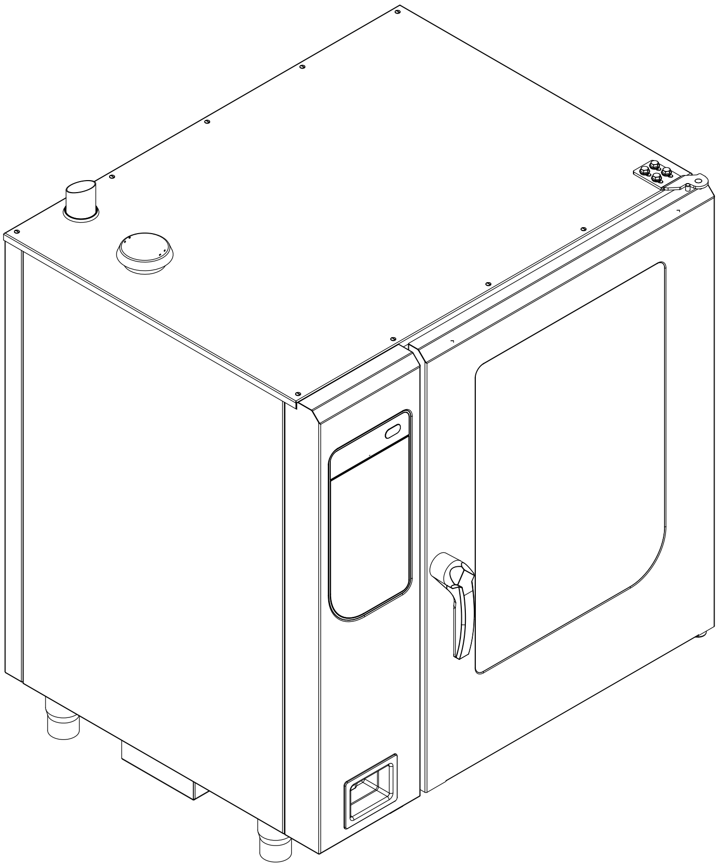
HENNY PENNY
Engineered to Last

Service-instructions

FlexFusion® ELECTRIC PLATINUM COMBI G2 208V [6.x - 20.x]



Model

FPE-**615**
FPE-**621**
FPE-**115**
FPE-**121**
FPE-**215**
FPE-**221**

Translation from the original document • FM06-065A • 12/12/2024

FM06-065A en-US

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1 Password overview

Range	Password	Description	Described in
Installation / commissioning	2100	Setting all basic parameters (for example time / date).	Installation instructions
Network settings	2000	Input network addressing. Only for units with touchscreen control.	Installation instructions
Basic settings / user	111	Setting of basic values for the user, functions, software update.	Operating instructions
Lockscreen	369	Deactivating the lockscreen in cooking mode. Only for units with touchscreen control.	Operating instructions
Trade show mode	888	Activation / deactivation for exhibition mode.	Service instructions
Service menu	1967	Service range for authorized service technicians.	Service instructions

2 Introduction

2.1 About this manual

This service manual contains information needed by the service technician for professional and correct fault isolation, repair and maintenance of the unit. The service technician must also observe the contents of the installation instructions and the user manual.

Target group Target group for this service manual is qualified personnel who are familiar with the technical functioning and operation of the unit and have been trained to work on electrical units.

Figures All figures in this service manual are intended as examples. Discrepancies can arise between this and the actual unit.

Spare parts To ensure the reliability of the unit and the individual components, it is essential that only genuine OEM parts be used.
Spare parts can be identified exactly with the aid of the online database.

2.2 Warranty

The warranty is void and safety is no longer assured in the event of:

- Modifications or technical changes to the unit,
- Improper use,
- Incorrect startup, operation or maintenance of the unit,
- Problems resulting from failure to observe these instructions.

3 Safety instructions

For servicing tasks, the service technician must be familiar with and observe regional regulations.
In addition, the notes in the service manual must be observed.

⚠ DANGER

Danger to life due to electric current

✓ Disconnect power prior to performing gas and electrical work.

- Disconnect unit from the mains supply and secure it against restart.
- Check to ensure absence of voltage.

4 Opening and closing the unit

4.1 Control panel

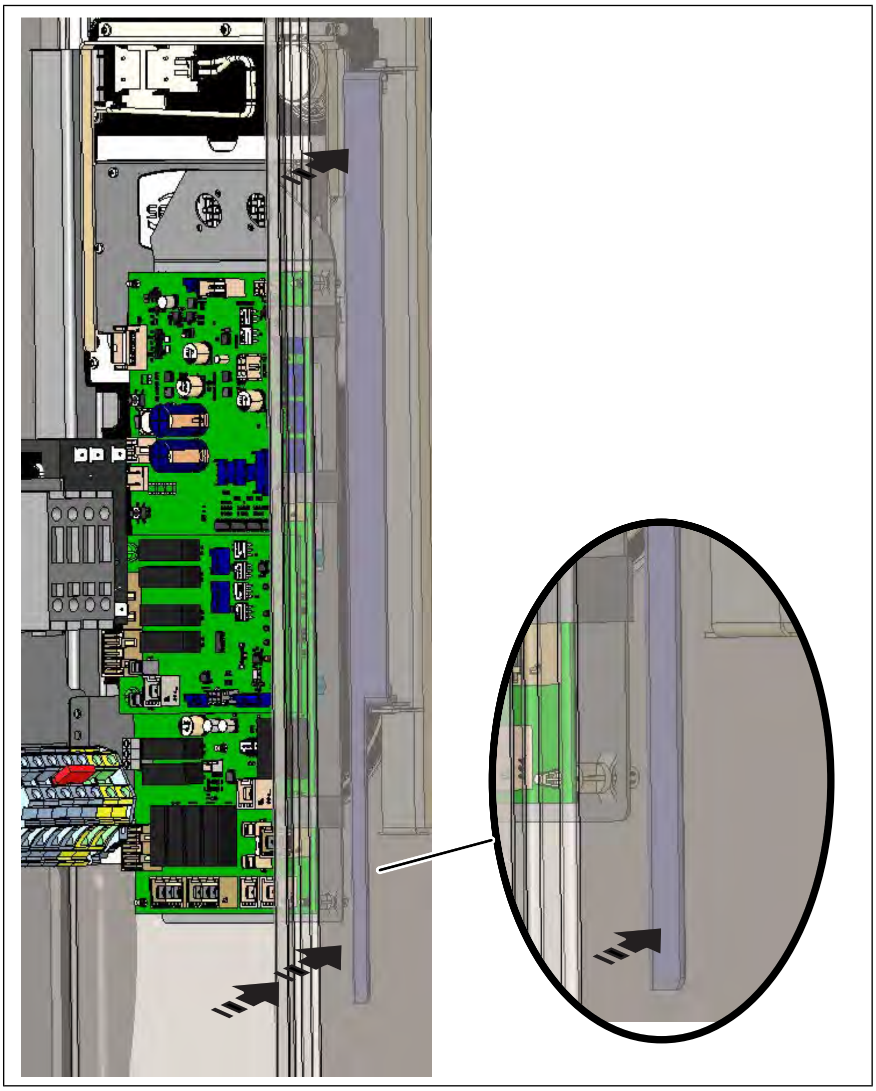

Image: Unlock the control panel

Opening the control panel

1. Remove the left side wall.
2. Press the unlocking mechanism forwards.
   ↳ The control panel is unlocked.
3. Opening the control panel

Closing the control panel

NOTICE

Damage due to vapor / moisture

There should be no gap between the control panel and housing.

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1. Press and hold operating panel on the left.
   - ↳ Repeat as many times as necessary.
   - ↳ The operating panel snaps in audibly.

↳ The operating panel is secured against unauthorized opening.

4.2 Side wall

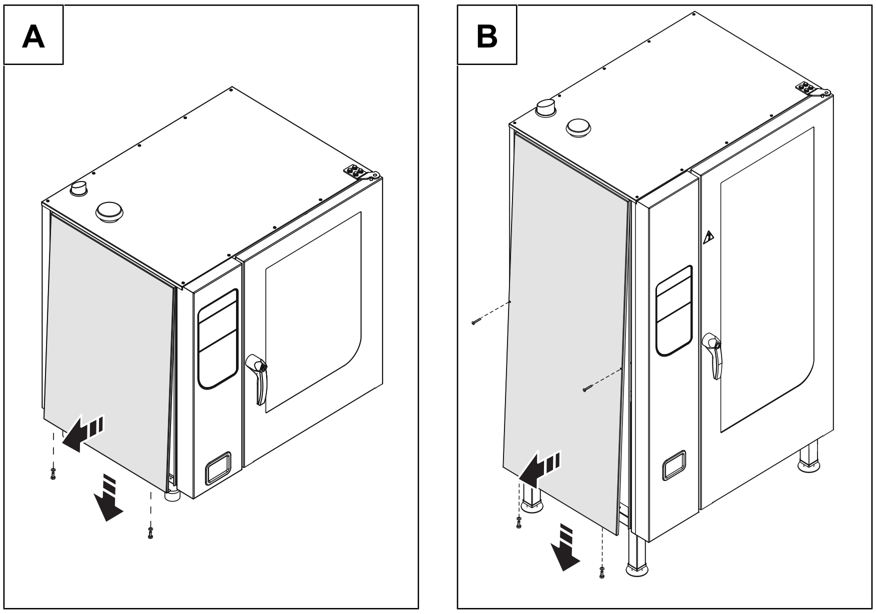


Image: A Sizes 6.x and 10.x; B Size 20.x

Removing the side wall

1. Unscrew the screws in the side wall.
2. Pull the bottom edge of the side wall forwards.
3. Remove the side wall.

Attaching the side wall

NOTICE

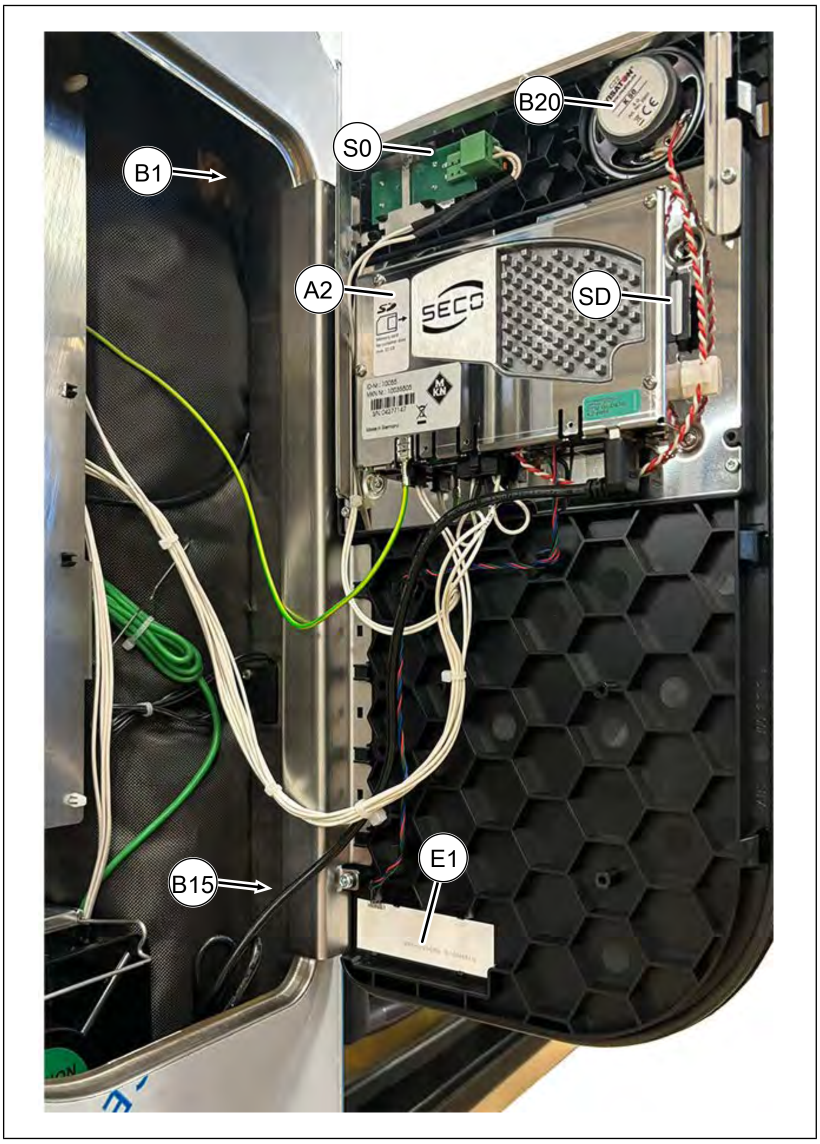
Risk of property damage from leaky housing

- Check seals when attaching the housing parts.
- Replace damaged seals.

1. Insert top edge of side wall.
2. Carefully push the bottom of the side wall inward.
3. Secure the bottom of the side panel with screws.
4. Check that the side wall is in contact with the unit on all sides.

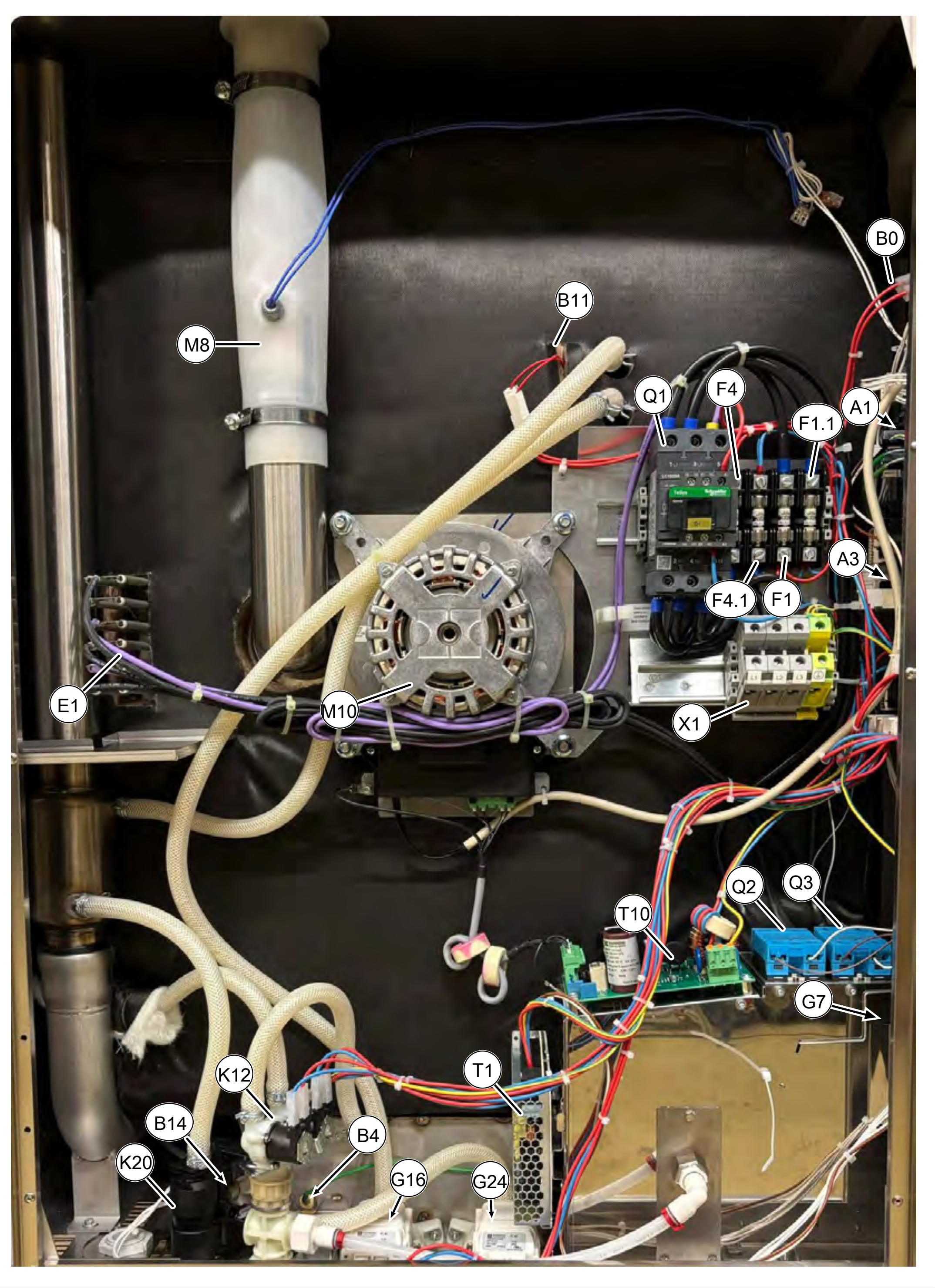
5 Component overview

5.1 Operating unit



A2	Operating panel	B1	Core temperature sensor
B15	Reed contact switch	B20	Loudspeaker
E1	Insert with LED lighting	S0	On / Off switch
SD	SD card		

5.2 Left side 615, 620, 115, 120



A1	Control board	A3	Additional circuit board (option)
A4	Configuration memory	B0	Thermal switch 70°C (158°F) NC
B4	Vapor sensor	B11	Safety temperature limiter
B14	Pressure switch	E1	Heating element
F	Fuse 6.25 A inactive	G7	Cooling fan
G16	Circulation pump	G24	Drain pump
K12	Solenoid valve vapor / flush grease system (K12). Double solenoid valve K14 for units with grease collection system	K20	DynaSteam unit
M8	Lift magnet	M10	Fan motor
Q1	Main contactor	Q2 / Q3	Semiconductor relay (SSR)
T1	Power pack	T10	Power pack for fan motor
X1	Power connection terminal		

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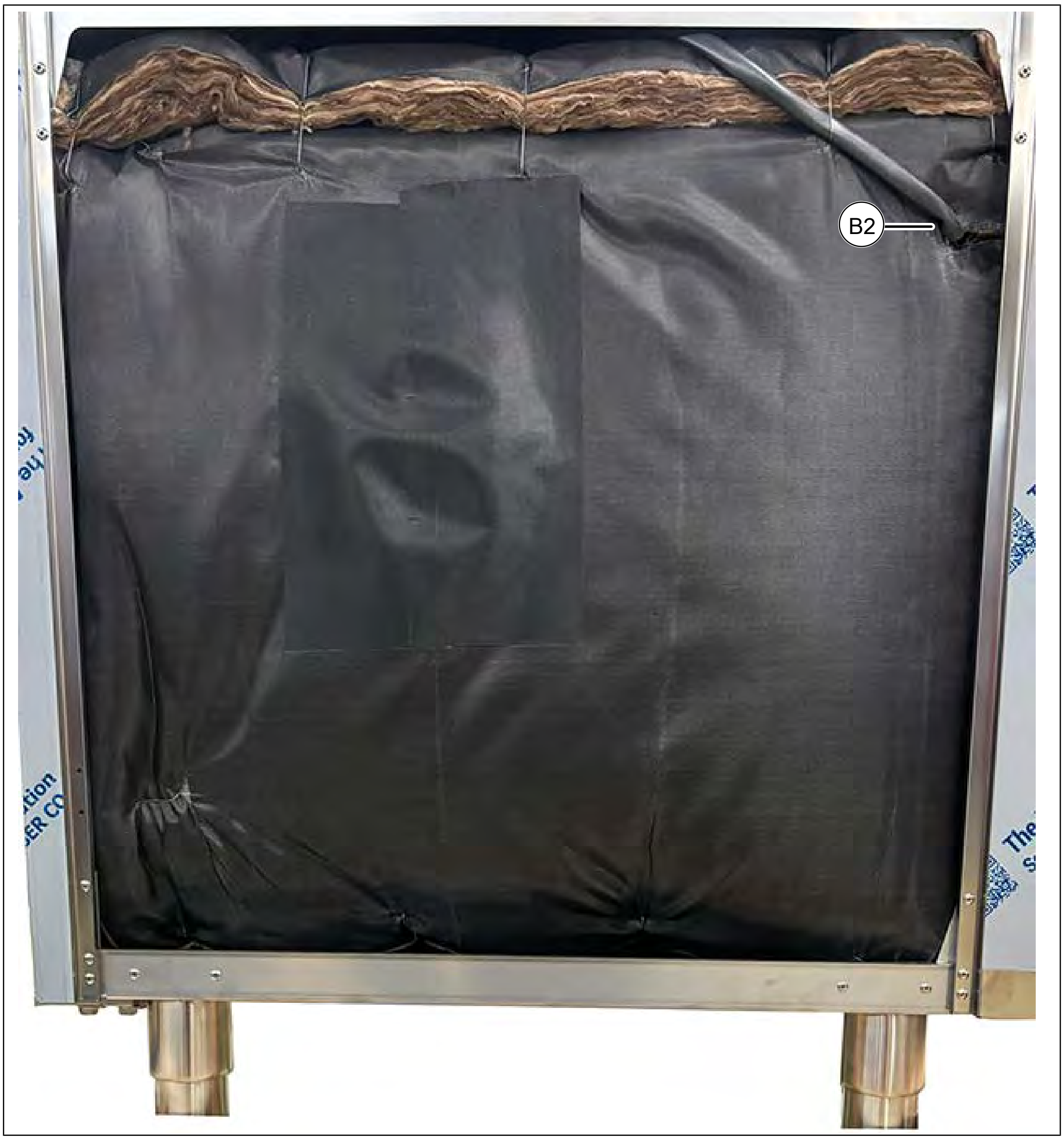
5.3 Right side 615, 620, 115, 120



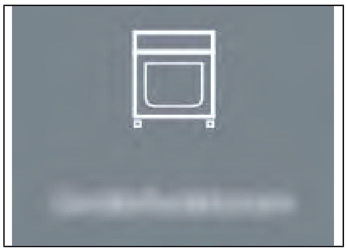
B2 Cooking chamber sensors

6 Service menu - appliance test

6.1 Service menu

The service area permits functional testing of individual components, adjustment of basic settings and updating of the software.

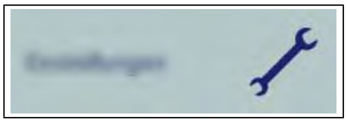
6.1.1 Access to service area



→ Switch on the unit.

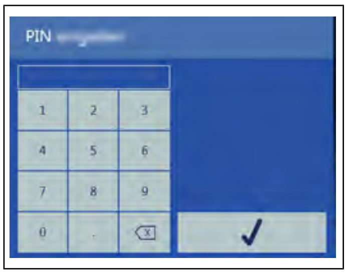
→ Tap the "Unit functions" field.

↳ Display of *Appliance functions* menu.



→ Tap the "Settings" field.

↳ Display of *PIN* window.



→ Enter password and touch *Confirmation* field.

↳ Display of *Unit test (service area)* menu.

INFORMATION

The password for the service menu is 1967

6.1.2 Service menu overview

Selecting a menu element

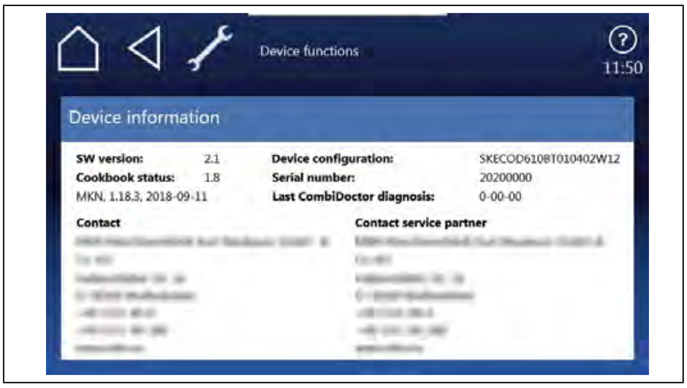
→ Display of the menu elements in the left area.

→ Page change by swiping upward/downward.

→ Select menu element by touching.

6.2 Appliance information

Overview



Device information

SW version: 2.1
Cookbook status: 1.8
MKN, 1.18.3, 2018-09-11
Device configuration: SKECOD6108T010402W12
Serial number: 20200000
Last CombiDoctor diagnosis: 0-00-00

Contact
[redacted]

Contact service partner
[redacted]

Image: *Unit information* display

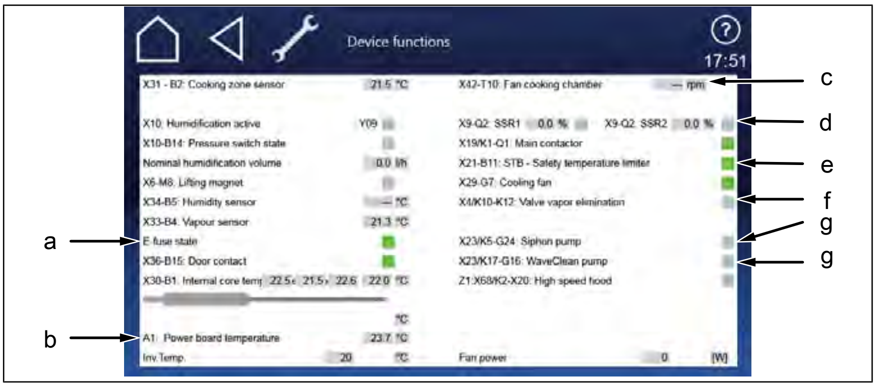
Display of the appliance-specific information

1. Software version
2. Cookbook version
3. Unit configuration
4. Serial number
5. Date of last CombiDoctor diagnosis.
6. Saved contact data

Leaving the area

Touch the *Back* field.

6.3 Status overview



X31 - B2: Cooking zone sensor 21.5 °C
X10: Humidification active Y09
X10-B14: Pressure switch state
Nominal humidification volume 0.0 l/h
X6-M8: Lifting magnet
X34-B5: Humidity sensor — °C
X33-B4: Vapour sensor 21.3 °C
E fuse state
X36-B15: Door contact
X30-B1: Internal core temp 22.5 21.5 22.6 22.0 °C
°C
A1: Power board temperature 23.7 °C
Inv.Temp. 20 °C
X42-T10: Fan cooking chamber — rpm
X9-Q2: SSR1 0.0 % X9-Q2: SSR2 0.0 %
X19/K1-Q1: Main contactor
X21-B11: STB - Safety temperature limiter
X29-G7: Cooling fan
X4/K10-K12: Valve vapor elimination
X23/K5-G24: Siphon pump
X23/K17-G16: WaveClean pump
Z1:X68/K2-X20: High speed hood
Fan power 0 [W]

a	Status of electronic fuse	b	Temperature of control board
c	Engine speed	d	Heat requirement in %
e	Status of safety temperature limiter	f	Status of the solenoid valve vapor extraction
g	Status WaveClean pumps		

The overview shows the technical status of the unit. Energized components and feedback messages can be recognized by the green color of the field.

6.4 CombiDoctor

Description

The CombiDoctor offers an automatic check of the climate control system and WaveClean automatic cleaning. The tests are possible individually or as overall test. For instructions on performing, see the touchscreen.

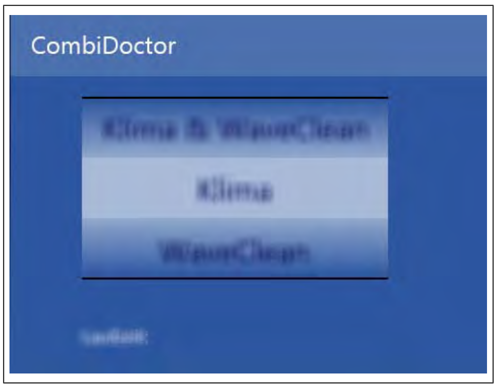


Image: Select CombiDoctor test

CombiDoctorStart

Selecting a program → Select a program by adjusting the roller.

Starting the program → Touch the "START" field.

Evaluation → The test result appears on the touchscreen.

↳ Entry in HACCP memory.

Description of the test steps

Step 1 (test door contact)

1. Open cooking chamber door and close again.
   - ↳ If test successful, proceed with the next test step.
   - ↳ If the door is not recognized as having been opened and closed again within the specified time (60 seconds), the test is not passed.

Step 2 (prepare for WaveClean)

1. Preparation for WaveClean test.
   Automatic water exchange via the siphon pump and the solenoid valve for steam elimination.

Step 3 (heat output)

1. Check of heat output.
   ↳ Display switches to green = test successful.
   ↳ Display switches to red = test not successful.

↳ Check of on-site voltage supply.
↳ Check of heating element
↳ Check of solid-state relay
↳ Check of internal fuse for load circuit (depends on unit version).

Step 4 (steam generation)

1. Check of DynaSteam² steam generation.
   ↳ Display switches to green = test successful.
   ↳ Display switches to red = test not successful.

↳ Ensure that water is being supplied on-site.
↳ Check of DynaSteam steaming.
↳ Check of water supply pipe for calcification.

Step 5 (steam reduction)

1. Check of steam reduction (lift magnet).
   ↳ Display switches to green = test successful.
   ↳ Display switches to red = test not successful.

↳ Check of lift magnet via relay test. A fault is present on the component or the control board. Check associated fuses.

Step 6 (WaveClean circulation pump)

1. Check of WaveClean circulation pump.
   ↳ Display switches to green = test successful.
   ↳ Display switches to red = test not successful. Test 7 and 8 are not evaluated.

↳ Check of circulation pump via relay test. A fault is present on the component or the control board. Check the fuse on the control board.

Step 7 (water supply to WaveClean)

1. Check of solenoid valve for steam elimination.
   ↳ Display switches to green = test successful.
   ↳ Display switches to red = test not successful.

↳ Ensure that water is being supplied on-site.
↳ Check of solenoid valve via relay test. A fault is present on the component or the control board. Check the fuse on the control board.

Step 8 (WaveClean siphon pump)

1. Check of WaveClean siphon pump.
   - ↳ Display switches to green = test successful.
   - ↳ Display switches to red = test not successful.

↳ Check of siphon pump via relay test. A fault is present on the component or the control board. Check the fuse on the control board.

Step 9 (temperature control)

1. Check of temperature control.
   - ↳ The temperature in the cooking chamber must reach 140 °C (284 °F) within the time specified.
   - ↳ Display switches to green = test successful.
   - ↳ Display switches to red = test not successful.

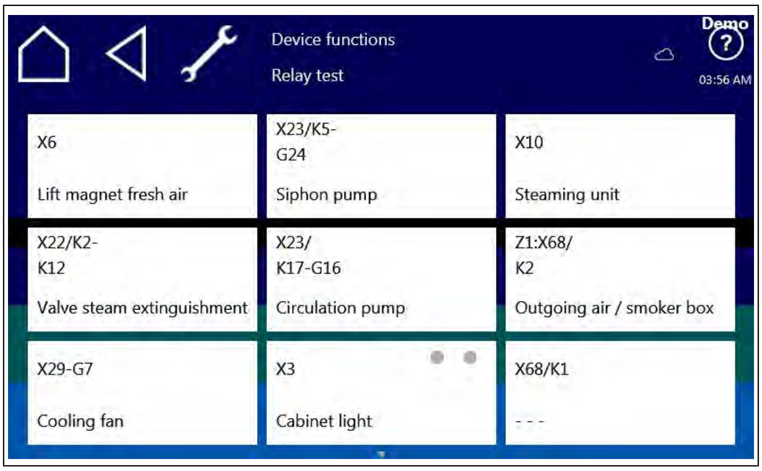
↳ Check region around cooking chamber sensor for soiling.

↳ Check temperatures via calibration in the service menu.

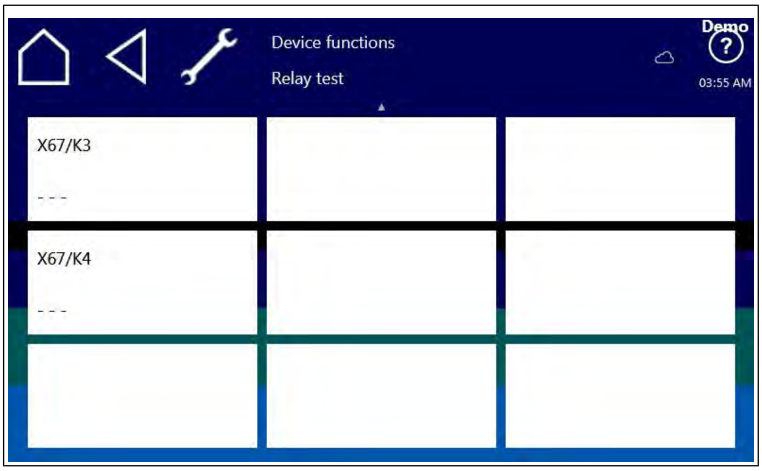
↳ If necessary, replace cooking chamber sensor or control board.

