

Making vehicles special

## **Operating instructions**

# Ambulance table Hydro-Universal with Stryker Power-LOAD





Original operating instructions: Keep for further use!

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#### **Foreword**

Dear reader,

These operating instructions provide all the information required for safe operation of the Hydro-Universal ambulance table, hereinafter referred to as the ambulance table for short. It is intended to help you familiarise yourself with the ambulance table, use it effectively and avoid unnecessary malfunctions.

The ambulance table is designed to relieve and support the personnel of ambulance vehicles. It has been designed and built in accordance with the current state of the art and recognised safety regulations. Nevertheless, dangers to persons or property can arise, as not all danger points can be avoided if the functionality is to be maintained. However, you can prevent accidents caused by these hazards and faults by observing these operating instructions and the instructions given during familiarisation.

#### **WARNING**

There are many risks of injury and damage to property during transport, operation and maintenance of the ambulance table.

#### Therefore:

- Please read these operating instructions carefully before transporting, operating and maintaining the ambulance table.
- Always observe the instructions and information contained therein, in particular the safety instructions.
- If the operating instructions or parts thereof are lost or in poor condition, request a new copy from the manufacturer.

These operating instructions only apply to the ambulance table specified on the cover sheet and in the footer. Please compare this information with the information on the type plate of the ambulance table.

After working through the operating instructions for the first time, keep them in a safe place for the entire service life of the ambulance table so that you can refer to them later.

If the ambulance table changes hands, the operating instructions must be passed on to the next owner.





The documentation from suppliers of some assemblies and components must also be observed. The manufacturer of the ambulance table accepts no responsibility or liability for the content of this third-party documentation.

#### **Copyright protection**

These operating instructions are protected by copyright.

Reprinting and reproduction of any kind, including extracts, require the written authorisation of the manufacturer.

#### Warranty and liability

Modifications or alterations to the ambulance table are only permitted with the written authorisation of the manufacturer. Any unauthorised modifications will invalidate the manufacturer's liability and warranty.

Warranty and liability claims are also excluded if they are attributable to one or more of the following causes:

- improper use of the ambulance table
- improper assembly, commissioning, operation and maintenance of the ambulance table
- Operating the ambulance table with defective, improperly installed or non-functional safety and protective equipment
- Failure to observe the instructions in the operating instructions
- Inadequate maintenance or repair
- Force majeure

The ambulance table operated at the operator's own risk. The manufacturer is not liable for any damage caused by the use of the ambulance table, unless this damage is caused by gross negligence or wilful breach of contract on the part of the manufacturer.

The current warranty conditions are listed in a separate document, which is with the documents accompanying the ambulance table. You can also request them from the manufacturer at any time.

Only use original spare parts and accessories approved by the manufacturer. Failure to do so could adversely affect the design characteristics, functionality or safety of the ambulance table.



The use of other parts therefore cancels any liability for the resulting consequences.



#### Meanings in the operating instructions

For better understanding, the following agreements should be made for the operating instructions:

#### 1. Notes

The following types of special notes are used to emphasise important information:



#### **DANGER**

...indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



#### WARNING

...indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



#### **CAUTION**

...indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



#### **ATTENTION**

...indicates a potentially dangerous situation that can lead to material damage if it is not avoided.



...contains general tips and useful information.



...refers to important information in other sections and documents.



#### 2. Text structure

Some texts serve a special purpose. These are labelled as follows:

- Enumerations
- ⇒ Instruction for action

## 3. Meaning of directional information

If directional information is used in the text (in front, in front, behind, right, left, transverse, longitudinal), this information refers to the direction in which the vehicle is travelling.



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## 1 Security



Information on the safety of the basic vehicle, the safety of other equipment components of the ambulance vehicle and the safety of the pick-up system and the stretcher can be found in their operating instructions.

The basic prerequisite for safe and trouble-free operation of the ambulance table is knowledge of the safety instructions and safety regulations.

Therefore, read this chapter carefully before carrying out any work and always observe the instructions and warnings listed. Warnings located at the appropriate points in the text of the following chapters must also be observed. The manufacturer cannot be held liable if the instructions and warnings are not observed.

The manufacturer cannot foresee every danger. The warnings contained in these instructions and attached to the ambulance table may therefore not cover all hazards.

The operator is responsible for compliance with the safety regulations and for the intended use of the ambulance table.

In addition to the information in these operating instructions, observe the legal regulations, in particular the safety and accident prevention regulations.



#### 1.1 Intended use

The operational safety of the ambulance table is only guaranteed if it is used as intended. For this reason, the ambulance table may only be used for its intended purpose.

The intended use is when the ambulance table is used for loading, unloading and transporting a suitable stretcher in an ambulance vehicle. A person can lie on the stretcher for transport.

The ambulance table may only be used in conjunction with one of the following mobile stretchers:

- Stryker, type Power-PRO XT.
- Stryker, type Power-PRO 2.

To mount and secure the stretcher on the ambulance table, the ambulance table must be equipped with the "Power-LOAD" mounting system from Stryker.

The functions of the ambulance table are intended to relieve and support the personnel of an ambulance vehicle.

Observance of all the information in these operating instructions is also part of the intended use.

#### **WARNING**

Risk of injury due to improper use.

If the ambulance table is used for purposes other than those described here, dangerous situations may arise for people or material damage may occur.

In addition, all warranty claims are void.

#### Therefore:

- Only use the ambulance table for its intended purpose.
- In particular, refrain from the uses of the ambulance table listed in section 1.2, page 11. These are considered improper use.
- Carry out maintenance and repair work in accordance with the maintenance intervals specified in the maintenance schedule (see section 5.2.2, page 51).

## 1.2 Improper use

Any use other than that described in section1.1, page11, is considered improper use.

These include in particular





- The can be used to transport several people.
- Use if a person is not lying on the stretcher with their full body circumference (e.g. limbs hanging down next to the stretcher).
- Use for transporting or moving objects or goods.
- Operation in an environment other than an ambulance.
- Operation outside the specifications (see section2.3, page32).
- An operation that goes beyond the usual use in rescue services (e.g. demonstration operation at trade fairs and congresses).
- Operation with pick-up systems and travelling stretchers other than those specified in section 1.1, page .11
- Operation without the existing protective and safety devices.
- Operation in the event of safety-relevant faults or in a faulty condition.
- Making unauthorised changes to the ambulance table.
- Use by unsuitable personnel.

## 1.3 Product monitoring

Any faults or problems that occur during operation of the ambulance table, as well as accidents and near-accidents, must be reported to the manufacturer immediately. The manufacturer will work with the operator to find a solution to the problem and incorporate the knowledge gained into its further work.

Contact: see chapter 8, page .67

## 1.4 Requirements for personnel

#### WARNING

Risk of injury due to insufficient qualification.

Improper handling of the ambulance table can lead to considerable personal injury and damage to property.

#### Therefore:

- The ambulance table may only be used by the persons named here.
- Operation of the ambulance table by the person on the stretcher and their companions is prohibited.





Only persons are authorised to use the ambulance table,

- who have reached the age of 18,
- who are physically and mentally capable operating the ambulance table,
- who are rested and focussed,
- who are not under the influence of alcohol, narcotics, medication, drugs or other substances,
- who have been instructed in the operation of the ambulance table by the manufacturer or have completed equivalent training by the operator,
- who have read and understood these operating instructions and the operating instructions in the appendix,
- who can be expected to fulfil the tasks assigned to them responsibly and reliably and
- which have been designated for use by the operator of the ambulance table.

Assembly, maintenance, repair, troubleshooting and disposal of the ambulance table may only be carried out by the manufacturer and by persons authorised and commissioned by the manufacturer. These tasks must be carried out by persons with appropriate technical training and experience, e.g. in the areas of hydraulics or electrics.



The operator must carefully select persons to carry out the maintenance and troubleshooting described in Chapter 5 and Chapter 7.

#### WARNING

Danger to life as a result of work not carried out properly.

If installation, maintenance and repair work as well as troubleshooting and disposal are carried out by unqualified and unauthorised personnel, there is a very high risk of injury. This risk exists during this work and as a result of improperly performed work.

#### Therefore:

- Installation, maintenance and repair work as well as troubleshooting may only be carried out by authorised specialist personnel who have been instructed to do so by the manufacturer. Exceptions are the scopes described in chapter5 and chapter 7.
- Disposal may only be carried out by authorised specialist personnel.

## 1.5 Danger zone

The danger zone is the area in which the safety or health of persons is at risk. For this reason, no persons other than the operator may be present in this area while the ambulance table is in operation.

#### WARNING

Risk of injury when operating the ambulance table.

There are various risks of injury when standing in the danger zone.

#### Therefore:

- Only operate the ambulance table when no persons other than the operator are in the danger zone.
- Observe the danger zone and release the pressed operating button or press the emergency stop if there are people in the danger zone.
- As the operator, carefully observe the danger points while in the danger zone (see section1.6, page).15







Danger zone of the ambulance table:

- The areas inside the ambulance vehicle in front of, behind and under the ambulance table.
- When the rear doors are open, the danger zone is extended by 1 m behind the vehicle in the area behind the ambulance table.

