This appliance conforms with the Directive 93/42/CEE “Medical Devices”.

Guarantee of Quality system for the production and the final control of the products certified by the notifying body TÜV SÜD Product Service GmbH.

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First edition: 07/02/05
Rev.4: 06/06/17
Thank you for choosing a Spencer product

1.1 Aim and contents
The aim of this manual is to supply all the information necessary so that the client will not only attain adequate use of the appliance, he will also be capable of using the instrument in the most autonomous and secure way possible. This includes information regarding technical aspects, functioning, maintenance, spare parts and safety.

1.2 Conservation of the instruction manual
The instruction and maintenance manual must be kept together with the product, for the whole life of the device, inside the specially provided container and above all, away from any substances or liquids which could compromise perfect legibility.

1.3 Symbols used

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="symbol.png" alt="General or specific warning" /></td>
<td>General or specific warning</td>
</tr>
<tr>
<td><img src="symbol.png" alt="See instructions for use" /></td>
<td>See instructions for use</td>
</tr>
<tr>
<td><img src="symbol.png" alt="Lot number" /></td>
<td>Lot number</td>
</tr>
<tr>
<td><img src="symbol.png" alt="Serial number" /></td>
<td>Serial number</td>
</tr>
<tr>
<td><img src="symbol.png" alt="Product code" /></td>
<td>Product code</td>
</tr>
</tbody>
</table>

1.4 Servicing requests
For any information regarding the use, maintenance and installation, please contact the Spencer Customer Care Service on tel. 0039 0521 541111, fax 0039 0521 541222, e-mail info@spencer.it or write to Spencer Italia S.r.l. – Via Provinciale, 12 – 43038 Sala Baganza (Parma) - ITALY. In order to facilitate the assistance service, please always indicate or communicate the serial number (SN) or lot number (LOT) shown on the label applied on the box or on the device.

1.5 Demolition
When the devices are no more suitable for being used, if they haven’t been contaminated by any particular agents, they can be disposed of as normal solid waste, otherwise follow the current regulations about demolition.

1.6 Labelling
Each device has got an identifying label, positioned on the device itself and/or on the box. This label includes information about the Manufacturer, the product, CE mark, lot number (LOT). It must never be removed or covered.

2.1 General warnings
- The product must be used by trained personnel only, having attended specific training for this device and not for similar products.
- At least every 6 months, it is important to verify if updated User Manuals are available or there is any change involving your product. This information is freely available on the website http://support.spencer.it in the section “User manuals” and “Product Updates”.
- Training routines must be registered on a special register in which the names of those trained, of the trainers, date and place are indicated. This register which will certify the eligibility of the operators to use the Spencer device has to be kept for a period of 10 years after the disposal of the device itself. This register will be made available to the Competent Authorities and/or Manufacturer if requested.
- Spencer Italia S.r.l. is always at your disposal to plan trainings on products.
- Before carrying out any kind of operation on the appliance (training, installation, use), the operator must carefully read the enclosed instructions, paying particular attention to the correct safety precautions and to the procedures to be followed for installation and for correct use.
- If the instructions belong to another device and not the device received, inform the Manufacturer immediately and avoid use of the device.
- In the case of any doubts as to the correct interpretation of the instructions, please contact Spencer Italia S.r.l. for any necessary clarifications.
- Do not allow untrained persons to help during the use of the device, because they could cause damage to the patient or to themselves.
- Regularly check the appliance, carry out the prescribed maintenance and respect the average life span, as indicated by the Manufacturer in this User's Manual.
- Before each use of device the perfect operating state of the device must be checked as specified in the Instruction manual. If any damage or abnormalities which could in any way influence the correct functioning and the safety of the device, of the patient and or of the user are detected, the device must be immediately removed from service and the Manufacturer must be contacted.
- If any failure or incorrect functioning of the device is detected, it must be immediately substituted with a similar item so that the rescue procedures are guaranteed without any interruption.
- Use of the device in anyway other than described in this manual is forbidden.
- Do not alter or modify in any way the appliance; any such interference could cause malfunctions and injury to the patient and/or rescuer.
- The appliance must not in any way be tampered with (modification, adjustment, addition, replacement). In such cases all responsibility will be denied for any malfunctions or injuries caused by the appliance itself; moreover CE certification and product warranty will be considered void.
• Those who modify or have modified, prepare or have prepared medical appliances in such a way that they no longer serve the purpose for which they were intended, or no longer supply the intended service, must satisfy the valid conditions for the introduction onto the market.
• Handle with care.
• Ensure that all the necessary precautions are taken in order to avoid the hazards that can arise as the result of contact with blood or body fluids.
• Register and store with these instructions: lot number, place and date of purchase, first date of use, date of checks, name of users, any comments.
• When the device is being used, the assistance of qualified staff must be guaranteed.
• Do not store the device under any heavy objects which could cause structural damage.
• Store in a cool, dry, dark place and do not expose to direct sun.
• Store and transport device in its original packaging.
• The device not be exposed to or come into contact with any source of combustion or inflammable agents.
• Position and adjust the device taking care not to cause any obstruction to rescuers and or any other rescue equipment.
• Attention: laboratory testing, post production tests, instruction manuals cannot always consider every possible scenario for use. This means that in some cases the performance of the product could be notable different from results to date obtained. Instructions are continually being updated and are under tight surveillance of fully qualified staffs with adequate technical formation.
• With reference to the D. Lgs. 24th February 1997, n. 46 emended by D. Lgs. 25/01/2010, n. 37 – Acknowledgement of Directive 93/42/CEE and 2007/47/CE, we remind both public and private operators that they are obliged to report any accident that involves any medical device to the Ministry of Health and to the Manufacture as specified and within time given by the European regulations.

