OPERATING INSTRUCTIONS

Wood Pellet Boiler with Automatic Fuel Refilling ETA PE

Type PE 15

Type PE 25

Introduction

Welcome to ETA PE Boilers
We are honoured that you have allowed us to rank you among our long list of satisfied customers. In order to ensure perfect functioning and a satisfying experience from your boiler, we ask for your patience to read all the details in this manual.

Please Read this Operations Instructions Manual Before Starting the Boiler

It is important to carefully read and understand this manual prior to starting your new boiler for the first time. Only then will you be able to get the most out of this unique energy saving and low polluting boiler.

Use the knowledge and expertise of the ETA specialist

Let the expert complete the assembly, installation and basic set-up of you boiler before you get to know the workings of the control panel. When the boiler is up and running it is vital that you take this time to learn how to program your boiler while the installer is there to teach you.

We also offer start-up help over the phone from our customer service department.

Maintenance Service Contract
You will receive the best support for your central heating boiler system if you sign up for the annual boiler maintenance contract with your installer.

Table of Contents

Technical Information Subject to Change!

Due to constant advancement in technical capabilities illustrations shown may deviate slightly from the actual boiler, function steps and technical data.

Reference

Permissions!

Relevant authorities must approve each heating system!
Inform local municipal authorities (building authority) similarly inform your chimney expert/sweeper.

Should only be operated by trained personnel!

The start-up operation of the boiler should only be done by the ETA installer or approved plumbers.
Children should be kept away from the boiler and its pipes, controls and cables at ALL TIMES!

Intended Use of PE Boilers!

The PE series of boilers is exclusively intended to heat buildings through the use of hot water circuits.

Suitable Fuel!

Wood pellets that conform to either OENORM M 7135 or DIN 51731.

Efficient Heating

In order to ensure clean combustion with optimal utilization of fuel in your boiler, you should only operate the boiler with suitable fuels as mentioned above and provide the boiler with regular cleaning and maintenance. The PE series of pellet boilers should only be used within 30% and 100% of its rated capacity range. In the case of very small heat loads and transmission times you should limit the operational times to a few hours per day or use an accumulator tank. An Accumulator tank is also recommended if a solar collector is present or planned.

Before First Time Start-up!

The boiler should be examined by the installer or approved plumber, that

- The boiler has been correctly aired out
- There is sufficient water supply to the system (1 to 1.5 bar)
- The chimney flue for the boiler has been correctly installed.

Guidance!

Please read the enclosed assembly and installation instructions carefully. Failure to install the boiler as prescribed in the instructions can lead to the loss of your boiler parts and labour warranty.

Only use the intended installation, assembly and maintenance equipment with this boiler.
Leave assembly, installation and start up to ETA authorised professionals.
Only use approved accessories and replacement parts with the ETA PE boiler. Failure to do so can impair the performance and safe operation of your boiler, and can also invalidate your parts and labour warranty

Suitable Chimney

Due to the adjustable minimum temperature of exhaust gases facility available with ETA boilers, the exhaust fan adapts itself to a wide range of existing chimneys and flues. Nevertheless you should get an expert on site to examine the chimney is suitable for the boiler.

Compared to old boilers these modern boilers have higher efficiencies and smaller flue gas quantities and also lower exhaust gas temperatures.

This can cause a problem in chimneys with too big a diameter because the entire flue is no longer sufficiently heated. As a result the moisture in the exhaust gas condenses in the chimney and can cause irreparable damage to the inside of a brick chimney.

Another problem with too large a chimney is that the gas exit speed and temperature is too low. The necessary energy required to take the smoke above the roof top is missing, this results in smoke hanging at a low level around your house.

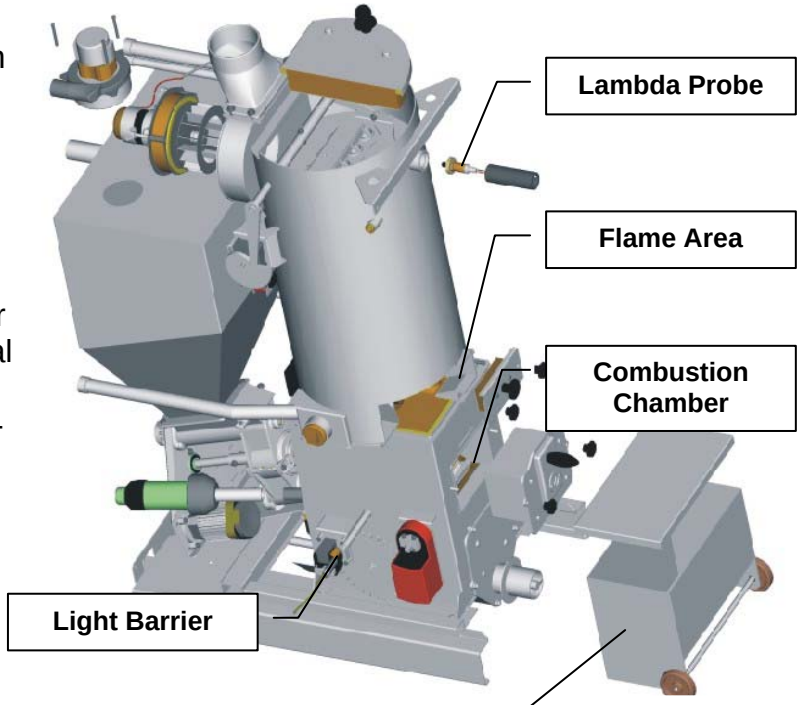
If your chimney flue is too large or does not have a water resistant lining then installation of a new condensation proof flue is required prior to installation of your PE boiler.

In the case of extra high chimneys (i.e. 15 meters or higher), the fireplace draught will probably exceed 25 Pa and therefore should have a draught limiter valve installed – if it exceeds 50 Pa then a valve is essential for correct operation of the boiler.

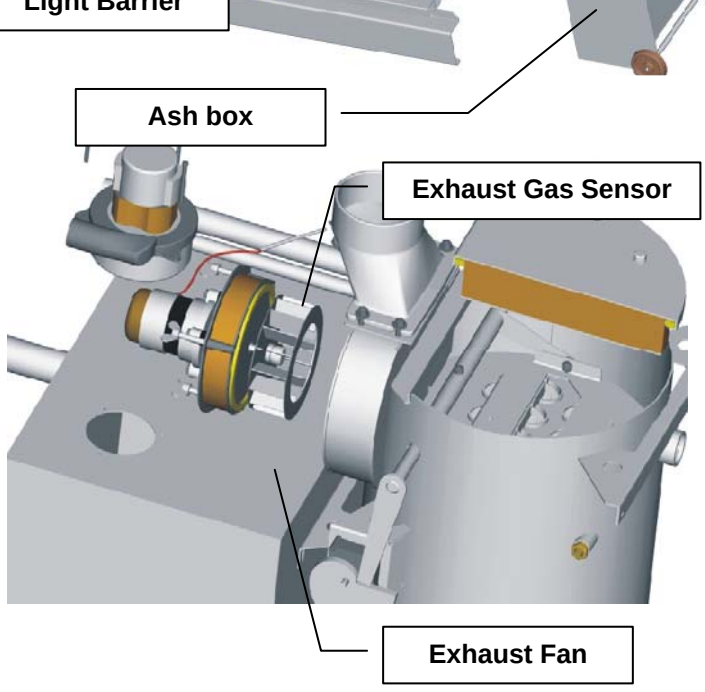
Maintenance and Cleaning

Check Weekly:
- Boiler water pressure should be controlled between 1 and 2 bar.

