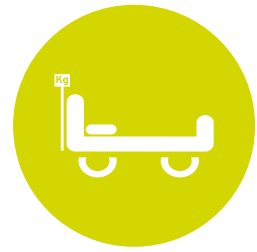


# Alex ICUBED

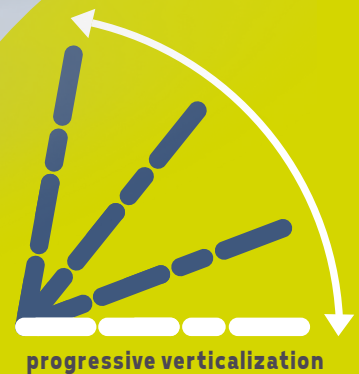
Verticalizing bed  
with integrated weighing system



BED WITH  
INTEGRATED SCALE

Frequent usage

Transplant centre  
All clinical areas  
Long-term stay  
Rehabilitation  
Intensive care unit  
SUAP  
High Intensive care  
unit  
Wake-up unit  
Units large burns  
Serious cerebrolesion  
units



progressive verticalization

early  
mobility &  
progressive  
verticalization



[www.gardhenbalance.it](http://www.gardhenbalance.it)



# Progressive Verticalization and Early Mobility

Alex ICUBED is a scale bed that 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) the patient will have a functional recovery that is very important to have an early discharge.

The advantages of passive postural gymnastics in standing 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 ususally occur with some severe pathologies.

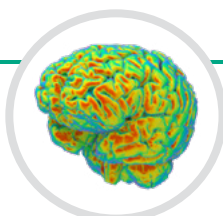
The **early mobility** of patients also represents a significant advantage for the healthcare organization, and it is even more important if performed with this medical device which can be operated by a single operator via easily accessible controls.

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 ICUBED, 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**



