SERVICE MANUAL

Turbo Retail Combi

MODELS

TRC 8 stand alone
TRC 8 on underframe
TRC 8 stacked with TDR 8

Model TRC 8

- 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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Versions		
Version	Issue date dd/mm/yy	Remarks
1202	14/02/2012	First release
1205	29/05/2012	Included service procedures, electrical tests and trouble shooting. Updated exploded views and parts list.
1408	31/08/2014	New part number for blower motor on page 38, #40.
1509	30/09/2015	Update of exploded views

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This manual covers the TRC 8i oven. The TRC 8 intelligent is a boilerless combi steamer with 8 levels for GN pans or 40x60 racks.

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

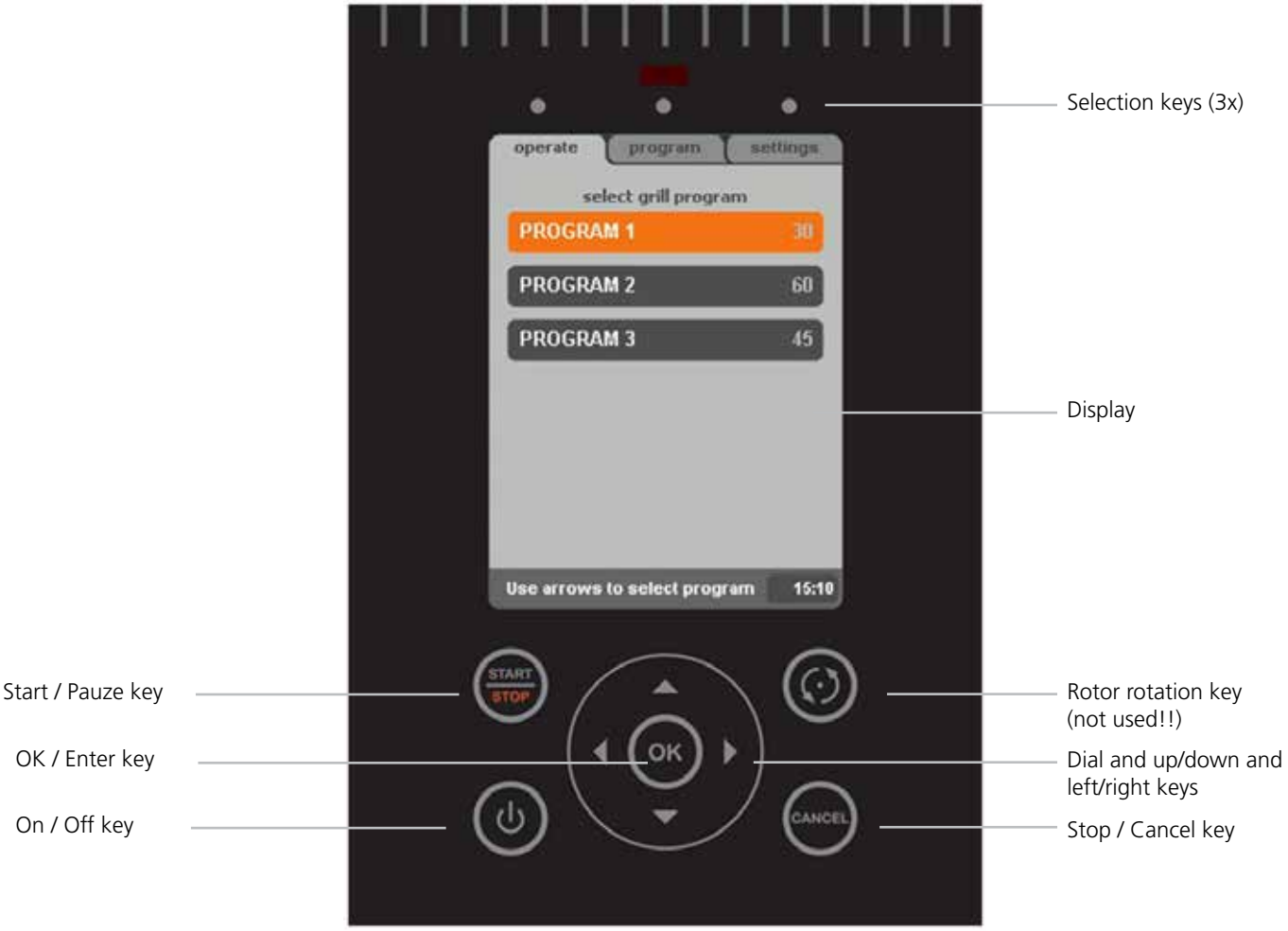
TECHNICAL DATA

STANDARD MODELS	**TRC 8**	**TRC 8 + TDR**
Power	10,84 kW	21,34 kW
Voltage	400V 3N~ 50/60Hz	400V 3N~ 50/60Hz
Max. rated current	16A	32A
Fuses needed with power connection400V 3N~50…60Hz (3 phases with neutral)	16A	32A
Fuses needed with power connection 230V 3~50…60Hz (3 Phases without neutral)	30A	55A
Standard plug from factory (according to IEC 60309 and CEE-form)	16A 3P+N+E 5 pole CEEFORM (according to IEC 60309)	32A 3P+N+E 5 pole CEEFORM (according to IEC 60309)
Default cable	5x2,5 mm² 2mtr	5x4 mm² 2mtr
Gross weight	207 kg	410 kg
Net weight	176 kg	349 kg
Hight	1235 mm	2210 mm
Width	995 mm	995 mm
Depth	780 mm	830 mm
Waterinlet connection, aerated	G¾"	G¾"
Water Pressure	2-5 Bar	2-5 Bar
Water Hardness	Less than 2°KH	Less than 2°KH
pH	7.0 - 8.0	7.0 - 8.0
Chlorides	less than 30 ppm	less than 30 ppm
Drain, open connection	minimum 1½" / 40mm	minimum 1½" / 40mm
Sound pressure	<70dB (A)	<70dB (A)
Maximum ambient temperature	35°C / 95°F	35°C / 95°F

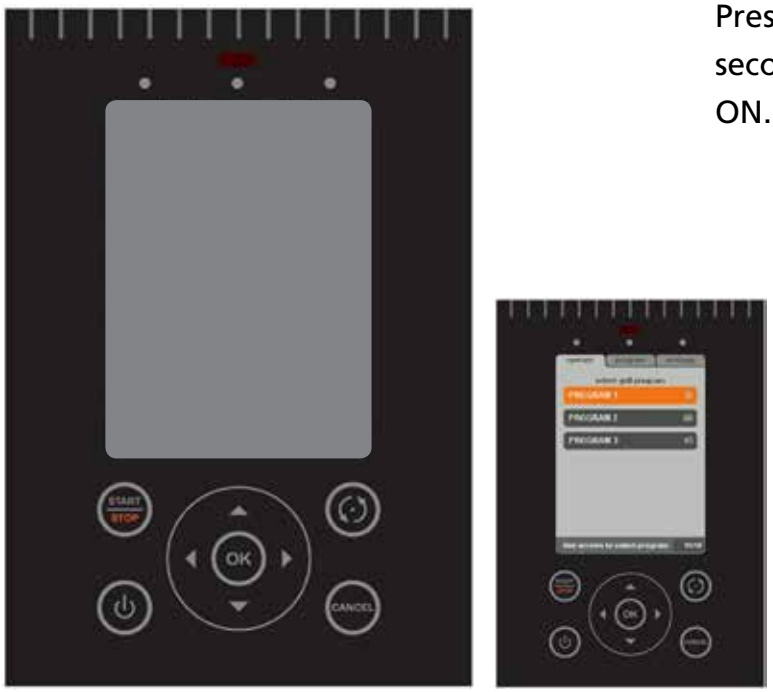
Tools

- 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.
- Puller (part number 9191244)

DISPLAY AND KEYS



SETTING THE TRC



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

ADD A PROGRAM

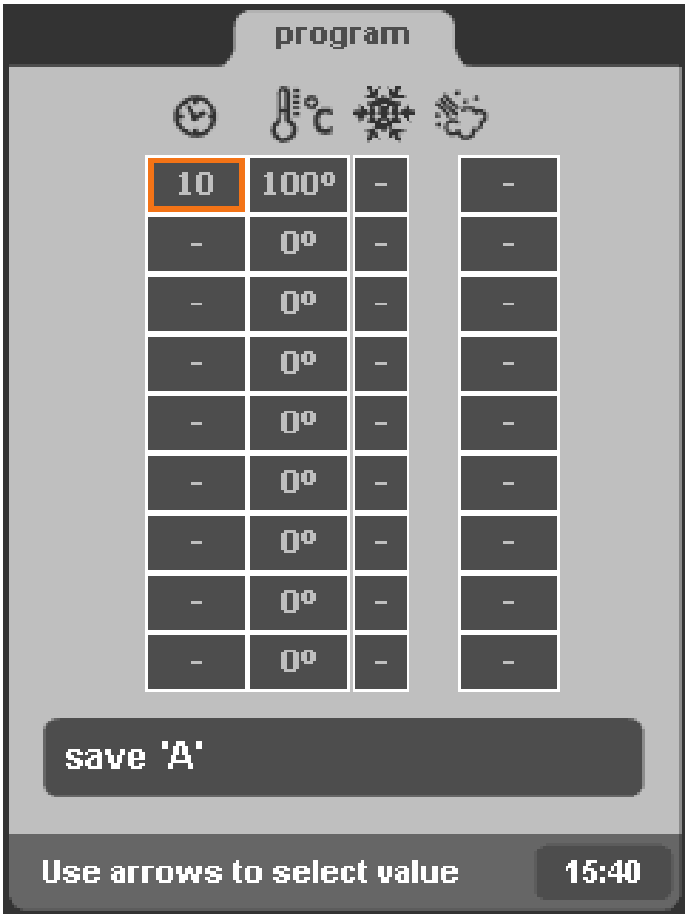
Press program key.

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

Add program by using the arrows or the dial and confirm with OK.

Edit the program name by using the arrows or the dial and press OK twice to confirm.

ADD A PROGRAM



Select time table with the dial and press OK to edit. Set the time of the cooking step and press OK to confirm.

Repeat this for:

- Temperature
- Clima safe
- Steam

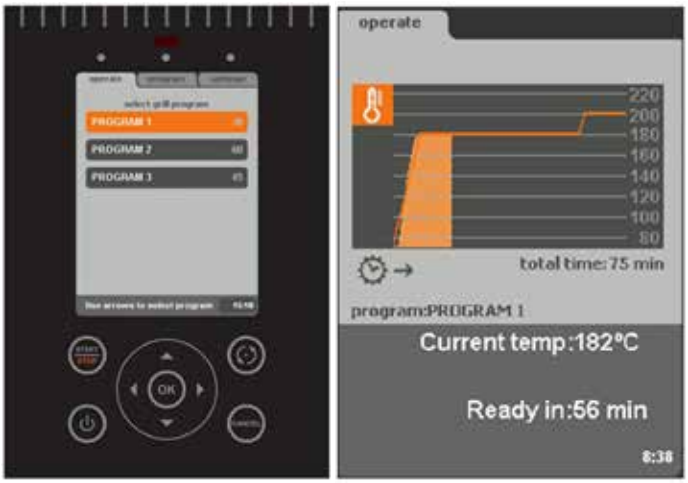
Program next cooking step if necessary.

Program temperature HOLD if necessary. Select next time table and set this on HOLD with the dial and press OK to confirm.

Select temperature table with the dial and press OK to confirm.

Go to save program and press OK to confirm.

PROGRAM START

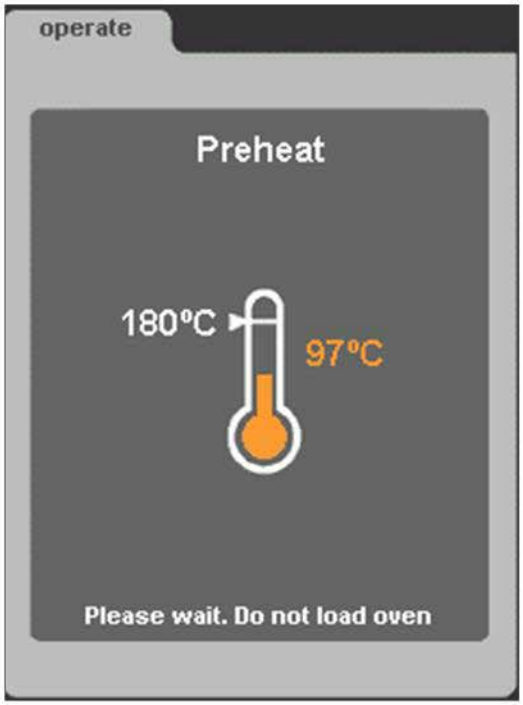


Press operate key.

Select program with the dial and confirm with OK.

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

PRE HEATING



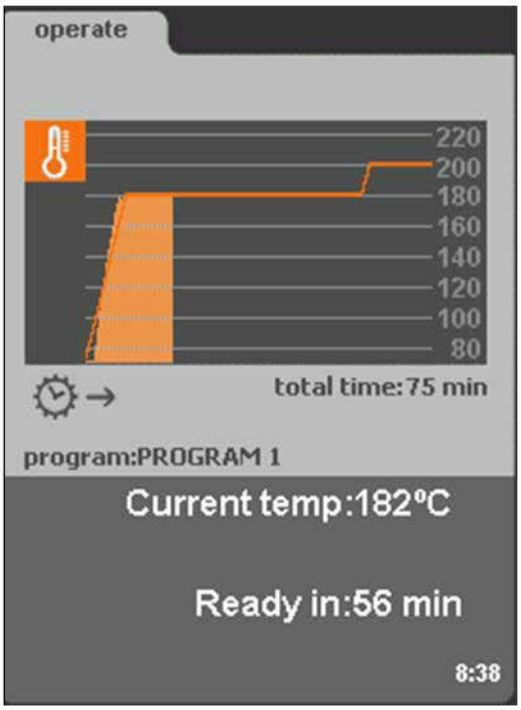
When preheating is activated in the manager menu, the unit will start up with a preheating step when activating a cooking program.
After reaching the preheat temperature the display will indicate: load products.

LOADING WITH PRODUCTS

Load the unit with products

Close the door and press the start key.

PROGRAM STOP



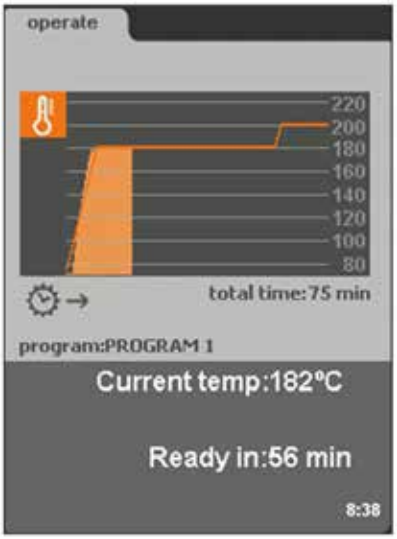
Press cancel key.

Select yes with the dial and confirm with OK.

OPTIONAL SETTINGS

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

INTERRUPTING ACTIVE PROGRAM



Press start/pauze key. Heating and blowers stop.

Press start/pauze key again to resume.

EDIT A PROGRAM

Press program key.

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

Go to edit program with the dial 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 pincode has been set, first enter the pincode and confirm with OK.

Go to delete program with the dial and confirm with OK.

Now select the program to delete and confirm with OK.

Select yes with the dial and confirm with OK.

TEST PROGRAM

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

Press program key.

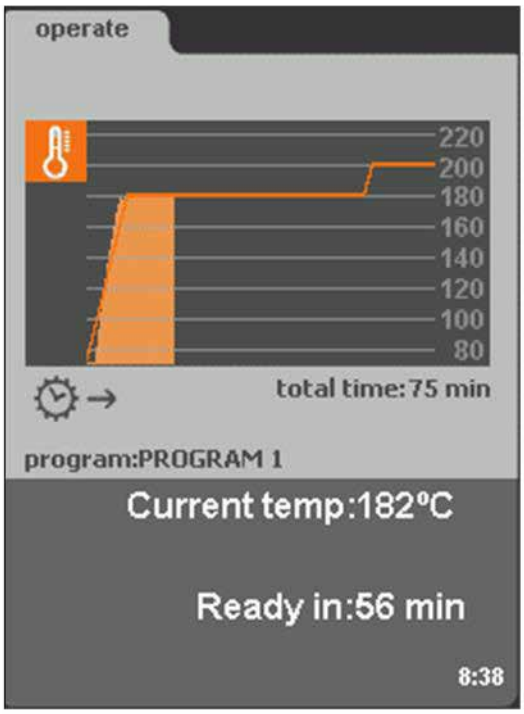
Note: when a pincode has been set, first enter the pincode and confirm with OK.

Go to test program with the the dial 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. The heating is disabled. 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 dial and adjust this on yes.

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

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

SWITCH OFF THE TRC

Press and hold the On/Off key for 3 seconds to switch Off. (from software version V5.02.07)

In case of an older sw. version:
Press and hold both On/Off and settings key until the display light goes out and the unit is OFF

SETINGS MENU -> INFORMATION - MANAGER - SERVICE

After switching ON, press the settings key.

Information

Gives information about the software version, the ethernet IP address and the last error. See below.

Manager:

See list of parameter on next page.

Service:

See list of parameters on next page.

