SC112N-A

Four Glass Sided Chiller

Type: HSC112N

User Manual

MAN80259 Rev. 2.1 Jan. 2022

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User Manual

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- Applies any other trade mark to the product
- Adds to the product any written material that is likely to damage the reputation of the trade mark

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- Successors or assignees of the buyer
- Future owners of the product

CONTENTS

1 Installation

Safety First Always observe safety precautions when using any electrical appliance. Read these instructions carefully and retain them for future reference.

WARNING

- Ensure the appliance is disconnected from the power supply before performing any cleaning or maintenance.
- Do not cover the grilles or block the entry or exhaust of airflow by placing objects up against the refrigeration unit.
- Should manual defrosting be necessary, turn off the refrigeration system and allow the ice to melt by air circulation. Do not use mechanical methods to remove ice, as this may damage the refrigeration circuit.
- Do not use any electrical devices or appliances inside the food storage compartment.

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- Do **not** use this appliance for other than its intended use.
- Do not insert fingers/foreign objects into any holes.
- Only use this appliance with the voltage specified on the cabinet rating label.
- Ensure the appliance has adequate ventilation as this is essential to economical, high performance.
- Be careful not to touch moving parts and hot surfaces.
- For your own safety and that of others, ensure that all electrical work is done by authorised personnel.
- If the power supply flexible cord becomes damaged, it must be replaced by an authorised service agent or similarly qualified person in order to avoid a hazard.
- Ensure all necessary safety precautions are observed during installation or removal of the refrigeration unit.
- The appliance is not designed to be stable while in motion. Use extreme caution when moving or transporting it.
- Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.
- Do not exceed a maximum load of 20kg per shelf.
- If the cabinet is to be scrapped, ensure the cabinet is unplugged from the power supply and cut off the mains flex close to the back of the cabinet. Be mindful of the risk of animals or children becoming trapped in the appliance – either remove or secure doors if necessary.
- Refrigerant must be removed by a qualified service person and the cabinet recycled/ disposed of in accordance with local regulations.

This cabinet is designed to operate within a specific climatic class environment.

See the cabinet rating label inside the cabinet for climate class number.

Climate class	Ambient temperature	Relative humidity
3	25°C	60%
4	30°C	55%
5	40°C	40%
7 (tropical)	35°C	75%

The cabinet includes relevant hazard symbols that may be associated with the fridge.
Refer to the information below for symbol description.

WARNING

The refrigeration system contains flammable R600a refrigerant. Do not tamper with it.
The refrigeration system must only be serviced by qualified personnel.

Positioning the Fridge

Climate Class

The fridge is designed to operate within a climate class 3 environment (25°C @ 60% RH).

Location

Select a suitable location for the fridge away from direct sunlight and heat sources e.g. radiators, baseboard heaters, cooking appliances.

This fridge is intended to sit on a raised benchtop. Ensure the bench will support the fridge which could weigh up to 120kg when fully loaded.

The front door (electronic controller side) is fitted with a door switch. Position the fridge so that the front door opens to the customer side of the benchtop. This enables the door switch to detect customer door openings.

IMPORTANT

Ensure the controller faces the customer side of the benchtop

Ventilation

Ensure adequate ventilation is provided around the fridge. The fridge is designed for free-standing installation only. Do not place the cabinet in a recess or enclose it in another cabinet.

Installation Guidelines

When installing the fridge:

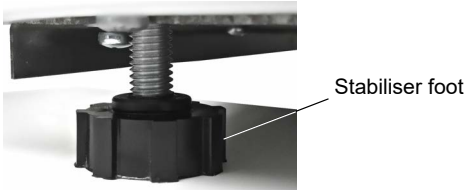
- Remove all packaging material from inside and outside the fridge.
- Ensure the fridge is positioned on a level surface so the doors shut and seal correctly, and to prevent the condensate tray from overflowing.
- Ensure the installation surface is capable of supporting the fully loaded fridge.
- Allow adequate space for door opening. The self-closing doors have pre-tensioned internal torsion bars.
- Do not overload the power supply (see the rating label inside the cabinet for power supply and current draw information).
- Position the front door (electronic controller side) towards the customer.

