

Operating Instructions
Original Operating Instructions

MD8 Airport

16757
Air Sampler



Contents

1	About these Instructions	4
1.1	Validity	4
1.2	Accompanying Documents	4
1.3	Target Groups	4
1.4	Symbols Used	4
1.4.1	Warnings in Operating Instructions	4
1.4.2	Other Symbols	5
2	Safety Precautions	6
2.1	Intended Use	6
2.2	Significance of these Instructions	6
2.3	Proper Working Order of the Device	6
2.4	Electrical Equipment	7
2.4.1	Damage to the Device's Electrical Equipment	7
2.4.2	Working on the Device's Electrical Equipment	7
2.4.3	AC Adapter and Power Cord	7
2.5	Conduct in an Emergency	7
2.6	Accessories, Consumables, and Spare Parts	7
2.7	Personal Protective Equipment	7
3	Device Description	8
3.1	Device Overview	8
3.1.1	Adapter	8
3.1.2	Filter Holder	8
3.1.3	Air Inlet	9
3.2	Air Sampling	9
3.2.1	Filtration Method	9
3.2.2	Impaction Method	9
3.3	Controlling the Air Flow Rate	9
4	Operating Design	10
4.1	Operating Display	10
4.2	Menu Structure	11
4.3	Navigating the Menus	11
5	Installation	12
5.1	Equipment Supplied	12
5.2	Selecting an Installation Site	12
5.3	Unpacking	12
6	Getting Started	13
6.1	Connecting the AC Adapter	13
6.2	Charging the Battery	13
6.3	Calibration and Adjustment	13
7	System Settings	14
7.1	Switching on the Device	14
7.2	Opening the Service Menu	14
7.2.1	Setting the Menu Language	14
7.2.2	Setting Automatic Switch-off Time	14
7.2.3	Setting the Contrast of the Operating Display	14
7.2.4	Calibration and Adjustment	15
7.3	Closing the Service Menu	15
7.4	Parameter List	15

8 Operation	16
8.1 Setting up the Device	16
8.2 Inserting a Filter Holder or Culture Media Plate	16
8.2.1 Inserting a Filter Holder	16
8.2.2 Inserting a Culture Media Plate	17
8.3 Checking the Battery Status	17
8.4 Setting Measurement Parameters	17
8.4.1 Setting Sampling Volume	17
8.4.2 Setting Air Flow Rate	18
8.5 Starting an Operation	18
8.5.1 Starting the Device with a Preset Sampling Volume	18
8.5.2 Starting the Device with a User-defined Sampling Volume	18
8.6 Manually Stopping Operation	19
8.7 Displaying Information During Operation	19
8.8 Removing a Filter Holder or Culture Media Plate	19
9 Cleaning and Maintenance	20
9.1 Cleaning	20
9.2 Disinfecting	20
9.3 Maintenance Schedule	21
10 Malfunctions	22
10.1 Error Messages	22
10.2 Malfunctions	22
11 Decommissioning	23
11.1 Decommissioning the Device	23
12 Storage and Shipping	23
12.1 Storage	23
12.2 Returning Device and Parts	23
13 Disposal	24
13.1 Information on Decontamination	24
13.2 Dispose of Device and Parts	24
13.2.1 Information on Disposal	24
13.2.2 Disposal	24
14 Technical Data	25
14.1 Dimensions and Weight	25
14.2 Ambient Conditions at the Installation Site	25
14.3 Power Supply	26
14.3.1 AC Adapter	26
14.3.2 Battery	26
14.4 Power Consumption	27
14.5 Acoustic Emission	27
14.6 Approved Consumables	27
14.7 Approved Cleaners and Disinfecting Agents	27
15 Accessories and Consumables	28
15.1 Accessories	28
15.2 Consumables	28
16 Sartorius Service	28
17 Conformity	29
17.1 EU Declaration of Conformity	29

1 About these Instructions

1.1 Validity

These instructions are part of the device. These instructions apply to the device in the following version:

Device	Type
MD8 Airport	16757

1.2 Accompanying Documents

- In addition to these instructions, observe the following documentation:
- Gelatin membrane filter with filter holder instructions
 - Culture media plate instructions

1.3 Target Groups

These instructions are intended for the following target groups. The target groups must possess the knowledge listed.

Target group	Knowledge and responsibilities
User	The user is responsible for operating the device and for the associated work processes. They understand the hazards which may arise when working with the device and know how to prevent them. They have been trained in the operation of the device. The training is carried out by the operating engineer/ laboratory manager or by the operator of the device.
Operator	The operator of the device is responsible for compliance with safety requirements and workplace safety regulations. The operator must ensure that all persons who work with the device have access to the relevant information and are trained in working with the device.

1.4 Symbols Used

1.4.1 Warnings in Operating Instructions

WARNING

Denotes a danger with risk that death or severe injury may result if it is **not** avoided.

CAUTION

Denotes a hazard that may result in moderate or minor injury if it is **not** avoided.

NOTICE

Denotes a danger with risk that property damage may result if the risk is **not** avoided.

