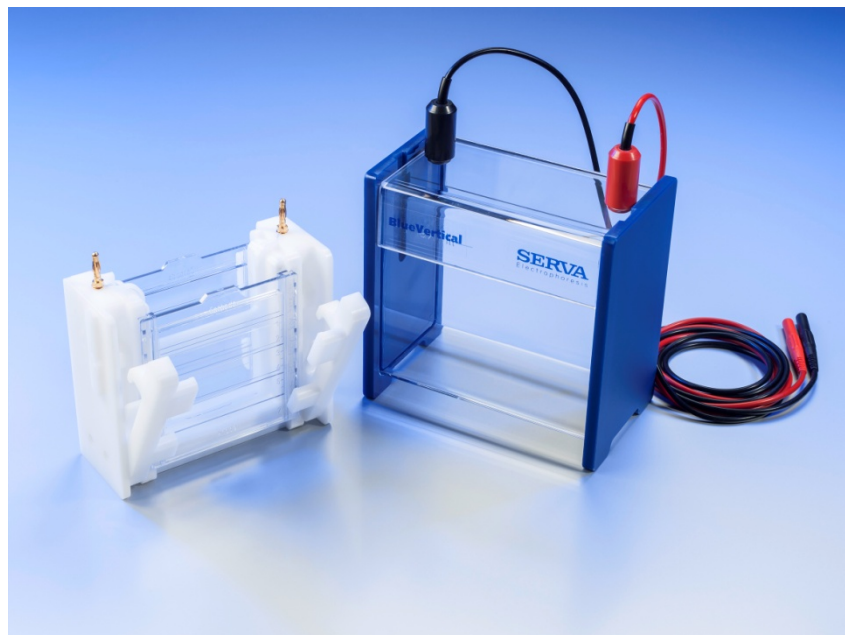


BlueVertical™PRiME™

Instruction manual

Cat. No. BV 104



General information

Keep the instruction manual close at hand nearby your device. We structured this document in a way that you can refer to the desired information via the index. We recommend to read all the chapters to obtain detailed explanations and operations notes. Aim of this instruction manual is to make the operation accessible to you with a language easy to understand. Get in touch with our technical service should any questions arise or explanations being unclear (contact details, see rear page).

By using the packing list, please check after unpacking, if all parts of the device are complete and the device is undamaged. If this is the case, please inform SERVA Electrophoresis GmbH at once.

The warranty period is 12 month and starts at delivery. We ask for setting the packing material aside until warranty period is expired.

Transport and important data

- There are no specific requirements during transport
- Note catalog and serial number here in advance:

Catalog number:

Serial number:

Our target group

The SERVA BlueLine devices are intended for laboratory use. English is considered as the global language of science. The target group of this instruction manual is skilled laboratory staff. Among them count workers-in-training (e.g. trainee, apprentice, diplomate and postgraduate) after briefing as well. Local safety regulations (e.g. biological, chemical, radioactive and medical risk- und security level) cannot be considered in this manual. The liability in these issues lies with the user.

Security definitions

ATTENTION Light to heavy injuries are possible.

CAUTION Light to heavy injuries are certain.

WARNING Irreversible to fatal injuries are possible.

DANGER Irreversible to fatal injuries are certain.

Security symbols



Attention, Danger! The symbol is a sign of a common injury risk for human. It refers to both transport, operation and maintenance of the device. The security definitions above bespeak the degree of the endangerment. The accompanying text explains and indicates to possible preventions.



Attention, Electric Shock! The symbol is a sign of an injury risk for human caused by electrical shock. It refers to both transport, operation and maintenance of the device. The security definitions above bespeak the degree of the endangerment. The accompanying text explains and indicates to possible preventions.

SERVA assistance

Assistance	Contact
Sales Team (Germany)	Contact your local sales representative to receive product information, to arrange demonstrations or to inquire quotations and product samples.
Distributor (International)	Outside Germany, please contact your local distributor for product information, pricing and inquiries. The contact details of our worldwide distributors are listed on our website.
Customer Care	Our sales department is informing you about prices, inquiries and shipment. The contact details are listed on the rear page of the manual.
Technical Service	Our Technical Service is your contact point for technical and scientific questions about our products. A specialized technical service for Collagenase is placed at our local branch in Uetersen. The contact details are listed on the rear page of the manual.
Product Specialist	Our Product Specialists for individual applications are glad to assist you with improving your method and solve problems. Ask our Technical Service for the contact.
Download Center	In our Download Center you find all Manuals, ApplicationNotes and TechNotes regarding our products. Downloadable are brochures, the online catalog and various certificates as well. Additionally on the single product pages in the online shop, MSDS and the specifications are deposited.
Webinar Archives	Inform yourself about our future webinar dates under Events on our website. Recorded videos of previous webinars can be downloaded from our Webinar Archives.

