



**Yes, you can.<sup>®</sup>**



## *Invacare<sup>®</sup>* **Etude**

---

***User's Manual (GB)***

***Brugermanual (DK)***

***Bruksanvisning (SE)***

***Gebruiksaanwijzing (NL)***

***Bedienungsanleitung (DE)***

***Manual d'utilisation (FR)***

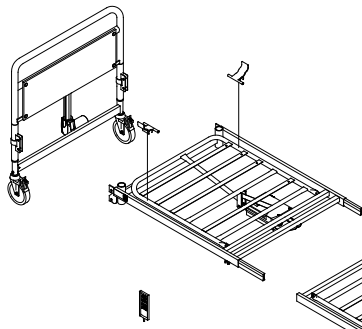
***Manual del usuario (ES)***

***Manual de Utilização (PT)***

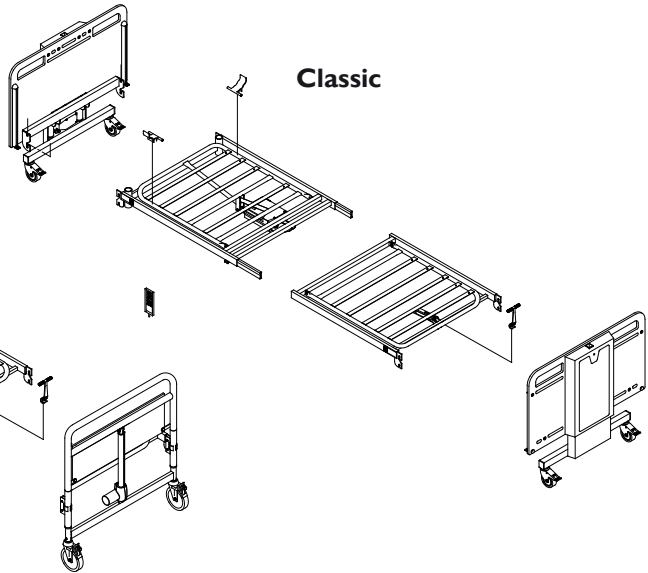


**Illustration 1**

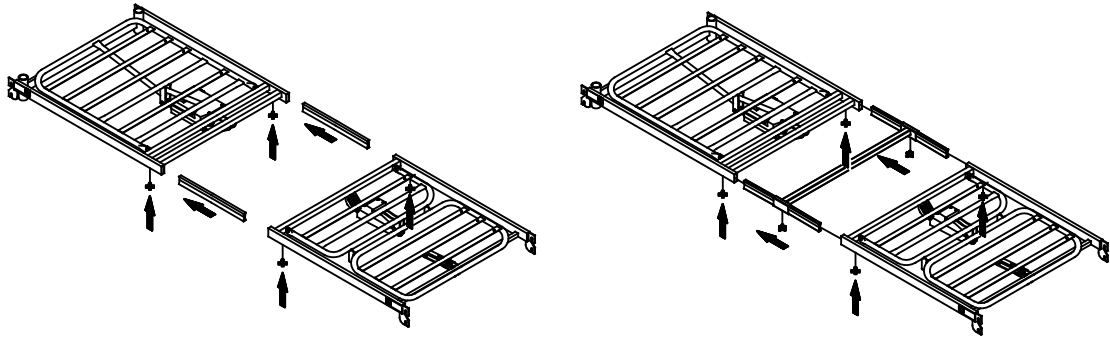
**Basic**



**Classic**

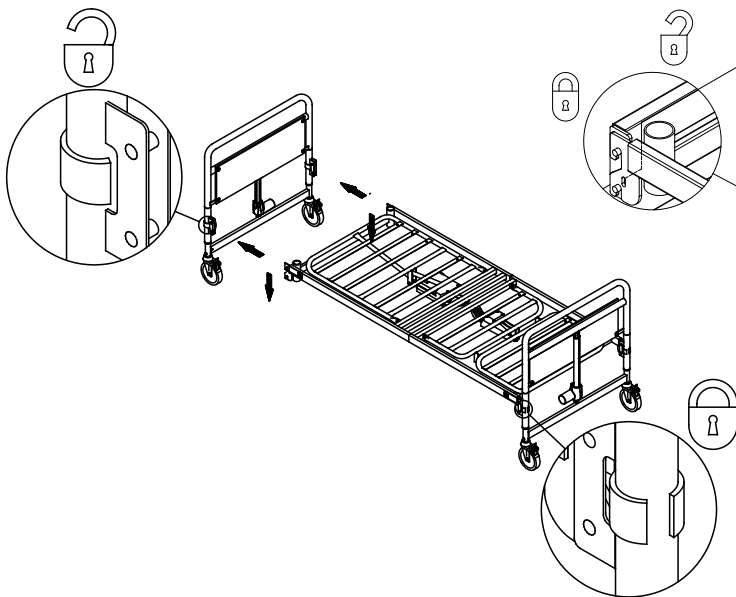


