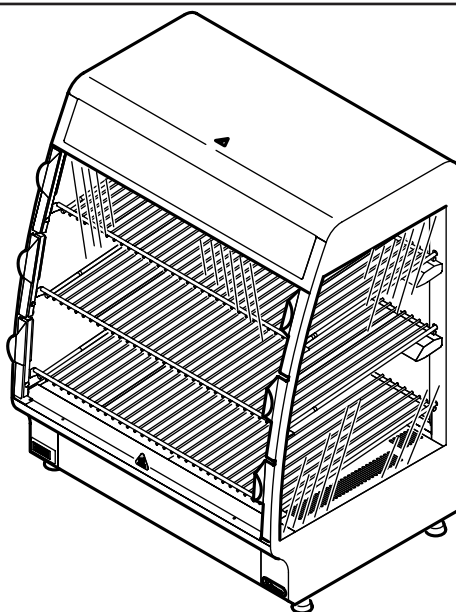


SERVICE MANUAL

CSD Convenience Store Displayer

MODEL

CSD 180 Hot



- NOTICE -

This manual is prepared for the use of trained Service Technicians and should not be used by those not properly qualified. If you have attended a training for this product, you may be qualified to perform all the procedures in this manual.

This manual is not intended to be all encompassing. If you have not attended a training for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained technician.

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GENERAL TECHNICAL DATA

This manual covers the CSD180 hot Merchandiser.

- CSD180 – Merchandiser 3 deck

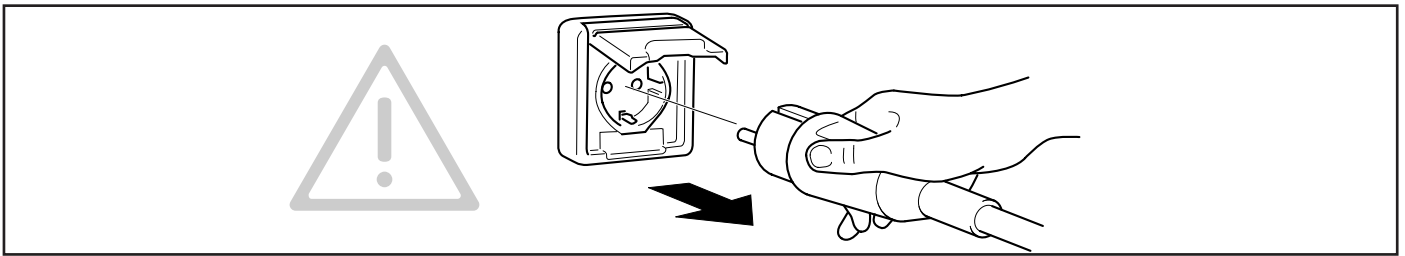
All of the information, illustrations and specifications contained in this manual are based on the latest product information available at the time of printing.

TECHNICAL DATA

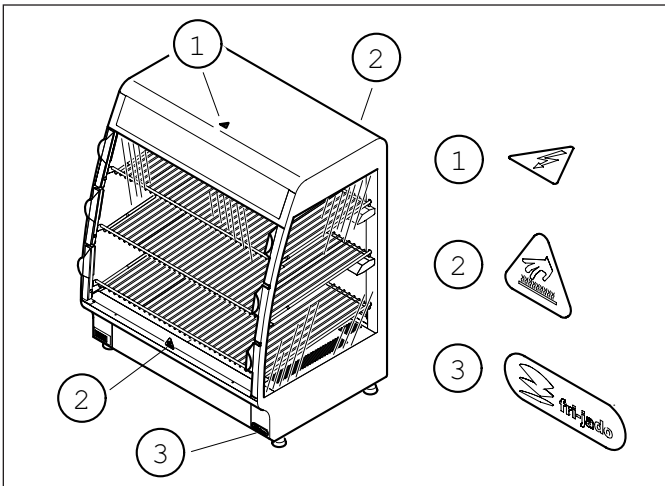
Type	CSD180
Power (W)	2600
Fuses needed with power connection 230V, 1N ~ 50 ...60 Hz	1x16 A
Standard plug from factory	Two-pole earthed plug 16 A
Temperature range	22-90°C
Lighting	2x TL lamp 18W 1x PLL lamp 55W
Net weight (kg)	63
Gross weight (kg)	76
Height (mm)	877
Width (mm)	728
Depth (mm)	576

- Standard set of tools.
- Metric wrenches, sockets and hex socket key wrenches.
- Multi-meter and AC current clamp meter.
- Temperature tester.
- Insulation value tester (Megger).
- Field Service Grounding Kit.

REMOVAL AND REPLACEMENT OF PARTS

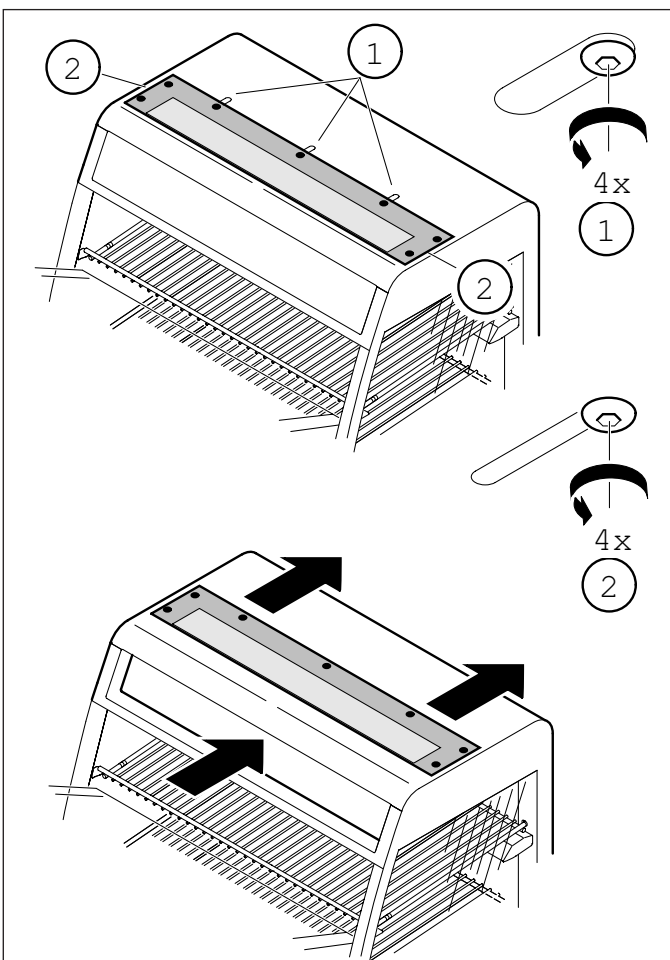


WARNING STICKERS



1. Check if the warning stickers and the Fri-Jado logo are glued on the CSD.
2. Replace the warning stickers and logo in case of damage.