DEFAULT PARAMETERS VERSION V5.02.07

Level 1	Level 2	Level 3			Default	Possibilities
Information					5.02.07	software version
Manager						
	Change Pin code				0000	0000 - 9999
	Save Recipes					save cookbook to USB
	Load Recipes					load cookbook from USB
	Temperature				°C	°C - °F
	Volume unit filter				lit	lit-gal
	Set time				Local time	
	Set date				Actual date	
	Time format				24 hr	24 hr - AM/PM
	Date format				DMY	DMY - MDY
	Alarm signal				yes	no - yes
	Preheat mode				yes	no - 1x - yes
	Preheat delta				0	-50°C to + 50°C or -90°F to +90°F
	Auto recipe start				yes	no - yes
	Buzzer set				0	0-4
	key beep				yes	no - yes
	Water Capacity				-	50 - 30000 or "-" for infinite
	Lime filter					remaining capacity of lime filter
	Lime filter re-placed				no	no - yes
	Clear error				no	no - yes
Service					4878	
	device type				TRC	STGi,Multi, M-Bake, BSi, STOi, RC8, ACR, TDRi
	auto-correct				time	no - time
	set language				englisch	englisch - deutsch - francais - neder-lands - espanol - japanese - danish - italiano
	alarm delays	alarm	T4		3 sec.	1 - 60
		alarm	T5		5 min.	1 - 60
	Pulse timing		T1		25 sec.	0,1 - 120
	fan values	Fan speed right	T9		180 sec.	30 - 7200
		Fan speed left	T10		180 sec.	30 - 7200
		Fan Pause	T11		15 sec.	1 - 90
	Manual Opera-tion				no	no - yes
	error history					overview of last 200 errors
	save error his-tory					saving error history on USB
	clear error his-tory					
	correct-factor				3x	1x - 10x
	debug rs232				no	no - yes

Level 1	Level 2	Level 3			Default	Possibilities
	demo mode				no	no - yes
	temp probe				no	no - yes
	RC Steam time	*			0,1	0,1 - 0,9 sec
		**			0,3	0,1 - 0,9 sec
		***			0,6	0,1 - 0,9 sec
		Soak			0,9	0,1 - 0,9 sec
	RC steam pulses	*			15	1 - 60
		**			40	1 - 60
		***			40	1 - 60
	RC Clima-safe	Normal flush			10	2 - 180
		Last flush			30	2 - 180
	RC Drain Cooling	Drain cooling			On	On/Off
		Control Temperature			75	60 - 120°C
	auto off				60 min	no or 10 - 240
	pin code				****	read out of the manager pin code
	Sensor offset				0 °C	-5°C - 5°C or -9°F - 9°F
	Complete cleaning				yes	no - yes
	Delete all programs					no - yes
	edit clean progr					
	PID factors	P			100	0 - 100
		I			5	0 - 100
		D			100	0 - 500
		iMax			100	10 - 300
		Relay actions:			80	16 - 160
	Energy	Volts			230	1 - 260
		Model			TRC	BS-i3 - BS-i5 - BS-i8 - BS-i10 RC8 ACR STG5 STG8 STG7 STO TDR-5 M-Meat M-bake
	Pressure				no	no - yes
	I/O test					read the inputs and set the outputs
	Ignore errors				no	no - yes
	save HACCP log					save haccp on USB
	save parameters					save parameters on USB
	load parameters					load parameters from USB

CLEANING PROGRAM TRC

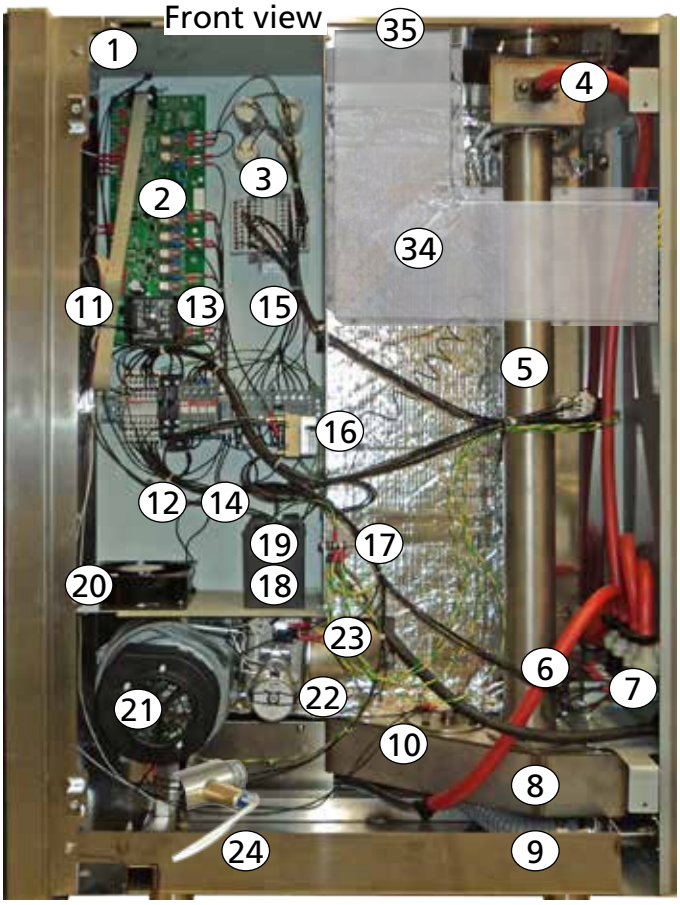
Cleaning program				
step	time	temp	steam	
1	5	50	1	10
2	30	70	1	40
3	5	40	3	|
4	5	60	0	-
5	-	0	0	-
6	-	0	0	-
7	-	0	0	-
8	-	0	0	-
9	-	0	0	-

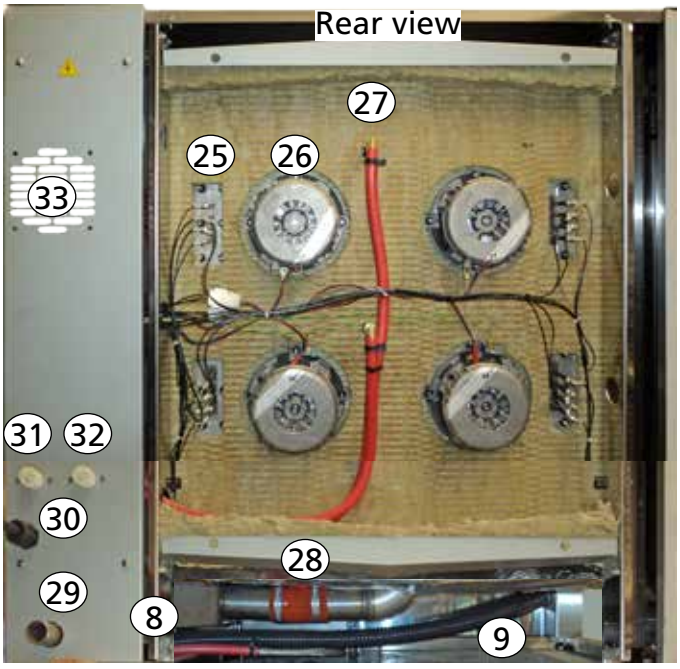
The cleaning program is adjustable in the service menu

see parameter "edit clean prog"

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.

ACCESS TO SERVICE PARTS. (OVERVIEW)



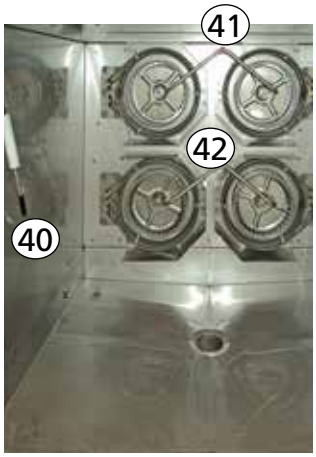


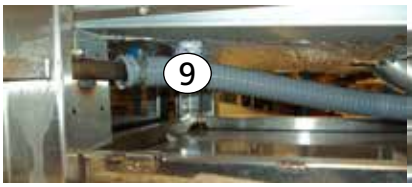
Unscrew 4 screws and open the right side panel. The same for the back panel.

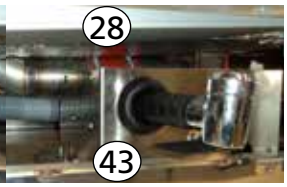
Overview

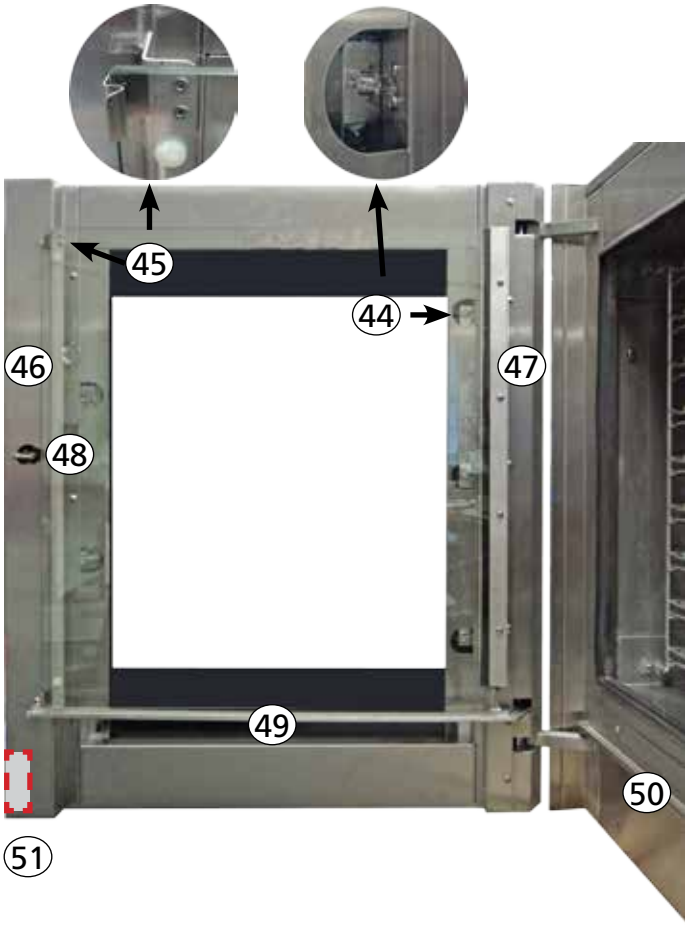
1 CPU board + LCD.
2 Power & I/O board.
3 Capacitors and terminal block for blowers.
4 Waterinjection for condensor pipe.
5 Condensor / vent pipe.
6 Waterconnection to shower reel.
7 2 watervalves with reducer for steam injection.
8 Oven drain box.
9 Drain hose from driptrays door.
10 Temperature sensor waste water and service hatch.
11 Terminal block.
12 Fuses.
13 Heater Contactor
14 Relay clima safe valve.
15 Two relays for blower rotation direction.
16 Hi limit thermostat.
17 Mains Terminal block.
18 Transformer Illumination
20 Cool fan.
21 Clima safe blower (blows air into cavity)
22 Clima safe valve.
23 Position detection switches for clima safe valve.
24 Reed switch. (door switch)

25 Heater (4x).
26 Blower motor (4x).
27 Steam injection connection (2x).
28 Interconnection oven drain - drain box.
29 Drain outlet (32mm).
30 Mains cable entrance.
31 Water inlet for descaled water
32 Water inlet for normal tap water
33 Cool air inlet in case stacked with TDR
34 Air channel in case a TDR is stacked on top.
35 Location of cool fan for TDR.





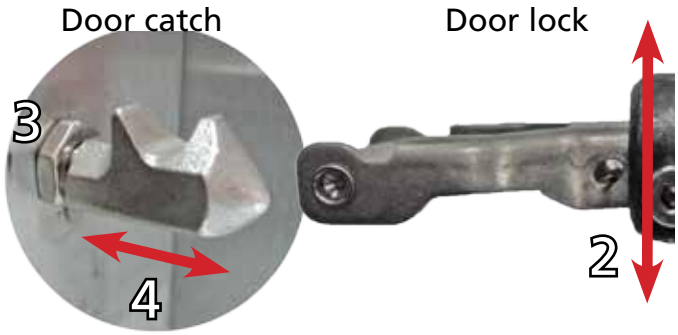


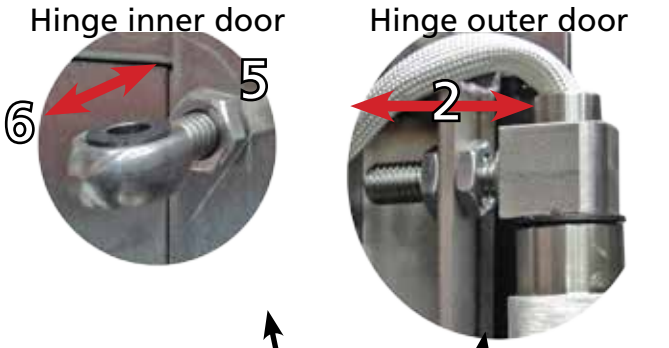


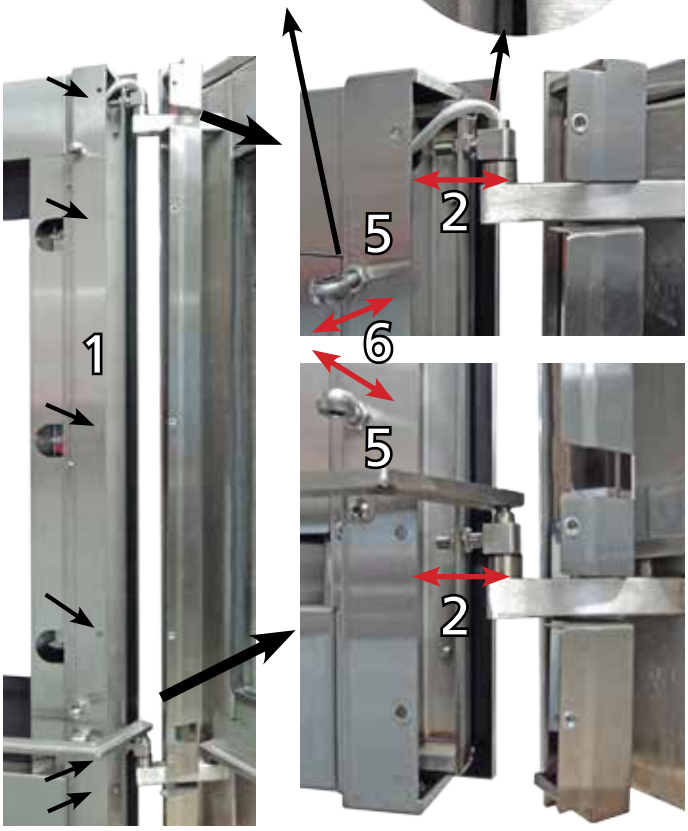
Unscrew the lower driptray and the frontpanel.

37 Blower panel.
38 Grease filter (4x).
39 Location of temperature probe PT1000.
40 Core probe PT1000 (if applicable).
41 Water injection manifold (steam production).
42 Blower turbines (4x).
43 Shower reel
44 Lamp with holder behind inner door (5x).
45 Inner door clamp
46 Cover plate doorhandle.
47 Cover plate outer door hinges.
48 Doorhandle lock.
49 Upper drip tray.
50 Lower drip tray.
51 Location of doormagnet behind cover plate.

ADJUSTING THE DOORS







Adjusting the outer door.
The purpose is to align the doorlock with the door catch and to align the outer door with the frontpanel.

Aligning the doorlock:
1 Remove 6 screws and slide the cover plate to the right.
2 Adjust the hinges to align the doorlock with the doorcatch. Use two 13mm spanners.

Aligning the door with the operationpanel.
3 Loosen the nut from the catch.
4 Adjust the catch by turning it in or out and fasten the nut.

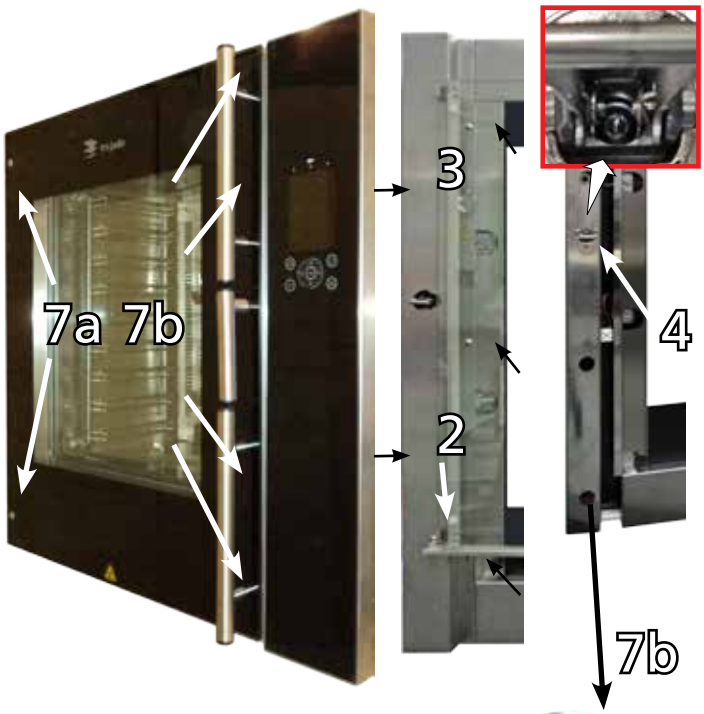
Adjusting the inner door.
The purpose is to position the inner door against the doorgasket.

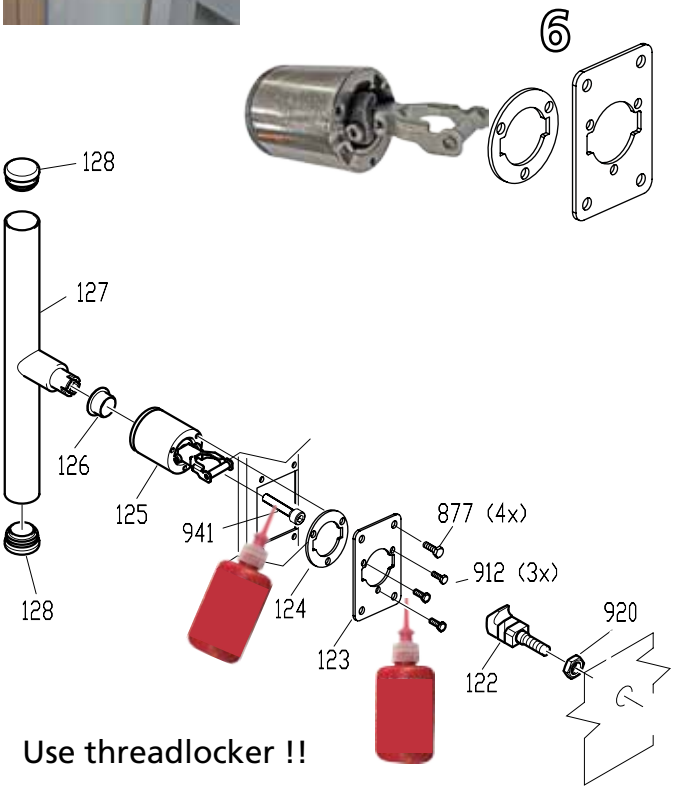
Hinge side.
5 Loosen the nut from the top and / or bottom hinge.
6 Adjust the hinge by turning it in or out and fasten the nut. Use a 13mm spanner.

