



OPERATING INSTRUCTIONS



FM 23948



0617

**IC200/300/400/
600 Cooled
Incubator**

Manual Ref. No:

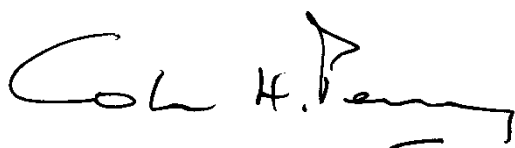
Issue No: 006

Machine Serial No:

Description of any options fitted:

.....
.....
.....
.....

It would be most helpful if you could have the above information available when requesting technical advice or after sales service.



C H Perry
Chairman, LTE Scientific Ltd



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1 SAFETY

The main safety aspects concerned with your incubator cover two main areas, the operation of the equipment and the applications for which it will be used.

1.1 Equipment Operation.

Always set the over temperature limiter to the correct level as described in section 4.2.4. This will help to protect both the equipment and possibly any loads that are inside the unit.

1.2 Applications.

Think very carefully about how anything you will place inside the incubator is going to react when subject to the temperatures that you are going to use.

Obviously the flammability of any substances you will place inside the unit is one major concern, together with any dangerous vapours that the substance may release into the local environment when heated.

2 OPERATING ENVIRONMENT

10°C to 40°C

Maximum relative humidity 70%

The equipment is for indoor use only

The incubator is CE marked to confirmed compliance with all current applicable E.U Directives.

3. INSTALLATION INSTRUCTIONS

3.1 General Checks

Upon receipt of the equipment unpack it carefully and check that no damage has occurred in transit. Remove any packing from the inside of the unit.

Check the identity plate on the rear of the equipment adjacent to the power cable, and make sure that the machine operating voltage matches the supply to which it will be connected.

3.2 Positioning

- 3.2.1 Prepare a level area large enough to accommodate the unit, adjacent to a power supply connection and, using great care to avoid the risk of an accident, position it in this area.
- 3.2.2 Take care not to obstruct any of the ventilation slots or louvers in the casework of the equipment.
- 3.2.3 Check when positioning the unit that the power input lead is not pressing against any wall or partition that may be adjacent to the rear of the case as this may damage the cable
- 3.2.4 A clearance of at least 100mm is recommended from the rear and side of the unit to adjacent walls or surfaces for adequate ventilation of the fan.
- 3.2.5 Before connecting to the mains. Please let the incubator stand for a minimum period of 24 hours to allow refrigerant to settle after transportation.

3.3 Electrical Connection

- 3.3.1 Double check the machine identity plate and be certain the operating voltage matches the supply to which it is to be connected.
- 3.3.2 The power supply to which the unit is to be connected must have a protective earth, which is known to be in good working condition and of the correct current carrying capacity.
- 3.3.3 This product is fitted with a moulded plug to BS1363/A. If a different type of plug needs to be fitted, this can be done without affecting warranty. We recommend a suitable qualified person carry out this work.

Brown - Live

Blue - Neutral

Green/Yellow - Earth

4 OPERATING THE EQUIPMENT

4.1 The controls are mounted at the front of the unit over the door.

IC Control Panel.



4.1.1 Power Switch

This is the main power on off switch.

The switch is on when the side of the switch marked with the number 1 is pressed in. The power is switched off when the side of the switch marked 0 is pressed in.

4.1.2 Temperature Control

The temperature is controlled by a digital controller. The actual running temperature is shown on the L.E.D display. The controller switches the heaters via a solid state relay. The control sensor is a type K thermocouple situated on the guard of the circulation fan.

4.1.3 Cooling

This is the fridge on off switch for temperatures of ambient + 37°C and below the fridge should always be switched on.

4.1.4 Over Temperature Safety Limiter

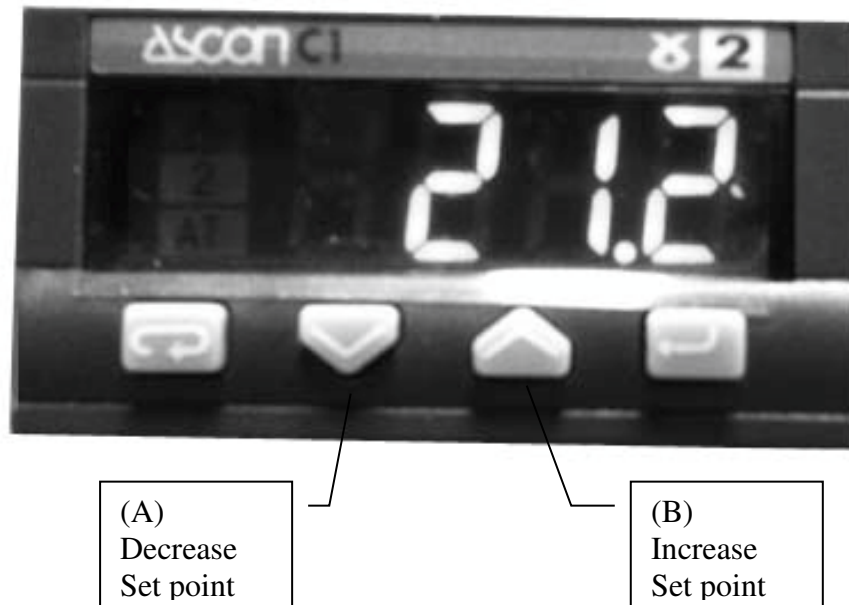
A slot is fitted in the end of the spindle for setting the over temperature limiter. When the over temperature limiter operates the red indicator light illuminates.

