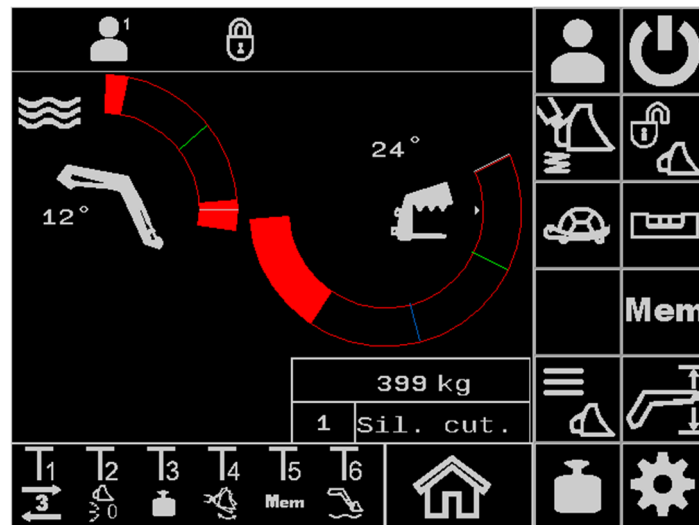# Operating instructions

ISOBUS Software

(FW E231 3165)

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Copyright

The original instructions were written in the German language.

Instructions in other languages were translated from German.

# Table of Contents

1 Start-up

1.1 Start procedure based on the example of the Deutz VT6150.4 TTV

To be able to work with the front loader, the following steps must be performed each time the tractor is started.
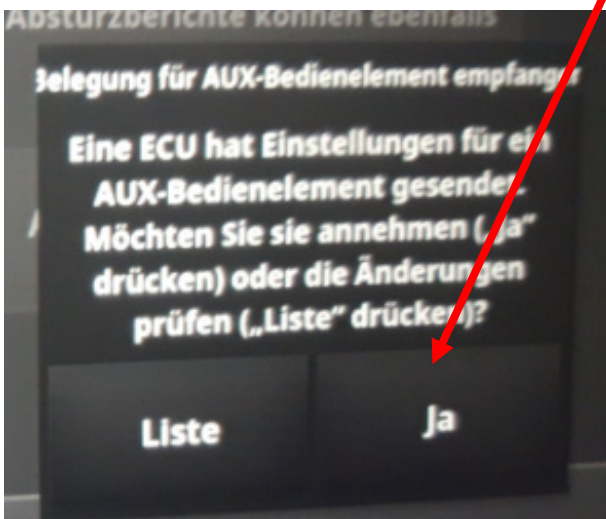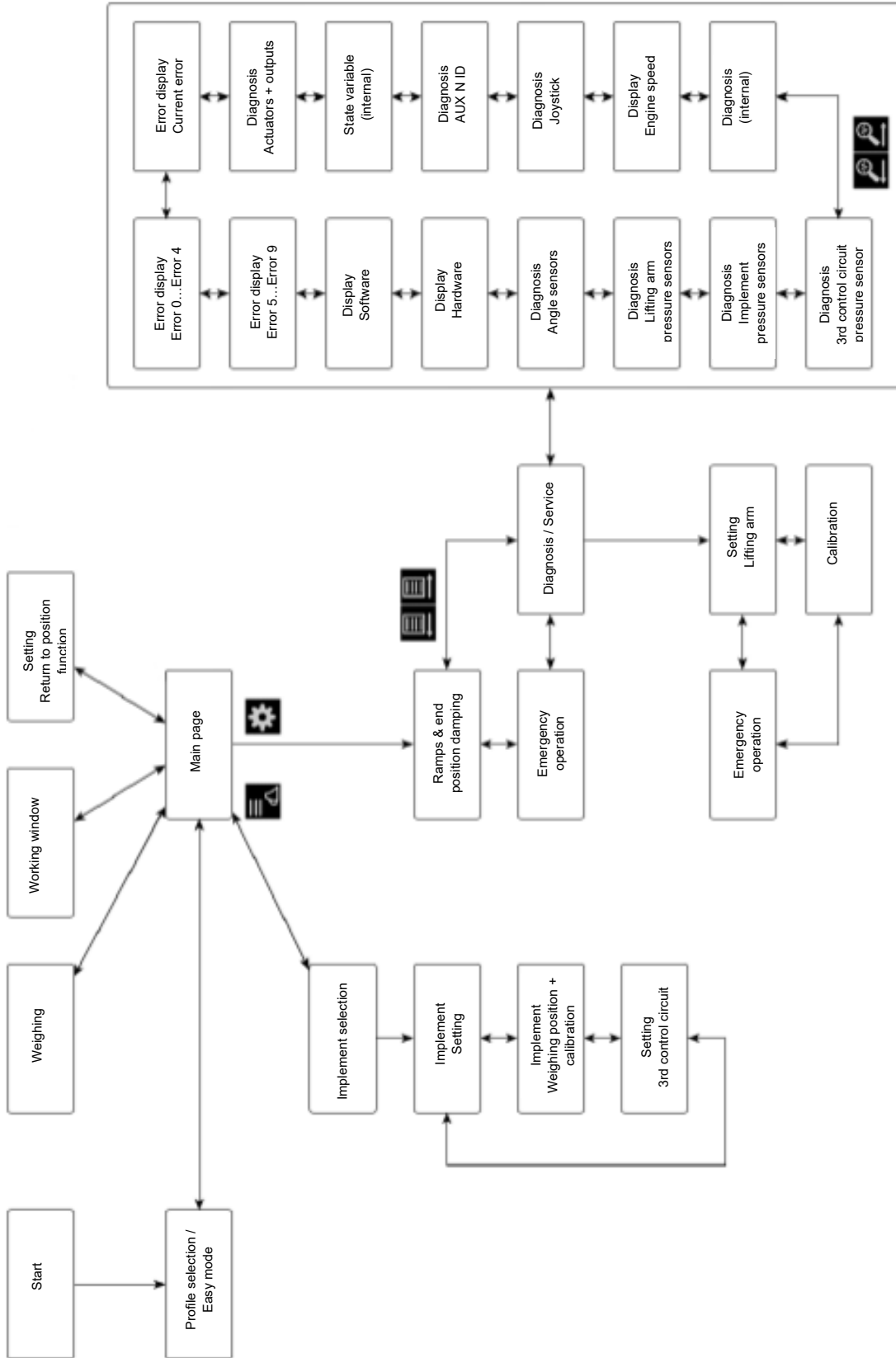