1.4.2 Other Symbols

- ▶ Required action: Describes actions which must be carried out.
- ▷ Result: Describes the result of the actions carried out.
- [] Text inside brackets refer to operating elements.

Figures on the Operating Display

The figures on the operating display of the device may deviate from those in these instructions.

2 Safety Precautions

2.1 Intended Use

The MD8 Airport is a battery-operated portable air sampler that operates using filtration and impaction methods. It is used to determine microorganisms or concentrations of viruses in the air.

The device must be used with an adapter and a suitable filter or culture media plate (for suitable filters and culture media plates, see Chapter "14.6 Approved Consumables", Page 27).

The device is intended exclusively for use in accordance with these instructions. Any further use beyond this is considered **improper**.

If the device is **not** used properly: The protective systems of the device may be impaired. This can lead to unforeseeable personal injury or property damage.

Operating Conditions for the Device

Do **not** use the device in potentially explosive environments. The device may only be used indoors.

The device may only be used with the equipment and under the operating conditions described in the Technical Data section of these instructions.

Modifications to the Device

You may **not** modify or repair the device or make any technical changes. Any retrofitting or technical changes to the device are only permitted with prior written permission from Sartorius.

2.2 Significance of these Instructions

Failure to follow the instructions in this manual can have serious consequences, e.g. exposure of individuals to electrical, mechanical, or chemical hazards.

- ▶ Before working with the device: Read the instructions carefully and completely.
- ▶ If these instructions are lost: Request a replacement or download the latest version from the Sartorius website (www.sartorius.com).
- ▶ The information contained in these instructions must be available to all individuals working on the device.

2.3 Proper Working Order of the Device

A damaged device or worn parts may lead to malfunctions or cause hazards which are difficult to recognize.

- ▶ Only operate the device when it is safe and in perfect working order.
- ▶ Observe the maintenance intervals (see Chapter "9.3 Maintenance Schedule", Page 21).
- ▶ Have any malfunctions or damage repaired immediately by Sartorius Service.

2.4 Electrical Equipment

2.4.1 Damage to the Device's Electrical Equipment

Damage to the device's electrical equipment, e.g. damaged insulation, can be life-threatening. There is a danger to life from contact with live parts.

- ▶ If the electrical equipment of the device is defective, immediately cut off the power supply and contact Sartorius Service.
- ▶ Keep live parts away from moisture. Moisture can cause short-circuits.

2.4.2 Working on the Device's Electrical Equipment

Only Sartorius Service personnel may work on or modify the electrical equipment of the device. The device may only be opened by Sartorius Service personnel.

2.4.3 AC Adapter and Power Cord

Serious injury can result, e.g. from electric shocks, if an unsuitable/inadequately dimensioned power cord or unsuitable power supply is used.

- ▶ Only use the original power cord and power supply.
- ▶ If the power supply or power cord must be replaced: Contact Sartorius Service. Do **not** repair or modify the power supply or power cable.

2.5 Conduct in an Emergency

If there is immediate danger of personal injury or equipment damage, e.g. due to malfunctions or dangerous situations, take the device out of operation immediately.

- ▶ Disconnect the device from the power supply.
- ▶ Have any malfunctions repaired immediately by Sartorius Service.

2.6 Accessories, Consumables, and Spare Parts

The use of unsuitable accessories, consumables, and spare parts can affect the functionality and safety of the device and have the following consequences:

- Risk of injury to persons
 - Damage to the device
 - Malfunction of the device
 - Device failure
-
- ▶ Only use Sartorius accessories, consumables and spare parts.
 - ▶ Only use accessories, consumables, and spare parts that are in proper working order.

2.7 Personal Protective Equipment

Personal protective equipment protects against risks arising from the materials being processed.

- ▶ If the workplace or the process in which the device is being used requires personal protective equipment: Wear personal protective equipment.

3 Device Description

3.1 Device Overview



Fig. 1: MD8 Airport (without adapter)

Pos.	Designation	Description
1	Operating display	Used for displaying and setting parameters.
2	Air outlet opening	Air is expelled from here.
3	Rigid fins on backplate	Resting surface when operated vertically.
4	Rubber feet	Resting surface when operated horizontally.
5	Manufacturer's ID label	Position of the manufacturer's ID label.
6	Power socket	For connecting the AC adapter (power supply).
7	Air inlet	Takes in the air for analysis. Holds the adapter for the filter holder or culture media plate.

3.1.1 Adapter

A filter holder adapter or culture media plate adapter is required when using the device. The adapter holds the filter holder or culture media plate.

3.1.2 Filter Holder

The (single-use) filter holder is a ready-to-use unit consisting of a gelatin membrane filter and a holder.

3.1.3 Air Inlet

The air inlet opening holds the adapter for the filter holder or culture media plate.

