
Instruction Manual

Suction pump
WSC - 2100

MyMini Aspirator



Dec. 12, 2025 1st edition



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Introduction

for purchasing the ATTO Scientific Instruments suction pump "WSC- 2100 MyMini Aspirator . " This instruction manual (this document) will be shipped with the device to ensure you get the most out of your purchase. First-time users, as well as experienced users, should read this manual carefully and understand its contents. First-time users should read it from the beginning in order. This manual also contains information on operation, maintenance, warranty, service, and more, so please keep it handy and make effective use of it. If you have any questions about the product or instruction manual, please feel free to contact us (see the back cover).

About the instruction manual







Please read this manual carefully before use. After reading, be sure to keep it so that you can refer to it at any time. Also, when moving this device, be sure to take this manual with you. If this manual has any errors, such as misprints or missing pages, or if it is lost or damaged, we will provide you with a new instruction manual. Please contact your supplier or our customer service department (please check the back cover). When doing so, please let us know the product name and model number. We have made every effort to ensure the contents of this manual are accurate, but if you notice any suspicious points, errors, or omissions, please contact our customer service department (please check the back cover).

Safety Precautions


Correct operation is essential for safe use of this device. Please read this manual carefully before use and do not operate until you fully understand the contents. The instructions and safety precautions described in this manual apply only when using this device for the intended purpose. Do not use this device for purposes or purposes other than those described in this instruction manual. If this device is used in a manner or for purposes other than those described in this instruction manual, the operator assumes all responsibility for any necessary safety measures. If you are operating this device for the first time, be sure to receive guidance from an experienced person with the correct knowledge and understand the principles and methods. In addition to first-time users, even those with specialized training and experience should keep this instruction manual at hand and make effective use of it. To prevent electric shock or damage to the device , please understand and follow the correct operation instructions described in this instruction manual. If you have any questions or concerns regarding operation, maintenance, or inspection, please feel free to contact us (see the back cover).

Safety Symbols

To ensure safe use of this device and to keep it in a safe condition, the following symbols are displayed in the instruction manual and on the device itself. Please understand the meaning of the symbols and observe each item.

Symbol	Meaning
 Danger	This indicates that if the instructions given with this symbol are ignored and the product is handled incorrectly, there is an imminent risk of death or serious injury to persons.
 Warning	This indicates that ignoring the instructions and handling the product incorrectly may result in death or injury.
 Caution	This indicates that if the contents of this label are ignored and the product is handled incorrectly, property damage may occur.
	This sign indicates actions that are prohibited.
	This notice provides important information.
	This display shows hints for operation.

CE marking

 This device has been evaluated for conformity with the following directives and complies with their respective standards.

directive	standard
Low Voltage Directive, 2014/35/EU	EN 61010-1:2010+A1:2019 EN IEC 61010-2-010:2020
EMC Directive, 2014/30/EU	EN IEC 61326-1: 2021
RoHS Directive, 2011/65/EU (2015/863/EU)	EN IEC 63000:2018








Disposal instructions are provided. Do not throw this device in the general waste. Please recycle this device to best protect our environment and minimize pollution.






Precautions for use

These are precautions to prevent fire, electric shock, and other accidents and malfunctions. Please understand and follow the instructions.


Danger

Power connection 	Do not use a deformed or corroded AC adapter, or a cable with peeling or damaged insulation. Check for damage before operating this device. Poor contact may result in fire or electric shock. Stop using this device and contact us. After use, always turn off the switch and unplug the device. When unplugging the AC adapter from the outlet, always turn off the switch and unplug by holding the power plug, not the cable.
No wet hands allowed 	Do not operate this device with wet hands. Also, do not touch the cable with wet hands. This may result in electric shock or malfunction. Do not use the AC adapter if it is wet. This may result in electric shock or malfunction. Stop using this device and contact us.
Main unit 	If an abnormality occurs or appears to be a malfunction while using this device, discontinue use immediately. Also, if a malfunction is discovered during inspection, discontinue use. Failure to do so may result in electric shock or damage to the device.
Maintenance 	While operating, visually check the device for any abnormalities, such as unusual noises or smoke, at regular intervals. If an abnormality, malfunction, or malfunction is detected, discontinue use and contact us (see back cover).
Reagent 	Reagent preparation and other procedures may involve the use of hazardous, dangerous, or carcinogenic substances. Do not allow direct contact with the human body. Failure to do so may result in death, burns, or other injuries. When using chemicals, wear protective gear such as gloves and a mask, and carefully read and follow the handling instructions provided with the chemicals.


