

**Istruzioni d'uso**  
**CROSS, CROSSOVER, CROSS UP 8409, CROSS CHAIR** IT  
**Barella autocaricante**

**User Manual**  
**CROSS, CROSSOVER, CROSS UP 8409, CROSS CHAIR** EN  
**10g Roll-in stretcher**



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IT

EN

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## 1. MODELS

The following basic models may be subject to implementation or change without notice.

- CROSS
- CROSSOVER
- CROSS/SL
- CROSSOVER/SL
- CROSS UP 8409
- CROSS CHAIR

The models listed above are available with different coloured patient surfaces (yellow, black, red, white), in Trendelenburg or Trendelenburg and Fowler versions and, depending on the model, may include standard accessories such as a mattress and/or IV carrier.

## 2. INTENDED USE

Ambulance stretchers are the primary means of transporting sick and/or injured people in transit safely and comfortably in a lying position. It is not foreseen that the patient be asked to intervene on the device, nor is it intended for prolonged storage or use as a hospital bed. The stretcher must be used with the dedicated fixing systems. It is not foreseen that the patient be able to intervene on the device.

### TARGET PATIENTS

There are no particular indications related to the patient group.

The product configuration is able to accommodate any subject as long as he/she is within the maximum capacity of the device. If paediatric subjects must be transported, it will be in the role of the rescuer to determine whether the strap systems are suitable for immobilisation or if it will be necessary to use another device.

### PATIENT SELECTION CRITERIA

The intended patients are those for whom ambulance transport is necessary.

### CONTRAINDICATIONS AND UNWANTED SIDE EFFECTS

No particular contraindications or side effects are known with relation to use of the device, as long as it is used in accordance with the user manual.

### USERS AND INSTALLERS

The intended users are persons trained in first aid procedures and in use of medical equipment in an emergency medical service (EMS) environment.

Possible users also include emergency vehicle outfitters who may use the product before commissioning or during maintenance of the vehicle on which the stretcher is used.

### User training

**Note:** despite all efforts, laboratory tests, trials, and instructions for use, standards do not always reproduce practice, so the results obtained under actual conditions of product use in the natural environment may sometimes differ significantly.

**The best instructions are the continuous practice of use under the supervision of competent and trained personnel.**

- Regardless of your level of experience with similar devices in the past, you should carefully read and understand the contents of this manual before installing, operating, or servicing this product. In case of any questions, please contact Spencer Italia S.r.l. for the necessary clarifications.
- The product must be used only by personnel trained in the use of this product and not on other similar products.
- The suitability of the users for use of this product can be attested by the training registration, in which trained persons, trainers, date and place are specified. **This documentation must be kept for at least 10 years after the end of the product's life and must be made available to the competent authorities and/or the Manufacturer when requested. In the absence of such documentation, the relevant bodies will apply any foreseen sanctions.**
- Do not allow untrained persons to help while using the product, as they may cause injury to themselves or others.
- The product must be put into use only by personnel trained in the use of this product and not on other similar products.

**Note:** Spencer Italia S.r.l. is always available for training courses.

**Document user training using the form in Annex A of this manual or other appropriate forms.**

### Installer training

**Device installation must be carried out by qualified personnel who have been trained and certified by Spencer Italia S.r.l.**

**The installer must strictly adhere to these instructions as well as to the state of the art for vehicle installations.**

## 3. REFERENCE STANDARDS

As Distributor or End-User of the products manufactured and/or marketed by Spencer Italia S.r.l., users are strictly required to be familiar with the legal provisions in force in the country of destination of the goods, applicable to the devices to be supplied (including regulations relating to technical specifications and/or safety requirements) and, therefore, to understand the requirements necessary to ensure compliance of the products themselves with all legal requirements of the territory.

REFERENCE	DOCUMENT TITLE
UNI EN ISO 1865-1	Patient handling equipment used in road ambulances - Part 1: General stretcher systems and patient handling equipment
UNI EN 1789	Medical vehicles and their equipment - Road ambulances

## 4. INTRODUCTION

### 4.1 USING THE MANUAL

The purpose of this manual is to provide healthcare professionals with the information necessary for safe and appropriate use and maintenance of the device.

**Note:** The Manual is an integral part of the device and therefore it must be kept for the entire life of the device and must accompany it in any changes of use or ownership. If any instructions for use for products other than the one received are present, please contact the Manufacturer immediately before use.

Spencer products User Manuals can be downloaded from the site <http://support.spencer.it> or by contacting the Manufacturer. Exceptions are those items whose essentiality and reasonable and predictable use are such that it is not necessary to draw up instructions, in addition to the following warnings and indications on the label.

Regardless of your level of experience with similar devices in the past, it is advisable to carefully read and understand the contents of this manual before installing, operating, or servicing this product.

### 4.2 DEVICE LABELLING AND TRACEABILITY

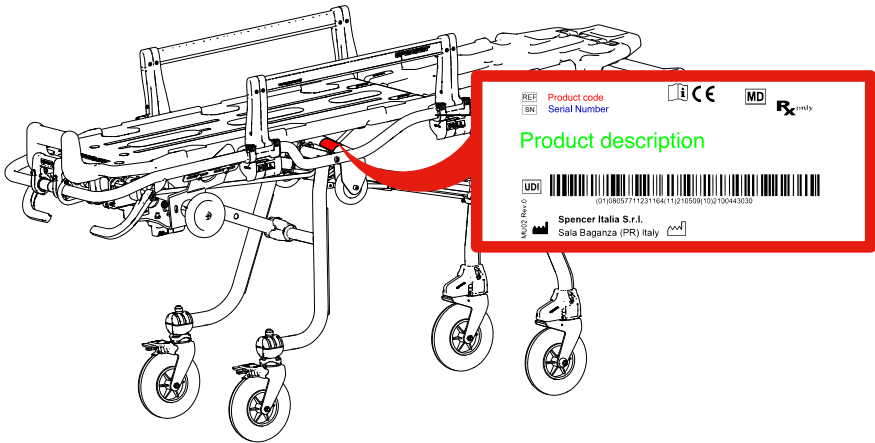
Each device is provided with a label, placed on the device itself and/or on the packaging, which contains the Manufacturer's identification data, product, CE marking, serial number (SN) or lot number (LOT). This must never be removed or covered.

Image P1 shows the positioning and main information contained on the label.

In the event of damage or removal, request a duplicate from the Manufacturer, or else the warranty will be void as the device can no longer be traced. If the assigned Lot/SN cannot be traced, the device must be reconditioned, provided only under the responsibility of the manufacturer.

Regulation 2017/745/EU requires manufacturers and distributors of medical devices to keep track of their location. If the device is in a location other than the address to which it was shipped or sold, or if it was donated, lost, stolen, exported or destroyed, permanently removed from use, or if the device was not delivered directly from Spencer Italia S.r.l., please register the device at <http://service.spencer.it>, or inform Customer Service (see § 4.4).

P1



4.3 SYMBOLS

Symbol	Meaning	Symbol	Significato
CE	Device in compliance with EU Regulation 2017/745	📖	See the user manual
MD	Medical device	SN	Serial Number
🏭	Manufacturer	REF	Product code
📅	Date of manufacture	⚠️	Danger – Indicates a hazardous situation that may result in a situation directly related to serious injury or death.
UDI	Unique Device Identifier	Rx only	Caution: Federal Law restricts this device to sale by or on the order of a licensed practitioner (only for USA Market)

Production identification	
Alphanumeric code that identifies the production units of the device, composed of:	
(01)0805771123	company prefix
000	progressive GS1
6	control number
(11)200626	date of production (YYMMDD)
(21) 1234567890	SN

4.4 WARRANTY AND SERVICE

Spencer Italia S.r.l. guarantees that products are free from defects for a period of **one year from the date of purchase**.

For information regarding correct interpretation of the instructions for use, maintenance, installation or return, please contact Spencer Customer Service tel. +39 0521 541111, fax +39 0521 541222, e-mail [service@spencer.it](mailto:service@spencer.it).

To facilitate service, always indicate the lot number (LOT) or serial number (SN) on the label attached to the package or device itself.

**Warranty and service conditions are available at <http://support.spencer.it>**

**Note:** Record and keep with these instructions: lot (LOT) or serial number (SN), if present, place and date of purchase, date of first use, date of checks, user name and comments.

To ensure the traceability of the products and protect maintenance and service procedures on your devices, Spencer has made the SPENCER SERVICE portal (<http://service.spencer.it/>) available to you. From this site, you can view the data of the products in your possession or placed on the market, monitor and update schedules for periodic checks and view and manage special maintenance.

5. WARNINGS

Warnings, notes, and other important safety information are provided in this section and are clearly visible throughout the manual.

⚠️ At least every 6 months, it is important to check for updated instructions and any changes involving your product. This information is freely available on the website [www.spencer.it](http://www.spencer.it) on the specific product page.

Product features

Use of the product for any purpose other than that described in the User Manual is prohibited.

- Before each use, always check the conditions of the product, as specified in the User Manual. In the event of faults/damage that could compromise its functionality/safety, immediately remove it from service and contact the Manufacturer.
- If the product is found to be malfunctioning, immediately use a similar device to ensure continuity of ongoing operations.
- The product must not be tampered with (modification, tweaking, additions, repair). Should these operations be performed, we decline any responsibility for incorrect operation or any damage caused by the product itself; moreover, the CE certification (when required by law) and the product warranty shall be null and void.
- Anyone who modifies or causes products manufactured by Spencer Italia S.r.l. to be modified or re-processed in such a way that they no longer serve the intended purpose or no longer provide the intended performance shall comply with the conditions valid for the first placing on the market.
- When using the devices, position and adjust them in such a way that they do not hinder operator works or the use of any other equipment.
- Be sure to take every precaution to avoid hazards from contact with blood or body secretions, if applicable.
- Always comply with the maximum capacity indicated in the User Manual. Maximum load capacity means the total weight distributed according to human anatomy. When determining the total weight load on the product, the operator should consider the weight of the patient, equipment and accessories. In addition, the operator should assess whether the overall size of the patient reduces the functionality of the product.
- Make sure that operators are in good physical condition before lifting, as listed in the User Manual.
- **The maximum weight, which weighs on each operator, must comply with local health and safety requirements.**

- Avoid contact with sharp objects.
- Device installation must be carried out by qualified personnel trained and enabled by Spencer Italia S.r.l. The times and methods of such shall be agreed upon between the customer and our Sales Offices.
- Operating temperature: from -10°C to + 50°C.

#### Storage

- The product must not be exposed or come into contact with thermal sources of combustion or flammable agents, but must instead be stored in a dry, cool place, away from light and sun.
- Do not store the product under other more or less heavy materials that may damage the structure of the product.
- Store and transport the product with its original packaging, otherwise the warranty shall be invalidated.
- Storage temperature: -20°C to +60°C.

#### Regulatory requirements

As Distributor or End-User of the products manufactured and/or marketed by Spencer Italia S.r.l., users are strictly required to be familiar with the legal provisions in force in the country of destination of the goods, applicable to the devices to be supplied (including regulations relating to technical specifications and/or safety requirements) and, therefore, to understand the requirements necessary to ensure compliance of the products themselves with all legal requirements of the territory.

- Promptly and in detail notify Spencer Italia S.r.l. (already in the quotation request phase) about possible fulfilments by the Manufacturer necessary for the compliance of products with specific legal requirements of the territory (including those deriving from regulations and/or regulatory provisions of another nature).
- Act with due care and diligence to help ensure compliance with the general safety requirements of the devices placed on the market, providing end-users with all the information necessary to carry out periodic revisions on the supplied devices, exactly as indicated in the User Manual.
- **Participate in safety checks on products** placed on the market, transmitting information regarding product risks to the Manufacturer as well as to the Competent Authorities for their respective actions.
- Without prejudice to the above, the Distributor or End-User shall assume wider liability related to non-compliance with non-fulfilment of the above-mentioned obligations, with consequent obligation to indemnify and/or hold Spencer Italia S.r.l. harmless from any possible injurious effect.
- With reference to EU Regulation 2017/745, please note that public or private operators who, when exercising their activity, detect an incident involving a medical product are required to notify the Ministry of Health, within the terms and in the manner established by one or more ministerial decrees, and notify the Manufacturer. Public or private health care professionals are required to notify the Manufacturer of any other incident that may allow the adoption of measures to ensure the protection and health of patients and users.

