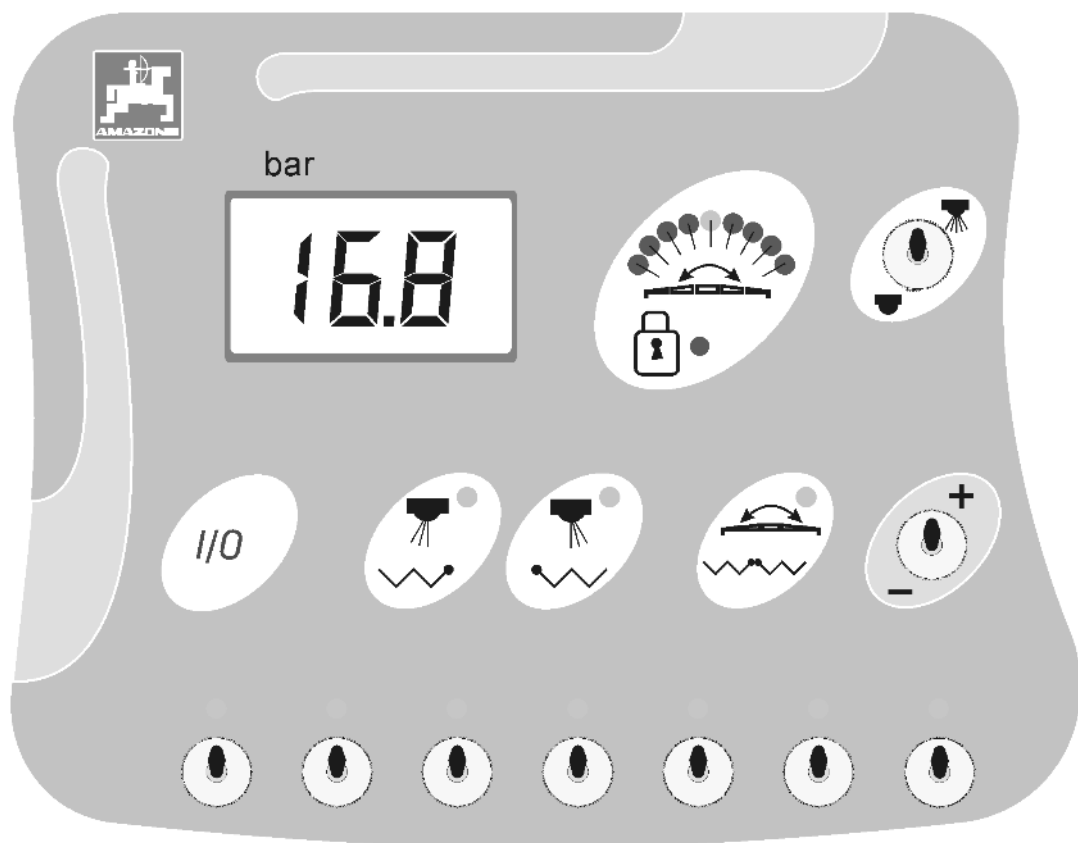


Operator's manual

AMAZONE

AMASET⁺

Switch box



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**Before starting operation
carefully read and adhere to
this operator's manual.
Keep for other users!**

en



Reading the instruction

manual and to adhere to it should not appear to be inconvenient and superfluous as it is not enough to hear from others and to realise that a machine is good, to buy it and to believe that now everything would work by itself. The person concerned would not only harm himself but also make the mistake of blaming the machine for the reason of a possible failure instead of himself. In order to ensure a good success one should go into the mind of a thing or make himself familiar with every part of the machine and to get acquainted with its handling. Only this way, you would be satisfied both with the machine as also with yourself. To achieve this is the purpose of this operator's manual.

Leipzig-Plagwitz 1872. Rud. Sark.

