

BROMIC[®]

REFRIGERATION

OPERATING INSTRUCTION FOR **UPRIGHT BOTTLE COOLER**



USS 60 DTKL



USS 95 DTKL



USS 100 DIKL



USS 190 DIKL



USS 220 DTKL



USS 300 DTKL



USS 374 DTKL



USS 440 DTKL



USS 690 DTKL



USS 748 DIKL



USS 980 DIKL



USS 1000 DIKL



USS 1200 DIKL

Dear customer

Please be sure to read this operating manual carefully before putting your new refrigerated cabinet into use. The manual contains important notes on safety and proper installation, use and maintenance of the plug-in refrigerated cabinets.

Please keep the manual ready for reference and hand it over to any future new owner of the cabinets.

Make sure the manual is read by all staff who may work with the merchandiser and that they understand and observe the contents

Should you or your staff be unable to understand any instruction in this manual, please contact your Service Organization,



We would point out that the refrigerated cabinet is occasionally referred to on the following pages with options which do not form part of the standard equipment.

How to use this operating manual

The illustrations are numbered separately in each section (e.g. fig. 3).

Reference to an illustration in the text is shown in brackets with the first digit indicating the no. of the figure and the second, separated from the first by a hyphen, indicating the position in that figure.

Example: (4-2) means fig. 4, position 2.

Important information is marked by pictograms:



indicates working and operating procedures which must be strictly observed to rule out any risk to people.



indicates working and operating procedures which must be strictly observed to avoid any damage to or destruction of the cabinet.



indicates useful information and recommendations for operation.

Note for delivery



On arrival, first inspect the refrigerated cabinet for any damage sustained in transit. All such damage must be reported immediately to the your Service Organization.

Contents

Section	Title	Page
1	Proper use	3
2	Safety regulations	3
3	Installation	4
3.1	Selecting the place of installation	4
3.2	Stand-alone installation	5
3.3	Hanging instructions (optional)	6
3.4	Siting the cabinet	7
3.5	Installation procedure	7
3.6	Requirements for electrical connection	8
4	Starting	9
4.1	Measures prior to starting	9
4.2	Setting into operation	9
5	Setting the storage temperature	10
5.1	Information on the product temperature	10
5.2	Setting the temperature set point	10
6	Product loading and pricing	10
6.1	Loading the cabinet with products	10
7	Evaporator defrosting	11
8	Cleaning	11
8.1	Cleaning the outer casing	11
8.2	Cleaning the internal surfaces	12
9	Maintenance	13
9.1	Cleaning the condenser	13
10	Shut down	14
11	Troubleshooting	15
12	Environment protection and disposal notes	16
13	Regulations, standards, codes	16
14	Specifications	17
15	Drawings	18-19

1 Proper use

The refrigerated cabinets USS as described in this operating manual are particularly intended for storing beverages in bottles or cans.

Do not load the refrigerated cabinet with non refrigerated products or use it to cool products. Proper use only means the use as described above, adhering to the specifications on installation, connection, operation and service. Any other use is regarded as being contrary to specification and is prohibited.

2 Safety regulation



The plug-in refrigerated cabinets as described in this operating manual are designed and manufactured in compliance with the international safety regulations. Like any electrical appliance, it must be handled with all due care, particularly with consideration to ensuring electrical safety.



WARNING !

To ensure safe operation in all service conditions, the following safety precautions must be observed:

- The power plug must be connected in regulation matter and as instructed in this manual.
- If the power cable is damaged it has to be replaced by a qualified electrician or a person with experience in electrical engineering through a cable available from the manufacturer or Service Organization.
- Contact your Service Organization if you are in any doubt about electrical connection, working or safety of your plug-in refrigerated cabinet.
- Remove the cabinet from use if it is not working properly or exhibits any damage. Disconnect the power plug, transfer the merchandise to other cabinets or a cold-room and call your local Service Organization.
- When disconnecting the power plug, always pull on the plug itself and never the cable.
- Never detach any cover except where specifically instructed in this manual. Doing so might expose live electrical parts.
- If any damage occurs to the power cable, pull the plug to disconnect the cabinet.
- Never use a water hose or high-pressure jet to clean the cabinet.
- All work on electrical equipment must be left to a qualified electrician. Safety first!
- Never connect the cabinet to the power supply if it is damaged (in transit or otherwise). When in doubt, contact your Service Organization or dealer.
- Please pay attention to the maximum load limits when filling the display shelves or compartments with merchandise! See Chapter 15 Specifications!
- Electronic elements may only be replaced by a qualified electrician or person with experience in electrical engineering!
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- -If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard



WARNING !

Only for R600a and R290 refrigerant cabinet

- This Refrigerator contained R600a or R290 flammable refrigerant. Keep clear of obstruction all ventilation

openings in the appliance enclosure or in the structure for building-in (IEC/EN 60335-2-89:2002)

- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer (IEC/EN 60335-2-89:2002)
- Do not damage the refrigerant circuit (IEC/EN 60335-2-89:2002)
- Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer (IEC/EN 60335-2-89:2002)
- Appliances which use flammable insulation blowing gases, instructions shall include information regarding disposal of the appliance (IEC/EN 60335-2-89:2002)
- In order to reduce flammability hazards the installation of this appliance must only be carried out by a suitably qualified person (IEC/EN 60335-2-89/A1:2005)

