9124943 SERVICE MANUAL MSS EU EN

- NOTICE -

This service manual is prepared to be used by 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 repair procedures, replacements and adjustments described in this service manual.

The information presented in this document is only valid for **MSS** configurations and is not intended to be all encompassing. The individual specifications may differ.

Procedures may only performed by personal with the necessary tools, instruments, skills and trainings.

The information presented in this document is valid for standard display cabinet configurations, specifications for custom configurations may differ. No rights can be derived from this document, specifications and technical data are subject to amendment without prior notice.

Version	Issue date	Remarks
	yy/mm/dd	
0	March 2024	First release

We refer to our General Terms and Conditions for Sales and Delivery that are available upon request.

The manufacturer does not accept any liability for damage or injury caused by failing to adhere to these regulations or by not observing the usual caution or care in actions, operation, maintenance or repair activities, even if not explicitly described in this manual.

As a result of constant commitment to improvement, it may happen that your unit deviates in detail from what is described in this manual. For this reason, the given instructions are only a guideline for the installation, use, maintenance and repair of the unit referred to in this manual.

This manual has been composed with the utmost care. The manufacturer shall, however, not be held responsible for any mistakes in this manual nor for any consequences thereof.

Modifications:
In case of unauthorized modifications in or on the unit, every liability on the part of the manufacturer becomes null and void.

Index

1. Pictograms and symbols

1.1 General

This manual is intended for trained technicians, performing repairs on the MSS.
The features and controls are being described, along with directions for the safest and most efficient way to service these units.

All pictograms, symbols and drawings in this manual apply to all available MSS models.

1.2 Pictograms and symbols

In this manual, the following pictograms and symbols are used:

WARNING symbols:

WARNING
Possible physical injury or serious damage to the unit

WARNING
Risk of fire.

WARNING
Hazardous electrical voltage.

WARNING
Danger of getting injured by hot surfaces.

1.3 SAFETY symbols:

SAFETY
Wear safety gloves for installation and dismantling.

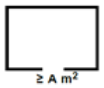
SAFETY
Wear eye protection

SAFETY
Remove power plug from outlet

SAFETY
Clean hands and/or tools

Notification
Take care off:

Reading
Instructions referred to, too be read



Minimum floor area.

Cleaning
Not Allowed to use water hose.

Cleaning
On regularly interval

Disposal
According local regulations

Recycling symbol

Part of manual
Under construction

Pictures
To be added

1.4 Identification of the unit

The identification plate can be found on the outside of the machine, and contains the following data:

- Name of the supplier or manufacturer
- Model
- Serial number
- Year of construction code
- Voltage
- Frequency
- Power consumption

1.5 Moving

- Before moving the unit, first switch off the mains switch and disconnect power by pulling the plug from the wall socket.
- Let unit cool down.
- Remove all product from the unit.
- Always keep the unit in upright position.

1. Pictograms and symbols

1.6 Safety rules and regulations

The technician, working on the unit will be fully responsible for abiding the locally prevailing safety rules and regulations.

Technical activities must be performed by qualified and authorized persons only.

Before working on any electrical part, or dismantling the unit by means of using a screwdriver or any other tool,
ALWAYS REMOVE THE POWER PLUG from the main outlet.

Anyone performing technical repairs, replacements or adjustments on or with this unit must be familiar with the contents of this service manual and carefully follow all guidelines and instructions.

Never change the order of the steps to be performed.

The pictograms, labels, instructions and warning signs attached to the unit, are part of the safety measures.

Notes:

- To avoid short-circuiting, never clean the unit using a water hose.

- The shelves, all glass parts and the back panel of the unit can get hot.

- All units must be cleaned regularly to ensure proper functioning.

- Do not store explosive substances;
such as aerosol cans with flammable propellant,
in this appliance.

1.7 Connection to main voltage.

Warning
Electrical shock Hazard

- ***Grounding instructions:***
Only connect the appliance
> on: an alternating current,
> on: a grounded wall socket,
> with a mains voltage in accordance with the information indicated on the type plate of the appliance.
- It is the consumer's responsibility to make sure the electrical installation conforms with current national and local codes and wiring regulations.

It is not allowed to use a multi plug or extension cord.

Such can result in fire, electrical shock, or personal injury.
Failure to follow these instructions can result in serious injury or even death.

1.8 Outdoor use restrictions

WARNING
To avoid short-circuiting, the units may not be used outdoors nor in a rainy or very moist environment.

1.9 Service and technical support

In case of malfunctions which are not fixable by you, please contact your supplier or Fri-Jado.
Service@Frijado.com
Make sure you have the following data available:
- Model.
- Serial number.

1.10 Storage

If the unit will not be used temporarily, and will be stored, follow these instructions:
- Clean the unit thoroughly.
- Wrap the unit from getting dusty.
- Store the unit in a dry, non-condensing environment.
- Ensure good ventilation.

2. Detailed description

Multi deck Space Saver

The MSS Hot SS is a multilevel self-service heated display cabinet intended for hot presentation of packaged food products in combination with a Fri-Jado rotisserie stacked on top.

This combination saves valuable floor space.

Each heated shelf has a self-contained air circulation system.
Air is drawn in at the back of the shelf and passed over a heating element located underneath the glass surface.

An air outlet at the front of the shelf creates a stable air curtain at the open side of the cabinet to minimize the infiltration of cold ambient air.

Any air in- and outlet openings should be kept clear.

A digital controller is installed to regulate the temperature inside the cabinet.

Optional

It is possible to combine the MSS with a TDR 5 AC, TDR 5 M/P/S, or TG 4 by using different adapter plates.

Only rotisseries designated by Fri-Jado are suitable for this combination.

When used in combination with a self- or assisted- cleaning rotisserie the cabinet will have water supply and drainage pipework fitted as standard.

A removable grease tray is located in the top of the cabinet for easy disposal of grease that is being generated by the rotisserie.

To make sure the cabinet is installed, operated and serviced in a safe manner, the instructions in this manual provided by the manufacturer should be adhered to at all times.

MSS can be ordered with a pass-through option (utilizing folding rear doors) or with a solid back.

2.1 Models and accessories

9419000 – MSS-90-2 Premium

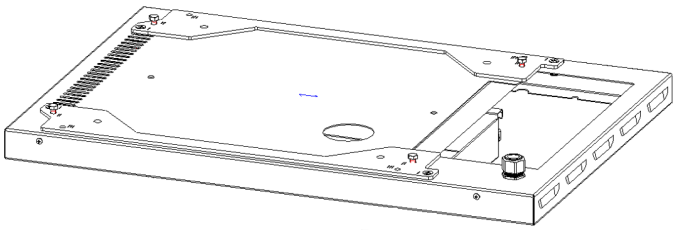
Pass-through model suitable for the TDR 5 AC and EG 5
(water supply and drain preparation present).

The regular TDR 5 M/P/S and TG4 can also be placed here,
the water connections are then not used

9419001 – MSS-90-2 Essential

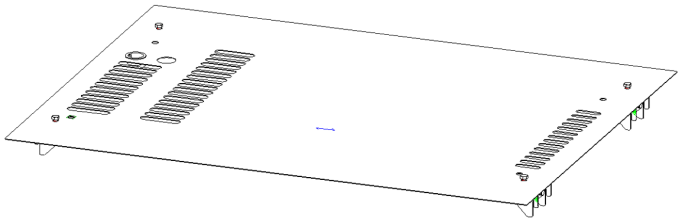
Solid back model only suitable for the TDR 5 M/P/S and TG4
(no preparation for auto-clean)

In addition, 2 adapter plates and 1 waste water trolley will be available:



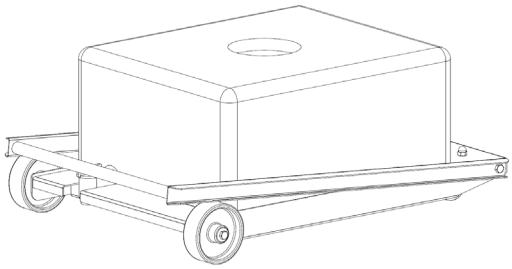
9419800 – Adapter plate high

For installing a TDR 5 AC or EG 5 on an MSS Premium.



9419801 – Adapter plate low

For placing a TDR 5 M/P/S or TG4 on an MSS Premium or MSS Essential.



9419802 – Waste water trolley

Trolley that can be used to collect and dispose of the waste water from the TDR 5 AC or EG 5, if no permanent drain is available.

In case the grill has an auto-clean function and no permanent drainage is installed, a water trolley placed below the unit collects the wastewater.

Be sure to always empty the trolly after each cleaning and place it back in the original position.

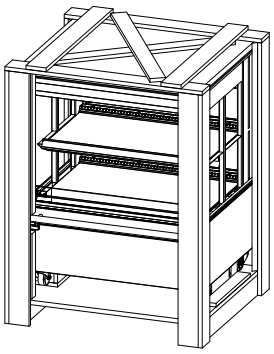
Failing to do so will cause the water to be spilled on the floor and may cause safety hazards.

3. Unpacking

UNPACKING INSTRUCTION MSS

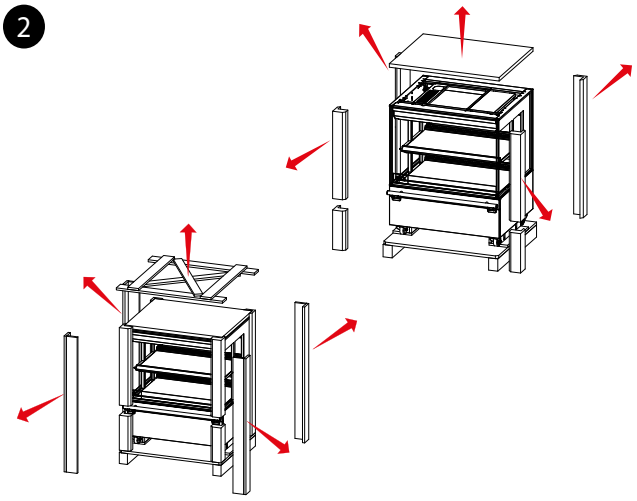
9124942 rev. 02/2024

1



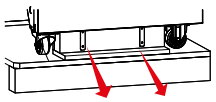
All packing materials used for this unit are suited for recycling.
Before and during unpacking, check the state of the unit.
In case of damage, store the packing material,
and contact the transporter within fifteen working
days after receiving the goods.