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1 User advice

The chapter "User advice" provides information for dealing with the operator's manual

1.1 Purpose of the document

The present operator's manual

- describes the operation and the maintenance for the machine.
- gives important hints for a safety conscious and efficient operation with the machine.
- is part of the implement and should be kept so that it is always to hand on the machine or in the towing vehicle.
- should be kept for future use.

1.2 Information about directions in this operator's manual

All information about direction in this operator's manual are to be understood in direction of travel.

1.3 Illustrations used

Operational action and react

The steps of operation to be carried out by the operational staff are described in a numbered list. Adhere to the sequence of the steps. The reactions on the individual operational step are marked with an arrow. Example:

1. Operational action step 1
→ Reaction of the machine on operational action step 1
2. Operational action step 2

Enumerations

Enumerations without indispensable sequence are described as a list with enumeration items. Example:

- Item 1
- Item 2

Position figures in illustrations

Figures in round brackets refer to position figures in illustrations. The first figure refers to the illustration, the second figure refers to the item number in the illustration.






Example (Fig. 3/6)

- Figure 3
- Item 6

2 General safety advice

2.1 Illustration of safety advice

The safety advice is identified by a symbol and a warning. The warning describes the seriousness of the threatened danger. The individual symbols have the following meaning:

	<p>DANGER</p> <p><u>Immediately</u> imminent danger for life and health of persons (severe injuries or death).</p> <p>Not adhering to this advice will cause severe damage to health up to life threatening injuries.</p>
	<p>WARNING</p> <p><u>Possibly</u> danger for life and health of persons.</p> <p>Not adhering to these hints may cause severe adverse health effects up to life threatening injuries.</p>
	<p>CAUTION</p> <p><u>Possibly</u> dangerous situation (slight injuries, material damage).</p> <p>Not adhering to these hints may cause slight injuries or material damage.</p>
	<p>IMPORTANT</p> <p>Obligation of particular behaviour or action for the appropriate handling of the machine.</p> <p>Not adhering to these hints may cause trouble on the machine or the environment.</p>
	<p>HINT</p> <p>Hint for use and particularly useful information.</p> <p>These hints will help you to optimally make use of the functions on your machine.</p>

3 Product description

This chapter

- provides you with a comprehensive survey about the design of the **AMASET⁺**.
- provides the descriptions of the individual components and parts

