SERVICE MANUAL

STO6-INTELLIGENT

SINGLE UNITS:

STO6-i UK
STO6-i EURO

STACKED UNITS:

STO6-i+STG8-i TURBO
STO6-i+STG7-i TURBO
STO6-i+STO6-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.

fri-jado

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INDEX

GENERAL TECHNICAL DATA

This manual covers the STO 6-i series ovens. They are based on a STG SB (Solid Back) housing and can only be stacked with SB housings such as another STO 6-i , a STG 8-i Turbo and STG 7-i Turbo

• ST06-i is a Super Turbo Oven with a special outer glass that protects against high temperatures. It is provided with 6 racks and operated by means of an I-control panel

There are 2 versions:

- The UK version, that has a main switch and a shielded cable of 3 meters with plug.
- The EURO version, that has no main switch and a standard cable of 3 meters with plug.

When units are stacked, both I-control units are placed in the upper unit . Mains supply is connected internally and comes out as one cable with plug. In the UK version the cable comes out of the upper unit, in the EURO version it comes out of the lower unit.

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	**STO-6i single**	**ST0-6i stacked**
Power	11.200 W	max. 22.400 W
Fuses needed with power connection 400V, 3N~50...60 Hz (3 phases with zero)	3 x 16A	3 x 32A
Power connection	400/230V, 3N~50..60 Hz	400/230V, 3N~50..60 Hz
Standard plug from factory CEE-form 5-pole	16A	32A
Net weight	175 kg	max. 360 kg
Gross weight	215 kg	max. 440 kg
Height	1025 mm	2100 mm
Width	985 mm	985 mm
Depth	865 mm	865 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 STO6-I

MAINS SUPPLY

If there is a main switch present ,turn it to "1". Power will be supllied to the STO now.

DISPLAY AND KEYS

Selection keys (3x)

Display

Start/Pause key

Door open(not used)

OK/Enter key

Turning knob

On/Off key

Stop/Cancel key

GENERAL INFORMATION

The steps described in this chapter are a summary of the steps described in form 9123687 - Service Manual I-control.
Please refer to this manual for further information about the function you want to perform.

STARTING THE UNIT

Press and hold the On-Off key for 2 seconds.
The display lights up and the oven is ON.

SWITCHING OFF THE UNIT

Press and hold both keys On/Off and Settings until the display light goes out and the oven is turned OFF.(this will take about 3 seconds.)

PROGRAMMING FUNCTIONS

Overview of program functions

- Adding a program
- Editing a program
- Deleting a program
- Testing a program
- Sorting programs

Overview of keyboard functions

- Turning knob: in menu: Selecting function
  in field: changing value
- Arrows: selecting function or field
  in field: changing value
- OK : Confirming your choice.
- Cancel: interrupt /stop

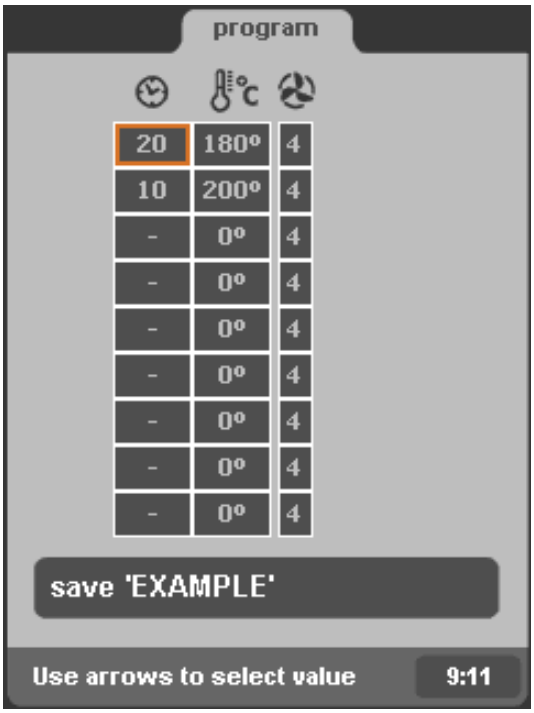
PROGRAMMING MENU

Note: When the oven is protected by a pin-code, ask the manager to give in the pincode or read the pincode in the service menu. This is described in chapter 05-parameter listings or in the I-control manual, chapter 6B.

Choose the function you want to perform by using the turning knob or arrows and confirm with OK

Note:
With the test program, you can change values during the run.
Be aware that these values will be saved when leaving this program with OK.

EXAMPLE OF ADDING A PROGRAM



In the time row select the cell and confirm with OK. Set the time of the cooking step with he turning knob and confirm with OK.

In the temperature column select the corresponding cell and confirm with OK. Set the temperature of the cooking step and confirm with OK.

In the blower speed column the speed of the blower can be set to 1 to 4.

It is possible to program a HOLD temperature. Select the next cell in the time column and set this to HOLD by turning the knob counter clockwise and confirm with OK. Select a temperature as described earlier.

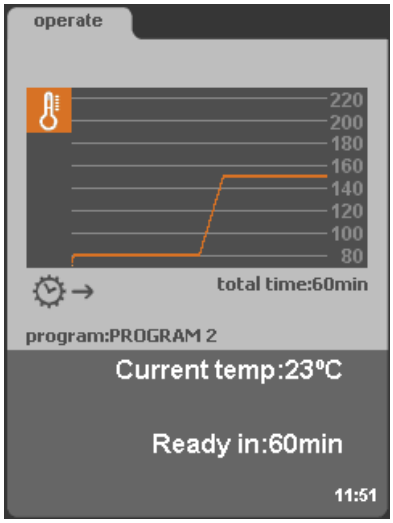
Select save and confirm with OK.

PROGRAM START

Press the operate key.

Select a program with the turning knob and confirm with OK.

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



STOP A PROGRAM

Press the cancel key.

Confirm the cancellation by selecting YES and pressing the OK key.

PARAMETER LISTING STO6-I

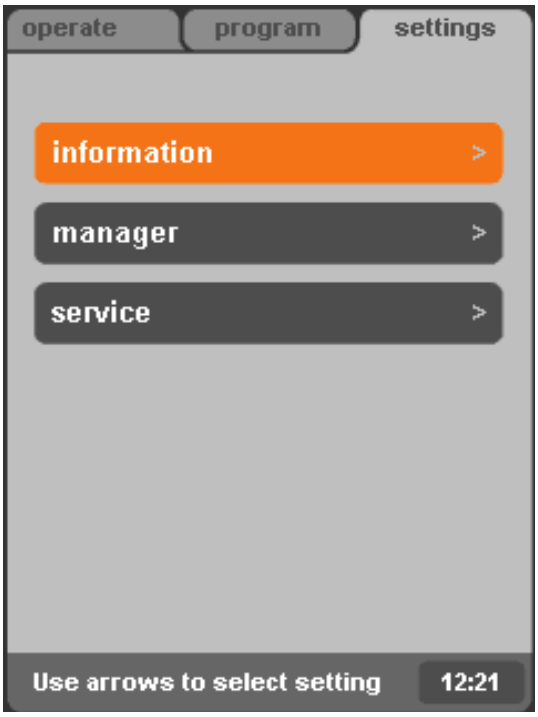
INTRODUCTION

This chapter describes how to reach the parameters in the unit and where to find more information about them.

Please refer to form 9123687 - Service Manual I-control for more detailed information about the function you want to perform or the parameter value(s) you want to check or change.

***Note*: Please make sure you read the paragraph titled "adapting parameters" 1212 before changing parameters. It contains important information concerning the programming of the parameters.**

REACHING THE PARAMETER MENUS



To reach the settings menus, press the far right settings key. These are located above the screen of the control system.

There are three different options in this screen: "information", "manager" and "service".

To access the different sections, select an option using the turning knob or arrow keys and confirm with OK.

To leave a section use the "cancel" key.

Note: The service section is by default protected with a default password of "4878".

Note: The manager section can be protected by a seperate password, this password can be set inside the manager menu. It is possible to view the password through the service menu.

ADAPTING PARAMETERS

The i-control system utilises a large set of parameters, of which a select group is open to customization. This means that these parameters can be adjusted to offer functionality more fitting to the intended purpose of the unit.

Manager parameters:
The manager parameters are open to modification. It is important to know what a parameter does before changing it. A detailed description of all parameters can be found in I-control manual.

Service parameters: (see I-control manual.)
The parameters marked in grey are considered critical and should not be changed. If a parameter needs to be adjusted , the Fri-jado Service Department will contact you with a request to make the adjustment.

Generally speaking all other service parameters are considered important and can only be adjusted within the values listed in the parameter list in this document.
Before changing a parameter be aware of the consequences that it might have for a correct working of the unit.
When you are not sure, please contact the Fri-Jado Service Department first to prevent possible damage or unwanted behaviour of the unit.

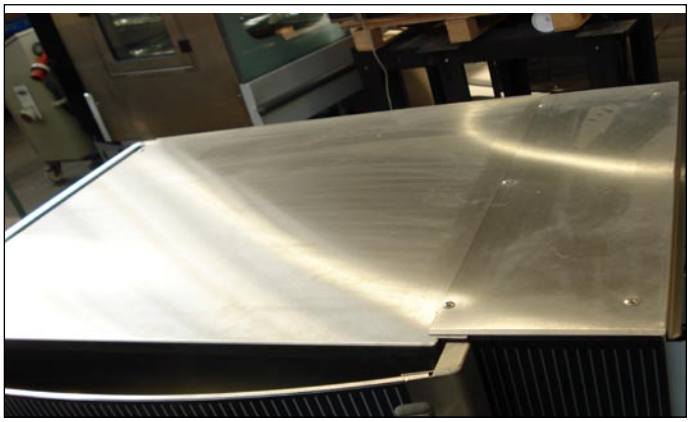
REMOVAL AND REPLACEMENT OF PARTS

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

RIGHT OR LEFT SIDE PANEL

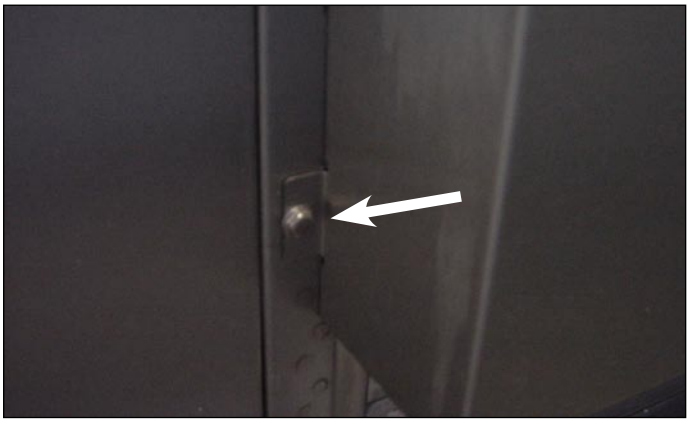
1. Remove the 4 screws that secure the panel to the frame.
2. Remove the panel
3. Reverse the procedure to install.

TOP COVER



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

REAR PANEL



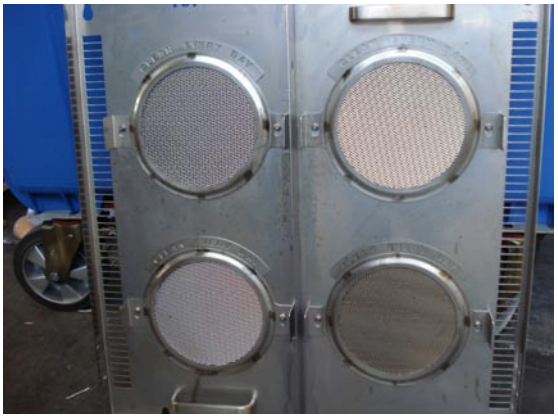
1. Remove the top cover according prior procedure.
2. Remove the 2 screws securing the rear panel.
3. Remove the panel by lifting it and pulling it out of the holes.
4. Reverse the procedure to install.