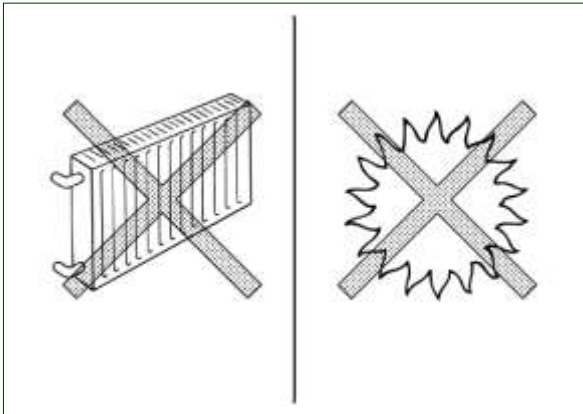


Fig. 1

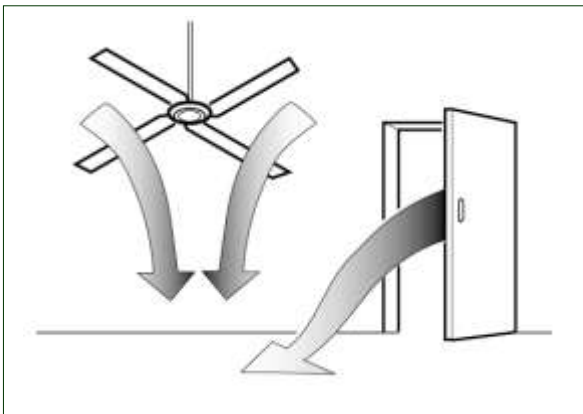


Fig. 2

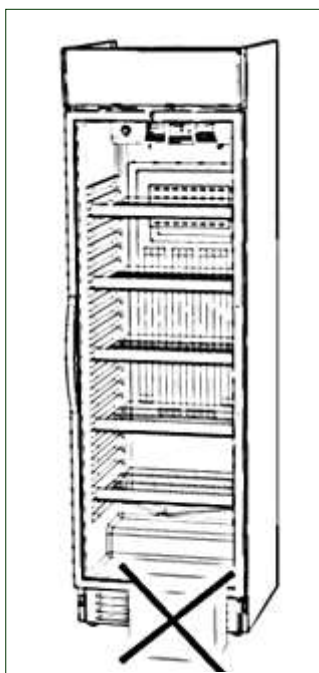


Fig. 3

3. Installation

3.1 Selecting the place of installation

In selecting the place of installation, ensure that the following instructions are observed, this being vital for proper and troublefree working of the cabinet:

- Do not install the cabinet out-doors.
- Do not install the cabinet in the vicinity of heating radiators or other heat sources. Do not install the cabinet where it is exposed to direct sun light (e.g. through windows) (fig. 1).
- Do not install the cabinet where it is exposed to drafts from ventilators or open doors (fig. 2).
- Pay attention to air outlet from air conditioners/ventilators.
- The following temperatures and air humidities apply as upper limits for the place of installation: **30 °C, 55 % rel. humidity**
- Keep the air intake and outlet area around the plinth area of the cabinet clear of cartons and other obstacles (fig. 3).
- When installing the cabinet against a wall, make sure that the refrigeration unit fan is free to take in the ambient air from the room via the plinth area and discharge it through the ventilation slots on the back.
- In the case of free-standing installation in a room, the original accessory rear wall panel must be screwed to the cabinet back.



Adhere to the specified minimum distances!

- When installing several cabinets alongside or behind one another, be sure to observe the specific installation plan.



The drip tray may over-flow in extreme ambient conditions. We thus recommend that wall and floor surfaces in the installation area be chosen so that moisture or water have no damaging effects.

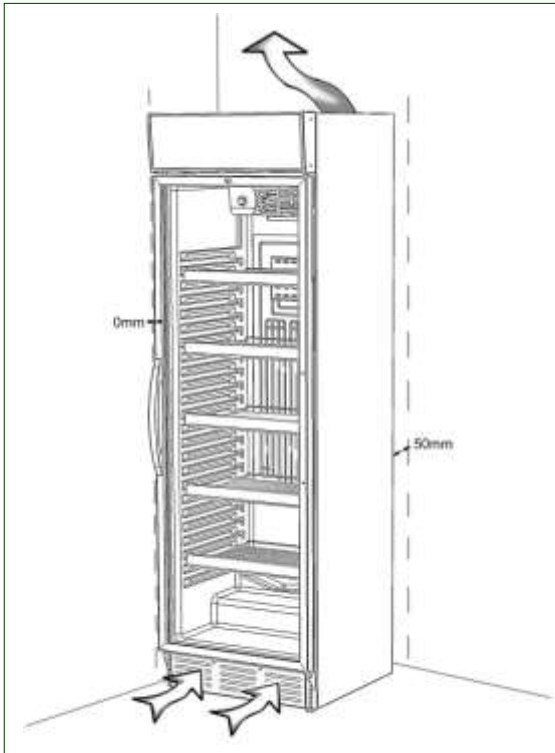


Fig. 4

3 Installation

Installation options are:

- Stand-alone installation against a wall or in a corner (fig. 4)



In all installation options, air exit must be unhindered through the ventilation slots in the cabinet top to exclude accumulation of heat.

Only then is trouble-free operation guaranteed.

3.2 Stand-alone installation

When the cabinet is installed as a stand-alone unit against a wall, a min. distance of 50 mm must be maintained between cabinet back and room wall to ensure free air exit on the cabinet back. When the cabinet is installed as a stand-alone unit in a corner, no minimum distance between endwall and room wall is required. USS95xxxx have distance elements on the rear ex works (see fig. 5, 6).

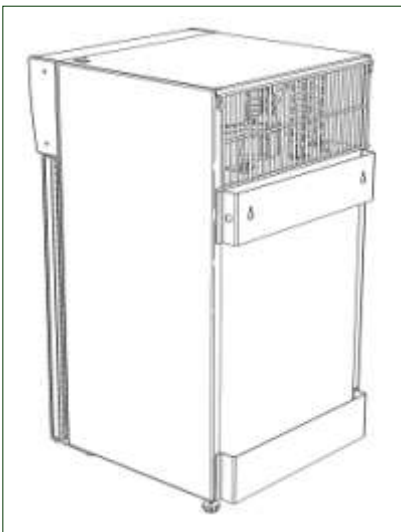


Fig. 5

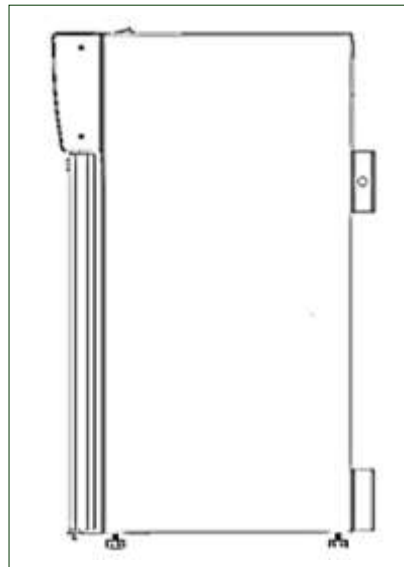


Fig. 6

3 Installation

3.3 Hanging instructions

	A	max yüklem miktarı max loading limit
USS95 DTKL	360	30 Kg
USS60 DTKL	345	20 Kg.

