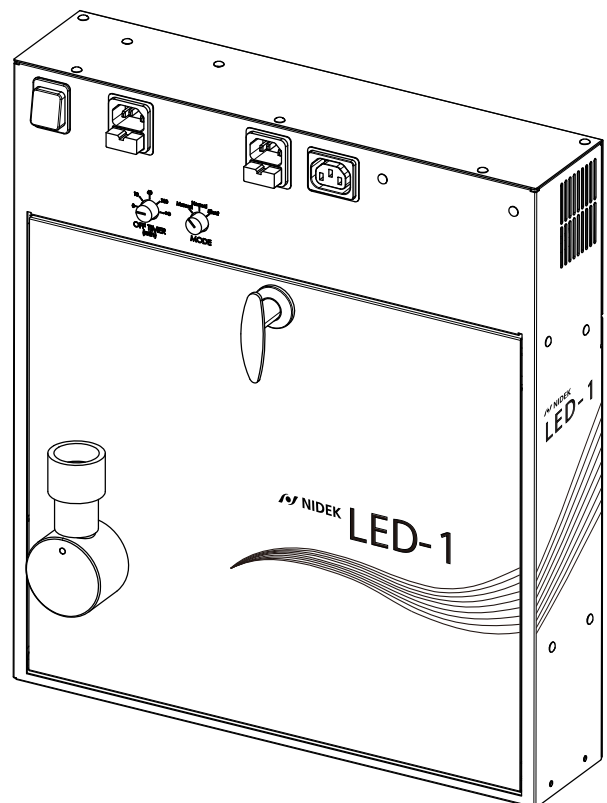


NIDEK

DEODORIZER LED-1

OPERATOR'S MANUAL



Original instructions

NIDEK CO., LTD.

NIDEK CO., LTD. (Manufacturer)	: 34-14 Maehama, Hiroishi-cho, Gamagori, Aichi 443-0038, JAPAN Telephone: +81-533-67-6611 URL: https://www.nidek.com/
NIDEK INC. (United States Agent)	: 2040 Corporate Court, San Jose, CA 95131, U.S.A. Telephone: +1-800-223-9044 (USA Only) URL: https://usa.nidek.com/
NIDEK S.A. (EU Authorized Representative)	: Ecoparc, rue Benjamin Franklin, 94370 Sucy En Brie, FRANCE



Before Use

This operator's manual includes information such as the operating procedure, safety precautions, maintenance, and specifications. Be sure to read this operator's manual before using this product. Keep this manual handy for reference.

If you encounter any problems or have questions about the product, please contact Nidek or your authorized distributor.

Indications in This Manual

- Repeatedly used descriptions are expressed with the following indications.

Indication	Description	Example
[XXX]	A term enclosed in brackets indicates a switch, button, and such.	[Start], [Back]
	Indicates the reference page.	 "Indications in This Manual" (page 5)

- Information related to operation is indicated by the icon display.



Check

Indicates items to be checked.



Help

Indicates workarounds for when intended operation or intended results cannot be obtained.



Tip

Indicates tips useful for product operation.



Setting

Indicates information on settings.



Knowledge

Indicates detailed information on the product.

Table of Contents

1 SAFETY PRECAUTIONS - - - 5

- 1.1 Usage Precautions - - - 5
- 1.2 Labels and Symbols - - - 8

2 INTRODUCTION - - - 9

- 2.1 Intended Use - - - 9
- 2.2 Instrument Outline - - - 9
- 2.3 Instrument Configuration - - - 10
- 2.4 Connection with Lens Edger - - - 11
- 2.5 Connection with Pump Tank - - - 12
- 2.6 Wiring - - - 13
- 2.7 Attachment of Foot ASSY and Moisture Collection Tank Holder (Option) - - - 15
 - 2.7.1 Attachment of foot ASSY - - - 15
 - 2.7.2 Attachment of moisture collection tank holder - - - 16

3 OPERATING PROCEDURE - - - 17

- 3.1 Instrument Start-up and Shutdown - - - 17
- 3.2 Deodorization in Manual Mode - - - 17
- 3.3 Deodorization in Edger Linkage Mode - - - 18

4 MAINTENANCE - - - 19

- 4.1 Troubleshooting - - - 19
- 4.2 Cuff Attachment - - - 19
- 4.3 Cartridge Replacement - - - 20
- 4.4 Fuse Replacement - - - 22
- 4.5 Cleaning - - - 23
- 4.6 Consumable List - - - 23

5 SPECIFICATIONS AND TECHNICAL INFORMATION - - - 25

- 5.1 Specifications - - - 25
- 5.2 Glossary - - - 27
- 5.3 Checklist - - - 28



SAFETY PRECAUTIONS

1


In this manual, signal words are used to designate the degree or level of safety alerting. The definitions are as follows:

WARNING

Indicates a potentially hazardous situation which, if not avoided, may result in death or serious injury or serious property damage accident.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or minor property damage accident.

Even situations indicated by  **CAUTION** may result in serious injury under certain conditions. Safety precautions must be strictly followed at all times.

1.1 Usage Precautions

Before use

WARNING

- Do not use the instrument for purposes other than those intended.
Nidek is not responsible for accidents or malfunctions caused by misuse.
- Do not modify the instrument or touch the instrument interior.
Electric shock or malfunction may result.
- Since the mass of the instrument is about 8 kg, be sure to hold the bottom of the instrument, not the sides, when lifting it.
Dropping it may cause injury or malfunction.
- Install the instrument in a location that meets the following conditions. Injury, malfunction, electric shock, or fire may result.
 - Free from moisture
 - Allowing the operator to take a comfortable position
 - Level and stable surface free from vibration or shock
 - Sufficient space to avoid blocking the intake or exhaust vent
 - Free from intense magnetism
- Install the instrument in an area where the power outlet is easily accessible to disconnect the power plug during use. In addition, ensure that the power plug can be disconnected without using any tool. Otherwise, a delay in power shutdown of the instrument may occur in case of an abnormality.

