

## 9124850 SERVICE MANUAL MTT EU



### - 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 **MTT** configurations and is not intended to be all encompassing. The individual specifications may differ.

Procedures for which you do not have the necessary tools, instruments or skills should not be performed by you.

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.

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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. All rights are reserved and nothing in this manual may be reproduced and/or made public in any way.

**Modifications:**

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

The information presented in this document is valid for standard counter 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.

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# 1. Introduction

## 1.1 General

This manual is intended for trained technicians, performing repairs of the MTT.

The features and controls are being described, along with directions for the safest and most efficient way to service these counters.

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

### SAFETY symbols:



#### SAFETY

Wear safety gloves for installation repair and dismantling.



#### SAFETY

Wear eye protection.



#### SAFETY

Disconnect power plug from outlet.



#### SAFETY

Clean hands and/or tools.



#### Notification

Take care of:



#### Reading

Instructions referred to, to be read.



#### Minimum room floor area.



#### Cleaning

Not Allowed to use water hose.



#### Cleaning

On regularly interval.



#### Disposal

According local regulations.



#### Recycling symbol

## 1.3 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

## 1.4 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. Introduction

## 1.5 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](mailto: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



The MTT is an open front multilevel self-service heated table top display cabinet intended for hot presentation of packaged food products.

Each 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.

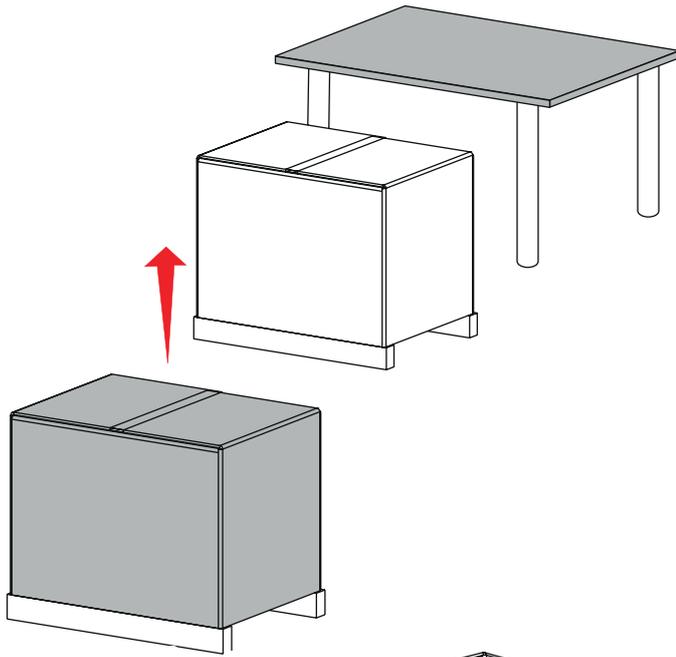
Digital controllers are installed to individually regulate the temperature for each shelf inside the cabinet.

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

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



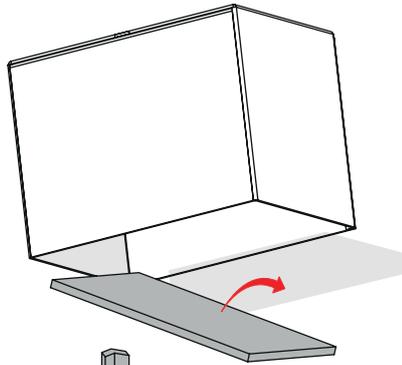
### 3. Unpacking



1. Place the box, containing the MTT close to the counter where the units needs to be placed on, preferably at the same level.

Be sure to check on transport damage before unpacking.

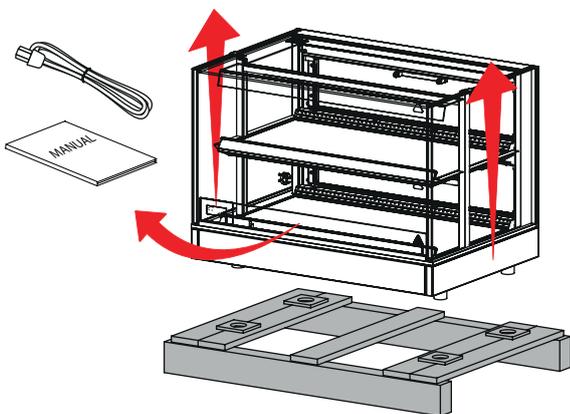
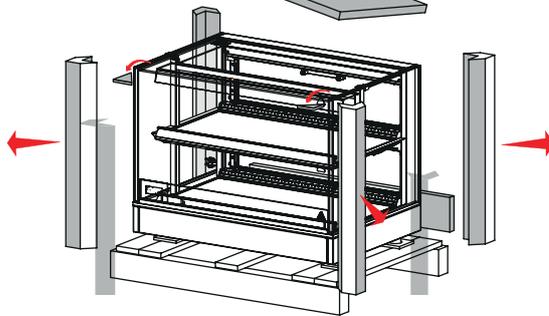
2. Remove the strap and lift the box from the pallet.



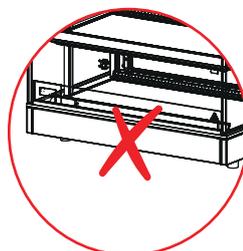
3. Remove all the Styrofoam inserts, the foil wrap and the protective corners on the top-glass.



Remove all package material with respect to local regulations

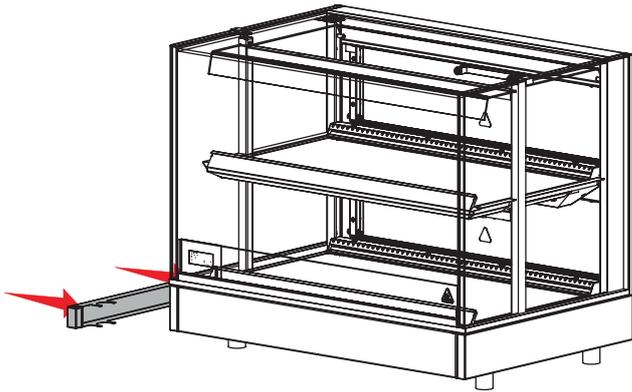


4. Take the manual, power cord and the unit out and lift the unit from the pallet onto the counter.



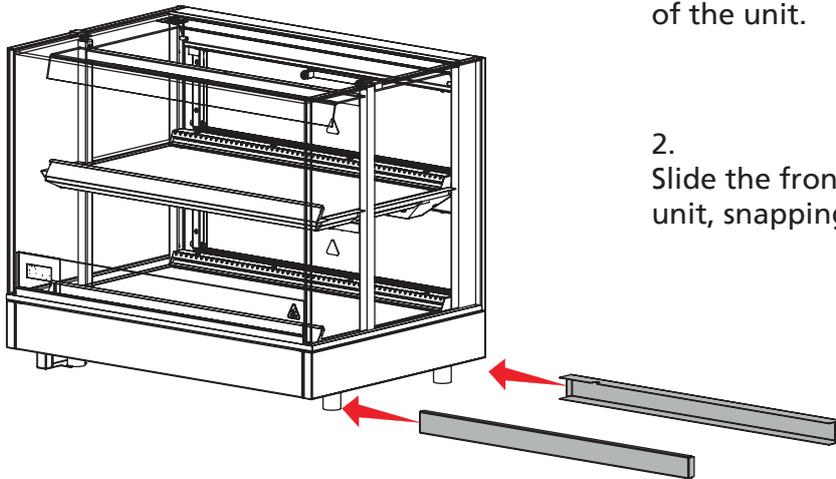
Do not lift the unit on the front panel.

