



CONTROLLED ROOM TEMPERATURE CABINETS

USER MANUAL

CRT410, CRT640, CRT900 & CRT1250

Controlled room temperature cabinet

For the storage of items between +15 and +25 °C, in an ambient environment of up to 43°C

Important Safety Instructions

Read the instruction manual before using the cabinet.

It is the user's responsibility to operate the appliance in accordance with the instructions given.

Contact your dealer immediately in case of any malfunctions

Care must be taken when moving this cabinet to avoid posing a hazard to persons or property

The cabinet is for indoor use only.

Keep the cabinet away from heat sources and do not expose it to direct sunlight.

Do not install the cabinet near a ventilation or air conditioning system

Using the cabinet in an ambient temperature that reaches extremes of cold (for example in goods bay where the temperature is largely affected by the outside) may affect the internal temperature regulation.

Place the cabinet in a dry and ventilated place.

This cabinet is not to be used to store volatile substances, or anaesthetic or other flammable gasses.

Power supply:

The cabinet is designed for: 220 – 240 V, 50 Hz

The appliance must be correctly earthed.

The cabinet is fitted with a B.S. 1363 (UK) mains plug. A 13 amp fuse must be used.

The flexible cord fitted has three cores. The colours used are:

Green/Yellow: Earth

Blue: Neutral

Brown: Live

Do not use this appliance with multi-socket distribution / extension leads.

External Alarm Contacts:

Voltage free, NO / NC contacts rated to 1 A, 250 V max

A complete disconnection from the mains is possible by removing the plug from the wall socket. When installing the cabinet, ensure that the socket is easily accessible.

Do not use the cabinet if the power supply cable becomes damaged.

There are no user serviceable parts inside. Any service / repair must be done only by competent persons, qualified to do the work.

The production of this cabinet did not involve asbestos or any CFC. The oil in the compressor does not contain PCB

Disposal:

This appliance contains refrigerants as well as recyclable materials. Disposal of the cabinet must take place in an environmentally correct way. Please note existing regulation on disposal.



Unpacking and Installation

Remove all packaging and check that there has been no transport damage.

Any transport damage, must be reported to the transport company and noted on the delivery note.

To ensure correct function it is important that the cabinet is level.

For cabinets fitted with lockable wheels, ensure that the wheels are locked and are tucked underneath the footprint of the appliance

In the case of installing the cabinet into fixed room fittings:

150 mm of free space must be left behind and above the cabinet in order for the cooling system to operate satisfactorily.

There must be sufficient space at the hinge side to allow proper cleaning and removal / replacement of the shelves

Place the cabinet in a dry and ventilated place.

Keep the cabinet away from heat sources and do not expose it to direct sunlight.

Using the cabinet in an ambient temperature that reaches extremes of cold (for example in goods bay where the temperature is largely affected by the outside) may affect the internal temperature regulation.

Important: Before it can be turned on for the first time, the transport safety strap must be removed from the compressor. Access the compressor compartment from behind the unit. The strap is held on by two cross headed screws at either end (see fig. 1)

Remove these carefully as there will be some spring in the strap. The strap should be saved for future use (if the cabinet is to be moved to another site) or recycled responsibly.

