

# Corning® LSE™ 6L Digital Water Bath

CORNING

## Instruction Manual

### Catalog Numbers:

6783 (120V US)

6784 (230V EU)



UK  
CA CE

## Table of Contents

1.0 Introduction .....	1
1.1 Overview .....	1
1.2 Symbols and Conventions .....	1
1.3 Safety Information .....	1
1.4 Package Contents .....	1
1.5 Specifications .....	1
2.0 Getting Started .....	2
2.1 Unpacking .....	2
2.2 Installation .....	2
2.3 Front Overlay .....	2
3.0 Operation .....	3
4.0 Troubleshooting .....	3
5.0 Cleaning and Maintenance .....	3
6.0 Temperature Readjustment .....	4
7.0 Limited Warranty .....	4
8.0 Equipment Disposal .....	5

## 1.0 Introduction

### 1.1 Overview

The Corning® LSE™ 6L digital water bath is a compact general purpose convection bath capable of uniformly heating samples up to a maximum of 99°C.

### 1.2 Symbols and Conventions



This symbol indicates a potential risk and alerts you to proceed with caution.



The electrical warning symbol indicates the presence of a potential hazard which could result in electrical shock.



**CAUTION:** To avoid accidental bodily harming or burning be very careful touching the metal parts of the unit. It can be very hot after it is used at high temperatures. Allow the metal parts to cool down before handling.

### 1.3 Safety Information

Configuring and operating this equipment requires precise knowledge and observance of the instructions in this instruction manual. The equipment is designed only for its intended application.



**WARNING:** This is a warning of risk situations and dangers. Failure to observe this warning could be life-threatening. These warnings must be heeded.

This equipment is designed for 230V/50 Hz or 120V/60 Hz. Make sure it is connected to the correct power supply. Disconnect the power cord before carrying out maintenance or cleaning work.

The responsibility for operating the equipment lies exclusively with the owner or user if said equipment is incorrectly serviced, maintained, altered by persons not employed by an authorized dealer, or if the equipment is used in a manner contrary to its specified purpose.

The equipment must be maintained and operated in accordance with this instruction manual.



Ensure this instruction manual is accessible at all times and has been read and understood by all users.

### 1.4 Package Contents

- ▶ Corning LSE digital water bath, 6L
- ▶ Power cord
- ▶ Instruction manual

### 1.5 Specifications

Temperature Range	Ambient +5°C to 99°C
Controls	PID control
Chamber Maximum Load	20 lbs. (9.09 kg)
Exterior Dimensions (W x D x H)	
Without cover	14.9 x 11.4 x 9.0 in. (38 x 29 x 23 cm)
With cover	14.9 x 11.4 x 12.9 in. (38 x 29 x 33 cm)
Chamber Dimensions (W x D x H)	12.6 x 6.7 x 6.9 in. (32 x 17 x 18 cm)
Weight	19 lbs. (8.6 kg)
Electrical	
Cat. No. 6783	120V ±10%, 50/60 Hz, 4.8A
Cat. No. 6784	230V ±10%, 50/60 Hz, 2.4A
Fuse Specifications	
Cat. No. 6783	T 6.3 A L 250V
Cat. No. 6784	T 3.15 A L 250V
Environmental Conditions	5°C to 40°C, 85% RH, non-condensing

**NOTE:** The supply cord shall be with PE conductor and cross section at least 3 x 1.0 mm<sup>2</sup> or AWG 18 (USA/Canada).

This device is intended for use in a basic electromagnetic environment (Basic, class B), and it is in compliance with IEC 61326-1.

Device may experience a restart during overvoltage events (surges) or voltage interruptions in mains power supply.

The Corning® LSE™ 6L digital water bath is designed to be safe when operated under the following conditions:

- ▶ Indoor use
- ▶ Altitude up to 2,000 meters
- ▶ Pollution Degree 2

## 2.0 Getting Started

### 2.1 Unpacking

Carefully inspect the unit and accessories thoroughly upon receipt for any damage that may have occurred during shipping. Severe damage to the packaging container may indicate damage to the unit. If you suspect damage to the unit, immediately file a claim with the carrier in accordance with their instructions before contacting Corning Customer Service. Also, verify that all accessories are included and the unit is in good working order before discarding the shipping packaging.

### 2.2 Installation

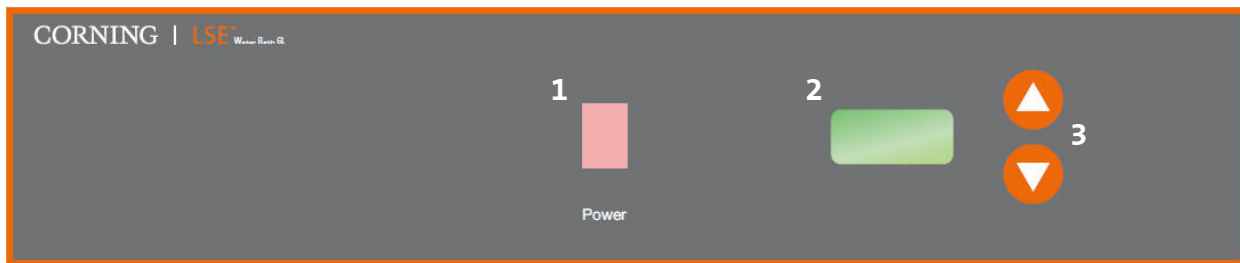


Your satisfaction and safety require a complete understanding of this unit. Read the instructions thoroughly, and be sure all operators are given adequate training before attempting to put the unit in use.

