

BA001

User Manual



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Preface

Dear User,

We are delighted that you have chosen a LINAK® product.

LINAK systems are high-tech products based on many years of experience in the manufacture and development of actuators, lifting columns, desk frames, electric control boxes, controls, batteries, accessories and chargers.

This User Manual does not address the end user. It is intended as a source of information for the equipment or system manufacturer only, and it will tell you how to install, use and maintain your LINAK electronics. The manufacturer of the end product has the responsibility to provide a User Manual, where relevant safety information from this manual is passed on to the end user.

We are convinced that your LINAK product/system will give you many years of problem-free operation.

Before our products leave the factory, they undergo both function and quality testing. Should you, nevertheless, experience problems with your product/system, you are always welcome to contact your supplier.

LINAK subsidiaries and some distributors situated all over the world have authorised service centres, which are always ready to help you. Locate your local contact information on the back page.

LINAK provides a warranty on all products, see [Warranty](#).

This warranty, however, is subject to correct use in accordance with the specifications, maintenance being done correctly, and any repairs being carried out at a service centre, which is authorised to repair LINAK products.

Changes in installation and use of LINAK systems can affect their operation and durability. The products may only be opened by authorised personnel.

This User Manual has been written based on the present technical knowledge. LINAK reserves the right to carry out technical modifications and keeps the associated information updated.

LINAK A/S

Products

Accessory

Battery Box BA001



Important safety information

Safe use of the system is possible only when this document is read completely and the instructions contained are strictly observed.

Failure to comply with instructions marked with the "NOTICE" symbol may result in serious damage to the system or one of its components.

Read all instructions before using this product.

Important safety information on LINAK® products can be found under the following heading(s):



DANGER

Failure to comply with these instructions will result in severe personal injury.



WARNING

Failure to comply with these instructions may result in severe personal injury.



CAUTION

Failure to comply with these instructions can result in minor personal injury.



NOTICE

Failure to comply with these instructions can result in property damage.

READ AND SAVE THESE INSTRUCTIONS

Informations importantes en matière de sécurité

Une utilisation sûre du système n'est possible que lorsque ce document est lu dans son intégralité et que les instructions qu'il contient sont strictement respectées.

Le non-respect des instructions marquées du symbole "AVIS" peut entraîner de graves dommages au système ou à l'un de ses composants.

Lisez toutes les instructions avant d'utiliser ce produit.

Des informations de sécurité importantes sur les produits LINAK® sont disponibles dans la ou les rubriques suivantes :



DANGER

Le non-respect de ces instructions entraînera des blessures graves.



AVERTISSEMENT

Le non-respect de ces instructions peut entraîner des blessures graves.



ATTENTION

Le non-respect de ces instructions peut entraîner des blessures corporelles légères.



AVIS

Le non-respect de ces instructions peut entraîner des dommages matériels.

LIRE ET CONSERVER CES INSTRUCTIONS



CAUTION

Lithium-ion battery

Risk of fire and burns

- Do not open, crush, heat, or incinerate.
- Use specified charger only.



WARNING

- This appliance can be used by children aged from 8 years, and by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Only for US and Canadian markets

- Persons who do not have the necessary experience or knowledge of the product/products must not use the product/products. Besides, persons with reduced physical, sensory, or mental abilities must not use the product/products, unless they are under surveillance or they have been thoroughly instructed in the use of the apparatus by a person who is responsible for the safety of these persons.
- Moreover, children must be under surveillance to ensure that they do not play with the product.
- It is the operator's responsibility to ensure that there is free space for the application to move without risk for the operator or bystanders before operating the application.



ATTENTION

Batterie aux ions lithium

Risque d'incendie et de brûlures

- Ne pas ouvrir, écraser, chauffer ou incinérer.
- Utilisez uniquement le chargeur spécifié.



