OD330N

SKOPE Open Deck Fridge



Service Manual

MAN80213 Rev. 1.7 Apr. 2024

Coca-Cola EUROPACIFIC PARTNERS

SKOPE Refrigeration

OD330N
SKOPE Open Deck Fridge
Service Manual

MAN80213
Rev. 1.7 Apr. 2024

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1 Specifications

Overview

This cabinet uses hydrocarbon (HC) R290 as its refrigerant. R290 is a natural refrigerant that has a very low environmental impact.

Special service requirements are needed as R290 is a flammable refrigerant.

Safety hazards



The main R290 safety hazards are:

- Flammable refrigerant
- Venting of R290 and compressor oil
- Asphyxiation

SKOPE does **not** recommend performing hazardous activities on the refrigeration system.

Models

This service manual is applicable to the SKOPE fridges detailed below.

Table 1: Model specifications

Model	Description	Type
OD330N	Free-standing	O33CLN

OD330N

Table 2: Cabinet

Description	Free-standing	
Type	O33CLN	
Construction		
Insulation	40 mm thick, polyurethane foam. Cyclo-iso pentane blowing agent: C_5H_{10}/C_5H_{12}	
Doors	n.a. Fitted with manual night blind	
Dimensions	*External*	*Internal*
Height	1300 mm	776 to 837 mm
Width	890 mm	796 mm
Depth	740 mm (includes 28 mm stand-off)	432 to 598 mm
Floor area	0.66 m^2 (includes 28 mm stand-off)	
Internal volume	355 litres	
Shelves	2 adjustable angle, adjustable height shelves + 1 angled, fixed in place bottom shelf. Fitted with gravity feed system and shelf lights	
Product loading	3 layers of 600 ml PET bottles. Top shelf: 10 facings × 4 deep, middle shelf: 10 facings × 5 deep, bottom shelf: 10 facings × 6 deep. 150 per cabinet	
Operating conditions		
Max. operating temperature	25°C @ 60% relative humidity (Climate Class 3)	
Cabinet temperature range	0°C to 5°C	
Electrical	220-240 Volts a.c. 50 Hz, single phase supply	
Total run amps	3.0 amps (includes cassette 2.7 amps)	
GEMS energy consumption	6.6 kWh/day	
Energy star rating	TBC stars	
Sign lighting	n.a.	
Internal lighting	LED internal cabinet illumination (top and bottom) and shelf lighting	

Table 3: Refrigeration cassette

Description	R290 (hydrocarbon) Open Deck Coca-Cola Global cassette
Cassette model	UBHENI-0014
Compressor	Wanbao FN90M
Controller	SCS Connect
Nominal capacity	740 watts
Refrigerant	R290/85 g

2 Installation

Installation Guidelines

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

Cabinet Location The cabinet should not be left exposed to direct sunlight at any time as this may cause distortion of plastic parts.

> **IMPORTANT**
> Do **not** leave the cabinet exposed to direct sunlight as this may cause distortion of the plastic cladding.

The cabinet must not be situated where it is affected by air-conditioning air outlets, ventilation fans or air re-circulation fans, as this will compromise the airflow and product temperature in the open cabinet zone.

There must be no air movement directly into the cabinet opening. Air movement will cause failure of the air curtain over the product, resulting in excessive temperature rise. Detectable air draft will adversely affect the cabinet operation. Maximum air movement across the cabinet opening must not exceed 0.2 m/s.

> **IMPORTANT**
> There must be **no** air movement directly into the cabinet opening.

Ventilation Keep the ventilation slots in the front panel clear at all times. **Never** store cardboard cartons or other objects in front or behind the cabinet.

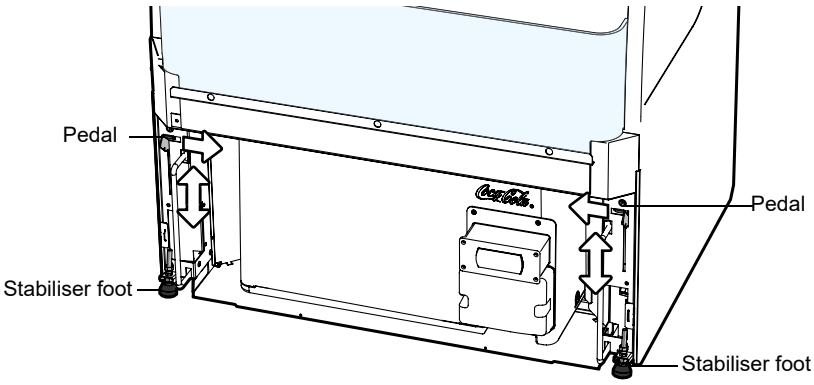
> **CAUTION**
> To prevent over-heating and conserve energy, ensure air flows freely all around the cabinet, including underneath and on top.

Power Cord The cabinet has a flexible power cord fitted with a 3-pin plug, which exits the rear of the cabinet. Pull the power cord around so that it's not trapped before you position the cabinet.

Stabiliser Feet The cabinet is fitted with two front stabiliser feet which hold the cabinet in place once it is in position. The stabiliser feet are lowered and raised by the stabiliser feet pedals. Ensure the stabiliser feet are raised when moving the cabinet around. Once the cabinet is in position, lower the two front stabiliser feet to firmly contact the ground.

Procedure 1: To lower and raise the stabiliser feet

1. Move the cabinet into position, and remove the front panel (see page 18) to access the stabiliser feet pedals.
2. Push the stabiliser foot pedals towards the inside of the cabinet to release, then push down to lower the stabiliser feet, and up to raise the feet



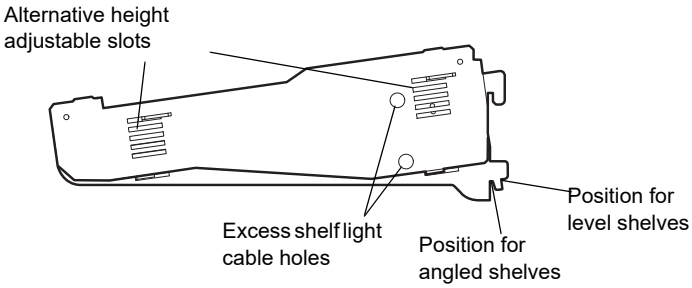
3. Refit the front panel (see page 18).

Shelves

Adjusting the Shelves

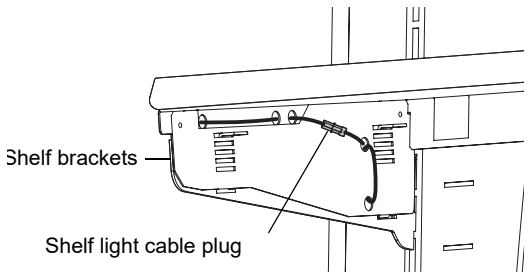
The cabinet is fitted with three different sized metal shelves. The two top shelves are height and angle adjustable, and removable. The angled bottom shelf is not adjustable. The shelves are different depths, with the top shelf being the shallowest and the bottom shelf the deepest.

The two top shelves are each held in place by two cantilevered shelf brackets which clip into cut-outs in the cabinet back duct. Further 6mm interval height adjustments can be made by separating the shelf bracket into two parts and re-slotting together using the alternative slots (see image below).



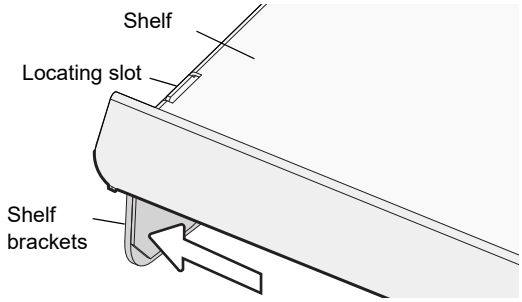
Procedure 2: To reposition a shelf

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove product from the shelf that is being moved.
3. Unplug the shelf light cable at the inside of the left hand shelf bracket.



Procedure 2: To reposition a shelf (continued)

4. If present, lift the gravity feed matting from the shelf and remove from the cabinet.
5. Lift the shelf up off the brackets and remove from the cabinet. Be careful not to damage the shelf light cable.
6. Unwind the cable from the back of the shelf bracket.
7. Establish the desired shelf position. The shelves can be repositioned as far as the shelf light cable reasonably allows.
8. Reposition the shelf brackets to the desired position, and if required wind anticipated excess shelf light cable through the back of the shelf bracket.
9. Place the shelf, and if present the gravity feed matting, onto the shelf brackets. Ensure the back of the shelf clips over the rear of the brackets.
10. Push the cantilevered brackets outwards until they clip into the edge locating slots on the side of the shelf.



11. Take up any excess shelf light cable by winding it through the two holes at the rear of the shelf bracket, and reconnect the shelf light cable plug.
12. Reassemble the cabinet and check for correct operation.

Gravity Shelf System

Each shelf is supplied with corresponding gravity feed matting (including shelf light) and shelf dividers. The gravity shelf system comes in three sizes to suit the three different size shelves (see Table 4 below).

Table 4: Shelf system sizes

Shelf position	Matting depth	Divider quantity
Top shelf	290 mm	11
Middle shelf	365 mm	11
Bottom shelf	438 mm	11

Procedure 3: To fit the gravity feed matting and shelf dividers

1. Match up the shelf dividers with the corresponding mats (see Table 4 above).
2. Starting from the left hand side of the mat, fit the left hand end divider into the end row of slots.
3. Work across the matting and fit the centre dividers at required intervals, then fit the right end divider.
4. Slide the ticket strip across the front of the mat.
5. Place the mat and dividers onto the corresponding shelf inside the cabinet.
6. Repeat for the remaining shelves.

3 Electronic Controller

Overview

The cabinet is fitted with an SCS Connect electronic controller. The controller located behind the front kick panel.

The controller is pre-programmed. SKOPE does not recommend changing the settings unless it is absolutely necessary. To ensure efficient operation, the controller automatically forces a defrost cycle when required.

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

Controller servicing can be performed via the controller faceplate, or the SCS Connect Field app.

Controller Faceplate

Buttons and Display

The faceplate includes the front display panel and interface buttons.

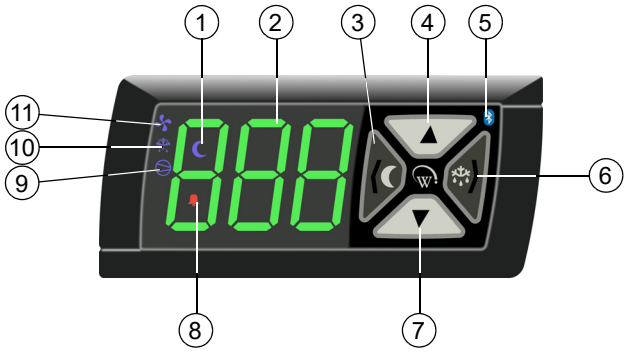


Table 5: Controller faceplate

No.	Description
1	**Night Mode:** Indicator. On during night mode.
2	**Display:** Indicator. Digital display of cabinet air 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.
3	**Light Switch - Night Mode (back/abort):** Button. Press to switch the lights on or off. Press and hold to switch cabinet between day and night mode. Used during programming.
4	**Up:** Button. Used for programming.
5	**Bluetooth:** Indicator. On when ready to connect to a device. Flashing when connected to a device.
6	**Defrost Cycle (next/enter):** Button. Press and hold to initiate manual defrost. Used during programming.
7	**Down:** Button. Used for programming.
8	**Fault - Alarm:** Indicator. On during fault or alarm. Note: Alarm message is also shown on the display during alarm.
9	**Compressor:** Indicator. On when the compressor is running.
10	**Defrost Mode:** Indicator. On during defrost cycle.
11	**Fan:** Indicator. On when fans running.

Service Mode

Service mode can be accessed and used via the controller faceplate, refer to Wellington Drive Technologies documentation for further information.

Note: A 9-digit pin code is required to access service mode via the controller buttons. Contact your User Manager to receive your activation code.

Service mode includes:

Parameters

Provides access and editing of individual controller parameters.

It is not recommended that parameters are changed unless absolutely necessary. If incorrect parameter settings are suspected, reload the complete parameter set.

Reset

Returns the controller back to factory or default settings.

Manual test

Allows inspection of input values from sensors, and check the effects of output adjustments to peripherals, and to run preset test routines.

Statistics

Displays logged values and event counts to assist with fine tuning and diagnostics.

About

Lists the properties of the refrigeration system and the controller, including cabinet model codes, firmware, hardware and software versions.

SCS Connect Field App

Connecting

The SCS connect field app allows authorised Service Technicians wireless access to the controller from mobile devices with Bluetooth capability. The app provides information on data logging, alarm notification and diagnostic control.

