# mindray

# HyBase 8300/8500

Operating Table







P/N:ENG-HyBase 8300/8500-210285X18P-20220128

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Engineered for increasingly complex surgical scenes, HyBase 8300/8500 comes with maximum overall load up to 460 kg guaranteeing highest safety and stability in any position. With longitudinal slide up to 480 mm, it is ideally suitable for cardiovascular surgery with C-arm. The modular design tabletop enables it to be tailored for various surgical discipline needs.

- Longitudinal slide up to 480 mm for free access to C-arm
- All positions are permitted up to overall load of 250 kg for the complex demands of bariatric surgery
- Extreme weight load capacity of 460 kg with highest safety and stability
- Modular design tabletop tailored for various surgical discipline needs
- Intelligent anti-collision system to avoid table components collision during movement
- Multi-layer decompression pad with waterproof and seamless design
- 575 mm lowest table position for Neurosurgery
- IR wireless remote control system for free movements in OR

Electro-Hydraulic Operating Table



# Ergonomic and humanization design • Soft material coating for comfortable holding

- Press any key to start and auto-power offBacklight for operating in a dark environment
- Flex, reflex, beach chair, and "0" position with one button for each position

02

03

## Better visualization - 2.4" color LCD

The useful information will be shown on the display, such as movements, battery, brake, anti-collision informa-

10 memory table positions
The table can memorize 10 positions, so the user can select the memorized positions for the specific surgery freely without complex adjustment.

# Intuitively UI design

The hand control button for table component movement is positioned in the corresponding patient figure chart, which enables the user to find the button fast and precisely.

Wireless charging function

Without any charging interface, the hand control is easy to clean, matching the hygiene OR standard.

04

05

06

## IR wireless remote control system

With wireless hand control, the user can control the table in any place of

# Electro-Hydraulic Operating Table



table components collision.

castors for stable brake

# **Extreme Weight Capacity**

HyBase 8300/8500 offers the highest level of safety and stability. With an overall load of 460kg, the table is designed to accommodate the highest safety and stability. All positions are permitted up to an overall load of 250kg, idealy suitable for bariatric patients.



# Large Longitudinal Slide

With longitudinal slide up to 480 mm, HyBase 8300/8500 enables optimum access with the C-arm without reposition the patient for imaging purpose, ideally suitable for such as cardiovascular surgery. By the way, the carbon-fibre table top (optional) provides excellent imaging quality.



# Multi-layer Decompression Pad

With the Special Foam Core pad and multi-layer design, HyBase 8300/8500 provides excellent pressure distribution, significantly avoids the main cause of decubitus, reduces the rate of postoperative health risk, and speeds up the patient recovery. Meanwhile, the pad is waterproof and easy to clean as ultrasonically-welded technology and GORE-TEX







# Lowest Table Height

With lowest height up to 575mm for neurosurgery, the doctor can sit and do the surgery with comfort.





Electro-Hydraulic Operating Table

# Modular Design

Modular design table top is tailored for various surgical discipline needs, which also can low down the cost of the hospital as they only need to buy the specific module for more surgeries not one more table. With Module Recognition System, the table can recognize the module type and match movement data automatically.



Extension plate









Cardiovascular Surgery



Orthopedic Surgery



Carbon fiber orthopedics extension for 360° access to C-arm



Carbon fiber extension plate for 360° access to C-arm, spinal surgery

# Neurosurgery



Lowest table height with Skull Clamp (DORO ) for Neurosurgery



Beach chair position for Neurosurgery

Electro-Hydraulic Operating Table

# Flexible Patient Positioning

General Surgery



# Struma Surgery



# Gynecology and Urology Surgery



Reverse mode, after sliding to head end



Reverse mode, with extension plate



Reverse mode, ergonomic positioning with stirrups



ENT Surgery



Lowest table height for ENT surgery

# Kidney Surgery



Lateral position with dual-head plate

# Endoscopic Surgery



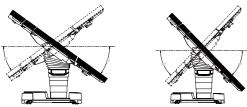
More access to patient with dual-joint leg plate

# Technical Specifications

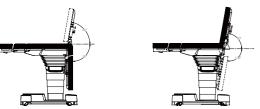
| Length (Main unit)      | 970mm   |
|-------------------------|---|
| Height without padding  | HyBase 8300: 575-1,075mm/HyBase 8500: 700-1,200mm |
| Width without side rail | 520mm   |
| Width with side rail    | 590mm   |



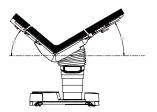
| Tendelenburg position |                                |                |
|-----------------------|--------------------------------|----------------|
| Tendelenburg          | HyBase 8300: Max. 36° / HyBase | 8500: Max. 46° |
| Reverse trendelenburg | HyBase 8300: Max. 36° / HyBase | 8500: Max. 46° |
|                       | ^                              |                |
|                       | / h                            | /A             |



| Leg plates                        |           |
|-----------------------------------|-----------|
| Leg plates up                     | Max. 80°  |
| Leg plates down (Without sliding) | Max. 90°  |
| Leg plates down (With sliding)    | Max. 100° |



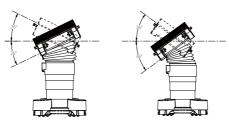
| Reflex Position   |      |
|-------------------|------|
| Reflex Position   | 110° |
| Trendelenburg     | 30°  |
| Mounting point up | 40°  |



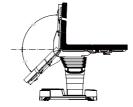
| ı | Longitudinal slide (optional) |            |
|---|-------------------------------|------------|
|   | Longitudinal slide            | Max. 480mm |



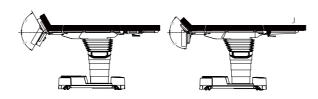
| Lateral tilt |   |
|--------------|---|
| Left tilt    | HyBase 8300: Max. 26° / HyBase 8500: Max. 36° |
| Right tilt   | HyBase 8300: Max. 26° / HyBase 8500: Max. 36° |
|              |   |
|              |   |



| Back plate up   | Max. 90 |
|-----------------|---------|
| Back plate down | Max. 45 |



| Head plate      |   |
|-----------------|---|
| Head plate up   | Dual-joint: Max. 60°/Single-joint: Max. 45  |
| Head plate down | Dual-joint: Max. 60°/Single-joint: Max. 90° |

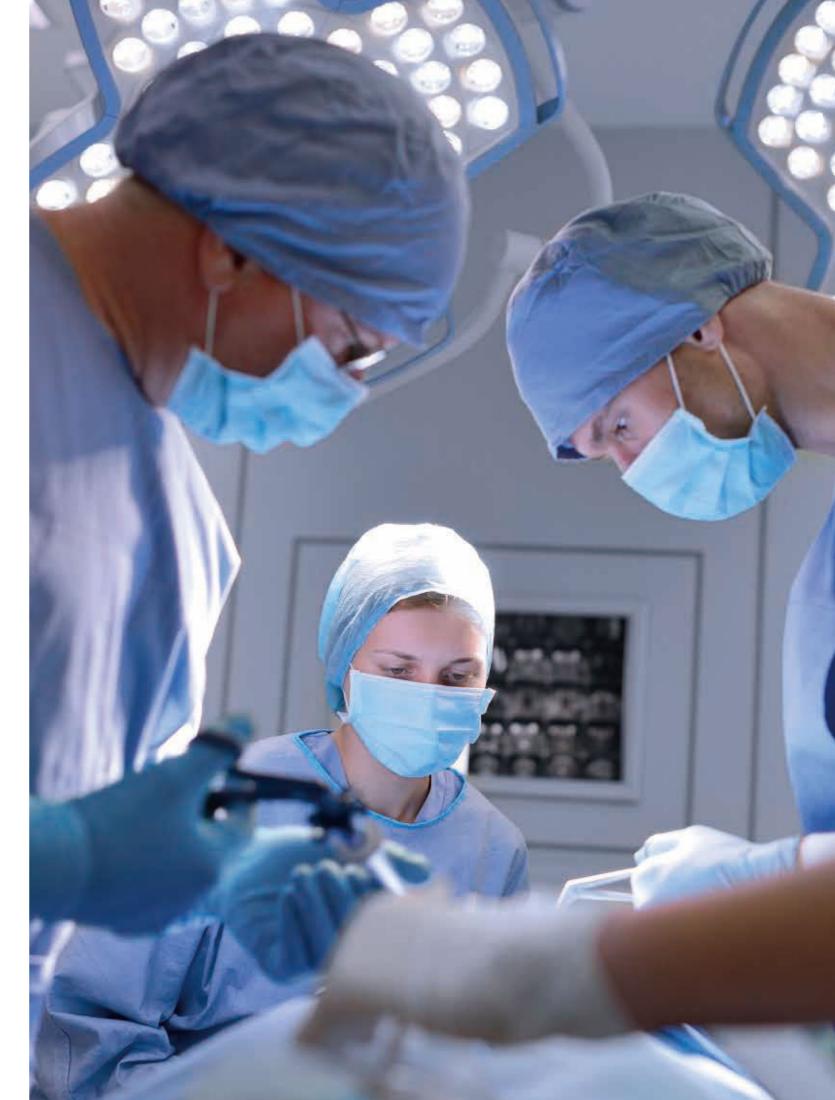


| Flex Position         |      |
|-----------------------|------|
| Flex Position         | 220° |
| Reverse Trendelenburg | 20°  |
| Mounting point down   | 20°  |



| Beach-chair position |     |
|----------------------|-----|
| Back plate up        | 80° |
| Trendelenburg        | 25° |
| Leg plates down      | 70° |





HyBase 8300/HyBase 8500 Operating Table

Operator's Manual

# Copyright



This product is provided with a CE marking in accordance with the regulations stated in Regulation(EU) 2017/745 concerning Medical Devices.

The device complies with the requirements of EN/IEC 60601-1-2 "Electromagnetic Compatibility – Medical Electrical Equipment".

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For this Operator's Manual, the issued date is 2021-03 (Version: 9.0).

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# 1 System Overview

## 1.1 Main Components

The main components of the operating table are shown in the figure below.

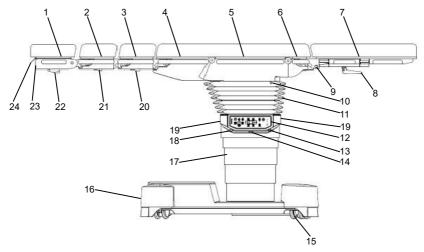


Figure 1-1 Main components

- 1 Dual-joint head plate (optional)
- 3 Extension plate (optional)
- 5 Seat plate
- 7 Dual-joint leg plate (optional)
- 9 Release button (leg plate)
- 11 Bellows
- 13 Connection for corded hand control
- 15 Castor
- 17 Column
- 19 Infrared receiver
- 21 Locking button (upper back plate)
- 23 Release bracket for dual-joint head plate

- 2 Upper back plate (optional)
- 4 Lower back plate
- 6 Short leg plate
- 8 Locking handle (leg plate left/right)
- 10 Potential equalization pin
- 12 Override panel
- 14 Connection for USB
- 16 Base
- 18 Connection for foot switch
- 20 Locking button (extension plate)
- 22 Locking button (dual-joint head plate)
- 24 Lug

## 1.2 Definitions

# 1.2.1 Graphical Symbols

You can see the following symbols on the operating table:

Table 1-1 Symbol definition

| Symbol  | Meaning   |  |
|---|---|--|
|   | Caution, consult accompanying documents.          |  |
| $\triangle$   | Caution   |  |
| IPX4/IPX8   | Protection against of water or particulate matter |  |
|   | Class II  |  |
| ★   | Type B applied part                               |  |
|   | No-sitting  |  |
|   | Protective earth (ground)                         |  |
| \display \d | Equipotentiality                                  |  |
| $\sim$  | Alternating current                               |  |
| ===   | Direct current                                    |  |
| SN  | Serial number                                     |  |

| Symbol              | Meaning  |  |
|---------------------|--|--|
|                     | Date of manufacture  |  |
|                     | Manufacturer   |  |
| EC REP              | Authorized representative in the European Community"   |  |
| <b>©</b> / <b>Ö</b> | Power on/off   |  |
| 1                   | Temperature limitation   |  |
| <u></u>             | Humidity limitation  |  |
| $ \mathcal{G} $     | Atmospheric pressure   |  |
| $((\bullet))$       | Non-ionizing electromagnetic radiation   |  |
|                     | WEEE symbol The following definition of the WEEE label applies to EU member states only: the use of this symbol indicates that this product should not be treated as household waste. By ensuring that this product is disposed of correctly, you will help prevent bringing potential negative consequences to the environment and human health. For more detailed information with regard to returning and recycling this product, please consult the distributor from whom you purchased the product. |  |
|                     | ESD warning  |  |
| (€                  | Labeling for Class I products. Developed and marketed in compliance with Regulation (EU) 2017/745.   |  |
| MD                  | Medical Device   |  |

## 1.2.2 Safety Notes

Table 1-2 Definition of safety notes

| Note             | Meaning  |  |
|------------------|--|--|
| <b>▲</b> WARNING | Read the statement below the symbol. The statement alerts you to an operating hazard that can cause personal injury. |  |
| <b>▲</b> CAUTION | Read the statement below the symbol. The statement alerts you to possible property damage.                           |  |
| NOTE             | Read the statement below the symbol. The statement alerts you to information that requires your attention.           |  |

## 1.2.3 Definition of Slope/Tilt/Longitudinal Shift

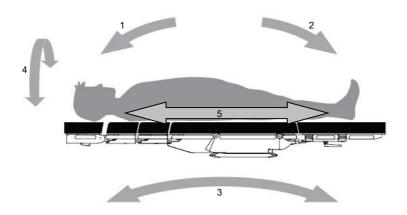


Figure 1-2 Definition of slope/tilt/longitudinal shift

- 1 Trendelenburg (head down)
- 3 Slope
- 5 Longitudinal shift (slide)

- 2 Reverse Trendelenburg (foot down)
- 4 Tilt

#### 1.2.4 Definition of Permissible Overall Load

The "permissible overall load" results from putting together patient weight and accessory weight. The "permissible overall load" is the load which can be placed on the table top.

Restrictions might result from the components or accessories for which other overall loads may be applicable, or from special patient positions.

#### 1.2.5 Definition of Central Position

A table top exceeding an overall load of 250kg may only be operated if the longitudinal shift of the operating table is in the central position. The operating table is in the central position, when the table top longitudinal shift stops and a sound signal (2 tones) is heard.

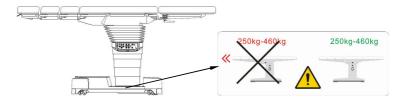


Figure 1-3 Central position label

### 1.2.6 Definition of 0 Position

- The 0 position: Tilt is cancelled. Seat plate, back plate and short leg plates are horizontal.
   The table top is in the central position.
- Press and hold LEVEL to obtain the 0-position. Once the table top reaches the 0 position, the table top stops and a sound signal (2 tones) is heard.

# 1.2.7 Definition of Standard Range and Extended Range of the Longitudinal Shift

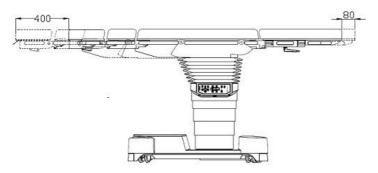


Figure 1-4 Longitudinal shift

The longitudinal shift (400mm) consists of a standard range of 230mm and an extended range of 170mm in the direction of the head.

#### 1.2.7.1 Standard Range

The longitudinal shift can be adjusted by pressing the following key(s) on one of the control units:

Override **Corded Hand Control IR Remote Control** Adjustments Panel with LCD with LCD Longitudinally shift the table top toward Press and hold Press and hold the head end Longitudinally SLIDE SLIDE the table top toward Press and hold the foot end

Table 1-3 Standard range

## NOTE

- Once the table top has reached the head end limit position of the standard range of longitudinal shift, the table top stops automatically and a sound signal (1 tone) is heard.
- If the operating table is set to the reverse position, all the function keys, except for the up/down key, will also change accordingly.

#### 1.2.7.2 Extended Range

Once the table top has reached the head end limit position of the standard range of longitudinal shift, the table top stops and a sound signal (1 tone) is heard. The table top can be moved further 170mm toward the head end by pressing the following keys on the control units:

Table 1-4 Extended Range

| Adjustments  | Override<br>Panel | Corded Hand Control with LCD | IR Remote Control with LCD |
|--|-------------------|------------------------------|----------------------------|
| Longitudinally shift<br>the table top toward<br>the head end | /                 | Press and hold LOCK  + SLIDE | Press and hold LOCK        |
| Longitudinally shift<br>the table top toward<br>the foot end | 1                 | Press and hold SLIDE         | Press and hold SLIDE       |

## **WARNING**

 Do not slope the table top (the Trendelenburg or reverse Trendelenburg position) more than 15° when sliding the table top more than 230mm (head end).

## NOTE

 If the operating table is set to the reverse position, all the function keys, except for the up/down key, will also change accordingly.

As the figure below shows, the slide protection icon will be displayed on the corded hand



control with LCD and/or the IR remote control with LCD, when the SLIDE key is pressed in the extended range.





Figure 1-5 Slide protection icon

# 1.2.8 Definition of Sound Signals

Table 1-5 Indicator definitions of sound signal

| Sound signal | State   | Samples   |
|--------------|---|---|
|              |   | 1. If the limit position has been reached during the table top movement.  |
|              | Indication tone (1 tone: approx. 1×1s)        | 2. If the LOCK or UNLOCK key is pressed and the operating has been locked or unlocked. 3. If the table top has reached the head end limit position of the standard range of longitudinal shift (230mm). 4. If the table top has reached the   |
|              | Confirmation tone (2 tones: approx. 2×0.5s)   | central position.  1. If the LEVEL key is pressed and the 0-position has been reached.  2. If the NORMAL or REVERSE key is pressed and the normal or reverse position has been reached.  3. If the flex position/re-flex position/beach chair position/memorized position has been reached during the table top movement. |
|              | Warning tone (3 short tones: approx. 3× 0.3s) | The operating table malfunctions.   |

## 1.3 Warning Label

#### 1.3.1 Central Position

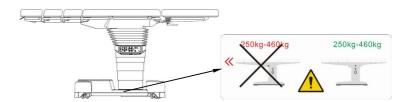


Figure 1-6 Central position label

- 1. The central position label is located at the base cover.
- The label means: a table top exceeding an overall load of 250kg may only be operated if the longitudinal shift of the operating table is in the central position.
- 3. The operating table is in the central position, when the table top longitudinal shift stops and a sound signal (2 tones) is heard.

### NOTE

 If the central position is reached with the longitudinal shift of the table top, adjustment is stopped and an alarm sounds. To continue sliding the table top, press the slide key again.

# 1.3.2 Height for Operating Table Locking Mechanism with an Overall Load of up to 135kg

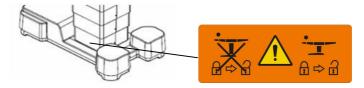


Figure 1-7 Height for operating table locking mechanism (135kg)

The label means: with an overall load of up to 135kg, the operating table locking mechanism may only be released if the operating table is set to a height of less than 940mm (lower edge of pad). If the label is covered by the column cover, the operating table height is lower than 940mm. If the label is visible, reduce the height.