AVERTISSEMENT

- Cet appareil peut-être utilisé par des enfants âgés de 8 ans et plus, ainsi que les personnes dont les capacités physiques, sensorielles ou mentales sont réduites ou ayant un manque d'expérience et de connaissance si elles ont bénéficié d'une surveillance ou d'instructions concernant l'utilisation de l'appareil en toute sécurité et compris les risques encourus.
- Les enfants ne doivent pas jouer avec l'appareil. Le nettoyage et l'entretien ne doivent pas être réalisés par des enfants sans surveillance

Seulement pour les marchés américains et canadiens

- Les personnes qui n'ont pas l'expérience ou les connaissances nécessaires sur le ou les produit(s) ne doivent pas le ou les utiliser. Par ailleurs, les personnes ayant des capacités physiques, sensorielles ou mentales réduites ne doivent pas utiliser le ou les produit(s), sauf si elles sont sous surveillance ou ont suivi une formation approfondie de l'utilisation de l'appareil par l'individu responsable de la sécurité de ces personnes.
- De plus, les enfants doivent-être sous surveillance afin de s'assurer qu'ils ne jouent pas avec le produit.
- Il est de la responsabilité de l'opérateur de s'assurer qu'il y a de l'espace libre pour que l'application puisse se déplacer sans risque pour l'opérateur ou les passants avant d'utiliser l'application.

Safety instructions

Important safety instructions

General



DANGER

Plugged-in products

Risk of electric shock

- Always unplug this product from the electrical outlet before assembling, disassembling, cleaning, or servicing.
- Only use the product indoors in dry locations.



WARNING

General precautions

Risk of burns, fire, electric shock, or injury to persons

- Unplug from outlet before putting on or taking off parts.
- It is important that everyone who is to connect, install, or use the systems has the necessary information and access to this User Manual. Follow the instructions for mounting - there is a risk of injury if these instructions are not followed.
- Close supervision is necessary when this product is used by or near children, invalids, or disabled persons.
- If there is visible damage to the product, do not install or use the product.
- Ensure that the cable and the plug are not damaged, and keep the cable away from heated surfaces.
- Use this product only for its intended use as described in this User Manual.
Do not use attachments not recommended by the manufacturer.
- Never insert any object into any opening.
- During construction of applications in which the system is to be fitted, there must be no risk of personal injury, for example squeezing of fingers or arms.
- Do not open the product.



CAUTION

Objects above and below the application

Risk of personal injury and material damage

- Ensure free space above and below the application to avoid entrapment and blocking the movement in either direction.

Intended use

This product is intended for use indoors in household and commercial usage areas.

Parameter	Operation	Storage and transportation
Temperature	10 to 40 °C	-10 to +50 °C
Relative humidity	20% to 80% - non-condensing	20% to 80% - non-condensing
Atmospheric pressure	800 to 1060 hPa	700 to 1060 hPa
Altitude	Max. 2000 m	N/A



Do not use outdoors or in wet areas.



Do not use it in environments that have to be cleaned with aggressive detergents.

Before installation, re-installation, cleaning, or troubleshooting

- Stop the system.
- Unplug the power cable.
- Relieve the system of any loads, which may be released during the work.
- Review the assembly instructions to confirm that the appropriate critical components and accessories are being used with this product.

Before start-up

- Make sure that the system has been installed as instructed in this User Manual.
- Make sure that the voltage of the system matches the mains voltage before connecting the system to the mains.
- Always use the supplied power cable.

During operation

- If the system makes unusual noise or smells, unplug the mains cable immediately.
- Observe the maximum lifting force.
- Duty cycle: 5%, max. 1 minute continuous use at full load followed by 19 minutes pause.
- Take care that the cables are not damaged.



NOTICE

Duty cycle

Risk of malfunction

- Do not exceed the duty cycle.



CAUTION

Load on the desk

Risk of injury to persons and of malfunction

- Do not overload the frame.
- Place heavy load centrally on the desk.
- Do not use the desk as a work bench.
- Do not use the frame for lifting persons.
- Do not stand on the desk while it is driving up or down.



CAUTION

Load on the application

Risk of injury to persons and of malfunction

- Do not overload the actuator.

Repairs



WARNING

Opening the product

Risk of injury to persons

- Do not open the DESKLINE® or HOMELINE® product.

