

Biacore™ 1 series

Site Preparation Guide

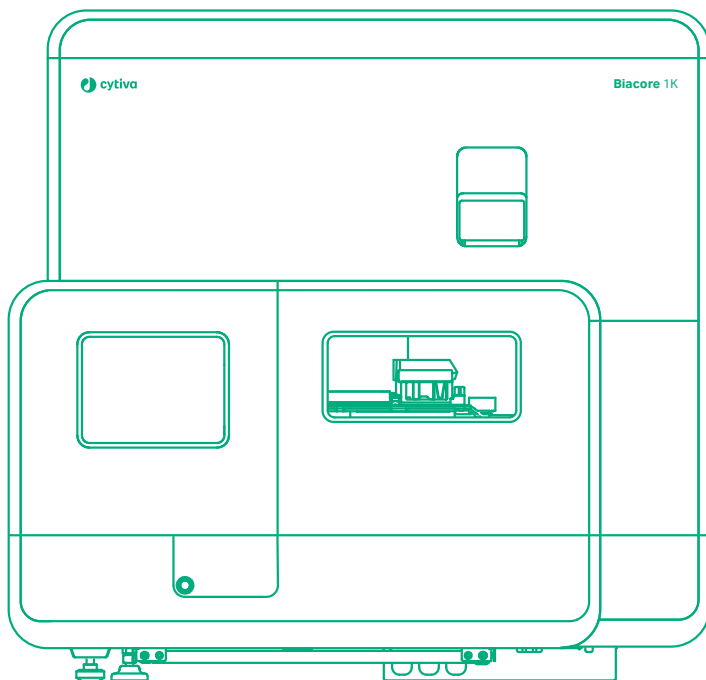


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1 Introduction

Purpose of this document

The purpose of this document is to provide the information you need to prepare your site before Cytiva service personnel can visit your site to install your new Biacore™ system.

The document is intended for the person coordinating the Biacore 1 series site preparation and installation.

Scope of this document

This Site Preparation Guide covers the Biacore 1K, Biacore 1K+, and Biacore 1S+ systems. The systems are together referred to as the Biacore 1 series.

Biacore instrument refers only to the hardware. Biacore system refers to both the hardware and the software.

Software overview

Biacore Insight software is used to control Biacore instrument and evaluate the generated data. It consists of five separate components:

Component	Function
Biacore Insight Control Software	Controls the connected instrument and saves its produced data into the database.
Biacore Insight Evaluation Software	Evaluates data saved in the database.
Biacore Insight Database	Stores and controls access to data.
Biacore Insight API Server (Optional) ¹	Enables automated access to run data and evaluated data for third-party applications.
Cytiva Software Licensing Server	Manages the floating licenses that give access to the software.

¹ Biacore Insight API Server is optional and can be installed at a later stage.

Associated documentation

The main components of the documentation related to the site preparation and system installation are listed below.

The documents can be downloaded from the eDelivery portal cytiva.com/eDelivery or by registering on cytiva.com/support/software/biacore-downloads.

Documentation	Main contents
<i>Biacore 1 series Site Preparation Guide (29706296)</i> (this manual)	Requirements for space, power and other supplies, and environmental conditions for installing and running the Biacore 1 series.
<i>Biacore Insight Software Installation and Upgrade Instructions (29729572)</i>	Instructions for installing or upgrading Biacore Insight Software.
<i>Biacore Insight Database Installation and Management Guide (29287249)</i>	Instructions for installing and maintaining the database used to store data from Biacore Insight software, including user management.
<i>Biacore Insight API Installation and Management Guide (29751155)</i>	Instructions for installing, configuring and integrating with the Biacore Insight API for automated data export.
<i>Biacore eLicensing Guide (29287250)</i>	Instructions for installing the license server and handling electronic software licenses.
<i>Biacore Insight Software Privacy and Security Manual (29357434)</i>	Description of the privacy and security considerations of Biacore Insight software, including detailed descriptions of ports and services used by Biacore Insight software.