REMOVAL OF THE TRAY SUPPORTS RIGHT AND LEFT SIDE

1. Remove the trays or racks
2. Remove the tray supports by lifting them out of their support pins and pulling them to the centre of the cabinet.
3. Remove the tray support out of the cabinet.
4. Reverse the procedure to install them. The right and left side cannot be swapped and therefore they are marked R(right) and L(left).

REMOVAL OF THE FILTER ASSEMBLY

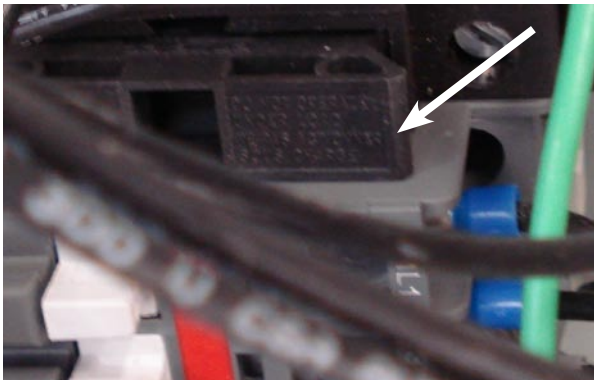
The filters itself can be removed by lifting them and pulling them from the support pins.



Removing the whole assembly:

1. Remove the tray supports as described above.
2. Lift the filter assembly by means of the 2 grips and pull it towards yourself.
3. Reverse the procedure to install.

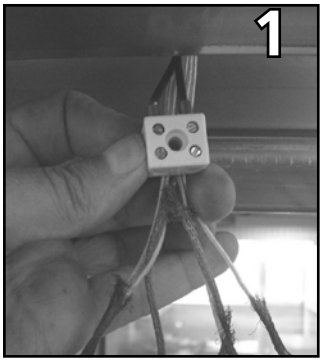
FUSE



1. Remove the right side panel according prior procedure.
2. The fuse is situated just above the contactor on the electrical panel (see arrow and exploded view of electr. assembly)
3. Push the fuseholder open with a screwdriver and measure the fuse.
4. Replace it by the same type and value.
5. Reverse the procedure to install.

HALOGEN LAMP (HOLDER)

Replacing the lamp or glass:
Remove the glass by turning the glass counter clockwise. Replace the glass or lamp.
Replacing the lampholder:
On a single unit or on the top side of a stacked unit(UK) : remove the top cover and access the connector and lampholder from this side. See photo 1 + 2.
Otherwise:



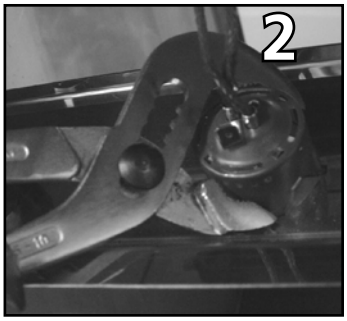
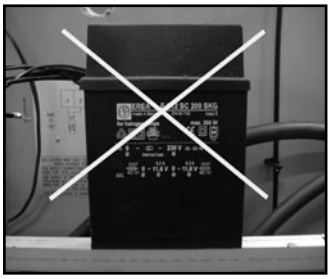
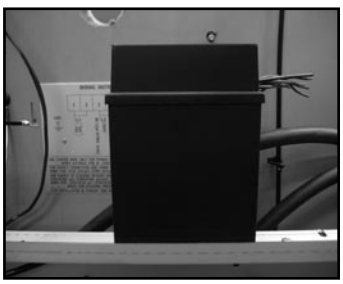


Photo 1: connecting/disconnecting wires
Photo 2: deform lampholder if necessary

1. Remove the glass and lamp. See above.
2. Bend the 4 flaps on the inside straight with a screwdriver and push them back. The lampholder should come out now.
3. Lower the lampholder until the connector is on the inside of the cabinet.(photo 1)
4. Disconnect the wiring from the connector.
5. Remove the holder. Take a new holder, reconnect the wiring and click it in the ceiling.
6. Put the lamp back in or replace it and put the glass back by turning it clockwise.

ELECTRONIC TRANSFORMER

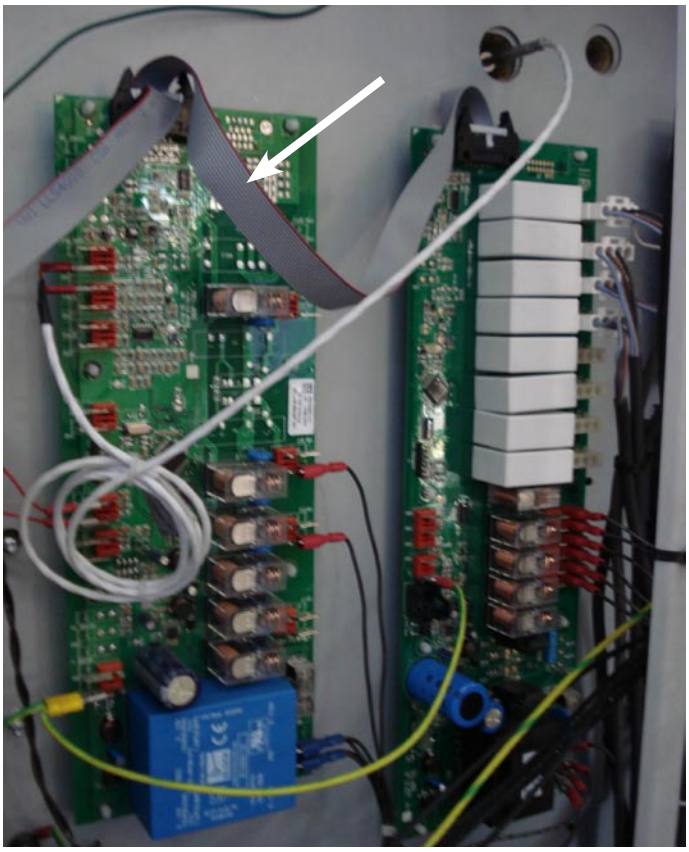




Transformer must be placed as shown in the right photo, because of the thermal fuse that is inside the transformer.

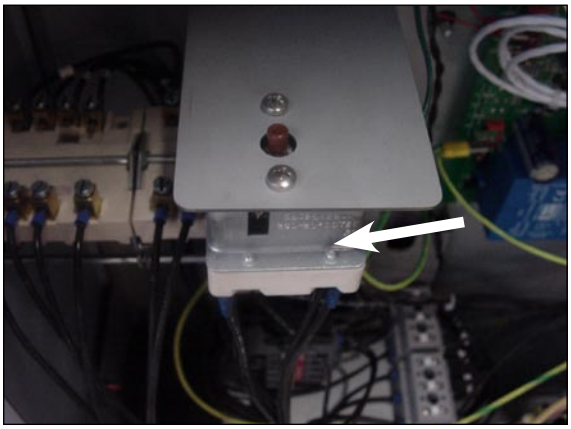
1. Remove the right side panel according prior procedure.
2. Remove the wiring.
3. Remove the screws that secures the transformer (bottom side) and remove the transformer.
4. Reverse the procedure to install.

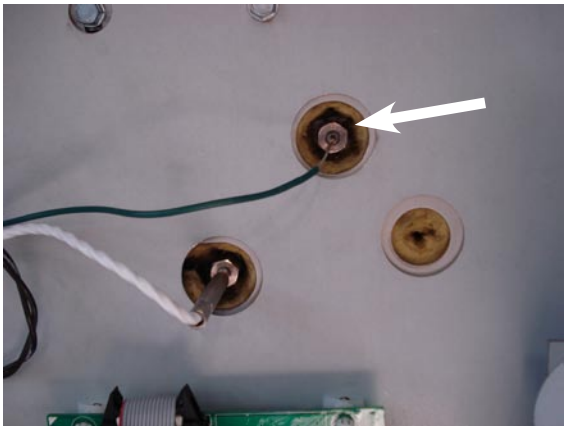
POWER / I/O BOARD AND FAN CONTROL BOARD



1. Remove the right side panel according prior procedure.
2. Disconnect wiring and flat cable on the board you want to remove.
3. Number or mark the wiring if necessary.
4. Remove the board from the clips by pressing the clips together.
5. Reverse the procedure to install.

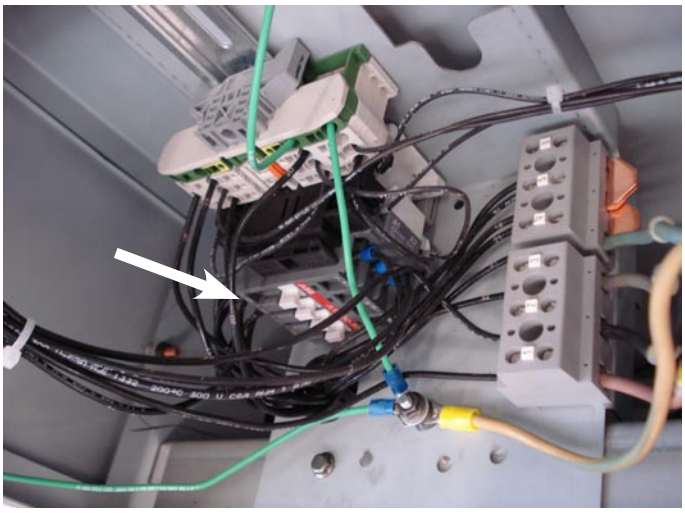
HIGH LIMIT THERMOSTAT





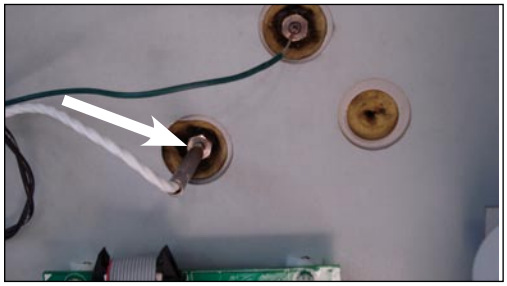
1. Remove the right side panel according prior procedure.
2. Measure inside the cabinet how far the sensor comes out of the side panel.
3. Remove the sensor by loosening the nut and pulling it out of the cabinet.
4. Remove the screws on the electric panel that secure the thermostat.
5. Remove the thermostat and disconnect the wiring.
6. Reverse the procedure to install. Place the sensor in the same position as measured before.

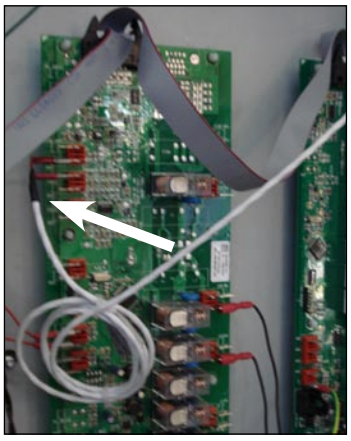
CONTACTOR



1. Remove the right side panel according prior procedure.
2. Disconnect the wires to the contactor.
3. Push down the locking tab and remove the contactor from the mounting bracket.
4. Reverse the procedure to install.