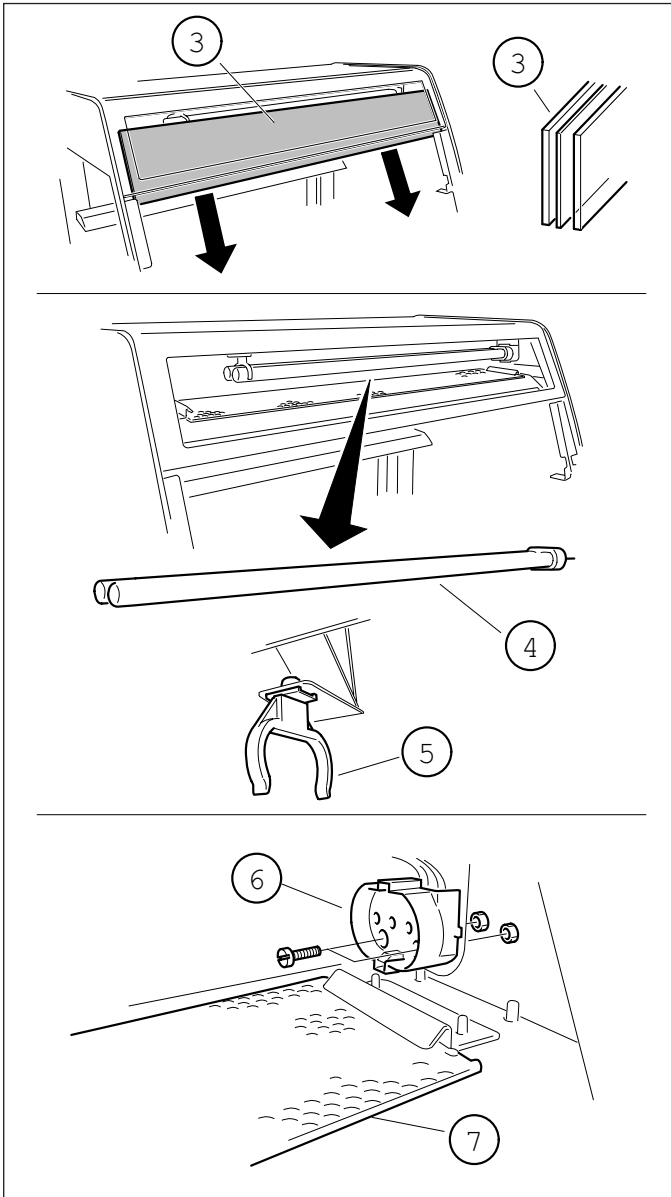
DIA LAMP



1. Open the swingdoor on the top.
2. Loosen the 7 screws on the bottom side of the headlight: (1) and (2).
3. Press the headlight from the front side backwards till the end position.

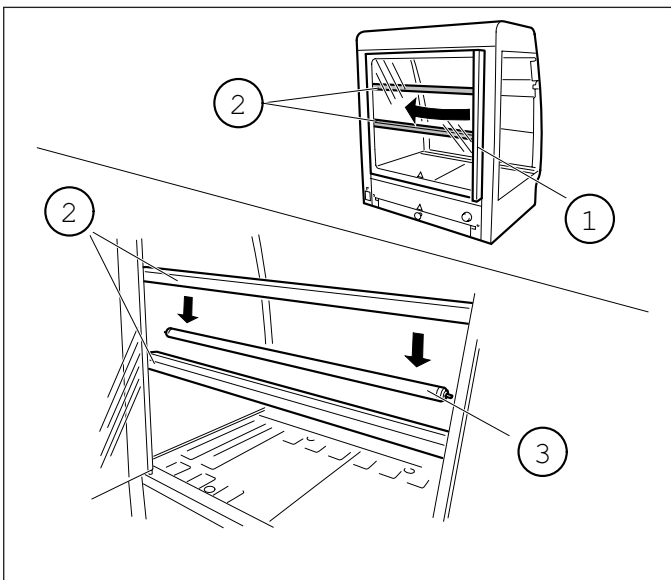
See next page...

DIA LAMP (CONTINUED)



4. Remove the 3 plates (3) by sliding them downwards. Check these plates on damages.
5. Pull the PLL lamp **carefully** out of the holder.
6. Check the support clip (5).
7. Check the lamp holder (6).
8. Check the prisma protection plate (7) on damages and deformation.
9. Reverse the procedure to install.

TL LIGHT ON BACKSIDE



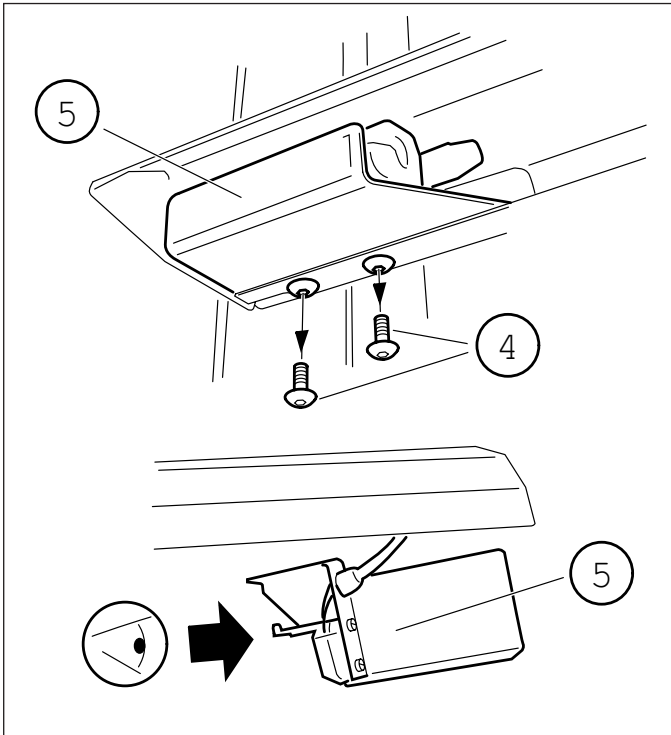
1. Open the backdoor.
2. Check the lamps on function, discoloration and dirt.
3. Remove the lamp by turning this a quarter and pulling it forward.