Procedure 4: To install the SCS connect field app

1. Download and install the Connect Field app from Google Play or Apple Store (search for “scs wellington” to find it).
2. When you first run the app, you will be requested to enter an activation code. Contact your User Manager to receive your activation code (you must be connected to the internet at the time of activation).

   Your activation code is unique to you, and should NEVER be shared with anyone else, as it determines your personal access level for the app. The same code will give you access to all SCS apps you are authorised to use.
3. Once activation is complete, you must define a 4-digit PIN code. This can be any code unique to you. Each time you start the app, you will be required to enter this same PIN code. This is to prevent other people accessing the app from unlocked phones.
4. You can see which databases you are activated against from the “Settings” screen. You can be activated to more than one database at the same time. Simply select ACTIVATE ANOTHER DATABASE, and enter the new databases unique activation code, as in Step 2.

Procedure 5: To connect to a controller

1. Check that the Bluetooth logo on the top right of the controller faceplate is lit, indicating that the controller is ready to connect to a device.

Note: A flashing Bluetooth logo indicates that the controller is currently connected to a device.

2. Open the SCS connect field app.

3. Select a controller to connect to from the list of visible controllers.

Note: This list is filtered by your activation permissions, so devices you are not authorised to connect to will not be displayed.

4. Select “CONNECT” to connect to the controller.

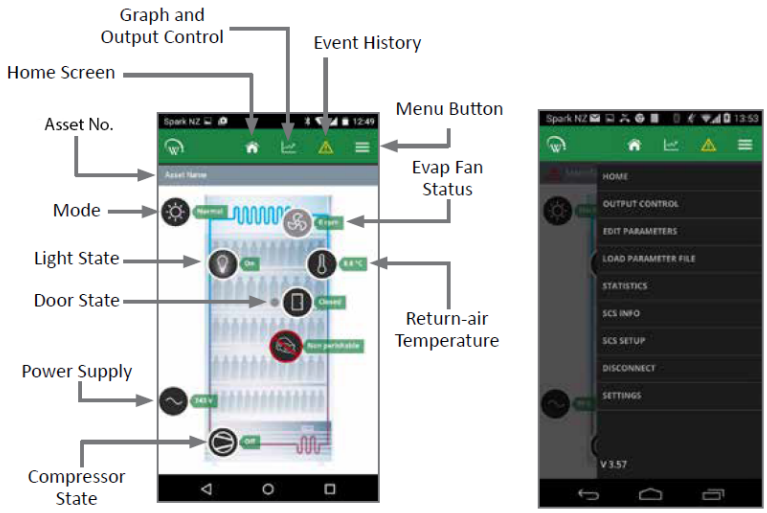
5. Check that the Bluetooth logo on the top right of the controller faceplate is flashing, indicating that the controller is connected.

App Categories

Various options are available in the app menu to provide information about the connected controller and its cabinet.

Home screen

The home screen shows a graphic representation of the current state of the cabinet being controlled.



Home Screen (Fridge Status)

Main Menu

Output control

Provides control of the controller input sensors and switches, and output relays.

Edit parameters

Provides access and editing of individual controller parameters.
Note: Parameter changes must be recorded on warranty/job card.

It is not recommended that parameters are changed unless absolutely necessary. If incorrect parameter settings are suspected, reload the complete parameter set. **Note:** Updated parameters are not applied until DISCONNECT has been selected from the menu (after loading new parameter set).

Load parameter file

Allows reloading of cabinet default parameter set or changing to new parameter set. **Note:** Updated parameters may not be applied until DISCONNECT has been selected from the menu (after loading new parameter set).

Statistics
Information from the past seven days on cabinet activity including temperatures, door openings and alarms.

SCS info
Controller version and cabinet asset information.

SCS setup
Add or change SCS info (see above).

Disconnect
Disconnect from currently connected controller.

Settings
Change app general settings.

Faults and Alarms

The following table explains faults and alarms that the electronic controller may log and display.

If a fault occurs, the fault - alarm indicator is lit on the controller faceplate, but no message is displayed. Faults do not affect product temperature, and require no action from the shop owner.

Alarms are logged and the alarm message is displayed on the controller faceplate. Alarms may result in abnormal product temperature.

Some faults and alarms can be cleared by the shop owner, and others can only be cleared by a service technician.

If the cabinet is connected to the power supply and has warm product, check the SCS Connect Field App for active fault or alarm, and investigate. If the cabinet does not have an active fault or alarm, check the app statistics to determine if and when the controller signalled a fault or alarm.

Refer to the tables below for faults and alarm descriptions and possible causes and actions.

Faults

Table 6: Faults (alarm indicator lit – no message displayed)

Description	Possible root cause
Over-voltage protection The maximum allowable mains supply voltage has been exceeded. The cabinet has temporarily shut down to prevent damage and will restart once the supply voltage decreases.	Should be a one off. If continues: • line voltage/rural • voltage setting parameter • controller

Table 6: Faults (alarm indicator lit – no message displayed) (continued)

Description	Possible root cause
Under-voltage protection The mains supply voltage has dropped below the minimum allowable level. The cabinet has temporarily shut down to prevent damage and will restart once the supply voltage increases.	Should be a one off; if continues: • power supply overloaded/multi-box • line voltage/rural • voltage setting parameter • controller
High condensing temperature protection The system was operating at an elevated temperature and has temporarily shut down to prevent damage. Extended operation in this condition may result in ALARM 15, increased energy consumption and a reduction in cabinet life. This alarm may be caused by very high ambient temperature.	NO swap cassette required. • Condenser not clean • Poor installation or ventilation • Condenser fan motor or blade • Controller
Excessive compressor cycling protection The system has been turning on and off too frequently.	Take spare cassette in case refrigeration system fault. • Condenser blocked • Poor installation or ventilation • Cabinet or cassette gasket seals leaking • Door not self-closing or gasket leaking • Product hot or blocking the cabinet's airflow • Overloaded from excess door openings/ambient • Fan motor or blade (condenser or evaporator) • Controller • Compressor or gas leak = SWAP cassette

Alarms

Table 7: Alarms

Code	Description	Possible root cause
8	**Estimated product temperature below allowable range** The estimated product temperature has been below the allowable range for longer than the permissible time. Potential causes are: an empty or partially filled cabinet, or low ambient temperature.	• Low ambient • App settings • Controller
9	**Estimated product temperature above allowable range** The estimated product temperature has been above the allowable range for longer than the permissible time. Potential causes are: excessive door openings, door being left open, or warm product loaded into cabinet.	NO Swap cassette required to be taken (but may be required as fault could still be with sealed refrigeration system). • Condenser blocked • Poor installation or ventilation • Frozen blocked evaporator coil • Cassette gasket leaking (to cabinet seal or lid seal) • Door leaking air (bad gasket or door not self-closing) • Product hot or blocking the cabinet's airflow • Overloaded from excess door openings/ambient • Fan motor or blade (condenser or evaporator) • App settings • Controller • Compressor or gas leak = arrange SWAP cassette
15	**Excessive condensing temperature protection** The system was operating at an excessive temperature and has shut down to prevent permanent damage. This alarm may occur due to very high ambient temperature.	NO swap cassette required • Condenser not clean • Poor installation or ventilation • Condenser fan motor or blade • Controller
17	**Control probe failure** A critical system sensor has failed and the cabinet can no longer operate.	NO swap cassette required • Control probe or circuit • Controller
18	**Electrical over-current protection activated** The compressor was drawing too much current and has shut down to prevent permanent damage.	Take a spare cassette in case refrigeration system fault. • Condenser blocked • Poor installation or ventilation • Cabinet or cassette gasket seals leaking • Door not self-closing or the gasket is leaking • Product hot or blocking the cabinet's airflow • Overloaded from excess door openings/ambient • Fan motor or blade (condenser or evaporator) • Controller • Compressor or gas leak = SWAP cassette

Table 7: Alarms (continued)

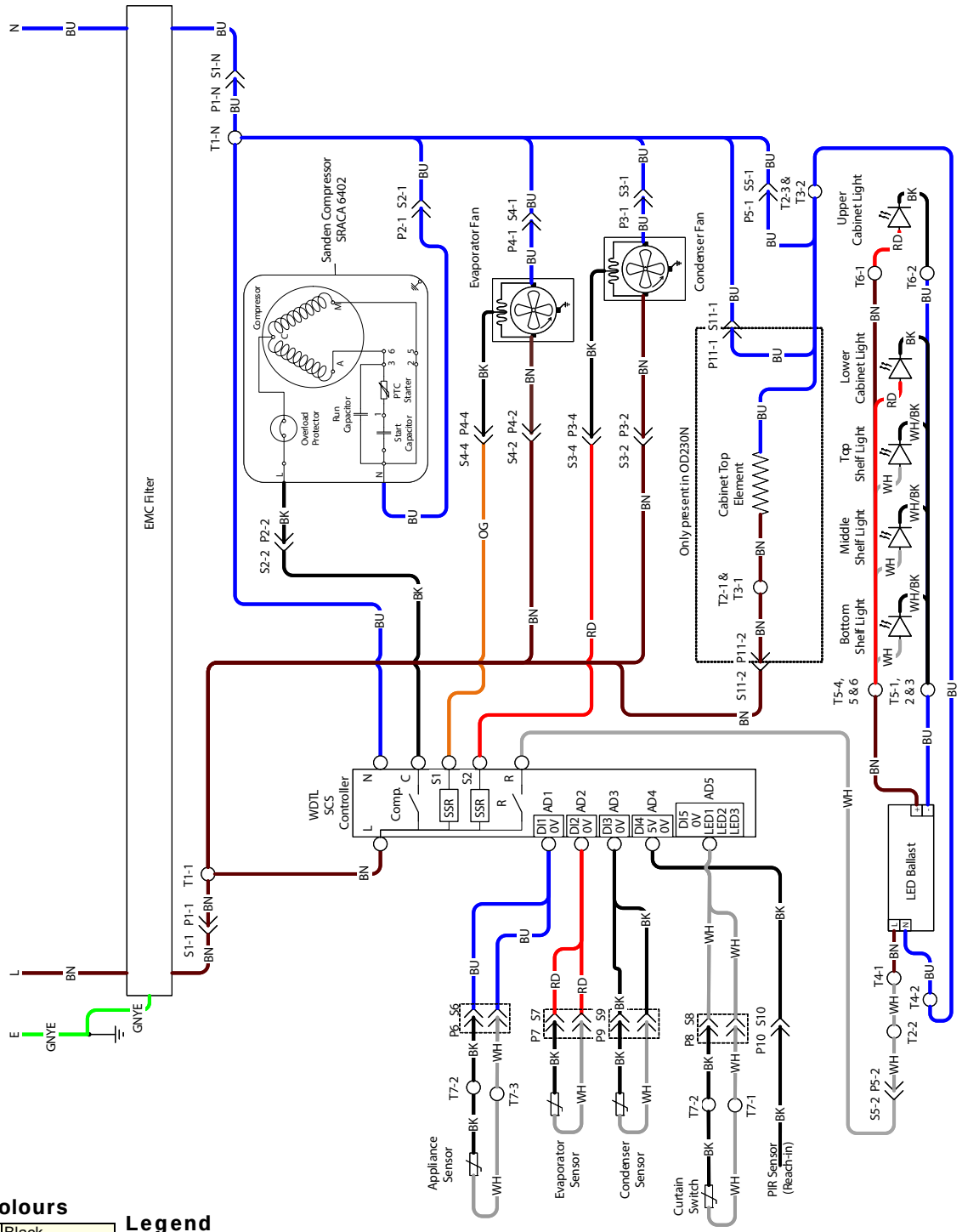
Code	Description	Possible root cause
19	**Failed to reach set temperature** The refrigeration system has been operating continuously for a long period without reaching the set temperature.	Take a spare cassette in case refrigeration system fault. • Condenser blocked • Poor installation or ventilation • Frozen blocked evaporator coil • Cabinet, door or cassette seal leaking • Product hot or blocking the cabinet's airflow • Overloaded from excess door openings/ambient • Fan motor or blade (condenser or evaporator) • Controller • Compressor or gas leak = SWAP cassette
20	**Over cooling product** The internal temperature is too low. The system has temporarily shut down until the temperature has returned to normal. This can occur if the set temperature has been raised by a large amount.	Confirm if really too cold; change parameters accordingly.
22	**Evaporator fan over-current protection** The current supplied to the evaporator fan motor is too high.	NO swap cassette required • Faulty fan motor • Fan blade fault (imbalance, debris or blockage) • Controller
23	**Condenser fan over-current protection** The current supplied to the condenser fan motor is too high.	NO swap cassette required • Faulty fan motor • Fan blade fault (imbalance, debris or blockage) • Controller
24	**Controller communication error** Controller has lost communication channels.	• App • Controller or circuit
25	**Controller update failed** Controller update could not be completed.	• App • Controller or circuit
26	**Controller hardware failure** Controller hardware has failed.	• App • Controller or circuit
27	**Probe failure** A non-critical system probe has failed. The cabinet will continue to operate with partial function but requires service.	NO swap cassette required • Evaporator probe or connections • Controller
28	**No downward tendency** The temperature is no longer decreasing.	Take spare cassette in case refrigeration system fault. • Condenser blocked • Poor installation or ventilation • Cabinet or cassette gasket seals leaking • Door not self-closing or gasket leaking • Product hot or blocking cabinet airflow • Overloaded from excess door openings/ambient • Fan motor or blade (condenser or evaporator) • Controller • Compressor or gas leak = SWAP cassette

