

SERVICE MANUAL

STG ROTISSERIE OVEN MODELS

MODELS

Programmable controls STG8 I

Versions:

Solid Back

Pass-Through with rotor button



Model STG8 I

- NOTICE -

This manual is prepared for the use of trained Service Technicians and should not be used by those not properly qualified. If you have attended a training for this product, you may be qualified to perform all the procedures in this manual.

This manual is not intended to be all encompassing. If you have not attended a training for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained technician.

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GENERAL TECHNICAL DATA

This manual covers the STG8 I series rotisserie ovens. Ovens will also be delivered in stacked versions.

- STG8 I - Oven with eight spits (32 to 40 chickens)

All of the information, illustrations and specifications contained in this manual are based on the latest product information available at the time of printing.

TECHNICAL DATA

Type	STG8 I Pass-Through	STG8 I Solid Back
Power	10.500W	10.500W
Fuses needed with power connection 400 V, 3N ~ 50...60 Hz (3 phases with zero)	3 x 16 A	3 x 16 A
Fuses needed with power connection 200 or 230 V, 3 ~ 50...60 Hz (3 phases without zero)	3 x 32 A	3 x 32 A
Power connection	400/230V, 3N ~ 50...60 Hz	
Standard plug from factory CEE-form 5-pole	16 A	16 A
Net weight	181 kg	181 kg
Gross weight	217 kg	217 kg
Height	1015 mm	1015 mm
Width	985 mm	985 mm
Depth	865 mm	850 mm

Tools

- Standard set of tools.
- Metric wrenches, sockets and hex socket key wrenches.
- Multi meter and AC current clamp meter..
- Temperature tester.
- Insulation value tester (Megger).
- Field Service Grounding Kit.

PROGRAMMING INSTRUCTIONS FOR THE STG8 I

SETTINGS MENU

hours : minutes
18 38

save

Use dial to enter value 18:38

day / month / year
21 5 2005

save

Use dial to enter value 18:38

display contrast
75

save

Use dial to enter value 18:41

IN MAIN MENU's

Navigate by arrows up and down or the dial.

Change value by left or right arrow.

Entering Submenu (>) by "right" arrow or "OK" button

IN SUBMENU's

Navigate by left or right arrow

Change value by up or down arrow or the dial

Confirm and leave menu with "OK" button

Leave menu without change with "CANCEL" button.

light on

alarm signal on

temperature °F

set time >

set date >

set contrast >

Use arrows to select setting 18:33

information >

manager >

service >

Use arrows to select setting 18:27

ON - OFF

ON - OFF

°C - °F

MANAGER MENU ---->

change pincode >

preheat mode no

preheat delta 30°C

auto-correct time

time format 24hr

date format D/M/Y

Use arrows to select setting 18:53

set language >

IrDA interface no

NAFEM option yes

pulse times >

alarm delays >

heater delta 20°C

Use arrows to select setting 19:12

SERVICE MENU ---->

device type Multi

correct-factor 4x

auto off >

clean times >

debug RS232 yes

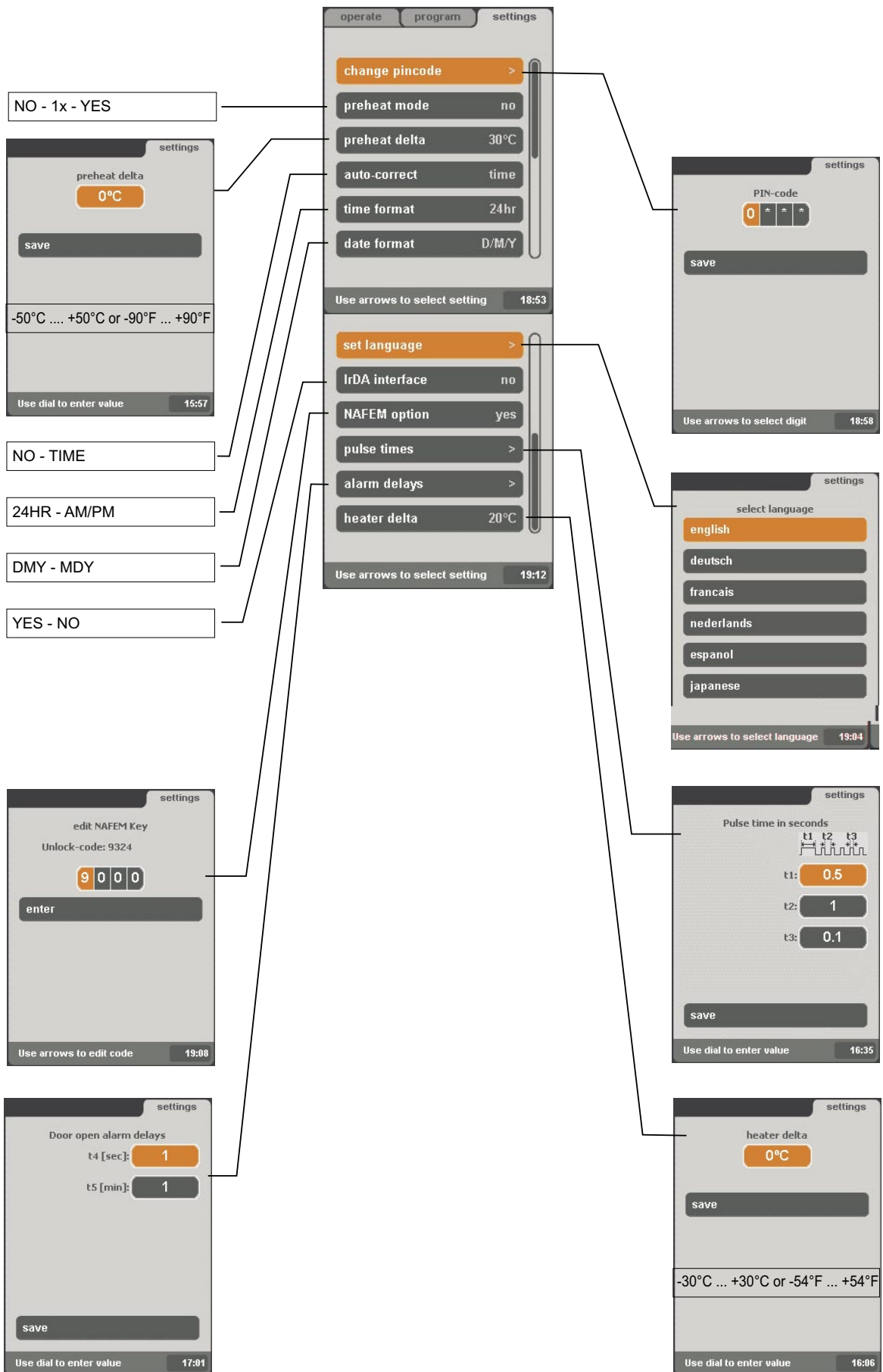
demo mode no

Use arrows to select setting 15:54

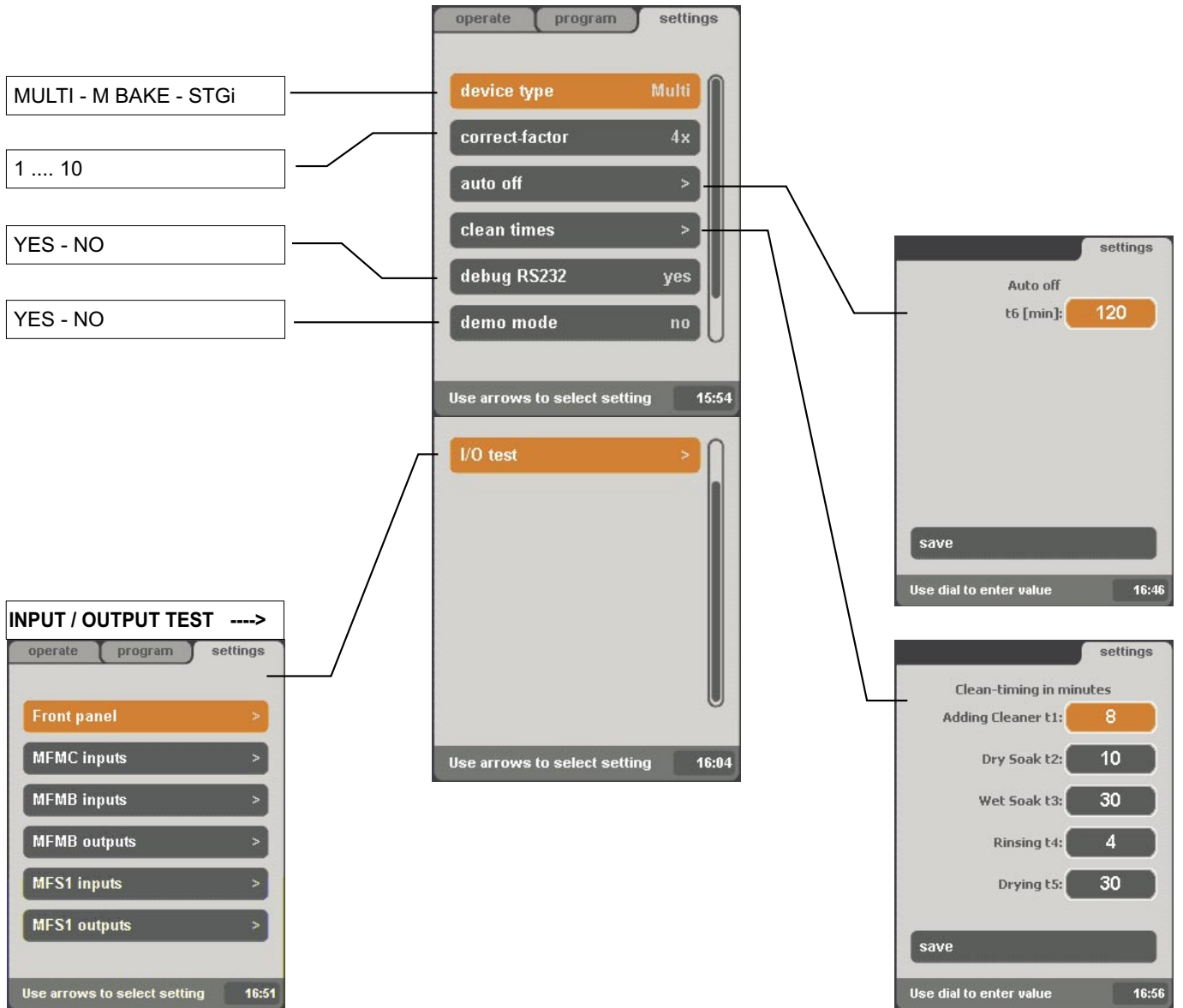
I/O test >

Use arrows to select setting 16:04

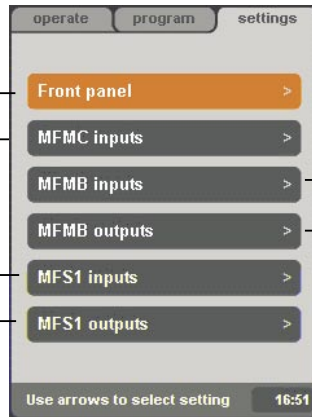
MANAGER MENU



SERVICE MENU access code 4878



INPUT / OUTPUT TEST



FRONTPANEL
Allows a function test of all keys.

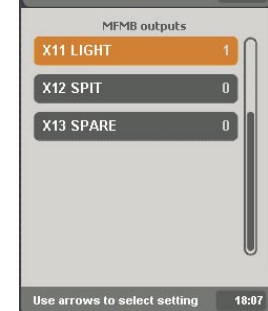
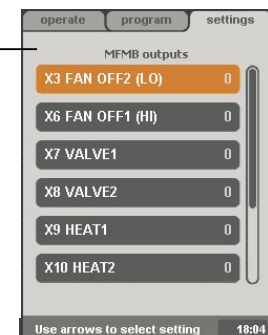
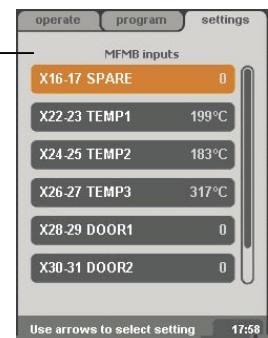
MFMC INPUTS
Shows the electronic board temperature and the dipswitch settings.

MFMB INPUTS
Shows the values of the actual inputs on the "Power and I/O" board.

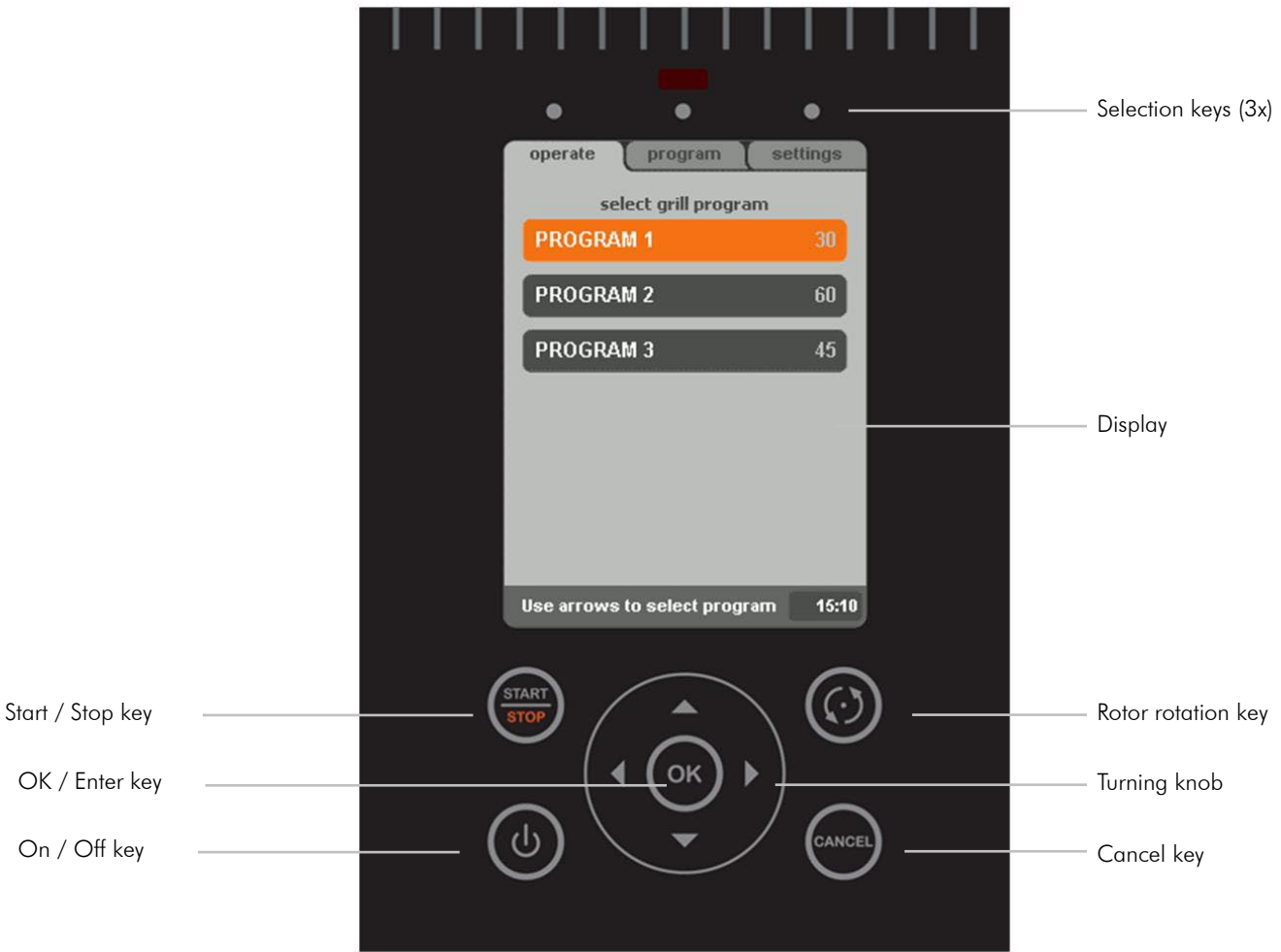
MFMB OUTPUTS
Allows an output test on the outputs connected to the "Power and I/O" board.

MFS1 INPUTS
Shows the values of the actual inputs on the "Extension I/O" board.

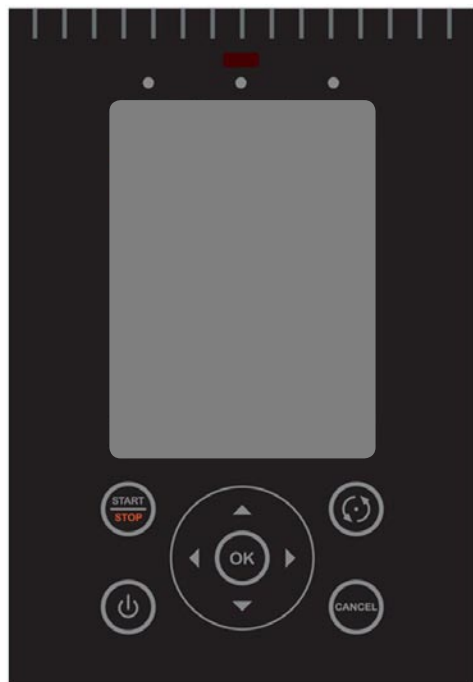
MFS1 OUTPUTS
Allows an output test on the outputs connected to the "Extension" I/O board.