In order to avoid the risk of malfunction, all DESKLINE® and HOMELINE® repairs must only be carried out by authorised LINAK workshops or repairers, as special tools must be used and special gaskets must be fitted. Lifting units under warranty must also be returned to authorised LINAK workshops.

EU Battery regulation information

To comply with the EU Battery Regulation (EU) 2023/1542, battery related information is provided via this QR code:



Scanning the QR code gives access to battery identification details, as well as safety and environmental information available on the LINAK website.

This information must be included in the end-product user manual.

General BA001 safety notes that must be taken into consideration



Do not pack the BA001 in heat insulating material. Place the BA001 so it can emit heat through its surface to the surroundings.



Only the CBD6S and the SMPS006 can be used for charging the BA001 battery pack.



In connection with charging/discharging notice that the charger/battery can become warm. Keep away inflammable objects.



Keep the charger and the battery away from children. The battery must be stored on a non-flammable base.



In case of damaged batteries, the battery must be removed and replaced immediately to avoid danger and malfunction.



The BA001 must not be exposed to heat or fire. Avoid any contact with water and direct sunlight.



Do not cover neither the charger nor the BA001 during charging.



The surface where the battery is mounted must be suitable and correspond to the demands for e.g. weight and temperature.



In case of suspicious smoke, do not use the battery.



Observe the storage requirements for the BA001.



The capacity of the BA001 will deteriorate over time. The deterioration will depend on use and temperature. Under ideal conditions, the discharge capacity is at least 70% after 500 cycles.



A BA001 with below 25% capacity must not be stored. The battery must be recharged before storage (25% equals to 1 LED light bar).



For best performance, perform a full battery charge every time.

Li-Ion battery disclaimer

Li-Ion batteries are moving in the direction of minimising the physical size and, at the same time, increasing the capacity. This gives a very compact battery with a high energy concentration. It also increases the risk of thermal runaway (see note below) due to internal short circuits.

The general use of Li-Ion batteries has increased, and the inherent risk of thermal runaway has led to stricter rules within the transport industry, specifically air transport with tightened restrictions on the quantity, handling, and storage of specific products.

The OEMs and consumers must recognise that although safe to use, Li-Ion cells always have a very small risk of thermal runaway. The risk could be as little as 1 PPM or even less.

LINAK currently bases its Li-Ion battery design on cell types with an industry-proven history (e.g. electric cars). The use of well-proven cell technology reduces the risk of thermal runaway, but it does not eliminate it. LINAK has completed activities to reduce this risk and the complete battery package is approved in accordance with UL.

An external, internationally recognised expert has also reviewed the design to ensure that it is manufactured according to the latest recommendations. Further to that, we only use cells from well-recognised manufacturers.

LINAK recommends that when using Li-Ion batteries, the customers should carry out proper risk analysis on their applications. The risk analysis must also take into consideration that these products are not mounted in positions where they are in direct contact with flammable material.

LINAK Li-Ion batteries have no greater risk of thermal runaway than other Li-Ion cells from well-recognised manufacturers within the market. Therefore, LINAK cannot take responsibility for any failures that occur due to a failure that is inherent in the nature of Li-Ion batteries.

If any of the Li-Ion batteries built into LINAK products are found to be defective under warranty, LINAK will provide the OEM with a new product. LINAK explicitly disclaims all other remedies. LINAK shall not in any event be liable under any circumstances for any special indirect punitive incidental or consequential damages or losses arising from any incident related to the inherent risk of thermal runaway in the Li-Ion cell and any use of LINAK products. Moreover, LINAK explicitly disclaims any responsibility for profit loss, failure to realise expected savings, any claim against our customer by a third party, or any other commercial or economic losses of any kind, even if LINAK has been advised of the possibility of such damages or losses.

Transportation

The Li-Ion batteries must be packed and transported in accordance with applicable regulations. Always ask your local transportation provider how to handle the transportation of Li-Ion batteries.

Please see the general assembly instructions and the mounting section for detailed information.



'Thermal runaway' is overheating of a cell and it could lead to a small fire and smoke from the cell.

