

03/2017

Mod: BCC/10

Production code: 728673



Diamond
catering equipment



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Istruzioni per l'uso e la manutenzione
(*) istruzioni originali



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Use and maintenance instructions (*)
original instructions



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Instruction pour l'emploi et la
maintenance (*) Instructions d'origine



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Bedienungs- und
Wartungsanweisungen (*) Original-
Bedienungsanleitung



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Instrucciones de uso y mantenimiento
(*) Instrucciones originales



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Instruções de uso e manutenção (*)
Instruções originais



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Instruktioner för användning och
underhåll (*) Originalanvisningar



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Käyttö- ja huolto-ohjeet (*) Alkuperäiset
ohjeet



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Instruktioner vedrørende brug og
vedligeholdelse (*) Original vejledning



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Instruktioner for bruk og vedlikehold
(*) Originalanvisninger



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Aanwijzingen voor het gebruik en
hetonderhoud (*) Originele instructies



**BLAST CHILLERS/FREEZERS
30-50-70-100 KG LW**
Οδηγίες χρήσης και συντήρησης (*)
Πρωτότυπο οδηγιών λειτουργίας



DOC. NO. **595R 059 05**
EDITION 6 04.2016

PANNELLO COMANDI
CONTROL PANEL
BEDIENBLENDE
CONSOLE DE COMMANDE
PANEL DE MANDOS
PAINEL DE COMANDOS
BEDIENINGSPANEEL

MANÖVERPANEL
KÄYTTÖPANEELI
KONTROLPANEL
BETJENINGSPANEL
ΠΙΝΑΚΑΣ ΧΕΙΡΙΣΤΗΡΙΩΝ

ABBATTITORI/CONGELATORI

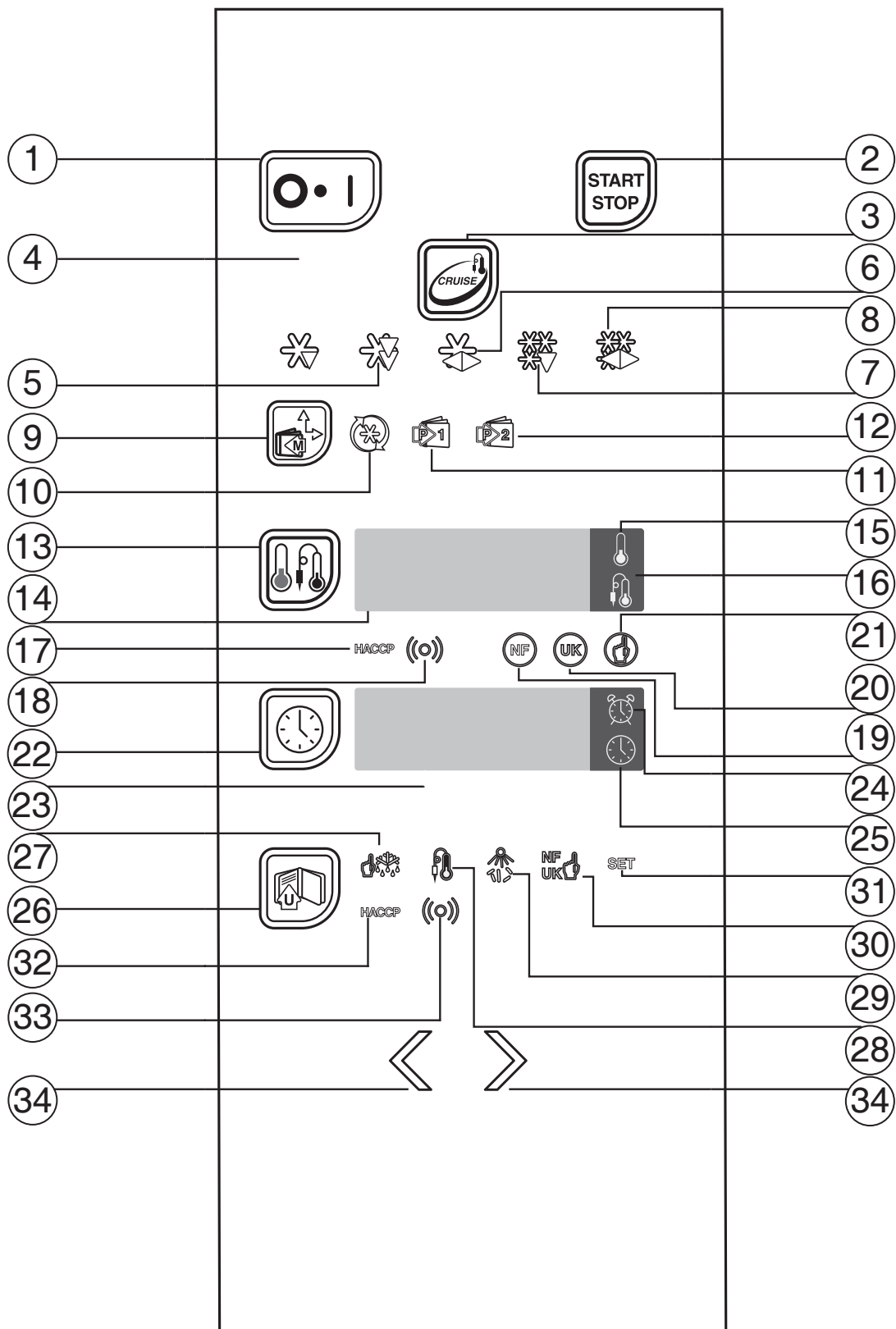


Fig.1 Abb.1 Kuva 1 Σχ.1

IT

1	Interruttore ON/OFF
2	Tasto "start/stop ciclo"
3	Tasto "cruise chilling" - ciclo automatico
4	Led "ciclo abbattimento SOFT"
5	Led "ciclo abbattimento HARD"
6	Led "ciclo mantenimento POSITIVO"
7	Led "ciclo abbattimento NEGATIVO"
8	Led "ciclo mantenimento NEGATIVO"
9	Tasto "selezione programma turbo cooling, P1 o P2"
10	Led "turbo cooling"
11	Led "programma 1"
12	Led "programma 2"
13	Tasto "temperatura"
14	Display temperatura
15	Led "temperatura sonda cella"
16	Led "temperatura sonda spillone"
17	Led "allarme HACCP"
18	Led "allarmi di servizio"
19	Led "normativa NF"
20	Led "normativa UK"
21	Led "normativa CUSTOM" (personalizzata)
22	Tasto "tempo"
23	Display tempo
24	Led "stima tempo residuo"
25	Led "ciclo a tempo"
26	Tasto "utilità"
27	Selezione "sbrinamento manuale"
28	Selezione "temperatura spilloni"
29	Selezione "ciclo germicida"
30	Selezione "normative"
31	Selezione "parametri utente"
32	Selezione "allarmi HACCP"
33	Selezione "ALARM SERVICE"
34	Tasti "selezione cicli / modifica valori"

EN

1	ON/OFF switch
2	"Start/stop cycle" key
3	"Cruise chilling" key- automatic cycle
4	"SOFT chilling cycle" LED
5	"HARD chilling cycle" LED
6	"POSITIVE holding cycle" LED
7	"NEGATIVE chilling cycle" LED
8	"NEGATIVE holding cycle" LED
9	"Programme selection turbo cooling, P1 or P2" key
10	"Turbo cooling" LED
11	"Programme 1" LED
12	"Programme 2" LED
13	Temperature key
14	Temperature display
15	"Cell probe temperature" LED
16	"Shaft probe temperature" LED
17	"HACCP alarm" LED
18	"Service alarms" LED
19	"NF standards" LED

20	"UK standards" LED
21	"CUSTOM standards" LED (personalized)
22	"Time" key
23	Time display
24	"Remaining time estimate" LED
25	"Timed cycle" LED
26	"Utility" key
27	"manual defrost" selection
28	"Shaft temperature" selection
29	"Germicide cycle" selection
30	"Standards" selection
31	"User parameters" selection
32	"HACCP alarms" selection
33	"ALARM SERVICE" selection
34	"Cycle selection/value modification" keys

FR

1	Interrupteur ON/OFF
2	Touche "cycle start/stop"
3	Touche "cruise chilling" - cycle automatique
4	Led "cycle refroidissement SOFT"
5	Led "cycle refroidissement HARD"
6	Led "cycle refroidissement POSITIF"
7	Led "cycle refroidissement NÉGATIF"
8	Led "cycle maintien NÉGATIF"
9	Touche "sélection programme turbo cooling, P1 ou P2"
10	Led "turbo cooling"
11	Led "programme 1"
12	Led "programme 2"
13	Touche "température"
14	Afficheur température
15	Led "température sonde cellule"
16	Led "température sonde à cœur"
17	Led "allarme HACCP"
18	Led "alarmes de service"
19	Led "norme NF"
20	Led "norme UK"
21	Led "norme CUSTOM" (personnalisée)
22	Touche "temps"
23	Afficheur temps
24	Led "estimation temps résiduel"
25	Led "cycle à temps"
26	Touche "utilité"
27	Sélection "dégivrage manuel"
28	Sélection "température sondes à cœur"
29	Sélection "cycle germicide"
30	Sélection "normes"
31	Sélection "paramètres utilisateur"
32	Sélection "alarmes HACCP"
33	Sélection "ALARM SERVICE"
34	Touches "sélection cycles / modification valeurs"