See next page...

Note:

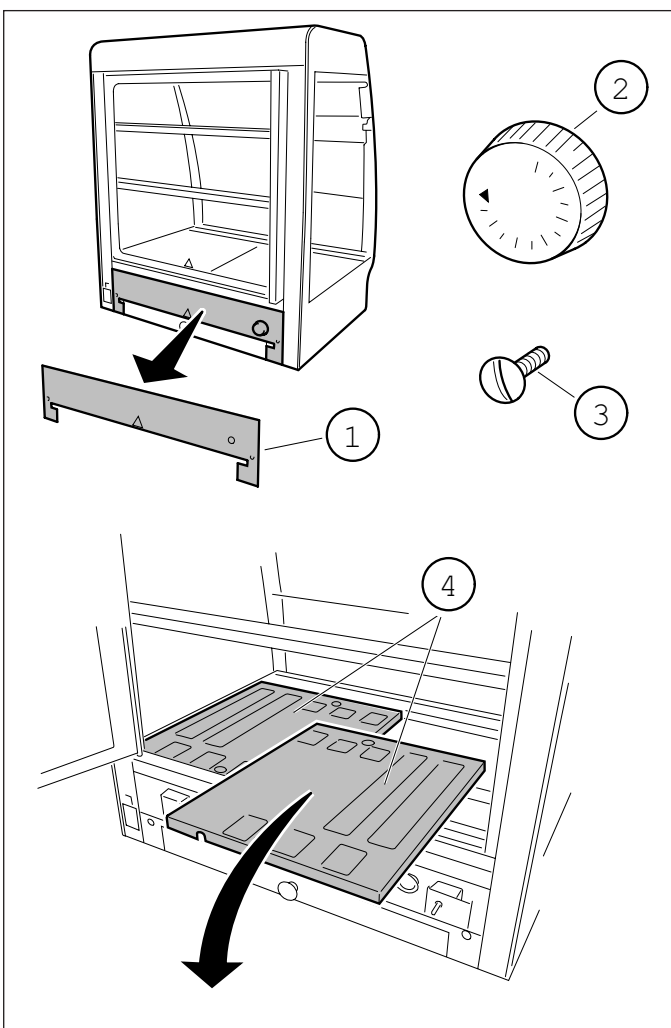
Remove the lamp carefully without breaking it.

TL LIGHT ON BACKSIDE (CONTINUED)



4. Remove the 2 screws (4) on the lamp bracket (5) and check the lamp holders on dirt, burning or deformation.

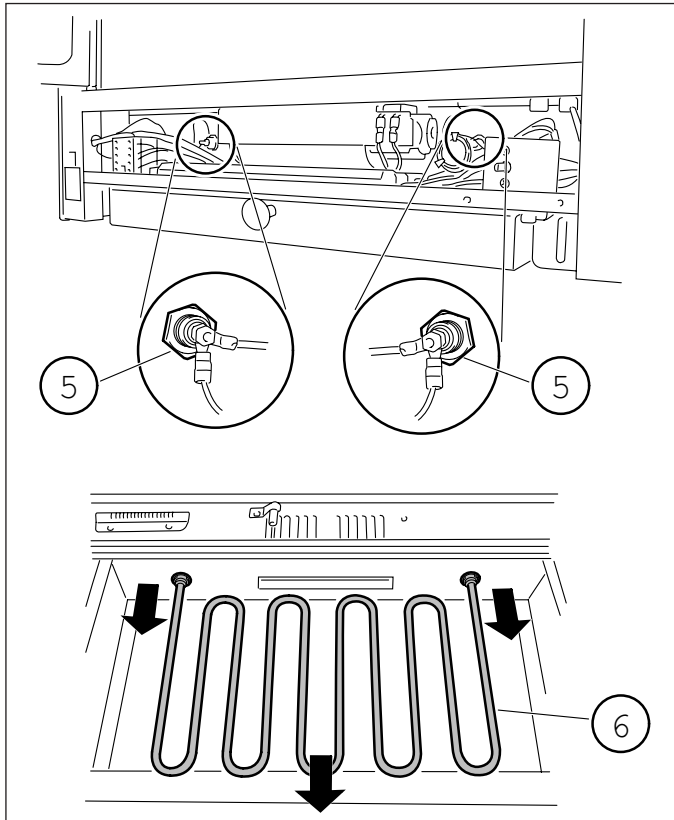
HEATING ELEMENT



1. Pull the knob off from the thermostat (2).
2. Remove the 2 screws that secure the back panel and remove this panel (1). 2. Open the back door and remove the two bottom plates (4).

See next page...

HEATING ELEMENT (CONTINUED)

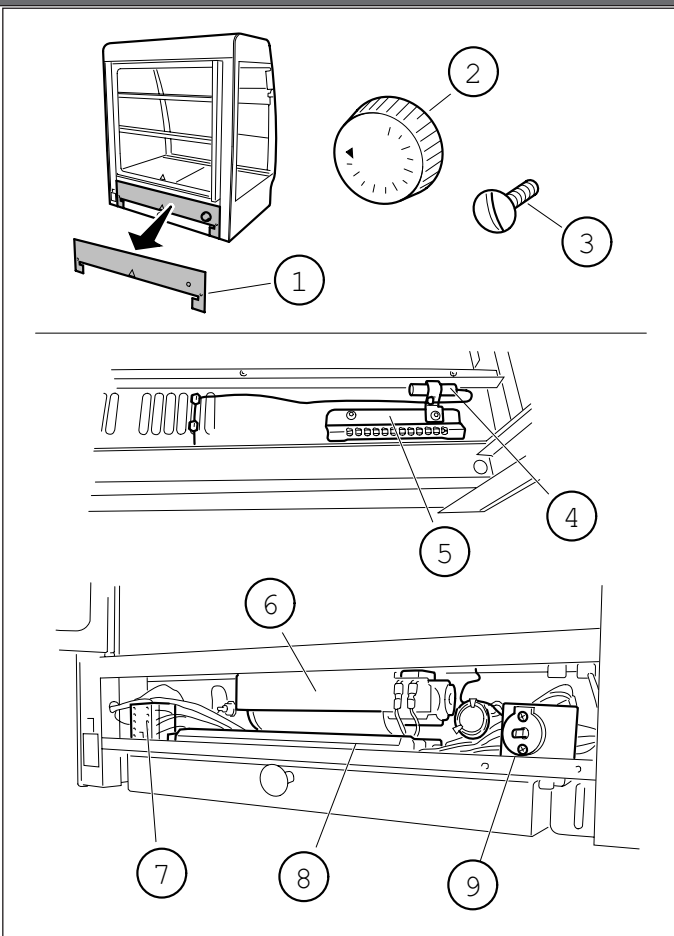


3. Disconnect the wiring from the heating element (5).
4. Remove the mounting nuts from the element and remove the element by sliding it to the inside (6).
5. Reverse the procedure to install.

