

CE

CRONOS A3 - A0



USER MANUAL

READ CAREFULLY AND KEEP

GB

Cod.30438370

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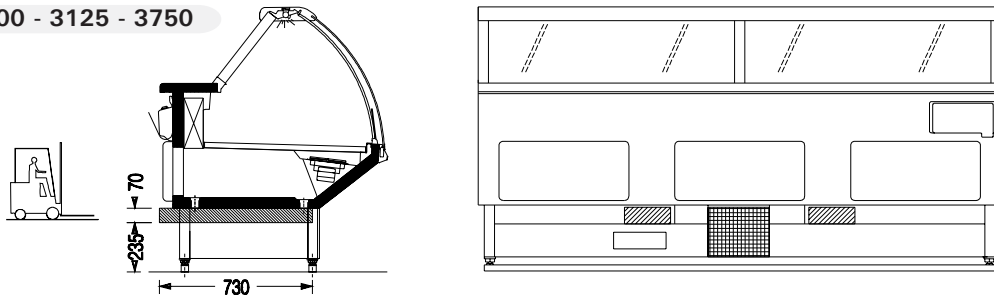


CRONOS A3 - A0

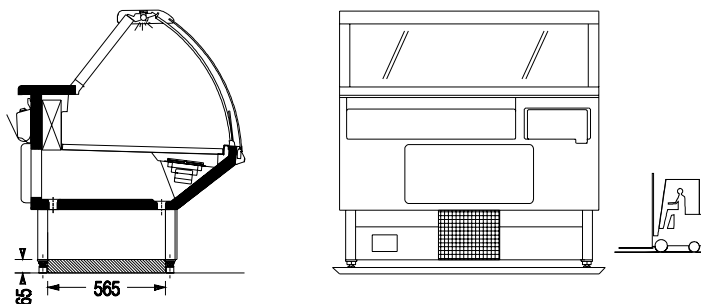
INFORMATION FOR THE MOVING AND HANDLING THE CABINETS

The shaded part in the figure (▨) and the symbol  labeled on back side of unit, indicates the gripping area for lifting the unit with a fork-lift. The cabinet of: 1875, 2500, 3125 and 3750 mm can be handled by inserting fork-lift prongs for a maximum depth of 730 mm from the back shelf. The cabinet of: 1250 mm, unit not having enough space at the back for inserting the fork-lift prongs, must be lifted on pallet. If the unit is supplied on a pallet or packing cage (both optional), handling is done by using these for lifting.

1875 - 2500 - 3125 - 3750



1250



WEIGHTH OF THE UNITS

CRONOS	X A3	A0
Unit 1250 mm	160 kg	-
Unit 1875 mm	215 kg	-
Unit 2500 mm	260 kg	-
Unit 3125 mm	315 kg	-
Unit 3750 mm	370 kg	-
Unit AA90°mm	-	185 kg

NOTE: ALL THE MEASUREMENTS ARE QUOTED IN mm WITHOUT SIDES FITTED TO THE CABINETS.

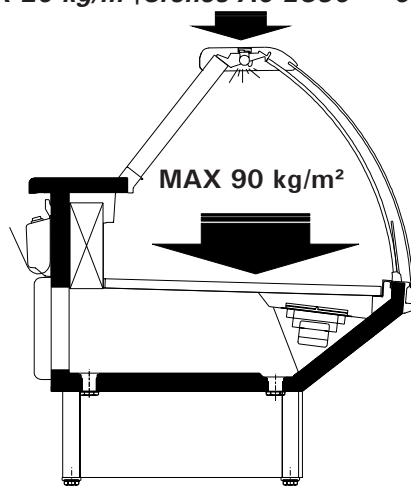
POSITIONING THE CABINET

For transport and handling, the cabinet is supplied mounted on packing rods which are fitted to the feet of the cabinet. Once the cabinet is in the final position within the store, remove the packing rods by unscrewing the screws which fix the clips to the feet.

SHELF AND DISPLAY PANS

The maximum loads which can be supported are: on the middle shelf (optional) 8 kg/m ; for glass cover 20 kg/m, for display pans 90kg/m².

MAX 20 kg/m (Cronos A0 EC90° = 0 kg/m)



GENERAL INFORMATION

CRONOS A3 - CRONOS S A3 - CRONOS X A3 - CRONOS X S A3

Plug-in Cabinet with forced refrigerated air circulation for the displaying and the merchandising of meats, poultry, cold cuts, dairy products and delicatessen. The unit is fully multiplexable and is also available with end walls (50 mm) or with a multiplexing kit.

Included : electronic control panel with automatic defrost, stainless steel display pans, paper holder, front bumper, refrigerated back storage accessed by doors, ecoated evaporator with thermostatic valve, digital thermometer. Supplied with superstructure not installed.

Available in the following models :

CRONOS A3 - refrigerated serve-over cabinet with lift-up glasses, without integral unit.

CRONOS S A3 - refrigerated self-service cabinet with lift-up glasses, without integral unit.

CRONOS X A3 - refrigerated serve-over cabinet with lift-up glasses, with integral unit.

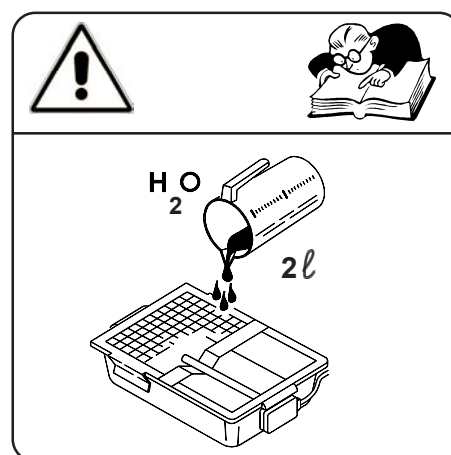
CRONOS X S A3 - refrigerated self-service cabinet with lift-up glasses, with integral unit.

!! WARNING !!

The standard cabinet is supplied with a single extractable tank for the collection of both defrost water and cleaning water.

As an optional feature we are able to fit a second automatic re-evaporation tank for the waste water. For removal of this additional tank, it will be necessary to remove the back panel of the cabinet.

BEFORE ELECTRICAL CONNECTION OF THE TANK FOR AUTOMATIC RE-EVAPORATION OF THE WASTE WATER (IF INSTALLED), IT IS NECESSARY TO CAREFULLY FILL THE TANK WITH 2 LITRES OF WATER.



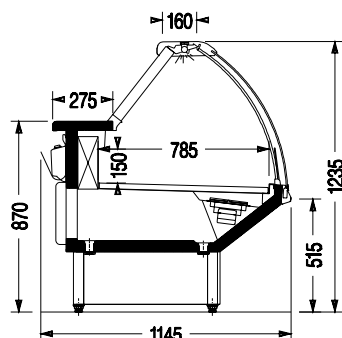
CRONOS A0

Not refrigerated serve-over cabinet for the displaying and the merchandising of not perishable products. The cabinet is multiplexable with multiplexing kit.

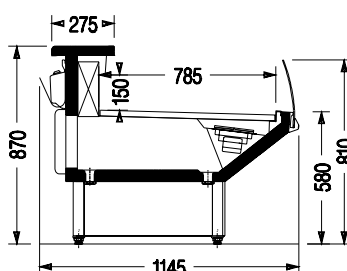
Included : 1 row of top canopy lighting with safety protection, stainless steel display pans, storage with doors, switch for lighting, paper holder, front bumper. Supplied with superstructure not installed.

For the version A0 is available also outside corner 90° (EC90°).

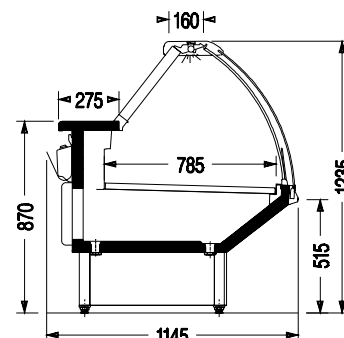
**Cronos A3
Cronos X A3**



**Cronos S A3
Cronos X S A3**



Cronos A0



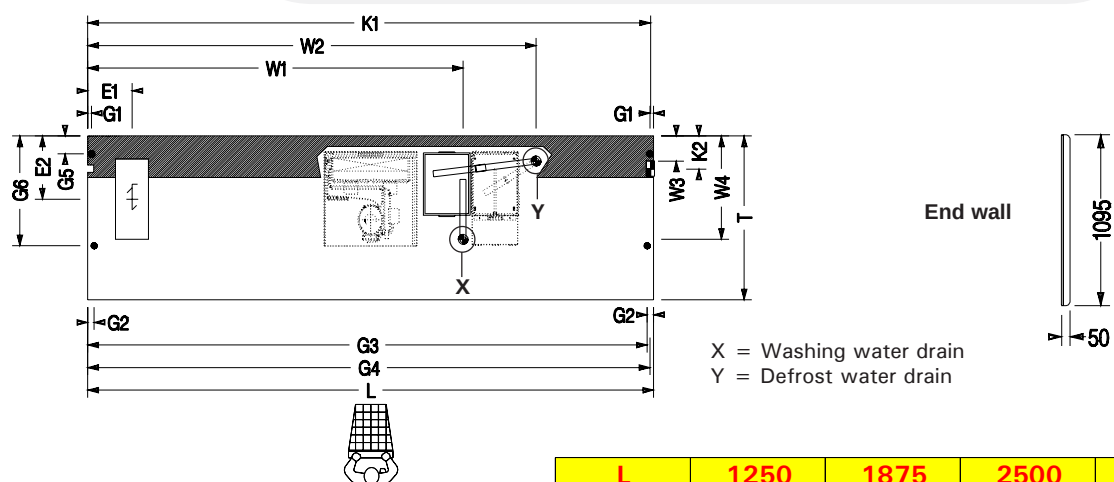
NOISE LEVEL OF THE CABINETS

The only sound emitted by the cabinet is that of the ventilator blades, which are necessary for cooling the cabinet and eliminating condensation from the glass. The level registered by us, in accordance with the established conditions set down by the EU Directive n. 89/392/CEE, is 55 ÷ 57 dBA.

POSITIONS FOR WATER DRAIN, EVAPORATOR PIPES, ELECTRIC CONTROL PANEL ON CABINETS

CRONOS X A3 - CRONOS A3 - CRONOS X S A3 - CRONOS S A3

1 : 50



WARNING!

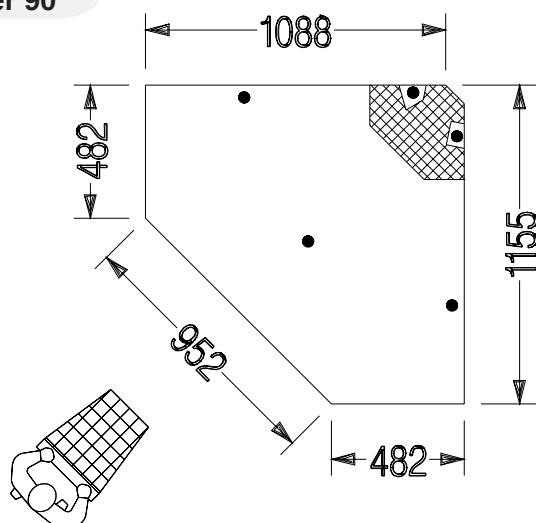
The measurements are expressed in mm, taking the cabinet without end walls.

