

A-Line EX

27W, 42W, 58W



II 3 G Ex ec IICT4 Gc



II 3 D Ex tc IICT85°C Dc

GB - Scan for additional Installation instructions

FR - Recherchez des instructions d'installation supplémentaires.

DE - Nach weiteren Installationsanweisungen suchen

IT - Cerca ulteriori istruzioni per l'installazione

SE - Sök efter ytterligare installationsinstruktioner

ES - Busque instrucciones de instalación adicionales.

NL - Scan voor aanvullende installatie-instructies

NO - Skann etter flere installasjonsinstruksjoner

PL - Wyszukaj dodatkowe instrukcje instalacji



The safety of people and equipment in hazardous areas depends on the observance of all safety standards. Knowledge of all applicable regulations and standards is mandatory for the installation maintenance and repair of EX equipment, especially:

- the provision of IEC/EN 60079-14 and IEC/EN 60079-17 for the maintenance of EX appliances
- the generally accepted rules of technology
- the national health and safety standards
- the safety instructions in this leaflet
- the technical data on the product label and the information in this leaflet



1. Safety Instructions

- Mounting and installation must be done in accordance with the respective regulations.
- The luminaire must be protected against overvoltage, over currents, short circuits and other electrical failures.
- The luminaire must only be operated in an undamaged condition.
- The luminaire must be disconnected from the mains supply before opening.
- Use of the luminaire in a non-fixed installation, as well as any other inappropriate usage is prohibited.
- ONLY operate the luminaire within its certified rating.
- When considering the minimum and maximum ambient temperature, heat or cold from external sources must be considered (e.g. direct heat or solar radiation, cooling units).
- If the luminaire is subject to an application that is influenced chemically, mechanically, thermally or electrically, or if the light fitting will be subject to any kind of vibrations, it is highly recommended to consult Thorlux Lighting before installation.
- Any modification will render the product unsafe and will invalidate certification and warranty
- **Caution - Risk of electrostatic discharge.** It is recommended to control the humidity this product is installed within to minimize the generation of static electricity build up on the cover, Low humidity poses a risk to electrostatic build up. Protection should also made for the luminaire from direct airflow which may cause a charge transfer.
- Only use a damp cloth to clean the luminaire
- In areas where there is a risk of accidental electrostatic charge (e.g. by passing by) the luminaire must be protected by appropriate measures.
- The luminaire must not be installed in areas where strong electrical fields may occur (i.e. HV Sparking Electrodes or Particle Streams). This is to avoid any electrostatic charge of the luminaire itself.
- DO NOT install this luminaire in areas where explosive gases combine with combustible dusts.
- Replace damaged EX parts with original spare parts from Thorlux Lighting only.
- The LED module contained in this luminaire shall only be replaced by Thorlux Lighting or their service agent or a similar qualified person.
- Disconnection of battery allowed in non-explosive atmosphere only.
- Suitably certified cable glands and/or blanking elements may be fitted into the enclosure via pre-drilled through holes; to maintain the ingress protection of IP65 any cable entry device shall be at least certified Ex ec and Ex tc, shall be suitably rated IP65 and suitable for the environment it is to be used in.

2. Operating Advice

- Because of the chemical resistance, only use a damp cloth for cleaning the luminaire. Use with a mild, solvent-free cleaning agent if necessary.
 - Any incorrect application of the luminaire will void the manufacturer's warranty.
 - ONLY open the LED compartment for repair work.
 - LEDs are sensitive electronic components. Please ensure that they are protected against mechanical and electrostatic attacks whenever the luminaire is open. For this reason the LEDs **must not be touched**.
 - Harmful gases and other corrosive substances (e.g. ammoniac, sulphur, or chlorine compounds) may damage the LEDs. Depending on the substance, the concentration, the temperature and the dwell time, damage including a total black-out are possible. This may also occur to fittings that have a high degree of protection.
 - Due to a high inrush current when switching on the light fitting, the number of luminaires that can be connected to a single fused circuit is limited. (Possible number of light fittings per circuit breaker see section 3, Technical Data).
 - For Radar versions please see SmartScan Radar Leaflet
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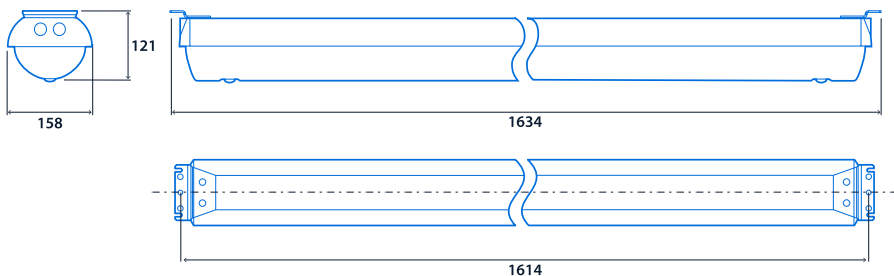
3. Technical Data