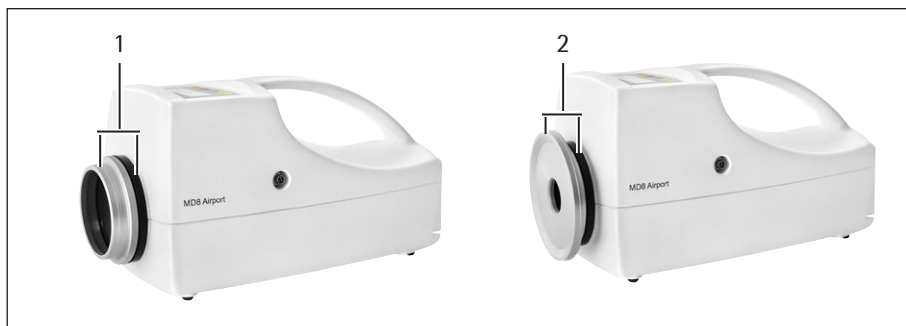


Fig.2: Air inlet (with adapter and filter holder, and with adapter and culture media plate)

Pos.	Designation	Description
1	Adapter and filter holder	Required for air sampling using the filtration method.
2	Adapter and culture media plate	Required for air sampling using the impaction method.

3.2 Air Sampling

3.2.1 Filtration Method

In the filtration method, a defined volume of air is sucked in through gelatin membrane filters. Microorganisms and viruses are trapped on the filters. Since the filters contain **no** substances on which cultures can grow, they need to be transferred to a suitable culture medium and incubated once the air sampling is complete. Following incubation, the number of culture-forming units per cubic meter of air (cfu/m³) can be calculated from the number of colonies growing on the culture medium in relation to the volume of air sampled.

3.2.2 Impaction Method

In the Andersen Principle impaction method, a defined volume of air is sucked through a strainer, accelerated and passed across a culture media plate. Due to inertia, the microorganisms present in the air **cannot** follow the diverted air flow and are thrown onto the culture media plate. Following incubation of the culture media plate, the colonies that have grown on the culture medium are counted in terms of culture-forming units (cfu/m³).

3.3 Controlling the Air Flow Rate

The air flow rate is constantly measured by means of a fan wheel anemometer with opto-electronic scanning, and is digitally controlled.

4 Operating Design

4.1 Operating Display

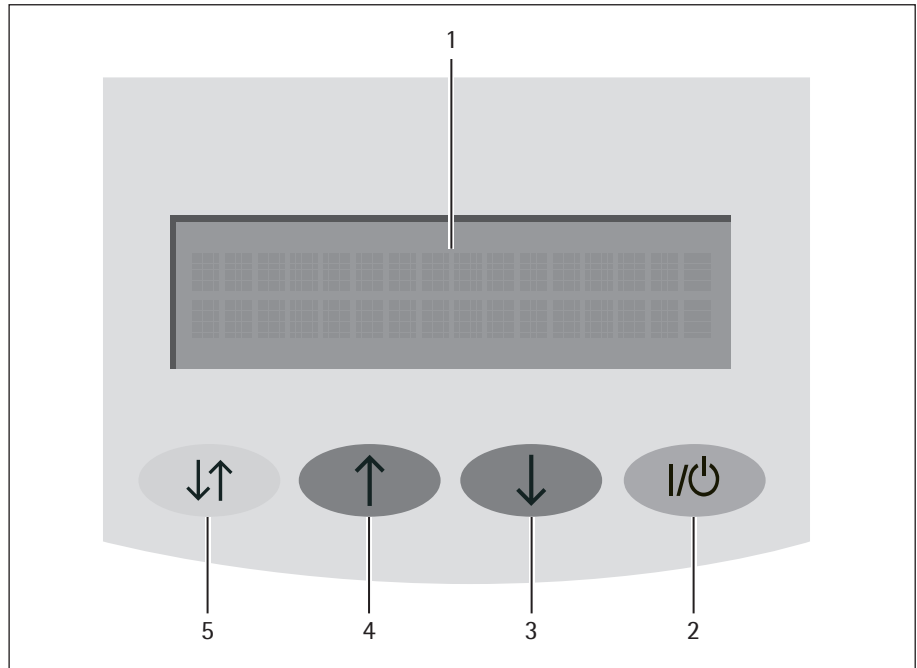






Fig.3: Operating display

Pos.	Symbol	Designation	Description
1		Status display	Displays current operating data or system settings of the device.
2		Operating status	<ul style="list-style-type: none"> - Switches the device on. - Starts/stops an operation.
3		Increase value	Increases the value of a displayed parameter.
4		Decrease value	Decreases the value of a displayed parameter.
5		Menu display	Opens a menu.

4.2 Menu Structure

Level 1	Level 2	Description/reference
Air sampler battery		Displays battery status when not in operation.
Volume F-rate		Displays the previously set parameters.
Sampling volume default		Specifies the sampling volume for the next operation. Volume can be selected from a list of preset values.
Air flow rate L/min.		Specifies the air flow rate for the next operation.
Sampling volume Manual		Specifies the sampling volume for the next operation. The value can be adjusted in 5-liter steps.
	Service program Software V. 3.2	Displays the software version of the device.
	Language	Changes the menu language of the operating display.
	Switch-off time	Changes the automatic switch-off time of the device.
	LCD contrast	Changes the contrast of the operating display.
	Calibration F-act. K=	Displays the calibration parameter: <ul style="list-style-type: none"> – F-act.: Current actual frequency of the device fan wheel – K value: Air flow rate correction

4.3 Navigating the Menus

Procedure



- ▶ To switch to the next menu entry: Press the [Menu display] button.



