



**LB-50-350A**

## **Load Bank User Manual**



**Eagle Eye Power Solutions LLC**

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# Catalog

Catalog .....	2
1 Important Safety Instructions .....	3
2 Product Overview .....	4
2.1 Foreword.....	4
2.2 Technical parameter.....	4
2.3 Measuring Control Function.....	5
2.4 Protection.....	5
3 Appearance.....	7
4 Installation and Operation .....	9
4.1 Installation.....	9
4.2 Start Operation .....	10
4.3 Power Off.....	10
5 Service.....	11

# 1 Important Safety Instructions

- ◆ Before using the machine, please read the User's Manual carefully, and operate the machine according to the manual which should be kept properly for future reference.
- ◆ Please take attention to the section start with “Caution” and “Warning”.
- ◆ This product should be located and used in the clean, safety environment before using please check if the machine is in good condition.
- ◆ This machine must be grounded before power on.
- ◆ Do not switch on the power supply during the cable connect and disconnect..
- ◆ Make sure correctly connect the positive and negative polarity to battery bank. Do not turn on the power until the cable is firmly connected.
- ◆ The machine should working in the environment that without corrosive, acid, alkali, inflammable and explosive dangerous goods.
- ◆ Make sure the working environment is clean and well-ventilated indoors. No obstructions are allowed within 3-5 meters front of the device.
- ◆ If use the machine outdoor, must avoid the hot sun, thunder, lightning, raining, water, vibration, against wind, and other unsafe environment to avoid damage the unit.
- ◆ After power on, do not touch any inside components or electric objects.
- ◆ Please let the fan continue to run 3-5 minutes after work, and shutdown the machine and disconnect the cables after the remaining heat is dissipated.



Dangerous: Please strictly following the instructions during the operating, any losses caused by the contravention of the correct operation methods, precautions and warnings will not be covered under the warranty!

## 2 Product Overview

### 2.1 Foreword

Welcome to the **LB-50-350A Load Bank**, which provides users with an efficient and reliable choice to meet the needs of performance and load testing of the equipment under test. The load bank is composed of two parts: measurement and control and load, including DC load bank, data acquisition and display, load/load control system, heat dissipation device, auxiliary control and so on.

### 2.2 Technical parameter

Technical Parameters	
Rated Voltage /Frequency	Maximum voltage 35V; can discharge 30V for a long time
Rated current AC/DC35V	AC/DC35V, 350A.
Load Step AC/DC35V	Resistive Load: 7 steps, 50A, 50A, 50A, 50A, 50A, 50A, 50A Noted: 1, DC30V, can be a long time 300A discharge; 2, when the access voltage is lower than the rated voltage, the load bank current changes according to Ohm's law
Load accuracy (per gear)	±5%
Load Tolerance (overall)	±3%
Three-phase unbalance	≤3%
Current measurement accuracy	±1A
Voltage measurement accuracy	±0.5%
Display Precision	0.5 class
Control Power Supply	External AC single-phase AC115V 50/60Hz.
Wire Connection	Load bank input——terminals Control power input——3-pin socket

Insulation Class	F Class
Working Mode	Continuous Working
Cooling	Forced air cooling, side air in, side air out
Transportation	Bring handles and pads
Casing Color	Pantone Cool Gray 11 C
Dimension	About 489mm×524mm×286mm(W*L*H)
Weight	About 20kg
<b>Operating Environment Parameter</b>	
Workplace	indoor
Work Temperature	-15℃~+50℃
Relative Humidity	≤95%
Altitude	≤2520M
Atmospheric Pressure	86~106kPa

## 2.3 Measuring Control Function

(1) Load test: can load any combination of current within the rated value, measure and display the voltage, current and other parameters of the device under test.

(2) Control mode: Manually control the load.

(3) Local control: The load is equipped with a local control panel and divided into a number of current gears, which can be loaded/unloaded through the current button switch.

(4) Local instrument display data: Through the local measuring instrument can display voltage, current and other data.

## 2.4 Protection

(1) Short circuit protection: when short circuit, fuses in the load bank can insure to unload automatically.

(2) Over voltage protection: when input voltage is over the safe value, it can unload automatically and give an alarm.

