

# E400

Easy-load stretcher support

areEquipment

## USER MANUAL: E400 LS (Lateral Sliding)

MAN AR 63/07/18/0



# E400

Easy-load stretcher support

**are**equipment

## Headquarters

**are** **are**equipment

Rua de S. Caetano 459/519 Apartado 526

4411-701 Canelas Vila Nova de Gaia

Portugal

T. +351 227 157 100

F. +351 227 121 144

[comercial@arequipment.com](mailto:comercial@arequipment.com)

[www.arequipment.com](http://www.arequipment.com)



## Index

### *Basic Information*

What's the E400? .....	4
1.Specifications E400.....	5
2.Electric Components.....	6
3.Electric Installation.....	7

### *Instructions - Loading/Unloading*

4.Unloading Operation: (with trolley installed) .....	8
5.Loading Operation (with trolley installed) .....	10
6.Emergency button.....	11
7.Unloading Operation: (without trolley installed) .....	12
8.Loading Operation (without trolley installed) .....	13
9.Lateral Sliding (Optional) .....	14

### *Safety – Maintenance- Fixation*

10.Safety warnings.....	15
11.Scheduled Maintenance.....	16
12. Fixation .....	17

# E400

Easy-load stretcher support

areequipment

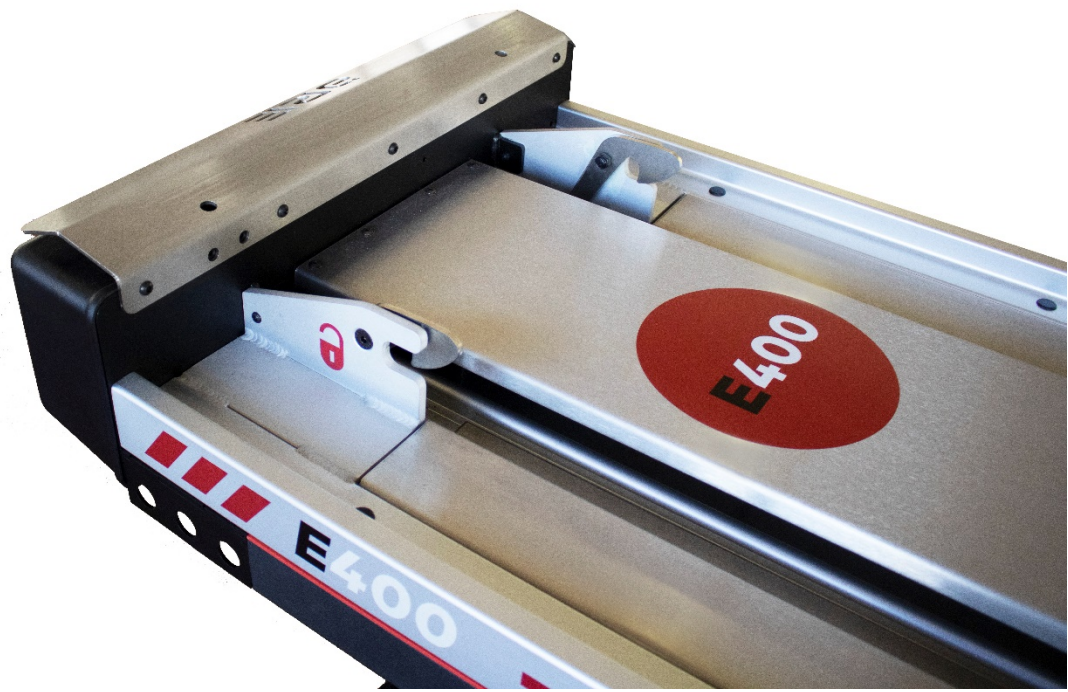
## E400

The E400 is an electric loader for Mondial Stretcher. The main function is the attachment of the stretcher to the table and it's usable in different types of vehicles.

The electrical power eases the access to the ambulance cell and enables the user to make less effort.

