INNOVATION THAT ELEVATES

Light Saber

Installation Manual



Revision A · November 2026 · Draft

Elevator Equipment Limited
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For use by competent lift engineers and qualified electricians only. Read the safety section before starting work.

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Light Saber LED Shaft Lighting

PLEASE READ THESE INSTRUCTIONS BEFORE STARTING INSTALLATION AND KEEP THEM FOR FUTURE REFERENCE.

Safety warning

These warnings are provided in the interest of safety. You must read them carefully before installing or using this equipment.

- All installation and servicing must be done by a qualified electrician or other competent person.
- It is dangerous to alter the specification or modify the product in any way.
- Make sure these instructions are passed on to the end user.
- The light tubes and switches are designed for dry conditions and must not be exposed to rain or moisture.
- Do not obstruct the light tubes. Air must be able to circulate freely around them.
- This product is suitable for mounting on surfaces of normal flammability (for example, wood and plasterboard). Do not mount it on highly flammable surfaces (for example, polystyrene tiles).
- Do not attach it to any surface that is freshly painted, damp or otherwise electrically conductive.

Warning instructions

⚠ SWITCH THE TRIP SWITCH IN THE MAIN CONTROL UNIT (CEM) OFF BEFORE CONNECTING THE POWER SUPPLY.

⚠ DO NOT OVER-TIGHTEN THE PLUG CONNECTIONS.

⚠ DO NOT INSTALL THE SYSTEM IN AN AREA THAT IS WET OR DAMP.

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Introduction

Light Saber is the first LED tube lighting system for lift shafts with built-in emergency backup and plug-and-play connections. The components simply click together, and the main control unit then connects to the power supply. Light Saber fully complies with EN 81-20.

In normal operation, Light Saber gives more than 150 lux throughout the lift shaft, and more than 15 lux in emergency operation. It comes with two-way switching from the machine room to the pit, with a built-in pit socket. Three-way switching from the top of the lift car is available as an option.

All components are installed in a single run from the top to the bottom of the lift shaft. Its fast installation and lightweight design mean the system can be installed by a single engineer. The whole system is RCD protected within the main control unit.



Components

Product code	Component
INTD4001	Main control unit (CEM)
INTD4010	LED light tube (T4E)
INTD4020	Machine room light switch (MRS)
INTD4021	Pit light switch and socket (PLS)
INTD4022	Top of lift car light switch (CLS) – optional
INTD4030/1	1 metre extension lead
INTD4030/5	5 metre extension lead
INTD4030/10	10 metre extension lead

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Technical specification

Parameter	Value
Power supply	230 V AC, 50 Hz
Battery type	12 V 7.2 Ah sealed lead acid
Socket AC load	Up to 1 kW
Operating temperature	0 to 80 °C
Operating humidity	10 to 80% (non-condensing)
Colour temperature	6000 K
IP rating	IP65
Beam angle	120°
Lifetime	50,000 hours (estimated)
Lighting level	More than 150 lux (normal), more than 15 lux (emergency)
High Efficiency LED	165 lumen/Watt

Installation instructions

Before you start

To make sure your Light Saber system works reliably and without trouble, follow the information below.

- Check each section of the system before installation to make sure all the correct components are present, as per the kit list. The number of sections depends on the number of floors.
- Use only the correct power tools and hand tools for the rawplugs and screws in the installation packs.
- Assess the area to find a suitable location for the system. The area must be suitable for the application and free from any water or damp.

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1. Installing the main control unit (CEM)

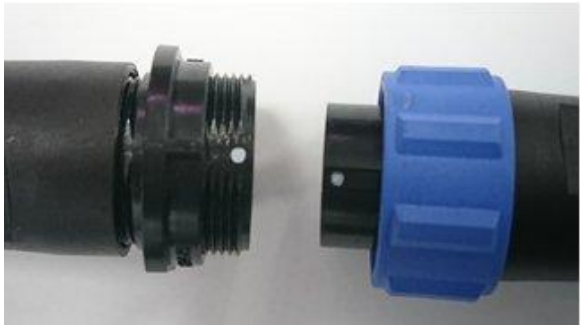
1. Install the main control unit (CEM) in the lift machine room, in a location with easy access to the lift shaft.
2. Connect the 10 metre extension lead to the main control unit. Line up the two white dots on the plugs, as pictured below, then screw the plugs together. **Do not over-tighten.**
3. This 10 metre extension lead connects to the first LED light tube.



