SEEDCONTROL

Operating Instructions

Arrow-key up

Input-key

Arrow-key down

Zero-key

Quantity-adjustment-key
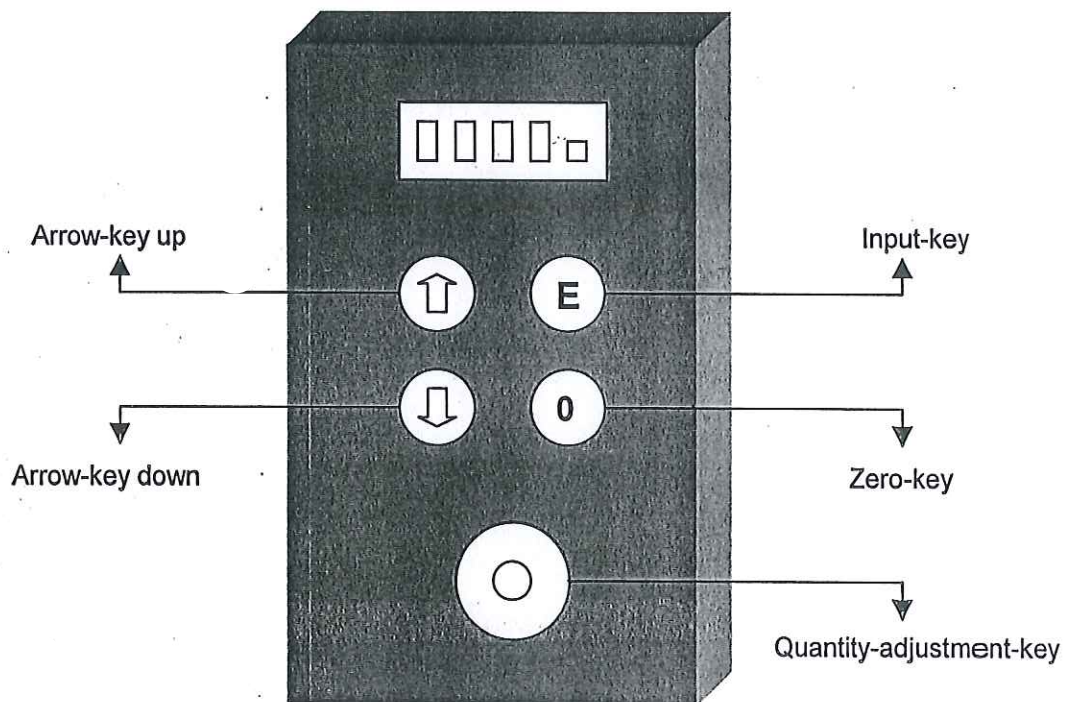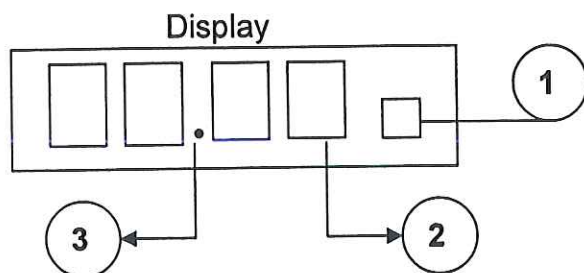
A. Importance of numbers and letters on display

B. Key-function

C. Input of the required values (wheel circumference, working width)

D. Electrical quantity adjustment

E. Maintenance / Power supply

F. Distributor connection scheme

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A. Importance of numbers and letters on display

Display

1 Function-display

E	Single/daily area in ha (erasable), max. 999,9 ha
t	Total area in ha (non erasable), max. 9999 ha
L	Working width in m, max. 25,5 m
r	Wheel circumference in m, max. 2,55 m
Stop A	Problems with the seeding wheel
Stop G	Problems with the air stream

2 Tank-level-alarm

A changing blinking line appears with an alarm sound, as soon as the seed level in the tank sinks below the measure optic. The alarm sound can be turned off with the zero-button. The blinking display stays until the tank is refilled with seeds.

3 Comma-display

Appears with area measurement. Before the comma ha are displayed. With the input of the wheel circumference or the working width meters are displayed before the comma.

Stop A

Appears when there is a problem with the seeding wheel. For example, the chain between gear box and seeding wheel could be torn apart or the gear box is defect. The sounding alarm tone cannot be turned off. There is no area counting.

Stop G

Is displayed when there is a problem with the fan, or if the hoses are blocked with water or seeds or if merely the optics of the photoelectric relay are dirty. If the seeds make a lot of dust (for example treated seeds) it can happen that the alarm tone appears after a short working time. If you are sure that everything is alright, you can stop the sounding alarm tune with the O-button. "Stop" is still displayed, but the area is nevertheless being counted.

B. Key-functions

⬆ Arrow-key up

Display functions can be changed in ascending order. The displayed value can be increased for the input of the wheel circumference or the working width (see input of the required values).