6.5 Relay test

Overview



The cooking chamber door must be closed to control the G16 circulation pump.



Only available for units with grease collection system

Relay	Connector	No.	Description	Info
	X3	1-4	Cooking chamber light E3	24 V DC
	X6	1/2	Lift magnet M8	24 V DC
	X10	6/7	Steaming unit	24 V DC
K2	X68	4/5	Recirculation hood control (option)	208V AC
K2	X68	4/5	Smoke box control (option)	208V AC
K5	X23	1	Siphon pump G24	208V AC
K10	X4	1	Solenoid valve, steam Wrasen K12	208V AC
K11	X29	1	Cooling fans G7, G8	208V AC
K17	X23	3	Circulation pump G16 (only when cooking cabinet door is closed)	208V AC
K3 (A3)	X67	1/2	Grease pump via additional circuit board	208 V AC

Relay	Connector	No.	Description	Info
K4 (A3)	X67	3/4	Solenoid valve grease collection system	208V AC

Description

The test permits separate activation of various functions.

- Testing the relay.
- Testing of individual components.

Activating/deactivating a function

Activating a function → Press the button for the area to test.

↳ The function is active.

↳ The button for the selected function is highlighted in green.

Deactivating a function → Press the button highlighted in green to deactivate the selection.

↳ The function is now inactive.

↳ The button is now highlighted in gray.

INFORMATION

Several functions can be activated simultaneously.

6.6 WaveClean test

Description

→ WaveClean test program for function check.

↳ Circulation pump

↳ Siphon pump

↳ Magnetic valve for water filling

↳ Door seal / leak tightness in door area.

INFORMATION

The test is used exclusively for functional testing and not to clean the cooking chamber.

Starting the test

→ Press the "START" button.

↳ Checking of the cooking chamber temperature.

↳ Automatic cooling off of the cooking chamber if > 70 °C (158 °F).

→ Rinse and fill up siphon.

↳ Draining by pump G24.

↳ Filling by magnetic valve K12.

→ Circulation and heating.
    ↳ The circulation pump G16 is switched on.
    ↳ Heating of the cooking chamber to 55 °C (131 °F).
→ Rinse DynaSteam and siphon
    ↳ The valve for steaming is energized.
    ↳ Another water change from the siphon.

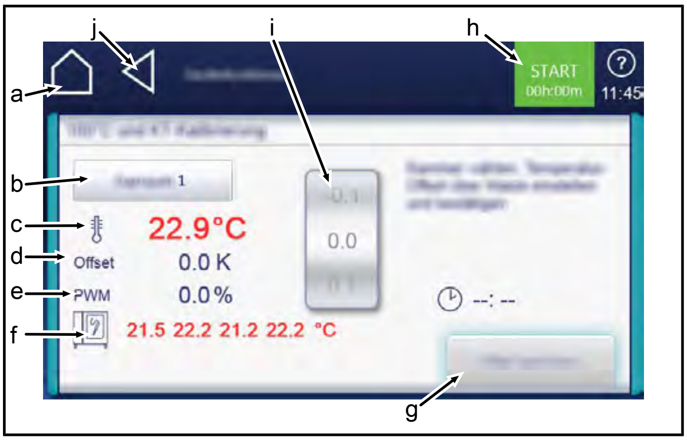
After 30 minutes, the WaveCleanTest ends.

Ending the test

An abortion is possible at any time.
→ Tap the "Stopp" button.
    ↳ Automatic rinsing of the siphon.

6.7 100°C + core temperature calibration

Description



22.9°C

0.0 K

0.0%

21.5 22.2 21.2 22.2 °C

Image: Overview

a	Back to the homepage	b	Switching cooking cabinet 1 (top) / 2 (bottom) Only for pedestal units
c	Cooking chamber temperature	d	Saved offset
e	Average heat requirement	f	Temperature from the core temperature sensor
g	Saving changes	h	"Start/Stopp" field
i	Offset setting	j	Back to the service menu

Description

→ Calibration for cooking chamber sensor and core temperature sensor.

↳ Testing the calibration.

↳ Performing the calibration.

The cooking chamber sensor and core temperature sensor calibration is performed in one step.

INFORMATION

The units are factory calibrated. Recalibration is required only in exceptional cases.

Color detection of the temperature values

INFORMATION

During calibration, the temperatures are displayed in color:

Red = temperature in invalid calibration range

Green = temperature in valid calibration range

Check calibration

Check calibration - tabletop unit 6.x / 10.x

Prerequisite Calibrated digital temperature measurement device.

The temperature in the cooking chamber is < 100°C.

→ Fix internal core temperature sensor and temperature sensor of external measurement device in the cooking chamber.

  ↳ Use a grill rack for this.

  ↳ Point the sensor tips upward in order to prevent measurement errors.

Checking the calibration

→ Touch the "START" field.

  ↳ The cooking chamber is heated up to 100°C.

  ↳ Display of the current temperature on the touch screen.

→ Wait until the cooking chamber temperature on the touch screen indicates 100°C (± 1°C).

  ↳ Compare displayed cooking chamber temperature with temperature of external measurement device.

  ↳ The external measurement device must display a temperature between 99°C – 99.5°C.

→ If the value is within the range, end checking.

  ↳ Touch the "STOP" field.

→ If the value is outside of the range, calibration must be done.

↳ Continue with calibration (see „ Calibrating the cooking chamber sensor - tabletop unit 6.x / 10.x“, Page 27).

Check calibration - pedestal unit 20.x

INFORMATION Two-chamber appliances (20.x) are equipped with two cooking chamber sensors.

Separation of the two chambers required

INFORMATION A separation into two regions (chambers) is required for temperature measurements. This can be achieved, for instance, by placing a baking sheet on the middle shelf of the tray trolley.

Prerequisite Two calibrated digital measurement devices or two-channel measurement device.

The temperature in the cooking chamber is < 100°C.

→ Fix the temperature sensor of the two external measurement devices in the middle of the top and bottom chambers in the cooking chamber respectively. Fix the core temperature sensor in the middle of the bottom chamber.

  ↳ Use a grill rack for this.

  ↳ Point the sensor tips upward in order to prevent measurement errors.

Checking the calibration

→ Touch the "START" field.

  ↳ The cooking chamber is heated up to 100°C.

  ↳ Display of the current temperature on the touch screen.

→ Wait until the cooking chamber temperature indicates 100°C (± 1°C).

  ↳ Compare displayed cooking chamber temperature with temperature of external measurement device.

  ↳ The external measurement device for the cooking chamber 1 top must display a temperature between 99°C – 99.5°C.

→ Touch the "Cooking chamber 1" field

  ↳ Switch to cooking chamber 2 bottom

  ↳ The field changes to "Cooking chamber 2"

  ↳ The external measurement device must display a temperature between 99°C – 99.5°C.

→ If the values are within the range, end checking.

  ↳ Touch the "STOP" field.

→ If one of the values is outside of the range, calibration must be done.

  ↳ Continue with calibration (see „ Calibrating the cooking chamber sensor - pedestal unit 20.x", Page 27).

Calibrate cooking chamber sensor

Calibrating the cooking chamber sensor - tabletop unit 6.x / 10.x

Prerequisite
→ Execute *Check calibration* and do not switch appliance off.
↳ Temperature display on the touch screen indicates 100 °C (212 °F).

Calibration
→ Adjust offset value by adjusting the roller.
↳ Let 10 minutes adjustment time elapse.
↳ The external measurement device must display a temperature between 99 °C (210,2 °F) – 99,5 °C (211,1 °F).
→ If necessary, adjust offset value again.
↳ Let 10 minutes adjustment time elapse.
→ If the value is within the range, save calibration.

Saving the calibration
→ Touch "Save offset" field.
↳ Saving of set value.

Canceling the calibration
→ Touch the "STOP" field.
↳ The calibration ends.

Exiting the calibration
Touch the *Back* field.

Storing the calibration on SD card
→ Also save data on internal SD card.

Calibrating the cooking chamber sensor - pedestal unit 20.x

INFORMATION
Two-chamber appliances (20.x) are equipped with two cooking chamber sensors.

Separation of the two chambers required

INFORMATION
A separation into two regions (chambers) is required for temperature measurements. This can be achieved, for instance, by placing a baking sheet on the middle shelf of the tray trolley.

Prerequisite
→ Execute *Check calibration* and do not switch appliance off.
↳ Cooking chamber 1 and cooking chamber 2 indicate 100°C.

Calibration
→ Adjust offset value by adjusting the roller.
→ Change between the values of the top and bottom chamber with the field "Cooking chamber 1" / "Cooking chamber 2"
↳ Let 10 minutes adjustment time elapse.
↳ The external measurement devices must display a temperature between 99°C – 99.5°C.
→ If necessary, adjust offset again.
↳ Let 10 minutes adjustment time elapse.
→ If the value is within the range, save calibration.

Saving the calibration	→ Touch "Save offset" field. ↳ Saving of set value. ↳ Automatic calibration of core temperature sensor.
Canceling the calibration	→ Touch the "STOP" field. ↳ The calibration ends.
Exiting the calibration	→ Tap the field *Back* .
Storing the calibration on SD card	→ Save data additionally on internal SD card.

6.8 DynaSteam test

Description

INFORMATION

Dual-chamber units (20.x) have two DynaSteam steaming units with parallel control. The specified quantity of water refers to one chamber. Perform DynaSteam test for each chamber separately.

Description The DynaSteam test allows a function test of DynaSteam steaming. Calibration is not possible / necessary.

Prerequisite

→ Access to the water supply pipe in the cooking chamber.
  ↳ Left hooking-in point or tray trolley removed.
  ↳ Air baffle in the cooking chamber unlocked and unfolded.

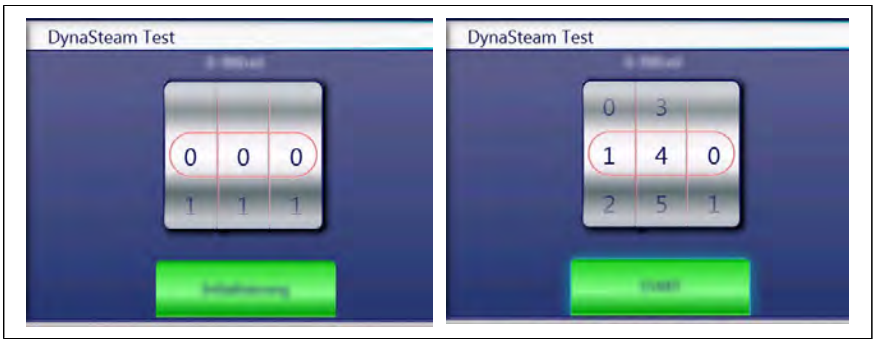
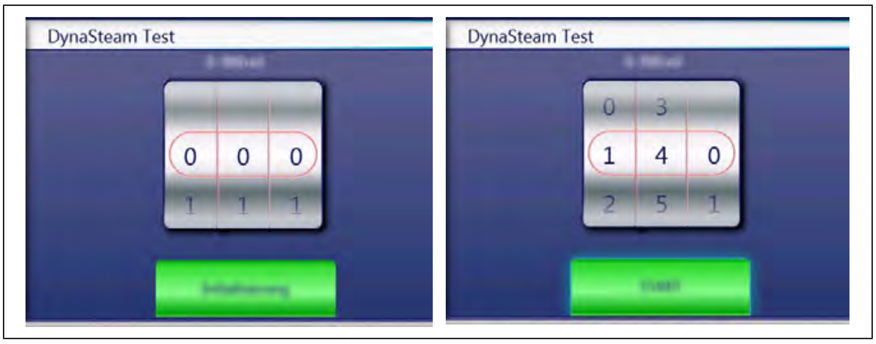


Image: Overview of DynaSteam test

Starting the test

Overview



Starting the test

→ Touch "Initialization" field.
  ↳ Automatic pre-rinse.
  ↳ Field changes to "START".
→ Set water quantity using the rollers.
→ Touch the "START" field.
  ↳ Activation of the DynaSteam steaming unit.
  ↳ The water comes runs from the water supply pipe into the cooking chamber.

Collect the water from the supply pipe with a measuring container.

→ Starting water test.

  ↳ After the predetermined amount of water has gone through, activation stops automatically.

↳ Compare amount of water with the set value. A deviation of +- 10% is within tolerance.

Check the water quantity

Collect the water from the supply pipe with a measuring container.

→ Starting water test.

  ↳ After the predetermined amount of water has gone through, activation stops automatically.

↳ Compare amount of water with the set value. A deviation of +- 10% is within tolerance.

6.9 Emptying the water

Description

Water drainage removes water residue from the unit to prevent frost damage during transport and idle period.

Prerequisite

→ Both water connections are connected to compressed air.

  ↳ The pressure may not exceed 6 bar.

→ The cooking chamber temperature is < 130°C.

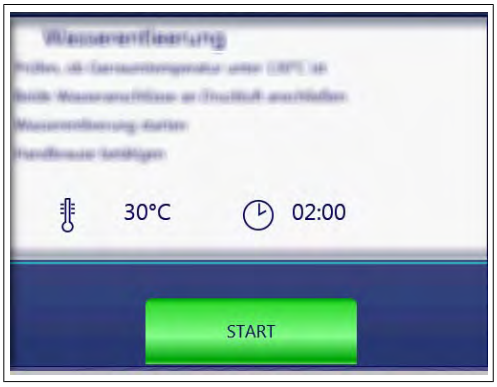


Image: Overview

Running a program

Start drain water

→ Touch the "START" field.

  ↳ Start of the automatic water drainage.

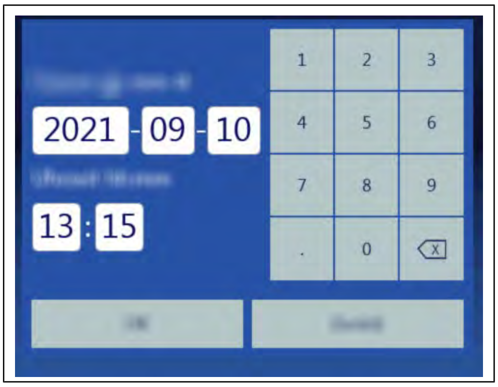
  ↳ Display of the cooking chamber temperature and remaining time.

Canceling the water drainage

→ Touch the "STOPP" field.

6.10 Data and time

→ Tap the value to be changed.
→ Use the number block to set the desired values by tapping.
→ Tap the "OK" field.
↳ Changes saved.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13 : 15

6.11 Setting the set-up height

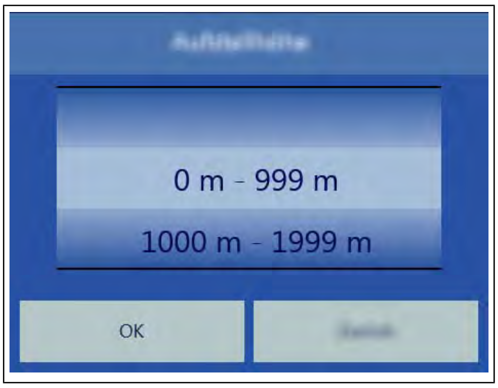


Image: Overview

Setting the set-up height
→ Set the set-up height by adjusting the rollers.
→ Tap the "OK" field.
↳ Changes saved.

Canceling the selection
→ Tap the "Back" field.

6.12 Audio settings

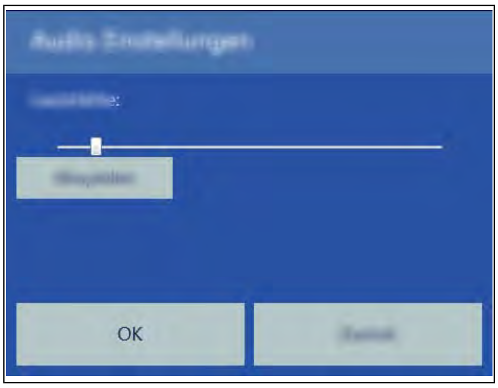


Image: Overview

Setting the volume

→ Use the slider to set the desired volume.
→ Tap the "OK" field.
↳ Changes saved.

Canceling the selection

→ Tap the "Back" field.

6.13 Select signal tones

Set signal tones

→ Set the profile by adjusting the rollers.
→ Tap the "OK" field.
↳ Changes saved.

Canceling the selection

→ Tap the "Back" field.

6.14 Log data export

Description

Log data export to an external USB flash drive. The function is only required after consultation.

Exporting log data

→ Perform according to instructions on the touchscreen.
→ Press the *Confirm* button.
↳ Log data export begins.

6.15 Software update

Description

→ Update of the software via the USB interface.

INFORMATION

Sounds, cookbooks, help texts and videos are not part of the software update. These require importing via "Importing additional content".

Performing the update

→ Perform according to instructions on the touchscreen and software description.

→ Tap the "OK" field.

  ↳ Update begins.

→ A confirmation then appears on the touchscreen.

6.16 Importing additional content

Description

Import of additional content (sounds, videos, graphics, help texts).

INFORMATION

Import is absolutely essential after the operating panel has been replaced.

Importing content

Import of the additional contents via the USB interface. See also chapter *Importing additional content*.

6.17 Restoring data

Description

Import function of parameters stored on the SD card.

INFORMATION

Importing is required after the operating panel or control board have been replaced.

Importing data

Prerequisite Service menu is displayed

→ Press the "Restore data" button.

→ Press the *Confirm* button.

  ↳ Restore data from the SD card.

  ↳ A confirmation then appears on the touchscreen.

→ Tap the "OK" button.

6.18 Backing up data

Description

Backup function for parameters (for example, customer settings, calibration values). Saving data on the internal SD card and USB stick (if plugged in).

Backing up data

Prerequisite Service menu is displayed

→ Tap the " Backup data" button.
→ Press the *Confirm* button.
  ↳ Backup data on the SD card.
  ↳ A confirmation then appears on the touchscreen.
→ Tap the "OK" button.

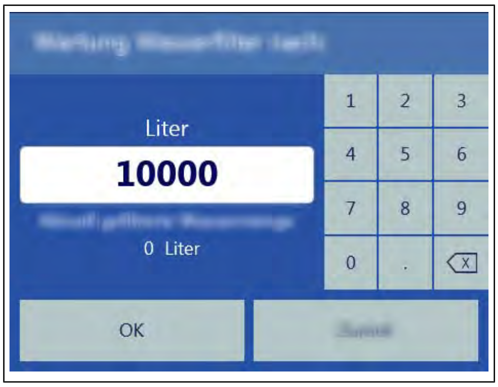
6.19 Water filter maintenance

Description

With use of a water filter on the soft water connection of the unit, a maintenance note may appear after the stored flow quantity has been reached.
For this, the appropriate filter capacity must be determined and entered.

Prerequisite

- The water filter supplies only one combi steamer.
- Only the soft water connection is connected to the filter.



Liter
10000
0 Liter

Image: Overview

Entering the water quantity

→ Use the number block to set the desired value.
→ Tap the "OK" button.
  ↳ Changes saved.

6.20 Importing contact data

Description

Import of service contact data. This data can be accessed by the operator under "Equipment information".

Preparing the data

Perform according to instructions on the touchscreen.

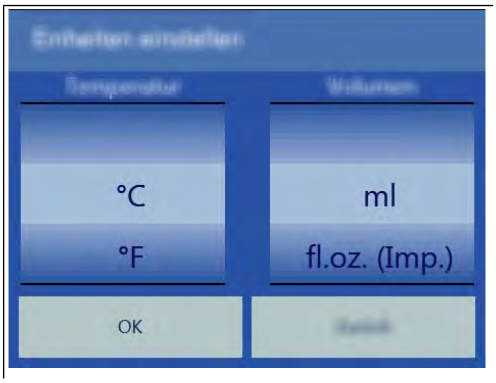
→ Create the file "ContactData.txt" with favorite text editor on the computer.
→ Open the file on the computer.
→ Enter contact data distributed over 6 text lines.
→ Save file on a USB flash drive. For this, create a folder with the name "Cooking_CODG2".
  ↳ The file must be saved in the folder "Cooking_CODG2".

Importing data

→ Perform according to instructions on the touchscreen.
→ Press the *Confirm* button.
  ↳ Import the created contact data.
  ↳ A confirmation then appears on the touchscreen.

6.21 Setting units

Overview



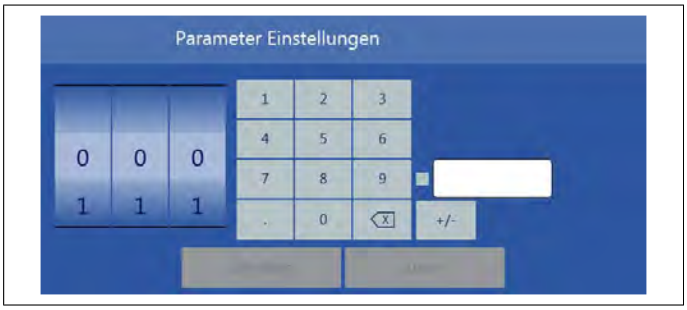
Changing values

1. Select the desired temperature and volume.
2. Tap the "OK" button.

6.22 Settings parameters

Description

→ Querying and setting additional parameters.



Selecting parameters

→ Selecting parameters by adjusting the caster.
→ Tap the "Read" button.
↳ Display of set parameters.

Changing parameters

→ Use the number block to set the desired value.
→ Tap the "Write" button.
↳ Changes saved.

Parameter overview

No.	Basic setting	Standard value	Adjustment range	Explanation
7	User menu password	111	0 - 300	Password for the user menu (basic settings)
16	Cooking chamber temperature offset		-9.9 - +9.9°K	Ability to retrieve the saved temperature offset values. The can also be changed and saved. The calibration function in the Service menu is used for calibration!
21	Core temperature offset, sensor 1		-9.9 - +9.9°K	
22	Core temperature offset, sensor 2		-9.9 - +9.9°K	
23	Core temperature offset, sensor 3		-9.9 - +9.9°K	
24	Core temperature offset, sensor 4		-9.9 - +9.9°K	
45	Generator mode	0	0 = Off 1 = On	Only when using generators on ships.
48	Steam elimination mode	1	0 = Low 1 = Normal 2 = High	"Low" setting: Minimum water consumption, but higher condensate temperature and greater steam volume. "High" setting: Maximum water consumption, but lower condensate temperature and smaller steam volume.
49	Controls the cooking chamber lamp when opening the cooking chamber door	0	0-60 seconds	
50	Controls the cooking chamber lamp when closing the cooking chamber door	0	0-60 seconds	

No.	Basic setting	Standard value	Adjustment range	Explanation
71	Recirculation hood control MagicHood / FlexiCombi Air	0	0 = Off 1= On	Activation required when retrofitting a hood. See also parameter 80
80	Activate additional board A3	0	0 = Off 1= On	Activation required when retrofitting a hood. See also parameter 71
92	Flashing of the cooking chamber light at the end of the program	1	0 = Off 1= On	
110	Activation of the power optimization system	0	0 = Off 1= On	Activate the ability to connect a power optimization system. Optional equipment feature.
602	Maximum power outage duration for a warm start	100 s	90 – 600 seconds	Time within which the cooking program will continue after interruption of the power supply.
607	Ready to Cook active	1	0 = Off 1 = On	With the value "0", Ready2Cook is permanently deactivated.
609	Interval for saving the temperatures in the HACCP log	120 s	1 – 180 seconds	
618	Ready to Cook – Finished message interval	60 s	0 – 300 seconds	Reminder interval after reaching the Ready2Cook temperature
624	SES status	1	0 = Off 1 = On	When the value is "0", the SES function is permanently deactivated.
625	Minimum duration of cooking program for SES	6 min.	4-6 minutes	If the overall duration of a cooking program is less than this value, the SES does not run.
655	Limitations for Arabic	0	0 = Off 1 = On	When the value is "1", no cooking programs for pork are displayed
662	Lock screen active	0	0 = Off 1 = On	Display of Lock Screen menu item
674	Auto-start	0	0 = No autostart 1= Direct favorites 2=Always	Automatic start of a cooking program after selection from AutoChef / Favorite
678	Scanner button available	1	0 = Hidden 1= Visible	Display of scanner function in the title bar.
695	PIN for operation lock	369	0 – 99999	
726	Cleaning reminder	1800	0 = Off 1800 = On	Activation / deactivation of the WaveClean cleaning reminder

6.23 Backing up the SD card

Description

Export the data from the internal SD card and external USB stick.

Backing up data

Perform according to instructions on the touchscreen.

→ Tap the *OK* button.

↳ Back-up of the data.

↳ A confirmation then appears on the touchscreen.

→ Tap the *OK* button.

6.24 Restoring the SD card

Description

Import the data from a backup of the SD card from a USB stick. Required after replacing the SD card.

Restoring data

Perform according to instructions on the touchscreen.

→ Press the *Confirm* button.

↳ Restoring of the data from the SD card.

→ Tap the "OK" button.

↳ Automatic restart of the software.

6.25 Background lighting

Changing the brightness of the touchscreen

1. Select the desired brightness.
2. Tap the "OK" field.

6.26 Hour meter

Description Display of hour meters, service life, cleaning use and consumption. The arrow keys in the upper region are used to switch between the pages.

This region is currently undergoing further development. At the moment, data backup is not yet possible.

6.27 Reset contamination

Description Manual reset of the WaveClean cleaning reminder if it is activated.

→ Tap the button *OK*.

↳ Reset performed

7 Status overview direct access

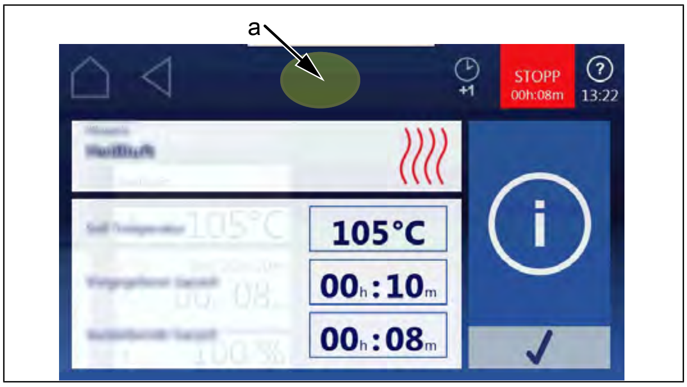
7.1 Description

Direct access allows display of all processes and temperatures during operation.

INFORMATION

The status overview is intended only for the service technician.

Overview



a Hidden field for access to status overview

7.2 Opening the status overview

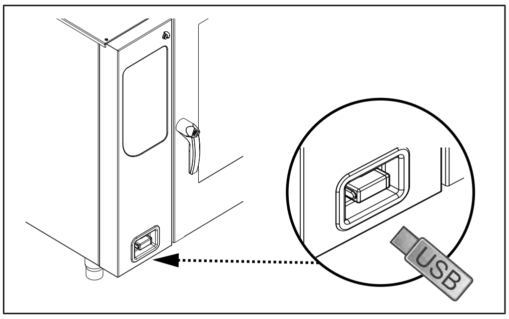
→ Tap the invisible field three times quickly.
  ↳ This changes the display to the status overview.

7.3 Exiting the status overview

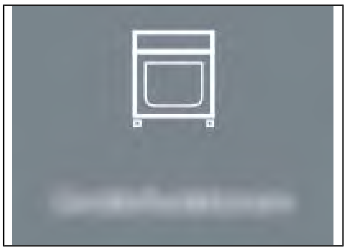
→ Tap the *Back* button.
  ↳ Change to the display of the cooking process.

8 Software

8.1 Overview



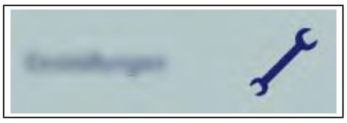
8.2 Opening the basic settings menu



→ Switch on the unit.

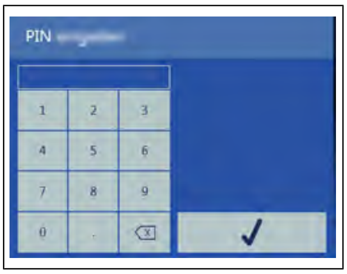
→ Tap the "Unit functions" field.

  ↳ Display of *Appliance functions* menu.



→ Tap the "Settings" field.

  ↳ Display of window "*PIN*".



→ Enter password and touch *Confirmation* field.

  ↳ The password for the Settings menu is **111**.

↳ Display of the basic settings menu.

8.3 Software update

Prerequisite

→ USB stick.

- ↳ Maximum size 64 GB.
- ↳ Formatting FAT (standard).
- ↳ The disk should be empty if possible.

→ Current software update.

- ↳ The update is provided as packed ZIP file.

Preparing the USB stick

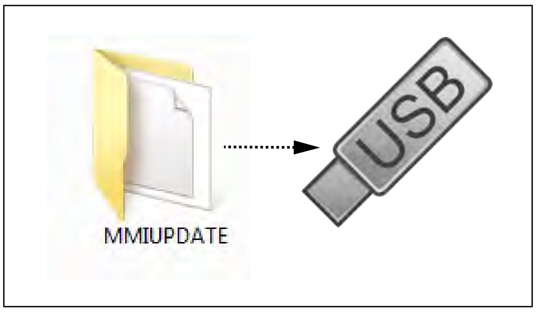
Prerequisite USB stick.

Maximum size 64 GB. Formatting FAT (default).

The disk should be empty if possible.

Current software update. The update is provided as packed ZIP file.

1. Open and download Zip file and unzip. In general, the unzipped folder is in the same directory as the previously compressed one.
2. Copy unzipped folder "MMIUpdate" to the USB stick.
   - ↳ The folder contains the update files
   - ↳ The files have the extensions ".sw2, .sw2n and .sw2s
   - ↳ For example "020327.sw2", "020327.sw2n" and "020327.sw2s" (software update V2.03).



Updating the software

1. Insert the USB stick
2. Switch the appliance on.
3. Tap the "Unit functions" field.
   - ↳ Display menu *Unit functions*.
4. Tap the "Unit settings" field.
   - ↳ Display window *PIN*.
5. Enter password "**1967**" and tap field *Confirm*.

↳ Display from service area

6. Select the "Software update" field in the left menu area by swiping.
7. Tap the "Software Update" field.

8. Tap the "OK" field.
   - ↳ The update begins.
   - ↳ Finally, a confirmation appears on the touchscreen.
9. Tap the "OK" field.
   - ↳ The software restarts automatically.

INFORMATION

The update can take up to 15 minutes. The software is restarted several times. Do not switch unit off.

INFORMATION

After the update, a blue screen may appear and the software does not start. In this case, switch the unit off and then back on. In rare cases, this may happen again.

INFORMATION

Sounds, cookbooks, help texts and videos are not part of the software update. For this purpose, the additional content must be imported.

8.4 Importing additional content

Description

Description The additional content includes the following files:

- Pictures for AutoChef
- Help information
- Sound files

Import of additional content (sounds, videos, graphics, help texts).

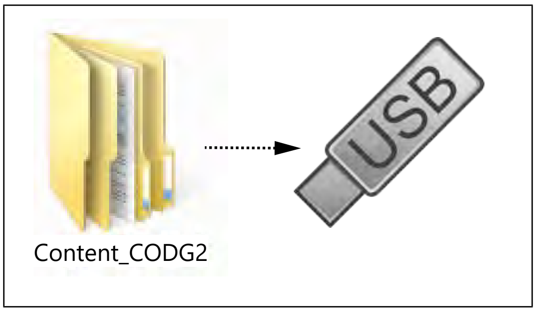
INFORMATION

Import is absolutely essential after the operating panel has been replaced.

Preparing the USB stick

Prerequisite USB stick.
Maximum size 64 GB. Formatting FAT (default).
The disk should be empty if possible.
Current additional content. The update is provided as packed ZIP file.

1. Open and download Zip file and unzip. In general, the unzipped folder is in the same directory as the previously compressed one.
2. Copy the unzipped folder "Content_CODG2" to the USB stick.
   - ↳ In the folder there are other subfolders. This may not be changed.



Importing additional content

1. Insert the USB stick
2. Switch the appliance on.
3. Tap the "Unit functions" field.
   ↳ Display menu *Unit functions*.
4. Tap the "Unit settings" field.
   ↳ Display window *PIN*.
5. Enter password "**1967**" and tap field *Confirm*.