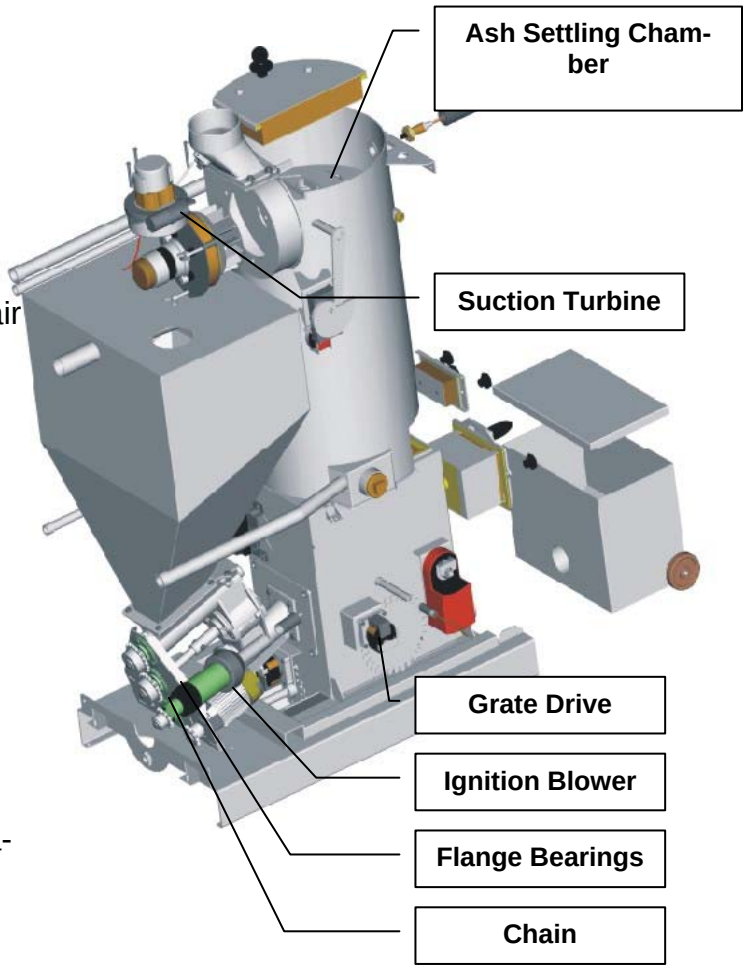
Requested by Boiler Control Panel:
(At least once every 8 to 10 weeks)
- Empty Ash Box
- Free the side walls of the combustion chamber from any cinder crust build up that occurs.
- Clean loose ash from the flame area into the bottom of the combustion chamber
- Remove loose ash that may be obstructing the holes for the light barrier
- After cleaning press the Ash Removal (Entaschen) key on the control panel and all the loosened ash will be automatically taken to the ash box by the ash removal auger.



Annually or Requested by Boiler Control Panel:
- Examine Relief Valve!
- Examine safety temperature limiters!
- Clean flue pipe from boiler to chimney!
- Clean the impellers of the exhaust gas fan; make sure to only use a soft brush and take care not to dislodge the balance weights on the impellers.
- Clean the exhaust temperature sensor with a soft clean cloth.
- Remove any residual impurities from the Lambda probe by blowing or with a soft clean cloth. Check that the flange seal of the lambda probe has no cracks.



Every 3 Years:
- Lubricate flange bearings and the chain at the plug-in unit.
- Grease the grate drive wheel
- Check the ignition blower and clean the ignition blower pipe.
- Take loose ash from the ash settling chamber
- Clean pellet suction turbine with an air blower or vacuum cleaner.



Switching Boiler Off for a Period of several weeks/months

In summer:
Carefully clean boiler (see annual cleaning)

In winter:
Empty water from boiler (frost damage), otherwise as above.

Service Contract

In order to ensure long and stable operation of your boiler we offer a contracted maintenance service with our company.

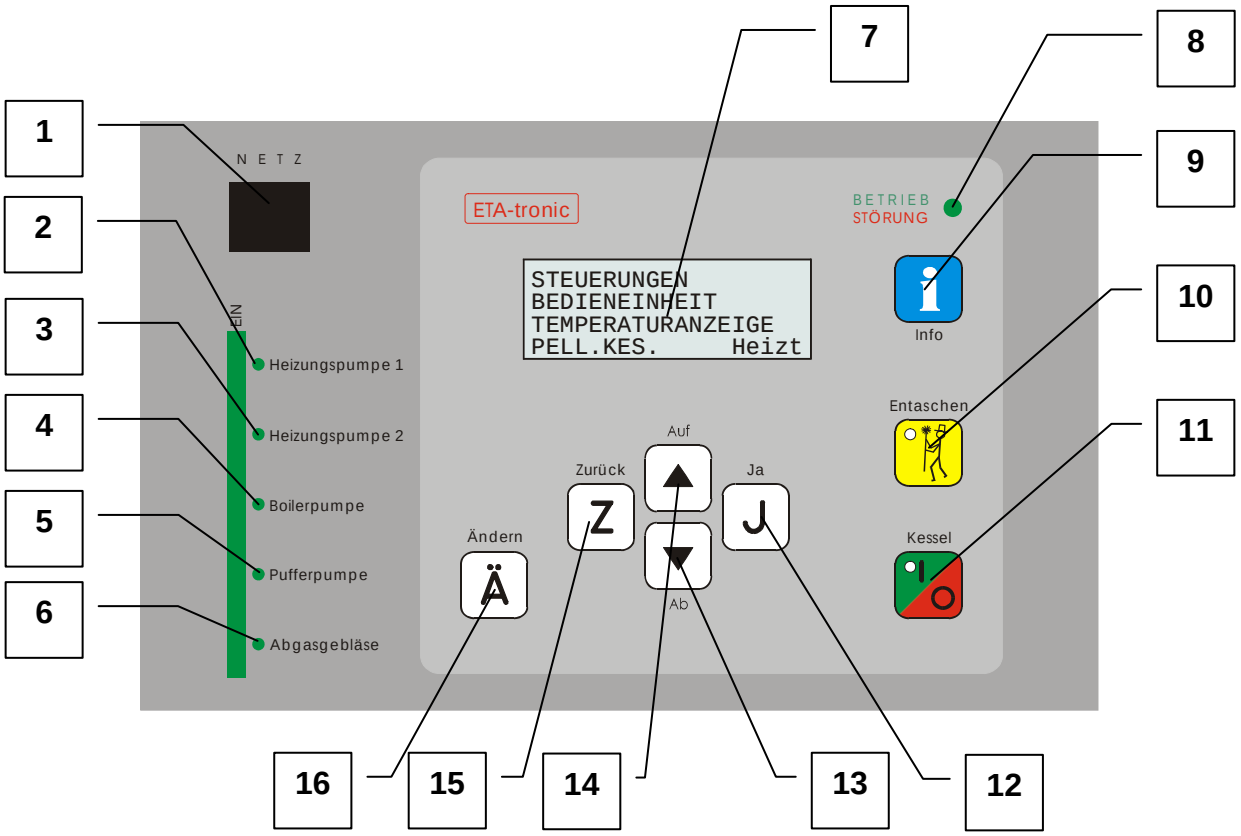
Critical Faults:

If you find damage to any of the safety devices (i.e. safety relief valve, expansion tank, etc.) under no circumstances should you allow the boiler to be started, or if it is running then you should shut it down immediately!

All fault signals given by the control panel are shown on Page 17 of this manual. You will also find the recommended actions for each fault here also!

