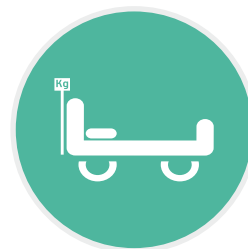


Alex ICUBED

Verticalizing bed with
integrated weighing system



BED WITH
INTEGRATED SCALE

Frequent usage

Nursing home special
care unit
Semi intensive care
unit
Intensive care unit
Rehabilitation
Severe brain injuries
Coma recovery unit
Hospitalization
Long term
hospitalization
Transplant centre
Burn center



version with accessories



progressive verticalization

Early mobility & progressive
verticalization



www.gardhenbalance.it



Progressive verticalization and early mobility

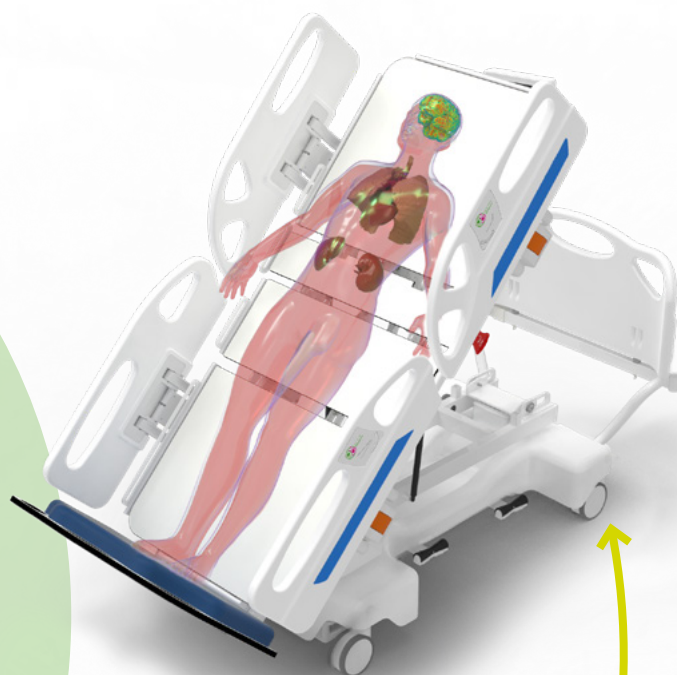
Alex ICUBED is a scale bed that autonomously allows the early mobilization of bedridden patients avoiding the risky transfer of them to other medical devices designated for this purpose. Through cycles of passive mobilization (such as progressive verticalization and / or lateral tilt) the patient will have a functional recovery that is very important to have an early discharge.

The advantages of passive postural gymnastics in standing and/or tilt are synthetically represented in the following chart but already widely known in the scientific literature. Starting the mobilization process from the early stages of of bedridden patient's hospitalization is in fact clinically strategic since it significantly reduces the side effects of long immobility that usually occur with some severe pathologies.

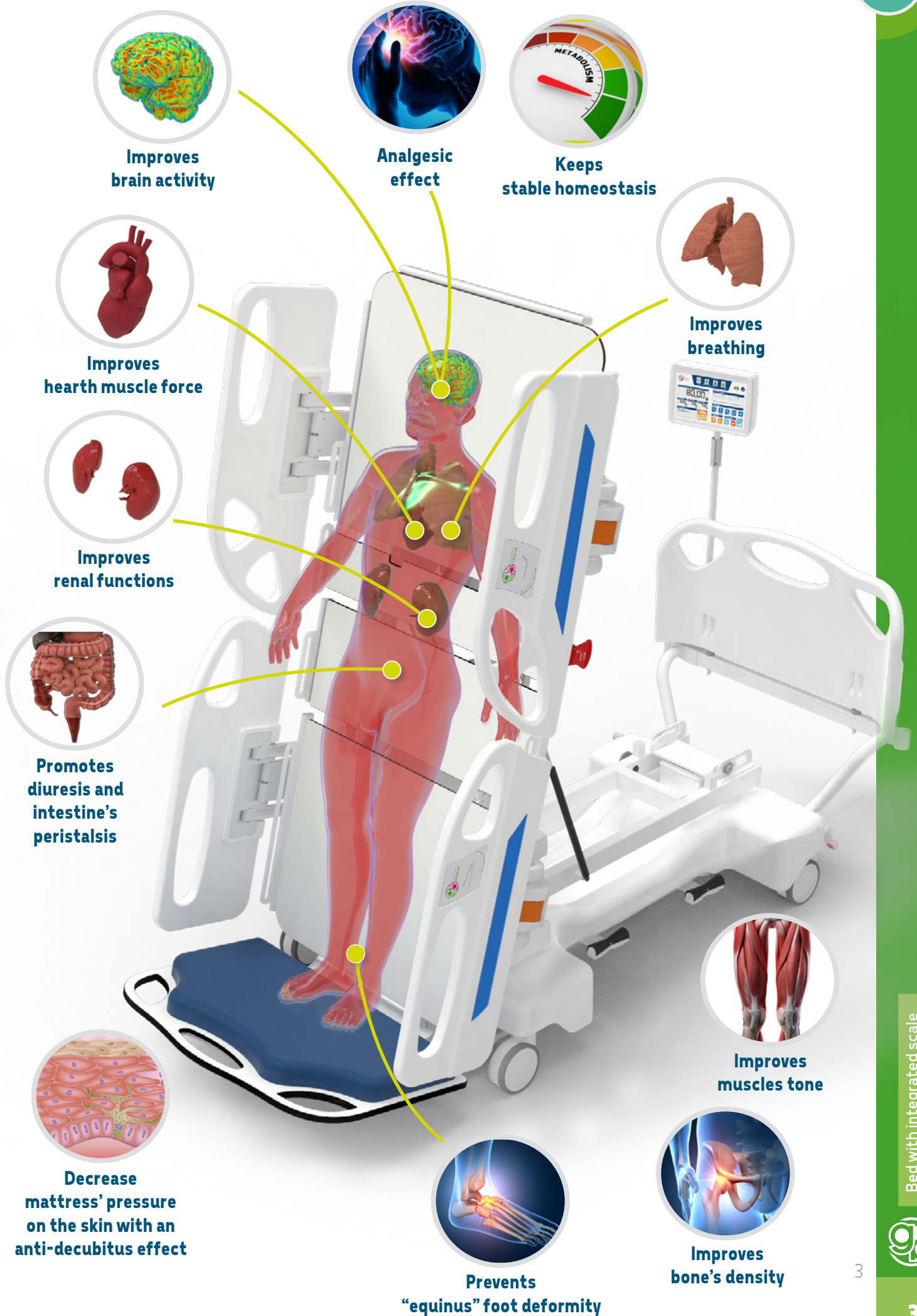
The early mobility of patients also represents a significant advantage for the healthcare organization, and it is even more important if performed with this medical device which can be operated by a single operator via easily accessible controls.