↳ Display from service area

6. Select the "Import additional content" field in the left menu area by swiping.
7. Tap the "Import additional contents" field.
8. Tap the "OK" field.
   ↳ The data is imported.
   ↳ Finally, a confirmation appears on the touchscreen.
9. Tap the "OK" field.

8.5 Importing the manufacturer's cookbook

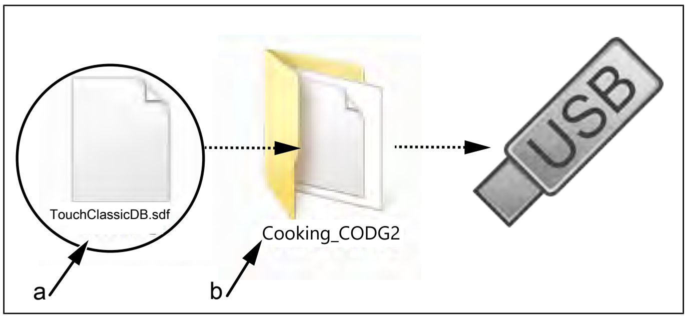
Preparing the USB stick

→ Create the folder "Cooking_CODG2" on the USB stick.

→ Copy the update file to the "Cooking_CODG2" folder.

↳ The update consists of one file.

↳ The file has the wording "TouchClassicDB.sdf."



a Update file

b Cooking_CODG2 folder

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Importing a cookbook

→ Insert USB stick
→ Tap the "Import manufacturer cookbook" field.
→ Tap the "OK" field.
  ↳ The data is imported.
  ↳ Finally, a confirmation appears on the touchscreen.
→ Tap the "OK" field.
→ Perform unit restart via key *On Off*.

9 Trade show mode

9.1 Description

Trade show mode allows appliance operation for demonstration purposes.

9.2 Connecting the unit

A single-phase power supply is required for operation.

→ Appliance is connected on L1 and N.
    ↳ See also installation instructions.

9.3 Opening the unit functions

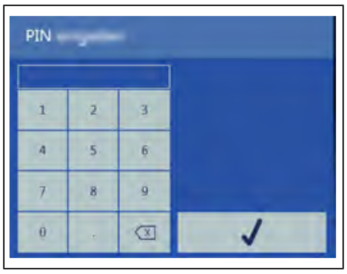
→ Connecting the unit
→ Tap the "Unit functions" field.
    ↳ Display of *Appliance functions* menu.

9.4 Switching the trade show mode on/off

Description Trade show mode allows appliance operation for demonstration purposes.

Prerequisite Menu *Unit functions* opened

→ Tap the "Unit settings" field.
    ↳ Display window *PIN*.



→ Enter the password **888** and tap the *confirmation* button.
    ↳ Display of menu *Trade show mode*.

Switching trade show mode on

→ Touch the "Trade show mode is off" field.
    ↳ Restart the unit with the switch *On/Off*.
    ↳ Unit is in trade show mode

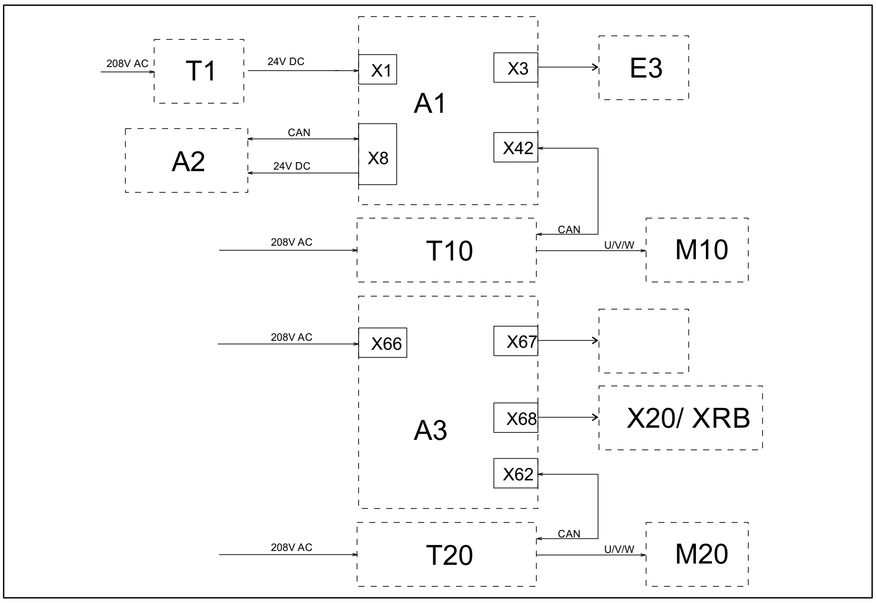
↳ The active trade show mode is indicated on the screen.

Switching off trade show mode

→ Call up the menu *Trade show mode*.
→ Tap the "Trade show mode is on" field.
    ↳ Restart the unit with the switch *On/Off*.
    ↳ Appliance is normal operation.

10 Electronics

10.1 Overview

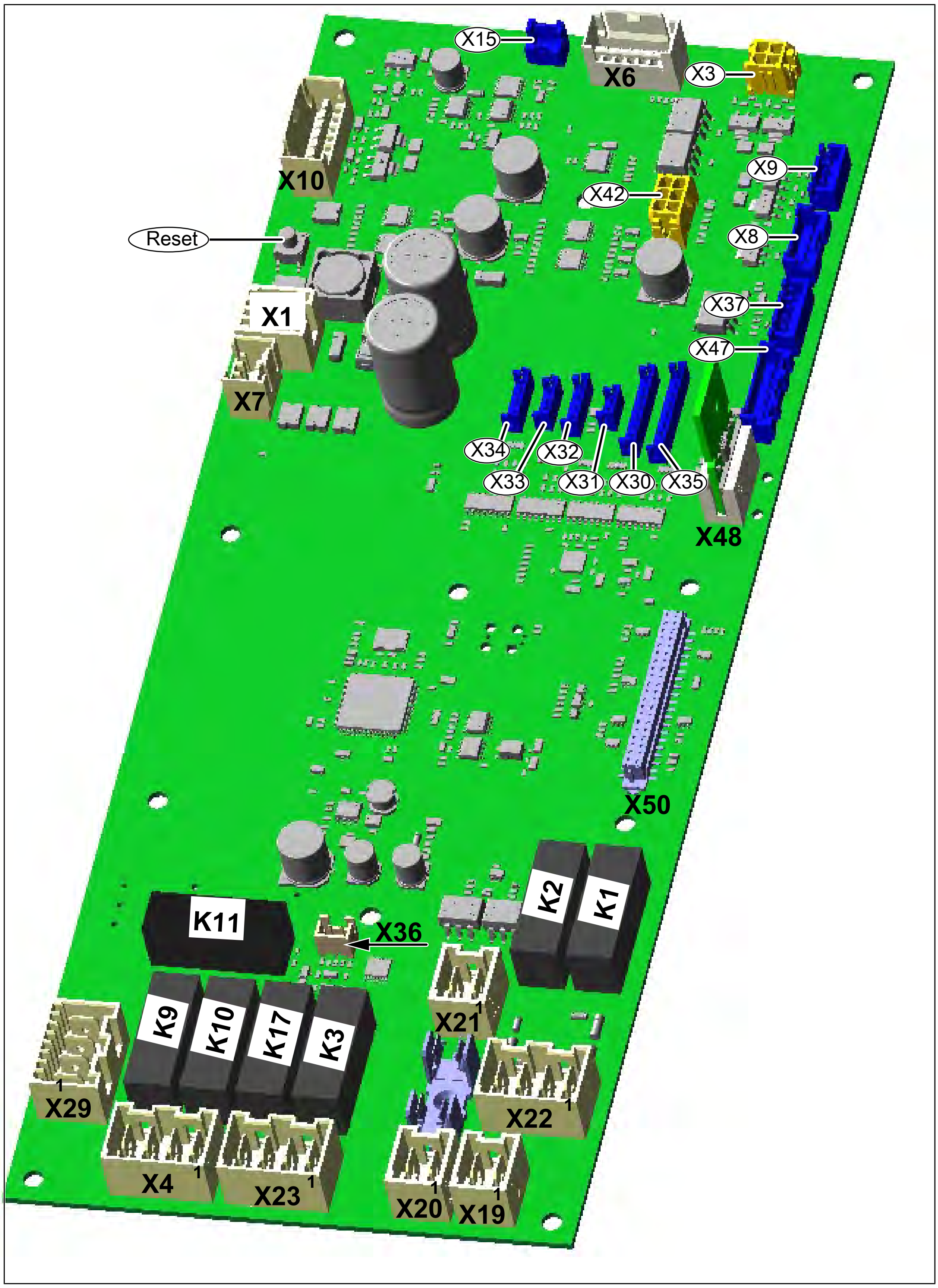


Legend

A1	Control board	A2	Operating unit
A3	Additional circuit board	E3	LED illumination
M10	(Upper) fan motor	M20	Lower fan motor (215, 221 only)
T1	Power pack	T10	(Upper) power board for motor M10
T10	Lower power board for motor M20 (215, 221 only)	X20	Condensation hood (option)
XRB	Smoker box (option)		

10.2 Control board

Layout



FM06-065A

Configuration

Reset button The Reset button resets the e-fuse (electronic fuse)

Connector X1 (24V DC)

No.	Description
1	Power supply I/O board 24 V+ DC
2	Power supply I/O board 24 V- DC

Connector X3 (24V DC)

No.	Description
1/2	Power supply for left light
3/4	Power supply for right light

Connector X4 (208V AC)

No.	Description
1/2	Solenoid valve K12 (water vapor elimination)

Connector X6 (24V DC)

No.	Description
4/5	Lift magnet M8

Connector X7 (24V DC)

No.	Description
1/2	On/Off switch S0

Connector X8

No.	Description
1/2	Operating unit supply 24 V DC
3-5	CAN communication operating unit

Connector X9

No.	Description
1/2	Energizing of SSR
3/4	Energizing of SSR

Connector X10 (24V DC)

No.	Description
2/3	Pressure switch B14
4	Steaming unit valve 2
5	Steaming unit valve 2
6	Steaming unit valve 1
7	Steaming unit valve 1

Connector X19 (208V AC)

No.	Description
1/2	Main contactor Q1

Connector X20 (208V AC)

No.	Description
1	Input voltage 230 V AC
2	Input voltage N (neutral)

Connector X21

No.	Description
1	Safety temperature limiter B11/ B12 (input)
2	Safety temperature limiter B11/ B12 (output)

Connector X23 (208V AC)

No.	Description
1/2	Siphon pump G24
3/4	WaveClean pump G16

Connector X29 (208V AC)

No.	Description
1/2	Cooling fan G7
3/4	Cooling fan G8. Only for 215, 221 pedestal units

Connector X30

No.	Description
1-5	B1 core temperature sensor

Connector X31

No.	Description
1/2	B2 Cooking cabinet sensor (for 215, 221 upper chamber)

Connector X32

No.	Description
1/2	B3 Cooking cabinet sensor (only for 215, 221, lower chamber)

Connector X33

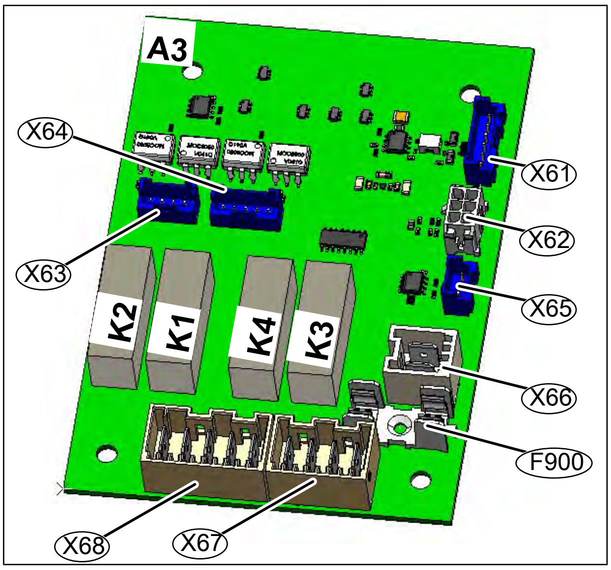
No.	Description
1/2	B4 Vapor sensor

Connector X36	Reed contact switch for cooking chamber door B15
Connector X42	CAN communication to motor power board T10 (for 215, 221 for upper motor)
Connector X48	Configuration memory
Connector X50	Slot for optional board A3
Connector X62	CAN communication to motor power board T20 (for 215, 221 for upper motor) (only 215, 221 pedestal units)

10.3 Additional circuit board

Layout

The additional circuit board is present only on units with the MagicHood exhaust hood.



Configuration

Connector X62 CAN communication to motor power board T20 (only for 215, 221 for lower motor)

Connector X66

No.	Description
1	Input voltage 230 V AC
2	Input voltage N (neutral)

Plug X67 (230V AC) - Only for units with grease collection system

No.	Description
1/2	Grease pump G40
3/4	Magnetic valve K41

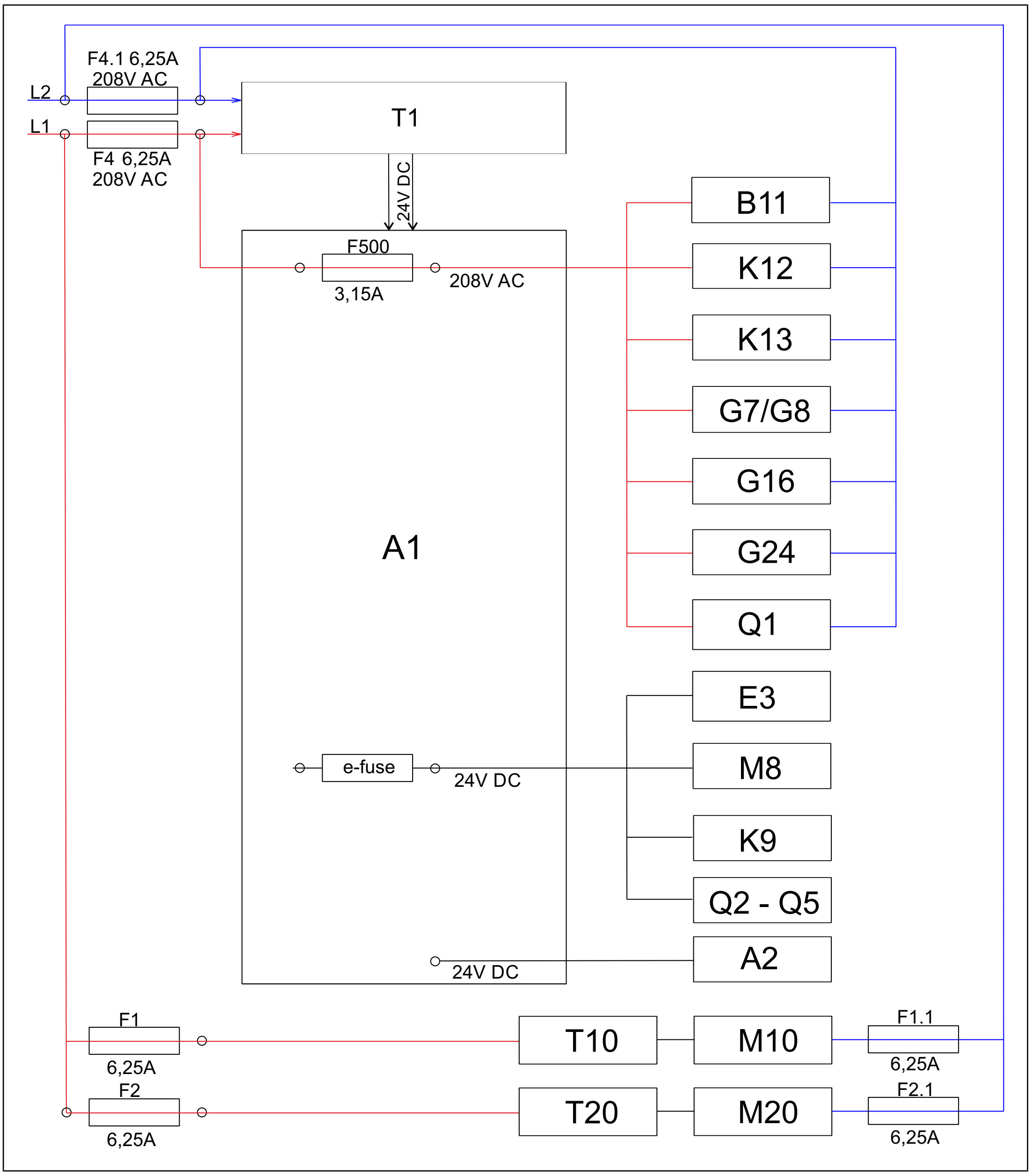
Plug X68 (potential-free) - Only for units with hood or smoker box

No.	Description
4	Hood, X20 or smoke box cable
5	Hood, X20 or smoke box cable

Fuse F900 Not used

10.4 Safety overview

Overview



Legend

Legend

A1	Control board	A2	Operating panel
B11	(Upper) cooking chamber STL	B12	Lower cooking chamber STL (only 215, 221)
E3	Cooking chamber light	F	Fuse
G7	Cooling fan	G8	Cooling fan (215, 221 only)
G16	WaveClean pump	G24	Siphon pump
M8	Lift magnet	K12	Magnetic valve extinguishing

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M10	(Upper) fan motor	M20	Lower fan motor (only 215,221)
Q1	Main contactor	Q2 – Q5	Solid state relay
T1	Power pack	T10	Upper) electronic ignition
T20	Lower power board (only 215,221)		

11 Grease collection system

11.1 Description of operation

Grease collection system

The grease collection system must be activated for each cooking step as required. During a cooking step with activated grease collection system, the fat pump is switched on in intervals. The intervals as well as the duty cycle are controlled by fixed software parameters.

The function is only available in the combi steaming and convection modes.

Automatic flushing

During the WaveClean automatic cleaning program, the grease collection system is also rinsed.

The hose to the collection container is not rinsed in the process. The intervals as well as the duty cycle are controlled by fixed software parameters.

11.2 Component overview grease collection system

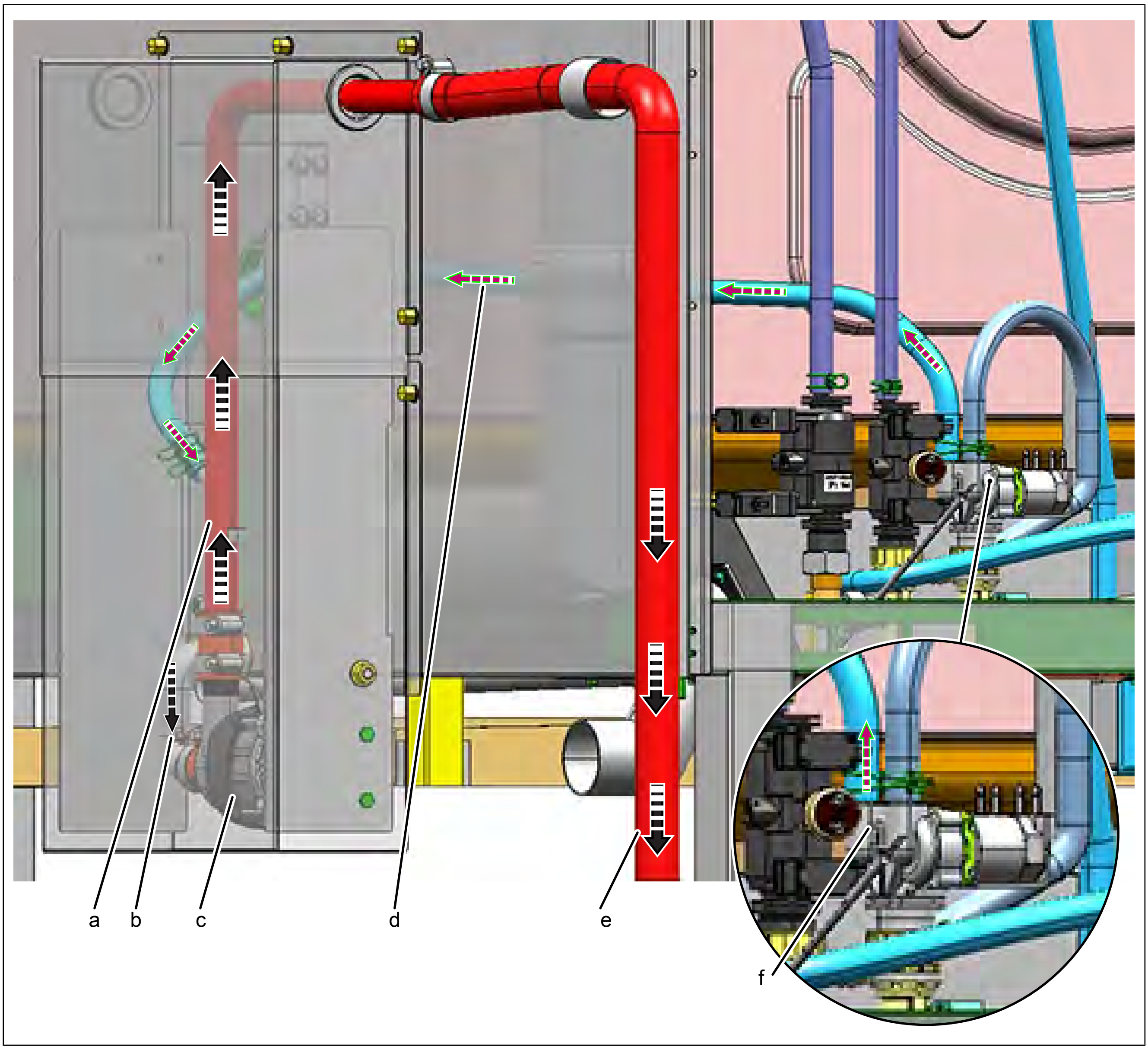


Image: Overview of grease drain system

a	Pipe	b	Grease drain from the siphon box to the grease pump
c	Grease pump with condenser	d	Water hose for flushing grease drain system
e	Grease drain hose	f	Double solenoid valve

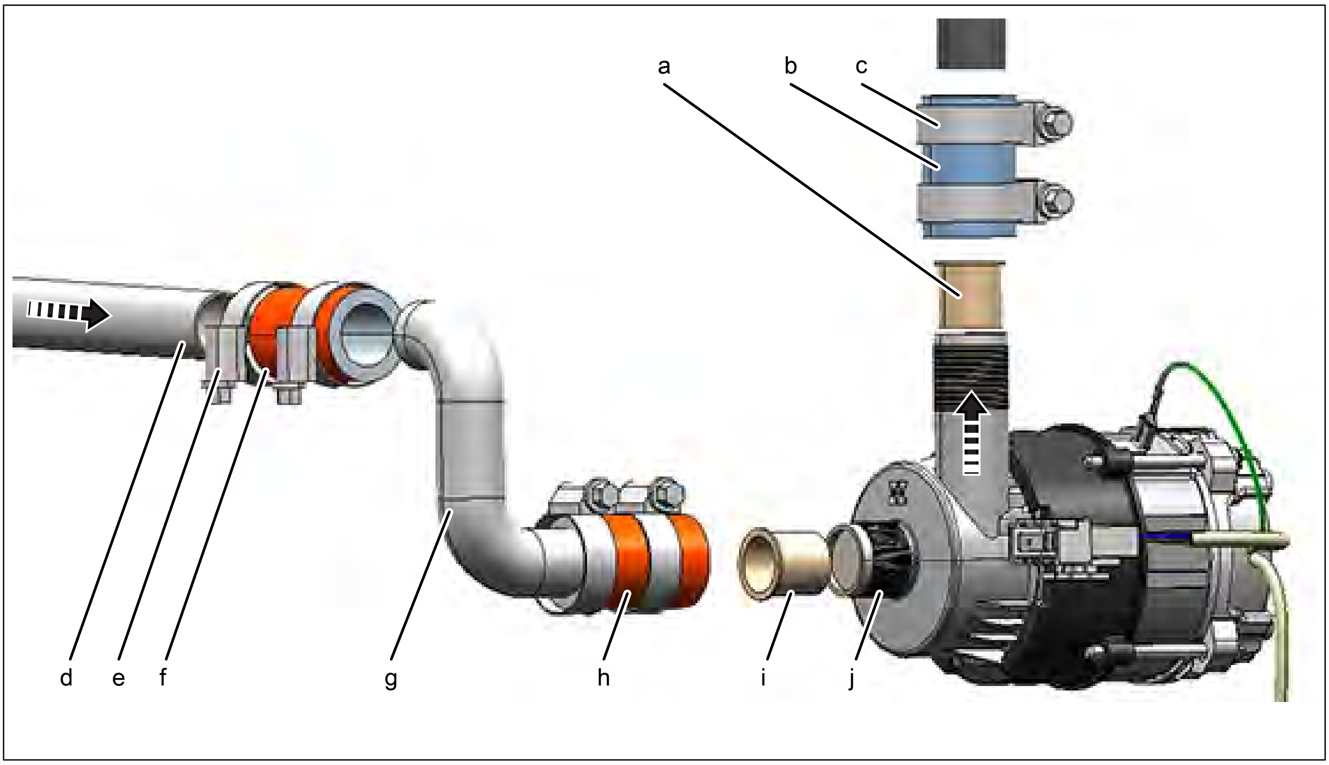
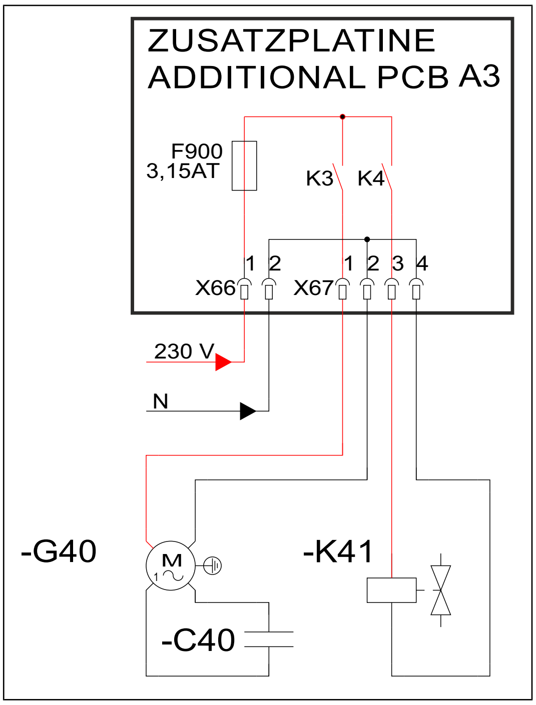


Image: Overview grease pump

a	Reduction, 10030670	b	Hose 20 x 5 x 45 mm, 10031483
c	Hose clamp, 10012751	d	Supply line from siphon box
e	Hose clamp, 10012751	f	Hose 20 x 5 x 45 mm, 10031483
g	Pipe bend, 10031306	h	Hose 20 x 5 x 45 mm, 10031483
i	Reduction, 10030670	j	Grease pump 230V, 10029938

11.3 Circuit diagram overview grease collection system



A3	Additional circuit board, 10019107	C40	Capacitor, 10031308
F900	Fuse, 3.15 A, 203472	G40	Grease pump 230V, 10029938
K41	Solenoid valve 230V, 10030668		

Control of the grease pump

→ Relay K3 on circuit board A3 controls the grease pump G40.

↳ Grease pump G40 is switched on.

Control solenoid valve for flushing grease drain incl. grease pump

→ Relay K4 on circuit board A3 controls solenoid valve K41.

↳ Solenoid valve K41 is switched on.

11.4 Cleaning and maintenance

Clean grease collection system

Prerequisite Cooking program has ended

→ Detach the grease drain hose from the grease collector.

→ Connect grease drain hose to existing water hose.

→ Flush the system for approx. one minute.

↳ Cleaning is complete.

→ Disconnect the water hose from the grease drain hose.

Function test grease separator

→ Detach the grease drain hose from the grease collector.

→ Mount the backflush fitting on the grease drain hose.

→ Open the cooking chamber door.
→ Remove horde car
→ Spray water into the cooking chamber with the hand shower for at least 30 seconds.
→ Call up the relay test in the service menu.
→ Activate relay X67/K3. The grease pump switches on.

↳ Water/grease is pumped into the collection container = pump system in order.

↳ Water/grease is not pumped into the collection container = carry out troubleshooting.

Tap "X67/K3" to exit.

Function test Automatic flushing

Prerequisite

→ Detach the grease drain hose from the grease collector.
→ Mount the backflush fitting on the grease drain hose.
→ Open the cooking chamber door.
→ Remove horde car
→ Call up the relay test in the service menu.
→ Activate relay X67/K4.

    ↳ Solenoid valve K41 for flushing is switched on.

→ After approx. 30 seconds, additionally activate relay X67/K3.

↳ Water is pumped into the collection tank = solenoid valve OK.

↳ Water and occasional lumps of grease are pumped into the drip tray = clean the grease drainage system. Then repeat the test.

↳ Water is not pumped into the collection container = carry out troubleshooting.

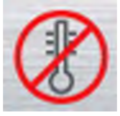
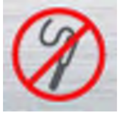
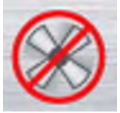
→ Tap "X67/K3" and "X67/K4" to exit.

12 Fault messages & troubleshooting

12.1 Symbols for errors

For some errors, an additional symbol appears in the title bar.

If the exact error is not known, switch the unit off and then back on. In the event of an error, the exact error will appear in the display.

Display on the left touchscreen	Description
	Cooking sensor defective. Unit in emergency mode Emergency operation.
	Core temperature sensor defective,
	Fan fault. Operation no longer possible. Switch the unit off and then back on.

12.2 Emergency operation

Description

Description In order to allows limited use in case of error, the appliance has various emergency programs. Emergency operation is activated automatically and displayed. After elimination of the error indicated, the controller switches back into regular operation automatically. A reset is not necessary.

INFORMATION

Emergency programs handle the limited further operation of the appliance until servicing. Deviating cooking results and temperature deviations are possible.

Overview

Error	Description
Upper chamber sensor faulty.	Measurement of the cooking chamber temperature is done exclusively by the bottom cooking chamber sensor.
Lower chamber sensor faulty.	Measurement of the cooking chamber temperature is done exclusively by the top cooking chamber sensor.
Vapour sensor defective	The software controls the water vapor elimination. This results in higher water consumption.
Internal core temperature sensor faulty. Cooking program was canceled. Cooking program can be restarted after changing to external core temperature sensor.	The core temperature sensor is deactivated.
External core temperature sensor faulty. Cooking program was canceled. Cooking program can be restarted after changing to internal core temperature sensor.	

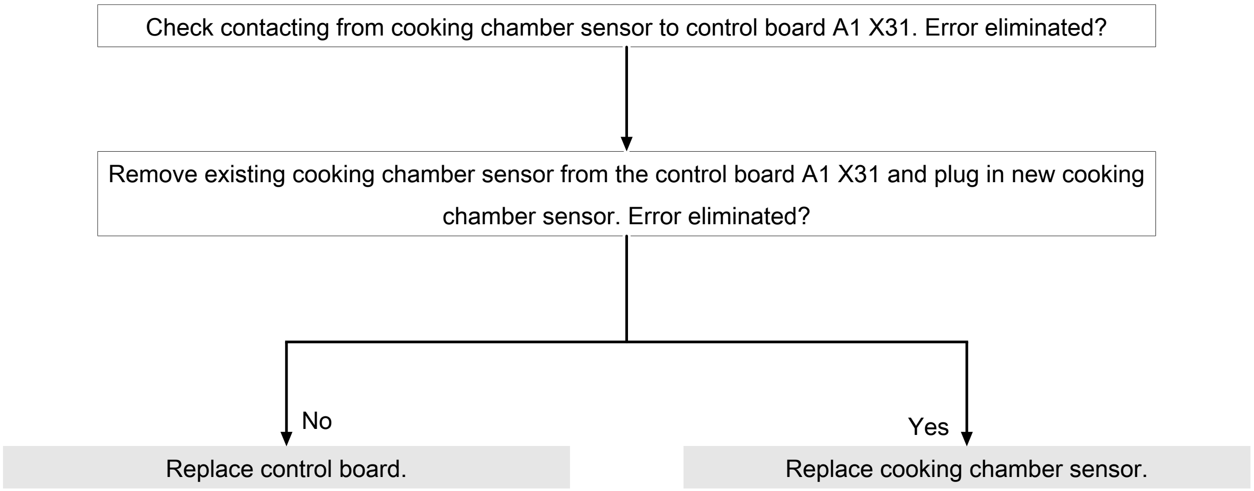
12.3 Temperature sensor area

Cooking chamber sensor faulty (694,695)

Description

Emergency operation is activated automatically and displayed. The core temperature sensor takes over the function of the cooking chamber sensor. Cooking program with core temperature sensor is no longer available.