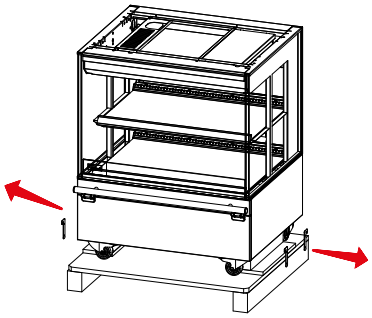
2



Remove the wood top and corners
Next remove the EPS top and corners

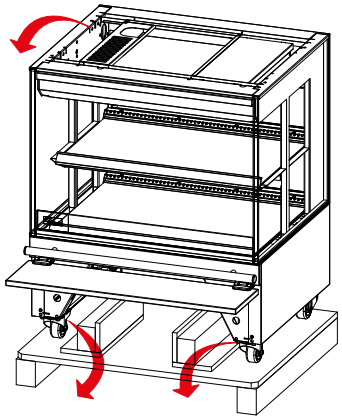
3





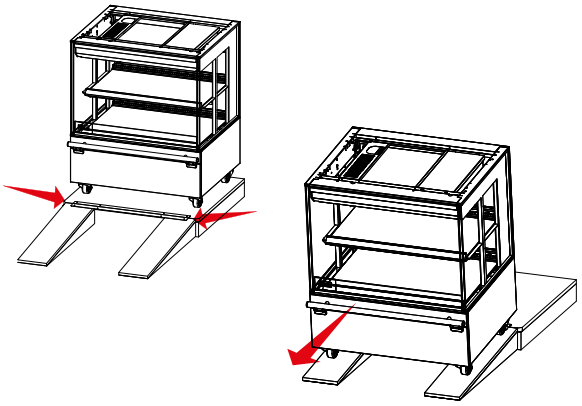
Remove the screws from the brackets (4x each side)
Save the screws for step 5

4



Unscrew the beams (3x each side)
Tilt flap open and remove the beams

5



Use the screws from step 3 to place the ramps
Unlock the castors
Carefully roll the MSS of the ramp

6

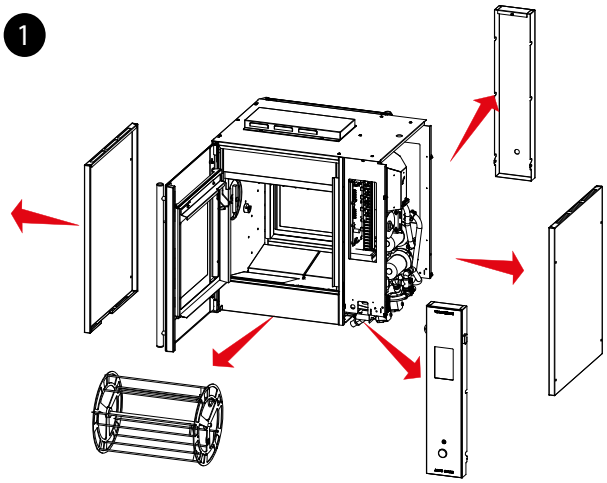
EN - Read the manual before proceeding.
NL - Lees de handleiding voordat u verder gaat.
DE - Lesen Sie die Gebrachsanleitung, bevor Sie Fortfahren.
FR - Lire le manuel avan de continuer.
ES - Leer el manual antes de continuar.
PT - Leia o manual de instruções antes de continuar.
IT - Leggere il manuale prima di procedere.
NO - Les nøye gjennom instruksjonene før du tar apparatet i bruk.
SV - Läs igenom bruksanvisningen innan du fortsättler.
FI - Lue käyttöohje ennen kuin otat laitteen käyttöön.

3.1 Stacking TDR 5 AC onto MSS premium

Stacking Instruction MSS + TDR 5AC

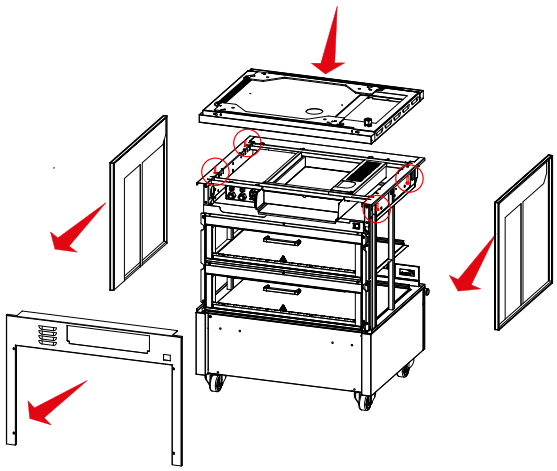
9124944 rev. 02/2024

1



Demount the side panels (8 Screws)
and the control panels (4 M5 bolts)
Remove the spit by lifting the left side and rotating.

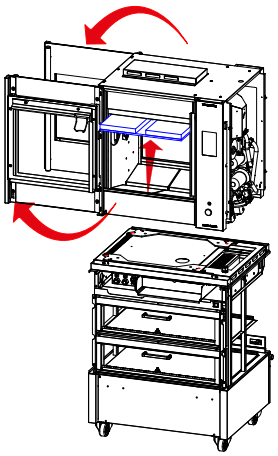
2



Demount the rear panel (4 screws)
Slide the glass panels out of the MSS,
Fixate the adapter plate with 4 M8 bolts

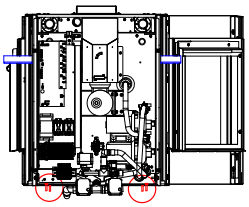
3

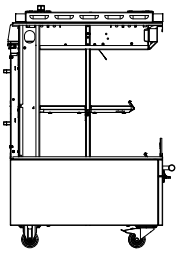
Use Reach truck to
lift the TDR 5AC



Open the doors of the grill 180 degrees
Place EPS plates on the spoons of the reach truck and lift the grill
Position the grill above the MSS to connect the cables

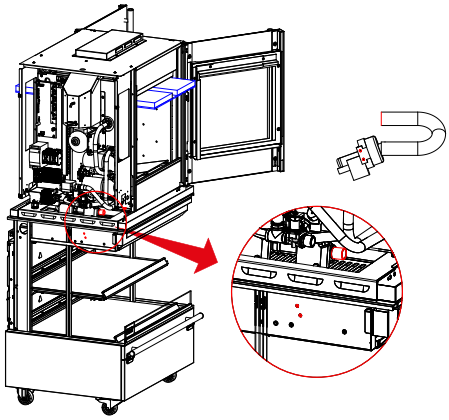
4





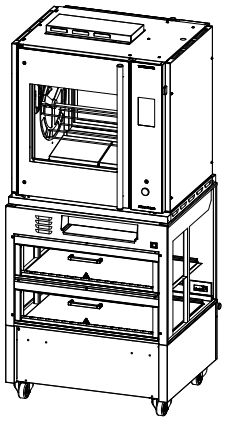
Gently lower the grill so the bolts (4 M8 Bolts)
slot into the holes of the adapter plate
if needed, reposition the mss slightly

5



Mount the pre-assembled pump to the MSS (2 M6 Bolt)
connect the tube to the drain and fix with a hose clamp

6



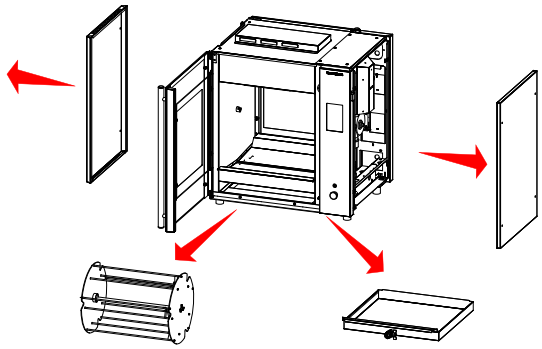
Place back the glass and the rotor
mount the panels back in reversed order

3.2 Stacking TDR 5/TG4 onto MSS essential

Stacking Instruction MSS + TDR 5/TG-4

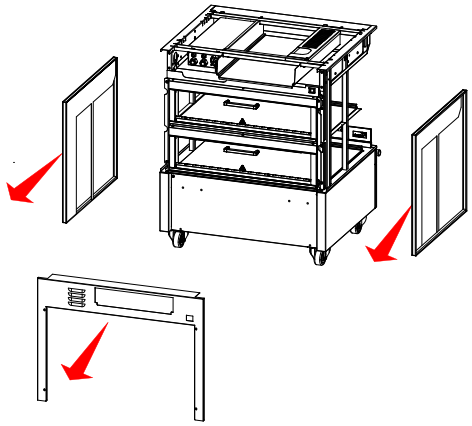
9124945 rev. 02/2024

1



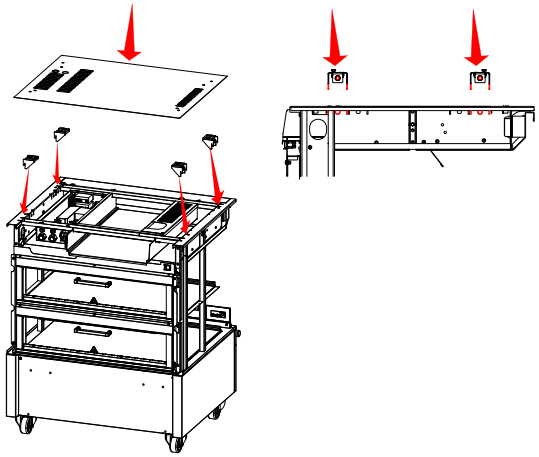
Demount the side panels (8 Screws)
Remove the grease drawer
Remove the spit by lifting the left side and rotating.

2



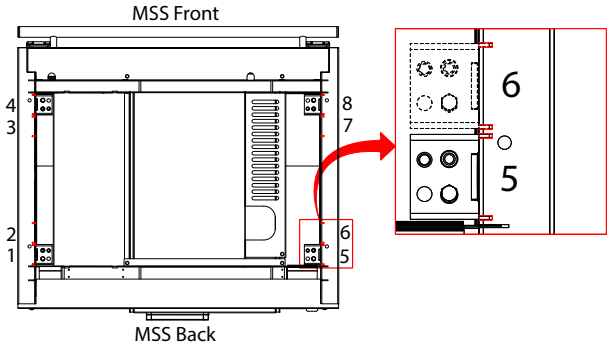
Demount the rear panel (4 screws)
Slide the glass panels out of the MSS

3



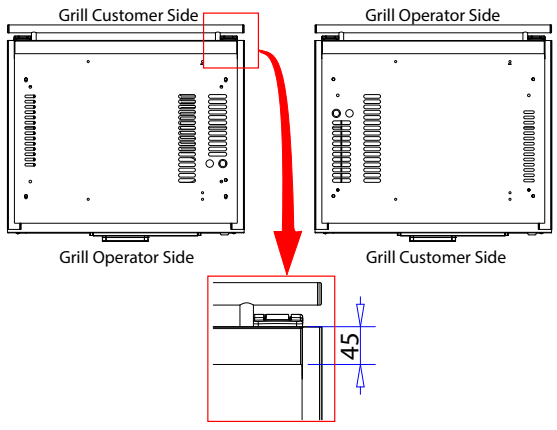
Place the 4 brackets and fixate with a M8x20 Bolt
bracket position depends on grill type (see point 4)
Place the adapter plate on top of the MSS (see point 5)

4



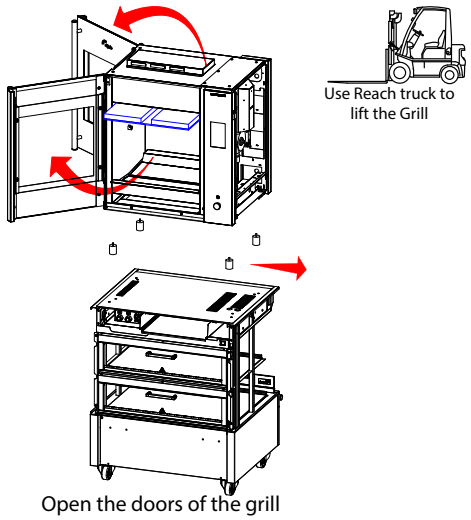
Place the brackets in the following locations
TDR-5: 1, 4, 5, 8
TG-4 Operator side to MSS front: 2, 4, 6, 8
TG-4 Operator side to MSS back: 1, 3, 5, 7

5



Placement of the adapter plate depends on the grill orientation
Position the double row of ventilation slots
under the control panel of the grill

6



Open the doors of the grill
Place EPS plates on the spoons of the reach truck and lift the grill
Remove the four legs of the grill
Position the grill above the MSS to connect the cables

4. Installation

Placement of the unit

WARNING

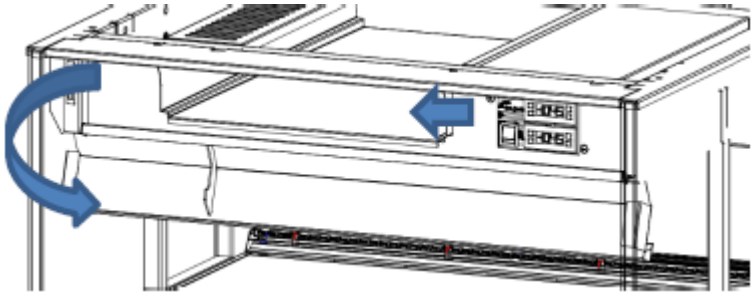
Position the unit on a flat and horizontal surface.
A temporally inclined plane of maximum 5° is allowed.