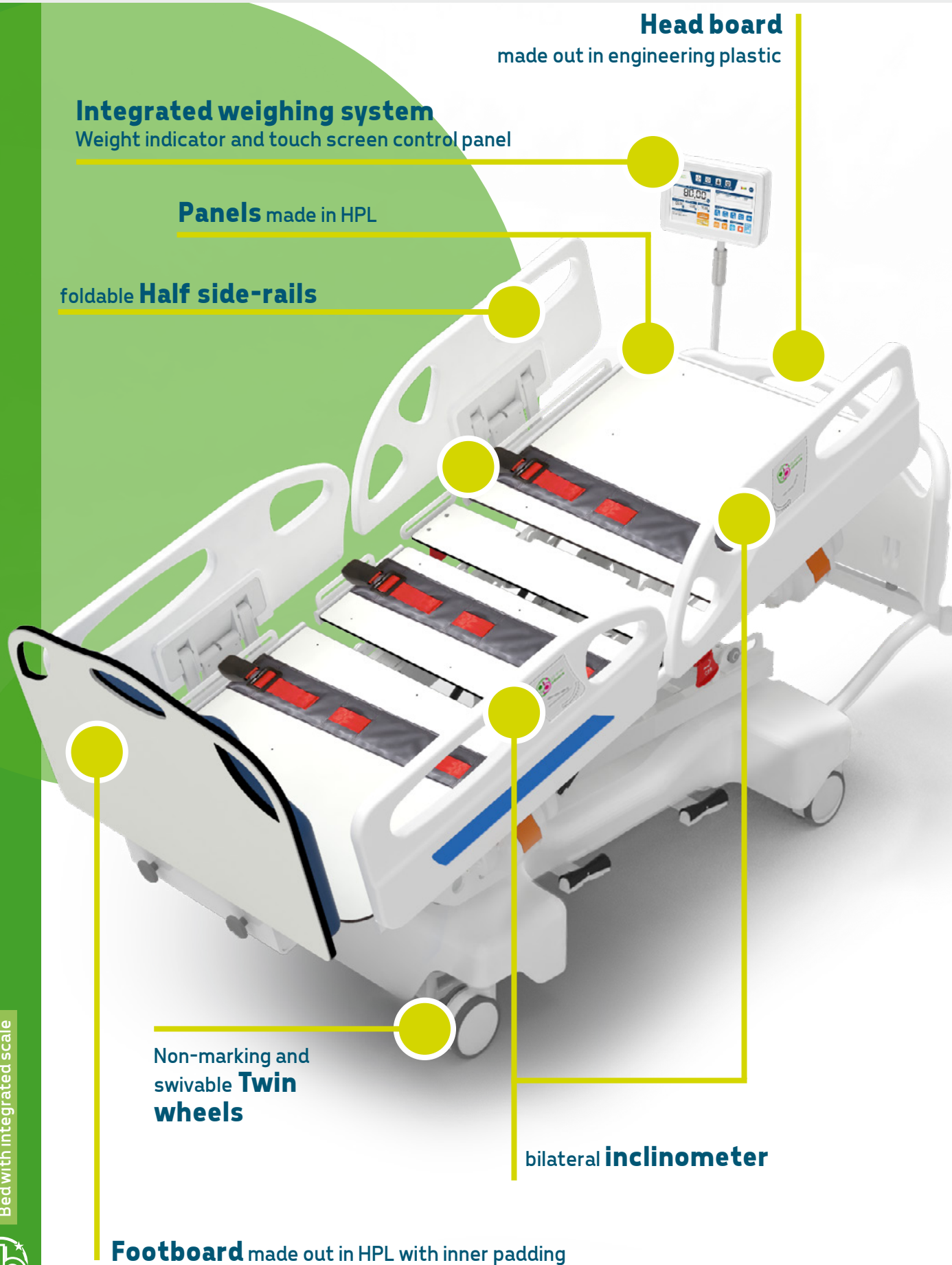
During the movements, **the patient is completely protected by 4 safety belts adjustable in width.** The early progressive mobility and rehabilitation of clinically stable patients, performed with the Alex Tilt Version, allows the patient's emotional participation even if they are going through an acute phase of severe pathology.

In fact, the patient experiencing progressive early mobility usually perceives a range of sensations and emotions that are usually linked to positive achievements and gradual recovery.



Progressive verticalization and Early mobility

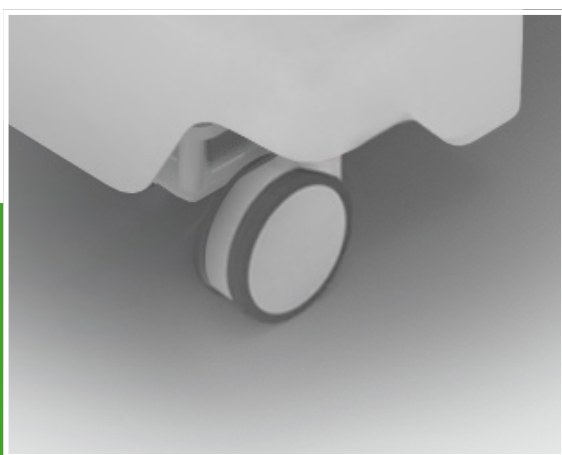
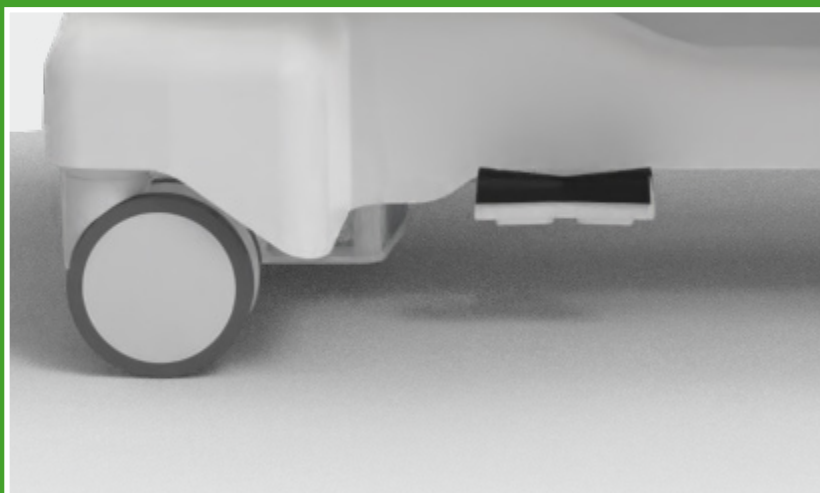






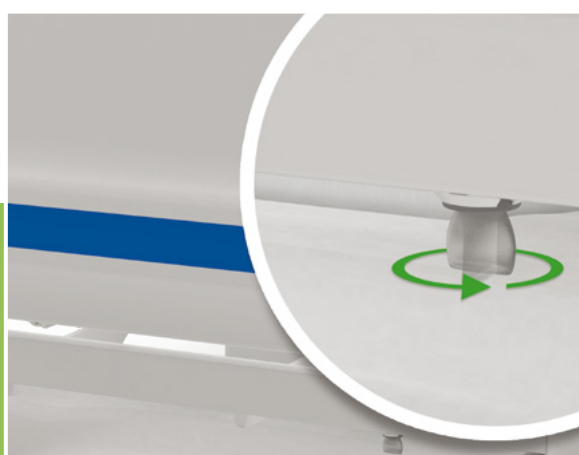
Pedal control

Bilateral foot pedal placed on the base frame. It handles the movement of the verticalisation.