Improves  
brain activity



Analgesic  
effect



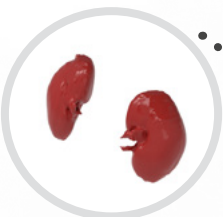
Keeps  
stable homeostasis



Improves  
breathing



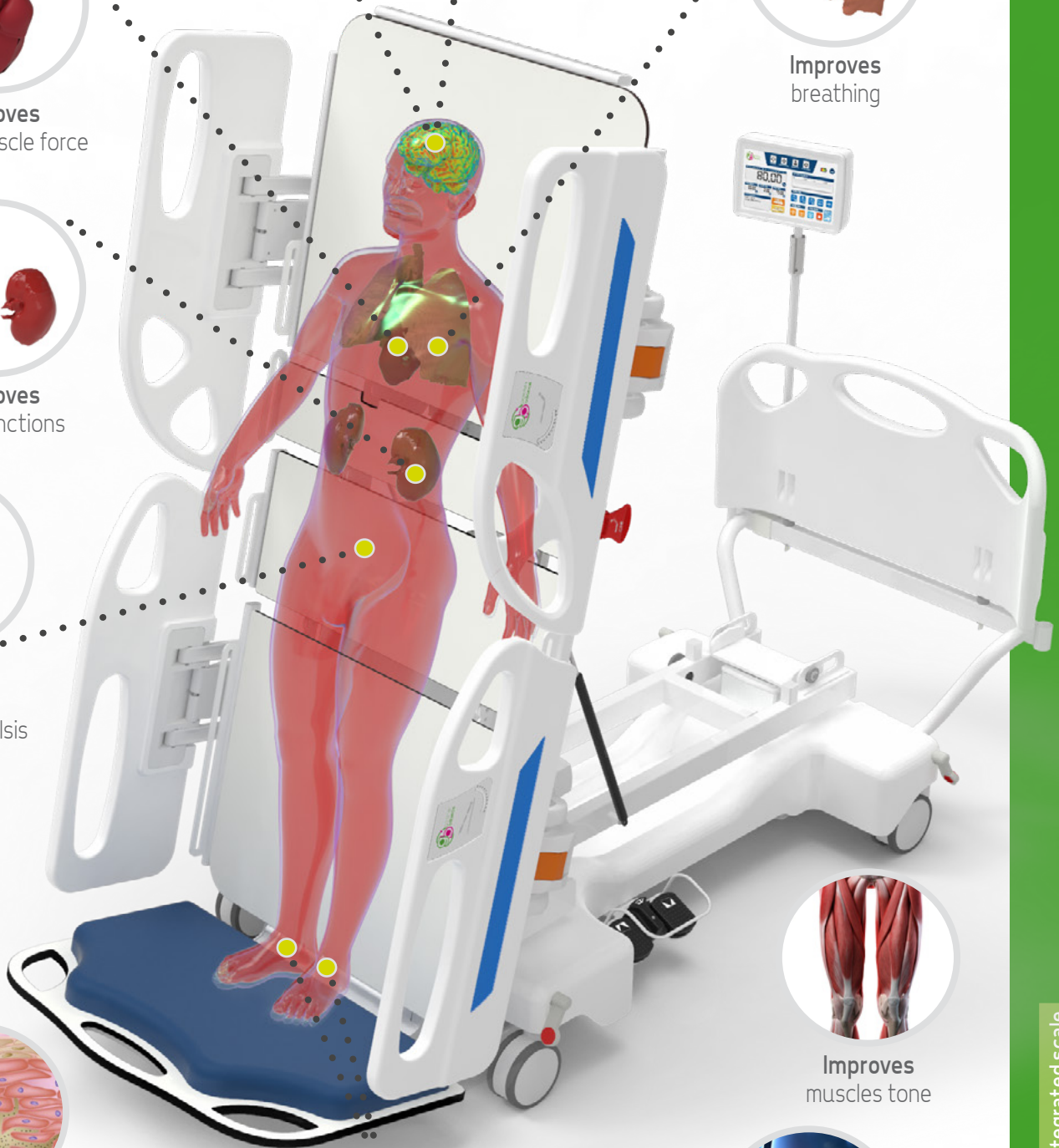
Improves  
heart muscle force



Improves  
renal functions



Promotes  
diuresis and  
intestine's peristalsis



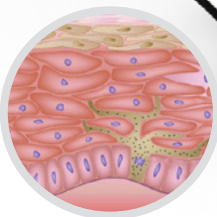
Improves  
muscles tone



Improves  
bone's density



Prevents  
"equinus" foot deformity



Decrease  
mattress' pressure  
on the skin with an  
anti-decubitus effect



standard feature



**Head board**

made out in engineering plastic

**Integrated weighing system**

Weight indicator and touch screen control panel

**HPL Pannels**

retractable **half side-rails**

Non-marking and swivable  
**twin wheels**

bilateral **inclinometer**

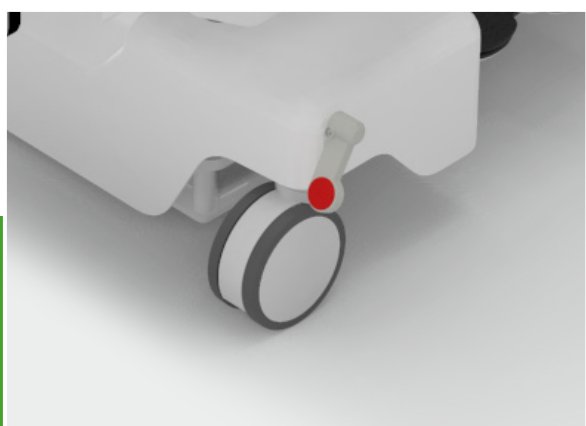
**Foot board** made out in HPL with inner padding



## Pedal control

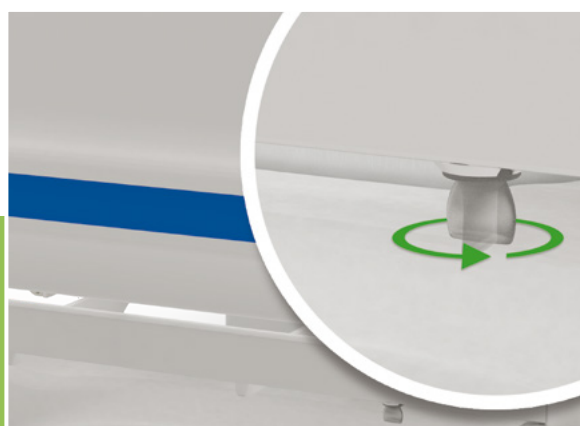
Pedal control located on both sides of the frame, it is equipped with protections that avoid uncontrolled pushings. The following sequence is activated by pressing on the pedals:

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



## Braking system

Directional braking system. It can be activated through bilateral pedals. Equipment code AC7L1/G.



