

Installation, operator's and technical manual Patient Chair⁺



**Keep this manual with the patient chair at all times.
Installation, Service and annually maintenance must only be performed by
authorized Heka dealer.**

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Note: With reservation of technical changes and colour changes. Images may be displayed with optional equipment. Images may be displayed without safety labels.

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Foreword

Dear Customer

Congratulations on the purchase of your new **Patient chair**†.

Our aim was to develop an ergonomically correct patient chair, with design, ergonomics, reliability, simple maintenance, and hygiene being essential considerations during the development of the product.

The **patient chair** was specially designed to suit our units.

Together, the patient chair and the unit make the perfect workstation; both convenient and a pleasure to use.

Heka Dental A/S has developed this patient chair with the aim of providing optimal functionality and comfort for both patient and dentist. The simple curves and stylish design result from our collaboration with dentists, the engineer and the designer.

Welcome to Heka Dental's world.



Asbjørn Helwiig Nielsen
CEO, Heka Dental

Heka Dental A/S is certificated to ISO 13485

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Introduction

The Patient Chair⁺ is electrically controlled equipment for dental treatment.

The Patient Chair⁺ is intended for dental treatment performed by dental professionals. It is intended for use with a Heka-Dental Unit.

This manual describes how to use and maintain the Patient Chair⁺. Please read the manual in its entirety before using the unit. This manual is the primary source of information about the patient chair.

Intended Purpose

Heka Family systems are dental units. The system is intended for use in dental care treatments. The system is to be used by authorized professionals within the scope of his/her education, training, and experience. The system provides the dental practitioner a motorized patient chair, dental instruments, and suction system for removal of bodily fluids.

Indications for use

Dental care medical operations include evaluation, diagnosis, prevention and/or treatment of diseases, disorders and/or conditions of the oral cavity, maxillofacial area and/or the adjacent and associated structures and their impact on the human body.











Contraindications

There are no known contraindications for the use of this equipment.







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Warnings and precautions

Heka Dental assumes no responsibility for direct or indirect consequential damage resulting from improper use or arising through inadequate compliance with the operating instructions, or incorrect use and maintenance.

	<p>Use only as intended. Inadequate compliance with the operating instructions could result in serious injury to the patient or user or irreparable damage to the equipment. Before using this product, please ensure that you have read and understood the operating instructions.</p>
	<p>Must be used by qualified and trained dental personnel only.</p>
	<p>Do not install the equipment in areas where there is a risk of explosion. Patient Chair+ is not intended for operation in oxygen rich environments or in the presence of flammable anesthetics or gases.</p>
	<p>Clean, disinfect, and sterilize new or repaired handpieces and instruments before first use and between each patient use. Only use sterilized handpieces and instruments during treatment. Non-sterilized handpieces and instruments may cause bacterial or viral infections. Always sterilize handpieces and instruments after operation</p>
	<p>Please see the section on approved cleaning agents and methods for a detailed description of cleaning methods and maintenance for the Patient Chair+. See enclosed OEM instructions for cleaning and maintenance of any OEM equipment and instruments.</p>
	<p>Always operate high-speed handpieces with water coolant. Operating a high-speed handpiece without water coolant can cause thermal injury to the patient.</p>
	<p>Do not use this equipment for the treatment of implants.</p>
	<p>The water used by the Patient Chair+ device's instruments and water glass filler is exclusively intended for rinsing.</p>
	<p>The main tap for water and air <u>must</u> be turned off when the device is not in use.</p>
	<p>Electromagnetic Compatibility (EMC) Changes or modifications to this product not expressly approved by Heka Dental A/S may result in increased emissions or decreased immunity performance of the product and could cause EMC issues with other equipment. This product is designed and tested to comply with applicable regulation regarding EMC and shall be installed and put into service according to the EMC information stated below:</p>

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	Use of portable phones or other portable or mobile radio frequency (RF) emitting equipment near the product may cause unexpected or adverse operation such as patient lamp flickering or shut off.
	In the event of high-voltage emission ESD (8-15KV), the display on the handle for the suction tube holder can be turned off. The function keys will continue to work. The display will work again by turning the device off and on again.
	Portable RF communication equipment must be used only at a minimum distance of 40 cm (15 inches) from any part of the [ME EQUIPMENT or ME SYSTEM], including cables, as specified by manufacture.
	The use of accessories, transducers and cables and items other than those supplied with the equipment may result in increased emission and reduced immunity or performance of the product. Patient Chair+ must not be used next to or stacked with other equipment. If such use is necessary, the user will be responsible for testing that the configuration is safe for use during normal treatment. Detailed information about electromagnetic interference in relation to the Patient Chair+ starts in section EMC Information in these instructions. See EMC Information for recommended distances between the Patient Chair+ and other electronic devices.
	Don't let suction or handpieces, - including magnets, come near patients with implanted pacemakers.
	Don't touch the patient while you are handling the equipment in the service compartment or other internal parts of the dental unit.

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Cautions

CAUTION	This equipment is only to be sold by or on the order of a dentist and only used in accordance with these operating instructions and exclusively by trained professional dental operators.
CAUTION	Position the equipment with sufficient area from walls or obstructions to easily operate and disconnect the device See of the Patient Chair+ Installation Manual for the dimensions and space requirements of the equipment
CAUTION	Do not position or stack other equipment on the dental unit. See the Patient Chair+ Installation Manual for the dimensions and space requirements of the equipment
CAUTION	Always inspect the equipment components for damage before performing treatment. Damaged components must not be used and must be replaced before further use of the equipment.
CAUTION	Thoroughly read the documentation for the OEM products that are supplied with the Patient Chair+ before they are connected and used.
CAUTION	Prior to use this equipment, instruments, suction tubes and water supply hoses must be flushed and cleaned in accordance with the operating instructions.
CAUTION	Ensure compliance with local requirements concerning the removal of Amalgam waste.
CAUTION	Do not use saline solutions in the water system, as saline causes the formation of rust in the filters.
CAUTION	Ultrasound cleaning is not suitable for this equipment.
CAUTION	Micro Motor should be removed from the tubing and cleaned every day to avoid corrosion.
CAUTION	The user is responsible for ensuring that the equipment is subjected to annual maintenance and must ensure that the functions of the equipment do not change over time.
CAUTION	The Patient Chair+ device must be used only under the supervision of trained professional dental operators.
CAUTION	According to international standard: IEC 80601-2-60 Clause 201.4.3 Essential Performance: Dental equipment and hereby Heka Dentals dental equipment, does not have Essential Performance.

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The use of additional accessories that do not comply with the safety regulations for this equipment may impair the safety of the entire unit.

In this context, the following should be taken into consideration:

Use of Accessories:

Documentation proving that the safety of the accessory has been certified in compliance with the current IEC 60601-1 international standard and the current ISO7494.

The patient chair is a medical device that complies with the standards listed in the section “Regulatory Standards Compliance” of this manual.



The patient chair meets the requirements of the 93/42/EEC Directive.

The manufacturer, the service engineer, and the importer are only responsible for the safety, reliability, and function of the device if:

- Installation, calibration, modification and repair of the device are carried out by qualified and authorized personnel.
- Electrical installations are in compliance with current regulations, e.g. IEC 60364.
- Only the OEM instruments specified in the order are used on this patient chair.
- The equipment is operated according to the instructions in the user's manual.

It is not permitted:

- To modify this equipment without the advance written permission of Heka Dental A/S.

