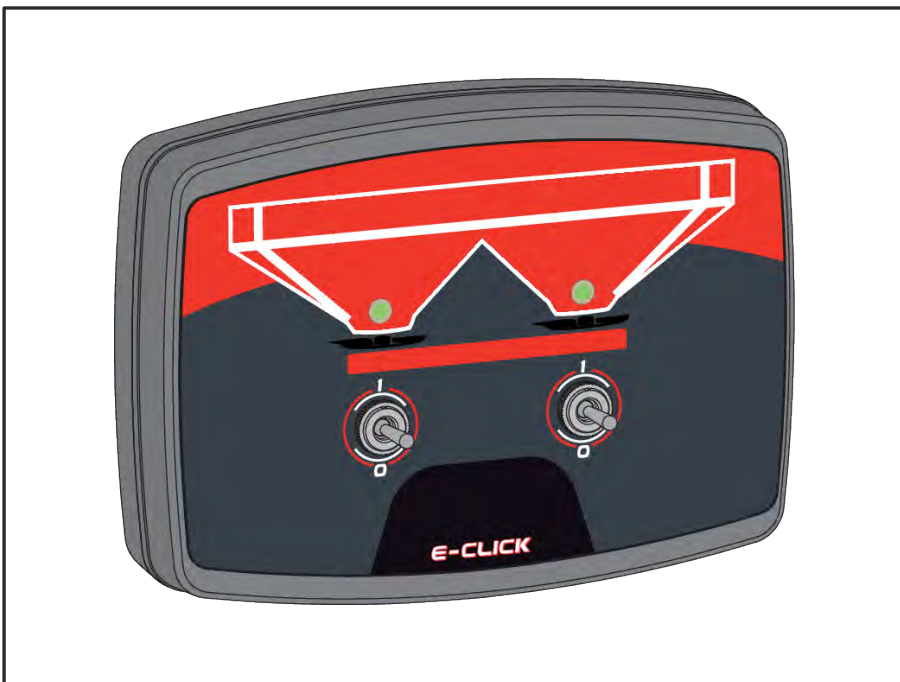


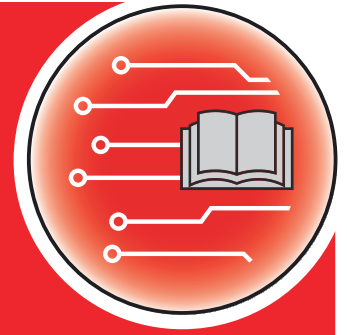
Complementary instructions



**Please read carefully
before using the
machine!**

Keep for future use

This operator's and assembly manual is an integral part of the machine. Suppliers of new and second-hand machines are required to document in writing that the operator's and assembly manual was delivered with the machine and handed over to the customer.



AXIS-M/MDS

E-CLICK

5901360-d-en-0225

Original instructions

Dear customer,

By purchasing the E-CLICK control unit for the AXIS and MDS fertilizer spreader, you have shown confidence in our product. Thank you very much! We want to justify this confidence. You have purchased a powerful and reliable machine control unit.

However, in case unexpected problems arise, our customer service department is always there for you.



Please read this operator's manual as well as the operator's manual for the machine carefully before using the machine, and follow the advice given.

This manual may also describe equipment that is not included in your control unit.



Note the serial number of the control unit and of the machine

The control unit E-CLICK has been calibrated at the factory for the mineral fertilizer spreader with which it was supplied.. It cannot be connected to another machine without new calibration.

Please enter the serial number of the machine control unit and of the machine here. When connecting the machine control unit to the machine, these numbers must be checked.

- Serial number of control unit:
- Serial number and year of manufacture of the machine:

Technical improvements

We continuously strive to improve our products. For this reason, we reserve the right to make any improvements and changes to our machine that we consider necessary without notice. We do not accept any obligation to make such improvements or changes on machines that have already been sold.

We will be pleased to answer any other questions that you might have.

