

# SITMED®

NUMBER ONE IN LIFE TRANSPORT



## USER'S MANUAL

ENGLISH VERSION

### DISCLAIMER

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### SUMMARY

DISCLAIMER .....	1
GENERAL INFORMATION .....	2
LIABILITY LIMITS .....	2
ATTENTION .....	2
FIRST AID (POPULAR CONCEPT) .....	2
PACKAGING AND STORAGE .....	2
EQUIPMENT'S LIST .....	3
IDENTIFICATION AND TRACEABILITY .....	3
VISUAL COMMUNICATION .....	3
WARNINGS .....	4
RESCUE CHAIR MCS 200 - ÁGILA .....	5
IMMOBILIZATION BOARD MIS 100 – MEDUSE .....	7
FOLDABLE STRETCHER MPS 110 – PANDORA .....	8
BI-FOLDABLE STRETCHER MPS 120 – PANDORA 2 .....	9
RETRACTILE COT MRS 310 – ESSENTIAL .....	10
RETRACTILE COT MRS 340 – TOP MOTION .....	14
STANDARD COT MSS 300 – PRIME CARE .....	15
BI-ARTICULATED COT MWS 320 – LEVEL UP .....	16
IV POLE AND O <sup>2</sup> CYLINDER HOLDER .....	17
BI-ARTICULATED COT MWS 320 – LEVEL UP II .....	18
PANTOGRAPHIC COT MXS 330 - ELEVEX .....	23
CLEANING, ASEPSIS AND PREVENTIVE MAINTENANCE .....	27
PERIODIC MAINTENANCE SCHEDULE .....	28
WARRANTY .....	29

## GENERAL INFORMATION

This manual provides important information on the use of Sitmed® equipment's. Read it carefully and observe all safety instructions so that you can use the equipment properly and safely. The equipment's of Sitmed were developed for prehospital use. They are practical, versatile, require no special conditions and are used for the transportation of disabled persons and accident victims.

## LIABILITY LIMITS

Sitmed® does not is not responsible for damage or injury caused by:

- Disregard of the instructions in this manual.
- Use in disagreement with this manual.
- Natural wear of parts and components
- Incorrect installation or use
- Use by an inexperienced or untrained person.

## ATTENTION



This symbol represents the warnings that will appear in this manual. The warnings may indicate a danger situation, guidelines, recommendations or suggestions for the correct and efficient use of the equipment.

- Sitmed equipment should only be operated by trained professionals. Improper or incorrect use could damage the equipment and cause injury to the patient and the operator.
- When handling the cot without patients keep the seat belts always fasten and the lateral handles armed in order to avoid damage to the equipment and its parts.
- When transporting the patient always use the safety belts and fasten the lateral handles to ensure safe transport on the cot.
- Perform periodic maintenance as described in this manual. The maintenance guarantees a longer life to the equipment as well as guarantees greater safety during its use.
- Using improper or non-compatible replacement parts, as well as modifying the equipment by altering the original design generates risk of accidents and loss of warranty, as well as the consequent liability of the owner for the damages it may cause. Use only original parts provided by Sitmed and before servicing, read this manual or contact Sitmed Technical Service for guidance and clarification.
- Before using the equipment, make sure that it is in perfect conditions of use. Regularly check the integrity of the equipment and see if there is damage or loose components in its structure.
- Always keep the equipment clean and in perfect condition for the next use.

## FIRST AID (POPULAR CONCEPT)

It is called first aid the treatment applied to the injured or patient with sudden illness, before receiving the care of a doctor / specialist. It is called the rescuer who is qualified to practice first aid, using the basic knowledge and technical training that enabled him to this performance.



Sitmed equipment should only be operated by qualified personnel with knowledge of the rescue, first aid, handling and transport routines of patients as well as any other procedure involving pre-hospital care activities.

## PACKAGING AND STORAGE

All Sitmed® equipment are packed with cardboard box, corrugated paper, plastics and PVC. After unboxing it is recommended to complete cleaning to remove any trace of contamination from the factory. The guidelines for hygiene are found in this manual.

### EQUIPMENT'S LIST

This manual contains instructions for use and maintenance for the following equipment's:

- Rescue Chair MCS 200 – Ágila
- Immobilization Board MIS 100 – Meduse
- Foldable Stretcher MPS 110 – Pandora
- Bi-Foldable Stretcher MPS 120 – Pandora 2
- Retractable Cot MRS 310 – Essential
- Retractable Cot MRS 340 – Top Motion
- Standard Cot MSS 300 – Prime Care
- Double Leg Folding Cot MWS 320 – Level UP and Level UpII
- X-System Cot MXS 330 - Elevev

### IDENTIFICATION AND TRACEABILITY

All Sitmed equipment are identified with serial label, which features model and reference number for tracking control. To prevent loss, wear and commitment in identifying serial equipment labels are affixed to hard to reach places, yet easy viewing. Look for the serial label on the bottom of your device to find the correct model you have, so you can refer to the instructions in this manual.

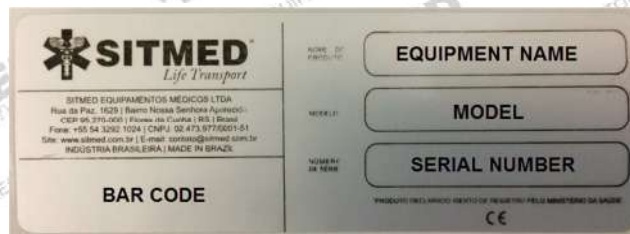



Figure 1: Serial label template affixed to all Sitmed® devices.



Never remove the serial identification tag. In addition to compromising the traceability of the equipment, the same loses its warranty.

### VISUAL COMMUNICATION

In addition to the instructions contained in this manual, Sitmed® equipment's provides visual communication through stickers affixed to the equipment. Be aware of the instructions contained in the sticker, such as:



**WARNINGS**

Carefully read all instructions in this manual and the individual instruction booklet that came with the equipment. If there is any doubt please contact us immediately with our technical sector through [contato@sitmed.com.br](mailto:contato@sitmed.com.br) email or by phone: (54) 3292 1024.



Sitmed® shall not be liable for any damages or accidents arising from the use of this equipment in contravention with the instructions contained in this manual or in the instruction leaflet accompanying the equipment. For an extended life do not expose or use this equipment under adverse conditions, such as: Rain, moisture, heat or excessive cold.



This equipment follows with factory presets. Before using, check that all necessary adjustments are in accordance with the manual. Never use the equipment if it is exhibiting strange behavior, malfunction or failure in any of its mechanisms.



Never carry out exchange of parts or any maintenance that may change the structure of the equipment, without first contacting our technical department.



Static load capacity refers to the structural load capacity of the equipment, without dynamic movement. Dynamic load capacity refers to the load capacity of the equipment when subjected to adverse transport situations, such as: Twisting, obstacles, steps, uneven terrain, shocks, etc ...



Always observe the load limit stipulated for each equipment. Sanitize the same periodically or after each use. Follow the preventive maintenance schedule performing the same according to the instructions in this manual.



All products and components used by Sitmed are recyclable. Before disposing of parts or unused equipment check the need for disinfection or sterilization of the same. If there is any doubt or difficulty, return the equipment to the correct disposal in our factory.



All patient handling procedures must be accompanied by trained and qualified professionals. Never leave any patient unattended while using any of the equipment. Always follow safety guidelines during displacement.



**NON  
STERILE**

All Sitmed equipment included in this instruction manual are NON STERILE.



All Sitmed cots and it's fasten system are tested to support 10G impacts to assure the safe from the ambulance passangers. If some impact happens with the ambulance the cot and the fasten system must be descarted and replaced.



## RESCUE CHAIR MCS 200 - ÁGILA



### PARTS AND FEATURES

- A) Hard tubular aluminum structure
- B) Folding levers
- C) Seat and backrest in PVC.
- D) Armrest (Sold separately)
- E) Automotive coupling belt.
- F) Arming and disarming bar.
- G) Extender handle.
- H) Footrest base.
- I) Fastener system for ambulances.
- J) Rubberized casters with 127mm diameter and brake system.



