

# SERVICE MANUAL

## Auto Clean Rotisserie



**ACR on underframe**

**- 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.

Reproduction or other use of this Manual, without the express written consent of Fri-Jado, is prohibited.



EMPTY PAGE

Versions		
Version	Issue date dd/mm/yy	Remarks
1306	14-06-2013	First release
1306	27-06-2013	Halogen lighting changed into LED
1606	31-06-2016	General update
1607	25-7-2016	Wiring numbers changed from 3/2 solenoid valve, page 23.
		Chapter order changed
1611	2-11-2016	Parts lists updated, Electric diagrams increased font size, updated service instruction rotor motor reversed direction.
1612	15-12-2016	Part number pos 18 changed
1709	12-09-2017	Tube connections of rinse agent pumps exchanged in exploded views

Table of contents.....	3
General technical Data .....	6
Technical Data ACR on Stand.....	6
Programming instructions .....	7
Overview of the control panel.....	7
The ACR menu's .....	7
The cooking proces.....	8
The automatic cook correction .....	9
Programming (adding or editing a program).....	10
Programming (delete, test or sort program(s)).....	11
Hidden possibilities.....	12
Reaching the parameter menu's.....	13
Default parameters version 6.00.07.....	14
Trouble shooting.....	17
Overview of error codes.....	17
Trouble shooting by symptom.....	18
Service Procedures and kits .....	20
Sprayer position overview.....	20
Conversion Pneumatic 3/2 solenoid valve .....	21
Service instruction 9124141 Rotor motor .....	22
Service kit 9191202s, Compressor for Multiserie and ACR.....	28
Buzzer.....	29
Exploded views and partslists.....	30
ACR Electrical parts.....	30
ACR Partslist .....	31
Electrical parts.....	31
ACR Door Operator side.....	32
ACR Partslist Door Operator side.....	33
ACR customer side (PT only).....	34
ACR Partslist customer side (PT only).....	35
ACR Rotating parts .....	36
ACR Partslist Rotating parts .....	37
ACR heating system .....	38
ACR Partslist Heating system.....	39
ACR Mixing Tubes untill 2016 (optional Rinse kit).....	40
HYdraulic overview.....	41
ACR Mixing Tubes (from 2016).....	42
ACR Partslist Mixing Tubes Cleaning .....	43
ACR Soap And Air .....	44
ACR Partslist Soap And Air .....	45
ACR Water and Drain .....	46
ACR Partslist Water and Drain .....	47
ACR Rinse agent.....	48
ACR Partslist Rinse agent.....	49
ACR Sheet metal .....	50
ACR Partslist Sheet metal .....	51

ACR Underframe.....	52
ACR Partslist Underframe.....	53
ACR Insulation.....	54
ACR Partslist Insulation.....	55
ACR Hood Exterior.....	56
ACR Partslist Hood Exterior.....	57
ACR hood interior.....	58
ACR Partslist hood interior.....	59
Fasteners.....	60
<b>Electrical diagrams .....</b>	<b>62</b>
Circuit diagram ACR 1/2 .....	62
Circuit diagram ACR 2/2 .....	63
Wiring diagram Acr .....	64
Flowchart ACR .....	65
<b>Exploded views and partslists.....</b>	<b>66</b>
ACR Exploded view untill 2012 .....	66
ACR Partslist untill 2012 .....	67

This manual covers the ACR rotisserie.

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 ACR ON STAND**

			ACR	ACR + IC
Dimensions	Width	inch	52 3/4	52 3/4
	Depth (Solid Back)	inch [SB]	37 1/2	37 1/2
	Depth (Pass Through)	[PT]	42	42
	Height	inch	74	87 1/4
Weight	Gross	lb	981	1102
	Nett	lb	838	935
Maximum ambient temperature		°F	95	95
Sound pressure		dB (A)	< 70	< 70
Electrical installation	Voltage	V	3N~ 208	3N~ 208
	Frequency	Hz	50/60	50/60
	Required power	kW	12	12
	Max. nominal current	A	35	35
Plug	None			
Water supply	Aerated connection	inch	¾ "	¾ "
Water	pressure	Psi	> 40 flowing at 4 gln/min	
Acidity		pH	7.0-8.0	
Chlorides		ppm	< 30	
Water hardness		Grains / Gallon	< 2	
Drain	Open connection	inch	min. 1 5/8	
Cleaning agent	Johnson diversey, Suma D9	Gallon approx. 1/3 per cycle		
	Ecolab, Greasecutter Plus			
	Ecolab, 158			
	Dr Becher. UN1824 NL-B Oven and grill cleaner			
	Wesca. LP052-09			

## OVERVIEW OF THE CONTROL PANEL

Also refer to the service manual i-control !

Programming cooking programs

Choosing and running programs

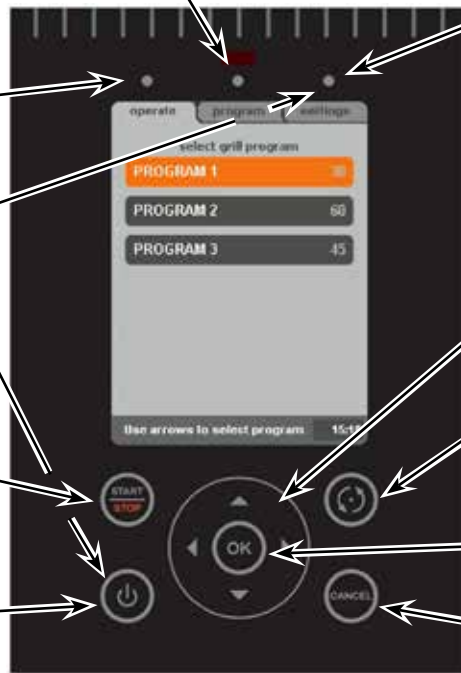
### Switching OFF

Press both keys for 3 seconds.

Start / pause of program

### Switching ON

Press for 3 seconds  
-Press 6 seconds for key test.



-Information (sw. version)

-Manager (parameters)

-Service (parameter & I/O test)

Password = 4878

Combination of dial and up - down - left - right keys

Rotor key for positioning rotor

Confirmation or entering of choice.

Stop / cancel of program

## THE ACR MENU'S

The ACR has menu's for:

- The operator.
- The store (department) manager.
- The service engineer.

See overview of choices in the menu's below.

Operate	Program (for manager)	Settings (manager and service)
Program 1	Add program	Information --> shows sw. version and last error
Program 3	Edit program	Manager --> Manager settings, including password
Program .....	Delete program	Service --> Service settings and I/O test screens
	Test program	
Timer:		
Cleaning		
Manual		

**The operator** has the following possibilities:

- Running cooking programs or the cleaning program.
- Setting the timer to auto start the unit. (Only if the manager parameter "Auto recipe start" is enabled.)
- Use of the manual program. (Only if the service parameter "manual operation" is enabled.)

**The manager** controls the “program” menu and the manager settings in the settings menu. In case the manager decided to activate the manager password, the operator does not have access to the program tab and the manager parameters under the settings tab. Note that the manager password can be found in the service parameters (pin code), in case it got lost. It can be anything between 0001 and 9999. No password will be asked in case it is 0000.

**The service engineer** has access to all menu’s. The password for the service settings is 4878. In case the manager has set a manager password, this will be shown in one of the service settings.

## THE COOKING PROCES

**On screen messages will guide the operator through the process!**

The cooking program can consist of:

- Preheat function
- Cooking process
- Boost function
- Cook correction

### Preheat function.

- Preheat can be enabled in the manager settings menu. This means that in case it is enabled, preheat will be active in all cooking programs.

### Cooking proces.

- The cooking proces can consist of maximum 9 cooking steps.
- A cooking step ends when the time elapses .
- A “hold” function can be programmed as a last (continuous) step.
- By default the automatic cook correction facility will add or deduct time at the end of the proces for equal results with different load quantity.
- **Boost function.**
- This function can be activated during the cooking proces. (in the bottom line of the display it says “Press power for extra time”).
- Even after opening and closing the door, it is still possible to give in extra cooking time.

**On screen messages will guide the operator through the process!**



## THE AUTOMATIC COOK CORRECTION

The automatic cook correction facility will automatically add or deduct time to the programmed cooking time in order to have constant cooking quality.

After programming a new program, the first cooking process will be the "learning" process. It is recommended to do the first cook with a half load.

The program calculates the surface from the diagram below the curved line. (temperature \* time). The result is the so called heat number. This heat number is stored into the cooking program.

All further cooking programs will try to get the same heat number.

The second diagram shows an example with full load. It takes more time for the unit to reach the programmed cooking temperature. See dashed line. The surface above the dashed line represents the missing part of the heat number. The cook correction will put this missing part behind the normal cooking time. Therefore extra time is added in order to reach the desired heat number.

It is also possible that time is deducted in case a smaller load has been put into the oven.

### Time will be added in case of:

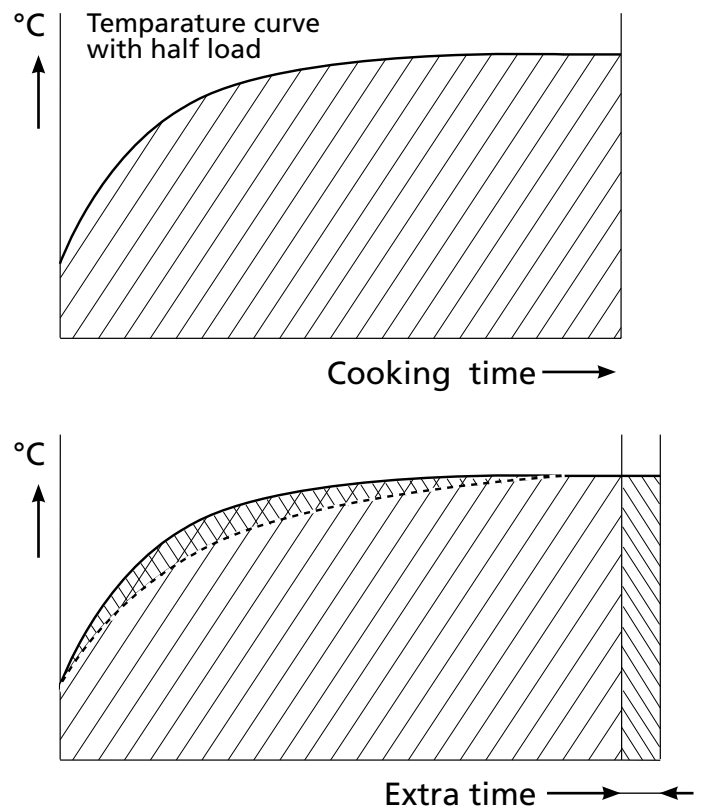
- A bigger load.
- A colder load. (straight from the freezer)
- A lower mains voltage.
- Somebody opened the door.

### Time will be deducted in case of:

- A smaller load.
- A warmer load. (defrosted)
- Higher mains voltage.

### Note that:

In case the time or temperature will be changed in the cooking program, the heat number will be adapted with this amount.



The heat number is stored in the cooking program. In case such a program is copied with FIPS (see additional software), the heat number goes with it.

It is possible that in case the program has changed a lot, the cook correction is not able to perform well anymore. In that case the program has to be deleted and reprogrammed with the good parameters.

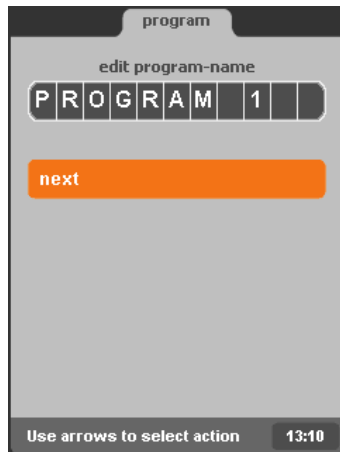
It is possible to disable this auto cook correction feature in the service parameters. See "parameter listings" -> "auto correct."

**PROGRAMMING (ADDING OR EDITING A PROGRAM)**



Press <program>.

Select "add program" or "edit program" with the dial. Confirm with <OK>



**Make a name.**






Select a character with the dial. Next character with arrow or OK. Finally confirm with <OK> twice.

In case of editing, just repeat <OK>.

The screen shows a diagram with 9 lines. These are the 9 possible cooking steps of which a cooking proces can consist of.

The top line will be the first cooking step.

Method of working:

1. Select a cell to edit with the arrow keys. The cell will turn .
2. Activate the cell with <OK>. The cell will turn .
3. Edit the cell with the dial, or up and down keys. --> .
4. Confirm with <OK>. --> .
5. Select the next cell. --> .
6. Finish programming when all necessary cells are edited, by using the <down> key towards "save program".
7. Push <OK> to leave the screen.



**Additional information about the cooking parameters:**

**Time.**

In the first line (step), time is adjustable from 1 untill 240 minutes. In the second step, there is also a possibility to put the time on "HOLD". The program will run untill the <Stop> key is being pushed.

**Temperature.**

The temperature is adjustable from 0 untill 250°C (482°F).

## PROGRAMMING (DELETE, TEST OR SORT PROGRAM(S))

Press <program>.



### Deleting a program.

Choose the "delete program" option.

Choose the program to be deleted with the dial or the up / down keys.

Confirm with <OK>.

Choose "Yes"

Confirm with <OK>

*Note that in the service menu, there is a possibility to delete all programs!*

### Test a program.

Choose the "test program" option.

Choose the program to be tested with the dial or the up / down keys.

Confirm with <OK>.

The program starts as normal, but now there is a possibility to change the program during the cooking process by pushing <OK>.

### Alphabetic sort the programs.

Choose the "alphanumeric sort" option.

Choose "Yes"

Confirm with <OK>

*Note that in case the program names are numbers, and there are more than 10 cooking programs, these numbers need to have a leading "0". For example 01, 02 ...9, 10, 11. When more than 100 programs it should be like 001, 002.....099, 100, 101. Otherwise it will not sort in the right order.*

## HIDDEN POSSIBILITIES

### Demo mode.

The controller has a so called "Demo Mode". See parameter "demo mode" in the chapter "parameter listings".

In this demonstration mode, the heating of the unit is disabled and will simulate the machine heating up, only through software. All other functions are still active.

### Continues rinse.

It is also possible to have a continues rinse in the ACR.

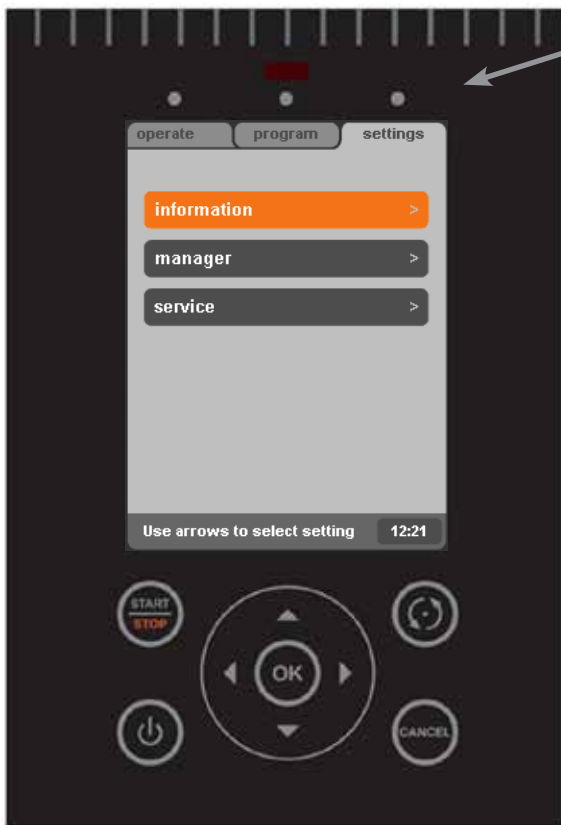
To achieve this, the unit has to be set to "demo mode" first.

After that and switching the unit OFF and ON, the "ON/OFF" and "Programs" key have to be pushed together for 3 seconds.

*Note that the installing procedure (when switching ON) needs to be cancelled if applicable.*



## REACHING THE PARAMETER MENU'S



Press <settings>.

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

To access the different sections, select an option using the dial or up and down keys and confirm with <OK> .

To leave a section use the "cancel" key.

Note: The service section is by default protected with the password (pin code) "4878".

Note: The manager section can be protected by a separate password, this password can be set inside the manager menu. It is possible to view this password through the service menu. See parameter "pin code"

Refer to the service manual i-control for possible updates!

### Changing settings.

Inside the manager or service menu, a lot of parameter settings can be changed. In case the parameter name ends with a ">", it has a submenu.

- Choose a parameter with the dial or the up / down keys.
- Enter or change a setting with the -> key.
- Choose a setting with the dial or the up / down keys (in case of a submenu).
- Confirm with <OK>.

**DEFAULT PARAMETERS VERSION 6.00.07**

Level 1	Level 2	Level 3		Default	Possibilities
Information				6.00.07	software version
<b>Manager</b>					
	Change Pin code			0000	0000 - 9999
	Save Recipes				save cookbook to USB
	Load Recipes				load cookbook from USB
	Light			on	on - off
	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			3000	50-30000
	Lime filter			-	50 - 30000 or "-" for infinite
	Lime filter re- placed			no	no - yes
	Clear error			no	no - yes
<b>Service</b>				4878	
	device type			ACR	STGi, Multi, M-Bake, BSi, STOi, RC8, ACR
	auto-correct			time	no - time
	set language			English	englisch - deutsch - francais - nederlands - espanol - japanese - italiano
	alarm delays	alarm	T4	3 sec.	1 - 17
		alarm	T5	5 min.	1 - 60
	Pulse timing		T1	5 sec.	0,1 - 120
			T2	3 sec.	
			T3	0,1 sec.	
	Manual Operation			no	no - yes
	error history				overview of last 200 errors
	save error history				saving error history on USB
	clear error history				
	correct-factor			3x	1x - 10x
	debug rs232			no	no - yes
	demo mode			no	no - yes
	auto off			60 min	no or 10 - 240
	pin code			****	read out of the manager pin code

*Last changes in green, previous changes in yellow*

Level 1	Level 2	Level 3		Default	Possibilities
	Sensor offset			0 °C	-5°C - 5°C
	ACR Drain time			40 sec.	
	Clean Steam 1	time		5 min.	0 - 35
		temp		65°C / 149°F	5 - 130°C / 41°F-266°F
		mode		1	0 - 2
		pulses		20	1 - 60
		pulse width		0,3	0,1 - 1,0
	Clean Steam 2	time		0 min.	0 - 35
		temp		65°C / 149°F	5 - 130°C / 41°F-266°F
		mode		1	0 - 2
		pulses		20	1 - 60
		pulse width		0,3	0,1 - 1,0
	Clean Cleaner	Clean temp		60°C / 140°F	30 - 80°C / 86 -176°F
		chemic 1		30 sec.	0 - 120
		rest time		180 sec.	0 - 600
		chemic 3		30 sec	0 - 120
		soak		30 min.	5 - 30
	Clean Rinse	rinse axis		45 sec.	0 - 120
		rinse inside		56 sec.	0 - 300
		dry		0 min.	10 - 60
		dry temp		60°C / 140°F	60 - 150°C / 140-302°F
		clean steps		3	1-5
	Rinse options			no	no - yes
	Complete cleaning			yes	no - yes
	Delete all programs				no - yes
	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		ACR	BS-I3 - BS-I5 - BS-I8 - BS-I10 RC8 ACR
	Pressure			no	no - yes
	I/O test				read the inputs and set the outputs
	Test Program	Rinse			
		3-way airvalve			
		measure waterflow			
	Ignore errors			no	no - yes
	save HACCP log				save haccp on USB
	save parameters				save parameters on USB
	load parameters				load parameters from USB

*Last changes in green, previous changes in yellow*

Clean Cycle ACR					
1	Clean Steam				20 min.
2	Clean Cleaner		Cool Down		Approx. 15 min.
			Detergent		1 min
			Rest		3 min
			Detergent		1 min
			Soak		30 min.
3	Clean Steam				20 min.
4	Rinse				4 min.
5	Clean Steam				20 min.
6	Clean Cleaner		Cool Down		Approx. 15 min.
			Detergent		1 min
			Rest		3 min
			Detergent		1 min
			Soak		30 min.
7	Clean Steam				20 min.
8	Rinse				4 min.
9	Clean Steam				20 min.
10	Clean Cleaner		Cool Down		Approx. 15 min.
			Detergent		1 min
			Rest		3 min
			Detergent		1 min
			Soak		30 min.
11	Clean Steam				20 min.
12	Rinse				4 min.
8	Rinse decalcified water				3 min.
10	Blow				5 min.
11	Dry				1 min.
				±	290 min.