Troubleshooting



Check contacting from cooking chamber sensor to control board A1 X31. Error eliminated?

Remove existing cooking chamber sensor from the control board A1 X31 and plug in new cooking chamber sensor. Error eliminated?

No: Replace control board.

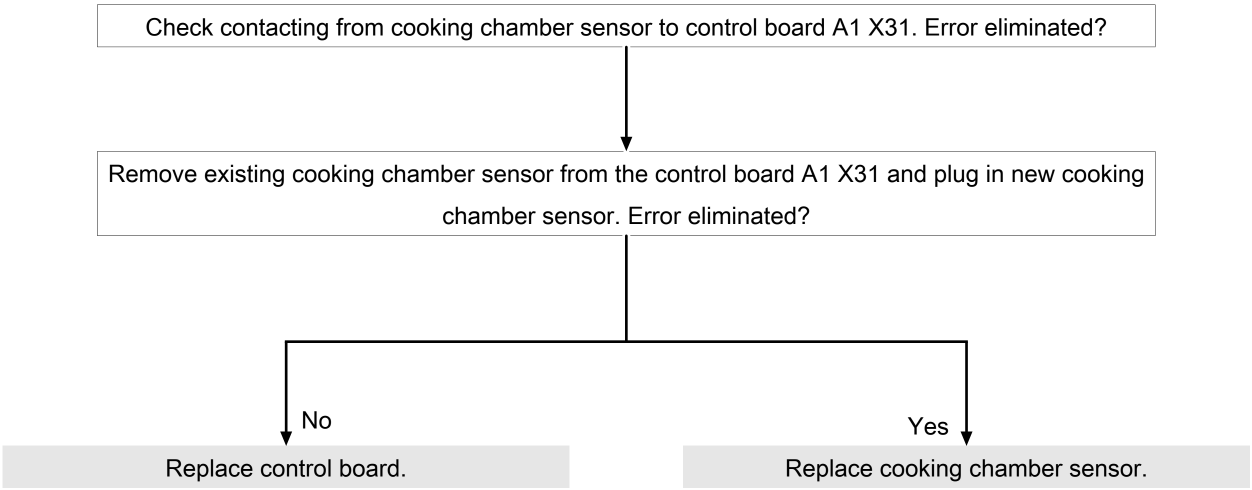
Yes: Replace cooking chamber sensor.

Upper cooking chamber sensor faulty (696, 728)

Description

Emergency operation is activated automatically and displayed. Measurement of the cooking chamber temperature is done exclusively by the bottom cooking chamber sensor.

Troubleshooting



Check contacting from cooking chamber sensor to control board A1 X31. Error eliminated?

Remove existing cooking chamber sensor from the control board A1 X31 and plug in new cooking chamber sensor. Error eliminated?

No: Replace control board.

Yes: Replace cooking chamber sensor.

Lower cooking chamber sensor faulty (697, 729)

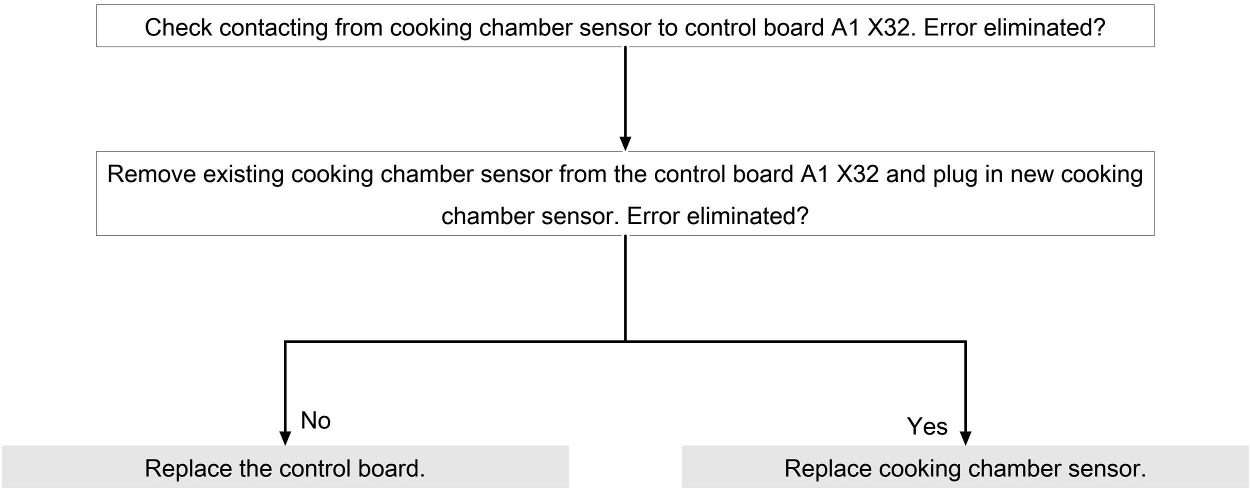
Description

Emergency operation is activated automatically and displayed. Measurement of the cooking chamber temperature is done exclusively by the top cooking chamber sensor.

INFORMATION

Note the connection on the control board. The cooking cabinet sensor is plugged into X32 in the upper area (1, 2).

Troubleshooting



Check contacting from cooking chamber sensor to control board A1 X32. Error eliminated?

Remove existing cooking chamber sensor from the control board A1 X32 and plug in new cooking chamber sensor. Error eliminated?

No: Replace the control board.

Yes: Replace cooking chamber sensor.

Alternatively, disconnect top cooking chamber sensor from A1 X31 for test purposes and connect to A1 X32 to see if the error "migrates".

Core temperature sensor fault (699, 700)

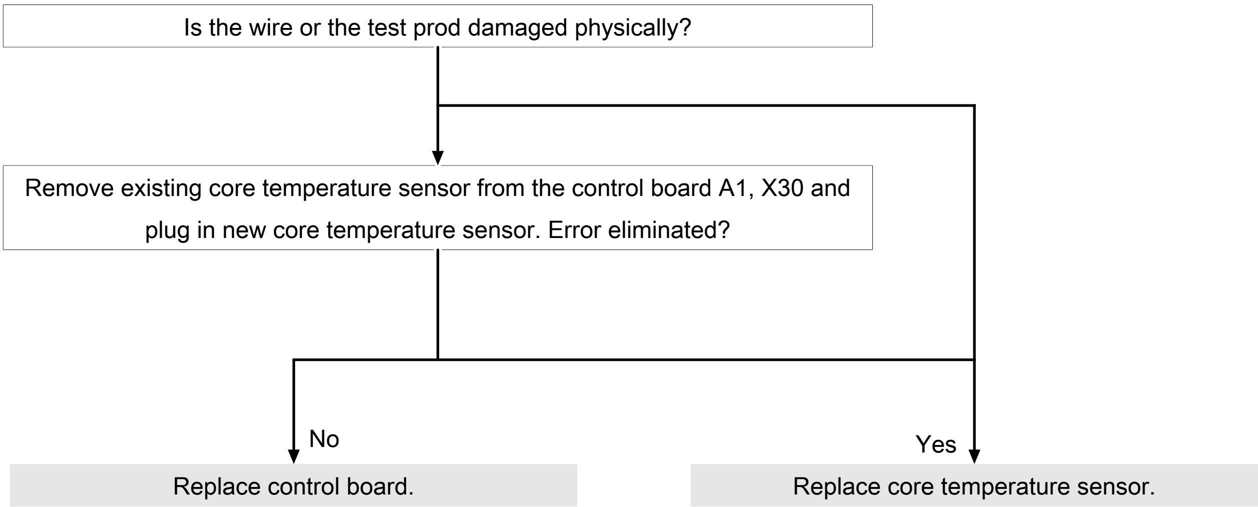
Description

The core temperature function is no longer available.

INFORMATION

Note the connection on the control board. The cooking cabinet sensor is plugged into X30 in the upper area (1-4).

Troubleshooting



Is the wire or the test prod damaged physically?

Remove existing core temperature sensor from the control board A1, X30 and plug in new core temperature sensor. Error eliminated?

Replace control board.

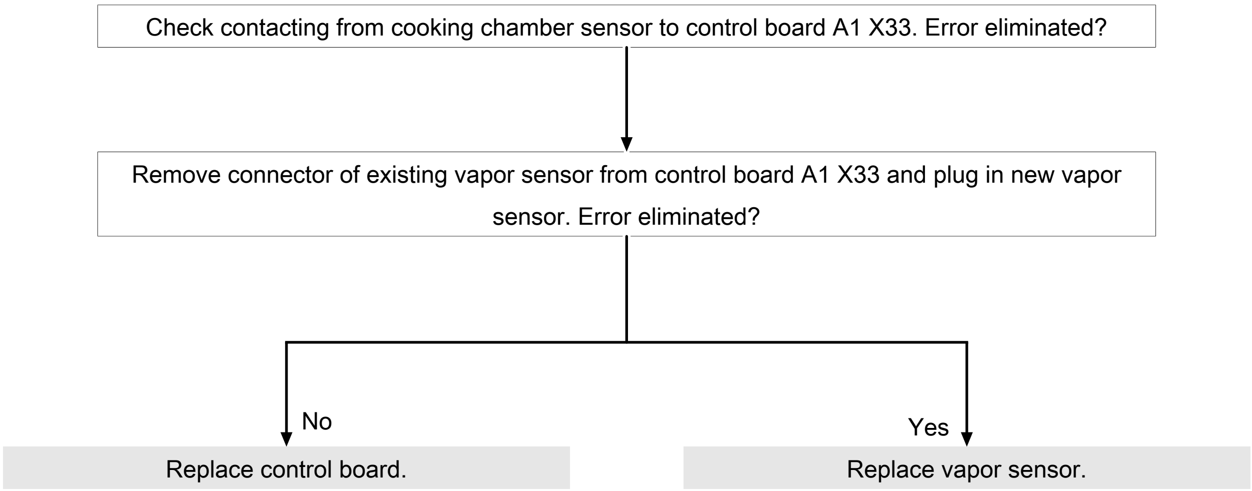
Replace core temperature sensor.

Vapour sensor fault (710)

Description

In the event of an error, emergency operation is activated and displayed automatically. The software controls steam elimination. In this case, increased water consumption may result.

Troubleshooting


Check contacting from cooking chamber sensor to control board A1 X33. Error eliminated?
Remove connector of existing vapor sensor from control board A1 X33 and plug in new vapor sensor. Error eliminated?
No
Yes
Replace control board.
Replace vapor sensor.

Risk of frost (TMP_ID72, MMI_ID51)

Description

The unit is not ready for use. The temperature sensor on the control board is measuring a temperature of <0°C.

Troubleshooting

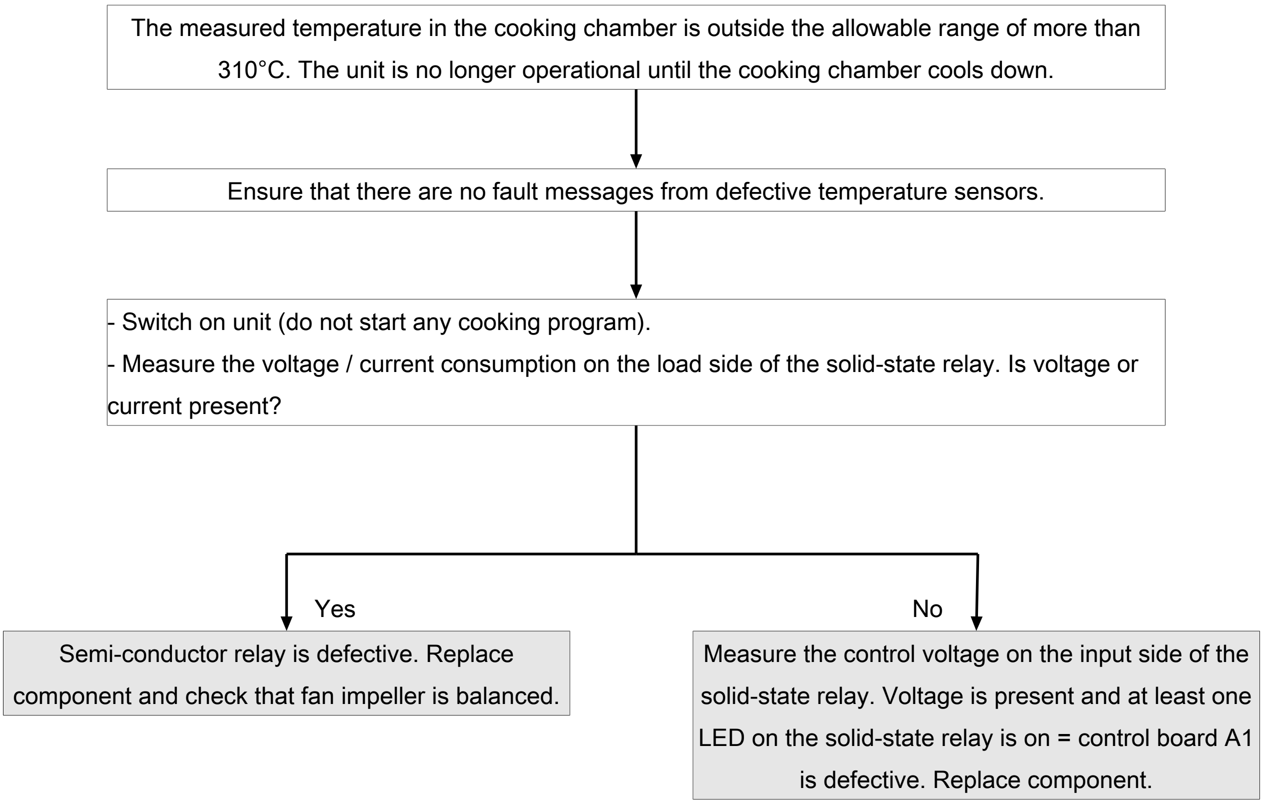
→ Increase the room temperature and switch on unit again.
→ Change location of the unit.

Cooking chamber temperature too high (ID18, ID73)

Description

The measured temperature in the cooking chamber is outside the allowable range of more than 310°C. The unit is no longer operational until the cooking chamber cools down. The measurement is taken by the cooking chamber sensor and core temperature sensor.

Troubleshooting



The measured temperature in the cooking chamber is outside the allowable range of more than 310°C. The unit is no longer operational until the cooking chamber cools down.

Ensure that there are no fault messages from defective temperature sensors.

- Switch on unit (do not start any cooking program).
- Measure the voltage / current consumption on the load side of the solid-state relay. Is voltage or current present?

Yes

Semi-conductor relay is defective. Replace component and check that fan impeller is balanced.

No

Measure the control voltage on the input side of the solid-state relay. Voltage is present and at least one LED on the solid-state relay is on = control board A1 is defective. Replace component.

12.4 Motor area

⚠ DANGER

Warning: electric shock! Danger of death!

When working on the power board, make sure that energized parts are exposed. Work on these components during operation and up to 3 minutes after enabling is not allows. Even if the motor is stopped and the appliance is de-energized, the connection terminals and components can conducted dangerous voltage!

Overview

Tabletop unit 615, 621, 115, 121

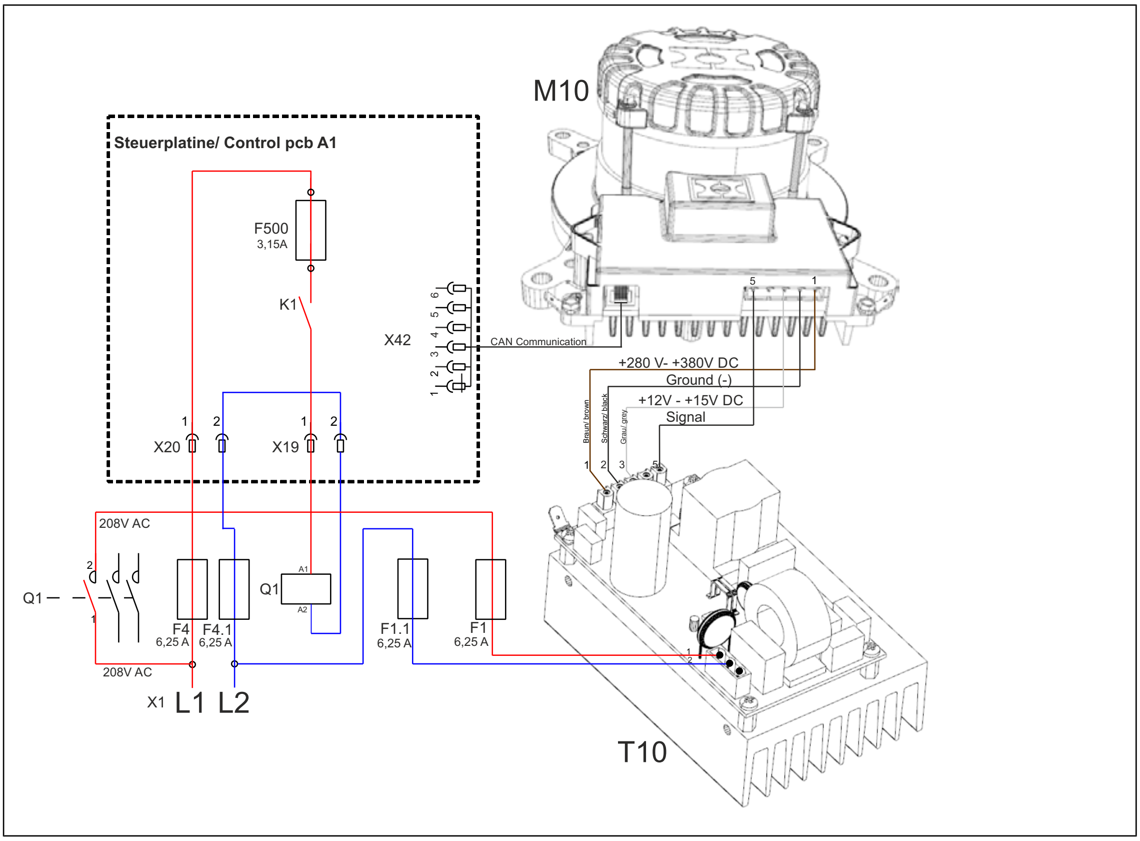


Image: Motor system 615,620,115, 120 Tabletop unit

A1	Control board	F	Fuse, 6.25 A slow-blow
F 500	Fuse on control board, 3.15 A, slow-blow	K1	Relay on control board A1
M10	Fan motor	T10	Power supply unit for motor
Q1	Contactor		

Pedestal unit 215, 221

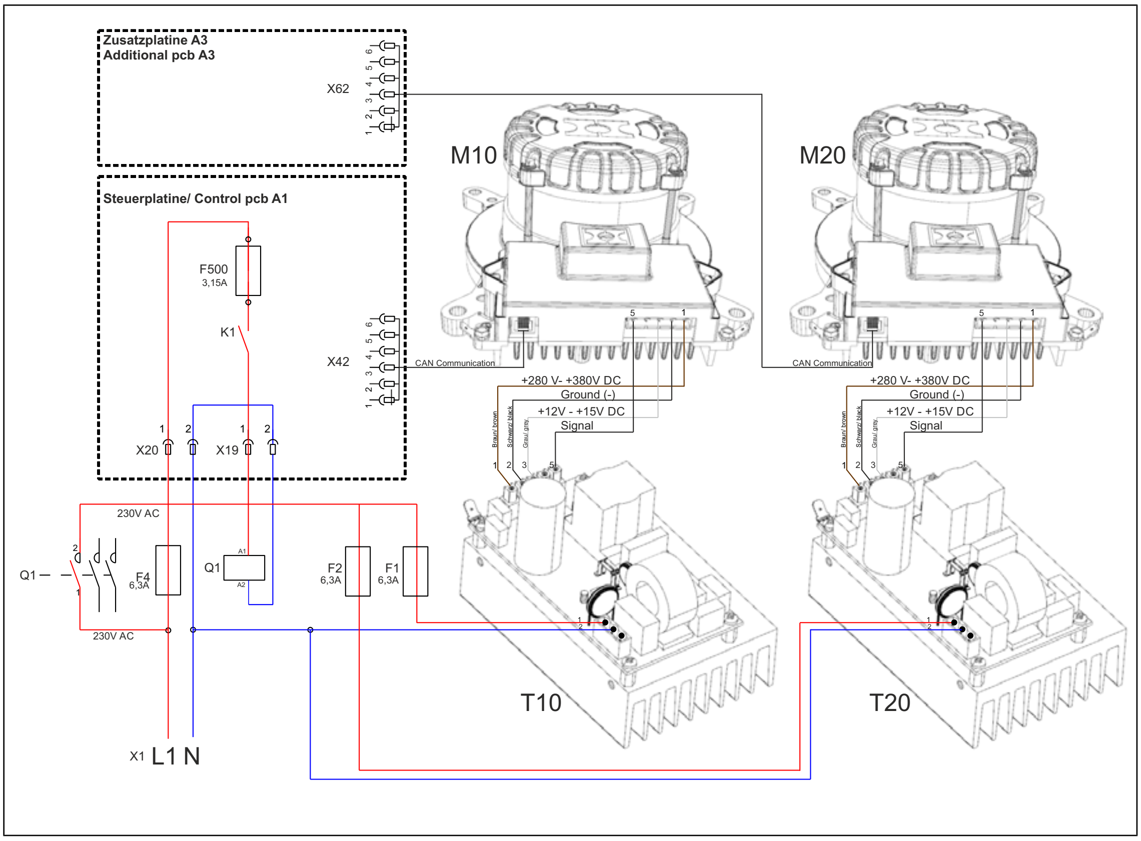


Image: Motor system 215, 221 Floor-standing appliance

A1	Control board	A 3	Additional circuit board
F	Fuse, 6.25 A slow-blow	F500	Fuse on control board, 3.15 A, slow-blow
K1	Relay on control board A1	M10	Fan motor (top)
M20	Fan motor (bottom)	T10	Power supply unit for motor (top)
T20	Power supply unit for motor (bottom)	Q1	Contactor

Safety limiter triggered (1480, MMI_ID80)

Description

There is a response from the safety circuit on the control board.

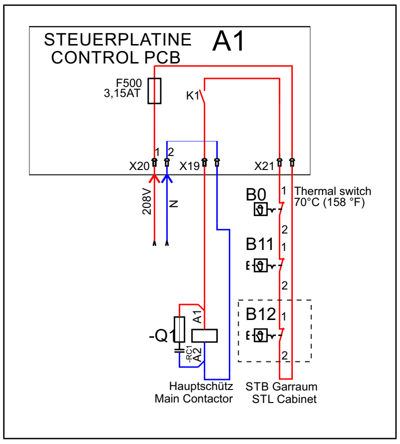
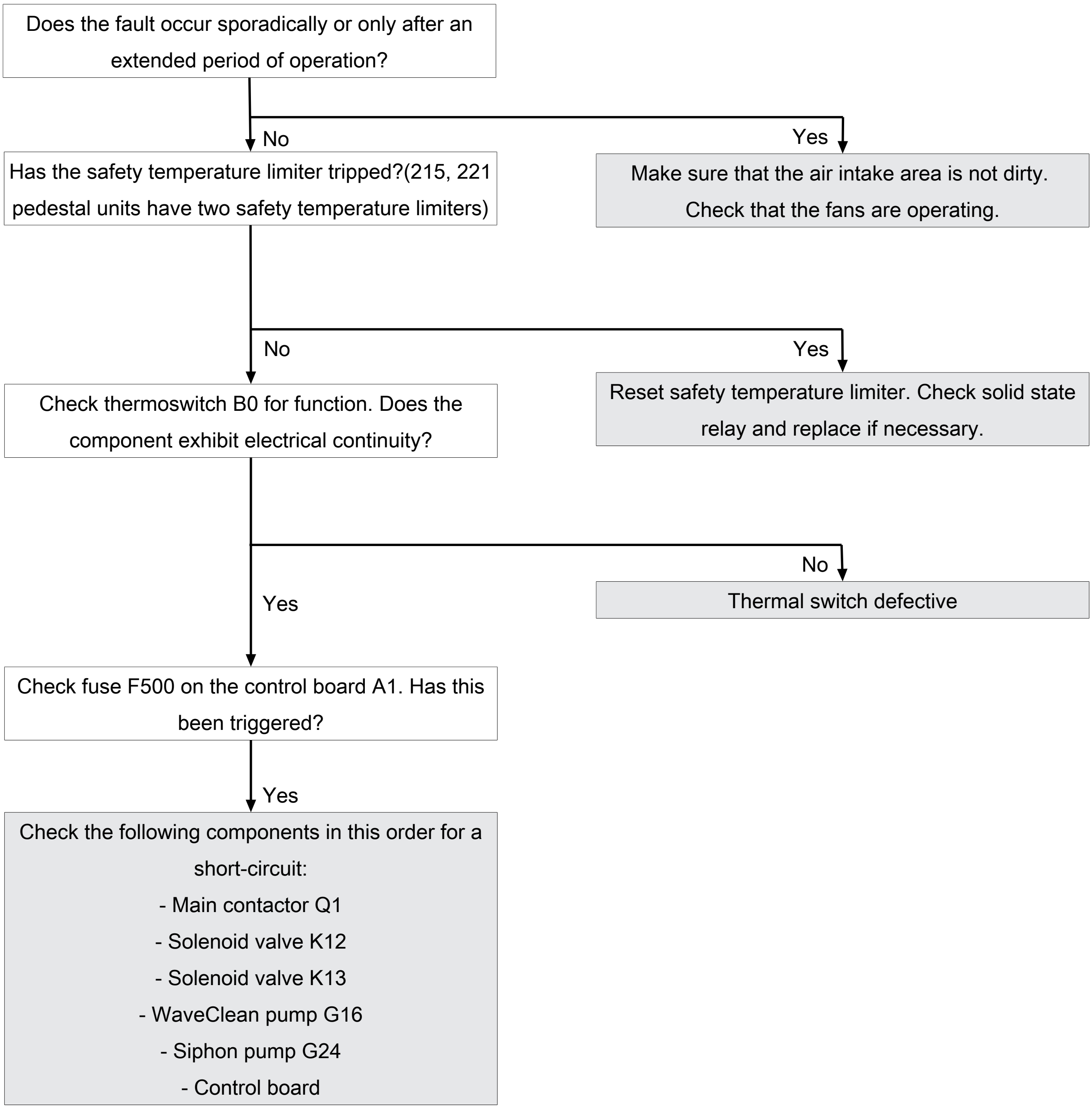


Image: Overview of the safety circuit

A1	Control board	B0	Thermal switch
B11	Safety temperature limiter	B12	Safety temperature limiter (only for 215,221 pedestal units)
Q1	Main contactor		

Troubleshooting



Does the fault occur sporadically or only after an extended period of operation?

Make sure that the air intake area is not dirty. Check that the fans are operating.

Has the safety temperature limiter tripped?(215, 221 pedestal units have two safety temperature limiters)

Reset safety temperature limiter. Check solid state relay and replace if necessary.

Check thermoswitch B0 for function. Does the component exhibit electrical continuity?

Thermal switch defective

Check fuse F500 on the control board A1. Has this been triggered?

Check the following components in this order for a short-circuit:

- Main contactor Q1
- Solenoid valve K12
- Solenoid valve K13
- WaveClean pump G16
- Siphon pump G24
- Control board

Safety limiter triggered. Cooking program was cancelled (1479)

Description

There is a response from the safety circuit on the control board.

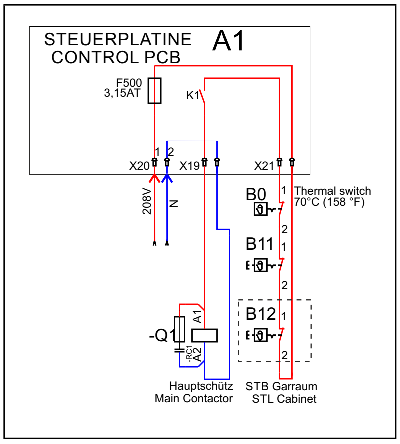
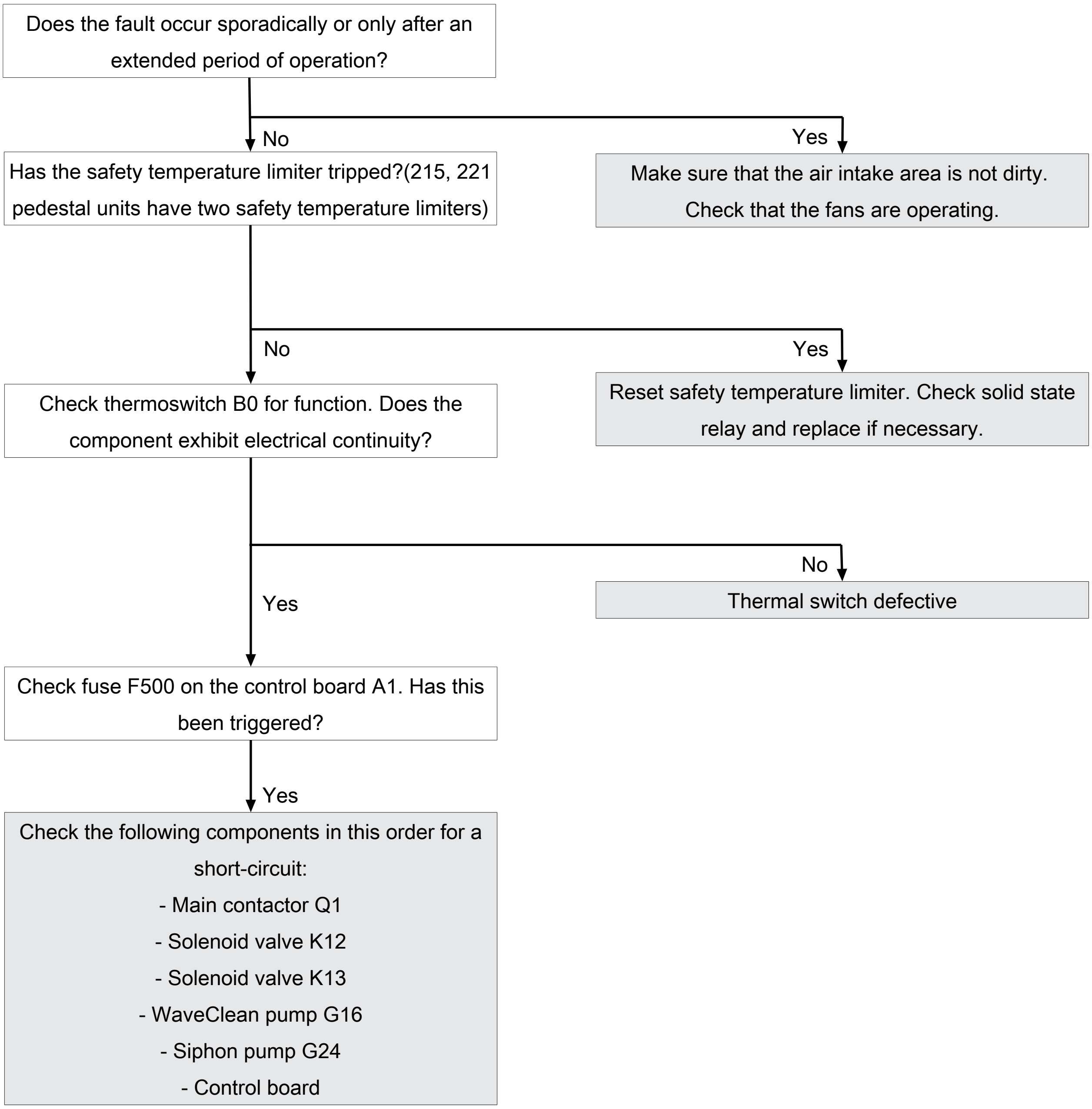


Image: Overview of the safety circuit

A1	Control board
B11	Safety temperature limiter
Q1	Main contactor
B0	Thermal switch
B12	Safety temperature limiter (only for 215,221 pedestal units)

Troubleshooting



Does the fault occur sporadically or only after an extended period of operation?