**NOTE:** This equipment must be used only for its intended application, any alterations or modifications will void your warranty and may cause injury.

- ▶ Check the data plate for voltage, cycle, wattage, and ampere requirements. If matched to your power source, plug the power cord into a grounded outlet. Voltage should not vary more than 10% from the data plate rating.
- ▶ In selecting a location, consider all conditions which might affect performance, such as heat from radiators, autoclaves, etc. Avoid direct sun, fast-moving air currents, heating/cooling ducts, and high traffic areas. Allow a minimum of 2 in. (5 cm) between the unit and walls or partitions which might obstruct free airflow.

### 2.3 Front Overlay



**1. Power:** Illuminates when water bath is ON.

**2. LED Display:** Decimal point will blink when setting the temperature.

**3. Up/Down Arrow Keys:** Use to set the desired temperature.

### 3.0 Operation



- ▶ Do not use this water bath in explosive or flammable environments. Do not heat or incubate flammable, explosive, or highly reactive materials in this water bath as serious injury may result.
- ▶ Do not use tap water in water bath. You may only use distilled water.
- ▶ Do not use the water bath without water. Minimum level of water is at least 50 mm.



- ▶ Temperature of water bath cover and chamber edges may reach over 100°C. Use protective gloves to avoid burns and injuries.
- ▶ When opening the water bath cover, beware of steam. It may be very hot and can cause burns on your face and hands.

1. Place the unit on a level surface, and plug the unit into a properly grounded outlet of appropriate voltage. The Water bath shall be distant from the back side at least 2 in. (5 cm), from left and right side at least 2 in. (5 cm). The unit shall be so positioned that the appliance inlet is accessible in a way that is possible to detach the connector.
2. Fill the chamber with the desired quantity of distilled water. Normal level of water is two-thirds of the chamber height.  
**NOTE:** Minimum level of water is at least 50 mm.
3. Put the stainless steel cover on the unit.
4. Press the power switch to the ON position. The switch should illuminate. The water bath automatically detects and displays the supply frequency as F50 or F60. The water bath starts to heat.
5. Set the desired temperature using the Up or Down arrow keys. You must hold the Up or Down arrow key for more than 2 seconds. Decimal point on the Display blinks. When Decimal point starts to blink (Decimal point blinks for 5 seconds), set the temperature to the desired value between room temperature 5°C to 99°C. Two seconds after the desired temperature is set, the display will automatically show momentary temperature.
6. You can always look at the set temperature by holding the Up or Down arrow keys for more than 2 seconds.

### 4.0 Troubleshooting

Problem on Display	Cause	Solution
Er1	Temperature probe is not in range.	<ul style="list-style-type: none"><li>▶ Examine the temperature probe.</li><li>▶ Faulty control board.</li><li>▶ Contact Corning Customer Service.</li></ul>
Er2	Temperature is more than 5°C higher than the set temperature.	<ul style="list-style-type: none"><li>▶ Examine set temperature.</li><li>▶ Examine parameters for heating.</li><li>▶ Examine parameters for heater.</li><li>▶ Examine the temperature probe.</li><li>▶ Faulty control board.</li><li>▶ Contact Corning Customer Service.</li></ul>
Er3	After two hours, the temperature did not reach the set temperature.	<ul style="list-style-type: none"><li>▶ Examine the heater.</li><li>▶ Examine the temperature safety fuse.</li><li>▶ Faulty control board.</li><li>▶ Contact Corning Customer Service.</li></ul>

Should you have a question about the operation of the Corning® LSE™ 6L digital water bath or if service is required, please contact Corning Customer Service at 800.492.1110 or 978.442.2200.

### 5.0 Cleaning and Maintenance



Prior to any cleaning or maintenance of the unit, disconnect the power cord from the wall outlet.

No routine maintenance is required on the unit. Clean the unit internally and externally with a damp cloth and mild soap. Do not immerse the unit or spill liquids into or on the unit. Allow the water bath to dry completely inside and out before reconnecting the power and using.

## 6.0 Temperature Readjustment

This water bath has software for temperature readjustment. You must first measure the temperature in the middle of the chamber or in the sample for a minimum of 2 hours, which is required to stabilize the temperature. You must measure the temperature with a calibrated reference temperature measuring instrument with precision of 0.1°C or more. After 2 hours or more, read the temperature on the thermometer and compare it with the temperature on the LED display. The difference between the thermometer reading and the display is the value, which you will enter in the software.