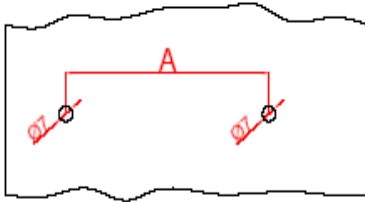


Figure 1

Drill 2 holes with the diameter of 7 mm and depth of 40 mm to a surface which you are confident of its solidity according to your product on the A axis.

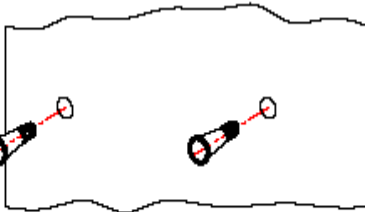


Figure 2

Into the holes nail 8 mm wall plugs on firmly.

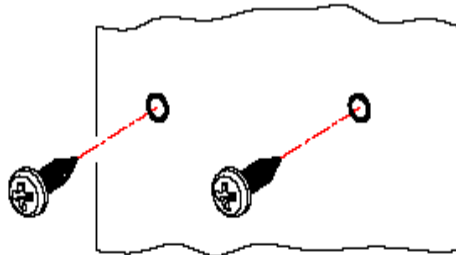


Figure 3

To the wall plugs fix 2 pieces of 4,8*38 mm YSB DIN NO:7981 screws.

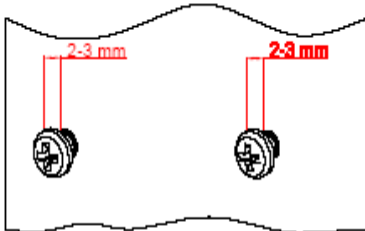


Figure 4

In order the hanger metal plates to fit onto the screws; it is needed to arrange a space of 2-3 mm between the wall plug and the screw head.

Note: Leaving the screw extended from the wall plug may cause the cooler fall.

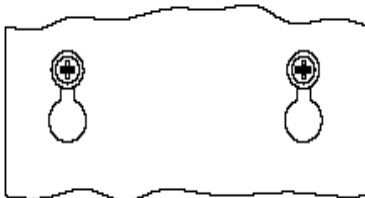


Figure 5

Be sure that the slot hole on the hanger metal plates fit perfectly to the screw .You can axis the slot hole to the screw when hanging the cooler from the hole on the side of the metal plate.

3 Installation

3.4 Siting the cabinet

The refrigerated cabinet should best be sited whilst still packed to avoid damages.



If the refrigerated cabinet cannot be sited whilst still packed because of narrow doors the packaging and transport base should be removed beforehand.

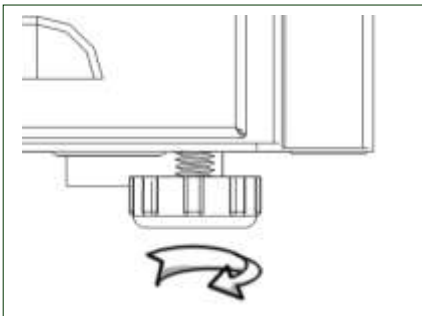


Fig. 7

3 Installation

3.5 Installation procedure

- Remove packaging and transport guards.



When lifting please consider the weight of the cabinet (see Specifications).

- Mount accessories as described in the specific mounting instructions.



Only use original accessories to avoid possible damage to the cabinet.

- Install cabinet at the desired location.



Observe specifications on the desired installation form.

- Perform horizontal alignment of the refrigerated cabinet on the sides and ends using a water level. If necessary, correct height alignment per hand at the leveller feet (see fig. 7):

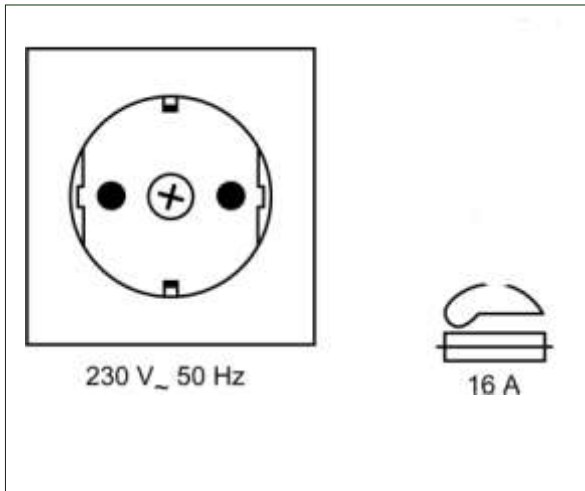


Fig. 9

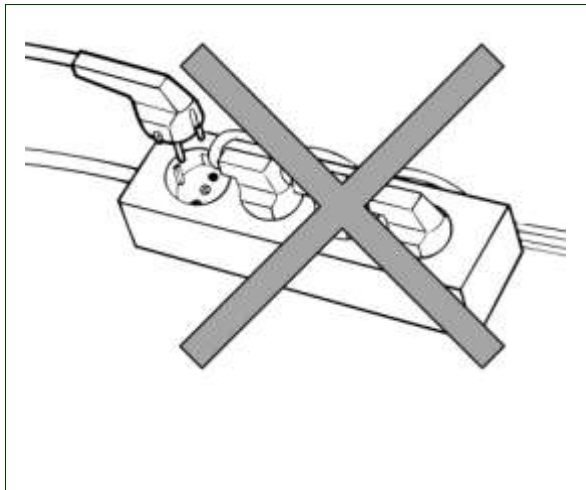


Fig. 10

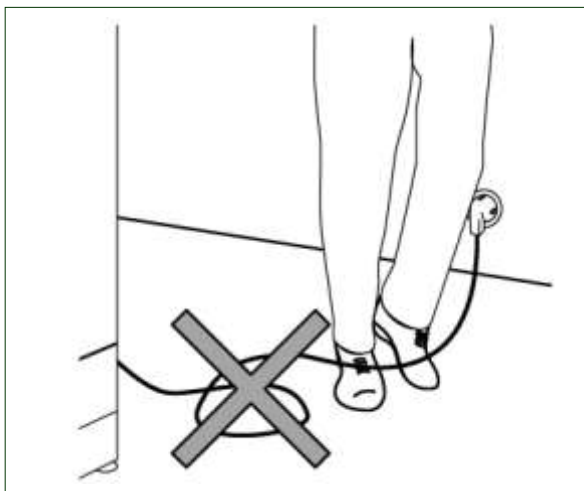


Fig. 11

3 Installation

3.6 Requirements for electrical connection

The cabinet is connected by inserting the power plug in a socket (fig. 9).