Fitting the main control unit



Connecting the extension lead



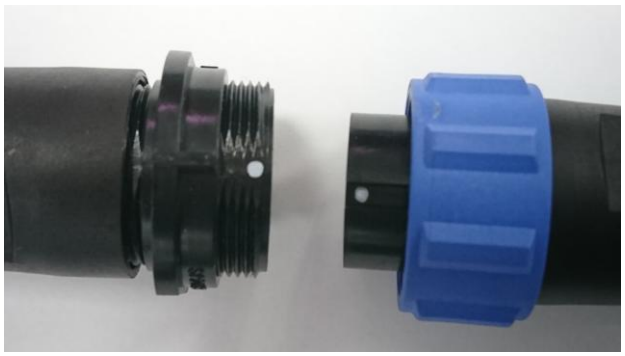
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2. Installing the machine room light switch (MRS)

1. Install the machine room light switch (MRS) in a suitable location in the lift machine room.
2. Connect the machine room light switch to the main control unit (CEM). Line up the two white dots on the plugs, as pictured below, then screw the plugs together. **Do not over-tighten.**



Fitting the machine room light switch



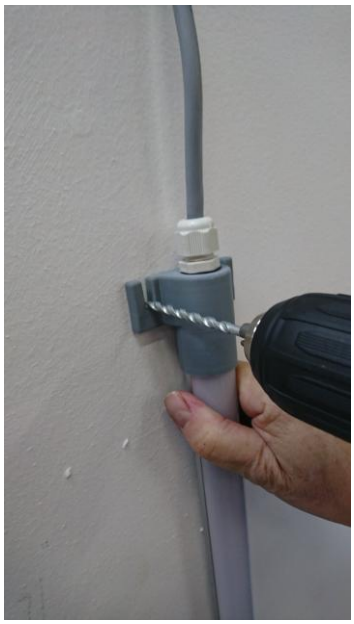
Lining up the plugs

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3. Installing the LED light tubes (T4E)

1. Position the first LED light tube 500 mm from the top of the lift shaft, then mark and fix it to the lift shaft wall.
2. Fix the cable between each light tube to the lift shaft wall using the masonry mounts and cable ties provided.

NOTE: If your machine room is at the bottom of the lift shaft, you will need extension leads from the machine room to the top of the lift shaft to connect the main control unit to the first LED light tube.



Fixing an LED light tube



Fixing the cable with a masonry mount

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4. Installing the pit light switch and socket (PLS)

Once all the LED light tubes are installed, install the pit light switch and socket (PLS) to complete the system.



Pit light switch and socket

5. Optional: top of lift car light switch (CLS)

For three-way switching, a top of lift car light switch (CLS) is also available. It connects to the main control unit (CEM) via the lift trailer cable. See "Top of car switching" in the power supply section for the wiring.



Top of lift car light switch

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6. Extension leads

Extension leads are available in three lengths: 1 metre, 5 metre and 10 metre.



