

TD4 Advanced 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, 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 full 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.

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 are only to be opened by authorised personnel.

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

LINAK A/S

Terms of use

LINAK® takes great care in providing accurate and up-to-date information on its products. However, the user is responsible for determining the suitability of LINAK products for a specific application.

Due to continual development, LINAK products are subject to frequent modifications and changes. LINAK reserves the rights to conduct modifications, updates, and changes without any prior notice. For the same reason, LINAK cannot guarantee the correctness and actual status of imprinted information on its products.

LINAK uses its best efforts to fulfil orders. However, for the reasons mentioned above, LINAK cannot guarantee availability of any particular product at any given time. LINAK reserves the right to discontinue the sale of any product displayed on its website or listed in its catalogues or in other written material created and produced by LINAK, LINAK subsidiaries, or LINAK affiliates.

All sales are subject to the 'Standard Terms of Sale and Delivery for LINAK A/S' available on LINAK websites.

LINAK and the LINAK logotype are registered trademarks of LINAK A/S. All rights reserved.

Important safety information

Safe use of the system is possible only when the user manual are 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 headings:



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

General safety instructions

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 application in both directions to avoid blockade.



The appliance is only to be used with the power supply unit provided with the appliance.



The Switch Mode Power Supply (SMPS) must not be packed in heat insulating material but must be placed so that it can emit waste heat to the surroundings. There are no ventilation holes to consider, the SMPS emits heat through its surface.

Safety issues



The builder of the equipment shall ensure that the use of the component complies with relevant standards – like the Machine Directive. Care must be taken to avoid squeezing of cables as it can cause movement of the system!

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 contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(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.

Labeling Requirements:

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

Before installation, de-installation or troubleshooting

- Stop the TD4 Advanced.
- Disconnect the power supply.
- Relieve the TD4 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.
- 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.

Miscellaneous

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

Updated manuals and declarations can always be found here:

www.linak.com/user-manuals/homeline/

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 de sécurité importantes

Une utilisation sûre du système n'est possible que lorsque le manuel d'utilisation 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® peuvent être trouvées sous 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.



AVERTIR

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



AVIS

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

LIRE ET CONSERVER CES INSTRUCTIONS

Consignes générales de sécurité

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.



L'application ne doit être utilisée qu'avec le module d'alimentation secteur fourni.



Le Switch Mode Power Supply (SMPS) doit pas être emballé dans un matériau isolant, mais placé de manière à optimiser la déperdition de chaleur. Le module SMPS ne dispose pas de trous de ventilation, la chaleur est évacuée en surface

Sujet de sécurité



Le constructeur de l'équipement doit s'assurer que l'utilisation du composant conforme aux normes en vigueur, comme la Directive Machines. Les soins doivent être prises pour éviter de pincer les câbles car cela pourrait entraîner des mouvements du système!

Cet appareil est pleinement conforme à la section 15 des réglementations FCC.

Le fonctionnement est sujet aux deux conditions suivantes:

- (1) Cet appareil ne doit pas causer d'interférences dangereuses, et**
- (2) cet appareil doit supporter les interférences, y compris celles pouvant provoquer un fonctionnement non désiré**

- **Déclaration - concernant les sources d'émissions électromagnétiques:**

Les changements ou modifications non expressément approuvés par la partie responsable de la conformité pourraient annuler le droit de l'utilisateur à faire fonctionner l'équipement.

- **Déclaration pour les équipements numériques de Classe B:**

NOTE: Cet équipement a été testé et jugé conforme aux normes pour un appareil électronique de classe B, conformément à la partie 15 du règlement de la FCC. Ces normes sont établies pour fournir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre des fréquences radio et, s'il n'est pas installé et utilisé conformément aux instructions, il peut causer des interférences nuisibles aux communications radio. Cependant, nous ne pouvons pas garantir l'absence d'interférences dans une installation particulière. Si cet équipement cause des interférences nuisibles à la réception d'un poste radio ou d'un téléviseur, ce qui peut être déterminé en mettant l'équipement hors et sous tension, l'utilisateur doit essayer de corriger l'interférence par une ou plusieurs des mesures suivantes:

- Réorientez ou déplacez l'antenne de réception.
- Augmentez la séparation entre l'équipement et le récepteur.
- Connectez l'équipement sur un circuit différent de celui utilisé par le récepteur.
- Faites appel à un revendeur ou un technicien Radio/TV expérimenté.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.

- (1) l'appareil n' 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.

Etiquetage obligatoire

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

Avant installation, réinstallation ou dépannage

- Stopper le TWINDRIVE.
- Débrancher l'alimentation secteur.
- Ôter toute charge du TWINDRIVE qui pourrait être relâchée.

Avant de démarrer

- Assurez-vous que le système a été installé conformément à la procédure indiquée dans ce manuel utilisateur.
- Vérifiez la tension admissible avant le branchement du système au secteur.
- Connexion du système. Les éléments individuels doivent être connectés avant le branchement sur le secteur. Consultez le manuel d'utilisation si nécessaire.

En fonctionnement

- Si le boîtier de contrôle présente un bruit et/ou une odeur inhabituels, coupez immédiatement l'alimentation secteur.
- Veillez à ce que les câbles ne soient pas endommagés.
- Débrancher le câble d'alimentation secteur des équipements mobiles avant déplacement.

Divers

Ce système d'actionneur présente un niveau sonore inférieur à 55dB(A) dans les applications classiques.

Les manuels mis à jour et les déclarations sont disponibles sur le site:

www.linak.com/user-manuals/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.