Warning

Installation location 	Avoid installing the device on a wobbly, inclined, or highly vibrating surface. Install the device on a laboratory bench with a level, stable, and hard surface. Tipping over or liquid leakage may result in electric shock. Do not place any objects on the device. Tipping over may result in electric shock.
Main unit 	This device is not explosion-proof. Install it in a location where it will not be exposed to open flames or flammable gases. When removing the device from the cold room for use, take measures to prevent condensation before moving it, and if condensation does occur, allow it to dry completely. This may result in electric shock or malfunction.
Move 	Do not touch or move the device other than the vibration section or switch while it is operating. Also, cords may become tangled and cause it to fall over. When moving the device, always turn off the power switch and unplug the AC adapter from the outlet. When performing maintenance or cleaning, always turn off the power supply and unplug the AC adapter from the outlet.
Maintenance 	When performing maintenance or cleaning, always turn off the power supply and unplug the AC adapter from the outlet. To maintain the performance and safety of this device, please contact us for regular maintenance and inspections.
Do not disassemble 	Do not disassemble or modify this device. Do not remove the outer cover. Internal adjustments and repairs of this device will be performed by our technicians. If adjustments or repairs are necessary, please contact us. We are not responsible for any accidents or malfunctions caused by disassembling or modifying this device.

Caution

AC adapter 	If you are using this product outside of Japan, please prepare a conversion adapter that complies with the standards of your country. Using a non-standard adapter may cause heat generation or fire. If you have any questions, please contact us or our sales representative.
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Important

Stickers 	The nameplate sticker contains important information for product maintenance and management. Do not remove it.
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Other notes

Purpose	This equipment is laboratory equipment. It is not a medical device and cannot be used for medical procedures such as making medical judgments or confirming the effectiveness of treatment.
Export	The export of certain services or goods is regulated by government ordinances and ministerial ordinances under the Foreign Exchange Act and the Foreign Trade Control Act, and this equipment is also subject to these regulations. Even if the goods do not fall under the regulations of the government ordinances, documentation stating this must be submitted to customs. If the goods fall under the regulations, export permission must be obtained from the Ministry of Economy, Trade and Industry and submitted to customs. If you wish to export our products, please contact the importing country or our customer service department in advance.
Trademarks and Copyrights	Copyright permission is required to reproduce or duplicate this instruction manual, in whole or in part. Product specifications and the contents of this instruction manual are subject to change without notice.

1. Overview

1.1 Purpose to use

The My Mini Aspirator is a device that creates a negative pressure (vacuum) inside the device to aspirate liquid. The aspirated liquid travels through a silicone tube to a waste reservoir.

1.2 Principle

This device is equipped with a dry-type vacuum pump that generates a powerful negative pressure in the range of -30 to -650 mbar, allowing it to efficiently aspirate liquids without the need for oil or water flow. The aspirated liquid is safely collected in the attached waste reservoir via a silicone tube.

In addition, by using the included aspiration nozzle, you can aspirate with a tip attached or with a nozzle that has been flame sterilized. Furthermore, the pitch of the 8-nozzle is the same as that of a multichannel pipette, so it perfectly matches the pitch of a 96-well plate or 8-strip PCR tube, allowing you to efficiently aspirate liquid from multiple wells at once.

2. Checking when unpacking

2.1 Checking when unpacking

When you receive the product, please check that the main unit and accessories are properly packed and that there is no damage.

If there is any defect or damage, please contact the store where you purchased the product or our company immediately.

Please unpack and inspect the product within one week of receiving it.

If you leave it unpacked after one week, the warranty for damage or missing items may be void.

2.2 Equipment configuration

This device consists of the main unit and accessories.

