# Operating manual
# Original operating manual

# KINET

Tilting bath tub

Version 1.4/English

Subject to technical modifications

2019-04-10

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# 1 Imprint

## 1.1 Acknowledgement

Dear customer, we would like to express our sincere thanks for the trust you have placed in us by purchasing this BEKA Hospitec GmbH product. Our products are manufactured and tested according to stringent quality criteria.

## 1.2 Manufacturer's address

| | |
|---|---|
| | BEKA Hospitec GmbH<br>Am Rübenmorgen 3<br>35582 Wetzlar<br>Phone: +49(0)641-9 22 22-0<br>Fax: +49(0)641-9 22-22-20<br>info@beka-hospitec.de |

## 1.3 TÜV quality seal

| | |
|---|---|
| | BEKA Hospitec GmbH is certified according to DIN EN ISO 13485 by TÜV SÜD Product Service GmbH.<br>Therefore, the development, manufacturing, quality assurance and service of our entire product range is subject to high quality standards. |

# 2 Introduction

## 2.1 Preface

A correct use of the device is imperatively in order to ensure its proper and safe functioning. Please read the provided operating manual carefully and observe in particular the therein contained safety instructions.

The maintenance, inspection, assembly and installation as well as well as further technical interventions on the product must only be executed by BEKA Hospitec either by specialised companies authorised to this effect by BEKA Hospitec. The operation of the product as well as technical interventions on the product must only be carried out by specially trained personnel.

## 2.2 Liability and warranty

- On the basis of the information contained in this manual, the publisher accepts no liability for damages resulting from improper, incorrect or inappropriate use of the product. The product must only be operated by persons, who are familiar with the manual and the product as well as the national regulations, laws and prescriptions related to work, safety and accident prevention.
- The manufacturer of the product is only responsible for the safety and the reliability of the product, if regular functional tests and checks are conducted. Operate the product only with original accessories, otherwise the manufacturer's liability will expire.
- In case of technical interventions, such as extensions and fittings to our products, which are not carried out by BEKA Hospitec either by a specialist company authorised by BEKA Hospitec, all warranty rights on the modifications as well as on the device or on the device function, which are related to the modification, shall expire.
- For damages resulting from the use of spare parts and accessories, which are not authorized by the manufacturer, any further liability of the manufacturer shall be excluded.
- Please note that there might be minor differences between the images and explanations contained in this manual and the actually supplied device. Subject to technical modifications and error.
- The product is equipped with "B"-Type applied parts. All exposed, touchable, conductive parts are thereby considered as applied part.

# 3 Operating manual

## 3.1 Validity

This operating manual contains information, which is required for the operation and use of the product. In addition to the description of the equipment, the operating manual also includes a number of abstractions and exemplary illustrations. The equipment of the product therefore may differ in part from the descriptions and illustrations. Furthermore, please observe also the manuals with regard to the cleaning and the disinfection as well as the assembly and the disassembly of individual components of the product.
Please read the operating manual and the safety instructions before starting to use the product. Keep the operating manual near the device for future reference.

## 3.2 Type plate

| | |
|---|---|
|  | This image shows the type plate.<br>The type plate is located on the frame of the KINET. The shown serial number (SN) 0582.09.17 is just an example.<br>In case of queries, please mention the serial number printed on the type plate of your device.<br><br>*Note: Because of legal regulations, it might be required that the article number and the serial number should be computer-readable as well and therefore they might be printed on the type plate in the form of a bar code as well.* |

## 3.3 Description

In this manual, the product is called tilting bath tub and tub.

# 4 Safety

## 4.1 Intended and appropriate use

The product is designed for bathing and nursing patients/residents in hospitals and care facilities, facilities for people with a disability as well as private households.

The KINET seat and shower bath tub offers a unique concept for a combination of bathing and safe showering. On the one hand, the patient is prevented from sliding down during showering by the unmatched ergonomic sitting position and on the other hand, the patient has the possibility to enjoy a full bath when the tub is tilted backwards.

The bath tub enhances the independence of the patients or disabled persons and preserves their dignity due to the possibility of autonomous entry. The safe entry is supported by the side handles and the additional level foot compartment provides for the necessary hold.

The product may only be used for the specified purpose.

**NOTE**

The KINET tilting bath tub must be used by adequately qualified nursing staff with good knowledge of the care environment, its standard practices and usual procedures as well as in accordance with the directives included in the operating manual.
In case of doubt, please consult with the treating doctor.

## 4.2 Other prescriptions

The product meets the current VDE-prescriptions 0100 and 0100-710. However, have a specialist company check the compliance of your electrical installation with the applicable prescriptions prior to operating and using the product. This requirement is only applicable for Germany. In other countries, other requirements might be applicable. Ask a qualified electrician to proceed with the installation in accordance with the regulations applicable in your country.

## 4.3 Safety instructions

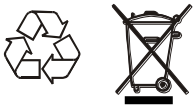
Please read the following safety instructions prior to using the product. All notes, specifications and warnings mentioned on the device as well as in the present operating manual must be imperatively respected and observed. The manufacturer BEKA Hospitec shall not accept any liability for any damages, failures or faults caused by improper operation or handling.

## 4.4 List of used safety instructions

Please observe the accompanying documents/operating manual.

Warning Hazardous Area.

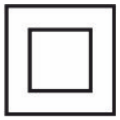
Applied part “Type B” to DIN EN 60601-1.



Special waste, no household waste.
The device and the packaging materials never must be disposed of in the domestic waste stream.

CE-label in accordance with the EC-Directive on Medical Devices.

Solely intended for indoor use.



Protection class II

**IPX4**

Protection against the penetration of liquids: Protection against water splashing from all directions.

## 4.5 Warnings

Note

- The product may only be operated by trained staff.
- Protect the product against direct sunlight and heat.
- The equipment is not authorised for use in potentially explosive atmospheres.
- Never exceed the duty cycle or the maximum load.
- Never cover up, oversticker or change the slots and holes of the device.
- Do not operate or store moisture-sensitive device in the vicinity of the bath tub.
- Please ensure that the power supply is always switched on throughout the treatment.
- The operator must ensure that the area above and below the bath tub is free of obstacles that could obstruct the free tilting movement of the bath tub.
- In order to prevent any electromagnetic interference (EMC), the simultaneous use of short-wave or microwave therapy device in the immediate vicinity of the device is strictly forbidden. Mobile telephony could also cause interference.
- Route the mains and the connecting cable so that they cannot be damaged. Damaged mains cables could cause fire or lead to electrocution and must not be used.
- The caregivers must protect their skin and eyes against concentrated disinfecting and cleaning products. Use a face mask to protect yourself against aerosols.
- Check prior to each use that all visible parts are intact. The product must not be used if any parts are damaged. Prior to each use of the device and its accessories, the user must check the functional safety and the good condition of the device and its accessories (visual check, functioning).
- The product must be disinfected after each treatment.
- Supervision of the caregiver is required throughout the treatment.
- Please make sure that your feet are not located beside the bath tub before and during the tilting movement.
- Do not stand between the bath tub and an obstacle during the transport procedure.
- Use only original accessories for the KINET tilting bath tub.
  - Check every month the pressure hoses for leakage, the connections for tightness and the electrical connections (current and equipotential bonding) for cable cracks.
  - Repairs to components of the KINET tilting bath tub are to be carried out only by trained expert personnel. Please contact the after-sales service. The opening the device or other accessories will lead to the expiration of all guarantee, warranty and liability claims.