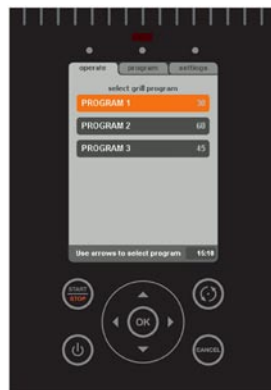
DISPLAY AND KEYS



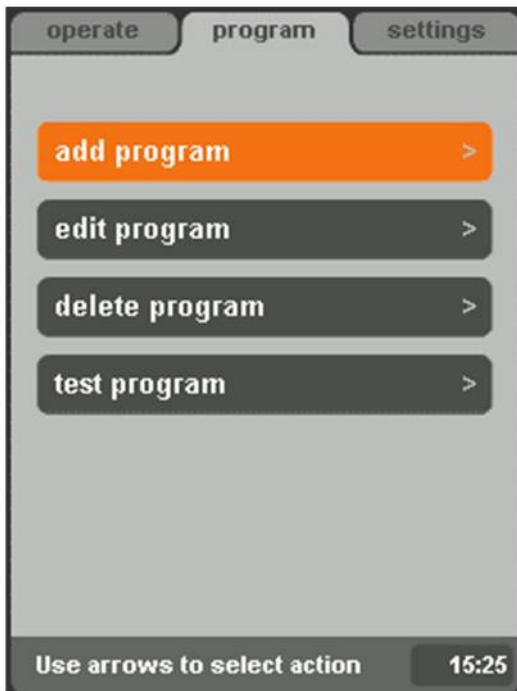
SETTING THE STG8 I



Press and hold the On/Off key during 2 seconds. The display lights up and the rotisserie is ON.



ADD A PROGRAM



Press program key.

Note: when a pin code has been set, first enter the pin code and confirm with OK.

Go to add program with turning knob and confirm with OK.

Edit the program name with turning knob and confirm with 2x OK.



ADD A PROGRAM



Select time table with turning knob and confirm with OK. Set the time of the grilling step and confirm with OK.

Select temperature table with turning knob and confirm with OK. Set the temp. of the grilling step and confirm with OK.

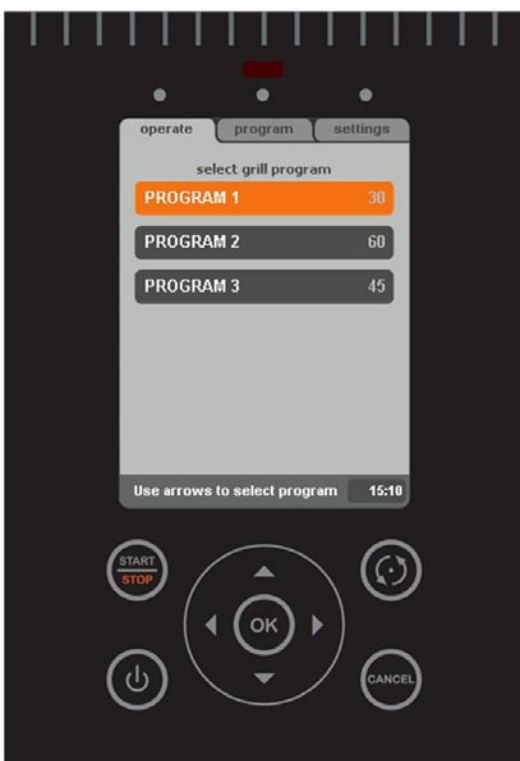
Program next grilling step if necessary.

Program temperature HOLD if necessary. Select next time table and set this on HOLD with turning knob and confirm with OK.

Select temperature table with turning knob and confirm with OK.

Go to save program and confirm with OK.

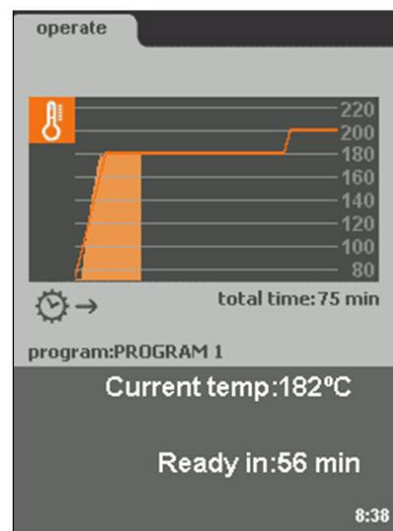
PROGRAM START



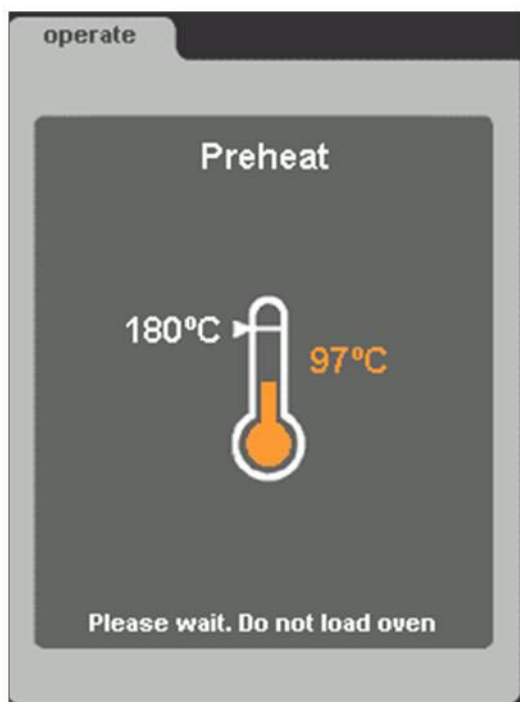
Press operate key.

Select program with the turning knob and confirm with OK.

When no pre heating is activated, process starts and is indicated by means of a heating diagram.

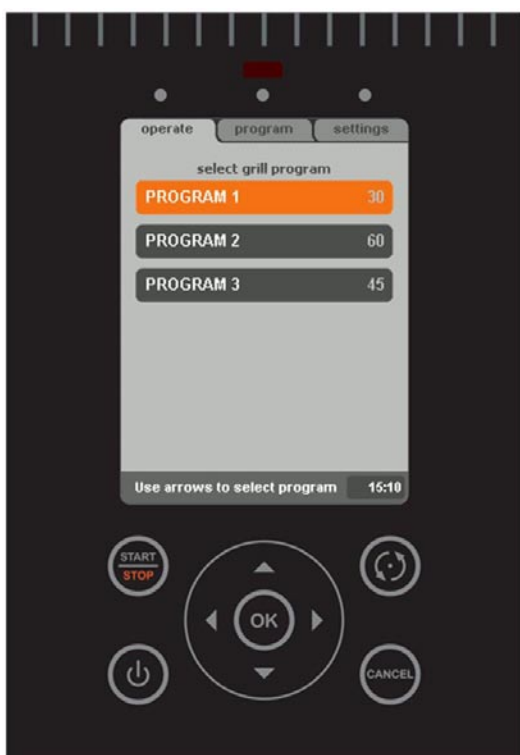


PRE HEATING



When pre heating step is activated in manager menu, the oven will start up with pre heat program after the program start. After reaching the pre heat temperature the display will indicate: load products.

LOADING WITH PRODUCTS



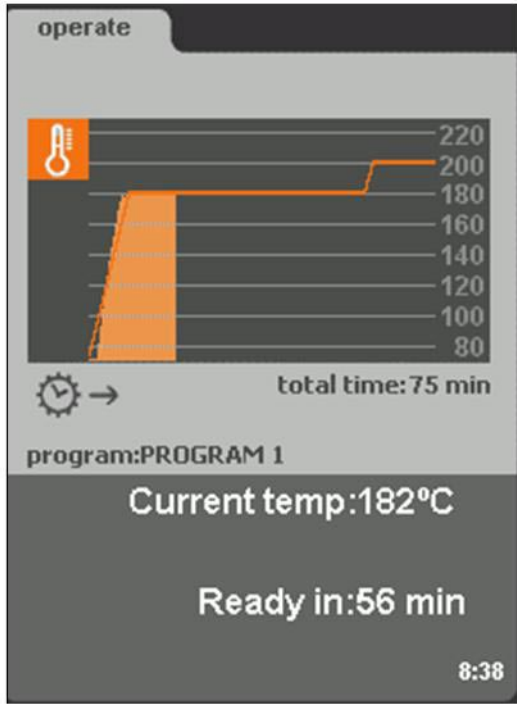
Press rotor key to start turning the rotor

Press rotor key again to stop

Load the rotisserie with products

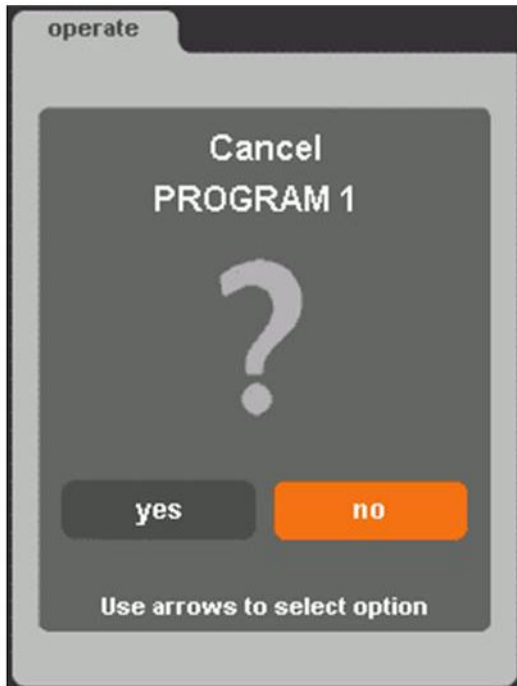
Close the door and press the start key

PROGRAM STOP



Press cancel key.

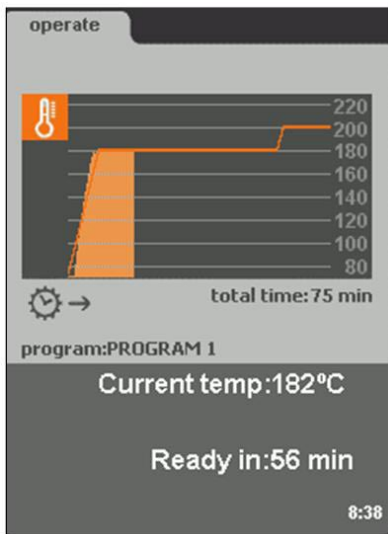
Select yes with turning knob and confirm with OK.



OPTIONAL SETTINGS

- Interrupting active program.
- Editing a program.
- Deleting of a program.
- Running in test program.
- Demo mode.

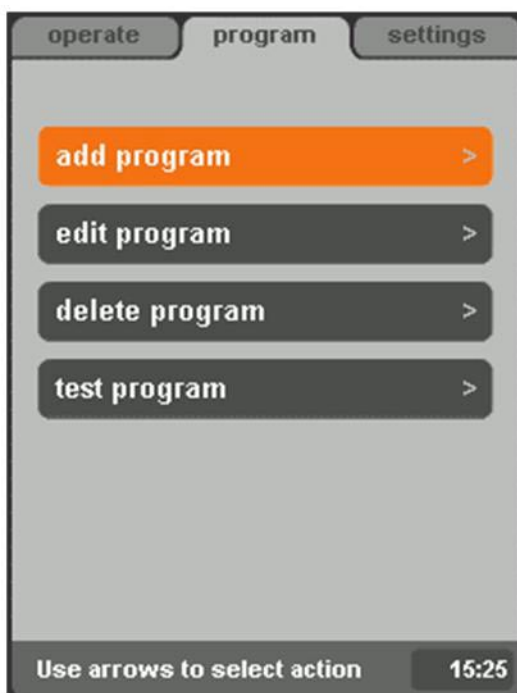
INTERRUPTING ACTIVE PROGRAM



Press start/stop key. Heating, blowers and rotation stops.

Press start/stop key again to resume.

EDIT A PROGRAM



Press program key.

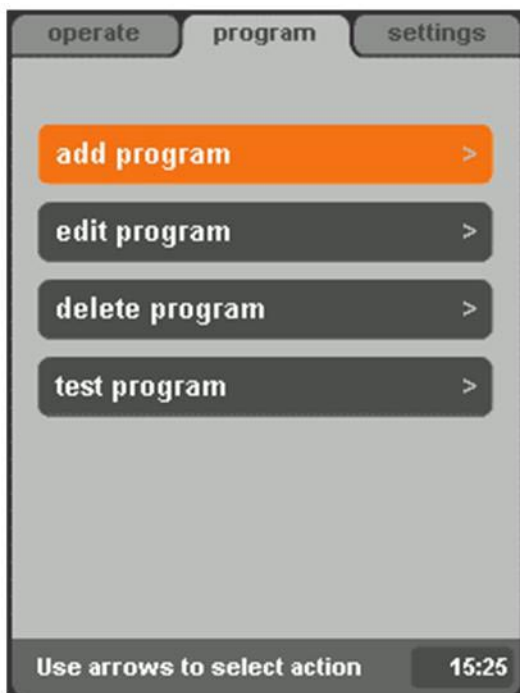
Note: when a pin code has been set, first enter the pin code and confirm with OK.

Go to edit program with turning knob and confirm with OK.

Now change the name if necessary and confirm with OK.

Now change time and temperature if necessary. Then go to save program and confirm with OK.

DELETE A PROGRAM



Press program key.

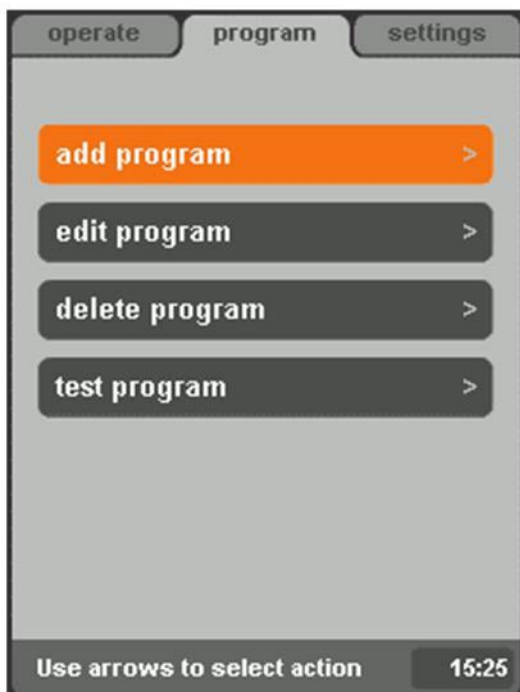
Note: when a pin code has been set, first enter the pin code and confirm with OK.

Go to delete program with turning knob and confirm with OK.

Now select the program to delete and confirm with OK.

Select yes with turning knob and confirm with OK.

TEST PROGRAM



In test program you can run a program and you have the possibility to change time and temperature during the process.

Press program key.

Note: when a pin code has been set, first enter the pin code and confirm with OK.

Go to test program with the turning knob and confirm with OK.

Now select the program and confirm with OK. If you press the OK key during the program you can change the settings.

Go to save program and confirm with OK. New settings are now saved.

DEMO MODE



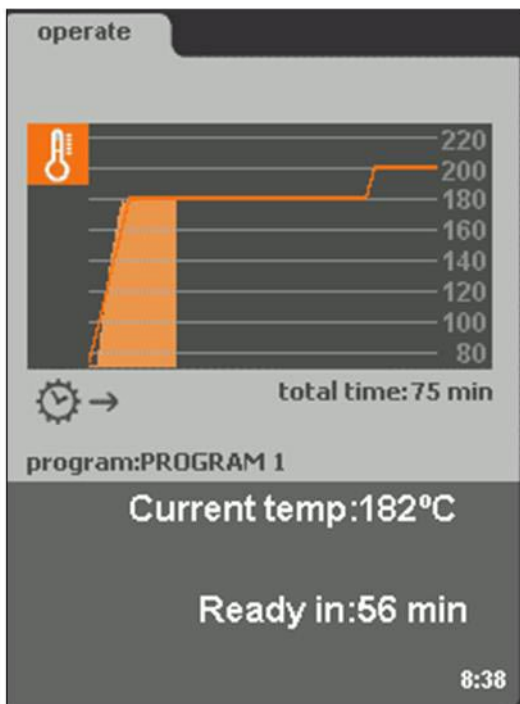
In the demo mode you can simulate a cooking cycle. This is used for exhibitions and runs just on 1 phase (L1).

Go to the service menu and activate the access code 4878.

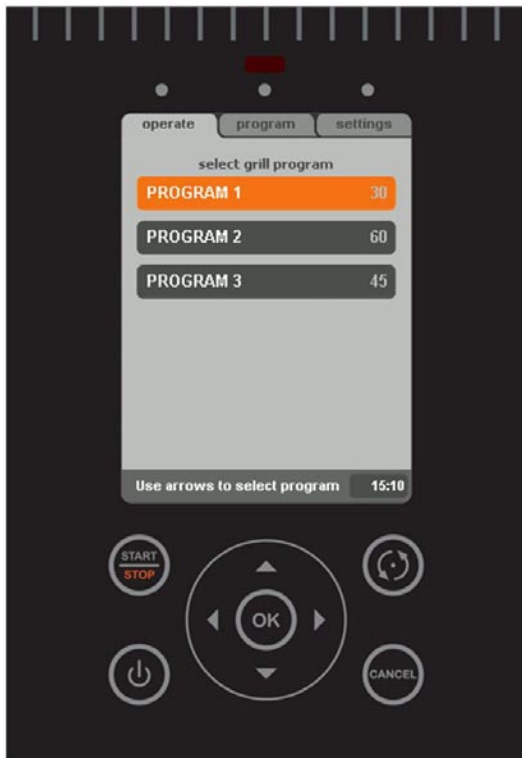
Go to demo mode with the turning knob and adjust this on yes.