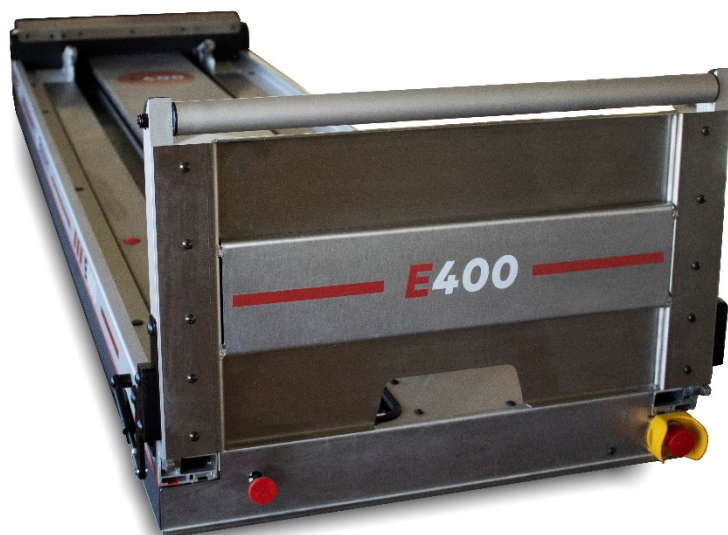
Its structure is made of a high resistance alloy and the attachment points are reinforced in steel. All aluminum profiles were designed to ensure the mechanical resistance and provide a pleasant visual aspect.