Yours sincerely

RAUCH Landmaschinenfabrik GmbH

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1 User instructions

1.1 About this operator's manual

This operator's manual is an **integral part** of the control unit.

The manual contains important instructions for **safe, proper**, and economic **use and maintenance** of the control unit. Compliance with its stipulations helps to **avoid risks**, reduce repair costs and downtime, and to increase the reliability and service life of the machine controlled with it..

The operator's manual must be kept in an easily accessible location close to where the control unit is used (e.g., in the tractor).

The operator's manual does not replace **your own responsibility** as operator and operational staff of the control unit.

1.2 Meaning of warnings

The warnings in the operator's manual are classified according to the severity of the risk and the probability of its occurrence.

The warning symbols draw attention to the residual risks to which users of the machine are exposed. The warnings used are structured as follows:

Symbol + **signal word**

Explanation

Level of danger of warnings

The level of danger is indicated in the signal word. The levels of danger are classified as follows:

DANGER!

Type and source of danger

This warning warns of a danger posing an immediate threat to the health and life of people.

Ignoring these warnings will result in severe injury or death.

- ▶ Always observe the measures described to prevent this danger.

WARNING!

Type and source of danger

This warning warns of a potentially dangerous situation for personal health.

Ignoring these warnings leads to severe injury.

- ▶ Always observe the measures described to prevent this danger.

⚠ CAUTION!

Type and source of danger

This warning warns of a potentially dangerous situation for personal health.

Ignoring these warnings leads to injury.

- ▶ Always observe the measures described to prevent this danger.

NOTICE!

Type and source of danger

This warning warns of material and environmental damage.

Ignoring these warnings will result in damage to the machine and to the environment.

- ▶ Always observe the measures described to prevent this danger.



This is an instruction:

General instructions contain tips for the operation and information that is particularly useful, but no warnings about hazards.

1.3 Notes on text descriptions

1.3.1 Instructions and procedures

Steps that must be performed by operating staff are displayed as follows

- ▶ Instructions step 1
- ▶ Instructions step 2

1.3.2 Lists

Lists without a specific sequence are shown as lists with bullet points:

- Property A
- Property B

1.3.3 References

References to other sections in the document are shown with paragraph number, header text and/or page number:

- **Example:** Please also note 2 *Layout and function*

References to other documents are shown as information or instructions without the exact chapter or page number:

- **Example:** Follow the instructions in the operator's manual of the universal drive shaft manufacturer.

2 Layout and function

2.1 Overview of supported machines



Some models are not available in all countries.

MDS		AXIS-M
MDS 10.1 C	MDS 8.2 C	AXIS-M 20.1/20.2 C
MDS 11.1 C	MDS 14.2 C	AXIS-M 30.1/30.2 C
MDS 12.1 C	MDS 18.2 C	AXIS-M 40.1/40.2 C
MDS 17.1 C	MDS 20.2 C	AXIS-M 50.1 C
MDS 19.1 C		

