

KA201C system



To learn more about LINAK, please visit:
www.linak.com

Contents

Preface	4
Important information	5
Safety instructions	5
Before installation, reinstallation or troubleshooting	8
Before start-up	8
During operation.....	8
Misc	8
Only for EU markets	9
Only for Non EU markets	9
Misuse	9
Informations importantes	10
Consignes de sécurité	10
Avant l'installation, ré-installation ou le dépannage	11
Avant de démarrage.....	11
Pendant le fonctionnement	11
Divers.....	11
Seulement pour les marchés au sein de l'UE	12
Seulement pour les marchés hors UE	12
Utilisation abusive	12
Repairs	13
Misc. on the KA20IC system	14
Description of the KA20IC system	14
KA20IC - Start-up (How to pair Bluetooth connection)	15
1. Pairing your control.....	15
2. Pairing your smartphone or tablet.....	15
3. Pairing another device later	16
KA20IC system	16
Functional description	17
Labels	18
Disposal of LINAK products	19
Main groups of disposal	20
Disposal of batteries	20
Drawing appendix	21
LINAK application policy	22
Addresses	23

Preface

Dear User,

We are delighted that you have chosen a product from LINAK®. LINAK systems are high-tech products based on many years of experience in the manufacture and development of actuators, electric control boxes, controls and chargers.

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

We are sure that your LINAK product/system will give you many years of problem-free operation. Before our products leave the factory they undergo full function and quality testing. Should you nevertheless experience problems with your LINAK product/system, you are always welcome to contact your local dealer. LINAK subsidiaries and some distributors situated all over the world have authorised service centres, which are always ready to help you.

LINAK provides a warranty on all its products. 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 products/systems can affect their operation and durability. The products are not to be opened by unauthorised personnel.

The User Manual has been written based on our present technical knowledge. We are constantly working on updating the information and we therefore reserve the right to carry out technical modifications.

LINAK A/S

Important information

Important information on LINAK® products can be found under the following headings:



Warning!

Failure to comply with these instructions may result in accidents involving serious personal injury.



Failing to follow these instructions can result in the product being damaged or being destroyed.

Safety instruction



General

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

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



It is important for everyone who is to connect, install, or use the systems to have the necessary information and access to this User Manual. Follow the instructions for mounting – risk of injury if these instructions are not followed.



The appliance is not intended for use by young children or infirm persons without supervision.



If there is visible damage on the product it must not be installed.



Note that during construction of applications, in which the actuator is to be fitted, there must be no possibility of personal injury, for example squeezing of fingers or arms.



Assure free space for movement of the application in both directions to avoid blockade.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and**
- (2) This device must accept any interference received, including interference that may cause undesired operation**

- **Statement – for all intentional and unintentional radiators:**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

- **Statement for digital devices for Class B:**

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and the receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/ TV technician for help.
-

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
 - (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
-

Labeling Requirements:

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Before installation, de-installation or troubleshooting:

- Stop the KA20IC.
- Disconnect the power supply
- Relieve the KA20IC of any loads, which may be released during the work.

Before start-up:

- Make sure that the system has been installed as instructed in this User Manual.
- Make sure that the voltage is correct before the system is connected to the mains. (See KA20IC label in the appendix).
- System connection. The individual parts must be connected before connecting to the mains.

During operation

- If the control box makes unusual noise or smells, switch off the mains voltage immediately.
- Take care that the cables are not damaged.
- Unplug the mains cable on mobile equipment before it is moved.
- The products must only be used in an environment, that corresponds to their IP protection.

Misc:

The actuator system has a sound level below 55dB(A) in typical applications.

Updated manuals and declarations can always be found here:

www.linak.com/HOMELINE

Electromagnetic fields (EMF):

This LINAK appliance complies with all standards regarding electromagnetic fields (EMF). If handled properly and according to instructions in this user manual, the appliance is safe to use based on scientific evidence available today.

Only for EU markets



This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have 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 Non EU 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.

Misuse



Do not overload the actuators – this can cause danger of personal injury and damage to the system.