## 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 than 0°C.
  - Sensor is broken.
  - Sensor wiring shorted.
- Powerboard Fails ==> Malfunction of Power & I/O board (# 9192202).
- Ribbon cable loose or damaged.
  - Board defect.
- Slaveboard Fails ==> Malfunction of Extension I/O board (# 9192203)
- Ribbon cable loose or damaged.
  - Board defect.
- Lime Filter Full ==> This message appears when 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.
- Fan guard fails ==> Missing feedback signal from the blower rotation.
- The blower is not rotating while it should.
  - The feedback wiring is not connected.
  - The Power&I/O board has the wrong software version. It should have SV1.11 or higher. See white label or check in the information screen.  
<Settings) --> <Information>

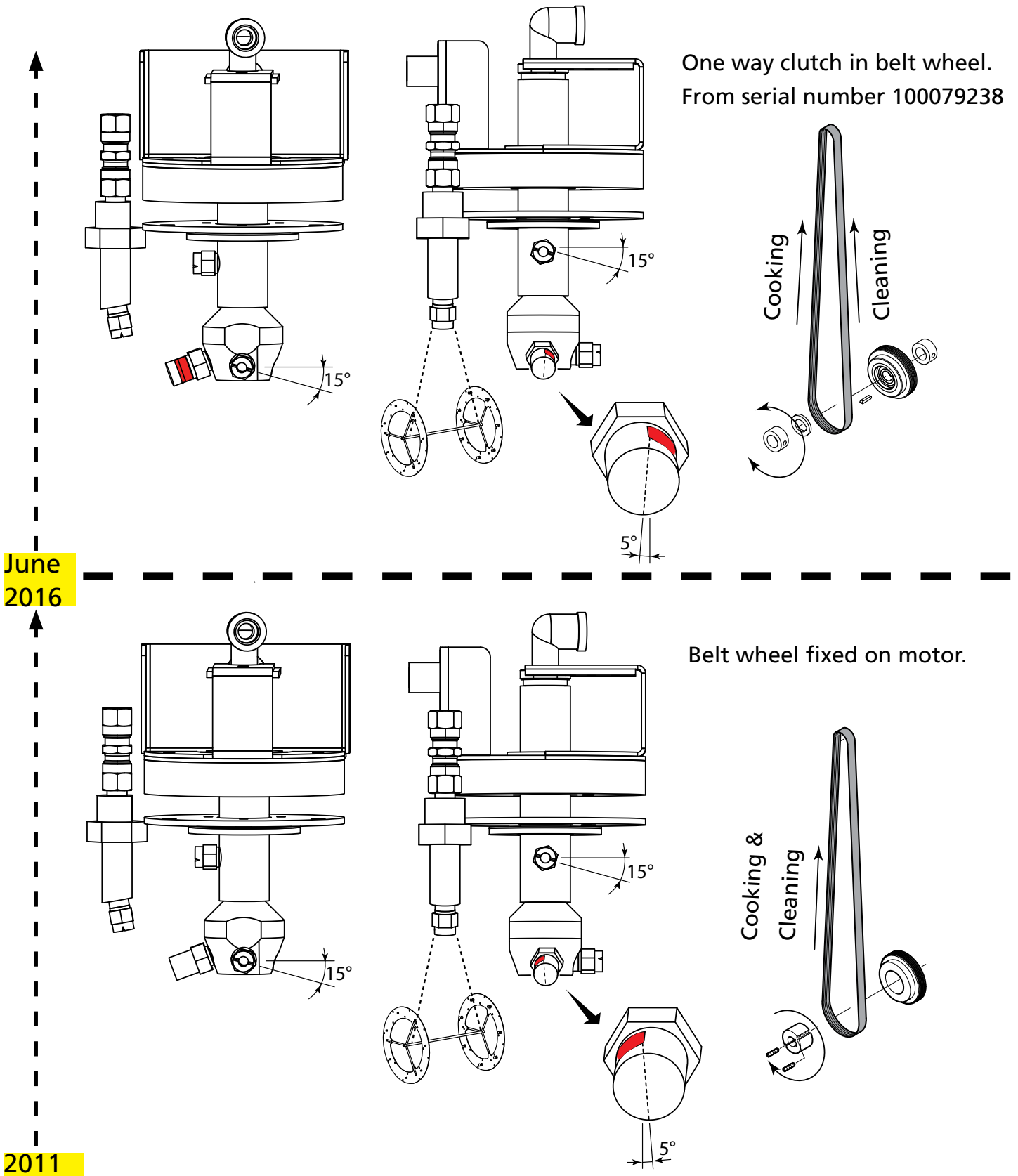
## TROUBLE SHOOTING BY SYMPTOM.

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

Symptom	Possible cause	Caused by
Unit will not switch on.	Mains breaker open	Check mains connections and associated wiring. Also inspect mains fuses.
	Fuse(s) blown	Check fuse(s) on the electric panel
	Wiring problem	Check wiring, plugs and sockets inside and outside of unit.
	Control boards defective	Mains power surge. (fuse blown)
Unit does not heat up.	Contactor does not switch on	Defective contactor. Defective temperature sensor. Wiring problem. Unit is put in "DEMO Mode" (check parameters) Wrong cooking program.
	Hi Limit thermostat triggered	Hi limit thermostat triggered due to transport (hi vibrations).
		Defective hi-limit thermostat. Defective temperature sensor. (temp. too high)
Door does not close well.	Doorlock not aligned correctly	Doorlock loose. Door suspension loose. Door handle loose.
	Doorlock defective	Door adjustment wrong. Mounting of doorlock wrong.
	Door lock too tight.	Door (catch) not adjusted correctly.
Bad cooking results, uneven cooking	Air circulation problem	Fanblade loose
		Blower defect (coil or bearing)
		Capacitor of blower defect
		Missing top air guide plate (pos 211 in exploded view)
	Too much or too less heat	Contactors hangs
		Sensor defect (wrong value)
	Too much steam (vapor) in cooking cavity.	Solenoid valve defect
		Dirt in solenoid valve
	Door does not seal properly	Broken door lock
		Broken (leaking) doorgasket
Door adjustment wrong		
Product not cooked, cooking takes more time	Short of heat	Heating element defect
		Contactors defect
		Sensor defect
		Wire loose
		Lost phase
	Cooking program wrong	Wrong programming
		Wrong product

Symptom	Possible cause	Caused by
Oven does not switch off	Operator problem	2 keys need to be pushed. Refer to chapter "programming instructions" -> "overview of control panel"
Oven cavity fills up	Drain grid clogged	Wrong installation of sewage
		Wrong use of oven.
		Cleaning instructions neglected.
Less or no lighting	Lamp defect	
	No power on the lamps.	Transformer defect
	No power on transformer	Lighting switched off in manager menu
Bad cleaning result	No steam	Defect or clogged solenoid valve
		Water tap closed
		Filter blocked
	No detergent	Instructions neglected.
	Wrong detergent	
	Sprayers do not rotate	Broken ribbed "V" belt
		Pulley loose
Cogwheel loose		
Sprayers clogged	No lime filter or lime filter saturated.	
Leakage of steam at the door	Wrong door adjustment.	Door catch loose.
	Doorgasket damaged	Gasket deteriorated. Gasket damaged.
	Overpressure in cooking cavity.	Exhaust (vent) clogged
Deterioration of doorgasket	Wrong detergent	Cleaning instructions neglected
	Daily cleaning not ok.	
Controls malfunction	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

SPRAYER POSITION OVERVIEW



## CONVERSION PNEUMATIC 3/2 SOLENOID VALVE

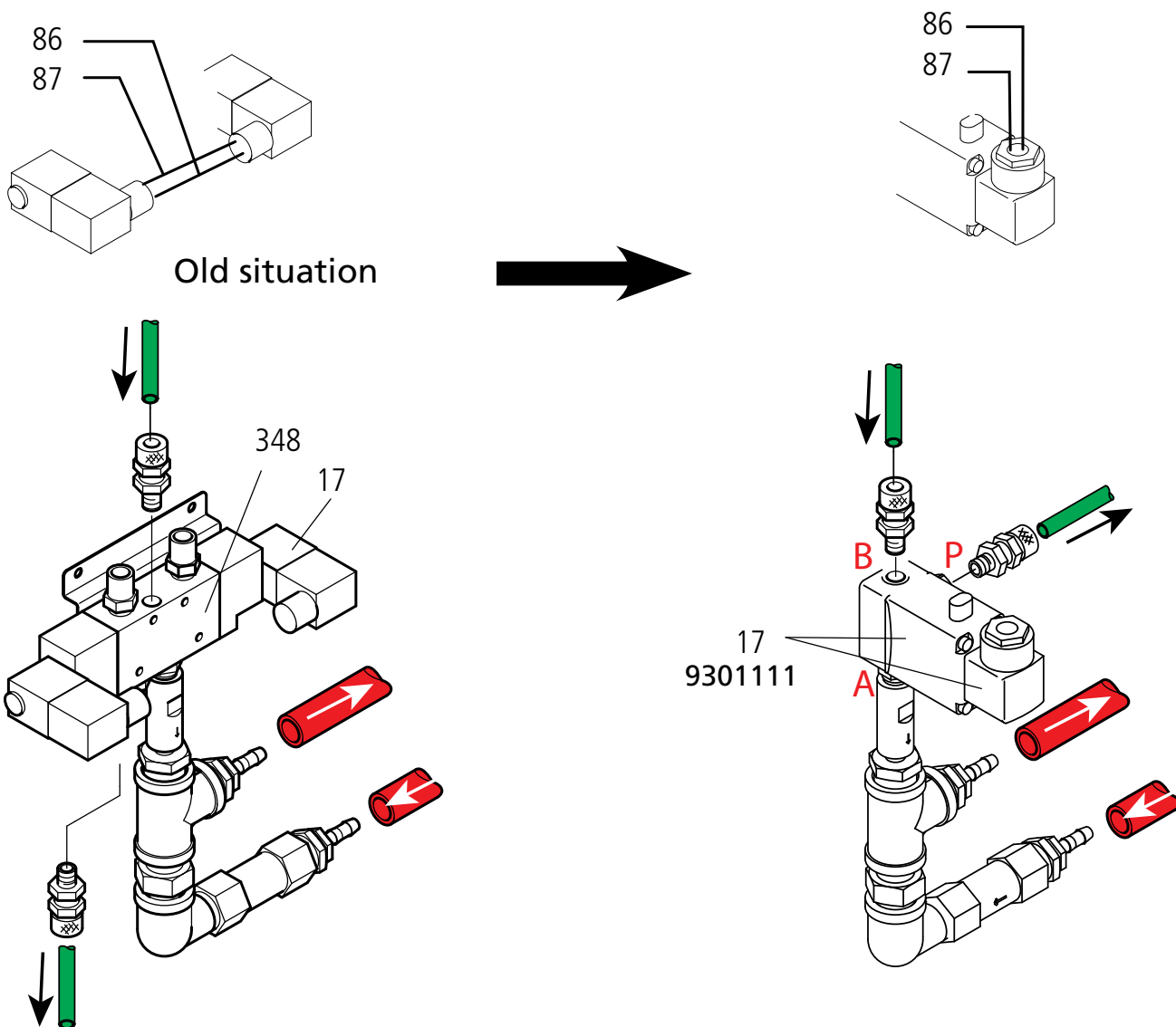
After a rinse cycle, this valve controls the direction of the compressed air which is used to empty the water tubes.



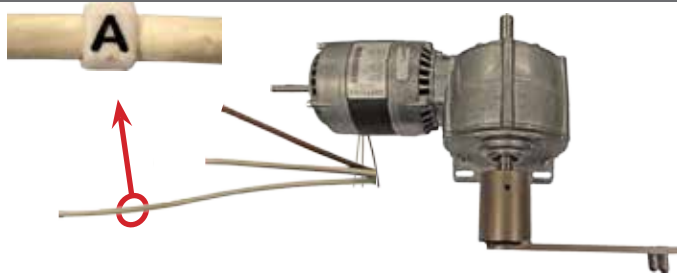
This valve is applied from serial number 100071272 and replaces the (2x3/2)valve.

Old partnumbers 9301090 (valve) and 9301091 (Solenoid) will be redirected to the new part number 9301111. (Solenoid valve assembly pos 17)

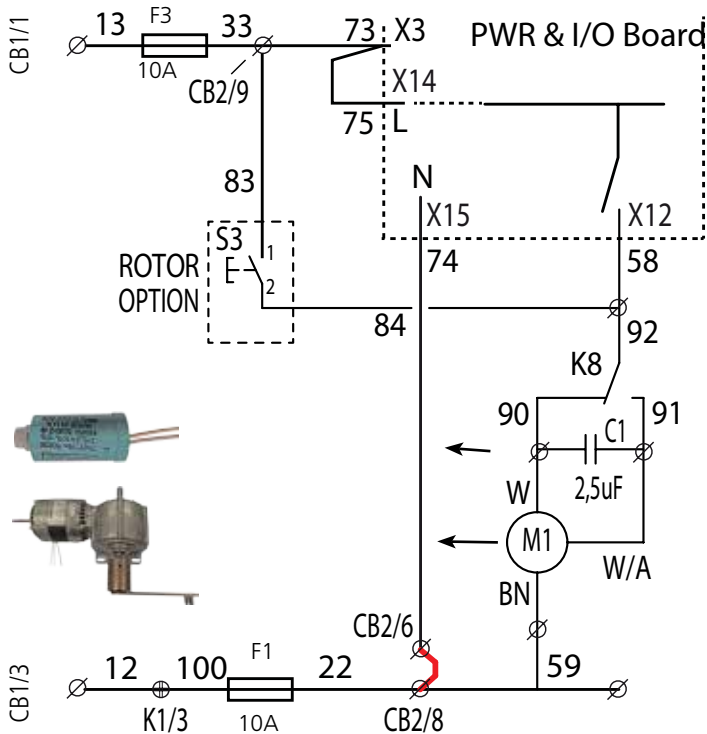
Connect the tubes and wiring according the overview below.



## SERVICE INSTRUCTION 9124141 ROTOR MOTOR



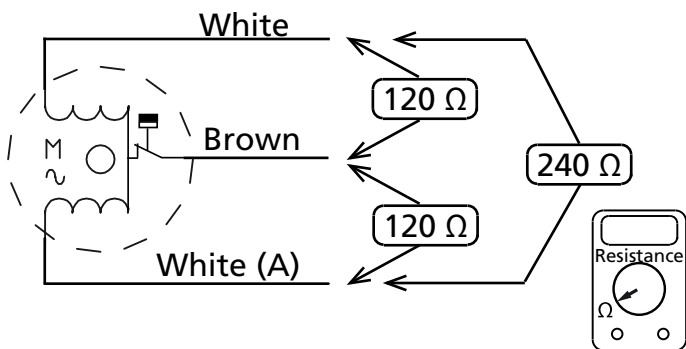
Connection overview



### Working principle:

- The motor is directly controlled by the Power & I/O board (output X12).
- A rotor switch is present when the unit is a Pass Through version.
- A 2,5µF capacitor is used to give the motor a good starting torque and rotation direction.
- Since 2016, the K8 relay will reverse the direction during cleaning. K8 is triggered by the drain valve signal.
- A thermistor inside the motor will disconnect the coil in case the temperature exceeds 140°C (284°F). It resets automatically after a cool down period.
- The motor has 1 brown wire and 2 white wires.
- One of the white wires is marked "A" and 5 cm (2") longer. (also mentioned in the diagrams!)

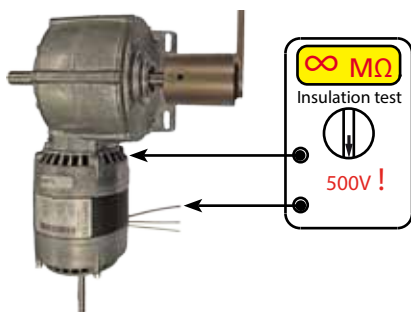
*Note that interchanging the two white wires will result in reversing the rotation and this will also effect the cleaning results.*



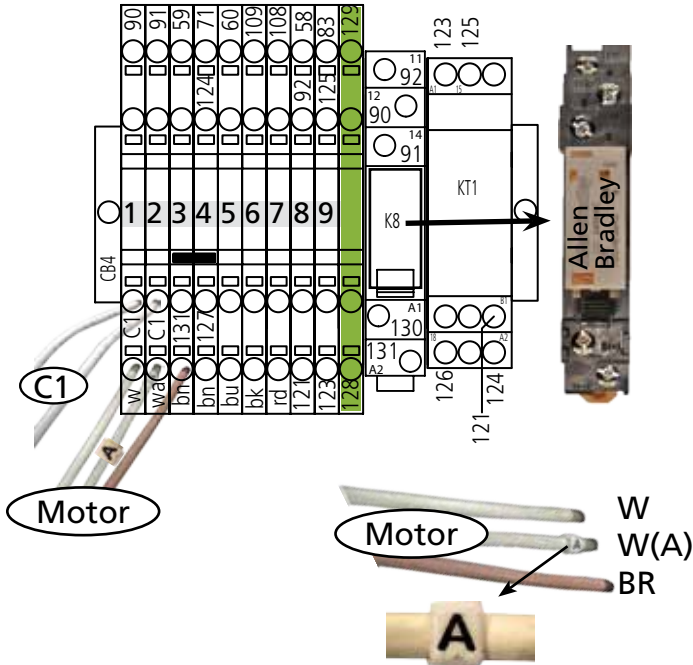
### Passive measurements:

- |        |                             |
|--------|-----------------------------|
| 120 Ω. | Between brown and white     |
| 120 Ω. | Between brown and white (A) |
| 240 Ω. | Between white and white (A) |

∞ MΩ between any wire and housing



**Motor wiring from 2016**



**Active measurements.**

Start the rotor motor by starting a program, or with help of the I/O test feature.