#### 1.3.3 Protection Label



Figure 1-8 Protection label

- 1. The protection label is located at the base cover.
- The label means: Do not put any objects on the operating table base. Any objects left on the operating table base will damage the cover as it moves.

#### 1.4 Intended Use

#### 1.4.1 Intended Purpose

The operating table is intended to support and position patients immediately before, during and after surgical procedures, as well as for examination and treatment.

#### 1.4.2 Intended Users

The operating table may only be operated by medically trained staff.

#### 1.4.3 Intended Patient Population

The operating table is intended for patients who are in surgical, examination and treatment procedures.

#### 1.4.4 Intended Medical Conditions

The operating table is used in healthcare facility environment.

#### 1.4.5 Contra-indications

None.

#### 1.4.6 Side-effects

According to the conclusion of clinical evaluation and residual risk evaluation, for the intended patients, there are no known side effects that can occur during or after the use of the medical device. And there is no need for the operator to make extra preparations. Thus, no residual risk associated with using the medical device should be disclosed.

## **A** WARNING

- Contents of this manual are based on the full configuration of the operating table. Some of them can not apply to your operating table. Use your operating table according to the actual configuration. If you have any questions, contact the customer service department authorized by Nanjing Mindray or your local distributor.
- The operating table is to be operated by trained personnel only. Be sure to archive the training records.

## 1.5 Fundamental Safety Instructions

#### 1.5.1 Instructions against Personal Injury

### **A** WARNING

- The operating table is to be used for its intended purposes only. Do not use
  it for other purposes.
- The operating table is to be installed by personnel authorized by Nanjing Mindray only.
- The operating table is to be operated by trained personnel only. Be sure to archive the training records.
- Before using the operating table, be sure to read and fully understand this
  manual.
- Be sure to keep the manual at a place nearby the operating table.
- Do not put any objects on the operating table base. Any objects left on the operating table base will damage the cladding as it moves.
- Before unlocking the castors, grasp the operating table. Otherwise, it can move unexpectedly.
- Before locking the operating table, be sure to observe that there are neither the operator's feet nor any objects underneath the base. Otherwise, it can cause personal injury or property damage.
- Before lowering the table top, be sure to observe that there are neither the operator's feet nor any objects on the base cover (underneath the column).
   Otherwise, it may get pinched or crushed.
- The operating table can only be adjusted when it is locked. If not, only the Trendelenburg position / reverse Trendelenburg position can be used in emergencies.
- When moving the operating table, do not press the override panel keys, since this will cause several functions to be activated simultaneously and result in the risk of personal injury or property damage.
- Before positioning the patient, make sure the patient's body width is no greater than the width of the table top. Otherwise, the table width extender is recommended
- Be sure to secure the patient before moving/adjusting the operating table, when a patient lying on the operating table.
- Be sure to slide the table top to the central position before moving the operating table, when a patient lying on the operating table.
- The maximum load of this operating table is 460kg. However, in case of certain special conditions, the load capacity is further limited and see chapter A.3 for details. Be sure to take those conditions into consideration

when using the operating table. If you have any questions, contact the customer service department authorized by Nanjing Mindray or your local distributor.

- If accessories are used, make sure the weights of the accessories installed on the operating table and of the patient add up no more than the permissible overall load.
- To avoid infection, be sure to cover the table-top pad with a sterile surgical drape before transferring the patient.
- Do not use wet surgical drapes on the operating table.
- Transferring the patient inappropriately can tip over the operating table. Be sure to transfer the patient from either side of the operating table. Do not transfer the patient from either the head or the foot end.
- Before transferring the patient, make sure the operating table is placed on a level ground, the castors are properly locked and the table top is in the best balanced state (0 position: table top horizontal and slid to the central position). Do not transfer the patient otherwise.
- Placing the patient improperly can tip over the operating table. Be sure to
  place the patient in the right direction. Do not place the patient's trunk on
  the leg plates.
- When placing the patient, make sure the patient's center of gravity is as close to the column as possible. Otherwise, the operating table can tip over.
- Improper body positions can damage the patient, especially in case of excessive tilted or slopped position. When using this operating table, ensure proper body positions and regularly check the position during the whole surgery.
- To avoid damaging the patient's respiratory system, nervous system or circulating system, make sure the patient is properly positioned and keep a close eye on the patient during the whole surgery.
- When using the operating table, be sure to press the exact function key matching the patient's body position. Otherwise, the patient can be damaged.
- Before positioning the patient, make sure the castors are properly locked.
- The speed of table-top movement can change depending on the patient's weight. Closely watch the table top during adjustment.
- Do not slide the table top when sloping the table top (the Trendelenburg or reverse Trendelenburg position) more than 15°.
- Do not slope the table top (the Trendelenburg or reverse Trendelenburg position) more than 15° when sliding the table top more than 230mm (head end).
- If the table top is already sloped toward the foot end (Reverse Trendelenburg position), exercise caution when raising the back plate. The head plate can collide with the patient's head.
- In case of excessive tilted or sloped body positions, make sure the patient is well secured.

- Exercise caution when adjusting the table top or the accessories. Do not pinch anybody.
- When adjusting the table top or the accessories, carefully watch the
  positions of the patient, table top, accessories and other things inside the
  operating room. Be sure to keep those things from colliding with each other.
- Make sure the indoor environment complies with the installation requirements listed in this manual.
- Make sure the ground is level before installing the operating table.
- If the integrity of the external protective conductor in the installation or its arrangement is in doubt, run the operating table from its internal battery.
- When the operating table is not in use, make sure it is placed on a level ground, the castors are properly locked, the table top is in the 0 position and its height is lower than 940mm.
- The operating table can function safely and effectively only if it is maintained properly and regularly. Be sure to maintain the operating table as instructed in this manual.
- Do not maintain and service the operating table when the patient is lying on it
- Before maintaining or servicing the operating table, make sure it is disconnected from the mains supply.
- Complete electrical / safety inspections should be conducted every year by personnel authorized by Nanjing Mindray.
- This operating table is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or with nitrous oxide.
- Do not use the cleaning agents or disinfectants containing alcohol where such medical devices as electrosurgical units, defibrillators and defibrillator monitors may be used. Otherwise, it can cause fire and/or explosion hazards.
- When using such medical devices as electrosurgical units, defibrillators or defibrillator monitors, be sure to keep the patient from touching the metallic parts of the operating table or of the accessories. Moreover, make sure the patient is not lying on a wet surgical drape or a conductive pad. Otherwise, the patient can be burned.
- Do not use such devices as cell phones, radio equipment and MR equipment around the operating table.
- Any equipment connected to the operating table shall comply with the relevant EN/IEC standards (e.g., EN/IEC 60950 information technology equipment safety standard, EN/IEC 60601-1 medical equipment standard and its relevant particular standards, and the like). It is the responsibility of the people, who connect additional equipment to the operating table and configure the whole system, to verify that the system complies with the requirements of EN/IEC 60601-1 and EN/IEC 60601-1-2. If you have any questions regarding these requirements, consult the customer service department authorized by Nanjing Mindray or your local distributor.

- Be sure to only use accessories made by Nanjing Mindray on the operating table. Accessories produced by other manufacturers must not be used if they affect or modify the longitudinal geometry of the table top, unless their use is expressly permitted by Nanjing Mindray. Use only spare parts approved by Nanjing Mindray.
- Before using accessories, be sure to read the operator's manual thoroughly.
- Used operating tables, including their batteries and accessories, should be disposed of in compliance with local governmental or hospital regulations.
- Do not place anything under the table top. Otherwise, it may result personal injury or property damage.



#### 1.5.2 Instructions against Property Damage

### **A** CAUTION

- Do not modify the operating table or accessories without authorization of Nanjing Mindray.
- Make sure the operating table is serviced or maintained by the authorized personnel only. Otherwise, it may void the warranty.
- Before moving the operating table, make sure the path is clear. Do not damage the castors or other parts during the movement.
- When moving the operating table, be sure to use both hands to adjust/control the movement. Keep the operating table from colliding with other things.
- If the table top has descended to a low position, exercise caution when adjusting the operating table. Keep the table top from colliding with the base or the ground.
- If the head/leg plate has been positioned downward, exercise caution when adjusting the operating table. Keep the head/leg plate from colliding with the base or the ground.
- When sloping the table top or adjusting the leg plates, make sure they do not collide with the column or the base.
- When adjusting the operating table, make sure the suspended parts (such as arm boards, leg plates) do not collide with other things inside the operating room.
- When adjusting the operating table, make sure the cord of the corded hand control is not jammed by the joints.
- When adjusting the operating table, make sure the accessories or the surgical drapes are not jammed by the joints.
- Do not touch pins of the connectors identified with the ESD warning symbol.
   Connections should not be made to them unless ESD precautionary procedures are used.
- The battery has a leakage current that is present even if the operating table
  is switched off. This leakage current may exhaust the battery. Make sure the
  power switch (a green button on the base) is switched off if you are going to
  shut down the operating room for several days (e.g. for weekends or
  holidays).

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# **2** Daily Operations

## 2.1 Power Supply Systems

The operating table is configured with two independent power supply systems: AC power and internal battery.

### NOTE

 A battery assembly is provided so that the operating table can function normally in case the AC power supply is disconnected or not available. It is recommended that the operating table be run from its internal battery assembly.

### 2.1.1 AC Power

### **A** WARNING

- Damaged cables must be replaced immediately.
- To avoid risk of electric shock, the operating table must only be connected to the supply mains with protective earth.
- Before locking the operating table, be sure to observe that there is neither the power cord nor any objects underneath the base. Otherwise, it can cause personal injury or property damage.

## **A** CAUTION

Unplug the operating table before moving.

## NOTE

- The operating table is disconnected from the mains by means of the plug.
- Do not position the operating table so that it is difficult to operate the disconnection device (e.g. plug).

### 2.1.1.1 Connecting the Power Cord

- 1. Locate the power cord delivered with the operating table.
- 2. Lift the cover (1).
- 3. Plug the non-pronged end of the power cord into the power connector (2).
- 4. Plug the pronged end of the power cord into a power outlet.
- The AC indicator at the override panel is on and green when the operating table is connected to the mains supply. See chapter 2.3.2.2 for details.

## **▲** CAUTION

 When connecting and disconnecting the mains cable, observe the correct order of the procedure.

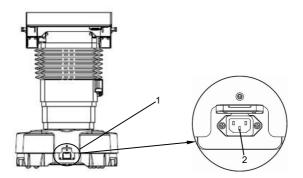


Figure 2-1 Power connector

1 Cover 2 Power connector

### 2.1.1.2 Detaching the Power Cord

- 1. Detach the plug from the socket at the power point.
- 2. Detach the plug at the operating table.

## 2.1.2 Battery

## NOTE

 A battery assembly is provided so that the operating table can function normally in case the AC power supply is disconnected or not available. It is recommended that the operating table be run from its internal battery assembly.

### 2.1.2.1 Charging the Battery

- 1. Locate the power cord delivered with the operating table.
- 2. Lift the cover (1).
- 3. Plug the non-pronged end of the power cord into the power connector (2).
- 4. Plug the pronged end of the power cord into a power outlet.
- The battery indicator at the override panel is blinking and green when the battery is being charged. See chapter 2.3.2.2 for details.

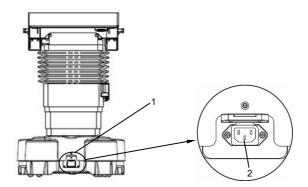


Figure 2-2 Power connector

1 Cover 2 Power connector

## 2.2 Potential Equalization

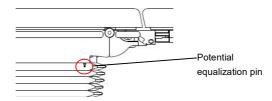


Figure 2-3 Potential equalization pin

## **▲** WARNING

 The purpose of the potential equalization pin is to eliminate the potential difference between electrical devices. Make sure it is connected to a potential equalization point within the operating room before using the operating table.

### 2.3 Control Units

### 2.3.1 General

You can use the following control units to adjust the operating table:

- Override panel (emergency use)
- Corded hand control with LCD (optional)
- IR remote control with LCD (optional)
- Foot switch (optional)

### NOTE

 If functions are triggered by multiple control devices, then all motions at the operating table will be stopped immediately and will resume only after none of the control units has been activated for at least 2 seconds.

### 2.3.2 Override Panel

## 2.3.2.1 Keys

You can use the override panel to:

- turn on the override panel
- lock / unlock the castors
- raise / lower the table top
- obtain the Trendelenburg / reverse Trendelenburg positions
- tilt the table top to left / right
- raise / lower the back plate
- raise / lower the leg plate (left / right leg plate)

## NOTE

The override panel is intended for emergency use only.

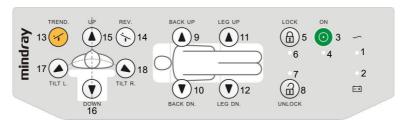


Figure 2-4 Override panel

- 1 AC indicator
- 3 Power on
- 5 Locking castors
- 7 Unlocking indicator
- 9 Back plate up
- 11 Leg plates up
- 13 Trendelenburg (head down)
- 15 Table-top up
- 17 Tilt to right

- 2 Battery indicator
- 4 Power indicator
- 6 Locking indicator
- 8 Unlocking castors
- 10 Back plate down
- 12 Leg plates down
- 14 Reverse Trendelenburg(foot down)
- 16 Table-top down
- 18 Tilt to left

You can:



- Press and hold ON/OFF to turn on the operating table.
- 3. Press and hold + for 10 seconds to unlock the castors.
- 4. Press and hold + (9, 11 or 15) to raise the table top/back plate/both leg plates.
- 5. Press and hold + (10, 12 or 16) to lower the table top/back plate/both leg plates.
- Press and hold + to tilt the table top right.
- 8. Press and hold + to obtain the Trendelenburg position (head down).
- 9. Press and hold + to obtain the reverse Trendelenburg position (foot down).

## **▲** CAUTION

- Collision protection is not active if the override panel is used. Avoid the combination of extreme tilt and slope adjustments. Otherwise, it can cause property damage.
- If the batteries in the mobile operating table are exhausted, then the override panel will only operate when the table is connected to the mains.
- If the operating table is set to the reverse position, operate the override panel in the same as for the normal position."

### NOTE

- The override panel is intended for emergency use only.
- The override panel employs the two-key-control mode. To use the panel, press both the "Power On" key and the desired functional key simultaneously.

#### 2.3.2.2 Indicators

There are five indicators on the override panel: AC indicator, battery indicator, power indicator, locking indicator and unlocking indicator.

Table 2-1 Indicator definitions of override panel

| Indicator           | State               | Definition                                    |  |
|---------------------|---------------------|---|--|
| AC indicator        | Green               | The operating table is AC powered.            |  |
|                     | Off                 | The operating table is not AC powered.        |  |
| Battery indicator   | Green               | The operating table is powered by internal    |  |
|                     |                     | batteries or the batteries have been charged. |  |
|                     | Green and flashing  | The batteries are charging.                   |  |
|                     | Red and flashing    | The batteries are low.                        |  |
| Power indicator     | Green               | The operating table is switched on.           |  |
|                     | Off                 | The operating table is switched off.          |  |
| Locking indicator   | Yellow              | The castors are locked.                       |  |
|                     | Yellow and flashing | The castors are being locked.                 |  |
| Unlocking indicator | Red                 | The castors are unlocked.                     |  |
|                     | Red and flashing    | The castors are being unlocked.               |  |

# 2.3.2.3 Connections for Corded Hand Control/Foot Switch/Service Interface

## **A** CAUTION

 When adjusting the operating table, make sure the cord of the hand control is not jammed.

The connections for corded hand control (1) and the foot switch (3) are located next to the override panel, on the left and right. The service interface (2) is underneath the override panel, which is for service engineers only.

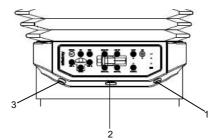


Figure 2-5 Connections

1 Corded hand control connection

2 Service interface

3 Foot switch connection

### Connection procedure:

- 1. Open the protective cover.
- 2. Insert the plug firmly.

### 2.3.3 Corded Hand Control with LCD (optional)

#### 2.3.3.1 Keys

You can use the corded hand control to:

- turn on /off the corded hand control
- lock / unlock the castors
- normal / reverse position
- raise / lower the table top
- obtain the Trendelenburg / reverse Trendelenburg position
- tilt the table top to left / right
- raise / lower the back plate
- raise / lower the leg plate (left / right leg plate)
- obtain the flex /re-flex position
- longitudinally shift the table top toward the head/ foot end (optional)
- obtain the 0-position (level the table top and slide it to the central position)

## **A** CAUTION

- Do not use the individual adjustment function for the leg plates in conjunction with single-part accessory.
- Do not raise or lower the right/left leg plate individually if the operating table is set to the reverse position.
- Be sure to remove any potential hindrances before adjusting the operating table. Otherwise, it can cause property damage.

## NOTE

 If the operating table is set to the reverse position, all the function keys, except for the up/down key, will also change accordingly.

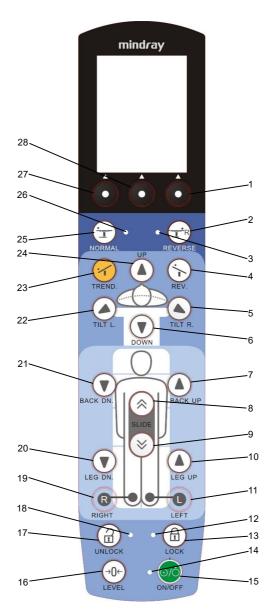


Figure 2-6 Corded hand control with LCD

1 Re-flex position/back 2 Reverse position

3 Reverse position indicator 4 Reverse Trendelenburg position (foot down)

5 Tilt to right 6 Table top down

7 Back plate up 8 Longitudinal shift toward head end

9 Longitudinal shift toward foot end 10 Leg plates up

11 Left leg plate 12 Locking indicator 14 Power indicator 13 Locking castors

15 Power switch 16 0-position 17 Unlocking castors 18 Unlocking indicator 19 Right leg plate 20 Leg plates down

22 Tilt to left 21 Back plate down 23 Trendelenburg position (head down) 24 Table top up

25 Normal position 26 Normal position indicator

28 Menu/confirm 27 Flex position/choose

#### You can:



Press ON/OFF to turn on/off the operating table.



to obtain the 0-position.





Press and hold UNLOCK to unlock the castors.



DN. to raise/lower the right leg plate.



(7, 10 or 24) to raise the table top/back plate/both leg plates.

(6, 20 or 21) to lower the table top/back plate/both leg plates.

to tilt the table top left.

TILT R. to tilt the table top right.

11. Press and hold TREND. to obtain the trendelenburg position (head down).



12. Press and hold REV. to obtain the reverse trendelenburg position (foot down).



13. Press and hold to longitudinally shift the table top toward the foot end.



14. Press and hold SLIDE to longitudinally shift the table top toward the head end.



15. Press NORMAL or REVERSE to obtain the normal position or reverse position.

## **A** WARNING

- After adjusting the operating table, be sure to switch off the hand control.
- Each time before using the operating table, check all functions by pressing every functional key for 2 to 3 seconds. Make sure all the keys can work normally. Do not use the damaged operating table.

