

HB85

One Glass Door Countertop Fridge



HB85
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Service Manual

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1 Specifications

Models

This service manual applies to the SKOPE HB85 countertop fridge listed below. Refer to the product specification sheet (available on the SKOPE website: www.skope.com) for specifications.

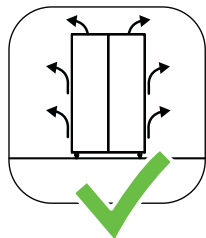
Table 1: Model

Model	SKOPE ID
HB85	HB85JN

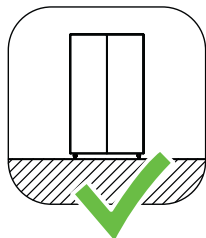
2 Installation

Installation Guidelines

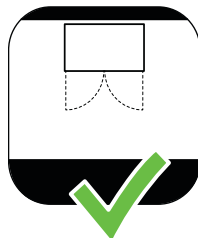
When installing this cabinet, make sure you consider and meet the installation guidelines below.



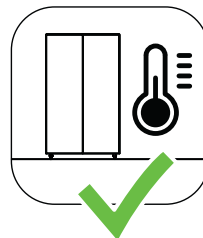
Ventilation
Ensure all ventilation requirements below are met.



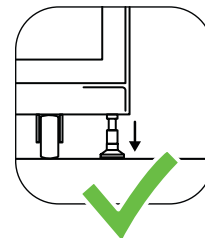
Surface
Make sure the installation surface is capable of supporting the loaded cabinet.



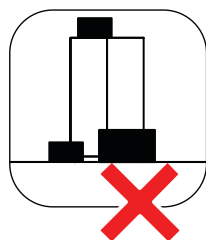
Door Opening
Allow adequate space for the door to open and close properly.



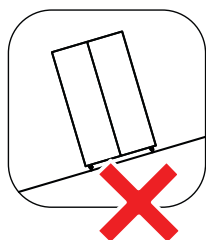
Climate Class
Only install the fridge in an environment within its climate class. The climate class is stated on the cabinet rating label.



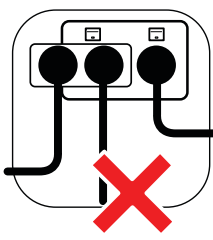
Stabiliser Foot
To provide adequate stability, you **MUST** screw down the stabiliser foot (located under the door hinge) anti-clockwise until it is firmly in contact with the floor.



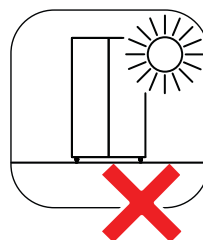
Blocking Ventilation
Do not store boxes or items in front or on top of the cabinet.



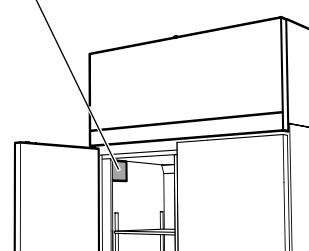
Uneven Surface
Do not install the cabinet on an uneven surface.



Power Supply
Do not overload the power supply.

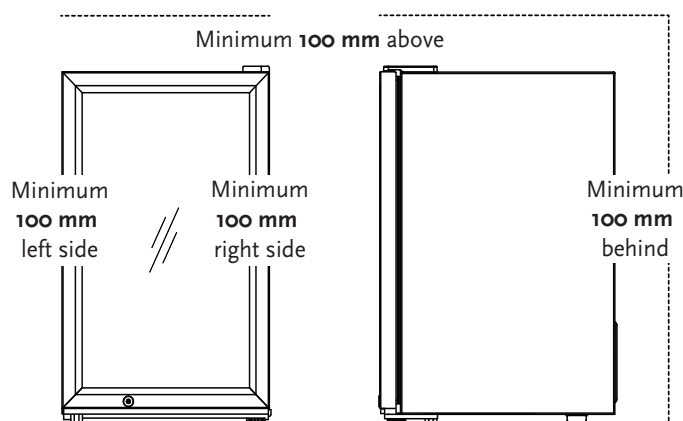


Sunlight
Do not install the cabinet in direct sunlight.