2.2 Layout of the control unit

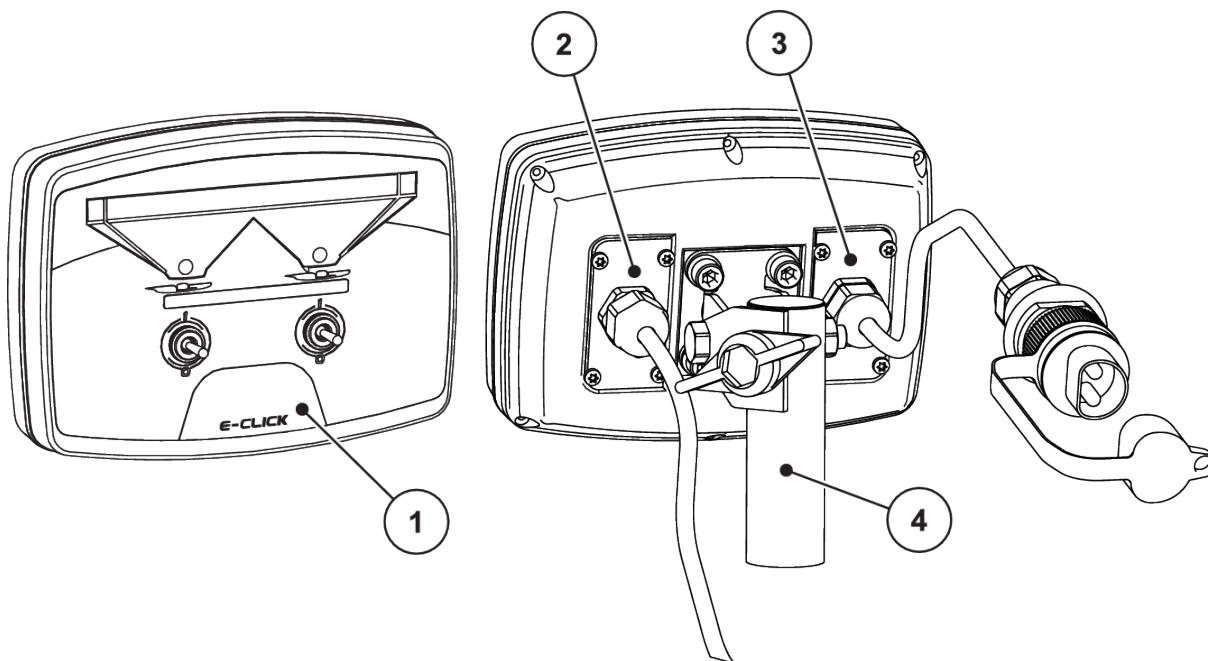


Fig. 1: Control unit E-CLICK

No.	Designation	Function
1	Control panel	Including rocker switches to operate the device and multicolored LEDs to indicate machine states.
2	Plug connector for connecting the machine cable	4-pin plug connector for connecting the machine cable to the actuators.
3	Power supply	3-pin plug connector conforming to DIN 9680 ISO 12369 for connecting the power supply
4	Mounting bracket	Attachment of the control unit to the tractor

2.3 Control elements

The opening and closing of the metering slide during spreading is controlled with 2 rocker switches on the control unit.

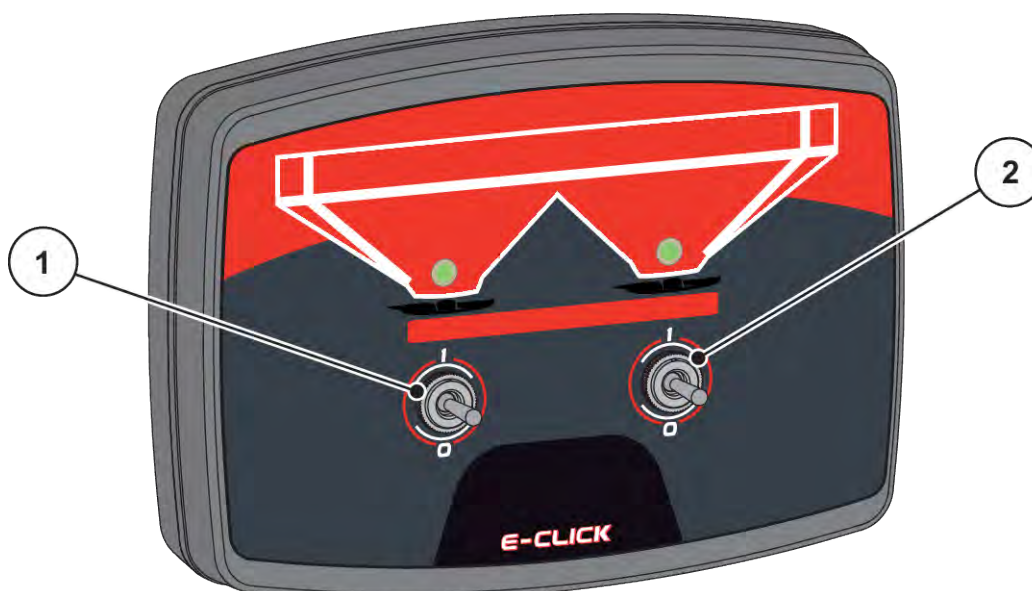


Fig. 2: Arrangement of the rocker switches

- [1] Left-hand rocker switch: Controls the left-hand metering slide [2] Right-hand rocker switch: Controls the right-hand metering slide

2.4 Status indication

Multicolored LEDs indicate the status of the metering slides on the display side of the E-CLICK unit. The color change indicates whether the metering slides are open, closed or in motion.



