



C100HT Biologics Analyzer System

Site Planning Guide



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Introduction

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This guide is for the site planner, the individual responsible for preparing the facility for the installation of the system.

For safety and regulatory information, refer to the *Operator Guide*, available at sciex.com.

Customer Site Planner Responsibilities

Complete the [Site Planning Checklist](#) in consultation with facilities services personnel (electrical, ventilation, and information technology [IT]), and return it to the SCIEX field service employee (FSE) before the completion date. Refer to [Signoff](#).

Note: The FSE will follow up if the checklist is not received prior to the scheduled installation date.

- Verify that adequate space and the required shipping or receiving facilities are available. Refer to [Site Layout Requirements](#).
- Provide all required electrical receptacles. Refer to [Electrical Requirements](#).
- Verify that the requirements for the operating environment are met. Refer to [Environmental Requirements](#).
- Verify that the requirements for the computer and network are met. Refer to [Computer, Software, and Network Requirements](#).
- Verify that up to two operators have been identified for training. Refer to [Customer Preparation Requirements](#).
- Verify that all required solutions and laboratory supplies are available. Refer to [Customer-Supplied Solutions and Equipment](#).
- When the shipment arrives, inspect the packaging exterior for damage. If there is any damage, then note any issues on the delivery receipt and notify SCIEX immediately.
- Contact SCIEX Customer Service or the local FSE to schedule the installation.

FSE Responsibilities

Note: If the site preparation tasks are not complete when the SCIEX Field Service Employee (FSE) arrives, then the scheduled installation will be postponed.

- Review the checklist and discuss outstanding issues with the site planner.

Introduction

- Unpack and set up the CE equipment.
- Verify the performance of the system.

During Installation



WARNING! Lifting Hazard. Make sure that at least three people or a lifting device are available to lift the CE system. Follow established safe lifting procedures.

The FSE unpacks the system (with the assistance of customer staff), sets up the system, and then confirms its operation. When the system is installed, the FSE conducts an installation qualification.

Customer Familiarization

During installation, the FSE provides a system and software overview, reviews data, and provides some basic operator familiarization.

Technical Support

SCIEX and its representatives maintain a staff of fully-trained service and technical specialists located throughout the world. They can answer questions about the system or any technical issues that might arise. For more information, visit the SCIEX website at sciex.com.

Site Planning Checklist

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Customer Information

Contact name			
Organization			
Address			
City			
State/Province/Region		ZIP code/Postal code	
Country			
Telephone			
E-mail address			

Requirements

Site Layout

Refer to [Site Layout Requirements](#).

Site Planning Checklist

Requirements	Complete
There is adequate lab space to accommodate the equipment.	
Additional personnel or lifting equipment are available to help the FSE move the equipment. Three people are recommended.	
A moveable or fixed bench that meets the physical requirements (dimensions and mass) of the system as listed in Weights and Dimensions . Make sure that the bench can support the mass of the system.	
Note: If the bench is moveable, then make sure the bench is fixed during normal use.	

Electrical Requirements

Refer to [Electrical Requirements](#).

Requirement	Complete	N/A
Installation of electrical supplies and fixtures complies with local regulations and safety standards.		
One branch circuit is provided for the CE components. Three AC mains supply outlets are required. If the optional cart is purchased, then only one AC mains supply outlet is required.		
Note: Do not use extension cords.		
The mains supply voltage does not fluctuate more than $\pm 10\%$ from the nominal voltage.		
The mains supply includes a correctly installed protective earth conductor.		
A qualified electrician has determined the appropriate mains supply configuration based on the system electrical specifications. Refer to System Electrical Specifications .		

Ventilation and Waste Collection Requirements

Refer to [Ventilation and Waste Collection Requirements](#).

Requirement	Complete
Ventilation of the laboratory environment in which the system will be used complies with local regulations and the air exchange rate is appropriate for the work performed.	
Waste containers are available as required by local regulations.	

Environmental Requirements

Refer to [Environmental Requirements on page 14](#).

Requirement	Complete
The altitude does not exceed 2000 m (6562 ft) above sea level.	
Temperature and humidity requirements have been met.	

BioSafety Requirements

Refer to [BioSafety Requirements](#).

Requirement	Complete	N/A
The site is not designated as BioSafety Level 3 (BSL-3) or BioSafety Level 4 (BSL-4).		

Computer, Network, and Software Requirements

Refer to [Computer, Software, and Network Requirements](#).

Requirement	Complete
A table or bench is provided for the controller, located within 1 m (39 inches) of the system.	
(Optional) A network printer or a dedicated printer and necessary print drivers are available.	
(Optional) An active, tested LAN connection is available.	

