

Sapphire Eraser™

User Manual



Waste Electrical and Electronic Equipment (WEEE)

ENG		This symbol indicates that the waste of electrical and electronic equipment must not be disposed as unsorted municipal waste and must be collected separately. Please contact an authorized representative of the manufacturer for information concerning the decommissioning of your equipment.
FRA		Cesymboleindiquequelesdéchetsrelatifsàl'équipementélectriqueetélectroniquene doivent pas être jetés commeles orduresménagèresnon-triées et doiventêtre collectés séparément. Contact ezunreprésentant agréédu fabricant pour obtenir desinformations sur lamise au rebut de votre équipement.
GER		Dieses Symbol kennzeichnet elektrische und elektronische Geräte,dienichtmit dem gewöhnlichen, unsortierten Hausmüll entsorgtwerdendürfen,sondernseparatbehandeltwerdenmüssen.BittenehmenSieKontakt miteinemautorisierten Beauftragtendes Herstellers auf, umInformationen hinsichtlichder EntsorgungIhresGerätes zu erhalten.
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SPA		Estesímbolo indica que elequipoeléctricoy electrónicono debe tirarseconlosdesechosdomésticosydebetratarseporseparado.Contacteconelrepresentant elocaldelfabricanteparaobtenermásinformaciónsobrela forma de desecharel equipo
SWE		Dennasymbolangerattelekriskaoochelektroniskautrustningarintefåavyttrassomosorterat hushållsavfallochmåstesamlasinseparat.Vargodkontakta en auktoriserad tillverkarrepresentant för informationangåendeavyttringavutrustningen.

Contact Information

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CE Conformity

The following biomolecular phosphor eraser Systems,

Models: Sapphire Eraser

Are in conformity with the provisions of the following EC Directives, including all amendments, and national legislation implementing these directives:

Low Voltage Directive 2006/95/EC

EMC Directive 2014/30/EU

And that the following harmonized standards have been applied:

EN61010-1: 2001

EN 61326-1:2013+A1:1998+A2:2001+A3:2003 Class A

EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11

Protection category: IP20 according IEC 60529

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Safety Warnings

Glare Safety Precautions

The Sapphire Eraser system comes with more than 700 built-in LEDs (620nm) Transilluminators inside the system. Exposure to high light can cause permanent damage to the eyes. The system enclosure confines the radiation within the system and shields the user from exposure. The system is also equipped with a two-way safety interlock switch which automatically cuts off the power to the trans-illuminators when the drawer is open during normal use.

Electrical Safety Precautions

Be sure to take proper precautions when handling any electrical equipment. **NEVER work on any live circuit, fixture, receptacle, or switch.** Safety rules you should follow whenever working with any electrical appliance include:

- Always shut off power to the circuit before repairing or replacing a switch, receptacle, or fixture
- Always tape over the main switch or circuit breaker you are working on.
- Always check that the circuit is dead before beginning work on it. Using a circuit tester or voltmeter can help you determine this.
- Always unplug any appliance before repairing it.

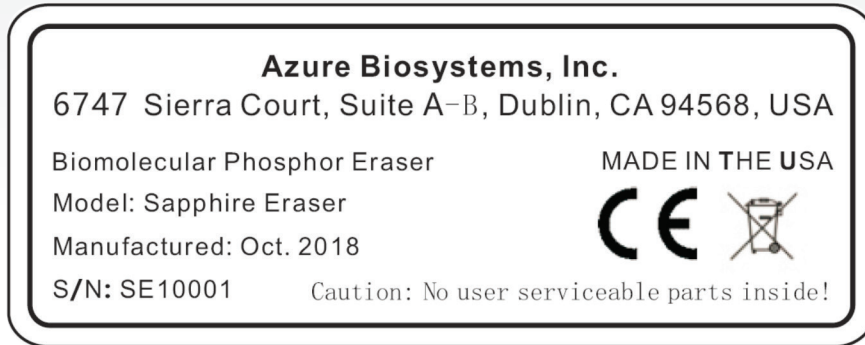
Protective earth terminal



The earth terminal, intended for connection to an external protective conductor for protection against electric shock in case of a fault, is located on the inside of the back panel.

Labels

The illustration below shows an example of the label.



Label text	Description
Model	Instrument model
S/N	Instrument serial number
Manufactured	Manufacturing year and month



The system complies with applicable European directives.