Doorhandle side.
7 Open the inner door and unscrew the socket screw on the top and or the bottom side.
8 Adjust the inner door holder and lock it again with the socket screws.

Adjusting the door switch.
The doorswitch is positioned behind the oven front. See location 24 of overview on one of the previous pages.
The switch should open when the door is opened on the first lock position.

EXCHANGING DOOR PARTS. (FROM SERIAL NR. 100068280)





Use threadlocker !!

Doorhandle.

1 Open the inner door. (consider to lift it out of the hinges and put is somewhere on a safe place)
2 Unscrew 2 screws and take out the upper drip tray.
3 Unscrew 3 screws at the inside and 2 screws at the outside and take out the cover plate.
4 Unscrew the socket head screw in the center of the doorlock and take out the doorhandle.

Take care of the collar bush! (position 25 in exploded views)

Doorlock.

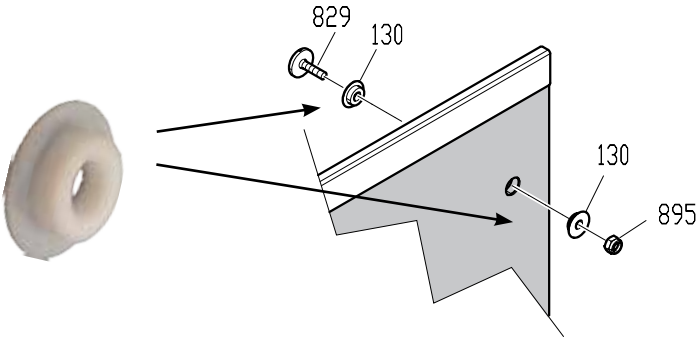
Cary out #1-4
5 Unscrew 4 screws (hex 8) and take out the door lock.
6 Unscrew 3 screws (Phillips) and take of the rectangular plate and the spacer plate.

Reverse the procedure to mount.
Use threadlocker on all 7 screws !!

Outer door glass.

Carry out # 1 - 4.
7a Unscrew 2 screws at the left side.
7b Unscrew 4 screws at the right hand side.
(These might have locknuts on the inside)
Protect the glass against falling !!!.
8 Put the glass on a safe place!

Reverse the procedure to mount.
Be sure to use the ptfe collar bushes at both sides of the glass !!



Taking out the complete door.

-- Unscrew the left side panel.
-- Disconnect the wiring from the illumination.
-- Dismount the cover panel from the hinges. See point 1 on previous page.
-- Pull the wires out of the top hinge.
-- Lift the door out of the hinges and take out the door.

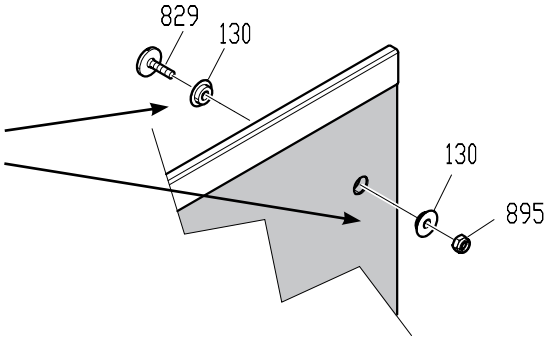
EXCHANGING DOOR PARTS. (UNTIL SERIAL NR. 100068279)

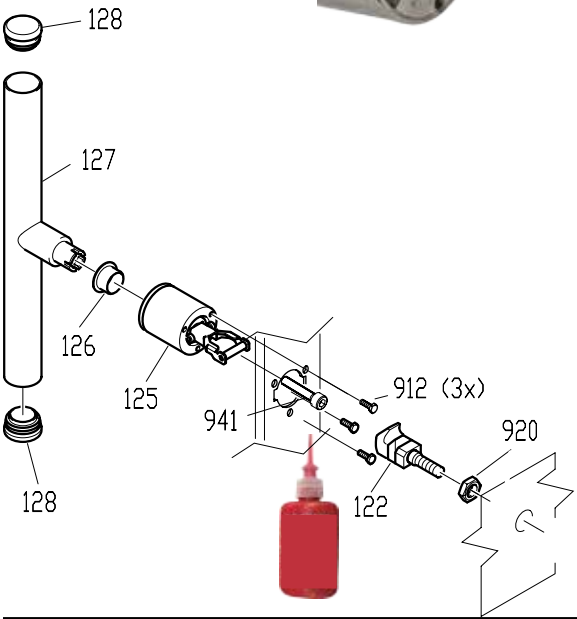
Doorhandle.
1 Open the inner door. (consider to lift it out of the hinges and put is somewhere on a safe place)
2 Unscrew 2 screws and take out the upper drip tray.
3 Unscrew 3 screws at the inside and 2 screws at the outside and take out the cover plate.
4 Unscrew the socket head screw in the center of the doorlock and take out the doorhandle.

Reverse the procedure to assemble.
Note that the delivered screw in a new door-lock can not be used. It needs to be ex-changed with the original one (M6x70)

Outer door glass.
Carry out # 1 - 4.
5 Unscrew 2 screws at the left side.
Protect the glass against falling !!!.
6 Unscrew 4 screws from the fixed door-handles from the inside of the door frame.
7 Put the glass on a safe place!

Reverse the procedure to mount.
Be sure to use the ptfe collar bushes at both sides of the glass !!





Doorlock.
Cary out #1-7
8 Unscrew 3 screws (philips) and take out the door lock.
Reverse the procedure to mount.

Taking out the complete door.
-- Unscrew the left side panel.
-- Disconnect the wiring from the illumination.
-- Dismount the cover panel from the hinges. See point 1 on previous page.
-- Pull the wires out of the top hinge.
-- Lift the door out of the hinges and take out the door.

TRC DOORLOCK UPGRADE KIT 9304239S

This kit is meant to upgrade the mounting of the doorlock, for easier access.

Contents kit:

9304239 1x Mounting plate
3714222 1xSpacer ring
30001153A 1x Drilling template
9191296 1x Drill 3,2 mm
9191301 1xDrill 4 mm
4280128 3x Screw M4x12
4285135 4x Screw M5x 10
9124193 1x This instruction

Applied in: TRC

First model

Later model

Necessary tools:

Tap M5

Fine marker

Screwdiver (slotted)

File

Drilling machine

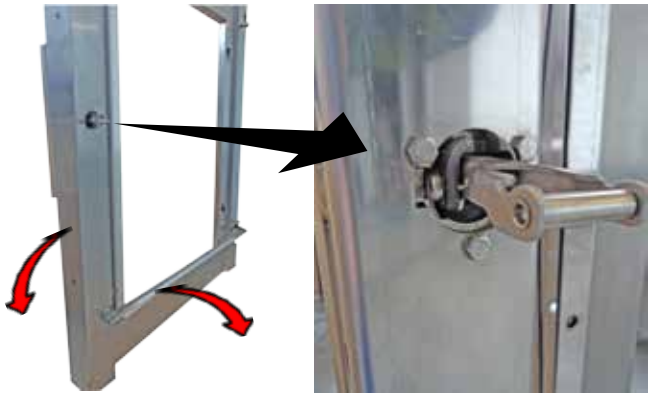
Angled grinder (with small disc)

-> Protect all glass and Stainless steel from the grinding sparks. (it is not possible to remove the sparks from the glass and Stainless steel will rost where the sparks have touched!!!!)

-> Note that the job is easier when removing the outer glass.

-> The description below is done without removing the outer glass.

Open the door.
Lift out the inner door and put it on a safe place.
Remove the doorgutter. (2 screws)
Remove the cover plate. (5 screws)



Unscrew 3 screws M4x12

Mount the drilling template.

Drill 8 holes
3,2mm

8x
3,2 mm

Remove the template
Drill 8 holes 4mm
Mark the outline.

8x
4 mm

Cut out the square.
Use a small diameter disc.
Preferred ≤ 85mm (3 3/8")

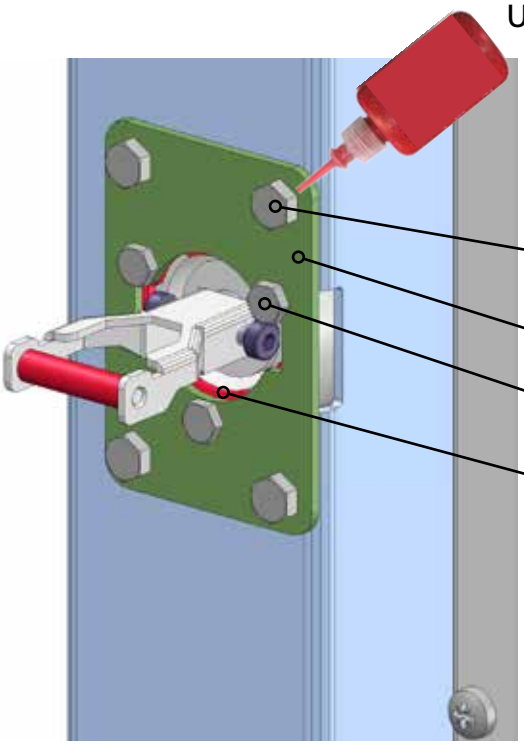
Break out the square.

Tap screw thread
M5 (4x)

Deburr the hole.
Put on the spacer ring

Mount the lock on the mounting plate.

Use threadlocker !!
7x



4285135 4x Screw M5x 10

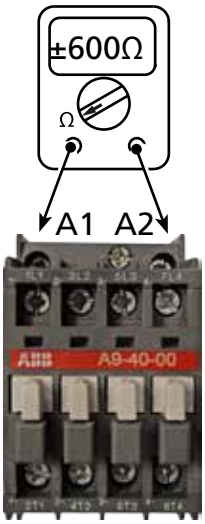
9304239 1x Mounting plate

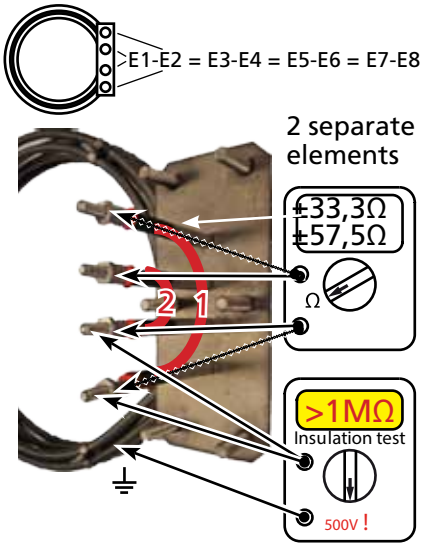
4280128 3x Screw M4x12

3714222 1xSpacer ring

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.

MEASURING ON THE HEATING SYSTEM





Working principle.

The TRC (Turbo Retail Combi) oven has 4 equal heaters.

Each heater has two elements.

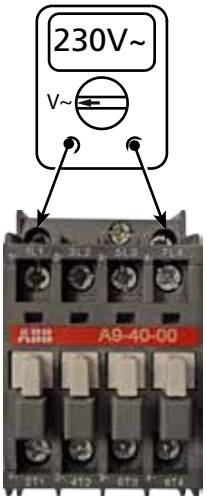
The outside element is 230V 1590W.

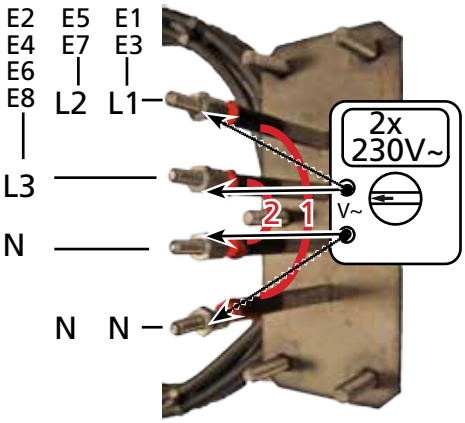
It's resistance is 33,3Ω.

The inside element is 230V 920W.

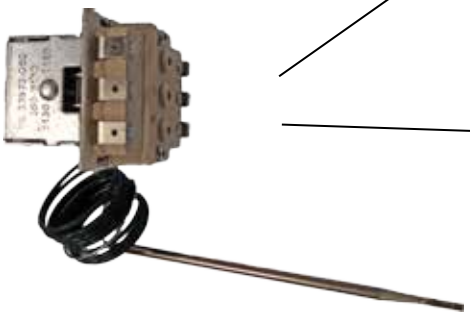
It's resistance is 57,5Ω.

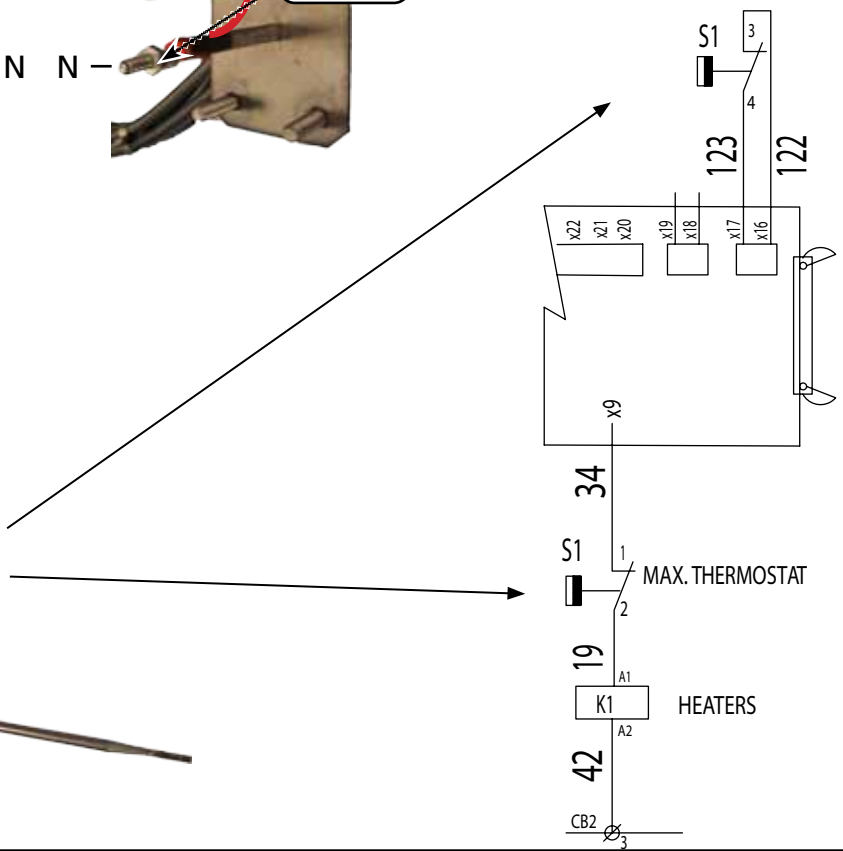
If heaters have been stored for a longer period, Moist can go in and the insulation resistance can go down. Therefore it is good to measure this insulation resistance before mounting it.
In case this Insulation resistance is too low, it could be considered to dry the heater in an oven for 24 hours on 130°C (266°F). The longer the better.



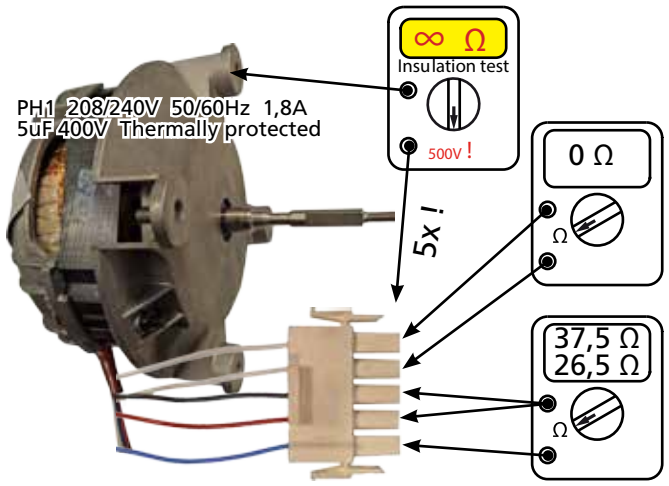


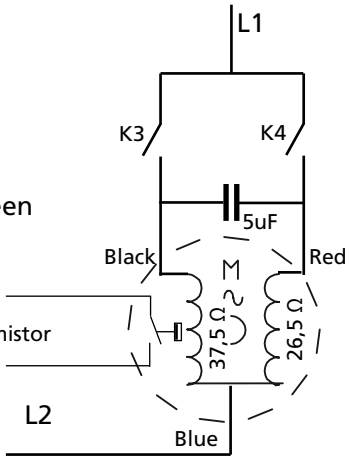
A Hi-limit thermostat is used to protect the oven against overheating.
It disconnects the heater contactor K1 and gives a feedback signal to the board by using a second contact.
See S1 contacts in the electrical diagram





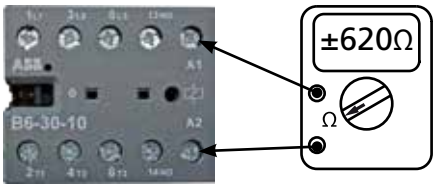
MEASURINGING ON THE BLOWER SYSTEM



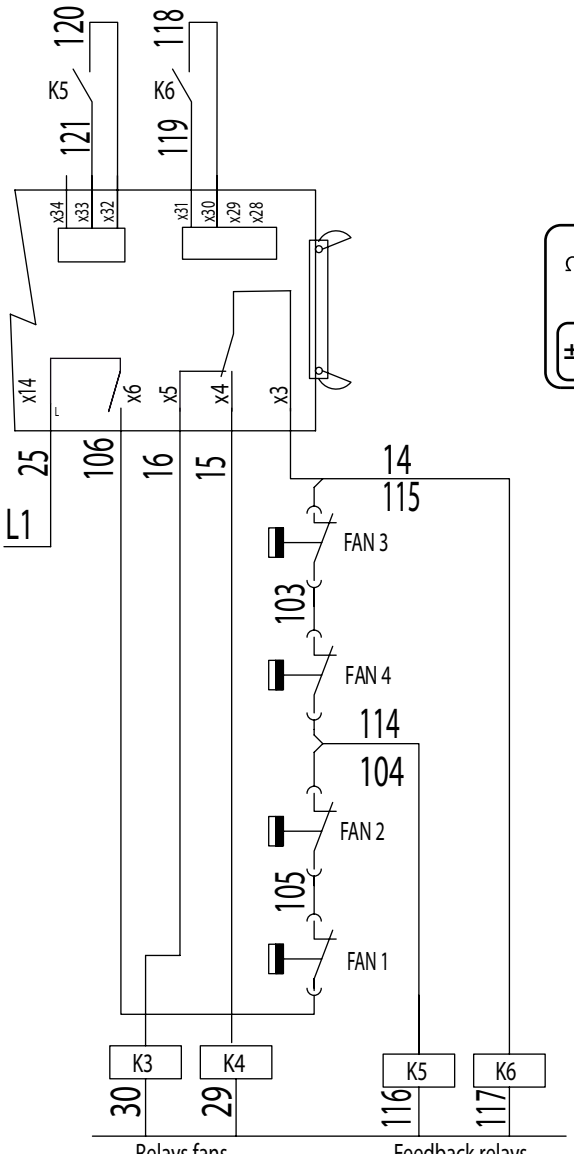


Note: The resistance between the red and black wire is 37,5+26,5= 64 Ω

K3 / K4



K5 / K6



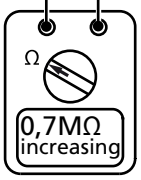
Working principle.

