

# Corning® LSE™ 6L Digital Water Bath

CORNING

## INSTRUCTION MANUAL

### Models

6783 (120V US)

6784 (230V EU)



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## 1.0 WARNING

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

**Important safety symbols** used in this manual:



### **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/50Hz or 120V/60Hz**

Make sure it is connected to the correct power supply. Disconnect the power cord before carrying out maintenance or cleaning work.

## 2.0 SAFETY INFORMATION

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 user's manual.



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

## 3.0 Package Contents

<b>Description</b>	<b>Qty</b>
Water Bath, 6L	1
User's Manual	1
Power Cord	1

## 4.0 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 that the unit is in good working order before discarding the shipping packaging.

## 5.0 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.

## 6.0 INTENDED USE

The Corning® Digital Water Bath is a compact general purpose convection bath capable of uniformly heating samples up to a maximum of 99°C.

## 7.0 SYMBOLS AND CONVENTIONS

The following chart is an illustrated glossary of the symbols that are used in this manual.



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



**CAUTION** This symbol indicates the presence of high voltage and warns the user to proceed with caution



**CAUTION** This symbol indicates risks associated with hot surfaces

## 8.0 PRODUCT 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)	14.9 x 11.4 x 9.0 inches (12.9 inches with cover)/ 38 x 29 x 23 mm (33 mm with cover)
Weight	19 lbs./8.6 kg
Electrical	120V, 50/60 Hz, 4.8 amps or 230V, 50/60 Hz, 2.4 amps or
Chamber dimensions (W x D x H)	12.6 x 6.7 x 6.9 inches/32 x 17 x 18 cm

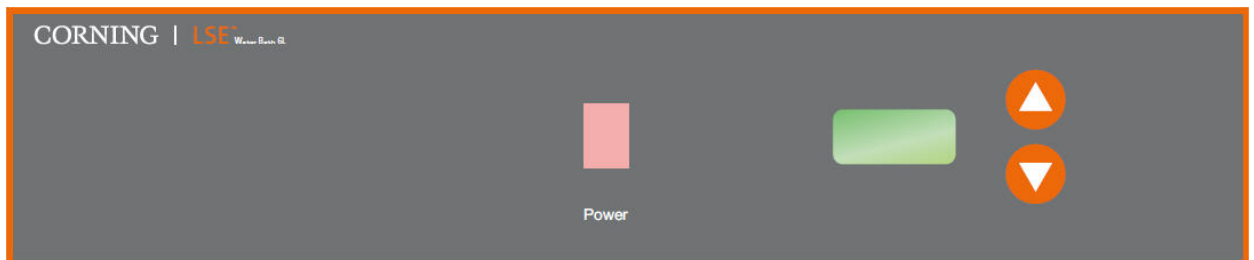
## 9.0 GETTING STARTED

9.1 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.

9.2 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 5 cm between the unit and walls or partitions which might obstruct free airflow.

## 10.0 IMPORTANT GUIDELINES

Description of front overlay:



POWER – power key shines when water bath is ON

↑ -- UP key

↓ -- DOWN key

Display (DOT is blinking when you set temperature)

## 11.0 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.



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.



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.

1. Place the unit on a level surface and plug the unit into a properly grounded outlet of appropriate voltage.
2. Fill the chamber with desired quantity of distilled water. Normal level of water is 2/3 of chamber height. **Minimum** level of water is at least 50 mm.
3. Put the stainless steel cover on 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. Water bath starts to heat.
5. Set desired temperature with UP or DOWN key. You must hold UP or DOWN key for more than 2 seconds. DOT on DISPLAY blinks. When DOT starts to blink (dot blinks for 5 seconds), set temperature to 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 **set temperature** by holding UP or DOWN key for more than 2 seconds.

## 12.0 TROUBLESHOOTING

Review the information in the table below to troubleshoot operating problems.

<b>Problem on Display</b>	<b>Cause</b>	<b>Solution</b>
Er1	Temperature probe is not in range	Examine temperature probe. Faulty control board.
Er2	Temperature is more than 5°C higher than the set temperature	Examine SET temperature. Examine parameters for heating. Examine parameters for heater. Faulty control board. Examine temperature probe.
Er3	If after two hours temperature does not reach SET temperature	Examine heater. Examine temperature safety fuse. Faulty control board.

## 13.0 CLEANING AND MAINTENANCE



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

1. No routine maintenance is required on the unit.
2. 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.

## 14.0 TEMPERATURE RE-ADJUSTMENT

Water bath has a software for temperature re-adjustment. You must first measure 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 temperature with a certified reference temperature measuring instrument with precision of 0.1°C or more. After 2 hours or more read temperature on thermometer and compare it with temperature on LED display. Difference between thermometer reading and 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 which 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 which you enter)

### Procedure for Temperature Re-adjustment:

- Press UP and DOWN key at the same time for more than 5 seconds – until **Cor** (correction) appears on the display and DOT blinks.
- With UP or DOWN key, define value (when DOT is blinking). Pay attention to the sign of value (plus or minus). After 5 of defining the temperature – display will automatically show temporary temperature.

## 15.0 PRODUCT DISPOSAL INFORMATION FOR CORNING CUSTOMERS AND RECYCLERS



According to Directive 2012/19/EU of the European Parliament and Council of 4<sup>th</sup> July 2012 on waste and electronic equipment (WEEE) as amended, the Digital Water Bath 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 the following link:

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



## 16.0 WARRANTY

Corning Life Sciences guarantees that the Corning® LSE 6L Digital Water Bath that you have received meets its published specification. The 6L Digital Water Bath is designed to be free of defects in materials and workmanship for a period of two years from the date of purchase. This guarantee is valid only if the unit has been used in accordance with the instructions in this manual and for its intended purpose. Corning shall not be responsible for consequential damages or damages resulting from the abuse or misuse of this equipment. Corning's liability shall be limited to the repair or replacement of the unit or refund of the purchase price, at Corning's discretion.

If you have a question about the Corning LSE 6L Digital Water Bath or have a service inquiry, contact Corning Customer Service immediately at:

1.800.492.1110 (in the United States and Canada)  
+1.978.442.2200 (outside the United States)  
Contact your local Corning sales office

Before returning any unit for service, a Return Authorization (RA) number must first be obtained. Equipment sent without our prior authorization will be returned at the customer's expense. When returning a unit to Corning for service, it should be sent in the original packaging. If this is not possible, be sure the unit is sufficiently protected. Any damage resulting from improper packaging is the responsibility of the customer. A written explanation should accompany the unit along with the RA number.

Corning reserves the right to alter the specifications of the Corning LSE 6L Digital Water Bath without notice. This allows the incorporation of improvements as they are developed.

Please complete the following information. This information is required in the event that service becomes necessary. The serial number is found on the data plate located on the back of the unit.

Serial No \_\_\_\_\_

Date of Purchase \_\_\_\_\_

For additional information, visit [www.corning.com/lifesciences](http://www.corning.com/lifesciences) or call 1.800.492.1110. Outside the United States, call 978.442.2200.

For Corning technical information, e-mail us at: [ScientificSupport@corning.com](mailto:ScientificSupport@corning.com) or call 1.800.492.1110. Outside the United States, call 978.442.2200.

For more specific information on claims, visit the Certificates page at [www.corning.com/lifesciences](http://www.corning.com/lifesciences).

**Warranty/Disclaimer:** Unless otherwise specified, all products are for research use only. Not intended for use in diagnostic or therapeutic procedures. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications.

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