Fig. 3: Multicolored LEDs

[1] Left-hand actuator LED status

[2] Right-hand actuator LED status

LED	Status
Green LED	Die Dosierschieber sind gegen Anschlag offen gefahren.
Orange LED	The metering slides are in motion.
Red LED	The metering slides are closed to the stop.
Red flashing LED	Fault, no metering slide movement
LED off	Status of the metering slides for the control unit currently unknown

2.5 Technical specifications

A nameplate is attached to the rear of the E-CLICK control unit, on which you can find important information about your unit.



Always keep this information to hand for contact with your RAUCH contact person!

Technical data E-CLICK	
Rated voltage	12 V/DC
Voltage range	11.0 V to 16.5 V / DC
Rated current	8.0 A
Operating temperature range	-20 °C to +60 °C
Protection class in accordance with ISO 20653	IP54

3 Attachment and installation

3.1 Tractor requirements

- A minimum voltage of **11 V** must **always** be guaranteed, even if multiple loads are connected simultaneously (e.g., air conditioning system, lights)

3.2 Power supply

The tractor supplies the machine control with power via the 3-pin connector (DIN 9680/ISO 12369).

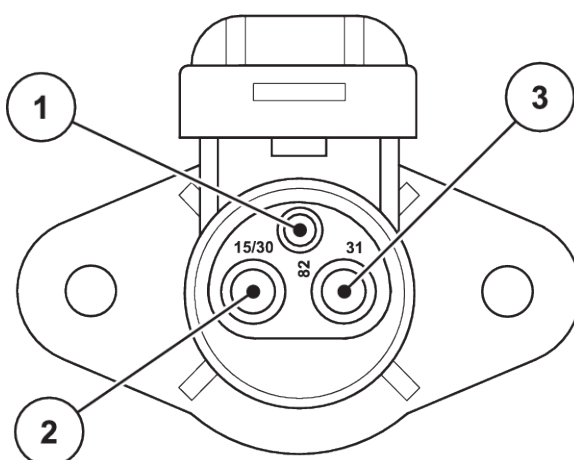


Fig. 4: PIN assignment of power socket

- [1] PIN 1: is not required
[2] PIN 2: (15/30): +12 V

- [3] PIN 3: (31): Ground

3.3 Attaching the control unit

Proceed in the following order.

- ▶ Mount the bracket as shown in step [1].
- ▶ Screw the mounted bracket tightly onto the E-CLICK control unit with the four mounting screws and washers (step [2]).

