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USER'S MANUAL



Serie 2010

Matricola: _____



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INTRODUCTION

1. IMPORTANT PRELIMINARY INFORMATIONS

All the products manufactured from **NUOVA BN** are devices projected and certified according with the rules **ISO 9001:2000; ISO 13485:2004** and conform to the **CE** marking.

This manual of instructions must be carefully read before to proceed with the **Series 2010** operating table use, in order to become more familiar with its functionality.

The system is complete with electronic sensors that will ensure the active safety of the use and the reference to any residual risks are properly reported in this manual to be followed step by step.

According to the rules in force on theme of safety in the health, ensures the high quality of the product, its easy use, a functional and practice structure at long-term.

To optimize these characteristics it is necessary to use the device in an appropriate and correct way (as specified in this manual) any other use is considered an incorrect and improper use. The manufacturer is not responsible for damages to properties or for damages and injuries to persons whether resulting from incorrect use or an improper destination of the operating table.

1.1 CORRECT USE OF THE OPERATING TABLE

The operating table Series 2010 was designed to satisfy the following functions:

-- To support and sustain the patient in various stages of surgery, so administering anaesthesia, surgical and awakening of the patient from the anaesthesia when the intervention is finished.

The operating table Series 2010 – Model **SE EM 2010** has been studied to satisfy also the following functions:

- Transport of patient on table top by a transporter trolley, transport that foresee the movement from the unit of transference of the patient to the operating theatre and from the operating theatre back to the unit of transference of the patient.

The top of the table before to be used to put the patient should be covered with special sterilized material.

To optimize these characteristics is necessary to use the device in an appropriate and correct way (as specified in this manual) any other use is considered an incorrect use and improper. The producer is not responsible for damage to properties or for damages and injuries to persons whether resulting from incorrect use or from an improper destination of the operating table.

1.2 GENERALITY ON SAFETY



It is recommended to keep a special register on which to document accurately each inspection and repair of the operating table. All interventions must be in accord to the safety standards technical regulations.

The manufacturer is only responsible for the safety of the device if its maintenance, repair and any amendment on the operating table were executed by the producer or by an authorized personnel.

NUOVA BN is not responsible for damages of any kind or nature, (missed inspections, or inadequate maintenance or technical intervention improper!)

It is furthermore important to follow carefully the instructions concerning device's cleansing and disinfection as follow described:

At the end of the interventions the operating table must be cleaned with a damp cloth and perfectly dried.

It is possible to used normal disinfectants in use in the operating theatre on condition that show the CE Marking.

The mattresses can be sterilized in an autoclave positioning without bend them during the sterilizer at cycle rubber approximately 121 °.

1.2.1 CONFIGURATION REGISTER :

From the point of view of SAFETY and of RELIABILITY it must be kept in use a configuration archive of the product that mention all the possible configuration changes that could intervene during the life of the same product . Some parts of the product are identified by a model and by a serial number.

It is important to make in a efficient way **the registration data in archive** of the device and of the customers. The distributor and / or dealer must provide to maintain in use an archive for the entry of the following data:

- **DEVICE: Type / Model / Serial Number**
- **CUSTOMER: Delivery date, name and complete address**
- **ASSISTANCE: Register on which will be marked in an efficient way every technical assistance activities** effected on the product. Date, founded problem , possible spare parts, Software updates, etc.

These data will have to be notified to the manufacturer at a periodical frequency or when requested from him.

From the point of view of **safety** and of **reliability** it must be kept in use a **configuration archive** that mention all possible configuration changes that could intervene during the life of the same product. The parts of the product identified by identification label with model and serial number, should be, in case of replacement, registered putting new codes or identification numbers.

The manufacturer has the original configuration of each delivered product. Each variation of configuration must be noted in the configuration archive and must be at disposal of the producer. In case of problems, must be informed to the manufacturer any changes in the product in question.

1.2.2 CHANGE OF THE POSITION:

Every movement and change of position, whether it be acted manually or electronically, must always be done in a careful and controlled way, to exclude the possible occurrence of damages to the patient or to the equipment around the table or to the operator.

You can call the "zero position" of the table's movements only if there is no risk of collision with people or things. Check carefully the "zero position" calling until the end of movement and until arriving to the final position.

Careful also when get to the table the command to go down to avoid damaging equipment below the table, pay attention to the risk of injuries due to crushing or persons and things collision.

1.2.3 ELECTRIFICATION:

It is recommended to test annually the operating table's electronic system management status, and of the batteries that fuel the operating table. The check has to be effect just by qualified personnel and authorized by NUOVA BN.

It is recommended to take care of equipment also for what to concern its cleanliness and sanitation, and especially to maintain the batteries in a state of operative taking care to always maintain them charged.

It is recommended to use the operating table powered by batteries, with the unplugged cord.

Do not use the operating table connected to cable if it is damaged.

The operating table should be used in places with adequate antistatic flooring.

Each device eventually connected to the table should not have injurious effects on the equipment safety.

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According with the rules in force, particularly UNI CEI EN ISO 14971 and CEI EN 60601-1-4, the requirements written in this manual should be taken into consideration whenever you use the operating table next to other equipment example monitors or defibrillators, devices generally at high frequency. The use of high-frequency devices could cause wrong working or interruption of working of the operating table.

1.3 ENVIRONMENTAL ASPECTS

For the operating table manufacture were used the following materials: - Steel FE360 (Column) - Stainless steel AISI 304 (Base and coverings (Carter) - ELASTOFOAM 94895 + IP 3025 / 5 (Mattresses) - Stainless steel AISI 303 - AISI 304 (Operating tops) - Rubber antistatic (Under the basement) - Laminate industrial HP 2035 Din 7735 (radiotranslucent sections of operating top)

For the disposal of any parts of the operating table must be complied with regulations regarding differentiation and respecting the environment.

METALS.....(recycling waste)Collection depends of the types of metal
PLASTIC / RUBBER..... .Collection following an appropriate plan for recycling
ELECTRICAL AND ELECTRONIC PARTS..... Collection depends of the material

- Material cabling.....disposal metal
- Electronics boardsdisposal electronic material
- batteries.....disposal lead

1.4 PROTECTION AGAINST INFECTIONS

Before to being used, the operating top must be covered with sterilized material. All the accessories accompanying the table and any devices must be properly cleaned and disinfected before to being used and also before to be given to technician for their repair. **The cushions that not satisfy anymore the requirements of hygiene and protection against infection must be replaced.**

1.5 LEGAL ASPECTS

This manual and the information contained there are a NUOVA BN's property. The Company disclaims any responsibility for damage to persons or things due to:

- Negligence and failure of cares and precautions;
- Any deviations from procedure described here;
- Executions and activities effected on the operating table not described in this manual;
- Ignorance inherent the general safety precautions, ignorance concerning the wrong use of instrumentation fed to electric current

For any dispute the Court of jurisdiction is in Torino (Italy)

1.6 STORAGE AND TRANSPORT

1.6.1 Storage

The table and its accessories must be kept in its original packaging.

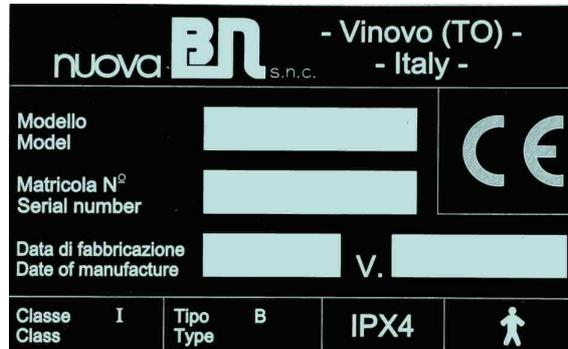
A **storage** for a long time must respect the following **precautions**:

1. The environment temperature must be kept within 20 °C
2. The relative humidity should be below of 50%
3. The environment must be clean, free from dust and ventilated.

1.6.2 Transport

The table and its accessories must be transported in its original packaging. Its packaging protects the equipment against the normal shock and vibrations that could due to the transport.
During the transport and for a short time, the temperature may vary between -40 °C and +70 °C

1.7 IDENTIFIABLE PRODUCT'S LABEL



On this label are the most relevant data's for the immediate identification of the product Model, Serial Number, Date of Manufacture of equipment and voltage, Class and Type, Grade of protection against infiltration of liquids, use.

It is very important, whenever Assistance for to the equipment is needed, to inform the authorized centre Nuova BN making reference to the Serial Number reported on this label identification

1.8 BEFORE TO USE THE OPERATING TABLE TAKE CARE THAT:

- The foot brake pedal (in the models with base on large wheels and with standard base) be in position "LOCKED" and that the remote control's connector be inserted into the proper tap and well screwed on the column.
- The red button ignition is pulled upward.
- That the conditions of installation are respected as in paragraph "INSTALLATION"

	When the table is in movement, through the use of the remote control or with automatic sequence, do not put the hands below the level of mattresses and check that there are no materials (es towels, tubes anaesthesia, accessories etc.) that impede the desired movement.
	When the operating table is placed totally down: <ul style="list-style-type: none"> • With contemporary trendelenburg and lowering of the backrest movement, the headrest could come into contact with the floor. • The leg section, if fully lowered to 90°, could come into contact with the floor. • Do not make any automatic movement before checking that the knobs that fix the longitudinal translation of table top movement are perfectly closed.
	It is necessary to put the patient on the operating table in a safe way in order to avoid to create dangers of rollover or of mechanical crush, distributing the weight in a way that does not exceed the following limits: <ul style="list-style-type: none"> • Kg. 165 placed at the middle of the operating top • Kg. 60 placed on the leg sections and Kg. 25 on the headrest (See also Picture point 7)
	In case that the remote control will not be used, it must be coupled in the proper guide placed at the side of the column or to the accessories holder along the operating top's perimeter .

	The batteries charger is fed at the network voltage. Inside there are some parts under dangerous voltage. Play special attention in order to not enter in contact with them.
	The table is powered with batteries that can provide high voltage in case of a short circuit. Do not remove the fuse placed in series between the two batteries.
	In some cases the table performs cycles of automatic movement. Take care in order to avoid any damages to personnel or to the equipments placed near the table.
	<p>Concerning the taking over or the deposit of the interchangeable table tops (Mod. SE EM 2010):</p> <p>* Be sure that during this operation there are not foreign matters such as pipes, towels, accessories etc., that could obstruct the correct positioning of the trolley used during the transfer or the proper coupling of the table top in the appropriate seat.</p>

The steps of the sequences described in the procedures are very important from the point of view of personal safety and of prevention against damages, so it is not allowed to change the sequences of procedures or to alter them.

	Read carefully the procedures to perform to make the various movements as shown and described in this manual.
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1.9 DOCUMENTATION

The operating table documentation set includes the Instructions of Use, Manual of Assistance and Maintenance.

- The manual of use is delivered with the table and should be at disposal to the user.
- The manual of Assistance and Maintenance is provided on demand.

The Assistance Manual contains the description of the movements to provide a complete technical and functional knowledge of the product to the engineers.

The manuals can be ordered with the following data:

(I.S. 2010) Manual of Use

(MU 2010) Manual of Assistance and Maintenance

TECHNICAL CHANGES:

This publication, at the time of printing, may not include corrections of errors and technical updates. Changes are periodically sent to distributors registered by NUOVA BN or provided at the express request of customers.

2. TECHNICAL DETAILS

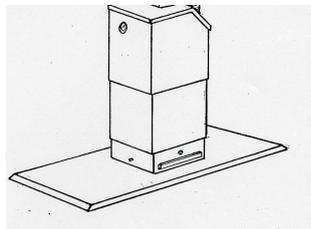
The operating table **Series 2010 semiautomatic** is available in several configurations. We analyze now the general characteristics of the two configurations of models EM 2010 and SE EM 2010.

2.1 EM 2010

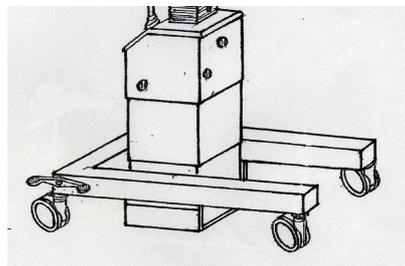
EM 2010 version that provides the operating top fixed to the column

Several bases can configure this model:

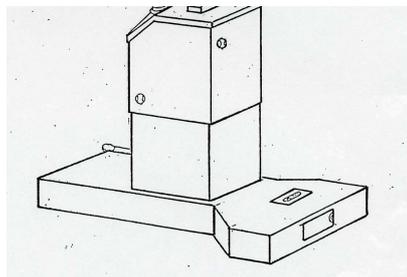
- Ultra/thin Base placed to the floor, transportable through the proper supplied trolley (EM CA)



- Mobile Base on 4 big antistatic wheels



- Mobile standard Base



Different operating top can configure this model:

<p>Top divided into 2 sections (head – and single section to sustain the patient) – Model EM 2010 / 2</p>	
<p>Top divided into 3 sections (head – single section to sustain back and pelvis of the patient-leg section in only one part) - Model EM 2010 / 3</p>	
<p>Top divided into 4 sections (head – back section – pelvic section – leg section in only one part) - Model EM 2010 / 4</p>	
<p>Top divided into 5 sections (head – back section – pelvic section – leg section divided in two spreadable sections - Model EM 2010 / 5</p>	
<p>Top divided into 6 sections (head – back section – thorax/renal section-pelvic section – leg section divided in two spreadable sections - Model EM 2010 / 6</p>	
<p>Top divided into 7 sections (head – back section – pelvic section – leg section divided in four spreadable sections and adjustable in different way) – Model EM 2010 / 7</p>	
<p>Top divided into 8 sections (head – back section – thorax-/renal section- pelvic section – leg section divided in four spreadable e sections and adjustable in different way) - Model EM 2010 / 8</p>	

In this manual we will make reference to the model more complex **EM 2010 / 8** for users of some simplest models some movements and features will be absent.