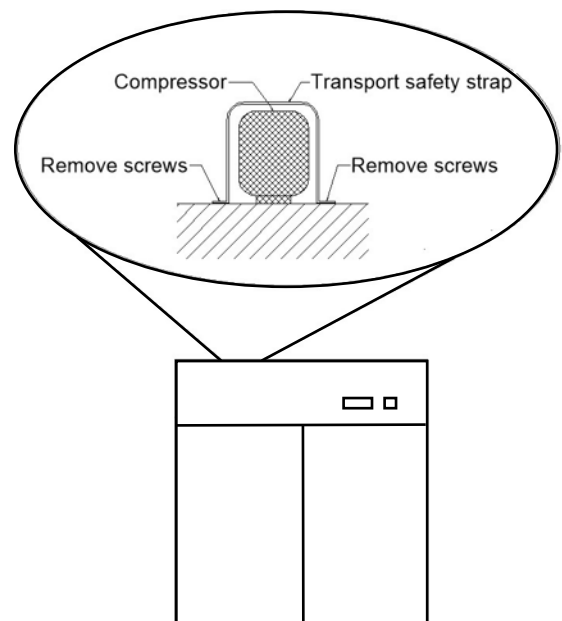


fig. 1

Start up

Before use, it is recommended that the cabinet is cleaned; see the section on maintenance and cleaning.

Important: If the cabinet has been placed horizontally, tilted or shaken during transport, please wait 2 hours once the cabinet is level before starting it for the first time.

When ready, connect the plug to a suitable, accessible socket and turn the cabinet on, using the power switch in the control panel

Control

The digital controller is placed in the control panel, see fig 2

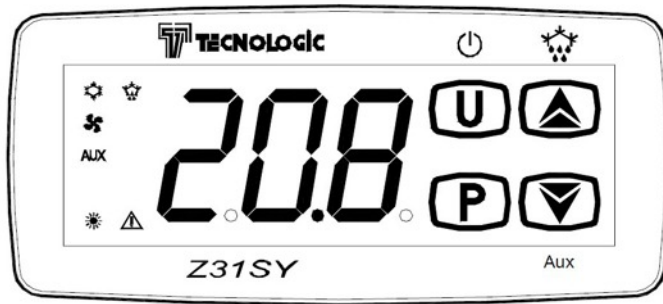


fig 2

The controller is preset and in most cases, it is not necessary to adjust the settings. Normally, the screen will show the current temperature within the cabinet.

High / Low Temperature Monitoring

The controller records the highest and lowest temperatures monitored.

To view the stored values, press **U**

The display will flash **Lt** followed by the lowest recorded temperature.

Press **U** again to display the high value.

The display will flash **Ht** followed by the highest recorded temperature.

If **U** is pressed again, the display will flash **Prt** followed by the current chamber temperature.

Pressing **U** again will return to **Lt** and the menu will cycle as described above.

If the buttons are not touched for 10 seconds, the screen will return to normal


Resetting the Recorded High / Low Values


Display the value that you would like to reset (**Lt** or **Ht**, as described above). While it is showing, press and hold **▼** until the screen shows **- - -**

Please note that each value (**Lt** and **Ht**) is reset individually.

Alarms

The controller is preset with an alarm that will sound, should the monitored temperature go outside of the official Controlled Room Temperature range (+15°C – +25°C) for more than 2 minutes.*

In the case of an alarm, the screen will show *Hi* or *Lo* (according to the nature of the alarm) and the alarm LED () will light.

To silence the sounder, press . If the alarm condition continues for some time, the sounder will resume (it can be silenced again if required)

There are voltage free contacts on the rear of the unit, which can be connected to an external alarm system if required. These will activate whenever the unit is in an alarm state. There are three contacts: COM, NO and NC. To attach these to an external system, contact your alarms systems administrator.

Set Temperature

The cabinet is preset to control with the official Controlled Room Temperature range (+15°C – +25°C). As control is based on measured temperature, rather than heating / cooling power, in normal circumstances it will not be necessary to change the set point (control temperature) of the controller.



To change the set point, if desired, from the main screen press P. The screen will alternate between “SP” and the current set point. Use the arrows to adjust it and press P again to confirm. Please note that the set point is limited to between 17 and 21 °C

If the monitored temperature is regularly reaching outside Controlled Room Temperature limits (causing high or low alarms), please call your supplier for technical assistance.

Please note that the ambient temperature around the cabinet will affect the rate of change of the internal temperature and extremes may lead to high or low alarm states.

Regular calibration and servicing is recommended to ensure continued correct operation and so as to avoid reducing the life of the cabinet.