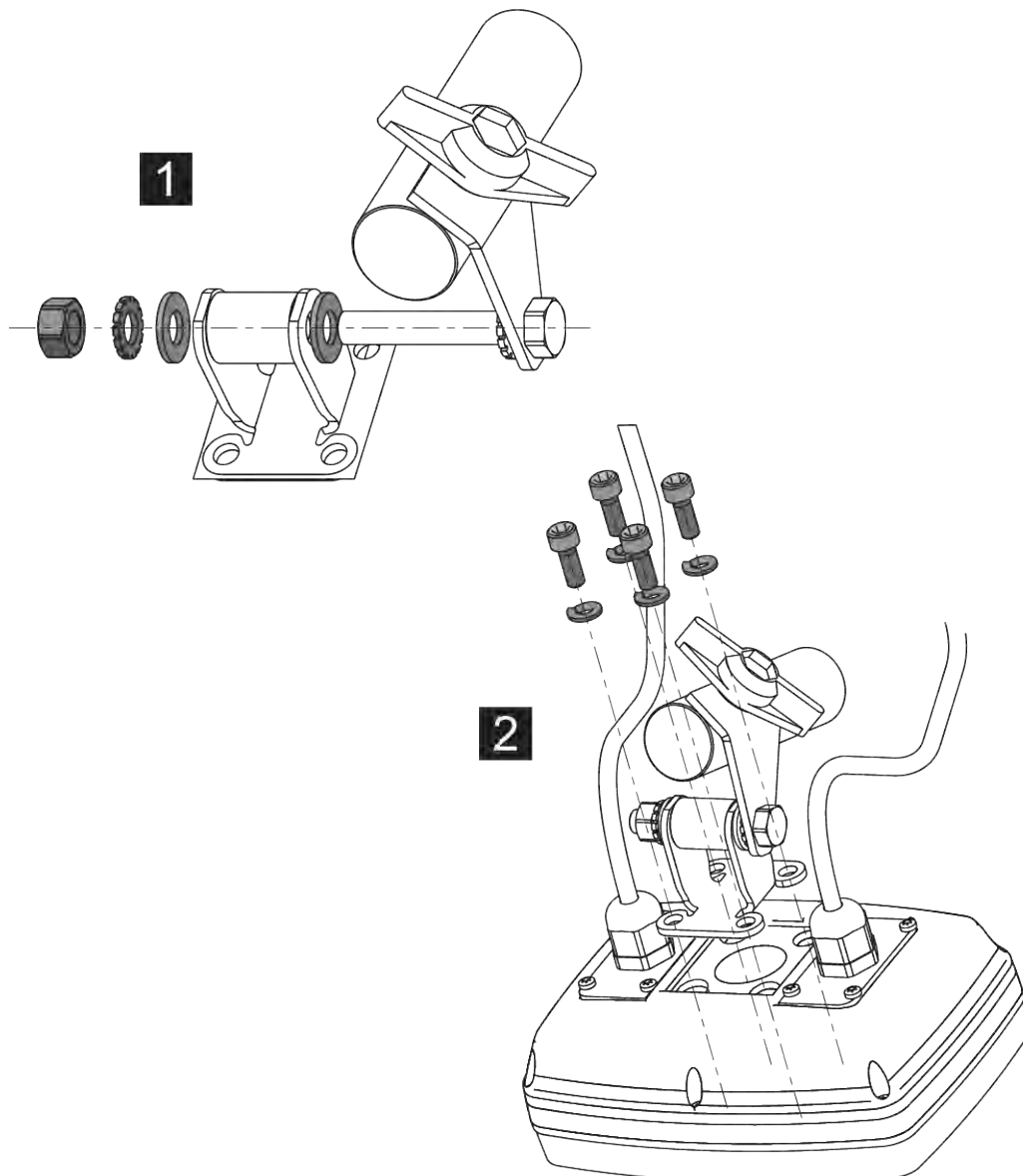


Fig. 5: Mounting bracket installation

- ▶ Select a suitable position in the tractor cabin (within the driver's field of vision) to which you want to secure the E-CLICK control unit.
- ▶ Attach the control unit to the selected position with the bracket.

3.4 Connect control unit

Proceed in the following order.

- ▶ Connect the 4-pin machine cable to its counterpart on the E-CLICK control unit.
- ▶ Connect the power supply for the E-CLICK control unit to the power socket on the tractor.

The E-CLICK control unit is ready for operation.

