

Installation Guide

EOS 8

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BRUNNER[®]
made in germany.

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Please read this Installation Guide carefully, before you start with the installation. We do not accept any warranty claim or liability for damage resulting from failure to observe these installation instructions!

Installation, commissioning, maintenance and repairs of the product may be carried out only by an authorized stove-fitter. Safety and efficiency of the system depend on it. All valid stove fitting rules and regulations of building law must be observed and followed. Make sure to instruct the owner or user about the functions and controls of the system and possibly installed safety devices.

Only original spare parts of the manufacturer may be used.

Before working on the electronics, switch off the emergency switch or circuit breaker, and secure them against switching on again.

Consider all other building, assembly and installation guides of all individual packing units!

All binding national or EU standards and local regulations for the installation of fireplaces must be observed.

Subject to technical changes.

Transportation damage must be reported immediately to the shipping company.

Please keep the installation guide for future reference.

1 SAFETY PRECAUTIONS



The connection to the 230 volt network (electronics and optional actuators) may only be carried out by a registered specialist company.

Before opening the electronics, switch off the power supply (switch off the emergency switch or circuit breaker, and secure them against switching on again!)

Be careful when working on valves and sliding mechanisms. Danger of squeezing!

2 DELIVERY CONTENTS

The EOS 8 is a combustion control device, which can, in different stages of installation development, control the combustion air of a heater for a tiled stove or fireplace, or adjust the burn-up and control the entire system, including the hot water production and the switching valves.

Thus the delivery contents depend on the stage of development of the installation and the additionally ordered options for the EOS 8.

Necessary components of the EOS 8 system in EOS variant (combustion air control):

- Air control valve motor K1
- Temperature sensor with ceramic sleeve
- Door switch sensor
- EOS -7/-8 electronic control unit with emergency battery
- Display unit: Touch 2.0.
- Door switch cable to connect the door switch sensor to the EOS 8 (1*)
- Thermocouple cable to connect the temperature sensor to the EOS 8 (1*)
- K1 bus wiring to connect the air control valve motor K1 with the EOS -7/-8 (1*)
- Connecting cable for EOS 8 display and control unit (1*).

In different models of heating inserts, the components of air control valve motor and/or temperature sensor are factory mounted. The door switch sensor is always factory mounted.

Necessary components of the EOS 8 system with damper flap (EOS Drossel):

- As for the EOS variant, however additionally:
- A valve motor K2 for the motorized damper flap
- A connection cable for K1- K2 damper flap

Necessary components of the EOS 8 system with optional BHZ, EWP (extension board), etc. (Control of the EOS 8 auxiliary functions):

- As for the EOS or EOS DK variants, however additionally
- A data or connecting cable for the connection of the individual components with each other (1*)
- Sensors, valves motors, pumps, etc. depending on the selected installation extent.

Attention: The options BHZ, EWP (extension board), etc. can be used together. The individual components should be interconnected with a data or connecting cable. Each of these components has two connections for the data cable (in and out). If a connection has no data cable attached (last component in the chain), then a terminal resistor has to be placed here.

1*: Please order the length in accordance with the building situation!

3 SYSTEM DESCRIPTION

The EOS 8 provides functions which make it possible to perform complex control tasks related to heating systems. The integrated functions of EOS 8 are optimized for the control of heating systems with boiler technology and a connected buffer tank. In connection with a BHZ, for example, it is possible to operate the complete system comfortably from one place.

It is possible to connect extra displays to the EOS 8. In this case, the heating system can be operated from each connected display. If further systems, like BHZ for example, are using the data bus technology, then the entire system can be operated from each connected display. The currently active component (e.g. EOS 8) is shown in the foreground. Other systems (e.g. BHZ) can be selected via their symbols in the navigation bar below and displayed for operation.

All sensors, actuators, pumps, etc. are connected to the electronics of the EOS 8. The EOS 8 display unit is connected to the control unit with a connecting cable.

Display

The display of EOS 8 is divided into three fields.

In the navigation bar above, the essential functions/components of the current application are represented by icons. By tapping an icon you can enter the respective menu.

In the lower navigation bar on the right, the current date and time are displayed. In the same navigation bar, the different applications (EOS 8, BHZ, etc.) can be selected if available.

In the field between the two navigation bars, the different menus, diagrams, informations etc. concerning the selected application/function are displayed. Contents depend on the configured system.

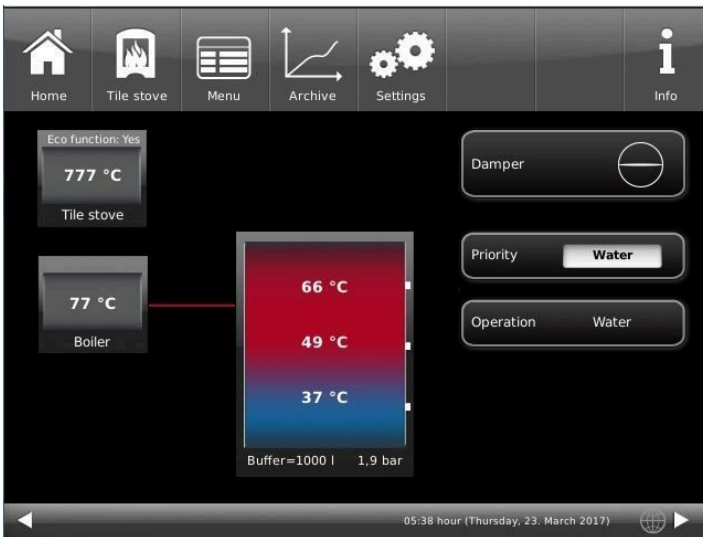


Illustration 1: EOS 8 Home view

The touchscreen of the control unit can be operated with fingers. If this is not desired or if it does not feel practicable, a suitable aid can be used. Never operate the touchscreen with a conventional pen. A stylus for capacitive displays is required.

Hint: The display does not respond to pressure. Sometimes coming close with a finger already leads to a reaction. Touch the desired place of the screen and do not keep your finger on it.



Never use a pencil or other sharp objects for operation.