Ventilation Requirements

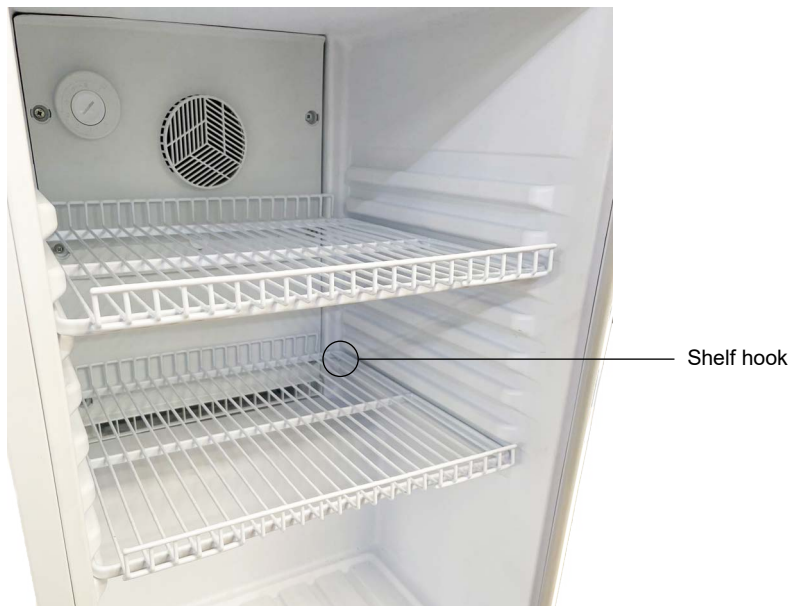
Ensure that the cabinet has the following ventilation clearances at all times:



Shelves

The cabinet is supplied with two shelves.

Remove the packaging, then place the shelves at the required height. The shelves have hooks on the back which lock them in position.



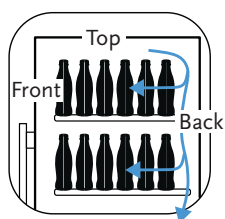
3 Operation

Let the cabinet stand for:

- at least 30 minutes before connecting to the power supply for the first time.
- 10 minutes if it has been disconnected from the power supply for any reason.

Loading Product

Let the cabinet run for 30 minutes before loading it with product for the first time. When loading the shelves with product:



Internal Airflow

Leave 25 mm space between product and the back of cabinet interior and do not block the drain hole.



Shelf Loading

Do not overload the shelves.



Shelf Flexing

Remove product if the shelf is flexing.



Shelf Overhang

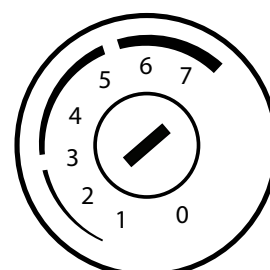
Do not let product hang over the shelves.

Temperature

The temperature of the fridge is regulated by a thermostat located on the inside back wall of the cabinet. The temperature is set at the factory and should not require adjusting. The normal temperature controller setting is 2.

If required, turn the knob:

- clockwise to lower the temperature. Be careful not to set it too low, or product could freeze.
- anti-clockwise to raise the temperature.
- to 0 to switch the refrigeration system off. The fan and lights will stay on.



4 Replacement Procedures

Electrical Safety

Caution

Disconnect the cabinet from the mains power supply before attempting **any** maintenance.

Correct wiring routing is as important as using the correct components for compliance with safety and radio interference regulations.

In order to maintain safety and compliance with regulations, make sure you replace any wiring that is disturbed during servicing and secure it back in its original position.

Procedure 1: To disconnect the cabinet from the mains power supply

1. Switch the cabinet off at the mains power supply.
 2. Unplug the power cord from the mains power supply.
-

Cabinet

Top Hinge Cover The top hinge cover uses four snap-fits to lock in place. Some delicacy is required not to break these snap-fits when removing or replacing the hinge cover.