*I/O test*

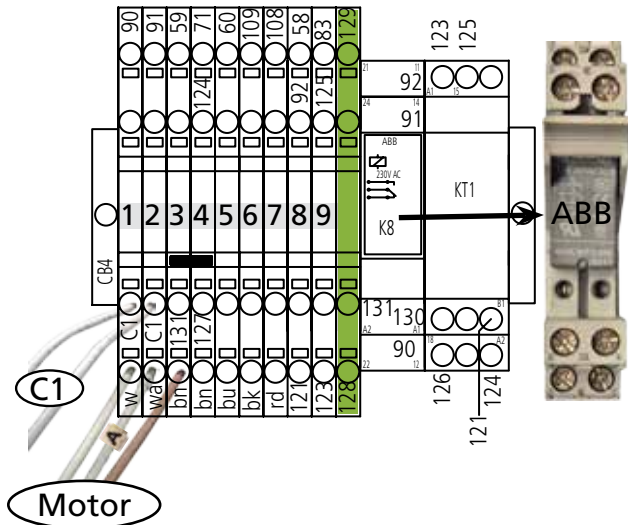
Go into the settings screen --> Service --> (pin code 4878) --> I/O test --> MFMB outputs --> X12 (spit/rotor).

Push <OK> the motor gets power for 30 sec. Push <OK> Power OFF

The diagram below shows the voltages that can be expected in different situations as shown in the pictures.

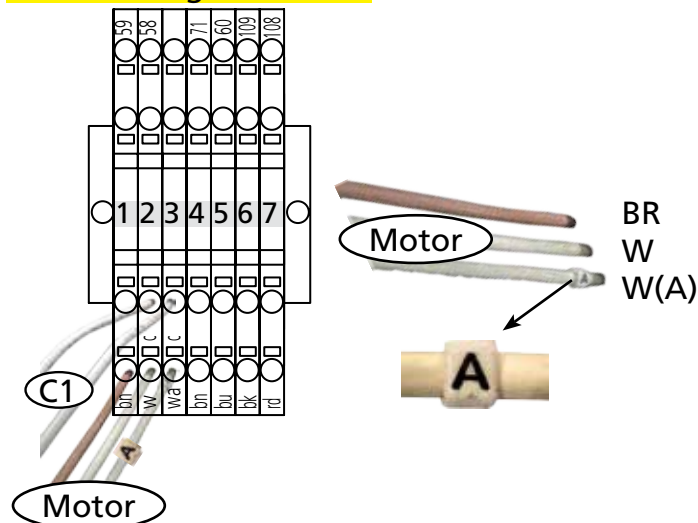
- FR --> Free Running
- EL --> Equally loaded.
- HT --> High Torque.

**Motor wiring from 2015**

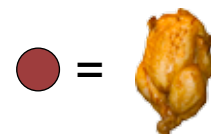
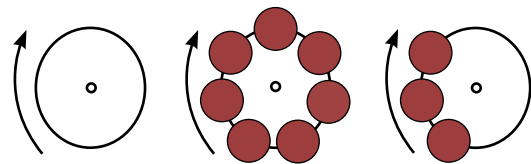


Between wire	V~ (FR)	V~ (EL)	V~ (HT)
Br and W	208	208	208
Br and W(A)	355	340	250
W and W(A)	435	420	300

**Motor wiring until 2015**

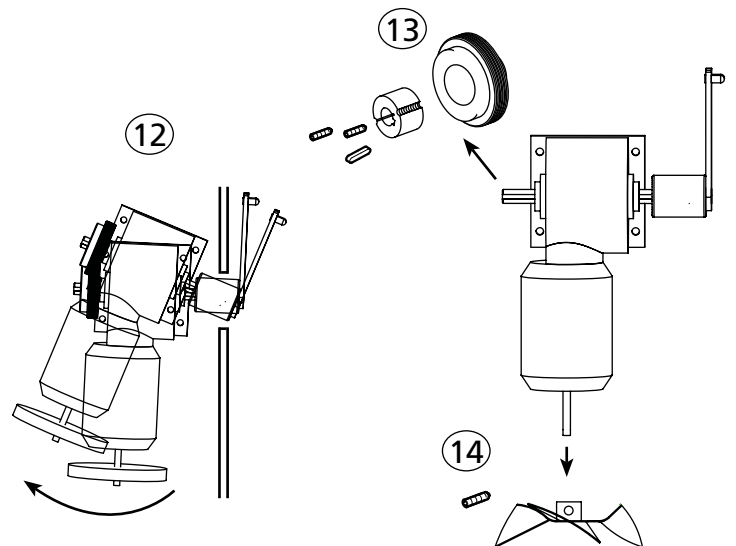
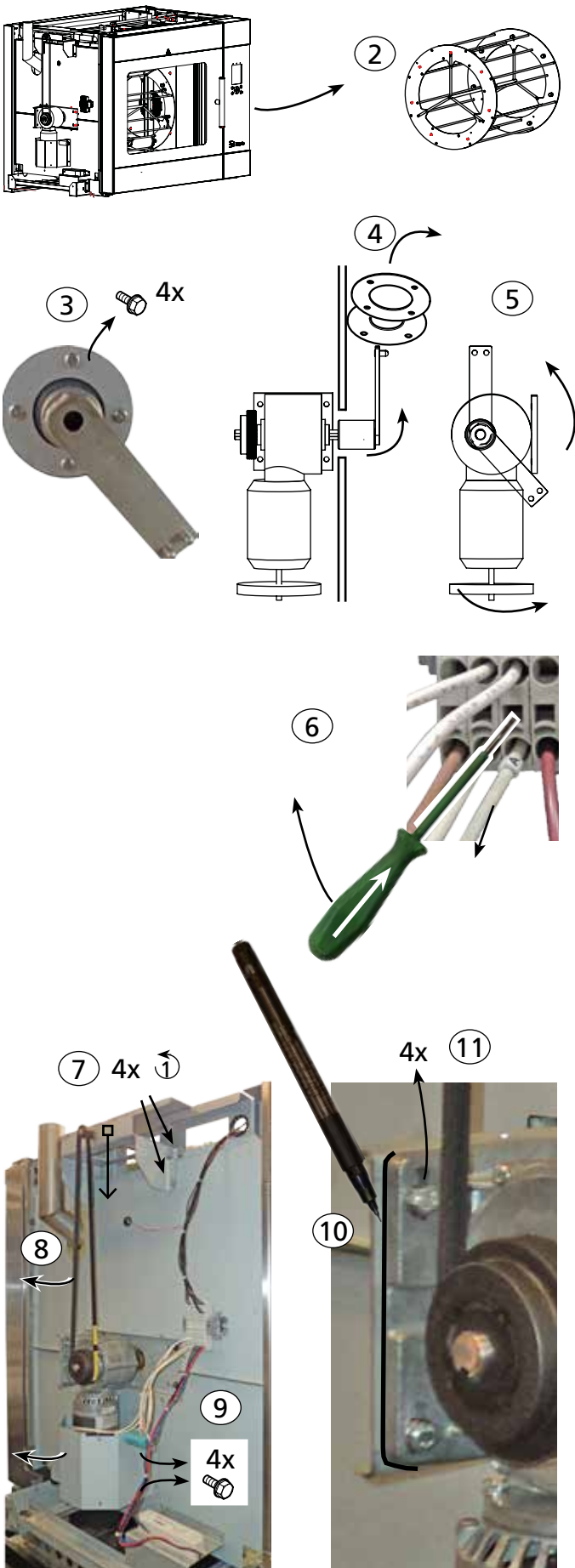


(FR) Free running  
 (EL) Equally loaded  
 (HT) High torque



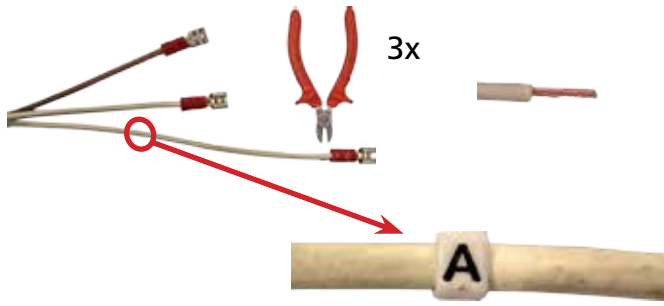
## Disassembling the rotormotor:

1. Remove the top panel and side panel at the vent side.
2. Take the rotor shaft with discs out of the cooking cavity.
3. Unscrew the 4 bolts from the shaft seal mounting plate.
4. Slide the mounting plate and lip-seal from the drive arm.
5. Put the drive arm in the position as shown. This can be done manually, if necessary, by turning the fan blade on the motor.
6. Disconnect the wiring of the motor.
7. Loosen 4 bolts to release the belt.
8. Take the belt off
9. Unscrew 4 screws and put the air guide aside. Don't put stress on the capacitor wiring. (or unscrew or disconnect the capacitor.
10. Mark the position of the motor on the bracket.
11. Unscrew 4 screws with nuts.
12. Take out the motor as shown.
13. Remove the belt wheel
14. Remove the (cooling) fan blade.



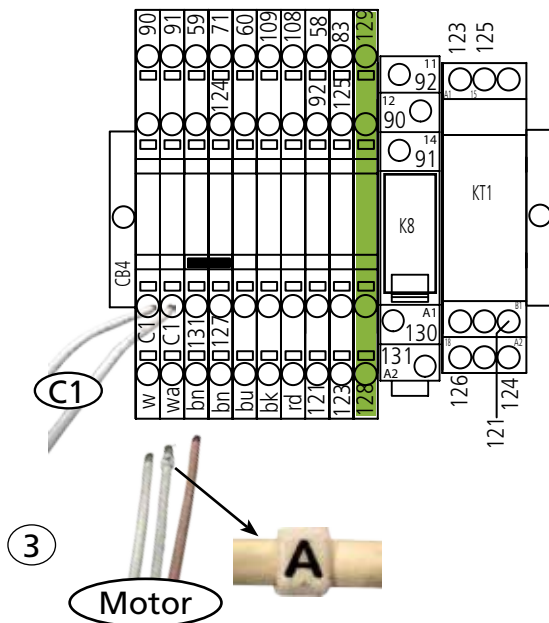
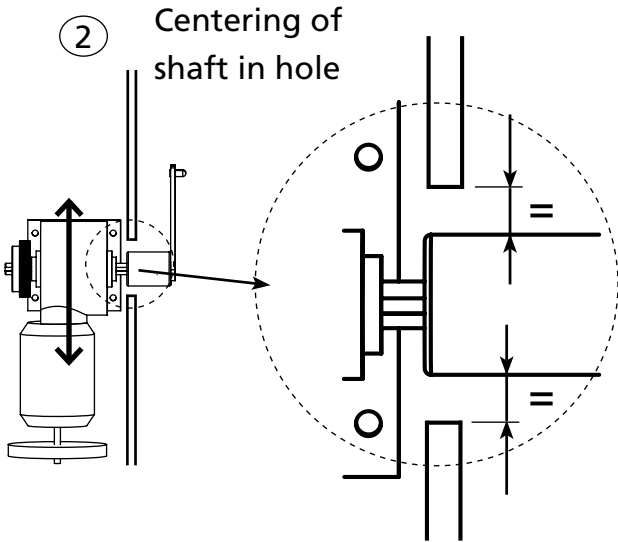


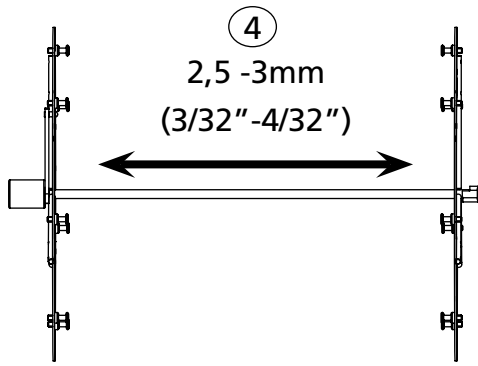
## Assembling the rotor motor



1. Mount the belt wheel and fan blade.
2. Mount the motor on the bracket using the previous made mark (see #10 from disassembling). The motor shaft should come through the center of the hole!!
3. Connect the wiring of the (new) motor.  
*In case the wires have receptacles mounted, then these have to be cut off and the wires stripped.*

*Note that the white wire, marked "A" is 5 cm (2") longer.*



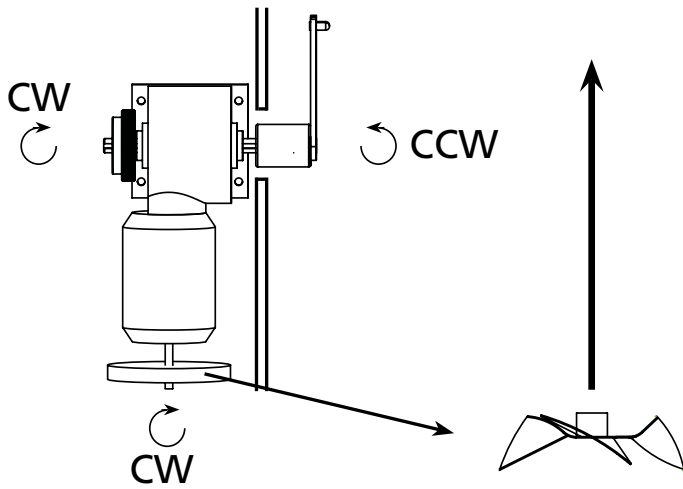


4. Hook in the rotor and check the axial play. This should be 2,5 -3mm (3/32-4/32)
5. Put power on the unit and test the rotation of the rotor. Interchange the two white wires if wrong.
6. Check if the drive arm in top position has the same distance to the side wall as in bottom position.

5

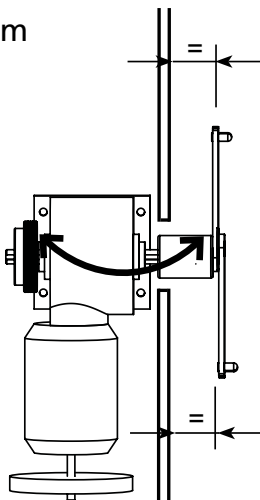
Checking rotation

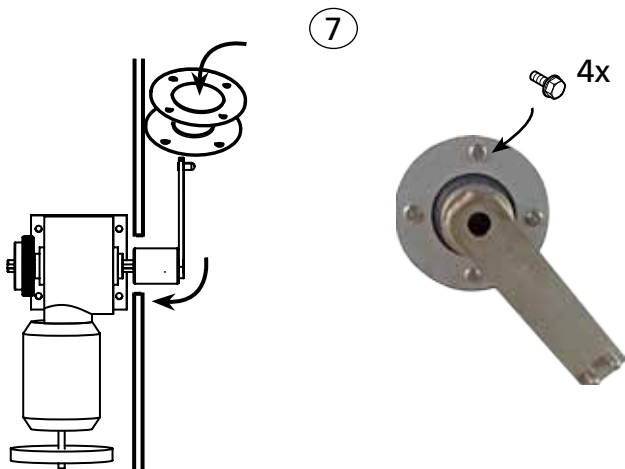
Air flow up



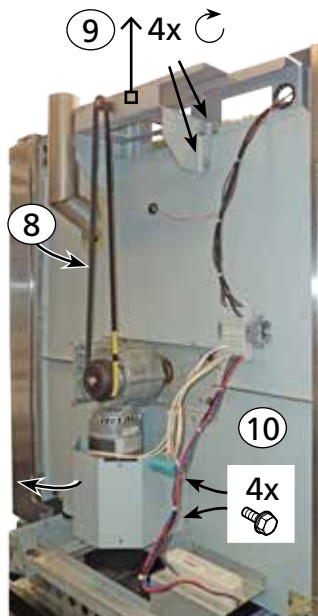
6

Aligning of the drive arm





7. Mount the lip-seal with mounting plate.  
Only if the above is OK!!! The screws should go in easily. No lateral force should come on the seal !! The seal has to be able to position itself around the shaft !! Move the motor, if necessary and go back to #5.  
*Exceptional it is allowed to widen the mounting holes a little in a certain direction in order to release lateral force.*
8. Put the belt back on.
9. Tension the belt with maximum handforce and tighten the 4 screws.
10. Mount the air guide with capacitor.
11. Check again the rotation of the rotor, but now also the spray head in the top.
12. Mount the side- and top panel.



Contents of service kit 9303015s.

- 9303015 Rotor motor.
- 9302031 Shaft seal
- 9077101 Capacitor
- 9124141 This instruction

## SERVICE KIT 9191202S, COMPRESSOR FOR MULTISSERIE AND ACR

### Contents:

1x 9191202 compressor (with 15uF capacitor and 115V cord mounted)

1x 9301086 Capacitor 20uF

1x 2005666 Bootlace ferrule

### Multisserie



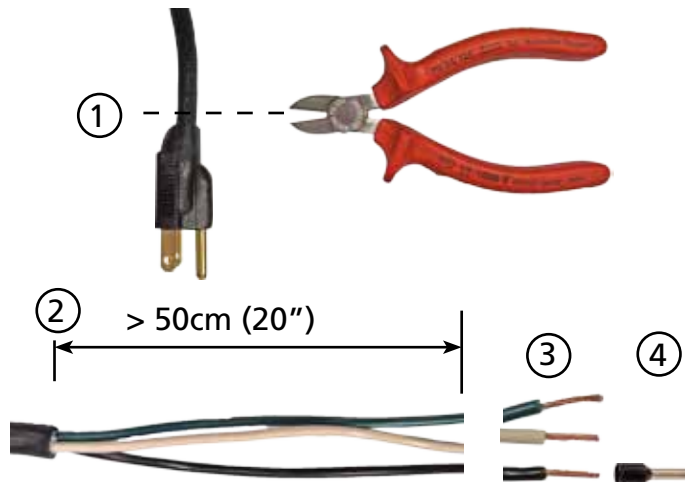
### ACR



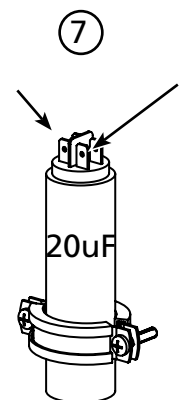
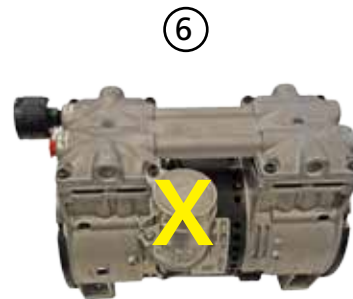
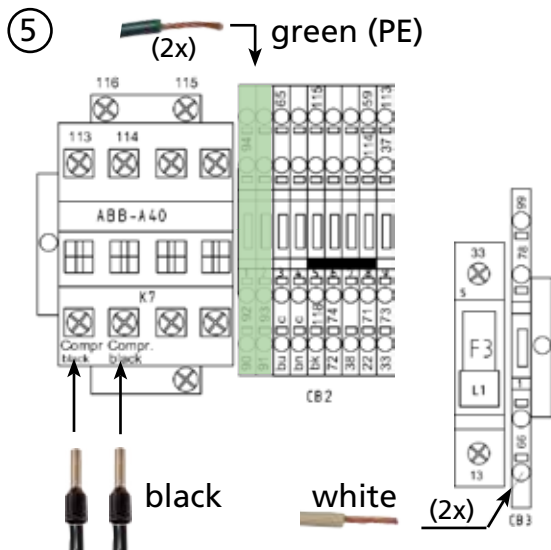
### For use in the Multisserie:

The compressor can be used in the way it is shipped (with the 15uF capacitor and 115V cord mounted).

