

SL295

SKOPE Speed Lane Chiller



SL295
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User Manual

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SKOPE INDUSTRIES LIMITED

Head Office

PO Box 1091, Christchurch

New Zealand

A.B.N. 73 374 418 306

AU: 1800 121 535

NZ: 0800 947 5673

E-mail: skope@skope.com

Website: www.skope.com

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1 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 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.
- If installing or removing the refrigeration unit, refer to the Installation Guidelines below, and observe all necessary safety precautions.
- 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

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 cleaning or attempting any maintenance.

Positioning the Cabinet

Location

When positioning the cabinet, avoid direct sunlight and warm draughts. The cabinet must NOT be situated where it is affected by hot air from adjacent equipment, as this will compromise the airflow and performance of the chiller.

Ventilation

For efficient operation of the chiller, it is essential that adequate ventilation be provided around the refrigeration unit. The two sides require a clearance of 50 mm. Additionally, one of the doors may be placed against a wall so long as a clearance of 50 mm is left. A clearance of 200 mm is required above the cabinet.

Important

For efficient operation of the chiller, it is essential that adequate ventilation be provided around the refrigeration unit.

Installation Guidelines

The maximum recommended ambient temperature (at place of installation) is 40°C for swing door models (SW) and 32°C for sliding door models (SL). This chiller will generally use less power when installed in a cooler location.

When installing the chiller:

- Avoid direct sunlight and warm draughts etc.
- Ensure the cabinet is positioned on a level surface so the doors shut and seal correctly and to prevent the condensate tray from overflowing.
- Do not overload the power supply (see the rating label inside the cabinet for power supply and current draw).

Power Supply

The chiller is supplied with a 1.8m flexible power cord fitted with a 3-pin plug, which exits out the side of the cabinet at floor level. The power cord should be retrieved before the cabinet is positioned, as wall and partitions may make access difficult.

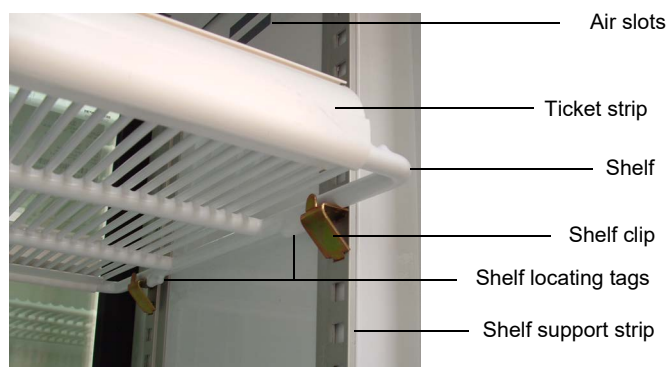
Fitting Kick Panels

Before fitting the cabinet kick panels, remove and discard the transit bracket locating the unit lifting arms. Ensure all three unit lifting arms are in the vertical (upright) position.

Fitting Shelves

The SKOPE SL295 Speed Lane Chiller has three cabinet shelves. The narrow shelf sits on the floor of the cabinet while the two wider shelves may be positioned at different heights to suit various products. The adjustable shelves are held in place with four shelf clips.

Merchandising ticket strips are also provided, which can be clipped to the front edges of all three shelves.



Shelf with ticket strip fitted

Procedure 1: To fit the shelves

1. Unpack the shelves, shelf clips and ticket strips from inside the cabinet.
2. Fit the merchandising ticket strips to the shelves (as required).
3. Place the narrow shelf on the floor of the cabinet.
4. Establish the desired position for the adjustable height shelves and securely engage a shelf clip in each of the shelf support strips (see image above)
5. Fit the shelves onto the shelf support clips, ensuring the shelf locating tags are facing the side of the cabinet with air slots.

2 Operation

Loading

When loading the cabinet shelves with product:

- Ensure the shelves are securely fitted.
- Allow air space around all packages for even cooling and efficient operation of the chiller.
- Leave an airspace of at least 75 mm (3") above packages on the top shelf.
- Do not allow products to hang over the front of the shelf as this could prevent the door from shutting or cause glass breakage.