| | |
|---|---|
| **WARNING**  | Any unauthorized repairs, reconstructions and modifications/alterations are not permitted for safety reasons and shall exclude all liability of the manufacturer for the resulting damages.<br>For damages resulting from the use of spare parts or accessories, which are not authorized by the manufacturer, any further liability of the manufacturer shall be excluded. |

| | |
|---|---|
| **WARNING**  | Before the patient steps into the bath tub or during the filling of the tub, the water temperature must be checked manually (without wearing gloves) either with a thermometer. |

| | |
|---|---|
| **CAUTION**  | In case of unusual noises, damages or malfunctions, the product no longer must be used. |

# 5 Transport

Transport the tilting bath tub towards the planned place of installation. Use a lift truck or similar for the transport.

Position the bath so that it stands stable and cannot tilt.

## 5.1 Unpacking the product

To remove the packaging materials, you will need a cutter knife.

**NOTE**

Take care so as to not damage the product when using tools.
Do not cut with the cutter in the cardboard.

### 5.1.1 Removing the cardboard

**Proceed in the following way to remove the cardboard:**

- Cut the strap with the cutter knife
- Remove the strap
- Lift the cardboard up to remove it and put it aside

### 5.1.2 Loosening the product from the pallet

The bath tub is screwed to the pallet.

**Proceed in the following way to loosen the product from the pallet:**

- Remove the cover of the tub's feet and unscrew the 4 screws with the electric screwdriver.

**After loosening all fixations, you can lift the tilting bath tub from the pallet and position it at the planned place of use.**

Remove the bubble wrap and the stretch film and/or the protective bag.

**NOTE**

Take care so as to not damage the product when using tools.

# 6 Installation

The bath tub is supplied ready for use. Use the level and the wrench to vertically align the bath tub. The tub legs can be screwed in or out to adjust their height. Please make sure that all legs are in contact with the floor and that the bath tub stands stable.

Prior to the assembly of the bath, the local connection pipes must be sufficiently flushed before the tilting bath tub is connected. To avoid soiling of the pipes and fittings, dirt filters must be installed on site.

The bath tub must be connected through 1/2” hoses. Please observe the attached connection diagram. The bath tub must be connected by a qualified and competent professional.

**CAUTION**

To connect the footbath to the water supply, dirt filters must be used on site. Please contact your plumber to this effect.

The image shows the water connections of the KINET tilting bath tub.

= cold water

= hot water

## 6.1 Electrical connection

The connection of the bath tub must be executed in accordance with the technical drawings issued by BEKA Hospitec either the guidelines for the set-up and layout of wet areas and the current VDE standards. All supply and drain hoses as well as the electrical cables must be installed so as to avoid the danger of tripping.

The KINET is connected to the power supply network through a shock-proof protective socket featuring the legally prescribed splash guard (IP class), 230 V AC/50Hz, 3 x 1.5 mm², 1.5 KW, 16 Ampere, fault-current circuit breaker 30 mA, equipotential bonding (in Germany) to DIN VDE 0107. **The bath tub must be connected by a qualified and competent professional.**

## 6.2 Protective conductor

When protection class I equipment is used, the quality of the protective conductor of the installation is highly important. Please note that in this respect regulations and prescriptions have been specified in many countries by the national authorities.

**WARNING**

In order to avoid the risk of electroshock, this device only must be connected to a power supply network with protective conductor.

## 6.3 First start-up

**WARNING**

The equipment is to be used exclusively in accordance with the accompanying documents.
Only when these conditions are met, the manufacturer considers himself responsible for the impact on the safety, the reliability and the function of the device.
In the event of a new connection of an KINET tilting bath tub, the technical data must be observed.

**WARNING**

To prevent scalding, the hot/cold water mixer must be set up in accordance with the local water supply prior to the first use.

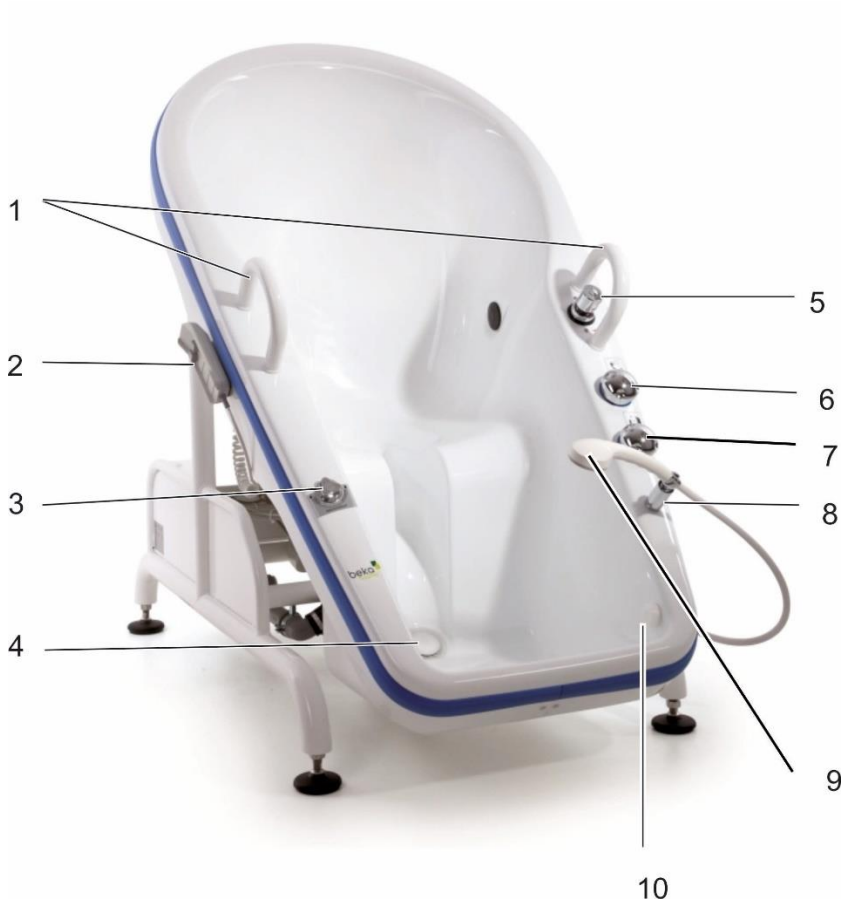
*Please consult the attached user manual to this effect.*
The settings must be documented.