Maximise the front loader page.

Activate AUX-N: →

Acknowledge any appearing AUX-N messages.

Open the Bucher Automation page .

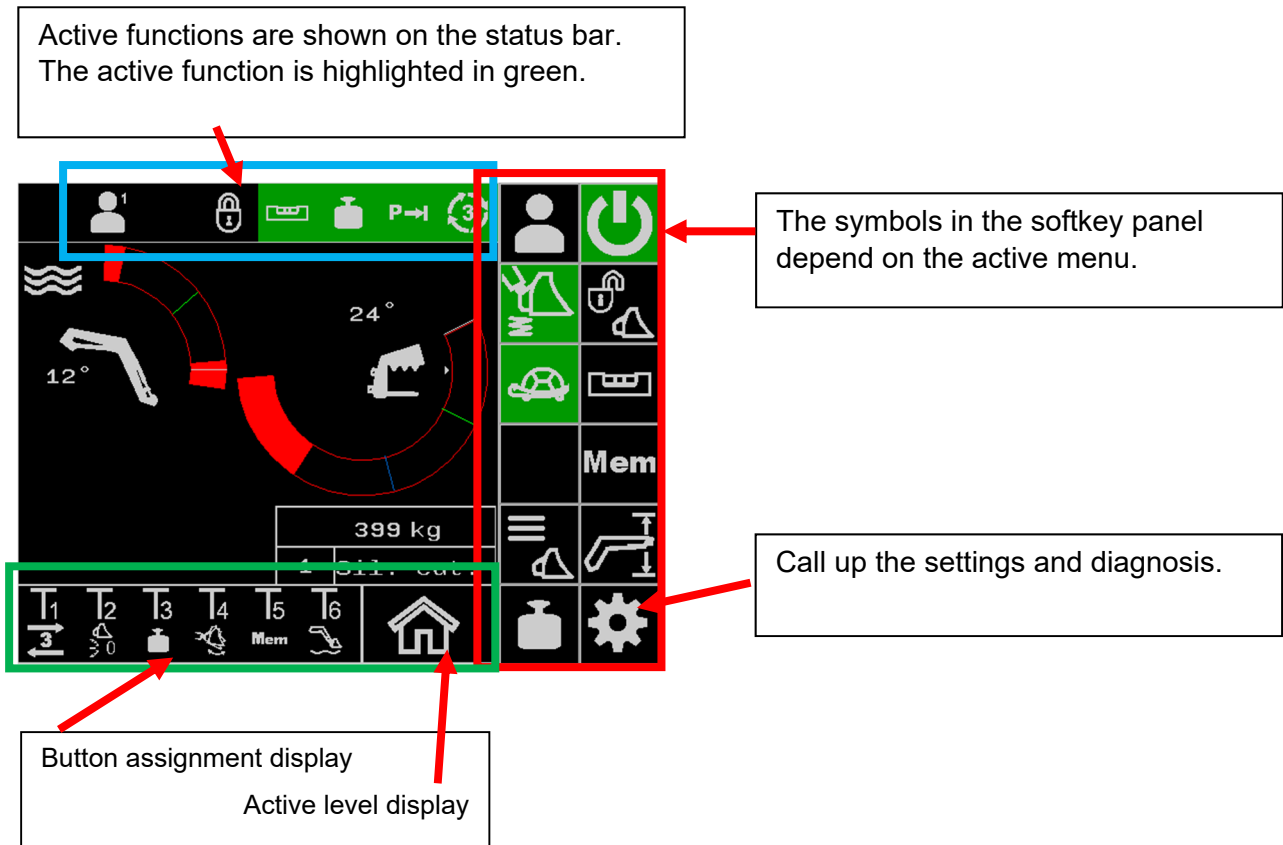Activate the front loader.

2 Menu navigation

3   Page layout

The active functions are shown on the status bar at the top edge of the screen.
On the right edge of the screen, there are up to 12 softkeys, depending on the active menu.
At the bottom edge of the screen, there is the display panel for the button assignment and the active level.

Active functions are shown on the status bar.
The active function is highlighted in green.

The symbols in the softkey panel depend on the active menu.

Call up the settings and diagnosis.

Button assignment display

Active level display

Input boxes

To change the value, tap on the box.
Inputs are made with the keypad.

Exit the page.

Save the parameter or exit without saving.