PT1000 SENSOR





1. Remove the right side panel according to prior procedure.
2. Disconnect the wiring of the sensor from the powerboard.
3. Measure in the cabinet how far the sensor comes out of the side panel.
4. Loosen the nut that secures the sensor and remove the sensor.
5. Reverse the procedure to install. Replace the sensor in the same position that you measured before.

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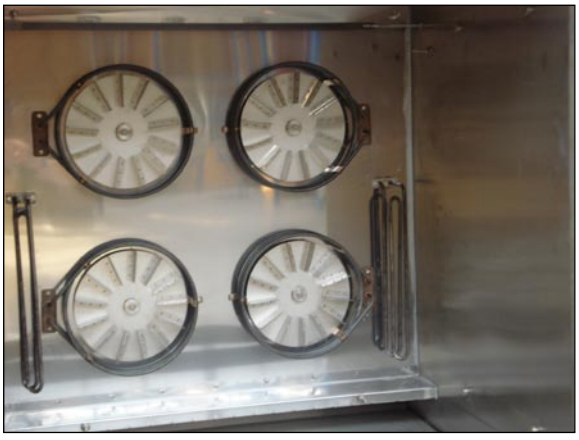
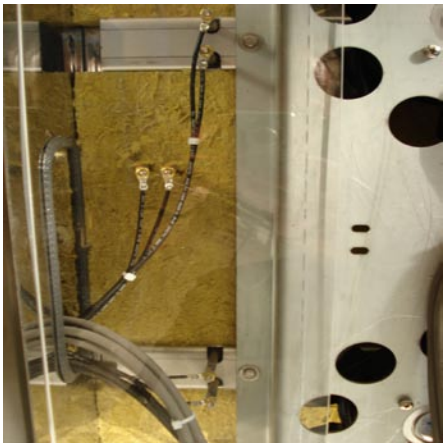
HEATING ELEMENT



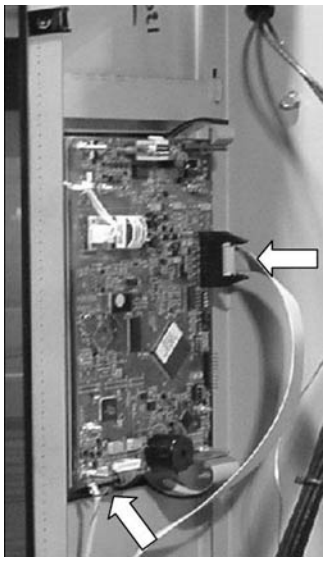
1. Remove the rear panel according to prior procedure.
2. Remove the tray supports left and right according to prior procedure.
3. Remove the filter plate according to prior procedure.
4. Disconnect the wiring from the element. at the rear side. **See Note 1.**
5. Remove the mounting screws from the front side.



6. Remove the element out of the cabinet- from the front side.
7. Reverse the procedure to install.

Note 1:
When disconnecting or connecting the wiring, secure the element by holding the rear nut with an open-ended spanner.

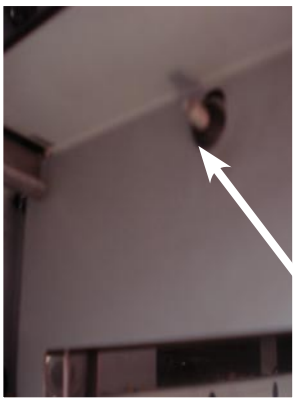
GLASS PANEL WITH BACK PLATE



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

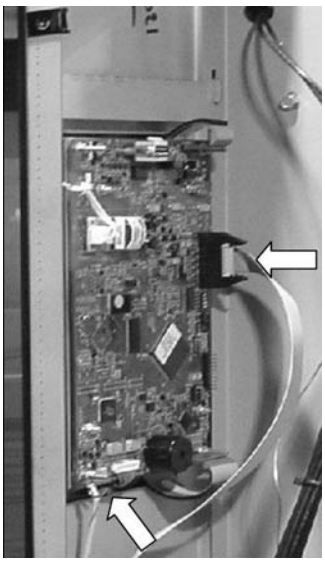
Note: On a stacked unit both i-controls are located on the top unit.

COOLING FAN



1. Remove the right panel side according prior procedure.
2. Loosen the screws from the small top cover at the rearside for about 10 mm.
3. Disconnect the wiring from the power board.
4. Remove the small rear panel by loosening the 2 M5 nuts and lifting the rear panel out of the slotted holes.
5. Remove the 4 screws from the outside en remove the fan.
6. Reverse the procedure to install.

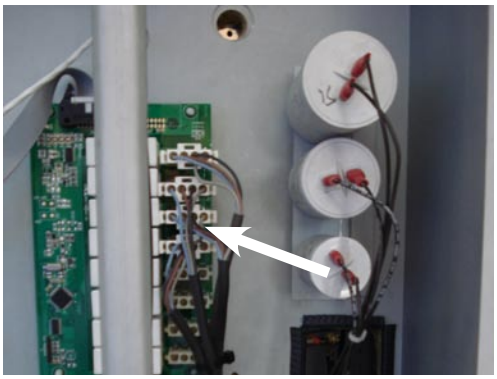
CPU BOARD

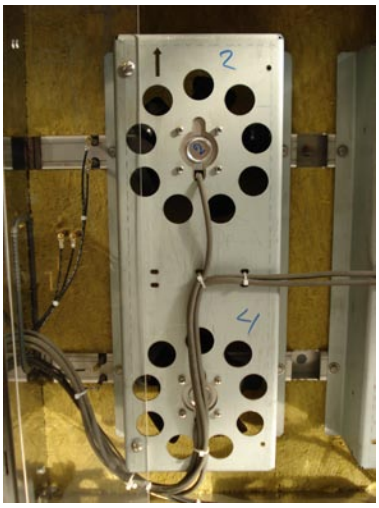


1. Remove the right side panel according prior procedure.
2. Remove the nut from the ground wire on the cpu board and remove the ground wire.
3. Remove the grey flat cable from the CPU board.
4. Loosen de keyboard connectors. (see arrows)
5. Remove the 4 nuts that secure the CPU board. ***Be careful not to damage the components on the board near the nuts.***
6. Remove the board.
7. Reverse the procedure to install.

Note: On a stacked unit both i-controls are located on the top unit.

BLOWER MOTOR





1. Remove the right panel side according prior procedure.
2. Remove the rear panel according prior procedure.
3. Remove the filter assembly according prior procedure.
4. Remove the fan blades of the 2 blowers, that are on the same vertical subframe.
5. Disconnect the 2 blowers from the fan-board. If they are not numbered, please do so before disconnecting them.
6. Remove the subframe, pull the wiring through the gap in the side plate.
7. Replace the defective motor.
8. Place new shaft seals for both motors!! See appendix "Replacement of shaft sealing" for more details.
9. Reverse the procedure to install.

Note: **Keep the fan blades and blowers with the same numbers together as a set.**

BLOWER CAPACITOR

1. Remove the right panel side according prior procedure.
2. Disconnect the defective capacitor.
3. Remove the bracket from the cabinet.
4. Replace the defective capacitor.
5. Reverse the procedure to install.

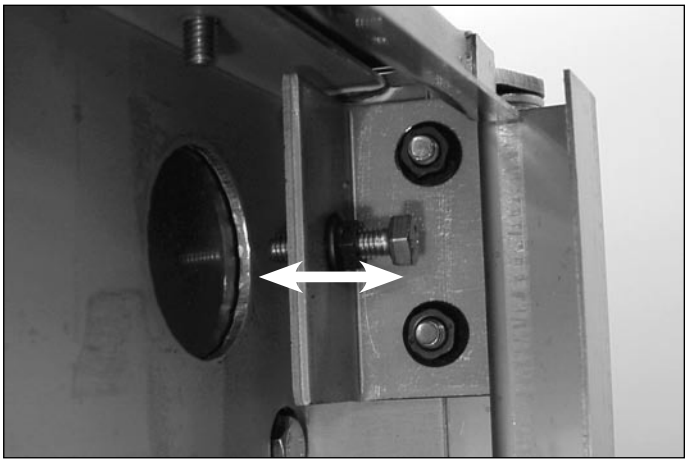
MAIN SWITCH

1. **DISCONNECT THE MAINS SUPPLY !!!**
2. Remove the right panel side according prior procedure.
3. Disconnect the wiring from the switch, if they are not numbered, please do so before disconnecting them.
4. Remove the cap and the knob at the front
5. Loosen both screws and the switch will come off.
6. Reverse the procedure to install.

DOOR SWITCH

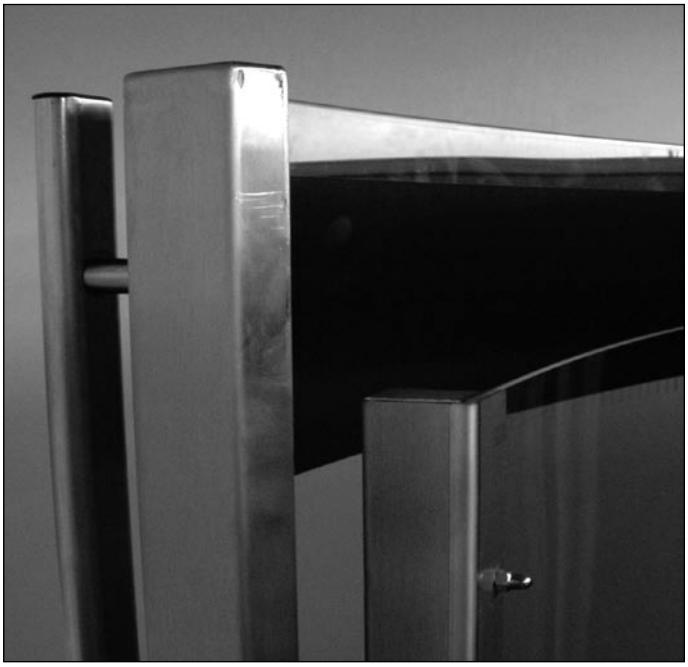
1. Remove the right panel side according prior procedure.
2. Open the door.
3. Remove both screws of the bracket, that holds the microswitch.
4. Remove the microswitch from the bracket and replace it by a simular one.
5. Switch the wiring from the old to the new switch
6. Mount the bracket and check that the switch works OK by measuring the contacts (zero ohms) when the door is closed.

DOOR ADJUSTMENT (LEFT SIDE)



1. Remove the left side panel according prior procedure.
2. Loosen the nuts of the upper hinge a bit. 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 side panel.

DOOR GLASS INSIDE



1. Lift the door upward out of the hinges and place on a table.
2. Remove the cap nuts and washers 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 PFTE washers inside the holes and the washers between metal and glass.
5. Mount the cap nuts and washers.
   Note! Tightening of nuts max. 4,2 Nm
6. Place the door in the hinges and check if they close well.

REPLACEMENT OF 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. Put something soft under the glass to protect it from scratching.
5. Remove the screws, nuts and washers of the door handle profile. (The hinge profile is glued and can not be removed.)
6. Mount the door handle profile on the new glass. Do not forget the nylon spacers inside the holes and the washers between metal and glass.
7. Reverse the procedure to install.

ELECTRICAL TESTS AND SERVICE PROCEDURES

WARNING: Disconnect the electrical power to the machine at the main circuit box or pull the plug during the mechanical checks. Place a tag on the circuit box indicating the circuit is being serviced.