Access to eDelivery

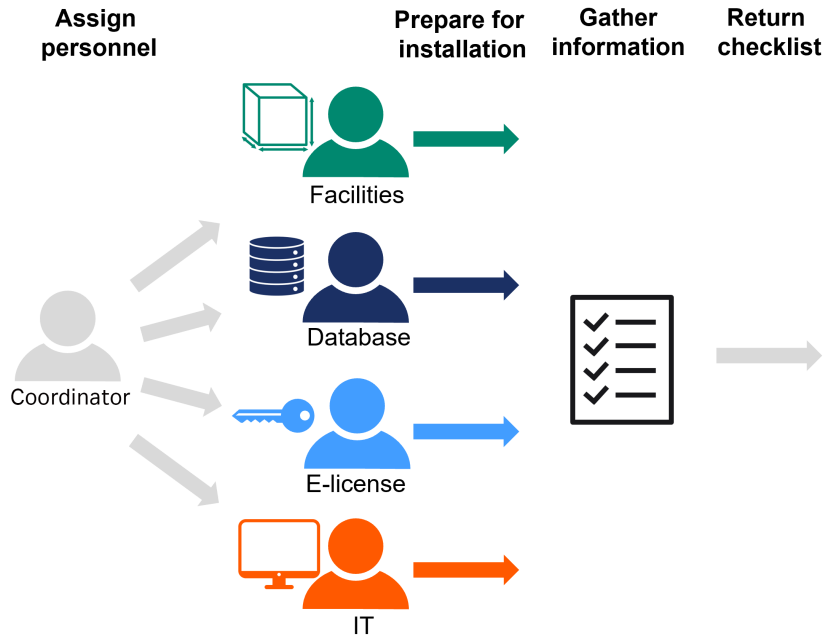
The Activation ID required to access eDelivery for Cytiva products, eLicenses and user documentation is provided, usually by email, when product purchase is confirmed. Keep the email in a safe place. Details on license activation can be found in the *Biacore eLicensing Guide, 29287250*.

Tip: Search for the sender address *cytiva@flexnetoperations.com* or the phrase *ActivationID* in your inbox to find the email.

Assign personnel for site preparation tasks

The site preparation and installation tasks are typically split up between different persons and can take several weeks to prepare, depending on your organization and IT structure. It is up to the site preparation/installation coordinator to:

- Assign personnel and make sure that they are provided with sufficient information to complete the tasks, see table below.
It is recommended that the same people assist the Cytiva service personnel during the subsequent installation process.
- Gather information about the completed tasks and fill in the site preparation checklist, see [Chapter 3 Site preparation checklist, on page 15](#).
- Return the completed checklist to Cytiva before installation, if applicable.



Personnel	Site preparation tasks
Site preparation/ installation coordinator	<ul style="list-style-type: none"> • Review the Site Preparation Guide, safety information, and requirements for the equipment. • Review the <i>Biacore Insight software Installation and Upgrade Instructions (29729572)</i>. • Choose the installation site. • Coordinate personnel and tasks, and provide required information. • Gather relevant information from the site preparation personnel to complete the checklist in Chapter 3 Site preparation checklist, on page 15, and return it to Cytiva. • Coordinate the timing of the system installation with any domestic safety procedures and testings. • Make sure that any customer-provided materials are available. • Schedule the installation and inform the relevant personnel of the installation date. • Make sure lifting and moving equipment is available, if applicable. • Download and distribute software installers and documentation to relevant personnel.
Facilities personnel	<p>Make sure that the installation requirements are met for:</p> <ul style="list-style-type: none"> • Space at the installation site • Environmental conditions • Biosafety • Ventilation and waste collection • Electrical supply • Safety and installation materials. <p>For more information, see Chapter 2 Site preparation, on page 9.</p>