- ▶ To change a parameter value: Press the [Decrease value] or [Increase value] buttons.



- ▶ To start or stop an operation: Press the [Operating status] button.

5 Installation

5.1 Equipment Supplied

Product	Quantity
MD8 Airport	1
AC adapter with country-specific power plug	1
Operating instructions	1
Calibration certificate	1

5.2 Selecting an Installation Site

Procedure

- ▶ Make sure that the following conditions are met at the installation site:

Condition	Characteristics
Ambient conditions	– Suitability tested (see Chapter "14.2", Page 25).
Setup surface	– Stable and level surface – Sufficient space for the device (for space requirements, see Chapter "14.1 Dimensions and weight", Page 25) – Sufficient load bearing for the device (for weight, see Chapter "14.1 Dimensions and weight", Page 25)
Access to parts relevant to operation	Convenient and safe

5.3 Unpacking

Procedure

- ▶ Unpack the device.
- ▶ If the device is stored temporarily: Observe the storage information (see Chapter "12.1", Page 23).
- ▶ Install the device at the intended installation location.
- ▶ Keep all parts of the original packaging, e.g. to return the device.

6 Getting Started

6.1 Connecting the AC Adapter


- ▶ **NOTICE** Risk of damage to the device as a result of unsuitable power supply!
 - ▶ Use the original Sartorius AC adapter.
 - ▶ If **no** suitable AC adapter is available: Contact Sartorius Service.
- ▶ Connect the power cord to the AC adapter.
- ▶ Plug the AC adapter into the power socket and screw it in.

6.2 Charging the Battery

Requirements

The AC adapter is connected to the device.

Procedure

- ▶  **WARNING** The use of defective power cords may lead to serious injury! Check the power cord for damage, e.g. cracks in the insulation.
- ▶ Check that the power cord has the correct power plug for the installation site.
 - ▶ If required: Contact Sartorius Service.
- ▶ Connect the AC adapter to the power supply.

6.3 Calibration and Adjustment

Sartorius recommends that the device be calibrated on site before first commissioning. Calibration of the device is necessary for air sampling to work correctly.

Calibration and adjustment must be carried out by Sartorius Service.

7 System Settings

7.1 Switching on the Device

Procedure



- ▶ To switch the device on: Press the [Operating status] button.
- ▷ The device is ready for use.

- ▷ The device switches itself off automatically (see Chapter "7.2.2 Setting Automatic Switch-off Time", Page 14).

7.2 Opening the Service Menu

Changes to settings in the Service menu are saved automatically.

Procedure



- ▶ To open the Service menu: Press and hold the [Menu display] button, and within one second press the [Operating status] button. Release both buttons together.

Service program
Software V.3.2

- ▷ The device is now in the Service program.

7.2.1 Setting the Menu Language

Procedure

Language?
German

- ▶ To switch to the "Language" menu: Press the [Menu display] button.
- ▶ Select the language you require by pressing the [Increase value] or [Decrease value] buttons.

7.2.2 Setting Automatic Switch-off Time

The device switches itself off automatically when it reaches the specified switch-off time.

Procedure

Switch-off time
300sec.

- ▶ To switch to the "Switch-off time" menu: Press the [Menu display] button.
- ▶ Select the switch-off time you require by pressing the [Increase value] or [Decrease value] buttons.

7.2.3 Setting the Contrast of the Operating Display

The contrast of the operating display must be set within the visible range (for setting range, see Chapter "7.4 Parameter List", Page 15).

Procedure

LCD contrast
50

- ▶ To switch to the "LCD contrast" menu: Press the [Menu display] button.
- ▶ Set the contrast of the operating display you require by pressing the [Increase value] or [Decrease value] buttons.

7.2.4 Calibration and Adjustment

Settings in the "Calibration" service menu must be carried out by Sartorius Service.

7.3 Closing the Service Menu

Procedure

- ▶ To close the Service menu: Press the [Menu display] button repeatedly until the launch screen of the Service menu is displayed.
- ▶ Press the [Operating status] button.
- ▷ The device has now exited the Service menu.

Sartorius
Airport MD8

7.4 Parameter List

Main menu

Parameter	Configuration values	Explanation
Air flow rate	30 L/min	When using gelatin membrane filters
	40 L/min	
	50 L/min	For use with culture media plates only
	125 L/min	
Sampling volume automatic settings	25 L	
	50 L	
	100 L	
	250 L	
	500 L	
	750 L	
	1000 L	
Sampling volume manually adjustable	10 – 2000 L	Adjustable in 5 L steps

Service menu

Parameter	Configuration values	Explanation
Language	German	
	English	
	French	
	Spanish	
Switch-off time	10 – 1000 sec.	
LCD contrast	0 – 127	Adjustable in single units. Visible range: 1 – 100

8 Operation

8.1 Setting up the Device

The device can be operated in a horizontal or vertical position.