If this equipment is modified, it must be inspected and tested by qualified and authorized personnel to ensure that it is suitable for use.

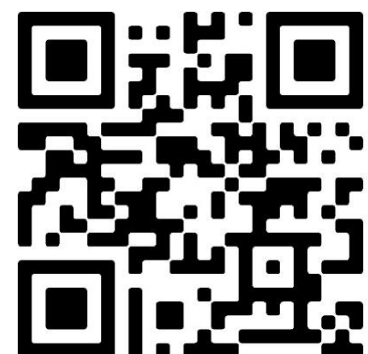
Online user registration for dentists

Register as a user of a Heka unit

Access special product information














Scan the QR code for online registration.

You can e.g. access special software, user guides, quick guides, user guides videos, tips & tricks, product news, etc. We are constantly expanding the possibilities for registered users of Heka units.


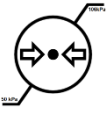












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Symbols

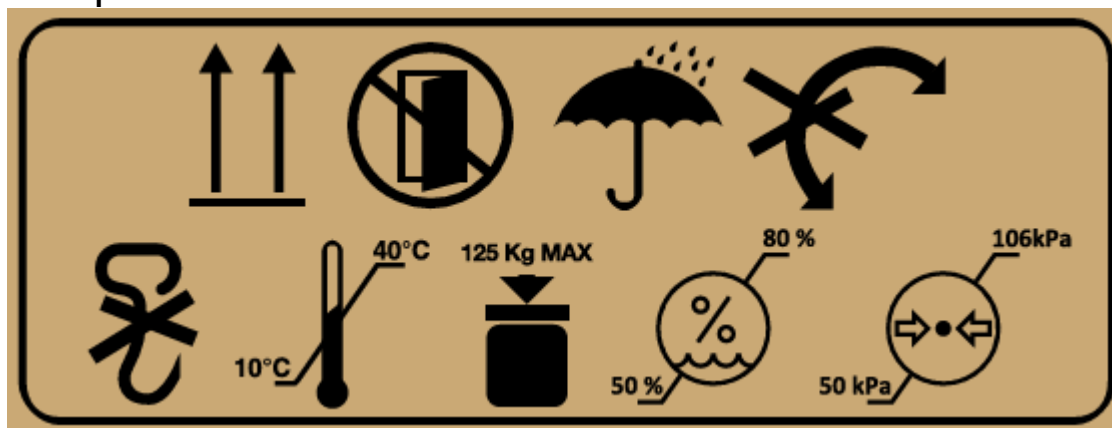
Symbols	Description
	Type B Equipment
	Alternating Current
	General CAUTION! (Standard ISO 7010) See enclosed documents and/or catalogues
	Protective earth
	Foot control
	Separate collection of electrical and electronic equipment in accordance with Directive 2002/96/EEC (WEEE).
	Temperature Limitations
	Keep dry
	This side up
	Do not use hand hooks
	Fragile
	No rotation
	Stacking limitations

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	Limitations on Relative Humidity
	Limitations on Pressure
	Fuse
	Do not open
	Operating Instructions
	In house use
	Follow Instructions for Use
	Class II equipment
	Manufacturer
	Country of manufacturer
	Medical device
	Unique device identifier

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Transport and stock conditions



Package contents of the Patient Chair



FIGURE 1– Chair Carton



FIGURE 2 – Chair & Box Containing Upholstery

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FIGURE 3 – Chair with Box Containing Neck support and Instructions for Use

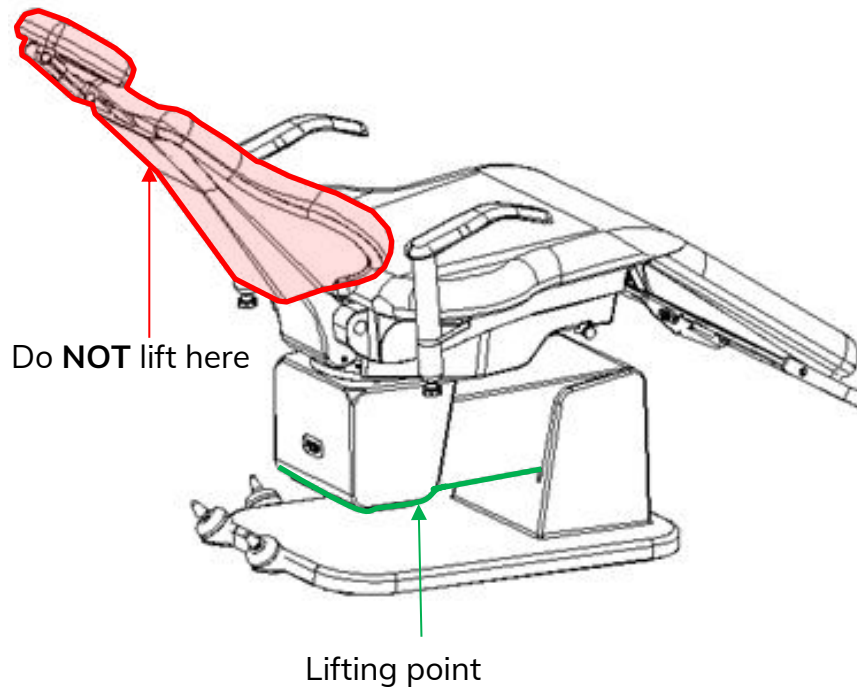
1. Lift off the main carton from the base/pallet (FIGURE 1)
2. Lift off the box containing the upholstery from the chair and set aside until ready to install (FIGURE 2)
3. Locate the box containing the Neck Support and set aside until ready to install (FIGURE 3)
4. Proceed to Assembly Instructions.

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Assembly instructions

Standard chair

- Upon receiving the chair: Remove the transport packaging from the patient chair.
- **Note:** The chair is bolted to the wooden pallet for transport with an M6 hex bolt.
- Move the chair, by lifting under the cube and leg of the chair as shown below, to the desired installation location. Do **NOT** lift the chair using the backrest as this may cause damage to the chair.



- Carefully roll the chair over on to its side, and mount 1 - 3 joysticks in the optional positions. Attach the cable to the clips, though the cable guide.