3.1 Overview

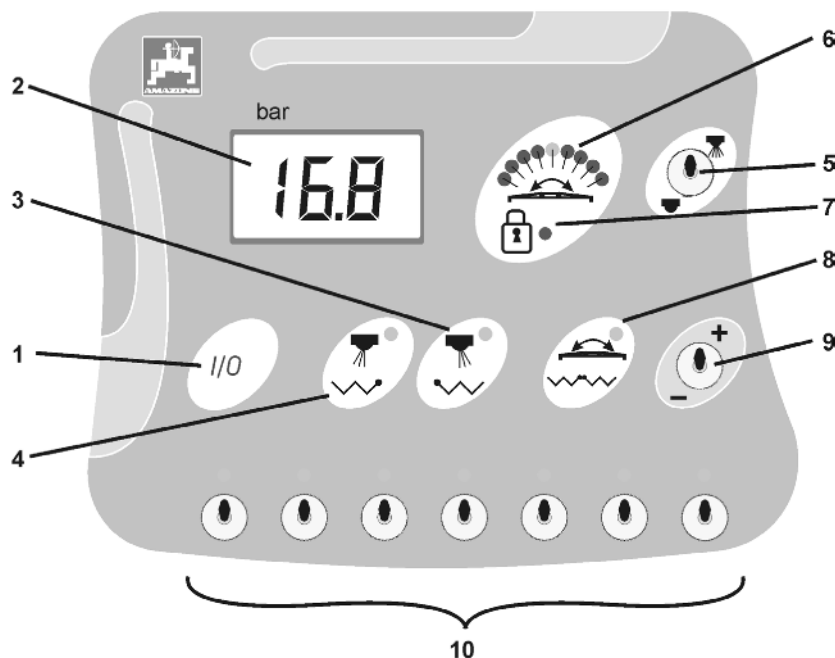


Fig. 1

- | | |
|--|---|
| (1) Key ON / OFF | (6) Indication tilt adjustment |
| (2) Indication spraying pressure | (7) Indication locking of the swing compensation |
| (3) Key optional equipment with light: <ul style="list-style-type: none"> o End nozzle switching right hand side o Border spreading nozzle switching right hand side o One side folding right hand side | (8) Key hydraulic changeover folding the booms – tilt adjustment - with light |
| (4) Key optional equipment with light: <ul style="list-style-type: none"> o End nozzle switching left hand side o Border spreading nozzle switching left hand side o One side folding left hand side | (9) Switch for setting the spray pressure |
| (5) Switching on / off the switch spraying operation | (10) Switch for switching on / off boom part width sections – with light |

3.2 Designated use of the machine

The switch box **AMASET⁺**

- is designed as indicating, monitoring and control device for AMAZONE **UFO1** field sprayers with equal pressure valve chest.

The declined use also includes:

- The declined use also includes:
- observing all hints in this operator's manual.
- adhering the service and maintenance work.
- the exclusive use of AMAZONE original - spare parts.

Other use than that stipulated is prohibited and is no longer considered as designed use.

For damage resulting from not designed use

- the operator himself will carry the full risk,
- the manufacturer will not accept any responsibility.

4 Assembly and function

The following chapter informs you about the assembly of **AMASET⁺** and the functions of the individual components.

4.1 Display / Indications

- Indication spraying pressure

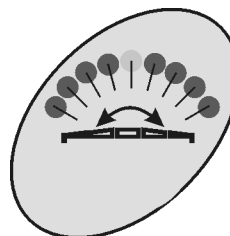
Shows the spraying pressure during operation of the field sprayer.

bar



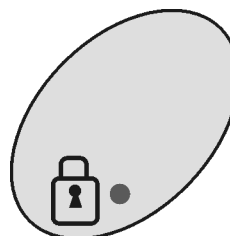
- Indication tilt adjustment

- The boom tilting is indicated with the aid of a red light.
- The average position is shown in green.
- No tilt adjustment available: Light emitting diode outermost right hand side lights up.



- Indication locking of swing compensation

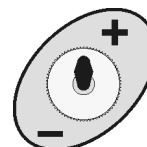
The light indicates that the swing compensation is locked.



4.2 Description of the switches

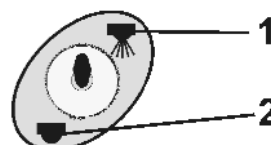
- Switch for setting the spray pressure

- **+** - increasing the spray pressure.
- **-** - reducing the spray pressure.



- Switching on / off the switch spraying operation

Opening (1), closing (2) all boom part width sections.



- Switch for switching on / off the boom part width sections. The number of switches is equal to that of the boom part width sections.

Left hand switch – boom part width section outermost left hand side off / on.

Right hand switch – boom part width section outermost right hand side off / on.

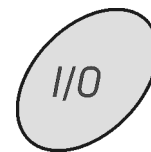


4.3 Description of the keys

- Key On / OFF

Switching on and off the **AMASET⁺**

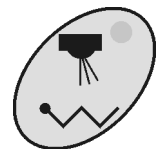
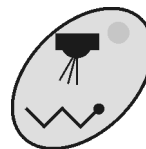
After switching on the pressure indication lights up and **AMASET⁺** is ready for operation.



- Keys optional equipment: Left and right hand side

These keys are available for one of the following 4 possibilities:

- End nozzle switching
When the end nozzle switching is switched on (green indicator light) the outer boom part width section is reduced each by 1, 2 or 3 nozzles.
- Border spreading nozzles
When the end nozzle switching is switched on (green indicator light) the outer nozzle is switched off and the border spreading nozzle is switched on.
- One side folding
When the boom is folded down the one side folding can be switched on.
Control lamp illuminates:
Boom side is blocked.
Control lamp does not illuminate:
Boom side can be folded.
- Key not covered.



