

Installation and operation manual
Display Line Marine



THESE INSTRUCTIONS ARE FOR REFRIGERATED DISPLAY COUNTERS (DLM) FOR MARINE APPLICATIONS.

IT IS VERY IMPORTANT TO READ THESE INSTALLATION AND OPERATING INSTRUCTIONS CAREFULLY BEFORE YOU START USING THE EQUIPMENT FOR THE FIRST TIME.

ALSO, PLEASE KEEP THESE INSTRUCTIONS IN A SAFE PLACE FOR FUTURE REFERENCE OR USE BY ANOTHER OPERATOR.

BY FOLLOWING THESE INSTRUCTIONS YOU CAN IMPROVE THE PRODUCTS PERFORMANCE AND REDUCE UNNECESSARY REPAIR COSTS. PLEASE NOTE IT IS IMPORTANT TO HAVE YOUR EQUIPMENT REGULARLY MAINTAINED BY A PROFESSIONAL ENGINEER.

YOU WILL FIND THE TERMS OF GUARANTEE IN PAGE 8.

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RECEIPT

Check the product as soon as you receive it. If you notice that it has suffered from damages during transportation, you must indicate this in the delivery documents and tell about the matter to the carrier off the retailer.

The manufacturer's guarantee does not cover damages caused by transportation!

INSTALLATION AND INTRODUCTION

Unpack the counter as close to the installation place as possible.

Remove the protective films on outer surfaces of the counter.

Sort packing material and dispose off according to local legislation requirements.

Avoid placing the counter in direct sunlight or close to any equipment radiating heat, such as cookers and radiators.

The ambient temperature must not exceed +25°C or fall below +5°C.

Ensure the counter is horizontal. If necessary use spirit level. The legs are adjustable and accept 8 mm deck fixing bolts (height adjustable -5mm to +65 mm). All legs must touch the floor with even weight loading per leg.



Uneven floor can distort the frame of the counter and cause height differences between units.

Clean the counter carefully before usage using a mild detergent.

Do not use scouring powder, wire wool or chlorine i.e. bleach type cleaners.

When counter is delivered and if temperature is cold, condensation may form on the exterior surface.

Do not connect power until unit is dry and at room temperature!

The unit should be connected to an earthed socket or isolator with 230V/50, 230V/60Hz or 115V/60Hz supply, it should be protected with a fuse of 10 amp rating.

Power supply (AC) and voltage at the operating point must comply with the details on the type plate.

It is extremely important to keep foods with high acidity such as pickles and salad dressings in air tight containers. Highly acid foods will corrode the evaporator resulting in expensive repair work which will not be covered by warranty!

Ensure there is free air movement beneath the counter.

The condensation water is re-evaporated below the counter.

The product must not be used outdoors or be subjected to excessive amounts of sprayed water, especially near the temperature display!

Display Line cold counters are designed and tested for selling and storing of pre-cooled products.

COUPLERS OF THE COOLING UNIT

1. 2.



1.	Socket for the electric wire
2.	Socket for light
3.	Combined controller and digital temperature display
4.	Light switch (counters with light only)

THE AIR FORCED COOLING OF DISPLAY AREA - ON/OFF FUNCTION



The air forced cooling of display area shelves can be turned off by a slide even if counter and basin is switched on.

OPERATION: COMBINED CONTROLLER AND DIGITAL TEMPERATURE DISPLAY

Keyboard



SWITCH	FUNCTION
	Light switch (Note! Counters with light only)
	The manual defrosting starts when you push the key for 3 seconds.
SET	The key to display and adjust the set point. In the programming mode the adjusting function is quitted by this key. By pressing the key for 3 seconds the set point can be modified.
	The key shows the highest thermostat value registered. In the programming mode you navigate inside the program or it is used to raise the selected value.
	The key shows the lowest thermostat value registered. In the programming mode you navigate inside the program or it is used to lower the selected value.
	Power switch (Note! The power operation light remains illuminated even when power is switched off).
	Main power switch (Note! Only in freezers, switch off the heat resistance of the door frame also).

Locking and unlocking the keys



The key-lock prevents unintended use of the keys. The lock is switched on and off by holding the keys down at the same time for 3 seconds. The display momentarily shows letters "PoF". With key-lock on you can still check the lowest and highest temperature registered. The light switch function can still be used when keypad is locked. Pon" means that the keys are not locked.