The TRC has 4 equal blowers which are switched in parrallel.
The two blowers on the left side rotate opposite to the two blowers on the right side.
Every 180 seconds, they reverse rotation.
This is done by the 2 relays K3 and K4. See electric diagram (above).

Explanation:
If K3 is switched on (K4=OFF), the coil with the black wire is switched as main coil (directly to L1)while the coil with the red wire is switched as start coil through the capacitor.
If K4 is switched ON (K3=OFF), the opposite happens.

K3 and K4 are controlled by a protection circuit.
X6 puts power on it and then it goes through the serial connections of all 4 motor thermistors (white wires) and comes back on the board at X3.
This relay (at X3,4 and 5)determines wether K3 or K4 gets power.
When a fan gets overheated, X3 becomes powerless and the blowers stop.
When Fan 1 or 2 gets overheated, both relays K5 and K6 switch off and the error “upper motors overheated” will be displayed.
When Fan 3 or 4 gets overheated relays K6 switches off and the error “lower motors overheated” will be displayed.
The contacts of K5 and K6 are connected to the input terminals X30, 31, 32 and 33

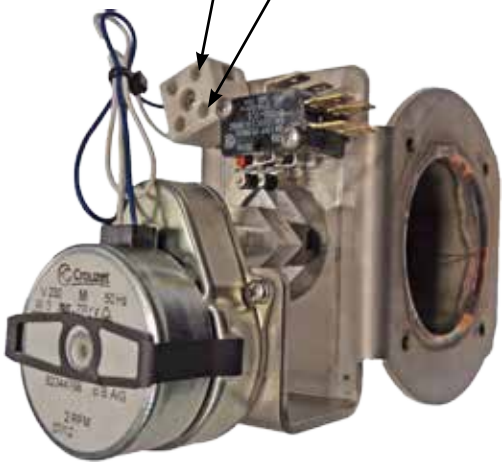
MEASURING ON THE DRYING SYSTEM (CLIMA SAFE)

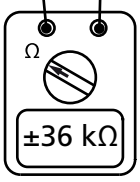


Working principle.

At the end of a cooking program, all steam will be blown out the cooking chamber, just before the end of program signal sounds.
No steam will leave when the door is opened, which makes it comfortable to work with. Therefore it is also called clima safe.

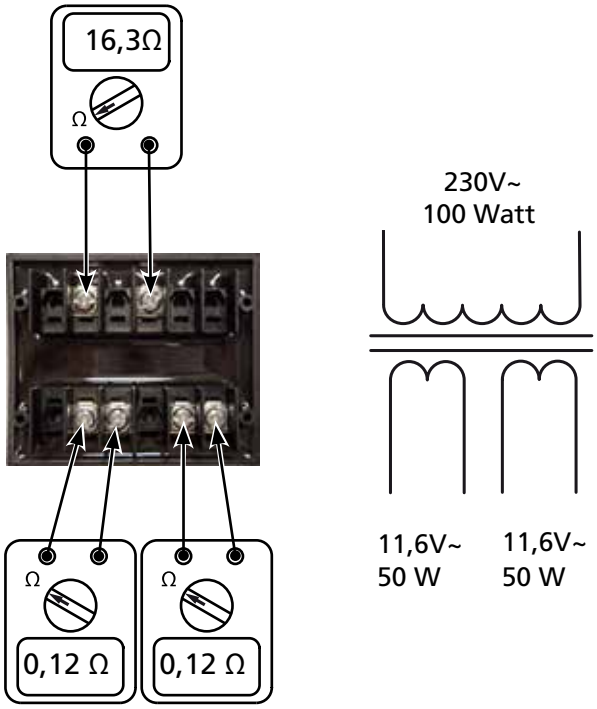
A 230V~radial blower is used for this purpose. The blower has a DC motor, controlled by an electronic board, which is mounted on it.
Therefore it is difficult to measure if the blower is ok. The resistance shown is just an indication. Note that the value will increase due to a capacitor on the board.
Therefore, the only possible way to know if the blower is ok is to put 230V~ power on it. This can be accomplished by using the output test facility in the service menu. (password 4878)





To protect the blower from the steam out of the cooking cavity, a butterfly valve is used to close the inlet as long as the blower is not active.
Two position switches are mounted to be able to position the valve in the open or closed position.
A small relay on socket is used to control the motor.

MEASURING ON THE ILLUMINATION TRANSFORMER



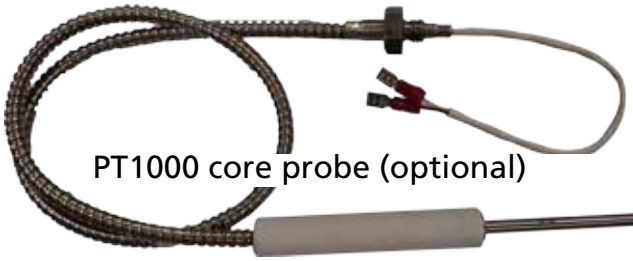
Working principle.

5 halogen lamps (12V- 20Watt) in the door are used for illumination.
To increase the lifetime, a 230V --> 11,6V transformer is used.

The overview shows how to measure the resistances.

MEASURING ON THE PT1000 SENSORS

PT1000 sensor mounted in the top



PT1000 core probe (optional)

PT1000 sensor mounted in the drain

Working principle.

The oven temperature is controlled by a PT1000 sensor, mounted in the top at the front side.

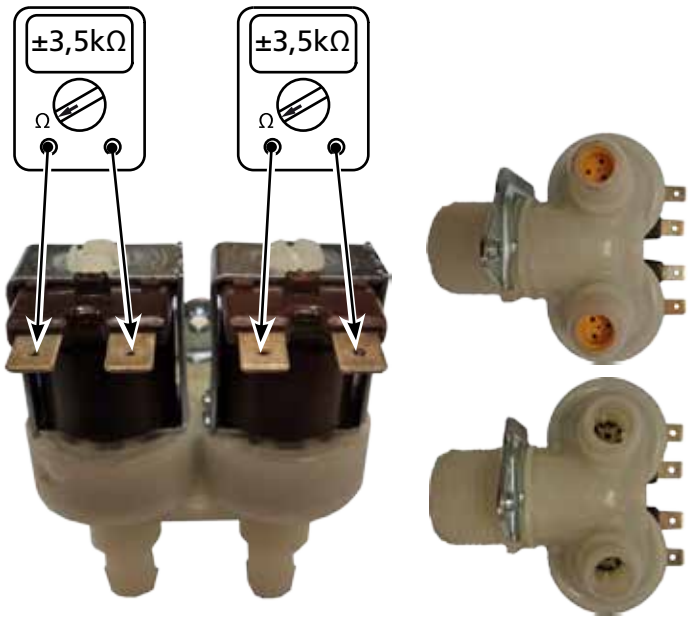
An optional core probe can be mounted at the left side. It can be dis- or enabled in the service parameters.

The drain water temperature is controlled by the PT1000 sensor as shown on the picture. As soon as the temperature exceeds 75°C (167°F), tap water is being sprayed into the top of the vent pipe. Therefore this vent pipe also has a condensor function for the steam coming out of the oven.

See the resistance overview for the PT1000 sensors.

°C	PT1000
-20	921,60
-10	960,90
0	1000,00
10	1039,00
20	1077,90
25	1097,40
30	1116,70
40	1155,40
50	1194,00
60	1232,40
70	1270,00
80	1308,90
90	1347,00
100	1385,00
110	1422,00
120	1460,60
130	1498,20
140	1535,80
150	1573,10
200	1758,43
250	1940,81
300	2120,30

MEASURING ON THE STEAM AND WATER SYSTEM



The TRC has 2 water inlet connections.

One connection is from a double valve with waterflow reducers mounted inside. These 2 valve control the waterflow for the steam production. An opened valve will give ± 0,5Ltr/minute (0,13 gallon/minute).
These valves are pulsating controlled, meaning that they are opened many times for a short period (0,1 - 0,6 seconds). See steam time parameters.

The other connection is for normal tap water. One of these valves controls the cooling water and the other valve will be opened all the time when the unit is switched ON. It delivers the water for the shower.

OVERVIEW OF ERROR CODES.

Temp Sensor Open ==> The sensor gives a value higher than 315°C. (600°F) =>2200Ω
- Temperature in oven higher than 315°.
  - Heater contactor malfunction.
  - Controller failure.
- Sensor is broken.
- Sensor wiring loose.

Temp Sensor Shorted ==> The sensor gives a value lower than 0°C. (32°F) => 1000Ω
- Temperature in oven lower then 0°C.
- Sensor is broken.
- Sensor wiring loose.

Drain Sensor Open
Drain Sensor Shorted
} ==> Similar as above but for the drain sensor. (excluding "temperature in drain higher than 315°").

Core Sensor Open
Core Sensor Shorted
} ==> Similar as above but for the core sensor (if applicable).

Powerboard Fails ==> Malfunction of Power & I/O board (# 9192202).
- Ribbon cable loose or damaged.
- Board defect.

Heater Stays On ==> Oven too hot.
- Heater contactor malfunction.
- Broken Power & I/O board.

Air Valve defect ==> Missing feed back signal from air valve position switches.
- Position switch(es) loose.
- Position switch(es) defect.
- Position switch(es) wrong adjusted.
- Camshaft loose (does not rotate).
- Airvalve motor broken.
- Airvalve blocked.
- Loose wiring of switches or motor.

Lime Filter Full ==> The lime filter needs to be replaced.
In case of doubt, or no filter has been installed, then please check

the setting of the “water capacity” parameter in the manager menu.
Refer to the list in chapter “Programming instructions”.

Upper motor overheated==> One of the 2 upper blower motors is overheated.
The thermistor tripped (opened)
lower motor overheated ==> One of the 2 lower blower motors is overheated.
The thermistor tripped (opened)

TROUBLE SHOOTING BY SYMPTOM.

Almost any problem can be caused by defect controller boards and therefore this will not be mentioned each time.

Symptom	Possible cause	Caused by
Product not cooked, cooking takes more time	Short of heat	Heating element defect
		Contactor defect
		Sensor defect
		Wire loose
	Program ends too soon	Core probe defect
		Core probe still hot when starting program
	Cooking program wrong	Wrong programming
		Wrong product
Bad cooking results, uneven cooking	Air circulation problem	Fanblade loose
		Blower(s) defect
		Capacitor of blower defect
		Filters blocked
	Too much heat	Contactor hangs
		Sensor defect (shortened or wrong value)
	Too much steam	Solenoid valve defect
		Dirt in solenoid valve
	No or too little steam	Dirt in solenoid valve
		Waterpressure too low
		Tubes calcified
		Leaking hose
		No heating
	Program does not reach the end	Core probe shortened
		Wrong programming
Oven cavity fills up	Drain grid clogged	
Water and/or grease comes out of the driptrays	Sewage clogged	Wrong installation of sewage
Sewage clogged	Fat in drain	Wrong use of oven.
		Cleaning instructions neglected.

Symptom	Possible cause	Caused by
Less or no lighting	One or more lamps defect	
	Transformer defect	
	Lighting switched off in manager menu	
Bad cleaning result	No steam	Defect or clogged solenoid valve
		Water tap closed
		Grease filters in front of fans clogged
	No detergent	Instructions neglected.
	Wrong detergent	
Leakage of steam at the door	Door not right adjusted	
	Doorgasket damaged	
	Drain clogged	
Deterioration of doorgasket	Wrong detergent	
	Cleaning instructions neglected	
Drip drains clogged	Door not right adjusted	
	Doorgasket damaged	
	Cleaning instructions neglected	
Controls malfunction	Leakage of steam through air inlet pipe.	Leaking seal in air valve.
		Malfunction of air inlet valve
	Leakage of steam through blower shaft.	Worn out shaft seal.
	Excessive leakage of steam at door.	Deteriorated or damaged door gasket
	Controller overheated.	Cooling air flow blocked
	Fuses blown	Power surge

TROUBLE SHOOTING BY PART / FUNCTION.

Almost any problem can be caused by defect controller boards and therefore this will not be mentioned each time.

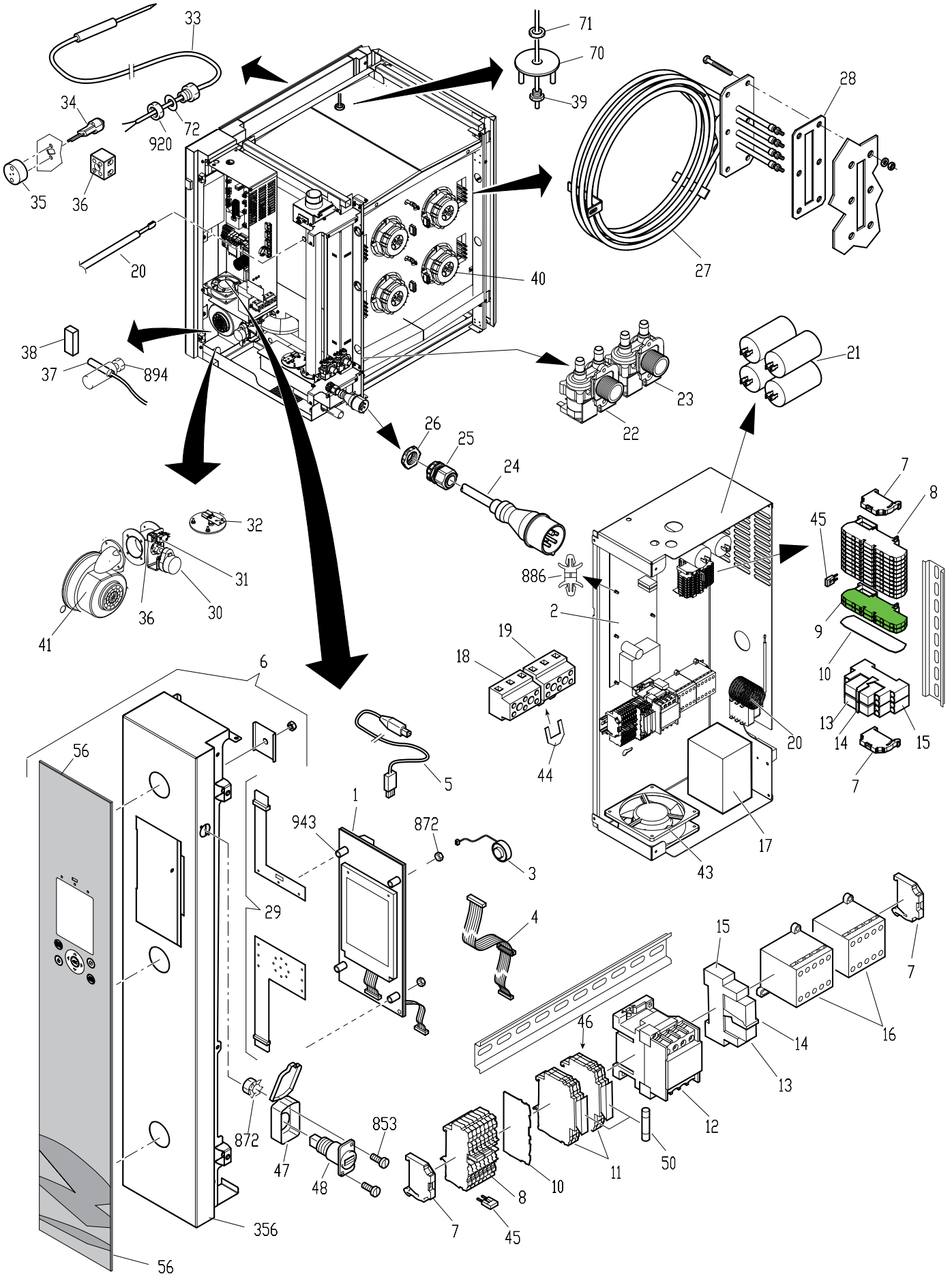
Description of part / function	Symptoms	Possible cause	Action
Controller	Key board fails.	Loose flatcable.	Check both key foil cables. See I/O test in service menu for function check.
		Broken key foil or bad contact.	Replace key foil and/or clean contacts.
		Moist on key foil	Clean and search cause.
	No display.	Cable loose or bad contact between CPU and LCD.	Check
		Back light wiring loose or bad contact (white and pink wire)	Check
		Ribbon cable to Power& I/O board loose or defect.	Check
		Broken fuse on Power&I/O board.	Check fuse and/or replace. 125mA slow acting (5x20)
		Broken display or cpu.	
		Broken Power&I/O board	
	Display shows strange things or the controller is acting strange.	Cable loose or bad contact between CPU and LCD.	
		Broken display.	
		Temperature too high.	Check cooling air flow and blower. Clean grids.
		Moist on pcb boards.	Clean and search cause.
	Outputs fail.	Mains wires interchanged on terminals X14 and X15	Put wire 25 on X14 and wire 26 on X15
		Broken Power&I/O board.	
		Wrong “device type” setting in service menu	Refer to parameter list in chapter programming instructions
	Inputs fail.	Broken Power&I/O board.	
		Wrong “device type” setting in service menu	Refer to parameter list in chapter programming instructions
Cooling air flow	Controller overheated (see above)	Cooling air flow blocked.	Check cooling air flow. Clean grids.
		Cooling fan broken or wiring loose.	Check blower and wiring.