Note:

Be sure to place the bottom plates in the right position.

ELECTRONIC COMPONENTS



1. Pull the knob off from the thermostat (2).
2. Remove the 2 screws (3) that secure the back panel and remove this panel (1).

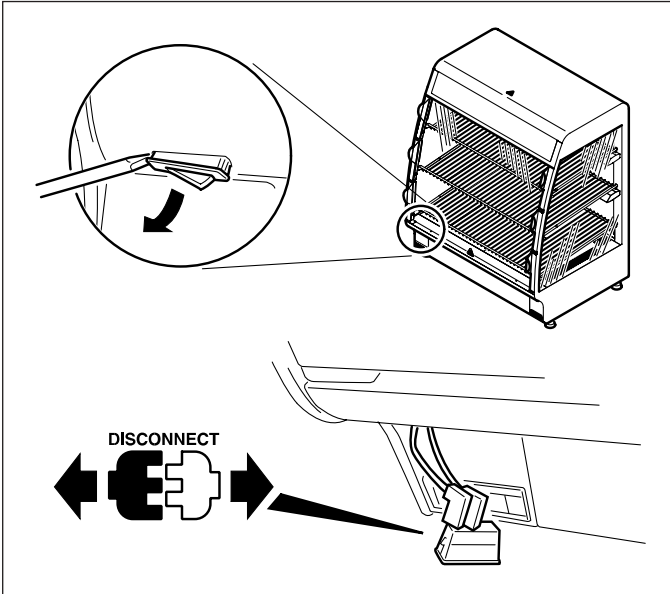
Below mentioned components can be replaced if broken:

- 4: Sensor thermometer
- 5: Sensor thermostat
- 6: Blower motor
- 7: Contactor
- 8: Ballast
- 9: Thermostat

Note:

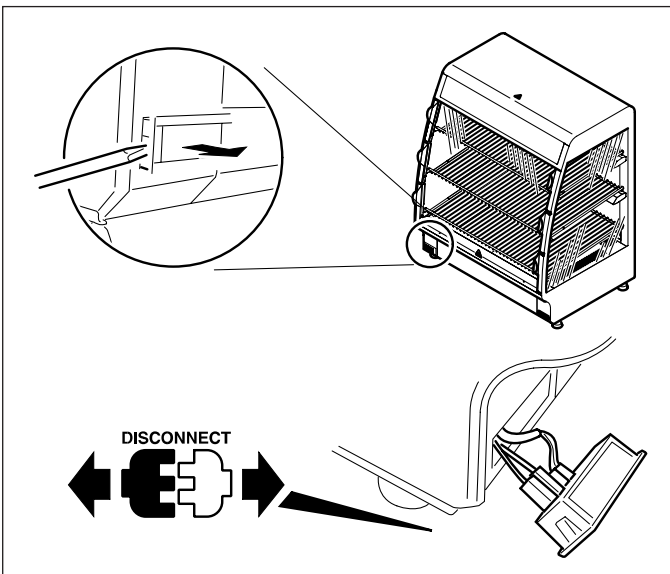
When changing the temperature sensor it is recommended to tie a pull wire around the old sensor in order to pull the new wire through the plastic protection tube.

MAIN SWITCH



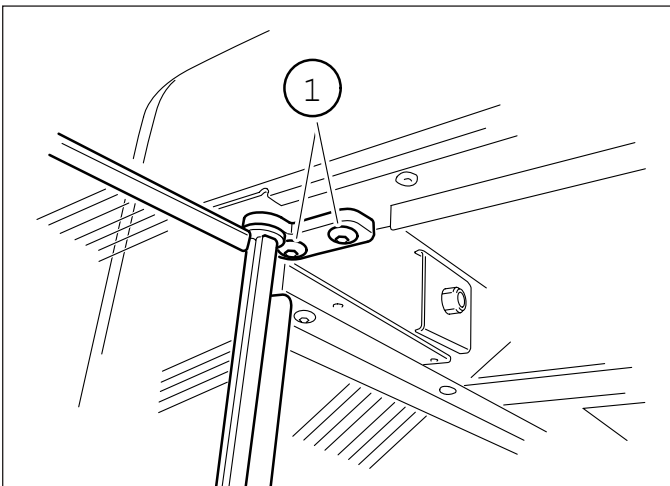
1. Use a screwdriver to tilt the switch out of the frame.
2. Remove the wiring from the switch.
3. Reverse the procedure to install.

TEMPERATURE DISPLAY



1. Use a screwdriver to tilt the display out of the frame.
2. Remove the wiring from the display.
3. Reverse the procedure to install.