DE

1	Schalter ON/OFF
2	Taste "Start/Stop Zyklus"
3	Taste "Cruise chilling" - automatischer Zyklus
4	Led "Zyklus Schnellabkühlung SOFT"
5	Led "Zyklus Schnellabkühlung HARD"
6	Led "Zyklus POSITIVE Schnellabkühlung"
7	Led "Zyklus NEGATIVE Schnellabkühlung"
8	Led "Zyklus NEGATIVE Erhaltung"
9	Taste "Programmwahl Turbo Cooling, P1 oder P2"
10	Led "Turbo Cooling"
11	Led "Programm 1"
12	Led "Programm 2"
13	Taste "Temperatur"
14	Display Temperaturanzeige
15	Led "Temperatur Zellfühler"
16	Led "Temperatur Fühlernadel"
17	Led "Alarm HACCP"
18	Led "Betriebsalarme"
19	Led "Alarm NF"
20	Led "Alarm UK"
21	Led "Alarm CUSTOM" (kundenbezogen)
22	Taste "Zeit"
23	Zeitdisplay
24	Led "geschätzte Restzeit"
25	Led "Zyklus nach Zeit"
26	Taste "Hilfe"
27	Wahl "manuelles Abtauen"
28	Wahl "Nadeltemperatur"
29	Wahl "Keimtötender Zyklus"
30	Wahl "Normen"
31	Wahl "Benutzerparameter"
32	Wahl "Alarme HACCP"
33	Wahl "ALARM SERVICE"
34	Tasten "Zykluswahl / Wertänderungen"

ES

1	Interruptor ON/OFF
2	Botón "start/stop ciclo"
3	Botón "cruise chilling" - ciclo automático
4	Led "ciclo abatimiento SOFT"
5	Led "ciclo abatimiento HARD"
6	Led "ciclo mantenimiento POSITIVO"
7	Led "ciclo abatimiento NEGATIVO"
8	Led "ciclo mantenimiento NEGATIVO"
9	Botón "selección programa turbo cooling, P1 o P2"
10	Led "turbo cooling"
11	Led "programa 1"
12	Led "programa 2"
13	Botón "temperatura"
14	Display temperatura
15	Led "temperatura sonda celda"
16	Led "temperatura sonda aguja"
17	Led "alarme HACCP"
18	Led "alarmas de servicio"
19	Led "normativa NF"
20	Led "normativa UK"
21	Led "normativa CUSTOM" (personalizada)

22	Botón "tiempo"
23	Display tiempo
24	Led "estimación tiempo remanente"
25	Led "ciclo por tiempo"
26	Botón "utilidad"
27	Selección "desescarche manual"
28	Selección "temperaturas agujas"
29	Selección "ciclo germicida"
30	Selección "normativas"
31	Selección "parámetros usuario"
32	Selección "alarmas HACCP"
33	Selección "ALARM SERVICE"
34	Botones "selección ciclos / modificación valores"

PT

1	Interruptor "LIGA/DESLIGA"
2	Tecla "Iniciar/parar ciclo"
3	Tecla "refrigeração automática" – ciclo automático
4	LED de "ciclo de refrigeração BRANDA"
5	LED de "ciclo de refrigeração INTENSA"
6	LED de "ciclo de retenção POSITIVA"
7	LED de "ciclo de refrigeração NEGATIVA"
8	LED de "ciclo de retenção NEGATIVA"
9	Tecla de "resfriamento turbo para seleção de programa, P1 ou P2"
10	LED de "resfriamento turbo"
11	LED de "Programa 1"
12	LED de "Programa 2"
13	Tecla "Temperatura"
14	Visor de temperatura
15	LED de "Temperatura da sonda da célula"
16	LED de "Temperatura da sonda de haste"
17	LED de "alarme HACCP"
18	LED de "Alarmes de serviço"
19	LED de "padrões NF"
20	LED de "padrões UK"
21	LED de "padrões PERSONALIZADOS"
22	Tecla "Tempo"
23	Visor de tempo
24	LED de "Tempo restante estimado"
25	LED de "Ciclo programado"
26	Tecla "Utilitário"
27	Seleção do "descongelamento manual"
28	Seleção da "Temperatura da haste"
29	Seleção do "Ciclo germicida"
30	Seleção de "Padrões"
31	Seleção de "Parâmetros do usuário"
32	Seleção de "alarmes HACCP"
33	Seleção de "ALARME DE SERVIÇO"
34	Teclas de "Modificação de valor/seleção de ciclo"

SV

1	Strömbrytare
2	Start-/stoppknapp
3	Knapp för "cruise chilling" - automatisk cykel
4	Kontrollampa för mjuk nedkylningscykel
5	Kontrollampa för hård nedkylningscykel
6	Kontrollampa för förvaring vid positiv temperatur
7	Kontrollampa för nedkylning med negativ temperatur
8	Kontrollampa för förvaring vid negativ temperatur
9	Knapp för val av programmen "turbo cooling", P1 och
10	Kontrollampa för "turbo cooling"
11	Kontrollampa för program 1
12	Kontrollampa för program 2
13	Temperaturknapp
14	Temperaturdisplay
15	Kontrollampa för temperatur i kylförvaringsutrymmet
16	Kontrollampa för kärntemperatur
17	Kontrollampa för HACCP-larm
18	Kontrollampa för driftslarm
19	Kontrollampa för NF-standard
20	Kontrollampa för UK-standard
21	Kontrollampa för CUSTOM-standard (eget val)
22	Tidsknapp
23	Tidsdisplay
24	Kontrollampa för beräknad återstående tid
25	Kontrollampa för tidsstyrd cykel
26	Funktionsknapp
27	Manuell avfrostning
28	Kärntemperatur
29	Steriliseringscykel
30	Standard
31	Användarparametrar
32	HACCP-larm
33	Driftslarm
34	Knappar för val av cykel/ändringar

FI

1	Virtakytkin
2	"Jakson start/stop" näppäin
3	"Cruise chilling" - automaattinen jakso- näppäin
4	"SOFT" jäähdytyksen merkkivalo
5	"HARD" jäähdytyksen merkkivalo
6	POSITIIVISEN (yli nolla) säilytyksen merkkivalo
7	NEGATIIVISEN jäähdytyksen merkkivalo
8	NEGATIIVISEN lämpötilan ylläpidon merkkivalo
9	"Turbo cooling- ohjelman valinnan, P1 tai P2" näppäin
10	"Turbo cooling" merkkivalo
11	Ohjelman 1 merkkivalo
12	Ohjelman 2 merkkivalo
13	"Lämpötila" näppäin
14	Lämpötila- näyttö
15	Kaapin lämpötila-anturin merkkivalo
16	Puikkoanturin lämpötilan merkkivalo
17	HACCP hälytyksen merkkivalo
18	Käyttöhälytysten merkkivalo
19	NF säännösten merkkivalo
20	UK säännösten merkkivalo
21	CUSTOM säännösten merkkivalo (yksilölliset)
22	"Aika"- näppäin

23	Aika- näyttö
24	"Jäljellä olevan ajan arviointi"- merkkivalo
25	"Ajastetun jakson" merkkivalo
26	"Aputoiminnon" näppäin
27	Käsi käyttöisen sulatuksen valinta
28	Puikkoanturin lämpötilojen valinta
29	Bakteerintuhojakson valinta
30	Säännösten valinta
31	Käyttäjän parametrien valinta
32	HACCP- hälytysten valinta
33	"ALARM SERVICE" valinta
34	"Toiminnon valinnan / arvojen muuttamisen"

DA

1	"ON/OFF"-kontakt
2	Tast "start/stop af cyklus"
3	Tast "cruise chilling"-automatisk cyklus
4	Kontrollampe for "BLØD nedkølingscyklus"
5	Kontrollampe for "HÅRD nedkølingscyklus"
6	Kontrollampe for "POSITIV vedligeholdelsescyklus"
7	Kontrollampe for "NEGATIV nedkølingscyklus"
8	Kontrollampe for "NEGATIV vedligeholdelsescyklus"
9	Tast "valg af turbo cooling program, P1 eller P2"
10	Kontrollampe for "turbo cooling"
11	Kontrollampe for "program 1"
12	Kontrollampe for "program 2"
13	"Temperatur" tast
14	Temperaturdisplay
15	Kontrollampe for "cellesondetemperatur"
16	Kontrollampe for "nålesondetemperatur"
17	Kontrollampe for "HACCP alarm"
18	Kontrollampe for "servicealarmer"
19	Kontrollampe for "NF norm"
20	Kontrollampe for "UK norm"
21	Kontrollampe for "CUSTOM norm" (brugerdefineret)
22	"Tid" tast
23	Tiddisplay
24	Kontrollampe for "vurdering af tilbageværende tid"
25	Kontrollampe for "cyklus med timerstyring"
26	"Hjælpeværktøjer" tast
27	Valg af "manuel afrimning"
28	Valg af "nålesondetemperaturer"
29	Valg af "kimdræbende cyklus"
30	Valg af "normer"
31	Valg af "brugerdefinerbare parametre"
32	Valg af "HACCP alarmer"
33	Valg af "SERVICEALARM"
34	Taster til "valg af cyklusser / ændring af værdier"

NO

1	Bryter ON/OFF
2	Tast "start/stopp av syklus"
3	Tast "cruise chilling" - automatisk syklus
4	Lysemitterende diode for "kjølesyklus SOFT"
5	Lysemitterende diode for "kjølesyklus HARD"
6	Lysemitterende diode for "POSITIV vedlikeholdssyklus"
7	Lysemitterende diode for "NEGATIV kjølesyklus"
8	Lysemitterende diode for "NEGATIV vedlikeholdssyklus"
9	Tast for "valg av program turbo cooling, P1 eller P2"
10	Lysemitterende diode for "turbo cooling"
11	Lysemitterende diode for "program 1"
12	Lysemitterende diode for "program 2"
13	Tast for "temperatur"
14	Skjerm for temperatur
15	Lysemitterende diode for "temperatur på cellens føler"
16	16 - Lysemitterende diode for "temperatur på skafets føler"
17	Lysemitterende diode for "alarm HACCP"
18	Lysemitterende diode for "servicealarmer"
19	Lysemitterende diode for "NE-forskrift"
20	Lysemitterende diode for "UK-forskrift"
21	Lysemitterende diode for "CUSTOM (brukertilpasset)"
22	Tast for "tid"
23	Skjerm for tid
24	Lysemitterende diode for "beregning av gjenværende"
25	Lysemitterende diode for "tidssyklus"
26	Tast for "nyttig"
27	Valg av "manuell avriming"
28	Valg av "temperaturer for skaft"
29	Valg av "bakteriedrepende syklus"
30	Valg av "forskrifter"
31	Valg av "brukerparametre"
32	Valg av "alarmer HACCP"
33	Valg av "ALARM SERVICE"
34	Taster for "valg av sykluser / endring av verdier"