Declarations

EU Declaration of Conformity

LINAK A/S
Smedevænget 8
DK - 6430 Nordborg

Herewith declares under our sole responsibility that the LINAK dual actuator system TWINDRIVE® for use in adjustable beds:

With main component (mark with CE) that are model: TDA and TDB
(with item number; TDA0b000Bccdd00, TDA1b000Bccdd00
(where; a describing spindle pitch; b describing Load rating; cc describing Back Angle; dd describing Leg Angle))

And options of

Port expander: CBD6DC

Linear Actuator(s): LA40

Controls: HC05BL, HC10BL, HC1ABL, HC10ECO, HC2xBL, HC30BL, HC40BL, BP10BL

Power Unit: SMPS001, SMPS006

Under bed light: LEDLightRail001, LEDLightRail002, LEDLR001-0001-xx

Accessories: Massage Motor; MD1000Dx

complies with the Radio Equipment Directive (RED) **2014/53/EU** (*OJ L 153, 22.5.2014, p. 62–106*) according to the standards:

Art.3.1 (a) Safety:

EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019 (Harmonized to LVD)

EN 62368-1:2014 + A1:2017 (Harmonized to LVD)

Art. 3.1(b) EMC:

Draft ETSI EN 303 446-1 V1.2.0 (2019-03) - Combined Equipment, Emission

Draft ETSI EN 303 446-2 V1.2.0 (2019-03) - Combined Equipment, Immunity

ETSI EN 301 489-1 V2.2.3(2019 -11) - Radio Part

ETSI EN 301 489-17 V3.2.4(2020 -09) - Radio Part

EN 61000-6-2:2005/AC:2005 - Harmonised, non-radio part (harmonized to EMCD)

(and also EN IEC 61000-6-2:2019 - Compliant, non-radio part)

EN 61000-6-3:2007/A1:2011/AC:2012 - Harmonised, non-radio part (harmonized to EMCD)

(and also EN IEC 61000-6-3:2021 - Compliant, non-radio part)

Art. 3.2 Radio:

EN 300 328 V2.2.2 (2019-07)

Art.3.1 (a) Health:

EN 62233:2008+AC:2008 (Harmonized to LVD), EN 62479:2010 (Harmonized to LVD), EN 50663:2017

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

Nordborg, 2022-04-08

LINAK A/S

Dragan Macura

Regulatory Compliance Manager

Deskline and Homeline Segments

Authorized to compile the relevant technical documentation

Original Declaration

UK Declaration of Conformity

LINAK A/S
Smedevænget 8
DK - 6430 Nordborg

Herewith declares under our sole responsibility that the LINAK dual actuator system TWINDRIVE® for use in adjustable beds:

With main component (mark with UKCA) that are model: TDA and TDB
(with item number; TDa0b000Bccdd00, TDa1b000Bccdd00
(where; a describing spindel pitch; b describing Load rating; cc describing Back Angle; dd describing Leg Angle))

And option of

Port expander: CBD6DC

Linear Actuator(s): LA40

Controls: HC10BL, HC20BL, HC30BL, HC40BL, HC05BL, BP10

Power Supply: SMPS006

Accessories: LEDLightRail001, LEDLightRail002, LEDLR001-0001-xx

Accessories: Massage Motor; MD1000Dx

complies with **Radio Equipment Regulations 2017** according to the standards:

Safety:

BS EN 62368-1:2014 + A11:2017

BS EN 60335-1:2012 + A2:2019

EMC:

Draft ETSI EN 303 446-1 V1.2.0 (2019-03) - Combined Equipment, Emission

Draft ETSI EN 303 446-2 V1.2.0 (2019-03) - Combined Equipment, Immunity

ETSI EN 301 489-1 V2.2.3(2019 -11) - Radio Part

ETSI EN 301 489-17 V3.2.4(2020 -09) - Radio Part

BS EN 61000-6-2:2005/AC:2005 - Harmonised, non-radio part

(and also BS EN IEC 61000-6-2:2019 - Compliant, non-radio part)

BS EN 61000-6-3:2007/A1:2011/AC:2012 - Harmonised, non-radio part

(and also BS EN IEC 61000-6-3:2021 - Compliant, non-radio part)

Radio:

EN 300 328 V2.2.2 (2019-07)

Health:

BS EN 50663:2017

BS EN 62479:2010

complies with **The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012** according to the standard:

BS EN IEC 63000:2018

Nordborg, 2022-04-08

LINAK A/S

Dragan Macura

Regulatory Compliance Manager

Deskline and Homeline Segments

Authorized to compile the relevant technical documentation

Original Declaration

Manufacturer's declaration

DECLARATION OF INCORPORATION OF PARTLY COMPLETED MACHINERY 2006/42/EC ANNEX II B

LINAK A/S
Smedevænget 8
DK - 6430 Nordborg

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

Control Boxes	CB9H, CBH Advanced, CBH Basic
Linear Actuators	LA27, LA29, LA31 HOMELINE
Dual Actuators	TD3, TD4, TD5
Controls	HB10 RF, HB20RF, HB60, HC10, HC10RF, HC20RF, HC40
Accessories	Bluetooth Adapter, DC CONNECTOR, LED Lightbox, Lightplug001, Massage Motor, SMPS001, SMPS001, SMPS002, SMPS006

comply 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*:

1.5.1 Electricity supply

The relevant technical documentation is compiled in accordance with part B of Annex VII and that this documentation or part hereof will be transmitted by post or electronically to a reasoned request by the national authorities.

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, 2019-10-21

LINAK A/S
John Kling, B.Sc.E.E.
Regulatory Affairs Manager
Authorized to compile the relevant technical documentation

Original Declaration

Misc. on the TWINDRIVE® system

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

Warranty

This HOMELINE product is subject to warranty pursuant to the terms of LINAK HOMELINE Warranty Paper, available on the LINAK website www.linak.com/warranty.

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 must be 6-8).



It is not allowed to use solvents for cleaning up.