Procedure

- ▶ **Notice** A blocked air inlet or air outlet can damage the device.
 - ▶ Ensure sufficient distance between air intake and objects in the immediate vicinity (for required distance, see Chapter "14.2 Ambient Conditions at the Installation Site", Page 25).
 - ▶ Do **not** cover the air let and outlet with any objects.
- ▶ To operate horizontally: Stand the device upright on its rubber feet.
- ▶ To operate vertically: Stand the device up on the two rigid fins on the backplate.

8.2 Inserting a Filter Holder or Culture Media Plate

8.2.1 Inserting a Filter Holder

Air sampling using the filtration method requires the use of a filter holder and filter, such as a gelatin membrane filter. Unsuitable filters, and filters from other manufacturers, may have characteristics that are **not** appropriate for the device, such as being too dense. This can cause processes to abort.

Requirements

The suitability of the filter holder and filter has been checked (for suitability, see Chapter "14.6 Approved Consumables", Page 27).

Procedure

- ▶ Attach the filter holder adapter to the opening of the air inlet (for suitability of the adapter, see Chapter "15.1 Accessories", Page 28).
- ▶ Gently and without applying pressure, insert the filter holder into the adapter. If the filter holder is inserted too firmly: It can under some circumstances be difficult to remove.



8.2.2 Inserting a Culture Media Plate

Air sampling using the impaction method requires the use of suitable culture media plates.

Requirements

The suitability of the culture media plate has been checked (for suitability, see Chapter "14.6 Approved Consumables", Page 27).

Procedure

- ▶ Attach the culture media plate adapter to the opening of the air inlet (for suitability of the adapter, see Chapter "15.1 Accessories", Page 28).
- ▶ Gently and without applying pressure, insert the culture media plate into the adapter. If the culture media plate is inserted too firmly: It can under some circumstances be difficult to remove.

8.3 Checking the Battery Status

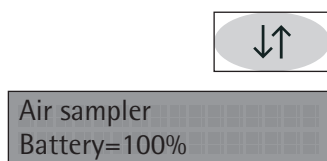
To prevent an operation being aborted due to the battery charge being too low, it is recommended that the battery status should be > 40% before starting an operation.

Requirements

The device is switched on.

Procedure

- ▶ Press the [Menu display] button.
- ▶ The battery status is displayed.



8.4 Setting Measurement Parameters

Changes to the measurement parameters are saved automatically. The measurement parameters of the last operation will remain stored after the device is switched off.

8.4.1 Setting Sampling Volume

The sampling volume determines what volume of air passes through the filter or over the culture media plate during an operation. Preset values can be selected or user-defined values set.

Procedure



- ▶ To use the device's default values for the sampling volume: Switch to the "Default sampling volume" menu by pressing the [Menu display] button.
- ▶ Select the desired value, e.g. 1000 L, by pressing the [Increase value] or [Decrease value] buttons.
- ▶ To set user-defined values: Switch to the "Manual sampling volume" menu by pressing the [Menu display] button.
- ▶ Select the desired value, e.g. 2000 L, by pressing the [Increase value] or [Decrease value] buttons.

8.4.2 Setting Air Flow Rate

The air flow rate determines how many liters of air per minute pass through the filter or over the culture media plate during an operation. For an operation with a culture media plate, an appropriate air flow rate must be set (for parameters, see Chapter "7.4 Parameter List", Page 15).

Procedure

Air flow rate
L/min.=125

- ▶ Switch to the "Air flow rate" menu by pressing the [Menu display] button.
- ▶ Select the desired value, e.g. 125 l/min, by pressing the [Increase value] or [Decrease value] buttons.

8.5 Starting an Operation

8.5.1 Starting the Device with a Preset Sampling Volume

Requirements

- The sampling volume has been set.
- The air flow rate has been set.

Procedure

Volume 2000L
F-rate 125L/min

- ▶ **Notice** Electrostatic charge can cause the operation to abort. Only operate the device in battery mode.
- ▶ To start the operation: Press the [Operating status] button.
- ▷ The device switches to operating mode:
 - ▷ The operation starts.
 - ▷ The operating display shows the current air flow rate and the set sampling volume.
- ▷ Once the set sampling volume has been reached:
 - ▷ The device stops the operation automatically.
 - ▷ The operating display shows the air flow rate and the set sampling volume of the last operation.

8.5.2 Starting the Device with a User-defined Sampling Volume

Requirements

- The sampling volume has been set.
- The air flow rate has been set.

