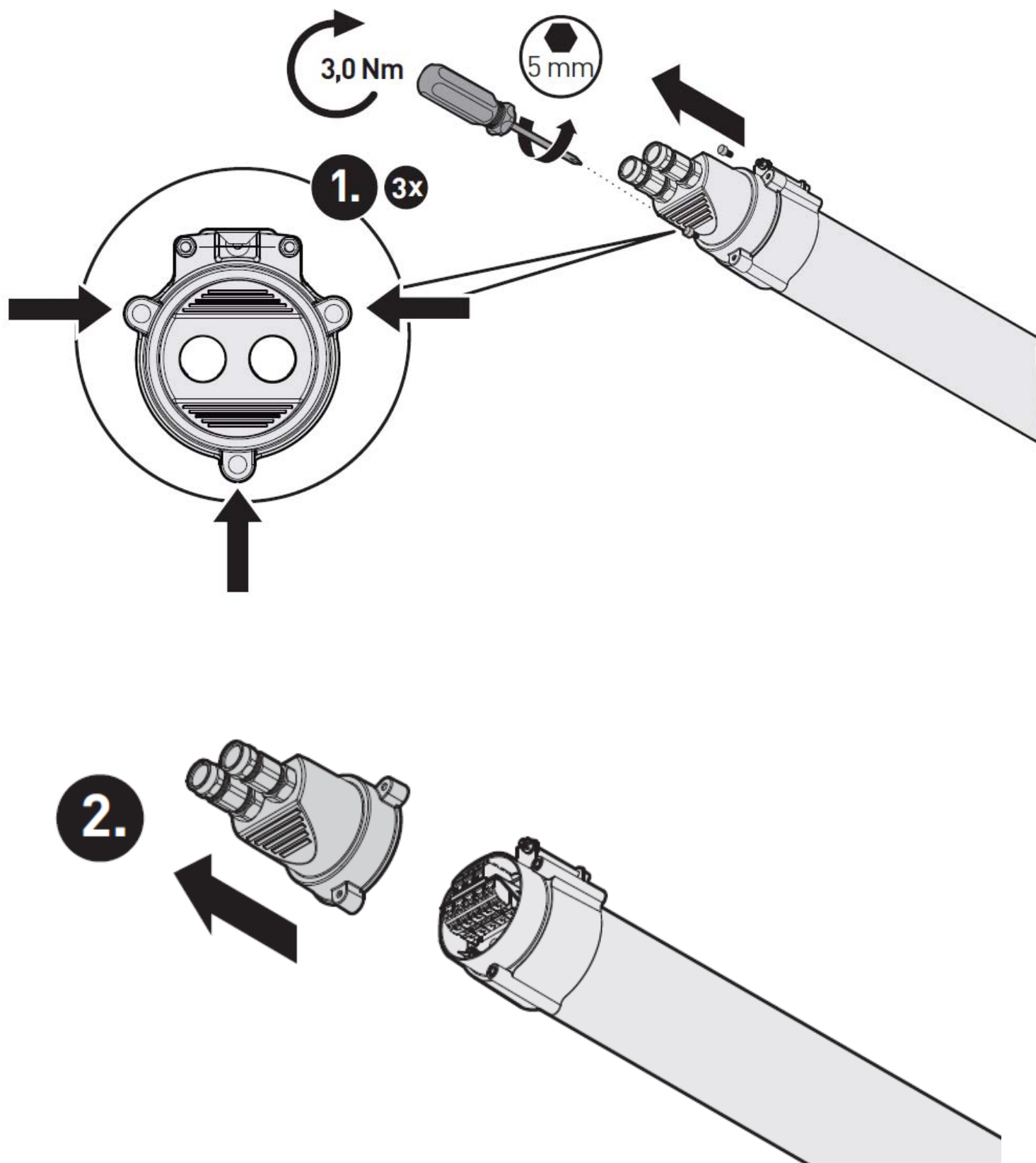
04





### REMOVE ENDCAP & FIT GLANDS / BLANKING PLUG

05



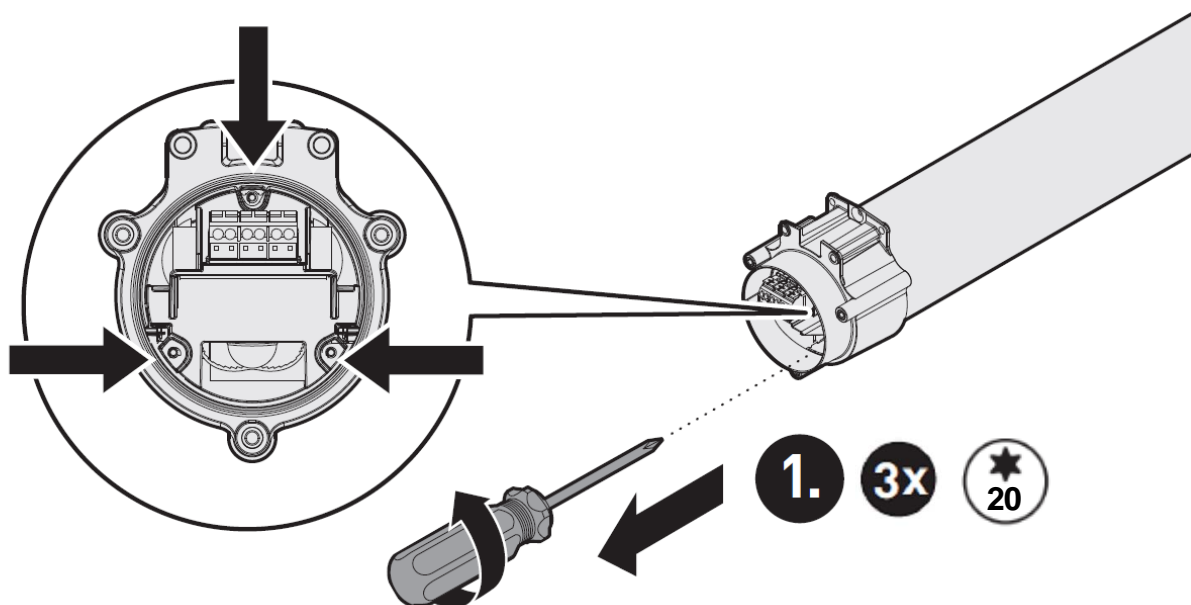