Display lights

LIGHT	MODE	FUNCTION
OFF	On	The equipment is on standby mode.
	Flashing	Set temperature is displayed and can be changed.
	On	Compressor is running.
	Flashing	Time delay to protect compressor after start-up
	On	The fan of the evaporator is on.
	On	Defrosting of the evaporator is on.
	Flashing	Drying of the evaporator is on.
	On	ALARM, see alarms on page 5.

**Note!**

The temperature of the lower storage area of the cabinet can be changed from +4° to +12°C, when the temperature in the display area compartment will be 6 ° to +15 °C.

The top shelf of the display area when fitted with three shelves is not chilled.



**Note!**

The manual defrosting resets the defrosting time counter so that by means of the manual defrosting period the regular defrosting periods can be scheduled to take place e.g. outside the peak periods.



**Note!**

After the first start reset the lowest and highest temperatures stored.

Main switch

The cabinet is switched on and off by using the main switch . When you move to the standby mode the code "OFF" is displayed. In the standby mode all the control functions are off. The freezer models additionally have a separate main switch  that also switches off the heat resistance of the door frame. If the product is connected to the monitoring system it does not receive control or alarm data from the monitoring unit. The light switch functions when the instrument is on standby.


To modify the temperature

Push **SET** key 3 seconds and the temperature set point flash on the display. Modify the value by pushing  or  key within 15 seconds. Save the new value by pushing **SET** key again or wait for 15 seconds after which the display returns to the normal mode.


Defrosting

The evaporator is defrosted automatically. During the defrosting period the defrosting LED and temperature in the beginning of the defrosting period are displayed. After that the display returns to the normal mode.


Manual defrosting

Push  key for 3 seconds when the manual defrosting will start. After manual defrost the cabinet will continue to defrost at regular intervals. Manual defrosting is recommended if there is a lot of ice on the evaporator, i.e. if the door has been left open for a long time or if warm uncovered food has been placed in the cabinet.



To check the lowest temperature

Push  key. Code "Lo" is displayed after which the lowest registered temperature is displayed. The display returns to the normal mode automatically after 5 seconds.

To check the highest temperature

Push  key. Code "Hi" is displayed after which the highest registered temperature is displayed. The display returns to the normal mode automatically after 5 seconds.

To delete the lowest and highest temperatures registered

The registered lowest and highest temperatures are deleted separately. Get the lowest and highest temperature registered on the display by pushing the arrow key  or . Push immediately the **SET** key for 3 seconds until the code "rST" (reset) starts to flash on the display. Release the key and the temperatures have been deleted and the display returns to the normal mode.



Reset the alarm signal by pushing SET key.



ALARM SIGNALS FOR COMBINED CONTROLLER AND DIGITAL TEMPERATURE DISPLAY

CODE REASON

“HA” **High temperature alarm**
The temperature inside the cabinet has exceeded the set alarm temperature. The alarm can be instigated by sudden icing of the evaporator. Initiate manual defrosting (see instructions on page 4). Ensure the cabinet has not been loaded with warm products. Check that a door has not been left open. Check if product is blocking air circulation within the cabinet.

“LA” **Low temperature alarm**
The temperature inside the cabinet has fallen below the set value. Ensure that the products put into the cabinet are not too cold.

The temperature alarm is reset automatically after the interior of the cabinet returns to set temperature range. If this does not happen, move the products to another cabinet and contact your service provider.

“HA2” **Condenser high temperature alarm**
The condenser / filter needs to be cleaned. Switch the cabinet to standby mode, remove cover and clean the filter by washing and / or using a soft brush and vacuum cleaner. Remove dirt and debris from the condenser face. Check also that air circulation to the condenser is not blocked or that the ambient temperature is not too high. If the alarm still does not stop, remove products to another cabinet and contact you service provider.

“LA2” **Condenser low temperature alarm**

“P1” **Thermostat probe failure***

“P2” **Evaporator probe failure***

“P3” **Condenser probe failure***

***Note! The counter operates on its standby system and will hold normal temperature, but reset the alarm signal and immediately contact your service provider.**

COOLING UNIT

Removal of the unit for cleaning or servicing



Switch off cabinet by pressing standby button and remove socket.

