

SESAM 3.0

Operating and service instructions



Electric door drive for fireplace inserts

Note:

Warranty claims are void if the operating instructions not observed. Technical changes and errors excepted.

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1. General information

You have a Spartherm fireplace insert accessory, thank you very much for your trust.

These instructions provide you with information on operating and troubleshooting your control unit.

Important information is printed in bold. Safety instructions are printed in red and bold and must be observed. Please read the operating instructions carefully before using the appliance.

The SESAM 3.0 is an electronic control unit for opening and closing sliding firebox doors. It is only fitted to the fireplace insert ex works and cannot be retrofitted.

2. Important notes

The "SESAM 3.0" control unit may only be operated in conjunction with a log-fired fireplace insert.

Only fireplaces that were ordered ex works with this control unit and prepared accordingly can be combined with the SESAM 3.0. Retrofitting at a later date is not possible.

The maximum ambient temperature for the electrical components is 50°C. Measures must be taken on site to ensure that this not exceeded.

The entire electrical installation of the individual components may only be carried out by an authorized specialist company.

All electrical installations must be carried out in accordance with the VDE regulations (e.g. VDE 0105, VDE 0116, VDE 0100 etc.) and the technical connection conditions of the local electricity supplier.

The cables must be laid in such a way that pressure and chafing points are avoided. The cables must not be under tension.

The components must be installed in such a way that maintenance work and access to the individual components of SESAM 3.0 are possible without any problems.

If necessary, inspection openings must be created on site.

Building moisture and condensation must be avoided, as these can lead to corrosion and malfunctions of the electrical components.

Never trigger a drive command when the door is mechanically raised. This can lead to rope entanglement on the drive unit. This condition is detected and an error message is generated. Press the LEARN button to reactivate the control unit.

The SESAM 3.0 is not suitable for multiple chimney systems.

If the firebox door is open, the door closes automatically after 2 minutes safety reasons. The control unit beeps twice 10 seconds before closing begins. The lowering takes place relatively slowly, with reversals. The lowering can be stopped with a movement command. The door is then lowered again after a further 2 minutes.

If the firebox door is to remain open for a longer period of time, for example to clean the flue gas ducts, the door should be lifted manually and secured against falling, e.g. with a log. This prevents the automatic closing after 2 minutes.

The SESAM 3.0 is available with special software WITHOUT the 2-minute lowering function; these control units have a corresponding sticker on the housing cover.

If the mains plug is unplugged or the power fails while the door is open, a single warning tone sounds. 3 seconds later, the door is lowered without reversing.

After an error occurs, the control unit is generally blocked for further commands. LEARN must first be pressed to acknowledge the error, see chapter 8. In the event of an error, a door that is not closed is automatically lowered for safety reasons.

For the SESAM 3.0 and the push-up mechanism to function properly, the combustion chamber door must be at least 2 kg heavier than the counterweight.

Never force a blocked door downwards. The drive cable could break and the door would down unchecked. Contact your stove fitter.

Only operate the fireplace when you have it in your field of vision.

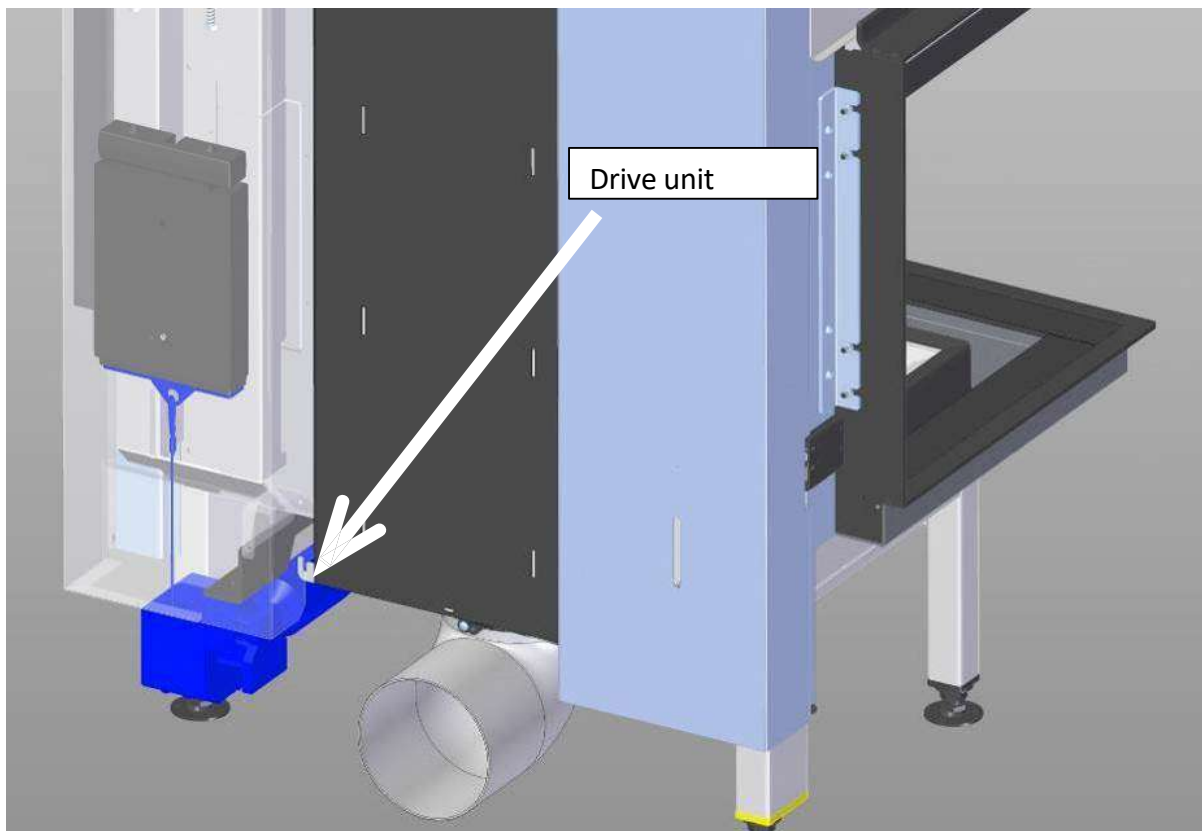
3. Functional and System description



The SESAM 3.0 control unit consists of the following components :