The cabinet must not be plugged into a multiple outlet power strip (see fig. 10).



The cabinet has no ON/ OFF switch, which is why we recommend provision of a remote load-break switch. The remote switch must disconnect all poles of the cabinet from the mains, guarantee a contact opening width of at least 3 mm and must be able to be secured against accidental reactivation. Please ask your electrician.

The socket employed must be firmly installed, properly earthed and separately fuse-protected by a 16A-circuit breaker, type C.

Supply voltage and frequency of the socket must be in accordance with the data shown on the type plate of the cabinet. Therefore, the cross-section of the wires must be increased, if necessary, for long wires to the socket. The local utility company's regulations on the power connection (e.g. earth-fault protection, additional equipotential bonding, remote control switch etc.) must be observed. If in doubt, consult a qualified electrician



Run the power cables so that they are protected from risk of damage and there is no risk of tripping (see fig. 11).



The power cable may not come into contact with parts over 70 °C.

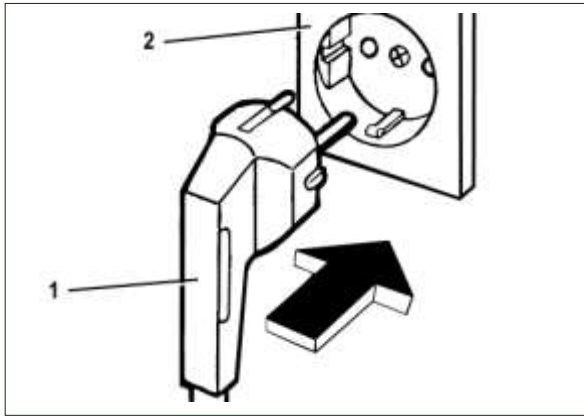


Fig. 1

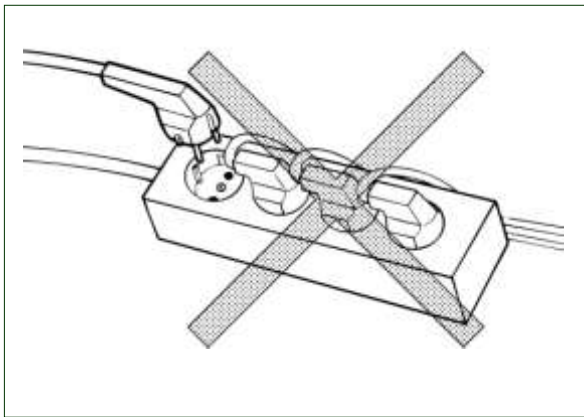


Fig. 2

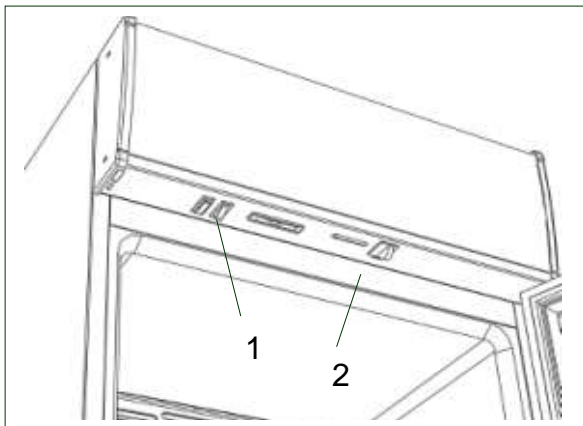




Fig. 3

4 Starting


4.1 Measures prior to starting

 *If the cabinet has been sharply tilted while being sited or for mounting of accessories **it must be left to stand for at least three hours** before being started to allow the lubricating oil to settle in the compressor! Failure to do so can cause total destruction of the compressor refrigerating system.*

4.2 Setting into operation

 *Start the cabinet only if it has been installed as described.*

- Plug power plug (1-1) in socket (1-2).

 *When selecting the socket, observe the requirements stated in section 4.6. The cabinet must not be plugged into a multiple-outlet power strip (see fig. 2).*

- Switch on remote control switch if provided.

Starting is signalled by the low running noise of fans and refrigeration systems. The fan is stopped by switch (3-2) when door is opened.

- Switch on cabinet lighting with switch (3-1) and (4-1) on the underside of the display superstructure.

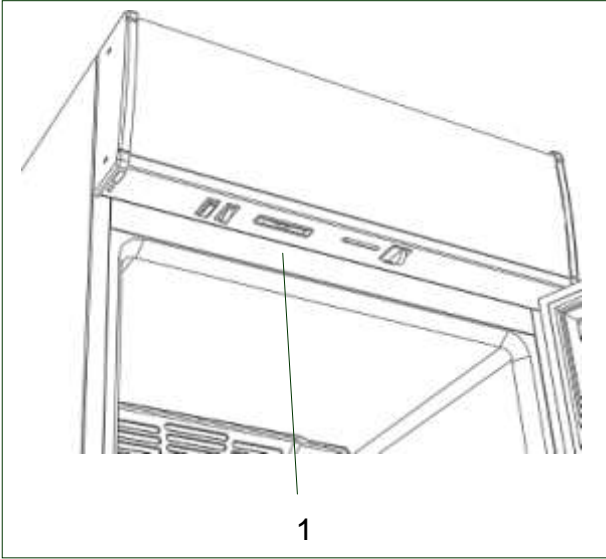


Fig. 1

5 Setting the storage temperature

5.1 Information on the product temperature

A precisely defined product temperature is stipulated for the storage of each product group in refrigerated cabinets by the legislative bodies in EU states.

This temperature range is shown on the digital thermometer.

(If the thermostat is electronic please see attached document.)

