
Instruction Manual

Power Supply

myPower H300

WSE-3400



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Supporting Life Research



Table of Contents

1. Introduction.....	2
1.1 Safety precautions.....	2
1.2 Purpose of use	4
2. Name and function of each parts	5
2.1 Front	5
2.2 Rear	5
2.3 Accessories	5
3. Installation	6
3.1 Installation environment	6
3.2 Cable connections.....	6
4. Operations	7
4.1 Preparations.....	7
4.2 Control interface.....	8
4.3 Setting value and starting output	9
5. Troubleshooting and Maintenance	10
5.1 Troubleshooting.....	10
5.2 Replacing fuse	11
5.3 Warranty.....	12
6. Specification	13
6.1 Specification.....	13

1. Introduction

1.1 Safety precautions

Read through this instruction manual before use, and do not use the instrument until you fully understand the contents. Never use the instrument for other purposes than those listed on this manual. Any other usages of this instrument than those listed on this manual would be strictly at your own responsibility.

Safety notation

The following signs are used on this instruction manual for your safe use and maintenance of the instrument.

Symbol	Description
 Danger	This indicates that a high risk of human death or serious injury is likely occurring if handled incorrectly or by neglecting this indication.
 Warning	This indicates that human death or injury is possible if handled incorrectly or by neglecting this indication.
 Caution	This indicates that the risk of property damage is expected if mishandled or by neglecting this indication.
	This indicates information related to the important portion.

Use precautions

These are precaution items to prevent fire, electrical shock, other type of accident and failure. Please be sure to follow and understand these items.

Danger

Grounding 	Never use this unit unless connecting the unit to the ground. There might be a risk of electrical shock or death. Use a properly grounded electrical outlet with correct voltage and current handling capacity.
Power connection 	Check visually if any deformation or corrosion exists on an electrode terminal or power plug, any blemish on the power cable, or any peel-off of the insulating sheath before actuating the unit. These might cause fire because of poor contact or electrical shock. In such a case, please contact us after stopping the use of the unit and unplugging the power plug from the outlet. Be sure to turn off the power switch, firmly hold the power plug itself, and unplug it without pulling the cable.

No wet hand 	Never operate the unit with wet hands. In addition, never touch the power plug or connecting terminal with wet hands. These can cause electrical shock or failure. Never use the unit in wet condition. These can cause electrical shock or failure.
Main body 	Never remove the top lid of the main body nor the rear panel. These can cause electrical shock or failure.
Fuse 	Turn off the power switch and unplug the power cable when you replace the fuse. This can cause electrical shock.
Main body 	Never put foreign materials into the airflow orifice. This can cause an electrical shock or failure.
Maintenance 	Quit using the unit immediately if anything abnormal happens during unit usage or if any abnormality/failure is suspected. Also, do not use the unit if you find any failure at inspection. These can cause electrical shocks or damage to the unit. Contact us if you detect any abnormality, trouble or failure.

Warning

Installation location 	Avoid installation on places such as a wobbling table, tilted location, or heavily vibrating place. Install the unit on horizontal places with safe and hard surfaces, such as a lab bench.
Main body 	This unit is not an explosion-proof structure. Install this unit away from any places with the possibility of exposure to fire or flammable gasses.
Migration 	Never move the unit during operation. Cords may get entangled, which might cause rollover. Or, cords may be damaged, which might cause fire or electrical shock. Please make sure to turn the unit power switch OFF, and pull out the power cable and all wiring cables before migration.
Carrying 	If you carry this unit, it may cause injury or equipment damage due to falling, so hold it firmly with both hands.
Maintenance 	Please be sure to turn the unit power switch OFF and pull out the power cable before performing maintenance and cleaning. These might cause electrical shock. Please ask us for periodical maintenance, inspection and calibration so as to maintain good performance and safety of the unit.
Disassemble prohibition 	Never disassemble or modify the unit. Adjustment and repair work of the product should be done by our service staff in charge. When adjustment or repair is required, please ask our company. Any accident caused by your disassembling or modification would be outside of our responsibility.