Procedure

Sampling volume
Manual=2000l

Volume 2000L
F-rate 125L/min

- ▶ **Notice** Electrostatic charge can cause the operation to abort. Only operate the device in battery mode.
- ▶ Open the menu.
- ▶ Switch to the "Manual sampling volume" menu by pressing the [Menu display] button.
- ▶ To start the operation: Press the [Operating status] button.
- ▷ The device switches to operating mode:
 - ▷ The operation starts.
 - ▷ The operating display shows the current air flow rate and the set sampling volume.
- ▷ Once the set sampling volume has been reached:
 - ▷ The device stops the operation automatically.
 - ▷ The operating display shows the current air flow rate and the set sampling volume of the last operation.

8.6 Manually Stopping Operation



Procedure

- ▶ Press the [Operating status] button.
- ▷ The device stops the operation.

8.7 Displaying Information During Operation

Procedure

Time remaining
47 Sec.

- ▶ To display the remaining time required for the operation: Press the [Menu display] button.
- ▷ The remaining time is displayed.

Air sampler
Battery=97%

- ▶ To display the battery status: Press the [Menu display] button.
- ▷ The battery status is displayed.

8.8 Removing a Filter Holder or Culture Media Plate

Requirements

The measurement process is complete.

Procedure

- ▶ Remove the filter holder or culture media plate from the adapter.
- ▶ If **no** further operations are to take place: Remove the adapter.

9 Cleaning and Maintenance

9.1 Cleaning

Requirements

The operation has been completed.


WARNING

Moisture on live components can cause electric shock!

Allowing liquids to penetrate inside the housing can cause serious injury and damage to the device.

- ▶ Do **not** immerse the device in liquid.
 - ▶ Prevent liquid droplets from forming during cleaning.
-

Procedure

- ▶ Disconnect the device from the power supply.
- ▶  **CAUTION** There is a risk of injury from contact with substances that are harmful to health! If the device has come into contact with substances that are harmful to health: Contact Sartorius Service.
- ▶ **NOTICE** Corrosive gases can damage the device. If the device has come into contact with corrosive gases: Contact Sartorius Service.
- ▶ **NOTICE** Corrosion or damage to the device due to unsuitable cleaning agents!
 - ▶ Do **not** use corrosive, chloride-containing, and aggressive cleaning agents.
 - ▶ Do **not** use cleaning agents that contain abrasive ingredients, e.g. scouring agents, steel wool.
 - ▶ Do **not** use solvent-based cleaning agents.
- ▶ Wipe off the housing with a slightly damp cloth. For more severe contamination, use a mild soap solution.

9.2 Disinfecting

Requirements

The operation has been completed.

WARNING

Moisture on live components can cause electric shock!

Allowing liquids to penetrate inside the housing can cause serious injury and damage to the device.

- ▶ Do **not** autoclave the device.
 - ▶ Do **not** immerse the device in liquid.
 - ▶ Do **not** spray the device with disinfectant; simply wipe clean.
 - ▶ Prevent liquid droplets from forming during disinfection.
-

Procedure





- ▶ Disconnect the device from the power supply.
- ▶ **⚠ CAUTION** There is a risk of injury from contact with substances that are harmful to health! If the device has come into contact with substances that are harmful to health: Contact Sartorius Service.
- ▶ **NOTICE** Corrosive gases can damage the device! If the device has come into contact with corrosive gases: Contact Sartorius Service.
- ▶ **NOTICE** Inappropriate disinfectants can cause corrosion, damage or discoloration to the housing, blinding and can tarnish the film on the display! Use only approved disinfectants (see Chapter "14.7 Approved Cleaners and Disinfecting Agents", Page 27).
- ▶ To disinfect the device: Wipe the housing clean with a cleaning cloth moistened with disinfectant.

9.3 Maintenance Schedule

Interval	Component	Action	Target group
Annually	Device	Functional check according to maintenance report	Sartorius Service
	Device	Calibration	Sartorius Service

10 Malfunctions

10.1 Error Messages

Error message	Malfunction	Cause	Remedy	Chapter, Page
[Clogged filter  press]	The operation is aborted.	The filter used is too dense or is clogged.	Press the [Operating status] button. Remove the filter holder from the adapter. Insert a suitable filter and filter holder.	8.8, 19 8.2, 16
[Defective filter  press]	The operation is aborted.	The device is being operated without a filter. The filter used is not dense enough or is defective.	Press the [Operating status] button. Insert a suitable filter holder and filter. Press the [Operating status] button. Remove the filter holder from the adapter. Insert a suitable filter holder and filter.	8.2, 16
[charge Battery  press]	The operation is aborted.	Battery voltage is too low. An operation with the filter used was started at an air flow rate of 125 L/min.	Press the [Operating status] button. Charge the battery. Press the [Operating status] button. Set an appropriate air flow rate for the filter.	6.2, 13 7.4, 15
[charge Battery  press] alternating at intervals of a few seconds with [Air sampler Battery =]		Battery voltage is < 30%. The current operation can still be completed.	Charge the battery.	6.2, 13

10.2 Malfunctions

Malfunction	Cause	Remedy
The device is switched on. No values/ information are showing on the operating display.	For the "LCD contrast" setting, a value outside the visible range has been set.	Contact Sartorius Service.
The device cannot be switched on.	The battery is defective.	Contact Sartorius Service.