## Head panel safety lock



## Restraint belts

Equipment code AC168.



## Head-strap

Equipment code AC178.



## Movements - Verticalization

Verticalization is controlled by:

1. **Pedal control** located on both sides of the frame, it is equipped with protections that avoid uncontrolled pushings.

The following sequence is activated by pressing on the pedals:

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

Verticalization can be stopped by pressing again the activation pedal once the degree of inclination needed by the operator has been reached. The inclination control is entrusted to the operator who reads the value on the inclinometer placed on the side of the bed.

For descent, the dedicated pedal must be pressed and held down throughout the descent until reaching the horizontal position (or other angles of inclination).



### Activation by Pedal Control



2. **Display - Console GB Touch**



### Activation by display - Console GBTouch



## Movements - Height Adjustment

The bed is height-adjustable by means of two motorised telescopic columns with a rectangular cross-section that allow the height of the top to be adjusted by up to + 400 mm. Columns can be activated by:

### 1. Display - Console GB Touch



### Activation by display - Console GBTouch

### 2. Ergonomic handset for the patient with 10 keys and inhibition key

### Patient's handset

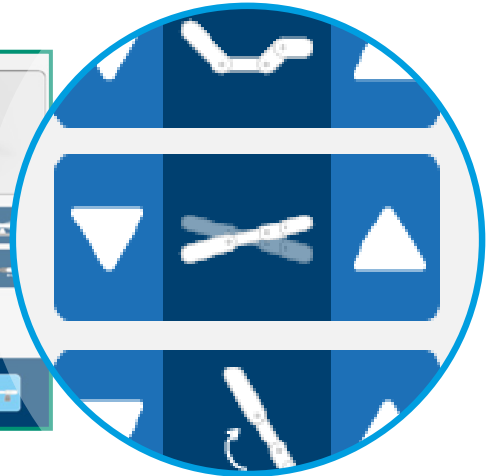




## Movements - Trendelenburg and reverse Trendelenburg

Trendelenburg and reverse Trendelenburg positions can be reached with the following means:

1. Display - Console GB Touch



### Activation by display - Console GBTouch

2. Ergonomic handset for the patient with 10 keys and inhibition key

### Patient's handset



### Trendelenburg

### Reverse Trendelenburg





## Movements - Cardiac chair

The bed can achieve the “cardiac chair” position. Also in this case the backrest section performs automatic roto-translation – Equipment code AC62.

The function is memorized and controlled via the GB Touch display console.



