

SKOPE PEGASUS

PG600/1300VF

Vertical Freezer - INTEGRAL



PG600VF



PG1300VF

SKOPE PEGASUS Vertical Freezer - Integral
PG600VF and PG1300VF
User Manual

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1 Installation

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

- 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.

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.

Positioning 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 (above 40°C) 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.

WARNING:

Heat dispersion and ventilation of the refrigeration unit cannot be overstressed. The air surrounding the condenser must not exceed 40°C.

Installation Guidelines The maximum recommended ambient temperature (at place of installation) for the chiller is 32°C. This chiller will generally use less power when installed in a cooler location.

When installing the cabinet:

- Avoid direct sunlight and warm draughts etc.
- Allow adequate space for the door/s to open fully.
- Ensure the cabinet is positioned on a level surface so the door/s shut and seal correctly and to prevent the condensate tray from overflowing.
- The self-closing door/s have internal torsion bars, pretensioned at the factory, and should not require any further adjustment.
- Do not overload the power supply. See the rating label inside the cabinet for power supply and current draw.

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

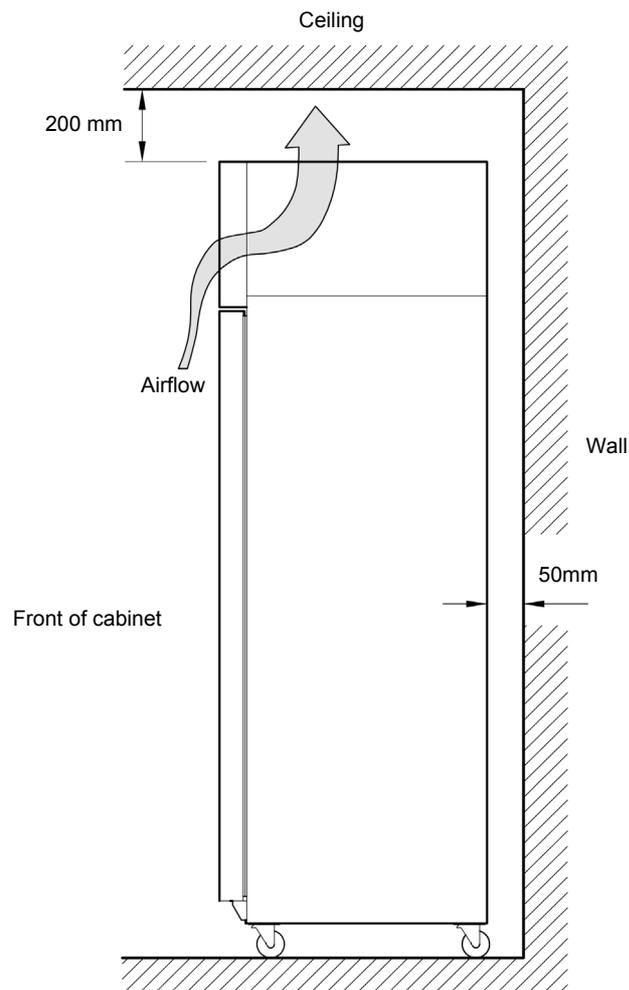
WARNING:

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

Ventilation Adequate ventilation is essential. For efficient operation of the chiller, it is essential that adequate ventilation be provided above the refrigeration unit. Never store cardboard cartons or other items on top of the refrigeration unit.

When positioning the cabinet, a gap of at least 200mm must be left above the refrigeration unit. The back of the cabinet can be positioned hard against a wall, however a gap of 50mm is recommended to prevent moisture build-up.

IMPORTANT:
To ensure efficient and reliable operation, a minimum of 200mm clear ventilation space is required above the refrigeration unit.



Shelving

The cabinet is supplied with two sets of shelves and shelf support brackets per door. The shelves can be positioned at different heights to suit various products.