- Control housing
- Handheld transmitter
- Mains cable and motor cable
- Drive unit

A traction cable is attached to the bottom of the counterweight, which is wound onto a drum in the cable box by the drive motor. When the cable is pulled in, the moves downwards. This simultaneously opens the firebox door. If, on the other hand, the cable is unwound from the drum, the firebox door moves down again under its own weight.



4. Security concept

The SESAM 3.0 system is equipped with a number of special functions that offer the user a high level of safety.

- Every movement is announced in advance by an acoustic signal. Travel can begin immediately after the signal or only after a delay, depending on the event.
- In the event of a power failure, an unlocked door automatically lowered. No further action is required until the mains voltage is restored. The emergency lowering is announced acoustically and executed 3 seconds later.
- A door that is not closed is automatically lowered after 2 minutes. This automatic closing is announced acoustically 10 seconds beforehand. This lowering is tactile, i.e. very slow with reversing processes.
- If the door is raised by hand and a travel command is then triggered, the control unit interprets this as an error and stops the rope from being pulled in. This prevents possible rope entanglement. Press LEARN to reactivate the control unit.
- In the event of an error, a door that is not closed is automatically lowered for safety reasons. The error is then displayed, see chapter 9.

The control system cannot prevent all errors. For your own safety, you should therefore also follow the following rules:

- The SESAM 3.0 is on fireplaces. Their surfaces can become very hot during operation. When the door is open, flue gases may escape or embers may fall out. Therefore, exercise caution when operating the fireplace.
- Persons with impaired mental, sensory or motor must be made aware of the dangers and should not be in the immediate vicinity of the fireplace.
- **Only operate the fireplace when it is within your field of vision. Never trigger an operation command if you cannot see the fireplace and its door.**
- Protect the remote control and other devices installed for door operation against unauthorized access.

5. Emergency lowering of the door

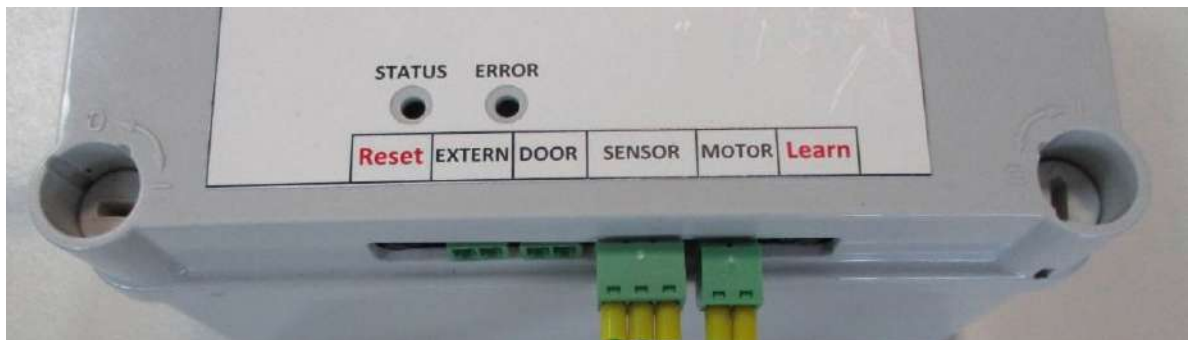
If the door cannot lowered, proceed as follows :

Press and **hold** the RESET button. After 10 seconds you will hear a warning tone and then the control unit will start to release the rope. **Keep the button pressed!** The door will then . If necessary, the door handle a little help by hand. **Release the button one second after the door has reached the bottom! Then inform your stove fitter.**

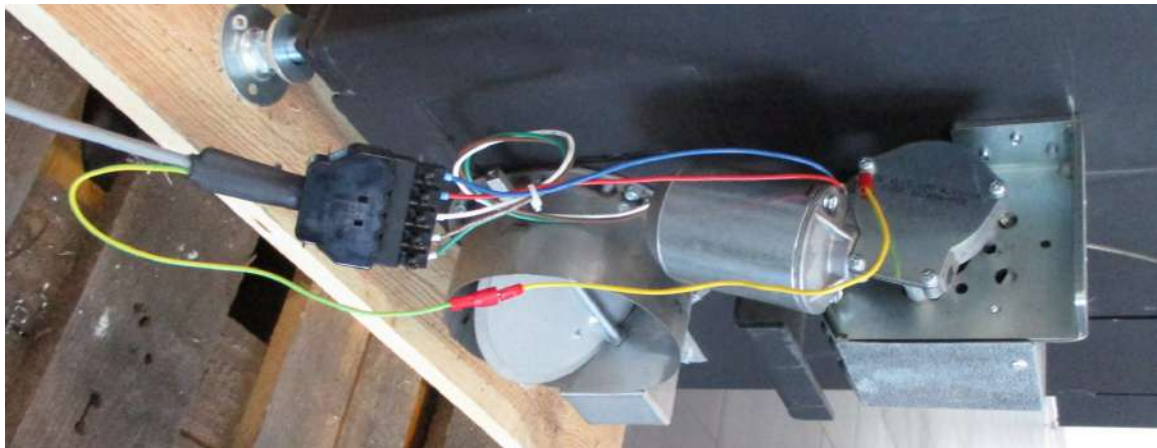
6. Installation

The control unit must be installed in such a way that access to the control housing and the drive unit possible at all times. If necessary, inspection openings must be created on site to allow access.