Joystick and Ergo Suction Stop mounting positions

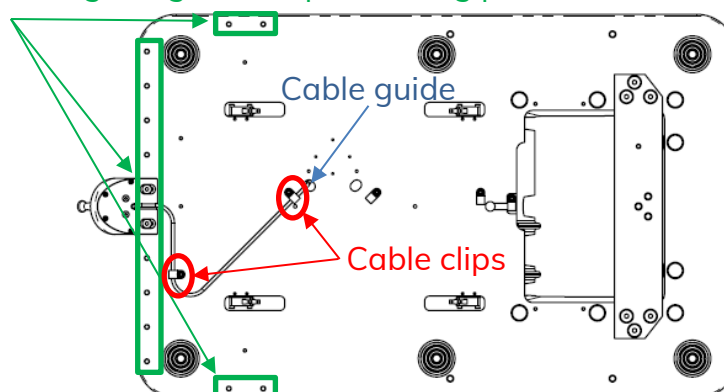
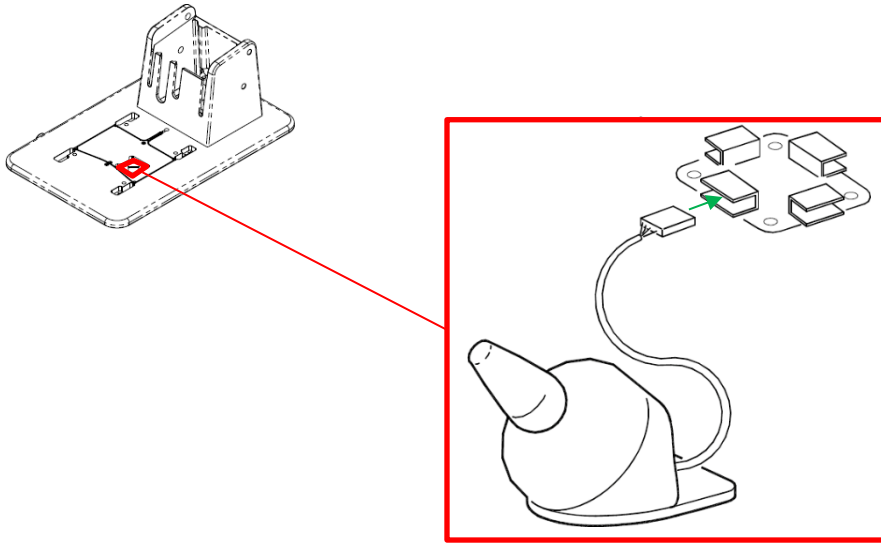


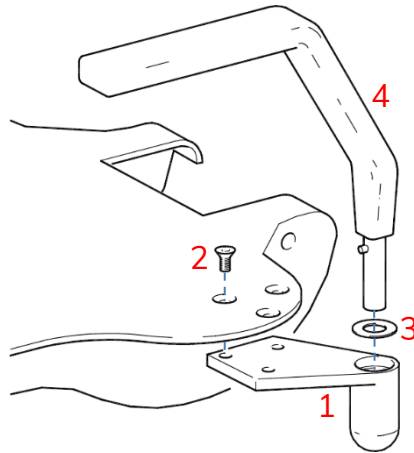
Image illustrates a joystick installed at the center of the chair, other cable clip locations may have to be used depending on the position of the joystick

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- Insert the connector from the joystick into the port on the PCB.

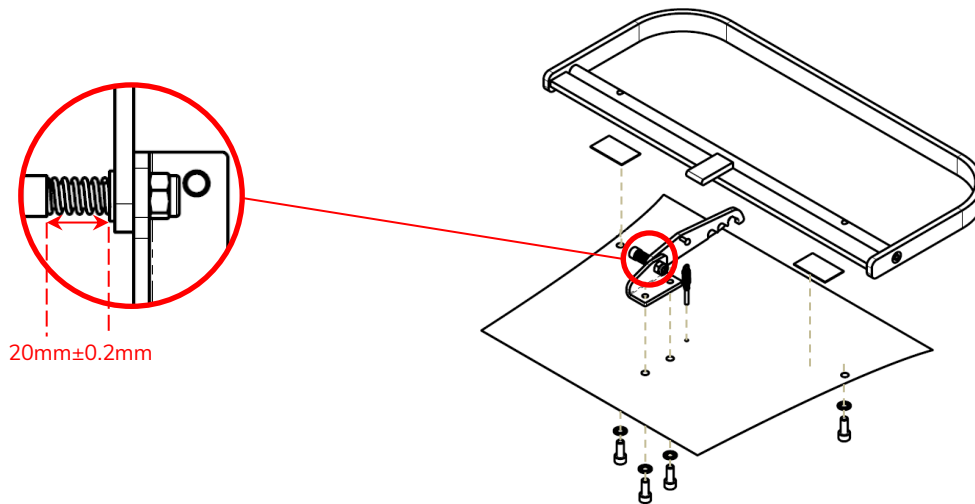


- Lift the chair into an upright position and adjust the feet to ensure the chair is stable.
- Mount the armrest(s), if these are included, by fastening the armrest bracket (1) to the underside of the chair seat, using a M10x20 hex bolt (2) from the top side of the chair. Then place the washer (3) over the hole for the armrest and insert the armrest (4) through the washer.

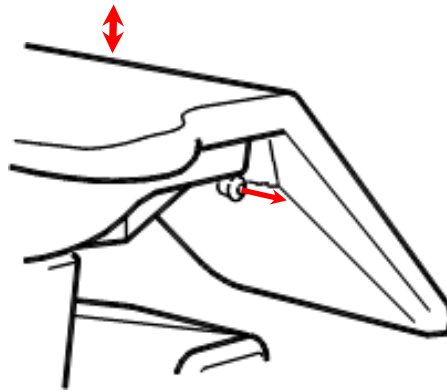


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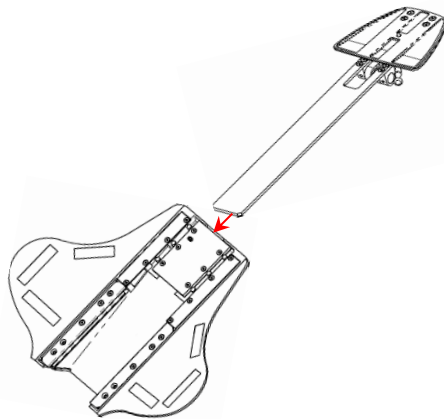
- Mount the footrest under the leg support as shown below.



- Check that the seat is in the upper position (5° seat angle), if not, pull the black knob on the right-hand side of the seat to release the spring-loaded lock.

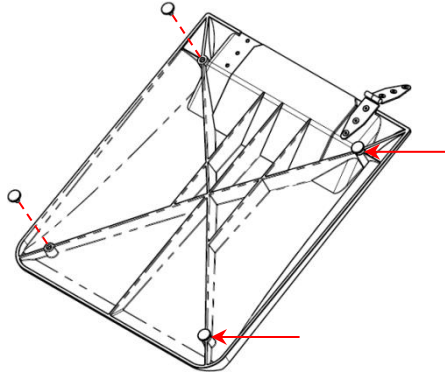


- Insert the headrest into the backrest and fit the cover onto the headrest.



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- Install the four (4) brass upholstery screws in the leg support and fit the seat cover.

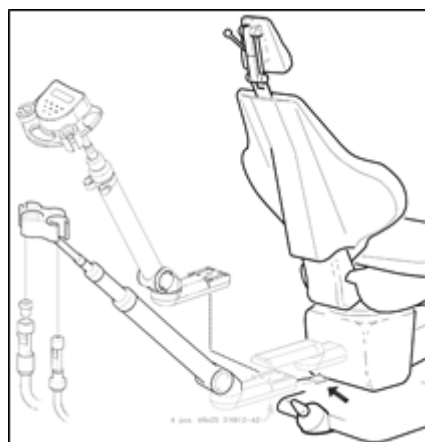


- Finally install the finger screws under the seat. You should use the M6x22 mm if the chair is installed without armrest(s), or M6x40 mm if the chair is installed with armrest(s).
- Fit the backrest cover.
- SW 3-1 should be set as either
 - On: with unit.
 - Off: stand alone
- Connect the patient chair to a power outlet (230VAC/115VAC).
- Flip the mains switch, which is located under the footrest on the front of the patient chair, to on.
- Test all functions.
- Go through all the patient chair's functions and maintenance with the dentist.

Mobile chair

For mobile chairs, follow the same procedure as for the standard chair, with the exception that while the chair is on its side, install the kit for mobile chairs.

All chairs also come with an option of telescope arm.



Connect the telescopic head to 317, labelled "T-Head" on the chair PCB.