Table 7: Alarms (continued)

Code	Description	Possible root cause
29	**Compressor cutting out** The compressor cut out on its internal protection or pressure switch.	Take spare cassette in case refrigeration system fault. • Condenser blocked • Door installation or ventilation • Cabinet, door or cassette seal leaking • Product hot or blocking cabinet airflow • Overloaded from excess door openings/ambient • Fan motor or blade (condenser or evaporator) • Controller • Compressor or gas leak = SWAP cassette
30	**Excessive automatic defrosting** The system is automatically defrosting too frequently.	Take spare cassette in case refrigeration system fault. • Door not self-closing or gasket leaking • Evaporator probe • Evaporator motor or fan • Controller • Compressor or gas leak = SWAP cassette
31	**Compressor stalling** The compressor is stalling on start up.	• Take spare cassette in case refrigeration system fault. • Condenser blocked • Door installation or ventilation • Cabinet or cassette gasket seals leaking • Door not self-closing or gasket leaking • Product hot or blocking cabinet airflow • Overloaded from excess door openings/ambient • Fan motor or blade (condenser or evaporator) • Controller • Compressor or gas leak = SWAP cassette

4 Wiring

Model: OD330N



Wire colours

BK	Black
BN	Brown
RD	Red
OG	Orange
GN	Green
BU	Blue
GY	Grey
WH	White
GNYE	Green-Yellow
Based upon IEC 757 Standard	

Legend

T1	Unit Junction Box Terminal	S3/P3	Condenser Fan Motor Socket/Plug (Red 4-Way)
T2	Cabinet Wiring Tray Terminal (right hand side)	S4/P4	Evaporator Fan Motor Socket/Plug (White 4-Way)
T3	Cabinet Wiring Tray Terminal (right hand side)	S5/P5	Lighting Socket/Plug (on Unit) (White 3-Way)
T4	Cabinet Wiring Tray Terminal (left hand side)	S6/P6	Door/Curtain Switch Socket (on Unit) (White 2-Way)
T5	Cabinet Wiring Tray Terminal (left hand side)	S7/P7	Evaporator Sensor Socket/Plug (on Unit) (Black 2-Way)
T6	Cabinet Light Terminal	S8/P8	Appliance Sensor Socket/Plug (on Unit) (Blue 2-Way)
T7	Curtain Switch/Control Probe Junction	S9/P9	Condenser Sensor Socket/Plug (on Unit) (Red 2-Way)
S1/P1	IEC Isolation Socket/Plug	S10/P10	Reach-in Sensor Socket/Plug (on Unit) (Blue 4-Way)
S2/P2	Compressor Socket/Plug (Blue 4-Way)	–	–
O	Terminal block Terminal	>>	Plug and Socket

5 Replacement Procedures

Electrical Safety

Caution

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

Correct wiring routing is as important as using the correct components for compliance with safety and radio interference regulations.

In order to maintain safety and compliance with regulations, make sure you replace any wiring that is disturbed during servicing and secure it back in its original position.

Procedure 6: To disconnect the cabinet from the mains power supply

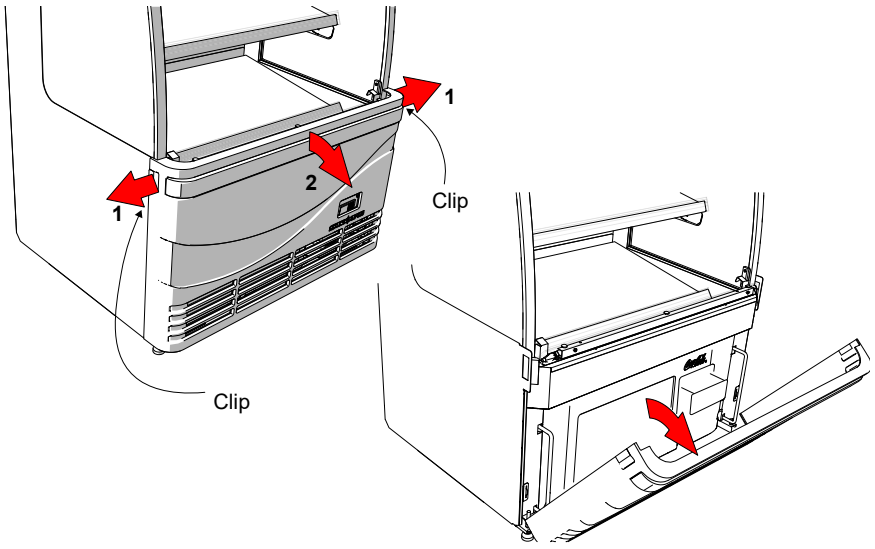
1. Switch the cabinet off at the mains power supply.
2. Unplug the power cord from the mains power supply.

Front Panel

The cabinet is fitted with a plastic front panel that clips onto the front of the cabinet. Remove the front panel to lower the stabilising feet and to clean the condenser filter and coil (see “Cleaning” on page 44 for filter and coil cleaning information).

Procedure 7: To remove the front panel

1. Unclip the two clips (1) on each side of the front panel.
2. Rotate the panel out from the cabinet (2).

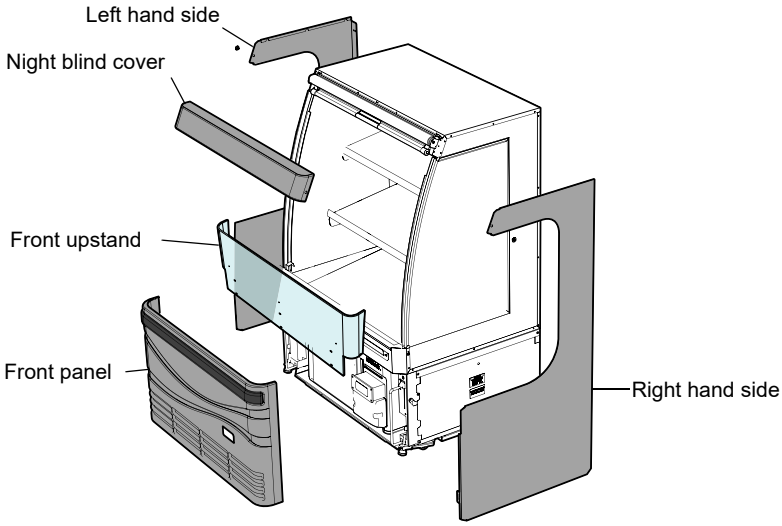


Procedure 8: To refit the front panel

1. Position the front panel on the bottom mounting brackets.
2. Rotate in towards the cabinet to clip securely into place over the cabinet sides.

Cladding

The cabinet is clad with a high strength plastic front panel, night blind cover, and front upstand, and painted metal sides. All cladding is removable and replaceable.



When changing the cladding, remove the front panel, night blind cover and side cladding before fitting new cladding. The instructions over the page detail the procedure for removing a complete set of existing cladding, and for fitting a complete set of cladding. If you only need to remove a single cladding component, follow the steps sequentially until the specific component has been removed, and then reassemble.

IMPORTANT

Do **not** expose the cabinet to direct sunlight as this may cause distortion of plastic parts.

Removing and Refitting the Cladding

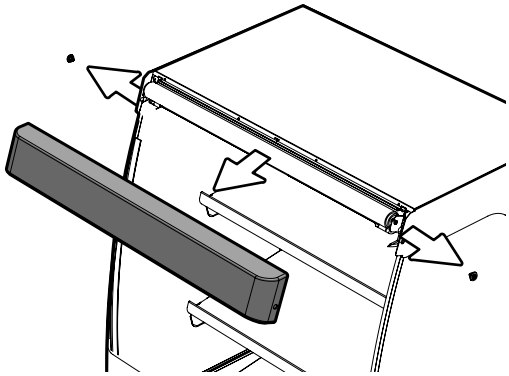
Follow the steps below to remove the cladding. The cladding should be removed in the following order:

1. Front panel (see page 18)
2. Night blind cover
3. Upstand/left hand side/right hand side

Procedure 9: To remove the night blind cover

1. Disconnect the cabinet from the mains power supply (see page 18).

2. Detach the night blind cover by undoing and removing the black screws on either side of the of the sign cover.



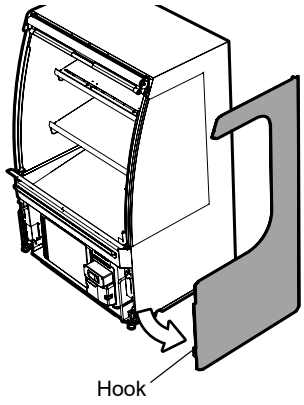
Procedure 10: To remove the front upstand

1. Remove the front panel (see Procedure 7 on page 18).
2. Remove the bottom light cover and bottom light (see Procedure 13 on page 21).
3. Undo the fixing screws from the front upstand and remove the upstand.

Procedure 11: To remove the side cladding

1. Remove the front panel (see Procedure 7 on page 18).
2. Remove the night blind cover (see Procedure 9 on page 20).

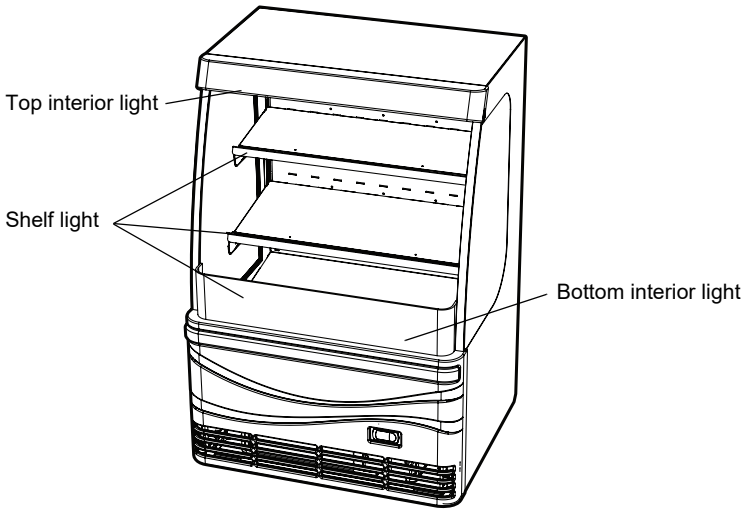
3. Undo the fixing screws from the back of the side cladding panel, and lift the panel off the cabinet.



Lighting

The cabinet is fitted with top and bottom interior lights, and shelf lights. The lights turn off and on automatically when the night blind is opened or closed. The lights can also be switched on

and off manually by pressing the light button on the electronic controller faceplate (see “Controller Faceplate” on page 10).



Top Interior Light

The top interior light is located behind the night blind assembly, at the top of the cabinet front opening. If the top interior light fails, the light can be unplugged and replaced.

Procedure 12: To replace the top interior light

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Unclip and unplug the light from the top of the cabinet opening.
3. Clip the replacement light into place at the top of the cabinet opening, and plug the replacement light into the light supply.
4. Test and tag as per standard procedure.
5. Reconnect to the power supply.

Bottom Interior Light

The bottom interior light is located under the bottom interior light cover at the bottom of the cabinet front opening. If the bottom interior light fails, the light can be unplugged and replaced.

Procedure 13: To replace the bottom interior light

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Undo the three bottom interior light cover fixing screws (located at the bottom of the cabinet front opening) and remove the cover.
3. Unclip and unplug the light from the bottom of the cabinet opening.
4. Fit the new light (ensuring to plug it in), and refit the bottom interior light cover.
5. Test and tag as per standard procedure.
6. Reconnect to the power supply.

Shelf Lights

The shelves are fitted with lights under the front of the gravity feed mats on each shelf. The lights are connected to the power supply by cables which run under the left hand side of each shelf. The cables are fitted with plugs which must be disconnected when moving or replacing the shelves or lights.

