

## User and maintenance manual

### Refrigerated service cabinet



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## Technical data and copyright

User and maintenance manual is part of the product. The manual should always be kept with the product. Proper use of the product requires following the instructions in this manual. The manual is in accordance with the design of the product and all prevailing technical safety standards.



The product comprises the following components:



Cooling appliance consisting of two or more modules with either 3 or 4 compartments, all with their own doors.



The appliance was designed for deep reach, in other words it is not suitable for freezing products.



Cool circuit with evaporative cooler for connection of a remote cooling unit



Controlling for temperature regulation.

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The operating instructions reflect the current technical specifications at the time of print.

We reserve the right to change the technical or physical specifications.

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## Safety

This user and maintenance manual contains the basic guidelines that must be observed when using and operating this product. The user must therefore read and understand the manual completely before operating the product. The general safety instructions, as well as the specific safety instructions, labelled with a hazard symbol below, must be observed.



General hazard symbol.



Hazard due to electrical power.

### **Personal safety/hazard**

Noncompliance with the safety instructions and not observing the safety guidelines can be hazardous to people and damage the product. Not observing the safety guidelines can lead to a breach of contract regarding damage remuneration and guarantee. More specifically, not observing the safety guidelines can lead to the following damages: loss of important functions of the product, hazard to people caused by electrical or mechanical activity, and material damage.



Read this manual carefully before using the product.



It is forbidden to remove warning stickers or safety stickers from the appliance.



The following stickers are used.



follow  
instructions



shock  
hazard

Cleaning:



Always turn off the appliance before cleaning the refrigerated service cabinet. If there is no main switch, then turn the power off using the central switch in the shop. See Chapter 5 for the cleaning instructions.



Never spray water into the interior of the refrigerated service cabinet, on the evaporative coolers, or behind the skirting boards under the appliance where the electrical connections and housing are located.

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### **Safety during transport**

- Loading and unloading must be carried out with suitable equipment such as a lift truck, forklift, crane etc. Use suitable equipment for this purpose.
- People carrying out these activities should wear personal safety equipment (gloves, protective glasses, shoes, etc.) and should not stand under the load while the appliance is being hoisted.
- The surface where the appliance is being placed should be strong and level.

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## Appliance specifications



### **Model type: SC C3 & SC C4**

SC C3 Service Cabinet 3 compartments per door model - height 707 mm (excl. countertop)

SC C4 Service Cabinet 4 compartments per door model - height 867 mm (excl. countertop)

Independent appliance units: 1000, 1500, 2000, 2500 and 3000 mm

Inside: RVS

Exterior: PVC laminated plate or RVS anti-fingerprint (RVS AFP)

Dimensions of appliance:

Exterior (per module), low model. Low model C3 module has 3 compartments.	707 × 725 × 500 mm (H × W × L)
Exterior (per module), high model. High model C4 module has 4 compartments.	867 × 725 × 500 mm (H × W × L)

**Refrigeration device:**

The refrigeration device is fitted with evaporative coolers that have ventilators for cold air circulation. An expansion vent is fitted in the coolant supply line to the evaporative coolers in order to regulate the coolant supply to the evaporative coolers. This vent is fitted with a magnetic valve which closes as soon as the refrigerated service cabinet has reached the desired temperature. The device works almost completely automatically after being connected; the user must set the digital thermostat using a control.

These options are also available:

- a set of valves in the coolant piping with which the refrigerator can be manually closed for repairs;
- a filter in the coolant piping (situated in front of a magnetic valve) to catch contaminants.

Your refrigerated service cabinet has production identification labels which will expedite any assistance we may need to provide if there are any questions or if the appliance fails to function.

 The product identification labels are located inside the cabinet on the left wall.

If information about a certain part is needed, or if a part is defective, convey the relevant information on the labels to your refrigeration contractor to expedite a solution.



**Refrigeration specifications**

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**Electrical specifications**

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## 1 Introduction

You have made a good choice by purchasing a Smeva refrigerated service cabinet. The name Smeva stands for quality and reliability.

The refrigerated service cabinet is modularly designed; several units can be connected to each other.

The refrigerated service cabinet was designed for storing cold products. An evaporative cooler device with pipe installation is mounted inside the cabinet.