See SCHEDULE E and F

2.2 SE EM 2010 – System with removable interchangeable table top

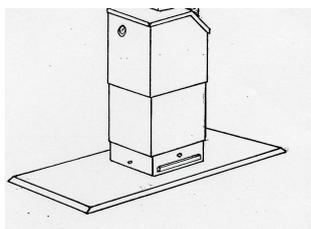
The SE EM 2010 version that is composed by removable table tops and that foresee the following configuration:

2.2.1 Column

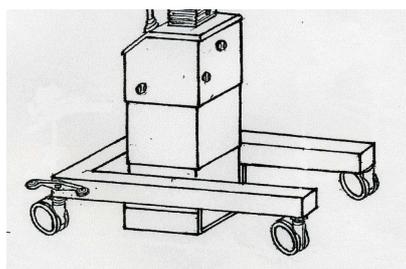
Model SE CC4

Several bases can configure this model:

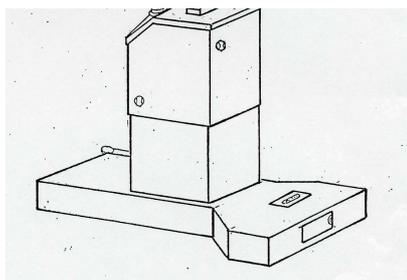
- Ultra/thin Base lined on the floor, transportable through a proper supplied trolley (EM CA)



- Mobile Base on 4 big antistatic wheels



- Mobile standard Base



2.2.2 Table tops

Several table tops can configure this model (see configuration EM 2010):

- Table top divided into 2 sections (head – and single section to sustain the patient) – **Model SE EM 2010 / 2**
- Table top divided into 3 sections (head – single section to sustain back and pelvis of the patient-leg section in only one part) - **Model SE EM 2010 / 3**
- Table top divided into 4 sections (head – back section – pelvic section – leg section in only one part) - **Model SE EM 2010 / 4**
- Table top divided into 5 sections (head – back section – pelvic section – leg section divided in two spreadable sections - **Model SE EM 2010 / 5**

- Table top divided into 6 sections (head – back section – thorax/renal section-pelvic section – leg section divided in two spreadable sections - **Model SE EM 2010 / 6**
- Table top divided into 7 sections (head – back section – pelvic section – leg section divided in four spreadable sections and adjustable in different way) – **Model SE EM 2010/7**
- Table top divided into 8 sections (head – back section – thorax-/renal section- pelvic section – leg section divided in four spreadable sections and adjustable in different way) - **Model SE EM 2010 /8**

2.2.3 Transporter trolleys

The **transporter trolleys** useful for the movements of insertion and removing of the table top.

Different trolleys can configure the system SE EM 2010:

- Simple transporter trolley **cod. SE 1**
- Transporter trolley provided with trendelenburg and reverse trendelenburg adjustment **cod. SE TR2**
- Transporter trolley provided with Up and Down adjustment **cod. SE TR3**
- Transporter trolley provided with adjustment of Trendelenburg and reverse trendelenburg inclination and up and down adjustment **cod. SE TR4**

See SCHEDULE E and F

2.3 SUPPLY OF THE DEVICE

It is very **important to check** that, at the moment of installation of the device, the interested person inspect the various accessories and the composition of the operating table.

These supplies will be useful **during the normal use of the equipment**, so it is imperative that the user of reference at the moment of installation will know them.

	<p>It is very important that the equipment of the operating table as received at the time of delivery will properly be stored and used according to the instructions described in this manual.</p> <p>The not observation of these indications could prevent the proper working of the operating table and cause errors of procedure also dangerous for operators and things neighbouring the operating table.</p> <p>The lost or the wrong treatment of the devices supplied may also cause the impossibility of the use of the emergency system that the device has in endowment.</p> <p>The producer is not responsible for any eventual anomalies found on the equipment if in the moment of complaint will not be present all the devices supplied which are listed here, or if they have not been used and stored accordingly to the directions given above. This failure is also cause of revocation of warranty on the product.</p>
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<p>EM CB Charger for Batteries complete of two connection cables (the one that connects the battery chargers to the table and the one that connects the charger to the network)</p>	
<p>EM TU cable control</p>	
<p>EM TF infrared remote control (if specifically requested)</p>	
<p>A70/A crank for the recovery of the movements in emergency</p>	
<p>EM CA trolley for moving the flat base</p>	

Manual of use with indications for a safe use of the medical device according to the rules in force.

2.4 FEEDING

The operating table must be connected to an equalizer of potential cable using the tap placed on the base.

To **turn it on** it is sufficient to pull up the red button, placed on the column (**See paragraph INSTALLATION**).

To **turn it off press the red button**, it is necessary to turn it off in the following cases:

- It is a right rule to turn off the table **during the surgical intervention**
- In case of **irregular works**
- To immediately stop a **position or movement activated by mistake**

It is advisable to connect first the feeding cable to the column only after that connect the feeder to the power grid! When you disconnect the feeding, first remove the feeder from the power tap and then detach the cable of the feeder from the column.

When the system is fed, it performs a fast inside general test after which if everything is regular issues a short sound signal.

At this stage, all the table's signalling lights will be on (batteries display) and on remote control, to allow the user to make a visual check of its functionality.

The automatic checks are the following :

- Check of the proper functioning of feeds
- Check of the proper functioning of the RAM memory
- Check of the proper functioning of Eprom memory parameters
- Check of the proper functioning of dialogue between table and remote control
- Check of the proper state of engines circuit functioning ,and of proper functioning of engines board
- Check of the proper functioning of position potentiometers

In case of anomaly the system issues short continuous sounds to advise of the impossibility of use of some parts or of the whole functionality.

If an anomaly is founded on the movement of a single engine the system warns issuing short sounds signal and the light of the led placed in correspondence of the movement that the damaged engine makes will be red.

The table in this case can be however used, without the movement that has the anomaly, and the other movements could make only partially their range of excursions.

In case of anomaly also the RESET will works in a partial way, so, if the engine damaged is one of those operated by the column the automatic reset will not be possible, if the damaged engine is one of those on the table top 8ex. Back section or thorax-kidney opening) the reset will be possible but except for the movement auctioned by the damaged engine. The damaged movement can be in every case restored through the emergency crank (A70/A) supplied with the table.

The feeding of the table is provided by two internal batteries. Their state of charge is visualized from the display placed at the bottom of the operating table's column.

The full batteries' capacity is declared for a period varying between 3 and 5 years. However, this depends on the regular refills and their maximum number of about 200. If after a full recharge the time of use it is reduced in efficiency is necessary to replace the batteries.

2.4.1 CAUTIONS:

To replace the batteries in a correct way without changing the correct table's working it will be necessary to follow these indications:

- The replaced batteries must be of the same manufacturer, of the same model and possibly of the same lot of those to replace.
- They must be of the same capacity.
- They must have the same state of charge.
- They must be replaced **simultaneously in pairs**
- **IT IS ABSOLUTELY DANGEROUS TO REPLACE ONLY ONE BATTERY.**

The inobservance of the points mentioned above can compromise and damage the batteries and consequently the operating table's good working. For these reasons it is advisable to contact the **manufacturer** of the operating table, which **assumes no responsibility for the product if the functional defect of the table depends of negligence towards these warnings.**

	<p>INDICATOR OF BATTERIES STATE OF CHARGE A notch (green or red colour) indicates the charge level 25% 50% 75% 100% When the indicator is on 25% the batteries must be recharged.</p>
--	---

If we continue to use the table going down below 25% level the signal 25% flashes and it issues a sound of warning about every 10 minutes. When the level of charge go down to a level insufficient to guarantee the good works of the table all its functions will be locked and all the led's will be off.

	<p>In these cases if the batteries will not be recharged as soon as possible, after few days they will start to lose their full efficiency in an irrecoverable way.</p>
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2.4.2 EM CB BATTERIES CHARGER/ POWER TRANSFORMER IN LOW VOLTAGE

The battery charger supplied with the Series 2010 semiautomatic, has a threefold function :

1. **BATTERIES CHARGER** useful to recharge the operating table's batteries when the charge is insufficient (Display **25%**).
2. **FEEDER** it is possible to use the operating table directly connected to the power cable, in case of battery out of order or damaged.

N.B. This is a function designed for emergency situations not to be used as a standard procedure for the use of the equipment.

3. **POWER TRANSFORMER WITH LOW VOLTAGE** charger acts as a voltage transformer that transforms the entry current 220 V AC into 24 V DC current.

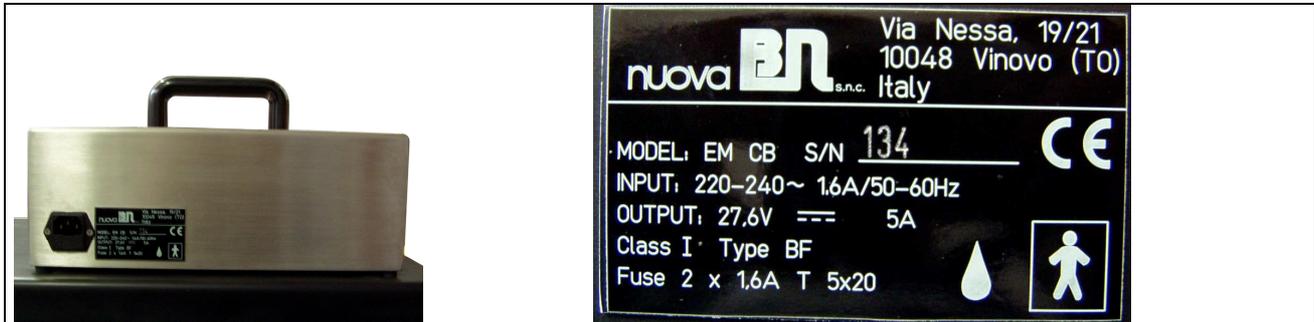
When the charge procedure is finished it is recommended to close the opening with the dedicated cap / door (accordingly to the kind of base of which the device is provided) in order **to avoid the possible fall of oxidizing liquid inside.**

For the recharge procedure to follow see the deepening on paragraphs 3.2 and 4.2

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The **batteries charger (EM CB)** given as endowment of the operating table must be connected to a wall plug provided with connection to the earth of protection and the network must respect the rules in force concerning the operating theatres.

Be sure that the networks voltage corresponds to the data reported on the label exposed on the battery chargers.



Unless otherwise required by the customer, the standard operating tables of our production are supplied with voltage of 220 Vac + / - 10% 50 Hz.

	Please Note: The battery chargers should not be exposed to liquid spray and it must be kept at a distance from the operating table if it works with anaesthetic gas.
--	---

	WARNING! There is danger of tripping on the power cable! Be careful. Do not use the cable if the cover is damaged.
--	---

2.4.3 SAFETY AP

	DANGER! Avoid the development of electrostatic charges! Use the operating table with: - appropriate cushions - on antistatic floors
--	--

The operating table Series 2010 must be powered by internal batteries (without feeder inserted) in the area at risk of explosion present in the operating theatre.

It is possible also its use with feeder inserted but only if the following procedure will be respected:

Connection:

Insert the battery charger's male connector into the female connector situated on the column



See also TABLE A

- Insert the connector into the feeder
- Connect the feeder to an electrical tap outside of the explosion area

	CAUTION! Do not move the operating table and do not make any movement on it while it is about to be disconnected from the electrical tap!
--	--

Disconnection

- Disconnect the feeder from the electrical tap
- Remove the connection cable of the feeder from the column tap.



SYMBOL: The protection of the operating table Serial 2010 semiautomatic match the type AP concerning the absorption of current in steady state or the absorbed power and the temperature of functioning in steady state is accordingly to the CEI EN 62_5 rule

2.5 MOVEMENTS

The operating tables *Series 2010* make the following movements:

Up – Down..... stroke of 300 mm	motorized
Trendelenburg 25°	motorized
Reverse Trendelenburg25°	motorized
Lateral right.....18°	motorized
Lateral left.....18°	motorized
Adjustable backrest.....+80°-40°	motorized
Thorax / kidney opening.....h. 170 mm	motorized
Longitudinal translation of table top towards the Column stroke of 300 mm (150 mm to the right side and 150 mm to the left side)	motorized

Auto levelling of the top's jointsautomatic zero

Taking over or deposit of the interchangeable table tops on the column (Only for Mod. SE EM 2010)

Automatic load of the table top on the transporter trolley (Only for mod. EM 2010 provided with ultra flat base)

Inclination and head section extraction – **manual**.....+40° -90°

Inclination, lateral opening right and left, movement and extraction of the leg section - **manual**:

Leg section divided in two parts..... +25° -90 ° (Up-Down) ... 90° (lateral opening right and left for a total of 180°)

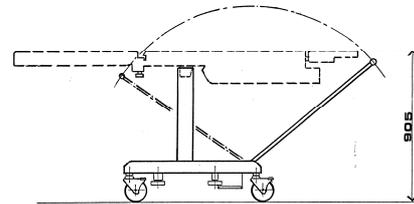
Leg section divided in four parts..... +90° -90° (Up-Down) ... 90° (lateral opening right + lateral opening left for a total of 180°) in the intermediate split +90° -90°

PLEASE NOTE: All the reported technical data, related to the range of the various movements, (of the tops and of the column) have to be considered only approximate, they can be changed in order to satisfy specific needs of the users, only upon acceptance of the manufacturer and only on his intervention.

The transporter trolley makes the following movements with the table top deposited on their structure

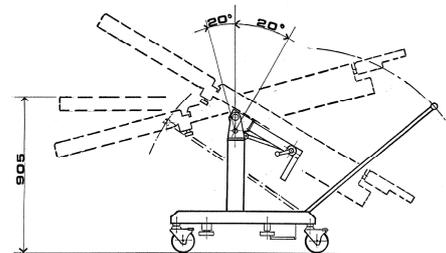
Simple transporter trolley useful for the taking over or deposit of the table top on the column

Model SE 1



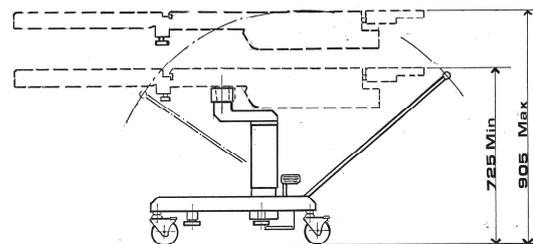
Trendelenburg and reverse trendelenburg inclination: 20°

Model SE TR 2



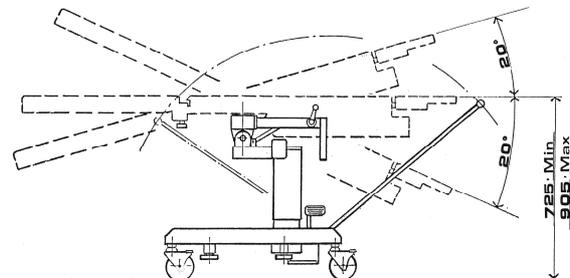
Adjustable height from mm 725 to mm 905

Model SE TR



Trendelenburg and reverse trendelenburg inclination: 20°
Adjustable height from mm 725 to mm 905

Model SE TR 4



The movements of trendelenburg and reverse trendelenburg are made in a mechanical way inserting a retractable crank.

The up and down movement are made by pedal controlled by an oleo dynamic seal system.

The **wheels** have a large diameter and they are provided with **antistatic cover** and **position selector** for the positions: **break, directional and wheels free**.