Braking system

Motorised centralised braking system.
Equipment code AC7L/4.



Head panel safety lock

Equipment code AC121.



Safety belts

Equipment code AC168.
Silicone-coated bands - Equipment code AC87.



Head strap

Equipment code AC178.



Control console - GB Touch

Alex Icubed bed is equipped with a 10.1" HD Touch Screen Display with a 160° viewing angle that is useful for managing all the **device's movements**. The GB Touch guarantees perfect visibility in all light conditions, thanks to its size and the technical characteristics of the touch display - Equipment code AC167.



MOVEMENTS AND FUNCTIONS

Movement of sections:

- Back Section
- Femoral Section
- Trendelenburg and reverse Trendelenburg
- Simultaneous back/femoral sections
- Variable height
- Lateral tilt (optional)
- Verticalization

Memory functions:

- CPR
- Trendelenburg
- Examination Position
- Cardiology Position
- Input/Output Position

Braking system:

- Brake block
- Brake release
- Directional





Control console - Control Panel

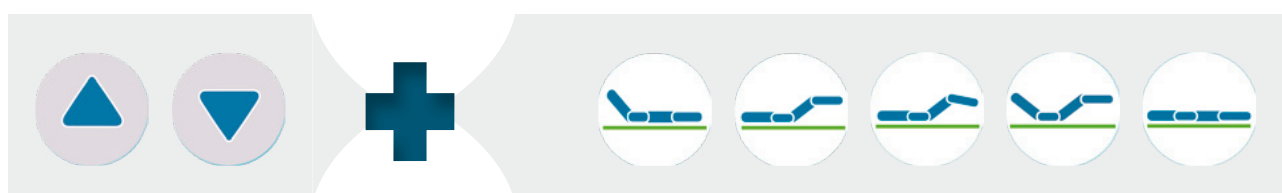
The movement control panel installed on the Alex Icubed is very intuitive, user-friendly and has an ergonomic design that allows a comfortable grip. In addition, the panel is equipped with a special control for inhibiting movements marked by a bright LED.

The control panel is divided into 2 macro-areas, each of which allows the activation of specific functions, such as:

- **Dedicated movement controls.**
- **Dedicated commands for memory functions.**



To implement motorised movements via the control panel, **it is necessary to simultaneously press both one of the up/down arrow buttons and the button relating to the section to be moved.** Pressing the two buttons together will allow the device to be moved..





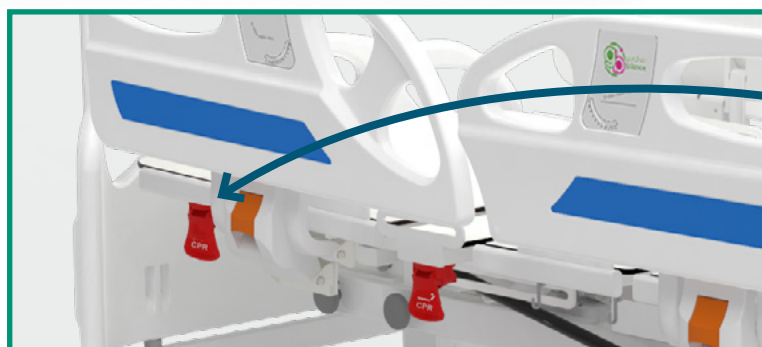
Movements

Verticalization by pedal control

Verticalization can be controlled from the **pedal control** located bilaterally on the base frame. Before verticalization can take place, the sensor-equipped seat belts must be engaged. Pressing the pedal activates the following automatic sequence:

- **Automatic closing of all the sections**
- **Descent of the bed until lowest height**
- **Verticalization of the lying surface**

Verticalisation can be stopped by interrupting pressure on the pedal control. Tilt control is the responsibility of the operator, who reads the value on the inclinometer located on the bed's side rail or on the GB Touch (if equipped with the special digital inclinometer optional component AC194). For the descent, the dedicated pedal control must be pressed and held down during the entire descent until the horizontal position (or the desired tilt angle) is reached.



The medical device is equipped with a **quick release and verticalization** with servo-assisted bilateral lever and non-traumatic descent movement - Equipment code AC8L/1.



Movements

Verticalization by GB Touch

Verticalization can be controlled from **GB Touch** either via the movement screen, or from the dedicated screen accessible via the scroll buttons within the movement page.



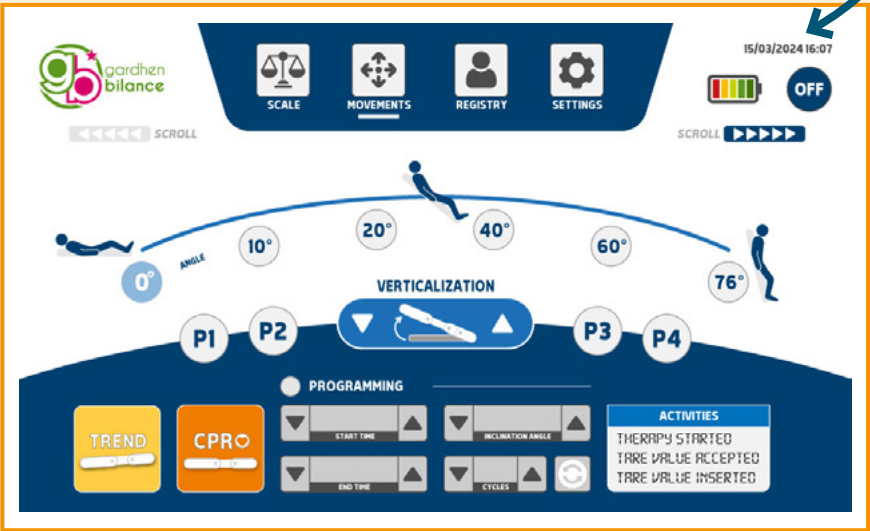
MOVEMENTS SCREEN

Accessible via the top menu of the GB Touch.