Defrosting

Due to the temperature range of the cabinet, regular frosting of the evaporator plate should not be an issue, however it is possible to perform a short off-cycle defrost. Should you need to force a defrost, press and hold  until the defrost LED () lights.

Lock

For security, the cabinet is fitted with a key lock (in the control panel). Please keep the key(s) safe and keep a record of any key numbers so that replacements can be issued if required.

* To allow the cabinet to reach temperature, the alarm is inhibited for the first 45 minutes after start up.

Interior Light

The cabinet is fitted with an internal light which can be switched on or off using the switch on the control panel.

Loading

It is important that air flow is maintained for proper temperature control. Do not overfill the shelves or obstruct the circulation fan.

Do not allow any items to come into contact with the evaporator plate, which is fixed to the back wall of the chamber.

This is a Controlled Room Temperature cabinet that operates between +15°C and +25°C. Do not store items inside that are for refrigeration or freezing.

Maintenance and cleaning

Regular temperature calibration and servicing is recommended to ensure continued correct operation and so as to avoid reducing the life of the cabinet.

The cooling system is hermetically sealed and does not require supervision, only cleaning. If it becomes damaged and the cabinet fails to cool, please call your supplier for technical assistance.

Disconnect from the mains power supply before cleaning.

Monthly, use only a light soap solution to clean the internal and external surfaces of the cabinet. Do not use any abrasives or cleaning product containing chlorine or other harsh chemicals as they can damage the surfaces and the cooling system.

4 Monthly, clean the condenser grill (see fig 3) and the rest of the compressor compartment with a dry brush, or vacuum cleaner to avoid dust build up which can impair the cooling system, and affect the energy consumption and life of the cabinet.

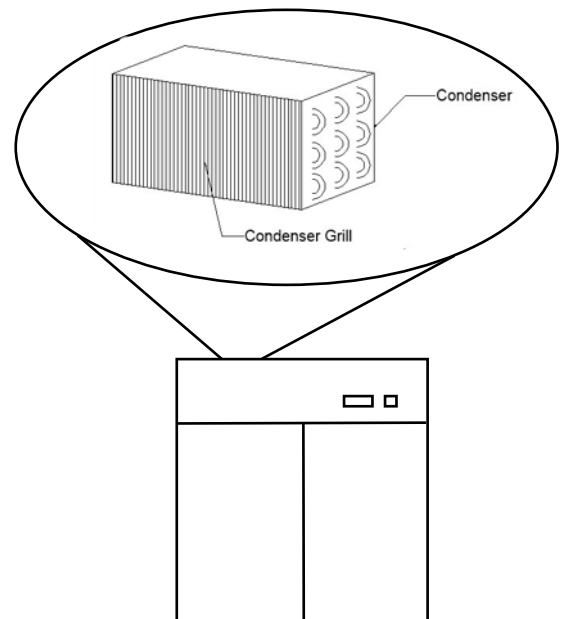


fig 3

Important: Do not use water or any cleaning products or solutions to clean the compressor compartment as this can cause short circuits in the electrical parts of the system which could be a dangerous as well as damage the cabinet.

[†] Any repairs to the cooling system must be performed by a fully qualified refrigeration engineer

Troubleshooting

If the temperature of the cabinet regularly, or persistently reaches outside of the official Controlled Room Temperature Range (+15°C – +25°C), check the environment in which it is installed. Extremes of ambient temperature may affect the rate of change of the internal temperature and extremes may lead to high or low alarm states.

If the environment is suitable or hasn't changed since before the problem, make a note of the details (chamber temperature, high and low temperatures, ambient temperature, any alarms etc) and call your supplier for technical assistance.

If the cooling system becomes damaged and the cabinet fails to cool, disconnect the appliance from the power supply and call your supplier for technical assistance. All work on, or repairs to the cooling system must be performed by a competent, fully qualified refrigeration engineer.

Error Codes:

E1 or – E1	Probe error, call for technical assistance
EPr	Internal memory error, press P