NL

1	Drukknop "ON/OFF"
2	Toets "Start/stop cyclus"
3	Toets "Cruise koelen" - automatische cyclus
4	LED "ZACHT koelen cyclus"
5	LED "HARD koelen cyclus"
6	LED "POSITIEF houden cyclus"
7	LED "NEGATIEF koelen cyclus"
8	LED "NEGATIEF houden cyclus"
9	Toets "Programmaselectie turbokoeling, P1 of P2"
10	LED "Turbo koeling"
11	LED "Programma 1"
12	LED "Programma 2"
13	Toets "Temperatuur"
14	Temperatuur afleesdisplay
15	LED "Temperatuur celsonde"
16	LED "Temperatuur buissonde"
17	LED "HACCP alarm"
18	LED "Service alarmer"
19	LED "NF normen"
20	LED "VK normen"

21	LED "Gebruiksnormen" (gepersonaliseerd)
22	Toets "Tijd"
23	Tijdsdisplay
24	LED "Schatting resterende tijd"
25	LED "Getimedede cyclus"
26	Toets "Toepassing"
27	Handmatige Selectie van de ontdooiing
28	Selectie "Buistemperatuur"
29	Selectie "Kiemdodende cyclus"
30	Selectie "Standaard"
31	Selectie "Parameters van gebruiker"
32	Selectie "HACCP alarmer"
33	Selectie "ALARMDIENST"
34	Toetsen "Cyclusselectie/waardenverandering"

EL

1	Διακόπτης ON/OFF
2	Κουμπί "start/stop κύκλου"
3	Κουμπί "cruise chilling" - αυτόματος κύκλος
4	Λυχνία "κύκλου ψύξης SOFT"
5	Λυχνία "κύκλου ψύξης HARD"
6	Λυχνία "κύκλου ΘΕΤΙΚΗΣ διατήρησης"
7	Λυχνία "κύκλου ΑΡΝΗΤΙΚΗΣ ψύξης"
8	Λυχνία "κύκλου ΑΡΝΗΤΙΚΗΣ διατήρησης"
9	Κουμπί "επιλογής προγράμματος turbo cooling, P1 ή P2"
10	Λυχνία "turbo cooling"
11	Λυχνία "πρόγραμμα 1"
12	Λυχνία "πρόγραμμα 2"
13	Κουμπί "θερμοκρασίας"
14	Οθόνη θερμοκρασίας
15	Λυχνία "θερμοκρασίας αισθητήρα θαλάμου"
16	Λυχνία "θερμοκρασίας αισθητήρα βελόνας"
17	Λυχνία "συναγερμού HACCP"
18	Λυχνία "συναγερμών λειτουργίας"
19	Λυχνία "κανονισμού NF"
20	Λυχνία "κανονισμού UK"
21	Λυχνία "κανονισμού CUSTOM" (εξατομικευμένος)
22	Κουμπί "χρόνου"
23	Οθόνη χρόνου
24	Λυχνία "υπολογισμού υπόλοιπου χρόνου"
25	Λυχνία "κύκλου με ρυθμιζόμενο χρόνο"
26	Κουμπί "χρήσεων"
27	Επιλογή "απόψυξης δια χειρός"
28	Επιλογή "θερμοκρασιών βελόνων"
29	Επιλογή "μικροβιοκτόνου κύκλου"
30	Επιλογή "κανονισμών"
31	Επιλογή "παραμέτρων χρήστη"
32	Επιλογή "συναγερμών HACCP"
33	Επιλογή "ALARM SERVICE"
34	Κουμπιά "επιλογής κύκλων / τροποποίησης τιμών"

IT	.....	Pagina	8-22
EN	.....	Page	23-36
FR	.....	Page	37-50
DE	.....	Seite	51-64
ES	.....	Página	65-78
PT	.....	Página	79-93
SV	.....	Sid.	94-107
FI	.....	Sivu	108-121
DA	.....	Side	122-135
NO	.....	Sidene	136-149
NL	.....	Pagina	150-164
EL	.....	Σελίδα	165-179

Foreword



The use and maintenance manual (hereinafter Manual) provides information necessary for correct and safe use of the machine (hereinafter “machine”, “blast chiller” or “appliance”).

The following must not be considered a long and exacting list of warnings, but rather a set of instructions suitable for improving machine performance in every respect and, above all, preventing injury to persons and animals and damage to property due to improper operating procedures.

All persons involved in machine transport, installation, commissioning, use and maintenance, repair and disassembly must consult and carefully read this manual before carrying out the various operations, in order to avoid wrong and improper actions that could compromise the machine’s integrity or endanger persons. Make sure to periodically inform the appliance user regarding the safety regulations. It is also important to instruct and update personnel authorised to operate on the machine, regarding its use and maintenance.

The manual must be available to operators and carefully kept in the place where the machine is used, so that it is always at hand for consultation in case of doubts or whenever required.

If, after reading this manual, there are still doubts regarding machine use, do not hesitate to contact the Manufacturer or the authorised after-sales service centre, to receive prompt and precise assistance for better operation and maximum efficiency of the machine.

During all stages of machine use, always respect the current regulations on safety, work hygiene and environmental protection. It is the user’s responsibility to make sure the machine is started and operated only in optimum conditions of safety for persons, animals and property.

The manufacturer declines any liability for operations carried out on the appliance without respecting the instructions given in this manual.

No part of this manual may be reproduced.



If this manual is divided into separate volumes for organisational needs, the volumes must be kept and consulted as parts of a single instruction manual.

The manual must always be kept in an easily accessed place near the machine.

Machine operators and maintenance personnel must be able to easily find and consult the manual at any time.

A.1 GENERAL INFORMATION

A.1.1 INTENDED USE AND RESTRICTIONS

This appliance has been designed for the blast chilling and/or blast freezing and preservation of foods (it rapidly lowers the temperature of cooked foods in order to preserve their initial qualities and guarantee their good condition for several days). Any other use is deemed improper.

The appliance must not be used by people (including children) with limited physical, sensory or mental abilities or without experience and knowledge of it, unless instructed in its use by those responsible for their safety.

ATTENTION: The machine is not suitable for installation outdoors and/or in places exposed to atmospheric agents (rain, direct sunlight, etc.).

The manufacturer declines all liability for any improper use of the product.



ATTENTION!
Do not store explosive substances, such as pressurised containers with flammable propellant (), in this appliance.

A.1.2 TYPOGRAPHICAL CONVENTIONS

For best use of the manual, and therefore the machine, it is advisable to have good knowledge of the terms and typographical conventions used in the documentation.

The following symbols are used in the manual to indicate and identify the various types of hazards:



ATTENTION!
DANGER FOR THE HEALTH AND SAFETY OF OPERATORS.



ATTENTION!
DANGER OF ELECTROCUTION - DANGEROUS VOLTAGE.



ATTENTION!
RISK OF DAMAGE TO THE MACHINE.

Words and safety warnings further explaining the type of hazard are placed next to the symbols in the text. The warnings are intended to guarantee the safety of personnel and prevent damage to the machine or the product being worked.

The drawings and diagrams given in the manual are not in scale. They supplement the written information with an outline, but are not intended to be a detailed representation of the machine supplied.

The numerical values given on the machine installation diagrams refer to measurements expressed in mm.

A.1.3 PERSONAL PROTECTION EQUIPMENT

Give below is a summary table of the Personal Protection Equipment (PPE) to be used during the various stages of the machine's service life. The Customer or after-sales service technician is responsible for identifying and choosing the type and category of such adequate and suitable personal protection equipment.

Stage	Protective garments	Safety footwear	Gloves	Glasses	Ear protectors	Mask	Safety helmet
Transport		X					
Handling		X					
Unpacking		X					
Assembly		X					
Normal use	X	X	X (*)				
Adjustments		X					
Routine cleaning		X	X (*)				
Extraordinary cleaning		X	X				
Maintenance		X					
Dismantling		X					
Scrapping		X					

Key:



PPE REQUIRED



PPE AVAILABLE OR TO BE USED IF NECESSARY



PPE NOT REQUIRED

(*) During **Normal use**, gloves protect hands from the cold tray when being removed from the appliance.

NOTE: The gloves to be worn during **Cleaning** are the type suitable for contact with the cooling fins (metal plates).

Failure to use the personal protection equipment by operators, specialised technicians, maintenance personnel or appliance operators can involve exposure to chemical risk and possible damage to health.

A.1.4 KEEPING THE MANUAL

The manual must be carefully kept for the entire life of the machine, until scrapping.

The manual must stay with the machine in case of transfer, sale, hire, granting of use or leasing.

B.1 DESCRIPTION OF CYCLES

B.1.1 POSITIVE CHILLING

Positive chilling allows foods to be brought quickly to a temperature of +3°C.

Keep in mind that positive chilling is to be used for foods which are going to be consumed within the next few days. There are two types of chilling:

- “SOFT” CHILLING
- “HARD” CHILLING

- “Soft” chilling is indicated for foods such as vegetables or of a reduced thickness.

- “Hard” chilling is advised for foods in large pieces.

B.1.2 NEGATIVE CHILLING OR FREEZING (freezers only)

Freezing allows foods to be stored for even longer periods (weeks or months).

Rapid freezing consists of reaching a negative temperature (-18°C) at the core as quickly as possible. In this way, at the time of defrosting, the tissues are not damaged and the appearance and nutritional value of the food remains unchanged. With this cycle the temperature of the foods is between -20°C and -18°C after freezing.