### OPERATING INSTRUCTIONS

1. Open the chair by pulling the arm and disarm bar (F). 2. Lock the arm and disarm bar and pushing it until the end of its course. 3. Lower the armrest (D), lift the foldable arms (B), lower the footrest (H), and extend the extensor levers (G) as required.



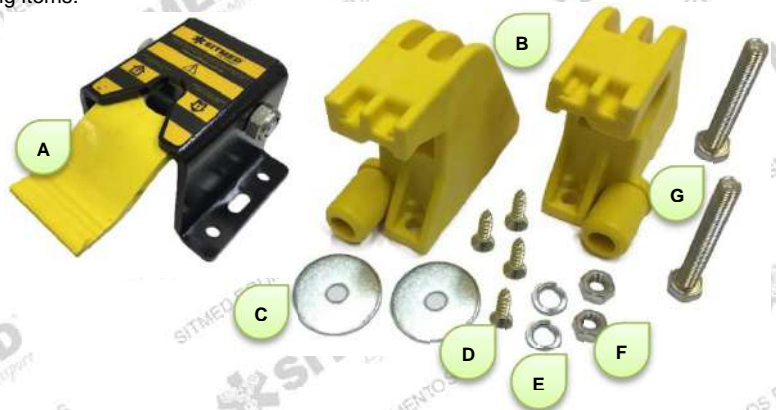
4. Before sitting or lifting the patient from the chair, lock the four casters (J) using the yellow "brake" in each of them. To lock it, simply push on the outer end of the part, causing it to be pressed against the wheel. To release, step on the opposite end causing the wheel to become free again. 5. Secure the patient using the safety belt (E). To open or close the belt, press the red button on the top of the engaging part by inserting or removing the metal coupling. 6. If necessary adjust the strap by pressing the metal coupling and pulling on the top of the strap.



### SETTLING

The ambulances chair installation kit contains the following items:

- A) 01 – Locking "Turtle".
- B) 02 – Plastic stoppers.
- C) 02 – 5/16 Plater washer.
- D) 04 – M6 X 25 self-tapping screws
- E) 02 – M8 Pressure washers
- F) 02 – M8 Nuts.
- G) 02 – M8 X 65 Screws.

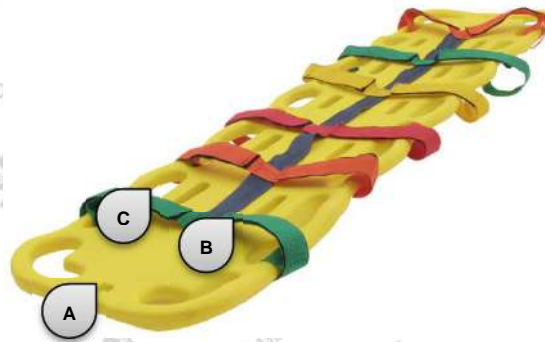


1. To install the chair, find a spot inside the ambulance where it can stand without any obstruction. 2. Attach the locking turtle (A) to the king pin and the plastic stoppers (B) in the rear couplers affixed to the chair. 3. Attach the assembly to the ambulance wall and mark the drilling to be performed from center to center of each hole. 4. Remove the assembly, drill the marked positions and attach the locking turtle and plastic stoppers with the supplied hardware. 5. Hold the chair simultaneously on the plastic stoppers and on the locking turtle, making sure it is firm and secure.



The rescue chair fasteners were not designed for patient transport. Never carry patients sitting in the chair while the ambulance is moving.

## IMMOBILIZATION BOARD MIS 100 – MEDUSE



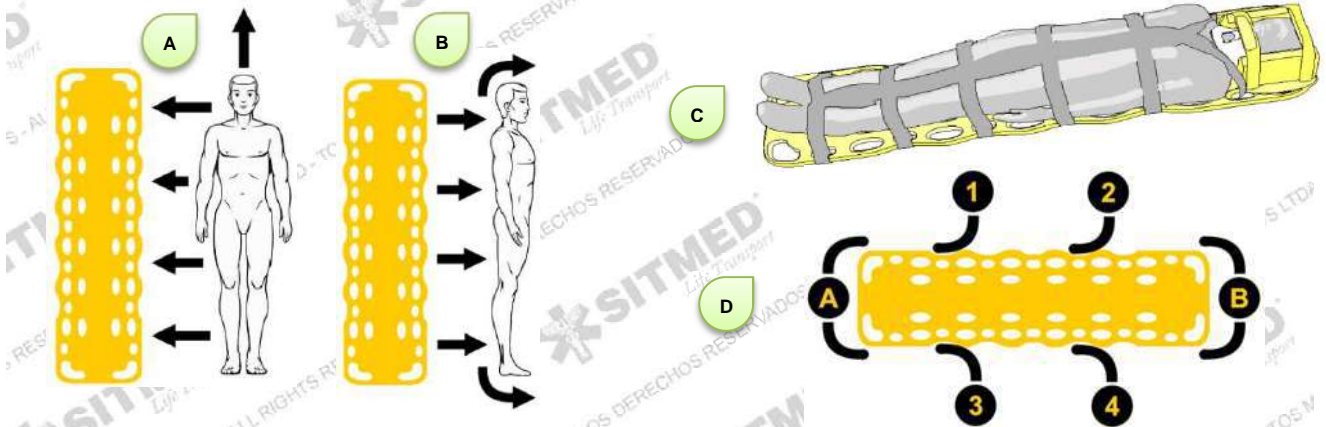
### PARTS AND FEATURES

- A) Structure in rotomolded polyethylene.
- B) Spider-style immobilization belt (optional).
- C) Wide handles for transport and head immobilizers adaptation.

### USAGE SUGGESTION

Open all the straps of the Spider belt in only one side. Lay the patient on the board performing a block transfer maneuver (A) or a 90 degrees rolling block (B). After lying the patient on the board, pass the open straps on him, adjusting positions as needed and affixing them on the board, using the specific openings for the passage of the straps.

At the end of immobilization the patient's final position should be equal to that of the image (C). For a more effective and safe immobilization, a neck collar and head immobilizer should be used. For greater safety it is recommended to transport the patient with four rescuers, placed in the positions indicated on the illustration (D) placed on positions 1, 2, 3 and 4. Depending on the patient's weight, two rescuers additional help may be necessary, as they can be placed as illustrated at positions A and B.



**Figure A** – Block transfer: Lift the patient by keeping the spine stabilized and lying on the board.

**Figure B** – 90 degrees rolling: Roll the patient sideways, keeping the spine stabilized, placing the board underneath the patient, and roll him back to the original position.



The immobilization process presented here is just a suggestion, based on already existing patterns and routines. The process of immobilizing patients using the board should only be carried out by qualified professionals and must meet specific regulations or laws of each country, being Sitmed® equipment's just a facilitator.



The transport of the board inside ambulances or rescue vehicles must be done in niches, specific compartments or affixed to the structure of the vehicle, avoiding that it moves during possible collisions or overturns. Sitmed is not responsible for the way the boards are transported inside the vehicles.



## FOLDABLE STRETCHER MPS 110 – PANDORA



### PARTS AND FEATURES

- A) Structure in hard tubular aluminum.
- B) Quick coupling PVC safety belts.
- C) Reinforced synthetic base.
- D) Fixed casters to slide inside vehicles.
- E) Articulated joints in reinforced aluminum profile.



### OPERATING INSTRUCTIONS

1. The **MPS 110 - PANDORA** stretcher has one central articulation (E), for opening and closing. For this process simply hold the stretcher by the edges and fold it in half, both for opening or closing. 2. Lay the patient on the stretcher whether or not immobilized by the immobilization board. 3. Before transporting someone, lock the patient with the seat belts (B), adjusting the buckle to ensure its stability.



The MPS 110 – PANDORA stretcher has a flexible synthetic base, and it is not recommended to transport patients with suspected cervical spine injury without being properly immobilized with a rigid board.



Do not use the stretcher for any purpose other than transporting patients. Carrying objects can damage its base, resulting in loss of warranty.