G	●	Position des pieds
W	⊙	Sortie eau
K	■	Sortie tubes évaporateur
E	⌈	Tableau de commande pilote

L	1250	1875	2500	3125	3750
T	1088	1088	1088	1088	1088
G1	25	25	25	25	25
G2	40	40	40	40	40
G3	1207	1832	2457	3082	3707
G4	1224	1849	2474	3099	3724
G5	120	120	120	120	120
G6	730	730	730	730	730
W1	972	1483	1795	2108	2488
W2	1055	1748	1780	2333	2970
W3	168	168	168	168	168
W4	688	688	688	688	688
K1	1229	1854	2479	3104	3729
K2	188	188	188	188	188
E1	195	295	295	295	295
E2	420	420	420	420	420

CRONOS A0

EC90° Outside corner 90°



TECHNICAL DATA FOR UNIT INSTALLATION

The machine rating plate can be found near the electric control panel; in case of serve-over cabinets, otherwise for wall cabinets and island-site cases it is placed inside the belly section. It contains all the information necessary for identifying the unit and all the technical specifications which must be referred to for its correct installation and consequent good operation.

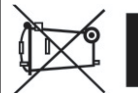
Here below is an explanation on how to read the plate to obtain the necessary information:

MADE IN ITALY				 CE RoHS										
MODELLO:														
MATRICOLA:			FLUIDO FRIGORIG.: Kg											
CODICE: CONF. VAR.:			LAMINAZIONE:											
ANNO DI COSTRUZIONE:			CAPACITA' CELLA: L											
CLASSE CLIMAT. AMBIENTE EN 441:			SUPERFICIE ESPOSITIVA: M ²											
CLASSE TEMPER. MOBILE EN 441:			MAX PRESS. FUNZIONAMENTO: bar											
POTENZA NOMINALE ASS.: W			CORRENTE NOMINALE: A											
POTENZA ASS. SBRINAMENTO: W			CORRENTE SPUNTO: A											
ALIMENTAZIONE V PH Hz			UNITA' MOD:											
ALTRI ASS:			 <table border="1"> <tr> <td>W</td> <td>V</td> <td>A</td> </tr> <tr> <td>W</td> <td>V</td> <td>A</td> </tr> <tr> <td>W</td> <td>V</td> <td>A</td> </tr> </table>			W	V	A	W	V	A	W	V	A
W	V	A												
W	V	A												
W	V	A												

GERÄTETYP:				 CE RoHS																
MADE IN ITALY																				
GERÄTE-NR.:			KÄLTEMITTEL: Kg																	
BAUJAHR:			NUTZINHALT NACH DIN: L																	
KLIMAKLASSE NACH DIN8954:			NUTZFLACHE NACH DIN: M ²																	
FEUCHTIGKEITSSCHUTZ:			ZUL.BETRIEBSÜBERDRUCK: bar																	
ERZEUGNIS - NR.			DICHTHEIT GEPRÜFT																	
NENNSPANNUNG: V PH Hz			NENNAUFNAHME: W																	
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W	V	A																		
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MADE IN ITALY				 CE RoHS										
MODELE:														
NUMERO DE SERIE:			REFRIGERANT: Kg											
CODE: CONF. SEZ.:			CT OU TXV:											
SEM. ANNEE DE FAB.:			V. RESERVE REFRIGEREE: L											
CLASSE CLIMAT. AMBIANTE EN 441:			SURFACE D'EXPOSITION: M ²											
CLASSE TEMPER. MEUBLE EN 441:			PRESSION MAXIMALE: bar											
PUISSANCE NOMINALES ABS.: W			COURANT NOMINAL ABS.: A											
PUISSANCE ABS. DU DEGIVRAGE W			COURANT DEP. COMPRESSEUR: A											
TENSION: V PH Hz			MODELE DE UNITE:											
ABS. ACC.:			 <table border="1"> <tr> <td>W</td> <td>V</td> <td>A</td> </tr> <tr> <td>W</td> <td>V</td> <td>A</td> </tr> <tr> <td>W</td> <td>V</td> <td>A</td> </tr> </table>			W	V	A	W	V	A	W	V	A
W	V	A												
W	V	A												
W	V	A												

The cabinet is subject to WEEE European Directive 2002/96/EC (only for plug-in cabinets).



The cabinet is compliant with RoHS European Directive 2002/95/EC (only for plug-in cabinets).

RoHS

- A** Model of unit. Besides the name there are also the length in centimetres and the mark identifying the version.
- B** Serial number of the cabinet (**WHEN YOU REQUIRE A SPARE PARTS, YOU MUST ALWAYS INDICATE TOGETHER WITH THE PRODUCT NUMBER**).
- C** Code for identifying the year of manufacture.

YEAR	ABB.	YEAR	ABB.	YEAR	ABB.	YEAR	ABB.	YEAR	ABB.	YEAR	ABB.	YEAR	ABB.
1993	CG	1997	CA	2001	DE	2005	DI	2009	DC	2013	EG	2017	EA
1994	CH	1998	CB	2002	DF	2006	DK	2010	ED	2014	EH	2018	EB
1995	CI	1999	CC	2003	DG	2007	DA	2011	EE	2015	EI	2019	EC
1996	CK	2000	DD	2004	DH	2008	DB	2012	EF	2016	EK		

- D** Climatic class. It is a number that indicates in what environmental conditions the unit functions correctly.
- The number takes on the following meanings:
- 3** - the unit is suitable for operating with ambient temperature of 25°C and 60% relative humidity.
- 4** - the unit is suitable for operating with ambient temperature of 30°C and 55% relative humidity.
- E** Temperature class of the unit. It is an abbreviation indicating the type of product that can be preserved during display.
- The abbreviation takes on the following meanings:
- L1** - The unit is suitable for the preservation of frozen foods or industrial ice creams.
- M1** - The unit is suitable for the preservation of fresh products among which meat and poultry.
- M2** - The unit is suitable for the preservation of fresh products among which salamis and dairy products.
- H** - The unit is suitable for the preservation of fresh products such as fruit and vegetables.
- S** - The unit is suitable for the preservation of products with a special classification.
- F** Maximum power absorbed by the unit, with full options installed, at its climatic class working conditions.
- G** Electric power absorbed during defrosting of the unit evaporator.
- H** Rated supply voltage, number of phases and frequency the unit is suitable to function as. Before connecting the unit electrically, check that it corresponds with that of the local mains electricity.
- I** Electric power absorbed, rated voltage and current of the defrosting heaters, if provided with the unit.
- J** Electric power absorbed, rated voltage and current of the demisting heaters.
- K** Condensing unit model and/or type of compressor installed.
- L** Type and quantity of refrigerant used in the cooling circuit of the unit.
- M** Indicates if the evaporator is with capillary (CT) or thermostatic valve (TXV).
- N** Net volume of the rear refrigerated storage (if installed).
- P** Refrigerated display area available for displaying the goods.
- Q** Maximum operating pressure inside the cooling circuit of the unit.
- R** Rated electrical power absorbed by the unit in normal operating conditions.
- S** Rated electrical power absorbed by the unit during the compressor starting phase.
- T** Electrical power absorbed, rated voltage and current of the lighting system of the unit.
- U** Electrical power absorbed, rated voltage and current of the unit fans.
- V** Electrical power absorbed, rated voltage and current of the of the condensing unit.
- W** Cabinet level protection against humidity.
- X** -Product number (**WHEN YOU REQUIRE A SPARE PARTS, YOU MUST ALWAYS INDICATE TOGETHER WITH SERIAL NUMBER**);
-configuration number.
- Y** Delayed fuse ampere.
- Z** Net volume usable of the cabinet.
- @** Submitted to leak test.
- #** Electrical power absorbed, rated voltage and current from other accessories electric installed (automatic re-evaporation of defrost water, hot case, automatic overnight curtain etc.).
- A** -Product number (**WHEN YOU REQUIRE A SPARE PARTS, YOU MUST ALWAYS INDICATE TOGETHER WITH SERIAL NUMBER**);
-configuration number;
-section number (indicated the position of multiplexed cabinet, starting from right hand for example A, B, C...).

GENERAL RECOMMENDATIONS FOR USE

POSITIONING THE UNIT

- **!WARNING! The cabinet must be positioned sheltered from sun and bad weather.**
- For unloading and handling of the unit with a fork-lift, refer to the gripping and lifting points indicated in this pamphlet.
- Once the unit has been positioned, remove the packing, including the bars fixed to the legs.
- Check (on the rating plate) that the climatic class of the display case corresponds to that of the environment in which it is to be installed.
- The area where the display case is to be installed must be closed, avoiding contact by direct sunlight and all the other sources of radiation like high-intensity incandescent light-bulbs, cookers and ovens, or radiating bodies like heating system radiators.
- Do not let drafts of over 0.2 m/sec hit the display case, so place it far from doors, windows, air conditioner inlets/outlets.
- For integral unit display cases:
 - a) Check that there is sufficient air exchange in the environment, even when the sales-room is closed.
 - b) Avoid blocking the air inlets to the condenser unit with products or other material placed on and around the edges of the display case and with wall display cases keep it at least 5 centimetres from the wall.
- For remote condenser unit cases, the unit set must avoid atmospheric agents, and the area must not be used for storing material.

Remember that a rise in room temperature or an insufficient quantity of air to the condenser, not only increases energy consumption, but also reduces the technical performance of the case with possible deterioration of the products displayed.
- Place the display case unit in a perfectly horizontal position, adjusting the level, if necessary, by turning the screw feet of the case, and checking with a spirit-level. The unit must be perfectly level to operate correctly and for the correct drainage of the water during defrosting; noisy vibrations of the motor are also avoided.
- For cases with condensation collecting basins, make sure that these, and the drainage pipe, are positioned correctly.
- Before connecting the unit electrically it must be cleaned thoroughly using luke-warm water with neutral detergents and then drying with a soft cloth.

ELECTRICAL CONNECTIONS AND START-UP

- Electricity supply.
- The electrical feeding plugs of accessories (i.e. electrical plugs) **MUST BE CONNECTED TO SOCKETS WITH SEPARATE SAFETY CIRCUIT BREAKER.**
- **BEFORE ELECTRIC CONNECTION OF THE TANK FOR AUTOMATIC RE-EVAPORATION OF THE WATER DISCHARGE (IF FITTED) IT IS NECESSARY TO SLOWLY POOR 2 LITRES OF WATER INSIDE IT. THIS OPERATION IS NOT NECESSARY WITH INOX TANK.**

The frequency and mains electricity supply voltage must correspond to what is on the case rating plate. Check that the supply voltage at the socket is $\pm 10\%$ the rated voltage at the moment the compressor is started up.

Grounding of the case is obligatory.

Fitting an omni-polar power isolator switch with a contact gap of at least 3 mm, upstream of the socket is recommended. This switch is obligatory when the load is over 1000 W or when the case is connected directly without the use of a plug. In case of failure and to avoid having to switch off the whole circuit, it would be advisable to replace the power isolator switch with a high sensitivity differential magneto-thermal cut-out switch.

- Start-up of the display case.
- For global unit cases, check that the power isolator switch is open - in position 0, OFF or green - before plugging in. Plug in and close the switch.

For remote unit cases initial start-up must be done by specialised personnel.

For the adjustment of operation parameters consult the instructions for use on the control panel.

Avoid setting temperatures lower than those corresponding to the category of the case; no extra benefit would derive from it and the evaporator will become blocked.

The best sign of good operation is given by the temperature shown by the thermometer in the case.

The indications supplied by the graduated scales of the thermostats could differ from the reading on the thermometer and therefore should not be retained valid for verifying the good operation of the case.

