



INSTRUCTIONS FOR USE

HAPPY REHAB 2 – Small

HAPPY REHAB 2 – Medium

HAPPY REHAB 2 – Large

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WARNING



Read the instructions for use before using the equipment!

This version of the instructions for use is valid from the date printed on the front page of it and replaces any older versions of it.

PREFACE

Thank you for choosing the HAPPY REHAB 2 interactive dynamic stand support. For your safety and to get the most out of the system we recommend reading these Instructions for use carefully.



Fig. 1: HAPPY REHAB 2 – with upper support module and PC.

This instruction for use covers all HAPPY REHAB 2 models printed on the front page including original accessories described herein.






Details on some illustrations may vary depending model/ size.

I. BEFORE USE

Included Items

Please identify your system components and accessories included in the package and inspect the contents for any physical damages by visual inspection.

The below listed contents come standard with the HAPPY REHAB 2 system.

ITEM	QNT.	DESCRIPTION	ORDERING NO.
	1	HAPPY REHAB 2 – Small <i>or</i> HAPPY REHAB 2 – Medium <i>or</i> HAPPY REHAB 2 – Large	920-002-100 920-002-102 920-002-200
	1	Table plate for HAPPY REHAB 2 dynamic stander.	929-200-901
	4	Screws for Table plate.	929-210-101
	1	Allen key. 5 mm	
	1	230 V AC POWER ADAPTOR (Output: 24 V DC, 4.2 A).	929-510-001
	1	EU mains power cord.	929-610-001
	1	USB Magnetic cable, 1.8 m	929-610-002
	1	Instructions for use (this user guide).	

Additional Items

Additional items which may be included in the package or ordered separately are shown in the table below.

ITEM	DESCRIPTION	ORDERING NO.
	C1/C1+/S /M Upper support module (Only suitable for C1/ S and C1+ / M)	920-000-101
	C2 Upper support module (Only suitable for C2/ L)	920-000-201
	FOUNDATION PACK (Enterprise), Multi lingual	920-200-000
	FOUNDATION PACK (Single user), Multi lingual	920-200-001
	Leg/ Knee straps, C1/S and C1+/ M (Only suitable for C1/ S and C1+/ M)	929-210-010
	Leg/ Knee straps, C2/ L (Only suitable for C2/ L)	929-210-012
	Laptop, 10.1"	980-000-002
	Laptop, 15.6"	980-000-001
	Laptop, 12.1" Touch screen	980-000-003



Only original accessories are to be used with the system.

The above additional items for the HAPPY REHAB 2 system may be ordered separately from your local dealer.

System overview

The HAPPY REHAB 2 system comprises different components depending on your configuration. To identify the different components in the system and how to assemble and interconnect them, please refer to the below illustration and read the assembly instructions carefully.

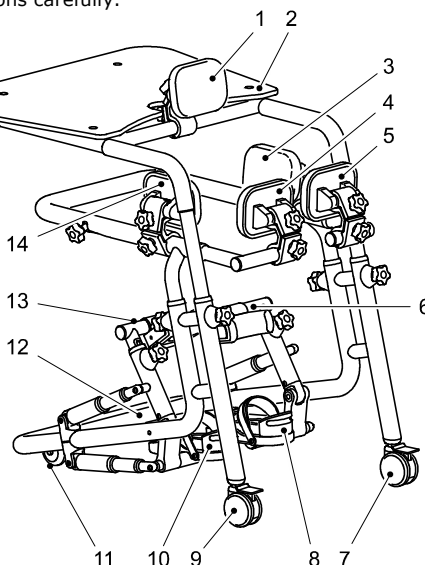


Fig. 2: System overview: HAPPY REHAB 2 system.

Key references (fig. 2):

- 1 Upper support module – Chest (Additional item).
- 2 Table plate.
- 3 Upper support module – Right hip (Additional item).
- 4 Back support (left).
- 5 Back support (right).
- 6 Leg support (right).
- 7 Transportation wheel (back)
- 8 Foot platform (right).
- 9 Transportation wheel (back)
- 10 Foot platform (left).
- 11 Transportation wheel (front)
- 12 Electronic module
- 13 Leg support (left).
- 14 Upper support module – Left hip (Additional item).

Assembly



Before using the HAPPY REHAB 2 system the table plate and Upper support module (if applicable) must be mounted onto the upper frame of HAPPY REHAB 2.

