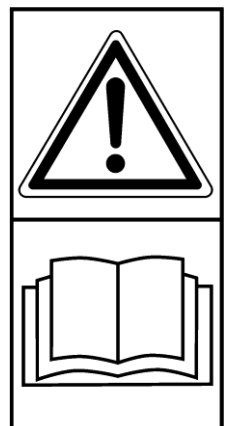




## Instructions for use and maintenance

### OPTIMAL Control Eco

Supplement to the sand spreader manual



**Note!**  
Read instructions before use



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# SAFETY SYMBOLS

Note! This warning symbol is used throughout this instruction manual to call attention to safety precautions that you, your employees or any other people that may come near the implement must read and understand. Failure to follow these instructions may result in serious injury or even death.

This symbol means:



**WARNING!  
CAUTION!  
YOUR SAFETY IS  
ENDANGERED!**

## A word of advice

Pay special attention to the words **WARNING!**, **CAUTION!** and **NOTE!** in the safety instructions. The words have been chosen from of the following:



**WARNING!** This safety sign is used to identify potential hazards that can lead to serious injury or even death. These hazards include situations that may occur when the safety equipment and/or the safety shields are removed. Signal words can also be used to alert about dangerous use.



**CAUTION!** Failure to observe this warning sign could result in light personal injuries. The sign is also used to indicate that the disregarding of these instructions may cause damage to the implement.

Dear Customer,

You have made a good choice. We congratulate you to your selection of OPTIMAL-product that offers quality and performance with reliable service.

By reading the manual and following its recommendations you will ensure the long and effective use of the equipment.

We have produced this manual for you to get a good understanding of the functioning of the equipment and what safety and maintenance instructions to follow when working with it. If any question should arise when using the equipment or when reading this manual, you are welcome to contact us for further information.

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Honoured retailer,

In order for the guarantee to be valid and to fulfil all legal requirements, we ask you to fill out the guarantee form together with the customer and register at [trejon.se](http://trejon.se)

The guarantee is valid from the day the equipment is handed over to the customer.



Delivery checklist:

Check for damages caused in transporting. Inform the transporting company.	
Check that all packing material has been taken away. Dispose packing material in an environmentally friendly way	
Check if delivery is complete with help from machine order/packing list.	
Check that the machine is lubricated, see section "Service and maintenance".	
Check that chain has right tension, see section "Service and maintenance".	
Check that all screws are properly tightened, see section "Service and maintenance".	
Make a function test	
Having gone through and explained to the customer, with the help of the manual, the startup, use and maintenance of the equipment and it's accessories.	
Fill out the guarantee form with the customer and register at <a href="http://trejon.se">trejon.se</a> It can be found as an attachment to this manual and as a copy on the last page.	
Instruction manual given to the customer.	

Enter the serialnumber of the equipment to the right.	S/N:
---	------

## **Introduction**

**This manual for the handset OPTIMAL Control Eco (Option) is a supplement to sand spreader ordinary operating manual.**

The manual contains a description of the functions used in the daily practice of handset OPTIMAL Control Eco.

The manual is prepared with the goal, to give the user the opportunity to use the functions in the control fully.

The control is designed for use in accordance with the above described application. Any other use of control is associated with significant risk and deprives the supplier from responsibility.

The steering delivered from Trejon are in compliance with applicable European directives for electronic control entries when used with machines covered by the Machinery Directive. Trejon is responsible for the control unit together with sand spreader, but it does not include the carrying machine.