Operating the Cabinet

Plug in the cabinet and check operation of the refrigeration unit, electronic controller and cabinet interior lights.

Refrigeration Cartridge

The compressor and evaporator and condenser fans should all operate initially. You can confirm this by listening for compressor switch on and checking for air circulation inside the cabinet and airflow up the front of the doors.

The compressor should switch off when the cabinet internal air temperature reaches approximately +2°C and on again at approximately +4°C. The internal cabinet air will continue to circulate at all times. The condenser fan runs continuously to circulate air up the front of the doors and the evaporator fan runs continuously to provide internal air circulation.

Electronic Controller

The electronic controller will either display the internal cabinet temperature or the controller setpoint. The compressor "on" icon will indicate that the compressor is operating (see "Controller Display" on page 10).

Cabinet Interior Lights

The cabinet interior lights are initially on, and will stay on permanently while the cabinet is connected to the power supply. The cabinet lighting will require a period of time to stabilise following initial start up.

3 Electronic Controller

Overview

Depending on the date of manufacture, the cabinet will be fitted with a SKOPE customised CAREL ir33 controller (before September 2022) or a SKOPE customised CAREL S4 EVO controller (after September 2022). Check the label on top of the controller to verify the controller type.

To ensure efficient operation, the electronic controller forces regular defrosts. During the defrost cycle, the compressor and condenser fan switch off and the evaporator fan stays on.

CAREL S4 EVO

Overview

The CAREL S4 EVO electronic controller is visible through a cut-out in the cabinet's front panel. The electronic controller is pre-programmed and requires no initial set-up or additional programming. SKOPE does not recommend that the settings be changed unless absolutely necessary.

CAUTION

The electronic controller must only be adjusted by an authorised service agent.

To achieve energy efficient operation, the electronic controller uses temperature probes to control and display the cabinet's temperature, collect data, indicate temperature alarms, and force 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.

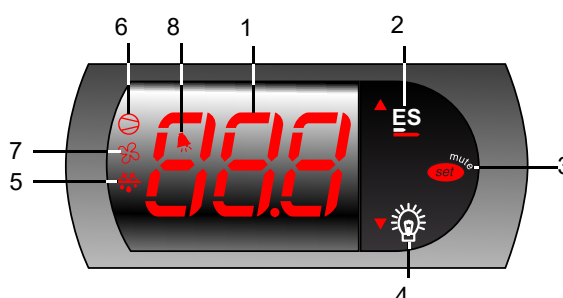





Table 1: CAREL S4 EVO faceplate

No.	Item	Description
1		Digital display of cabinet temperature or messages. The temperature is what the sensor inside the cabinet detects, and not necessarily the product temperature. However, they may be very close, depending on how the controller is set to sense temperature.
2		Up: Button. Used for programming.
3		Mute (set): Button. Press to mute the alarm. Press and hold to access parameters.
4		Light (down): Button. Press to switch the cabinet interior light on and off.
5		Defrost: Indicator. On when the defrost is activated. Flashes when activating the defrost is temporarily delayed due to other procedures in progress.

Table 1: CAREL S4 EVO faceplate (continued)

No.	Item	Description
6		Compressor: Indicator. On when the compressor and condenser fan starts. Flashes when activating the compressor is temporarily delayed.
7		Fan: Indicator. On when the internal cabinet fans are activated. Flashes when activating the fans is temporarily delayed.
8		Alarm: Indicator. On when the alarm is signalled.

Lights



Press the Light button on the electronic controller faceplate to manually switch the cabinet light on and off.

Temperature Setpoint

The temperature setpoint is set at the factory to 2.0°C, and can be adjusted between 1.0°C and 3.5°C for other specialist applications if required.