PLEASE NOTE: All the reported technical data, related to the range of the various movements, (of the tops and of the column) have to be considered only approximate, they can be changed in order to satisfy specific needs of the users, only upon acceptance of the manufacturer and only on his intervention.

2.6 EMERGENCY MOVEMENTS

Emergency movement by extractable crank (A70/A) supplied with the operating table Series 2010

The device has a recovery system of automatic/motorised movements in emergency (engine damaged or complete batteries' discharge, black out) very simple and functional.

The device for the recovery of movements in emergency is applicable to the following motorised movements of the operating table:

Up/Down
Trendelenburg and reverse trendelenburg
Lateral tilt right and left
Back section inclination
Thorax split movement (up and down)

PLS NOTE: In case of damage to the motor that makes the **longitudinal movement of table top on the column** the movement of translation **CAN NOT BE DONE MANUALLY** in case of **EMERGENCY**



CAUTION! There is a danger of incurring breakages of the mechanisms that act the operating table if the following indication will not carefully be observed.
The manufacturer refuse every responsibility for the product that has been tampered and auctioned in a wrong way.

Following the described steps there will not be the danger of damaging the normal way of working of the table.

1. **Turn off the operating table** before using the emergency crank.
2. Unscrew the cap corresponding to the position of the damaged engine /of the movement to recover [See TABLE A].
3. Take care to put the cap in an easily recoverable position avoiding the danger of loosing it.
4. **Gently** insert the crank A70 / A taking care of checking that the insertion in its seat has been made in the correct way; check that the insertion in its seat corresponds to that of entry on the motor and before acting on the rotation be sure that the crank has been insert in the proper way.
5. **now gently turn clockwise or anticlockwise accordingly to the inclination wanted .**



WARNING! There is the danger of incurring in a breakage of the mechanisms that action the operating table if the movement is forced at the end of its stroke.
Act on the crank taking care of stopping the movement before the end of its stroke.

6. pull the crank A70 / A and close the hole using the proper cap. Take care of putting the crank in an adequate place, it must be ready for other movements or emergencies. Notify to all operators the place where the crank will be placed.
7. Only now is advisable to relight the table and use the other automatic features.

2.7 SYMBOLS AND FUNCTION'S GENERALITY

Further symbols are on the device and it is useful and important to know their meaning and their functionalities before starting to use the operating table.

SYMBOLS AND IMPORTANT INDICATIONS OF REFERENCE ON THE OPERATING TABLE

The symbols and references here showed are important to make in a safety way the various adjustments on the table in a simply and useful way, the symbols and the subscriptions here written will be recalled later for the description of the different movements and procedures of use for the operating tables Series 2010

2.7.1 REMOTE CONTROL

The symbols that are on the **Remote control**, make reference to the command of the various table top and column movements.

Up		Down	
Reverse Trendelenburg		Trendelenburg	
Lateral tilt left		Lateral tilt right	
Longitudinal movement of table top		Longitudinal movement of table top	
Back section up		Back section down	
Thorax split up		Thorax split down	
Memory opening		RESET / Zero Position	
Memory keys A B C		Memory keys A B C	
		 Torino - Italy	

The cable remote control (EM TU) makes the movements corresponding to each key only if:

1. the operating table is ON;
2. the accumulators are charged in a correct way.
3. the remote control's cable is well inserted/connected.

If we have as endowment the infrared remote control (EM TF) this make the movements corresponding to each key only if:

4. the operating table is ON;
5. the accumulators are charged in a correct way.
6. the remote control is pointed toward the receivers on the column (a receiver is placed inside the display of batteries, the other at the opposite side of column at the same height).

PLEASE NOTE: The remote control (the model controlled by cable EM TU and also the model controlled by infrared system EM TF) is feed from a **9V internal Battery** easily available on the market, **the remote control MUST NOT BE recharged.** A Led of control on the keyboard indicates the battery's efficiency.

It is necessary to replace the battery of the remote control:

- when pressing a button the Led remains off, this indicates that it is necessary to replace the battery.
- The battery must be replaced when it necessary to reduce the distance between the table and the infrared remote control EM TF when you have to send a command.

The cable remote control model **EM TU** is part of the endowment of the operating table, are also available: the infrared cable control model **EM TF**, for which are valid the above mentioned indications, and the **pedal remote control EM TP.**

Device run on

There is a red mushroom button on the operating table's column upper side, if the button is **LOWERED** the operating table is **OFF**, if the button is **LIFTED** the operating table is **ON**.



ON



OFF

Once the operating table is on pressing each one of the above represented buttons the corresponding movement will start.

	<p>Action of the motorized movements on the column and on the operating table there will be a risk of collision. Carefully observe the different movements when they are operated.</p>
--	---

OTHER FUNCTION'S BUTTONS

RESETTING OF ALL MOVEMENTS



This button is useful to reset the operating table's movements, to be used whenever you want to put the table at rest but most of all:

- **to remove the table top from the column** for model **SE EM 2010**
- **to move the EM 2010 model** in its configuration with flat base

In all this cases the **RESET** must be called and done **before the insertion of the different trolleys.**

To make the **RESET** activity it is necessary to press and maintain this pressure on the key until the automatic sequence will start

PLS NOTE:

If the **RESET** key has been pressed unintentionally or in case it will be necessary to immediately interrupt the movement, it is sufficient to press one of the other keys on the remote control.

The only movement that will not be put to zero position doing the **RESET** is the thorax/kidney split for obvious reasons of safety for the patient. This movement has to be resettled manually, acting on the key placed on the cable control.

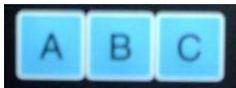
RESET OF THE SINGLE MOVEMENT

It is possible to RESET the single movement acting simultaneously on the movement to reset and on the key showed below, keeping the pressure on them until the movement will automatically stops.



MEMORY OPENING

This key is useful in the procedures of **memorization of the various procedures to recall when necessary.**



- **Put the operating table in the position to memorize** and recall in a second time (ex. a little bit of Trendelenburg, a little bit of lateral, backrest etc.)
- Now act on the **OPENING MEMORY** button and **simultaneously act on MEMORY A or B or C** button.
- A **sound signal** will be heard when the storage will be done, after that it will be possible to release the keys.

To recall the memorized position it will be necessary to press the key of **RECALL** showed in the picture below and simultaneously the key **A or B or C** where the position has been previously stored keeping them pressed until the automatic sequence will start.



2.7.2 FURTHER FUNCTIONALITY IMPORTANT ELEMENTS VISIBLE ON THE DEVICE



DISPLAY FOR THE INDICATION OF THE BATTERIES CHARGE

A notch (green or red)

indicate the charge level **25% 50% 75% 100%**

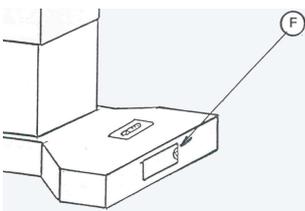
when the indicator in on **25%** the batteries must be recharged



INSERTION OF CONNECTION WITH BATTERIES CHARGER

In this position must be inserted the connector of feeding cable for batteries charger.

Once the charge is finished it is advisable to close the opening with the proper cap to avoid any possible falling down of oxidizing liquids inside.



If we have a model provided with standard base

To recharge the batteries act in the following way:

- Open the connection access' door **(F)** placed in the table's base.
- Insert the male connector of the cable into the female connector of the table.
- Rotate of about 45° the cable connector until you will hear a click of coupling
- Close the door **(F)**.

Caution: The door **(F)** must always be closed because in case it remains open the accumulators will not be charged.

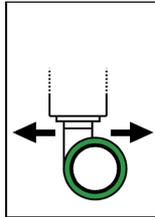
- Connect the cable of batteries charger to the network.
- Turn on the batteries charger, a green light on the switch will be lighted
- If all the connections have correctly been done, a yellow led will be lighted.

2.7.3 WHEELS ON TRASPORTER TROLLEYS AND BASE ON BIG WHEELS

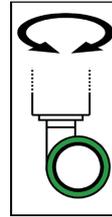
In the system SE EM 2010 and in the version EM 2010 with base on big wheels, it is possible to choose between positions and functions acting on the pedal, moving it on the chosen position. There are some labels, as showed below, corresponding to the pedal position.



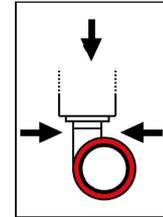
Pedal on which acting to give the ideal wheels' selection.



Green colour indicate that the **wheels** are in the **directional position** this make easy the movement in one direction.



Green colour indicate that the **wheels** are in the **free movement** position; this make easy the movement around the wheels' axis, useful during the rotating movement manoeuvres.



Red colour indicate that the **wheels** are **braked**

2.8 TECHNICAL DATA

TABLE

Kind of feeding	Internal, low voltage
Emergency feeding	External batteries charger 27.6 Vcc maximum
Voltage of inside feeding	24 Vcc
Batteries	2 x 12 V / 9.5 Ah connected in series
Motors	24 Vcc / 6.5 A maximum
System absorption with not working motors	< 150 mA
System absorption with motors on movement	3.5 A rated (not of peak)
Dissipated thermal power	2 W maximum
Maximum current limit for motor block	4 A
Maximum load chargeable on table top (distributed)	Kg. 250
Maximum load on the table's extreme edges	Kg. 80

BATTERIES CHARGER

Feeding voltage	220 Vca +/- 10%
Feeding frequency	50 Hz
Absorption	2 A max
Thermo dissipation	< 40 W
Protection against superheating and power	YES
Network fuse	2 x 1.6 A
Inside fuse	1 x 6.3 A 1 x 4 A
Delivered voltage	27.6 Vcc
Maximum delivered current with automatic limit	5 A max
Delivered power during the connexion of batteries charger with the operating table	< 1 mA a 27.6 Vcc
Safety Class – Type	1 – BF
Loss of current toward the exit tension	< valore CEI
Idem under conditions of 1° failure	< valore CEI
Idem under conditions SFCA	< valore CEI
Loss of current towards the table's covering	< valore CEI
Idem under conditions of 1° failure	< valore CEI
Loss of current towards the ground	< valore CEI
Idem under conditions of 1° failure	< valore CEI

CONNECTION: OPERATING TABLE – BATTERY CHARGER

Loss current towards the table	< CEI value
Idem under conditions of 1° failure	< CEI value
Idem under conditions SFCA	< CEI value
Loss of current towards the table's covering	< CEI value
Idem under conditions of 1° failure	< CEI value
Loss of current towards the ground	< CEI value
Idem under conditions of 1° failure	< CEI value
Power loss towards the earth	< CEI value
Resistance to the connection towards the earth	< valore CEI
Safety Class	I BF type

- 1) It is necessary the protection ground connection through the wall tap
- 2) The exit voltage for the charge of batteries is a fluctuating type with loss of currents towards the protection ground and towards the covering, kind BF according to CEI 62-5
- 3) Measured with feeding cable included
- 4) The test is made with table isolated from the floor simulating the most critical conditions for the safety without connection to the table's equipotential ground's point. The batteries charger's mass is connected to the table's mass.
The batteries charger's covering is electrically connected to the table's covering.
- 5) Also if the batteries charger have not an applied part, but it is connected to the table so it has been made according to the BF type rules in a way that under first fault conditions the loss of currents in the direction of the electric parts of the table, towards the covering and the ground (of the table system batteries charger-operating table) could be insert in the maximum safety conditions.

3. INSTALLATION OF MODEL EM 2010

All the tables of the **Series 2010** are internally tested accordingly to the rules UNI EN 10204 making also the prove tests relates to the safety, according to CEI EN 60601-2-46 and they are considered ready for the installation only if they have passed these tests. At the delivery the operating tables Series EM 2010 do not need particular plants or particular installation procedure because they are shipped yet ready for their use.

It is anyway important to have some cautions in order to avoid to incur in device's malfunctions due to wrong manoeuvres or to the unacknowledged of the product.

The operating table must be connected to a cable for the potential equalization using the tap placed in a downwards position on the column.



See also point F TABLE A

3.1 SHIFT OF EM 2010

The operating tables of the EM 2010 series are provided with commands for the execution of the various movements studied in a way to make really simple the operator's work. In the preceding paragraphs, we have already analysed the various parts that make the operating tables, we will recall in this section some useful aspects. At the arrival the operating table is yet ready for the use.

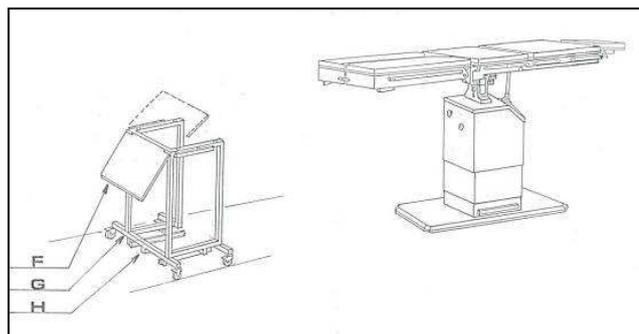
To move the operating table proceed in the following way:

3.1.1 EM 2010 model provided with ultra flat base

Device Starting: There is a red mushroom button on the upper part of the operating table's column, when the button is **LIFTED** the operating table is **ON**



Once the operating table is on, pressing the above represented buttons, it will make the corresponding movement. Act on the **RESET / ZERO POSITION** button and just then put the **small trolley EM CA** given in endowment, **inserting it in the direction of the table's foot** and in every case, in the direction of the part where is situated the **sensor** placed on the column in lower position.



When the small trolley is inserted under the top, is advisable to keep it locked in that position during all the loading process. It is possible to avoid the eventual small trolley's movement braking the wheels.

	<p>There is a risk of collision acting on the column's motorized movements. Observe with attention the various movements when auctioned. It is important to check that during this insertion operation there are not foreign matters between the table and the trolley, for example tubes, towels, etc.</p>
--	---

Once that the sensor recognize **the trolley's correct position**, deactivate **all the others operating table's functions and starts the automatic load cycle**. The operating table will lower until it will lean the top's longitudinal members on the small trolley's sections and continue until it will lift the base up from the ground. When the cycle is completed a **sound signal** that announce that now it will be possible to move the operating table **will be heard**.

	<p>SWITCH THE OPERATING TABLE OFF BEFORE to proceed at its movement acting on the red mushroom button (lower it).</p>
--	--

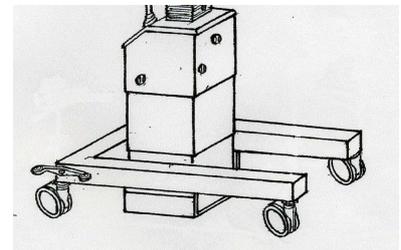
	<p>CAUTION! The table's sliding needs a smooth floor.</p>
--	--

Press on the trolley to move the operating table and do not act on the operating table's sections.