Do not use the actuator system for lifting persons. Do not sit or stand on a table while operating – risk of personal injury.



Do not use the system in environments other than the intended indoor use

Informations importantes

Les informations importantes sur les produits LINAK® peuvent être trouvées dans les rubriques suivantes:



Attention!

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



Ne pas suivre ces instructions peut entraîner l'endommagement ou destruction du produit.

Consignes de sécurité



Général

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

Ne pas suivre ces instructions peut entraîner l'endommagement ou destruction du produit.

L'utilisation en toute sécurité du système n'est possible que si l'intégralité des instructions ont été lues et ont été strictement suivies.



Le non respect de se conformer aux instructions marquées du symbole "note" peut entraîner de graves dommages au système ou à un de ses composants.

Il est important pour tout individu qui connecte, installe, ou utilise le système d'avoir les informations nécessaires et l'accès à ce manuel d'utilisation.

Suivez les instructions pour le montage – risque de blessure si ces instructions ne sont pas suivies.



L'appareil n'est pas destiné à être utilisé par des enfants ou des personnes handicapées sans surveillance.



S'il y a des dommages visibles sur le produit, l'installation ne doit pas être effectuée.



Prendre en compte lors de la construction du matériel, dans lequel l'actionneur est incorporé, qu'il ne doit y avoir aucune possibilité de blessures corporelles, telles que la compression des doigts ou des bras.



Assurez un espace libre autour du matériel pour éviter tout blocage.

Avant l'installation, ré-installation ou le dépannage:

- Arrêtez KA201C
- Retirez la prise du secteur
- Soulagez KA201C des toutes charges qui pourraient être émises lors de l'utilisation

Avant de démarrage:

- Assurez-vous que le système a été installé comme indiqué dans le manuel d'utilisateur.
- Assurez-vous que la tension du boîtier de contrôle est correcte avant que le système soit connecté sur le secteur.
- Système de connection. Les différentes pièces doivent être connectées entre elles avant que le boîtier de contrôle soit connecté au secteur. Consultez le manuel d'utilisation si nécessaire.

Pendant le fonctionnement:

- Si le boîtier de contrôle émet un bruit ou odeurs inhabituelles, éteignez la tension immédiatement.
- Veuillez à ce que les câbles ne soient pas endommagés.
- Débranchez le câble d'alimentation sur l'équipement mobile avant qu'il ne soit déplacé.
- Les produits ne doivent-êtré utilisés que dans un environnement qui correspond à leur IP.

Divers:

Le système d'actionneur présente un niveau sonore inférieur à 55dB (A) dans des applications typiques.

Les mises à jours des manuels et autres informations peuvent-êtré trouvées sur www.linak.com/homeline

Seulement pour les marchés au sein de l'UE:



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 hors UE.



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.

Utilisation abusive:



Ne surchargez pas les actionneurs – cela peut engendrer un risque de blessures corporelles et endommager le système.



Ne pas utiliser les actionneurs pour soulever des personnes. Ne pas s'asseoir ou se tenir debout sur une table en fonctionnement – risque de blessures.



Ne pas utiliser le système dans des environnements autres que l'utilisation intérieure prévue.

Repairs

In order to avoid the risk of malfunction, all KA201C repairs must only be carried out by authorised LINAK workshops or repairers, as special tools must be used and special gaskets must be fitted. KA201C under warranty must also be returned to authorised LINAK workshops.

Misc. on the KA20IC system

This system is a KA20IC system developed for leisure beds and for indoor use in private homes.

Warranty

There is 36 months' warranty on the KA20IC product against manufacturing faults calculated from the production date of the individual products (see label). LINAK A/S' warranty is only valid in so far as the equipment has been used and maintained correctly and has not been tampered with. Furthermore, the system must not be exposed to violent treatment. In the event of this, the warranty will be ineffective/invalid. For further details, please see standard terms of sale and delivery for LINAK A/S.

Maintenance

Clean dust and dirt on the outside of the system at appropriate intervals and inspect them for damage and breaks. Inspect the connections, cables and plugs and check for correct functioning as well as fixing points.