Go to operate and select a program with the turning knob and confirm with OK.

Start the program and now on the display the program is simulated by means of a heating diagram.



SWITCHING THE ROTISSERIE OFF



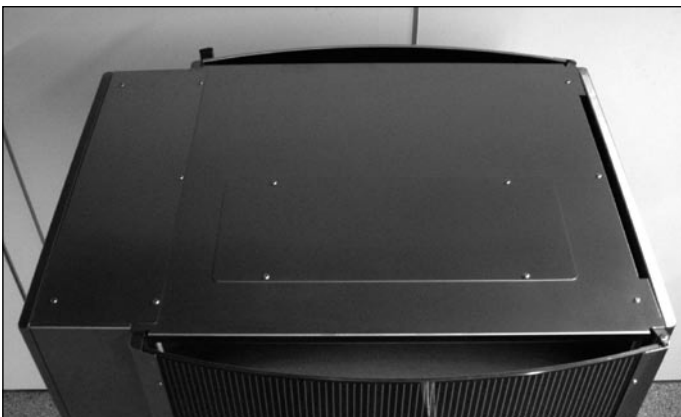
Press and hold both keys On/Off and settings until the display light goes out and the rotisserie is OFF

REMOVAL AND REPLACEMENT OF PARTS FOR THE STG8 I

WARNING: Disconnect the electrical power to the machine at the main circuit box. Place a tag on the circuit box indicating the circuit is being serviced.

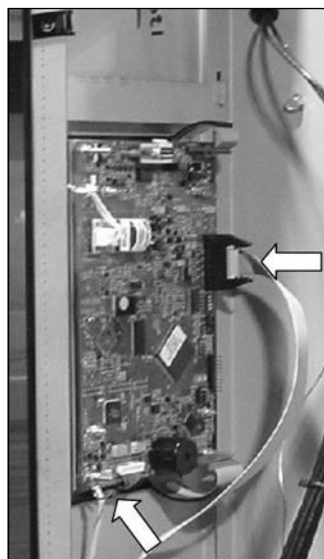
RIGHT OR LEFT SIDE PANEL

1. Remove the screws that secure the panel to the frame.
2. Remove the panel.
3. Reverse the procedure to install.

TOP COVER

1. Remove the left side panel according prior procedure.
2. Remove the screws securing both large and small top covers.
3. Remove the top cover. (Lift at left side and remove to the left).
4. Reverse the procedure to install.

GLASS OPERATION PANEL WITH BACK PLATE

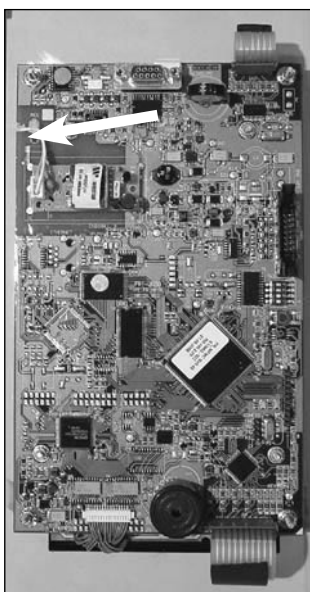


1. Remove the right side panel according prior procedure.
2. Remove the screws that secure the small top cover plate and remove the cover plate.
3. Remove the 2 nuts on the backside of the operating panel.
4. Remove the nut from the earth wire on the main board and remove the earth wire.
5. Remove the grey flat cable from the main board.
6. Lift the operating panel out of the locking slots and remove the panel.
7. Remove the flat cables on the main board.
8. Remove the 4 nuts that secure the main board and remove the board.
9. Reverse the procedure to install.



Note: On a stacked unit both operation panels are located on the top oven.

CPU BOARD AND DISPLAY (CENTRAL PROCESSOR UNIT)

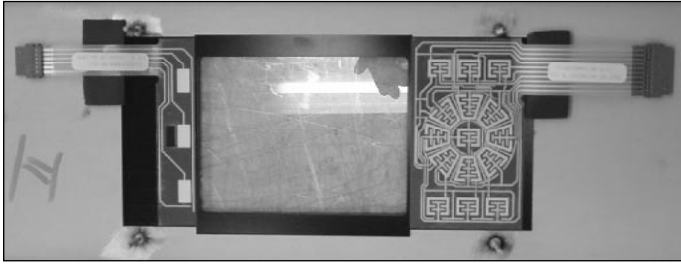


Before changing the CPU board be sure to download or write down the grilling programs.

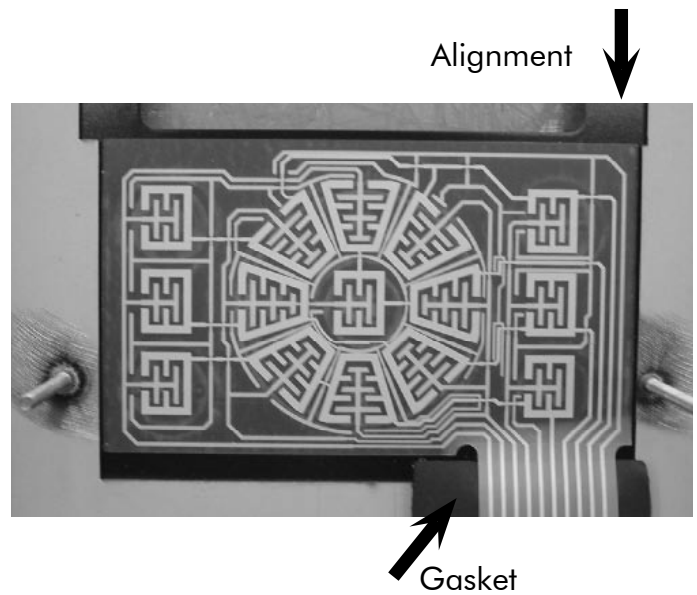
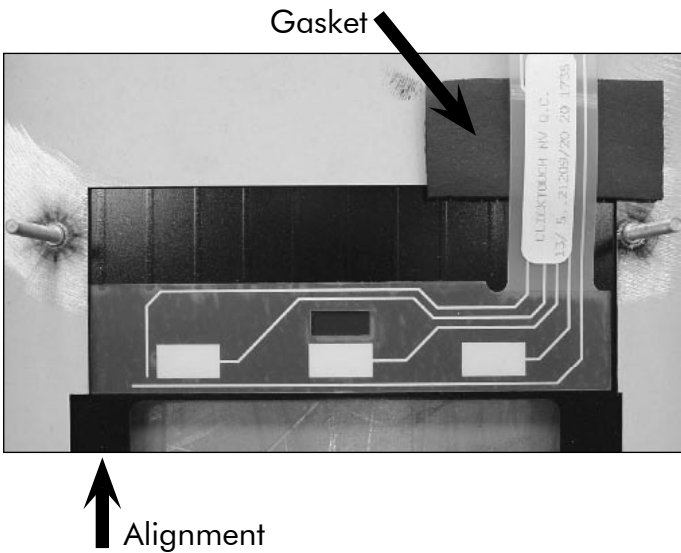
1. Remove the right side panel according prior procedure.
2. Disconnect the wiring and flat cables on the board.
3. Remove the 4 nuts that secure the main board and remove the board.
4. Remove the connectors of the display on the board and remove the ty-rap.
5. Remove the 4 screws and nuts that secure the display and remove display.
6. Reverse the procedure to install.

Note: When installing a new CPU board, check all settings in the manager and service menu and load the programs.

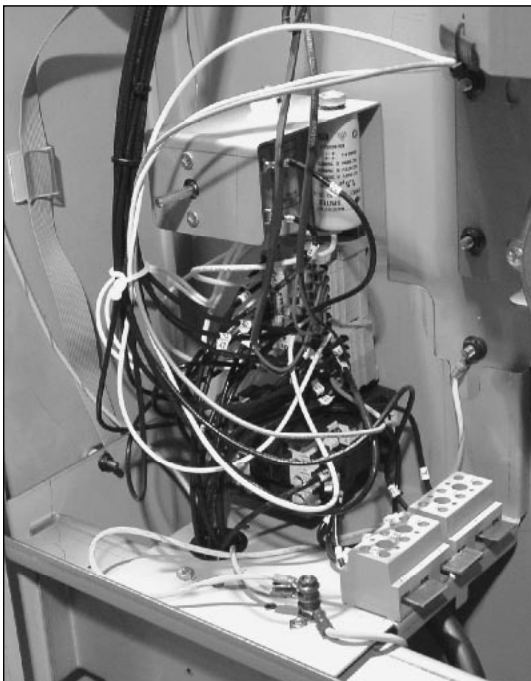
KEYPAD



1. Remove the glass panel with back plate according prior procedure.
2. Remove the CPU board according prior procedure.
3. Remove the decal and degrease the surface of the glass.
4. Glue the new decal on its place. The corners on the steel back plate are the frame of reference for the decal.
5. Reverse the procedure to install.

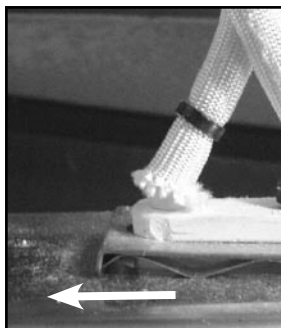


ELECTRIC PANEL



1. Remove the right side panel according prior procedure.
2. Remove the bolt and nuts on the inside bottom of the electric panel.
3. Disconnect the wiring.
4. Lift the electric panel out of the locking slots and remove the panel.
5. Reverse the procedure to install.

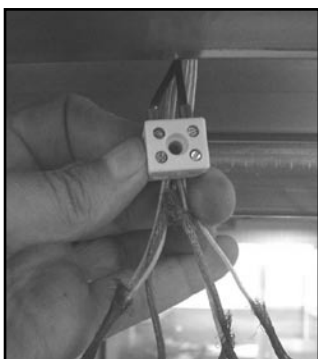
CERAMIC ELEMENT



1. Remove the rotor discs, suction and fan plate according prior procedures.
2. Remove the 3 screws that secure the reflector ass. and lower the reflector.
3. Loosen the bolts that secure the cover plate and turn the cover plate open towards yourself.
4. Lower the reflector until the connector is on the inside of the cabinet.
5. Remove the wiring of the ceramic element on the connector.
6. Remove the ceramic element from the reflector by sliding off the clip.
7. Reverse the procedure to install.

Note: On a single unit or on the top side of a stacked unit it is easier to remove the top plate and access the connector from this side.

HALOGEN LAMP (HOLDER)



1. Remove the screws that secure the lamp holder.
2. Lower the lamp holder until the connector is on the inside of the cabinet.
3. Remove the glass and lamp from the lamp holder. Turning direction of glass is counter clockwise.
4. Remove the wiring of the lamp on the connector.
5. Remove the holder. You have to deform the holder to take it out.
6. Insert a new holder and click this in.
7. Reverse the procedure to install.

Note: On a single unit or on the top side of a stacked unit it is easier to remove the top plate and access the connector from this side.

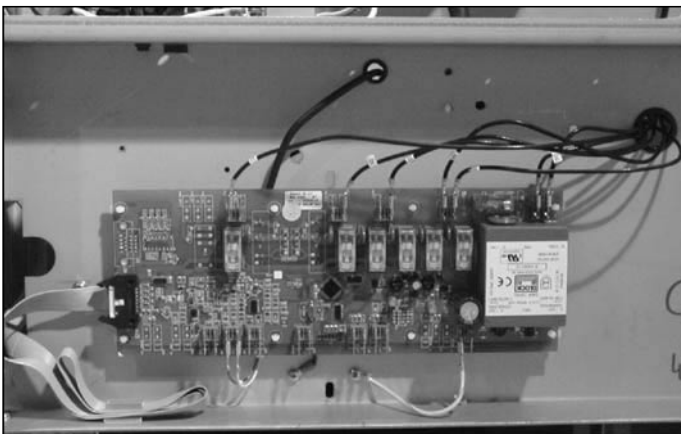
ELECTRONIC TRANSFORMER



1. Remove the right side panel according prior procedure.
2. Remove the screw that secures the cover plate and remove the cover plate.
3. Remove the wiring.
4. Remove the screw that secures the transformer and remove the transformer.
5. Reverse the procedure to install.



POWER AND I/O BOARD



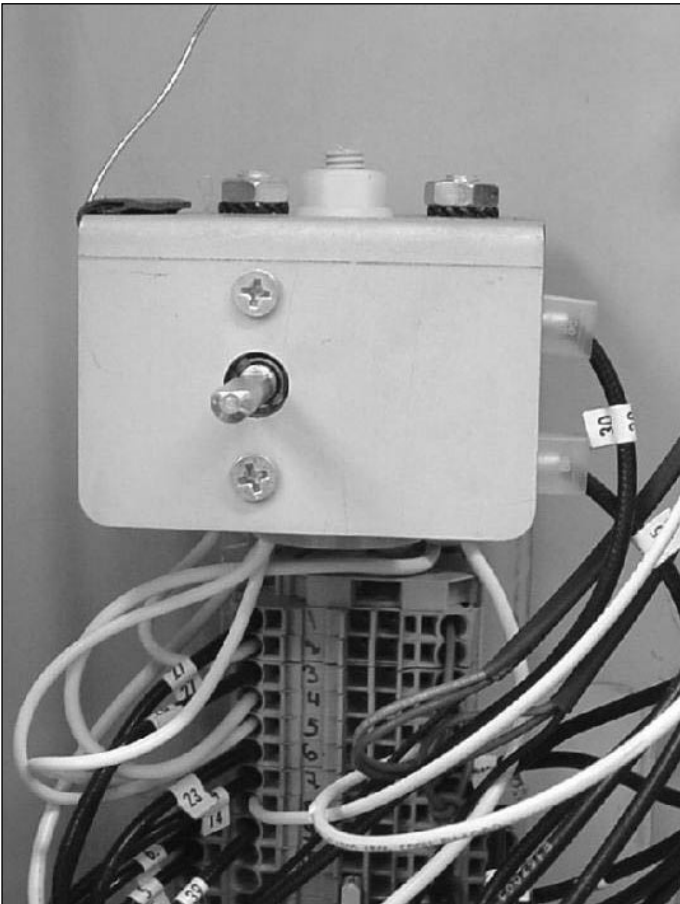
1. Remove the right side panel according prior procedure.
2. Disconnect wiring and flat cable on the board.
3. Remove the board from the clips by pressing the clips together.
4. Reverse the procedure to install.

HIGH LIMIT THERMOSTAT

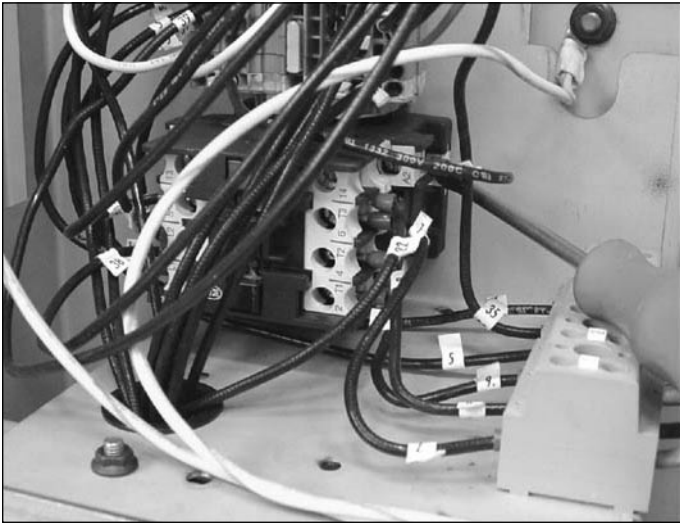


1. Remove the right side panel according prior procedure.
2. Remove the suction and fan plate on the inside of the oven.
3. Remove the thermostat-probe from the clip in the oven and guide it outside through the opening in the side wall.
4. Remove the screws on the electric panel that secure the thermostat.
5. Remove the thermostat and disconnect the wiring.
6. Reverse the procedure to install.

Note: Set the new high limit thermostat to its maximum position.



CONTACTOR



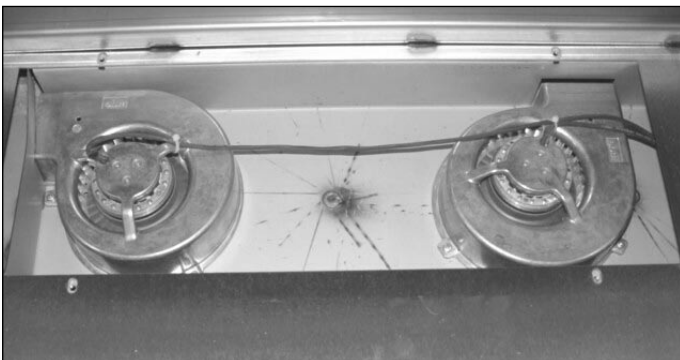
1. Remove the right side panel according prior procedure.
2. Disconnect the lead wires to the switch.
3. Push down on the locking tab and lift out and then up to remove it from the mounting bracket.
4. Reverse the procedure to install.