Procedure 14: To replace a top or middle shelf light

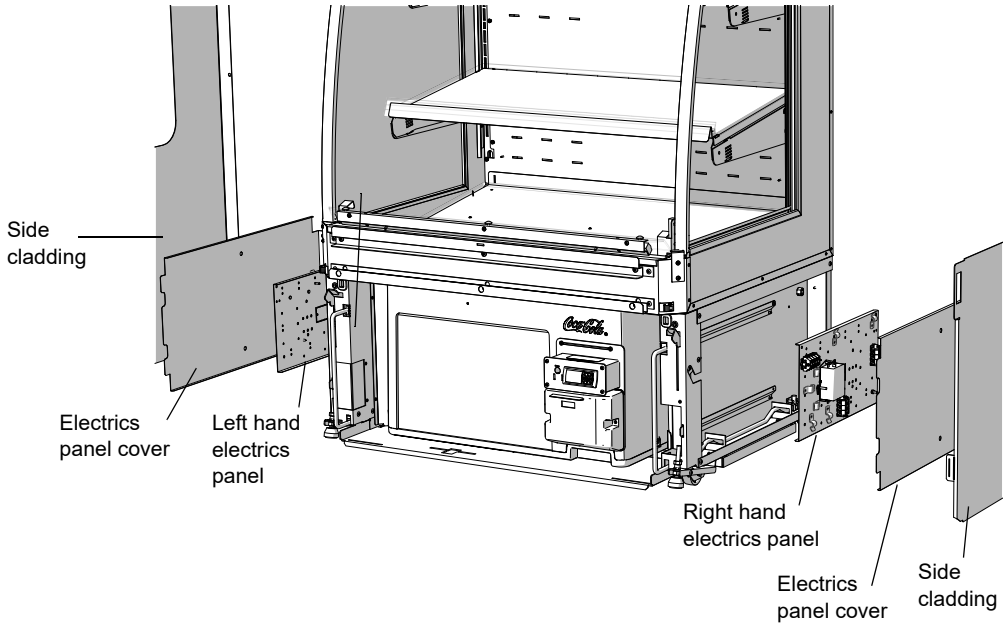
1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove product and gravity feed matting from the shelf.
3. Unplug the light and remove the shelf from the cabinet (see Procedure 2 on page 8).
4. Replace the light by sliding it out of the side of the shelf, and slide the new light into the shelf.
5. Refit the shelf and connect the light cable plug.
6. Refit the gravity feed matting.
7. Test and tag as per standard procedure.
8. Reconnect to the power supply, check for correct operation and reload product.

Cabinet Electrics

Cabinet Electrics Panels

The cabinet is fitted with two cabinet electrics panels which house cabinet electrical components. The panels are located on each side of the cabinet behind the side cladding and electrics panel covers.The left hand panel houses the lights power supply, and the right hand panel houses the surge protector/EMI filter.

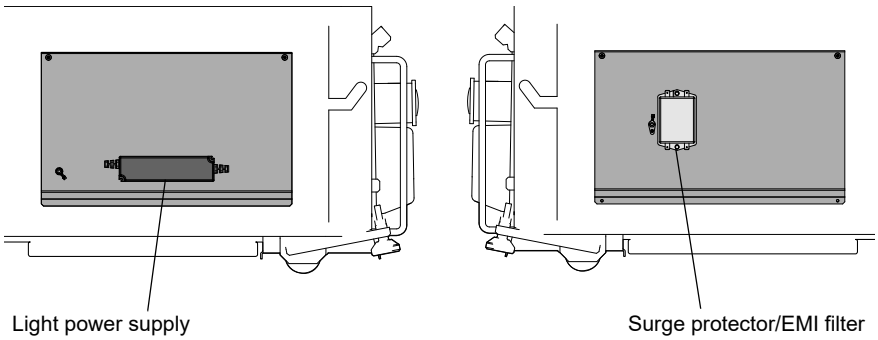
The surge protector/EMI filter protects the cabinet from voltage spikes and eliminates possible electromagnetic interference, and regulates the supplied voltage before feeding it into the refrigeration cassette.



Before attempting any work within the electrics panels, ensure the cabinet is unplugged from the power supply.

Procedure 15: To access the cabinet electrics panels

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove the side cladding (see page 19).
3. Remove the electrics panel covers by undoing two fixing screws on the back flap of each cover and lifting the covers up, out and off the cabinet.



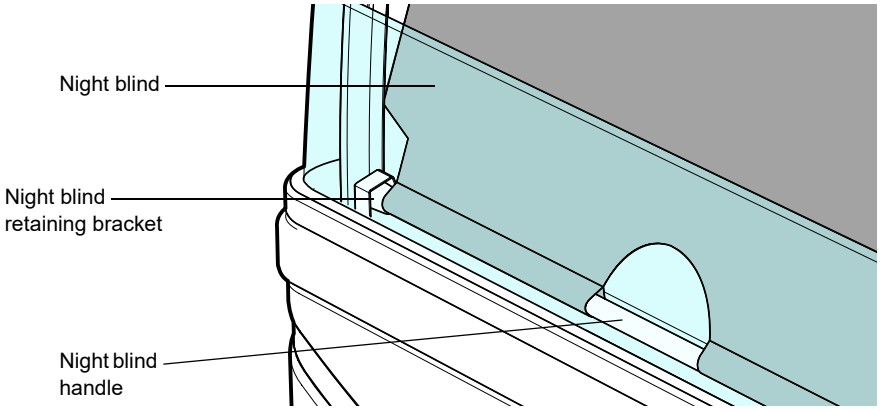
Left hand cabinet electrics panel **Right hand cabinet electrics panel**

Night Blind

The cabinet is fitted with a manual night blind which should be pulled down into the closed position during store closing hours to save power. The night blind has a switch which automatically tells the electronic controller to run the cabinet in night mode (with the lights off) when the blind is in the closed position, or day mode (with the lights on) when in the open position.

The night blind is located behind the sign panel and is not visible when in the open position.

To close the night blind, use the handle pull the blind down and hook it under the night blind retaining brackets at the bottom of the cabinet opening. To open, use the handle to release the blind from the retaining brackets and control the blind as it opens.

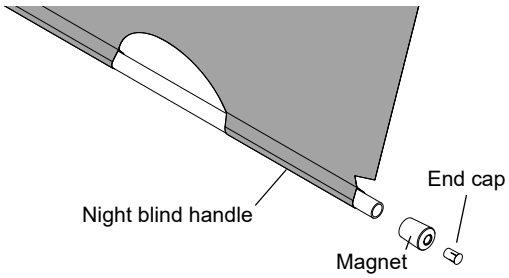


Night Blind Switch

The switch mechanism is made up of a magnet in the night blind handle and a switch fitted to a bracket at the bottom right hand side of the cabinet opening. The switch cable is connected to a terminal block on the right hand electrics panel.

Procedure 16: To replace the night blind magnet

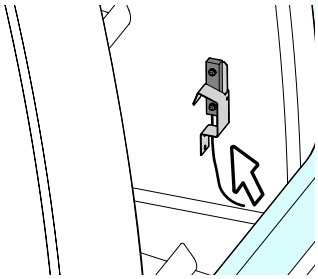
1. Free the night blind handle from the cabinet opening to gain access to the right hand end of the handle, and remove the end cap to access the magnet.



2. Remove and replace the magnet.
3. Refit the end cap and position the night blind back inside the cabinet.

Procedure 17: To replace the night blind switch

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Gain access to the right hand cabinet electrics panel.
3. Undo the night blind switch cable from the connector block on the right hand cabinet electrics panel, and withdraw the cable up into the cabinet.
4. Remove the right hand night blind bracket (with night blind switch fitted) by undoing the two fixing screws at the bottom of the bracket.



5. Remove the night blind switch from the bracket.
6. Fit the new night blind switch.
7. Run the new night blind switch cable back to the right hand cabinet electrics panel (follow the same path as the old cable) and connect up to the connector block.
8. Reassemble the cabinet and check for correct operation.

Refrigeration System

Before Servicing

Overview

Ensure you have read and understood this manual before starting any servicing.

Important

- SKOPE hydrocarbon refrigeration systems must only be serviced by appropriately skilled and qualified refrigeration mechanics.
- Servicing a sealed refrigeration system must occur at a hydrocarbon workshop or service area with dedicated hydrocarbon equipment and personal protective equipment (PPE).
- All local hydrocarbon storage and handling regulations and procedures must be followed at all times.

Ensure all electronic controller alarms diagnostics and refrigeration system diagnostics are performed to confirm a refrigeration system fault is present.

Check all components including the electronic controller and electrical systems.

Ensure your work area is well ventilated.

IMPORTANT
Use only dedicated hydrocarbon SKOPE OEM spare parts.
DO NOT use alternative parts.
For safety compliance, use only SKOPE-supplied components specified for the appliance.



Safety hazards

The main hydrocarbon safety hazards are:

- Flammability
- Venting of hydrocarbon and compressor oil
- Asphyxiation

Refrigerant identification

Correctly identifying the refrigerant is critical to maintain safety and the correct functioning of the cabinet.

- The cabinet rating label (located in the upper inside of the cabinet) states the refrigerant type.
- Warning labels are fitted to hydrocarbon refrigeration cabinets to indicate the use of hydrocarbon refrigerant.

Personal protective equipment (PPE)

Correctly wear or use all PPE required by local regulations and procedures during servicing.

Service equipment

Only use dedicated hydrocarbon service equipment which is hydrocarbon-compliant. Electrical equipment that could be exposed to the refrigerant must be intrinsically safe.

In addition to standard tools for accessing and removing parts, specialist tools are required for completing the refrigeration system service tasks in this manual:

- Intrinsically safe refrigeration vacuum pump, rated by the manufacturer as suitable for use with hydrocarbon refrigerant
- Dedicated hydrocarbon gauge set
- Flammable gas detector to warn if flammable refrigerant is present
- Charging scales, rated by the manufacturer as suitable for use with hydrocarbon refrigerant, accurate to 1 gram

Leak detector

A leak detector is used to track and locate the source of hydrocarbon gas leaks. It is:

- recommended for servicing hydrocarbon units on-site.
- required for servicing hydrocarbon units off-site.

Service vehicle

- Must be suitable for transporting flammable gas.
- Vehicle cargo area:
  - Must be well ventilated to outside the vehicle only.
  - Must have no ignition sources, nor any areas where the gas may pool.
- Must be able to transport swap units.
- Should carry minimum SKOPE hydrocarbon service parts.

On-site Work

The service technician must have required knowledge, skills, qualifications, and tools before beginning any on-site work on the refrigeration sealed system.

Minimum knowledge and skills

- Qualifications and certifications required by local/state regulatory bodies to service hydrocarbon refrigeration systems
- Safe working practices, including a safe working environment at all times

Minimum tools and equipment

- Safety signs and/or barrier – suitable to create a safe work zone 1.5 m around the cabinet
- Hydrocarbon gas detector
- Dedicated hydrocarbon gauge set
- Bullet valves/line piercing valves suitable for a 6 mm tube

Off-site Work

Hydrocarbon workshop

The following tools and equipment are required in the hydrocarbon workshop:

- Dedicated area for hazardous work – suitable for servicing and releasing flammable hydrocarbon refrigerant
- Hydrocarbon leak detector
- Refrigeration gauge set – suitable for flammable hydrocarbon refrigerant
- Dry nitrogen – suitable for purging and high pressure testing
- Intrinsically safe refrigeration vacuum pump, rated by the manufacturer as suitable for use with hydrocarbon refrigerant
- Charging scales, rated by the manufacturer as suitable for use with hydrocarbon refrigerant, accurate to 1 gram
- Hydrocarbon refrigerant supply cylinder

Refrigeration Cassette

Refrigeration Cassette Assembly

The refrigeration cassette is a bottom-mounted, electronically controlled removable cassette.

For safety and compliance, only SKOPE supplied parts specifically for this appliance may be used for repairs. Other parts may appear to be suitable, but may not be approved or safe for use in an appliance with hydrocarbon refrigerant.

The electronic controller assembly is located in front of the refrigeration cassette, but is matched to the cabinet.