### For use in the ACR, see below procedure!



1. The plug needs to be cut from the cable.
2. The cord needs to be dismantled over 50 cm (20") minimum.
3. Then strip the wire ends.
4. Use a bootlace ferrule on the black wire for use on the contactor
5. Connect the wires according the diagram.
6. Disconnect the 15uF capacitor
7. Mount and connect the 20uF capacitor



## BUZZER

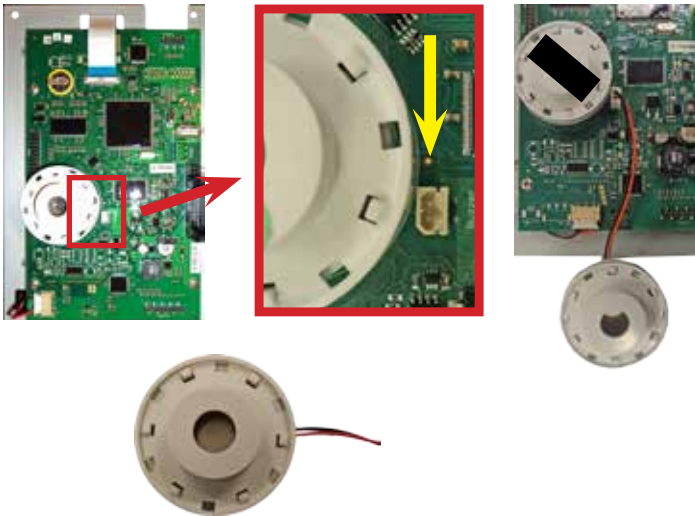


The buzzer is soldered on the pc-board. In case it is broken, a separate buzzer can be delivered with wiring and plug.

On the board, a socket is available for this purpose.

It is no problem to just plug it in and let it hang down.

Just in case the old buzzer starts buzzing again, it is recommended to put some tape over the front hole.

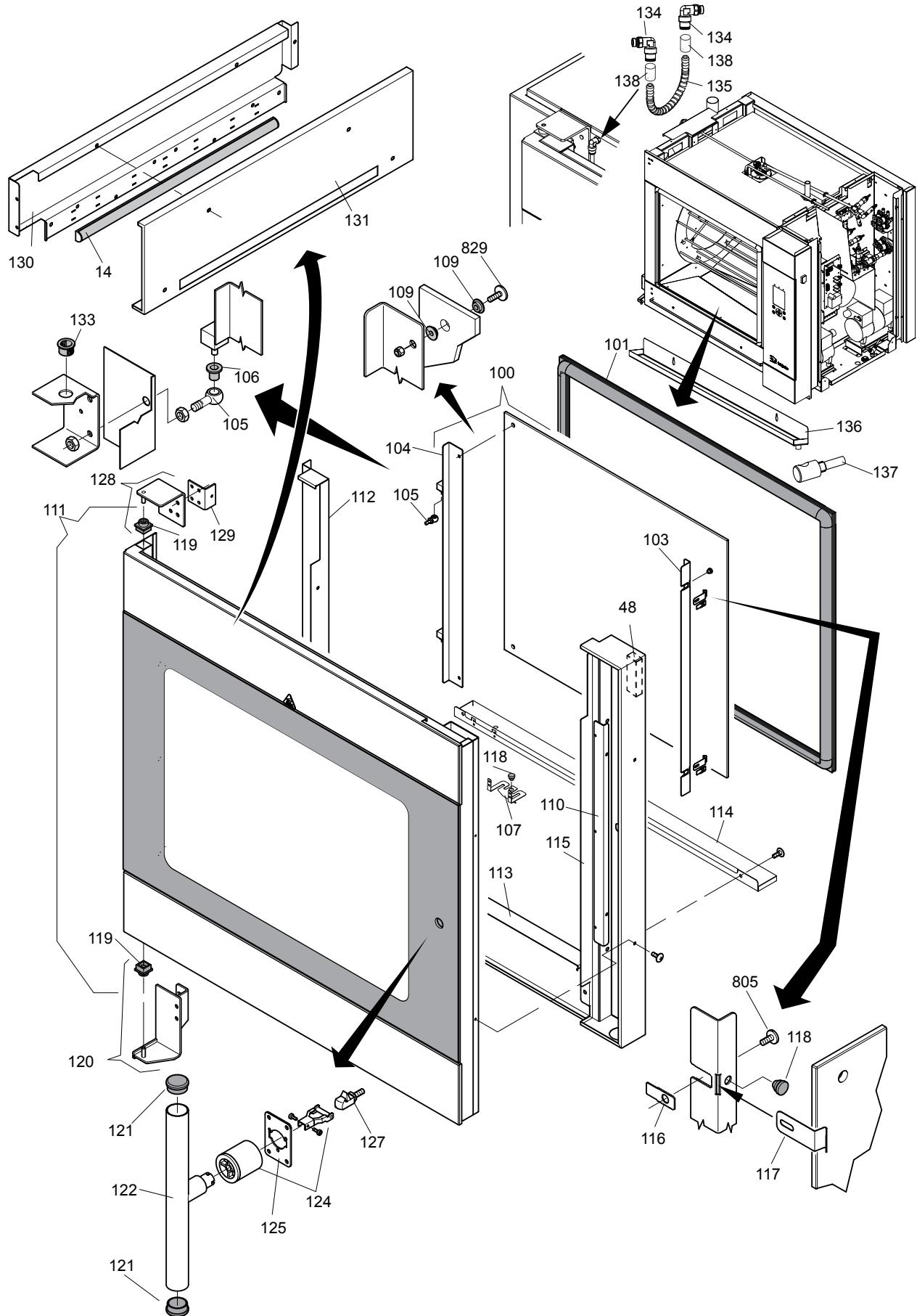




**ACR PARTSLIST  
ELECTRICAL PARTS**

Pos	Part number	Description	Qty	Unit	Priority
1	9172552s	CPU + LCD + buzzer	1	pc	1
2	9192202s	Power & I/O board, I-control	1	pc	1
3	9192203s	Extension I/O board	1	pc	1
4	9192204	Ribboncable with 3 connectors	1	pc	1
5	9172329	Keypad, set of 2	1	pc	1
6	9172362	Buzzer 12V	1	pc	2
7	9291012	USB Kabel	1	pc	
8	9291011	USB socket, panel mount	1	pc	
9	9291010	Cover USB socket	1	pc	
10	9192158	Temperature sensor	1	pc	1
11	9303015	Rotor motor with drive arm	1	pc	1
12	9077101	Capacitor 2,5 µF	1	pc	1
13	9302070	LED Driver 100/240Vac - 48V 700mA Dc	1	pc	2
14	9302071	LED light bar	5	pc	2
17	9301111s	Pneumatic 3/2 Solenoid valve, 24V=	1	pc	
18	9191200	Valve, quadruple 110-127V60Hz	1	pc	1
19	9191199	Valve, double inlet 110-127V60Hz	1	pc	1
21	9301009	Pump 24VDC	2	pc	1
22	9171110	Terminal block, 2 pole porcelain	1	pc	
23	9191202	Compressor 20psi 115V60Hz 124,5ltr/min	2	pc	2
24	9301086	Capacitor 20µF 450V		pc	1
25	9301011	Motor, blower	1	pc	1
26	9301013	Capacitor 16µF	1	pc	1
27	9191188	Thermostat with reset 360°C	1	pc	1
28	9301004	Valve 3/4", 24VDC motor controlled	2	pc	1
29	9302045s	Heating element 10,8kW 208V	1	pc	1
31	9191222	Endclamp DIN-rail	8	pc	
32	9191239	Rail terminal, 4p Green	2	pc	
33	9191240	Rail terminal, 4p Grey	15	pc	
34	9191223	Endcap, railterminal	3	pc	
35	9291140	Relay AB700-HK	6	pc	1
36	9291141	Socket, relay AB700-HN	6	pc	
38	9191207	Contacteur	1	pc	1
39	9191229	Fuse holder CHCC2	1	pc	
41	9191231	Fuse 10A, FNQ-R-10A	1	pc	1
42	9191204	Terminal block, 1-2-3-4	2	pc	
44	9191236	Bridge, 4 pole	1	pc	
45	9301033	Power supply, 24VDC	1	pc	2
46	3500020	Reed switch	1	pc	1
47	9300416	Bracket, reed switch	1	pc	
48	9191182	Magnet 36x15x11	1	pc	
49	9194382	Protection PT1000 sensor	1	pc	
50	9308018	Control panel ass.	1	pc	1
51	9070044	Connecting cable 5x4 <sup>2</sup> with Cee plug 16A	1	pc	
52	9261022	Cable gland M25	1	pc	
53	9261023	Nut, cable gland M25	1	pc	
54	9191238	Bridge, 2 pole	2	pc	0
55	9309019	ass. Frontpanel customer side	1	pc	1
56	9291002	Mushroombutton	1	pc	2
57	9291003	Switch Rotor	1	pc	2
60	9301114	Relay Timer Omron	1	pc	x

ACR DOOR OPERATOR SIDE

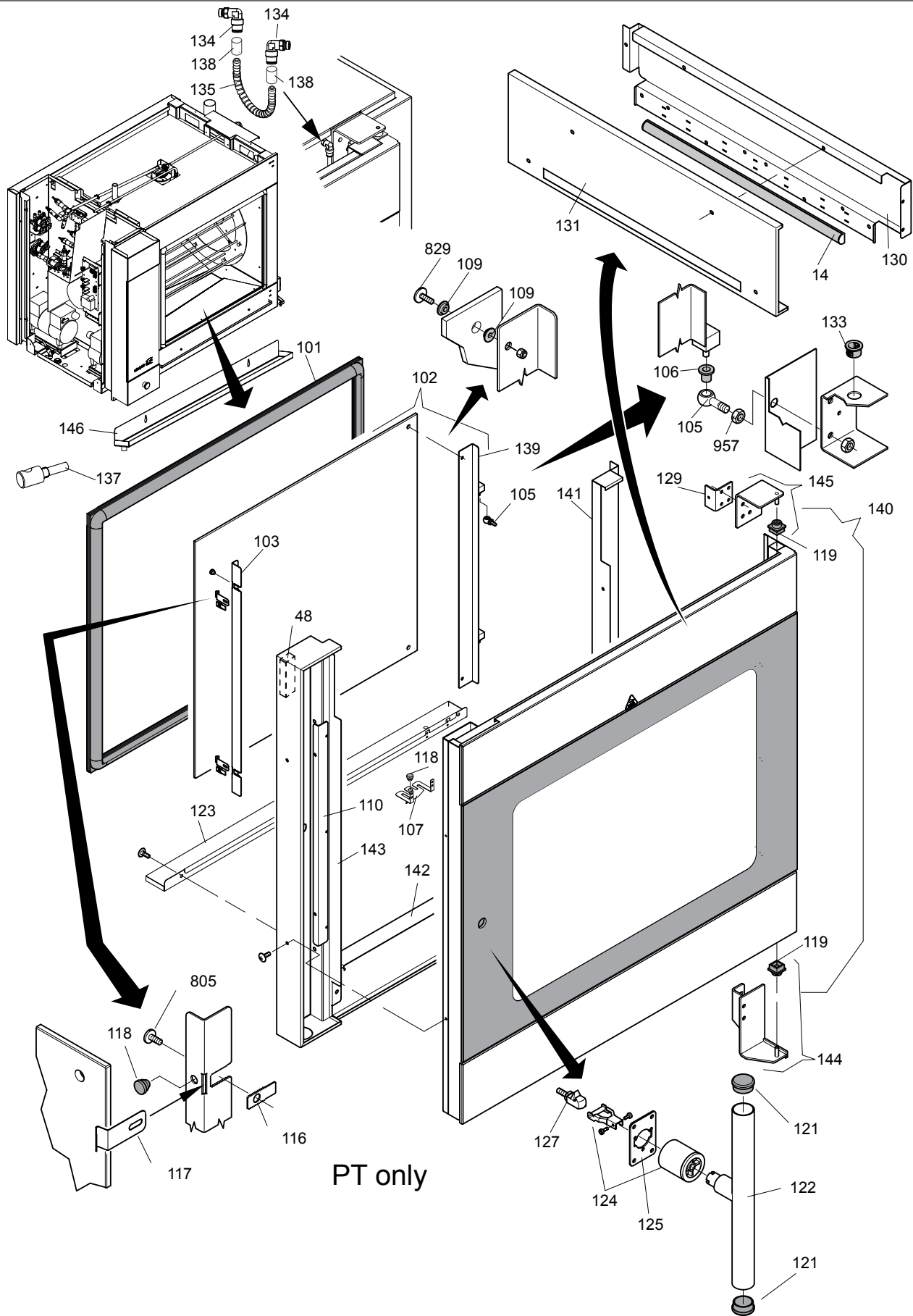




## ACR PARTSLIST DOOR OPERATOR SIDE

Pos	Part number	Description	Qty	Unit	Priority
14	9302071	LED Bar (Clips)	5	pc	2
48	9191182	Magnet 36x15x11	1	pc	
100	9308016s	Ass. inner glass + hinge operator side	1	pc	2
101	9301014s	Doorgasket	1	pc	1
103	9304253	Support, inner glass, adjustable	1	pc	
104	9300441	Hinge Profile, inner door	1	pc	
105	3711012	Hinge bolt Ø8, M8x30	2	pc	
106	3711019	Collar bearing bush Ø20xØ18x12	2	pc	2
107	9304038	Spring Driptray	1	pc	
108	3702341	Collar bush 10x5x2,5		pc	
109	3702342	Collar bush, PTFE 10x5x3,5	4	pc	1
110	9304254	Mounting Profile	1	pc	
111	9308012s	Outer door ass. Operator side	1	pc	2
112	9304244	Cover Profile left	1	pc	
113	9304245	Cover Bottom	1	pc	
114	9304034	Driptray inner door SB, with valve	1	pc	
114	9304246	Driptray untill serial nr. 100065964			
115	9300447	Ass. Cover Closure	1	pc	
116	3714170	Adjusting plate, Inner door	2	pc	
117	9304249	Latch	2	pc	2
118	3712021	Bumper, silicon	3	pc	2
119	9301036	Hinge	2	pc	2
120	9300444s	Ass. Hinge Bottom	1	pc	
121	2103209	Finishing plug	2	pc	
122	9300446	Ass. Doorhandle	1	pc	
124	3711023	Doorlock	1	pc	1
125	9304239	Mounting plate	1	pc	
127	9303029	Doorcatch, 1 position	1	pc	1
128	9300443s	Ass. Hinge Top	1	pc	
129	9304230	Adjusting plate	1	pc	
130	9304266	Light Fixture	1	pc	
131	9304267	Cover Light Fixture	1	pc	
133	9082211	Grommet		pc	
134	9301084	Elbow adapter, 1/4"x8mm revolving	2	pc	
135	3701236	Tube stainless steel, 7mm flex	0,2	m	
136	9304206	Driptray casco, ass.	1	pc	
137	9302015	Tube, drainage	1	pc	
138	8030697	Shrink tube	2	cm	

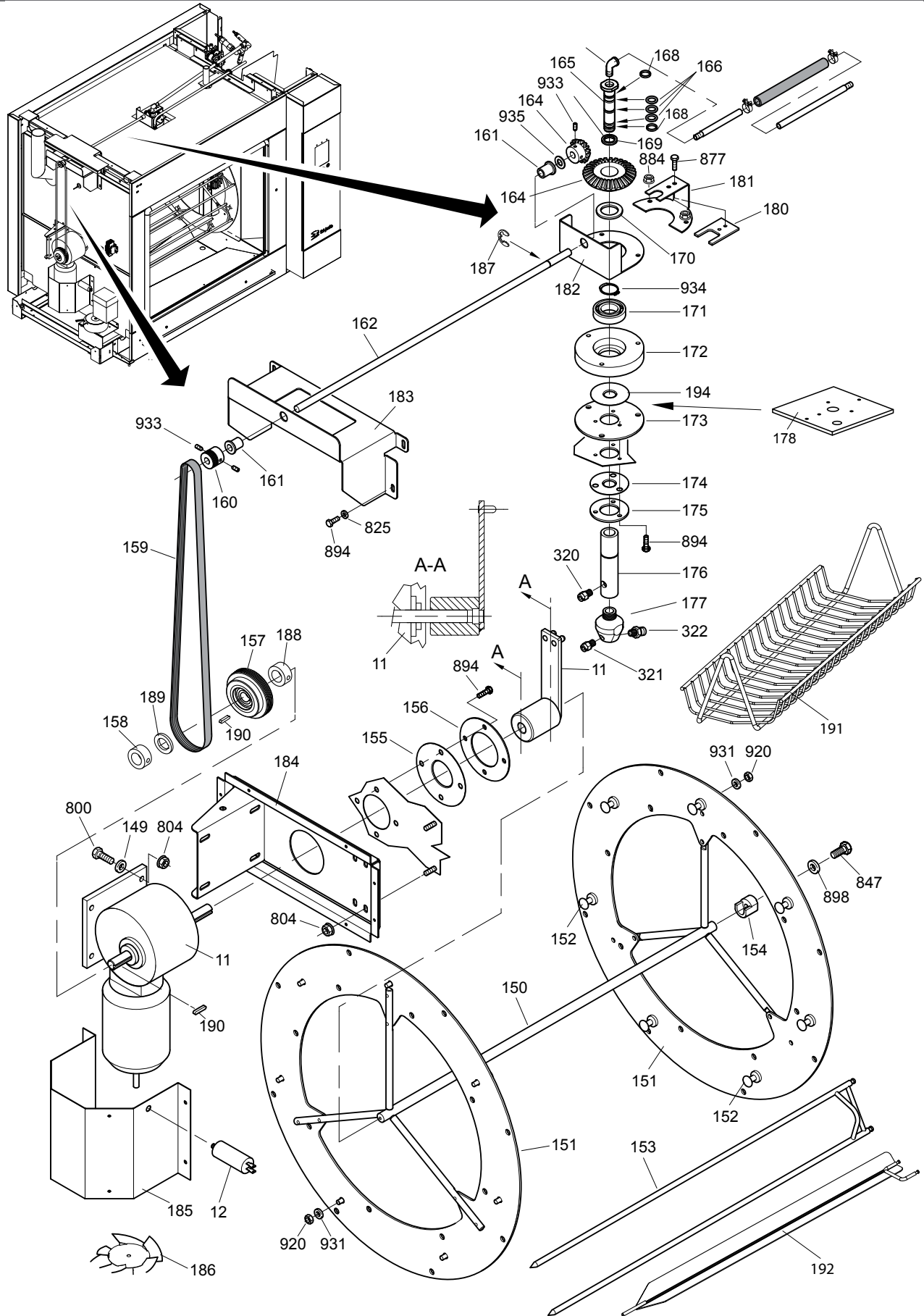
**ACR CUSTOMER SIDE (PT ONLY)**



### ACR PARTSLIST CUSTOMER SIDE (PT ONLY)

Pos	Part number	Description	Qty	Unit	Priority
14	9302071	LED Bar (Clips)	5	pc	2
48	9191182	Magneet 36x15x10 neo	1	pc	
101	9301014s	Doorgasket	1	pc	1
102	9308017s	ass. inner glass + hinge customer side	1	pc	2
103	9304253	Support, inner glass, adjustable	1	pc	
105	3711012	Hinge bolt Ø8, M8x30	2	pc	
106	3711019	Collar bearing bush Ø20xØ18x12	2	pc	2
107	9304038	Spring Dripray	1	pc	
108	3702341	Collar bush 10x5x2,5		pc	
109	3702342	Collar bush, PTFE 10x5x3,5	4	pc	1
110	9304254	Mounting Profile	1	pc	
116	3714170	Adjusting plate, Inner door	2	pc	
117	9304249	Latch	2	pc	2
118	3712021	Bumper, silicon	3	pc	2
119	9301036	Pivot bushing	2	pc	2
121	2103209	Finishing plug	2	pc	
122	9300446	Ass. Doorhandle	1	pc	
123	9304207	Dripray inner door PT	1	pc	
123	9304246	Dripray untill serial nr. 100065964			
124	3711023	Doorlock	1	pc	1
125	9304239	Mounting plate	1	pc	
127	9303029	Door catch, 1 position	1	pc	1
129	9304230	Adjusting plate	1	pc	
130	9304266	Light Fixture	1	pc	
131	9304267	Cover Light Fixture	1	pc	
133	9082211	Grommet		pc	
134	9301084	Elbow adapter, 1/4"x8mm revolving	2	pc	
135	3701236	Tube stainless steel, 7mm flex	1	pc	
137	9302015	Tube, drainage	1	pc	
138	8030697	Shrink tube	4	cm	
139	9300457	Ass. Hinge Profile	1	pc	
140	9308013s	Ass. outer door customer side	1	pc	
141	9304284	Cover hinge customer side	1	pc	2
142	9304285	Cover Bottom	1	pc	
143	9300459	Cover Closure ass.	1	pc	
144	9300456s	Ass. Hinge Bottom back	1	pc	
145	9300455s	Ass. Hinge Top back	1	pc	
146	9304208	Dripray Casco back	1	pc	