INTD4030/1 – 1 metre



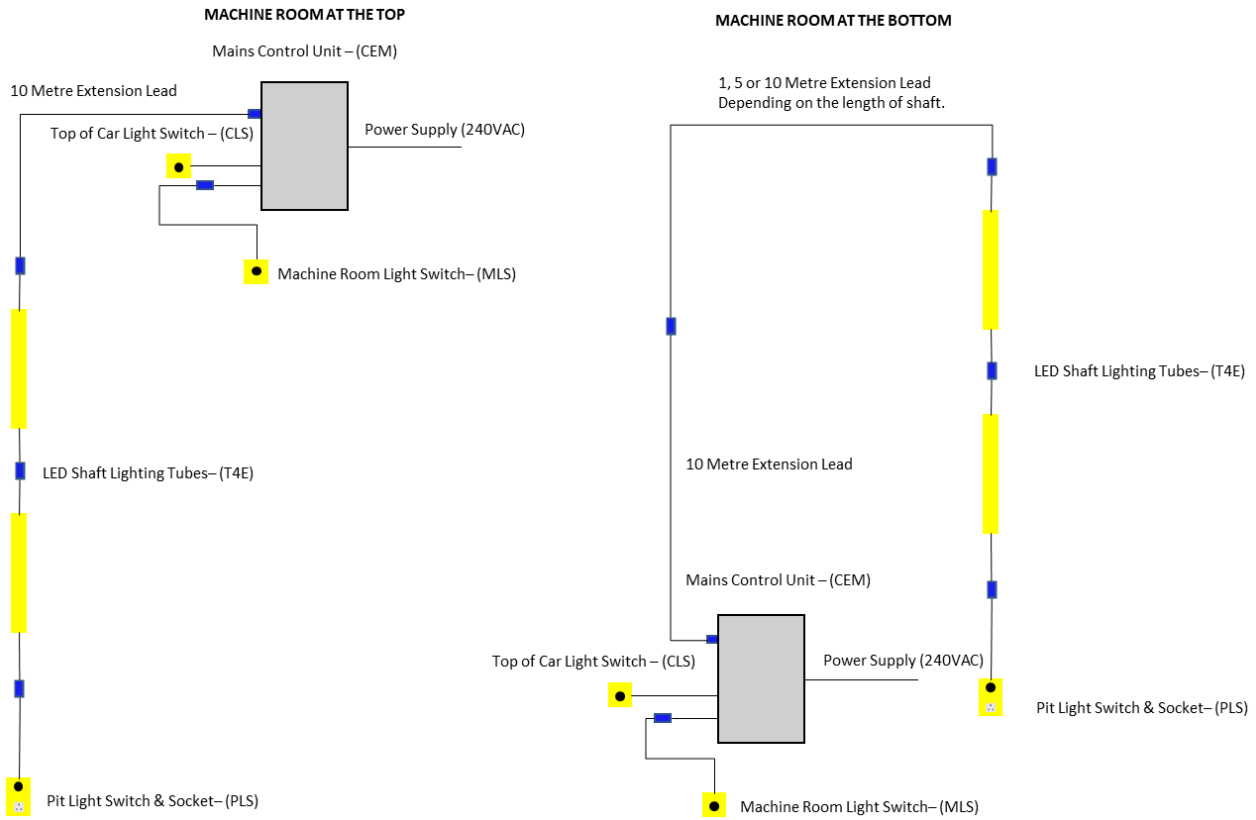
INTD4030/5 – 5 metre



INTD4030/10 – 10 metre

Layout diagram

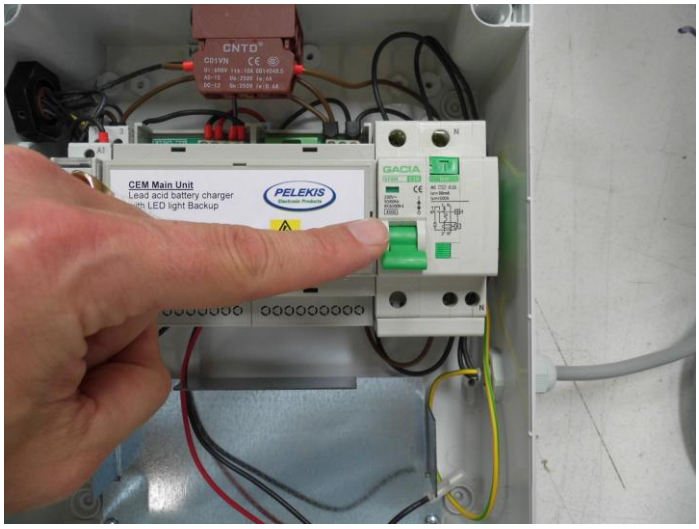
The diagram below shows the system layout with the machine room at the top of the lift shaft (left) and at the bottom (right).