# ACL XTREME

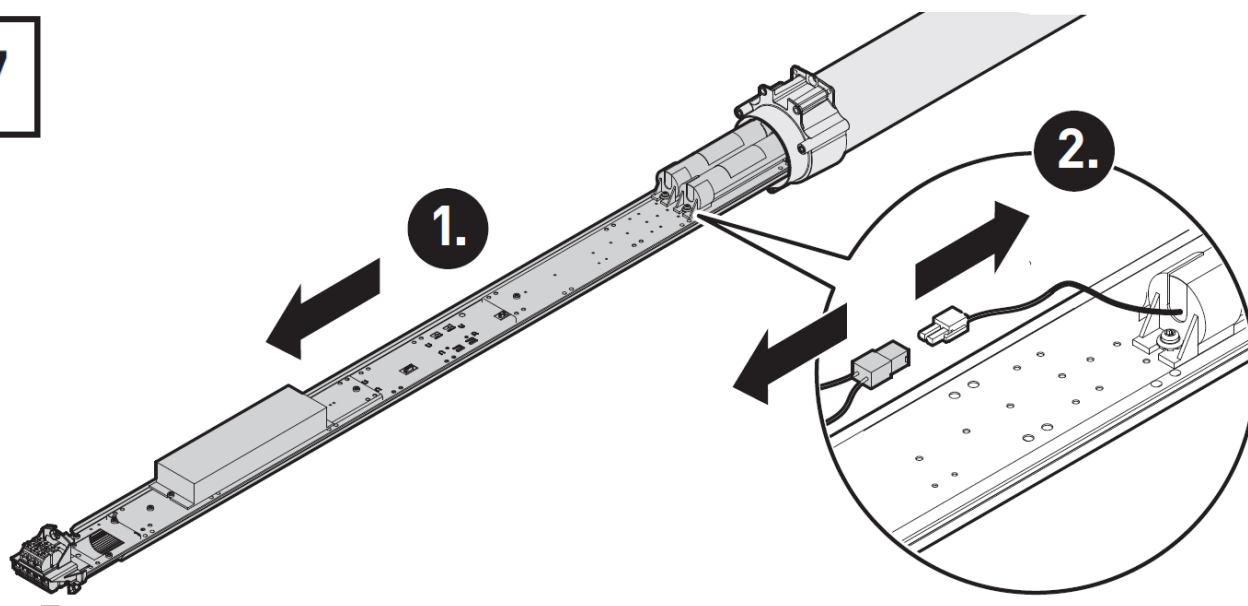
## Product Installation Instructions

### FOR EMERGENCY