- Key hydraulic changeover folding of the boom – tilt adjustment

For coupling the hydraulic functions connect tilt adjustment and folding to a double acting control valve on the tractor.

The light indicates when the tilt adjustment is active.



5 Putting into operation

In this chapter you will find information for putting your machine into operation.



DANGER

Before putting the machine into operation ensure that the operator has read and understood the operator's manual.



DANGER

Please also refer to the operator's manual for the field sprayer!.

5.1 Initial operation

- Setting the equal pressure valve chest (see Seite 11)

5.2 **AMASET⁺** - connection

- Connect the implement plug on **AMASET⁺** .

6 Settings

6.1 Setting the equal pressure valve chest



Setting the equal pressure valve chest

- once a year.
- at every nozzle change.





Hint!

The equal pressure valve chest can be adjusted for 5 different nozzles, according to the 5 colours on the pre-selection disks.



In order to get a nozzle to work the related colour of the disk should point towards the left hand side.

1. Fill the mounted sprayer with approx. 400 l of water.
2. Fold down the boom and drive the pump with the service rev. speed (e.g. 450 R.P.M.).
3. Switch on  **AMASET⁺** (Fig. 2/1).
4. Switch on  spraying operation
water escapes from the nozzles.
5. Set agitation intensity 1 on the step tap.


6.  (Fig. 2/3) actuate **+** / **-** until the spray pressure indicator shows a spray pressure of 4 bar.
7. The coloured icons on the equal pressure pre-selection disks (Fig. 3/1) correspond to the colour of the relevant spraying nozzle. The coloured icon must point to the left hand side (Fig. 4/1).



Fig. 2

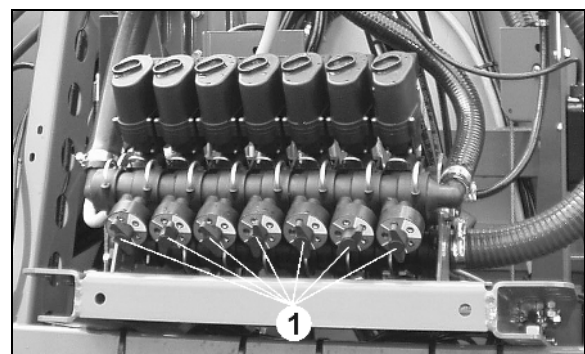


Fig. 3

8. Pre-adjust the equal pressure valve chest via the stud screw (Fig. 4/2).
 - o Close one boom part width section via a boom part width section switch (Fig. 2/4). The adjusted spray pressure changes on the spray pressure indication.
 - o Turn the stud screw (Fig. 4/2) related to this boom part width section valve until the spray pressure indication shows again the spray pressure of 4 bar. Then open this boom part width section.
 - o Set the equal pressure valve chests of the other boom part width section valves in the same way.
9. After adjustment close all boom part width sections. The indicated pressure should not also be 4 bar. If this is not the case, repeat the adjustment on the equal pressure valve chest.
10. After the pre-adjustment of the equal pressure for the relevant nozzle, the equal pressure can be re-established after every nozzle change by turning the equal pressure pre-select disc to the related nozzle colour. For this slacken the thumb nut (Fig. 4/3), pull out the equal pressure pre-select disc and turn – retighten the thumb nut.

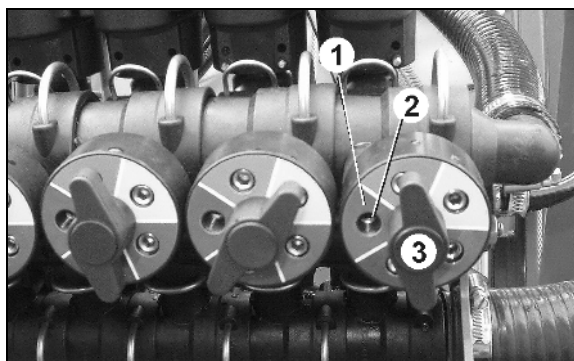


Fig. 4


7 Operation of the machine



DANGER

- When starting to operate the machine observe the operator's manual for the field sprayer.
- When operating the machine observe the chapter "Safety advice for the operator", page 5.