## BI-FOLDABLE STRETCHER MPS 120 – PANDORA 2



### PARTS AND FEATURES

- A) Rubberized levers for transport.
- B) Synthetic reinforced base.
- C) Quick coupling PVC safety belts
- D) Rubber shoes for ground support.
- E) Structure in hard tubular aluminum.
- F) Articulated joints in reinforced aluminum profile.
- G) Nylon bag for transport and storage.



### OPERATING INSTRUCTIONS

1. Turn the stretcher with the base facing down. 2. Move the articulated joints in the direction indicated by the arrows. 3. Pull one side of the stretcher folding it lengthwise. 4. Fold the stretcher. 5. Store the stretcher inside its bag, for transport.



The **MPS 120 - PANDORA 2** stretcher has a flexible synthetic base, and it is not recommended to transport patients with suspected cervical spine injury without being properly immobilized with a rigid board.



Do not use the stretcher for any purpose other than transporting patients. Carrying objects can damage its base, resulting in loss of warranty.



When folding the stretcher, be careful to accommodate the synthetic material avoiding it to be placed at any end, which may tear or damage the it.

## RETRACTILE COT MRS 310 – ESSENTIAL



### PART AND FEATURES

- A) Movable or fixed rear handle for transport.
- B) Polymer retraction lever.
- C) Safety belts with automotive couplings.
- D) Steel set with king pin to lock on rear fastener.
- E) Rubberized casters with 127mm diameter and brake system.
- F) Hard tubular aluminium structure.
- G) Density 33 mattress, coated in 100% waterproof material, electronically sewn.
- H) Tilting side handles with double trigger.
- I) Structural polymer unions of high strength and durability.
- J) Anti-fall safety system.
- K) Articulated polymer joints.
- L) Front stoppers Coated with high impact PVC profile.
- M) Adjustable backrest (fowler) with 8 adjusting positions.
- N) Air axle with rubberized casters and height adjustment system.



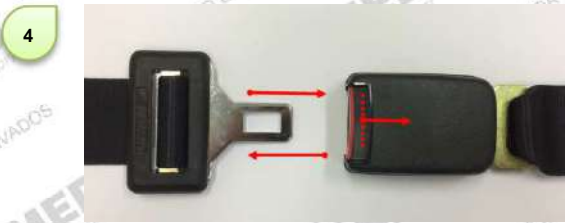
### USAGE INSTRUCTIONS / BASIC FEATURES

1. Wheel brake: To lock the wheels, step on the bottom of the yellow part (A) and to release step on the top (B). 2. Double trigger side handles: Press the top of the yellow trigger (C) simultaneously on both sides, lowering the handle. To close again simply return to the original position. The handle will lock automatically. 3. Movable backrest: Pull the trigger (D). Raise or lower the backrest to the desired angle, so that it automatically locks in one of 6 positions.

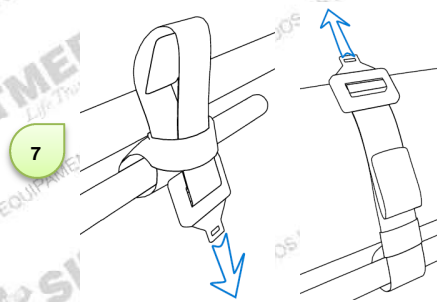
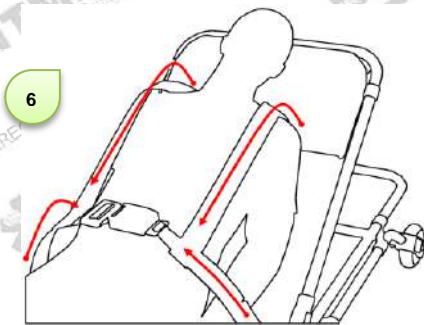


It is always recommended to lock the 4 wheels before placing or removing any patient from the stretcher, especially on steep or uneven terrain.

4. To open or close the seat belt press the red button on top of the piece hitch, introducing or removing the metal hitch. 5. If necessary adjust the strap pressing the metal latch and pulling the upper part of the belt.



6. For patient safety always use the 4-point seat belt. The 4-point belt should be passed over the patient's shoulders and attached to the chest belt. 7. The belts must be removed periodically for cleaning or replacement. To remove them or to put them in the cot pass the couplings inside the base handle, trapping it in the structure of the cot.



## SETTLING

The cot ambulance fastener installation kit contains the following items:

- A) 01 – Aluminum “V” guide with stoppers.
- B) 01 – Locking “turtle”, with adjusting rail.
- C) 08 – M8 pressure washer.
- D) 08 – M8 X 65 Screws.
- E) 08 – Plater washer 5/16.
- F) 08 – M6 X 50 self-tapping screw.
- G) 08 – M8 nuts.



The first step for installing the cot is to adjust the position of the locking turtle on the lateral side its adjusting rail. For this, loosen the turtle attachment screws (A), adjust the turtle causing the kingpin orifice to be centered along the rail (B). To finish, retighten the screws (A).





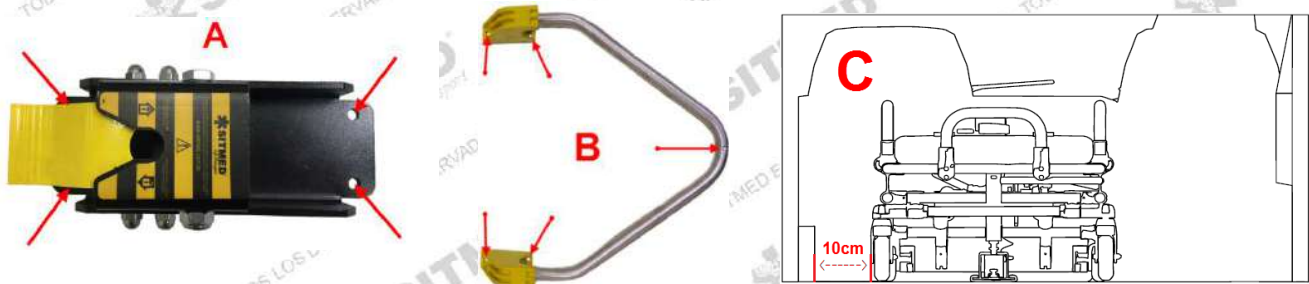


Regularly check and tighten the locking turtle. Over time, due to its use, it can slightly move from the rail, compromising the cots fastening. This adjustment can also be made in the case of replacing or adjusting an additional cot.

Then place the stretcher inside the ambulance at the desired location for installation. Attach the turtle latch assembly on the king pin (A) and attach the aluminum guide in air shaft (B). Make sure that both the locking turtle and the frontal guide are firmly in place, without gaps and in their proper position.



With a pen, mark the drilling to be performed on the floor of the vehicle, both for the locking turtle assembly (A) and for the frontal guide (B). The necessary holes of each set are indicated by the red arrows. Leave a minimum of 10cm (C) space between the cot and the ambulance wall / furniture, allowing free movement for the cot wheels.



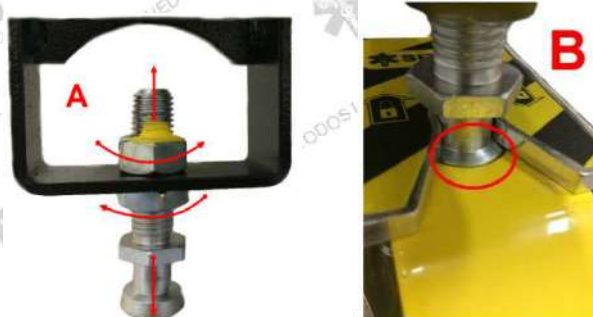
Remove all parts just leaving the floor with the markings and proceed with the indicated drillings. Make sure the holes are straight and aligned. Place the locking turtle and frontal guide in the perforated positions and fasten both sets using the screw kit supplied with the cot. Tighten all nuts and bolts to get them firm and still.