**Illustration 2 a**

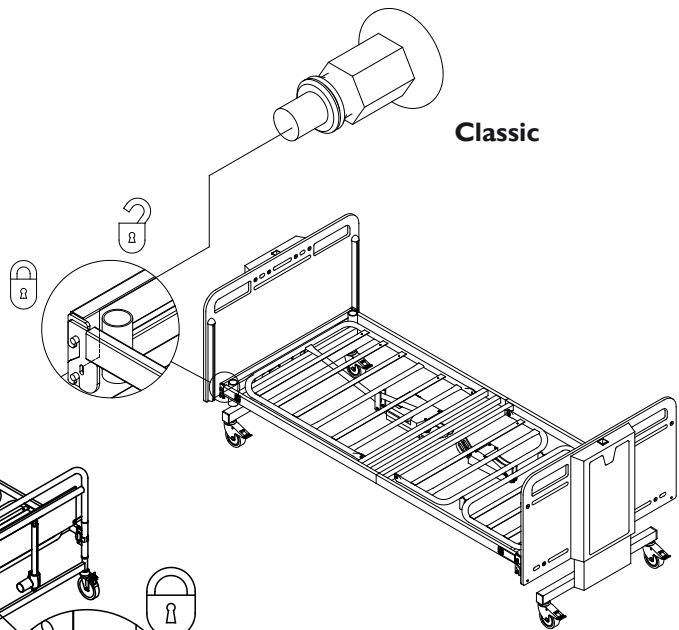


**Illustration 2 b + c**

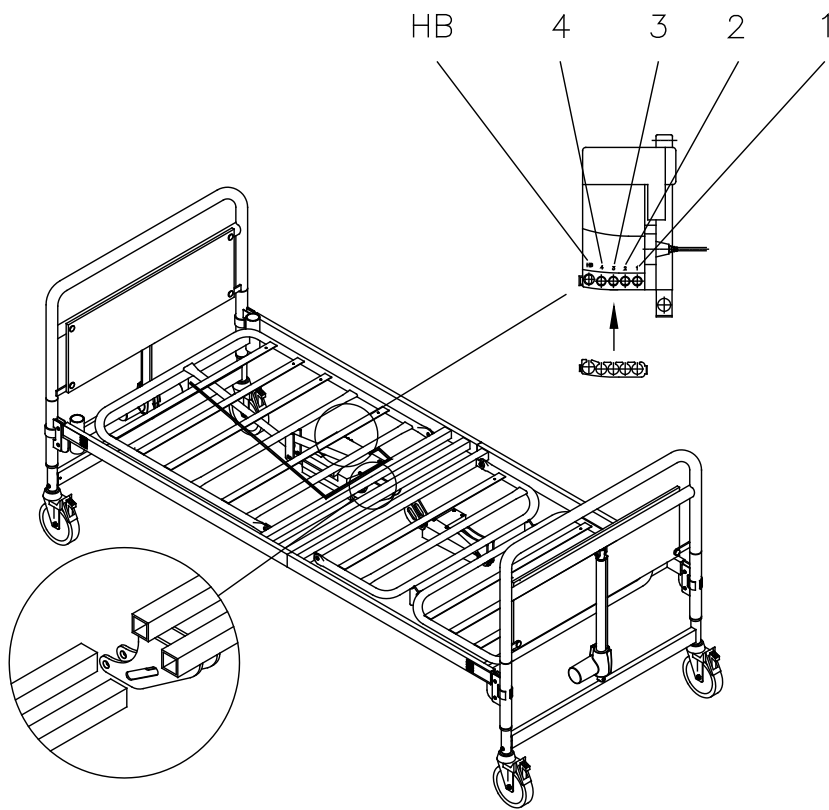
**Basic**



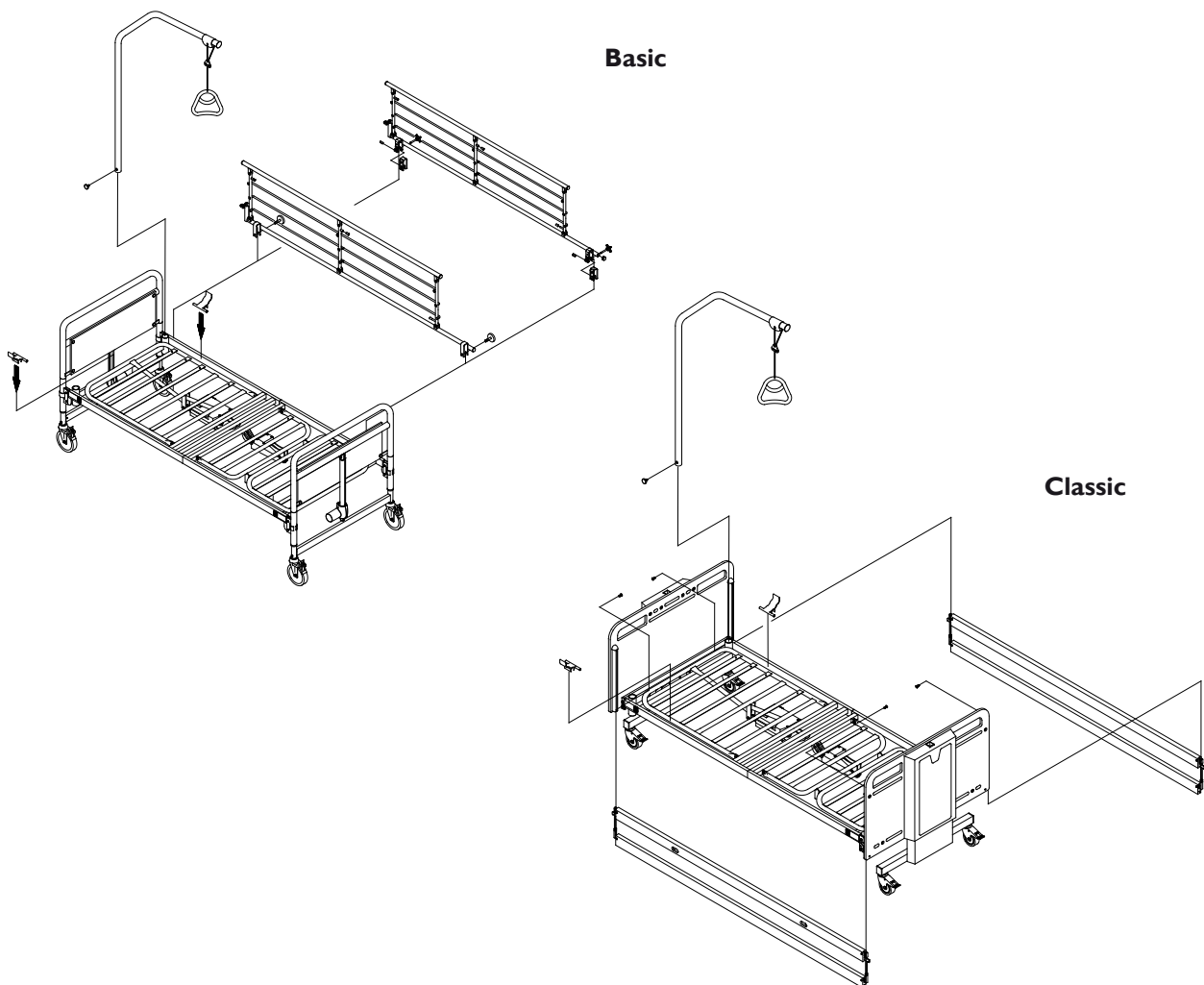
**Classic**



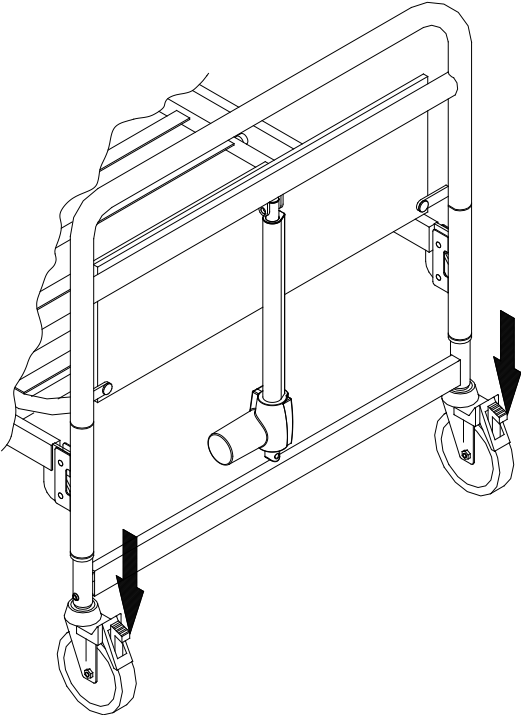
**Illustration 2 d**



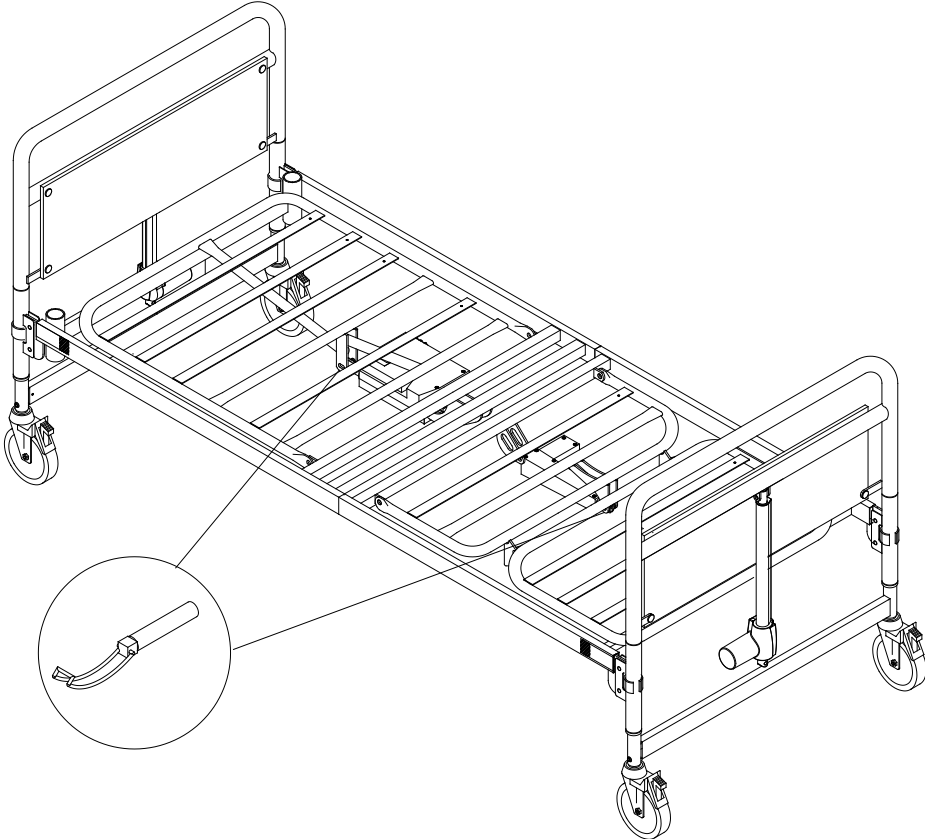
**Illustration 3**



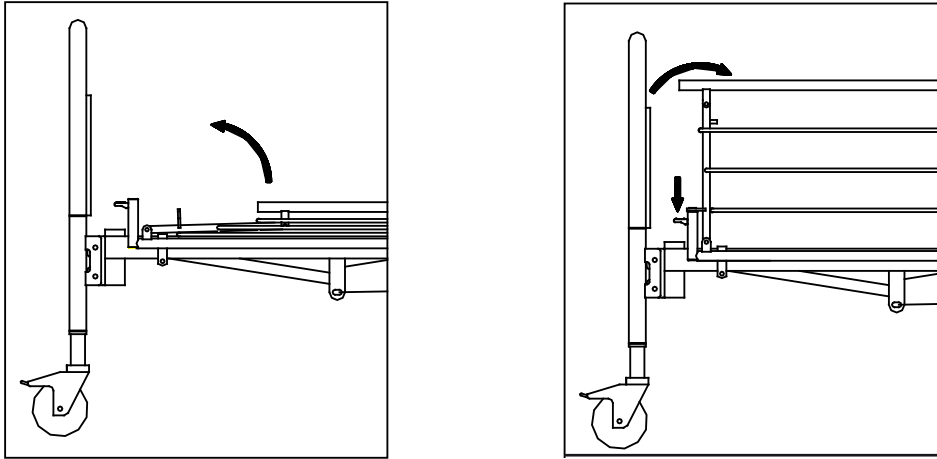
**Illustration 4**



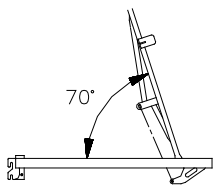
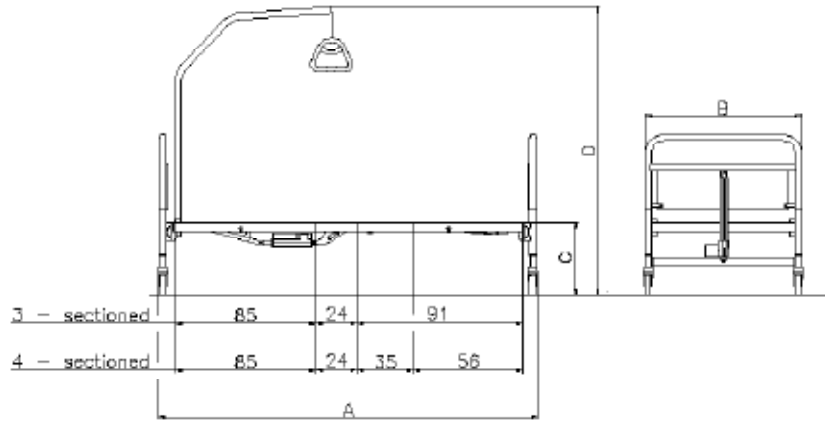
**Illustration 5**