## 1.6 Danger spots

The ambulance table has danger points that cannot be avoided by design without impairing its function. These are listed below. However, they do not represent a complete list of all possible hazards. Depending on the installation site and the individual circumstances, there may be other hazards.

#### Risk of crushing:

- Between the moving frame parts and the lifting cylinders underneath the ambulance table.
- Between moving parts of the ambulance table and parts fixed to the vehicle.
- When approaching the loading and unloading position between the upper body and the vehicle floor.
- When manually moving the ambulance table across between the ambulance table and vehicle-mounted parts.

#### Risk of tripping or falling:

• Getting in and out through the rear door.

## 1.7 Safety equipment

#### WARNING

Risk of injury due to missing or non-functioning safety equipment.

If safety devices are not present or are not functional, they cannot protect against the hazards present.

#### Therefore:

- Check that all safety devices are present and functioning in accordance with the maintenance plan (see section5.2.2, page ).51
- Do not tamper with safety devices.





#### 1.7.1 Emergency stop button

When the emergency stop button is pressed, all movements of the ambulance table are stopped and the ambulance table is fixed hydraulically. This also prevents further lowering by gravity. Operating commands are not executed until the emergency stop is reset.

Position of the emergency stop button:

Near the control unit in the area at the rear right of the patient compartment (see section 2.2, page 26).

#### **WARNING**

Danger to life due to concealed or difficult to access emergency stop button.

If the emergency stop button is covered or difficult to access, it cannot be actuated in time in dangerous situations.

#### Therefore:

- Keep the view of the emergency stop button clear.
- Keep access to the emergency stop button free.

Tapping the "Load" rocker switch (2) again at the top or bottom also stops the automatically moving ambulance table immediately and locks it in place.

The "Power-LOAD" automatic pick-up system from Stryker is not stopped by the emergency stop button on the ambulance table.

Information on the emergency stop facility of the recording system can be found in its operating instructions.

#### 1.7.2 Pressure relief valve

A pressure relief valve is installed in the hydraulic unit of the ambulance table. The pressure relief valve is set to the maximum permissible pressure at the factory.

The pressure relief valve prevents hydraulic oil from escaping under very high pressure and causing serious injury.











#### **WARNING**

Risk of injury due to an incorrectly set pressure relief valve.

An incorrectly set pressure relief valve can lead to dangerous situations.

#### Therefore:

 Pressure relief valves may only be adjusted by qualified and authorised persons.

## 1.7.3 Hydraulic unit cover

The hydraulic unit of the ambulance table and its drive are closed by a sealed cover.

This prevents operating fluids from the ambulance table from escaping and foreign matter from entering the hydraulic unit.

## 1.8 Protective equipment

The operator must ensure that suitable personal protective equipment (PPE) is selected, made available and worn in accordance with the operational circumstances.

The following protective equipment must be worn when handling the ambulance table:

· Safety shoes.



## 1.9 Safety instructions

In addition to the safety and accident prevention regulations of the trade associations, observe the following instructions to avoid personal injury and damage to property:

- The operating personnel must check the outside of the ambulance table at least once a day for recognisable damage and defects. Immediately report any defects found that impair safety. This applies in particular to leaks in the hydraulic system.
- Use handles and steps when entering and exiting through the rear door. Take particular care in poor weather conditions.
- Park the ambulance vehicle for loading and unloading on a level surface with no incline or decline. Adjust to higher operating forces if this is not possible. Secure the trolley, which is separate from the loading system, against unintentional movement (e.g. rolling away).
- Do not leave the ambulance table unattended when it is ready for use. The ambulance table must be secured against unauthorised operation when leaving the ambulance vehicle (e.g. by locking the ambulance vehicle).
- Only operate the ambulance table when there is sufficient lighting.
- Do not loosen any screws or fastenings of the ambulance table.
- Do not dismantle safety devices or put them out of operation. If disassembly is necessary for maintenance or repair, the safety devices must be reassembled immediately afterwards.
- Do not use any substances that are hazardous to health to clean the ambulance table. If this is unavoidable, the operator must ensure adequate protection for the cleaning personnel.
- Do not leave any loose objects lying on the ambulance table or its components. If the objects fall, people may be injured.
- Safety signs, information signs or markings must not be removed or made illegible. Missing or damaged safety signs, information signs or markings must be replaced immediately.
- Do not operate the ambulance table in a faulty condition. If faults occur, especially safety-related faults, take the ambulance table out of operation and initiate repairs.
- Before carrying out maintenance and repair work, including cleaning work, secure the ambulance table against operation



(e.g. by removing the electrical fuse, see section6.1, page55). Secure moving components mechanically against unintentional movement. Otherwise there is a risk of injury.

- Only use original spare parts or accessories and spare parts approved by the manufacturer. If other parts are used, no liability will be accepted for the resulting consequences.
- Do not repair or bypass defective electrical fuses, but replace them with new fuses of the same amperage rating.
- The supplier documentation in the appendix must be observed before purchased components are operated, maintained, repaired, dismantled or handled in any other way.
- Keep the vehicle floor clean of dirt to prevent slipping. If soiling has occurred, remove it as quickly as possible.

## 1.10 Operator obligations

In addition to the safety instructions in this operating manual, the safety, accident prevention and environmental protection regulations applicable to the area of use of the ambulance table must be observed.

The following applies in particular:

- The persons who are to work at the ambulance table must be carefully selected by the operator (see section1.4, page).12
- All persons who are to work on the ambulance table must be obliged to read and observe these operating instructions. In addition, they must be informed about the hazards posed by the ambulance table.
- Operating instructions must be drawn up for handling the ambulance table in accordance with the legal requirements. A sample operating instruction can be found in the appendix of these operating instructions.
- Suitable protective equipment must be selected, made available and worn in accordance with the operational circumstances.
- If a hazard or non-compliance with a regulation becomes known, appropriate measures must be taken immediately to counteract it.
- The operator must ensure that cleanliness, clarity and sufficient lighting are guaranteed at and around the ambulance table.



- Carrying out the specified maintenance and repair work is part
  of the intended use of the ambulance table, in particular compliance with the specified maintenance intervals (see chapter5
  , page48). If this work is not carried out, proper functioning
  cannot be guaranteed. Dangers to persons and property may
  arise.
- The operator must ensure that the ambulance table is only operated in perfect condition.
- The operator is responsible for ensuring that the ambulance table is used as intended.

## 1.11 Waste disposal

The ambulance table must only be disposed of by qualified specialists after its service life. The manufacturer accepts no liability for damage caused by improper disposal.

When carrying out any work, ensure that no unnecessary environmental pollution occurs. Always remove oil and grease residues after maintenance work. Collect any leaking operating fluids (e.g. hydraulic oil). If oil is to be drained, it must be ensured that sufficient collection containers are available.

All operating materials and oily parts must be disposed of properly and in an environmentally friendly manner in accordance with the applicable environmental regulations.

## 1.12 Safety signs

#### WARNING

Risk of serious injury or death due to missing or unrecognisable safety signs.

The safety signs attached to the ambulance table warn of hazards that are not immediately recognisable or provide safety instructions. Safety signs that have been removed or are illegible can lead to serious injuries.

#### Therefore:

- Observe all safety signs attached to the ambulance table.
- Never remove safety signs and always keep them in a legible condition.
- Replace loose, lost or illegible safety signs immediately (contact customer service: see chapter8, page).67





Safety sign	Meaning
	The operating instructions must be read before using the ambulance table. All information contained therein must always be observed.  Position: On the top tray, next to the rocker switch.
	Use foot protection.  Position: On the top tray, next to the rocker switch.
	Warning of crushing hazard.  Position: On all sides of the top tray.
	Warning of hand injuries. Position: On all sides of the top tray.





## 2 Description of the outpatient table

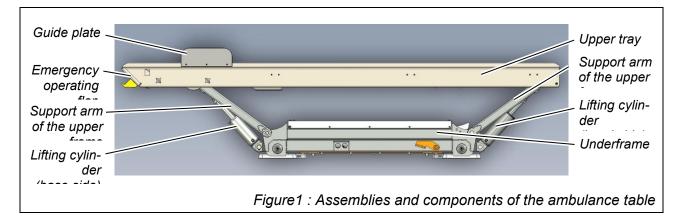
The description of the basic vehicle, other equipment components of the ambulance vehicle as well as the pick-up system and the stretcher can be found in their operating manuals.

## 2.1 Structure and function of the outpatient table

The ambulance table (see Figure 1 and Figure3 , page23 ) essentially consists of

- of the upper trough,
- · the upper frame and the lifting cylinders,
- the base frame with the hydraulic unit,
- one operating unit or several operating units,
- · the safety equipment and
- the monitoring equipment.

Individual assemblies are described in more detail in the following sections.





#### 2.1.1 Upper tray

The stainless steel upper tray on the ambulance table is used to hold the travelling stretcher and is equipped with the "Power-LOAD" holding system from Stryker (see Figure 2).

