

Eco Drying Cabinet 100L & 180L

User Manual

ISSUE 0



Product information

Product Description: Eco Drying Cabinet



Contact: LTE Scientific

Greenbridge Lane
Greenfield
Lancashire
OL3 7EN



T: +44 (0) 1457876221



F: +44 (0) 1457870131



W: www.lte-scientific.co.uk



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Warning

Before using/maintaining the Eco Drying Cabinet, the user must note the following:

- Machine **MUST** be earthed, protective earth connection for the machine is provided using the 13A plug fitted to the machine.
- Eco Drying Cabinet should be positioned in such a way that allows easy disconnecting of the device from the electrical supply.
- This manual is **NOT** intended as a substitute for training.
- On completion of drying the load, inside the chamber will potentially be at a temperature as high as 85°C. Operators must therefore ensure that appropriate precautions are made to prevent risk of injury when removing the load from the cabinet. (Use of PPE, heat resistant gloves etc).
- Ensure correct lifting and moving methods of the load are followed as identified by the Responsible Body/Lab Manager.
- Do not attempt repair or maintenance of the Eco Drying Cabinet with the machine connected to the electrical power supply, machine should be fully disconnected from the electrical power supply before **ANY** attempt to repair or maintain the Eco Drying Cabinet is made. Failure to disconnect the cabinet from the electrical power supply could result in electric shock.
- Ensure that the electrical plug is easily identifiable and can easily be reached in order to disconnect the machine from the electrical supply.
- This equipment is **NOT** to be used in potentially explosive environments.
- The Eco Drying Cabinet should not be used in any other way other than as described in the User Manual.
- Electrical Plug and socket should be readily identifiable and easily reached by the operator.



Section 1- General Information

1.1 Initial Examination and Installation

Manual Handling

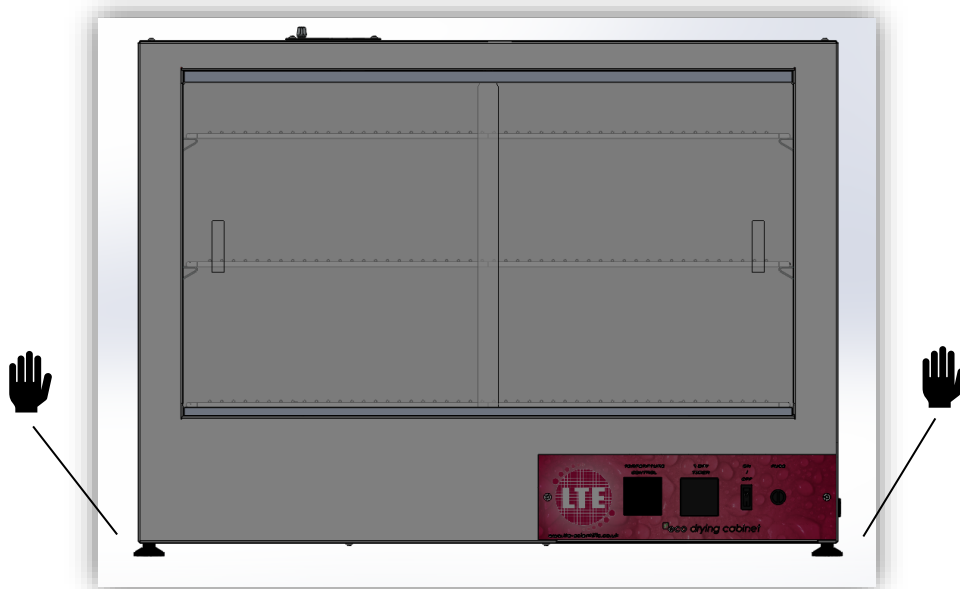
Always be sure to follow manual handling guidelines when lifting equipment, ensuring the correct number of people are lifting the drying cabinet and the correct Personal Protective Equipment (PPE) is worn.