A compressor unit is situated at some distance away from the cooler it is connected to. The connection of the cooler and its periodic maintenance should be carried out exclusively by an authorized refrigeration company. The coolant piping, condensation drain and the electrical connection are located under the appliance.

The refrigerated service cabinet meets the requirements for being of the highest quality. Despite this high quality, the refrigerated service cabinet still needs to be treated and maintained properly. The intention of this manual is to assist you with that.

The manual contains the necessary instructions for installation and putting the refrigeration into operation, regulation of the thermostat control, cleaning and maintenance, as well as disassembly and removal at the end of the product's life expectancy.

In addition, a troubleshooting list is included for small, easily repaired malfunctions. See Chapter 8 for more.

For major malfunctions/defects to your refrigerated service cabinet you should contact your Smeva dealer.

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## 2 Installation



### Appliance installation

- i The refrigerated service cabinet is delivered from the factory up to six metres wide. More appliance units can be attached to it on site.
- ⚠ The refrigerated service cabinet should be placed on a level surface.

- ◀ Horizontal
- ◀ Level

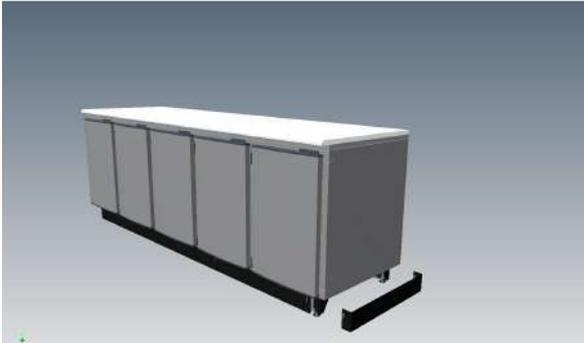
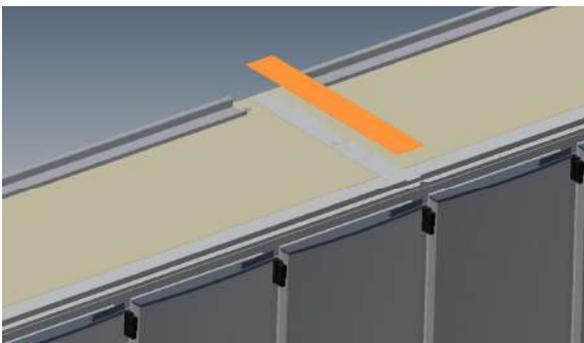


### Adjustable feet

- i Any potential instability caused by play underneath one or more of the adjustable feet of the appliance can be alleviated by correctly adjusting the proper adjustable feet.
- Turn the adjustable feet to the point that they are making proper contact with the flooring.

- ◀ No play
- ⚙ Wrench M17

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	<p><b>Attaching appliances</b></p> <p>Remove the skirting boards on the outer ends (definitively).</p> <p>Dismantle the countertop if present.</p>
	<p>Dismantle the skirting boards and the transport girders on the coupling face.</p> <p>Place both appliance units next to each other.</p> <ul style="list-style-type: none"> <li> Equal height</li> <li> Level</li> </ul>
	<p>Insert M8 threaded ends through the feet.</p> <p>Draw the appliance units towards each other by fastening the threaded ends with nuts.</p> <ul style="list-style-type: none"> <li> Contiguous</li> <li> Equal height</li> </ul>
	<p>Assemble the coupling place with flat head screws (Supertex 3.5 × 20 mm).</p> <ul style="list-style-type: none"> <li> Stationary</li> <li> Straight</li> </ul> <p>Reconstruct the appliance, including assembling additional skirting boards and water level profile (delivered).</p>

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## Refrigeration installation

-  The refrigeration installation is realised by connecting the refrigerated service cabinet to a remote cooling unit.
-  The field connections of the cooling piping set are situated centrally and their standard location is underneath the first independent appliance unit on the left.
-  The cooling pipes to a potential sequence of sections are situated under the appliance and should be connected at the site of the division line.
-  The Refrigeration installation should only be carried out by a qualified contractor.

## Electrical installation

-  Before connecting the electrical connections you should be sure that the power voltage and frequency agree with the specifications included (see type plate).
-  Electrical connections should be executed in accordance with the applicable regulations.
-  Before any repair work is carried out on the electrical live parts, the power supply to the part involved must be closed.