4.2 Operation

4.2.1 Place the power switch to the on position.

4.2.2 Depending on temperature required switch on the cooling switch

4.2.3 To adjust the temperature controller set point temperature. Press the button marked with (A) or (B) overleaf, the display will now show set point temperature use the up or down buttons to set required temperature on releasing the buttons the controller will indicate actual chamber temperature, this will alter to achieve the set value.



4.2.4 Turn the temperature limiter to its maximum value when the temperature has stabilised at set point, turn the temperature limiter down till the red light illuminates then turn limiter upscale till red light goes out.

4.2.5 The unit is now operational

5. DEFROST

- 5.1 The incubator should be defrosted regularly depending on application.
- 5.2 To carry out a defrost remove any samples etc from chamber switch off cooling switch and set temperature to a temp of 37°C, allow the cabinet to completely dry out before reusing. Remember to reset temperatures and switch on cooling.

6. OPERATOR MAINTENANCE

- 6.1 The main duty for operators is to keep the inside of the chamber clean. Take great care to clean up quickly if there are any spillages. Solvent based cleaner should not be used.

7. AFTER SALES SERVICES

7.1 General

- 7.1.1 LTE Scientific Ltd has a nationwide team of Service Engineers, supported by service specialists based at our headquarters near Oldham. We pride ourselves on both the quality and speed of response we offer.
- 7.1.2 Before requesting any type of after sales service please obtain the serial number of the equipment concerned.
- 7.1.3 Before commencing any repair or maintenance work it is the customers' responsibility to ensure that the product is free from contamination that would be hazardous to the health of our Service personnel.

This is a requirement of the Health & Safety at Work Act of 1974 and to meet our mutual responsibilities we will request you to complete a Safety Clearance Certificate prior to commencement of work.

7.2 Warranty

7.2.1 UK

Your product is warranted against the defects in materials and workmanship for 12 months from date of shipment.

7.2.2 Overseas

Your product will be warranted by LTE's distributor company.

7.2.3 Limitations

Warranty cover will not apply to defects arising from:

- Improper use by the user
- Unauthorised modifications
- Operation of the products in unfavourable environments - see section 2.3

Full details of warranty conditions are contained in our Conditions of Sale - a copy of which is available on request.

7.3 Maintenance Service Contracts

Regular servicing of the product will ensure it achieves maximum performance and provides years of uninterrupted service.

We recommend that you take out a Preventative Maintenance Contract upon installation. This can include multiple unit contracts, regular calibration checks, all tailor made to suit your own specific requirements. LTE maintenance is cost effective, convenient and flexible to suit your needs.

7.4 Other Service Options

- 7.4.1 An Emergency Call-Out Service is available which provides you with the assurance that, in the event of a break down, an LTE Service Engineer will be with you quickly to get you operational again.
- 7.4.2 Full training is available for the users, in the various operational procedures to ensure optimum performance.

7.5 SPARE PARTS

If spares are required please describe the part and most importantly quote the serial number of the equipment.

7.6 OVERSEAS SERVICE

For customers outside the UK we are always available to try to help if you have a problem, however, we would recommend that you contact the company from whom you bought the product. Please quote the Serial Number.

7.7 CONTACT DETAILS

Should you need to contact us here at LTE, for any reason, please do not hesitate to call us as we will be only too happy to help.

LTE Scientific Service Centre

LTE operates an independent Service Centre employing a nationwide team of skilled engineers, who are supported by technical engineers at our headquarters. In addition to supporting our own equipment, we are able to offer a variety of services on other manufacturers' equipment and sterilizers ranging from surgical bench top products to large capacity installations.

We ensure that large stocks of spare parts are always available and pride ourselves on the speed and quality of response that we are able to offer.

LTE is ISO 9000 and ISO 13485 approved and the Service Centre is accredited to UKAS (ISO 17025) for calibration and validation services.

Our engineers are qualified Test Persons to HTM 2010 and 2030.

Range of available services

- Weekly/quarterly/annual testing to HTM 2010 and 2030
- UKAS calibration and validation
- Steam quality testing
- Maintenance service contracts
- Installation & commissioning
- Emergency breakdown service
- Supply of spare parts

Should you require technical or service assistance with the piece of equipment you have purchased or any further information relating to our Service Centre please do not hesitate to contact us. (Where possible please quote the serial number and catalogue number of your equipment).

SERVICE CENTRE

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DECLARATION OF CONFORMITY

PRODUCT

CATALOGUE NUMBER

SERIAL NUMBER

"We declare that the above CE marked product conforms with the following EU Directives."

EMC Directive – 2014/30/EU
Low Voltage Directive – 2014/35/EU

C H Perry, Chairman

LTE Scientific Ltd, Greenbridge Lane, Greenfield, Oldham, OL3 7EN, United Kingdom
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