To **REPOSITION THE OPERATING TABLE ON THE GROUND** it is sufficient to turn on the table through the red mushroom button placed on the column and the table will automatically start to let down the base on the floor. Only when the cycle will be finished a sound signal that warn that now it will be possible to remove the small trolley will be heard.

3.1.2 EM 2010 Model with base on big wheels

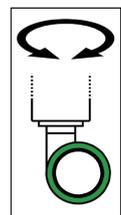
The movement of Model EM 2010 on base provided with big wheels is really simple and fast, is anyway advisable to proceed with caution following the next warnings:



	<p>SWITCH OFF THE OPERATING TABLE BEFORE to proceed at its movement acting on the red mushroom button (lower it).</p>
--	--

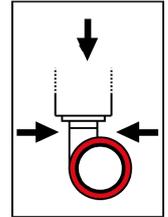
Act on the **pedal** placed on the operating table's base and **select the free wheels position**.

The Green colour indicate that the **wheels** are in the **free movement** position; this make easy the movement around the wheels' axis, useful during the rotating movement manoeuvres



	<p>CAUTION! The table sliding needs a smooth floor.</p>
--	--

Once the desired position will be found, to keep it act on the **pedal** placed at the table's base and **select the braked wheels' position**.
Red colour indicate that the **wheels** are **braked**.



3.1.3 EM 2010 Model with Standard base

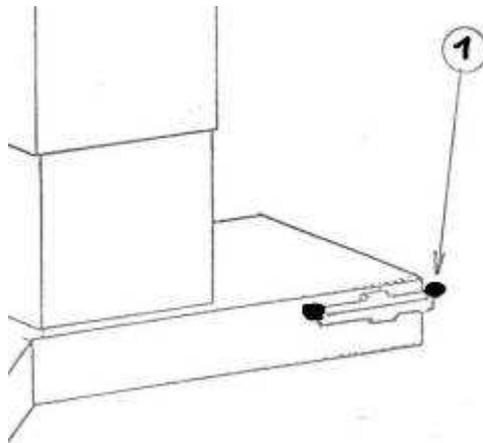
At the arrival the device is yet ready for the use, to move the table to the desired area is sufficient to unlock the brake, leaning the whole foot on the pedal(1) making power downwards with the heel.

	<p>SWITCH OFF THE OPERATING TABLE BEFORE moving it acting on the red mushroom button (lower it).</p>
--	---

At this point the operating table will move on the wheels placed under the table's base.

	<p>CAUTION! The table sliding needs a smooth floor.</p>
--	--

Once in position act on the pedal (1) with the foot's tip, in this way the table will be locked and adjusted.



3.2 ACCUMULATORS RECHARGE CONDITION

For the batteries recharge conditions and for its visualization, we refer to paragraphs 2.4.2 and 2.7.2.

If you find a 25% of charge level it is necessary to provide to the **accumulators recharge**.

Proceed in the following way to recharge the batteries:

- Extract and remove the cap of insertion of connector for batteries charger placed at the column's base. **See Picture paragraph 2.7.2**
- Connect the batteries charger feeding cable to the supply mains.
- Start the batteries charger's feeding procedure (press **button ON** on the batteries charger) .
- Engage the male connector into the operating table's female connector.
- Rotate of about 45° the battery charger cable connector until you'll hear a click, then check that the coupling has been done in the correct way.
- At this point if the procedure has been done in the correct way, a green light in the switch will be on.
- If all the connections are correct, on the batteries charger a yellow LED will be lighted.

If the table is on, the charger level's Display will indicate the "connection" situation by the yellow signal with the plug net symbol, and also the led's lighting in sequence 25%-50%-75%.

The 100% level will light only when the recharge will be finished, until that moment, to obtain an optimal charge, it is advisable to not stop the cycle.

If the batteries charger will always remain connected to the operating table and function for a long period or continuously, the system and the batteries will not be damaged.

If you turn off the table, the charge continues but obviously the indication of the charge situation will not be visible on the display. When the table will be turned on, the display will indicate again the charge situation.

With batteries completely recharged, when the table will be turned on, the Display will indicate the state of 'batteries in charge' for about 10 minutes and then it will pass to the lighting of Led100%.

It is possible to use the table during the charge without any problems. This can be useful in case of emergency when the system is locked for discharged batteries and it absolutely needs to be moved.



**WARNING! There is the danger of tripping on the feeding cable! Be careful.
Do not use the cable if there are abrasions on the cable's coverage.**



PLEASE NOTE: The batteries charge should not be exposed to a liquid spray and must be kept at a **distance from the operating table if it work under anaesthetic gas.**

3.3 HANDLING

The handling's commands can be done by two remote controls: the one supplied with the table and connected to it by a cable, and the infrared remote control:
For further information see **also paragraph 2.7.1.**

On both remote controls it is not accepted the contemporary pressure of two buttons as it is not possible the two contemporary motors handling .

Just some buttons can be pressed contemporary with others, this to satisfy some specific functions of which the operating table is equipped.

- Storing of complex positions in the various dedicated memories.



The system controls that are not made movements that could damage the mechanics .

To activate an handling press the corresponding button making reference to the drawing on it that show the relative function.

Releasing the button the handling will stops.

If during an handling this come at the end of its stroke, it stops automatically without possibility of creating damages to the mechanics.

Hold for few seconds the RESET / ZERO POSITION key, all the movements that are not in zero position, will be automatically brought, by an optimal sequence prepared by the manufacturer.

At the end of the reset procedure you will hear a short sounded signal.



It is advisable before turning off the operating table to make the RESET

	<p>KEEP ATTENTION Auctioning the motorized movements there is a risk of collision with column and with operating table. Carefully observe the various movements when they are operated. It is important to check that during this reset operation there are not foreign matters between the operating table top and the column such as pipes, towels, etc., and that there is not a danger of collision against people or things surrounding the operating table.</p>
--	--

If during an handling the system find an anomaly , the Led on the remote control will be lighted and that function will be locked. In that situation it is necessary to require the technical assistance.

3.3.1 PARTICULARLY CONDITIONS

It is important to know that some adjustments or functions are controlled by the system, if the system guess a function's incompatibility, to guarantee the good working of the device, it can limit or lock some movements.

- If the **backrest** is positioned in **downward** position the **operating table top longitudinal translation will stops before** the end of its stroke, to avoid that the backrest interferes with the column. Bringing back to **zero the backrest the longitudinal translation will continue.**
- If the longitudinal translation will be done from the centre towards the leg section, the backrest could not fall down over zero, it could just tilt in positive.
- If the operating table is equipped of the thorax/renal opening option, will be done the following check to prevent excessive positive inclination:

- If the thorax's adjustment is not at zero (end of its stroke back), the back rest's inclination will stop before the end of its stroke (it stops at +40°).
- If the backrest is in position + 40° or over, it is not possible to command the thorax lift.

IMPORTANT WARNINGS



After the final trims' positioning, with the patience and during the surgical operations, the operating table must be turned off.



When the equipment applied to the patient (electrosurgical, defibrillators ecc.) will be in use the remote control must not be kept in operator's hands or leaned on the table, but it must be stored in its area under the operating top, and the table must be turned off.



If, in case of need, it will be necessary to use the batteries charger's connection in case of emergency due to discharged batteries, do not use equipment applied to the patient when the table is fed.

3.3.2 POSITIONS STORAGE – Use of preferential trims

It is possible to store three preferential trims that can be recalled when necessary. Three trims are identifiable in A – B – C buttons placed on the remote control **See also paragraphs 2.7.1**

TRIMS PROGRAMME – WORKING SEQUENCE

- Bring all the operating table's handling in the position that you want to store
- Press and keep the OPENING MEMORY button and simultaneously the button A or B or C, depending of the button that you want to assign at the stored position. You will hear a sound signal that will inform you that the storage has been done.



- The new storage will delete the eventual previously stored trim.

- Press for few seconds the RESET button to bring back the table in zero position.



- Check now that the storage has been done successfully effecting the recall of the position following the steps described in the following paragraph.

PROGRAMMED TRIMS RECALL – WORKING SEQUENCE

To recall the memorized position it will be necessary to press the key of RECALL showed in the picture below and simultaneously the key A or B or C where the position has been previously stored keeping them pressed until the automatic sequence will start.



- The movements will automatically be brought in the stored position.
- All the remote control's buttons are ignored until the end of the phase. At the end, the system could receive the commands from the remote control again.
- In case of emergency press the red mushrooms button of on/off to immediately stop the phase of automatic recall of planned trims.

- Press for some second the RESET button to bring back the table in zero position.



4. SE EM 2010 – SYSTEM WITH REMOVABLES INTERCHANGEABLES TABLE TOP

All the tables of the **Series 2010** are internally tested accordingly to the rules UNI EN 10204 making also the prove tests relates to the safety, according to CEI EN 60601-2-46 and they are considered ready for the installation only if they have passed these tests. At the delivery the operating tables Series EM 2010 do not need particular plants or particular installation procedure because they are shipped yet ready for their use.

It is anyway important to have some cautions in order to avoid to incur in device's malfunctions due to wrong manoeuvres or to the unknowledgeable of the product.

The operating table must be connected to a cable for the potential equalization using the tap placed in a downwards position on the column.



See also point F TABLE A

For the configuration of the model SE EM 2010 we ask you to make reference to paragraph 2.2 and to the under paragraphs 2.2.1, 2.2.2, 2.2.3

4.1 PRELIMINARY INDICATIONS

The transporter trolley used during the phase of taking over or deposit of the interchangeable table tops on the column, is mobile on wheels lockable by pedal (see the paragraph referred to the wheels adjustment)

4.1.1 Taking over of table top

This cycle is automatically done when the trolley is insert under the table top.

	<p>There is a risk of collision auctioning the automatic cycles. Carefully observe the different movements when they are auctioned.</p>
--	---

One automatic movement require the maximum attention and the careful observance of the instructions given in order to avoid damages to people or things.

	<p>Check the kind of model that you have as endowment; the serie SE EM 2010 can provide the taking over of the table top from the head side or from the leg section side accordingly to the option chosen at the moment of the order. The taking over of the table top is only in one direction: you can not choose both. It is possible to immediately have this information to verifying in what side of the column the sensor that recognize the position of the trolley is placed.</p>
--	---

Now we carefully see helped by the pictures, the different operations to make.

<p>1. Re-call the zero position / RESET for the automatic levelling of the operating table acting for at least 3 seconds on the key, a sound signal will be heard, it will advise that the zero position will be reached. (If this action will not be done, the trolley could not be insert.</p>	
<p>2. If we are using a trolley model SE TR 3 verify that the revolution indicator is on the point 0000 See also paragraph 6.3.3</p>	

3. Put the remote control in its seat, near the mushroom button placed on the column.

Insert the trolley **from the leg section side / or from the head section side accordingly to the device that we have as endowment** until the end of its stroke, pushing it in order to keep it in the position reached until the end of the cycle.
(The use of the remote control will be automatically locked)



4. After one second from the insertion of the trolley the automatic cycle will start. 3 beep will be heard.
5. All the movements will come back to the zero position.
6. At the end of the reset the descent of the table top will be done. The table top automatically position itself on the trolley and detaching itself from the stativo.
7. If during the activities described in points 5 and 6, the trolley will be moved, the cycle will stops. If the trolley will be repositioned:
 - The Reset sequence will be done again.
 - The table top will be lifted again to the zero position.
 - So the lowering movement start again.
8. The table top position itself on the trolley. **(The end of stroke will be signalled by a beep).**
9. Remove the trolley with the table top
10. All the movements will remain locked until the insertion of a new table top.
11. Turn off the feeding (press the red mushroom placed on the column).

4.1.2 Deposit of table top

This cycle is done automatically when the trolley is insert. The remote control is locked.



There is a **risk of collision** auctioning the automatic cycles. **Carefully observe the different movements** when they are running.

One automatic movement require the maximum care and the observance of the instructions in order to avoid damages to people or things.



Check the kind of model that you have as endowment; the series SE EM 2010 can provide the taking over of the table top from the head side or from the leg section side accordingly to the option chosen at the moment of the order.
The taking over of the table top is only in one direction: you cannot choose both.
It is possible to immediately have this information to verifying in what side of the column the sensor that recognize the position of the trolley is placed.

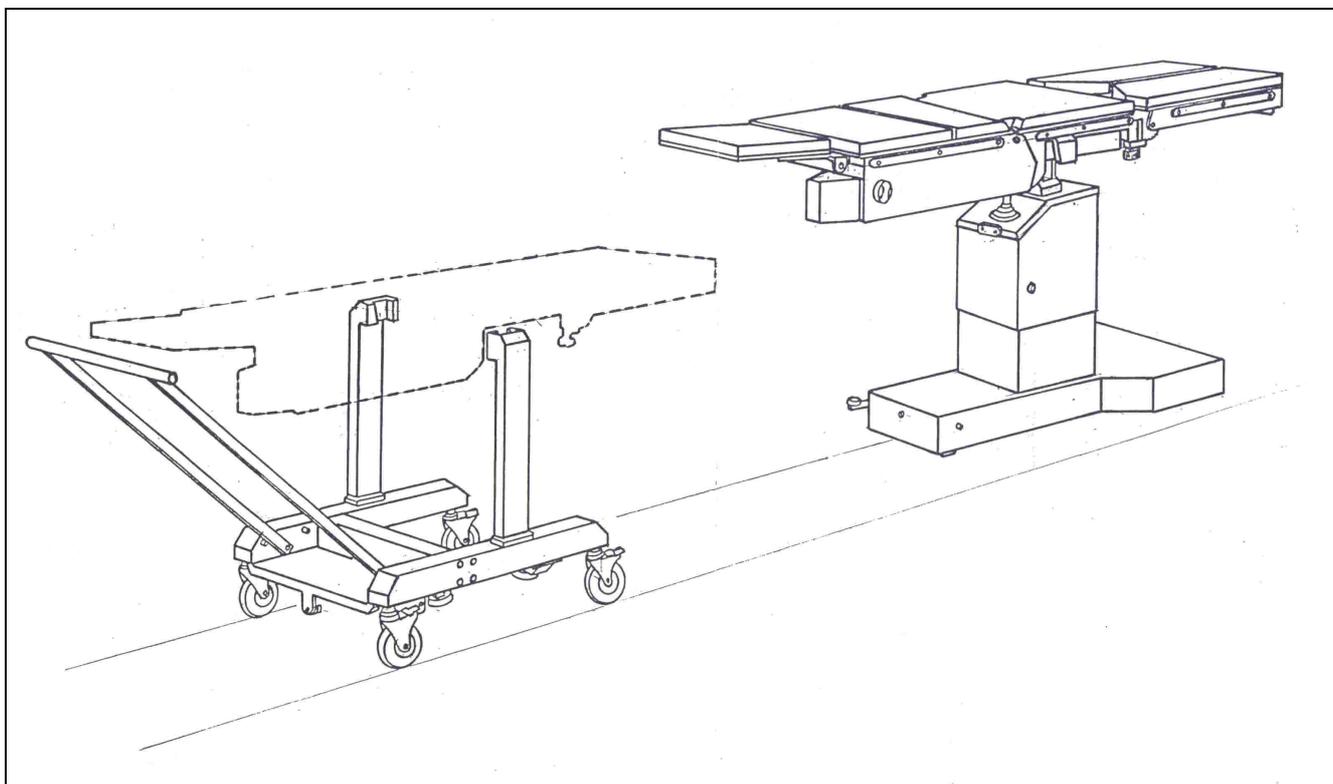
The stativo must be in the same position in which it has been left when the table top has been taken over.