5.2 Setting the temperature set point

The internal temperature can be regulated only with thermostat. Fig 2

Pos 1 is maximum high temperature

Pos 4 is best position for products

Pos 7 is minimum low temperature

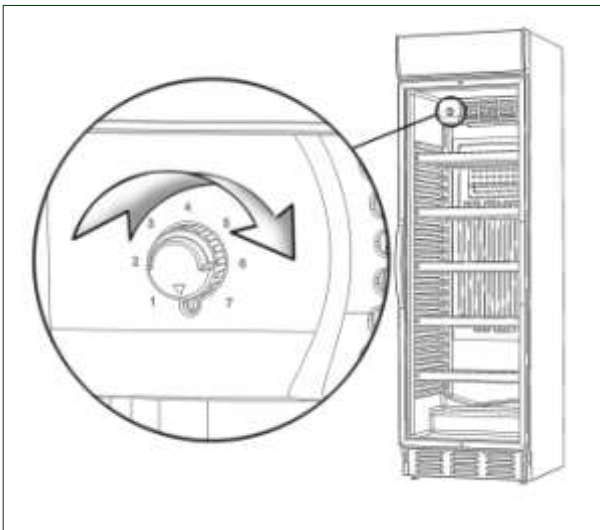


Fig.2

6 Product Loading

6.1 Loading the cabinet with products



Reaching the prescribed storage temperature following the start of operation depends on the ambient temperature.

Load the display compartment with the corresponding products.



Ensure that a free circulation of air is possible between the products and the display rack above them.

7 Evaporator defrosting

Defrosting of the ice and frost deposits that form on the evaporator and evaporation of the drip water that forms during defrosting is controlled by the temperature controller and carried out automatically.



During automatic defrosting, the temperature in the display compartment may rise slightly.

Defrost frequency as well as duration and time are factory-set. Defrosting is carried out automatically during the day. This is why no intervention is necessary in the cabinet. Defrost water is collected in a tray above the compressor. The defrost water that forms is automatically evaporated via the waste heat of the compressors. The defrost water tray should be cleaned at intervals.

8 Cleaning



Turn off power supply to the cabinet by disconnecting the power plug before cleaning. When a remote control switch is provided, this must be protected (e.g. by lock) against any unauthorised reswitching-in.



Wear safety gloves when cleaning and servicing the device (risk of injuries).



Do not use any aggressive or abrasive cleaning agents. Never use a water hose or a high-pressure jet to clean the cabinet.

Cleaning the outer casing

- Wipe the outer casing with a cotton cloth moistened with lukewarm water.

8.2 Cleaning the internal surfaces

- Remove the merchandise from the display compartment and transfer it to another storage place.



Unplug power plug.



Do not start cleaning before the internal surfaces have risen to near room temperature.



Wear safety gloves when cleaning and servicing the device (risk of injuries).

- Take accessories out of the display compartment.
- Moisten cotton cloth with luke-warm water and a little detergent. Clean display compartment and display racks.
- Carefully dry display compartment with a dry cotton cloth.
- Carefully dry all cleaned surfaces with a dry cotton cloth.



After cleaning, no humidity must remain in the display compartment.

- Replace return air grille in reverse order and screw in again. Restart cabinet.



The cabinet can be reloaded with refrigerated merchandise approx. 1...2 hours after putting into operation. Observe the instructions in section 7.

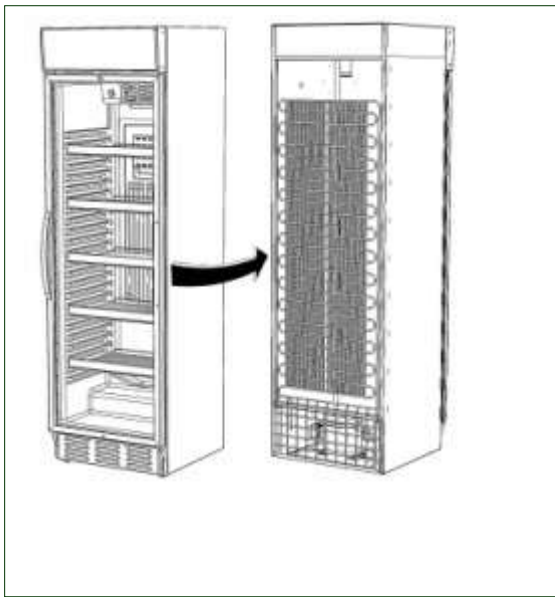


Fig. 5:

9 Maintenance



Turn off power supply to the cabinet by disconnecting the power plug before starting any maintenance on the cabinet. When a remote control switch is provided, it must be protected (e.g. by lock) against unauthorised reswitching-in.



Wear safety gloves when cleaning and servicing the device (risk of injuries).

9.1 Cleaning the condenser fins

The refrigerated cabinet normally requires no maintenance except for cleaning the condenser fins twice or three times a year.