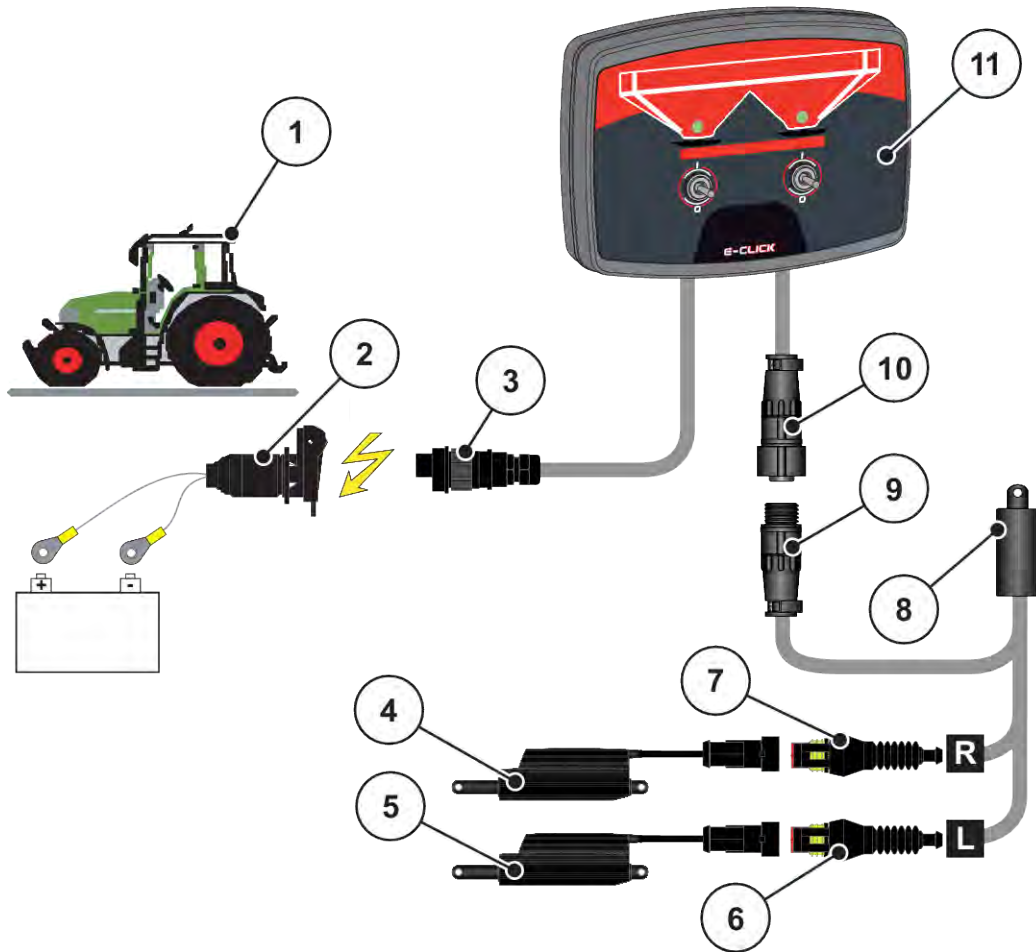


Fig. 6: Schematic connection diagram

- | | |
|---|--|
| [1] Tractor | [7] Machine cable plug connector for actuator, right |
| [2] Power socket | [8] Machine cable |
| [3] 3-pin plug connector conforming to DIN 9680/ISO 12369 | [9] 4-pin machine plug |
| [4] Metering slide actuator, right | [10] 4-pin machine plug |
| [5] Dosing slider actuator, left | [11] Control unit E-CLICK |
| [6] Machine cable plug connector for actuator, left | |

4 Operation

⚠ CAUTION!

Risk of injury due to discharged fertilizer

In the case of a fault, it is possible that the metering slide unexpectedly opens during road transport to the spreading location. There is a risk of slipping and personal injury due to ejected fertilizer.

- ▶ **Before leaving for the spreading location**, always switch off the electronic machine control unit.

4.1 Switching on the machine control unit

Requirements:

- The control unit is correctly connected to the machine and the tractor.
 - See 3.3 *Attaching the control unit*
- The minimum voltage of **11 V** is guaranteed.



The E-CLICK control unit is ready for operation as soon as it is connected to the electrical system on your tractor. Separate switch-on is not required.

⚠ CAUTION!