1. Turn on the feeding (pull the red mushroom key placed on the column) and wait the Beep of end of test
2. Insert the trolley **from the leg section side / head section side accordingly to the model that we have as endowment** until the end of its stroke and keep it in that position until the end of the cycle.
3. After the insertion of the trolley, after about one second, 3 beep will be heard and the automatic cycle for the insertion will be started.
4. The system controls the up movement of the column until the complete insertion of the table top at the pre-arranged height.
5. If during the phase 3 the trolley will be moved the cycle will be interrupted.
 - If the trolley will be repositioned:
 - The column will be lowered.

- So the up movement re-start.

6. The table top will be positioned on the column (the attainment of the pre-arranged height will be signalled by 1 beep).
7. Extract the trolley.
8. The operating table is ready to work accordingly to the different postponements by cable.

The trolley is provided with guides in order to avoid the wrong insertion of the trolley.



2. Re-call the zero position to automatically level the operating table acting on the key for at least 3 seconds, a sound signal will be heard when the zero position will be reached.



3. If we are using a **trolley model SE TR 3** verify that the **revolution indication** is positioned on point **0000**
See also paragraph 6.3.3

4. Put the remote control in its seat, near the mushroom button placed on the column.



5. Insert the trolley and push it until it will enter in contact with the column, take care of maintaining it in that position until the end of the cycle. (The use of the remote control will be automatically locked). It is possible to lock the wheels of the trolley in order to avoid eventual movements.
6. When the trolley is insert after about one second an automatic cycle will start. 3 sounded signal will be issued.
7. All the movements are automatically levelled in order to let the procedure more efficient.

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8. At the end of the zero position , the system control the lowering of the table top. The table top will be positioned on the trolley and in this way it let the column free, coupling the trolley.

PLS NOTE: If during the actions described in point 5 and 6, the trolley will be moved the cycle will be interrupted and the operating table will come in a up position automatically and the cycle of chargement will start again only removing the trolley and re-starting from points 5 – 6 - 7. When the trolley will be repositioned the reset sequence will be done again, the table top will be positioned again in the zero position so, the lowering of the table top will start again and also the cycle of charge.

9. The table top will be positioned on the trolley. (The end of the down movement and the coupling of table top to the trolley will be signalled by an acoustic signal)

10. Only after the coupling of the table top to the trolley and after having heard the sounded signal, it will be possible to remove the trolley with the table top.

11. All the movements will stay locked (except for the movement of 'cleaning of the column' actionable acting on the key that controls the up movement) until the deposit of a new table top.

12. If you do not want insert a new table top it is advisable to put the feeding off (pressing the red mushroom placed on the column of the table)



It is advisable **to carefully check the operating table when it is in movement** for the safety of people or things that are around the table or in its area of action.

4.2 ACCUMULATORS RECHARGE CONDITION

For the state of charge of the batteries and for its visualization we ask you to see paragraphs 2.4.2, 2.7.2, 3.2.

If you find a 25% of charge level it is necessary to provide to the **accumulators recharge**. Proceed as described in the paragraph 3.2.

It is possible to use the table during the charge without any problems. This can be useful in case of emergency when the system is locked for discharged batteries and it absolutely needs to be moved.



WARNING! There is the danger of tripping on the feeding cable! Be careful. Do not use the cable if there are abrasions on the cable's coverage.



PLEASE NOTE: The batteries charge should not be exposed to a liquid spray and must be kept at a **distance from the operating table if it work under anaesthetic gas.**

4.3 HANDLING

The handling's commands can be done by two remote controls: the one supplied with the table and connected to it by a cable, and the infrared remote control: For further information see **also paragraph 2.7.1. - 2.7.2**

On both remote controls it is not accepted the contemporary pressure of two buttons as it is not possible the two contemporary motors handling .

Just some buttons can be pressed contemporary with others, this to satisfy some specific functions of which the operating table is equipped.

- Storing of complex positions in the various dedicated memories.
- Re-call the zero position for every single movement



The system controls that are not made movements that could damage the mechanics .

To activate an handling press the corresponding button making reference to the drawing on it that show the relative function.

Releasing the button the handling will stops.

If during an handling this come at the end of its stroke, it stops automatically without possibility of creating damages to the mechanics.

Hold for few seconds the RESET / ZERO POSITION key, all the movements that are not in zero position, will be automatically brought, by an optimal sequence prepared by the manufacturer.

At the end of the reset procedure you will hear a short sounded signal.



It is advisable before turning off the operating table to make the RESET

	<p>KEEP ATTENTION Auctioning the motorized movements there is a risk of collision with column and with operating table. Carefully observe the various movements when they are operated. It is important to check that during this reset operation there are not foreign matters between the operating table top and the column such as pipes, towels, etc., and that there is not a danger of collision against people or things surrounding the operating table.</p>
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If during an handling the system find an anomaly , the Led on the remote control will be lighted and that function will be locked. In that situation it is necessary to require the technical assistance.

4.3.1 PARTICULARLY CONDITIONS

It is important to know that some adjustments or functions are controlled by the system, if the system guess a function's incompatibility, to guarantee the good working of the device, it can limit or lock some movements.

- If the **backrest** is positioned in **downward** position the **operating table top longitudinal translation will stops before** the end of its stroke, to avoid that the backrest interferes with the column. Bringing back to **zero the backrest the longitudinal translation will continue.**
- If the longitudinal translation will be done from the centre towards the leg section, the backrest could not fall down over zero, it could just tilt in positive.
- If the operating table is equipped of the thorax/renal opening option, will be done the following check to prevent excessive positive inclination:
 - If the thorax's adjustment is not at zero (end of its stroke back), the back rest's inclination will stops before the end of its stroke (it stops at +40°).
 - If the backrest is in position + 40° or over, it is not possible to command the thorax lift.

IMPORTANT WARNINGS



After the final trims' positioning, with the patience and during the surgical operations, the operating table must be turned off.



When the equipment applied to the patient (electrosurgical, defibrillators ecc.) will be in use the remote control must not be kept in operator's hands or leaned on the table, but it must be stored in its area under the operating top, and the table must be turned off.



If, in case of need, it will be necessary to use the batteries charger's connection in case of emergency due to discharged batteries, do not use equipment applied to the patient when the table is fed.

4.3.2 POSITIONS STORAGE – Use of preferential trims

It is possible to store three preferential trims that can be recalled when necessary. Three trims are identifiable in A – B – C buttons placed on the remote control **See also paragraphs 2.7.1 - 2.7.2**

TRIMS PROGRAMME – WORKING SEQUENCE

- Bring all the operating table's handling in the position that you want to store
- Press the OPENING MEMORY button and simultaneously the button A or B or C, depending of the button that you want to assign at the stored position. You will hear a sound signal that will inform you that the storage has been done.
- The new storage will delete the eventual previously stored trim.
- Press for few seconds the RESET button to bring back the table in zero position.
- Check now that the storage has been done successfully effecting the recall of the position following the steps described in the following paragraph.



PROGRAMMED TRIMS RECALL – WORKING SEQUENCE

To recall the memorized position it will be necessary to press the key of RECALL showed in the picture below and simultaneously the key A or B or C where the position has been previously stored.

- Press for some seconds the key of RECALL and simultaneously the key A or B or C where you have previously stored the position.
- The movements will automatically be brought in the stored position.
- All the remote control's buttons are ignored until the end of the phase. At the end, the system could receive the commands from the remote control again.
- In case of emergency press the red mushrooms button of on/off to immediately stop the phase of automatic recall of planned trims.
- Press for some second the RESET button to bring back the table in zero position.



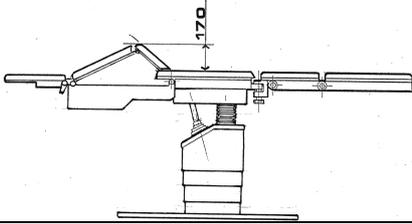
5. OPERATING TABLE TOP MOVEMENTS AND ADJUSTMENTS

In this section we will analyse the part concerning the various movements of which the table is provided, with particular reference to the manual table top's movements.

5.1 AUTOMATICS ADJUSTMENTS

The automatics adjustments of the operating table are schematically represented on the remote control. The remote control is given as endowment of the operating table accordingly to the function of which it is provided with.

If the operating top is divided in 5 or 7 sections or less, the remote control will not show any picture (es. thorax opening). Here we will consider the most complete version.

 Up	 Down	300 mm
 Reverse Trendelenburg	 Trendelenburg	20° - 30°
 Lateral left	 Lateral right	20°
 Longitudinal table top traslation	 Longitudinal table top translation	300 mm (50 mm toward head section - 150 mm toward leg section)
 Back section up	 Back section down	+ 80° - 40°
 Thorax opening Up	 Thorax opening down	
	Automatic Reset - Zero position	

5.1.1 Emergency

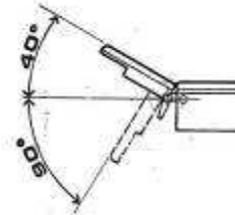
The system is supplied with an emergency system that allows, in case of locked engine to be able to manually restore the damaged movement. All the other movements continue to work in an automatic way. To the manually emergency movements recover see paragraph 2.6.

5.2 MANUAL ADJUSTMENTS

Other table top's adjustments are not automatically but they have to be performed manually, these adjustments are those of head rest and of leg section.

5.2.1 Head rest

The head rest is supplied as endowment of the operating table and it allows the **negative adjustment (-90°)** the **positive adjustment (+40°)**; it is furthermore possible to **extract and replace it with all the other headrest** being part of the accessories line Nuova BN (see the catalogue of accessories).



Check before to proceed if we have as endowment an operating table supplied with 5 or 6 sections. See paragraph 2 and under paragraphs.

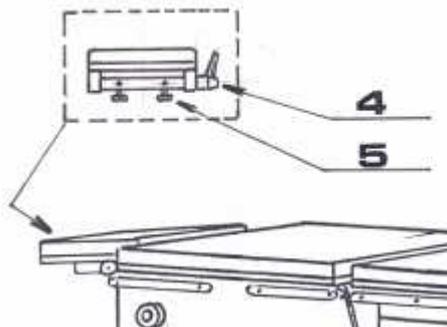
5.2.1.1 Headrest adjustment with a 5 sections operating table top (without thorax opening)

If we have as endowment **5 sections table top** for the headrest adjustment and extraction proceed in the following way, helped from the picture **Drawing C** under reproduced:

For the **tilt's** adjustment act on the handle unscrewing it (4). Once effected the handle's opening, proceed with the head section's adjustment and reached the position reclose the handle before to line the weight of the patient on the table.

For the headrest's **extraction** act on two knobs (5) unscrewing them without arriving until the end (they could fall). Once effected this procedure pull the head section outwards. It is now possible to use the table without headrest or to insert other headrests. To insert other headrests follow the procedure for the headrest insertion described below.

For the **insertion** of the supplied headrest or of other headrests proceed taking care of controlling that the knobs (5) are in the same position in which we left them at the moment of the extraction, if they are closed open them unscrewing (not until the end because they could fall). Insert the headrest's pins [See **TABLE B point 1**] in the back section's holes, then close the knobs (5) until the end. Be sure that the headrest is well insert: only after it will be possible to proceed to load the patient.



Drawing C

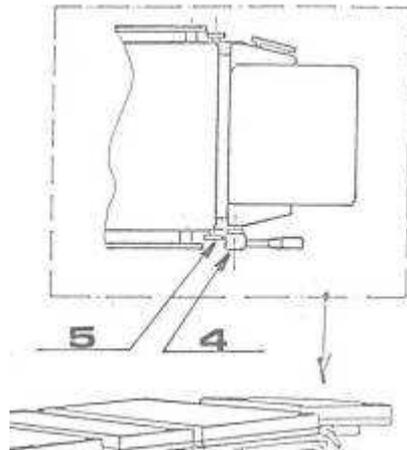
5.2.1.2 Headrest adjustment with 6 sections operating table top (with thorax opening)

If we have as endowment **6 sections table top** for the headrest adjustment and extraction proceed in the following way, helped from the picture **Drawing C** under reproduced:

For the **tilt's** adjustment act on the handle unscrewing it (4). Once effected the handle's opening proceed with the head section's adjustment and reached the position reclose the handle before to rest the patient's weight.

For the headrest's **extraction** act on two lateral knobs (5) unscrewing them until the button. Once effected this procedure pull the head section outward. It is now possible to use the table without headrest or inserting other headrests. To insert other headrests follow the procedure for the headrest insertion following described.

For the **insertion** of the supplied headrest or of other headrests proceed taking care of controlling that the knobs (5) are in the same position in which we left them at the moment of the extraction, if they are closed open them unscrewing until the end. Insert the headrest's pins [See TABLE B point 1] in the back section's holes, then close the knobs (5) until the end. Be sure that the headrest is well insert: only after, it will be possible to proceed to load the patient.



Drawing D

5.2.2 Leg sections

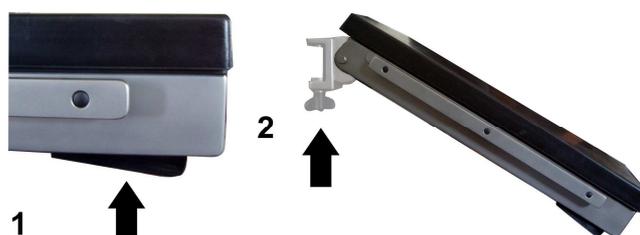
The leg sections that equip the operating table are manually adjustable, the models given as endowment, could be of two kinds, one divided in two sections and another one divided in four sections. Both can be upward and downward adjustable, they can be opened of 90° and they can be extracted. The four sections' model also satisfy other functions that we will analyze below.