PT 1000 SENSOR

Temperature		Resistance
°c	°F	± 5 Ohms
0	32	1000
25	77	1097
50	122	1194
100	212	1385
150	302	1573
200	392	1759

- Remove the right side panel(see removal and replacement)
- Remove the wiring of the sensor from the power/I-O board.
- Connect a temperature sensor to the probe for reading the temperature.
- Test the sensor with an Ohmmeter acc. the table at the left.

HEATING ELEMENT

Type	Wattage/Voltage	Resistance Ω -5% + 10%	Current A
STO6-i 230Vac	1800 / 230 V 1750 / 230 V	115 120	7.8 7.6

- Remove the rear panel(see removal and replacement).
- Measure the resistance and /or current of the heating elements.

Note: When testing the resistance of the element remove the wiring.
See chapter "removal and replacement" how to do this.

MAIN SWITCH

- Be sure that the mains supply is switched off or the plug is pulled out of the mains socket.
- Remove the right side panel (see removal and replacement).
- Put the switch in "0" position.
- Measure the resistance between the opposite positions on the switch with an ohmmeter. Resistance should be at least several KOhms. If it is around 0 Ohms then that contact sticks.
- Set the switch to "1" and repeat the measurement, resistance should be close to "0" Ohms. If not , then that contact is broken or making bad contact.
- In both cases the switch should be replaced.

DOOR SWITCH

- Remove the right side panel (see removal and replacement).
- Remove both wires from the switch.
- Place an ohmmeter over the contacts.
- Measure the resistance. Resistance should be at least several KOhms with the door open, if not then the contact inside sticks and the switch should be replaced.
- Close the door, resistance should be around 0 ohms , if not then the contact is broken or making bad contact.
- Check the adjustment of the switch and measure again or replace the switch.

TROUBLESHOOTING FOR THE STO6-I

Listed below is a table with symptoms and a list of possible causes and solutions to these problems. The list contains the most common occurences and solutions.

TROUBLE SHOOTING LIST		
Symptom	**Possible Cause**	**Possible solution**
No power to unit.	Mains breaker open Mains switch (UK) defective	Check mains connections and associated wiring. Also inspect mains fuses and mains switch(tesco)
	Overheating protection (safety thermostat) triggered	Check for possible causes of overheating and rectify these. Otherwise let the unit cooldown and reset the protection.
	Wiring problem	Check wiring inside and outside of unit.
	Control boards defective	Measure voltage and make sure power is applied, inspect different control boards and see if leds are blinking. First replace the I/O board and test then if problem persists also the CPU board.
	Safety thermostat malfunction	see remark further on
Unit does not heat up or heats up too slow	Control board defective	Observe if the relay on the control board switches when heating is turned on (turning the fans on might also be necessary), if it does not switch replace control board. Engaging the heating elements seperately can be done through the I/O test menu.
	Doorswitch defect or not aligned well	Measure doorswitch , replace and/or readjust the doorswitch.
	Contactor defective	Measure the voltage over the contacts, This should be close to "0 "Vac. If not , replace the contactor.
	Heating elements defective	If sufficient power is applied to the elements and they do not heat, replace elements
	Fuse defective	Check or measure the fuse
Doors do not close well.	Door not aligned correctly	Reallign the door hinges
Oven does not bake correctly	Blowers do not change speed correctly	See the entry in the symptom column concerning blowers for more information.
	Heating elements defective or contactor defective	Measure ampere use and check heating elements for leaks. If found defective replace elements
	Door does not close well	readjust door and check for possible heat leaks
	Temperature sensor defective	Measure sensors resistance and cross reference with the table in the electrical tests chapter.
	Filters dirty	Clean the filters
	Not all filters are mounted	Mount the missing filters
Blowers do not function correctly	Relays on control board "stick"	Relays on control board do not switch, replace control board
Blower(s) do not start up	Capacitor defective or relay(s) defective	Check or replace capacitor or control board
	One or more blowers defective	Check voltage over the blowers while running and cross reference with the table in this manual. If found incorrect replace blower
Oven does not switch off	The oven has not cooled down sufficiently	Wait until the oven cools down below 80°C with closed door cooling and 50°C with open door cooling
Broken doorglass in or ouside	Slamming of door	Give instructions to operator
	Fastening bolts and nuts are not tightened well	Tighten all fastenings
	No sealing washer between glass and steel	Mount new glass witjh the correct sealing rings
	Not well adjusted, closes against bottom side	Adjust the door on hinge and tighten hinge plate

Symptom	Possible Cause	Possible solution
Halogen lamp(s) do not light up	Lamp(s) broken Wiring loose Transformer malfunction Parameter setting not correct	Replace the lamp(s) Check wiring Secundary voltage should be around 12 Vac Correct this setting in the manager menu
No display and /or keypads does not function	no supply voltage, loose flatcable or connectors fuse blown on power board, electronic malfunction	check if green leds on the controlboard are on. if not,check the 12 Vdc on J9 of the control-board with the flatcable connected!!!. check the flatcable and other connectors. check the fuses on the power board. check the dipswitches (1 and 2 off ,3 and 4 on) press the reset button on the control panel.
Contactor does not come in	Safety thermostat or no power on relay	Check wiring/ contact(s) and power on relay
Oven switches off too early	Safety thermostat	Check position of the thermostat probe Check if thermostat is turned fully clockwise

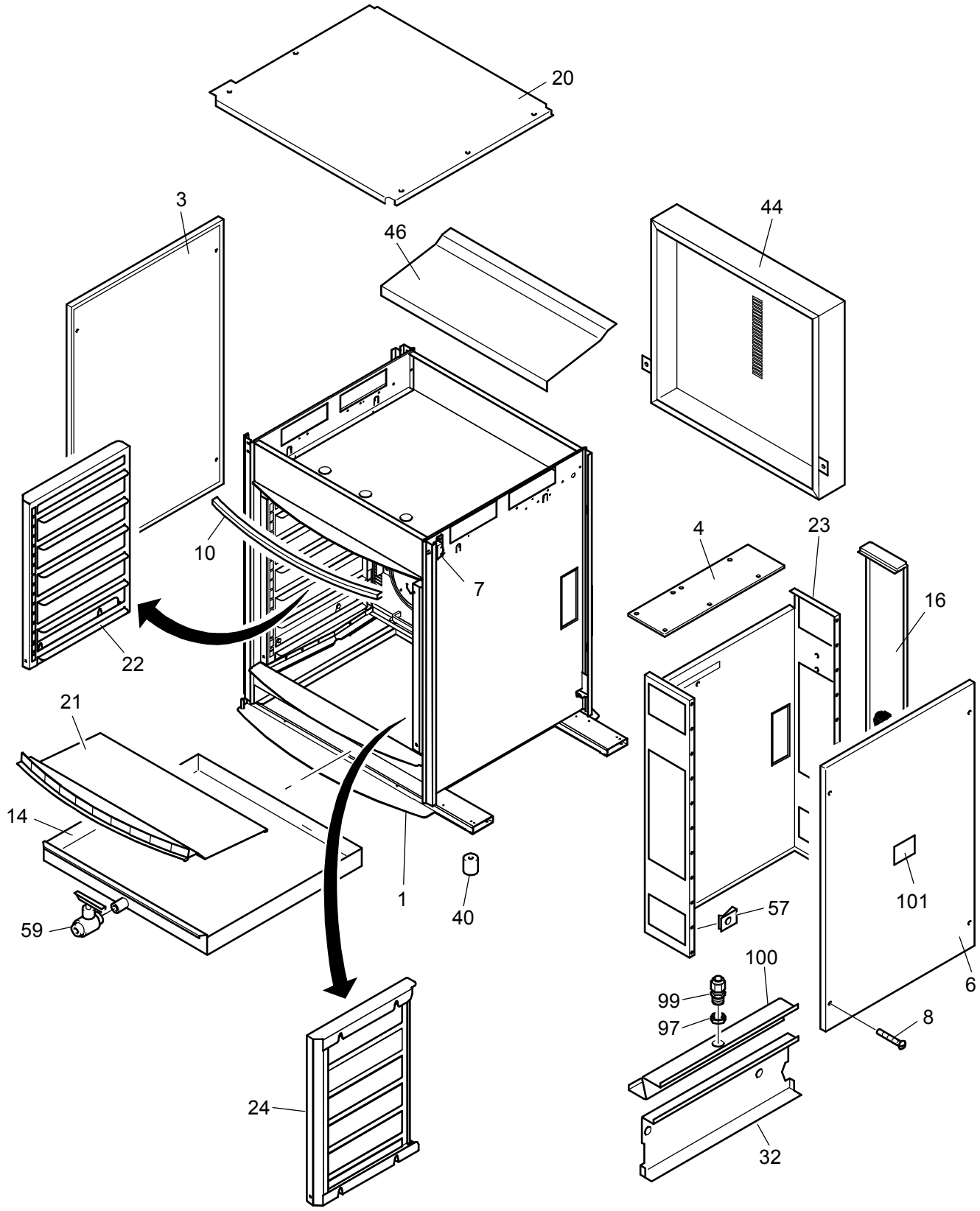
BLOWER VOLTAGES AT A MAINS SUPPLY OF 230Vac.

Speed 4	Speed 3	Speed 2	Speed 1
215 Vac	205Vac	190 Vac	170 Vac

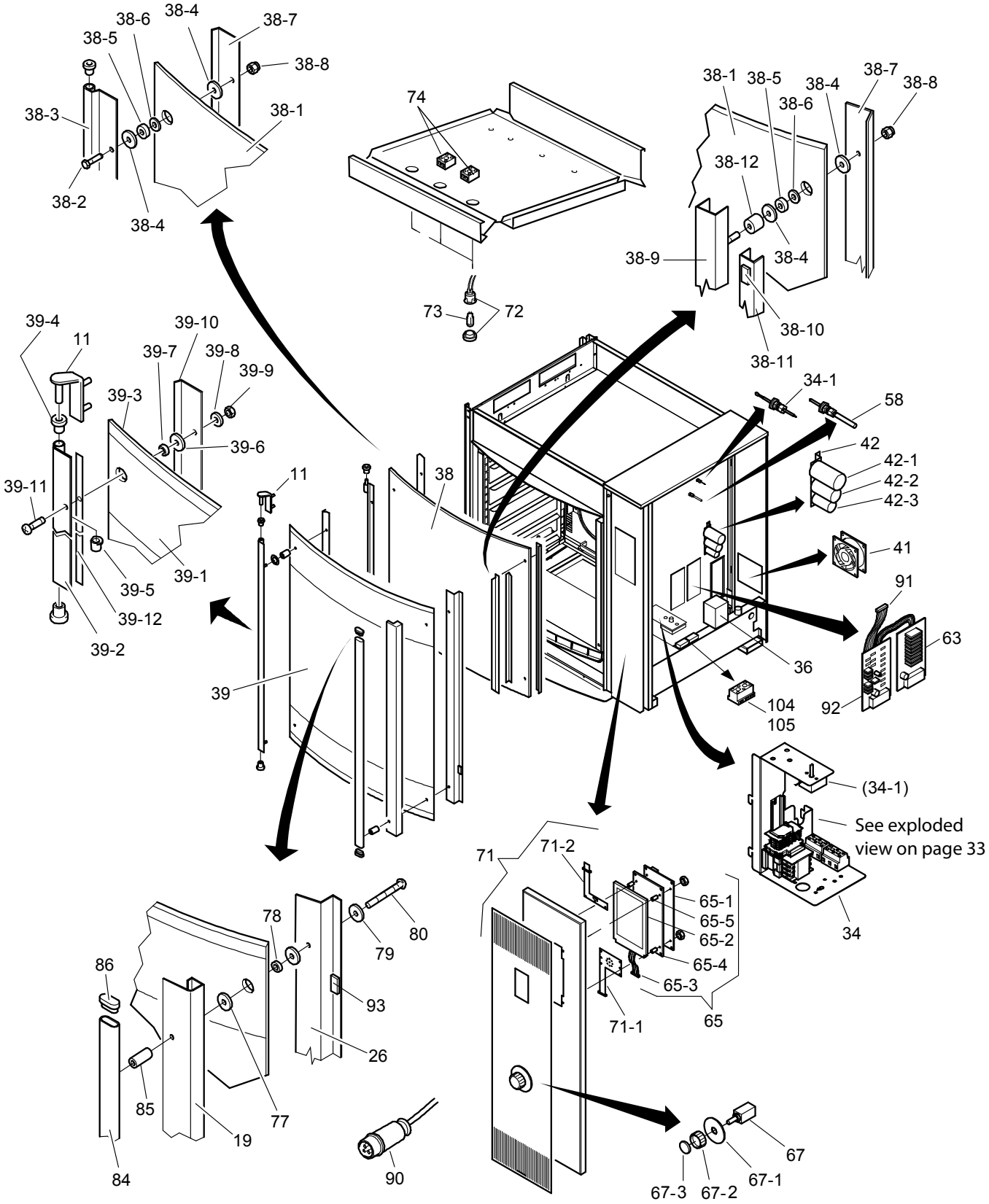
Note1: If supply voltage deviates from 230 V, the blower voltages will vary in the same percentage.