In addition, both public and private operators are obliged to inform the Manufacturer of any measures that should be adopted to make the steps necessary to guarantee the safety and the health of the patients and the users of any medical device.

As a Distributor or End Users of products manufactured and/or marketed by Spencer Italia S.r.l., you are strictly required to have a basic knowledge of any legal requirements applying to the devices contained in this supply that are in power in the goods final destination Country (including laws and norms regarding technical specifications and / or safety requirements) and therefore you are also strictly required to have the necessary knowledge to guarantee all aspects regarding the total conformity of the products to the regulations in the relevant territory.

Proactively notify Spencer Italia S.r.l. regarding any revisions to be made by Manufacturer in order to guarantee the conformity of the product to the territory’s legal specifications (including those resulting from rules and/or norms of other nature).

Act, with all due care and diligence, and contribute to ensure conformity to general safety requirements of all devices marketed in the territory, by providing final users with all necessary information for carrying out periodical checks on their devices, as specified in the relevant User Manual.

Actively contribute to product safety checks on products sold, by communicating any relevant risk analysis information both to the Manufacturer and to any competent authorities so that the necessary action can be promptly taken.

You are aware that in the event of any failure to conform to the above mentioned requirements you will be deemed fully responsible for all damages that might occur. Therefore we expressly disclaim any responsibility and/or liability for your non-compliance with the present “Regulatory provisions”.

2.2 Specific warnings

• Establish a maintenance program and periodic testing, identifying a reference employee. The person to whom the ordinary maintenance of the device is entrusted must ensure the basic requirements foreseen by the Manufacturer in the user’s manual.
• Training routines must be registered on a special register in which the names of those trained, of the trainers, date and place are indicated. This register which will certify the eligibility of the operators to use the Spencer device has to be kept for a period of 10 years after the disposal of the device itself. This register will be made available to the Competent Authorities and/or Manufacturer if requested.
• Use only accessories/spare parts that are original or approved by Spencer Italia S.r.l., in order to carry out any operation without causing any alteration or modification to the device, otherwise we assume no responsibility for the proper functioning or damage resulting from device to the patient or the operator and warranty and will be considered void according to the compliance to the Medical Device Directive 93/42/CEE.
• Always respect the maximum capacity of the device, as indicated in this user’s manual. Maximum load capacity means the total weight distributed according to the human anatomy. In determining the load of the total weight on the product, the operator must consider the weight of the patient, the equipment and the accessories. Moreover, the operator must consider that the overall dimensions of the patient do not reduce the functionality of the device.
• Never leave the patient unassisted on the device, because he may be injured.
• The device and all its components, after washing, should be allowed to dry completely before storing.
• Lubrication must be carried out after cleaning and complete drying.
• Avoid contact with sharp objects.
• Do not use the device if it is pierced, torn or frayed.
• Make sure, before lifting, that the operators have a firm grip on the device.
• Avoid pulling the device on rough surfaces.
• The device is a stretcher for patient transport and cannot be used as a stationing device.
• First practice with an empty stretcher in order to get used to the way in which the stretcher manoeuvres.
• For the use of the device, at least two operators in suitable physical conditions are needed; they must therefore have strength, balance, coordination, and common sense and must be trained on the correct functioning of the device Spencer stretcher.
• For techniques for loading particularly heavy patients, for rescue operations on steep ground or in unusual circumstances, it is recommended the presence of more operators (not just two as required under standard conditions).
• The maximum weight sustained by each rescuer must comply with requirements prescribed by the law of the Country, concerning Health and Safety at Work.
• Before each use, check the integrity of the belts and their hooks, as specified in the User’s Manual. In case of malfunction or damage that may compromise the function and safety of the device, patient or operator, it is necessary to replace the belts.
- Always immobilize the patient, lack of immobilization may cause serious damage.
- Make sure the mattress is properly secured/anchored to the frame/patient board of a stretcher.
- Make sure the sheet does not interfere with the footrest and do not prevent the operator from handling of the sidebars.
- Do not operate in case the weight has not been distributed correctly.
- The sidebars may be damaged due to improper use. Keep the sidebars always raised during patient transport.
- Always grasp the structure to lift and carry the stretcher and not the sidebars or polyethylene boards.
- Avoid extreme force during the loading procedure of the stretcher on the ambulance. Too much force may have negative effects on the functioning of the trolley.
- Keep the stretcher firmly if the patient is sitting.
- Use the stretcher only as described in this user’s manual.
- Do not alter or modify the stretcher arbitrarily to make it fit into the ambulance: the modification may cause unforeseeable functioning and damages to the patient and operators. In any case the warranty will be lost.
- Pay a lot of attention to possible obstacles (water, ice, debris, etc.) on the route of the stretcher, because they could cause loss of balance for the operator and compromise the proper functioning of the device. If you can not set the path free from obstacles, choose an alternative path.
- For gradients greater than 10 cm, the device must be raised, taking care to grasp the structure and not from the banks/platforms.
- Condensation, water, ice and accumulations of dust can affect the correct operation of the device, making it unpredictable and causing a sudden alteration of the weight that operators have to carry.
- The self-loading stretchers are certified for use with dedicated Spencer fastening systems, it is therefore forbidden the use of fasteners not approved by the Manufacturer. Fastening systems that have not been approved may alter the structural and functional characteristics of the stretchers.
- Once positioned the wheels of the loading trolley on the support surface of the ambulance, the wheels of the front leg must have a distance from the ground of at least 5/6 cm. Check regularly the loading height of the ambulance; if it is altered, the stretcher must be immediately set up by the Manufacturer or by an authorized centre. Otherwise we assume no responsibility for the proper functioning or damage caused by the device itself.
- Improper installation of the loading platform may cause structural damage and consequent injury to the weldings of the front legs.
- Improper installation of the loading platform may cause undesired operation of the device and cause harm to the patient and to the operator.
- Replace the wheels with original parts, in case of failure to stop the device.
- In order to meet the requirements of the standard UNI EN 1789, use only belts that have as anchor point the frame of the stretcher.
- To optimize patient’s immobilization, is necessary to use a thorax belt secured to the frame of the stretcher in addition to the supplied ones.
- Stretchers equipped with Sharp system require to check the proper operation of such system before and after each use.