Customer Preparation

Refer to [Customer Preparation Requirements](#).

Requirement	Complete
Up to two customers have been identified for familiarization.	

Solutions and Equipment Requirements

Refer to [Customer-Supplied Solutions and Equipment](#).

Requirement	Complete	N/A
All of the required solutions and bottles are available.		

Site Planning Checklist

Customer Profile

(Optional) To allow the FSE to provide site-specific familiarization, enter the following information.

Number of operators	
Years of experience with capillary electrophoresis	

Comments and Exceptions

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Signoff

Site planner contact name		Completion date (yyyy-mm-dd)	
I acknowledge that all of the installation requirements, as specified in this document, have been met.			
FSE name		Return date (yyyy-mm-dd)	
FSE e-mail			

Site Layout Requirements

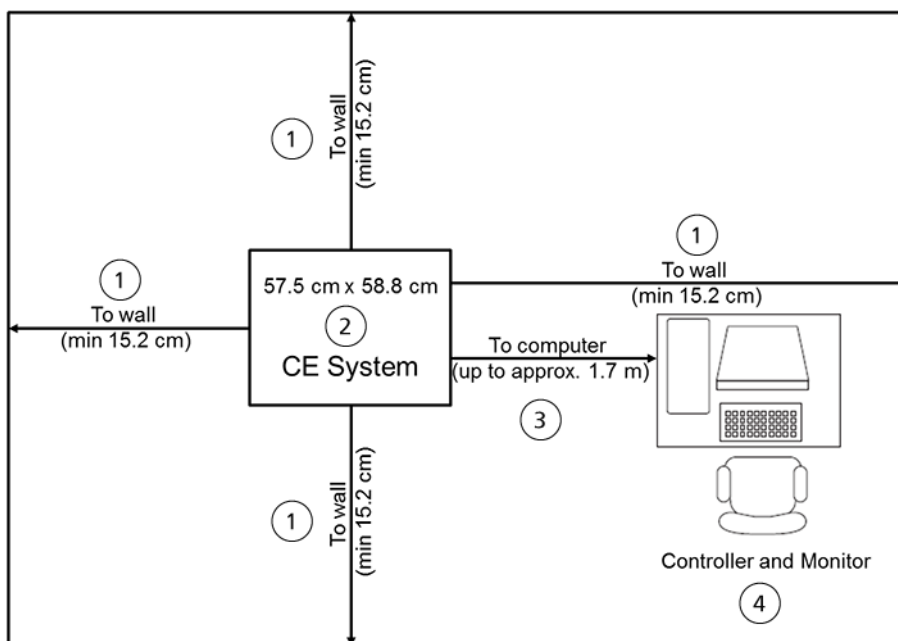
[Return to checklist.](#)

Laboratory Layout and Clearances

[Return to checklist.](#)

- If the optional cart is purchased, the floor is smooth and level so that the mobile cart does not roll.
- The location allows at least 15.2 cm (6 inches) on all sides of the system.
- The location is away from heaters or cooling ducts, and not in direct sunlight.
- The location is away from vibrating equipment, such as refrigerators or centrifuges.
- The location allows access to the mains supply outlet.

Figure A-1 Suggested Laboratory Layout



Site Requirements

Item	Description
1	Distance to wall, minimum 15.2 cm (6 inches)
2	C100HT Biologics Analyzer system
3	(For systems without the rolling cart) Distance to controller, 1.7 m (67 inches) max
4	Controller and monitor

Weights and Dimensions

Refer to the following table for weights and dimensions and make sure that the system can be moved to the installation site. Make sure that the installation site can accommodate the equipment dimensions, weight, and associated clearance.

Equipment	Height	Width	Depth	Weight
C100HT Biologics Analyzer system	68.0 cm (27 inches) (cover open) 40.5 cm (16 inches) (cover closed)	57.5 cm (22 inches)	58.8 cm (23 inches)	52 kg (115 lbs)
C100HT Biologics Analyzer monitor	54.3 cm (21.4 inches)	61.0 cm (24 inches)	20.3 cm (8 inches)	4.9 kg (10.8 lbs)
C100HT Biologics Analyzer controller	34 cm (13.4 inches)	10.1 cm (4 inches)	37.1 cm (14.6 inches)	7.8 kg (17.2 lbs)
(Optional) Rolling cart for C100HT Biologics Analyzer system	66.6 cm to 111.8 cm (27 inches to 44 inches)	91.4 cm (36 inches)	73.7 cm (29 inches)	69.0 kg (152 lbs)

Electrical Requirements

[Return to checklist.](#)



WARNING! Electrical Shock Hazard. Use only qualified personnel for the installation of all of the electrical supplies and fixtures, and make sure that all of the installations adhere to local regulations and safety standards.