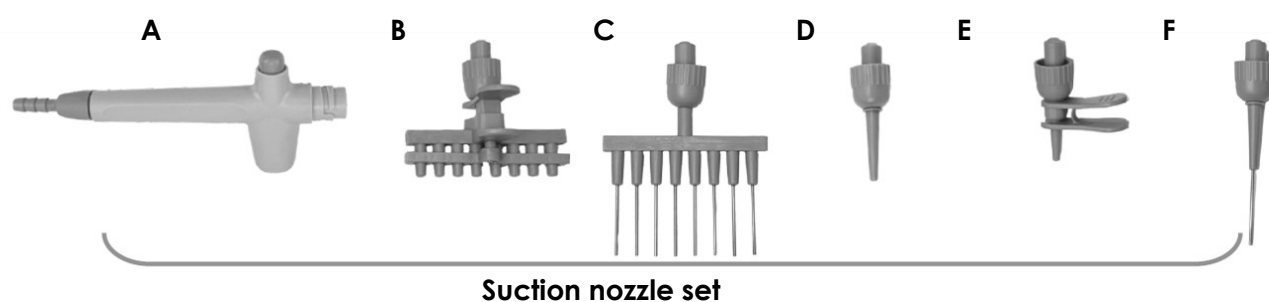
Main unit

Model	WSC-2100
Product Code	4002100
Main unit	MyMini Aspirator

Accessories

Product name	Product Code	Quantity
WSC-2100 MyMini Aspirator	4002100	1 unit
Suction nozzle set (for WSC-2100) Suction nozzle set A to F	4002110	1 set
Suction nozzle A (for WSC-2100)	4002111	1 piece
Suction nozzle B (for WSC-2100)	4002112	1 piece
Suction nozzle C (for WSC-2100)	4002113	1 piece
Suction nozzle D (for WSC-2100)	4002114	1 piece
Suction nozzle E (for WSC-2100)	4002115	1 piece
Suction nozzle F (for WSC-2100)	4002116	1 piece
Glass reservoir set (for WSC-2100)	4002117	1 set
Air filter (for WSC-2100)	4002118	1 piece
AC adapter (for WSC-2100)	4002119	1 piece
Silicone tube with one-touch joint		1 set
operating instructions		1 book