The table plate shall be mounted with the four screws as shown in Fig. 3 below. Ensure the table plate is oriented with the countersunk of the holes upwards as illustrated.

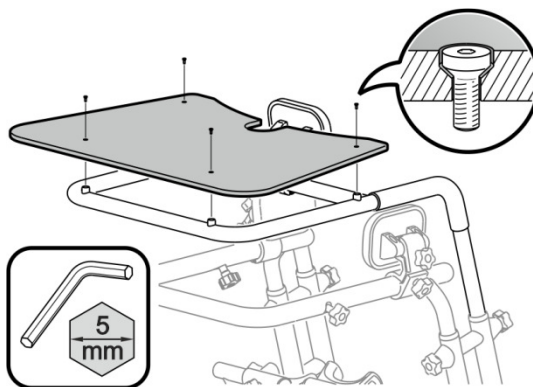


Fig. 3: Mounting the table plate.

The Upper support module shall be mounted (if applicable) as shown in Fig. 2.

The PC/ Laptop computer may be placed on top of the table.

User interface and connections

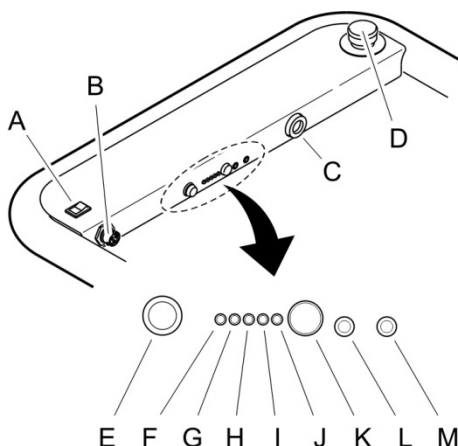


Fig. 4: Connections, switches and LED indicators.

REF.	TEXT	TYPE	DESCRIPTION
A	ON / OFF	Switch	Mains Power Switch
B	DC IN	Connector	24V DC input
C	USB	Connector	Magnetic USB connector
D	-	Switch	Emergency STOP
E	FUSE	Fuse	Safety Fuse
F	24V	Green	24V power supply
G	5V	Green	5V power supply
H	OK	Green	System ready
I	ERR	Red	Error
J	STOP	Red	Stop (Emergency stop or power failure)
K	RESET	Reset	Reset internal overload protection
L	0/1 SW A	3.5 mm Jack	0/1 Switch input A (optional)
M	0/1 SW B	3.5 mm Jack	0/1 Switch input B (optional)

For further description see chapter LED Indicators.

Connect the HAPPY REHAB 2 to the mains power supply adaptor via the "DC IN" connector (B, Fig. 4). Connect the mains power supply adaptor to the mains power via the power cord. Connect the HAPPY REHAB 2 to the PC/ Laptop computer via the included Magnetic USB cable (A, Fig. 5) using the "USB" connector (C, Fig. 4) on the electronic module of the system and a spare USB port on the computer/ laptop. Note the mark (B, Fig. 5) on the Magnetic USB connector must be orientated upward as shown.

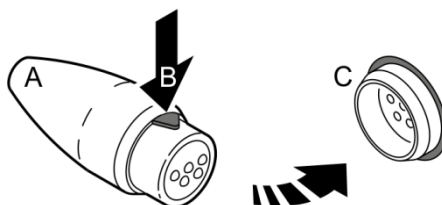


Fig. 5: Magnetic USB connector.

Turn on the mains power and switch on the PC/ Laptop computer.

User adjustment



Before using the HAPPY REHAB system, the system must be adjusted to fit the user in all aspects. This includes both all the ergonomic aspects as well as the user profile on the PC/ Laptop computer.

For instructions on how to create a user profile please refer to below section "Create a User Profile". These adjustments shall only be carried out by professionals and certified personnel.

Ergonomic adjustment

The HAPPY REHAB 2 system must fit the user in all the ergonomic aspects. It should be considered, if the user needs any additional means of support or adjustments, e.g. an upper support module, additional foot or knee straps or alike.

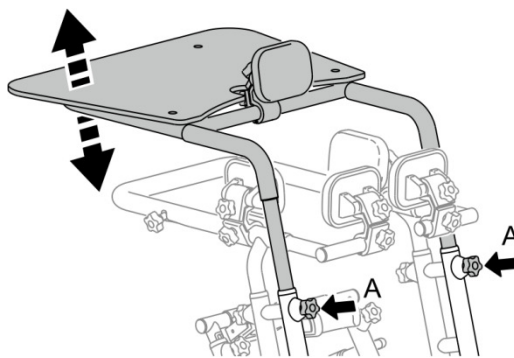


Fig. 6: Adjustment of table height.