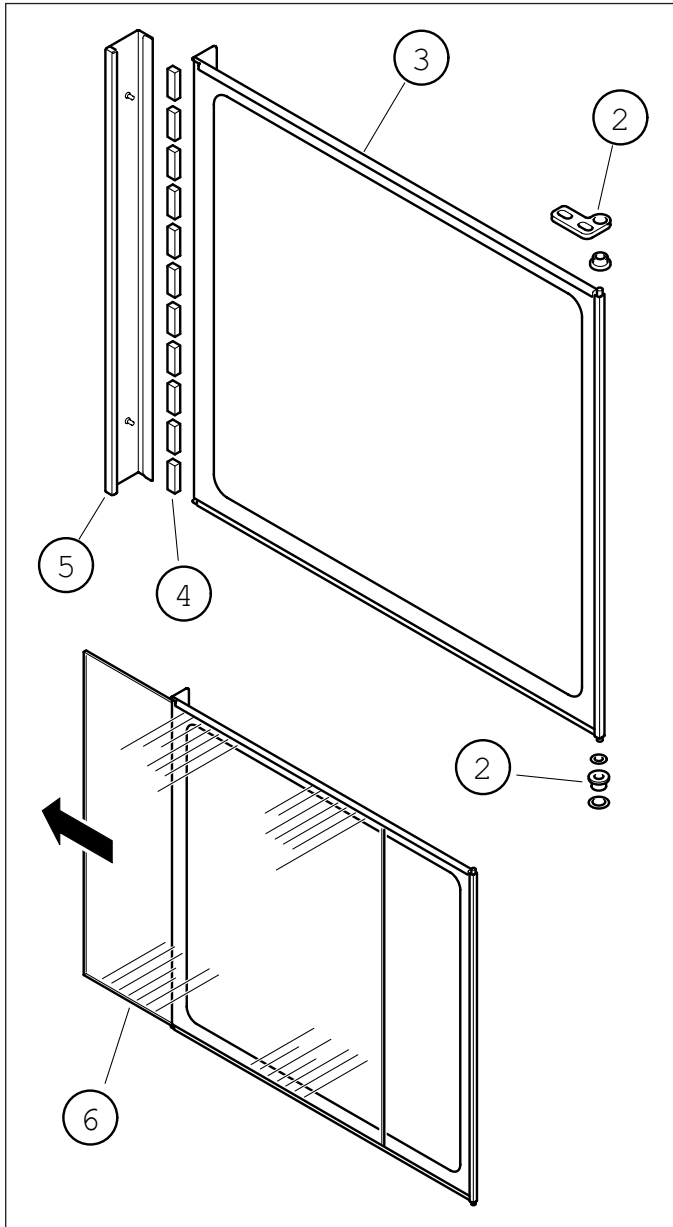
DOOR GLASS



1. Open the door and remove the 2 screws that secure the hinge plate and remove this plate.
2. Lift the complete door out of the bottom hinge.

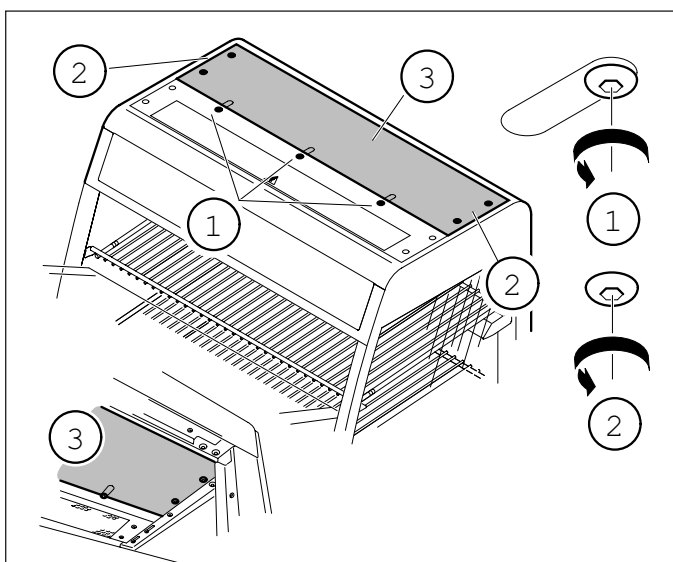
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DOOR GLASS (CONTINUED)



3. Check parts (2) on wear.
4. Remove the 2 screws that secure the door handle and carefully remove the handle and leave the magnets on the door frame.
5. Cut the sealant on the bottom side between the glass and the frame.
6. Remove the glass out of the frame.
7. Reverse the procedure to install.