ACR ROTATING PARTS

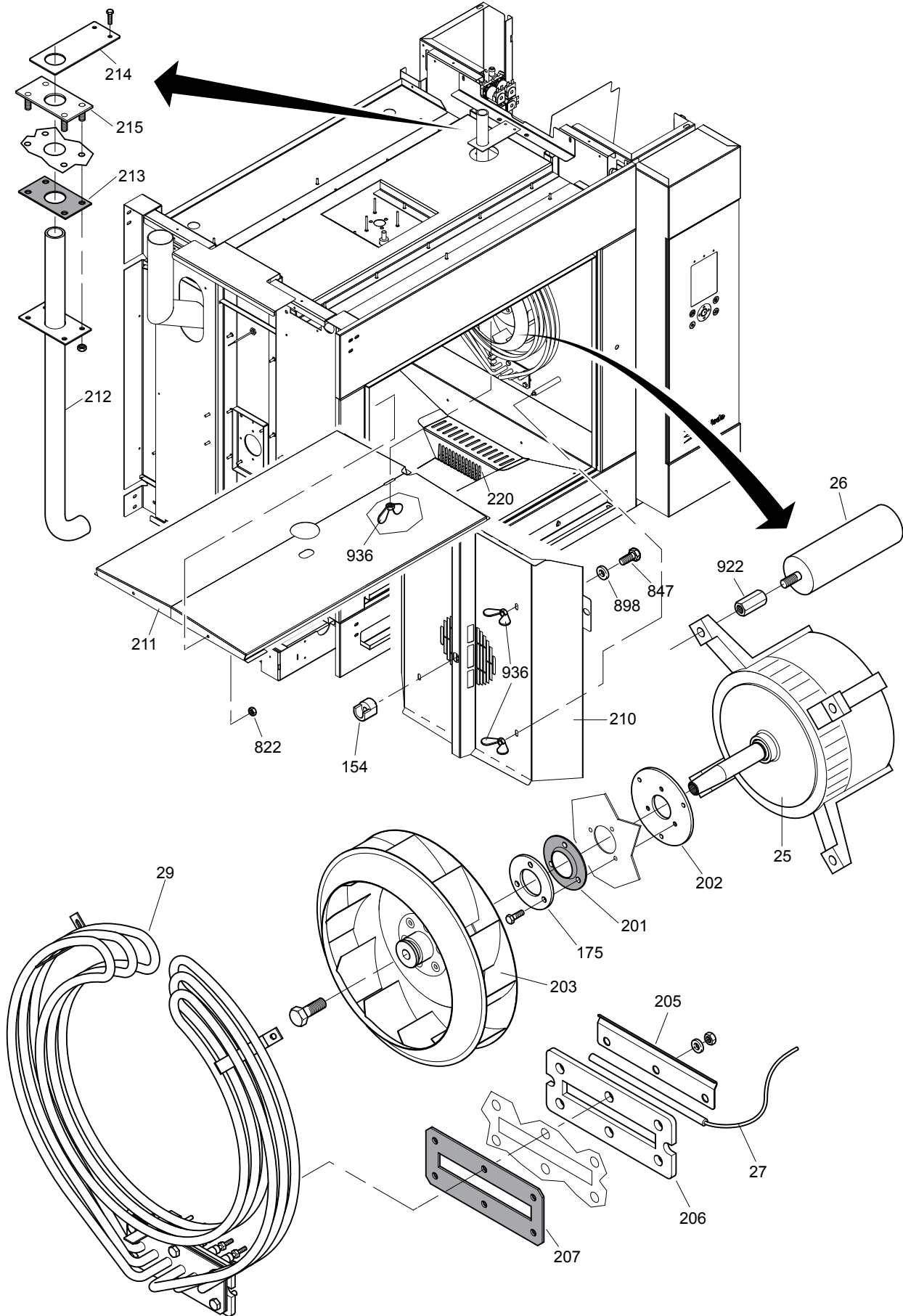


## ACR PARTSLIST ROTATING PARTS

Pos	Part number	Description	Qty	Unit	Priority
11	9303015s	Rotor motor with drive arm	1	pc	1
12	9077101	Capacitor 2,5 uF	1	pc	1
149	9294083	Washer Ø15xø6x3mm	4	pc	
150	9070272	Rotor shaft, with arms, polished	1	pc	
151	9174623	Rotor disc, 8-spits	2	pc	
152	9302027	Support Pin	14	pc	
153	9172153	Spit, heavy			
153	9172154	Spit, heavy, packed per 7 pcs			
154	9302039	Bearing, rotor shaft	1	pc	2
155	9302031	Seal, drive motor	1	pc	1
156	9304017	Mountingplate, lipseal	1	pc	
157	9300249	Pulley	1	pc	
158	9301123	Adjusting ring with screw	1	pc	
159	9301081	Ribbed belt	11	pc	
160	9301045	Pulley	1	pc	
161	9301050	Collar bearing	2	pc	
162	9303014	Drive shaft	1	pc	
164	9301001	Cog wheel, set, conical	1	pc	
165	9302012	Joint	1	pc	1
166	9301110	O-ring 11x3, Kalrez	2	pc	1
168	9302085	Seal Ring	1	pc	1
169	9302086	Ring Spray Tube	1	pc	1
170	9304216	Washer, Ø38xø25,5 x3mm	1	pc	1
171	9301000	Ball bearing, groove 6005Z	1	pc	1
172	9302014	Bearingblock	1	pc	
173	9304001	Mounting disk	1	pc	0
174	9172525	Lipseal sprayhead	1	pc	1
175	9304021	Mounting lipseal sprayhead	1	pc	
176	9302011	Sprayhead, vertical	1	pc	2
177	9302010	Sprayhead	1	cm	
178	9302088	Insulation rotating parts	1	pc	
180	9304060	Locking plate	1	pc	
181	9304059	Bracket, top axle	1	pc	
182	9304068	Mounting plate bevel gear	1	pc	
183	9304078	Mounting plate axle bevel gear	1	pc	
184	9300404	Motorsupport	1	pc	
185	9304076	Air duct rotomotor	1	pc	
186	9302033	Blade, fan 130 mm	1	pc	
187	9301113	Segerring RVS ø10	1	pc	2
188	9303073	Adjusting ring small with screw	1	pc	
189	9304441	Adjusting ring for freewheel	1	pc	
190	9301124	Parallel keys	1	pc	
191	9172134	Multi-purpose basket			
192	9112480	V-spit			
194	9301125	Shaft seal	1	pc	1

Pos  
8xx-9xx  
See fasteners

ACR HEATING SYSTEM



## ACR PARTSLIST HEATING SYSTEM

Pos	Part number	Description	Qty	Unit	Priority
25	9301011	Blower Motor +Bolt M10x20+Washer 22x10x1,6	1	pc	1
26	9301013	Capacitor 16µF	1	pc	1
27	9191188	Thermostat with reset, 360°C	1	pc	1
29	9302045s	Heating element 10,8kW 208V	1	cm	1
154	9302039	Bearing, rotor shaft	1	pc	2
201	9192270	Lipseal, fan	1	pc	1
202	9304071	Mounting plate fanseal	1	pc	1
203	9301012	Blade, fan	1	pc	2
205	9304223	Clamp plate hi-limit probe	1	pc	
206	9294168	Mounting plate, heater	1	pc	
207	9194489	Gasket, heating element	1	pc	1
210	9300439	Fan plate	1	pc	
211	9304229	Air guide plate, top	1	pc	
212	9300438	Air inlet pipe	1	pc	
213	9302043	Seal, steam pipe	1	pc	1
214	9304187	Bracket	1	pc	
215	9304232	Mounting plate, inlet pipe	1	pc	
220	9304196	Grid, drain	1	pc	2

Pos

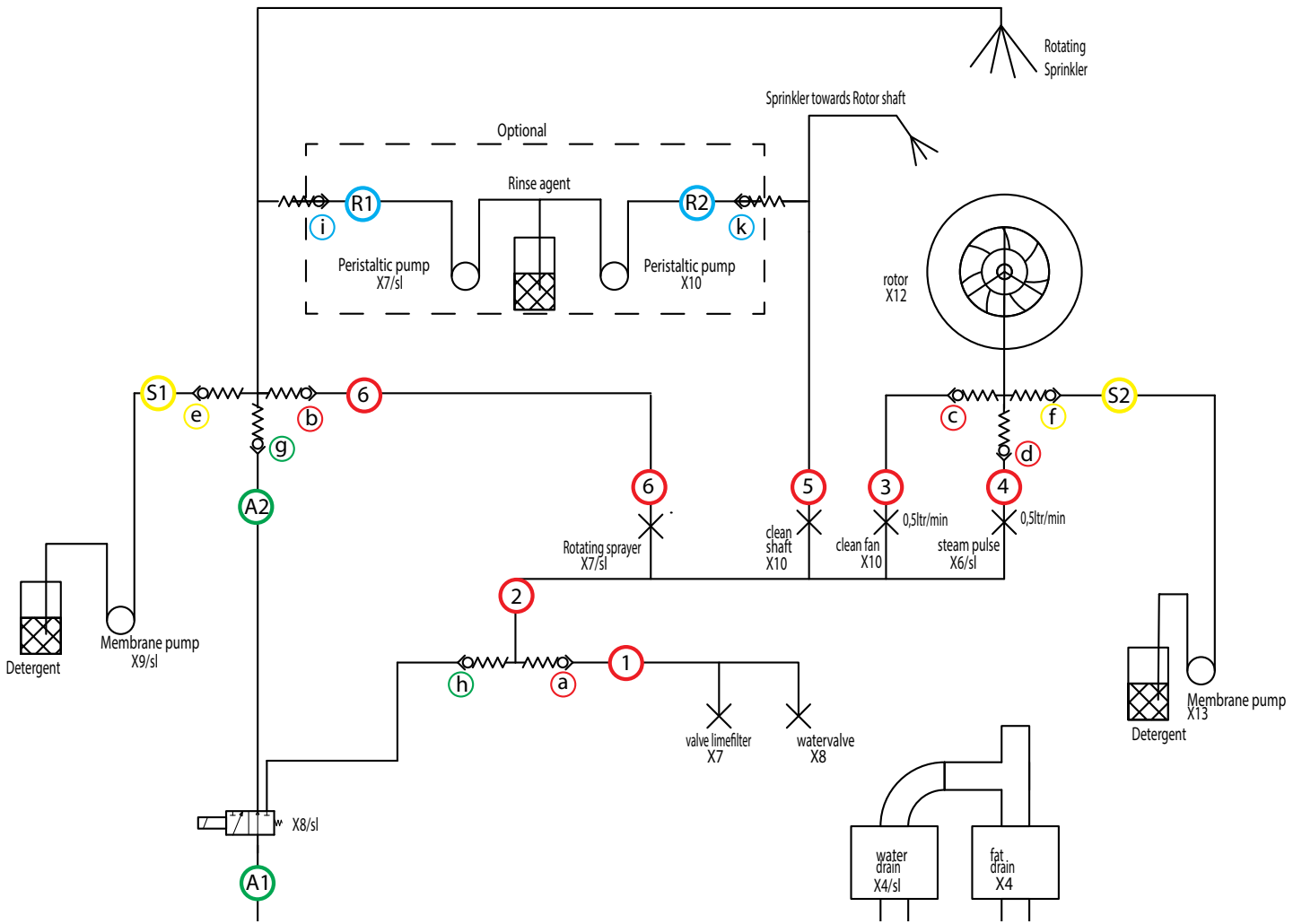
8xx-9xx

See fasteners



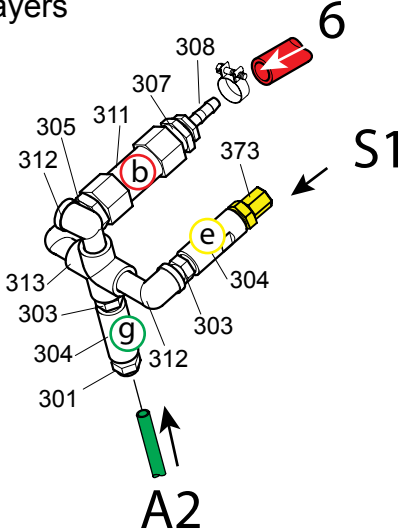


# ACR HYDRO PNEUMATIC OVERVIEW

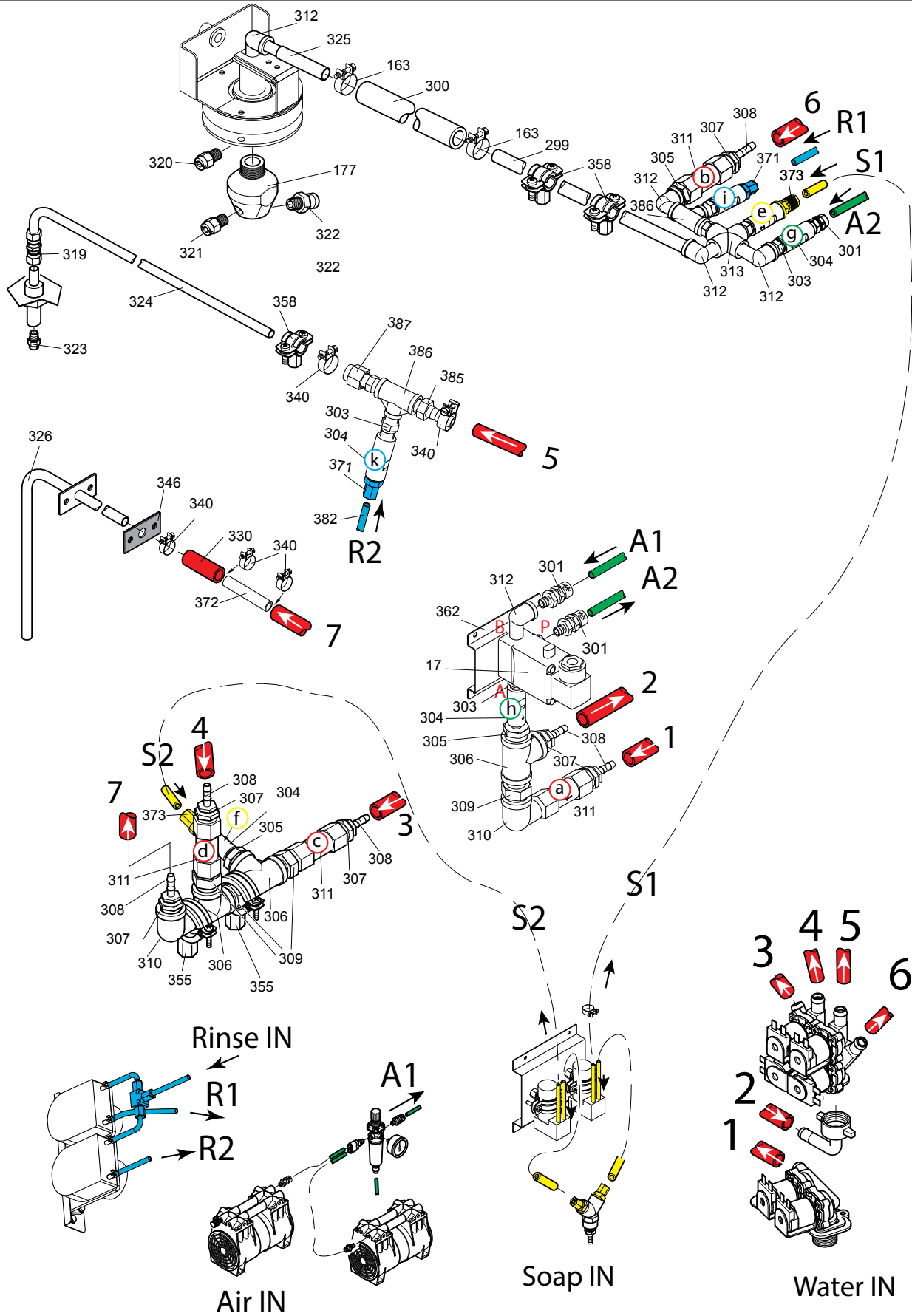


Pos	Part number	Description
	9300270s	Rinse agent kit
		see next pages for part numbers

Older units might have the below assembly regarding the input valves for the rotating sprayers



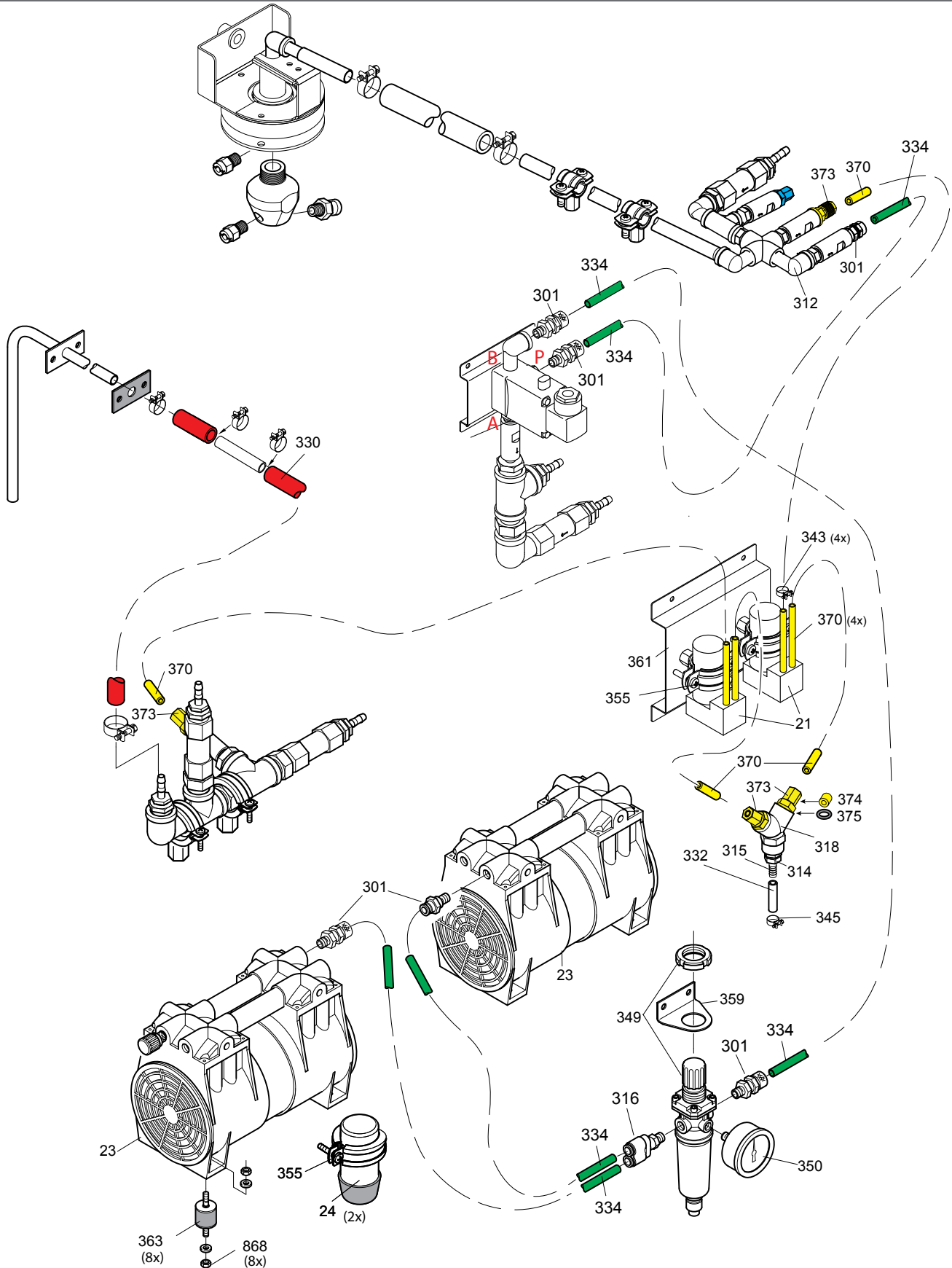
ACR MIXING TUBES (FROM 2017)