The cleaners and disinfectants must not be highly alkaline or acidic (pH value 6-8).



It is not allowed to use solvents for cleaning up.



Max. load running back and leg end motors in upward direction is 6000 N.



For customers in the US/Canada:

The mains cable for this product has a polarised plug (one blade is wider than the other). It will only fit in a polarised outlet one way. If it does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a proper outlet. Do not change the plug in any way.

Description of the KA20IC system

Each KA20IC unit consists of 1 internal motor and a built-in control box, which makes it a very compact unit. Only the handset must be paired.

Application of the KA20IC system:

Irrespective of the load the **Duty cycle: 10% ~ max. 2 min. at continuous use followed by 18 min. not in use.**

Do not turn on the system if it is not mounted in a bed.

KA20IC is a Bluetooth® based system, which means you can use hand controls based on Bluetooth®.

LINAK® offers a range of compatible hand controls: HC05BL, HC10BL, HC20BL and HB10BL. Alternatively an App can be downloaded to use a smartphone as handset.

You can pair four hand controls to one KA20IC. You can also pair both hand controls and app controls to the same KA20IC, but only 4 controls in total. If you pair more hand controls than the KA20IC can manage, the first paired hand control will be forgotten.

This user manual will give you a detailed description on how to pair your hand controls with your KA20IC.

KA20IC - Start-up (How to pair Bluetooth connection)

It is possible to pair multiple devices to the KA20IC via Bluetooth® . See following instructions:

1. Pairing your control

Connect the KA20IC to the mains using the SMPS. Now the KA20IC will be in pairing mode in 3 minutes and the Under Bed Light will blink to indicate this.

Take you hand control and press the 2 top buttons at the same time. Now the light will give a long blink and indicate that the control and the KA20IC are paired up. The KA20IC will stay in pairing mode and it is possible to connect more controls using the same procedure as above. Be aware; you have to wait 5 seconds after pairing control 1 until you can pair control number 2. To get the system out of pairing mode – simply press any button on an already paired device.



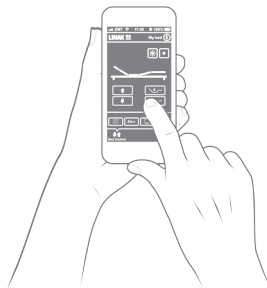
When you operate the KA20IC with the two controls you need to wait 5 seconds from operating with control 1 until you can operate control 2.



2. Pairing your smartphone or tablet

Connect the KA20IC to the mains using the SMPS. Now the KA20IC will be in pairing mode in 3 minutes and the Under Bed Light will blink to indicate this.

Enable Bluetooth® on your smartphone/tablet. Open the Bed Control App and a “search bed” page will be displayed. A list of previously connected KA20IC and KA20IC in pairing mode will appear. Find the KA20IC you wish to connect on the list and tap to connect. The smartphone/tablet and the KA20IC are now paired up and the app will display the operation page.



3. Pairing another device later

If you wish to connect another control or a smartphone/tablet to the KA20IC later, just disconnect, wait 2 minutes and connect the KA20IC to the mains to get it in pairing mode again. See instructions 1 or 2 above to find out how to pair the device, you want.



The KA20IC will be in pairing mode every time the system has been out of power and connects again. To get the system out of pairing mode – simply press any button on an already paired device.

If you wanted to pair a device, but did not make it in the 3 minutes pairing mode, please disconnect the KA20IC from the mains. Connect the KA20IC to the mains again – now the KA20IC will be in pairing mode for 3 minutes.

KA20IC system

You can expand the system by adding a KA20 to the KA20IC. The KA20IC will act as the master of the system and the KA20 will be connected with a motor cable. The system is connected to the mains via the SMPS and 2-poled DC cable.