## **A** CAUTION

 When adjusting the operating table, make sure the cord of the hand control is not jammed by the joints.

## NOTE

 When the corded hand control has been idle for about 90 seconds, it will be switched off automatically.

### 2.3.3.2 Indicators

There are five indicators on the corded hand control: power indicator, normal position indicator, reverse position indicator, locking indicator and unlocking indicator. See the table below for details.

Table 2-2 Indicator definitions of corded hand control with LCD

| Indicator                  | State               | Definition                                  |  |
|----------------------------|---------------------|---|--|
|                            | Green               | The operating table is switched on.         |  |
| Power indicator            | Off                 | The operating table is switched off.        |  |
|                            | Orange and flashing | The operating table may malfunction.        |  |
| Normal position indicator  | Green               | The operating table is in normal position.  |  |
| Reverse position indicator | Green               | The operating table is in reverse position. |  |
| Locking indicator          | Yellow              | The castors are locked.                     |  |
|                            | Yellow and flashing | The castors are being locked.               |  |
| Unlocking indicator        | Red                 | The castors are unlocked.                   |  |
| Officially indicator       | Red and flashing    | The castors are being unlocked.             |  |

### 2.3.3.3 LCD Interface

1. When the corded hand control with LCD is switched on, initial interface will be displayed.

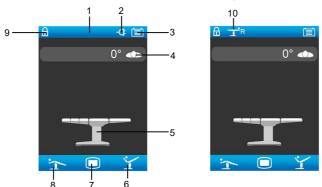


Figure 2-7 Initial interface

1 Status bar 2 AC icon

3 Battery icon 4 Left/right tilt icon

5 Table top icon 6 Re-flex position/back icon

7 Confirm icon 8 Flex position/selection icon

9 Locking icon 10 Reverse position icon

Table 2-3 Status icon definitions of corded hand control with LCD

| Name                           | Icon | State            | Definition                              |
|--------------------------------|------|------------------|---|
| AC icon                        | 4    | 1                | The operating table is AC powered.      |
| Battery icon (operating table) |      | Static           | Battery capacity of the operating table |
|                                |      | Dynamic          | The batteries are charging.             |
|                                |      | Red and blinking | The batteries are low.                  |

## NOTE

- 10 minutes after the first low battery alarm, the operating table will power off automatically.
- It takes about 10 hours to fully charge the battery.

### 2.3.3.4 Locking Icon



- The locking icon Lock is displayed when the locking key is pressed.
- 2. Then the locking icon is displayed in the status bar when the castors are locked.





Figure 2-8 Locking icon

## NOTE

- The operating table can only be adjusted when the castors are locked (lock function is active).
- If the castors are not locked (unlock function is active), then only the slope can be adjusted in emergencies.

## 2.3.3.5 Unlocking Icon



- 1. The unlocking icon unlock will be displayed when the unlocking key is pressed.
- Then the unlocking icon will be displayed in the status bar when the castors are unlocked.





Figure 2-9 Unlocking icon

## NOTE

- The operating table can only be adjusted when the castors are locked (lock function is active).
- If the castors are not locked (unlock function is active), then only the slope can be adjusted in emergencies.
- 3. The following icon will be displayed, if the operating table is unlocked and sloped.



Figure 2-10 Slope the operating table (unlocking)

### 2.3.3.6 Tilting the Operating Table

When the operating table is adjusted, the screen of the control will display the corresponding movement and angle. As Figure 2-11 shows, the screen displays signs when you tilt the operating table to right or left.



Figure 2-11 Tilt the operating table to right

### 2.3.3.7 Module Recognition System (optional)

- 1. As Figure 2-12 shows, when the leg plate is connected, the icon (A) will be displayed.
- 2. As Figure 2-12 shows, when the leg plate is detached, the icon (B) will be displayed.

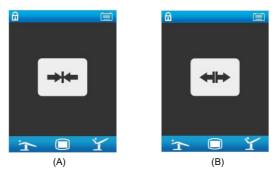


Figure 2-12 Module recognition

## **A** CAUTION

 Do not use the individual adjustment function for the leg plates in conjunction with single-part accessory.

#### 2.3.3.8 Limit Icon

This operating table features a limit indication function. When the table top moves to a limit position, the corresponding parts of the operating table icon will be yellowed and the operating table beeps (one tone). See Figure 2-13 for example. This function applies to the following movements:

- Trendelenburg/reverse Trendelenburg position
- Tilt to left/right
- Back plate up/down
- Flex/re-flex position



Figure 2-13

## **A** CAUTION

 If the 0-position function is activated, the table top automatically levels and slides to the central position. Closely watch the table top movement, and release the key when the table top no longer moves.

### 2.3.3.9 Collision Icon for Leg Plate

The collision icon will appear when the downward moving leg plate touches an obstacle. Please remove the obstacle before adjustment.



Figure 2-14

### 2.3.3.10 Error Indication

When the operating table or the corded hand control is broken, the following states of the indicators may appear.

- The power indicator (green) and the unlocking indicator (red) are blinking.
- The power indicator (green) and the locking indicator (yellow) are blinking.
- The power indicator (orange) is blinking.
- All the indicators are blinking.

If the operating table or the corded hand control malfunction, please contact the customer service department authorized by Nanjing Mindray for help. Unauthorized device servicing is not allowed.

### 2.3.3.11 Error Icon

If the error icon is displayed, contact the customer service department authorized by Nanjing Mindray for help.





Figure 2-15 Error icon

### 2.3.3.12 Position Memory

10 positions can be stored. Beach chair position is preset as the first position and it cannot be revised by users. If users want to store other positions, see chapter 2.3.3.12.2 for details.

#### 2.3.3.12.1 Recall Position

1. As Figure 2-16 shows, press "confirm" button to enter the menu.



Figure 2-16

2. As Figure 2-17 shows, choose the "Recall position" and press the confirm button.



Figure 2-17 Menu

3. As Figure 2-18 shows, press the "choose" button to choose the position.





Figure 2-18 Select the position

4. As Figure 2-19 shows, press and hold the "confirm" button until a sound signal (2 tones) is heard.





Figure 2-19 Recalling the position

#### 2.3.3.12.2 Store Position

- 1. Adjust the operating table to the desired position and see chapter 2.3.3.1.
- 2. As Figure 2-20 shows, press "confirm" button to enter the menu.



Figure 2-20 Store position

3. As Figure 2-21 shows, choose the "Store position" and press the "confirm" button.



Figure 2-21 Menu

4. As Figure 2-22 shows, choose the desired number and press the "confirm" button. If the position is stored, you will hear a sound signal (two tones).





Figure 2-22 Confirm

As Figure 2-23 shows, the screen will go back to the initial interface after the position is stored.



Figure 2-23 Initial interface

## NOTE

 The "factory settings" can be used only for customer service engineer authorized by Nanjing Mindray.

### 2.3.3.13 Attaching the Corded Hand Control

## **A** CAUTION

- The corded hand control which is attached to the side rail may slip off the side rail or catch the cable during table top adjustment. Take the corded hand control out of the side rail during the adjustment.
- It is recommended that the corded hand control be attached into the lug of the head plate.

As Figure 2-24 shows, attach the bracket (1) to the side rail (2) or the lug (3).

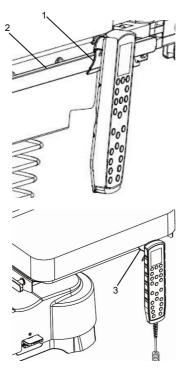


Figure 2-24 Attaching the hand control

## 2.3.4 IR Remote Control with LCD (optional)

### 2.3.4.1 Coding

The IR remote control (also known as wireless hand control) with LCD can control the operating table only after the match code operation is executed. See the procedure below for details:

- 1. Press and hold both of the up key " + the down key " DOWN " for 5 seconds
- 2. In 15 seconds, press and hold the button on the override panel, until the override panel beeps (2 tones).

#### 2.3.4.2 Code Label

The operating table and the associated IR remote control are marked by adhesive code labels:

- The adhesive code labels are affixed to the operating table column next to the IR receiver.
- The adhesive labels are affixed to the back of the IR remote control with LCD.

The adhesive code labels bear a number from 0 to 9:

- 1. left: 0, 1, 2 ...9
- 2. right: 0, 1, 2 ...9

Examples of preset IR system codes markings:

- 1 1
- 3 0
- 2 3
- 8 9

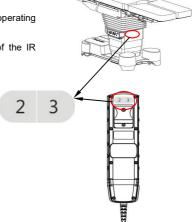


Figure 2-25 Code label

## NOTE

If the IR remote control with LCD is not shipped with the operating table, you
can attach the code label to the operating table and the IR remote control
yourself after the match code operation is executed.

### 2.3.4.3 Keys

You can use the IR remote control with LCD to:

- turn on /off the IR remote control with LCD
- lock / unlock the castors
- normal / reverse position
- raise / lower the table top
- obtain the Trendelenburg / reverse Trendelenburg position
- tilt the table top to left / right
- raise / lower the back plate
- raise / lower the leg plate (left / right leg plate)
- obtain the flex /re-flex position (optional)
- longitudinally shift the table top toward the head/ foot end (optional)
- obtain the 0-position (levels the table top and slides it to the central position)

## **A** CAUTION

- Do not use the individual adjustment function for the leg plates in conjunction with single-part accessory.
- Do not raise or lower the right/left leg plate individually if the operating table is set to the reverse position.
- Be sure to remove any potential hindrances before adjusting the operating table. Otherwise, it can cause property damage.
- Make sure the remote control does not fall off or be collided. Otherwise, it may result property damage.

### NOTE

 If the operating table is set to the reverse position, all the function keys, except for the up/down key, will also change accordingly.

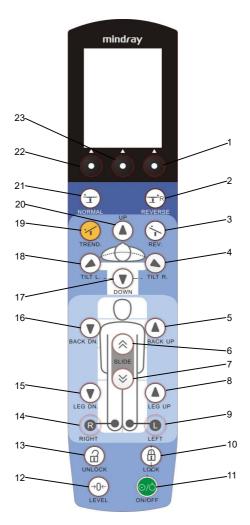


Figure 2-26 IR remote control with LCD

1 Re-flex position/back

3 Reverse Trendelenburg position (foot

down)

5 Back plate up

7 Longitudinal shift toward foot end

9 Left leg plate

11 Power switch

13 Unlocking castors

15 Leg plates down

17 Table top down

19 Trendelenburg position (head down)

21 Normal position

23 Menu/confirm

2 Reverse position

4 Tilt to right

6 Longitudinal shift toward head end

8 Leg plates up

10 Locking castors

12 0-position

14 Right leg plate

16 Back plate down

18 Tilt to left

20 Table top up

22 Flex position/choose

You can:



Press ON/OFF to turn on/off the operating table.



2. Press and hold LEVEL to obtain the 0-position.



Press and hold LOCK to lock the castors



Press and hold UNLOCK to unlock the castors.









to raise/lower the right leg plate.

to raise/lower the left leg plate.

. Press and hold





(

(5, 8 or 20) to raise the table top/back plate/both leg plates.

3. Press and hold

(15, 16 or 17) to lower the table top/back plate/both leg plates.



9. Press and hold TILT to tilt the table top left.



10. Press and hold TILT R. to tilt the table top right.



11. Press and hold TREND to obtain the trendelenburg position (head down).





12. Press and hold REV. to obtain the reverse trendelenburg position (foot down).



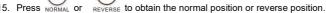
Press and hold

to longitudinally shift the table top toward the foot end.



14. Press and hold subs to longitudinally shift the table top toward the head end.





## **A** WARNING

- After adjusting the operating table, be sure to switch off the hand control.
- Each time before using the operating table, check all functions by pressing every functional key for 2 to 3 seconds. Make sure all the keys can work normally. Do not use the damaged operating table.

### NOTE

- If the operating table does not respond to the command even though the function key is completely depressed, either re-aim the hand control or move to a slightly different transmission position. In such cases the infrared receiver at the column is being blocked by a person's body.
- When the IR remote control with LCD has been idle for about 90 seconds, it will be switched off automatically.
- 10 minutes after the first low battery alarm, the operating table will power off automatically.
- It takes about 10 hours to fully charge the battery.
- It is recommended that the IR remote control with LCD be slid into the mobile charging station if it is idle.

### 2.3.4.4 LCD Interface

1. When the IR remote control with LCD is switched on, the initial interface will be displayed.

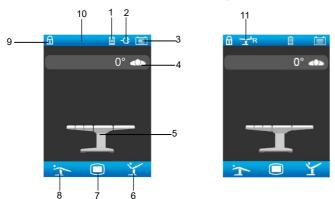


Figure 2-27 Initial interface

- 1 Battery icon (IR remote control with LCD)
- 3 Battery icon (operating table)
- 5 Table top icon
- 7 Confirm icon
- 9 Locking icon
- 11 Reverse position icon

- 2 AC icon
- 4 Left/right tilt icon
- 6 Flex position/back icon
- 8 Re-flex position/select icon
- 10 Status bar

Table 2-4 Status icon definitions of IR remote control with LCD

| Name                                      | Icon | State            | Definition   |
|---|------|------------------|--|
| AC icon                                   | 4    | 1                | The operating table is AC powered.                 |
|   |      | Static           | Battery capacity of the operating table            |
| Battery icon (operating table)            |      | Dynamic          | The batteries are charging.                        |
|   |      | Red and blinking | The batteries are low.                             |
| Battery icon (IR remote control with LCD) |      | Static           | Battery capacity of the IR remote control with LCD |
|   | Ē    | Dynamic          | The IR remote control with LCD is being charged.   |
|   | Ū    | Red and blinking | The batteries are low.                             |

### NOTE

- 10 minutes after the first low battery alarm, the IR remote control with LCD will power off automatically.
- It takes about 10 hours to fully charge the battery.
- Each time before using the operating table, check all functions by pressing every functional key for 2 to 3 seconds. Make sure all the keys can work normally. Do not use the damaged operating table.

### 2.3.4.5 Locking Icon



- The locking icon Lock is displayed when the locking key is pressed.
- 2. Then the locking icon is displayed in the status bar when the castors are locked.





Figure 2-28 Locking icon

## NOTE

- The operating table can only be adjusted when the castors are locked (lock function is active).
- If the castors are not locked (unlock function is active), then only the slope can be adjusted in emergencies.

### 2.3.4.6 Unlocking Icon



- 1. The unlocking icon UNLOCK is displayed when the unlocking key is pressed.
- 2. Then the unlocking icon is displayed in the status bar when the castors are unlocked.





Figure 2-29 Unlocking icon

## NOTE

- The operating table can only be adjusted when the castors are locked (lock function is active).
- If the castors are not locked (unlock function is active), then only the slope can be adjusted in emergencies.
- 3. The following icon will be displayed, if the operating table is unlocked and sloped.



Figure 2-30 Slope the operating table (unlocking)

#### 2.3.4.7 Error Icon

As Figure 2-31 shows, if the error icon is displayed, contact the customer service department authorized by Nanjing Mindray for help.





Figure 2-31 Error icon

### 2.3.4.8 Collision Icon for Leg Plate

Please refer to 2.3.3.9 for details.

# 2.3.4.9 Mobile Charging Station for IR Remote Control with LCD (optional)

To charge the battery of the IR remote control with LCD, you can:

- 1. Connect the mobile charging station to the mains.
- Slide the IR remote control with LCD (1), oriented correctly, into the charging station (2) until the lower end of the IR remote control with LCD makes contact with the stop.

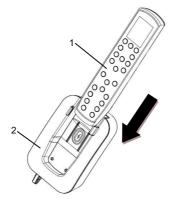


Figure 2-32 Mobile charging station for IR remote control with LCD

There is only one indicator on the mobile charging station: power indicator. See the table below for details.

Table 2-5 Indicator definitions of IR remote control with LCD

| Indicator       | State              | Definition   |  |
|-----------------|--------------------|--|--|
| Power indicator | Orange             | The mobile charging station is connected with the mains. |  |
|                 | Green and flashing | The batteries are charging.                              |  |

## **A** CAUTION

- The IR remote control with LCD is reliably placed if the power indicator of the mobile charging station is green and flashing.
- Do not place any metal on the mobile charging station.

## NOTE

- Use the battery in the remote control at least once every month to extend battery life. Charge the battery before its power capacity is depleted.
- Inspect and replace the battery at regular service intervals. Long-term
  battery life depends on how frequent and how long the battery is used. For a
  properly maintained and stored lithium-ion battery, its long-term life
  expectancy is approximately 3 years. In more aggressive usage, life
  expectancy can be shortened. Replacing lithium-ion batteries every 3 years
  is recommended.
- The operating time of a battery depends on equipment operation.
- In case of battery failure, contact Mindray service personnel for battery replacement.

#### 2.3.4.10 Attaching the Hand Control

See chapter 2.3.3.13 for details.

## 2.3.5 Foot Switch (optional)

For the operation of the foot switch, see the "foot switch operator's manual" for details.

## **▲** CAUTION

 Be sure to use the foot switch according to the "foot switch operator's manual".

## NOTE

 If the operating table is set to reverse position, the components controlled by the buttons for the back plate and leg plate are reversed.

### 2.4 Patient Orientation

### 2.4.1 Definition of Patient Orientation

## **A** WARNING

- Be sure to select the patient orientation correctly. Otherwise, it may result in operating table adjustments in a wrong direction.
- Check the correct patient orientation prior to making any adjustment. The
  patient orientation is indicated on the hand control by the normal indicator
  or the reverse position indicator.

The patient orientation depends on the position of the patient on the table top with regard to the operating table base.

### 2.4.1.1 Normal Patient Orientation

As the Figure 2-33 shows, the upper part of the patient's body is located above the operating table base (1).

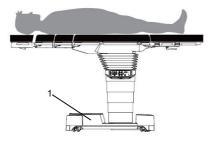


Figure 2-33 Normal patient orientation

### 2.4.1.2 Reverse Patient Orientation

As the Figure 2-34 shows, the patient's legs are located above the operating table base (1).

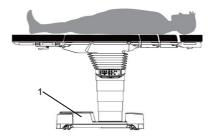


Figure 2-34 Reverse patient orientation

# 2.4.2 Setting the Patient Orientation

Depending on the position of the patient, the patient orientation needs to be set so that the adjustment function can be carried out correctly.



Press the REVERSE button to obtain the reverse position and the reverse position indicator is green.