The 100L Eco Drying Cabinet weighs 34kg and the 180L Eco Drying Cabinet weighs 50kg.

Note: It is the customer's responsibility to ensure that safe manual handling practices are followed when lifting and transporting this product (Eco Drying Cabinet).

Lifting Points

Lifting points illustrated using 🖐️ (Hand icon).



On receipt of the Eco Drying Cabinet unit, unpack it carefully, removing all packaging and ensure that no damage has occurred during transit.

The mounting surface arrangement should be adequate to withstand the radiated heat from the base of the unit and the feet on the base of the drying cabinet should not be removed, or the free air space restricted.



Electrical Connection

Eco Drying Cabinet is supplied with an IEC C13 to UK plug 90 Deg 10A removable electrical power cable. The cable plugs into the Eco Drying Cabinet using an IEC C14 panel mount connection socket and into a standard 13A electrical socket (BS1363). The power consumption and voltage rating are shown on the label on the side of the case above the panel mounted electrical connection. The label also gives the serial number which should be quoted if there are any queries or requests for servicing.

1.2 Scope of User Manual

This User Manual provides instructions for the Eco Drying Cabinet, manufactured by LTE Scientific Ltd ("LTE").

Eco Drying Cabinet users should be given training in the actual application environment. This manual is not intended as a substitute for such training.

1.3 Overview

The 100L & 180L Eco Drying Cabinets have a stainless steel internal chamber which is fully insulated ensuring minimal heat loss, fitted inside the Sterling Anti-Bacterial powder coated outer case. A digital temperature controller, mains on/off switch and fuse holder are located on the front control panel, with the option of having a 7-day digital timer also fitted to the panel. The fully sheathed heating element is located inside the internal chamber beneath the base shelf and an adjustable vent is located on the top of drying cabinet, connecting the internal chamber to atmosphere to help in the removal of moisture from the chamber. The drying cabinet is fitted with two toughened tempered safety glass sliding doors for ease of access when loading and unloading the chamber.

1.4 Safety Precautions

It is important to observe the following safety rules at all times:

- Wear suitable PPE when loading and unloading the drying cabinet since the load temperature could be as high as 85°C
- Ensure that the earth or ground of the power supply cable is connected to a suitable protective earth supply, and that the supply lines are correctly fused and isolated



1.5 Maintenance

This section covers the general operator maintenance of the Eco Drying Cabinet on a day to day basis to ensure reliability.

Note: Always disconnect the power before cleaning.

- General cleanliness of the drying cabinet
- Ensure the mains lead is in good condition
- Disinfections not required for normal drying applications
- Clean the unit with domestic detergent, using a lint free cloth
- Cleaning out and, where necessary, decontamination
- Responsible body must ensure no hazardous substances are spilt in equipment
- Responsible body must ensure no hazardous situations occur as a result of a reaction to the equipment with cleaning agent. If in doubt, the responsible body is to contact the manufacturer

Section 2 – Main Features

2.1 Eco Drying Cabinet Features

Digital Temperature Controller

The Eco Drying Cabinet is supplied with a Digital temperature Controller to set and control the heating elements inside the drying cabinet.

Internal Shelving

Eco Drying Cabinet 100L & 180L are supplied with 2 stainless steel shelves and 8 shelf support clips as standard. Shelf positions are fully adjustable using the removable shelf supports, with 21 shelf locations on the 100L drying cabinet and 35 locations on the 180L drying cabinet.

Digital Programmable 7-Day Timer (Optional)

The digital programmable 7-day timer option on the Eco Drying Cabinet is available, this gives the user the ability to program the Eco Drying Cabinet to turn on and off at set times on set days of the week.