Navigate in the menu.

3.1.1 Symbols

Symbols in the status bar

	Parallel leveling		Pressure control for 3rd control circuit
	Implement locking mechanism		Continuous mode for 3rd control circuit
	Weighing		Tip-over protection active / implement info

Symbols for the button assignment

	Weighing		3rd control circuit		Parallel leveling off
	Return to position		Float position		3rd control circuit page A
	Bucket shake		Load-independent lowering implement off		3rd control circuit page B
	Implement zero position				

Symbols for the menu pages

	Profiles		Implement selection		Emergency operation
	Main page		Implements setup		Diagnosis
	Weighing		Weighing setup		Lifting arm setup
	Working window		3rd control circuit setup		Calibration
	Return to position setup		Ramps and vibration damping		Emergency operation

4 Menu pages

4.1 Driver profiles
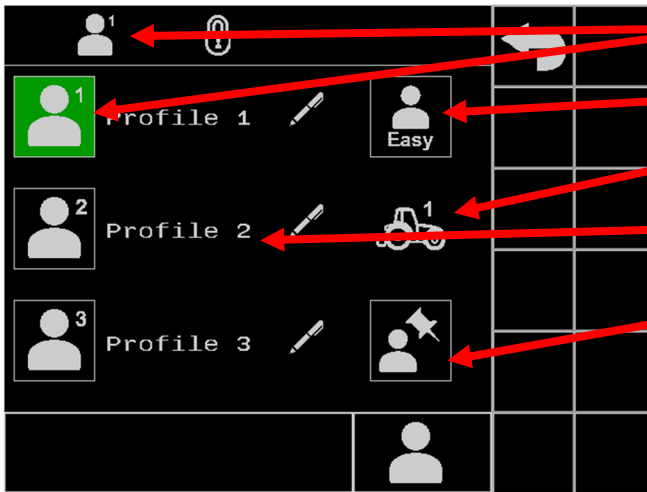
Current profile. Highlighted green.

Easy mode on/off

Current tractor profile

Here, a profile name with 10 letters can be assigned.

Pin the current profile. This page will then be skipped when the system is started.

Easy mode

In Easy mode, only a limited menu selection is available. Fixed values are set for the ramps, scaling, fine controls and end position damping.

4.2 Main page
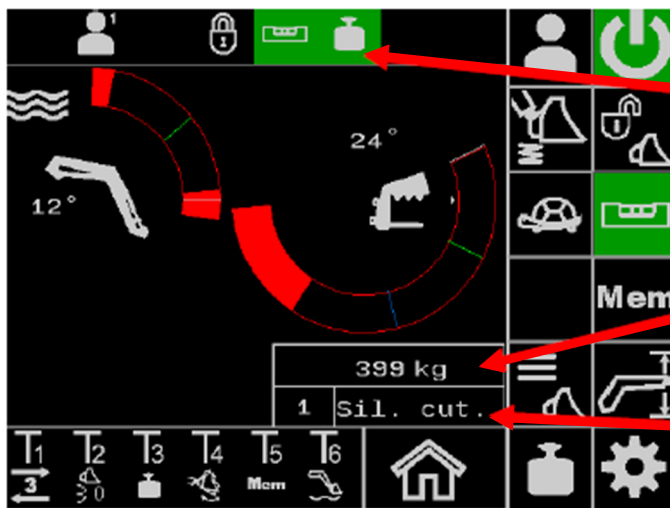
Weighing is active.

Current weight

Selected implement with implement number
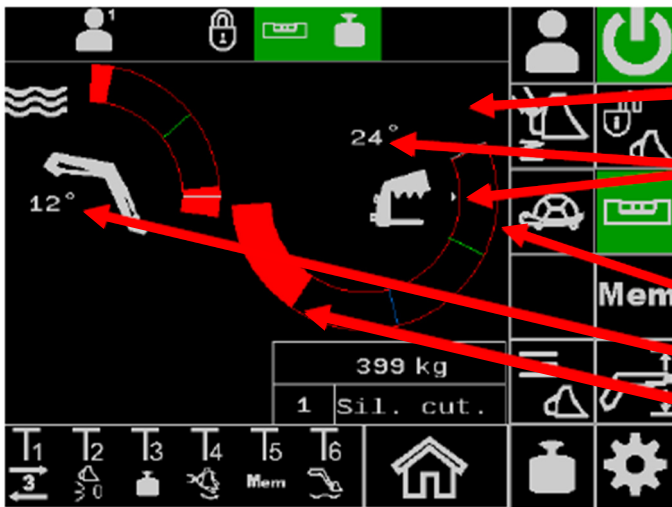
Top end position

Deviation from the horizontal position

Current position

Current position in degrees

Bottom end position

Activate the vibration damping.

Activate scaling for the lifting arm and implement (reduce speed).

Call up the implement settings and implement change.

Call up the Weighing page.
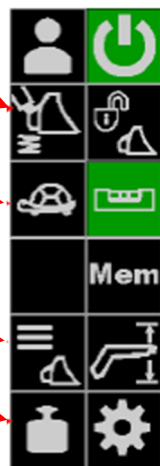
Activate system.

Implement unlocking

Activate parallel leveling.

Call up the Return to position page (memory).

Call up the working ranges.

Settings and diagnosis

Move to the memory position:
Press the button and move the joystick in the direction of the desired position.