WARNING

- Use the instrument under the specified conditions.
 - Conditions during use Temperature: 5 to 40°C (41 to 104°F)
Humidity: 5 to 31°C (41 to 87.8°F): 30 to 80%
31 to 40°C (87.8 to 104°F): The minimum acceptable relative humidity is 30%. The maximum acceptable relative humidity is 80% for temperatures up to 31°C (87.8°F), which decreases linearly to 50% at 40°C (104°F).
- When handling the power supply or electrical components, observe the following: Instrument malfunction, electric shock, or fire may result.
 - Use a power outlet that meets the power supply specifications.
 - Fully insert the power plugs of the instrument and external equipment into the power outlets.
 - Be sure to connect the power plug to a grounded power outlet.
 - Do not place heavy objects on the power cord or pinch it between any objects.
 - Do not use a multiple socket outlet for power supply.
 - Be sure to use the provided power cord. Also, do not connect the provided power cord to any other equipment.
- When connecting or disconnecting the power plug to/from the power outlet, confirm that the power switch is turned off.

Connecting or disconnecting the power plugs of the instrument and external equipment while the instrument is turned on may result in electric shock or malfunction.
- Always hold the power plug, not the cord when disconnecting the power cord from the power outlet.

If the internal wires of the cord are broken, a short circuit or electric shock may result.

CAUTION

- When installing the instrument on a table, be careful not to get fingers caught.

Fingers may be injured if they get caught between the table and instrument.

During use

WARNING

- Perform a pre-use check before using the instrument.
- Do not operate the instrument with wet hands.
- If the internal wires of the power cord are exposed, power is intermittent when the cord is moved, or the plug or cord is too hot to touch, the cord is damaged. Immediately replace the power cord.

Electric shock or fire may result.

If the instrument malfunctions, disconnect the power cord from the power outlet, do not touch the instrument interior, and then contact Nidek or your authorized distributor.
- In the event of smoke or strange odors from the instrument, stop using the instrument immediately, and disconnect the power plug from the power outlet. After confirming that the smoke has stopped, contact Nidek or your authorized distributor.

Continued use of the instrument under abnormal conditions may result in fire or electric shock. In case of fire, use a dry chemical (ABC) extinguisher to extinguish the fire.

After use

WARNING

- After using the instrument, perform an after-use check.
- If the instrument will not be used for an extended period of time, disconnect the power cord from the power outlet.
Accumulation of dust or moisture may result in a short-circuit or fire.

1

Maintenance

WARNING









- It is recommended to have periodical inspection on the instrument every 2 years.
- Be sure to use only the fuses specified by Nidek.
Malfunction or fire may result.
- Do not use an overly wet sponge or cloth. Also, be careful not to spill the processing wastewater from the moisture collection tank.
Water seepage into the instrument may result in electric shock or malfunction.
- Observe the following conditions during transport and storage.
 - Free from vibration or shock
 - Ambient temperature and humidity are maintained within the following ranges (packed condition):
Environmental conditions Temperature: -25 to 70°C (-13 to 158°F)
Humidity: 20 to 85% (non-condensing)
- When transporting or storing the instrument, use the specified packaging materials and avoid shocks caused by dropping or such.
Excessive vibration or shock to the instrument may cause malfunction.
- When performing maintenance, secure a sufficient working space.
Working with any object in front of the instrument or in an insufficient space may result in accident or injury.

Disposal

CAUTION

- Dispose of used cartridges in accordance with the laws and local ordinances of your country.
- When disposing of the instrument, follow the laws and local ordinances of your country.
It is recommended to entrust the disposal to a designated industrial waste disposal contractor.
- When disposing of packaging materials, sort by material and dispose of according to the local ordinances.
Inappropriate disposal may contaminate the environment.

1.2 Labels and Symbols

	Refer to the operator's manual.		Alternating current
	Date of manufacture		Manufacturer
	Warning (electricity) Background color: Yellow		Fuse rating
	Serial number		Indicates that this product must be disposed of in a separate collection of electrical and electronic equipment in EU.



INTRODUCTION

2.1 Intended Use

This instrument deodorizes the odor produced during processing of spectacle lenses by connecting to a lens edger. This instrument vacuums the air with unpleasant odors and absorbs the source of the odor with the built-in deodorizer.

2

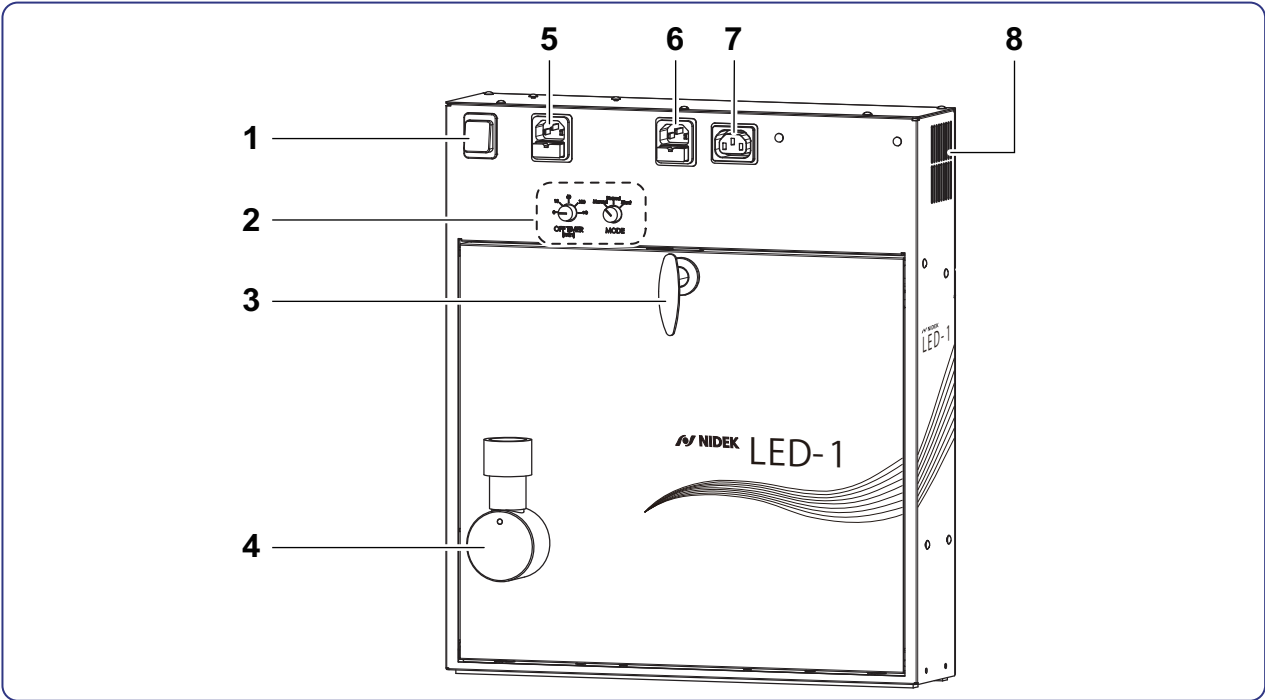
2.2 Instrument Outline

The Deodorizer LED-1 is connected to a Nidek lens edger to deodorize odors produced during the processing of spectacle lenses.