- Be sure, the personnel have sufficient room to work with the unit.
- Do not position a unit near a doorway, a ventilation device or a refrigerator in order to avoid any negative effects on the unit's operation by a draft airflow.
  The unit is designed for a maximum draft of 0.2 m/s (0.65 ft./sec).
- Do not place into direct sunlight.
- The unit should not be used below 20 °C (68 °F) ambient temperatures.
- The unit has a mains plug, and must be connected to a wall socket with the proper mains voltage.

It is not allowed to use a multi plug or extension cord.

Grease

The grease produced by the top unit is collected in the grease tray located in the middle of the machine next to the control panel.
The grease tray needs to be emptied after each cooking cycle.

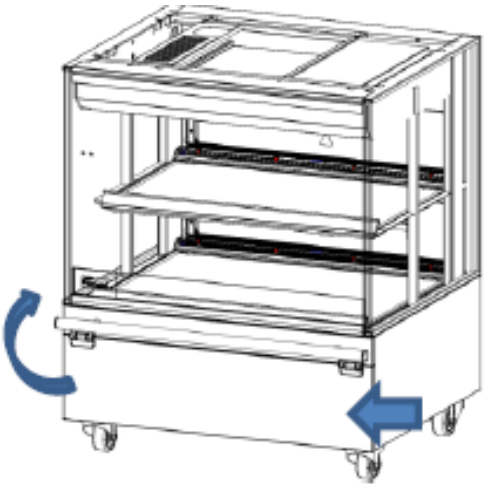


Waste water (Optional)

In case the top unit has an auto-clean function without permanent drainage, the wastewater is collected in a water trolley placed below the unit.

Be sure to always empty the trolly after each cleaning and place it back in the original position.

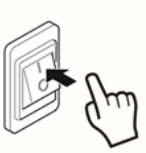
Failing to do so will cause the water to be spilled on the floor and may cause safety hazards.



5.0 Operation

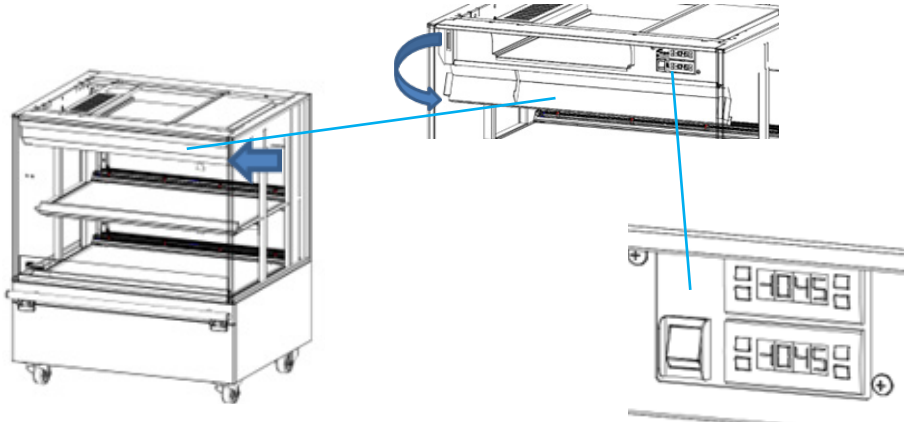
The display and/or set value is not the product/unit temperature.

Control panel:



Main switch (2x)

Front side



Back side

Temperature controller

1 Display
2 Up and Down keys
3 Escape/Stand-by key (power on)*
4 Enter key

* Switch on/off: hold for approx. 3 sec.

The unit is set at 65°C intake air temperature.
If required, this temperature can be adjusted.

At an ambient temperature of 20°C and an initial core temperature of 85°C, these factory settings of the unit's temperature ensure a constant core temperature of at least 65°C for 4 hours.

5.1 Operation; Temperature controller

Set temperature
(temperature on display)

≠ Product temperature

Using the multi-temperature controllers

The shelves can be controlled individually or even turned off completely.

In this way optimal holding conditions for different food groups can be achieved

(for example: depending on holding time, product quality, packaging and accessories used).

When set to the same temperature uniform temperatures can be attained throughout the cabinet and energy can be saved.

Although every combination of settings is possible (ranging from completely off to a set-point between 40°C and 70°C), certain settings may influence the time it takes for a shelf to reach operating temperature.

For example, if only one shelf is turned on it may take over 60 minutes instead of approx. 30 minutes when shelves are all set to the same temperature.

Temperature controller

⏻	Power on/off button*
∧	Up-button
∨	Down-button
SET ↵	Set-button

*Switch on/off: hold for several seconds

Switching-on the unit

1. Switch on the power switch (the fans will start blowing).
2. Switch the heating on, by means of the temperature controller.
3. Preheat the unit (may take between 30 and 90 minutes depends on controller settings).

Switching off

1. Remove all products from the unit. In order to avoid temperature drop of the products, store them in another warm holding unit.
2. Switch the heating off.
3. Switch the main power off.

LOADING TEMPERATURE

Strongly advised core temperature **85°C**
This means the core temperature of the products loaded into the MSS should be **85°C.**

5.2 Operation; Loading and adjusting

Temperature controller

⏻	Power on/off button*
∧	Up-button
∨	Down-button
SET ↵	Set-button

*Switch on/off: hold for several seconds

Checking the temperature in the unit

- During operation the display of the thermostat shows the temperature at the probe in the unit.
  The indication ON will lit when the elements are active.

Checking the set temperature

1. Scroll through the folders with the **UP**-button and the **DOWN**-button until you find the folder ***Pb1, Pb2*** or ***Pb3***.
2. Press **SET** to view the value measured by the corresponding probe.

Adjusting the set temperature

1. During operation the display of the temperature controller shows the temperature in the unit. (Not product temperature)
2. Push once on the **SET**-button. The set temperature will appear on the display.
3. Push the **UP**-button and **DOWN**-button within 15 seconds.
4. Adjust the set temperature by means of the **UP**-button and the **DOWN**-button.
5. Push once on the **SET**-button to store the new set temperature.

Doc. nr.	Rev.	Registration form.	
9124935	**A**	**Parameter settings:** **MSS Premium / Essential**	fri-jado

Bottom shelf

Controller: **Eliwell IC Plus 902**

User parameters			
SP1	Temperature set point	**65**	°C
df1	Differential	**1**	K
HS1	Max set point limitation	**70**	°C
LS1	Min set point limitation	**40**	°C
LoC	Keypad lock n(0)=lock disabled y(1)=lock enabled	**n**	
ndt	Display with decimal point, n(0)=no y(1)=yes	**y**	
CA1	Display offset	**0**	°C
H00	Sensor type, 0 = ptc, 1 = ntc, 2 = pt1000	**0**	

Installer parameters				
rE1	HC1	Cold “C(0)” or hot “H(1)” operation	**H**	
	HA1	Max temp alarm	**100**	°C
CnF	dro	Unit of measurement (0=C 1 =F)	**0**	

Top shelf

Controller: **Eliwell IC Plus 902**

User parameters			
SP1	Temperature set point	**65**	°C
df1	Differential	**1**	K
HS1	Max set point limitation	**70**	°C
LS1	Min set point limitation	**40**	°C
LoC	Keypad lock n(0)=lock disabled y(1)=lock enabled	**n**	
ndt	Display with decimal point, n(0)=no y(1)=yes	**y**	
CA1	Display offset	**0**	°C
H00	Sensor type, 0 = ptc, 1 = ntc, 2 = pt1000	**0**	

Installer parameters				
rE1	HC1	Cold “C(0)” or hot “H(1)” operation	**H**	
	HA1	Max temp alarm	**100**	°C
CnF	dro	Unit of measurement (0=C 1 =F)	**0**	

6. Trouble shooting

6.0 Problems which can be checked by user

Each user can check the following points as mentioned in the user manual:

- Is the power supply OK?
- Check the fuses and the earth leakage switch in the meter cupboard.
- Are all the switches in the correct "on" position?

Item	Malfunction	Possible action
Unit	Unit does not work	• Check the power supply. • Are all switches in the correct position.
Unit	Display shows error code	• Contact your supplier or service agency.
Lamp	Does not light up	• Switch ON.
Mains cord	Damaged	• Replace.
Window	Damaged	• Replace.

6.1 Replace the mains cord

WARNING
Hazardous electrical voltage.
If the mains cord is damaged, it must be replaced by a fully certified and qualified person, in order to avoid hazards.

6.2 Testing heating element

Resistance

1. Remove wiring (two) from the element.
2. Connect the probe of the multimeter to each of the wires.
3. Test the probe with a Ohm tester.

Current

1. Place ampere pliers around red wire of the element.
2. In normal working condition.

6.3 Testing PTC sensor

1. Remove wiring from the sensor.
2. Connect a temperature tester to the probe of the sensor for comparison.
3. Test the probe with a Ohm tester.

Temperature		Resistance Ω
°F	*°C*	*+/- 5 Ohms*
-4	-20	951
14	-10	877
32	0	807
50	10	740
68	20	677
77	25	990

6. Trouble shooting

Symptom	Possible causes
No power	• Main circuit breaker open • Fuse Blown • Loose wire connection
Main fuse or breaker blown	• Wiring incorrectly • Short circuit heating element • Short circuit fan element • Short circuit wiring
Illumination does not work	• Led malfunction • Tumble switch malfunction • Led driver malfunction • Loose / short circuit wiring connection
No heating	• Heating element malfunction • Relay malfunction • Loose wiring connection • Thermostat malfunction • Loos wiring connection • Air flow not functioning
Unit does not reach desired temperature	• Heating element malfunction • Strong air current along unit / Draft • Sensor malfunction • Doors not closed
No indication on controller	• Electronic controller malfunction • Blown fuse • Loose wiring connection
No air flow inside unit	• Fans do not work • Blown fuse • Loose wiring connection • 24 Vdc power supply malfunction

6. Trouble shooting

Part description	Symptoms	Possible causes	Solution / Action
Heating element	Unit is not reaching the set temperature	Wiring Element malfunction	Check wiring Check power on elements per shelf Check current with AC current tester Check Resistance Replace element Check wiring
		Air flow not Working, Fans not turning	Check power on fans per shelf Replace fan box / Power Supply
Tumble switch	Light, or heating does not switch on	Wiring Contact burned	Check wiring Check the voltage on “in“ and “output“
LED	Light does not turn on	Wiring LED broken LED driver defect	Check Wiring Replace LED Replace LED driver
Electronic thermostat	Display does not light up	Wiring Loose sensor	Check wiring Check sensor
	The unit is not reaching the set temperature	Thermostat Malfunction Thermostat setting	Replace thermostat Check parameters
PTC 1000 sensor	The unit is not reaching the set temperature or does not heat up at all	Broken sensor Loose sensor	Replace sensor Check sensor wiring
	The unit becomes too hot	Broken sensor Loose sensor	Replace sensor Check sensor wiring

7. Maintenance

PMA
Stands for Preventive Maintenance Advice.
- How often a service call should be made to verify the unit.