Has the safety temperature limiter tripped?(215, 221 pedestal units have two safety temperature limiters)

Make sure that the air intake area is not dirty. Check that the fans are operating.

Check thermoswitch B0 for function. Does the component exhibit electrical continuity?

Reset safety temperature limiter. Check solid state relay and replace if necessary.

Thermal switch defective

Check fuse F500 on the control board A1. Has this been triggered?

Check the following components in this order for a short-circuit:
- Main contactor Q1
- Solenoid valve K12
- Solenoid valve K13
- WaveClean pump G16
- Siphon pump G24
- Control board

Fan faulty. Operation not possible (1481)

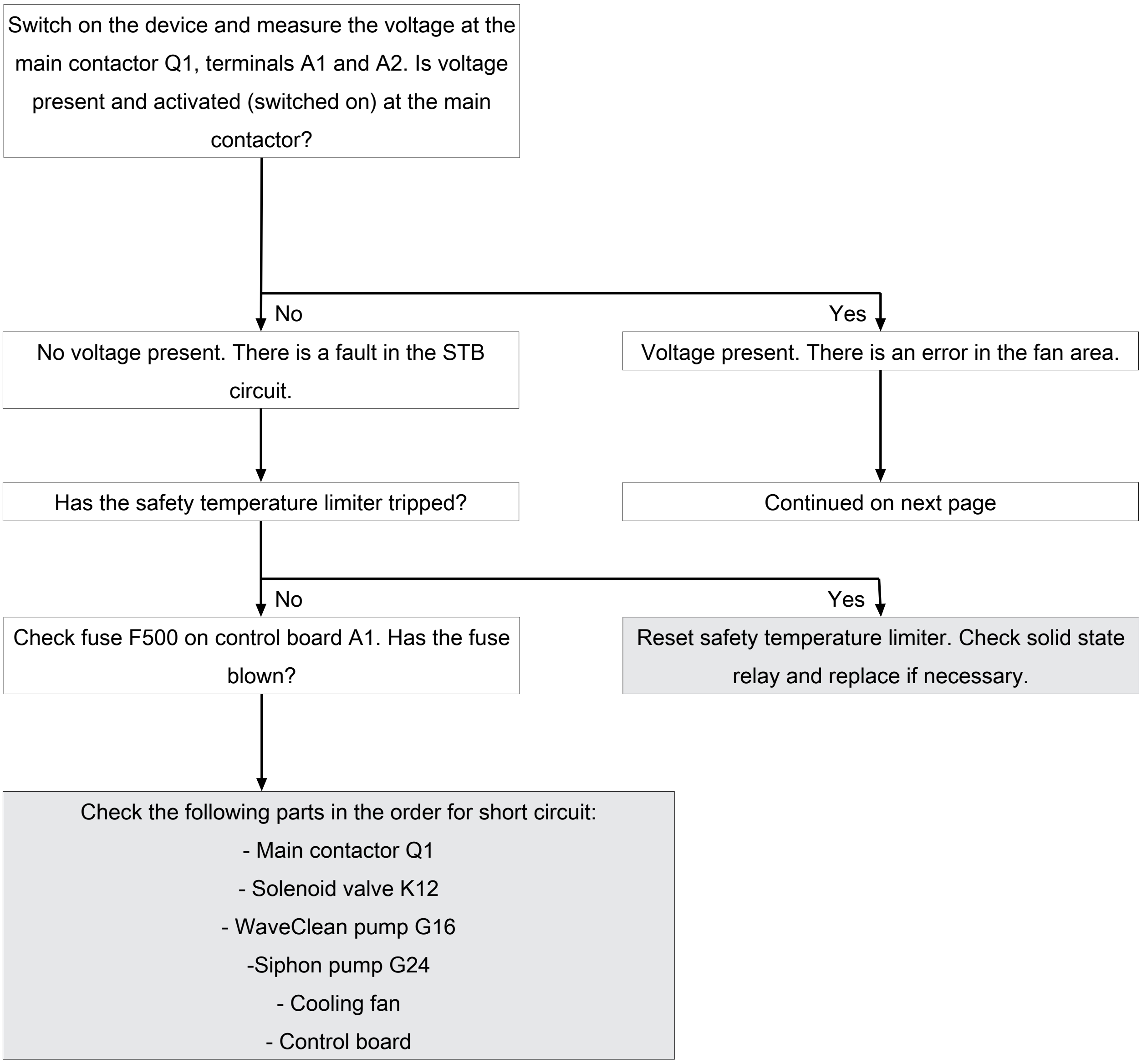
Description

The control board A1 does not receive any feedback via the CAN bus cable from the fan motor M10 or fan motor M20 (only for 215, 221 pedestal units).

INFORMATION

If the error message "1480: Safety temperature limiter (STL) triggered" also appears, troubleshooting should be carried out accordingly. It is highly likely that a triggered safety temperature limiter is the cause.

Troubleshooting



Switch on the device and measure the voltage at the main contactor Q1, terminals A1 and A2. Is voltage present and activated (switched on) at the main contactor?

No voltage present. There is a fault in the STB circuit.

Has the safety temperature limiter tripped?

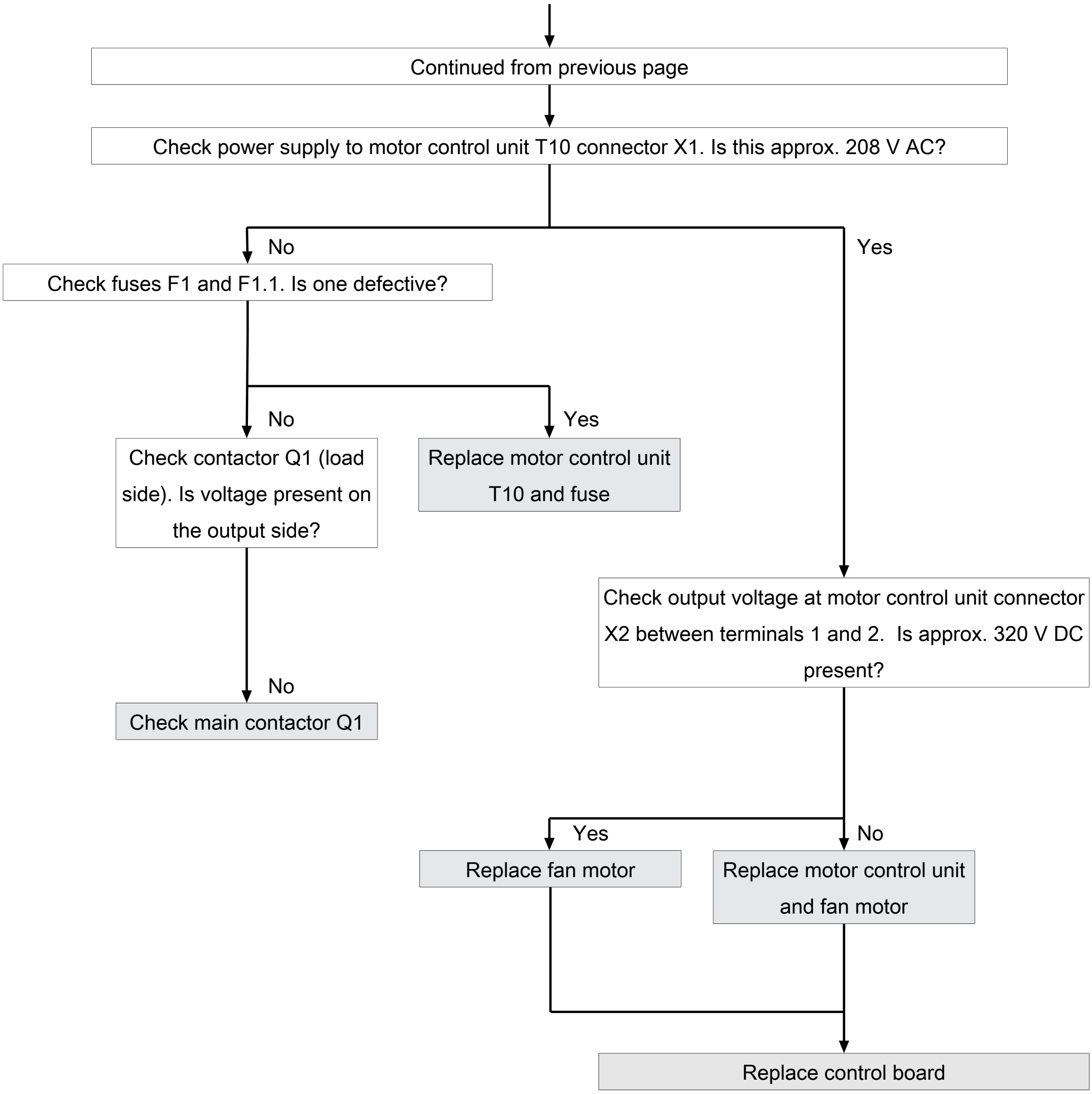
Check fuse F500 on control board A1. Has the fuse blown?

Check the following parts in the order for short circuit:
- Main contactor Q1
- Solenoid valve K12
- WaveClean pump G16
-Siphon pump G24
- Cooling fan
- Control board

Reset safety temperature limiter. Check solid state relay and replace if necessary.

Voltage present. There is an error in the fan area.

Continued on next page


Continued from previous page
Check power supply to motor control unit T10 connector X1. Is this approx. 208 V AC?
No
Yes
Check fuses F1 and F1.1. Is one defective?
No
Yes
Check contactor Q1 (load side). Is voltage present on the output side?
Replace motor control unit T10 and fuse
Check output voltage at motor control unit connector X2 between terminals 1 and 2. Is approx. 320 V DC present?
No
Check main contactor Q1
Yes
No
Replace fan motor
Replace motor control unit and fan motor
Replace control board

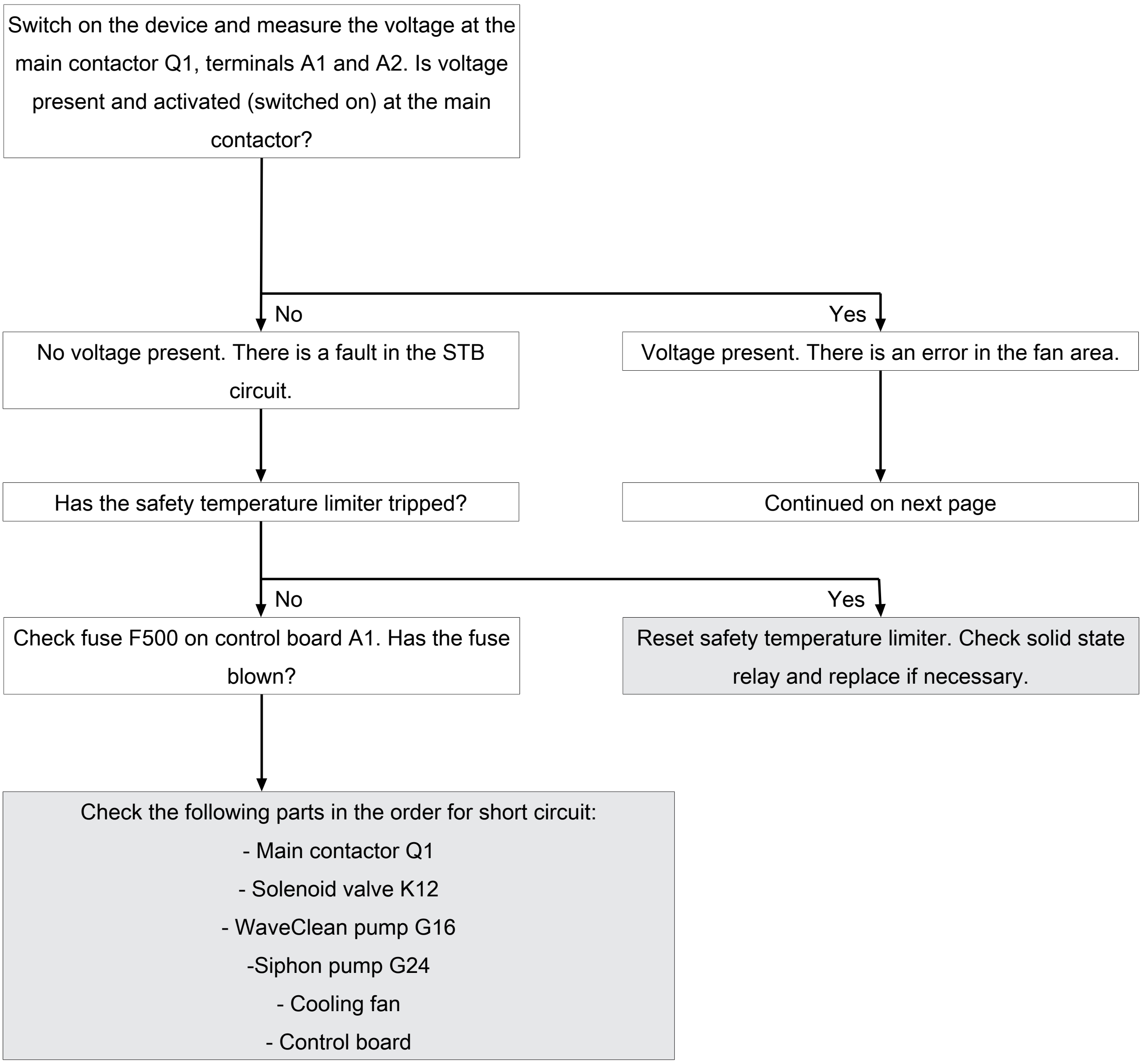
FM06-065A

Fan faulty. Cooking program was cancelled (701)

Description

The control board A1 does not receive any response via the CAN bus cable from motor power board T10. There is an fault in the fan area.

Troubleshooting



Switch on the device and measure the voltage at the main contactor Q1, terminals A1 and A2. Is voltage present and activated (switched on) at the main contactor?

No voltage present. There is a fault in the STB circuit.

Voltage present. There is an error in the fan area.

Has the safety temperature limiter tripped?

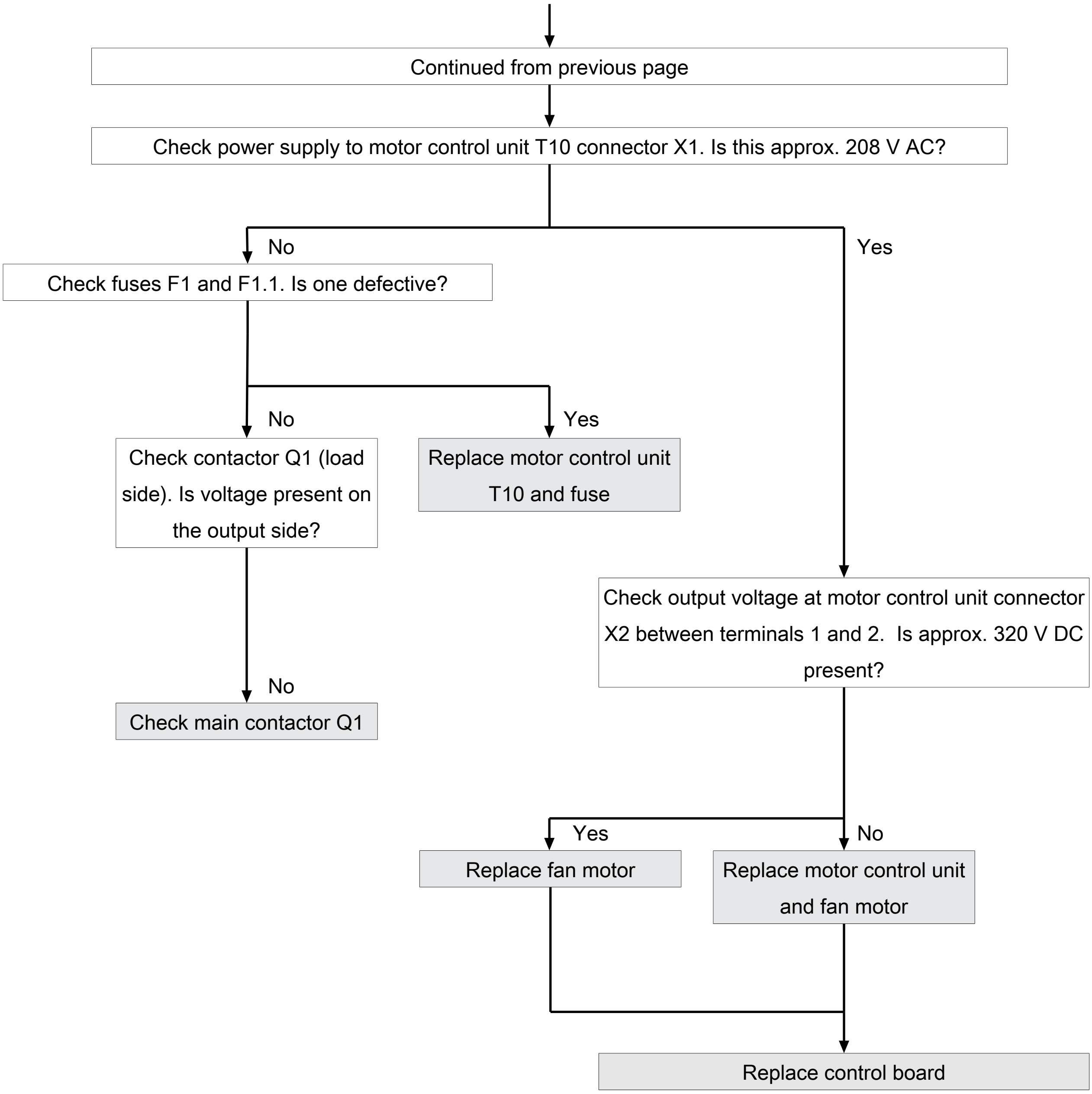
Continued on next page

Check fuse F500 on control board A1. Has the fuse blown?

Reset safety temperature limiter. Check solid state relay and replace if necessary.

Check the following parts in the order for short circuit:

- Main contactor Q1
- Solenoid valve K12
- WaveClean pump G16
- Siphon pump G24
- Cooling fan
- Control board


Continued from previous page
Check power supply to motor control unit T10 connector X1. Is this approx. 208 V AC?
No
Yes
Check fuses F1 and F1.1. Is one defective?
No
Yes
Check contactor Q1 (load side). Is voltage present on the output side?
Replace motor control unit T10 and fuse
Check output voltage at motor control unit connector X2 between terminals 1 and 2. Is approx. 320 V DC present?
No
Check main contactor Q1
Yes
No
Replace fan motor
Replace motor control unit and fan motor
Replace control board

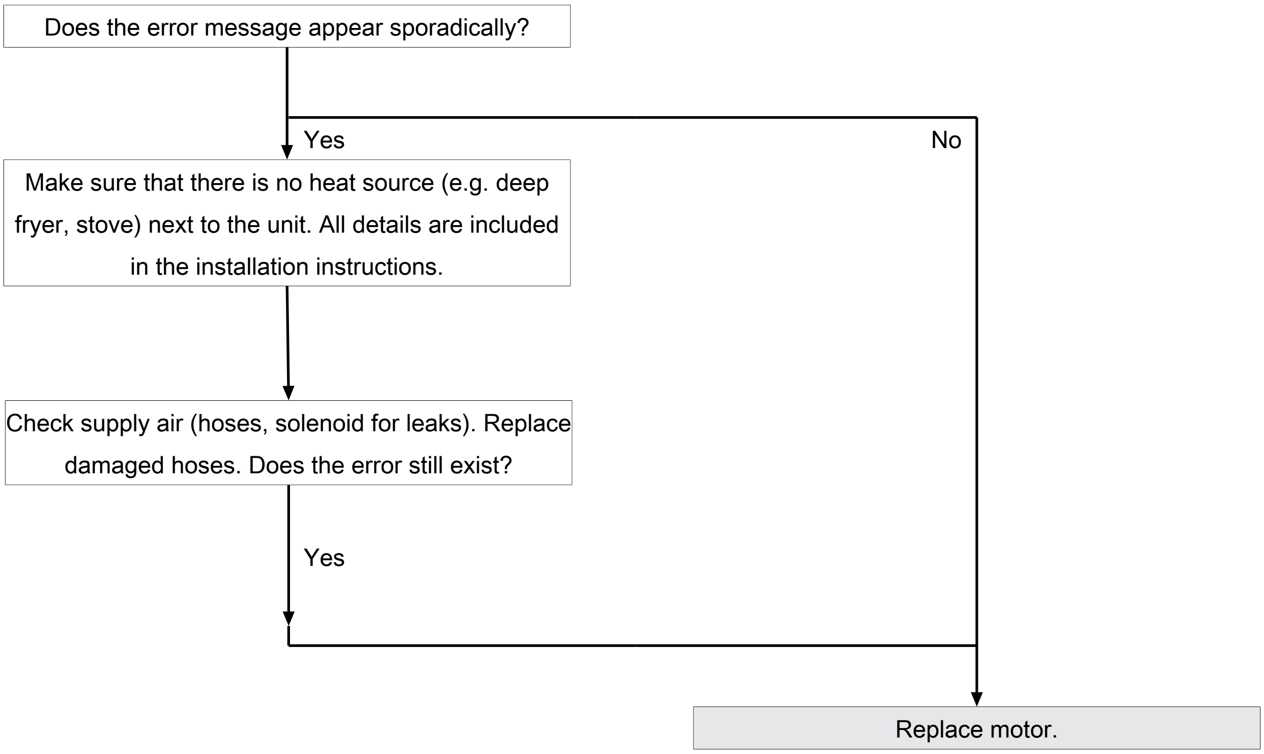
FM06-065A

Overtemperature fan motor (FAN_ID6)

Description

The temperature from the motor is monitored via an integrated thermal switch (bimetal). In faultless condition this is closed (passage). In the event of an error, the contact opens and the error message FAN_ID6: Motor overtemperature appears. After cooling down, the thermoswitch resets itself automatically.

Troubleshooting

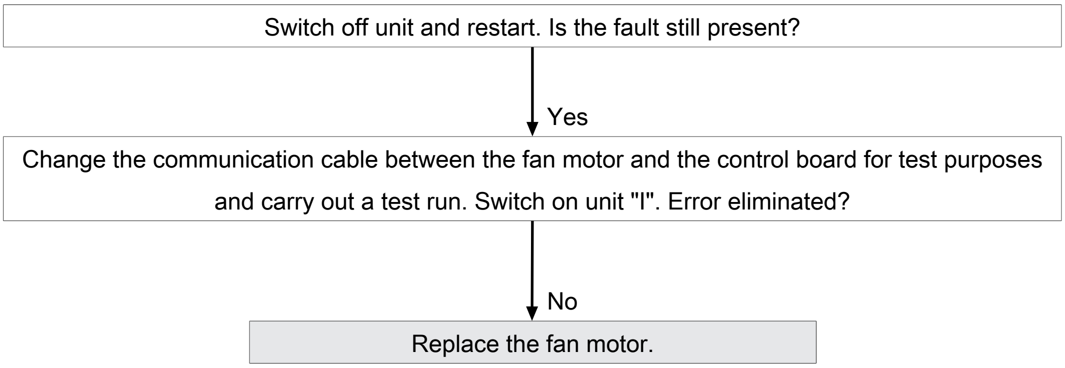

Does the error message appear sporadically?
Yes
No
Make sure that there is no heat source (e.g. deep fryer, stove) next to the unit. All details are included in the installation instructions.
Check supply air (hoses, solenoid for leaks). Replace damaged hoses. Does the error still exist?
Yes
Replace motor.

Fan fault (FAN_ID23)

Description

The control board A1 does not receive any feedback from the motor M10 via the CAN bus cable. There is a fault in the fan area.

Troubleshooting



Switch off unit and restart. Is the fault still present?

Change the communication cable between the fan motor and the control board for test purposes and carry out a test run. Switch on unit "I". Error eliminated?

Replace the fan motor.

Motor system faulty (FAN_ID27)

Description

The error message is generated when the control board receives a too low or no speed from the motor control. After unit restart via "ON/ OFF" the error is reset. A new query is made at the start of the cooking program.

Troubleshooting

Ensure that software version 2.11 or higher is installed on the device. If necessary, update the software.

↓

Ensure that the fan wheel is not blocked and moves freely (no grinding noises)

↓

Replace motor

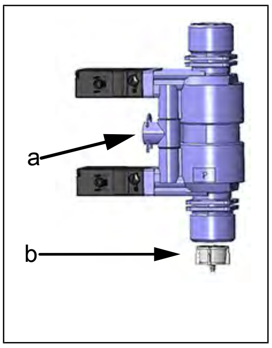
↓

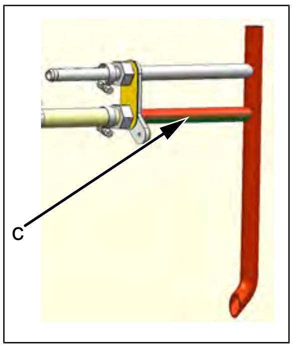
Replace CAN cable between control board and fan motor

12.5 Water area

Water pressure too low (709)

Description





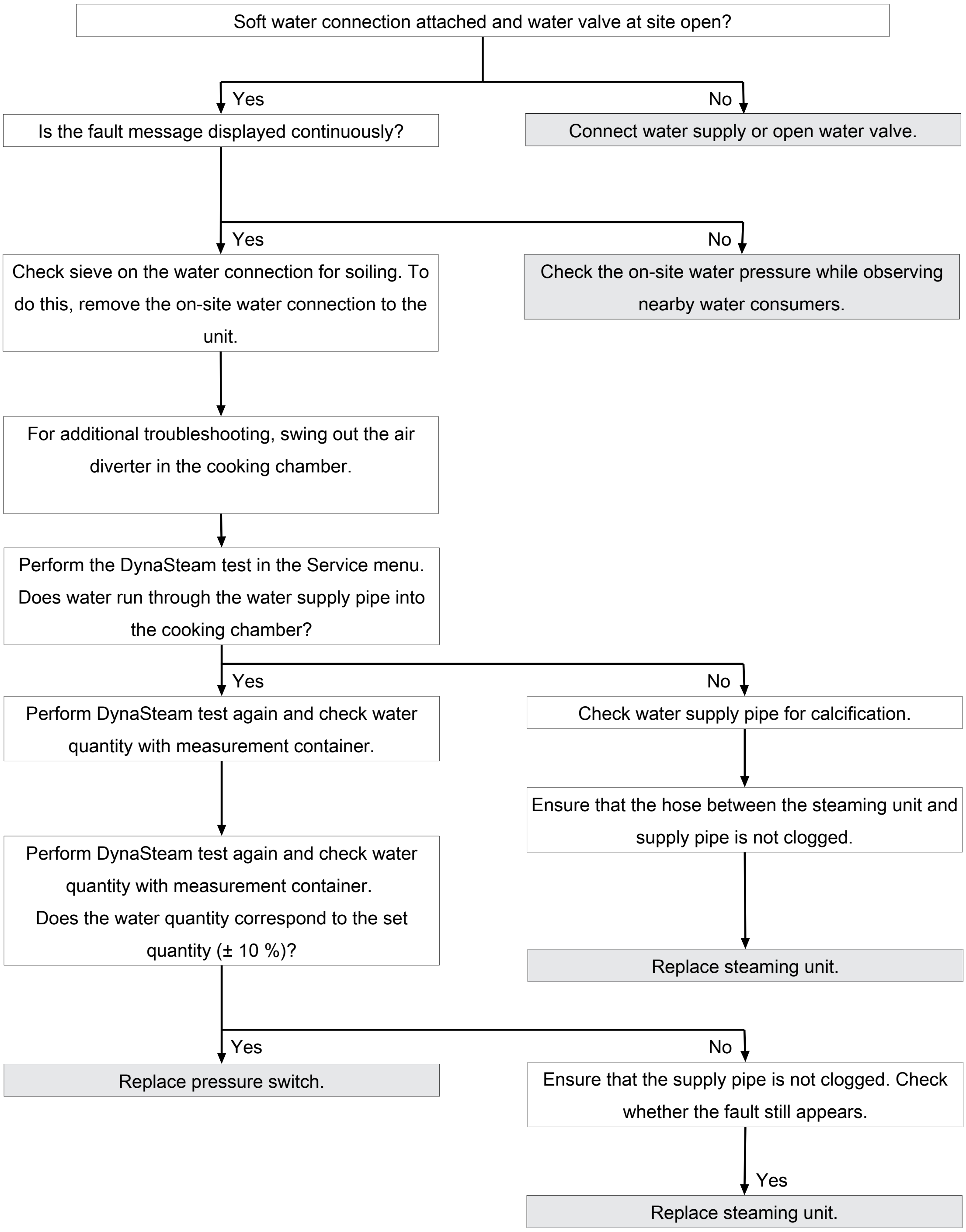
a Pressure switch

b Sieve

c Water supply pipe in the cooking chamber

Troubleshooting

The water pressure at the water connection must be at least 2 bar.



Soft water connection attached and water valve at site open?

Is the fault message displayed continuously?

Connect water supply or open water valve.

Check sieve on the water connection for soiling. To do this, remove the on-site water connection to the unit.

Check the on-site water pressure while observing nearby water consumers.

For additional troubleshooting, swing out the air diverter in the cooking chamber.

Perform the DynaSteam test in the Service menu. Does water run through the water supply pipe into the cooking chamber?

Perform DynaSteam test again and check water quantity with measurement container.

Check water supply pipe for calcification.

Ensure that the hose between the steaming unit and supply pipe is not clogged.

Replace steaming unit.

Perform DynaSteam test again and check water quantity with measurement container.
Does the water quantity correspond to the set quantity (± 10 %)?

Replace pressure switch.

Ensure that the supply pipe is not clogged. Check whether the fault still appears.

Replace steaming unit.

The water pressure is too low; cleaning has been paused.

Description

This fault message is displayed if the pressure switch registered a water pressure that is too low during WaveClean. The program is stopped until the water pressure is sufficiently high again.

Troubleshooting

Ensure customer-supplied water supply on the soft water connection of unit. The supply pressure on the water connection must be at least 2 bar. If the fault occurs sporadically, check the on-site water pressure while observing nearby water consumers.

12.6 Electronics / control area

SOF_ID22: E-Fuse has triggered

Description

All components supplied with 24V DC are protected by an electronic fuse on the control board, which triggers in the event of a short circuit. The reset is carried out via a button on the control board. The device must be switched on. The component causing the problem must then be localized.