2.2 Technical Specification

Dimensions

100L

Internal – 425mm x 778mm x 305mm (HxWxD)

External – 660mm x 900mm x 370mm (HxWxD)

Weight – 34kg

180L

Internal – 555mm x 995mm x 325mm (HxWxD)

External – 785mm x 1120mm x 400mm (HxWxD)

Weight – 50kg

Electrical

Electrical supply voltage (RMS)/ Frequency: 240V AC/ 50Hz

100L

Heater rating = 650W

Fuse ratings

F1 - 5A Fuse 30mm Type F Ceramic

F2 - 2A Fuse 30mm Type F Ceramic

F3 - 3.15A Fuse 30mm Ceramic Type T Anti Surge

180L

Heater rating = 1150W

Fuse ratings

F1 - 7A Fuse 30mm Ceramic

F2 - 2A Fuse 30mm Type F Ceramic

F3 - 5A Fuse 30mm Type F Ceramic

Environmental

Ambient Temperature: 10 - 40°C

Ambient Relative Humidity: 30 – 70%

Section 3 – Operation

3.1 Initial Power Up

On initial Power Up of the Eco Drying Cabinet, the Temperature Controller will be illuminated, displaying the Set Temperature and the current temperature. The Drying Cabinet is now ready to use, see Section 3.3 on how to set the Temperature Controller.

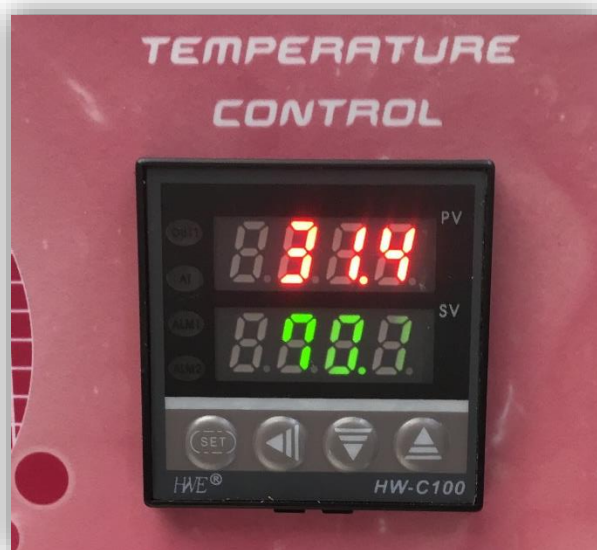
3.2 Initial Power Up – Timer Switch Option

On initial Power Up of the Eco Drying Cabinet when a Timer Switch has been fitted, the Temperature Controller display will appear unlit and unresponsive. By pressing the A/- button on the Timer Switch this will manually switch the channel ON, enabling power to the Temperature Controller.

See **Section 3.3** on how to set the Temperature Controller and **Section 3.4** on how to program the Timer Switch.

3.3 Setting the Controller Temperature

To set the control temperature, first connect the unit to the mains supply and switch ON.





Once powered up select 'Set' button on the left-hand side of the temperature controller and use the directional arrows to adjust the set temperature, press 'Set' to save the changes.

Note – On the temperature controller, PV indicates the measured value inside the chamber of the drying cabinet and SV refers to the Set Value of the temperature.

With the Eco Drying Cabinet set to its maximum of 85°C, the cabinet will control within 10°C of the set point, with the external metalwork temperature not exceeding 35°C.

3.4 Setting the 7-Day Timer

Key Functions

M

1. To access the Enter-mode (program, adjustments, options) from the automatic-mode
2. To revert to the beginning of the current sub menu

+/-

1. To adjust the flashing digit
2. To scroll through a choice

A/B

1. Automatic-mode: Pressing **A** will switch the channel ON or OFF until the next programming step occurs
2. Automatic mode: Holding the **A** button down for longer than 3 seconds will permanent switch status ON or OFF

OK

1. To activate the time switch when operated without power supply
2. To confirm the selection or the entered data

Handling Advice

- The timer switch is programmable without external power supply after pressing the **OK** button
- To revert one step or one level while in the Enter-Mode press **M**
- After completion of a (sub) menu confirming **end** to **continue**. By confirming **continue** the timer switch returns to the beginning of the current (sub) menu.
- When confirming **end** before completion, the timer switch returns to the automatic-mode without saving the entered data.

