SKOPE Remote Glass Chiller

GC110r

User Manual

MAN2900 Rev. 1.1 Dec. 2008 edition

SKOPE® Refrigeration

SKOPE Remote Glass Chiller
Model GC110r
User Manual

MAN2900
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The SKOPE trade mark on this product is infringed if the owner, for the time being, does any of the following:

- Applies the trade mark to the product after their state, condition, get-up or packaging has been altered in any manner
- Alters, removes (including part removal) or obliterates (including part obliteration) the trade mark on the product
- 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

Notice of the above contractual obligations passes to:

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

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INSTALLATION

Safety Information

When using any electrical appliance, safety precautions should always be observed. Read these instructions carefully and retain 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** probe any opening.
- Only use this appliance with voltage specified on the rating label.
- Be careful not to touch moving parts and hot surfaces.
- Regulations require that all electrical work be carried out by authorised persons. For your own safety, and that of others, ensure this is done.
- If the supply cord becomes damaged, it must be replaced by a SKOPE authorised service agent, or similarly qualified person, in order to avoid a hazard.
- This chiller is not designed to be stable in motion. Exercise caution when moving or transporting this chiller.
- Do NOT overload the power supply. See the rating label inside the cabinet for power supply and current draw.

Caution:

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

Function

The SKOPE Remote Glass Chiller is designed to chill glasses. The chiller can hold three standard 14” wide x 17” deep (355mm x 432mm) glass racks. The racks of glasses (not included with the cabinet) are loaded from the front of the cabinet by opening the glass door. The chilled glasses can then be accessed from the top of the cabinet after removing the acrylic lid. For efficient operation of the chiller, the removable acrylic lid should be replaced when not in use.

Controls

The chiller can be turned on and off using the power switch beside the electronic controller. See ‘Electronic Controller’ section for further control options.

Figure 1: Glass Chiller Cabinet

Positioning the Cabinet

This appliance is intended to be positioned underneath a bench top, with a cutout in the top to allow access to the removable lid on top of the chiller (see cabinet dimensions on page 7).

When positioning the cabinet:

- Avoid direct sunlight and warm draughts etc.
- Normal operating conditions should not exceed 40°C at 65% RH.
- Allow adequate space in front of the cabinet for the door to open fully.
- Ensure the cabinet is positioned on a level surface so the door will shut and seal correctly. The self-closing door has an internal torsion bar, pretensioned at the factory, and should not require any further adjustment.

When installing the cabinet:

- Do not overload the power supply. See the cabinet rating label for power supply and current draw.
- This appliance is intended to be connected to a remote refrigeration system (see ‘Refrigeration System Installation’ on pages 8-9).
- The chiller requires no additional ventilation around the cabinet.

Adjustable Legs

The four adjustable legs can adjust the cabinet height up to 30mm. To adjust the height of each leg, turn the black plastic foot at the bottom of the leg counter-clockwise to raise the height or clockwise to lower the height of the cabinet.

Cabinet Dimensions

Figure 2: Cabinet Dimensions

Refrigeration System Installation

Specifications

REFRIGERATION OPERATIONAL SPECIFICATIONS *	
Mean product temperature:	3.5°C
Condensing temperature:	45°C
Liquid temperature:	40°C
Evaporating temperature:	-5°C
Operation basis:	18 / 24 hours

* Maximum 40°C ambient (optimised at 32°C / 65% RH)

MODEL	REFRIGERANT	REFRIGERATION DUTY - R134a / R404A
GC110r-C	R134a	450 Watts (at -5°C SST)
GC110r-D	R404A	450 Watts (at -5°C SST)

Table 1: Refrigeration Operational Specifications

Refrigeration Practice

Installation must be performed by a refrigeration tradesperson, to an appropriate standard complying with all local regulations.

Performance depends on the overall installation (including condensing unit). Cabinet suitability must always be quantified for the application. The final responsibility for condensing unit performance and component selection rest with the installer. The installer must check matters such as:

- Heat and Refrigeration load
- Variable operating conditions (usage, ambient and humidity)
- Refrigeration pipe sizing and length (distance, elevation and pressure drop)
- Location and ventilation (cabinet and condensing unit)
- Drainage and power supply
- Evacuating the unit fully prior to charging

Drain

The cabinet is supplied with a 45mm long, 3/4” (19mm) O.D. evaporator drain spigot, which exits out the bottom of the cabinet (see Figure 2 on page 7 for dimensions). All drainage is to conform to local regulations, covering removal of condensate to waste water. Ensure the cabinet is level and the drain has adequate fall. Venting the drain may be required for a restrictive run.

Power Supply

The chiller is supplied with a 3.0 metre 10A flexible power cord fitted with a 3-pin plug, which exists out the LH side of the cabinet. The chiller can be turned off and on using the power switch beside the electronic controller.

Refrigeration lines

A 1/4” liquid line and 3/8” suction line are provided to attach pipe lines to. The suction line must be insulated.

The electronic controller supplied with the cabinet can switch a solenoid. No solenoid is supplied with the standard remote unit. If a solenoid valve is fitted and controlled by the electronic controller, the solenoid will need to be connected to the connector block behind the cover attached to the LH side of the cabinet (see Figure 3 below). Ensure the solenoid connection is accessible after installation.