BLOWER MOTOR



1. Remove the right side panel and the top cover according to prior procedures.
2. Remove the rotor discs, suction and fan plate in the oven.
3. Remove the wing nut on the fan blade and remove fan blade. (Left handed threads)
4. Disconnect wiring of the motor.
5. Remove the screws that secure the motor and remove the motor.
6. Reverse the procedure to install.

Note: The blowers are equipped with a capacitor. Check the direction of rotation of the motor (clockwise) and change the wiring if necessary.



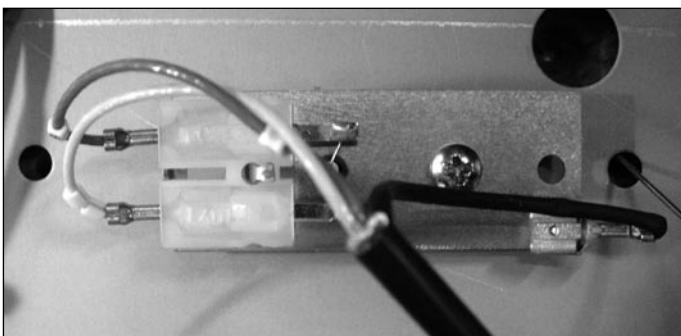
BLOWER MOTOR BOTTOM ROTISSERIE (STACKED STG8 I)



1. Remove the right side panel according prior procedures.
2. Remove the rotor discs, suction and fan plate in the bottom oven.
3. Remove the wing nut on the fan blade and remove fan blade. Left handed threads.
4. Remove fat drawer from upper oven.
5. Remove the bolts that secure the intermediate plate and remove this plate.
6. Remove the drip trays from the upper oven.
7. Remove the bolts that secure the top plate and remove the top plate.
8. Disconnect wiring of the motor.
9. Remove the screws that secure the motor and remove the motor.
10. Reverse the procedure to install.

Note: *The blowers are equipped with a capacitor. Check the direction of rotation of the motor (clockwise) and change the wiring if necessary.*

PT1000 SENSOR



1. Remove the right side panel according to prior procedure.
2. Disconnect the wiring of the sensor.
3. Remove the screw that secures the sensor and remove the sensor.
4. Reverse the procedure to install.

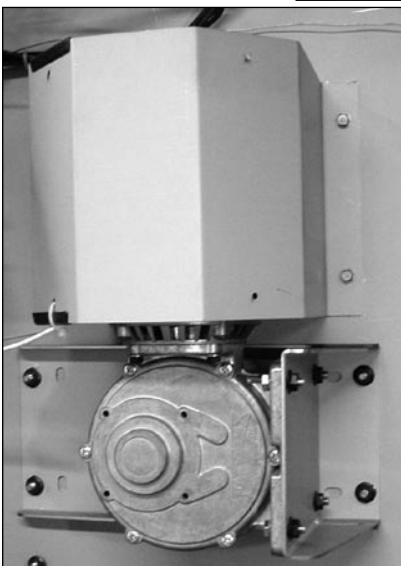
Note: *The wiring cable is an insulated cable with an earthing screen.*

HEATING ELEMENT



1. Remove the rotor discs, right side panel, suction and fan plate according prior procedures.
2. Disconnect the wiring from the element.
3. Remove the mounting nut.
4. Remove the element from the mounting clip and pull it from the wall.
5. Reverse the procedure to install.

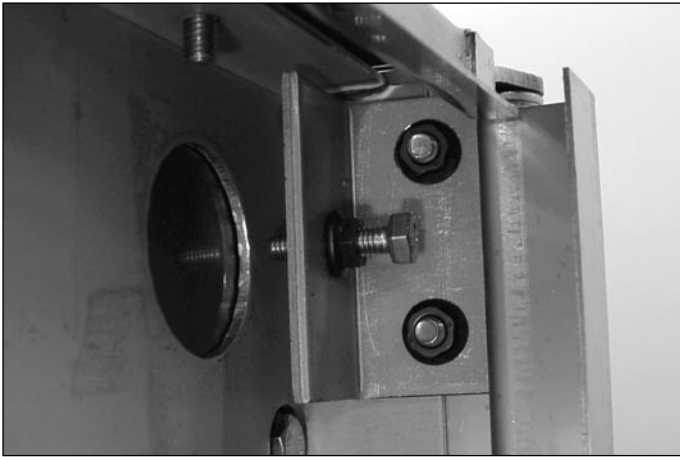
DRIVE MOTOR



1. Remove the right side panel and rotor discs according prior procedure.
2. Disconnect the wiring of the motor. Check where the wire, marked A is connected.
3. Remove the screws that secure the fan cover and remove the cover.
4. Set the drive arm in a position vertical downwards. This can be done manually or by turning the fan blade by hand.
5. Mark the position of the motor support with a marker.
6. Remove the bolts that secure the motor and the nuts that secure the motor support and remove the motor.
7. Check the white Teflon ring. Replace if necessary.
8. Install the fan blade on the new motor.
9. Reverse the procedure to install.

Note: Always make a test run on maximum temperature to insure the motor is well mounted and adjusted.

DOOR ADJUSTMENT (LEFT SIDE)



1. Remove the left side panel according prior procedure.
2. Loosen the nuts of the upper hinge. The door must be closed.
3. Loosen the locknut and adjust the bolt in or out to adjust the door.
4. Tighten the nuts of the hinge and mount the left-hand panel.

DOOR GLASS INSIDE



1. Lift the door upward out of the hinges and place on a table.
 2. Remove the cap nuts and rings on the profiles of the door.
 3. Remove the profiles from the glass.
 4. Mount the profiles on the new glass. Do not forget the nylon rings inside the holes and the rings between metal and glass.
 5. Mount the cap nuts and rings.
- Note!** Tightening of nuts max. 4,2 Nm
6. Place the door in the hinges.

DOOR GLASS OUTSIDE



1. Lift the inner door out of the hinges and lay aside.
2. Remove the left side panel according prior procedure.
3. Remove the 2 nuts behind the top hinge. The door must be closed.
4. Hold the door on both sides and move this towards yourself, before lifting it out of the hinges. Place the door with the rounded side down on a table.
5. Remove the screws, cap nuts and rings on the profiles of the door and remove the profiles.
6. Mount the profiles on the new glass. Do not forget the nylon rings inside the holes and the rings between metal and glass.
7. Reverse the procedure to install.

WARNING: Disconnect the electrical power to the machine at the main circuit box. Place a tag on the circuit box indicating the circuit is being serviced.

PROGRAMMING WITH FIPS

In order to start communication between your computer and the STG intelligent, the following parameters have to be checked and changed if necessary:

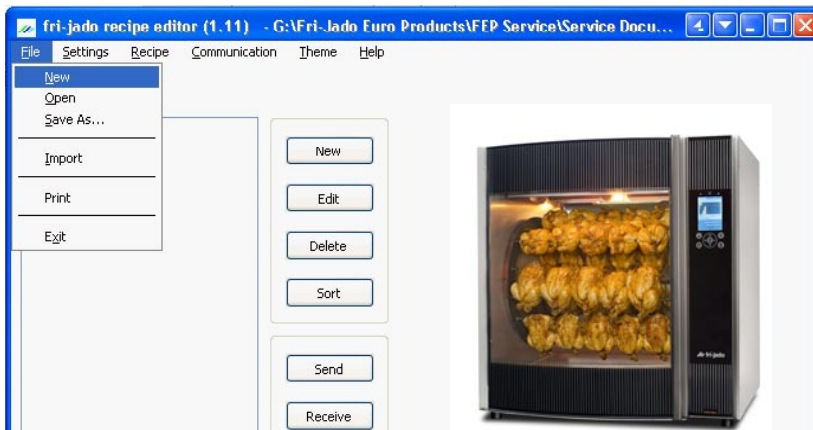
Menu	Item	Setting
Manager menu	IrDA interface	no
Service menu	debug RS232	yes
Service menu	demo mode	no

Open FIPS with the short cut on the desk top of your computer. Connect RS232 cable between computer and unit. Select the com port of the computer (usually com 1). To communicate between computer and unit, first always select "Connect" button.



THE PULL DOWN MENU'S

The file menu.



- New:** Opens a new file. The recipes field is made empty. And you will be asked if the current recipes have to be stored.
- Open:** Opens an existing program.
- Save as:** Saves the new made or modified program.
- Import:** Importing parts of existing programs.
- Print:** Makes a print out of the selected programs.
- Exit:** Closes FIPS.

The settings menu



- Device:** Selection of equipment.
- Temperature:** Selection of temperature indication. °C or °F.

The recipe menu



- New: To make a new recipe.
- Edit: Changing selected recipe.
- Sort: Sorting all recipes alphabetically.
- Delete: Deleting of selected recipe.

The communication menu



- Select grill: Selection of IP address.
- Receiving all recipes from grill: Download all recipes. Recipes also stay in grill.
- Send all recipes to grill: Upload all recipes to grill. All recipes will be overwritten.
- Store grill settings to file: For future use.
- Restore grill settings from file: For future use.
- Update grill software: Upload of new system software. Recipes stay in grill.
- HACCP: Download of all cooking data.
- Configuration: Network connections: Information.
Modem: Information.
Phone book: Information.
- Service: Receive time out: Fault messages when no connection in seconds.
Device information: Information.
View settings: Communication settings.

The theme menu.



Always adjust to Fri-Jado.

The help menu



About: Indication of the FIPS version.

The buttons



- New: Making of a new recipe.
- Edit: Changing selected recipe.
- Delete: Deleting of selected recipe.
- Sort: Sorting all recipes alphabetically.
- Send: Sending of a recipe to grill.
- Receive: Download of a recipe from grill. Existing recipe stays in grill.
- Connect: Making connection between computer and grill.
- Com: Selection of com port computer.
- Disconnect: Aborting connection with grill.

PT1000 SENSOR TEST

Temperature		Resistance
°F	°C	± 5 Ohms
60	16	1062
70	21	1082
80	27	1106
90	32	1124
100	38	1148
125	52	1202
150	65	1252
200	94	1362
250	121	1464
350	177	1674
450	233	1880

1. Remove the right side panel according prior procedure.
2. Remove the wiring from the sensor.
3. Connect a temperature sensor to the probe for comparison.
4. Test the probe with an Ohmmeter.

HEATING ELEMENT TEST

Type	Wattage/Voltage	Resistance Ω -5% + 10%	Current A
STG8 i	3100 / 208	14.0	14.9
	3100 / 230	17.0	13.4
STG8 i	500 / 230	105.0	2.2 (2.0 at 208V)

Note: When testing the resistance of the element remove the wiring.

KEYPAD TEST

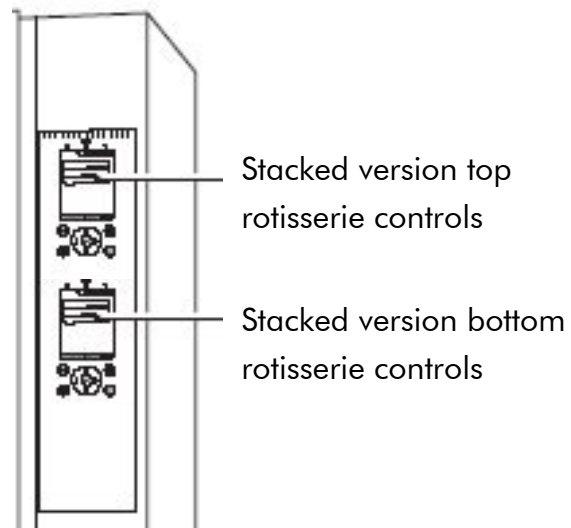
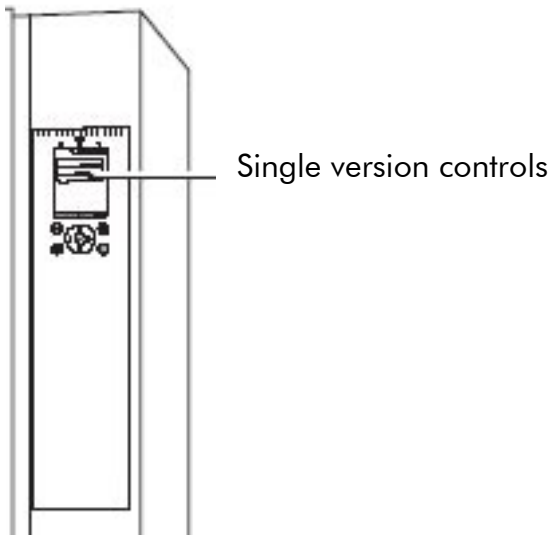


To perform a keypad test the unit must be switched off first. Another possibility is to activate this in the "service menu" under "I/O test" and "front panel".

There are 2 keypads. One for the selection keys in the top and one for the function keys below.

1. Press and hold the On/Off key during 5 seconds. On display the front panel is indicated, see below.
2. Press all keys and the turning knob to execute a full test of all keys. This is indicated by an orange square on the key.
3. Press the "cancel" key to exit.

CONTROL LOCATION



PART 1: GENERAL TROUBLESHOOTING LIST

TROUBLESHOOTING THE STG8 I ROTISSERIE

Symptom	Possible causes
No power to oven controls.	<ol style="list-style-type: none"> 1. Main breaker open. 2. Fuse F1 burned. 3. Wiring loose.
Main fuse or breaker blows.	<ol style="list-style-type: none"> 1. Wiring incorrectly. 2. Heating element, drive motor, blower or magnetic switch shorted. 3. Wiring shorted.
Drive motor does not run.	<ol style="list-style-type: none"> 1. Capacitor malfunction. 2. Wiring loose. 3. Motor malfunction. 4. Relay on power and I/O board malfunction. (x12)
Blower motor does not run.	<ol style="list-style-type: none"> 1. Capacitor malfunction. 2. Wiring loose. 3. Motor inoperative. 4. Relay on power and I/O board malfunction. (x6 + x13)
Oventemperature differs from temperature setting in program mode.	<ol style="list-style-type: none"> 1. Safety thermostat malfunction. 2. Blower motor(s) inoperative (turning direction?) 3. Electronic control inoperative. 4. PT-1000 sensor malfunction. 5. Dirty fanguard or fanblade(s).
All heating elements out, one quartzlamp and blowers operate while oven cavity is below set temperature.	<ol style="list-style-type: none"> 1. Safety thermostat malfunction. 2. Contactor inoperative. 3. Wiring loose.
Oven temperature does not reach desired temperature in program mode.	<ol style="list-style-type: none"> 1. Safety thermostat malfunction. 2. PT-1000 sensor malfunction. 3. Electronic control inoperative. 4. Heater(s) inoperative. 5. Incorrect line voltage.
No display and/or keypad does not function.	<ol style="list-style-type: none"> 1. Loose flatcable from CPU to power and I/O board. 2. Loose connector(s) from display to CPU board. 3. Fuse F4 (125mA) burned. 4. Fuse F1 or F2 burned. 5. Display and/or electronic control malfunction. 6. Keypad malfunction.
Halogen lamp(s) do not light up	<ol style="list-style-type: none"> 1. Lamps broken 2. Wiring loose 3. Transformer malfunction

PART 2: ANALYTIC TROUBLESHOOTING LIST

SERVICING AND REPAIRING OF THE STG8 I ROTISSERIE

Servicing and repairing of the rotisseries STG 8 i

This is an analytic description for servicing and repairing all major parts of the rotisseries and warmers. It consists off 4 basic steps to recognize and solve the problems. These steps are:

1. Symptoms.
2. Possible causes.
3. Solving of the problem: checking/action.
4. Replacing of parts and testing.
 - a. Replacing is described in the service manual.
 - b. For testing see programming of rotisserie on page 5 in this manual.

Description of part	Symptoms	Possible causes	Solving: checking/action
Inside door	Broken glass	Slamming of door.	Give instruction to operator.
		Fastening bolts and nuts are loose.	Tighten all fastenings.
		No sealing ring between steel and glass.	Mount new glass with sealing rings between glass and steel.
Outside door	Broken glass	Slamming of door.	Give instruction to operator.
		Fastening bolts and nuts are loose.	Tighten all fastenings.
		No sealing ring between steel and glass.	Mount new glass with sealing rings between glass and steel.
	Door adjustment	Door not well adjusted and closes against bottom side.	Adjust door on hinge and tighten the hinge plate.
Transformer	Lamps don't light up	Wiring.	Check the wiring.
			Check the power on the transformer.
		Transformer Malfunction.	Check the 11.5V outgoing signal on the transformer.
		Relay on power and I/O board.	Check power on relay X11.
Heating element	Rotisserie doesn't reach adjusted temperature	Wiring.	Check the wiring.
			Check the power on the element.
		Element malfunction.	Check the current with AC current tester. See table on page 35.
	Duration of grilling time is too long	Wiring.	Check the wiring.
		Element malfunction.	Check the current with AC current tester. See table on page 35.