General lab safety information

- In the lab, wear gloves, lab coat and safety goggles. Do **not** wear jewelry or watches.
- Avoid contact with mouth, nose and eyes by hand before having your hands washed. Treat and dress small wounds sufficiently.
- Before leaving the lab, take your safety equipment off and wash your hands thoroughly with soap.
- Change the gloves frequently and remove them before using a telephone, a light switch or a writing utensil.
- Clean your equipment, lab bench and devices frequently and directly after contamination with a mild soap and disinfectant.

Hazards

If the user follows the safety regulations as described below, the SERVA *BlueLine* devices are designed in a way that safe working is ensured. Any warranty claim will be voided if the device or its spares are changed and modified by an unauthorized person. Working contrary to regulations will void warranty claim additionally.

Electrical hazard



WARNING

The device works with current up to 500V direct current. Irreversible to fatal injuries are possible!

- Disconnect the device from the power supply before and after electrophoresis.
 - Disconnect the device from the power supply before cleaning and let dry before connecting again. Never use aggressive chemical and polishes.
 - Do not connect the security lid with the inner buffer tank outside the tank.
 - Do not work with the device if physical defects are observed.
 - Use the enclosed electric cables only.
 - Do not overload the chamber with buffer. Max. Fill indicates the maximum allowed buffer level.
 - Maintenance and repair must be performed by SERVA Electrophoresis GmbH only.
-

Cleaning and disinfection

Clean the SERVA BlueLine devices before first start-up and then frequently with a mild detergent (0.1% SDS solution) followed by distilled water as follows:

First, disconnect the device from the grid before start cleaning. Use lintless cloth soaked in water only. To remove tenacious dirt, lintless cloth soaked in 0.1% SDS solution can be used before. Never use aggressive cleaner or solvents. Let everything dry before reconnecting and start working. Parts of the device that were in contact with other liquids than water have to be cleaned after each usage to avoid salting-out and encrusting.

If contaminated, choose the disinfection method fitting your local regulations and guidelines. First, disconnect the device from the grid and let the device cool down before start disinfecting. After disinfection clean as described before.

If the device needs to be shipped back to SERVA, perform cleaning and disinfect if necessary. Document this on the Decontamination Certificate (Download Center on www.serva.de) and enclose it in the shipping box.

CE Certification

Important: This SERVA product is designed and certified to comply the safety guidelines 2006/95/EC, ProdSG and EN61010-1.

CE certified products are safe in use if utilized as described in the manual. The device has not to be modified. After any modification, warranty and CE certification becomes null and void. Additionally, these modifications may represent a potential source of danger.

SERVA is not responsible for any harm or injury that was caused by device modification, improper use or unspecified applications.

Imprint

Parts of this manual neither may be changed nor used in any other form without permission in written form on the part of SERVA Electrophoresis GmbH. We reserve the right to modify our products and documents anytime. We assume no responsibility for errors, damage and injuries caused by unspecified applications or noncompliance with the advised safety regulations.

Table of Contents

1	First start-up	1
1.1	Packing list	1
1.2	Operation conditions	1
1.3	Specifications	1
2	Electrophoresis procedure	2
2.1	Apply precast gels to the inner core	2
2.2	Sample load	2
2.3	Start of electrophoresis	3
2.3.1	Running conditions of different applications in BlueVertical™ PRiME™	3
2.4	End of electrophoresis	4

1 First start-up

The SERVA BlueVertical PRiME is a mini vertical chamber made up of acrylic glass. In the safety lid integrated leads are approved to 5 kV. Gold plugs grant low corrosion.

1.1 Packing list

- Unit
- Dummy plate
- Manual

1.2 Operation conditions

Use the BV PRiME only in closed laboratories; maximum relative humidity up to 80% (at a temperature up to 31 ° C), decreasing linearly to 50% relative humidity (at a temperature up to 40 ° C), with a maximum altitude of 2000 m (NN).