Trigger the bucket shake:
Press the button and at the same time, move the implement axis using the joystick. The amplitude of motion is determined by moving the joystick.

Activate the 3rd control circuit:
Press the button and move the implement axis using the joystick.

Activate the float position:
When the float position is activated, press the button and move the joystick in the lowering direction (lifting arm or implement). Pressing the button again deactivates the float position.

4.2.1 Implement change

Status of the unlocking

Activate the unlocking.
The 3rd control circuit is
automatically unlocked by the
system.
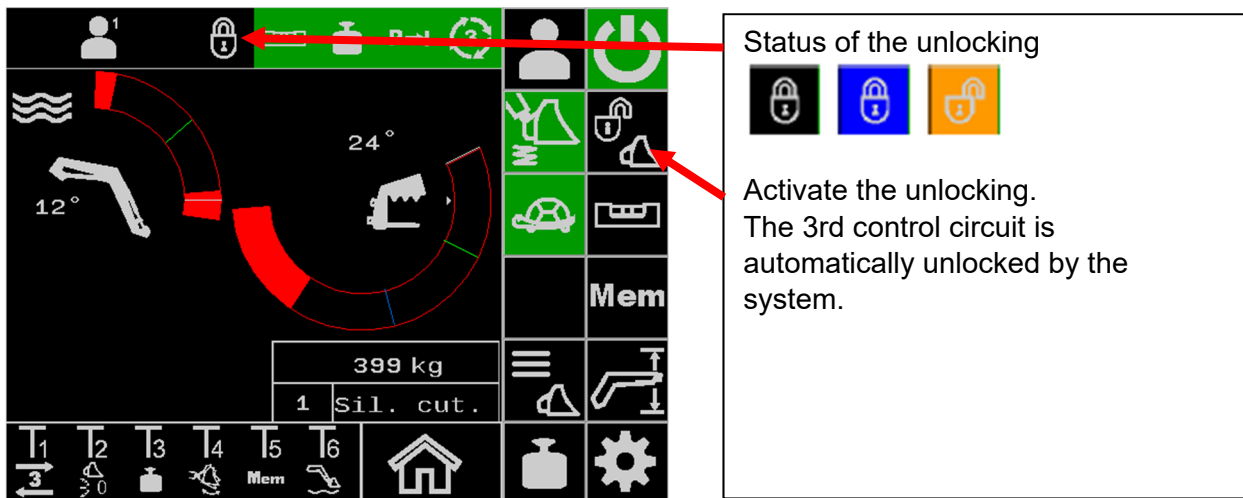
Procedure for implement unlocking and locking

| i | Implement unlocking is only possible when the current position of the lifting arm is ≤ 25°. |

When the softkey is actuated, it is highlighted blue.

By pressing on the symbol highlighted blue again, the lock will be opened. Unlocking of the 3rd control circuit is performed automatically by the system. The symbol is highlighted orange and indicates that the lock is open.

If the symbol highlighted orange is actuated, the lock is closed again. The symbol is highlighted black.

4.3 Weighing page
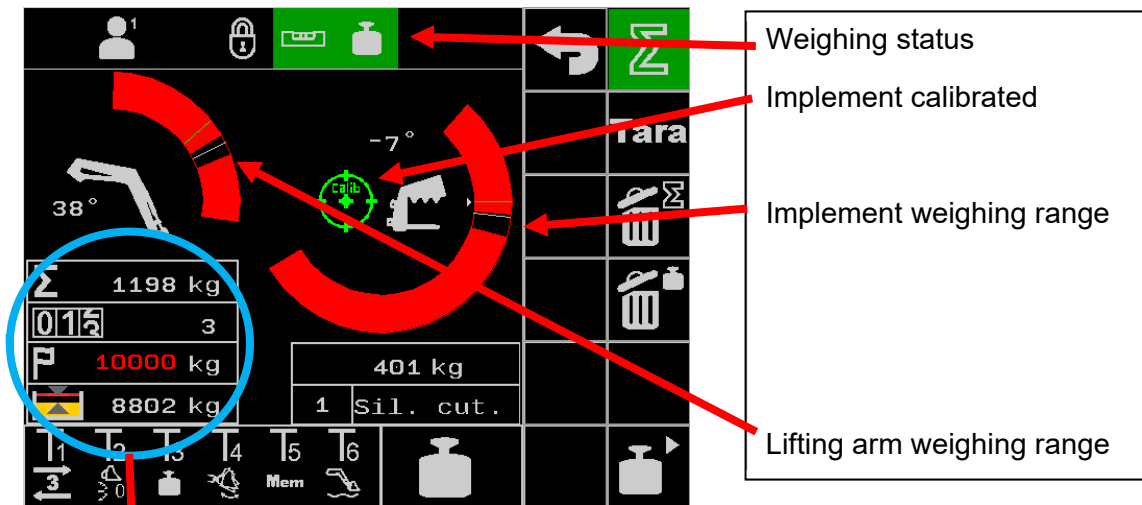
Weighing status

Implement calibrated

Implement weighing range

Lifting arm weighing range
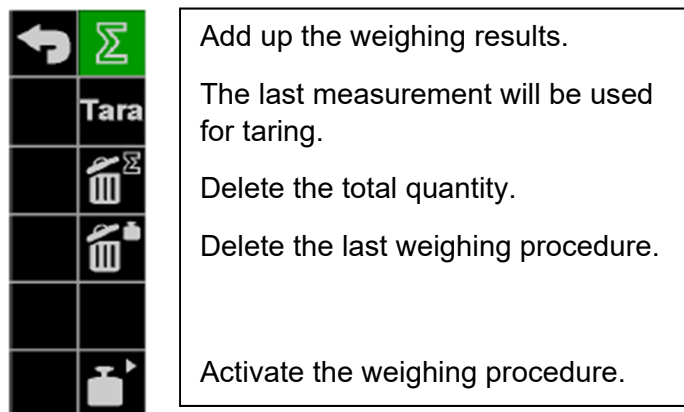
Add up the weighing results.