- Remove the transport securing screws on the counterweight shaft. **Hold the door firmly** and guide it down to the bottom by hand in a controlled manner
- Connect the control unit to the power supply, at least one LED on the control unit housing must now light up or flash
- Connect the motor cable to the SENSOR and MOTOR connections on the control unit



- Connect the other end of the motor cable to the drive unit. This is intentionally somewhat stiff so that the connection does not come loose later. Please push the plug and coupling together as far as they will go. If a motor error is displayed during commissioning (chapter 8), please check the plug connectors again. Connect the earthing cable of the plug to the motor.



- The firebox door must be heavier than the counterweight. It must be ensured that the door drops down automatically in any position when it is lifted by hand and then released. If necessary, the counterweight must be lightened. **The minimum weight of the door is 2 kg for mass-produced appliances.** Higher door weights of up to 6 kg may be required for special designs.

7. Commissioning / Learning drive

A teach-in run is carried out for commissioning. This enables the control unit to recognize the mechanical end stops at the top and bottom and can then control the door accordingly later. The learn drive can be started from any door position.

- Make sure that the door can be moved by hand over the full lifting height and that it down immediately after being released from any position. **The door weight must be at least 2 kg**, in some cases even more for special versions
- Briefly press the LEARN button on the control unit

The learn drive is only completed when the control unit has raised the bottom door another 10 - 15 cm and then lowered it again.

8. Operation and Maintenance

The "SESAM 3.0" control unit can be operated in various ways. control unit comes with a radio hand-held transmitter. Each time the large button on the hand-held transmitter is pressed, a movement command is triggered. After this movement command, the door moves to the next mechanical end position (top or bottom). The movement can also be stopped on the move by pressing the button again. The next press of the button triggers a movement in the other direction.

Only ever press the hand-held transmitter button once and not several times in quick succession. Always wait for the door to react before pressing again.

Therefore, only use the hand-held transmitter if you have direct visual contact with the fireplace. Do not operate the fireplace permanently with the door open.

If the firebox door is to remain open for a longer period of time, for example to clean the flue gas ducts, the door should **lifted manually** and secured against falling, e.g. with a log. This prevents the automatic closing after 2 minutes.

This would be executed if the door had previously been raised using the control unit.

The **button acknowledgement tone** for normal journeys can be switched off. First disconnect the mains plug. Press and hold RESET and LEARN and then plug the mains plug back in. One beep = acknowledgement tone off Double beep = acknowledgement tone on

The SESAM 3.0 system is maintenance-free. There are no options for modifying or adapting the control unit. The control unit does not need to be adjusted to different fireplaces, it works universally.

Nevertheless, make sure that the door guides are kept free of dirt and ash. If the door becomes stiff over time and no longer falls down by itself after being lifted manually, the system is no longer working. In this case, contact your stove fitter. After repair work on the door, a new test run should always be carried out, see chapter 7. Also observe the minimum door weight.

9. Displays and Error codes

There are two LEDs, "STATUS" and "ERROR", on the housing cover of the control unit. These LEDs can be used to determine the current status of the control unit and to read out error codes. The STATUS LED lights up green and the ERROR LED lights up red.

If the ERROR LED lights up, operation is not possible. Action by the operator is required, see table.

STATUS	ERROR	Operating status	Remedy / Measure
flashes constantly	from	Capacitors for emergency lowering are being charged, operation is already possible	None
lights up	from	Capacitors are fully charged, the control unit is fully operational	None
flashes 1 x	lights up	No tachometer signal / engine does not turn	Check plug, cable and motor, then press LEARN
flashes 2 x	lights up	The door is not closed	Remove obstacle or stiffness, then press LEARN Adjust the counterweight if necessary
flashes 3 x	lights up	Overcurrent when opening the door	Clear obstacle / stiffness, then press LEARN
flashes 4 x	lights up	Overcurrent when closing the door	Clear obstacle / stiffness, then press LEARN
flashes 5 x	lights up	A drive command was given when the door was raised manually	Lower the door manually, then press LEARN
flashes 6 x	lights up	No learning journey has been carried out yet	Connect control unit and motor, then press LEARN (chapter 7)
flashes 7 x	lights up	When the door was lowered automatically after 2 minutes, it did not reach the bottom	Remove obstacle, then press LEARN (chapter 7)

If the fault cannot be rectified using this table, please inform your stove fitter.

10. Power failure

In the event of a power failure, a door that is not fully closed is automatically closed. An acoustic warning sounds three seconds beforehand. When the power returns (the STATUS LED flashes or lights up again), the control unit is ready for operation again without any further action.

During the power failure, the door of the fireplace can operated manually. Please lower an open door by hand and do not allow it to fall down.

11. Connection with other systems (DOOR and EXTERN)

The SESAM 3.0 can be linked to various systems and work together with them.