Max. load running back and leg end motors at the same time in upward direction is 5500 N on back motor, and 5500 N on leg end motor.



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 TWINDRIVE® system

Each TWINDRIVE® unit consists of 2 internal motors and a built-in control box, which makes it a very compact unit. The mains cable is exchangeable. Only the handset must be paired.

Application of the TWINDRIVE system:

Irrespective of the load the Duty cycle: 10 % ~ max. 1 minute at continuous use followed by 9 minutes pause. Do not turn on the system if it is not mounted in a bed.

The TWINDRIVE is a Bluetooth®-based system, which means you can use hand controls based on Bluetooth. LINAK® offers a range of compatible hand controls. Alternatively, the Bed Control App can be downloaded to use a smartphone as handset.

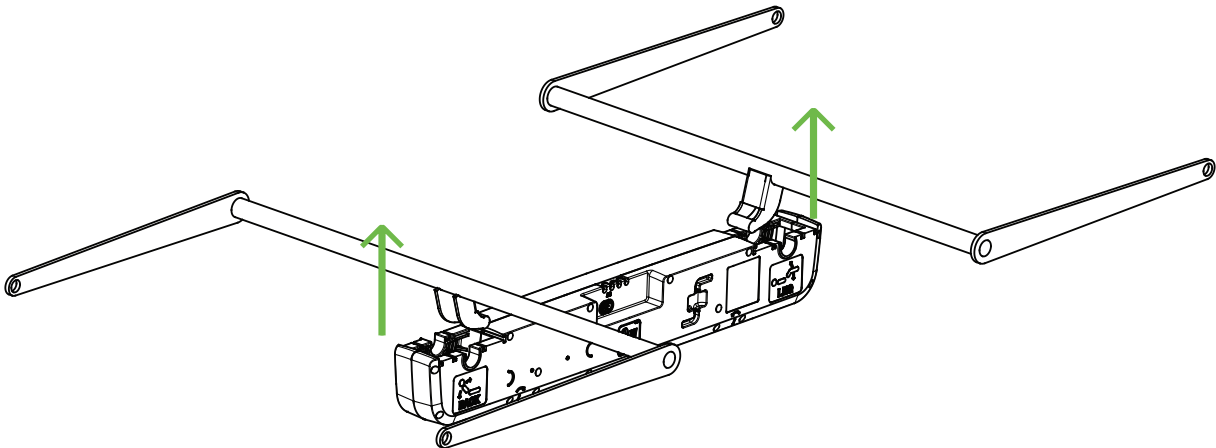
You can pair eight hand controls to one TWINDRIVE. You can also pair both hand controls and app controls to the same TWINDRIVE, but only eight controls in total. If you pair more hand controls than the TWINDRIVE can manage, the first paired hand control will be deleted.

This user manual gives you a detailed description on how to pair your hand controls with your TWINDRIVE.

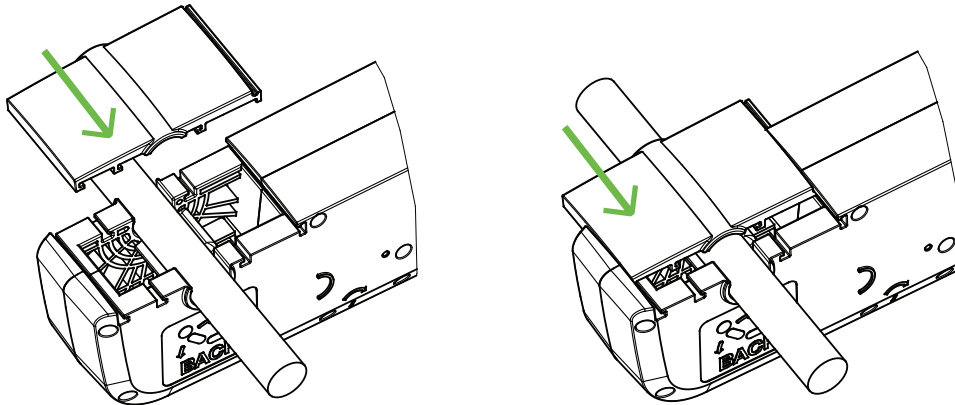
Installation

Mounting the TWINDRIVE

1. Push the TWINDRIVE unit into bed bracket.

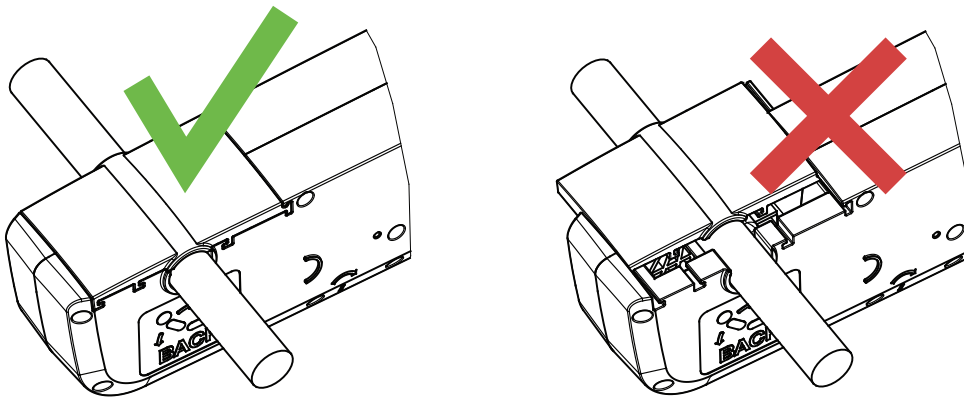


2. Slide each closing device on and press it into correct position.



IMPORTANT:

Ensure that the closing devices are in place before using the TWINDRIVE.



Do not drive the TWINDRIVE system without the closing devices mounted.



