
Instruction Manual

Compact centrifuge

WSC-2700

MyMiniSpin



6th Edition
May5th,2023



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Introduction

Thank you for purchasing ATTO Corporation's compact centrifuge "WSC-2700". This instruction manual (i.e. this document) is delivered to you together with the device so that you can make full use of the device.

Not only those of you who use this device for the first time, but also those who have used it before, should read this document carefully to understand the contents.

If you use this device for the first time, please read this document from the beginning in serial order.

In addition to how to use it, this document contains information related to maintenance, guarantee and services as well. Please keep it handy all the time to make its full use.

If you have any inquiries on your purchased product 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, please be sure to keep it for your future reference. When you relocate this device, 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 tainted, we will replace it with a new one. Please contact to the distributor you purchased the product or us (please refer to the back cover). At that time, please inform us of your product name and model. This document was created with our most careful attention; however, should you find any queries, errors or omissions, please inform us (please refer to the back cover).

Safety precautions

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

If this device is operated for the first time, it should be supervised by an experienced person who has proper knowledge and understanding of the operations and methods. In addition to first-time users, experienced users who have received specialized training should also keep the instruction manual handy and make effective use of it. In order to prevent any electric shock caused by the device or any damage to the device, please understand and follow the correct operation method shown in this manual.

If you have any questions or concerns related to the operation of maintenance or inspection, feel free to contact us (please refer to the back cover).

Safety symbols

To use this device safely and maintain the safe status, the following symbols are indicated in the instruction manual and on the device'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 device.
 Warning	This symbol indicates possibility of danger, such as death or injury, caused by ignoring the symbol and mishandling the device.
 Caution	This symbol indicates possible occurrence of physical damage caused by ignoring the symbol and mishandling the device.
	This symbol indicates prohibition.
	This symbol indicates an important matter.
	This symbol indicates a tip related to the operation.

 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 50581:2012



Indicate disposal instruction.



DO NOT dispose of this product in the trash.

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.

Danger

Power supply connection   	Do not use a deformed or corroded electrode terminal, AC adapter, power cable whose insulation coating is peeled off, or damaged power cable. Before operating this device, check and confirm that there is no damage to it. Otherwise, it may catch fire or cause electric shock due to loose connection. If there is any damage, stop using this device and contact our company (please refer to the back cover). 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.
No wet hand  	When handling this device, keep your hands dry. Do not touch AC adapter or connection terminal with wet hands. If you do, electric shock or failure may be caused. If the power supply part or AC adapter gets wet, do not use it. If you do, electric shock or failure may be caused.
Main Unit 	Do not put any debris, aggregation or clumps into this device. If you do, electric shock or failure may be caused. If the external surface of this device 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.
Maintenance 	If an error occurs or there seems to be an error or failure while this device is being used, stop using it immediately. If you find any defect at the time of inspection, do not use this device. If you do, electric shock or defect may be caused. While this device 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).
Reagents	Powerful drug, hazardous, carcinogenic substances, etc. may be used in reagent preparation and so on. Avoid direct contact with the human body. It may cause death, burns, or other harm to the human body. When using chemicals, protect yourself with gloves, masks, etc., and carefully read and follow the instruction manual attached to the chemical.

Caution

Installation 	Do not install the device on an unstable table, tilted place or a heavily vibrating place. Install it on an experimental table with horizontal, stable and solid surface. Otherwise, electric shock due to falling or liquid leakage may be caused. Do not put any object on this device. If you do, electric shock due to falling may be caused.
Main Unit 	This device is not of explosion-proof structure. Install it at the place where there is no exposure to fire or combustible gas. When taking this device 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.
Transfer 	Do not touch or move any part of the unit other than the operation panel while the unit is in operation. The electric cords may get entangled and the device may fall. When moving this device, be sure to turn off the power switch and disconnect AC adapter, and then disconnect all wiring cables.
Maintenance 	When you execute maintenance or cleaning, be sure to turn off the switch of the power supply and disconnect all lead wires. To maintain good performance and safety of this product, please ask us for periodical maintenance, inspection and calibration (please refer to the back cover).
No disassembly 	Do not disassemble or modify this device. Do not remove the 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 (please refer to the back cover). Our company will not accept any responsibility for any accident or failure caused by disassembly or modification done by yourself.