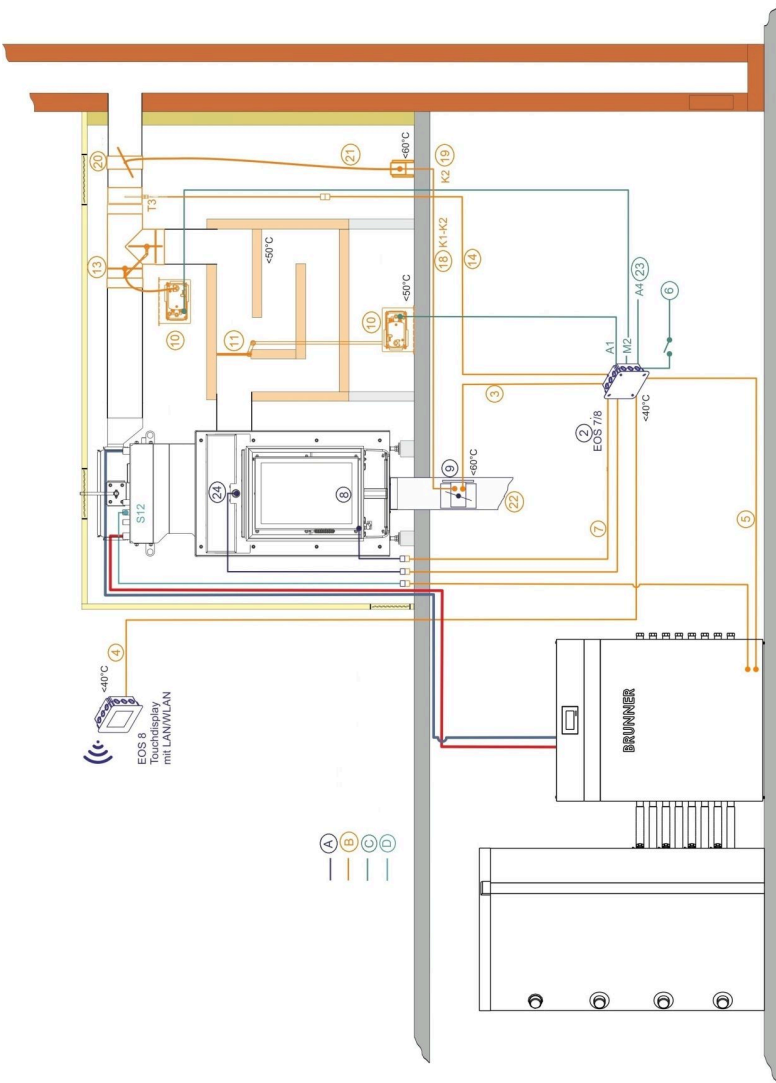


Illustration 3: EOS 8 with boiler technology and buffer storage

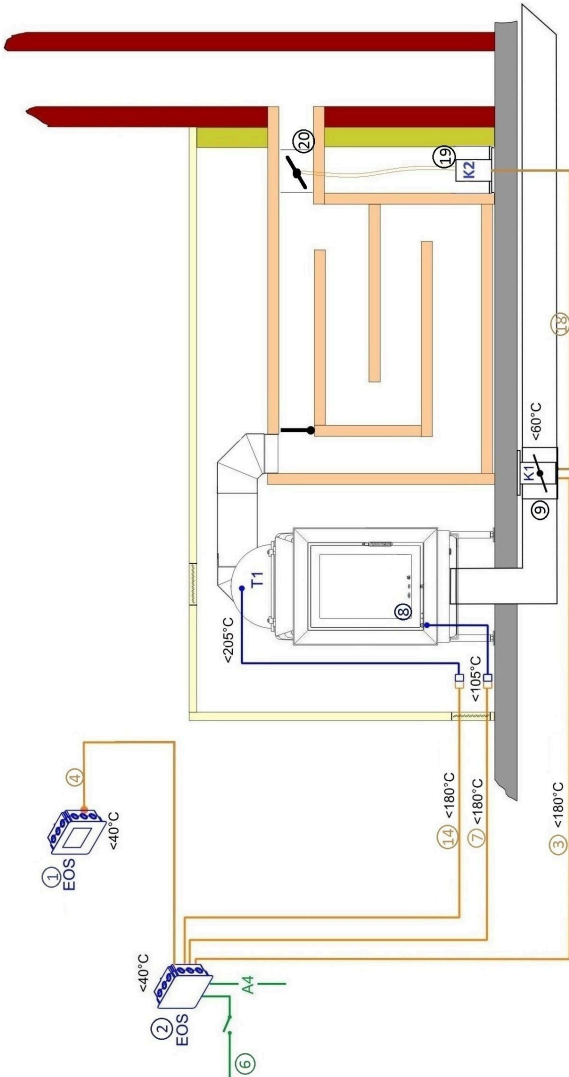


Illustration 4: EOS 8 with damper flap

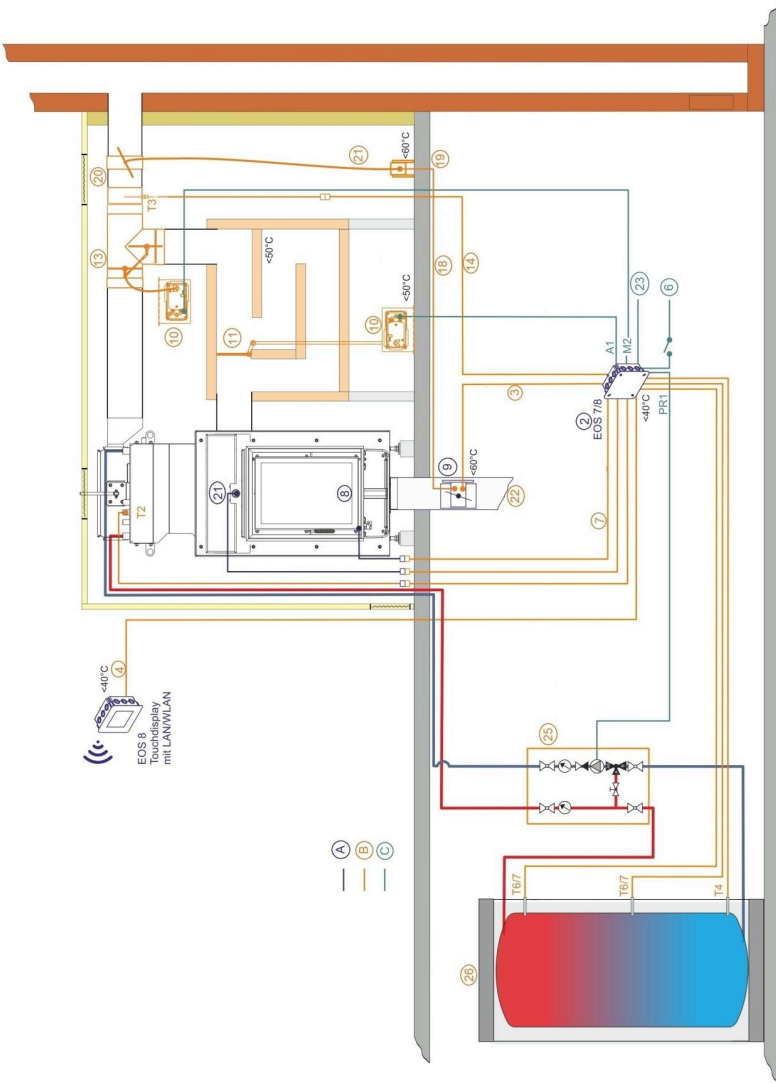


Illustration 5: EOS 8 with boiler technology and pump assembly

Legende Anlagenschemata

| | | | |
|----|--|----|--|
| A | EOS-components | 12 | draught fan on chimney head |
| B | accessories, extension wiring | 13 | Moritz's smoke valve |
| C | by customer on site | 14 | thermocouple wiring |
| D | BHZ-components | 15 | speed limiter |
| 1 | display EOS | 16 | air supply |
| 2 | control unit EOS | 17 | connection wiring PT1000 |
| 3 | bus wiring K1 | 18 | connection wiring K1/K2 |
| 4 | connection wiring display control unit | 19 | damper flap motor (motor K2) |
| 5 | connection wiring EOS - BHZ | 20 | damper flap |
| 6 | power supply | 21 | flexible shaft |
| 7 | door switch wiring | 22 | combustion air duct (e.g. external air connection) |
| 8 | door switch | 23 | A4 switching output (e.g. induced draft) |
| 9 | air intake flap | 24 | thermocouple T1 |
| 10 | smoke valve actuator | 25 | pump group tile stove |
| 11 | HS-Air control push rod | 26 | buffer tank |

5 DIMENSIONS

In the picture on the left – the wall mount box, and on the right a representation of the installed wall mount box with the EOS 8 display unit.

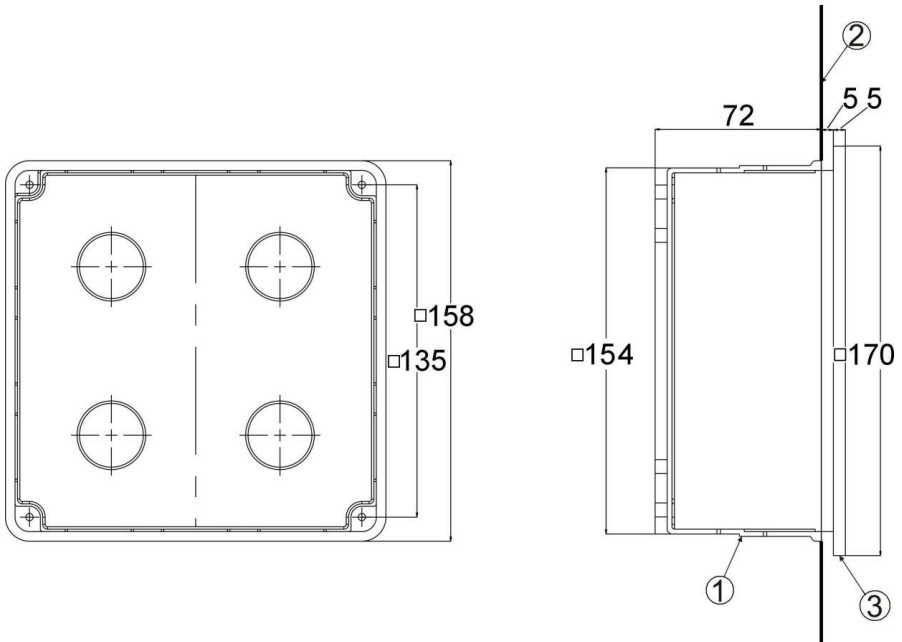
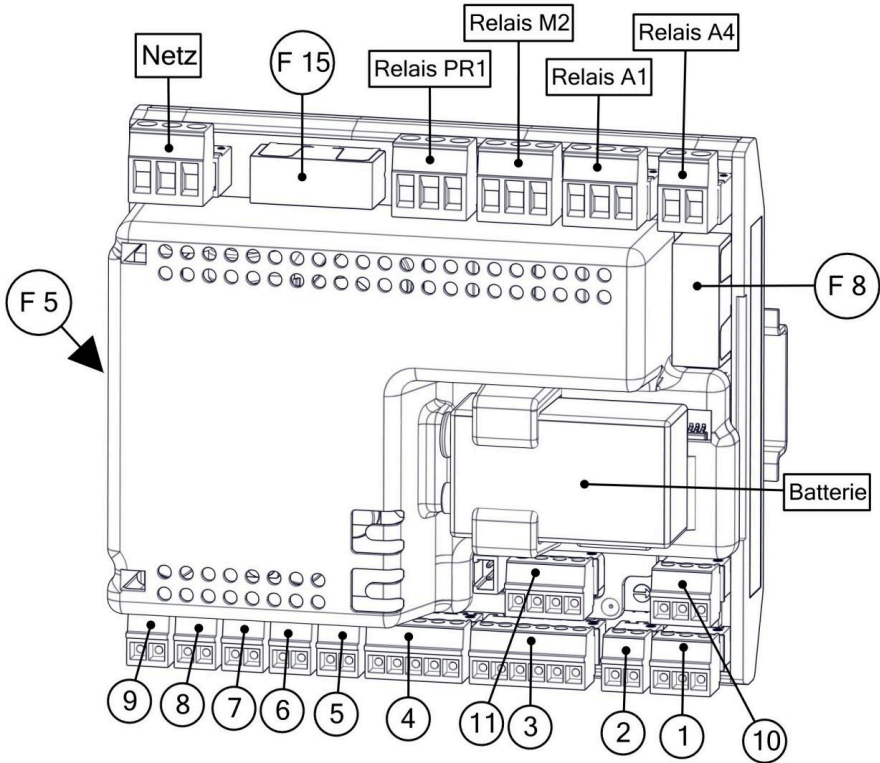


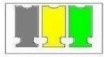
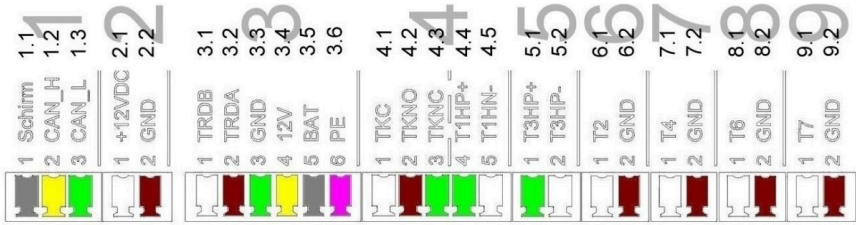
Illustration 6: Wall mount box and the EOS 7 display unit

| | | | | | |
|---|----------------|---|------|---|-------------|
| 1 | Wall mount box | 2 | Wall | 3 | Glass front |
|---|----------------|---|------|---|-------------|

6 CONNECTIONS

Connections on the EOS -7/-8 control unit





10.1 Schirm 1
10.2 CAN_H 2
10.3 CAN_L 3



11.1 TRDB 1
11.2 TRDA 2
11.3 GND 3
11.4 PE 4



EOS-7/-8

Art. Nr.: E004052



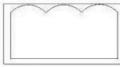
T 2A
Relais A4



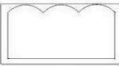
T 250mA
Netzteil



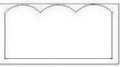
C NO
Relais A4



PE L N
Relais A1



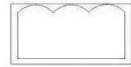
PE L N
Relais M2



PE L N
Relais PR1



T 6,3A



Netz

| Con-connector | Ter-minal | Cable color | Function |
|---------------|-----------|-------------|---|
| 1 | 1.1 | gray | Connecting cable for the EOS 8 display unit Data cable |
| | 1.2 | yellow | |
| | 1.3 | green | |
| 2 | 2.1 | white | Connecting cable for the EOS 8 display unit Power supply |
| | 2.2 | brown | |

| Con- nector | Ter- minal | Cable color | Function |
|----------------|---------------|----------------|---|
| 3 | 3.1 | white | Data cable for air control valves K1 / K2 |
| | 3.2 | brown | |
| | 3.3 | green | |
| | 3.4 | yellow | |
| | 3.5 | gray | |
| | 3.6 | pink | |
| 4 | 4.1 | white | Connection of the door switch cable |
| | 4.2 | brown | |
| | 4.3 | green | |
| | 4.4 | green | Connection of the combustion chamber temperature sensor T1 |
| | 4.5 | white | |
| 5 | 5.1 | green | Connection of the chimney temperature sensor T3 |
| | 5.2 | white | |
| 6 | 6.1 | white | Connection of the boiler temperature sensor T2 (PT1000) |
| | 6.2 | brown | |
| 8 | 8.1 | white | Connection of the buffer tank temperature sensor T4 (PT1000) |
| | 8.2 | brown | |
| 8 | 8.1 | white | Connection of the sensor T6 (PT1000) (buffer top or mid or room temperature sensor) |
| | 8.2 | brown | |
| 9 | 9.1 | white | Connection of the sensor T8 (PT1000) (buffer top or mid or outdoor temperature sensor) |
| | 9.2 | brown | |

| Con- nector | Ter- minal | Cable color | Function |
|----------------|---------------|-------------------|--|
| 10 | 10.1 | gray | Connection of the data cable |
| | 10.2 | yellow | |
| | 10.3 | green | |
| 11 | 11.1 | white | not used |
| | 11.2 | brown | |
| | 11.3 | green | |
| | 11.4 | yellow | |
| Relay A4 | C | | Potential free connection for A4; max. allowed short-term switching current 2A |
| | NO | | |
| Relay A1 | PE | green/yel- low | Connection for A1; max. allowed short-term switching current 8A |
| | L | brown | |
| | N | blue | |
| Relay M2 | PE | green/yel- low | Connection for M2 (Moritz flap); max. allowed short-term switching current 8A |
| | L | brown | |
| | N | blue | |
| Relay PR1 | PE | green/yel- low | Connection for PR1 (pump group); max. allowed short-term switching current 8A - see also chapter "Connection of a pump to the relay out- put PR1" |
| | L | brown | |
| | N | blue | |
| Mains | PE | green/yel- low | Connection for the 230 V / 50 Hz power supply |
| | L | brown | |
| | N | blue | |

| Con- nector | Ter- minal | Cable color | Function |
|----------------|---------------|----------------|----------------------------------|
| F 5 | | | Fuse mains; T 250 mA |
| F 8 | | | Fuse Relais A4; T2 A |
| F 15 | | | Fuse Relais A1, M2, PR1; T 6,3 A |