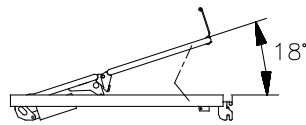
**Illustration 6**



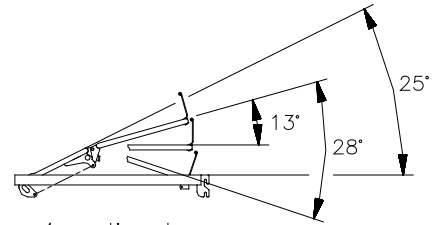
**Illustration 7**



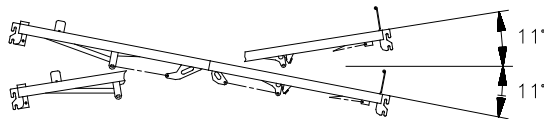
3- & 4-sectioned.



3- & 4- sectioned.



4-sectioned.



3- & 4-sectioned.

	Basic		Classic	
	Low clasp	High clasp	Low pos. version	High pos. version
A	222	222	228	228
B	97	97	103	103
C	33-73	40-80	30-70	40-80
D	158-198	165-205	155-195	165-205

# Quality Declaration

**Congratulations with your new bed Invacare® Etude™ from Invacare® EC-Høng A/S.**

**Your new bed is CE-marked in accordance with directive 93/42/EEC concerning medical devices.**

**Invacare® Etude™ is developed and constructed with consideration for the user and others handling or assisting at the bed. Furthermore, the bed is developed in accordance with the European Standard EN 1970.**

**Invacare® Etude™ is supervised and quality controlled throughout the entire production process, and the finished bed is inspected by our finished goods control. Identification label and QA-mark are located on the bed confirming that the finished goods control has approved the bed.**

**Please read the entire user's manual before using the bed.**

**Invacare® EC-Høng A/S is certified according to ISO 9001 and ISO 13485.**

**For and on behalf of Invacare® EC-Høng A/S:**



---

**Brian Mundeling**

**R & D Manager**

**DK**

## **KVALITETSDEKLARATION**

Tillykke med Deres nye seng Invacare® Etude™ fra Invacare® EC-Høng A/S.

Deres nye seng er CE - mærket og lever op til alle krav i henhold til direktiv 93/42/EØF om medicinske anordninger.

Sengen er udviklet og konstrueret under størst mulig hensyntagen til brugeren samt alle andre, der enten håndterer sengen eller hjælper til ved sengen.

Invacare® Etude™ er udviklet under hensyntagen til de sikkerhedsmæssige krav i den Europæiske Standard EN 1970. Hver seng har gennem hele produktionsløbet været overvåget og kontrolleret, og den færdige seng er blevet inspiceret af vores færdigvarekontrol.

Typeskilt og QA-mærke påsættes sengen som dokumentation for, at færdigvare kontrollen har godkendt sengen. Før ibrugtagning af Deres seng skal De gennemlæse brugermanualen grundigt. Invacare® EC-Høng A/S er certificeret i henhold til ISO 9001 og ISO 13485.

**DE**

## **QUALITÄTSDOKUMENTATION**

Herzlichen Glückwunsch zu Ihrem neuen Pflegebett Invacare® Etude™ von Invacare® EC-Høng A/S.

Ihr neuer Pflegebett ist gemäß der Richtlinie 93/42/EWG für Medizinprodukte CE-gekennzeichnet.

Der Invacare® Etude™ wurde unter Berücksichtigung der Bedürfnisse von Benutzer und Pflegepersonal entwickelt und in Übereinstimmung mit der Europäischen Norm EN 1970 konzipiert und hergestellt.

Während des gesamten Herstellungsprozesses unterliegt der Invacare® Etude™ einer ständigen Qualitätskontrolle und wird im Anschluss nochmals durch unsere Endkontrolle geprüft.

Das Typenschild und QA-Kennzeichen sind am Bett angebracht, um die Abnahme durch unsere Qualitätskontrolle zu bestätigen.

Bitte lesen die gesamte Bedienungsanleitung, bevor Sie den Bett in Gebrauch nehmen.

Invacare® EC-Høng A/S ist zertifiziert nach ISO 9001 und ISO 13485.

**NL**

## **KWALITEITSGARANTIE**

Gefeliciteerd met de aanschaf van uw nieuwe bed Etude™ van Invacare® EC-Høng A/S.

Invacare® Etude™ is CE - gecertificeerd en goedgekeurd conform richtlijn 93/42/EEC betreffende medische hulpmiddelen.

Invacare® Etude™ is ontwikkeld en geconstrueerd met inachtname van de behoeften van de gebruiker en verzorgers.

Invacare® Etude™ is ontwikkeld in overeenstemming met de Europese Standaard EN 1970.

Gedurende het gehele productieproces is het Etude™ bed gecontroleerd op kwaliteitsaspecten en het complete bed is na productie zorgvuldig gecontroleerd. Het productlabel en de QA-markering zijn op het bed bevestigd om aan te tonen dat de bedden zijn gecontroleerd en goed zijn bevonden door de afdeling productcontrole. Wij verzoeken u vriendelijk de gehele gebruikershandleiding te lezen voordat u het bed in gebruik neemt.

Invacare® EC-Høng A/S is ISO 9001 en ISO 13485 gecertificeerd.

**IT**

## **DICHIARAZIONE DI QUALITÀ**

Complimenti per aver scelto il letto Invacare® Etude™ prodotto da Invacare® EC-Høng A/S.

Il vostro nuovo letto è marcato CE - ai sensi della Direttiva 93/42/EEC relativa ai dispositivi medici.

Il letto è stato progettato e costruito con un occhio di riguardo per gli utilizzatori e per i loro assistenti. Invacare® Etude™ è stato realizzato nel rispetto della Normativa Europea EN 1970.

Il letto è stato oggetto di accurate verifiche qualitative durante l'intero processo produttivo; una volta completato è stato controllato dal nostro servizio prodotti finiti.

Un'apposita targhetta e la marcatura QA sono state apposte sul letto a conferma dell'avvenuta verifica e accettazione del prodotto da parte del servizio qualità. Prima di utilizzare il letto vi invitiamo a leggere integralmente il manuale d'uso.

Invacare® EC-Høng A/S è un'azienda certificata ai sensi della Normativa ISO 9001 e ISO 13485.

**ES**

## **DECLARACIÓN DE CALIDAD**

Enhorabuena por su nueva cama Invacare® Etude™ de Invacare® EC-Høng A/S.

Su nueva cama cuenta con el marcaje CE - de acuerdo a la directiva 93/42/EEC que hace referencia a los aparatos médicos.

Invacare® Etude™ ha sido diseñada y fabricada teniendo en cuenta a los usuarios y las personas que los asisten.

La cama Invacare® Etude™ ha sido diseñada de acuerdo a la normativa Europea EN 1970.

El proceso de producción del modelo Invacare® Etude™ ha sido supervisado en su totalidad y su calidad inspeccionada, por nuestro control de producto acabado.

La cama cuenta con una placa y marca CE que confirma que la misma ha sido inspeccionada por el control de producto acabado. Por favor lea el manual antes de utilizar la cama.

Invacare EC-Høng A/S es una empresa certificada ISO 9001 e ISO 13485

**FR**

## **DÉCLARATION DE QUALITÉ**

Félicitations! Vous avez choisi votre nouveau lit Invacare® Etude™ de Invacare® EC-Høng A/S.

Votre nouveau lit est marqué CE conformément à la directive 93/42/EEC concernant les dispositifs médicaux.

Invacare® Etude™ a été développé et construit en considérant systématiquement les besoins de l'utilisateur et des tierces personnes lors de la manipulation du lit ou de son utilisation.

Invacare® Etude™ a été développé conformément au Standard Européen NF EN 1970 et NF EN 60601-2-38.

Invacare® Etude™ a été supervisé et contrôlé tout au long du processus de fabrication et le lit achevé a été inspecté par le contrôle des produits finis. La plaque d'identification et la marque QA sont placées sur le lit attestant que le contrôle des produits finis a approuvé le lit. Le lit répond aux exigences de l'analyse de risques de la norme NF EN 14971.

Nous vous remercions de lire le Manuel de l'Utilisateur dans son intégralité avant d'utiliser le lit.

Invacare® EC-Høng A/S est certifiée ISO 9001 et ISO 13485.

**PT**

## **DECLARAÇÃO DE QUALIDADE**

Parabéns pela sua nova cama Invacare® Etude™ da Invacare® EC-Høng A/S.