## ACR PARTSLIST MIXING TUBES CLEANING

Pos	Part number	Description	Qty	Unit	Priority
17	9301111s	Pneumatic 3/2 Solenoid valve, 24V=	1	pc	1
163	9301109	Hose Clamp 21-23 mm,	2	pc	
177	9302010	Sprayhead	1	pc	
299	9303018	Pipe inlet 1/4"	1	pc	
300	9303019s	Hose Ø23xø13x250mm	1	pc	
301	9301075	Straigth adapter, 8x1/4"	6	pc	
303	9301022	Double-nipple, 1/4" BSP SS	3	pc	
304	9301078	Check valve 1/4" (F)	3	pc	1
305	3721125	Nipple adapter, 1/2" x 1/4"	2	pc	
306	3721046	Tee-female 1/2" BSP SS	3	pc	
307	9301035	Reducing ring 1/2" x 3/8"	6	pc	
308	9301034	Hose pillar 3/8"	6	pc	
309	3721047	Double-nipple, 1/2" BSP SS	4	pc	
310	3721050	Elbow, 1/2" (F-M) BSP	2	pc	
311	9301003	Check valve 1/2" (F)	4	pc	1
312	3721037	Elbow, 1/4" (F-M) SS	3	pc	
313	9301023	X-female 1/4"	1	pc	
319	9302040	Straigth compression fitting, 10mm	1	pc	
320	9191088	Sprayer F6510	1	pc	2
321	9301103	Sprayer F50/06	1	pc	2
322	9301007	Spoon Sprayer B1/8 F	1	pc	2
323	9301008	Sprayer F65/30	1	pc	2
324	9302030	Sprayer pipe	1	pc	2
325	9303011	Pipe inlet 1/4"	1	pc	
326	9300400	Steam injection pipe	1	pc	2
330	3500049	Tube, 9,5 x 16 silibar red	2	m	
340	9191295	Hose clip, 15-17mm	10	pc	
346	3712003	Gasket, steaminjection pipe	1	pc	1
355	2650194	Suspension clip, 26-30	2	cm	
358	2650259	Suspension clip, 12-14	3	pc	
362	9304210	Mounting plate valve	1	pc	
372	9302073	Restriction	1	pc	
373	9301127	Plastic nipple, clamp 6mm	4	pc	1

ACR SOAP AND AIR



## ACR PARTSLIST SOAP AND AIR

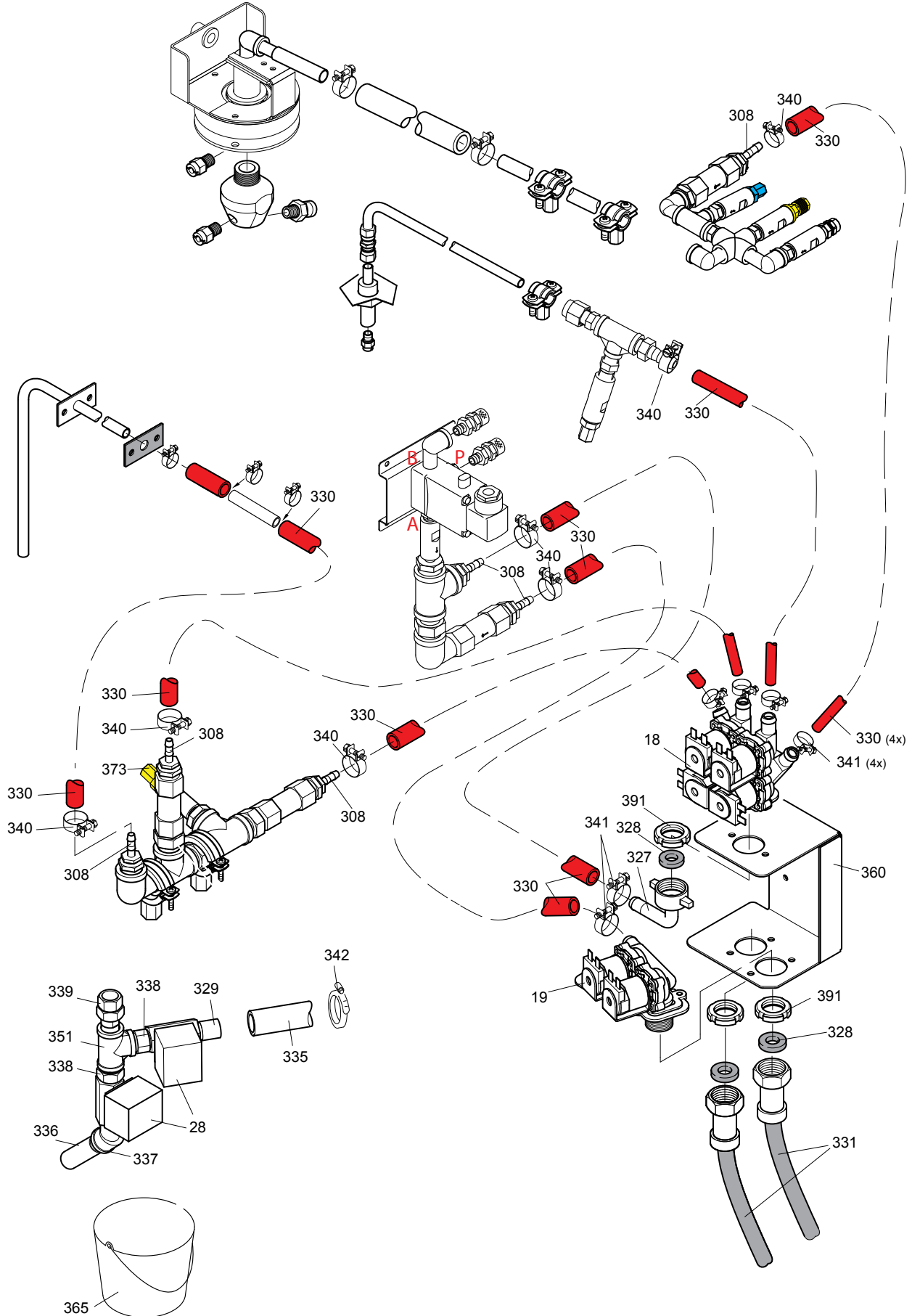
Pos	Part number	Description	Qty	Unit	Priority
21	9301009	Pump 24VDC	2	pc	1
23	9191202s	Compressor 20psi 115V60Hz 124,5ltr/min	2	pc	2
301	9301075	Straigth adapter, 8x1/4"	6	pc	
314	9301026	Reducing ring, 1/4" (M) x 1/8" (F) SS	1	pc	
315	9301024	Hose pillar, 1/8" SS	1	pc	
316	9301089	Y adapter, 1/4" (M)x (2x8)plug in	1	pc	
318	9301080	Y-adapter 3x 1/4"	1	pc	
330	3500049	Tube, 9,5 x 16 silibar red	2	m	
332	9301043	Hose	1m	pc	1
334	9301055	Hose, 8mm ptfе	1,5	m	2
343	9301099	Hose clip, spring, 6,5/7,2	4	pc	
345	9301062	Hose clip, spring, 9,3/9,9	1	cm	
349	9301094	Filter Reducer, 1/4" (F)	1	pc	2
350	9301095	Gauge			
355	2650194	Suspension clip, 26-30	5	pc	
359	9301096	Mounting bracket	1	pc	
361	9304205	Mounting plate	1	pc	
370	9191157	Tube 4x6 mm teflon	3	m	1
373	9301127	Plastic nipple, clamp 6mm	4	pc	1
374	9301128	Clamp ring 6 mm	4	pc	1
375	9301129	O-ring	4	pc	1

Pos

8xx-9xx

See fasteners

# ACR WATER AND DRAIN



## ACR PARTSLIST WATER AND DRAIN

Pos	Part number	Description	Qty	Unit	Priority
18	9191200	Valve, quadruple 110-127V60Hz	1	pc	1
19	9191199	Valve, double inlet 110-127V60Hz	1	pc	1
28	9301004	Valve 3/4", 24VDC motor controlled	2	pc	1
307	9301035	Reducing ring 1/2" x 3/8"	6	pc	
308	9301034	Hose pillar 3/8"	6	pc	
327	9301077	Swivel adapter, elbow 3/4"x12	1	pc	
328	9191227	Gasket Ø24xø16x2	3	pc	
329	9301006	Welding nipple 3/4" SS	1	pc	
330	3500049	Tube, 9,5 x 16 silibar red	2	m	
331	9191203	Water supply hose	4	pc	
335	9301059	Hose, drain	1,5	m	
336	9303010	Welding nipple, 3/4" SS	1	pc	
337	9301054	Elbow, 45°, 3/4" (F-M), SS	1	pc	
338	3721029	Nipple adapter hexagon 3/4" (M-M) SS	2	pc	
339	9301027	Swivel union fitting 3/4" (F-M) SS	1	pc	
340	9191295	Hose clip, 15-17mm	10	pc	
341	9191294	Hose clip, 17-19mm	5	pc	
342	6000032	Hose clip, 26-38	1	pc	
351	9301028	Tee-female, 3/4", BSP SS	1	pc	
360	9304203	Mounting plate valve	1	pc	
365	9191099	Bucket, plastic, 11,3 ltr	1	pc	

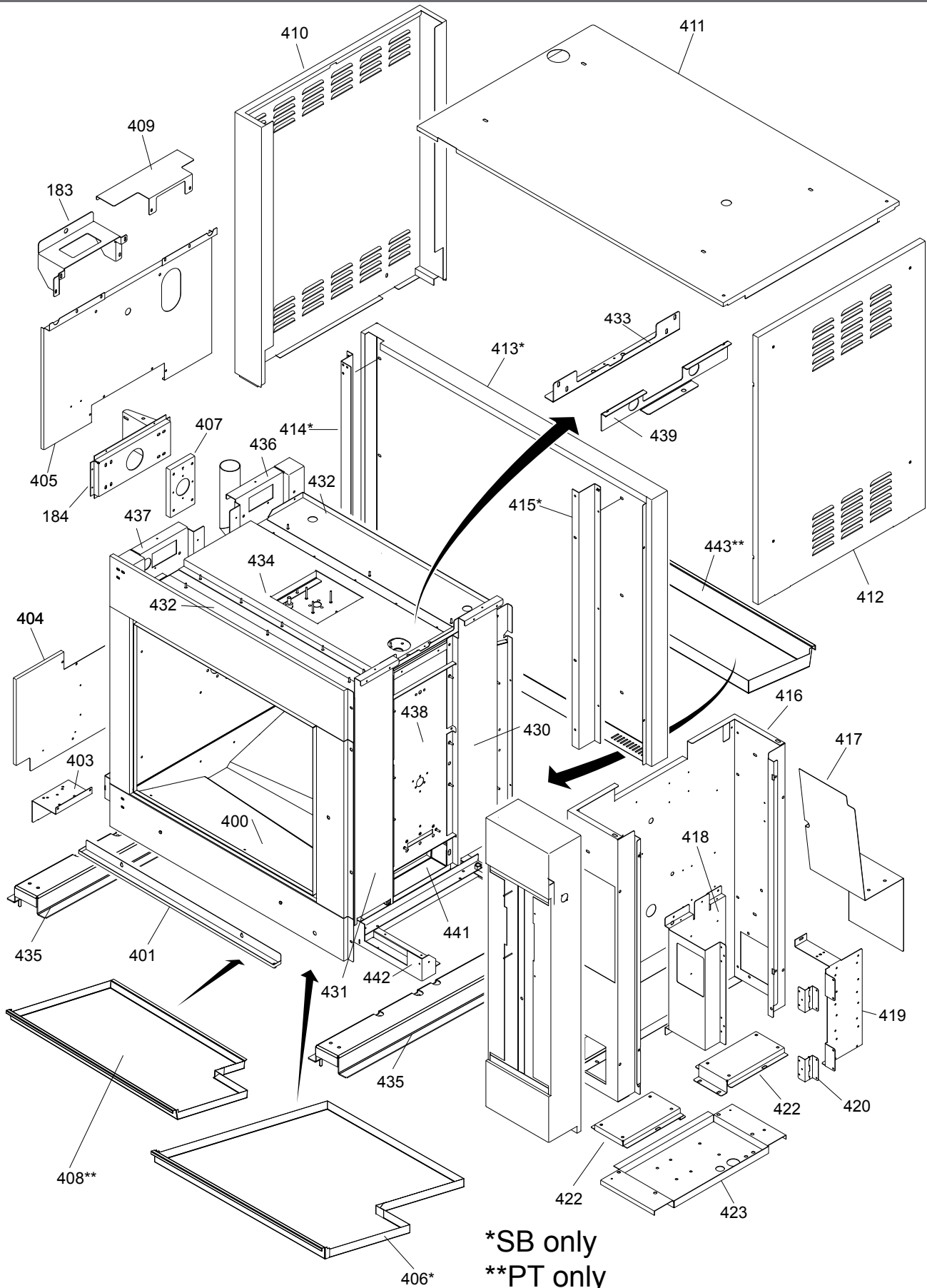




## ACR PARTSLIST RINSE AGENT

Pos	Part number	Description	Qty	Unit	Priority
303	9301022	Double-nipple, 1/4" BSP SS	3	pc	
304	9301078	Check valve 1/4" (F)	3	pc	1
330	3500049	Tube, 9,5 x 16 silibar red	2	m	
340	9191295	Hose clip, 15-17mm	10	pc	
371	9301112	Plastic nipple push-on 1/4"x6mm	4	pc	1
				pc	
380	9301072	Peristaltic Pump 115 V		pc	2
381	9304432	Mountingplate		pc	
382	9301119	Tube PVC 6x4mm		pc	1
383	9301120	Hose clamp		pc	2
384	9301117	Tee, 3x6mm clamp		pc	2
385	9301121	Hose pillar 1/4"x10mm		pc	
386	3721038	Tee, female 3x 1/4"		pc	
387	9301118	Nipple adapter 1/4"x10mm compression		pc	2
388	9191326s	Exchange tube (set 2 pcs)			
389	9192395	Aggravation, suction hose	1	pc	
390	9191327	Stiffener sleeve	1	pc	
	9300270s	Rinse agent kit			

**ACR SHEET METAL**

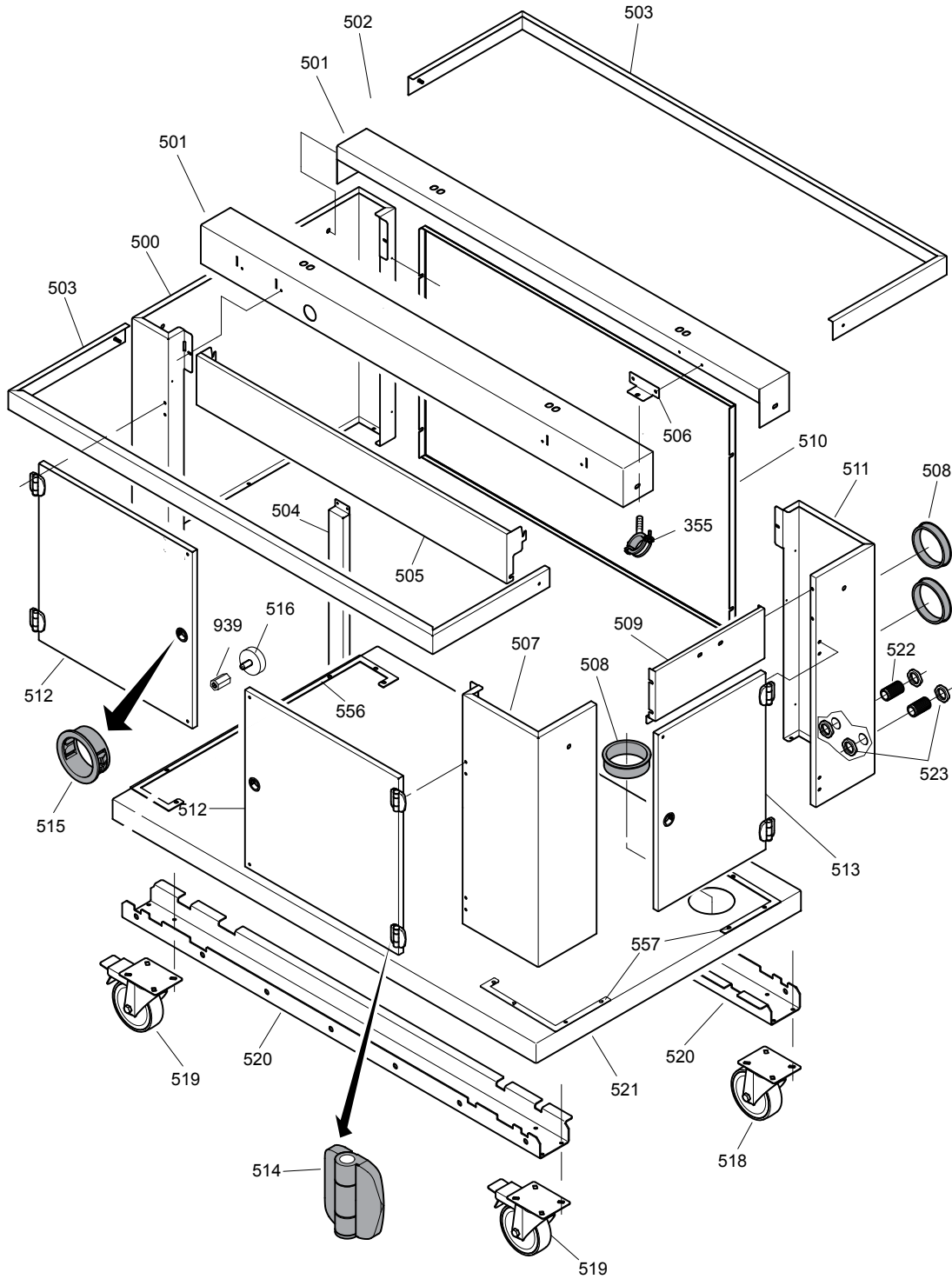


\*SB only  
 \*\*PT only

## ACR PARTSLIST SHEET METAL

Pos	Part number	Description	Qty	Unit	Priority
183	9304078	Mounting plate shaft	1	pc	
184	9300404	Motorsupport	1	pc	
400	9300437	Ass. Casco SB	1	pc	
400	9300463	Ass. Casco PT	1	pc	
401	9300420	Driptray casco,	1	pc	
403	9304186	Bracket Transformer	1	pc	
404	9304016	Sideplate isolation	1	pc	
405	9304015	Sideplate isolation	1	pc	
406	9300453	Ass. Drawer	1	pc	
407	9304013	Mounting bracket	1	pc	
408	9300464	Ass. Drawer PT	1	pc	
409	9304088	Mounting plate ceili	1	pc	
410	9304258	Side Panel Left	1	pc	
411	9304231	Top plate	1	pc	
412	9304259	Side Panel Right	1	pc	
413	9304159	Back wall	1	pc	
414	9304157	Mounting profile	1	pc	
415	9304158	Mounting profile SB	1	pc	
416	9304020	Machine Casing	1	pc	
417	9304167	Protection plate	1	pc	
418	9304084	Electrical panel	1	pc	
419	9304085	Electrical panel pri	1	pc	
420	3701212	Hinge 80mm	2	pc	
422	9304061	Mounting plate pump	2	pc	
423	9304063	Mounting plate	1	pc	
430	9304019	Reinforcement Right	1	pc	
431	9304018	Reinforcement right	1	pc	
432	9304224	Cover plate, insulation	2	pc	
433	9304067	Mounting bracket	1	pc	
434	9304138	Reinforcement ceiling	1	pc	
435	9304256	Suspension bracket	1	pc	
436	9304008	Reinforcement left	1	pc	
437	9304009	Reinforcement left	1	pc	
438	9304010	Reinforcement right	1	pc	
439	9304320	Mounting plate	1	pc	
441	9304163	Mounting bracket	1	pc	
442	9300415	Composition Frame	1	pc	
443	9304269	Drawer Customer side	1	pc	