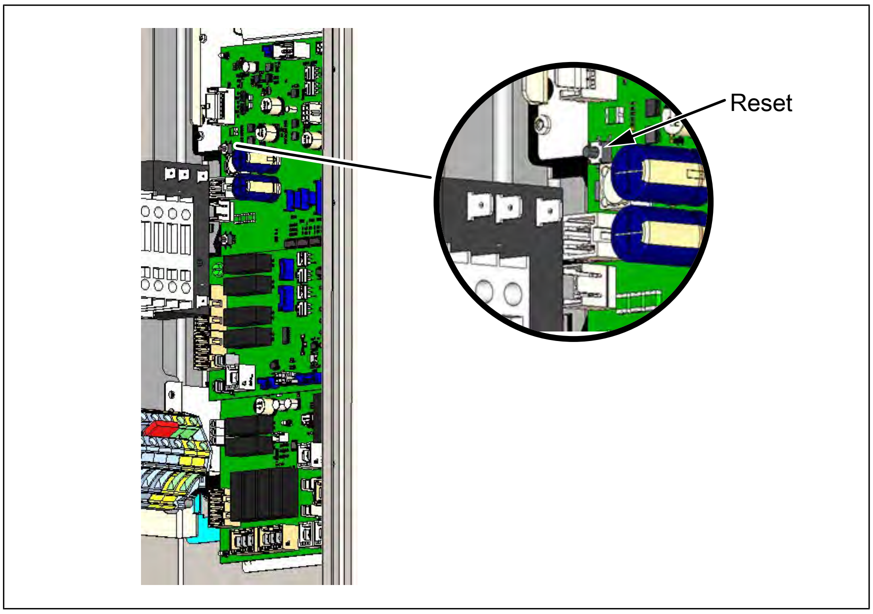
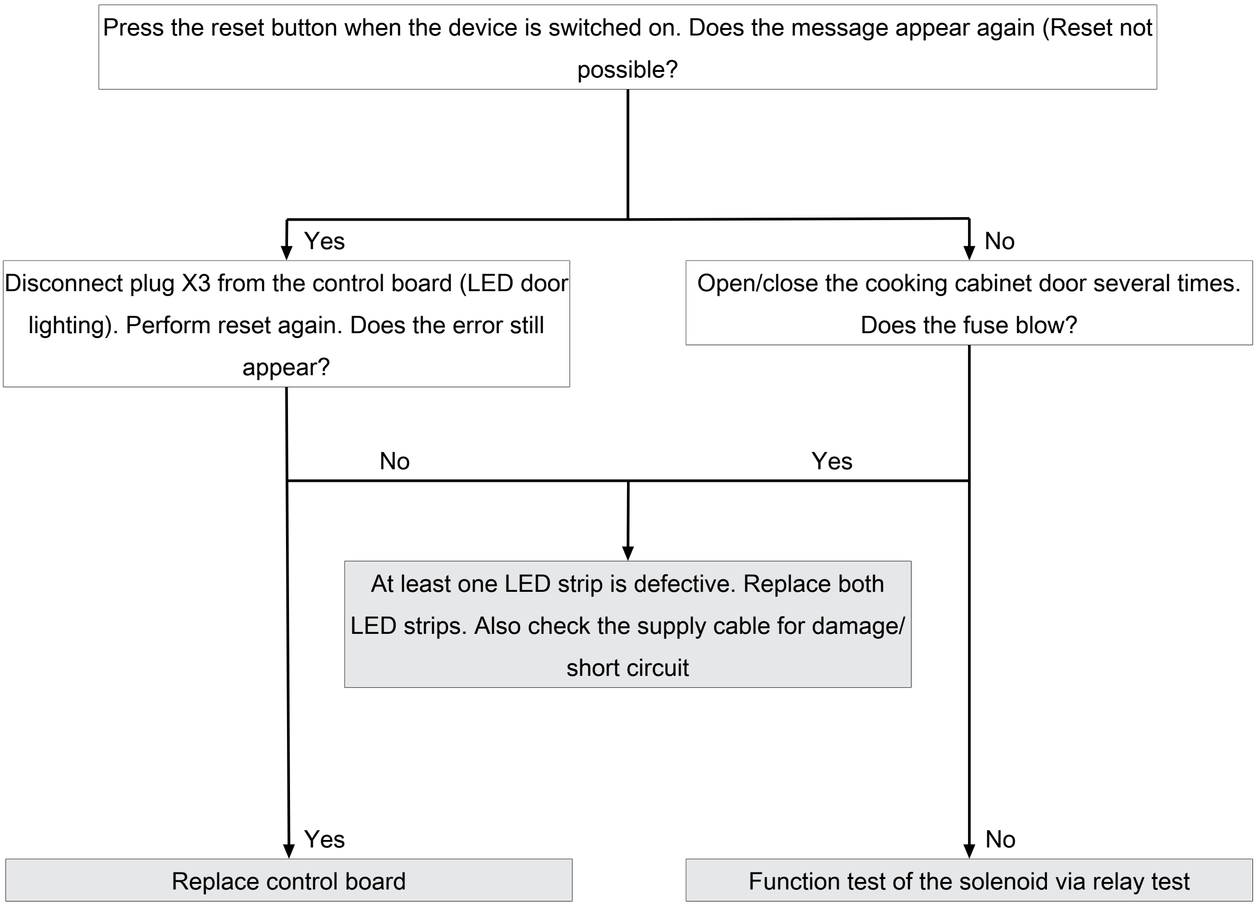


Image: Position Reset button of the fuse

Troubleshooting


Press the reset button when the device is switched on. Does the message appear again (Reset not possible?
Yes
No
Disconnect plug X3 from the control board (LED door lighting). Perform reset again. Does the error still appear?
Open/close the cooking cabinet door several times. Does the fuse blow?
No
Yes
At least one LED strip is defective. Replace both LED strips. Also check the supply cable for damage/ short circuit
Yes
No
Replace control board
Function test of the solenoid via relay test

SOF_ID35: Power supply voltage critical

Description

The software monitors the supply voltage from the power supply unit. The adjustable output voltage must be 24V. If the voltage is below 23.6V, the error message appears. This can result in the control unit switching off sporadically.

Troubleshooting

→ Check the output voltage from the power supply unit and set to 24V if necessary.

→ Replace the power supply unit.

Increased temperature of the electronics (MMI_ID53, MMI_ID54)

Description

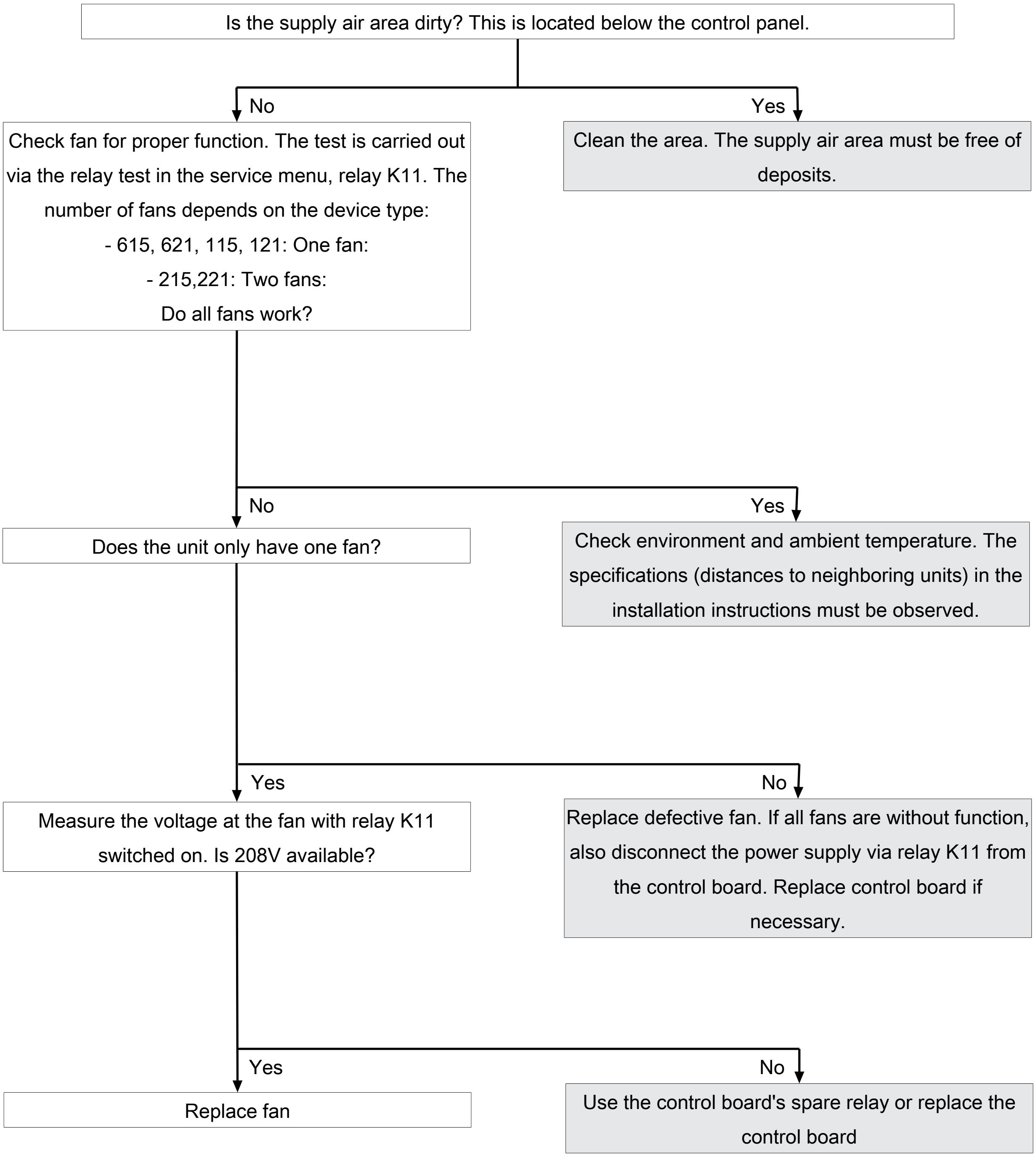
MMI_ID53:

The temperature sensor on the control board is measuring a temperature of >65°C (149°F). The current cooking program is continued.

MMI_ID54:

The temperature sensor on the control board is measuring a temperature of >78°C (172°F). The current cooking program is continued.

Troubleshooting



Is the supply air area dirty? This is located below the control panel.

Check fan for proper function. The test is carried out via the relay test in the service menu, relay K11. The number of fans depends on the device type:

- 615, 621, 115, 121: One fan:
- 215,221: Two fans:

Do all fans work?

Clean the area. The supply air area must be free of deposits.

Does the unit only have one fan?

Check environment and ambient temperature. The specifications (distances to neighboring units) in the installation instructions must be observed.

Measure the voltage at the fan with relay K11 switched on. Is 208V available?

Replace defective fan. If all fans are without function, also disconnect the power supply via relay K11 from the control board. Replace control board if necessary.

Replace fan

Use the control board's spare relay or replace the control board

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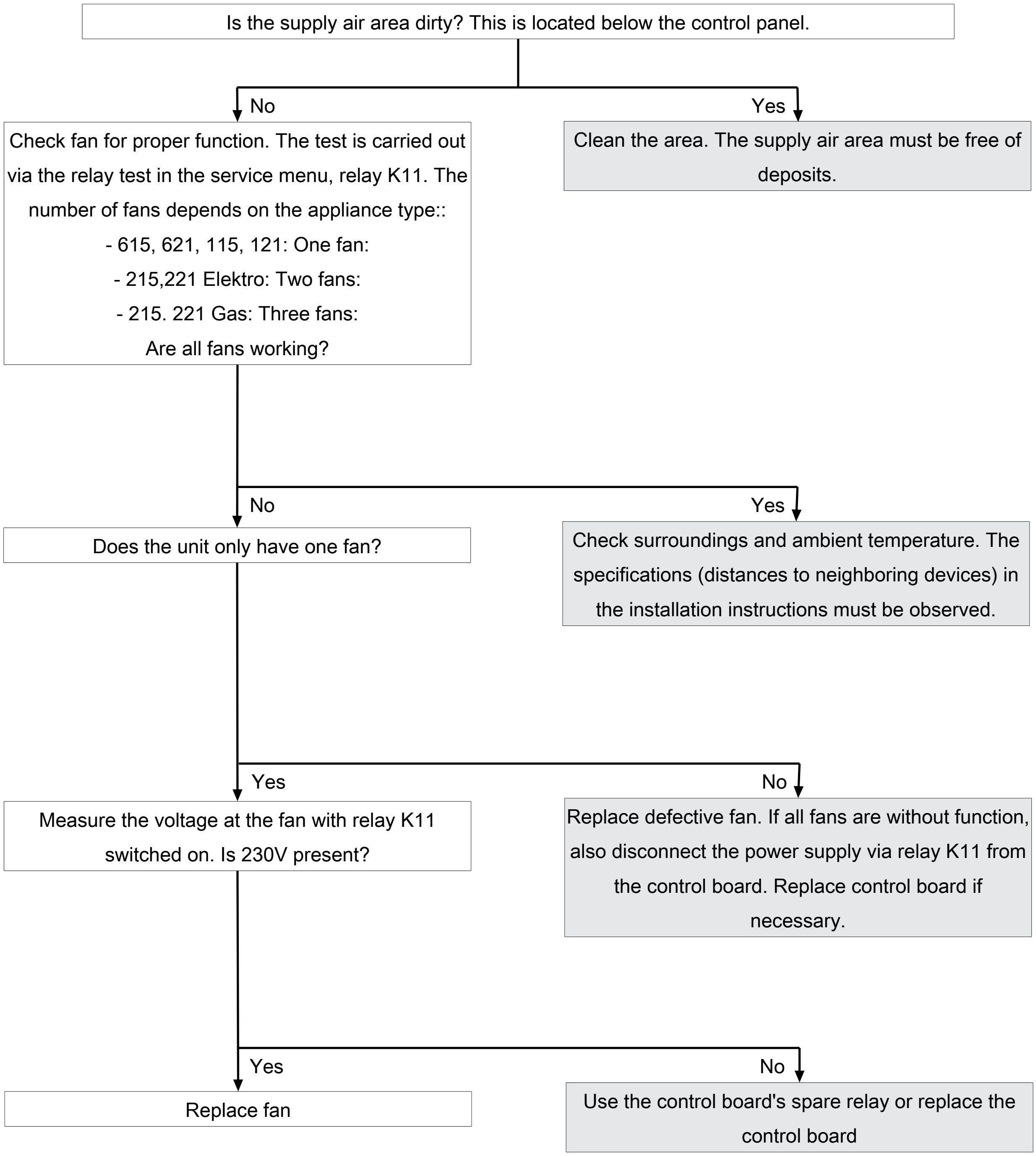
Excessive temperature of the electronics (MMI_ID50)

Description

The temperature sensor on the control board is measuring a temperature of >80°C (176°F). The unit is no longer operational until it cools down.

Troubleshooting



Is the supply air area dirty? This is located below the control panel.

Clean the area. The supply air area must be free of deposits.

Check fan for proper function. The test is carried out via the relay test in the service menu, relay K11. The number of fans depends on the appliance type::

- 615, 621, 115, 121: One fan:
- 215,221 Elektro: Two fans:
- 215. 221 Gas: Three fans:

Are all fans working?

Check surroundings and ambient temperature. The specifications (distances to neighboring devices) in the installation instructions must be observed.

Does the unit only have one fan?

Replace defective fan. If all fans are without function, also disconnect the power supply via relay K11 from the control board. Replace control board if necessary.

Measure the voltage at the fan with relay K11 switched on. Is 230V present?

Use the control board's spare relay or replace the control board

Replace fan

The NFC tag is not present (1520)

Description

Access to the configuration key is not possible. The configuration key is located on the control board.

Troubleshooting

→ Remove the configuration memory and plug it in again. De-energize unit beforehand.

→ Replace the configuration memory.

→ Replace control board.

The operating unit battery is empty (1478)

Description

The date and time are lost after the unit is switched on or they reset.
HACCP and log data are no longer saved in a form that can be evaluated.
Replacement requires disassembly of the operating unit.

Troubleshooting

INFORMATION

After replacing the battery, it is mandatory to set the date/time. Otherwise, the error message will continue to appear when the unit is switched on.
When the unit is switched on for the first time after replacement, the error message appears because the date/time has not yet been set.

INFORMATION

Battery type

Required battery: Button cell CR1220 3 V.

Changing the battery

→ De-energizing the unit

→ Removing the control unit

→ Detaching lines to the operating unit

→ Remove rear cover from touchscreen. This requires removing the four fastening screws.

→ Change the battery.

→ Reassembly is carried out in reverse order.

Setting the date/time

→ Restoring the power supply

→ Set the date and time in the basic settings or service menu.

CAN connection faulty

Description

There is a communication fault between the operating panel and control panel. In addition, temperature sensor and fan fault messages appear on the touchscreen.

Troubleshooting

- → Replace communication cable between operating panel and control panel circuit board.
- → Replace control board.
- → Replace operating panel.

5007: Not enough storage space for software update

Description

The internal memory is full. The current version will be restarted. The cause can be faulty data import (additional content).

Troubleshooting

- → Replace operating panel. Alternatively, continue to operate with the current software.
- → Send the operating pane to the manufacturer for repair.

5008: No new version found

Description

The following causes generate the message:

USB stick not recognized or not present

Required content not present on the USB stick or saved incorrectly.

The software version on the unit is newer than that on the USB stick.

Troubleshooting

- → Check content and structure of the USB stick.
- → Ensure that the USB interface is functioning properly.
  - ↳ On USB sticks with an LED, the LED must be on.
  - ↳ Check communication, e.g. by exporting HACCP data
- → Use a different USB stick

If the message appears after a software update, confirm by pressing "OK". In individual cases, this may be required several times.

5009: The application could not be started. Application will be restarted.

Description

The software does not boot. There is a fault in the communication or the software is damaged.

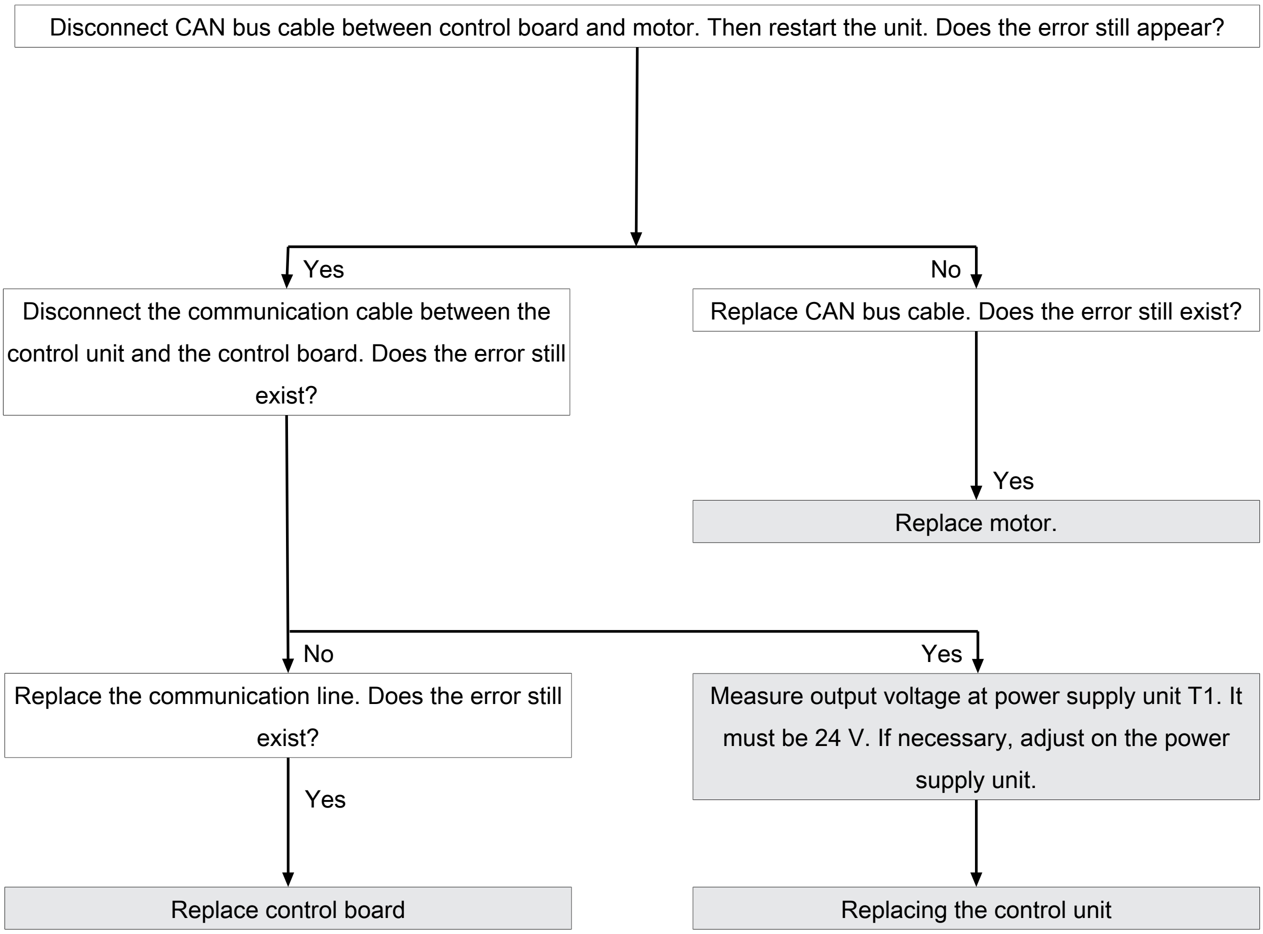
Troubleshooting

→ Confirm the message with "*OK*".

  ↳ The software is restarted.

→ The error may appear twice. Repeat the procedure. If the error continues to appear, proceed as described in the troubleshooting guide.

Troubleshooting takes place by disconnecting individual CAN bus connections. Other error messages are generated in the process. The decisive factor is that the original message "5009 or 5010" is no longer displayed.


Disconnect CAN bus cable between control board and motor. Then restart the unit. Does the error still appear?
Yes
No
Disconnect the communication cable between the control unit and the control board. Does the error still exist?
Replace CAN bus cable. Does the error still exist?
Yes
Replace motor.
No
Yes
Replace the communication line. Does the error still exist?
Measure output voltage at power supply unit T1. It must be 24 V. If necessary, adjust on the power supply unit.
Yes
Replace control board
Replacing the control unit

5010: Application could not be started. Restore configuration backup?

Description

Starting the software is not possible because of an error. The system will attempt to restore the configuration.

Troubleshooting

→ Confirm message. An automatic restore starts.
→ Next, update the software.
→ If the error continues to appear, the operating panel needs to be replaced.

5013: Application could not be restored

Description

Starting the software is not possible because of an error. The system will attempt to restore the configuration.

Troubleshooting

→ Confirm message. An automatic restore starts.
→ Next, update the software.
→ If the error continues to appear, the operating panel needs to be replaced.

5027: The application can not be started. Perform software update

Description

The software does not boot. There is a software error.

Troubleshooting

Perform a software update.
→ Switch off the unit
→ Insert prepared USB stick.
→ Switch on the unit.
→ Follow the instructions on the screen. Confirm this with OK.

Device was restarted after a power failure

Description

The message appears after an interruption of the supply voltage during an active cooking program.

Troubleshooting

→ Ensure that the appliance has not been switched off using the "On/Off" switch when the cooking program is active. In this case, the control is disconnected from power, which is interpreted by the software as a power failure. Stop the cooking program before switching the unit off.

→ Make sure that the customer's supply voltage is reliable.

→ Check that the "On/Off" switch functions properly and is in the correct position.

  ↳ The switch must be fastened securely.

  ↳ The switch is available separately.

→ Check the electrical connections and screw connections in the area of the mains connection terminal, transformer and power line to the control board.

→ Replace control board. It supplies voltage to the operating panel.

→ Replace transformer.

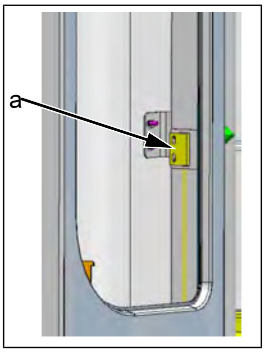
→ Replace operating panel.

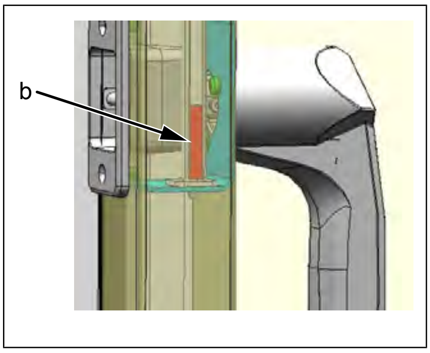
Door is open. Cooking program was stopped

Description

During fault-free operation, this message appears if the cooking chamber door is opened during an active cooking program. If the message is displayed with a closed cooking chamber door, there is an error on the reed contact switch or door magnet.

Overview

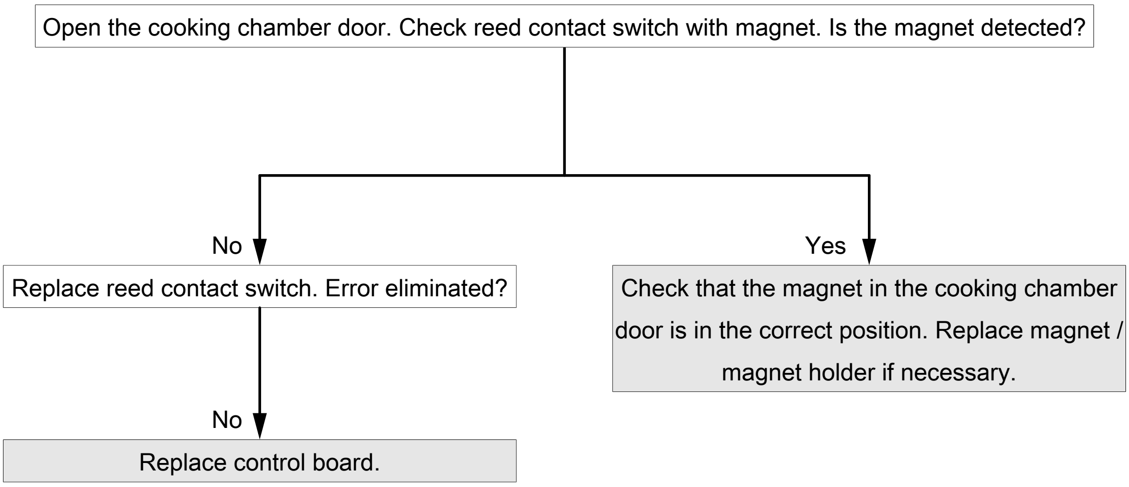




a Reed contact switch

b Door magnet

Troubleshooting


Open the cooking chamber door. Check reed contact switch with magnet. Is the magnet detected?
No
Replace reed contact switch. Error eliminated?
No
Replace control board.
Yes
Check that the magnet in the cooking chamber door is in the correct position. Replace magnet / magnet holder if necessary.

SA_ID4: Error in dehumidification control

Description

The error message only appears if the solenoid is activated in the relay test.

Troubleshooting

→ If the LED cooking cabinet lighting is working (switched on), there is a short circuit on the solenoid.

↳ Replace defective solenoid.

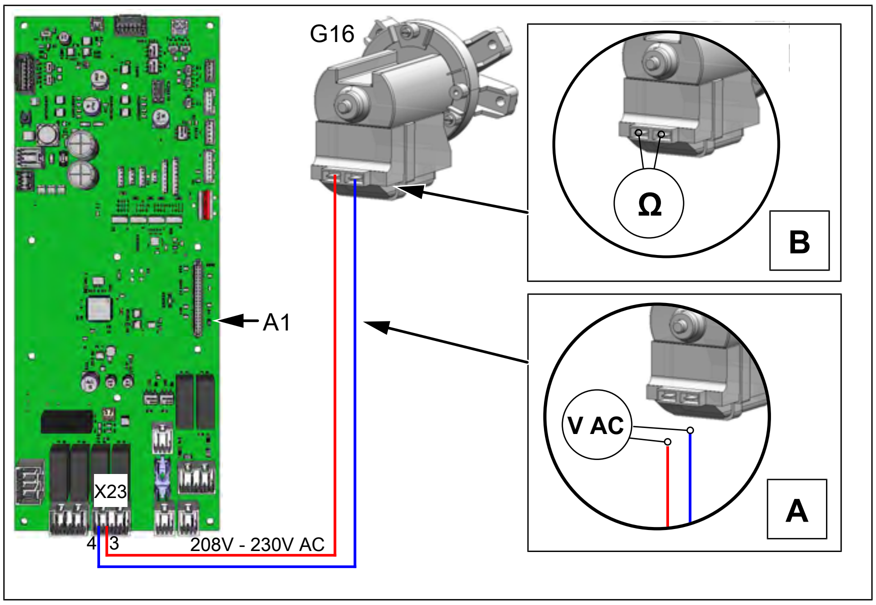
→ If the LED cooking cabinet lighting does not work (is not switched on)

↳ Troubleshooting according to *SOF_ID22: E-fuse has tripped* Carry out troubleshooting.

13 Check components

13.1 WaveClean circulation pump

Overview



A1	Control board	G16	WaveClean circulation pump
A	Voltage measurement	B	Resistance measurement

Switch on pump/ function check

INFORMATION

The cooking chamber door must be closed to control the G16 circulation pump.

Prerequisite

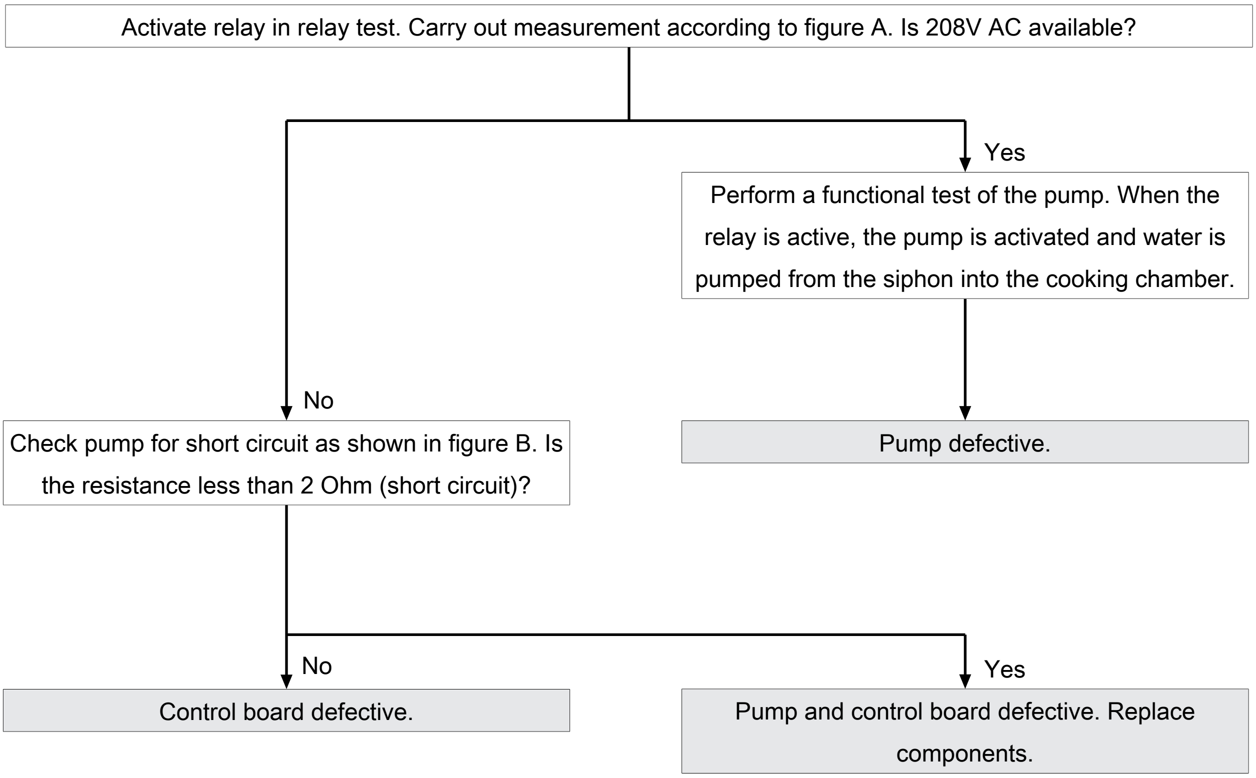
The unit does not display any error messages. If error messages are displayed, carry out troubleshooting in advance. These have priority.

The siphon is filled with water. If necessary, add approx. 2 liters (0.5 gal) of water to the cooking space.

Cooking chamber door closed or door contact switch bridged with magnet.

1. In the service menu -> Activate relay test pump relay K17-G16.
   ↳ Pump G16 is activated. Water is pumped into the cooking cabinet when it is in perfect condition.

Troubleshooting



Activate relay in relay test. Carry out measurement according to figure A. Is 208V AC available?

Yes

Perform a functional test of the pump. When the relay is active, the pump is activated and water is pumped from the siphon into the cooking chamber.

Pump defective.

No

Check pump for short circuit as shown in figure B. Is the resistance less than 2 Ohm (short circuit)?

No

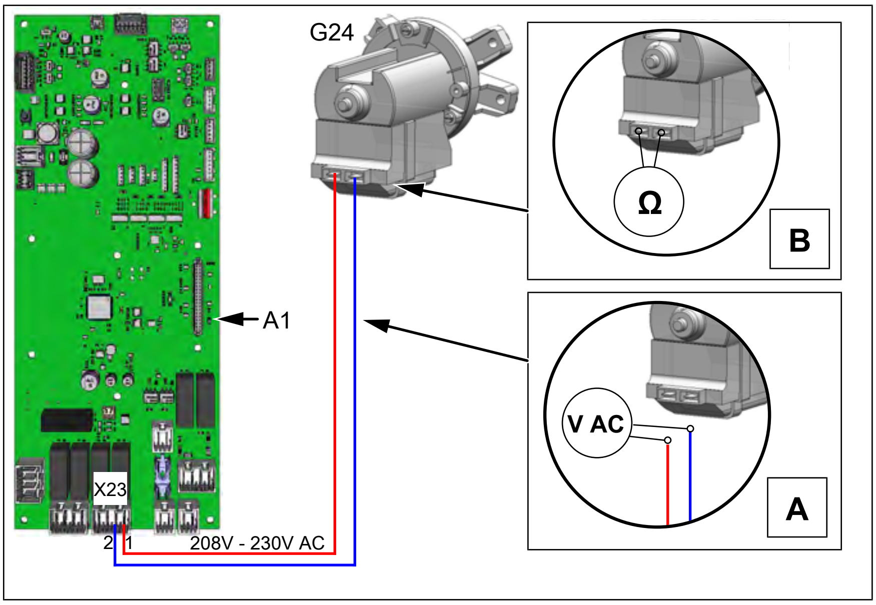
Control board defective.