Warning

AC adapter 	If this device is used outside Japan, prepare the conversion adapter complying with the standards of the country where you use it. If a non-standard adapter is used, heat generation or ignition may occur. If you have any inquiries, please contact us .(please refer to the back cover)
Label sticker 	The label sticker shows important information for maintenance and management of the product. Do not peel it off.

Warning label (lid part)



	Warning	Do not open the lid until the rotation stops.
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Notices

Application

This device is for life science research use only. It is not for diagnostic procedures.

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 is required to submit documents accordingly and if it is 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 product, please confirm with your supplier or our customer service department in advance.

Trademarks and 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

MyMiniSpin is a device for centrifuging samples in various experiments.

It is compatible with 0.2 mL, 0.5 mL, 1.5 mL, and 2.0 mL tubes.

1.2 Principle

This device is designed to rotate a sample at high speed and to separate samples with density differences by the centrifugal.

2. Unpacking

2.1 Confirmation When 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 our company immediately. Please perform your confirmation as above at the time of unpacking within a week upon arrival of the unit. Confirmation after more than a week may result in not receiving compensation for defects or missing articles.

2.2 Product Component

This device consists of a main body and accessories.

Main body

Model	WSC-2700
Product code	4002700
Main body	MyMiniSpin

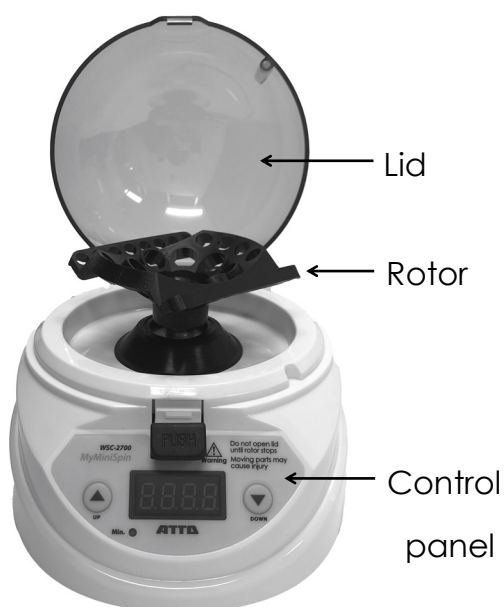
Accessories

Product name	Quantity
Instruction manual	1
0.5 mL tube adapter	8
0.2 mL tube adapter	8

3. Name and Function

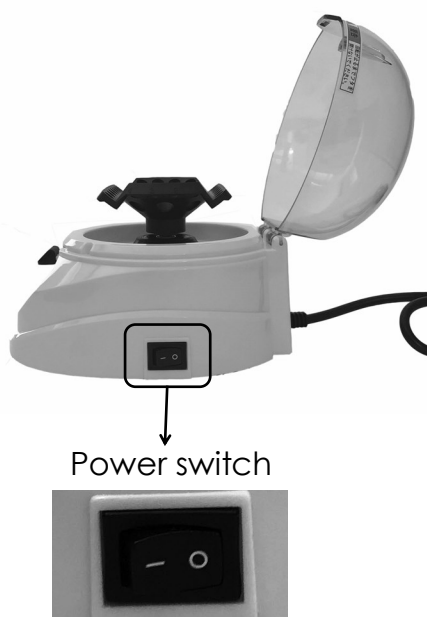
(1) Main unit

Front



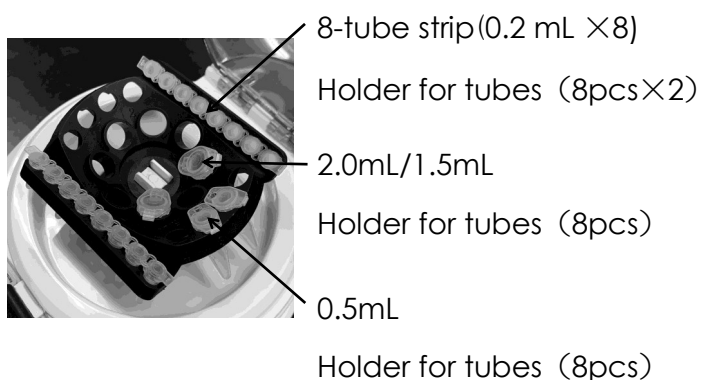
Side

There is a power switch on the side of the unit.