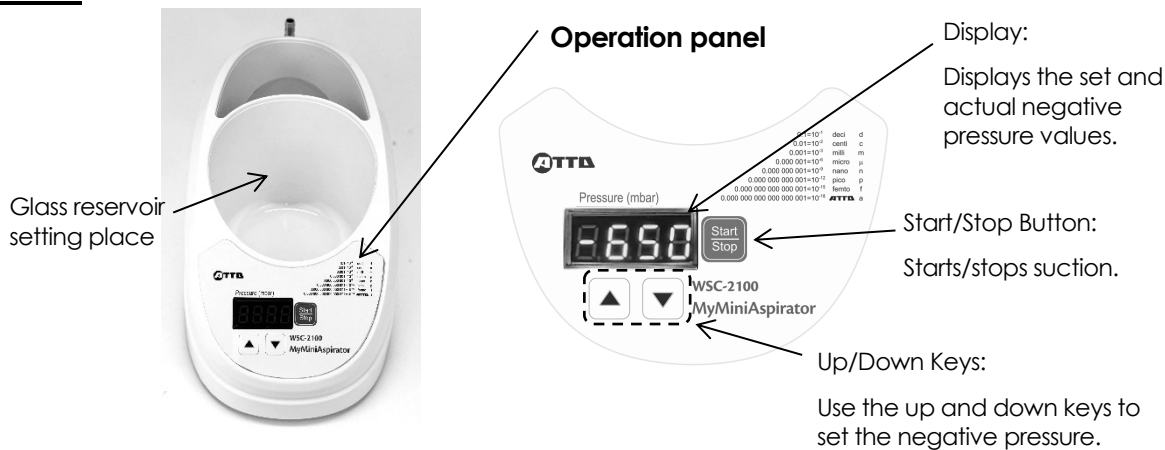
Suction nozzle



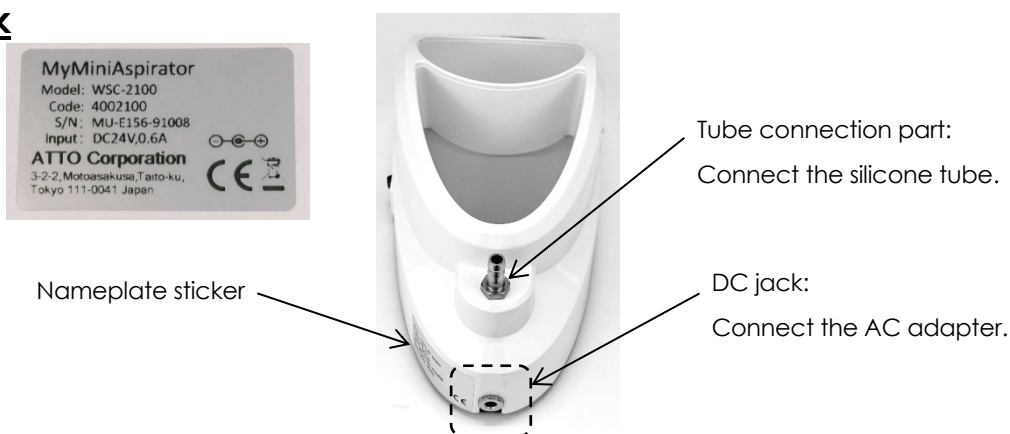
3. Names and functions of each part

(1) Main body

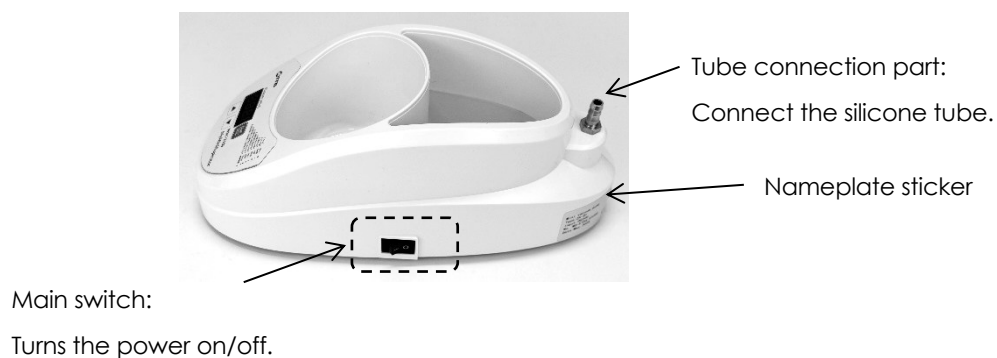
Front



Back



Side



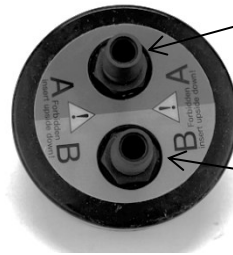
(2) Accessories

Glass reservoir and cap

Glass reservoir



Reservoir cap



One-touch joint (Gray) A port:

Connects to the exhaust silicone tube.

One-touch joint (Orange) B port:

Connects to silicone tubing for liquid suction.



Float-type ball valve:

Prevents water from entering the exhaust tube (pump) if the reservoir capacity is exceeded.

Silicone tube and one-touch joint

Silicone tube with one-touch joint (Gray)

Connects to the exhaust silicone tube.

Connect the silicone tube to the main body.



Air filter:

Prevents foreign objects and liquids from entering the pump body

One-touch joint (Gray):

Connects to A port on the reservoir cap

Silicone tubing with one-touch joint (Orange)

Connects to a silicone tubing for liquid suction.