2.3 Contraindications and side effects
The use of this device, if used as described in this manual, does not present any contraindications or collateral effects.

2.4 Physical requirements of the operators
Spencer Carrera Tec stretcher is destined to professional use only. The rescue operators must have the following minimum requirements:
- physical capacity for operating the device
- be able to seize the device firmly with both hands
- have strong back, arms and legs for lifting, pushing and pulling the stretcher
- have a good muscular coordination

The operators must be trained in efficient, effective and safe patient transport.
This stretcher requires the employment of at least two operators equipped with strength, balance, coordination and common sense.

Patient loading procedures for extremely heavy patients, operations in rough terrain and in particular situations more operators may be needed (not only two as in normal conditions).

The capacities of the various operators must be considered before determining his role in the employment of the stretcher.

3.1 Intended use
Spencer Carrera Tec is a self-loading stretcher for patient transport. It is a compact and light stretcher, useable in rescue operations on the streets and on rescue vehicles. The legs fold away independently, activating the dedicated commands during the loading procedure, while, during the unloading procedure, they open automatically. The device is equipped with a safety system on both its legs, which is activated automatically when the stretcher is loaded on the ambulance. The rigid mono-shell board, moulded in high density polyethylene is easy to wash. Its colour is obtained by a patented pigmentation. Large diameter, front fixed wheels, and rear turning wheels, to improve loading and transport. Sharp versions are equipped with a system installed on the command group of the stretcher, used to release the stretcher from the fastener S-MAX.
3.2 Main components

<table>
<thead>
<tr>
<th>n°</th>
<th>Description of component</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Frame</td>
<td>Steel</td>
</tr>
<tr>
<td>2</td>
<td>Lever for Trendelenburg selection and reset</td>
<td>Steel</td>
</tr>
<tr>
<td>3</td>
<td>Trendelenburg board</td>
<td>Polyethylene</td>
</tr>
<tr>
<td>4</td>
<td>Folding sidebars</td>
<td>Aluminium</td>
</tr>
<tr>
<td>5</td>
<td>Backrest piston</td>
<td>Steel</td>
</tr>
<tr>
<td>6</td>
<td>Folding backrest</td>
<td>Polyethylene</td>
</tr>
<tr>
<td>7</td>
<td>Loading wheel</td>
<td>Rubber polyurethane</td>
</tr>
<tr>
<td>8</td>
<td>Front legs</td>
<td>Steel</td>
</tr>
<tr>
<td>9</td>
<td>Front wheels</td>
<td>Rubber polyurethane</td>
</tr>
<tr>
<td>10</td>
<td>Opening/closing piston for front legs</td>
<td>Steel</td>
</tr>
<tr>
<td>11</td>
<td>Rear legs</td>
<td>Steel</td>
</tr>
<tr>
<td>12</td>
<td>Turning rear wheels with brake</td>
<td>Rubber polyurethane</td>
</tr>
<tr>
<td>13</td>
<td>Opening/closing piston for rear legs</td>
<td>Steel</td>
</tr>
<tr>
<td>14</td>
<td>Front legs folding lever</td>
<td>Nylon</td>
</tr>
<tr>
<td>15</td>
<td>Rear legs folding lever</td>
<td>Nylon</td>
</tr>
<tr>
<td>16</td>
<td>Anterior fixation support</td>
<td>Steel</td>
</tr>
<tr>
<td>17</td>
<td>Sidebars blocking system</td>
<td>Nylon</td>
</tr>
<tr>
<td>18</td>
<td>Rear locking system</td>
<td>Steel /nylon</td>
</tr>
<tr>
<td>19</td>
<td>Lever for selection of Trendelenburg and Fowler</td>
<td>Steel</td>
</tr>
<tr>
<td>20</td>
<td>Trendelenburg and Fowler patient board</td>
<td>Polyethylene</td>
</tr>
<tr>
<td>21</td>
<td>Sharp system (if present)</td>
<td>Steel/PE</td>
</tr>
<tr>
<td>22</td>
<td>Sharp system operating handle (if present)</td>
<td>Steel/Nylon</td>
</tr>
</tbody>
</table>

Vers. TF

Vers. T

3.3 Models
Following base models could be modified, with reference to codes and/or descriptions without any previous notification.

CA00018C  Carrera TF TEC High F/Chrome B/Black    CA60054C  Carrera S Tec Low F/Yellow B/Black 10G
CA10024C  Carrera S TEC Low F/Yellow B/Orange     CA60154B  Carrera T Tec High B/Black F/Chrome 10G
CA10030C  Carrera T TEC High F/Blue B/Black       CA60254C  Carrera TF Tec Low B/Black F/Yellow 10G
CA10031C  Carrera S Tec High F/Chrome B/Black     CA6105AC  Carrera T Tec High F/Yellow B/Black 10G
CA10051C  Carrera S Tec High F/Yellow B/Black     CA61124C  Carrera T Tec High F/Yellow B/Orange 10G
CA10054C  Carrera S Tec Low F/Yellow B/Black      CA61154C  Carrera T Tec High F/Yellow B/Black 10G
CA10154C  Carrera T Tec Low F/Yellow B/Black      CA61254C  Carrera TF Tec B/Black F/Yellow 10G
CA10155C  Carrera S Tec High F/Yellow B/Black     CA61125C  Carrera T Tec High F/Yellow B/Orange 10G
CA11024C  Carrera S Tec High F/Yellow B/Orange    CA61155C  Carrera T Tec High F/Yellow B/Black 10G
CA11054C  Carrera T Tec High F/Yellow B/Black     CA61254C  Carrera TF Tec B/Black F/Yellow 10G
CA11124C  Carrera T Tec High F/Yellow B/Orange    CA11154C  Carrera T Tec High F/Yellow B/Black 10G
CA11254C  Carrera TF Tec High F/Yellow B/Black
3.4 Technical data