### Mounting instruction

This pictures will show the correctmounting to the spreader



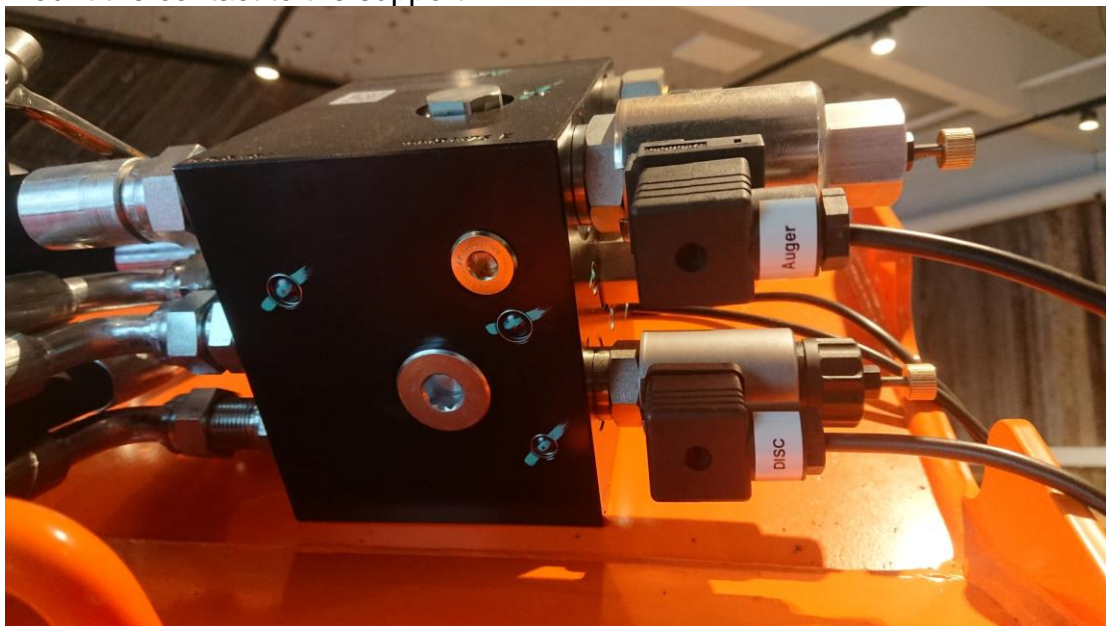
Dissmount the steelplate for the hose clamp



Bolt the new support on the hose clamp with the existing bolt.



Mount the contact to the support.

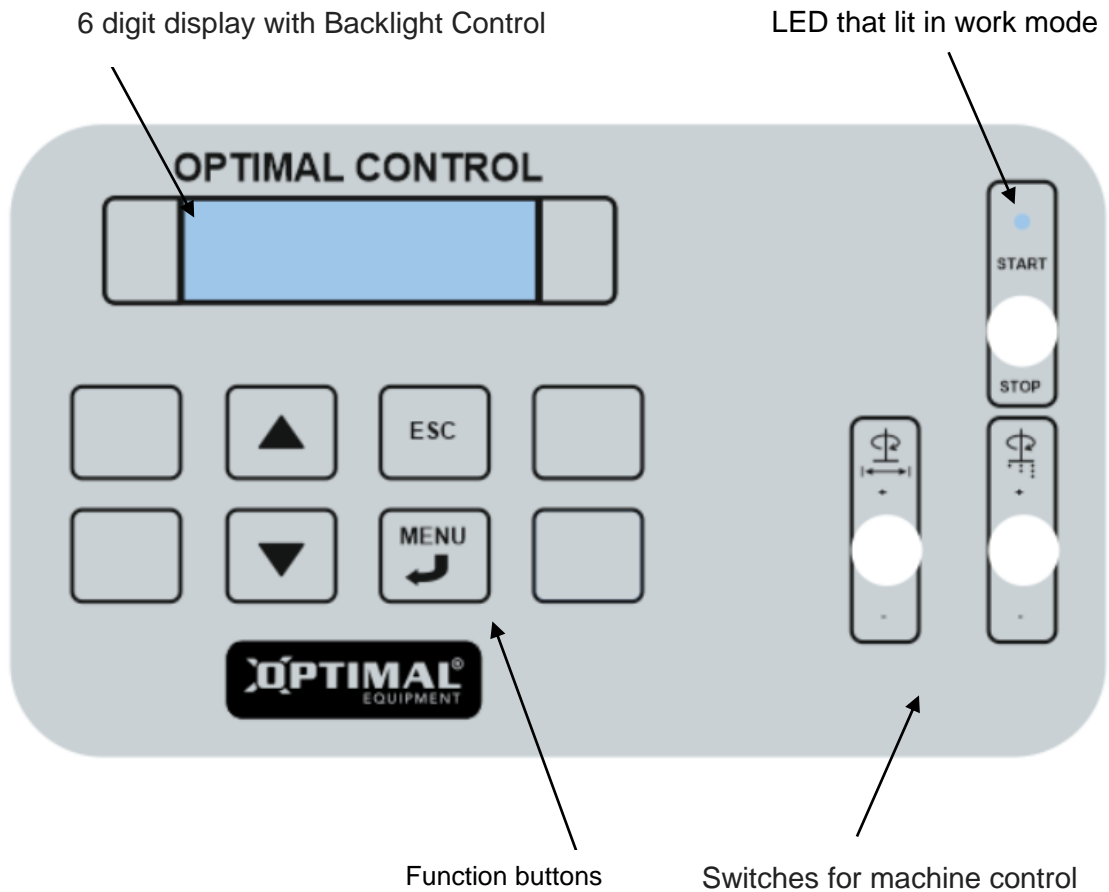


Mount the two Hirschman contacts to the coils for the valves with rubber seals and screws.