VARIANTS - CONNECT BATTERY

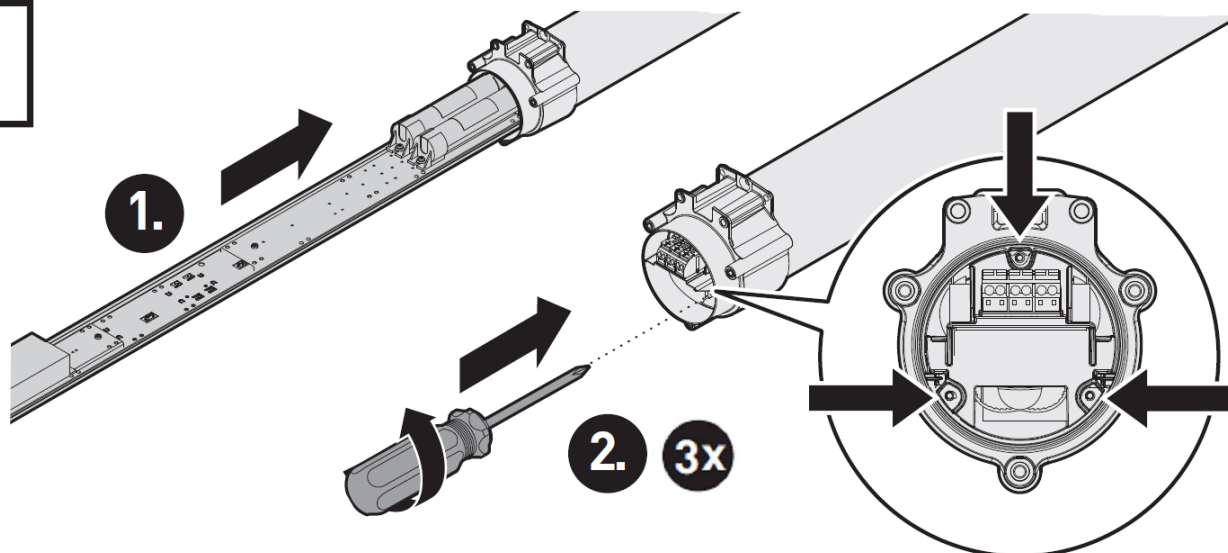
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07