Description of part / function	Symptoms	Possible cause	Action
Security (thermostat)	Unable to switch ON the unit.	Sticking contact(s) of contactor(s).	Check these items.
		Broken temperature sensor	Reset the security thermostat and replace the sensor
		Heavy vibration caused by transport.	Reset the security thermostat
Gaskets and seals	Controller not stable. Programs act strange. Controller switches off during program. Visibility of LCD gets worse.	Moist on pcb's	Check blower shaft seals, air inlet valve seal and door gasket
	Varying cooking results	Loss of steam and heat.	
	Condensation on outside of unit.	Doorgasket damaged or deteriorated.	
Heating *Heaters and contactors*	Unit does not reach the adjusted temperature. Cooking takes more time. Uneven cooking	Heating element defect. Wire loose	Check heating element and wiring.
		Contactor contacts fail to make contact.	Replace contactor
		Contactor fails.	Check wiring and board. Refer to chapter "electrical tests.
	Product overcooked, Uneven cooking	Contactor hangs (contacts stick together)	Replace contactor
	Uneven cooking	Contacts fail to make contact	Replace contactor
		Contactor fails.	Check wiring and board. Refer to chapter "electrical tests.
Hot air flow *Blowers*	Bad cooking result Uneven cooking Vibrating and/or squeaking noise. Blower rotates too slow.	Blower(s) blocked by object.	Remove object.
		Blower(s) defect.	Check coil resistance. Check coil insulation. Check bearing. Exchange blower.
		Capacitor(s) defect.	
		Wiring or blower contactor problem.	
Sensor	Temperature read-out on LCD is not stable.	Sensor defect. Wire loose.	Check sensor and wiring. See also input test in service menu
	Product over cooked.	Sensor defect. (resistance too low)	Check sensor and wiring. See also input test in service menu
	Cooking takes more time	Sensor defect. (resistance too high).	Check sensor and wiring. See also input test in service menu
	Bad cooking results	Sensor defect although it measures good.	Replace sensor in case blowers, heaters and contactors are all right.

Description of part / function	Symptoms	Possible cause	Action
Core sensor	Baking program never ends and product overcooked.	Core Sensor defect (resistance too low)	Replace sensor if wiring is ok.
	Baking program ends too soon	Core sensor defect (resistance too high).	Replace sensor if wiring is ok.
		Customer starts program while core sensor is still hot.	Give instructions how to use.
Drain sensor	Excessive steam coming out at the top of the unit and /or PVC drain pipe is melting	Sensor defect. (resistance too low).	Replace sensor
		Wrong setting of "RC drain cooling" in service menu	Check and adjust setting.
	Too much, or continuous water flow coming out of the drain.	Sensor defect. (resistance too high)	Check wiring or replace sensor.
		Wrong setting of "RC drain cooling" in service settings	Check and adjust setting
Steam *Watervalve with reducers. (pos 22)*	Product too wet.	Solenoid valve malfuction caused by dirt.	Replace valve and find cause of dirt in water supply. Let the tap run water at least 10 ltrs (3 gallon) into a light colored bucket. Check if any sediment settles on the bottom.
		Wrong steam settings in service menu.	Check and adjust settings
		Broken solenoid valve or controller malfunction.	Check valve. See I/O test in service menu
	Product too dry.	See above at too wet	See above at too wet
		Steam manifold(s) blocked with scale. (lime)	Replace manifold(s) and advise the application of a lime filter.
			Replace manifold(s) and give instructions to exchange the filter cartridge in time.
			Replace manifold(s), measure the water hardness and put the right water capacity in the manager menu settings.
		Water tap closed, or pressure < 2 Bar	Check water supply
Drain and vent (exhaust) cooling.	The sewer gets too hot and/ or too much steam comes out of the vent pipe	Water tap closed or too less water pressure.	Check water supply. Advised is between 2 and 5 bar.
		Broken solenoid valve, valve broken or wiring loose	Check wiring and /or replace valve. See I/O test in service menu.

Description of part / function	Symptoms	Possible cause	Action
Shower	No or too less water comes out	Water tap closed or too less water pressure.	Check water supply. Advised is between 2 and 5 bar.
		Broken solenoid valve, valve broken or wiring loose	Check wiring and /or replace valve. See I/O test in service menu.
		Broken shower.	Replace
	Shower leaks water all the time.	Broken shower	Replace shower
Drying	Drying	Drying	Drying
Illumination and display effect	Less display effect	One or more lamps defect, transformer defect or wiring loose.	Check possibilities. See I/O test in service menu.
		Scale on inside of inner door	See 3 possibilities at “steam” function, product too dry, related to scale.
		Condensation on inside of inner door	This is normal at cooking temperatures below 100°C (212°F). No action required in case cooking program is OK.
Door switch.	Blowers do not start up and heaters stay off. and/or The message “door open” appears while door is closed	Reed contact defect or wiring loose.	Check reed contact. and/or wiring. See I/O test in service menu.
		Adjustment of reedswitch not good. Distance to magnet (in door) too big.	Adjust the switch position. The switch should just open when the door is opened in the safety position
	Blowers and heaters stay on while door is opened.	Reed contact defect or wiring shorted.	Check reed contact and/or wiring. See I/O test in service menu.
Door	Door is leaking	Door gasket is damaged or deteriorated.	Replace doorgasket.
		Door adjustment not ok	
	Door does not close smoothly	Door adjustment not ok	
	Door does not close or open	Door adjustment not ok	
		Defect doorlock	Replace lock and / or catch

TRC 8, ELECTRICAL PARTS

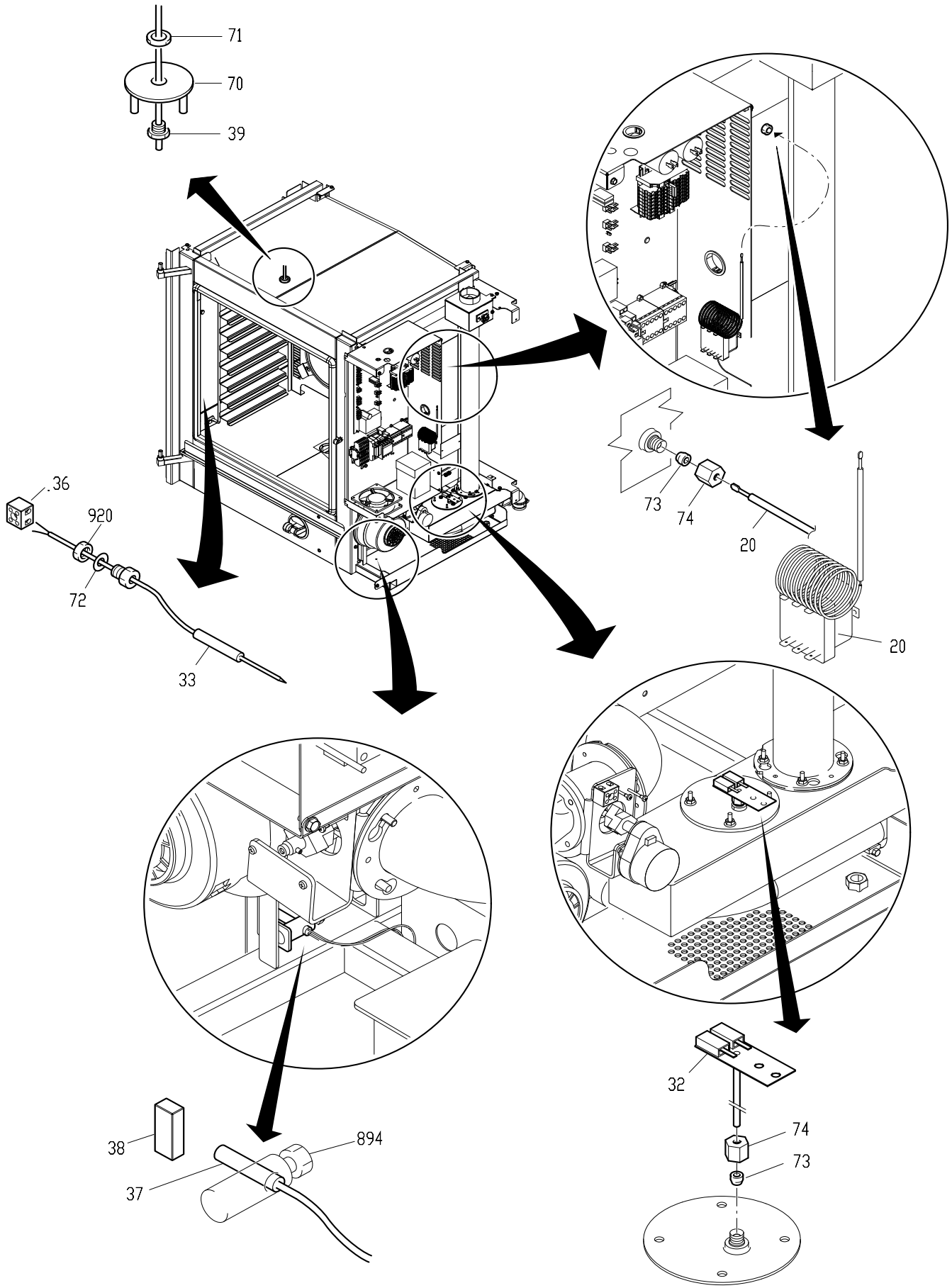


TRC 8, PARTSLIST ELECTRICAL PARTS

Pos	Part number	Description	Qty
1	9172552s	Service kit, CPU + LCD	1
2	9192202	Power & I/O board	1
3	9172362	Buzzer 12V	1
4	9172314	Ribbon cable, 14 core 1500mm	1
5	9291012	USB cable	1
6	3710104s	Ass. control panel (for single unit) incl key foil and USB adapter	1
7	9191222	End clamp din rail	4
8	9191240	Rail terminal, 4p grey	17
9	9191239	Rail terminal, 4p green	2
10	9191223	Endkap, railterminal	2
11	9191218	Fuse holder	2
12	3500069	Contactor A9-40-00	1
13	9261031	Relay CR-P230AC1	3
14	9261030	Clamp, relay CR-P	3
15	9261032	Socket, relay CR-P	3
16	9191181	Contactor B6-3-10	2
17	3701022	Transformer, 2x11,6V 100 Watt	1
18	9044564	Terminal block, 1-2-3	1
19	9044572	Terminal block, 4-5-6	1
20	9191188	Thermostat 360°C UL/CSA	1
21	3701274	Capacitor, 5 uF	4
22	3701053	Water valve with reducer 0,5ltr/min, 230V	1
23	3711017	Water valve, 230V	1
24	9070028	Mains cable with 16Amp Cee form plug	1
25	9261022	Cable gland M25	1
26	9261023	Nut, cable gland M25	1
27	3712009s	Heating element 230V, 1590 / 920 Watt	4
28	9194489	Gasket, heating element	4
29	9172329	Keypad, set of 2	1
30	9191198	Gearmotor 230V 50Hz 2rpm	1
31	3500109	Micro switch	2
32	9172310	Temperature sensor, Pt1000	1
33	9192005s	Core probe, Pt1000	1
34	3701052	Halogen lamp, 12V 20W	5
35	3701223	Lamp holder, G4M3	5
36	9171110	Terminal block, 2 pole porcelain	4
37	3500020	Reed switch	1
38	9191182	Magnet 36x15x11 Neodymium	1
39	9192158	Temperature sensor, Pt1000, 1/8"	1
40	3718004	Service kit, Blower motor 230V 120W	4
41	9281034	Blower, radial, 230V 50/60Hz	1
43	3500031	Cooling fan, 230V 120x120x40	1

Pos	Part number	Description	Qty
44	9044580	Jumper (Connecting bridge).	3
45	9191238	Jumber bar, 2p (Connecting bridge 2p)	3
46	9191250	End cap, fuse holder	1
47	9291010	Cover USB adaptor	1
48	9291011	USB adapter	1
50	9191197	Fuse 10AT, ceramic 32x6,3	2
55	9191237	Jumber bar, 3p (Connecting bridge 3p)	1
56	3710118s	Ass. Glas control panel incl. brackets and nuts	1
853	0141050	Screw M3x10, SS Cross recess pan head	12
872	4285010	Nut M3, ZP with lockwasher	4
886	6791014	Spacer P. C. Board	8
894	0211520	Bolt M5x12, SS	9
920	0141547	Nut M8, SS	3
943	0149299	Spacer Ø4.2x8x15 Black	4

TRC 8, PT 1000 SENSORS AND DOORSWITCH

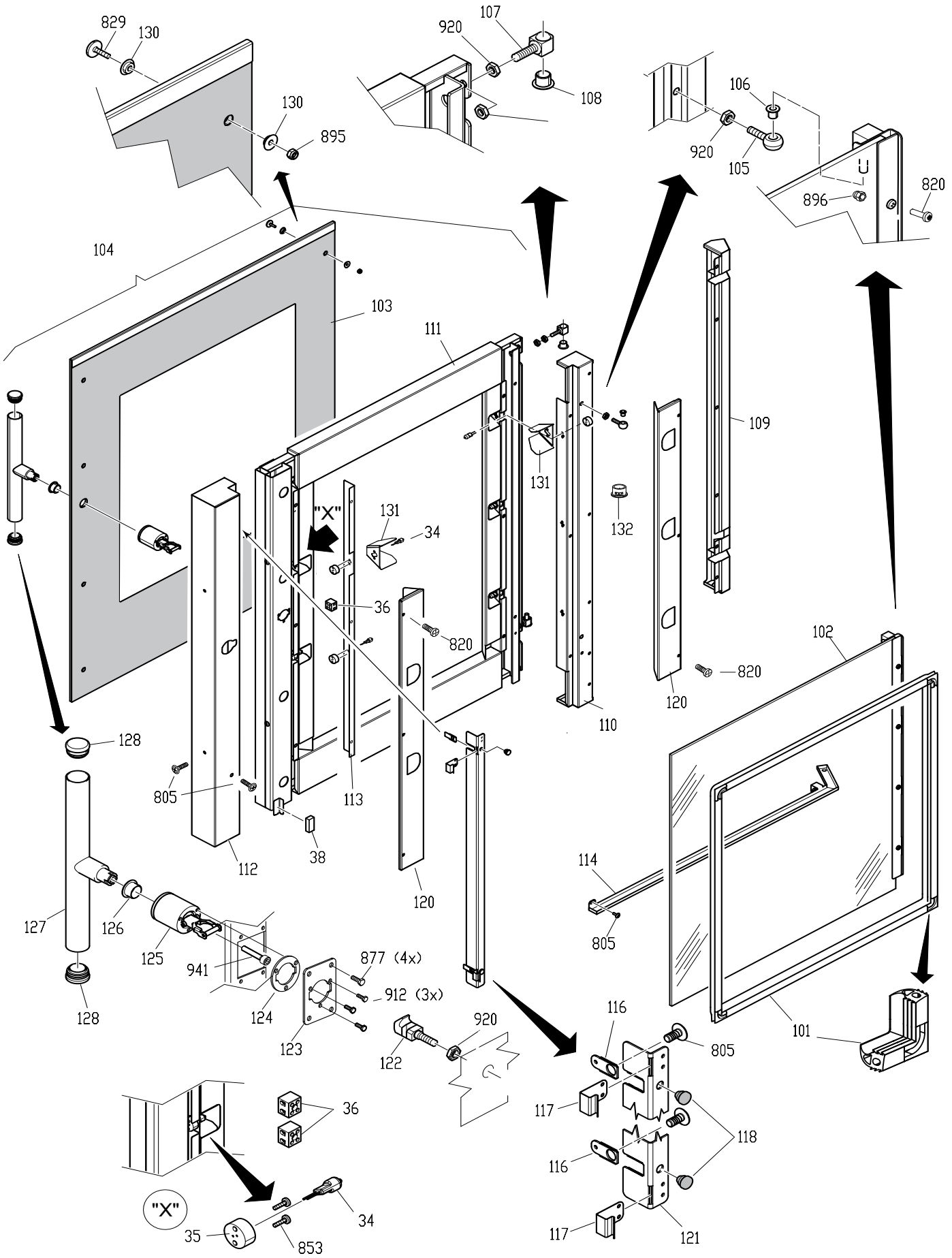


TRC 8, PARTSLIST PT 1000 SENSORS AND DOORSWITCH

Pos	Part number	Description	Qty
20	9191188	Thermostat 360°C UL/CSA	1
32	9172310	Temperature sensor, Pt1000	1
33	9192005s	Core probe, Pt1000	1
36	9171110	Terminal block, 2 pole porcelain	4
37	3500020	Reed switch	1
38	9191182	Magnet 36x15x11 Neodymium	1
39	9192158	Temperature sensor, Pt1000, 1/8"	1
70	9194382	Plate protection PT1000 sensor	1
71	3704133	Nut counter, temperature sensor	1
72	9192071	Washer ø14-ø10 copper	2
73	3712043	Clamp ring	2
74	3712042	Swivel nut	2