Back snap-fits



Front snap-fits

Procedure 2: To remove the top hinge cover

Before you start

You will need a tool to slide under the hinge cover to prise it up.

1. Wrap the tool in a soft cloth to protect the cabinet from scratches.
-

2. Open the cabinet door, and slide the tool under the hinge cover in the shown position.



3. Gently lever the cover off the hinge.
Note: Be careful not to lift the front of the cover too high or you could break the rear snap-fits.



4. Slide the cover backwards to pull the rear snap-fits out of their slots.



Procedure 3: To fit the top hinge cover

1. Place the hinge cover on top of the hinge, set a little back.



2. Pull the cover forward to clip the back snap-fits into the slots.



3. Press the cover down carefully to engage the front snap-fits.



Interior Light The cabinet interior is fitted with a 3 watt LED strip light. Ensure you replace the light with the same light type.

Procedure 4: To replace the interior light

1. Disconnect the cabinet from the mains power supply (see page 8 above).
-

2. Using a screw driver, remove the two end caps from the LED strip to expose the screws.



3. Unscrew the two screws.



4. Unplug the LED strip and remove it.



5. Fit the new light:

- Screw it back in to the cabinet.
- Replace the end caps.

6. Reconnect the cabinet to the mains power supply and check for correct operation.
-
-

Electrical Remove the refrigeration compartment grille to access the cabinet's light power supply and refrigeration cartridge electrics in the rear of the cabinet.

Remove the relay cover to access the electrical connections and compressor electrics.



Procedure 5: To access the electrics

1. Disconnect the cabinet from the mains power supply (see page 8).

2. Remove the refrigeration compartment grille.

Refrigeration
compartment
grille



3. Remove the light power supply, located on the left rear wall of the refrigeration compartment.

Light power supply



The relay cover clips on.

4. Remove the cover with a screwdriver.

Screwdriver

Relay cover

Compressor



5. Push the cover to the left. You can now access the overload protector, starter relay and compressor electrics.



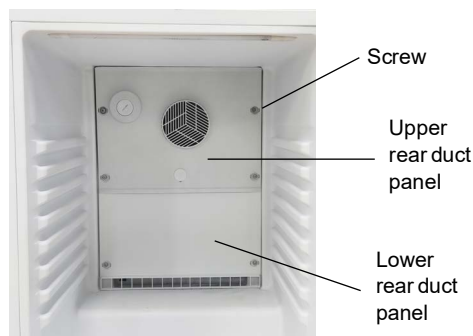
Refrigeration System

Evaporator The evaporator fan and thermostat are located inside the cabinet on the back of the upper rear duct panel. The evaporator coil is attached to the inside back wall of the cabinet behind the lower rear duct panel. You need to remove the upper panel to access the lower panel.

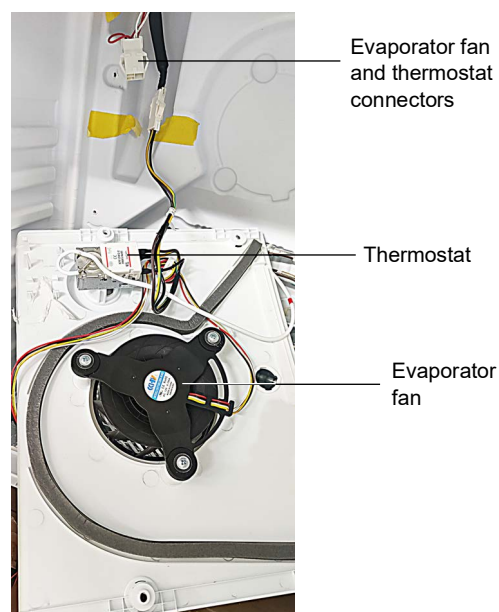
Procedure 6: To access the thermostat and the evaporator fan

1. Disconnect the cabinet from the mains power supply (see page 8)
 2. Remove any product then take out the shelves.
-

3. Remove the four screws holding the upper rear duct panel.



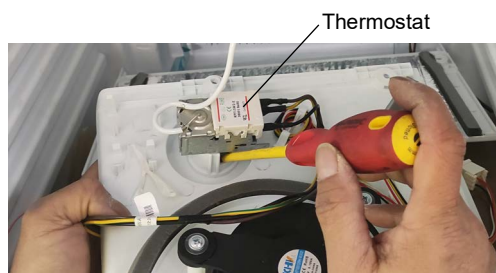
4. Swing the panel down to access the thermostat and evaporator fan.



