



M-TUBE High Brightness Installation instructions

1 General

1.1 About these installation instructions

These installation instructions ensure safe assembly and safe operation of the light light system M-TUBE High Brightness. We therefore ask you to read these installation instructions carefully prior to assembly. Always keep these installation instructions in a safe place. If you pass the light system on to a third party, please also include these installation instructions. We do not accept any liability for damages resulting from non-observance of these installation instructions.

1.2 Information contained in installation instructions

DANGER!
... indicates an imminently hazardous situation that will result in death or serious injuries if not avoided.

WARNING!
... indicates an imminently hazardous situation that could result in death or serious injuries if not avoided.

CAUTION!
... indicates a potentially hazardous situation that could result in property damage and environmental damage if not avoided.

NOTE!
... points out practical tips and recommendations, and provides information for efficient and trouble-free operation.

1.3 Address of manufacturer

MENTOR GmbH & Co. Präzisions-Bauteile KG
Otto-Hahn-Straße 1
D-40699 Erkrath

1.4 Service-Hotline

Tel.: +49/ (0)211/ 20002-0
Fax: +49/ (0)211/ 20002-41
E-mail: info@mentor-bauelemente.de
info@mentor-components.com
Internet: www.mentor-bauelemente.de
www.mentor-components.com

In line with continuous product improvements we reserve the right to make technical and design changes.

2 Safety

2.1 Intended use

- The light system may only be used for lighting of interior rooms.
- The light system may only be used in humid rooms if the LED units have been equipped with cover and end caps.

2.2 Incorrect use

- Never use the light system outside.
- Never use the light system in explosive environment.
- Never use light systems in humid interior rooms (bathroom) without cover and end caps. Do not perform any technical modifications on the light system.
- Never repair the light system yourself.

2.3 Certain groups of people

- Any persons (including children) who cannot safely operate the light system due to physical, sensory or mental abilities, or due to their lack of experience or knowledge, may not operate this light system without supervision or instructions by a responsible person.
- Never leave the light system unsupervised when children or persons who cannot assess the hazards are near it.
- Supervise children to make sure that they do not play with the light system.

2.4 Electricity

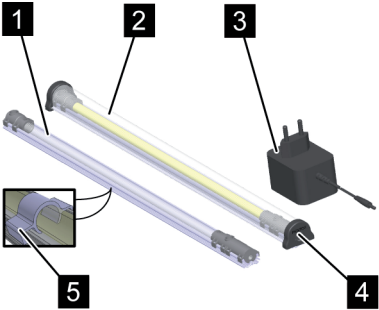
- Since the light system runs on electricity, there exists basically the risk of electric shock.
- Never touch the light system with wet hands.
- If you want to unplug the wall power supply from the power socket, always pull directly on the wall power supply. Never pull on the power cord, it could detach itself from the wall power supply and become damaged.
- Operate the light system only if the electrical voltage indicated in the technical data corresponds to the local voltage network (Chapter 4 „Technical data“). Incorrect voltage can destroy the light system .
- Make sure that the power cable presents no trip hazard.
- Ensure that the power cable is not pinched or bent.
- Ensure that the cable is protected from being run over.
- Ensure that the cable is not exposed to any heat sources.
- If unusual/abnormal noise, odours or smoke emanate from the light system, pull the wall power supply from the power socket.
- If fluid has entered the light system , the light system has been dropped or otherwise damaged, it must be checked by an authorised workshop. Disconnect the light system from the power supply by unplugging the wall power supply from the power socket, and contact a specialist.

- Should any questions arise that are not covered by these operating instructions, please contact our technical information or another authorised professional.

2.5 In case of defect

- Never operate a defective light system. A defective light system can result in property damage and injuries.
- Do not replace a damaged power cable by yourself, but always have this done by an authorised specialist.

3. Overview



Individual parts

- M-TUBE High Brightness*,**
- Cover*
- Wall power supply
- End caps
- Clamp**

Not shown

Extension cable power supply*

Explanation of symbols

* Length varies, depending on order

** Varies, depending on order

4 Technical data

expected service life	ca. 50000 operating hours
Operating voltage	11...15 V DC
Operating temperature	-40...+70 °C
Light guide material	PMMA UL94
Housing material	PC UL94
Cover	PMMA UL94
Profile material	Aluminium
Power input	max. 500 mA AC
Supply voltage	230 V/50 Hz
Type of protection	IP 33 (IP 44 upon request)
Protection class	II
Visible length of light guide	350...850 mm (depending on order)
Length of extension cable	3 m (subject to order)
Colours	LED: Red, green, white, ultra white, warm white, blue (depending on order)
End caps:	Black
Diameter of light guide	10 mm
Weight	ca. 1 kg

5 Type plate

On all models, the type plates are located on the aluminium profiles and on the wall power supply.

Symbol	Description
	The symbol indicates that the lamp is in compliance with all applicable European directives.
	The light is only suitable for use in rooms.
	The wall power supply is equipped with a thermal protection that automatically shuts off the wall power supply in case of overheating in excess of 115°C.
	The wall power supply is in compliance with protection class III.
	The lamp is suitable for installation on normally flammable surfaces.
	The symbol indicates that the product must not be disposed with normal household waste. It must be taken to a collection point for electrical and electronic equipment.
	The symbol indicates that the lamp is in compliance with protection class II. It is not permitted to connect the protective earth conductor.