RECOMMENDATIONS FOR BEST PRESERVING THE PRODUCT

- Product load
- The display cases are suitable for displaying pre-refrigerated products that must come from the warehouses at a temperature close to the ideal preservation temperature. The quality of the goods also depends on how they had been treated before they arrived at the sales point. Frozen products must have a temperature that

is not above -18 °C. Loading products still to be cooled worsens all the operating conditions, with the risk of damaging the goods already on display. So, when products come from the suppliers, they must immediately be put in the display cases or in the cold rooms to avoid excessive loss of cold due to their standing in warm places.

- To have the display case operate properly the product must be set out in such a way that the circulation of cold air is not impeded. So observe the red maximum load line on the display case (—▽—▽—) and avoid placing the product above it. The goods placed above this line are not cooled and could cause the formation of frost on the evaporator, thus worsening the thermal conditions of those products placed correctly. Furthermore avoid blocking the air-intake placed on the front part of the display shelf.
- The drawers and doors of the service cases and the doors of the cabinets must be opened only for the time strictly necessary for loading and unloading the products to avoid excessive loss of cold.
- Keep all meat, even when sectioning, in cold-rooms. When the work goes on for more than two minutes put them back in the cold-store to chill.
- The units are equipped with an automatic daily defrosting system, factory pre-set according to need. In some cases it may still be necessary to carry out manual defrosting by stopping the compressor with the appropriate control. This is necessary when there is a loss or reduction of the cold air flow at the air outlet area. This means that the evaporator is packed with ice and hinders the correct circulation of air.
- For energy saving and a correct keeping of the product, it would be advisable to use covers or roller shutters (optional), when the shop is closed.

CLEANING THE UNIT

- The display case must be cleaned at regular intervals. **Before starting cleaning, unplug the display case from the mains supply.** Do not use water under pressure for washing. Only use luke-warm water with a little non-abrasive detergent, then drying the parts with a soft cloth. The frequency with which cleaning is carried out varies according to the product on display. The maintenance of a display case used for preserving products such as meat, salamis, and dairy products must include at least one weekly cleaning of the loaded area to avoid the development and the accumulation of bacteria. A weekly wash is recommended for the the case inside-bottom especially for units subjected to spilling of liquids or other food residues. Daily cleaning with water and detergent must be done, even in the external areas which surround the display area: this makes the display case more attractive and prevents dirt from forming. Units for frozen food and ice-creams should have the case bottom cleaned at least once a month.
- Cleaning the condenser.
This must be done, in normal conditions of use, at least once a month, using a vacuum cleaner and a brush with hard bristles. It is best to use gloves, seeing that the small space between the fins could cause bruising. A dirty condenser reduces the performance of the motor with a consequent increase in electricity consumption.
- In the units with the condenser collection basin, drain the water daily.

UNIT MAINTENANCE

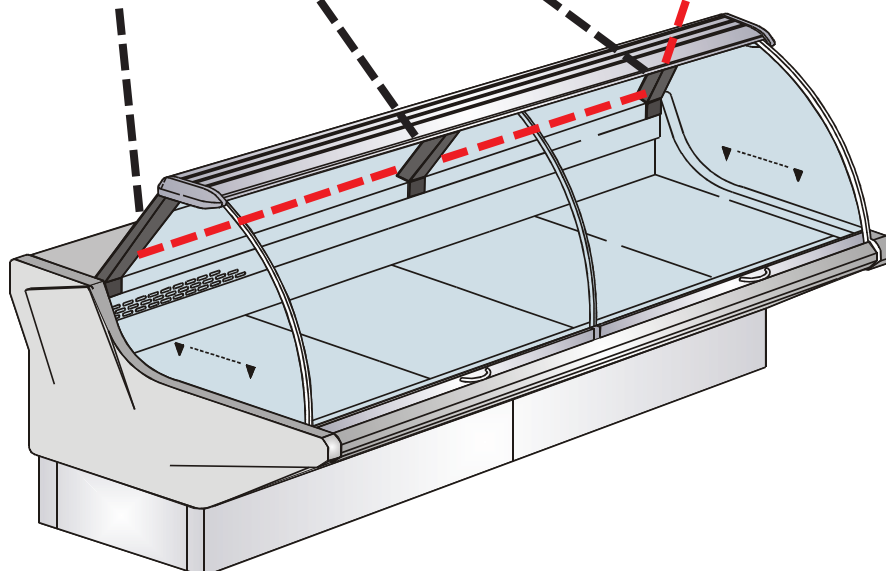
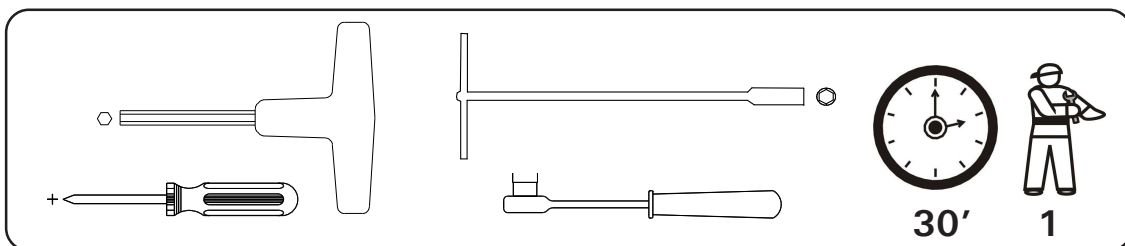
- At regular intervals, at least once a year, **have qualified personnel check** the perfect operation of the system, making sure that there are no coolant leaks and that the state of maintenance of the electrical system is completely safe.
- When replacing burnt-out lamps **unplug the unit or open the power isolator switch** (position 0, OFF or green).
- remove the transparent plastic protection from the lamp;
- take the lamp at the two ends and turn it 90° until a slight click is heard, then remove it being careful not to knock it against anything;
- to fit the new lamp insert it and turn it as above and put back the plastic protection.

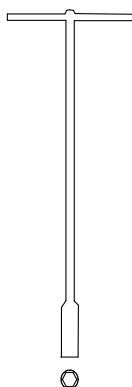
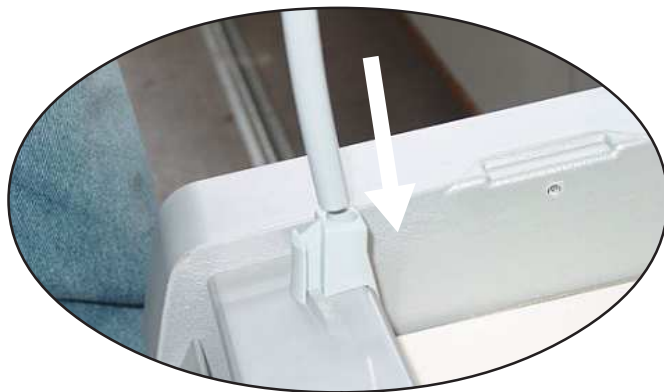
INSTRUCTIONS FOR THE USER

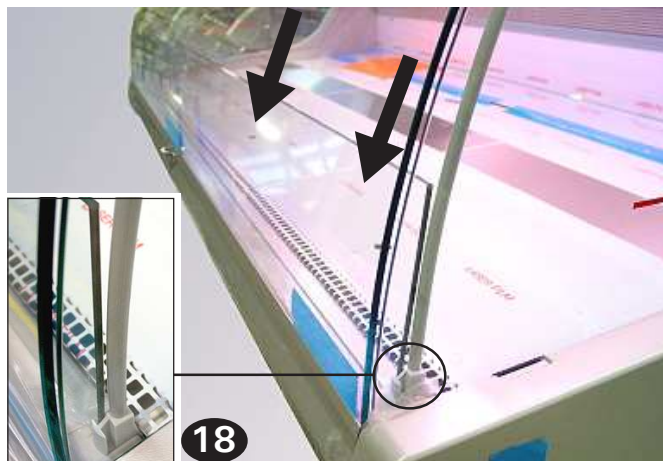
- in the units equipped with a glass top, the glass top must be raised until it reaches maximum opening and kept open only for the time strictly necessary for loading and unloading or for cleaning. In normal conditions of use the glass must remain lowered. The two pistons with which each glass is equipped aid lifting and are a safety measure against the glass top suddenly dropping shut. It is important therefore that their efficiency is regularly checked.
An increased effort in opening the glass top means that the performance of one or both the pistons is decreasing and that it is therefore necessary to replace them with the help of qualified personnel.
- Avoid displaying goods on the canopy of glass tops that have no front support.
- When cleaning the inside of the unit case, once the display shelves for the goods have been removed (using the appropriate tool), be careful not to get hurt by the fins of the evaporator since they can be very sharp. In those units with electrical defrosting be careful not to get burnt by the resistance elements that could still be hot because you have only switched it off.
- With units heated by infra red lamps take care not to get a burn from the hot parts such as the lamp holders and the lamp itself.

CRONOS A3

MONTAGE DER AUFSATZ - GLASS ASSEMBLY - MONTAGE DE VITRINE
MONTAGGIO VETRINA - MONTAJE SOBRESTRUCTURA VIDRIADA.

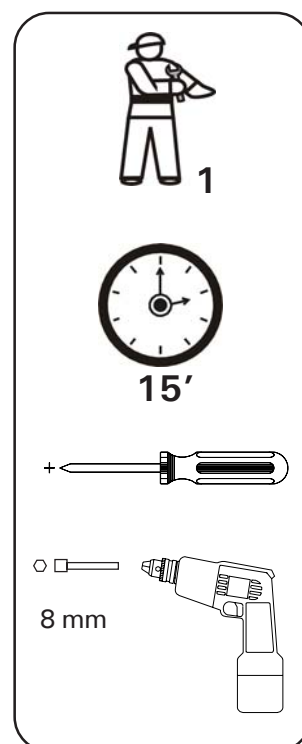
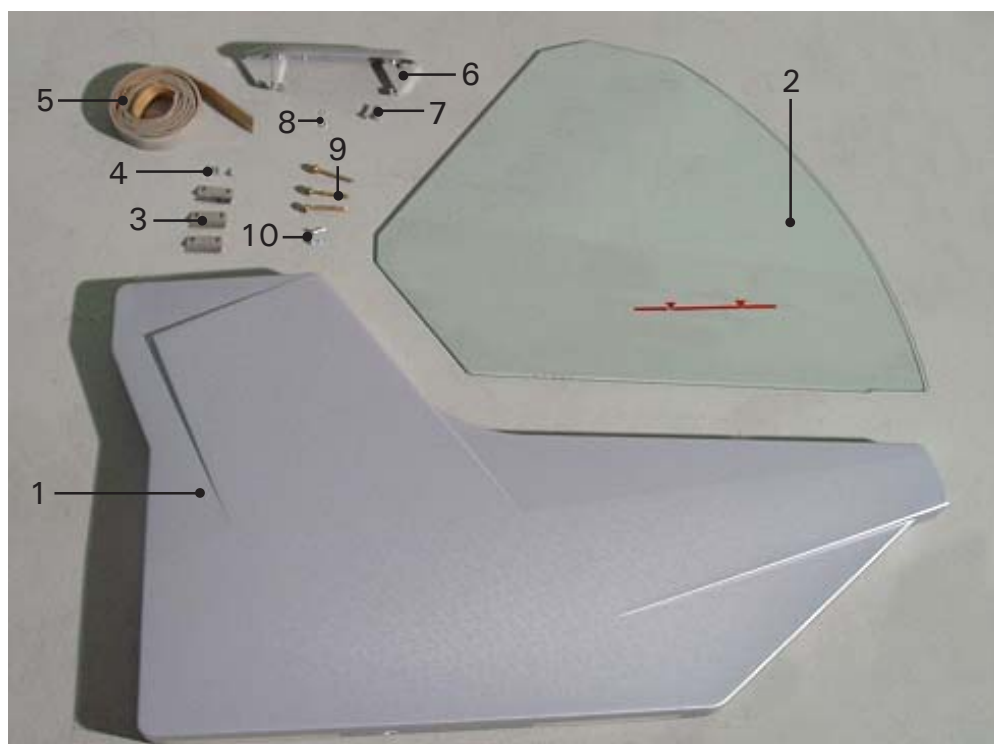