Personnel	Site preparation tasks
Database administrator	<ul style="list-style-type: none"> • Install the Biacore Insight database on a network connected Microsoft SQL Server. • Set up a user account in the database for service/vendor access. • Make sure that the network database is accessible via a wired network connection from the site where the Biacore system will be installed. <p>Required information:</p> <ul style="list-style-type: none"> • The Activation ID • <i>Biacore Insight Database Installation and Management Guide (29287249)</i> <p>Note: <i>If a network database is not available when the service engineer installs the system, a local database needs to be installed on the system controller, with support from IT. A local database has limited security and storage.</i></p> <p>Note: <i>Any existing Biacore Insight database can be upgraded to include data from both Biacore 1 series and Biacore 8 series. Refer to Biacore Insight Database Installation and Management Guide (29287249) for more information.</i></p>
eLicense setup responsible	<ul style="list-style-type: none"> • Set up a license server. • Activate and download the eLicense for your system. • Make sure all services and ports are accessible for the license server to function properly. <p>Required information:</p> <ul style="list-style-type: none"> • The Activation ID • <i>Biacore eLicensing Guide (29287250)</i>

Personnel	Site preparation tasks
IT support	<p>If the system computer is not from Cytiva:</p> <ul style="list-style-type: none"> • Make sure that the computer requirements are fulfilled, see Computer requirements, on page 12, and provide local admin rights for the service engineer to install software. • Make sure that a network connection is available from the instrument location. • Make sure the firewall settings are set up correctly for the computer. • Assist in connecting the computer to the network, the network database, and the license server at the time of the instrument installation. • If Biacore Insight API will be used for data export: Install and configure the API server and set up client for integration with the API. <p>Required information:</p> <ul style="list-style-type: none"> • <i>Biacore Insight Privacy and Security Manual (29357434)</i> • <i>Biacore Insight API Installation and Management Guide (29751155)</i> • Information about the database and license server, provided by the database administrator respectively the eLicense setup responsible.

2 Site preparation

Introduction

Before the product is delivered, the site must be prepared according to the information in this chapter.

Select the site

Select a site that complies with national and international requirements for biosafety.

Environmental conditions

The following general requirements must be fulfilled:

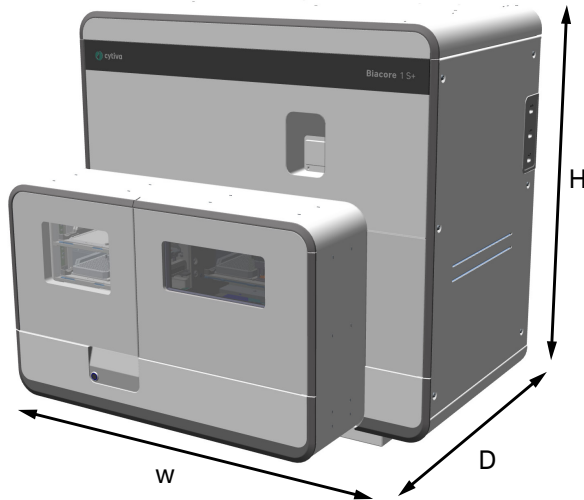
- The room must have exhaust ventilation
- The product must not be exposed to sources of heat, such as direct sunlight.
- Dust in the atmosphere must be kept to a minimum

The installation site must comply with the following requirements:

Parameter	Specification
Allowed location	Indoor use only
Ambient temperature	18°C to 33°C (full performance) 15°C to 35°C (operational)
Maximum change rate	±0.25°C/min (full performance)
Relative humidity	Up to 31°C: 20% to 80% RH Maximum humidity limit decreases linearly by 3.3% per °C
Atmospheric pressure	0.85 to 1.15 bar
Altitude	Up to 2000 m
Pollution degree of the intended environment	Pollution degree 2

Dimensions and weight

The following illustration and table show the dimensions and weight of the Biacore 1 series.



Instrument	Width (mm)	Height (mm)	Depth (mm)	Weight (kg) ¹
Biacore 1K	755	725	666	95
Biacore 1K+	755	725	666	96
Biacore 1S+	755	725	666	96

¹ Excluding buffer and water bottles, and system controller.