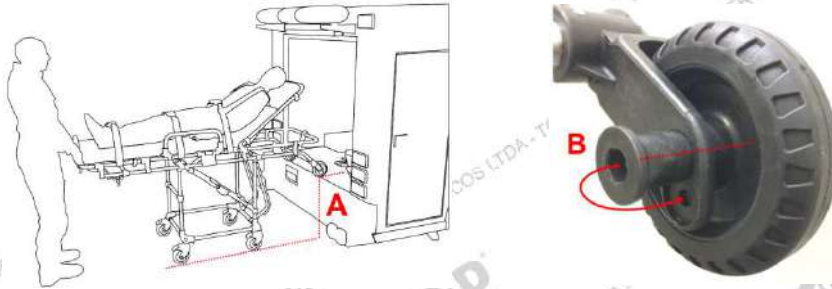
Before drilling the floor of the vehicle, make sure that there are no structural parts such as sleepers, wiring ropes and, in particular, fuel tanks below the chosen installation points. If there are any, be careful not to drill them, remove them if necessary or hire the services of a car adapter to perform the proper installation of the cot.

After fixing the sets its necessary to perform a fine adjustment of the king pin and the locking turtle. Test the cot anchorage by placing and pulling it out of its fastener, with and without weight. The perfect attachment consists of the simultaneous locking of the king pin on the turtle and the pins of the air-axle on the frontal guide stoppers.

If necessary adjust the height of king pin (A), loosening the nuts and adjusting as necessary. The ideal height of the pin is when its engagement base is aligned with the locking trigger (B). Also, if necessary, adjust the position of the locking turtle again, as described in the first step.



All cots are produced according to the height of the ambulance to be used, but for several reasons it might be necessary an adjustment of the air-axle wheels height. It is very important that these wheels stay aligned with the height of the ambulance floor (A). If necessary, adjust the wheels height by removing the bolt and pin (B) transferring them to the lower or upper position as required:



Cots with uneven height from the ambulance floor have a great risk of being dropped when inserted or removed from the ambulance. If your cot has a height difference between the air-axle wheels and the ambulance floor, discontinue its use until you adjust the height of the equipment according to the above instructions.

#### REAR HANDLE:

Your cot have a movable rear handle (A) as factory setup. You can used it in this way or fasten it using the supplied bolts. To fasten it, put it on vertical position (B) and insert the screws on the indicated place (C). Use appropriate tools to tighten.



#### USAGE INSTRUCTIONS / SPECIFIC FEATURES



Any previous procedure for the use of cots that refers to the handling of patients, especially with regard to the immobilization, transfer and placement of the patient on the equipment, should be performed only by trained professionals.

1. After the patient has been placed on the cot, proceed to the ambulance. Approach the cot to the ambulance by leaning its frontal PVC stoppers (L) simultaneously to the vehicle bumpers. 2. Activate the retraction lever by suspending the patient's weight, causing the "knee" (K) of the cot to be displaced. 3. Push the cot into the ambulance, keeping it in a 100% horizontal position, until it is attached to the fastener system. Pull the cot to make sure it is securely attached to its fastener.

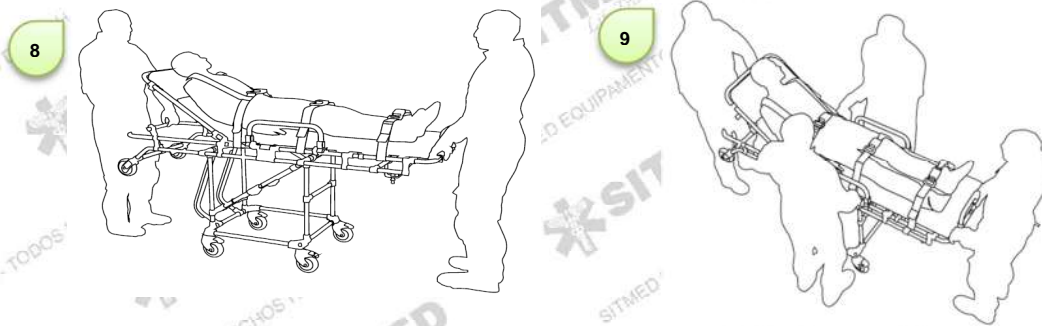


4. To remove the cot from inside the ambulance, suspend the cot with one hand, and use the other hand to trigger the locking turtle. 5. Press the locking turtle lever down, releasing the king pin. 6. Pull the stretcher back, holding the locking turtle lever until the complete release of the king pin. 7. Remove the stretcher from the ambulance by suspending the patient's weight and keeping the stretcher in a 100% level horizontal position until its full aperture and locking of the articulated knees.



Be alert when removing the cot from the ambulance while it is parked on steep or uneven terrain. It may be necessary to tilt the back of the cot for a full aperture and locking of the knees.

8. For a safer transport of the patient, we recommend the cot to be always operated by at least two trained rescuers placed in positions as shown in the picture. 9. For obese patients transport or when in very rough terrain with obstacles, we recommend the cot to be operated by four rescuers, placed in positions as indicated in the image.



## RETRACTILE COT MRS 340 – TOP MOTION



### PARTS AND FEATURES

- A) Movable or fixed rear handle for transport.
- B) Steel set with king pin to lock on rear fastener.
- C) Polymer retraction lever.
- D) Safety belts with automotive couplings.



- E) Structural polymer unions of high strength and durability.
- F) Rubberized casters with 200mm diameter and brake system.
- G) 33 density mattress, coated in 100% waterproof material, electronically sewn.
- H) Tilting side handles with double trigger.
- I) Anti-fall safety system.
- J) Hard tubular aluminum structure.
- K) Articulated polymer joints.
- L) Adjustable backrest (fowler) with 8 adjusting positions.
- M) Front stoppers coated with high impact PVC profile.
- N) Air-axle with rubberized casters and height adjustment system.
- O) Custom electrostatic painting on lower frame (optional).



### USAGE INSTRUCTIONS

Applies to **MRS 340 – TOP MOTION** the same instructions presented for the **MRS 310 – ESSENTIAL**, except for cleaning and disinfecting the parts that have electrostatic painting. This should be done using only a damp cloth, without the use of any abrasive product.

## STANDARD COT MSS 300 – PRIME CARE



### PARTS AND FEATURES

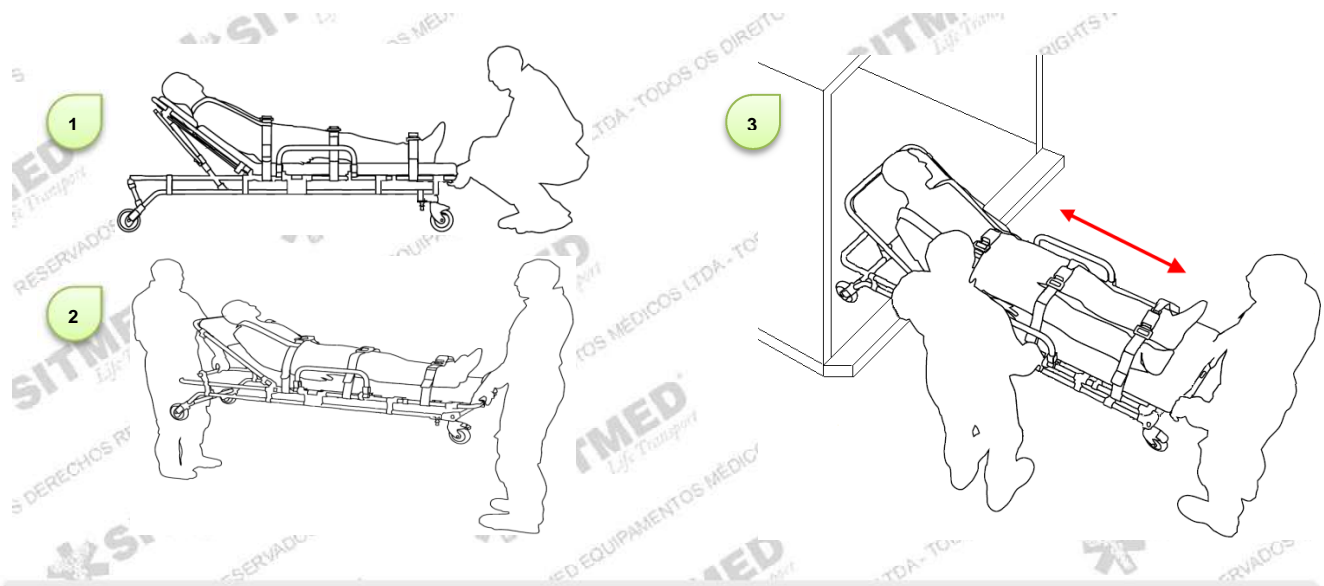
- A) Safety belts with automotive couplings.
- B) 33 density mattress, coated in 100% waterproof material, electronically sewn.
- C) Hard tubular aluminum structure.
- D) Rubberized casters with 127mm diameter and brake system.
- E) Structural polymer unions of high strength and durability.
- F) Adjustable backrest (fowler) with 8 adjusting positions.
- G) Tilting side handles.