Series:	AX027LPM-AX058LPM Ex luminaire operating in hazardous areas of zones 2 and 22.			
Explosion protection:	 II 3 G Ex ec IIC T4 Gc  II 3 D Ex tc IIIC T85°C Dc			
Certification:	THX 15.1305 ATEX Certificate number: CML 24ATEX3268X UKEx Certificate number: CML 24UKEX3269X IECEX Certificate number: IECEX CML 24.01043X			
Rated voltage:	220...240 V ±10%; 50/60 Hz 198...264 V AC			
Isolation class:	I			
Ingress protection:	IP65			
Ambient temperature:	-10 °C ... +35 °C (Standard) 0 °C ... +30 ° (Emergency)			
Power consumption:	The power consumption of the LED is dependent on production fluctuations as well as on the service temperature. This is why just reference values can be given as follows: AX027LPM: 27 W AX027LPM: 42 W AX058LPM: 58 W			
Cable entry:	Cable gland with thread size M25 x 1.5 only. Sealing range: 13 - 18 mm Torques: Connection thread 3 Nm; Pressing screw 2 Nm Torque locking screw 5Nm			
Terminal connection:	Clamping range: 2 x 0.5 - 4mm² (solid core) 2 x 0.5 - 1.5mm² (fine stranded with insulated ferrule) 16 A max. Required stripping length: 10 - 11mm			
Operation position:	Ceiling mount only – (Light output downwards)			
Locking:	4 x T25 pin Torx			

Possible number of light fittings per circuit breaker:

	Type B 10A	Type B 16 A	Type C 10 A	Type C 16 A
AX027/042/058	7	12	11	19
WAX/DAX027/042/058	7	11	11	18

Through wiring: 5 x 2,5 mm²; 16 A max. AX027/042/058



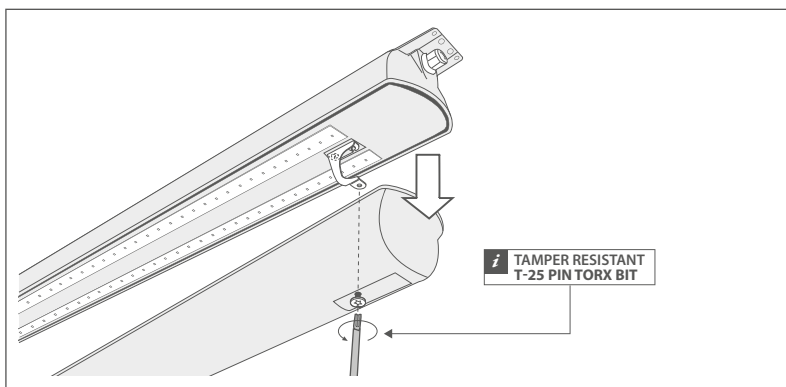
4. Installation



- The safety of this luminaire is only guaranteed as long as it is operated within its certified rating. Installation and maintenance must be done in accordance with the respective regulations.
- The installation of EX luminaires must ONLY be done by EX-skilled electricians.
- When considering the minimum and maximum ambient temperature, heat or cold from external sources must be considered (e.g. direct heat or solar radiation, cooling units).
- The application of this luminaire is dependent on the properties of the surrounding dust.
- Ensure there will be an adequate difference between the maximum surface temperature of the fitting and the glowing/ignition temperature of the surrounding dust.
- The light fitting must be mounted in the instructed operation position and with the attached sealing parts (see section 3, Technical Data).