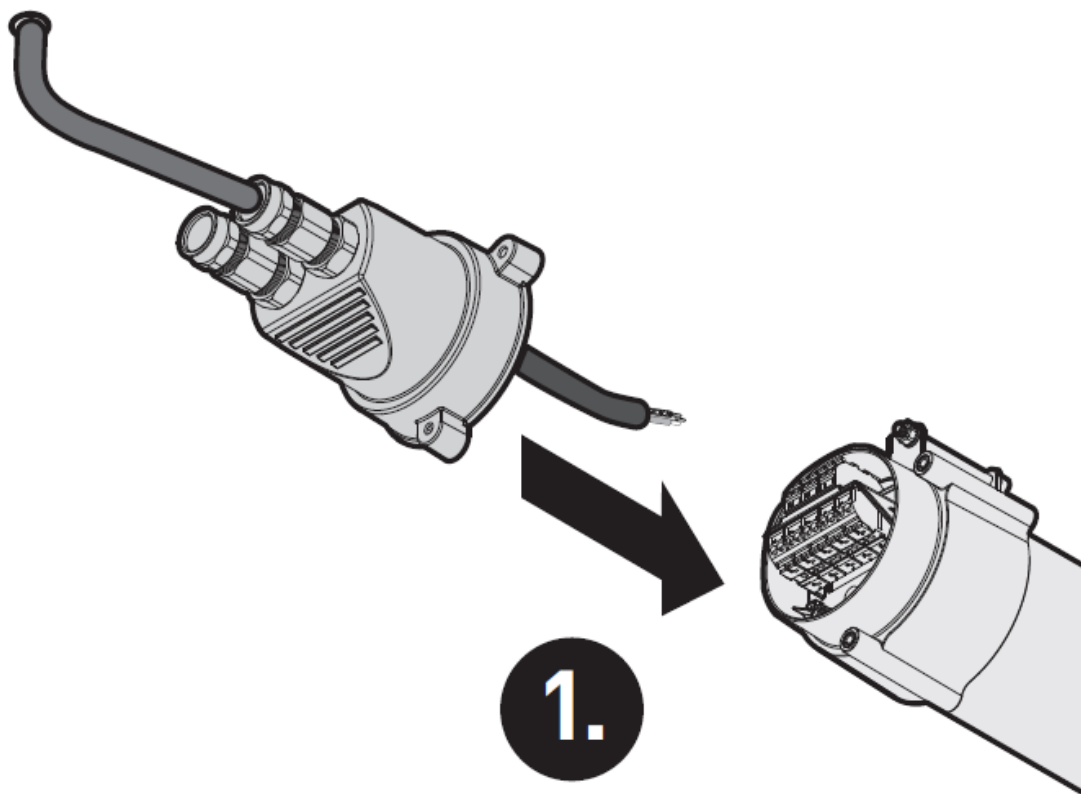
08





OFFER CABLES THROUGH GLAND & CONNECT TO TERMINAL BLOCK AS PER STEP 10

09



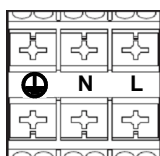
### CONNECT CABLES TO TERMINAL BLOCKS

10

#### Connection Cable Specification:-

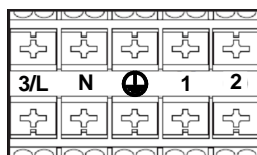
Solid Conductor: 0.5mm<sup>2</sup> - 4mm<sup>2</sup> (10mm strip length)

Stranded Conductor & Ferrule: 0.5mm<sup>2</sup> - 1.5mm<sup>2</sup>



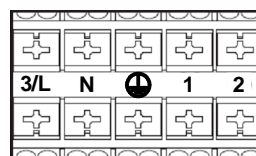
EARTH  
NEUTRAL  
SWITCHED LIVE

Fixed Output



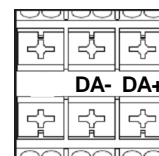
SWITCHED LIVE  
NEUTRAL  
EARTH  
NEUTRAL  
PERMANENT LIVE

Fixed Output Emergency

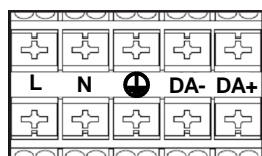


SWITCHED LIVE  
NEUTRAL  
EARTH  
NEUTRAL  
PERMANENT LIVE

Fixed Output COMECS Emergency

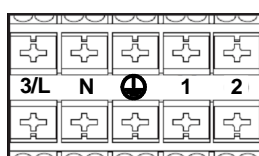


DALI  
DALI



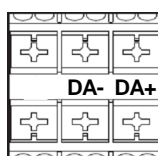
SWITCHED LIVE  
NEUTRAL  
EARTH  
DALI  
DALI