B.1.3 HOLDING OR CONSERVATION

The conservation cycle, which means holding the product at the specified temperature so that it is not altered over time, is activated automatically at the end of chilling or freezing cycles. Conservation is continuous. Interrupting it requires intervention on the programme.

B.1.4 STERILISATION CYCLE (Function for units with germicide lamp installed)

The UV lamps have a direct germicide action for the purpose of sterilising the surfaces and the air inside the cell of the machine. This function can be used to sterilise kitchen utensils such as knives, forks, etc. (do this in two steps, turning the utensils over) and can be activated at the end of each working day.

Do not use this function if the cell contains foods.



The appliance has a safety device that switches off the lamps when the doors are opened. This safety device is provided because exposure to the UV rays emitted by the lamps is harmful and can cause damage to eyes.

C.1 ANALYSIS OF USER INTERFACE



C.1.1 O•1 ON/OFF SWITCH

This key indicates whether the unit is on or off. To turn it on press 1, LED O•1 and the entire interface will light up.



C.1.2 START/STOP CYCLE

This key is used to start or stop the selected cycle.

When the selected cycle is launched, it starts running immediately. Stopping it requires the button to be held down for at least three seconds.

When a cycle is started with the door closed the key will light up. It will instead flash if a cycle is in progress and the door is open.

1- In order to improve machine performance and only if required, at the start of the chilling cycle, a preparatory cycle may start. This is indicated on the temperature display by the message “PREP”.

2-Also, if the chiller is not used for an extended period of time, the compressor is started in impulses in order to assure maximum efficiency.



The “PREP” phase can be avoided by pressing the “START/STOP” button twice. This action does not, however, ensure optimum performance of the appliance. The compressor with impulse start will not be disabled (it is necessary).

C.1.3 SELECTION OF CYCLES

The machine’s default setting is the SOFT chilling cycle. The keys



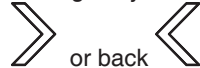
can be used to select from the following:



From left to right:

- SOFT positive chilling
- HARD positive chilling
- Positive holding (or conservation)
- Negative chilling or freezing
- Negative holding (or conservation)

When selecting the desired cycle, each time the key  is pressed, the selection will move on to the next one. This is managed cyclically, so that it is possible to scroll either forward



or back



C.1.3.1 Chilling with “cruise chilling” key

The “cruise chilling” cycle automatically controls the chilling process. It sets up the machine to complete the process within times required by standards while conserving the quality of the foods (without burning the surface of the foods).

When the cycle is launched, it starts running immediately. Stopping it requires the button to be held down for at least three seconds.

When the cycle is started with the door closed the key will light up. It will instead flash if a cycle is in progress and the door is open.

1- In order to improve machine performance and only if required, at the start of the chilling cycle, a preparatory cycle may start. This is indicated on the temperature display by the message “PREP”.

2- Also, if the chiller is not used for an extended period of time, the compressor is started in impulses in order to assure maximum efficiency.



ATTENTION!

The "cruise chilling" cycle works with the core probe inserted; if it is not inserted, the cycle automatically switches to timed "soft" positive blast chilling.

C.1.4 PROGRAMMES



Pressing the key places the unit in programme mode. It will therefore go from standard cycle selection to programme selection and vice versa.



From left to right:

- Turbo cooling
- Programme P1
- Programme P2

Each standard cycle is assigned two default programmes (P1 and P2) which can be modified by the user.

What does programme mean? For chilling, the user can change the chamber temperature and the chilling time. These can be stored in memory and loaded later. For holding, the user can select the chamber set point.



C.1.4.1 Chilling with "turbo cooling"

The "turbo cooling" cycle allows the user to operate the unit at temperature between -36°C and +3°C. The unit runs a cycle continuously and defrosting is managed automatically. To select this type of cycle, refer to paragraph C.1.4.

C.1.4.2 Cycles for ice cream

By enabling the parameter "EICE" (EICE = y), the machine is set up to run two ice cream cycles. Programmes "P1" and "P2" are disconnected from the normal logic and become two specific cycles for ice cream. They are no longer assigned to the selected standard cycle. When this cycle is selected, the LEDs for the standards cycles are off.

• cycle "P1": time-controlled or shaft probe-controlled chilling. After chilling, the machine switches over automatically to conservation at a temperature of -14°C.

• cycle "P2": "turbo cooling" chilling with a cell temperature of -16°C

N.B.: to modify the "EICE" parameter, refer to paragraph C.1.9.5.



C.1.5 TEMPERATURE

The temperature display makes it possible to view the temperature of the cell and of the shaft probe.

If a cycle is active (for positive or negative holding, timed positive chilling or timed freezing), the cell temperature is displayed. If a shaft probe cycle is active, the default display is the shaft probe temperature.



In chilling cycles, pressing the key switches between cell temperature and shaft probe temperature.

The LED indicates which of the two temperatures is being displayed at a given time:

- if the shaft probe temperature is currently displayed, the SHAFT



PROBE TEMPERATURE LED comes on

- if the cell temperature is currently displayed, the CELL TEM-



PERATURE LED comes on

Only one of the two is active at a time.

C.1.6 ALARM SIGNAL (refer to positions 32 and 33 in figs. 1 and 2)

These LEDs come on to indicate an alarm status.

HACCP

If an HACCP alarm occurs, the LED will:

1-flash if the alarm is in progress. To check the type of alarm, scroll through the utility section with the keys (§ C.1.9).

2-stay on steady if the alarm has concluded but has not yet been viewed by the user.



If a service alarm occurs, the LED will:

1-flash if the alarm is in progress. To check the type of alarm, scroll through the utility section with the keys (§ C.1.9).

2-stay on steady if the alarm has concluded but has not yet been viewed by the user.

The type of alarm can be viewed using the "utility menu" functions (see paragraph C.1.9 to find out more about the utility menu, and paragraph C.4 for instructions on how to view types of alarms and their descriptions).



C.1.7 STANDARDS

The applicable standards LED is normally on.

In order from left to right there is: NF (French), UK (English), CUSTOM (defined by user).



C.1.8 TIME

• During a chilling cycle: the time display shows the total or remaining chilling time.

• During holding cycle: the display shows the hour.

• During "turbo cooling" cycle: the display shows:

"oooo" = two hours left until start of defrosting

"ooo" = 1.5 hours left until start of defrosting

"oo" = 1 hour left until start of defrosting

"o" = 0.5 hours left until start of defrosting



The TIMED CYCLE LED comes on only if a timed chilling cycle is in progress.

During the cycle selection phase it indicates the chilling time.



The "estimated remaining time" LED comes on as soon as the electronic card calculates the time remaining until the end of cooking with shaft probe. Once it has been measured, the time is shown on the time display.



C.1.9 UTILITY



When the key is pressed, the key is back-lighted. The

keys



allow selection of the desired utility with



forward-backward scrolling. Press to confirm.

Once you have entered the "Utility" menu, the card will go back to the main menu if no key is pressed for five seconds.

The DESCRIPTIONS OF THE UTILITY FUNCTIONS are listed below.

C.1.9.1 MANUAL DEFROSTING



If unit conditions allow it (LED  or  or with machine in standby status), manual defrosting is activated. The display will show the label "dEfr" for the entire duration of the phase. If the unit conditions do not allow activation of manual defrosting (during a chilling phase), the display will show the message "UTIL NONE".

The selection is valid only in conservation/holding conditions and during operating cycle selection. Upon completion of defrosting, the card will return to the main configuration.

C.1.9.2 DISPLAY OF SHAFT PROBE TEMPERATURES



This function makes it possible to view shaft probe temperatures if there are more than one shaft probes inserted in the product. If only one shaft probe is used, to view the temperature follow the instructions in paragraph C.1.5.

C.1.9.3 STERILIZATION CYCLE



(Function for units with germicide lamp installed)

The UV lamps have a direct germicide action for the purpose of sterilising the surfaces and the air inside the cell of the machine (see paragraph B.1.4).

No cycle must be active. During this cycle, the "TEMPERATURE" display will show the chamber temperature. When the cycle is complete, it returns to the main menu.

If the unit conditions do not allow activation of the sterilization cycle, the display will show the message "UTIL NONE".

C.1.9.4 APPLICABLE STANDARDS



The machine can be set up according to three different standards:

1. NF (French)
2. UK (English)
3. CUSTOM (defined by user)

Paragraph C.2.2.8 provides instructions on how to change the type of STANDARDS (for example to change over from NF standards to UK standards).

IT IS POSSIBLE TO CHANGE THE APPLICABLE STANDARD ONLY IF NO CHILLING CYCLE IS ACTIVE. If a chilling cycle is active, the utility is automatically exited.

The time and temperature limits for correct cycle end established by NF or UK are FIXED and CANNOT BE MODIFIED by the user. CUSTOM applications can instead be configured.

For example, when working with the NF setting, positive chilling with shaft probe concludes correctly if a temperature of 10°C is reached within 110 minutes. Chilling is thus concluded and the machine automatically switches over to positive holding.

Standard	BLAST FREEZERS		
	Chilling start temperature	Chilling end temperature	Chillingtime
NF	+63°C	-18°C	270 minutes
UK	+70°C	-18°C	240 minutes
CUSTOM	CbSt °C	CFEt °C	CFtl minutes

In sequence, the settings are shown that refer to: NF positive chilling, NF negative chilling, UK positive chilling, UK negative chilling, CUSTOM positive chilling, CUSTOM negative chilling.

The user can change all the parameters of the CUSTOM setting (**CbSt**, **CCet**, **Cctl**, **CFEt**, **CFtl**) in USER PARAMETERS mode, paragraph C.1.9.5, or directly by selecting the utility (see paragraph C.2.2.9 for further indications on how to modify CUSTOM standards parameters. See paragraph D.6 for a list of parameters).

Exiting occurs automatically after twelve seconds of inactivity.