4.1 Open the luminaire

- Loosen the T25 pin Torx screw (see picture)



4.2 Electrical connection

- Fasten the supplied EX cable glands and EX locking screw supplied into the housing by using the lock nuts (Torques see section 3, Technical Data).
- After mounting the housing, insert the connection cable through the EX cable gland.
An inlaid dust protective disc, if existing, must be removed before.
- Fasten the EX cable gland (Torque see section 3, Technical Data).



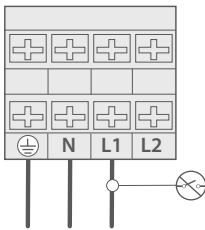
- Appropriate measures (e.g. pull relief clips) must be taken to protect the cable inserted through the cable entry from pulling and twisting.
- The diameter of the connection cable must correspond to the sealing range of the EX cable gland (see section 3, Technical Data).
- Cable entries, which are not used, must be closed with the enclosed closure plug (see section 3, Technical Data)! An inlaid dust protective disc, if existing, must be removed before.
- The conductors must not be damaged when stripping the cable.
- The cable must be stripped to the correct length (see section 3, Technical Data).

- Connect the conductors of the connection cable to the right terminals as marked.

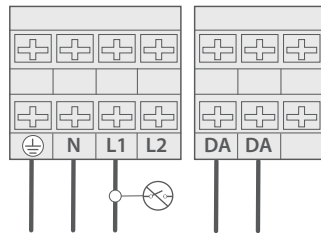


- Ensure that the bare conductor is fully inserted into the terminal and that no cable insulation is clamped.

RADAR

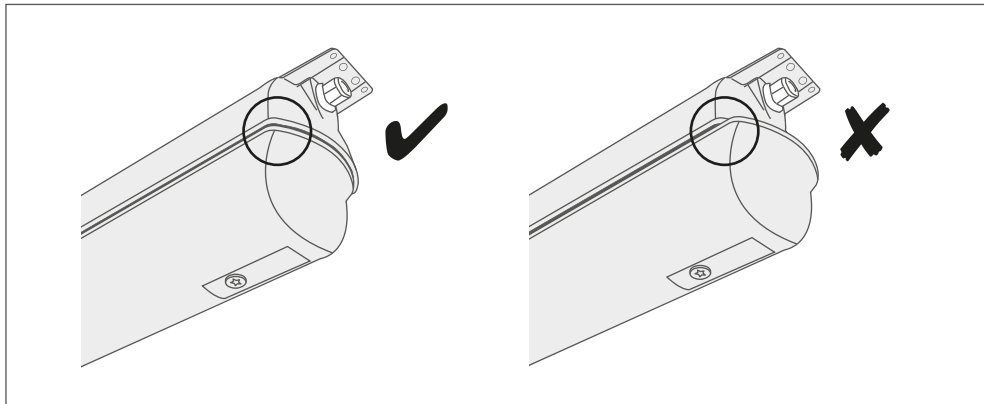


DALI



4.3 Close the luminaire

- Place the diffuser back onto the housing.
- **NOTE:** Ensure cover aligns with gasket during installation.
- Secure the T25 pin Torx to 2Nm.
- After closing the luminaire ensure the gasket is correctly sealing it and that the cover does not foul on the body



5. Commissioning

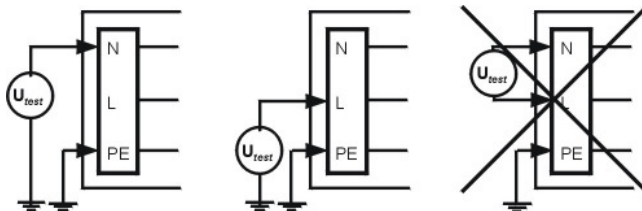
- The tightness and correct torquing of the cover fixings/gland is essential for safe operation

Before commissioning this EX luminaire please ensure that:

- the luminaire has been installed according to the regulations and in the correct operating position.
 - the EX cable glands and EX locking screws are securely fixed in the housing (Torques see section 3, Technical Data).
 - the pressing screw of every EX cable gland is tightened with the required torque (Torques see section 3, Technical Data).
 - the connection cable has been firmly installed and is not subject to any tension whatsoever.
 - the bare conductor is fully inserted into the terminal and that no cable insulation is clamped.
 - the luminaire is closed correctly.
 - all gaskets are effective.
 - the luminaire is not damaged whatsoever.
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5.1 Insulation resistance