#### General warnings for medical devices

The user must carefully read the following in addition to the general warnings.

- The application of the device should not last longer than the time required for first aid operations and subsequent transport to the nearest rescue point.
- Qualified personnel and at least two operators must be present during use of the device.
- Follow the internal procedures and protocols approved by your organisation.
- Disinfection operations must be carried out in accordance with the validated cycle parameters, as stated in the specific technical standards..

## 6. SPECIFIC WARNINGS

To use the product, you must also have read, understood and carefully follow all the instructions in the user manual.

- Follow approved Emergency Medical Service procedures for patient immobilization and transportation.
- Follow approved Emergency Medical Service procedures for patient positioning and transportation.
- Do not use if the device or parts of it are punctured, torn, frayed, or excessively worn.
- Before any type of handling, make sure that operators have a secure grip on the device.
- Do not drag the device on uneven surfaces.
- Do not lift with a crane or other mechanical lift.
- Do not use drying machines.
- The device is a transport device and cannot be used as a stationing device.
- **Do not use with devices other than those expressly approved by the manufacturer.**
- Practice with a device without a patient to make sure you are familiar with the manoeuvres.
- For patient loading techniques for particularly heavy patients, for operations on steep terrain or in special and unusual circumstances, the presence of multiple operators is recommended (not just 2 as expected in standard conditions).
- Make sure that the patient is adequately immobilized before loading him/her on the stretcher. A failure to immobilize can cause serious damage to the patient.
- Make sure that the sheet does not interfere with any stretcher handling or control mechanisms.
- Do not move the device if the weight is not properly distributed.
- Always use straps that are anchored to the stretcher frame to ensure patient safety.
- Use only the perimeter frame to move the stretcher and not the sidebars, beds or other points not intended for this purpose.
- Avoid excessive force when loading the stretcher into the ambulance: unnecessary force can cause damage and can adversely affect the fastening system.
- Avoid excessive force when loading the stretcher into the medical vehicle: unnecessary force can cause damage and can adversely affect the functionality of the stretcher itself.
- **Hold the device firmly if the patient is lying on it.**
- **Parking brakes are aids for the operator but they do not in any way replace his or her supervision.**
- Pay the utmost attention to any obstacles (water, ice, debris, etc.) present on the route, as they may cause the operator to lose balance and compromise proper functioning of the device. If you cannot clear the way, choose an alternative route.
- Condensation, water, ice and accumulations of dust can affect correct operation of the device, making it unpredictable and causing a sudden change in the weight the operators have to support.
- For height differences greater than 10mm, the device must be lifted, taking care to grasp it from the structure and not from the sidebars/beds or other points not intended for this purpose.
- Once the wheels of the loading trolley have been placed on the ambulance floor, the wheels of the front leg must have a ground clearance of at least 5/6 cm, which allows the front leg to be opened and locked safely. Check the height of the ambulance bed after each use; if it is altered, the trolley must be adjusted immediately by the manufacturer or by a specialised technician authorised by the manufacturer. If not, the manufacturer cannot be held responsible for correct functioning of the device or any damage caused by it.
- If the vehicle is equipped with pneumatic or hydraulic suspensions, the loading height must be adjusted taking into account the worst-case conditions and/or the working conditions foreseen by the outfitter.
- Any problems regarding the use and/or safety risks associated with this system are not the responsibility of the manufacturer.
- **Inadequate installation of the loading floor can lead to buckling and subsequent damage to the welds of the front legs.**
- **Improper installation of the loading floor can lead to abnormal operation of the device and cause harm to the patient and user.**
- Do not alter or modify the stretcher to adapt it to the emergency vehicle: doing so could result in unpredictable operation and damage to the patient or rescuers and shall void the manufacturer's warranty and release the Manufacturer from all liability.
- The product can only comply with regulation EN 1789 if used with the Spencer Sensor Lock fixing system or other Spencer 10g fixing systems compatible with this 10g version stretcher. The use of fasteners not approved by the Manufacturer is therefore prohibited. Non-approved fixing systems may alter the structural and functional characteristics of the device.

- Do not operate the variable height system without carefully assessing the weight of the stretcher with the patient and any accessories. Operators should be able to fully support the load when changing heights. Incorrect judgement may result in the stretcher falling unexpectedly and posing a risk to the patient and operators.
- Do not place any magnetic parts between the stretcher and the fixing system as they may interfere with the stretcher's attachment and release systems.
- Do not place limbs and/or objects between the legs and the frame, in the vicinity of the leg lifting pistons or in general between moving parts as this may result in crushing injuries.
- If the twist system has been activated, make sure that the wheels are locked again before loading the stretcher into the ambulance as this can be risky and difficult with the front wheels unlocked.
- Movement with four swivel wheels can be very difficult on sloping or uneven ground. Carefully assess the conditions of use before unlocking the front wheel pivot.
- If the device is used in conjunction with restraint systems such as spine boards and/or vacuum mattresses, make sure that the patient is secured to the stretcher and the restraint system so that the patient is safe while the vehicle is moving. In case of doubt about the procedures to be used, refer to the operating protocols of your relative 118 service.

**6.1 PHYSICAL REQUIREMENTS FOR OPERATORS**

The device is intended for professional use only. All operators must be trained to transport patients safely and efficiently. Do not allow untrained persons to help while using the product, as they may cause injury to themselves or others.

Operators using the device should be physically able to use the device and have good muscle coordination, as well as strong back, arms, and legs for lifting and holding and be able to grasp the device firmly with both hands.

**Operators must be able to provide the necessary patient care.**

**Users must be able to safely lift and handle the weight of the stretcher and patient together and any other equipment used with the device.**

**For patient loading techniques for particularly heavy patients, for operations on steep terrain or in special and unusual circumstances, the presence of multiple operators is recommended (not just 2 as expected in standard conditions).**

The ability of each operator must be assessed before the definition of rescuer roles in use of the stretcher.

**7. RESIDUAL RISK**

The residual risks listed below have been identified solely with reference to the intended use of the device.

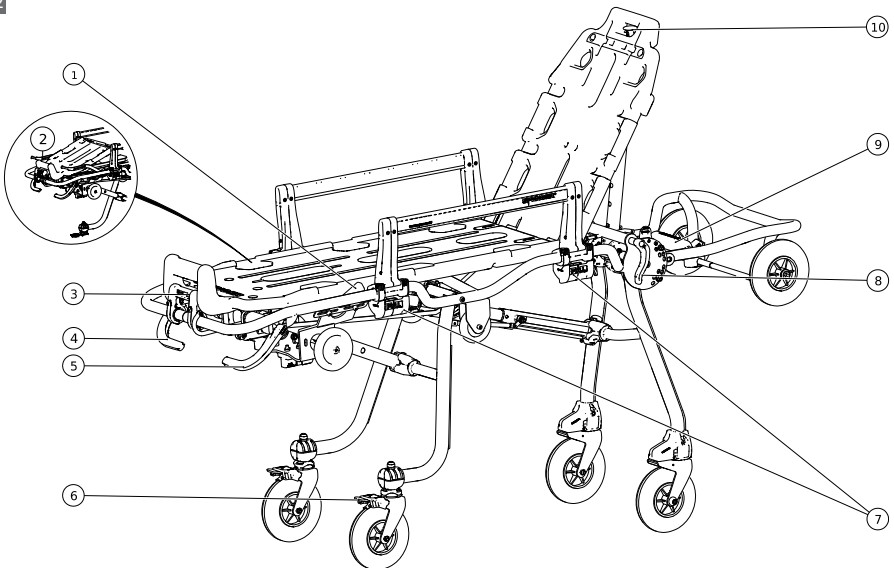
- Use by untrained personnel may result in injury to the patient, rescuer or third parties.
- Inadequate disinfection procedures may lead to risk of cross-infection.
- Partial opening of the legs may result in the device falling to the ground. Make sure that the legs are properly locked before any handling and that the pistons are fully extended and stable.
- If the stretcher is not locked on the fixing system or if it is not correctly positioned, this can result in dangerous movements, especially in the event of strong medical vehicle deceleration, which can cause damage to the patient and the operators. Always make sure that the locking system is properly engaged.
- Failure to observe the warnings for operators can lead to risks of crushing caused by the moving mechanisms.
- Accidental operation of the variable height system may result in the stretcher falling, causing injury to the patient and/or operators. Make sure that the unlocking handle is not accidentally activated.
- The operators should prepare to fully load the stretcher with the patient and accessories before operating the variable height unlocking control. Operating this control without applying sufficient support force will result in the stretcher falling unexpectedly and causing injury to the patient or operators.
- **Failure to read and understand the product instructions may result in injury to the patient and operators.**

**8. TECHNICAL DATA AND COMPONENTS**

*Note: Spencer Italia S.r.l. reserves the right to make changes to specifications without notice.*

**CROSS – CROSSOVER** See Callout Image P2 - P3

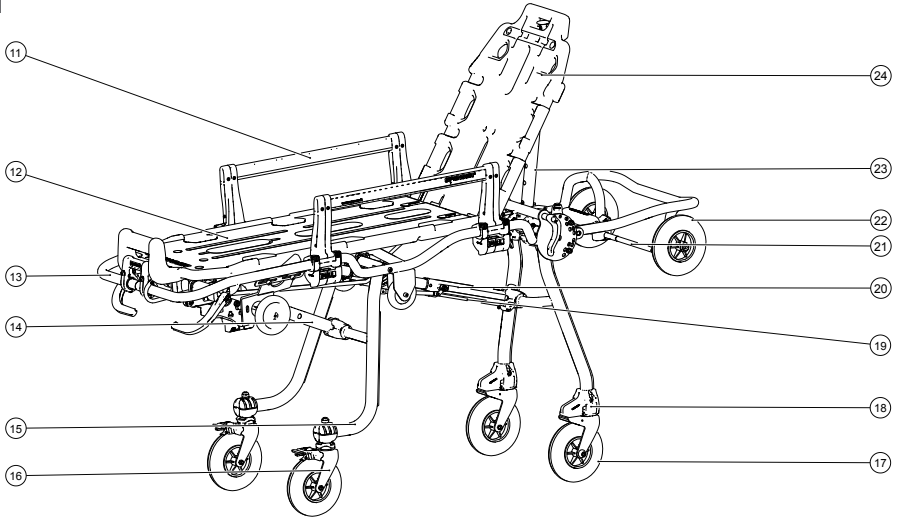
P2



No.	Description	Material	No.	Description	Material
1	Trendelenburg control lever (if present)	Steel/PE	6	Rear wheel brake	FE
2	Trendelenburg/Fowler control lever (if present)	Steel	7	Sidebar unlocking levers	Nylon

3	Twist control lever	PE	8	Variable height unlocking lever	Nylon
4	Rear leg unlocking handle (green)	Nylon	9	Loading trolley unlocking control	PU/Steel
5	Front leg unlocking handle	Nylon	10	Backrest adjustment unlocking control	PE/Steel

P3

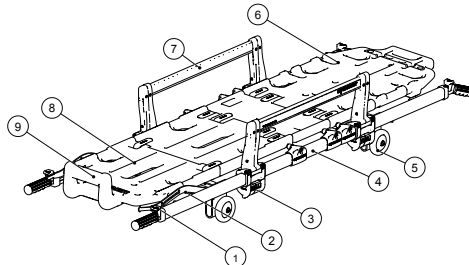


No.	Description	Material	No.	Description	Material
11	Sidebars	Al/Steel/Nylon	18	Twist system	Steel/Nylon
12	Feet side patient bed	PE	19	Gas spring	Steel
13	Main frame perimeter/Handle	Steel	20	Front piston	Steel
14	Rear piston	Steel	21	Crossbar for front fixing	Steel
15	Rear leg	Steel	22	Loading trolley wheels	PU
16	Rear wheel with bracket	PU	23	Backrest piston	Steel
17	Front wheel	PU	24	Backrest	PE