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Technical data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (mm)</td>
<td>570</td>
</tr>
<tr>
<td>Length (mm)</td>
<td>1970</td>
</tr>
<tr>
<td>Sidebars length (mm)</td>
<td>680</td>
</tr>
<tr>
<td>Sidebars height (mm)</td>
<td>200</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>3.6</td>
</tr>
<tr>
<td>Loading capacity (kg)</td>
<td>36</td>
</tr>
<tr>
<td>Loading capacity TEC MAX (kg)</td>
<td>170</td>
</tr>
</tbody>
</table>

Dimensions and weight are subject to tolerances of ± 20 mm e ± 2 kg

3.5 Reference standards

<table>
<thead>
<tr>
<th>Reference</th>
<th>Title of document</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDD 93/42/CEE</td>
<td>European Directive about Medical Devices</td>
</tr>
<tr>
<td>Legislative Decree 24/02/1997, n. 46</td>
<td>Application of the 93/42/CEE Directive about Medical Devices</td>
</tr>
<tr>
<td>Legislative Decree 25/01/2010, n. 35</td>
<td>Modifications and additions to the 20/02/97 Decree n. 46</td>
</tr>
<tr>
<td>UNI EN 1865-1</td>
<td>Directives for stretchers and other patient transport equipment on ambulances</td>
</tr>
<tr>
<td>UNI EN ISO 14971</td>
<td>Application of risks managing to medical devices</td>
</tr>
<tr>
<td>UNI CEI EN 980</td>
<td>Graphic symbols used for medical devices labelling</td>
</tr>
<tr>
<td>UNI CEI EN 1041</td>
<td>Information supplied by the medical devices manufacturer</td>
</tr>
<tr>
<td>CEI EN 62366</td>
<td>Medical Devices - Application of the utilisation characteristics of engineering to medical devices</td>
</tr>
<tr>
<td>MEDDEV 2.4/1a-b</td>
<td>Guideline for the classification of medical devices</td>
</tr>
<tr>
<td>NB-MED 2.5.1 /Rec 5</td>
<td>Technical Documentation</td>
</tr>
<tr>
<td>MEDDEV 2.7.1</td>
<td>Clinical Data</td>
</tr>
<tr>
<td>UNI EN 1415</td>
<td>Clinical evaluation of the medical devices for human beings - Part 2: Clinical evaluation plans</td>
</tr>
<tr>
<td>UNI EN 1789</td>
<td>Medical vehicles and their equipment</td>
</tr>
</tbody>
</table>

3.6 Environmental conditions

Functioning temperature: from -10 to +50 °C
Storage temperature: from -20 to +60 °C
Relative humidity: from 5 to 95%

4.1 Transport and storage

Before transporting the appliance, make sure that it is correctly packaged ensuring also that there are no risks of shocks, bumps or falls during the transport itself.

Keep the original packaging for use in case of any further transport and for storage. Damage to the appliance caused during transport and handling is not covered by the guarantee. Repairs or replacement of the damaged parts are the responsibility of the client. The device must be stored in a dry, cool area away from direct sunlight. It must not be placed in contact with any substances or chemical agents which could cause damage and reduce safety characteristics.

4.2 Preparation

On receipt of the product:
- Remove the packaging and display the material so that all components are visible.
- Check that all the components/pieces on the accompanying list are present.

The appliance must be checked before every use so as to reveal any working abnormalities and/or damage caused by transport and/or storage. In particular, check:
- General functionality of the device
- Cleanliness of the device (remember that the failure of cleaning may cause the risk of cross infections)
- Absence of cuts, holes, tears on the structure, including the straps
- Correct fixation of all nuts, bolts and screws
- Correct fixation of straps
- Correct fastening of straps
- State of use (moving parts, wheels, belts)
- Integrity of components
- Lubrication of moving parts
- When taking out for the first time the stretcher from its box, the its legs should bend and lock properly
- Backrest and Trendelenburg work the same way and lock properly
- Sidebars are raised and lowered properly
- State of use of wheels and breaking system
- Functioning of springs
- The stretcher can easily get in the ambulance
- The emergency vehicle is equipped with a fastening system dedicated to the Spencer stretcher
- There are seat belts for the immobilization of the patient and they are intact and functioning
- Weldings are intact, no cracks or breaks
- No piping or metal sheet present bends or cracks
- The backrest has no structural damages or fissures
Carrera Stretchers have different Loading heights depending on the model:

<table>
<thead>
<tr>
<th>Model</th>
<th>Undercarriage wheel height (cm)</th>
<th>Loading floor height (Vehicle loading floor VLF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tec Low</td>
<td>50</td>
<td>56 ± 1</td>
</tr>
<tr>
<td>Tec Height</td>
<td>60</td>
<td>66 ± 1</td>
</tr>
<tr>
<td>Tec 63</td>
<td>63</td>
<td>69 ± 1</td>
</tr>
<tr>
<td>Tec 68</td>
<td>68</td>
<td>74 ± 1</td>
</tr>
<tr>
<td>Tec 73</td>
<td>73</td>
<td>79 ± 1</td>
</tr>
</tbody>
</table>

Note: by installing the accessory CR90020B, is possible to reduce the undercarriage wheel height of approximately 5cm. For installations requiring the use of accessories, contact the manufacturer. Stretcher's installation procedures, may require adjustments according to the type of fastener being used. These adjustments should consider that, in loading conditions and simulated load with the loading carriage placed on the ambulance floor, the wheel of the front legs should have a ground clearance of at least 5/6 cm.