The screen includes a button for manual verticalisation adjustment.



ACCESSORIES



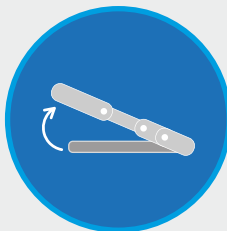
With the **SMART GB TOUCH KIT** (accessory code AC196), the verticalisation screen can be accessed via the scroll button.

The degree of inclination of the grid plane can be selected from the **default values** set on the display. The **"Recent Activities"** box will indicate the degree of inclination achieved, as measured by the digital inclinometer (accessory code AC194).

Verticalization can be achieved through:



Pedal control



GB Touch





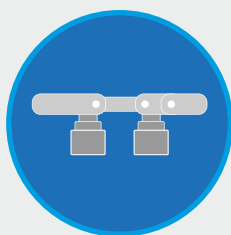
Movements

Adjustable Height

The bed is adjustable in height through three motorized telescopic rectangular section columns that allow adjusting the height of the mattress up to +400 mm of travel.



Variable height adjustment is controlled by::



GB Touch



Control Panel

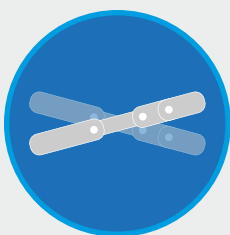


Movements

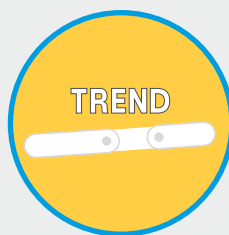
Trendelenburg and Reverse Trendelenburg



Trendelenburg and reverse Trendelenburg adjustments are controlled by:



GB Touch



GB Touch
(memory function)



Control Panel
(memory function)



Movements

Cardiologic position

The bed reaches the "Cardiac chair position" by automatically performing the rotation and translation of the backrest section - Equipment code AC62.



The cardiac chair position can be obtained by:



GB Touch
(memory function)



Control Panel
(memory function)



Movements

CPR position

The bed reaches the CPR position; this position can be achieved either manually by means of the special bilateral levers - equipment code AC8L, or electrically by using the electrical controls. This function is readily accessible to the operator to obtain the emergency position and initiate car-



The CPR position can be obtained by:



GB Touch
(memory function)



Control Panel
(memory function)



Bilateral levers
(manual activation)



GB Touch

Scale Display and Control/Management Console

The bed is equipped with a 10.1" HD Touch Screen Display with a viewing angle of 160°, useful for managing the integrated weighing system and all device movements - Equipment code AC167.



Scale Display
graphical interface
for managing the weighing system

GB Touch display integrated with
the bed frame/structure





GB Touch features

- Power on/off via Soft Touch Button
- Management of movements
- Low-voltage power supply
- Indicator box in plastic material with IP65 insulation
- Battery status indicator
- Display lighting control
- Screen saver
- Night mode
- Smart functions
- Full control via GBSmart application for Android/iOS/Windows
- Scheduled maintenance setting
- Language settings: Italian - English - French - Spanish - German
- Digital protection against accidental or unwanted access



Features and functionalities of the weighing system

- Weight reading via HD 10.1" touch screen display.
- Patient record management.
- Indication of patient position.
- Tare function: automatic and manual, always visible.
- Measurement unit indicator: selectable between kg and lbs.
- Capacity: 200kg.
- Automatic dual-scale display:
minimum division: 50g up to 150kg, 100g from 150kg to 200kg
- Converter: 24-bit, 10,000 divisions.
- Weight drop alarms.
- Patient descent alarms.
- Access log.
- Remote parameter control.
- Automatic data transmission to enabled ports.
- Ethernet port 10/100 - Equipment code AC167/3.
- Upon request: Combo Wi-Fi/Bluetooth module, Accessory code AC167/1 - USB A port for weight data transmission, Accessory code AC167/4 - USB B port for external printer connection, Accessory code AC167/5 - RS-232 port - RS-485 port, Accessory code AC167/6.



For more information about the GB Touch

Scan or click the QR code button to discover all the features and capabilities of the display.



Other features of the medical device

- Reinforced frame made of S235JR steel protected from corrosion by thermosetting epoxy paints.
- Ergonomic 4-section triple-joint washable HPL bed base.
- Bed base height: 550 mm.
- Movements through:
 - Two telescopic rectangular section columns in the foot area and a single column in the head area..
 - Low-voltage 24V DC electric actuators with anti-crush device.
- Verticalization via electric actuator located between the bed frame and the intermediate frame.
- Motorized backrest section via electric actuator.
- Motorized femoral section via electric actuator.
- Motorized leg section synchronized with the movement of the femoral section via electric actuator.
- Height adjustable via motorized columns +400 mm.
- Verticalization position.
- Motorized Trendelenburg and Reverse Trendelenburg via telescopic columns.
- Synchronous translation of the backrest by 11 cm to limit abdominal compression.
- Seated/Cardiological Armchair position with rotation and translation of the backrest to limit abdominal compression - Equipment code AC62.
- Twin, swivel, and non-marking wheels, diameter 150 mm - Equipment code AC5L.
- Motorised centralised braking system operated via the electrical controls - Equipment code AC7L/4.
- Quick release and verticalization with servo-assisted bilateral lever and non-traumatic descent movement.