# 2.5 Mechanical Adjustments

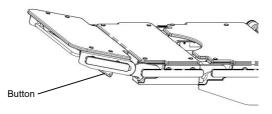
### 2.5.1 Dual-joint Head Plate (optional)

### **WARNING**

- When removing/installing the dual-joint head plate, be sure to grasp it with both hands. Otherwise, it can fall and cause personal injury and/or property damage.
- Exercise caution when removing/installing the head plate. Do not pinch yourself.
- The maximum load of the dual-joint head plate is 15kg. Do not use it beyond this limit
- If accessories are used, make sure the weights of the accessories installed on the dual-joint head plate and of the patient's head add up no more than 15kg.
- Do not install such devices as arm boards, anesthesia frames and infusion holders on the dual-joint head plate. Otherwise, the dual-joint head plate can move unexpectedly.
- When using the dual-joint head plate, be sure to cover it with a sterile surgical drape.
- Each time before using the pad, check it carefully. Do not use the worn or damaged pad.
- When raising the head plate up to 30°, do not raise the back plate or adjust the reverse Trendelenburg to greater than 30°.
- Be sure to use the pad provided by Nanjing Mindray only.

#### 2.5.1.1 Removing Dual-joint Head Plate

- 1. Hold the dual-joint head plate with both hands and push the locking button with fingers.
- 2. As Figure 2-35 shows, lift the dual-joint head plate and pull it out.



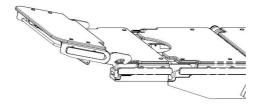


Figure 2-35 Removing the dual-joint head plate

### 2.5.1.2 Installing Dual-joint Head Plate

- 1. Hold the dual-joint head plate with both hands.
- 2. As Figure 2-36 (A) shows, hang the head plate onto the installing grooves. The head plate is reliably installed if you hear a click.
- 3. Make sure the hooks are hung fully as figure 2-36 (B) shows.
- 4. Pull the dual-joint head plate to check whether it has been installed properly.

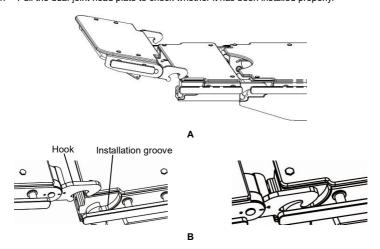


Figure 2-36 Installing the dual-joint head plate

# **A** WARNING

 Be sure to install and remove the dual-joint head plate strictly as instructed in the manual.

### 2.5.1.3 Adjusting Dual-joint Head Plate

- As Figure 2-37 shows, hold the dual-joint head plate with both hands (palms up) and pull
  the release bracket (1) outward with fingers.
- 2. Raise or lower the dual-joint head plate to the desired position.
- 3. Release the dual-joint head plate and the bracket.
- 4. Pull the dual-joint head plate to check whether it has been adjusted properly.
- Pull the release button (3) with one hand and raise or lower the upper plate (4) to the desired position with the other hand.
- 6. Release the upper plate (4) and the release button (3).

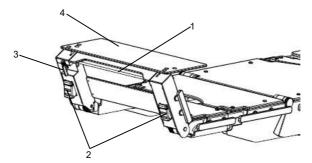


Figure 2-37 Adjusting the dual-joint head plate

# **A** WARNING

- When lowering the dual-joint head plate, be sure to do it slowly and smoothly. Do not hurt the patient.
- Make sure the dual-joint head plate is reliably installed before using it.

### 2.5.2 Extension Plate (optional)

### **A** WARNING

- When removing/installing the extension plate, be sure to grasp it with both hands. Otherwise, it can fall and cause personal injury and/or property damage.
- Exercise caution when removing/installing the extension plate. Do not pinch yourself.
- The maximum load of the extension plate is 55kg. Do not use it beyond this limit.
- If accessories are used, make sure the weights of the accessories installed on the extension plate and of the patient's back add up no more than 55kg.
- When using the extension plate, be sure to cover it with a sterile surgical drape.
- Each time before using the pad, check it carefully. Do not use the worn or damaged pad.
- Be sure to use the pad provided by Nanjing Mindray only.

### 2.5.2.1 Removing Extension Plate

- 1. Hold the extension plate with both hands.
- 2. As Figure 2-38 shows, lift the extension plate and pull it out.

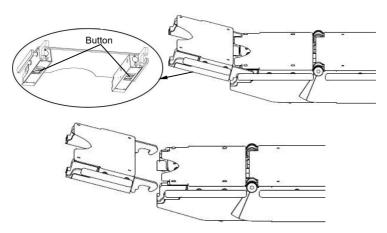


Figure 2-38 Removing the extension plate

### 2.5.2.2 Installing Extension Plate

- 1. Hold the extension plate with both hands.
- As Figure 2-39 (A) shows, hang the extension plate onto the installing grooves. The extension plate is reliably installed if you hear a click.
- 3. Make sure the hooks are hung fully as Figure 2-39 (B) shows.
- 4. Pull the extension plate to check whether it has been installed properly.

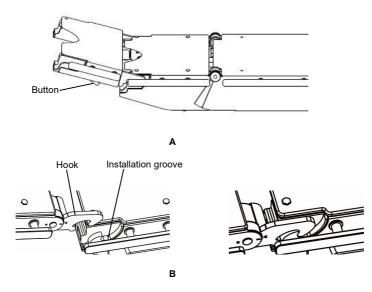


Figure 2-39 Installing the extension plate

# 2.5.3 Dual-joint Leg Plate (optional)

# **A** WARNING

- When removing/installing the dual-joint leg plate, be sure to grasp it with both hands. Otherwise, it can fall and cause personal injury and/or property damage.
- Exercise caution when removing/installing the dual-joint leg plate. Do not pinch yourself.
- Placing the patient improperly can tip over the operating table. Be sure to
  place the patient in the right direction. Do not place the patient's trunk on
  the dual-joint leg plate.

- When using the dual-joint leg plate, be sure to cover it with a sterile surgical drape.
- The maximum load of the dual-joint leg plate is 35kg. Do not use it beyond this limit.
- If accessories are used, make sure the weights of the accessories installed on the dual-joint leg plate and of the patient's leg add up no more than 35kg.
- When adjusting the patient's body position, do not reach beneath the table top or touch the moving parts. Otherwise, you can be pinched.
- When tilting or sloping the table top or when adjusting the leg plate ensure that the table top does not collide with the column or the operating table base.
- Make sure that the dual-joint leg plates are not crossed /on top of each other before adjusting the leg plates for the horizontal position. Otherwise, it can cause personal injury and/or property damage.
- Each time before using the pad, check it carefully. Do not use the worn or damaged pad.
- Be sure to use the pad provided by Nanjing Mindray only.

#### 2.5.3.1 Removing Dual-joint Leg Plate

- As Figure 2-40 (A) shows, hold the dual-joint leg plate with one hand, and press the locking button with the thumb.
- 2. As Figure 2-40 (B) shows, lift and pull out the dual-joint leg plate.

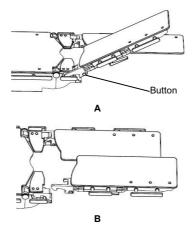


Figure 2-40 Removing the dual-joint leg plate

### 2.5.3.2 Installing Dual-joint Leg Plate

- 1. Hold the dual-joint leg plate with both hands.
- As Figure 2-41 (A) shows, hang the leg plate onto the installing grooves. The leg plate is reliably installed if you hear a click.
- 3. Make sure the hooks are hung fully as Figure 2-41 (B) shows.
- 4. Pull the dual-joint leg plate to check whether it has been installed properly.

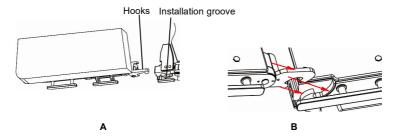


Figure 2-41 Installing the dual-joint leg plate

# **A** WARNING

 Be sure to install and remove the dual-joint leg plate strictly as instructed in the manual.

### 2.5.3.3 Adjusting Dual-joint Leg Plate

To move the dual-joint leg plate up/down:

Use the corded hand control with LCD/IR remote control with LCD to move the dual-joint leg plate up/down. See chapter 2.3.3.1 and 2.3.4.2 for details.

# **A** CAUTION

Before adjusting the dual-joint leg plate, make sure nothing is under it.

To move the dual-joint leg plate left/right:

1. Loose the handle (1).

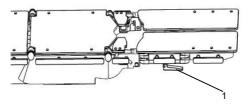


Figure 2-42 Loosing the handle of the dual-joint leg plate

2. Adjust the dual-joint leg plate left/right to the desired position.

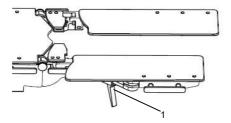


Figure 2-43 Moving dual-joint leg plate left/right

3. Tighten the handle (1).

# 2.5.4 Head Plate (optional)

The head plate is optional. See the head plate operator's manual for details.

# 2.5.5 Upper Back Plate (optional)

The upper back plate is optional. See the upper back plate operator's manual for details.

# 2.5.6 Leg Plate (optional)

The leg plates are optional. See the leg plate operator's manual for details.

### 2.6 Table Pad

# **A** WARNING

- Each time before using the pad, check it carefully. Do not use the worn or damaged pad and replace damaged pad immediately.
- Liquid can penetrate damaged pad and cause hygienic problems.
- When disinfecting the patient's skin, make sure the disinfectant does not accumulate under the patient.

### 2.6.1 Foam Pad

### 2.6.1.1 Installing Pad

- Lay the pad on the table.
- 2. Make sure that the Velcro strap on the pad is fully aligned with that on the table top.
- 3. Check whether the pad is reliably installed.



Figure 2-44 Installing pad

### 2.6.1.2 Removing Pad

Grasp the pad with both hands, and then remove it.

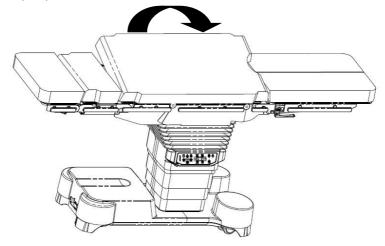


Figure 2-45 Removing table pad

# **A** WARNING

- Make sure the Velcro strap on the bottom of the pad is fully aligned with that on the table top, and they are affixed reliably.
- Be sure to only use the cleaning agents and methods recommended in this manual to clean the pad. Otherwise, it can cause personal injury and/or property damage.
- Each time before using the pad, check it carefully. Do not use the worn or damaged pad.
- When using the pad, be sure to cover it with a sterile surgical drape.

# **A** CAUTION

- Pad should be stored lying flat and horizontal.
- When removing the pad, be sure to grasp it with both hands.
- Before installing the pad, make sure that the table top is dry.

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# 3 Patient Positioning

# 3.1 Patient Positioning at an Overall Load between250kg and 460kg

### 3.1.1 General

## **A** WARNING

- If accessories are used, make sure the weights of the accessories installed on the operating table and of the patient add up no more than the permissible overall load.
- Only use accessory which is approved for its share of the load imposed by the weight of a patient.
- The pictorial views in this chapter show the recommended accessory for patient positioning considering the patient weight. Refer to chapter A.6 for the complete list of the accessories used.
- If the load on the operating table exceeds 250kg, half-yearly maintenance is required.
- Never extend the swivel castors of the mobile operating table if the overall load exceeds 250kg (unlock function is prohibited). Otherwise, it can cause the operating table tipping.

When the patient positioning is at an overall load between 250kg and 460kg, please observe the following functional restrictions:

- 1. Lock the castors.
- 2. Do not position the patient to the reverse orientation.
- 3. Do not operate the longitudinal shift.
- 4. The extension of the lower back plate: ≤510mm.
- 5. The extension of the short leg plate: ≤680mm.
- Maximum slope (Trendelenburg/reverse Trendelenburg) ±20°
- 7. Maximum tilt (left/right) ±5°
- 8. Maximum back plate adjustment +80° / -10°
- Maximum leg plates adjustment ±10°

 The beach chair position may be used for obesity or adiposity surgery if there are some supports.

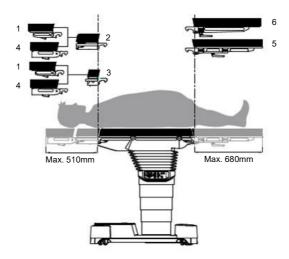


Figure 3-1 Normal position/250kg to 460kg of overall load

- 1 Head plate
- 3 Short upper back plate
- 5 Dual-joint leg plate

- 2 Upper back plate
- 4 Dual-joint head plate
- 6 Leg plate

# 3.2 Patient Positioning at an Overall Load between135kg and 250kg

### 3.2.1 General

# **A** WARNING

- If accessories are used, make sure the weights of the accessories installed on the operating table and of the patient add up no more than the permissible overall load.
- Only use accessory which is approved for its share of the load imposed by the weight of a patient.
- The pictorial views in this chapter show the recommended accessory for patient positioning considering the patient weight. Refer to chapter A.6 for the complete list of the accessories used.

When the patient positioning is at an overall load between 135kg and 250kg, please observe the following functional restrictions:

- 1. If the operating table is unlocked and the patient orientation is normal:
  - The operating table is in the lowest height.
  - The extension of the lower back plate: ≤760mm.
  - The extension of the short leg plate: ≤930mm.

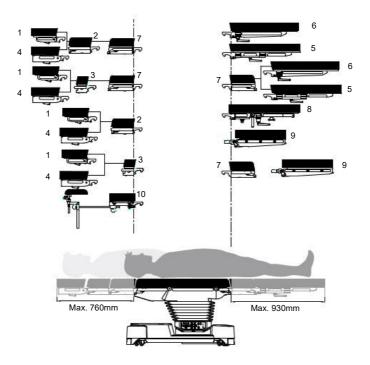


Figure 3-2 Normal position/135kg to 250kg of overall load/unlock

- 1 Head plate
- 3 Short upper back plate
- 5 Dual-joint leg plate
- 7 Extension plate
- 9 One-section leg plate

- 2 Upper back plate
- 4 Dual-joint head plate
- 6 Leg plate
- 8 4-part leg plate
- 10 Back plate for shoulder operation

- 2. If the operating table is unlocked and the patient orientation is reverse:
  - The operating table is in the lowest height.
  - The extension of the lower back plate: ≤930mm.
  - The extension of the short leg plate: ≤650mm.

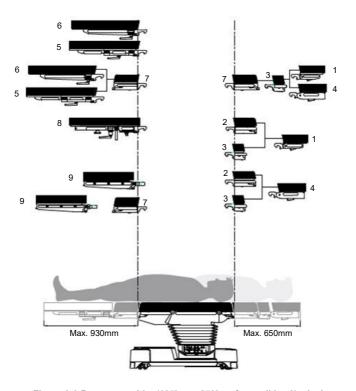


Figure 3-3 Reverse position/135kg to 250kg of overall load/unlock

- 1 Head plate
- 3 Short upper back plate
- 5 Dual-joint leg plate
- 7 Extension plate
- 9 One-section leg plate

- 2 Upper back plate
- 4 Dual-joint head plate
- 6 Leg plate
- 8 4-part leg plate

- 3. If the operating table is locked and the patient orientation is normal:
  - The extension of the lower back plate: ≤760mm.
  - The extension of the short leg plate: ≤930mm.

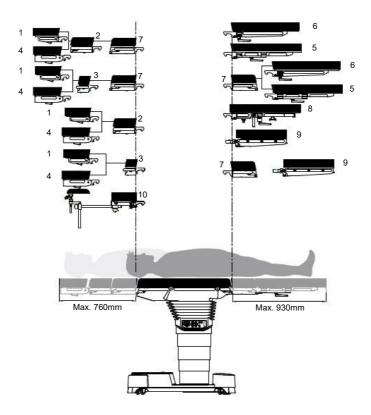


Figure 3-4 Normal position/135kg to 250kg of overall load/lock

- 1 Head plate
- 3 Short upper back plate
- 5 Dual-joint leg plate
- 7 Extension plate
- 9 One-section leg plate

- 2 Upper back plate
- 4 Dual-joint head plate
- 6 Leg plate
- 8 4-part leg plate
- 10 Back plate for shoulder operation

- 4. If the operating table is locked and the patient orientation is reverse:
  - The extension of the lower back plate: ≤930mm.
  - The extension of the short leg plate: ≤650mm.

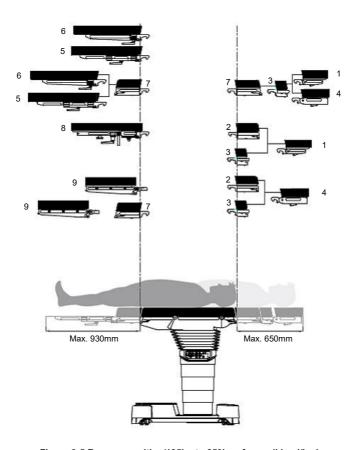


Figure 3-5 Reverse position/135kg to 250kg of overall load/lock

- 1 Head plate
- 3 Short upper back plate
- 5 Dual-joint leg plate
- 7 Extension plate
- 9 One-section leg plate

- 2 Upper back plate
- 4 Dual-joint head plate
- 6 Leg plate
- 8 4-part leg plate

# 3.3 Patient Positioning with an Overall Load of up to135kg

### 3.3.1 General

# **▲** WARNING

- If accessories are used, make sure the weights of the accessories installed on the operating table and of the patient add up no more than the permissible overall load.
- Only use accessory which is approved for its share of the load imposed by the weight of a patient.
- The pictorial views in this chapter show the recommended accessory for patient positioning considering the patient weight. Refer to chapter A.6 for the complete list of the accessories used.

In case of the patient positioning with an overall load of up to 135kg, please observe the following functional restrictions:

- 1. If the operating table is unlocked and the patient orientation is normal:
  - The extension of the lower back plate: ≤760mm.
  - The extension of the short leg plate: ≤930mm.
  - Maximum height (bottom edge of pad): 940mm.

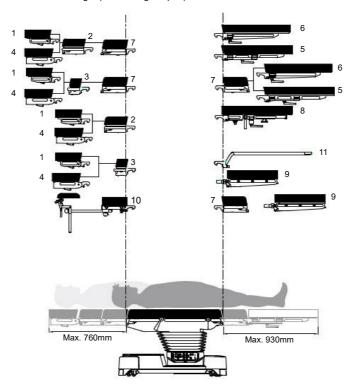


Figure 3-6 Normal position/up to an overall weight of 135kg/unlock

- 1 Head plate
- 3 Short upper back plate
- 5 Dual-joint leg plate
- 7 Extension plate
- 9 One-section leg plate
- 11 Transfer board

- 2 Upper back plate
- 4 Dual-joint head plate
- 6 Leg plate
- 8 4-part leg plate
- 10 Back plate for shoulder operation

- 2. If the operating table is unlocked and the patient orientation is reverse:
  - The extension of the lower back plate: ≤1130mm.
  - The extension of the short leg plate: ≤760mm.
  - Maximum height (bottom edge of pad): 940mm.

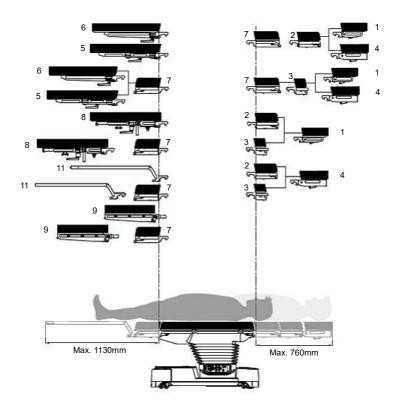


Figure 3-7 Reverse position/up to an overall weight of 135kg/unlock

- 1 Head plate
- 3 Short upper back plate
- 5 Dual-joint leg plate
- 7 Extension plate
- 9 One-section leg plate
- 11 Transfer board

- 2 Upper back plate
- 4 Dual-joint head plate
- 6 Leg plate
- 8 4-part leg plate
- 10 Back plate for shoulder operation

- 3. If the operating table is locked and the patient orientation is normal:
  - The extension of the lower back plate: ≤850 mm.
  - The extension of the short leg plate: ≤1180 mm.