<table>
<thead>
<tr>
<th>Fastener</th>
<th>( FA + FP ) not yet installed</th>
<th>( FA + FP ) already installed for another Spencer stretcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustment</td>
<td>Don’t carry out adjustments on the stretcher. Install the FA and FP fasteners placing them in order to obtain a proper coupling with the stretcher in its default factory settings</td>
<td>Check if the adjustments are appropriate to the new stretcher. If not, proceed as follows: Unlock the fifth wheel by slightly loosening the screws of the frame on both sides of the stretcher. Push the stretcher against the anterior fastener, then slide the fifth wheel until the extremity of the tube “B” is at a distance of about 2mm from the surface “A” of the rear fastener. Reached this position, tighten the screws again and verify that the fifth wheel is completely locked.</td>
</tr>
</tbody>
</table>
With the stretcher pushed against the anterior fastener, close the rear fastener verifying the it reaches the tube installed on the fifth wheel of the stretcher and that between the two parts the isn't more than 5mm.

<table>
<thead>
<tr>
<th>Fastener</th>
<th>R-MAX or S-MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAUTION: Factory setting of 10G Spencer stretchers are already suitable for use with R-MAX and S-MAX fasteners. The following adjustments could be necessary only as a result of change of loading height or if, for any reason, the coupling between the stretcher and the fastener is not correct.</td>
<td></td>
</tr>
</tbody>
</table>

Unlock the fifth wheel by slightly loosening the screws of the frame on both sides of the stretcher. Loosen in the same way the bolts of the wheels installed on the fifth wheel.

Push the stretcher against the front part of the fastener. Push the assembly and black lower part of the fifth wheel against the rear part of the fastener and with the stopper installed on R-MAX fasteners.

Insert an object with a thickness of about 1cm between the fifth wheel and the rear part of the fastener and verify that the fifth wheel has reached horizontal position.

Maintaining that position, tighten the screws and verify that the fifth wheel is properly locked. Check that the rear wheels are lying on the vehicle floor, then tighten the screws of such wheels. Remove the object placed before and verify that the clearance between the stretcher and front and rear parts of the fastener is not more than 5mm.
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.

**THE MEASUREMENT OF THE LOADING PLATFORM MUST BE TAKEN WITH THE AMBULANCE POSITIONED ON A UNIFORM AND PERFECTLY HORIZONTAL SURFACE AND WITH TWO OPERATORS SEATED IN THE PATIENT COMPARTMENT (SIMULATING A LOAD OF APPROXIMATELY 250 KG).**

If the vehicle is equipped with pneumatic or hydraulic suspensions, the loading height adjustment must be carried out taking into account the worsening condition of use and/or the operating one provided by the vehicle builder.

Problems during use and/or safety risks associated with such system, cannot be attributed to the manufacturer.

### 4.2.1 Requirements of the emergency vehicle

Spencer Carrera XL Tec has been designed for entering and exiting the patient compartment of an ambulance. The requirements of the vehicle are:

- levelled loading platform
- sufficiently wide and long platform with no obstacles for the stretcher

The front leg wheels (n° 9 paragraph 3.2), during loading/unloading, when the loading trolley is still on the emergency vehicle, must be at least 5/6 cm higher than the ground to allow correct and safe opening of the legs of the stretcher.

A lack of the above mentioned measurement may cause unsafe use of the device, with damage risks for the patient, the operators or for the device.

In order to make the loading procedure easier, it is recommended to take away any edges from the border of the loading platform. The stretcher must be fixed using Spencer fixing systems in a way in which any movement of the stretcher will be avoided, also in difficult driving situations. Try out the loading and unloading procedures with an empty stretcher before putting the stretcher into regular service.

### 4.2.2 Loading the patient on the stretcher

Before transferring, lifting or transporting the patient, primary medical evaluations have to be performed. Once the diagnosis has been assured, it is preferred (if possible) to suggest the patient to collaborate actively during the transfer onto the stretcher, making sure the patient is fully aware of all risks.

Before loading the patient, move the stretcher as close as possible to him.

### 4.3 Functioning

#### 4.3.1 Lowering the stretcher

Make sure the side bars are positioned upwards; otherwise the stretcher may be damaged.

Before lowering the stretcher, reach the place where to make all the following operations on/with the stretcher.

Lower the stretcher without patient, as follows:

- grab command handles of the Carrera XL Tec at the rear end "feet"
- lift the rear part "feet" of the stretcher, until the loading trolley wheels (n° 7 paragraph 3.2) touch the ground
- keeping a firm grasp on the stretcher and ready to sustain its weight, pull both command handles in order to close the legs (n° 14 e 15 paragraph 3.2)
- lower the stretcher, carrying its weight, until it touches the ground

Before loading the patient, while the stretcher is on the ground, make sure the underground is stable and horizontal; unstable and non-horizontal surfaces may affect the static balance of the stretcher.

Brake the front wheels (optional) when the stretcher is on the ground and do not forget to unblock them before raising the stretcher.

#### 4.3.2 Lifting the stretcher with patient

Fix the patient on the stretcher with the dedicated belts.

