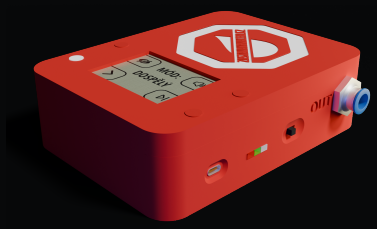
simBLEED®

INSTRUCTIONS FOR USE

simBLEED Plus®

Trainer for bleeding control techniques



! **Read the complete instructions for use carefully before use.**

DEVICE OVERVIEW

01 ON/OFF switch

Switches the device on and off.

02 USB-C port

Charging: 5 V, minimum 2 A. Charging during operation is supported.

03 White LED

Operation; slow flashing indicates a low battery.

04 Green LED

Battery fully charged.

05 Red LED

Battery charging in progress.

06 3.2" display

Selected mode, scenario progress and results.

07 A-B-C-D control buttons

Selections in the control menu.

TRAINING MODES

ADULT

Standard adult trauma patient.

PAEDIATRIC

Lower blood volume and rapid decompensation.

GERIATRIC

Reduced tolerance to blood loss.

INITIAL SETUP

Power on. Select. Begin.

Preparation

01 Charge the device

Connect USB-C and allow the device to charge fully. The green LED indicates a full charge.

02 Choose a stable surface

Place the trainer on a dry, firm and level surface.

03 Connect the tubing

Connect the trainer and wound, then connect the fluid reservoir last. Confirm that all connections are secure.

04 Switch on the trainer

Switch to "ON". The white LED flashes three times, a tone sounds and initialization starts.

Default mode: ADULT is always selected after initialization.

Mode selection: Use button B to cycle through PAEDIATRIC, GERIATRIC and back to ADULT.

Display and modes

INITIALIZATION

ADULT

PAEDIATRIC

GERIATRIC

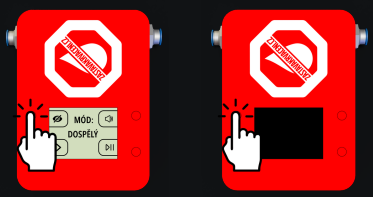
! Press button D to start bleeding in the selected mode.

A-B-C-D CONTROL BUTTONS

Direct, purposeful control.

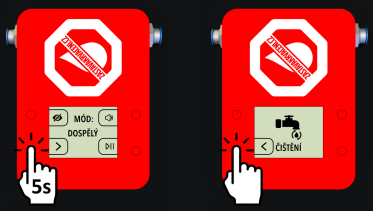
A Backlight

Press briefly to turn the display backlight off or on.



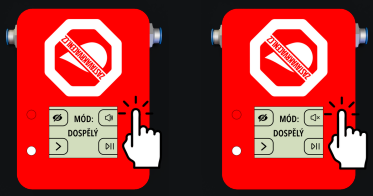
B Cleaning

Hold B for five seconds. After release, the pump runs at full power. Press B again to stop cleaning.



C Sound

Press briefly to turn acoustic signals off or on.



WOUND PACKING

Scenario and objective results.

01

Start

02

Countdown

03

Control

04

Results

During the scenario

A **Bleeding**

After D is pressed, the pump delivers blood to the wound. Flow decreases over three minutes and then stabilizes.

B **Pressure**

During wound packing, the system evaluates pressure at the bleeding source.

C **Countdown**

Sufficient pressure stops the pump and starts a three-minute countdown.

Successful bleeding control

A **Continuity**

Releasing pressure restarts the countdown. Bleeding resumes if pressure falls below the threshold.

B **Confirmation**

When complete, a tone sounds and successful bleeding control is displayed.

C **Metrics**

Volume lost, time to first sufficient pressure and total time to bleeding control.

ENDING AND POWER

Direct the scenario. Stay in control.

EARLY SUCCESSFUL COMPLETION

Press BACK during the countdown to end the scenario as successful and display the evaluation.

EVALUATION

After success is confirmed, the results table is displayed. Press B to return to the mode menu.

