



SAGE SCIENCE INC

HLS2 Installation Guidelines

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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 HLS2 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 HLS2 instrument.

1.2 Scope

This document encompasses the requirements, conditions, and steps for the installation of the HLS2 instrument. This document will be used by Sage Science personnel and Sage Science customers or collaborators.

1.3 Reference Documents

460061, HLS2 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 HLS2 INSTALLATION REQUIREMENTS

2.1 Operating Conditions

The HLS2 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 HLS2 Gel cassettes and operating the HLS2:

- 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 HLS2 generates approximately 100Watts (340 BTU/hr)

2.4 Operating Power and Outlet Requirement

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

- HLS2 instrument
- LCD monitor

2.5 Bench Space

A **30" X 30"** area is recommended for operation of the HLS2 and preparation of Gel cassettes, based on a 30" deep bench. Minimally, a depth of 18" will suffice.

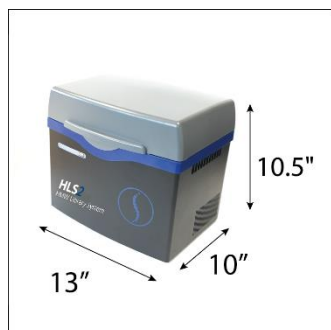
HLS2 instrument dimensions:

- Closed Position: 13"W x 10.5"H x 10"D (33 x 27 x 25 cm)
- Open Position: 13"W x 17.5"H x 17"D (33 x 46 x 43 cm)

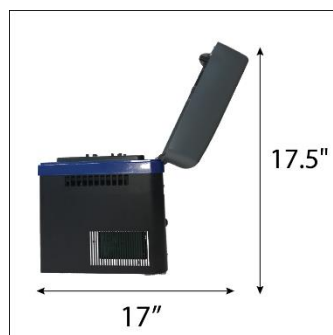
2.5 Bench Space (cont'd)

LCD monitor dimensions (including stand):

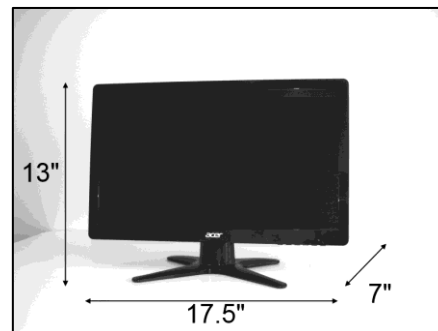
- 17.5"W x 13"H x 7" D (44 x 33 x 18 cm)



(33cm W x 27cm H x 25cm D)



(44cm H x 43cm D)



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

Figure 2.1. Instrument and Monitor Dimensions

3.0 HLS2 INSTALLATION PROCEDURE

3.1 Packaging and Components

The HLS2 instrumentation is shipped in two boxes: one will contain the HLS2 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

HLS2

- HLS2 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 HLS2 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 HLS2 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 HLS2 (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 HLS2 (**Figure 3.1**).
7. Insert USB connector from the computer **mouse** into any USB port located on the back panel of the HLS2 (**Figure 3.1**).
8. Connect HLS2 instrument to the power outlet using the HLS2 power supply and power cable. The power input connector is in the lower left hand corner on the back panel of HLS2, 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 HLS2 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 HLS2.

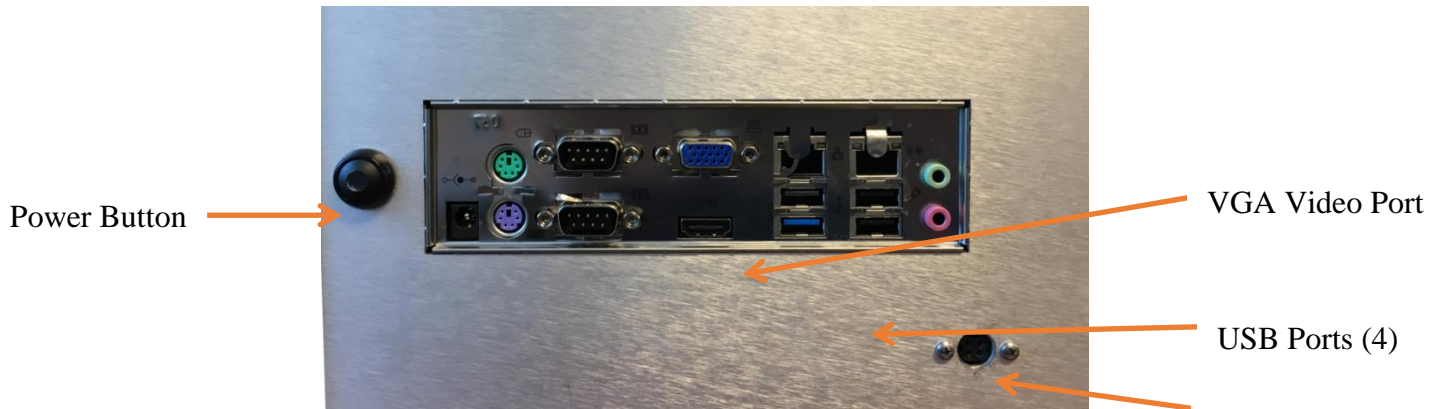


Figure 3.1. Rear Panel of the HLS2

Power Entry Port



Figure 3.2. Front Panel of the HLS2

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