⬇ Arrow-key down

The display functions can be changed in decreasing order. The displayed value can be decreased for the input of the wheel circumference or the working width (see input of the required values).

Ⓞ Zero-key

The single/daily area can be erased with the O-key. Push the arrow-key so often until the single or daily area is displayed. Keep the O–key pressed in this display mode until a small c appears. Now the single and daily area is erased and automatically transferred to the total area.

The tank-level-alarm signal can be stopped by pushing the O–key.

The air-stream-alarm can also be stopped with the O-key. „Stop" still appears on the display, nevertheless the area is being counted (see also „Stop G").

Attention: If an alarm signal sounds because of a fault in the seeding wheel, the signal cannot be stopped with the O–key. The problem needs to be solved first.

Ⓔ Input-key

This key is necessary for changing the desired input values (wheel circumference, working width).

C. Input of the required values (wheel circumference, working width)

Input wheel circumference

Push the arrow-key so many times with single pulse until the display for r (wheel circumference) appears. Then <u>keep</u> the E-key <u>pressed</u> and simultaneously increase or decrease the displayed value in meters with one of the arrow-keys (the more accurate the wheel circumference, the more accurate the area calculation). After letting go of the E-key the new value is automatically saved.

Attention: To get an accurate area measurement the wheel circumference should be controlled or accurately found out: Fix a red adhesive tape or a clearly visible mark at the ground wheel. Cover a distance on the soil where the seeder is mostly used so that you get about 25 - 50 rotations with the ground wheel. Then measure the distance and divide it by the number of the rotations.

$$\frac{\text{Covered distance in m}}{\text{Number of rotations}} = \text{wheel circumference in m}$$

With the original ground wheel Krummenacher you should get a circumference of about 1,42 m.

2. Input working width

Push the arrow-key so many times with single pulse until the display for L (working width) appears. Then <u>keep</u> the E-key <u>pressed</u> and simultaneously increase or decrease the displayed value in meters with one of the key-arrows. After letting go of the E-key the new value is automatically saved.

D. Electrical quantity adjustment

The seed quantity can be infinitely adjusted with the quantity-adjustment-key. The setting scale of the electronics should match the scale of the seeder, i.e. if you set the value 20 on the turning knob, the large adjustment lever on the seeder should also be on position 20.

In order to reach a good repeat accuracy it is advisable to start always at zero.

The quantity-adjustment-lever on the seeder only has control purpose. <u>When the electronics are turned off,</u> the quantity-adjustment-lever (picture 1.1) on the machine can also be changed manually. Push the black button (picture 1) on the adjusting motor and turn the quantity-adjustment-lever. **Attention:** Do not use force!

This manual adjusting possibility is especially reasonable for defective or non-installable electronics.
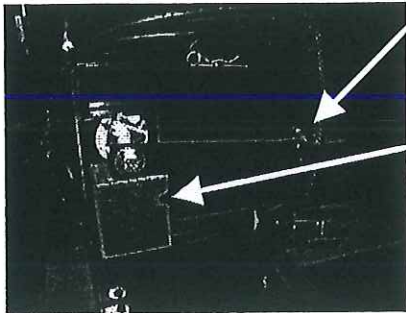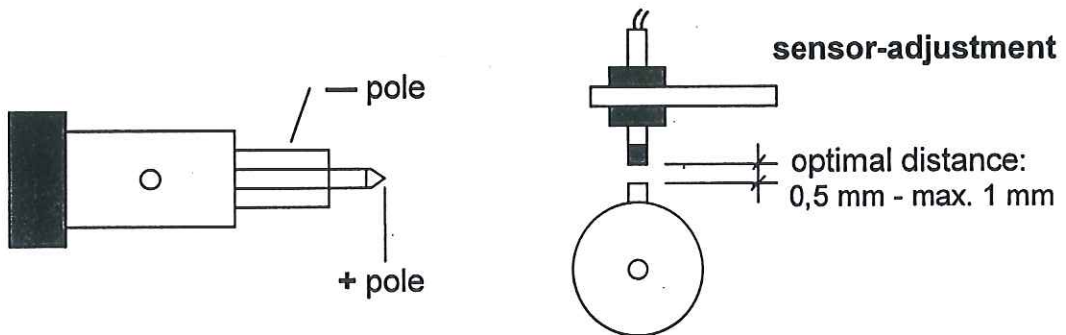