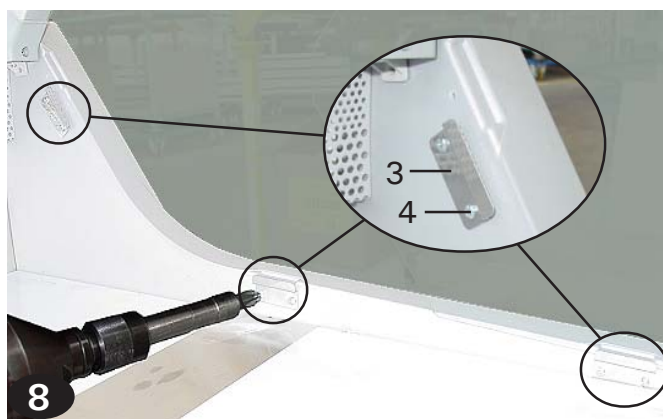
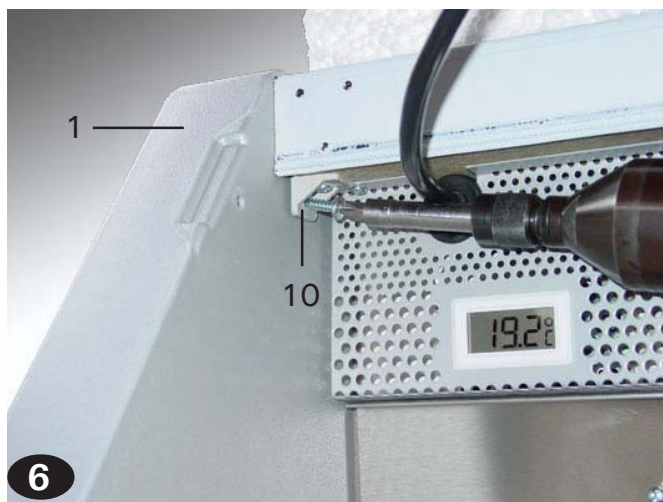


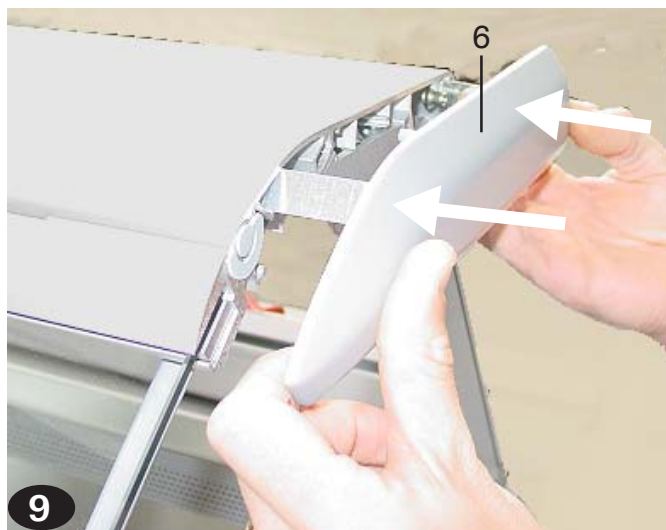
CRONOS A3

SEITENWÄNDE MONTAGE - END WALL ASSEMBLY - MONTAGE JOUE
MONTAGGIO FIANCATA - MONTAJO LATERAL



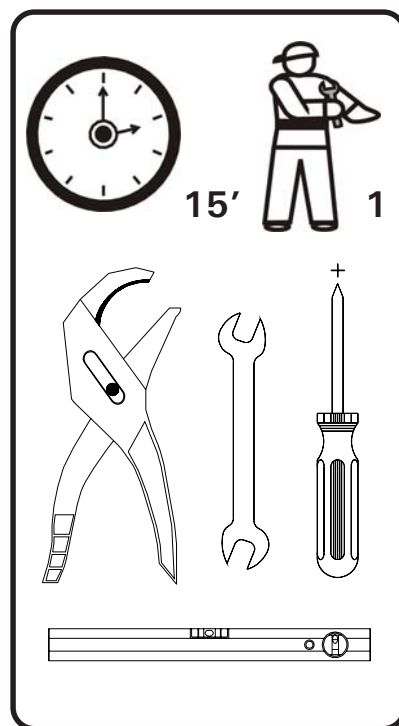
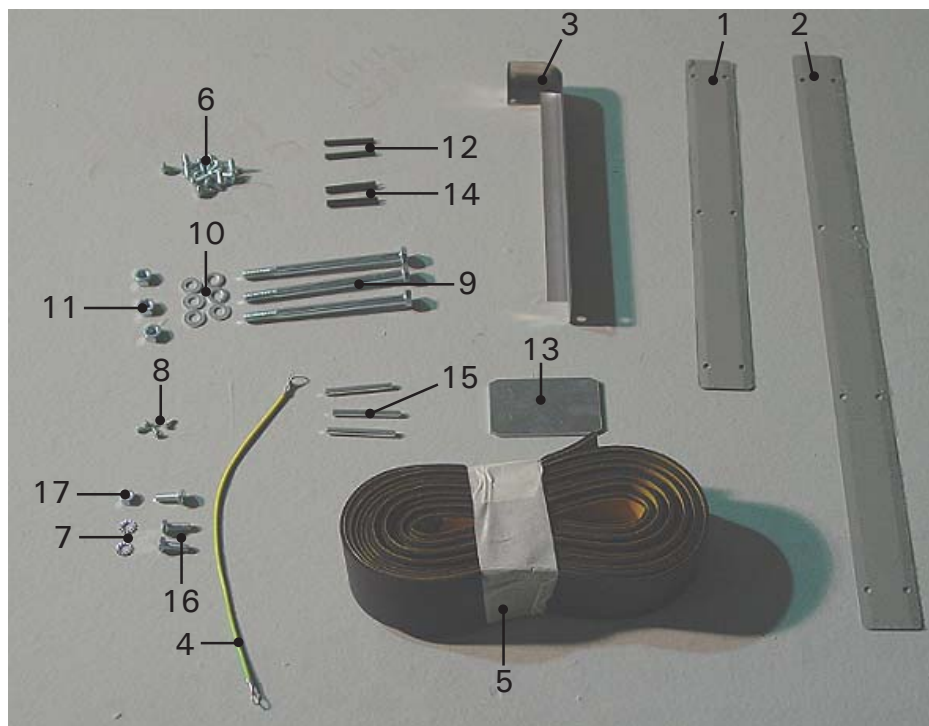
N°	DESCRIPTION - DESCRIPTION - BAUTEIL - DESCRIZIONE - DESCRIPCION	Q. M.
1	Panoramascheibe - Panoramic end wall - Joue panoramique - Fiancata - Costado.	1
2	Seitenscheiben - Glass side - Joue vitrée - Vetro termopane - Lateral vidrio.	1
	Seitenscheiben LS - Glass side LS - Joue vitrée LS - Vetro termopane LS - Lateral vidrio LS.	
3	Befestigung Winkel - Holder profile - Support de fixation Supporto fissaggio vetro - Soporte de fijado.	3
4	Schraube TPS 3,9x13 mm - Screw TPS 3,9x13 mm - Vis TPS 3,9x13 mm Vite TPS 3,9x13 mm - Tornillos TPS 3,9x13 mm.	6
5	Gummi Profil 50x3 mm - Adhesive mousse 50x3 mm - Gomme isolante 50x3 mm Gomma isolante 50x3mm - Engoma aislante 50x3 mm.	3 M.
6	Testina cappello - Head hat - Couverture chapeau - Kopf Zahlplatte - Cabeza superior	1
7	Schraube ZN TCEI 5x20 mm - Screw ZN TCEI 5x20 mm - Vis ZN TCEI 5x20 mm Vite ZN TCEI 5x20 mm - Tornillos ZN TCEI 5x20 mm.	2
8	Scheiben ZN D. 5 - Washer ZN D. 5 - Rondelle ZN D. 5 - Rosetta ZN D. 5 - Arandela ZN D. 5	2
9	Schraube ZN TEC 6,3x60 mm - Screw ZN TEC 6,3x60 mm - Vis ZN TEC 6,3x60 mm Vite ZN TEC 6,3x60 mm - Tornillos ZN TEC 6,3x60 mm.	3
10	Schraube ZN TC 4,8X19 mm - Screw ZN TC 4,8X19 mm - Vis ZN TC 4,8X19 mm Vite ZN TC 4,8X19 mm - Tornillos ZN TC 4,8X19 mm.	2



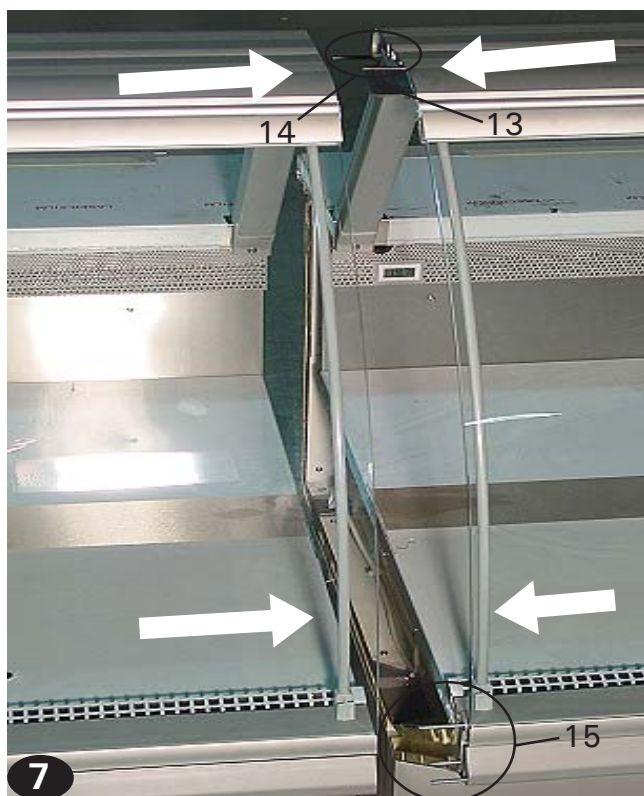
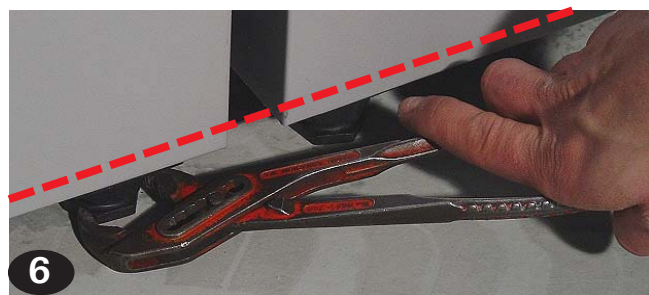
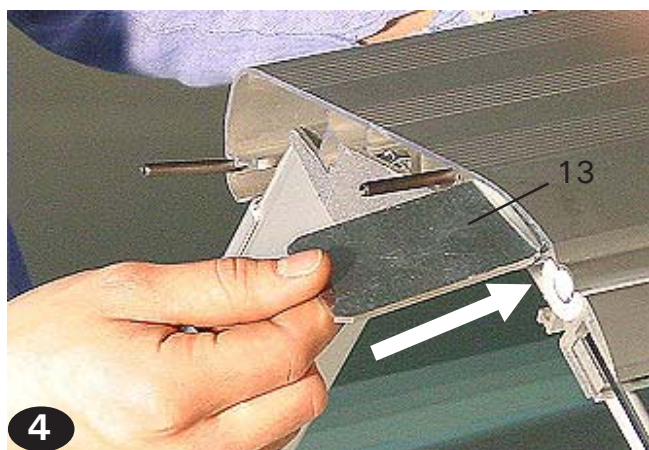
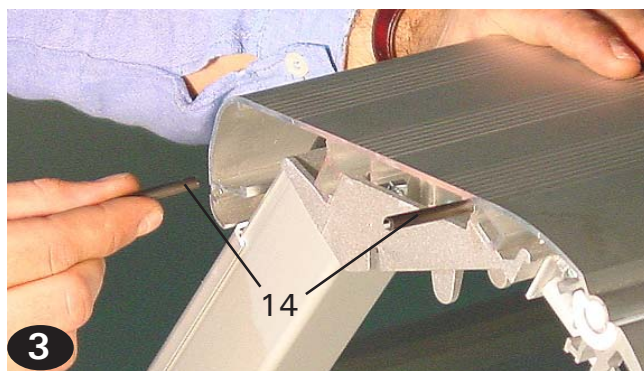