Verticalization



Movements of sections

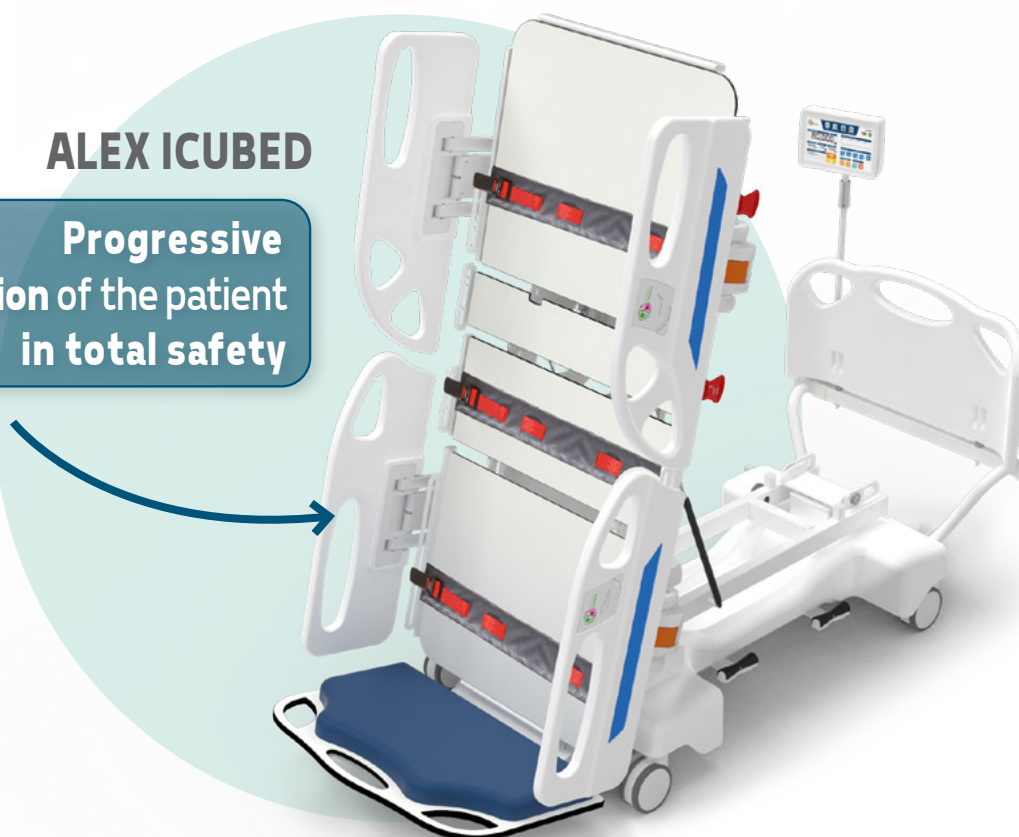


Other features of the medical device

- Quick release of the backrest with servo-assisted bilateral lever and non-traumatic descent movement, to facilitate CPR maneuver - Equipment code AC8L. Quick zeroing of the sections and thus positioning the patient at the minimum height for cardiac massage can also be activated with the CPR button on the touch screen display.
- Removable headboard shoulder made of technopolymer with unlocking mechanism - Equipment code AC65/6.
- Integrated footboard shoulder attached to the frame made of HPL with inner lining to provide ergonomic and comfortable support for the patient's feet during verticalization.
- Pair of retractable half side rails with integrated inclinometer - Equipment code AC71.
- Patient restraint straps - The straps are equipped with a closure sensor to initiate verticalization - Equipment code AC168.
Silicone-coated bands - Equipment code AC87.
- Head restraint strap - Equipment code AC178.
- Bilateral foot pedals placed on the base frame to operate the verticalization of the bed base. Push & Go system for upward movement and foot pressure for downward movement.
- Control panel for movement management equipped with a 3.5 m coiled cable. The panel is easy to use as it is equipped with large relief pictograms, making it also suitable for visually impaired patients. IP66 degree of insulation. Hooks for bedpan holders on DIN rail - Equipment code AC148.
- Equipotential bonding.
- Emergency battery - Equipment code AC17L.
- Head and foot cable winders - Equipment code AC50L.
- Touch screen display, located on the back of the backrest - Equipment code AC167.
- Swivable display box - Equipment code AC164.
- Painting with thermosetting epoxy powders.

ALEX ICUBED

**Progressive
verticalization of the patient
in total safety**





Lateral Tilt

By the pedal control - accessory code AC171

The bed can be also equipped with Lateral Tilt function. The lateralization of the patient, as shown by scientific evidences, gives a considerable amount of benefits to patients who underwent long-stay hospitalization in the acute phase of illness. With Lateral Tilt, it is possible to perform automatic lateral therapy, which involves a progressive and **programmed inclination of the bed base** aimed at promoting the recovery of patients in intensive care and reducing the risks of pneumonia. Lateral Tilt also reduces the effort of healthcare workers during patient manipulation. The lateral inclination is controlled by the **pedal control** placed bilaterally on the base frame..

The following automatic sequence is activated by pressing the pedal:

- **Automatic closing of all the sections**
- **Descent of the bed until lowest height**
- **Lateralisation of the lying surface**



ACCESSORIES

It is possible to upgrade the device with a **lock sensor for the half side-rails** (accessory code AC195), which will allow the caregiver to carry out operations in complete safety. The sensor has the function of inhibiting verticalization and lateralisation movements if the half side-rails have not been correctly activated.



Lateral Tilt

By GB Touch

The activation of lateralization from GB Touch is controlled both from the movement section and from the dedicated section that can be accessed using the scroll buttons within the movement page.



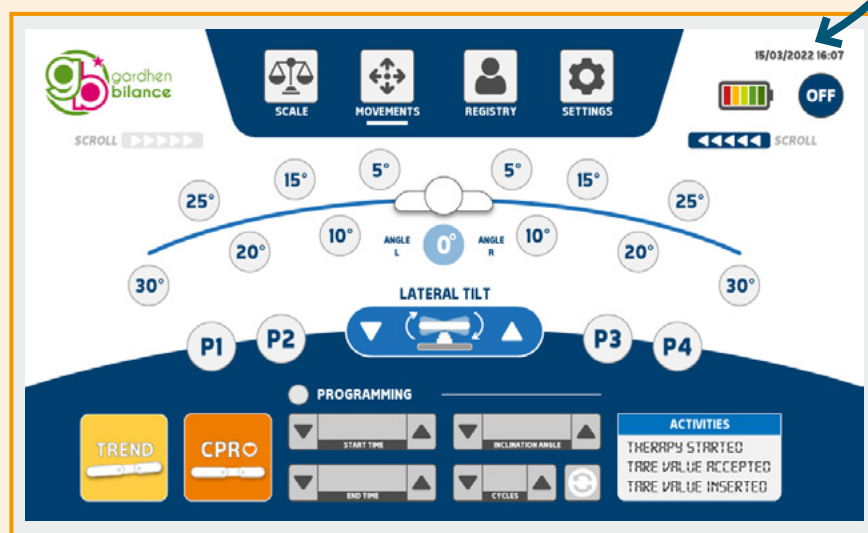
MOVEMENTS SECTION

Accessible via the top menu of the GB Touch.

The screen includes a button for manual lateralisation adjustment.



ACCESSORIES



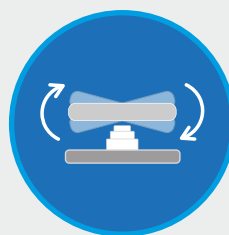
With the **SMART GB TOUCH KIT** (accessory code AC196), the verticalisation screen can be accessed via the scroll button.

The degree of inclination of the lying surface can be selected from the **default values** set on the display. The **"Recent Activities"** box will indicate the degree of inclination achieved, as measured by the digital inclinometer (accessory code AC194).