Note 2: You can measure the voltages between the black and grey wire of a blower connector on the fan board.

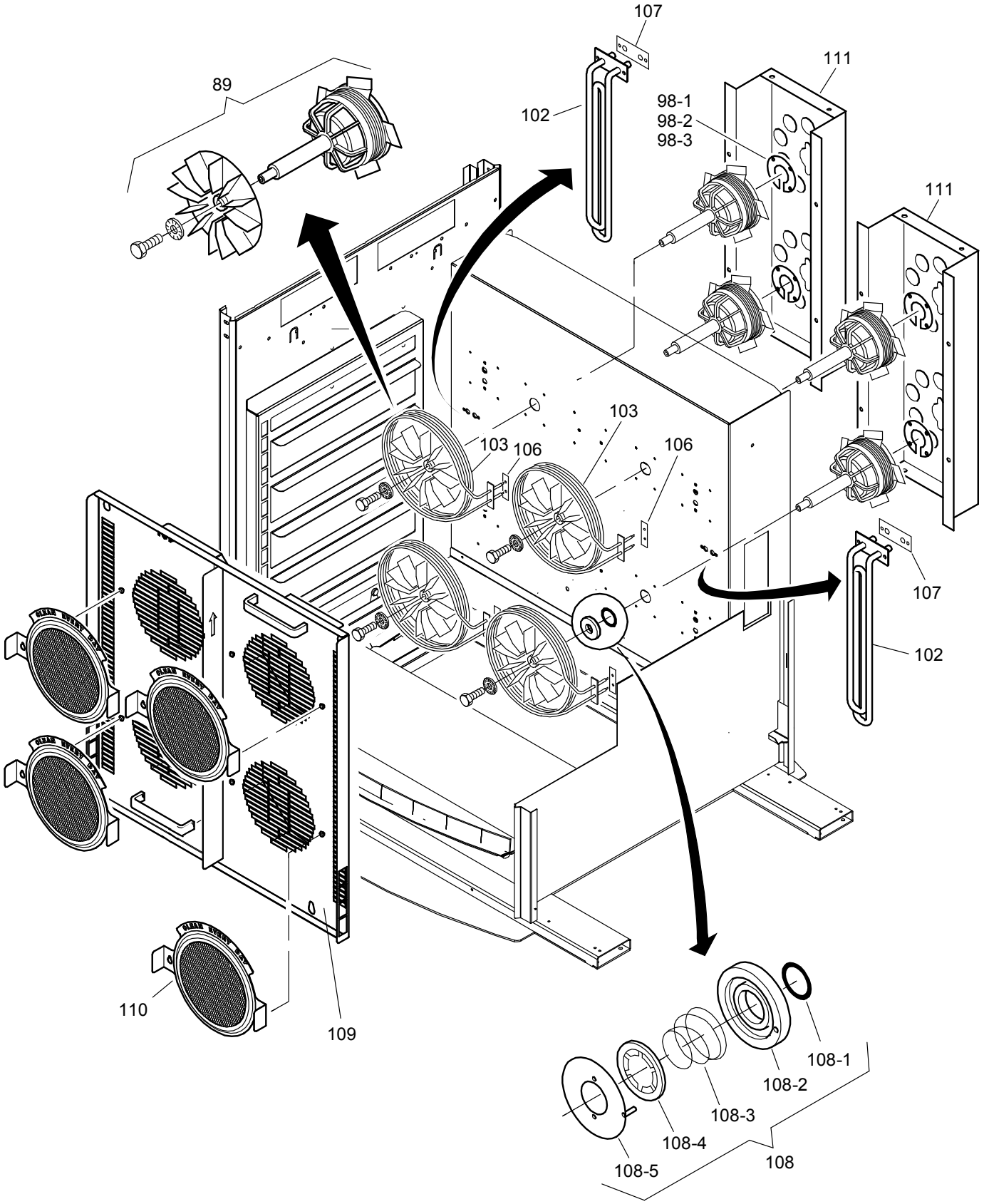
EXPLODED VIEWS & PARTLISTS



STO6-i - Sheet Iron Work



STO6-i - Components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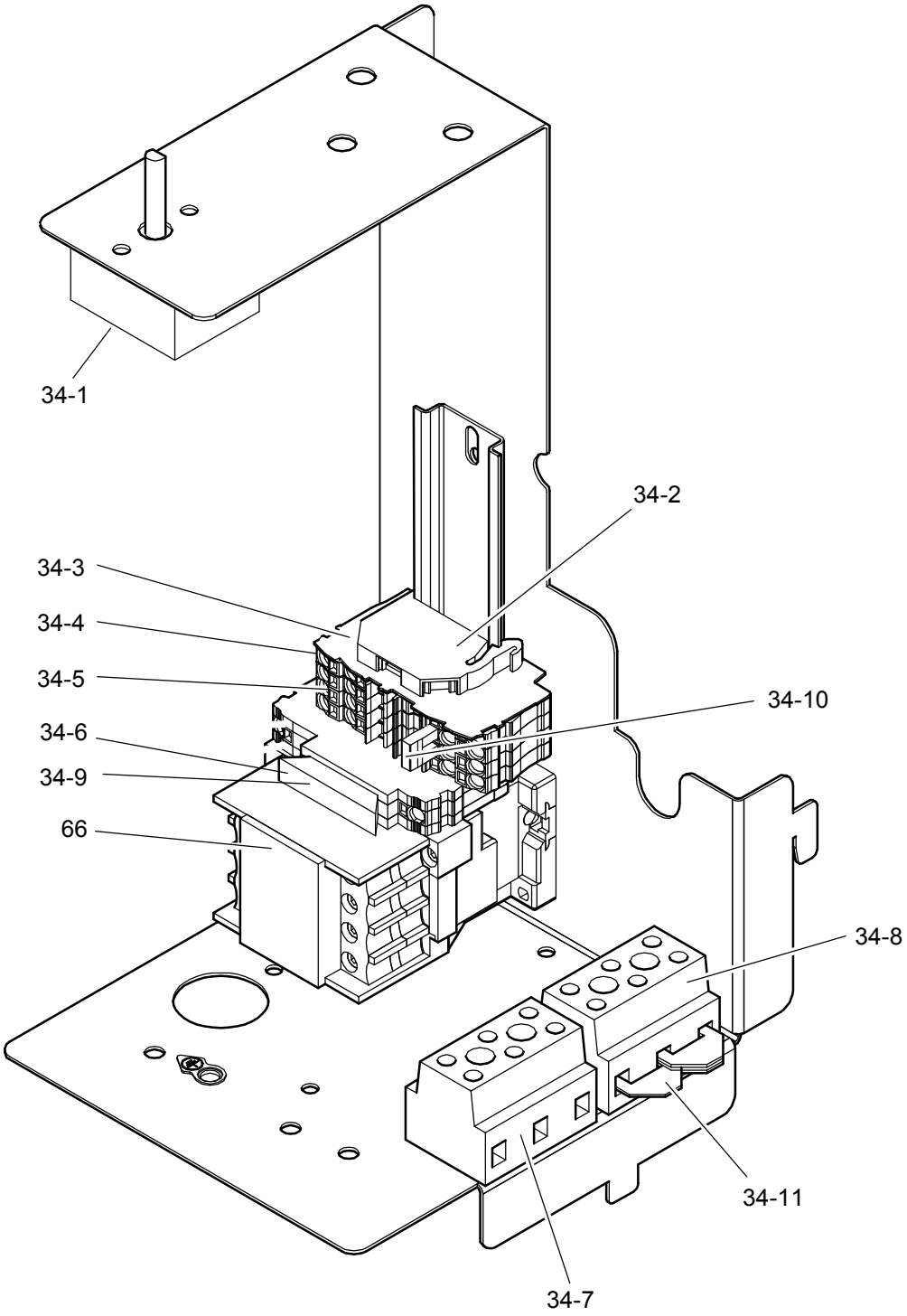
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Item	Partnr.	Qty	Description
1	9170614	1	Inner frame
3	9170419	1	Side panel, left
4	9175174	1	Plate, upper, right
6	9170479	1	Side panel, right
7	3701233	1	Door switch
8	4288322	28	Screw M5 x 10, SS socket button head
10	9171012	1,6	Sealing profile, silicon
11	9170426	1	Hinge, right
14	9170534	1	Drawer
	9170451	1	Drawer with drain-tap ass.
16	9174740	1	Back panel, right STO-6i
19	9170536	1	Profile, magnet
20	9194045	1	Top plate
21	9175189	1	Bottom plate frontside, STO-6i
22	9175176	1	Guide for rack, left STO-6i
24	9175177	1	Guide for rack, right, STO-6i
26	9174631	1	Fastening, door handle
32	9174034	1	Mounting plate
34	9173061	1	Electric panel, ass STO-6i.
34-1	9172353	1	Thermostat 3p. 280°C
34-2	9191222	1	end clamp DIN rail
34-3	9191223	1	end cap conn. block DIN rail
34-4	9191239	1	terminal green DIN rail
34-5	9191240	3	terminal grey DIN rail
34-6	9191218	1	Fuse holder Euro ABB
34-7	9044564	1	Connecting block, 1,2,3
34-8	9044572	1	Connecting block, 4,5,6
34-9	9191197	1	Fuse 6,3x32, ceramic T10A
34-10	9191238	1	Bridge piece, DIN rail
34-11	9044580	3	Connector
36	3701022	1	Transformer 100W, halogen lamps
38	9179862	1	Door inside, ass.
38-1	9172001	1	Glass, inner
38-2	4288321	2	Screw M5 x 16, SS socket button head
38-3	9170423	1	Hinge profile
38-4	9174162	2	Seal ring
38-5	9174163	4	Distance ring, inner glass 3 mm
38-6	3704516	4	Distance ring, inner glass 2 mm
38-7	9174029	2	Cover profile, inner glass
38-8	4285408	4	Nut, M5
38-9	9174632	1	Holder, magnet
38-10	9070141	10	Magnet block
38-11	9174633	1	Profile
38-12	9172291	2	Spacing pin
39	9170082	1	Glass outer STO-6i, ass.
39-1	9172423	1	Glass outer black + reflection layer.
39-2	9170535	1	Hinge profile
39-3	9172079	2	Protection profile
39-4	9172054	2	Brass bearing 8 mm
39-5	9172122	2	Brass bearing 8 mm, adjusted
39-6	9174162	8	Seal ring