Space requirements

To perform service, the back and right-hand side of the instrument must be accessible. Therefore, there are three options for placing Biacore 1 series:

Parameter	Trolley (preferred placement)	Bench (larger)	Bench (smaller)
Min. width (cm)	106	127	127
Depth (cm)	Min. 60	Min. 80	60-79
Load capacity (kg)	130	130	130
Use of rotation guide	N/A	Recommended	Mandatory
Extra space needed	Space for computer and screen, suggested on the left-hand side.	Space for computer and screen, suggested on the left-hand side.	Space for computer and screen, suggested on the left-hand side.

For instructions on how to install the rotation guide, see *Biacore 1 series Unpacking instructions (29706345)*.

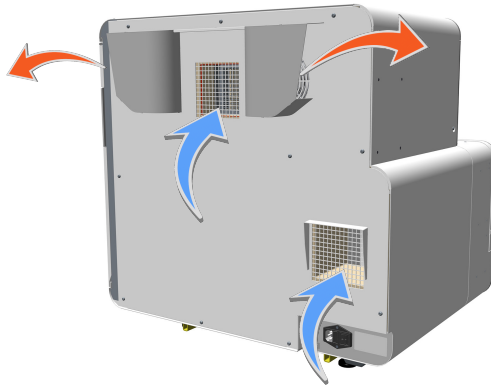
Note: *Additional bench space is required for the computer and screen, preferably on the left-hand side of the instrument.*

Note: *The instrument's intended location must allow access to the power switch and power cord of the instrument. The power switch must always be easy to access. The power cord with plug must always be easy to disconnect.*

Instrument ventilation

Biacore 1 series can be placed with the rear directly against a wall. At least 10 cm clearance above and 20 cm clearance at the sides of the instrument is required for adequate air circulation. Other heat generating equipment close by can impact the thermostatic performance of the system.

Main air vents and air flow direction on the instrument are shown in the illustration below.



Electrical power requirements

Parameter	Specification
Supply voltage	100 to 240 V~ Maximum $\pm 10\%$ fluctuation from the nominal voltage.
Frequency	50/60 Hz
Maximum power consumption (excluding computer)	Biacore 1K: 350 VA Biacore 1K+: 350 VA Biacore 1S+: 350 VA
Power outlet	Grounded
Transient overvoltages	Overvoltage category II
Number of wall outlets	3 (total) <ul style="list-style-type: none"> • Biacore instrument: 1 • System controller (computer and screen): 2 <p>See the manufacturer's specification for power requirements for the computer equipment.</p>

Note: *If there is a risk of power supply interruptions, it is recommended to install an uninterruptible power supply (UPS, rating 1500 VA) to reduce the risk of interruptions during a run.*

Computer requirements

Using a computer supplied by Cytiva is recommended. A computer from another supplier must comply with the requirements listed below.

- CPU with at least four cores, 2 GHz or faster
- At least 16 GB internal memory
- At least 200 GB free hard disk space
- Screen resolution of at least 1920×1080
- One USB2 port available for instrument connection
- One of the below operating systems, English version:
 - 64-bit Microsoft Windows 10 Enterprise
 - 64-bit Microsoft Windows 10 Professional
 - 64-bit Microsoft Windows 11 Enterprise
 - 64-bit Microsoft Windows 11 Professional

Note: *The functionality of Biacore Insight software and the Biacore system is verified using an English version of Windows. Other languages than English can cause issues.*

Note: *A USB port is required for installation. Make sure that installation of external software is allowed via the USB port.*

Note: *A computer network cable is required (not provided with the instrument).*

Note: *Computer requirements for the computer hosting the API server are found in the Biacore Insight API Installation and Management Guide (29751155)*

Network requirements

If the computer is delivered together with the Biacore instrument, the IT support personnel is required during the installation to assist in connecting the computer to the network and to the network database.

If a separately purchased computer is used, connection to the network must be established before the Cytiva service representative installs the system.

Computer clock settings

In network installations that cover multiple time zones, it is important that the system clocks on all computers that access the database are correctly set to local time. Time stamps are created as local time on the computer where the stamped operation is performed, and displayed with an offset to local time in a different time zone (for example, a run performed at 11:00 AM in one time zone is shown as 08:00 AM in a different time zone).