Feature	Dimension
Length (mm)	1970
Width (mm)	570
Loading trolley underwheel height (cm)	From 58 to 70 ± 1
Patient bed height with stretcher in position on the ground	30 ± 1
Patient bed height with stretcher in the intermediate position	66 ± 1
Patient bed height with stretcher raised	88 ± 1
Wheel diameter (mm)	∅ 200±5%
Load capacity (kg)	170 kg (250kg Crossover model)
Weight without standard accessories (kg)	45

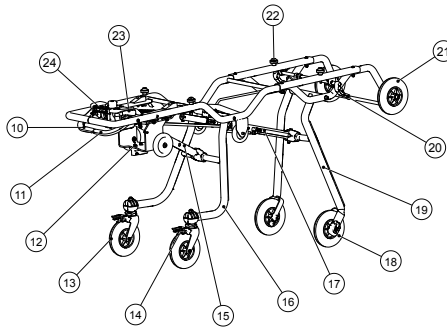
CROSS UP 8409 See Callout Image P4 - P5

P4



No.	Description	Material	No.	Description	Material
1	Telescopic handle slide unlocking button	Nylon	6	Reclining backrest	Polyethylene
2	Trendelenburg/Fowler mechanism	Steel	7	Folding sidebar	Nylon, Aluminium, Steel
3	Sidebar unlocking lever	Nylon	8	Foot side board	Polyethylene
4	Framework	Aluminium	9	Footrest	Polyethylene
5	Wheels	PU			

P5

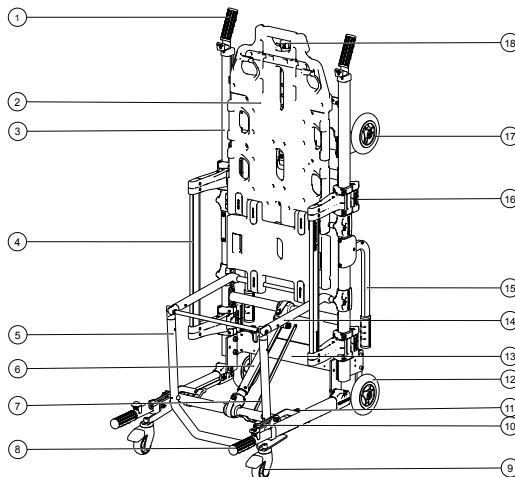


No.	Description	Material	No.	Description	Material
10	Rear leg unlocking handle	Nylon-coated steel	18	Front wheels	PU
11	Front leg unlocking handle	Nylon-coated steel	19	Front legs	Steel
12	Rear lock system	Steel Nylon, Aluminium	20	Variable height control lever	Nylon
13	Rear wheel with bracket	PU	21	Loading trolley wheel	PU
14	Brake	Chrome-plated FE	22	Stops for Cross Up 8409 stretcher	Steel, Nylon
15	Rear leg lifting piston	Steel	23	Front wheel unlocking lever (TWIST version only)	Polyethylene
16	Rear legs	Steel	24	Stretcher release lever	Nylon
17	Front leg lifting piston	Steel			

Characteristics	CROSS UP 8409	CROSS UP 8409 TWIST
Width (mm)	570	570
Length (mm)	1970	1970
Sidebar length (mm)	680	680
Sidebar height (mm)	200	200
Trolley Wheel diameter (mm)	200	200
Stretcher Wheel diameter (mm)	100	100
Weight (kg)	47	49
Maximum load capacity (kg)	250	250

**CROSS CHAIR – CROSSOVER CHAIR** See Callout Image P6 - P7

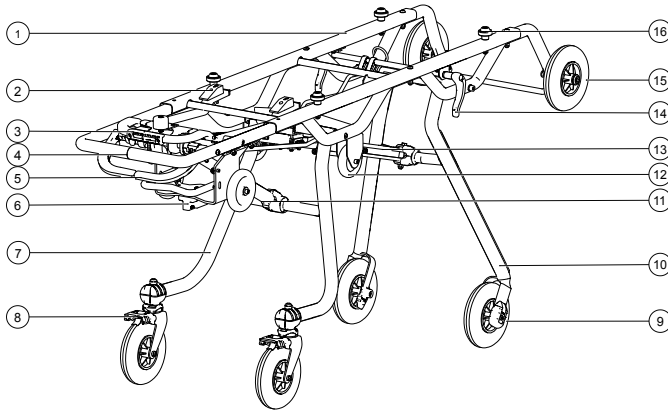
P6



No.	Description	Material	No.	Description	Material
1	Front handles	Steel	10	Trendelenburg selection mechanism	Steel
2	Backrest	PE	11	Configuration unlocking lever	Nylon
3	Framework	Al	12	Rear wheels ø 150	PU
4	Sidebar	Al,Nylon,Steel	13	Trolley fixing bar	Steel
5	Chair frame	Steel	14	Chair frame	Steel
6	Lifting piston	Steel	15	Rear handles	Steel
7	Piston control rod	Steel	16	Sidebar opening levers	Nylon/Steel
8	Rear handles	Steel	17	Front wheels	PU
9	Pivoting wheels with brake	PP/Nylon	18	Backrest piston rod	Nylon

The device is supplied with a standard segmented mattress in PVC, not illustrated.

P7



No.	Description	Material	No.	Description	Material
1	Cross Chair slide profile	Steel	9	Front wheels	PU
2	Cross Chair locks	Steel/Nylon	10	Front legs	Steel
3	Unlocking lever	Al/Nylon	11	Rear piston	Steel
4	Frame (gripping point)	Steel	12	Central wheel	PU
5	Leg unlocking levers	Nylon	13	Front piston	Steel
6	Complete fifth wheel	Al/Nylon/Steel	14	Variable height unlocking lever	Nylon
7	Rear legs	Steel	15	Loading trolley wheels	PU
8	Bracket with Rear wheel brake	PU	16	Stoppers	Steel/Nylon

#### Cross chair (stretcher)

CHAIR MODE	Size	STRETCHER MODE	Size	GENERAL	Size
Height (mm)	1430	Length with handles closed (mm)	1970	Weight (kg)	26
Width (mm)	600	Length with handles open (mm)	2235	Sidebar length (mm)	600
Depth with all handles closed (mm)	1000	Width (mm)	600	Sidebar height (mm)	200
Depth with all handles open (mm)	1365	Patient bed height (from floor) (mm)	250		

**Load capacity: The stretcher alone is able to support a maximum load of 250kg distributed according to human anatomy.**

When used with the dedicated trolley, the load capacity of the trolley, which is available in 170kg and 250kg versions, must be taken into account.

#### Cross chair (Trolley)

Feature	Dimension
Length (mm)	1980 ± 10
Width (mm)	570 ± 5
Height at slide profile with trolley raised (mm)	850/900
Height at slide profile with trolley at intermediate height (mm)	600/680
Height at slide profile with trolley lowered (mm)	280
Loading trolley height (cm)	650 ± 5
Cross Chair patient bed height with trolley raised (mm)	1010/1040
Cross Chair patient bed height with trolley at intermediate height (mm)	760/830
Cross Chair patient bed height with trolley lowered (mm)	395

Leg and loading trolley wheels (mm)	∅ 200
Load capacity (kg)	170 (250 Crossover Chair)
Weight (kg)	32

Available in 10g version.

Note 1: The "patient bed height" specifications are measured without mattress.

Note 2: The double dimensional values in some fields refer to the rear and front of the measured feature (rear/front) respectively.

Maximum load capacity means the total weight distributed according to human anatomy. When determining the total weight load on the product, the operator should consider the weight of the patient, equipment and accessories.  
Measurements are averaged between the minimum and maximum values.

## 9. COMMISSIONING

For first use, check that:

- Packaging is intact and has protected the device during transportation
- Check that all parts included in the packing list are present
- General functionality of the device
- The medical vehicle is equipped with a Spencer fixing system dedicated to the stretcher
- The stretcher floor is properly levelled
- The stretcher floor is wide and long enough to accommodate the stretcher and its accessories without becoming an obstacle
- The wheel of the front leg is at least 5 cm from the ground during vehicle loading and unloading procedures in order to allow for the safe opening and locking of the front leg - see image in point 11.6
- The fastenings must keep the stretcher attached to the structure of the vehicle

Do not modify the stretcher structural, leverage or traction parts in any way as this could cause damage to the patient and/or the rescuers.

**⚠ Failure to take the above measures will preclude safe use of the device, resulting in risk of damage to the patient, operators and the device itself.**

To facilitate insertion of the stretcher into the ambulance, eliminate sharp edges on the edge of the ambulance loading floor. The stretcher should be secured using Spencer hooks in such a way as to prevent any movement during transport in the ambulance, even in difficult driving conditions. Practice with a stretcher without a patient before putting the device into service.

**For subsequent use, perform the operations specified in paragraph 12.**

If the above conditions are met, the device may be considered ready for use; otherwise, you must immediately remove the device from service and contact the Manufacturer.

Do not alter or modify the device arbitrarily, as doing so could result in unpredictable operation and damage to the patient or rescuers and will void the warranty and release the Manufacturer from all liability.

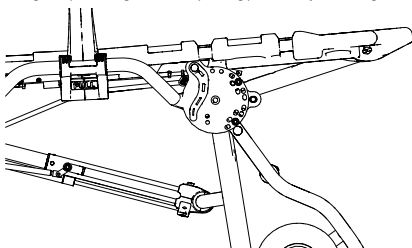
Cross and Crossover stretchers are equipped with an adjustable loading trolley as per the following table:

Model	Height under wheel (cm)		VLF height (vehicle loading floor)		Accessory needed
	Min	Max	Min	Max	
Cross / Crossover standard	58	70	63	75	CR90021 for VLF>67cm CR90010 for VLF<60cm
Low Cross / Crossover	47	55	52	60	

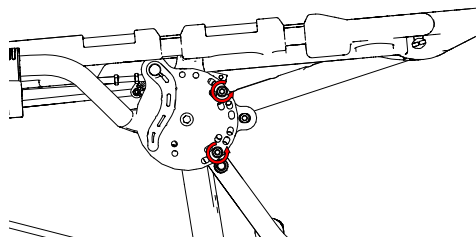
**NOTE:** Please contact the manufacturer for installations requiring the use of accessories.

The remaining stretcher models described in this manual have a fixed height.

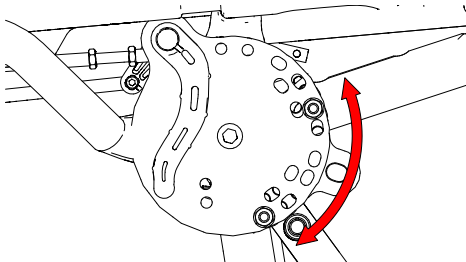
The loading trolley must be adjusted during stretcher installation. Adjustment should be made taking into account that, in simulated loading conditions and with the loading trolley on the ambulance floor, the wheels of the front legs should be 5/6 cm off the ground.  
Change the positioning of the trolley locking plates to adjust the height of the loading trolley.



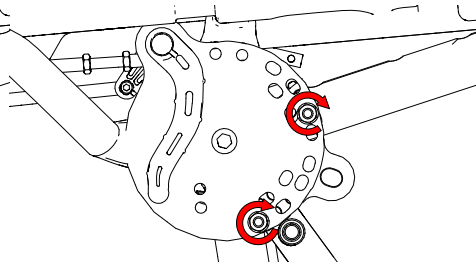
**P8** Unlock the loading trolley, supporting it as it lowers.