DOOR" connection :

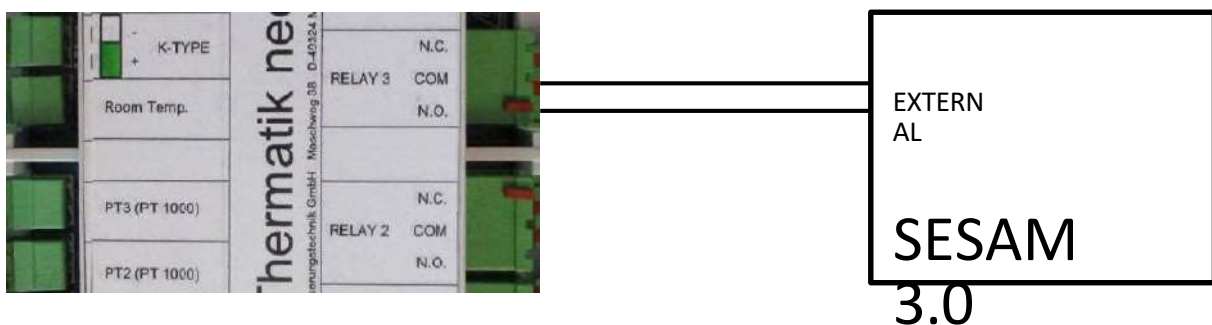
This two-pole connection is only bridged (closed) when the door is in its lower end position. In any other door position, the connection is open. The connection can be used to check whether the door is really closed. Couplings to safety systems or to the S-Thermatik NEO combustion control system would be possible.

EXTERNAL" connection :

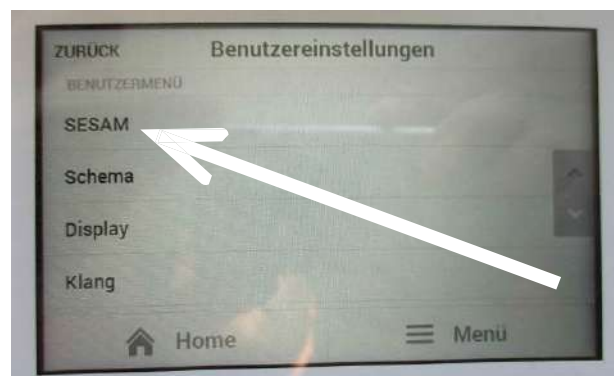
External command devices such as relays or buttons can be connected to this socket. If the contact is closed, a movement is triggered. The contact must not permanently closed, otherwise no further command input is possible. The command must be entered as a button, i.e. for about 1 - 2 seconds. The contact must then be opened again. The SESAM can also be controlled via this connection from the KNX building services bus, for example, if an external actuator is used there.

Connection to an S- Thermatik NEO :

The EXTERNAL connection of the SESAM 3.0 must be connected to the NO and COM pins of the RELAY2 or RELAY3 connection of the NEO. The polarity does not matter.



The "SESAM" function must be assigned to the selected relay (2 or 3) in the NEO service menu. A "SESAM" field then appears in the NEO user menu. Tapping this triggers a movement command. It is then also possible to operate the firebox door via smartphone using the NEO app.



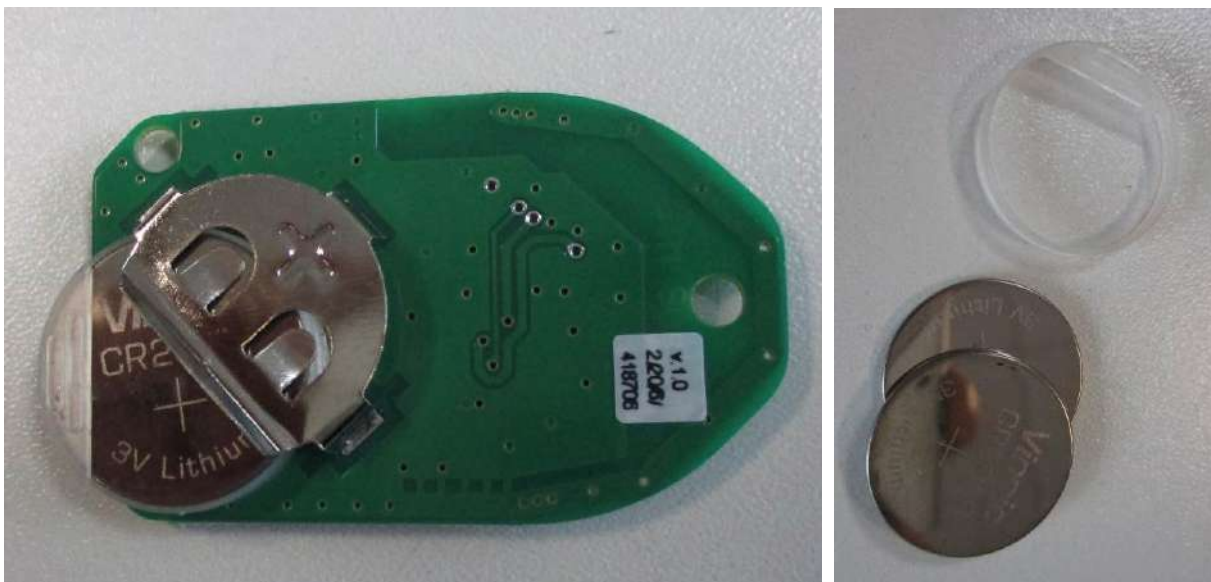
12. Replacing the battery of the hand-held transmitter

The ring of the hand-held transmitter must light up when the button is pressed. If not, proceed as described below.