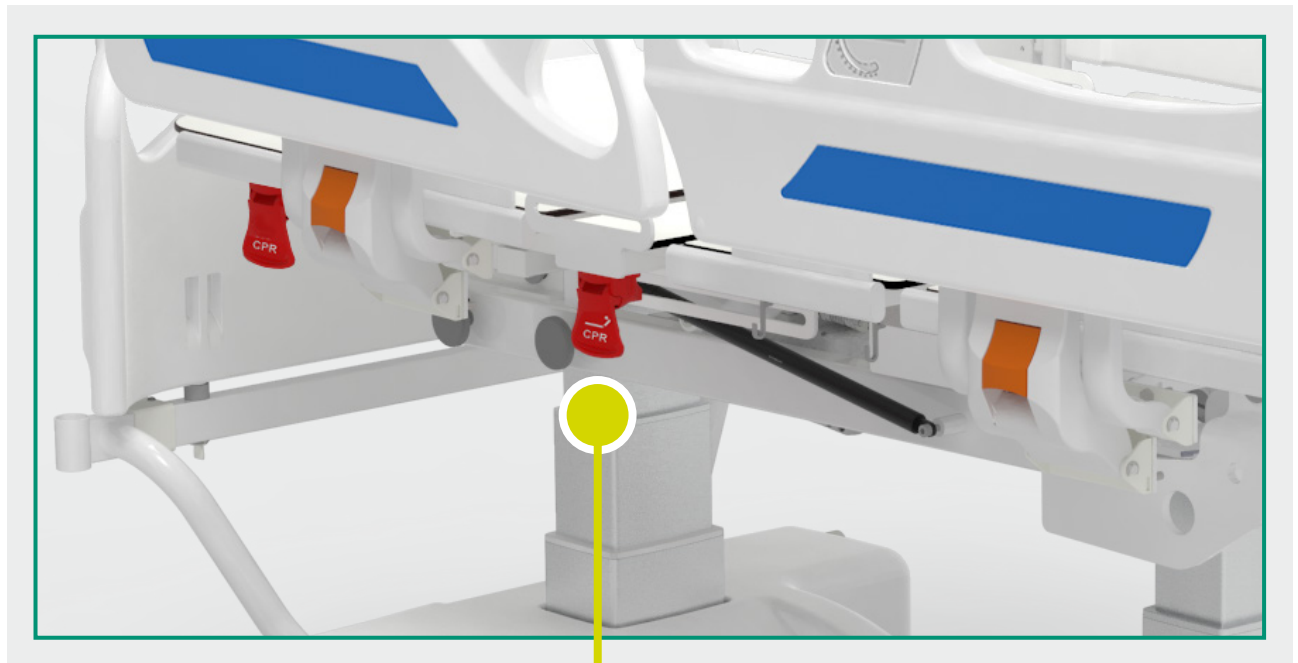
Activation by display - Console GBTouch



## Movements - Backrest quick release

The medical device is equipped with a manual bilateral lever control to unlock the backrest in case of a CPR emergency manoeuvre - Equipment code AC8L.

Furthermore, the automatic "CPR position" can be activated via the GB Touch display - console. This function is easy to be performed by the operator to obtain the emergency position and start cardiopulmonary resuscitation activities.



Manual activation  
by lever

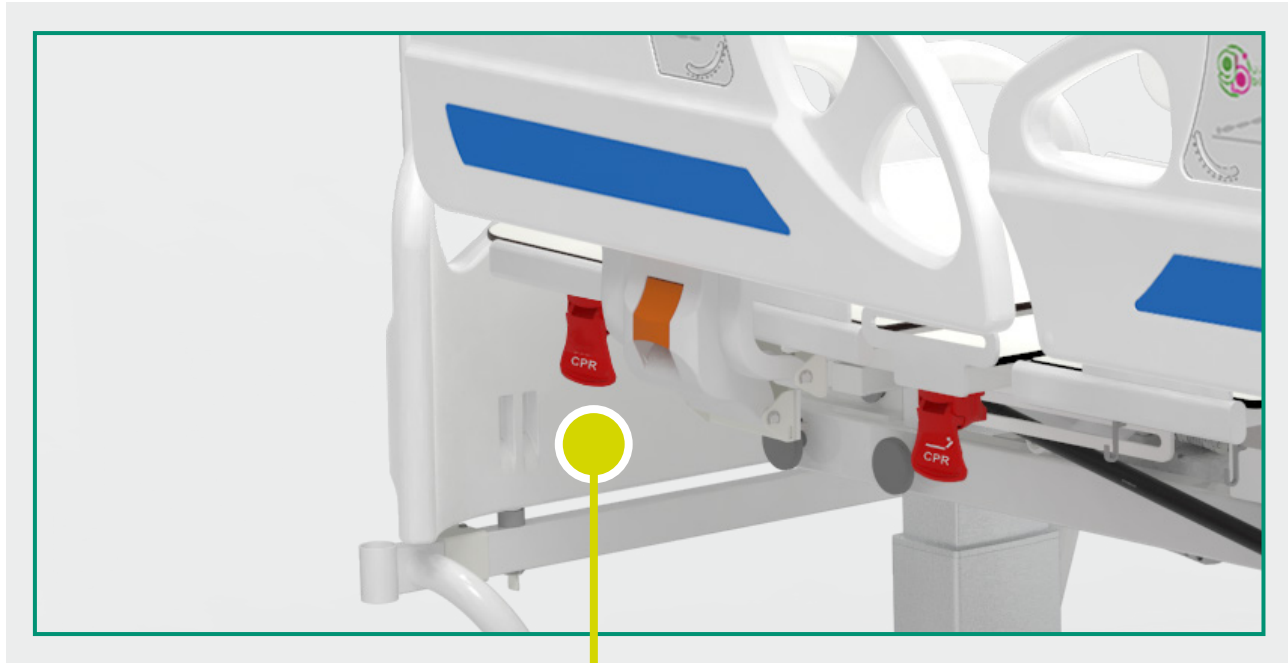


Activation by display - Console GBTouch



## Movements - Quick Release of Verticalisation

The medical device is equipped with a manual bilateral lever control useful for emergency CPR manoeuvre with non-traumatic servo-assisted downward movement.