**NOTE**

In order to ensure a safe functioning and operation, we recommend a regular maintenance and set-up of the thermostatic mixer. These maintenance works are to be carried out by a qualified technician.
Due to the relocation of the KINET tilting bath tub to another room either changes to the local water supply, a readjustment of the thermostatic mixer could be required.

*Please refer to the attached user manual for the setting.*

# 7 Operating elements and their function




| N° | Description | N° | Description |
|---|---|---|---|
| 1 | Handles (2) | 6 | Hand shower valve |
| 2 | Handset | 7 | Water inlet valve |
| 3 | Rotary button for the eccentric plug (tub drain) | 8 | Hand shower support |
| 4 | Drain plug | 9 | Hand shower |
| 5 | Thermostatic valve | 10 | Tub inlet |

## 7.1 Tub inlet with hand shower

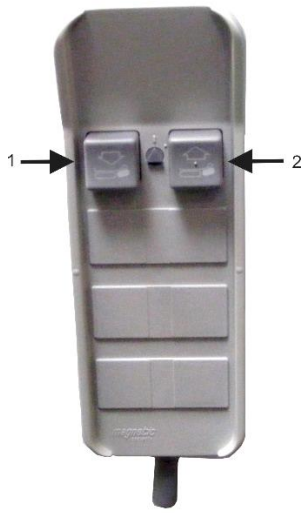
**Image 1:**
The image shows the valve for the hand shower and the tub inlet as well as the thermostat of the KINET tilting bath tub.


**Image 2:**
The image shows the operating unit for the air spa system (option) and the rotary button for the eccentric fitting of the INVITA tilting bath tub.

## 7.2 Thermostatic mixer

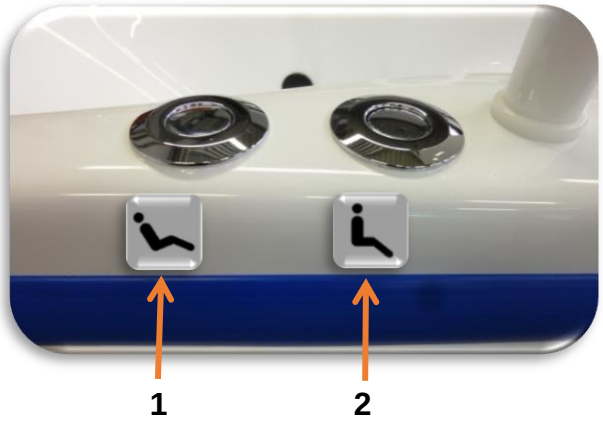
Please consult the attached user manual to this effect.

## 7.3 Tilt adjustment through handset




1: Button DOWN (tilt adjustment in reclined position)
2: Button UP (tilt adjustment in seated position)

## 7.4 Tilt adjustment through buttons (options)



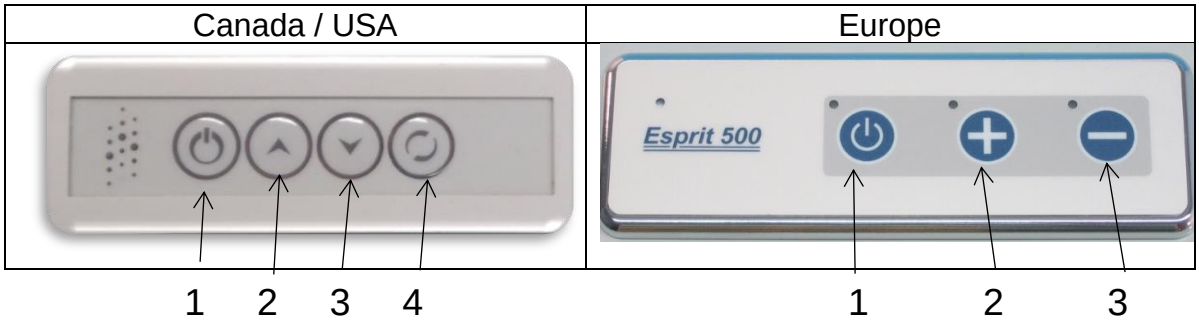

1: Button DOWN (tilt adjustment in reclined position)

2: Button UP (tilt adjustment in seated position)

## 7.5 Description of the symbols used

| Symbol | Description | Symbol | Description |
|---|---|---|---|
|  | Put bath tub in reclined position |  | Put bath tub in seated position |
|  | Tub inlet |  | Hand shower |
|  | Air spa system | | |

## 7.6 Operating element air spa system (option)




| | |
|---|---|
| 1 | Button ON/OFF |
| 2 | Button blower + |
| 3 | Button blower - |
| 4 | Auto INTERVAL |

- **Electrical motor**
  The electrical motor is equipped with an overload protection, which automatically switches off in case of overload. The motor will only be operational again after a short waiting time (10-20 minutes). **Opening the motor will result in expiration of the warranty.**

# 8 Operation

## 8.1 Description of the KINET tilting bath tub

The KINET seat and shower bath tub offers a unique concept for a combination of bathing and safe showering. On the one hand, the patient is prevented from sliding down during showering by the unmatched ergonomic sitting position and on the other hand, the patient has the possibility to enjoy a full bath when the tub is tilted backwards.

The bath tub enhances the independence of the patients or disabled persons and preserves their dignity due to the possibility of autonomous entry. The safe entry is supported by the side handles and the additional level foot compartment provides for the necessary hold. Of course, patient lifts can also be used for transfer into the bath tub.

The KINET requires very little space and is therefore especially suited for small space concepts. The tub furthermore convinces through extremely low water consumption. The tub can be filled within a very short time.

The outlet is designed so as to allow for an exceptionally fast emptying of the tub. This facilitates the bathing process additionally.

A built-in thermostat features protection against scalding for the tub inlet and the hand shower and thus guarantees full protection.

**NOTE**

In order to ensure a safe functioning and operation, we recommend a regular maintenance and set-up of the thermostatic mixer. These maintenance works are to be carried out by a qualified technician.

## 8.2 Prior to use

Please check the proper state and the functional safety of the system prior to use.

# 8.3 During use

## 8.3.1 Installing the patient/resident in the tub

**Caution**

If the tub has to be positioned in seated position to install the patient/resident in the tub, the tub must not contain any water! Otherwise, the water would flow out of the tub!

To install the patient/resident in the tub, simple bring the bath tub to seated position by pressing the button  on the handset.

When the bath tub is in seated position, help the patient/resident into the bath tub or let him/her step into the tub.

If you use a patient lift system to install the patient in the bath tub, you can leave the tub in reclined position as well.