The LED-1 consists of a deodorizer, a cartridge, and a moisture collection tank.

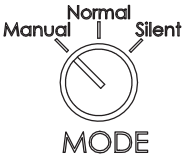
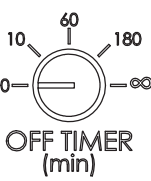
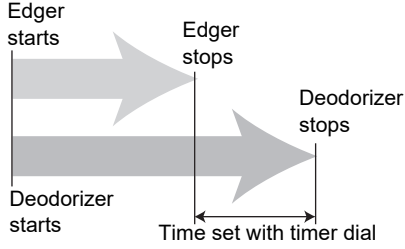
The deodorizer sucks odorous gas and passes it through the cartridge set inside. The odor is absorbed with the cartridge. The moisture collection tank is connected between the deodorizer and a lens edger or pump tank to prevent water from entering the deodorizer.

2.3 Instrument Configuration



1 Power switch

2 Dials

 <p>MODE</p>	<p>Operation mode select dial</p> <p>Sets the operation mode of the deodorizer to Manual mode, edger linkage mode (Normal), and edger linkage mode (Silent).</p>
 <p>OFF TIMER (min)</p>	<p>Timer dial</p> <p>Sets the time from when the lens edger stops until the deodorizer stops in edger linkage mode.</p> 

3 Lever

4 Exhaust hose connector

5 Power inlet

6 Inlet for edger connection

Connects a lens edger using the provided extension cord.

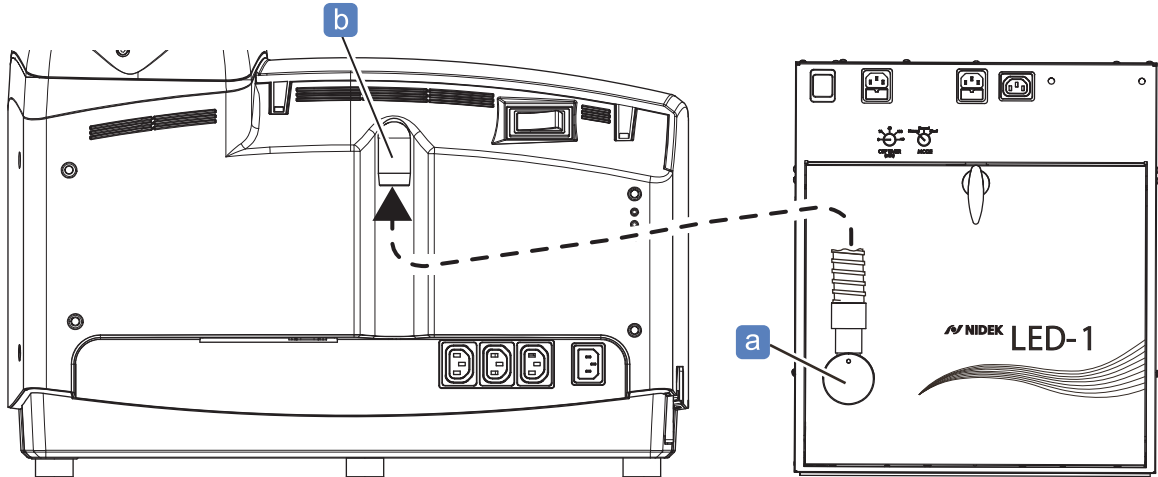
7 Outlet for pump connection

Connects the power cord of Pump 1 for feedwater.

8 Exhaust vent

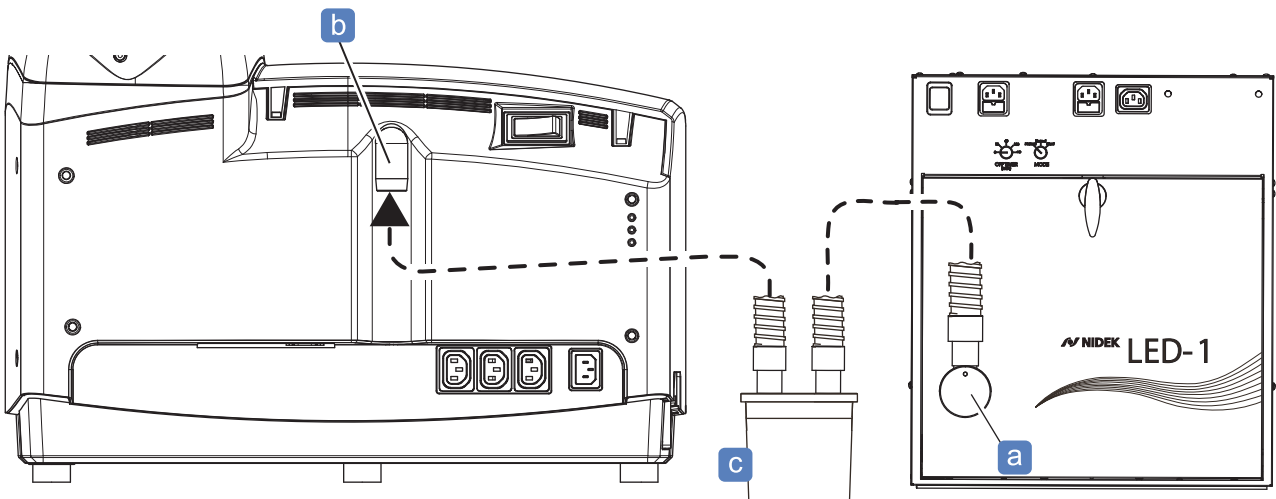
2.4 Connection with Lens Edger

- 1 Connect the LED-1 exhaust hose connector **a** and the lens edger exhaust vent (or intake/exhaust vent) **b** with the exhaust hose.