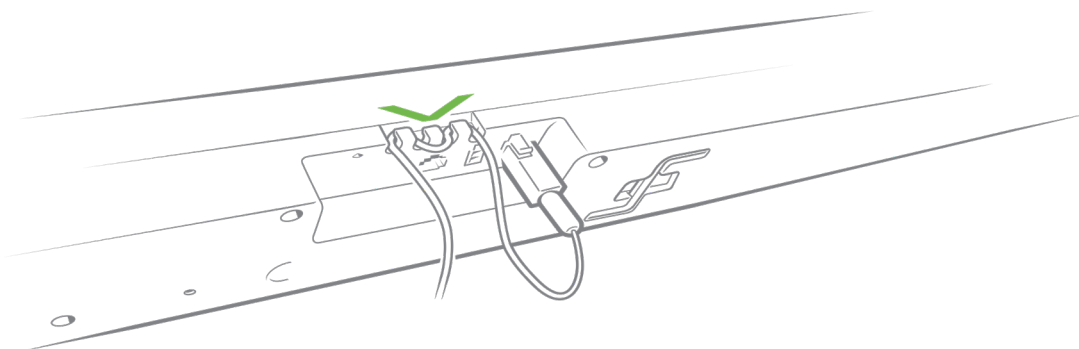
The bed brackets must have a smooth surface without burrs and welding blobs in the area where the TWINDRIVE is mounted.

Cable strain relief



Use the cable strain relief on the TWINDRIVE Advanced. By using the relief, you prevent the mains cable plug from being pulled out of the TWINDRIVE resulting in a malfunction.

Depending on the thickness of the cable, you can choose to lead the cable through all three reliefs or just around the middle relief.



Operation

Hand controls

LINAK® offers a variety of hand controls for a TWINDRIVE® system. For more information, please visit this [product overview](#).

Getting started

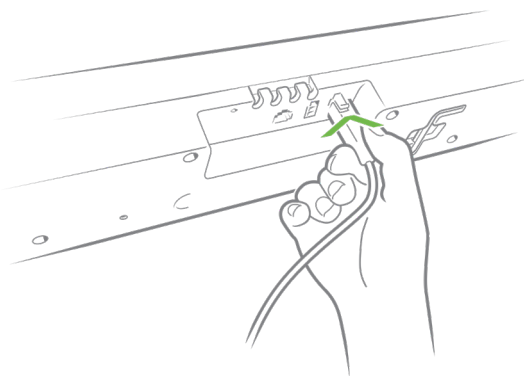
It is possible to pair multiple controls to the TWINDRIVE via Bluetooth®.



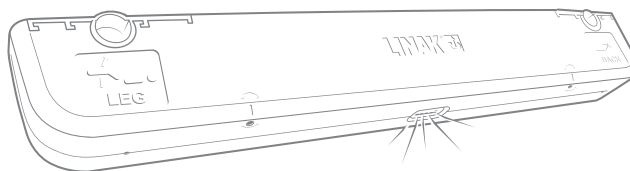
If only one TWINDRIVE is to be paired with the control, ensure that only this TWINDRIVE is in pairing mode.

Pairing your control

1. Connect the TWINDRIVE Advanced to mains via the mains cable.



2. The TWINDRIVE is in pairing mode for 3 minutes and the Under Bed Light flashes to indicate this.



3. Press the two top buttons on the LINAK hand control at the same time.



The Under Bed Light gives one long flash to indicate that the hand control and the TWINDRIVE are paired up. The TWINDRIVE stays in pairing mode and it is possible to connect more controls using the same procedure.



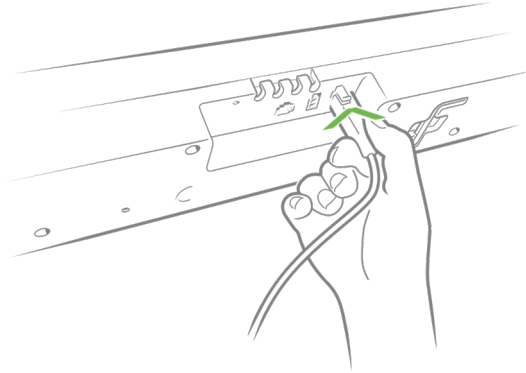
Wait 5 seconds after pairing control 1 before you can pair control 2.
To get the system out of pairing mode, simply press any button on an already paired control.



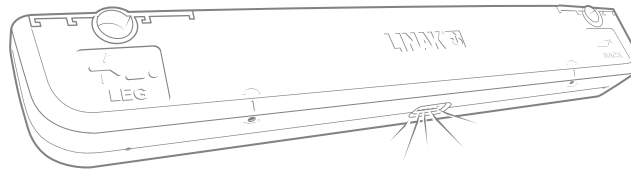
Allow for the hand control to go to power-saving mode (backlight turns off) before disconnecting the actuator system from the mains supply.
Otherwise the pairing will not be saved in the hand control.

Pairing your smartphone or tablet

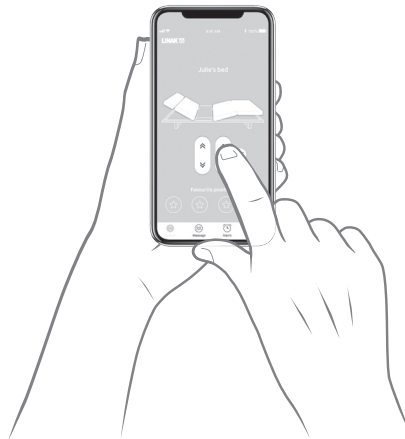
1. Enable Bluetooth® on your smartphone/tablet.
2. Open the Bed Control App.
3. Connect the TWINDRIVE Advanced to mains via the mains cable.



