
Instruction Manual

Vortex mixer
WSC-2800

MyMiniVortex



4th Edition
July 19th, 2025



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Introduction

Thank you for purchasing ATTO Corporation's Vortex Mixer , "WSC-2800 MyMiniVortex ". This instruction manual is delivered to you together with the system so that you can make full use of it. Not only those of you using this system for the first time, but also those of you having used before, should read this document carefully to understand contents. If you use this system for the first time, please read this document from beginning in serial order. In addition, this document contains information related to maintenance and guarantees as well as how to use. Please keep it handy all the time to make its full use.

If you have any questions on your purchased products or the instruction manual, please feel free to contact us. (Please refer to the back cover.)

About this manual

Before using the product, please read this document carefully. After reading it, please be sure to keep it for your future reference. When you relocate this system, be sure to attach this document to it.

If there is any defect in this document such as misplaced or missing pages, or if this document is lost or stained, we will replace it with a new one. Please take a moment to contact the distributor you purchased the product from or our company's customer service department (please refer to the back cover). At that time, please inform us of your product name and type. This document was created with our most careful attention: however, should you find any queries, errors or omissions, please inform our company's customer service department (please refer to the back cover).

Safety precautions







To use this system safely, it is a must to operate it properly. Do not use this product until you read this document carefully and understand the content sufficiently. Precautions on usage and safety described in this document are applied to the use of this system only for the specified purpose of use. Do not use this system for any other purpose than described here, or do not use this system by any other method than described here. If you use this system for any other purpose or by any other method than described in this manual, you will be held responsible for all necessary safety measures as operator.

If you operate the system for the first time, you need to be given instructions from an experienced operator with proper knowledge, and to understand its principle and method. Not only people who operate the system for the first time but people who have ever used it after receiving professional education should keep this instruction manual handy to make its effective use. In order to prevent any electric shock caused by the system or any damage to the system, please understand and follow the correct operation method shown in this manual.

If you have questions or concern related to the principle of maintenance or inspection, feel free to contact our company (please refer to the back cover).

Safety symbols

To use this system safely and maintain the safe status, the following symbols are indicated in the instruction manual and on the system's main unit. Please note the meaning of each symbol and observe each item.

Symbol	Description
 Danger	This symbol indicates emergent danger, such as death or heavy injury caused by ignoring the symbol and mishandling the system.
 Warning	This symbol indicates possibility of danger, such as death or injury, caused by ignoring the symbol and mishandling the system.
 Caution	This symbol indicates possible occurrence of property damage caused by ignoring the symbol and mishandling the system.
	This symbol indicates prohibition.
	This symbol indicates an important matter.
	This symbol indicates a tip to the operation.

CE marking

CE Complies with the provisions of following Directives as completed equipment under evaluation of conformity based on the following harmonized standard.

Directive	Standard
Low Voltage Directive, 2014/35/EU	EN 61010-1:2010
EMC Directive, 2014/30/EU	EN 61326-1:2013
RoHS Directive, 2011/65/EU	EN IEC 63000:2018



Indicate disposal instruction.






DO NOT throw this unit into a municipal trash bin when this has reached the end of its life-time.

To ensure utmost protection of the global environment and minimize pollution, please recycle this unit.

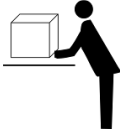




Operation precautions

These are precautions for preventing fire, electric shock and other accident or failure. Read and understand the information well, and be sure to observe it.




<p>Power supply connection</p> 	<p>Do not use a deformed or corroded electrode terminal, AC adapter, power cable whose insulation coating is peeled off, or damaged power cable.</p> <p>Before operating this system, check and confirm that there is no damage to it. Other-wise, it may catch fire or cause electric shock due to loose connection. If there is any damage, stop using this system and contact our company (please refer to the back cover).</p> <p>After use, be sure to turn off the power switch and disconnect it from the outlet. When disconnecting AC adapter from the outlet, be sure to turn off the power switch, and then disconnect it by holding the AC adapter instead of pulling the cable.</p>
<p>Not wet hand</p> 	<p>When handling this system, keep your hands dry.</p> <p>Do not touch AC adapter or connection terminal with wet hands. If you do, electric shock or failure may be caused.</p> <p>If the power supply part or AC adapter gets wet, do not use it. If you do, electric shock or failure may be caused.</p> <p>If wetted, stop using it and contact our company (please refer to the back cover).</p>
<p>Main Unit</p> 	<p>Do not put any foreign object into this system. If you do, electric shock or failure may be caused.</p> <p>If the external surface of this system gets wet, do not use it. If you do, electric shock or failure may be caused. When using it, wipe moisture off the surface and dry it.</p>
<p>Maintenance</p> 	<p>If an error occurs or if there seems to be an error or failure while this system is being used, stop using it immediately. If you find any defect at the time of inspection, do not use this system. If you do, electric shock or defect may be caused.</p> <p>While this system is in use, check if there is any error, such as abnormal sound or smoking, or and see if any liquid leakage by regular visual inspection. If you find an error, failure or defect, stop using it and contact our company (please refer to the back cover).</p>
<p>Reagent</p> 	<p>When preparing reagents, we may use deleterious, hazardous, or carcinogenic substances. Do not allow them to come into direct contact with the human body. This may result in death, burns, or other injuries to the human body. When using chemicals, please protect yourself with gloves and a mask, and carefully read and follow the handling instructions that come with the chemicals.</p>


