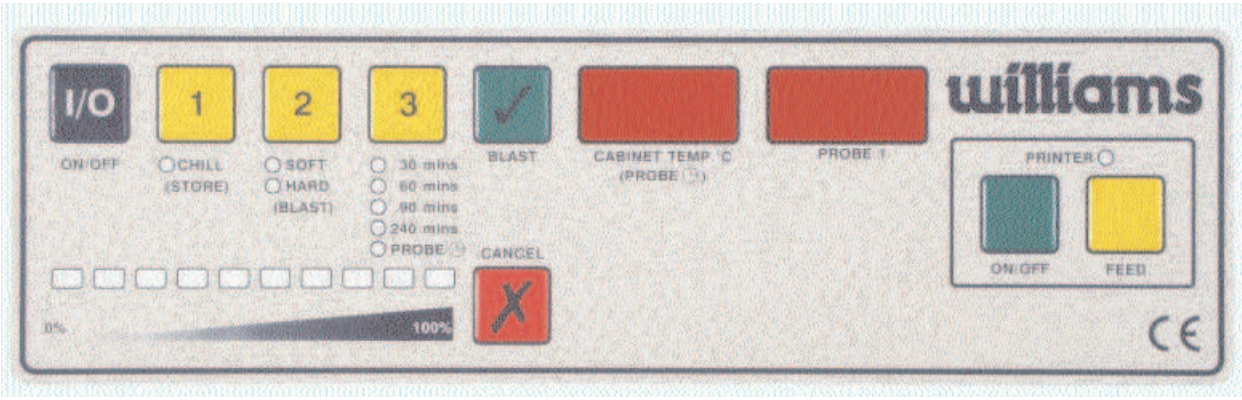
OPERATORS MANUAL

Reach-in Blast Chiller

☐ **HS1BC**



AFE AGA FOODSERVICE EQUIPMENT

CONTENTS

OLD CABINETS

Please ensure the old / redundant cabinet and refrigeration equipment are disposed of safely and leagally. We would recommend that any doors are removed prior to disposal to ensure safety.

PRINCIPLES OF OPERATION

Williams blast chillers and freezers have been designed to quickly reduce the temperature of food in accordance with Department of Health guidelines on the chilling and freezing of cooked foods. All operators should be conversant with Department of Health publication, Chilled and Frozen Guidelines on Cook-Chill and Cook-Freeze Catering Systems. HMSO Number 0113211619.

Fast temperature reduction is not brought about by placing the food in a very cold cabinet like a deep freeze. This would only dry the food badly and would take a very long time to reduce its temperature to the required level. The secret of fast temperature reduction is in delivering the correct blast of air and ensuring correct and unobstructed horizontal air flow inside the cabinet.

This is why Williams has the option of soft and hard facility on blast chill.

Exceptions: depending on the density types and sizes of the portions the chiller might not be capable of achieving the required guidelines therefore the load and/or depth of the food layers should be reduced. You may find it necessary, therefore, to experiment with different amounts of food and loading methods in order to achieve the optimum performance with your blast chiller.

LOADING AND PACKING

The maximum temperature for product entering the Blast Chiller must not exceed +70°C/+158°F. Regulations state that product should be placed in the Blast Chiller within 30 minutes from completion of cooking.

The packaging of food and the way in which it is loaded or placed within the apparatus can have a significant effect on the time within which the temperature can be reduced to the required level and the amount of food which can be processed in each chilling or batch.

When blast chilling always use metal or foil containers which are good conductors. Plastic or polyurethane containers insulate the food from the cold air. When chilling unportioned food we recommend the use of the appropraite gastronorm tray or similar. Likewise, placing lids or covers on food will also increase the chilling time but may be of some use when processing some delicate foods to avoid dehydration.

Always load your machine in such a way that it is possible for the cold air to contact all sides of the containers. Avoid stacking containers directly on top of one another as this will drastically extend the chilling time and take special care not to block the air ducts.

Always load the machine before selecting the blast facility. Unless it is unavoidable do not open the door of the machine whilst the blast cycle is engaged.