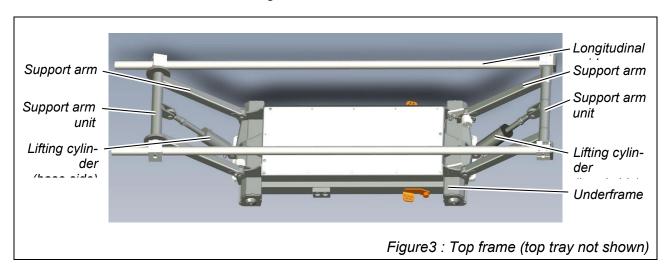
In the event of a fault in the pick-up system, the top tray is equipped with guide plates and an emergency operating flap (see Figure 1, page 22).



Figure 2: Top tray with "PowerLOAD" mounting system

#### 2.1.2 Upper frame and lifting cylinder

The upper frame consists of the lateral longitudinal guides and the front and rear support arm units (see Figure3). It carries the upper trough and is movably connected to the base frame via the support arms and the hydraulic lifting cylinders on the base and head sides. By extending and retracting the lifting cylinders, the height and inclination (head section high or foot section high) of the upper frame can be adjusted together with the upper trough and a travelling stretcher relative to the lower frame. A longitudinal movement can also take place by superimposing lifting and tilting movements.





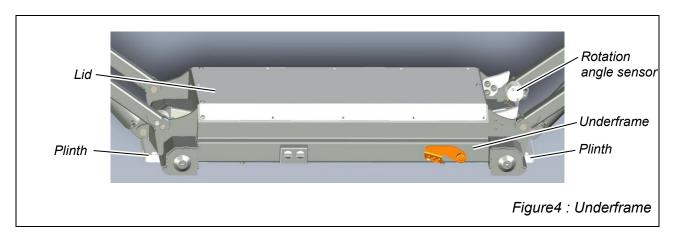
#### 2.1.3 Underframe with hydraulic unit

The base frame serves as the lower bearing for the support arms and the lifting cylinders. Rotation angle sensors detect the positions of the support arms on one front and one rear support arm (see Figure 4).

The hydraulic unit and its electrical controls are housed under the cover of the base frame. The hydraulic unit consists of the electrically driven hydraulic unit with pump and tank, the control block with valves and pressure accumulators and a flow divider for the lifting cylinders. Hydraulic lines connect the hydraulic components to each other. The base frame is sealed all round.

Two plinths, which are firmly bolted to the vehicle floor and sealed to the ground, support the base frame. The ambulance table can be moved manually in a transverse direction using the integrated transverse slide.

The ambulance table, together with the other equipment in the patient compartment, is powered by an auxiliary battery. The auxiliary battery is powered by the vehicle's electrical system.





## 2.1.4 Safety equipment

The following safety devices are built into the ambulance table:

- Emergency stop button.
- Pressure relief valve.
- Hydraulic unit cover



For a detailed description of the safety devices, see section1.7 , page .15

## 2.1.5 Monitoring equipment

The following electronic monitoring functions are built into the ambulance table:

- Monitoring the height of the ambulance table (rotation angle sensors).
- Voltage monitoring of the supply voltage.



## 2.2 B edia and control elements



The description of the operating elements of the mounting system and the stretcher can be found in their operating instructions.

## 2.2.1 Emergency stop button control element

The emergency stop button can be used to stop all movements of the ambulance table and hydraulically immobilise the ambulance table.



The "Power-LOAD" automatic pick-up system from Stryker is not stopped by the emergency stop button on the ambulance table.

Information on the emergency stop facility of the recording system can be found in its operating instructions.

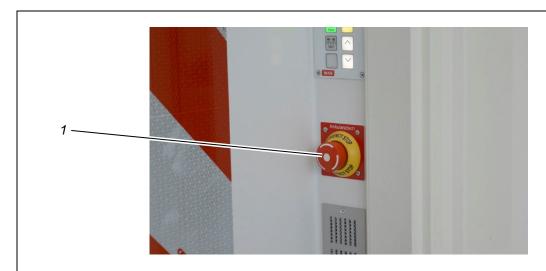


Figure 5: Emergency stop button control element

Pos.	Naming	Function
1	Emergency stop button	Stops movements of the
		ambulance table.
		Does not affect the "Power-
		LOAD" pick-up system.



#### 2.2.2 Control element on the top tray

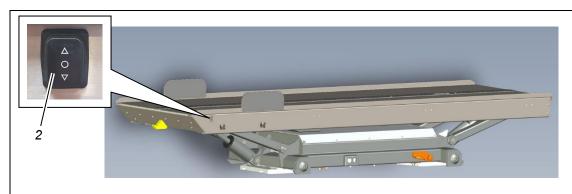


Figure 6: Control element on the upper tray

Pos.	Naming	Function
2	Rocker switch "Loading and unloading"	Briefly pressing down automatically lowers the ambulance table into the loading position.
		A short press at the top automatically raises the ambulance table from the loading position to the transport position.

## 2.2.3 Operating and control elements of an operating unit for the lifting functions

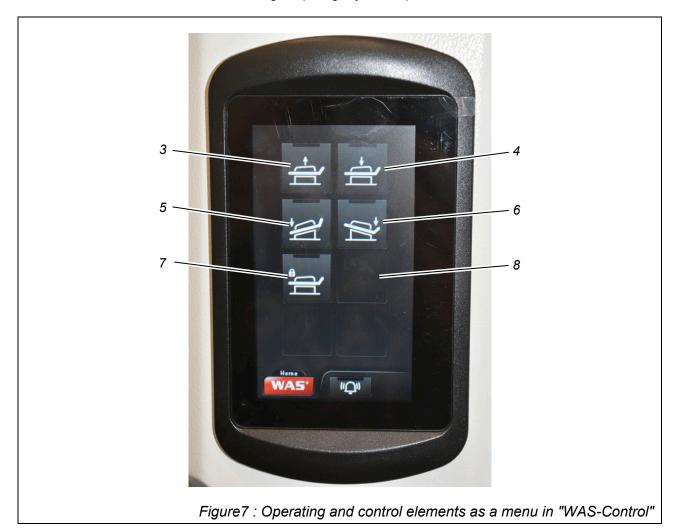
The position(s) of the control unit(s) depends on the type and equipment of the ambulance vehicle. They are usually attached to attachments on the vehicle roof above the ambulance table or on the side walls. If two control units for the lifting functions are installed at different positions in the ambulance vehicle, they are identical and have the same functions. The ambulance table can be controlled either via one or the other control unit. If both control units are used simultaneously, the function of the control unit operated first has priority. A function actuated via the first control unit cannot therefore be interrupted or changed by operating the second control unit during the actuation period.

The buttons for raising and lowering must be held until the target position is reached; releasing the respective button stops the movement immediately. When the centre position with automatic stop is reached, the corresponding button must be pressed again to move the ambulance table beyond the centre position.

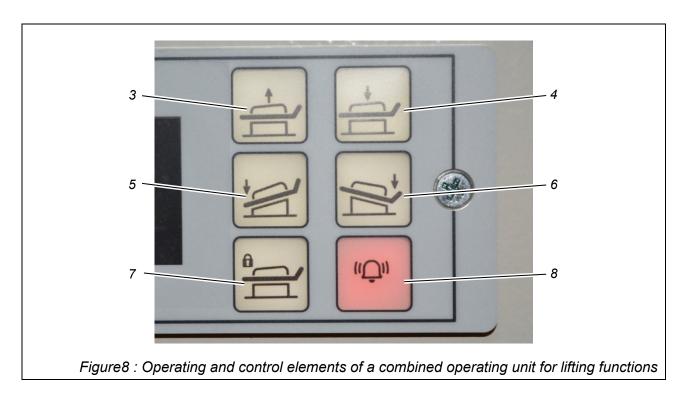


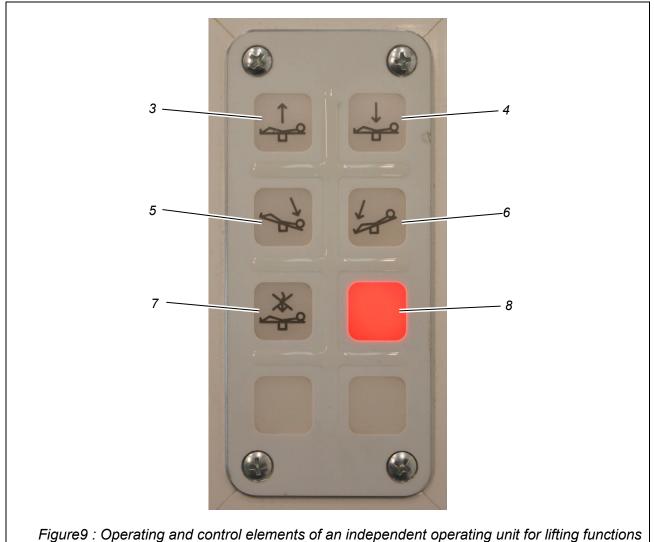
The control units are available in different versions:

- As a menu of the "WAS-Control" comprehensive operating unit with touch display (see Figure 7). When pressed, the colours of the buttons are displayed in reverse.
- As a combined control unit for the lifting functions of the ambulance table and for other equipment of the ambulance vehicle (see Figure8, page29). The soft buttons light up brightly when pressed
- As an independent operating unit for the lifting functions of the ambulance table (see Figure9, page29). The soft buttons light up brightly when pressed.