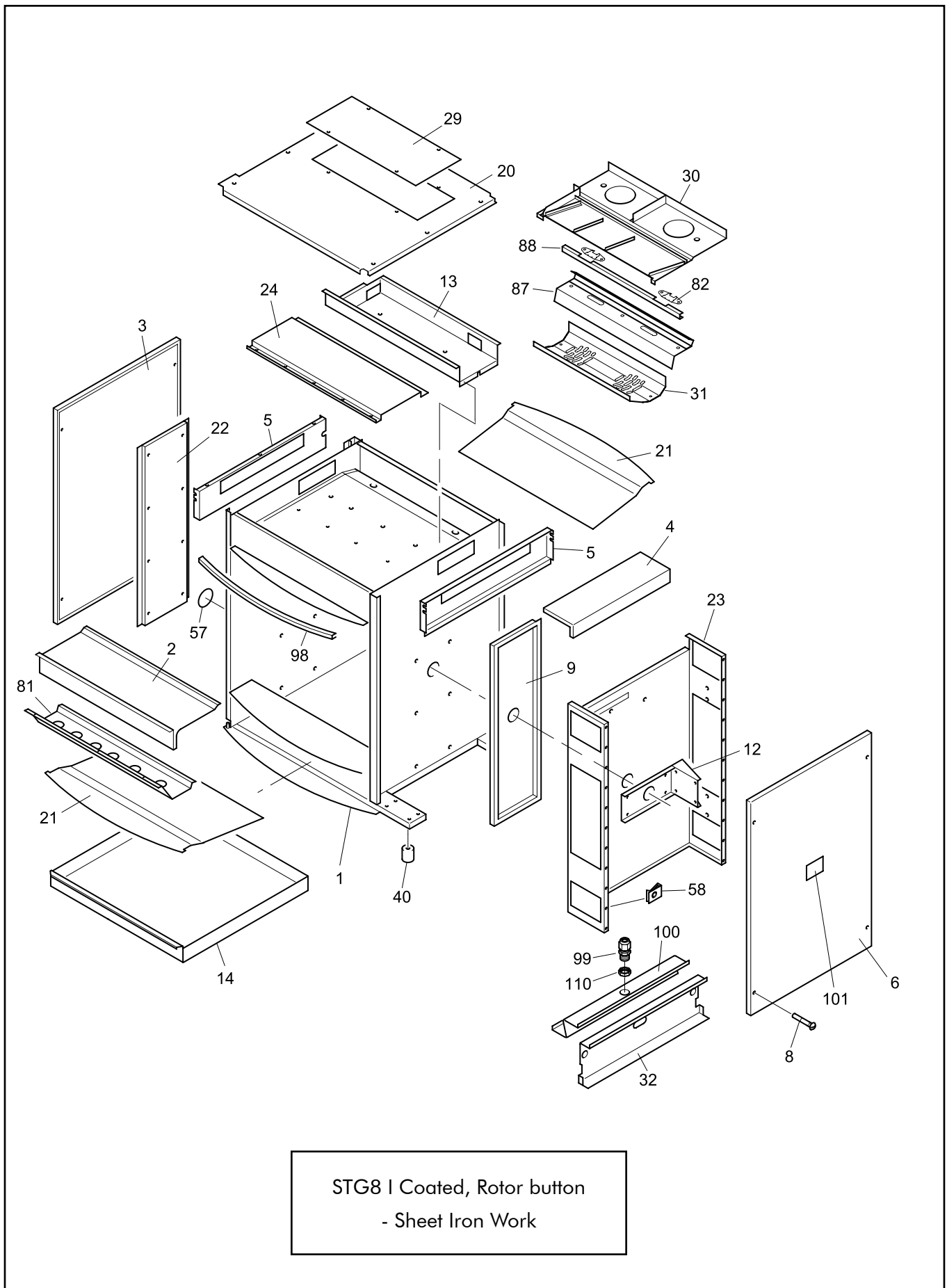
Description of part	Symptoms	Possible causes	Solving: checking/action
PT-sensor	Current temperature indication on display indicates 317°C - 603°F	No connection between wires.	Check the wiring. Check thin wire on sensor.
		Full contact between wires of sensor.	Check the wiring.
	Rotisserie doesn't reach adjusted temperature	Short circuit in sensor.	Measure resistance of sensor. This is zero.
		Malfunction sensor.	Measure resistance of sensor with a thermometer probe next to the sensor. See table on page 35.
	Temperature indication on display runs up too fast.	Sensor not in right position.	Check position of sensor.
Malfunction sensor.		Measure resistance of sensor. See table on page 35.	
Safety thermostat	Contactor doesn't come in after starting of program	Wiring.	Check the wiring.
		Thermostat malfunction.	Check if the thermostat is making contact.
	Contactor switches off before reaching the adjusted temperature in program	Thermostat malfunction.	Check if the thermostat is turned fully clockwise (contact closed).
Thermostat probe not in right position.		Check the position of the thermostat probe.	
Contactor	Contactor doesn't come in	Wiring.	Check the wiring.
		Coil malfunction.	Check resistance of the coil. This should be 525Ω.
		Contact burned.	Check the contacts of the contactor.
		Thermostat malfunction.	Check thermostat (see safety thermostat).
Keypad(s) on operation panel	No possibility to execute all functions	One or more keys don't function.	Check functions of keypad. See page 36.
			Check blue flat cable connections on CPU board.
			Check functions after placing a new keypad.

Description of part	Symptoms	Possible causes	Solving: checking/action	
Display operation panel and power I/O board	No illumination on display	Wiring.	Check the wiring. Check the power on the power I/O board by the green LED.	
		Fuse burned.	Check the 125 mA fuse on the power I/O board. Check the fuse F1 and F2.	
		Flat cable.	Check grey flat cable connection. Check functions after connecting a new grey flat cable.	
			Display malfunction.	Check power to display by the 2 green LED's and the red flashing LED on the CPU board. Check the connectors of the display on the display and CPU board. Check functions after installing a new display. Check functions after installing a new CPU board.
		Power board malfunction.		Check functions after installing a new power I/O board.
		One or more functions don't work or stay activated.		Relay malfunction. Check relay on function with problem.
	Display shows strange things.	Parameters not on right settings	Check parameters.	
		Wrong software or loss of data.	Check software version or upload latest software.	
	Capacitor	Drive motor or blower don't work	Wiring.	Check the wiring.
			Capacitor malfunction.	Check function after connecting a new capacitor. Checking of capacitor: Discharge capacitor with screwdriver. Set meter on MΩ and connect the pins of the meter on contacts, value runs up. Change the pins on contacts, value runs up again. This means the capacitor is OK.

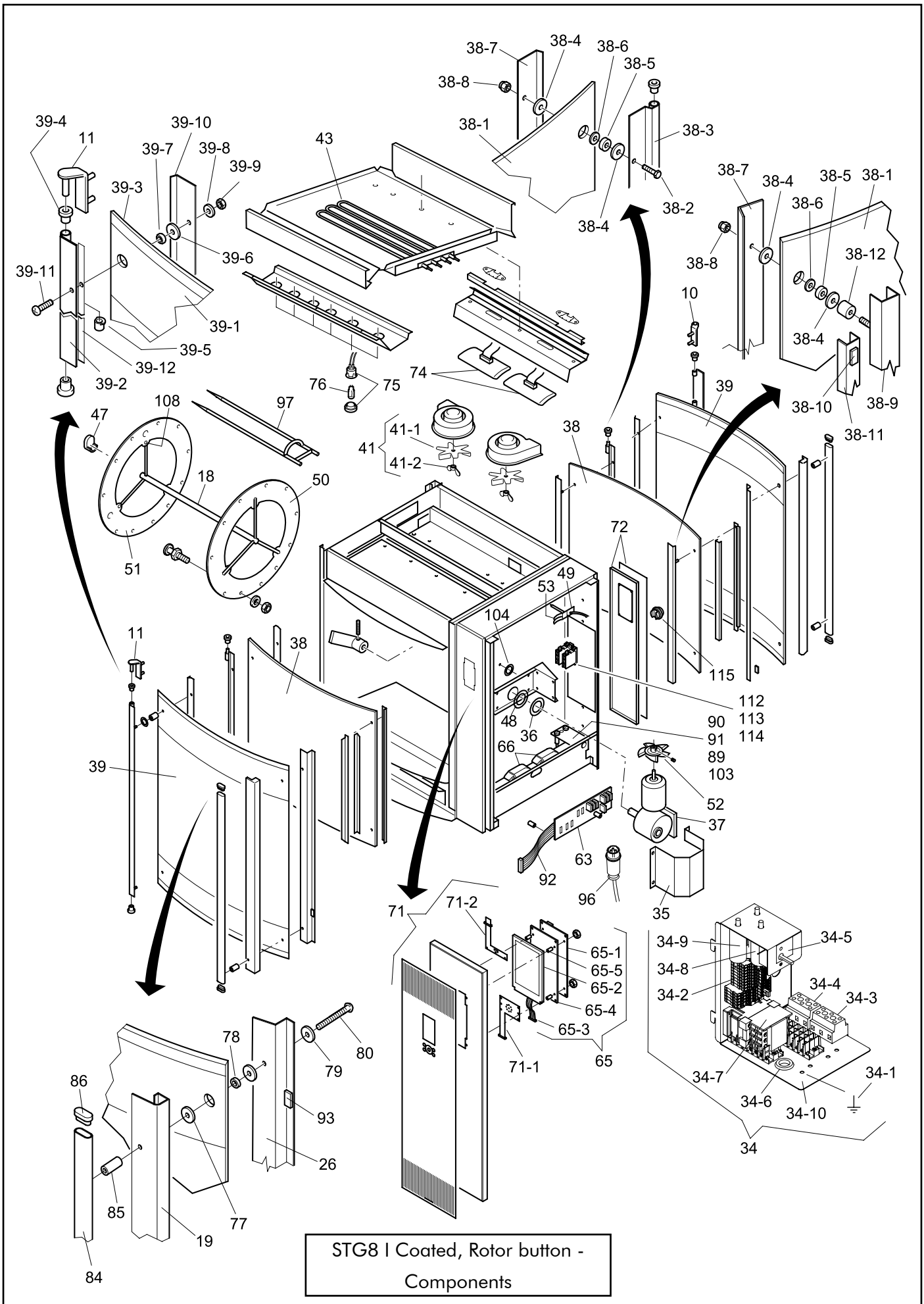
Description of part	Symptoms	Possible causes	Solving: checking/action
Drive motor	Motor doesn't run	Wiring.	Check the wiring. Check the power to the motor.
		Coil malfunction	Check resistance of the coils. Between whiteA and white wire 234Ω
			Between whiteA and brown wire 117Ω
			Between white and brown wire 117Ω
		Reduction gearbox.	Check if reduction gearbox is blocked.
		Relay on power and I/O board.	Check power on relay X12.
	Motor runs after starting it up by hand	Capacitor malfunction.	Check capacitor (see capacitor) or connect new capacitor.
	Motor stops during process and comes in again after a period of time	Coil overheated, thermistor switches off (105°C – 221°F).	Check position of fan blade. Air is sucked up over the motor.
			Check cooling circuit of motor.
			Check if rotisserie is close to another heat source. Measure temperature motor during process.
	Fuse F1 or F2 burned	Short circuit in coil to earth	Check insulation value of coil with Megger on 500V. Minimum value is 0.5 MΩ.

Description of part	Symptoms	Possible causes	Solving: checking/action	
Blower	Blower doesn't run	Wiring.	Check the wiring. Check the power on the blower.	
		Coil malfunction.	Check resistance of the coils. Between blue and brown wire 310Ω. Between blue and black wire 190Ω. Between brown and black wire 500Ω.	
			Relay on power and I/O board.	Check power on relay X6 or X13.
			Blower runs after starting it up by hand	Capacitor malfunction. Check capacitor (see capacitor) Or connect new capacitor.
		Blower stops during process and comes in again after a period of time	Coil overheated, thermistor switches off (150°C – 302°F).	Check cooling circuit of blower. Check if rotisserie is close to another heat source. Measure temperature blower during process.
	Temperature indication on display runs up very fast (180°C - 355°F after 5 minutes)			Blower doesn't turn and heat stays in top of cavity Check the wiring.
			Check the power on the blower.	
	Fuse F1 or F2 burned	Short circuit in coil to earth	Check insulation value of coil with a Megger on 500V. Minimum value is 0.5 MΩ.	

EXPLODED VIEWS & PARTLISTS



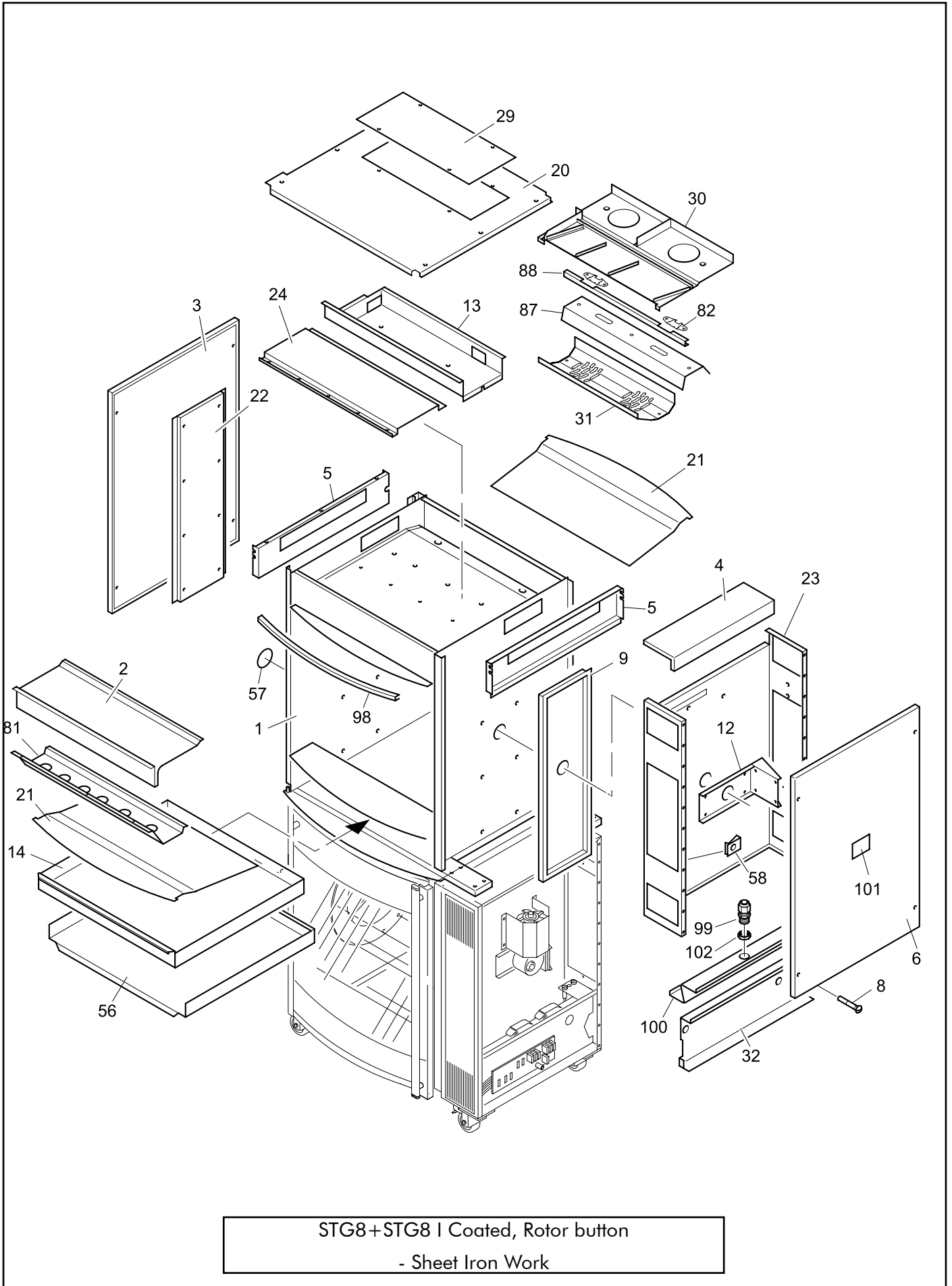
Item	Qty.	Partnumber	Description
1	1	9170448	Frame, ass.
2	1	9170525	Heat shield
3	1	9170419	Side panel, left
4	1	9174005	Cover, removable
5	2	9170421	Side panel, top
6	1	9170531	Side panel, right
8	8	4288322	Screw M5 x 10, SS socket button head
9	1	9170425	Reinforcement, side plate, right
12	1	9170444	Support, gear motor
13	1	9170650	Mounting plate, blower
14	1	9170534	Drawer
20	1	9174004	Cap, top
21	2	9172202	Bottom plate, coated
22	1	9174013	Reinforcement, side plate, left
23	1	9174015	Cover plate, machine components
24	1	9174016	Ceiling
29	1	9174099	Cover, removable
30	1	9170526	Cover plate, blower
31	1	9174627	Air guide plate
32	1	9174034	Mounting plate
40	4	9011260	Leg, rubber
57	4	9112430	Washer, insulation support
58	8	9172053	Nut
81	1	9174642	Lamp holder
82	2	9170651	Cover plate
87	1	9170529	Reflector
88	1	9174643	Bracket, reflector
98	2	9172116	Sealing profile, Silicon L= 71 cm
99	1	9171013	Strain relief PG21
100	1	9174140	Spark catcher
101	1	9110810	Indication plate
110	1	0167519	Connector