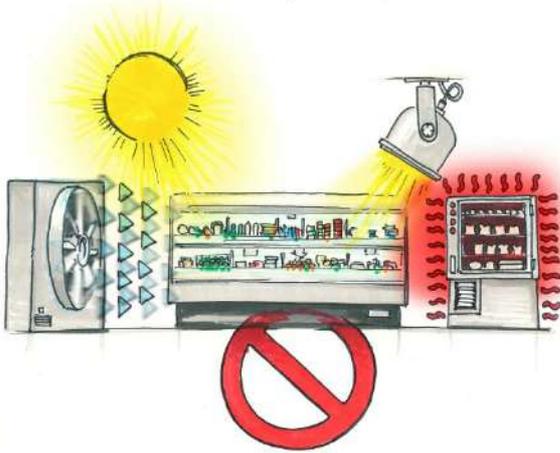
Before the device is switch on check if:

- the electrical connections are correctly connected;
- the screwed joints for the different connection clamps are fastened tightly.

-  The electrical installation with thermostat control is situated under the appliance.
-  The electrical connection is situated centrally and its standard location is underneath the first independent appliance unit on the left.
-  The electrical installation is realised by connecting the refrigerated service cabinet to the power supply of the shop.
-  The power supply to any potential sequence of sections should be connected with a coupling cable between the switch boxes. For nominal power consumption see the information on the identification label in the appliance.

### 3 Putting into operation

The refrigerated service cabinet can be put into operation after installation by an authorised refrigeration contractor, see Chapter 2. For the proper functioning of the refrigerated service cabinet take the following instructions into account.



#### External influences

-  Avoid direct sunlight. Excessive sunlight can have a negative effect on the performance of the refrigerated service cabinet.
-  Keep heat sources out of the vicinity of the refrigerated service cabinet. (Examples are: radiators, ovens, spot lights, air curtains)
-  Take into consideration that the appliance was not designed for cooling goods, but for storing cooled goods.
-  Only packaged or properly wrapped goods may be stored in the refrigerated service cabinet. Do not store opened packages or fresh products without wrapping them.
-  Stack the goods in the compartments leaving enough space for ventilation. For sufficient cool circulation never completely block the space between the compartments with stacked goods.
-  Close the doors after use and never leave them open unnecessarily.

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**Crates and compartments**

-  The crates and compartments can be removed or adjusted in height, depending on the desired distribution of the compartments.
-  Maximum weight per crate: 25 kg.



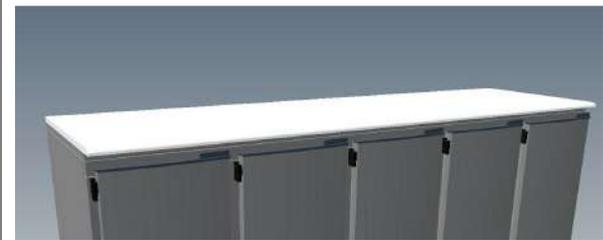
**Direction of door opening**

-  The direction that the doors open is determined beforehand and delivered as such from the factory. If the direction of the door opening must be altered, contact your Smeva dealer.



**Door handles**

-  Always open the doors using the handles. Avoid touching the door rubber sealers.
-  Grease and dirt on the door rubber sealers can shorten their life expectancy considerably.

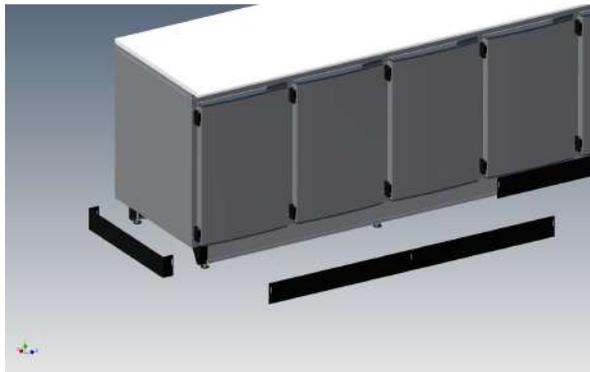


**Countertop**

-  To avoid overtaxing the appliance keep the countertop weight capacity under 30 kg/m.

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## 4 Thermostat control



### Accessible thermostat control

**i** Each independent appliance unit has its own control. This is located under the second door from the left behind the transport girder. The standard setting of the set point is 0 °C.