### USAGE INSTRUCTIONS

Applies to **MSS 300 – PRIME CARE** the same instructions presented for the **MRS 310 – ESSENTIAL**, with the exception of the retractable system operation, as PRIME CARE model is devoid of such feature. The operation of this model should be performed as follows.

1. Since it doesn't have retractable legs, all movement of the PRIME CARE model should be performed in the ground.
2. The transport and movement of placing or withdrawing it from the interior of the ambulance (3) must always be carried out by at least two rescuers.



**BI-ARTICULATED COT MWS 320 – LEVEL UP**



**PARTS AND FEATURES**

- A) Movable or fixed rear handle for transport.
- B) Steel set with king pin to lock on rear fastener.
- C) Rubberized caster with 127mm diameter and brake system.
- D) Polymer retraction lever.
- E) Safety belts with automotive couplings.
- F) 33 density mattress, coated in 100% waterproof material, electronically sewn.
- G) Structural polymer unions of high strength and durability.
- H) Additional 3" casters for ground support.
- I) Tilting side handles with double trigger.
- J) Anti-fall safety system.
- K) Articulated polymer joints.
- L) Hard tubular aluminum structure.
- M) Adjustable backrest (fowler) with 8 adjusting positions.
- N) Front stoppers coated with high impact PVC profile.
- O) Air-axle with rubberized casters and height adjustment system.

**ATENÇÃO**  
CAPACIDADE MÁXIMA DE CARGA

**300** KG      **661** LB

**WARNING**  
MAXIMUM LOAD CAPACITY

**USAGE INSTRUCTIONS**

Applies to **MWS 320 – LEVEL UP** the same instructions presented for the **MRS 310 – ESSENTIAL**, with an exception for the legs articulation which are as follows:

Since it has double retraction system, the operation of the LEVEL UP stretcher takes place in two steps: **1.** Lean the front stoppers (**N**) uniformly to the ambulance bumpers. **2.** Pull the left retraction trigger until you move the front knees assembly (**K**). **3.** Push the stretcher, releasing the retraction trigger until the rear stoppers lean uniformly to the ambulance bumpers.



**4.** After leaning the rear stoppers to the ambulance, pull the right retraction lever (**5**), pushing the stretcher completely into the ambulance (**6**), until it locks to the fastener system.



Be aware while removing the stretcher from the ambulance when it's parked on steep or uneven terrain. It may be necessary to tilt the front and rear of the stretcher for fully opening and locking of the knees.

**IV POLE AND O<sup>2</sup> CYLINDER HOLDER**

The IV Pole and the O<sup>2</sup> cylinder holder are both sold separately, and may be attached to the Sitmed stretchers. In the case of your stretcher having one of those accessories, please proceed as follows:

**IV POLE**

**1.** Arm the bracket lifting the rod (**A**) in position 90 degrees until the yellow trigger automatically locks into the base of the bracket. **2.** Open the hitch hooks and if necessary extend the rod, turn the rod counterclockwise (**B**) to release and pull upward (**C**) by turning clockwise to lock. **3.** To store the IV pole press the yellow trigger (**D**) and rotate it to the horizontal position.





**O<sub>2</sub> CYLINDER HOLDER**

1. Sitmed' cylinder holder is designed to accommodate cylinder up to 23cm in diameter. To fasten the cylinder, use the Velcro straps (A), By passing them through the bars on the back of the holder. 2. The holder should be carried in one of the side handles of the stretcher. To fit the holder, tilt it slightly (B) and attach the rear tabs on the side handle (C). This operation serves both for placement and withdrawing the support. 3. A wall clip also comes along. To allow the holder / cylinder to be carried inside the ambulance (D). To install the clip choose a free wall inside the ambulance, brace the clip on the wall, mark the hole and secure with the supplied hardware.


**BI-ARTICULATED COT MWS 320 – LEVEL UP II**

**PARTS AND FEATURES**

- A) Slim, lightweight and compact.
- B) Additional support casters.
- C) Rubber castors with a diameter of 127mm and a brake system.
- D) Safety belts with automotive locks.
- E) Mattress density 33, coated in 100% waterproof material, sewn electronically.
- F) Lateral collapsible handles with double lock system.
- G) Backrest (fowler) with adjustment in 8 positions.
- H) Aerial axle with rubberized castors and height adjustment system.
- I) Telescopic system for articulation of the legs.
- J) Legrest with multiple positions.
- K) IV Pole
- L) Medrac



**USAGE INSTRUCTIONS / BASIC INSTRUCTIONS**

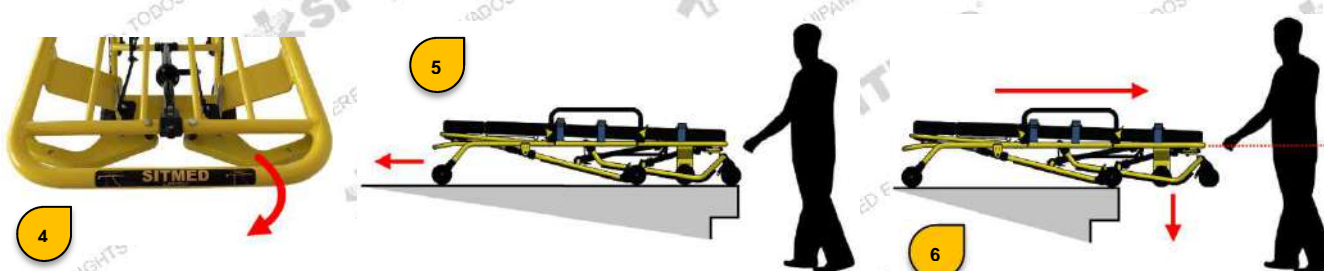
The same instructions of the model **MRS 310 - ESSENTIAL**, including instructions for basic operations, installation in ambulances and adjustments are applied to model **MWS 320 - LEVEL UP II**.

**USAGE INSTRUCTIONS / SPECIFIC INSTRUCTIONS**

Since it has a double retraction system, the operation of the LEVEL UP cot occurs in two steps: **1.** Press the front legs touch evenly against the ambulance bumpers. **2.** Pull the left retraction lever until the telescopic system is moved. **3.** Push the cot by loosening the retraction lever until the rear legs touch evenly against the ambulance bumpers.



**4.** Engage the right retraction lever until the telescopic system is moved, and **5.** push the cot into the ambulance until it locks at the fasten system. **6.** To remove the cot from the ambulance release it from the fasten system by pressing the locking lug as per instructions in this manual. Pull the cot out of the ambulance without pulling any levers, suspending the patient's weight and keeping the cot 100% level in the horizontal position. Pull it until both legs lower by gravity and the telescopic system locks automatically.


**INDEPENDENT RETRACTION SYSTEM:**

The LevelUp cot features an independent leg retraction system. Such a system allows greater ergonomics and less effort for the operator at the moment of loading and unloading the cot from the interior of the ambulance. Be aware during operation of the cot for the correct actuation of the retraction systems. The lever **(1)** drives the retraction assembly of the front legs and the lever **(2)** drives the retraction assembly of the rear legs.







Use the retraction levers only at the moment of loading the cot into the ambulance. Be careful not to push the levers while transporting patients as this may cause the cot to fall.

**O2 BRACKET:**

Level Up 2018 has bracket for O2 cylinder sold separately as an accessory. **1.** To fit the cylinder into the holder lay the cylinder in the horizontal position with the valve facing the opening. **2.** Use the Velcro straps to fasten the cylinder.