## Description of handset OPTIMAL Control Eco

Below is an overview of the handset, with description of the display, buttons and switches.



## Generally

This document contains basic description of the features at steering Optimal Control Eco.

## Superior machine and product description

During normal operation of the machine, set the desired spreading width and dosage on the control pad, and spread manually started and stopped via a toggle switch.

## Display

**Type:** 6 digit display with Backlight Control.

**Views :** The following information is displayed

#	Information	Unit	Symbol	Comments
1	Spreading width	PWM (%)	-	0 – 100 (5% increments)
2	Spread amount	PWM (%)	-	0 – 100 (5% increments)
3	Menu messages for easy maneuvering of the setting			See the function description

### Standard display :

The figure below shows the information that is seen in the standard display along with some symbols.

Spreading width  
PWM %



Feeding auger  
(spread amount)  
PWM %

**Description of menu set - user:**

Below is menu set up for user described. This can be activated by pressing the "Enter" key for 2 seconds when the default display is shown.



Figure 1: Example of deactivating the emptying function (Empty tank OFF).

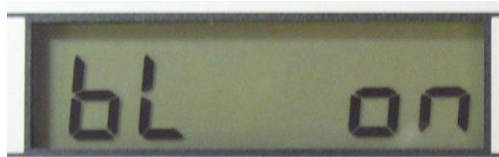


Figure 2: Example of setting the display backlight (backLight on).

Use the "Up Arrow" and "Arrow Down" to scroll through the menus. If you wish to change a value so kept the "Enter" button depressed (2 seconds) and when a value is flashing, it can be changed. The value can then be changed with the "Up Arrow" and "Arrow Down". Press "Enter" to accept or "Esc" to cancel the entry. Press "Esc" to go back one step in menu or to completely exit the setup menu

**Concluding remarks:**








See the earlier section "Description of handset Optimal Control Eco" for a picture on the handset, including the placement of the display, toggle switch, buttons and LEDs.

All push buttons and toggle switch is fitted with symbols indicating functions.

The display has backlight, which turns off automatically if it is not registered keystrokes during 1 hour. The backlight can be switched off entirely.

## Features and switches on the handset

### Description of the function of the handset

Name	Function/ description	Switch				Requirements / Comments
		Type	Direction	Placer.	Symbol	
Spreader activation	Start and stop of spreader	Switch (on LED)	Up/down	*		Starts and stops the signal to the hydraulic motors and thus the auger and spreader disc rotation. LED lights up when activated.
Spread amount	Setting of spread amount	Switch	Up/down	*		Adjustment step by spreading quantity (= 5 %)
Spreading width	Setting of spreading width	Switch	Up/down	*		Adjustment step by spreading width (= 5 %)
Adjustment buttons	Change of the input values and Info in the standard display with menu shifts	Push-button	-	*	 	
Enter	Switch to sub-menus and approval of an input	Push-button	-	*		
Esc	"Go" back a step in menus and undo input.	Push-button	-	*		

## Outputs

	Description	Output type	Cabling				
			Cable type	Number of wires	Length (m)	Anslutningstyp	Terminal
1	Control signal to a Proportionally flow valve (feeding auger)	PWM	Soft	2	0,5		Xx
2	Control signal to a Proportionally flow valve (spreading disc)	PWM	Soft	2	0,5		Xx

## Other technical specifications

The handset is protected against splashing water acc. IP 65

The overall controller includes handset, cables and hydraulic valves.

The cable from the handset to power is 2 \* 1.0 mm<sup>2</sup> (length: 2 m) with BOSCH contact.