Rotor

Compatible with 4 types of tubes.



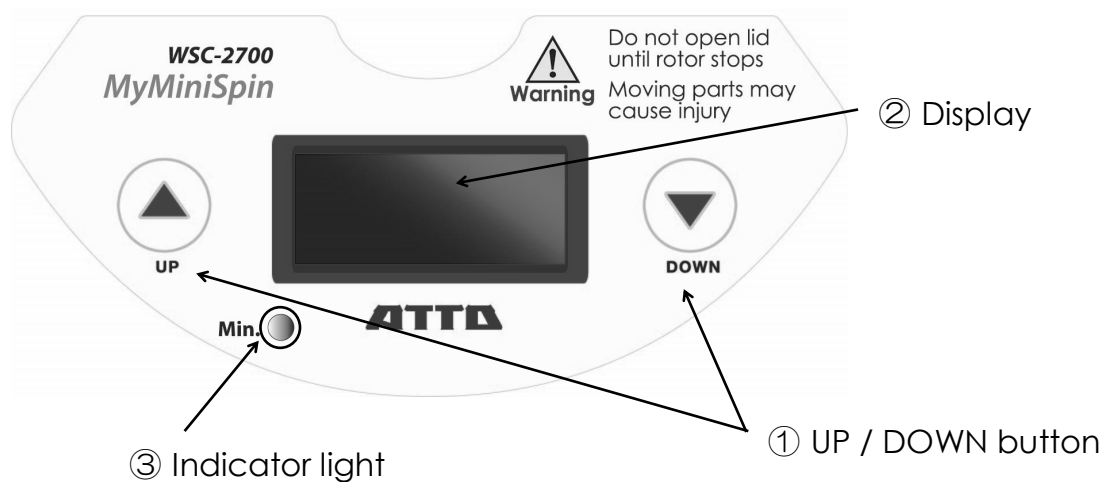
*When using 0.2-mL tubes, please use the adapter.

Back

The AC cable is located on the back of the unit and has a label sticker attached.



(2) Control panel



① UP / DOWN button

It's used when setting the timer.

Press the UP or DOWN button to increase or decrease the value.

You can change the seconds / minute by pressing and holding the UP and DOWN buttons at the same time (3 seconds or longer).

② Display

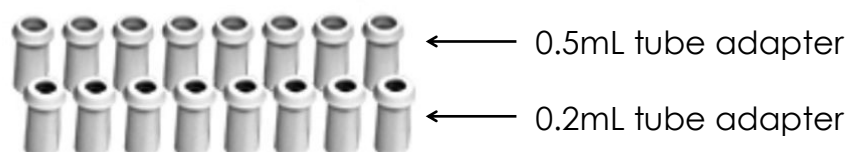
When the timer is in use, the time is counted down.

③ Indicator light

Press and hold the UP and DOWN buttons at the same time (3 seconds or longer) to turn the indicator light on or off in red.

(3) Accessories

Eight 0.5mL and eight 0.2mL tube adapters are included. The tube adapters are used by setting them in the holders for 2.0mL / 1.5mL tubes.



4. Preparations

4.1 Installation Environment

This device should be used in the following environment.

Place of use	Indoor use only
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Warning

Never install the unit in the atmosphere of flammable gases. This can cause explosion or fire since the unit is not of an explosion-proof structure. Install the unit in the environment where no flammable gas is contactable. Never install the unit in a corrosive gas atmosphere. This can cause conductor corrosion or bad connector contact in the product. This, in turn, may cause malfunction, trouble or fire. Never install the unit in an environment where a lot of dust and dirt exist. Dust and dirt will stick to the unit and can cause electrical shock, fire or other problems.

Caution

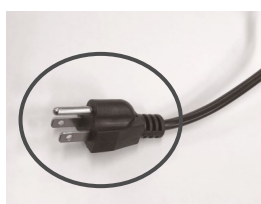
Never use the unit in areas where strong magnetic or electric field exists or where a lot of waveform distortion or noise exists. These might cause malfunction. Never install the unit where a direct sunlight hit, temperature suddenly varies or humidity is high. Never use it if condensation happens. This device cannot be used outdoors. This equipment is designed to ensure safety and performance under the following environmental conditions: ambient temperature 5°C to 30°C, relative humidity 5% to 70% (no condensation).