## 3.1 Plinth set

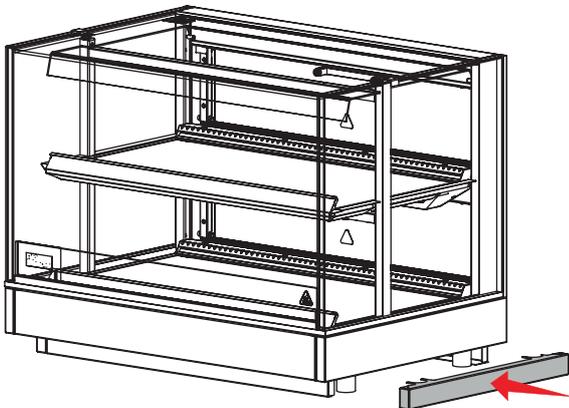


Mandatory for the US market, optional for the EU market available plinth set for the MTT.

1. Slide one of the side plinths with the fittings over the legs. Make sure the plinth lays flush with the back side of the unit.



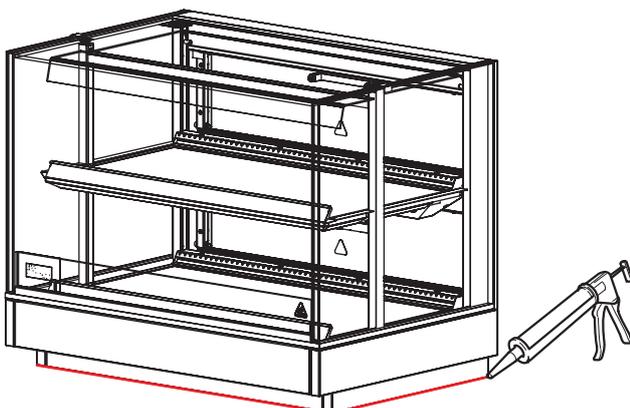
2. Slide the front and back plinths underneath the unit, snapping them into place.



3. Close everything up by placing the second side plinth around the legs, snapping into the back and front plinth.

4. Mandatory for the US market, optional for the EU market.

Seal the bottom edges of the plinth to the counter by adding a silicon sealant.



If the power cord needs to go underneath the unit, the back plinth will have an opening which needs to be facing upwards.

If the power cord goes around the unit, the opening of the back plinth must face downwards.

## 4. Installation

### Placement of the unit

#### WARNING

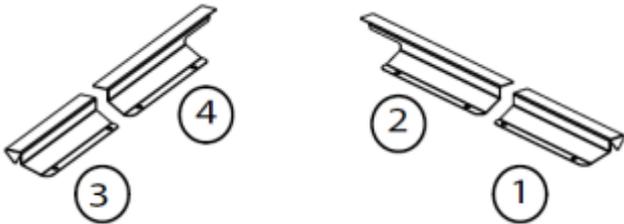


Position the unit on a flat and horizontal surface.  
A temporally inclined plane of maximum 5° is allowed.

- 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.***

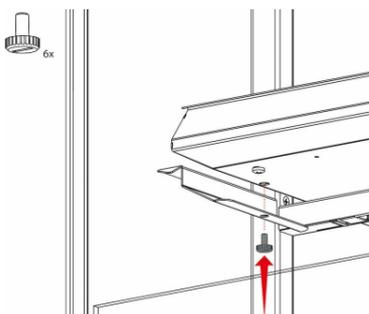
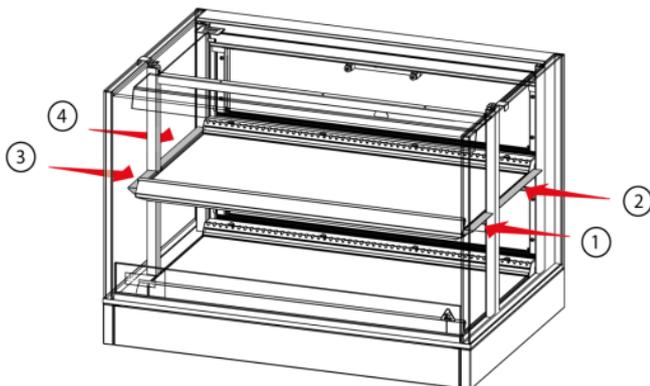


#### 4.1 Air blockers

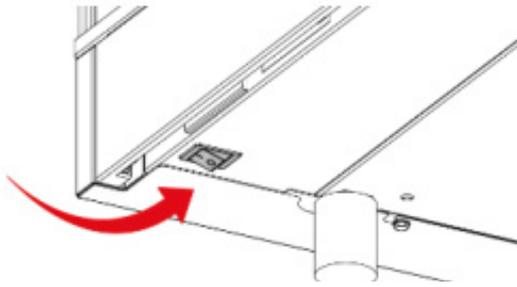
It is important that the air blockers remain on the shelf.

**Without the air blockers the performance of the MTT cannot be guaranteed!**

The installation of the air blockers is shown on the figures on the left.



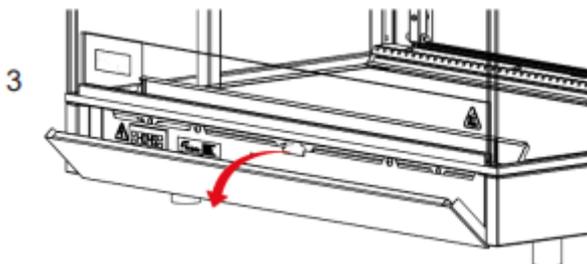
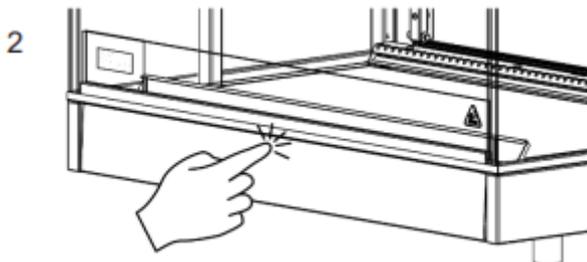
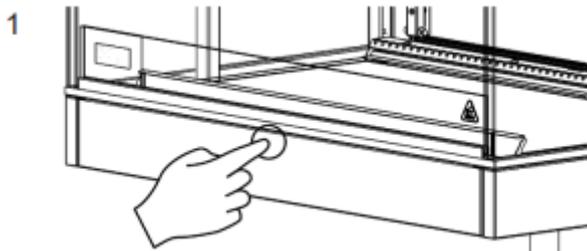
## 5. Operation; Control panel



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

### On/Off Switch(es):

The main switch is located left underneath the front of the unit.