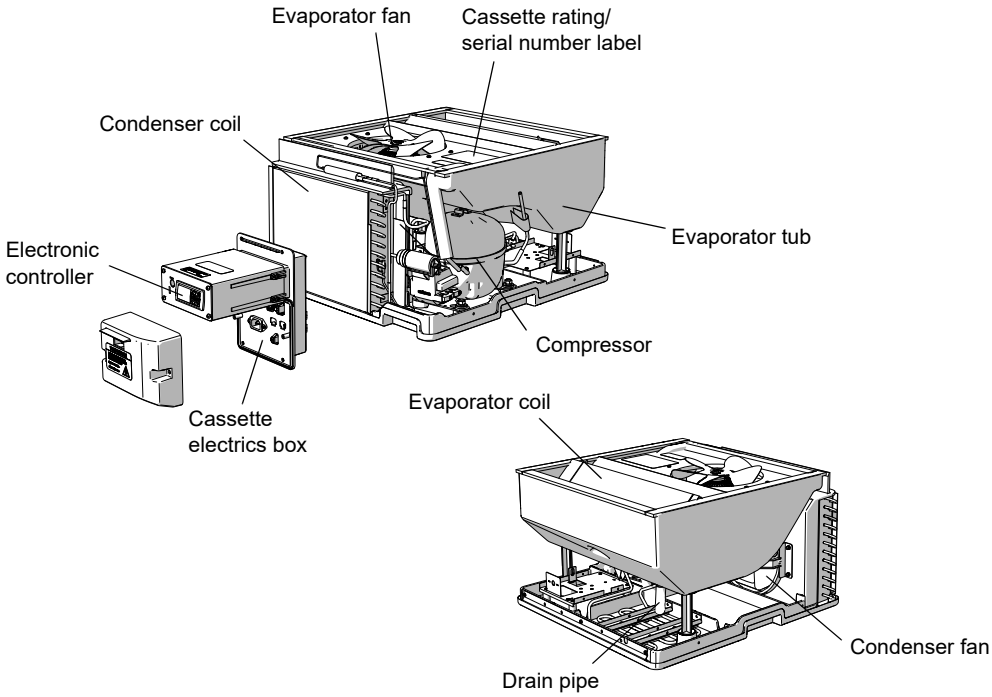
For servicing or transportation, the refrigeration cassette unplugs and pulls out of the cabinet.

The model and serial number are both printed on the cassette rating/serial number label attached to the top of the cassette. Before ordering spare parts, take note of the model and serial numbers.

Specifications for the model are in the following table. Verify model and basic requirements before servicing.

Table 8: Cassette specifications

Cassette model	UBHENI-0014
Compressor	Wanbao FN90M
Compressor capacity	740 watts
Refrigerant	R290
Charge	85 g



Diagnostics

The following diagnostic test is useful for workshop diagnosis of a short of gas situation. Perform the test before opening the refrigeration system.

It is beneficial to have a correctly operating cassette running beside the cassette being serviced to compare behaviour.

Note: These diagnostic procedures are indicative only.

Procedure 18: Refrigeration system diagnostic test

Before you start Make sure you are in a suitable workshop (see “Off-site Work” on page 26).
1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove the refrigeration cassette (see Procedure 19 on page 28).
3. Remove the cassette cover (see Procedure 21 on page 30).
4. Place cassette on bench and disconnect the evaporator probe (black plug) and evaporator fan motor (white plug) from the back of the cassette electrics box.
5. Connect service probe to blue 2-pin plug (appliance probe plug).
6. Connect the refrigeration cassette to the power supply and allow to run for approximately 10 minutes until the evaporator temperature stabilises.

Procedure 18: Refrigeration system diagnostic test (continued)

7. Refer to Table 9 below as a guideline to determine if the system charge is correct.
   - A system with the correct refrigerant charge will frost back to the compressor.
   - If the frost does not go back to the point shown there may be a capillary blockage or compressor fault. The point where the frost stops is affected by the ambient temperature.

The table below shows system characteristics at different charge and ambient conditions for a cassette running on the bench.

Table 9: OD330N Series (cassette UBHENI-0014)

Ambient	50% charged	75% charged	100% charged
20°C / 65% relative humidity	Suction dry	Suction frosted	Small frost area on compressor shell
30°C / 55% relative humidity	Suction dry	Suction cold and wet	Small frost area on compressor shell
40°C / 40% relative humidity	Suction dry	Suction cold and wet	Suction frosted, wet on compressor shell

8. Determine whether the system is short of refrigerant, blocked capillary or compressor fault.
   - A dry suction could indicate either short of gas, blocked capillary or compressor fault, and further analysis may be required.
   - If there is no frost present at the evaporator coil inlet pipe a blocked capillary is likely.
   - If frost is forming at evaporator coil inlet pipe system, and suction/compressor is behaving as shown in table above at 50% or 75%, the system is likely short of gas.

Table 10: Diagnosing the problem

Diagnosis	Frost back (after 10 mins)
Blocked capillary	None
Normal operation	Refer to Table 9 above

9. After fault has been diagnosed and repaired, reassemble the refrigeration system and test run.

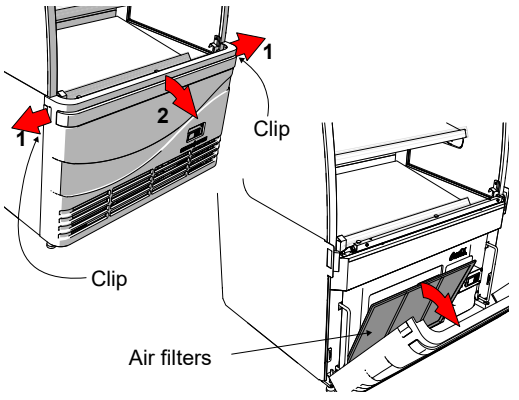
Cassette Removal

Refer to the cassette removal instructions on the instruction sheet attached to the back of the cabinet, or follow the steps below to remove the refrigeration cassette.

Procedure 19: To remove the refrigeration cassette

1. Disconnect the cabinet from the mains power supply (see page 18).

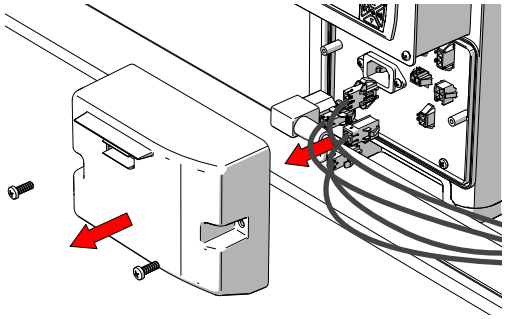
2. Remove the front panel: Unclip the two clips (1) (each side of the front panel), and rotate and lift the panel out from the cabinet (2).



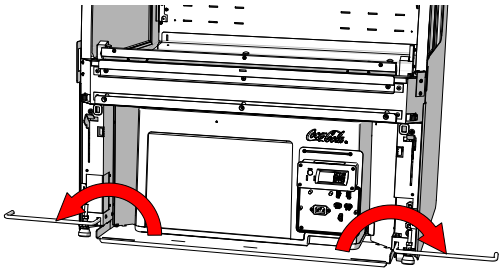
3. Remove the air filters.

Procedure 19: To remove the refrigeration cassette (continued)

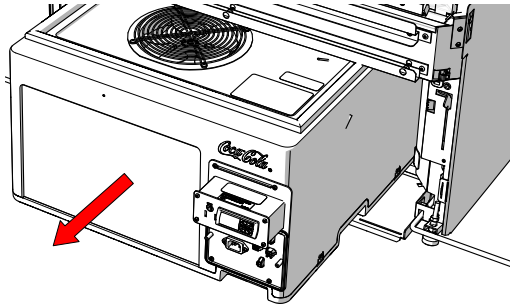
4. Remove the electrics panel cover and unplug all plugs from the electrics panel.



5. Pull the two cassette lifting levers out and rotate outwards to lower the refrigeration cassette.



6. Use the hand hold to pull the cassette out from the cabinet. When removing, take care of loose plugs and cables, and the top gasket.



7. When refitting the refrigeration cassette, ensure that:
   - the gasket on top of the cassette is in good condition.
   - all plugs are securely re-connected.
   - the electrics panel cover is refitted.
   - the cassette lifts and seals correctly.
   - the air filters are refitted.

Cassette Electrics Box Assembly

The cassette electrics box assembly contains the electronic controller, the mains supply socket, and panel mount socket connectors. Four of the sockets are visible behind the front cover, with the remainder attached to the back cover.

Due to the confined space within the cassette electrics box, plugs may come loose as a result of movement and vibrations. Take care when refitting to ensure all plugs are securely attached to the correct sockets.

Procedure 20: To remove the cassette electrics box assembly

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove the cassette electrics box cover and disconnect all of the plugs from the cassette electrics box.

Procedure 20: To remove the cassette electrics box assembly (continued)

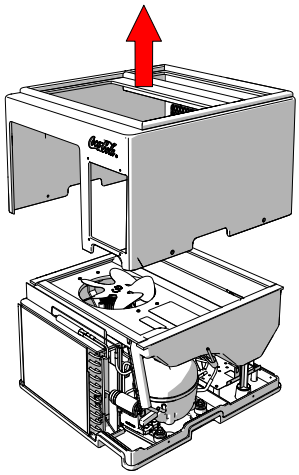
3. Unscrew the four fixing screws from the perimeter of the cassette electrics box and pull the box out from the refrigeration cassette.
4. Disconnect all plugs from the back cover sockets.
5. To remove the back cover, unscrew the four fixing screws from the corners of the back cover.

Cassette Cover

The cassette cover can be removed to access parts within the cassette assembly.

Procedure 21: To remove the cassette cover

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove the cassette electrics box from the front of the cassette (see Procedure 20 on page 29).
3. Unscrew the four fixing screws from the sides of the refrigeration cassette and lift the cover off the cassette.



Condenser Fan

The condenser fan assembly is made up of a high speed EC fan motor and fan blade and mounting brackets which can be replaced if necessary.

If the fan stops for any reason, check all connections to ensure no plugs have come loose.

The fan motor, fan blade and mounting brackets are removed from the refrigeration cassette as a complete assembly. The fan blade, fan motor and mounting brackets can then be replaced.

IMPORTANT
Replace the motor with the same SKOPE OEM part.
DO NOT use alternative parts.

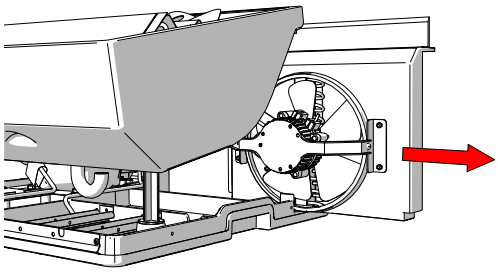
It is important that the fan blade and/or fan motor is replaced with the same part to ensure safety, and correct alignment and refrigeration performance. Fan blades should be tightened to 1.5 Nm.

Procedure 22: To remove the condenser fan assembly

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove the refrigeration cassette (see Procedure 19 on page 28).

Procedure 22: To remove the condenser fan assembly (continued)

3. Detach the electrics box (see Procedure 20 on page 29).
4. Remove the cassette cover (see Procedure 21 on page 30).
5. Remove the fan assembly (fan motor, fan blade, mounting brackets) from the cassette by tilting the evaporator box up, and lifting the shroud up and out.



Procedure 23: To replace the condenser fan blade

1. Remove the condenser fan assembly (see Procedure 22 above).
2. Remove the screw and washer from the centre of the fan blade, and lift the blade from the motor.
3. Replace new blade and fix with 12 mm flat washer and serrated head screw. Tighten the blade to 1.5 Nm.
4. Reassemble the cassette and test.

Procedure 24: To replace the condenser fan motor

1. Remove the condenser fan assembly (see Procedure 22) and the fan blade (see Procedure 23).
2. Unplug the fan flexible cord (red connector plug) from the rear of the cassette electrics box.
3. Detach the fan motor from the fan mounting brackets by removing the four screws from the mounting bracket.
4. Fit new motor and reattach fan blade with 12 mm flat washer and serrated head screw. Tighten the blade to 1.5 Nm.
5. Reassemble cassette and test for correct operation, and test and tag as per standard procedure on completion.

Evaporator Fan

The evaporator fan assembly is made up of a high speed EC fan motor and fan blade, both of which can be replaced if necessary (see image below). The evaporator fan flexible cord has a red plug.

Before replacing fan parts, check all connections to ensure no plugs have come loose.

The fan motor and fan blade are fixed to the evaporator shroud via the brackets. The shroud (complete with fan motor and fan blade) can be lifted off the evaporator tub once the refrigeration cassette cover has been removed.

