

SC112N-AC

Four Glass Sided Chiller

Type: HSC112NA



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User Manual

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1 Installation

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

- 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.
- 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.

WARNING

Always disconnect the chiller from the mains power supply before cleaning or maintenance.

CAUTION

Never overload the power supply, which could damage the chiller and product. See the rating label inside the cabinet for the safe power supply and current draw.

Positioning the Chiller

Climate Class The chiller is designed to operate within a climate class 3 environment (25°C @ 60% relative humidity).

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

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

The front door (electronic controller side) is fitted with a door switch. Position the chiller 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 chiller. The chiller is designed for free-standing installation only. Do not place the chiller in a recess or another cabinet.

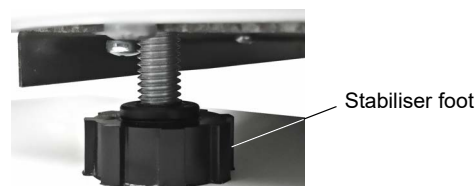
Installation When installing the chiller:

Guidelines

- Remove all packaging material from the inside and outside the chiller.
- Ensure the chiller 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 chiller.
- 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 chiller 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 chiller 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 chiller 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 will start after a few seconds. To verify, check that the fan light is flashing on the electronic controller. The evaporator fan turns off when the front door (electronic controller) is opened and turns on again when the front door is closed.
Sign and interior LED lighting	The lights that illuminate the sign and cabinet interior will come on when the chiller is turned on.
Compressor	The compressor will start after a few minutes. To verify, check that the compressor light is flashing on the electronic controller. The compressor turns off when the product temperature reaches +2°C and turns on when the product temperature rises to +5°C.

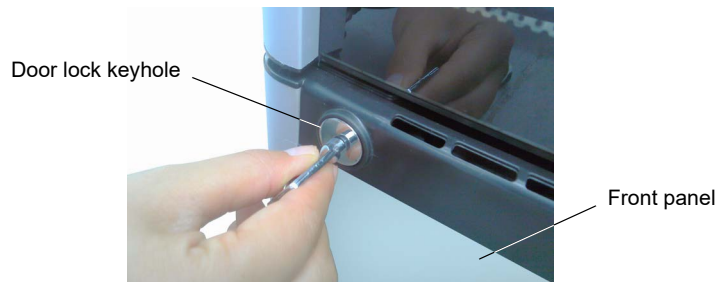
Loading Product

Let the chiller 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 chiller.
- Remove some product if the shelves are flexing. The maximum loading for each shelf is 25kg.
- Do not let anything overhang the shelves, this might stop the doors from shutting or even break something.

Door Lock

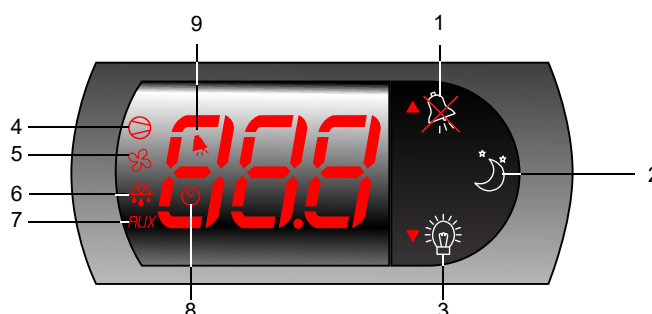
The chiller is fitted with security door locks. Use the supplied keys to lock and unlock the door as necessary.



Electronic Controller

Introduction The electronic controller controls and displays the chiller temperature, and signals temperature alarms. It uses temperature probes and a door switch to collect data and runs the chiller accordingly. The electronic controller automatically switches the chiller between 'Day' and 'Night' modes depending on chiller usage. The electronic controller is pre-programmed and requires no initial setup or additional programming. SKOPE does not recommend that the settings be changed unless it is absolutely necessary. To ensure efficient operation, the electronic controller forces a defrost cycle when required.

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		Alarm Mute (up): Mutes the audible alarm buzzer.
2		Day - Night: Switches the chiller between 'Day' and 'Night' modes.
3		Light (down): Switches the cabinet lights on and off.
4		Compressor: ON when the compressor and condenser fan starts. Flashes when activation of the compressor is temporarily delayed.
5		Fan: ON when the internal cabinet fans are activated. Flashes when activation of the fans is temporarily delayed.
6		Defrost: ON when the defrost is activated. Flashes when the defrost is temporarily delayed due to other procedures in progress.
7	AUX	AUX: n.a.
8		Clock: n.a.
9		Alarm: ON when an alarm is signalled.

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 mute button on the electronic controller to mute the alarm.

Controller Operation The electronic controller will automatically switch the chiller between 'Day' and 'Night' modes depending on use. If the front door (electronic controller side) is not opened for four hours, the chiller will automatically enter Night mode and the sign and interior lights will switch off. To switch the chiller between Day and Night modes manually, press and hold the Day - Night button on the electronic controller faceplate. The chiller can also be brought into Day mode by holding the front door (electronic controller side) open for ten seconds.

Lights In Day mode the sign and interior lights are on. In Night mode the sign and interior lights are off. Press the Light (down) button on the electronic controller faceplate to manually switch the sign and interior lights on and off.