Part description	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs.
Assy. flap door (PT only)	X			X			X	
Heating Element/Shelf	X			X			X	
Fan Box shelfves		X				X		
Compact fan 614 NN electrical box			X					X
LED 3000k + driver			X					X
Sensor PTC 1000			X					X
Power supply unit				X				
Controller				X				

RMA
Stands for Recommended Maintenance Advice.
- How often a parts must be checked or replaced.

RMA advice	PMA interval	PMA items	To perform
On call	1/year	Fan box/shelf	Clean / check rotation of each fan
	1/year	Main power cord	Check on damage, if damaged replace
	1/year	Heating	Check each shelf on heating
On call	1/year	Illumination	Clean / Replace if needed
	1/year	Flap doors	Clean/Check on chips, if visible, replace
	1/year	Controllers	Check parameters (only change in consultation with customer)
On call	1/year	Air out opening shelf	Check on blockage/clean

8. Replacement

8.1 Removal back panel premium

Unscrew back panel (4 screws).

Take off panel.

8.1.1 Removal back panel Essential

Unscrew back panel (4 screws)

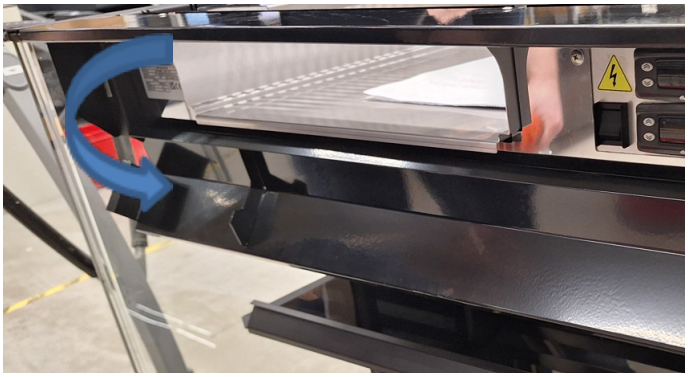
Take off panel.

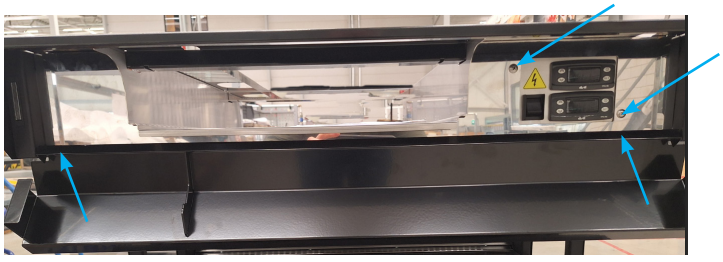
8.2 Removal of side glass

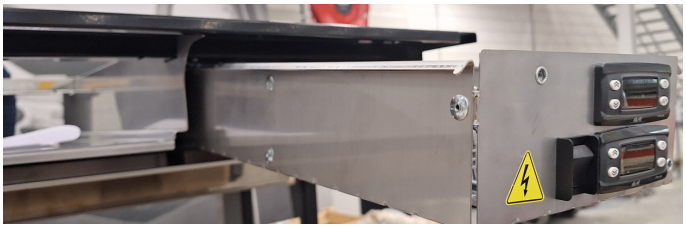
Remove back panel 8.1

Slide glass pane out to the back side of the unit.

Caution:
Place removed glass on soft material to prevent chipping and/or scattering.



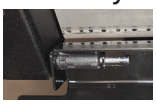




8.3 Opening electrical box

Open front cover (turn downwards)

Take off front cover by removing hinge pin.

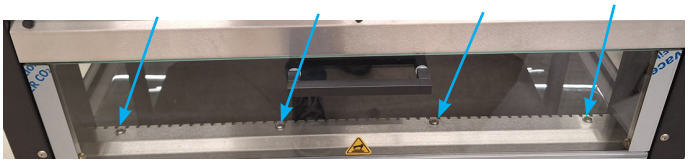


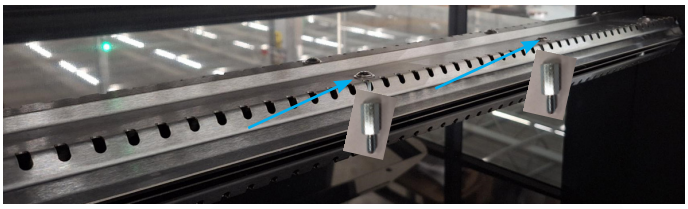
Unscrew panel holding Electra box 2 screws in front, two underneath.

Take off panel.

Slide out Electra box to the front.

8. Replacement





8.4 Fan box replacement

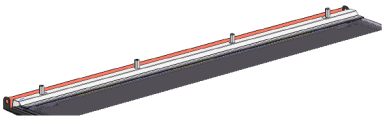
Remove back panel 8.1

Remove side glass 8.2

Opening shelf

Remove rear shelf cover
4 screws
(depending on width)

Remove glass clamp
4 studs
(depending on width)

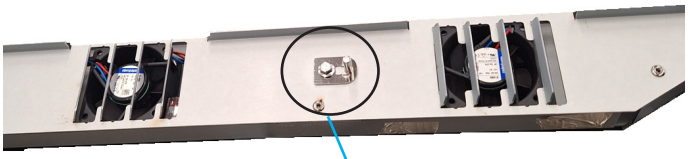


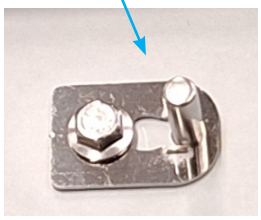
Remove fan box

2 bolts

2 wago connectors inside fan box

8.5 PT sensor replacement



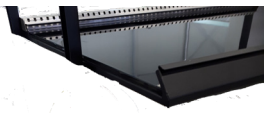


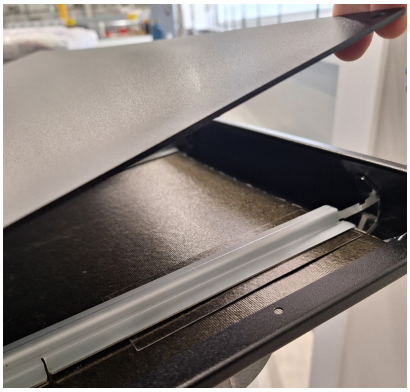
Remove fan box 8.4

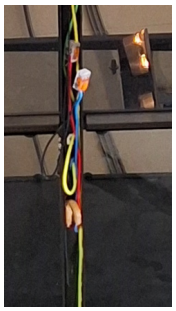
Remove holding bracket PT sensor
1 bolt

Take out PT sensor to the back.

8. Replacement







8.6 Heating element replacement

Perform fan box replacement 8.4

After removing glass clamp, remove glass pane, by lifting it at the back side.

Remove reflector plate.

Remove Heating element holding brackets.
1 bolt at the back

Take out element, taking care of wiring

Cut element wiring in column

Connect new element wiring with wago inside column.

Reflector plate coating must be facing heating element.

8.7 LED lighting replacement

Remove back panel 8.1

Remove side glass 8.2

Remove screw holding the LED housing .

Disconnect connector in Column, before you do so, make a note of the placing of the red and black cable in the connector.

Take LED light out of LED light holder, and place new LED.

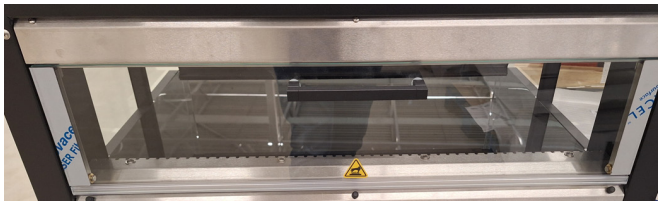
Connect the wires from the new LED in the column, taking care of the notes you made regarding the red and black cable.

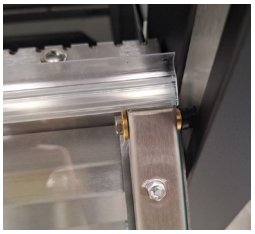
Top LED housing mounting

Bottom LED housing mounting

8. Replacement

MSS Premium only:





8.8 Flap doors

Open flap door

Keep flap door supported!

Unscrew hinge bolt, holding the flap door at one side.

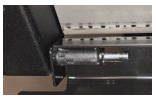
Unscrew hinge bolt holding the flap door from the other side.

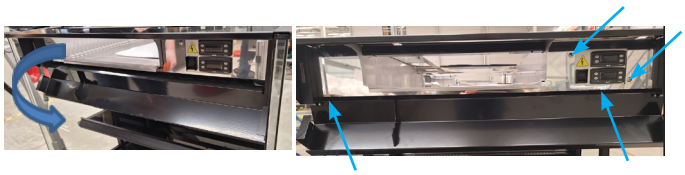
8.9 Drain pump

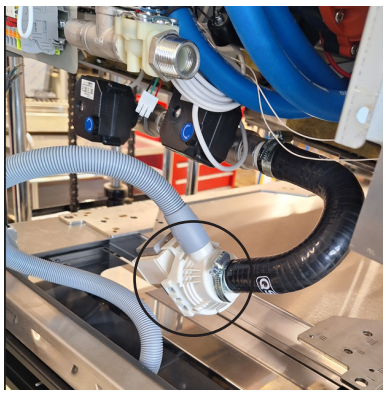
Remove side glass 8.2

Open front cover (turn downwards)

Take off front cover by removing hinge pin.







Unscrew panel holding Electra box 2 screws in front, two underneath.

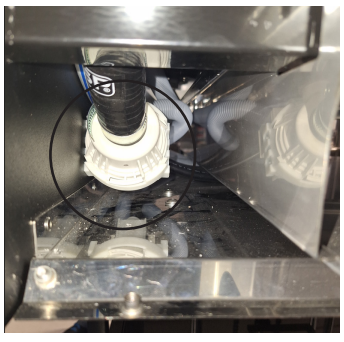
Take off panel.

Disconnect wiring of Pump.

Drain pump reachable from the front.

Remove hoses from pump. Take care no water is pouring out.

Unscrew bolts (2x) holding the drain pump from the side.



Replace in reverse order.