To fit the shelves

1. Unpack the shelving items from inside the cabinet.
2. Establish the desired position for each of the shelves, based on the height of the product intended to go on each shelf.

3. Fit the stainless steel tray slides into the corresponding slots in both the front and back support rails. Each shelf requires two tray slides.



4. Slide each wire shelf into the corresponding pair of tray slides.



Loading Product The cabinet should be left running for 30 minutes before loading with product. When loading the cabinet shelves with product:

- ▣ Ensure all shelves are securely fitted (see above).
- ▣ 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 50mm above product loaded on the top shelf.
- ▣ Products must NOT be stored on the floor of the cabinet.
- ▣ Do not exceed a maximum loading of 20kg per shelf.
- ▣ Remove some product if the shelves are flexing or bending.

Door Lock Each door has a key lock, located at the top of the door, on the same side as the handle.



Door Lock

2 Operation

Automatic Start-Up

Connect the cabinet to the mains power supply and check operation of the refrigeration unit, electronic controller and cabinet lighting.

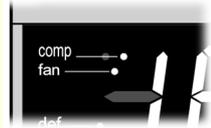
Refrigeration Unit The refrigeration unit evaporator and condenser fans should all operate continuously from the time the cabinet is plugged in. The internal cabinet air will continue to circulate at all times.

The compressor will start after approximately one minute. The compressor will switch off when the cabinet internal temperature reaches approximately -21°C , and on again at approximately -18°C .

Electronic Controller When the cabinet is connected to the power supply:



The electronic controller will display the cabinet temperature.

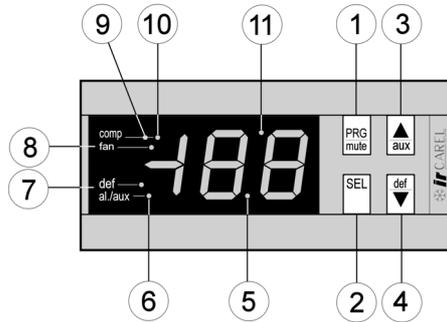


The 'Compressor' and 'Fan' LEDs will indicate when the compressor and evaporator fan are operating.

Cabinet Lighting The interior lighting will go on when a cabinet door is opened. To replace an LED tube see service instructions on page 14.

Electronic Controller

Controller Display



Item	Icon	Function
1		Silences alarm buzzer Allows entry to frequent parameters section, if pressed for 5 seconds Allows entry to configuration parameters section, if pressed simultaneously with SEL key for 5 seconds Locks in new parameters, and exits parameter sections Activates reset procedure
2		Displays setpoint in run mode Displays selected parameter in parameter mode Allows entry to configuration parameters section, if pressed simultaneously with PRG key for 5 seconds
3		Adjustment locked out Alters parameters in parameter mode Activates and deactivates 'continuous refrigeration mode' with def key
4		Adjustment locked out Activates manual defrost cycle Alters parameters in parameter mode Activates and deactivates 'continuous refrigeration mode' with aux key
5		Decimal point indicator
6		Unused
7		Defrost cycle ON indicator
8		Evaporator fan ON indicator
9		'Continuous refrigeration mode' ON indicator (fast freeze)
10		Compressor ON indicator
11		Remote controller indicator

Controller Operation The operation of this freezer is controlled by a pre-programmed microprocessor. The Microprocessor display indicates the temperature of the cabinet ambient probe, except during a defrost where the temperature of the cabinet probe is locked in, and during an alarm condition.

At alarm activation, the display indicates the type of alarm signal, and an audible alarm sounds. The alarm can be muted by pressing the **PRG/mute** key on the controller.

Controller Alarms A flashing LED indicates an alarm. The following is a list of alarms the controller displays:

Alarm code	Description
	Faulty ambient probe
	Faulty defrost probe
	High pressure fault
	Low (minimum) temperature alarm
	High (maximum) temperature alarm *
	Defrost timed out
	Data acquisition failure
	
	

* **NOTE:** Alarm 'HI' may activate during initial pull-down cycle, after being first powered up. The alarm can be muted and will automatically reset when the cabinet passes the alarm setpoint.