**P9** Unscrew the screws and nuts holding the plates in position.

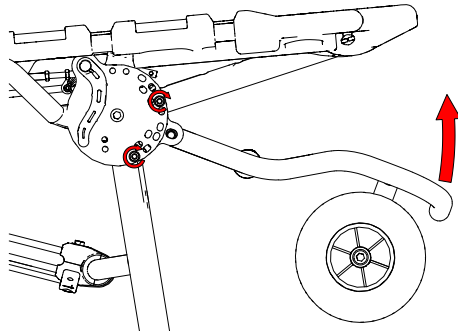


**P10** Vary the position of the locking plates upwards or downwards depending on whether you wish to increase or reduce the loading height. The new position must allow for insertion of both previously removed screws.



**P11** Insert the screws and partially tighten them. Carry out the same operation on the plate located on the opposite side of the stretcher.

**P12** Move the loading trolley to its new position. Place the loading trolley on the vehicle floor and check that the height is correct. If it is, keep the loading trolley on the vehicle floor so that the parts are aligned as well as possible, then fully tighten the plate fixing screws.



The second preliminary adjustment to be carried out involves the parts of the stretcher used for coupling with the fixing system.

**Fastening used  
R-MAX / S-MAX / Sensor Lock**

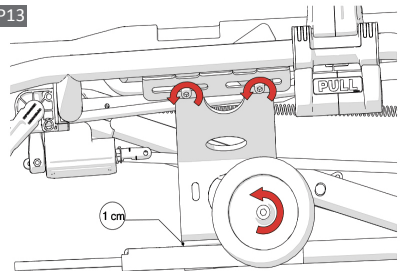
**CAUTION:** Spencer stretcher factory adjustments are already suitable for use with the R-MAX and S-MAX fixing systems. The following adjustments may only be necessary if the height of the loading trolley has changed or if, for any reason, there is an excessive gap between the stretcher and the fixing system.

Unlock the fifth wheel by slightly loosening the frame fixing screws on both sides of the stretcher. Loosen the screws on the wheels mounted on either side of the fifth wheel in the same way.

See image P13

**Adjustment:** Push the stretcher so that it is flush with the front of the fixing system. Push the fifth wheel assembly so that the rear locking system underneath the fifth wheel comes into contact with the rear part of the fixing system and with the stopper on the R-MAX fastenings.

**P13**



Insert a shim of about 1cm between the fifth wheel and the rear part of the fastening and check that it has reached a horizontal position.

While holding this position, re-tighten the screws that were previously loosened and check that the fifth wheel is fully locked.

Check that the wheels rest on the ambulance floor and, keeping the shim between the fifth wheel and the fastening, tighten the wheel fixing screws.

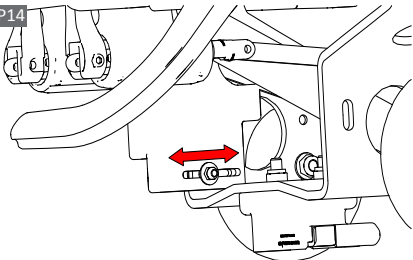
Remove the shim and check that the gap between the stretcher and the fixing system is no more than 5 mm at the front and rear.

See image P14

Stretchers intended for use with the Sensor Lock fixing system, identified as "SL", are equipped with a communication system with the fixing system installed on the fifth wheel of the stretcher. Before putting into service, check that the unlocking system is working properly. In the event of a failure following the adjustments described above, it may be necessary to adjust the positioning of this system by moving the magnet in order to restore proper function.

The positioning of this system must be evaluated on site and following the stretcher adjustments described above.

**P14**



**⚠** U:\Manuali d'uso e installazione\Struttura Istruzioni\Simboli\Avvertenza.eps **MEASURING OF THE LOADING FLOOR MUST BE CARRIED OUT AFTER HAVING SET THE AMBULANCE ON AN EVEN SURFACE WITH NO BUMPS AND/OR UNEVENNESS AND AFTER ACCOMMODATING 2 (TWO) OPERATORS AT THE REAR OF THE SANITARY UNIT, WITH A SIMULATED LOAD OF UP TO 250 KG.**

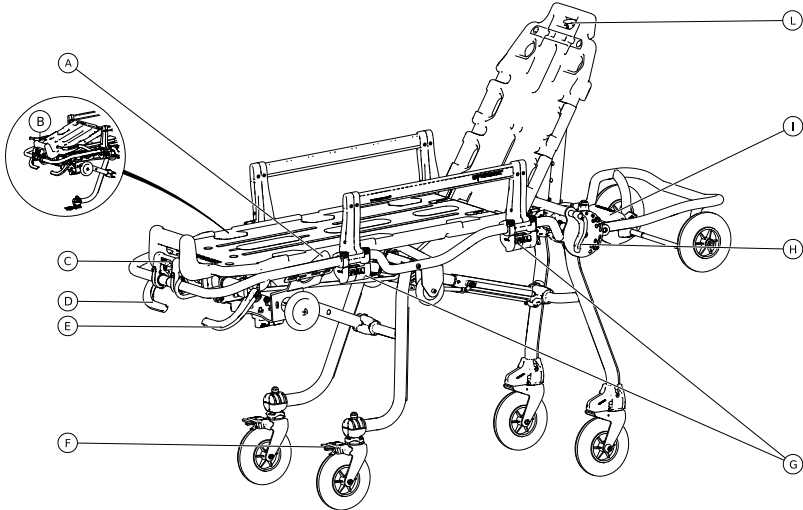
If the vehicle is equipped with pneumatic or hydraulic suspensions, the loading height must be adjusted taking into account the worst-case conditions and/or the working conditions foreseen by the outfitter.

Any problems regarding the use and/or safety risks associated with this system are not the responsibility of the manufacturer.

10. OPERATING CHARACTERISTICS

CROSS E CROSSOVER See image P15

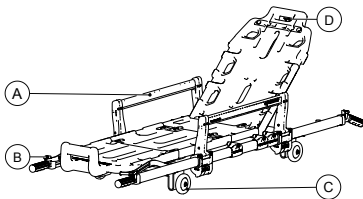
P15



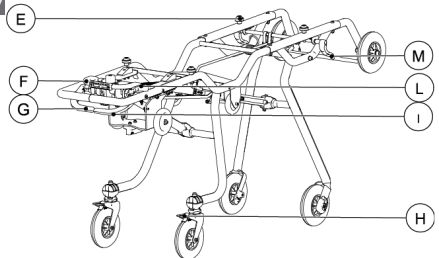
Element	Description	Function
A	Trendelenburg control lever (if present)	Keeps the patient bed elevated on the foot end, resulting in the Trendelenburg position. This function may not be available on your model.
B	Trendelenburg/Fowler control lever (if present)	Keeps the patient bed raised and folded on the foot side to achieve both Trendelenburg and Fowler positions. This function may not be available on your model.
C	Twist control lever	When engaged, it also pivots the front wheels. This function may not be available on your model.
D	Rear leg unlocking handle (green)	When engaged, it unlocks the movement of the rear leg, allowing it to be closed.
E	Front leg unlocking handle (red)	When engaged, it unlocks the movement of the front leg, allowing it to be closed.
F	Rear wheel brake	When engaged, it brakes the rear wheels.
G	Sidebar unlocking levers	When engaged at the same time, they unlock the sidebar and open it. It is not necessary to operate any controls to close the sidebar again, simply return it to its original position.
H	Variable height unlocking lever	Unlocks movement of the front leg in order to place the stretcher at intermediate height.
I	Loading trolley unlocking control	Unlocks the loading trolley and allows it to be raised in order to reduce the length of the stretcher when it has to be moved in confined spaces.
L	Backrest adjustment unlocking control	Adjusts the backrest inclination chosen from one of the pre-set positions.

CROSS UP /CROSSOVER UP 8409 See image P16 and P17

P16



P17

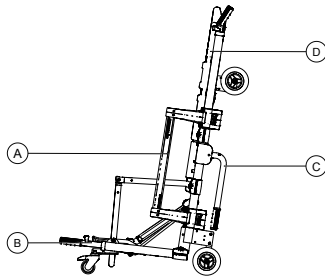


Element	Description	Function
A	Folding sidebar	When raised, it allows lateral restraining of the patient.
B	Telescopic handle unlocking button	Press to disengage the handle locking system, allowing it to be lengthened or shortened.
C	Stretcher sliding wheels	Used to slide the stretcher on the ground.
D	Backrest unlocking rod	When engaged, it unlocks the system preventing lowering of the backrest.
E	Stoppers	Secure the stretcher on the trolley.
F	Stretcher unlocking lever	Releases the stretcher locking system on the trolley.
G	Rear leg unlocking lever	When raised, unlocks rear leg movement.

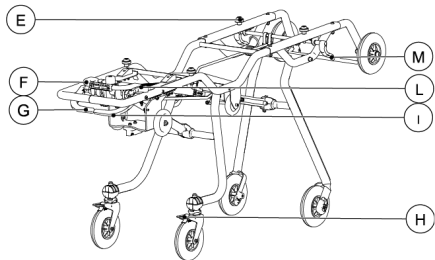
H	Rear wheel brake	When raised, locks the rolling of the wheels on which it has been engaged.
I	Front leg unlocking lever	When raised, unlocks front leg movement.
L	Front wheel unlocking lever (twist version only)	When engaged on models with the twist system, unlocks front wheel pivoting.
M	Variable height control lever	When engaged, unlocks movement toward the outside of the front leg, allowing the stretcher to be positioned at intermediate height.

**CROSS CHAIR / CROSSOVER CHAIR** See images P18 and P19

P18



P19



Element	Description	Function
A	Folding sidebar	When raised, it allows lateral restraining of the patient.
B	Telescopic handles	The rear handles unlock movement for changing the configuration and facilitate transport on stairs in chair mode. The front handles allow transport on flat surfaces in chair mode and facilitate transport in stretcher mode.
C	Rear handles	Folding; equipped with automatic positioning in closed mode and facilitate transportation on stairs.
D	Adjustable backrest	Acts as a back support for the patient and is adjustable to 5 positions in addition to the horizontal position.
E	Stoppers	Secure the stretcher on the trolley.
F	Stretcher unlocking lever	Releases the stretcher locking system on the trolley.
G	Rear leg unlocking lever	When raised, unlocks rear leg movement.
H	Rear wheel brake	When raised, locks the rolling of the wheels on which it has been engaged.
I	Front leg unlocking lever	When raised, unlocks front leg movement.
L	Front wheel unlocking lever (twist version only)	When engaged on models with the twist system, unlocks front wheel pivoting.
M	Variable height control lever	When engaged, unlocks movement toward the outside of the front leg, allowing the stretcher to be positioned at intermediate height.

**11. PROPER USE**


Primary medical evaluations must be carried out before the patient is moved, lifted or transported. Once the diagnosis has been made, it is preferable to advise the patient to actively contribute to the transition from bed to stretcher/chair, while at the same time informing them of the risks they may be running. Before loading the patient, bring the device as close as possible to the patient.

**11.1 EMERGENCY VEHICLE REQUIREMENTS**

The stretcher is designed to enter and exit the medical compartment of an ambulance. The vehicle requirements should be:

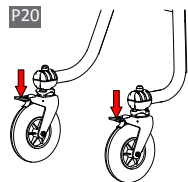
- Level stretcher floor
- Stretcher floor that is wide and long enough to accommodate the stretcher without becoming an obstacle

The wheels of the front legs must be at a safe distance of at least 5 cm from the ground during loading/unloading or when the loading trolley is still on the vehicle, to allow the front leg to open safely

 Failure to take the above measure will preclude safe use of the device, resulting in risk of damage to the patient, operators and the device itself.

**11.2 PARKING BRAKES (IMAGE P20)**

To engage the parking brakes, simply press on the strips on the rear wheel brackets with your foot. To disengage the parking brakes, simply press down on the opposite side of the parking brake pedal and they will return to their original position with a slight click. Never leave the patient unattended, even if the parking brakes have been engaged.