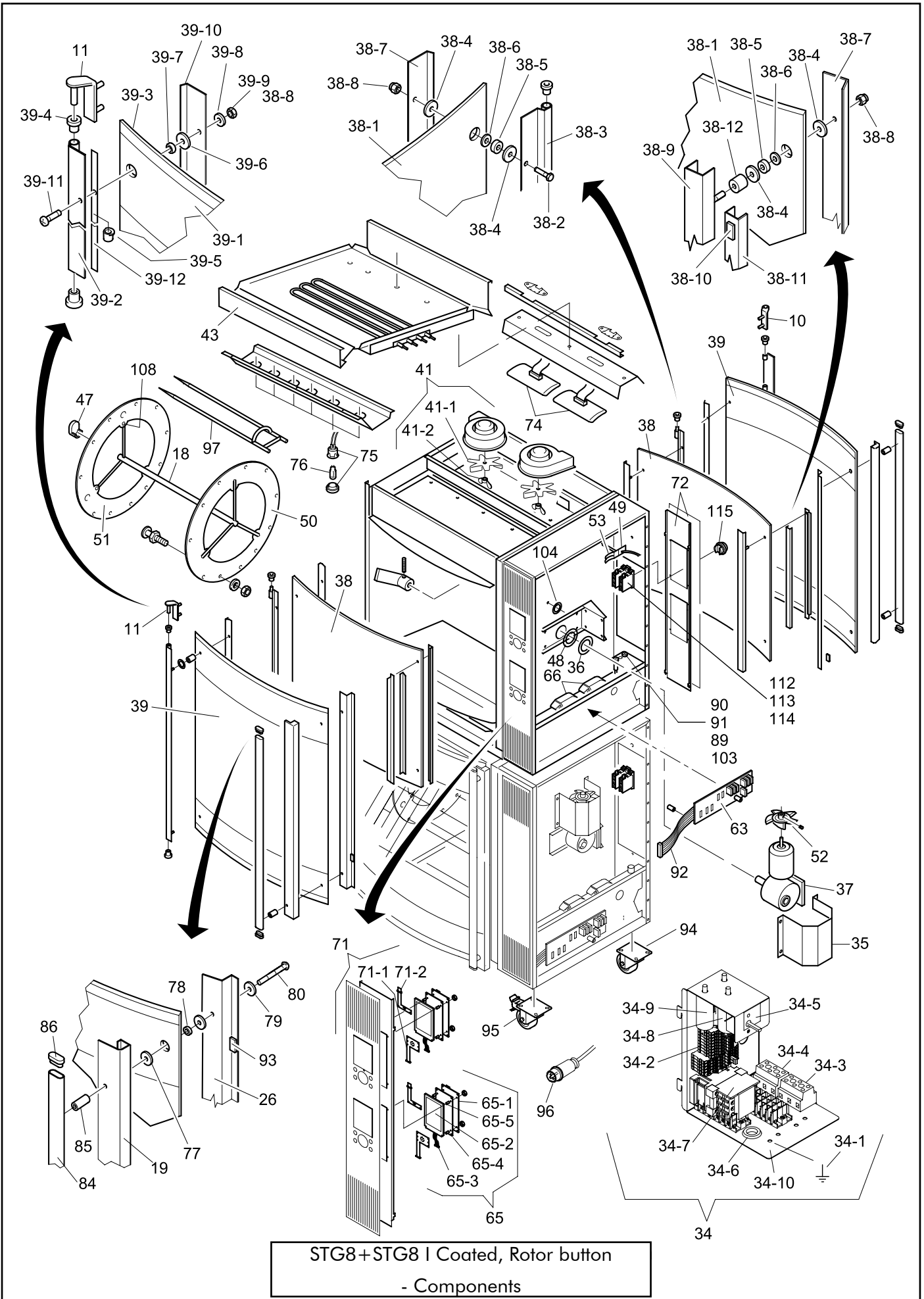
STG8 I Coated, Rotor button - Components

Item	Qty.	Partnumber	Description
10	1	9170426	Hinge, right
11	1	9170427	Hinge, left
18	1	9172273	Rotor shaft, ass., coated
19	2	9170536	Profile, magnet
26	2	9174631	Fastening, door handle
34	1	9173060	Electric panel, ass.
34-1	1	0166555	Earth symbol
34-2	1	9172330	Connecting block with bracket
34-3	1	9044564	Connecting block, 1,2,3
34-4	1	9044572	Connecting block, 4,5,6
34-5	1	9070531	Thermostat 50-250 °C
34-6	2	9070840	Grommet
34-7	1	3500069	Contacteur
34-8	1	9077101	Capacitor 2,5 mF
34-9	2	9110030	Capacitor 1,5 mF
34-10	1	9174712	Electric panel
35	1	9174161	Protection support
36	1	9110797	Sealring, drive bearing
37	1	9173004	Gearmotor, complete with drive arm
38	2	9179862	Door inside, ass.
38-1	2	9172001	Glass, inner
38-2	4	0211520	Bolt M5 x 12 ss hexagon head
38-3	2	9170423	Hinge profile
38-4	16	9174162	Seal ring
38-5	8	9174163	Distance ring, inner glass 3 mm
38-6	8	3704516	Distance ring, inner glass 2 mm
38-7	4	9174029	Cover profile, inner glass
38-8	8	4285408	Nut, M5
38-9	2	9174632	Holder, magnet
38-10	20	9070141	Magnet block
38-11	2	9174633	Profile
38-12	4	9172291	Spacing pin
39	2	9172115	Glass black, outer incl. hinge profile
39-1	2	9172019	Glass black, outer
39-2	2	9170535	Hinge profile
39-3	4	9172079	Protection profile
39-4	4	9172054	Brass bearing 8 mm
39-5	4	9172122	Brass bearing 8 mm, adjusted
39-6	4	9174162	Seal ring
39-7	4	4289966	Distance ring, outerglass
39-8	4	4311110	Washer
39-9	4	0144359	Nut, self locking M5
39-10	2	9174022	Mounting profile, hinge side
39-11	4	4288321	Screw M5 x 16, SS socket button head
39-12	2	4302141	Tape 20 x 0,8
41	2	9140027	Blower
41-1	2	9141934	Fan blade
41-2	2	9073150	Wingnut, left hand threaded
43	3	9044653	Heating element, 3100 W
47	1	9172063	Steel bearing, 14 mm
48	1	9073131	Sealing ring

Item	Qty.	Partnumber	Description
49	1	9172310	Temperature sensor PT 1000
50	1	9172259	Rotor disc, right, coated, incl. support pins
51	1	9172258	Rotor disc, left, coated, incl. support pins
52	1	2000072	Fanblade, gearmotor
53	1	9044140	Sensor cable
63	1	9192202	Power & I/O board, universal
65	1	9172317	CPU board + LCD + cable, ass.
65-1	1	9172315	CPU board
65-2	1	9172312	LCD-display
65-3	1		Cable + ferrite
65-4	1		Shielding plate
65-5	1		Distance bush
66	2	3701026	Distance bush
71	1	9170057	Operation panel, ass. Glass + backplate + keypads
71-1	1	9172313	Keypad, 15 keys
71-2	1	9172318	Keypad, 3 keys
72	1		ivm. drukschakelaar
74	2	9044650	Heating element, Ceramic, 500 W
75	6	9171078	Lamp holder, incl. glass
76	6	3701052	Lamp 20W, 12V/300°C
77	8	9174162	Seal ring
78	4	4289966	Distance ring, outerglass
79	4	9174680	Washer
80	4	4288320	Screw M5x45 SS
84	2	9174131	Door handle
85	4	9172300	Spacing pin
86	4	9171014	Plug, door handle
89	1	9142520	Fastening plate, fuse holder
90	2	9110026	Fuse holder
91	2	9110025	Fuse housing
92	1	9172314	Flatcable, 14-pol. (i)
93	24	9070141	Magnet block
96	1	9070044	Connecting cable with plug
97	8	9172242	Meatfork STG 7, coated (8mm.)
102	4	4288321	Screw M5 x 16, SS socket button head
103	2	9171120	Fuse 5x20, ceramic T10A
104	2	9171018	Plug
108	12	9172252	Tensilock bolt M5x10, mushroom head, coated
112	2	9111190	Adaptor
113	2	9111200	Contact (till serial nr. 100035062)
114	2	9111251	Contact
115	2	9111252	Push button

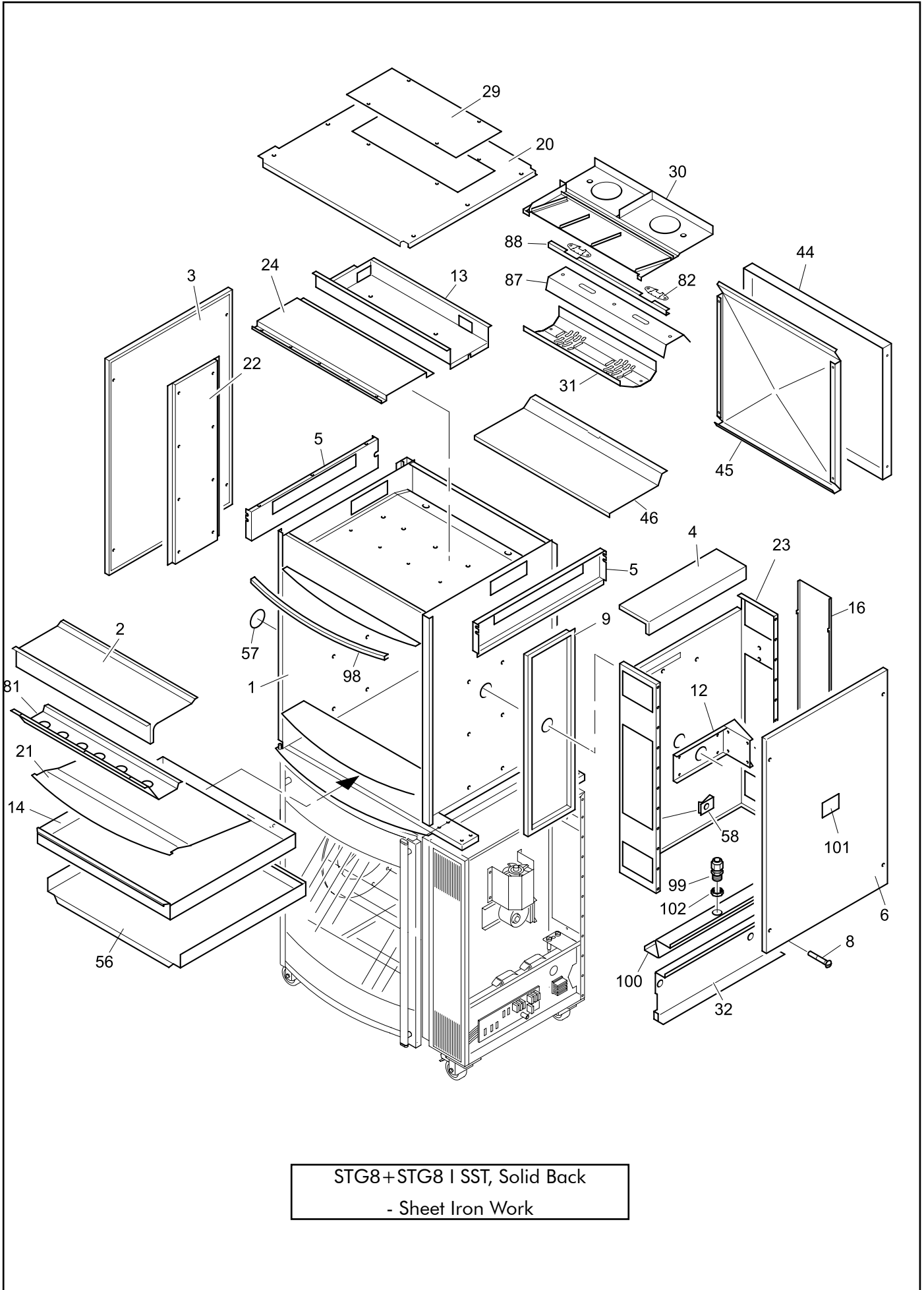


Item	Qty.	Partnumber	Description
1	2	9170448	Frame, ass.
2	2	9170525	Heat shield
3	2	9170419	Side panel, left
4	1	9174005	Cover, removable
5	4	9170421	Side panel, top
6	2	9170531	Side panel, right
8	16	4288322	Screw M5 x 10, SS socket button head
9	2	9170425	Reinforcement, side plate, right
12	2	9170444	Support, gear motor
13	2	9170650	Mounting plate, blower
14	2	9170534	Drawer
20	2	9174004	Cap, top
21	4	9172202	Bottom plate, coated
22	2	9174013	Reinforcement, side plate, left
23	2	9174015	Cover plate, machine components
24	2	9174016	Ceiling
29	2	9174099	Cover, removable
30	2	9170526	Cover plate, blower
31	2	9174627	Air guide plate
32	2	9174034	Mounting plate
57	8	9112430	Washer, insulation support
58	16	9172053	Nut
81	2	9174642	Lamp holder
82	4	9170651	Cover plate
87	2	9170529	Reflector
88	2	9174643	Bracket, reflector
98	4	9172116	Sealing profile, Silicon L= 71 cm
99	2	9171013	Strain relief PG21
100	2	9174140	Spark catcher
101	1	9110810	Indication plate
110	2	0167519	Connector

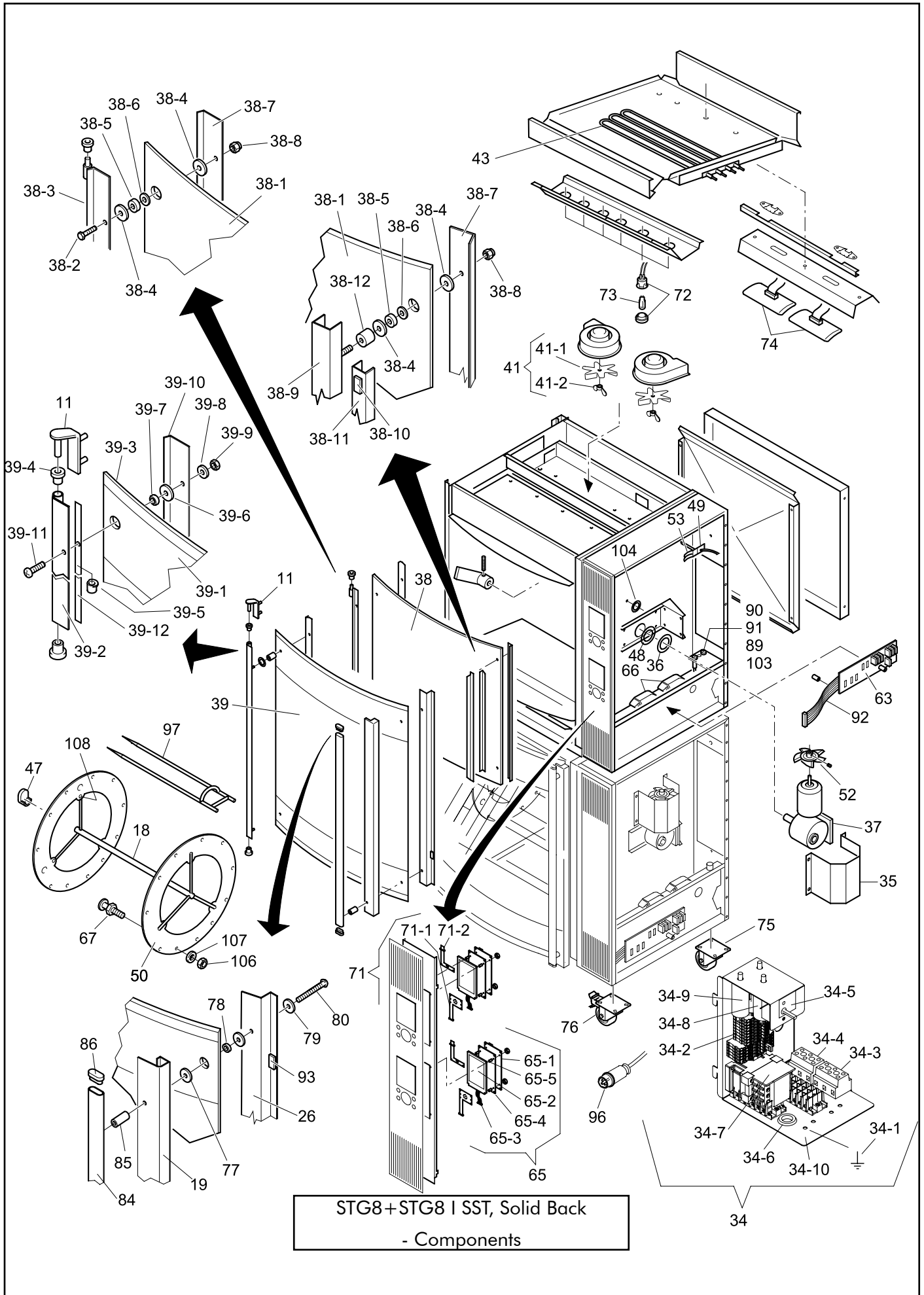


Item	Qty.	Partnumber	Description
10	2	9170426	Hinge, right
11	2	9170427	Hinge, left
18	2	9172273	Rotor shaft, ass., coated
19	4	9170536	Profile, magnet
26	4	9174631	Fastening, door handle
34	2	9173060	Electric panel, ass.
34-1	2	0166555	Earth symbol
34-2	2	9172330	Connecting block with bracket
34-3	2	9044564	Connecting block, 1,2,3
34-4	2	9044572	Connecting block, 4,5,6
34-5	2	9070531	Thermostat 50-250 °C
34-6	4	9070840	Grommet
34-7	2	3500069	Contactora
34-8	2	9077101	Capacitor 2,5 mF
34-9	4	9110030	Capacitor 1,5 mF
34-10	2	9174712	Electric panel
35	2	9174161	Protection support
36	2	9110797	Sealring, drive bearing
37	2	9173004	Gearmotor, complete with drive arm
38	4	9179862	Door inside, ass.
38-1	4	9172001	Glass, inner
38-2	8	0211520	Bolt M5 x 12 ss hexagon head
38-3	4	9170423	Hinge profile
38-4	32	9174162	Seal ring
38-5	16	9174163	Distance ring, inner glass 3 mm
38-6	16	3704516	Distance ring, inner glass 2 mm
38-7	8	9174029	Cover profile, inner glass
38-8	16	4285408	Nut, M5
38-9	4	9174632	Holder, magnet
38-10	40	9070141	Magnet block
38-11	4	9174633	Profile
38-12	8	9172291	Spacing pin
39	4	9172115	Glass black, outer incl. hinge profile
39-1	4	9172019	Glass black, outer
39-2	4	9170535	Hinge profile
39-3	8	9172079	Protection profile
39-4	8	9172054	Brass bearing 8 mm
39-5	8	9172122	Brass bearing 8 mm, adjusted
39-6	8	9174162	Seal ring
39-7	8	4289966	Distance ring, outerglass
39-8	8	4311110	Washer
39-9	8	0144359	Nut, self locking M5
39-10	4	9174022	Mounting profile, hinge side
39-11	8	4288321	Screw M5 x 16, SS socket button head
39-12	4	4302141	Tape 20 x 0,8
41	4	9140027	Blower
41-1	4	9141934	Fan blade
41-2	4	9073150	Wingnut, left hand threaded
43	6	9044653	Heating element, 3100 W
47	2	9172063	Steel bearing, 14 mm
48	2	9073131	Sealing ring