 Fuse	Never use other fuses than those specified by this manual or items written on the rear panel. Failure to follow instructions may cause fire at the time of failure.
 Seal group	Never peel off the Warning Seal. The seals indicate dangerous areas. If any seal comes off, contact us.

Caution

 Power cable	If the unit is used outside of Japan, please prepare a power cable complies with the standard of the country where the unit is used. Use of a non-standard power cable could cause excessive heat and/or fire. If you have any questions, inquire our sales agent or company.
 Dew condensation	When the unit is moved from a low-temperature area (low- temp. room, cold outdoor, etc.,) to a high-temperature area, there is possibility of condensation. If condensation happens within the unit, some parts may short out. When the unit is moved from a low-temperature area, set the unit where there is plenty of ventilation and away from direct sunlight, and turn the unit power on AFTER the unit gets to the same temperature as the room temperature.

Notice

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

Application

WSE-3400 myPower H300 is the power supply dedicated to electrophoresis unit and blotting equipment. Never use the unit for other applications.

Trademarks and copyright

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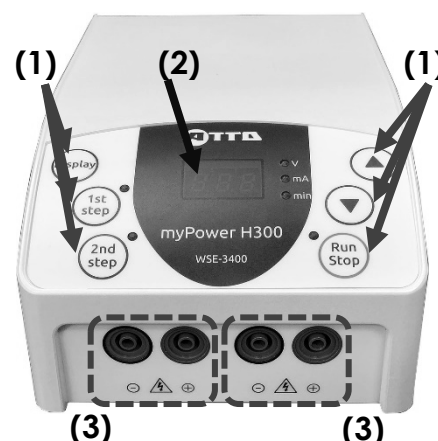
1.2 Purpose of use

ATTO myPower H300 is power supply unit for electrophoresis that can be connected to electrophoresis or blotting equipment.

2. Name and function of each parts

2.1 Front

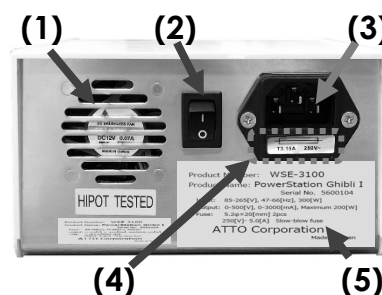
- (1) Buttons
Press buttons for setting output condition, operate start or stop.
- (2) Display
Parameter value and error message are shown.
- (3) Output terminals
Connect lead wire of electrophoresis or blotting equipment to the output terminal. Up to 2 devices can be connected to this device.
Right side is anode (+) terminal. Left side is cathode (-) terminal.



Total current value of connected electrophoresis equipment cannot go over 400mA for output, which is maximum output current of myPower H300. Pay attention when connecting multiple electrophoresis equipment.

2.2 Rear

- (1) Fan
Exhaust air for heat dissipation.
- (2) Power connector
Connect attached power cable.
- (3) Fuse holder
A fuse is stored inside.
- (4) Power switch
Power ON and OFF for myPower H300.
- (5) Nameplate
Model number, serial number, input voltage, company name, etc. are typed.



2.3 Accessories

- (1) Instruction manual
- (2) Power cable



3. Installation

3.1 Installation environment

Installation environment of this instrument is as follows.

Temperature	4 - 40°C
Humidity	20 – 90%RH (non-condensing)

Install it in a place not exposed to direct sunlight.

 Warning	Never install the instrument in the atmosphere of flammable gases. This can cause explosion or fire since the unit is not of an explosion-proof structure. Install the instrument in the environment where no flammable gas is contactable. Never install the instrument 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.
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 Caution	Never use the instrument in areas where strong magnetic or electric field exists or where a lot of waveform distortion or noise exists. These might cause malfunction.
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3.2 Cable connections

Power Cable Type

A cable attached to this device is a cable usable in Japan. Please prepare power cable that is applicable to the standard of the country where used.