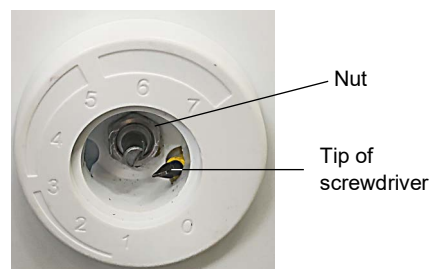
Procedure 7: To remove the thermostat

1. Disconnect the cabinet from the mains power supply.
2. Access the thermostat (see Procedure 6 above).

3. Use a screwdriver to pop the thermostat knob off the front.



4. Use a socket to loosen the nut.

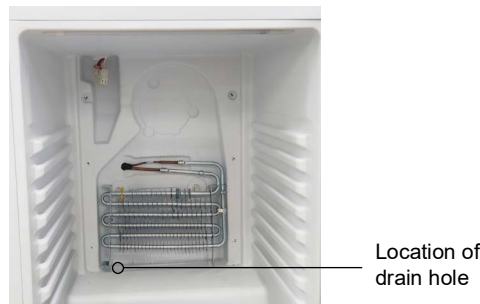


5. Disconnect the thermostat from its wiring (three terminals with a black sheath).
6. Lift the thermostat off the back of the rear duct panel.

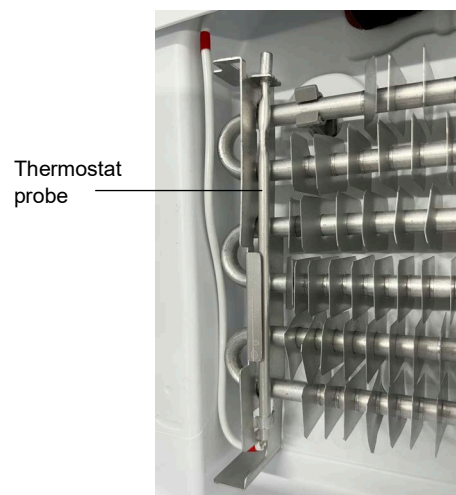
Procedure 8: To access the drain hole, evaporator coil, and thermostat probe

1. Disconnect the cabinet from the mains power supply.
2. Remove the upper rear duct panel (see Procedure 6 on page 13).
3. Undo the two screws on the lower rear duct panel.