To reset an alarm

1. Clean the condenser radiator fins and remove any obstruction to the airflow.
2. Ensure the cabinet environment is below 32°C.
3. Unplug the cabinet from the power supply for 1 minute, then re-connect to the power supply.
4. Check cabinet product loading to ensure ventilation slots are not blocked and that product does not overhang the shelves.
5. If alarm persists, contact a SKOPE authorised refrigeration service agent.

Programming To prevent unauthorised modification, the controller is factory set with the keypad locked.

To make permanent program changes, including changing the setpoint and forcing a manual defrost, the keypad must first be unlocked, by entering an access code. Entering the access code allows the keypad to be unlocked and locked by altering parameter 'H2' (see below for instructions on how to unlock the keypad).

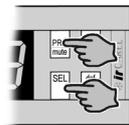
Controller lock parameter

Parameter	Setting	Description
H2	00	Keypad locked
H2	01	Keypad unlocked

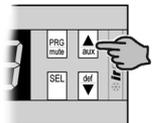
After making program changes, it is recommended that the keypad is locked (see over page for instructions on how to lock the keypad).

To unlock the keypad

1. Press and hold both the **PRG** and **SEL** keys simultaneously for more than 5 seconds until '00' is displayed.



2. Press the **UP** (aux) key until '22' is displayed.



3. Press the **SEL** key to confirm selection. The first parameter 'C' is displayed.



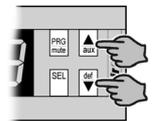
4. Press the **DOWN** (def) key twice, until 'H2' is displayed.



5. Press the **SEL** key to display the value of the parameter.



6. Press the **UP** (aux) key to increase, or the **DOWN** (def) key to decrease, until '01' is displayed.



7. Press the **SEL** key to accept the value.

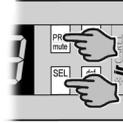


8. Press the **PRG** key to lock in the new value and to exit program.



To lock the keypad

1. Press and hold both the **PRG** and **SEL** keys simultaneously for more than 5 seconds until '00' is displayed.



2. Press the **UP** (aux) key until '22' is displayed.



3. Press the **SEL** key to confirm selection. The first parameter 'C' is displayed.



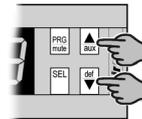
4. Press the **DOWN** (def) key twice, until 'H2' is displayed.



5. Press the **SEL** key to display the value of the parameter.



6. Press the **UP** (aux) key to increase, or the **DOWN** (def) key to decrease, until '00' is displayed.



7. Press the **SEL** key to accept the value.



8. Press the **PRG** key to lock in the new value and to exit program.



Setpoint The freezer setpoint is factory set at -21°C. If necessary, the standard setting can be adjusted between -16°C and -26°C. SKOPE do not recommend the setpoint be changed unless absolutely necessary, and then only in small increments at a time.

To display the set point

1. Unlock the keypad.
2. Press and hold both the **PRG** and **SEL** keys simultaneously for more than 5 seconds until '00' is displayed.

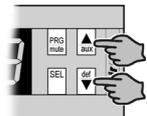


Freezer set point

Factory setting:	-21°C
Maximum:	-16°C
Minimum:	-26°C

To change the set point

1. Unlock the keypad.
2. Press the **SEL** key for 1 second and the Setpoint value will be displayed. On releasing the key, the display will flash.
3. To change the Setpoint value, press the **UP** (aux) or **DOWN** (def) keys.
4. Press the **SEL** key to lock in the value and return to cabinet temperature. The Setpoint value is stored even when the procedure is exited, by waiting for the time-out to expire.



Manual Defrost To start a manual defrost

1. Unlock the keypad.
2. Press and hold both the **PRG** and **SEL** keys simultaneously for more than 5 seconds until '00' is displayed.