Loosen the three screws on the back of the hand-held transmitter. Then remove the circuit board :

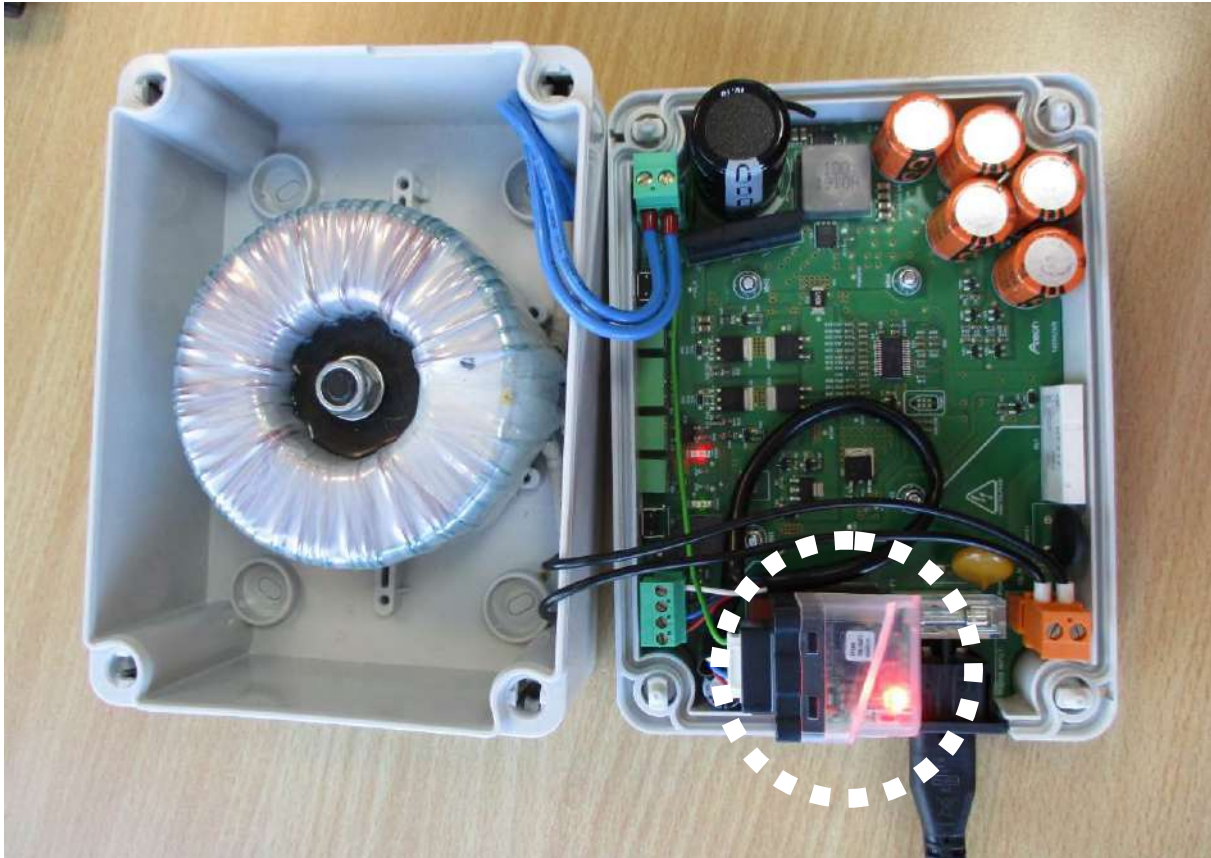


Slide the battery pack of the side of the holder. Reinsert the new batteries (2 x type CR2016) with the correct polarity.



Reassemble the hand-held transmitter in reverse order. The short screw should be at the bottom, the two long ones at the top (when looking at the back of the hand-held transmitter from behind). The batteries should have a voltage of at least 2.8 volts each.

13. Teach hand-held transmitter and delete



Loosen the 4 cover screws of the control unit by turning each one a quarter turn (90°) to the left. Place the cover next to the lower part of the control unit as shown. Connect the control unit to the mains. A red LED on the receiver housing must up brightly. **Do not touch any parts of the control unit other than the receiver (circled in the picture).**

Programming a new hand-held transmitter :

- Press and hold the small red button directly next to the bright LED on the receiver. The receiver is circled in the picture.
- Then press the desired button on the new hand-held transmitter to be programmed
- The LED on the receiver starts to flash and then stops
- Now release the hand-held transmitter button
- Now release the receiver button

The SESAM 3.0 receiver can manage up to 200 hand-held transmitters. If hand-held transmitters are to be deleted, proceed as follows :

Deleting individual hand-held transmitters :

- Press and hold the receiver button and the hand-held transmitter button at the same time
- When the receiver LED goes out, this hand-held transmitter is deleted

Delete all hand-held transmitters :

- Press and hold the receiver button for about 15 seconds until the LED goes out. All hand-held transmitters are then deleted.