The height of the table can be adjusted by loosen the two hand wheels (A, Fig 6) and slide the table up- or downwards, then fasten the two hand wheels (A, Fig 6) again tightly. Verify the table is in place and the two hand wheels (A, Fig 6) are properly tightened.

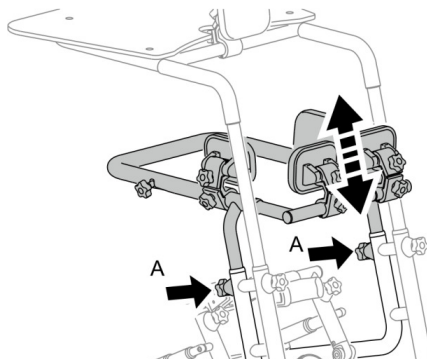


Fig. 7: Adjustment of height of back support.

The height of the back and hip supports (if applicable) can be adjusted by loosen the two hand wheels (A, Fig 7) and slide the inner frame up- or downwards, then fasten the two hand wheels (A, Fig 7) again tightly. Verify the inner frame is in place and the two hand wheels (A, Fig 7) are properly tightened.

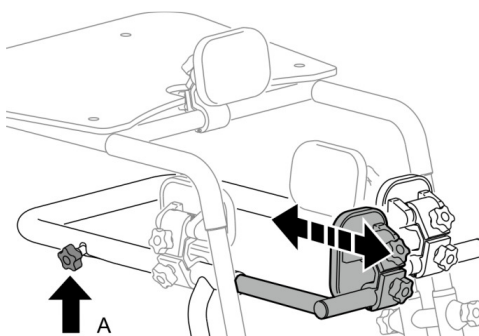


Fig. 8: Adjust the position of the back supports.

To adjust the position of the back support (back and forth), loosen the hand wheel (A, Fig. 8) in each side. The back support can be moved back and forth to fit the user in a correct upright position. After adjusting the position of the back support, verify the back support is in place and the according hand wheels (A, Fig. 8) are properly tightened.



The back support is NOT a seat! The back support may only be used to support the back of the user in an upright position.

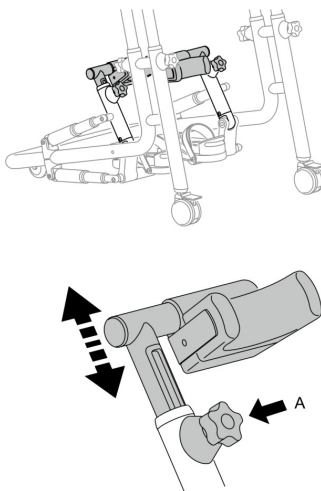


Fig. 9: Adjustment of height of the leg supports.

The height of the leg supports can be adjusted individually by loosening the corresponding hand wheel (A, Fig. 9) and slide the leg support up or downwards, then fasten the hand wheel (A, Fig. 9) again tightly. After adjusting the height of the leg support, verify the leg support is in place and the corresponding hand wheel (A, Fig. 9) is properly tightened.

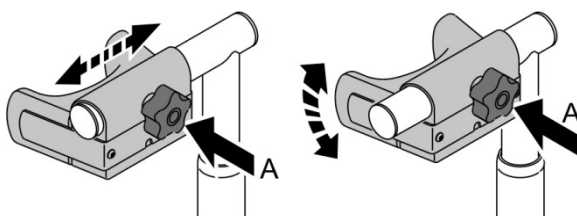


Fig. 10: Rotation and horizontal position of leg supports.

The rotation and horizontal position of the two leg supports -hence the distance between them- can be adjusted by loosening the corresponding hand wheel (A, Fig. 10). After adjusting the rotation and position of the leg support, verify the leg support is in place and the corresponding hand wheel (A, Fig. 10) is properly tightened.

Adjustments of the support cushions (back, hip and chest supports) can be done as illustrated below in Fig. 11.