Remove the grating (1). Lift it straight upwards and draw the lower edge outwards when the grating will come off.

Switch off power supply by removing socket. Also remove the socket for shelf cooling and for light (2).



Loosen 2 screws on the lower edge of the unit (3).

Pull the cooling unit out.

Replace by reversing procedure.

Operators / user's responsibility



Clean the condenser filter on the cooling unit (4) two times a month or when necessary.

Remove the filter and rinse under running water.

Shake off excess water and replace filter.

Clean the finned condenser on the unit (5) once a month using a soft brush and / or vacuum cleaner. Take care not to damage fins.

If the counter is situated in a very dusty environment, i.e. bakery, it has to be cleaned more often.

The cooling unit should be removed and serviced by a professional company 1-2 times per year.

DOOR

Doors are equipped with marine handle complete with lock, magnetic gasket and heavy-duty hinges.



Gasket is pull out, push in type making change or cleaning a simple non-technical operation.

GOOD TO KNOW



1. Bottom plates of the bottle basin are adjustable.
2. Shelf LED illumination and the well LED light are supplied as standard in the display area compartment.
3. Air duct channels on the ends of compartment's shelves must not be covered!

CLEANING AND MAINTENANCE

Clean spillages immediately.

Ensure effective operation of the equipment and the quality of the stored products by defrosting and cleaning the equipment once a month at least.

Remove all food and store it in a back-up store.

Switch off the unit from the main electrical power switch and take off the electric wire from the wall socket.

Remove shelves and GN rails as well as drawers and runners.

Wash the stainless steel surfaces of the equipment by a mild detergent mixed with water *, e.g. dishwasher detergent or other suitable detergent. Use a cloth or a paper towel to prevent scratching.

RINSE WITH A DAMP CLOTH, DRY AND ALLOW THE CABINET TO DRY OUT.

* DO NOT USE DETERGENTS OR DESINFECTANTS CONTAINING CHLORINE, SOLVENTS, SCRUBBING PRODUCTS, A KNIFE OR OTHER SHARP TOOLS.

DO NOT USE RUNNING WATER TO WASH THE CABINET, THE COOLING UNIT OR THE CABINET WITH THE COOLING UNIT IN PLACE.

REFER TO THE PRODUCT DESCRIPTION OF THE DESINFECTANT TO SEE WHICH MATERIALS IT IS SUITABLE FOR. DO NOT LET IT SPLASH ON SENSITIVE PARTS, SUCH AS THERMOSTAT REGULATOR OR DOOR HINGES. DRY THE EQUIPMENT AFTER THE DESINFECTION AND LET IT VENTILATE.

CLEANERS WITH ALCOHOL OR WITH ALCOHOL DERIVATIVES AND OTHER CLEANING MATERIALS AND CLEANING AGENTS WHICH ARE NOT RECOMMENDED FOR USE WITH ACRYLIC MATERIALS, SHOULD NOT BE USED WHEN CLEANING THE ACRYLIC PANELS, ESPECIALLY THE FRONT PANELS (HATCHES).

USE WATER WITH MILD FOOD SAFE DETERGENT AND DRY WITH A SOFT CLOTH OR CHAMOIS LEATHER, DO NOT USE ABRASIVE MATERIALS OR MICRO-CLOTHS AS THESE WILL SCRATCH THE SURFACE.

Clean the condenser and/or condenser filter.

Clean the counter door gasket using a mild water soluble detergent and check the condition of the gasket. A silicone spray makes the gaskets flexible and dirt-rejecting.

Lubricate the drawer runners with lubricant suitable for foodstuff.

Cleaning in dishwasher is not recommendable for the loose parts of the equipment.

Put back all removed parts and switch on the equipment.

Ensure that the temperature has become to the normal level before using the equipment again.

IF THE CABINET DOES NOT FUNCTION CORRECTLY

The machine does not start

- check that the main switch has been turned to ON.
- check that the electric cable has been connected to a socket.
- check that the fuse of the socket is undamaged.