### Controls:

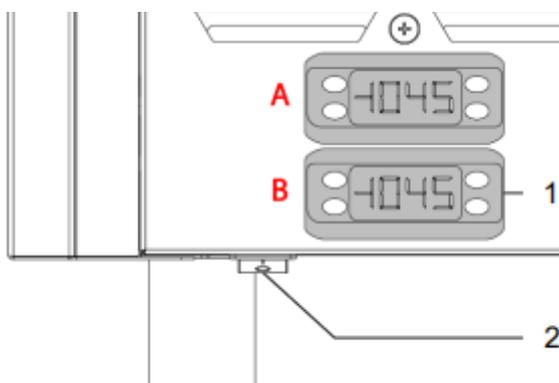


Note: The controls are located behind the front panel of the unit.

To access the controls:

1. Push at the upper middle of the panel.
2. Stop pushing when you have reached the end, then gently release to place the front panel ajar.
3. Pull the front panel from the magnetic lock to fully open the front panel.

To close the panel, attach the front panel to the magnetic lock and keep pushing until you can feel or hear the click again.



### Temperature

1 = Temperature controller(s) (heating).

2 = On/Off switch.

### Display multi temperature controller

A controller for each shelf to switch it on/off and control it separately. The controllers are positioned in the same way as the shelves.

So letter 'A' shows the top shelf controller and letter 'B' shows the bottom shelf controller.

## 5.1 Operation; Temperature controller



### Temperature controller

-  Power on/off button\*
-  Up-button
-  Down-button
-  SET  Set-button

\*Switch on/off: hold for several seconds

 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.

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.

### 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.

## 5.2 Operation; Loading and adjusting

### LOADING TEMPERATURE

Strongly advised core temperature **85°C!**

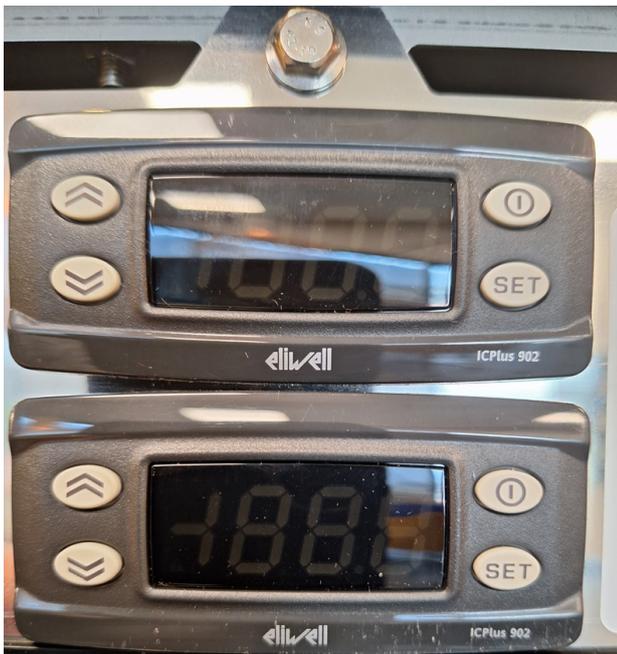
This means the core temperature of the products loaded into the MTT preferably should be 85°C.

This preferred temperature is depending on product type and packaging. To determine optimal storage conditions for different product/packaging/accessory combinations, please contact Fri-Jado.

### Temperature controller

	Power on/off button*
	Up-button
	Down-button
SET 	Set-button

\*Switch on/off: hold for several seconds



### Loading the unit

- Only place products that have a core temperature of (if possible) 85°C.
- The hot products need to be packaged in bags or containers that are suitable for this purpose.
- To ensure a good contact with the heated trays, only place a single layer of products.
- The maximum loading height is 50 mm below the bottom of the shelf/air guide above.
- The maximum carrying-capacity per shelf is 30 kg/m, by equal load.

### 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.

## 5.3 Operation; Parameter settings

### Controller settings: **Top shelf**

Parameter setting, different from default.

#### 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	-8	°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	

### Controller settings: **Bottom shelf**

Parameter setting, different from default.

#### 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	-5	°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 cup board.
- Are all the switches in the correct "on" position?

Item	Malfunction	Possible action
Unit	Unit does not work	<ul style="list-style-type: none"> <li>• Check the power supply.</li> <li>• Are all switches in the correct position.</li> </ul>
Unit	Display shows error code	<ul style="list-style-type: none"> <li>• Contact your supplier or service agency.</li> </ul>
Lamp	Does not light up	<ul style="list-style-type: none"> <li>• Switch ON.</li> </ul>
Mains cord	Damaged	<ul style="list-style-type: none"> <li>• Replace.</li> </ul>
Window	Damaged	<ul style="list-style-type: none"> <li>• Replace.</li> </ul>

### 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.

	Power	Current	Resistance
Shelf	<i>Watt</i>	<i>Ampere</i>	<i>Ohm</i>
<b>MTT 60</b>			
Top	570	t.b.d.	t.b.d.
Bottom	570	t.b.d.	t.b.d.
<b>MTT 90</b>			
Top	855	t.b.d.	t.b.d.
Bottom	855	t.b.d.	t.b.d.

### 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, values see table.

##### Current

1. Place ampere pliers around red wire of element.
2. In normal working condition, test current see table. (230V version)

Temperature		Resistance $\Omega$
$^{\circ}F$	$^{\circ}C$	$\pm 5 \text{ Ohms}$
-4	-20	951
14	-10	877
32	0	807
50	10	740
68	20	677
77	25	990

### 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.

## 6. Trouble shooting

Symptom	Possible causes
No power	<ul style="list-style-type: none"> <li>• Main circuit breaker open</li> <li>• Fuse Blown</li> <li>• Loose wire connection</li> </ul>
Main fuse or breaker blown	<ul style="list-style-type: none"> <li>• Wiring incorrectly</li> <li>• Short circuit heating element</li> <li>• Short circuit fan element</li> <li>• Short circuit wiring</li> </ul>
Illumination does not work	<ul style="list-style-type: none"> <li>• Led malfunction</li> <li>• Tumble switch malfunction</li> <li>• Led driver malfunction</li> <li>• Loose / short circuit wiring connection</li> </ul>
No heating	<ul style="list-style-type: none"> <li>• Heating element malfunction</li> <li>• Relay malfunction</li> <li>• Loose wiring connection</li> <li>• Thermostat malfunction</li> <li>• Loos wiring connection</li> <li>• Air flow not functioning</li> </ul>
Unit does not reach desired temperature	<ul style="list-style-type: none"> <li>• Heating element malfunction</li> <li>• Strong air current along unit / Draft</li> <li>• Sensor malfunction</li> <li>• Doors not closed</li> </ul>
No indication on controller	<ul style="list-style-type: none"> <li>• Electronic controller malfunction</li> <li>• Blown fuse</li> <li>• Loose wiring connection</li> </ul>
No air flow inside unit	<ul style="list-style-type: none"> <li>• Fans do not work</li> <li>• Blown fuse</li> <li>• Loose wiring connection</li> <li>• 24 Vdc power supply malfunction</li> </ul>

## 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.
Child guard assy.	X			X			X	
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				

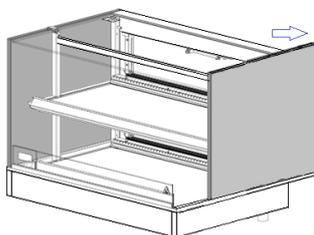
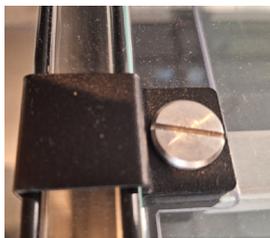
### RMA

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	Top air guide	Take out and clean
	1/year	Child guard	Check mounting/fasten if needed
	1/year	Controllers	Check parameters (only change in consultation with customer)
On call	1/year	Top Glass	Check on chips, if visible, replace
On call	1/year	Air out opening shelf	Check on blockage/clean

## 8. Replacement and adjustment



### 8.1 Opening Electra box



1. Unplug power cable from socket. 
2. Push at the upper middle of the front panel.
3. Stop pushing when you have reached the end, then gently release to place the front panel ajar.
4. Pull the front panel from the magnetic lock to fully open the front panel.
5. Unscrew the two bolts, holding Electrical box in position.
6. Gently slide out electrical box towards you, be sure not to damage or strain cables.