Risk of injury due to ejected fertilizer

In the case of a fault, the metering slide can open unexpectedly during road transport to the spreading location. There is a risk of slipping and personal injury due to ejected fertilizer.

- ▶ **Before driving to the spreading location**, always disconnect the E-CLICK control unit from the electrical system.

4.2 Rocker switch switching positions

The opening and closing of the metering slide during spreading is controlled with the 2 rocker switches on E-CLICK the control unit.

In order to avoid overloading the actuator motors, the actuators are automatically switched off when acting against a blockage.



Requirements for spreading operation with the E-CLICK control unit: The slide openings on the mineral fertilizer spreader are set correctly!

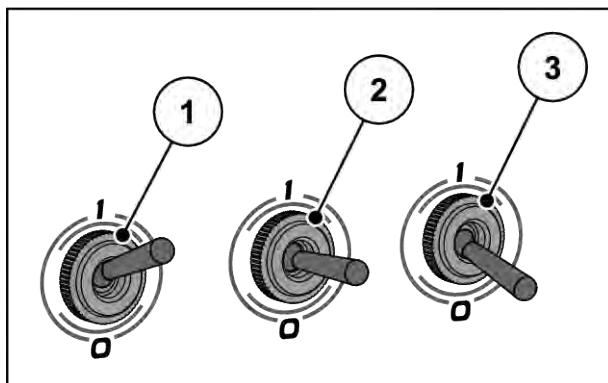


Fig. 7: Rocker switch position

[1] OPEN (1)

[2] Neutral

[3] CLOSE (0)

- The rocker switches have **3 toggle switch positions**. The desired switching state is adjusted by actuating the rocker switches.
- Switching the rocker switch to **neutral** stops the opening or closing of the associated metering slide at any time!

Switching status

- **OPEN (1)**: the metering unit opens
- **Neutral**: the actuator control is switched off.
- **CLOSE (0)**: The metering slider closes.

4.3 Setting the application rate

In order to set the desired application rate, you have to set the metering slide actuator mechanism on your machine.



Please see the operator's manual for your machine for how to set the slide opening.

⚠ CAUTION!

Risk of injury due to moving machine parts

In the event of a fault, the metering slide can open unexpectedly. There is a risk of injury to persons due to moving machine parts.

- ▶ Before working on the metering slides, the E-CLICK control unit must always be disconnected from the electrical system!

- ▶ Set the desired point on the scale on the metering slide actuator for your machine.

The opening anchor point for the metering slide is now defined.

4.4 Reference run



After restarting the E-CLICK control unit and regardless of the switching state of the rocker switches:

- the LEDs are off,
- the state of the actuators is unknown.

A reference run is therefore required.

You should decide what state the metering slides need to be in.

Carry out a reference run

- ▶ Switch both rocker switches to the neutral position.
- ▶ Switch both rocker switches from neutral to the desired position for the metering slide.

The actuators move in the desired position.

Switch-off occurs when the stop is reached.

The LEDs light up in the appropriate color.

The state of the actuators is now saved, even if the operator switches the rocker switches to neutral.



The LEDs go out if you switch to the neutral position during the process and thus interrupt the operation of the actuators. The E-CLICK control unit cannot detect the state of the actuators.

- Carry out another reference run.

5 Spreading operation

- ▶ Set off with the tractor.



Please observe the operator's manual for your mineral fertilizer spreader!

- ▶ Start spreading discs.



During the traverse movement, the LEDs light up orange, regardless of the direction of the traverse movement.

- ▶ Open the desired metering slides by actuating the rocker switches in the **OPEN** switching state.
The metering slides open.
Fertilizer application begins.
- ▶ Close the desired metering slides by actuating the rocker switches in the **CLOSE** switching state.
Closes the metering slide.
No more fertilizer flows through.
- ▶ Stop spreading discs.
- ▶ Stop the tractor.

Spreading work is complete.

6 Error message



If an error occurs, the LED for the affected actuator side **flashes red**.

NOTICE!