Declaration of Conformity



EU DECLARATION OF CONFORMITY

LINAK A/S
Smedevænget 8
DK - 6430 Nordborg

hereby declares under our sole responsibility that LINAK DESKLINE® Actuator System, model: **CBD6S**, for use in elevation tables, composed of:

Control Box(s) CBD6Sa000b0A-c09,
(Where -a: can be P, C or H, -b: can be 2, 3 or 4 and -c: can be 0 or 7)

together with an optional combination of:

Linear Actuator(s) **LA31**: 31abcH-defff50S, (Where -a: can be 1, 3, 6 or 7; - b can be from 1 to 8, or A or B; - c can be from 0 to 4; - d can be 0 or 1; - e can be 0 or 1; - fff can be max 500)

Built in actuator(s) **DB5, DB6, DB14**: DBabbcdefghhiii, (Where: - a: can be 5, 6 or 14; - b: can be 0, 1, 3, 4 or 9; - c: can be 0, 1, B, L or S; - d: can be 0, 1 or 2; - e: can be 0, A, B or X; - f: can be 0, or A; - g: can be from 0, M, S, E, T or V; - hhh: can be from 000 to 675; - iii: can be from 000 to 630);

Lifting Column(s) **Standard columns**: DLabcdefghhiii, (Where: - a: can be 1A, 4S, 5, 6, from 8 to 12, from 14 to 21; - b: can be 0,1, 2, 3, 4 or 5; - c: can be 0, A, B, D, W or x; - d: can be 0, 1, L, R or X; - e: can be A, B, D or X; - f: can be 0, N, M, P or x; - g: can be 0, E, T or V; - hhh: can be from 600 to 1100; - iii: can be from 000 to 785);
DL12: DL12abcdeffggghh (where - a can be A or B; - b can be 0 or E; -c can be 0, L, R or X; - d can be A, B, D or X; - e can be 0 or M; - f can be 0 or E; - ggg can be max 1100; - hhh can be max 785)
DL7: DL73a0b00470645 (where - a can be 0 or R; - b can be A, B, C or D)
DL2: DL2abCcdeffggg (where - a can be 3, 6 or 7; - b can be from 0 to 3; - c can be A or B; - d can be 0, F or G; -e can be from 0 to 7; - fff can be from 300 to 500; -ggg can be from 445 to 655)
DF2L: DF2La0000bcP0dddeee (Where -a: can be 05, 06, 18, 19; -b can be 0, V, H; -c can be A, B, D; -ddd can be from 500 to 665; eee can be from 475 to 602)
BASELIFT: BASE1000A0F100100
LC1: LC1aaaxxbbbb0cd0eee0Gf4+g (where -a can be 060 or 100; -xxx can be 200 to 665; -bbbb can be numbers or letters; -c can be 0, H or M; -d can be A, B or C; -eee can be from 275 to 560; -f can be 0, 1 or 2; and -g can be A or E.
EXPERIENCE™ columns: DLaabccdeffghijklmnopppppqq, (Where: - aa: can be 05, 06,10,11,18,19, 20, 21; - b: can be F; - cc: can be 30; - d: can be 0; - e: can be 0; - ffff: can be any number or letter; - g: can be 0 or X; - h: can be 0 or X; - i: can be P; -j: can be 0; -k: can be 0 or 1; -l: can be 0 or Z; -m: can be 0; -n: can be 0; -o: can be 0 or E; -pppp: can be from 0278 to 1100; and -qqq: can be from 200 to 785.
DL14T: DL14T00X0E500630, where X can be B or D.

Desk Panel(s) DPA, DPB, DPH, DPF1K, DPF1M, DPF2K, DPF3K, DPF1C, DPF1D, DPF1U, DPF1W, DPF4T, DPG1K, DPG1M, DPG1B, DPG1C, DPT, DP1V01, DP1CS, DP1K, DP1U, DP2K, DP3K, DPN, DPWA, DPI-K, DPI-C

Accessories BLE2LIN (BLE2LIN002, BLE2LIN003), DESK SENSOR 1, USB2LIN, DCCconnector, CHUSB, BA001, BP10BL