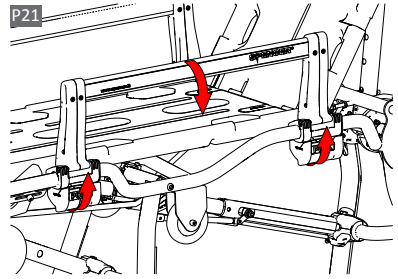
11.3 SIDEBARS - IMAGE P21

The stretcher is equipped with sidebars, which are necessary for restraining the patient on the stretcher.

**⚠ NEVER MOVE THE PATIENT AND NEVER LEAVE THE PATIENT ON THE STRETCHER WITHOUT FIRST RAISING THE SIDEBARS.**

Failure to heed this warning could cause serious damage.

To lower the sidebars, pull the levers located on the lower part of the machine, identified by the word **PULL** (letter G par.10), towards you simultaneously. The sidebar will open automatically. To close the sidebar, lift it back to its original position and check that it is correctly hooked by making a few repeated pulling movements. Make sure that nothing interferes with the locking systems when closing. Sheets, for example, could prevent proper closure.



11.4 ACTIVATING THE TWIST SYSTEM (IF PRESENT) - IMAGES P22 AND P23

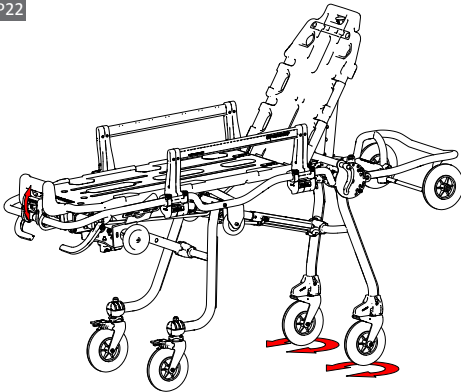
This system allows the front wheels to pivot. This rotation is unlocked by turning the lever on the patient foot side outwards. On the Cross Up 8409 and Cross Chair trolleys, if present, the system is unlocked by turning the handle L indicated in the functional specifications in the previous paragraph.

When unlocking the rotation is no longer necessary, reposition the control and push the stretcher forward firmly; the wheels will then be locked again.

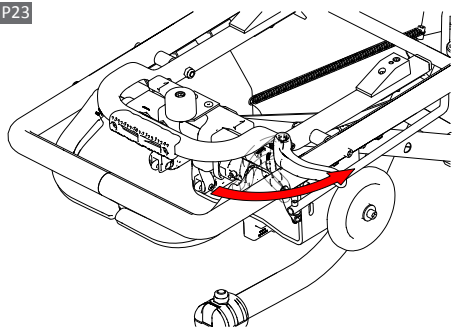
**⚠** When using the twist system, at least one additional operator must be present to steer the head end of the stretcher, as the stretcher is much more difficult to manoeuvre with all four wheels unlocked. .

**⚠** Be sure to carefully assess the ground conditions before operating the twist system, as the stretcher may move in an unexpected and uncontrolled manner.

P22



P23



11.5 LOWERING THE STRETCHER - IMAGE P24

To facilitate patient transfer, it is advisable to move the stretcher to the intermediate height position or to the lowered position if there is no patient present.

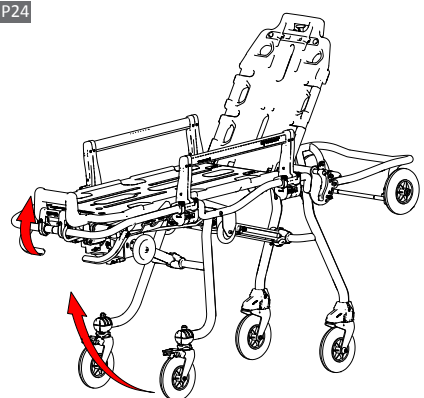
**Procedure for loading/unloading immobilized or hospitalized patients onto the stretcher at intermediate height:**

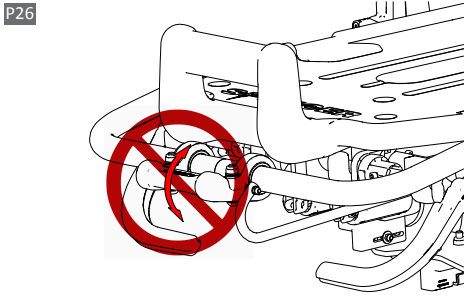
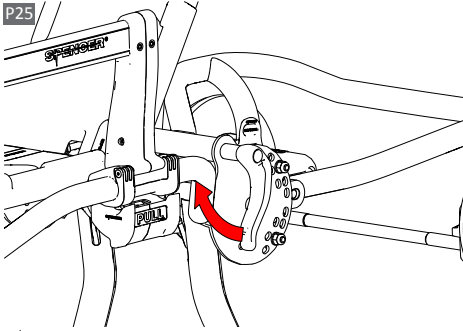
- Engage the rear leg unlocking lever, hold it in place and lift the stretcher slightly to unlock the rear leg moving mechanism. Lower the stretcher about 10 cm, release the unlocking lever and support the stretcher until the intermediate height position is reached. Make sure that the stretcher has reached a stable position. Engage the brakes on the rear wheels.
- To lower the front part of the stretcher, engage the red lever between the sidebars and the loading trolley, pushing the front leg slightly towards the loading trolley - **Image P25**. The weight of the stretcher, patient and any equipment attached to the stretcher must be supported. After starting the lowering motion, release the handle while keeping your grip on the frame until the stretcher reaches the intermediate height position. Make sure that the position reached is stable. .

**When loading a non-hospitalized patient.**

- 1 - Assist the patient as he/she climbs onto the stretcher, making sure that the first leg to be lifted rests on the footrest of the patient bed. When correctly positioned, help him/her raise the other leg.
- 2 - Immobilize the patient with the straps and raise the sidebars.
- 3 - Once the patient is lying on the stretcher and correctly immobilized, carefully lift the stretcher to a horizontal position.

P24





**⚠** On Crossover stretchers, when the stretcher is moved to intermediate height, the TWIST system control lever automatically moves to the UNLOCK position. **DO NOT ENGAGE THE LEVER WITH THE BAR AT INTERMEDIATE HEIGHT BECAUSE THE MECHANISMS COULD BECOME DAMAGED - Image P26.** Once the stretcher has been returned to the standard height, return the lever to its original position.

**Lowering the stretcher to the ground**

This procedure allows the stretcher to reach the minimum distance from the ground.

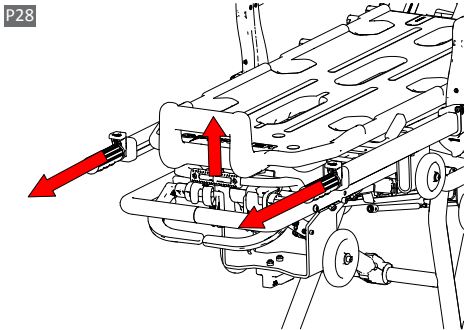
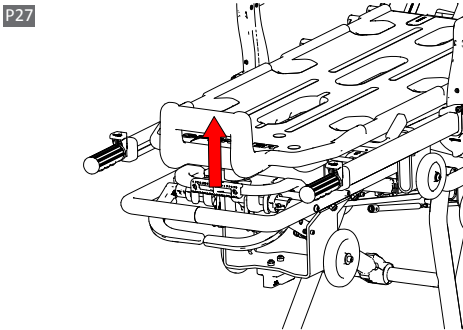
**⚠** This manoeuvre cannot be carried out when a patient is on the device.

- Raise the stretcher from the side of the levers until the loading trolley wheels rest on the ground.
- With the loading trolley wheels resting on the ground and ready to bear the weight of the stretcher, engage both leg unlocking levers, push towards the stretcher to unlock the front leg moving system and then the stretcher towards the ground. The stretcher is now in the lowest position.

*Note: The parking brakes will not perform their function when the stretcher is fully lowered. Make sure that the stretcher is held in place by at least one operator.*

**11.6 RELEASING THE STRETCHER FROM THE TROLLEY (CROSS UP AND CROSS CHAIR) – IMAGES P27 AND P28**

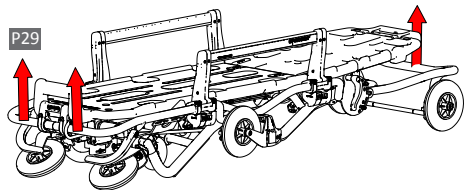
- Brake the trolley with the parking brakes.
- Engage the corresponding control (lever) and pull out the stretcher, sliding it about ten centimetres.
- Complete the operation by lifting the stretcher from the trolley.
- This operation requires at least two operators: one on the foot side of the stretcher to operate the controls, one on the head side to lift the stretcher. Extra operators are needed in the event of especially heavy patients or adverse conditions.

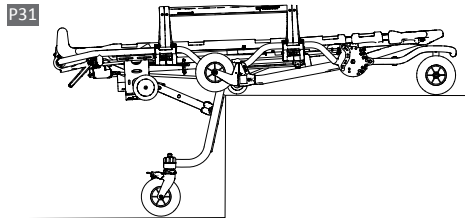
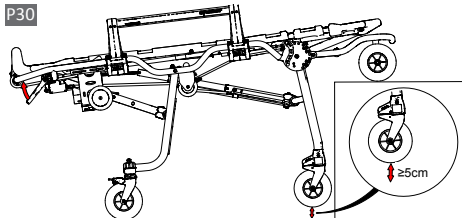


**11.7 RAISING THE STRETCHER – IMAGE P29**

To bring back the stretcher to the standard height, starting from any of the previous configurations, the operators must coordinate while simultaneously lifting the front and rear of the stretcher, ensuring the proper alignment of the patient bed. Do not carry out these operations until you have checked that the patient has been properly restrained with the strap and that the sidebars are raised.

- At the rear, grab the part of the frame near the footrest of the patient bed or, in the case of a stretcher with detachable stretcher, grab the telescopic handles after making sure that the stretcher is properly attached to the trolley.
- At the front, similarly, grab the frame above the loading trolley or, for stretchers with detachable stretchers, grab the telescopic handles after making sure the stretcher is properly secured to the trolley.
- Raise the assembly until the locking mechanisms are properly engaged.
- **⚠** Only use the frame of the stretcher or, in the case of stretchers with another stretcher, only use the telescopic handles for lifting.
- Do not use the boards or other areas that are not designed for this purpose.





**11.8 LOADING AND UNLOADING THE STRETCHER FROM THE MEDICAL VEHICLE - IMAGES P30 AND P31**

**⚠** Stretcher loading and unloading are among the most delicate steps during the use of stretchers. It is necessary to follow all the warnings in this manual very carefully, practising under simulated conditions before putting the product into service. The patient must always be properly immobilized. Always ensure that the conditions of use allow the front legs to open properly before any loading and/or unloading operations.

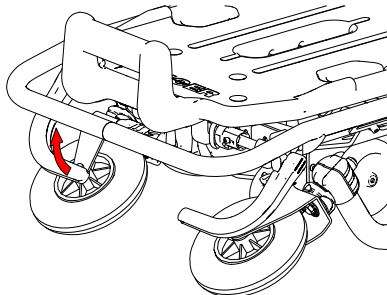
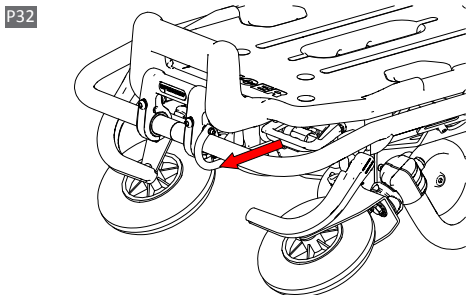
**To load the stretcher onto the vehicle:**

- The operator performing the loading should align with the stretcher and the fixing system so that both devices are in front of him/her and in the intended alignment for fixing.
- Move the wheels of the loading trolley forward into the vehicle until the front legs of the stretcher come into contact with the bodywork of the vehicle.
- In the event of a slide/ramp, the wheel of the loading trolley should be in a horizontal position before the front legs come into contact with the vehicle bodywork.
- Ensure that the wheels of the front legs are least 5cm from the ground. Failure to do so may result in serious damage and/or injury when unloading the stretcher from the vehicle.
- Engage the right red lever (letter E par.10) to unlock movement of the front legs while continuing to push the stretcher inside the vehicle until the rear legs are brought to a stop.
- Only after making sure that the rear legs are in contact with the bumper of the vehicle, engage the green lever to release the rear legs, continuing to push towards the inside of the vehicle compartment.
- **⚠** During these operations, a part of the weight of the assembly will rest on the operator, who must therefore be able to support and accompany all device movements.
- Lock the stretcher on the medical vehicle using the Spencer fixing system installed on the vehicle.