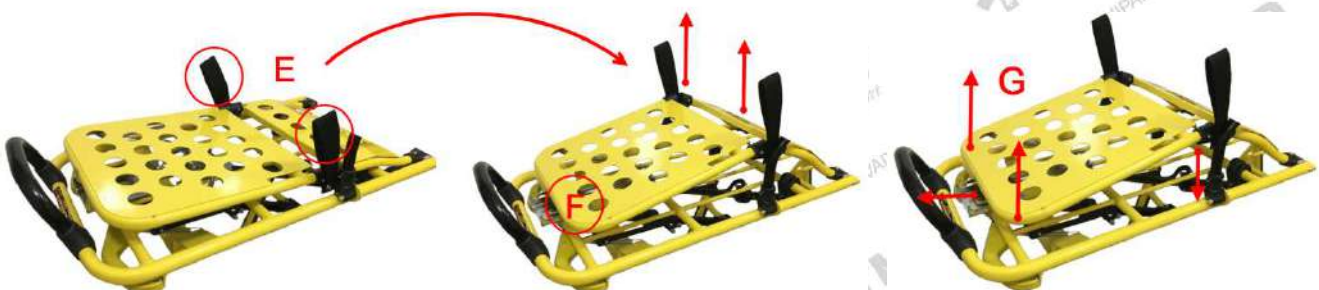
**LEG REST:**

The Level Up II have a leg rest system that becomes possible put the patient leg in several positions, including: Semi Trendelenburg, cardiac or vascular. To arm the leg rest use the two hands to pull up the system (A), until the chromo lever clip in the cavity (B). To low down the system pull it up using one hand (C) and with other hand push forward the chromo lever (D).



Be careful at the moment to low down the system, mainly with the patient in the cot. You must suspend the legs weight with just one hand. If you aren't safe to operate ask for additional help. Keep attention to don't injure fingers and hands.

To put the leg rest in second position use your both hands to pull up the straps (E) until the hooks clip in the under cavity (F). To back to the original position just pull up the system using your both hands (G).



**MULTI POSITIONS SYSTEM:**

If your cot has the multi positions system you can use it to put the patient in several positions, including: Fowler position, Trendelenburg and RCP position. To put the patient in fowler position pull the lever (2) and low down the rear side of the cot (A).





To put the cot in Trendelenburg position, pull up the lever (B) located at the front side of the cot and press the edge forcing to low down (C).

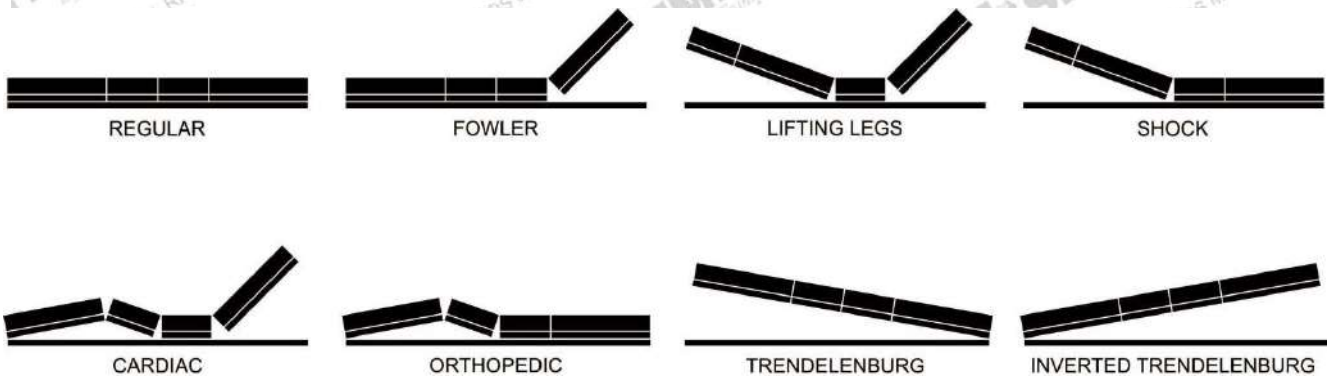


For the RCP position you must activate the both systems. First pull the lever (2) then pull the lever (B) and press the edge forcing to low down.



The RCP position it's a static position just for emergency situation, you can't move the cot while is it in this position. To move the cot you must back to the regular position.

All possible positions using the Level Up II:



**MED RAC**

The Level Up II also has the Med Rac as accessory. The Med Rac are used as support for devices such as: Monitors, infusion pumps, defibrillators and others up to 30Kg. To use your Med Rac you must open the side bases (A), loosening all gauntlets (B) in both sides. Open the bases until the end and tight the gauntlets. At this moment your Med Rac will look as a table (C). To fasten the equipment on the Med Rac, use the velcro straps (D), adjusting as necessary in the base holes.

Fit the opened Med Rac at the rear side of the cot (E), fitting the foot bases on the frame cot on both sides (F). After this fasten the device on the cot using the strap (G), lacing the cot frame and clipping the belt. If is necessary adjust the belt using the strap.



The Med Rac can't be used together with the leg rest on elevated position. During the use of Med Rac the leg rest must be disabled.

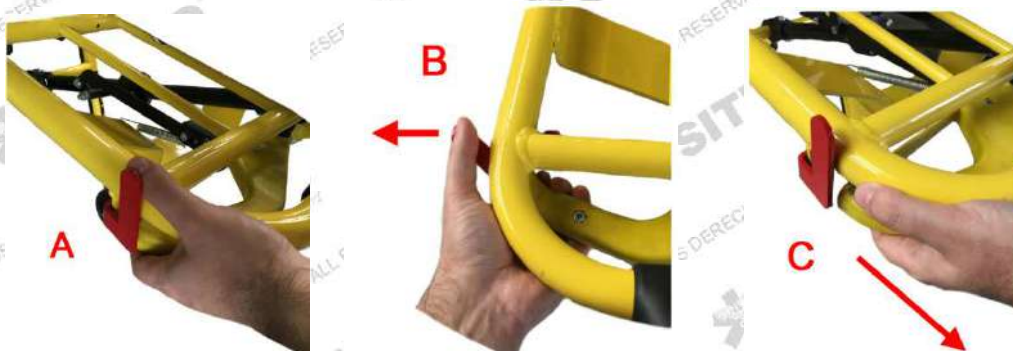
**GRAVITY POINT:**

The Level Up II has some important gravity points, these points indicate places where the patient cannot be SEATED with the cot in elevated position. The blue area indicate where is possible the patient sit on the cot.



**ADDITIONAL SAFETY SYSTEM:**

Level Up II has a system that prevents accidental fall. When unloading from the ambulance the system will set automatically, making it impossible to pull the retraction levers. To fold the legs to loading the cot into the ambulance, use your thumb (A) and push the red lever out (B), keeping the lever pushed by pulling the retraction lever (C). The process must be performed for both levers.





## PANTOGRAPHIC COT MXS 330 - ELEVEVX



### PARTS AND FEATURES

- A) Movable or fixed rear handle for transport.
- B) Trendelenburg system for shock position.
- C) Polymer retraction lever.
- D) Steel set with king pin to lock on rear fastener.
- E) Rubberized casters with 200mm diameter and brake system.
- F) Hard tubular aluminum structure.
- G) 33 density mattress, coated in 100% waterproof material, electronically sewn.
- H) Tilting side handles.
- I) Structural polymer unions of high strength and durability.
- J) Pantographic articulation system (X) with height adjustment levels.
- K) Base in leaked plot for accessories transport with 15kg load capacity.
- L) Safety belts with automotive couplings.
- M) Adjustable backrest (Fowler) with 8 adjusting positions.
- N) Folding bed for transport in elevators and confined spaces.
- O) Air-axle with rubberized casters and height adjustment system.



### USAGE INSTRUCTIONS

The cot ambulance fastener installation kit contains the following items:

- A) 01 – Aluminum “V” guide with stoppers.
- B) 01 – Locking “turtle” with adjusting rail.
- C) 01 – Anti-recoil hook.
- D) 08 – M8 pressure washer.
- E) 08 – M8 X 65 Screws.
- F) 08 – Plater washer 5/16.
- G) 08 – M6 X 50 self-tapping screw.
- H) 08 – M8 nuts.