C.1.9.5 USER PARAMETERS SET

This selection makes it possible to view/modify operating parameters:

- the "TEMPERATURE" display shows the **parameter label**;
- the "TIME" display shows the **value assigned to the parameter**;



- allow scrolling through the parameters;

Exiting occurs automatically after twelve seconds of inactivity.

To modify a parameter, see paragraph C.2.2.10.

C.1.9.6 HACCP HACCP

Makes it possible to display alarms for high cell temperature and for incorrect end of chilling cycle (see paragraph C.4. for all information concerning alarms).

C.1.9.7 SERVICE ALARMS



Makes it possible to view all types of SERVICE ALARMS except those for high cell temperature and for incorrect end of chilling cycle (see paragraph C.4.1 for all information concerning alarms).

C.1.9.8 RESETTIME TIME

To modify all time setting parameters

(MIN, HOUR, DAY, MON, YEAR) refer to paragraph C.1.9.5.

Standard	BLAST CHILLERS		
	Chilling start temperature	Chilling end temperature	Chillingtime
NF	+63°C	+10°C	110 minutes
UK	+70°C	+3°C	90 minutes
CUSTOM	CbSt °C	CCet °C	Cctl minutes

C.2 USE - USER INSTRUCTIONS

Before using the machine, the cell must be cleaned with a detergent solution, because there may be residual condensation left over from final factory testing (for the type of product to use, see paragraph D.1.2).

C.2.1 START-UP

Turn on the protection switch installed upstream from the unit, press the **ON** key in order to turn the unit on. The **ON** LED will light up to indicate that the unit is powered.

C.2.2 OPERATION

C.2.2.1 How to select a “cruise chilling” cycle

To select a “cruise chilling” automatic chilling cycle (positive)

press the key .

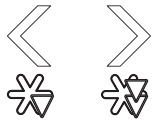


ATTENTION!

The “cruise chilling” cycle is not activated when the appliance is in “programme selection” status.

C.2.2.2 How to select a standard cycle

The machine’s default setting is the SOFT chilling cycle. The keys

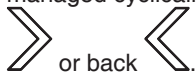


can be used to select from the following:

From left to right:

- SOFT positive chilling
- HARD positive chilling
- Positive holding (or conservation)
- Negative chilling or freezing
- Negative holding (or conservation)

When selecting the desired cycle, each time the key  is pressed, the selection will move on to the next one. This is managed cyclically, so that it is possible to scroll either forward



or back

If a different cycle is desired, press the key  until the LED of the desired cycle is orange, start the cycle by pressing the

key .

IMPORTANT: the machine automatically recognises whether the shaft probe is inserted in the product. If the shaft probe is not inserted, the timed cycle will start automatically.

For automatic recognition, it is necessary to wait about two minutes from the end of the preparation cycle.

Therefore, if a timed cycle starts, after about two minutes the TIME LED will come on, and CELL TEMPERATURE will be displayed as default.

C.2.2.3 How to select a “turbo cooling” cycle

To select the “turbo cooling” cycle, press the key ; the LED  will turn orange.

To start the cycle press the key .

C.2.2.4 How to select a programme:

First of all, the user needs to decide what type of cycle to launch (SOFT, HARD, etc.). The desired programme must then be selected. Proceed as follows:

- select the type of cycle desired;

• press the programme selection key ; the LED  will turn orange;

- press the selection key  until the LED of the desired

programme  turns orange;

- if the type of programme is satisfactory, launch it by pressing

the key  otherwise

- press the selection key  until the LED of the desired pro-

gramme  turns orange;

- to launch the programme press the key .

The user can modify some cycle parameters and save those modifications:

- for chilling cycle, the user can modify the chilling time/ cell set point and save it in memory so that it can be subsequently recalled (see paragraph C.2.2.5 and C.2.2.6);

- for positive holding, the user can set the cell set point.

C.2.2.5 Modification of chilling time

Chilling time is modifiable in the following cases:

- 1) during setting of a programme (P1 or P2)
- 2) during the selection phase of a chilling cycle
- 3) during actual chilling (can only be decreased).

For modification, proceed as follows:

- press the key  for two seconds;
- the display will flash to show that modification phase is active;

- set the desired value using the keys  ;

- press the key  to confirm the value. Confirmation will take place automatically after five seconds of inactivity.

C.2.2.6 Modification of cell temperature

- **Chilling cycles:** the set point can be modified only during selection of a custom cycle or during “turbo cooling”.

- **Holding cycles (all).**

In all cases proceed as follows:

- press the key  for two seconds;
- the display will flash to show that modification phase is active;

- set the desired value using the keys  ;

- press the key  to confirm the value. Confirmation will take place automatically after five seconds of inactivity.

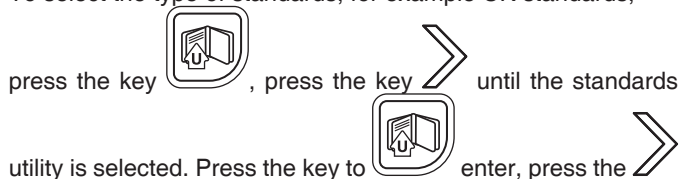
C.2.2.7 Viewing of temperature set point and chilling end time

When a cycle is running, the user can view the temperature set point and the chilling end time by simultaneously pressing the



C.2.2.8 Modification of selection of type of standards

To select the type of standards, for example UK standards,



to select the standard **UK**. Press the key again to confirm the selection. Confirmation will take place automatically after 12 seconds of inactivity.

C.2.2.9 Modification of parameters of custom standards

To modify the temperatures of the **CUSTOM** standards, first of all select the standards utility (see paragraph C.2.2.8).

- 
- Then press the temperature key for two seconds;
- the temperature value for **start chilling** will appear flashing;
 - use the keys   to modify the value, if necessary;
 - after 5 seconds of inactivity, the **end chilling** temperature will appear flashing;
 - use the keys   to modify the value, if necessary;
 - the new value is automatically saved after five seconds of

inactivity or by pressing the key  again.

To modify the time, use the same procedure as for the modification of chilling time (paragraph C.2.2.5)

Note: The information provided above is applicable to both positive and negative chilling.

C.2.2.10 Modification of USER parameters

To modify a parameter, select the utility:

- 
- press the key;
 - the display will flash to show that modification phase is active;
 - press the keys   to modify the value within the allowable range;
 - the new value is automatically saved after five seconds

of inactivity or by pressing the key  again.

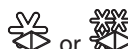
NOTE: it is possible to modify the parameters **ONLY** if no cycle is active. If a cycle is active, the utility will display the parameters in read-only status.

For the "List of USER Parameters" refer to paragraph D.6.

C.2.3 CHILLING/CONSERVATION CYCLE

Upon completion of the chilling or freezing cycle, the machine automatically switches over to the conservation phase. It is important for the chilled food to be properly conserved, maintaining a conservation temperature which is suitable for the type of food that is chilled.

C.2.4 DEFROSTING



If unit conditions allow it (LED  or  or with machine in standby status), manual defrosting is activated. The display will show the label "dEfr" for the entire duration of the phase.

If the unit conditions do not allow activation of manual defrosting (during a chilling phase), the display will show the message "UTIL NONE".

The selection is valid only in conservation/holding conditions and during operating cycle selection.

Upon completion of defrosting, the card will return to the main configuration. The duration of the cycles and the intervals between defrosting cycles are pre-set at the factory.

- Manual defrost

To start manual defrosting:

- 
- PRESS THE KEY**; **THE DEFROST LED WILL TURN ORANGE WHILE THE OTHERS REMAIN GREEN.**

- 
- PRESS TO CONFIRM THE ACTIVATION.**
- Before defrosting, remove the drain plug on the bottom of the cell. When finished, put the plug back in place.

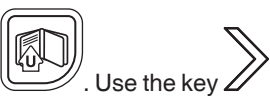
To reduce defrosting time, it is possible to activate the function with the door open, that is, to run a manual defrost cycle with the door open. In this way the chiller runs the internal fans which draw in air from the exterior to the interior of the cell, making the reduction in defrost time possible.

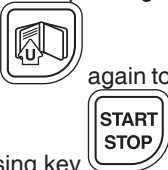
C.2.5 GERMICIDE LAMPS



(Function for units with germicide lamp installed)

To activate the lamps, the machine must be on but with no cycle running.

- 
- Press the key. Use the key to select the cycle "**germicide**". The corresponding LED will turn orange.

- 
- Press the key again to confirm the selection. Launch the cycle by pressing key .

It is advisable to run a germicide cycle at the start of the day before using the unit, and again at the end of the day after cleaning the cell.

For further information see paragraph B.1.4 and C.1.9.3.



ATTENTION!

The cycle will not be activated if the compartment temperature is below 15°C or if the door is open.

PROPER OPERATION OF THE MACHINE DURING CHILLING AND FREEZING CYCLES DEPENDS ON THE FOLLOWING:

C.2.6 PRODUCT LOADING AND UNLOADING

Use kitchen gloves when loading and unloading food products.

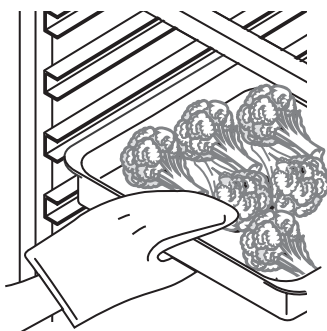
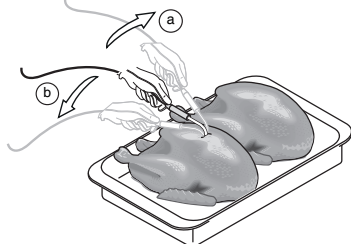
For the maximum loads for each shelf, adhere to the following table:

MAXIMUM LOAD PER PAN	
BCF 6 GN 1/1	40 Kg
BCF 10 GN 1/1-2/1	

It is advisable to keep the food covered during chilling to make chilling easier. Even distribution of the product in the cell is conducive to good air circulation resulting in improved product conservation.