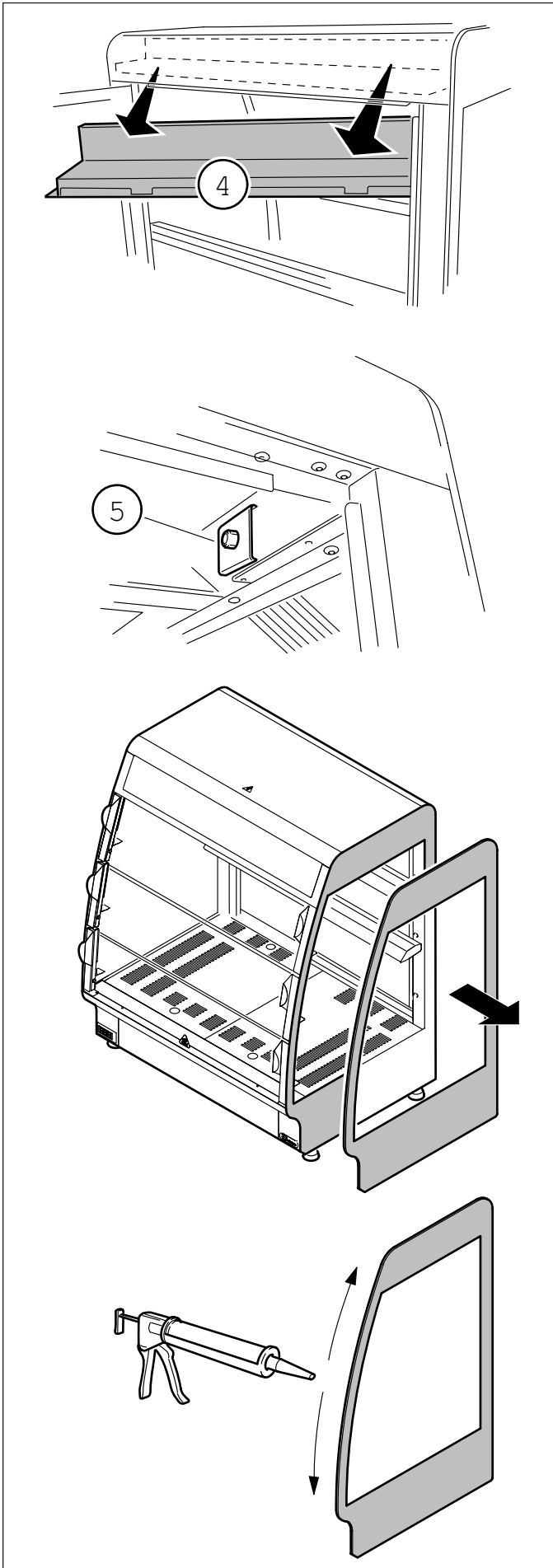
SIDEGLASS



1. Remove the screws (1) and (2) that secure the cover plate (3) on the inside and remove this plate.

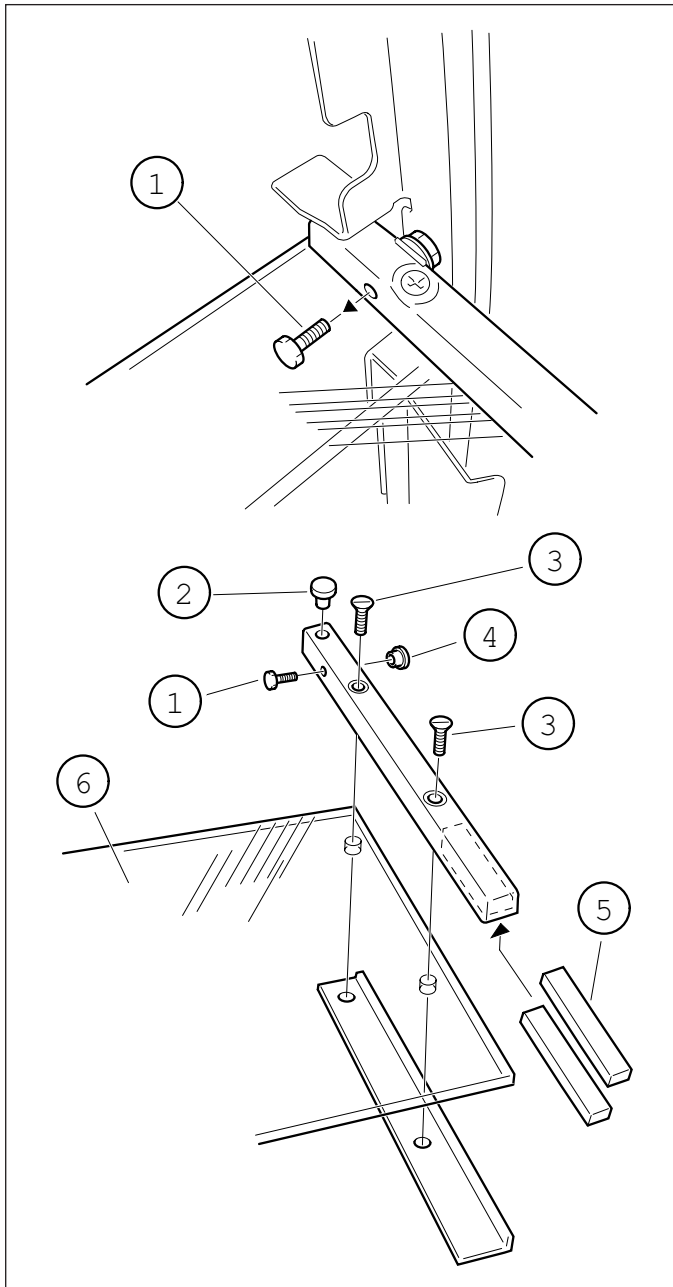
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SIDEGLASS (CONTINUED)



2. Remove the locknut and bracket that secures the glass (5).
3. Cut the sealant around the glass with a stanley knife.
4. Remove the remaining sealant from the frame and clean the frame with a solvent.
5. Apply sealant all around the frame or on the inside of the new glass.
6. Tilt the glass in the carrying channel on the bottom side and press the glass against the frame.
7. Mount the bracket and locknut, but don't tighten the nut total!
8. Now press the glass, beginning on the bottom side, against the frame to spread the sealant in an equal way.
9. Now tighten the locknut (5).
10. Mount the cover plate on the inside.

GLASS SWINGDOOR

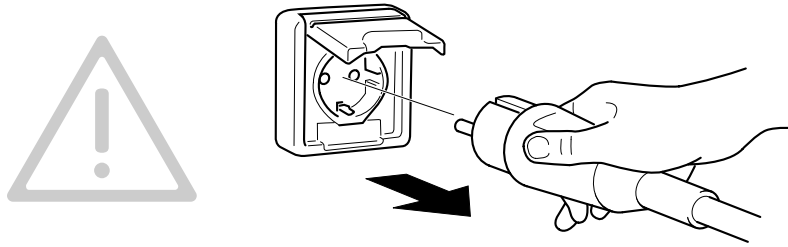


1. The bolt (1) that secures the door is secured with Loctite 271. If you remove these bolts you have to secure them again with this Loctite. If you don't have the Loctite with you you can also replace the glass without removing the bolts. Just go to step 2.
2. Open the door and remove the bolts (3) on both sides. Now carefully remove the clamp and magnets and take out the glass (6).
3. Reverse the procedure to install.

Note:

The bolt (1) is secured with Loctite 271.

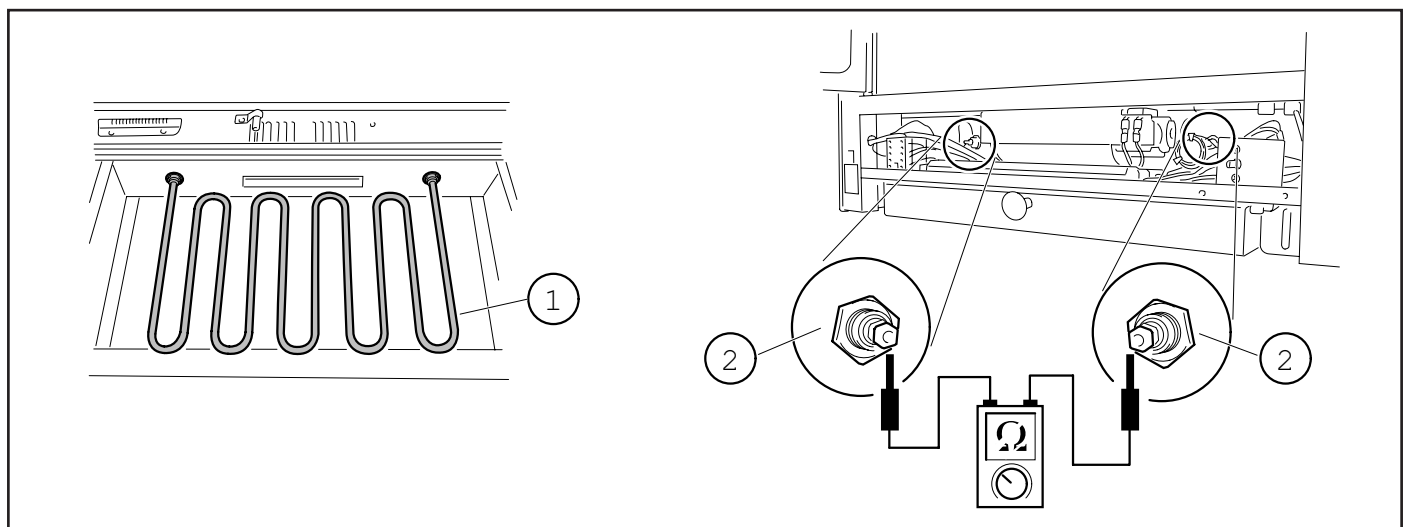
ELECTRICAL TESTS AND SERVICE PROCEDURES



HEATING ELEMENT TEST

Note: When testing the resistance of the element remove the wiring.