### Example 1:

Reference temperature is 37.9°C, temperature on display is 37°C. Difference is  $37.9 - 37 = 0.9$   
Value is 0.9 (value you enter).

### Example 2:

Reference temperature is 36.2°C, temperature on display is 37°C. Difference is  $37 - 36.2 = -0.8$   
Value is -0.8 (value you enter).

### Procedure for Temperature Readjustment:

- ▶ Press the Up and Down arrow keys at the same time for more than 5 seconds until **Cor** (correction) appears on the display and Decimal point blinks.
- ▶ With the Up and Down arrow key, define the value (when Decimal point is blinking). Pay attention to the sign of value (plus or minus). After should this be 5 times defining the temperature, the display will automatically show the temporary temperature.

## 7.0 Limited Warranty

Corning Incorporated (Corning) warrants that this product will be free from defects in material and workmanship for a period of two (2) year from date of purchase. CORNING DISCLAIMS ALL OTHER WARRANTIES WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. Corning's sole obligation shall be to repair or replace, at its option, any product or part thereof that proves defective in material or workmanship within the warranty period, provided the purchaser notifies Corning of any such defect. Corning is not liable for any incidental or consequential damages, commercial loss or any other damages from the use of this product.

This warranty is valid only if the product is used for its intended purpose and within the guidelines specified in the supplied instruction manual. This warranty does not cover damage caused by accident, neglect, misuse, improper service, natural forces or other causes not arising from defects in original material or workmanship. This warranty does not cover motor brushes, fuses, light bulbs, batteries or damage to paint or finish. Claims for transit damage should be filed with the transportation carrier.

In the event this product fails within the specified period of time because of a defect in material or workmanship, contact Corning Customer Service at: USA/Canada 1.800.492.1110, outside the U.S. +1.978.442.2200, visit [www.corning.com/lifesciences](http://www.corning.com/lifesciences), or contact your local support office.

Corning's Customer Service team will help arrange local service where available or coordinate a return authorization number and shipping instructions. Products received without proper authorization will be returned. All items returned for service should be sent postage prepaid in the original packaging or other suitable carton, padded to avoid damage. Corning will not be responsible for damage incurred by improper packaging. Corning may elect for onsite service for larger equipment.

Some states do not allow limitation on the length of implied warranties or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights. You may have other rights which vary from state to state.

No individual may accept for, or on behalf of Corning, any other obligation of liability, or extend the period of this warranty.

For your reference, make a note of the serial and model number, date of purchase, and supplier here.

Serial No. \_\_\_\_\_ Date Purchased \_\_\_\_\_

Model No. \_\_\_\_\_ Supplier \_\_\_\_\_

## 8.0 Equipment Disposal



According to Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), this product is marked with the crossed-out wheeled bin and must not be disposed of with domestic waste.

Consequently, the buyer shall follow the instructions for reuse and recycling of waste electronic and electrical equipment (WEEE) provided with the products and available at [www.corning.com/weee](http://www.corning.com/weee).

**Warranty/Disclaimer:** Unless otherwise specified, all products are for research use or general laboratory use only.\* Not intended for use in diagnostic or therapeutic procedures. Not for use in humans. These products are not intended to mitigate the presence of microorganisms on surfaces or in the environment, where such organisms can be deleterious to humans or the environment. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications. \*For a listing of US medical devices, regulatory classifications or specific information on claims, visit [www.corning.com/resources](http://www.corning.com/resources).

*Corning's products are not specifically designed and tested for diagnostic testing. Many Corning products, though not specific for diagnostic testing, can be used in the workflow and preparation of the test at the customers discretion. Customers may use these products to support their claims. We cannot make any claims or statements that our products are approved for diagnostic testing either directly or indirectly. The customer is responsible for any testing, validation, and/or regulatory submissions that may be required to support the safety and efficacy of their intended application.*

# CORNING

Corning Incorporated  
Life Sciences

[www.corning.com/lifesciences](http://www.corning.com/lifesciences)

## NORTH AMERICA

t 800.492.1110

t 978.442.2200

## ASIA/PACIFIC

### Australia/New Zealand

t 61 427286832

### Chinese Mainland

t 86 21 3338 4338

### India

t 91 124 4604000

## Japan

t 81 3-3586 1996

## Korea

t 82 2-796-9500

## Singapore

t 65 6572-9740

## Taiwan

t 886 2-2716-0338

## EUROPE

CSEurope@corning.com

## France

t 0800 916 882

## Germany

t 0800 101 1153

## The Netherlands

t 020 655 79 28

## United Kingdom

t 0800 376 8660

## All Other European

### Countries

t +31 (0) 206 59 60 51

## LATIN AMERICA

grupoLA@corning.com

## Brazil

t 55 (11) 3089-7400

## Mexico

t (52-81) 8158-8400