Pos	Part number	Description	Qty
804	4285092	Nut M6, black serrated	40
805	4288232	Screw M5x12, SS cross recess, wide button head	33
812	9087570	Nut M5, black serrated	32
820	0141149	Screw M5x16, SS Cross recess pan head	8
822	0142315	Nut M5, SS hexagonal	4
829	4280558	Screw M5x16, SS Slotted wide head	6
834	4311110	Washer M5, SS ø5xØ15	4
845	0141079	Screw pan head M5x35, Philips	2
849	0142292	Nut M3 SS	2
853	0141050	Screw M3x10, SS Cross recess pan head	12
855	0141078	Screw M3x30, SS Cross recess pan head	2
856	0141035	Screw M3x5, SS Cross recess pan head	6
858	0141075	Screw M3x16, SS Cross recess pan head	1
859	4312810	Socket set screw M3x6, SS	1
862	9191041	Circlip, 5mm "E" type (6mm shaft)	2
872	4285010	Nut M3, ZP with lockwasher	4
877	4285135	Bolt M5x10, ZP thread forming	36
886	6791014	Spacer P. C. Board	8
889	6802013	Nut rivet M5, AVK reduced	11
890	9172053	Nut M5, for sheet metal	
892	0141521	Nut M6, SS	48
894	0211520	Bolt M5x12, SS	9
895	0144359	Locknut M5, SS	6
896	4285408	Capnut M5, BNP	4
897	4288320	Screw M5x50, SS CRPH	1
906	0141084	Screw M4x10, SS Cross recess pan head	6
912	4280128	Bolt M4x12, SS	11
920	0141547	Nut M8, SS	3
940	4280540	Screw M5x6, SS countersunk	12
941	4311215	Screw , socket head M6x30	1
942	0141123	Screw M5x10 pan head, Philips	4
943	0149299	Spacer Ø4.2x8x15 Black	4
945	4285410	Capnut M12 SS low profile	2
946	4286728	Set screw M8x40, socket	4
947	4280239	Screw M12x20, hexagon ZP	2
948	0197380	Washer M12, SS	2

TRC 8, DOOR


829
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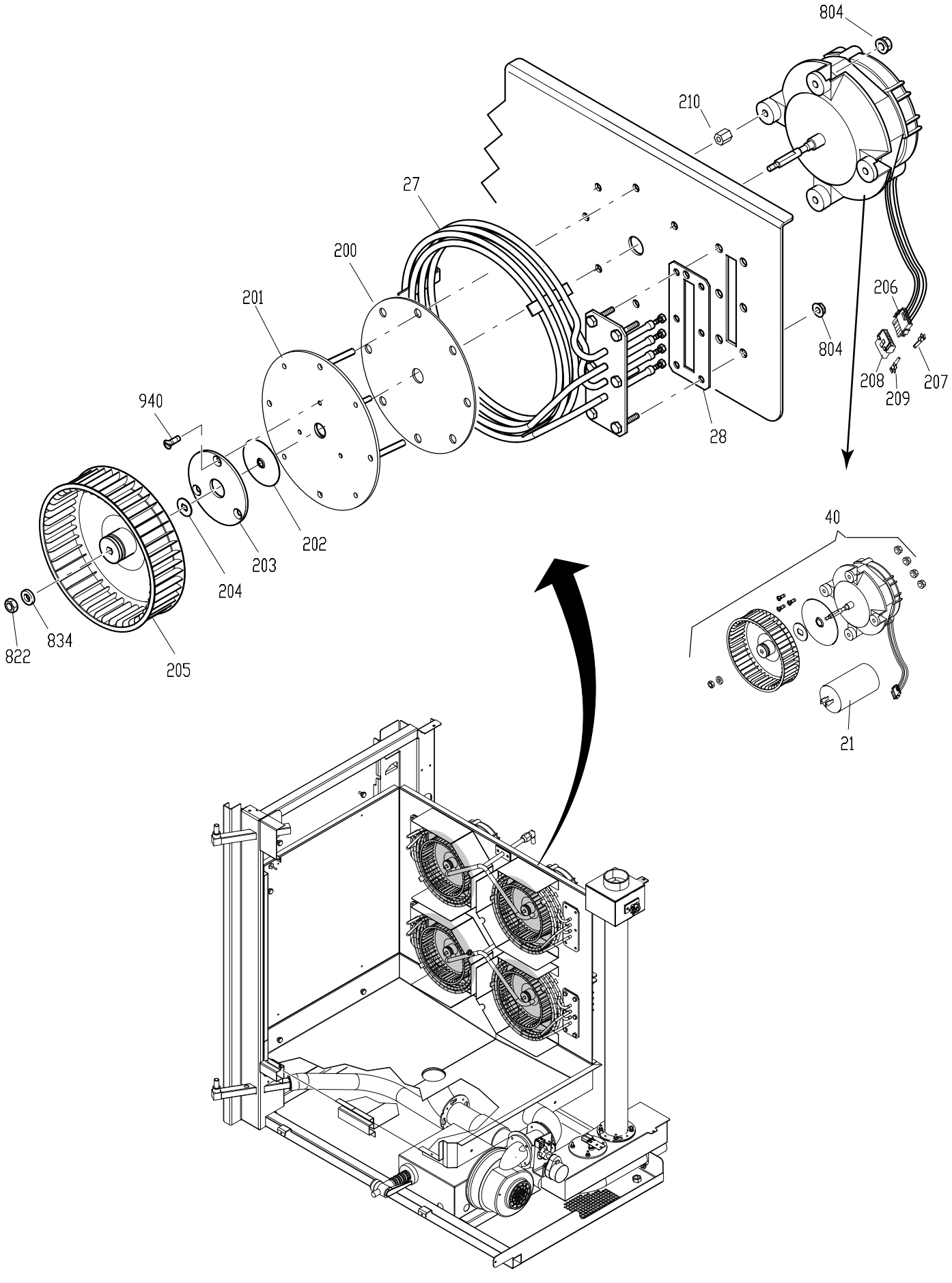
TRC 8, PARTSLIST DOOR

Pos	Part number	Description	Qty
34	3701052	Halogen lamp, 12V 20W	5
35	3701223	Lamp holder, G4M3	5
36	9171110	Terminal block, 2 pole porcelain	4
37	3500020	Reed switch	1
38	9191182	Magnet 36x15x11 Neodymium	1
101	3712010	Doorgasket TRC 8	1
102	3710105	Ass. Inner door	1
103	3712014s	Glass-pane outer	1
104	3710101	Ass. Outer door	1
105	3711012	Hinge bolt Ø8, M8x30	2
106	3711013	Collar bearing Ø8xø6x10	2
107	3712023	Hinge Ø14, M8x26	2
108	9040366	Collar bearing Ø14xø12x12	2
109	3710412	Cover profile, hinge outer door	1
110	3714164	Cover profile, outer door, hinge side	1
111	3710426	Door frame, outer door	1
112	3710432	Cover profile, outer door handle side	1
113	3714167	Mounting plate light fitting	1
114	3710429	Drip tray, inner door	1
116	3714170	Adjustment plate, inner door	2
117	3714127	Inner door latch.	2
118	3712021	Bumper, silicon	2
120	3710014s	Lamp cover L&R (set)	1
121	3714169	Strip adjustment, inner glass pane	1
122	9301116	Door catch, quick release	1
123	9304239	mounting plate	1
124	3714222	spacer ring	1
125	3711023	Doorlock	1
126	3711019	Collar bearing Ø20xø18x12	1
127	9300446	Doorhandle ass.	1
128	2103209	Finishing plug Ø30	2
130	3702342	Collar bush Ø10xø5x3,5	12
131	3714217	Lamp reflector	5
132	9082211	Grommet SB-562-7 polyamide	1

Pos	Part number	Description	Qty
804	4285092	Nut M6, black serrated	40
805	4288232	Screw M5x12, SS cross recess, wide button head	33
812	9087570	Nut M5, black serrated	32
820	0141149	Screw M5x16, SS Cross recess pan head	8
822	0142315	Nut M5, SS hexagonal	4
829	4280558	Screw M5x16, SS Slotted wide head	6
834	4311110	Washer M5, SS ø5xØ15	4
845	0141079	Screw pan head M5x35, Philips	2
849	0142292	Nut M3 SS	2
853	0141050	Screw M3x10, SS Cross recess pan head	12
855	0141078	Screw M3x30, SS Cross recess pan head	2
856	0141035	Screw M3x5, SS Cross recess pan head	6
858	0141075	Screw M3x16, SS Cross recess pan head	1
859	4312810	Socket set screw M3x6, SS	1
862	9191041	Circlip, 5mm "E" type (6mm shaft)	2
872	4285010	Nut M3, ZP with lockwasher	4
877	4285135	Bolt M5x10, ZP thread forming	36
886	6791014	Spacer P. C. Board	8
889	6802013	Nut rivet M5, AVK reduced	11
890	9172053	Nut M5, for sheet metal	
892	0141521	Nut M6, SS	48
894	0211520	Bolt M5x12, SS	9
895	0144359	Locknut M5, SS	6
896	4285408	Capnut M5, BNP	4
897	4288320	Screw M5x50, SS CRPH	1
906	0141084	Screw M4x10, SS Cross recess pan head	6
912	4280128	Bolt M4x12, SS	11
920	0141547	Nut M8, SS	3
940	4280540	Screw M5x6, SS countersunk	12
941	4311215	Screw , socket head M6x30	1
942	0141123	Screw M5x10 pan head, Philips	4
943	0149299	Spacer Ø4.2x8x15 Black	4
945	4285410	Capnut M12 SS low profile	2
946	4286728	Set screw M8x40, socket	4
947	4280239	Screw M12x20, hexagon ZP	2
948	0197380	Washer M12, SS	2

TRC 8, HEATING

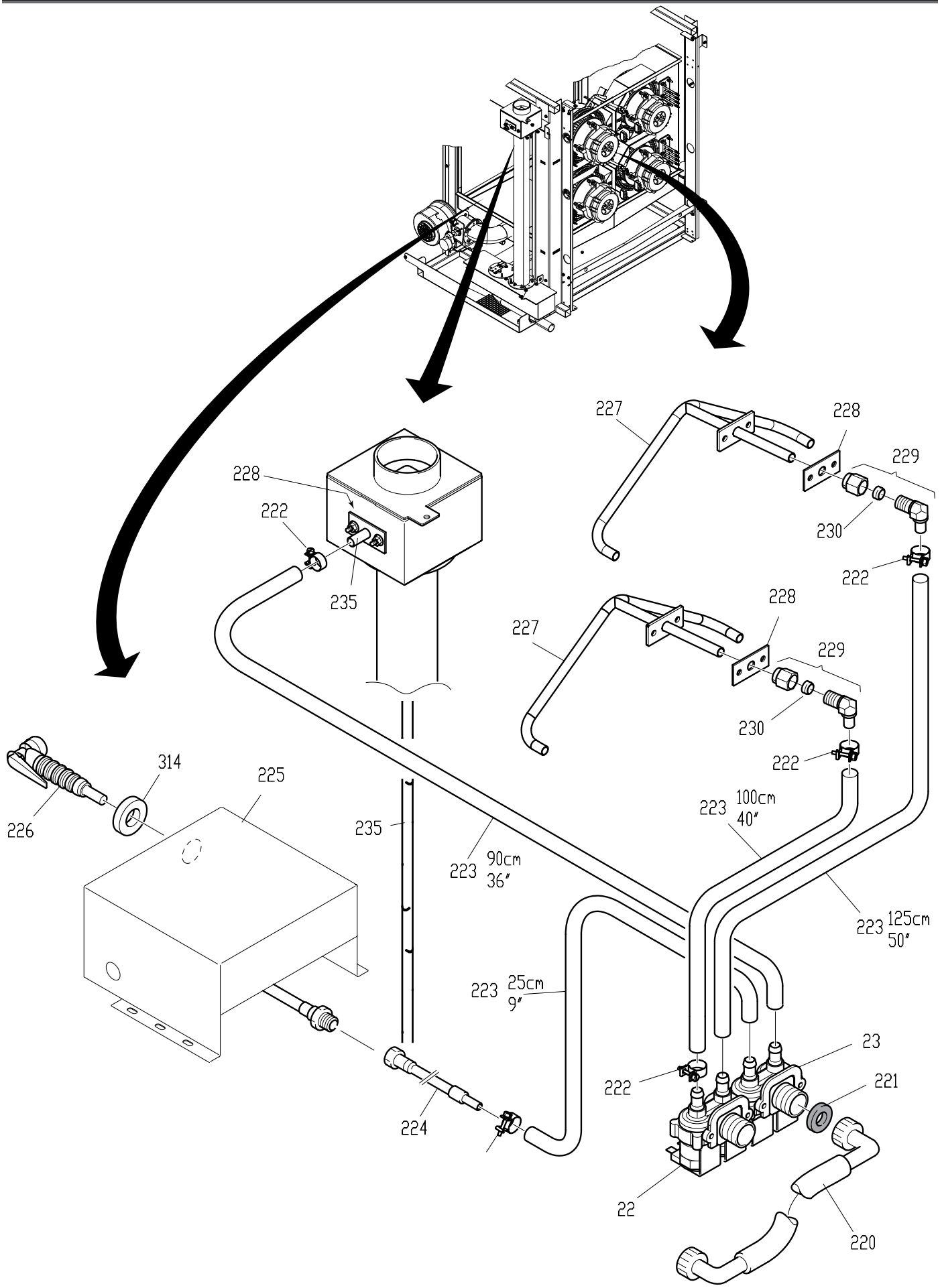


TRC 8, PARTSLIST HEATING

Pos	Part number	Description	Qty
21	3701274	Capacitor, 5 uF	
40	3718004	Service kit, Blower motor 230V 120W	
200	3712004	Gasket, blower suspension	4
201	3714021	Suspension plate, blower	4
202	3702325	Shaft seal.	4
203	3714066	Pressure plate, shaft seal	4
204	3714138	Spacer plate, turbine	4
205	3711005	Turbine, Ø160 H43	4
206	3701272	Plug, 5 pole M-N-L	4
207	0601458	Contact, female M-N-L	20
208	9291014	Socket 5-pole, M-N-L	4
209	0601466	Contact, male M-N-L	20
210	3712048	Spacer, 15mm ø6,2x hex 13	16

Pos	Part number	Description	Qty
804	4285092	Nut M6, black serrated	40
805	4288232	Screw M5x12, SS cross recess, wide button head	33
812	9087570	Nut M5, black serrated	32
820	0141149	Screw M5x16, SS Cross recess pan head	8
822	0142315	Nut M5, SS hexagonal	4
829	4280558	Screw M5x16, SS Slotted wide head	6
834	4311110	Washer M5, SS ø5xØ15	4
845	0141079	Screw pan head M5x35, Philips	2
849	0142292	Nut M3 SS	2
853	0141050	Screw M3x10, SS Cross recess pan head	12
855	0141078	Screw M3x30, SS Cross recess pan head	2
856	0141035	Screw M3x5, SS Cross recess pan head	6
858	0141075	Screw M3x16, SS Cross recess pan head	1
859	4312810	Socket set screw M3x6, SS	1
862	9191041	Circlip, 5mm "E" type (6mm shaft)	2
872	4285010	Nut M3, ZP with lockwasher	4
877	4285135	Bolt M5x10, ZP thread forming	36
886	6791014	Spacer P. C. Board	8
889	6802013	Nut rivet M5, AVK reduced	11
890	9172053	Nut M5, for sheet metal	
892	0141521	Nut M6, SS	48
894	0211520	Bolt M5x12, SS	9
895	0144359	Locknut M5, SS	6
896	4285408	Capnut M5, BNP	4
897	4288320	Screw M5x50, SS CRPH	1
906	0141084	Screw M4x10, SS Cross recess pan head	6
912	4280128	Bolt M4x12, SS	11
920	0141547	Nut M8, SS	3
940	4280540	Screw M5x6, SS countersunk	12
941	4311215	Screw , socket head M6x30	1
942	0141123	Screw M5x10 pan head, Philips	4
943	0149299	Spacer Ø4.2x8x15 Black	4
945	4285410	Capnut M12 SS low profile	2
946	4286728	Set screw M8x40, socket	4
947	4280239	Screw M12x20, hexagon ZP	2
948	0197380	Washer M12, SS	2

