



User Manual of APS15-3A Maintenance Power Supply

SHENZHEN ATTEN TECHNOLOGY CO., LTD

Thank you for choosing our product. Please read this manual carefully before using this product.

Copyright Information

The design of this product (including internal software) and its accessories is protected by national laws. Any infringement of our rights shall be subject to the legal sanctions. When using this product, the user shall consciously abide by the national laws.

Common Symbol Description

Thank you for use our product. Please read this manual carefully and pay attention to the relevant warnings and notices mentioned in the manual before using this product.

	Warning	Noncompliance may cause death or serious injury to the user.
	Notice	Noncompliance may cause injury to the user or substantial damage to the object.

User Prerequisites

We request that the user should have common sense of life and the basic electrical operating knowledge before using this product. The minor shall use this product under the guidance of professionals or guardians.

[Notice]: To avoid damaging the machine and keep the operating environment safe, please read this manual carefully and keep it properly for future reference before using this product.

Safety Precautions

The user shall follow the following basic precautions to avoid electric shock or personal injury or fire and other hazards when using this product.

To ensure personal safety, the user shall use the parts and accessories recognized or recommended by ATTEN, otherwise it will cause serious consequence!

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Warning

- Do not use this product near inflammables.
- Before use, please ensure that the power line is earthed reliably to avoid electric shock.
- Do not use this product if the user is not under the guidance of relevant personnel, inexperienced or has poor knowledge preparation.
- Do not use this product in the humid environment or operate this product with wet hands to prevent electric shock.
- Do not change this product and its accessories without permission.
- Please replace the product components with ATTEN original components.
- Be sure to turn off the power switch when the user temporarily needs not to use or stops using this product.
- There is high voltage in the product. Do not disassemble the product without permission from professionals.

Notice

- Avoid using this power supply in the environment above 40°C. Reserve enough space for heat emission holes on the rear panel to dissipate heat.
- Confirm whether the current and voltage as well as the specification of power line meet the requirements.
- Before the device is connected to the power supply, please turn off the power switch.
- Do not refit this product and its accessories, which will cause the loss of warranty qualification and the damage to the product.
- Do not place heavy objects on the device.
- Do not violently knock this product and its accessories in use, which will damage the product.

Disclaimer

The company shall not be responsible for any personal injury or property loss caused by user's failure to follow relevant instructions, natural disasters and other force majeure, or individual behaviors and other non-quality problems in the use process of this product.

This manual is sorted, compiled and issued by SHENZHEN ATTEN TECHNOLOGY CO., LTD according to the latest product characteristics. The company will make the subsequent changes to product and manual without prior notice.

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Product Introduction

APS series power supply is designed for the needs of electronic training schools, communication maintenance technicians and related engineering research and development personnel. The current best-stability series voltage stabilization scheme is adopted for this product, and the digital MCU chip is used for control. With very high stability and low ripple, simple operation and control, and complete protection functions, it provide the user with convenient and reliable high quality power supply.

Product Specification

Power input: refer to the voltage identification at the tail of the product (other input voltage can be customized).

Rated value/dimensions/weight:

Model	Voltage Regulation Range	Current Regulation Range	Input Power	Weight
APS15-3A	0-5V/0-15V	0-0.5A/0-3A	124VA	2.4Kg
Dimensions : (L) 215mm *(W) 88mm *(H)150mm				

Protection function: overvoltage protection/overcurrent protection (cut-off mode, delay start)/overheat protection.

Other functions: locking function, voltage coarse/fine adjustment, sound function, 5V/15V voltage switching, 0.5A/3A current switching.

Cooling mode: temperature controlled fan, forced air cooling.

Operating environment: 0°C~40°C, <80% (indoor use).

Storage temperature and humidity: -10°C~70°C, <70%.

Packing list: host × 1, power line × 1, user manual × 1.

Technical Parameters

Constant Voltage mode (CV):

Output voltage range: 0 to rated voltage continuously adjustable.

Power supply variation rate: ≤ 0.01%+3mV.

Load variation rate: ≤ 0.01%+3mV (rated current ≤ 3A).