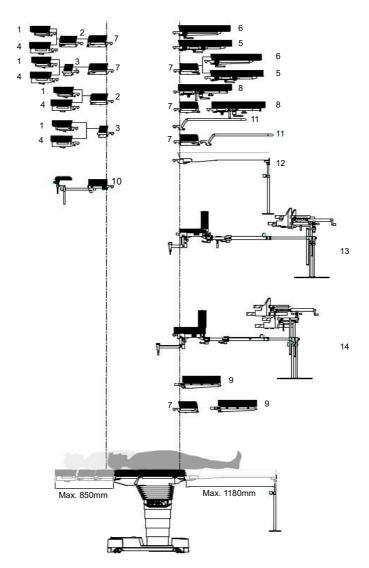


Figure 3-8 Normal position/up to an overall weight of 135kg/lock

1 Head plate 2 Upper back plate 3 Short upper back plate 4 Dual-joint head plate

5 Dual-joint leg plate 6 Leg plate
7 Extension plate 8 4-part leg plate

9 One-section leg plate 10 Back plate for shoulder operation

11 Transfer board 12 Cardiac operating plate

13 Carbon fiber orthopaedic extension device 14 Orthopaedic extension device

(HyExtent-CF) (HyExtent-IV)

- 4. If the operating table is locked and the patient orientation is reverse:
  - The extension of the lower back plate: ≤1130 mm.
  - The extension of the short leg plate: ≤1180 mm.

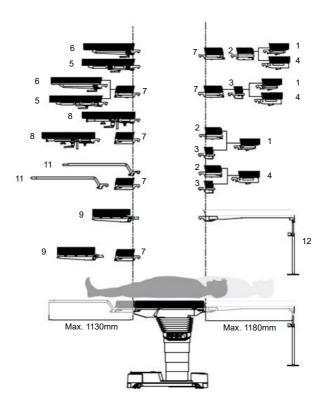


Figure 3-9 Reverse position/up to an overall weight of 135kg/lock

1 Head plate 2 Upper back plate 3 Short upper back plate 4 Dual-joint head plate 5 Dual-joint leg plate 6 Leg plate 7 Extension plate 8 4-part leg plate 9 One-section leg plate / 11 Transfer board 12 Cardiac operating plate

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# 4 Cleaning and Disinfection

### 4.1 General

The product must be cleaned and wiped or disinfected by spraying after every use.

### **A** WARNING

- Remove the mains plug from the socket before cleaning/disinfection.
- Liquid should never be allowed to enter live parts.
- It is strictly advised to observe the manufacturer instructions regarding how to use the detergents and disinfectants as well as the valid hospital hygiene rules.
- Always wear gloves for cleaning and disinfection, otherwise it can cause infection.
- Be sure to strictly follow the recommended cleaning/disinfecting methods to clean/disinfect the operating table.
- Do not use the cleaning agents or disinfectants containing alcohol where such medical devices as electrosurgical units, defibrillators or defibrillator monitors can be used. Otherwise, it can cause fire and/or explosion hazards.

## **A** CAUTION

- Particles of grime may become encapsulated and lead to the product not reaching the desired germ-reduction after disinfection. Before disinfection, the product must be cleaned thoroughly of contamination and encapsulated particles of grime and then be dried.
- Do not clean/disinfect the operating table mechanically.
- Improper cleaning/disinfection can damage the operating table.
- Use proper amount of the cleaning agent to clean the operating table, and remove any excessive agent and/or liquid by a dry cloth.
- Perform visual and functional inspections after each cleaning and disinfection process.

### NOTE

 Be sure to follow the related national hygiene and disinfection regulations to carry out cleaning and disinfection procedures.

### 4.1.1 Recommended Cleaning Agents and Disinfectants

- Mildly alkaline (soap solution)
- Aldehydes
- Quaternary compounds
- Guanidine derivative
- 2% alkaline glutaraldehyde (for metal part)

### **▲** CAUTION

- Do not clean/disinfect the operating table mechanically.
- Do not use the disinfectants containing chlorine or compounds which can release chlorine to disinfect the metal parts. Long-term use of these disinfectants may corrode the metal parts, hence compromising safety and effectiveness of the device. It is recommended that metal parts be disinfected by 2% alkaline glutaraldehyde.
- Improper cleaning/disinfection can damage the operating table.
- Do not spray the cleaning agent/disinfectant directly into the joints or gaps.
- Do not use high-pressure cleaning devices.
- Do not use scouring agents.
- Do not use water containing metal particles, any metal tools (such as wire brushes or steel wool), or products containing hydrochloric acid to clean the operating table.

# 4.1.2 Forbidden Cleaning Agents and Disinfectants

- Disinfectants containing alcohol (e. g. hand disinfectants)
- Disinfectants containing chlorine or compounds which can release chlorine (not suitable for metal parts)
- Halogenides and dehalogenating compounds
- Standard commercial solvents (e. g. benzene, thinner)
- Products containing hydrochloric acid

# 4.2 Cleaning

### 4.2.1 Preparations

- 1. Put the operating table to the horizontal position.
- 2. Raise the operating table up to the highest position.
- 3. Use surgical drapes to cover the operating table when not in use.

### 4.2.2 Cleaning Procedure

- 1. Turn off the power.
- 2. Use a piece of lint-free clean cloth to wipe off the dust.
- Use a piece of lint-free clean cloth dipped into the chosen detergent to clean the surface of the operating table.
- Use a piece of lint-free clean cloth dipped into the clean water to wipe the detergent off the surface.
- 5. Use a piece of dry clean cloth to wipe the surface.

### **A** WARNING

Exercise caution for the gaps when cleaning or disinfecting the table top.
 Otherwise, you can be pinched.

# **A** CAUTION

- In the event of very dirty product surfaces, carry out an additional disinfection procedure before cleaning the product.
- Use only all-purpose cleaners which are slightly alkaline (soap solution) and contain tensides and phosphates as the active cleaning agents. In the event of heavily contaminated surfaces, use concentrated multi-purpose detergent.
- Improper cleaning can cause property damage! Residues of physiological saline solutions (e. g. sodium chloride) can attack the surfaces of the product. Remove residues of physiological saline solutions with a cloth dipped in clean water. Then dry the product with a dry, lint free cloth.
- Do not spray cleaning agent directly into the joints or gaps and never use a high-pressure cleaning unit!



### 4.3 Disinfection

### 4.3.1 General

### **A** WARNING

Exercise caution for the gaps when cleaning or disinfecting the table top.
 Otherwise, you can be pinched.

# **A** CAUTION

- Agents containing alcohol can form explosive vapor mixtures and ignite where high-frequency equipment is being used. Do not use agents containing alcohol where high-frequency equipment is being used.
- Material damage due to excessive exposure times! Exceeding the specified exposure time of the disinfectant may damage the surfaces. Remove disinfectant residues with a cloth dipped in clean water. Then dry the product with a dry, lint free cloth.

### 4.3.2 Disinfection Procedure

- 1. Turn off the power.
- 2. Clean the operating table. See chapter 4.2.2 for details.
- Use a piece of lint-free clean cloth dipped into the chosen disinfectant to disinfect the surface of the operating table.
- Use a piece of lint-free clean cloth dipped into the clean water to wipe the disinfectant off the surface.
- 5. Use a piece of dry clean cloth to wipe the surface.

### 4.4 Table Pad

### A WARNING

- Each time before using the pad, check it carefully. Do not use the worn or damaged pad and replace damaged pad immediately.
- Moisture or liquid can penetrate the damaged pad and hygiene requirements are then no longer satisfied.
- Do not clean/disinfect the pad mechanically.
- Do not use the cleaning agents or disinfectants containing alcohol.

# **▲** CAUTION

- Improper cleaning and disinfection can cause property damage.
- The adhesive force of the Velcro strap may be compromised due to contamination. It is recommended a plastic soft brush or a plastic comb used to remove the contamination.
- Pad should be stored lying flat and horizontal.
- When removing the pad, be sure to grasp it with both hands.
- Before installing the pad, make sure that the table top is dry.
- Do not use the disinfectant containing alcohol.
- Do not use the disinfectant containing chlorine or compounds which can release chlorine.

### 4.4.1 Cleaning

- 1. Remove the pad.
- 2. Clean the pad with a wet cloth.
- 3. Wipe the pad dry.
- 4. Before installing the pad, make sure the pad and its Velcro straps are dry.

# 4.4.2 Disinfection

Do not use the disinfectants containing alcohol to clean the pad. Disinfectants containing aldehydes are recommended.

# 4.5 Swivel Castor

- 1. Use a lint-free cloth dipped into a surface disinfectant to wipe the swivel castors.
- 2. Use a lint-free cloth dipped into the clean water to clean the castors.
- 3. Use a lint-free cloth to wipe the castors dry.
- Do not collide with the base or column when cleaning and disinfecting the castors under the base.

# **5** Maintenance

# 5.1 Inspections and Maintenance

# 5.1.1 Inspections

Perform the following inspections each time before using the operating table, or at least once a day.

- 1. Has the operating table been properly cleaned and/or disinfected?
- 2. Have the castors been properly locked?
- 3. Are there any cracks on the pad?
- 4. Has the pad been firmly fixed on the table top?
- 5. Are there any damaged mechanical parts?
- 6. Are there any damaged cables?
- 7. Are all table-top movements functional?

### 5.1.2 Maintenance

- Complete electrical / safety inspections should be conducted every year by personnel authorized by Nanjing Mindray.
- 2. It is recommended that the operating table be serviced by professionals every year.
- 3. It is recommended that the hydraulic oil be replaced by professionals every 5 years.

# **A** CAUTION

- The operating table may be used only when properly lubricated and fully functional. It is recommended that the operating table be lubricated every year by personnel authorized by Nanjing Mindray.
- If the load on the operating table exceeds 250kg, half-yearly maintenance is required.

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# **6** Troubleshooting

## 6.1 Malfunctions and Troubleshooting

- The chapter is meant to help you solve common problems only. In case you
  encounter problems not included in this chapter or following the introduced
  methods cannot solve the problem, contact the customer service
  department authorized by Nanjing Mindray for help. Unauthorized device
  servicing is not allowed.
- Device servicing is to be performed by personnel authorized by Nanjing Mindray only. Unauthorized device servicing can cause personal injury and/or property damage.
- Device servicing should be strictly based on technical data supplied by Nanjing Mindray. If you are in need of more technical data, contact the customer service department authorized by Nanjing Mindray or your local distributor.

| Error  | Cause  | Solution   |
|--|--|--|
| The operating table cannot be turned on.   | <ol> <li>The battery is dead and the mains supply is not connected.</li> <li>The power switch on the base of the operating table is off.</li> <li>The operating table is in transport mode.</li> </ol> | <ol> <li>Check whether the mains supply is connected.</li> <li>Check whether the battery is sufficiently charged.</li> <li>Check whether the power switch is on.</li> <li>Press and hold the key on the override panel.</li> </ol> |
| When you press the  Sude key, the table top cannot be slid and a sound signal (one tone) is heard. | The table top is in the extended range.  | Press and hold LOCK + SLIDE.   |

|   | Error                   | Cause                     | Solution                    |
|---|-------------------------|---------------------------|-----------------------------|
| The   | battery indicator is    | The battery is low.       | Connect the operating table |
| blinking (red).                                   |                         | The battery is low.       | to the mains supply.        |
| The table top cannot move and the operating table |                         | The castors are released. | (A)                         |
|   |                         |                           | Press Lock to lock the      |
| beeps (three tones).                              |                         |                           | castors.                    |
| 1.  | The power indicator     |                           |                             |
|   | (green) and the         |                           |                             |
|   | unlocking indicator     |                           |                             |
|   | (red) are blinking.     |                           |                             |
| 2.  | The power indicator     |                           | Contact the customer        |
|   | (green) and the locking |                           | service department          |
|   | indicator (yellow) are  | The operating table       | authorized by Nanjing       |
|   | blinking.               | malfunctions.             | Mindray or your local       |
| 3.  | The power indicator     |                           | distributor.                |
|   | (orange) is blinking.   |                           |                             |
| 4.  | All the indicators are  |                           |                             |
|   | blinking.               |                           |                             |
| 5.  | The operating table     |                           |                             |
|   | beeps (three tones).    |                           |                             |

# 6.2 Extending the Castors in Emergency

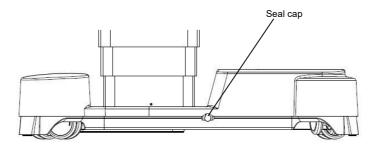


Figure 6-1 Extending the castors in emergency

- 1. Open the seal cap at the base.
- 2. Insert an 8mm Allen key into the opening.
- Turn the Allen key clockwise until the castors are extended (visual check). When the castors are fully extended, it will be very difficult or impossible to turn the Allen key.
- 4. Insert the seal cap.
- Move the defective operating table to the desired location and park it on its castors (secure it, if required).
- 6. Inform the customer service department.

# **▲** CAUTION

In case the castors are extended, do not press the locking button.
 Otherwise, the castors cannot be extended.

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# 7 Clamp

## 7.1 Intended Use

The clamp is intended to serve as an adaptor to mount operating table accessories.

Four types of clamps are available:

- Heavy radial clamp
- Light radial clamp
- Heavy quadrate clamp
- Light quadrate clamp

## **▲** WARNING

- There are totally 4 types of clamps available. Use the clamp that exactly matches your accessories. Otherwise, it can cause personal injury and/or property damage.
- The clamps are to be used with Nanjing Mindray's accessories only. Do not use them on other accessories.

# 7.2 Heavy Radial Clamp

## 7.2.1 Specifications

- 1. Permissible rod diameter: Φ16mm
- 2. Weight: 0.9kg
- 3. Suitable side rail: 25×10mm

## 7.2.2 Components

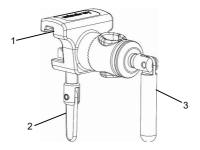


Figure 7-1 Heavy radial clamp

1 Clamp housing

2 Locking screw

3 Locking handle

#### 7.2.3 Installation and Use

### 7.2.3.1 Inspection before Use

The clamp is maintenance-free. However, wear due to use and aging can compromise its functionality and safety. Check the clamp carefully each time before use. Do not use the clamp if you see any sign of wear or damage.

# **A** WARNING

 Be sure to check the clamp each time before use. Do not use worn or damaged clamps.

#### 7.2.3.2 Installation and Use

- 1. Slide the clamp housing onto the side rail of the operating table.
- 2. Tighten the locking screw to lock the clamp.
- 3. Insert the accessory into the opening of the clamp.
- 4. Tighten the locking handle to lock the accessory.
- 5. Make sure both the clamp and the accessory are reliably installed.

- Make sure the clamp is tightly locked on the side rail and positioned upright.
   Otherwise, the accessory can fall and cause personal injury and/or property damage.
- Make sure both the locking screw and the locking handle are properly tightened. Otherwise, the accessory can fall and cause personal injury and/or property damage.

# 7.3 Light Radial Clamp

## 7.3.1 Specifications

- 1. Permissible rod diameter: Φ18mm, Φ16mm or Φ12mm
- 2. Weight: 0.8kg
- 3. Suitable side rail: 25×10mm

## 7.3.2 Components

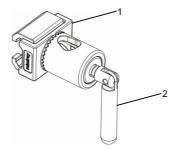


Figure 7-2 Light radial clamp

1 Clamp housing

2 Locking handle

### 7.3.3 Installation and Use

### 7.3.3.1 Inspection before Use

The clamp is maintenance-free. However, wear due to use and aging can compromise its functionality and safety. Check the clamp carefully each time before use. Do not use the clamp if you see any sign of wear or damage.

## **A** WARNING

 Be sure to check the clamp each time before use. Do not use worn or damaged clamps.

#### 7.3.3.2 Installation and Use

- 1. Slide the clamp housing onto the side rail of the operating table.
- 2. Insert the accessory into the opening of the clamp.
- 3. Tighten the locking handle to lock the accessory.
- 4. Make sure both the clamp and the accessory are reliably installed.

- Make sure the clamp is tightly locked on the side rail and positioned upright.
   Otherwise, the accessory can fall and cause personal injury and/or property damage.
- Make sure the locking handle is properly tightened. Otherwise, the accessory can fall and cause personal injury and/or property damage.
- Before removing the accessory, be sure to hold the clamp. Otherwise, it can fall and cause personal injury and/or property damage.

## 7.4 Heavy Quadrate Clamp

## 7.4.1 Specifications

- 1. Permissible rod diameter: 20×20mm
- 2. Weight: 0.6kg
- Suitable side rail: 25×10mm

## 7.4.2 Components

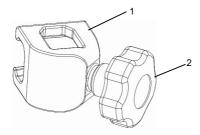


Figure 7-3 Heavy quadrate clamp

1 Clamp housing

2 Locking handle

### 7.4.3 Installation and Use

### 7.4.3.1 Inspection before Use

The clamp is maintenance-free. However, wear due to use and aging can compromise its functionality and safety. Check the clamp carefully each time before use. Do not use the clamp if you see any sign of wear or damage.

## **A** WARNING

 Be sure to check the clamp each time before use. Do not use worn or damaged clamps.

#### 7.4.3.2 Installation and Use

- 1. Slide the clamp housing onto the side rail of the operating table.
- 2. Insert the accessory into the opening of the clamp.
- 3. Tighten the locking handle to lock the accessory.
- 4. Make sure both the clamp and the accessory are reliably installed.

- Make sure the clamp is tightly locked on the side rail and positioned upright.
   Otherwise, the accessory can fall and cause personal injury and/or property damage.
- Make sure both the locking screw and the locking handle are properly tightened. Otherwise, the accessory can fall and cause personal injury and/or property damage.

# 7.5 Light Quadrate Clamp

## 7.5.1 Specifications

- 1. Permissible section: 6×25mm or Φ12mm
- 2. Weight: 0.45kg
- 3. Suitable side rail: 25×10mm

## 7.5.2 Components



Figure 7-4 Light quadrate clamp

1 Clamp housing

2 Locking handle

## 7.5.3 Installation and Use

### 7.5.3.1 Inspection before Use

The clamp is maintenance-free. However, wear due to use and aging can compromise its functionality and safety. Check the clamp carefully each time before use. Do not use the clamp if you see any sign of wear or damage.

## **A** WARNING

 Be sure to check the clamp each time before use. Do not use worn or damaged clamps.