A cama tem a marca CE - em conformidade com a directiva 93/42/EEC referente a aparelhos médicos.

A cama foi concebida e desenhada, tendo em consideração o seu utilizador e o seu(s) assistente(s), que o ajudarão a manipular a cama. A cama foi concebida em conformidade com o Standard Europeu EN 1970.

Durante todo o processo de fabrico e produção, a cama Invacare® Etude™ foi supervisionada e a sua qualidade controlada, sendo o produto final inspeccionado e testado pelo nosso controlo de qualidade. As etiquetas e a marca QA, são colocadas na cama, após a aprovação final da cama, confirmando e garantindo a conformidade com o nosso controlo de qualidade. Por Favor, leia atentamente este manual de utilizador antes de utilizar a sua cama.

A Invacare® EC-Høng A/S está certificada em conformidade com ISO 9001 e ISO 13485.

# Table of Contents

1. General information	8
2. Unpacking your product	10
3. Assembly of Etude™	11
4. Fitting the accessories	12
5. Rebuilding from 3-section to 4-section	13
6. Operating the Etude™ with 4-section mattress support	14
7. Operating the Etude™ with 3-section mattress support	15
8. Adjustment of leg section (only on 3-sectioned beds)	16
9. Emergency lowering of the backrest and/or thigh section	17
10. Operating the accessories	17
11. Dismantling the Etude™	18
12. Using the transport brackets	18
13. Order numbers for accessories	19
14. Cleaning and disinfection	20
15. Maintenance and servicing	20
16. Maintenance chart	21
17. Waste disposal	21
18. Trouble-shooting the electrical system	22
19. Wiring	23
20. Technical specifications	25
21. Weights	25



## Congratulations

You have chosen an Invacare® Etude™ nursing bed. Etude™ is the dismantlable nursing bed from Invacare® EC-Høng designed especially for home nursing. The Etude™ nursing bed provides ease of handling combined with good functionality.

Invacare® EC-Høng is certified according to DS/EN ISO 9001 / ISO 13485 which ensures that our customers are always supplied with products of uniform quality.

Throughout the entire production process our materials/products are quality controlled by the operators. Moreover, a final test is carried out prior to packaging and shipping.

The operator carrying out the final test, which comprises of checking all moveable parts, motors and castors, issues a QA number on the product thereby confirming its quality.

**QA XXX**

If the product does not correspond to the quality demands of Invacare® EC-Høng, it will be discarded.

If, contrary to our expectations, a problem should arise in connection with the delivered product, please contact your Invacare® supplier.

Invacare® reserves the right to alter product specifications without prior notice.



Invacare® accepts no liability for any use, change or assembly of the product other than as stated in this User's Manual.  
Accessories not mentioned in this manual must not be used.

## I. General information

- The Etude bed is marked with the CE mark in accordance with directive 93/42/EEC concerning Medical Apparatus.
- The Etude bed has been tested and approved according to EN 1970:2000.
- The motors and control of the Etude bed have been approved according to EN 60601:1996-03.
- The Etude bed has been approved and marked with the TÜV mark.
- Beds provided with tilt function cannot be approved according to EN 1970:2000.
- The Etude bed has undergone a risk analysis according to EN 14971.
- The control and motors are protected according to IP 54. The hand control is protected according to IP 66.
- Max. weight: Etude Basic: 180 kg - Etude Classic: 220 kg.
- Max. patient weight: 145 kg (Etude Basic) - 185 kg (Etude Classic) provided that the weight of the mattress and the accessories do not exceed 35 kg.
- Standard size of mattress for the Etude Basic is 90x200x12, Etude Classic 90x200x10.
- If the patient height exceeds 2 meters it is recommended to use a mattress support extension.
- The Etude bed has loose cables, which have to be exchanged when damaged.
- The bed is not intended for children under 12 years and psychiatric patients.
- Remove the plug from the mains voltage before moving the bed. The cable must be kept clear off the floor and the castors during transportation.
- The adjustment area of the mattress support is Basic: 40-80 cm or 33-73 cm, Classic: 40-80 cm (30-70 cm/Low height version), Classic Extra Low: 19-59 cm.
- Only accessories described in this manual may be mounted on the Etude bed.
- The angle between the lower leg section and horizontal is adjustable from 0° to 15°.

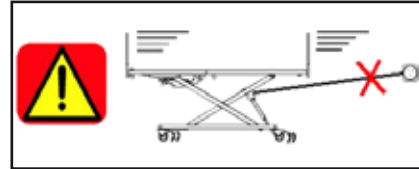


The bed is not intended for use together with MEDICAL ELECTRICAL EQUIPMENT.  
It can be dangerous to roll over the mains cable.  
Do not bring mains cable into moving parts.



Disconnect the plug from the mains before moving the bed.  
The cables must be mounted in such a way that they are kept clear off the floor and do not block the castors.

We recommend to mount the mains cable on the hook for this purpose, see picture below.



The bed must not be used by patients under 12 years of age, or by patients with body size equivalent to an average 12 years old or smaller.



The bed's castors must be locked during nursing a patient in bed or when using any positioning function. The bed must not be transported when occupied.



Adjust the mattress support sections to horizontal position and lower the bed to its lowest position before moving the bed.  
Hold the top of the bed end with both hands while the bed is pushed/pulled.  
Any floor obstacle must not be higher than 10 mm.



**Note!** Adjust the Etude Classic Extra Low to horizontal position and at least 5 cm above the lowest position before moving the bed.

If the functions of the bed change, check the bed according to the maintenance chart, chapter 16.



All service and maintenance work described in chapters 14, 15 and 16 must only be performed by personnel who have been instructed and trained by Invacare®.



Because of condense, may the bed not be used before it has gained room temperature.

## 2. Unpacking your product

### For a complete bed the following parts must be provided:

(Illustration 1, here shown as a 3 - sectioned bed)

#### 1. Etude™ Basic

- A) 1 mattress support  
If 3 - sectioned = ETUDE.CXXXXX.XX (see complete list for specific number)  
If 4 - sectioned = ETUDE.EXXXXX.XX (see complete list for specific number)  
2 mattress handles, hand control and motors are mounted on the mattress support.
- B) 1 pair of bed ends = ETUDE.000C1.XX

#### Optional:

- Pair of siderails (steel)
- Lifting pole
- Support handle(s)
- Mattress support extension (10 or 20 cm)
- Transport fitting

#### 2. Etude™ Classic

- A) 1 mattress support  
If 3 - sectioned = ETUDE.CXXXXX.XX (see complete list for specific number)  
If 4 - sectioned = ETUDE.EXXXXX.XX (see complete list for specific number)  
2 mattress handles, hand control and motors are mounted on the mattress support.
- B) 2 individual bed ends  
If standard = ETUDE.000EI.XX  
If low = ETUDE.000FI.XX

#### Optional:

- Pair of siderails (wood)
- Lifting pole
- Support handle(s)
- Mattress support extension (20 cm)
- Transport fitting

### Order numbers for Etude mattress support and bed ends:

3 - Sect 90X200 Std. Mains Cable, Tilt, Not TÜV Approved . . . . .	ETUDE.CE100.XX
3 - Sect 90X200 Std. Mains Cable, Excl. Tilt, TÜV Approved. . . . .	ETUDE.CE300.XX
3 - Sect 90X200 UK Mains Cable, Tilt, Not TÜV Approved . . . . .	ETUDE.CU100.XX
3 - Sect 90X200 UK Mains Cable, Excl. Tilt, TÜV Approved . . . . .	ETUDE.CU300.XX
3 - Sect 90X200 AU/NZ Mains Cable, Tilt, Not TÜV Approved . . . . .	ETUDE.CA100.XX
3 - Sect 90X200 AU/NZ Mains Cable, Excl. Tilt, TÜV Approved . . . . .	ETUDE.CA300.XX
4 - Sect 90X200 Std. Mains Cable, Tilt, Not TÜV Approved . . . . .	ETUDE.EE100.XX
4 - Sect 90X200 Std. Mains Cable, Excl. Tilt, TÜV Approved. . . . .	ETUDE.EE300.XX
4 - Sect 90X200 UK Mains Cable, Tilt, Not TÜV Approved . . . . .	ETUDE.EU100.XX
4 - Sect 90X200 UK Mains Cable, Excl. Tilt, TÜV Approved . . . . .	ETUDE.EU300.XX
4 - Sect 90X200 AU/NZ Mains Cable, Tilt, Not TÜV Approved . . . . .	ETUDE.EA100.XX
4 - Sect 90X200 AU/NZ Mains Cable, Excl. Tilt, TÜV Approved . . . . .	ETUDE.EA300.XX
4 - Sect 90X200 JPN. Mains Cable/100V, Tilt, Not TÜV Approved. . . . .	ETUDE.EJ100.XX
4 - Sect 90X200 JPN. Mains Cable/100V, Excl. Tilt, TÜV Approved. . . . .	ETUDE.EJ300.XX

**All the mattress supports can be combined with these 4 available types of bed ends:**

**BED ENDS BASIC** (Ordered and delivered as a pair of bed ends)

ETUDE.000CI.XX | **PAIR BASIC BED ENDS**, 40-80 cm (33-73) cm

**BED ENDS CLASSIC** (Ordered and delivered as 1 pcs. of bed end)

ETUDE.000EI.XX | **PCS. CLASSIC BED END**, 40-80 cm

ETUDE.000FI.XX | **PCS. CLASSIC BED END LOW HEIGHT**, 30-70 cm

ETUDE.000GI.XX | **PCS. CLASSIC EXTRA LOW**, 19-59 cm

XX is colour code.