Dali Output

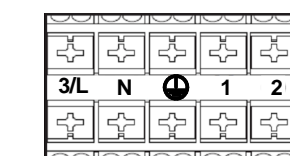


SWITCHED LIVE  
NEUTRAL  
EARTH  
NEUTRAL  
PERMANENT LIVE

Dali Output Emergency



DALI  
DALI



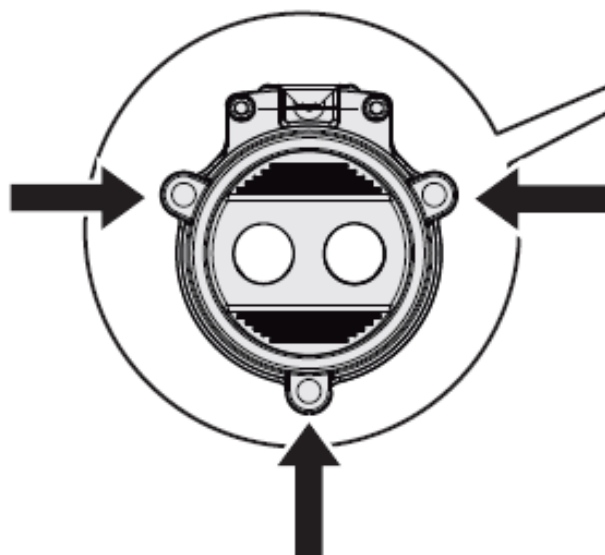
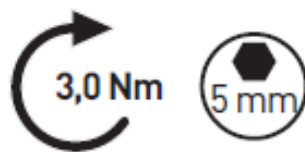
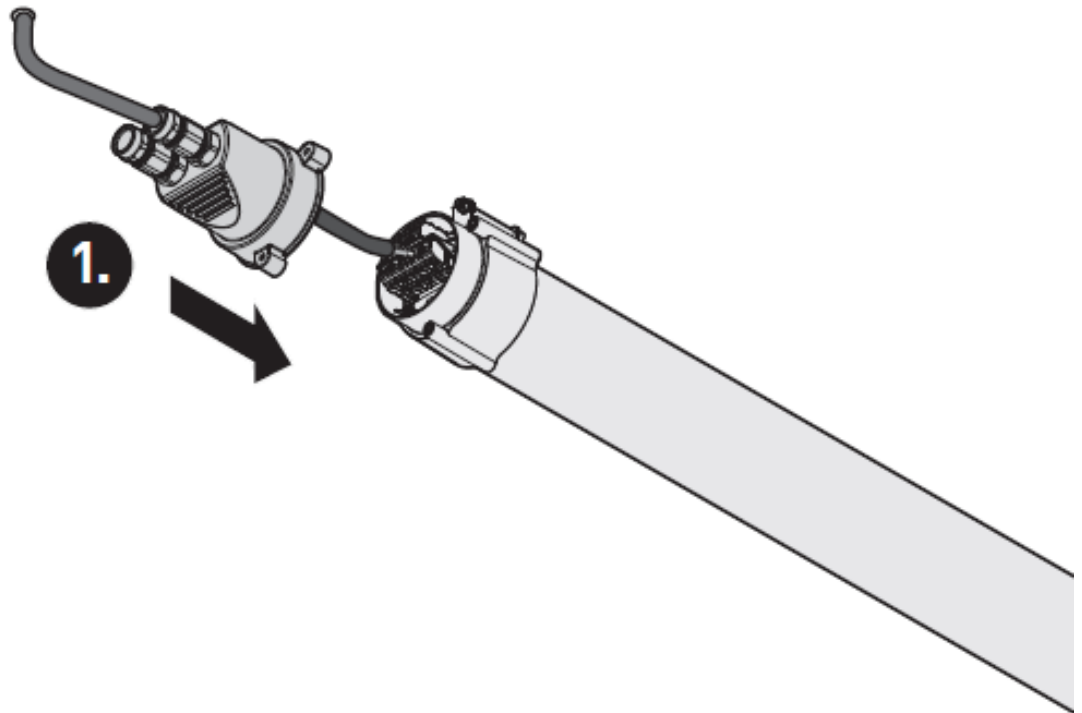
SWITCHED LIVE  
NEUTRAL  
EARTH  
NEUTRAL  
PERMANENT LIVE

Dali Output COMECS Emergency

Note  
Common Linked  
Dali & Dali Em.

### REFIT ENDCAP & TIGHTEN CABLE GLAND

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# Emergency Luminaire

## Maintenance, Commissioning & Fault Finding Guide



### BATTERY STORAGE/CARE DETAILS

Optimal storage conditions (when not in service and batteries disconnected)

- NiCd +5°C to 25°C (6 months onsite maximum)
- NiMh +5°C to 25°C (3 months onsite maximum)
- LiFEP04 +5°C to 25°C (6 months onsite maximum)

Old batteries must be handled and disposed of by specialist disposal experts. Under no circumstances should they be pierced or incinerated.

Do not put the luminaire into emergency mode until the batteries are fully charged

### MAIN CAUSES FOR PREMATURE BATTERY FAILURE:

- 1) Over cycling of batteries for example caused by an unstable mains supply. Batteries are designed to carry out 3 – 4 full discharges per year. Over cycling will reduce the capacity and hence life.
- 2) Leaving connected batteries in a discharged state (maximum 2 weeks).
- 3) High ambient temperatures (greater than the ambient specified by Whitecroft lighting)
- 4) Repeated partial discharging and recharging of batteries (memory effect)

### EMERGENCY SUPPLIES

Power to energise emergency luminaires can come from integral batteries within the luminaire (self-contained) or from a remote Central Battery system or Static Inverter. This power supply is intended to energise the emergency circuit within any emergency luminaire upon failure of the normal supply.

Integral battery emergency luminaires indicate 'batteries are charging' generally by use of an indicator LED mounted in a visible location on the luminaire. When the indicator LED is solid green, the batteries are charging.