Complies with EMC Directive: **2014/30/EU** (*OJ L 96, 29.3.2014, p. 79–106*) according to following standards:
EN 61000-6-2:2005/AC:2005, EN 61000-6-3:2007/A1:2011/AC:2012
(and subsequent EN 61000-3-2:2014 and EN 61000-3-3:2013)

Complies with Low Voltage Directive **2014/35/EU** (*OJ L 96, 29.3.2014, p. 357–374*) according to the standard:
EN 60335-1:2012+AC:2014+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019+A15:2021+A16:2023
EN 62233:2008 + AC:2008

Complies with Directive **2011/65/EU** of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (*OJ L 174, 1.7.2011, p. 88–110*) and Directive **2015/863** (*OJ L 137, 4.6.2015, p. 10–12*) (amending Annex II to Directive 2011/65/EU) according to the standard:
EN IEC 63000:2018

Additionally, BA001 complies with Battery Regulation (EU) 2023/1542 Article 6.
And the applicable Desk Panels and Accessories complies with the Radio Equipment Directive **2014/53/EU** (*OJ L 153, 22.5.2014, p. 62–106*) according to the standards listed in the RED DoC for the individual radio products.

Where this product or system includes or is supplied with batteries, those batteries comply with the requirements of Regulation (EU) 2023/1542.

Other specification:

The system does also comply with the standard: EN 61000-6-2:2019 and EN 13849-1:2015 SRP/CS Cat. B, PL = b and SRESW PL = b, Note 1: Exempted CBD6S with SW03003007 printed on the label.

Nordborg, 2026-02-17

Signature present in original document.

Signed: Dragan Macura (Regulatory Compliance Manager)

Manufacturer's declaration

DECLARATION OF INCORPORATION OF PARTLY COMPLETED MACHINERY

LINAK A/S
Smedevænget 8
DK - 6430 Nordborg

Herewith declares that LINAK DESKLINE® products as characterized by the following models and types:

Control Boxes: CBD6Sa000b0A-c09 (Where -a: can be P, C or H, -b: can be 2, 3 or 4 and -c: can be 0 or 7)

Linear Actuators: LA31

Built in actuator(s): DB5, DB6, DB14,

Lifting Columns: DL1A, DL4S, DL2, DL5, DL6, DL7, DL8, DL9, DL10, DL11, DL12, DL14, DL15, DL16, DL17, DL18, DL19, DL20, DL21, LC1

Desk Panels: DPA, DPB, DPH, DPF1K, DPF1M, DPF2K, DPF3K, DPF1C, DPF1D, DPF1U, DPF1W, DPF4T, DPG1K, DPG1M, DPG1B, DPG1C, DPT, DP1V01, DP1CS, DP1K, DP1U, DP2K, DP3K, DPN, DPWA, DPI-K, DPI-C

Accessories: BLE2LIN002, BLE2LIN003, DESK SENSOR 1, USB2LIN, DCConnector, BA001

complies with the following parts of the Machinery Directive 2006/42/EC, ANNEX I, *Essential health and safety requirements relating to the design and construction of machinery*:

- 1.1.2 a) Special use*
- 1.1.2 b) Selection of the most appropriate methods*
- 1.1.2 c) Foreseeable misuse*
- 1.1.2 d) Operator constraints due to the use of personal protective equipment*

1.1.3 Materials and products*

- 1.2.1 Safety and reliability of control systems
- 1.2.2 Control devices. Shape, readability, overview*
- 1.2.3 Starting*
- 1.2.4 Stopping*

- 1.5.1 Electricity supply
- 1.5.10 Radiation. EMC. Emission of electromagnetic radiation, X-rays, γ -rays*
- 1.5.11 External radiation*

*need to be further evaluated in the end product

We confirm that prior to market introduction the relevant technical documentation is compiled in accordance with part B of Annex VII and the assembly instruction pursuant to Annex VI.

This documentation or part hereof will be transmitted by post or electronically to a reasoned request by the national authorities.

The products mentioned in this document are to be combined for use in height adjustable furniture.

This partly completed machinery must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the Machinery Directive 2006/42/EC where appropriate.

Nordborg, 2024-02-21

Signature present in original document.

