



SAGE SCIENCE INC

SageELF Installation Guidelines

460001 Rev. C

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Page 1 of 7

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SUMMARY

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

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Table of Contents

1.0 INTRODUCTION..... 3

 1.1 Purpose..... 3

 1.2 Scope..... 3

 1.3 Reference Documents 3

 1.4 Responsibilities..... 3

2.0 SAGE-ELF INSTALLATION REQUIREMENTS 4

 2.1 Operating Conditions 4

 2.2 Safety 4

 2.3 Power Consumption and Heat 4

 2.4 Operating Power and Outlet Requirement..... 4

 2.5 Bench Space..... 4

3.0 SAGE-ELF INSTALLATION PROCEDURE..... 5

 3.1 Packaging and Components 5

 3.2 Installation..... 6

Figures

2.1 Instrument and Monitor Dimensions.....5

3.1 Rear Panel of the SageELF.....7

3.2 Front Panel of the SageELF and Cassette Nest.....7

1.0 INTRODUCTION

1.1 Purpose

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

1.2 Scope

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

1.3 Reference Documents

460003, SageELF 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 SAGE-ELF INSTALLATION REQUIREMENTS

2.1 Operating Conditions

The SageELF 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 SageELF Gel cassettes and operating the SageELF:

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

2.4 Operating Power and Outlet Requirement

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

- SageELF instrument
- LCD monitor

2.5 Bench Space

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

SageELF instrument dimensions:

- Closed Position: 13"W x 10.5"H x 10"D
- Open Position: 13"W x 18"H x 17" D

2.5 Bench Space (cont'd)

LCD monitor dimensions (including stand):

- 17.5"W x 13"H x 7" D

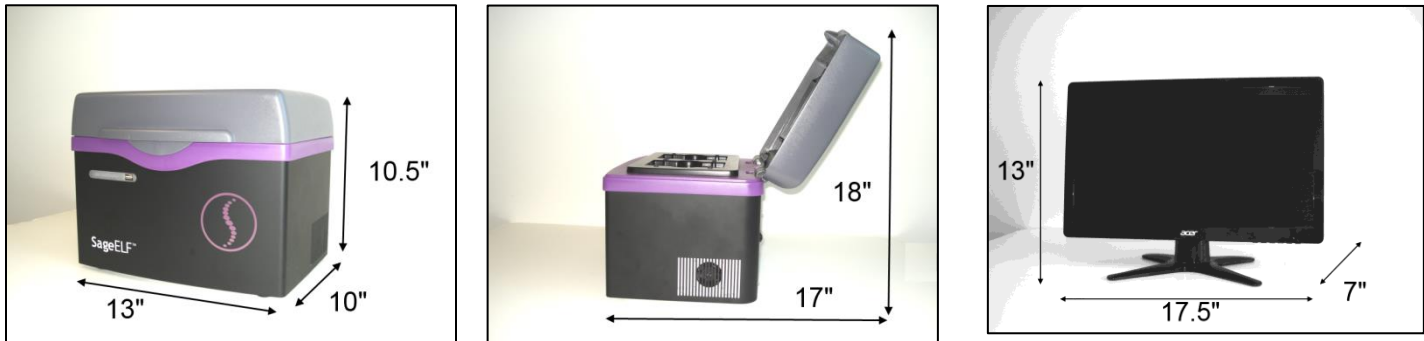


Figure 2.1. Instrument and Monitor Dimensions

3.0 SAGE-ELF INSTALLATION PROCEDURE

3.1 Packaging and Components

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

- LCD computer monitor
- HDMI-to-RS232 video cable
- Power supply
- Power cord

SageELF

- SageELF Instrument
- Accessory box
 - Computer keyboard, USB
 - Computer mouse, USB
 - Power supply
 - Power cord

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 SageELF 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 SageELF weighs approximately **20 lbs**. Place the unit onto the bench top.
5. Connect the LCD monitor (VGA port, under the screen) to the SageELF (DVI port, back panel, see Figure 3.1) using supplied video cable.
6. Using the power cord and power supply provided by the manufacturer, plug the monitor into an electrical outlet.
7. Turn on the monitor.

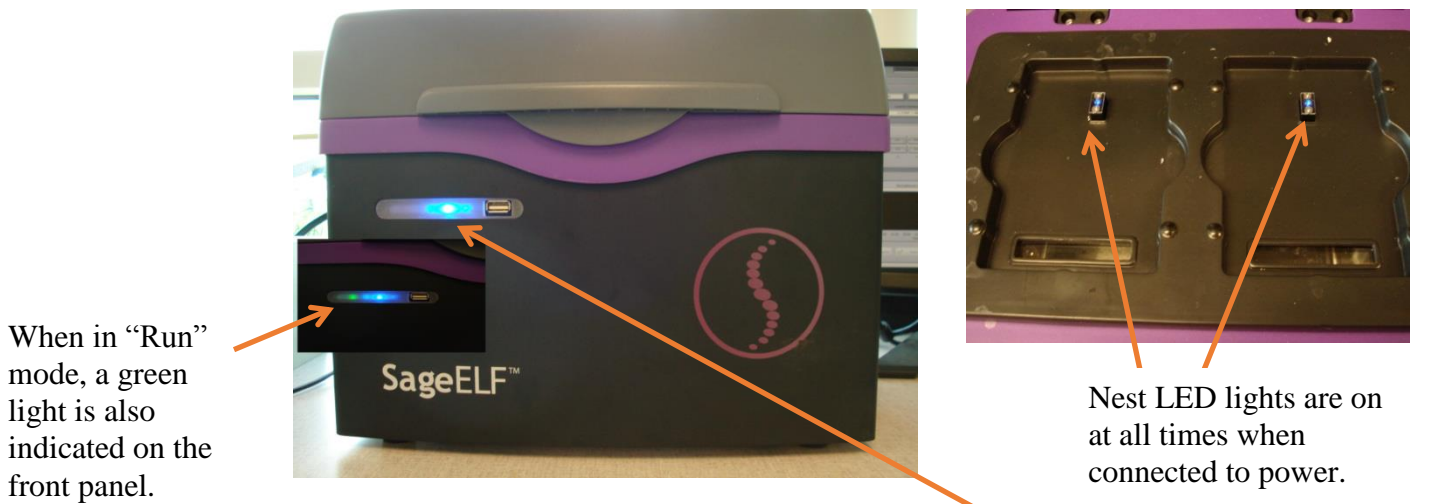


Important! Make sure to plug in and turn the monitor on before powering the instrument. This way the proper screen resolution will be set automatically when the SageELF software is launched. Otherwise, the SageELF will need to be powered down and restarted to set the correct screen resolution.

8. Insert USB connector from the computer **keyboard** into any USB port located on the back panel of the SageELF (Figure 3.1).
9. Insert USB connector from the computer **mouse** into any USB port located on the back panel of the PippinHT (Figure 3.1).
10. Connect PippinHT instrument to the power outlet using the PippinHT power supply and power cable. The power input connector is in the lower right hand corner on the back panel of the PippinHT (Figure 3.1).
11. When connected to power, the blue leds on the instrument nest will be lit at all times.
12. Press the power button. It is located on the left side of the back panel (Figure 3.1).
13. When powered on, the blue light on the front panel of the Instrument will turn on (Figure 3.2).
14. When powered on, the software will launch (this will take approximately 30 – 60 seconds).



Figure 3.1 Rear Panel of the SageELF



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

Nest LED lights are on at all times when connected to power.

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

Figure 3.2 Front Panel of the SageELF and cassette nest