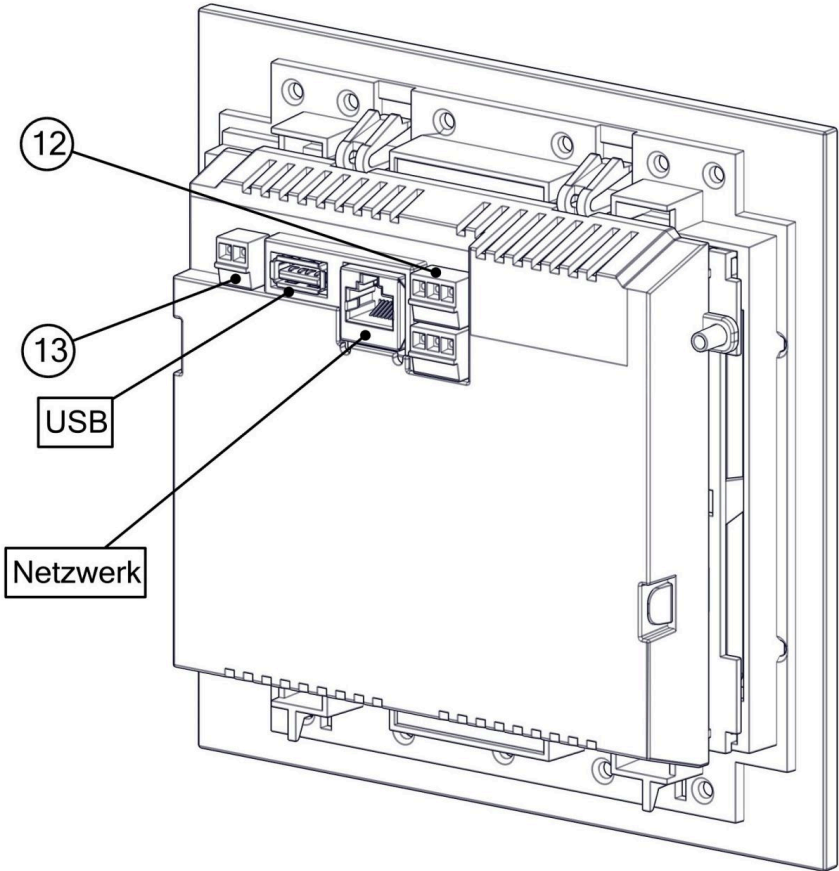
The control unit of the EOS 8 can be installed in a standard wall mount box. In this case, the cables should be kept short inside the wall mount box on connectors side. There's little room for cables in the standard wall mount box.

We recommend the installation of the control unit in a bigger housing (fuse box of the domestic electrical system, etc.).



The control unit of the EOS 8 must be accessible for maintenance and repairs.

Connections on the EOS 8 display unit



BRUNNER®

Bediendisplay

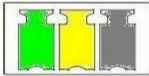
Touch 3.0

Art.Nr.: E004071

CAN-IN
CAN-OUT

3 CAN_L
2 CAN_H
1 Schirm

Netzwerk



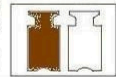
12.3 12.2 12.1

12

USB

Versorgung

2 GND
1 +12VDC



13.2 13.1

13

| Con- nector | Terminal | Cable color | Function |
|----------------|----------|-------------|---|
| 12 | 12.1 | gray | Connecting cable for the EOS 8 control unit |
| | 12.2 | yellow | |
| | 12.3 | green | Data cable |
| 13 | 13.1 | white | Connecting cable for the EOS 8 control unit |
| | 13.2 | brown | power supply |
| Network | | | Connection to a home network |
| USB | | | USB interface for updates |

Hydraulic diagrams and the relevant wiring diagrams can be found in the BRUNNER Hydraulic Manual:

The BRUNNER Hydraulic Manual is currently in the craftsmen's area at:

<https://www.brunner.de>

BRUNNER Hydraulic Manual 2020:



BRUNNER Hydraulic Manual 2022:



7 INSTALLATION OF THE EOS 8

The EOS 8 always consists of a control unit and a display unit. Both units are necessary; however, further display units can be attached at any time, e.g. for operation from another room.

Each unit can be installed separately in a standard wall mount box. When all connectors in the control unit are used, there is not much space left for excessive cable length in the standard wall mount box; therefore we recommend the installation of the control unit in a larger wall mount box or in the fuse box of the domestic electrical system, for example.

Installation of the EOS 8 control unit

The control unit is installed in a wall mount box or in another place on a DIN rail (provided with the control unit). The cables should be led to their respective connections on the control unit through electrical conduit pipes. Leading the cables crosswise over the control unit must be avoided.

Sensor and data cables, as well as cables for power supply are to be led through separate electrical conduit pipes! If they are not separated from each other, this can lead to false measurement or control signals; correct and safe operation of the system is not guaranteed.

The position of the connections on the electronics can be found in the chapter 'Connections'.

Attach the enclosed connection diagram in the proximity of the electronics.

Consider the assembling instructions of the wall mount box.



The EOS -7/-8 control unit must be accessible for maintenance purposes and for replacement of the emergency battery. If this is not possible, the emergency operation cannot be ensured.

Installation of the EOS 8 display unit

The cable for connection with the EOS 8 control unit must enter at the bottom of the wall mount box.

The wall mount box must be set concisely into the wall. This is the only way to make sure that between the wall and the rear edge of the glass front a 5mm gap remains. This gap is needed to be able to insert the tool to remove the EOS 8 display unit from the wall mount box.

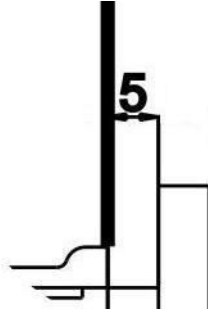
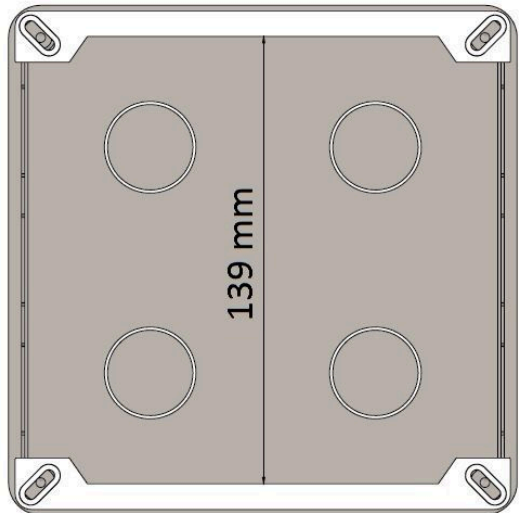


Illustration 7: Gap between wall and glass front

If the gap between wall and glass front is too small, the EOS 8 display unit cannot be removed from the wall mount box.



Attention **distance**



When a standard wall mount box with recessed fixing holes is used (e.g. wall mount box for EOSR5), washers must be put between the holes and the assembly rails so that the assembly rails do not bend.



Install the wall mount box with mounted cover.

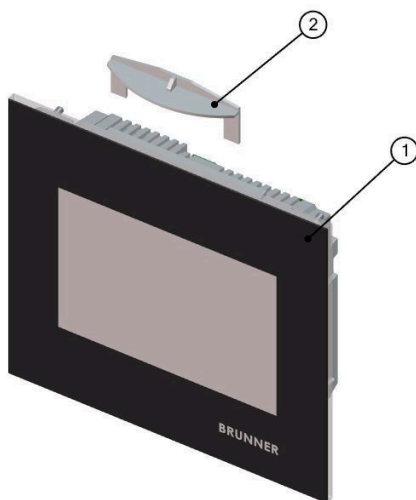
Install the assembly rails which are attached to the EOS 8 display unit.

Attention

If a wall mount box other than the one offered by BRUNNER is used, the cover will be larger than the glass front. This might result in visible edges which are not covered by the glass front. This might result in visible edges which are not covered by the glass front.



The wall mount boxes supplied by Ulrich Brunner GmbH have been adapted so that finally no edges are visible after removing the cover.



To remove the EOS 8 display unit, insert the provided tool between the wall and the glass front and release the lock with light pressure.

ATTENTION: Do not use force. The plastic catch links may not break off. A replacement can only be supplied including the glass front.

To remove the EOS 8 display unit(1), insert the provided tool(2) between the wall and the glass front and release the lock with light pressure.



The enclosed frame can be used for secure, dimensionally stable mounting of the EOS display in the wall mount box.
Please mount the frame as shown.

Info: **Grounding is required** when installing with the EOS.

Installation of the air control valve motor

The air control valve motor is used to adjust the combustion air volume. The air control valve is connected to the heating insert by means of an aluminum flexible hose.



Observe the maximum permitted ambient temperature of 60°C.

The motor is connected to the EOS -7/-8 control unit with a data cable. The data cable should be led starting from the motor, through one of two cable glands and then through an electrical conduit pipe to the EOS 8 control unit. Here the data cable is provided with a connector and connected.

The motor has two plug-in contacts. For the EOS only one is needed. On the second plug-in contact a terminal resistor is placed.