Item	Qty.	Partnumber	Description
49	2	9172310	Temperature sensor PT 1000
50	2	9172259	Rotor disc, right, coated, incl. support pins
51	2	9172258	Rotor disc, left, coated, incl. support pins
52	2	2000072	Fanblade, gearmotor
53	2	9044140	Sensor cable
63	2	9192202	Power & I/O board, universal
65	2	9172317	CPU board + LCD + cable, ass.
65-1	2	9172315	CPU board
65-2	2	9172312	LCD-display
65-3	1		Cable + ferrite
65-4	1		Shielding plate
65-5	1		Distance bush
66	4	3701026	Distance bush
71	2	9170061	Operation panel, ass. Glass + backplate + keypads
71-1	2	9172313	Keypad, 15 keys
71-2	2	9172318	Keypad, 3 keys
72	2		ivm. drukschakelaar
74	4	9044650	Heating element, Ceramic, 500 W
75	12	9171078	Lamp holder, incl. glass
76	12	3701052	Lamp 20W, 12V/300°C
77	16	9174162	Seal ring
78	8	4289966	Distance ring, outerglass
79	8	9174680	Washer
80	8	4288320	Screw M5x45 SS
84	4	9174131	Door handle
85	8	9172300	Spacing pin
86	8	9171014	Plug, door handle
89	2	9142520	Fastening plate, fuse holder
90	4	9110026	Fuse holder
91	4	9110025	Fuse housing
92	2	9172314	Flatcable, 14-pol. (i)
93	48	9070141	Magnet block
94	2	9172065	Castor without brake
95	2	9172066	Castor with brake
96	1	9070044	Connecting cable with plug
97	16	9172242	Meatfork STG 7, coated (8mm.)
102	8	4288321	Screw M5 x 16, SS socket button head
103	4	9171120	Fuse 5x20, ceramic T10A
104	4	9171018	Plug
108	24	9172252	Tensilock bolt M5x10, mushroom head, coated
112	2	9111190	Adaptor
113	2	9111200	Contact (till serial nr. 100035062)
114	2	9111251	Contact
115	2	9111252	Push button



Item	Qty.	Partnumber	Description
1	2	9170448	Frame, ass.
2	2	9170525	Heat shield
3	2	9170419	Side panel, left
4	1	9174005	Cover, removable
5	4	9170421	Side panel, top
6	2	9170531	Side panel, right
8	16	4288322	Screw M5 x 10, SS socket button head
9	2	9170425	Reinforcement, side plate, right
12	2	9170444	Support, gear motor
13	2	9170650	Mounting plate, blower
14	2	9170534	Drawer
16	2	9174728	Panel, customer side
20	2	9174004	Cap, top
21	4	9174010	Bottom plate, stainless steel
22	2	9174013	Reinforcement, side plate, left
23	2	9174015	Cover plate, machine components
24	2	9174016	Ceiling
29	2	9174099	Cover, removable
30	2	9170526	Cover plate, blower
31	2	9174627	Air guide plate
32	2	9174034	Mounting plate
44	2	9170505	Back wall, outside
45	2	9174681	Back wall, inside
46	2	9174280	Bottom plate, stainless steel
56	1	9170481	Separation plate
57	8	9112430	Washer, insulation support
58	16	9172053	Nut
81	2	9174642	Lamp holder
82	4	9170651	Cover plate
87	2	9174641	Reflector
88	2	9174643	Bracket, reflector
98	4	9172116	Sealing profile, Silicon L= 71 cm
99	2	9171013	Strain relief PG21
100	2	9174140	Spark catcher
101	1	9110810	Indication plate
102	2	0167519	Connector

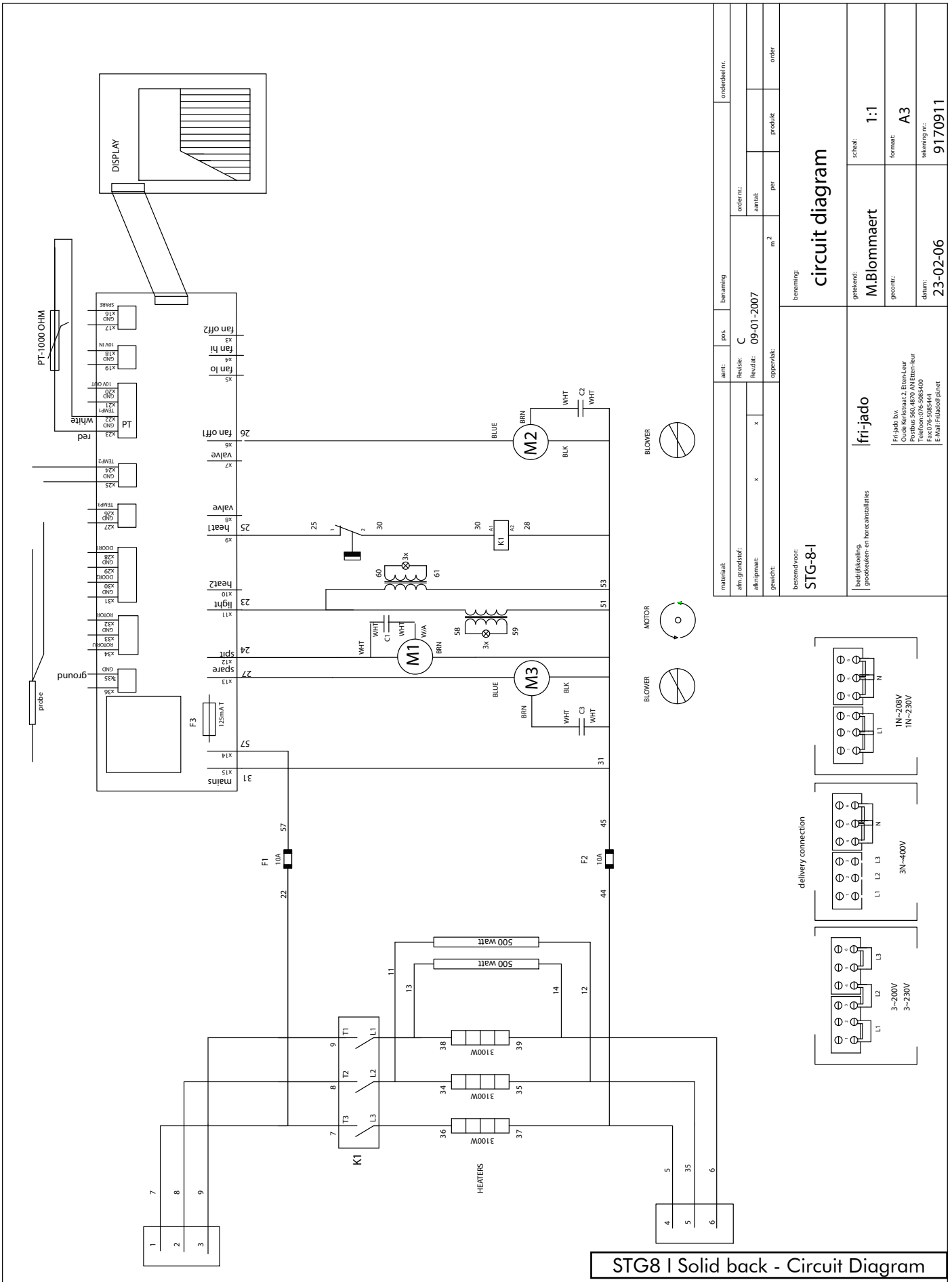


STG8+STG8 I SST, Solid Back
- Components

Item	Qty.	Partnumber	Description
10	2	9170426	Hinge, right
11	2	9170427	Hinge, left
18	2	9170595	Rotor shaft, stainless steel
19	2	9170536	Profile, magnet
26	2	9174631	Fastening, door handle
34	2	9173060	Electric panel, ass.
34-1	2	0166555	Earth symbol
34-2	2	9172330	Connecting block with bracket
34-3	2	9044564	Connecting block, 1,2,3
34-4	2	9044572	Connecting block, 4,5,6
34-5	2	9070531	Thermostat 50-250 °C
34-6	4	9070840	Grommet
34-7	2	3500069	Contactore
34-8	2	9077101	Capacitor 2,5 mF
34-9	4	9110030	Capacitor 1,5 mF
34-10	2	9174712	Electric panel
35	2	9174161	Protection support
36	2	9110797	Sealring, drive bearing
37	2	9173004	Gearmotor, complete with drive arm
38	2	9179862	Door inside, ass.
38-1	2	9172001	Glass, inner
38-2	4	0211520	Bolt M5 x 12 ss hexagon head
38-3	2	9170423	Hinge profile
38-4	16	9174162	Seal ring
38-5	8	9174163	Distance ring, inner glass 3 mm
38-6	8	3704516	Distance ring, inner glass 2 mm
38-7	4	9174029	Cover profile, inner glass
38-8	8	4285408	Nut, M5
38-9	2	9174632	Holder, magnet
38-10	20	9070141	Magnet block
38-11	2	9174633	Profile
38-12	4	9172291	Spacing pin
39	2	9172115	Glass black, outer incl. hinge profile
39-1	2	9172019	Glass black, outer
39-2	2	9170535	Hinge profile
39-3	4	9172079	Protection profile
39-4	4	9172054	Brass bearing 8 mm
39-5	4	9172122	Brass bearing 8 mm, adjusted
39-6	4	9174162	Seal ring
39-7	4	4289966	Distance ring, outerglass
39-8	4	4311110	Washer
39-9	4	0144359	Nut, self locking M5
39-10	2	9174022	Mounting profile, hinge side
39-11	4	4288321	Screw M5 x 16, SS socket button head
39-12	2	4302141	Tape 20 x 0,8
41	4	9140027	Blower
41-1	4	9141934	Fan blade
41-2	4	9073150	Wingnut, left hand threaded
43	6	9044653	Heating element, 3100 W
47	2	9172063	Steel bearing, 14 mm
48	2	9073131	Sealing ring

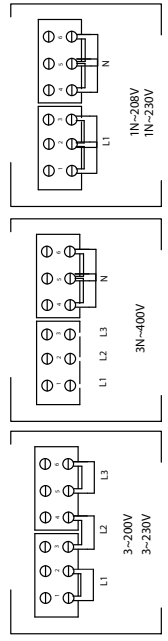
Item	Qty.	Partnumber	Description
49	2	9172310	Temperature sensor PT 1000
50	4	9174623	Rotor disc 3 mm, stainless steel
52	2	2000072	Fanblade, gearmotor
53	2	9044140	Sensor cable
63	2	9192202	Power & I/O board, universal
65	2	9172317	CPU board + LCD + cable, ass.
65-1	2	9172315	CPU board
65-2	2	9172312	LCD-display
65-3	1		Cable + ferrite
65-4	1		Shielding plate
65-5	1		Distance bushe
66	4	3701026	Transformer, Halogen lamps
67	32	9172169	Support pin, stainless steel
71	2	9170061	Operation panel, ass. Glass + backplate + keypads
71-1	2	9172313	Keypad, 15 keys
71-2	2	9172318	Keypad, 3 keys
72	12	9171078	Lamp holder, incl. glass
73	12	3701052	Lamp 20W, 12V/300°C
74	4	9044650	Heating element, Ceramic, 500 W
75	2	9172065	Castor without brake
76	2	9172066	Castor with brake
77	8	9174162	Seal ring
78	4	4289966	Distance ring, outerglass
79	4	9174680	Washer
80	4	4288320	Screw M5x45 SS
84	2	9174131	Door handle
85	4	9172300	Spacing pin
86	4	9171014	Plug, door handle
89	2	9142520	Fastening plate, fuse holder
90	4	9110026	Fuse holder
91	4	9110025	Fuse housing
92	2	9172314	Flatcable, 14-pol. (i)
93	24	9070141	Magnet block
96	1	9070044	Connecting cable with plug
97	16	9172153	Meatfork STG 7 (8mm.)
102	8	4288321	Screw M5 x 16, SS socket button head
103	4	9171120	Fuse 5x20, ceramic T10A
104	4	9171018	Plug
108	24	4288231	Tensilock bolt M5x10, stainless steel