Signed: Dragan Macura (Regulatory Compliance Manager)

The DESKLINE® / HOMELINE® product

This product is a DESKLINE/HOMELINE product developed for desks and furniture and for indoor use.

Do not use it in industrial kitchens or in other environments that have to be cleaned with aggressive detergents.

Warranty

The warranty terms for DESKLINE and HOMELINE products are described in these warranty papers:

DESKLINE:

<https://cdn.linak.com/-/media/files/warranty/warranty-paper-deskline-eng.pdf>

HOMELINE:

<https://cdn.linak.com/-/media/files/warranty/warranty-paper-homeline-eng.pdf>

Maintenance

Clean dust and dirt from the outside of the system at appropriate intervals and inspect for damage and breaks.

Inspect connections, cables, and plugs without disconnecting, and check functioning as well as fixing points.

Installation



Do not pack the BA001 in heat insulating material. Place the BA001 so it can emit heat through its surface to the surroundings.

Without mounting bracket

1. Remove the mounting bracket.
2. If needed, place the cables in the grooves to optimise the desk design and manage the system cables.
3. Mount the BA001 using two screws with a head diameter of 10 mm (8-10 mm can be used).
4. Fasten the mounting screws (max. torque 1 Nm).

With mounting bracket

1. Remove the mounting bracket.
2. Mount the bracket using four screws with a head diameter of 10 mm (8 to 10 mm can be used).
3. Fasten the mounting screws (max. torque 1 Nm).
4. If needed, place the cables in the grooves to optimise the desk design and manage the system cables.
5. Slide the BA001 onto the mounting bracket.

Notes:

- The surface to which the battery box is mounted should have an evenness better than ± 0.5 mm
- The BA001 can also be mounted using two M6 nuts and screw counterparts.

Charging

The BA001 can be charged either via the DESKLINE Control Box CBD6S or via the Switch Mode Power Supply SMPS006 using a DC cable with 2-poled minifit plug. LINAK offers various cables with straight plug which can be used (e.g. 0705894-200).

Actual capacity

Turn on the light for a few seconds by pressing the small black button below the LED light bars. The four LED light bars indicate the actual capacity.

	Capacity	Lit up LED light bars
	0% to 5%	None
	5% to 25%	LED1
	25% to 50%	LED1 and LED2
	50% to 75%	LED1, LED2 and LED3
	75% to 100%	LED1, LED2, LED3 and LED4

Notes:

- When the capacity is below 25%, the audio alarm sounds once each time the BA001 is activated.
- The battery turns off to protect itself when the capacity is approx. 5%. Below 5% capacity, the audio alarm sounds once each time the BA001 is activated. No LED light bars can be lit.
- During charging, the LED light bars indicate the actual capacity.
- When the charging is complete the LED light bars turn off.
- Charging will not start if the capacity is above 75%.
- The BA001 has a built-in protection to ensure battery and system lifetime.
- The battery limits the discharge current to approx. 10 A.
- The battery can go into a protected mode. Then a reset is made only after disconnecting the cable and in some cases charging the battery, see [Troubleshooting](#).



Transportation by plane must comply with IATA regulations (typically $\leq 30\%$ SoC for air transport).

Charging via CBD6S

In a DESKLINE system, the BA001 is connected to the CBD6S. Preferably, charge the battery while it is mounted in the application.

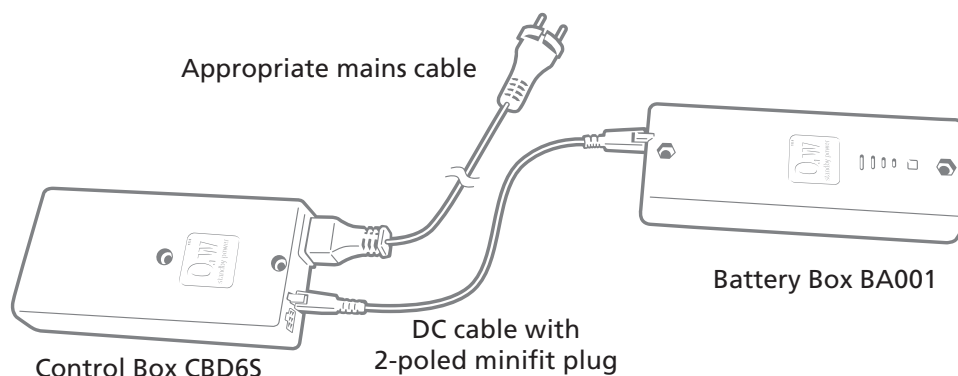
1. Connect the mains cable to the CBD6S.
2. Plug the cable into the mains.