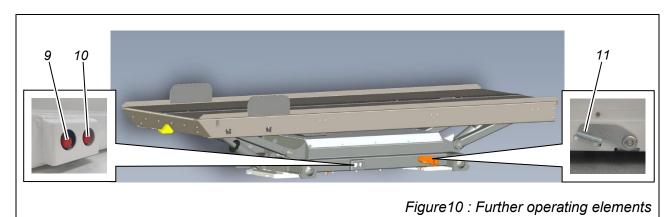


Pos.	Designation / Symbol	Function
3	Lift" button	Pressing and holding raises the ambulance table synchronously. Stops when released. Stops automatically in the centre position and in the upper end position.  Press again to continue moving.
4	Lower" button	Pressing and holding lowers the ambulance table syn- chronously. Stops when re- leased. Stops automatically in the centre position and in the lower end position. Press again to continue moving.
5	Lower head" button	Press and hold to lower the ambulance table at the head end. Stops when released. Stops automatically in the lower end position.
6	Button "Lower foot"	Press and hold to lower the ambulance table at the foot end. Stops when released. Stops automatically in the lower end position.
7	Block" button	Switches the hydraulic suspension on and off around the centre position (off = "Block"). Indicated by the "Block" signal light (8).  Switches the programming mode for setting the loading position on and off (see section4.11, page).47



Pos.	Designation / Symbol	Function
8	Block" signalling light	Lights up bright red when the hydraulic suspension is switched off manually (= "Block").
		Flashes white when a fault is present and in programming mode for setting the charging position (see chapter7, page).57

## 2.2.4 Further operating elements



Pos.	Naming	Function
9	Front emergency drain	Lowers the front of the ambulance table in an emergency. Empties the associated pressure accumulator.
10	Rear emergency drain	Lowers the ambulance table in the rear area in an emergency. Empties the associated pressure accumulator.
11	Pedal for lateral move- ment	Available on both sides. Pressing one of the pedals unlocks the ambulance table to move it in a transverse direction.



## 2.3 Technical data

## 2.3.1 Dimensions

Width (top tray)	650 mm
Length (upper trough)	2150 mm
Height (surface of the upper tray)	in lower end position: 200 mm
	in centre position: 340 mm
	in upper end position: 450 mm

## 2.3.2 Further data

Dead weight of base frame and top frame	170 kg
Maximum lifting load (including trolley and pick-up system)	500 kg
Loading height	Adjustable up to an inclination of the top tray of max. 5°.
Lateral movement	250 mm to each side
Maximum inclination (transport	Head end lowered: 9°
position)	Lowered foot end: 8.5°
Lifting time (with lifting load 80 kg)	approx. 10 seconds
Operating temperature	-5 to +60 °C
Maximum pressure of the hydraulic unit	150 bar
Hydraulic oil	PLANTOHYD 46-S, Grade 22
Sound pressure level	< 75 dB(A)

## 2.3.3 Electrical data

Supply voltage	12 V DC voltage (vehicle electrical system)
Rated power	500 W
Securing the control unit	10 A



Securing the hydraulic unit	50 A
-----------------------------	------

## 2.3.4 Authorised stretchers

Stryker company	Type Power-PRO XT
	Type Power-PRO 2

## 2.4 Type plate

A type plate is attached to the ambulance table, which contains the basic data of the ambulance table (see Figure11). Position of the type plate: on the side of the base frame (see Figure12). Components and accessories from suppliers have their own type plates (see supplier documentation in the appendix).

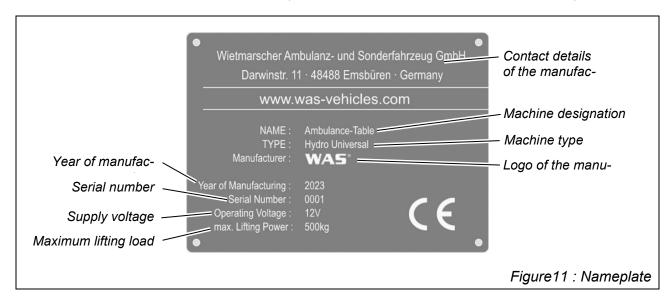




Figure 12: Nameplate, position



## 3 Transport, assembly, commissioning

Transport, assembly and initial commissioning of the ambulance table are carried out by the manufacturer .







## 4 Operation

Instructions for operating the basic vehicle, other equipment components of the ambulance vehicle, the pick-up system and the stretcher can be found in their operating manuals.

When operating the ambulance table, a basic distinction is made between the loading position and the transport position.

In the adjustable loading position, the ambulance table is lowered to a low position at the foot end. This brings the upper body closer to the rear opening. The ambulance table can be loaded and unloaded with the rear doors open. The lifting functions cannot be operated in this position.

In the transport position, the upper trough is further forwards. The ambulance table can be positioned using the lifting functions.

The positions of the operating and control elements in the following sections are described in section2.2, page26. The numbers in brackets refer to the numbering in the figures and tables.

## 4.1 Safety instructions for operation

Always observe the warnings listed here when working at the ambulance table in order to avoid risky situations



Before operating the device, be sure to read the instructions in the Safety chapter (see chapter1, page).10

#### **WARNING**

Risk of injury due to unsafe operating conditions caused by incorrect operation.

Improper operation can lead to personal injury and damage to property.

#### Therefore:

- Ensure that all protective devices are properly fitted.
- Observe the maximum permissible load of the upper trough (500 kg including trolley and pick-up system).
- Wear personal protective equipment (see section1.7.3 page17).







#### **WARNING**

Risk of injury when moving the ambulance table.

When operating the ambulance table, there is a risk of injury due to its active movements in the entire danger zone. When the hydraulic suspension is switched on, there is a permanent risk of crushing due to passive movements of the ambulance table in the area below the upper tray.

#### Therefore:

- Position the operator so that there is no risk of crushing. Pay attention to the position of the legs and feet.
- Always keep the area below the upper trough clear.
- All persons in the interior must position their feet and legs so that they do not protrude below the upper shell.
- Never reach into the area under the upper tub.
- Never block the movements of the ambulance table mechanically or use physical force to counteract them.
- Only operate the ambulance table if there are no persons in the danger zone or protruding into the danger zone.
- In the event of imminent danger, release the pressed operating button or press the emergency stop button.
- Load the ambulance table before other people enter the patient room.
- Do not unload the ambulance table until all other persons have left the patient compartment.



# 4.2 Switch off in an emergency (emergency stop)

In case of danger to persons and property:

- ⇒ Press the emergency stop button in the ambulance (1).
  - → The hydraulic unit is no longer supplied with electricity.
  - → Hydraulically driven components of the ambulance table are stationary.
  - → The ambulance table is hydraulically locked.

# 4.3 Switch on again after an emergency

#### **WARNING**

Risk of injury due to movements of the ambulance table.

If the hazard that caused the emergency stop button to be activated is still present, unlocking can result in serious injury.

#### Therefore:

- Ensure that there is no longer any danger.
- Only then reset the emergency stop button.
- ⇒ Reset the activated emergency stop button in the ambulance vehicle (1).
- ⇒ Press one of the operating buttons on a control unit.
  - → The ambulance table is ready for use again.

# 4.4 Switching the ambulance table on and off

The ambulance table does not need to be switched on or off for normal operation. It is always ready for operation, regardless of the ignition and closing of the ambulance vehicle.





# 4.5 Lifting or lowering the ambulance table synchronously

In the transport position, the ambulance table can be raised and lowered synchronously over the entire lifting range (see Figure 13 and Figure 14). This can be done with the ambulance table in a horizontal or inclined position.

The horizontally aligned ambulance table stops automatically in the centre position and in the upper and lower end positions.

The tilted ambulance table stops automatically as soon as the head end or foot end reaches the upper or lower end position.

- ⇒ Press and hold the "Lift" button (3) to lift the ambulance table synchronously.
- ⇒ Press and hold the "Lower" button (4) to lower the ambulance table synchronously.
- ⇒ Release the pressed button when the target position is reached.

If the ambulance table stops in horizontal alignment in the centre position:

- ⇒ Press and hold the "Lift" button (3 ) again to raise the ambulance table further.
- ⇒ Press and hold the "Lower" button (4) again to lower the ambulance table further.