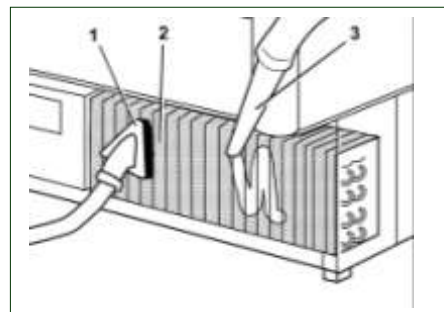
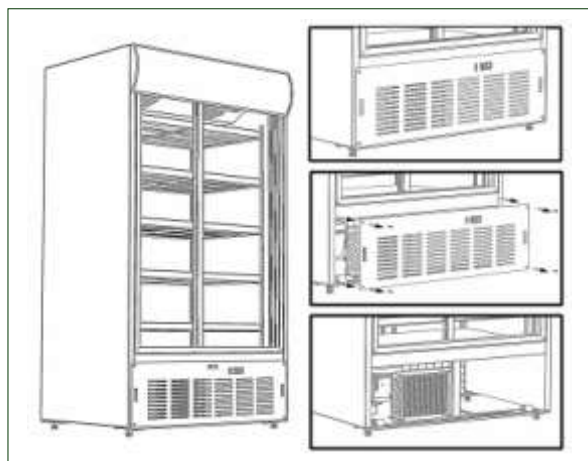
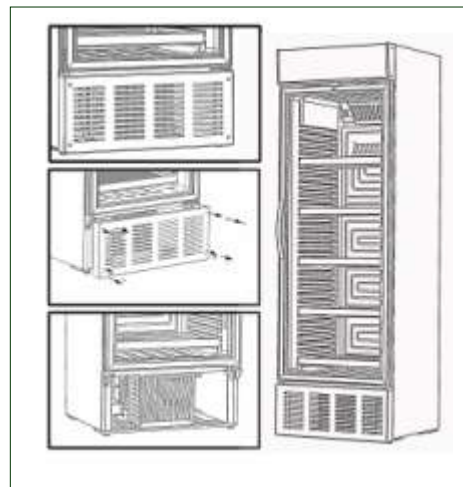
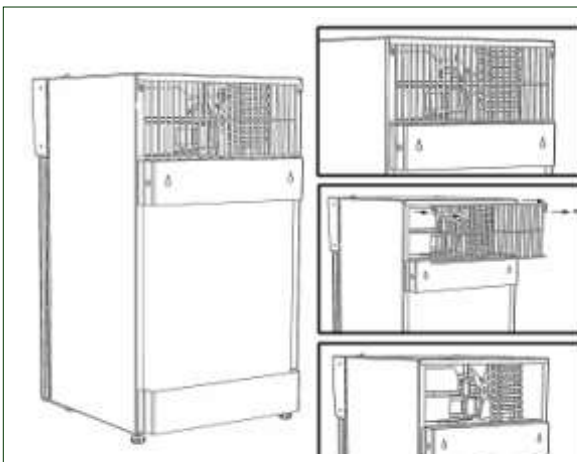
- Disconnect cabinet as described above (see section 11).



The condenser only needs cleaning when a layer of dust, fluff and the like begins to build up between the fins over the full width.



Regular cleaning of the condenser is important to saving power and avoiding unnecessary servicing.



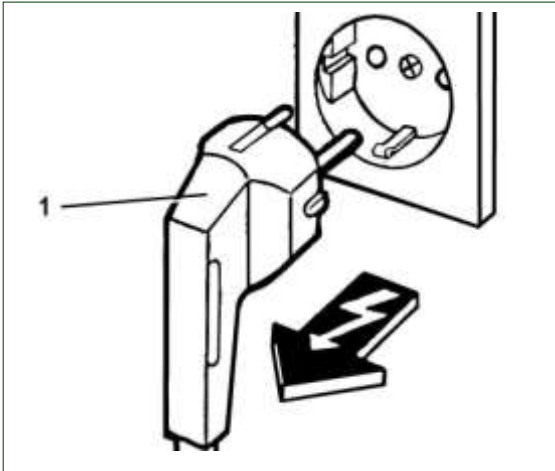


Fig. 1

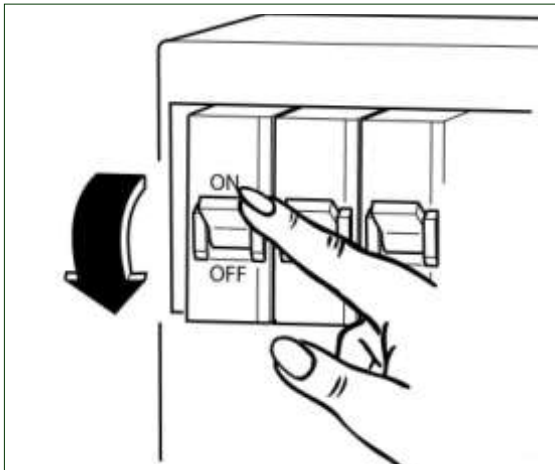


Fig. 2

10 Shut down

- Remove the merchandise from the display compartment and transfer it to another storing place.
- Unplug power plug or switch off remote control switch (fig. 1-2), if provided.

If the cabinet is to be shut down for any length of time, proceed as follows.

- Clean cabinet (see section 9).

When the cabinet is stored in a storage room:

- Cover cabinet with a cotton sheet.



Do not use plastic tarpaulins as these may encourage formation of moisture and odours inside the cabinet.

11 Troubleshooting

Any trouble occurring might be due to a minor problem that you can correct yourself following the instructions be-low. Do not try any further action if the pointers given cannot solve the problem!



Repairs on the cabinet must be made only by qualified specialists. Incompetent repair work can constitute a serious risk to you, your staff and customers, contact your Service Organization or Dealer for any repairs needed.

Trouble	Possible cause	Corrective measure	see
Cabinet does not work (no audible running noise or only fan noise audible).	Automatic evaporator defrosting active or thermostat switched off. Power plug not connected or remote control switch (where provided) switched off. Fuse blown, power plug or socket defective. Condenser fins fouled.	<i>Not required, as cooling will switch on automatically again.</i> - Insert power plug properly or switch remote control switch on. - Contact your electrician or the Service Organization. - Perform maintenance.	Sect. 5 Sect. 10
Storage temperature is too high.	Automatic evaporator defrosting active. Ambient temperature too high or thermostat misadjusted. Distance to wall not adhered. Ventilation slots blocked or covered. Lack of air intake due to obstruction of air intake grille. Condenser fins fouled.	<i>Not required, temporary minor temperature rise during defrosting is normal.</i> - Avoid extreme operating environment, readjust storage temperature. - Maintain prescribed min. distance. - Keep ventilation slots free. - Remove any obstacles in the air intake area. - Perform maintenance.	Sect. 6 Sect. 4 Sect. 4 Sect. 4 Sect. 10
Storage temperature is too low.	Misadjustment	- Adjust storage temperature in small increments.	Sect. 6
Cabinet lighting failed partly or completely.	Lighting not switched on. The lamp concerned or the starter is defective.	- Switch lighting on. - Replace lamp or starter.	Sect. 5 Sect. 10
Heavy condensation in display compartment and on glass door.	Extreme ambient temperature (e.g. rel. air humidity > 65 %, very high summer temperatures).	- Improve operating environment by providing cross ventilation. However, the cabinet must not be exposed to direct draughts.	
Water under or in front of the cabinet.	Automatic defrosting defective or extreme operating environment (e.g. rel. air humidity > 65 %, very high summer temperatures) causes overflow of drip tray in machine compartment.	- Wipe water off. If new water forms within the next 48 hours, please contact your Service Organization.	
Formation of odour in the cabinet.	Spaces under return air grille fouled.	- Clean.	Sect. 9

12 Environment protection and disposal notes

This refrigerated cabinets are designed to high standards of environmental protection and recycling convenience. Cyclopentane, an environmentally friendly foaming agent, has been in use. Cyclopentane is distinguished by zero ozone depletion potential (ODP) and zero global warming potential (GWP). The refrigerant used and contained within an hermetically tight circuit is environmentally friendly R134a and R600a, which does not contain chlorine and has zero ODP.