Power Cord

The fridge is fitted with a 2 metre flexible power cord with a 3-pin plug, which exits the front of the refrigeration system.

Levelling

Adjust the four stabiliser feet (see image below) to ensure the fridge sits on a level surface so that both doors shut and seal correctly. Turn the stabiliser foot clockwise to raise and anti-clockwise to lower the cabinet.



2 Operation

Automatic Start-up

After the fridge has been positioned in a suitable place, plug it in and check the following activity.

Item	Activity
Condenser fan	The condenser fan starts immediately and can be heard.
Evaporator fan	The evaporator fan starts after a few seconds. The evaporator fan turns off when the front door (electronic controller) is opened and turns on again when the front door is closed.
Lighting	The lights that illuminate the cabinet interior come on when the fridge is turned on.
Compressor	The compressor starts after a few minutes. The compressor turns off when the internal temperature reaches +2°C and turns on when the internal temperature rises to +5°C.

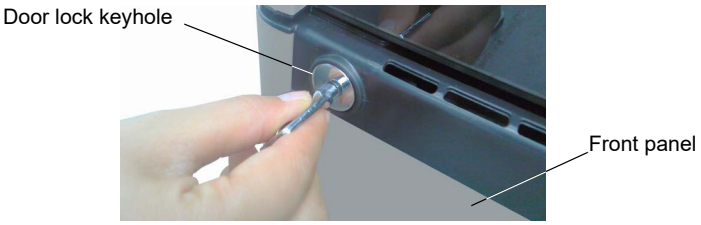
Loading Product

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

- Allow adequate air space around each item to ensure even cooling and efficient operation of the fridge.
- Remove some product if the shelves are flexing. The maximum loading for each shelf is 20kg.
- Do not let anything overhang the shelves, this may stop the doors from shutting or break the door glass.

Door Lock

The fridge is fitted with security door locks. Use the supplied keys to lock and unlock the door as necessary.



Lighting

The cabinet interior is lit by four corner LED strip lights. The lights will switch on and off depending on the fridge's use. The lights can also be manually switched on and off using the light button on the electronic controller faceplate (see page 7).

Electronic Controller

Introduction

The electronic controller is visible through a cut-out in the front panel. It uses temperature probes and a door switch to collect data and runs the fridge accordingly. The electronic controller can be manually switched between 'Normal' and 'Energy Saving' operating modes. Additionally, the controller can be programmed to automatically switch the fridge between Normal and Energy Saving modes depending on the fridge's use (see page 7 for more information).

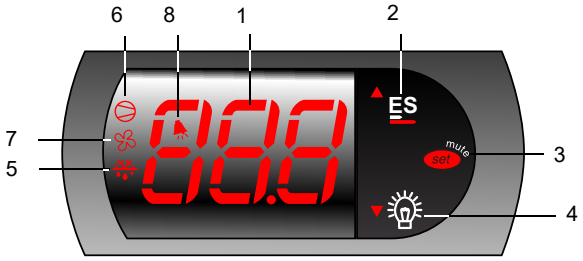
To ensure efficient operation, the electronic controller forces a defrost cycle when required.

Door Switch

The front door (electronic controller side) is fitted with a door switch which tells the electronic controller when the door is opened and closed. If the door is opened for an extended period an alarm will sound. Press the alarm button on the electronic controller to mute the alarm (see below).

Faceplate

Because the electronic controller plays such an important role, it's helpful to know the parts of the faceplate you may use.



No.	Item	Description
1		Cabinet temperature or messages. The temperature is what the sensor inside the fridge detects, and not necessarily the product temperature. However, they may be very close depending on how the controller is set to sense temperature.
2		**Energy Save (up):** Press to view the current fridge mode. 'ECO' = Energy Saving and 'nor' = Normal. Press and hold for 3 seconds to switch the fridge between 'Energy Save' and 'Normal' mode.
3		**Set (mute):** Press to mute the alarm. Press and hold to access parameters.
4		**Light (down):** Press and hold to switch the cabinet lights on and off.
5		**Defrost:** ON when the defrost is activated. Flashes when the defrost is temporarily delayed due to other procedures in progress.
6		**Compressor:** ON when the compressor and condenser fan start. Flashes when activation of the compressor is temporarily delayed.
7		**Fan:** ON when the internal cabinet fans are activated. Flashes when activation of the fans is temporarily delayed.
8		**Alarm:** ON when an alarm is signalled.