# ACR UNDERFRAME



## ACR PARTSLIST UNDERFRAME

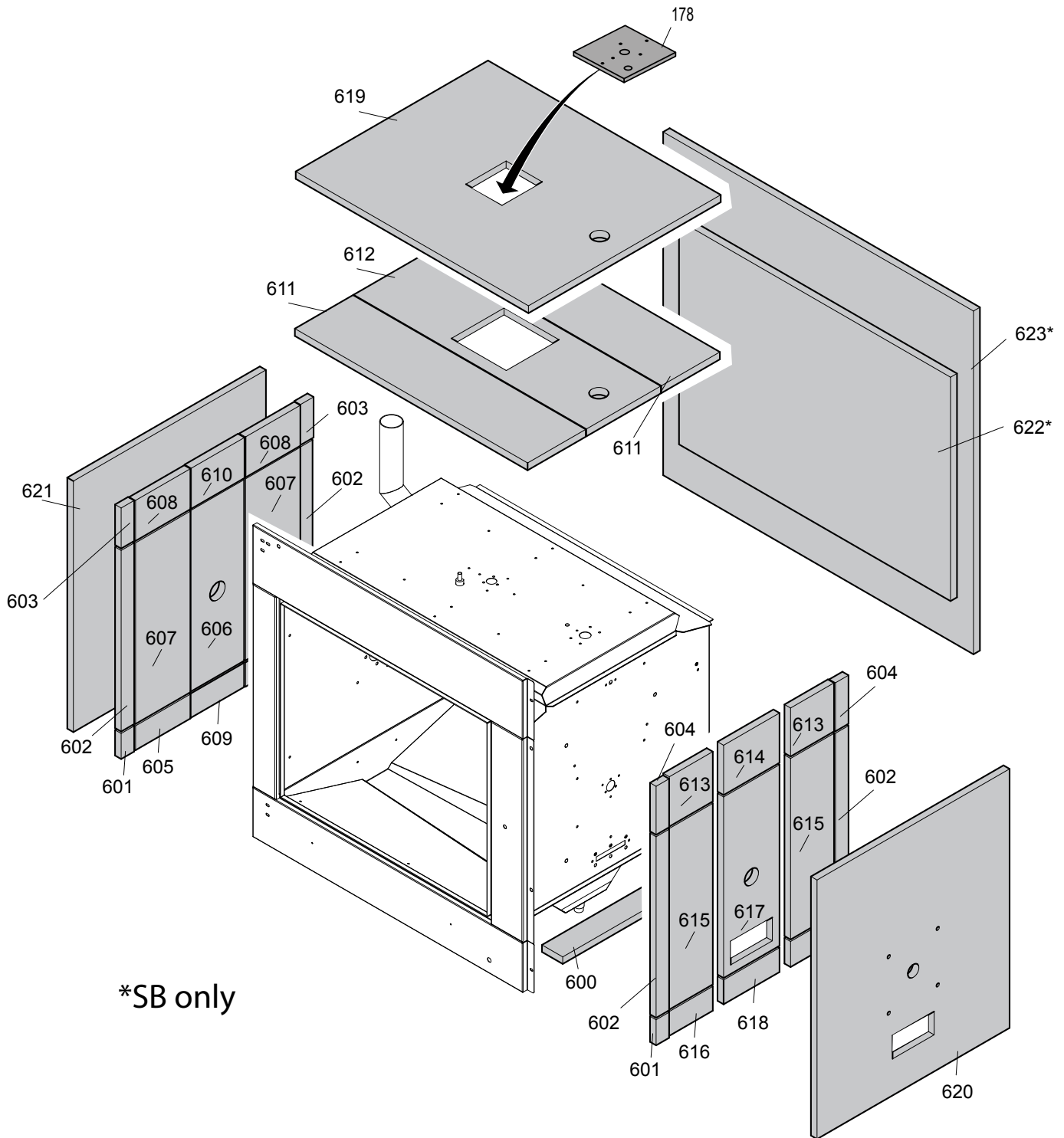
Pos	Part number	Description	Qty	Unit	Priority
355	2650194	Suspension clip, 26-30	1	pc	
500	9304103	Wall, side, left	1	pc	
501	9304110	Support	2	pc	
503	9304119	Edge, ornamental	2	pc	
504	9304143	Support	1	pc	
505	9304108	Plate, front	1	pc	
506	9304213	Mounting plate, flaps	1	pc	
507	9304104	Wall, side, right front	1	pc	
508	9171141	Grommet, Ø 88mm	3	pc	
509	9304107	Panel, side	1	pc	
510	9304109	Panel, rear	1	pc	
511	9304105	Wall, side, right rear	1	pc	
512	9304116	Door, front	2	pc	
513	9304106	Door	1	pc	
514	9191106	Hinge	6	pc	
515	9070840	Grommet, 25,5mm transit	3	pc	
516	9084077	Magnet	6	pc	
518	9191104	Castor	2	pc	
519	9191105	Castor with brake	2	pc	
520	9304101	Mounting plate, wheel	2	pc	
521	9304102	Base, underframe	1	pc	
522	9303028	Nipple, 3/4" BSP (30mm), SS	2	pc	
523	9194457	Nut 3/4"	4	pc	

Pos

8xx-9xx

See fasteners

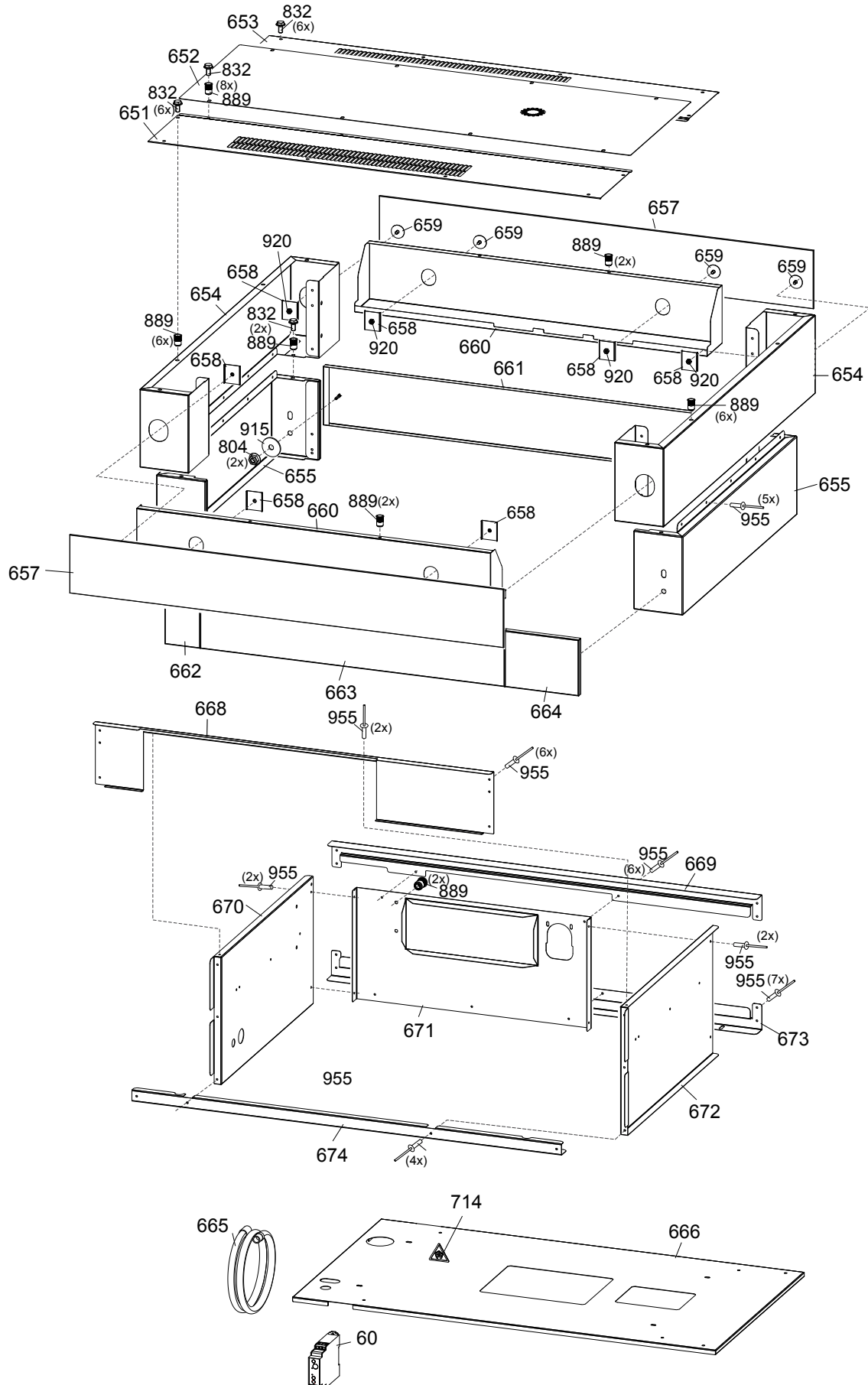
**ACR INSULATION**



## ACR PARTSLIST INSULATION

Pos	Part number	Description	Qty	Unit	Priority
600	9303041	insulation bottom	1	pc	
601	9303042	insulation	4	pc	
602	9303043	insulation	4	pc	
603	9303044	insulation	2	pc	
604	9303045	insulation	2	pc	
605	9303046	insulation	2	pc	
606	9303047	insulation	1	pc	
607	9303048	insulation	2	pc	
608	9303049	insulation	2	pc	
609	9303050	insulation	1	pc	
610	9303051	insulation	1	pc	
611	9303052	insulation top side	2	pc	
612	9303053	insulation top	1	pc	
613	9303054	insulation	2	pc	
614	9303055	insulation	1	pc	
615	9303056	insulation	2	pc	
616	9303057	insulation	2	pc	
617	9303058	insulation	1	pc	
618	9303059	insulation	1	pc	
619	9303060	insulation outside top	1	pc	
620	9303061	insulation outside right	1	pc	
621	9303062	insulation outside left	1	pc	
622	9303063	insulation SB	1	pc	
623	9303064	insulation SB	1	pc	

# ACR HOOD EXTERIOR





## ACR PARTSLIST HOOD EXTERIOR

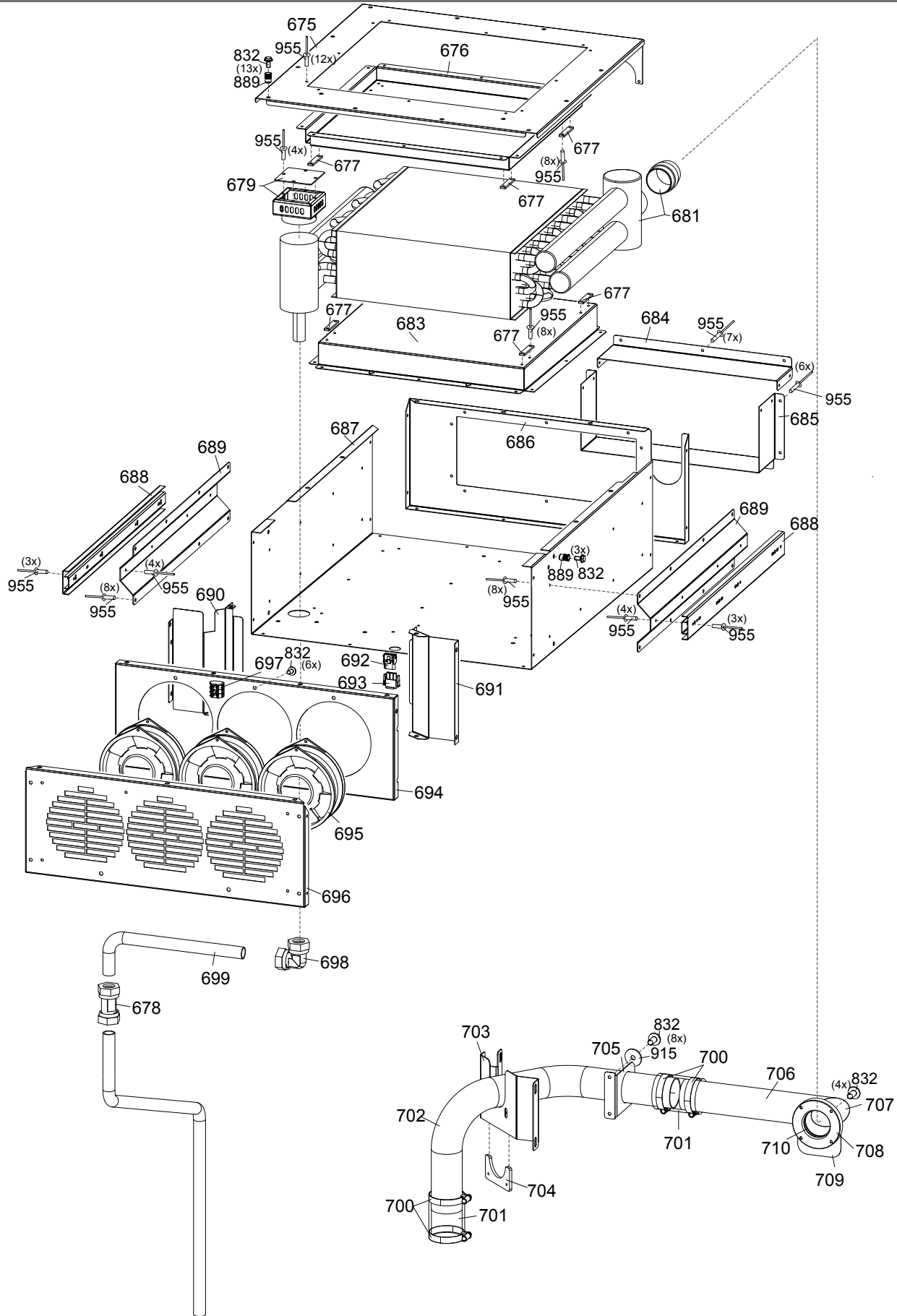
Pos	part number	Description	Qty	Unit	Priority
651	9304413	Top plate front for condensor	1	pc	
652	9304415	Top plate central for condensor	1	pc	
653	9304414	Topplate rear for condensor	1	pc	
654	9304402	Panel outside Left (U)	2	pc	
655	9304401	Panel outside Left (L)	2	pc	
657	9302102	Glass for Condensor hood	2	pc	
658	9274019	Bracket glass pane nock	8	pc	
659	9220408	Ass. glass-pane mounting	8	pc	
660	9304417	Mounting plate for glass	2	pc	
661	9304426	Cover plate hood	1	pc	
662	9304427	Cover front left	1	pc	
663	9304428	Cover front middle	1	pc	
664	9304429	Cover front right	1	pc	
665	3500054	Hose drain 2.5m 19 mm 2x straight	1	pc	
666	9304424	Top plate	1	pc	
667	9301114	Relay Timer Omron	1	pc	
668	9304434	Mounting strip front	1	pc	
669	9304409	Mounting strip rear (U)	1	pc	
670	9304410	Mounting plate Condensor housing (L)	1	pc	
671	9304412	Mounting plaat Condensor housing (B)	1	pc	
672	9304411	Mounting plate Condensor housing (R)	1	pc	
673	9304408	Mounting strip rear (L)	1	pc	
674	9304406	Mounting strip frontside (L)	1	pc	
714	9110860	Label self-adhesive, permanent, fan, 5 cm	1	pc	
804	4285092	Nut M6 hexagon self-locking	4	pc	
832	4288231	Screw M5x10 hexagon head L, tensilock	24	pc	
889	6802013	Nut rivet M5, AVK reduced	30	pc	
915	8047381	Washer M6 mudwing repair	4	pc	
920	0141547	Nut M8 hexagon DIN 934	8	pc	
955	9008217	Blind rivet 4x8,6 TAP D56BS, range 4,8	39	pc	

Pos

8xx-9xx

See fasteners

# ACR HOOD INTERIOR



## ACR PARTSLIST HOOD INTERIOR

Pos	Part number	Description	Qty	Unit	Priority
675	9194762	Cover plate, condensortray	1	pc	
676	9194761	Plate top, condensor	1	pc	
677	9194781	Positioning nock, condensor	8	pc	
679	9190549	Ass. condensation tray	1	pc	
681	9192334s	Ass. condensor+conus	1	pc	2
683	9194760	Bottom plate, condensor	1	pc	
684	9194796	Air guide plate, outlet condensor top	1	pc	
685	9194795	Air inlet plate	1	pc	
686	9194792	Back panel, condensortray	1	pc	
687	9194758	Tray, condensor	1	pc	
688	9281020	Slide drawer, set 2 pcs	1	pc	
689	9194767	Support drawer slide	2	pc	
690	9194779	Cover plate front right, condensor	1	pc	
691	9194780	Cover plate front left, condensor	1	pc	
692	6501444	Cap Housing 3-pole, M-N-L	1	pc	
693	6501445	Plug Housing M-N-L 3-pole	1	pc	
694	9194759	Plate fan	1	pc	
695	9221001s	Fan 230V 39W	3	pc	1
696	9194791	End plate, condensor tray	1	pc	
697	8072070	Terminal block Wago 3x4 GY/BU/GN.YE	1	pc	
698	9191293	Elbow compression 22mm (F-F)	1	pc	
699	9303036	Tube, outlet condensor	1	pc	2
700	9291105	Hose clamp SST 60-80mm	4	pc	
701	9293063	Hose silicone D70xd60xL90	2	pc	
702	9303033	Tube, Condensor leftside	1	pc	
703	9304419	Support-2 for tube d60	1	pc	
704	9304439	Flange, inlet condenser	1	pc	
705	9304418	Support-1 for tube d60	1	pc	
706	9303031	Tube, Condensor rearside (L)	1	pc	
707	9303032	Tube, Condensor rear (S)	1	pc	
708	9193122	Seal ring, CONDENS TRAY	1	pc	
709	9304425	Cover plate, inlet pipe	1	pc	
710	9191278	O-ring innnet d53.34 x 5.33 condensor	1	pc	