TRC 8, WATER AND STEAM

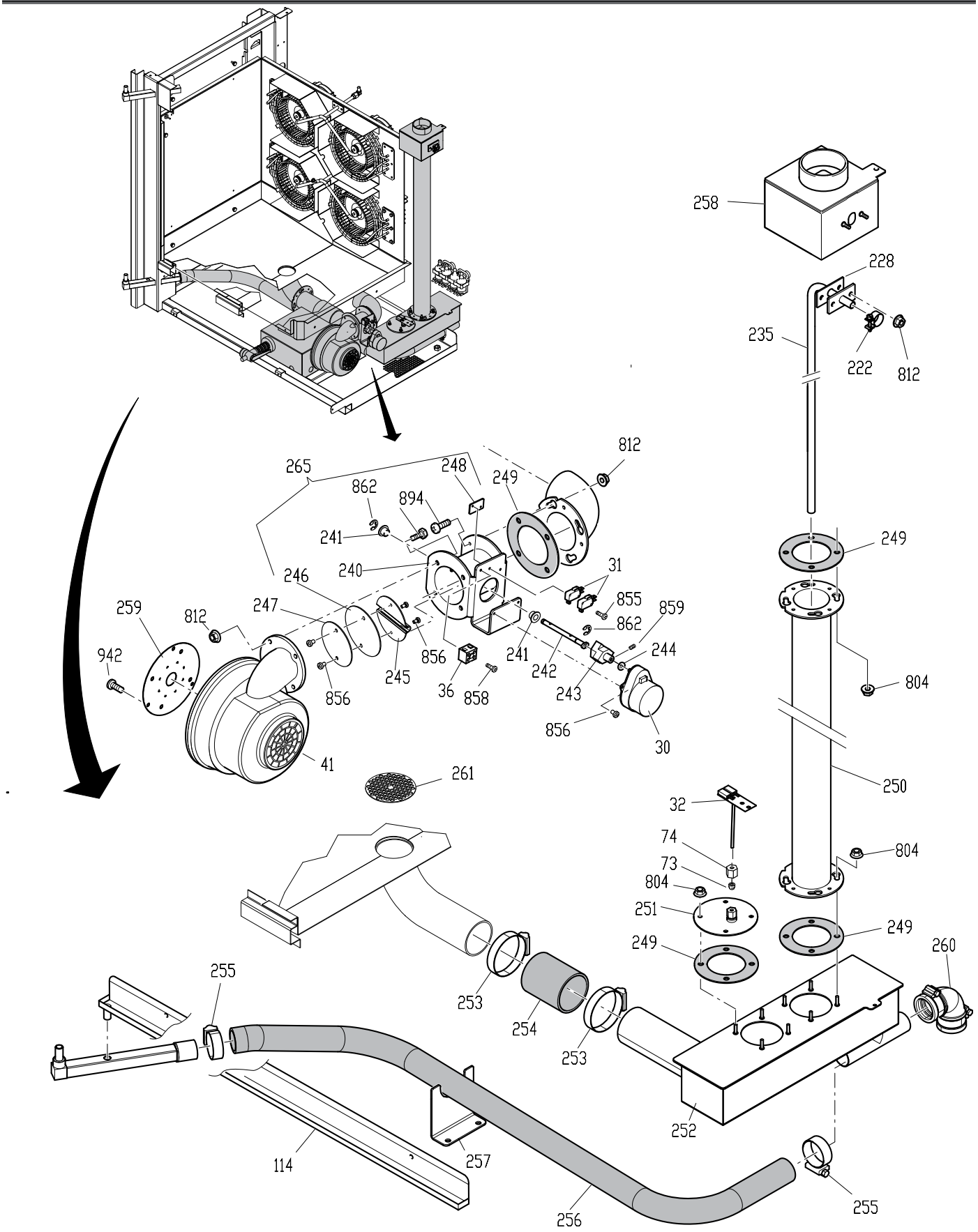


TRC 8, PARTSLIST WATER AND STEAM

Pos	Part number	Description	Qty
22	3701053	Water valve with reducer 0,5ltr/min, 230V	
23	3711017	Water valve, 230V	
220	3500055	Water supply hose, 1,5 mtr 3/4" r-angled/straight	2
221	9191227	Seal, rubber Ø24xø16x2	4
222	9191295	Hose clamp 15-17 mm w=9 galvanized, 15	8
223	3500049	Hose silibar 9,5x16 mm	3000 mm
224	3711024	Waterhose flexible, 1/2x10mm 30 cm	1
225	3711010	Spray unit-hose reel 1,5m	1
226	3711030	Spray gun	1
227	3710409	Steam injection pipe	2
228	3712003	Gasket, steaminjection pipe	3
229	3711020	Elbow compression 10 (F-M)	2
230	3500144	Clamp ring	2
235	3710435	Waterinjection pipe, condensor	1

Pos	Part number	Description	Qty
804	4285092	Nut M6, black serrated	40
805	4288232	Screw M5x12, SS cross recess, wide button head	33
812	9087570	Nut M5, black serrated	32
820	0141149	Screw M5x16, SS Cross recess pan head	8
822	0142315	Nut M5, SS hexagonal	4
829	4280558	Screw M5x16, SS Slotted wide head	6
834	4311110	Washer M5, SS ø5xØ15	4
845	0141079	Screw pan head M5x35, Philips	2
849	0142292	Nut M3 SS	2
853	0141050	Screw M3x10, SS Cross recess pan head	12
855	0141078	Screw M3x30, SS Cross recess pan head	2
856	0141035	Screw M3x5, SS Cross recess pan head	6
858	0141075	Screw M3x16, SS Cross recess pan head	1
859	4312810	Socket set screw M3x6, SS	1
862	9191041	Circlip, 5mm "E" type (6mm shaft)	2
872	4285010	Nut M3, ZP with lockwasher	4
877	4285135	Bolt M5x10, ZP thread forming	36
886	6791014	Spacer P. C. Board	8
889	6802013	Nut rivet M5, AVK reduced	11
890	9172053	Nut M5, for sheet metal	
892	0141521	Nut M6, SS	48
894	0211520	Bolt M5x12, SS	9
895	0144359	Locknut M5, SS	6
896	4285408	Capnut M5, BNP	4
897	4288320	Screw M5x50, SS CRPH	1
906	0141084	Screw M4x10, SS Cross recess pan head	6
912	4280128	Bolt M4x12, SS	11
920	0141547	Nut M8, SS	3
940	4280540	Screw M5x6, SS countersunk	12
941	4311215	Screw , socket head M6x30	1
942	0141123	Screw M5x10 pan head, Philips	4
943	0149299	Spacer Ø4.2x8x15 Black	4
945	4285410	Capnut M12 SS low profile	2
946	4286728	Set screw M8x40, socket	4
947	4280239	Screw M12x20, hexagon ZP	2
948	0197380	Washer M12, SS	2

TRC 8, VENT AND DRAIN

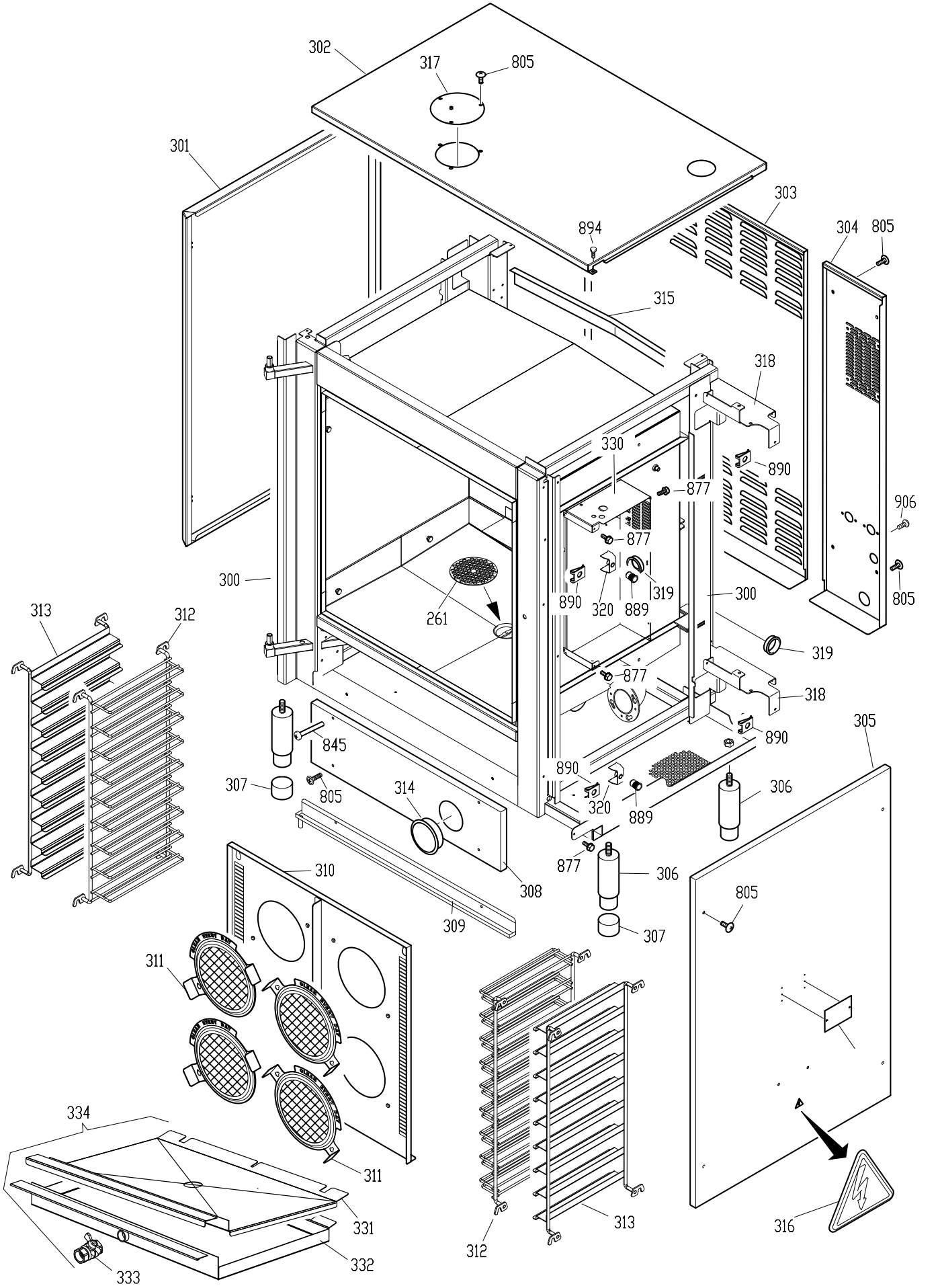


TRC 8, PARTSLIST VENT AND DRAIN

Pos	Part number	Description	Qty
30	9191198	Gearmotor 230V 50Hz 2rpm	1
31	3500109	Micro switch	2
32	9172310	Temperature sensor, Pt1000	1
36	9171110	Terminal block, 2 pole porcelain	4
41	9281034	Blower, radial, 230V 50/60Hz	1
73	3712043	Clamp ring	2
74	3712042	Swivel nut	2
240	3710424	Housing, butterfly valve	1
241	9191085	Collar bearing 6 mm plastic	2
242	3710425	Shaft, butterfly valve	1
243	3712016	Camshaft	1
244	9191303	O-ring inner ø3,1x1,6mm rubber	1
245	3714135	Disc, butterfly valve	1
246	3712018	Disc, silicon, butterfly valve	1
247	3714136	Contra disc, butterfly valve	1
248	3714218	Mounting plate micro switch	1
249	3712005	Gasket, grafite Ø100xø60	3
250	3710434	Vent pipe	1
251	3710433	Cover drain box.	1
252	3710418	Ass. drain tank	1
253	0156712	Hose clamp 50-65 mm w=12,2 galvanized	2
254	3711021	Hose, silicon Ø65,5xø60 x90	80
255	6000032	Hose clamp 26-38 mm w=12,2 galvanized	2
256	6000024	Hose suction PVC	1000 mm
257	3714015	Bracket drain tube	1
258	3710431	Condensor cap	1
259	3714186	Orifice	1
260	3711028	Elbow flexible 90° D34, incl. 2 clamps	1
261	3714195	Cover plate drain	1
265	3710003	Ass. valve 2"	1

Pos	Part number	Description	Qty
804	4285092	Nut M6, black serrated	40
805	4288232	Screw M5x12, SS cross recess, wide button head	33
812	9087570	Nut M5, black serrated	32
820	0141149	Screw M5x16, SS Cross recess pan head	8
822	0142315	Nut M5, SS hexagonal	4
829	4280558	Screw M5x16, SS Slotted wide head	6
834	4311110	Washer M5, SS ø5xØ15	4
845	0141079	Screw pan head M5x35, Philips	2
849	0142292	Nut M3 SS	2
853	0141050	Screw M3x10, SS Cross recess pan head	12
855	0141078	Screw M3x30, SS Cross recess pan head	2
856	0141035	Screw M3x5, SS Cross recess pan head	6
858	0141075	Screw M3x16, SS Cross recess pan head	1
859	4312810	Socket set screw M3x6, SS	1
862	9191041	Circlip, 5mm "E" type (6mm shaft)	2
872	4285010	Nut M3, ZP with lockwasher	4
877	4285135	Bolt M5x10, ZP thread forming	36
886	6791014	Spacer P. C. Board	8
889	6802013	Nut rivet M5, AVK reduced	11
890	9172053	Nut M5, for sheet metal	
892	0141521	Nut M6, SS	48
894	0211520	Bolt M5x12, SS	9
895	0144359	Locknut M5, SS	6
896	4285408	Capnut M5, BNP	4
897	4288320	Screw M5x50, SS CRPH	1
906	0141084	Screw M4x10, SS Cross recess pan head	6
912	4280128	Bolt M4x12, SS	11
920	0141547	Nut M8, SS	3
940	4280540	Screw M5x6, SS countersunk	12
941	4311215	Screw , socket head M6x30	1
942	0141123	Screw M5x10 pan head, Philips	4
943	0149299	Spacer Ø4.2x8x15 Black	4
945	4285410	Capnut M12 SS low profile	2
946	4286728	Set screw M8x40, socket	4
947	4280239	Screw M12x20, hexagon ZP	2
948	0197380	Washer M12, SS	2

TRC 8, SHEET METAL

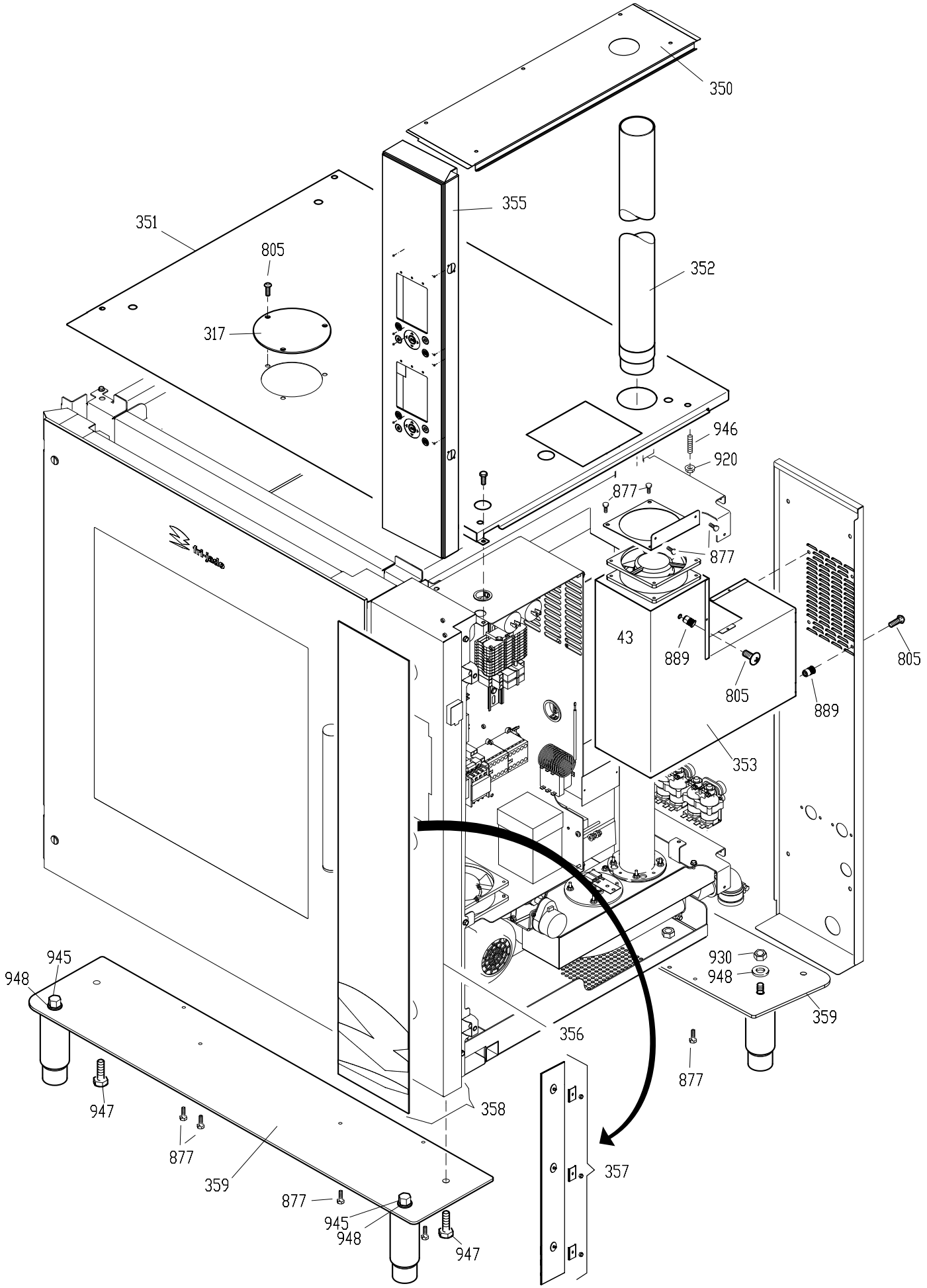


TRC 8, PARTSLIST SHEET METAL

Pos	Part number	Description	Qty
300	3710403	Welding assembly inner oven	1
301	3714192	Side panel left	1
302	3714035	Top panel	1
303	3714031	Back panel	1
304	3714030	Back panel, small	1
305	3714193	Side panel right	1
306	3701071	Leg, M12 stud, height 150mm	4
307	3701070	Plastic cap, black Ø41 xH23	4
308	3714182	Front panel, bottom	1
309	3710430	Drip tray, front	1
310	3710419	Fan plate	1
311	9170453	Grease filter	4
312	3712027	Tray guide	2
313	3710445	Tray guide	2
314	9281004	Grommet ø80 mm	1
315	3714109	Fixation strip, insulation	3
316	3500105	Sticker black electrical sign, triangle	1
317	3714196	Service hatch	1
318	3714171	Suspension bracket, side panel	2
319	9171015	Grommet Ø37 mm	1
320	3714181	Suspension bracket, side panel	2
330	3714040	Mounting box electric parts	1
331	3714188	Cover plate grease tray	1
332	3714189	Grease tray	1
333	9171008	Ball valve	1
334	3718001	Ass. Grease tray	

Pos	Part number	Description	Qty
804	4285092	Nut M6, black serrated	40
805	4288232	Screw M5x12, SS cross recess, wide button head	33
812	9087570	Nut M5, black serrated	32
820	0141149	Screw M5x16, SS Cross recess pan head	8
822	0142315	Nut M5, SS hexagonal	4
829	4280558	Screw M5x16, SS Slotted wide head	6
834	4311110	Washer M5, SS ø5xØ15	4
845	0141079	Screw pan head M5x35, Philips	2
849	0142292	Nut M3 SS	2
853	0141050	Screw M3x10, SS Cross recess pan head	12
855	0141078	Screw M3x30, SS Cross recess pan head	2
856	0141035	Screw M3x5, SS Cross recess pan head	6
858	0141075	Screw M3x16, SS Cross recess pan head	1
859	4312810	Socket set screw M3x6, SS	1
862	9191041	Circlip, 5mm "E" type (6mm shaft)	2
872	4285010	Nut M3, ZP with lockwasher	4
877	4285135	Bolt M5x10, ZP thread forming	36
886	6791014	Spacer P. C. Board	8
889	6802013	Nut rivet M5, AVK reduced	11
890	9172053	Nut M5, for sheet metal	
892	0141521	Nut M6, SS	48
894	0211520	Bolt M5x12, SS	9
895	0144359	Locknut M5, SS	6
896	4285408	Capnut M5, BNP	4
897	4288320	Screw M5x50, SS CRPH	1
906	0141084	Screw M4x10, SS Cross recess pan head	6
912	4280128	Bolt M4x12, SS	11
920	0141547	Nut M8, SS	3
940	4280540	Screw M5x6, SS countersunk	12
941	4311215	Screw , socket head M6x30	1
942	0141123	Screw M5x10 pan head, Philips	4
943	0149299	Spacer Ø4.2x8x15 Black	4
945	4285410	Capnut M12 SS low profile	2
946	4286728	Set screw M8x40, socket	4
947	4280239	Screw M12x20, hexagon ZP	2
948	0197380	Washer M12, SS	2