4. You can now access the drain hole, evaporator coil, and thermostat probe.

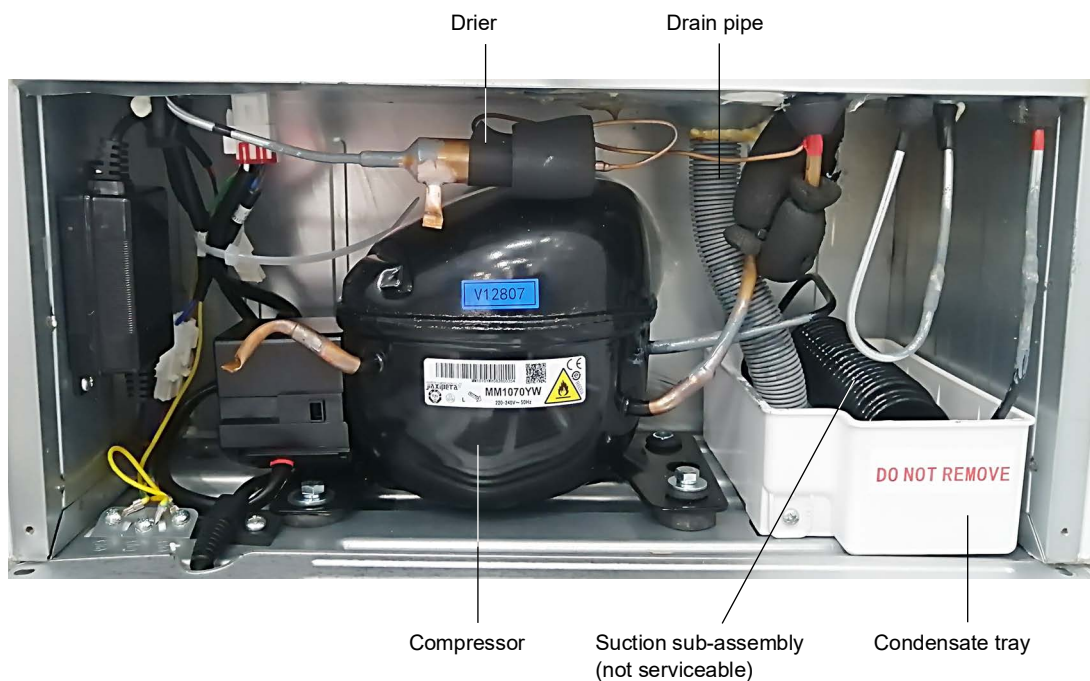


5. Make sure the thermostat probe is positioned as pictured.



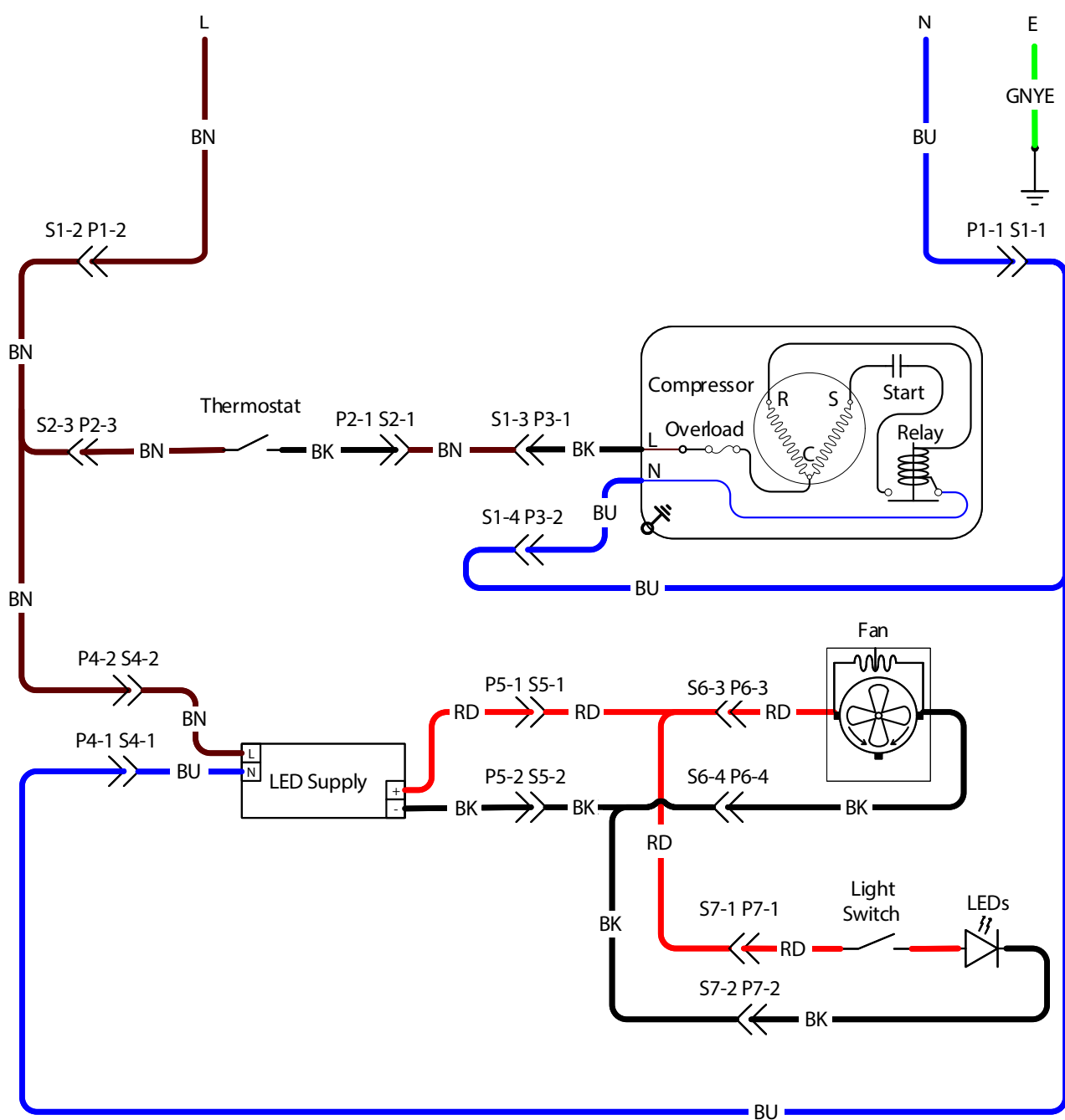
Condenser The condenser's pipes are foamed into the sides of the cabinet.