The last measurement will be used for taring.

Delete the total quantity.

Delete the last weighing procedure.

Activate the weighing procedure.

Total weight

Number of weighing procedures

Target weight

Difference from the target weight

Triggering the weighing procedure

Press the ⬜ softkey, move the joystick to the lifting position and hold it there. The lifting arm and implement move to the weighing range (Pos. 2/3 of the defined range). The status symbol flashes green. When the weighing position has been reached, the weighing procedure begins. The status symbol is constantly green. When the weighing procedure is complete, the status symbol disappears again. A successful weighing procedure is indicated with an acoustic signal. If the weighing procedure is aborted or an error occurs while weighing, the status symbol turns orange for 5 s. If the implement is not calibrated, the status symbol flashes orange for 5 s. The weighing counter and the weighing total are automatically saved.

To achieve the most precise weighing results possible, the following conditions should be met:

- Weigh on level ground.

- Do not weigh while driving.

4.4 Implement selection

Back to the main page

Implement no.
Implement type

Select the implement.

Call up the implement settings.

4.4.1 Available implements

Cutters / bale cutters	Bale grippers	Pallet forks	Log forks
Nr. 1 — Type — Name Sil. cut.	Nr. 2 — Type — Name Bale clamp	Nr. 3 — Type — Name Pal. fork	Nr. 4 — Type — Name Log fork

Bucket with grab	Buckets	Manure forks	Load lifters
Nr. 5 — Type — Name Grab buck.	Nr. 6 — Type — Name Bucket	Nr. 7 — Type — Name Manu. fork	Nr. 8 — Type — Name Load lift

Universal / third-party implements	Universal / third-party implements		
Nr. 9 — Type — Name Univers. 1	Nr. 10 — Type — Name Univers. 2		

4.5 Implement settings

Current top end position

Select implement type

Here, a name with
10 letters can be assigned.

Current bottom end position

Button assignment: tap
T1..T6 and assign the
function.

Exit the page with or
without saving.

Reset all implement
settings

Set the zero position. The
current position will be
adopted.

Activate the working
ranges.

Go to the previous page.

Activate the end position
damping.

Activate the load-
independent lowering.

Activate flow sharing.

Set the top end position.
The current position will be
adopted.

Set the bottom end position.
The current position will be
adopted.

Go to the next page.

4.5.1 Implement selection

Mark the mounted implement and confirm.

i	The display depends on the display utilised in the vehicle.

Jump to top of the table

Confirm selection

Back without editing

Scroll

Jump to end of the table
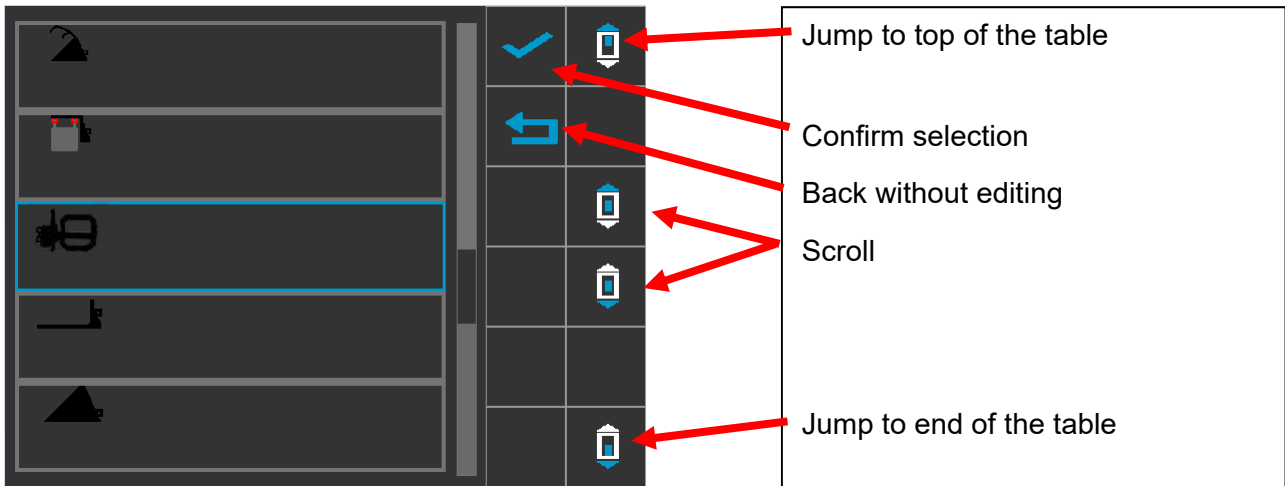
4.6 Calibrating the weighing position

Move the lifting arm and implement to the lower limit of the desired weighing range.

Set the weighing range. (Current position)

Start the calibration procedure. The softkey flashes green. Move the joystick in the lifting position and hold it until the softkey is constantly green. The front loader moves during the calibration procedure. The calibration procedure is finished when the softkey is constantly green.

i	The weighing range is always 10° and cannot be changed.