Emergency luminaires generally have internal supply connections: Permanent Live (orange), Switched Live (brown), Neutral (blue), and Earth (green/yellow).

### TESTING REGIME

As detailed in BSEN50172:2024 (BS5266-8:2024)

- Monthly function test (30s) to check luminaires are functioning correctly (unless detailed differently in commissioning procedure)
- Annually full duration test to check the luminaires are functioning correctly and meet their full duration
- Emergency testing results must be documented and be available for inspection.

### FAULT FINDING

Inspection / fault finding work must be carried out by a suitably electrically qualified person.

Initial checks must include continuity of fuses and integrity of internal/external wiring.

Please read BATTERY STORAGE/CARE details in this leaflet before continuing.

**CAUTION: Even if the power supply to the emergency luminaire may be disconnected, there may still be high voltages inside the fitting. Disconnect batteries when maintaining internal wiring.**

- A. LED indicator non-operational and does not work in Emergency mode.
  1. Check that the permanent 230v supply is present in the luminaire.
  2. Check the batteries are properly connected.
  3. Replace the batteries with known working units.
  4. Replace the inverter ensuring you change it 'wire for wire'.
  5. If the luminaire still does not function please call Whitecroft Technical.
- B. Luminaire functions in Emergency mode but will not function in Standard mode.
  1. Check that the Switched Live is present.
  2. Check that the Switched and Permanent Supplies are correctly connected.
  3. Check that there is 230v at the 'Live Out' terminal of the emergency inverter.
  4. If the luminaire still does not function please call Whitecroft Technical.
- C. LED indicator illuminated but luminaire does not work in Emergency mode.
  1. Check light engines in emergency circuit are working
  2. Replace the batteries with known working units.
  3. Replace the inverter ensuring you change it 'wire for wire'.
  4. If the luminaire still does not function please call Whitecroft Technical.
- D. LED indicator not illuminated but luminaire functions in all other respects.
  1. Check the cable to the LED indicator; make sure it is properly terminated and has not been trapped or cut.
  2. Replace the LED indicator with a known working one.
  3. Replace the inverter ensuring you change it 'wire for wire'.
  4. If the luminaire still does not function please call Whitecroft Technical.
- E. Luminaire will not last 3 hour duration test.
  1. Check that the batteries have been charged for at least 24 to fully charge
  2. Check that the Switched and Permanent Supplies are correctly connected.
  3. Replace the batteries with known working units.
  4. Replace the inverter ensuring you change it 'wire for wire'.
  5. If the luminaire still does not function please call Whitecroft Technical.

### EMERGENCY LUMINAIRE COMMISSIONING

Battery activation

- For new NiCd, NiMh & LiFEP04 batteries activation of the cell is required to ensure specified design life.
- If the emergency luminaire does not pass the initial 3hr duration test a further full charge and discharge cycle may be required to activate the battery chemistry.

### PROCEDURE

#### STANDARD EMERGENCY

1. Connect the battery once a stable mains supply is present
2. Allow the battery to charge for a period of 24hrs
3. Perform a full manual discharge test (minimum 3 hrs.)
4. If the emergency luminaire does not pass the initial 3hr duration test a further full charge and duration test (this test can be used as the scheduled EM test)
5. If the luminaire does not pass 3 hour test contact Whitecroft Technical for assistance.

#### EASY-TEST/SELF-TEST

1. Connect the battery once a stable mains supply is present
2. Allow the emergency luminaire to complete its self-commissioning phase which charges the battery for 24hrs, followed by a 3hr duration test. If the luminaire successfully completes this test, the indicator LED will be solid green
3. If the emergency luminaire does not pass the initial 3hr duration test, allow the battery to charge a further 24hrs and then do a manual 3hr duration test
4. If the luminaire fails this duration test then contact Whitecroft Technical for assistance

#### DALI TEST

1. Connect the battery once a stable mains supply is present
2. Allow the emergency luminaire to complete its self-commissioning phase which charges the battery for 24hrs, followed by a 3hr duration test. If the luminaire successfully completes this test, the indicator LED will be solid green OR if a DALI bus is connected and the luminaire has been commissioned the self-commissioning duration test can be stopped and a scheduled duration test can be performed using DALI commands.
3. If the emergency luminaire does not pass the 3hr duration test, allow the battery to charge a further 24hrs and then do a manual 3hr duration test
4. If the luminaire fails this duration test then contact Whitecroft Technical for assistance.