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Structure of the operator's manual

This operator's manual provides instructions for use of the patient chair. Therefore, the operator's manual must be read carefully before the patient chair is used. The manual also includes technical instructions, which may be of use in the event of a service visit.



In the event of faults or defects, contact an authorized Heka Dental dealer.

Heka Dental reserves the right to continue to develop the product. Although we strive to keep the documentation up to date, the chair may include options that are not described in this operator's manual.

We reserve the right to modify the product's specifications without prior notice.

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Description of individual components



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Safety instructions

To protect the operator, patient and chair against injury and damage, the patient chair may only be operated by, or under supervision of dental professionals.

To avoid injuries to the operator and patient, ensure the patient is seated correctly in the chair before moving it.

Maintain a clear view of patient and chair, to ensure the best ergonomic position possible during treatment.

Before moving the chair into a different position, check that the area is clear of any obstructions.

The Chair should only be placed on a floor of concrete, ceramic tile or other nonflammable material.

CAUTION: This patient chair is EN/ISO 6875 approved to 179Kg/398lbs

Position of the operator

The operator must be positioned behind the patient chair next to the headrest, facing the chair and patient for optimal overview, and to be able to guide the patient into the correct position before moving the chair to the next position.



Position of the patient

The patient must be positioned with their hands resting on their abdomen, or resting on the armrest, if these are installed, whenever the chair position is being changed.



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Warning signals and emergency stop

The patient chair is equipped with safety systems in the backrest and on the base, to protect against injuries and mechanical damage.

Program stop

Chair movement to a programmed position can be stopped by activating the joystick in any of the four directions.

Safety stop: Backrest

A safety function is implemented in the backrest. If the back runs down towards a knee or thigh, or is held back in another way, the chair will stop. When the back of the chair is free, the chair can be operated normally again.



Limit stop

The chair is equipped with a limit stop to prevent excessive strain on the chair's mechanical components. When the limit stop is reached, the motor cuts out and the chair can be moved in the opposite direction.

Integrated thermal cut-out

The chair's motors have integrated thermal fuses that cut power to the motors if they are subjected to high temperatures. This may occur if the chair is in constant operation or the motors are overloaded.

The motors can be activated again once they have cooled down.

Emergency stop

When the emergency stop plate is activated, the power to the motors is cut off, so that the chair stops immediately. For safety reasons, the power to the chair must be switched off before it can run again.

If emergency stop is activated, an acoustic alarm sounds.



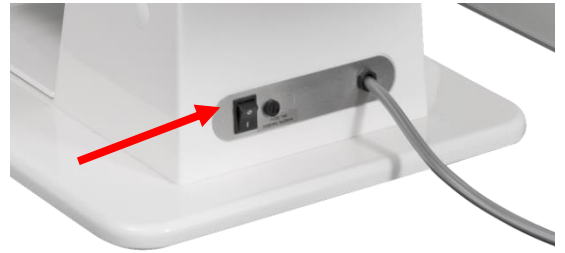
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Starting up the patient chair

On/Off

The On/Off switch is under the leg support.

For check of the function, activate the emergency stop by start of daily use. The chair must be switched off at the end of the working day.



Adjusting the headrest

The height of the headrest can be adjusted manually by pulling or pushing it to the required height.



Caution! Fingers may get caught between the headrest and the backrest.



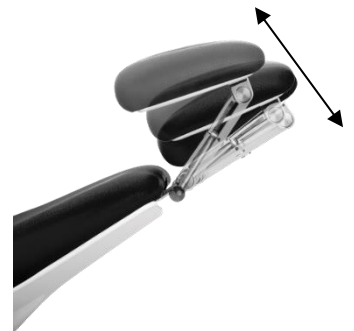
Adjusting the position of the headrest

The position of the headrest can be adjusted by pulling the handle away from the backrest.

After the headrest has been adjusted, it must be locked into position by pushing the handle towards the backrest.



Caution! Fingers may get caught between the headrest plate and the neck clamp.



Warning! To avoid electric shock, the Patient Chair+ must only be connected to a mains supply with protective earth.

Operating the armrest

The armrest on the chair is an accessory which can be installed at any given time. The armrest can be swiveled away from the chair to make it easier for the patient to get in and out of the chair. To move the armrest, lift it and then rotate



Adjusting the angle of the seat

The angle of the seat can be adjusted by pulling the release knob under the seat. The seat can be levelled out by pressing it down while pulling on the release knob.

It may be an advantage to level out the seat when treating children.



The bottom position is intended for use during operation and must not be used when a patient is getting in or out of the chair, as this will put an unnecessary strain on the leg support.



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Adjusting the footrest

The footrest on the chair is an accessory which can be retrofitted.

The footrest can be set into 3 positions by lifting the footrest through the steps.

To place the footrest back into the starting position, lift it up until it reaches the top position, the lock will then release and allow the footrest to be moved down again.



The footrest is not to be used as a step.

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Description of the joystick

The chair can be moved using the joystick. To move it manually, hold the joystick in the direction you want the chair to move.

To move the chair to a pre-programmed position, tap the joystick to the position required, and the chair will move automatically.

The chair can be equipped with up to 3 joysticks to make adjustment easier. For example, the backrest and seat can be activated simultaneously.

Raising the seat

Pressing the joystick upwards will cause the seat to be raised, to stop the movement, release the joystick. The chair will stop automatically if the limit is reached.



Lowering the seat

Pressing the joystick downwards will cause the seat to be lowered, to stop the movement, release the joystick. The chair will stop automatically if the limit is reached.



Lowering the backrest

Pressing the joystick to the left will cause the backrest to be lowered, to stop the movement, release the joystick. The chair will stop automatically if the limit is reached.



Raising the backrest

Pressing the joystick to the right will cause the backrest to be raised, to stop the movement, release the joystick. The chair will stop automatically if the limit is reached.



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Automatic adjustment of the chair

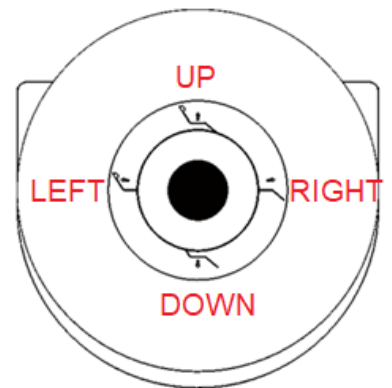
The chair can be programmed with up to five positions.

To move the chair to one of the pre-programmed positions, tap the joystick to the required program position. To stop the chair from moving, tap the joystick in any of the four directions.

The chair is pre-programmed with four positions from the factory. Once installed, the programs can be modified to suite the operator's needs at any given time.

Programming the chair's positions

This is done using the Heke One Connect or it can be done by holding up the programming button while shortly pressing the joystick to the position you want to save the chair's position in. You can then save the chair's setup in the treatment selected, by pressing the  icon on the instrument display.



Stand alone chair

This is done by holding up the programming button while shortly pressing the joystick to the position you want to store the position of the chair in.

Four program positions can be made.

Ergo suction stop

Suction stops can be placed in the same places as the Joystick.

Ergo Suction Stop makes it easy to just stop the suction for a short time. As long as the pedal is activated the suction will stay stopped.