STORAGE TIMES

Chilled foods can be stored for up to 5 days at between 0°C/32°F and +3°C/38°F.

UNPACKING

Remove all external and interior packing and accessories, please ensure all packaging is disposed of safely.

INSTALLATION

The cabinet should stand level to ensure correct operation of self closing doors and proper drainage of condensate from the evaporator.

Models fitted with castors are non adjustable, therefore a level platform/floor should be provided where the cabinet is to be located. On models fitted with adjustable legs levelling may be achieved by adjustment of the bottom section of the legs.

For top mounted refrigeration systems (J1BC) please ensure there is 500mm between the top of the cabinet and ceiling for engineer access and ventilation.

If the cabinet has been laid on its back or tipped, DO NOT switch on immediately. Leave the cabinet in the upright position for at least 1 hour before switching on.

MAINS CONNECTION

All models come fitted with moulded plug for safety and must be earthed. We recommend that should the plug or cable fail contact Williams spares office for a replacement part.

OPERATION OF BLAST CHILLERS

Your machine will have been set-up at the factory and no further adjustments should be necessary.

Note: The control systems employed are micro-processor based and contain no user serviceable components. Instructions on setting up the control panel thermostats are available from the manufacturer. These should only be reset by a qualified service engineer.

Storage Mode:
On some chillers there is more than one fan installed these may not all operate during the storage mode giving a reduced air circulation within the chiller. All other models have one or more Aerofoil fans. The unit cycles on the store thermostat, the sensor of which is placed in the air.

Blast Chill Cycle:
All machines have the facility for the operator to use any of the 4 pre-programmed timed cycles and a probe control blast chilling cycle, with the option of soft or hard blast.

The probe controlled blast cycle functions via the food core probe supplied. The probe monitors the core temperature of the food and will not permit the blast cycle to stop until the default temperature (3°C/37°F) is reached.

When controlling the cycle with the food probe make certain that the probe or probes are located in the product before the blast cycle is started.

All blast chillers have 3 basic modes:

1. Normal storage: 1°C (34°F) to 3°C (37°F)
2. Blast Chill Hard: -10°C (14°F)
3. Blast Chill Soft: 1°C (34°F)

Normal Storage:
This is the storage temperature at which food can be held and the Blast Chiller automatically switches into this mode at the end of each cycle.

Blast Chill Cycle (Hard or Soft):
During the blast chill hard cycle the air temperature inside the cabinet should go down to approximately -10°C (14°F). This is for the timed chilling cycle only. During soft chill cycle the air temperature stays above 0°C (32°F).

Actioning a Blast Chill Cycle:

1. Switch on the chiller at least half an hour before use.
2. Check that the chiller is operating at storage temperature.
3. Load the products to be chilled (see notes on loading).
4. By pressing button **'1'** select the **'Chill'** mode.
5. By pressing button **'2'** select the desired type of blast, hard or soft.
6. By pressing button **'3'** select the timer for the desired duration, or probed blast.
7. When you are happy with your selected programme press the 3 to start the blast cycle.
8. If you are not happy with your selection press the 7button to cancel your 1/2/3 selection.

As each selection is made, the indicator LED will illuminate to show what is chosen. Press 3to accept, or 7to cancel.

On completion of a cycle, there will be an audible alarm which will cancel automatically after 15 minutes or may be cancelled with the 7button. '**DEF**' will then be displayed in the '**Cabinet Temp**' window of the control panel and the chiller will then revert to a store mode appropriate to the blast just completed.

During the defrost operation the temperature in the chiller will not exceed +3°C (38°F) and it is therefore safe to leave products in the chiller during the defrost cycle.

To save time for repeated identical blast operations, the blast selections are remembered, so when **1 2 3** are pressed the selections automatically adopt the previous settings on the first push. So the repeat a blast, just push **1 2 3** 3.