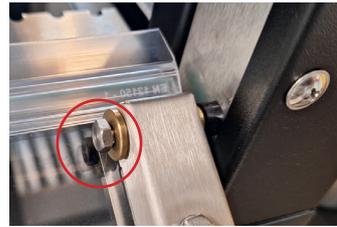
### 8.2 Top glass removal

1. Loosen screw (2x) holding down the top glass bracket.
2. Remove back panel mounting screws (4x).
3. Take off top glass.

### 8.3 Side glass removal

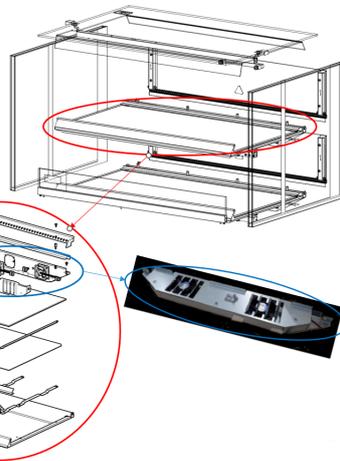
1. Remove back panel mounting screws (4x)  
*See top glass removal.*
2. Slide out side glass backwards.

## 8. Replacement and adjustment



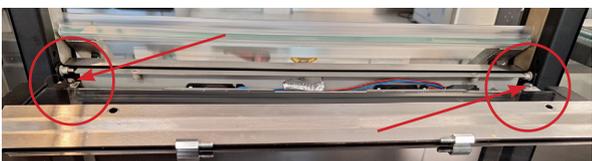
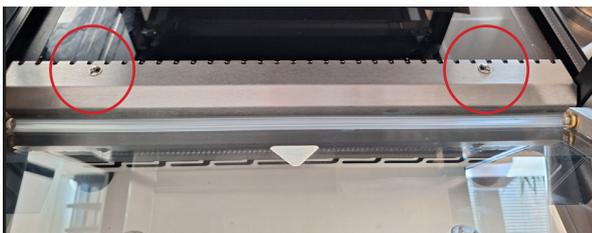
### 8.4 Flap door removal PT

1. Remove back panel mounting screws (4x)  
*See top glass removal.*
2. Remove stud screw, one on each side, while holding the flat door, to prevent the door from falling out.



### 8.5 Fan box removal

1. Remove back panel mounting screws (4x)  
*See top glass removal.*
2. Remove flap door from section you need to replace the fan box.
3. Remove Side glass refer 8.3  
(Left side seen from back of unit).
4. Unscrew rear cover shelf (2 screws)
5. Take out rear cover
6. Unscrew Stud screw (2 x)
7. Remove glass holder
8. Unscrew fan box and take out, be careful not to damage cable!
9. Disconnect Wago connections in the column



Be aware of the positive and negative wiring.  
Use a Multimeter to check.

## 9. Specifications

Specification	Unit	Model	
		60-2	90-2
General			
Length	mm	600	900
Depth	mm	610	
Height on Legs	mm	670	
Weight (net)	kg	59 (SB)/63 (PT)	79 (SB)/85 (PT)
Weight (gross)	kg	t.b.d.	t.b.d.
Packaging dimensions (W x D x H)	mm	750 x 730 x 850	1050 x 730 x 850
Nr. of presentation levels		2	
Shelf dimensions	mm	410 x 500	410 x 800
Shelf display area	m <sup>2</sup>	0,41	0,66
Usable display volume	l	34,7	55,5

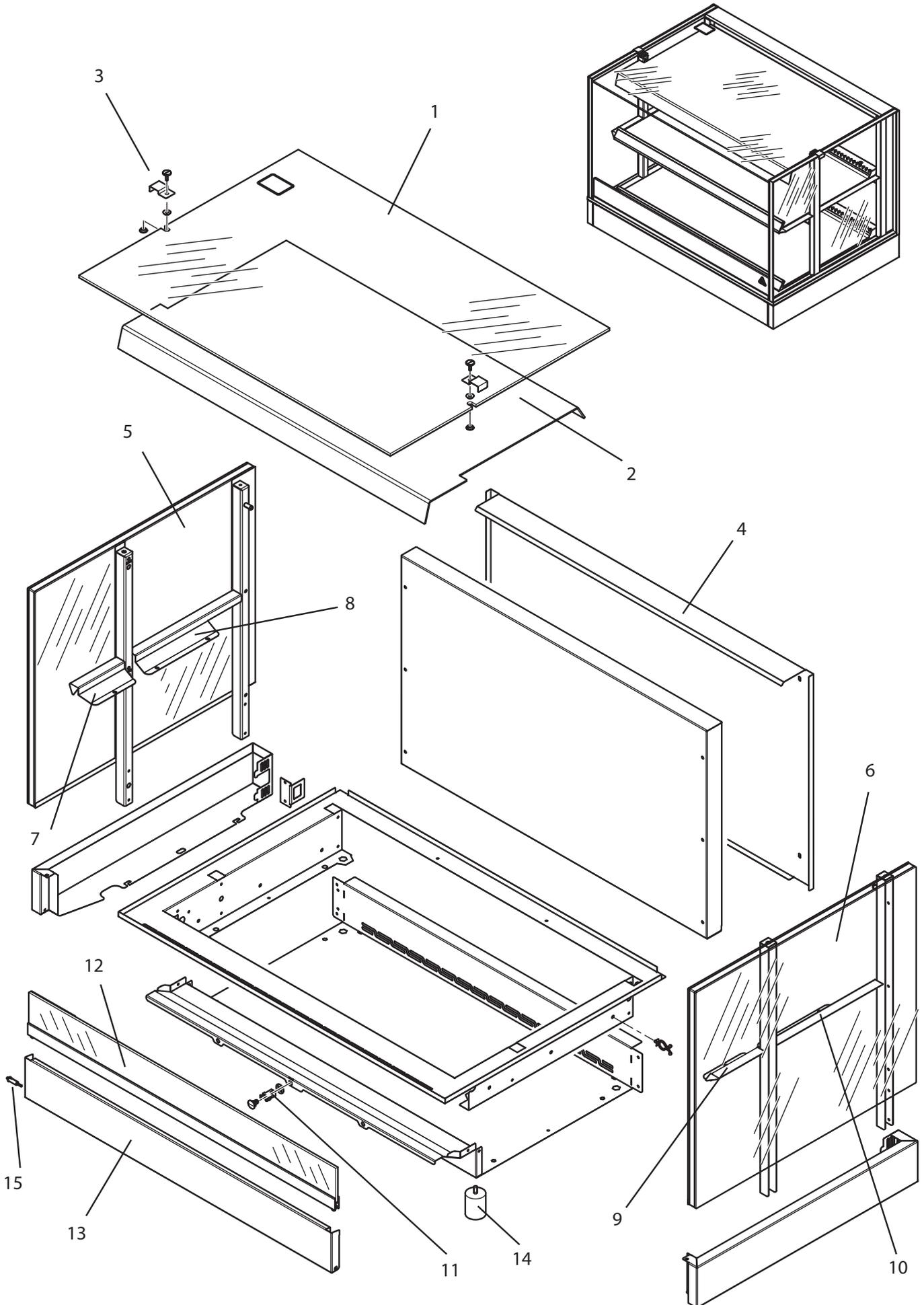
Specification	Unit	Model	
		60-2	90-2
Performance			
Shelf display area	m <sup>2</sup>	0,41	0,66
TEC at climate class 0	kWh/h	0,70	1,12
TEC at climate class 0	kWh/day	16,75	26,93
TEC/TDA at climate class 0	kWh/day/m <sup>2</sup>	40,85	
Sound pressure	dB(A)	< 55	
Minimum ambient temperature	°C	20	
Maximum ambient temperature	°C	30	
Maximum relative air humidity	%	60	

