Medical–Biological
Research & Technologies

S-Bt Smart BioTherm

Compact CO_2 incubator

User instructions

If you have any feedback on our products or services, we would like to hear from you. Please send all feedback to:

Manufacturer:

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Contents

1 About this edition of user instructions

The current edition of the user instructions applies to the following models and versions of compact CO_2 Incubator:

- **S-Bt Smart BioTherm** V.1AW, V.1AE

2 Safety precautions

Caution! Make sure you have fully read and understood the present instructions before using the equipment. Please pay special attention to sections marked by this symbol.

Caution! Biohazard. Incubator operations should comply criteria of biosafety in microbiological and biomedical laboratories, according to working material biohazard level.

Caution! Incubator is equipped with an audible signal to draw attention to sensor data and warnings. Please follow the information on display. Error and alarm descriptions can be found in the **Fault Diagnostics** section.

Caution! The incubator contains a source of UV radiation. Do not start the unit without the cover of the UV recirculator. Exposure to UV light is harmful and can cause damage to unprotected eyes and skin.

2.1 General safety

- The protection provided can be ineffective if the operation of the appliance does not comply with the manufacturer's requirements.
- Save the unit from shocks and falling.
- Do not use the unit if it has visible mechanical damage.
- Store and transport the unit at ambient temperatures between -20°C and +60°C and maximum relative humidity of 80%.
- After transportation or storage and before connecting it to the electric circuit, keep the unit under room temperature for 2-3 hrs.
- Before using any cleaning or decontamination methods except those recommended by the manufacturer, check with the manufacturer that the proposed method will not damage the equipment.
- Do not make modifications in design of the unit.
- When handling hazardous substances, follow the instructions contained in the safety data sheets for the individual substances that are used and observe the relevant accident prevention regulations.
- Follow respective safety datasheet when installing and handling the CO_2 reservoir.

2.2 Electrical safety

- Connect only to the mains with voltage corresponding to that on the serial number label.
- Do not plug the unit into an ungrounded power socket, and do not use an ungrounded extension lead.
- Ensure that the power plug is easily accessible during use.
- Disconnect the unit from the mains before moving.
- If liquid penetrates into the unit, disconnect it from the mains and have it checked by a repair and maintenance technician.
- Do not operate the unit in premises where condensation can form. Operating conditions of the unit are defined in the **Specifications** section.

2.3 During operation

- Do not operate the unit in environments with aggressive or explosive chemical mixtures. Please contact manufacturer for possible operation of the unit in specific atmospheres.
- Do not operate the unit if it is faulty or has been installed incorrectly.
- Do not use outside laboratory rooms.

2.4 Biological safety

- The user is responsible to carry out appropriate decontamination if hazardous material spills on or penetrates into the equipment.
- The user is responsible for decontamination of the unit before its decommissioning and utilization.

3 General information

S-Bt Smart BioTherm is designed for work in the areas of cell biology (operations with animal cell cultures and tissues), molecular biology (DNA/RNA reaction analysis, hybridization reactions), biotechnology (synthesis of target proteins and other molecules) and immunology (synthesis of antibodies and other proteins of immune system).

Unit provides a six-sided heating: the heating elements are located on the walls and on the door, thus providing excellent uniform temperature distribution, regardless of external factors, such as ambient temperature and positioning of the device.

Built-in infrared CO_2 sensor allows accurate control of the CO_2 level. The sensor makes measurement non-sensitive to changes in temperature and humidity inside the incubator.

The chamber is made of stainless steel with smoothed seams to minimize contamination and to facilitate cleaning.

S-Bt is equipped with a UV air recirculation system — 1 UV lamp and a fan are mounted behind the rear wall, providing decontamination of the working volume.

A convenient access port is built in the wall of the incubator for easy output of wire sensors or devices' installed inside. The access port is heated independently to prevent formation of condensate.

Unit is equipped with error tracing and alarm systems, which significantly lower potential risks during operation.

Unit is equipped with a "black box" system that records temperature, humidity and CO_2 levels as well as statuses for door opening, UV lamp, fan and errors to the inner memory.