#### 7.5.3.2 Installation and Use

- 1. As Figure 7-5 shows, slide the clamp housing onto the side rail of the operating table.
- 2. Insert the accessory into the opening of the clamp.
- 3. Tighten the locking handle to lock the accessory.
- 4. Make sure both the clamp and the accessory are reliably installed.

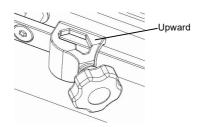


Figure 7-5 Correctly installing the clamp

- Make sure the clamp is tightly locked on the side rail and positioned upright.
   Otherwise, the accessory can fall and cause personal injury and/or property damage.
- Make sure the locking handle is properly tightened. Otherwise, the accessory can fall and cause personal injury and/or property damage.
- Be sure to correctly install the clamp, as Figure 7-5 shows. Otherwise, it can fall and cause personal injury and/or property damage.
- Before removing the accessory, be sure to hold the clamp. Otherwise, it can fall and cause personal injury and/or property damage.

# 7.6 Cleaning and Disinfection

## 7.6.1 Cleaning

All-purpose cleaning agents are recommended.

## NOTE

- Use the mildly alkaline cleaning agent (soap solution) to clean the clamp.
- All-purpose cleaning agents are those containing tensides and phosphates as the active cleaning ingredients.
- Use proper amount of the cleaning agent to clean the clamp, and remove any excessive agent and/or liquid by a dry cloth.

If the surface is extremely soiled,

- 1. Use the concentrated cleaning agent to clean the clamp.
- 2. Rinse the clamp with clean water.
- 3. Use a dry cloth to wipe the clamp.

## **A** CAUTION

- Be sure to only use the recommended agents and methods to clean the clamp.
- Do not use high-pressure cleaning devices.
- Do not use scouring agents.
- Do not use water containing metal particles, any metal tools (such as wire brushes or steel wool), or products containing hydrochloric acid.

## 7.6.2 Disinfection

The following disinfectants are recommended:

- Aldehydes
- Quaternary compounds
- Guanidine derivatives

## **A** WARNING

- Be sure to strictly follow the recommended cleaning/disinfecting methods to clean/disinfect the operating table.
- Do not use the cleaning agents or disinfectants containing alcohol where such medical devices as electrosurgical units, defibrillators or defibrillator monitors can be used. Otherwise, it can cause fire and/or explosion hazards.

## **A** CAUTION

- Do not use the disinfectants containing alcohol.
- Do not use the disinfectants containing chlorine or compounds which can release chlorine to disinfect the metal parts. Long-term use of these disinfectants may corrode the metal parts, hence compromising safety and effectiveness of the device. It is recommended that metal parts be disinfected by 2% alkaline glutaraldehyde.
- Be sure to only use the recommended disinfectants and methods.
- Do not use scouring agents.
- Do not use water containing metal particles, any metal tools (such as wire brushes or steel wool), or products containing hydrochloric acid.
- Do not disinfect the clamp mechanically.

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# 8 Anesthesia Frame

## 8.1 Intended Use

The anesthesia frame is intended to hold the surgical sheet used for sterile cover of the patient.

Three types of anesthesia frames are available:

- Heavy anesthesia frame
- Light anesthesia frame
- U-shaped anesthesia frame

- The anesthesia frame is part of the operating table system. Familiarize
  yourself with operation of the operating table before installing and using it.
- The anesthesia frame is only to be used with the operating tables and the clamps made by Nanjing Mindray. Do not use it with other products.
   Otherwise, it can cause personal injury and/or property damage.

## 8.2 Heavy Anesthesia Frame

## 8.2.1 Specifications

1. Height: 890mm

2. Adjustment range: 470 - 890mm

3. Width: 650mm (elongation tubes not included)

4. Diameter: Φ16mm

5. Length of the elongation tube: 300mm

6. Suitable clamp: light radial clamp

7. Weight: 2.7kg

## 8.2.2 Components



Figure 8-1 Heavy anesthesia frame

1 Vertical pole

2 Horizontal pole

3 Elongation tubes

#### 8 2 3 Installation and Use

#### 8.2.3.1 Inspection before Use

The anesthesia frame is maintenance-free. However, wear due to use and aging can compromise its functionality and safety. Check it carefully each time before use. Do not use it if you see any sign of wear or damage.

## A WARNING

 Be sure to check the anesthesia frame each time before use. Do not use the worn or damaged anesthesia frame.

#### 8.2.3.2 Installation and Use

- 1. Slide the clamp housing onto the side rail of the operating table.
- 2. Tighten the locking screw to lock the clamp.
- 3. Insert the vertical pole of the anesthesia frame into the opening of the clamp.
- 4. Adjust the vertical pole to a suitable height.
- 5. Tighten the locking handle to lock the anesthesia frame.
- 6. Hang the surgical sheet on the horizontal pole of the anesthesia frame.
- 7. Make sure both the clamp and the anesthesia frame are reliably installed.

- Only the radial clamps match the vertical pole of the heavy anesthesia frame. Do not use other clamps. Otherwise, it can cause personal injury and/or property damage.
- Make sure the clamp is tightly locked on the side rail and positioned upright.
   Otherwise, the anesthesia frame can fall and cause personal injury and/or property damage.
- Make sure the anesthesia frame is tightly fixed by the locking handle and positioned upright. Otherwise, the anesthesia frame can fall and cause personal injury and/or property damage.

## 8.3 Light Anesthesia Frame

## 8.3.1 Specifications

Height: 890mm
 Width: 650mm

3. Diameter: Φ12mm

4. Suitable clamp: light quadrate clamp

5. Weight: 1.5kg

## 8.3.2 Components

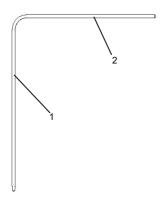


Figure 8-2 Light anesthesia frame

1 Vertical pole

2 Horizontal pole

## 8.3.3 Installation and Use

### 8.3.3.1 Inspection before Use

The anesthesia frame is maintenance-free. However, wear due to use and aging can compromise its functionality and safety. Check the clamp carefully each time before use. Do not use the clamp if you see any sign of wear or damage.

# **A** WARNING

 Be sure to check the anesthesia frame each time before use. Do not use the worn or damaged anesthesia frame.

#### 8.3.3.2 Installation and Use

- 1. Slide the clamp housing onto the side rail of the operating table.
- 2. Insert the vertical pole of the anesthesia frame into the opening of the clamp.
- 3. Adjust the vertical pole to a suitable height.
- 4. Tighten the locking handle to lock the accessory.
- 5. Hang the surgical sheet on the horizontal pole of the anesthesia frame.
- 6. Make sure both the clamp and the anesthesia frame are reliably installed.

- Only the light quadrate clamps match the vertical pole of the light anesthesia frame. Do not use other clamps. Otherwise, it can cause personal injury and/or property damage.
- Make sure the clamp is tightly locked on the side rail and positioned upright.
   Otherwise, the anesthesia frame can fall and cause personal injury and/or property damage.
- Make sure the anesthesia frame is tightly fixed by the locking handle and positioned upright. Otherwise, the anesthesia frame can fall and cause personal injury and/or property damage.

# 8.4 U-shaped Anesthesia Frame

## 8.4.1 Specifications

1. Height: 682mm

2. Adjustment range: 470 - 890mm

3. Width: 560mm

4. Diameter: Φ12mm

5. Suitable clamp: light quadrate clamp

6. Weight: 1.6kg

## 8.4.2 Components

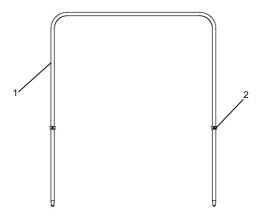


Figure 8-3 U-shaped anesthesia frame

1 Vertical pole

2 Rod fixture

#### 8 4 3 Installation and Use

#### 8.4.3.1 Inspection before Use

The anesthesia frame is maintenance-free. However, wear due to use and aging can compromise its functionality and safety. Check it carefully each time before use. Do not use it if you see any sign of wear or damage.

## **A** WARNING

 Be sure to check the anesthesia frame each time before use. Do not use the worn or damaged anesthesia frame.

#### 8.4.3.2 Installation and Use

- 1. Slide the clamp housing onto the side rail of the operating table.
- 2. Tighten the locking screw to lock the clamp.
- 3. Insert the vertical pole of the anesthesia frame into the opening of the clamp.
- 4. Adjust the vertical pole to a suitable height.
- 5. Tighten the locking handle to lock the anesthesia frame.
- 6. Hang the surgical sheet on the horizontal pole of the anesthesia frame.
- 7. Make sure both the clamp and the anesthesia frame are reliably installed.

- Only the light quadrate clamp matches the vertical pole of the heavy anesthesia frame. Do not use other clamps. Otherwise, it can cause personal injury and/or property damage.
- Make sure the clamp is tightly locked on the side rail and positioned upright.
   Otherwise, the anesthesia frame can fall and cause personal injury and/or property damage.
- Make sure the anesthesia frame is tightly fixed by the locking handle and positioned upright. Otherwise, the anesthesia frame can fall and cause personal injury and/or property damage.

## 8.5 Cleaning and Disinfection

## 8.5.1 Cleaning

All-purpose cleaning agents are recommended.

### NOTE

- Use the mildly alkaline cleaning agent (soap solution) to clean the anesthesia frame.
- All-purpose cleaning agents are those containing tensides and phosphates as the active cleaning ingredients.
- Use proper amount of the cleaning agent to clean the anesthesia frame, and remove any excessive agent and/or liquid by a dry cloth.

If the surface is extremely soiled,

- 1. Use the concentrated cleaning agent to clean the anesthesia frame.
- 2. Rinse the anesthesia frame with clean water.
- 3. Use a dry cloth to wipe the anesthesia frame.

## **A** CAUTION

- Be sure to only use the recommended agents and methods to clean the anesthesia frame.
- Do not use high-pressure cleaning devices.
- Do not use scouring agents.
- Do not use water containing metal particles, any metal tools (such as wire brushes or steel wool), or products containing hydrochloric acid.

#### 8.5.2 Disinfection

The following disinfectants are recommended:

- Aldehydes
- Quaternary compounds
- Guanidine derivatives

## **A** WARNING

 Do not use the cleaning agents or disinfectants containing alcohol where such medical devices as electrosurgical units, defibrillators or defibrillator monitors can be used. Otherwise, it can cause fire and/or explosion hazards.

## **A** CAUTION

- Do not use the disinfectants containing alcohol.
- Do not use the disinfectants containing chlorine or compounds which can release chlorine to disinfect the metal parts. Long-term use of these disinfectants may corrode the metal parts, hence compromising safety and effectiveness of the device. It is recommended that metal parts be disinfected by 2% alkaline glutaraldehyde.
- Be sure to only use the recommended disinfectants and methods.
- Do not use scouring agents.
- Do not use water containing metal particles, any metal tools (such as wire brushes or steel wool), or products containing hydrochloric acid.
- Do not disinfect the anesthesia frame mechanically.

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# 9 Arm Board

## 9.1 Intended Use

The arm board is intended to position the patient's arm (one for each arm) during the surgery. Two types of arm boards are available:

- Heavy arm board
- Light arm board

## **▲** WARNING

- The arm board is part of the operating table system. Familiarize yourself with operation of the operating table before installing and using it.
- The arm board is only to be used with the operating tables and the clamps made by Nanjing Mindray. Do not use it with other products. Otherwise, it can cause personal injury and/or property damage.

# 9.2 Heavy Arm Board

## 9.2.1 Specifications

Length: 600mm
 Width: 170mm

3. Height: 210mm

4. Height adjustment range: 75mm

5. Pole diameter: Φ16mm

6. Suitable clamp: heavy radial clamp

7. Weight: 2.1kg

8. Maximum load: 8.5kg

9. Lateral adjustment range: 180°

10. Vertical adjustment range: 30° up, 35° down

## 9.2.2 Components

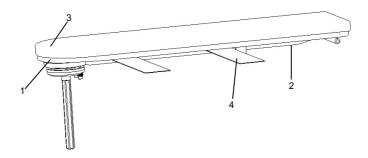


Figure 9-1 Heavy arm board

1 Arm board 2 Release bracket

3 Arm board pad 4 Fastening strap

#### 9.2.3 Installation and Use

#### 9.2.3.1 Inspection before Use

The arm board is maintenance-free. However, wear due to use and aging can compromise its functionality and safety. Check it carefully each time before use. Do not use it if you see any sign of wear or damage.

## **A** WARNING

 Be sure to check the arm board each time before use. Do not use the worn or damaged arm board.

#### 9.2.3.2 Installation and Use

- 1. Slide the clamp housing onto the side rail of the operating table.
- 2. Tighten the locking screw to lock the clamp.
- 3. Insert the vertical pole of the arm board into the opening of the clamp.
- 4. Adjust the vertical pole to a suitable height.
- 5. Tighten the locking handle to lock the arm board.
- 6. Adjust the arm board vertically and/or laterally to a suitable position.
- 7. Secure the patient's arm with the fastening strap.
- 8. Make sure both the clamp and the arm board are reliably installed.

- Only the radial clamps match the vertical pole of the heavy arm board. Do not use other clamps. Otherwise, it can cause personal injury and/or property damage.
- Make sure the clamp is tightly locked on the side rail and positioned upright.
   Otherwise, the arm board can fall and cause personal injury and/or property damage.
- Make sure the arm board is tightly fixed by the locking handle and positioned upright. Otherwise, the arm board can fall and cause personal injury and/or property damage.
- The maximum load of the arm board is 8.5kg. Do not use it beyond this limit.
- Do not lean on the arm board during the surgery. Otherwise, the patient's arm can be permanently damaged.

- Be sure to regularly check the position of the patient's arm during the surgery.
- It is recommended the arm board be positioned parallel to the table top.
   Otherwise, collision hazard is possible.
- When using the arm board, be sure to cover it with a surgical drape.

# 9.3 Light Arm Board

## 9.3.1 Specifications

Length: 550mm
 Width: 140mm
 Height: 140mm
 Weight: 2.1kg

5. Lateral adjustment range: 180°

6. Maximum load: 8.5kg

## 9.3.2 Components

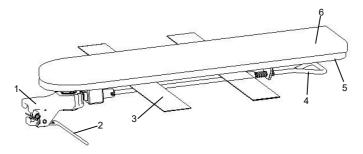


Figure 9-2 Light arm board

1 Clamp2 Locking handle3 Fastening strap4 Adjustment lever5 Arm board6 Arm board pad

### 9.3.3 Installation and Use

### 9.3.3.1 Inspection before Use

The arm board is maintenance-free. However, wear due to use and aging can compromise its functionality and safety. Check the clamp carefully each time before use. Do not use the clamp if you see any sign of wear or damage.

## **▲** WARNING

 Be sure to check the arm board each time before use. Do not use worn or damaged arm boards.

#### 9.3.3.2 Installation and Use

- 1. Hold the arm board with one hand.
- 2. Hold the clamp with the other hand.
- 3. Slide the clamp onto the side rail of the operating table and release the clamp.
- 4. Pull the adjustment lever and move the arm board to the desired position.
- 5. Secure the patient's arm with the fastening strap.
- 6. Make sure the arm board is reliably installed.

- Make sure the clamp is tightly locked on the side rail and positioned upright.
   Otherwise, the arm board can fall and cause personal injury and/or property damage.
- The maximum load of the arm board is 8.5kg. Do not use it beyond this limit.
- Do not lean on the arm board during the surgery. Otherwise, the patient's arm can be permanently damaged.
- Be sure to regularly check the position of the patient's arm during the surgery.
- It is recommended the arm board be positioned parallel to the table top.
   Otherwise, collision hazard is possible.
- When using the arm board, be sure to cover it with a surgical drape.

# 9.4 Cleaning and Disinfection

## 9.4.1 Cleaning

All-purpose cleaning agents are recommended.

## NOTE

- Use the mildly alkaline cleaning agent (soap solution) to clean the arm board.
- All-purpose cleaning agents are those containing tensides and phosphates as the active cleaning ingredients.
- Use proper amount of the cleaning agent to clean the arm board, and remove any excessive agent and/or liquid by a dry cloth.

If the surface is extremely soiled,

- 1. Use the concentrated cleaning agent to clean the arm board.
- Rinse the arm board with clean water.
- 3. Use a dry cloth to wipe the arm board.

## **A** CAUTION

- Be sure to only use the recommended agents and methods to clean the arm board.
- Do not use high-pressure cleaning devices.
- Do not use scouring agents.
- Do not use water containing metal particles, any metal tools (such as wire brushes or steel wool), or products containing hydrochloric acid.

#### 9.4.2 Disinfection

The following disinfectants are recommended:

- Aldehydes
- Quaternary compounds
- Guanidine derivatives

# **A** WARNING

 Do not use the cleaning agents or disinfectants containing alcohol where such medical devices as electrosurgical units, defibrillators or defibrillator monitors can be used. Otherwise, fire or explosion hazards are possible.

## **A** CAUTION

- Do not use the disinfectants containing alcohol.
- Do not use the disinfectants containing chlorine or compounds which can release chlorine to disinfect the metal parts. Long-term use of these disinfectants may corrode the metal parts, hence compromising safety and effectiveness of the device. It is recommended that metal parts be disinfected by 2% alkaline glutaraldehyde.
- Be sure to only use the recommended disinfectants and methods.
- Do not use scouring agents.
- Do not use water containing metal particles, any metal tools (such as wire brushes or steel wool), or products containing hydrochloric acid.
- Do not disinfect the arm board mechanically.

## 9.4.3 Cleaning/Disinfecting Pad

## **A** WARNING

- Liquid can penetrate damaged pad and cause hygienic problems.
- When disinfecting the patient's skin, make sure the disinfectant does not accumulate under the patient.

## **A** CAUTION

- Do not use the worn or damaged pad.
- Do not clean/disinfect the pad mechanically.
- Do not use the disinfectants containing alcohol.
- Do not use the disinfectants containing chlorine or compounds which can release chlorine.

## NOTE

- The pad should be stored lying flat and horizontal.
- Before installing the pad, make sure that the arm board is dry.

### 9.4.3.1 Cleaning

- Remove the pad.
- 2. Clean the pad with a wet cloth.
- 3. Wipe the pad dry.
- 4. Before installing the pad, make sure the pad and its Velcro strap are dry.

## 9.4.4 Cleaning Fastening Strap

Close the strap, and then wash, dry-clean, and iron it. After washing the Velcro strap, dry it properly.

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# 10 Appendices

# A Technical Specifications

#### A.1 Classification

#### A.1.1 According to the Type of Protection against Electrical Shock

- 1. Operating table: Class I, internal electrical power source.
- 2. Mobile charging station for IR remote control with LCD: Class II

# **▲** WARNING

 The operating table depends on the protective earth system to protect against electrical shock. Before installing it, check and make sure that the protective earth system in the operating room is reliable and safe.

#### A.1.2 According to Degree of Protection against Electrical Shock

Applied part is classified as type B.

#### A.1.3 According to Mode of Operation

Intermittent: 10 minutes on /20 minutes off.