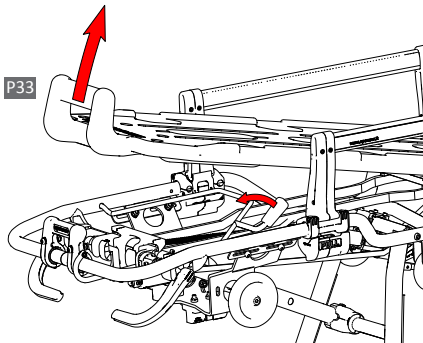
**⚠** Warning: DURING NORMAL STRETCHER MOVEMENTS, NEVER ENGAGE THE LEG LOCKING LEVERS, AS DOING SO COULD CAUSE THE STRETCHER TO FALL TO THE GROUND. THESE LEVERS MUST ONLY BE ENGAGED TO LOAD THE STRETCHER ON THE AMBULANCE OR TO REACH THE INTERMEDIATE HEIGHT AS DESCRIBED ABOVE. .

**To unload the stretcher from the medical vehicle:**

- If the stretcher is used with the Sensor Lock fixing system, release the stretcher by engaging the rear leg unlocking lever on the stretcher - Image P32.
- If the stretcher is used with the S-MAX or R-Max fixing system, the release must be made manually by pushing the unlocking lever on the fixing system.



- If the stretcher is equipped with a mechanical Sharp system, push the stretcher forward slightly and engage the corresponding control.
- **⚠** Pull the stretcher towards the outside of the vehicle, gripping the rear part of the frame near the footrest. Support the weight of the stretcher until you feel the rear leg locking system engage. **As with the loading phase, the operator must be able to support the weight of the device.**
- Do not grab the footrest or any other area not intended for handling as this may cause damage to the operator, the patient or the device.
- Pull the stretcher outwards until the front legs are fully open. **Do not lower the loading trolley from the loading surface until you have checked that the front leg locking system is properly engaged.**
- Finish extracting the stretcher from the vehicle.



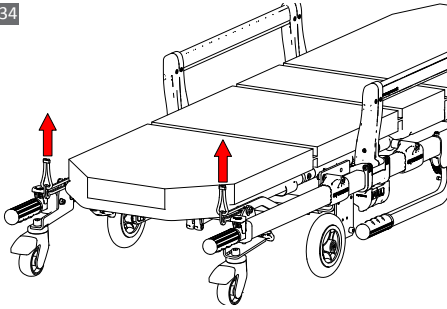
**11.9 TRENDLENBURG BOARD – IMAGE P33**

If your stretcher has a Trendelenburg position, lift the patient board by grasping the footrest and pull the selection lever shown in the illustration outwards into one of the grooves. There are 3 different possible inclinations in addition to the horizontal one.

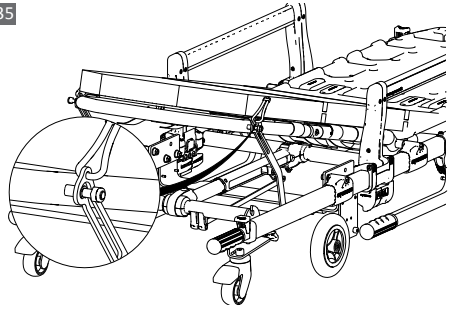
**Cross Chair Trendelenburg position – Image P34 and P35**

The device is equipped with a mechanism that allows the patient bed to be placed in the Trendelenburg position if the device is used in a stretcher configuration. To reach this position, lift the end of the board by grasping the two rings at its end. Ensure that the set screw is properly seated in its socket before releasing the rings. To change from the Trendelenburg position to the standard position, lift the patient bed slightly by grasping the end of the frame, check that the set screw is out of its socket, and then support the frame as it goes back down to the horizontal position.

P34



P35



**11.10 TRENDLENBURG/FOWLER BOARD – IMAGE P36**

If present, the Trendelenburg/Fowler movement allows the stretcher board to be raised in different positions, thus raising the patient's lower limbs.

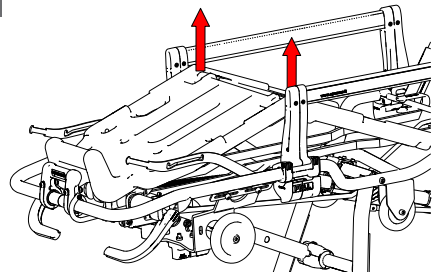
**Changing the board inclination from horizontal to Fowler position:**

If the stretcher allows board positioning in the Fowler position, lift the intermediate part near the patient's knees so that the pins on the sides of the patient bed are positioned in the slot of the metal rod closest to the sidebars. Make sure that the pins are properly inserted and attached to it, thus guaranteeing the stability of the bed in this position.

**Changing the board inclination from horizontal to Trendelenburg position:**

With one hand, support and raise the board by gripping the footrest, select the Trendelenburg position by placing the screw in the board in the slot of the metal rod closest to the control handle. Make sure that the screw inserts into the correct housing and is attached to it.

P36



**11.11 BACKREST ADJUSTMENT – IMAGE P37**

Always inform the patient before making adjustments.

**Changing the backrest inclination from a horizontal to vertical position:**

Lift the backrest until the first position is reached, where the backrest will automatically lock. Follow the same procedure to reach the next positions, always checking the correct engagement of the locking system.

**Changing the backrest inclination from a vertical to horizontal position:**

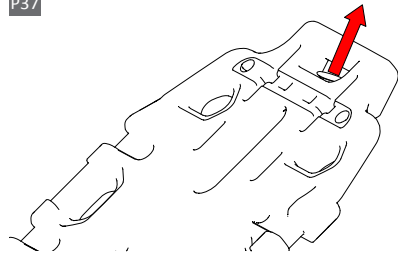
Support the backrest with one hand (to prevent unexpected movements) and take away the weight from the backrest by moving it upward.

At the same time, pull the knob on the backrest piston upward until the safety mechanism unlocks. Then, supporting it with the other hand, lower the backrest toward the horizontal position until you reach the desired height and then release the knob to the rest position.

To reach subsequent positions, lift and support the backrest. Always lift the weight of the backrest before pulling the knob. Incorrect procedure could permanently damage the backrest piston.

In Cross Chair, when in chair mode, it is always necessary to bring the backrest into a position parallel to the frame.

P37

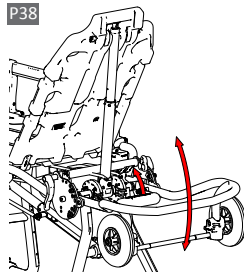


**11.12 CHANGING THE STRETCHER LENGTH (CROSS AND CROSSOVER ONLY) – IMAGE P38 AND P39**

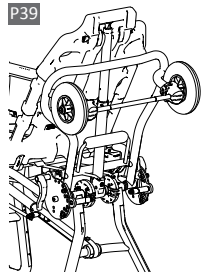
The maximum length of the stretcher can be reduced as follows to facilitate bringing the Spencer Cross stretcher in especially confined spaces (i.e. lifts):

- Raise the backrest of the stretcher to a vertical position.
- Hold the loading trolley securely and unlock it by pressing down or lifting the unlocking lever as shown in the adjacent image.
- Slowly lift the loading trolley with one hand until it is locked in the loading trolley stops.
- To return the trolley to the horizontal position, unlock it using the unlocking lever, supporting it as it lowers and, again using the lever, align the trolley with the dedicated stops.

P38



P39



**11.13 TELESCOPIC HANDLE OPERATION - IMAGE P40 AND P41**

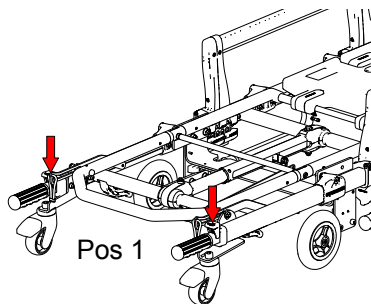
- To pull out the telescopic handles, press the red button on the top and pull the handles out slightly. After a stroke of about 2cm, release the buttons and pull the handles until the next locked position is reached, which will lock automatically.
- When the locked position is reached, check that it is secure by trying to retract the handles without operating the release buttons.

**For Cross Chair stretchers only:**

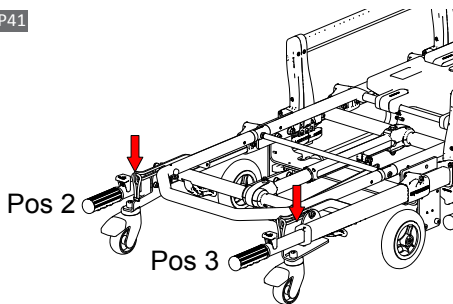
The rear handles have 3 positions that serve different functions:

**Position 1:** This is the position that allows the device to maintain the stretcher configuration. It is the only one that is allowed to be used in stretcher mode.

P40



P41



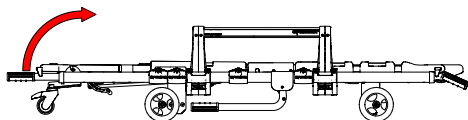
**Position 2:** This is the position that unlocks the moving mechanism for configuration change and can be used when transporting the device in chair mode on flat surfaces.  
**Position 3:** This is the position to be used when transporting the device on stairs.

#### 11.14 CHANGING THE CROSS CHAIR CONFIGURATION (STRETCHER MODE -> CHAIR MODE) – IMAGE P42 – P43 – P44 – P45

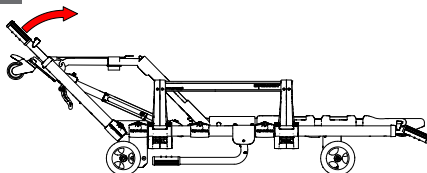
The change from stretcher mode to chair mode is carried out in 3 steps:

- With the Cross Chair placed on the floor in stretcher mode, pull out the rear handles and bring them into Position 2. This unlocks the moving mechanism.
  - Raise the patient's feet until the locking system engages, which will be activated when the patient's seat reaches approximately 90°.
  - At this point, it is possible to lift the front part of the Cross Chair using the telescopic handles until it is upright.
- The seat support frame is now resting on the floor and, exerting friction on the surface, partially performs the function of a parking brake.

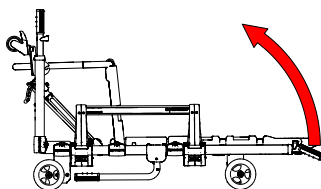
P42



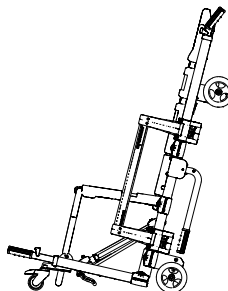
P43



P44



P45



#### 11.15 CHANGING THE CROSS CHAIR CONFIGURATION (CHAIR MODE -> STRETCHER MODE) – IMAGE P 46

- To return the Cross Chair to stretcher mode, position it so that the 4 wheels with the largest diameter are resting on the ground.
- Pull the chair position unlocking lever by rotating it approximately 45° as shown in the figure. The locking mechanism is now disengaged.
- Support the movable part of the frame as it moves towards the ground.

