

# SKOPE Backbar, Counterline & Slimline **BB, CL & CC Series** 1, 2 & 3 Door Horizontal Chillers



CL400



BB580



CL800



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Thank you for purchasing a SKOPE refrigeration product.

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# 1 Models

## Backbar

<i>Model</i>	<i>Config.</i>	<i>Doors</i>	<i>Refrigeration unit</i>	<i>Current draw</i>	<i>Operating temperature range</i>
BB380i-2SL	Sliding doors	2	Integral	3.6A	+1°C to +4°C up to 32°C ambient
BB580i-3SL		3	Integral	3.9A	
BB780i-4SL		4	Integral	4.0A	
BB380i-2SW	Swing doors	2	Integral	3.4A	
BB580i-2SW		3	Integral	3.6A	
BB780i-4SW		4	Integral	3.8A	
BB380r-2SL	Sliding doors	2	Remote	0.9A	
BB580r-3SL		3	Remote	1.5A	
BB780r-4SL		4	Remote	1.6A	
BB380r-2SW	Swing doors	2	Remote	0.7A	
BB580r-3SW		3	Remote	0.9A	
BB780r-4SW		4	Remote	1.4A	

## Counterline

<i>Model</i>	<i>Config.</i>	<i>Doors</i>	<i>Refrigeration unit</i>	<i>Current draw</i>	<i>Operating temperature range</i>
CL400i-2SL	Sliding doors	2	Integral	2.5A	+1°C to +4°C up to 32°C ambient
CL600i-3SL		3	Integral	3.4A	
CL800i-4SL		4	Integral	4.0A	
CL400i-2SW	Swing doors	2	Integral	2.3A	+1°C to +4°C up to 40°C ambient
CL600i-3SW		3	Integral	3.2A	
CL800i-4SW		4	Integral	3.8A	
CL400r-2SL	Sliding doors	2	Remote	0.5A	+1°C to +4°C up to 32°C ambient
CL600r-3SL		3	Remote	0.9A	
CL800r-4SL		4	Remote	1.3A	
CL400r-2SW	Swing doors	2	Remote	0.3A	
CL600r-3SW		3	Remote	0.7A	
CL800r-4SW		4	Remote	1.0A	

## Slimline

<i>Model</i>	<i>Config.</i>	<i>Doors</i>	<i>Refrigeration unit</i>	<i>Current draw</i>	<i>Operating temperature range</i>
CC300i-2SL	Sliding doors	2	Integral	2.5A	+1°C to +4°C up to 32°C ambient
CC500i-3SL		3	Integral	3.4A	
CC700i-4SL		4	Integral	4.0A	
CC300i-2SW	Swing doors	2	Integral	2.3A	+1°C to +4°C up to 40°C ambient
CC500i-3SW		3	Integral	3.2A	
CC700i-4SW		4	Integral	3.8A	
CC300r-2SL	Sliding doors	2	Remote	0.5A	+1°C to +4°C up to 32°C ambient
CC500r-3SL		3	Remote	0.9A	
CC700r-4SL		4	Remote	1.3A	
CC300r-2SW	Swing doors	2	Remote	0.3A	
CC500r-3SW		3	Remote	0.7A	
CC700r-4SW		4	Remote	1.0A	

## 2 Installation

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

- ▣ When the appliance is used by or near young children or infirm persons, close supervision is necessary, especially to ensure children do not play with it.
- ▣ Do **not** use this appliance for other than its intended use.
- ▣ Do **not** cover the grilles or block the entry or exhaust of airflow by placing objects up against the refrigeration unit.
- ▣ Do **not** probe any opening.
- ▣ Only use this appliance with the voltage specified on the 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.
- ▣ Please contact SKOPE customer services for advice regarding disposal of this appliance.

### 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.

### WARNING

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

### WARNING

If retrofitting door locks, ensure retrofit is done by a SKOPE approved service technician following SKOPE guidelines on instruction sheet PRN8503.

## Locating the Cabinet

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

The cabinet must be positioned on a level surface for the doors to shut and seal correctly, and to prevent the condensate tray from overflowing. Adequate allowance should be made for door opening.