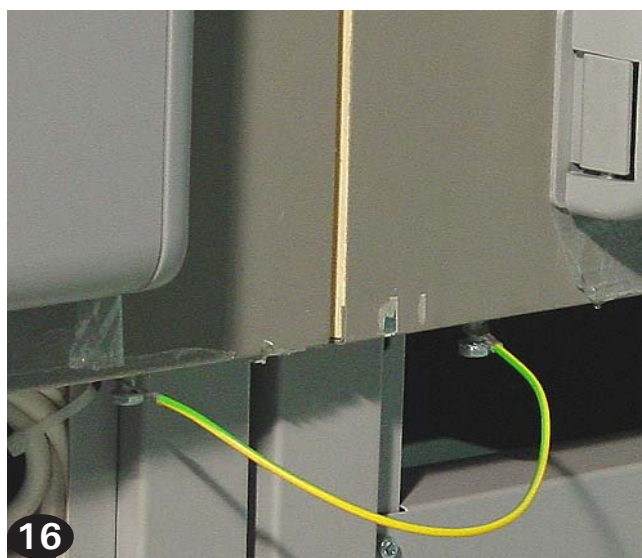
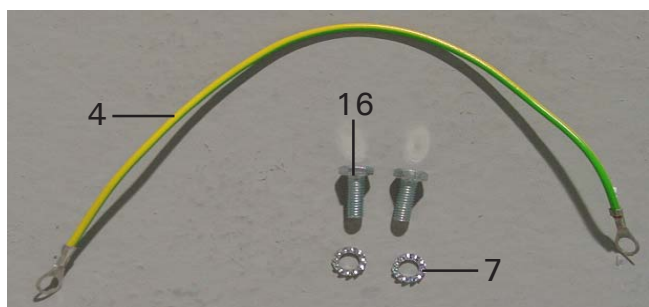
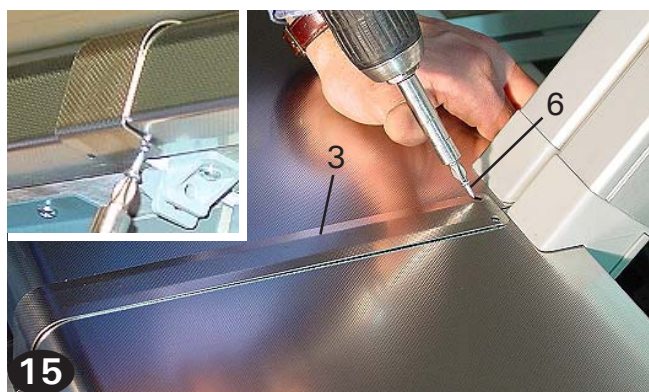
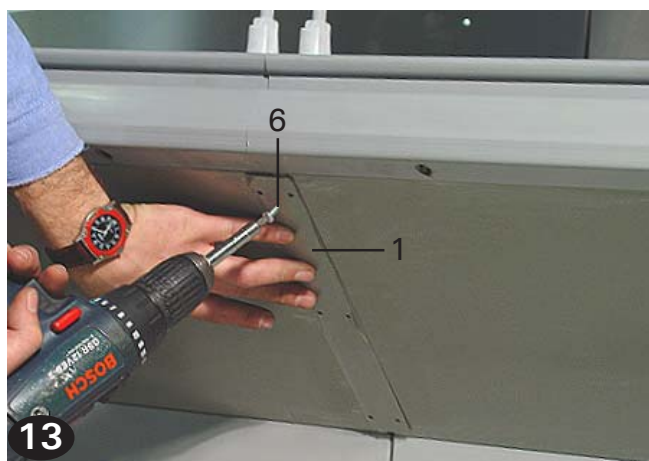
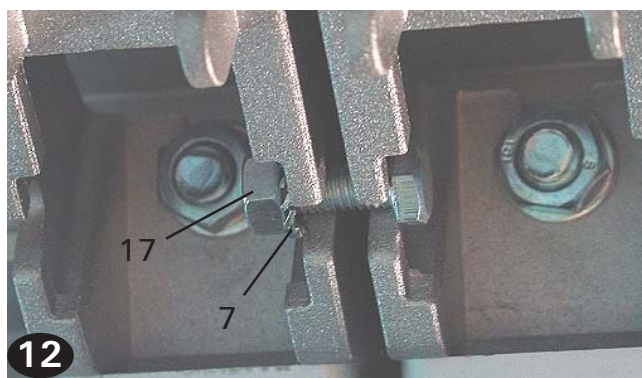
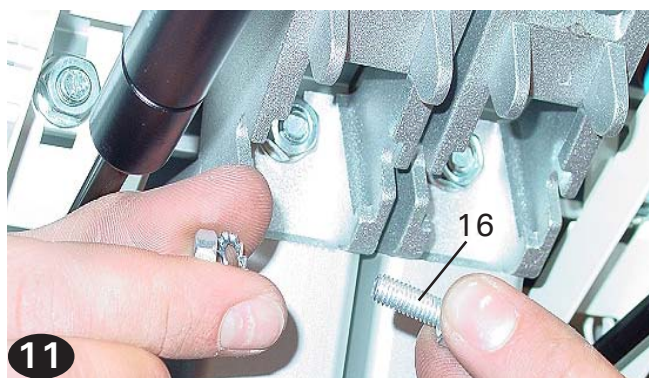
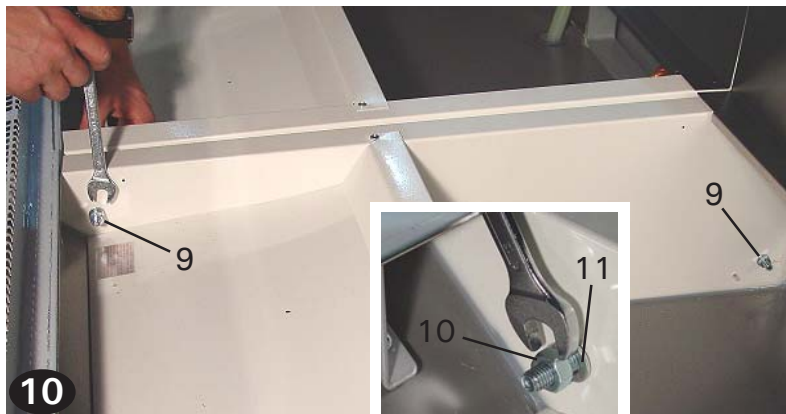
CRONOS

ZUSAMMENBAU DER KÜHLTHEKE - MULTIPLEXUNG OF CABINET CANALISATION DU MEUBLE - CANALIZZAZIONE DEL MOBILE CANALIZACION DEL MUEBLE

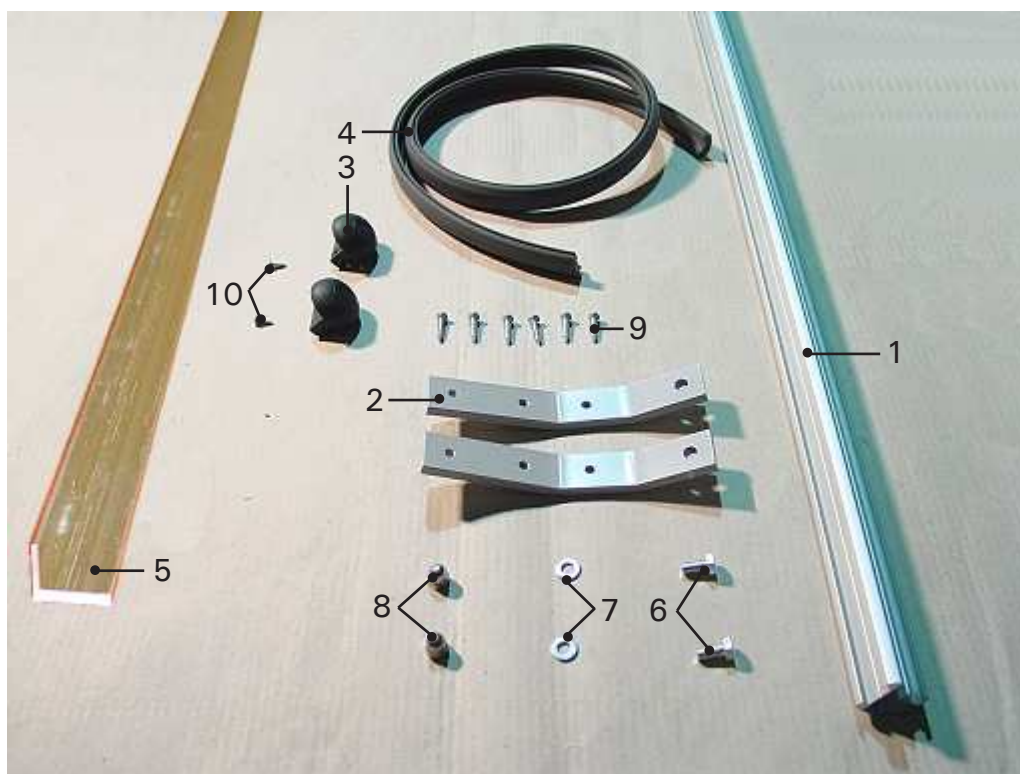
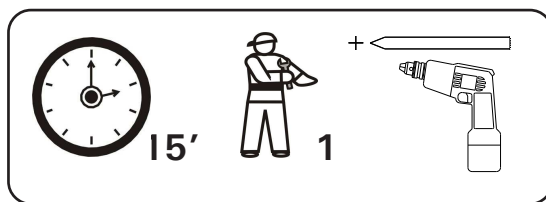