4.7   Setting the 3rd control circuit

Activate the pressure control.

Activate the continuous mode. Only possible when the pressure control is active!

Adopt the current pressure as the pressure limit.

Activate the 3rd control circuit.

Activate the fine control with fixed value.

Current pressure
Set pressure limit
The pressure limit can be entered either using the keypad or the current pressure can be adopted with the softkey.

For continuous mode, the volume flow can be pre-selected in % for the 3rd control circuit here.

Set the priority for the 3rd control circuit.

Scaling low, medium, high

100 % joystick movement corresponds to pre-defined speeds.

4.8 Adjusting the working window

Implement working window

Lifting arm working window
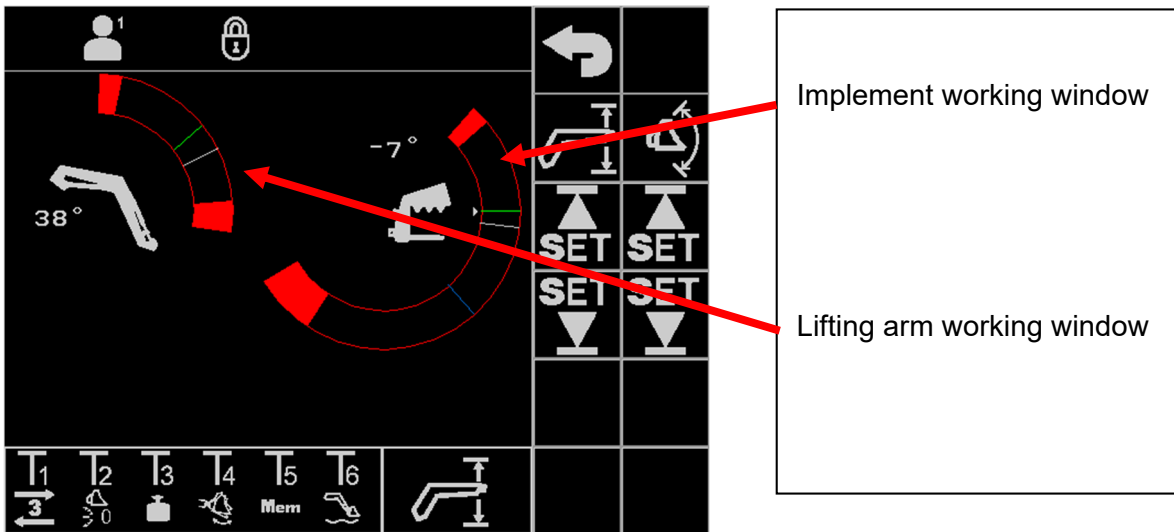
Exit the page with or without saving.

Activate the lifting arm working window.

Set the top range.
Adopt the current position.

Set the bottom range.
Adopt the current position.
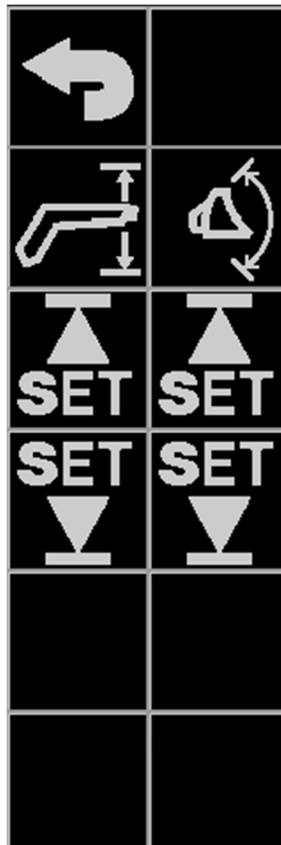
Activate the implement working window.

Set the top range.
Adopt the current position.

Set the bottom range.
Adopt the current position.

ℹ The implement range can only be deactivated when no working range is activated in the implement settings. For FZ IB+ front loaders, the implement range cannot be deactivated.

4.9   Return to position function
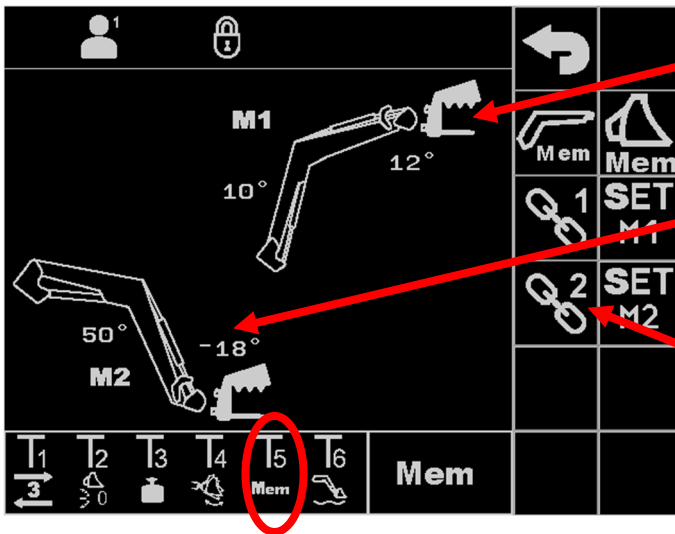
Positions for Memory 1
Move to position: press T5 and move the joystick in the lifting direction.