If faults continue to repeat during operation, which cannot be repaired by you, then contact your local approved plumber and/or our customer service department for assistance.

Control Panel



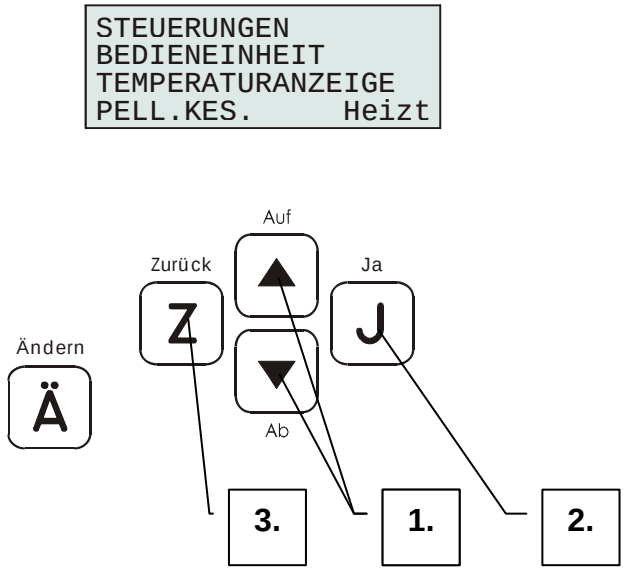
1 Power Switch (On/Off)
2 Circulating pump for heating circuit 1 is operational LED
3 Circulating pump for heating circuit 2 is operational LED
4 Loading pump for Hot Water Tank is operational LED
5 Loading pump for Accumulator Tank is operational LED
6 Exhaust fan is operational LED
7 LCD Display – 4 lines with 20 characters per line
8 Boiler is operational LED
9 Info – Push for information on menu item being displayed
10 Entaschen (Ash Removal) – Push: For manual ash removal
11 I/O - Push: To switch boiler to Standby or On
12 J (Yes) - Push: To confirm inputs or enter a menu item
13 Ab (Down) – Push: To select or change values in the menu tree
14 Auf (Up) – Push: To select or change values in the menu tree
15 Zurück (Back) – Push: To go back in the menu tree
16 Ändern (Change) – Push: To change parameter values
Push button twice to view factory settings

Emission Measurement

I/O - Push (11) (approx 5 seconds) keep pressed until display “Emission measurement duration: 30 min.” appears (LED boiler flashes). The boilers control provides for the necessary heat dissipation into the heating circuits and into the hot water tank.
The emission measurement can be terminated by renewed pressing of the I/O key. This also happens automatically once 30 mins has expired. The automatic control returns to its mechanism control function.

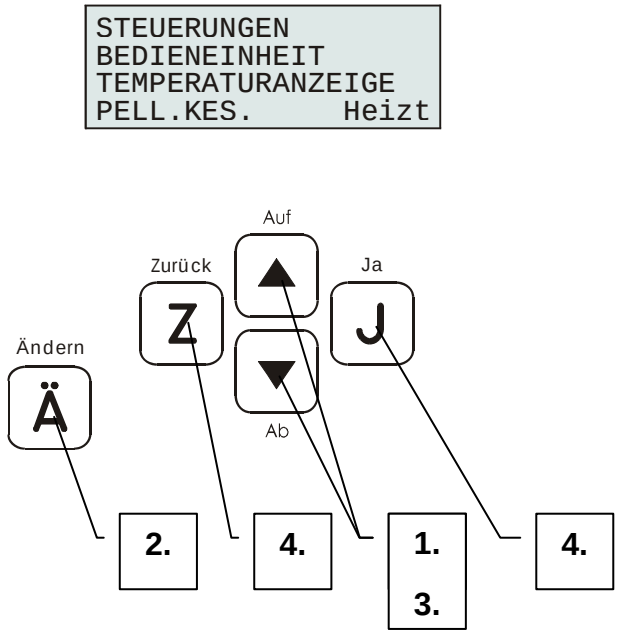
General Operating Instructions

Navigating your
way around the
menu tree of the control panel



1. Select the desired Menu Item by pressing the "Auf" (Up) button and/or the "Ab" (Down) button
2. Enter into the sub-menu by pressing the "Ja" (Yes) button
3. Step back to the main menu by pressing the "Zurück" (Back) button.

Changing Parameters



1. Select the desired Parameter and/or configuration Item by pressing the "Auf" (Up) button and/or the "Ab" (Down) button
2. Push the "Ändern" (Change) button to change the parameter.
3. Change the value by pressing the "Auf" (Up) button and/or the "Ab" (Down) button
4. Store the value by pressing the "Ja" (Yes) button, cancel the value change by pressing the "Zurück" (Back) button.

Standard Display

General Boiler Status Indication

Main LCD Display	... Description of general data it controls ...	Page
CONTROLS ◄	... Network of boiler control modules ...	14
CONTROL UNIT	... General data ...	21
TEMPERATURE INDICATION	... Actual Temperatures of boiler, house, etc. ...	22
PELL.BOILER. HEATING	... Status Indication Pellet Boiler ...	23
HOT WATER TK LOADING*	... Status Indication Hot Water Tank ...	28
ACCUM. REQUIRED*	... Status Indication Accumulator Tank ...	29
DC WW PRIORITY*	... Status Indication Direct Heating Circuit ...	30
MC0 WW PRIORITY*	... Status Indication Mixing Circuit 0 ...	32
HOT WATER TK2 LOADING*	... Status Indication Hot Water Tank 2 ...	28
MC 1 WW PRIORITY*	... Status Indication Mixing Circuit 1 ...	32
MC 2 WW PRIORITY*	... Status Indication Mixing Circuit 2 ...	32
REMOTE PUMP ONE*	... Status Indication Remote Pump	

Items marked with “*“ will only appear in display if the boiler has been configured to use them.

By pressing the “Ja“(Yes) button some parameters can be viewed and accordingly changed!

By continually pressing the “Zurück“ (Back) button you will return to the main menu of the control panel!

Parameters that are printed below in **bold** are not visible on the display unless the SERVICE password has been correctly entered!

Operating Conditions and Boiler Components

```
PELL.BOILER.  HEATING ◄
```

Possible pellet boiler conditions:

PELL.BOIL. Off	Boiler has been switched to Standby with the I/O button	
PELL.BOIL. WarmStart	Boiler tries to start without the automatic ignition system	
PELL.BOIL. Ignition	Boiler starts with the automatic ignition system	
PELL.BOIL. Heating	Boiler is in full heating operation	
PELL.BOIL. Burndown	Boiler is in the shut down cycle	
PELL.BOIL. Standby	Boiler is ready for heating but not in operation at present	
PELL.BOIL. Ash	Automatic de-ashing is in operation	
PELL.BOIL. Fault	The boiler has a fault	See Page 17

```
HOT W.TANK    Loading ◄
```

Possible hot water tank circuit conditions:

HOT W.TANK Loading	Hot water tank is loading from boiler	
HOT W.TANK Loaded	Hot water tank is at requested temperature	
HOT W.TANK RequestHt	Hot water tank requesting heat from boiler	
HOT W.TANK Fault	There is a fault with the Hot Water Tank heating	See Page 17

For the 2nd Hot Water Tank Heating Circuit the possible conditions are the same

```
ACCUM.        Loading ◄
```

Possible accumulator tank circuit conditions:

ACCUM. Loading	Accumulator is loading from boiler	
ACCUM. Loaded	Accumulator is at requested temperature	
ACCUM. RequestHt	Accumulator requesting heat from boiler	
ACCUM.OverTmpLoading	The pellet boiler is over heating and dissipating heat into the accumulator tank	
ACCUM. Fault	There is a fault with the Accumulator heating	See Page 17

DC WW Priority◂

Possible direct heating circuit conditions:

DC on day	Direct Heating Circuit in daytime mode	
DC on night	Direct Heating Circuit in night time mode	
DC on ext day	Direct Heating Circuit switched to daytime mode by remote control (Room Sensor)	
DC on ext night	Direct Heating Circuit switched to night time mode by remote control (Room Sensor)	
DC Off SPday<R	The direct circuit is switched off – the required water flow temperature is lower than room temperature in day mode (with remote sensor).	
DC OffSPnight<R	The direct circuit is switched off – the required water flow temperature is lower than the room temperature in night mode (with remote sensor).	
DC Off SP day<	The direct circuit is switched off – the required water flow temperature is lower than the temperature required in day mode (without remote sensor).	
DC Off SPnight<	The direct circuit is switched off – the required water flow temperature is lower than the temperature required in night mode (without remote sensor).	
DC Off out>day	Direct heating circuit is switched off – the outside temperature is greater than that set for switching off the boiler during the day	
DC Off out>night	Direct heating circuit is switched off – the outside temperature is greater than that set for switching off the boiler during the night	
DC Off Summer	Direct circuit is switched off – system is in Summer mode	
DC Off BoTemp.<	Direct circuit is switched off – boiler temperature is lower than the enable temperature	
DC Off AccTemp.<	Direct circuit is switched off – accumulator temp. is lower than the enable temperature	
DC HW Prio.	Direct circuit is switched off – Hot Water Tank has priority	
DC frost prot.	Direct circuit is operating in frost protection mode	
DC On overTemp	Direct circuit is running due to overheating condition in the boiler (Safety pump running)	
DC Error	Error message	See Page 17

MC0 WW Priority◂

Possible Operating Conditions for Mixing Circuit 0:

MC0 on day	Mixing circuit 0 daytime mode	
MC0 on night	Mixing circuit 0 in night time mode	
MC0 on ext day	Mixing circuit 0 switched to daytime mode by remote control (Room Sensor)	
MC0 on ext night	Mixing circuit 0 switched to night time mode by remote control (Room Sensor)	
MC0 Off SPday<R	The mixing circuit 0 is switched off – the required water flow temperature is lower than room temperature in day mode (with remote sensor).	
MC0 OffSPnight<R	The mixing circuit 0 is switched off – the required water flow temperature is lower than the room temperature in night mode (with remote sensor).	
MC0 Off SP day<	The mixing circuit 0 is switched off – the required water flow temperature is lower than the temperature required in day mode (without remote sensor).	
MC0 Off SPnight<	The mixing circuit 0 is switched off – the required water flow temperature is lower than the temperature required in night mode (without remote sensor).	
MC0 Off out>day	Mixing circuit 0 is switched off – the outside temperature is greater than that set for switching off the boiler during the day	
MC0 Off out>night	Mixing circuit 0 is switched off – the outside temperature is greater than that set for switching off the boiler during the night	
MC0 Off Summer	Mixing circuit 0 is switched off – system is in Summer mode	
MC0 Off BoTemp.<	Mixing circuit 0 is switched off – boiler temperature is lower than the enable temperature	
MC0 Off AccTemp.<	Mixing circuit 0 is switched off – accumulator temp. is lower than the enable temperature	
MC0 HW Prio.	Mixing circuit 0 is switched off – Hot Water Tank has priority heating over DC	
MC0 frost prot.	Mixing circuit 0 is operating in frost protection mode	
MC0 On overTemp	Mixing circuit 0 is running due to overheating condition in the boiler (Safety pump running)	
MC0 Error	Error message	See Page 17

The same conditions appear for all extra mixing circuits installed with the boiler

CONTROLS ◄

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

PELLETS CONTROL ◄	Information on starting pellet boiler on page 14
HEAT EXTENSION	Information on heating extension boards on page 35

PELLETS CONTROL ◄

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

ERROR INDICATION ◄	For an up-to-date list of error codes go to page 17
SET UP **DEFAULT ASSIGNMENT** External Temp Sensor **Input** External Heat Sensor on AEH outdoor temperature **Output** 3-way valve on AEH special Function relay Thermostat **Input** Thermostat ‘Hot’ on AEL Room Sensor 1 **Input** Thermostat ‘Cold’ on AEL Room Sensor 2 **Output** Thermostat on AEL special Function relay Error Indication **Output** Error Indication on AEL special function relay Auxiliary Boiler Lock **Output** Auxiliary boiler lock on AEL special function relay	Specify the installations configuration settings: ➢ Boiler Alone Direct Circuit Room Sensor DC Mixing Circuit 0 Room Sensor MC 0 External Temp Sensor Thermostat. Error Indication Aux. Boiler Lock ➢ Boiler+HotWaterTank Direct Circuit Room Sensor DC Mixed Circuit 0 Room Sensor MC 0 External Temp Sensor Thermostat. Error Indication Aux. Boiler Lock ➢ Boiler+Accumulator Mixed Circuit 0 External Temp Sensor Thermostat. Error Indication Aux. Boiler Lock ➢ Boiler+Accum+HotWaterTank Mixed Circuit 0 External Temp Sensor Thermostat. Error Indication Aux. Boiler Lock

Change the configuration parameter value by pressing the “Ändern“ (Change) button and confirm the change by pressing the “Ja“ (Yes) button

BINARY INPUTS	Emerg.Stop OK? WaterShortage OK? SafetyTherm OK? Ash Bin GrateFlap Closed Firebed Hopper Filled External Demand Remote DC Day Remote DC Night Remote MC0 Day Remote MC0 Night Extern. 0/1 YES NO
BINARY OUTPUTS	All binary outputs can be manually switch on or off LambdaP.heat Conveyor Screw Stoker Screw Mixing Valve Rotary Grate Grate Flap Air Valve Ignition Pneumatic conv Cleaning Ash Disposal Error Indicat. Aux.Boil. lock 3 Way Valve Thermostat Off On Close Ret. Stop Stop Up Forward

ANALOG INPUTS	Lambda p. I Lambda p. U Lam.Sig. [mV] Ref.volt Supply +12V Supply -12V Supply AV Air Valve Exhaust Gas Boiler Acc.Tank Top Acc.Tank Bot HotWaterTank Outdoor Temp. Flow DC Room Temp.DC Flow MC0 Room Temp.MC0 Boardtemp. Draught Fan Speed in rpm Ext. Heat Therm.HOT Therm.COLD
ANALOG OUTPUTS	All analogue outputs can be set seamlessly between 0 and 100% Draught Fan Hot Water Pump Acc. Tank Pump Pump DC Pump MC0
Fan Hours 89h	Info on boiler running time in hours
Stoker Hours 49h	Info on stoker screw running time in hours
Tot.Cons 3.27t	Total pellet consumption in tonnes
Factory Settings N	Reset boiler to operate with factory default settings! All settings will be returned to those pre-programmed at the factory. Manually configured settings will be lost. If you only want to return one parameter back to it's factory preset setting then this can be done by high-lighting the parameter and pressing the "Ändern" (Change) button. Release the "Ändern" (Change) button and then press it once more, the value will then jump back to the factory default setting. Confirm the change by pressing the "Ja" (Yes) button
Hardw.Version 0.000	Hardware Version of Control Panel
Softw.Version 2.017	Software Version of Control Panel (Program revision number)