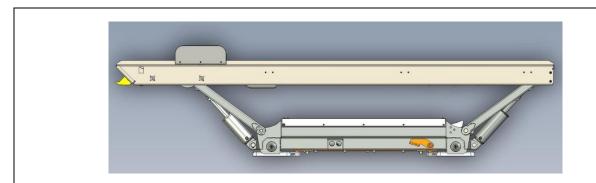


Figure 13: Ambulance table fully raised

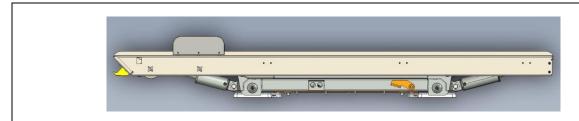


Figure 14: Ambulance table fully lowered



# 4.6 Raising or lowering the ambulance table on one side

In the transport position, the ambulance table can be raised and lowered on one side over the entire lifting range (see Figure15 and Figure16, page40). Depending on the starting position, one-sided lifting is performed by raising this side or by lowering the opposite side. The same applies to lowering on one side. The ambulance table stops automatically when it reaches the horizontal position during one-sided lifting or lowering. This makes it easy to level the ambulance table at any time.

- ⇒ Press and hold the "Lower head" button (6) to lower the ambulance table at the head end or raise it at the foot end.
- ⇒ Press and hold the "Lower foot" button (5) to lower the ambulance table at the foot end or raise it at the head end.
- ⇒ Release the pressed button when the target position is reached.

If the ambulance table stops in a horizontal position:

- ⇒ Press and hold the "Lower head" button (6) again to lower the ambulance table further at the head end or raise it further at the foot end.
- ⇒ Press and hold the "Lower foot" button (5) again to lower the ambulance table further at the foot end or raise it further at the head end.

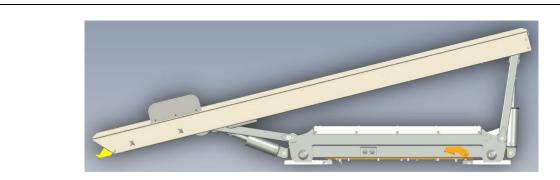


Figure 15: Ambulance table lowered at the foot end



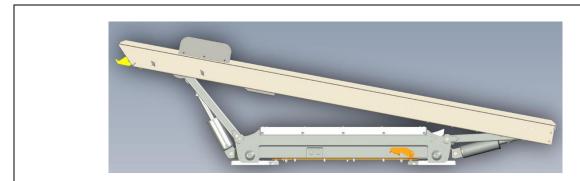


Figure 16: Ambulance table lowered at the head end

# 4.7 Switching the hydraulic suspension on and off

The ambulance table has a switchable hydraulic suspension to compensate for vertical movements of the ambulance vehicle while travelling. The suspension can only be active when the ambulance table is horizontal in the middle height range (centre position) so that there is sufficient suspension travel (see Figure 17, page 41). In the area around the centre position, the suspension is switched on automatically as standard and can be activated. In the ranges above and below the centre position, the suspension is automatically switched off (hydraulically locked) and can no longer be switched on.

If resuscitation of the person on the ambulance table is necessary, the suspension is switched off for this purpose.



#### DANGER

Danger to the patient's life.

If the hydraulic suspension is activated during resuscitation, cardiac massage is less effective.

#### Therefore:

Always switch off the hydraulic suspension for resuscitation.



When the hydraulic suspension is switched off manually or automatically, the ambulance table can move slowly up or down if the load status is changed.

The suspension can only be switched off using the "Block" button (7). The suspension can also be switched on using any other button on the control panel.

⇒ Press the "Block" button (7) to switch off the suspension in the area around the centre position.



- → The "Block" signalling light lights up red.
- ⇒ Press the "Block" button (7) again to reactivate the suspension in the area around the centre position.
  - → The "Block" signal light goes out.

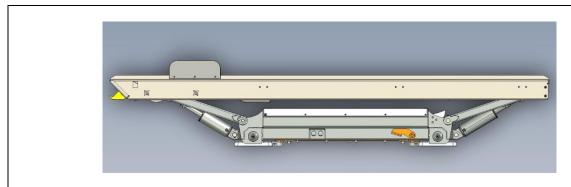


Figure 17: Ambulance table in centre position

#### 4.8 Move ambulance table crosswise

The ambulance table can be moved to the left and right for better room organisation (see Figure18 , page43 , and Figure19 , page43 ). The sliding range is dimensioned so that there is no collision with the factory equipment of the ambulance vehicle and safety distances can be maintained.



#### CAUTION

Risk of crushing when moving the ambulance table sideways.

There is a risk of crushing between the ambulance table and fixed obstacles when manually moving the ambulance table sideways.

- Only move the ambulance table across if there is nobody in the danger zone.
- Make people travelling with you aware of the danger.





#### **WARNING**

Risk of crushing in the event of unexpected lateral movement of the ambulance table.

If the pedal for the lateral movement of the ambulance table is operated during travel, the ambulance table may move unexpectedly due to inertial forces. This poses a risk of crushing at the side of the ambulance table.

- Only move the ambulance table across when the vehicle is stationary.
- Only move the ambulance table across when the ambulance is levelled.
- Ensure there is sufficient space before moving crosswise.
- Ensure that the ambulance table is locked after a transverse movement.
- Do not operate the pedal for lateral movement while driving.
- Make people travelling with you aware of the danger.
- ⇒ Park the ambulance safely and apply the parking brake.
- ⇒ Standing at the side of the ambulance table, grasp the upper tray by the top edge and hold it firmly.
- ⇒ Press and hold the pedal for lateral movement (11) with one foot.
- ⇒ Move the ambulance table crosswise to the desired position.
- ⇒ Take your foot off the pedal to move it sideways (11).
- ⇒ Ensure that the transverse displacement is engaged by jerking vigorously in a transverse direction.



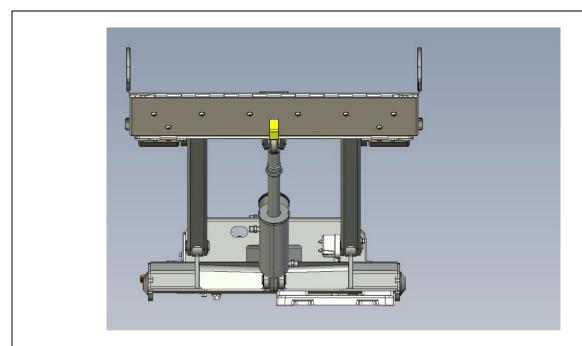


Figure 18: Ambulance table moved to the left (view of foot end)

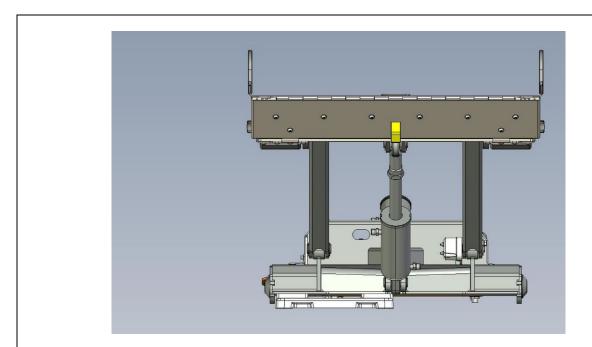


Figure 19: Ambulance table moved to the right (view of foot end)



# 4.9 Charging the stretcher with the "Power-LOAD" pick-up system



Further information on operating the automatic recording system can be found in its operating instructions.

#### WARNING

Risk of injury when the ambulance table is moved automatically.

When loading and unloading in conjunction with an automatic pick-up system, the ambulance table moves independently. This poses a general risk of injury.

#### Therefore:

- Do not leave the ambulance table unattended.
- To operate the ambulance table during loading and unloading, position it behind the vehicle to the right of the upper body.
- Keep access to the operating elements, especially the emergency stop button, clear.
- ⇒ Park the ambulance safely and apply the parking brake.
- ⇒ Open and lock the rear doors.
- ⇒ Ensure that the ambulance table is in a favourable position for loading in the transverse direction (see section4.8, page).41

#### WARNING

Risk of injury due to improper operation of the stretcher or the pick-up system.

There is a risk of injury during loading and unloading due to the stretcher rolling backwards, slipping or tipping. This is possible if the stretcher or the pick-up system is operated incorrectly or if the pick-up system fails. There is a risk for both the operator and a person on the mobile stretcher.

- Familiarise yourself with the operation of the stretcher and the pick-up system and observe the safety instructions.
- Always use two people to handle the loaded stretcher during loading and unloading, with one person securing the stretcher.
- Secure the stretcher against rolling back, slipping and tipping during loading and unloading.
- ⇒ Prepare the mounting system for mounting the stretcher.
- ⇒ Unlock the pick-up system.







- ⇒ Take up a position behind the vehicle to the right of the ambulance table.
- ⇒ Move the pick-up system as far back from the top tray as it will go.
  - → The ambulance table automatically moves to the loading position (see Figure 20 ).