IMPORTANT

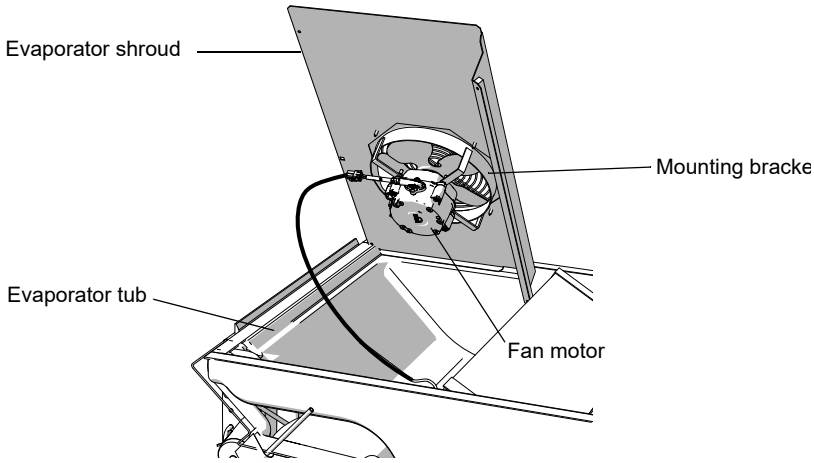
Replace the motor with the same SKOPE OEM part.

DO NOT use alternative parts.

It is important that the fan blade and/or fan motor is replaced with the specified part to ensure safety, and correct alignment and refrigeration performance. When refitting or replacing fan motors, ensure the blade screw is tightened to 1.5Nm.

Procedure 25: To access the evaporator fan assembly

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove the refrigeration cassette (see Procedure 19 on page 28).
3. Detach the electrics box, unscrew the four fixing screws from the side of the cassette cover and lift the cover from the cassette. Place aside.
4. The evaporator fan assembly can now be accessed.



Procedure 26: To replace the evaporator fan blade

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove the refrigeration cassette (see Procedure 19 on page 28).
3. Remove the fan guard.
4. Remove the screw and washer from the centre of the fan blade, and lift the blade from the motor.
5. Fit new blade, ensuring it is centred within the evaporator shroud, and fix with 12 mm flat washer and serrated head screw. Tighten the blade to 1.5 Nm.
6. Reassemble the cassette and test.

Procedure 27: To replace the evaporator fan motor

1. Access the evaporator fan assembly (see Procedure 25 on page 32) and remove the evaporator fan blade (see Procedure 26 on page 32).
2. Lift the evaporator shroud (complete with fan motor) from the evaporator tub.

Note: The evaporator and control probe flexible cords may restrict movement when lifting the shroud from the evaporator tub.

3. Free the fan flexible cord by cutting the cable ties and removing from the evaporator tub edge putty.
4. Remove the four nuts and spring washers from the fan mounting brackets and lift the fan motor from the bracket.
5. Attach to the replacement motor.
6. Reattach the fan motor so that the flexible cord will point towards the centre of the evaporator tub once reinstalled. Re-cable tie the fan cord back onto the mounting bracket (to prevent high frequency vibration).

Procedure 27: To replace the evaporator fan motor (continued)

7. Flip the shroud (complete with fan motor) and place back into the evaporator tub, and ensure there is no interference between the fan motor and evaporator tub (to prevent high frequency vibration). Trace flexible cords back through the evaporator tub edge transition putty and back into the electrical box area. Ensure that the putty fills all gaps around the evaporator tub edge transition.
8. Reattach fan blade and tighten to 1.5 Nm. Ensure the correct fasteners are used (serrated head screw and 12 mm flat washer).
9. Reassemble the cassette and test for correct operation, and test and tag as per standard procedure on completion.

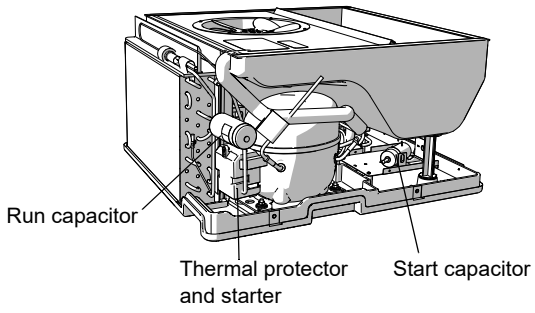
Compressor

The cassette is designed for use only with the specified compressor. If the compressor must be replaced, ensure that the SKOPE specified compressor is used as a replacement. Do not use other compressors within this refrigeration cassette.

IMPORTANT
Replace the compressor with the same SKOPE OEM part.
DO NOT use alternative parts.

The compressor is located at the front of the refrigeration cassette, beside the condenser coil. If the compressor is causing excessive noise, check the mountings to ensure there is no damage to the rubber or the washers, nuts and screws.

Before replacing the compressor, check all plug connections and ensure the compressor electrics are operating correctly. The compressor must be supplied with consistent voltage over 220 volts, ensure the voltage does not drop at start-up. If the voltage does drop, ensure the cassette has a direct power supply (not from a multi-box or extension cord).



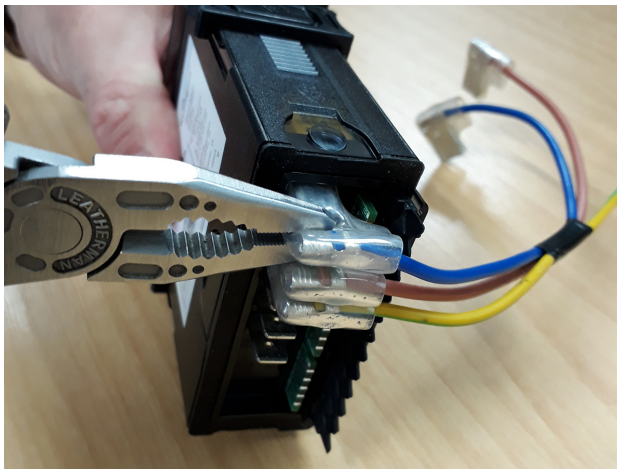
IMPORTANT
To eliminate possible vibration noise, ensure no pipes touch the evaporator tub bottom surface, evaporator tub support legs, plastic base, and condenser coil assembly.

Electronic Controller

QC Terminals

The terminals at the back of the controller are locking QC terminals, which cannot be pulled off without pressing in the locking tabs.

Use needle nose pliers to unlock and gently remove the terminals.



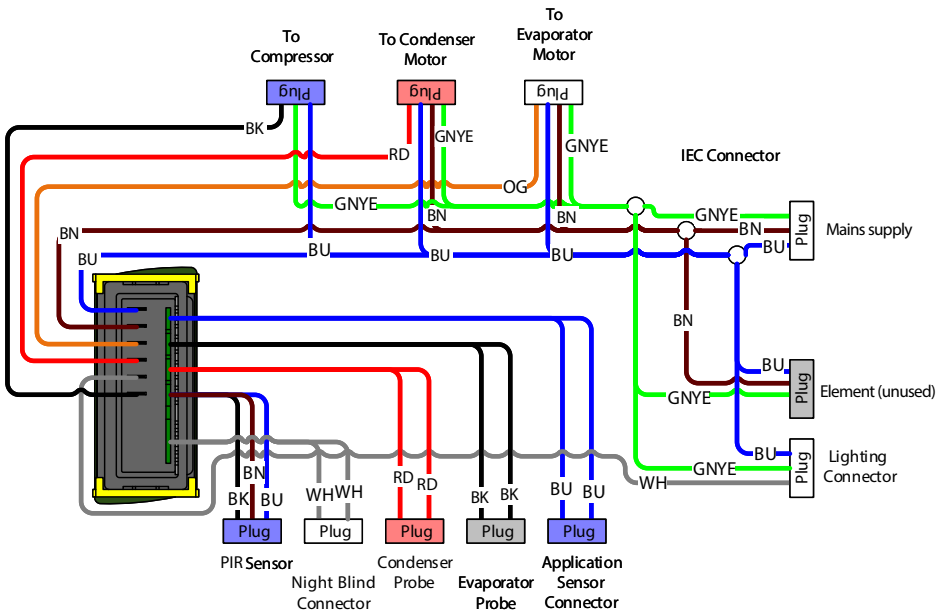
Electronic Controller Location

The electronic controller is located within the cassette electrics box assembly, which is attached to the front of the refrigeration cassette.

Replacing the Controller

Procedure 28: To access and replace the controller

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove the front kick panel (see Procedure 7 on page 18).
3. Detach the cover and wires from the rear terminals.
4. Remove the four fixing screws from the electronic controller faceplate, and pull the faceplate and controller from the spacer.
5. Fit the new electronic controller.



6. Reassemble.
7. Perform electrical safety test.
8. Reconnect the cabinet to the power supply, and use a mobile device to connect to the controller with the SCS Connect Field app (see “SCS Connect Field App” on page 11).
9. Navigate to the LOAD PARAMETER FILE menu.

Procedure 28: To access and replace the controller (continued)

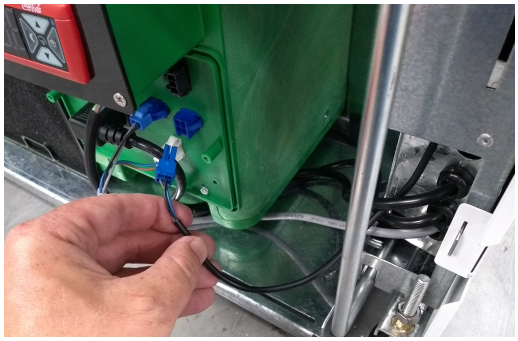
10. Select the appropriate parameter file from LOCAL. If not available in LOCAL, search for the parameter file in SERVER (internet access required), and download to LOCAL.
11. Confirm correct file and WRITE TO SCS.
12. After WRITE TO SCS is complete, select MENU DISCONNECT to save parameter set on SCS.
13. Power cycle the controller and check that correct parameter set has been applied
14. Open the SCS Connect Field app and re-connect to the controller.
15. Follow CCEP procedure for “Field SCS Change Over Process” to assign the controller to the outlets details.

PIR Sensor

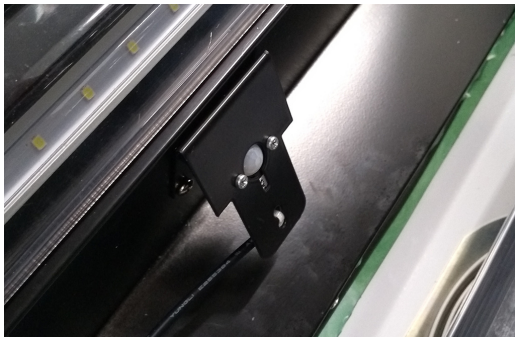
The electronic controller is fitted with a PIR sensor to monitor activity inside the cabinet. The PIR sensor is located at the bottom of the cabinet opening.

Procedure 29: To replace the PIR sensor

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove the front panel (see Procedure 7 on page 18).
3. Unscrew and remove the electrics box cover (see Procedure 20 on page 29).



4. Unplug the PIR sensor from the electrics box (blue plug).
5. Move to the cabinet interior, and lift the return air grill out of the cabinet.



6. Unscrew the PIR sensor bracket from the cabinet, and detach the PIR sensor from the bracket.
7. Unscrew the front upstand (to allow PIR sensor plug removal).
8. To remove the PIR sensor from the cabinet: Pull the cable and up through the cabinet corner.
9. Following the same path as the original cable, fit the replacement PIR sensor assembly, connect to the electrics box, and attach the sensor to the bracket and the bracket to the cabinet.
10. Reassemble the cabinet and check for correct operation: Connect to the cabinet with the SCS Field App and confirm “Motion” appears when waving in front of the PIR sensor, and “No Motion” appears when there is no motion.

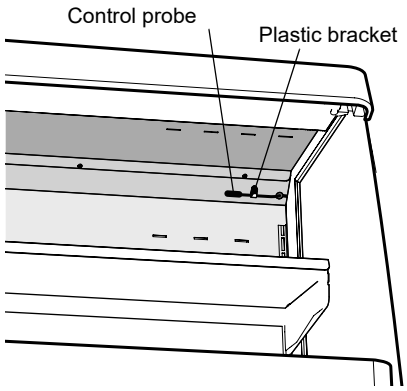
Control Probe

The control probe is located at the top right hand corner of the cabinet interior.

Procedure 30: To replace the control probe

1. Disconnect the cabinet from the mains power supply (see page 18).

2. Remove the control probe from the plastic bracket.

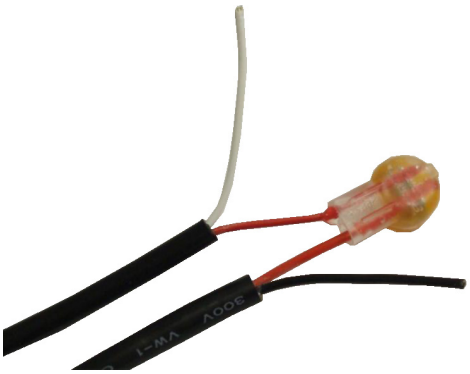


3. Cut the failed probe from the probe cable.

4. Use wire cutters to remove the insulation from the probe cable wires and from the replacement probe wires.

5. Insert the red wires of each cable into a crimp. Using a crimping tool, crimp together.

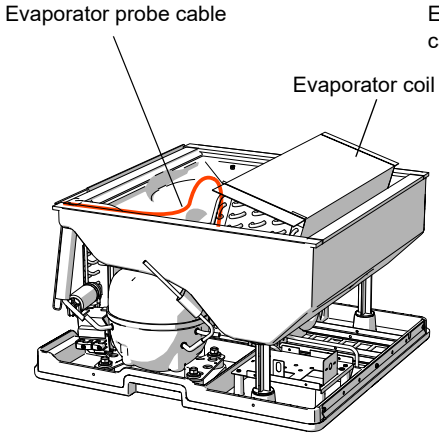
6. Insert the other wires into another crimp. Using a crimping tool, crimp together.