Type	Wattage/Voltage	Resistance Ω -0% + 10%	Current A
CSD180	2500	21.2	10.8



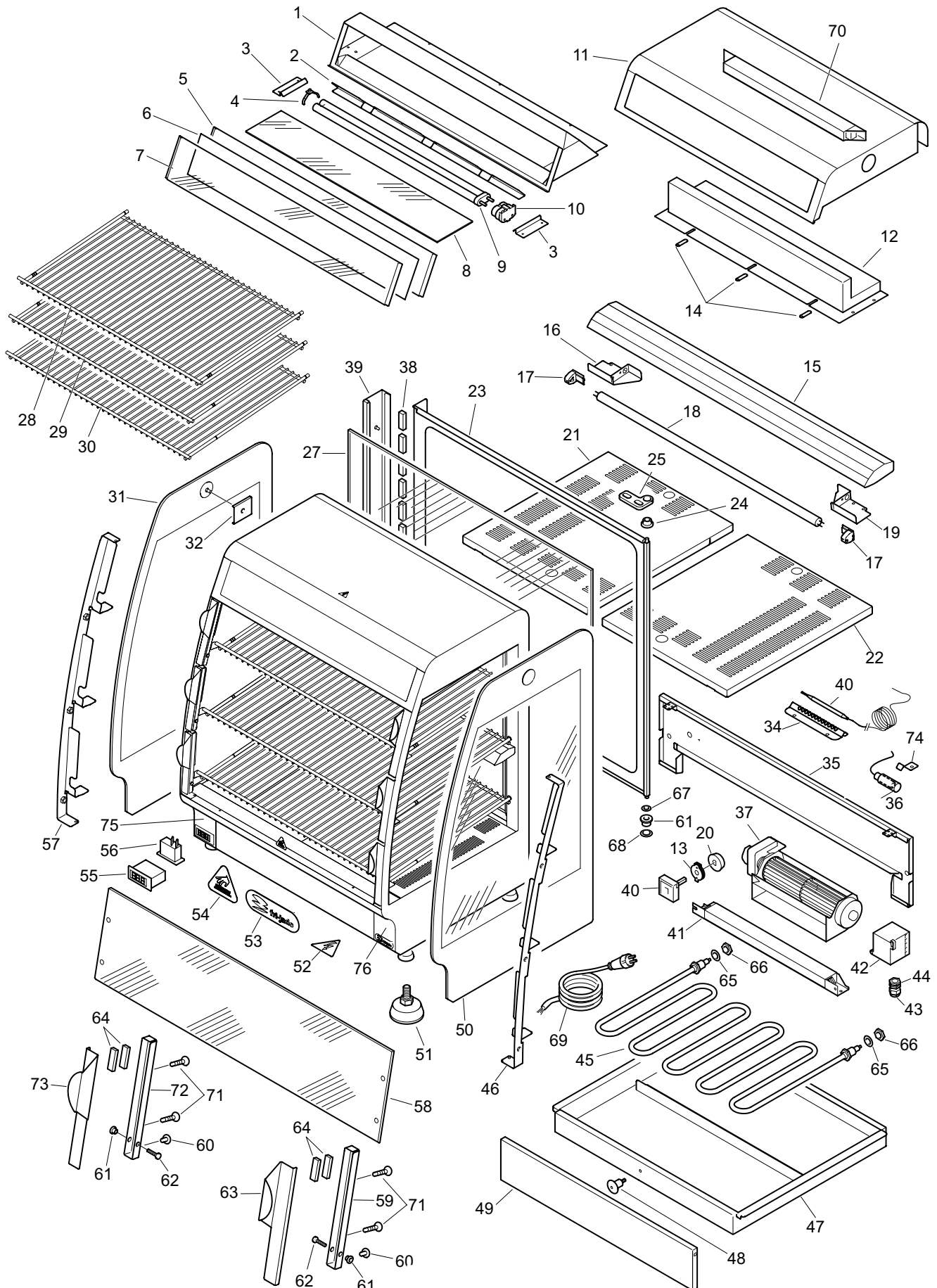
GENERAL TROUBLESHOOTING LIST

TROUBLESHOOTING FOR THE CSD180

Symptom	Possible causes
No power to oven controls.	1. Main breaker open. 2. Main switch malfunction. 3. Wiring loose.
Main fuse or breaker blows.	1. Wiring incorrectly. 2. Heating element, blower, contactor or wiring shorted. 3. Wiring shorted.
Display does not reach desired temperature.	1. Incorrect line voltage. 2. Heating element malfunction. 3. Blower malfunction. 4. Thermostat malfunction. 5. Thermometer indicates wrong value. 6. Wiring loose.
Display temperature is too high.	1. Thermostat malfunction. 2. Thermometer indicates wrong value.
Lamp(s) do not work. Note: The TL lamps are connected in series. When 1 lamp brakes the other does not work also.	1. Lamp (s) broken. 2. Ballast malfunction. 3. Wiring loose.
Products dry out too fast.	1. No water in water drawer. 2. thermostat setting too high.