Always ensure that the top of the cabinet is shielded from impact and moisture, with either a SKOPE provided bench top, or with a custom or existing bench top.

### When installing the cabinet

- Avoid direct sunlight and warm draughts etc.
- Allow adequate space for the doors to open fully.
- Ensure the cabinet is positioned on a level surface so the doors shut and seal correctly and to prevent the condensate tray from overflowing.

**Ventilation** For efficient operation of the chiller, it is essential that adequate ventilation be provided around the front of the refrigeration unit. Normal operating conditions should not exceed the operating temperature range (see page 4).

It is critical that the hot refrigeration exhaust air is not restricted and that it can easily flow out and away from the front of the cabinet. Never store cardboard cartons or other items in front of the refrigeration unit. The ventilation slots on the unit front cover must be kept clear at all times.

**Power Supply** The chiller is supplied with a flexible power cord fitted with a 3-pin plug, which exits below the refrigeration unit front cover. Initial retrieval of the power cord is from inside the refrigeration unit compartment, behind the unit front cover.

### WARNING:

Do **NOT** overload the power supply. See the rating label inside the cabinet for power supply and current draw.

### To retrieve the power cord

1. Open the unit front cover, by undoing the bottom fixing screw and then lifting the cover up from the bottom and swing open.
2. Pull the power cord fully out from the unit compartment and remove the rubber band.

3. Push the unit end of the power cord into the grey plastic clip on the front of the unit base and close the plastic clip over the cord, ensuring it is held firmly in place.



4. The power cord can now be run under the cabinet and plugged into a power supply socket.
5. Close the unit front cover by lifting the cover up from the bottom and pushing firmly closed, and refit the bottom fixing screw.

## Positioning the Cabinet

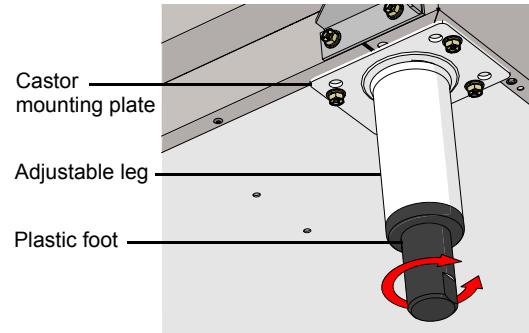
### Legs and Castors

The chiller is packed with a set of adjustable height legs and a set of adjustable height castors. Either of these sets can be fitted to the cabinet depending on specific height and manoeuvrability requirements. The legs or castors should be fitted to the base of the cabinet before final positioning.

The adjustable legs screw into the castor mounting plates attached to the bottom of the cabinet. The adjustable legs can adjust the cabinet height up to 30mm.

#### To adjust leg height

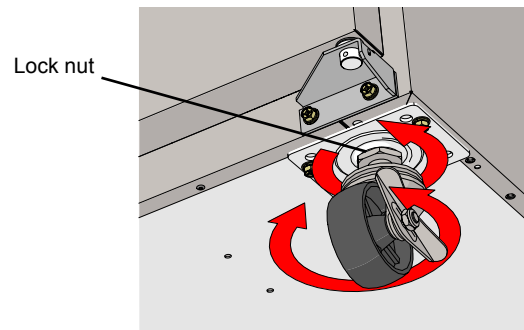
1. Turn the black plastic foot at the bottom of the leg counter-clockwise to raise the height or clockwise to lower.



The adjustable castors screw into the castor mounting plates attached to the bottom of the cabinet. The two lockable castors should be fitted to the front of the cabinet and the non-locking castors fitted to the rear. The adjustable castors can adjust the cabinet height up to 15mm.

#### To adjust castor height

1. Loosen the lock nut.
2. Turn the castor counter-clockwise to raise the height or clockwise to lower (see image below). Re-tighten each lock nut after final adjustment has been made.



## Shelving

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**Fitting the Shelves** Remove all packaging material from the shelves. Clip the shelf support brackets into the shelf support strips, at the desired heights, and fit the shelves. The shelves may be positioned at different heights to suit various products. Always ensure that the shelf clips are securely engaged in each of the shelf support strips. The shelf support strips are marked '+' for easy location of shelf clips and can be lifted up and removed for cleaning purposes.