4. The TWINDRIVE is in pairing mode for three minutes and the Under Bed Light flashes to indicate this.



5. The Bed Control App will automatically pair to the closest TWINDRIVE in pairing mode. Wait a few seconds to see the app confirm completed pairing.
6. Your smartphone/tablet and the TWINDRIVE are now paired up. The app will display the operation page and the bed can now be adjusted via the app.

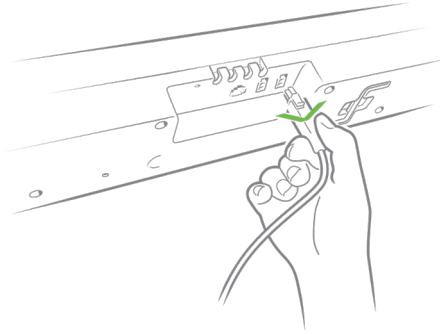


The Bluetooth® pairing mode will stop as soon as the phone is connected. Thus, we recommend to start pairing the hand control and thereafter the phone to avoid having to disconnect the power.

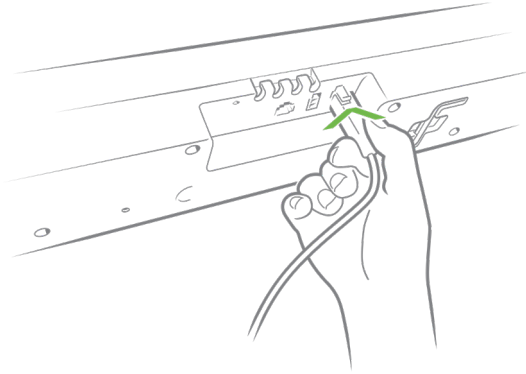
Pairing another device later

It is possible to connect another control or another smartphone/tablet to the TWINDRIVE later.

1. Disconnect the TWINDRIVE Advanced from mains.



2. Wait 2 minutes.
3. Reconnect the TWINDRIVE to mains to get it in pairing mode again.



4. Follow the instructions above to pair other devices.

Previously paired devices will not be deleted until a maximum of 8 devices are paired. Pairing a ninth device will delete the first device paired.



The TWINDRIVE 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.

Quick pairing mode

You can also pair a new device by using the quick pairing mode.

1. Turn on the Under Bed Light.
2. Disconnect from mains.
3. Wait until the Under Bed Light turns off.
4. Reconnect the TWINDRIVE to mains to get it in pairing mode again.
5. Press the two top buttons on your hand control at the same time.
6. The Under Bed Light gives a long flash to indicate that control and TWINDRIVE are paired up.

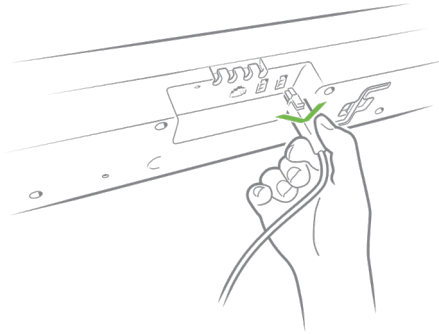
How to unpair one TWINDRIVE

1. Put the TWINDRIVE you want to keep paired into pairing mode and pair the hand control.
2. Press a button on the hand control and the pairing mode stops.
3. The connection between the other TWINDRIVE and the hand control is now deleted.

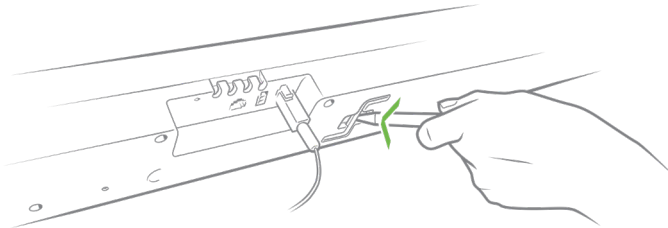
Mechanical emergency lowering

Emergency lowering is meant for lowering the bed if a power failure occurs and the bed needs to be driven down into horizontal position.

1. Disconnect the TWINDRIVE Advanced from mains.

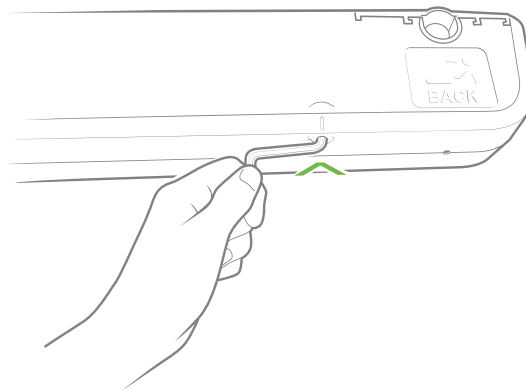


2. Take the hex key from the side of TWINDRIVE.



Underneath the TWINDRIVE are two gaps for mechanical lowering.

3. Place the hex key in the gap, one end at a time, and turn the hex key in the direction indicated by the arrow right above the gap.



It is important to turn the key in the direction indicated on the housing. Turning the key in the wrong direction can wreck the inner hex and make mechanical emergency lowering impossible.

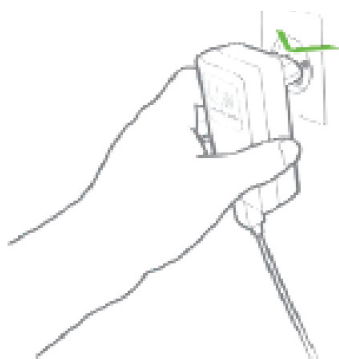


Do **not** use an electric screwdriver for lowering, use the hex key enclosed on the TWINDRIVE.