UNSUCCESSFUL ATTEMPT

Press BACK outside the countdown to stop the pump and return to the main menu.

Charging

01 Low battery

The white LED flashes slowly.

02 Connection

Connect USB-C. The red LED indicates charging.

03 Fully charged

Green LED. The device may be used while charging.

Ending the simulation

01 End the scenario

Stop the active simulation.

02 Switch off the device

Move the switch to "OFF". The white LED turns off.

03 Disconnect the reservoir

Disconnect the tubing from the fluid reservoir.

AFTER EVERY USE

Clean. Protect. Store.

Maintenance and cleaning

A **CLEANING mode**

After use, run CLEANING mode with warm water to prevent pump contamination.

B **Trainer and tubing**

Disconnect the tubing, rinse it with clean water and allow it to dry at 20-28 °C. Wipe the enclosure with a damp cloth.

C **Reservoir**

Use a mild soap-and-water solution, maximum 60 °C / 140 °F. Rinse and dry at 20-28 °C.

D **Storage**

Store in a cool, dry place away from direct sunlight. Charge the battery before extended storage.

E **Prohibited cleaning agents**

Do not use thinner, benzene, alcohol or other chemicals.

Safety instructions

A **Battery**

Do not expose the product to fire or direct sunlight. Electrolyte leakage, overheating or explosion may occur.

B **Repairs**

Do not repair the product yourself. Contact the manufacturer's technical support.

C **Charging cable**

The connected cable must not be placed in moisture or water.

D **Inspection**

The device must be free of visible damage.

E **Temperature**

Do not operate at 0 °C or below, or above 40 °C.

F **Fluid**

Do not use excessively thick or viscous fluids. They may impair the pump or block the tubing.

G **Impact**

Protect the product from falls and severe impact.

H **Rattling**

If the device rattles, do not start it. Contact technical support.

CH **Overheating**

If the device overheats, do not start it. Contact technical support.

DIAGNOSTICS 1/2

When the system does not pump.

FAULT	POSSIBLE CAUSE	REMEDY
White LED is off, but the display loaded the menu.	LED or control-unit fault.	Contact the manufacturer's technical support.
White LED is off and the display is blank.	Battery discharged.	Charge the battery. If the fault persists, contact technical support.
	Control-unit fault.	Contact the manufacturer's technical support.
Trainer does not pump fluid.	The inlet tube is not in contact with the fluid.	Refill the reservoir or move the fluid towards the connected tube.
	The inlet tube is damaged and draws in air.	Inspect the tube and replace it if damaged.
	The tube is not correctly connected to the quick coupling.	Disconnect and reconnect the tube to the quick coupling.
	Pump fault.	Contact the manufacturer's technical support.

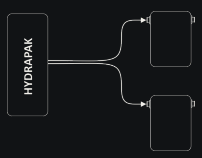
! **Do not open or repair the device. If the fault remains unresolved, contact the manufacturer's technical support.**

DIAGNOSTICS 2/2

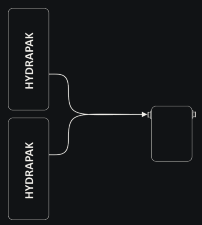
When the controls do not respond.

FAULT	POSSIBLE CAUSE	REMEDY
Display does not respond to buttons.	The software may be unresponsive.	Switch the trainer off and on. If the fault persists, contact technical support.
	The selected button may be damaged.	Try another button and restart the device. If the fault persists, contact technical support.
Trainer starts pumping by itself and cannot be switched off.	Fluid may have entered the device.	Allow the pump to run until the battery is depleted. Contact the manufacturer's technical support.
Pressure is not detected and the pump continues to run.	Leak in the internal circuit.	Disconnect the wound and press a finger against the end of the tube. If the fault persists, contact technical support.
	Control-unit fault.	Contact the manufacturer's technical support.

CONNECTION TIPS



A splitter can connect two simBLEED trainers of any generation to one reservoir.



When high fluid consumption is expected, two reservoirs can be connected to one device.

MANUFACTURER

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