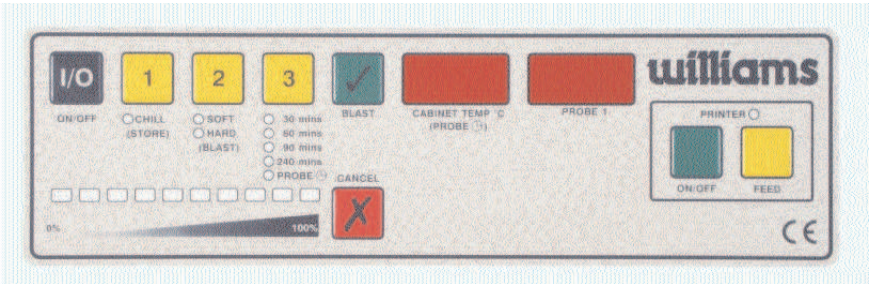
DEFROST

At the end of each cycle, a defrost will automatically clear any ice from the evaporator ready for the next cycle. During the operation in storage mode a defrost will be performed automatically at the factory preset intervals of 6 hours.

Furthermore, if a blast cycle is cancelled and the defrost thermostat is measuring +1°C (34°F) or less, the machine will automatically proceed to defrost. When the machine is in the defrost mode the '**Cabinet Temp**' window of the control panel will display '**DEF**'. During the defrost cycle **some** fans will stop running. When the defrost cycle is finished the compressor will run for approximately 90 seconds before the fans cut in.

Following every defrost period there is a 3 minute period during which a blast cycle cannot be selected. This short interval is to allow defrost water to drip away from the evaporator. The cabinet is now ready to start another cycle if required.

THE CONTROLS



The control panel enables the display of detailed information about the machine and its performance. If the machine is also fitted with a printer (standard on roll in machines, optional on reach in cabinets), detailed historical information can be printed out for immediate use or archived.

1. The '**Cabinet Temp**' display window can be used:
   - To show the cabinet wall temperature.
   - As a count up timer in probe blast.
2. The '**Probe**' window can show:
   - Temperature during a blast cycle, (blank during store).
   - During a blast if a food probe fails it will display '**pf**' in its own

window. At the end of a blast cycle it will indicate alarm code in Probe 1 window.

3. For a timed blast, the green row of LEDs show the progress of the blast. Each LED indicates another 1/10 of the total blast time has started. When there is only approximately 50 seconds left to blast, the right hand LED will flash. For a probed blast, the green LEDs again show the blast progress, but this time each LED indicates 1/10 of the temperature excursion between the products starting temperature and the target end temperature. Cabinet temperature window also acts as a count up timer showing in minutes the duration of the probed blast.

ALARM AND WARNING LEVELS

For the following alarm and warning conditions, an audible alarm will be activated, and a warning ticket will be printed if the printer is fitted. A faulty sensor alarm will be initiated if a sensor fault condition is detected. If there is an alarm condition, probe 1 window will display an alarm number **a0** to **a7** during store (see alarm table below), but will show the probe temperature during blast.

7-SEG DISPLAY	ALARM CONDITION
a0	Air on sensor failure
a1	Wall sensor failure
a2	Fin sensor failure
a3	Food probe 1 failure
a4	Food probe 2 failure
a5	Food probe 3 failure
a6	Spare
a7	Power cut detected

Note: *If a wall sensor fails it will also read -50.*

For each probe only one audible alarm and alarm printout is allowed to be issued each day. This is to prevent excessive paper use and noise nuisance in the event of an intermittent probe failure. However, repeated probe failures are displayed on the probe display window, (top window in the case of 3 probe panels).

To cancel the audible alarm press the 7button. If the alarm condition still exists the display will continue to indicate there is a fault.

THERE IS NO RE-SET FACILITY.

POWER FAILURE

A power cut does not cause the loss of any accumulated historical data and no re-programming is necessary. The controller's battery is continually charged and provides emergency back up under normal power failure conditions.

MAINTENANCE

The cabinets are fully automatic in operation and the only maintenance required is cleaning.

CLEANING

The condenser requires cleaning approximately four times a year.

If a condenser clean warning LED is fitted, and is flashing, the condenser will require cleaning. After cleaning, cancel the alarm using the 7button.

Clean the stainless steel interior of the cabinet regularly with a suitable cleaner. Do not use abrasive materials or chemical cleaners as they can damage the surface.