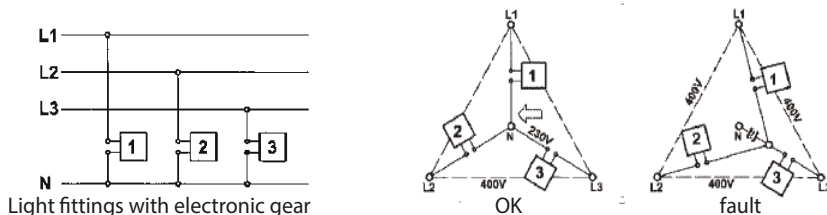
For measuring the isolating resistance the test voltage must be put on between the outer conductor and the earth conductor or between the neutral conductor and the earth conductor only.



After finishing the insulation test the conductor between the mains and the luminaire must be reconnected safely. Before operation, the neutral connection must be reconnected to avoid any damage from the electronic control gear caused by any excess-voltage in the event of an unbalanced mains load. (see section 5.2)

5.2 Electronic gear in 3-phase-operation

The diagram shows the wiring for luminaires or a luminaire group in 3-phase circuits with a common neutral conductor (N).



Light fittings with electronic gear OK fault if the common neutral conductor is interrupted and voltage is present, the luminaire or groups of luminaires may be exposed to unacceptably high voltages and the electronic gear may be destroyed.

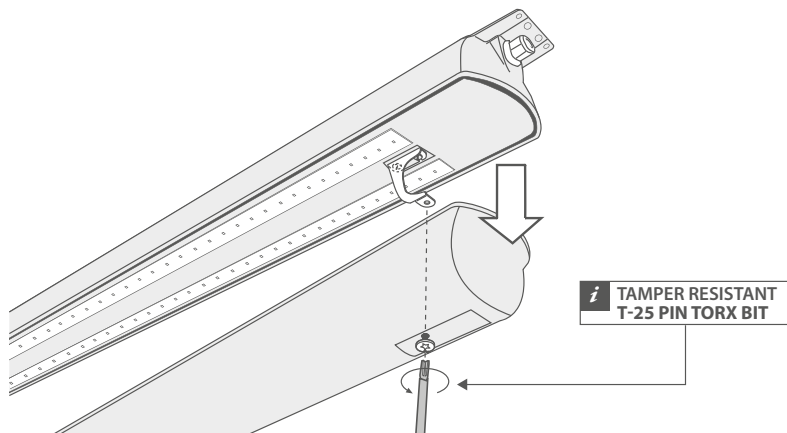
6. Maintenance

EX luminaires need regular maintenance in accordance with the national rules of the country in which they are installed. Components that are essential for the Explosion Category especially have to be carefully checked. Therefore the following must be checked:

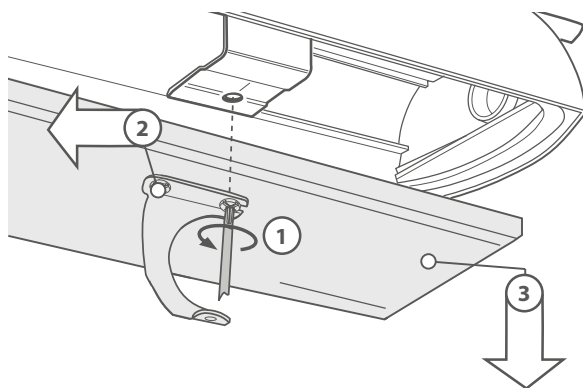
- the diffuser, housing and gaskets for any kind of damage.
- the correct installation and tightness of EX cable glands and EX locking screws (Torques see section 3, Technical Data).
- that all plastic parts inside the luminaire show no signs of colour change, deformation or damage.
- the tight fit of the conductor and the condition of the cable insulation.
- that the luminaire is closed correctly and the gasket is effective.
- For safe operation ensure the correct torque is used to tighten the cable entry and fixings