Bluetooth connection to PC is available.

Application areas:

- Cell biology: operations with animal cell cultures and tissues
- Molecular biology: DNA/RNA reaction analysis, hybridization reactions
- Biotechnology: synthesis of target proteins and other molecules
- Immunology: synthesis of antibodies and other proteins of immune system

Features:

- Six-sided heating provides uniform distribution of the temperature inside the chamber
- Infrared CO_2 sensor, non-sensitive to temperature and humidity changes
- UV recirculation system for decontamination cycles
- Bluetooth data transfer to PC
- "Black box" parameter logging system
- Error tracing and alarm system
- Separately heated sealable port for chamber access for cables.

4 Getting started

4.1 **Unpacking.** Remove packing materials carefully and retain them for future shipment or storage of the unit. Examine the unit carefully for any damage incurred during transit. The warranty does not cover in-transit damage. Warranty covers only the units transported in the original package.

Caution! Due to the high weight of the unit, its unpacking and installing must be carried out by two persons.

4.2 **Complete set.** Package contents:

4.2.1 Standard set:

- **S-Bt Smart BioTherm**, Compact CO_2 Incubator ..... 1 pce.
- Power cable ..... 1 pce.
- Hydrophobic filter ..... 2 pcs.
- Water pan with lid ..... 1 set
- Access port seal (foamed PE) ..... 10 pcs.
- Replacement humidity sensor ..... 1 pce.
- USB drive with control/logging software for PC ..... 1 pce.
- Calibration protocol ..... 1 copy
- User instructions, declaration of conformity ..... 1 copy
- **R6** shelf rack with 3 shelves ..... 1 set
- **R2** rack for **CPS-20** with 1 shelf ..... 1 set

Note. Depending on the version, the incubator comes with either **R6** or **R2** rack. See **8.1** for additional information.

4.2.2 Optional accessories:

- Bluetooth adapter ..... on request
- Additional shelves ..... on request
- Incubator stacking device ..... on request

4.3 **Setup**.

4.3.1 Setup of the incubator.

- Position the incubator on a stable platform that can support the weight of the incubator and materials inside the incubator. Ensure access to an appropriate mains outlet.
- Connect the power cable to the socket on the rear panel of the unit. Check that power switches and power plug are easily accessible.
- Locate the unit away from doors and windows and heating and air conditioning ducts. Drafts or direct sunshine can affect thermal processes and cause condensation.

4.3.2 Before starting operations for the first time.

- Attach the hydrophobic filter to inlets on the top side of the rear panel. Pay attention that “IN” marking must be facing right side when viewing the incubator from the front.
- Use 75% alcohol solution or any other decontaminating agent to clean the inner surfaces of the incubator and the water pan with lid.
- Switch on the recirculator for half an hour in an empty incubator to decontaminate air in the incubator. To switch on the UV recirculator, see **5.9.2.1**.

4.3.3 Installing and replacing the racks. Fully open both doors of the incubator, remove the rack if present, and place the new rack in the incubator, with arched sides to the rear and the front of the chamber.

4.3.4 Installing CPS-20. To install the CPS-20 shaker inside the S-Bt Smart BioTherm incubator, follow the instructions enclosed to the CPS-20 shaker.

4.3.5 Stacking incubators. To stack and secure S-Bt incubators, use the optional stacking device and follow the instructions enclosed with the device.

4.4 **CO_2 tank requirements and setup**.

- This incubator is designed for CO_2 gas only. Connecting any other gas can result in a hazardous condition. The incubator works with food grade CO_2 or better rated. Do not use a tank with siphon tube, the incubator can be damaged by liquid CO_2.
- A two-stage reductor installation is mandatory. Pressure in the output must not be higher than **1.0 bar**. Follow gas supplier instructions on installing reductors and valves. Gas inlet on the incubator is a ¼" barb fitting (Ø6.3 mm), marked **Supply port**. Secure the tube with appropriate clamps and check all connections for leaks. Gas flow should be set at **6 L/min**.

Caution! Pressure higher than **1.0 bar** can damage the unit!