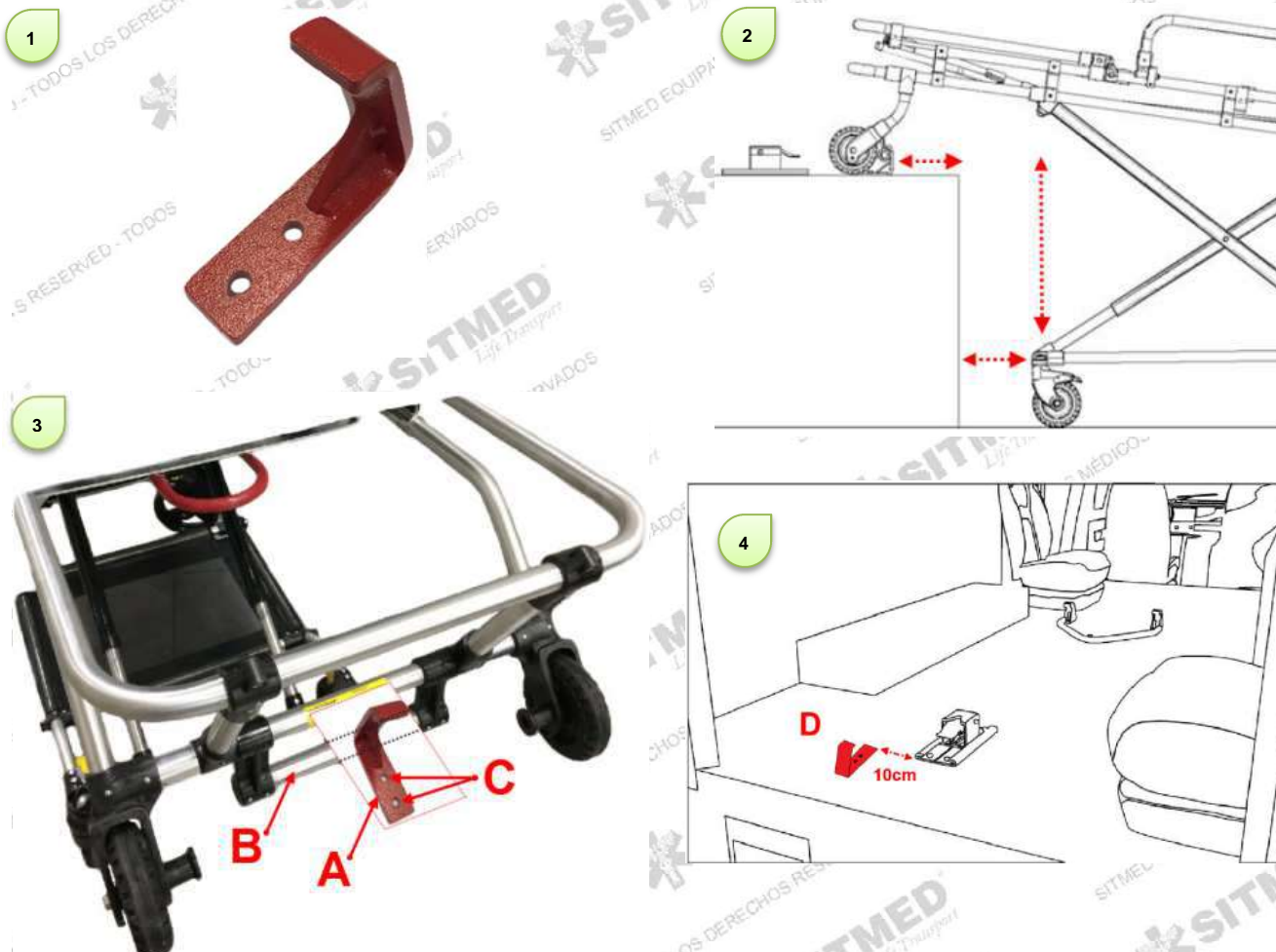
The basic features of the **MXS 330 – ELEVEX** cot, such as: Side handles, movable backrest, safety belts and casters brake are performed according to the same instructions presented for the **MRS 310 – ESSENTIAL** cot, with an exception for the pantographic articulation operation and the anti-recoil system, which accompanies the fastener system.



All the movement operation and articulation of the **MXS 330 – ELEVEX** cot, must be performed by at least two rescuers.

The **MXS 330 – ELEVEX** fastener system has an additional safety hook (1), called anti-recoil system. This system aims to ensure the safety during all the operations of placing and taking the cot from the ambulance. Proceed to install the fastener system following the same instructions described for the **MRS 310 – ESSENTIAL** cot. At the end of this procedure, install the safety anti-recoil hook, following as described:

2. Place the **MXS 330 – ELEVEX** air-axle at the entry of the ambulance, aligned with the fastener system so that there is room for the wheels frame to rise and fall freely. 3. Attach the safety hook (A) on the movable bar (B), taking into account the movement of the bar, causing it to be tensioned. Mark the holes (C), remove the safety hook and the cot, drill the marked holes (be careful that the location chosen for the hook positioning does not compromise or damage the structure of the vehicle during the drilling process) and secure the hook with the supplied screws. 4. Note that the hook should be positioned offset from the locking turtle at approximately 10cm (D), for the left or right.



Never use the stretcher without installing the additional anti-recoil safety system. Sitmed is not responsible for accidents or damages caused from the non-installation of this component. If you have any questions during installation, please contact our technical department immediately.

**USAGE INSTRUCTIONS / SPECIFIC FEATURES**

**FOLDING BALLAST:** The **MXS 330 – ELEVEX** cot has a folding ballast, which allows to reduce the total length of the cot for a better transport and accommodation inside elevators and small rooms. (1) To use this system, raise the backrest and pull the red trigger (A) up. 2. To avoid accidents, hold the movable part of the ballast during this operation, lowering it until the end of course (B). 3. The total length of the cot will be reduced on up to 40%.



**IN SHOCK PATIENT (POPULAR CONCEPT)**

Shock is a state of circulatory collapse. The body goes into shock when there is not enough circulating blood. It can cause multiple organ failure, leading to life-threatening complications such as heart failure.

1. The first aid to a patient in shock consists of raising his feet to at least 30 centimeters above the floor. This position is called "shock position". This helps to keep the blood in vital organs where it is most needed. 2. The **MXS 330 – ELEVEX** cot makes it possible to place the patient in the shock position, by activating the telescopic system similar to the movable backrest, which is located under the patient's legs. Pull the yellow trigger (A) and raise the base to the desired position.



**OPERATION**

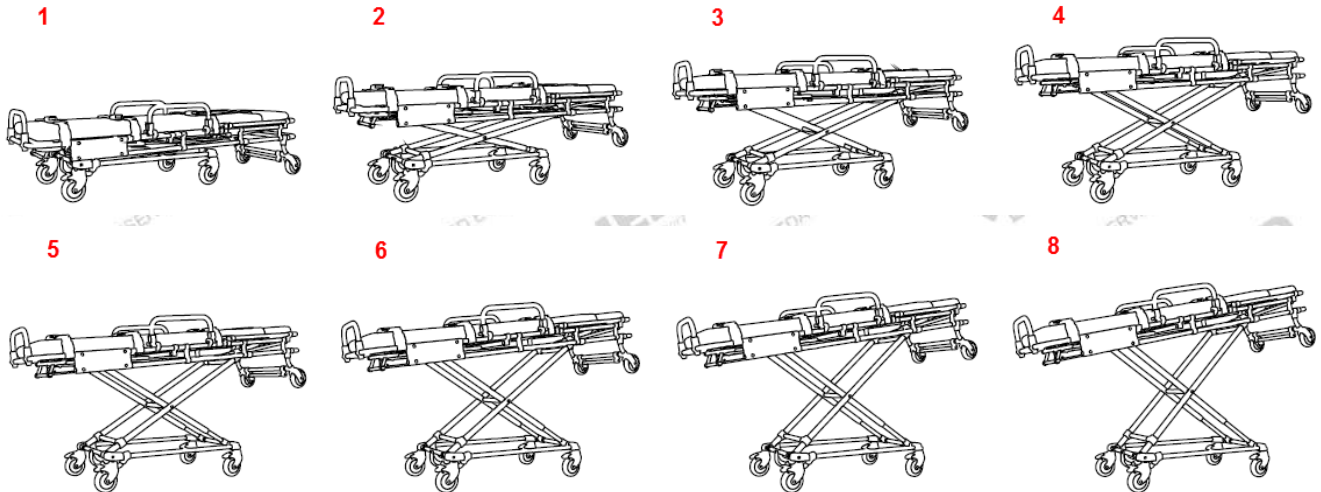
The operation and height level adjustment of the **MXS 330 – ELEVEX** cot, must be performed by at least 2 rescuers, which may suspend the weight of the cot / patient, before operating, to avoid accidental fall. 1. The primary and main drive is done through the rear handle (A), which may be pulled sideways to articulate the pantographic system. There is also the possibility of a secondary drive, through the side handle (B), which also must be pulled sideways for the articulation.