Error Indication Boiler

ERROR INDICATION ◄

Pellet Control Panel Error Message List

The following messages may be displayed by the control panel	**Description of fault** (Remove the displayed error message by pressing any button on the control panel)
Pellets Control ** ERROR ** Draught fan blocked!	The draught fan is blocked
Pellets Control ** ERROR ** Ash bin not mounted!	The ash bin has not been correctly attached to the boiler
Pellets Control ** ERROR ** Outdoor Temp. Sensor broken!	Outdoor temperature sensor is defective and/or has not been correctly connected to the boiler
Pellets Control -- WARNING -- Outdoor Temp Sensor Shorted!	Outdoor temperature sensor is defective/shorted
Pellets Control ** ERROR ** Current consumpt. of conv. screw too high	Pellet store conveyor screw is blocked
Pellets Control ** ERROR ** HotWaterTank Temp. sensor broken!	Hot water tank temperature sensor is defective and/or has not been correctly connected to the boiler
Pellets Control ** ERROR ** HotWaterTank Temp. sensor shorted!	Hot water tank temperature sensor is defective/shorted
Pellets Control ** ERROR ** FIRE EXT.!O2 high Light barrier OK!	Fire gone out!!! Recognized by to high oxygen content in the exhaust gas. There is no fuel in the combustion chamber
Pellets Control ** ERROR ** FIRE EXT. O2high Light Barr. not OK	Fire gone out!!! Recognized by to high oxygen content in the exhaust gas. There is to much fuel in the combustion chamber
Pellets Control ** ERROR ** Ignit.Failed!O2high Light barrier OK!	Misfiring!!! Recognized by to high oxygen content in the exhaust gas. There is no fuel in the combustion chamber

Error Indication Boiler

Pellets Control ** ERROR ** Ignit.Failed!O2high Light Barr. not OK	Misfiring!!! Recognized by to high oxygen content in the exhaust gas. There is to much fuel in the combustion chamber
Pellets Control -- WARNING -- External Heat sensor broken!	External heat temperature sensor is defective and/or has not been correctly connected to the boiler
Pellets Control -- WARNING -- External heat sensor shorted!	External temperature sensor is defective/shorted
Pellets Control ** ERROR ** Boiler temp. sensor broken!	Boiler temperature sensor is defective and/or has not been correctly connected to the boiler
Pellets Control ** ERROR ** Boiler temp. sensor shorted!	Boiler temperature sensor is defective/shorted
Pellets Control ** ERROR ** Max Pellet transport time exceeded	The pellet day hopper could not be filled in the maximum permitted filling period. Possibilities!! The pellet store is empty or the suction mechanism is defective or pellets suction hose is clogged
Pellets Control -- WARNING -- Lambda probe shorted!	Lambda probe is defective/shorted
Pellets Control -- WARNING -- Lambda probe not connected!	The lambda probe is not connected. Possibilities!! The electrical wires (two white wires) have been broken or the lambda probe is defective
Pellets Control ** ERROR ** CLEAN Light Barrier!	Light barrier response period is greater than 15 minutes. Light barrier and/or barrier hole needs to be cleaned Light barrier is defective
Pellets Control ** ERROR ** Emergency stop button pressed!	EMERGENCY STOP button has been pressed
Pellets Control -- WARNING -- Acc.Tank Temp. top sensor broken!	Accumulator tank (top position) temperature sensor is defective and/or has not been correctly connected to the boiler
Pellets Control -- WARNING -- Acc.Tank Temp. top sensor shorted!	Accumulator tank (top position) temperature sensor is defective/shorted

Error Indication Boiler

Pellets Control -- WARNING -- Acc.Tank Temp. bot sensor broken!	Accumulator tank (bottom position) temperature sensor is defective and/or has not been correctly connected to the boiler
Pellets Control -- WARNING -- Acc.Tank Temp. bot sensor shorted!	Accumulator tank (bottom position) temperature sensor is defective/shorted
Pellets Control -- WARNING -- Room sensor DC broken!	Room temperature sensor (Direct Circuit) is defective and/or has not been correctly connected to the boiler
Pellets Control -- WARNING -- Room sensor MC 0 broken!	Room temperature sensor (Mixing Circuit 0) is defective and/or has not been correctly connected to the boiler
Pellets Control ** ERROR ** Grate flap does not reach OPEN position!	The grate flap is unable to reach the fully OPEN position
Pellets Control ** ERROR ** Grate flap does not reach CLOSED pos.!	The grate flap is unable to reach the fully CLOSED position
Pellets Control ** ERROR ** SafetyThermost. activated!	Wait until to the boiler temperature will be sunk under 90° and afterwards unlock STB (behind front insulating door). If this occurs more than twice per year then contact your ETA approved Technician.
Pellets Control ** ERROR ** Fuse 24VAC broken!	Exchange the blown fuse with a new fuse.
Pellets Control ** ERROR ** Air Valve cannot reach req. position!	The air valve is ceased or installed incorrectly (in the case of this error appearing when starting boiler for first time)
Pellets Control ** ERROR ** Current consum. of stoker scr. too high	The stoker screw is blocked
Pellets Control ** ERROR ** Flow Temp. DC sensor broken!	Flow (Direct Circuit) temperature sensor is defective and/or has not been correctly connected to the boiler
Pellets Control ** ERROR ** Flow Temp. DC sensor shorted!	Flow (Direct Circuit) temperature sensor is defective/shorted

Pellets Control -- WARNING -- Flow Temp. MC0 sensor broken!	Flow (Mixing Circuit 0) temperature sensor is defective and/or has not been correctly connected to the boiler
Pellets Control -- WARNING -- Flow Temp. MC0 sensor shorted!	Flow (Mixing Circuit 0) temperature sensor is defective/shorted
Pellets Control !!! ALARM !!! Water shortage Alert!	Allow boiler to cool down and re-fill with water. If this fault occurs more than twice per year then your heating system probably has a leakage! Please contact your Plumber!

Press the “Info“ button to get details on the error message being shown

INFO - Message

The following INFO messages may be shown by the Control Panel:	**INFO messages are automatically deleted** (The message displayed can be removed by pressing any of the buttons on the control panel)
Pellets Control INFO Blocking protection (Direct Circuit)	The Direct Circuit pump is running to prevent the circulation pump from sticking
Pellets Control INFO Blocking protection (Mixing Circuit)	The Mixing Circuit 0 pump is running to prevent the circulation pump from sticking
Pellets Control INFO Clean Lambda Probe!	This message appears after every 1000 hours of operation to remind the owner that the Lambda probe needs cleaning. Check page 6 for cleaning instructions. Push the “Ja” (Yes) button to clear this message

Controll Settings Boiler

```
CONTROL UNIT      ◂
```

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

```
Password   CUSTOMER◂
```

Customer Password = 1
Push the “Ändern“ (Change) button to change the password value:

```
Password       0000?
```

Press the “Ja” (Yes) button to enter the password:

```
Password      ------
```

No values can be changed, the password has been protected!

```
Time:   12:25:30◂
```

Push the “Ändern” (Change) button to change the time. Change the value by pressing the “Auf“ (Up) button and/or the “Ab” (Down) button. Store the value by pressing the “Ja“ (Yes) button, cancel the value change by pressing the “Zurück“ (Back) button.

```
Date:  Mi,05.09.01◂
```

Push the “Ändern” (Change) button to change the date. Change the value by pressing the “Auf“ (Up) button and/or the “Ab” (Down) button. Store the value by pressing the “Ja“ (Yes) button, cancel the value change by pressing the “Zurück“ (Back) button.

```
Version.Hardw.2.000◂
```