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Maintenance

The Centers for Disease Control and Prevention (CDC) recommends use of a chemical germicide registered with the EPA as a Hospital Disinfectant and labeled for tuberculocidal activity for surfaces that have been soiled with patient material. In compliance with this guideline, we recommend intermediate-level disinfection between patients using Sani-Cloth AF3 or Dürr FD 366. It is important to follow the manufacturer instructions for use to ensure effective disinfection.

We recommend cleaning and disinfection at the start and end of each day as well as between patients.

Cleaning of upholstery and armrest

Material: DKL or UltraLeather™ (Imitation Leather upholstery)

Cleaning:

Wipe all surfaces using a Sani-Cloth AF3 or Dürr FD 366 cloth at the beginning and end of each workday, and between patients. Inspect and repeat this process if any visible impurity or residue is present. Discard the Sani-Cloth used for cleaning. For stains, alcohol-based cleaners such as Dürr FD 360, Fantastik® and Formula 409® can be used. To sanitize, use a 1:5 solution of bleach and water. Rinse with clean water to remove cleaning solution residue. Allow to air dry.

Disinfection:

Disinfect after cleaning using a fresh Sani-Cloth AF3 or Dürr FD 366. Ensure the surfaces remain wet for the full three minutes. It is crucial that the Sani-Cloth AF or Dürr FD 366 manufacturer instructions are followed to ensure effectiveness.

The following agents are not allowed to be used as they may cause permanent damage to the upholstery and armrest;

- Wax polish
- Alcohol
- Acetone
- Perchloroethylene
- Powder cleaning

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Cleaning of external surface aluminium components

Material: Casted Aluminum

Cleaning:

Wipe all surfaces using a Sani-Cloth AF3 or Dürr FD 366 cloth at the beginning and end of each workday, and between patients. Inspect and repeat this process if any visible impurity or residue is present. Discard the Sani-Cloth used for cleaning.

Check: Be aware there is nothing underneath this plate before the daily treatments starts.

Disinfection:

Disinfect after cleaning using a fresh Sani-Cloth AF3 or Dürr FD 366. Ensure the surfaces remain wet for the full three minutes. It is crucial that the Sani-Cloth AF or Dürr FD 366 manufacturer instructions are followed to ensure effectiveness.



Changing the fuse

The main fuse is located next to the On/Off switch.

Switch off the power before changing the fuse. Screw out the fuse carrier, replace the fuse with a new one of the same type and size. Reinsert the fuse carrier and switch the chair on again.

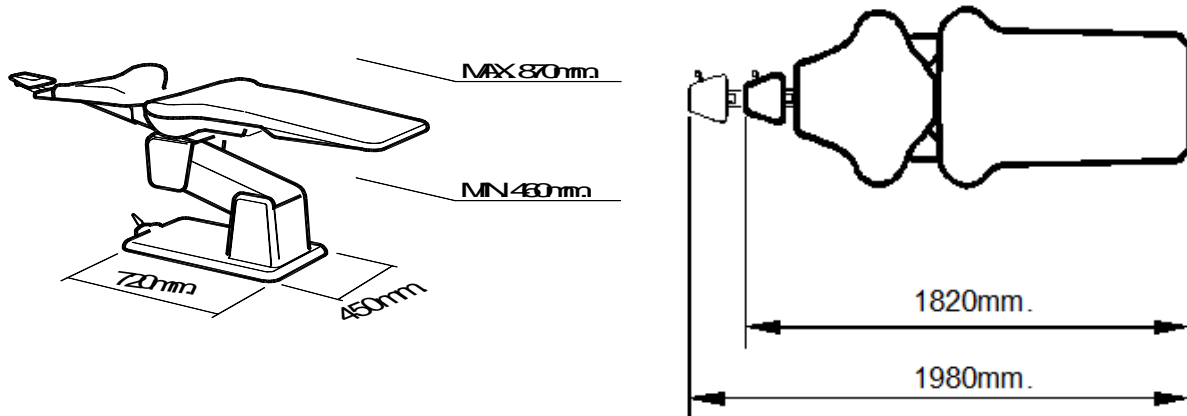


In the event of faults or defects, contact an authorized Heka Dental dealer.

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Technical part, only for authorized Technicians

The chair has the following physical dimensions



Technical specifications

Voltage	230V or 115V
Rated frequency	50 or 60 Hz
Power consumption	4 or 8 Ampere
Protective level	Type B applied parts
Classification	Class I (protectively earthed equipment)
IP classification	IP20
Operating mode	Continuous operating with intermittent load
Intermittent use, motor	25 sec. ON/ 400secs. OFF
Fuse	115V : T8A H250VAC 5x20mm 230V : T4A H250VAC 5x20mm
Max load capacity	398 lbs / 179 kg
Mass of patient chair	198 lbs / 90 kg
Motion range vertical/horizontal	410/1030 mm
Temperature and humidity: During operation	+15C to + 35C, non-condensing atmospheric humidity 20-75%, pressure 800hPa-1060hPa Max height: up to 2000m
Storage/transport condition	+10C to +40C, non-condensing atmospheric humidity from 50%-80%, pressure 500hPa-1060hPa
Accessories	Armrest (one or two can be installed). Type B applied part Footrest (incl. foot protection). Type B applied part Upholstery. Type B applied part

Regulatory Standards Compliance

Standard:	Title:
IEC 60601-1:2005 IEC 60601-1/ corr.1:2006 IEC 60601-1/corr.2: 2007 IEC 60601-1/A1:2012	Medical electrical equipment General safety w. corrections A1
EN 55011	Industrial, scientific and medical equipment – Radio frequency disturbance characteristic.
DS/EN 1041:2009 +A1:2013 DS/EN ISO 20417:2021	Information supplied by the manufacturer of medical devices
EN 1640	Dentistry – Medical device for dentistry - equipment
EN ISO 14971:2019	Medical device – application of risk management to medical devices
EN ISO 7494-1	Dentistry Dental units and Patient Chairs Part 1: General requirements.
EN ISO 7494-2	Dentistry Dental units Part 2: Air, Water, Suction and waste system
EN ISO 1942	Dentistry - Terms
DS/EN ISO 9687:2015 + A1:2018	Dentistry Graphical symbols
EN ISO 10993-1	Biological evaluation of medical devices - Part 1: Evaluation and testing within a risk management process.
EN ISO 10993-5	Biological evaluation of medical devices - Part 5: Test for in vitro cytotoxicity
EN ISO 10993-10	Biological evaluation of medical devices - Part 10: Tests for irritation and skin sensitization
DS/EN 60601-1-2: 2015 + A1:2021	Medical electrical equipment- Part 1-2: EMC
EN 62304 EN 62304_2006_A1_2015	Medical device software – software life-cycle + A1
EN ISO 15223-1:2021	Medical equipment, Symbols to be used with medical device labels
IEC 60601-1-6:2010 +A1:2015 +A2:2021	Medical electrical equipment – Part 1-6: General Requirements for basic safety and essential performance – Collateral standard: Usability
IEC 62366 IEC 62366-1 +AC 2016	Application of usability engineering to medical device
EN ISO 21530:2004	Dentistry – Materials used for dental equipment surfaces – Determination of resistance to chemical disinfectants

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Components & Performance Specifications