1.3 Specifications

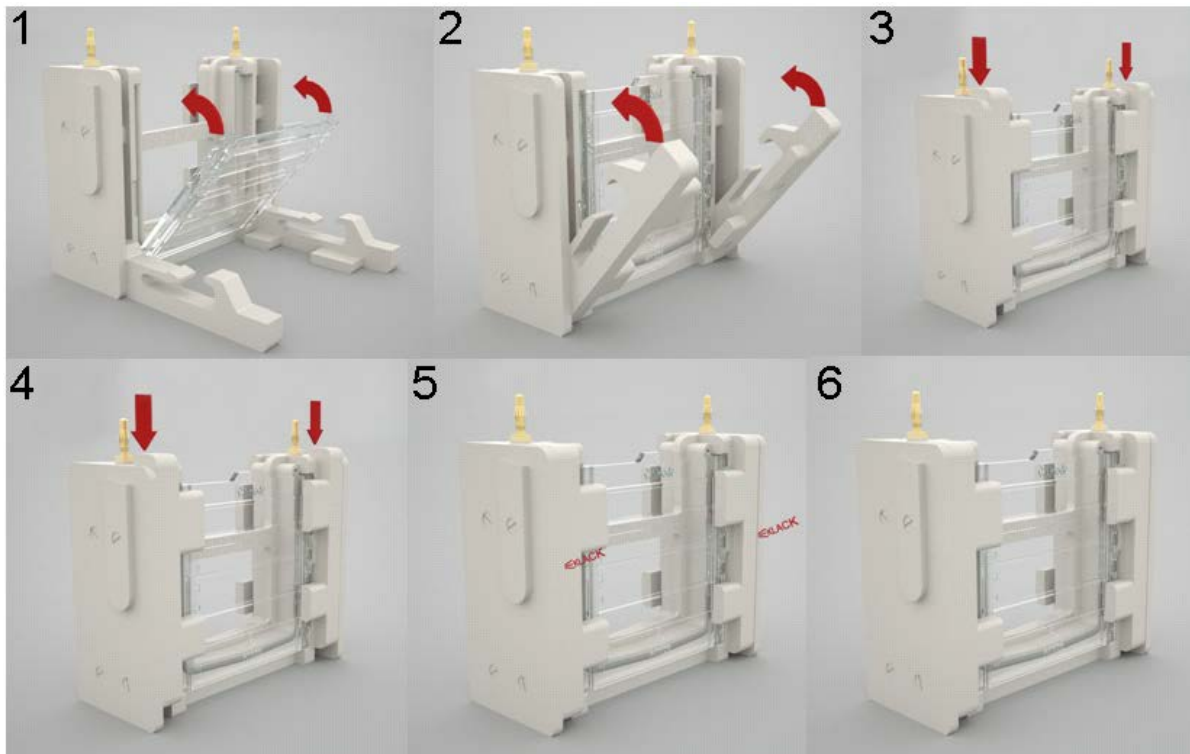
Volume inner buffer chamber	200 ml
Volume outer buffer chamber	450 ml
Voltage (max)	500 V
Current (max)	250 mA
Operating temperature	4 °C – 65 °C
Electrodes	Platinum rod
Dimensions	16 x 15.6 x 9.5 cm (WxHxD)
Weight	1.2 kg

2 Electrophoresis procedure

2.1 Apply precast gels to the inner core

Clean the rubber seal of the inner core, making sure that the seal is placed in the groove. If this is not the case, press the seal into the intended recess.

Unpack the precast gel cassette, remove the comb and apply the cassette with comb side upwards and shorter side inwards. Fix as follows:



When using one gel only, insert the dummy plate on the opposite side to obtain the necessary buffer status.

Insert the inner core into the buffer tank, use the lateral pins as a guide. Only one direction is possible.

Fill the inner and outer buffer chamber with running buffer. Please note that the volume of used buffer shall not exceed the maximum fill height (Max. Fill).

2.2 Sample load

Load the sample with a gel pipette tip. The pipette tip should be about 1 - 2 mm above the bottom of the well to avoid distributing as low as possible. Do not overfill the sample wells to avoid cross contamination. Fill unloaded sample wells with an equal volume of 1X sample buffer to achieve a similar electrical resistance over the entire gel width.

2.3 Start of electrophoresis

Apply the safety lid on the inner core - only one direction is possible. Beware that the plug connections are fitting. Connect the electrophoresis chamber to the power supply. Select the required parameters for the run. To enter the parameters, follow the instructions of the manufacturer.

2.3.1 Running conditions of different applications in BlueVertical™ PRiME™

The following table summarizes examples of the running conditions for various gel types. This may differ from those in the gel manual or your application.