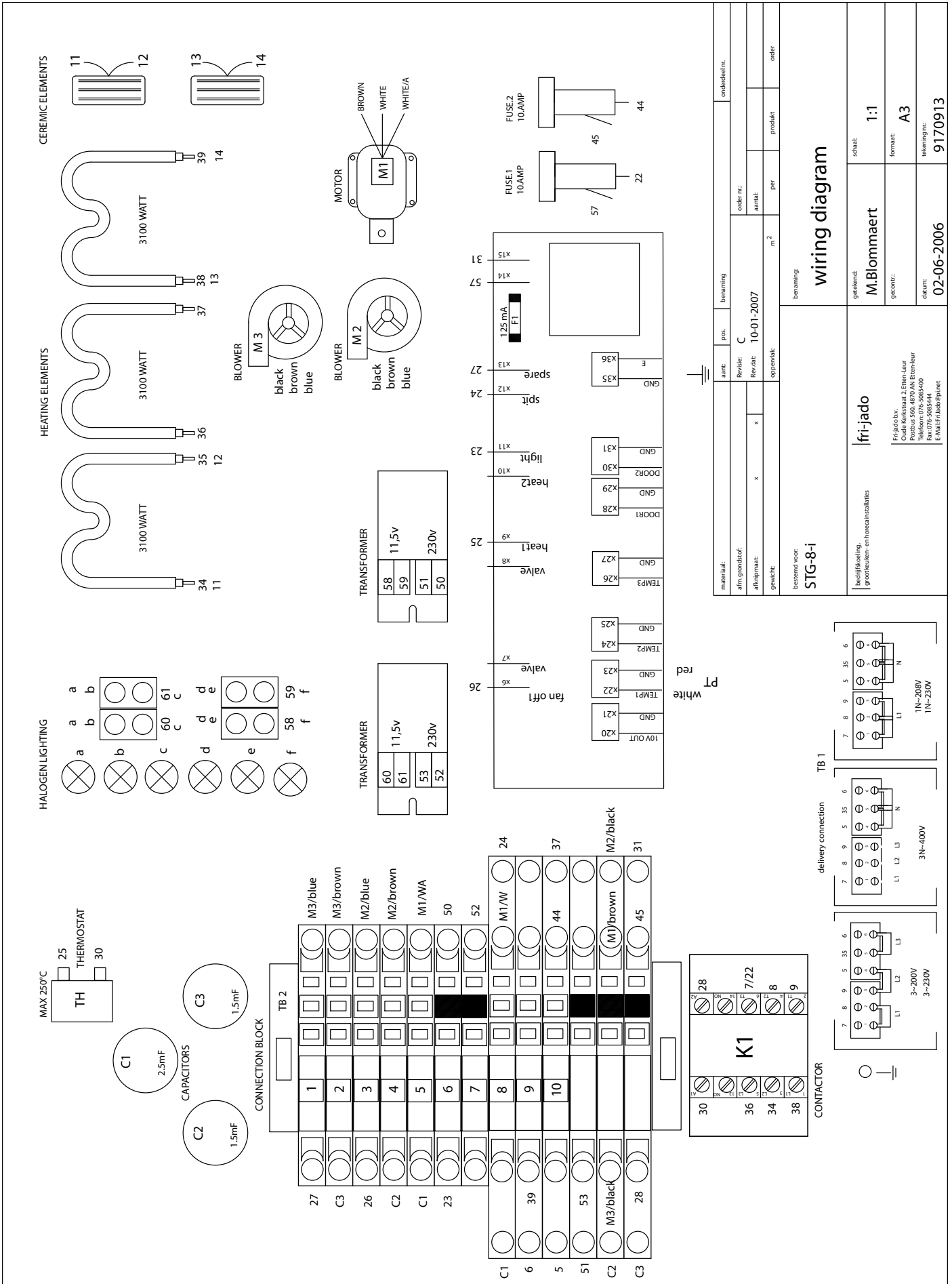
ELECTRICAL DIAGRAMS



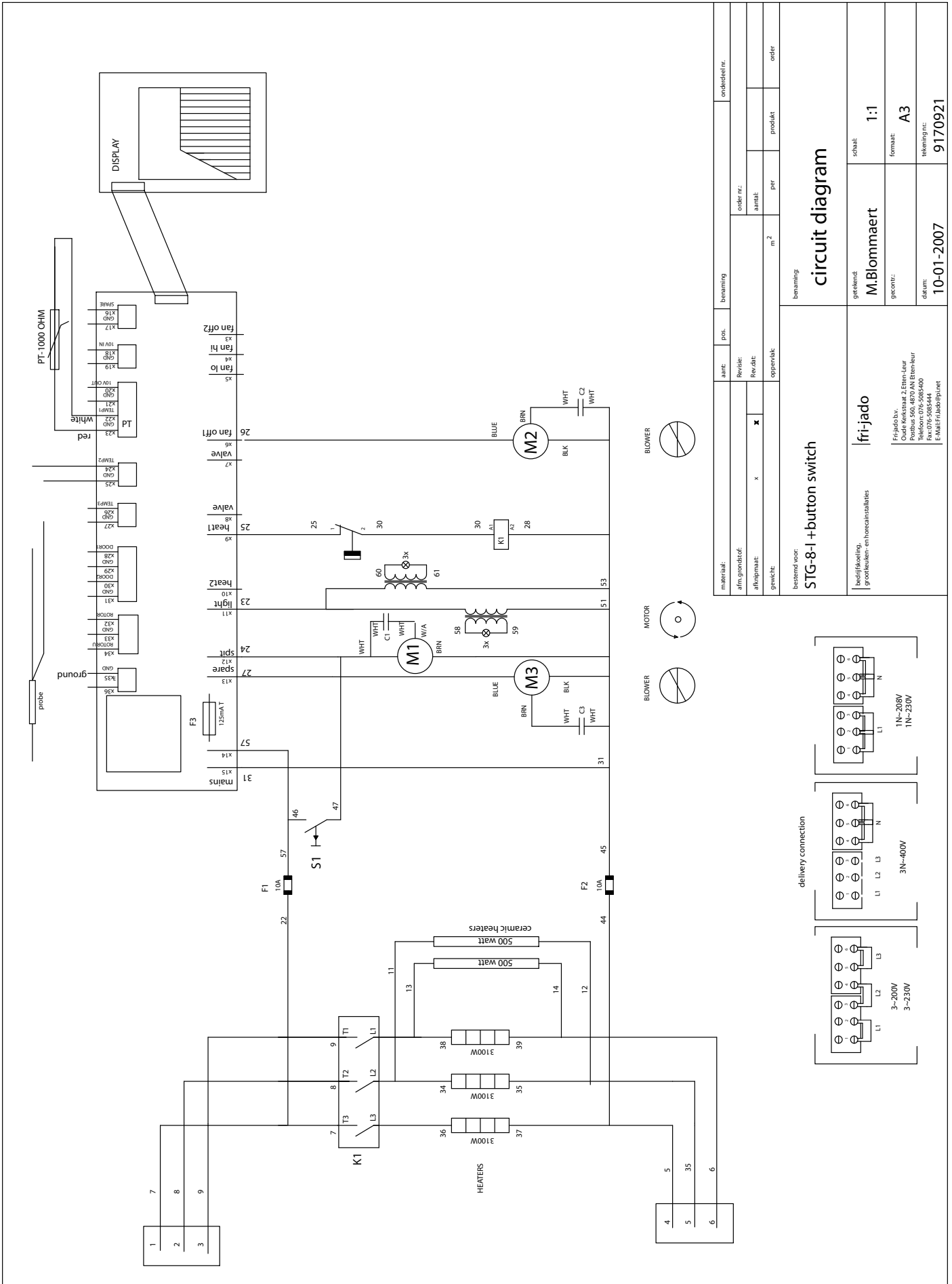
STG8 I Solid back - Circuit Diagram

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bestemd voor:			
STG-8-I			
benaming:			
circuit diagram			
bedrijfskooling / grootkeuken en boreaaninstallaties		gerekend:	schaal:
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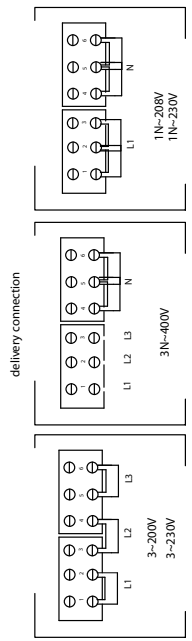




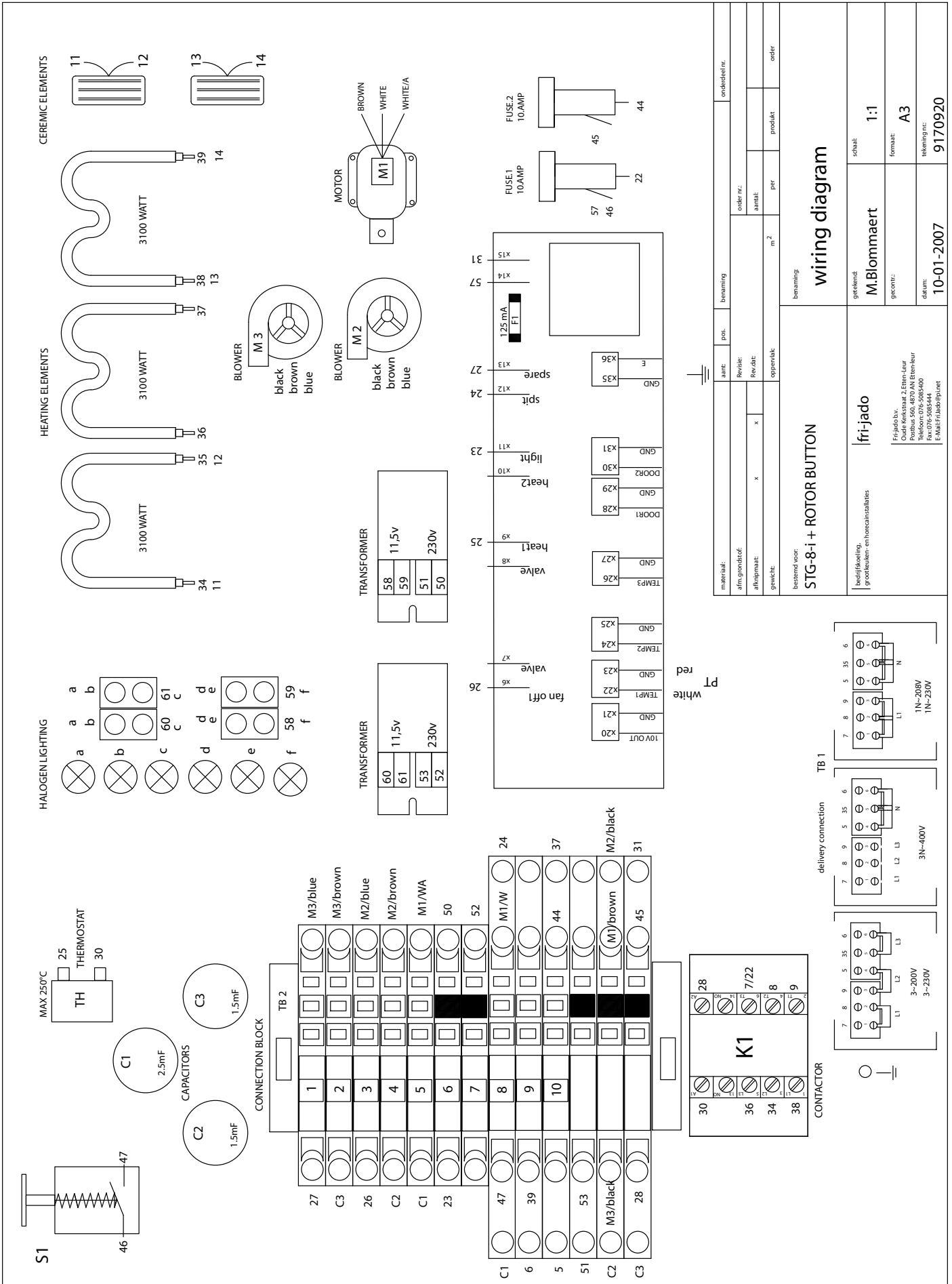
STG8 I Solid back - Wiring Diagram



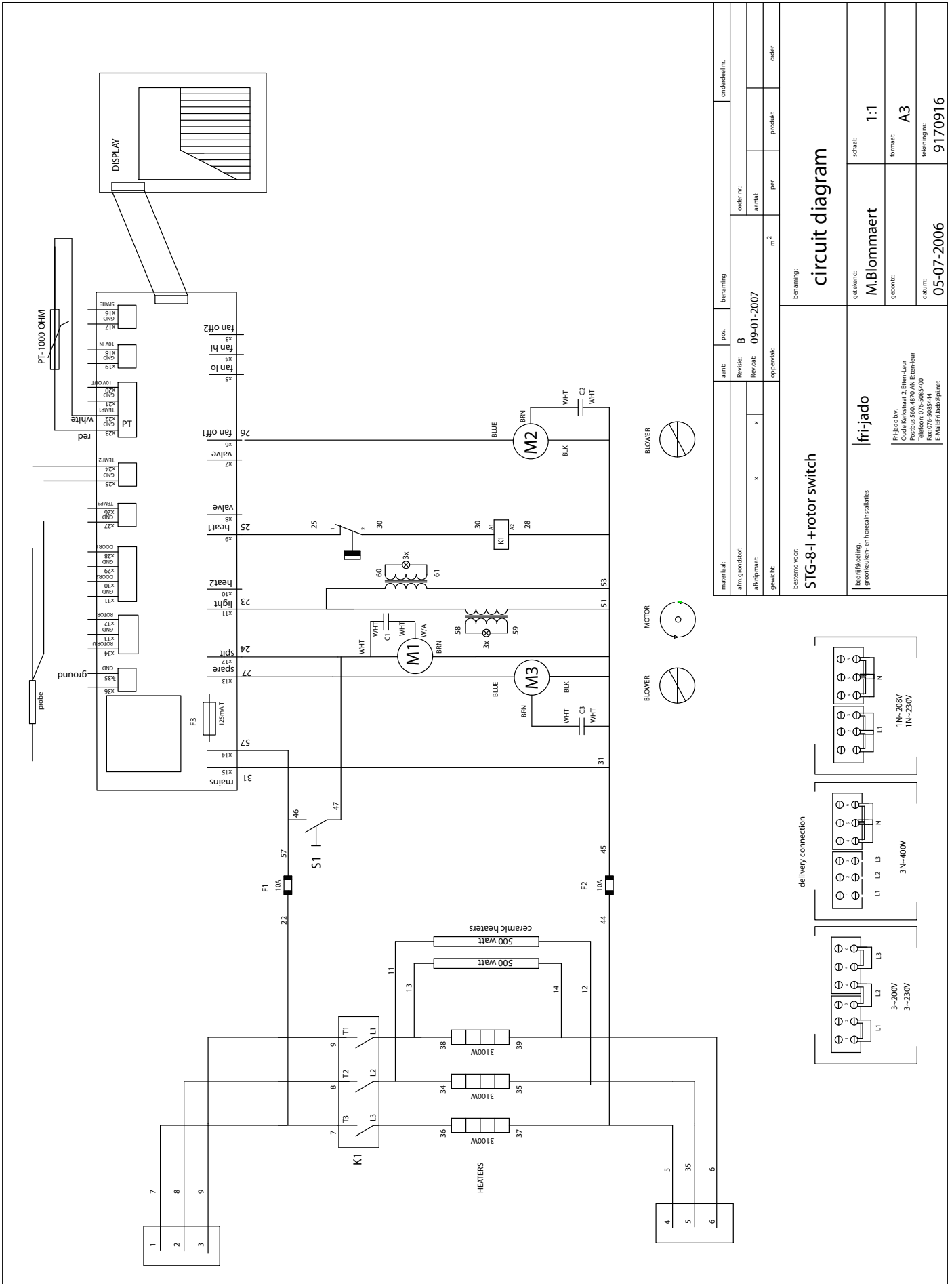
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bestemd voor:		order	
STG-8-I + button switch		circuit diagram	
bedrijf (keuring, grootte) en montageinstallaties		gerekend:	schaal:
fri-jado		M.Blommaert	1:1
Fri-jado bv. Oude Kerkstraat 2 Ertm-Leur Postbus 560, 4870 AN Ertm-leur Telefoon 076-5085400 Fax 076-5085444 E-mail fri-jado@planet		geconic:	formaat:
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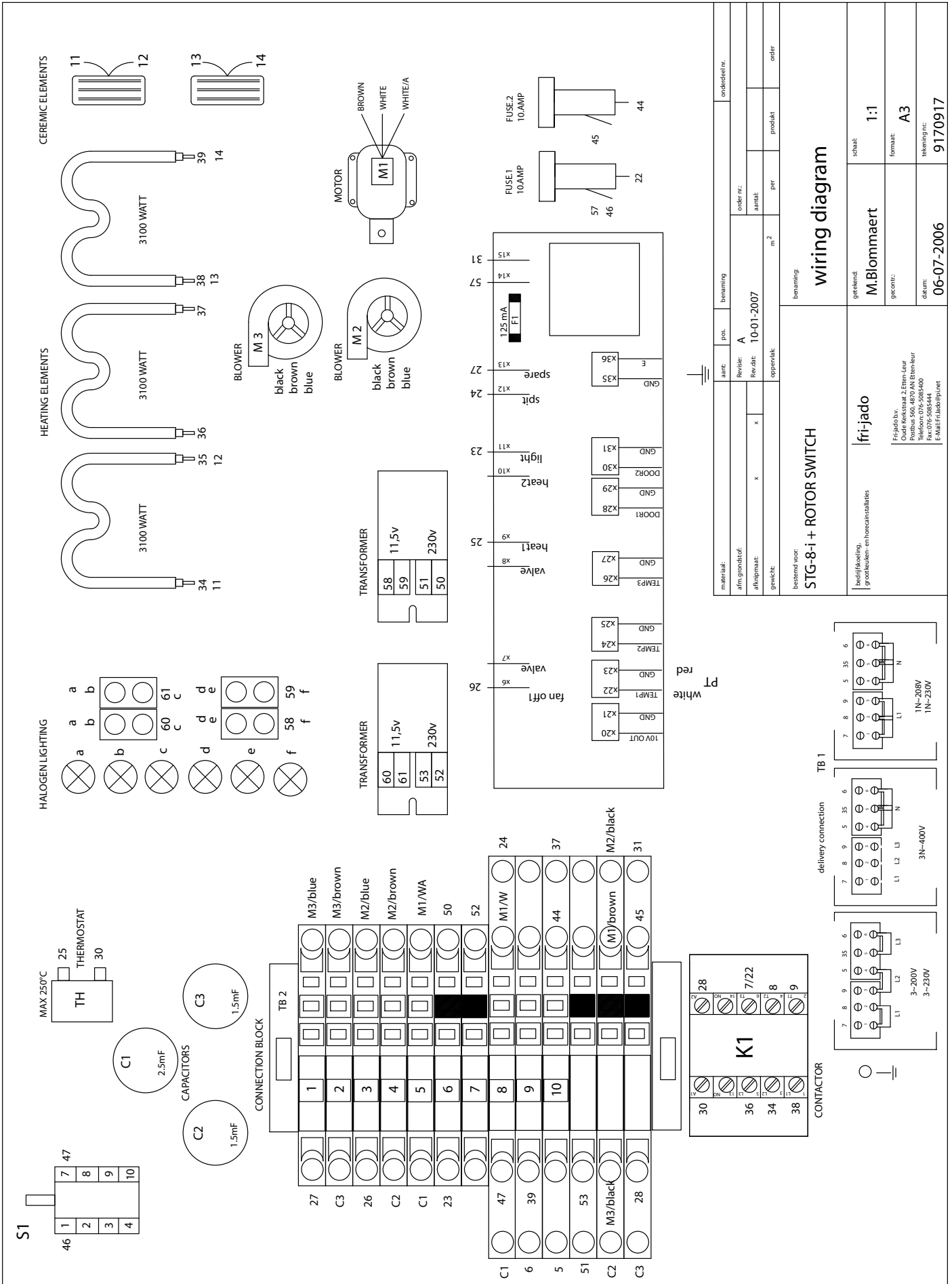
STG8 I Rotor button - Circuit Diagram



STG8 I Rotor button - Wiring Diagram



STG8 I Rotor switch(till 31-12-2006) - Circuit Diagram



STG8 I Rotorswitch (till 31-12-2006)- Wiring Diagram