For standard light grey (RAL 7032) **.21** is to be used for bed ends and **.20** for mattress support.

**Example:**

ETUDE.000EI.21 (1 Etude Classic bed end in light grey)

ETUDE.EE100.20 (1 Etude 4 - sect. mattress support in light grey)

### 3. Assembly of Etude™

(Illustration 2a, 2b+c, 2d)

#### a) Mattress Support

- Place the two inserts in the head end of the mattress support. The inserts must be mounted in such a way that one extends further out of the side tube than the other.
- Loosely screw in the two thumb screws.
- Push the foot end of the mattress support onto the two inserts.
- Tighten with two thumb screws.
- Retighten the two thumb screws at the head end of the top frame.
- Turn the two mattress handles of the backrest up.
- Turn the handle of the leg section up.

#### b) Etude Basic

- Turn the locking rings\*) on the bed ends to the position "open".
- Latch the mattress support to the bed ends and press firmly into position.
- Turn the locking rings to the position "locked".

#### c) Etude Classic

- Release the quick locks\*) on the bed ends.
- Latch the mattress support to the bed ends and press firmly into position.
- Turn the quick locks to the position "locked".

\*) The locking rings/quick locks ensure that the mattress support is not accidentally lifted clear of the bed ends.

#### d) Control Box

The control box is latched to the backrest motor.

The control box is provided with a label with symbols showing where to connect the motors' plugs.

- Backrest motor.
- Thigh section's motor.
- Bed end.
- Bed end.
- Hand control.

### Wiring (Also see the pictures in section I9)

Attention!

**In order to prevent the cables from being torn apart when activating the motors it is critical that you follow the instructions below**

1. Connect the cables of the bed end motors (head and foot end) directly to the control box.
2. Only 4 - sectioned beds: The plug of the thigh motor must be directed through the opening of the supporter for the backrest motor and then be connected to the control box.
3. Connect the mains cable to the 230 V plug.
4. Run the motors of the bed ends to their top position.
5. Place the motor cable of the foot end on the hook at the foot end.
6. Run the backrest to its top position.
7. Place the head end motor cables on the 4 hooks at the head end.
8. Fasten the safety clip to the control box.

When working with the foot end, note that there is a risk of getting squeezed during transport since the adjustable leg section is not firmly locked. Remember to remove the plug from the mains socket when moving the bed.

## 4. Fitting the accessories

(Illustration 3)

### Fitting the siderail, model 5525/5526/5529

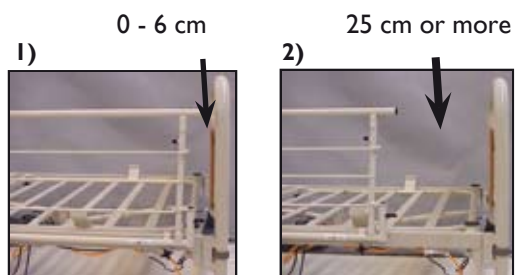
The siderail must be mounted with the release system at the head of the bed.

The fork links on the siderail must be mounted according to the instruction on the siderail.



1)

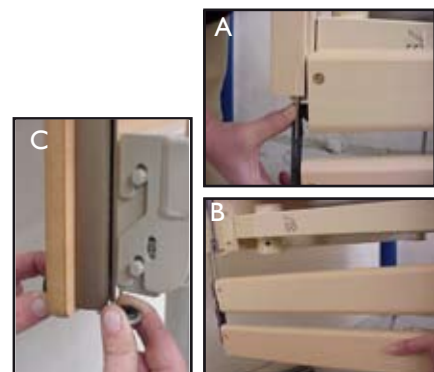
2)



Tighten the siderail with 2 thumb screws.

### Mounting of BRITT II/III/IV (Classic bed ends)

1. Raise the bed about 1/3.
2. Dismount the stop-knobs using the thumb screws (C).
3. Remove protection tape at the locking pins at both ends of the siderail.
4. Fit one end at a time. Lift the lower wooden bar and guide the metal bow to the bed end rail (A).
5. Press the locking pin of the siderail with a finger (B).
6. Guide the siderail to the bed end and pull up the wooden siderail bar, until the locking pin locks with an audible click.
7. Mount the stop-knobs using the thumb screws (C).



There is a risk entrapment on assembly and operation of the siderails.

### Fitting the lifting pole

Remove the plug from the lifting pole tube at the head end of the bed where the lifting pole is to be placed. Insert the lifting pole into the lifting pole tube and fix with the thumb screw.

## 5. Rebuilding from 3-section to 4-section

### Contents:

Motor  
Hand control  
Motor cable  
Piping pin



Without tilt, order no: 1443838

With tilt, order no: 1443903

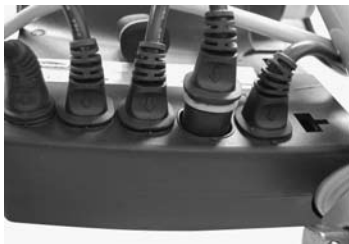
### Assembly instructions



Mount the motor on the high section.



Remove the blind plug.



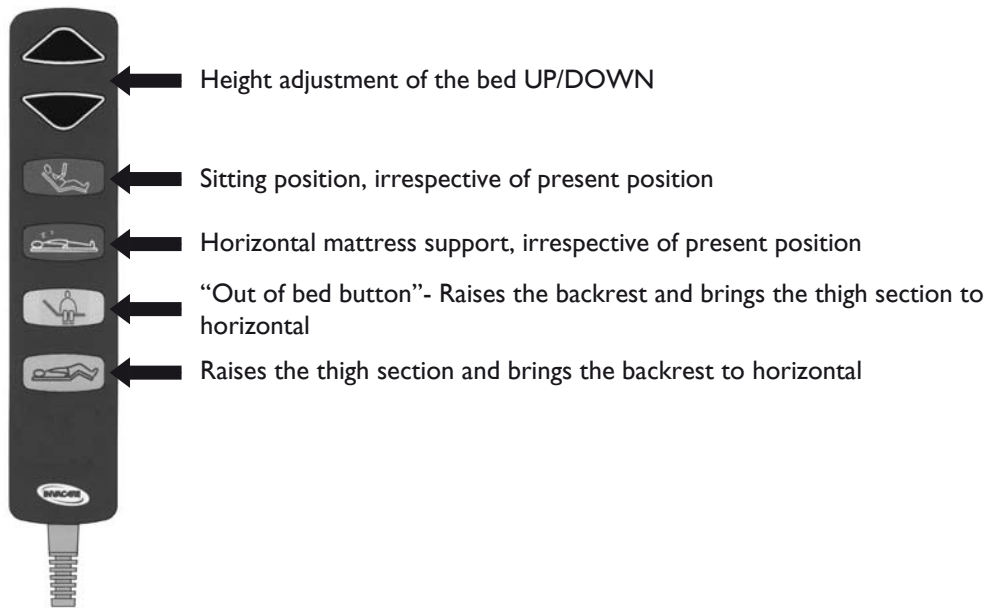
Connected the motor to the control unit.




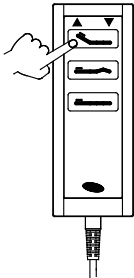
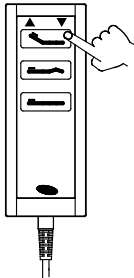






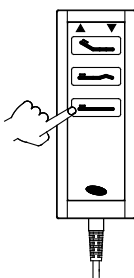
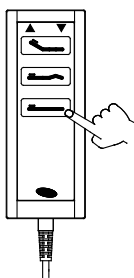

Hand control exchange.