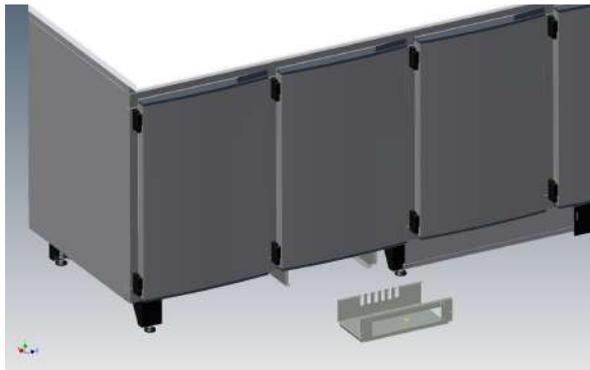
Remove the left skirting board and the outer skirting board by loosening the screws.

**A** Transport girder with mounting bolts visible.



Remove the left transport girder (2 screws).

**A** Control housing visible



Remove the control housing (2 screws).

**A** Control accessible



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For setting/changing the control, refer to the appropriate manual depending on control that was chosen following the delivery specifications. The appliance is standardly equipped with one control unit for each independent appliance unit.

### **Defrost programme**



The evaporative coolers are occasionally defrosted using the ambient air with the ventilators in operation (natural defrosting). The defrost times are standardly set to 30 minutes once every 24 hours. Depending on the use and the frequency of the doors opening, an additional defrost cycle might need to be scheduled on the thermostat regulator.



The manual defrost function operates via the thermostat regulator. For this see the instructions of the appropriate regulator model type. If this is not available, then move the cooled goods to a cooled space and turn the appliance off leaving the doors open for a few hours.

### **Thermometer display**



The temperature indicated is normally the exhaust temperature of the evaporative cooler. During the defrost cycle the temperature will momentarily increase. This will not affect the core temperature of the goods during the entire day.

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## 5 Cleaning



-  Always turn off the appliance before cleaning the refrigerated service cabinet.
-  Clean with a cloth and warm soapy water. Then dry the appliance.
-  Never use aggressive cleaners. Only use cleaners with a pH (degree of acid) from 4 to 9.
-  When working on the interior of the appliance one should be aware of potential electrical hazard. If there is no mains power switch or electrical plug feeding the appliance, the power should be switched off by way of the central switch box in the shop.

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**Exterior of the appliance (laminated plate)**



A pre-laminated plate can be cleaned in the usual way with a cloth and warm soapy water.



Aggressive cleansers can scratch the surface of the laminated plate.

**Exterior of the appliance (RVS AFP)**



RVS AFP can be cleaned with a mild cleansing agent and hot water. Rinse with clean water and dry with a soft cloth to avoid stains. For more severe dirt or stains on RVS AFP see below for further instructions.

**Cleaning RVS AFP (severely dirty surface or stubborn stains)**

For stubborn residuals use a non-abrasive multifunctional cleansing cream applied with a soft damp cloth. Rinse with clean water and dry with a clean cloth.



**Interior of the appliance (RVS)**



Never spray water directly into or on electrical components such as the ventilators in the upright evaporative cooler and the magnetic valve in the coolant supply line.



RVS surface corrosion can be treated with a soft damp cloth and a multifunctional cleaning cream.



**Magnetic rubber door sealers**

 The magnetic rubber door sealers can be cleaned with a cloth and warm soapy water.

 Free of dirt

 Also clean between the rubber sealers and the door plate thoroughly. Dirt can accumulate and fungus develops.



**Evaporative coolers**

 Clean the exterior of the evaporative coolers with a cloth and warm soapy water.

 Free of dirt

 Defrosted

 Do not use any water spray.

 Contact your Smeva dealer if the air circuit of the evaporative cooler is dirty internally.



**Drain**

 Clean the drain with a cloth and warm soapy water. Flush out with plenty of water.

## 6 General maintenance

It is advisable to have your refrigerated service cabinet inspected at least once a year by a qualified contractor.

This check focuses on:

- checking along the piping and evaporative cooler for leakage of coolant;
- examination of the ventilators;
- checking the function of the thermostat control and the temperature sensors;
- technical cleaning and removal of dust in the evaporative cooler and the air circulation system;
- cleaning and inspection of the drainage system.



Consult with your Smeva dealer about these maintenance schemes.