Compressor The compressor is located in the rear at the bottom of the cabinet. You can access the compressor by removing the refrigeration compartment grille.



5 Wiring

HB85



Wire colours

BK	Black
BN	Brown
RD	Red
OG	Orange
GN	Green
BU	Blue
GY	Grey
WH	White
GNYE	Green-Yellow

Based upon IEC 757 Standard

Legend

S1/P1	Power supply (Molex modular connector)
S2/P2	Thermostat (white 3-way)
S1/P3	Compressor (Molex modular connector)
S4/P4	LED supply power input (white 2-way)
S5/P5	LED supply power output (white 2-way)
S6/P6	Evaporator fan (white 4-way)
S7/P7	LED assembly (black 2-way)

Diagram symbols

O	Terminal block terminal
>>	Plug & Socket

6 Spare Parts

Cabinet and Refrigeration System

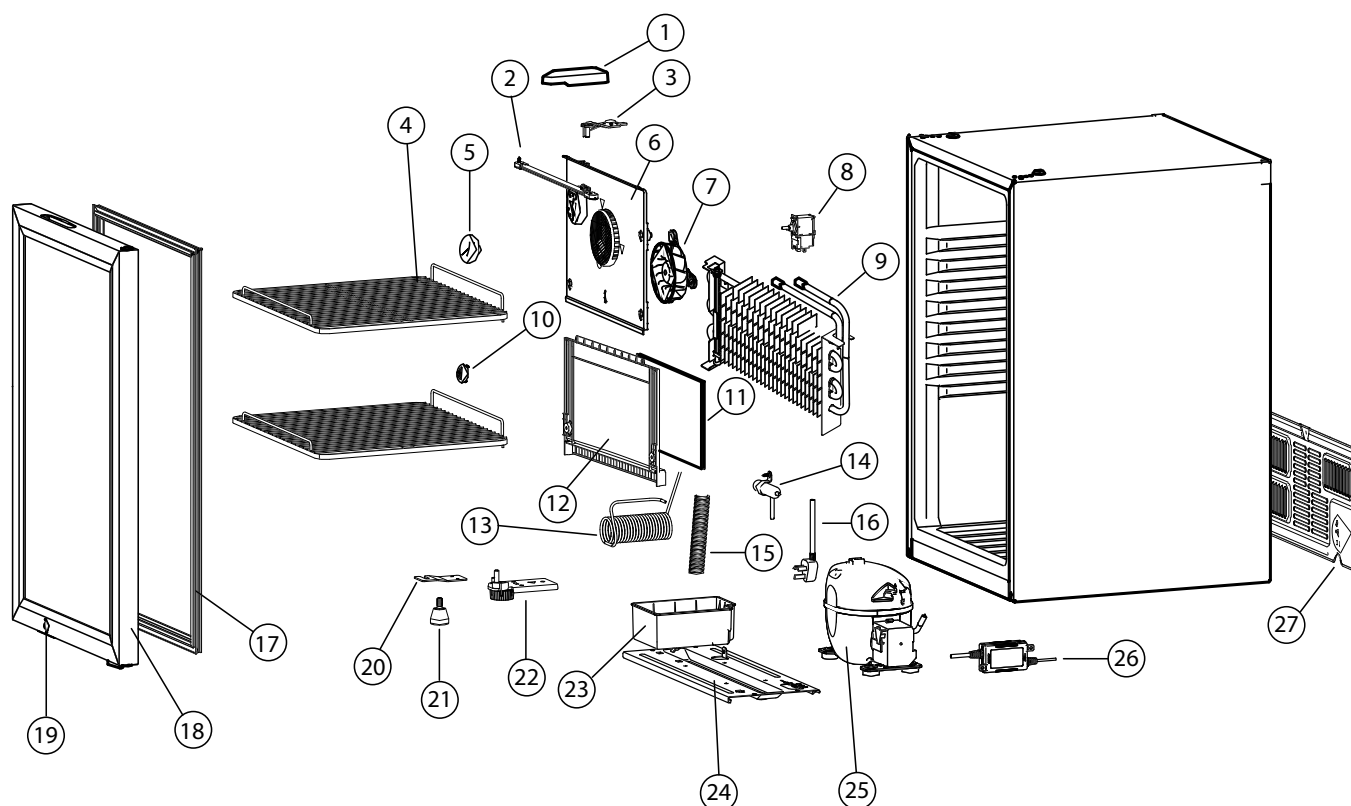


Table 2: Parts – Cabinet and refrigeration system

Item	Description	SKOPE part no.
1	Top hinge cover	HB0060875562A
2	LED light	HB0074001620
3	Top hinge	HB0060875560
4	Shelf	HB0070116985
5	Thermostat knob	HB0070203732
6	Upper air duct	HB0070212555