**Optional:** Android app

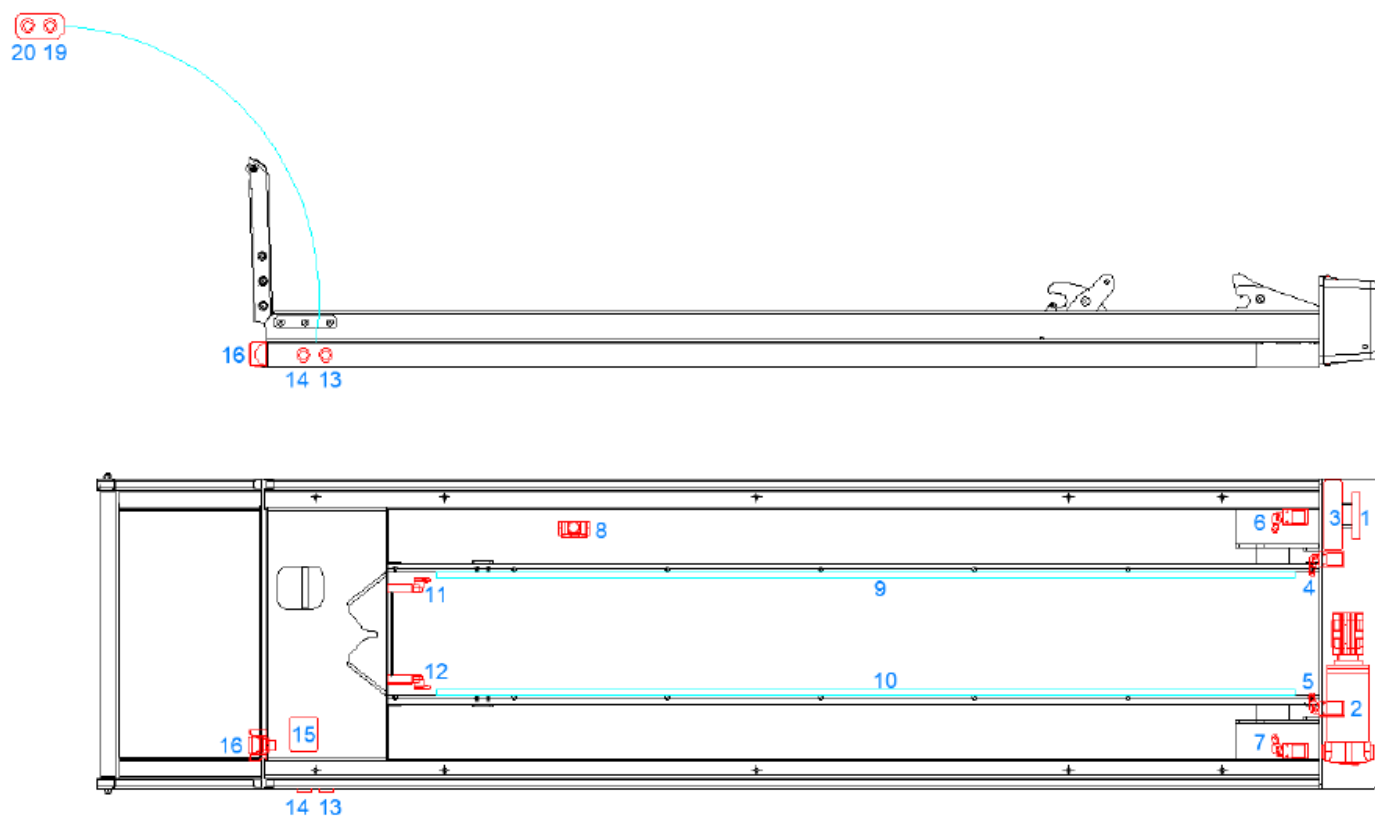


## 1. Specifications

- Weight: 105 kg
- Maximum load capacity: 300Kg
- Dimensions: 2220 x 635 x 475 mm
- 3 attachment points
- In Stainless Steel
- Electrically powered movement for loading and unloading
- Security system with power cut
- 12V DC Power
- Lateral Movement



## 2. Electric components

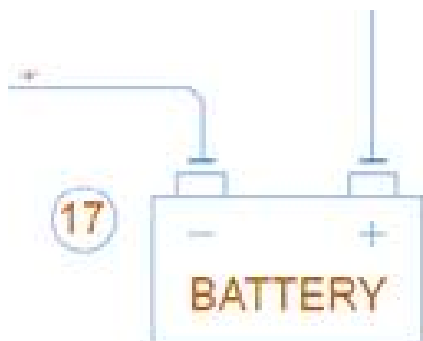


Picture 8

Position	Description
1	Electric current limiter
2	Motor
3	Controller
4	Top limit switch 1
5	Top limit switch 2
6	Red handle detector 1
7	Red handle detector 2
8	Slope detector
9	Ribbon leds 1
10	Ribbon leds 2
11	Bottom limit switch 1
12	Bottom limit switch 2
13	Command button load
14	Command button unload
15	Signal distribution board
16	Emergency stop button
19	External Command button - Load
20	External Command button - Unload

### 3. Electric installation

Plug the red wire positive (+) and black negative (-) on 12V 80Ah battery. And use cables with section 16mm<sup>2</sup>.



## 4. Unloading Operation: (with trolley installed):

	Action	Effect
1.1	Pull the red handle for a few seconds to release the hooks (6,7).	<ul style="list-style-type: none"> <li>- It causes the movement of the central module around 5 cm, assuring that the upper side hooks are loose/released.</li> <li>- Central led stays green during this movement.</li> <li>- Central led stays intermittent red during this movement (intermittent indefinitely).</li> <li>- Buttons' light (13,14) turn on and remains on for 10 min, if there are no further actions.</li> <li>- After starting point 1.1 the red handle has no more function.</li> </ul>
1.2	Press once the button no. 14 to activate.	<ul style="list-style-type: none"> <li>-The central module moves down until position 8, awaiting new action.</li> <li>- Central led stays green during this movement.</li> <li>- Central led stays intermittent red until you find position 8 (intermittent indefinitely).</li> <li>- Buttons' light (13,14) turn on and remains on for 10 min, if there are no further actions.</li> <li>-If you press button 13 or 14 without starting point 1.1 there is no movement.</li> </ul>
1.3	Press once the button no. 14 to activate	<ul style="list-style-type: none"> <li>-The central module will remain fixed, awaiting further confirmation action.</li> <li>- Central light turns to intermittent green (intermittent indefinitely).</li> <li>- Buttons' light (13,14) turn on and remains on for 10 min, if there are no further actions.</li> </ul>
1.4	Press once the button no. 14 to activate	<ul style="list-style-type: none"> <li>-The central module moves to the position (11,12) and is released. It stops for 3 seconds and goes up again until the center hooks are completely closed (about 5 cm)</li> <li>-The central light turns off</li> <li>-Buttons' light (13,14) turn on and remains on for 10 min, if there are no further actions.</li> </ul>
1.5	Press once the button no. 13 to activate	<ul style="list-style-type: none"> <li>-After starting point 1.1 the trolley can still climb back up until (4,5) where it stops.</li> <li>-After starting point 1.2 the trolley will move until the unloading is complete.</li> <li>-After starting point 1.2, if the button 13 or 14 is pressed the system stops and the central red light is intermittent (indefinitely).</li> </ul>
1.6	Press once the button no.	-After point 1.4, if you press button 14 the center hooks may