Functional description

Hand Control HB10BL:



- Up – down back motor
- Up – down leg motor
- Common operation up/down (option)
- Light Button

Hand Control HC05BL:



- Up – down back motor
- Up – down leg motor
- Common operation up/down (option)
- Light Button












Hand Control HC10BL:



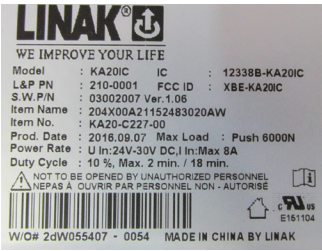
- Up – down back motor
- Up – down leg motor
- Common operation up/down (option)
- Light Button

Hand Control HC20BL:



-  Up – down back motor
-  Up – down leg motor
-  up to 3 extra channels
-   Common operation up/down (option)
-    } Memory positions (3 positions)
-  Store Button
-  Light Button
-  Torch - Light Button

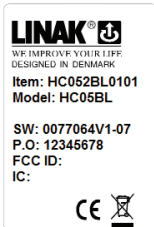
Label for KA20IC



Label for HB10



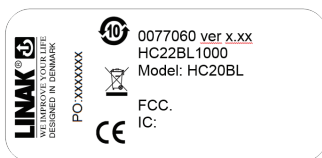
Label for HC05



Label for HC10



Label for HC20



Disposal of LINAK products

As LINAK customers often ask us how our products can be disposed of or scrapped we have prepared this guidance that enables a classification to different waste fractions for recycling or combustion.

Guidance

We recommend to disassemble our product into as many fractions as possible at the disposal and try to make it recyclable. As examples of main groups within waste fractions we can mention:

Metal, plastic, cable shoe, combustible waste and collection for recovery.

Some of these main groups can be subdivided, e.g. metal can be divided into iron, stainless steel and aluminium and alloy steel. Plastic can e.g. be divided into ABS, PA, PE and PP.

As an example of sorting, please find below a list stating in which recycling groups the different components of LINAK products ought to be placed:

Product	Components	Recycling group
Actuator:	Spindle and motor Plastic housing Cable	Scrap Plastic recycling or combustion Cable scrap or combustion
Handset/Control:	Plastic housing PCB Batteries	Plastic recycling or combustion Electronics scrap Recovery

By now almost all our casted plastic parts are supplied with an interior code for plastic type and fibre contents, if any.

Main groups of disposal

Product main groups	Scrap	Cable scrap	Electronics scrap	Plastic recycling or combustin	Comments
KA20IC	X	X	X	X	
HB10BL			X	X	
HC05BL			X	X	
HC10BL			X	X	
HC20BL			X	X	

Disposal of batteries

Details regarding safe disposal of used and leaking batteries:

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

How to deal with leaking batteries

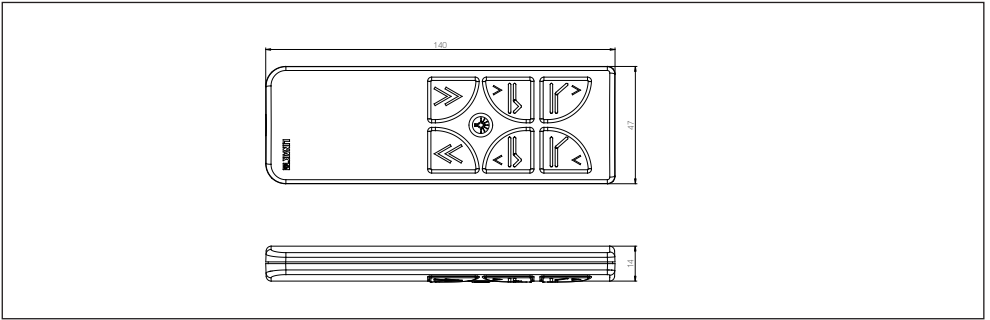
Leaking batteries should be disposed as described above.

If leaking batteries are discovered in the product the batteries must be removed at once to minimise damage to the product. If leaking batteries are left in the product, it may become defective.