Specification	Unit	Model	
		60-2	90-2
Electrical			
Electrical connection		Two-pole earthed plug 16A*	
Nominal voltage	V	1N~ 230	
Nominal frequency	Hz	50/60	
Maximum power	W	1275	1916
Nominal current	A	5,0	7,6
Required fuses		1 x 16A	
Heating fan power	W	7	10
Nr.of heating fans (total)		4	6
Heating element power per shelf	W	570 (-0/+10%)	855 (-0/+10%)
LED lighting power	W	14	25

\* Standard plug

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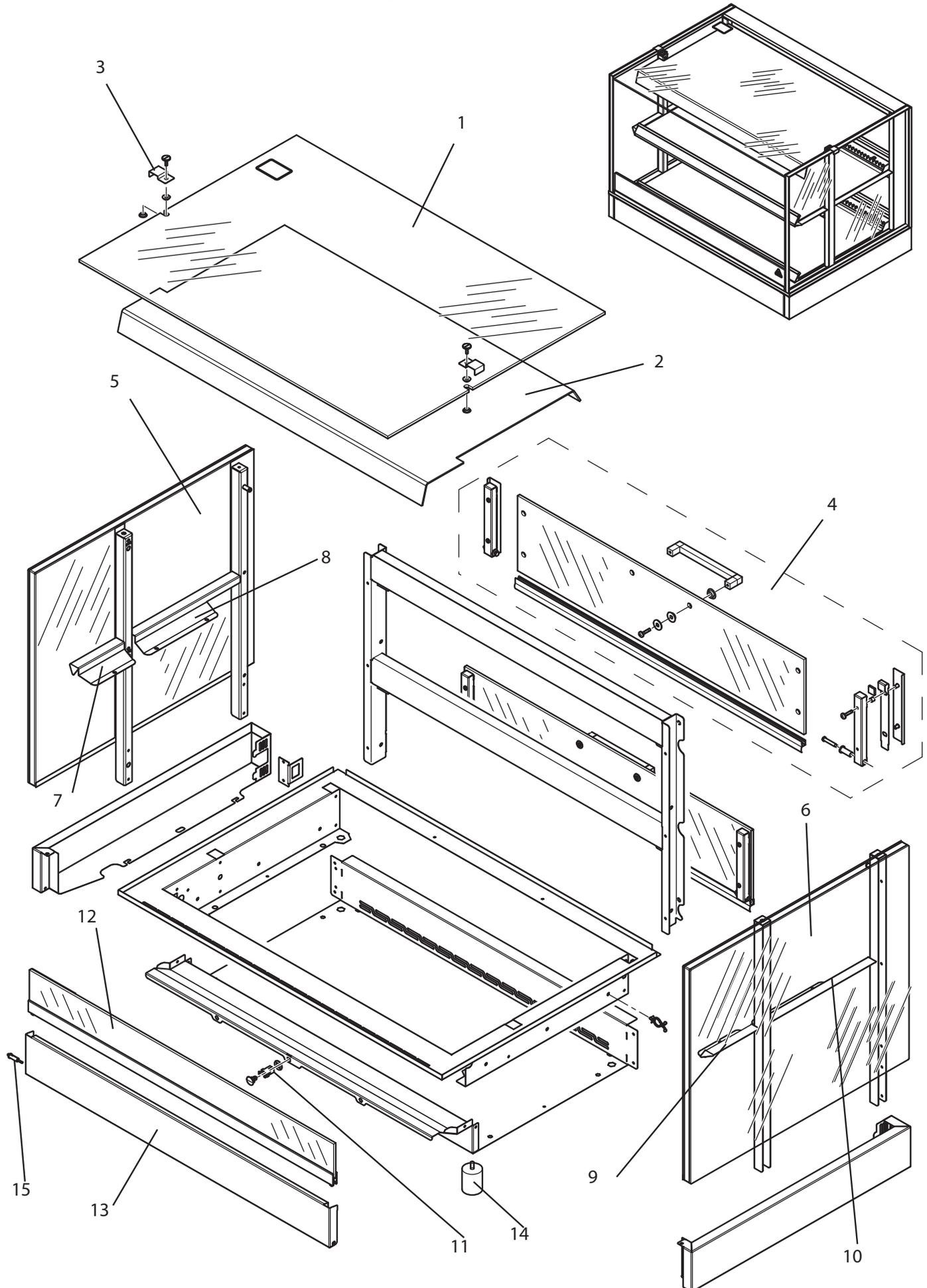
## 10. Exploded view MTT SB



## 10. Exploded view MTT SB

Number	Description	Article number	Quantity
1	Top glass <b>MTT 60</b> packed	9402008s	1
	Top glass <b>MTT 90</b> packed	9402003s	1
2	Air guide <b>MTT60</b>	9382062	1
	Air guide <b>MTT90</b>	9382061	1
3	Side glass holder	9404010	2
	Screw M5x16 socket head cap, large	4280558	2
	Collar bush PTFE 10x5x3,5	3702342	2
4	Back panel outside <b>MTT 60</b>	9404027	1
	Back panel outside <b>MTT 90</b>	9404011	1
5	Side glass left packed	9402005s	1
6	Side glass right packed	9402010s	1
7	Air blocker left top	9384068	1
8	Air blocker left rear	9384589	1
9	Air blocker right top	9384069	1
10	Air blocker right rear	9384588	1
11	Magnetic push latch	9401017	1
12	Assy. child guard <b>MTT 60</b>	9400033s	1
	Assy child guard <b>MTT 90</b>	9400003s	1
13	Front cover <b>MTT 60</b>	9404023	1
	Front cover <b>MTT 90</b>	9404020	1
14	Leg rubber	9171125	4
15	Spring loaded hinge pin	9382773	2