Yes

Pump and control board defective. Replace components.

13.2 WaveClean siphon pump

Overview



A1	Control board	G24	Siphon pump
A	Voltage measurement	B	Resistance measurement

FM06-065A

Switch on pump/ function check

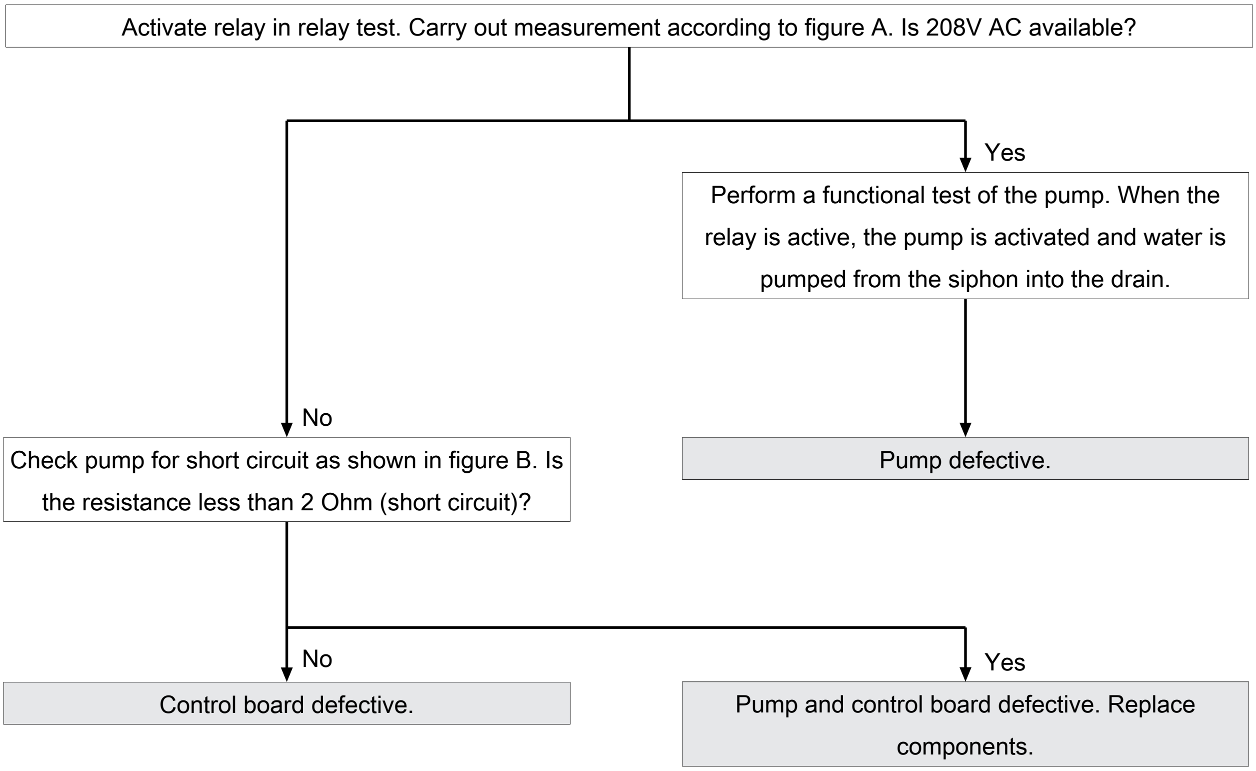
Prerequisite

The unit does not display any error messages. If error messages are displayed, carry out troubleshooting in advance. These have priority.

The siphon is filled with water. If necessary, add approx. 2 liters (0.5 gal) of water to the cooking space.

1. In the service menu -> Activate relay test pump relay K5-G24.
   ↳ Pump G24 is activated. In a fault-free state, water is pumped from the siphon into the drain.

Troubleshooting



Activate relay in relay test. Carry out measurement according to figure A. Is 208V AC available?

Perform a functional test of the pump. When the relay is active, the pump is activated and water is pumped from the siphon into the drain.

Check pump for short circuit as shown in figure B. Is the resistance less than 2 Ohm (short circuit)?

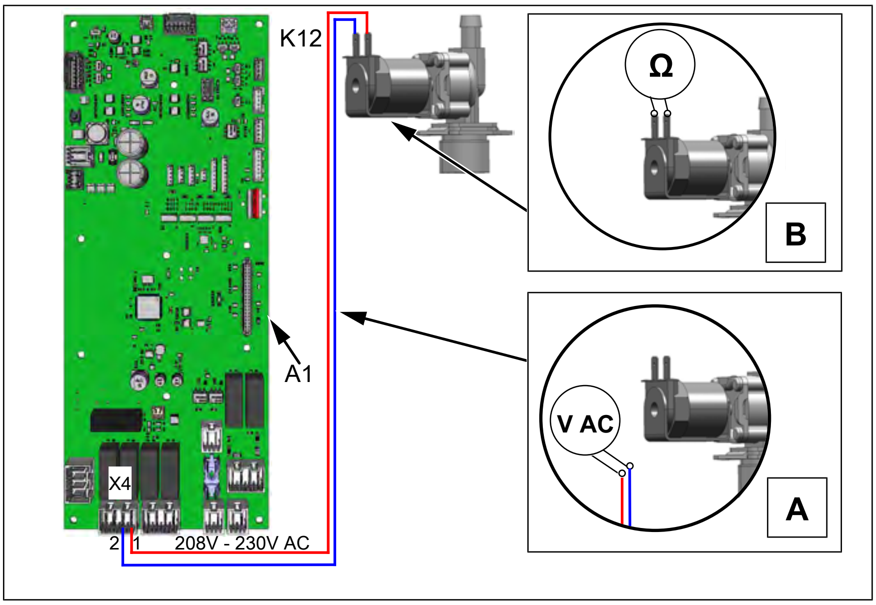
Pump defective.

Control board defective.

Pump and control board defective. Replace components.

13.3 Solenoid valve for vapor quenching/ filling siphon

Overview



A1	Control board	K12	Solenoid valve
A	Voltage measurement	B	Resistance measurement

Switch on solenoid valve/ function check

The solenoid valve has two functions:

→ Cooling down of the water in the siphon box (vapor removal).

→ Filling the siphon to provide clean water for automatic cleaning. To do this, the water in the siphon is pumped out in advance using the G24 siphon pump.

Prerequisite

The unit does not display any error messages. If error messages are displayed, carry out troubleshooting in advance. These have priority.

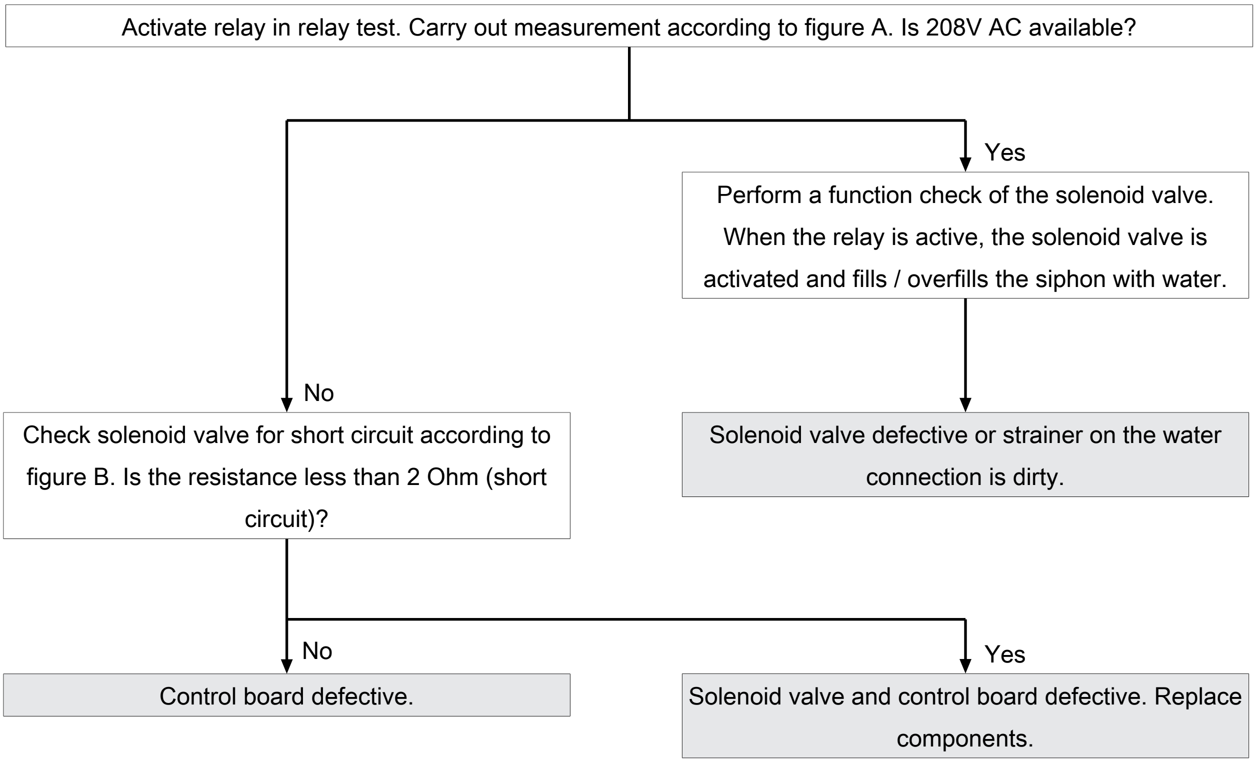
Ensure that water is being supplied on-site.

→ In the service menu -> Activate relay test solenoid valve K12.

  ↳ Solenoid valve K12 is activated. The siphon box is filled with water when it is in perfect condition. After filling, water runs out of the drain.

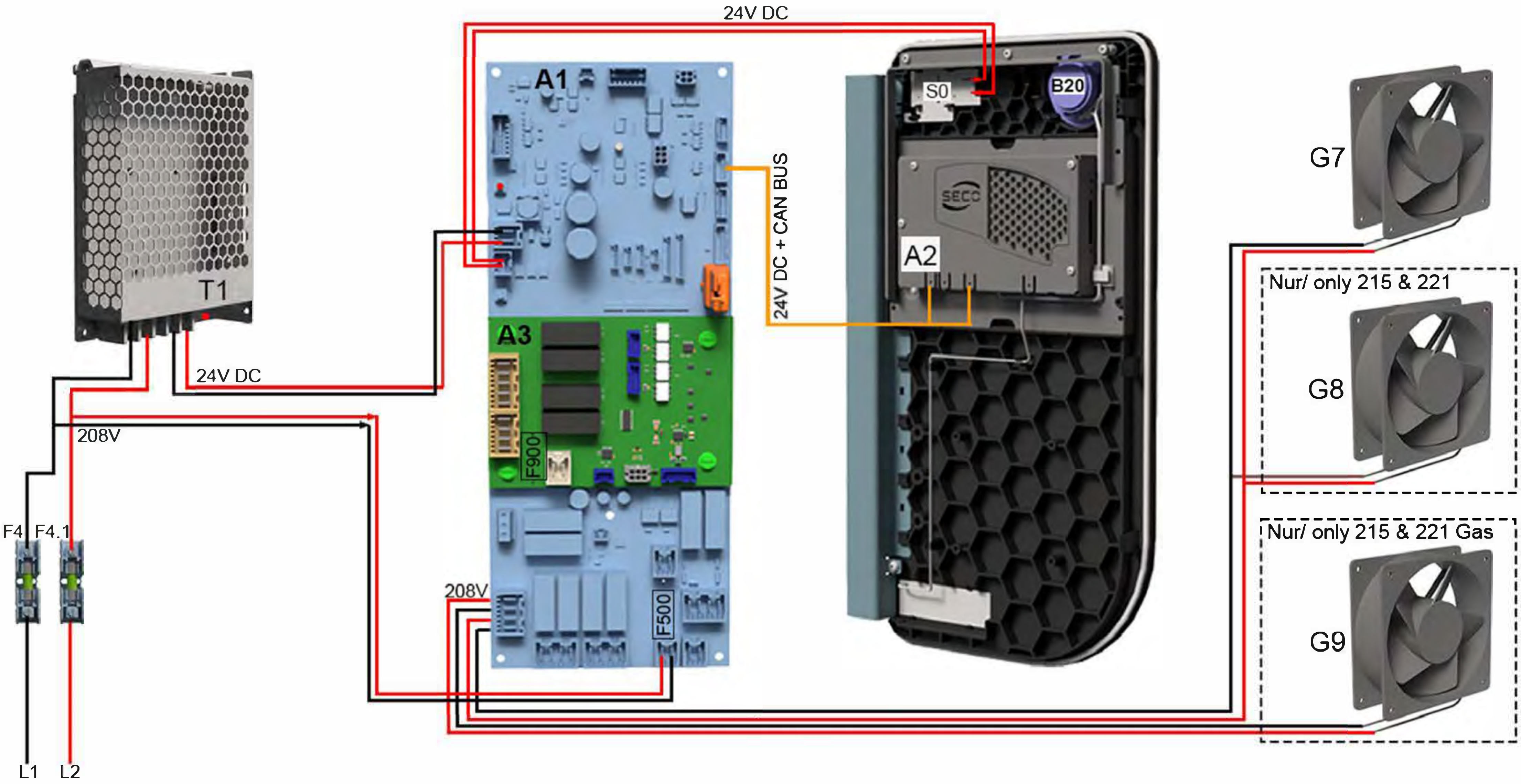
Troubleshooting

If water flows through the solenoid valve even when the relay is switched off, it is defective. Ensure that the appliance is connected to cold water.

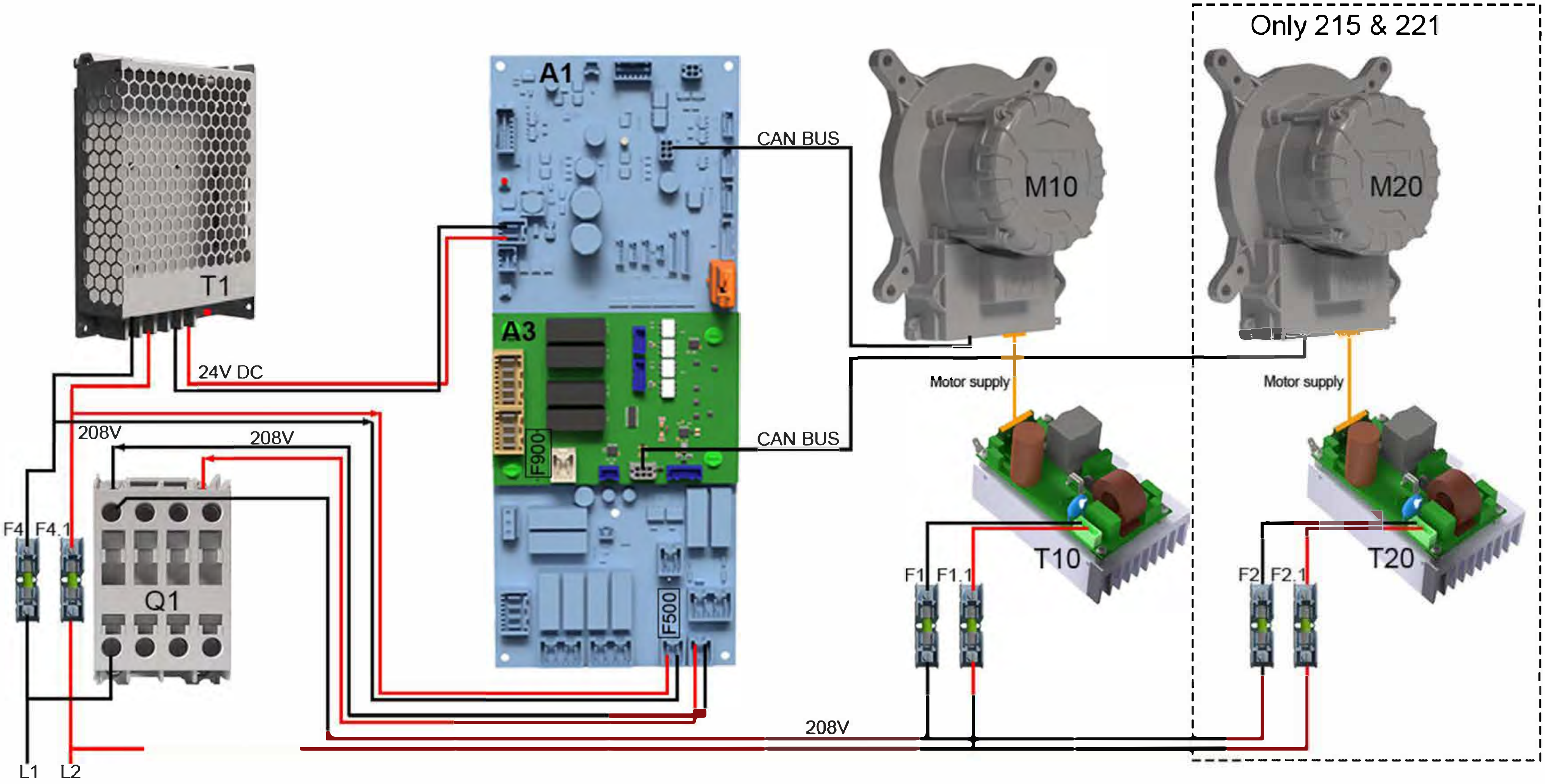

Activate relay in relay test. Carry out measurement according to figure A. Is 208V AC available?
Yes
Perform a function check of the solenoid valve. When the relay is active, the solenoid valve is activated and fills / overfills the siphon with water.
No
Check solenoid valve for short circuit according to figure B. Is the resistance less than 2 Ohm (short circuit)?
Solenoid valve defective or strainer on the water connection is dirty.
No
Yes
Control board defective.
Solenoid valve and control board defective. Replace components.

14 3D diagrams and wiring diagram

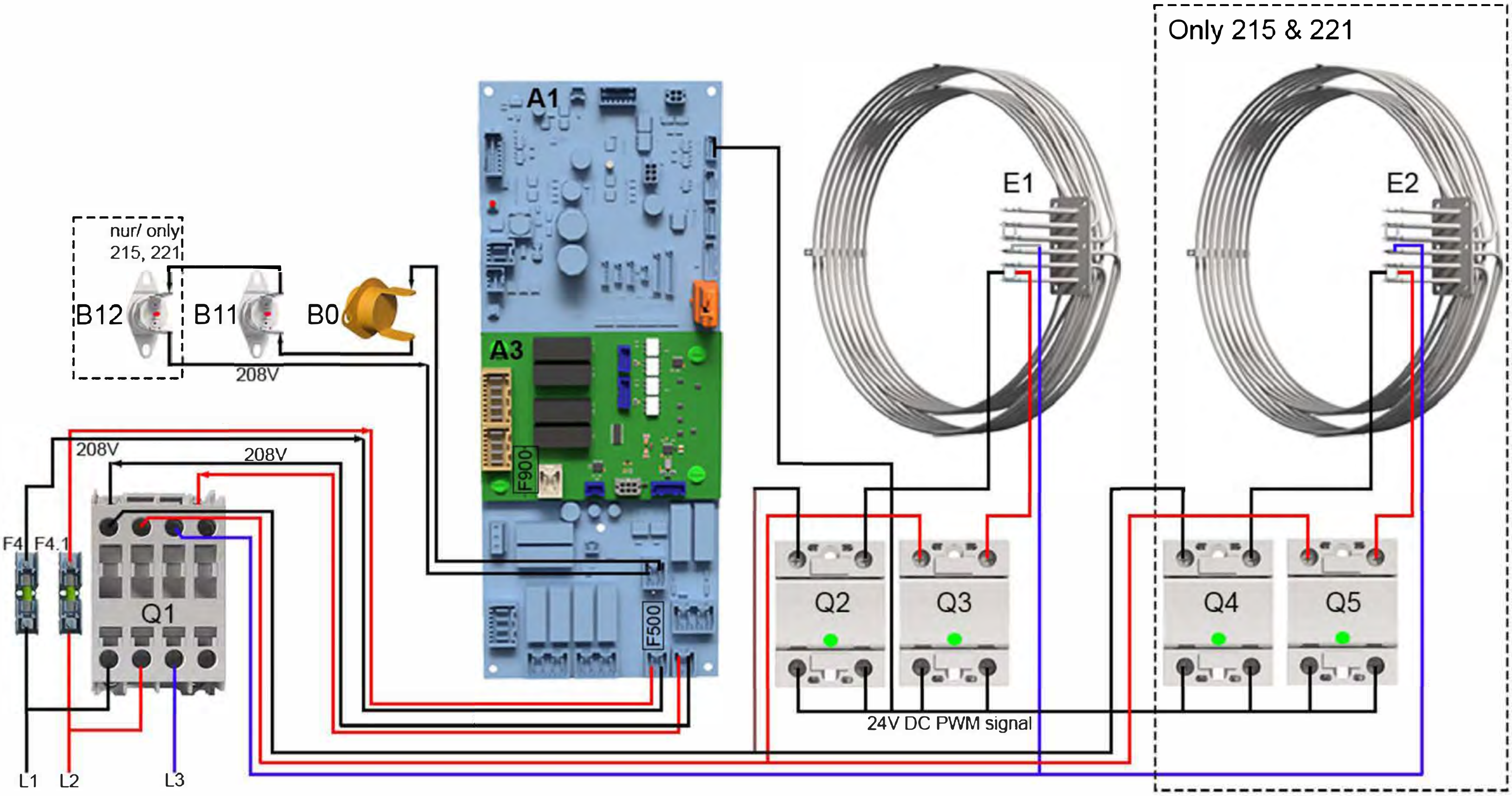
Control


24V DC
A1
T1
24V DC + CAN BUS
S0
B20
A2
G7
A3
F900
24V DC
208V
Nur/ only 215 & 221
G8
F4
F4.1
208V
F500
Nur/ only 215 & 221 Gas
G9
L1
L2