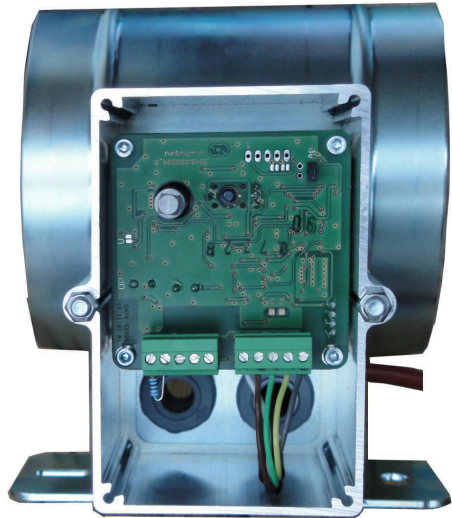


Illustration 8: Motor without unlocking pin

Air valve mounting positions

For units with external air supply, the motorized combustion air flap assembly cannot be installed in such way that the motor is located under the flap. Condensate could penetrate the motor and destroy it.

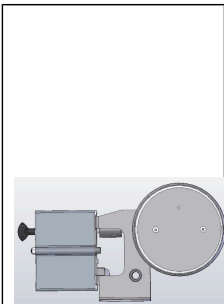


Illustration 9: Correct

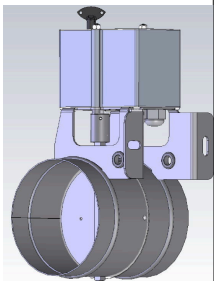


Illustration 10: Correct



Illustration 11: Correct

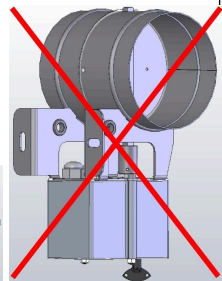


Illustration 12: Wrong

8 CONNECTION OF DAMPER FLAP

The optional connection of a damper flap is possible. It is actuated by a servomotor, the damper flap actuator K2. In this case, the damper flap is connected to the motor by means of a flexible shaft. The servomotor is connected to the air intake actuator K1 and included in the EAS/EOS control system.

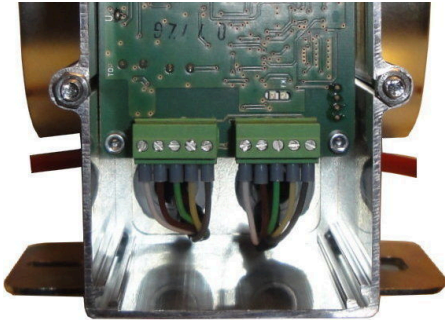


Illustration 13: Air intake flap actuator K1

To connect the actuator K2, please remove the terminal resistor from the air intake actuator K1 and attach it to the damper flap actuator K2.

Pull the 'damper flap connecting line from K1 to K2' through the respective strain relief and connect it.

Terminals from left to right:

1 = white - 2 = brown - 3 = green - 4 = yellow - 5 = gray

Observe the maximum permitted ambient temperature for servomotors, i.e. 60°C!

For the 'damper flap connecting line from K1 to K2' applies an ambient temperature of max. 180°C and a permissible cable length of max. 30m!

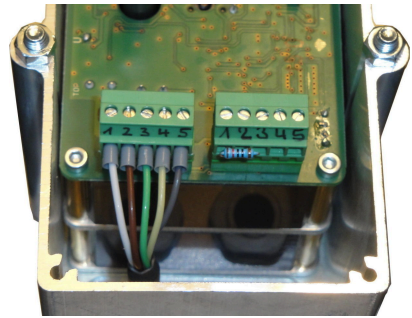


Illustration 14: Damper flap actuator K2

9 GENERALITIES ON INSTALLATION



Electrical equipment must be installed and fitted by qualified electricians only. It is absolutely necessary to install a switch or a separate circuit breaker into the power supply circuit of the EOS -7/-8 control unit, in order to **switch off** the power for maintenance works.

It is important to instruct the owner or user about the function of the switch and the circuit breaker.

Please note

The electronics of the EOS 8 is prepared for connection to a wide selection of heaters and fireplace inserts. Before start-up, the electronics should be adjusted to the available heater and the desired auxiliary functions must be configured.

To avoid future damage to electronics, the installation of electronic components must be carefully prepared and executed.

Please pay attention to the following points:

- The wall mount boxes for the EOS 8 control and display units must be installed concisely and properly to ensure a tension-free installation.
Hint: It is better to install the wall mount box with its plastic cover in place. This should ensure tension-free installation.
- Prevent any physical contact with electronic components - possible electrostatic discharge can damage them.
- Humidity can affect electronic components. Therefore, it is very important to ensure clean and dry installation of electronics.
- If possible, avoid installation of electronic components in exterior walls to prevent risk of corrosion at temperatures below dew point.
- Do not install the EOS 8 control and display units into the heated outer lining of the stove.
- The selected type of installation must ensure that temperatures do not exceed +40# (104°F) and the unit is not exposed to direct heat radiation.
- don't use rigid 230 VAC -wiring.

To avoid risk of damage, all cable conduits leading from EOS -7/-8 control unit into the heating chamber must enter at the bottom of the stove casing. Cable conduits cannot end in upper parts of the heating chamber.

When selecting the location and mounting position of all components, please consider their maximum ambient temperature!

Wiring

The connectors on electronics can be taken off for easier installation. Unless not done yet, wires have to be stripped at the ends and provided with copper terminals. Keep the free cable length as short as possible to prevent damage from squeezing when placing the electronics in the wall mount box. Wiring should be performed according to the attached connection diagram (see also chapter “Connections”). Finally, the connectors are attached again to the sockets.

Temperature sensors

Identical temperature sensors are used for detection of the combustion chamber temperature (T1) and for detection of the chimney temperature (T3). Both temperature sensors are provided with a break and polarity monitoring.

Caution: The polarity monitoring does not respond at temperatures between -10 and +25°C. Before the first heating up it must be checked if the temperature sensor is correctly connected. This can be done by warming up the temperature sensor with a lighter to approximately 50°C.

Please note: If the temperature sensor T1 (combustion chamber) or T3 (chimney) is connected directly to the EOS -7/-8 control unit without a thermocouple cable, the metal shielding of the cable in the wall mount box must be completely isolated because of the risk of short circuit. Non-isolated parts of the metal shielding are to be removed from the wall mount box. The combustion chamber temperature sensor T1 with ceramic sleeve is usually inserted into the screw connection at the exhaust gas stub and attached with the union nut to the clamping screw connection. In the case of heating devices with top-mount heat exchanger, ceramic heat accumulator or boiler technology, consider the references in the enclosed assembly instructions, as the position of the temperature sensor can be different.

The temperature sensor must be accessible through an opening in the outer stove lining, in order to accomplish a possible replacement easily. The temperature stability of the thermocouple cable near the temperature sensor is limited to 400°C. Make sure that the end of the temperature sensor does not rest on the fireplace/heating insert. The temperature sensor can be slightly bent only **once** (if necessary). To enable for exchange of the temperature sensor, make sure the thermocouple cable is long enough.

Thermocouple wiring

The maximum permissible cable length is 10 m.

Temperature sensors may be connected only with special thermocouple cables. The use of other cables falsifies the measurement signal.

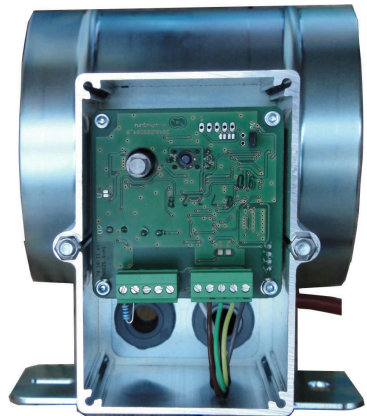
Do not place thermocouple cables together with power supply cables in a common electrical conduit pipe. The measurement signal can be falsified.

The temperature stability of the thermocouple cable (green) is 180°C. The temperature stability of the plug is 105°C. Make sure that the thermocouple cable does not rest on the hot flue gas outlet.

Air control valve motor K1 Variant without unlocking pin

To adjust the combustion air volume for a heating insert equipped with EOS combustion control system, a servomotor (K1) is used. For the damper flap function, a second motor, i.e. a damper flap motor (K2) is required. Each motor has two sockets for data communication, whereby at the end of the data cable line a terminal resistor is placed.

To distinguish K1 from K2, a so-called 'Jumper' is factory mounted. Under normal conditions, the air valve motors do not have to be calibrated during start-up.



In case of a power failure, K1 is driven into the safety position (100% open) by a battery. The maximum permissible ambient temperature is 60°C.

Data cable K1

The data cable K1 serves for data exchange between the EOS 8 electronics, the air control valve motor K1 and the power supply to K1.

The data cable K1 is on one side equipped with a 5-pin plug, which is connected to K1.

The data cable must be led through the strain relief at the motor box and secured by tightening the strain relief lock nut. Then it must be led through an electrical conduit pipe to the wall mount box of the EOS -7/-8 control unit and connected there.

The maximum permissible ambient temperature is 180°C, the maximum cable length is 30m.

Connecting cable K1 - K2 damper flap

The K1 - K2 connecting cable serves for data exchange between the EOS 8 electronics and the damper flap motor K2 and the power supply to K2.

The data cable is equipped on both sides with a 5-pin plug to connect the cable to K1 and K2. The terminal resistor is placed on K2.

Door switch sensor

The door switch sensor consists always of two micro switches, installed and wired on a common carrier. The type of the carrier depends on the type of heating insert.

Only by use of two independent switches the self-monitoring of this important component is possible.

The door switch sensors are factory mounted for all types of heating inserts.

For devices with additional door (DHT), please consider the enclosed additional instructions!

The maximum permissible ambient temperature is 250°C.

Relay A4

With the help of the relay A4, external components can be activated/deactivated.

The switch function is coupled with the combustion air control.

The desired switch-logic is selected during start-up.

External devices with a power rating above 1.5 A must be always connected via an auxiliary switch.

When using the A4 relay, the safety-relevant aspects are to be considered and planned in coordination with the chimney sweep, the stove builder and the owner.

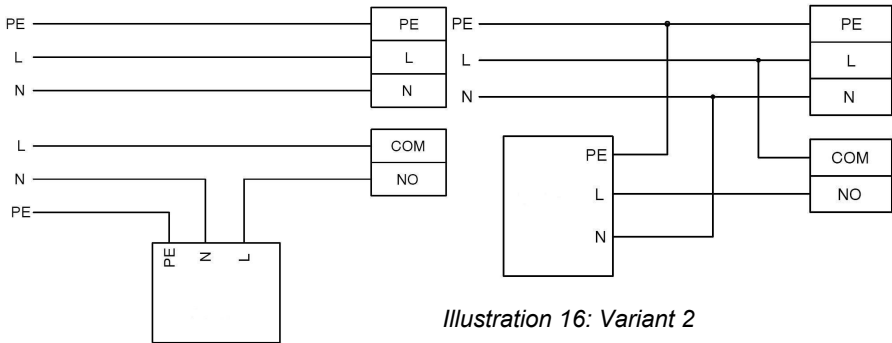


Illustration 16: Variant 2

Illustration 15: Variant 1

Door switch wiring

The door contact switch cable communicates the position of the firing door to the EOS 8 electronics. With the plug provided on one side, the cable is connected to the door switch sensor.

The door switch cable must be led through an electrical conduit pipe to the wall mount box of the EOS -7/-8 control unit, where it has to be connected.