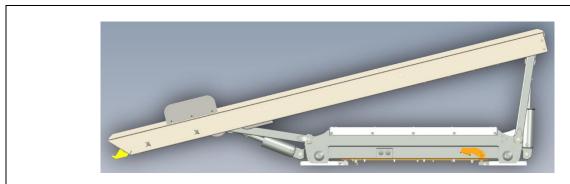


Figure 20: Ambulance table in loading position

- ⇒ Position the stretcher lengthways, head first, behind the ambulance table. Ensure that it is centred and aligned with the ambulance table.
- ⇒ Connect the stretcher to the mounting system.
- ⇒ Fold in the chassis of the stretcher.
- ⇒ Take up a position behind the vehicle to the right of the ambulance table.
- ⇒ Tap the "Load and unload" rocker switch (2) at the top.
  - → The ambulance table automatically moves into the transport position.
- ⇒ Move the stretcher onto the upper body using the pick-up system.
- ⇒ Ensure that the pick-up system is locked in position.



# 4.10 Unloading the stretcher with the "Power-LOAD" pick-up system



Further information on operating the automatic recording system can be found in its operating instructions.

#### WARNING

Risk of injury when the ambulance table is moved automatically.

When loading and unloading in conjunction with an automatic pick-up system, the ambulance table moves independently. This poses a general risk of injury.

#### Therefore:

- Do not leave the ambulance table unattended.
- To operate the ambulance table during loading and unloading, position it behind the vehicle to the right of the upper body.
- Keep access to the operating elements, especially the emergency stop button, clear.
- ⇒ Park the ambulance safely and apply the parking brake.
- ⇒ Open and lock the rear doors.
- ⇒ Ensure that the ambulance table is in a favourable position for unloading in the transverse direction (see section4.8, page ).41

#### **WARNING**

Risk of injury due to improper operation of the stretcher or the mounting system.

There is a risk of injury during loading and unloading due to the stretcher rolling backwards, slipping or tipping. This is possible if the stretcher or the pick-up system is operated incorrectly or if the pick-up system fails. The risk exists for both the operator and a person on the mobile stretcher.

- Familiarise yourself with the operation of the stretcher and the pick-up system and observe the safety instructions.
- Always use two people to handle the loaded stretcher during loading and unloading, with one person securing the stretcher.
- Secure the stretcher against rolling back, slipping and tipping during loading and unloading.
- ⇒ Prepare the pick-up system for removing the stretcher.







- ⇒ Unlock the pick-up system.
- ⇒ Take up a position behind the vehicle to the right of the ambulance table.
- ⇒ Move the mobile stretcher backwards from the upper body as far as it will go using the pick-up system.
  - → The ambulance table automatically moves to the loading position.
- ⇒ Fold out the chassis of the stretcher.
- ⇒ Disconnect the stretcher from the mounting system.
- ⇒ Secure the stretcher against rolling away.
- ⇒ Take up a position behind the vehicle to the right of the ambulance table.
- ⇒ Tap the "Load and unload" rocker switch (2) at the top.
  - → The ambulance table automatically moves into the transport position.
- ⇒ Move the pick-up system onto the top tray.
- ⇒ Ensure that the pick-up system is locked in position.

# 4.11 Set loading position (programming mode)

The loading position of the ambulance table can be adjusted to adapt the height to the stretcher, the ambulance vehicle or the ambient conditions.

To set the loading position, the control unit of the ambulance table is set to programming mode.

- ⇒ Press the "Block" button (7) for five seconds.
  - → The control unit of the ambulance table is in programming mode, the "Block" signal light (7) flashes.
- ⇒ Press and hold the "Load and unload" rocker switch (2) at the bottom to move to the loading position and set it lower.
- ⇒ Press and hold the "Load and unload" rocker switch (2) at the top to raise the loading position.
- ⇒ Release the pressed rocker switch when the target position is reached.
- ⇒ Press the "Block" button (7).
  - The control of the ambulance table is back in normal operating mode, the set loading position is saved and the "Block" signal light goes out.



# 5 Maintenance and repair



Information on the maintenance and repair of the basic vehicle, other equipment components of the ambulance vehicle, the pick-up system and the stretcher can be found in their operating manuals.



This chapter only describes maintenance work that can be carried out by the operating personnel or by the operator. This also includes cleaning the ambulance table.

Any further maintenance and repair work requires specialist knowledge and may only be carried out by the manufacturer or by persons authorised and appointed by the manufacturer.

The safety instructions in this chapter must be observed by all persons carrying out maintenance or repair work on the ambulance table.

# 5.1 Safety instructions for maintenance and repair



Before carrying out maintenance and repair work, be sure to read the chapter on safety (see chapter 1, page ).10

#### WARNING

Risk of injury during maintenance and repair work.

The ambulance table harbours considerable dangers for untrained persons.



- The maintenance work listed here may only be carried out by trained personnel.
- Maintenance and repair work that goes beyond the scope described in this chapter may only be carried out by the manufacturer or by persons authorised and appointed by the manufacturer.
- Only carry out further work on electrical components and connections after disconnecting the power supply.
- Before carrying out any further work, allow the hydraulic unit to cool down sufficiently to avoid burns on hot parts.





#### **WARNING**

Faultless operation of the ambulance table cannot be guaranteed if it is not properly maintained. This may result in personal injury and damage to property.

#### Therefore:

- Carry out maintenance and repair work according to the specified intervals.
- Keep maintenance logs.
- Only use spare parts approved by the manufacturer.
- To avoid consequential damage, damage to load-bearing components must be repaired immediately

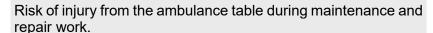
#### WARNING

Risk of injury when working on pressurised components.

When working on pressurised components, hydraulic oil can escape and cause serious injuries.

#### Therefore:

- Before starting work, ensure that the hydraulic unit is depressurised and the pressure accumulators are empty.
- Take care when handling pressurised components.



The ambulance table can cause many hazards during maintenance and repair work.

- Before carrying out maintenance and repair work, take the ambulance table out of operation and secure it against being started up. To do this, remove the fuse from the ambulance table control unit (see section6.1, page).55
- Support the ambulance table mechanically to prevent it from falling due to gravity.
- Secure the transverse movement of the ambulance table against unintentional operation.
- Carry out all work in sufficient light.
- Observe all applicable safety and environmental protection regulations.
- Do not put the ambulance table back into operation until all maintenance work has been completed.









#### **WARNING**

Danger to life due to dismantled protective and safety equipment.

If protective and safety devices are dismantled, they cannot protect against the existing hazards.

#### Therefore:

- Only dismantle protective and safety devices for maintenance and repair work.
- Always refit the protective and safety equipment after completing the work.
- Do not modify or bypass protective and safety devices.

### 5.2 Regular maintenance work

The maintenance schedule lists the maintenance work to be carried out regularly

For maintenance work that must be carried out by a specialist, contact customer service (see chapter8, page).67

#### 5.2.1 Maintenance records

Enter the maintenance work carried out in the table provided (see section 5.4, page 54). This makes the maintenance process traceable.

It is recommended that you keep your own lists for additional records of maintenance work.



#### 5.2.2 Maintenance schedule

The maintenance intervals specified in the maintenance schedule apply under normal operating conditions. Depending on the actual operating conditions, the intervals may need to be shortened. If in doubt, contact the manufacturer (see chapter8, page).67

Interval	Activity	see
Once per shift	Carry out a general check for damage and faults, initiate repairs if necessary:	
	Check bolt and screw connections for mechanical damage.	
	Check load-bearing parts for cracks or damage.	
	Check all components of the ambulance table for damage, unusual deformation, corrosion or signs of wear.	
	Check the ambulance table for atypical noises.	
	Carry out a visual inspection of the lifting cylinders and their hydraulic lines for leaks.	
	Check safety signs for completeness.	Section1.12 , page .20
Monthly	Check the emergency stop device.	Section5.3.1 , page .52
Monthly or after cleaning	Lightly moisten the longitudinal guides of the upper frame with Ballistol (lint-free cloth or brush).	Section5.3.2 , page .53
As required	Clean the ambulance table.	Section5.3.2 , page .53
Annually	Have the inspection carried out by the manufacturer or by persons authorised and appointed by the manufacturer.	



### 5.3 Carry out maintenance work

#### 5.3.1 Check emergency stop button

- ⇒ Tap the "Load and unload" rocker switch (2) at the bottom.
  - → The ambulance table automatically moves to the loading position.

During the automatic movement of the ambulance table:

⇒ Press the emergency stop button (1).

If the movement does not stop immediately:

⇒ Take the ambulance table out of operation and initiate the repair.

If the movement is stopped immediately:

- ⇒ Reset the emergency stop button (1).
- ⇒ Tap the "Load and unload" rocker switch (2) at the top.
  - → The ambulance table automatically moves into the transport position.



#### 5.3.2 Cleaning

#### **ATTENTION!**

Risk of material damage if not cleaned properly.

The use of harsh or aggressive cleaning agents and the use of a high-pressure cleaner can cause damage to the ambulance table. Paintwork and seals can be damaged immediately and lubricants can be washed out or rendered ineffective

#### Therefore:

- Do not use harsh or aggressive cleaning agents for cleaning.
- Only use suitable disinfectants.
- Do not use a high-pressure cleaner for cleaning.
- Only use Ballistol to lubricate the longitudinal guides of the upper frame.
- If in doubt, contact customer service (see chapter8, page).67

In addition to the correct use of suitable disinfectants, normal cleaning of the ambulance table can be carried out using a mild household cleaner and a lint-free cotton cloth on all external surfaces.