**Caution – Hazard of crushing fingers**

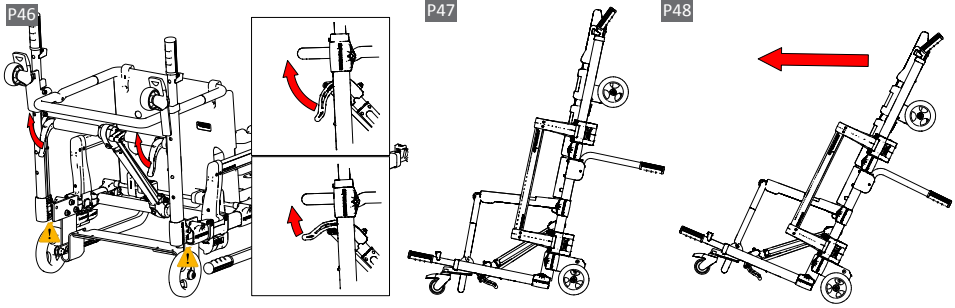
**⚠** Make sure that your hands or those of other operators or other objects are not in the area where the mobile frame joins the fixed frame, highlighted in the figure with the warning symbol.

Return the rear telescopic handles to **Position 1**. The patient can only be lifted after checking that these are fully inserted and locked and that the mobile frame is attached to the main frame of the Cross Chair.

#### 11.16 TRANSPORTING THE CROSS CHAIR ON STAIRS OR IN CONFINED SPACES – IMAGE P47 AND P48

Several operators are required, at least one at the front and at least one at the back, when transporting the device on stairs or in confined spaces. It is advisable to use the device in *chair mode* to facilitate the operators during manoeuvres for this type of transport.

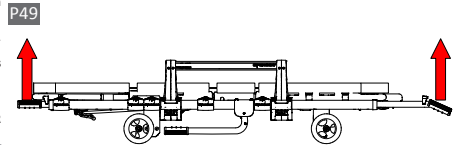
- Move the rear pull-out handles to **Position 3**.
- Pull out the rear handles.
- The siderails must be in the closed position in order to best contain the patient.
- The rescuers must coordinate their lifting to start at the same time.
- Once on a flat surface, the rescuer should consider whether to continue transport in chair mode or to change the device back to *stretcher mode*. To continue transporting in *chair mode* on flat surfaces, return the pull-out handles to Position 2 to avoid unnecessary encumbrances, close back up the rear handles and make sure they reach their rest position (parallel to the frame). Tilt the Cross Chair and slide it on the rear wheels. If the rescuer deems it more efficient to transport the Cross Chair in stretcher mode, change the configuration as described in the next paragraph.



**11.17 LIFTING THE STRETCHER WITH PATIENT – IMAGE P49**

- Secure the patient to the stretcher with the straps provided, adjusting the tension correctly according to the patient’s clinical condition.
- Positioning the operators at the ends of the stretcher (one at the feet and one at the head)
- Using an adequate lifting technique to avoid fatigue, operators must grab firmly at both ends. Raise the stretcher.
- For easier lifting, the front handles can be pulled out as described in the previous step.

**⚠ Do not pull out the rear handles under any circumstances when lifting with Cross Chair. You must make sure that the handles are completely inserted and locked.**



**11.18 LOADING THE CROSS CHAIR STRETCHER/CHAIR ONTO THE CROSS CHAIR TROLLEY – IMAGE P50**

Before loading the Cross Chair onto the Cross Chair trolley, it is necessary that:

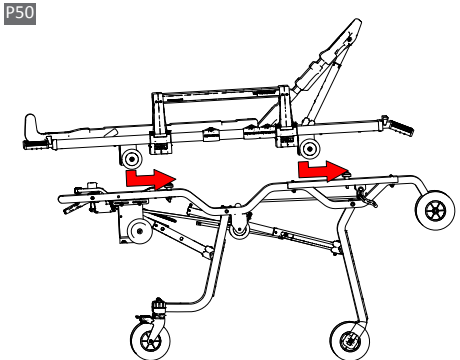
- The rear telescopic handles are in Position 1 and that the configuration change mechanism is correctly locked.
- The rear handles are folded and perfectly parallel to the stretcher frame.

**For both Cross Up 8409 and Cross Chair:**

- The front pull-out handles can preferably be pulled out or closed.
- **The siderails of the stretcher must be raised.**
- The trolley parking brakes (normal and intermediate position) must be engaged or other operators must ensure that the trolley is stationary.
- Check that the trolley bed is free of any foreign objects (hands, sheets, accessories).
- Lift the stretcher and place it on the trolley without altering the previously defined alignment.

**⚠ Check again that no operators have inadvertently placed their hands anywhere on the frame between the stretcher and the trolley, as there is a hazard of crushing fingers.**

- Once you have checked that the stretcher is correctly centred on the trolley and that the wheel supports are resting on the trolley slide profile, you can push the stretcher forward until the locking mechanism engages.
- Make sure that no fabric or accessories have interfered with insertion of the locking mechanism between the stretcher and the trolley.
- Close the pull-out handles before moving the trolley and stretcher assembly.



**11.19 RESTRAINT STRAPS**

To apply the two-piece restraint straps, identify a portion of the frame at chest height and one at the patient’s leg level. The restraint straps should be applied in a position that allows for adequate immobilization of the patient.

Secure to the frame by means of a slipknot – **Image P51**

The restraint straps supplied with the stretcher must be fastened immediately after positioning the patient.

To do this, insert the male buckle into the female buckle – **Image P52**

When using the chest strap, the male buckle must be passed through the appropriate slots in the metal ends of the chest straps – **Image P53**.

Tension the straps after attaching them – **Images P54 and P55**

When the patient is to be moved from the stretcher at the end of use, release the straps by pressing the release button marked “PRESS” – **Images P56 and P57**. Then open the stretcher siderail on the side towards which you want to lower the patient from the stretcher.

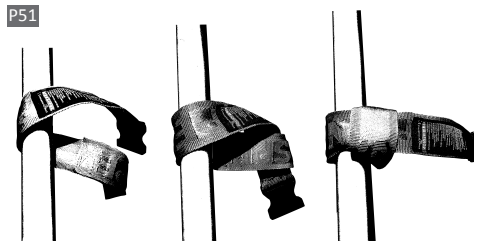
**DNA STRAP:** DNA straps are suitable for use with stretchers equipped with a patient bed with special housing.

Follow the instructions below to apply them, if they have not already been installed at the factory – **Images P58, P59, P60, P61:**

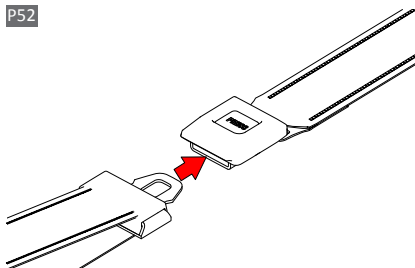
- 1 – Remove the strap from the seat present on the re-winding system.
- 2 – Insert the DNA system, keeping the belt taut, into the special cavity on the body of the bed. The male and female straps must be on the left and right of the platform, respectively.
- 3 – Put the belts back into the hole on the DNA re-winding system and complete the installation.
- 4 – Proceed in the same way for thorax systems.

After positioning the patient, fasten the straps and check that they are correctly applied.

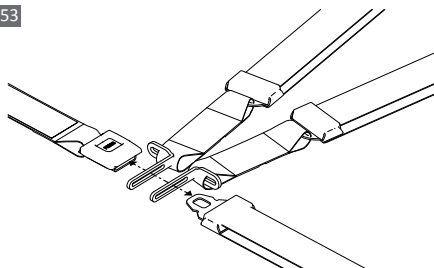
**⚠ DNA straps are not equipped with a pre-tensioner. It is therefore necessary to manually adjust them after fastening them, tensioning the straps and bringing the re-winding system to the end of the stroke.**



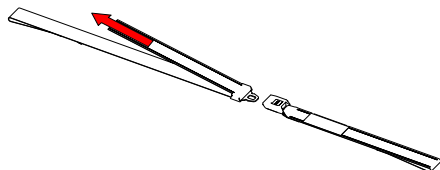
P52



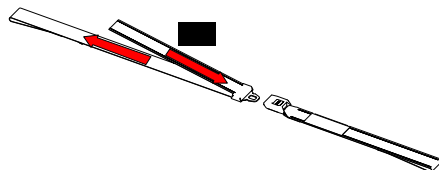
P53



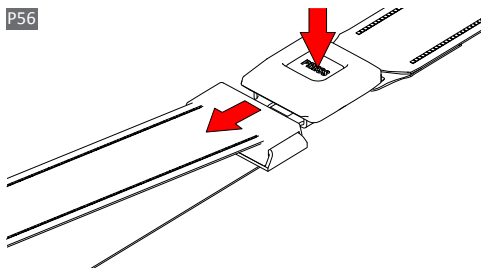
P54



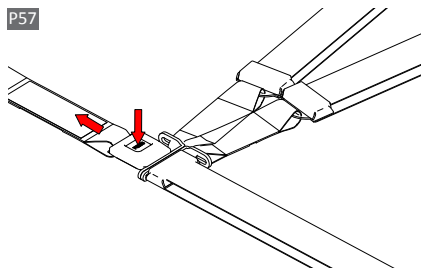
P55



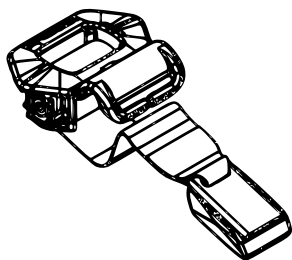
P56



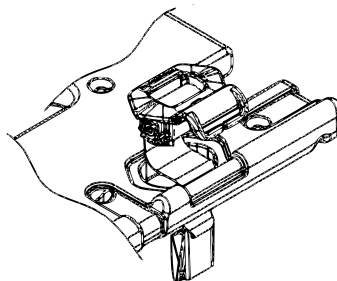
P57



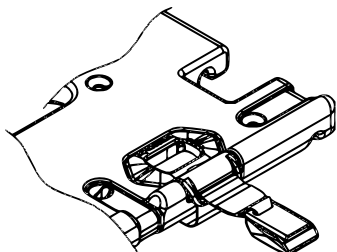
P58



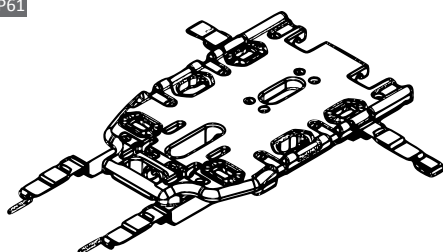
P59



P60



P61



## 12. CLEANING AND MAINTENANCE

Spencer Italia S.r.l. declines all responsibility for any direct or indirect damage which is the consequence of improper use of the product and spare parts and/or in any case of any repair carried out by a person other than the Manufacturer, who uses internal and external technicians authorised to do so; moreover, doing so will invalidate the warranty.

- The operator must wear suitable personal protective equipment, such as gloves, goggles, etc. during all checking, maintenance and cleaning operations.
- Establish a maintenance schedule, periodic inspections and extend the average life span, if foreseen by the Manufacturer in the User Manual, identifying a reference person who meets the basic requirements set forth in the User Manual.
- **The frequency of inspections is determined by factors such as legal requirements, type of use, frequency of use, and environmental conditions during use and storage.**
- Repairs of products manufactured by Spencer Italia S.r.l. must be carried out by the Manufacturer, who shall make use of specialised internal or external technicians who, using original spare parts, shall provide quality repair service in strict compliance with the technical specifications indicated by the Manufacturer. Spencer Italia S.r.l. declines any responsibility for any direct or indirect damage which is a consequence of improper use of spare parts and/or any repair work carried out by unauthorised parties.
- Use only original or Spencer Italia S.r.l. approved components/spare parts and/or accessories in order to carry out all operations without causing alterations or modifications to the product.
- All maintenance and overhaul activities must be recorded and documented with the relevant technical operation reports. This documentation must be kept for at least 10 years after the end of the product's life and must be made available to the competent authorities and/or the Manufacturer when requested.
- Cleaning, provided for reusable products, must be carried out in accordance with the Manufacturer's instructions in the User Manual in order to avoid the risk of cross-infection due to the presence of body fluids and/or residues.
- The product and all its components must be washed and left to dry completely before storage.
- If the product requires lubrication, this must be done after cleaning and complete drying.
- The dedicated stretcher fixing system is equipped with a system that signals the need for stretcher maintenance and of the fixing itself linked to the cycles of use. Strictly observe the required maintenance intervals.
- Document maintenance using the form in Annex B of this manual or other appropriate forms.