Manual activation  
by lever





## GB Touch - Scale display / Control panel

The bed is equipped with a 10.1" HD Touch Screen Display with a 160° visual angle to manage the **integrated weighing system** and all the **movements** of the device.



**GB Touch display integrated to the bed's frame**

**Weighing display**  
Grafic interface for the management of the **weighing system**



### Features and qualities of the weighing system

- Weight reading via 10.1" HD touch screen display
- Patient's biographical data
- Patient's location indication
- Tare: automatic and manual. This value is always displayed on the screen
- Unit of measurement indicator: unit of measurement can be selected between kg and lbf
- Capacity 200kg
- Minimum division double scale automatic display:  
20g from 0kg to 60kg; 50g from 60kg to 200kg
- Converter: 24bit, 10,000 divisions.
- Weight loss alarms.
- Patient descent alarms.
- Access register.
- Remote parameter control
- Automatic data transmission to enabled ports
- Ethernet port 10/100
- On request : Wi-Fi/Bluetooth combo module - USB A port for weight-data transmission -
- USB B port for external printer connection - RS-232 port - RS-485 port.



## GB Touch

**Control panel / Touch screen**  
display Graphic interface to  
manage **the movements**



### Features

- Switch-on via Soft Touch Button
- Movements management
- Low voltage power supply
- Indicator box in plastic material with IP65 insulation
- Battery status indicator
- Display lighting control
- Screen saver
- Night mode
- Smart functions
- Complete control via GBSmart android/ios/windows application
- Scheduled maintenance setting
- Language setting: Italian - English - French - Spanish - German
- Digital protection against accidental or unwanted access





## Other features

- Reinforced frame in S235JR steel, it is protected from wearing through a treatment with thermosetting epoxy paint.
- Lying surface divided in 4 sections and 3 articulations in washable HPL.
- Height of the lying surface: 550mm.
- Motorized movements:
  - No. 3 telescopic columns with rectangular section. Two of them at the leg end and one at the head end.
  - Low voltage 24v dc linear actuators with spline system.
- Verticalization through electric actuator located between the two upper frames.
- Motorized back section through electric actuator.
- Motorized femoral section through electric actuator.
- Motorized leg section through electric actuator. The movement of the leg section is synchronized with the femoral section.
- Height adjustment through motorized columns + 400mm.
- Verticalized position.
- Motorized Trendelenburg and reverse Trendelenburg through telescopic column.
- Translation of the backrest section of 11cm to avoid chest compression.
- Cardiologic position - Equipment code AC62.
- Twin wheels, swivable and non-marking, diameter 150mm.
- Directional braking system. It can be activated through bilateral pedals - Equipment code AC7L1/G.
- Quick release of the backrest and verticalization through bilateral manual lever for CPR manoeuvre. - Equipment code AC8L Suitable height for cardiac massage can be aslo achieved through the CPR key on the touch screen.



Verticalization



Movement of sections



## Other features

- The medical device is equipped with a manual bilateral lever control useful for emergency CPR manoeuvre with non-traumatic servo-assisted downward movement.
- Head board removable made out in engineering plastic with safety lock - Equipment code AC65/6.
- Foot board integrated into the frame made out in HPL with padding to ensure comfort to the patient during verticalization.
- Foldable half side-rails couple with integrated angle indicator - Equipment code AC71.
- Restraint belts - The belts are provided with a locking sensor to start the verticalization process- Equipment code AC168.
- Head-strap - Equipment code AC178.
- Bilateral pedal controls located on the base frame. Push&Go system to raise the bed, keep the pedal pushed to lower it.
- Bed's movements are controlled by handset with a 3,5 mtl coiled cable. The handset is user friendly and has visual pictograms useful for partially sighted people. Insulation IP66.
- Bag holder hooks on DIN bar - Equipment code AC148.
- Equipotential node.
- Emergency battery - Equipment code AC17L.
- Cable support on both ends of the bed - Equipment code AC50L.
- Touch screen display located behind the head board - Equipment code AC167.
- Painted with epoxy and thermosetting paints.