First of all check which model of leg section we have as endowment, only then proceed following the instructions described. [See TABLE C]

5.2.2.1 Leg section divided in two parts - A81

To adjust the inclination of leg section cod. A81 is sufficient to act on the lever (1) as showed in **Drawing E**, pushing it: the internal mechanism will let go up or down the section accordingly to the movement done in upward or downward direction. Once the desired height is reached, to lock the position it is sufficient to release the lever (1) **Drawing E**.



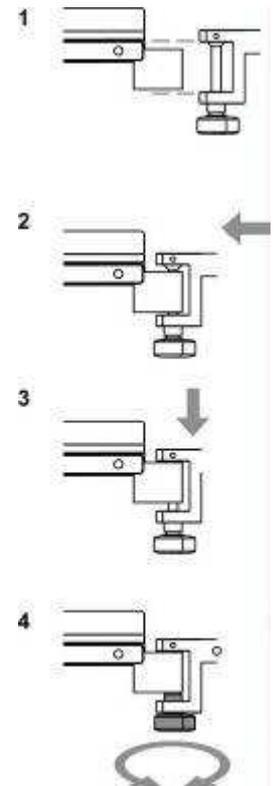
Drawing E

To **extract** the leg section is necessary to unscrew the knob (2) **Drawing E**, at this point proceed keeping with the two hands the section (right or left) that we want to extract, with an hand keep the sector extremity and with the other make a pressing from down to up on the knob (2) **Drawing E**, we will hear a click, now can proceed to the extraction pulling outward the section to extract.

To **divaricate** the leg sections, unscrew the knob (2) **Drawing E**, and open the leg section at 90° maximum, before doing any other movement lock the knob (2) **Drawing E** until the end in order to avoid, acting the other movements of the operating table, that the section could inadvertently move and create damages to operators or equipment near the table, or to the patient.

To **insert** the leg section proceed instead in the following way, helped from **Drawing F**.

1. Set in line the coupling and the operating table connection.
Help oneself keeping the section with the two hands, one keeps the leg section from the extremity, the other hand keeps the knob under it.
2. Insert the leg section inside the operating table connection.
3. Be sure that the connection is properly and correctly engaged in its seat
4. Once checked the correct insertion of leg section proceed locking the knob until the end.

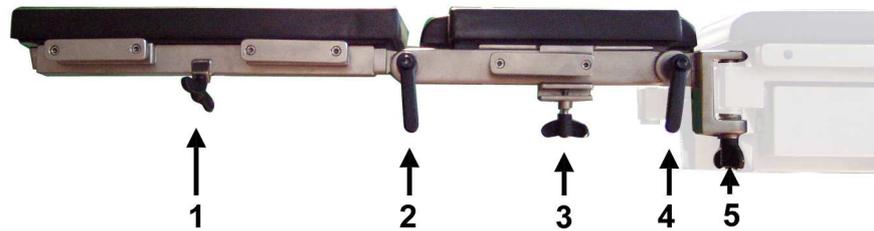


Drawing F

Only after having checked that the coupling has been done in the correct way it will be possible to charge the patient's weight.

5.2.2.2 Leg section divided in four sections – A78

This model of leg section satisfies more adjustments. We analyze now helped from the picture and **Drawing G** how to proceed to make the various adjustments.

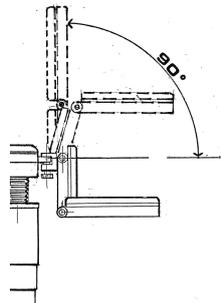


Drawing G

To adjust the **upward and downward inclination** of leg section model **A78** is sufficient to act on the lever **(4)** as showed in **Drawing G**, the toothed mechanism will open and it will be possible to choose the necessary up/down position. Found the useful position to lock the leg section in that position in a safety way, is sufficient to act again on lever **(4)** and to lock it turning until the end.

Before positioning the patient's weight it is appropriate to check that the closure has correctly been done and that the teeth of the adjustment mechanism match in the closure.

To create an **angle of 90° with the lower and upper part of the leg-section** (at the knee height) it is necessary to act on the lever **(2)** **Drawing G**, also this time the toothed mechanism on which the leg-section tilt will open and it will be possible to adjust this inclination. It is possible to create an angle of 90° with the section (at the knee height) positively and negatively, in order to make an angle of 90° upwards (+90°) and downwards (-90°).



Found the useful position, to lock the leg section in that position in safety, is sufficient to act again on the lever **(2)** closing it until the end.

Before positioning the patient's weight it is appropriate to check that the closure has correctly been done and that the teeth of the adjustment mechanism match in the closure.

To **divaricate** the leg section it is necessary to act on the knob **(5)** **Drawing G** unscrew to open the angle shot, screw to lock the divaricated position as necessary. The toothed mechanism will open unscrewing the knob **(5)** and it is now possible to divaricate as we need (max 90°), found the position needed act again on the knob **(5)** **Drawing G** and screw until the end taking care of checking that the teeth of the adjustment mechanism match between them..

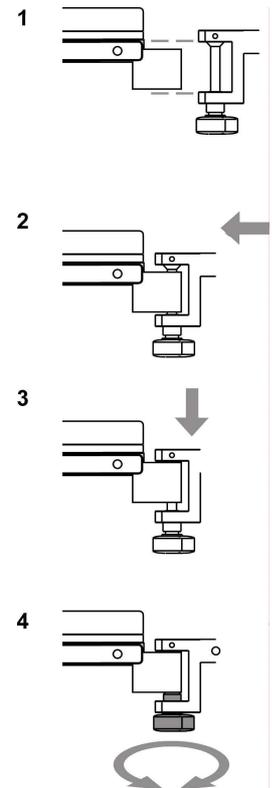
Before positioning the patient's weight it is appropriate to check that the closure has correctly been done and that the teeth of the adjustment mechanism match in the closure.

To **extract** the leg sections, first of all is necessary, for safety, to check that knobs and levers **(1) (2) (3) (4)** **Drawing G** are closed properly, after this for the extraction proceed as follow.

Unscrew the knob **(5)** **Drawing E**, at this point proceed **keeping with two hands the section** (right or left) that we want to extract, with an hand keep the sector extremity and with the other press from down to up on the knob **(5)** **Drawing G**, it will hear a click, now proceed to the extraction pulling outward the section to extract

To **insert** the legging proceed instead in the following way, helped by **Drawing F**.

1. Set in line the coupling and the operating table connection.
Help oneself keeping the section with the two hands, one keeps the leg section from the extremity, the other hand keeps the knob under it.
2. Insert the leg section inside the operating table connection.
3. Be sure that the connection is properly and correctly engaged in its seat
4. Once checked the correct insertion of leg section proceed closing the knob (5) **Drawing G** until the end.

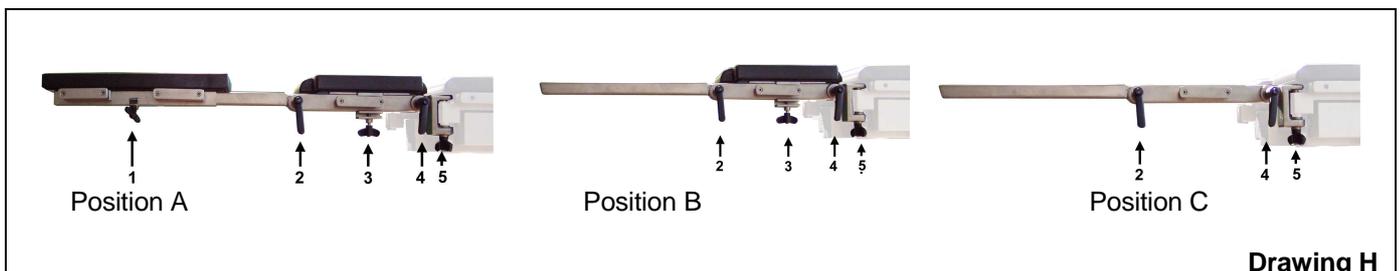


Drawing F

Only after having checked that the coupling has been done in the correct way it will be possible to charge the patient's weight.

On the leg section A78 is also possible to adjust the position of the small top that compose the leg section (right upper and lower and left upper and lower) .

The **adjustment of the upper part** is done opening the knob (1) **Drawing H**, when the knob is unscrewed the small top is free to move and it can be extracted pulling it outward.



Drawing H

If the intention is to lengthen the useful support section to cover the particular patient 's height (if particularly tall) is necessary, once found the position needed, to act locking the knob until the end (1) **Drawing H**.



The specified capacity in the section 7. **PATIENT POSITIONING ON THE OPERATING TABLE TOP** is not guarantee in 60 Kilos in all positions. Is necessary to proceed with caution in this condition.

It is possible only to **extract the upper part of the leg section**; to make this operation proceed in the following way:

Unscrew the knob **(3) Drawing H** until the end taking care to keep with one hand the small top to extract. When the knob **(3) Drawing H** will be unscrewed it will be possible to extract it tilting lightly downwards the section to extract; the leg section will appear as in **Position C Drawing H**. Now it is possible to join other accessories to the leg section (see catalogue of accessories).

6. SYSTEM OF REMOVABLES INTERCHANGEABLES TABLE TOPS SERIE SE EM 2010

The operating tables mod. SE EM 2010 system of removable, interchangeable table tops are provided of one or more transporter trolleys, useful for the deposit and taking over of the table top. The trolleys are available in different models. We will analyze in this sections technical features and functionalities of each model.

6.1 USE

The transporter trolleys have been projected and conceived to transport the operating table top (with or without the patient). Every different use IS NOT allowed.



WARNING! The transport of different devices or objects in use in the operating theatre is not allowed, neither on the operating table top nor on the transporter trolley. BE CAREFUL!

The procedure of use of the transporter trolleys is very simple and safe to make. The transporter trolleys have been expressly projected for the use above declared so assuring a high level of safety for the patient and for the user.

On the operating tables are insert some position sensor in order to make safe, fast and easy the procedures of taking over and deposit of the table top.

Notwithstanding this all the activities related to the movement of the system must be done in a responsible and clever way.



KEEP ATTENTION! It is very important to follow the procedures described in this section and also those described in the paragraph 4 and to ist relative under paragraphs.

6.2 WHEELS ADJUSTMENT

In the system SE EM 2010 and in the version EM 2010 with base on big wheels, it is possible to choose between positions and functions acting on the pedal, moving it on the chosen position. There are some labels, as showed below, corresponding to the pedal position.

The wheels of which are endowed the transported trolleys, of each model, are antistatic, and they prevent the development of electrostatic charges.

The 4 wheels are provided with a selector of position (pedal **Picture 1**) that allows to choose and make three positions, indicates also by a visual symbol placed on the trolley that indicates the kind of position selected.

<p>Pedal on which acting to give the ideal wheels' selection</p> <p>Picture 1</p>	<p>Green colour indicate that the wheels are in the directional position this make easy the movement in one direction</p>	<p>Green colour indicate that the wheels are in the free movement position; this make easy the movement around the wheels' axis, useful during the rotating movement manoeuvres</p>	<p>Red colour indicate that the wheels are braked</p>



WARNING! Always select the braked position when the trolley is not in use.

6.3 MOVEMENTS WITH TABLE TOP INSERT ON THE TROLLEY

Concerning the procedures of taking over and /or deposit of table top refer to **chapter 4** of this manual and to **paragraphs 4.1, 4.1.1 , 4.1.2.**

Here we only indicate the movements that it will be possible to make with the table top charged on the trolley, accordingly to the model that we have as endowment.

6.3.1 Model SE 1

This model is the simpler of the line of transport Series SE EM 2010 and it only makes the functions of taking over and deposit of the table top.

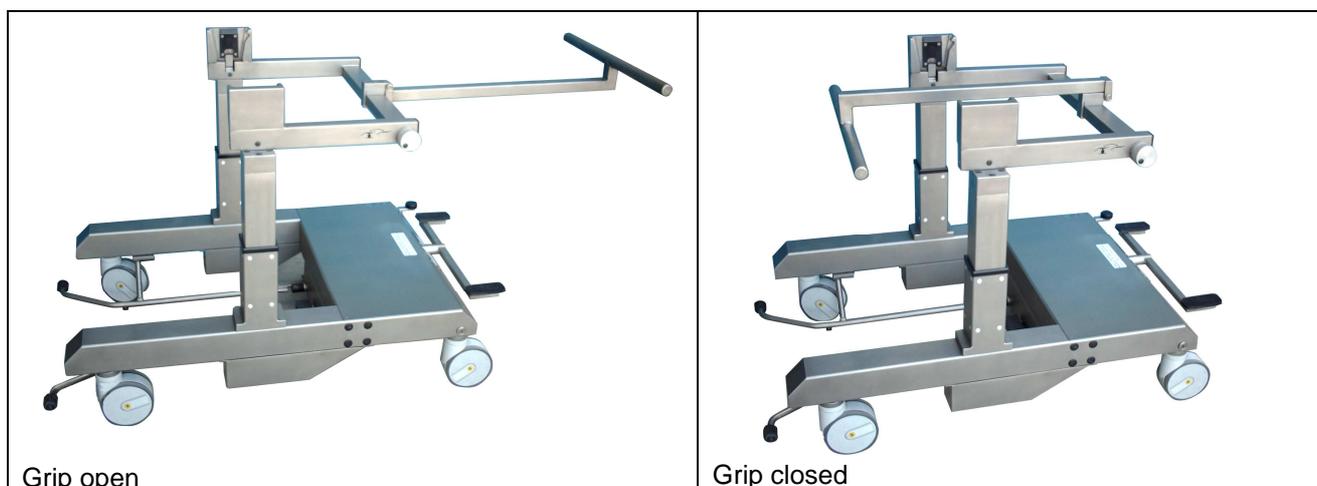
It is possible “close ” or “open ” the grip of the trolley in order to earn space for the storage.



6.3.2 Model SE TR 2

This model is provided with **height adjustment** to make with the table top insert on, including also the activities of taking over and /or deposit of table top.

It is also possible “close ” or “open ” the grip of the trolley in order to earn space for the storage.



The height adjustment of table top on the trolley is done by a pedal placed to the lateral side of the trolley. It is sufficient to ‘pump’ on the pedal (the longer part) in order to go **up** with the table top and pushing on the

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pedal (the shorter part) until the end in order to **go down** with the table top. There is a label that shows the pedal's function.

The table top will depart from a minimum height of 725 mm to reach a maximum height of 905 mm.