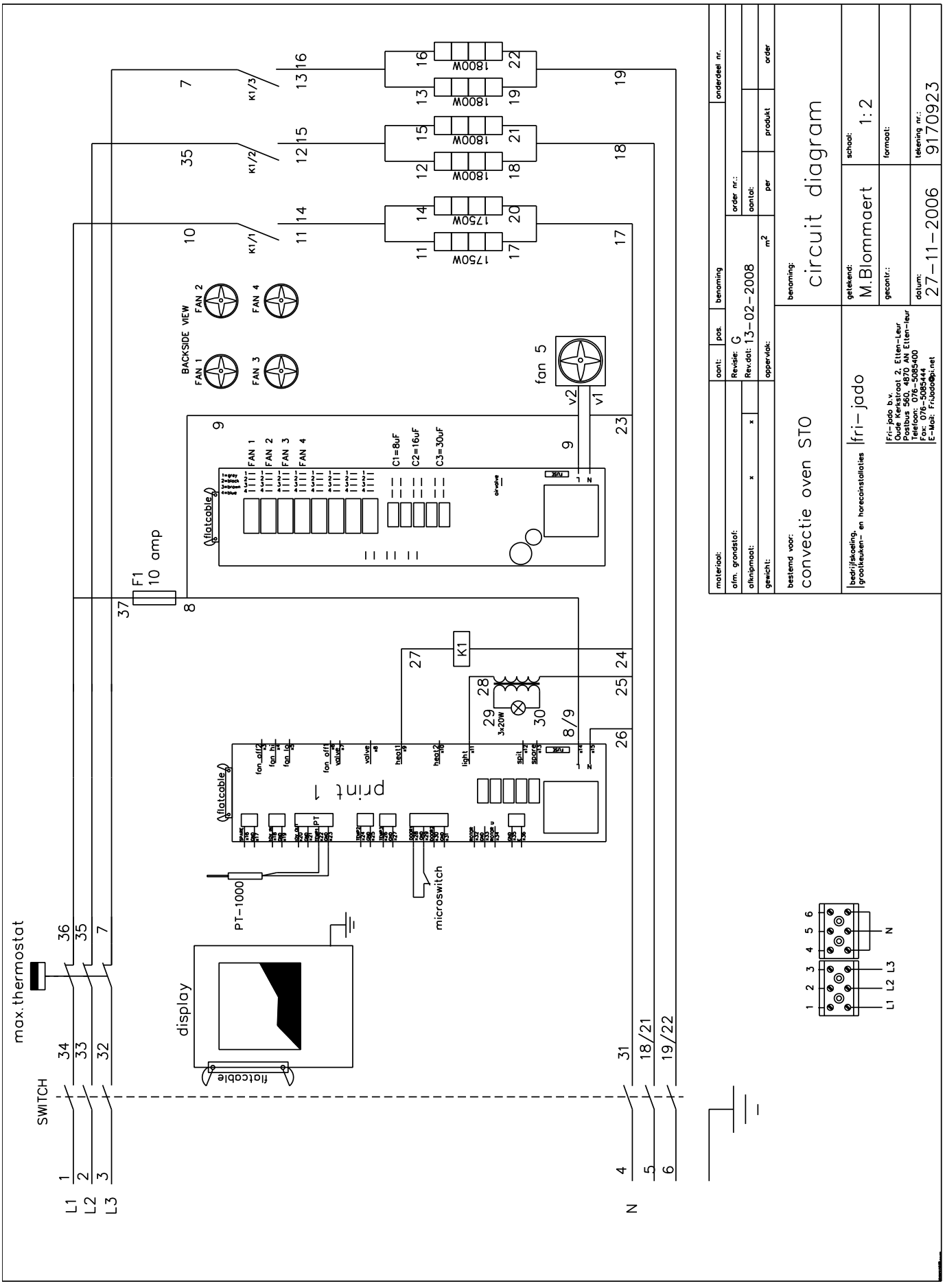
Item	Partnr.	Qty	Description
39-7	4289966	2	Distance ring, outerglass
39-8	4311110	5	Washer
39-9	4285408	4	Nut, M5
39-10	9174023	1	Mounting profile, hinge side STG7
39-11	4288321	8	Screw M5 x 16, SS socket button head
39-12	4302141	0,03	Tape 20 x 0,8
40	9171125	4	Leg, rubber 40mm / 50 mm high
41	3500031	1	Blower
42	9175191	1	Mounting plate capacitors
42-1	3500640	1	Capacitor 30 mF
42-2	3500641	1	Capacitor 16 mF
42-3	3500661		Capacitor 8 mF
44	9175190	1	Back wall STO-6i
46	9175171	1	Bottom plate rearside,STO-6i
57	9172053	4	Nut
58	3500090	1	Temperature sensor PT1000 without connector
59	9171008	1	drain-tap with handlle
63	3702213	1	Fan board
65	9172317	1	CPU board + LCD + cable, ass.
66	3701213	1	Relay
67	9172328	1	Main switch
67-1	9172422	1	Back plate, knob 0-1 black
67-2	9172022	1	Control knob, black
67-3	9172050	1	Cover, knob
71		1	See survey on page 38
71-1	9172313	1	Keypad, 15 keys
71-2	9172318	1	Keypad, 3 keys
72	9171078	3	Lamp holder, incl. glass
73	3701052	3	Lamp 20W, 12V/300°C
74	2300121	2	Connecting block, ceramic
77	9174162	4	Seal ring
78	4289966	2	Distance ring, outerglass
79	9174680	2	Washer
80	4288320	1	Screw M5x45 SS
84	9174132	1	Door handle
85	9172300	2	Spacing pin
86	9171014	2	Plug, door handle
89	3500044	4	Blower
90	9172361	1	shielded connecting cable with plug (tesco)
	9070044	1	connecting cable 3 mtr. with plug
91	9192204	1	Flatcable, 3 conn.
92	9172316	1	Power & I/O board
93	9070141	30	Magnet block
97	167519	1	Nut, relief strain PG21
98-1	3500303		Adjusting ring 1 mm
98-2	3500305		Adjusting ring 1,5 mm
98-3	3500304		Adjusting ring 1,25 mm
99	9171013	1	Strain relief PG21
100	9174140	1	Spark catcher
101	9110810	1	Indication plate

Item	Partnr.	Qty	Description
102	3702021	2	Heating element, 1750 W
103	9172355	4	Heating element, 1800 W
104	9044564	1	Connecting block, 1,2,3
105	9044572	1	Connecting block, 4,5,6
106	3702324	4	Gasket,heating element 1800W
107	3702364	2	Gasket, heating element 1750W
108	3500325	1	Service set shaft sealing
108-1	3500577	4	O-ring 16x2 mm
108-2	3500619	4	Seal ring
108-3	3500642	4	Spring
108-4	3500630	4	Locking ring
108-5	3500302	4	Drive ring
109	9170446	1	Frame, ass.
110	9170453	4	Filter, ass
111	9175162	2	Mounting profile, fan
			Parts not mentioned in Exploded Views
	9172358		Screening plate perspex
	9074129		Gloves(neutral)
	9172345		Display rack
	4288329		Screw M5 x 12, SS socket button head
	4288231		Tensilock bolt M5x10, stainless steel
	4312027		Spacing pin, 3D nut M5
	9008518		Washer, support pin
	9082211		Grommet
	9087570		Nut M 5, serrated
	9110072		Cable clamp
	9110111		Label caution hot polyplate
	3500105		Label yellow :electr. sign black
	9123413		Label yellow: distance 10 cm
	9123148		Label yellow: high temperature
	9123270		Warning plate alu. STG (AMP)

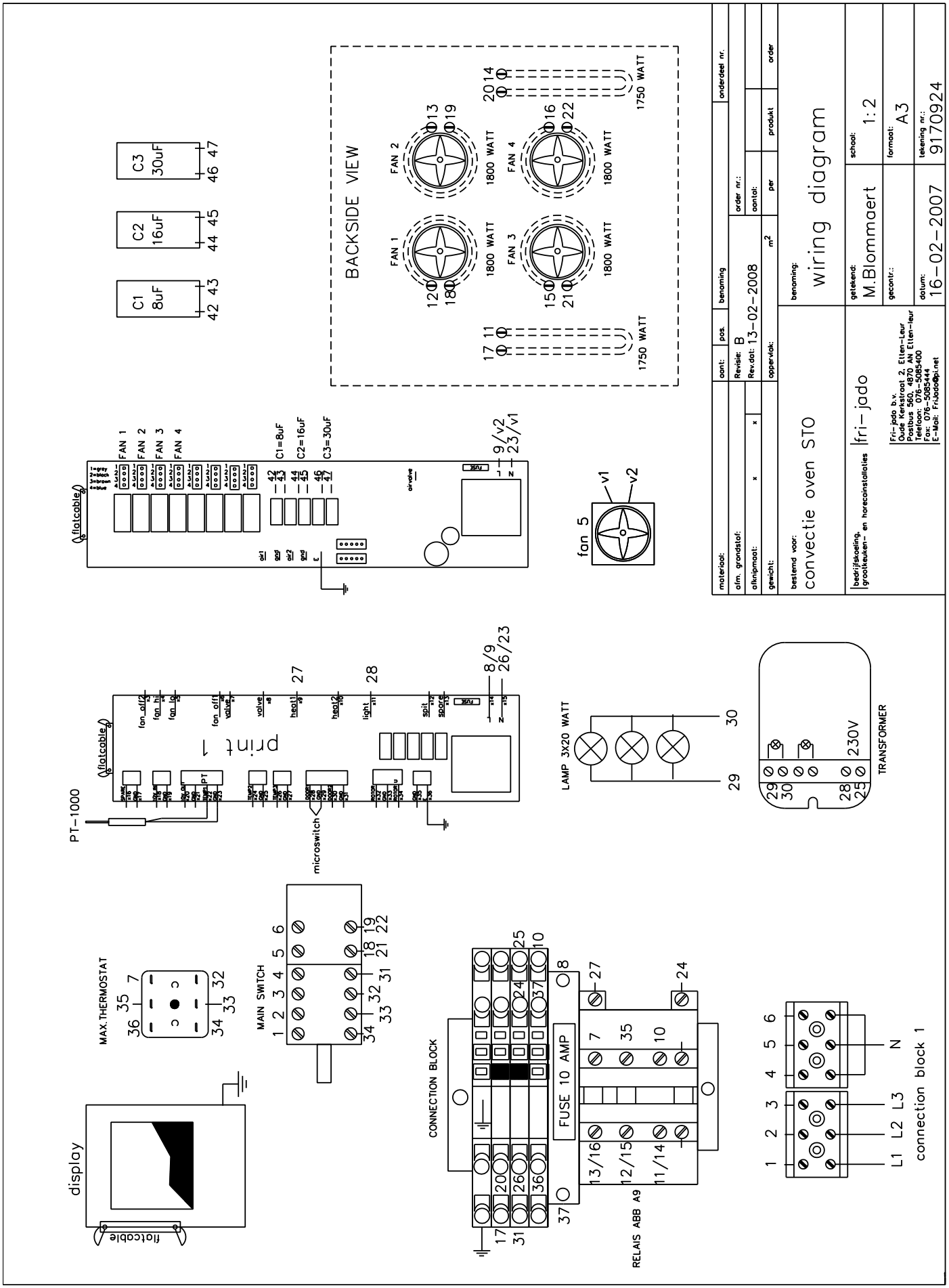
SURVEY OF ITEM 71 FOR ALL VERSIONS, SINGLE AND STACKED