# A.1.4 According to the Protection against Harmful Ingress of Water or Particulate Matter

- 1. Operating table: IPX4
- 2. Corded hand control and IR remote control with LCD: IPX4
- 3. Mobile charging station for IR remote control with LCD: IPX4
- 4. Foot switch: IPX8

# A.1.5 According to the Degree of Safety of Application in the Presence of a Flammable Anesthetic Mixture with Air or with Oxygen or with Nitrous Oxide

The operating table cannot be used in the presence of a flammable anesthetic mixture with air or with oxygen or with nitrous oxide.

#### A.2 Environment

#### A.2.1 AC power

1. 100-240V~ 50/60Hz 5.4-2.3A

#### A.2.2 Battery

1. Voltage: 24V DC (12V×2)

2. Time to fully charge the battery: about 10h

#### NOTE

- Fully charged batteries can run the operating table for about one week.
- Ten minutes after the first low battery alarm, the operating table will power off automatically.
- We recommend recharging the batteries overnight, but at least every 2 days, even if low battery alarm of the rechargeable batteries has not been indicated yet. Regular recharging of the batteries will not only ensure sufficient battery power available for the operation program, it will also serve to prolong the useful life of the rechargeable batteries.
- Do not use the damaged battery. If the battery is dead, contact the customer service department authorized by Nanjing Mindray or your local distributor.
- If the operating time of the battery (fully charged) is noticeably shorten, contact the customer service department authorized by Nanjing Mindray or your local distributor.

#### A.2.3 Fuse

250V T6.3AH

#### A.2.4 Operating Environment

1. Temperature: 5°C to 40°C

2. Humidity: 15% to 95%, non-condensing

3. Atmospheric pressure: 70kPa to 106kPa

#### A.2.5 Storage and Transportation

1. Temperature: -40°C to 60°C

Humidity: 10% to 95%, non-condensing

Atmospheric pressure: 50kPa to 106kPa

# **A** CAUTION

- During transportation, make sure that the operating table is well protected from rain, snow or mechanical collision.
- The operating table should be installed in a room that is dry, draughty and without caustic gas.

#### A.2.6 Environmental Protection

- Packaging: The packaging is made of materials compatible with the environment. The
  packaging should be disposed of in compliance with local governmental or hospital
  regulations.
- 2. Batteries: Batteries can be turned in to your local disposal system for proper handling.

#### A.2.7 RF Parameters

#### A.2.7.1 Mobile Charging Station

1. Work Frequency: 112-205KHz

2. Modulation Mode: AM

#### A.2.7.2 RFID

1. Work Frequency: 125KHz

Modulation Mode: AM

#### A.3 Load

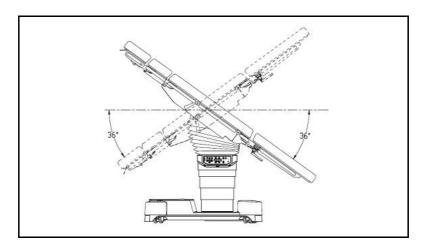
- 1. Maximum load: 460kg
- When the patient positioning at an overall load between 250kg and 460kg, please observe the following functional restrictions:
  - 1) Lock the castors.
  - 2) Do not position the patient to the reverse orientation.
  - 3) Do not operate the longitudinal shift.
  - 4) the extension of the lower back plate: ≤510mm.
  - 5) the extension of the short leg plate: ≤680mm.
  - 6) Maximum slope (Trendelenburg/reverse Trendelenburg) ±20°.
  - 7) Maximum tilt (left/right) ±5°.
  - 8) Maximum back plate adjustment +80° / -10°.
  - 9) Maximum leg plates adjustment ±10°.
  - 10) The beach chair position may be used for obesity or adiposity surgery if there are some supports.
- When the patient positioning at an overall load between 135kg and 250kg, please observe the following functional restrictions:
  - 1) If the operating table is unlocked and the patient orientation is normal:
    - the operating table is in the lowest height.
    - the extension of the lower back plate: ≤760mm.
    - the extension of the short leg plate: ≤930mm.
  - 2) If the operating table is unlocked and the patient orientation is reverse:
    - the operating table is in the lowest height.
    - the extension of the lower back plate: ≤930mm.
    - the extension of the short leg plate: ≤650mm.
  - 3) If the operating table is locked and the patient orientation is normal:
    - the extension of the lower back plate: ≤760mm.
    - the extension of the short leg plate: ≤930mm.
  - 4) If the operating table is locked and the patient orientation is reverse:
    - the extension of the lower back plate: ≤930mm.
    - the extension of the short leg plate: ≤650mm.

- 4. When the patient positioning with an overall load of up to 135kg, please observe the following functional restrictions:
  - 1) If the operating table is unlocked and the patient orientation is normal:
    - the extension of the lower back plate: ≤760mm.
    - the extension of the short leg plate: ≤930mm.
    - maximum height (bottom edge of pad): 940mm.
  - 2) If the operating table is unlocked and the patient orientation is reverse:
    - the extension of the lower back plate: ≤1130mm.
    - the extension of the short leg plate: ≤760mm.
    - maximum height (bottom edge of pad): 940mm.
  - 3) If the operating table is locked and the patient orientation is normal:
    - the extension of the lower back plate: ≤850mm.
    - the extension of the short leg plate: ≤1180mm.
  - 4) If the operating table is locked and the patient orientation is reverse:
    - the extension of the lower back plate: ≤1130mm.
    - the extension of the short leg plate: ≤1180mm.

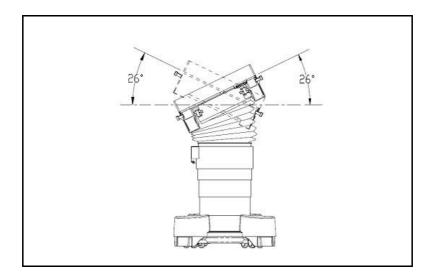
# A.4 Specifications

# A.4.1 HyBase 8300

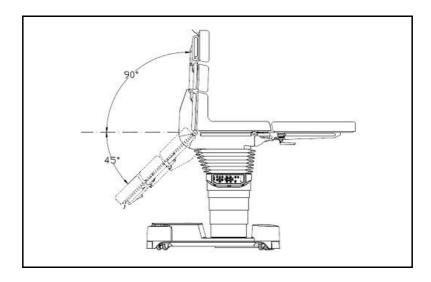
1. Table top Trendelenburg/ reverse Trendelenburg: 36°±5°.



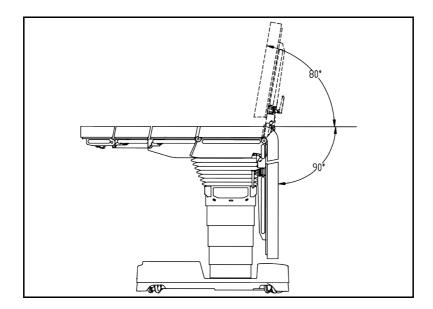
2. Table top tilt to left/right: 26°±5°.



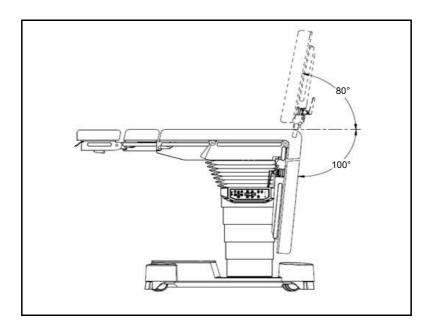
3. Back plate up/down: up 90°±5°, down 45°±5°.



The table top is in 0-position.
 Leg plate up/down: up 80°±5°, down 90°±8°.



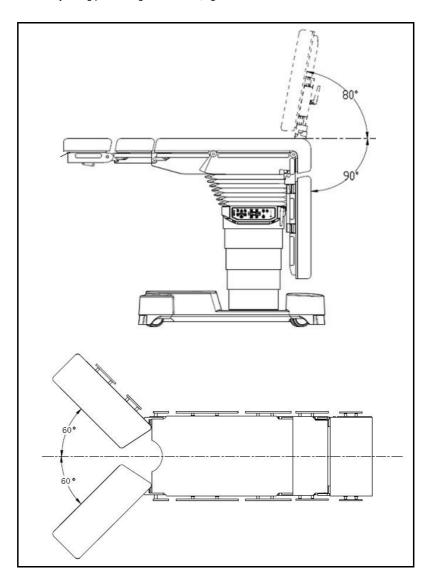
The table top is slid to the limit of the foot end.
 Leg plate up/down: up 80°±5°, down 100°±8°.



6. The table top is in 0-position.

Dual-joint leg plate up/down: up 80°±5°, down 90°±8°.

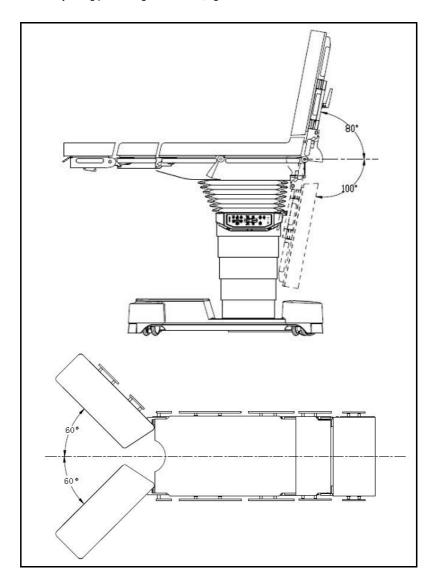
Dual-joint leg plate left/right: left 60°±5°, right 60°±5°.



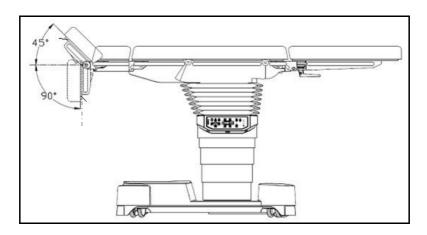
7. The table top is slid to the limit of the foot end.

Dual-joint leg plate up/down: up 80°±5°, down 100°±8°.

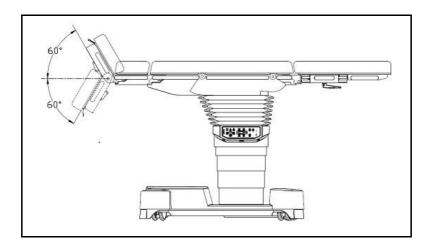
Dual-joint leg plate left/right: left 60°±5°, right 60°±5°.



8. Head plate up/down: up 45°±5°, down 90°±5°.



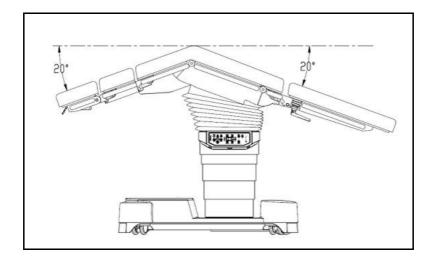
9. Dual-joint head plate up/down: up 60°±5°, down 60°±5°.



# 10. Flex position:

Reverse Trendelenburg: 20°±3°.

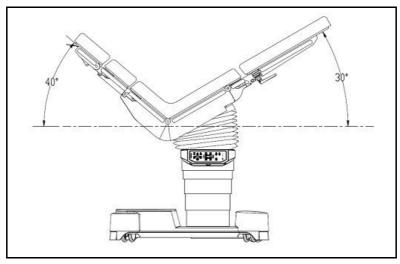
Back plate down: 40° ±6°.



# 11. Re-flex position:

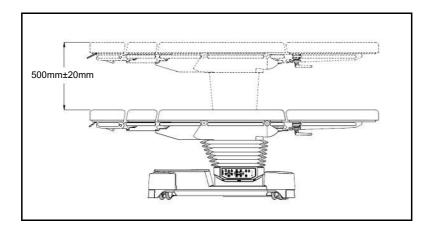
Trendelenburg: 30°±3°.

Back plate up: 70°±6°.

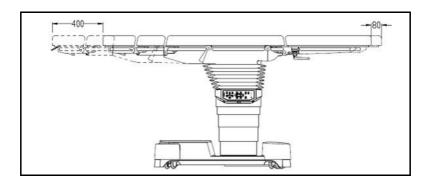


12. Maximum table-top height: 1075mm±20mm.

Minimum table-top height: 575mm±5mm.



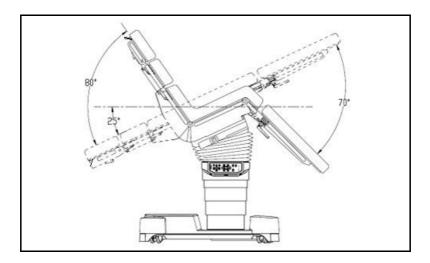
13. Table top longitudinal shift: 480mm±20mm.



# NOTE

 The longitudinal shift (400mm) consists of a standard range of 230mm and an extended range of 170mm in the direction of the head. See chapter 1.2.7 for details. 14. Back plate up: 80°±6°.

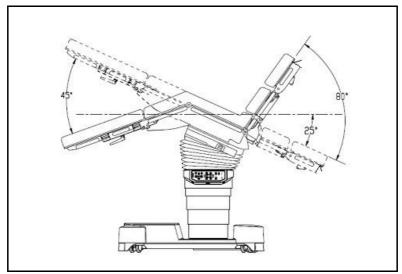
Trendelenburg: 25°±3°.
Leg plate down: 70°±6°.



15. Back plate up: 80°±6°.

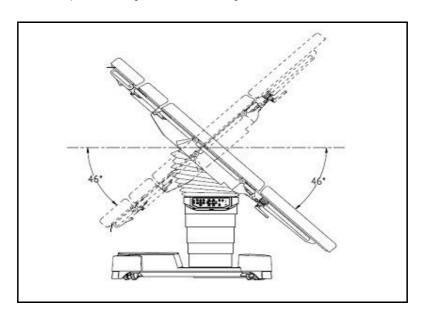
Trendelenburg: 25°±3°.

Leg plate down: 45°±6°.

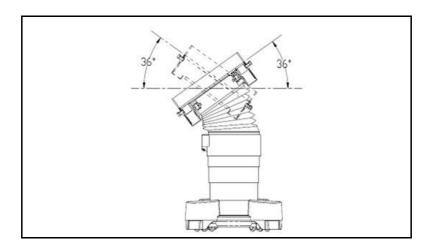


# A.4.2 HyBase 8500

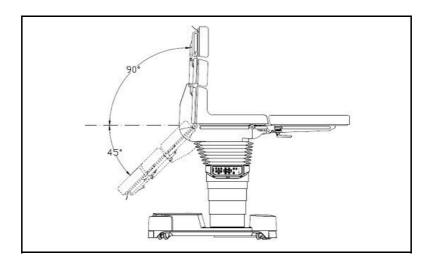
1. Table top Trendelenburg/ reverse Trendelenburg: 46°±5°.



2. Table top tilt left/right: 36°±5°.

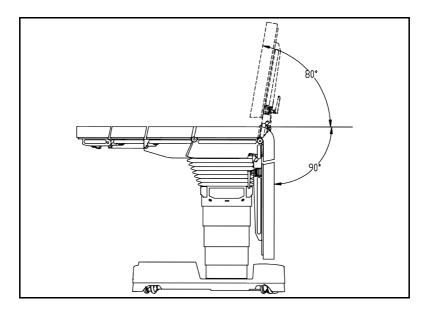


3. Back plate up/down: up 90°±5°, down 45°±5°.

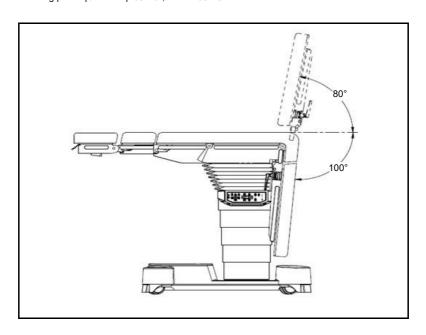


4. The table top is in 0-position.

Leg plate up/down: up 80°±5°, down 90°±8°.



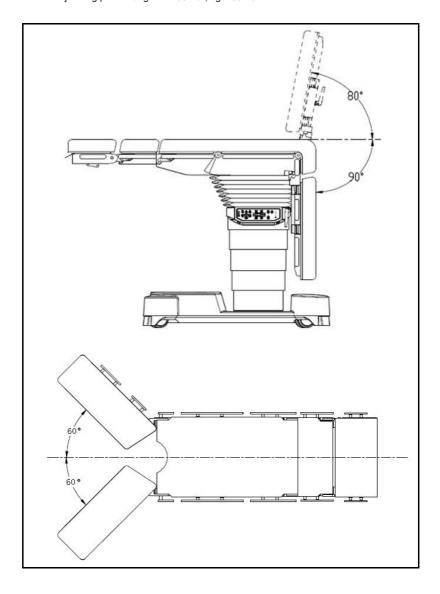
The table top is slid to the limit of the foot end.
 Leg plate up/down: up 80°±5°, down 100°±8°.



6. The table top is in 0-position.

Dual-joint leg plate up/down: up 80°±5°, down 90°±8°.

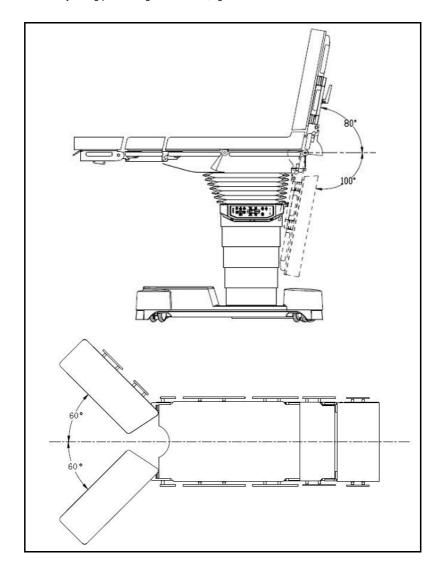
Dual-joint leg plate left/right: left 60°±5°, right 60°±5°.



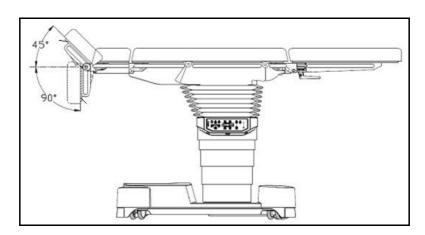
7. The table top is slid to the limit of the foot end.

Dual-joint leg plate up/down: up 80°±5°, down 100°±8°.

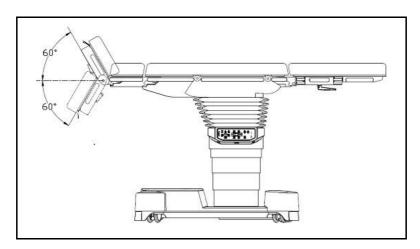
Dual-joint leg plate left/right: left 60°±5°, right 60°±5°.



8. Head plate up/down: up 45°±5°, down: 90°±5°.



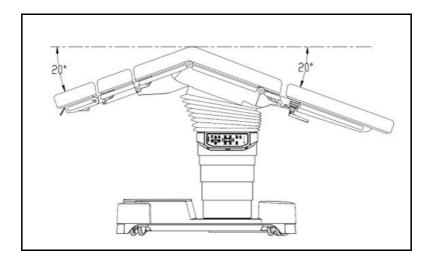
9. Dual-joint head plate up/down: up 60°±5°, down: 60°±5°.