4.2 Installation

1. Make sure that the power switch is off (○).
2. Connect the AC cable on the back of the main unit to an outlet.



Make sure the power is off.



Connect to an outlet.

5. Operations

5.1 How to use

1. Open the lid.
2. Turn on the power switch on the side of the main unit.

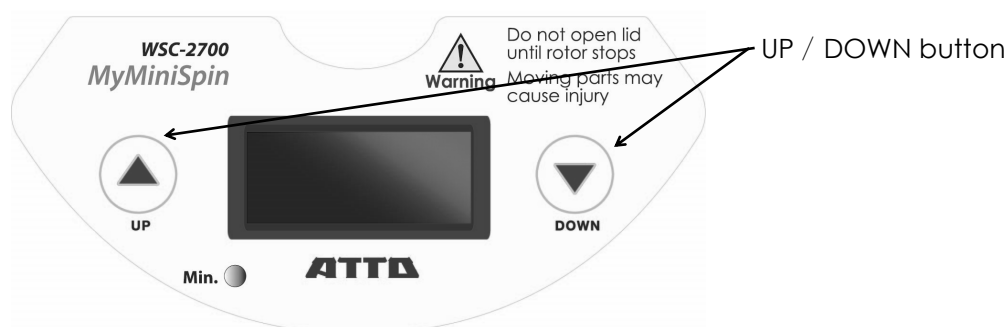
While the indicator light is lit in red, a beep sounds and "8888" appears on the display.

Warning

Do not turn on the power switch with the lid closed.
Please note that if you turn on the power switch with the lid closed, the rotation will start automatically.

3. Set the timer by pressing UP or DOWN button to increase or decrease the value.

* If the time setting is set to "0000 sec", the device will run continuously.



Warning

When setting the timer to 99min or more, use it in a low temperature room. It may get hot and result in malfunction.

4. Set the tube on the rotor. When using a 0.2mL tube, follow step 5 to use the tube adapter.



Warning

Do not use metal tubes as they exceed the load capacity. Please use resin tubes.

Warning

Do not cut 8-tube strips. The tubes may fall out of the rotor and get damaged during centrifugation.

Caution

Arrange tubes symmetrically to be an even balance.

*The diameter of each tube hole in the rotor is shown in the table below.

*Please refer to the table below to select the tube to be used.

Tube	Diameter of each tube hole	Tube diameter	Diameter of tube lid
0.2 mL	φ6.45 mm	< 6.05 mm	6.5mm
0.5 mL	φ8.15 mm	< 7.75 mm	8.2mm
1.5/2.0 mL	φ11.02 mm	< 10.62 mm	11.05mm



For 8-row tubes (0.2 mL x 8)

For 0.5 mL tubes

For 2.0mL / 1.5mL tubes

-
5. When using the supplied tube adapter, set it in the holder for 2.0mL/1.5mL tubes.



Caution

Tubes should be set symmetrically to avoid imbalance.

6. When the lid of the main body is closed, a beep sounds and rotation starts.
The time displayed on the timer starts counting down.
7. When the time is up, a "beep", "beep", "beep", "beep"... sound will be heard and the rotation will stop automatically.

*If the timer is not set, turn off the power switch on the side of the main unit to stop the rotation.



Warning

Do not open the lid until the rotor stops.
Failure to do so may result in damage or injury.

5.2 How to change the "minutes" / "seconds" of the timer

The timer setting can be selected from "min (minutes)" and "sec (seconds)".

1. Open the lid.
2. Turn on the power switch on the side of the main unit.

While the indicator light turns red, a beep sounds and "8888" is displayed.