	14 to activate	open.
1.7	Press once the button no. 13 or 14 to activate	-Before starting point 1.1, if button 13 or 14 is pressed the central red light will be intermittent.

**IMPORTANT: THE OPERATOR MUST ALWAYS ACCOMPANY THE STRETCHER DURING THE UNLOADING PROCESS**

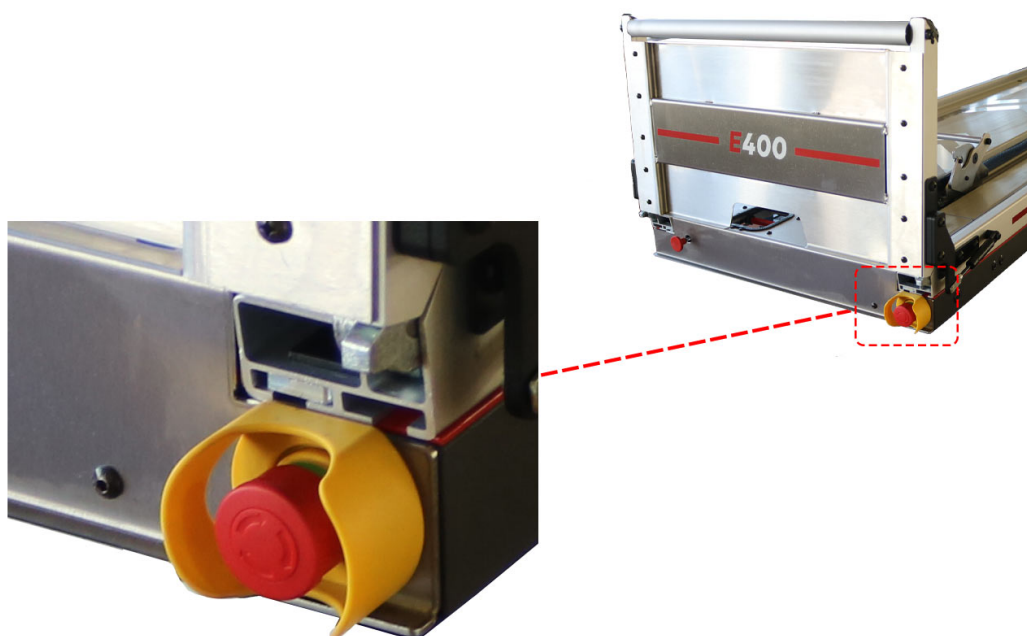
## 5. Loading Operation (with trolley installed):