## 6. Operating the Etude™ with 4-section mattress support

The bed can be equipped with this type of hand control: (Soft Control)

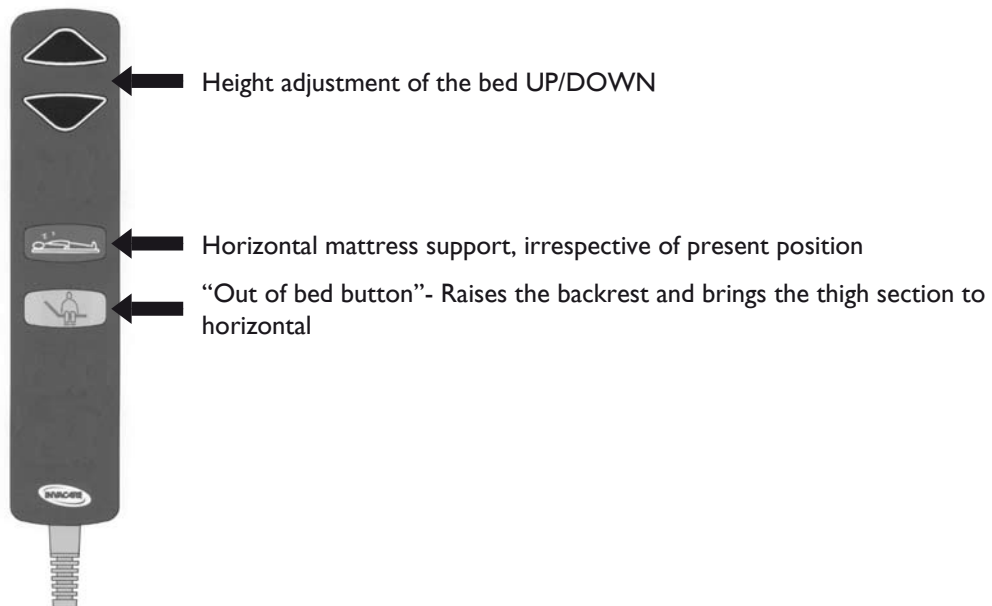


Or with this type of hand control: (HB 70)


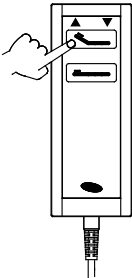
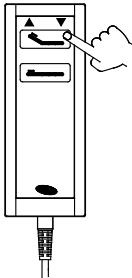

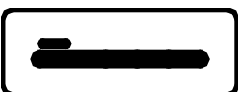
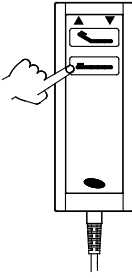
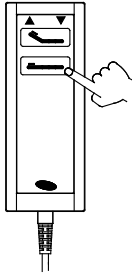
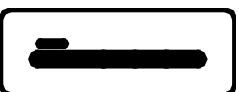
<p><b>Backrest up</b></p>  <p>Button with the symbol shown above. Push the left-hand side of the button.</p>	 	<p><b>Backrest down</b></p>  <p>Button with the symbol shown above. Push the right-hand side of the button.</p>
<p><b>Thigh section up</b></p>  <p>Button with the symbol shown above. Push the left-hand side of the button.</p>	 	<p><b>Thigh section udown</b></p>  <p>Button with the symbol shown above. Push the right-hand side of the button.</p>
<p><b>Height up</b></p>  <p>Button with the symbol shown above. Push the left-hand side of the button.</p>	 	<p><b>Height down</b></p>  <p>Button with the symbol shown above. Push the right-hand side of the button.</p>

## 7. Operating the Etude™ with 3-section mattress support

The bed can be equipped with this type of hand control: (Soft Control)



Or with this type of hand control: (HB 70)

<p><b>Backrest up</b></p>  <p>Button with the symbol shown above. Push the left-hand side of the button.</p>	 	<p><b>Backrest down</b></p>  <p>Button with the symbol shown above. Push the right-hand side of the button.</p>
<p><b>Height up</b></p>  <p>Button with the symbol shown above. Push the left-hand side of the button.</p>	 	<p><b>Height down</b></p>  <p>Button with the symbol shown above. Push the right-hand side of the button.</p>

Both 3 - and 4 - sectioned beds can be equipped with hand controls that activate the tilt of the mattress support.



The tilt function must only be operated by medically trained persons - otherwise, there is a risk of injury to the patient's health.

Hand controls with tilt activating can be ordered from Invacare® - please refer to the section "Order numbers for accessories".



## 8. Adjustment of leg section (only on 3-sectioned beds)

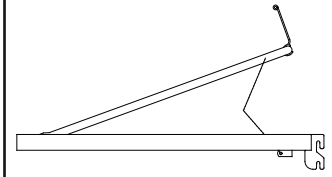
### Adjustment of leg section

Operate the leg section by lifting the mattress handle.

**Up:** Lift the mattress handle on the leg section.

**Down:** Lift the mattress handle on the leg section right up and then lower the leg section.

If a mattress support extension is used, lift the leg section.



**Always** leave the bed in the lowest position. Otherwise there is a risk of entrapment due to accidental lowering of the mattress support. A person under the bed can be seriously injured during height adjustments.



There is a risk of entrapment between the thigh section and the mattress support when the thigh section is lowered.



There is a risk of entrapment between the backrest and the cross rail on the head end of the mattress support. There is also a risk of getting squeezed between the leg section and the cross rail on the foot end of the mattress support when the backrest/leg section is lowered.



If the bed is equipped with tilt function, please note that the bed must not be used without the supervision of the nursing staff.

### Brakes

(Illustration 4)

Each of the bed's 4 wheels is provided with brakes for both lengthwise and crosswise locking. The brake is foot-operated.

Set-off from the castors might under special conditions appear at different types of absorbing floor covering - including untreated or badly treated floors. In matters of doubt, does Invacare recommended to place a suitable kind of protection between the castors and the floor.

## 9. Emergency lowering of the backrest and/or thigh section

(Illustration 5)

An emergency release of the mattress support may be necessary in case of e.g. a power or motor failure. An emergency release of the height adjustment is NOT possible.

- Remove the plug from the mains before emergency release of the mattress support.
- In an emergency the mattress sections are released by pulling out the cotter pin.



A minimum of 2 persons is required to release a mattress section. Both persons hold the mattress section in locked position. One of them pulls out the cotter pin. Both slowly lower the mattress section until it is completely down.

GB

## 10. Operating the accessories

### Operation of siderail, model 5525/5526/5529

(Illustration 6)

**Up:** Pull the top tube on the siderail towards the end where the release system is placed.

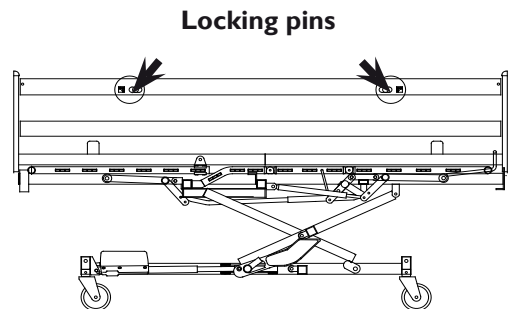
**Down:** Press the release button down while pulling the top tube away from the release system.

### Operation of siderail, model BRITT II/III/IV

The bed end may be equipped to lock the siderail at half height as well as in the top position. Normally the siderail can only be locked in top position.

**Up:** Pull up the top wooden siderail bar, until the locking pin locks with an audible click.

**Down:** Lift the top wooden siderail bar and press the two locking rings together. Lower the siderail.



Raise



Release



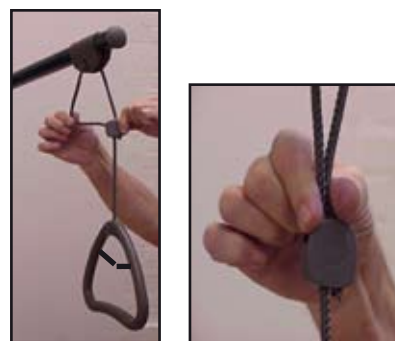
Lower



There is a risk of entrapment when operating the siderails.

## Adjusting the height of the lifting pole handle

Loosen the cord as shown in fig. A. The lifting handle can now be adjusted to the desired height. Press the cord together as shown in fig. B and check that the cord is locked in the cord lock by pulling the handle.



A

B

### The distance between the lifting pole and the mattress

#### Etude Basic

Minimum (at 16 cm mattress) 36-59 cm

Maximum (at 10 cm mattress) 42-65 cm

#### Etude Classic

Minimum (at 16 cm mattress) 40-63 cm

Maximum (at 10 cm mattress) 42-65 cm



Position the lifting pole in such a way that the handle extends inwards across the bed. If the lifting pole is used while the handle has been turned away from the bed - the bed can tip when the handle is used.

## Fitting the mattress support extension

Disassemble the bed and remove the inserts. Mount the mattress support extension on either head or foot end and reassemble the bed. (See illustration 2).

## Choice of Mattress

When choosing the Etude Basic or Etude Classic, Invacare® recommends the use of mattresses which are 10-12 cm in height with a specific gravity of 35 kg/m<sup>3</sup>.

When using mattresses over 12 cm in height, Invacare® recommends the use of siderails Scala Decubi and Scala Medium, to meet European regulations which require a minimum distance of 22 cm from the mattress to the upper edge of the siderail.

## 11. Dismantling the Etude

- Dismantle siderails and lifting pole.
- Bring the bed to its lowest position and adjust all mattress support sections to horizontal position.
- Disconnect the 230 V supply. Roll the cable onto the hook of the head end of the bed.
- Disconnect all the motor plugs from the motors (do not disconnect the backrest motor cable - cable I).
- Dismantle the safety comb from the control by means of a tool, e.g. a flat headed screwdriver.
- Pull out the cables of the bed end motors.  
**Only 4 - sectioned:** Also pull out the cables of the leg section motors.
- Separate the mattress support from the bed ends.
- Divide the head and foot end of the mattress support.



## 12. Using the transport brackets

See instructions for use sent separately in the transporter kit boxes.