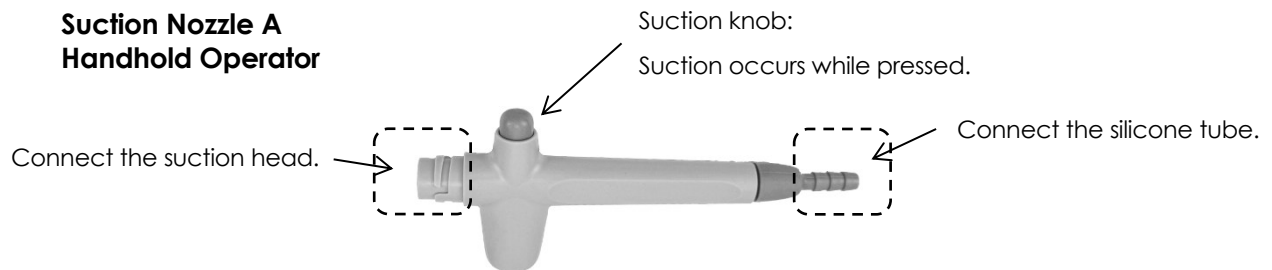
Silicone tube to connect the suction nozzle.

One-touch joint (Orange)

Connects to B port on the reservoir cap

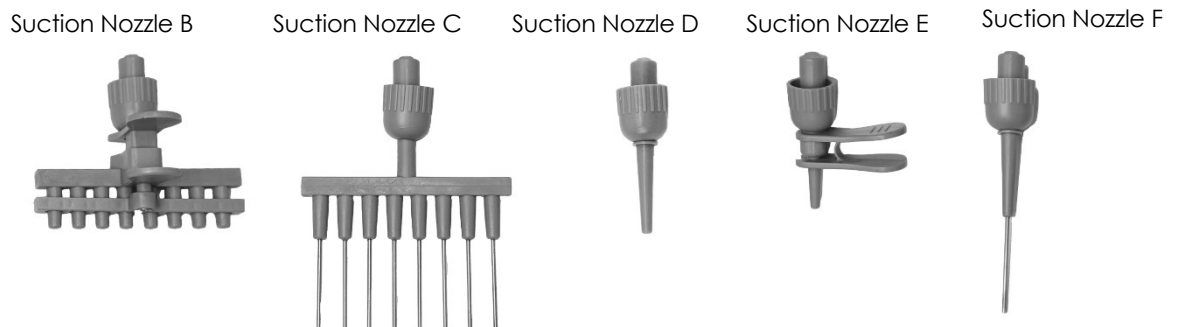
Suction nozzle

Suction Nozzle A Handhold Operator



Suction nozzles B to F

Suction heads that connect to handhold operators.



Dedicated holder



The suction nozzles can be hung
for compact storage

AC adapter



4. Preparation

4.1 Usage environment

Use this device in the following environment.

Where to use	Indoor use only
temperature	4 to 40°C
humidity	5 to 70% (no condensation)



Do not install in an atmosphere containing flammable gases. This device is not explosion-proof and may cause an explosion or fire. Install in an environment where it will not come into contact with flammable gases. Do not install in an atmosphere containing corrosive gases. This may cause corrosion of the conductors inside the device or poor contact in the connectors, resulting in malfunction, failure, or fire. Do not install in a dusty or dirty environment. Dust and dirt may accumulate, causing electric shock, fire, or failure.



Do not use the device in locations with strong magnetic or electric fields, or where the input power waveform is distorted or there is a lot of noise. This may cause malfunction. Do not install the device in locations exposed to direct sunlight, where the temperature changes suddenly, or where the humidity is high. Do not use the device if condensation occurs. This device cannot be used outdoors. This device is designed to ensure safety and performance in environments with an ambient temperature of 4°C to 40°C and a relative humidity of 5% to 70% (non-condensing).

4.2 Installation method

1. Connect the silicone tube with the one-touch joint (Gray) to the silicone tube connection part on the back of the main unit .



Caution

If the air filter is contaminated with foreign matter or solution, replace the air filter.