Normal and Energy Saving Modes

The electronic controller can be switched between two operating modes: 'Normal' mode and 'Energy Saving' mode. When in Normal mode, the interior lights are on and the internal temperature is regulated to the setpoint setting (see page 8). When in Energy Saving mode, the interior lights are off and the internal temperature is raised slightly above the setpoint.

To switch the fridge between Normal and Energy Saving modes, press and hold the Energy Save (up) button on the electronic controller faceplate (see page 7).

To turn the lights on or off without switching between Normal and Energy Saving mode, press the Light button on the electronic controller faceplate.

The electronic controller can be programmed to switch the fridge automatically between Normal and Energy Saving modes, depending on customer use. If the front door (electronic controller side) is not opened for a set amount of time, the fridge will automatically enter Energy Saving mode. To set the times for automatic switching between Normal and Energy Saving mode, follow the procedure below.

To change the time between 'Normal' and 'Energy Saving' modes

1. Press and hold the **Set** button for 3 seconds until **PS** is shown on the display, indicating entry into the controller settings menu.

2. Press the **Down** button to scroll through the menu until **r6** is shown on the display.

   The **r6** value is the time (in hours) without the door being opened. When this time is reached (during store closing hours or quiet periods) the electronic controller will switch the fridge from Normal mode to Energy Saving mode. The **r6** value must be ≥1 hour.

IMPORTANT
Do **not** set r6 to 0.

3. Press the **Set** button. The current **r6** value (in hours) is shown on the display.
4. Press the **Up** or **Down** button to increase or decease the value (in hourly increments).
5. Press the **Set** button to temporarily save the new **r6** value.
6. Press the **Down** button to scroll the menu until **r7** is shown on the display.

   The **r7** value is the maximum time (in hours) that the fridge will stay in Energy Saving mode. When this time is reached the electronic controller will switch the fridge from Energy Saving mode to Normal mode.

7. Press the **Set** button. The current **r7** value (in hours) is shown on the display.
8. Press the **Up** or **Down** button to increase or decease the value (in hourly increments).
9. Press the **Set** button to temporarily save the new **r7** value.
10. Press and hold the **Set** button for 3 seconds to permanently save the new values and exit the controller settings menu.

Temperature Setpoint

The fridge temperature setpoint is factory set at 2°C for storing perishable products (all shelves maintain temperatures below 5°C). The cabinet setpoint can be adjusted between 0°C and 4°C.

SKOPE does not recommend that the setpoint be changed unless it is absolutely necessary, and then only by small increments at a time.

To view and adjust the temperature setpoint

1. Press and hold the **Set** button for 3 seconds until **PS** is shown on the display, indicating entry into the controller settings menu.

Continued over the page

2. Press the **Up** or **Down** button to scroll the menu until **St** is shown on the display. 
3. Press the **Set** button. The current setpoint value is shown on the display.
4. Press the **Up** or **Down** button to increase or decease the setpoint value to the required temperature.
5. Press the **Set** button to temporarily save the setpoint value.
6. Press and hold the **Set** button for 3 seconds to permanently save the setpoint value and exit the controller settings menu.

Messages and Alarms

The following table explains messages and alarms that the electronic controller displays.

Messages

Display	Description
	The fridge is in Normal mode and the electronic controller displays the fridge temperature.
	The fridge is in Cold Climate Protection (CCP) mode. The fridge enters CCP mode if the ambient temperature in the room gets too cold. The lights remain on and cannot be switched off.
	A Defrost cycle is in process.
	The fridge is in Energy Saving mode. When in Energy Saving mode the temperature inside the fridge is moderated and the cabinet lights turn off. The lights can be switched on and off by pressing the light button on the controller faceplate, and the fridge can be switched into Normal mode by pressing the Energy Saving (up) button on the electronic controller faceplate.