Lateralisation can be achieved through:



Pedal control



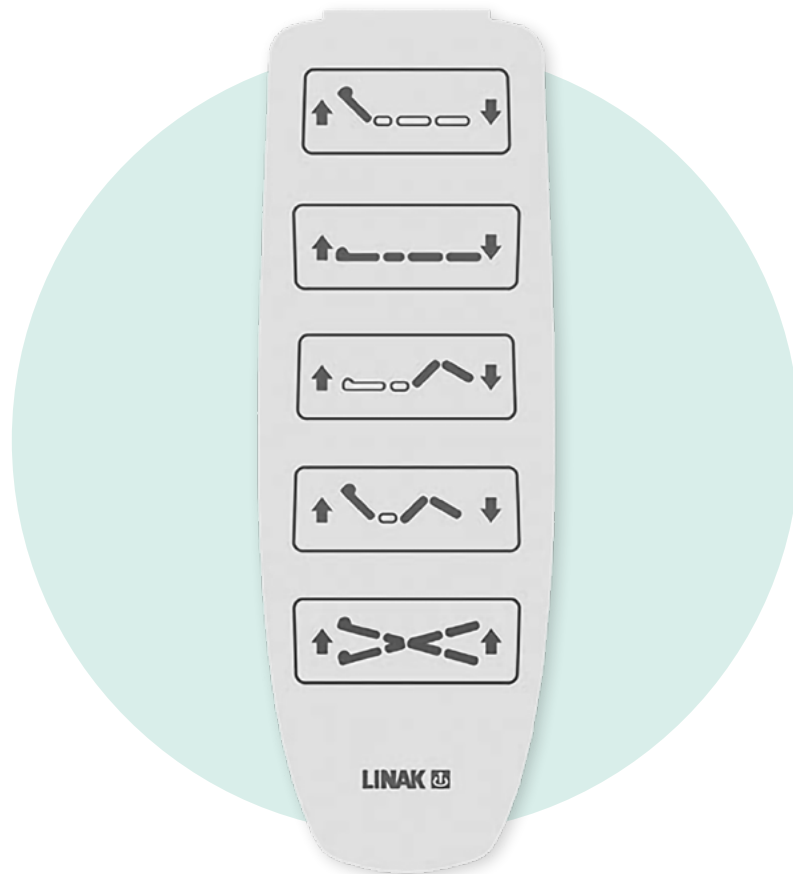
GB Touch



Additional handset

Accessory code AC68

It is possible to equip the device with an additional push-button panel for movement management. The push-button panel is connected to the device by means of a 3.5 m extendable spiral wire. It is intuitive and practical to use, as it is equipped with screen-printed pictograms in relief that identify each movement to be activated.



MOVEMENTS AND FUNCTIONS

Movement of sections:

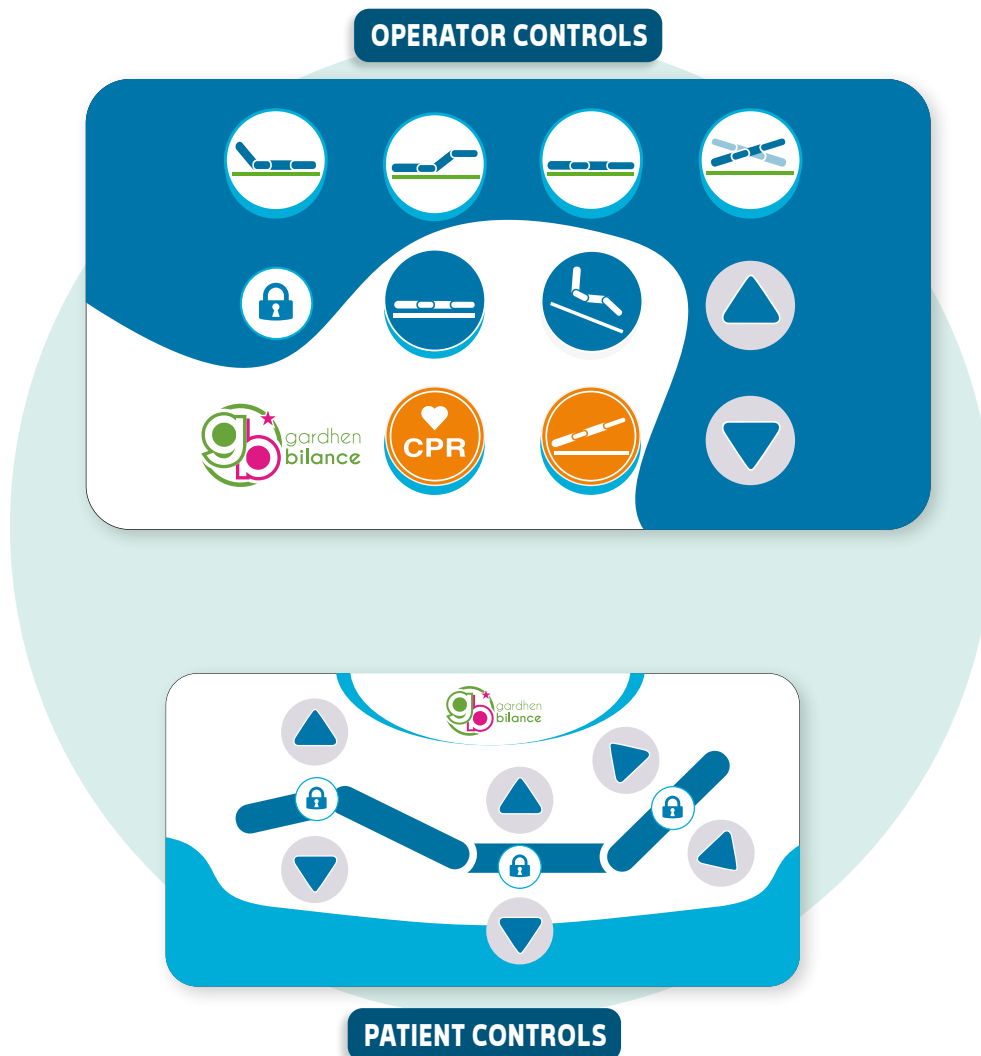
- Back Section
- Variable height
- Femoral Section
- Simultaneous back/femoral sections
- Trendelenburg and reverse Trendelenburg



Controls integrated in the half side

Accessory code (AC68/4 + AC68/5)

It is possible to equip the device with patient (accessory code AC68/4) and operator (accessory code AC68/5) controls integrated in the half-panels, for handling movements. The integrated controls are easy to access, intuitive and practical to use as they are equipped with embossed pictograms identifying each movement that can be activated.