When the charging starts, the BA001 beeps twice. After approximately five hours at room temperature ($\approx 20^\circ\text{C}$), the BA001 is fully charged and the LED light bars turn off.



The BA001 can be charged via all CBD6S 200 W.

The BA001 can be charged via CBD6S 300 W delivered from factory with SW version 1.57 and later.

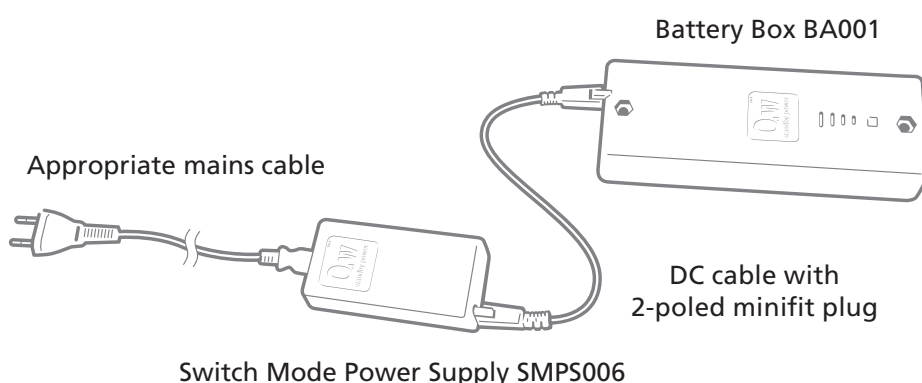


Charging via SMPS006

In a HOMELINE application or in an application in which the battery box is dismounted/replaced during charging, the BA001 is typically charged via an SMPS006.

1. Connect the BA001 and the SMPS006 using the DC cable.
2. Connect the mains cable to the SMPS006.
3. Plug the cable into the mains.

When the charging starts, the BA001 beeps twice. After approximately five hours at room temperature ($\approx 20^\circ\text{C}$), the BA001 is fully charged and the LED light bars turn off.



Note:

Change between mains supply and battery use on the CBD6S:

When you change from standard mains supply to supply from the BA001, the very first operation may be at a lower speed/performance. The charge left in the control box after disconnection of the mains supply is still high. Thus, the control box assumes the mains supply is still connected and regulates in accordance with the mains supply characteristics.

After about 30 minutes, or after trying to operate without power, the charge is low enough to be detected as battery operation mode. Also, if operated with battery once, the control box detects the battery operation mode.

Packaging, transportation and storage

The BA001 is a lithium-ion battery and must be packed and transported in accordance with applicable regulations. This must also be considered when repacking and in case of return shipment.



Damaged batteries cannot be transported.

Packaging

The BA001 boxes are packed in accordance with UN3480. From the factory, the battery is packed in a primary and a secondary packaging. Each BA001 is packed in the primary packaging. The secondary packaging contains 10 individually packed batteries. Both the primary and the secondary packaging are supplied with a label stating that the package contains lithium-ion batteries.



Before unpacking, inspect the packaging for damages to avoid any injuries.



Damaged batteries must be disposed in accordance with the material safety data sheet of the BA001 and with local regulations.



The BA001 can be packed with other products/components, but it must remain in the primary packaging and the new secondary packaging must be supplied with a correct label. The label must be visible on the secondary packaging.

Transportation

When transporting the BA001 (a lithium-ion battery) you must observe the applicable regulations. This applies to ADR (road transportation), IATA (air shipping) and IMDG (sea freight). When transporting the batteries, pay attention to handling them and minimise the risk of e.g. dropping them to prevent malfunction and injuries. New IATA (air shipping) rules from April 2016 require that lithium-ion batteries are charged max. 30% to be eligible for air transportation by both passenger and freight aircrafts. Thus, only products ordered for express shipment will be shipped by air from LINAK A/S.