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1. Overview

The Sapphire Eraser was designed to erase signal from phosphor imaging screens. The following will instruct you on how to properly use this instrument.

2. Production Description

2.1 Front view



Part	Description
1	Control panel with RGB LED indicators and noise indicator
2	Drawer
3	Cooling Vents

2.2 Rear view

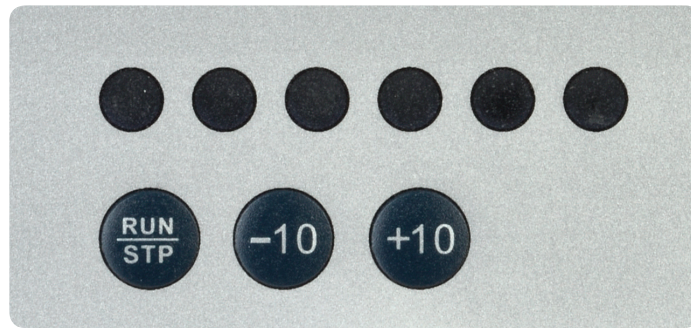


Part	Description
1	Label
2	Power switch
3	Power supply connector
4	Cooling fans

2.3 Drawer open



2.4 Control panel





The table below shows the symbols on control panel and their meanings.

Symbol	Description
LEDs	No lights on when back switch is ON: 'Standby'.
	One light blinking green: Set Time mode
	All blinking red: Warning, drawer is open when erasing.
	1-6 Blue blinking: Indicates erasing in process, 1 LED = 10 minutes.
RUN/STP	All blue blink: run paused or run starting.
	Enter/Exit 'Set Time'
	Pause/Resume Run.
-10	Press and hold: Start/End Run.
+10	Subtract 10 minutes erase time.
Beeper	Add 10 minutes erase time.
	1 short beep: Enter/Exit 'Set Time'
	3 short beeps: Start/End 'Run'
	1 long beep: System check complete, enter Standby State. Run complete.

2.5 Accessories

The following items are included with the delivery of Sapphire Eraser

Part	Description
	Sapphire Eraser
	Power adapter: 100~240VAC, 1A, 50/60Hz

3. Installation

3.1 Unpacking

Check the eraser for any apparent damage before installing. Please contact with your local distributor if any damage is found.

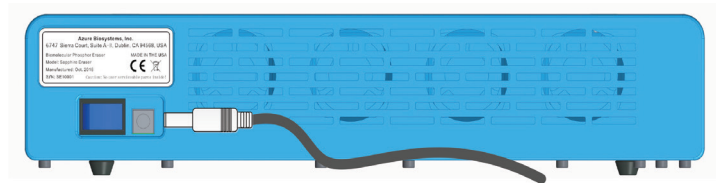
3.2 System placement

As with all electrical instruments, Sapphire eraser system should be located away from water, solvents, or corrosive materials, on a flat and stable surface with adequate clearance on all sides. The system must remain stationary during operation. Do not block the cooling outlet. If they are blocked, the instrument may malfunction.

Sapphire eraser system should be installed at no more than 3000 meters above sea level.

3.2 Connections

Connect the eraser adapter's AC power cord to a grounded power outlet. Connect the DC plug into the back of the system.



3.4 Power on/off the system

Use the power switch on the back to turn on and off the system.

After switching on the power switch, the LED indicators twinkling and beeping by the sequence of red, green and blue. If the self-inspection process runs successfully, system goes into Standby State with all LEDs turn on green.

Turn off the system by the power switch directly.

3.5 Transport

Make sure you turn off the system and disconnect the power cord before moving the eraser.

4. Operation

4.1 Operation overview

Sapphire Eraser erases phosphor screens with a simple user interface. Begin using the Sapphire Eraser by following these simple steps.



4.2 Cleaning the drawer

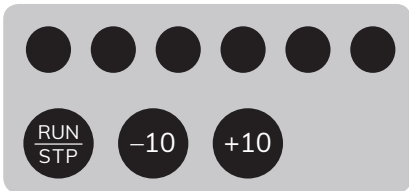
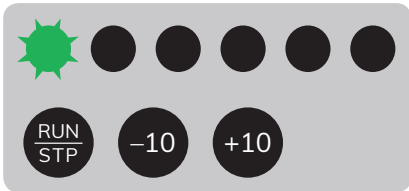
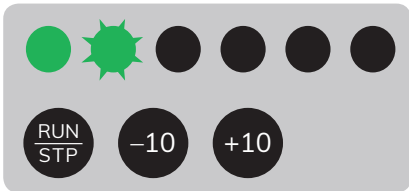
Thoroughly clean the drawer with warm soapy water or isopropanol and a lint free, soft cloth. Do not use scouring compounds or abrasive scouring pads.