Bring the bath tub to reclined position by pressing the button  on the handset.

## 8.3.2 Filling the bath tub


**Image 1:**

Close the drain of the bath tub by turning the eccentric fitting counter-clockwise.

**Image 2:**

Open the valve to fill the bath tub

**CAUTION!**

Check the water temperature by hand (without wearing gloves) or with a thermometer to avoid scalding of the patient.

**Image 3:**

Turn the thermostatic valve to set the temperature.

**Image 4:**

If the desired filling height is reached, close the tub filling valve.

**Image 5:**

To use the hand shower, you must open the hand shower valve.

**CAUTION!**

Check the water temperature by hand (without wearing gloves) or with a thermometer to avoid scalding of the patient.

**Note!**

Make sure that the bath tub does not overflow.
Close the valve or open the drain!


**Image 6:**

When the bathing process is finished, turn the eccentric fitting clockwise to let the water flow away.

**Note!**

Drain the water prior to tilting the bath tub.
Otherwise, the water would flow out of the tub!

## 8.4 Stepping out of the bath tub

After the water has flown out of the bath tub, press the button  on the handset to tilt the bath tub back to seated position.

When the bath tub is in seated position, you can help the patient/resident step out of the bath tub or he/she can step out of the bath tub autonomously.

**Note!**

Please make sure that the bath tub is always disinfected and rinsed prior to use it for the next patient.

To this effect, use for instance the hygienic wall shower panel D from BEKA Hospitec (article number: 930505050).

**Caution!**

Make sure that the system is not in operation during the cleaning activities!

**Warning!**

After each treatment, the KINET must be completely disinfected with a disinfectant to avoid cross-contamination.

## 8.5 Operation of the air spa system (option)


| | |
|---|---|
| 1 | Button ON/OFF |
| 2 | Button blower + |
| 3 | Button blower - |
| 4 | Auto INTERVAL |

**Button ON/OFF (1):**

Press **button 1** to switch the system ON or OFF. The blower starts running with soft-start until medium power.

**Button plus (2):**

If you keep **button 2** pressed, the power is increased until the massage effect meets your requirements either until maximum power is reached.

**Button minus (3):**

If you keep **button 3** pressed, the power is decreased until the massage effect meets your requirements either until minimum power is reached.

**Interval button (4):**

The blower power alternates periodically between the set upper and lower limit. After activation, this period will be 20 seconds. If you press button 2, the period is set to min. 10 seconds. If you press button 3, to max. 40 seconds.

**Automatic blow-dry:**

25 minutes after the system has been switched off, the system is automatically enabled with soft-start for a duration of 30 minutes.

**Automatic switch-off:**

30 minutes after the last button has been pressed, the system is switched off. In this way, it is ensured that the device does not remain unintended operational for a longer period of time. The automatic blow-dry can be switched off by manually pressing a button.

**Safety shut-down:**

If a button is pressed for more than 20 seconds (e.g. an object is lying on the keypad), the system is automatically shut off. After removal of the object, the operation of the unit can be restored by pressing the corresponding button.

**Automatic speed control**

If the nozzles are blocked (due to soiling), the air flow is automatically reduced.

# 9 Cleaning/Disinfection

| | |
|---|---|
| **CAUTION**  | Make sure that the system is not in operation during the cleaning activities. |

| | |
|---|---|
| **CAUTION**  | After each use, the bath tub must be completely disinfected with a disinfectant. In this way, any cross-contamination is avoided. Strictly respect and observe the manufacturer's instructions for the used disinfectant. |

## 9.1 Cleaning the tilting bath tub

Clean the KINET tilting bath tub with a soft, lint-free cloth, moistened with soapy water or a standard plastic cleaner. Please do not use abrasives to clean the bath tub!

To avoid damages, **no** aerosol cleaners, sprays, abrasive cleaners or solvents must be used to clean the keypad.
Please remember that all warranty claims regarding surface damage will not be accepted, if aggressive cleaning agents are anyhow used.

## 9.2 Disinfecting the tilting bath tub

You must carefully disinfect and rinse your bath tub after each use to avoid the risk of transmission and infection. For the manual disinfection of the surface, an isopropyl alcohol solution or a customary disinfection aerosol (spray) can be used. The tub body of the KINET tilting bath tub is in glass-fibre reinforced plastic and can be disinfected with a surface disinfectant (not aggressive).

## 9.3 Sterilising the tilting bath tub

The KINET tilting bath tub is **not** suitable for sterilization.

# 10 Checks/tests

In order to ensure a safe use of our KINET tilting bath tub and the protection of the users and the patients, BEKA Hospitec prescribes an annual safety check.
The execution of the safety checks and maintenance must be documented and proven on request. Please use your inventory register to this effect. (13.8)
We recommend a simultaneous maintenance of the device in order to conserve its full value.

The checks may only be conducted by adequately trained and qualified experts. The non-observance of this prescription could lead to injuries and jeopardise the safety of the product.

| | |
|---|---|
| **NOTE**  | In accordance with the UVV (accident prevention) regulations of the German employer's liability insurance association on stationary equipment which is used in special locations or installations, an annual check to the DGUV (German Statutory Accident Insurance Association) Prescription 3 (BGV A3) must be carried out on the KINET tilting bath tub. |

This check is only prescribed for Germany. In other countries, other requirements might be applicable.

| | |
|---|---|
| **WARNING**  | Do not conduct any cleaning, maintenance or test activities when the bath tub is in use. This could cause danger to the user and the patient. |

| Measures to be applied | Prior to each use/daily | Weekly | Monthly | Yearly |
|---|---|---|---|---|
| Clean and disinfect the tilting bath tub. | X | | | |
| Perform a functional check of the tilting bath tub. | | X | | |
| Conduct a visual inspection of all components, power cables, hoses and the connections. | | X | | |
| Check the water inlet and clean if necessary. | | | X | |
| We recommend a regular maintenance, safety check and a check to DGUV prescription 3. | | | | X |

# 11 Waste disposal

## 11.1 Disposal of the packaging material

Please recycle the packaging materials of the product in accordance with the locally applicable regulations and laws. The metal parts as well as the plastic and electronic components must be recycled in accordance with the WEEE.