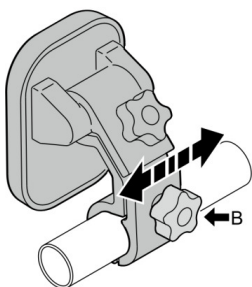
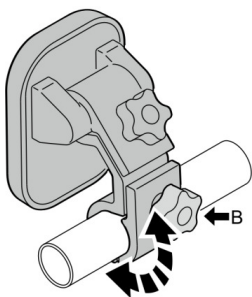
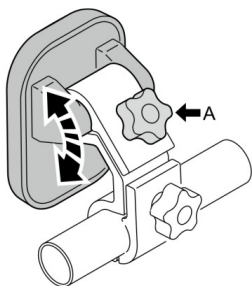


Fig. 11: Adjust the support cushions.

To rotate and/ or move the cushion in/ out, use the hand wheels A and B, Fig. 11.
To move the cushions along the bar, use hand wheel B, Fig. 11 only.

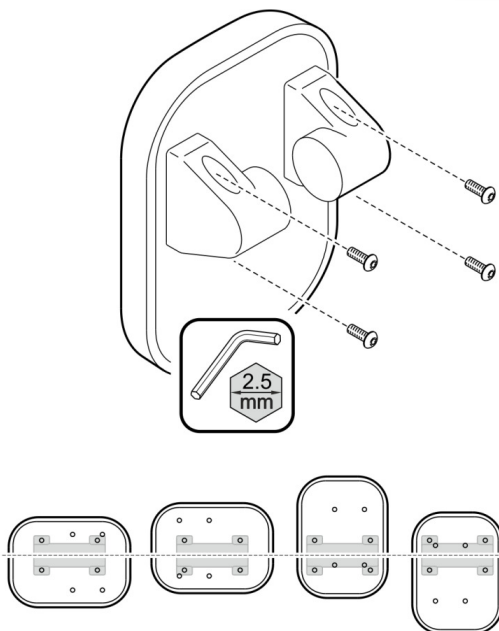


Fig. 12: Alternative orientation of support cushions.

If special requirements are needed, the support cushions can be orientated differently as illustrated above in Fig 12. To do so you'll need a 2.5 mm Allen key.

II. USING THE HAPPY REHAB 2 SYSTEM

Safety



The HAPPY REHAB 2 is equipped with different means to ensure maximum safety during operation. DO NOT ATTEMPT TO DISABLE OR ALTER ANY OF THESE SAFETY FUNCTIONS!

EMERGENCY SWITCH

The HAPPY REHAB 2 is equipped with an emergency stop switch. To identify the emergency stop switch, please refer to D, Fig. 4. To activate the emergency stop switch (D, Fig. 4), press down the red button (D, Fig. 4). This will stop all motors immediately!

The red "STOP" LED will be lit during an emergency stop.

To release the emergency stop switch (D, Fig. 4), ensure the hazard causing the activation of the emergency stop has been eliminated, then resetting and reinforce the motors by turning the emergency stop switch (D, Fig. 4) clock-wise and let it release in an upward direction from its position.

OVERLOAD PROTECTION

The HAPPY REHAB 2 is equipped with a build-in overload protection of the actuators (motors). This is to ensure the maximum force exerted by the actuators (motors) does not exceed the following limits:

HAPPY REHAB 2 - Small / Medium: 100N (approx. 10 kg.)

HAPPY REHAB 2 - Large: 400N (approx. 40 kg).

If any of the actuators (motors) meets a resistance to the movement beyond the above mentioned limits, the internal overload protection circuit will be activated, causing all actuators (motors) to stop immediately! The red "STOP" LED will be lit while the system is in protection mode.

To release the system from the internal protection mode, ensure the hazard causing the activation of the internal protection mode has been eliminated, then resetting and reinforce the motors by pressing the "RESET" button on the panel of the HAPPY REHAB 2.

PC/LAPTOP, EXTERNAL MONITOR



External equipment such as PC / Laptop computer, external monitor must only be powered by batteries. By connecting these devices directly to the mains, the HAPPY REHAB 2 system will not conform to the safety regulations of EN12182:2002 (electrical safety for medical devices).

STABILITY

Before using the HAPPY REHAB 2 system ensure it stands stable on a horizontal floor. Lock the two transportation wheels at the back by pressing down the lock into position B "locked" (B, Fig. 32) as illustrated below.