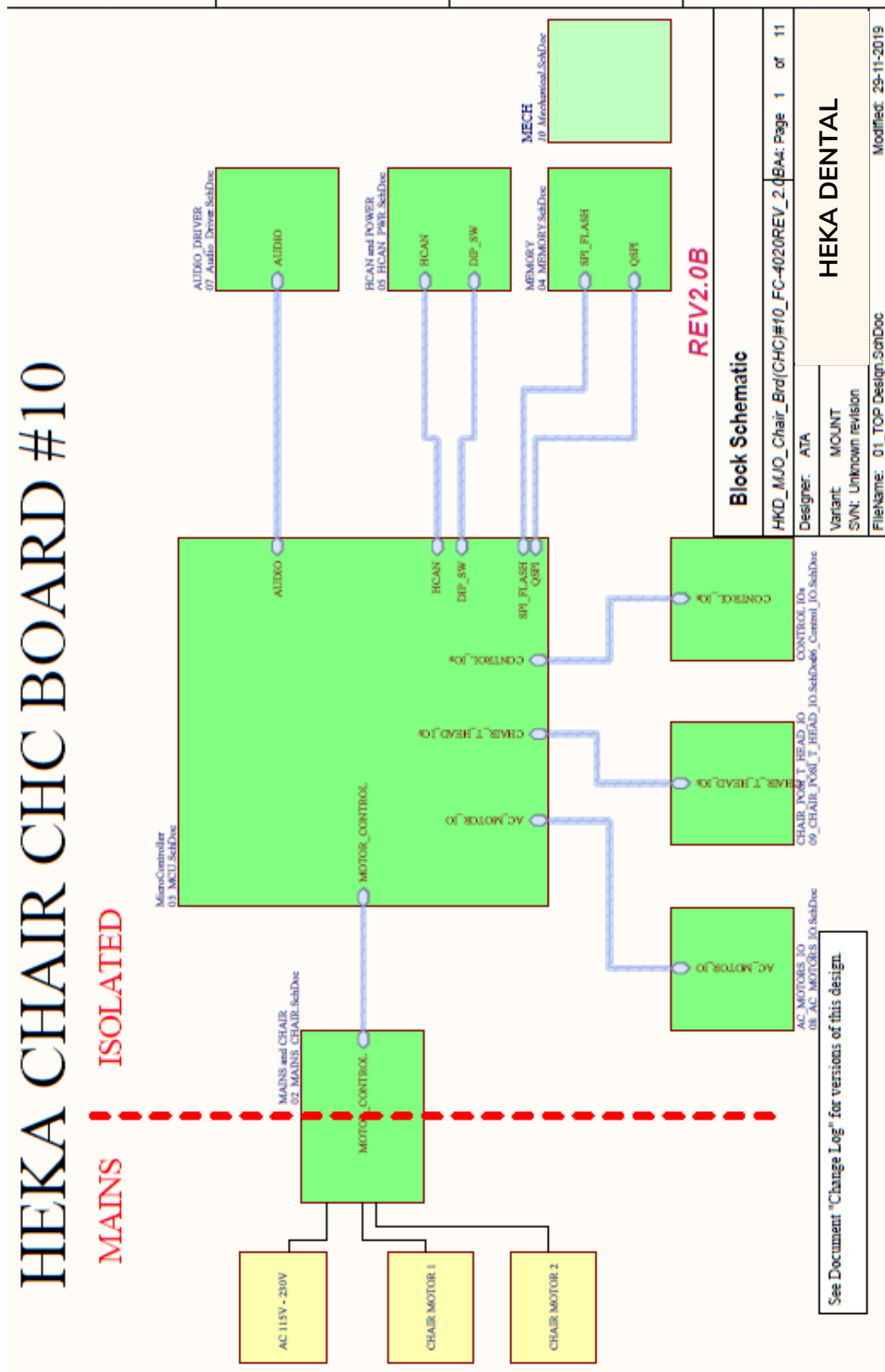
Components:	Junction PCB Seat Motors (Back, Main, Seat) Safety Stop (Chair Lowering) Safety Stop (Backrest) Capacitors Chair Base Headrest Backrest Footrest with Stirrup Armrest																
Materials:	Aluminum DKL or UltraLeather™ Upholstery																
Dimensions:	<table border="0"> <tr> <td>Chair Length</td> <td>71.7" – 78"/1820mm – 1980mm</td> </tr> <tr> <td>Chair Height</td> <td>18.1" – 34.3"/460mm – 870mm</td> </tr> <tr> <td>Base Length</td> <td>28.3"/720mm</td> </tr> <tr> <td>Base Width</td> <td>17.7"/450mm</td> </tr> </table>	Chair Length	71.7" – 78"/1820mm – 1980mm	Chair Height	18.1" – 34.3"/460mm – 870mm	Base Length	28.3"/720mm	Base Width	17.7"/450mm								
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Annual Maintenance

Annual inspection by an authorized Patient Chair+ technician should be performed to ensure optimal function.

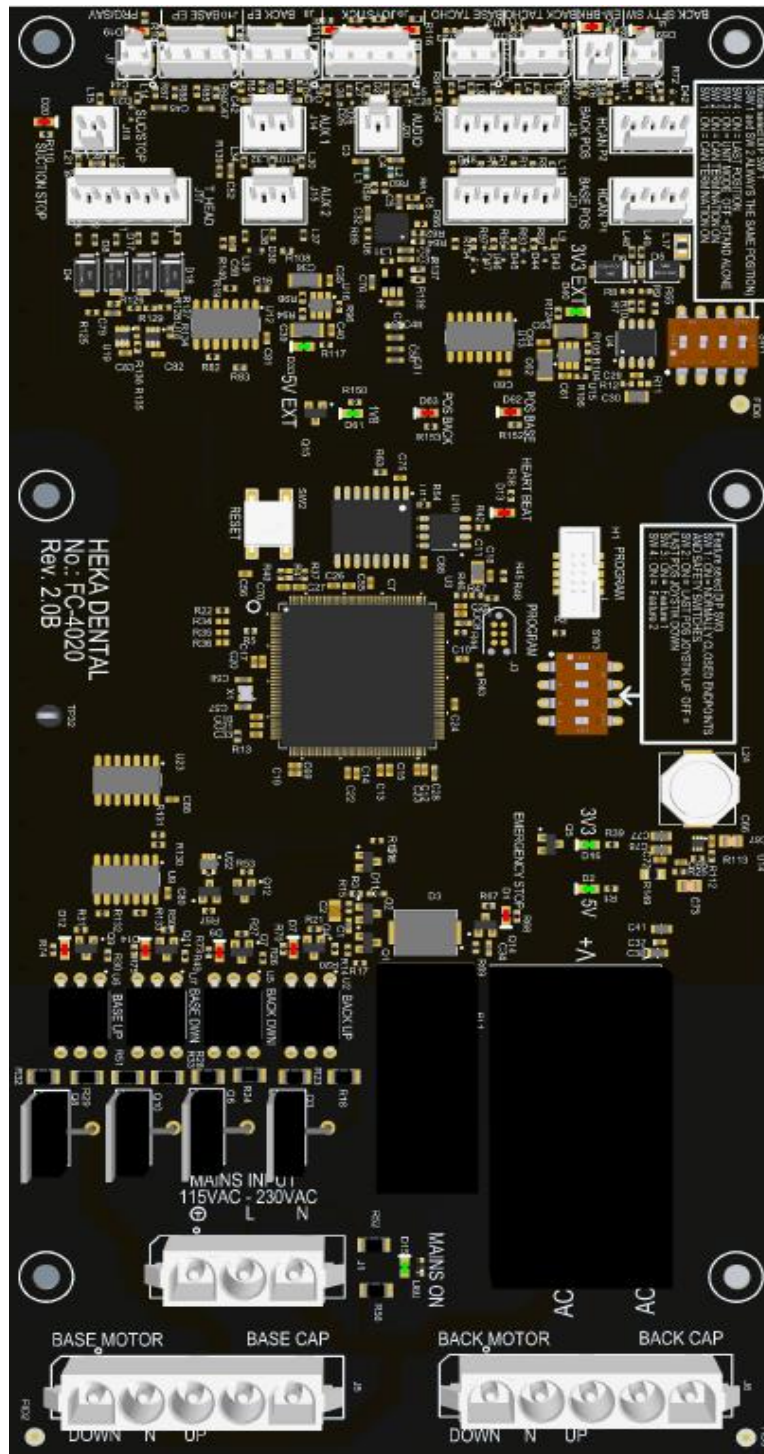
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Block diagram of the operating system