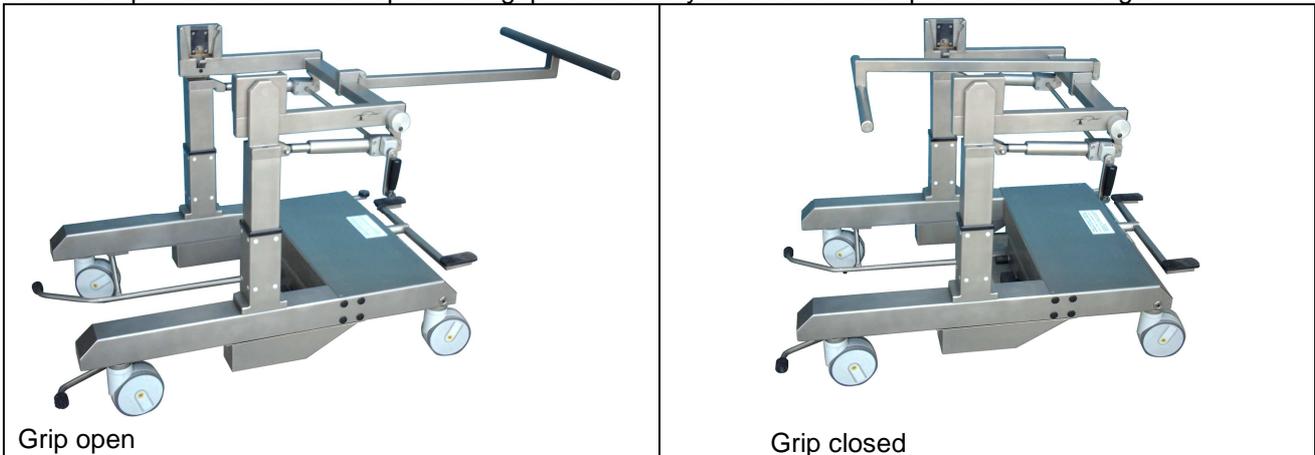


WARNING! Before making the insertion of the trolley on the table top to make the functions of taking over/deposit of the table top it is necessary to be sure that the trolley is in a position of maximum height.

6.3.3 Model SE TR 3

This model is provided with **Trendelenburg and Reverse Trendelenburg** adjustment to make with the table top insert on the trolley, and naturally the opportunity of making the activities of taking over and/or deposit of table top.

It is also possible “close ” or “open ” the grip of the trolley in order to earn space for the storage.



The movement of **Trendelenburg and Reverse Trendelenburg** is done by an handle, closable when not necessary, simply making a rotation in clockwise or counterclockwise direction, accordingly to the inclination wanted on the table top.



The trolley has as endowment a **revolution indicator** well visible placed in correspondence with the adjustment handle, instrument useful to immediately know the point of inclination reached and also to reach the position **0000** on the trolley indication, useful to proceed to the activity of taking over/deposit of the table top.



Revolution indicator



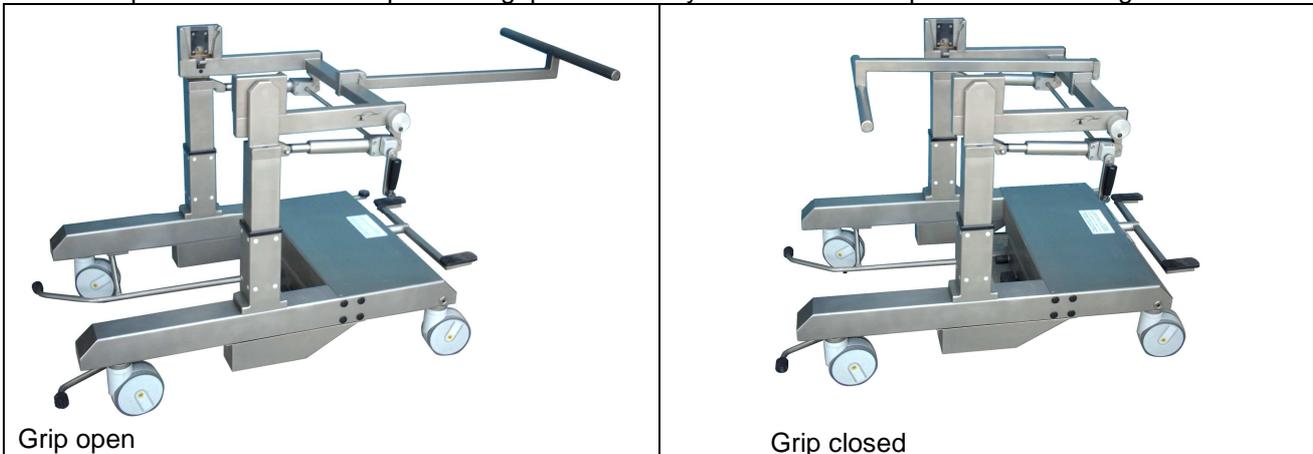
WARNING! Before inserting the trolley under the table top to make the activities of taking over/deposit of the table top it is necessary to be sure that the revolution indicator is in position 0000.

6.3.4 Model SE TR 4

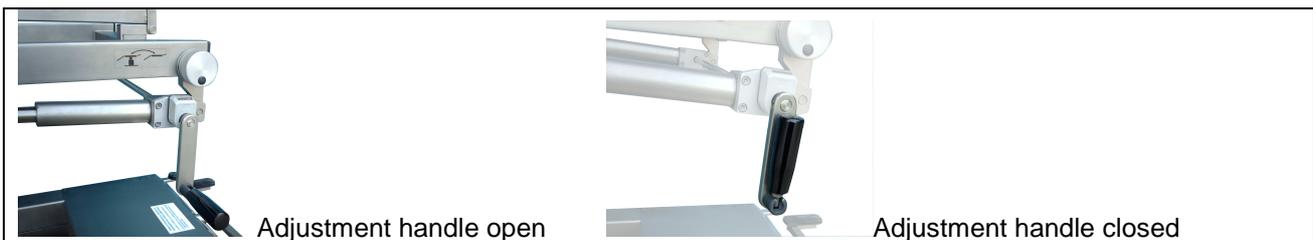
IS/E/03/08 Rev. 0 – Ed. 1
Date of issue 10-01-2011

This model is provided with **Trendelenburg and Reverse Trendelenburg adjustment and of the height adjustment** to make with the table top insert, and naturally of the opportunity of making the activities of taking over and/or deposit of table top.

It is also possible “close” or “open” the grip of the trolley in order to earn space for the storage.



The movement of **Trendelenburg and Reverse Trendelenburg** is done by an handle, closable when not necessary, simply making a rotation in clockwise or counter clockwise direction, accordingly to the inclination wanted on the table top.



The trolley has as endowment a **revolution indicator** well visible placed in correspondence with the adjustment handle, instrument useful to immediately know the point of inclination reached and also to reach the position **0000** on the trolley indication, useful to proceed to the activity of taking over/deposit of the table top.



Revolution indicator

The height adjustment of table top on the trolley is done by a pedal placed to the lateral side of the trolley. It is sufficient to ‘pump’ on the pedal (the longer part) in order to go **up** with the table top and pushing on the pedal (the shorter part) until the end in order to **go down** with the table top. There is a label that shows the pedal’s function.

The table top will depart from a minimum height of 725 mm to reach a maximum height of 905 mm.

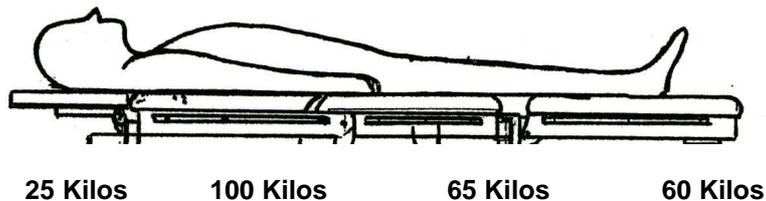
	<p>WARNING! Before making the insertion of the trolley on the table top to make the functions of taking over/deposit of the table top it is necessary to be sure that the trolley is in a position of maximum height.</p>
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	<p>WARNING! Before inserting the trolley under the table top to make the activities of taking over/deposit of the table top it is necessary to be sure that the revolution indicator is in position 0000.</p>
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7. CORRECT POSITIONING OF THE PATIENT ON THE TABLE TOP

The positioning of the patient on the table top must be done with conscience and caution, if the weight is uniformly distributed the table top is able to support patients until to 250 Kg.
Helped by the pictures we show you how to position the patient on the operating table top in a correct way.

7.1 CORRECT POSITIONING



In order to uniformly share the weight according to the International Rule IEC 60601-2-46 concerning the safety of operating tables.

Sections' allowable capacity:

Head : 25 Kilos (with any kind of headrest given as endowment)

Back section: 100 Kilos (total section – including thorax opening if the table top will be provided with)

Pelvis section: 65 Kilos

Legs : 60 Kilos (total section – including leg section divided in 4 parts)

Respect the segments' section capacity without considering the table's weight

The maximum weight chargeable on the operating table is of Kilos 250 only if it is provided with the configurations described in this manual.

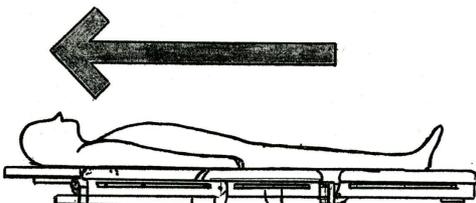


CAUTION! The under described data are valid only for a weight uniformly distributed on the various table top sections.

In the System of removable interchangeable table tops Series SE EM 2010

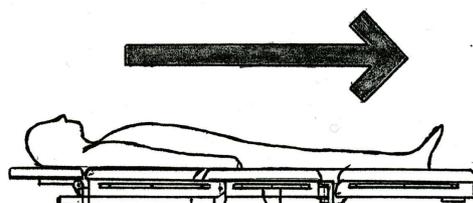
TAKING OVER PHASE

FASE DI PRELIEVO



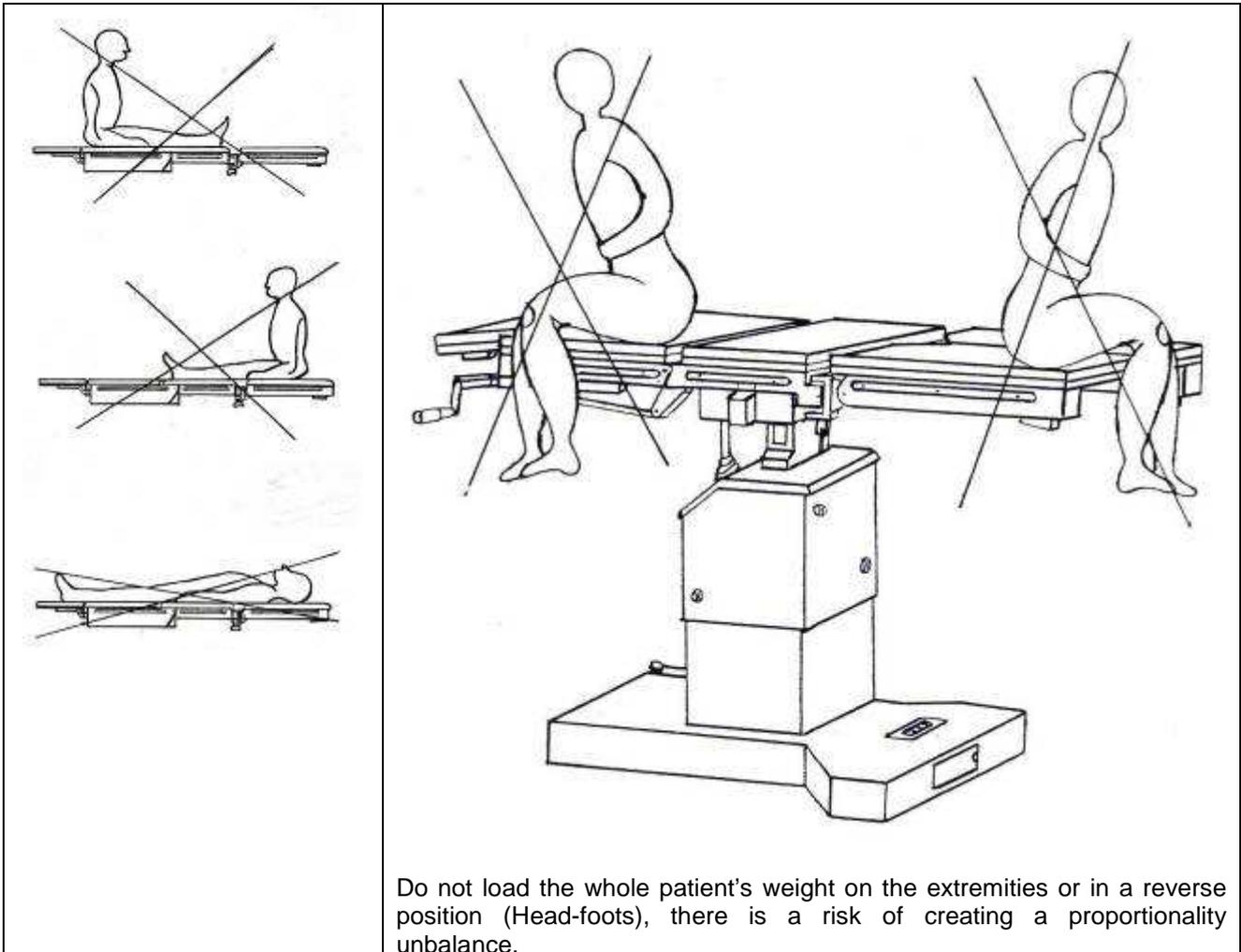
DEPOSIT PHASE

FASE D' INSERIMENTO



Only in this position the patient weight capacity is warranted for 250 kilos.

WRONG POSITIONING

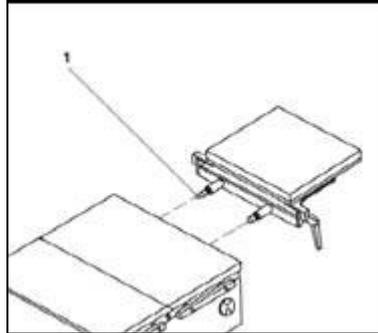


If the patient is wrongly positioned the manufacturer is not responsible about the load capacity above declared (See correct positioning). Is also possible to incur in dangers for the patient and for the operators if these indications will not be respected.