	<b>Action</b>	<b>Effect</b>
2.1	Install the trolley until the	-There is no effects

	central module fits	
2.2	Press once the button no. 13 to activate	<ul style="list-style-type: none"> <li>- The central module moves up until position 8, awaiting new action.</li> <li>- Central led stays green during this movement.</li> <li>- Central led stays intermittent red until you find position 8 (intermittent indefinitely).</li> <li>- Buttons' light (13,14) turn on and remains on for 10 min, if there are no further actions.</li> </ul>
2.3	Press once the button no. 13 to activate	<ul style="list-style-type: none"> <li>-The central module remains fix, awaiting further confirmation action.</li> <li>- Central light turns to intermittent green (intermittent indefinitely).</li> <li>- Buttons' light (13,14) turn on and remains on for 10 min, if there are no further actions.</li> </ul>
2.4	Press once the button no. 13 to activate	-The central module moves to the position (4,5) where the trolley is fixed. The central light turns off. The buttons' light (13,14) turn on and remains on for 10 min, if there are no further actions.
2.5	Press once the button no. 13 to activate	-After starting point 2.2 the trolley will move until the loading is complete.
2.6	Press once the button no. 13 or 14 to activate	-After starting point 2.2, if the button 13 or 14 is pressed the system stops and the central red light is intermittent (indefinitely).

**IMPORTANT: THE OPERATOR MUST ALWAYS ACCOMPANY THE STRETCHER DURING THE LOADING PROCESS**

## 6. Emergency button:



	<b>Action</b>	<b>Effect</b>
3.1	Emergency button (Press)	<ul style="list-style-type: none"> <li>- It causes all movements to stop.</li> <li>- It cuts the signals to the drive controls.</li> <li>-Central led stays intermittent red.</li> <li>-It loses the memory of the direction of movement.</li> <li>-It loses the memory of the direction of movement, requiring a new command to move the central module</li> </ul>
3.2	Emergency button (OFF)	<ul style="list-style-type: none"> <li>-The central light turns off</li> <li>-You need to press 13 or 14 to start movement.</li> </ul>

## 7. Unloading Operation: (without trolley installed):

	<b>Action</b>	<b>Effects</b>
4.1	Pull the red handle for a few seconds to release the hooks (6,7).	<ul style="list-style-type: none"> <li>- It causes the movement of the central module around 5 cm, assuring that the upper side hooks are loose/released.</li> <li>- Central led stays green during this movement.</li> <li>- Central led stays intermittent red during this movement (intermittent indefinitely).</li> <li>- Buttons' light (13,14) turn on and remains on for 10 min, if there are no further actions.</li> <li>- After starting point 4.1 the red handle has no more function.</li> </ul>
4.2	Press once the button no. 14 to activate	<ul style="list-style-type: none"> <li>-The central module moves down to the position (11,12) and release the central hooks. It stops for 3 seconds and goes up again until the center hooks are completely closed (about 5 cm).</li> <li>-Without the trolley installed there is no stop in position 8.</li> <li>- Central led stays green during this movement.</li> <li>- Buttons' light (13,14) turn on and remains on for 10 min, if there are no further actions.</li> <li>-If you press button 13 or 14 without starting point 4.1 there is no movement.</li> </ul>
4.3	Press once the button no. 13 to activate	<ul style="list-style-type: none"> <li>-After starting point 4.1 the trolley can still climb back up until (4,5) where it stops.</li> <li>-After starting point 4.2 the trolley will move until the unloading is complete.</li> <li>-After starting point 4.2, if the button 13 or 14 is pressed the system stops and the central red light is intermittent (indefinitely).</li> </ul>
4.4	Press once the button no. 14 to activate	<ul style="list-style-type: none"> <li>-After point 4.2, if you press button 14 the center hooks may open.</li> </ul>
4.5	Press once the button no. 13 or 14 to activate	<ul style="list-style-type: none"> <li>-Before starting point 4.1, if button 13 or 14 is pressed the central red light will be intermittent.</li> </ul>

**IMPORTANT: THE OPERATOR MUST ALWAYS ACCOMPANY THE STRETCHER DURING THE UNLOADING PROCESS**

**8. Loading Operation (without trolley installed):**

	<b>Action</b>	<b>Effects</b>
5.1	Press once the button no. 13 to activate	-The central module moves to the position (4,5) where it stops. The central light turns off. The buttons' light (13,14) turn on and remains on for 10 min, if there are no further actions. -Without the trolley installed there is no stop in position 8.
5.2	Press once the button no. 13 to activate	-After starting point 5.1 the trolley will move until the loading is complete.
5.3	Press once the button no. 13 or 14 to activate	-After starting point 5.1, if the button 13 or 14 is pressed the system stops and the central red light is intermittent (indefinitely).