6 Unpacking

WARNING!
Keep packaging material out of reach of children. Risk of suffocation.

- Unpack all individual parts of the light system.
- Check your order for completeness and intactness by using your delivery note.
- Dispose of packaging material in compliance with applicable local regulations.

Should you notice a transport damage, contact your supplier immediately.

7 Assembly and installation

The type of installation is subject to ambient conditions/room temperature. Thus, prior to mounting, observe the following: To install the light system in humid rooms, covers and end caps must be installed. In dry rooms you can install the light system without cover and end caps. Concealed installation is not necessary.

7.1 Required tools

For assembly of the light system, the following tools/auxiliary materials are required:

- Cross head screwdriver
- Power drill
- Drill bit: ø 4 mm, ø 5 mm (dowel)
ø 2.5 mm, ø 3.5 mm (wood)

7.2 Safety instructions for installation

WARNING!
Ensure that during assembly of the light system the wall power supply is unplugged from the power socket.

WARNING!
Never assemble a defective light system. A defective light system can result in injuries and property damage.

CAUTION!
It is essential that you follow the sequence of the steps described in these installation instructions to ensure proper function of the light system and avoid damage to the components.

CAUTION!
Use only the supplied components. The use of different components could result in damage to the light system.

CAUTION!
Do not use any force during assembly. The components could be damaged.

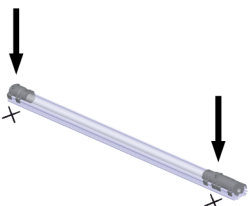
CAUTION!
Never cut or saw the light guide to size by yourself. The factory-made cross sections of the light guide are laser-cut for optimal light distribution. Light distribution and brilliancy will be severely impaired when you cut or saw the light sticks yourself.

7.3 Installing light system

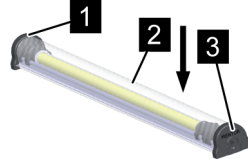
WARNING!
When drilling, watch out for concealed lines in the walls. Risk of fatal injury from electric shock or gas leak when drilling into current-carrying or gas-carrying lines. Risk of considerable property damage when drilling into water lines. Hence, use a cable detector before drilling.

WARNING!
Wear protective goggles during drilling. Risk of eye injuries from flying chips.

NOTE!
For installation of the light system, select drills, dowels and screws that are suitable for the material of the mounting surface, and can carry the weight of the light system.



- Use the holes (arrows) of the M-TUBE unit as template and mark the boreholes with a pencil. In doing so, be careful not to enlarge the holes.
- Drill holes into the mounting surface at the markings (crosses).
- Insert suitable dowels into the holes.
- Place the light system with aligned holes of the M-TUBE unit onto the holes of the mounting surface and fasten it.



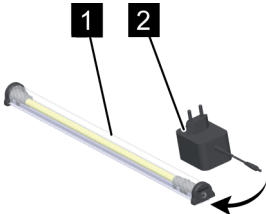
- Attach cover (2) to the M-TUBE unit (arrow).
- Place the end caps without opening (1) on the side of the cover that does not have any electrical connection.
- Place the end caps with opening (3) on the side of the cover that is intended for electrical connection.

8 Start-up

8.1 Safety instructions

DANGER!
Risk of fatal injury from electrical current!
Imminent danger to life when touching energised parts. Perform work only if all power to the light system is off. Ensure that light system is protected against unintentional activation.

Before start-up, check intactness of connection cable.



8.2 Connection to power supply

WARNING!
The cables of the supply connection must not be pinched during installation of the light system; this could damage the insulation. Risk of electric shock.

- Connect the adapter of the wall power supply (2) to the light system (1) (arrow).
- Plug the wall power supply (2) into the power socket.

9 Care

The light system does not require any special care. To remove contaminants, such as dust, proceed as follows:

- Unplug wall power supply from power socket.
- Wipe the light system with a dry or slightly damp cloth.

10 Malfunction

WARNING!
If you notice a malfunction on the device, immediately disconnect the mains plug from the power supply and contact your dealer.

At the following link you will find a current table on our homepage that lists possible malfunctions and their repair: www.mentor-bauelemente.de

In case you cannot repair the malfunctions, please contact an authorised professional.

11 Disposal

CAUTION!
Dispose of packaging material that is no longer needed and components of the device in compliance with the applicable local regulations. Improper disposal can cause considerable environmental damages.

11.1 Packaging

- Dispose of packaging material that is no longer required in compliance with your local regulations.

11.2 Light system

- Unplug wall power supply from power socket.
- Disable the light system by separating the power cable when the power to the light system is off.
- Dispose of the light system according to the applicable environmental regulations of your country.
- It is not permitted to dispose of the light system together with household waste.
- For advice on recycling, contact your local authorities or an authorised professional.

12 Warranty

- We offer a 24-months warranty starting from date of purchase (keep your receipt) for the light system M-TUBE marketed by us.
- Within the warranty period, we will correct any malfunctions on the light system or accessories that were caused by material or manufacturing errors free of charge through repair or, at our discretion, replacement. Warranty services will not extend the warranty period, nor will they entitle you to a new warranty!
- The receipt is considered as proof of purchase. Without this proof it is not possible to perform a free of charge exchange or a free of charge repair. Present the receipt to your authorised dealer.
- Warranty expires in case of unauthorised outside interference or use.
- Damages to individual parts do not automatically result in free of charge exchange of the entire light system. In principle, breakages on light distributor and plastic parts are subject to a charge!