Channel ON/OFF

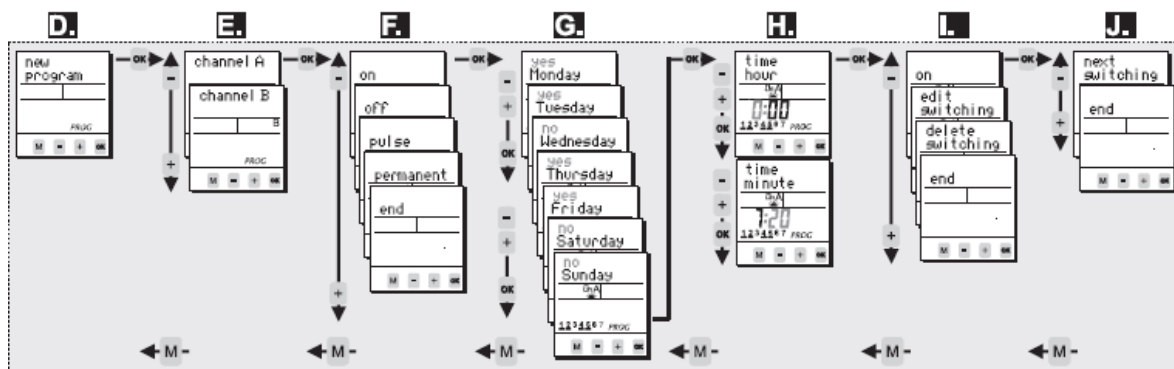
By pushing **A/-** buttons, a manual switch of the channels takes place (Channel On/Off). The resulting switching status is marked with the hand-symbol and On/Off, this change will remain until the next programming step occurs. (Temporary override)

Permanent switching status P

By pressing the corresponding channel button, **A/-** for more than 3 seconds, the channel is permanently switched On or Off. The status remains until the next manual switching occurs. (Permanent Over-ride)

New Program

- If power supply is disconnected press **OK** for one second. The display appears in Automatic mode.
- Press **M** the timer switch is now in the Enter-Mode.
- Confirm **Program** with **OK**.



- Confirm **new program** with **OK**.
- Choose the desired channel with **-/+**
- For regular switching times choose **ON** or **OFF** with **-/+** buttons and confirm with **OK**
- Within this level you activate the days of the week (1....7/Monday-Sunday) on which the timer switching should happen. With **-/+** you activate 'yes' or deactivate 'no' the corresponding day. Confirm each day with **OK**
- Adjustment of the time: Hours **-/+** and **OK**. Minutes **-/+** and **OK**
- Verify the entered switching time: If the flashing summary of the programming step is correct, verify **ON** or **OFF** with **OK**. After verification you have the choice of **edit/delete** and **end** with **-/+**
- If you want to proceed with programming, confirm **next switching** with **OK**. To leave the programming menu confirm **end**

Section 4 – Spares & Accessories

Only replacement parts supplied by LTE Scientific are to be used. Failure to do so could result in damage to the machine. For spare parts contact LTE Scientific Service Centre:



Spares

SPST Rocker Switch On-Off 16A	LTE Ref: SW0008
Panel Mount Fuse Holder 20A 6.3X32mm Fuse	LTE Ref: BRK0005
Heater 650W (100L)	LTE Ref: 390001
Heater 1150W (180L)	LTE Ref: 310056
Glass Door (100L)	LTE Ref: 310058/A
Glass Door (180L)	LTE Ref: 310057/A
Fuse 2A	LTE Ref: 350223
Fuse 3.15A	LTE Ref: 251218
Fuse 5A	LTE Ref: 251199
Fuse 7A	LTE Ref: 800025

Accessories

Shelves (100L)	LTE Ref: 310065
Shelves (180L)	LTE Ref: 310066
Shelf Support Clips	