## 11.2 Disposal of the product

The expected service life of the tilting bath tub is approx. 8 years. At the end of the product's lifetime, contact your BEKA dealer, who will recycle the product in accordance with the locally applicable regulations and laws.
For an environmentally-sound disposal, the company BEKA Hospitec GmbH will provide more information in its capacity of manufacturer.
*Please clean and disinfect the product prior to its disposal as well.*

# 12 Troubleshooting/After-sales service

| Problems with the bath tub | Remedy |
|---|---|
| The height adjustment of the tilting bath tub is not working. | a) Check if the mains voltage is present.<br>b) Check if the handset is damaged.<br>c) Check if the cables are damaged |
| The drive is switched off during the reclining procedure. | The maximum load is exceeded **(max. patient weight).** |
| Mains voltage fails. | a) Check the fuse.<br>b) Check if the cables are damaged |
| The water does not flow. | a) Check the presence of hydraulic pressure at the shut-off valves of the cold and hot water.<br>b) Check the filter in the water inlet.<br>c) Check the water connection on site. |
| Only hot or cold water flows out of the tub inlet. | a) Check if the hot and cold-water connection are reversed (locally, tub).<br>b) Check if the filter and/or the inlet and outlet taps are clocked. |
| The water flow rate is too low. | a) Check if the filter and/or the inlet and outlet taps are clocked.<br>b) Check that the flow rate is sufficient for the supply conditions.<br>c) Check if the connecting hoses are buckled. |
| Water leak at the tub inlet. | a) Check if the seals are damaged, replace seals if necessary.<br>b) Check the valves for dirt and damages. |
| The filling speed is too high. | When the hydraulic pressure is too high, a pressure reducer must be installed on site. |
| The water flows away during the bathing process. | Check the seal for dirt and damages. |
| The bathing water does not flow away. | c) Check the seal for dirt and damages.<br>d) Check if the drain hose is buckled. |
| The air spa system is not working. | a) Check if the mains voltage is present. |
| The air spa system fails during operation. | a) The air spa system has been used for over 20 minutes. **Let the air spa system cool down**.<br>b) Overheating due to too high an ambient temperature. **Let the air spa system cool down**.<br>c) Check if an air nozzle is blocked by a one-way valve.<br>d) Check if possibly a hose of the air nozzles is buckled. |

| | |
|---|---|
| The tilting bath tub produces unusual noises. | Inform the after-sales service. |
| The tilting bath tub shows signs of damage. | Inform the after-sales service. |

When your lifting bath tub does not function properly and you cannot eliminate the error by means of the remedies listed in paragraph 12 please contact the after-sales services of your dealer either the manufacturer.

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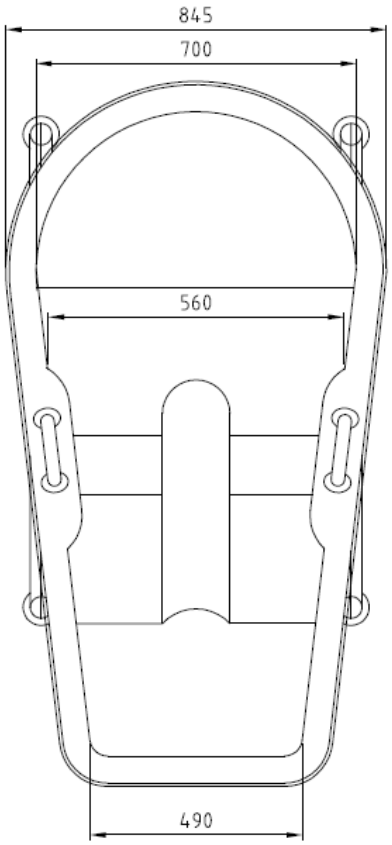
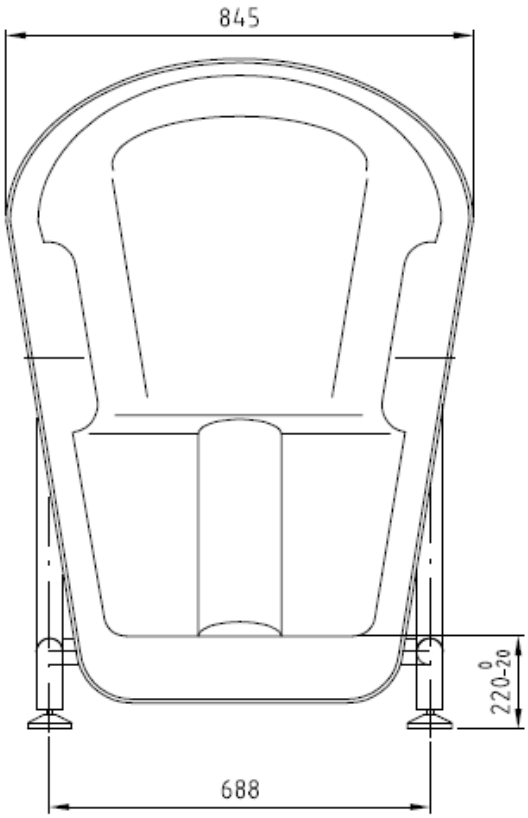
# 13 Appendix