**The capacities of the various operators must be considered before determining his role in the employment of the stretcher.**

Two operators must be positioned at the edge of the stretcher, consider how many operators to employ according to the weight to lift and according to the capacities of each operator. Using an adequate lifting technique, make sure to grab the stretcher firmly at both ends. Lift the stretcher until the legs, front and rear, are open and completely blocked. Make also sure the underground is safe and stable.
4.3.3 Loading the stretcher onto the ambulance
Make sure the ambulance's doors are blocked correctly in open position, in order to avoid any hindrances. Make sure the sidebars are blocked in upward position, otherwise the stretcher may be damaged. During the loading operation:

- push the stretcher towards the rear door opening of the ambulance;
- push the stretcher onto the loading platform of the ambulance until the front legs touch the edge of the ambulance (bumpers and/or platform);
- the operator must make sure both wheels of the loading trolley are placed on the loading platform (safety position) and contemporarily evacuate the distance between the wheels on the front legs and the terrain (at least 5/6 cm);
- once the front legs touch the ambulance's bumpers, the operator must pull the red handle for unlocking the front legs (n° 15 paragraph 3.2), without pushing the stretcher;
- once pulled the handle, push the stretcher inside the ambulance, allowing the front legs to fold and close; avoid extreme bumping of the front legs against the ambulance's bumpers and/or loading platform; legs and related mechanisms could be damaged;
- insert the stretcher into the ambulance until the rear legs touch the bumpers and/or platform, then lift the stretcher slightly and pull the green handle (left) unlocking the rear legs (n° 16 paragraph 3.2) and complete the loading procedure of the stretcher;
- make sure the wheels of the loading trolley move into the dedicated anterior and posterior Spencer fastening systems;
- make sure the stretcher is securely fixed to the Spencer fixing system.

The use of the original Spencer fixation systems is recommended in order to guarantee optimal stability in all directions. Whenever other fixation systems are used, the safety and correct functionality of the device are not granted. If the front and/or rear legs bump violently against the bumpers/loading platform of the ambulance, an automatic security system will be inserted in order to avoid the folding of the legs, even when the handles are pulled.

4.3.4 Unloading the stretcher from the ambulance
Unlock the stretcher from its fixation system.
Grab the stretcher at the posterior tube of the frame ("feet" side) and gently pull the stretcher out of the ambulance. Make sure the stretcher remains horizontal until the safety position (the rear legs block automatically in the open position); the legs will open and block automatically.

The operator must make sure the rear and front legs open up and block correctly. Make sure the underground is stable and secure before extracting the loading trolley wheels as well.

When unloading the stretched do not grasp the footrest of the Trendelenburg board, this may cause damages to the operator, the patient or the device.

Stretchers equipped with Sharp system can be unlocked from the S-MAX fastener without operate any command on the fastener.

To operate the Sharp system releasing the stretcher from the fastener, keep the stretcher pushed against the anterior part of the fastener, pull the release lever (n° 22 par. 3.2) until the stroke end is reached (excursion about 5cm), then pull the stretcher outside the vehicle according to the standard unloading procedures. After the stretcher has been unlocked from the fastener, is possible to release the Sharp system operating lever.

4.3.5 Adjusting the stretcher’s patient board
Always inform the patient in case the patient board has to be adjusted.

Adjusting the backrest from horizontal to vertical position
Lift the backrest until the first position is reached and blocked automatically (n° 6 fig. B). Move the backrest further up in order to reach other intermediate positions (a total of seven different positions available and the horizontal position). Always make sure the backrest is blocked correctly.

Adjusting the backrest from vertical to horizontal position
Support the backrest with one hand (to avoid unexpected movements) and take away the weight from the backrest by lifting it slightly. Action contemporarily on the lever n° 5 (fig. B), pulling it upwards until the security mechanism is unblocked. Then, always supporting the backrest with one hand, lower the backrest until the required position and let the lever go. In order to reach other positions, lift and support the weight of the backrest (a total of seven different positions available and the horizontal position). Always lift the weight of the backrest before pulling the lever.
A wrong procedure may damage the backrest piston permanently.
4.3.6 Trendelenburg movement
The Trendelenburg movement allows the lifting of the board in order to higher the legs of the patient.

**Adjusting the patient board from horizontal to tilted position**
Support and lift the board with one hand (n° 2 fig. C) taking away the weight.
Select the required position (two positions and the horizontal position), making sure the blocking system actually blocks the board.

**Adjusting the patient board from tilted to horizontal position**
With one hand lift the board slightly (n° 3 fig. C).
Push the Trendelenburg lever (n° 2 fig. C) and turn it downwards. Lower the board contemporarily with the lever until the horizontal position is reached.

4.3.7 Trendelenburg/Fowler movement
The Trendelenburg/Fowler movement allows the lifting of the patient board into different positions, in order to higher the legs of the patient.

**Adjusting the patient board from horizontal to Fowler position (fig. D)**
Support and lift the patient board n° 20 (fig. D) with one hand taking away the weight, select the Fowler position moving the screw of the patient board to the position of piece n° 19 closer to the sidebars (n° 4 paragraph 3.2). Make sure the screw is correctly positioned and fixed.

**Adjusting the patient board from horizontal to Trendelenburg position (fig. E)**
Support and lift the patient board n° 20 (fig. E) with one hand taking away the weight, select the Trendelenburg position moving the screw of the patient board to the position of piece n° 19 closer to the movement levers (n° 14 paragraph 3.2). Make sure the screw is correctly positioned and fixed.

4.3.8 Foldable sidebars
In order to avoid accidental functioning, the sidebars are designed to be used with two hands.
To release the sidebars from closed position, use both hands on the levers at the bottom of the frame and pull them outwards as shown in the diagram. The sidebar will automatically drop rotating approximately 180°.
To close the sidebars, bring them back in vertical position pressing with both hands on the profiles as shown in the diagram until you feel the locking system insert. Make sure the sidebars are locked properly by repeatedly pulling and pushing against them. In order to unlock the side bars, act as indicated by the arrows placed on the side bars. The side bars will fall down automatically. To put the sidebars back in upward position, rotate them a until the y are properly locked.