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Position of components



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DIP switch settings

Switch 1	ON	OFF
1-1	CAN termination ON	CAN termination OFF
1-2	CAN termination ON	CAN termination OFF
1-3	Connected to Heka +	Stand alone MODE
1-4	Normal	Factory test



Switch 3	ON	OFF
3-1	For factory test only	Normal use (Default)
3-2	Last position #	No Last position #
3-3	Last position joystick UP (replace Program UP)	Last position joystick DOWN (replace Program DOWN)
3-4	Feature 2 ON	Feature 2 OFF



Only used in Stand Alone mode.

CAN bus termination

Only in case both CAN bus connectors are used, both Switch 1-1 and 1-2 are OFF, else both switch must be ON.

UNIT/Stand alone mode

If the chair is connected to a Heka S⁺ or G⁺, this switch 1-3 must be ON. If the chair is used as stand alone, this switch must be OFF.

Last position in stand alone mode

If the chair is used in stand alone mode, the Last Position feature is enabled when switch 3-2 is in position ON.

Last position joystick direction in stand alone mode

If the chair is used in stand alone mode and switch 3-2 is ON, Last position can be reached by pressing the joystick short UP is the switch 3-2 is ON, or short DOWN is the switch 3-3 is OFF.

Initialization sequence

If you replace a component or update the software, an initialization of the chair is necessary.

The initialization updates the four limit positions, and thus avoids the automatic positions to reach them. The initialization is run by holding the program button while powering the chair on. During the initialization, the chair will move to all limit positions.

The chair will then recalibrate the system settings. After initialization, the chair will return to the normal function.

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Warranty terms

Warranty applicable to Heka UnicLine S, Heka S⁺, Heka G⁺ and Patient Chair⁺.

- The equipment is covered by a 24-month warranty (from the installation date) on the conditions that the equipment has been installed by an authorized Heka Dental dealer/technician and an annual service check is performed 12 months after installation.
- Annual service checks must be performed by an authorized Heka Dental technician using an original Heka Service Kit
- The installation registration constitutes important documentation that the dentist has been properly instructed in the basics of the new equipment which decreases the risk of incorrect usage and unnecessary reporting of errors
- The installation registration must be submitted within 15 days of the installation date. This is done online or using the attached registration card.
- The warranty is cancelled if the installation registration or service registration are not submitted to Heka Dental in due time

Option to extend the warranty:

- Heka Dental offers the option to purchase a warranty extension covering according to the agreement the years 3-5 or 3-7 from installation
- A service agreement covering annual service checks by an authorized Heka Dental technician using original Heka Dental Service Kits is a prerequisite for the extension.
- The extension must be purchased no later than 24 months after the original installation date
- The extension is valid from registration of the 24 month service at Heka Dental
- All warranty repairs must be performed by an authorized Heka Dental technician
- The following years' service registrations must be received by Heka Dental within 15 days from the day the annual service check is performed

The following general terms apply to the warranty:

- Heka Dental does not cover the authorised dealer's labour, travel and lodging expenses on warranty repairs.
- Heka Dental cannot be held liable for defects and consequential damage in the event of failure to use the equipment correctly.
- Heka Dental cannot be held liable for defects and consequential damage caused by wear and tear, incorrect cleaning or maintenance, lack of compliance with operating, maintenance and connection manuals, calcium build-up, corrosion, contaminated air, water supply or chemical and/or electrical factors that are regarded as abnormal or do not accord with the manufacturer's specifications and instructions.
- This warranty does not cover electrical bulbs/LEDs, glass, rubber parts, instrument hoses, O-rings, chair upholstery or other wearing parts or discoloration of plastic parts.
- OEM products (instruments, instrument accessories, handpieces, suction systems (separator, separator drain pump, central suction, tubing system, etc.), amalgam separators, separators, water purification systems etc.) which are not proprietary Heka Dental products are covered by the manufacturer's 12- or 24-month

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warranty – please see individual manufacturer websites for information on warranty terms.

- Defects and consequential damage that can be attributed to the Heka Dental authorized dealer or modifications made to the product by third parties are not covered by this warranty.


Exchangeable parts

In order to provide our customers with a fast and efficient service after the end of the warranty period, Heka Dental offers a number of exchangeable parts at a fixed repair price outside the warranty. These only apply to equipment being serviced (standard service and annual service) by an authorized Heka Dental dealer. Original Heka Dental parts must be used for both standard services and annual services.

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Installation/service card


The installation/service card can be found in the plastic folder on the inside of the cover on the console.



Online product registration


Installation card

Activate the product warranty
Scan the QR code for online registration of the installation card.



Service card

Maintain the product warranty
Scan the QR code for online registration of the service card.




It is possible to enter installation and inspection cards on our website. (Requires login)
heka-dental.com/support/produktregistrering-eftersom

Online user registration for dentists

Register as a user of a Heka unit

Access special product information
Scan the QR code for online registration



You can e.g. access special software, user guides, quick guides, user guides videos, tips & tricks, product news, etc. We are constantly expanding the possibilities for registered users of Heka units.

HEKA
DENTAL®

Heka Dental A/S
Baldershej 38
DK-2635 Ishej
Denmark
T: +45 43 32 09 90
M: info@heka-dental.dk
www.heka-dental.com



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Attention

Warranty is only valid if the Dental Delivery System is serviced annually with recommended service kit and the installation/service cards and service-kit serial-numbers are submitted to Heka Dental A/S.


IFU's and label language requirements

Country	IFUs and Label Language Requirements	
	Used by trained professionals	Used by Non- Professionals
Austria	German	German
Belgium	Dutch German French	Dutch German French
		Note: All three must be used for patient instructions.
Bulgaria	English and Bulgarian	Bulgarian
Croatia	Croatian	Croatian
Cyprus	English and Greek	Greek
Czech Republic	Instructions for use must be in Czech language for public use; for the professional use information required for the safe use of the product must be in the Czech language, all other parts of the User Manuals can be in English (for all MD). User Interface can be in English, provided that the information required for the safe use of the product is included in Czech language into User Manual (or into another document available for the user.)	
Denmark	Danish	Danish
Estonia	Estonian	Estonian
Finland	English Finnish Swedish	Finnish Swedish
France	French	French
Germany	German	German
Greece	Greek	Greek
Hungary	Hungarian	Hungarian
Iceland	Icelandic Note: For the professional user other languages are accepted (e.g., Swedish, Danish, Norwegian, German, English).	Icelandic
Ireland	English	English
Italy	Italian	Italian
Netherlands	Dutch	Dutch
Norway	Norwegian	Norwegian
Poland	Polish	Polish