MOVEMENTS AND FUNCTIONS

Operator Controls:

- Back Section
- Variable height
- Trendelenburg and reverse Trendelenburg
- Examination Position
- Cardiology Position
- CPR
- Trendelenburg

Patient Controls:

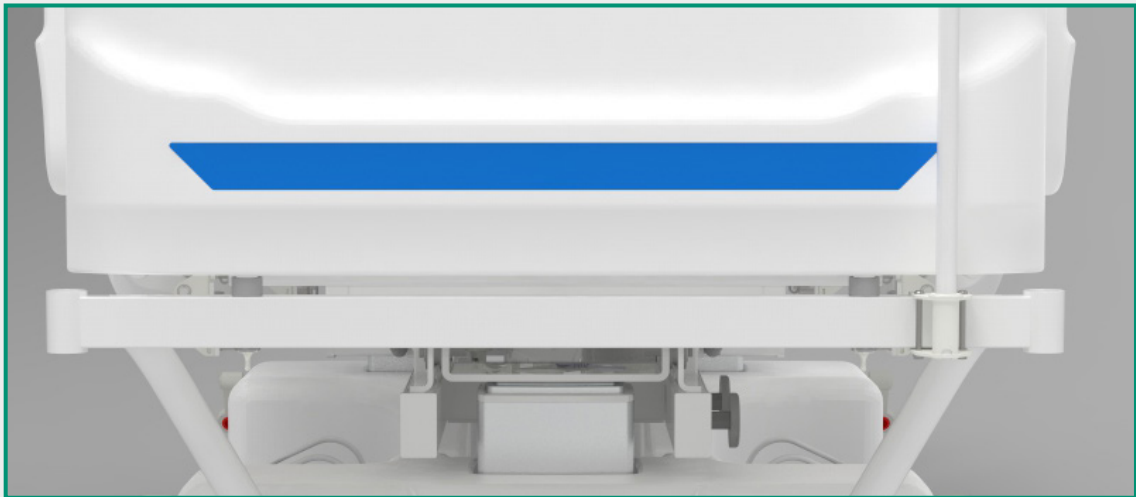
- Back Section
- Variable height
- Femoral Section



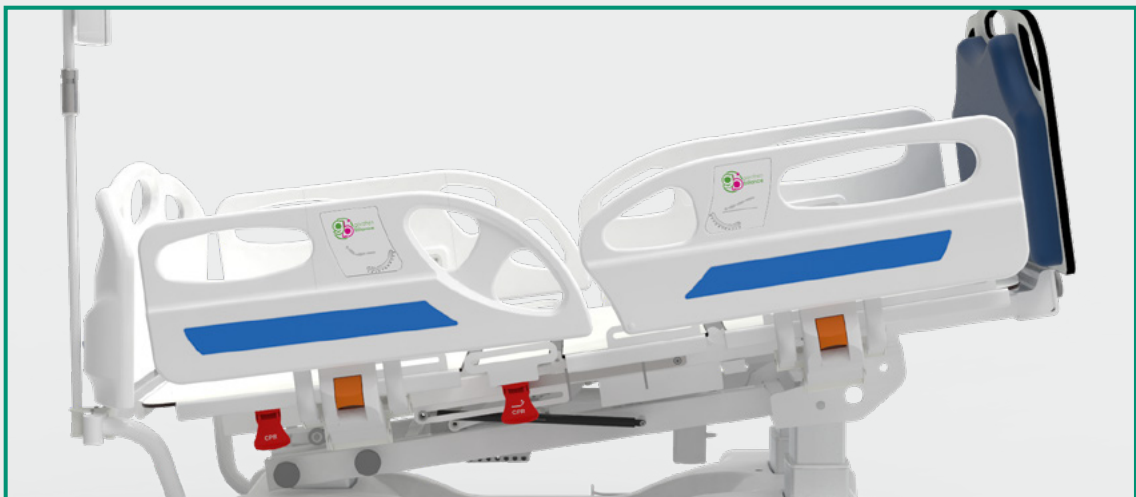
Color Customization

Vinyl shoulder headboard and half-side panel inserts

The inserts of the shoulders and half side rails are customizable upon request with adhesive vinyl inserts that enhance the aesthetics of the entire device. The vinyl insert can be customized with colors: light blue, blue, green, or other colors upon request.



Headboard
Equipment code AC65/3



Half side rails
Equipment code AC71



Would you like to change the color of the inserts?

Scan or click the QR code and discover how to customize the device by consulting our color chart.



Color Customization

Footboard shoulder with customized upholstery

The interior of the headboard shoulder can be customized with a surface covering in high-thickness bi-elastic fabric (simulated leather, washable, and fire-retardant UNI 9175/87 and 9175FA-1/94 class 1IM). The color of the upholstery is customizable upon request - Equipment code AC87/1.



Footboard

Upholstery characteristics

The upholstery used for the padding of the footboard shoulder has the following properties: non-toxic, washable, antibacterial, antimycotic, latex and phthalate free and fire retardant class 1IM. The upholstery is soft to the touch, but at the same time robust and able to withstand expansion tensions. Its elastic properties allow the material to adapt to the pressure exerted by the patient, ensuring greater resistance to wear over time. Finally, thanks to proper sanitary treatment, which includes bacteriostatic and fungostatic properties, the materials are preserved over time.

