



**SAGE SCIENCE INC**

SageHLS Installation Guidelines

460033 Rev. A

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Revised

Sheet 1 of

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## SUMMARY

This guideline documents requirements and procedures for users or Sage Science Staff for installing the SageHLS instrument.

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## **1.0 INTRODUCTION**

### **1.1 Purpose**

This guideline documents requirements and procedures for users or Sage Science Staff for installing the SageHLS instrument.

### **1.2 Scope**

This document encompasses the requirements, conditions, and steps for the installation of the SageHLS instrument. This document will be used by Sage Science personnel and Sage Science customers or collaborators.

### **1.3 Reference Documents**

460034, SageHLS Operations Manual

All at the latest revision.

### **1.4 Responsibilities**

The Applications Lab Director or designee will be responsible to ensure that this procedure is implemented.

## **2.0 SAGEHLS INSTALLATION REQUIREMENTS**

### **2.1 Operating Conditions**

The SageHLS system is designed to operate under the following environmental conditions:

- Pollution Degree 2
- Installation category 2
- Max. Altitude 2000m
- Indoor use
- Ambient temperature 17-25°C
- Humidity 10-80%, non-condensing

### **2.2 Safety**

Standard laboratory precautions should be taken when handling SageHLS Gel cassettes and operating the SageHLS:

- Wear a lab coat, safety glasses, and gloves.
- Use in proximity of an eye wash station and/or running water

### **2.3 Power Consumption and Heat**

At maximum power consumption, the SageHLS generates approximately 100Watts  
(340 BTU/hr)

### **2.4 Operating Power and Outlet Requirement**

Two **110V (or 220V) outlets** are required:

- SageHLS instrument
- LCD monitor

### **2.5 Bench Space**

A **30" X 30"** area is recommended for operation of the SageHLS and preparation of Gel cassettes, based on a 30" deep bench. Minimally, a depth of 18" will suffice.

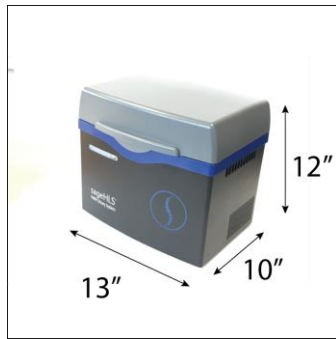
**SageHLS instrument dimensions:**

- Closed Position: 13"W x 12"H x 10"D (33 x 27 x 25 cm)
- Open Position: 13"W x 19"H x 17"D (33 x 46 x 43 cm)

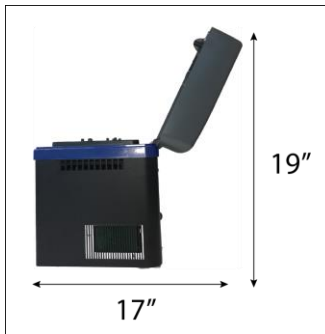
### 2.5 Bench Space (cont'd)

#### **LCD monitor dimensions (including stand):**

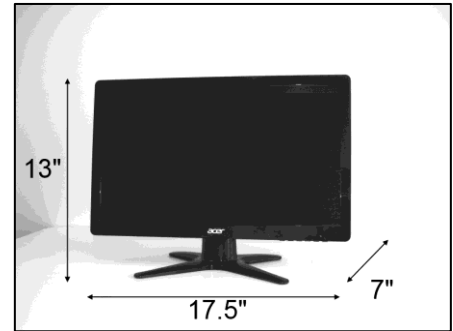
- 17.5"W x 13"H x 7" D (44 x 33 x 18 cm)



(33cm W x 31cm H x 25cm D)



(48cm H x 46cm D)



(44cm W x 33cm H x 18cm D)

**Figure 2.1. Instrument and Monitor Dimensions**

## **3.0 SAGEHLS INSTALLATION PROCEDURE**

### 3.1 Packaging and Components

The SageHLS instrumentation is shipped in two boxes: one will contain the SageHLS and Accessories and the second box will contain the computer monitor in the manufacturer's original packaging. With the boxes in the upright position, open and confirm that the following items are enclosed:

#### **Monitor**

- VGA video cable
- Power supply
- Power cord

#### **SageHLS**

- SageHLS Instrument
- Accessory box
  - Computer keyboard, USB
  - Computer mouse, USB
  - Power supply
  - Power cord
  - Rinse Cassettes

### **3.2 Installation**

1. Open the LCD monitor box, and assemble it according to the manufacturer instructions
2. Using a box cutter, open the top seal on the SageHLS box, and open.
3. Remove the accessory box located just inside, atop the instrument. Remove the keyboard, mouse, and instrument power supply and cords from their packaging.
4. Firmly grip both sides of the **bottom** of the instrument and lift it along with the foam packaging inserts. The SageHLS weighs approximately **20 lbs**. Place the unit onto the bench top.



**Important!** Do not lift the instrument by the lid or lid retainer. This can damage the mechanism or impede the function of the unit.



**Important!** After removing the instrument, open the lid and remove the foam insert and discard. The instrument can get damaged if operated with the insert in place.

5. Connect the LCD monitor (VGA port) to the SageHLS (VGA port, back panel) using supplied video cable. Connect monitor to the power outlet using the power supply supplied with monitor (**Figure 3.1**).
6. Insert USB connector from the computer **keyboard** into any USB port located on the back panel of the SageHLS (**Figure 3.1**).
7. Insert USB connector from the computer **mouse** into any USB port located on the back panel of the SageHLS (**Figure 3.1**).
8. Connect SageHLS instrument to the power outlet using the SageHLS power supply and power cable. The power input connector is in the lower left hand corner on the back panel of SageHLS, below the power switch (**Figure 3.1**).
9. Press power switch located on the rear of the instrument, and wait for software to launch (approximately 30 seconds)
10. When powered on, a **blue light** on the front panel of the Instrument will be on (**Figure 3.2**).

*The SageHLS is ready for use. The software should automatically launch – allow 30 seconds.*

Figures 3.1 and 3.2 show the rear and front panels of the SageHLS.



Figure 3.1. Rear Panel of the SageHLS



Figure 3.2. Front Panel of the SageHLS

When in "Run" mode, a green light is also indicated on the front panel.

After the power button is pressed, the front panel LED will light, and the software will launch.