**Loading Product** The chiller should be left running for 30 minutes before loading with product.

**When loading product**

- Allow air space around all the product to ensure even cooling and efficient operation of the chiller.
- Do not allow products to overhang the front of the shelf as this could prevent the doors from shutting. Leave an airspace of at least 75mm above product loaded on the top shelf.
- Do not exceed a maximum loading of 20kg per shelf.
- Remove some product if the shelves are flexing or bending.

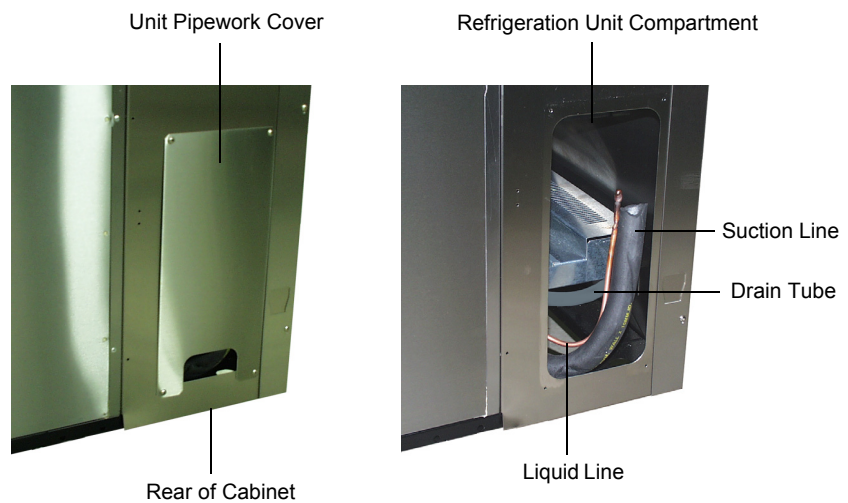


## Remote Cabinet Installation

SKOPE horizontal remote cabinets are supplied with a separate instruction sheet: *Guidelines for SKOPE remote Refrigeration* (PRN2362), and specification sheet: *SKOPE Gen 2 Horizontal Remote Cooler - Specifications* (PRN1647). Refer to these sheets for SKOPE remote refrigeration installation guidelines and specifications.

**Electronic Controller** When the cabinet is connected to the power supply, the electronic controller will display the current cabinet temperature. On the controller display, the ☹ symbol will indicate the compressor output signal has been initiated and the ⚙ symbol will indicate the evaporator fan is on.

**Pipe Locations** Refer to the images below (remote chiller unit pictured) for component locations and unit access points.



## 3 Operation

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### Automatic Start-Up

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Connect the cabinet to the mains power supply and check operation of the refrigeration unit and electronic controller. If the cabinet has been on its back, leave for 30 minutes before running.

**IMPORTANT**

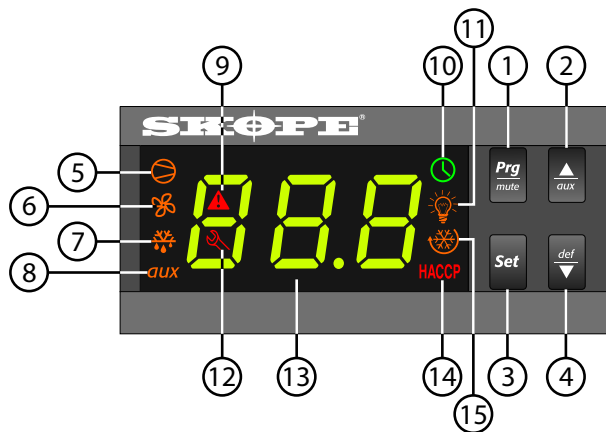
If the cabinet has been on its back, leave for 30 minutes before running.

**Refrigeration Unit** The compressor, and the condenser and evaporator fans should all operate within two minutes from the time the cabinet is plugged in. This may be verified by listening for compressor switch-on and checking for air movement out of the top ventilation slots in the refrigeration unit front cover. The compressor and condenser fan should switch on and off depending on the cabinet temperature.