Storage

The batteries must be stored in an applicable storage room and not be exposed to direct sunlight or high temperatures. A lithium-ion battery cannot be stored for longer periods without being recharged regularly.



If batteries are not checked and recharged on a regular basis, they will become defective.

As the BA001 battery pack contains electronics, the self-consumption is higher than the self-discharge of the cells. Thus, the product is to be regarded as equipment containing batteries and handled accordingly. The self-consumption of individual battery packs varies and does not influence normal usage in any way. To be sure not to damage the BA001, express shipment (BA001-MAX30%CHARGED) batteries must be fully charged upon receipt.



Do not store express shipment batteries upon receipt. They are charged to max. 30% to allow for air freight. Fully charge express shipment batteries before storage.

Any stock storage of BA001 must comply with the following requirements:

- “First In – First Out” stock principle
- Temperature: -10 °C to +50 °C
- Relative humidity: 20% to 80% - non-condensing
- Air pressure: 700 to 1060 hPa
- Altitude: Max. 2000 m
- Recharge the battery no later than 6 months after production date stated on the label depending on storage temperature

Storage temperature	Max. storage time (fully charged) before recharging
25 °C	6 months
45 °C	3 months

Table 1 Recommended recharging intervals



Do not store BA001 with less than 25% capacity (1 LED light bar). Fully recharge the BA001 before storage.

Troubleshooting

The BA001 switches off

In overload situations, the LED light bars will still turn on when the button is pressed. However, if the capacity is below approx. 25% it is not possible to identify if the BA001 has switched off due to overload or low capacity.

If the battery is sufficiently charged and still switches off, it is due to an overload situation.

Solution: Reset the battery

1. Disconnect the cable from the BA001.
2. Press the button on the BA001 for minimum 10 seconds to reset the battery.
3. If no LED light bars turn on, charge the battery.
4. Connect the BA001 again.

The BA001 is discharged but does not charge

As electronics are disabled at low charge to help protect the cells, it may require charging for several hours to reach a charge level where the electronics turn on.

Solution

- Leave the charge on overnight.

Repair and disposal



WARNING

Opening the product

Risk of injury to persons and of malfunction

- Do not open the product unless you are authorised to do so.

Only an authorised LINAK® service centre should repair the LINAK products. Products to be repaired under warranty must be sent to an authorised LINAK service centre.

In order to avoid the risk of malfunction, all product repairs must only be carried out by an authorised LINAK Service shop or repairers, as special tools and parts must be used.

If a product is opened by unauthorised personnel there is a risk that it may malfunction at a later date.

LINAK systems or components may be disposed of, possibly by dividing them into different waste groups for recycling or combustion.

We recommend that our product is disassembled as much as possible at the disposal and that you try to recycle it. LINAK systems or components should be disposed of in accordance with the environmental regulations applicable in the respective country.

Almost all our cast plastic parts are supplied with an interior code for plastic type and fibre contents, if any.

Disposal of batteries

Batteries should be disposed of in accordance with appropriate federal, state and local regulations. LINAK recommends that used or leaking batteries are disposed of through local recycling system. Please do not throw used or leaking batteries in normal household waste or in nature. This will cause damage to the environment.

How to deal with leaking batteries

Leaking batteries should be disposed of as described above.

If leaking batteries are discovered in the product, the batteries must be removed immediately to minimise damage to the product.

If leaking batteries are left in the product, it becomes defective.

It is recommended to use plastic gloves when handling leaking batteries. The contents of leaking batteries can cause chemical burns and respiratory irritation.

- If exposed to the contents of a leaking battery, wash with soap and water.
- If irritation persists, seek medical attention.
- In case of eye contact, flush eyes thoroughly with water for 15 minutes and seek medical attention.

Accessories and spare parts

Accessories

Order from your nearest LINAK® sales office, distributor or subsidiary.

Spare parts

Please contact your nearest LINAK sales office for information on spare parts.

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