Provide a branch circuit with an AC mains supply outlet for the system, the controller, and the monitor.

Do not use extension cords.

Mains Supply Connections



WARNING! Electrical Shock Hazard. Make sure that the system can be disconnected from the mains supply outlet in an emergency. Do not block the mains supply outlet.

Mains Supply Fluctuations

The C100HT Biologics Analyzer system requires consistent voltage between 100 VAC to 240 VAC.

Protective Earth Conductor



WARNING! Electrical Shock Hazard. Do not intentionally interrupt the protective earth conductor. Any interruption of the protective earth conductor creates an electrical shock hazard.

The mains supply must include a correctly installed protective earth conductor that must be installed or inspected by a qualified electrician before the system is connected.

System Electrical Specifications

Note: Specifications are subject to change without notice.

Site Requirements

Table A-1 C100HT Biologics Analyzer System Electrical Specifications

Specification	Value
Nominal input voltage	Instrument: 100 VAC to 240 VAC Optional cart: 100 VAC to 240 VAC, configured during installation Controller: 100 VAC to 240 VAC Monitor: 100 VAC to 240 VAC
Frequency	All components: 50 Hz or 60 Hz
Maximum input current	Instrument: 8 A Optional cart: 3.6 A Controller: 8 A Monitor: 1.5 A

Ventilation and Waste Collection Requirements

[Return to checklist.](#)

Ventilation Requirements

Refer to the "Laboratories" chapter in *ASHRAE, 2011 Handbook - HVAC Applications* for recommended laboratory ventilation guidance.

Waste Collection Requirements



WARNING! Biohazard, Toxic Chemical Hazard. Follow local directives when disposing of chemicals, cartridges, and the remains of the prepared samples, if applicable. They might contain regulated compounds and biohazardous agents.

Environmental Requirements

[Return to checklist.](#)



WARNING! Fire Hazard. Do not operate the system in the presence of an open flame, or in the same room as equipment that could potentially emit sparks.

- Altitude not exceeding 2000 m (6562 feet) above sea level
 - An ambient temperature of 15 °C to 30 °C (59 °F to 86 °F)
The rate of temperature change must not exceed 0.5 °C (0.9 °F) per minute.
 - Relative humidity from 10% to 75%, non-condensing
 - Air currents from heating or air conditioning equipment are not directed at the system
-

Note: Do not install the system adjacent to heaters or cooling ducts, or in direct sunlight.

BioSafety Requirements

The site must not be designated BioSafety Level 3 (BSL-3) or BioSafety Level 4 (BSL-4). SCIEX does not install, service, or repair SCIEX systems in areas designated BSL-3 or BSL-4.

Computer, Software, and Network Requirements

[Return to checklist.](#)

A computer (also referred to as a "controller") and monitor are supplied with the C100HT Biologics Analyzer system.

Controller Requirements

The controller and monitor are provided with the CE system.

CAUTION: Potential System Damage. Other than security software, do not install additional software on the controller. Changes to the configured software could void the system warranty and cause the system to stop operating. All operators require read/write access to the C:\32Karat folder.

Printer Requirements

The system can be connected to a network or dedicated printer.

LAN Connection (Optional)

The controller can be connected to the network.

Customer-Supplied Solutions and Equipment

[Return to checklist.](#)



WARNING! Toxic Chemical Hazard. Refer to the chemical product *Safety Data Sheets* and follow all of the recommended safety procedures when handling, storing, and disposing of chemicals. For health and safety precautions, refer to the *Operator Guide*.

General Equipment

- Appropriate personal protective equipment (PPE)
- Lint-free wipes
- Pipettors (2 μL , 10 μL , 20 μL , 100 μL or 200 μL , and 1 mL) and appropriate tips

Reagents

- Double-deionized (DDI) water (MS-grade water filtered through a 0.2 μm filter and with resistance above 18 M Ω)

Customer Preparation Requirements

[Return to checklist.](#)

After the system has been installed, an FSE will work with up to two operators in basic system operation. Operators should be available for the entire training period.

Equipment Safety Categories

B

Description	Category
Equipment pollution degree	Pollution Degree 2

Note: Environments with a Pollution Degree 2 rating include laboratories and sales and commercial areas.

For more information, refer to the International Electrotechnical Commission standards IEC 61010-1 and IEC 60364.