### 13. Order numbers for accessories

PLEASE NOTE ONLY ETUDE BASIC IS APPLICABLE TO THE UK

#### General (Etude Basic + Etude Classic)

Lifting pole. . . . .	.50.57600.20
Mattress handle. . . . .	215989-XXXX
Transport fitting . . . . .	1423920-7032
Support handle 25x30 cm (1 pcs.) . . . . .	021964.20
Support handle 25x80 cm (1 pcs.) . . . . .	1417510-7032
Support handle 40x30 cm (1 pcs.) . . . . .	1417511-7032
Support handle 40x50 cm (1 pcs.) . . . . .	021963.20
Support handle 40x95 cm (1 pcs.) . . . . .	1417512-7032
Backup battery and battery box. . . . .	1449687-XXXX
HB 70 hand control with tilt function, 3 sectioned. . . . .	1423845
HB 70 hand control with tilt function, 4 sectioned. . . . .	1423846

#### Etude Basic

Invacare Scala Basic (folding, 1 pair). . . . .	1432784-1015
Invacare Scala Basic (folding, 1 pair). . . . .	1432784-0151
Invacare Scala Basic (folding, 1 pair). . . . .	1432784-7032

Invacare Scala Basic Plus (folding, 1 pair) (with plastic insert). . . . .	1432787-1015
Invacare Scala Basic Plus (folding, 1 pair) (with plastic insert). . . . .	1432787-0151
Invacare Scala Basic Plus (folding, 1 pair) (with plastic insert). . . . .	1432787-7032

Invacare Scala Medium (folding, 1 pair) . . . . .	1432781-1015
Invacare Scala Medium (folding, 1 pair) . . . . .	1432781-0151
Invacare Scala Medium (folding, 1 pair) . . . . .	1432781-7032

Invacare Scala Decubi (folding, 1 pair) . . . . .	1432793-1015
Invacare Scala Decubi (folding, 1 pair) . . . . .	1432793-0151
Invacare Scala Decubi (folding, 1 pair) . . . . .	1432793-7032

Siderail (folding, 1 pair) (25 mm tube) . . . . .	.50.55250.20/L+R
Extended siderail (folding, 1 pair). . . . .	.50.55290.20/L+R
Mattress support extension - 10 cm . . . . .	1423993-7032
Mattress support extension - 20 cm . . . . .	1423994-7032

I.V. Drip Rod. . . . .	.50.60030.XX
Black holder for I.V. drop. . . . .	.50.60910.00
Fitting for I.V. drop. . . . .	.50.59570.XX
Holder for hand control. . . . .	1427870-XXXX

#### Etude Classic (Not applicable to the UK)

Wooden siderail Britt III (pair). . . . .	020434.01
Wooden siderail Britt IV (pair) . . . . .	1427875-0101
Extended wooden siderail Britt II (pair) +20 cm. . . . .	019376.01
Mattress support extension - 20 cm . . . . .	1423994-7032



## 14. Cleaning and disinfection

Remove the mains plug from the socket before cleaning.

The Etude bed does not tolerate cleaning in an automatic washing plant or using water-jet based cleaning equipment.

The bed should be washed down using a sponge, cloth or brush. Use ordinary household cleaning agents.

When disinfecting only use spray or wiping methods. Only officially recognized disinfectants must be used.

Dry the bed after cleaning.

Never use acids, alkalines or solvents such as acetone or cellulose thinner.

The hand control box, motors and control may be washed with brush and water, but not with pressurized water.

All plugs must be installed during washing of the bed.

If the backrest is raised be careful not to lower it unintentionally, as there is a risk of entrapment between the backrest and the top frame.

## 15. Maintenance and servicing

Service and maintenance of the Etude may only be performed by personnel who have received the necessary instruction or training.

With normal daily use, service must be carried out according to the service schedule after 2 years use and thereafter every second year.

When moving the bed, service must be carried out according to the service schedule.

When using Flex or Karin bed ends, which are made of a flexible type of tree it will be necessary to tighten the hexagon head screws at regular intervals other than described in the user manual.



Check the bed and particularly the the cables, plugs and the condition of the siderails after each use.

## 16. Maintenance chart

<b>Service and maintenance of the Etude™ must only be performed by personnel who have received the necessary instruction or training</b>					
<b>Bed/Id. no.:</b>					
Date:	Initials:				
Visual inspection of all parts of the bed (plastic deformation and/or wear and tear of welded joints).					
Control of all centres of rotation (motors + mattress support parts).					
All motors running without failures (with regular speed and at low noise).					
Check the Rastofix fittings and function.					
Visual inspection of all cabinets for damages.					
Check that mains cable and plug are intact. Check the running of the cable.					
Check all remaining cables for damages. Also check the running of the cables.					
Check of siderails' fixing and locking/movement.					
Check the wheels (security, braking and free rolling).					
The following parts must be lubricated: Centres of rotation (motors and mattress support parts). Centres of rotation of Rastofix fitting.					

A service contract can be made in the countries, where Invacare® has its own sales company.

Moreover, Invacare® offers courses in service and maintenance of the Etude bed.

## 17. Waste disposal

This product has been supplied from an environmentally aware manufacturer that complies with the Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/CE.

This product may contain substances that could be harmful to the environment if disposed of in places (landfills) that are not appropriate according to legislation.

The »crossed out wheelie bin« symbol is placed on this product to encourage you to recycle wherever possible.

Please be environmentally responsible and recycle this product through your recycling facility at its end of life.

All wooden parts must be dismantled and sent for incineration.

All electric parts must be dismantled and be disposed of as electric components.

Plastic parts must be sent for incineration or recycling.

Steel parts and castors must be disposed of as waste metals.

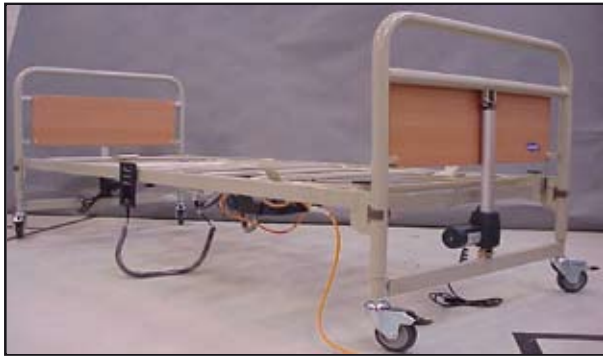
Waste disposal must comply with the laws and regulations pertaining waste handling in each country.

## 18. Trouble-shooting the electrical system

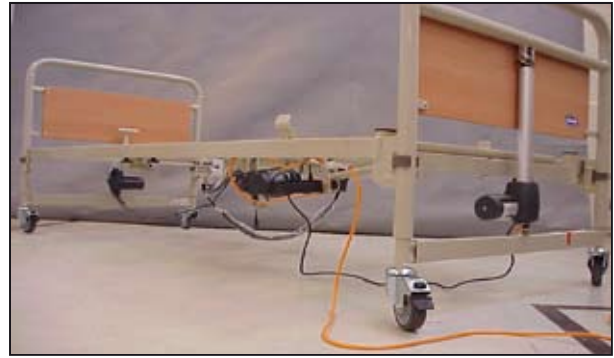
Service and maintenance may only be performed by personnel who have received the necessary instruction or training.

Symptom	Possible cause	Remedy
Mains indicator does not light up.	1) Mains not connected. 2) Fuse in the control unit is blown. 3) Control unit defective.	1) Connect mains. 2) Replace the control unit. 3) Replace the control unit.
Mains indicator lights up, but the motor is not running. The relays in the control unit makes a clicking noise.	1) Motor plug not pushed fully into the the control unit. 2) The motor is defective. 3) Motor cabel is damaged. 4) Control unit defective.	1) Push the motor plug right into control unit. 2) Replace the motor. 3) Replace the cable. 4) Replace the control unit.
Mains indicator lights up, but the motor is not running. No relay sound is heard from the control unit.	1) Control unit defective. 2) Hand control box defective.	1) Replace the control. 2) Replace the hand control box.
Control unit is in order except one direction on one channel.	1) Hand control box defective. 2) Control unit defective.	1) Replace the hand control box. 2) Replace the control unit.
Motor is running, but the spindle does not move.	Motor damaged.	Replace the motor.
The motor cannot lift full load.		
Motor noise, but no movement of piston rod.		
Piston rod operate inwards and not outwards.		

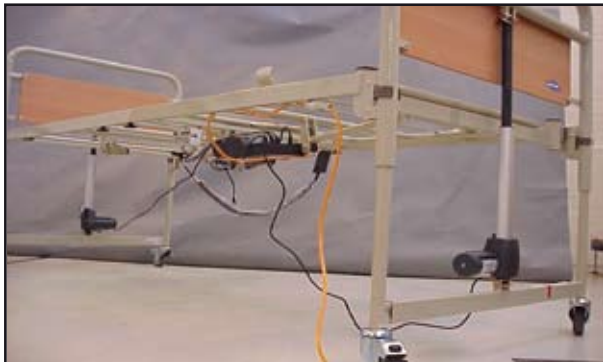
## 19. Wiring



1. Assemble the bed and connect the 230 V mains plug to the control box.



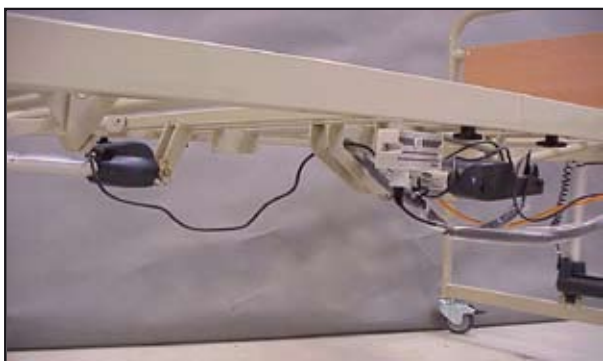
2. Connect the bed end motor cables (head and foot end) to the control box. The cables must hang loose. Cable number: 02770-150-1250.