### 12.1 CLEANING

Failure to carry out the correct cleaning operations could increase the risk of cross-infection due to presence of body fluids and/or residues. The operator must wear suitable personal protective equipment, such as gloves, goggles, etc. during all checking and cleaning operations.

Metal parts exposed to external agents undergo surface treatments and/or coating in order to obtain better resistance. Clean the exposed parts with water and delicate soap. **Never use solvents or stain removers.**

Do not use cleaning agents containing sodium hypochlorite as corrosion of components may occur.

Rinse thoroughly with lukewarm water, making sure you have removed all traces of soap, which may deteriorate or compromise conditions and durability. **Avoid using high pressure water**, as it penetrates the joints and removes lubricant, creating the risk of corrosion on components. Let dry completely before storing. Drying after washing or after use in a wet environment must be natural and not forced. Do not use flames or other direct heat sources.

If **disinfecting**, use products that do not have a solvent or corrosive action on materials constituting the device. Be sure to take all precautions to ensure that there is no risk of cross-infection or contamination of patients and operators.

### 12.2 ROUTINE MAINTENANCE

Establish a maintenance program and periodic checks, identifying a designated reference person. The person entrusted with device maintenance must ensure the basic requirements envisaged by the manufacturer in the following paragraphs.

All routine and special maintenance activities and all general overhauls must be recorded and documented with the relevant technical intervention reports. This documentation must be kept for at least 10 years after the end of the device's life and must be made available to the competent authorities and/or the Manufacturer when requested.

To ensure the traceability of the products and protect maintenance and service procedures on your devices, Spencer has made the SPENCER SERVICE [service.spencer.it](http://service.spencer.it) available to you. From this site, you can view the data of the products in your possession or placed on the market, monitor and update schedules for periodic checks and view and manage special maintenance.

Routine device maintenance must be carried out by operators with specific qualifications, training and instruction in the use and maintenance of the device.

The operator must wear suitable personal protective equipment, such as gloves, goggles, etc. during all checking, maintenance and cleaning operations.

Checks to be carried out before and after each use and at deadline indicated above, are as follows:

- General functionality of the device
- Cleanliness of the device (remember that the failure of cleaning may cause the risk of cross infections)
- Correct tightening of all nuts, bolts and screws
- Absence of cuts, holes, tears on the structure, including the straps
- None of the tubes or metal sheets present bends or cracks
- Welded areas are intact, without any cracks or breaks
- Moving parts, wheels, levers, handles are intact and work properly
- Lubrication of moving parts
- Conditions of use of wheels and brake system
- The wheels are correctly fixed, are stable and turn properly
- The wheels are free of debris
- The device opens and locks properly
- The device opens and closes properly
- Functioning of springs
- The stretcher easily enters the ambulance
- The medical vehicle is equipped with a Spencer fixing system intended for the stretcher
- The coupling between the fixing system and the stretcher is suitable to guarantee the safety of the fixing.

The frequency of inspections is determined by factors such as legal requirements, type of use, frequency of use, and environmental conditions during use and storage.

Please note that cleaning must be carried out as described in this manual and that functionality must be verified before and after each use. Spencer Italia S.r.l. declines any responsibility for improper functioning or damages caused to the patient or user by the use of devices not subject to routine maintenance and will void the warranty and compliance to Medical Device Directive 2017/745/EU.

Use only original or Spencer Italia S.r.l. approved components/replacement parts and/or accessories to carry out any operation without causing alterations or modifications to the device. Otherwise, we decline all responsibility regarding incorrect operation or any damage caused by the device to the patient or the operator, invalidating the warranty and invalidating compliance with Regulation 2017/745/EU Medical Devices.

### 12.3 PERIODIC OVERHAUL

The device must be overhauled every year by the Manufacturer, who uses internal and external technicians specialised and authorized by the Manufacturer itself.

In the absence of an above-mentioned overhaul, the device must be **DECOMMISSIONED**, as compliance with Regulation 2017/745/EU will cease and, despite the CE marking, the device will no longer meet the safety requirements guaranteed by the Manufacturer at the time of supply.

Spencer Italia srl declines any responsibility for incorrect operation or damage caused by use of devices that have not been regularly serviced.

The mattress and straps shall be replaced every two years.

Only overhaul activities carried out by specialised technicians authorised by the Manufacturer are considered valid by Spencer Italia S.r.l.

#### 12.4 SPECIAL MAINTENANCE

Special maintenance can only be carried out by the Manufacturer, who uses internal and external technicians specialised and authorised by the Manufacturer itself.

Only maintenance activities carried out by specialised technicians authorised by the Manufacturer are considered valid by Spencer Italia S.r.l.

The end-user can replace only the spare parts indicated in § 15.

#### 12.5 LIFE SPAN

The device, if used as described in the following instructions, has a life span of 5 years from the date of purchase, which can be extended following annual overhauls.

Overhauls must be carried out by the Manufacturer, who uses internal and external technicians specialised and authorised by the Manufacturer. In the absence of such annual overhauls, the device must be **DISPOSED OF ACCORDING TO THE INFORMATION IN PARAGRAPH 16 AND NOTIFICATION MUST BE GIVEN TO THE MANUFACTURER**. The life span may be extended at the sole discretion of the Manufacturer or authorised centre if the safety requirements of the device are still met.

Spencer Italia S.r.l. will accept no responsibility for incorrect operation or damage caused by the use of devices that have not been overhauled by the Manufacturer or authorized centre, or that have exceeded the maximum allowable life span.

### 13. TROUBLESHOOTING TABLE

PROBLEM	CAUSE	REMEDY
The leg unlocking levers don't work properly or are difficult to operate.	The moving mechanisms are damaged.	Immediately remove the device from service and contact the service centre.
	Means of connection between components have been lost.	Immediately remove the device from service and contact the service centre.
The stretcher is not correctly attached to the fixing system.	Wear or damage of the components that constitute the locking mechanisms.	Immediately remove the device from service and contact the service centre.
	The fifth wheel has not been properly inserted in the fixing system.	Position the stretcher properly and check that the fifth wheel enters the dedicated part on the fixing system.
Damage to the structure	Improper use	Immediately remove the device from service and contact the service centre
It is not possible to set the stretcher in intermediate position.	The moving mechanisms are damaged.	Immediately remove the device from service and contact the service centre.
	Something is interfering with the moving systems.	Make sure that nothing is interfering with the mechanisms.
	Levers have not been properly operated.	Carefully follow the instructions to place the stretcher in the intermediate position.
The front legs do not lock when unloading from the medical vehicle.	The moving mechanisms are damaged.	Immediately remove the device from service and contact the service centre.
	The height of the loading floor is not suited to the device, the safety height is not being respected.	Adjust the loading floor height to meet the requirements described in this manual. If the loading floor does not allow adjustments, immediately remove the device from service and contact the service centre.
When the stretcher release lever is operated, the stretcher does not move from the fixing system and remains attached.	The magnet controlling the release, located inside the fifth wheel holder, has moved or been lost.	Manually unlock the stretcher and finish the unloading operation. At the end of service, check the positioning of the magnet, then restore its original position. If the problem persists, immediately remove the device from service and contact the service centre.
	The Sensor Lock fixing system is not powered, is locked or is faulty.	Check the fixing system power supply. If the problem persists, immediately remove the device from service and contact the service centre.
	The stretcher is used with a fastener that does not provide automatic release.	If necessary, request a different fixing system.
The Cross Chair configuration change system is not working properly or is difficult to operate.	The moving mechanisms are damaged.	Immediately remove the device from service and contact the service centre.
	Parts not lubricated.	Clean and lubricate as described in the operating instructions.
The attachment of the stretcher to the trolley is not secure.	Damaged rear handle locks.	Immediately remove the device from service and contact the service centre.
	Wear or damage of the components that constitute the locking mechanisms.	Immediately remove the device from service and contact the service centre.
In Cross Chair in chair mode, the backrest does not remain in the upright position.	The lock has not been inserted in the vertical position.	Using the rod, check that the lock has been inserted in the correct position.
	The locking systems are worn.	Immediately remove the device from service and contact the service centre.
It is not possible to lift Cross Chair in stretcher mode because the frame bends.	The configuration lock does not engage.	Check that the pull-out handles reach Position 1. If the problem persists, contact the service centre.
In Cross Chair, it is not possible to switch from chair mode to stretcher mode.	The rear telescopic handles have been moved to Position 1 during use in chair mode.	Move the rear telescopic handles to Position 2 and proceed with the configuration change.

#### 14. ACCESSORIES

ST42706C	10G SENSOR LOCK FIXING SYSTEM
ST42702C	Hook R-MAX B certified 10G
IF01047C	TRACK 4-30 – TELESCOPIC IV HOLDER
EN90003C	END-T 10G INSTRUMENTS TABLE
CB09028C	TANKER FIXING SUPPORT FOR SAFEBAR
CB09025C	TANKER YELLOW OXY. TANK HOLDER FOR STRETCHER SIDERAIL FIXING

ST00491A	STX 90 TELESCOPIC HEADREST FOR STRETCHERS
CR90010B	Adapter for loading trolley wheels
CR90011B	S-MAX/HUX LOADING TROLLEY EXTENDER
CR90012C	LOADING TROLLEY ADAPTER FOR S-MAX/HUX
ST70002A	STX 702 Two piece metal black reflex strap, black
ST70000A	QMX 777 Anatomical segmented, watertight mattress, black
ST70005A	QMX 777 Anatomical segmented, watertight mattress, yellow
ST70004A	QMX 777 Anatomical segmented, watertight mattress, orange
ST70019A	QMX 777 Anatomical segmented, watertight mattress, green
ST70020A	QMX 777 Anatomical segmented, watertight mattress, blue
ST70018A	QMX 777 Anatomical segmented, watertight mattress, black
ST70006A	Mattress fastening strap
CB09025C	Tanker yellow oxygen tank for stretcher siderail fixing
CB09026C	Siderail fixing support for tanker oxygen tank
ST00497B	DNA Strap chest strap with re-winding system
ST00498B	DNA Strap with re-winding system
ST00499B	STX 499 - UNIVERS ADJUST. 4-PC. CHEST STRAP
ST00592A	STX 592 - YELLOW METAL 2-PC. METAL HOOK STRAP
CR90021B	Ø60×25 wheel kit for top loading exceeding 670 mm

## 15. SPARE PARTS

ST70002A	STX 702 Two piece metal black reflex strap, black
ST70000A	QMX 777 Anatomical segmented, watertight mattress, black
ST70005A	QMX 777 Anatomical segmented, watertight mattress, yellow
ST70004A	QMX 777 Anatomical segmented, watertight mattress, orange
ST70019A	QMX 777 Anatomical segmented, watertight mattress, green
ST70020A	QMX 777 Anatomical segmented, watertight mattress, blue
ST70018A	QMX 777 Anatomical segmented, watertight mattress, black
ST00499B	STX 499 - UNIVERS ADJUST. 4-PC. CHEST STRAP
ST00592A	STX 592 - YELLOW METAL 2-PC. METAL HOOK STRAP
ST00497B	DNA Strap chest strap with re-winding system
ST00498B	DNA Strap with re-winding system

## 16. DISPOSAL

When devices and their accessories are no longer suitable for use, they can be disposed of as normal municipal solid waste if they have not been contaminated by special agents. Otherwise, follow the regulations in force regarding disposal.

### Notice

The information contained in this document is subject to change without notice and is to be intended as a commitment by Spencer Italia S.r.l. subject to change.  
The images are included as examples and may vary slightly from the actual device.

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Prima emissione: 31/03/2021  
Rev. 1 31/03/2021  
Codice CCI5296

First issue: 31/03/2021  
Rev. 1 31/03/2021  
Code CCI5296