TRC 8, STACKING



TRC 8, PARTSLIST STACKING

Pos	Part number	Description	Qty
43	3500031	Cooling fan, 230V 120x120x40	
350	9294208	Top panel, small	1
351	3714180	Top panel	
352	3710436	Vent pipe	1
353	3714132	Air channel	1
354	3714198	Spacer plate	2
355	9298540s	Ass. Control panel stacked, incl key foil	1
356	3714179	Support, control panel	1
357	3710116s	Ass. Glas blind panel incl. brackets and nuts excl. Key foil	1
358	3710106s	Ass. Front panel, blind	1
359	3714190	Suspension plate, legs	2

Pos	Part number	Description	Qty
804	4285092	Nut M6, black serrated	40
805	4288232	Screw M5x12, SS cross recess, wide button head	33
812	9087570	Nut M5, black serrated	32
820	0141149	Screw M5x16, SS Cross recess pan head	8
822	0142315	Nut M5, SS hexagonal	4
829	4280558	Screw M5x16, SS Slotted wide head	6
834	4311110	Washer M5, SS ø5xØ15	4
845	0141079	Screw pan head M5x35, Philips	2
849	0142292	Nut M3 SS	2
853	0141050	Screw M3x10, SS Cross recess pan head	12
855	0141078	Screw M3x30, SS Cross recess pan head	2
856	0141035	Screw M3x5, SS Cross recess pan head	6
858	0141075	Screw M3x16, SS Cross recess pan head	1
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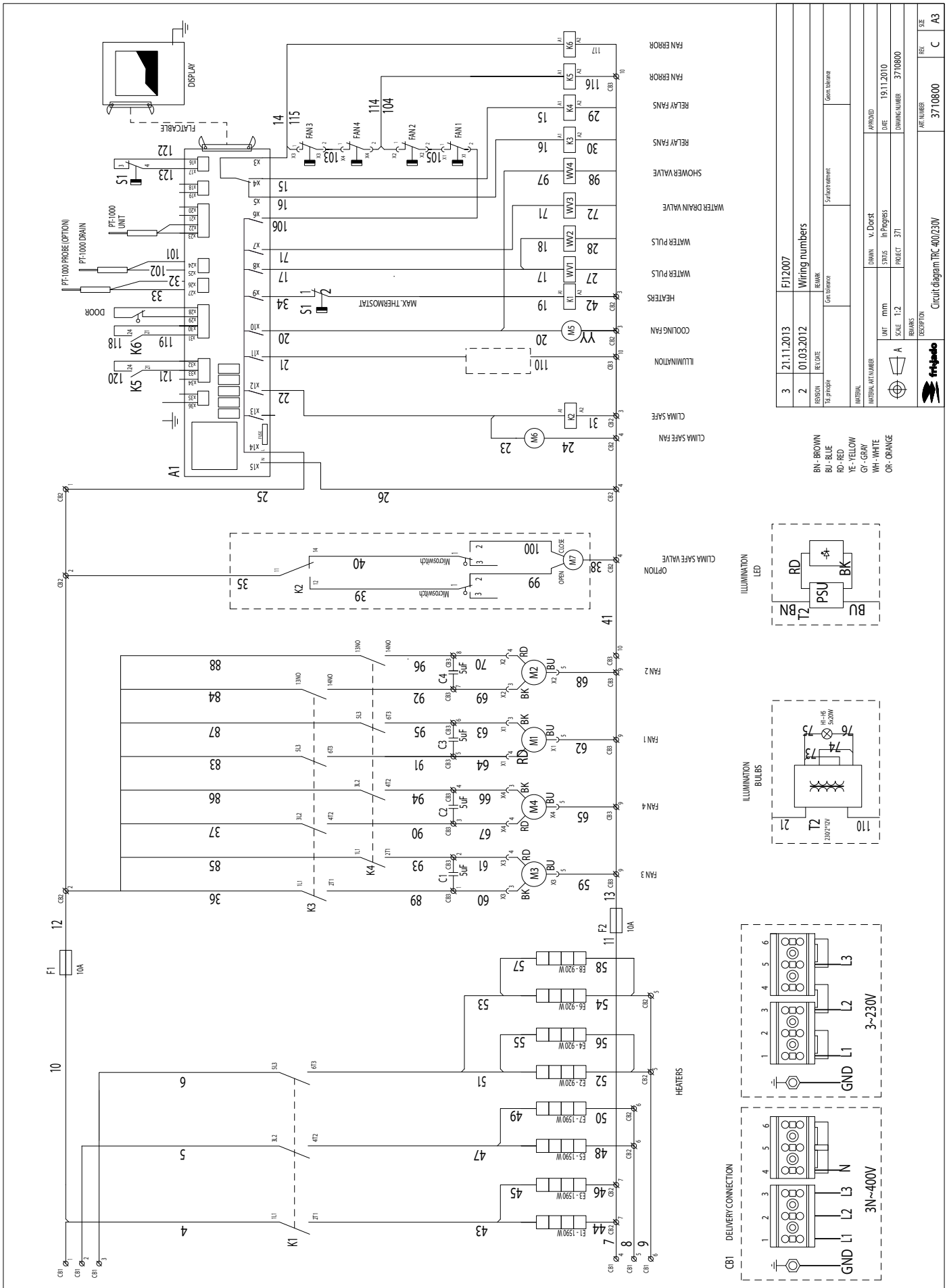
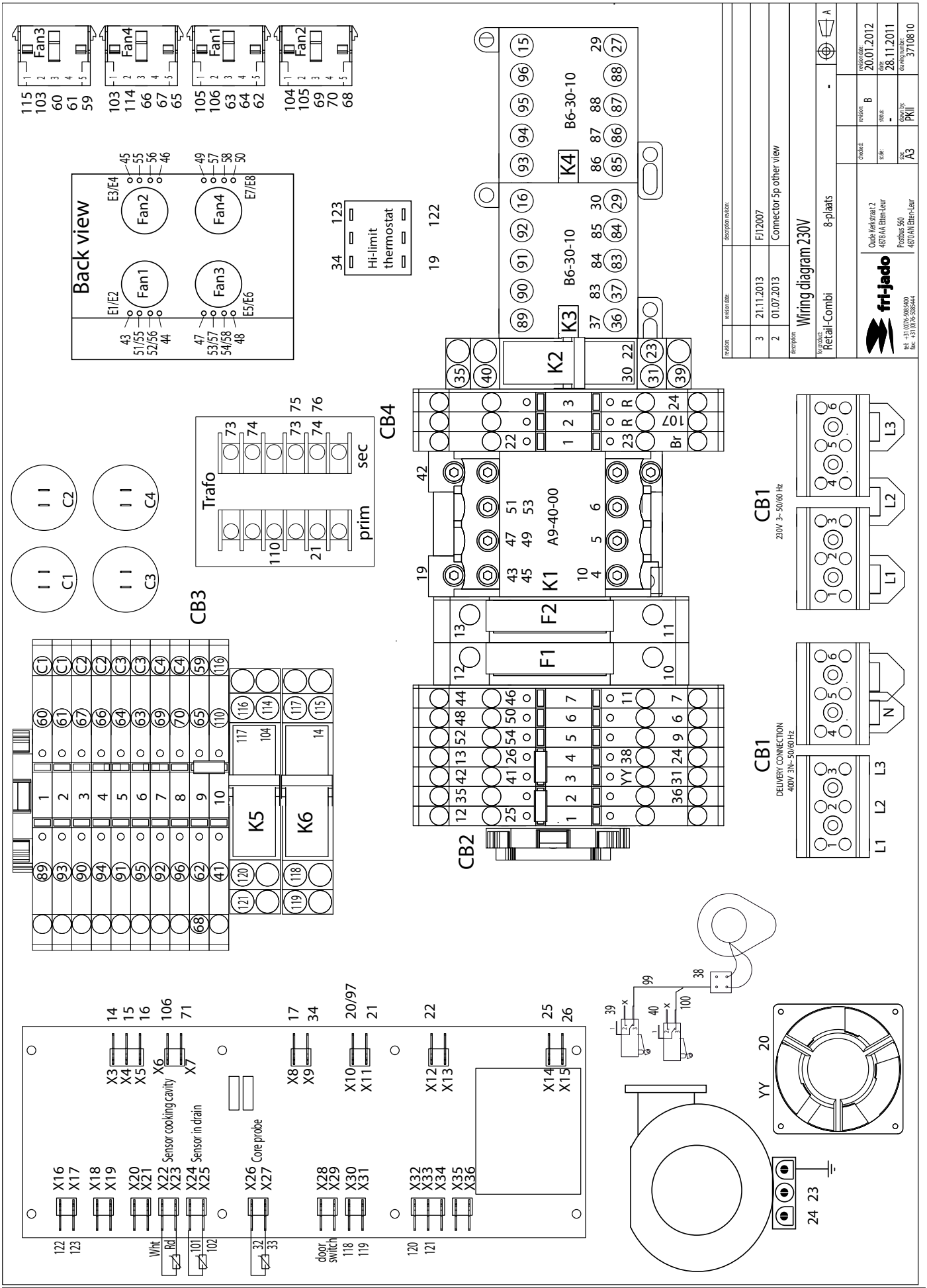
943	0149299	Spacer Ø4.2x8x15 Black	4
945	4285410	Capnut M12 SS low profile	2
946	4286728	Set screw M8x40, socket	4
947	4280239	Screw M12x20, hexagon ZP	2
948	0197380	Washer M12, SS	2

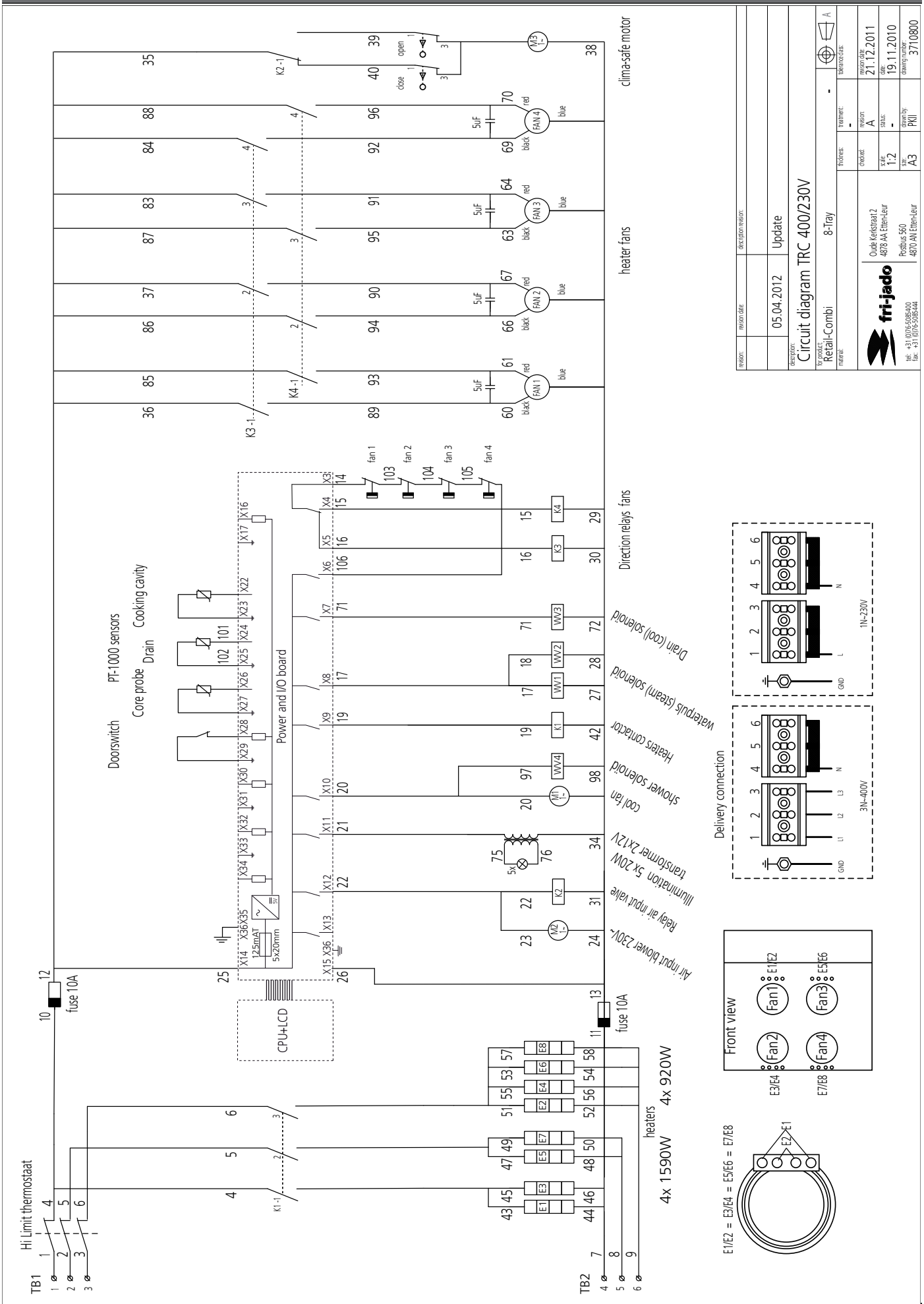
CIRCUIT DIAGRAM TRC 8 (FROM SERIAL NUMBER 100068280)



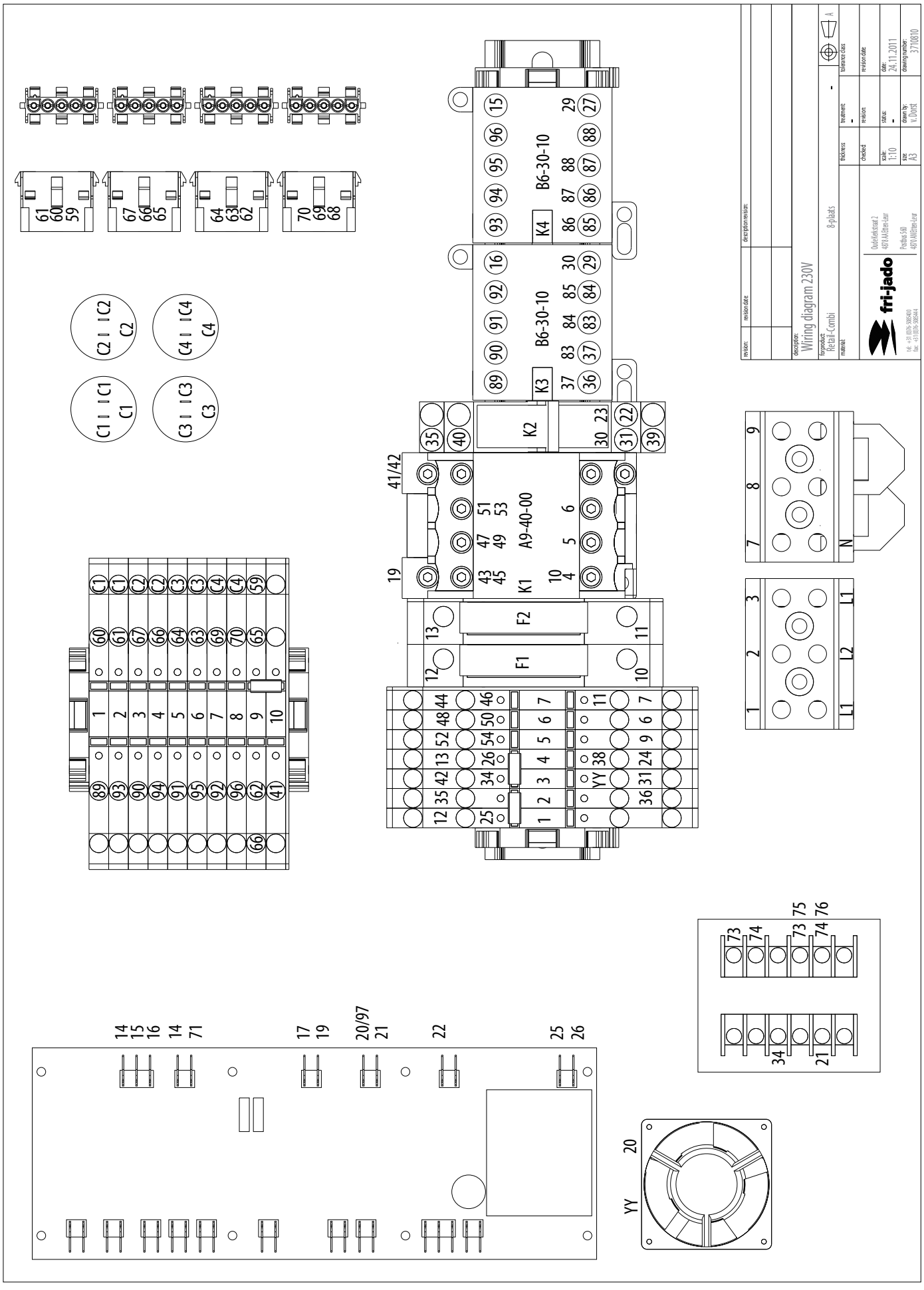
WIRING DIAGRAM TRC 8 (FROM SERIAL NUMBER 100068280)



CIRCUIT DIAGRAM TRC 8 (UNTILL SERIAL NUMBER 100068279)



WIRING DIAGRAM TRC 8 (UNTILL SERIAL NUMBER 100068279)



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