The maximum permissible ambient temperature is 180°C, the maximum cable length is 10m.

Connecting cables

Connecting cables for the connection of a BHZ or other components must be equipped with a plug on one side.

The maximum length of all connection cables (except K1, K2) may not exceed 200 m.

If the total length of all connection cables (except K1, K2) exceeds a length of 30 m, it is necessary to connect the connection cable screen to the PE ('protective earth'). The connection of the screen to the PE may be performed in one place only!

The maximum permissible ambient temperature of the cables is 70°C

Connection of the BHZ, EWP etc. to the EOS 8

If additional devices are connected to the EOS 8, the connection is always made with data or connecting cables. The order of the devices is not important. Dedicated cables are to be used.

The data or connecting cable must be attached to the dedicated terminals and then it must be led to the next device. Each device has two connections for the data or connecting cable.

If one of the connections has no data or connecting cable connected, the enclosed terminal resistor must be placed on the free connection.

Connection of a pump to the relay output PR1

When pumps with a starting current of $>8A$ are connected to the relay output PR1, an external interposing relay with an appropriate switching capacity must be installed in order to avoid damage of the internal contact.

Pumps of extremely high efficiency are sometimes characterized by starting currents over 30A. The starting current of a pump can be checked with the manufacturer.

In our pump groups we are using pumps of type Wilo Yonos Para 25/6 RKA 180 with a starting current of 3.3A (manufacturer specifications).

10 CALIBRATING FLAPS ON EOS



For both flaps applies:
Calibration can be done only with open fireplace door.

K1, air intake flap/valve

- Disconnect the flap or valve from drive mechanically and set manually to OPEN position.
- Switch the EOS power supply on.
- Go to Settings and enter access code 0001.
- Tap on **System**.- Tap on **Relay test**.-> Drive turns to 100% OPEN.
- Restore the mechanical connection between the drive and the flap or

valve.

- Set the K1 Service function (square box is highlighted in orange).- Tap **OK** to confirm.
- The K1 flap turns to 0% CLOSED.
- The flap or valve can be set to desired CLOSED position by tapping the +/- symbols.
- Tap **OK** to confirm; the new CLOSED position is stored and the Service menu is closed. EOS is ready for operation.

Note: By tapping the **Default** button in Calibration window you can reset the K1 calibration to factory defaults.

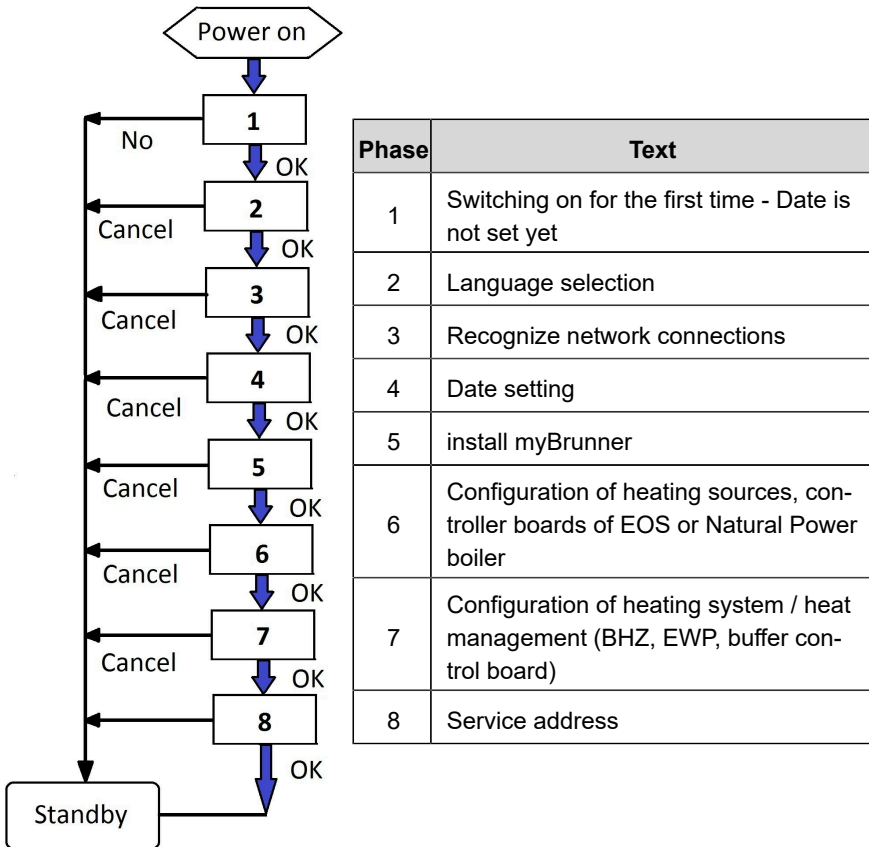
K2, damper flap:

- Disconnect the flap from drive mechanically and set manually to OPEN position.
- Switch the EOS power supply on.
- Go to Settings and enter access code 0001.
- Tap on **System**.
- Tap on **Relay test**. -> Drive turns to 100% OPEN.
- Reconnect the drive with the flap mechanically; when necessary, turn the drive support until the drive adapter fits the end of flexible shaft.
- Set the K2 Service function (square box is highlighted in orange). - Tap **OK** to confirm. - The K2 flap turns to 0% CLOSED. - The flap can be set to desired CLOSED position by tapping the +/- symbols. - Tap **OK** to confirm; the new CLOSED position is stored and the Service menu is closed. EOS is ready for operation.

For information: By tapping the **Default** button in Calibration window you can reset the K2 calibration to factory defaults.

11 COMMISSIONING

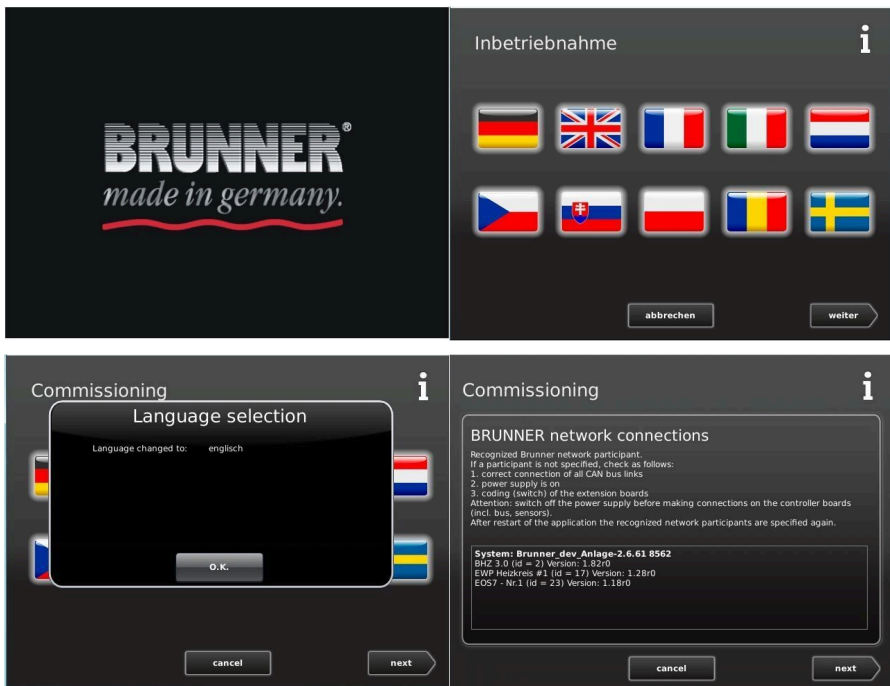
Commissioning process is user-defined.



When all sensors, motors, pumps, etc. are connected to the EOS, the power supply can be switched on.

The EOS goes through a starting and initialization phase. The progress is indicated under the BRUNNER logo as a red bar. Once the graphic user interface is loaded and displayed, the data of the connected components (control unit, BHZ, etc.) are read. This is indicated by a loading indicator in the lower right corner of the display.

After a successful start, the display shown here will appear:



First of all it is necessary to set time and date; only then it is possible to continue with the EOS 8 configuration.



Inbetriebnahme EOS-7/-8 - Nr.1 i

Einstellung Heizeinsatz

Abbrand

Heizeinsatz

Inbetriebnahme EOS-7/-8 - Nr.1 i

Einstellungen Ofen-/Kaminfunktionen

Funktion A4

Funktion A1

Inbetriebnahme EOS-7/-8 - Nr.1 i

Einstellungen Wasser

Pumpengruppe BHZ/BWT

Position T2 Funktion M2

Position T6

Anwendung

Auswahl der auf dem Display gewünschten Anwendungen (maximal 4 Anwendungen gleichzeitig). Die Steuerplatinen müssen über Busleitungen verbunden sein.
Die Anwendung wird neu gestartet.

BHZ 3.0
 EOS-7/-8 1

Service-Backup

EOS Heizung 09:39 Uhr (Donnerstag, 18. Juli 2013)

Commissioning i

Contact Craft Partner

| | |
|----------------|-------------------|
| Heizung Muster | Eggenfelden |
| Musterstr. | 00498721736 |
| 14a | 017112378471 |
| 84307 | mustermann@web.de |

Commissioning i

End

The configuration of the BRUNNER system components is finished.
The system is ready to operate.
Factory settings can be adjusted individually on the user interface.

12 CONFIGURING EOS

In Service menu, tap on **Configuration** and the selection menu appears: Configuration of heating insert, stove and hot water.

Under **heating insert / Combustion** select :

EOS = operation with air control valve motor K1

EOS + Drossel = air control valve motor K1 and damper flap motor K2

In the following menu, the **Operating mode and the heating/fireplace insert** can be selected. To modify a parameter or value, tap on the highlighted area (selection fields) and set a new value.