Continuous Refrigeration To achieve a fast product temperature pull-down, activate continuous refrigeration mode.

To enter continuous refrigeration mode

1. Unlock the keypad.
2. To achieve a fast product pull-down, press **UP** (aux) and **DOWN** (def) together, (down key first) to initiate a 'Continuous Refrigeration' mode.



3 Servicing

Lighting

Cabinet Interior Lights The cabinet interior is lit by an LED tube fitted behind the diffuser at the top of the cabinet (PG600VF) or behind the centre pillar (PG1300VF). See the table below for LED tube specifications.

LED tube specifications

Cabinet	LED tube description	SKOPE part No.
PG600VF	Ecopoint 5W 360mm T8 LED tube	ELL10435
PG1300VF	Ecopoint 22W 1200mm T8 LED tube	ELL10436

To replace the interior LED light tube

1. Disconnect the chiller from the mains power supply.

2. Remove the diffuser by squeezing it until it is released from the housing, and then push the diffuser out of the way (single door cabinet pictured for clarity).



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. Reconnect to the power supply.

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. Periodic cleaning of the condenser coil is also required.

CAUTION

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

Condenser Coil The condenser coil is situated behind the unit front panel. The condenser coil **MUST** be kept clean for reliable operation and to minimise power consumption (a blocked condenser can double power consumption).

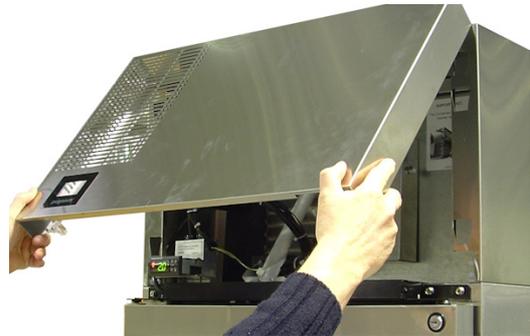
To ensure trouble free performance, the condenser coil should be brushed clean once a month and blown clean by qualified service personnel every six months.

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.

To access the condenser coil

1. Disconnect the chiller from the mains power supply.

2. Remove the refrigeration unit front panel from the cabinet by pulling the bottom of the panel out to unclip from the side panels and then lift the panel up off the cabinet. Refitting the front panel is a reversal of this procedure.



3. The condenser coil is now accessible for cleaning.



Troubleshooting

Complaint	Possible Cause	Repair
1. Cabinet not operating and no controller display:	<ul style="list-style-type: none"> • Loss of power supply. 	<ul style="list-style-type: none"> • Check mains power supply.
2. Cabinet lights not operating:	<ul style="list-style-type: none"> • Failed LED light tube. • Controller high temperature shutdown alarm 'CHT'. • Cabinet ENSTO supply plug not plugged into control box. 	<ul style="list-style-type: none"> • Replace LED light tube (see page 14). • Determine cause and eliminate (see page 10). • Reconnect plug.
3. Power consumption is higher than expected:	<ul style="list-style-type: none"> • Unit operating too hot. • Cabinet doors are opened excessively. 	<ul style="list-style-type: none"> • Clean condenser. Ensure the chiller is installed with good ventilation above the refrigeration unit. • Keep door/s open for minimum time.
4. Product is too warm and spoiling:	<ul style="list-style-type: none"> • Restricted cabinet airflow. • Temperature setpoint is too warm. 	<ul style="list-style-type: none"> • Ensure product is not blocking airflow slots and the product is no closer than 50mm from the cabinet top. • Adjust setpoint (see page 10).
5. Warm cabinet temperatures and/or compressor operating for long periods (more than 1 hour):	<ul style="list-style-type: none"> • Blocked condenser. • Poor refrigeration unit ventilation. 	<ul style="list-style-type: none"> • Clean condenser (see page 15). • Ensure the cabinet is installed with good ventilation around the front of the refrigeration unit (see page 6).

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