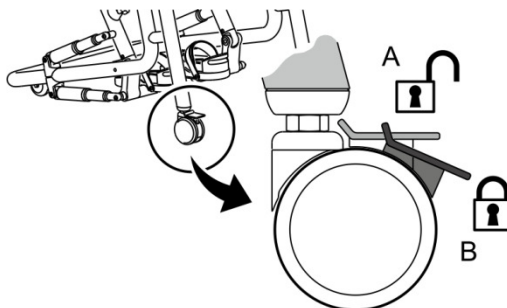


Fig. 32: Locking the transportation wheels.

LED Indicators

The LED indicators are placed on the lower frame of the HAPPY REHAB 2, illustrated as F – J in Fig. 4). The functions of the five LED indicators (24V, 5V, OK, ERR and STOP) are shown in the table below.

LED	SIGNAL	DESCRIPTION
24V	Solid green	24V power supply is connected
5V	Solid green	5V power supply is connected (via USB or 24V)
OK	Solid green	The system is ready
	Slow flashing green	The system is resetting
	Fast flashing green	Setup Mode (when using the Setup Utility)
ERR	Solid Red	Error. A system error has occurred
STOP	Solid Red	The actuators has been stopped

The RESET button (K, Fig. 4) is used for resetting the internal overload protection circuit (see section "Safety" above).

Entering the system

To enter the HAPPY REHAB 2 system open the back support by lifting up the support and turn it out and backwards as illustrated in Fig. 33. If needed turn the back support cushion a little backward by loosening hand wheel B in Fig. 11.

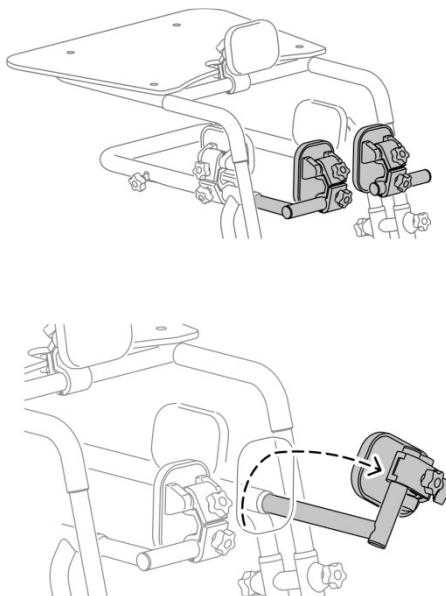


Fig. 33: Opening the back supports.

To ease the entrance the heel caps may be detached by lifting them up (hold at positions A, Fig. 34) and lift upward.

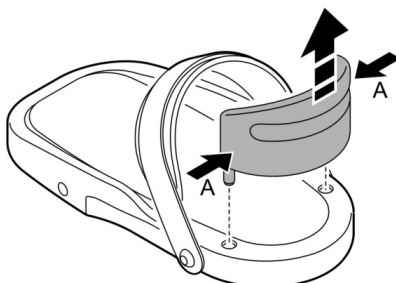


Fig. 34: Detach the heel caps.

Place the feet on the foot platforms and close the back supports, mount the heel caps and tighten the foot straps by pressing them together at the points A, Fig. 35.

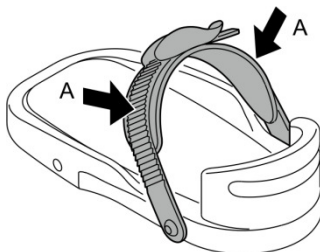


Fig. 35: Tighten the foot straps.

Exiting the system

To get out of the HAPPY REHAB 2 system, loosen the foot straps by pressing the release button on the buckle and pull the strap (A, Fig. 36) to open. Detach the heel caps (Fig. 34) and open the back supports as shown in Fig. 33. If needed turn the back support cushion a little backward by loosening hand wheel B in Fig. 11.

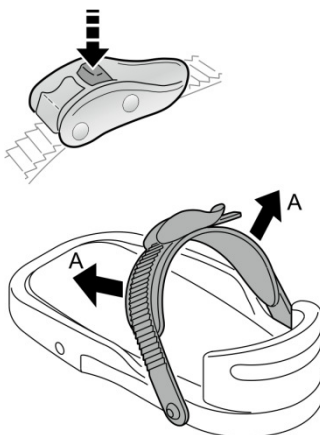


Fig. 36: Loosen the foot straps.

Transportation

The HAPPY REHAB 2 has two transportation wheels hidden under the user panel and two larger wheels at the back. To unlock the two back wheels lift the brake on each of the wheels to position A (unlocked) as illustrated in figure 32.