◆ When the moisture collection tank is used

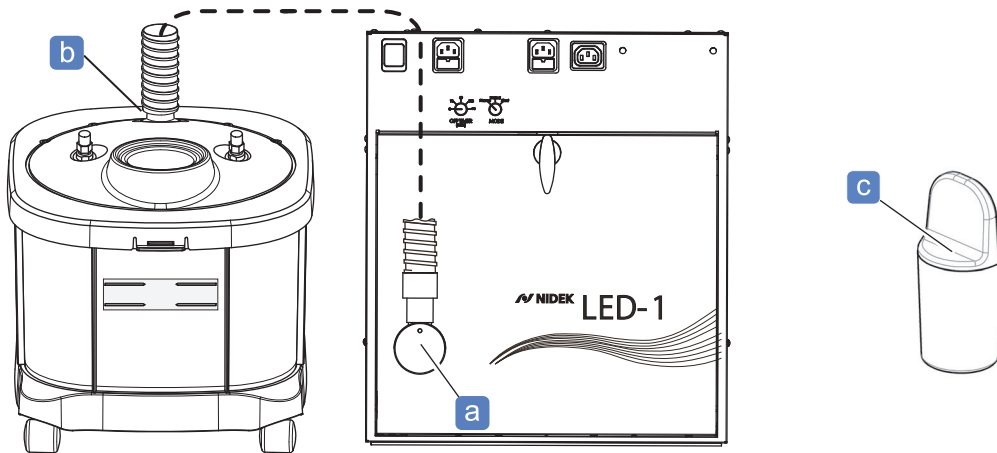
- 1 Connect the LED-1 exhaust hose connector **a** and the moisture collection tank **c** with the exhaust hose.
- 2 Connect the other connector of the moisture collection tank and the lens edger exhaust vent **b** with the exhaust hose.



2.5 Connection with Pump Tank

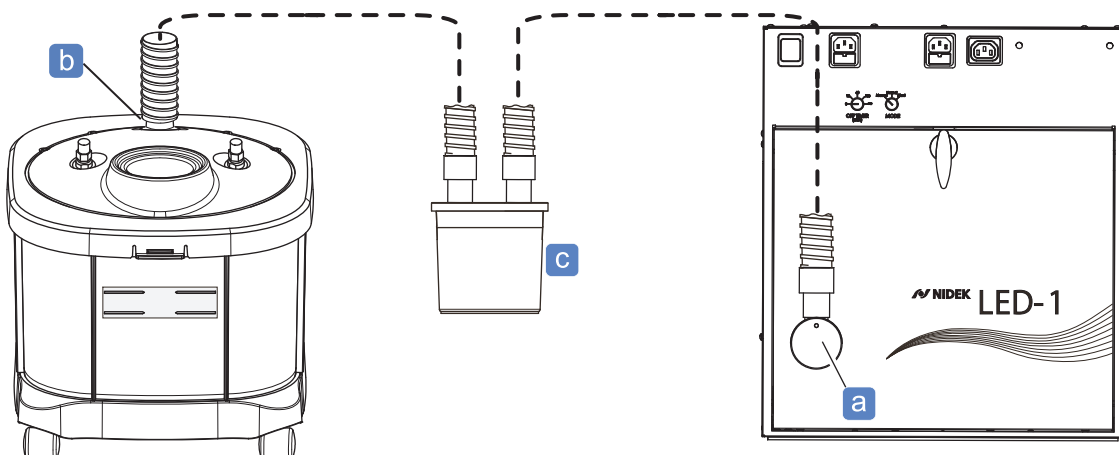
■ The pump tank connection kit (option) is required.

- 1 Connect the LED-1 exhaust hose connector **a** and the pump tank exhaust nozzle **b** with the exhaust hose.
Fasten the exhaust hose connected to the exhaust nozzle with the hose band.
- 2 Attach the plug **c** to the exhaust vent of the lens edger (not necessary for the LE-800).



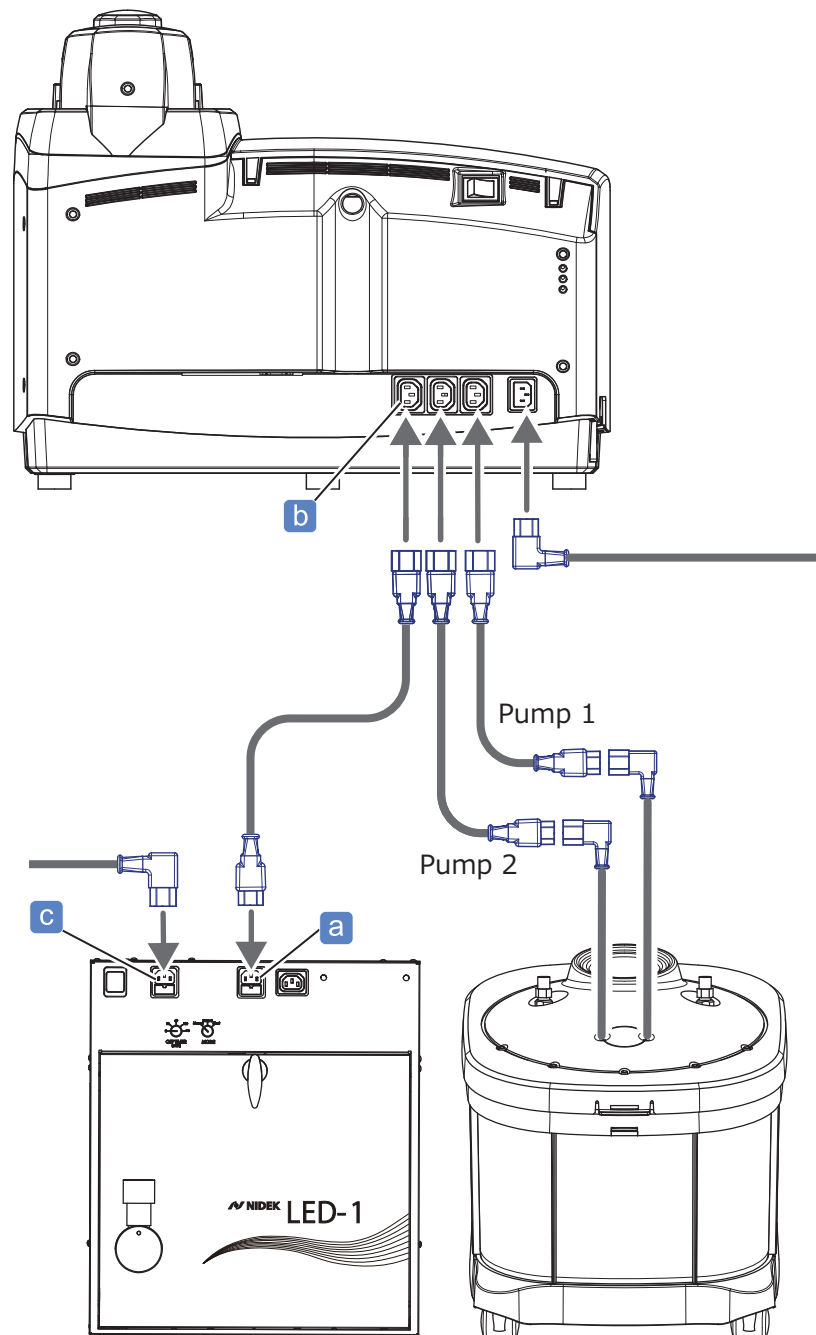
◆ When the moisture collection tank is used

- 1 Connect the LED-1 exhaust hose connector **a** and the moisture collection tank **c** with the exhaust hose.
- 2 Connect the other connector of the moisture collection tank and the pump tank exhaust nozzle **b** with the exhaust hose.
Fasten the exhaust hose connected to the exhaust nozzle with the hose band.
- 3 Attach the plug to the exhaust vent of the lens edger (not necessary for the LE-800).