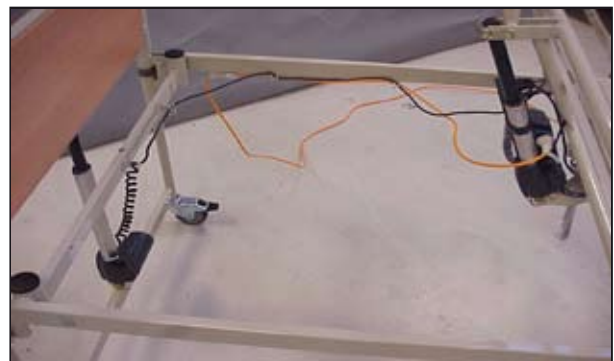
3. Raise the bed to the top position.



4. Place the foot end motor cable in the hook by the foot end. The backrest must be in a horizontal position.



5. 4 - sec. bed: The plug of the thigh motor must be directed through the opening of the supporter for the motor and then connected to the control box. Cable number: 0277011-1250.



6. Place the head end motor cable in the four hooks by the head end.



## Exchange of control box and cables

**ATTENTION:** The control box must always be placed with the plugs face up



1. The control box can be removed by removing the fastener clips from the backrest motor.

Fastener clips



2. Put the control box in a sideways position from the motor.



3. The control box and/or cables can now be engaged.

## 20. Technical specifications

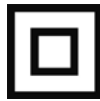
All measurements are stated in cm. All angles are stated in degrees.  
 All measurements and angles are stated without tolerances.  
 Invacare® reserves the right to change the stated measurements and angles.  
 (Illustration 7)

Voltage supply: 230 V ~ ±10%, 50 Hz.  
 Max. current input: 1 A.  
 Voltage output: 24 V ~ max. 70 VA.  
 Intermittent (periodic motor operation): 10%, max. 6 min/h.  
 Protection class: IP 54.  
 Insulation class: II, type B.

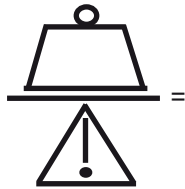
The patient is not separated from the ground and the chassis.



Double insulated.



The bed is not provided with a mains switch, so the mains plug is the only separation from the mains.



Basic: } 180 kg - Max. load (SWL).  
 Classic: } 220 kg (Patient + mattress + siderail + lifting pole + other equipment).

Sound level: 45-50 dB (A).

The product should be reused where possible.



## 21. Weights

Basic bed end - 1 piece	17	kg
Classic bed end - 1 piece	24	kg
Mattress support, head end	22	kg
Mattress support, foot end, 3 - sectioned	17	kg
Mattress support, foot end, 4 - sectioned	22	kg
Siderail - 1 piece	7	kg
Lifting pole	7	kg
Mattress support extension (10 cm)	3,2	kg
Mattress support extension (20 cm)	5,5	kg

3 - sectioned bed, complete, excluding accessories		
with Basic bed ends	73	kg
4 - sectioned bed, complete, excluding accessories		
with Basic bed ends	78	kg

3 - sectioned bed, complete, excluding accessories		
with Classic bed ends	87	kg
4 - sectioned bed, complete, excluding accessories		
with Classic bed ends	92	kg



Yes, you can.®

## Customer Sales and Service

### Denmark

#### INVACARE A/S

Sdr. Ringvej 37  
DK-2605 Brøndby  
Phone: +45 36 90 00 00  
Fax: +45 36 90 00 01  
[www.invacare.dk](http://www.invacare.dk)  
[denmark@invacare.com](mailto:denmark@invacare.com)

### Sweden & Finland

#### INVACARE AB

Fagerstagatan 9 / Box 66  
S-163 91 Spånga  
Phone: +46 8 761 70 90  
Fax: +46 8 761 81 08  
[www.invacare.se](http://www.invacare.se)  
[sweden@invacare.com](mailto:sweden@invacare.com)

### Norway & Iceland

#### INVACARE AS

Grensesvingen 9  
Postbox 6230 Etterstad  
N-0603 Oslo  
Phone: +47 22 57 95 00  
Fax: +47 22 57 95 01  
[www.invacare.no](http://www.invacare.no)  
[norway@invacare.com](mailto:norway@invacare.com)

### Spain

#### INVACARE S.A.

C/Areny S/N  
Poligon Industrial de Celrà  
E-17460 Celrà (Girona)  
Phone: +34 972 49 32 00  
Fax: +34 972 49 32 20  
[www.invacare.es](http://www.invacare.es)  
[contactsp@invacare.com](mailto:contactsp@invacare.com)

### Switzerland

#### MOBITEC REHAB AG

Benkenstrasse 260  
CH-4108 Witterswil  
Phone: +41 61 487 70 80  
Fax: +41 61 487 70 81  
[switzerland@invacare.com](mailto:switzerland@invacare.com)

### Invacare® EC-Høng A/S

Ident. no.: 1423886

Version: 04

Date: 09.2009

### Belgium & Luxemburg

#### INVACARE N.V.

Autobaan 22  
B-8210 Loppem, Brügge  
Phone: +32 50 83 10 10  
Fax: +32 50 83 10 11  
[www.invacare.be](http://www.invacare.be)  
[belgium@invacare.com](mailto:belgium@invacare.com)

### Netherlands

#### INVACARE B.V.

Celsiusstraat 46  
NL-6716 BZ Ede  
Phone: +31 318 695 757  
Fax: +31 318 695 758  
[www.invacare.com](http://www.invacare.com)  
[nederland@invacare.com](mailto:nederland@invacare.com)  
[csede@invacare.com](mailto:csede@invacare.com)

### Germany

#### INVACARE AQUATEC GmbH

Alemannenstrasse 10  
D-88316 Isny  
Phone: +49 75 62 7 00 0  
Fax: +49 75 62 7 00 66  
[www.invacare-aquatec.com](http://www.invacare-aquatec.com)  
[info@invacare-aquatec.com](mailto:info@invacare-aquatec.com)

### Portugal

#### INVACARE Lda

Rua Estrada Velha 949  
P-4465-784 Leça do Balio  
Phone: +351 225 1059 46/47  
Fax: +351 225 1057 39  
[www.invacare.pt](http://www.invacare.pt)  
[portugal@invacare.com](mailto:portugal@invacare.com)

### Australia

#### INVACARE Australia Pty Ltd

1 Lenton Place, North Rocks  
NSW 2151  
Phone: +61 2 8839 5333  
Fax: +61 2 8839 5353  
[www.invacare.com.au](http://www.invacare.com.au)  
[sales@invacare.com.au](mailto:sales@invacare.com.au)

3rd party certified  
according to  
EN ISO 9001  
EN ISO 13485

### France

#### INVACARE Poirier S.A.S

Route de St. Roch  
F-37230 Fondettes  
Phone: +33 2 47 62 64 66  
Fax: +33 2 47 42 12 24  
[www.invacare.fr](http://www.invacare.fr)  
[contactfr@invacare.com](mailto:contactfr@invacare.com)

### Italy

#### INVACARE MECC SAN S.R.L.

Via dei Pini 62  
I-36016 Thiene (VI)  
Phone: +39 0445 38 00 59  
Fax: +39 0445 38 00 34  
[www.invacare.it](http://www.invacare.it)  
[italia@invacare.com](mailto:italia@invacare.com)

### United Kingdom & Ireland

#### INVACARE LTD

South Road  
Bridgend Industrial Estate  
UK-Bridgend, CF31 3PY  
Phone: +44 1 656 664 321  
Fax: +44 1 656 667 532  
[www.invacare.co.uk](http://www.invacare.co.uk)  
[uk@invacare.com](mailto:uk@invacare.com)  
[ireland@invacare.com](mailto:ireland@invacare.com)

### New Zealand

#### INVACARE NZ

4 Westfield Place,  
Mt. Wellington  
Auckland  
Phone: +64 9 917 3939  
Fax: +64 9 917 3957  
[www.invacare.co.nz](http://www.invacare.co.nz)  
[sales@invacare.co.nz](mailto:sales@invacare.co.nz)

### Austria

#### MOBITEC MOBILITÄTSHILFEN GmbH

Herzog Odilostrasse 101  
A-5310 Mondsee  
Phone: +43 6232 5535 0  
Fax: +43 6232 5535 4  
[www.mobitec-austria.com](http://www.mobitec-austria.com)  
[austria@invacare.com](mailto:austria@invacare.com)

Manufacturer:

#### INVACARE EC-Høng A/S

Østergade 3  
DK-4270 Høng  
[www.invacarebeds.dk](http://www.invacarebeds.dk)