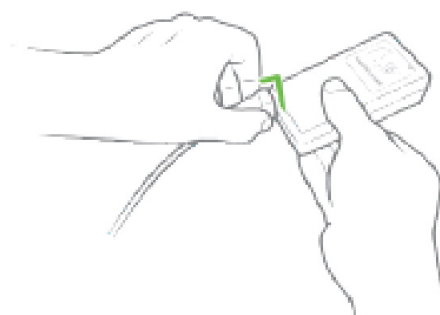
Electrical emergency lowering

Connection of emergency lowering:

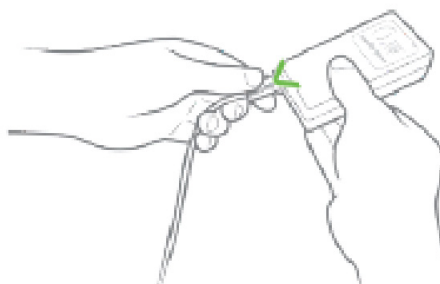
1. Disconnect the SMPS from the mains.



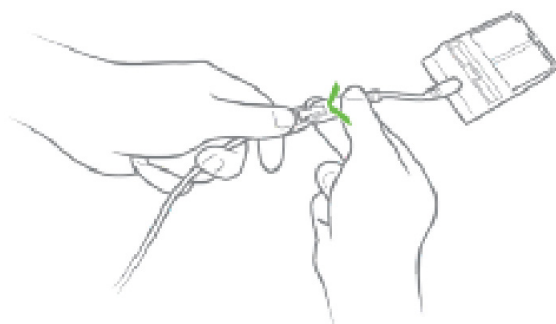
2. Notice! If a locking device is mounted on the SMPS remove it now.



3. Unplug the connection cable from the SMPS



4. Connect the connection cable to the battery box for emergency lowering.



Parallel drive

It is possible to run parallel drive on two TWINDRIVE Advanced connected. Parallel drive means two beds running in parallel with use of only one hand control. Connect the two TWINDRIVE Advanced with a serial cable using the RJ45 ports. Use an already paired hand control or pair a hand control to the TWINDRIVE Advanced and control the two TWINDRIVE Advanced using only one hand control. It is possible to pair multiple hand controls to the system.



Wait for 5 seconds before switching hand control.

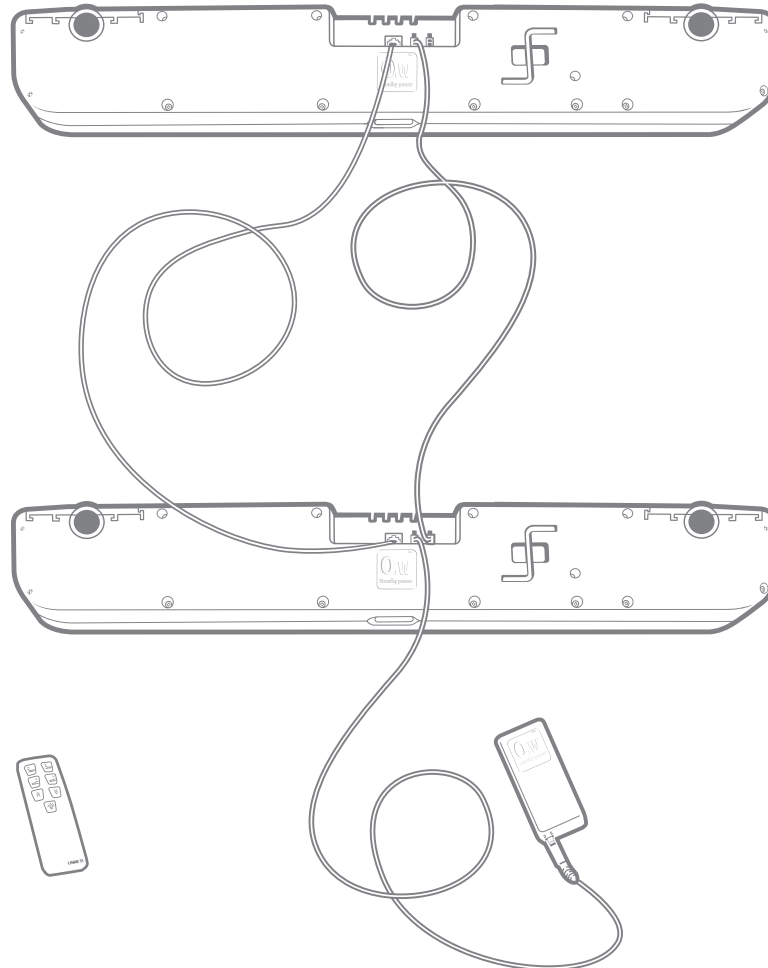


Figure 1 Connection overview for parallel drive on two TWINDRIVE Advanced

Combining the TWINDRIVE Advanced and the CBD6DC HOMELINE

Combining the TWINDRIVE Advanced with the Control Box CBD6DC HOMELINE makes it possible to create a bed design with up to 5 motor in the system. The CBD6DC HOMELINE is connected to the TWINDRIVE Advanced with a serial cable and a 2-poled DC cable for communication and power supply in between the products. For CBD6DC HOMELINE connection descriptions.



Do not pack the CBD6DC in heat insulating material.

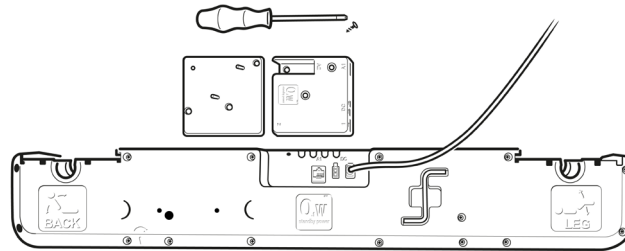
Place the CBD6DC so it can emit heat through its surface to the surroundings.