7	Evaporator fan motor	HB0064001939G
8	Thermostat	HB0074001624
9	Evaporator coil	HB0070703531
–	Lokring for evaporator × 2 (not shown)	HB0060508018
10	Leak inspection cover	HB0070210053
11	Inseal tape	HB0070300634
12	Lower air duct	HB0070212556
13	Condensate line	HB0070703533
14	Drier	HB0060703954
15	Drain pipe	HB0070209522
16	Power cord	HB0060402108D
17	Door gasket	HB0070204560H

Table 2: Parts – Cabinet and refrigeration system (continued)

Item	Description	SKOPE part no.
18	Door	HB0070844090C
19	Lock	HB0070103412
20	Lock bracket	HB0070117003
21	Adjustable foot – left	HB0070204762
22	Bottom hinge with adjustable foot – right	HB0070114499A
23	Condensate tray	HB0060249428
24	Compressor base plate	HB0070116773
25	Compressor (Donper L96CU1) – with accessories	HB0074001622
26	Light power supply	HB0071800268
27	Refrigeration cartridge rear cover	HB0070116774

7 Maintenance

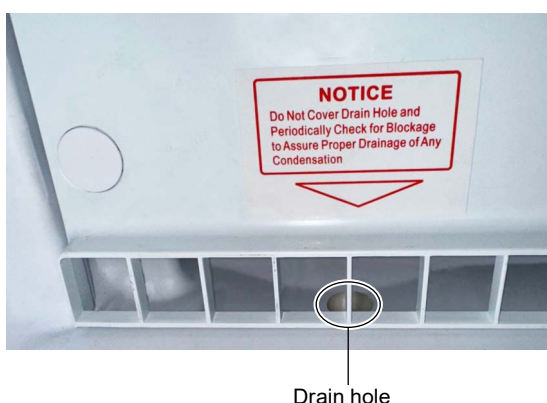
Cleaning

WARNING

Unplug the cabinet from the mains power supply before undertaking any cleaning.

