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Operating Instructions
Kingston

Thank you for purchasing a Verco refrigerated cabinet, please take time to read these operating instructions to ensure that you obtain many years of efficient use from your new cabinet.

It is most important that these operating instructions should be retained for future reference. Should the cabinet be sold or moved to another location, always ensure that this manual is taken with it to enable new users to acquaint themselves with the instructions and relevant warnings.

Warnings

It is dangerous to alter the specifications or attempt to modify this product in any way.

Any electrical work required to install this cabinet should be carried out by a qualified or competent person.

This cabinet should only be serviced by a qualified refrigeration engineer and only fitted with parts approved by Verco.

Do not overload the cabinet with food products, allow products to overhang the shelf fronts or block air supply and return grilles.

This cabinet is heavy, special care should always be taken when moving it.

All protective packaging, securing tapes and pallet wood must be removed before start up.

The cabinet has a hermetically sealed refrigeration system, for reliability and long life. Should a fault develop within the system and access is necessary it should only be carried out by a competent refrigeration engineer who has the necessary equipment to handle refrigerants in accordance with current legislation and safe practices.

It is important that the ground on which the cabinet is to stand will carry the cabinet weight when loaded and that the electrical supply is sufficient to cope with its total electrical requirements.

Installation

The cabinet will normally be delivered and installed by an experienced delivery team who, provided circumstances allow, will remove all packaging and securing materials, carry out levelling and alignment with matching appliances and run/test the cabinet.

The cabinet must be located away from draughts and direct sunlight.

Shelving will be fitted to the standard Verco layout; alterations to angles and position can be made by the user, dependant on type and size of product to be displayed. Best temperature performance and lowest power consumption is achieved with shelves in the horizontal position, evenly spaced.

Do not allow product on display to overhang the shelf or display deck front edge. The cold air return grille at the lower front of the cabinet must be kept clear of product. The acrylic risers at the front and rear of the cold air return grille must be retained.

Ensure that a 100mm gap remains behind the cabinet, for air circulation.

We suggest that after installation the cabinets be run for a period of forty-eight hours before merchandising.

Getting to Know Your Cabinet

Temperature control on all Verco cabinets is taken care of by a factory set electronic indicator/controller. A display located on the upper left of the cabinet provides an indication of temperature and alarm conditions. In addition to temperature this device controls the self-defrosting system.

When the cabinet leaves the factory it will be pre-set to provide the required temperature range.

As the refrigeration system cycles it will be quite normal to see display readings vary by up to 6° as the controller monitors air temperatures. Products on display, due to their mass, do not vary so greatly in temperature.

In addition to an indication of cabinet temperature in the event of an ‘alarm’ condition the display will alternate between temperature and the relevant alarm code.

HA	high temperature.
LA	low temperature.
P1	thermostat probe failure.
P2	evaporator probe failure
P3 or P4	condenser probe failure
ENG	high system temperature alarm.

Product temperature and the air temperature shown on the indicator/controller, although similar, are not always the same. It is recommended that regular product temperature checks be made and records kept in accordance with the requirements and recommendations of your local Environmental Health Officer.

Temperature adjustment is not normally necessary. Should the product be changed for another requiring a different temperature range the new control settings can be downloaded via a ‘hot key’ by a refrigeration engineer.

The defrost cycle takes place 4 times during a 24 hour period. It will start and stop automatically. The control system ensures that it does not run for longer than necessary, to save power consumption and protect product temperature. The water produced by the defrost cycle of integral cabinets is drained to a tray at the rear base of the cabinet and is re-evaporated by heat from the condensing unit. Drainage for remote cabinets will have been fitted at the installation stage.

Air circulation within the cabinet is fan assisted and continuous.

The performance of the cabinet relies on the correct air circulation within the cabinet being maintained at all times. Should the airflow be restricted or interrupted severe frost build up can occur resulting in deterioration of the displayed produce.

We suggest that the user regularly checks that: -

The air outlets and inlets are not obstructed.
Products do not overhang shelf fronts.