2.6 Wiring

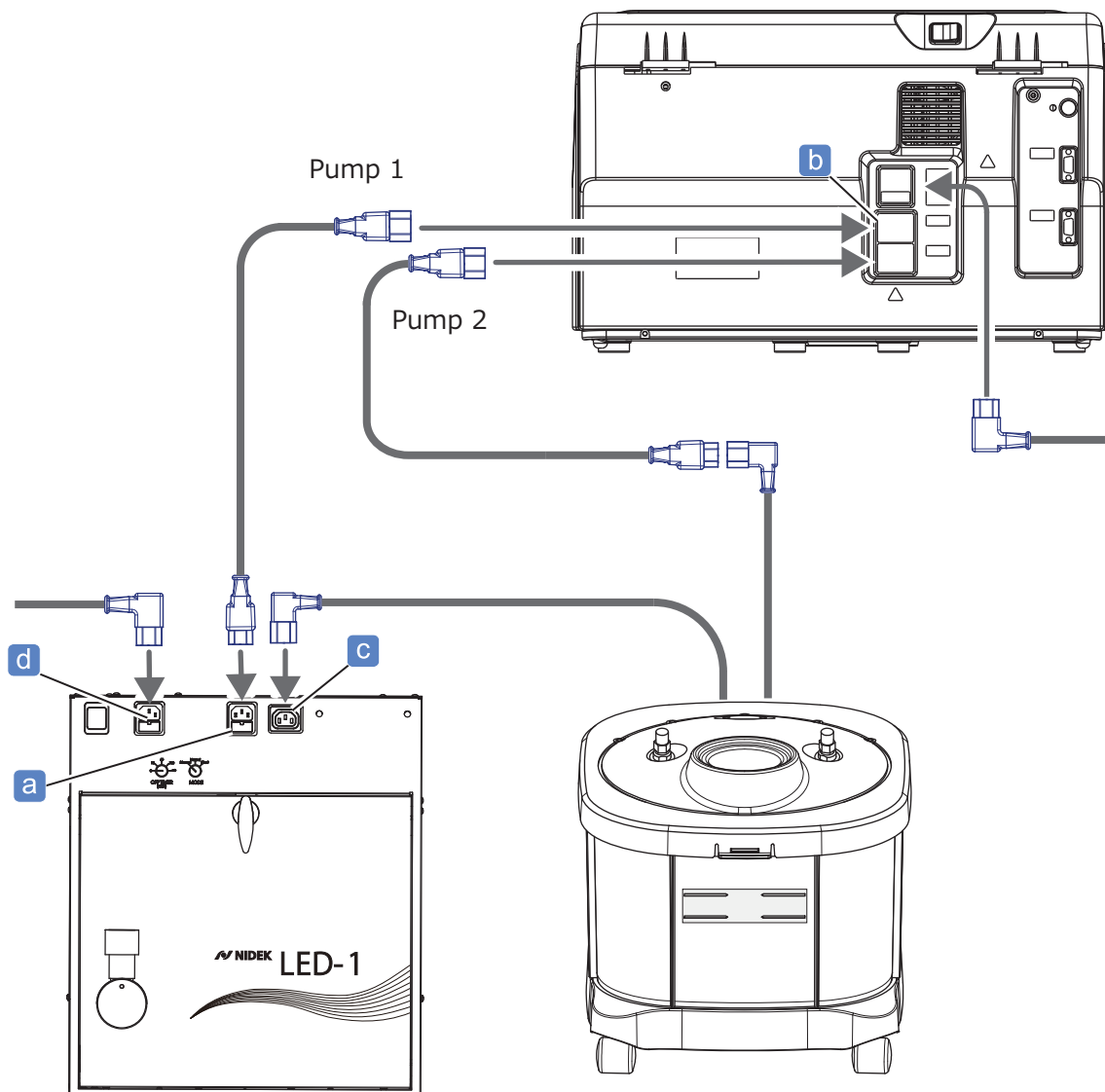
- 1 Connect the inlet for edger connection **a** of the LED-1 and the outlet for deodorizer connection **b** of the lens edger with the provided extension cord.
- 2 Connect the power inlet **c** of the LED-1 and a power outlet with the provided power cord.



◆ When connecting to a lens edger that does not have a third outlet

For a lens edger without a third outlet, connect the deodorizer to the outlet for Pump 1.

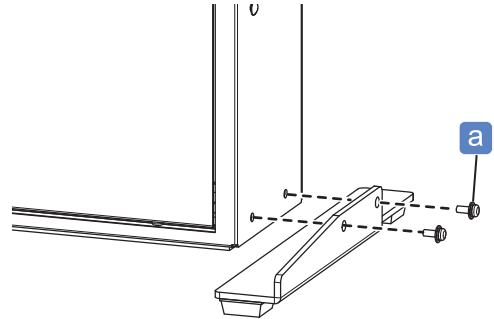
- 1** Connect the inlet for lens edger connection **a** of the LED-1 and the outlet for Pump 1 **b** of the lens edger with the provided extension cord.
- 2** Connect the power cord of Pump 1 for feedwater to the outlet for pump connection **c** of the LED-1.
The power cord of Pump 1 for feedwater has the “PUMP1” tag on it.
- 3** Connect the power inlet **d** of the LED-1 and a power outlet with the provided power cord.