## Lateral Tilt - Opzional component - code AC171

The bed can also be equipped with a **lateral tilt function** Patient lateralisation generates, as per scientific evidence, innumerable benefits during the long stay of patients in the acute phase of the disease. With the Lateral Tilt, it is possible to perform automatic lateral **therapy, i.e. a progressive and programmed tilting of the bedplate** aimed at facilitating the recovery of patients in intensive care, and reducing the risks of pneumonia. The lateral tilt also reduces the strain of healthcare workers when handling the patient.

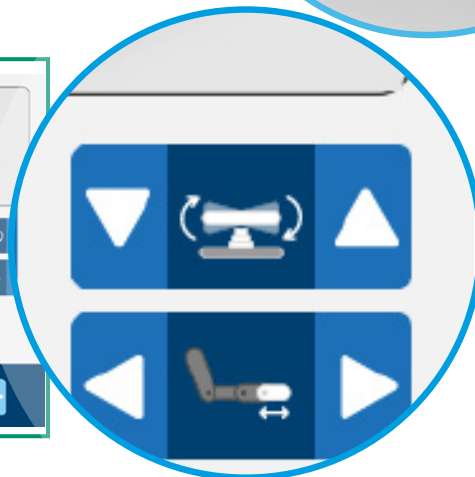
Lateral tilting is controlled by:

1. **Pedal control** located on both sides of the frame, it is equipped with protections that avoid uncontrolled pushings.

### Activation by Pedal Control



2. **Display - Console GB Touch**



### Activation by display - Console GBTouch





## Costum colours

### Customizable shoulders, foot board and side rails

The inserts of the shoulders panels and of the side rails can be customized upon request with an adhesive vinyl insert that will give a colourful look to the entire device. The vinyl insert can be customized by choosing different colours: light blue, blue, green or other colors upon request.



**Head board**  
Equipment code AC65/6



**Half-side rail**  
Equipment code AC71



#### **Do you want to choose the colour of the insert?**

Scan the QR Code to find out all the colours available on our colour chart.

### Foot board inner padding

The inner padding of the foot board is customizable with external bielastic and extremely thick fabric (flame retardant leatherette UNI 9175/87 e 9175FA-1/94 class 11M). The colour of the upholstery is customizable upon request - Equipment code AC87/1.