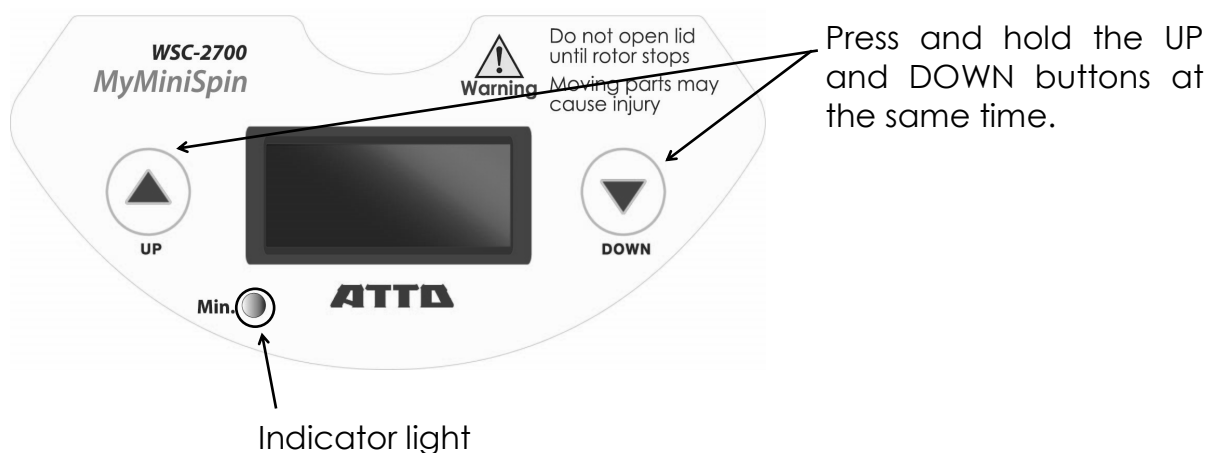
Warning

Do not turn on the power switch with the lid closed.
Note that turning on the power switch with the lid closed will automatically start the rotation.

3. Press and hold the UP and DOWN buttons at the same time (3 seconds or longer).
4. The indicator light turns red or off.

When the indicator light is red, the timer can be set in minutes.

When the indicator light is off, the timer can be set in seconds.



5. Press UP or DOWN button to increase or decrease the value to set the timer.

5.3 Operation at the end

Turn off the power switch on the side of the main unit.

6. Troubleshooting

First check the information in this section, and if you cannot resolve the problem, please check the model and serial number on the label on the back of the device and contact us or our distributor. (Please see the back cover.)

Problems	Possible causes	Possible solutions
Not being displayed on the screen.	There is a problem with the AC cable connection.	Make sure the AC cable is properly connected to the outlet. If this does not solve the problem, please contact us or our distributor. (Please see the back cover.)
No response when pressing buttons.	There is a problem with the button contact.	Please stop using the product immediately and contact us or our distributor. (Please see the back cover.)
Abnormal noise is being generated from the equipment.	Lab benches or work tables may not be level.	Please avoid installation on places such as a wobbling table, tilted location, or heavily vibrating place.
	Tubes are not set symmetrically.	Set the tubes symmetrically and in balance.
	Tubes are not set evenly.	Fill the sample tubes with the same amount of samples.
	The rotor is damaged.	Please stop using the product immediately and contact us or our distributor. (Please see the back cover.)
	The cover is damaged.	Please stop using the product immediately and contact us or our distributor. (Please see the back cover.)

7. Maintenance

7.1 Cleaning



Warning

Do not use corrosive detergents to clean the unit and accessories.

Main body

If outside of the device gets dirty, wipe gently using a soft cloth with neutral detergent diluted with water.



Warning

Please turn off the power switch and remove the power cable before cleaning the device.

AC cable

If outside of the AC cable gets dirty, wipe gently using a soft cloth with neutral detergent diluted with water. Do not use until completely dry.



Warning

Please clean the AC cable after unplugging 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 equipment. Although it depends on the frequency and duration of use, periodic inspections are recommended to maintain performance. If any of the following abnormalities are found, stop using the equipment and contact us.

Main body

Please visually check the main body for damage or deformation.



Warning

Please turn off the power switch and unplug the AC cable from the outlet before inspection.

AC cable

Please visually check that there is no peeling, scratching, damage, or deformation of the insulating film.



Warning

Please inspect the AC cable after unplugging the power plug from the outlet.

7.3 Maintenance and 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. (Please check the back cover.)

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 its products subject to the terms and conditions set forth below.

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	MyMiniSpin
Model No.	WSC-2700
Applicable tubes	1.5 / 2.0 mL tube 8pcs 0.5 mL tube 8pcs 0.2 mL tube 8pcs×2
Timer	1sec. -9999min.
Maximum rpm	6,000 rpm (2,300×g)
Noise Level	45 db or less
Input / Power consumption	AC100V, 50/60Hz, 45W
Dimensions	176 (W)×156 (D)×121 (H) mm
Weight	1.6 kg





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