Messages and Alarms

The following table explains messages and alarms that the electronic controller displays. If a warning or alarm persists, contact a service agent.

Messages

Display	Description
--	The chiller is cooling warm product.
20	The chiller is in Day mode and the electronic controller displays the chiller temperature.
CCP	The chiller is in Cold Climate Protection (CCP) mode. The chiller enters CCP mode if the ambient temperature in the room gets too cold. The lights remain on and cannot be switched off.
dF	Defrost cycle in progress.
ECO	The chiller is in economical Night mode. In Night mode the temperature inside the chiller is moderated and the cabinet lights turn off. The chiller can be switched into Day mode by pressing the Day - Night button on the electronic controller faceplate.

Alarms

Alarm code	Buzzer	Alarm LED	Description	Reset
cht	Off	On	CO ₂ condenser high temperature pre-alarm status	Automatic
[CHt	On	On	CO ₂ condenser high temperature alarm status	• Manual (A14 = 0) • Automatic (A14 > 0)
door	On	On	Open door alarm	Automatic
E0	On	On	Second probe error	Automatic
E1	Off	On	Probe 2 error, or pressure switch fault	Automatic
E2	Off	On	Door switch fault	Automatic
E3	Off	On	Mitigation algorithm when enabled, if regulation temperature > lb and increasing	Automatic
EE	Off	On	Internal parameters error	Not possible
EF	Off	On	Operating parameters error	Manual
EHI	On	On	High voltage condition	Automatic
EL0	On	On	Low voltage condition	Automatic
E-r-	On	On	Refrigerant system failure alarm	Automatic
H1	On	On	High temperature alarm	Automatic
L0	On	On	Low temperature alarm	Automatic
HP-	On	On	CO ₂ high pressure pre-alarm status	Automatic
HP-	On	On	CO ₂ high pressure alarm status	Manual

3 Maintenance

Cleaning

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

CAUTION

Isolate the chiller from the power supply before cleaning.

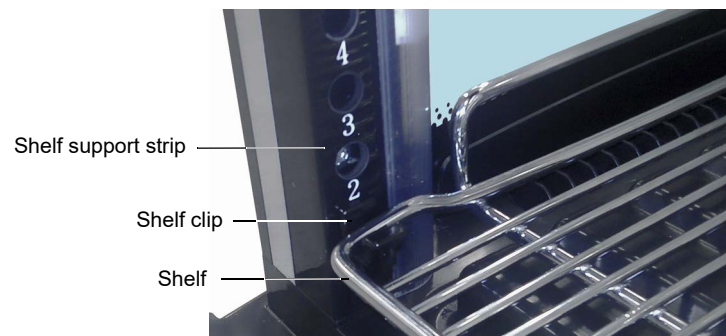
Wash with warm water and wipe down the chiller with a soft cloth or sponge, then rinse with clean warm water and dry with a soft cloth. If required, lift up and remove the shelves to help with cleaning. Do **not** flush the cabinet with water.

Shelves

Adjusting the Shelves The chiller 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 chiller.
 2. Remove the shelf clips from the four shelf support strips at each corner of the chiller 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 onto the shelf support clips.
-



Lighting

The chiller 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 chiller refer to the following table.

Problem	Possible Cause	Suggestions
<ul style="list-style-type: none"> Chiller not operating. 	<ul style="list-style-type: none"> Loss of power supply. 	<ul style="list-style-type: none"> Check the mains power supply.
<ul style="list-style-type: none"> Sign and/or Interior lights not on. 	<ul style="list-style-type: none"> Electronic controller displays ECO indicating the chiller is in Night mode. Light is switched off. Electronic controller displays Err, indicating a refrigeration system error. Failed LED light. 	<ul style="list-style-type: none"> Switch the light on while keeping the chiller in Night mode by pressing the Light (down) button on the electronic controller faceplate. Switch the chiller to Day mode by pressing and holding the Day - Night button on the electronic controller faceplate, or hold the door open for ten seconds. Switch the light on by pressing the Light (down) button on the electronic controller faceplate. Arrange a service call. Arrange a service call.
<ul style="list-style-type: none"> Sign and interior lights will not switch off. 	<ul style="list-style-type: none"> Chiller is in Cold Climate Protection (CCP) mode. 	<ul style="list-style-type: none"> It is not possible to turn the lights off when the chiller is in CCP mode. Wait for the chiller temperature to rise, then switch the lights off.
<ul style="list-style-type: none"> Product is too warm. 	<ul style="list-style-type: none"> Frequent door opening. Door not closing properly. Electronic controller displays ECO, indicating the chiller is in Night mode 	<ul style="list-style-type: none"> Limit door openings. Check and clean the door gasket. Switch the chiller to Day mode by pressing and holding the Day - Night button on the electronic controller faceplate, or hold the door open for ten seconds.
<ul style="list-style-type: none"> Moisture build up on door or exterior. 	<ul style="list-style-type: none"> High humidity. Frequent door opening. Door is not closing properly. 	<ul style="list-style-type: none"> Check the ambient operating temperature and reposition the chiller if necessary. Limit door openings. Check and clean the door gasket.
<ul style="list-style-type: none"> Chiller door does not shut properly. 	<ul style="list-style-type: none"> Chiller is on an uneven surface. Door is obstructed. 	<ul style="list-style-type: none"> Level the chiller. Check the shelves and product.

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