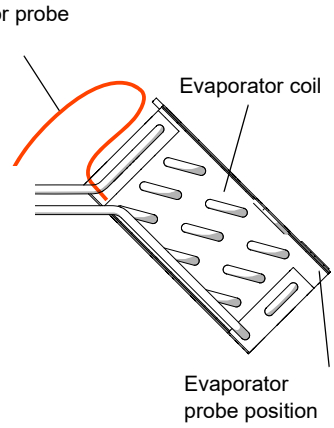
7. Refit the probe into the plastic bracket and reassemble.

Evaporator Probe

The evaporator probe is located within the evaporator coil (see image below). It controls the refrigeration system defrost initiation and termination.



Probe location as viewed from the right hand side of the cassette



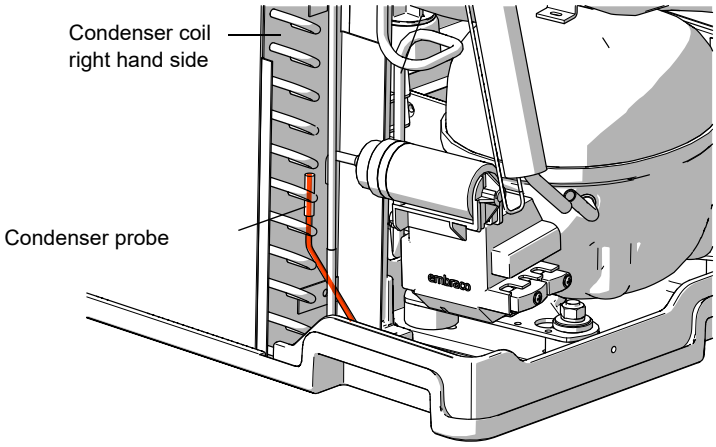
Probe location as viewed from the right hand side of evaporator coil

Procedure 31: To replace the evaporator probe

1. Disconnect the cabinet from the mains power supply (see page 18).
2. Remove the refrigeration cassette (see Procedure 19 on page 28).
3. Remove the electrics box cover, detach the electrics box, unscrew the four fixing screws from the side of the cassette cover and lift the cover from the cassette. Place aside.
4. Withdraw the probe from the evaporator coil and detach the probe cable from the refrigeration cassette. Trace the probe cable to the cassette junction box and unplug it.
5. Following the same path as the original probe, run the new probe to the evaporator coil and secure with cable ties. Crimp the fins to hold the probe in place. Ensure the probe cable is securely plugged into the rear of the cassette junction box.
6. Reassemble.

Condenser Probe

The condenser probe is located on the side of the condenser coil (see image below).



Procedure 32: To replace the condenser probe

1. Disconnect the cabinet from the mains power supply (see Procedure 6 on page 18).
2. Remove the refrigeration cassette (see Procedure 19 on page 28).
3. Remove the electrics box cover, detach the electrics box, unscrew the four fixing screws from the side of the cassette cover and lift the cover from the cassette. Place aside.
4. Detach the probe from the condenser coil and detach the probe cable from the refrigeration cassette. Trace the probe cable to the cassette junction box and unplug it.
5. Following the same path as the original probe, run the new probe to the condenser coil and secure with cable ties. Use cork tape to insulate the probe. Ensure the probe cable is securely plugged into the rear of the cassette junction box.
6. Reassemble the cabinet and test for correct operation.

6 Spare Parts

Cabinet Assembly – OD330N

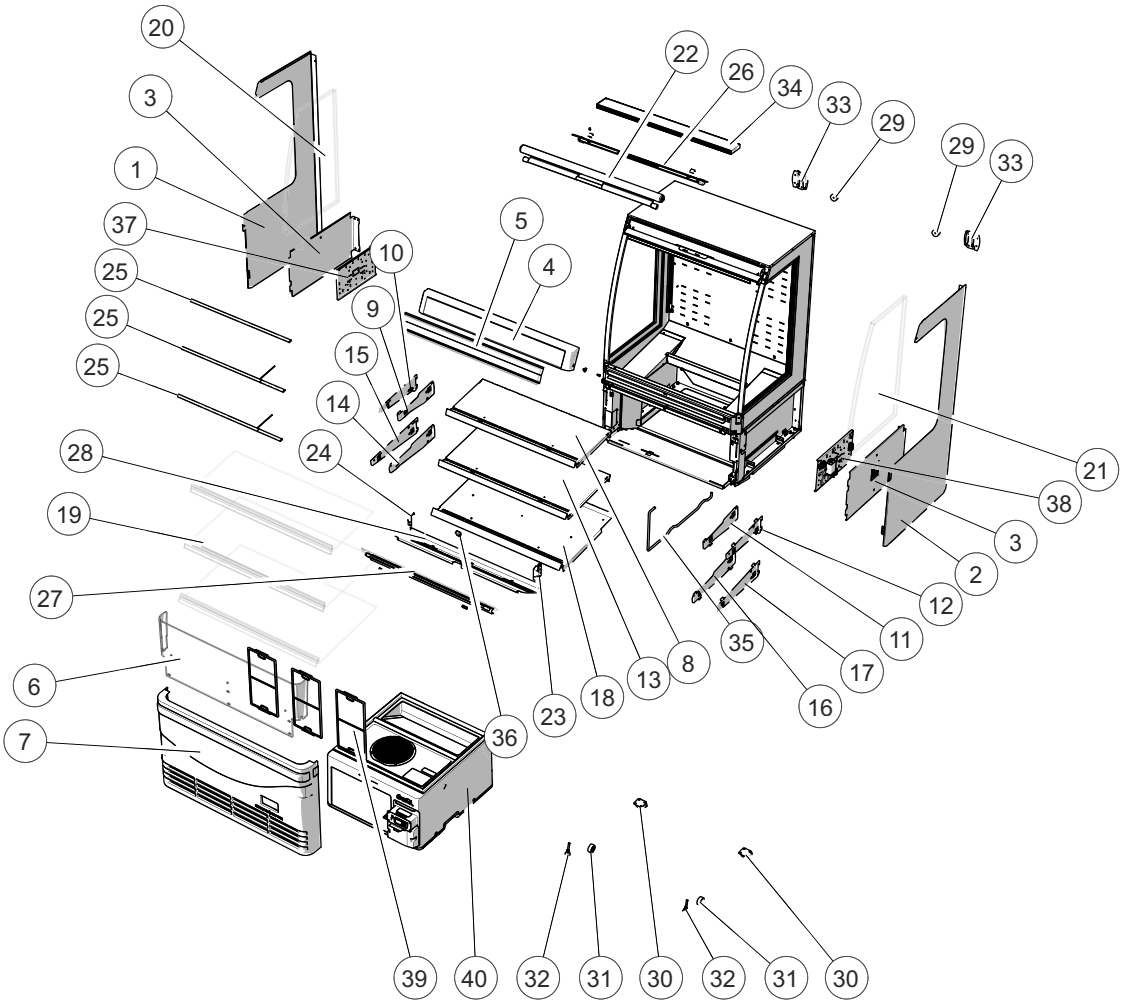


Table 11: Parts – Cabinet OD330N

Item	Description	SKOPE Part No.	CCEP-AU Part No.	CCEP-NZ Part No.
1	Left hand side cladding	O332/009L	120086986	
2	Right hand side cladding	O332/009R	120086987	
3	Left and right hand electrics panel cover	O230C/N02A	120085662	
4	Night blind cover – white	PLM11935-FD	120086997	
	Night blind cover – black	PLM11935-49	120086996	
	Night blind cover plastic rivet	PLM10437BK	120085751	
5	Sign insert assembly	O331/S22-SP	120082941	
	Sign insert holder (black)	PLE11375	120085704	
	Sign insert cover (clear)	PLY11504	120085777	
6	Front upstand	PLM11280	120085707	
7	Front kick panel assembly – white	SXX11936-FD	120087008	
	Front kick panel assembly – Storm Satin (grey)	SXX11936-EX	120087007	
8	Top shelf – white	O332/591C-32	120086993	
	Top Shelf – black	O332/591C-49	120086994	
9	Top shelf left hand adjustment bracket	STY11601L	120087004	

Table 11: Parts – Cabinet OD330N (continued)

Item	Description	SKOPE Part No.	CCEP-AU Part No.	CCEP-NZ Part No.
10	Top shelf left hand bracket	STY10956L	120087000	
11	Top shelf right hand adjustment bracket	STY11601R	120087005	
12	Top shelf right hand bracket	STY10956R	120087001	
13	Middle shelf – white	O332/591B-32	120086991	
	Middle shelf – black	O332/591B-49	120086992	
14	Middle shelf left hand adjustment bracket	STY11600L	120087002	
15	Middle shelf left hand bracket	STY10955L	120086998	
16	Middle shelf right hand adjustment bracket	STY11600R	120087003	
17	Middle shelf right hand bracket	STY10955R	120086999	
18	Bottom shelf – white	O332/591A-32	120086989	
	Bottom shelf – black	O332/591A-49	120086990	
19	Shelf matting – kit for all shelves	CCEP source – MFT	120085769	
20	Left hand side window	GLA11278L	120085428	
21	Right hand side window	GLA11278R	120085774	
22	Night blind	SXX11277	120085778	
	Night blind spigot bush	PLM10342	120082963	
23	Night blind holder with switch – right hand white	Not available as a spare		
	Night blind holder with switch – right hand black	Not available as a spare		
	Switch	HB0074091444	120073424	
	Screw for night blind switch – black	FAS11917	120086865	
	Nut for night blind switch – black	FAS11918	120086866	
24	Night blind holder – left hand	O331/747	120086984	
25	Shelf light	ELL11028	120085001	
26	Top interior light assembly	Not available as a spare		
	Top interior light	ELL11897	120086981	
	Light clip	SXX11778	120087006	
27	Bottom interior light assembly	Not available as a spare		
	Bottom interior light	ELL11897	120086981	
	Bottom interior light cover	PLM11283	120085776	
	Screw cap – black	PLM10438BK	120083011	
	Light clip	SXX11778	120087006	
28	Return air grille	O332/586	120086988	
29	Rear spacer	RUM4105	120083597	
30	Castor	SXX10289	120076006	
31	Wheel	SXX7520	120072019	
32	Stabiliser foot	SXX10970	120084923	
33	Handle	HAN0000	120086874	
34	Honeycomb air guide	PLX10305	120082962	
35	Lifting arm	O230C/329	120086879	
36	PIR sensor	O332N/X03	120086897	
37	Cabinet electrics panel assembly – left hand	O230F/G29L	120085663	
38	Cabinet electrics panel assembly – right hand	O232F/G29R	120086894	
39	Condenser filter	FIL11960	120086867	
40	Refrigeration cassette assembly	HB0070834626 (UBHENI-0014)	120086983	