9. Specifications

Specification	Unit	Model
General		90-2
Length	mm	900
Depth (pass through)	mm	823
Depth (solid Back)	mm	804
Depth (incl. extration hood)	mm	853
Height	mm	1080
Height (with TDR 5 AC)*	mm	2000
Height (with TDR 5 M/S)*	mm	1946
Height (with EG 5)*	mm	1946
Height (with TG 4)	mm	1796
Weight (net)	kg	133
Weight (gross)	kg	165
Packaging dimensions (W x D x H)	mm	980 x 920 x 1310
Nr. of presentation levels	#	2
Dimensions bottom shelf	mm	550 x 800
Dimensions top shelf	mm	475 x 800
Shelf display area	m2	0,82
Usable display volume	l	149

* Does not include optional extraction hood (adds 372 mm height)

Specification	Unit	Model
Performance		90-2
TDA*	m2	0,99
TEC at climate class 0*	kWh/h	1,39
TEC at climate class 0*	kWh/day	33,38
TEC/TDA at climate class 0*	kWh/day/m2	33,72
Sound pressure	dB(A)	<55
Minimum ambient temperature	°C	20
Maximum ambient temperature	°C	30
Maximum relative air humidity	%	60

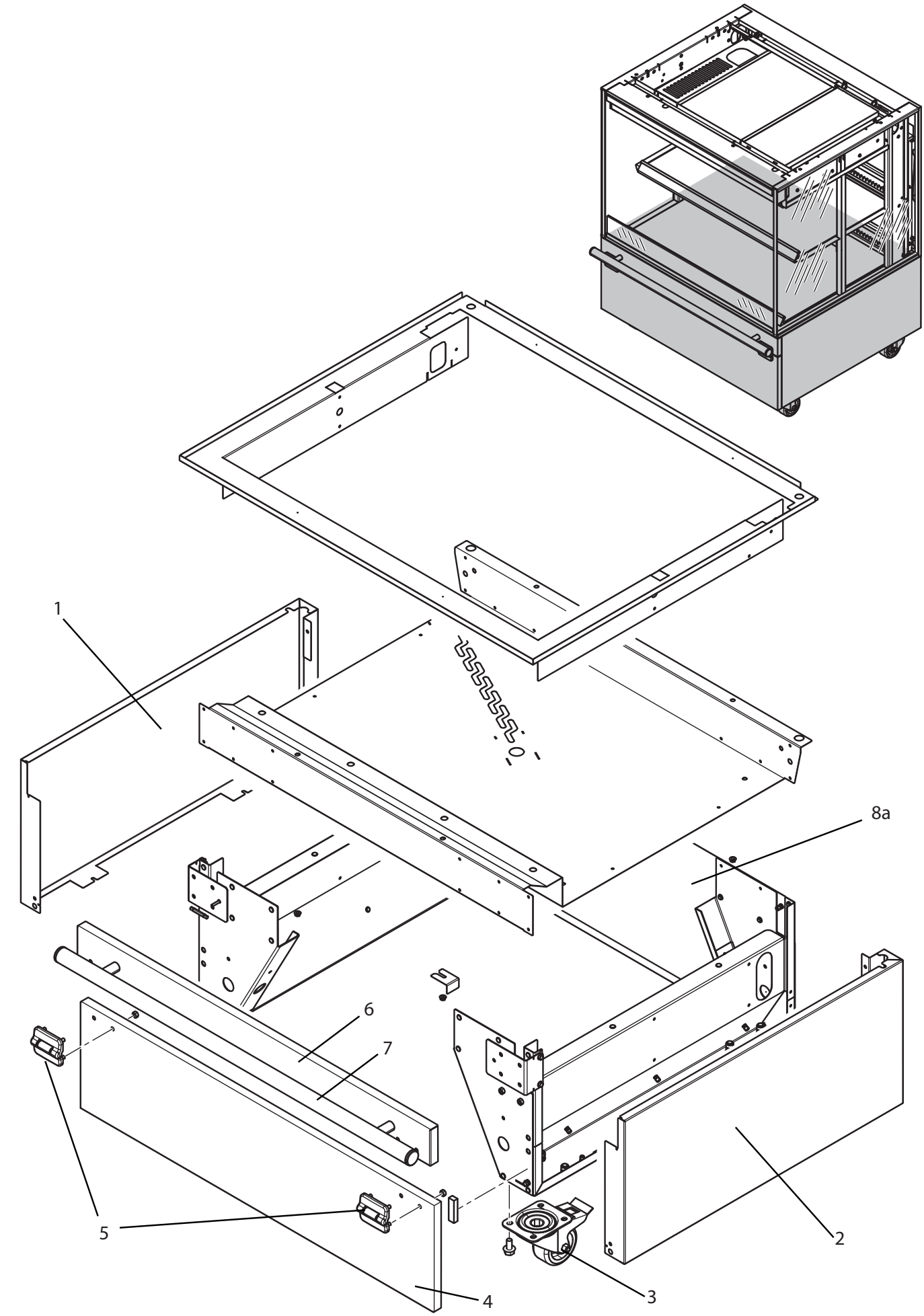
* According ISO23953

9. Specifications

Specification	Unit	Model
Electrical		90-2
Electrical connection		CEE-form16A*
Nominal voltage	V	3N~ 400/230
Nominal frequency	Hz	50/60
Maximum power **(without rotisserie)**	kW	2,2
Maximum power (incl. TDR 5)	kW	8,8
Maximum power (incl. EG 5)	kW	8,1
Maximum power (incl TG 4)	kW	7,4
Nominal current **(without rotisserie)**	A	5,3
Nominal current (incl. TDR 5)	A	15,3
Nominal current (incl. EG 5)	A	15,3
Nominal current (incl TG 4)	A	14,3
Required fuses	#	3 x 16A
Heating fan power	W	11
Nr.of heating fans (total)	#	6
Heating element bottom shelf	W	1125 (-0/+10%)
Heating element top shelf	W	850 (-0/+10%)
LED lighting power	W	25

* Standard plug

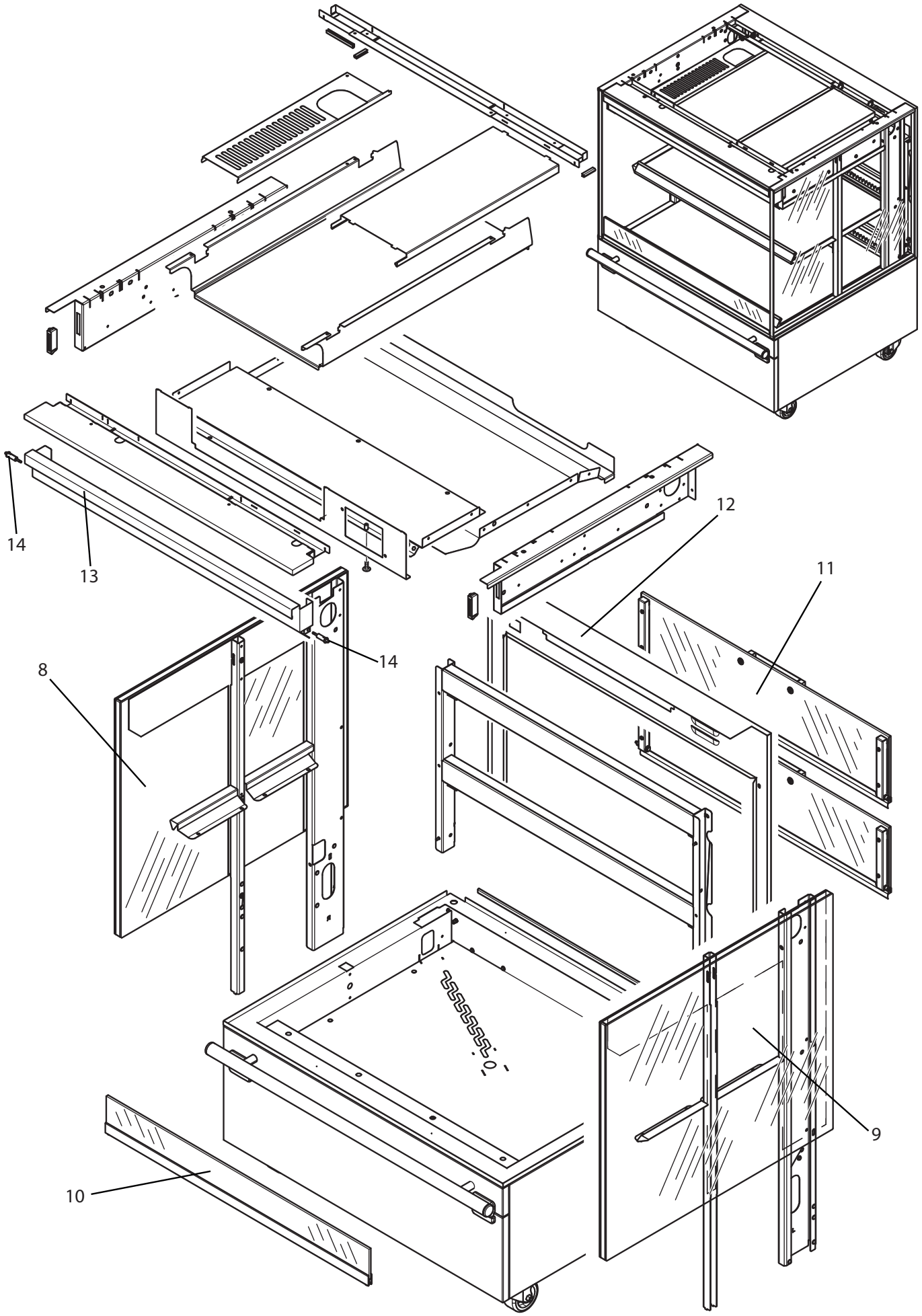
10. Exploded view 9419000 MSS Premium



10. Exploded view 9419000 MSS Premium

Number	Description	Article number	Quantity
1	Side panel right	9414029	1
2	Side panel left	9414043	1
3	Castor with brake	9172066	2
	Castor without brake	9172125	2
4	Front panel bottom	9414024	1
5	Hinge	9411004	2
6	Front panel top	9414023	1
7	Bumper	9380435	1
8a	Back panel	9414052	1