Control panel hardware version

```
Version.Softw.2.008◂
```

Control panel operating software version

TEMPERATURE INDICATION ◄

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

Boiler 21° ◄	Actual boiler temperature
FlowTemp boiler 35°	Actual boiler hot water flow temperature
External Heat 25°	Actual external heat temperature
Exhaust Gas 90°	Actual exhaust gas temperature
Acc.Tank top 45°	Actual accumulator tank temperature – top sensor
Acc.Tank bot 39°	Actual accumulator tank temperature – bottom sensor
Hot Water Tank 50°	Actual hot water tank/cylinder temperature
Outdoor 10°	Actual outdoor temperature
FlowTemp DC 35°	Actual flow temperature – Direct Circuit
RoomTemp.DC 17°	Room temperature (value is falsified through +/- temperature adjust knob) – Direct Circuit
FlowTemp.MC0 25°	Actual flow temperature – Mixing Circuit 0
RoomTemp.MC0 17°	Room temperature (value is falsified through +/- temperature adjust knob) – Mixing Circuit 0
HotWaterTank 2 50°	Actual hot water tank/cylinder temperature 2
FlowTemp.MC1 25°	Actual flow temperature – Mixing Circuit 1
RoomTemp.MC1 17°	Room temperature (value is falsified through +/- temperature adjust knob) – Mixing Circuit 1
FlowTemp.MC2 25°	Actual flow temperature – Mixing Circuit 2
RoomTemp.MC2 17°	Room temperature (value is falsified through +/- temperature adjust knob) – Mixing Circuit 2

```
PELL.BOIL.  Heating◄
```

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

```
Rated Power   15 kW◄
```

By pressing “Ändern” (Change) button you can enter the nominal boiler power rate from identification plate. Concerning this value the amount of fuel and air is specified.

```
Boiler          21°◄
```

Push to “Ja” (Yes) button and the following menu items will appear:

Req.Boiler Flow 35°◄	Required boiler flow temperature inputted by owner
Boiler Flow 35°	Actual boiler flow temperature
Boiler 90°	Actual boiler water temperature
Boiler MAX 85°	Default setting for maximum boiler water temperature and therefore also the target boiler temperature.
Boiler MIN 55°	Default setting for minimum boiler water temperature and therefore also the target boiler temperature.
EnableTempDiff 5°	Boiler temperature must reach "EnableTempDiff" higher than the boiler target temperature thereby the pump release effected.
FlowDiff.MAX 10°	The boiler will switch of it the actual boiler flow temperature is greater than req.Boiler Flow + FlowDiff.MAX
Safety run of-Pumps at 90°	When boiler temperature reached this level the pumps will switch on to dissipate extra heat into the heating circuit.
External Heat 20°	Actual external heat temperature
3wayValve-Enable min 65°C	This value enables the 3 way valve to switch on as soon as the external heat is greater than the parameter set for the 3 way valve or the boiler has gone out or the boiler is in disturbance mode and the boiler temperature is less than the external heat temperature

Pell boiler switch off Temp.MAX 40°C	The boiler switches itself off if the external heat is greater than the required boiler flow temperature or the external heat temperature is greater than “Pell boiler switch off Temp.MAX”-temperature and the external heat temperature is greater than the 3 way valve enable value.
External Heat-Min time 20 m	Once the boiler exceeds the external heat switch off temperature it remains switched off for this min period of time

Exhaust Gas 90°◄

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

req.Ex.Gas 90°◄	Info on required exhaust temperature
Exhaust Gas 89°	Actual exhaust gas temperature
Ex.Gas MAX 200°	The exhaust gas is not allowed to exceed this temperature (there are efficiency and optimisations limits on this parameter)
Ex.Gas MIN 80°	The exhaust gas is not allowed to fall below this temperature during normal burning
req. Fan Speed 0%	Info on required fan speed
Draught Fan 0U	Info on actual fan speed
Load MAX 100%	Default value for maximum boiler loading
Load MIN 30%	Default value for minimum boiler loading
Diff.Boil-ExGas 10°	Once the gas temperature falls below this difference the boiler switches off (exhaust temperature – boiler temperature)

DraughtFan Speed 2750U◄

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

req.Fan Speed 100%◄	Info on required speed for draught fan
Draught Fan 2750U	Info on the actual speed of the draught fan measured in revolutions per minute (speed is monitored through a sensor feedback loop).
Fan off-delay 10m	Default set time delay for the draught fan when shutting down boiler
Operat. Hours 89h	Info on actual boiler operating time

`Air Valve 25%◄`

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

`req. AV pos. 25%◄`	Info on the required air valve position
`Air Valve 25%`	Info on the actual position of the air valve
`Direction Closed`	Info on the current movement direction of the air valve
`Air BurnDown 100%`	Setting for the air valve to take (Open) when the boiler is in burn down status

`Residual O2 7.3%◄`

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

`Residual O2 7.3%◄`	Info on the current oxygen content in the exhaust gas
`LambdaSig.[mV] 18,4`	Info on the signal from Lambda probe in [mV]
`LambdaP.heating On`	Status indication on the lambda probe heating
`Lambda U[V] 13.00`	Info on the voltage being used by lambda probe heating in volts [V]
`Lambda I[A] 1.40`	Info on the current being used by lambda probe heating in amps [A]

`FuelFeed Rate 30%◄`

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

`Pellets amp. 100%◄`	Correction factor of the CO2 controller affecting the amount of fuel
`Cycle Time 5.0s`	Actual interval duration of stoker / grate drive
`Cycle Time MIN 5.0s`	Min interval duration of stoker / grate drive
`Conv. Time 3.0s`	Actual switch on time for stoker screw
`Conv. Time MIN 2.0s`	Min time to switch on stoker screw
`Grate Time 0.2s`	Actual switch on time for grate drive
`Grate Time MIN 0.1s`	Min time to switch on grate drive

Conv. Time 3.0s◂

Actual time to switching on stoker

Conv. Time MIN 2.0s◂

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

Fuel Feed MIN 15%◂	Minimum fuel feed rate
Fuel Feed MAX 100%	Maximum fuel feed rate
Overfill count. 10s	Display of the overfill counter
Overf.Cdount MAX 50m	When this value is exceed the ash removal cycle is commenced
Stoker Screw Stop	Status of stoker screw
...i(π) 0.00	actual motor current (no effective value, but momentary value)
Stoker Scale 100%	Current rate of stoker operation

Grate Time 0.2s◂

Actual time to grate running

Grate Time MIN 0.1s◂

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

Grate MAX 50%◂	Maximum grate speed
Grate MIN 0%	Minimum grate speed
Grate Scale 100%	Current rate of grate operation
Open GrateFlap 70s	The time required of grate flap drive to go from closed to fully open position
Close GF MAX 100s	The maximum time permitted for the grate flap to close
Times GF opened 2	How many times the grate flap will be opened to run the ash removal procedure

Ignition Off◄

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

Ign.Time MAX 15m◄	The maximum amount of time permitted for the ignition procedure to succeed before an error message is displayed.
Ign.Time MIN 200s	The minimum period of time for which the ignition fan will operate
WarmStartTime 300s	In the warm start mode the boiler attempts to relight the fire without the aid of the ignition fan. When the time indicated here is exceed the ignition fan starts.
FixedStartPower 100%	When heating up the boiler runs at this rate of its full capacity.
Cold Start Time 60m	If has been finished the last fire longer ago the Cold Start Time than the new start will be with ignition fan.