N°	BAUTEIL - DESCRIPTION - DESCRIPTION - DESCRIZIONE - DESCRIPCION	M. - Q.
1	Front Stoßblende - Front cover multiplexing - Couverture antérieur canalisation Fascia canalizzazione anteriore - Cobertura faja canalizaciòn anterior	1
2	Hinterer Stoßblende - Rear cover multiplexing - Couverture postérieur canalisation Fascia canalizzazione posteriore - Cobertura faja canalizaciòn posterior	1
3	Arbeitsplatte Stoßblende - Back shelf cover multiplexing - Couverture tablette de travail canalisation Fascia canalizzazione piano lavoro - Cobertura faja canalizaciòn plano de trabajo	1
4	Erde Kabel - Earth cable - Fil de terre - Cavo terra - Cable de tierra	1
5	Gummi Profil 50x3 mm - Adhesive mousse 50x3 mm - Gomme isolante 50x3 mm Gomma isolante 50x3mm - Engoma aislante 50x3 mm.	6 M.
6	Schraube ZN TC 4,8x13 mm - Screw ZN TC 4,8x13 mm - Vis ZN TC 4,8x13 mm Vite ZN TC 4,8x13 mm - Tornillos ZN TC 4,8x13 mm.	14
7	Zahnscheibe - Toothed washer - Rondelle denté - Rosetta dentata - Arandela lobulada	2
8	Schraube ZN TGS 2,9x9,5 mm - Screw ZN TGS 2,9x9,5 mm - Vis ZN TGS 2,9x9,5 mm Vite ZN TGS 2,9x9,5 mm - Tornillos ZN TGS 2,9x9,5 mm.	4
9	Schraube ZN TE M8x120 mm - Screw ZN TE M8x120 mm - Vis ZN TE M8x120 mm Vite ZN TE M8x120 mm - Tornillos ZN TE M8x120 mm.	3
10	Scheibe 8,4 mm - Washer 8,4 mm - Rondelle 8,4 mm Rosetta 8,4 mm - Arandela 8,4 mm	6
11	Mutter ZN M8 - Nut ZN M8 - Écrou ZN M8 - Dado ZN M8 - Tuerca ZN M8	3
12	Spannstift 4x40 mm (Für Zahlplatte Glaszwischenauslage) Flexible pins 4x40 mm (For interim glass shelf top canopy overhead) Fiche élastique 4x40 mm (Pour tablette supérieure étagère intermédiaire) Spina elastica 4x40 mm (Per plafoniera mensola intermedia) Espina elástica 4x40 mm (Por lámpara de cielo repisa intermedia)	2
13	Verbindungsplatte der Konsolen - Union plate - Plaque jonctin Piastra di canalizzazione - Plaqueta unión	1
14	Spannstift 5x40 mm - Flexible pins 5x40 mm - Fiche élastique 5x40 mm Spina elastica 5x40 mm - Espina elástica 5x40 mm	2
15	Zylinderstift 4x40 mm - Split pins 4x40 mm - Fiche cylindrique 4x40 mm Spina cilindrica 4x40 mm - Espina cilindrica 4x40 mm	3
16	Schraube ZN TE M6x16 mm - Screw ZN TE M6x16 mm - Vis ZN TE M6x16 mm Vite ZN TE M6x16 mm - Tornillos ZN TE M6x16 mm.	3
17	Mutter ZN M8 - Nut ZN M8 - Écrou ZN M8 - Dado ZN M8 - Tuerca ZN M8	1

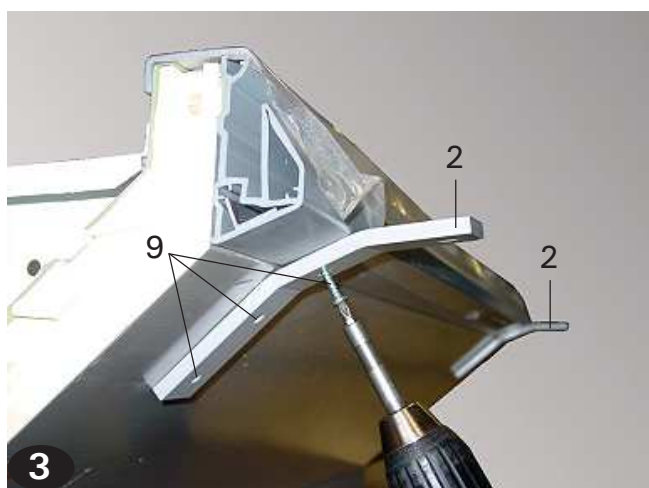
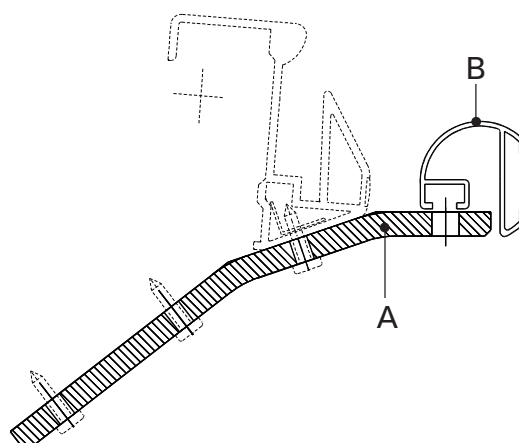
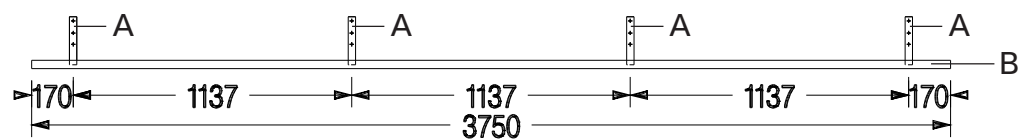
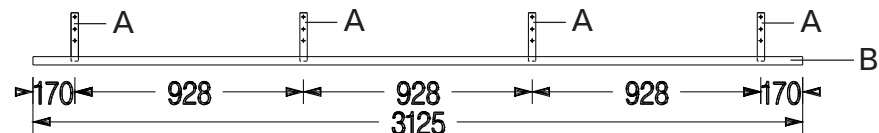
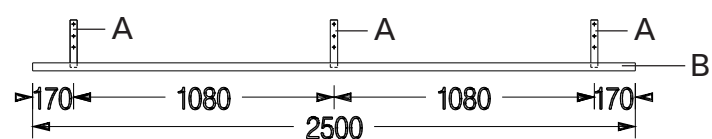
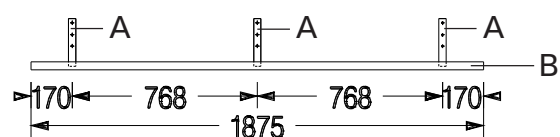
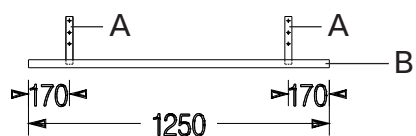


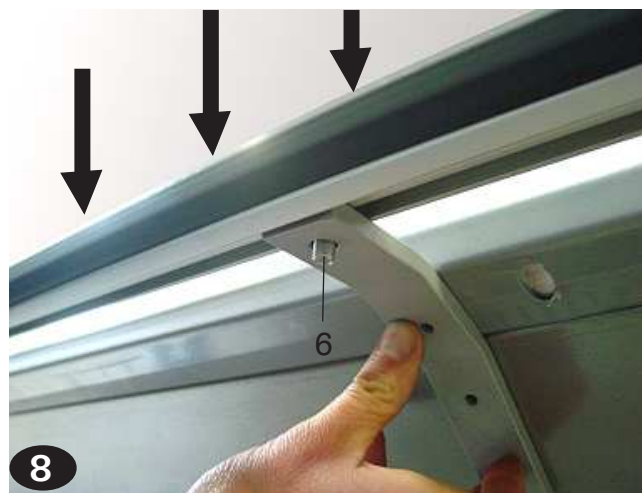
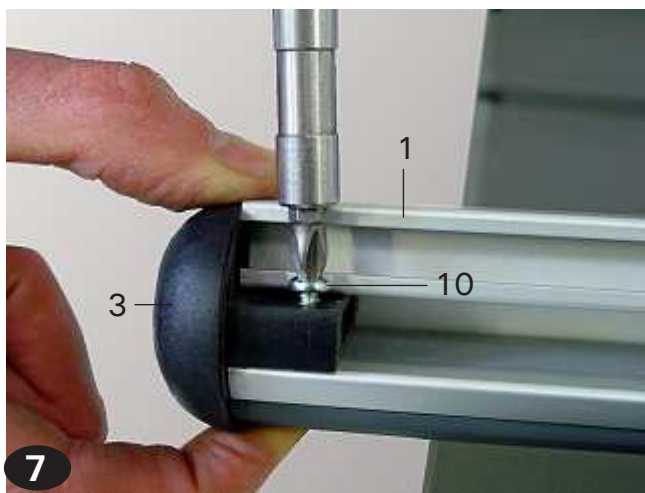
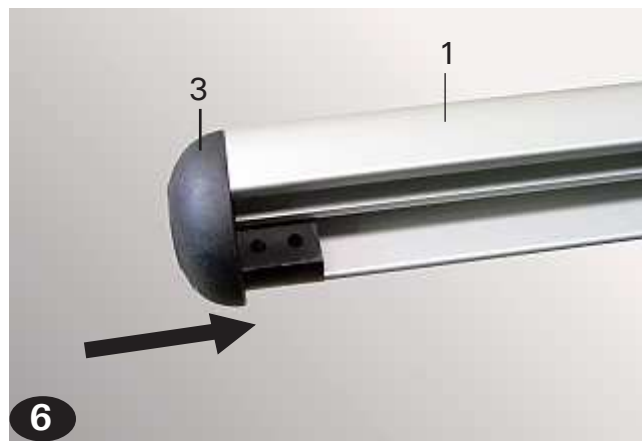
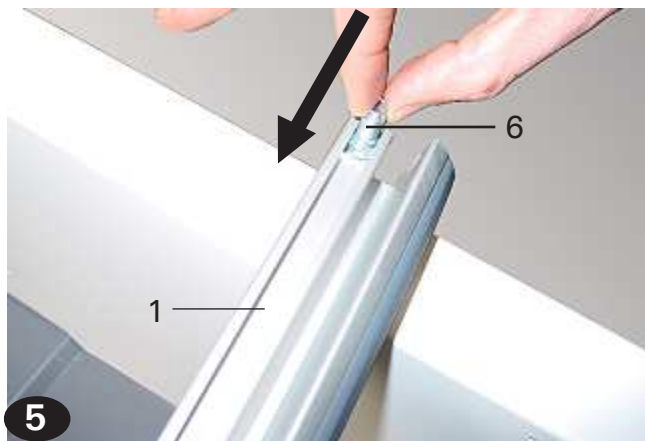


**MONTAGE DER STOSSLEISTE - BUMPER RAIL ASSEMBLY - MONTAGE DE PARE-CHOCK
MONTAGGIO BATTICARRELLO - MONTAJE DE PARA GOLPES**