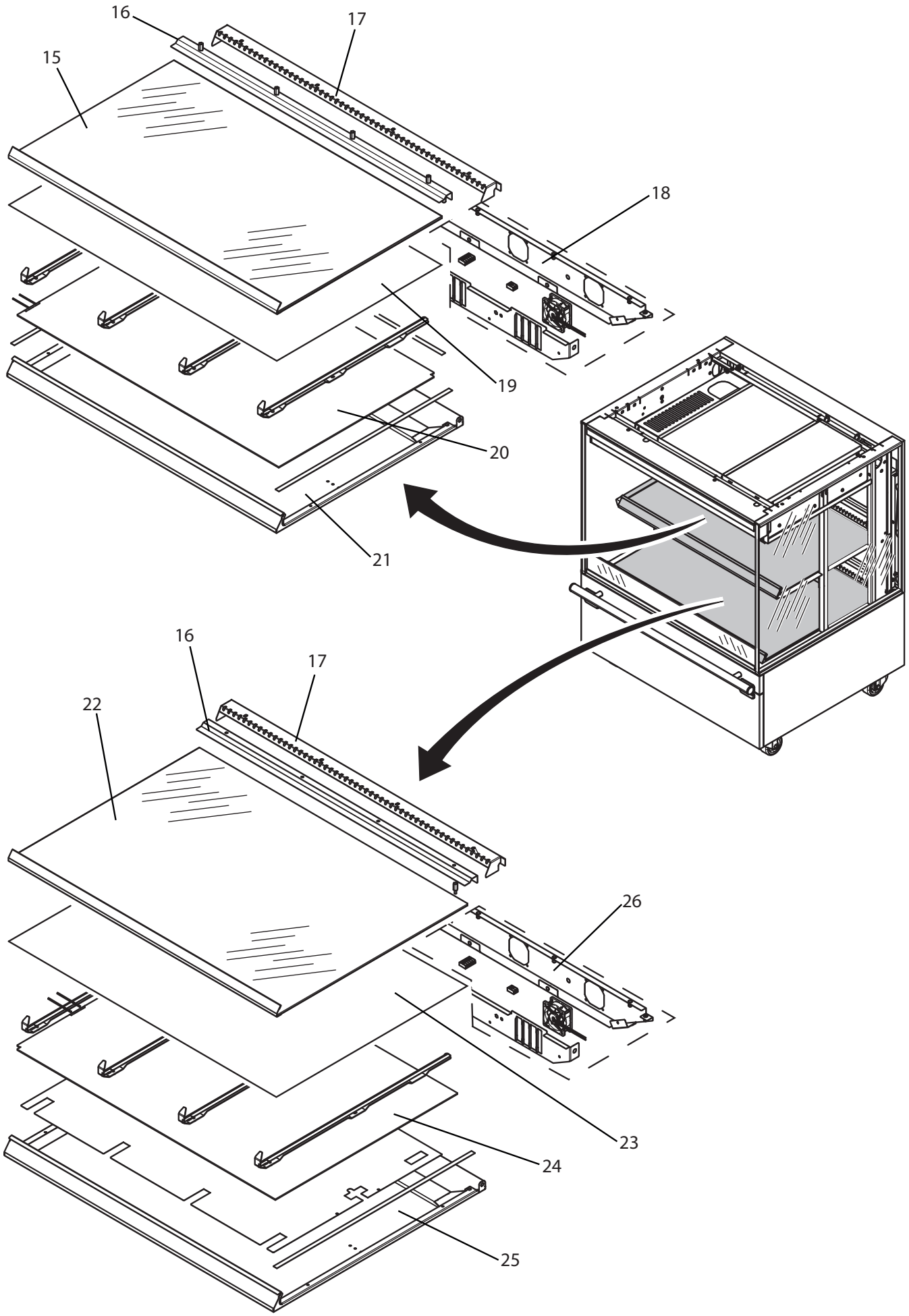
10.1 Exploded view 9419000 MSS Premium



10.1 Exploded view 9419000 MSS Premium

Number	Description	Article number	Quantity
8	Side glass panel right	9412002	1
9	Side glass panel left	9412001	1
10	Child guard	9400003s	1
11	Flap door	9400011	2
12	Cover frame PT	9414036	1
13	Cover operational panel turn able	9410402	1
14	Hinge pin	9382773	2

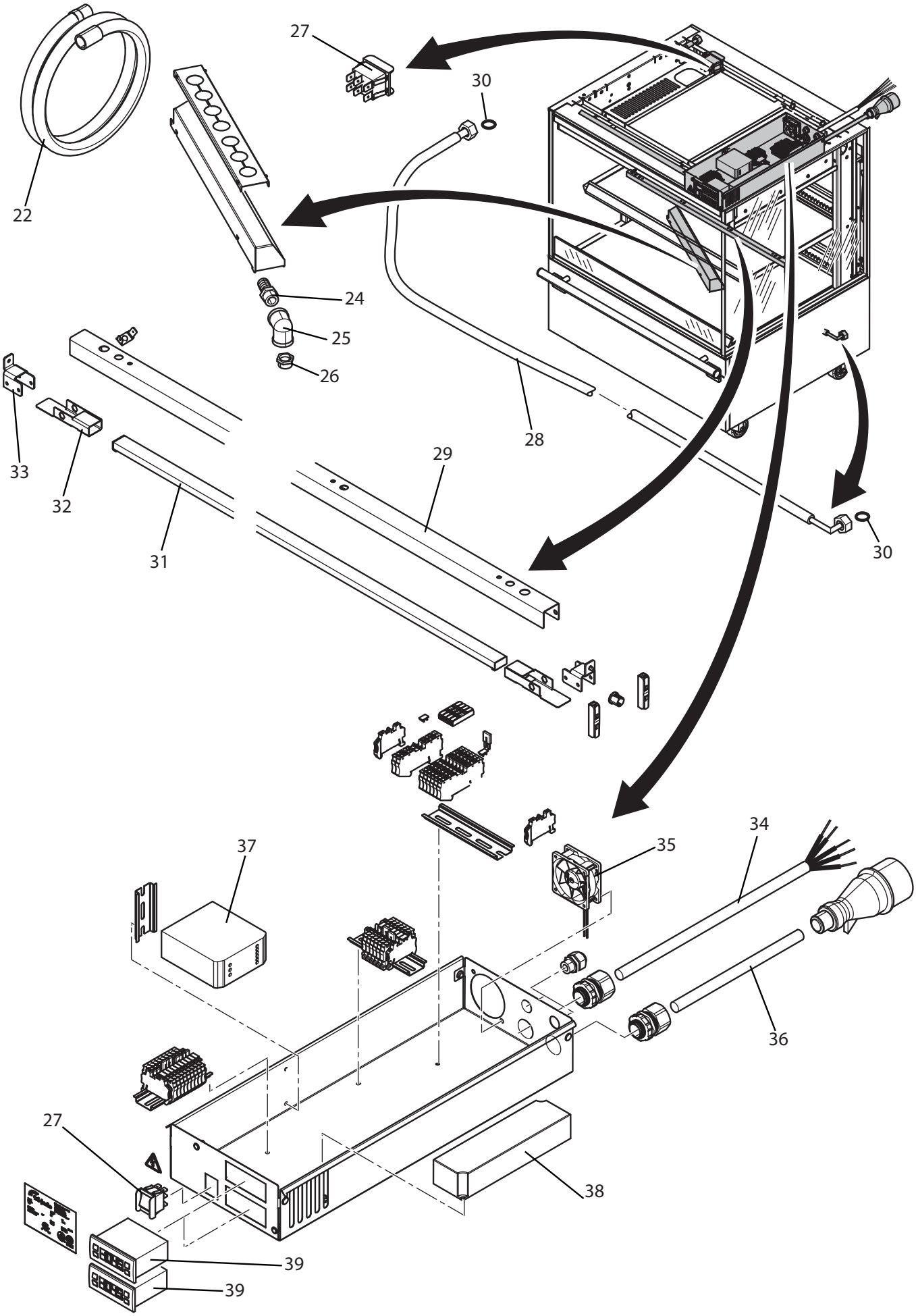
10.2 Exploded view 9419000 MSS Premium Shelfs



10.2 Exploded view 9419000 MSS Premium Shelfs

Number	Description	Article number	Quantity
15	Glass shelf top	9382140	1
16	Glass clamp	9384937	2
17	Rear cover Shelf	9384931	2
18	Fan box top shelf	9380353s	1
19	Reflector plate top	9414056	1
20	Heating element top 850W (775 x 470)	9382092	1
21	Shelf base top	9380353	1
22	Glass shelf bottom	9382142	1
23	Reflector plate bottom	9384226	1
24	Heating element bottom 1125W (775 x 540)	9382093	1
25	Shelf base bottom	9380441	1
26	Fan box bottom	9380353s	1

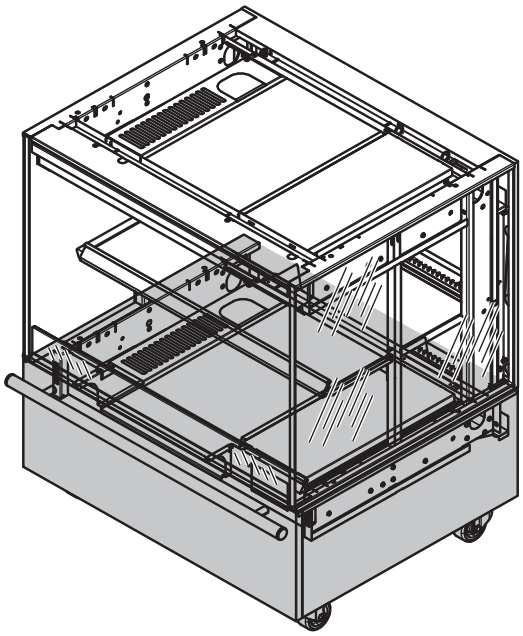
10.3 Exploded view 9419000 MSS Premium Electrical

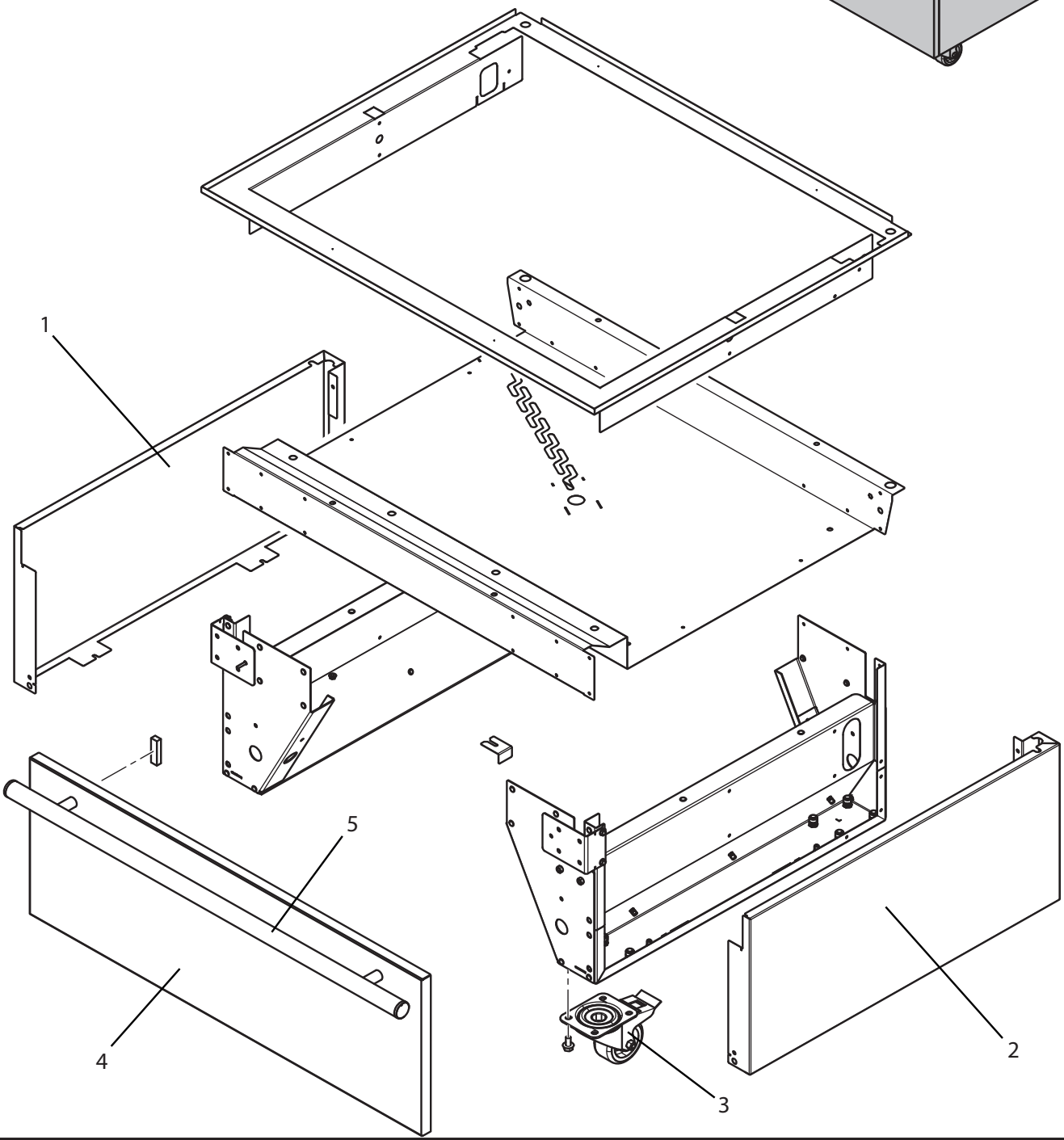


10.3 Exploded view 9419000 MSS Premium Electrical

Number	Description	Article number	Quantity
22	Hose drain	9411003	1
24	Reduction nipple	9191226	1
25	Elbow threaded	9301030	1
26	Coupling	9301106	1
27	Main switch ON-ON black 250V with guard	9391001	1
28	Water supply hose	9411008	1
29	LED armature	9384199	1
30	Gasket Seal EPDM 25 5X12X3	9191227	2
31	LED	9382067	2
32	LED mounting bracket	9384093	4
33	LED mounting bracket	9384091	4
34	Connection power cable CE 2,5QMM 1M 16A_leads	9412005	1
35	Compact fan	9381015	1
36	Power cable CE 2,5QMM 5M 16A_leads	9412004	1
37	Power supply 24V/DC 40W	9381012	1
38	LED driver100W 12V 50/60 Hz	9381038	1
39	Controller Eliwell IC PLUS 902 230V UL	9281071	2