Mounting the CBD6DC on the TWINDRIVE Advanced

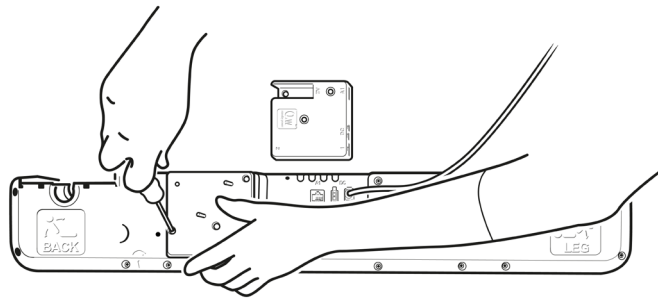
1. The CBD6DC can be mounted directly on a TWINDRIVE by means of the bracket and one screw.



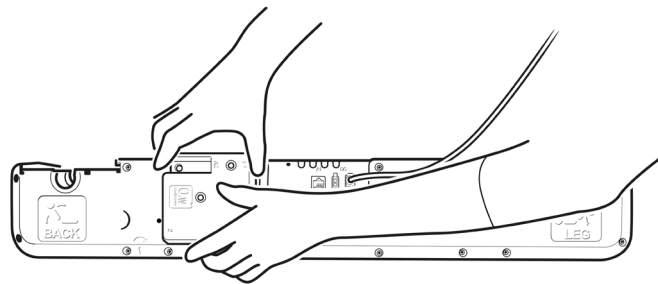
The bracket and the screw must be ordered separately..



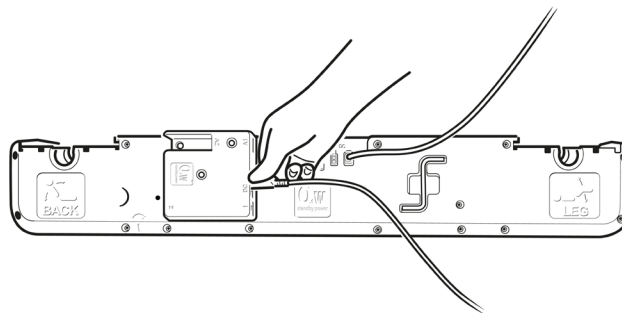
2. The bracket fits into the existing screw holes in the TWINDRIVE. Place the bracket on the TWINDRIVE and fasten the screw.



3. Place the CBD6DC on the bracket. Push down until it is clicked onto the bracket.



4. Plug the cables into the CBD6DC and the TWINDRIVE.

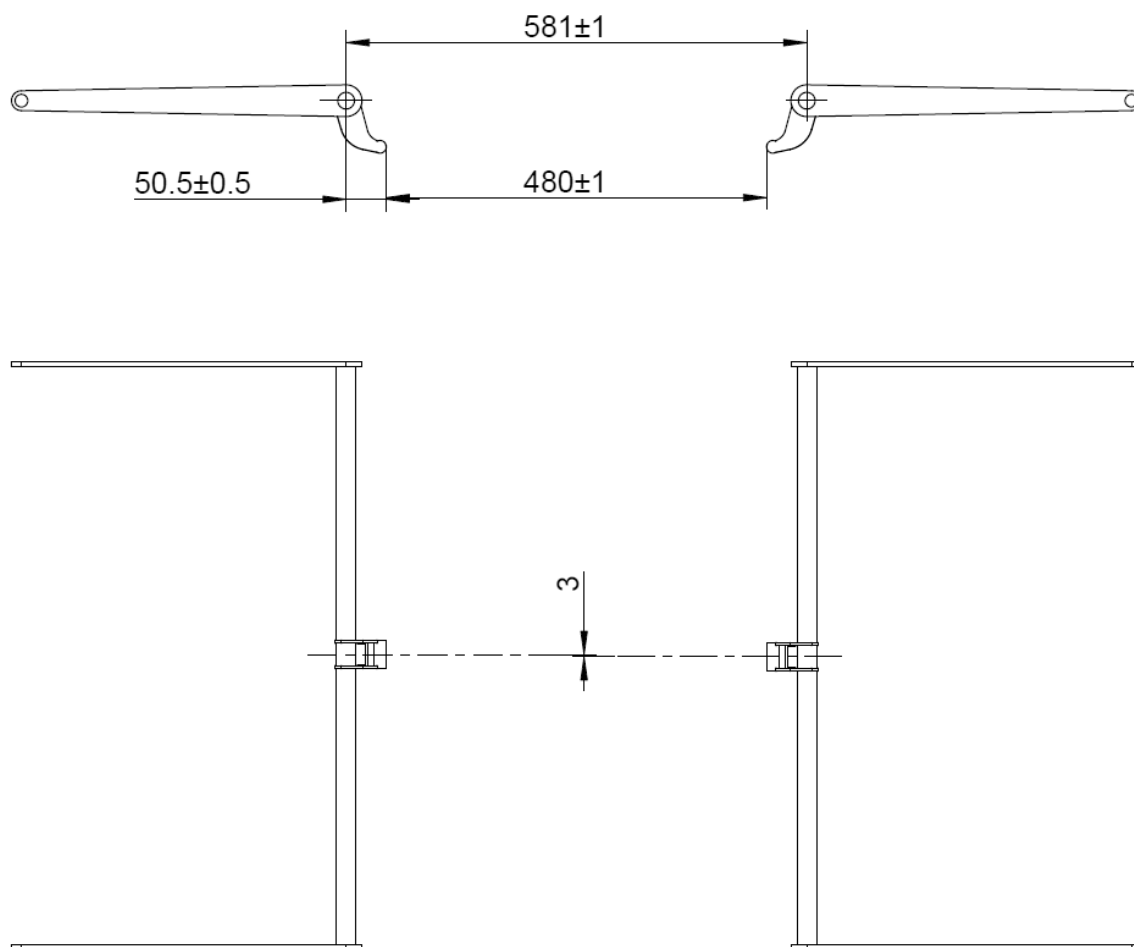


It is important to fix the cables to the bed frame to ensure that the cables are not stressed when the bed is adjusted.