Material damage caused by short circuit

If there is a short circuit or interruption in the E-CLICK control unit, there is a risk that it will not be possible to close the metering slide.

Discharged fertilizer may fall on the street and result in accidents and environmental pollution.

- ▶ Manually close the metering slide immediately.

6.1 Short circuit

The E-CLICK control unit continuously monitors the output to the actuators for the **short circuit** state while controlling an actuator.

If a short circuit occurs after flipping a switch, the LED for the affected actuator side begins to flash **red**. No actuator movement occurs.

- ▶ Eliminate the short circuit to remedy the fault.

Possible causes:

- a defective cable
- a defective actuator

6.2 Not connected

The E-CLICK control unit monitors the output to the actuators for the **not connected state** at the start of controlling an actuator.

If no actuator is connected, the LED for the affected actuator side begins to flash **red** after flipping a switch. However, this monitoring only occurs during actuator start-up. If it is in motion and the plug is pulled out, for example, the **not connected** state can no longer be detected.

- ▶ To remedy the fault, reconnect the actuator to E-CLICK.

Possible causes:

- a defective cable (cable break)
- a defective or unplugged actuator
- an unplugged machine cable

6.3 Close the metering slide



If an error occurs, the LED for the affected actuator side flashes red.

When closing the metering slide, the actuators run to an integrated end stop, the actuators are automatically switched off and the LEDs change from **orange to red**.

Switching the rocker switch to **CLOSE** again results in the LED for the affected metering slide side beginning to flash red. This behavior is normal for repeated closing.

- There is no fault in this case.

7 Guarantee and warranty

RAUCH devices are manufactured using modern production methods and with the greatest of professional care, and are subjected to numerous inspections.

This is why RAUCH is offering a 12 month warranty if the following conditions are met:

- The warranty starts on the date of purchase.
- The warranty covers material or manufacturing defects. We are liable for third-party products (hydraulics, electronics) only to the extent of the relevant manufacturer. During the warranty period, manufacturing and material defects will be rectified free of charge with the replacement or repair of the affected parts. Other rights extending beyond the above, such as claims for conversion, reduction, or replacement for reasons of damage not suffered by the supplied product are explicitly excluded. Warranty services are provided by authorized workshops, by RAUCH factory representatives or the factory itself.
- Consequences of natural wear, dirt, corrosion, and all defects caused by improper use as well as external influences shall be excluded from the warranty. Any unauthorized repairs or changes to the original condition will void the warranty. The warranty is voided if any spare parts other than genuine RAUCH spare parts were used. Therefore, the directions in the operating manual must be observed. Please contact our company representatives of the parent company if you have any questions or doubts. Warranty claims must be submitted to the company within 30 days at the latest after the damage has occurred. The date of purchase and the machine number must be indicated. If repairs under the warranty are required, they must be carried out by the authorized workshop only after consultation with RAUCH or the company's appointed representatives. The warranty period will not be extended by warranty work. Transport damage is not a factory defect and is therefore not covered by the manufacturer's warranty manufacturer.
- Claims for damage other than to the RAUCH devices will not be accepted. This also means that no liability will be accepted for damage resulting from spreading errors. Unauthorized modifications of the RAUCH devices may result in consequential damage, for which the manufacturer will not accept any liability. The manufacturer's exclusion from liability will not apply in the case of willful intent or gross negligence by the owner or a senior employee, and in cases where – according to the product liability law – there is liability for personal injury or material damage to privately used objects in the event of defects in the supplied product. The exclusion from liability will also not apply if characteristics are missing that are explicitly guaranteed, if the purpose of their guarantee was to protect the purchaser against damage not suffered by the supplied product itself.

RAUCH Streutabellen
RAUCH Fertilizer Chart
Tableaux d'épandage RAUCH
Tabele wysiewu RAUCH
RAUCH Strooitabellen
RAUCH Tabella di spargimento
RAUCH Spredetabellen
RAUCH Levitystaulukot
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RAUCH Tablas de abonado



<https://streutabellen.rauch.de/>



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