Do not however leave the door open any longer than necessary when removing or placing food in the refrigerator.

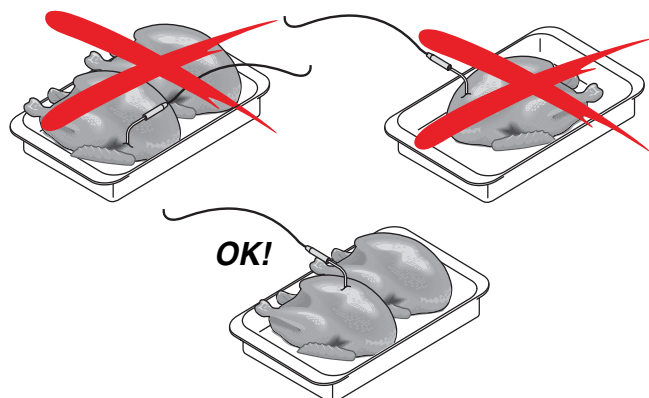
When the cycle is complete, open the door and extract the probe. Put it back in its original position (remember that the pans are now cold, use gloves).



- Types of containers to be used. It is advisable to use low containers (with sides not more than 65 mm high) to allow good circulation of air around the product. The greater the surface area of food exposed to the cold air, the less time is required for chilling. To avoid food contamination, it is advisable to clean the containers carefully as well as the surfaces where they rest. It is also advisable to place food into the chiller in the same container in which it was cooked.

C.2.7 INSERTION OF SHAFT PROBE IN THE PRODUCT

Make sure the probe is clean and sterile any time it is inserted into the product. Use caution in handling it as it is a sharp object. The use of the shaft probe during chilling cycles ensures they will be completed successfully. To ensure this, it is important for the probe to be placed correctly. This means in the centre of the largest piece of product. Make sure the tip does not protrude from the product, and it absolutely must not touch the pan.



C.3 EXAMPLES OF ACTIVATION OF OPERATING CYCLES

To make the use of the electronic card of this chiller even easier, we have elected to provide step-by-step instructions of all instructions to be followed in order to activate the different usage functions.

After being turned on, the unit's default setting is the SOFT chilling cycle.

At this point you can choose the desired cycle by pressing the

key  or you can press the key  for the automatic cycle. Remember that if the shaft probe is not inserted into the food, the cycle automatically switches over to "soft" timed positive chilling.

- Hard chilling -

PRESS THE "CYCLE SELECTION" KEY  UNTIL THE "HARD CHILLING" LED  TURNS ORANGE;

PRESS THE "START/STOP CYCLE" KEY  .
If the shaft probe is not inserted into the product, a timed cycle is carried out.

- Hard chilling with modification of chilling end time -

PRESS THE "CYCLE SELECTION" KEY  UNTIL THE "HARD CHILLING" LED  TURNS ORANGE;

IF YOU WANT TO MODIFY THE CHILLING END TIME PRESS
THE "TIME" KEY  ;

PRESS THE "CYCLE SELECTION" KEY   TO SET THE DESIRED VALUE; THE NEW VALUE IS AUTOMATICALLY SAVED AFTER FIVE SECONDS OF INACTIVITY OR WHEN

THE "TIME" KEY  IS PRESSED. PRESS THE "START/STOP CYCLE" KEY  .

- Hard chilling with programme selection -

PRESS THE "CYCLE SELECTION" KEY  UNTIL THE "HARD CHILLING" LED  TURNS ORANGE;

PRESS THE "PROGRAMME SELECTION" KEY  : THE PROGRAMME TYPE SELECTION LED COMES ON  .

IF THE SELECTED PROGRAMME IS ACCEPTABLE, PRESS

THE "START/STOP CYCLE" KEY  .
IF YOU WANT TO MODIFY THE TYPE OF PROGRAMME

PRESS THE "CYCLE SELECTION" KEY  UNTIL THE LED

OF THE DESIRED PROGRAMME  TURNS ORANGE;
PRESS THE "START/STOP CYCLE" KEY .

- Hard chilling with programme selection and modification of chilling end time -

PRESS THE "CYCLE SELECTION" KEY  UNTIL THE "HARD CHILLING" LED  TURNS ORANGE;

PRESS THE "PROGRAMME SELECTION" KEY  : THE PROGRAMME TYPE SELECTION LED COMES ON  IF THE SELECTED PROGRAMME IS ACCEPTABLE, PRESS

THE "START/STOP CYCLE" KEY  . IF YOU WANT TO MODIFY THE TYPE OF PROGRAMME:

PRESS THE "TIME" KEY  FOR TWO SECONDS;

PRESS THE "CYCLE SELECTION" KEY   TO SET THE DESIRED TIME VALUE.

PRESS THE "TIME" KEY  AGAIN TO SAVE THE NEWLY SET VALUE. CONFIRMATION WILL HOWEVER TAKE PLACE AUTOMATICALLY AFTER FIVE SECONDS OF INACTIVITY.

PRESS THE "START/STOP CYCLE" KEY  IF YOU WANT TO MODIFY CELL TEMPERATURE.

SET THE DESIRED TEMPERATURE VALUE  FOR TWO SECONDS;

SET THE DESIRED TEMPERATURE VALUE   ;

PRESS THE "TEMPERATURE" KEY  AGAIN TO SAVE

THE NEWLY SET VALUE. CONFIRMATION WILL HOWEVER

TAKE PLACE AUTOMATICALLY AFTER FIVE SECONDS OF INACTIVITY.
PRESS THE "START/STOP CYCLE" KEY .

-Chilling with "turbo cooling" -

PRESS THE "PROGRAMME SELECTION" KEY  ; THE

"TURBO COOLING" LED COMES ON .

PRESS THE "START/STOP" KEY  TO START THE CYCLE.

C.4 ALARMS

C.4.1 ALARMS

The electronic card manages two types of alarm:

- **HACCP** whose function is to monitor and memorize high temperature alarms.

HACCP alarm status is indicated by activation of the buzzer, by the flashing of the HACCP red LED, and by the alarm label being shown on the display.

- **SERVICE ALARMS** whose function is to memorise and manage all alarms available in the electronic card (except for the high temperature alarm and incorrect end of chilling cycle alarm).

C.4.1.1 HACCP ALARMS

Makes it possible to manage alarms for high cell temperature and for incorrect end of chilling cycle.

If no alarm is present: the "TEMPERATURE" display shows the message 'none', while the "TIME" display stays off.

In case of alarm the "TEMPERATURE" shows the alarm number, "AL 1", "AL 2", etc., while the "TIME" display shows the description of the alarm (see paragraph C.4.1.1.1).

To view the alarm, enter Utilities, and press the keys   which allow scrolling. The labels "AL 1", "AL 2", and so on, will appear.

After showing the last alarm, the display will show the label '—'. If no action is taken for 12 seconds the unit automatically reverts to the main menu.

To cancel the alarms, simultaneously press  +  for 5 seconds.

ATTENTION: Reset is disabled if the operator has not seen the memorized alarms and the TEMPERATURE display will show the message "RES".

C.4.1.1.1 DESCRIPTION OF ALARMS

- HIGH TEMPERATURE ALARMS

The display will show:

- the label "**Batch** (number) **Ht** (maximum temperature reached) **C Start Date Time End ---**", **if the alarm is still active**

E.G. Batch 01 Ht 15C Start 25-10-01 15.48 End ----

- the label "**Batch** (number) **Ht** (maximum temperature reached) **C Start Date Time End Data Time**", **if the alarm has still terminated**

E.G. Batch 01 Ht 15C Start 25-10-01 15.48 End 25-10-01 17.48

where:

Start Date Time indicates the start of the alarm, **End Data Ora** indicates the end of the alarm (format "Date": DD-MM-YY, format "Time" HH.MM;).

- INCORRECT END OF CHILLING CYCLE ALARM

This type of control is carried out to verify whether a shaft probe chilling/freezing cycle terminates properly.

If it does not terminate properly, this generates a "**Chilling duration time overrun**", and the display will show

- the label "**Batch** (number) **Ot** (chilling time) **MIN Start Date Time End date Time**"

E.G. BATCH1 Ot 120MIN Start 25-10-01 15.48 End 25-10-01 17.48.

where (number) indicates the batch number of the current day, **Start Date Time** indicates the start of the cycle, **End Date Time** indicates the end of the cycle.

WHAT IS A BATCH NUMBER: Each chilling cycle (SOFT/HARD chilling, freezing) which is carried out will be identified by a progressive number (1, 2, ...) called a "BATCH NUMBER". It will refer to the current day and will be reset to zero at the start of a new calendar day.

N.B. for timed and "turbo cooling" chilling, there are no end of cycle alarms.



In case of a power failure the "no power" alarm is displayed with the red warning light (ⓘ) coming on. This alarm can be displayed by scrolling with the utility keys. The appliance will subsequently restart from where it stopped.

C.4.1.2 SERVICE ALARMS

There are two types of service alarms:

- type "b" (user) which do not require technical service and do not shut down the machine;

SYMBOL	DESCRIPTION	ACTION
B1	Condenser high temperature	Clean the condenser; check that air circulates near the condenser
B2	Door open	Close the door
B3	Memory full	Reset the HACCP alarms
B4	Power failure	Make sure the plug is properly inserted in the power socket, check the electrical system

In the event of alarm "B2", the time display will show the message "door". When the alarm ceases (because the door is closed), the message disappears.