11. Exploded view 9419001 MSS Essential

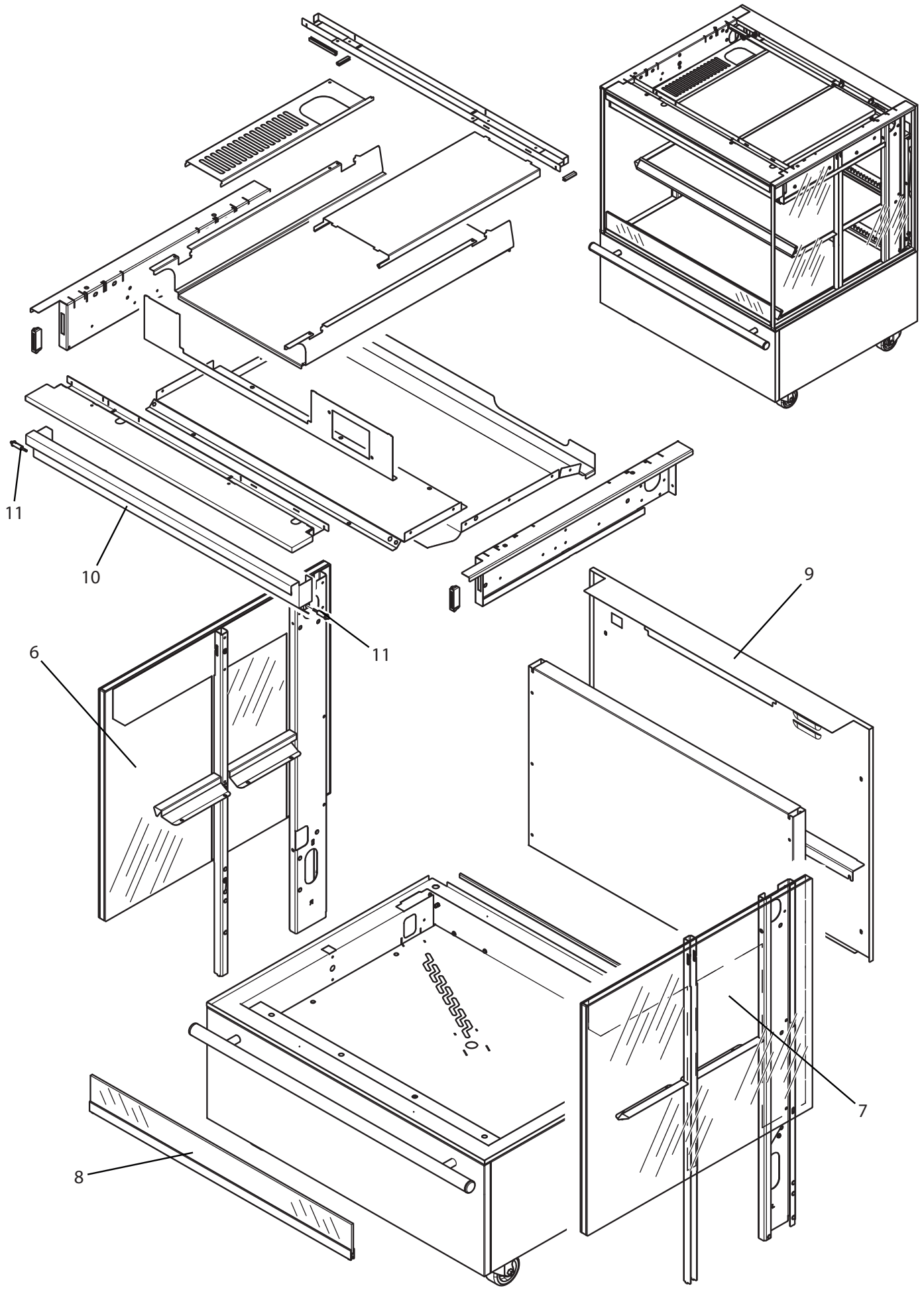




11. Exploded view 9419001 MSS Essential

Number	Description	Article number	Quantity
1	Side panel right	9414029	1
2	Side panel left	9414043	1
3	Castor with brake	9172066	2
	Castor without brake	9172125	2
4	Front panel	9414048	1
5	Bumper	9380435	1

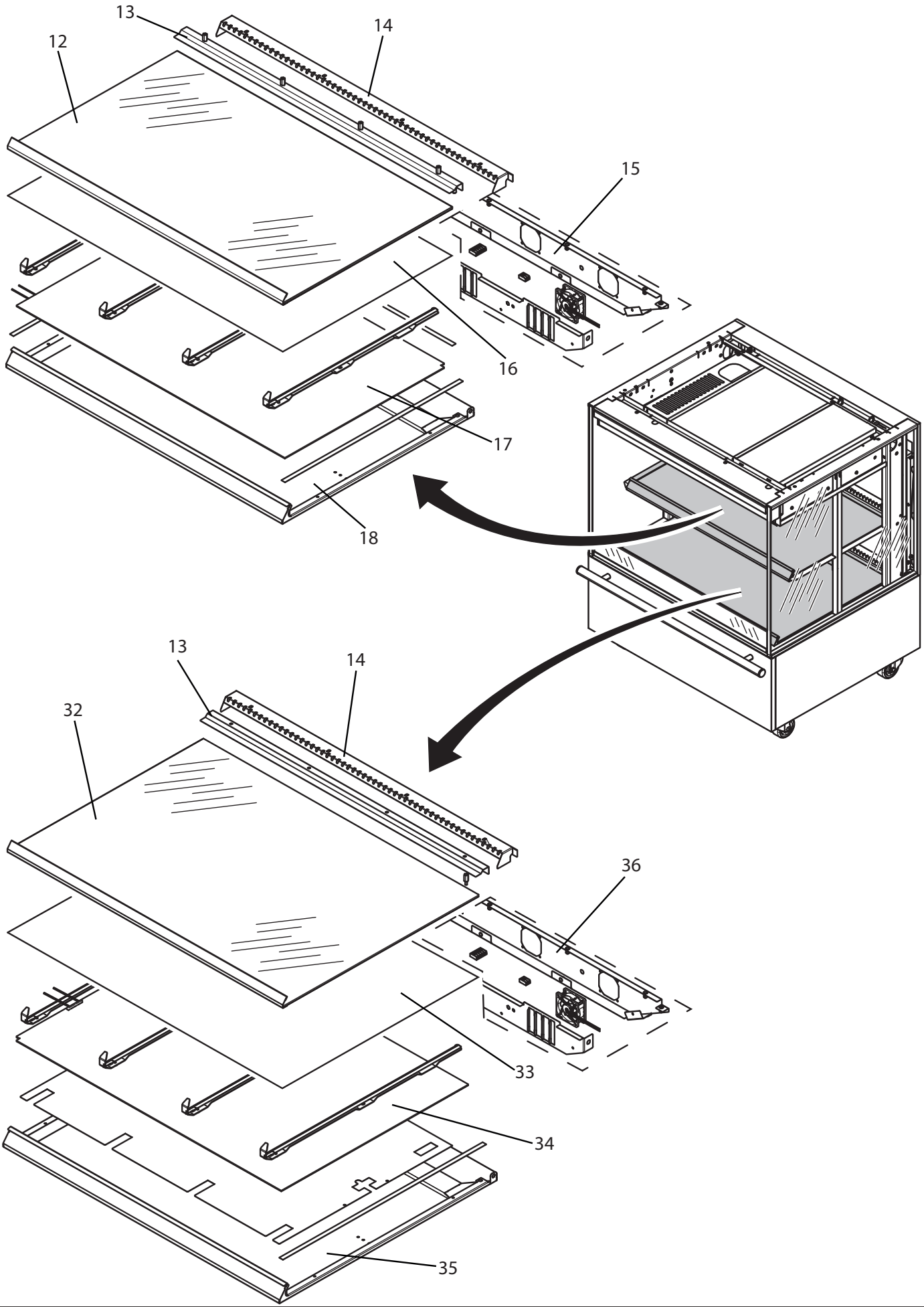
11.1 Exploded view 9419001 MSS Essential



11.1 Exploded view 9419001 MSS Essential

Number	Description	Article number	Quantity
6	Side glass panel right	9412002	1
7	Side glass panel left	9412001	1
8	Child guard	9400003s	1
9	Back panel Solid back	9414037	1
10	Cover operational panel turn able	9410402	1
11	Hinge pin	9382773	2