Customer-supplied accessories and consumables

The following equipment must be supplied by the customer:

Parameter	Specification
Personal Protective Equipment (PPE) as required, (e.g., gloves, lab coats, etc.)	Used during installation, operation and maintenance
Water	Distilled and filtered water

Heat output

The heat output data is listed in the table below.

Component	Heat output
Biacore 1 series	Maximum 80 W

3 Site preparation checklist

Introduction

Read the previous chapters in this site preparation guide before completing the checklist.

Complete the checklist in this chapter to make sure that all necessary preparations have been made for the installation of the product.

You must send the completed checklist to a Cytiva office **before** Cytiva service personnel can install your Biacore system. Contact information for the Cytiva service office in your region can be found at [cytiva.com/contact](https://www.cytiva.com/contact). If your region is not listed, select the nearest region.

Checklist

Requirement	YES	NO	N/A	Comment/specify
General				
Has the product been delivered? If yes, specify when the product was received (month/year)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Will Cytiva service personnel be required to take site EHS (Environment, Health and Safety) or security training before doing the installation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Assigned personnel				
Have personnel been assigned as specified? See Assign personnel for site preparation tasks, on page 4 .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Will the personnel require training on how to use the Biacore system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Site selection				
Does the site comply with requirements for biosafety?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Environmental conditions				
Are the environmental conditions fulfilled as specified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ambient temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	YES	NO	N/A	Comment/specify
Relative humidity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Atmospheric pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Altitude	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Pollution degree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Space requirements				
The instrument will be installed on:				
A trolley	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A fixed laboratory bench	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the requirements for the trolley/laboratory bench fulfilled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Will a rotation guide be used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is space available for the instrument as specified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is space available for the system controller (computer and screen)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Electrical requirements				
Are the electrical requirements fulfilled as specified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Computer and database requirements				
Are the computer requirements fulfilled as specified? See Computer requirements, on page 12 .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was the computer purchased from Cytiva? If not, make sure the computer meets the specified requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is a network connection available from the instrument location for database access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is installation of external software via a USB port on the system controller allowed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has the purchase confirmation email been received?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Requirement	YES	NO	N/A	Comment/specify
<p>Has the activation ID(s) from the purchase confirmation email been saved?</p> <p>Specify the activation ID(s).</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Activation ID(s):</p> <input type="text"/>
<p>Has a Biacore Insight database been installed and tested on a network database server in accordance with <i>Biacore Insight Database Installation and Management Guide (29287249)</i>?</p> <p>If yes, specify the network database server host name and the database ID.</p> <p>Note: <i>If this has not been done at the time of installation, a local database will be used.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Database server host name:</p> <input type="text"/> <p>Database ID:</p> <input type="text"/>
<p>Has a license server been set up according to <i>Biacore eLicensing Guide (29287250)</i>?</p> <p>If yes, specify the name of the license server host computer.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>License server name:</p> <input type="text"/>
<p>Has a valid eLicense been installed on the license server according to <i>Biacore eLicensing Guide (29287250)</i>?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<p>Has the clock of the system controller been set to local time as described?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<p>Is there on-site IT support available if needed?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
User supplied equipment				
<p>Is Personal Protective Equipment (PPE) provided as required, (e.g., gloves, lab coats, etc.)?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<p>Is distilled and filtered water available?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<p>If additional lifting and moving equipment not provided by Cytiva will be used, does the equipment meet the requirements?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

Additional information

Customer contact information

Date (dd-mmm-yyyy)	<input style="width: 100%;" type="text"/>		
Company/Customer name	<input style="width: 100%;" type="text"/>		
Name	<input style="width: 100%;" type="text"/>		
Address	<input style="width: 100%;" type="text"/>		
Email	<input style="width: 100%;" type="text"/>		
Phone number	<input style="width: 100%;" type="text"/>		
Customer experience level	Beginner <input type="checkbox"/>	Intermediate <input type="checkbox"/>	Advanced <input type="checkbox"/>

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