**ARTICULATION**

The **MSX 330 – ELEVEX** cot can be set up to 8 different levels of height, aiming to facilitate the patient transfer or its placement inside the ambulance. To adjust the height levels, actuate the handles as instructed in the previous topic, raising or lowering the stretcher as necessary. To lock the stretcher height, release the handle pivot causing it automatically locks in the desired position.

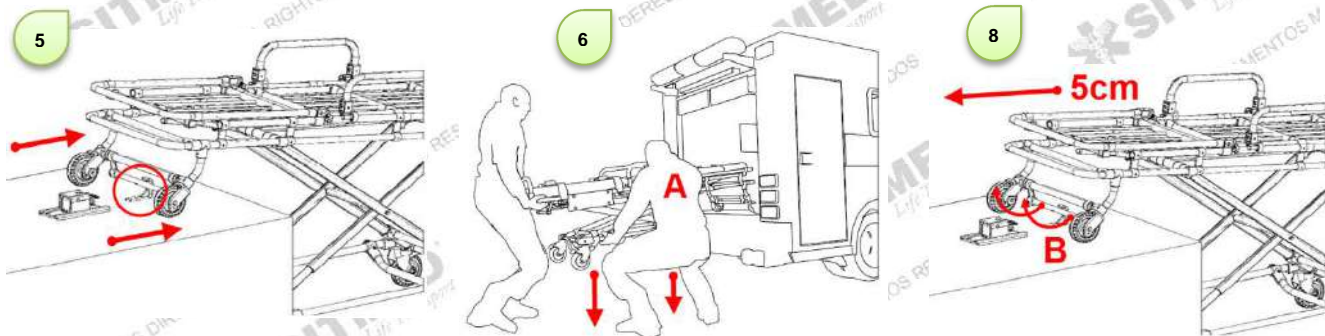


**PLACING AND REMOVING IT FROM INSIDE THE AMBULANCE**

1. Place the cot next to the ambulance and adjust its height allowing it to be leveled with the vehicle floor. Push the inside the ambulance until the movable bar pass and engage at the safety hook of the anti-recoil system (A). Pull the cot to be sure that it is fully engaged at the safety hook (B). 2. Lift the weight of the cot / patient and pull the rear handle. 3. Na additional rescuer (C) must be placed at one side of the cot to manually raise the wheels frame. 4. Push the cot inside the ambulance until it gets locked on the fasteners.



5. To remove the cot from inside the ambulance, unlatch the king pin from the locking turtle and pull the cot suspending the patient's weight in a 100% horizontal position, until the movable bar locks at the safety hook. 6. Pull the rear or lateral handle with the aid of an additional rescuer (A) and lower the wheels frame until the ground. 7. Release the rear handle and check if the cot is locked in the desired height level. 8. Push the cot about 5cm forward and raise the movable bar (B), releasing it from the safety hook. 9. Pull the cot out completely from the ambulance.





## CLEANING, ASEPSIS AND PREVENTIVE MAINTENANCE

The basic cleaning for all Sitmed equipment's can be made using alcohol 70, neutral detergent, germicide or disinfectant, since non-abrasive. After cleaning remove residues from these products in order to avoid direct contact with the patients.

In extreme cases, when there is a lot of blood, fluid or remains, we recommend using a jet wash with neutral detergent, so that all remains are completely removed. After this process, it will be necessary to lubricate all the joints of the equipment, using lithium soap based grease, or popularly known as white grease.

Seat belts should be washed by soaking in mild soap and water to eliminate deeper dirt. We recommend the periodic replacement of belts in an average period of 6 months in order to avoid contamination.

Perforated mattresses must be immediately replaced.



Since those equipment's are used in of Pre-Hospital Care operations it is recommended to be performed a complete hygiene after each use, following the instructions described in the topic above.

Since those equipment's have joints and movable mechanisms, the periodic maintenance is very important to ensure its perfect functionality, safety and life service increase. It is imperative that the owner or responsible in charge must perform inspections and periodic maintenance on the equipment. Inspections and maintenance shall include the following points:

- Check if there are damages to the structure, parts and joints.
- Components or loose parts with excessive wear and tear.
- If bolts and nuts are tight and in their respective places.
- Elastic pins out of position.
- If casters are freely rotating and braking when brakes are triggered.
- If all movable parts are correctly moving.
- If the backrest is working in all tilt levels.
- If the mattress is sanitized and free of perforations.
- If the safety belts are sanitized, well tight and perfectly working.
- If the retraction system is correctly recoiling the legs.
- If the air-axle wheels are leveled to the ambulance floor.
- If the cot is correctly entering and leaving the ambulance.
- If the fastener system are secured and perfectly fitting the cot.



If faults or other strange behavior are detected during an inspection, the equipment must be immediately withdrawn from use until its maintenance is carried out.



Do not tamper the structure of the equipment or perform maintenance by inserting components such as iron, wires, ropes, pins and other stuff as palliative solution. Before any maintenance, please contact our technical department. Use only Sitmed original parts and pieces. The use of any part, accessory or material of third parties is the sole responsibility of the owner and characterizes loss of warranty of the equipment.

**PERIODIC MAINTENANCE SCHEDULE**

Use the following schedule to perform periodic maintenance of your equipment, thus ensuring its longest life and safety:

MONTH:	DATE:	RESPONSIBLE:	SHIFT:	VTR Nº:	NOTES:
JAN					
FEB					
MAR					
APR					
MAY					
JUN					
JUL					
AUG					
SEP					
OCT					
NOV					
DEC					

MONTH:	DATE:	RESPONSIBLE:	SHIFT:	VTR Nº:	NOTES:
JAN					
FEB					
MAR					
APR					
MAY					
JUN					
JUL					
AUG					
SEP					
OCT					
NOV					
DEC					

## WARRANTY

Sitmed Equipamentos Médicos Ltda. assures the buyer of its equipment the guarantee against any manufacturing defect presented within two years, counted from the date of invoice issuance. This warranty will be void if the equipment suffers any damage caused by accident, agents of nature, use in disagreement with the instruction manual, for showing signs of violation in its structure, lack of serial number, adjustment or repair performed by non-authorized person or even by default of majeure force.

Sitmed Equipamentos Médicos Ltda will provide technical assistance and warranty services exclusively in its respective factory, located in the city of Flores da Cunha - Brazil. The buyer residing in another location will therefore be solely responsible for the costs and risks of the equipment transportation. Warranty is valid only if duly proven defective manufacturing. It will be necessary to prove the ownership of the equipment and the warranty period through the serial number and invoice of purchase of the equipment.

For full control of your warranty, please complete the information below and retain this manual for future reference.

Equipment model:
Serial Number:
Invoice / date:



Any questions or clarifications, please contact immediately our support team: Sitmed Equipamentos Médicos Ltda: Rua Felisberto Pereira da Silva, 550, Flores da Cunha, RS – Brazil.  
 Phone: 55 54 3196 8000 / E-mail: contato@sitmed.com.br

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