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

Procedure 2: To view and adjust the temperature setpoint for the CAREL S4 EVO

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 **up** or **down** button to scroll through the menu until **St** is shown on the display. 
3. Press the **set** button.
The current setpoint value shows on the display.
4. Press the **up** or **down** button to increase or decrease 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 tables explain the messages and alarms that the electronic controller displays.

Table 2: CAREL S4 EVO messages



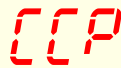
Display	Description
	The cabinet is in "Normal" mode and the electronic controller displays the temperature.
	The cabinet's internal temperature is above 13°C.
	The cabinet is in cold climate protection (CCP) mode. The cabinet enters CCP mode if the room's ambient temperature gets too cold. The lights remain on and cannot be switched off.

Table 3: CAREL S4 EVO alarms

Display	Description	
E0	Probe fault. An alarm sounds. Contact a service agent.	
E1		
E2		
LO	Low temperature alarm. An alarm sounds. The temperature inside the cabinet is too cold. The controller will automatically reset the alarm once the temperature inside the cabinet rises.	
HI	High temperature alarm. An alarm sounds. The temperature inside the cabinet is too warm. The controller will automatically reset the alarm once the temperature inside the cabinet drops.	
cht	Refrigeration system high temperature Pre-warning (auto reset)	<ol style="list-style-type: none">1. Check the cabinet's ventilation and ensure that it is installed in a suitable environment (see page 4).2. To reset the "CHt" alarm, unplug the cabinet from the power supply for 1 minute, then reconnect to power supply.3. If the alarm persists, contact a service agent.
CHt	Refrigeration system high temperature Shutdown (manual reset)	
EL0	Low voltage alarm. An alarm sounds. The mains voltage is low. The controller switches off the compressor. The controller will automatically reset the alarm once the mains voltage rises.	
EHI	High voltage alarm. An alarm sounds. The mains voltage is high. The controller switches off the compressor. The controller will automatically reset the alarm once the mains voltage drops.	
EE	Electronic controller fault. Contact a service agent.	
EF		

CAREL ir33

Controller Display

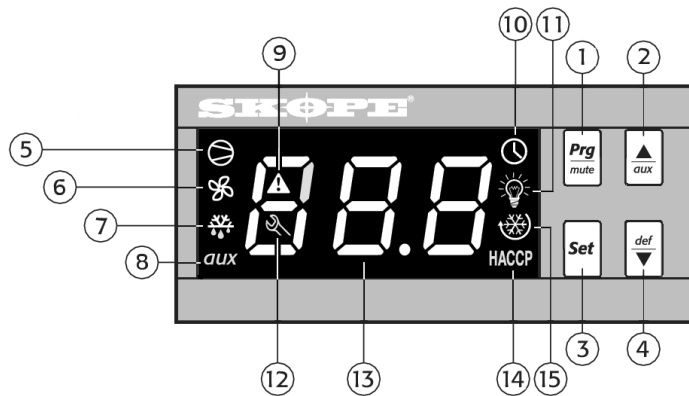


Table 4: Keypad

Item	Key	Function
1		Prg / mute: To initiate programme sets, press for 5 seconds. Mutes the audible alarm (buzzer) and deactivates the alarm relay.
2		UP / aux: To scroll settings UP (in programme mode).
3		Set: If pressed for more than 2 seconds displays and / or enables changing the temperature setpoint (see page 11).
4		DOWN / def: To scroll settings DOWN (in programme mode).

Table 5: Icons

Item	Icon	Function
5		COMPRESSOR: ON when the compressor and condenser fan starts. Flashes when activation of the compressor is temporarily delayed.
6		FAN: n.a.
7		DEFROST: ON when the defrost is activated. Flashes when the activation of the defrost is temporarily delayed due to procedures in progress.
8	<i>aux</i>	AUX: n.a.
9		ALARM: Flashes in the event of alarms.
10		CLOCK: n.a.
11		LIGHT: n.a.
12		SERVICE: Flashes in the event of malfunctions.
13		DISPLAY: Shows the cabinet temperature.
14	HACCP	HACCP: n.a.
15		CONTINUOUS CYCLE: n.a.