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Recovery time: $\leq 120 \mu\text{s}$ (50% load variation, minimum load of 0.5A).
 Ripple and noise: $\leq 0.5\text{mVrms}$ (5Hz~1MHz) (rated current $\leq 1\text{A}$).
 Ripple and noise: $\leq 1.0\text{mVrms}$ (5Hz~1MHz) (rated current $>1\text{A}$).
 Temperature coefficient: $\leq 300\text{ppm}/^\circ\text{C}$

Read-back display:

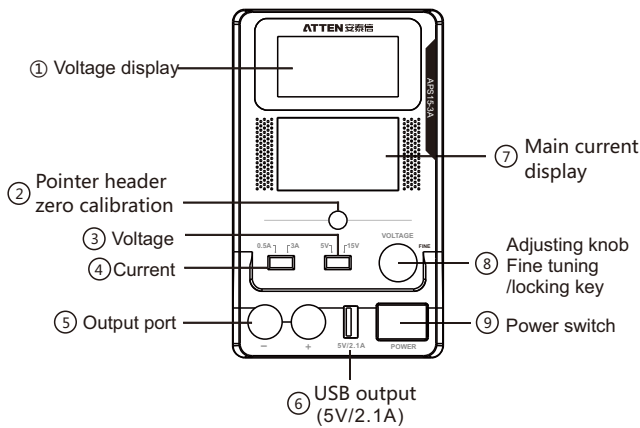
Display: double 3-bit LCD with blue background and white words (main voltage and USB current display)
 Accuracy: LCD header: $\pm(0.5\% \text{ reading} + 2 \text{ bits})$;
 current pointer header: CLASS-2.5

USB interface parameters:

Voltage: fixed 5V output ($\pm 5\%$ accuracy)
 Current: maximum 2.1A (overcurrent protection, cut-off output)

Product Panel Diagram

Front Panel Diagram



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4. Voltage range setting

1. When the voltage is switched to the position 5V, the host provides the maximum limited voltage output of about 5.1V.
2. When the voltage is switched to the position 5V, the host provides the maximum limited voltage output of about 15.5V.

5. Parameter locking operation

1. Under normal working conditions, long press the knob for about 3S to lock the voltage output parameters.
2. In the locking state, the locking icon will be displayed on the LCD. At this time, the adjusting knob is inactive.
3. Long press the knob again for about 3S to release the parameter locking. At this time, the voltage can be adjusted normally.

6. Sound ON/OFF

1. Turn on the power switch to turn on/off the sound function while pressing the knob.
2. When the sound function is turned off, the alarm sound will also be heard if the current exceeds the range.

Operating Instructions

1. Precautions before use

AC power input: AC power input shall be within the range of rated voltage $\pm 10\%$ 50/60hz.

Warning: the protective conductor of the power line must be earthed to avoid electric shock.

Instrument installation: Avoid using this power supply in the environment above 40°C . Reserve enough space for heat emission holes on the rear panel to dissipate heat.

Notice: To avoid damage to the instrument, do not operate it in the environment above 40°C .

2. Output voltage regulation

1. Turn on the power switch to make the product work normally.
2. Adjust the knob to the right to increase the output voltage value.
3. Adjust the knob to the left to reduce the output voltage value.
4. Press the adjusting knob forward to change fine/coarse adjustment status.
5. Conduct step adjustment at 0.01V in the fine adjustment state and 0.1V in the fine adjustment state.

3. Output current regulation

1. When the current switch is switched to the position 0.5A, the host can provide the current output capacity of 0.5A.
2. When the actual output current exceeds 0.6A at the position 0.5A, the power supply will automatically conduct overrange protection. At this time, the power supply will temporarily shut off the output for about 2S and make a buzzing alarm to prompt the user to switch positions.
3. When the current switch is switched to the position 3A, the host can provide the current output capacity of 3A.
4. When the actual output current exceeds 3.2A at the position 3A, the power supply will automatically conduct overrun protection. At this time, the power supply will temporarily shut off the output for about 2S and make a buzzing alarm to prompt the user to remove the load.

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