Pell.Conv. Off◄

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

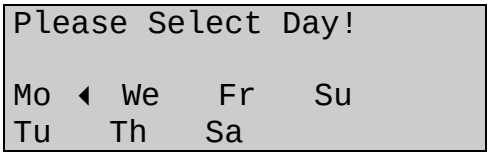
Aspiration	Fill the day hopper with pellets manually.
Hopper Content in kg 59.7	Indicates approx. how many kg’s of pellets are left in the day hopper.
Store Content 7.03t	Indicates how many pellets have been used since the counter was reset (tonnes).
Aspiration Time 19:00	The set time for automatically re-filling the day hopper with pellets.
Clean After [kg] 50	When this amount of fuel has been used since the last cleaning process then at next Aspiration starts a cleaning process.
Stoker s/kg 385	Controller calculate the usage of pellets with running time of Stoker by this value.
Asp.time MAX 20m	If the day hopper cannot be re-filled within this period of time then there will be error message “Max Pellet transport time exceeded”displayed
Asp.off-delay 10s	The length of time that the suction continues after the pellet store auger has been switched off (to clear hoses of pellets).
Pneumatic Conv. On	Actual status of vacuum turbine
Conveyer Screw Stop	Actual status of pellet store auger
...i(π) 0.00	Actual motor current (no effective value, but momentary value)

Push the “Ändern” (Change) button to change the value

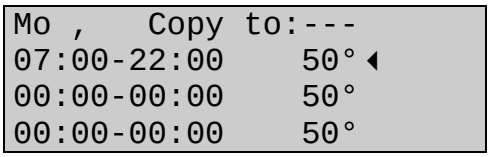
Thermostat switches ON when:
Therm. HOT > (Therm. COLD’ + Therm.Diff + 2°C)
Thermostat switches OFF when:
Therm. HOT’ < (Therm. COLD’ + Therm.Diff)

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) button you can move down through the sub menu items!

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) button you can move down through the sub menu items!



By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) button you can move down through the sub menu items!



Push the “Ändern” (Change) button to change the value. Change the value by pressing the “Auf“ (Up) button and/or the “Ab” (Down) button. Store the value by pressing the “Ja“ (Yes) button, cancel the value change by pressing the “Zurück“ (Back) button.

HotWaterTank Loading ◂

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

Manual loading N ◂	Start the hot water tank heat charging manually
HWT Pump 100%	Actual current pump speed in percent
HotWaterTank 17°	Actual hot water tank temperatue
req. HWT Temp. 60°	Info on the hot water tank target temperature
HWT MIN 40°	Hot water tank minimum temperature, when falling below this temperature then starts loading of hot water tank also outside of HWT Charging Time.
HWT off-delay 3m	Time which the HWT pump runs longer after stop, in order to use the residual heat of the boiler.
Base Temperat. 10°	Minimum water temperature of the hot water tank (frost protection).
Activat.Temp. 40°	When within the HWT Charging Time the hot water tank temperature falls below this level then starts loading of hot water tank.
Dif.Boiler/HWT 15°	The flow temperature must be at least this value greater than the hot water tank temperature before flow to HWT begins..

The parameters for hot water tank 2 are set up in the same way as above.

ACC.TANK Request On ◂

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

ACC.TANK PUMP 0% ◂	Indicates current pump output
Acc.T.top 43°	Indicated temp. at top of accumulator tank
Acc.T.bot 36°	Indicated temp. at bottom of accumulator tank
req.Acc. Temp 55°	Info on current required accumulator tank temp.
Acc.Tank MIN 10°	Info on current minimal accumulator tank temp.
Charg.Time MIN 30m	Accumulator minimum heating charge time
Diff.Boil-RAT 5°	Boiler flow temperature must be this value than the required accumulator tank temperature.
Diff.RAT-ATB 10°	Accumulator tank charge will be finished, if the below tank temperature is lower at this value than current required accumulator tank temperature and the minimum loading time has expired (boiler condition ready).
A.Tank.Pump MIN 35%	Minimum speed accumulator tank pump above this a safe pump operation is possible.

```
DC          On    Day ◄
```

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

```
HEATING TIMES DC    ◄
```

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

```
Please Select Day!

Mo ◄ We   Fr   Su
Tu   Th   Sa
```

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

```
Mo ,   Copy to:---
07:00-22:00       ◄
00:00-00:00
00:00-00:00
```

Push the “Ändern” (Change) button to change the value. Change the value by pressing the “Auf“ (Up) button and/or the “Ab” (Down) button. Store the value by pressing the “Ja“ (Yes) button, cancel the value change by pressing the “Zurück“ (Back) button.

```
Remote DC       DAY◄
```

Display the status of the remote switch

```
Room Temp DC    21°◄
```

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

Room temperature DC Rated Value ...at Day 21°◄ ...at Night 16°	Ambient room temperature required during the day and night heating periods.
Boost 6.0	The boost temperture is the amount the calculated flow temperature increases or decreases for every 1° variation in room temperature (up or down).

Outdoor Temp. 16° *

Actual outdoor temperature

FlowTemp DC Req 10°

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

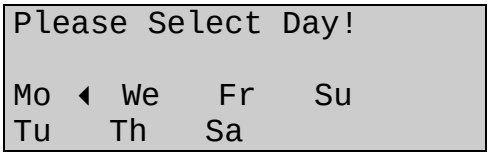
FlowTemp. DC at -10° Outdoor 60° * +10° Outdoor 35° *	1. Set the flow temp when outdoor temp = -10 2. Set the flow temp when outdoor temp = +10 These two points result in a line, along which the flow temperature is calculated.
Decr.Diff night 15° *	If no room sensor has been installed then during the night phase the with outside temperature calculated flow temperature is reduced by this value.
Max. Flow Temp. 75° *	This is the maximum permittable flow temperature, which is permissible for the heating system. In an under-floor heating is necessary a additionally mechanical thermostat in the floor heating circuit for safety against overheating.

Act.FlowTemp.DC 17°	~~Info on the~~ Actual flow temperature of the direct circuit
DC-HWT Diff.MAX 10°	Maximal permissible increasing of flow temperature for charging hot water tank parallel to the heating operation.
Mode SUMMER	Change the boiler mode over from Winter to Summer. In the summer operation the pumps and the mixers are switched on briefly only once in the week (Saturday 12:00) to ensure they do not stuck.
Night Mode Yes	In night mode the flow temperature is reduced by the value "Decr.Diff night". If a room sensor is present, the room temperature is regulated to the adjusted value for night.
Enable Yes	Displays whether the heating circuit is enabled to work.
EnableDiff. 5°	If the current boiler and / or accumulator temperature + the EnableDiff temp is greater than or equal to the required flow temperature then the heating circuit is switched on.

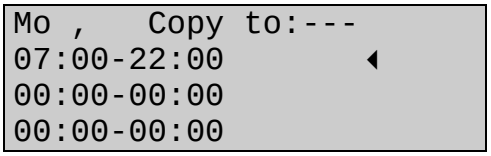
Pump DC 0%	Actual pump speed
Heat until out.T at Day 18° at Night 7°	If the outdoor temperatures, as set for day or night, are equal to or greater than these values then the heating circuit is switched off.
Frost prot. Temp 10°	If the flow temperature or a room sensor indicates that the temperature is below this set value the heating circuit is switched on for frost protection.
Frost prot. NO	Displays whether heating circuit works in the freeze protection mode.
HotWater Prio. YES	If switched to YES then in the time of charging the hot water tank the heating circle is switched off. With NO the Heating circuit remains on as long as the flow temperature does not increased more than the value "DC-HWT Diff.MAX".