Versions	parts		assembly	
STO6-i UK	9172352 / 9174721	=	9170079	operation panel
STO6-i EURO	9172331 / 9174721	=	9170074	operation panel
STO-6i + STG8-i Turbo - UK	9172359 / 9174722	=	9170080	name panel
	9172322 / 9174723	=	9170061	operation panel
STO6-i + STO6-i	9172321 / 9174722	=	9170076	name panel
	9172322 / 9174723	=	9170061	operation panel
STO6-i + STG7-i Turbo	9172321 / 9174722	=	9170076	name panel
	9172322 / 9174723	=	9170061	operation panel

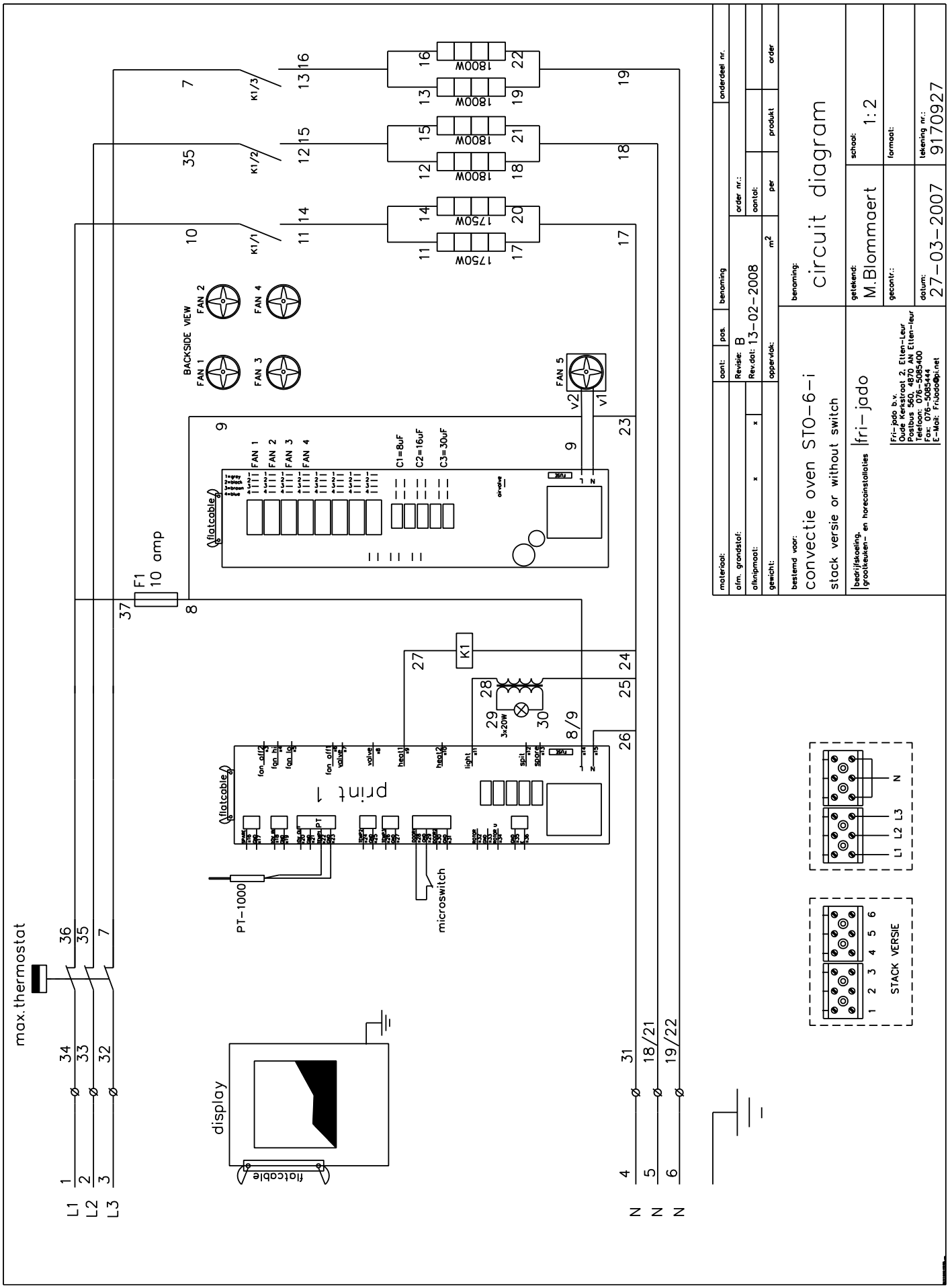
ELECTRICAL DIAGRAMS



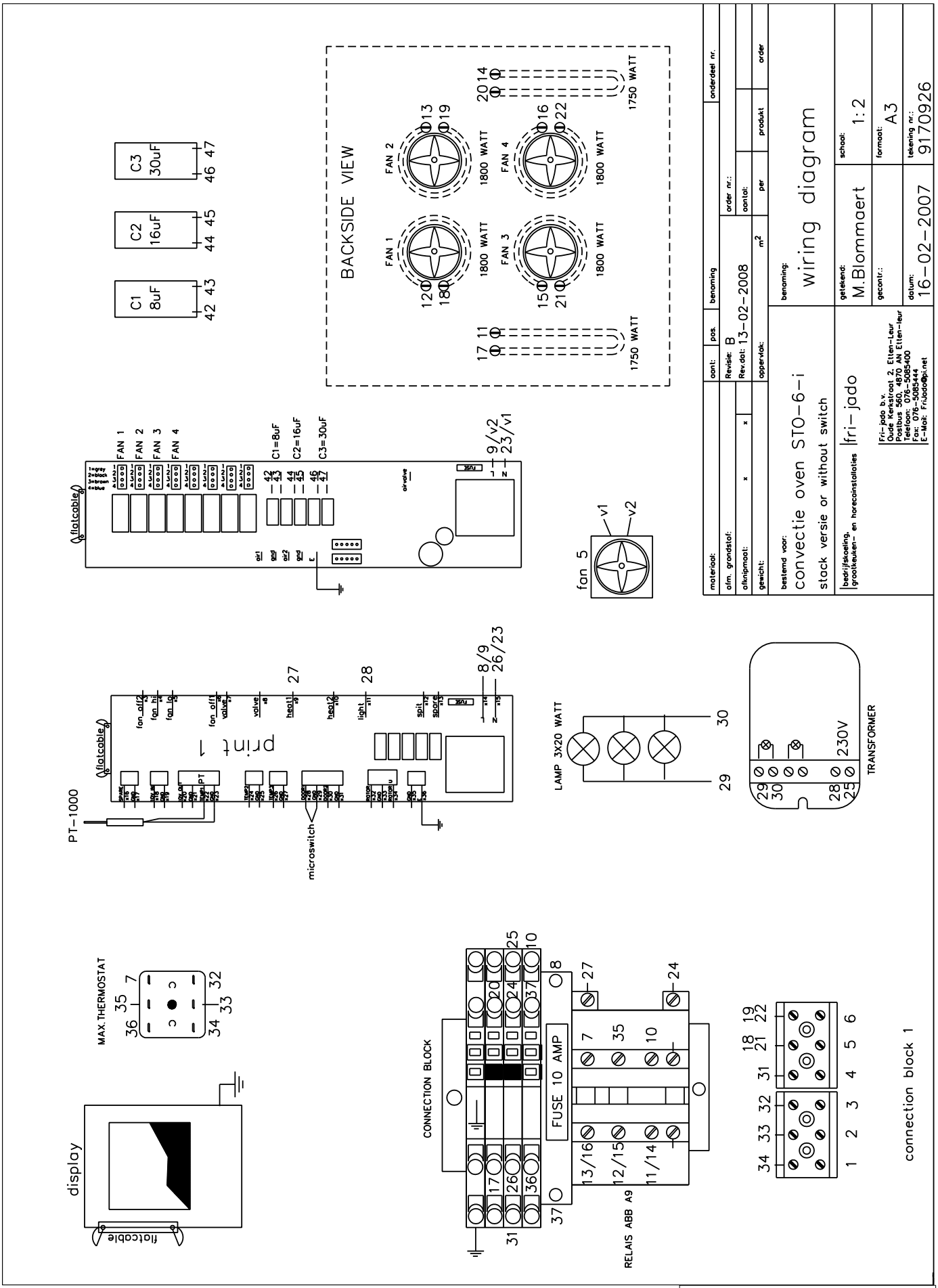
STO6-i - Circuit diagram UK



STO6-i - Wiring diagram UK



STO6-i -Circuit diagram EURO



STO6-i - Wiring diagram EURO

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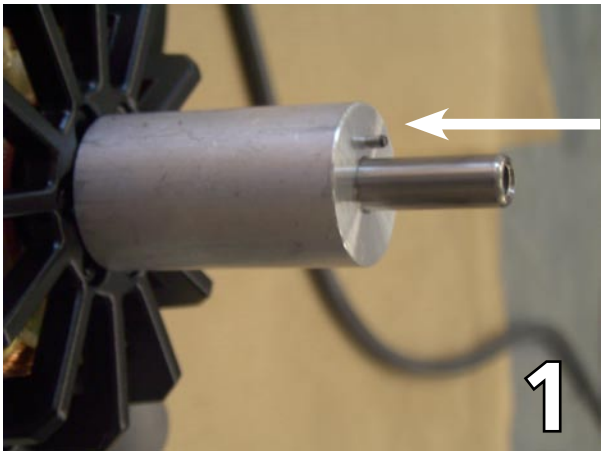
Fri-Jado B.V. • P.O. Box 560 • 4870 AN • Etten-Leur • The Netherlands • tel +31 76 50 85 400 • fax +31 76 50 85 444 • info@frijado.com • www.frijado.com

APPENDIX

REPLACEMENT OF SHAFT SEALING FOR BLOWER MOTER OVENS



After replacing the blower motor, a new shaft sealing set has to be mounted.

Photo's 2 until 10 show how to prepare the fan blade before mounting it on the shaft.

Photo's 11 until 14 show the actual mounting of the fan blade.