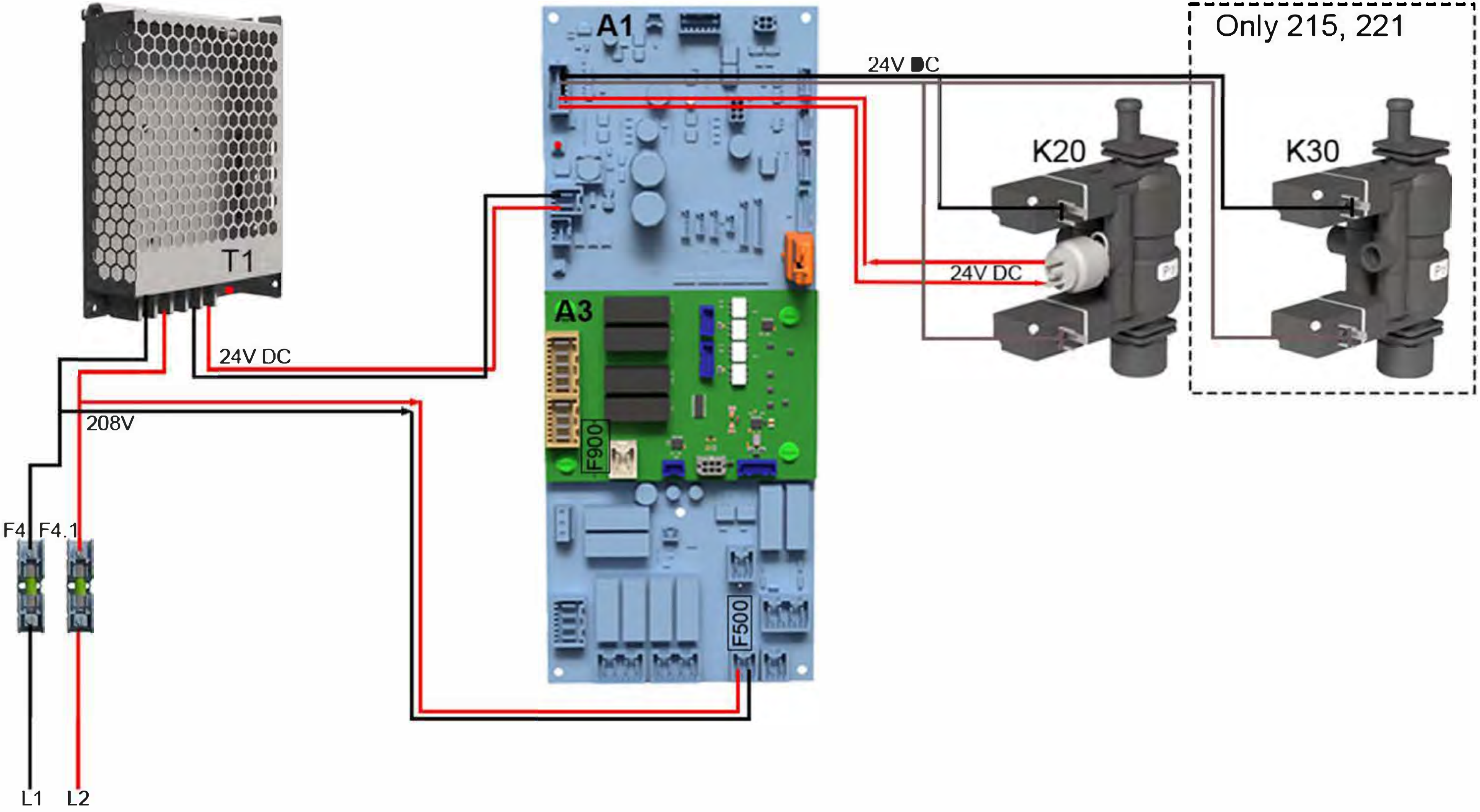
Motor control



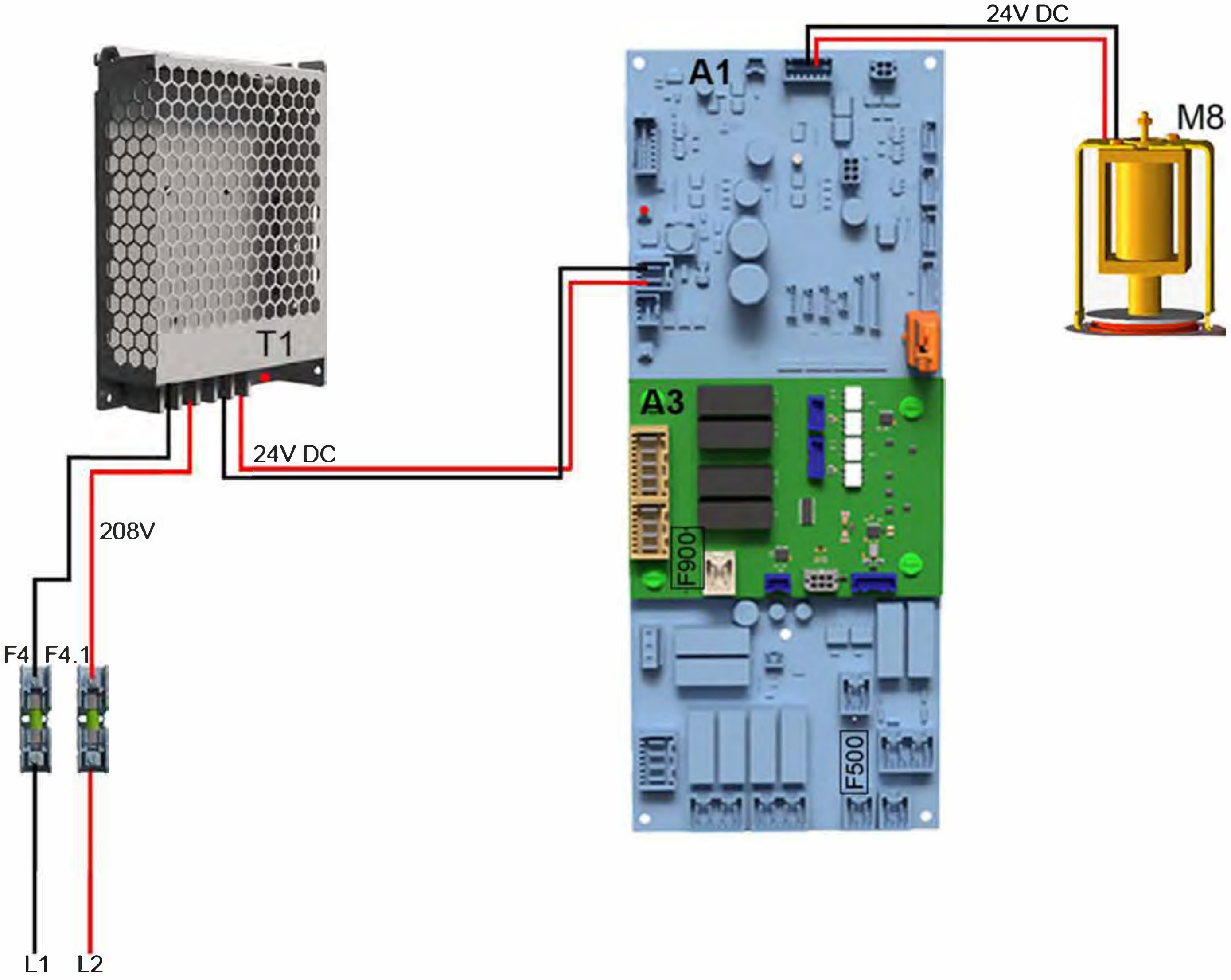
Heating system 208V



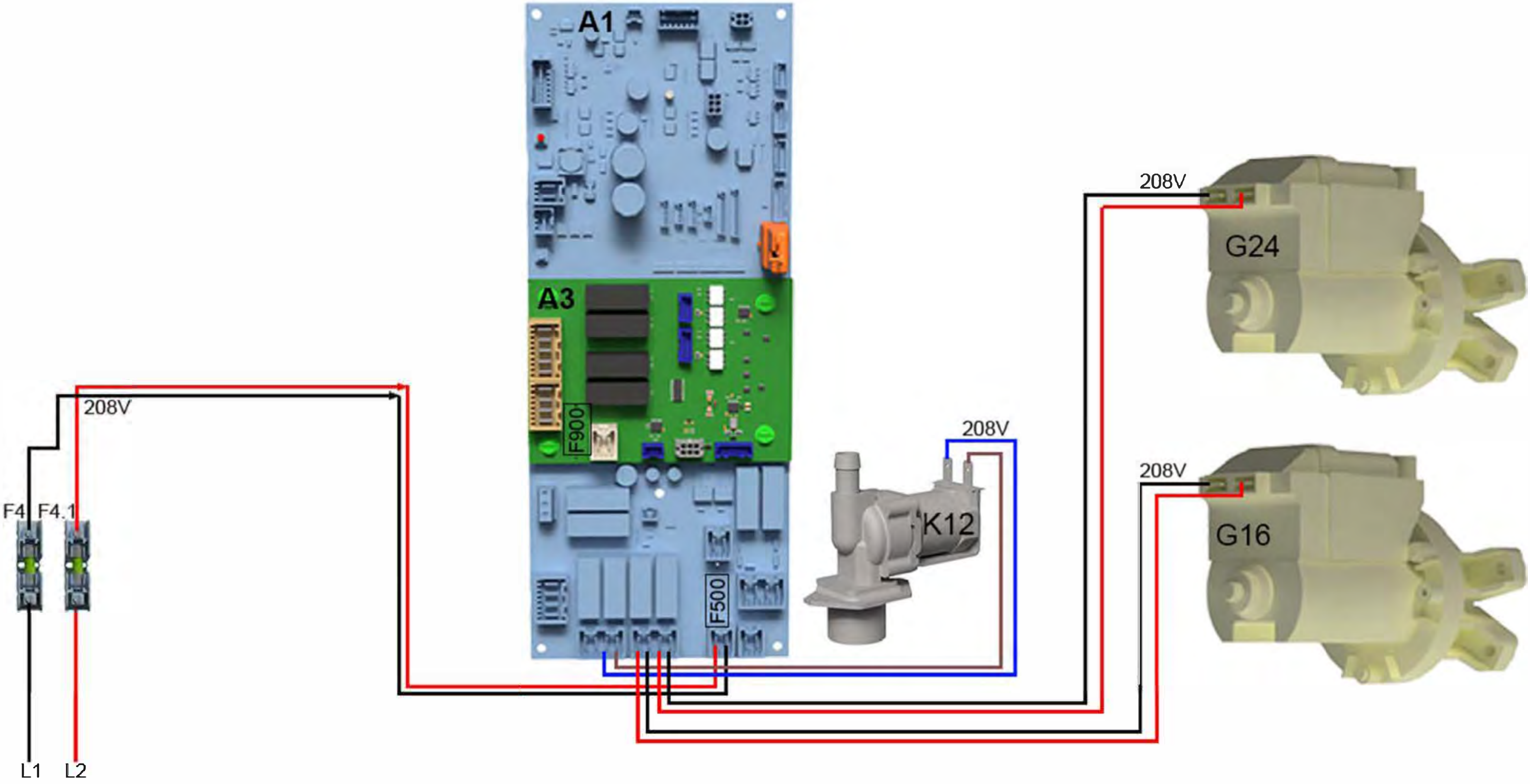
Steaming system



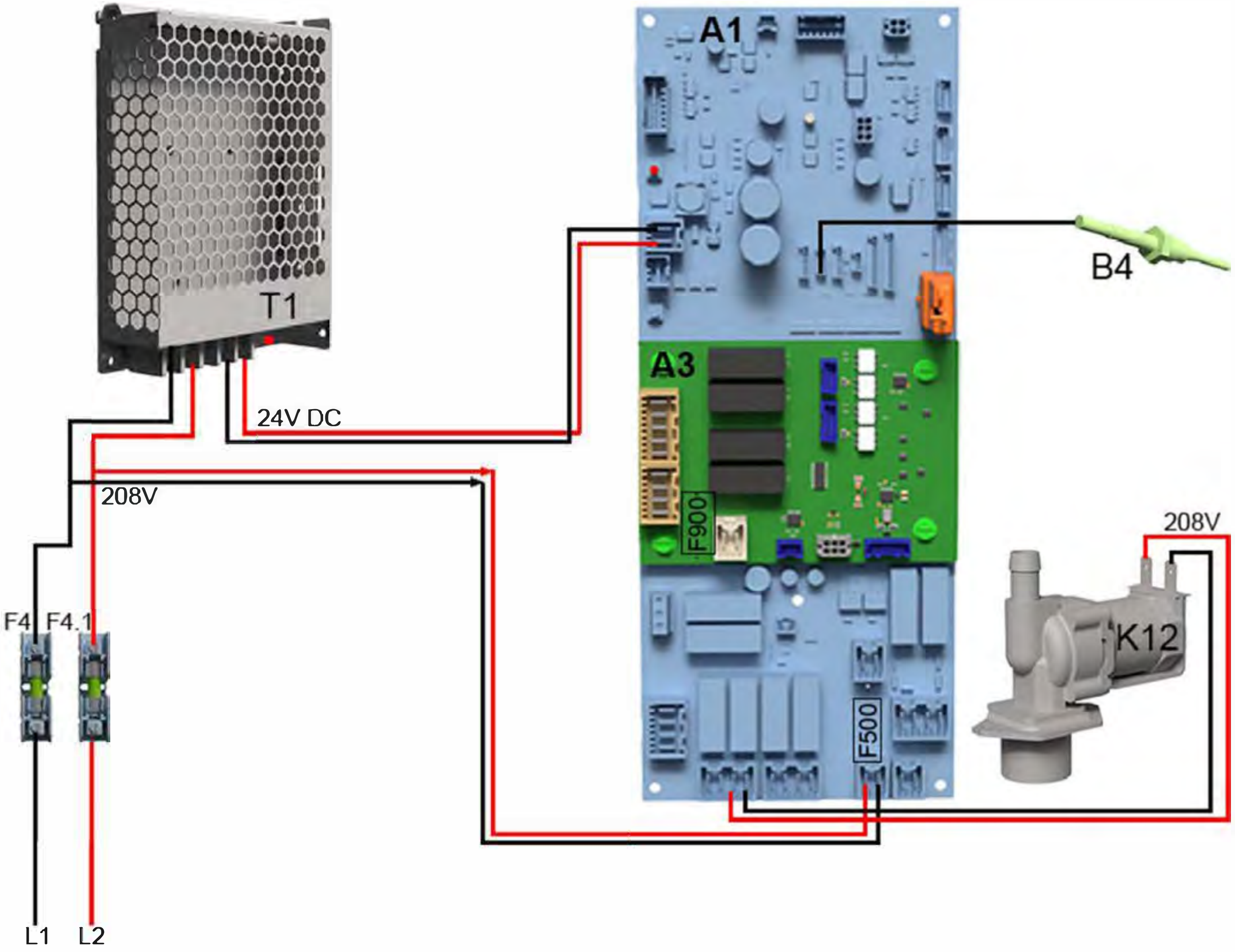
Humidity control (lift magnet)



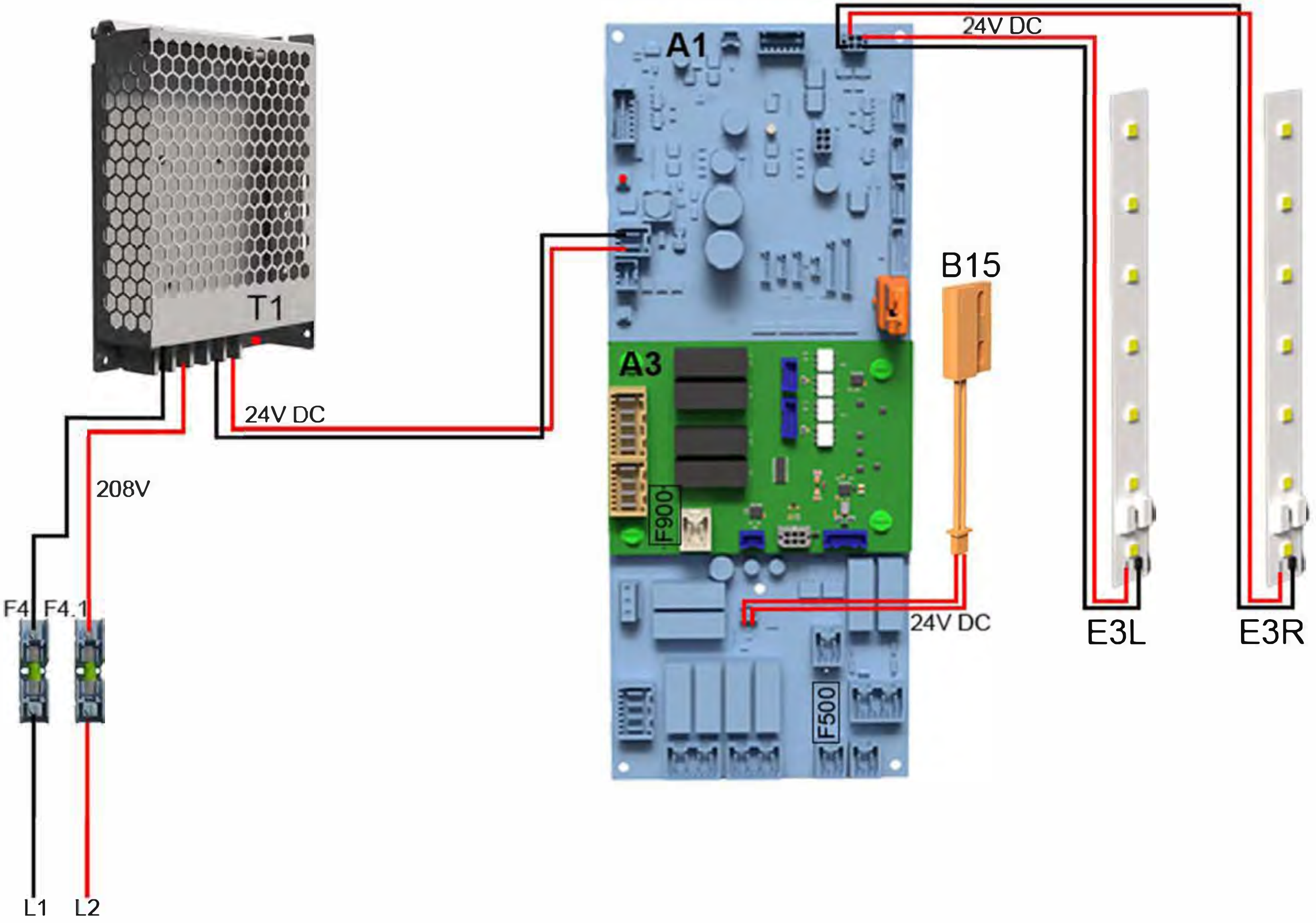
WaveClean



Drain cooling



LED lighting / door contact switch

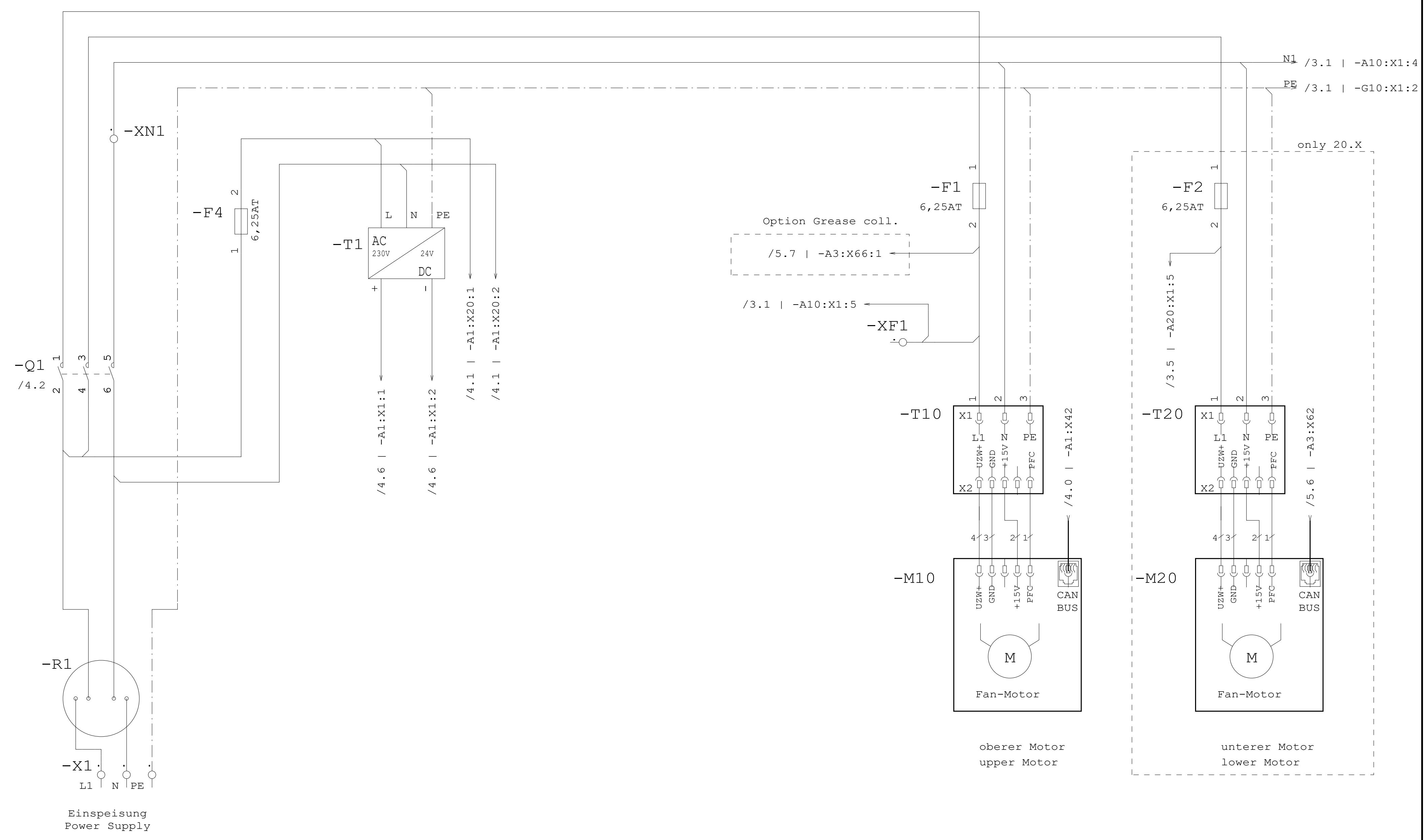


FlexFusion Platinum / Gold

1NPE AC 60Hz120V

FPG-615G2 0,6kW	FGG-615G2 0,6kW
FPG-621G2 0,6kW	FGG-621G2 0,6kW
FPG-115G2 0,6kW	FGG-115G2 0,6kW
FPG-121G2 0,6kW	FGG-121G2 0,6kW
FPG-215G2 1,0kW	FGG-215G2 1,0kW
FPG-221G2 1,0kW	FGG-221G2 1,0kW

					Datum	Name			
				Gez.	30.04.24		Benennung FPG_FGG G2 1NPE 60Hz 120V		
				Gepr.			Zeichnungsnummer 10028356--PS06W-	Maßst.	Seite/n 1 /6
				Frei.					
In.	Änderung	Datum	Name	Norm:	DIN 81346		Ers. f.:	Ers. d.:	



					Datum	Name		
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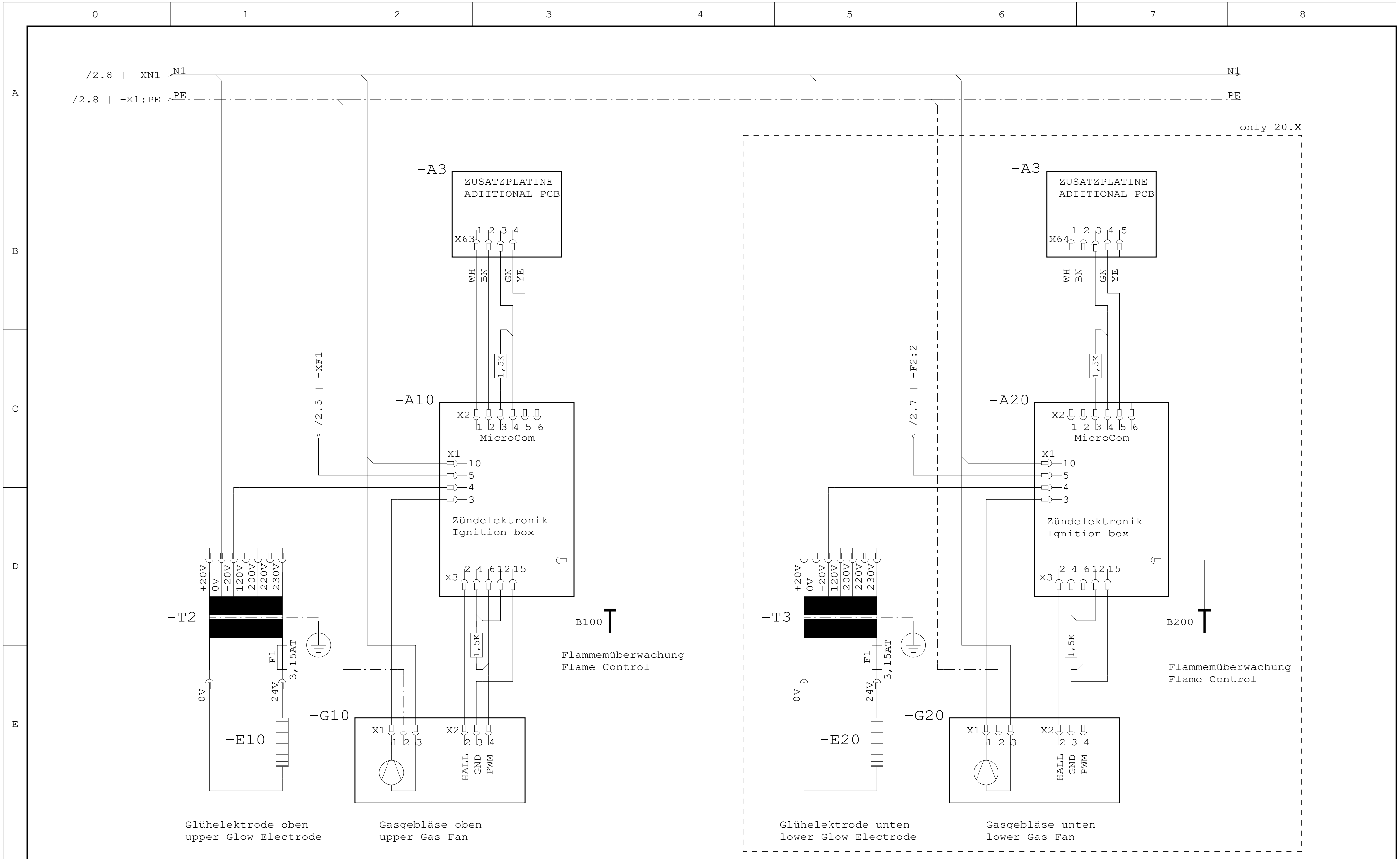
				Gepr.			Zeichnungsnummer 10028356--PS06W-	Maßst.
				Frei.				Seite/n 2 / 6
In.	Änderung	Datum	Name	Norm:	DIN 81346		Ers. f.:	Ers. d.:



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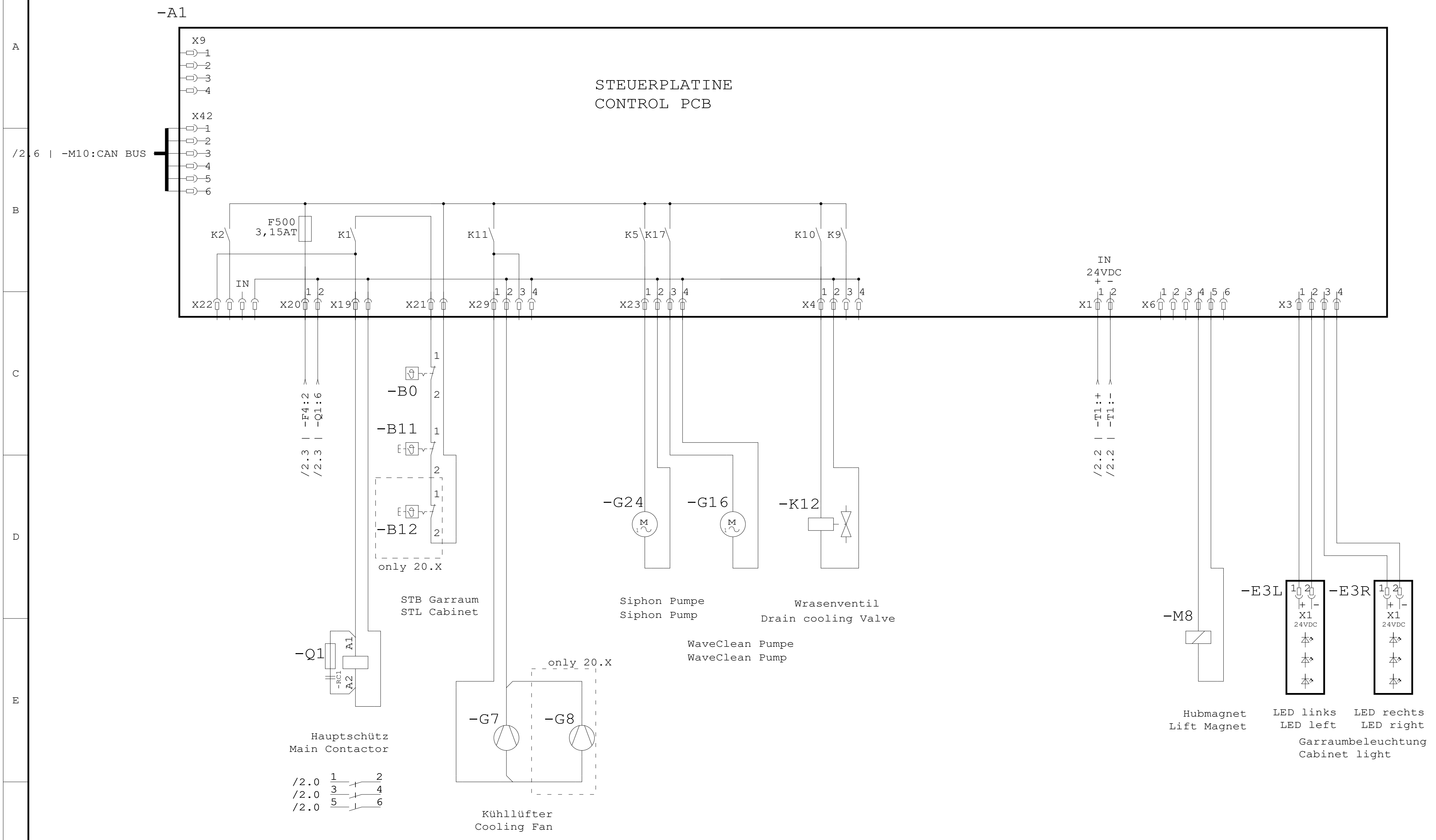
				Frei.		
In.	Änderung	Datum	Name	Norm:	DIN 81346	

Benennung
FPG_FGG G2 1NPE 60Hz 120V
Zeichnungsnummer
10028356--PS06W-
Maßst.
Seite/n
3 / 6
Ers. f.:
Ers. d.:



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				Gepr.		
				Frei.		
				Norm:	DIN 81346	

MKN

Benennung
FPG_FGG G2 1NPE 60Hz 120V

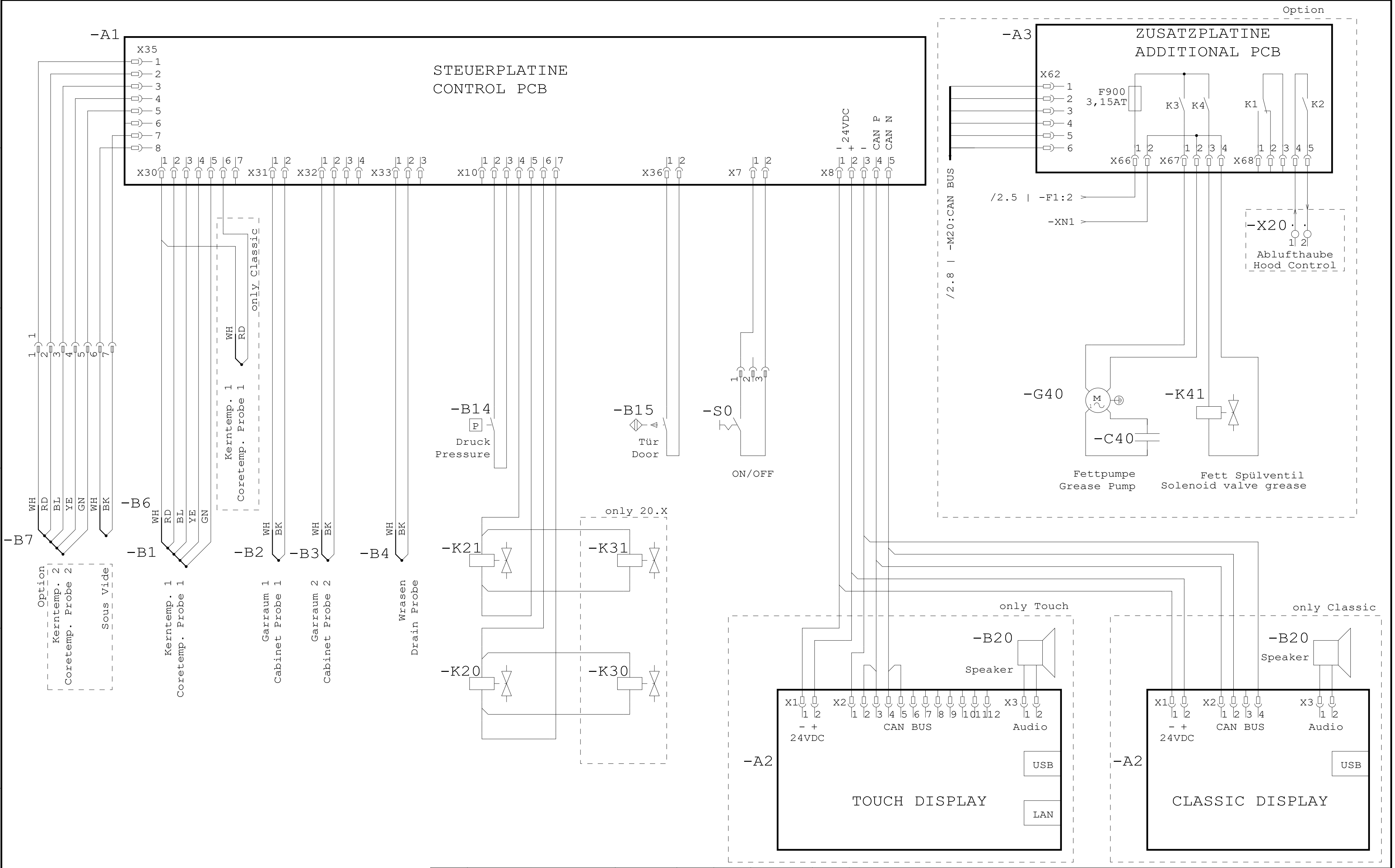
Zeichnungsnummer
10028356--PS06W-

Maßst.

Seite/n
4 / 6

Ers. f.:

Ers. d.:



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				Gepr.			Zeichnungsnummer	Maßst.	Seite/n
				Frei.			10028356--PS06W-		5 / 6
In.	Änderung	Datum	Name	Norm:	DIN 81346		Ers. f.:	Ers. d.:	

Benennung Denomination	MKN Nr. MKN no.	Bezeichnung	Description	Sicherung auf Platine Fuse on board	Bemerkung Comment	
A1	10019108	PLATINE STEUER	BOARD CONTROL			
A2	10035504	TOUCH DISPLAY	TOUCH DISPLAY			
A2	10036762	CLASSIC DISPLAY	CLASSIC DISPLAY		only Classic	
A3	10019107	ZUSATZPLATINE	ADDITIONAL CONROL PCB		Option	
	10023032	MODUL SPEICHERTAG NFC	MODUL SPEICHERTAG NFC			
A10/A20	10014192	Zündelektronik 110 V	Ignition box 110 V		A20 nur/only 20.X	
B0	10014580	Thermoschalter 70°C aus	Thermo Switch 70°C off			
B1	10038443	Kerntemperaturfühler 1 Punkt	PROBE CORE TEMP.		nur/only Classic 6.X/10.X	
	10038444	Kerntemperaturfühler 1 Punkt	PROBE CORE TEMP.		nur/only Classic 20.X	
	10013578	Kerntemperaturfühler 4 Punkt	Core temperature probe		nur/only 6.X/10.X	
	10013579	Kerntemperaturfühler 4 Punkt	Core temperature probe		nur/only 20.X	
B2	10031251	FUEHLER TEMPERATUR GARRAUM	PROBE TEMP. CHAMBER			
B3	10036799	FUEHLER TEMPERATUR GARRAUM 2	PROBE TEMP. CHAMBER 2		nur/only 20.X	
B4	10038174	FUEHLER TEMPERATUR WRASENAB.	PROBE TEMP. WASTE			
	10038175	FUEHLER TEMPERATUR WRASENAB.	PROBE TEMP. WASTE		nur/only 20.X	
B6	10013517	FUEHLER KERNTEMPERATUR SOUS VIDE	PROBE CORE TEMP. SOUS VIDE		Option	
B7	10013518	FUEHLER KERNTEMPERATUR 2	PROBE CORE TEMP. 2		Option	
B11/B12	202806	Sicherheitstemperaturbegrenzer 320 °C	Safety limit switch 320 °C		B12 nur/only 20.X	
	202805	Sicherheitstemperaturbegrenzer 310 °C	Safety limit switch 310 °C		nur/only 6.X	
B14	202601	DRUCKSCHALTER 1 BAR	PRESSURE SWITCH 1 BAR			
B15	10013771	Reedkontaktschalter	Reed contact switch			
B100/B200	201177	Ionisationselektrode (Flammenüberwachung)	Ionisation electrode (flame control)		B200 nur/only 20.X	
E3L / E3R	10030520	MODUL LED 4000K 24V 500.4X12.2	MODUL LED 4000K 24V 500.4X12.2		nur/only 6.X	
	10030521	MODUL LED 4000K 24V 750.6X12.2	MODUL LED 4000K 24V 750.6X12.2		nur/only 10.X	
	10030522	MODUL LED 4000K 24V 1251X12.2	MODUL LED 4000K 24V 1251X12.2		nur/only 20.X	
E10/E20	201176	Glühelektrode, 24 V	Glow ignition electrode; 24 V		E20 nur/only 20.X	
F1/F2	202643	Sicherung Fein 10A Träge Class G	Fuse Fine 10A Slow Class G		F2 only 20.X	
	10034929	Sicherung Fein 10A Träge Class CC	Fuse Fine 10A Slow Class CC			
F4	202644	Sicherung Fein 6A Träge Class G	Fuse Fine 6A Slow Class G			
	10016452	Sicherung Fein 6,25A Träge Class CC	Fuse Fine 6,25A Slow Class CC			
G7/G8	202607	Lüfter 115V; 180x180 mm	Cooling fan 115V V; 180x180 mm		nur/only 20.X	
G9	202617	Lüfter 115V;119x119 mm	Cooling fan; 115V;119x119 mm			
G7	202617	Lüfter 115V;119x119 mm	Cooling fan; 115V;119x119 mm		6.X/10.X	
G10/G20	202606	Gasgebläse 120V	Gas blower 120V		G20 nur/only 20.X	
G16/G24	202613	Pumpe 120 V; 60 Hz	Pump 120 V; 60 Hz			
G40	10029936	Pumpe 130V, 50/60Hz	Pump 130V, 50/60Hz		Option Grease col.	
K12	201193	Magnetventil	Solenoid valve	F3		
K12/K41	10030669	2-fach Magnetventil 120V	double Solenoid valve 120V	F3	Option Grease col.	
K20/K21	10018740	Beschwadungseinheit o. Druckschalter	Water steaming unit w/o pressure switch		without WaveClean	
	10018741	Beschwadungseinheit m. Druckschalter	Water steaming unit w pressure switch			
M8	10022051	HUBMAGNET 24VDC	LIFT MAGNET 24VDC	F5		
M10/M20	10014663	Motor	Motor		M20 nur/only 20.X	
Q1	10014510	Schütz 19 A, 120 V	Contactor 19 A, 120 V	F3		
R1	10014134	Netzfilter	Line filter			
RC1	10014511	RC-Kombination	RC-combination			
RC12,16,24	203698	RC-Kombination	RC-combination			
R10/R20	10014077	Verbindungskabel mit Widerstand	Connecting cable incl. resistor			
S0	10014588	Schalter Ein / Aus	Switch On/Off			
-T1	10018991	Netzteil 24V 100W	Power Supply 24V 100W			
T2/T3	203999	Steuertrafo 108 VA	Transformer 108 VA		T3 nur/only 20.X	
T10/T20	10031778	Leistungsplatine für Motor OK	Power pcb for motor OK		T20 nur/only 20.X	
X1		Netzanschlussklemme	Main supply terminal			

					Datum	Name
				Gez.	30.04.24	
				Gepr.		
				Frei.		
In.	Änderung	Datum	Name	Norm:	DIN 81346	

Benennung
FPG_FGG G2 1NPE 60Hz 120V
Zeichnungsnummer
10028356--PS06W-
Maßst.
Ers. f.:
Ers. d.:

HENNY PENNY
Engineered to Last

Henny Penny Corporation
P.O.Box 60
Eaton,OH 45320
USA

Phone +1 937 456-8400
Fax +1 937 456-8402

Toll free in USA
Phone +1 937 417-8417
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www.hennypenny.com

FM06-065A