# 10. Flex position:

Reverse Trendelenburg: 20°±3°.

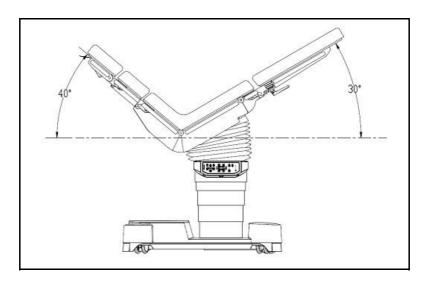
Back plate down: 40°±6°.



# 11. Re-flex position:

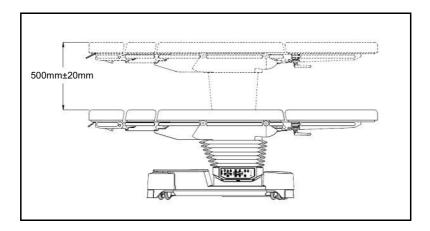
Trendelenburg: 30°±3°.

Back plate up: 70°±6°.

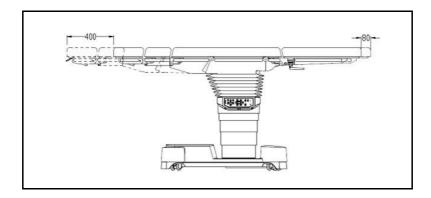


12. Maximum table-top height: 1200mm±20mm.

Minimum table-top height: 700mm±5mm.



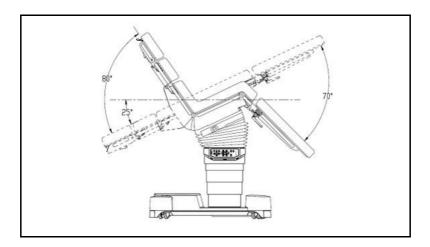
13. Table top longitudinal shift: 480mm ±20mm.



# NOTE

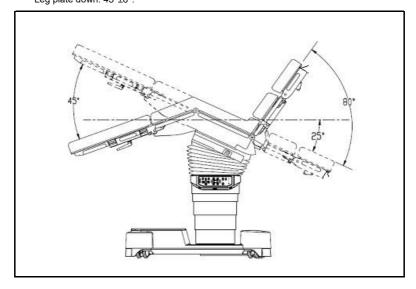
 The longitudinal shift (400mm) consists of a standard range of 230mm and an extended range of 170mm in the direction of the head. See chapter 1.2.7 for details. 14. Back plate up: 80°±6°.

Trendelenburg: 25°±3°.
Leg plate down: 70°±6°.



15. Back plate up: 80°±6°.

Trendelenburg: 25°±3°. Leg plate down: 45°±6°.

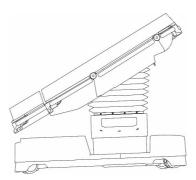


# A.5 Instructions against Special Positions

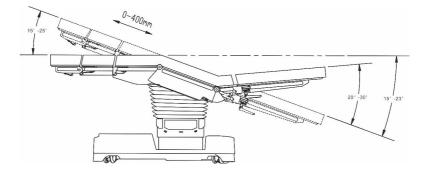
 When sloping the table top toward head end (Trendelenburg position) and lowering the table top, carefully observe the movements to prevent the head plate from colliding with the base cover and ground.

# NOTE

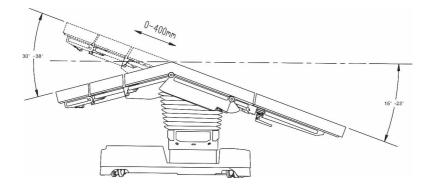
 To obtain a greater Trendelenburg angle, remove the head plate and leg plate.



When positioning a patient as shown in the figure below, ensure an overall load is no more than 135kg. In this position, longitudinally shift toward the head end is permitted.



3. When positioning a patient as shown in the figure below, ensure the tilt angle is no greater than 10° and an overall load is no more than 135kg. In this position, longitudinally shift toward the head end is permitted.



# A.6 Accessories

| Item | Name                           |
|------|--------------------------------|
| 1    | Head plate                     |
| 2    | 2-joint head plate             |
| 3    | 1-joint leg plate              |
| 4    | 2-joint leg plate              |
| 5    | Upper back plate               |
| 6    | Corded hand control            |
| 7    | Corded hand control, LCD       |
| 8    | IR hand control, LCD           |
| 9    | Extension plate                |
| 10   | Cardiac operating plate        |
| 11   | Carbon fiber arm board         |
| 12   | Pad                            |
| 13   | Head plate pad                 |
| 14   | Back plate pad                 |
| 15   | Leg plate pad                  |
| 16   | Light Ana. Frame               |
| 17   | Heavy Ana. Frame               |
| 18   | U-Shaped Ana. Frame            |
| 19   | Adaptor for head position      |
| 20   | Universal adaptor              |
| 21   | Head rest,HyHead-1             |
| 22   | Head rest,HyHead-2             |
| 23   | Ophthalmic operating plate     |
| 24   | Light arm board                |
| 25   | Heavy arm board                |
| 26   | Suspended arm strap            |
| 27   | Wristlet                       |
| 28   | Arm operating table            |
| 29   | Double arm board               |
| 30   | Arm board for lateral position |
| 31   | clamp                          |
| 32   | shoulder support               |
| 33   | Light shoulder support         |
| 34   | Heavy body support             |
| 35   | Light body support             |
| 36   | Heavy leg support              |
| 37   | Light leg support              |
| 38   | Leg holder with loops          |

| Item | Name                                   |  |  |
|------|--|--|--|
| 39   | Stirrups                               |  |  |
| 40   | One-section leg plate                  |  |  |
| 41   | Thigh holder                           |  |  |
| 42   | Shank holder                           |  |  |
| 43   | Foot plate                             |  |  |
| 44   | Pad for intervertebral disc operations |  |  |
| 45   | Body strap                             |  |  |
| 46   | Cassette fixer                         |  |  |
| 47   | Infusion holder                        |  |  |
| 48   | Drainage bowl                          |  |  |
| 49   | Rectal positioning device              |  |  |
| 50   | Foot switch                            |  |  |
| 51   | Accessory cart                         |  |  |
| 52   | Mayo instrument tray                   |  |  |
| 53   | Instrument tray                        |  |  |
| 54   | Hand grips                             |  |  |
| 55   | Pelvis width extender                  |  |  |
| 56   | Lead-acid battery                      |  |  |
| 57   | Ortho extension                        |  |  |
| 58   | Tibia & fibula extension               |  |  |
| 59   | Lateral femur extension                |  |  |
| 60   | Arthroscopic leg holder                |  |  |
| 61   | Back plate for shoulder operation      |  |  |
| 62   | Upper arm support                      |  |  |
| 63   | Meniscus positioning device            |  |  |
| 64   | Humerus countertraction post           |  |  |
| 65   | Axilla countertraction post            |  |  |
| 66   | Elbow countertraction post             |  |  |
| 67   | Weinberger hand traction device        |  |  |
| 68   | Forearm extension device               |  |  |
| 69   | Upper arm extension device             |  |  |
| 70   | Head rest with guiding roller          |  |  |
| 71   | Transfer board, hook version           |  |  |
| 72   | 4-parts leg plate                      |  |  |
| 73   | Short upper back plate                 |  |  |
| 74   | Side rail extension                    |  |  |
| 75   | Leg restraint cuff, thigh              |  |  |
| 76   | Leg restraint cuff, shank              |  |  |
| 77   | Orthopaedic extension device, CF       |  |  |
| 78   | Ortho extension cart, CF               |  |  |
| 79   | Prone position pillow                  |  |  |
| 80   | Head ring                              |  |  |

| Item | Name                             |
|------|----------------------------------|
| 81   | Horseshoe head ring, small       |
| 82   | Universal supine pad             |
| 83   | Ophthalmic head pad              |
| 84   | Pillow for supine position       |
| 85   | Universal Head Pad               |
| 86   | Universal arm board pad          |
| 87   | Elbow protection strap           |
| 88   | Wrist protector                  |
| 89   | Lateral positioner               |
| 90   | Pad for intervertebral disc      |
| 91   | Chest-hipbone pad                |
| 92   | Pad for countertraction post     |
| 93   | Body strap                       |
| 94   | Arm/leg pad                      |
| 95   | Heel pad, one piece              |
| 96   | Universal square pad             |
| 97   | Ankle protection strap           |
| 98   | Table pads                       |
| 99   | Module cart                      |
| 100  | Carbon fiber multi-purpose plate |
| 101  | Headrest system                  |
| 102  | Skull clamp                      |
| 103  | Swivel adaptor                   |
| 104  | Adjustable base unit             |
| 105  | Skull pins                       |
| 106  | Crossbar adaptor                 |
| 107  | Multi-function foot plate        |
| 108  | Arm traction device              |
| 109  | Struma position pillow           |
| 110  | Universal hip pad                |
| 111  | Gel body roll,                   |
| 112  | Hip pad with special bubble      |
| 113  | Fracture table post pads         |
| 114  | Ortho extension cart             |
| 115  | Carbon fiber accessory adaptor   |

# NOTE

 If you want to know more information, please see the accessories brochure for details.

#### A.7 EMC

The device meets the requirements of IEC 60601-1-2: 2014.

# **A** WARNING

- Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this device could result in increased electromagnetic emissions or decreased electromagnetic immunity of this device and result in improper operation.
- Use of this device adjacent to or stacked with other device should be avoided because it could result in improper operation. If such use is necessary, this device and the other device should be observed to verify that they are operating normally.
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the HyBase 8300/HyBase 8500 operating table, including cables specified by the manufacturer. Otherwise, degradation of the performance of this device could result.
- The non-ME EQUIPMENT (e.g. ITE) that is a part of an ME SYSTEM may be disrupted by the electromagnetic interference of nearby equipment. It may be necessary to take mitigation measures, such as re-orienting or relocating the non-ME EQUIPMENT or shielding the location.
- This device is intended for use in professional healthcare facility environment only. If it is used in special environment, such as magnetic resonance imaging environment, the equipment/system may be disrupted by the operation of nearby equipment.

Table 10-1 Guidance and Declaration-Electromagnetic Emissions

#### **Guidance and Declaration-Electromagnetic Emissions**

The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.

| Emissions test  | Compliance        | Electromagnetic environment-guidance   |  |
|---|-------------------|--|--|
| Conducted and radiated RF EMISSIONS CISPR 11                  | Group 1           | The device uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic device. |  |
| Conducted and radiated RF EMISSIONS CISPR 11                  | Class A           | The device is suitable for use in all establishments other than domestic and those directly connected  |  |
| Harmonic distortion<br>IEC 61000-3-2                          | Not<br>applicable | to the public low-voltage power supply network that supplies buildings used for domestic   |  |
| Voltage fluctuations and flicker IEC 61000-3-3 Not applicable |                   | purposes.  |  |

#### NOTE

- The device needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided below.
- Other devices may affect this device even though they meet the requirements of CISPR.
- The EMISSIONS characteristics of this device make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this device might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the device.
- If the essential performance is lost or degraded, it may be necessary to take
  mitigation measures, such as re-orienting or relocating the ME EQUIPMENT
  or ME SYSTEM or shielding the location or stopping using the device and
  contact the service personnel

If the device is operated within the electromagnetic environment listed in Table Guidance and Declaration —Electromagnetic Immunity, the system will remain safe and provide the following essential performance: realize the normal movement is recognized as the essential performance.

Table 10-2 Guidance and Declaration-Electromagnetic Immunity

#### **Guidance and Declaration-Electromagnetic Immunity**

The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.

| Immunity test  | IEC60601 test<br>level  | Compliance level  | Electromagnetic environment-guidance   |
|--|---|---|--|
| Electrostatic<br>discharge (ESD)<br>IEC 61000-4-2                  | ±8 kV contact<br>±15 kV air   | ±8 kV contact<br>±15 kV air   | Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.  |
| Electrical fast transient/burst IEC 61000-4-4  Surge IEC 61000-4-5 | ±2 kV for power<br>supply lines<br>±1 kV for<br>input/output lines<br>(length greater than<br>3 m)<br>±1 kV line(s) to<br>line(s)<br>±2 kV line(s) to | ±2 kV for power<br>supply lines<br>±1 kV for<br>input/output lines<br>(length greater than<br>3 m)<br>±1 kV line(s) to<br>line(s)<br>±2 kV line(s) to | Mains power quality should be that of a typical commercial or hospital environment.  |
| Voltage dips and voltage interruptions                             | earth $0 \% \ U_T \ for \ 0,5 \ cycle$ $0 \% \ U_T \ for \ 1 \ cycle$ and $70 \% \ U_T \ for$ $25/30 \ cycles$ $0 \% \ U_T \ for \ 250/300 \ cycle$   | earth $0 \% \ U_T \ for \ 0,5 \ cycle$ $0 \% \ U_T \ for \ 1 \ cycle$ and $70 \% \ U_T \ for$ $25/30 \ cycles$ $0 \% \ U_T \ for \ 250/300 \ cycle$   | Mains power quality should be that of a typical commercial or hospital environment. If the user of our product requires continued operation during power mains interruptions, it is recommended that our product be powered from an uninterruptible power supply or a battery. |
| RATED power frequency  | 30 A/m<br>50 Hz / 60 Hz   | 30 A/m<br>50 Hz / 60 Hz   | Power frequency magnetic fields should be  |

| magnetic fields  |                  | at levels characteristic of a |  |
|--|------------------|-------------------------------|--|
| IEC 61000-4-8  |                  | typical location in a typical |  |
|  | commercial or ho |                               |  |
|  |                  | environment.                  |  |
| Note: U <sub>⊤</sub> is the A.C. mains voltage prior to application of the test level. |                  |                               |  |

Table 10-3 Guidance and Declaration-Electromagnetic Immunity

#### **Guidance and Declaration-Electromagnetic Immunity**

The device is intended for use in the specified electromagnetic environment. The customer or the user of the device should assure that it is used in such an environment as described below.

| I   | IEC60601  | Complianc | Electromagnetic   |  |
|---|---|-----------|---|--|
| Immunity test   | test level  | e level   | environment-guidance  |  |
| Conducted<br>disturbances<br>induced by RF<br>fields<br>IEC61000-4-6    | 3 Vrms<br>150 kHz to 80<br>MHz  | 3 Vrms    | Portable and mobile RI communications equipment should be used no closer to any part of the device, including cables, than the  |  |
|   | in ISM bands <sup>a</sup><br>between 0,15<br>MHz and 80 MHz               | 6 Vrms    | recommended separation distance calculated from the equation applicable to the frequency of the transmitter.  |  |
| Radiated RF EM fields IEC61000-4-3                                      | 3 V/m<br>80 MHz to 2.7<br>GHz   | 3 V/m     | Recommended separation distances:   |  |
| Proximity fields from RF wireless communications equipment IEC61000-4-3 | 27 V/m<br>380–390 MHz   | 27 V/m    | $d = \left[\frac{3.5}{V}\right] \sqrt{P}$ 150k to 80 MHz $d = \left[\frac{3.5}{V}\right] \sqrt{P}$  |  |
|   | 28 V/m<br>430–470 MHz,<br>800–960 MHz,<br>1700–1990 MHz,<br>2400–2570 MHz | 28 V/m    | $d = \left[\frac{3.5}{E}\right]\sqrt{P}$ 80 MHz to 800 MHz $d = \left[\frac{7}{E}\right]\sqrt{P}$ 800 MHz to 2.7 GHz Where $P$ is the maximum output power rating of the transmitter in   |  |
|   | 9 V/m<br>704–787 MHz,<br>5100–5800 MHz                                    | 9 V/m     | watts (W) according to the transmitter manufacturer and $d$ is the recommended separation distance in meters (m).  Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey b, should be less than the compliance level in each frequency range c. Interference may occur in the vicinity of equipment marked with the following |  |

Note 1: At 80 MHz to 800 MHz, the higher frequency range applies.

Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

- a. The ISM (industrial, scientific, and medical) bands 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.
- b. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the device.
- c. Over the frequency ranges 150 kHz to 80 MHz, field strengths should be less than 3V/m.

Table 10-4 Recommended Separation Distance between Portable and Mobile RF,

#### Communications Equipment and This Equipment

# Recommended Separation Distance between Portable and Mobile RF, Communications Equipment and This Equipment

The equipment is intended for use in an electromagnetic environment in which radiated RF disturbance are controlled. The customer or the user of the device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the device as recommended below, according to the maximum output power of the communication equipment.

|   | Separation distance according to frequency of transmitter (m) |   |   |  |  |
|---|---|---|---|--|--|
| Rated Maximum                               | 150kHz-80MHz  | 80MHz-800MHz                              | 800MHz-2.7GHz                           |  |  |
| Output power of<br>Transmitter Watts<br>(W) | $d = \left[\frac{3.5}{V}\right] \sqrt{P}$                     | $d = \left[\frac{3.5}{E}\right] \sqrt{P}$ | $d = \left[\frac{7}{E}\right] \sqrt{P}$ |  |  |
| 0.01  | 0.12  | 0.12                                      | 0.23                                    |  |  |
| 0.1   | 0.38  | 0.38                                      | 0.73                                    |  |  |
| 1   | 1.2   | 1.2                                       | 2.3                                     |  |  |
| 10  | 3.8   | 3.8                                       | 7.3                                     |  |  |
| 100   | 12  | 12  | 23                                      |  |  |

For transmitters 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 transmitter manufacturer.

Note 1: At 80 MHz to 800 MHz, the higher frequency range applies.

Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

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Declaration of Conformity V1.0

CE

#### **Declaration of Conformity**

Manufacturer: Nanjing Mindray Bio-Medical Electronics Co., Ltd.

666# Middle Zhengfang Road, Jiangning, 211100 Nanjing,

Jiangsu, P.R.China

EC-Representative: Shanghai International Holding Corp. GmbH (Europe)

Eiffestrasse 80, 20537 Hamburg, Germany

(DIMDI No.: DE/0000040627)

Product Name: Operating Table

Model: HyBase 8500;HyBase 8300

Object of the declaration: We declare on our sole responsibility that the product mentioned above satisfies the provisions of Directive 2014/53/EU concerning radio equipment. All supporting documentation is retained under the premises of the manufacturer.

The product complies with following standards and/or other normative documents:

Standards Applied: EN 60601-1:2006+A1:2013;

EN 60601-1-2:2007/AC:2010;

EN 62311:2008; EN62479:2010;

ETSI EN 301 489-1 V2.1.1;

Final Draft ETSI EN 301 489-3 V2.1.1;

EN 300 330 V2.1.1; EN 303 417 V1.1.1;

Place, Date of Issue: NanJing, April 18, 2018

Signature: Li Xiaoqiao 2018-4-18

Name of Authorized Signatory: Mr. Li Xiaoqiao

Position Held in Company: Management Representative

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