Observe the following points:

- All bearing points are maintenance-free and must not be cleaned.
- The piston rods of the hydraulic cylinders must not be cleaned.
- Only clean the longitudinal guides of the top frame with a mild household cleaner.
- Lightly moisten the longitudinal guides of the top frame completely (without forming droplets) with Ballistol. Use a lint-free cloth or brush for this.





# 5.4 Maintenance and repair certificates

Maintenance work carried out				
date	Signature	Remarks / work carried out		







Information on decommissioning and preserving the base vehicle, other equipment components of the ambulance vehicle and the pick-up system and stretcher can be found in their operating manuals.

# 6.1 Temporarily secure the ambulance table against operation (remove the safety catch)

To secure the ambulance table against unintentional or unauthorised operation (e.g. for maintenance work), the safety catch on the ambulance table control is removed.

The fuses for the ambulance equipment are located in the central control unit of the ambulance equipment. In the standard case, this is located behind the driver's seat.



Information on the position of the central control of the ambulance equipment and the fuse for the control of the ambulance table in the vehicle can be found in the electrical circuit diagram supplied with the ambulance equipment (see appendix).

- ⇒ Remove the safety catch from the ambulance table control to secure it against operation.
- ⇒ Check that the table is stopped by pressing the "Raise" and "Lower" buttons in succession. The table must not move.
  - → The ambulance table is secured against operation.
  - → The necessary work can be carried out during the shutdown.

#### To put the ambulance table back into operation:

- ⇒ Replace the safety catch of the ambulance table control unit in its holder.
- ⇒ Initialise the outpatient table (see section7.1, page59).



### 6.2 Temporary decommissioning

- ⇒ Secure the ambulance table against operation (see section6.1
   ).
- ⇒ Clean the ambulance table.
- ⇒ Lightly moisten the longitudinal guides of the upper frame with low-viscosity machine oil.
- ⇒ Depressurise the hydraulic unit and empty the pressure accumulators.
- ⇒ Secure the operating elements for unlocking (hand lever of the upper tray, pedal for transverse movement) against actuation.
- ⇒ Electrically disconnect the ambulance table from the on-board power supply. To do this, remove the fuses from the control unit and the hydraulic unit.

If you have any further questions about decommissioning and preserving the ambulance table, contact customer service (see chapter8, page67)







Information on malfunctions and troubleshooting of the base vehicle, other equipment components of the ambulance vehicle as well as the pick-up system and the stretcher can be found in their operating instructions.

Proceed according to the fault table below in the event of faults with the ambulance table. If this does not remedy the problem, contact customer service (see chapter8, page).67 Malfunctions are often caused by incorrect operation. The information in these operating instructions must be observed.

Fault / fault message	(Possible) cause	Measures
Ambulance table does not rise, hydraulic unit is stationary.	The emergency stop button (1) has been pressed.	Switch the ambulance table back on (see section4.3, page ).37  Caution!  Only reset the emergency stop button if there is no longer any danger.
	Electrical fuses are defective.	Replace defective fuses.
	Connection to the vehicle electrical system is faulty.	Check the connection to the vehicle electrical system and initiate repairs if necessary.
	Fault in the hydraulic unit.	Take the ambulance table out of operation and initiate repairs.
	Malfunction of the control system.	Take the ambulance table out of operation and initiate repairs.
Ambulance table does not lift, hydraulic unit audibly in	Valve in control block defective.	Take the ambulance table out of operation and initiate repairs.
operation.	Emergency drain valve defective.	Take the ambulance table out of operation and initiate repairs.
Ambulance table does not lift under load or lifts too slowly.	Fault in the hydraulic unit.	Take the ambulance table out of operation and initiate repairs.
Ambulance table lowers under load.	Hydraulic unit leaking.	Take the ambulance table out of operation and initiate repairs.
	Valve in control block defective.	Take the ambulance table out of operation and initiate repairs.



Fault / fault message	(Possible) cause	Measures
Ambulance table does not lower.	Valve in control block defective.	Take the ambulance table out of operation and initiate repairs.
Hydraulic suspension does not switch off.	Valve in control block defective.	Take the ambulance table out of operation and initiate repairs.
Hydraulic suspension is not active.	Hydraulic suspension is switched off.	Switch on the hydraulic suspension.
	Ambulance table is too far out of the centre position	Raise or lower the ambulance table closer to the centre position.
	Valve in control block defective.	Take the ambulance table out of operation and initiate repairs.
	Pressure accumulator defective.	Take the ambulance table out of operation and initiate repairs.
	Pressure accumulators have too high pressure.	Empty the pressure accumulator (see section7.2 , page60 ).
Hydraulic unit makes unusual noises or is too loud.	Oil level in the oil reservoir of the hydraulic unit is too low.	Take the ambulance table out of operation and have the hydraulic oil topped up.
	Fault in the hydraulic unit.	Take the ambulance table out of operation and initiate repairs.
Block" signal light (8 ) flashes white	Control unit is in programming mode.	Exit programming mode (see section4.11 , page47 ).
(0.5 s on / 0.5 s off)	Control unit is in initialisation mode.	Exit initialisation mode (see section7.1 , page59 ).
Block" signal light (8 ) flashes white	Supply voltage on the hydraulic unit too low.	Check wiring system and repair if necessary.
(0.5 s on / 3.5 s off).		Restart and initialise the control unit (see section7.1 , page59 ).
Block" signal light (8) flashes white (2 s on / 2 s off).	Power monitoring of the hydraulic unit has been triggered.	Restart and initialise the control unit (see section7.1 , page59 ).  If the fault persists: Initiate repair.
	Malfunction of the rotation angle sensors.	Restart and initialise the control unit (see section7.1 , page59 ).  If the fault persists: Initiate repair.





#### 7.1 Restart and initialise the control unit:

Before initialising the control unit, be sure to read the safety instructions in the Maintenance and repair chapter (see chapter5, page ).48

Initialisation of the ambulance table is always necessary if the power supply was insufficient (e.g. after removing the fuse from the control unit or if the supply battery is too low)

The control unit of the ambulance table is then in initialisation mode and does not accept any normal operating commands. Initialisation mode is indicated by the "Block" signal light (8) flashing (0.5 s on / 0.5 s off).

- ⇒ Remove the fuse from the control unit (15 A) (see section6.1 , page55 ).
- ⇒ Wait ten seconds.
- ⇒ Replace the control unit fuse.
  - → The control unit is in initialisation mode.
  - → The "Block" signal light (8) flashes (0.5 s on / 0.5 s off).
- ⇒ Press and hold the "Raise" button (3) or the "Lower" button (4).
  - → The ambulance table sinks completely.
- ⇒ Release the pressed button when the "Block" signal light (8) no longer flashes.
  - → The ambulance table accepts normal operating commands again.
- ⇒ Move the ambulance table once to each possible end position using the hydraulic functions to bleed the hydraulic system (see chapter4, page).35
  - → The ambulance table is ready for use again.



### 7.2 Empty the accumulator

It may be necessary to empty the accumulators before carrying out maintenance or repair work. Emptying the accumulators causes the table to drop to its lowest position due to its weight.

#### **WARNING**

Risk of crushing due to falling ambulance table.

The ambulance table sinks when the accumulator is emptied. This poses a risk of crushing between moving and stationary parts.

- Ensure that no persons other than the operator are present in the danger zone.
- To empty the accumulator, position it so that there is no risk of crushing.
- Pay attention to the sinking upper trough.
- Do not reach between moving and stationary parts.
- ⇒ Secure the ambulance table against operation (see section6.1 , page ).55
- ⇒ Press and hold the "Emergency lowering front" (9) and "Emergency lowering rear" (10) buttons until the ambulance table is fully lowered.
  - → The pressure accumulators are emptied.





### 7.3 Emergency operation

If there is a fault in the ambulance table or the pick-up system, it can be unloaded in emergency mode and loaded if necessary.



Information on emergency operation of the recording system can be found in its operating instructions.

#### WARNING

Risk of injury in the event of improper emergency operation.

Emergency operation requires increased attention, as supporting and safety functions are disabled. This is the case if both the ambulance table and the admission system malfunction. Improper operation can lead to unintentional movement of the ambulance table, admission system and travelling stretcher. The travelling stretcher can fall off the ambulance table. This poses a general risk of injury.

- If the pick-up system malfunctions, be sure to open the emergency operating flap.
- Only then move the stretcher.
- Be prepared to exert more force during operation.
- Always use two people to handle the stretcher in emergency mode.
- Secure the stretcher against rolling back, slipping and tipping during loading and unloading.





#### 7.3.1 Unload the stretcher if the ambulance table malfunctions

⇒ Lower the ambulance table by emptying the accumulator (see section7.2 , page ).60

#### WARNING

Risk of crushing due to tilting ambulance table.

