



Tanhouse Lane, Riverview Industrial Estate  
Widnes, Cheshire WA8 0SR England  
Tel: 0151 424 5001  
Fax: 0151 495 2197  
Web site: [www.genlab.co.uk](http://www.genlab.co.uk)  
E-mail: [enquiries@genlab.co.uk](mailto:enquiries@genlab.co.uk)

---

# OPERATING

  

# INSTRUCTIONS

## HIGH TEMPERATURE RANGE

## 1. UNPACKING

- 1.1 Remove all packing material from between the shelves and inner walls of the oven.

## 2. MAINS SUPPLY

- 2.1 Check voltage shown on the serial plate located on the rear of the oven.  
240 volt units connect as follows:  
Connect the BROWN wire of the mains lead to the 'L' LIVE pin, the BLUE wire to the 'N' Neutral pin and the GREEN/YELLOW wire to the 'E' EARTH pin of a suitable plug or double pole switch fuse.
- 2.2 110 volt units connect as follows:-  
BROWN to 'L' Live pin  
BLUE to 'N' Neutral pin  
GREEN/YELLOW to earth pin
- 2.3 415 volt units with 5 core mains lead should be connected via a triple pole switch fuse as follows:-  
BROWN to phase 1  
BLACK to phase 2  
GREY to phase 3  
BLUE to NEUTRAL  
GREEN/YELLOW to earth
- 2.4 415 volt units with 5 core numbered mains lead should be connected via a triple pole switch fuse as follows:-  
No. 1 to phase 1  
No. 2 to phase 2  
No. 3 to phase 3  
No. 4 to Neutral  
GREEN/YELLOW to earth

### --- PLEASE NOTE ---

**Ensure that after the electrical connections have been made, the fan blade rotates in a clockwise direction as viewed from inside the chamber. It may be necessary to change phases to achieve this.**

## 3. OPERATION - DIGITAL CONTROL (K39)

- 3.1 Position the shelves within the work chamber.
- 3.2 Switch 'ON' the mains switch, indicated by the green lamp.
- 3.3 Set the overheat temperature controller to 10°C above the desired working temperature by pressing '▼' button once to show `sp1` then use the up or down buttons to alter the set point. Press the "p" button to accept the change. The operational parameters of the controller have been factory set to cover a wide range of temperature and load conditions. The display will revert back to the chamber temperature if no button is pressed for approximately 10 seconds.  
*Note: If a manual overheat reset button is fitted, press to energise the circuit.*
- 3.4 Set the main temperature controller to the desired temperature by pressing '▼' button once to show `sp1` then use the up or down buttons to alter the set point. Press the 'P' button to accept the change. The display will revert back to the normal display if no button is pressed for approximately 10 seconds. The operational parameters of the controller have

been factory set to cover a wide range of temperature and load conditions.

**Note: Top display shows actual temperature and bottom display shows set temperature**

- 3.5 If the chamber temperature rises above the overheat set temperature, the red lamp will be illuminated and the heat control circuit will be disabled. Control will switch back the main temperature controller once the chamber temperature falls below the overheat set temperature. If the red lamp will not go out or keeps coming on there may be a problem with the unit. *In this case please consult you're supplier*

#### 4. TIMERS

- 4.1 Units fitted with **24-hour or 7 day digital time switch**.  
Refer to the timer manufacturer's instruction booklet for setting procedure.

- 4.2 Units fitted with **run-back timer (2 hour or 5 hour)**.

For a timed ON period:

- Set the timer to the desired period
- Set the MAN / TIM switch to the TIM position
- Timing will start immediately. At zero time, the heaters will be switched off.
- When a 5-hour timer is fitted to a unit with a digital controller, the time period starts 1 or 2°C below the setpoint. At zero time, the heaters will be switched off.

*To over-ride the timer, set the MAN / TIM switch to the MAN position.*

- 4.3 Units fitted with **process timer (6 hour or 30 hour)**.

When a 6 or 30 hour process timer is fitted to a unit with digital control, set the timer to the required period, set the MAN / TIM switch to the TIM position and press the green start button. The time period starts one or two degrees below the set point.

To reset the system for another cycle at the same temperature and time period - simply press the green start button. The timer resets automatically

\* Note - both the 6 hour and 30 hour timers are multi-range, i.e. can be set for 6 seconds / minutes / 60 minute etc., by inserting a small screwdriver into the range adjusting screw in the front of the timer. As supplied, timers will be set to maximum time (hours).

- 4.4 Units fitted with **TT 34 (99.99hour)**.

Programming of timer

- ◆ Press 'P' For 1 sec till 'T1' appears.
- ◆ Release and the adjustable time appears.
- ◆ Press up or down to adjust
- ◆ Set the MAN TIM switch to TIM.
- ◆ Press the green reset.
- ◆ The timer will start timing down When the chamber reaches the set temperature.

#### 5. MAINTENANCE

##### ROUTINE CHECKS ON EACH OCCASION OF USE

- 5.1 Check the condition of supply lead and plug top. These should be sound and undamaged.
- 5.2 Connect to mains supply and check:-
- ✓ Supply switch operation.
  - ✓ Supply indicators are working.
  - ✓ At working temperature, the heat indicator functions correctly (shown by the amber lamp cycling on and off without the overheat coming into operation).

## 6. PREVENTATIVE MAINTENANCE

Ensure that the unit is maintained in a clean, dry condition and when not in use, stored in a normal warm atmosphere.

### **Minimum recommendation every six months:-**

- 6.1 Check the plug top connections are tight and the fuse rating is correct.
- 6.2 Check the operation of the overheat protection system by raising the desired temperature above the overheat temperature.
- 6.3 Carry out an electrical safety check (Portable Appliances) using an appropriate appliance tester operated by a competent person.
- 6.4 Check that the control temperature is maintained within limits.  
***The manufacturer can offer the above service on request.***

## 7. SAFETY

When the unit is to be used for the incubation of microbiological specimens, please consider carefully the siting and use of the unit to ensure safe operating conditions for all users. Appropriate safety precautions are essential for any microbiological work and any guidelines issued (for example, The Department of Education and Science guidelines) on this subject must be followed exactly. They are necessary to protect both people and animals from infection and to protect cultures of micro-organisms from infection by unwanted contaminants.

If liquids contained in partially sealed vessels are to be heated in the unit, then at all times the temperature setting must be such that no appreciable pressure build-up is allowed to occur within the vessel. The risk of explosion becomes high if the temperature setting is higher than that of the boiling point of the liquid. Therefore, any vessels that require heating SHOULD NOT be completely sealed. These units are not suitable for use where inflammable solvents are being used where the solvent concentration can reach inflammable or explosive levels.

## 8. GENERAL

- Mop up any spilled liquid from the floor of the unit.
- Do not place samples on the chamber floor.
- Take the normal precautions not to allow water to come into contact with the electrical components.
- The outer surfaces can be cleaned with a warm, damp, soapy cloth or any proprietary cleaner suitable for a painted surface (do not use solvents or harsh abrasives).
- The work chamber may also be cleaned as above.

## PLEASE NOTE

Quote the model and serial number (shown on the voltage plate on the back of the unit) for replacement parts. Fitting instructions are supplied with any replacement parts ordered.

Refer to the additional instruction booklet for units fitted with programmed systems.