EMC Information

Guidance and manufacturer's declaration – electromagnetic emissions		
The Dental Delivery System is intended for use in the electromagnetic environment specified below. The customer or the user of the Dental Delivery System should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	Dental Delivery System uses HF energy only for its internal function. Therefore, its HF emissions are very low and are not likely to cause any interference in nearby electronic equipment. Dental Delivery System is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purpose.
RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ Flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic emissions			
The Dental Delivery System is intended for use in the electromagnetic environment specified below. The customer or the user of the Dental Delivery System should assure that it is used in such an environment.			
Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment- guidance
Electrostatic Discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	± 2/4/6 kV contact discharge ±2/4/8 kV air	Floor should be concrete, ceramic tile or other nonflammable material. With synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge According to IEC 61000-4-5	± 1 kV push-pull voltage ± 2 kV common mode voltage	± 1 kV push-pull voltage ± 2 kV common mode voltage	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines. IEC 61000-4-11	<5 % U_T (>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 s (250 periods)	<5 % U_T (>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 s (250 periods)	Mains power quality should be that of a typical commercial or hospital environment. If the user of Dental Delivery System requires continued operation during power mains interruptions, it is recommended that the Dental Delivery System be powered from an uninterruptible power supply.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment. The power frequency magnetic field should be measured in the intended installation location to assure that it is sufficiently low.
NOTE: U_T is the a.c. mains voltage prior to application of the test level			

Guidance and manufacturer's declaration – electromagnetic emissions			
The Dental Delivery System is intended for use in the electromagnetic environment specified below. The customer or the user of the Dental Delivery System should assure that it is used in such an environment.			
Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment- guidance
<p>Wire-based HF interference according to EN 61000-4-6</p> <p>Wireless HF interference according to EN 61000-4-3</p>	<p>3 V_{eff}</p> <p>150 kHz to 80 MHz outside the ISM bands^a</p> <p>3 V/m</p> <p>80 MHz to 2.5 GHz</p>	<p>3 V_{eff}</p> <p>3 V/m</p>	<p>Handheld and mobile wireless devices should not be used at a shorter distance from the Dental Delivery System including cables than the recommended safe clearance calculated using the appropriate equation for the emission frequency. Recommended safe distance: $d = 1.17 P$</p> <p>$d = 1.17 P$ for 80 MHz to 800 MHz $d = 2.33 P$ for 800 MHz to 2.5 GHz</p> <p>where P is the maximal nominal power of the transmitter in watts (W) as specified by the transmitter manufacturer and d is the recommended safe clearance in metres(m).</p> <p>^bThe field strength of stationary wireless radio transmitters as measured locally^c should be lower than the conformance level at all frequencies.</p> <p>^dInterference is possible in the vicinity of devices</p>  <p>bearing the following icon.</p>
<p>Note 1: At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			
<p>^aThe ISM frequency bands (for industrial, scientific, and medical applications) between 150 kHz and 80 MHz are 6.765 MHz to 6.795 MHz; 13.553 MHz to 13.567 MHz; 26.957 MHz to 27.283 MHz, and 40.66 MHz to 40.70 MHz.</p> <p>^bThe compliance levels in the ISM frequency bands between 150 kHz and 80 MHz and in the frequency range from 80 MHz to 2.5 GHz are intended to reduce the probability of mobile/handheld communications facilities causing interference when they are inadvertently introduced into the patient area. For this reason, the additional factor of 10/3 is applied in the calculation of the recommended safe clearances in these ranges of frequencies.</p> <p>^cThe field strength of stationary transmitters, such as, e.g. base stations of mobile phones and mobile terrestrial radio devices, amateur radio stations, AM and FM radio and television transmitters, cannot be determined exactly based on theoretical considerations. A site study should be considered to determine the electromagnetic environment in terms of stationary transmitters. If the measured field strength at the site, at which the Dental Delivery System is used, exceeds the compliance levels shown above, the Dental Delivery System should be monitored to demonstrate proper function. If any uncommon performance characteristics are observed, additional measures may be required, such as, e.g., changing the orientation or using a different location for the Dental Delivery System.</p> <p>^d In the frequency range of 150 kHz to 80 MHz, the field strength should be less than 3V_{eff} V/m.</p>			

Recommended separation distances between Portable and mobile HF communications equipment and Dental Delivery System			
The Dental Delivery System is intended for use in an electromagnetic Dental Delivery System can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile HF communications equipment (transmitters) and the Dental Delivery System as recommended below, according to the maximum output power of the communications equipment. Safe distance depending on the transmission frequency:			
Rated power P of the transmitter in W	Safe distance depending on the transmission frequency in m		
	150 kHz to 80 MHz $d=1.17^P$	80 MHz to 800 MHz $d=1.20^P$	800 MHz to 2.5 GHz $d=2.3^P$
0.01	0.12	0.12	0.23
0.1	0.37	0.38	0.73
1	1.17	1.20	2.3
10	3.69	3.79	7.27
100	11.7	12	23

Data on electromagnetic compatibility according to EN 60601-1-2 10.4 Immunity to electromagnetic interference.			
Rated power P of the transmitter in W	Safe distance depending on the transmission frequency in m		
	150 kHz to 80 MHz $d=1.17^P$	80 MHz to 800 MHz $d=1.20^P$	800 MHz to 2.5 GHz $d=2.3^P$
U1 = Compliance level according to 4-6: 3 Veff E1 = Compliance level according to 4-3: 3 V/m			
Factor	$[3.5/U_1]$	$[12/E_1]$	$[23/E_1]$

For transmitters whose maximum rated power is not in the above table, the recommended safe distance d in meters (m) can be calculated using the equation for the respective gap, where P is the maximum rated power of the transmitter in Watts (W) according to the manufacturer's information.

NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2: These guidelines may not be applicable in every case. The spread of electromagnetic waves is absorbed and reflected by buildings, objects and people.

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Disposal of the unit

In order to reduce the environmental impact of the product throughout its lifetime, the Patient Chair+ is designed to be as safe as possible to manufacture, use and dispose of. Components suitable for recycling should always be sent to a recycling center once all hazardous materials have been removed. Obsolete units are disposed of at the owner's own responsibility and risk. All components and parts containing hazardous materials must be disposed of in compliance with current legislation and the guidelines issued by the environmental authorities. Risks must be considered, and the necessary precautionary measures must be taken when handling waste products.

Part	Primary materials for disposal	Recyclable materials	Environment controlled burning	Landfill waste disposal site	Hazardous waste (separate collection)
Frame and screening					
- Metal	Aluminium	X			
	Stainless steel AISI303/304/316	X			
	Steel	X			
	Galvanized steel	X			
- Plastic	ABS / ASA	X			
	PVC	X			
	PE (Powder coating)		X		
	PU (Powder coating)		X		
	TPE		X		
	PUR	X			
	PTFE				X
	Other plastic		X		
	Silicone				X
- Rubber				X	
- Glass		X			
- Porcelain				X	
Motor		(X)			
Component board		(X)			
Cables, transformers	Copper	X			
	Steel	X			
Amalgam separator*)					
Filters					X
Collection devices					X
Packaging	Wood	X			
	Cardboard	X			
	Paper	X			
Other parts				X	

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Notes

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Heka Dental A/S
Litauen Alle 4 · DK-2630 Taastrup · Danmark
Telefon +45 43 32 09 90 · Fax +45 43 32 09 90
www.heka-dental.com