Exterior: The exterior of the cabinet is stainless steel and if cared for correctly will keep its 'as new' finish for many years. Normal day to day cleaning should be carried out with a soft cloth and soapy water. Always wipe the cabinet vertically in the same direction as the grain in the stainless steel. Whilst stainless steel is a very strong and robust material, the stain smooth finish can be spoilt by wiping against the grain.

Never use abrasive materials or cleaners, or chemical cleaners, as they can damage the surface and cause

corrosion. Occasionally, the exterior should be polished with a good stainless steel polish to protect the surface.

Do not use abrasive cleaners, chemicals or scouring pads on the control panel. Clean the control panel only with a soft damp cloth. Avoid excess water on the control panel, and other areas where electrical components are fitted.

Interior: The racking can be removed for easy cleaning (see Fig 1. This should be done on a regular basis with warm water and a soft cloth, dry thoroughly afterwards. To remove the racking and shelf supports follow this procedure: First remove the shelves, then remove the shelf supports by grasping firmly in the centre and lifting slightly. Turn the shelf support towards the interior of the cabinet by pushing it in the centre as you twist the support through 90°. The shelf support will be released. (Note: the supports are designed to be anti-tilt and you may therefore experience some resistance at first which will be overcome with practice). When all shelves have been removed, remove the racking by lifting up and over the nylon retaining blocks.

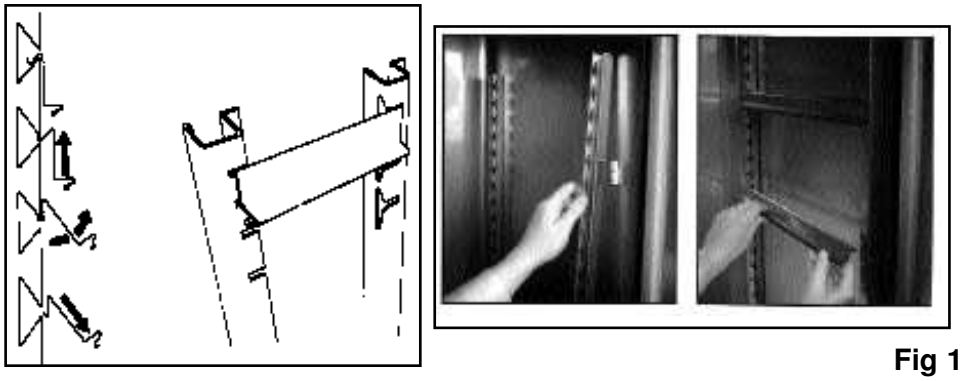


Fig 1

CONDENSER CLEANING

The condenser, which is part of the refrigeration unit, is sited in the unit compartment and requires cleaning, approximately 4 times per year or when the LED indicates. To clean the condenser, **disconnect mains supply before starting,** then brush the fins vertically with a stiff brush, taking care not to damage the fins or push dirt or dust further in and vacuum away. **Remember to reconnect mains supply once finished.**

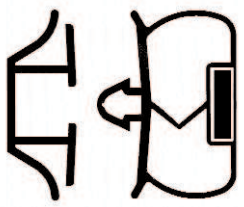
Disconnect the cabinet from the electrical supply by unplugging it then access to the condenser is achieved as follows:

The condensing unit and refrigeration equipment can be accessed from above or in some cases behind. Remove the screws in the top and bottom edge of the unit cover and pull the unit cover away from the cabinet and retaining clips.

Once cleaning or any maintenance is completed replace the unit covers and plug the cabinet in to restart operation.

CLEANING / REPLACING THE GASKET

Clean the gasket weekly with warm soapy water and a soft cloth taking care not to damage it **- DO NOT** use a sharp knife to clean or scrape the gasket. Regularly check the gasket for any damage. Damage can be caused by striking the gasket with a sharp object such as the corner of a tray. Damaged gaskets do not seal correctly and can increase the amount of electricity consumed, seriously affecting the efficiency and performance of the cabinet.



Damaged gaskets are easily replaced. To fit a new gasket - simply pull out the old gasket and push the ne gasket into the channel (gasket retainer) at the centre and work along the gasket pushing it into the channel, continue in the same way on the other three sides, pushing the cornes in last.