11 Decommissioning

11.1 Decommissioning the Device

Requirements

The last operation has been completed.

Procedure

- ▶ Remove the power cord and AC adapter from the device.
- ▶ Clean the device.

12 Storage and Shipping

12.1 Storage

Procedure

- ▶ If the device is in operation:
 - ▶ Decommission the device.
 - ▶ Clean the device.
- ▶ Store the device according to the ambient conditions (see Chapter "14.2 Ambient Conditions at the Installation Site", Page 25).

12.2 Returning Device and Parts

Defective devices or parts can be sent back to Sartorius. Returned devices must be clean, decontaminated, and packed in their original packaging.

Transport damage as well as measures for subsequent cleaning and disinfection of the device or parts by Sartorius shall be charged to sender.

WARNING

Risk of injury due to contaminated devices!

Devices contaminated with hazardous materials (NBC contamination) will **not** be accepted for repair or disposal.

- ▶ Observe the information on decontamination (see Chapter "13.1 Information on Decontamination", Page 24).
-

Procedure

- ▶ Decommission the device.
- ▶ Contact Sartorius Service for instructions on how to return equipment or parts (please refer to our website at www.sartorius.com for return instructions).
- ▶ Pack the device and its parts in their original packaging for return.

13 Disposal

13.1 Information on Decontamination

The device does **not** contain any hazardous materials that would necessitate special disposal measures.

Contaminated samples used during the process are potentially hazardous materials that could cause biological or chemical hazards.

If the device has come into contact with hazardous substances: Steps must be taken to ensure proper decontamination and declaration. The operator is responsible for adhering to local legislation on the proper declaration of transport and disposal and the proper disposal of the device.

WARNING

Risk of injury due to contaminated devices!

Devices contaminated with hazardous materials (NBC contamination) will **not** be accepted by Sartorius for repair or disposal.

13.2 Dispose of Device and Parts

13.2.1 Information on Disposal

The device and the device accessories must be disposed of properly by disposal facilities.

The device contains a battery. Batteries must be disposed of properly by disposal facilities.

The packaging is made of environmentally friendly materials that can be used as secondary raw materials.

The consumables are designed and intended for single-use.

Hazardous Substances

The electronic components of the device contain lead, mercury and cadmium.

13.2.2 Disposal

Requirements

The device has been decontaminated.

Procedure

- ▶ Dispose of the device taking into account the disposal information on our website (www.sartorius.com). Inform the disposal facility that there is a battery installed inside the device.
- ▶ Dispose of the packaging in accordance with local government regulations.
- ▶ Dispose of the consumables in accordance with local government regulations.

14 Technical Data

14.1 Dimensions and Weight

	Unit	Value
Dimensions (L x W x H)	mm	300 x 135 x 165
Weight	kg	approx. 2.5

14.2 Ambient Conditions at the Installation Site

	Unit	Value
Installation site		
For indoor use only; max. m above sea level		3000
Use in controlled areas: Clean room class C-D		
Temperature		
Operating	°C	4 – 40
Storage and transport	°C	4 – 45
Relative humidity		
At temperatures of up to 31 °C	%	80
Decreasing linearly at temperatures from 31°C to 45 °C	%	< 40
Electromagnetic compatibility according to DIN EN 61326-1: Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1		
Interference resistance: Suitable for use in industrial areas		
Transient emissions: Class B		
Required distance between air inlet and other objects, at least	mm	100

14.3 Power Supply

14.3.1 AC Adapter

	Unit	Value
Type: Sartorius AC adapter, model YEPS02-24V0		
Primary		
Voltage	V _{AC}	100 – 240 (+/- 10 %)
Frequency	Hz	50 – 60
Current consumption, max.	A	1.5
Secondary		
Voltage	V _{DC}	24 (+/- 5 %)
Current output, max.	A	2.5
Short circuit protection: Electronic		
Protection class according to DIN EN/IEC 60950-1		
Installation site according to IEC 60529-1: max. m above sea level		5000
Power cord		
Power cord according to DIN EN/IEC 60320-1/C14: Country-specific, 3-pin, two-sided plug		
Connector according to DIN EN/IEC 60320-1/C14: 3-pin		
Other data: See label on AC adapter		

14.3.2 Battery

	Unit	Value
Type: NiMH		
Power supply: Only via Sartorius adapter		
Voltage	V	16.8
Capacity	mAh	3800
Battery charge time from empty, approx.	h	4.5
Operating Duration		
At an air flow rate of 125 L/min, approx.	h	4
At an air flow rate of 50 L/min, approx.	h	4.5
At an air flow rate of 40 L/min, approx.	h	5.5
At an air flow rate of 30 L/min, approx.	h	8

14.4 Power Consumption

	Unit	Value
Power consumption of fan and electronics, depending on filter resistance	W	5 – 14