4.3.9 Brakes
The brakes can be inserted by pushing down the lever on the rear pivoting wheels (n° 12 paragraph 3.2). The brake system not only blocks the rotation of the wheel, but also of the complete wheel unit, offering complete immobilization of the stretcher. To unlock the brakes, push the lever on the wheels.

4.3.10 Fixing the mattress to the stretcher
Place the mattress on the stretcher board, making sure the concave side is pointed upwards and the two rings are pointed towards the "foot end". Insert the "free" side of the strap (supplied with the mattress) from the upper side into one of the rings, until it automatically blocks with the plastic ring on the other end of the strap. Pass the strap under the board and pass it through the other ring from the lower side. Then fold the strap back down along the board, fixing it.
### 4.4 Troubleshooting

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pushing the stretcher against the vehicle’s bumper, the legs do not fold away</td>
<td>The lever has not been actioned or the metal cable under the stretcher does not transmit the commands</td>
<td>Put immediately the stretcher out of service and contact the service centre</td>
</tr>
<tr>
<td>During patient transport the stretcher is difficult to move</td>
<td>The brakes are still blocked</td>
<td>Unblock the brakes and check the condition of the wheels</td>
</tr>
<tr>
<td>Structural damage</td>
<td>Improper use or operators not adequately trained</td>
<td>Put immediately the stretcher out of service and contact the service centre</td>
</tr>
<tr>
<td>It is not possible to obtain the required position of the backrest</td>
<td>The backrest piston is blocked</td>
<td>Put immediately the stretcher out of service and contact the service centre</td>
</tr>
</tbody>
</table>

### 5.1 Cleaning

Failure to carry out the correct cleaning routine could increase the risk of cross infection, due to presence of body fluids and/or residuals.

**The operator must always wear adequate personal protection such as gloves and mask etc. during all checking and cleaning procedures.**

The exposed metal parts are usually treated and/or painted in order to increase their resistance. The board has been made out of incontaminable material, in order to increase hygiene and easy cleaning. Clean the exposed parts with water and delicate soap then dry with a soft cloth. In order to obtain a shine effect, it is possible to use car waxes and creams. Do not clean with high pressure water; this will damage the joints and the lubricated parts. If the stretcher is not cleaned regularly, this may cause risks in terms of cross-contamination. We recommend the use of the polishing detergent Spencer STX 99.

Rinse thoroughly with warm water making sure that you have removed all traces of detergent, which could degrade or compromise the integrity and durability of the device. The use of high pressure water should be avoided. Water penetrates the joints and removes the oil, creating the risk of corrosion of components. Allow to dry thoroughly before storing. Drying after washing or after use in wet environments must be natural and not forced, do not use flames or other sources of direct heat.

### 5.2 Maintenance

#### 5.2.1 Precautionary maintenance

- Establish a maintenance program and periodic testing, identifying a reference employee. The person to whom the ordinary maintenance of the device is entrusted must ensure the basic requirements foreseen by the Manufacturer in the user’s manual.
- Training routines must be registered on a special register in which the names of those trained, of the trainers, date and place are indicated. This register which will certify the eligibility of the operators to use the Spencer device has to be kept for a period of 10 years after the disposal of the device itself. This register will be made available to the Competent Authorities and/or Manufacturer if requested.
- Trainings for maintenance procedures must be registered on a special register in which the names of those trained, of the trainers, date and place are indicated. This register which will certify the eligibility for maintenance of Spencer device has to be kept for a period of 10 years after the disposal of the device itself. This register will be made available to the Competent Authorities and/or Manufacturer if requested.

The person who carries out the precautionary maintenance of the appliance (user in person, Manufacturer/supplier or a third party) has to guarantee the following basic requirements:

- Technical knowledge of the appliance and of the periodic maintenance procedures as described in these instructions.
- Specific qualifications and training in the maintenance operations of the appliance in question.
- The use of components/replacement parts/accessories that are either original or approved by the supplier, in such a way that each operation causes no alteration or modification to the appliance.
- Possession of the checklist of operations carried out on the appliance.
- Guarantee complete adherence to the instructions of the Directive 93/42/CEE which includes also the obligation towards the Manufacturer to maintain post sales records and traceability of the appliance if requested.

**During all checking, maintenance and cleaning procedures, the operator must wear adequate personal protection such as gloves, mask, glasses etc.**

Checks to be carried out before and after each use, and at least every 3 months, 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)
- Absence of cuts, holes, tears on the structure, including the straps
- Correct fixation of all nuts, bolts and screws
- Correct fixation of straps
- Correct fastening of straps
- State of use (moving parts, wheels, belts)
- Integrity of components
- Lubrication of moving parts
- When taking out for the first time the stretcher from its box, the its legs should bend and lock properly
- Backrest and Trendelenburg work the same way and lock properly
- Sidebars are raised and lowered properly
- State of use of wheels and breaking system
- Functioning of springs
- The stretcher can easily get in the ambulance
- The emergency vehicle is equipped with a fastening system dedicated to the Spencer stretcher
- There are seat belts for the immobilization of the patient and they are intact and functioning
The inspection frequency is determined by factors such as legal requirements, the type of use, frequency of use, environmental conditions during use and storage. Please note that you must do the cleaning as described in this manual and verify functionality before and after each use. Spencer Italia S.r.l. declines any responsibility for the incorrect functioning or damages caused to the patient or by the use of devices not subject to routine maintenance warranty and will void the compliance to the Medical Device Directive 93/42/CEE.

The person responsible for routine maintenance can identify damaged/worn parts, but the replacement or restoration of them can only be done by the manufacturer or by an authorized service center.

Use only accessories/original spare parts approved by Spencer Italia S.r.l., otherwise we will accept no responsibility for the incorrect functioning and/or damage caused by the use of any device which has not been repaired, or certified on expiry date by the Manufacturer or by one of the Manufacturer’s Authorised Service centres. Warranty will be considered void in compliance with the Medical Device Directive 93/42/EEC.