Always lock the transportation wheels while a person is using the system.

Foundation Pack

For instructions on how to use the Foundation Pack software, we refer to the online e-user manual.

III. MAINTANENCE

Cleaning the equipment

The HAPPY REHAB 2 system shall be cleaned on a regular basis depending on the use of the system, typically between 1- 7 times a week. To clean the device, use a soft cloth and a little warm water. For disinfection the device methylated spirits may be used temporary.



Cleaning may only be carried out when the device is disconnected from the power source (mains).

Special caution shall be taken for cleaning the laptop computer and other interface devices (please refer to their respective instructions for use).

Service and repair

The HAPPY REHAB 2 system contains no serviceable parts inside. Please refer servicing to qualified and authorized service personnel.

Refer to the serial number label of the product for product details.

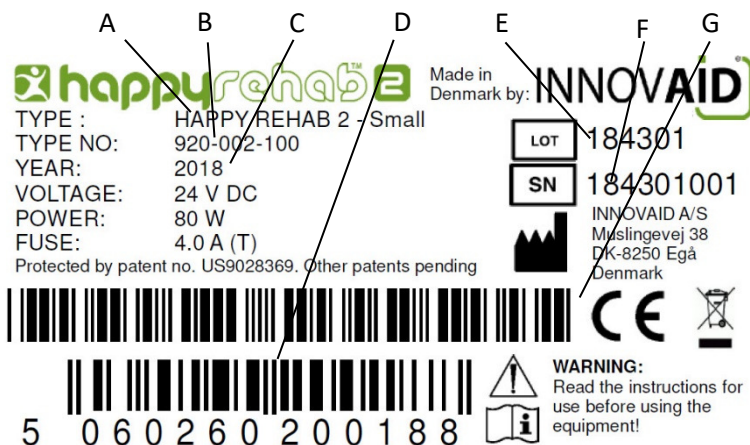


Fig. 45: Serial number label information.

Key references (fig. 45):

- A Product type name (common for all similar products).
- B Product type ordering number (common for all similar products).
- C Manufacturing year.
- D EAN. Unique barcode for all similar products.
- E LOT. Production LOT number.
- F SN. Unique serial number for this product.
- G SN barcode. Unique serial number barcode for this product.

Loss of warranty

In case of any repair or maintenance tasks are carried out by non authorized personnel the warranty for the products is no longer valid.

Any damage caused by misuse of the product (different from the indented use described in this Instructions for use) will not be covered by the warranty.

TECHNICAL SPECIFICATIONS

The technical specifications for different the HAPPY REHAB 2 systems (Small, Medium, Large) are listed below.

DESCRIPTION	Small	Medium
Height (foot platform to table)	53 – 75 cm	93 – 95 cm
Height (foot platform to top of leg support)	26 – 34 cm	30 – 38 cm
Width (inside) without upper support module	44 cm	44 cm
Width (inside) with upper support module	12 – 32 cm	12 – 32 cm
Width total (table)	69 cm	69 cm
Length	90 cm	90 cm
Weight (without computer and accessories)	32 kg	33 kg.
Mains power supply input voltage	230V AC	230V AC
Input voltage	24V DC	24V DC
Max. power consumption	80 W	80 W
User height	95-130 cm	120-160 cm
Max. user weight	50 kg	50 kg
Operation temperature	5 – 35 deg. C	5 – 35 deg. C
Storage temperature	-10 – 45 deg. C	-10 – 45 deg. C
Max. humidity	90% RH	90% RH

DESCRIPTION	Large
Height (foot platform to table)	83 – 128 cm
Height (foot platform to top of leg support)	36 – 50 cm
Width (inside), without upper support module	104 cm
Width (inside), with upper support module	28-51 cm
Width total (table)	70 cm
Length	110 cm
Weight (without computer and accessories)	48 kg
Mains power supply input voltage	100 - 240V AC (50-60 Hz)
Input voltage	24V DC
Max. power consumption	300 W
User height	150 - 200 cm
Max. user weight	150 kg
Operation temperature	5 – 35 deg. C
Storage temperature	-10 – 45 deg. C
Max. humidity	90% RH

CONFORMITY

The products covered by this instruction for use are manufactured in conformity with the provisions of the EC Directive 93/42/EEC, amended by EC Directive 2007/47/EEC, which apply to them.



MANUFACTURER

The products are manufactured by INNOVAID A/S, Denmark.



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