Temperature Setpoint

The chiller temperature setpoint is factory set at 2.0°C. If necessary the standard setting can be adjusted between 1°C and 3.5°C (see Table 3 below).

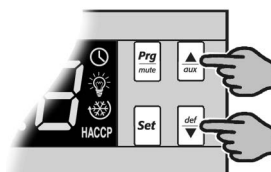
SKOPE do not recommend that the setpoint be changed unless it is absolutely necessary, and then only by small increments at a time.

Procedure 3: 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 UP or DOWN 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.



Alarms

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

Table 6: Controller Alarms
















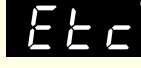







Code	Display Icon	Alarm Description	Action
	 Flashing	Product HIGH temperature alarm	<ol style="list-style-type: none"> 1. Check the cabinet product loading to ensure ventilation slots are not blocked and that product does not overhang the shelves. 2. Ensure the cabinet is installed with good refrigeration unit ventilation. 3. Check and clean the condenser coil (see page 15). 4. Unplug cabinet from the power supply for 1 minute, then reconnect to power supply.
	 Flashing	Product LOW temperature alarm	
	 Flashing	Refrigeration system high temperature pre-warning	<ol style="list-style-type: none"> 1. Clean the condenser coil (see page 15). 2. Check refrigeration ventilation. Ensure clear airpath at the top and front of the cabinet (to extract hot air). A minimum of 200mm clear space is required in front of the refrigeration unit. 3. Ensure the cabinet is installed in a suitable environment. 4. Unplug cabinet from the power supply for 1 minute, then reconnect to power supply.
	 Flashing	Refrigeration system high temperature shutdown	

Table 6: Controller Alarms (continued)

	 Flashing	Ambient probe fault	Unplug cabinet from the power supply for 1 minute, then reconnect to power supply.
	 Flashing	Evaporator probe fault	
	 Flashing	Condenser probe fault	
	None	Defrost over-time limit	
	 Flashing	Real-time clock fault	
	 Flashing	Controller E prom error	
	 Flashing	Controller E prom error	
	None	Start defrost request	None
	None	End defrost request	

4 Servicing

Table 7: Troubleshooting

Problem	Possible cause	Repair
Cabinet not operating and no controller display:	<ul style="list-style-type: none"> Loss of power supply. 	<ul style="list-style-type: none"> Check mains power supply.
Cabinet lights not operating:	<ul style="list-style-type: none"> Blown cabinet fuse. Failed fluorescent tube. Controller alarm. 	<ul style="list-style-type: none"> Requires technical repair by a SKOPE Authorised Service Agent. Check fluorescent tubes. Determine cause and eliminate (see pages 12-13).
Power consumption is higher than expected:	<ul style="list-style-type: none"> Unit operating too hot. Cabinet door is opened excessively. 	<ul style="list-style-type: none"> Clean condenser. Ensure the chiller is installed with good ventilation around the refrigeration unit. Keep door/s open for minimum time.
Product is too warm and spoiling:	<ul style="list-style-type: none"> Restricted cabinet airflow. Temperature setpoint is too warm. 	<ul style="list-style-type: none"> Ensure product is not blocking airflow slots and there is air space around all the product. Adjust setpoint (see page 10).
Warm cabinet temperatures and/or compressor operating for long periods (more than 1 hour):	<ul style="list-style-type: none"> Blocked condenser. Poor refrigeration unit ventilation. 	<ul style="list-style-type: none"> Clean condenser (see page 15). Ensure the cabinet is installed with good ventilation around the refrigeration unit.

Cleaning

Caution

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

When necessary, wipe both the interior and exterior of the cabinet with a damp cloth. Ensure the chiller is disconnected from the mains power supply before cleaning the cabinet.

To ensure the sliding doors open and close smoothly, the door rollers and the sliding door tracks should be kept clear of any dirt build-up.

The condenser coil and optional air filter **MUST** be cleaned regularly.