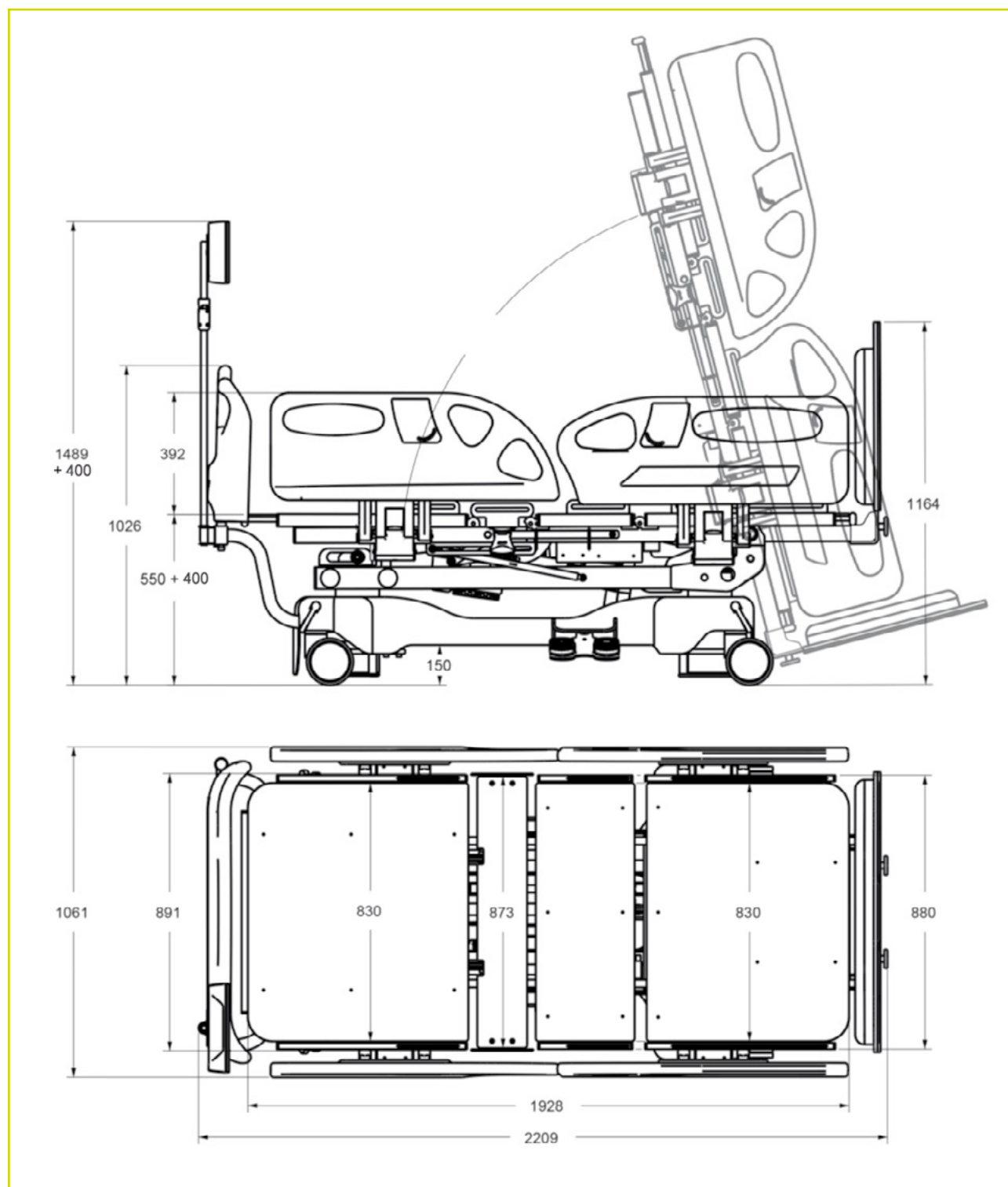


Do you want to change the color of the upholstery?

Scan or click the QR code and discover how to customize the device by consulting our color chart.



Dimensions



Main cord



Type F
Schuko



Type L
16A



Type I
Australia



Type B
Canada and USA



Type G
UK plug



Literature

Sadriddin Sayfullaevich Pulatov

Verticalization Of Patients With Severe Acquired Brain Injury: A Randomized Pilot Study. Eurasian Medical Research Periodical

Giuseppe Frazzitta, Ilaria Zivi, Roberto Valsecchi, Sara Bonini, Sara Maffia, Katia Molatore, Luca Sebastianelli, Alessio Zarucchi, Diana Matteri, Giuseppe Ercoli, Roberto Maestri, Leopold Saltuari
Effectiveness of a Very Early Stepping Verticalization Protocol in Severe Acquired Brain Injured Patients: A Randomized Pilot Study in ICU

Michelangelo Bartolo 1, Stefano Bargellesi, Carlo A Castioni, Donatella Bonaiuti

Early rehabilitation for severe acquired brain injury in intensive care unit: multicenter observational study

Michelangelo Bartolo 1, Stefano Bargellesi, Carlo Alberto Castioni, Domenico Intiso, Andrea Fontana, Massimiliano Copetti, Federico Scarponi, Donatella Bonaiuti

Mobilization in early rehabilitation in intensive care unit patients with severe acquired brain injury: An observational study

Christian Gunge Riberholt, Jane Lindschou, Christian Gluud, Jesper Mehlsen & Kirsten Møller

Early mobilisation by head-up tilt with stepping versus standard care after severe traumatic brain injury - Protocol for a randomised clinical feasibility trial



Do you want to change the color of the frame?

Scan or click the QR code and discover how to customize the device by consulting our color chart.



Do you want to implement the device?

Scan the QR code to discover all available optional components by consulting the catalog.



Technical sheet

CND/EMDN Code	V08060102
GMDN Code	37007
Progressive number/R	2528335/R
UDI-DI di base	805771740LETBGV
Product Code	GB0418.SP
Intended use	Electric medical bed for intensive care or resuscitation with a scale for determining mass in medical practice in the context of weighing patients for purposes of monitoring, diagnosis, and treatment.
Manufacturer	GARDHEN BALANCE SRL
Spare parts	10 years
Weight	170 kg without optional components
Controls	10 buttons handset Touch screen control panel Bilateral pedals
Battery	10 cycles of autonomy
Battery weighing system	6 V self rechargeable (autonomy approx. 24 hours)
Power	Multivoltage 100-240 Vac 50-60 Hz
Main cord	Schuko or other upon request
Wheels	No. 4 swiveling and stainless 150 mm with braking system
Electric motors	Low voltage (24 V)
Max electrical input	Max 4A
Insulation	IP44
Max load capacity	200 kg
Safety working load	235 kg
Division	Displaying of the minimal division of 50g up to 150kg and of 100g up to 200kg.
Load cell power	5Vcc (from 1 to 4)
Display box	Display box in plastic material with IP65 insulation
Converter	24bit
Display	Touch Screen
Alarms	Excessive or insufficient weight loss / Patient exit alarm / Acoustic brake disconnection alarm / Battery status indicator / Faults indicator / Maintenance deadline alarm
Data transmission	Ethernet port 10/100 Upon request: Combo Wi-Fi/Bluetooth module - USB A port for weight data transmission - USB B port for external printer connection - RS-232 port - RS-485 port.
I/O (optional)	4 outputs
Antiblack-out function	Extra battery + software
Tare	Subtractions of the tare before and during dialysis
Tare mode	Automatic and manually
Conformity	EU Regulation 2017/745 Certificate No. 126/MDR issued by O.N. 0051 Obviously meets all applicable standards and directives.



POWER & VERSATILITY IN THE PALM OF ONE HAND WITH GBTOUCH

LARGE LCD DISPLAY

The GB Touch guarantees perfect visibility in all light conditions, thanks to its size and the technical characteristics of the **touch display**.

INTEGRATED FUNCTIONS AND TOTAL DEVICE MANAGEMENT

A digital and innovative multifunctional system to meet multiple needs in hospital and home care..

ALL DATA AT YOUR FINGERTIPS

Ability to generate, store and transmit data in real time using digital communication interfaces.

10.1" DISPLAY

Large display
Touch Screen

ALL IN ONE

Multifunctional Device
for device management

DATA MANAGEMENT

Archiving and monitoring
locally and remotely

Alex Icubed

Verticalizing bed with integrated weighing system



Gardhen Balance S.r.l.

Via G. Luraghi c/o Consorzio Il Sole - lotto S 80038

Pomigliano d'Arco (NA) - Italy

Tel. +39.081.8692160 pbx - Fax +39.081.8692460

E-mail: info@gardhenbalance.it

PEC: gardhenbalance@pec.it

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