EXPLODED VIEW AND PARTSLIST

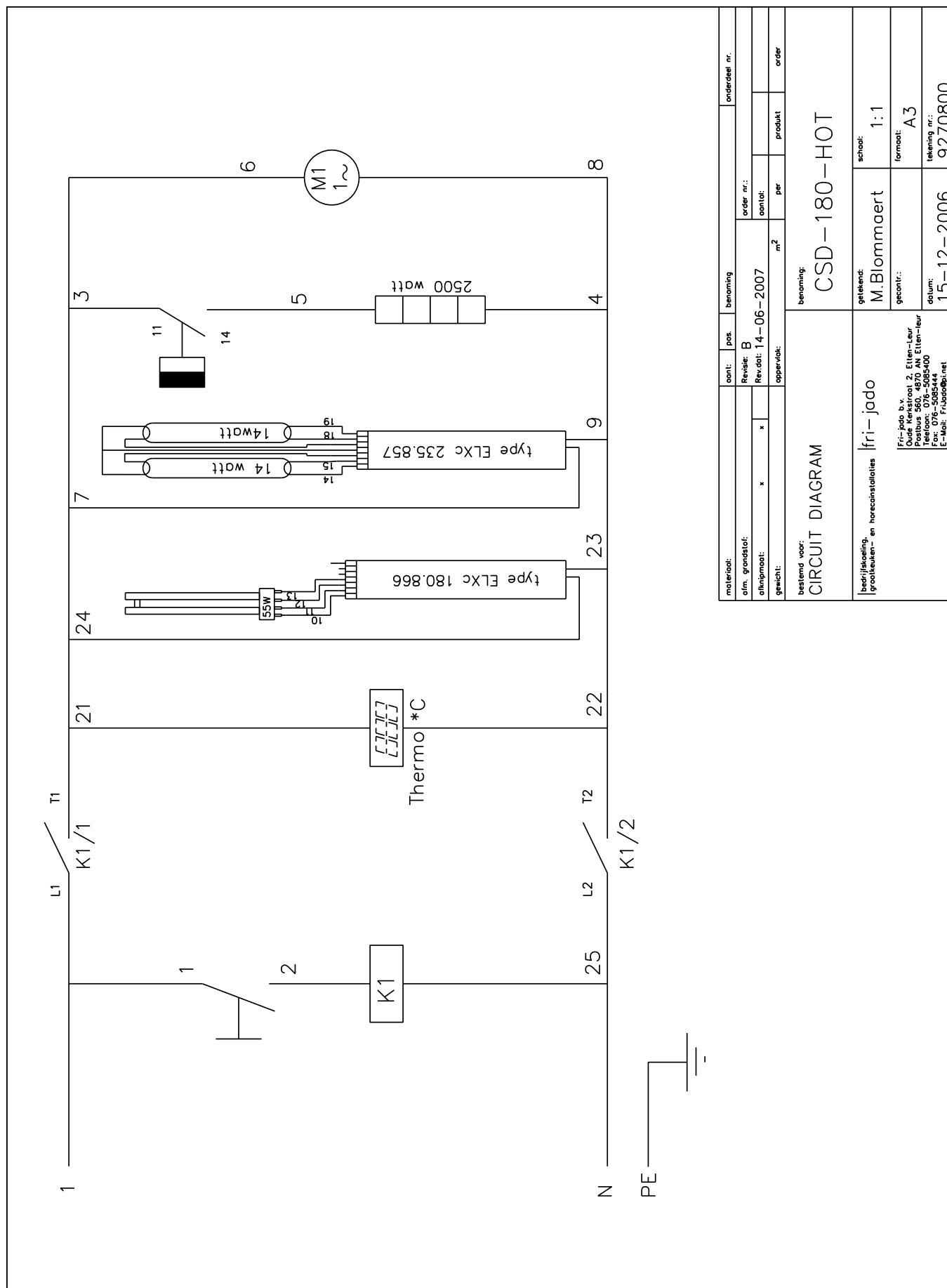
CSD180



Item	Part number	Qty.	Description
1	9274024	1	Light box
2	9274027	1	Plate holder
3	9274028	2	Clamp plate
4	9222210	1	Support lamp PLL
5	9272001	1	Protection plate, opal
6	9272013	1	Dia strip, logo
7	9272002	1	Protection plate, transperant
8	9272000	1	Protection plate, prisma
9	9160019	1	Lamp PLL 55W
10	9082897	1	Lamp holder
11	9274020	1	Top plate
12	9270006	1	Cover plate with insulation, ass.
13	9270405	1	High limit adjustment
14	9274064	3	Cover plate
15	9274058	2	Light fixture
16	9274059	1	Lamp holder, links
17	6511627	4	Lamp holder
18	9271000	2	Lamp TL5 14W/830 foodsave
19	9274060	1	Lamp holder, rechts
20	9059187	1	Knob
21	9274036	1	Bottom plate left
22	9274037	1	Bottom plate right
23	9270402	1	Door frame
24	0602072	1	Bush bearing
25	9274053	1	Door hinge plate
27	9272006	1	Glass, rear door
28	9272011	1	Top grid shelf
29	9272010	1	Middle grid shelf
30	9272009	1	Lower grid shelf
31	9270003	1	Glass panel, left, ass.
32	9274019	2	Clamp
34	9274044	1	Thermostat sensor holder
35	9274010	1	Back panel
36	9272018	1	Holder for sensor
37	9086100	1	Blower
38	9040081	11	Magnet
39	9274017	1	Door handle
40	9272016	1	Thermostat
41	9281001	1	Ballast 2x14W
42	9191181	1	Contactactor
43	9222076	1	Strain relief
44	9222077	1	Nut, strain releaf
45	9160865	1	Heating element
46	9274034	1	Support profile, right
47	9270403	1	Drawer
48	9086118	1	Knob
49	9274009	1	Swing drawer

Item	Part number	Qty.	Description
50	9270004	1	Glass panel, right, ass.
51	9057355	4	Adjustable leg
52	3500105	1	Volt warning sticker
53	8072098	1	Name plate
54	9123148	2	Heat warning sticker
55	9272012	1	Temperature display + sensor
56	6791020	1	Main tumble switch
57	9274033	1	Support profile, left
58	9272005	3	Glass, swingdoor
59	9274032	3	Hinge profile, right
60	9086207	6	Bumper
61	9087562	1	Brass bearing 6mm
62	9272017	6	Bolt M6 for hinge
63	9274048	3	Handle, right
64	9040081	12	Magnet
65	0169197	2	Gasket, heating element
66	0169189	2	Nut, heating element
67	0142111	1	Washer M6, stainless steel
68	9274055	1	Washer, stainless steel
69	9091383	1	Connecting cable with plug
70	9221015	1	Ballast, 1x 55W
71	9272015	12	Screw, M4x16
72	9274030	3	Hinge profile, left
73	9274047	3	Handle, left
74	9274049	1	Clamp
75	9274050	1	Panel, left
76	9274051	1	Panel, right

CIRCUIT DIAGRAM CSD180



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