Warning

<p>Installation location</p> 	<p>Do not install the system on an unstable table, tilted place or a heavily vibration place. Install it on an laboratory table with horizontal, stable and solid surface. Otherwise, electric shock due to falling or liquid leakage may be caused.</p> <p>Do not put any object on this system. If you do, electric shock due to falling may be caused.</p>
<p>Main unit</p> 	<p>This is not of explosion-proof structure. Install it at the place where there is no exposure to fire or combustible gas.</p> <p>When taking this system out of a low-temperature room for use, take measures against dew condensation before moving it. If condensation is seen, dry it completely. Otherwise, electric shock or failure may be caused.</p>
<p>Transfer</p> 	<p>While this system is in operation, do not touch any parts other than operating panel, nor move it. Also, electric cords may get entangled and the system may fall. When moving this system, be sure to turn off the power switch, disconnect AC adaptor and removing cables.</p>
<p>Maintenance</p> 	<p>When you execute maintenance or cleaning, be sure to turn off the power switch and disconnect AC adaptor.</p> <p>To maintain good performance and safety of this product, please ask us for periodical maintenance, inspection and calibration (please refer to the back cover).</p>
<p>No disassembly</p> 	<p>Do not disassemble or modify this system. Do not remove external cover. Interior adjustment or repair of this product should be made by our engineers. If adjustment or repair needs to be done, please ask us for it (please refer to the back cover).</p> <p>Our company will not accept any responsibility for any accident or failure caused by disassembly or modification done by yourself.</p>

Caution

AC adaptor 	If the unit is used outside of Japan, please prepare a conversion adaptor that complies with the standard of the country where the unit is used. Use of a non-standard adaptor could cause excessive heat and/or fire. If you have any questions, inquire our sales agent or company.
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Notice

Sticker 	Never peel off nameplate seals. These indicate important information for maintenance and control of the unit.
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Other Notices

Application	This device is for life science research use only. It's not a medical device and cannot be used for medical treatment, such as making medical-related judgments or confirming the effectiveness of treatment.
Export	Export of specific work and cargo are controlled by Foreign Exchange Laws and Cabinet Order/Ministerial Orders of Foreign Trade Control Laws and those controls are applied to this unit. Even if the unit is not applicable to the Cabinet Order, it's required to submit documents accordingly and if it's applicable, then obtain export license from the Ministry of Economy, Trade and Industry, and then submit the license to the customs office. When you export our products, please confirm with your supplier or us in advance.
Trademarks/ Copyright	You are hereby notified that any distribution, copying or forwarding of this manual is strictly prohibited without permission of ATTO Corporation. Information in this manual or specification of the product is subject to change without notice.

1 Overview

1.1 Purpose

My Mini Vortex is a device used to stir samples in tubes in various experiments.

1.2 Principle

This device rotates the sample at high speed and uses the resulting centrifugal force to agitate the sample.

2 Inspection when unpacking the product

2.1 Inspection at unpacking

Upon arrival of the product, please confirm whether the main body and accessories are packed correctly or if any defects exist. In case there is any inadequacy, deficiency, etc., please inform your supplier or us immediately.

Please unpack and inspect the contents within a week of receiving the product.

Confirmation after more than a week may not be warranted for defects or missing items.

2.2 Product component

This device consists of a main body and accessories.