2.7 Attachment of Foot ASSY and Moisture Collection Tank Holder (Option)

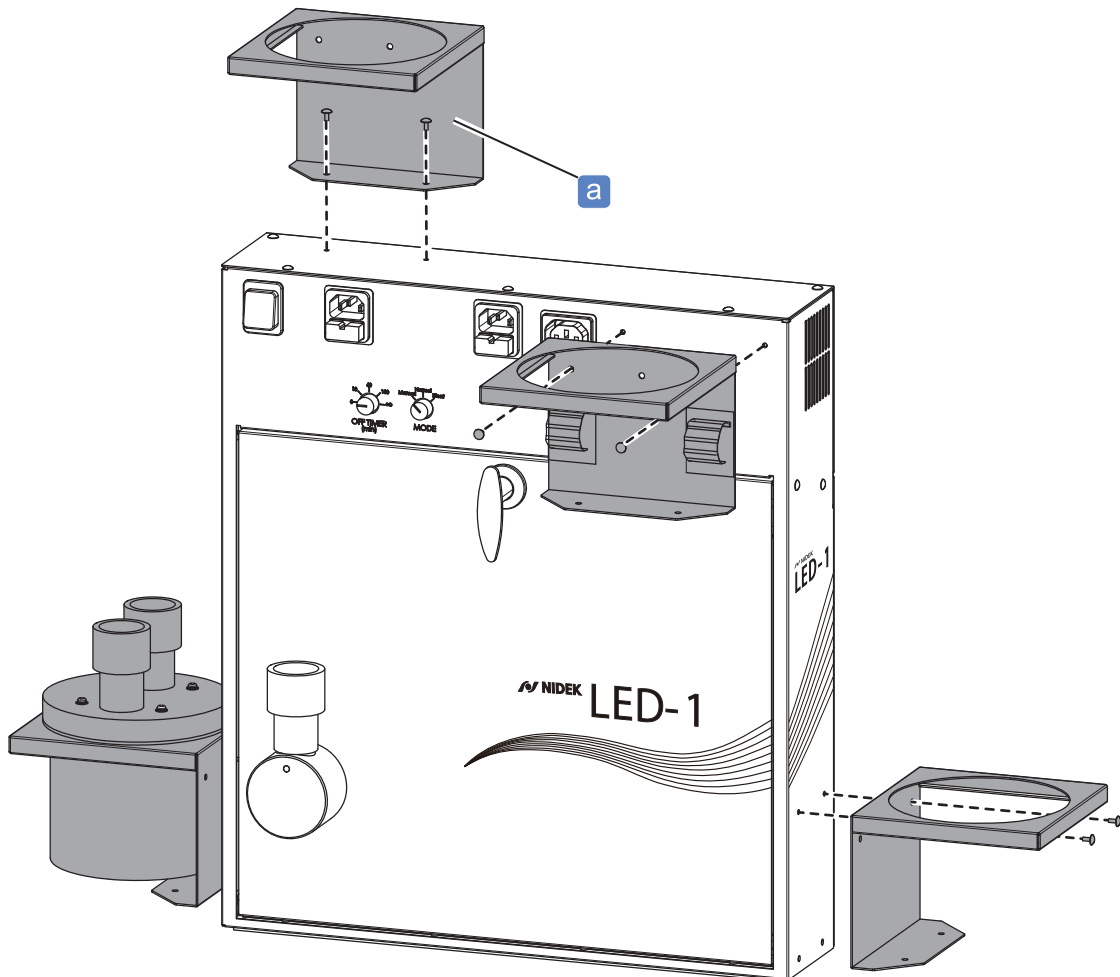
2.7.1 Attachment of foot ASSY

- 1** Remove the screws **a** from the LED-1 main body.
- 2** Fasten the foot ASSY with the screws.
- 3** Attach the foot ASSY to the other side in the same manner.



2.7.2 Attachment of moisture collection tank holder

- 1** Remove the screws from any of the 4 positions shown below.
- 2** Fasten the moisture collection tank holder **a** with the screws.
- 3** Set the moisture collection tank in the holder.



Tip

- When attaching the moisture collection tank holder to the front of the instrument, attach 2 clamps **b** at the positions about 30 mm below from the top of the holder.

Hold the power cord with the clamp so that it will not obstruct the moisture collection tank.



3

OPERATING PROCEDURE

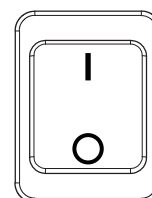
3.1 Instrument Start-up and Shutdown

- Use the checklist to inspect the instrument before and after use.

🔗 [“5.3 Checklist” \(page 28\)](#)

◆ Starting the instrument

- 1 Confirm that the power cord is connected.
- 2 Press the power switch to turn on (|) the power.
The power switch illuminates.



Setting

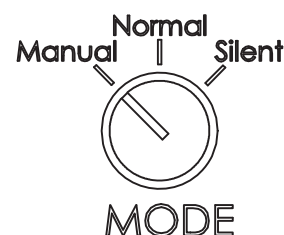
- Use the instrument while the power switch is always turned on.
However, if the instrument will not be used for an extended period of time, turn off the power switch and unplug the power cord from the power outlet.

◆ Shutting down the instrument

- 1 Press the power switch to turn off (O) the power.
- 2 Clean the instrument.

3.2 Deodorization in Manual Mode

- 1 Turn the operation mode select dial to the “Manual” position.
Deodorization starts.
- 2 Turning off (O) the power stops deodorization.



3.3 Deodorization in Edger Linkage Mode

- Edger linkage mode is a mode in which the deodorizer automatically operates in conjunction with the lens edger.

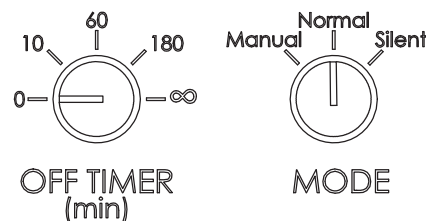
◆ Edger linkage mode (Normal)

- 1 Turn the operation mode select dial to the “Normal” position.

- 2 Use the timer dial to set the deodorization time after the lens edger stops.

Timer setting range (min): 0, 10, 60, 180, ∞

❖ Deodorization starts in conjunction with the lens edger.



◆ Edger linkage mode (Silent)

- This mode reduces the deodorizing noise produced after the lens edger stops.

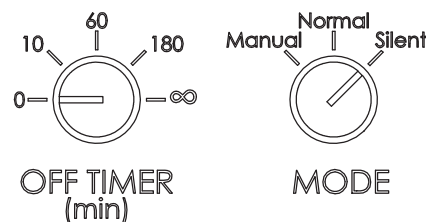
In Silent mode, the suction power is lower than in Normal mode.