5 Operation

5.1 Connect the incubator to a grounded mains outlet. Turn the power switch on the rear of the incubator to position **I** (on). Display lights up and starts initialization.

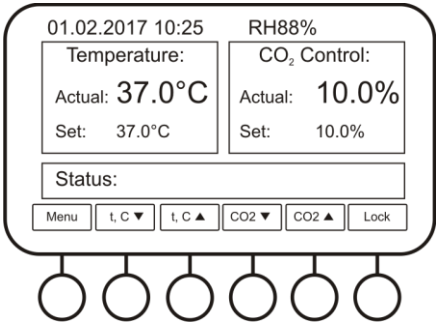


Figure 1.

5.2 After initialization, display (fig. 1) shows:

- **Top line**: current date and time, relative humidity inside, UV lamp icon (when the lamp is on);
- **Middle left**: temperature panel, current temperature in larger font, set temperature in smaller;
- **Middle right**: CO_2 control panel, current percentage in larger font, set percentage in smaller;
- **Bottom line**: Status bar, UV recirculator timer (when the lamp is on);
- **Bottom**: six buttons, Menu, t°C ▼, t°C ▲, CO_2 ▼, CO_2 ▲, Lock.

Note. Below the display, there is a row of six context buttons that correspond to the displayed text directly above each button.

5.3 **Installing shelves**. Open the front door and the inner glass door. Position the shelves according to your specification.

5.4 **Humidity delivery**. Pull out the water pan located on the bottom of the inner camera and fill with distilled water (~80% of volume). With the set temperature of +37°C, incubator reaches 90% of relative humidity in 8-12 hours.

Note. When operating the incubator at 90% of relative humidity for longer than 48 hours, humidity sensor values can have a measurement error.

5.5 **Using access port**. In order to use the access port, unscrew the cap of the access port located on the right side of the incubator. Insert necessary cable through the port and into the supplied PE seal. Install the seal into the access port. The access port is individually heated to compensate for temperature loss and condensate formation.

5.6 **Setting temperature**. Using t°C ▼ and t°C ▲ buttons, set the necessary temperature.

5.7 **Setting** CO_2 **levels**. Using CO_2 ▼ and CO_2 ▲ buttons, set the necessary level of CO_2.

Caution! Please make sure that the CO_2 tank is attached correctly, see **4.4**.

Note. After reaching temperatures higher than 50°C, CO_2 level measurement accuracy does not conform to specifications.

5.8 **Locking the buttons. Lock** button locks the use of all the buttons under the display until **Lock** button is pressed again.

5.9 **Incubator menu** (fig. 2). **Menu** button opens incubator's menu. Use **Down** and **Up** buttons to navigate and **Enter** button to select. While browsing in the menu, select the topmost **Quit** option in order to return to the previous level. Option **GetID** shows the serial ID and name of the incubator.

5.9.1 **Timer** (fig. 3). In this submenu user can set UV decontamination timer and Auto UV timer.

5.9.1.1 **UV Decontamination Timer**. Timer parameters are set in HH:MM format. After setting the timer, UV lamp automatically switches on, main working screen displays an UV indicator (fig. 4, top right). After set time has passed, the UV lamp automatically switches off. A timer is seen on the main working screen (fig. 4, bottom right). To manually switch the lamp off, select the **Turn Off UV** option from the submenu.

5.9.1.2 **Auto UV Timer.** Each time after closing the door, UV lamp automatically switches on. After time set under this menu option has passed or the door was opened, the UV lamp automatically switches off.

Note. A turned on UV lamp can rise the temperature above the set point: the longer UV lamp stays on, the faster temperature jumps above the set point. Use this feature at your own discretion.

Caution! UV recirculation should be used for decontamination cycle while setting up and after operation, see **9.3**.

Note. In case of manual UV lamp switch off, timer continues working despite the UV lamp is off.

5.9.2 **Date & Time** (fig. 5). To set date and time in this submenu, press **Enter** button to select the parameter, then **Down** and **Up** buttons to change the value and **Enter** button to confirm changes.

5.9.3 **Service** (fig. 6). This submenu has available options **Current Errors** and **Settings**.