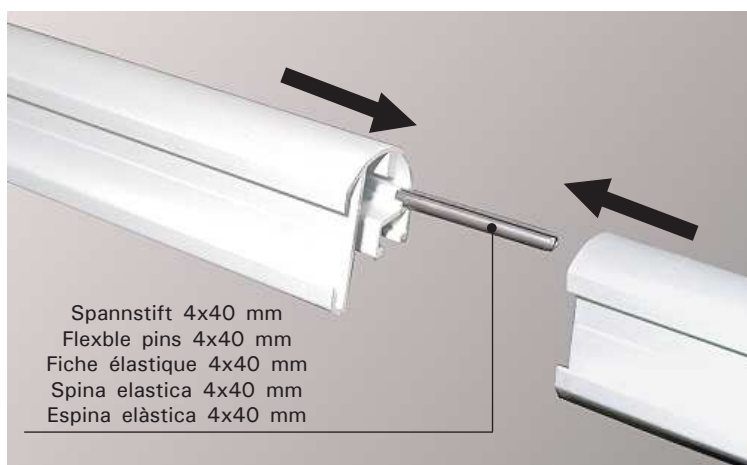


N°	BAUTEIL - DESCRIPTION - DESCRIPTION DESCRIZIONE - DESCRIPCION	Q. / M.				
		1250	1875	2500	3125	3750
1	Stoßleiste - Bumper rail - Pare-chock - Tubo batticarrello - Para golpes	1	1	1	1	1
2	Frontstütze - Front support - Support avant Mensola frontale - Sostén anterior	2	3	3	4	4
3	Endkappe für Wagenabweiser - Bumper rail head - Testina batticarrello Bouchon pare chock - Cabezal por para golpes	2	2	2	2	2
4	Gummi Stoßleiste - Bumper rail mousse - Gomme pare chock Gomma batticarrello - Engoma para golpes	1,5 M.	2 M.	2,6 M.	3,2 M.	3,9 M.
5	Winkelteil für Stoßleiste - Bumper rail support profile Angulaire support pare-chock - Angolare batticarrello Angular para golpes	1	1	2	2	2
6	Schraube ZN TE M8x15 mm - Screw ZN TE M8x15 mm Vis ZN TE M8x15 mm - Vite ZN TE M8x15 mm Tornillos ZN TE M8x15 mm	2	3	3	4	4
7	Scheiben 8,4 mm - Washer 8,4 mm - Rondelle 8,4 mm Rosetta 8,4 mm - Arandela 8,4 mm	2	3	3	4	4
8	Mutter ZN M8 - Nut ZN M8 - Écrou ZN M8 Dado ZN M8 - Tuerca ZN M8	2	3	3	4	4
9	Schraube ZN TC 4,8x25 mm - Screw ZN TC 4,8x25 mm Vis ZN TC 4,8x25 mm - Vite ZN TC 4,8x25 mm Tornillos ZN TC 4,8x25 mm	6	9	9	12	12
10	Schraube ZN TC 3,9x13 mm - Screw ZN TC 3,9x13 mm Vis ZN TC 3,9x13 mm - Vite ZN TC 3,9x13 mm Tornillos ZN TC 3,9x13 mm	2	2	2	2	2

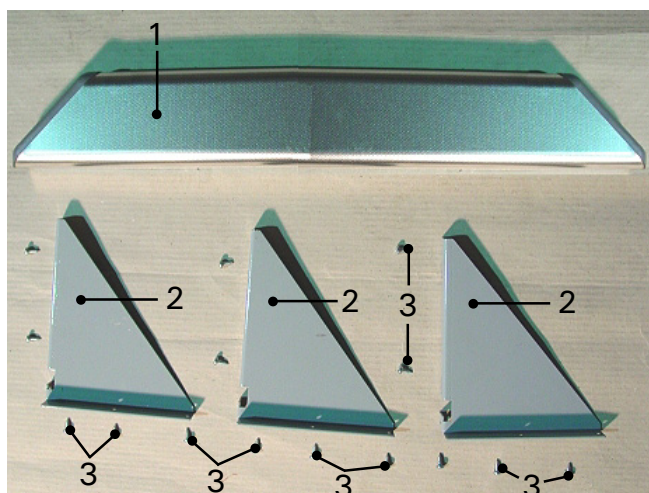




ZUSAMMENBAU / MULTIPLEXING / CANALISATION / CANALIZZAZIONE / CANALIZACION



MONTAGE DER ARBEITSPLATTEN VERBREITERUNG - BACK SHELF EXTENSION ASSEMBLY
ASSEMBLAGE DE EXTENSION TABLETTE DE TRAVAIL - MONTAGGIO ESTENSIONE PIANO DI LAVORO
MONTAJE EXTENSIÓN PLANO DE TRABAJO



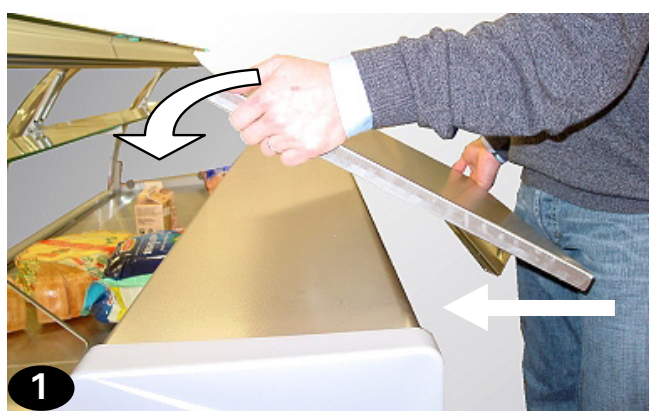
N°	BAUTEIL - DESCRIPTION - DESCRIPTION DESCRIZIONE - DESCRIPCION
1	Arbeitsplatten Verbreiterung - Back shelf extension Extension tablette de travail - Estensione piano di lavoro Extensión plano de trabajo
2	Arbeitsplatten Verbreiterung für Stoßleiste Back shelf extension support profile Angulaire support Extension tablette de travail Angolare Estensione piano di lavoro Angular Extensión plano de trabajo
3	Schraube ZN TC 4,8x13 mm Screw ZN TC 4,8x13 mm Vis ZN TC 4,8x13 mm Vite ZN TC 4,8x13 mm Tornillos ZN TC 4,8x13 mm
Q. / M.	
1250	1875
2500	3125
3750	
1	1
2	3
10	15



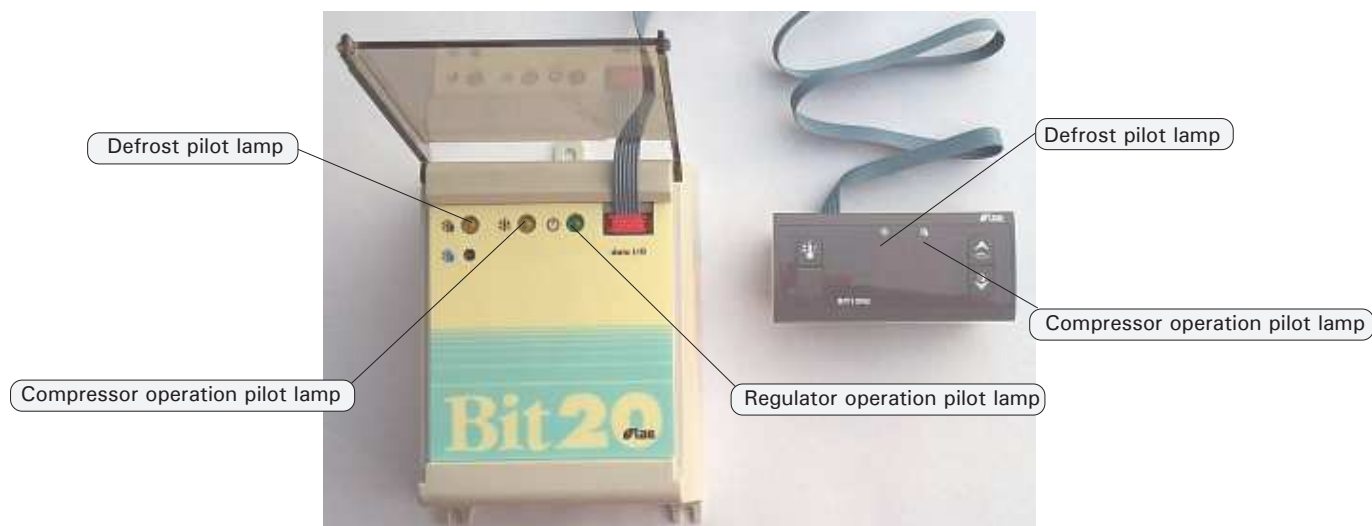
MONTAGE DES VERSCHIEBBAREN SCHNEIDBRETTS - THE SLIDING TRENCHER PLATFORM ASSEMBLY
MONTAGE PLANCHE À DECOUPER COULISSANTE - MONTAGGIO TAGLIERE SCORREVOLE
MONTAJE TABLA DE CORTE CORREDIZA



MONTAGE DES WAAGENTISCH - THE SCALE SHELF ASSEMBLY - MONTAGE PORTE-BALANCE
MONTAGGIO PORTABILANCIA - MONTAJE PORTABALANZA



CONTROL PANEL LAE BIT



The Bit20 controller and the magneto-thermal main switch are situated inside the cabinet supply control panel. On the rear panel of the special leg cover, there is a Bit12 keyboard fitted with operator interface, which contains a 2-figure display, keyboard with 3 function keys and two bipolar switches.

GENERAL DESCRIPTION OF THE COMPONENTS



Main magneto-thermal differential switch.

When "OFF" the switch is on "0" it disarms all the functions connected with the control panel; when "ON" the switch is on "I" (if present).



Bit20 regulator for controlling cabinet temperature.



Bit12 keyboard for setting and controlling the Bit20 regulator parameters.

STATE OF NORMAL OPERATION

During normal working, the display shows the actual temperature inside the cabinet, by using the keys the following functions are controlled:

-  Display the set point value;
-  Programming key, to be used by a qualified person, if it is pressed it increases the value associated with the parameter.
-  Programming key, to be used by a qualified person, if it is pressed it decreases the value associated with the parameter.
-  This pushbutton works as a master switch and switches off the counter while leaving the lighting system on (If included). This pushbutton lights up when pressed in the "ON" position.
-  This pushbutton switches the demisting fans on and lights up when pressed in the "ON" position (or demisting heater). This pushbutton must be used whenever the counter is positioned in rooms with excessive humidity in the air, to avoid misting of the front glasses (If included).
-  This pushbutton switches the top canopy lighting and the intermediate shelf lighting (if provided). When pressed, the pushbutton goes into the "ON" position.

The display also shows, by lighting a led, the operation state of the compressor, of the ventilators and the defrosting cycle.

USER PROGRAMMING STATE

The SET POINT, which governs the working temperature for the cabinet, has already been set in the factory and is given in the parameter table. If this value needs changing, the user must press and keep pressed the key , the set value is displayed, pressing keys  and  the displayed value can be increased decreased to the required level.

To end the operation press the key . The operating temperature to be set on the electronic board must coincide with that indicated by the producer of the goods on display (see recommended preservation temperatures on the packing of the product).

NUMBER OF TIMES THE UNIT MUST BE DEFROSTED

The number of daily defrostings is already set in the factory, and they are evenly and automatically spread throughout the day. Defrosting starts automatically each time the inside timer reaches the required temperature to obtain the desired defrosting frequency. **THE TIMER IS ZEROED WHEN THE CONTROLLER IS TURNED ON AND WITH EACH SUCCESSIVE DEFROSTING START UP.**

The number and time of daily defrostings change of the cabinet version and defrosting type:

KLEO X - OPALIA X

- Defrosting by simply stopping the refrigeration: 3 cycles maximum duration 60 minutes;
- Electric defrosting (optional): 3 cycles maximum duration 40 minutes;

MIDA X

- Defrosting by simply stopping the refrigeration: 3 cycles maximum duration 60 minutes;
- Electric defrosting: 3 cycles maximum duration 60 minutes;

NABUCCO STATIC FISH

- cabinet with automatic defrost: this cabinet does not need defrosting;
- cabinet with electric defrost (accessories): 3 cycles of 60 minutes;

NABUCCO STATIC MEAT

- cabinet with automatic defrost, **only for cabinet with Glycol refrigerant**: 3 cycles of 60 minutes;
- cabinet with electric defrost: 3 cycles of 60 minutes;

CRONOS, DORIS and GLYCOS

- cabinet with automatic defrost: 4 cycles maximum duration 60 minutes.
- cabinet with electric defrost (optional Cronos and Doris): 4 cycles maximum duration 30 minutes.