14.5 Acoustic Emission

	Unit	Value
Acoustic pressure level, at measuring distance of: 1 m	dB (A)	56
Acoustic pressure level measured at the device	dB (A)	< 80

14.6 Approved Consumables

Filter

Type: Gelatin membrane filter

Culture media plate

Type: BACTair™ culture media plate

14.7 Approved Cleaners and Disinfecting Agents

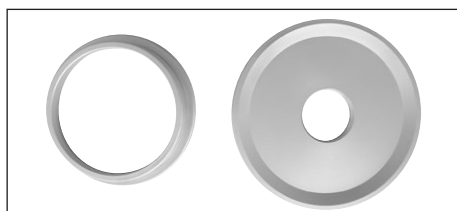
	Unit	Value
Isopropanol	%	70
Ethanol	%	70
Dismozon® Dismozon® is a registered trademark of Bode Chemie GmbH.	%	1

15 Accessories and Consumables

15.1 Accessories

This table contains an excerpt of the accessories that can be ordered. For information on other products, contact Sartorius.

Product	Quantity	Order number
Adapter for filter holder with gelatin membrane filter	1	17801
Adapter for BACTair™ culture media plate	1	17803



15.2 Consumables

This table contains an excerpt of the consumables that can be ordered. For information on other products, contact Sartorius.

Product	Quantity	Order number
Filter holder with gelatin membrane filter		
Sterile, individually packaged	1	17528--80----ACD
Sterile, individually packaged	3	17528--80----BZD
Sterile, individually packaged, label on innermost packaging	3	17528--80----VPD
BACTair™ culture media plate		
Culture media plate with CASO agar, sterile, individually packaged	1	14320-110----ACD
Culture media plate with Sabouraud agar, sterile, individually packaged	3	14321-110----ACD
Cover for sealing culture media plate, sterile, individually packaged	1	1ZPX-D0002

16 Sartorius Service

Sartorius Service is available for queries regarding the device. For information about the service addresses, services provided, or to contact a local representative, please visit the Sartorius website (www.sartorius.com).

When contacting Sartorius Service with questions about the system or in the event of malfunctions, be sure to have the device information—e.g. serial number, hardware, firmware, configuration—close at hand. This information can be found on the manufacturer's ID label.

17 Conformity

17.1 EU Declaration of Conformity

The attached Declaration of Conformity hereby confirms compliance of the device with the directives cited.



Original



EG-/EU-Konformitätserklärung EC / EU Declaration of Conformity

Hersteller
Manufacturer Sartorius Lab Instruments GmbH & Co. KG
37070 Goettingen, Germany

erklärt in alleiniger Verantwortung, dass das Betriebsmittel
declares under sole responsibility that the equipment

Geräteart
Device type Luftkeimsammler
Microbes and dust air sampler

Baureihe
Type series MD8 Airport + Power Supply

Modell
Model 16757 + YEPS02-24V0

in der von uns in Verkehr gebrachten Ausführung allen einschlägigen Bestimmungen der folgenden Europäischen Richtlinien – einschließlich deren zum Zeitpunkt der Erklärung geltenden Änderungen – entspricht und die anwendbaren Anforderungen folgender harmonisierter Europäischer Normen erfüllt:
in the form as delivered fulfils all the relevant provisions of the following European Directives – including any amendments valid at the time this declaration was signed – and meets the applicable requirements of the harmonized European Standards listed below:

2014/30/EU Elektromagnetische Verträglichkeit | *Electromagnetic compatibility*
EN 61326-1:2013

2011/65/EU Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten (RoHS)
Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
EN 50581:2012

2006/42/EG
2006/42/EC Maschinen
Machines
EN ISO 12100:2010, EN 61010-1:2010

Die Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen:
The person authorised to compile the technical file: Sartorius Lab Instruments GmbH & Co. KG
International Certification Management
37070 Goettingen, Germany

Jahreszahl der CE-Kennzeichenvergabe | *Year of the CE mark assignment:* 18

Sartorius Lab Instruments GmbH & Co. KG
Goettingen, 2018-06-25

i.v. P. B. / 16

Dr. Reinhard Baumfalk
Vice President R&D

i.v. / 16

Dr. Dieter Klausgrete
Head of International Certification Management

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten EG- und EU-Richtlinien, ist jedoch keine Zusicherung von Eigenschaften. Bei einer mit uns nicht abgestimmten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit. Die Sicherheitshinweise der zugehörigen Produktdokumentation sind zu beachten.

This declaration certifies conformity with the above mentioned EC and EU Directives, but does not guarantee product attributes. Unauthorised product modifications make this declaration invalid. The safety information in the associated product documentation must be observed.

Doc: 2389667-00 SLI18CE002-00.de,en 1 / 1 PMF: 2389665 OP-113_fo1_2015.10.12

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The information and figures contained in these instructions correspond to the version date specified below.

Sartorius reserves the right to make changes to the technology, features, specifications and design of the equipment without notice.

Masculine or feminine forms are used to facilitate legibility in these instructions and always simultaneously denote the other gender as well.

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