- 1 Turn the operation mode select dial to the “Silent” position.

- 2 Use the timer dial to set the deodorization time after the lens edger stops.

Timer setting range (min): 0, 10, 60, 180, ∞

❖ Deodorization starts in conjunction with the lens edger.



Tip

- Settings with the timer dial

The timer dial is used to set the deodorization time after the lens edger stops in the lens edger linkage mode.

0 min: Deodorization starts and stops in conjunction with lens processing.

10 to 180 min: Deodorization starts in conjunction with lens processing and continues for the set time after lens processing stops.

∞: Deodorization starts in conjunction with lens processing and continues until the deodorizer is turned off.

4

MAINTENANCE

4.1 Troubleshooting

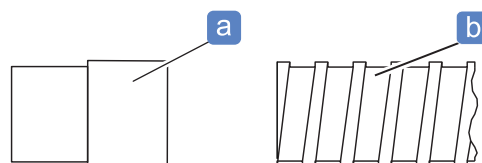
If the instrument does not work correctly, attempt to correct the problem according to the following table before contacting Nidek or your authorized distributor.

Symptom	Remedy
The deodorizer does not operate.	<ul style="list-style-type: none"> Check whether the power switch is turned on. Check whether the power cord is connected properly. “2.6 Wiring” (page 13)
Odor is not removed. The sound of the deodorizer fan rotation is not heard.	<ul style="list-style-type: none"> Replace the fuses. “4.4 Fuse Replacement” (page 22)
Odor is not removed. The sound of the deodorizer fan rotation is heard.	<ul style="list-style-type: none"> Check whether the hoses are connected properly. “2.4 Connection with Lens Edger” (page 11) “2.5 Connection with Pump Tank” (page 12) <ul style="list-style-type: none"> Replace the cartridge. “4.3 Cartridge Replacement” (page 20) <ul style="list-style-type: none"> Set the time a little longer with the timer dial.

❖ If the symptom cannot be corrected by the remedies indicated above, contact Nidek or your authorized distributor.

4.2 Cuff Attachment

- 1 Screw the hose **b** into the cuff **a**.
- 2 Insert the cuff into the lens edger or the deodorizer.



4.3 Cartridge Replacement

- In general, the cartridge can be used for about 6 months, however, this will vary depending on the frequency of use.

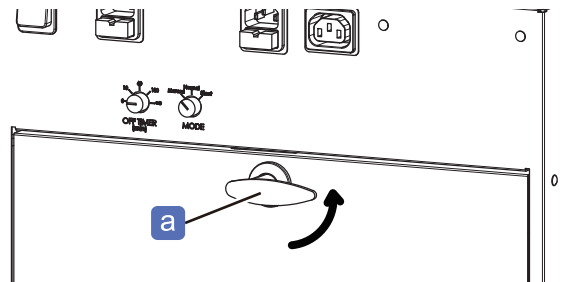
If the deodorizing effect has decreased, replace the cartridge at your earliest convenience.



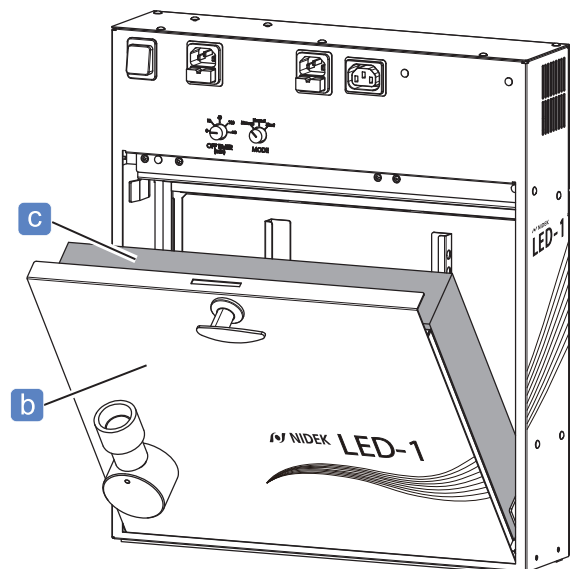
Check

- The cartridge is a consumable. If the deodorizing effect has decreased, replace it with a new one.
Be sure to use the cartridge specified by Nidek.
- Carefully put the used cartridge into a plastic bag and seal it tightly.
Processing waste is adhered to the used cartridge. Waste particles may be released and inhaled.
- Dispose of used cartridge in accordance with the laws and local ordinances of your country.
- The new cartridge is packed in a plastic bag. Do not open the plastic bag until replacement.
It absorbs ambient odors and loses its effect gradually.

- 3 Turn the lever **a** 90 degrees and open the front cover **b** toward you.



- 4 Remove the used cartridge **c**.
- 5 Put the used cartridge into a plastic bag and dispose of it.

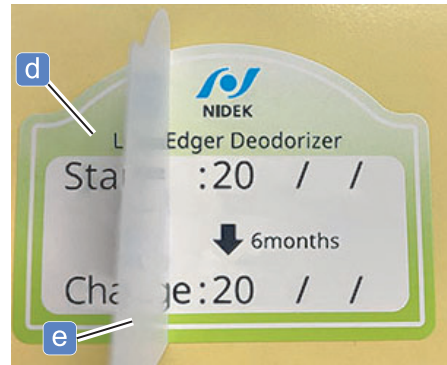


CAUTION

- When disposing of used cartridges, follow the laws and local ordinances of your country.
Inappropriate disposal may contaminate the environment.

- 6 Vacuum any dust or processing waste that has accumulated inside the LED-1 with a vacuum cleaner.

- 7** Set a new cartridge.
- 8** Close the front cover and turn the lever back.
- 9** Attach the new replacement time sticker **d** included in the cartridge set to the instrument.
 - 1) Write the replacement date and the next replacement date on the sticker.
 - 2) Remove the backing paper from the laminate film **e**.
 - 3) Cover the area where the replacement dates are written in *Step 1)* with the laminate film.
 - 4) Attach the replacement time sticker to the lens edger to which the LED-1 is connected. The figure as shown to the right is an example.



4.4 Fuse Replacement

WARNING

- Be sure to use only the fuses specified by Nidek.
Malfunction or fire may result.

- 1** Turn off (○) the power switch and disconnect the power cord from the power outlet.
- 2** Disconnect the power cord and extension cord from the LED-1 inlets.