Twist bracket

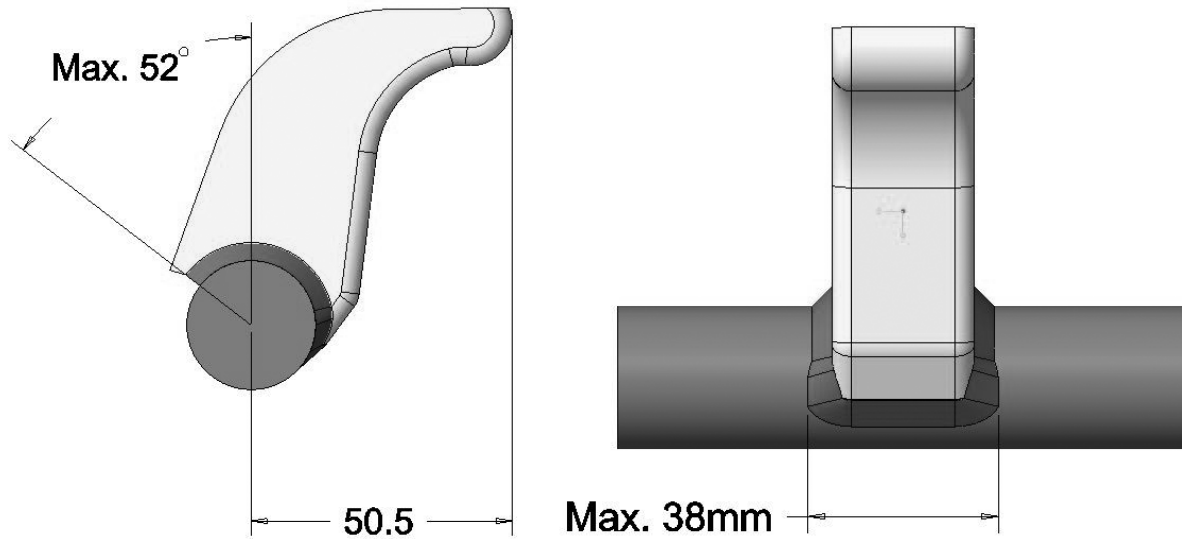
Mounting instructions and parallel tolerance

When bed is horizontal (starting position):

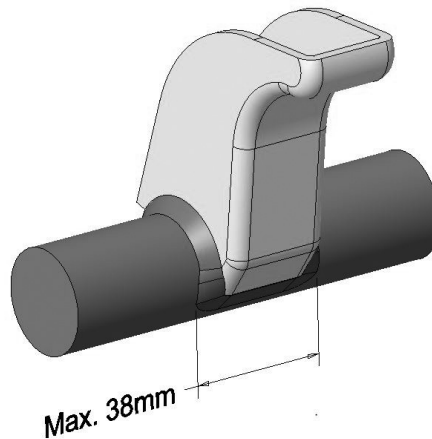


The shaft diameter must be $\varnothing 25.2 \text{ mm} +0.3 \text{ mm}/-0.2 \text{ mm}$

Welding instructions



No bracket or welding outside this area 52° from vertical axis



The dimension of the twist bracket including welding may not exceed 38 mm.

To maintain the correct rotation angle of the head-rest and the foot-rest it is important that the Twist bracket is mounted and welded according to the above instructions. Non-compliance with the instructions could lead to a smaller angle of rotation or, in worst case, damage the TWINDRIVE.



It is important that the bracket specification is met to keep the specified lifetime of the TWINDRIVE.

If the twist brackets are mounted correctly, 1-2 seconds after activating a hand control the bed should be adjusted. It gives the optimized mounting of the TWINDRIVE during mounting and the correct angle of the bed.

Repairs

Only an authorised LINAK® service centre should repair the LINAK actuator systems. Systems to be repaired under warranty must be sent to an authorised LINAK service centre.

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

If a system 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.

Further information on LINAK warranty can be found on the LINAK website www.linak.com/warranty.

Disposal of LINAK products

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

Guide

We recommend our products to be disassembled as much as possible and divided into different waste groups for recycling or combustion.

For example, waste can be sorted into metals, plastics, cable scrap, combustible material, and recoverable resources.

Some of these main groups can be further divided into subgroups; e.g. metal can be divided into steel/aluminium/copper and plastic can be divided into ABS/PA/PE/PP.

As an example, the table below breaks down the different components in LINAK products to various recycling groups:

Product	Component	Recycling group
Actuator	Spindle and motor Plastic housing Cable	Metal scrap Plastic recycling or combustion Cable scrap
Massage motor	Plastic housing Cable	Plastic recycling or combustion Cable scrap
TWINDRIVE	PCB Plastic housing Cable Transformer Batteries Spindle and motor	Electronics scrap Plastic recycling or combustion Cable scrap Metal scrap Recycling Metal scrap
Hand controls	Plastic housing PCB Batteries	Plastic recycling or combustion Electronics scrap Recycling

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

Main groups of disposal

Product	Metal scrap	Cable scrap	Electronics scrap	Plastic recycling or combustion	Paper and cardboard recycling
TWINDRIVE	x	X	x		
Hand controls			X	X	
Packaging				x	x

Disposal of batteries

Details regarding safe disposal of used and leaking 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 the local recycling system. Please do not dispose of used or leaking batteries as 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 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.

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.

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