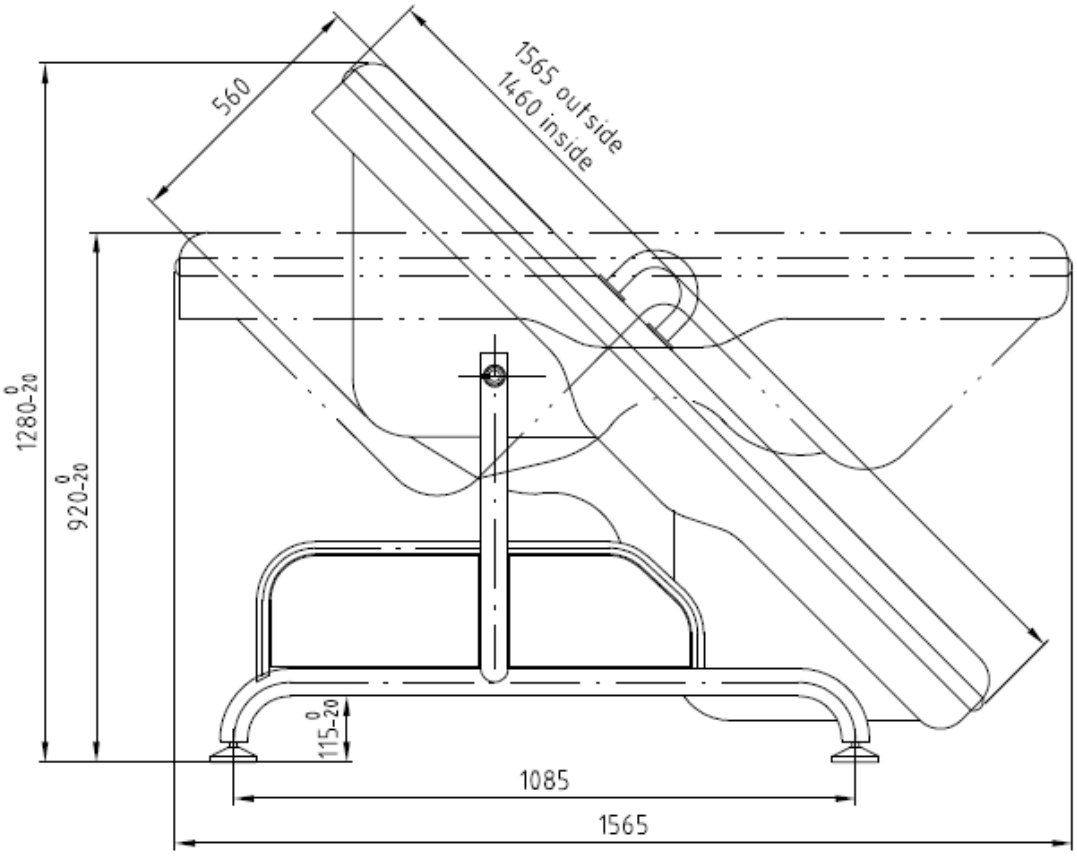
## 13.1 Technical data

| | |
|---|---|
| **Dimensions and weights** | |
| - Length reclined position: | 156.5 cm |
| - Width: | 84.5 cm |
| - Height reclined position: | 92.0 cm |
| - Max. stroke height: | 20.0 cm |
| - Height entry position: | 22.0 cm/128.0 cm (front/back) |
| - Entry height: | 22.0 cm |
| - Angle of inclination: | 45° |
| - Weight without packaging: | approx. 90 kg |
| - Filling capacity (without patient): | max. 178 l |
| - Filling capacity (with patient): | approx. 80 l - 120 l |
| - Patient's weight: | **max. 210 kg** |
| - SWL (safe workload): | **max. 325 kg** (patient and water) |
| **Electrical data** | |
| - Supply voltage: | 230V, 50 Hz **or** 120 V, 60 Hz |
| - Power: | 1440 VA |
| - Protection class: | II |
| - Applied part: | Type B |
| **Ambient conditions** | |
| **Operation** | |
| - Temperature range: | 10° C to 40° C |
| - Relative humidity: | 30% to 95%, non-condensing |
| - Atmospheric pressure: | 800 – 1060 hPa |
| **Storage and transport** | |
| - Temperature range: | -20° C to 70° C |
| - Relative humidity: | 10% to 80%, non-condensing |
| - Atmospheric pressure: | 500 – 1100 hPA |

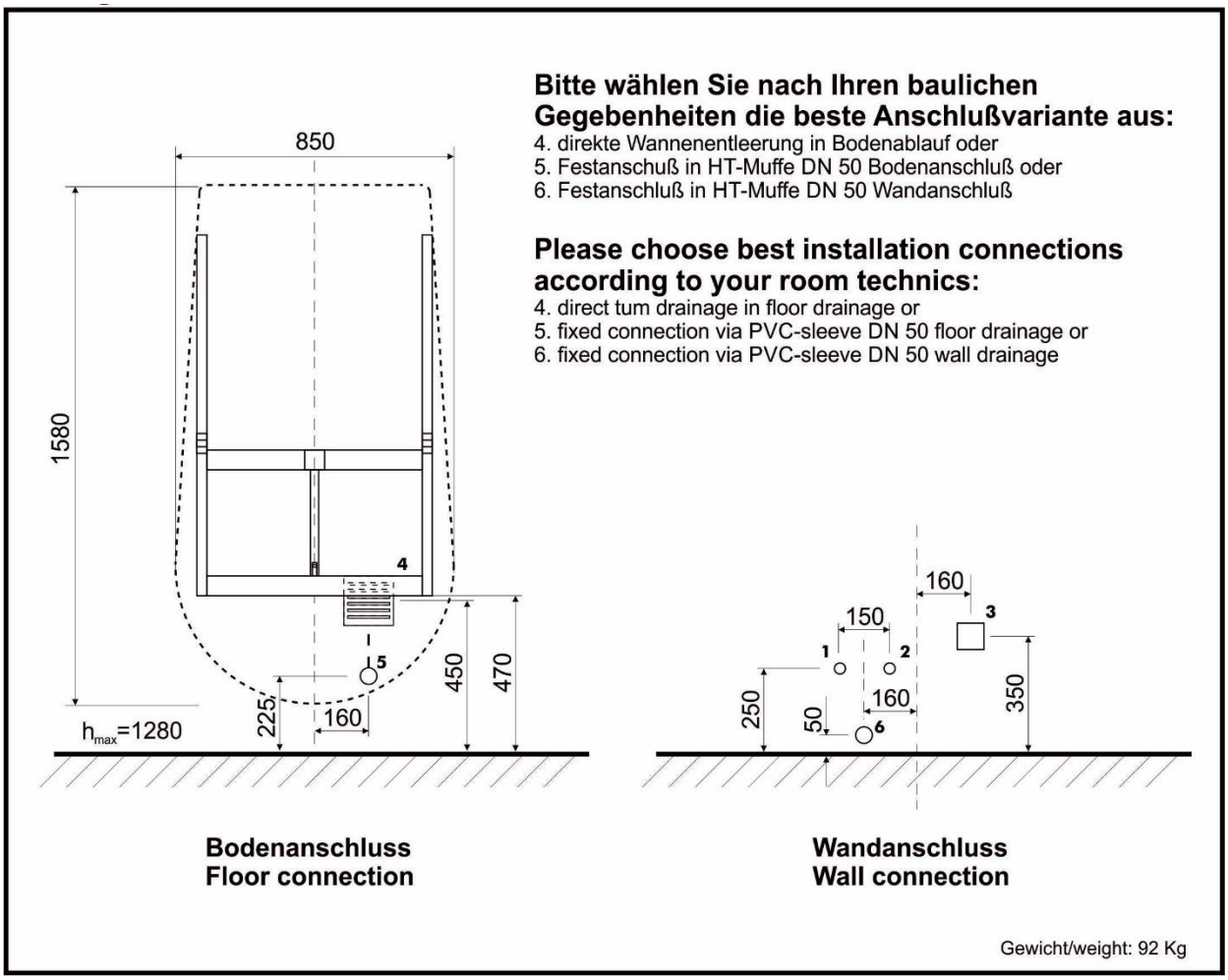
# 13.2 Dimensions of the KINET tilting bath tub