1. Prepare the spray cocktail as prescribed according to the instructions of the plant protective agent manufacturer and agitate.
2. Set the reversing taps on the control panel to spraying.
3. Read off the tractor meter the correct tractor gear for a forward speed from 6 up to max. 8 km/h. Use the throttle hand lever for setting the constant tractor engine rev. speed considering the pump drive rev. speed (min 350 R.P.M: and max. 550 R.P.M.).

4. Switch on  **AMASET⁺**.
5. Lifting the sprayer boom until the transport securing device unlocks via the tractor control valve *yellow*.
6. Folding down the sprayer boom via the tractor control valve *green*.



Beforehand actuate the selection switch if applicable.

7. Setting the spraying height via tractor control valve hose mark *yellow*.



8. Adjusting the boom tilting via the tractor control valve *natural*.



Beforehand actuate the selection switch if applicable.

9. Setting the spray rate via the spray pressure!





actuate **+** / **-** until the spray pressure indication shows the required spray pressure according to the spray rate table.

10. Select the suited tractor gear and drive off



Maintain the selected tractor gear during the spraying operation.

11.  Switching on spraying operation and spraying the area.
12.  Switching off spraying operation.
13. Align the sprayer boom horizontally *natural* and fold in *green* via control valve on the tractor.
14. Via control valve on the tractor *yellow* lower the sprayer boom until the transport securing device locks.



Metering automatics:

Within one tractor gear the forward speed related metering is achieved. That means, if the tractor engine rev. speed drops, e.g. due to a gradient, in addition to the forward speed also the tractor universal joint shaft rev. speed and thus the pump drive rev. speed drops in the same ratio. Hereby also the pump capacity changes in the same ratio and the desired spread rate [l/ha] is maintained – within one tractor gear. At the same time also the adjusted spray pressure changes.



WARNING

To achieve the optimum effect of the spray cocktail to be spread and to avoid unnecessary environmental harm the spray pressure for the relevant nozzle has to be maintained within the relevant pressure range (see spray rate table).

Example:

When the adjusted spray pressure is, **for example, 3,2 bar**, spray pressures of between **2,4** and **4,0 bar** are allowed. Never ever leave the permissible pressure range of the installed nozzles.

When increasing the forward speed do not exceed the maximum permissible pump drive rev. speed of 550 R.P.M.!



WARNING

Bigger deviations of the spray pressure would cause an undesired change of droplet size of the spray cocktail!



Switch on and off the sprayer boom only whilst driving.

- During spraying operation accurately maintain the pre-selected tractor gear and the agitation intensity, as otherwise deviations from the desired spray rate would result.
- During the spraying operation continuously check the spray cocktail consumption in relation to the treated area.
- In case of a considerable drop of the spray pressure the tank is empty. If in case of unchanged conditions the spray pressure drops, either the suction or the pressure filter is blocked.
- All spray rates l/ha in the spray rate table are valid for water. Multiply the corresponding values for AUS by 0.88 and for NP solutions by 0.85.

8 Faults

Fault	Cause	Remedy
Spray rate is not correct	Pressure meter is defective	Contact an authorised workshop
	Nozzles are worn	Exchange the nozzles
Spray pressure adjustment is not possible	Power supply is interrupted	Check the power supply
Switching boom part width sections is not possible	Power supply is interrupted	Check the power supply
	Boom part width section valve defective	Exchange the boom part width section valve
No correct switching <ul style="list-style-type: none"> • of the end nozzles • of the border nozzles • one side folding • changing over from folding to tilt adjustment 	Solenoid valves dirty	Clean solenoid valves

9 Maintenance, repair and care

Once a year: Setting the equal pressure valve chest (see Seite 11)



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