5.9.3.1 **Current Errors** (fig. 7). This option allows user to view and reset the list of active errors. See **6.3**, for a list of possible errors.

5.9.3.2 **Settings** (fig. 8). User can access the **Alarm Settings** and **Auto Lock Delay** options.

- **Alarm Settings** (fig. 9). User can set the alarm settings based on values of temperature, CO_2 level, and relative humidity. All alarms are working on the following principle, temperature taken as an example:
  If $T_{act} < T_{thr.low}$ or $T_{act} > T_{thr.high}$ for t_{delay} minutes, then an alarm will be triggered.
  Where T_{act} is the actual temperature inside the incubator, $T_{thr.low}$ is the lower threshold limit value, $T_{thr.high}$ is the higher threshold limit value and tdelay is the time delay in minutes. Time delay is used in order to avoid false triggering of the alarms. CO_2 level and relative humidity alarms are operated using the same principle.

- **Auto Lock Delay** (fig. 10). After being idle for several minutes, the incubator locks the buttons (except the **Lock** button). This timer allows changing the idle time.

5.9.4 **Active Alarms** (fig. 11). This option allows user to view and reset the list of active alarms. See **6.5**, for a list of possible alarms.

5.9.5 **Data Logger** (fig. 12). Data logger features following options: View Plot T(t), View Plot CO_2%(t), View Plot RH%(t), Clear log, Logger on/off.

5.9.5.1 All **View Plot** options use following interface. Figure 13 shows the temperature plot in relation to time.

- Use **Left** and **Right** buttons to move the plot along the x axis
- Use **Up** and **Down** buttons to move the plot along the y axis.
- Use **<-xx->** button to choose the x axis navigational step. Available scales are 15 minutes, 1 hour, 1 day, 1 week and 1 month.

5.9.5.2 **Clear Log** button clears the logger's data.

5.9.5.3 **Logger On/Off** button triggers the automatic logging of the data.

5.9.5.4 **Memory write location** indicator. When the data logger uses up all allocated memory, it begins overwriting data from beginning. 100% of memory is used up in approximately 1 month.

5.10 After stabilization of temperature and CO_2 level, open the doors and load the materials in the incubator according to methodological recommendations.

Note. If the door is left open for more than a minute, a short signal is sounded every 20 seconds until the door is closed.

5.11 **Incubator air sampling**. Sampling can be performed through the capped opening marked as "air sample", on the rear access panel.

5.12 To turn off the incubator, set the power switch into position **O** (off) and detach the mains plug from the mains outlet.

5.13 **Operation recommendations**.

- The incubator saves settings even when switched off.
- During decontamination treat every visible surface and door. When working with potentially pathogenic material, use more potent decontamination method. See **9.3**.