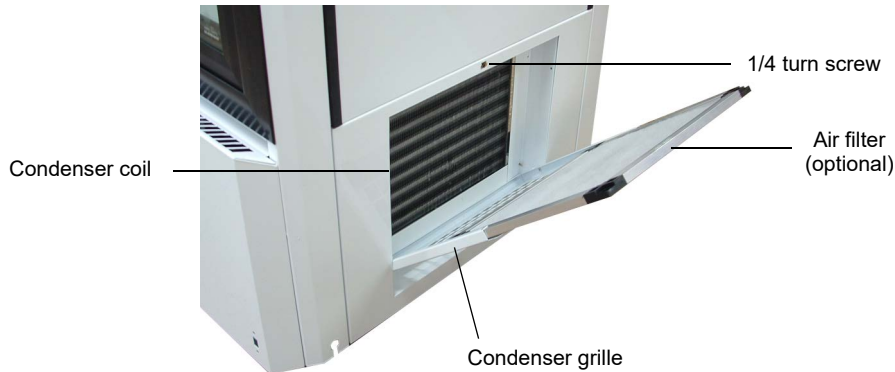
Warning

If the electronic controller display flashes “cht” clean the condenser coil immediately.



Condenser Coil and Optional Air Filter

The condenser coil and optional air filter are located behind the condenser grille on the side of the cabinet.



The condenser coil and optional air filter **must** be kept clean for efficient and reliable operation. To ensure trouble-free performance, SKOPE recommends isolating the cabinet from the mains power supply every two months and vacuum cleaning the dust and fluff from the condenser coil and air filter.

If the electronic controller display flashes 'cht' the condenser coil needs cleaning immediately.

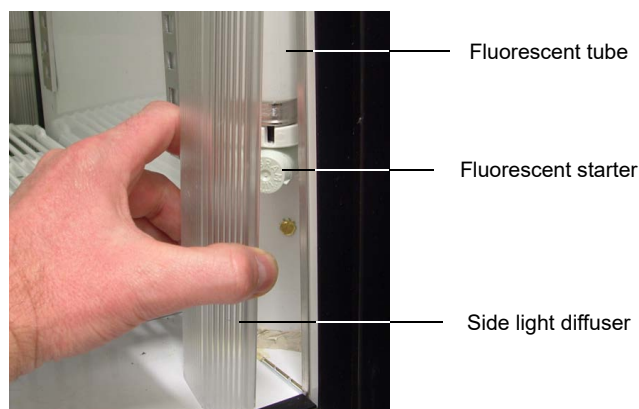
Procedure 4: To access the condenser coil

1. Disconnect the cabinet from the mains power supply.
2. Undo the 1/4 turn screw at the top of the condenser grille.
3. Swing the condenser grille down and remove the air filter (if fitted).
4. The condenser coil is now accessible for cleaning.
5. After cleaning the condenser coil and air filter, replace the air filter and close the condenser grille.
6. Re-tighten the 1/4 turn screw.

Lighting

Cabinet Interior Light

The cabinet has four interior side lights, each fitted with one 18 Watt T8 fluorescent tube (SKOPE part no. ELL6267) - OSRAM L 18W/840 Cool White, Ø26 x 588mm and fluorescent starter (SKOPE part no. ELZ2840).



Procedure 5: To replace the fluorescent tube or starter

1. Disconnect the cabinet from the mains power supply.
 2. Remove the side light diffuser, by compressing the back section of the diffuser until it disengages from the aluminium housing and then push the diffuser back (see Figure 5 below).
 3. The fluorescent tube and starter can now be removed. Revolve the tube until the pin position allows withdrawal.
 4. When refitting the diffuser, engage the back section into the housing, and then compress and snap the front section of diffuser back into place working down the full length of the light.
-

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.

SKOPE Contacts

SKOPE Industries Limited

ABN: 73 374 418 306

AU: 1800 121 535

NZ: 0800 947 5673

skope@skope.com

www.skope.com