Main body

Model	WSC-2800
Product code	4002800
Main body	MyMiniVortex

Accessories

Product name	quantity
AC adapter	1
Instruction manual	1

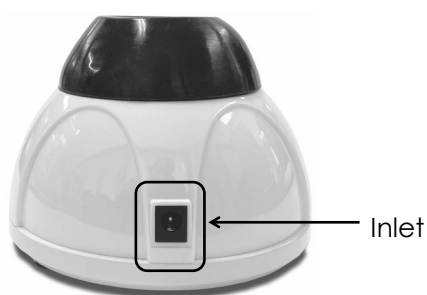
3 Name and function

(1) Main unit

Front

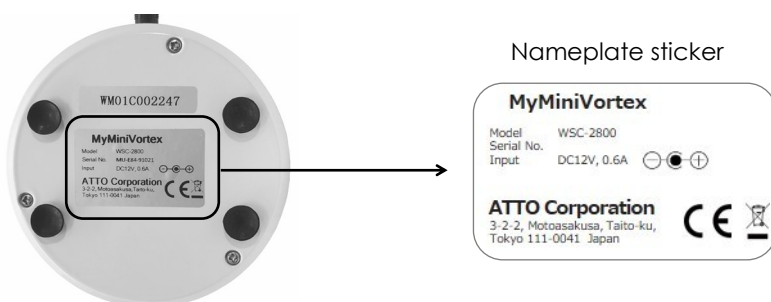


Back



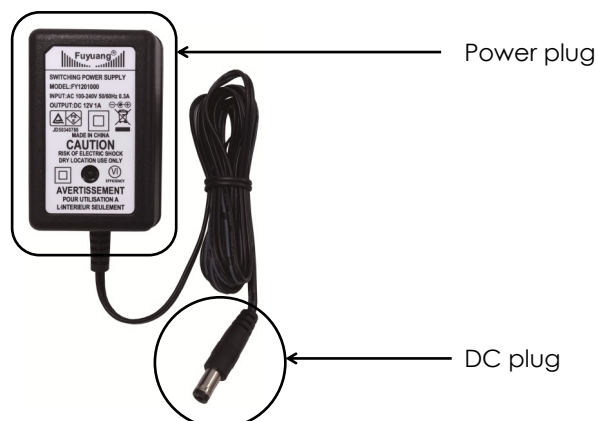
Bottom

A nameplate sticker is attached to the bottom of the unit.



(2) Accessories: AC adapter

AC adapter that connects the device to an outlet



4 Preparation

4.1 Installation environment

Please use this device under the following condition.

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

Warning

Do not install the product in combustible gas atmosphere. It is not of explosion-proof structure, so the product may cause explosion or fire. Install it in an environment without combustible gas. Do not install the product in corrosive gas atmosphere. This is because it can cause corrosion of conductor inside this product or contact failure of connector, which may lead to malfunction, failure or fire. Do not install the product in an environment with much dust or dirt. Dust or dirt may stick to the product, which can cause electric shock, fire or failure.

Caution

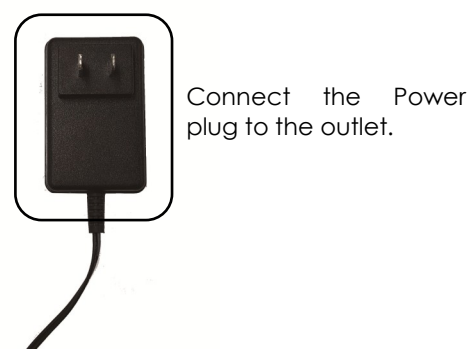
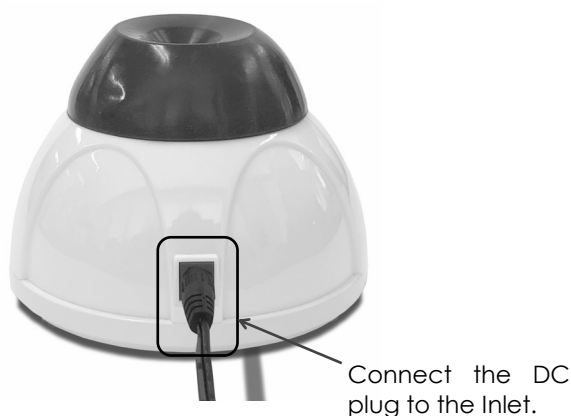
Do not use the product at a place where there is strong magnetic or electric field around, or a place where there is much waveform strain of input power supply or noise. It may cause malfunction.

Do not install the product at a place where it is exposed to direct sunlight, where temperature suddenly changes, or where humidity is high.

If dew condensation occurs, do not use this product. This device cannot be used outdoors. It is designed to ensure safety and performance under the following environmental conditions: ambient temperature 5°C to 35°C, relative humidity 5%-70% (No dew condensation).

4.2 Installation

1. Connect the DC plug of the AC adapter to the inlet on the back of the main body.
2. Connect the power plug into the outlet.



5 Operation

This product can be switched between touch operation (TOUCH) and continuous operation (ON) using a switch.

(1) How to use Touch Operation (TOUCH)

1. Press the sample tube against the center of the shaking unit to start mixing.



Touch the sample tube to the shaking unit .



Caution

Please touch the sample tube vertically to the shaking unit. If you press too hard, it may not work.