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Connecting the power supply

⚠ SWITCH THE TRIP SWITCH IN THE MAIN CONTROL UNIT (CEM) OFF BEFORE CONNECTING THE POWER SUPPLY.



Connect the incoming 230 V AC mains supply to the power lead:

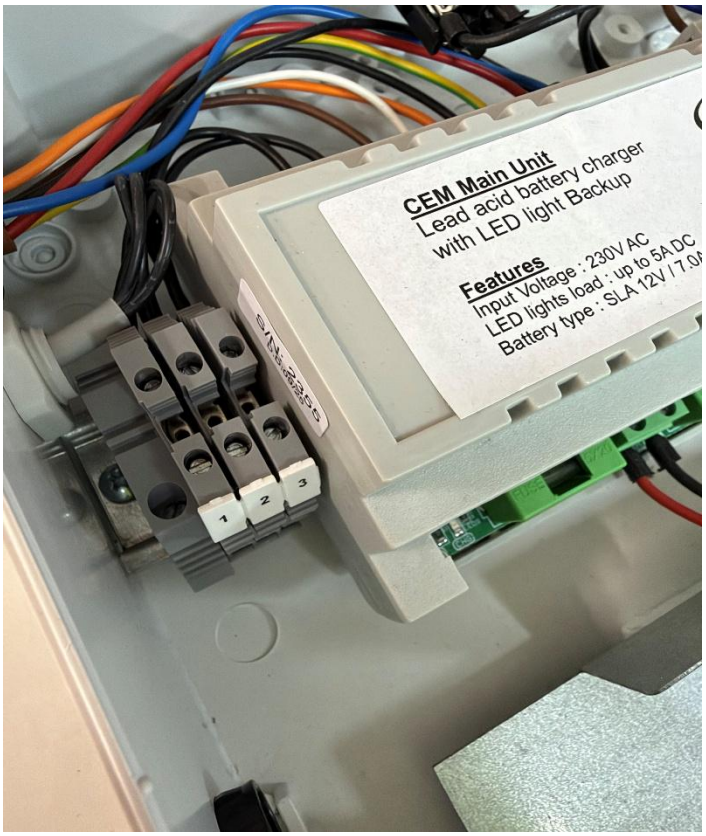
Supply	Power lead
Live	Black cable marked (1)
Neutral	Black cable marked (2)
Earth	Earth cable



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Top of car switching (three-way switching)

Connect the two wires from the switch on the lift car top, via your lift controller, to the terminals shown below.



How to test

1. With all the LED light tubes and switches connected, switch on the main control unit (CEM) using the trip switch.
2. Press the machine room light switch (MRS) to turn the lights on or off.
3. Press the pit light switch (PLS) to turn the lights on or off.
4. If fitted, press the top of lift car light switch (CLS) to turn the lights on or off.

Elevator Equipment Limited reserves the right to improve the product specification without prior notice.

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Appendix A — Commissioning record

Field	Entry
Site address	
Lift identification number	
Shaft height (m)	
Strip length installed (m)	
Circuit reference and protective device	
Insulation resistance (MΩ)	
RCD trip time (ms)	
Lux — car roof, top floor	
Lux — car roof, mid-shaft	
Lux — pit floor	
Lux — lowest other reading	
Both switches tested	Yes / No
Lighting stays on with lift main switch off	Yes / No
Installed by (name, company)	
Date	
Signature	

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Appendix B — Warranty and support

The Speedflex LED Shaft Lighting System is covered by a One-year warranty from the date of installation, provided it is installed and maintained in line with this manual.

- Address: EEL, Unit A Gorse Hill Industrial Estate, 109-111 Boston Road, Leicester, LE4 1AW
- Technical support: 0116 2662241
- Email: sales@elevatorequipment.co.uk
- Website: www.elevatorequipment.co.uk