# 13.3 Wiring diagram




| ➔ **Bauseitige Anschlüsse – Sanitär – Elektro** | ➔ **Pre-installed connections – Sanitary - Electric** |
|---|---|
| 1. Warmwasseranschluss ½ Zoll, Innengewinde plattenbündig. | 1. Warm water connection ½“, Inside thread, tile-even |
| 2. Kaltwasseranschluss ½ Zoll, Innengewinde plattenbündig. | 2. Cold water connection ½“, Inside thread, tile-even |
| 3. Bodenablauf mit Geruchsverschluss DN 70, 40mm vertieft eingebaut/Leistung 3,5 l/sec). | 3. Electric connection 230V/50 Hz, 3 x 1,5 mm², 16 Ampere. |
| 5. HT-Muffe DN 50, bodenbündig. | 4. Floor drainage with smell-stop DN 70, 40mm lower built-in |
| 6. HT-Muffe DN 50, wandbündig. | 5. PVC-Sleeve DN 50, floor-even |
| **Bauseitige Schutzmaßnahmen** | 6. PVC-Sleeve DN 50, wall-even |
| Vorabsperrung Kalt- und Warmwasser, Allpoliger Ausschalter innerhalb des Raumes, Fi-Schutzschalter – Nenn-Fehlerstrom max. 30mA, Elektroinstallation nach den zur Zeit gültigen DIN/VDE Normen | **Pre-installed safety measures** |
| | Stop cocks in the hot and cold water supply pipes. |
| | Electric connections must be done according to the rules and regulations for electric systems in wet-rooms for each country. |

# 13.4 Accessories

| Article n°: | Description |
|---|---|
| 910150820 | Light pulse operating buttons |
| 910150830 | Air spa bubble bath |
| K0000150 | Hand switch |

## 13.4.1 Spare parts/consumables

Spare parts or consumables are available upon request from your BEKA Hospitec dealer or directly from the manufacturer.

**Please note:**

You cannot exchange and replace all spare parts by yourself.

The assembly requires the knowhow of a qualified electrician/sanitary specialist.

# 13.5 Declaration of Conformity

## EG–Konformitätserklärung / *EC-Declaration of Conformity*

Der Hersteller / *The manufacturer*

**BEKA Hospitec GmbH**
**Am Rübenmorgen 3**
**D-35582 Wetzlar-Dutenhofen**

erklärt in alleiniger Verantwortung gemäß EG-Richtlinie für Medizinprodukte 93/42/EWG Annex VII, dass die folgenden Produkte
*declares under sole responsibility according to the EU Medical Device Directive 93/42/EEC, Annex VII that the following products*

| | | |
|---|---|---|
| INVITA /KINET | Artikel Nr.<br>P/N. | 910150700, 910150800 |

den grundlegenden Anforderungen entsprechen und die Voraussetzungen für die CE-Kennzeichnung erfüllen.
*comply with the essential requirements and fulfill the provisions of CE marking.*

Die Bauart der Produkte entspricht Klasse I des Medizinproduktegesetz (MPG), Regel 12.
*The products correspond with Class I Medical Device Directive (MDD), Rule 12.*

Zur Beurteilung wurden folgende Normen / Richtlinien herangezogen:
*The following standards / directives apply:*

| | | |
|---|---|---|
| **EG-Richtlinie 93/42/EWG/<br>Directive 93/42/EEC** | | **DIN EN ISO 14971:2013** |
| **DIN EN 60601-1:2007** | | **DIN EN 60601-1-2:2007** |
| **DIN EN 12182:2012** | | |

Diese Erklärung trifft auf alle Produkte zu, die nach Ausstellung dieser Erklärung produziert wurden, bis sie durch eine andere Erklärung ersetzt wird.
*This declaration applies to all CE marked devices manufactured from the date of its issuance on until it is either superseded by another declaration or withdrawn.*

**Technische Änderungen vorbehalten / *Technical changes reserved.***

Wetzlar, den 21.04.2017

Robert Deschler
Geschäftsführer

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James Stuart-Smith
Robert Deschler

Commerzbank AG Wetzlar
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BLZ: 515 400 37
IBAN: DE60515400370482176500
SWIFT-BIC: COBADEFF515

# 13.6 Mounting instructions

## 13.6.1 Replacing the hand shower hose

**Image 1:**
The image shows the hand shower hose with the hand shower.

**Image 2:**
Unscrew the connection at the hand shower.

**Image 3:**
Unscrew the connection at the bath tub.

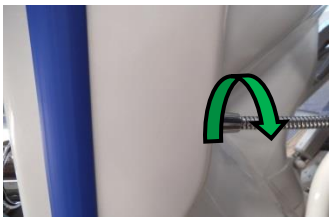

**Image 4:**
The image shows the removed hand shower hose.

**Re-assemble in reversed order!**

## 13.6.2 Replacing the hand shower support

**Image 1:**
<u>Required tools:</u>
1 Allen wrench
2.5 mm

**Image 2:**
The image shows the hand shower support with threaded pin.

**Image 3:**
Loosen the threaded pin from the hand shower support and remove the support.

**Image 4:**
The image shows the removed hand shower support.

**Re-assemble in reversed order!**

## 13.6.3 Checking and removing the drain plug

**Image 1:**
The image shows the eccentric fitting.

**Image 2:**
Turn the rotary know in the “open” position to remove the eccentric fitting.

**Image 3:**
Pull the waste plug upwards to remove!

**Image 4:**
The image shows the removed waste plug.

**Re-assemble in reversed order!**

## 13.6.4 Changing the handset

**Image 1:**
<u>Required material:</u>
1 handset with double air hose

**Image 2:**
Remove the handset from the bath tub rim.

**Image 3:**
Pull the double air hose out of the handset.

**Image 4:**
The image shows the removed double air hose.

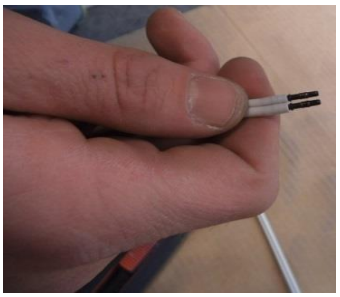

**Image 5:**
Insert the double air hose in the new handset.

Check the proper function of the buttons. If the functions are reversed, pull the double air hose out of the handset, turn the cable 180° and re-insert.

## 13.7 Electromagnetic Compatibility

Electrical medical equipment is subject to special precautionary measures with regard to EMC and must be installed and operated in accordance with the EMC instructions included in the accompanying documents.

For the devices and systems from BEKA Hospitec GmbH, no special measures must be observed.

Portable and mobile HF-communications equipment can interfere with electrical medical equipment.