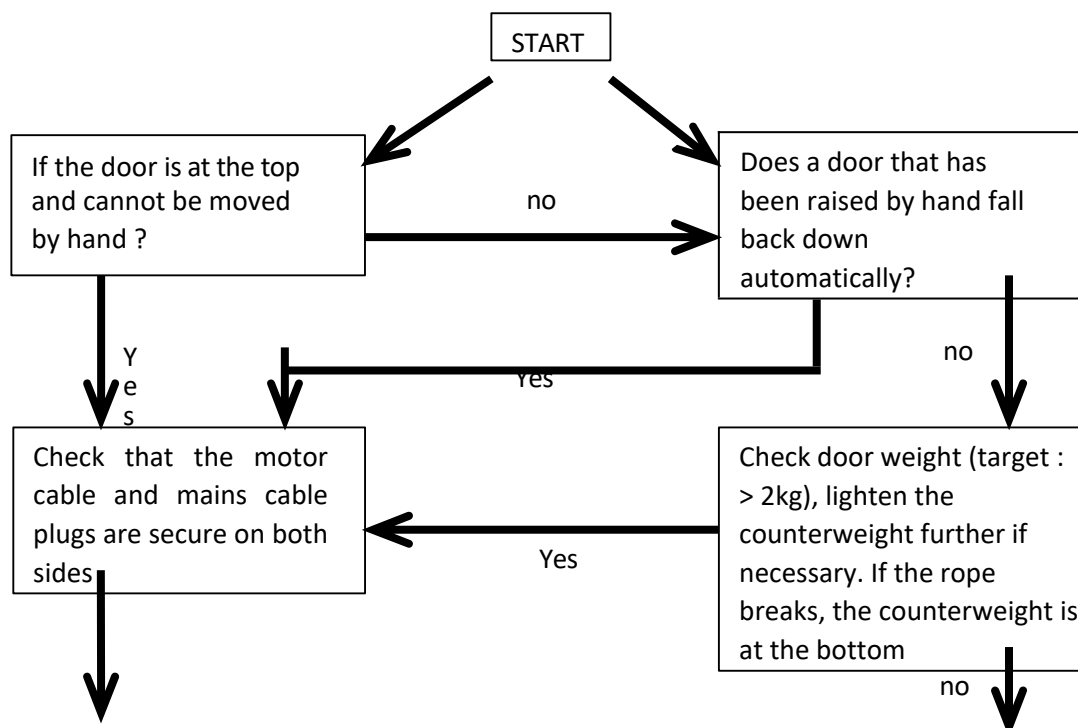
ATTENTION : At least one (1) hand-held transmitter or one (1) external contact must be connected to operate the control unit.

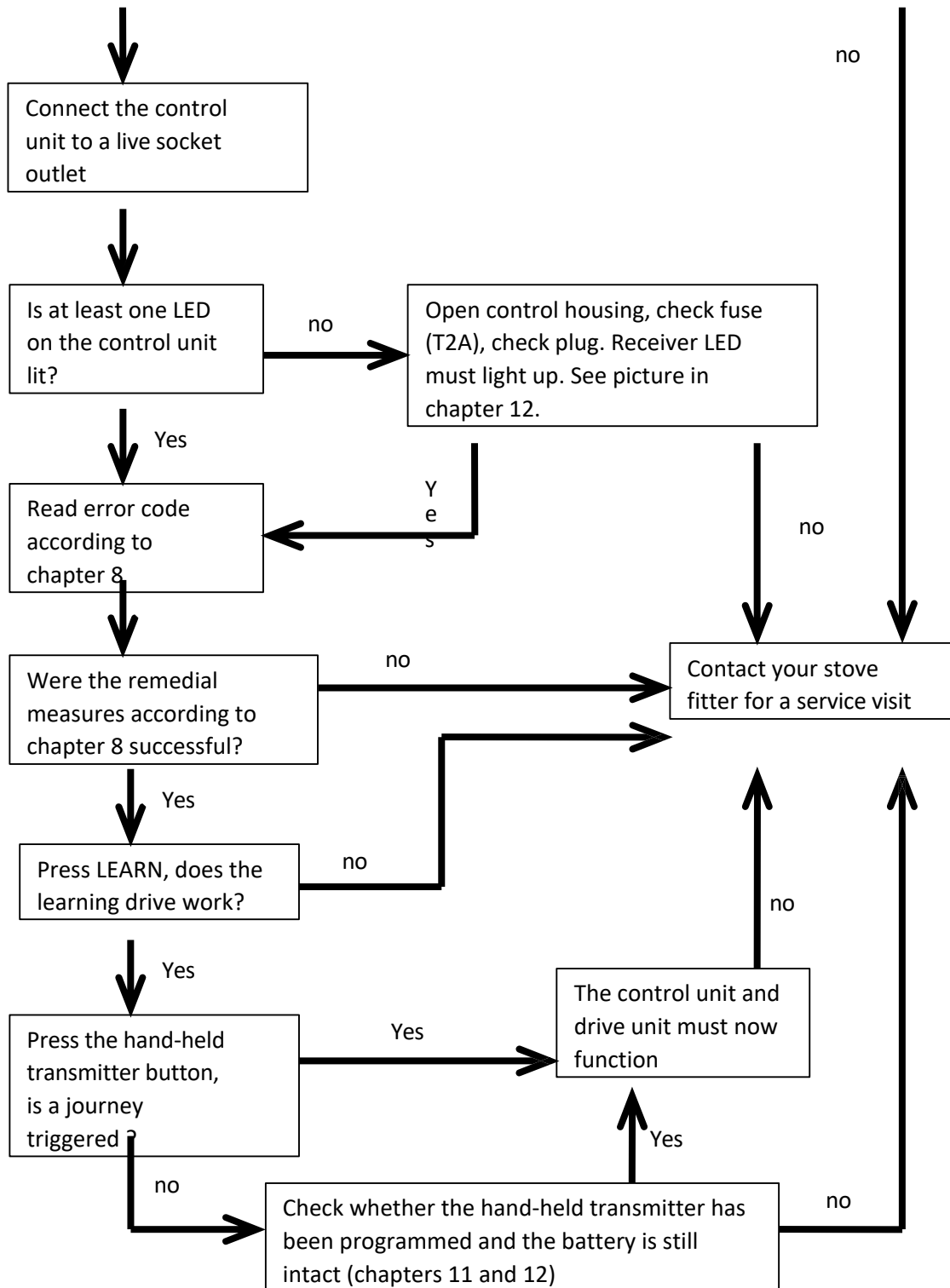
Place the cover back on the control unit. Make sure that no cables are sticking out that could be crushed. Close the control unit with a quarter turn of the cover screws.

The ring on the hand-held transmitter must light up when the button is pressed. If not, check the batteries (chapter 11) and, if necessary, teach the hand-held transmitter again (chapter 12). If the hand-held transmitter does not work even with new batteries, contact your stove installer for a replacement.