**Pos**

**8xx-9xx**

**See fasteners**

## FASTENERS

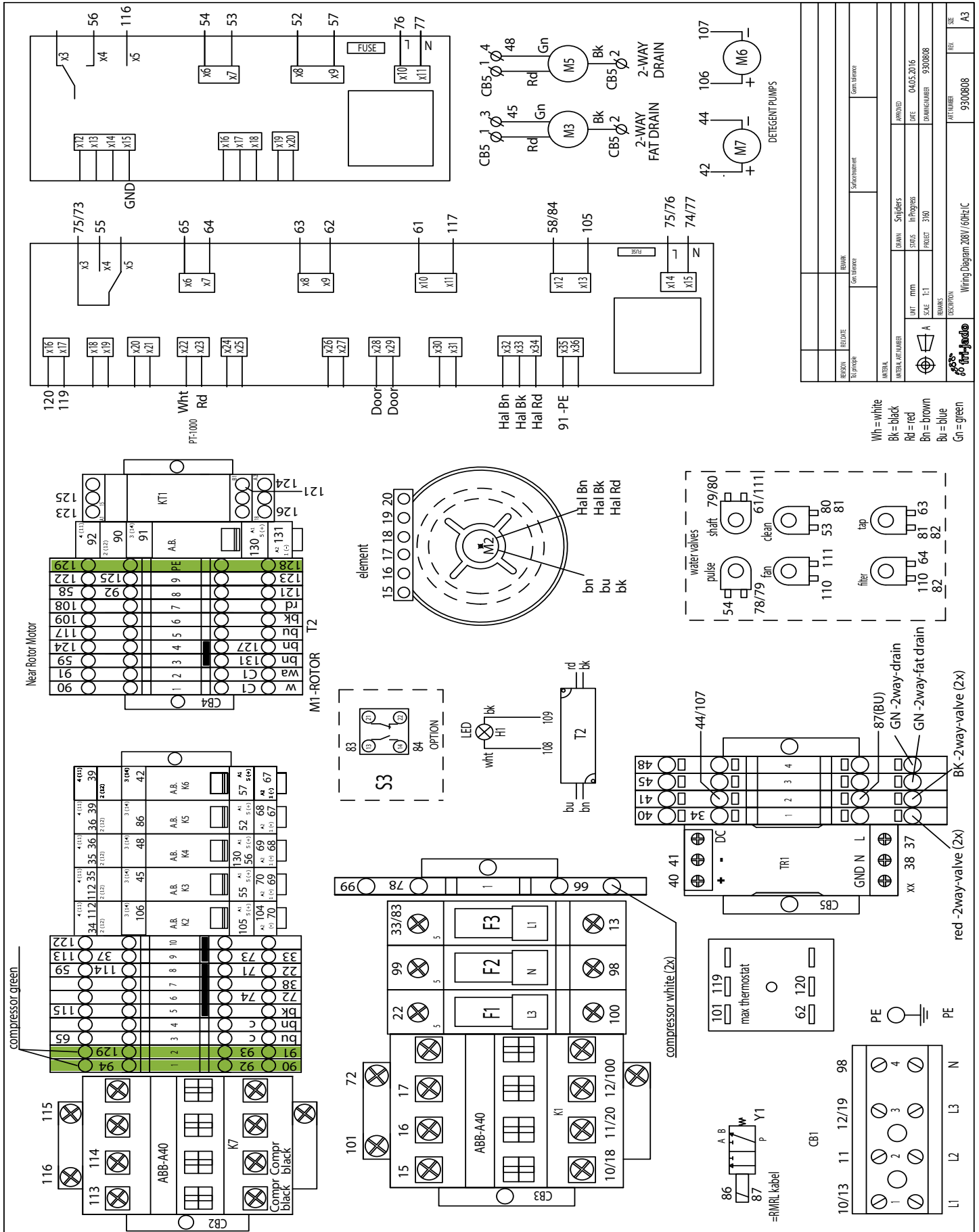
Pos	Part number	Description
800	4280107	Bolt M6x20 ZP
804	4285092	Nut M6, black serrated
805	4288232	Screw M5x12, SS cross recess, wide button head
817	4287549	Washer M8, ZP
819	0196673	Bolt M8x25, ZP
822	0142315	Nut M5, SS hexagonal
829	4280558	Screw M5x16, SS Slotted wide head
832	4288231	Bolt M5x10, SS serrated
834	4311110	Washer M5, SS $\varnothing 5 \times \varnothing 15$
847	9070688	Bolt M8x12, SS
868	4285078	Nut 1/4" bsw ZP
877	4285135	Bolt M5x10, ZP thread forming
889	6802013	Rivet nut, M5, ZP
894	0211520	Bolt M5x12, SS
898	9073987	Washer M8, SS $\varnothing 8 \times \varnothing 25$
915	8047381	Washer M6, SS $\varnothing 6 \times \varnothing 25$
920	0141547	Nut M8, SS
922	2800066	Connection nut M8x24, ZP
931	0142056	Lockwasher M8, SS
933	9077004	Socket set screw M4x6, SS
934	9301049	Circlips external $\varnothing 25$
936	9073149	Wingnut M6, SS
939	4312027	Connection nut M5x15, ZP
955	9008217	Blind rivet 4x8,6
957	4285047	nut M8 hexagon, thin DIN 439B

EMPTY PAGE





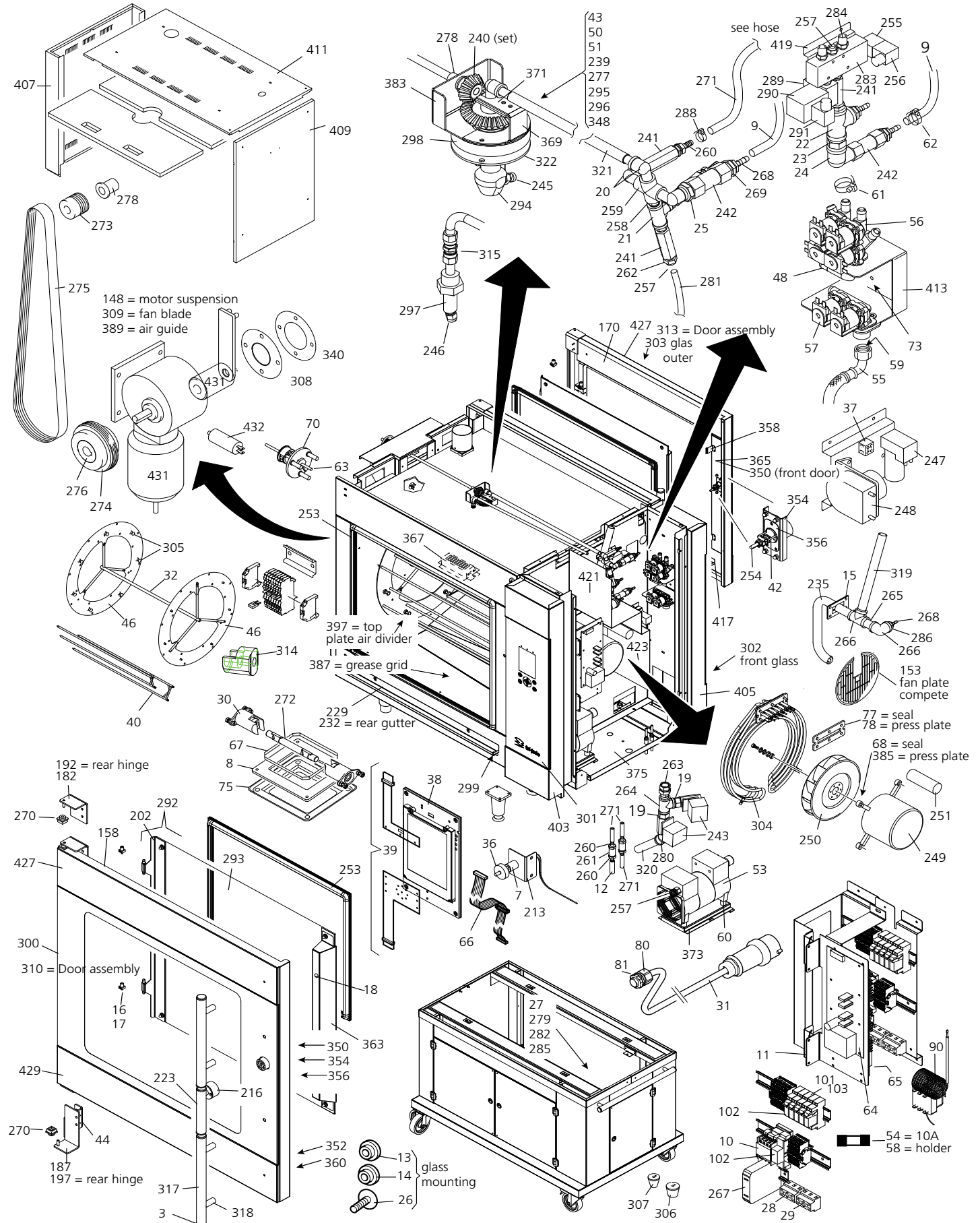
# WIRING DIAGRAM ACR







ACR EXPLODED VIEW UNTILL 2012



## ACR PARTSLIST UNTILL 2012

**Green = 230 EUR) units only**

**Yellow =208V (USA) units only**

Item	Part number	Qty.	Description
3	2103209	12	Finishing plug, Ø30mm
7	3500020	2	Reed switch
8	3500040	4	Sealing, oven illumination
9	3500049	1	Tube 9,5 x 16
10	3500069	1	Contactor for 230V version EUR
10	9191207	1	Contactor for 208V version USA
11	3701212	2	Hinge
12	3702337	10	Tube, silicon 10x4
13	3702341	20	Collar bush 10x5x2,5
14	3702342	16	Collar bush 10x5x3,5
15	3712003	1	Gasket
16	3712011	4	Block, adjust, hinge
17	3712012	4	Pen, adjust, hinge
18	3712021	6	Bumper, silicon
19	3721029	2	Nipple, hex 3/4"
20	3721037	4	Knee joint 1/4"
21	3721038	1	Tee 1/4"
22	3721046	1	Tee 1/2"
23	3721047	1	Nipple, hex 1/2"
24	3721050	1	Knee, joint 1/2"
25	3721125	2	Adapter 1/2" - 1/4"
26	4280558	10	Screw M5x16, SS Slotted wide head
27	6000032	1	Clamp, tube 26-38
28	9044564	1	Terminal block, 1-2-3
29	9044572	1	Terminal block, 4-5-6
30	9052826	8	Lamp holder
31	9070044	1	Connecting cable with plug
32	9070272	1	Rotor shaft, stainless steel
36	9084077	2	Magnet, Ø22mm
37	9171110	7	Terminal block, 2 pole porcelain
38	9172317	1	CPU board + LCD + buzzer
39	9172329	1	Keypad set, 3 and 15 keys
40	9172365	1	Spit, stainless steel
42	9172506	2	Doorlock
43	9172525	1	Seal, shaft, sprayer

Item	Part number	Qty.	Description
44	9174154	2	Adjusting plate
46	9174623	2	Rotor disc, 8 spits
48	9181023	1	Hose pillar 1/2"-90° -3/4" gland
49	9191041	2	Circlip, 5mm "E" type (6mm shaft)
50	9191082	2	O-ring 22 mm
51	9191088	1	Sprayer, flat (6510)
53	9191152	1	Pump, piston, 20psi 230V
53	9191202	1	Pump, piston, 20psi 115V
54	9191197	2	Fuse 6,3x32, ceramic T10A
54	9191231	2	Fuse T10A
55	9191203	3	Water supply hose
56	9191214	1	Valve, 1-4 way, 220-240V 50/60 Hz
56	9191200	1	Valve, 1-4 way, 110-127V 60 Hz
57	9191215	1	Valve, 2-way, 220-240V 50/60 Hz
57	9191199	1	Valve, 2-way, 110-127V 60 Hz
58	9191218	1	Fuse holder Euro ABB
58	9191229	1	Fuse holder USA
59	9191227	6	Gasket Ø24xø16x2
60	9191275	4	Vibration absorber, M6 stud
60	9191156	4	Vibration absorber, 1/4" stud
61	9191294	6	Clip, hose, 17-19
62	9191295	4	Clip, hose, 15-17
63	9192158	1	Temperature sensor
64	9192202	1	Power & I/O board, universal
65	9192203	1	Extension I/O board
66	9192204	1	Ribboncable with 3 connectors, 1,5mtr.
67	9192234	4	Glas ceramic 4,0mm
68	9192270	1	Seal, shaft
69	9193069	1	Seal ring, teflon
70	9194382	1	Protection PT1000 sensor
73	9194457	1	Nut, 3/4"
75	9194485	4	Cover profile, oven illumination
77	9194489	1	Gasket heating element, wide

Item	Part number	Qty.	Description
78	9194501	1	Pressure plate, heater
80	9261022	1	Cable gland M25
81	9261023	1	Nut, strain relief M25
90	9191188	1	Thermostat with reset, 360°C
101	9261030	6	Clamp, relay CR-P
102	9261031	6	Relay CR-P230AC1
103	9261032	6	Socket, relay CR-P
148	9300404	1	motorsupport
153	9300405	1	fan plate
158	9300406	1	outer frame
170	9300407	1	outer frame
182	9300408	1	top hinge
187	9300409	1	lower hinge
192	9300410	1	top hinge
197	9300411	1	lower hinge
202	9300412	2	inner hinge
213	9300416	2	contact bracket
216	9300418	2	Base. handle
223	9300419	2	Handle
229	9300420	1	drip tray
232	9300421	1	drip tray rear
235	9300422	1	Pipe, steam ass'y
239	9301000	1	Bearing
240	9301001	1	Gear set, conical
241	9301002	4	Check valve 2 x 1/4"
242	9301003	2	Check valve 2 x 1/2"
243	9301004	2	Valve 3/4"
245	9301007	1	Sprayer B1/8 FL20
246	9301008	1	Sprayer, flat B1/8
247	9301009	1	Pump, membrane
248	9301010	1	Pump, hose 230V EUR
248	9301072	1	Pump, hose 115V USA
249	9301011	1	Fan motor
250	9301012	1	Fan blade
251	9301013	1	Capacitor 16 µF
253	9301014	2	Seal, door
254	9301016	2	Nose, 2-pos
255	9301018	1	Coil 24V/DC
256	9301019	1	Plug 22 STD
257	9301075	4	swivel joint, 8x1/4"
258	9301022	5	Nipple, hex 0,25
259	9301023	1	X-joint 1/4" BSP

Item	Part number	Qty.	Description
260	9301024	6	Hose 1/8" BSP
261	9301025	2	Socket 1/8"
262	9301026	2	Adapter 1/4- 1/8 "
263	9301027	1	Coupling
264	9301028	1	Tee 3/4"
265	9301029	1	Nipple, pipe
266	9301030	1	Knee joint 3/4"
267	9301033	1	Power supply 24V
268	9301034	4	Hose 3/8" BSP
269	9301035	3	Adapter 1/2" - 3/8"
270	9301036	4	Hinge
271	9301043		Hose, silicon
272	9301044	4	Lamp, halogen
273	9301045	1	Pulley dia 25 mm
274	9301046	1	Pulley dia 75 mm
275	9301047	1	v-belt
276	9301048	1	Bushing
277	9301049	1	Seal
278	9301050	2	bearing
279	9301053	1	Y-joint 3x3/4"
280	9301054	1	Bend 45° 3/4"
281	9301055		Hose, teflon
282	9301056	1	Nipple 3/4"
283	9301057	1	Valve 5/2"
284	9301058	2	Damper
285	9301059	1	Hose, drain
286	9301061	1	Adapter 3/4" - 3/8"
288	9301063	10	Connecting terminal 7,8/8,3
289	9301064	1	Valve, 2/2 1/4"
290	9301065	1	Coil 24V 13mm.
291	9301066	1	Plug L30
292	9308002	2	Door, inner ass.
293	9302004	2	Glass, inner
294	9302010	1	Nozzle
295	9302011	1	Spray tube, vertical
296	9302012	1	Swivel joint
297	9302013	1	Spray tube
298	9302014	1	Bearing block
299	9302015	2	Pipe, drain
300	9302021	1	Glass, outer
301	9302022	1	Glass, Controlpanel.
302	9302023	1	Glass, Panel Customer side

Item	Part number	Qty.	Description
303	9302024	1	Glass, outer , front
304	9302026	1	heating element 10.8kW 230V
304	9302045	1	heating element 10,8kW 208V
305	9302027	14	Pin, support
306	9302028	1	Cap, cleaner
307	9302029	1	Cap,
308	9302031	1	Seal, shaft motor
309	9302033	1	Fan blade
310	9308000	1	Door, outer, service side
313	9308001	1	Door, outer, front side
314	9302039	1	Bearing, steel
315	9302040	1	Coupling
317	9303005	4	Handle
318	9303006	8	Spacer, handle
319	9303009	1	Suction tube
320	9303010	1	Drain pipe, 3/4"
321	9303011	1	Pipe 1/4"
322	9304001	1	Mounting disk
340	9304017	1	Mountingplate lipseal motor
348	9304021	2	Mounting lipseal spray head
350	9304033	1	Profile
352	9304034	1	drip tray
354	9304035	2	Plate
356	9304036	2	Mounting plate doorhandle
358	9304037	4	Clamp
360	9304038	2	spring dip tray
363	9304043	2	Profile
365	9304052	1	Profile
367	9304058	4	Holder
369	9304059	1	Bracket
371	9304060	1	Locking plate
373	9304061	1	Mounting plate pump
375	9304063	1	Mounting plate
383	9304068	1	Mounting plate bevel gear
385	9304071	1	Mounting plate fan seal
387	9304075	1	Grid
389	9304076	1	Airshaft gearmotor
397	9304086	1	Fan plate
403	9308005	1	Control panel ass.
405	9308006	1	Panel ass. Customer side
407	9304111	1	Panel, left side
409	9304112	1	Panel, right side

Item	Part number	Qty.	Description
411	9304113	1	Panel, top
413	9304203	1	Bracket
417	9304207	1	Drip tray
419	9304210	1	Bracket
421	9304211	1	Splash guard, upper
423	9304212	1	Splash guard, lower
427	9304214	2	Panel, door, top
429	9304215	2	Panel, door, bottom
431	9303015		Motor ass'y
432	9077101		Capacitor 2,5 uF

**Green = 230 EUR) units only**

**Yellow =208V (USA) units only**

For technical support call: +1 877 374 5236



Fri-Jado Inc. • 1401 Davey Road • Suite 100 • Woodridge IL 60517 • USA • fax +1 630 689 1424  
• us.info@frijado.com • www.frijado.com • USA • toll free 877-FRI-JADO