EVAPORATOR/DRAINLINE

Should be inspected periodically to ensure the drain hole is not blocked.

BREAKDOWN

In the event of a breakdown, please check the thermostat setting and fuse before calling the service engineer. When calling the engineer, please advise him of the model and serial number of the machine. These details are on the identification plate inside the cabinet and should also be noted on the back cover of this booklet. Please ensure all redundant parts are disposed of safely and legally.

Declaration of Conformity

CE

References:

- Low Voltage Directive 73/23/EEC Amended 93/68/EE
- EC Machinery Directive 89/392/EEC Annex II B
- Electromagnetic Compatibility Directive 89/336/EEC
- Pressure Equipment Directive 97/23/EC

Williams Refrigeration declares that all products manufactured by Williams Refrigeration comply with the above directives as they apply to those products, and those products are therefore declared to be in conformity with the provisions of the above legislation.

PARTS ONLY WARRANTY

Warranty applies to equipment manufactured by Williams Refrigeration and equipment bearing the Williams Refrigeration name plate and serial number identification tag.

We undertake, in conjunction with the supplying agent, distributor or representative, to replace free of charge any such piece of equipment or part thereof used under normal conditions for which the equipment was designed which is found to be faulty in either materials or workmanship. This warranty applies to Reach-in Blast Chillers and Blast Chiller Freezers within **24 months of date of purchase** on condition that annual servicing has been carried out. Gaskets warranty is limited to a 1-year warranty for manufacturing defects only.

Replacement of defective equipment will only be made where Williams Refrigeration or its authorised agent, representative or distributor has determined that effective repair is not practical. Responsibility is limited to the replacement of the equipment of components (excluding labour) and in no case is Williams Refrigeration liable for consequential loss or damage. If you purchased direct from the main distributor, your warranty may also include labour costs. Please check with your supplier in conjunction with his terms of sale.

In instances where a piece of equipment fails to perform to the reasonable satisfaction of the customer, the customer may apply for a refund of the purchase price in full, provided that notification of dissatisfaction is received within 10 days of installation and subject to the following;

1) The equipment is functioning incorrectly, and has been installed correctly and has not been subject to misuse.
2) The equipment was purchased by the supplying distributor direct from Williams Refrigeration and not through a wholesaler or other supplier whose warranty may be different.
3) Made to measure modular cold storage is excepted.

Our responsibility under this warranty shall **cease** if:

a) Authorised representatives of Williams Refrigeration are denied full and free rights of access to the equipment for inspection at a convenient time.
b) The customer permits persons other than those authorised by Williams Refrigeration to perform or effect repairs or adjustments to the equipment.
c) The customer has not properly maintained the equipment or carried out annual servicing, in accordance with instructions, literature or directions issued by Williams Refrigeration.
d) The customer fails to observe commonly accepted operating practices.
e) Repairs are made using spare parts or replacements not of the same make as those supplied originally as components of the equipment unless authorised by Williams Refrigeration.
f) Equipment fails through misuse, accidental damage or power surges.

Specials

Where equipment is manufactured to the customers' own design, Williams Refrigeration will not be liable for any non performance or operation of the equipment as a result of a design fault or defect.

Claim Procedure

If a customer wishes to make a claim under the terms of this warranty, the following procedure should be observed:

1) Contact the supplying agent, representative or distributor
2) Quote the model, date of installation and serial number of the cabinet. The serial number is located on the cabinet identification plate inside the cabinet. It should also be recorded on the operating instruction booklet supplied with the cabinet. Details of annual servicing should be available for presenting to Williams Refrigeration.
3) Note: contents risk and insurance responsibility remains at all times with the customer.
4) This warranty does not cover consumable items such as batteries, fuses, light bulbs, printer cartridges, keys, glass, paper roll and condenser filters.

Williams Standard Terms and Conditions of Sale apply to this warranty.
This warranty does not affect your statutory rights.

Model No: .....

Serial No: .....

Supplied & Serviced by:
.....

Telephone No: .....

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