- eand type "E" (non-user) for which it is advisable to contact technical service, but do not shut down the machine;

SYMBOL	DESCRIPTION	ACTION
E1	Minimum cell temperature	CALL TECHNICAL ASSISTANCE
E2	Minimum evaporator temperature	
E3	Cell probe defective or disconnected	
E4	Evaporator probe defective or disconnected	
E5	Ambient probe defective or disconnected	
E6	Condenser probe defective or disconnected	
E7	Shaft probe 1 defective or disconnected	
E8	Shaft probe 2 defective or disconnected	
E9	Shaft probe 3 defective or disconnected	
E10	Pressure switch activation	
E11	Incorrect compressor operation	
E13	Internal clock defective /Battery low	

When alarms "E2" occurs, the machine will stop the cycle in progress and return to stand-by It will be possible to restart the cycle again when the temperature of the evaporator returns to the proper level resulting in cessation of the alarm.

All alarms shall be memorised as follows: the "TEMPERATURE" display shows the alarm number, for example "AL 1", "AL 2", etc., while the "TIME" display show the ALARM CODE, for example "E1", "b1", etc.

Slf no alarm is active: the first alarm, is the most recent one to occur, is shown.

The keys < > let you scroll through the memorized alarms.

After displaying the latest alarm, the display will show the label "----", and after 12 seconds the unit will automatically return to the main menu.

When the next alarm occurs, those present will be cancelled (automatic reset).

If an alarm is active, entering the utility shuts off the buzzer while at the same time showing the alarm label.

The keys < > let you scroll through the memorized alarms.

After displaying the latest alarm, the display will show the label "----" and after 5 seconds the unit will automatically return to the main menu.

As long as the alarms are active, they will not be deleted from the memory.



To cancel the alarms, simultaneously press + < for 5 seconds.



ATTENTION!

The reset function is disabled if the operator did not see the stored alarms and the message "RES" appears on the "TEMPERATURE" display.

C.5 HACCP CONNECTIONS (ACCESSORIES)

For the installation of accessories, refer to the booklet enclosed with the kit.

The card is equipped with a serial communication line which allows interaction with other units, printers, or a control station in an HACCP network.

It can be connected

- directly to a device that communicates in TTL (for example the printer FT190ELX) by setting the parameter E485="Prn"
- to a communications network RS485 by setting the parameters E485="PC" inserting the conversion card RS485-LK-P and Adr="Network address".

D.1 ORDINARY MAINTENANCE

D.1.1 PRECAUTIONS FOR MAINTENANCE

Routine maintenance tasks can be performed by non-specialized personnel provided the instructions given below are carefully followed. **The manufacturer shall not be held responsible for any operations carried out on the machine if these instructions are not complied with.**



ATTENTION!

Before carrying out any cleaning or maintenance operation, disconnect the appliance from the power supply and carefully unplug it.



ATTENTION!

Do not touch the appliance with wet hands or feet or when barefoot. The safety protection devices must not be removed when carrying out routine maintenance.



ATTENTION!

Use a ladder with suitable protection for work on appliances with high accessibility.

D.1.2 CLEANING THE CABINET AND ACCESSORIES

It is advisable to clean the cell weekly. Increase cleaning frequency based on use of the unit.

Before using the unit, clean all the internal parts and accessories with warm water and either neutral soap or products that are over 90% biodegradable (in order to reduce the emission of pollutants into the environment), then rinse and dry thoroughly.



ATTENTION!

Do not clean the machine with jets of water.

**ATTENTION!**

Do not use steel wool or similar material to clean stainless steel surfaces. Do not use detergents containing chlorine, solvent-based detergents (e.g. trichloro-ethylene) or abrasive powders.

Let the water run out of the drain tube, placed in the centre of the bottom of the cell. From here, the liquid will reach the container located under the cabinet. It is to be emptied periodically (for units 6 GN 1/1, 10 GN 1/1 and 10 GN 2/1).

Refit the drain plug immediately after the cleaning.

Note: before removing the plug for the drainage of cell washing liquids, make sure the collection container has been emptied.

ATTENTION: model 20 GN 1/1 does not have a liquid collection container. Make sure the drain pipe is connected to a water drainage system.

D.1.3 CLEANING OF THE SHAFT PROBE

Handle the probe with care, especially during cleaning, as it is a sharp object.

To ensure best performance of the shaft probe, it is advisable to clean it periodically.

The probe must be cleaned by hand, using lukewarm water and neutral soap, or with products which are more than 90% biodegradable (in order to reduce the emission into the environment of pollutants). Rinse with clean water and a disinfectant solution. Do not use solvent-based detergents (e.g. trichloro-ethylene) or abrasive powders for cleaning.

**ATTENTION!**

Do not use steel wool or similar material to clean the core probe. Do not use detergents containing chlorine, solvent-based detergents (e.g. trichloro-ethylene) or abrasive powders.

**ATTENTION!**

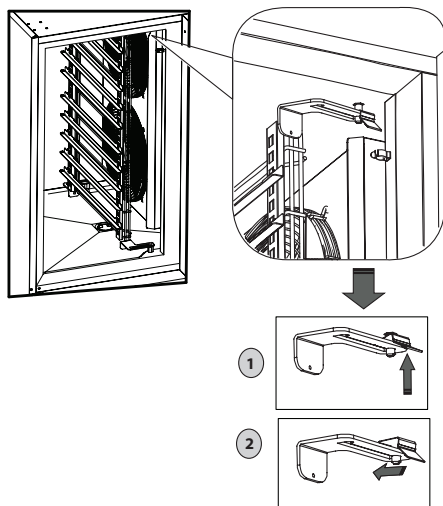
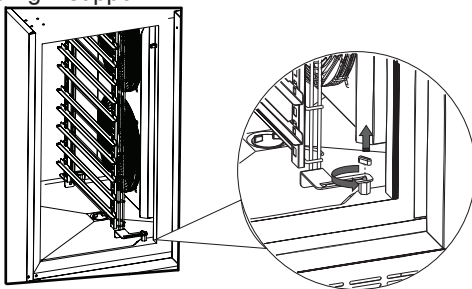
Do not use boiling water to clean the core probe.

D.1.4 CLEANING OF TRAY SUPPORT

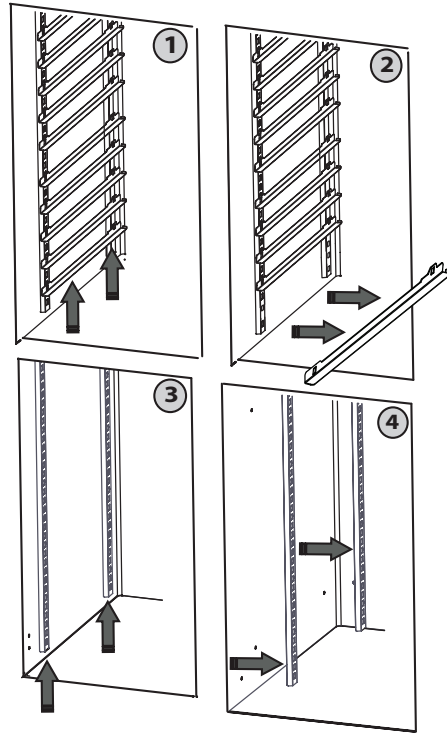
The tray supports are removable and washable in dishwasher. Do not use detergents containing chlorine, solvent-based detergents (e.g. trichloro-ethylene) or abrasive powders.

For the removal support to proceed as shown in the figure:

- removal right support:



- Removal left support:

**D.1.4 PROLONGED IDLE PERIODS**

Whenever the machine is not going to be used for a long period of time (e.g. one month), take the following precautions:

- disconnect the plug from the power socket;
- remove all food from the compartment and clean the inside and accessories;
- go over all the stainless steel surfaces vigorously with a cloth moistened with paraffin oil, in order to create a protective film;
- leave the door ajar so that air can circulate inside, preventing the formation of unpleasant odours;
- air the rooms periodically

**ATTENTION!**

Maintenance and inspection, as well as machine overhaul operations must only be carried out by a specialised technician or by the After-Sales Service, using appropriate personal protection equipment (safety footwear and gloves), tools and ancillary means.

**ATTENTION!**

Work on the electrical equipment must only be carried out by a specialised electrician or the After-Sales Service.

**ATTENTION!**

Put the machine in safe conditions before starting any maintenance operation.

After carrying out maintenance make sure the machine is able to work safely and, in particular, that the protection and safety devices are efficient.

**ATTENTION!**

Respect the requirements for the various routine and extraordinary maintenance operations. Non-compliance with the instructions can create risks for personnel.

D.2 SPECIAL MAINTENANCE

Special maintenance must be carried out by specialized personnel, who may request the service manual from the manufacturer.



ATTENTION!

Before carrying out any cleaning or maintenance operation, disconnect the appliance from the power supply and carefully unplug it.



ATTENTION!

Do not touch the appliance with wet hands or feet or when barefoot. The safety protection devices must not be removed when carrying out routine maintenance.



ATTENTION!

Use a ladder with suitable protection for work on appliances with high accessibility.

D.2.1 REPLACING THE POWER CABLE

To replace the power cable for units 10 GN 1/1 and 10 GN 2/1 proceed as follows:

- disconnect the power supply;
- remove the screws that hold the rear protection grid;
- remove the electrical system protection
- replace the power cable;
- put the protections back in place;
- re-connect the power supply.

To replace the power cable for units 6 GN 1/1 and 20 GN 1/1 proceed as follows:

- disconnect the power supply;
- remove the screws that hold the rear protection grid;
- remove the 2 screws that hold the front control panel (remove the lower screws). Slide the control panel up to remove it;
- still from in front of the unit, slide out the electrical system box;
- replace the power cable;
- position the electrical system box;
- move behind the chiller and extend the power cord;
- put the protection grid and the control panel back in place;
- switch the power on.



ATTENTION!

The cable used for permanent connection to the power supply is H07RN-F type (designation 60245 IEC 66); when replacing it, use a type having at least these characteristics.



ATTENTION!

When replacing the cable, the earth wire must be kept longer than the live and neutral wires.

D.2.2 PERIODICAL CONDENSER CLEANING

The condenser can be cleaned with a brush, provided the bristles are not in iron or any material that can compromise its efficient operation. Be careful not to bend the condenser fins, as this would cause a reduction in the heat exchange.