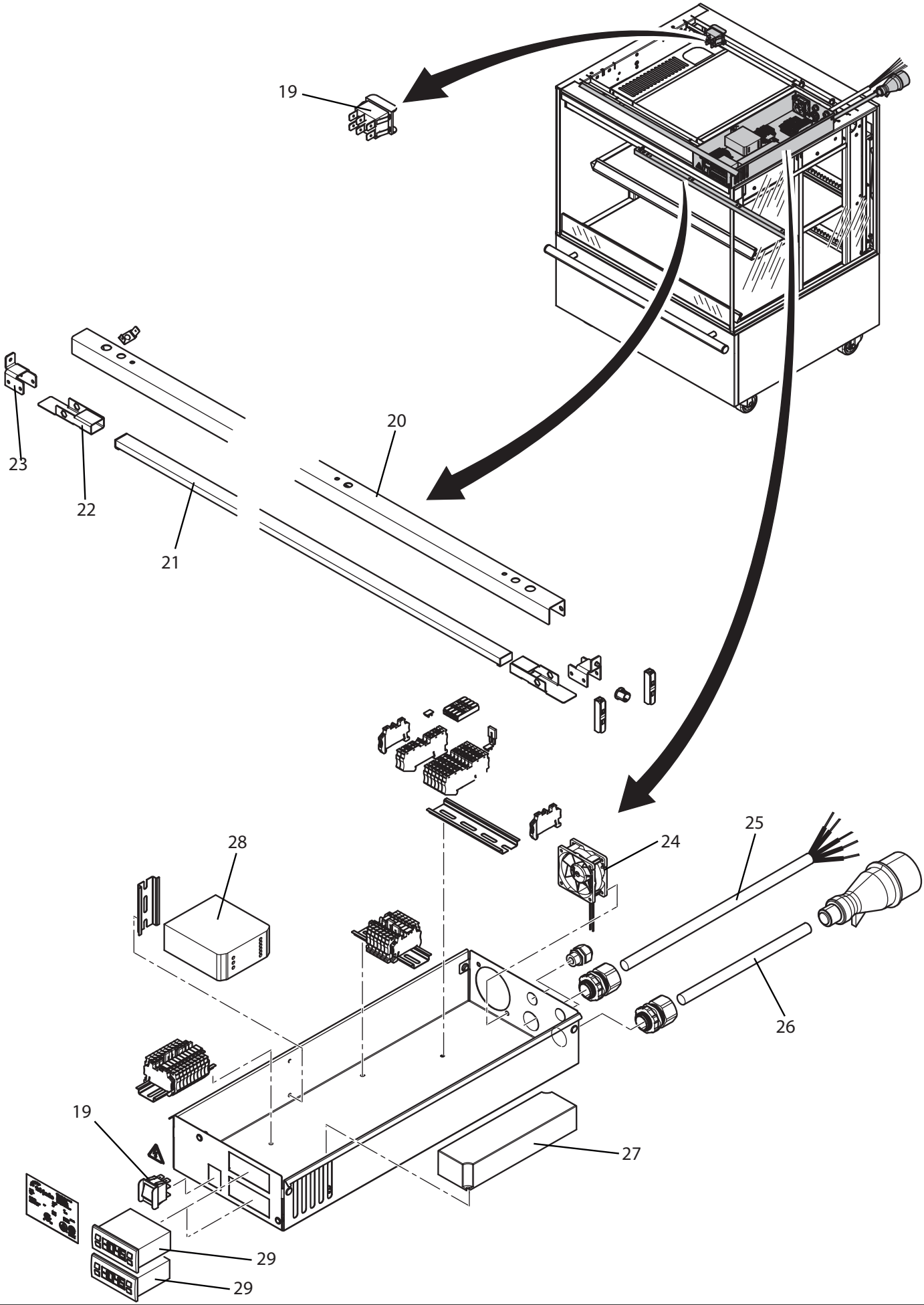
11.2 Exploded view 9419001 MSS Essential Shelfs



11.2 Exploded view 9419001 MSS Essential Shelfs

Number	Description	Article number	Quantity
12	Glass shelf top	9382140	1
13	Glass clamp	9384937	2
14	Rear cover Shelf	9384931	2
15	Fan box top shelf	9380353s	1
16	Reflector plate top	9414056	1
17	Heating element top 850W (775 x 470)	9382092	1
18	Shelf base top	9380353	1
32	Glass shelf bottom	9382142	1
33	Reflector plate bottom	9384226	1
34	Heating element bottom 1125W (775 x 540)	9382093	1
35	Shelf base bottom	9380441	1
36	Fan box bottom	9380353s	1

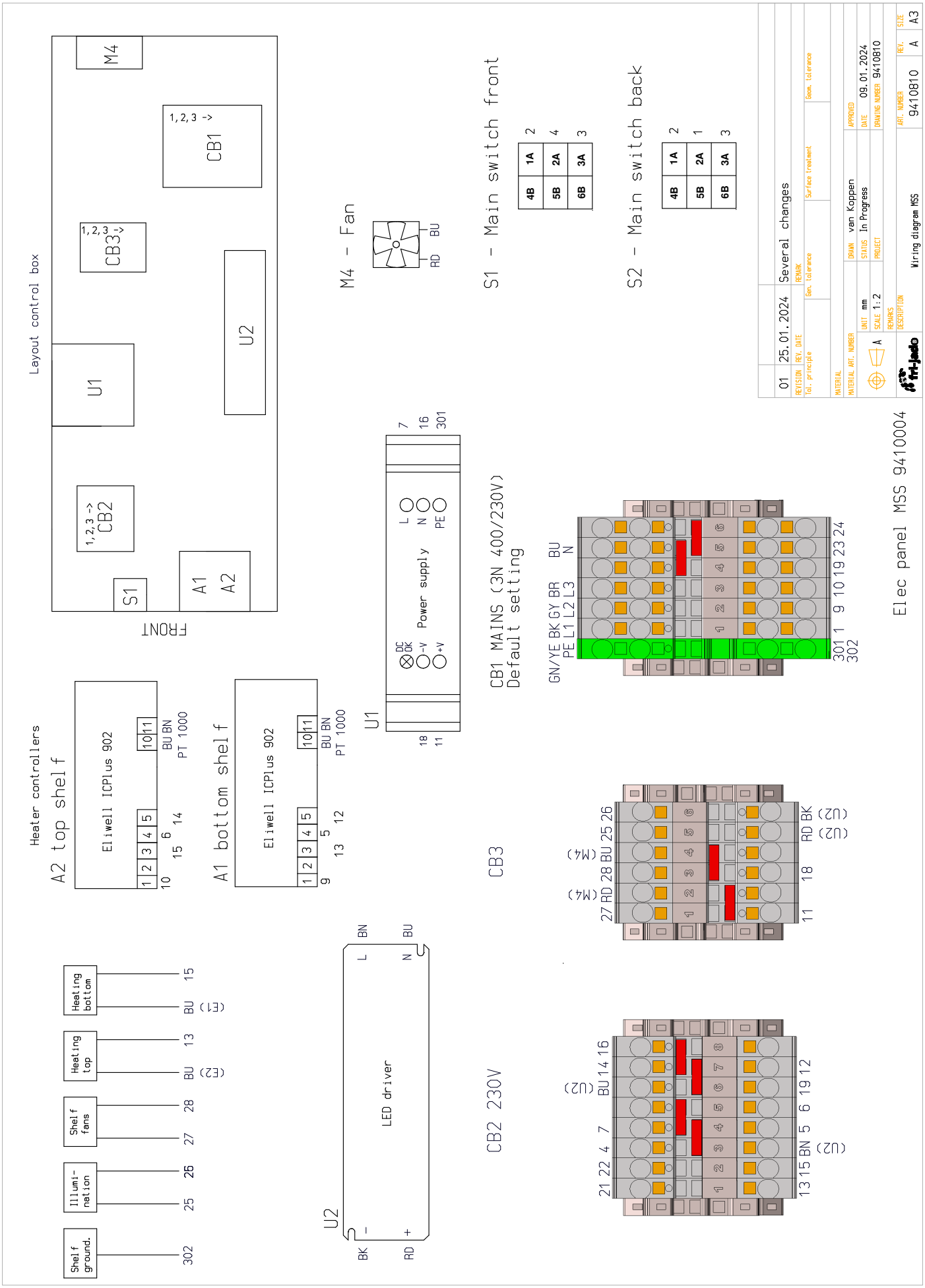
11.3 Exploded view 9419001 MSS Essential Electrical



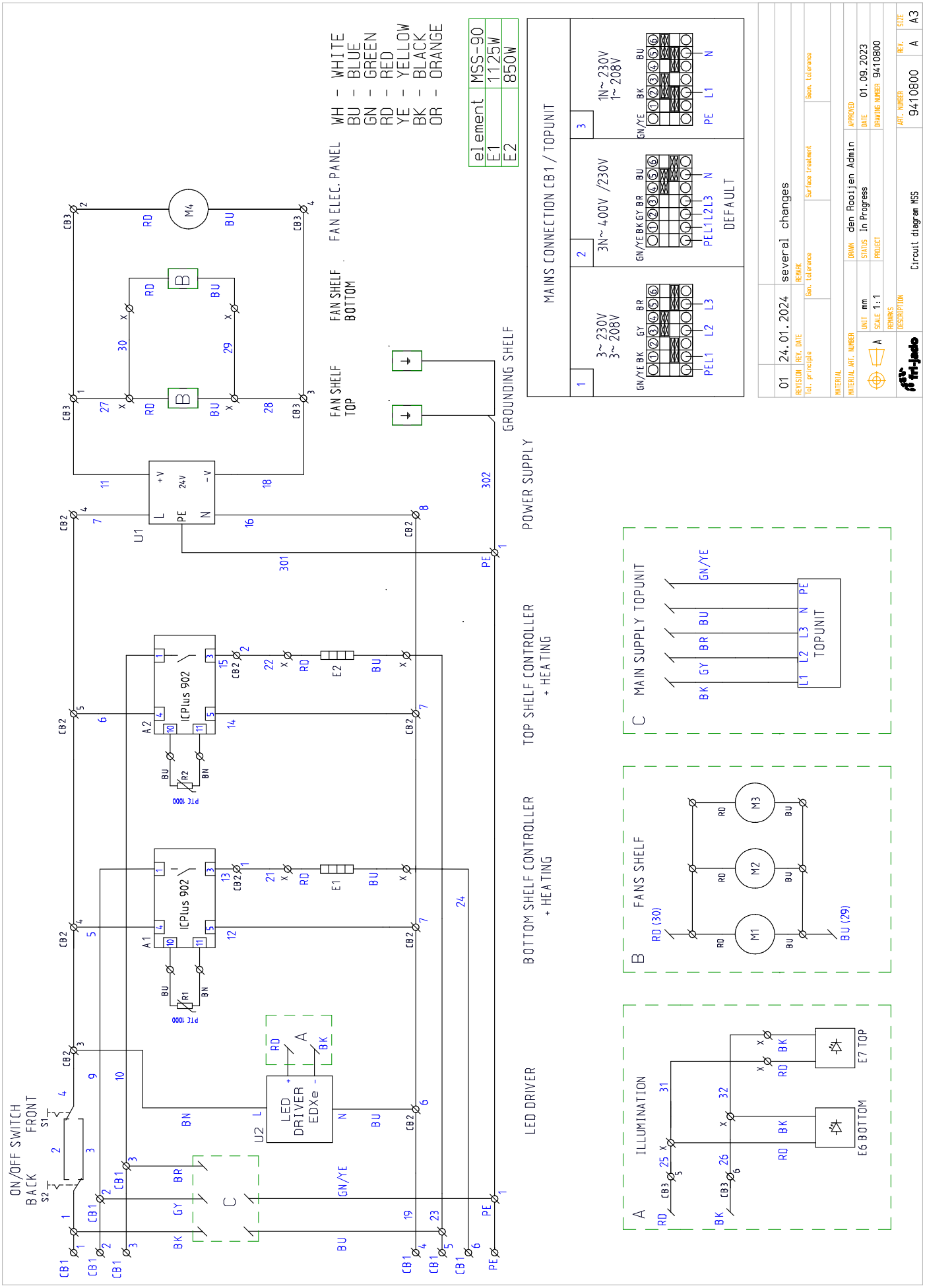
11.3 Exploded view 9419001 MSS Essential Electrical

Number	Description	Article number	Quantity
19	Main switch ON-ON black 250V with guard	9391001	1
20	LED armature	9384199	1
21	LED	9382067	2
22	LED mounting bracket	9384093	2
23	LED mounting bracket	9384091	2
24	Compact fan	9381015	1
25	Connection power cable CE 2,5QMM 1M 16A_leads	9412005	1
26	Power cable CE 2,5QMM 5M 16A_leads	9412004	1
27	Power supply 24V/DC 40W	9381012	1
28	LED driver100W 12V 50/60 Hz	9381038	1
29	Controller Eliwell IC PLUS 902 230V UL	9281071	1

12. Electrical schematic wiring



12.1 Electrical schematic circuit



Fri-Jado B.V.
Blauwhekken 2
4751 XD Oud Gastel
The Netherlands
Tel: +31 (0) 76 50 85 400

Fri-Jado Inc.
1401 Davey Road, Suite 100
Woodridge IL 60517
USA
Tel: +1-630-633-7950

https://www.frijado.com