**IMPORTANT: THE OPERATOR MUST ALWAYS ACCOMPANY THE STRETCHER DURING THE LOADING PROCESS**

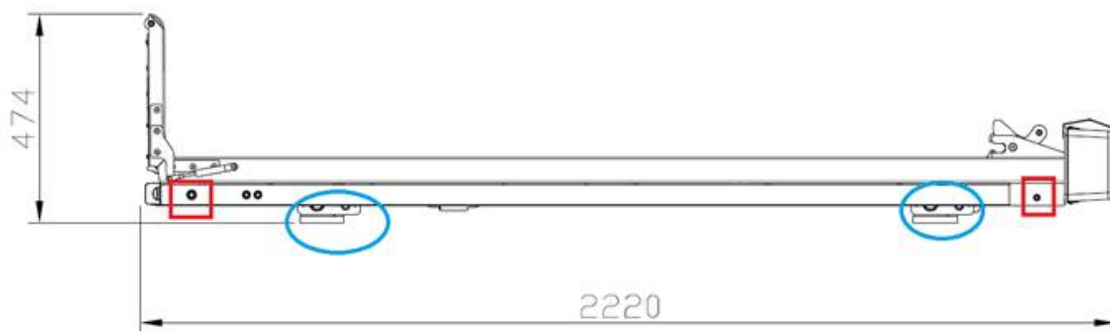
## 9. Lateral Sliding (Optional):




To make it more accessible, we had two buttons, (in red in the image) one in the front and one in the back.

To initiate the movement just press one of the buttons during the lateral sliding. You should release the button when the E400 is at the position desired.

There is a Manual system in the event of an anomaly or electrical failure.

In the image, the fixation zones that allow the E400 to move laterally are marked in blue.



Back Button	
Front Button	
Manual System	

## 10. Safety warnings:

**Risk of falling at the same level** - Take special attention to the handling near the equipment, taking into account the risk of falling inside the vehicle.

**Risk of falling at different levels** - Take special attention to the handling near the equipment, taking into account the risk of falling from the interior of the vehicle to the exterior.

**Risk of shock or collision with mobile objects** - Perform regular maintenance actions to reduce and/or eliminate the risk of shock or collision coming from parts with high wear or gaps.

**Risk of overload or effort to the operator** - Perform regular maintenance actions to reduce and/or eliminate the risk of shock or collision coming from parts with high wear or gaps.

**Biological risks** - Perform regular cleaning actions to reduce the risk of contamination.

## 11. Scheduled Maintenance

The equipment needs regular maintenance to keep correct and smooth operation. Set up and follow a maintenance schedule. The table represents minimum intervals for maintenance.

When using maintenance products follow the manufactures direction and read the manufacturers material safety data sheets.

Make sure to perform a visual inspection every 50 uses

Table 1. Minimum intervals for maintenance

Minimum Maintenance Intervals	Each Use	As Needed	3 Months
<i>Disinfecting</i>	X		
<i>Cleaning</i>	X	X	
<i>Inspecting</i>			X
<i>Lubricating</i>			X

### ***Disinfecting / Cleaning (Each use)***

- Use detergent/disinfectant products compatible with aluminum, stainless steel and rubber.
- To clean check carefully on the product the concentration suggested by the manufacturer, to avoid damaging the material of the equipment.
- Rinse with water in a limited quantity, dry as much as possible and lubricate guides, bars and sliding parts.
- If we operate in and aggressive environment (for example saline environment), it is recommended Every Day a cycle of washing/lubrication to protect the exposed parts.
- The manufacturer will not take responsibility for any damage caused by using a cleaning product that may damage the surface material.



## 12. Fixation

For a correct installation of the product, its fixation must be done according to the diagram shown below.