Should an immediate defrost be required, press keys  and  simultaneously for 2 seconds.

During the defrosting cycle, the display shows the last temperature taken before beginning the cycle.

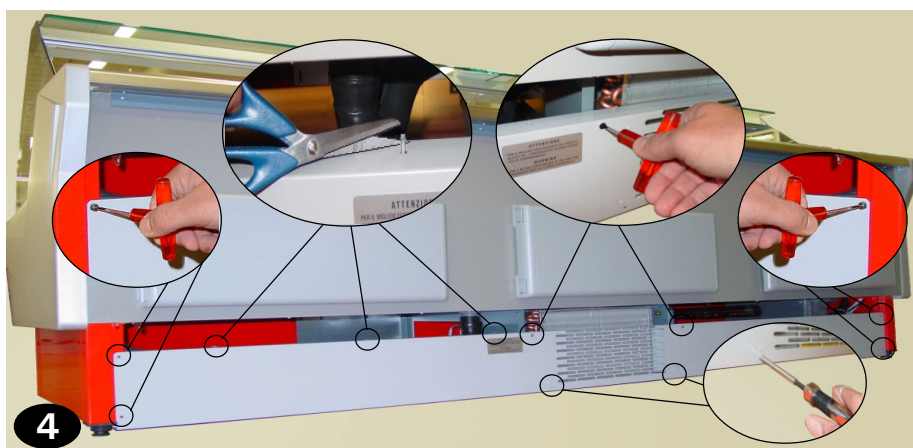
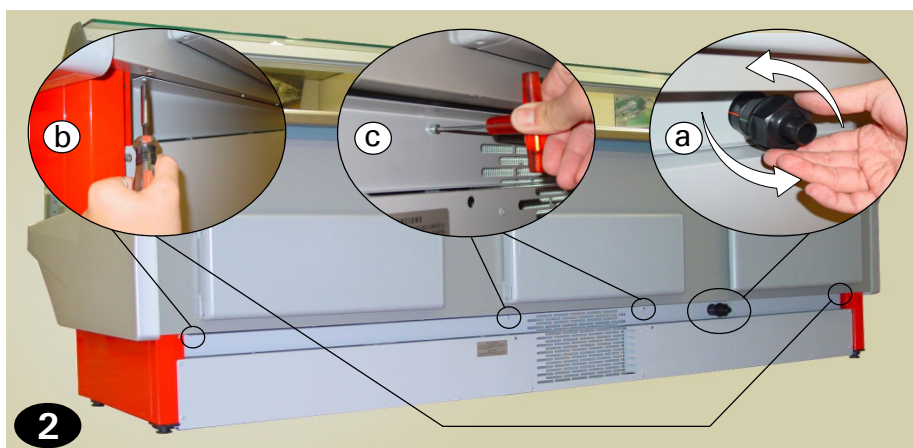
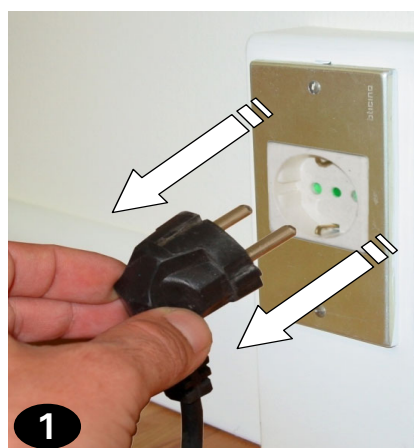
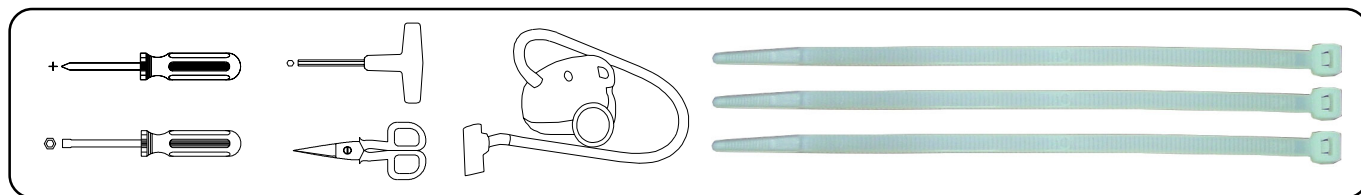
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DOCUMENTATION FOR EXCLUSIVE USE OF THE INSTALLATION AND ASSISTANCE PERSONELL

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REINIGUNG DES KONDENSATORS - CLEANING OF THE CONDENSER - NETTOYAGE DU CONDENSEUR - PULIZIA DEL CONDENSATORE - LIMPIEZA DEL CONDENSADOR
CRONOS - DORIS - GLYCOS



SETTING OF WORKING PARAMETERS OF *BIT LAE* CONTROL PANEL

(Only for qualified personnel)



The chart has a non-volatile memory, which registers the work input through the parameters that can be programmed using the front keys, with the chart working.

PARAMETERS MODIFICATION:

The display must be on normal working (showing the room temperature of the cabinet);

- Press + + simultaneously for more than 4 seconds until the code "SP" appears;
- Release the keys and check the display shows "SP", code for the first parameter that can be changed;
- *press* and keep pressed the key , to change the value associated with the parameter, and with keys and the displayed value can be increased or decreased to the required level;
- release the key , the controller passes automatically to the next parameter;
- repeat the procedure from the beginning "*press* *and/or* ..." to change the other parameter values.

To exit:

do not press any key for at least 60 seconds (TIME OUT).

PARAMETERS TABLE FOR CABINET WITH *LAE BIT* CONTROL PANEL

			CRONOS A3 DORIS A3	
			72007000 01/10/2004	72007010 01/10/2004
			aut.defrost	elec.defrost
		U.M.		
SP	Main set point	°C/°F	2	2
SL	Minimum set allowed	°C/°F	-10	-10
SH	Maximum set allowed	°C/°F	15	15
HY	Main thermostat delay	°C/°F	2	2
CR	Compressor stop	min	03	03
CF	Compressor safety run in case of probe failure 00 = 40%...01 = 100%	n°	00	00
DF	Defrosting frequency	n°	4	4
DT	Maximum defrosting duration	min	60	30
DL	Defrosting end temperature	°C/°F	12	12
DM	Type of defrost (00 = Stop compr./01 = Electric/02 = Gas)	–	00	01
DR	Dripping time	min	2	2
TH	Display control during defrosting	min	10	10
TO	Offset of displayed temperature	°C/°F	00	00
TS	Slowdown of displayed temperature	–	03	03

LEGEND FOR THE PLUG IN ELECTRICAL DIAGRAMS

- Ⓐ Terminals 6 to 8 = contact output N.O. MAX. 2A (remove jumper from terminals 5 and 6).
- Ⓑ Terminals 8 to 10 = refrigeration output 230V 50Hz 1PH + N MAX. 2A.
- Ⓓ Electric panel.
- Lighting ballast box.
- Ⓕ Control dash-board.
- Ⓖ Display case length.
- Ⓗ Lamps/ballast rated electrical powers.
- Ⓘ Rated power referred to 230 Vac 50 Hz mains supply.
- Refrigeration outlet max. 2A AC3.
- Ⓝ Auxiliary outlet.
- Ⓟ Alarm outlet.
- Ⓠ Presence and features of electrical components or user elements.
- Only fitted to ventilated cabinets.
- Ⓢ Only fitted to counter service cabinets.
- Ⓢ 230 Vac 50 Hz supply, 1PH + N + Gnd.
- Ⓢ Refrigerated unit control electric wiring diagram.
- Ⓢ 8-11 = N.O. clean contact refrigerator outlet (remove cable 32 in terminals 10 and 11).
- Ⓢ 8-9 = 230 Vac 50 Hz refrigeration outlet, max. 6A AC1.

- AA Open angle.
- AC Closed angle.
- A31 Control card for refrigerated unit.
- A58 Display card.
- A67 Speed change for motor-driven fan.
- B15 Control level water switch.
- B23 Evaporator temperature probe.
- B24 Room temperature probe.
- B25 Temperature probe on the air suction circuit.
- C01 Lighting rephase capacitor.
- D00 Compressor 2 delaying device.
- D14 Timer.
- E00 Upper lighting.
- E02 Anterior front apron lighting - optional.
- E03 Interim shelf lighting.
- E10 Condenser unit.
- F0G A31 card primary fuse.
- F00 Refrigeration outlet fuse.
- F03 Fuse for R34-E00-E03-R11.
- F05 Fuse for auxiliaries M66-M111-M112.
- F001 Compressor 1 fuse.
- F002 Compressor 2 fuse.
- F14 Klaxon for end defrost safety.
- F4A1 Compressor 1 high pressure pressure switch.
- F4A2 Compressor 2 high pressure pressure switch.
- K00 Remote switch for refrigeration outlet.
- K001 Compressor 1 remote switch.
- K002 Compressor 2 remote switch.

K11 Remote control switch for defrosting heaters.
 LO_ Fluorescent lamp ballast.
 M011 Motor driven compressor n° 1.
 M012 Motor driven compressor n° 2.
 M111 n° 1 Condenser unit fan.
 M112 n° 2 Condenser unit fan.
 M3A Demisting fans.
 M66 Evaporator motor driven fans.
 Q27 Magneto-thermic switch for lights.
 Q29 Magneto-thermic master switch E.M.F.
 Q30 Differential magnetothermal switch.
 R-C Anti-noise filter.
 R11 Evaporator defrost resistance element.
 R34 Anti-fog resistance element.
 R37 Re-evaporation water heater.
 S13 Anti-fog resistance element switch.
 S17 Display case lighting switch.
 S171 Line n° 1 light switch.
 S172 Line n° 2 light switch.
 S19 Display case supply switch.
 S4B Night temperature thermostat (only with night cover) remove the cable that is between terminals 4 and 5.
 S4I Safety heater thermostat.
 S44 End-defrost thermostat.
 S45 Temperature thermostat.
 SV1 Selector feeding re-evaporation resistance.
 T1 Room temperature probe.
 T2 Evaporator temperature probe.
 T3 Temperature probe on the air suction circuit.
 T3A Controller supply transformer for refrigerated unit.
 VMT Grounding screw.
 V0 Fluorescent lamp.
 W00 Flat.
 XA Terminal block for to be earth-wire wiring.
 XF Male faston on the control card.
 XPE Cabinet bar terminal block for ground cables.
 XPQ Connector between control panel-electric panel.
 X2C 2 poles terminal.
 X2I Insulation derivation terminal.
 X00 User connector terminal board.
 X00_1 Display case supply terminal box.
 X00_2 Terminal box for defrost resistance element outlet and condenser unit or solenoid valve.
 L-N = refrigeration outlet. 220 Vac 50 Hz max. 2A (AC3).
 X40 Power supply connection for re-evaporatin water heater.
 X50 Plug for the re-evaporatin water heater.
 X60 Display case supply plug. Connect to mains 220/230 Vac 50 Hz.
 X61 Electric socket for cabinet multiplexing.
 Y13 Liquid line solenoid valve.
 Y15 Hot-gas defrost solenoid valve.



	(H)			
(G)	VØ_1	VØ_2	LØ_1	LØ_2
ANGOLO				
APERTO - AA	18W	18W	20W	20W
CHIUSO - AC	15W	-	15W	
(I)				

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