Alarms

Alarm code	Buzzer	Alarm LED	Description	Reset
	On	On	External alarm	Automatic
	On	On	External alarm	Manual
	On	On	Condenser/gas cooler high temperature pre-alarm status	Automatic
	On	On	Condenser/gas cooler high temperature shutdown alarm	Automatic (Acr = 0) Manual, via: • power cycle • keypad (Acr = 1) • password only (Acr = 2)
	On	On	Open door alarm	Automatic
	On	On	Regulation probe error	Automatic
	On	On	Probe 2 error, or pressure switch fault	Automatic
	On	On	Probe 3 error, or door switch fault	Automatic
	Off	On	Mitigation algorithm when enabled, if regulation temperature > **/b** and increasing	Automatic
	Off	On	Internal parameters error	Not possible
	Off	On	Operating parameters error	Manual
	On	On	High voltage condition	Automatic
	On	On	Low voltage condition	Automatic
	On	On	Refrigerant system failure alarm	Automatic
	On	On	High temperature alarm	Automatic
	On	On	Low temperature alarm	Automatic

3 Maintenance

Cleaning

Many commercially available cleaning products contain solvents that may damage the plastic components of the fridge and cause them to crack. Do **not** use abrasive or corrosive cleaners or boiling water.

CAUTION
Isolate the fridge from the power supply before cleaning.

Wash with warm water and wipe down the fridge with a soft cloth or sponge, then rinse with clean warm water and dry with a soft cloth. If required, lift up and remove the shelves to help with cleaning. Do **not** flush the cabinet with water.

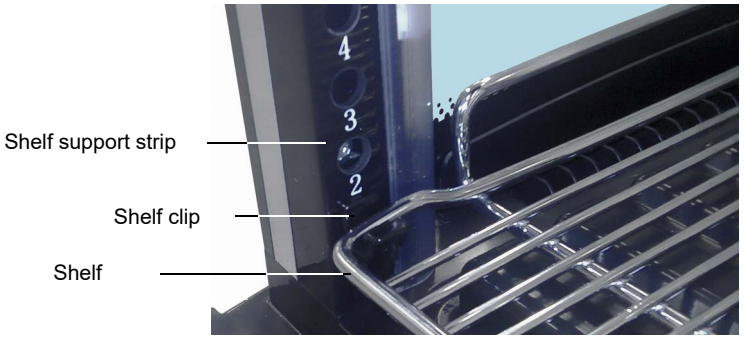
Shelves

Adjusting the Shelves

The fridge is supplied with three wire shelves which may be positioned at different heights to suit various products. Each shelf is held in place with four shelf clips which engage in the shelf support strips.

To adjust the cabinet shelves

1. Remove the shelves from the fridge.
2. Remove the shelf clips from the four shelf support strips at each corner of the fridge interior.
3. Establish the desired position for the shelves and securely engage a shelf clip in each of the shelf support strips.
4. Sit the shelves on the shelf support clips.



Lighting

The fridge is lit by long life LED strip lighting. If any of the lights fail, contact an authorised service agent to service the lights.

Troubleshooting

For problems with the fridge refer to the following table.

Problem	Possible Cause	Suggestions
• Fridge is not operating.	• Loss of power supply.	• Check mains power supply.
• Interior lights are not on.	• Electronic controller displays ECO indicating the fridge is in Energy Saving mode.	• Switch the light on while keeping the fridge in night mode by pressing the Light (down) button on the electronic controller faceplate. • Change the fridge to Normal mode by pressing and holding the Energy Save (up) button on the electronic controller faceplate, or hold the door open for ten seconds.
	• Light is switched off.	• Switch the light on using the Light (down) button on the electronic controller faceplate.
	• Electronic controller displays Err indicating a refrigeration system error.	• Arrange a service call.
	• Failed LED light.	• Arrange a service call.
• Product is too warm.	• Frequent door opening.	• Limit door openings.
	• Door not closing properly.	• Check and clean the door gasket.
• Moisture build up on door or exterior.	• High humidity.	• Check the ambient operating temperature and reposition the fridge if necessary.
	• Frequent door opening.	• Limit door openings.
	• Door not closing properly.	• Check and clean the door gasket.
• Fridge door does not shut properly.	• Fridge is on an uneven surface.	• Level the fridge.
	• Door is obstructed.	• Check the shelves and product.

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