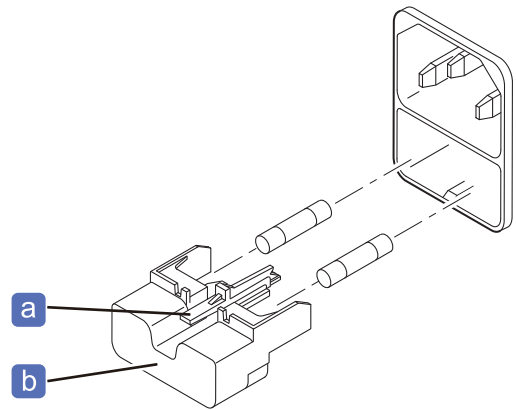
- 3** Remove the fuse holder under the inlet.

While holding the lever **a** down, pull out the fuse holder **b**.

- 4** Replace the fuses.

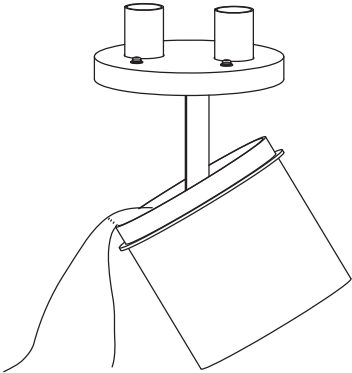
- Fuses for the power inlet: 2.5 A
- Fuses for the inlet for edger connection: 1.0 A

- 5** Reattach the fuse holder.



4.5 Cleaning

- When the cover of the deodorizer is soiled, wipe it with a soft cloth. For persistent stains, soak the cloth in water, wring well, then wipe.
- Empty the moisture collection tank before the accumulated water overflows.
Dispose of the water accumulated in the moisture collection tank in the same manner as processing wastewater.



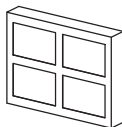

WARNING

- Do not use an overly wet sponge or cloth. Also, be careful not to spill the water from the moisture collection tank.
Water seepage into the instrument may result in electric shock or malfunction.

4

4.6 Consumable List

To purchase the consumables, contact Nidek or your authorized distributor.

Part name (part No.)	Appearance	Remarks
Cartridge set (LD003-0310)		Contents <ul style="list-style-type: none">• Cartridge• Attachment• Replacement time sticker
Fuse (LD003-E007) (LD003-E008)		Fuses for the power inlet: 2.5 A Fuses for the inlet for edger connection: 1.0 A



Check

- After replacing the fuses, prepare the spares.

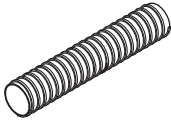
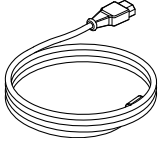
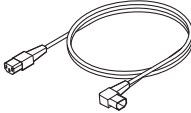


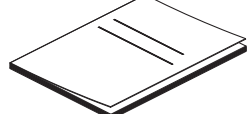
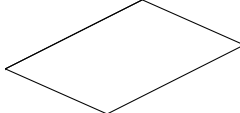

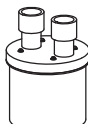
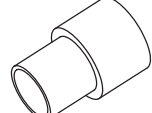
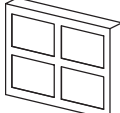


SPECIFICATIONS AND TECHNICAL INFORMATION

5.1 Specifications

Instrument specifications	
Deodorization method	Absorption of odorous gas using activated carbon
Installation type	<ul style="list-style-type: none">• Installation in a table designed for a Nidek lens edger• Separate installation
Power requirements	
Voltage	100 to 240 V AC
Frequency	50/60 Hz
Power consumption	70 VA
Dimensions and mass	
Dimensions	399 mm (W) × 91 mm (D) × 458 mm (H) (excluding protrusions)
Mass	8 kg (deodorizer only)
Environmental conditions (during use)	
Temperature	5 to 40°C (41 to 104°F)
Humidity	5 to 31°C (41 to 87.8°F): 30 to 80% 31 to 40°C (87.8 to 104°F): The minimum acceptable relative humidity is 30%. The maximum acceptable relative humidity is 80% for temperatures up to 31°C (87.8°F), which decreases linearly to 50% at 40°C (104°F).
Altitude	Up to 2,000 m
Installation location	Indoors
Others	Free from harmful dust or smoke
Environmental conditions (during transport and storage)	
Storage (unpacked condition) environment	
Temperature	-25 to 70°C (-13 to 158°F)
Humidity	20 to 85% (non-condensing)
Atmospheric pressure	700 to 1,060 hPa
Storage (packed condition) environment	
Temperature	-25 to 70°C (-13 to 158°F)
Humidity	20 to 85% (non-condensing)
Atmospheric pressure	500 to 1,060 hPa

Transport environment	
Temperature	-25 to 70°C (-13 to 158°F)
Humidity	20 to 85% (non-condensing)
Atmospheric pressure	500 to 1,060 hPa
Others	
Expected service life	10 years from the date of initial operation (defined by manufacturer) * Replacement of consumables is necessary.

Standard accessories					
Part name	Quantity	Appearance	Part name	Quantity	Appearance
Exhaust hose	2		Power cord	1	
Extension cord	1		Fuse (1.0 A, 2.5 A)	2 for each	
Operator's manual	1		Installation manual	1	
Attachment (guide for periodic cartridge replacement)	1		Replacement time sticker	1	
Moisture collection tank	1		Cuff	3	
Cartridge	1				

Optional accessories
Moisture collection tank kit, pump tank connection kit, Supra connection kit, pump tank connection kit for Supra, adapter for exhaust hose, moisture collection tank, moisture collection tank holder, foot ASSY, cartridge set

5.2 Glossary

Term	Description
Deodorizer	A unit with a mechanism that sucks gas from the outside, passes it through the inside of the unit, and then exhausts it. With a cartridge set inside the unit, it is used as a deodorizer.
Cartridge	A consumable unit with deodorizing function. It contains activated carbon inside, which absorbs odors.
Moisture collection tank	A tank that is connected between the deodorizer and a lens edger or pump tank to prevent water from entering the deodorizer.

5.3 Checklist

◆ Pre-use checklist

Item	Check (date and by whom)
The power cord is connected between the power inlet and outlet securely.	
The cables of the connected instruments are connected securely.	
The hoses are connected securely.	
The moisture collection tank is empty.	
The cartridge is within its expiration date.	

◆ After-use checklist

Item	Check (date and by whom)
The power switch of the instrument is turned off.	
When the instrument will not be used for an extended period of time	
The power plug of the instrument is disconnected.	
The power plugs of the connected instruments are disconnected.	
The operator's manual is stored.	