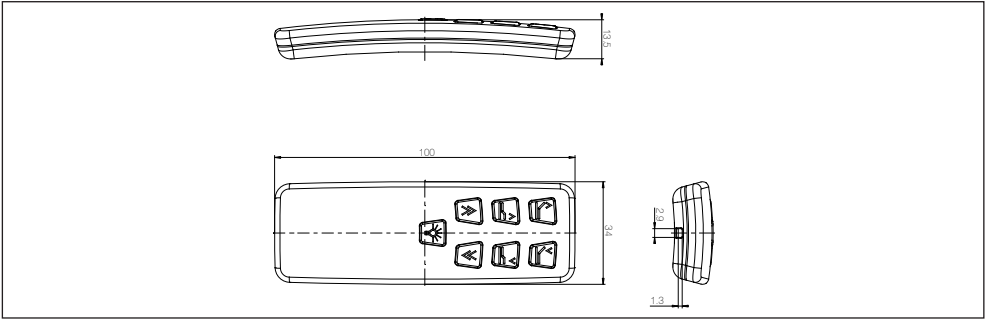
It is recommended to use plastic gloves when handling leaking batteries. The contents of leaking batteries can cause chemical burns and respiratory irritation.

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

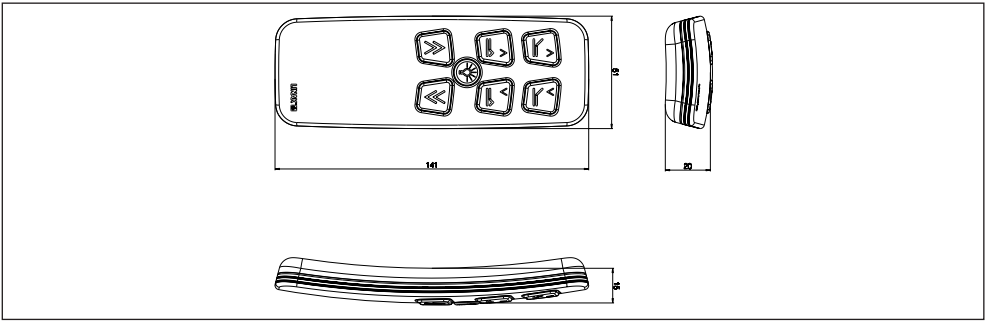
HB10BL Hand Control



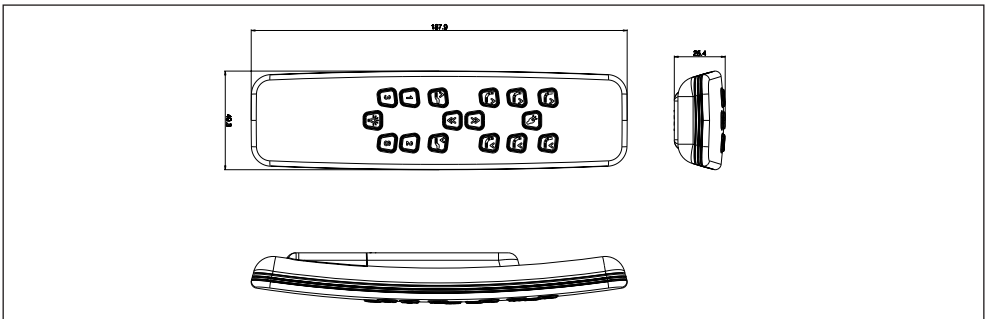
HC05BL Hand Control



HC10BL Hand Control



HC20BL Hand Control



LINAK APPLICATION POLICY

The purpose of the application policy is to define areas of responsibilities in relation to applying a LINAK product defined as hardware, software, technical advice, etc. related to an existing or a new customer application.

LINAK products as defined above are applicable for a wide range of applications within the Medical, Furniture, Desk, and Industry areas. Yet, LINAK cannot know all the conditions under which LINAK products will be installed, used, and operated, as each individual application is unique.

The suitability and functionality of the LINAK product and its performance under varying conditions (application, vibration, load, humidity, temperature, frequency, etc.) can only be verified by testing, and shall ultimately be the responsibility of the LINAK customer using any LINAK product.

LINAK shall be responsible solely that the LINAK products comply with the specifications set out by LINAK and it shall be the responsibility of the LINAK customer to ensure that the specific LINAK product can be used for the application in question.