Depending on the parameter to be modified, another window is opened, where the respective parameter is set via displayed keyboard or a sliding bar.

| | Displayed value | Fireplace insert |
|----|---------------------------------|--|
| 1 | Architektur Kamin 38/86 | Architektur-Kamin 38/86 Architektur-Kamin 38/86 k Architektur-Kamin 38/86 Tunnel |
| 2 | Architektur-Kamin 38/86 Boiler | Architektur-Kamin 38/86 with Top-mount boiler |
| 3 | Architektur Kamin 38/86/36 | Architektur Kamin corner 38/86/36 |
| 4 | Architektur Kamin 45/101 | Architektur Kamin 45/101 Architektur Kamin 45/101 k |
| 5 | Architektur Kamin 45/101 Boiler | Architektur Kamin 45/101 with Top-mount boiler |
| 6 | Architektur Kamin 53/121 | Architektur Kamin 53/121 Architektur Kamin 53/121 Tunnel |
| 7 | Architektur Kamin 53/135 | Architektur Kamin 53/135 Architektur Kamin 53/135 Tunnel |
| 8 | Architektur Kamin 53/166 | Architektur Kamin 53/166 Architektur Kamin 53/166 Tunnel |
| 9 | B4 | Kompakt Kessel B4 |
| 10 | B5 | Kompakt Kessel B5 |
| 11 | B6 | Kompakt Kessel B6 |
| 12 | B7 | Kompakt Kessel B4 |

| | Displayed value | Fireplace insert |
|----|------------------------|--|
| 13 | B8 | Kompakt Kessel B8 |
| 14 | DF33 | Rotating Fire DF33 |
| 15 | Eck Kamin 42/57/30 | Eck Kamin 42/57/30 |
| 16 | Eck Kamin 51/52/52 | Eck Kamin 51/52/52 Eck-Kamin 51/52/52 DHT |
| 17 | Eck Kamin 57/52/52 | Eck Kamin 57/52/52 Eck Kamin 57/52/52 DHT |
| 18 | Eck Kamin 57/67/44 | Eck Kamin 57/67/44 |
| 19 | Eck Kamin 57/82/48 | Eck Kamin 57/82/48 |
| 20 | Eck Kamin 70/33/33 | Eck Kamin 70/33/33 |
| 21 | GOT flat 38/86 | GOT flat 38/86-ZL |
| 22 | GOT flat 44/55 | GOT flat 44/55-ZL |
| 23 | GOT flat 51/55 | GOT flat 51/55-ZL |
| 24 | GOT flat 51/67 | GOT flat 51/67-ZL |
| 25 | GOT flat 52/37 | GOT flat 52/37-ZL |
| 26 | GOT flat 57/67 | GOT flat 57/67-ZL |
| 27 | GOT flat 45/101 | GOT flat 45/101-ZL |
| 28 | GOT flat HKD 5/12 | GOT flat HKD 5/12 |
| 29 | GOT flat HKD 5/20 | GOT flat HKD 5/20 |
| 30 | GOT flat HKD 6 | GOT flat HKD 6 |
| 31 | GOT corner 38/86/36 | GOT corner 38/86/36-ZL |
| 32 | GOT corner 42/42/42 | GOT corner 42/42/42-ZL |
| 33 | GOT corner 45/67/44 | GOT corner 45/67/44-ZL |
| 34 | GOT corner 45/101/40 | GOT corner 45/101/40-ZL |
| 35 | GOT corner 51/52/52 | GOT corner 51/52/52-ZL |
| 36 | GOT corner 57/67/44 | GOT corner 57/67/44-ZL |

| | Displayed value | Fireplace insert |
|----|------------------------|---------------------------|
| 37 | GOT Tunnel 38/86 | GOT Tunnel 38/86-ZL |
| 38 | GOT Tunnel 51/55 | GOT Tunnel 51/55-ZL |
| 39 | GOT Tunnel 51/67 | GOT Tunnel 51/67-ZL |
| 40 | GOT Tunnel 52/37 | GOT Tunnel 52/37-ZL |
| 41 | GOT Tunnel 57/67 | GOT Tunnel 57/67-ZL |
| 42 | GOT Tunnel 45/101 | GOT Tunnel 45/101-ZL |
| 43 | Grundofen Handwerklich | Individual masonry heater |
| 44 | HF10 | HF 10 |
| 45 | HF10 SK | HF 10 SK |
| 46 | HF15 | HF 15 |
| 47 | HF5 | HF 5 |
| 48 | HF7 | HF 7 |
| 49 | HKD 2.2 | HKD 2.2 |
| 50 | HKD 2.2 Tunnel | HKD 2.2 Tunnel |
| 51 | HKD 2.2 XL | HKD 2.2 XL |
| 52 | HKD 2.2 XL Tunnel | HKD 2.2 XL Tunnel |
| 53 | HKD 2.2 XL SK/h | HKD 2.2 XL SK/h |
| 54 | HKD 2.2 XL SK/h Tunnel | HKD 2.2 XL SK/h Tunnel |
| 55 | HKD 2.2 XL SK/s | HKD 2.2 XL SK/s |
| 56 | HKD 2.2 XL SK/s Tunnel | HKD 2.2 XL SK/s Tunnel |
| 57 | HKD 2.2 k | HKD 2.2 k |
| 58 | HKD 2.2 SK | HKD 2.2 SK |
| 59 | HKD 2.2 SK Tunnel | HKD 2.2 SK Tunnel |
| 60 | HKD 2.2 k SK | HKD 2.2 k SK |

| | Displayed value | Fireplace insert |
|----|------------------------------|---|
| 61 | HKD 2.6 | HKD 2.6 HKD 2.6 SK |
| 62 | HKD 2.6 k | HKD 2.6 k |
| 63 | HKD3 | HKD 3 |
| 64 | HKD4 | HKD 4 |
| 65 | HKD4 HWM | HKD4 HWM |
| 66 | HKD4 SK | HKD 4 HKD 4.1 SK |
| 67 | HKD4 w | HKD 4 w |
| 68 | HKD5 | HKD 5 HKD 5 boiler module HKD 5 DHT |
| 69 | HKD6 | HKD 6 |
| 70 | HKD7 | HKD 7 HKD 7 Tunnel |
| 71 | HKD7 SK | HKD 7 SK |
| 72 | HKD7 SK Tunnel | HKD 7 SK Tunnel |
| 73 | HKD8 | HKD 8 HKD 8 Tunnel |
| 74 | HKD9 | HKD 9 HKD 9 Tunnel |
| 75 | HKD10 | HKD 10 |
| 76 | HKD11 | HKD 11 |
| 77 | HKD12 | HKD 12 |
| 78 | Herd Kessel | Herd Kessel |
| 79 | KKE 33 | KKE 33 |
| 80 | Kamin Kessel 38/86 | Fireplace waterbearing 38/86 |
| 81 | Kamin Kessel corner 42/57/30 | Fireplace waterbearing corner 42/57/30 |
| 82 | Kamin Kessel corner 45/67/44 | Fireplace waterbearing corner 45/67/44 |

| | Displayed value | Fireplace insert |
|-----|------------------------------|--|
| 83 | Kamin Kessel corner 57/67/44 | Fireplace waterbearing corner 57/67/44 |
| 84 | Kamin Kessel 62/76 | Fireplace waterbearing 62/76 |
| 85 | Kamin Kessel Tunnel 45/101 | Fireplace waterbearing Tunnel 45/101 |
| 86 | KFR25 | KFR 25 |
| 87 | KFR33 | KFR 33 |
| 88 | Kompakt Kamin 51/55 | Kompakt Kamin 51/55 |
| 89 | Kompakt Kamin 51/67 | Kompakt Kamin 51/67 |
| 90 | Kompakt Kamin 57/55 | Kompakt Kamin 57/55 |
| 91 | Kompakt Kamin 57/67 | Kompakt Kamin 57/67 |
| 92 | Panorama 42/42/42/42 | Panorama-Kamin 42/42/42/42 |
| 93 | Panorama 51/25/101/25 | Panorama-Kamin 51/25/101/25 |
| 94 | Panorama 51/66/50/66 | Panorama-Kamin 51/66/50/66 |
| 95 | Panorama 51/88/50/88 | Panorama-Kamin 51/88/50/88 |
| 96 | Panorama 57/25/60/25 | Panorama-Kamin 57/25/60/25 |
| 97 | Panorama 57/25/85/25 | Panorama-Kamin 57/25/85/25 |
| 98 | Panorama 57/25/121/25 | Panorama-Kamin 57/25/121/25 |
| 99 | Panorama 57/40/60/40 | Panorama-Kamin 57/40/60/40 |
| 100 | Panorama 57/40/85/40 | Panorama-Kamin 57/40/85/40 |
| 101 | Panorama 70/25/40/25 | Panorama-Kamin 70/25/40/25 |
| 102 | RF55 | RF 55.1 RF 55.1 + boiler module |
| 103 | RF66 | RF 66.1 RF 66.1 + boiler module |
| 104 | SF10 | SF 10 |
| 105 | SF10 SK | SF 10 SK |
| 106 | SF7 | SF 7 |

| | Displayed value | Fireplace insert |
|-----|------------------|---|
| 107 | STIL Kamin 51/67 | Stil-Kamin 51/67 Stil-Kamin 51/67 Tunnel +/- Top-mount boiler |
| 108 | STIL Kamin 53/88 | Stil-Kamin 53/88 Stil-Kamin 53/88 Tunnel |
| 109 | STIL Kamin 62/76 | Stil-Kamin 62/76 Stil-Kamin 62/76 Tunnel |
| 110 | STIL Kamin 75/90 | Stil-Kamin 75/90 Stil-Kamin 75/90 Tunnel |
| 111 | STIL Kamin 80/45 | Stil-Kamin 80/45 |
| 112 | WF25 | WF 25 |
| 113 | WF33 | WF 33 |
| 114 | WF50 | WF 50 |

The entries are stored by selecting **OK/End**, and the window is closed. By tapping **OK/Next**, the entries are stored and the next menu is opened. The configuration menus for Stove and Water can be accessed directly by selecting **OK/Next**.

The basic parameters for the stove system function are set in the Service menu only once. Normally, these parameters are not changed during continued operation.

Settings/Configuration/Stove :

| Config. | Function | Description | Sensor |
|---|--------------------|---|--------------------|
| Function A4 | No | No function for the A4 relay. | |
| | Heat-up flap | The A4 relay is closed. When the set temperature is reached (<i>A4_T1_Off</i>) the A4 relay is opened. The switchover flap switches to longer duct (=safety position). | T1 |
| | Damper flap | The A4 relay is open when the stove is cold, the damper flap is open (=safety position). When the set temperature is reached (<i>A4_T1_Off</i>) the relay will close; the motor will turn the damper flap into the desired position. | T1 |
| | Water flap | The A4 relay is open when the stove is cold, the Moritz flap is set to reheating device (=safety position). When the set temperature is reached (<i>A4_T1_Off</i>) the relay will close; the motor will set the Moritz flap to boiler operation. | T1 |
| | Extraction fan | The A4 relay is open when the stove is cold. The A4 relay will close when combustion starts. The relay opens when the Glow temperature is reached. When pellet heating operation is active, the relay will open after a completed pellet combustion (when $T1 < 300^{\circ}\text{C}$). | T1 |
| | Extraction fan off | The A4 relay is open during combustion; otherwise it is closed. | T1 |
| | Extraction fan on | The A4 relay is closed during combustion; otherwise it is opened. | T1 |
| | Tür-auf | The A4 relay is open when the firing door is opened; otherwise it is closed. | Door switch sensor |
| For all functions of A4 relay - after the relay switches once, no further switching of A4 relay is possible, until <i>A4_runout</i> time is passed. | | | |

| Config. | Function | Description | Sensor |
|--------------------|-------------------------|--|--------|
| Function A1 | Off | No function for the A1 relay. | |
| | By-pass off | 230V is present on relay A1 from the start of combustion, until the set temperature limit value is reached (<i>A1_T3_Off</i>) at T3 temperature sensor. Switching on again is not possible until the T3 temperature value drops below the limit value. | T3 |
| | By-pass on/off | 230V is present on relay A1 from the start of combustion, until the set temperature limit value is reached (<i>A1_T3_Off</i>) at T3 temperature sensor. When the temperature <i>A1_T3_On</i> at T3 is below set temperature after the <i>A1_switch delay</i> time is passed, the electric current will be present again. | T3 |
| | Switchover function 1/2 | Regardless of door switch status, the A1 relay is switched on when the <i>A1_T3_On</i> temperature at T3 is exceeded, and after <i>A1_switch delay</i> - when the temperature drops below <i>A1_T3_Off</i> - it is switched off again. | T3 |
| | Display T3 | no relay function - only temperature value is displayed | T3 |