Refrigeration Cassette Assembly

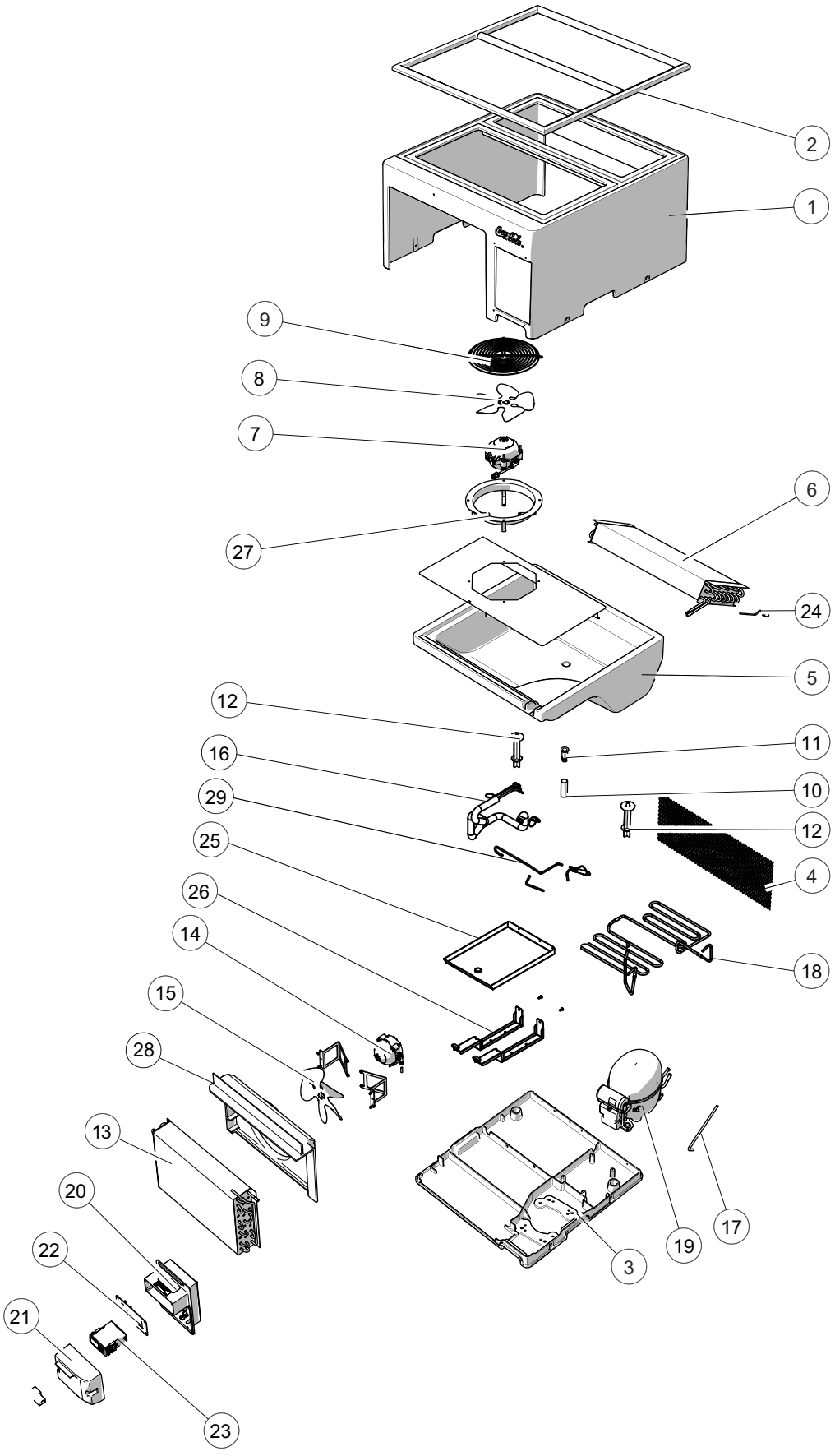


Table 12: Parts – Refrigeration cassette

Item	Description	SKOPE Part No.	CCEP-AU Part No.	CCEP-NZ Part No.
1	Cassette assembly	HB0070834626 (UBHENI-0014)	120086983	
2	Cassette plastic top cover	HB0070201535H	120086982	
3	Cassette gasket seal	HB0070201441	120075985	
4	Cassette plastic bottom	HB0070201536G	120086254	
5	Cassette mesh grille	HB0070108541	120080742	
6	Evaporator tub	HB0070508351A	120084138	
7	Evaporator coil	HB0070702822	120087780	
8	Evaporator fan motor	ELM11309	120084738	
	Evaporator fan motor extension flex	HB0070401110	120086264	
9	Evaporator fan blade	HB0074000311	120076300	
10	Fan guard	HB0070112818A	120084720	
11	Evaporator fan wall ring	HB0070109669	120087779	
12	Condenser coil	HB0070702676	120086253	
13	Condenser fan motor	ELM11309	120084738	
14	Condenser fan blade	HB0074000313	120084275	
15	Suction line assembly	HB0070702677A	120086261	
16	Process tube	HB0070701601	120086235	
17	Discharge line assembly	HB0070702823	120087781	
18	Compressor	HB0074000848	120086228	
	Compressor flex	HB0070402527	120086226	
19	Drier	HB0074180006	120086202	
20	Drain tube	HB0070209132	120086876	
21	Spigot for drain tube	HB0070203591	120086204	
22	Drain tray leg	HB0070203473	120084126	
23	Cassette electrics box assembly	HB0070834968	120087782	
	Controller base plate	HB0070203474G	120086229	
24	Cassette electrics box front cover	HB0070201467C	120084120	
25	Power cord retainer	HB0070208656	120086244	
26	Controller cover plate	HB0070208641	120086239	
27	SCS Connect electronic controller	ELZ11488	120084745	
28	Defrost probe	HB0070400506	120084135	
29	Condenser probe	HB0070401693B	120086203	
30	Appliance probe (not pictured)	HB0070400542	120083608	

Cabinet Electrics Panel Assemblies

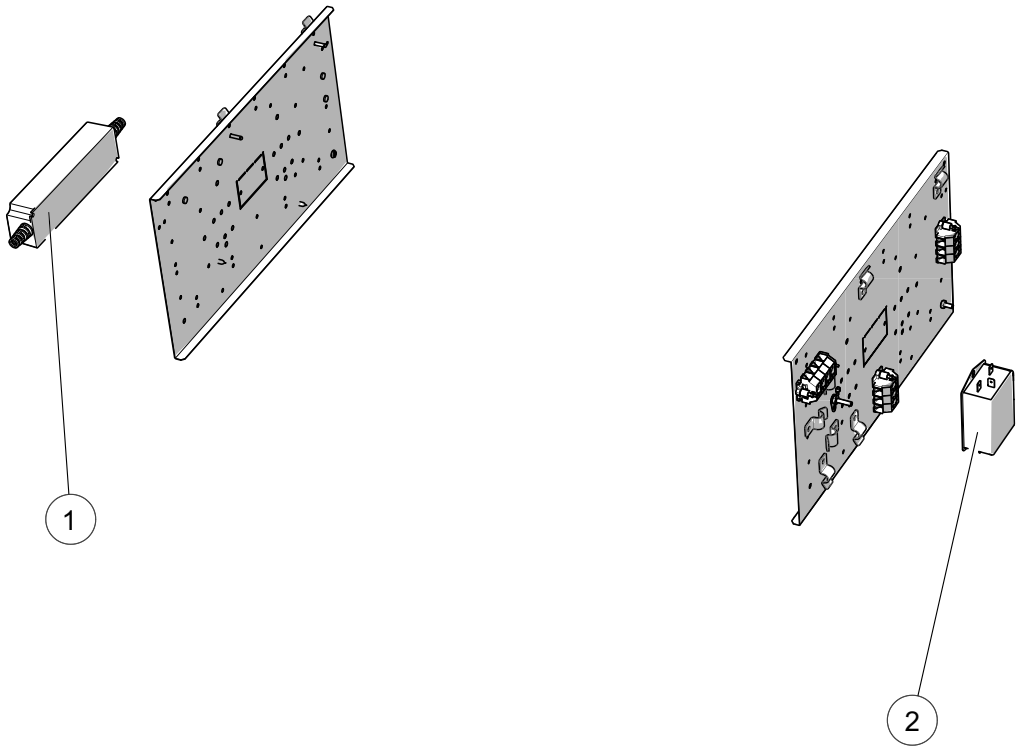


Table 13: Parts – Cabinet electrics panel assemblies

Item	Description	SKOPE Part No.	CCEP-AU Part No.	CCEP-NZ Part No.
1	Left hand cabinet electrics panel assembly	O230F/G29L	120085663	
2	Right hand cabinet electrics panel assembly	O232F/G29R	120086894	
3	LED power supply	O230F/K08	120086881	
4	EMI filter/surge protector	ELZ10136	120080839	
–	Mains power cord (not shown)	O230F/E53	120086880	
–	Cabinet to unit flex (not shown)	FLX11210	120087778	
–	Unit to cabinet power flex (not shown)	O332N/X02	120086995	
–	Unit to cabinet sensor flex (not shown)	FLX11208	120087777	
–	Unit compartment LED flex (not shown)	O331/W64	120086985	
–	Bottom light flex (not shown)	O331/X02	120085749	
–	Shelf light flex (not shown)	FLX10960	120086871	
–	Top light flex (not shown)	O230F/W63	120086882	

7 Maintenance

Cleaning

Cabinet

Periodically wipe the inside and outside of the cabinet with a damp cloth, taking care to keep moisture away from electrical parts. As with any maintenance, ensure the chiller is isolated from the power supply before cleaning.

Air Filter and Condenser Coil

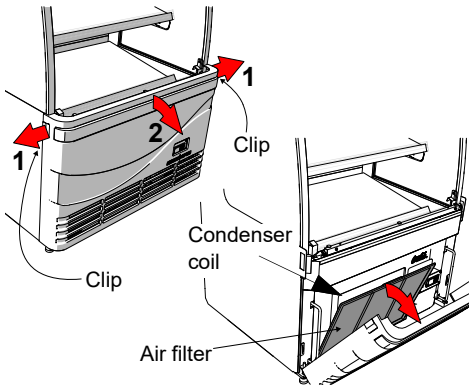
To ensure trouble-free performance, we strongly urge monthly cleaning with a soft brush to remove dust and fluff. A more thorough cleaning is required by qualified service personnel every six months. The condenser coil and air filter **must** be kept clean for efficient and reliable operation.

WARNING

Unplug the cabinet from the power supply before cleaning the condenser coil.

Procedure 33: To remove and clean air filter and clean condenser coil

1. Remove the front panel: Unclip the two clips (1) (each side of the front panel), and rotate the panel out from the cabinet (2).



2. Remove the filters and clean with cold water.

3. Shake excess water off before refitting, and fit the filter back into the top and bottom slots.
   - Do not apply hot water, blow dry or place in dishwasher.
   - If the filter is damaged or missing, order a replacement filter from CCEP.

4. Clean the fins of the condenser coil with a soft brush.

5. Refit the filters.

6. Refit the front panel. Rotate in towards the cabinet to clip securely into place over the cabinet sides.

8 Troubleshooting

Electronic Controller

Alarms signal unexpected operational changes in the cabinet. When an alarm is activated, use the electronic controller app to assist with fault diagnosis and service as necessary. See page 11 for information.

Cabinet

For problems with the cabinet and refrigeration cassette use the following table.

Table 14: Troubleshooting

Problem	Possible cause	Repair
• Cabinet not operating • No controller display	• Loss of power supply	• Check the mains power supply.
	• Loose plug	• Check all plugs are connected correctly.
• Lights not on.	• Electronic controller is in 'Night' mode	• Switch the light on while keeping the cabinet in Night mode by pressing the light button on the electronic controller faceplate (see"Controller Faceplate" on page 10). • Change the cabinet into Day mode by pressing and holding the Day-Night button on the electronic controller faceplate.
	• Light switched off / Night blind closed	• Switch the light on via button on the electronic controller faceplate (see"Controller Faceplate" on page 10). • Open the night blind.
	• Electronic controller displays alarm indicating a refrigeration system error.	• Diagnose and repair.
	• Failed LED light	• Replace the light (see "Lighting" on page 20).
• Excess noise vibration	• Refrigeration pipes transferring vibration into cassette	• Re-align the pipes.
• Frozen evaporator coil	• Evaporator probe fault	• Replace the evaporator probe (see Procedure 31 on page 37).
	• Controller fault	• Replace controller (see Procedure 28 on page 34).
	• Short of refrigerant	• Perform refrigeration system diagnostics (see Procedure 18 on page 27) and service as required.
• Power consumption is higher than expected	• Cassette operating too hot	• Clean the condenser (see Procedure 33 on page 44). • Ensure the cabinet has good ventilation around the refrigeration cassette. • Ensure the cabinet is within the maximum operating temperature.
	• Product too cold	• Raise the set point.
• Product is too warm.	• Refrigeration cassette operating too hot. • Excessive door opening or refrigeration heat load	• Ensure the cabinet has good ventilation around the refrigeration cassette. • Ensure the cabinet is within the maximum operating conditions.
	• Electronic controller is in night mode	• Switch the chiller to Day mode via the electronic controller faceplate.
	• Set point is too high	• Lower the set point.
• Moisture build up on cabinet exterior.	• High humidity.	• Check the ambient operating temperature and reposition the cabinet if necessary.
• Warm cabinet temperatures • Compressor operating for long periods (more than 1 hour)	• Blocked condenser coil	• Clean the condenser coil (see Procedure 33 on page 44).
	• Poor ventilation around refrigeration cassette	• Ensure the cabinet has good ventilation around the refrigeration cassette. • Ensure the cabinet is within the maximum operating temperature.

SKOPE Contacts

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