**Cabinet Lighting** The light switch, located next to the electronic controller on the refrigeration unit front cover, activates the cabinet interior lighting and can be switched on or off as required.

**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 two minutes (see “Electronic Controller” on page 11 for controller display).  
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.

## Electronic Controller





Item	Icon	Function
1		<b>Mute / program:</b> Mutes the audible alarm (buzzer) and deactivates the alarm relay. To initiate program sets, press for 5 seconds.
2		<b>Up:</b> To scroll settings up (in program mode).
3		<b>Set point:</b> If pressed for more than 2 seconds displays and / or enables changing the temperature setpoint.
4		<b>Manual defrost / down:</b> Press for more than 5 seconds to initiate manual defrost. To scroll settings down (in program mode).
5		<b>Compressor:</b> ON when the compressor and condenser fan starts. Flashes when activation of the compressor is temporarily delayed.
6		<b>Fan:</b> Shows when the fan is operational.
7		<b>Defrost:</b> ON when the defrost is activated. Flashes when the activation of the defrost is temporarily delayed due to procedures in progress.
8		<b>Aux:</b> n.a.
9		<b>Alarm:</b> Flashes in the event of alarms.
10		<b>Clock:</b> n.a.
11		<b>Light:</b> n.a.
12		<b>Service:</b> Flashes in the event of malfunctions.
13		<b>DISPLAY:</b> Shows the cabinet temperature. Flashes when the door is open.
14		<b>HACCP:</b> n.a.
15		<b>CONTINUOUS CYCLE:</b> On when freezer is running in continuous run mode.

## Controller Overview

The CAREL ir33 electronic controller controls and displays the internal cabinet temperature. The preset temperature setting keeps the product temperature within the operating temperature range (see page 4). The electronic controller also signals temperature alarms (see next page).

For general operation, the electronic controller requires no initial setup or additional programming.

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.

## Temperature Setpoint

The chiller temperature setpoint is factory set (see table below) and can be adjusted if necessary. SKOPE do not recommend that the setpoint be changed unless it is absolutely necessary, and then only by small increments at a time.



### Factory setpoints

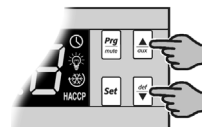
Model series	Factory setpoint
Backbar	1.5°C
Counterline & Slimline	1.0°C

### 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.



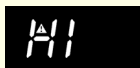



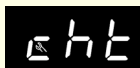









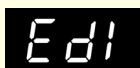
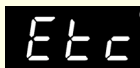





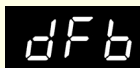



2. To adjust the setpoint:  
Press either the  or  keys to display the required setpoint value.



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.



**Controller Alarms** The following table explains messages that the electronic controller displays and related alarms. Alarms signal unexpected operational changes in the freezer and stop when action is taken to resolve the problem.

Code	Display	Alarm	Action
	 Flashing	Product HIGH temperature alarm (auto reset)	<ol style="list-style-type: none"> <li>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.</li> <li>2. Ensure the cabinet is installed with good refrigeration unit ventilation.</li> <li>3. Check and clean the condenser coil (see page 14).</li> <li>4. 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.</li> </ol> <p><b>NOTE:</b> The 'HI' and 'LO' alarms deactivate the cabinet lighting and trim heaters.</p>
	 Flashing	Product LOW temperature alarm (auto reset)	
	 Flashing	Refrigeration system high temperature pre-warning (auto reset)	<ol style="list-style-type: none"> <li>1. Clean the condenser coil (see page 14).</li> <li>2. Check refrigeration ventilation. Ensure clear airpath in front of the cabinet.</li> <li>3. Ensure the cabinet is installed in a suitable environment.</li> <li>4. To reset the 'CHT' alarm - unplug the cabinet from the power supply for 1 minute, then reconnect to power supply. If alarm persists, contact SKOPE.</li> </ol>
	 Flashing	Refrigeration system and cabinet high temperature shutdown (manual reset)	
	 Flashing	Control probe fault	<p>To reset alarm - unplug the cabinet from the power supply for 1 minute, then reconnect to power supply.</p> <ol style="list-style-type: none"> <li>1. If alarm persists, contact SKOPE.</li> </ol>
	 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	
	 Flashing	Door open alarm	Check that a door or drawer has not been left open. Note: The audible alarm buzzer cannot be turned off manually.