The device must be disposed of in accordance with applicable regulations. The WEEE regulations must be observed.

In the interest of preventing environmental nuisance and promoting re-use of the high-quality materials employed, used commercial refrigeration equipment must be collected for expert disposal and recycling. Therefore, observe the following disposal regulations:

- The cabinet must not be discarded with regular municipal waste.
- The refrigeration circuit must not be damaged.
- Before discarding the cabinet for disposal, make it unserviceable by disconnecting the power plug and cutting off the power cable.



Consult your local authorities or authorised the dealer for details of collection and disposal facilities.



Children are often unable to recognise the dangers associated with commercial refrigeration equipment. Proper supervision must

be maintained and children must be prevented from playing with discarded refrigerated cabinets.

13 Regulations, standards, codes

The plug-in refrigerated cabinet is intended for commercial use in the food trade and has been designed and manufactured in accordance with the standards governing such use.

In particular, it has been designed and manufactured in compliance with the provisions required under the German Equipment Safety Law (GSG), the VDE Electrical Codes and the provisions of the European EN standard for refrigerated display cabinets.

The refrigeration circuit has been subjected to leak test.



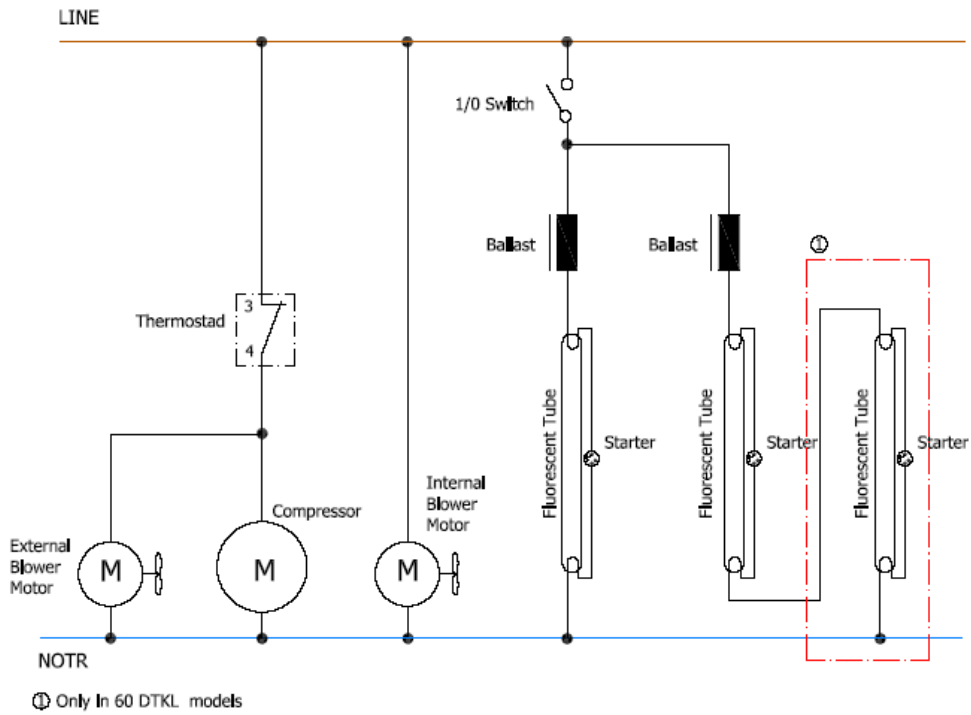
This appliance complies with EC Directive on Machinery 98/37/EC, the EC Directive on Electromagnetic Compatibility 89/336/EEC, and the EC Directive on Low Voltage 73/23/EEC.