Electrophoresis	SERVAGel™ Precast Gel	Running condition
SDS PAGE	SERVAGel™ HSE	Volt _{const.} : 400 V Time: 20 min
SDS PAGE	SERVAGel™ TG PRiME™	Volt _{const.} : 300 V Time: 35 min
SDS PAGE	SERVAGel™ TG Neutral	Volt _{const.} : 150 V Time: 70 min
Native PAGE	SERVAGel™ N	Volt _{const.} : 130 V Time: 60 – 120 min
IEF	SERVAGel™ IEF	Volt _{const.} : 100 V for 60 min Volt _{const.} : 200 V for 60 min Volt _{const.} : 500 V for 30 min Time total: 150 min

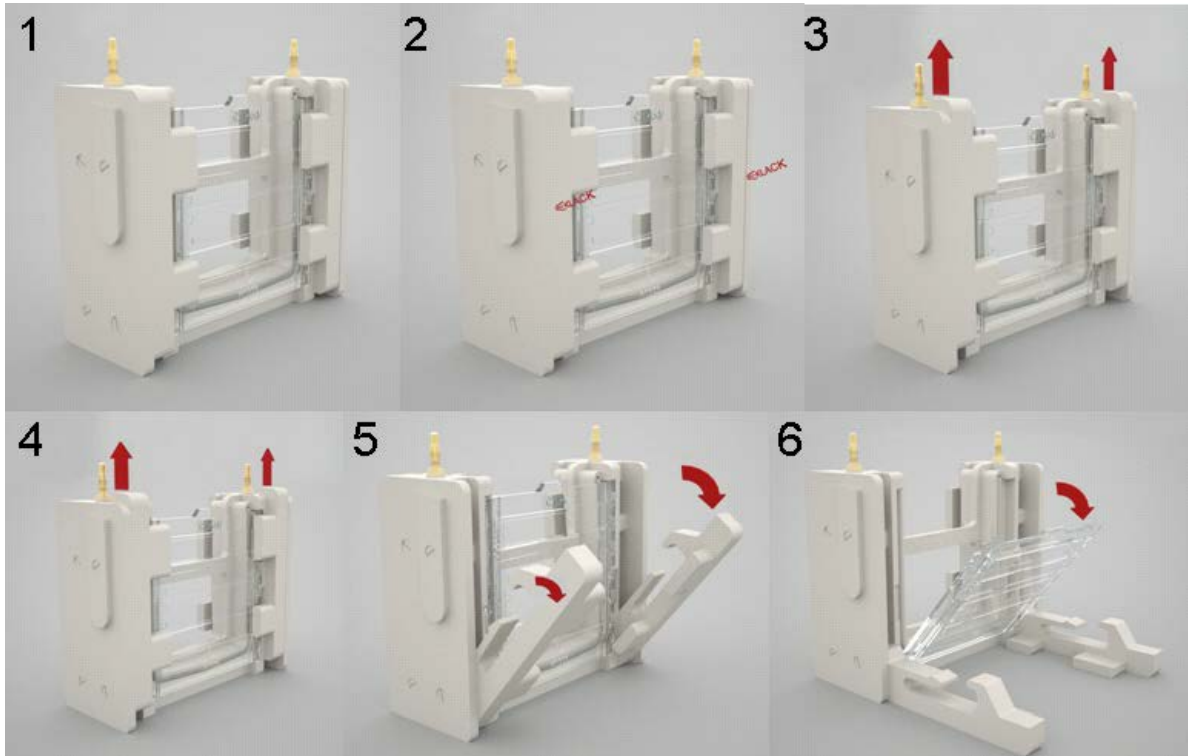
2.4 End of electrophoresis

Setzen Sie alle Parameter an dem Stromversorgungsgerät wieder auf "0" und schalten dieses dann ab. Unterbrechen Sie die Kabelverbindungen der Elektrophoreseeinheit. Entfernen Sie den Sicherheitsdeckel, nehmen die innere Lafeinheit heraus und entleeren diese.

Entnehmen Sie das Fertiggel wie folgt:

Turn off the power supply. Disconnect the cable connection to the electrophoresis unit. Remove the safety lid, lift out the inner core and discard the buffer.

Remove the pre-cast gel as follows:



Empty the outer buffer chamber and rinse it twice with distilled water. Dry the gold pins with a paper towel. Before storing or further use, make sure that the pins are clean and dry to avoid corrosion.

SERVA
Electrophoresis

SERVA Electrophoresis GmbH

Address Carl-Benz-Str. 7, 69115 Heidelberg, Germany **Web site** www.serva.de **Email** info@serva.de
Customer care Germany Phone: 06221 13840-46, Fax: 06221 13840-10 **Customer care International**
Phone: +49 6221 13840-47, Fax: +49 6221 13840-10 **Technical service** Phone: +49 6221 13840-44
Technical service Collagenase Phone: +49 4122 712-413