## 4 Servicing

### Cleaning

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

#### CAUTION

Disconnect the cabinet from the mains power supply before cleaning the condenser coil or washing the cabinet with water.

**Condenser Coil** Integral cabinets only. The condenser coil should be brushed clean once a month and blown clean by qualified service personnel every six months. Over time, dust may accumulate within the condenser that cannot be removed with a brush. If this occurs, contact SKOPE to arrange for a SKOPE authorised service agent to clean the condenser with compressed air. The condenser coil is located inside the refrigeration unit compartment and is accessed by opening the unit front cover. Disconnect the cabinet from the power supply before cleaning the condenser coil.



#### IMPORTANT

If the electronic controller display flashes '**cht**' the condenser coil must be cleaned immediately.

## Lighting

### Cabinet Interior Lights

The cabinet is fitted with cabinet interior light/s mounted above the doors on the ceiling of the cabinet. Backbar pass-through cabinets are fitted with lights above the front and back doors. Refer to the table below for light tube specifications.

#### Interior light specifications

Type	LED Tube Specification
Two door cabinet	20 Watt T8 Frosted LED tube (Ø26 x 900mm, 5500K)
Three door cabinet	24 Watt T8 Frosted LED tube (Ø26 x 1500mm, 5500K)
Four door cabinet - Counterline & Slimline	20 Watt T8 Frosted LED tube (x2) (Ø26 x 900mm, 5500K)
Four door cabinet - Backbar	24 Watt T8 Frosted LED tube (Ø26 x 1500mm, 5500K)

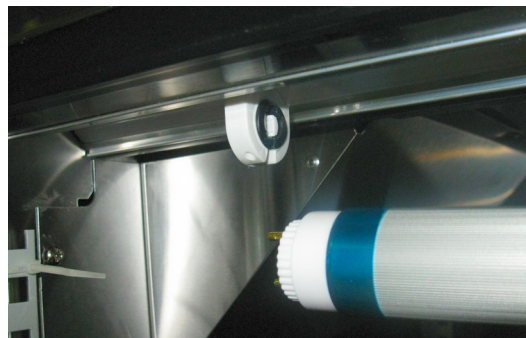
#### To replace the interior LED light tube

1. Disconnect the cabinet from the power supply (see page 14).

2. Remove the top light diffuser by squeezing it until it is released from the housing.



3. Rotate the LED tube until the pins on the ends of the tube align with the slots, then slide it out.
4. Fit a new LED tube and clip the diffuser back into place. When fitting vertically mounted LED tubes, ensure the tube is fitted with the 'Power' end at the top.



## Troubleshooting

Complaint	Possible Cause	Repair
1. Cabinet not operating and no controller display:	<ul style="list-style-type: none"> <li>• Loss of power supply.</li> </ul>	<ul style="list-style-type: none"> <li>• Check mains power supply.</li> </ul>
2. Power consumption is higher than expected:	<ul style="list-style-type: none"> <li>• Unit operating too hot.</li> <li>• Cabinet doors are opened excessively.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean condenser (see page 14).</li> <li>• Ensure the chiller is installed with good ventilation around the refrigeration unit.</li> <li>• Keep door/s open for minimum time.</li> </ul>
3. Product is too warm and spoiling:	<ul style="list-style-type: none"> <li>• Restricted cabinet airflow.</li> <li>• Temperature setpoint is too warm.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure product is not blocking airflow slots.</li> <li>• Adjust setpoint (see page 12).</li> </ul>
4. Warm cabinet temperatures and/or compressor operating for long periods (more than 1 hour):	<ul style="list-style-type: none"> <li>• Blocked condenser.</li> <li>• Poor refrigeration unit ventilation.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean condenser (see page 14).</li> <li>• Ensure the cabinet is installed with good ventilation around the refrigeration unit.</li> </ul>



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The SKOPE trademark 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 assignees of the buyer
- Future owners of the product

SKOPE Backbar, Counterline & Slimline  
BB, CL & CC Series  
User Manual  
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