8. TABLES

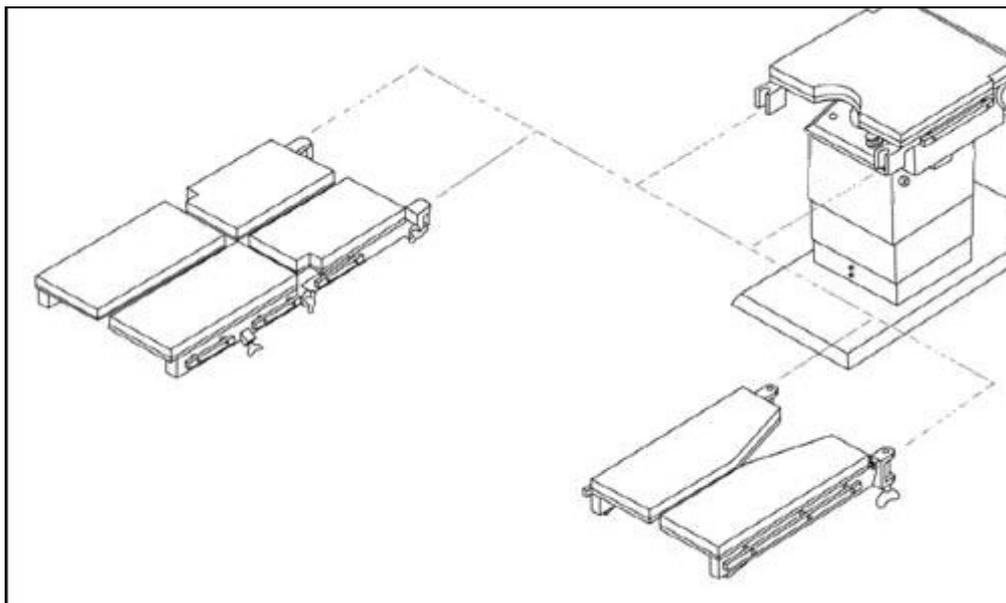
<p>A. UP/DOWN emergency movement recovery</p> <p>B. LATERAL RIGHT and LEFT emergency movement recovery</p> <p>C. TRENDELENBURG AND REVERSE TRENDELENBURG emergency movement recovery</p> <p>D. BACK SECTION emergency movement recovery</p> <p>E. THORAX OPENING emergency movement recovery</p> <p>F. Little cover for battery charger connection</p> <p>G. Batteries level visualization</p> <p>1. Lock/unlock wheels pedal</p> <p>2. Hand grip for adjustment of leg section lower part</p> <p>3. Hand grip for adjustment of leg section upper part</p> <p>4. Knob for leg section opening</p> <p>5. Lever for opening and closure of leg section</p> <p>10. Lever for head section up/down inclination adjustment</p> <p>11. Knobs for fixation of the head rest to the table top.</p>	
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TABLE A



1. Pins of Headrest insertion

TABLE B



Four sections leg holder (A78)

Two section leg holder (A81)

TABLE C

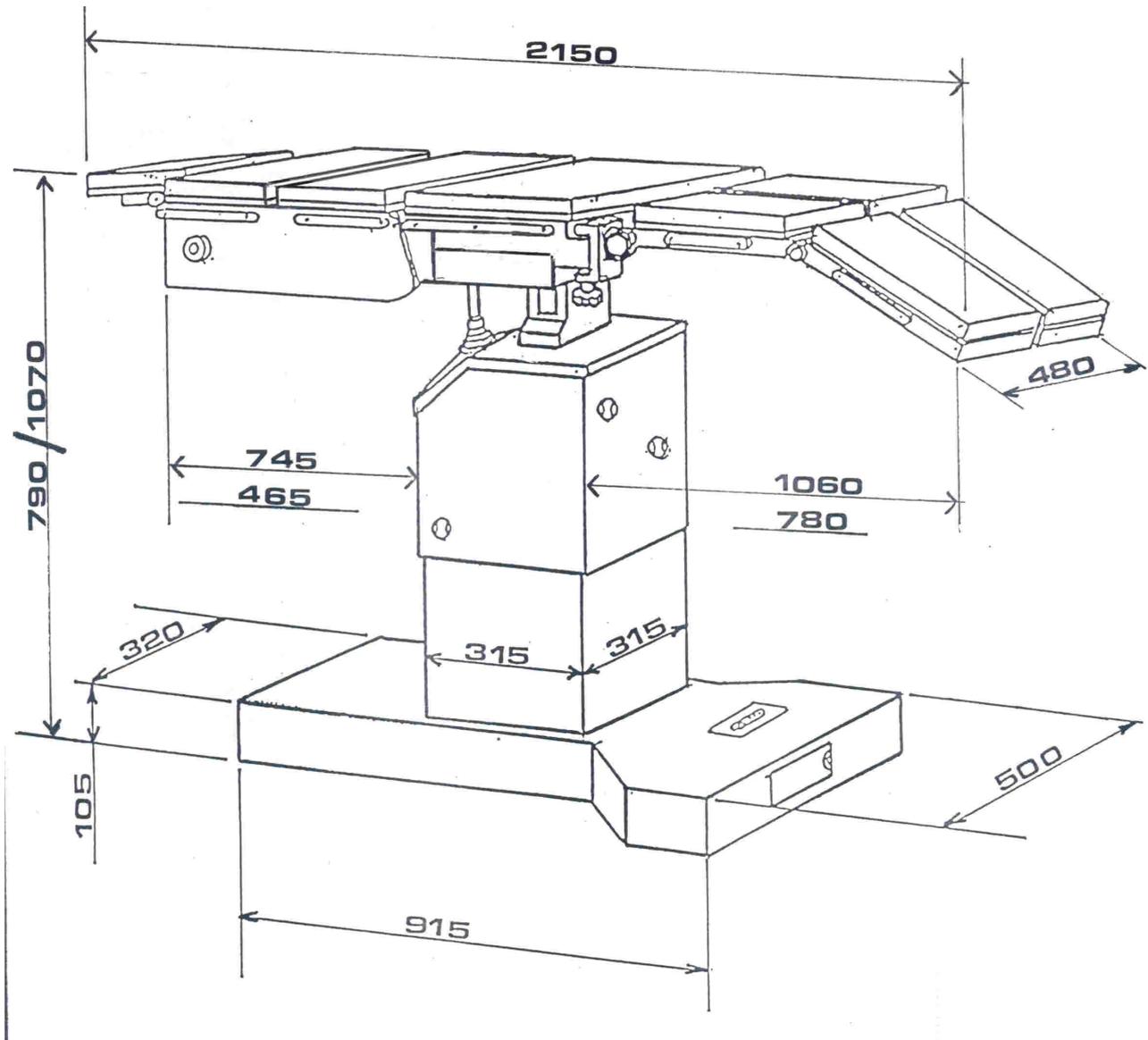


TABLE E

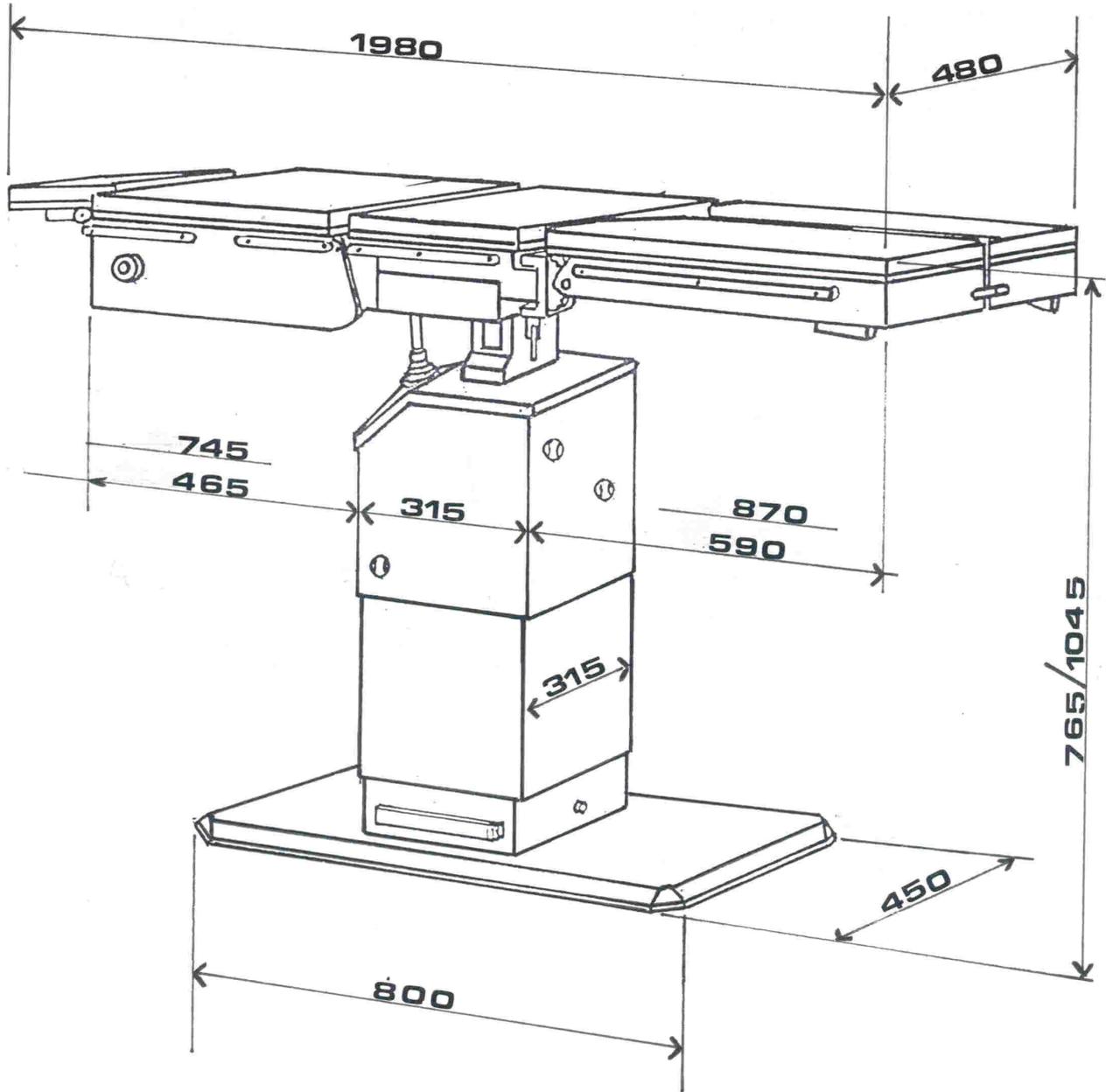


TABLE F

9.DISINFECTION

9. 1 CAUTIONS

	CAUTION! It is important to disconnect the device to the feeding (extracting the connector) before to proceed in its disinfection and cleaning procedures.
	ATTENTION! It is forbidden the use of abrasive detergents and disinfectants. are also forbidden detergents a base of chlorine and chloride and acetic acid.

9.2 REMOTE CONTROL

To clean and disinfect the remote control it is just possible rubbing it with a damp cloth. It is not allowed immerge it, also for a part, in any kind of liquid substances.

For cleaning the plastic components, are allowed generic products but they must have a low alkaline content.

9.3 COLUMN

The column must be cleaned every time that the activity is finished at least once a day. Before to clean it position it at its the maximum height.

During the cleaning procedure it is necessary to ensure that under the column there are not residual material.

For the stainless steel components are allowed the following cleaning products: all the detergents for stainless steel available on the market.

For the plastic components are allowed the following cleaning products: all detergents but with a low alkaline content.

For the disinfection it is possible to use all the not aggressive substances available on the market but according to the Marking CE requirements.

9.4 OPERATING TOPS

The operating top care is limited at a regular cleaning every time that the surgical activity is finished using proper substances.

For the stainless steel components are allowed the following cleaning products: all the detergents for stainless steel available on the market.

For the plastic components are allowed the following cleaning products: all the detergents provided with a low alkaline content.

For the disinfection it is possible to use all not aggressive substances available on the market but according to the Marking CE requirements.

For the mattresses, it is possible the autoclave sterilization at rubber cycle 121°, provided that are introduced into the sterilizer without to be bended.

	ATTENTION! It is forbidden the use of abrasive detergents and disinfectant. Are also forbidden detergents a base of chlorine and chloride and acetic acid .
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9.5 TRANSPORTER TROLLEYS

The transporter trolleys care is limited at a regular cleaning every time that the surgical activity is finished using proper substances.

For the stainless steel components are allowed the following cleaning products: all the detergents for stainless steel available on the market.

For the plastic components are allowed the following cleaning products: all the detergents provided with a low alkaline content.

For the disinfection it is possible to use all not aggressive substances available on the market but according to the Marking CE requirements.



ATTENTION! It is forbidden the use of abrasive detergents and disinfectant. Are also forbidden detergents a base of chlorine and chloride and acetic acid .

10. ASSISTANCE AND MAINTENANCE

For assistance and repairs, for possible doubts or needs, please, do not hesitate to contact the manufacturer offices with the following references:

NUOVA BN
ASSISTANCE CENTRE
Via Nessa 19-21
VINOVO TO
Italy

Tel +39 (0) 11 9654446
Fax + 39 (0) 11 9654289
e-mail info@nuovabn.it

It is recommended intervention for the maintenance: once a year.

NUOVA BN, as constructor, authorizes just its specialized personal for the maintenance and assistance of its products.

Use only authorized technicians for assistance from Nuova BN, will guarantee a good and constant service, and the good working of the Device for long time.

NUOVA BN suggests, in order to guarantee an efficient product's maintenance satisfying its customers, to draw up a maintenance contract with the constructor or the Authorized Distributor.

11. GUARANTEE CONDITIONS

The Nuova BN s.r.l. warrants the equipment of its own production against all defects of materials or manufacture for 24 month from shipment date.

During this period of time Nuova BN Srl will replace or repair free of charges the parts sent to it in the Vinovo (TO) - Italy factory by the customers, acknowledged to be defective following its exclusive opinion and technical procedure.

On written demand from the customer Nuova BN Srl can send specialised engineers to the customer seat under payment of labour, travel, living expenses to the price applied during that year for maintenance service.

Title to replaced parts reverts to Nuova BN Srl and they must be returned to it within one month of replacement; otherwise Nuova BN Srl reserves the right to bill the value of the replaced part.

This warranty does not include consumable parts (mattresses, clamps etc...)

The warranty immediately expires in case the goods are repaired or altered from people not authorised in a written form from Nuova BN Srl.

Damage or accidents due to the customer's act such as negligence, lack of supervision, a wrong or bad installation, not observance of the technical and use instructions, to surcharge or improper use of the table and in every case not depending from Nuova BN Srl are not included in this warranty.

Warranty repairs and replacements do not extend the initial warranty period.

In case the goods will not be totally paid the warranty will not be valid.

This warranty does not include refund for direct or indirect damage occurred to people or things.

The warranty does not cover malfunction or breakdown due to fortuitous events owing to a cause beyond control and repair or replacement due to the normal wears of the goods.

For any legal dispute the competence will be of the Turin (Italy) court.