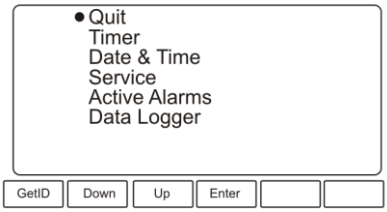


Figure 2. Menu

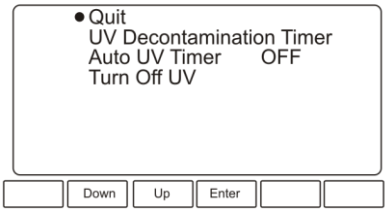


Figure 3. Timer menu

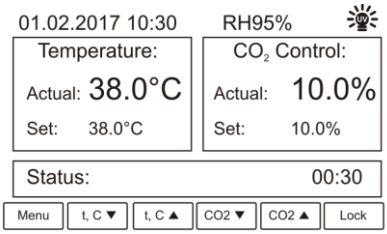


Figure 4. UV recirculator is on

Figure 5. Date & Time menu

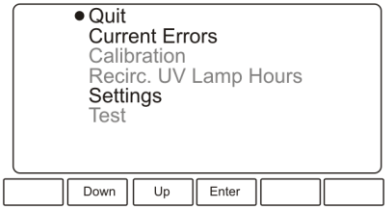


Figure 6. Service menu

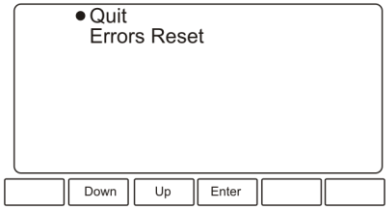


Figure 7. Current Errors menu

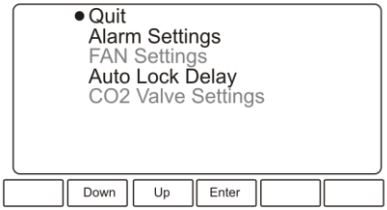


Figure 8. Settings menu

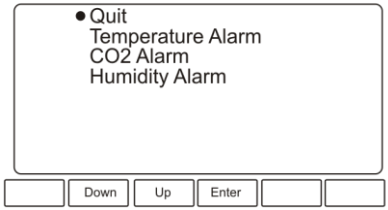


Figure 9. Alarm Settings menu

Figure 10. Auto Lock Delay menu

Figure 11. Active Alarms menu

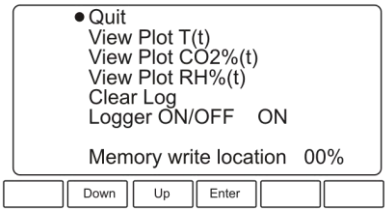


Figure 12. Data Logger

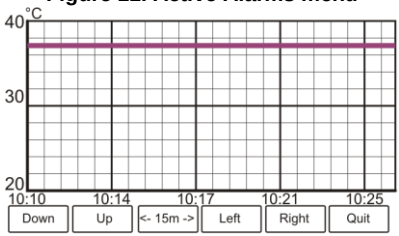


Figure 13. Temperature plot

6 Fault diagnostics

6.1 The incubator is equipped with an alarm and error system. Active alarms and errors are appropriately indicated on the display. Alarms and errors are followed by sound signal that can be turned off by pressing any button.

6.2 Error text can be found in **Menu > Service > Settings > Current Errors**, see **5.9.4**. Choose **Errors Reset** and confirm to reset the error list.

6.3 Error list can be found in the table below:

CO2 Sens. Err.	CO_2 sensor error
Back	Back temperature sensor error
Bott.	Bottom temperature sensor error
Left	Left wall temperature sensor error
Right	Right wall temperature sensor error
Up	Ceiling temperature sensor error
Door	Door temperature sensor error
Chmb.	Temperature sensor in the incubator error
Perimeter T.Sens. Err.	Perimeter temperature sensor error
Recirc. Lamp Err.	UV lamp error
Communication Err.	Error connecting to power board
CO2.Sens.Comm.Err.	Error connecting to CO_2 sensor board

6.4 Alarm text can be found in **Menu > Active Alarms**. Choose **Alarms Reset** and confirm to reset the alarm list.

6.5 Alarms list can be found in the table below. Alarms are adjustable, see **5.9.3.2**.

Temp. High Alarm	Adjustable limit is exceeded.
Temp. Low Alarm	
CO_2 High Alarm	
CO_2 Low Alarm	
Low Humidity	
UV Lamp Hours > 9000h	Lamp reaches end of lifetime. Consider a replacement.

7 Specifications

The unit is designed for operation in cold rooms and closed laboratory rooms at ambient temperature from +4°C to +40°C in a non-condensing atmosphere and maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C.

Biosan is committed to a continuous programme of improvement and reserves the right to alter design and specifications of the equipment without additional notice.