Positions for Memory 2
Move to position: press T5 and move the joystick in the lowering direction.

Linked mode: press T5 and move the joystick in the lift lifting arm (M1) or lower lifting arm (M2) direction. Move the lifting arm and implement to the defined position.

Exit the page with or without saving.

Activate the lifting arm memory positions.

Activate linked mode for Position 1.

Activate linked mode for Position 2.
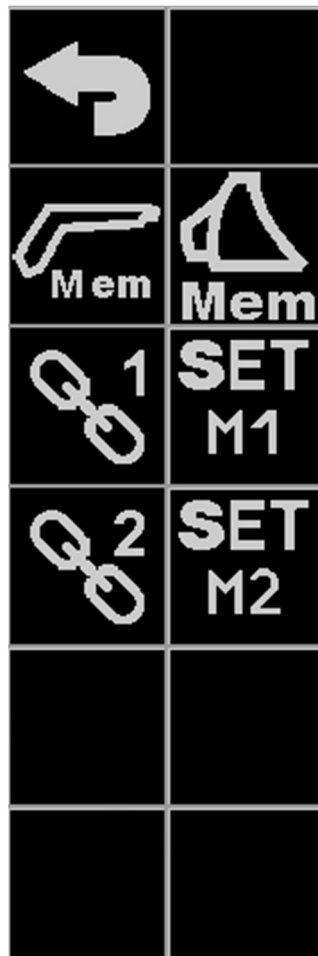
Activate the implement memory positions.

Set memory positions M1. Adopt the current position of the active function.

Set memory positions M2. Adopt the current position of the active function.

4.10 Setting the end position damping, speed mode and ramps

End position damping

Fine control for lifting arm and implement 40 %

Scaling

Start and stop ramps for lifting arm and implement
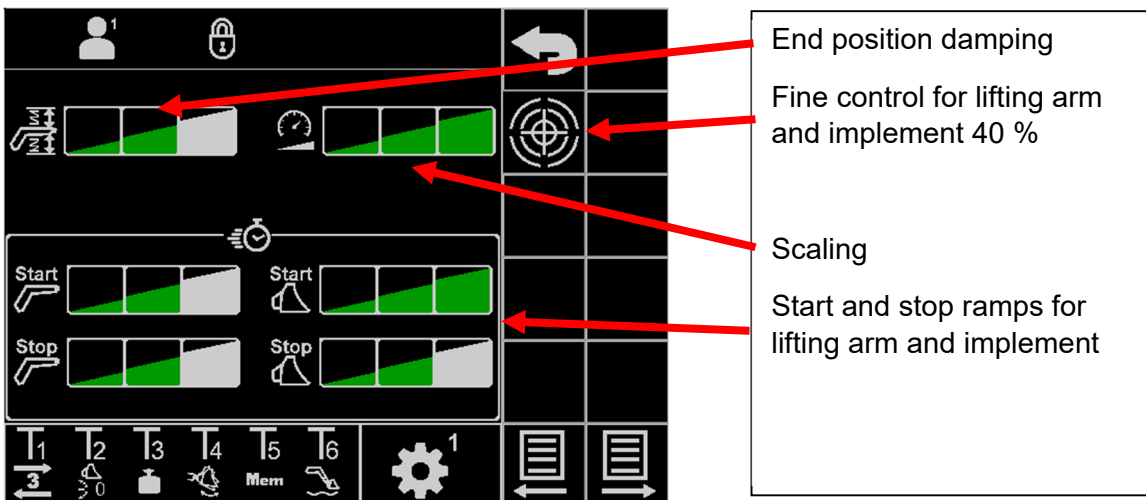
	Low	Medium	High
End position damping	8°	15°	25°
Scaling	25 %	45 %	65 %
Start/stop ramps	200 ms	600 ms	1000 ms

End position damping

End position damping enables gentle movement to the end positions, without damaging the materials. The speed is automatically progressively reduced just before reaching the mechanical end position, until the end position is reached. 3 levels can be selected for starting the braking procedure.

Scaling

With the scaling, the speed can be reduced across the entire range. A value of 65 means a speed of 65 % for 100 % joystick movement.

> ℹ️ The values set here are only active when they were activated on the main page with the 🐢 softkey.
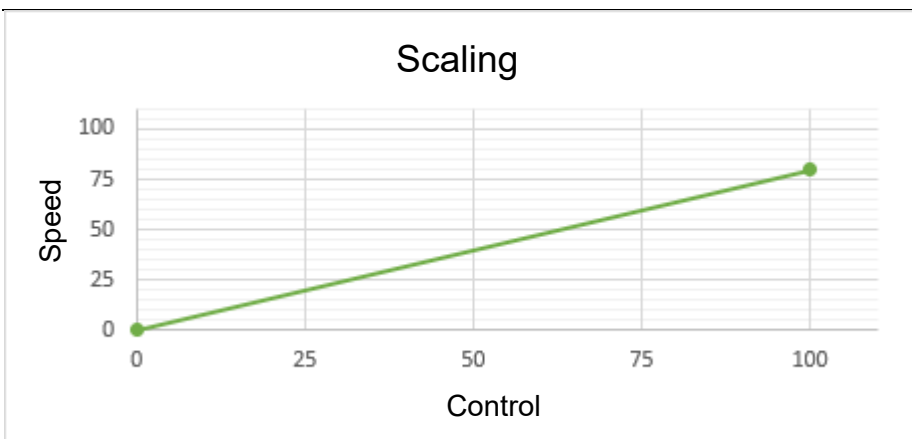
Start/stop ramps

The adjustable response behaviour function enables gentle starting and stopping of the movement. The specified time always refers to a target value jump of 100 %.