4.3 Place the sample

Open Sapphire Eraser's drawer and place the sample FACE UP. Then close the Drawer. The sample should be placed with the back side contacted with the drawer.

4.4 Operation

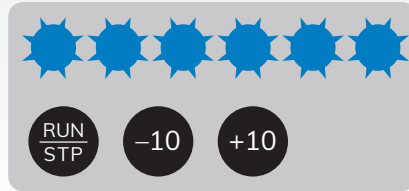
Working State	Description
On / Standby	Power unit ON by flipping the switch on the back right of the eraser. Instrument will beep but no lights will be on. 
Set Time	Press and hold 'RUN/STP' to enter 'Set Time' mode. The left LED will blink green.  

Working State	Description
On / Standby	Power unit ON by flipping the switch on the back right of the eraser. Instrument will beep but no lights will be on. 
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Working State Description

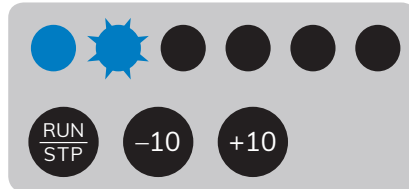
Press 'RUN/STP' button to begin run. LEDs will blink blue before run begins.

Start Run



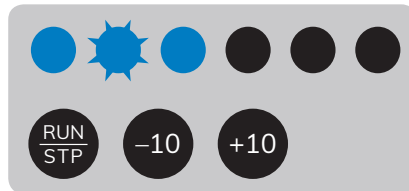
Light and fans turn on during a run. Blinking LEDs show the program progress. Each LED indicates 10 minutes, while the blinking LED indicates the current progress

Example: The program below was set to 20 minutes. The system is currently within the first 10 minutes of the program.



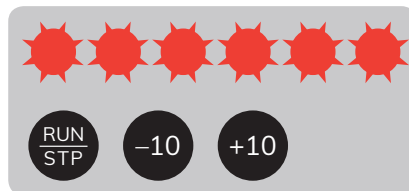
Example: The program below was set to 30 minutes. The system is currently within the second 10 minutes of the program.

Run In Progress



If the drawer is opened during a run, all LEDs blink RED. The light will turn off and fans will remain on.

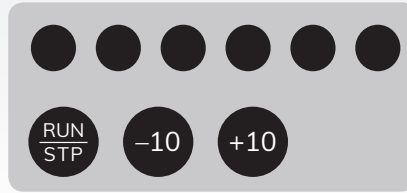
The erase timer is stopped while the drawer remains open.



Working State Description

Stop the run by holding 'RUN/STP.' Eraser will return to Standby mode.

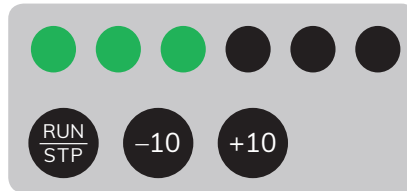
Stop



When Run is complete the LEDs will be solid green to indicate the completed run time.

Example: LEDs indicate a completed 30 minute run time in below.

Done



Press 'RUN/STP' button to go back to return to time setting mode.

Attention! In the erasing process, red light may leak out from vents and gaps. DO NOT stare directly at stray light.

4.5 Remove the screen

When erase run is complete or terminated, open the drawer and remove the screen.

5. Routine Maintenance

Sapphire eraser requires only minimal maintenance. However, as with any equipment utilizing electrical voltages, there is a danger of fire or electrical shock if the equipment is not properly maintained.

Azure Biosystems recommends that you routinely inspect the system. The following are some general maintenance guidelines:

- Wipe all chemical spills from the case and/or drawer to prevent damage to the surface coating.
- Inspect all cables and power cords for evidence of fraying, exposed wire, or loose connections.
- Keep the scan bed free of organic solvents and other combustibles.
- Clean the exterior case parts with a damp cloth with warm soapy water. Do not use scouring compounds or solvents (e.g., acetone, benzene, carbon tetrachloride, lacquer thinner, or alcohol).



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