Connect
main unit

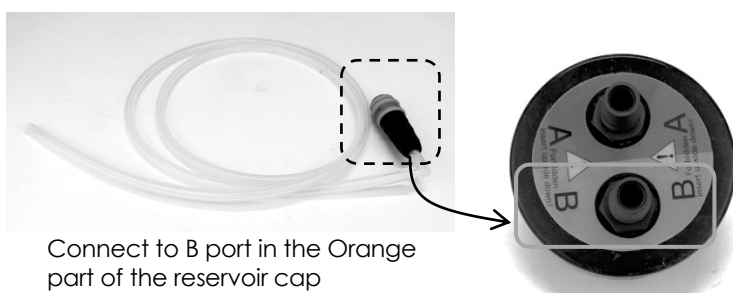


2. Place the glass reservoir into the main body and attach the reservoir cap.

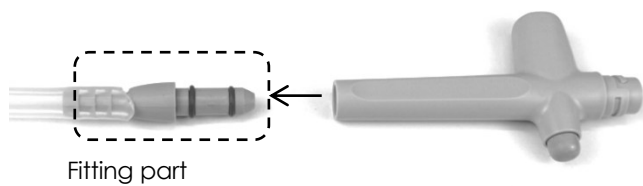
3. Connect the one-touch joint (Gray) to the A port on the reservoir cap.



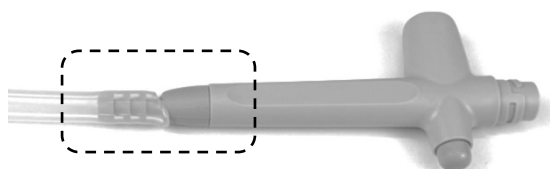
4. Connect the one-touch joint (Orange) to the B port on the reservoir cap.



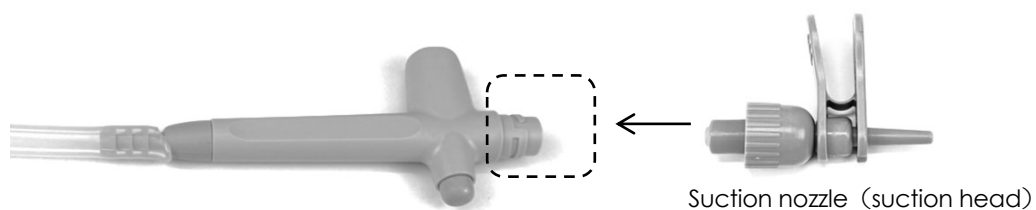
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5. Separate the fitting part of suction nozzle A (handhold operator) and connect it to the silicone tube.



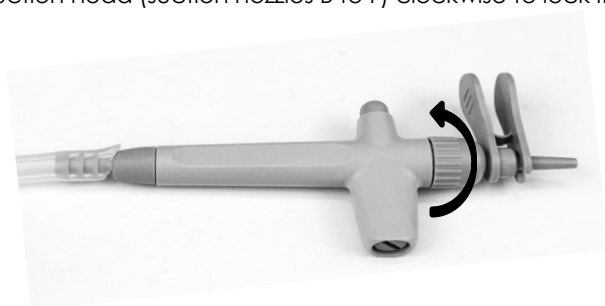
6. Connect the fitting connected to the silicone tube to suction nozzle A.



6. Connect the suction heads (suction nozzles B to F) to suction nozzle A.



7. Rotate the suction head (suction nozzles B to F) clockwise to lock it in place.



5. Operation

Once the device is set up, turn it on and start suction.

Before use, make sure the one-touch joints are connected correctly. Connect the gray one-touch joint to A port on the reservoir cap. Connect the orange one-touch joint to B port on the reservoir cap.

The vacuum pump will not start under negative pressure. If it does not start, remove and insert the one-touch joint to release the internal negative pressure.

Before use, make sure the reservoir cap is clean and that there are no foreign objects in the ball valve.

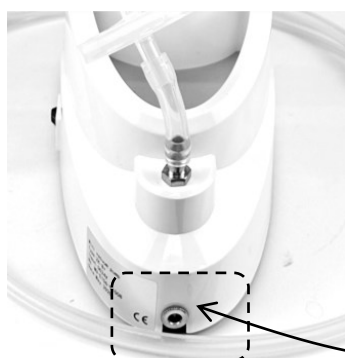
If the waste bottle is full, discard the inside before use.



Caution



1. Connect the DC plug of the AC adapter to the DC jack on the back of the main unit. Also, connect the AC adapter's power plug to a power outlet.