Example: with an entered time of 600 ms, the control signal reaches the maximum value for the control at 100 % joystick movement after 600 ms.

Joystick movement

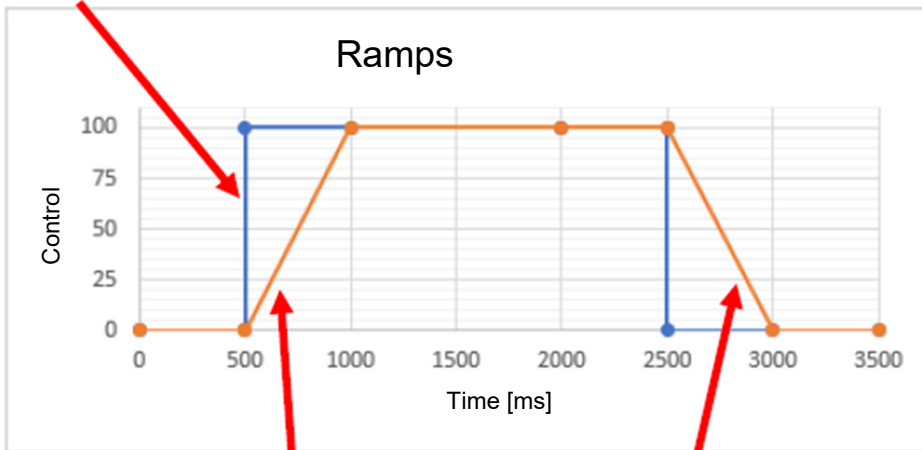Start ramp:
The joystick is moved,
the movement begins.

Stop ramp:
Joystick back in neutral position,
the movement stops.

Fine control

With the fine control, the valve movement can be reduced in the lower range of the joystick movement and therefore increase the resolution of the joystick in the lower range. 100 % speed is always reached at the maximum joystick movement. The smaller the value selected for the fine control, the finer the control in the lower range of the joystick movement.
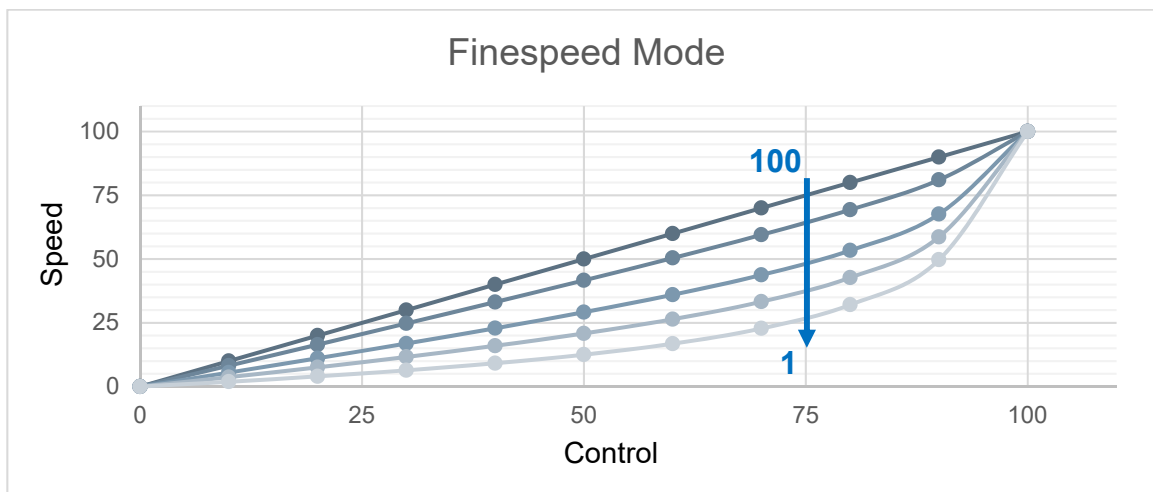
4.11 Lifting arm settings

(screen display)	kg or lbs can be selected for the weight units
	Reset the current profile to factory settings.
	Activate float position. Is required to be able to activate the function.
	Navigate in the Diagnosis menu.

Screen contents:

```
38  deg    Angle Boom
142 deg    Angle Tool
18  mV     Angle Boom
18  mV     Angle Tool
                    1/15
```

4.12 Tip-over protection

The tip-over protection symbol appears in the status bar when the following conditions are met:

- The angle of the lifting arm is greater than the lifting arm angle set for the tip-over protection and the total angle was reached. The implement then cannot be scooped any further.

> The total angle consists of the angle of the lifting arm and the angle of the implements. The total angle determines the maximum lifting height. The limitation of the lifting height caused by the total angle aims to prevent hazards to the operator, e.g. by dumping the load on the tractor.

- The implement is at the upper mechanical stop. The lifting arm then cannot be lowered any further. (Only for FZ IB+ front loader).
- The implement type or name was changed in a different profile. The symbol disappears again after switching to the Implement selection menu.

4.13 Emergency page

On this page, the lifting arm, the implement and the 3rd control circuit can still be operated in case of failure of the joystick in the vehicle, for example.

Lift and lower the lifting arm.

Scoop and dump the implement.

3rd control circuit