Many commercially available cleaning products contain solvents that may damage the plastic components of this product and cause them to crack. It is important to use only warm water and a small amount of detergent when cleaning the cabinet. Do not use abrasive or corrosive cleaners or boiling water.

- Disconnect the cabinet from the mains power supply (see page 8).
- When necessary, wipe both the interior and exterior of the cabinet with a damp cloth. Do **not** flush the cabinet with water.
- Check the condensation drain hole inside the cabinet to ensure that any condensation is draining properly.
- Clean the door gasket once every three months.
- When necessary clean the condensate tray (located on the right of the compressor, behind the refrigeration grille) with warm soapy water.



8 Troubleshooting

Use Table 3 below to troubleshoot cabinet and refrigeration system problems.

Table 3: Cabinet and refrigeration system diagnostics

Problem	Possible cause	Repair
Cabinet not operating	<ul style="list-style-type: none"> Loss of power supply 	<ul style="list-style-type: none"> Check the power supply.
Cabinet light not operating	<ul style="list-style-type: none"> Loss of power supply Failed LED strip 	<ul style="list-style-type: none"> Check the power supply. Check the LED strip.
<ul style="list-style-type: none"> Water accumulating Ice forming near the drain hole 	<ul style="list-style-type: none"> Drain hole is blocked 	<ul style="list-style-type: none"> Clear the drain hole.
Compressor will not start	<ul style="list-style-type: none"> Loss of power supply 	<ul style="list-style-type: none"> Check the power supply.
	<ul style="list-style-type: none"> Overload protector tripped 	<ul style="list-style-type: none"> Replace the overload protector.
	<ul style="list-style-type: none"> The thermostat knob is in the off ("0") position. 	<ul style="list-style-type: none"> Adjust the thermostat.
Compressor's off cycle is short and on (run) cycle is too long	<ul style="list-style-type: none"> Short of refrigerant 	<ul style="list-style-type: none"> Fix the leak and add charge.
	<ul style="list-style-type: none"> Too much refrigerant 	<ul style="list-style-type: none"> Remove refrigerant to the charge on the rating label.
	<ul style="list-style-type: none"> The thermostat is not reading the temperature correctly 	<ul style="list-style-type: none"> Check the air temperature with a thermometer. Adjust the offset if necessary.
	<ul style="list-style-type: none"> Faulty thermostat 	<ul style="list-style-type: none"> Replace the thermostat.
	<ul style="list-style-type: none"> Cabinet is +overloaded with product 	<ul style="list-style-type: none"> Reduce product load.
	<ul style="list-style-type: none"> Ambient temperature is too high 	<ul style="list-style-type: none"> Ensure the maximum operating conditions are 35°C at 75% relative humidity.
	<ul style="list-style-type: none"> Drier filter is blocked 	<ul style="list-style-type: none"> Replace the drier.
Compressor runs without stopping and the temperature inside the cabinet is too low	<ul style="list-style-type: none"> The thermostat is set too cold 	<ul style="list-style-type: none"> Adjust the thermostat to a warmer setting (turn the knob anti-clockwise).
	<ul style="list-style-type: none"> Faulty thermostat 	<ul style="list-style-type: none"> Replace the thermostat.
	<ul style="list-style-type: none"> The thermostat probe is positioned incorrectly 	<ul style="list-style-type: none"> Reposition the thermostat probe (see the image in Procedure 8 on page 14).
Compressor starts and runs, but the overload protector trips, causing the compressor to short cycle	<ul style="list-style-type: none"> Supply voltage is too high 	<ul style="list-style-type: none"> Check the mains supply voltage.
	<ul style="list-style-type: none"> Compressor is too hot 	<ul style="list-style-type: none"> Check the refrigerant charge. Check that the cabinet has 100 mm ventilation on the sides and at the back.
	<ul style="list-style-type: none"> Faulty overload protector 	<ul style="list-style-type: none"> Replace the overload protector.
	<ul style="list-style-type: none"> Faulty starter relay 	<ul style="list-style-type: none"> Replace the starter relay.
	<ul style="list-style-type: none"> Short circuit in compressor 	<ul style="list-style-type: none"> Replace the compressor.

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