The power connector of myPower H300 satisfies the following specification:

Standard	Shape
IEC 60320-C13, 250V 10A	

4. Operations

4.1 Preparations

Power Cable Connection

Confirm the power switch is OFF before connecting the cable. The sign [o] means OFF.

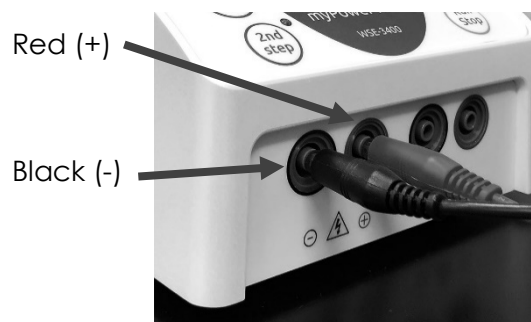
Connect attached power cable to the power connector. Connect power plug to power outlet that has the ground terminal. Insert the power plug firmly.

 Warning	Connect to power outlet with ground terminal. Never use myPower H300 without ground connection. This can cause electrical shock and accident.
 Caution	The power cable attached to myPower H300 is for Japanese domestic use. Use the power cable applicable to the standard of the country where it is used.

Connections of electrophoresis lead wires

Confirm that the power switch is OFF before connecting the cable. When the circle [o] is pressed, that means OFF.

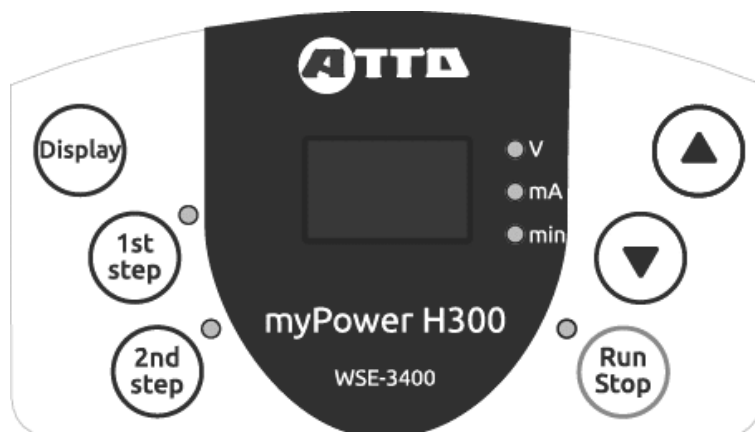
Connect the + (anode) side lead wire to the red terminal on the output terminal board located on the front side of myPower H300 and the - (cathode) side lead wire to the black terminal, respectively.



 Warning	Never use lead wire having blemish on insulation. This can cause electrical shock and accident.
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Turn on the power switch. When [I] is pressed, that means ON.

4.2 Control interface



Button function

 	Two step buttons are available. Press [1st step] and [2nd step] buttons to switch between two steps.
 ● V ● mA ● min	Press [Display] button to switch displayed value among voltage (V), current (mA) and time (min). LED light indicate your current choice. For example, if ● V is lit, it means the voltage is displayed.
 	Press ▲ to increase the value of each parameter and ▼ to decrease.
	Start or stop output.

4.3 Setting value and starting output

- (1) Turn on the power switch. When **[I]** is pressed, that means ON.
- (2) Press **[1st step]** or **[2nd step]** to enter desired STEP.
- (3) Press **[Display]** to switch among voltage (V), current (mA) and time (min).
- (4) Set the output value by pressing ▲ or ▼ button.

> For Timer OFF (continuous output) setting

Set time as "0" for timer OFF.

> For control as constant voltage (C.V.) or constant current (C.C.)

Set the other parameter to maximum value. For example, to operate under constant voltage (C.V.), set current to maximum value before running constant voltage, and vice versa.

> For only single STEP running

If you need only single STEP, set [2nd step] voltage or current as "0". 1st step will run without proceeding to 2nd step.