# EMERGENCY COMEPS DALI TEST

## Application

Low profile emergency lighting module with DALI interface and automatic testing facility to cover 3 hour duration operating from batteries. DALI interface terminals are provided to allow control and monitoring via a separate controller. With no DALI bus connected the unit operates in self-test mode with testing being conducted on a weekly functional and 52 week duration basis with adaptive duration testing feature to minimise risk. Fitted with the unique easy addressing feature which uses the LED to indicate the DALI address during commissioning.

## Monitoring

DALI interface for controlled monitoring and reporting.  
During operation the battery, lamp and charge conditions are monitored along with functional and duration testing.  
In the event of failure the bi-coloured LED will indicate the nature of the fault. This it will continue to do until the fault has been remedied. The testing regime will then continue.

## Testing

When a DALI bus is not connected or when a command has not been received the COMEPS will operate in the self testing mode and will conduct tests in accordance with the default times stored in the EEPROM. However it should be noted that in this case the delay time is set as default zero and all units could test at the same time. Test times can be changed with a command over the DALI bus.

## Addressing

The COMEPS includes the easy addressing system which allows addressing and identification by using the bi-colour LED in conjunction with the COMEPS ADDRESS tool. Binary address codes given by the LED can be simply converted to the DALI addresses 0 to 63. For single handed addressing using this method it is necessary to send a broadcast ident command every 3 to 9 seconds. During this command the main fluorescent lamp will be switched off and the LED will flash the 6 bit binary address preceded by a 3 second start indication period.

## Functional test

The time of day and frequency of the 30 seconds function test can be set by the DALI controller. If the COMEPS unit is not connected to a DALI bus or has not received a DALI command the test will default to 30 seconds duration on a weekly basis.

## Duration test

Test times can be set by the DALI controller. If the COMEPS unit is not connected to a DALI bus or has not received a DALI command the test will be conducted every 52 weeks.

## Prolong time

Prolong time can be set by the DALI controller. This is the delay time between return of the mains supply and the end of the emergency operation. The default prolong time is set as 0 minutes as specified within the DALI standard.

## Battery

Recommended charge time is min. 24h. Battery should be fully charged before any emergency tests are performed.

## STATUS INDICATION – TRIDONIC INVERTER

### LED

Permanent green  
Fast flashing green  
Slow flashing green  
Permanent red  
Fast flashing red  
Slow flashing red  
Double pulsing green  
Off

### STATUS

System OK  
Functional test underway  
Commissioning/Duration test underway  
Lamp fault  
Charging fault  
Battery fault  
Inhibit mode  
Loss of mains/battery supply

## STATUS INDICATION – ELP INVERTER

### LED

Permanent green  
Fast flashing green  
Slow flashing green  
Permanent red  
Fast flashing red  
Slow flashing red  
Double pulsing green  
Green with double off pulse  
Alternate green/red flash  
Off

### STATUS

System OK  
Functional test underway  
Commissioning/Duration test underway  
Lamp/LED fault  
Charging fault  
Battery fault  
Inhibit mode  
Rest mode  
Identification Mode  
Loss of mains/battery supply

## STATUS INDICATION – MACKWELL INVERTER

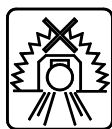
### LED

Permanent green  
Fast flashing green  
Slow flashing green  
  
10 second green blink  
Fast flashing red  
Slow flashing red  
Off

### STATUS

System OK  
Functional test underway  
Commissioning/Duration test underway  
  
Standby mode  
Lamp/LED fault  
Battery/Charging fault  
Loss of mains/battery supply

# Warning Symbol Key



DO NOT COVER

Do not cover the luminaire with thermal insulation as may cause product to overheat and cause damage



HIGH VOLTAGE

High voltage warning against risk of electric shock



FALLING OBJECTS

Falling objects in areas where at risk from falling object hazards



GENERAL WARNING

General Warning used to denote areas of caution



HOT SURFACE

Hot surface to warn others around areas where there are any hot surfaces present



HIGH TEMPERATURE

High temperature displayed around areas where it is necessary to warn people about the dangers posed from any high temperature



EARTH

5019 Protective earth (ground) to identify any terminal which is intended for connection to an external conductor for protection against electrical shock in case of a fault, or the terminal of a protective earth (ground) electrode



ELECTROSTATIC  
DISCHARGE

ESD Electrostatic Discharge is intended to identify devices and assemblies that are susceptible to ESD