14.Specification

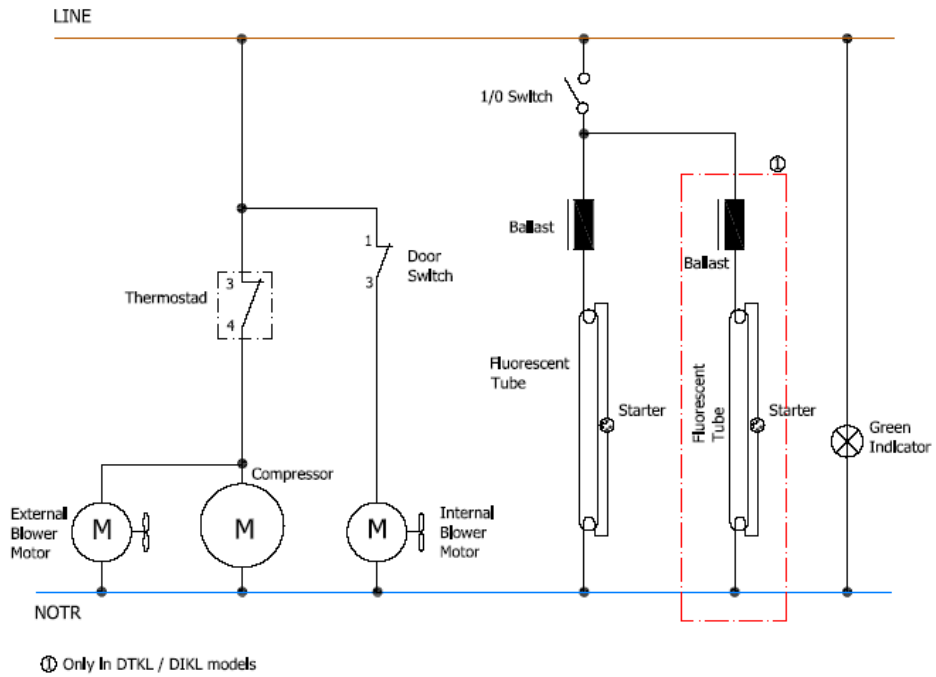
Model	Temp. Range	Voltage (V)	Frequenz (Hz)	Net Vol. (lt)	Gross Vol. (lt)	Width Ext./Ext With pack. (mm)	Depth Ext./Ext With pack. (mm)	Height Ext./Ext With pack. (mm)	Net Weight (kg)	Gross Weight (kg)	Refrig.	Max.load Of shelves (kg)	Electrical fusing * (A)
USS60DTKL	+1 / +10	230	50	45	57	455/530	480/540	720/840	32,5	37	R134a	20	6
USS95DTKL	+1 / +10	230	50	55	84	480/560	515/590	840/960	37,5	43	R134a	20	6
USS95DTKLG	+1 / +10	230	50	55	84	480/561	515/590	840/960	37,5	43	R600a	20	6
USS100DIKL	+1 / +10	230	50	60	100	650/740	405/460	940/1050	45,5	51	R134a	20	6
USS190DTKL	+1 / +10	230	50	110	168	965/1040	538/585	840/960	73	83	R134a	20	6
USS220DTKL	+1 / +10	230	50	190	215	595/680	640/710	1310/1410	56,3	64,4	R134a	35	10
USS220DTKL	+1 / +10	230	50	190	215	595/680	640/710	1450/1550	62,5	71,4	R134a	35	10
USS300DTK	+1 / +10	230	50	260	290	595/680	640/710	1640/1740	70	79,3	R134a	35	16
USS300DTKL	+1 / +10	230	50	260	290	595/680	640/710	1780/1880	74	83,3	R134a	35	16
USS374DTK/DIK	+1 / +10	230	50	345	372	595/680	640/710	1840/1940	75,5	84,9	R134a	35	16
USS374DTKLG	+1 / +10	230	50	345	372	595/680	640/710	1980/2080	80,4	90,1	R600a	35	16
USS374DTKL/DIKL	+1 / +10	230	50	345	372	595/680	640/710	1980/2080	80,4	90,1	R134a	35	16
USS748DIKL	+1 / +10	230	50	345x2	372x2	1190/1270	640/720	1980/2080	160,8	175,1	R134a	35	16
USS440DTKL	+1 / +10	230	50	374	438	680/735	650/720	2107/2207	97	105	R134a	55	16
USS690DTKL	+1 / +10	230	50	577	655	780/855	705/780	2080/2270	123	136	R134a	55	16
USS980DIKL/M/G	+1 / +10	230	50	710	875	1110/1185	825/925	1995/2155	175	195	R134a	55	25
USS1000DIKL/M/G	+1 / +10	230	50	631	780	1000/1040	740/780	2000/2160	162	175	R134a	75	25
USS1000DIKL/M/G	+1 / +10	230	50	631	780	1000/1040	740/780	2000/2160	162	175	R600a	75	25
USS1200DIKL	+1 / +10	230	50	770	960	1200/1240	740/780	2000/2160	174	188,5	R134a	85	25

*For more details see type plate

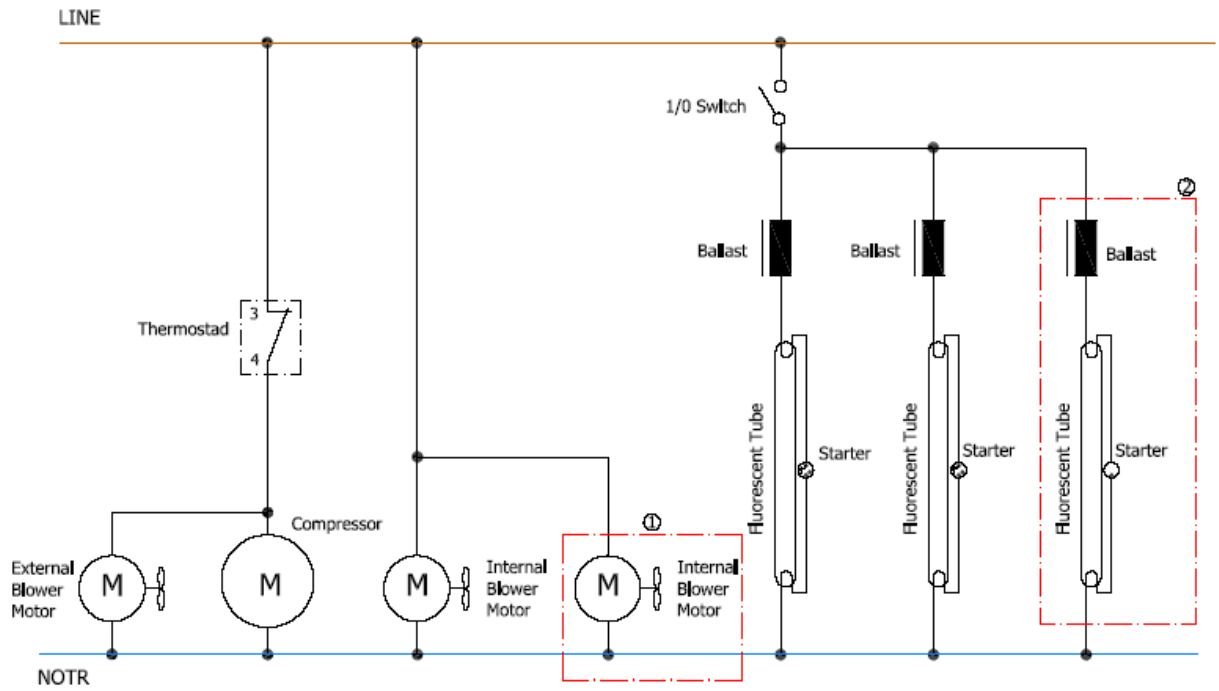
15 Drawings



USS 60 / 95 / 100 DTKL Electrical Drawing



USS 220 / 300 / 374 / 440 / 690 XXXX Electrical Drawing



- ① Only In 980 / 1200 models
- ② Only In DIKL models

USS 980 / 1000 / 1200 XXXX Electrical Drawing

BROMIC[®]
REFRIGERATION
Code No: 15.12.0007.05