Caution

Do not use sample tubes with a diameter exceeding 30 mm, as they may not be able to mix sufficiently.

(2) How to use continuous operation (ON)

1. Press the switch and the shaking unit will start shaking.



Press the Power switch.

2. Place the sample tube in the center of the shaking unit and mix.
3. Pressing the Power switch will stop the shaking of the shaking unit.

6 Troubleshooting

Symptom	Cause	Remedy
When trying to operate 'the touch operation', the shaker does not operate even if the sample tube is touched to the shaking unit.	There is a problem with the AC adapter connection.	Check that the DC plug of the AC adapter is properly connected to the Inlet of the device, and that the power plug is properly connected to the outlet.
	Press the sample tube firmly. It is not pressed.	Press the sample tube against the center of the shaking unit.
	There are problems such as poor contact in the shaking unit.	Immediately discontinue use and contact us (see back cover).
There is no response when I press the switch.	There is a problem with the AC adapter connection.	Check that the DC plug of the AC adapter is properly connected to the Inlet of the device, and that the power plug is properly connected to the outlet.
	There are issues such as poor switch contact.	Immediately discontinue use and contact us (see back cover).
There is a strange noise.	There are issues such as the levelness of the workbench.	Avoid installing the unit on an unstable table, on a slope, or in a location subject to strong vibrations.
	Abnormalities such as damage to the shaking unit.	Immediately discontinue use and contact us (see back cover).

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.

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

Regular maintenance and inspections will help prevent malfunctions and accidents and ensure safe use of the unit. Although it depends on the frequency and duration of use, periodic inspections are recommended to maintain performance. Please contact us if you find any of the following abnormalities or malfunctions.

Main unit

Visually inspect the main unit for damage, deformation, or inlet corrosion.



Warning

Turn off the power switch and remove the power cable before inspecting the main unit.

AC adapter

Visually check there is no damage, deformation or insulation coating which is peeled off or damaged.



Warning

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

7.3 Maintenance / repair

Our products come with a repair service period of 7 years from the date of delivery. Therefore, if you wish to have your product repaired, you will need to request it within this period. However, please note that we generally do not accept repair requests for products that have been in use for more than 7 years. Furthermore, we store parts for discontinued products for a duration of 7 years after production has ceased. Please be aware that even within the repair service period, there may be cases where repair is not possible due to a lack of available parts.

We have full confidence in the quality of our products and provide them to our customers with the assurance that they can use them with peace of mind. However, depending on the usage environment and methods of use, malfunctions or defects may occur. In such cases, we recommend that you request repairs within the repair service period.

If any abnormality or failure occurs while using the unit according to this instruction manual, or if you notice any problem during your maintenance/inspection work, please contact us after checking it according to the relevant [Troubleshooting] item.

If repair is required, please contact us or our distributor in advance and send the unit back to us or our distributor.

In the case of on-site repair, a travel fee will be charged in addition to the repair cost.

7.4 Warranty

ATTO Corporation warrants all of its products under the following terms and conditions.

1. This warranty covers all new products that are sold by ATTO Corporation (hereinafter called ATTO).
2. Expendable items are not covered by this agreement.
3. Claims under this warranty are limited to defects in material and workmanship of the products.
4. Malfunction and/or damage due to neglect, abuse, operation or repair contrary to specifications and/or instructions presented by ATTO are not warranted.
5. ATTO shall not be liable to consequential damage, labor, loss or expense directly or indirectly arising from use of the products.
6. Damage due to transit is not covered by this warranty.
7. The warranty period is one (1) calendar year from a date when the products are shipped from ATTO to an original purchaser.
8. This warranty is not applied to any defect that is reported to ATTO later than one (1) calendar month from a date of warranty termination.
9. ATTO Shall supply parts to replace faulty parts of defective products under this warranty, free of charge.
10. ATTO shall repair defective products under this warranty, which cannot be repaired at field, free of charge.
11. ATTO shall replace defective products under this warranty, which cannot be repaired, free of charge.
12. Freight charges for return and replacement shipments under this warranty are shared by ATTO and a purchaser, that is one way by either party and another way by another party.
13. Warranty period of repaired products and replacement products or parts is three (3) calendar months from a date when the said products or parts are shipped from ATTO, or a remaining term of an original warranty period of the defective products, whichever lasts longer.
14. Return of the products for credit or refund is not accepted unless otherwise agreed in writing by ATTO.

8 Specifications

Product name	MyMiniVortex
Model	WSC-2800
Operating Mode	Touch (TOUCH) or continuous (ON)
Input voltage/ power consumption	DC12V, 0.6A
Dimensions	118 (W)×110 (D)×86 (H) mm
Weight	1.1 kg



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