### Magnetic rubber door sealers



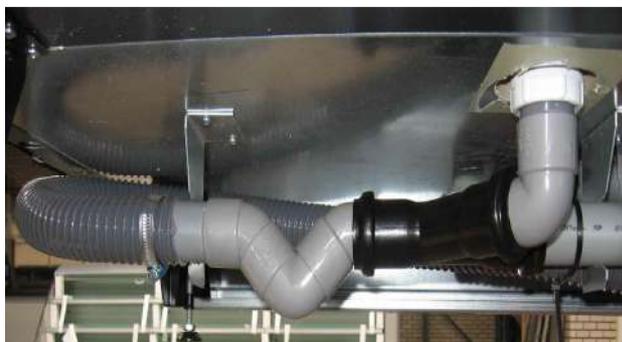
The magnetic rubber sealers should be replaced when damaged or excessively worn out:  
Remove the screws behind the magnetic rubber sealers.



Door plate with magnetic rubber sealers is accessible

Replace the magnetic rubber sealers with a new rubber sealer.

Screw the door plate back on the door.



### Drainage connection



The drainage connection has a sliding coupling sleeve that can be loosened. For thorough cleaning, or in the event of blockage, the drainage connection can be easily separated by loosening the screw coupling.

## 7 Termination of use; disassembly and removal

The design and choice of material used for the construction of the refrigerated service cabinet have a life expectancy of 15 years. The life expectancy is dependent on the circumstances and intensity of its use.

The refrigerated service cabinet has a factory guarantee of 1 year. Damages caused by third parties are not covered by the guarantee.

A few parts are subject to wear and should be replaced during the life expectancy of the appliance.



When disposing of the refrigerated service cabinet, it must be in accordance with local regulations.



Coolants (HCFK or HFKs) fall within the Kyoto protocol. (See annex)



For materials used in the construction of the refrigerated service cabinets see Chapter 9 'Technical specifications'.

Coolant	Heating factor
R22	1500
R134a	1300
R404a	3260
R 507	3300
R407a	1770
R407c	1520
Natural coolant	
R744	1
R290	2

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## 8 Malfunctions

 This list was drawn up for malfunctions with the assumption that the refrigerated service cabinet had functioned normally up to the moment that the malfunction occurred.

### General malfunction

 If nothing functions, check the power supply:  
Check the circuit breakers in the circuit breaker box and in particular the group of circuit breakers dedicated to the refrigerated service cabinet.

 Circuit breaker is on/is intact  
Check the residual current device.

 Residual current device on

 Contact your refrigeration contractor if you are unable to resolve the problem.

### Partial malfunction

 If the refrigerated service cabinet only functions partially and you cannot repair this by switching the appliance on and off, immediately contact your refrigeration contractor.

### Evaporative cooler partially elevated

Set the control of the refrigerated service cabinet to manual defrost (see Chapter 4 'Control').

If this is not possible, switch the refrigerated service cabinet off for a few hours.

 Evaporative cooler completely frost-free

 Remove the goods from the refrigerated service cabinet when switched off because the desired cooling temperature in this situation cannot be guaranteed.

 Hire a qualified contractor if the malfunctions and/or problems continue.

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## 9 Technical specifications

<p><b>Display case technical specifications</b></p> <p>Housing</p> <p>Countertop:</p> <p>Evaporative cooler:</p> <p>Lower/transport girders:</p> <p>Feet:</p> <p>Interior:</p> <p>Control/electricity:</p>	<p>Polyurethane foamed sandwich with external PVC laminated steel plate or RVS AFP housing and internal RVS plate.</p> <p>In accordance with the specifications wood with synthetic resin plate or RVS covering.</p> <p>Pre-painted copper/aluminium laminated block in coated steel housing.</p> <p>Steel with a cataphoresis coating and galvanized steel support systems.</p> <p>Galvanized steel/plastic adjustable feet</p> <p>RVS compartment frames with polypropylene crates</p> <p>According to specifications</p>
<p><b>Electrical specifications</b></p> <p>Connections:</p>	<p>230 VAC – 50 Hz, max. 16 A.</p> <p>The connection boxes have the necessary stickers for the purpose of the connection.</p>
<p> Technical specifications are displayed on the type plate, and are also available on the datasheet which is available by your Smeva dealer upon request.</p> <p> The electrical diagram and the manual for the thermostat control are located in the central switch box.</p>	