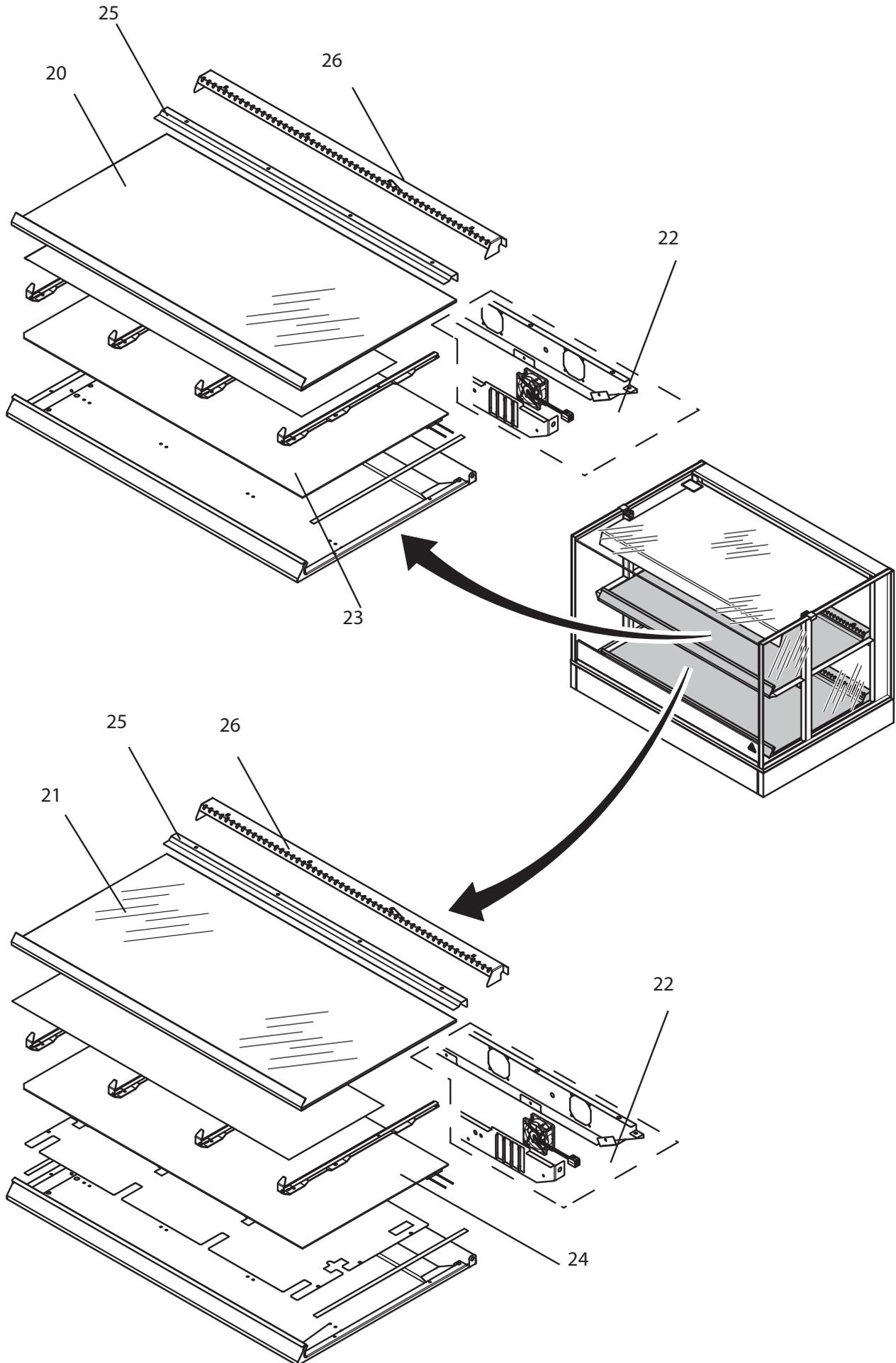
## 10.1 Exploded view MTT PT



## 10.1 Exploded view MTT PT

Number	Description	Article number	Quantity
1	Top glass <b>MTT 60</b> packed	9402008s	1
	Top glass <b>MTT 90</b> packed	9402003s	1
2	Air guide <b>MTT60</b>	9382062	1
	Air guide <b>MTT90</b>	9382061	1
3	Side glass holder	9404010	2
	Screw M5x16 socket head cap, large	4280558	2
	Collar bush PTFE 10x5x3,5	3702342	2
4	Assy. flap door <b>MTT 60</b>	9400012s	2
	Assy. flap door <b>MTT 90</b>	9400011s	2
5	Side glass left packed	9402005s	1
6	Side glass right packed	9402010s	1
7	Air blocker left top	9384068	1
8	Air blocker left rear	9384589	1
9	Air blocker right top	9384069	1
10	Air blocker right rear	9384588	1
11	Magnetic push latch	9401017	1
12	Assy. child guard <b>MTT 60</b>	9400033s	1
	Assy child guard <b>MTT 90</b>	9400003s	1
13	Front cover <b>MTT 60</b>	9404023	1
	Front cover <b>MTT 90</b>	9404020	1
14	Leg rubber	9171125	4
15	Spring loaded hinge pin	9382773	2