The counter does not become cool or does not reach the wanted temperature

- check that the thermostat has been correctly adjusted (SET button, to modify the temperature set points).
- the defrost is not on (the defrost-LED is on the control unit).
- air circulation inside the unit is not blocked
- check that the ambient temperature is not too high.
- the air circulation for the condenser is free and the filter of the condenser is not blocked
- evaporator has not frozen:



This can be caused by e.g. a door that has been left ajar or high air humidity. Check inside the unit if there is ice in the air circulation openings of the rear edge of the cold machine cassette. If you notice ice or if you suspect that the evaporator has frozen, start "manual

defrost" according to the instructions. Repeat manual defrosts until the evaporator is completely free of ice. In case the product still does not reach the temperature needed, contact a service company.

If the machinery gives a strange sound

- check that the feet of the counter are adjusted properly. Make sure that the cabinet does not rock when pushed from one or another of the front corners.
- ensure that goods inside the unit, e.g. bottles, do not clink against each other.

The display area does not become cool or does not reach the wanted temperature

- check that the air forced cooling of display area shelves is not turned off by a slide.

DISPOSAL OF THE EQUIPMENT

Once the equipment becomes redundant it may not be disposed of with normal waste because the equipment is governed by the WEEE directive. It has to be disposed of following the WEEE act which became effective on August 13th 2005.

GUARANTEE

Check the guarantee period at your merchandiser.

The guarantee does not cover faults caused by

- transportation
- overloading or users negligence
- negligence due to not reading manuals, proper care and maintenance
- changes in current (max \pm 10% allowed) caused for example by lightning etc.
- modifications or repairs performed by an unauthorized service agent
- use of parts not supplied and approved by the manufacturer

The guarantee does not cover

- incidental scratches/marks or other minor faults caused when unpacking or during installation that does not effect operation or performance of the equipment

THE MANUFACTURER OR HIS SELLING AGENT IS NOT AT ANY TIME, OR UNDER ANY CIRCUMSTANCES LIABLE FOR FOOD LOSS HOWSOEVER IT OCCURS. THE OWNER / USER SHOULD ENSURE THE CONTENTS ARE INSURED AT ALL TIMES.

ALL GOOD ARE SUPPLIED UNDER OUR TERMS AND CONDITIONS OF SALE A COPY OF WHICH MAY BE OBTAINED UPON REQUEST.

NOTES

NOTES

Porkka Finland Oy is an internationally recognised designer and manufacturer of Marine Refrigeration Equipment

Porkka Finland Oy is an internationally recognised designer and manufacturer of Refrigeration and Food Storage/Display Equipment. The range incorporates Chilled, Frozen and Heated options. Major clients include commercial kitchens, restaurants, fast food outlets, hotels, industrial canteens, hospitals, laboratories and retailers throughout the World.

Our main markets outside of Finland include Scandinavia, United Kingdom, Germany, Switzerland, Holland, Belgium, Russia and the Baltic regions. 80% of the companies' turnover is derived from foreign transactions and exports. On going and adaptive development by numerous foreign subsidiaries and representatives ensures our continued growth.

Porkka's success is based on decades of experience, customer focused design and continuous product development.

Porkka Finland Oy is part of the Huurre Group. Porkka and Huurre brands are well known for their quality and reliability throughout the world.

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Porkka Finland Oy reserves the right to make any changes without prior notice.

PORKKA

Porkka Finland Oy

Soisalmentie 3
FI-15860 Hollola, Finland
Tel. +358 20 5555 12
Fax +358 20 5555 497
e-mail: contact@porkka.com
www.porkka.com

Porkka Scandinavia AB

Industrigatan 21
S-61933 Trosa, Sverige
Tel. +46 156 348 40
Fax +46 156 167 50
e-post: porkka@porkka.se
www.porkka.se

Porkka Norge AS

Lensmannsliå 30
N-1386 Asker, Norge
Tel. +47 66 98 77 77
Fax +47 66 98 77 88
e-post: salg@porkka.no
www.porkka.no

Porkka (U.K.) Limited

29B Greenhill Crescent
Watford Business Park, Watford
Hertfordshire, WD18 8YB, UK
Tel. +44 1923 23 36 75
Fax +44 1923 80 57 17
e-mail: sales@porkka.co.uk
www.porkka.co.uk