The hydraulics of the ambulance table are not active during emergency operation. Depending on the load, the ambulance table tilts backwards due to the shift in weight when the stretcher is pulled backwards. The stretcher can be unintentionally accelerated by tilting. This poses a risk of injury.

- Slowly and carefully move the stretcher backwards to the tipping point using the pick-up system.
- Be prepared for the movement of the ambulance table and stretcher.
- Ensure that the moving mobile stretcher remains between the guide plates n the upper trough.
- ⇒ Using two people, slowly and carefully pull the stretcher backwards on the support system until the ambulance table begins to tilt backwards.
- ⇒ Hold the stretcher in this position with two people until the ambulance table is fully tilted backwards.
- ⇒ Carefully move the stretcher backwards with two people as far as it will go and apply the brakes.
- ⇒ Fold out the chassis of the stretcher.
- ⇒ Disconnect the stretcher from the mounting system.
- ⇒ Secure the stretcher against rolling away.
- ⇒ Push the pick-up system fully forwards by hand and secure it.
- ⇒ Push the ambulance table at the head end down to the lowest position.





#### 7.3.2 Load the stretcher if the ambulance table malfunctions

- ⇒ Lower the ambulance table by emptying the accumulator (see section 7.2, page ).60
- ⇒ Slowly pull the pick-up system backwards by hand.
- ⇒ Slowly raise the ambulance table at the head end by hand. Do not exceed an inclination of 5°.
- ⇒ Position the stretcher lengthways, head first, behind the ambulance table. Ensure that it is centred and aligned with the ambulance table.
- ⇒ Connect the stretcher to the mounting system.
- ⇒ Fold in the chassis of the stretcher.

#### WARNING

Risk of crushing due to tilting ambulance table.

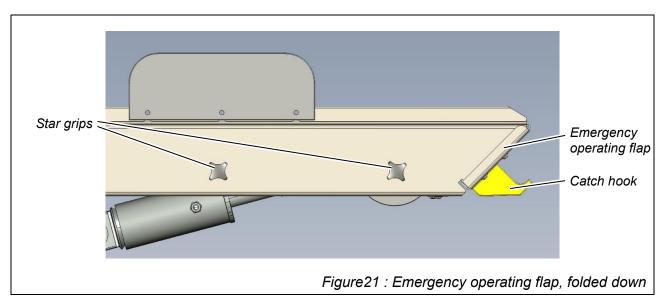
The hydraulics of the ambulance table are not active during emergency operation. The weight shift when pushing the stretcher forwards causes the ambulance table to tip forwards depending on the load. This poses a risk of injury.

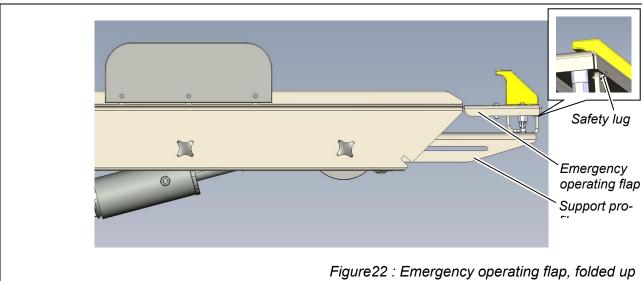
- Slowly and carefully move the stretcher forwards to the tipping point using the pick-up system.
- Be prepared for the movement of the ambulance table and stretcher.
- Ensure that the moving mobile stretcher remains within the guide of the upper trough.
- ⇒ Using two people, slowly and carefully push the stretcher forwards on the pick-up system until the ambulance table begins to tilt forwards.
- ⇒ Hold the stretcher in this position with two people until the ambulance table is fully tilted forwards and levelled.
- ⇒ Carefully move the stretcher forwards on the mounting system with two people as far as it will go.
- ⇒ Ensure that the pick-up system is locked in position.





#### 7.3.3 Unload the stretcher if the pick-up system malfunctions





- ⇒ Loosen the four star grips on both sides of the upper tray (see figure21 ).
- ⇒ Fold up the emergency operation flap on the ambulance table to a horizontal position and hold it there.
- ⇒ Pull out the support profiles completely on both sides. When doing so, ensure that the locking tabs of the emergency operating flap engage in the recesses of the support profiles (see Figure ).22
- ⇒ Tighten the four star handles on both sides of the top tray.
- ⇒ In emergency mode, move the stretcher backwards until the stretcher is held by the catch hook of the emergency operation flap.



- ⇒ Take up a position behind the vehicle to the right of the ambulance table.
- ⇒ Tap the "Load and unload" rocker switch (2) at the bottom.
  - → The ambulance table automatically moves to the loading position.
- ⇒ Fold out the chassis of the stretcher.
- ⇒ Disconnect the stretcher from the mounting system.
- ⇒ Secure the stretcher against rolling away.
- ⇒ In emergency mode, push the pick-up system fully forwards and secure it.
- ⇒ Take up a position behind the vehicle to the right of the ambulance table.
- ⇒ Tap the "Load and unload" rocker switch (2) at the top.
  - → The ambulance table automatically moves into the transport position.

If the pick-up system is back in normal operation and the emergency operation flap is no longer required:

- ⇒ Undo the four star grips on both sides of the upper tray.
- ⇒ Push the support profiles fully in on both sides. Hold the emergency operating flap in the folded-up position.
- ⇒ Fold down the emergency operation flap and bring it to the system at the ambulance table until it is held there automatically.
- ⇒ Tighten the four star handles on both sides of the top tray.

### 7.3.4 Load the stretcher if the pick-up system malfunctions

- ⇒ Loosen the four star grips on both sides of the top tray (see Figure21 , page ).64
- ⇒ Fold up the emergency operation flap on the ambulance table to a horizontal position and hold it there.
- ⇒ Pull out the support profiles completely on both sides. When doing so, ensure that the locking tabs of the emergency operation flap engage in the recesses of the support profiles (see Figure22, page).64
- ⇒ Tighten the four star handles on both sides of the top tray.
- ⇒ In emergency mode, move the pick-up system backwards until the stretcher is held by the catch hook of the emergency operation flap.



- ⇒ Take up a position behind the vehicle to the right of the ambulance table.
- ⇒ Tap the "Load and unload" rocker switch (2) at the bottom.
  - → The ambulance table automatically moves to the loading position.
- ⇒ Position the stretcher lengthways, head first, behind the ambulance table. Ensure that it is centred and aligned with the ambulance table.
- ⇒ Connect the travelling stretcher to the pick-up system in emergency mode.
- ⇒ Fold in the chassis of the stretcher.
- ⇒ Take up a position behind the vehicle to the right of the ambulance table.
- ⇒ Tap the "Load and unload" rocker switch (2) at the top.
  - → The ambulance table automatically moves into the transport position.
- ⇒ In emergency mode, move the stretcher forwards as far as it will go.
- ⇒ Ensure that the pick-up system is locked in position.

If the pick-up system is back in normal operation and the emergency operation flap is no longer required:

- ⇒ Loosen the four star grips on both sides of the top tray.
- ⇒ Push the support profiles fully in on both sides. Hold the emergency operating flap in the folded-up position.
- ⇒ Fold down the emergency operating flap and bring it to the system on the ambulance table until it is held there automatically.
- ⇒ Tighten the four star handles on both sides of the top tray.



### 8 Customer service

The WAS GmbH customer service is available for ordering spare parts, for maintenance and repair work as well as for problems and questions.

The address is:

Wietmarscher Ambulanz- und Sonderfahrzeug GmbH

Darwinstrasse 11 D-48488 Emsbüren Phone: +49 (0) 5903

Fax: +49 (0) 5903 93201-602

e-mail: <u>info@was-vehicles.com</u> Internet: <u>www.was-vehicles.com</u>



# 9 Declaration of Conformity

# **EC Declaration of Conformity**

according to EC Directive Machinery 2006/42/EC, Annex II A

We, the manufacturer, hereby declare that the machine described below, in its design and construction and in the version placed on the market by us, complies with the essential health and safety requirements of EC Directive 2006/42/EC. This declaration shall lose its validity if the machine is modified without our agreement.

Designation: **Outpatient table**Type: Hydro-Universal

Number: Serial number 0001 to 0100

Year of construction: 2023

#### Manufacturer

Company: Wietmarscher Ambulanz- und Sonderfahrzeug GmbH

Address: Darwinstraße 11

D-48488 Emsbüren

Applied harmonised standards:

EN ISO 12100:2010-11, EN ISO 4413:2010

Other technical standards and specifications applied:

DIN EN 1789:2020, DIN EN 1865-5:2012

Compliance is declared with the following other directives applicable to the machine:

**ECE R10** 

Authorised representative for technical documentation:

#### Stefan Kiepe

(Address: see address of the manufacturer)

Emsbüren, 05.10.2023		CEO
Place, date	Signature Roland Müller	Details of the signatory



# 10 Appendix

### Contributed to the content of these operating instructions

Hydraulic circuit diagram (not part of this BA, only WAS internal)

Electrical circuit diagram (not part of this BA, only WAS internal)

Sample operating instructions

Documentation on the Stryker recording system

Stryker stretcher documentation