Settings/Configuration/Water :

| Indication | Selection | Description | Sensor |
|-------------|---------------|---|--------|
| Position T2 | No | no T2 sensor is present | |
| | Boiler | sensor T2 by boiler sensor with BHZ 3.0 | |
| Position T4 | No | no T4 sensor is present | |
| | Buffer bottom | T4 buffer bottom sensor | |
| | Buffer middle | T4 buffer mid sensor | |

| Indication | Selection | Description | Sensor |
|--------------------|------------------|---|----------------------------|
| Position T6 | No | no T6 sensor is present | |
| | Room | Room temperature sensor | |
| | Buffer top | T6 buffer top sensor | |
| | Buffer middle | T6 buffer mid sensor | |
| | Buffer bottom | T6 buffer bottom sensor | |
| Position T7 | No | no T7 sensor is present | |
| | Weather | Outdoor temperature sensor | |
| | Buffer top | T7 buffer top sensor | |
| | Buffer middle | T7 buffer mid sensor | |
| | Buffer bottom | T7 buffer bottom sensor | |
| Pump group/ BHZ | No | No function | |
| | with T2 | The pump is switched on, when the boiler temperature at T2 is exceeding the <i>PR1_T2_on</i> value. The pump is switched off, when the boiler temperature at T2 is below the <i>PR1_T2_off</i> set value. | T2 |
| | with T2+T4 | The pump is switched on, when the boiler temperature at T2 is exceeding the <i>PR1_T2_on</i> set temperature and the buffer temperature T4 is by <i>delta_T2_T4</i> lower than T2. The pump is switched off, when the boiler temperature at T2 is below the <i>PR1_T2_off</i> set temperature or the buffer temperature T4 is lower by <i>delta_T2_T4</i> + T2. | T2-T4 |
| | with BHZ | The pump is controlled by BHZ. | BHZ |
| | T2+EWP B/BHZ* | The pump is controlled by EOS. (*BHZ - application-HT). | T2+ EWP Basis or BHZ |

| Indication | Selection | Description | Sensor |
|-------------|-------------|--|------------------------------|
| Function M2 | No | No function | |
| | Moritz-flap | <p>The Moritz's flap switches to the boiler-part when: The combustion chamber temperature T1 is higher than <i>M2_T1_On</i> and the boiler temperature is lower than <i>M2_T2_On</i>.</p> <p>In pellet mode is additionally at the set function PR1 = T2-T4, so that the buffer temperature T4 by <i>delta_T4</i> under the er der Sollpuffertemperatur liegen muss. Ist für PR1 die Funktion BHZ eingestellt schaltet die Moritzklappe auf das Kesselteil wenn gilt Zusatzheizung EIN.</p> <p>The Moritz's flap switches to Stove, when: The combustion chamber temperature T1 is lower than <i>M2_T1_Off</i> and the boiler temperature is higher than <i>M2_T2_Off</i>.</p> | T1, T2; BHZ; EWP-Basis |
| | Cleaning | <p>For the Kompakt-Kessel B4 it is possible to activate the automatic cleaning function for the heat exchanger tubes. As soon as the combustion chamber temperature is below Stove cold T - the cleaning is activated for t Cleaning period. The cleaning is performed, if a number of combustion processes have passed since the last cleaning, as under Cleaning max setting.</p> <p>The times when cleaning is possible, are defined as a program in the user interface.</p> | |

The parameters for daily operation - which must be changed more often even by the user of the system - can be accessed on the display by tapping an icon in the upper navigation bar and then modified.

Hint: Under item **Settings / System / Create Backup** you can save the settings on a USB memory. Under **Retrieve Backup** you can retrieve a previously saved parameter set.

12.1 CONFIGURATION OF WLAN ACCESS

Settings → control panel → myBRUNNER



Note:

If the control panel has been connected to a wired network via Ethernet before starting, the WLAN module will not start. → That saves energy!

If the system is exclusively connected via WLAN, please press the “Search” button when entering the page. The control panel now searches the environment for WLAN networks.



When you press the selected button, the field with the information of the found WLAN connections will fold down. (Fig. 1)

Please select the correct network (Fig. 2).

Please select the correct network and, if necessary, enter the correct password for your own WiFi router.

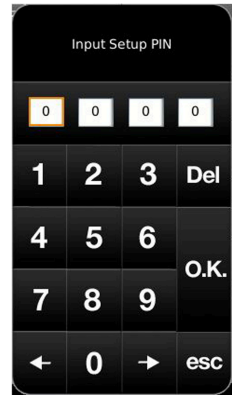


When the connection is successfully established, the view displays a valid IP address and a status field with “WLAN active” with a valid signal strength and its rating. (Fig.3)

13 PIN NUMBER TO ACCESS THE SETTINGS

The access to parameter setting levels is protected by a PIN number.

Tap on: Settings and this window will appear:

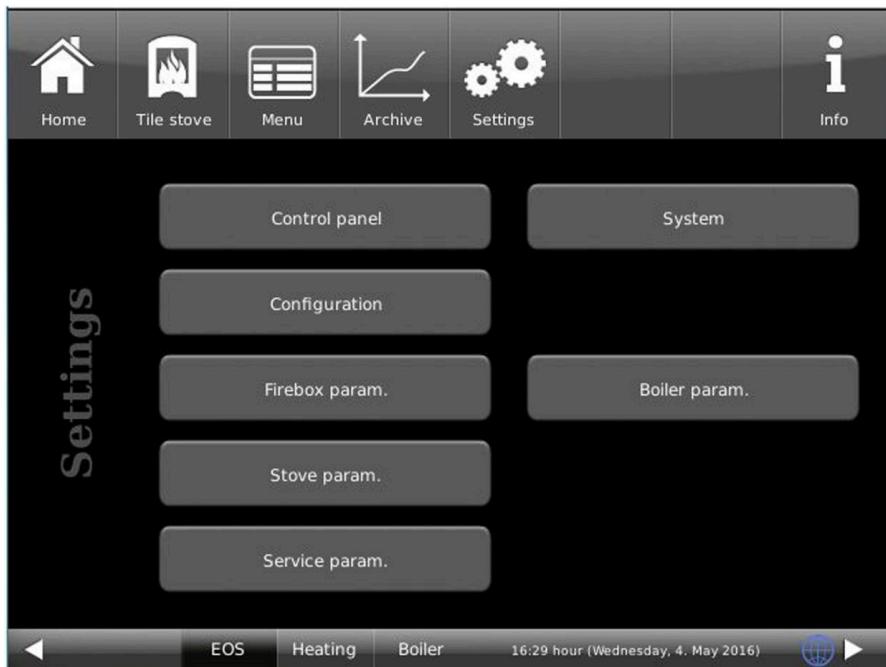


Info

PIN code for the stove fitter: 0001

PIN code for the user of the stove: 9999

14 PARAMETERS (SETTINGS)



Control panel

| Softkey | Explanations |
|-----------------|---|
| Settings | see chapter “Display customization” in the User Guide |
| Applications | Indication of existing control units. |
| Update | Used to perform updates in the control system. To perform an update, follow the instructions in chapter “Software Update” |
| Network | to define the network settings |
| my Brunner | Activate or deactivate your BRUNNER account. |
| Settings logout | You can logout here |

| Softkey | Explanations |
|------------------|---|
| Reset | Restarting the display |
| Licenses/Contact | Information about licenses and contact data |
| Clear data | e.g. delete the combustion data |
| Service Backup | System description |

System

| Softkey | Explanations |
|------------------|--|
| Date/Time | Enter new settings for time and date, including year. |
| Commissioning | Select, if a new commissioning procedure shall be started or not. |
| Sensors/Offsets | Displaying the presets for correction of measurement and temperature sensors in different positions. |
| Chronicle | contains the history of changes in settings, including errors found |
| Version | the current software version is shown. |
| Create Backup | the settings can be exported to a backup copy (USB memory) |
| Retrieve Backup | the settings can be imported |
| Factory settings | default settings from factory |
| Relay test | testing sequence for connected actuators |
| Reset outputs | Reset of heating output counts |

Configuration

see chapter "Configuration"

Firebox parameters

Settings / Firebox parameters :

| Parameter | Unit | Base value* | Meaning |
|-------------|------|-------------------|--|
| Heat.err.T | °C | Depends on device | If this temperature is reached, the EOS switches to Phase 2. If this temperature is not reached, the message 'Heating error' appears. |
| dT T1 | °C | Depends on device | Temperature drop in combustion chamber for switching into Phase 2 at heating error. |
| dSP 2-3 | % | Depends on device | If the combustion chamber temperature drops by <i>dSP 2-3</i> percent from the max. reached combustion chamber temperature in Phase 2, then the EOS switches to Phase 3. |
| dSP 3-4 | % | Depends on device | If the combustion chamber temperature drops by <i>dSP 3-4</i> percent from the max. reached combustion chamber temperature in Phase 3, then the EOS switches to Phase 4. |
| dSP 4-Glow | % | Depends on device | If the combustion chamber temperature drops by <i>dSP 4-Glow</i> percent from the max. reached combustion chamber temperature in Phase 4, then the EOS switches to Glow phase. |
| Pos phase 2 | % | Depends on device | Position of combustion air flap in Phase 2 |
| Pos phase 3 | % | Depends on device | Position of combustion air flap in Phase 3 |
| Pos phase 4 | % | Depends on device | Position of combustion air flap in Phase 4 |
| T1 hot | °C | Depends on device | When this combustion chamber temperature is exceeded, the message 'Stove hot' will appear |
| Firebox | | Depends on device | Shows the firebox type selected during configuration |
| T1_Set_K2 | °C | Depends on device | Temperature for start of damper flap operation |
| dPplus%K2 | % | Depends on device | control step for increasing damper flap opening |
| dPminus%K2 | % | Depends on device | control step for reducing damper flap opening |

| Parameter | Unit | Base value* | Meaning |
|--|------|-------------------|---|
| dTplusK2 | °C | Depends on device | Rise of combustion chamber temperature before next control step |
| dtminusK2 | °C | Depends on device | Drop of combustion chamber temperature before next control step |
| * the base value is different, depending on the configured firebox | | | |

Boiler parameters

Settings / Boiler parameters :

| Parameter | Unit | Base value | Meaning |
|-----------------|------|------------|--|
| M2 T1 Off | °C | 380 | If combustion chamber temperature (T1) falls below <i>M2 T1 Off</i> - the M2 relay is switched off. The Moritz's flap switches to stove operation. |
| M2 T1 On | °C | 450 | If combustion chamber temperature (T1) exceeds <i>M2 T1 Off</i> - the M2 relay is switched on. The Moritz's flap switches to boiler operation. |
| M2 T2 Off | °C | 90 | If boiler temperature (T2) exceeds <i>M2 T2 Off</i> - the M2 relay is switched off. The Moritz's flap switches to stove operation. |
| M2 T2 On | °C | 85 | If boiler temperature (T2) falls below <i>M2 T2 On</i> - the M2 relay is switched on. The Moritz's flap switches to boiler operation. |
| M2 switch delay | min. | 3 | A renewed switching of M2 relay is possible only after <i>M2 switch delay</i> time has passed. |
| PR1 T2 On | °C | 65 | The boiler pump PR1 is switched on, when <i>PR1 T2 On</i> temperature in boiler (T2) is reached and the buffer temperature (T4) is below T2 by <i>dT T2-T4</i> (only when function PR1 = T2-T4). |
| PR1 T2 Off | °C | 60 | The boiler pump PR1 is switched off, when the boiler temperature (T2) is below <i>PR1 T2 Off</i> set value. |

| Parameter | Unit | Base value | Meaning |
|-------------|------|------------|---|
| dT T2-T4 | °C | 5 | The necessary temperature difference between buffer tank and boiler, to enable PR1 activation (only when function PR1 = T2-T4). |
| Buffer cold | °C | 25 | If the buffer temperature (T4) falls below <i>Buffer cold</i> - the corresponding message is displayed. |
| T2 max | °C | 90 | If the boiler temperature (T2) exceeds T2max, the corresponding message is displayed |

Depending on the selected heating insert, some softkeys may not be present.