Lighting is provided by fluorescent lamps, colour designation 'Cool White' are used as standard.

A small rocker switch is located adjacent to the lights to enabling the lamps to be turned on and off as necessary.

Looking After The Cabinet.

Cleaning the interior and exterior will not only enhance the cabinet's good looks but will ensure the durability of the finish is maintained.

The frequency of cleaning will be entirely dependant on the type of use and the cabinet location.

The cabinet should be switched off while cleaning is carried out. To enable the interior to be cleaned thoroughly the product should be removed and the temperature allowed to rise, to ambient.

Both the interior and exterior should be cleaned with a lukewarm solution of an odourless, non-abrasive mild cleaner, then rinsed and dried thoroughly. Do not pour water into the interior of the cabinet as it will be directed to and overflow the defrost evaporative tray.

Looking After the Refrigeration System.
(Only applicable to integral cabinets)

The refrigeration system is factory sealed and during its normal life should not require maintenance. In addition all the fan motors used to provide air circulation have bearings that no not need additional lubrication.

Cleaning of the condenser however is vital to ensure that the cabinet performs to specification, running costs are kept to a minimum and the life of the compressor is maximised.

The condenser is the means by which the heat removed from within the cabinet is transferred to the air outside and it is recommended that it is cleaned on a weekly basis, and can easily be carried out by the user.

During condenser cleaning the cabinet should be turned off.

The condenser is located behind the panel at the lower front of the cabinet. This panel is located on hooks and may be removed by lifting and pulling foreword each end in turn. The condenser is the finned object that looks similar to a car radiator, there may be I or 2 of them fitted depending on model. It is best cleaned with a bristle brush or vacuum cleaner to remove accumulated fluff from the front face. Care should be taken when carrying out this operation as the fins are easily bent which would restrict airflow and impair efficiency.

Technical Information

Condensing unit(s) and control panel are located in the base of the cabinet. To access, remove lower front panel by lifting and pulling forward. The condenser baffle is secured by two half-turn fasteners.

Suction and liquid schraeder connections are located under the base of the cabinet, left hand end above the control panel. Twin system cabinets have a second set of connectors at the right hand end.

Control panel has sufficient cable to allow it to be pulled forward for access without moving condensing unit.

The condensing unit tray is mounted on slides to enable it to be pulled forward for access following removal of two location screws.

Evaporator is mounted in the rear duct.

The cabinet is equipped with a Dixell XW62K controller with additional features commissioned by Verco.

The control settings will have been preset at factory for the temperature range specified. If the temperature range requires adjustment the controller may be reprogrammed with a ‘hot key’ available from Verco. Note that ‘Hot keys’ used for programming the earlier Dixell Wing controller will not function with the later XW62K.

Display – Located in canopy – normally provides an indication of cabinet temperature (a calculation based on air off evaporator temperature). In an alarm condition the temperature and alarm will be shown alternating with temperature.

Alarm codes P1 Air off evaporator probe failure.

P2	Evaporator probe failure
P3	Condenser 1 probe failure
P4	Condenser 2 probe failure
HA	High temperature
LA	Low temperature
ENG	High condensing temperature

Temperature probes monitor the condenser(s) outlet temperature and will de-energise the relavent compressor in the event of excessive temperature. The ENG alarm is indicated for 30 minutes irrespective of the duration of the alarm condition. The compressor will restart following temperature returning to normal and elapsing of the anti short cycling delay.

Temperature control

Compressor is cycled depending on air off evaporator temperature. Differential is preset so as to allow evaporator temperature to rise clearing any frost accumulated during run cycle.
In the event of adverse ambient conditions or a fault in the refrigeration system that would otherwise result in continuous operation, the controller will override normal temperature control and initiate an ‘off cycle’ to prevent excessive accumulation of frost before the next defrost.

Defrost

Initiated on time, terminated on evaporator probe temperature. Probe is located between fins at the top of the rear-mounted evaporator.