Battery Replacement

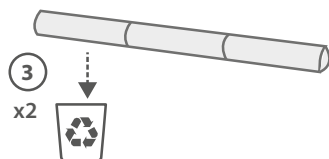
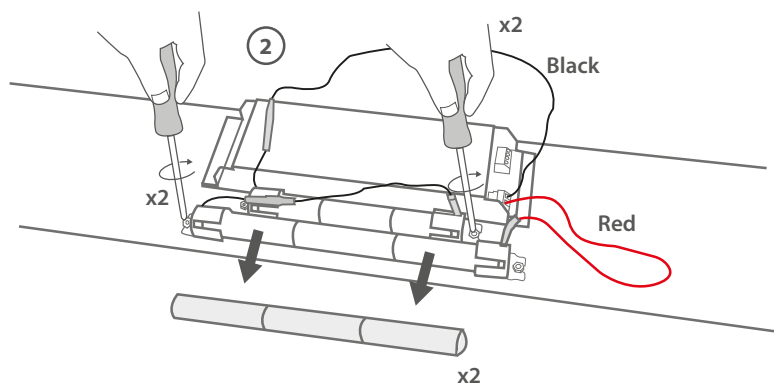
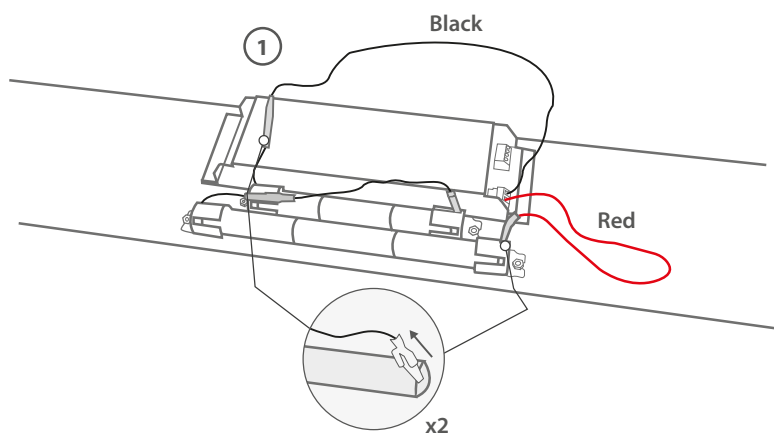
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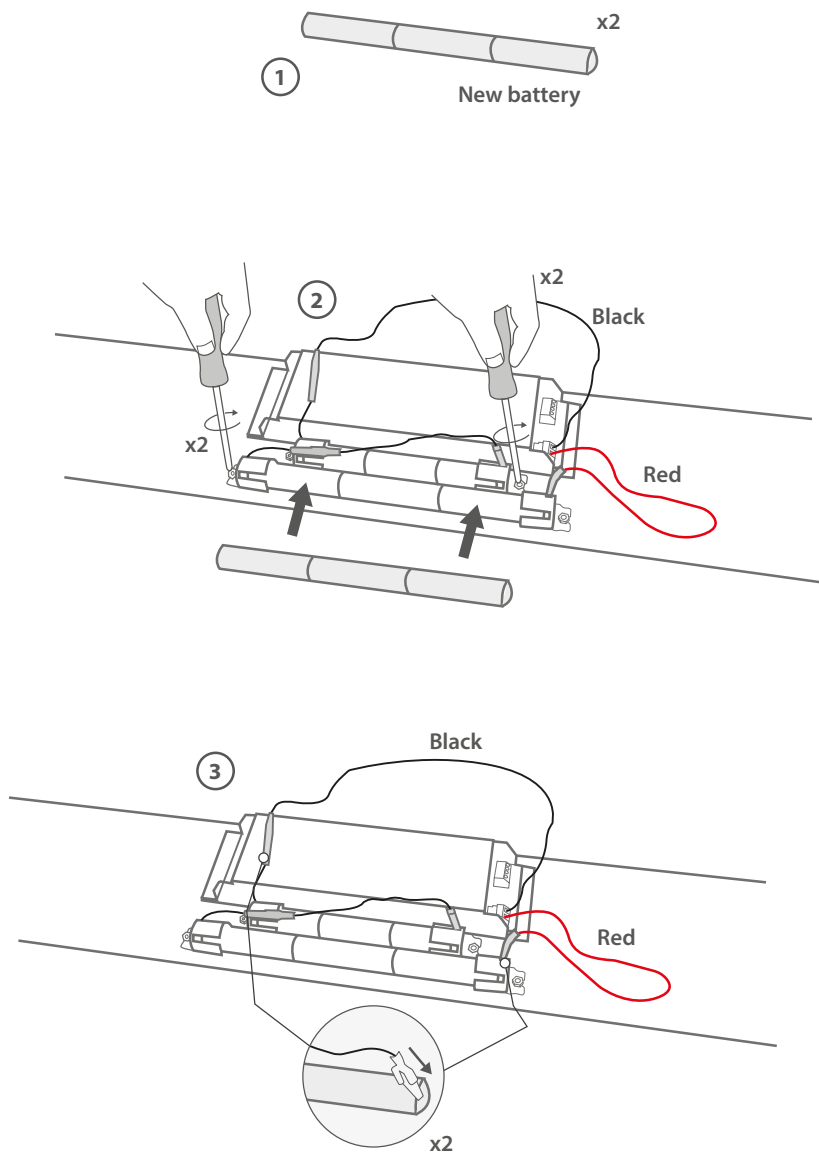