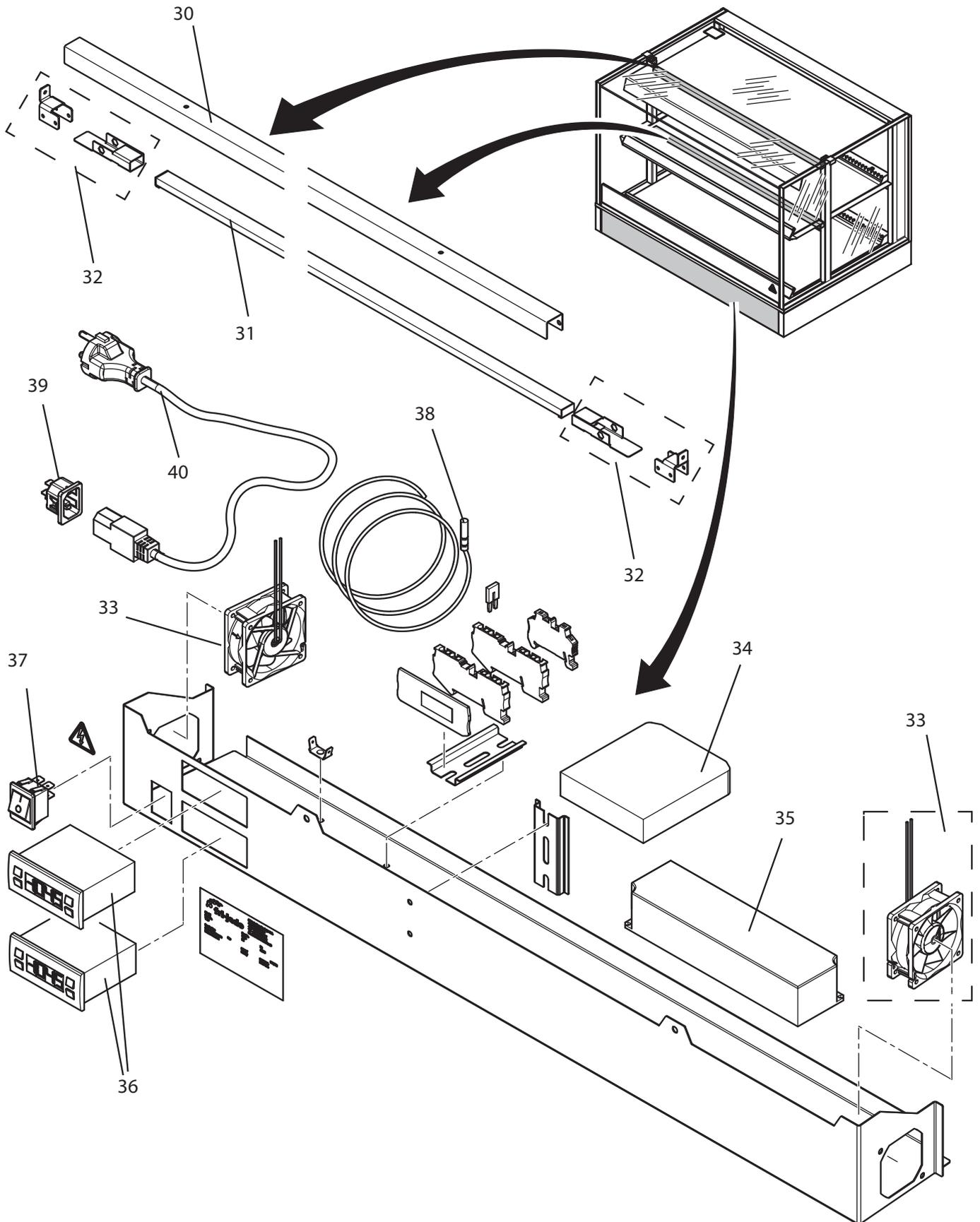
## 10.2 Exploded view MTT Shelves



## 10.2 Exploded view MTT Shelves

Number	Description	Article number	Quantity
20	Glass pane shelf hot <b>MTT 60</b> top shelf	9382035	1
	Glass pane shelf hot <b>MTT 90</b> top shelf	9382141	1
21	Glass pane shelf hot <b>MTT 60</b> bottom shelf	9382035	1
	Glass pane shelf hot <b>MTT 90</b> bottom shelf	9382141	1
22	Assy. fan box V2 <b>MTT 60</b>	9380354s	1
	Assy .fan box V2 <b>MTT 90</b>	9380353s	1
23	Heating element [475x400] 570W 230V <b>MTT 60</b> top shelf	9402101	1
	Heating element [775x400] 855W 230V <b>MTT 90</b> top shelf	9402100	1
24	Heating element [475x400] 570W 230V <b>MTT 60</b> bottom shelf	9402101	1
	Heating element [775x400] 855W 230V <b>MTT 90</b> bottom shelf	9402100	1
25	Glass clamp shelf <b>MTT 60</b> V2	9384939	1
	Glass clamp shelf <b>MTT 90</b> V2	9384937	1
26	Rear cover shelf <b>MTT 60</b> SB	9384932	2
	Rear cover shelf <b>MTT 90</b> PT	9384931	2