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!



By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!



Push the “Ändern” (Change) button to change the value. Change the value by pressing the “Auf“ (Up) button and/or the “Ab” (Down) button. Store the value by pressing the “Ja“ (Yes) button, cancel the value change by pressing the “Zurück“ (Back) button.

Remote MC0 DAY◄

Status of remote switch for MC0

Room Temp. MC0 21°◄

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

Room temperature 0 Rated value ...at Day 21°◄ ...at Night 16°	Ambient room temperature required during the day and night heating periods.
Boost 6.0	The boost temperture is the amount the calculated flow temperature increases or decreases for every 1° variation in room temperature (up or down).

Outdoor Temp. 16°◄ *

Actual Outdoor Temperature

req.FlowTemp0 10°

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

FlowTemp. 0 at -10° Outdoor 60°◄ * +10° Outdoor 35° *	1. Set the flow temp when outdoor temp = -10 2. Set the flow temp when outdoor temp = +10 These two points result in a line, along which the flow temperature is calculated.
Lower Diff.night 15° *	If no room sensor has been installed then during the night phase the with outside temperature calculated flow temperature is reduced by this value.
MAX Flow Temp. 75° *	This is the maximum permittable flow temperature, which is permissible for the heating system. In an under-floor heating is necessary a additionally mechanical thermostat in the floor heating circuit for safety against overheating.

Act.FlowTemp.0 17°	Actual flow temperature of the direct circuit
Mode SUMMER	Maximal permissible increasing of flow temperature for charging hot water tank parallel to the heating operation.
Night Mode YES	Change the boiler mode over from Winter to Summer. In the summer operation the pumps and the mixers are switched on briefly only once in the week (Saturday 12:00) to ensure they do not stuck.
Enable YES	In night mode the flow temperature is reduced by the value "Decr.Diff night". If a room sensor is present, the room temperature is regulated to the adjusted value for night.
EnableDiff 5°	Displays whether the heating circuit is enabled to work.
Pump 0 0%	If the current boiler and / or accumulator temperature + the EnableDiff temp is greater than or equal to the required flow temperature then the heating circuit is switched on.
Flow Temp.Raise 5°	

Mixing Valve 0 Stop◂

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

Mixer Run Time 120s	Maximum length of time that the mixing valve needs from one to the other end position.

Heat until out.T. at Day 18° at Night 7°	If the outdoor temperatures, as set for day or night, are equal to or greater than these values then the heating circuit is switched off.
frost prot. Temp. 10°	If the flow temperature or a room sensor indicates that the temperature is below this set value the heating circuit is switched on for frost protection.
frost prot. NO	Displays whether heating circuit works in the freeze protection mode.
HotWater Prio. YES	If switched to YES then in the time of charging the hot water tank the heating circle is switched off. When on NO the the Heating circuit remains on in the time of charging hot water tank.

The parameters for all other mixing valve circuits are set up in the same way as above.

HEAT EXTENSION ◂

By pressing the “Ja“ (Yes) button the following menus appear.
By pressing the “Ab“ (Down) you can move down through the sub menu items!

ERROR INDICATION ◂	For the latest list of error messages see page 38
SET UP	Specify configuration details: ➢ MIXING CIRCUIT Mixing Circuit Mixing Circuit 1 Room Temp. MC 1 Mixing Circuit 2 Room Temp. MC 2 Mixing Circuit 3 Room Temp. MC 3 Mixing Circuit 4 Room Temp. MC 4 ➢ EXTENSIONS Extensions Hot Water Tank 2 Trunk Pump Thermostat **Change the configuration parameter value by pressing the “Ändern“ (Change) button and confirm the change by pressing the “Ja“ (Yes) button**

Binary Inputs	Remote MC1 Day Remote MC1 Night Remote MC2 Day Remote MC2 Night Remote MC3 Day Remote MC3 Night Remote MC4 Day Remote MC4 Night Pump MC 1 On Pump MC 2 On Pump MC 3 On Pump MC 4 On Mixing Valve 1 Open Mixing Valve 1 Closed Mixing Valve 2 Open Mixing Valve 2 Closed Mixing Valve 3 Open Mixing Valve 3 Closed Mixing Valve 4 Open Mixing Valve 4 Closed Jumper VEN Jumper MI1 Jumper MI2 Jumper PUX Jumper MIX1 Jumper MIX2 YES NO
Binary Outputs	All binary outputs can be manually and/or automatically adjusted. Mixing Valve 1 Mixing Valve 2 Mixing Valve 3 Mixing Valve 4 Special Function Relay HWT Pump 2 Trunk Pump 2 Off On Close Ret. Stop Stop Up Forward

ANALOG INPUTS	FlowTemp MC1 FlowTemp MC2 FlowTemp MC3 FlowTemp MC4 RoomTemp MC1 RoomTemp MC2 RoomTemp MC3 RoomTemp MC4 Outdoor Temp
ANALOG OUTPUTS	All analogue outputs can be set seamlessly between 0 and 100% Pump MC1 Pump MC2 Pump MC3 Pump MC4 Pump Solar.
Hardw.Version 2.001	Hardware Version for extension board
Softw.Version 2.006	Software Version used on extension board (Program version)

Error Indication Extension

ERROR INDICATION ◄

List of possible errors relating to the heating extension board

Heat Extension -- WARNING -- Outdoor Temp. Sensor broken!	Outdoor temperature sensor is defective and/or has not been correctly connected to the boiler
Heat Extension -- WARNING -- Outdoor Temp. Sensor shorted!	Outdoor temperature sensor is defective/shorted
Heat Extension ** ERROR ** HotWaterTank Temp 2 Sensor broken!	Hot water tank 2 temperature sensor is defective and/or has not been correctly connected to the boiler
Heat Extension ** ERROR ** HotWaterTank Temp 2 Sensor shorted!	Hot water tank 2 temperature sensor is defective/shorted
Heat Extension -- WARNING -- Room Sensor MC 1 broken!	Room temperature sensor (MC 1) is defective and/or has not been correctly connected to the boiler
Heat Extension -- WARNING -- Room Sensor MC 2 broken!	Room temperature sensor (MC 2) is defective and/or has not been correctly connected to the boiler
Heat Extension -- WARNING -- Flow Temp. MC1 sensor broken!	Flow temperature sensor MC1 is defective and/or has not been correctly connected to the boiler
Heat Extension -- WARNING -- Flow Temp. MC1 sensor shorted!	Flow temperature sensor MC1 is defective/shorted
Heat Extension -- WARNING -- Flow Temp. MC2 sensor broken!	Flow temperature sensor MC2 is defective and/or has not been correctly connected to the boiler
Heat Extension -- WARNING -- Flow Temp. MC2 sensor shorted!	Flow temperature sensor MC2 is defective/shorted

Press the “Info“ button to get details on the error message being shown

INFO - Message

The following INFO messages may be shown by the Control Panel:	**INFO messages are automatically deleted** (The message displayed can be removed by pressing any of the buttons on the control panel)
Heat Extension INFO Blocking protection (Pump & Mixing Val.)	The Pump and Mixing Circuit Valve is set up to prevent the circulation pump from ceasing

All other parameters are setup similarly to the pellet boiler.

Dis-Assembly

For dis-assembling the pellet boiler please work in the reverse order used to assemble the unit.

Disposal

Disposal of the pellet boiler must take place in an environmentally aware manner and also in accordance with all national and local laws relating to waste disposal.

Materials being sent to for recycling should be separated into different material groups (for example. Steel, insulating material, delivery packaging, plastics and electronic items).