Stove parameters

| Parameter | Unit | Base value | Meaning |
|----------------|------|------------|---|
| Heat-up T | °C | 100 | When the temperature <i>Heat-up T</i> is not exceeded in time <i>Heat-up t</i> - the message 'heating error' is displayed. |
| Heat-up t | min. | 10 | When the temperature <i>Heat-up T</i> is not exceeded in time <i>Heat-up t</i> - the message 'heating error' is displayed. |
| Factor S+ | % | 20 | By entering the wood type, the combustion can be made longer by <i>Factor S+</i> percent (hard wood) or shorter (soft wood). |
| Heat. err. t | min. | 30 | Period in which the threshold temperature value <i>Heat.err.T</i> must be exceeded. |
| tmin. Combust. | min. | 30 | Minimal duration of combustion. |
| Glow time | min. | 300 | Period after combustion end, until the "Glow" message is displayed. When this period is exceeded, the message will disappear. |
| Glow temp | °C | 100 | If during period <i>Glow time</i> the temperature falls below <i>Glow temp</i> - the "Glow" message will disappear. |

| Parameter | Unit | Base value | Meaning |
|-----------------|------|------------|--|
| Door time | min. | 10 | If the firing door is not closed before the <i>Door time</i> has passed, a message for the user will be shown. |
| t Stove cold | min. | 15 | Period for monitoring the combustion chamber temperature to check if a combustion is active. |
| Stove cold T | °C | 30 | If after the period <i>t Stove cold</i> the temperature <i>Stove cold T</i> is not exceeded, no combustion is active. Combustion ends. |
| A4 runout | min. | 0 | After combustion ends, the runout time for A4 relay will start. After this period, the A4 relay will be switched. |
| A4 T1 Off | °C | 500 | After exceeding the <i>A4 T1 Off</i> value of combustion chamber temperature (T1) during combustion, the A4 relay will be switched. |
| K1 delay t | min. | 3 | Delay time for establishing the max. combustion temperature. |
| Cleaning max | | 5 | Number of combustions until cleaning is performed. |
| t Cleaning | sec. | 180 | Length of automatic cleaning. |
| A1 T3 Off | °C | 250 | When the chimney entry temperature (T3) exceeds <i>A1 T3 Off</i> during combustion, the A1 relay is switched off. |
| A1 T3 On | °C | 150 | When the chimney entry temperature (T3) exceeds <i>A1 T3 Off</i> during combustion, the A1 relay is switched on. |
| A1 switch delay | min. | 3 | A renewed switching of A1 relay is possible only after <i>A1 switch delay</i> time has passed. |

Service parameters

| Parameter | Unit | Base value | Meaning |
|------------|------|------------|--|
| Door error | sec. | 10 | Both contacts of the door switch sensor must indicate the correct status within the <i>Door error time</i> period. If this is not the case, an error message is displayed. |

15 INCOMPLETE SYSTEM VIEW ON DISPLAY

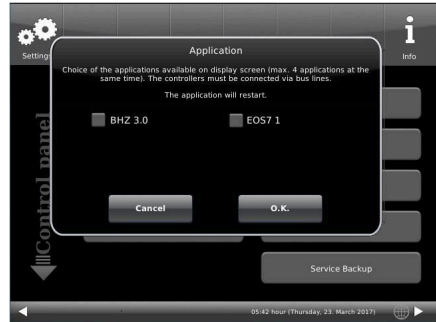
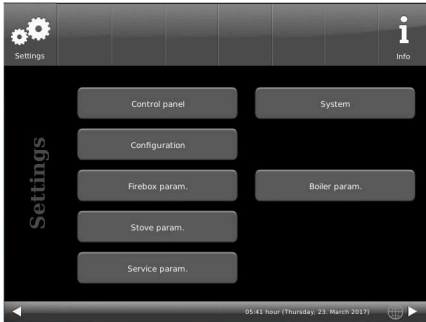


Illustration 17: View after commissioning, configuration or restart of display

Illustration 18: Example: installed BHZ and EOS

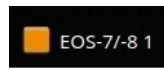
When this view appears after commissioning, configuration or restart of display, click onto **Applications**.

The click onto the connected systems:

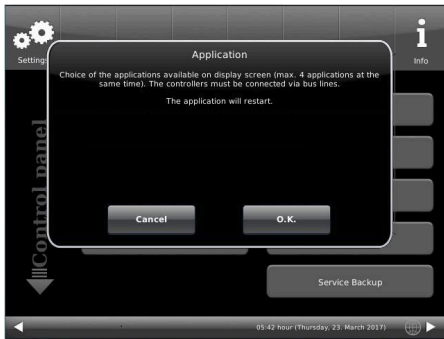
Example: connected EOS, to be displayed on this control unit:



= the installed EOS will not be visible on this particular display.



= the installed EOS will be visible on this particular display.



= there is no connection with display;

Please check:

- the CAN bus connections and the both resistors (120 Ω)
- the colors of the cables are OK? (Not reversed?)
- the control units are switched on?

16 COMBUSTION LOG

Softkey Menu - 2nd Page



| Indication | | |
|---------------|-----------------------|---|
| Heat-up | Combustion counter | How often the Heat. Err. Temperature was exceeded and combustion step was changed properly to Phase 2 |
| Reload | Reloading counter | How often wood was reloaded within Phases from 2 to 4 |
| Heat up error | Heat up error counter | How often a heat up error was detected when lighting a fire. |

| Indication | | |
|------------------|-----------------------|---|
| Heating error | Heating error counter | How often a heating error was detected during combustion. |
| Combustion hours | Working hours counter | How many hours passed, as the control system was in Phase 2, up to 4. |
| Stove hot | Stove hot counter | How often the threshold value was exceeded. |

17 CHANGING THE BATTERY

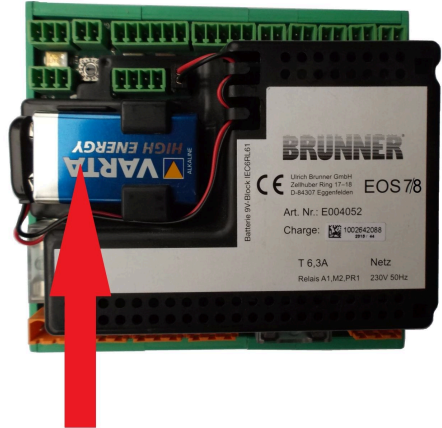
If the message “**Change battery**”, appears on the display, please replace the 9 Volt block battery in the EOS 8 control unit.

Note

Every time the control unit is disconnected from power supply, the combustion air valve and the damper flap (optional) is put in its emergency/security position with the energy of the 9 V block battery.

After 7 to 20 times the battery is used. The message “Change battery” appears.

In case of regular power failure it is normal that the battery has to be replaced several times a year.



18 DISPOSAL



Please follow the applicable national regulations for disposal.

The Ulrich Brunner GmbH is listed in the EAR-Foundation under the WEEE-Nr. DE75509764.



19 FUSES AND PLUGS

| Function | plug color | Pole | Brunner Art.Nr. | Function | plug color | Pole | Brunner Art.Nr. |
|------------------------|------------|------|-----------------|-------------------|------------|------|-----------------|
| power supply | orange | 3 | 900070 | CAN-IN | green | 3 | 900075 |
| relay PR1 | orange | 3 | 900070 | CAN-OUT | green | 3 | 900075 |
| relay M2 | orange | 3 | 900070 | supply display | green | 2 | 900073 |
| relay A1 | orange | 3 | 900070 | T2 sensor boiler | green | 2 | 900073 |
| relay A4 | orange | 2 | 900079 | T3 sensor chimney | green | 2 | 900073 |
| air flap K1 / K2 | green | 6 | 900078 | T4 sensor buffer | green | 2 | 900073 |
| door switch/ sensor T1 | green | 5 | 900077 | T6 sensor area | green | 2 | 900073 |
| control unit - pellets | green | 4 | 900074 | T7 sensor weather | green | 2 | 900073 |

| Function | Plug color | Pole | Brunner Art.Nr. |
|--|------------|------|-----------------|
| gearing mechanism K1/K2: Bus-line | green | 5 | 900080 |
| gearing mechanism K1/K2: with load resistor | green | 5 | 900081 |

| Safeguard for: | Type | | | Brunner Art.Nr. |
|------------------|-----------------|--------|------|-----------------|
| | | | | |
| mains adapter | fusible navette | T250mA | 250V | 02548 |
| Relais A4 | fusible navette | T2A | 250V | 02549 |
| Relais A1/M2/PR1 | fusible navette | T6,3A | 250V | 02550 |

20 REMOTE ACCESS TO BRUNNER HEATING

For the Registration process on BRUNNER Touch Display and in the Internet see: <https://www.mybrunner.de/Home/Info>



NOTE

The initial setup of the system is performed on the Touch Display and on www.mybrunner.de in parallel, in several steps. Therefore, you should have a suitable device with Internet access (e.g. laptop, smartphone) at hand, while performing setup on Touch Display.

21 SYNCHRONISATION WITH NETWORK

When MyBrunner is set up, the time is automatically synchronized with the network.

If you do not want to have the time synchronization with the network, deactivation is possible. For this:

1. Click on the time in the lower bar
2. dialog box appears where you click **Network time- synchronization**;
3. the network time synchronization is deactivated;
4. You can now enter the desired time;
5. then click on **Time / Date**;



→ the time and date are displayed in the lower bar according to your setting or on the clock (digital or analog clock) selected as the screen saver.

The disabled time alignment is displayed with a gray box.

The adjustment of the time or date with the Brunner network can be activated at any time.

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