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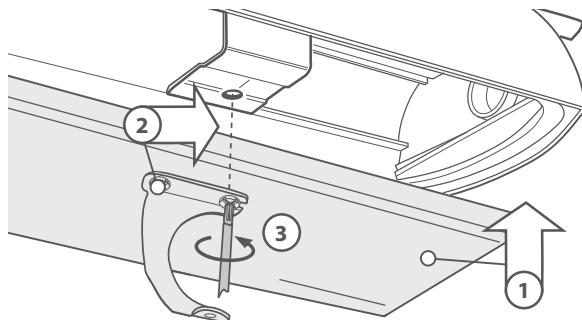
GB - Take care when handling the LED board.
FR - Manipulez les LEDs avec précaution.
DE - LED Platine mit Sorgfalt behandeln.
IT - Maneggiare accuratamente la piastrina LED.
SE - Var försiktig med hanteringen av LED panelen.
ES - Tenga precaucion en el manejo de la placa LED.
NL - Wees voorzichtig met het hanteren van de LED printplaat.
NO - Vær varsom ved håndtering av LED brett.
PL - Proszę ostrożnie obchodzić się z panelem LED.





**Only use Thorlux OEM
EMB602 x1 + EMB603 x1**

5



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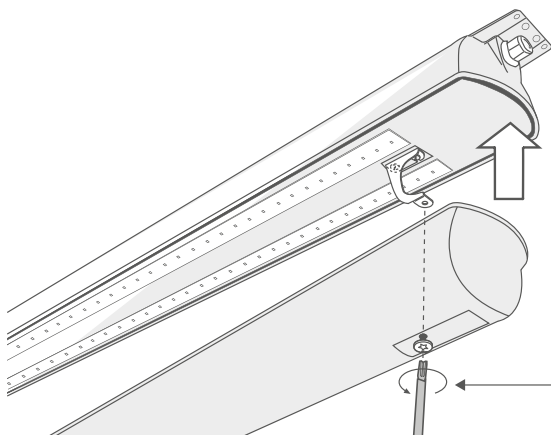
ES - Tenga precaucion en el manejo de la placa LED.

NL - Wees voorzichtig met het hanteren van de LED printplaat.

NO - Vær varsom ved håndtering av LED brett.