- (5) Press **[Run Stop]** button to start output. The LED lights up.
During running each parameter can only be checked.
- (6) Press **[Run Stop]** button again to stop output at any time if necessary.
- (7) When the run is completed, press **[Start Stop]** button to terminate a timed run, and then turn off the power switch at the rear.
- (8) The programmed settings are automatically saved into the system so the next time you turn on, the same settings as your previous running is displayed.

5. Troubleshooting and Maintenance

5.1 Troubleshooting

Trouble	Cause	Solution
No display / lights	No AC power	Check if the power supply is unplugged, or AC power source problem.
	AC power cable is not connected.	Check AC power cable connections at both ends. Use the correct cable.
	The fuse has blown.	Replace the fuse.
Repeated fuse broken	Hardware failure	Contact the distributor.
Operation stops	Electrophoresis leads are not connected to the power supply or to the electrophoresis unit(s), or there is a broken circuit in the electrophoresis cell.	After turning off the power switch, check the connection to the power supply and on your electrophoresis cell to make sure the connection is intact; check condition of wires in electrophoresis unit. Close the circuit by reconnecting the cables. Turn on the power switch and press [Run Stop] button to restart the run.
	High resistance due to incorrect buffer concentration or incorrect buffer volumes in the electrophoresis cell.	Correct the condition by making sure the buffers are prepared correctly and the recommended volume of buffer is added to the electrophoresis unit.
Error message [Er1] is displayed.	Over current (400 mA limitation reached)	Check if the buffer concentration is appropriate. Excessive buffer concentration may cause over current issue. To clear the error message, press [Run Stop] button again.

Error message [Er2] is displayed.	Over voltage (500 V limitation reached)	Press [Run Stop] button to clear the error message. Contact the distributor if the problem persists.
Error message [Er3] is displayed.	Thermal limitation reached (output voltage < 10 V)	(1) Check the connections. (2) If [Er3] error message persists, the problem may be caused by internal fan failure. Contact the distributor.
Message [nLd] is displayed.	No load is detected.	(1) Check the connections. (2) Check the buffer condition / buffer level.
Alarm message [AL1] is displayed.	Maximum wattage (60 W) of power reached	Warning message for reference

5.2 Replacing fuse

For additional fuses, contact the distributor.

To replace the fuse:

(1) Turn off the power switch at the rear of myPower H300 and detach the power cable.

(2) Open the fuse holder located under the power connector by inserting a small flat-blade screwdriver into the slot above the fuse holder. Turn the screwdriver to gently pry open the fuse component.

⚠ The fuse compartment will not open with the power cable in place.

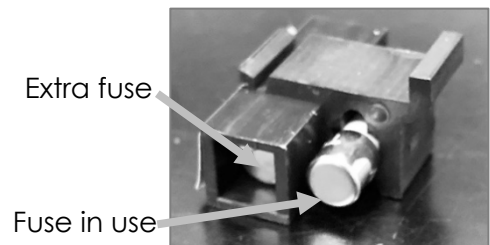
(3) Pull the fuse holder out of the compartment and inspect the fuse. If the fuse is burned or there is a break in the fuse element, replace the fuse with an identical type of fuse (**T3.15AH250V**) as provided in the fuse holder.

(4) Place the fuse holder back into the compartment.

(5) Snap the cover closed.



Fuse holder



5.3 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.

6. Specification

6.1 Specification

Product name		myPower H300
Model number		WSE-3400
Output range	Voltage	10 - 300 V (60 W, Max.)
	Current	10 - 400 mA (60 W, Max.)
	Wattage	60 W
Set range	Voltage	10 - 300 V / 1 V increment
	Current	10 - 400 mA / 1 mA increment
Output terminals		2 pairs parallel output
Output control		Constant voltage or constant current
Display		3-digit LED displays voltage, current or time.
Timer		1 - 999 min with alarm or continuous
Program		2-step program
Safety features		No load detection; shrouded plugs and sockets
Operating conditions		4 - 40°C, 20 - 90 %RH, no condensation
Input		100 - 240 VAC, 50/60 Hz, 2 A
Dimensions		140 mm(W) x 191 mm(D) x 84 mm(H)
Weight		Approx. 1 kg



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