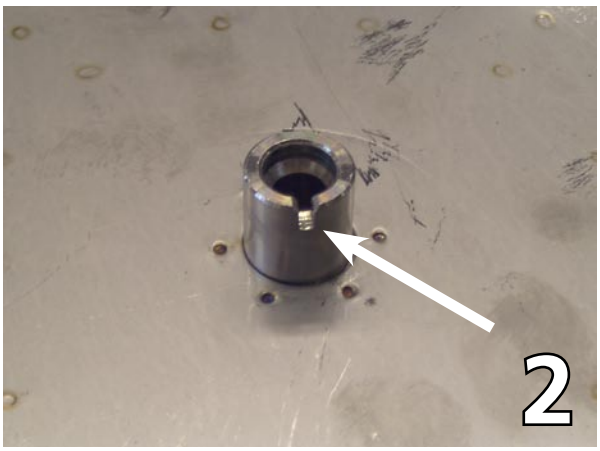
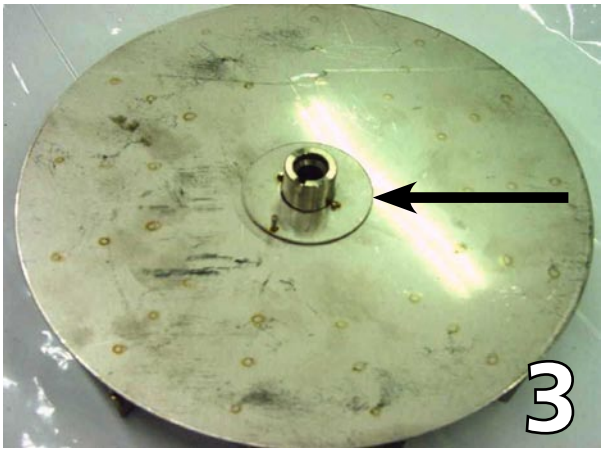
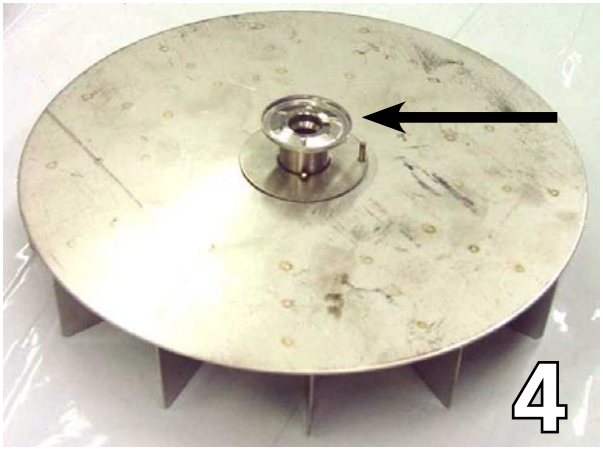


Photo 1 shows the shaft,on this shaft you see a pin.
Photo 2 shows the rearside of the fanblade.

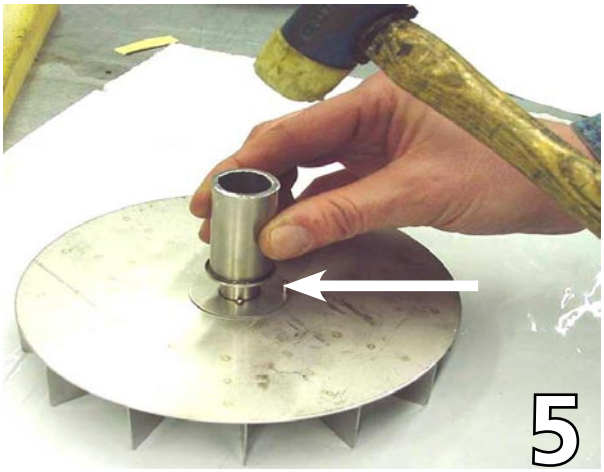
When mounting the fan blade the pin has to fall into the slit.



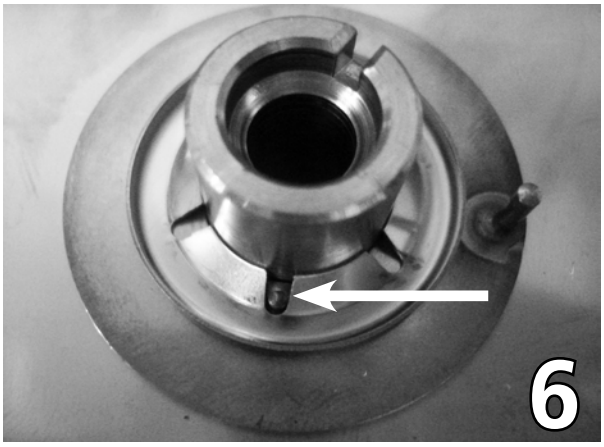
Start the assembly from this point. Place the drive ring over the hollow shaft.



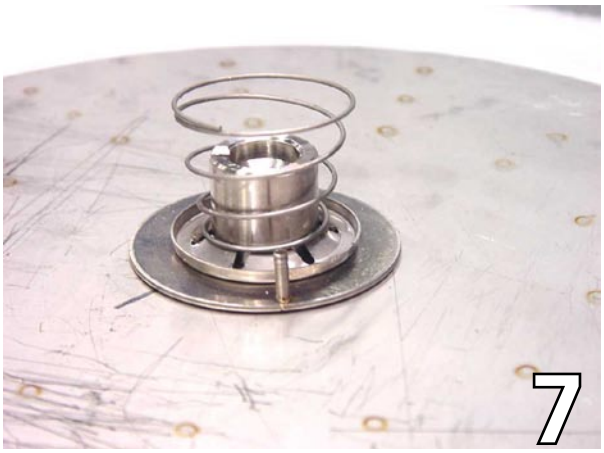
Put the locking ring on top of the hollow shaft (see photo 4) and drive the locking ring over the hollow shaft with a pipe or socket nr.16 or 17
of a wrench set and a hammer. See photo 5.
Make sure that the 2 little pins fall in a slit of the locking ring (see photo 6)



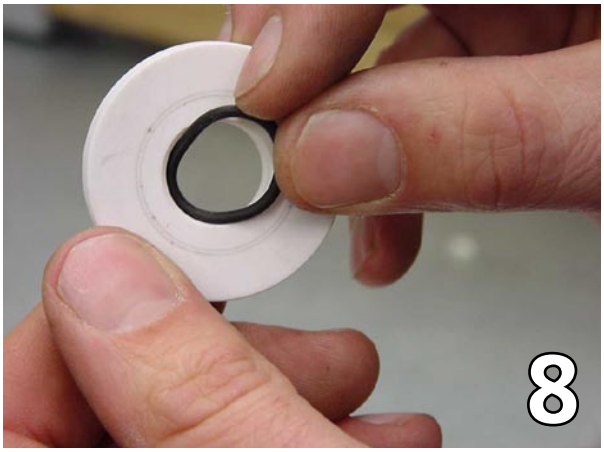
Make sure that the outside of the tool you use is not wider than the locking ring, otherwise you might damage the locking pin for the seal ring!!!!



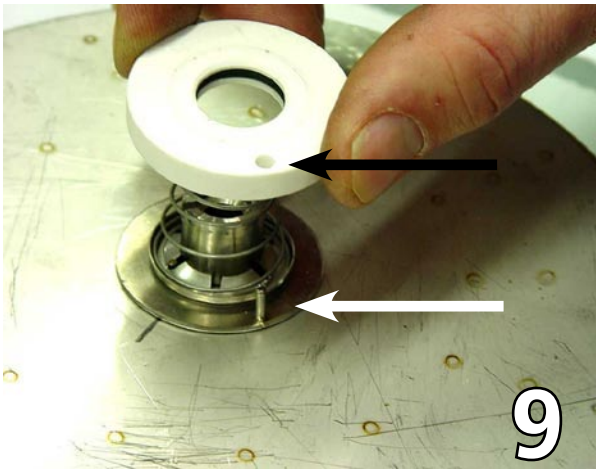
This is how it should look like .



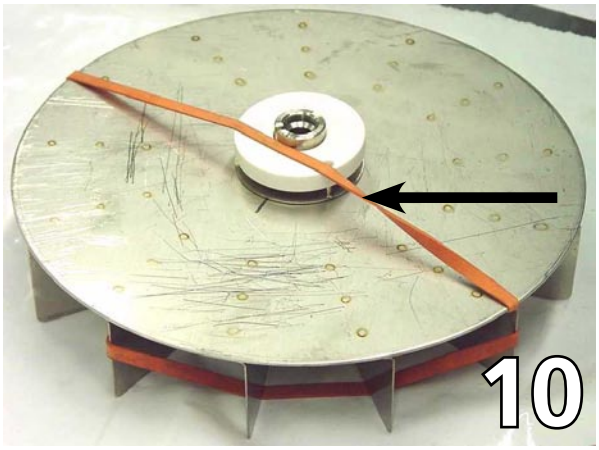
Put the spring over the hollow shaft.



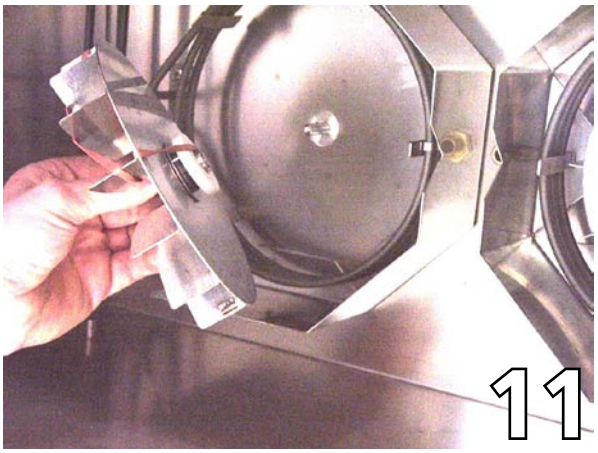
Place the O-ring in the PFTE sealing ring.



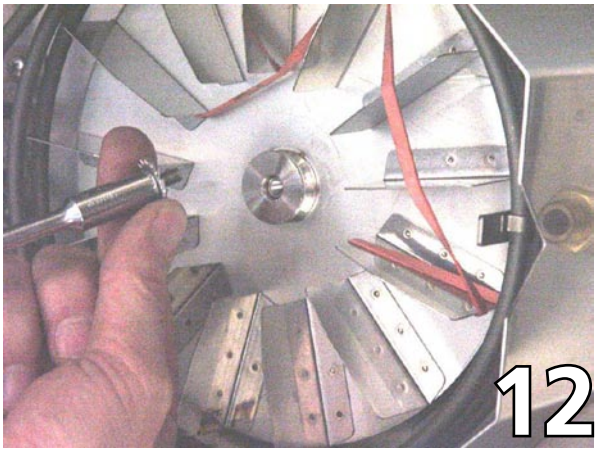
Place the PFTE sealing ring over the hollow shaft until it rests on the spring. The hole in the sealing ring must be opposite the pin of the drive ring.



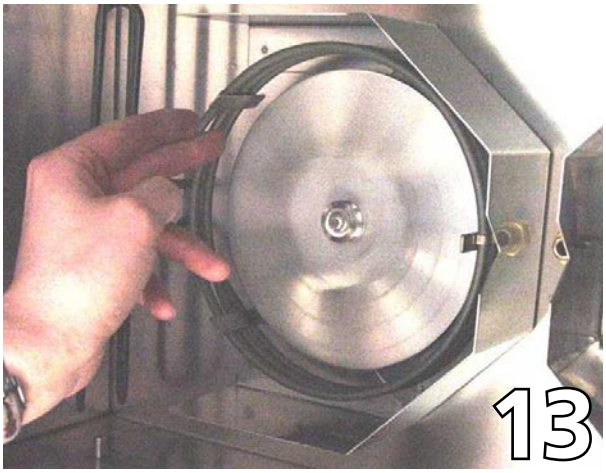
Push and hold the PFTE sealing ring over the hollow shaft and secure it with an elastic cord. Be sure the pin falls into the hole.



Place the assembly over the motor shaft and make sure that the pin of the motor shaft fits in the slit of the fan blade shaft.



Place the screw and lock washer, but do not tighten them yet.



Remove the elastic cord and turn the fan blade to check if it is running smooth.

Tighten the screw and check again.

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