The cable from the handset to the 7-pin trailer plug is 7 \* 0.75 mm<sup>2</sup> (length: 6 m)

**Power supply:** 12 V DC (min. 9 V DC and max. 28 V DC)

**Fuse:** T16 Amp, 250 Volt

**Max load:** Long term: 7.0 Ampere  
<2 minutes: 15.0 Ampere

## Functions

### Setting of spread rate

- **User Interface**

Setting made by activation of the specified toggle switch to the right of the handset. Each time you press up / down regulated application rate. Held toggle switch up / down regulated the amount as long as the toggle switch is held in position.

- **Conditions**

- Setting the spread rate can not be undertaken when the menu setting is enabled.
- When the upper / lower limit of the spread rate is reached, a sound alarm is given (single beep) for each additional print and values will remain at the set level.

## Setting the spreading width

- **User interface**  
The setting is undertaken in the activation of the specified toggle switch on the right side of the handset. Each time you press up / down toggle switch the spreading width is regulated. Held toggle switch up / down the spreading width is regulated as long as the toggle switch is held in position.
- **Conditions**
  - Setting the spreading width can not be undertaken when the menu setting is enabled.
  - When the upper / lower limit of the spread rate is reached, a sound alarm is given (single beep) for each additional print and values will remain at the set level.

## Emptying function

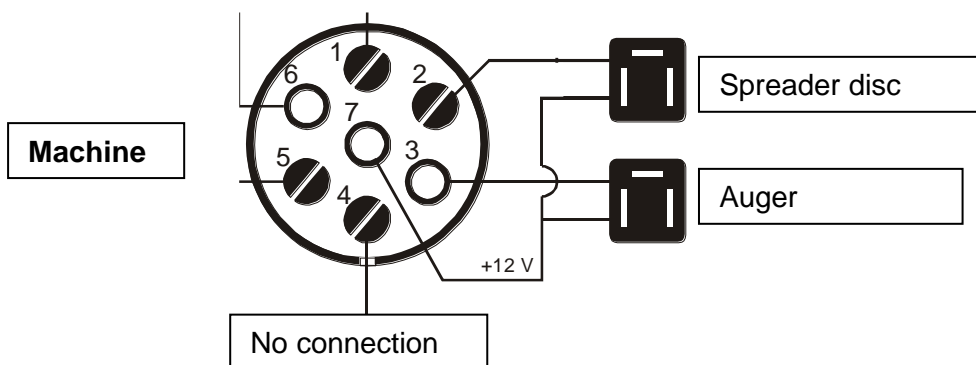
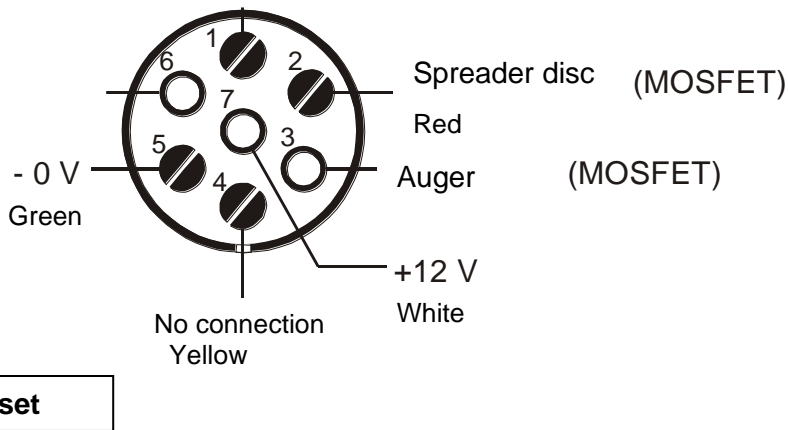
- **Description**  
The function starts and carry on emptying of the container remaining content.
- **User interface**  
Activation of emptying function is done via the user menu. When activated, the LED flashes.  
The function is deactivated by pressing buttons ESC or MENU
- **Conditions**
  - Emptying function can only be activated when dosing is stopped: Start/stop switch in position "stop".

## Appendix 1 Menu items

### User menu

Screen display	Function	Value
Et	Empty tank	on/OFF
bL	Display <u>b</u> ack <u>L</u> ight on/OFF	on/OFF

## Appendix 2 Cable connection



TREJON AB reserves the right to change or to improve shown models using technical or commercial reasons, without demands to carry out the same improvements on equipment already delivered. Pictures in the manual do not necessarily show the equipment as delivered.

Technical data, weights and measures are without obligation. Reservation for faults.

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