Electronic Controller

When the cabinet is connected to the power supply, the electronic controller will display the current cabinet temperature. The compressor LED will indicate the compressor is operating and the evaporator fan LED will normally come on within 2 minutes (see page 10 for controller display).

Operation

On initial start up, the evaporator fan and cabinet heater wire will not immediately operate, as they are thermostatically controlled. The evaporator fan and cabinet heater wire will only operate once the evaporator coil temperature reaches 10°C.

Figure 3: Refrigeration Services

ELECTRONIC CONTROLLER

Controller Display

Figure 4: Controller Display

ITEM	ICON	FUNCTION
1	Prg mute	**Prg / mute:** n.a.
2	▲ aux	**UP / aux:** To scroll settings **UP** (in programme mode).
3	Set	**Set:** If pressed for more than 2 seconds displays and / or enables changing the temperature setpoint (see page 11).
4	def ▼	**DOWN / def:** To scroll settings **DOWN** (in programme mode). Press for more than 5 seconds to initiate manual defrost.
5		**COMPRESSOR:** ON when the compressor and condenser fan starts. Flashes when activation of the compressor is temporarily delayed.
6		**FAN:** ON when the internal cabinet fans are activated. Flashes when activation of the fans is temporarily delayed.
7		**DEFROST:** ON when the defrost is activated. Flashes when the activation of the defrost is temporarily delayed due to procedures in progress.
8	aux	**AUX:** n.a.
9		**ALARM:** Flashes in the event of alarms and when a door is opened.
10		**CLOCK:** n.a.
11		**LIGHT:** n.a.
12		**SERVICE:** Flashes in the event of malfunctions.
13	HACCP	**HACCP:** On if HACCP function is enabled. Flashes if HACCP alarm has occurred.
14		**CONTINUOUS CYCLE:** n.a.

Table 2: Controller Functions

Controller Overview

Function

The electronic controller controls and displays the internal cabinet temperature. The preset temperature setting controls the product temperature between 1°C and 5°C. The controller also signals temperature alarms (see Table 4 on pages 12-13).

Operation

For general operation, the electronic controller requires no initial setup or additional programming. To ensure efficient operation, the electronic controller forces 6 hourly defrosts. During the defrost cycle, the compressor and condenser fan switch off and the evaporator fan stays on.

Temperature Setpoint

The chiller temperature setpoint is factory set at 2.0°C. If necessary the standard setting can be adjusted between 0.5°C and 4.5°C. SKOPE do 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. To view the setpoint: Press and hold the **Set** key for 2 seconds, until the setpoint value flashes.
	2. To adjust the setpoint: Press either the ▲ aux or def ▼ keys to display the required setpoint value.
	3. Press the **Set** key again to memorise the new setpoint value. If this is not done within 60 seconds changes will be lost and you will need to repeat the above procedure.

Table 3: Temperature Setpoint

Controller Alarms

CODE	DISPLAY LED	BUZZER	ALARM DESCRIPTION
HI	Flashing	on	Product HIGH temperature alarm (auto reset)
LO	Flashing	on	Product LOW temperature alarm (auto reset)
E0	Flashing	off	Ambient probe fault (also flashes ‘rE’)
E1	Flashing	off	Evaporator probe fault
Edl	None	off	Defrost over-time limit
EE	Flashing	off	Controller E prom error
EF	Flashing	off	Controller E prom error

Table 4: Controller Alarms

ACTION
1. Check the cabinet product loading to ensure ventilation slots are not blocked, and that product does not overhang the shelves. Ensure the doors are closed. 2. Ensure the cabinet is installed with good refrigeration unit ventilation. 3. If immediate alarm recovery is required - unplug the cabinet from the power supply for 1 minute, then reconnect to power supply. If alarm persists, contact SKOPE.
To reset alarm - unplug the cabinet from the power supply for 1 minute, then reconnect to power supply. If alarm persists, contact SKOPE.

Table 4: Controller Alarms (continued)

MAINTENANCE

Cleaning

When necessary, wipe both the interior and exterior of the cabinet with a damp cloth. For ease of cleaning, both of the internal shelf support panels can be removed from the cabinet by lifting up off the keyhole screws. Ensure the cabinet is disconnected from the mains power supply before cleaning the cabinet.

Servicing

Servicing should be carried out by an authorised service agent. Detailed service and spares information is available in the SKOPE Remote Glass Chiller Service Manual (MAN2901).

Warranty

To receive a warranty for your purchased cabinet, you MUST register your cabinet within four weeks from the date of invoice either by:

- filling out the in-cabinet warranty form and posting or faxing it back to SKOPE
- or filling out the online warranty form.

Cabinets that are not registered within the four weeks are not eligible for a warranty.

Troubleshooting

Complaint	Possible Cause	Repair
1. Cabinet not operating and no controller display:	• Loss of power supply.	• Check mains power supply. • Check that the cabinet power switch is turned on (see page 7).
2. Power consumption is higher than expected:	• Cabinet has been left with lid off. • Cabinet door is opened excessively.	• Replace lid when not in use. • Keep door open for minimum time.

Table 5: Troubleshooting

Contact Addresses

New Zealand

SKOPE INDUSTRIES LIMITED
Head Office
PO Box 1091, Christchurch
New Zealand
Freephone: 0800 947 5673
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