14. Guide for the error case

If problems occur, we recommend pressing the LEARN button on the control unit once. The unit should then work correctly. If not, please proceed according to the troubleshooting tree :



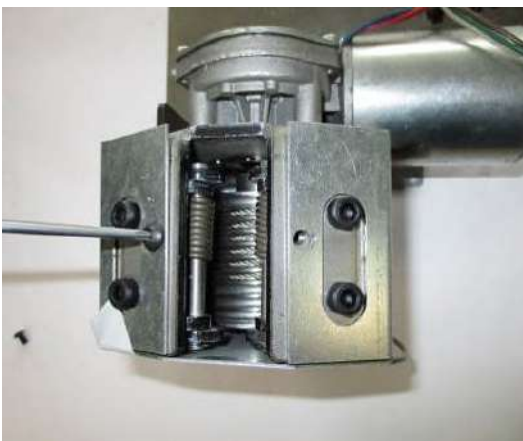


If an open door jams during operation and cannot be closed using the control unit, press and hold the RESET button on the control unit for at least 10 seconds. The rope is then unwound. Keep the button pressed! Move the door all the way down, give it a little help by hand if necessary and release the button again about one second after the door has reached the bottom. Please contact your stove fitter. As long as the fire is still burning, keep an eye on the fireplace. If smoke escapes, ensure that the room is ventilated.

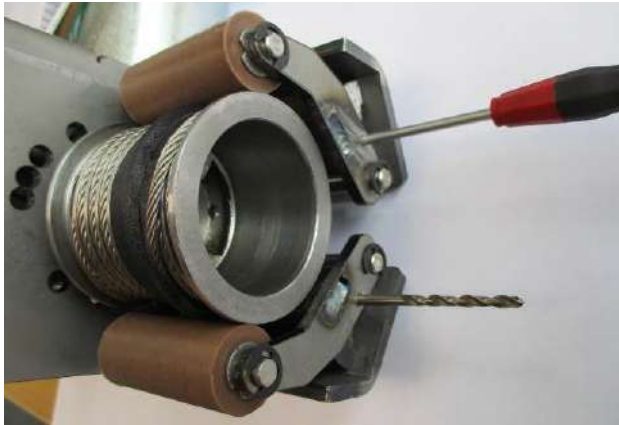
15. Change drive unit / motor

A defective drive unit is removed completely (motor with cable drum). Proceed as follows :

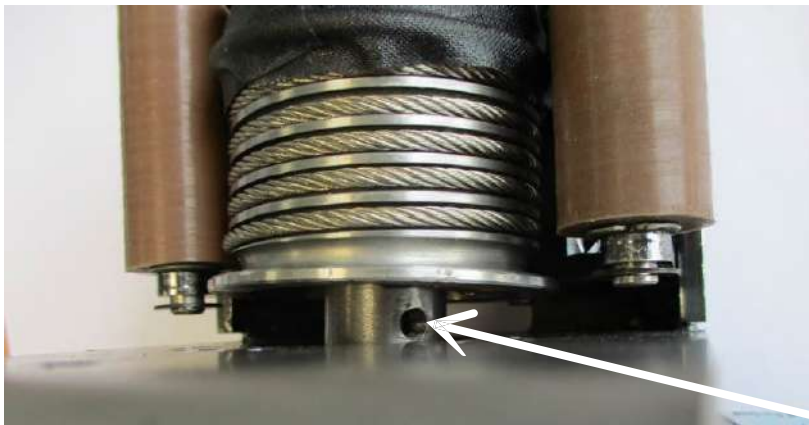
- Raise the door by hand as far as possible and secure it against falling
- Remove the combustion chamber lining (fireclay) from the walls and floor
- Unscrew and remove the inspection flaps
- Unscrew the cable fastening at the bottom of the counterweight
- Unscrew the drive unit from the retaining plate and remove it through the inspection opening



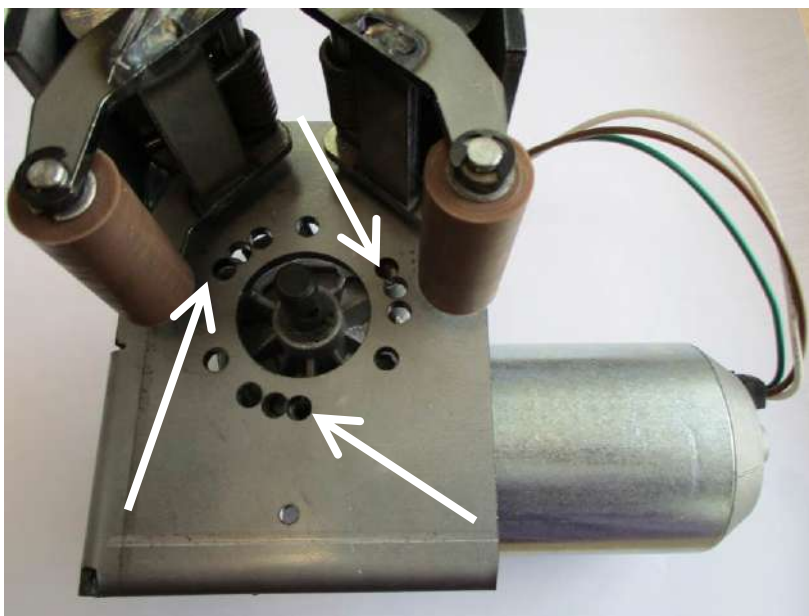
First remove the cover plate from the cable box by loosening the three screws shown.