Picture 1.1

Picture 1
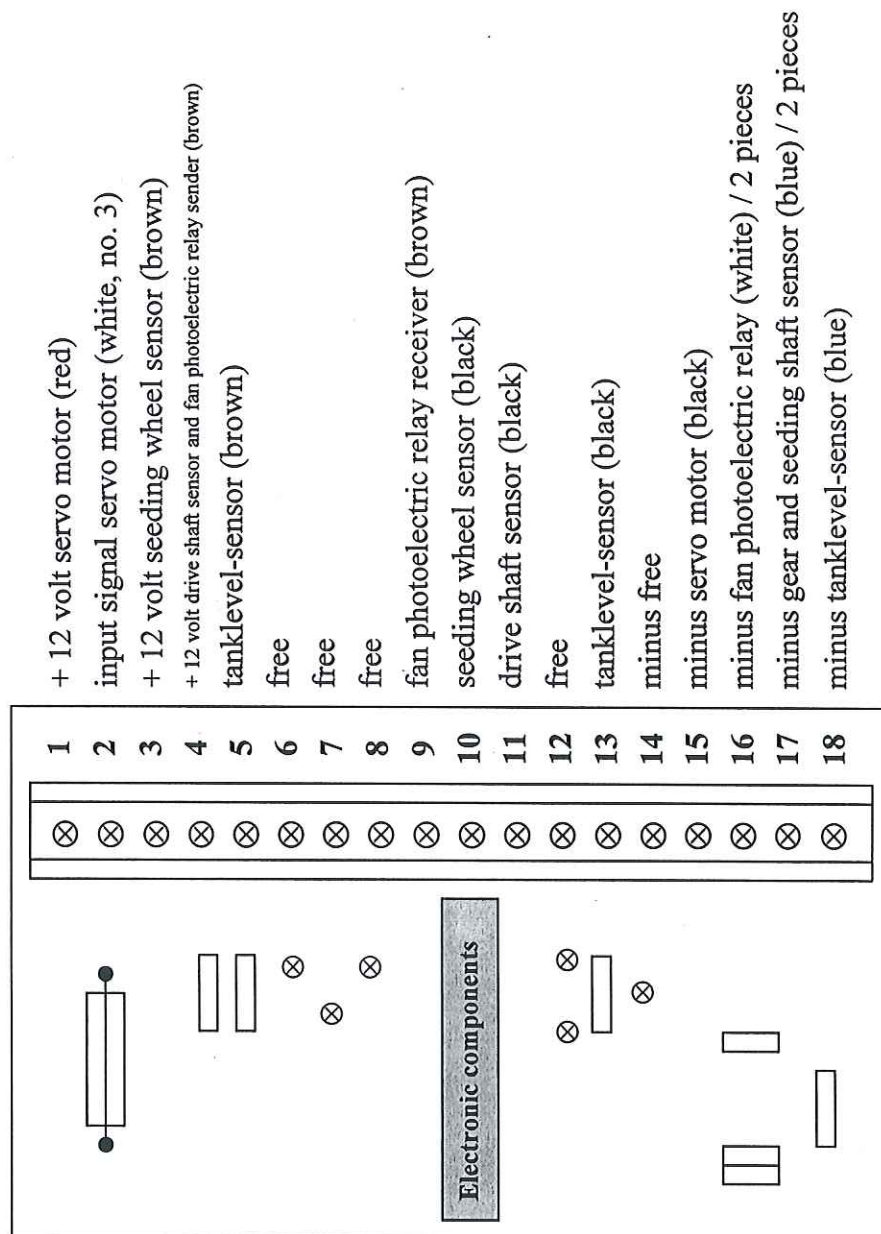
E. Maintenance / Power supply

Protect the electronics from moisture, dust, low/high temperature and shock.

The electronics have to be fed at 12 V. The right polarity needs to be maintained.

— pole

+ pole

sensor-adjustment

optimal distance:
0,5 mm - max. 1 mm

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F. Distributor connection scheme

No.	Description
1	+ 12 volt servo motor (red)
2	input signal servo motor (white, no. 3)
3	+ 12 volt seeding wheel sensor (brown)
4	+ 12 volt drive shaft sensor and fan photoelectric relay sender (brown)
5	tanklevel-sensor (brown)
6	free
7	free
8	free
9	fan photoelectric relay receiver (brown)
10	seeding wheel sensor (black)
11	drive shaft sensor (black)
12	free
13	tanklevel-sensor (black)
14	minus free
15	minus servo motor (black)
16	minus fan photoelectric relay (white) / 2 pieces
17	minus gear and seeding shaft sensor (blue) / 2 pieces
18	minus tanklevel-sensor (blue)

Electronic components

Gear sensor
brown = no. 4
black = no. 11
blue   = no. 17

Seeding shaft sensor
brown = no. 3
black = no. 10
blue   = no. 17

Photoelectric relay fan
Sensor with bent cable (sender)
brown = plus   (no. 4)
white = minus (no. 16)

Sensor with straight cable (receiver)
brown = signal (no. 9)
white = minus (no. 16)

Tanklevel-sensor
brown = plus   (no. 5)
black = signal (no. 13)
blue   = minus (no. 18)

Electrical quantity adjustment

Motorcable		Connection box
black	1	clamp no. 15
red	2	no. 1
white	3	no. 2
white	5	not needed; isolate or pinch

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