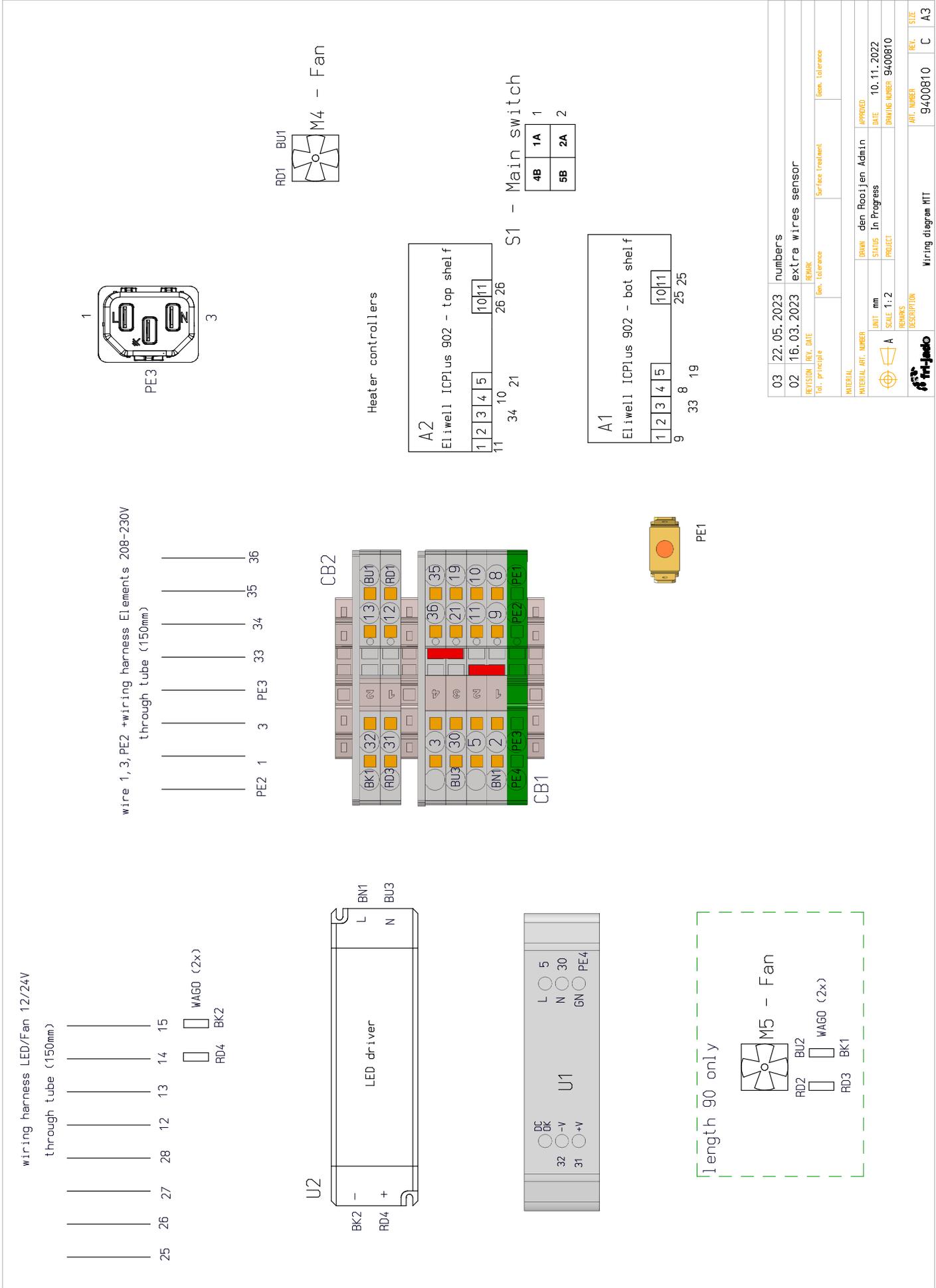
## 10.3 Exploded view MTT Electrical



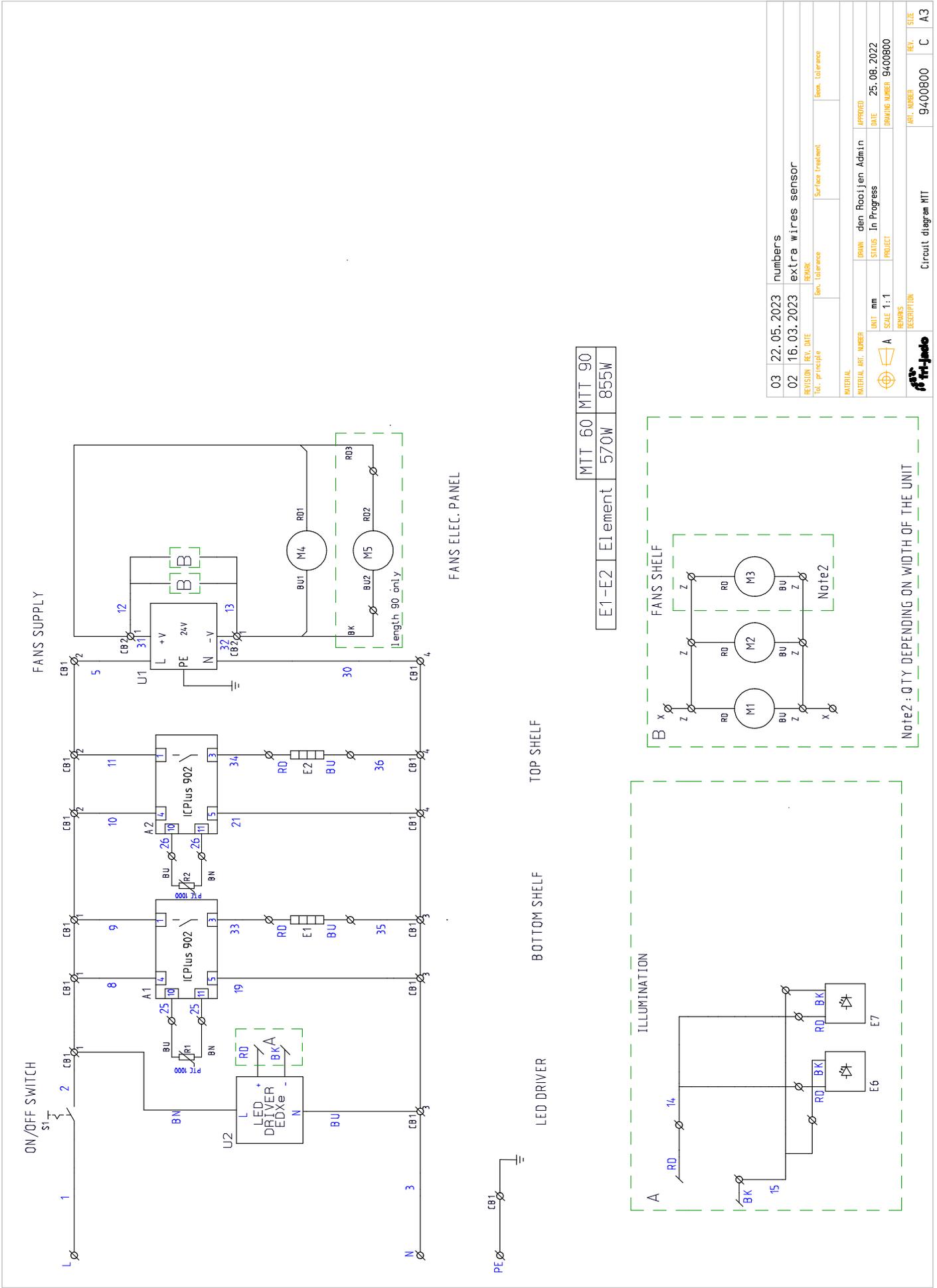
## 10.3 Exploded view MTT Electrical

Number	Description	Article number	Quantity
30	LED armature <b>MTT 60</b>	9384110	2
	LED armature <b>MTT 90</b>	9384090	2
31	LED, right 3000K 12V L=400mm <b>MTT 60</b>	9382075s	2
	LED, right 3000K 12V L=700mm <b>MTT90</b>	9382067s	2
32	LED mounting bracket [Full cover]	9384093	2
	LED armature support bracket	9384091	2
33	Compact fan 614 NN	9381015	MTT 60 =1 MTT90 = 2
34	Power supply 24V/DC 20W	9301033	1
35	LED driver 100W 12V 50/60hz (UL)	9381038	1
36	Eliwell IC PLUS 902 NTC-PTC, 230V UL	9281071	2
37	Switch black 1-0 250 volt 22 x 30	9181008	1
38	Sensor PTC 1000, 1,5mtr	9391012	1
39	Power connector IEC C14 male snap in	9401011	1
40	Power cord IEC C13 socket to CEE 7/7 plug	9401012	1

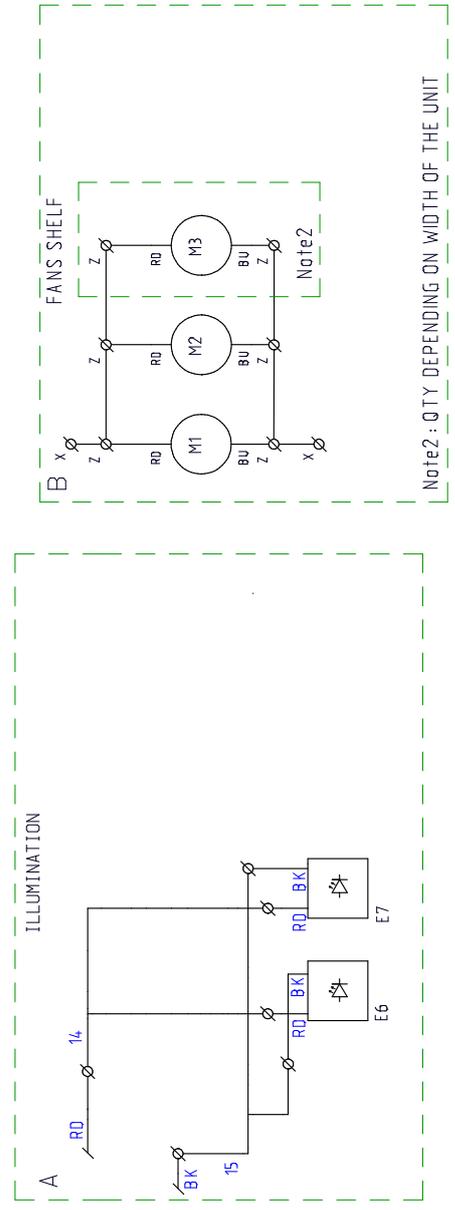
# 11. Electrical schematic wiring



# 11.1 Electrical schematic circuit



MTT 60	MTT 90
E1-E2 Element	570W 855W



03	22.05.2023	numbers	
02	16.03.2023	extra wires sensor	
REVISION	REL. DATE	REMARK	
01	principle	Gen. tolerance	Surf. tolerance
MATERIAL			
MATERIAL ART. NUMBER	DRAWN	den Rooijen Admin	APPROVED
	UNIT	In Progress	DATE
	SCALE 1:1	PROJECT	25.08.2022
	REMARKS	DRAWING NUMBER	9400800
	DESCRIPTION	ART. NUMBER	9400800
		REV.	C
		SIZE	A3
		Circuit diagram MTT	



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