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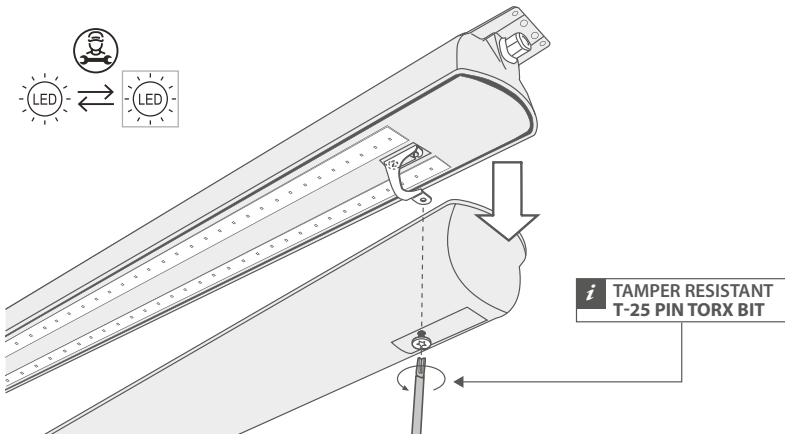
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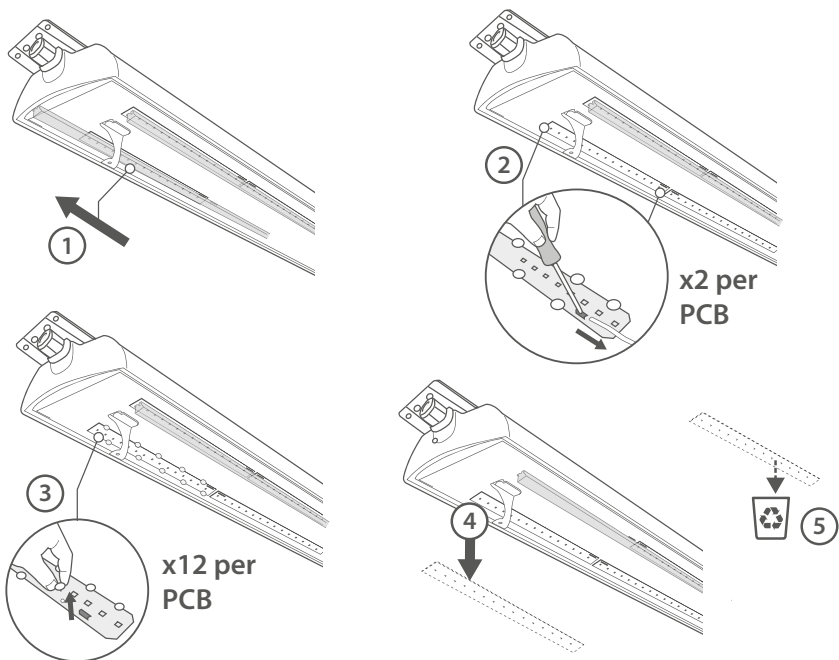
i TAMPER RESISTANT
T-25 PIN TORX BIT

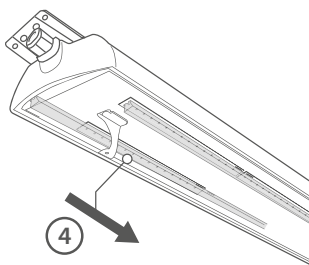
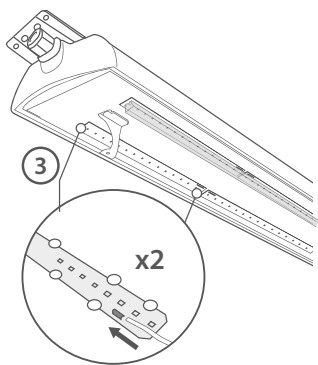
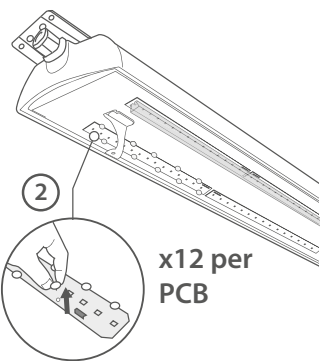
PCB Replacement

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**TAMPER RESISTANT
T-25 PIN TORX BIT**

6.1 Cleaning the luminaire



- The plastic components of the luminaire produce a danger of ignition due to electrostatic charge
- To clean the luminaire use cold or lukewarm water (and if necessary a mild cleaning agent) with a sponge or a soft fibrous-free cloth. **DO NOT USE A BRUSH**

Installing the luminaire in a dusty environment:

- Dust deposits have got thermal insulation characteristic features.
- It is necessary to clean the luminaire from dust regularly.
- In case the dust layer may be higher than 5mm it must be ensured that the surface temperature of the luminaire does not exceed the maximum permissible surface temperature of the specific dust considering the thickness of the dust layer
- The dust layer must not exceed 50 mm.

6.2 Repair and maintenance



- The luminaire must be disconnected from the mains supply before opening.
- For installations in dusty environments the luminaire must be cleaned before opening.
- Ensure that no dust can get into the luminaire when it is open.
- Only use Thorlux Lighting spare parts to replace damaged EX parts.

Modifications

Thorlux products should not be modified. Any modification may render the product unsafe and will invalidate any Safety/Approval marks.

Thorlux will not accept any responsibility for any modified products or for any damage caused as a result of their modification.

Important-Safety

Before carrying out any servicing on this luminaire, ensure that the mains supply is fully isolated.

Disconnect luminaire before insulation testing of the installation.