7.1	Chamber Material	Stainless Steel
7.2	Temperature setting range	+25°C ... +60°C
7.3	Temperature control range	2.5°C above room temp…+60°C
7.4	Temperature resolution	0.1°C
7.5	Temperature stability	±0.1°C
7.6	Temperature uniformity @ +37°C	±0.3°C
7.7	Working volume	46 litres
7.8	Number of shelves	6 max. (3 provided)
7.9	Outer door	Heated, made of steel
7.10	Inner door	Lockable glass with UV protection film, 4 mil clear
7.11	Relative humidity	>90% @ 37°C
7.12	Humidity delivery	water pan by ventilation
7.13	CO_2 control range[1]	0 - 20% ± 0.2%
7.14	CO_2 sensor	Infrared CO_2 sensor
7.15	Display	TFT 5”
7.16	Recirculation system	1 × 6 W UV lamp (TUV G6T5)
7.17	Recirculation system radiation type	UV (254 nm)
7.18	Average UV lamp life time	9000 h
7.19	Data transfer	Wireless, Bluetooth®
7.20	Internal data memory	1 month of nonstop logging
7.21	Access port	1 (ø 26 mm with PE seal)
7.22	Dimensions (W×D×H)	500×560×550 mm
7.23	Inner chamber dimensions (W×D×H)	350×330×390 mm
7.24	Alarms	Over-heating/cooling, CO_2 leakage, Humidity loss, UV lamp error
7.25	Electrical mains parameters (see **8.1**)	230/115 V, 50/60 Hz
7.26	Weight[2]	37.7 kg

[1] At temperatures below 50°C

[2] Accurate within ±10%

8 Ordering information

8.1 Models and versions available:

Model	Version	Voltage, frequency	Mains plug	Catalogue number
S-Bt Smart BioTherm, compact CO_2 incubator with R6 shelf rack	V.1AW	230 V, 50 Hz	EU (type E/F)	BS-010425-A01
			AU (type I)	BS-010425-A02
			UK (type G)	BS-010425-A03
	V.1AE	120 V, 60 Hz	US (type B)	BS-010425-A05
S-Bt Smart BioTherm, compact CO_2 incubator with R2 rack	V.1AW	230 V, 50 Hz	EU (type E/F)	BS-010425-A10

8.2 To inquire about or order the optional accessories or the replacement parts, contact Biosan or your local Biosan representative.

8.2.1 Optional accessories:

Optional accessories	Catalogue number
Shelf rack R6	BS-010425-GK
Shelf rack R2	BS-010425-HK
Shelf (up to 6 on R6, single on R2)	BS-010425-AK
Bluetooth dongle and software for PC	BS-010425-BK
Incubator stacking device	BS-010425-CK

8.2.2 Replacement parts:

Replacement parts	Catalogue number
Hydrophobic filter with tubing	BS-010425-S01
Water pan and lid	BS-010425-S02
Access port seal, foamed PE	BS-010425-S03

9 Care and maintenance

9.1 **Service**.

9.1.1 If the unit is disabled (e.g., no heating or CO_2 control, no reaction on key and switch presses, etc) or requires maintenance, disconnect the unit from the mains and contact Biosan or your local Biosan representative.

9.1.2 All maintenance and repair operations (except listed below) must be performed only by qualified and specially trained personnel.

9.1.3 Operating integrity check. If the unit follow the procedure described in section **Operation**, then no additional checks are required.

9.2 **Cleaning and disinfection**. Regular service schedule.

9.2.1 **After operation**. Switch on the recirculator running for 1 to 3 hours in an empty incubator to decontaminate air in the incubator. To switch on the UV recirculator, see **5.9.1.1**. After decontamination, slightly open the incubator doors – UV lamp has been known to produce reactive oxygen species in minor concentrations.

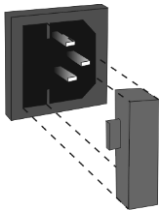
9.2.2 **Monthly** (more frequently, if necessary):

- Rub the inner surfaces, water pan with lid and shelves of the incubator with 75% ethanol solution or other acceptably disinfectant such as sodium hypochlorite solution, and allow them to dry.
- Inner side of the glass door is coated with 4 mil protective film. To clean the door, use mild soap and water with a soft cloth or sponge for cleaning the panels. Rinse remaining washing solution with distilled water. Wipe dry the excess water with clean soft cloth or sponge.
- Remove dust with moist cloth piece from outer incubator surface, especially front screen and upper part of the incubator.
- Visually check the hydrophobic filter (see **9.7**) and access port seal (see **9.8**) and replace if necessary.
- Check the accuracy of CO_2 sensor system by measuring the actual CO_2 concentration with a reference CO_2 analyser.