Press the arms of the clamping rollers outwards and secure with a pin (drill, nail, wire, screwdriver or similar)



Loosen the clamping screw of the cable pulley and pull it off the motor shaft. Do not lose the feather key from the motor shaft!



Now loosen the three motor screws, then the motor is free. Installation is carried out in reverse order. Ensure that the rubber rollers engage exactly in the pulley and that the feather key is correctly seated.

16. General warranty conditions

Area of application

These general warranty conditions apply in the relationship between the manufacturer, Spartherm Feuerungstechnik GmbH, and the dealer/intermediary. They are not congruent with the contractual and warranty conditions that the passes on or can pass on to its customers in individual cases.

General information

This product is a quality product manufactured according to the state of the art. The materials used have been carefully selected and, like our production process, are under constant control. Specialist knowledge is required to set up or install this product. For this reason, our products may only be installed and commissioned by specialist companies in compliance with the applicable legal regulations.

Warranty period

The general warranty conditions only apply within the Federal Republic of Germany and the European Union. The warranty period and scope of the warranty is granted within the framework of these conditions outside the statutory warranty, which remains unaffected. The company Spartherm Feuerungstechnik GmbH assumes

a **5-year** warranty for:

- Basic body of firing cells
- Basic body of stoves
- Basic body of fireplace cassettes
- Basic body Fireplace doors

Spartherm Feuerungstechnik GmbH provides a **24-month** guarantee for the lift and slide technology, operating elements such as handles, control levers, shock absorbers, electronic and electrical components such as fans, speed regulators, original spare parts, all purchased items and safety equipment.

Spartherm Feuerungstechnik GmbH provides a **6-month** guarantee on wearing parts in the fire area, such as fireclay, vermiculite, fire grates, seals and glass ceramics.

The warranty period begins on the date of delivery to the dealer/intermediary. This must be evidenced by a document such as an invoice with confirmation of delivery from the dealer/intermediary. The warranty certificate relating to the product must be submitted by the claimant when asserting the warranty claim. Spartherm Feuerungstechnik GmbH shall not be obliged to provide any warranty service without submission of this evidence.

Warranty exclusion

The warranty does not cover:

- the wear and tear of the product:

- Fireclay/vermiculite:

This is a natural product that is subject to expansion and contraction with every heating process. This can result in cracks. As long as the linings retain their position in the combustion chamber and do not break, they are fully functional.

- the surfaces:

Discoloration in the paint or on the galvanic surfaces due to thermal stress or overloading.

- the push-up mechanism:

In the event of non-compliance with the installation instructions and associated overheating of the deflection pulleys and bearings.

- the seals:

Loss of tightness due to thermal stress and hardening.

- the glass panes:

Soiling caused by soot or burnt-in residues from burnt materials, as well as color or other visual changes due to thermal stress.

-Incorrect transportation and/or storage

-Improper handling of fragile parts such as glass and ceramics

-improper handling and/or use

-lack of maintenance

-Incorrect installation or connection of the device

-Non-observance of the assembly and operating instructions

-technical modifications to the device by persons outside the company

Elimination of defects / repair

Irrespective of the statutory warranty, which precedence over the guarantee promise within the statutory warranty periods, all defects that are demonstrably due to a material defect or a manufacturer's defect and the other conditions of this guarantee promise are met will be rectified free of charge under this guarantee. Spartherm Feuerungstechnik GmbH reserves the right to either rectify the defect or replace the appliance free of charge within the scope of this guarantee promise. The rectification of defects has priority. This guarantee promise expressly does not include further compensation for damages, which is excluded beyond the statutory warranty.

Extension of the warranty period

If a service is claimed under the warranty promise, be it the rectification of defects or the replacement of a device, the warranty period shall be extended for this replaced device/component.

Spare parts

If spare parts are used, only spare parts manufactured or recommended the manufacturer may be used.

Liability

Damage and claims for compensation that are not caused by a defective appliance supplied by Spartherm Feuerungstechnik GmbH are excluded and are not part of this guarantee promise.

This does not apply to statutory warranty claims, should these exist in individual cases.

Concluding remarks

In addition to these guarantee conditions and guarantee commitments, the specialist dealer/contractual partner will be happy to provide you with advice and assistance. It is strongly recommended that fireplaces and stoves are checked regularly by a stove fitter.

Technical changes and errors excepted.

17. Technical Data

Control unit dimensions L x W x H :	116 x 156 x 75 mm, without cable and plug
Hole spacing for wall mounting :	112 x 72mm
Weight of the control unit :	1.6 kg
Protection class of the control unit :	II
Operating voltage :	230V 50Hz
Power consumption during operation :	< 100 watts (motor current limitation)
Power consumption in standby :	< 2 watts
Internal primary fuse of the control unit :	T 2 A, glass tube miniature fuse 5 x 20
mm Length of mains cable :	approx. 1.8 meters, with Euro plug
Length of motor cable :	approx. 3 meters
Operating voltage of the motor :	12V DC

18. EU- Declaration of Conformity

We hereby declare,

Spartherm Feuerungstechnik GmbH

Maschweg 38

49324 Melle, Germany

the following product :

Product type: Electric door drive for fireplace inserts

Model: SESAM 3.0

as conforming to the following European standards and directives :

2001/95/EC

2014/30/EC

2014/53/EU

EN 60335-1 ed. 3 : 2012

EN 62233 : 2008

EN 55014-1 ed. 4 : 2017

EN 55014-2 ed. 2 : 2017

EN 61000-3-2 ed.4 : 2015

EN 61000-3-3 ed.3 : 2014

EN 61000-6-3 ed.2 : 2007

Melle, February 01, 2021



Gerhard Manfred Rokossa, Geschäftsführer

19. Notes