<table>
<tr><th colspan="3">Guidance and manufacturer’s declaration - electromagnetic immunity (Table 201)</th></tr>
<tr><td colspan="3">The KINET been designed for use in the hereafter listed ELECTROMAGNETIC ENVIRONMENTS. The customer or the user of the KINET must ensure that the appliance is used in such environment.</td></tr>
<tr><th>Emission measurements</th><th>Compliance</th><th>Electromagnetic environment - guidelines</th></tr>
<tr><td>High-frequency (HF) emissions to CISPR 11</td><td>Group 1</td><td>The KINET uses HF radiation exclusively for internal functions. Therefore, the HF radiation of the device is very low and any interference with adjacent electrical equipment is unlikely.</td></tr>
<tr><td>High-frequency (HF) emissions to CISPR 11</td><td>Class B</td><td rowspan="3">The KINET is intended for use in any type of facility including living quarters and those that are directly connected to a public mains network that supplies residential buildings and buildings used for domestic purposes.</td></tr>
<tr><td>Harmonics to IEC 61000-3-2</td><td>Class A</td></tr>
<tr><td>Voltage fluctuations/flicker to IEC 61000-3-3</td><td>Compliant</td></tr>
</table>

| **Guidance and manufacturer's declaration - electromagnetic immunity (Table 202)** | | | |
|---|---|---|---|
| The KINET been designed for use in the hereafter listed ELECTROMAGNETIC ENVIRONMENTS. The customer or the user of the KINET must ensure that the appliance is used in such environment. | | | |
| **Immunity testing** | **IEC 60601- Test level** | **Compliance level** | **Electromagnetic environment guidance** |
| Discharging of static electricity (ESD) to IEC 61000-4-2 | ± 6kV contact discharge<br>± 8kV air discharge | ± 6kV contact discharge<br>± 8kV air discharge | The floor must be in wood, concrete or ceramic tiles. In case of floors in synthetic material, the relevant air humidity must be at least 30%. |
| Rapid transient interference pulses/burst<br>IEC 61000-4-4 | ± 2 kV for power supply cables<br><br>± 1 kV for input/output cables | ± 2 kV for power supply cables<br><br>not applicable to input/ output cables | The quality of the supply voltage should match that of a typical business or hospital environment. |
| Overvoltage<br>IEC 61000-4-5 | ±/1 kV cable against cable<br><br>±/2 kV cable against ground connection | ±/1 kV cable against cable<br><br>±/2 kV cable against ground connection | The quality of the supply voltage should match that of a typical business or hospital environment. |
| Voltage drops, short interruptions and voltage fluctuations in the power supply input cables<br>IEC 61000-4-11 | <5 % $U_T$<br>(>95 % drop of $U_T$)<br>for 0.5 period<br><br><40 % $U_T$<br>(>60 % drop of $U_T$)<br>for 5 periods<br><br><70 % $U_T$<br>(>30 % drop of $U_T$)<br>for 25 periods<br><br><5 % $U_T$<br>(>95 % drop of $U_T$)<br>for 5 s | <5 % $U_T$<br>(>95 % drop of $U_T$)<br>for 0.5 period<br><br><40 % $U_T$<br>(>60 % drop of $U_T$)<br>for 5 periods<br><br><70 % $U_T$<br>(>30 % drop of $U_T$)<br>for 25 periods<br><br><5 % $U_T$<br>(>95 % drop of $U_T$)<br>for 5s | The quality of the supply voltage should match that of a typical business or hospital environment. |
| Current frequency (50/60 Hz)<br>Magnetic field<br>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 business or hospital environment. |
| **CAUTION $U_T$ is the mains AC voltage before the application of the test level.** | | | |

**Guidance and manufacturer's declaration - electromagnetic immunity (Table 204)**

The KINET been designed for use in the hereafter listed electromagnetic environments. The customer or the user of the KINET must ensure that the appliance is used in such environment.

| **Immunity testing** | **IEC 60601-Test level** | **Compliance level** | **Electromagnetic environment guidance** |
|---|---|---|---|
| Conducted HF<br>IEC 61000-4-6 | 3 Vrms<br>150 kHz up to 80 MHz | 10 Vrms | Portable and mobile HF communications equipment should be used no closer to any part of the KINET including cables, than the recommended separation distance calculated in accordance with the equation applicable to the frequency of the transmitter.<br><br>**Recommended separation distance**<br>$d=0.35\sqrt{P}$ |
| Radiation HF<br>IEC 61000-4-3 | 3 V/m<br>80 MHz up to 2.5 GHz | 3 V/m | $d=1.2\sqrt{P}$ 80 MHz up to 800 MHz<br><br>$d=2.3\sqrt{P}$ 800 MHz up to 2.5 GHz<br><br>With *P* as the rated output of the transmitter in Watt (W) in accordance with the manufacturer's specifications and *d* as the recommended separation distance in meter (m).<br><br>The field strength of fixed HF-transmitters as determined by an electromagnetic field survey, [a] – should be less than the COMPLIANCE LEVEL in each frequency range. [b]<br><br>In the vicinity of equipment marked with the following symbol, interference may occur:<br><br>  |

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

**NOTE 2:** This manual could possibly not apply to all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

[a] The field strength of fixed RF transmitters, such as base stations of mobile phones and land mobile radios, amateur radio stations, AM and FM radios as well as radio and television broadcast media cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey is recommended. If the field strength measured in the environment where the KINET is to be used, exceeds the applicable HF compliance level, special care should be taken that a normal operation of the KINET can be guaranteed. In case anomalies are identified, additional measures could be required, such as a different alignment or a change of the location of the KINET.

[b] In the frequency range from 150 kHz to 80 MHz, the field strength must be less than 10 V/m.

**Recommended distance between portable and mobile communications equipment and the KINET (Table 206)**

The KINET is intended for use in an electromagnetic environment with controlled HF interferences. The customer or the user of the KINET can avoid electromagnetic interference by respecting and observing the minimum distance between portable and mobile HF telecommunication devices (transmitters) and the KINET depending on the rated output of the communication device as given below.

| **Rated output of the transmitter** W | **Separation distance depending on the transmitting frequency** in m | | |
|---|---|---|---|
| | **150 kHz to 800 MHz** d=0.35√P | **80 MHz to 800 MHz** d=1.2√P | **800 MHz to 2.5 GHz** d=2.3√P |
| 0.01 | 0.04 | 0.12 | 0.23 |
| 0.1 | 0.11 | 0.38 | 0.73 |
| 1 | 0.35 | 1.2 | 2.3 |
| 10 | 1.1 | 3.8 | 7.3 |
| 100 | 3.5 | 12 | 23 |

For transmitters rated at a maximum output power not listed above, the recommended separation distance *d* in meters (m) can be determined using the equation applicable to the frequency of the transmitter, where *P* is the maximum output power rating of the transmitter in watts (W) according to the specifications given by the transmitter manufacturer.

**NOTE 1:** At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

**NOTE 2:** These guidelines could not apply to all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

## 13.8 Journal

According to the Medical Device Directive, you are compelled to keep a journal for this device. You can use this journal as template.

***Journal***

Device: KINET

Manufacturer: BEKA Hospitec GmbH, Am Rübenmorgen 3, 35582 Wetzlar

Serial number: _____

Date of purchase: _____

Site: _____

Checks and inspection conducted upon the first use:

_____

Date: _____

***Evidence of the training session on the functions and the use of the product***

| **Instructor** | | **Trained person** | |
|---|---|---|---|
| Name | Date | Name | Signature |
| | | | |
| | | | |
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Periodic inspection, repair, DGUV-3, safety check, etc.

| Type of inspection | Date | Result | Measure | Signature: |
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Your notes:


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