9.3 **Expendable materials**:

Name	Description
UV lamp	TUV 6W, T5, G6
Fuse	M 3.15 A
Hydrophobic filter	CO_2 filter
Hydrophobic filter set	Filter and tubing
Access port seal	Made from foamed PE

9.4 **Fuse replacement**. Disconnect incubator from the mains. Disconnect power plug from power socket. Open fuse holder. Check and replace if necessary, 230 V – M 3.15 A (type **M** - time lag: **M**edium).



9.5 **UV lamp replacement**. Average lifetime of the supplied UV lamps is 9000 h. Replacement is necessary after lamp stops functioning or at the end of manufacturer specified lifetime. Only the persons who have completed special training are allowed to perform lamp replacement. UV lamp operation lifetime is checked and tracked by the incubator.

9.6 **Hydrophobic filter replacement**. The filter should be replaced when it becomes glazed with dirt or with sucked liquid. Maximum time of use is 30 days. We recommend replacing the filter immediately after full cycle of maintenance.

Close the CO_2 valve on the gas reservoir and turn off the unit. Remove the filter from the tubing. Insert a new filter into the socket and tighten it. Pay attention that “IN” marking must be facing right side when viewing the incubator from the front.

9.7 **Access port seal replacement**. To prevent possible contamination of access port seal (made from foamed polyethylene) and to ensure complete sealing of the port, the seal should be replaced after 30 days from the first operation.

9.8 Humidity sensor replacement. One replacement sensor is included in the standard set. Replace as necessary, replacement can be done only by qualified and specially trained personnel.

9.9 **Calibration**. Recalibrate the unit after the date on calibration certificate. To complete the process, contact Biosan or your local Biosan representative.

10 Warranty

10.1 The Manufacturer guarantees the compliance of the unit with the requirements of Specifications, provided the Customer follows the operation, storage and transportation instructions.

10.2 The warranted service life of the unit from the date of its delivery to the Customer is 24 months. For extended warranty, see **10.5**.

10.3 Warranty covers only the units transported in the original package.

10.4 If any manufacturing defects are discovered by the Customer, an unsatisfactory equipment report shall be compiled, certified and sent to the local distributor address. To obtain the claim form, visit **Technical support** page on our website at link below.

10.5 Extended warranty. For **S-Bt Smart BioTherm**, the *Smart* class model, extended warranty is a paid service. Contact your local Biosan representative or our service department through the **Technical support** section on our website at the link below.

10.6 Description of the classes of our products is available in the **Product class description** section on our website at the link below.

Technical support

biosan.lv/en/support

Product class description

biosan.lv/classes-en

10.7 The following information will be required in the event that warranty or post-warranty service comes necessary. Complete the table below and retain for your records.

Model	Serial number	Date of sale
S-Bt Smart BioTherm, Compact CO_2 Incubator		

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11 EU Declaration of conformity

EU Declaration of Conformity

Unit type	Compact CO_2 incubator
Models	**S-Bt Smart BioTherm**
Serial number	14 digits styled XXXXXXYYMMZZZZ, where XXXXXX is model code, YY and MM – year and month of production, ZZZZ – unit number.
Manufacturer	SIA BIOSAN Latvia, LV-1067, Riga, Ratsupites str. 7/2

The objects of the declaration described above is in conformity with the following relevant Union harmonization legislations:

LVD 2014/35/EU	**LVS EN 61010-1:2011** Safety requirements for electrical equipment for measurement, control, and laboratory use. General requirements. **LVS EN 61010-2-010:2015** Particular requirements for laboratory equipment for the heating of materials.
EMC 2014/30/EU	**LVS EN 61326-1:2013** Electrical equipment for measurement, control and laboratory use. EMC requirements. General requirements.
RoHS3 2015/863/EU	Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
WEEE 2012/19/EU	Directive on waste electrical and electronic equipment.

I declare that the Declaration of Conformity is issued under sole responsibility of the manufacturer and belongs to the above-mentioned objects of the declaration.

Svetlana Bankovska
Managing director

Signature

07.02.2020.
Date

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