To ensure optimum appliance operation, the refrigerating unit condenser must be cleaned at least once every 3 months.

The condenser is located behind the slotted front panel. To remove it, remove the 4 screws at the bottom and 1 on the left side, and pull it outwards to release it from the retaining clips.



ATTENTION!

Before removing the slotted panel protecting the condenser, make sure the appliance is disconnected from the power supply.

Note: it is advisable to use a brush or vacuum cleaner to remove the dirt accumulated on the condenser. Do not use pointed objects which might damage the condenser.



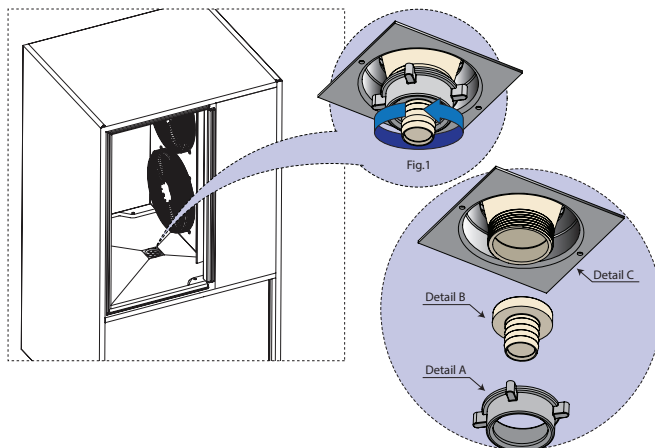
ATTENTION!

Do not clean the machine with jets of water.

D.2.3 CLEANING OF THE CELL DRAIN

If an extraordinary maintenance of the drain should be necessary, proceed as follows:

- unscrew the nut, as shown in Fig. 1, and remove it (Detail A);
- unthread, then, the rubber drain support (Detail B) and proceed with the cleaning of the drain (Detail C).



D.2.4 CLEANING THE EVAPORATOR COIL

Regular cleaning of the evaporator coil is required to ensure the unit's proper operation and long-lasting performance.

Here it is also possible to clean with a brush as long as the brush does not have metal bristles or material which may compromise proper operation. Use extreme care not to bend the fins of the evaporator coil so as to avoid a reduction in heat exchange.

As an alternative, it is advisable to use a specific product such as "SGRASS CLEANER" degreaser, sprayed directly on the part to be cleaned, left to act and rinsed off with a gentle jet of water (not pressurised). It is a non-toxic (in any case, take the due precautions during use), non-inflammable degreasing product, environmentally-friendly and 90% biodegradable.

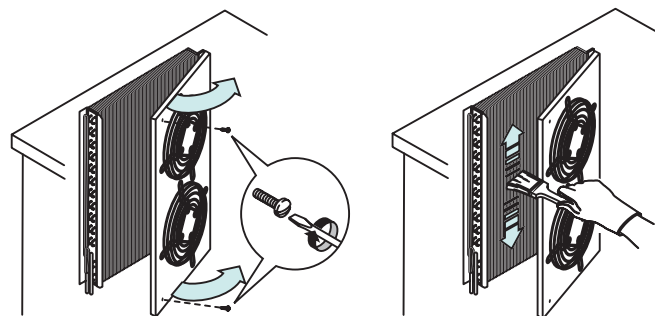


ATTENTION!

Before opening the casing with a tool, make sure the appliance is disconnected from the power supply.

To access the evaporator coil:

- disconnect the power supply;
- remove any pans which may be in the cell;
- remove the four screws, two front and two back, which hold the two deflectors to the evaporator guard;
- remove the two screws that hold the internal accessible guard and open it;
- clean the evaporator coil using a brush or vacuum cleaner;
- close the guard, put the deflectors back in place and restore electrical power.



D.2.5 MAINTENANCE PERIODICITY

In order to guarantee constant machine efficiency, it is advisable to carry out the checks with the frequency given in the following table:

Maintenance, checks, inspections and cleaning	Periodicità
Routine cleaning General cleaning of machine and surrounding area	Daily
Mechanical protection devices Check condition, and for any deformation, loosening or removed parts.	Monthly
Control Check mechanical part, for any breakage or deformation, tightening of screws. Check readability and condition of words, stickers and symbols and restore if necessary.	Yearly
Machine structure Tightening of main bolts (screws, fixing systems, etc.) of machine.	Yearly
Safety signs Check readability and condition of safety signs.	Yearly
Electrical control panel Check the electrical components installed inside the Electric Control Panel. Check wiring between the Electrical Panel and machine parts.	Yearly
Electrical connection cable and plug Check connection cable (replace it if necessary) and plug.	Yearly
Extraordinary machine maintenance Check all components, electrical equipment, corrosion, pipes,...	Every 10 years (*)

- (*) the machine is designed and built for a duration of about 10 years. After this period of time (from machine commissioning) the machine must undergo a general inspection and overhaul. Some examples of checks to be carried out are given below.
- check for any oxidised electrical components or parts; if necessary, replace them and restore the initial conditions;
 - check the structure and welded joints in particular;
 - check and replace bolts and/or screws, also checking for any loose components;
 - check the electrical and electronic system;
 - check the functionality of safety devices;
 - check the general condition of protection devices and guards.



ATTENTION!

Machine maintenance, checking and overhaul operations must only be carried out by a specialised Technician or the After-Sales Service, provided with adequate personal protection equipment (safety shoes, gloves, glasses), tools and ancillary means.



ATTENTION!

Work on the electrical equipment must only be carried out by a qualified electrician or the After-Sales Service.

D.3 OPERATING PROBLEMS

D.3.1 QUICK TROUBLESHOOTING GUIDE

In some cases, faults can be remedied easily and quickly; the following is a list of some faults and relative remedies:

A. The appliance does not switch on:

- check that the socket is powered.

B. The unit does not reach the required internal temperature:

- check that the condenser is clean;
- check that cycles have been set properly;
- check that the product has been loaded into the cell properly;
- check the condition of the probe.

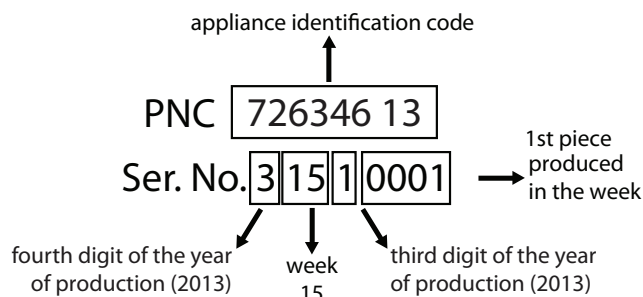
C. The appliance is excessively noisy:

- make sure the appliance is level.
An unbalanced position can set off vibrations.
- make sure the cabinet is not touching other appliances or parts which could reverberate;

If the fault persists after having carried out the above checks, contact Technical Assistance, remembering to give the following details:

- the nature of the fault;
- the appliance PNC (production code);
- the Ser. No. (appliance serial number).

N.B.: the code and serial number (shown on the data plate, see paragraph A.1.6) are essential for identifying the type of appliance and date of manufacture:



D.4 ENCLOSED DOCUMENTATION

- Set of test and inspection documents
- Wiring diagram

D.5 LIST OF USER PARAMETERS

SYMBOL		RANGE
MIN	Internal clock: Minutes	0..59
HOURL	Internal clock: Hours	0..23
DAY	Internal clock: Days	1..31
MON	Internal clock: Month	1..12
YEAR	Internal clock: Year	0..99
SrF	Indicates the cell temperature set point for the positive holding cycle and the conservation phase after positive chilling	-25..10°C/F
SFF	Indicates the cell temperature set point for the negative holding cycle and the conservation phase after negative chilling	-25..10°C/F
LAC	Temperature difference from absolute temperature/conservation set point, below which a low temperature alarm is generated	-50..125°C/F
HAC	Temperature difference from absolute temperature/conservation set point, below which a high temperature alarm is generated	-50..125°C/F
CdiF	Indicates whether the LAC and HAC temperature limits are expressed as differential (d) or absolute (A).	A/d
SLd	Indicates duration of sanitation cycle	0..240
bCCy	Buzzer mode to indicate correct conclusion of a chilling cycle ‘nob’ = buzzer off ‘bbl’ = buzzer on for 30 seconds ‘llb’ = buzzer on until any key is pressed	Nob bbl lbl
bFCy	Buzzer mode to indicate HACCP alarms	
bAlI	Buzzer mode to indicate a generic alarm	
CCet	“CUSTOM” standards: END OF POSITIVE CHILLING TEMPERATURE	0..CbSt°C/F
CCtl	“CUSTOM” standards: END OF POSITIVE CHILLING TIME	0..360 min
CFet	“CUSTOM” standards: END OF NEGATIVE CHILLING TEMPERATURE	-35..CbSt°C/F
CFtl	“CUSTOM” standards: END OF NEGATIVE CHILLING TIME	0..360°C/F
CbSt	“CUSTOM” standards: START OF CHILLING TIME	0..127°C/F
EICE	The utility enables the utility of cycles ICE P1 and P2 instead of the custom programmes	Y/N
tPrA	Indicates printing cycle during a chilling cycle. If set to 0, only the temperatures at the beginning and end of the cycle are printed.	1..255 min
tPrC	Indicates the printing interval in conservation /holding. If set to 0, no value is printed.	1..255 min
PrnL	Configuration of printout language: It = Italian, Gb = English, dE = German, fr = French, Es = Spanish, Se = Swedish	It/Gb/dE/fr/Es/Se
Adr	Network address	01-FF
E485	Type of connection “Prn” = Printer; “PC” = Personal Computer;	Prn/PC
nOr	Indicates applicable standards, whether “NF”, “UK” or “CUSTOM”	nF, Uk, CuSt
REL	Software version	-

NOTES The default parameters (DEF) may undergo variations depending on the unit model.