5.2.2 Periodic maintenance

The device must be serviced by the manufacturer or by an authorised centre, every year. If the correct revision is not carried out, the CE branding will no longer be considered valid as the product will no longer be compliant with the 93/42/CE Directive for Medical Devices and consequently it is no longer compliant with the safety standards declared by the manufacturer at time of purchase. Spencer Italia S.r.l. will take no responsibility the incorrect functioning or any damage caused by a device that has not undergone regular revision.

For any operations that are not carried out directly by the manufacturer but by an authorised centre, we have to underline that a report regarding all operations carried out must be requested. This will permit both Spencer Italia S.r.l. and the end user to keep a log book regarding the operations carried out on the device.

Patient belts must be replaced every 2 years.

Front and rear legs movement drive pistons must be replaced every 5 years.

For any operations that are not carried out directly by the Manufacturer but by an authorised centre, we have to underline that a report regarding all operations carried out must be requested. This will permit both Spencer Italia S.r.l. and the end user to keep a log book regarding the operations carried out on the device.

5.2.3 Special servicing

Only the Manufacturer or centres with written authorisation are authorised to complete any special servicing operations.

For any operations that are not carried out directly by the Manufacturer but by an authorised centre, we have to underline that a report regarding all operations carried out must be requested. This will permit both Spencer Italia S.r.l. and the end user to keep a log book regarding the operations carried out on the device.

The device, if used as indicated in the following instruction manual, has an average life span of 5 years. The life span can be expanded only following a general revision of the product that must be carried out by the Manufacturer or by a centre authorised by the Manufacturer.

Spencer Italia S.r.l. will accept no responsibility for the incorrect functioning and/or damage caused by the use of any device which has not been repaired, or certified on expiry date by the Manufacturer or by one of the Manufacturer’s Authorised Service centres, making void the guarantee and the conformity to the Medical Devices Directive 93/42/CEE.

5.2.4 Life span

The device, if used as indicated in the instruction manual, has an average life span of 5 years starting from the purchase date. If, for any reason, is not possible to trace the purchase date, the life span starts from the manufacturing date. The life span can be extended for up to another 5 years, only if the device has been revised every year with positive result.

General revisions must be carried out by the manufacturer or by a centre authorized by the manufacture. If such annual revisions are not carried out, the device MUST BE DISPOSED AND THIS EVENT MUST BE NOTIFIED TO THE MANUFACTURER. Spencer Italia S.r.l. will accept no responsibility for the incorrect functioning and/or damage caused by the use of any device which has not been serviced by the manufacturer or authorized center, or of any device for which the life span is expired.

6.1 Accessories

**6.1 Accessories**

ST70002A STX 702 Black belt two piece, metal buckle, Reflex
ST70000A QMX 777 Black anatomic mattress, swivelling and watertight
ST70005A QMX 777 Yellow anatomic mattress, swivelling and watertight
ST70004A QMX 777 Orange anatomic mattress, swivelling and watertight
ST70001A QMX 777 Green anatomic mattress, swivelling and watertight
ST70020A QMX 777 Blue anatomic mattress, swivelling and watertight
ST70010B QMX 777 Black anatomic mattress, swivelling and watertight with 10 G fixation
ST70018A QMX 777 Black anatomic mattress, swivelling and watertight without internal divisions
ST70006A Belt for attachment to mattress
CB09023C Tanker yellow oxygen tank holder for stretcher's sidebars fixation
CB09026C Support for sidebars fixation tanker oxygen tank holder
IFO1047B Track 4-30 telescopic I.V. pole
IFO1055B Track 5 telescopic I.V. pole for Cross/Enduro
ST00497B DNA Strap thorax belt with integrated retractor **
ST00498B DNA Strap with integrated retractor **
ST00499B STX 499 - UNIVERSAL ADJUSTABLE THORAX BELT

**ST00592A STX 592 - PLAIN BELT 2 PC. METAL BUCKLE**

**EN90003C END-T table for stretchers certified 10G**

**ST42022A 200 mm Ø high density wheel with bearings**

**ST42100A Posterior fastener (FP)** **ST42200A Anterior fastener (FA)**

**ST42702C K-Max Ø fixation system certified 10G**

**CR90010B Adaptor for placing loading trolley wheel forward**

**Warning:** Doesn’t meet the requirements of EN 1789 – Not suitable for use with 10G Certified Stretcher

6.2 Spare parts

**6.2 Spare parts**

ST41603A Support with brake for 200 mm Ø wheel
RIBA002A 200 mm Ø black wheel with bearings
RIBA003A 200 mm Ø black wheel with bearings for loading trolley
R3T002A 100 mm Ø wheel with wheel axis pin
ST70605B Loading trolley block
ST70646B Red handle 15x4x5x6 for Trendelenburg movement
RIBA001A Antivibration kit for posterior legs
The product must be used by trained personnel only, having attended specific training for this device and not for similar products.

Keep this document at least 10 years from the end of life of the device.

<table>
<thead>
<tr>
<th>Operator’s name</th>
<th>Training date</th>
<th>Training method (user’s manual, during service, former class, etc.)</th>
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Keep this document at least 10 years from the end of life of the device.

Perform the required maintenance and to respect the life span of the device, as indicated by the Manufacturer in the User’s Manual.

<table>
<thead>
<tr>
<th>Code and description of the device</th>
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<th>KIND OF SERVICE (Maintenance/check/extension of life span)</th>
<th>OPERATIONS MADE ON THE DEVICE</th>
<th>RESULT</th>
<th>PERSON IN CHARGE OF SERVICE (Operator/Authorized centre/Manufacturer)</th>
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