Connect to the main unit



Plug into power outlet



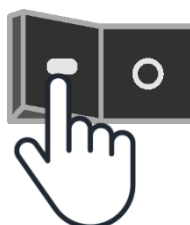
Caution

Please use the AC adapter that came with the product. Do not use if the power cable is damaged. Please contact us.

2. Turn the power switch on the side of the unit ON (-).



ON



OFF

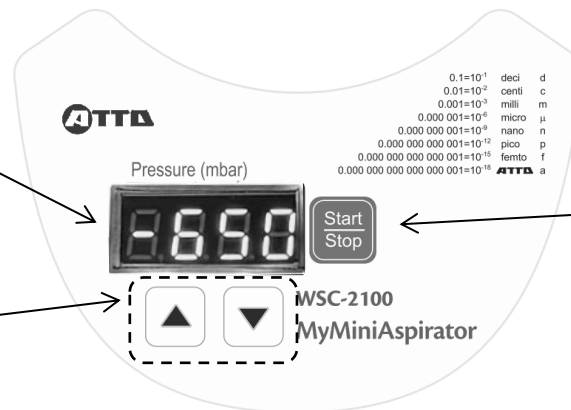
- Use the up and down keys on the front panel to set the negative pressure. The negative pressure can be set within the range of -30 to -650 mbar.

Display:

Displays the set and actual negative pressure values.

Up/Down key:

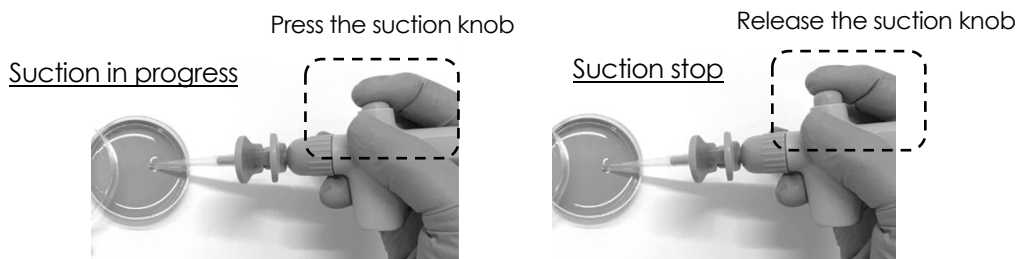
Use the up and down keys to set the negative pressure.



Start/Stop Button:
Starts/stops suction.

- Press the start/stop button to start the pump.
Press the Start/Stop button again to stop the pump.

- Press the suction knob on the handheld operator to start suction, release to stop suction.



- Before stopping suction, run the vacuum pump idle for one minute to drain any remaining liquid from the tubing. If any viscous liquid remains, rinse the tubing with distilled water or similar.



Caution

If the liquid cannot be aspirated, reattach the reservoir cap

Please note that any liquid remaining in the tubing may cause contamination. After draining the remaining liquid, rinse with distilled water or similar and then run the pump idle.

To extend the motor's lifespan, limit continuous operation of the vacuum pump to less than 30 minutes. If the device is too hot, turn it off and wait until it cools down before restarting.

6. When in trouble

First, check the contents of this section, and if the problem persists, check the model and serial number printed on the label on the bottom of the device and contact our customer service center (see the back cover).

Symptoms	cause	Solution
The device is not operating even though the power is on.	There is a problem with the AC adapter connection.	Check that the DC plug of the AC adapter is properly connected to the DC plug of the device, and that the power plug is properly connected to the outlet.
	There is a problem with the input voltage.	Connect to a standard voltage between AC100 and 240 V.
	The device is too hot and is overheating.	To extend the life of the motor, please limit continuous operation of the vacuum pump to less than 30 minutes. If the device is too hot , please turn it off and wait until it cools down before restarting.
	There is negative pressure inside the pump.	The vacuum pump cannot start under negative pressure. If it does not start, try disconnecting and reconnecting the one-touch joint to release the internal negative pressure.
	The temperature of the device is too low and the diaphragm is stiff.	The diaphragm inside the pump is not flexible enough due to the low temperature . Please wait until the device has warmed up.
The pump is operating normally, but the required vacuum cannot be achieved	There are problems with the airtightness of the pump piping and connections.	Before use, please check that the one-touch joint is properly connected. Also, adjust the position of the reservoir cap and gently press it to make sure it is secure. Check that the tube is not damaged.
	The pump may have failed, or the pump diaphragm may be contaminated or damaged.	Replace the pump or the pump diaphragm. Please contact us (see back cover).
The device makes a strange noise	There are issues with the level of the workbench.	Avoid installing the unit on an unstable table, on a slope, or in a location subject to strong vibrations.
The pump is operating normally, but but the display is blank or shows an abnormal value .	The display is broken. The vacuum gauge is broken.	Replace the display or vacuum gauge. please contact us.