**Foot board**

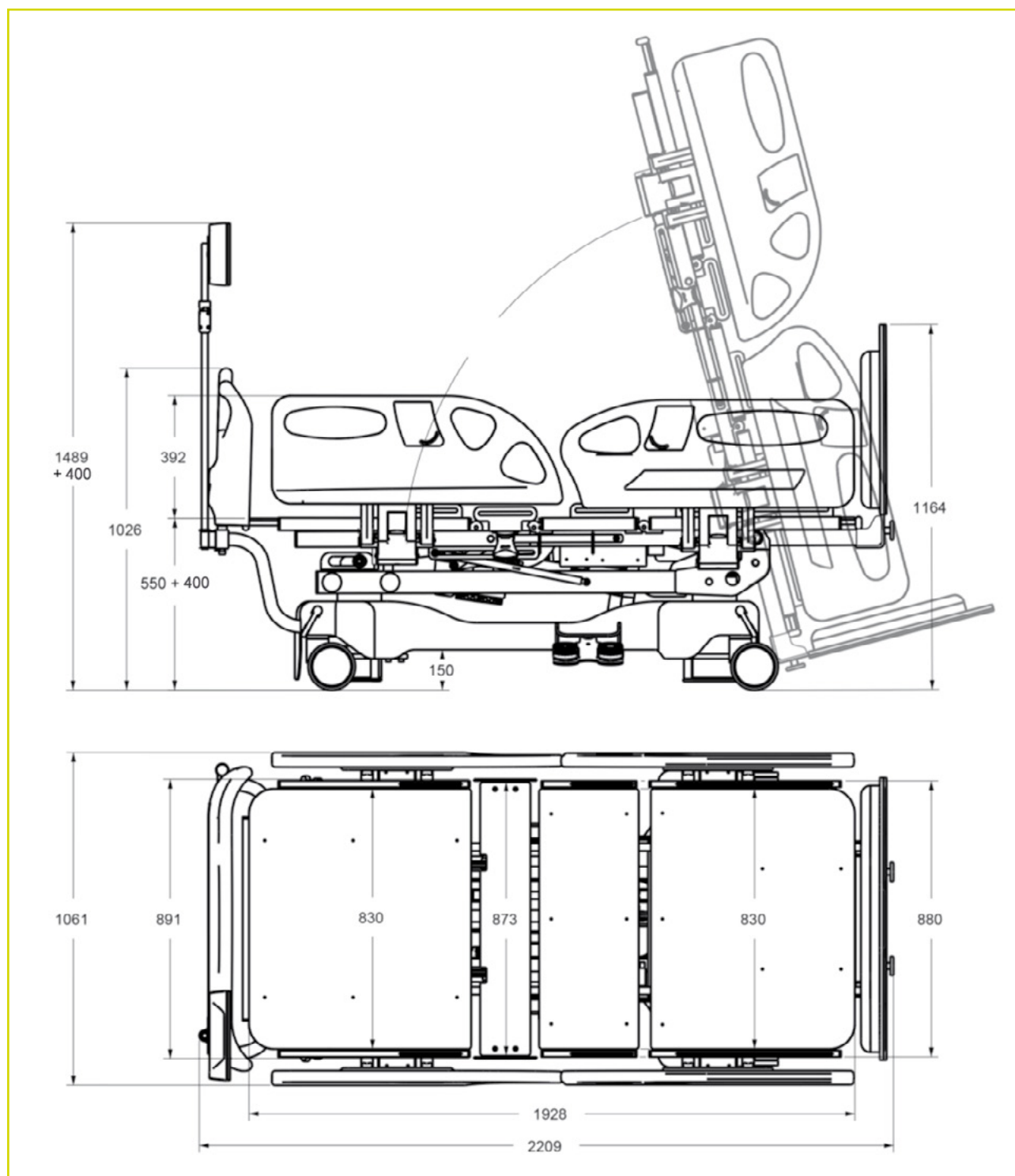


#### **Do you want to choose the colour of inner padding?**

Scan the QR Code to find out all the colours available on our colour 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 choose the colour of the frame?

Scan the QR Code to find out all the colours available on our colour chart.



### For further information on the GB Touch

Scan the QR Code to find out more about features and qualities of the Touch screen display.



### Do you want to improve the device?

Scan the QR Code to find out all the available accessories listed on our catalogue.

Visit site **[www.gardhenbalance.it](http://www.gardhenbalance.it)**

Follow     

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E-mail: [info@gardhenbalance.it](mailto:info@gardhenbalance.it)





## Technical sheet

|                         |  |
|-------------------------|--|
| Codice CND - EMDN       | <b>V08060102</b>   |
| Codice GMDN             | <b>35321</b>   |
| N. progressivo/R        | <b>2528335/R</b>   |
| UDI-DI di base          | <b>805771740LETBGV</b>   |
| ID Product              | <b>GB0418.SP</b>   |
| Intended use            | Electric medical bed for intensive care or resuscitation with integrated scale for weight determination of the patient for assessment, diagnosis and care purposes.  |
| Manufacturer            | GARDHEN BILANCE SRL  |
| Spare parts             | 10 years   |
| Weight                  | 170 kg senza accessori   |
| Controls                | 10 buttons handset<br>Touch screen control panel<br>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   |
| Divisione minima        | With a max load capacity of 200 kg automatic displaying of the minimal division of 20 g up to 60 kg, 50 g from 60 up to 200kg.   |
| Load cell power         | 5Vcc (from 1 to 4)   |
| Display box             | Display box in plastic material with IP65 insulation   |
| Converter               | 24bit  |
| Power display           | 24 Vdc   |
| Alarms                  | Status indicator Luminous on display and on control systems<br>Alarms Excessive or insufficient weight loss / Patient exit alarm / Brake disconnection alarm / Brake disconnection luminous alarm / Battery status indicator / Faults indicator / Maintenance deadline alarm |
| Data transmission       | Ethernet port 10/100<br>On request : Wi-Fi/Bluetooth combo module - USB A port for weight-given transmission - USB B port for external printer connection - RS-232 port - RS-485 port.   |
| I/O (opz.)              | 4 outputs  |
| Antiblack-out function  | Extra battery + software   |
| Tare                    | Tare subtraction before and during the treatment   |
| Tare modalities         | Automatic and manual   |
| Conformity              | Regulation UE 2017/745<br>Certificate No. 126/MDR issued by O.B. 0051<br>It meets all applicable standards and directives  |

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