Declaration of Conformity

Directive 2014/34/EU

UKSI 2016:1107

UKSI 2016:1091

UKSI 2012:3032

Document number: THX 15.1305

We, Thorlux Lighting, Merse Road, Redditch, Worcestershire, B98 9HH, hereby declare that this document is issued under the sole responsibility of the manufacturer and that the product range listed below conforms with the below standards and Directives.

RANGE	THORLUX REF	LED
A-LINE EX	AX027LPMA	A-LINE EX, 27W, DALI, 840
	AX027LPMR	A-LINE EX, 27W, DALI, 840
	DAX027LPMA	DT: A-LINE EX, 27W, DALI, 840
	WAX027LPMR	SS: A-LINE EX, 27W, DALI, 840
	AX027LPMATW	A-LINE EX, 27W, DALI, 840, TW
	AX027LPMRTW	A-LINE EX, 27W, DALI, 840, TW
	DAX027LPMATW	DT: A-LINE EX, 27W, DALI, 840, TW
	WAX027LPMRTW	SS: A-LINE EX, 27W, DALI, 840, TW
	AX042LPMA	A-LINE EX, 42W, DALI, 840
	AX042LPMR	A-LINE EX, 42W, DALI, 840
	DAX042LPMA	DT: A-LINE EX, 42W, DALI, 840
	WAX042LPMR	SS: A-LINE EX, 42W, DALI, 840
	AX042LPMATW	A-LINE EX, 42W, DALI, 840, TW
	AX042LPMRTW	A-LINE EX, 42W, DALI, 840, TW
	DAX042LPMATW	DT: A-LINE EX, 42W, DALI, 840, TW
	WAX042LPMRTW	SS: A-LINE EX, 42W, DALI, 840, TW
	AX058LPMA	A-LINE EX, 58W, DALI, 840
	AX058LPMR	A-LINE EX, 58W, DALI, 840
	DAX058LPMA	DT: A-LINE EX, 58W, DALI, 840
	WAX058LPMR	SS: A-LINE EX, 58W, DALI, 840
	AX058LPMATW	A-LINE EX, 58W, DALI, 840, TW
	AX058LPMRTW	A-LINE EX, 58W, DALI, 840, TW
	DAX058LPMATW	DT: A-LINE EX, 58W, DALI, 840, TW
	WAX058LPMRTW	SS: A-LINE EX, 58W, DALI, 840, TW

EU Type Examination Certificate Numbers:

IECEx CML 24.0104X
CML 24ATEX3268X
CML 24UKEX3269X

Provisions of the Directive fulfilled by the Equipment:

II 3 G D
II 3 G Ex ec IIC T4 Gc
II 3 D Ex tc IIIC T85°C Dc

Approved by the following notified body:

CML B.V., Chamber of Commerce No 67386717,
Koopvaardijweg 32, 4906CV Oosterhout,
The Netherlands, Notified Body Number 2776

Terms of Directive

2014/34/EU ATEX Directive (OJ L96)
UKSI 2016:1107

2014/30/EU Electromagnetic compatibility (OJ L96)

2011/65/EU RoHS Directive (OJ L174)

Number of relevant standard/EHSR reference

EN IEC 60079-0:2018/+A11:2024
EN IEC 60079-7:2015+A11:2024
EN 60079-31:2024
EN 60598-1:2021+A11:2022
EN 60598-2-1:2021
EN 60598-2-22:2022

EN 55015:2019+A11:2020
EN 61000-3-2:2019+A1:2021
EN 61000-3-3:2013+A2:2021
EN 61547:2023

EN IEC 63000:2018

Name and signature of authorised persons

Peter Newman
Technical Director



Christopher Jones
Laboratory & Compliance Manager

**NOTICE TO CONTRACTOR -
PLEASE PASS THIS LEAFLET TO THE END-USER**

**MERSE ROAD NORTH MOONS MOAT
REDDITCH WORCS. B98 9HH ENGLAND**
e-mail: thorlux@thorlux.co.uk
Web: www.thorlux.com
☎ +44 (0)1527 583200

Australia:	www.thorlux.com.au	☎ +61 (0)2 9907 1261
Deutschland:	www.thorlux.de	☎ +49 (0)211 6956 0310
Ireland:	www.thorlux.ie	☎ +353 (0)1 460 4608
UAE:	www.thorlux.ae	☎ +971 (0)2 656 5842