7. Maintenance

7.1 Cleaning



Warning

Do not use corrosive detergents to clean the main unit or accessories.

Main unit

If the surface of the device becomes dirty, wipe it gently with a soft cloth soaked in water and a neutral detergent.



Warning

Before cleaning the main unit, turn off the power and unplug the AC adapter from the outlet.

Silicone tube

To remove any remaining liquid from the tube, run the pump idle and then wash it with distilled water, etc. After that, run the pump idle again to completely remove all the solution from the tube.



Caution

Please note that if any liquid remains in the tubing, it may cause contamination. After discharging the remaining liquid, rinse with distilled water, etc., and then run the pump idle.

AC adapter

If the surface becomes dirty, wipe it gently with a soft cloth soaked in water-diluted neutral detergent. Do not use until it has dried completely.



Warning

Before cleaning the AC adapter, unplug the power plug from the outlet.

7.2 Inspection

By performing regular maintenance and inspections, you can prevent breakdowns and accidents and use the equipment with peace of mind. Although it depends on the frequency and duration of use, we recommend regular inspections to maintain performance. Please contact us if you notice any of the following abnormalities or problems.

Main unit

Visually check that there is no damage or deformation.



Warning

Before inspecting the main unit, turn off the power and unplug the AC adapter from the outlet.

AC adapter

Visually check that the insulating coating is not peeling, scratched, damaged, or deformed.



Warning

Before inspecting the AC adapter, unplug the power plug from the outlet.

7.3 Maintenance/Repair

Our repair period is seven years after delivery. In principle, we do not repair equipment that has been in use for more than seven years. Even if a product is within seven years of delivery, we may not be able to repair it if parts are difficult to obtain. Maintenance parts (performance parts for repairs) will be kept for seven years after production ends . Externally procured parts may be available for less than seven years after production ends.

If you experience any abnormalities or breakdowns while using the product according to this manual, or if you notice any problems during maintenance or inspection, please check the "Troubleshooting" section and contact us.

If repairs are required, please send the product to our maintenance service group. If you require on-site repairs, a separate travel fee will be charged.

7.4 Warrenty

For warranty terms and conditions, please refer to the warranty card attached to the product.

8. Specifications

Model • product name • code	WSC-2100 • MyMini Aspirator • 4002100
Suction speed	Up to 8 L/min (based on air) Up to 2 L/min (measured with distilled water at 25 °C)
Maximum negative pressure	-650 mbar (-0.65 MPa)
Negative pressure adjustment range	-30 to -650 mbar
Pressure display format	Digital display
Waste Reservoir Capacity	1000 mL
Power supply	Input: AC100-240 V, 0.6 A Output: DC 24 V, 0.8 A (AC adapter)
Power consumption	15 W
Size	130 x 288 x 338 mm, 1.5 kg

Material and durability of each part

Product parts	Material	Heat resistance	pH Resistance
Suction nozzle	POM	90 °C	pH 4-9
Suction nozzle C/F tip	Stainless steel	870 °C	-
Tube	silicon	230 °C	pH 4-9
Cap	silicon	230 °C	pH 4-9
Glass bottle	Glass	500 °C	pH 2-10
One-touch joint	-	50 °C	-



ATTO CORPORATION

3-2-2 Motoasakusa, Taito-ku, Tokyo 111-0041, JAPAN
<https://www.attoeng.com>



Contact