(3) Overheating protection: when temperature is over the safe value, it can unload automatically and give an alarm

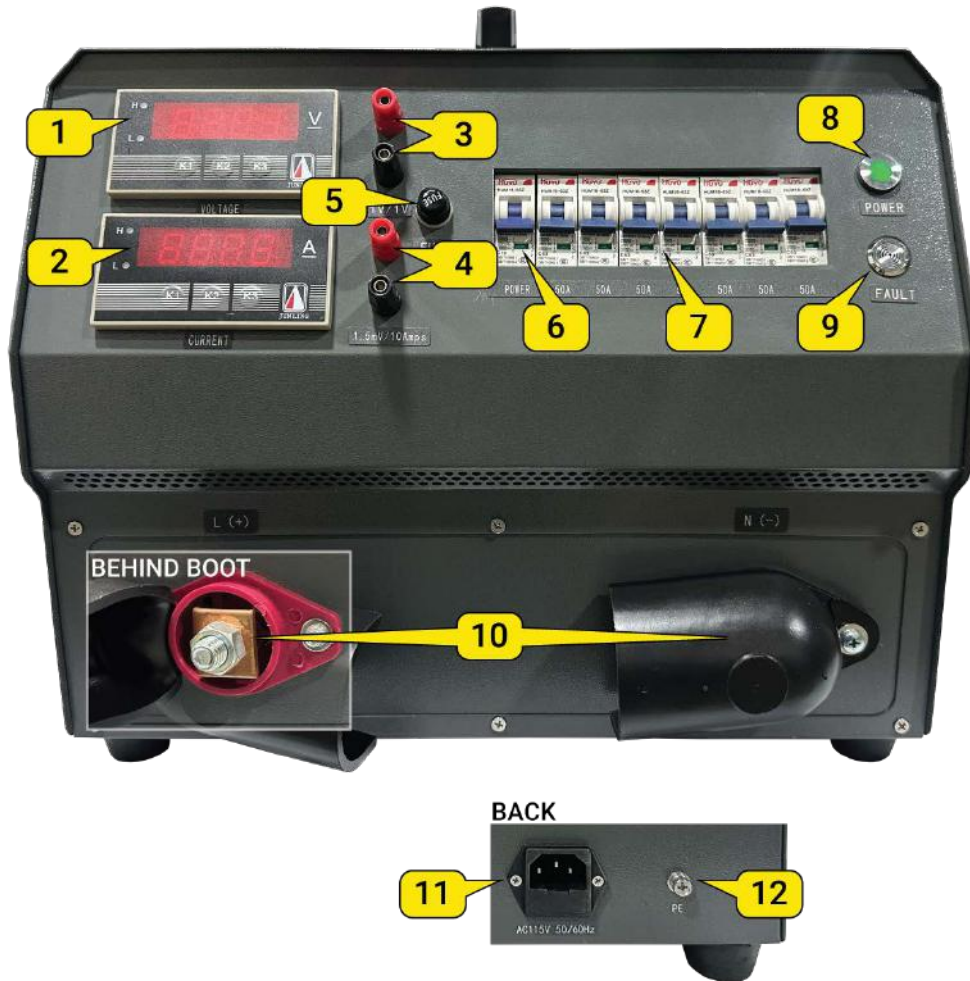
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(4) Fan interlock protection: load bank cannot add any load when working power of fan is off.

(5) Grounding protection: avoiding enclosure with electric, keep safe from electric shock.

### 3 Appearance



- 1. **Voltage measuring instrument:** Displays voltage measurement data.
- 2. **Current measuring instrument:** Display current measuring data.
- 3. **Voltage sampling line:**
  - +: Red, used to collect the positive voltage
  - : Black, used to collect the negative voltage
- 4. **Current sampling line:**
  - +: Red for collecting positive current
  - : Black, used to collect negative current
- 5. **Insurance:** For replacing fuses.
- 6. **Power switch:** Pull the switch upward, the indicator lights up, and the power fan of the device enters the running state.

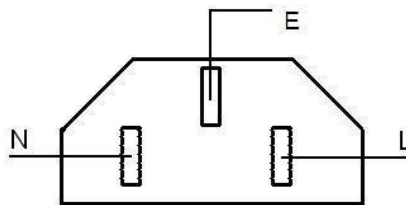
**7. Load steps:** 7 steps, 50A, 50A, 50A, 50A, 50A, 50A, 50A. Turn on the switch and load according to the corresponding gear value.

**8. Power indicator:** When the indicator is on, it indicates that the power supply of the device is turned on.

**9. Fault:** Red indicator light, accompanied by alarm sound, indicating that the machine is in a protected state

**10 Load power input port:** L (+) and N (-) phases from left to right, connected to the output terminal of the device to be tested through a test cable.

**11. Power:** input 3-pin AC 115V, 50Hz/60Hz power. See interface diagram as below:



**12.  $\frac{1}{\equiv}$  Grounded terminal:** This terminal is used to ground the device.


⊗ Caution: Because of the technology upgrading, the specification of interface and spare parts may change, the description above is for reference only, subject to the physical product.



## 4 Installation and Operation


### 4.1 Installation


**4.1.1 Install ground wire:** Connect and fasten one end of wire to ground terminal, the other end should be grounded firmly.

 Dangerous: Make sure the machine is firmly grounded to protect operator and the machine.

**4.1.2 Install testing cable:** The machine is connected to the device under test through the load input terminal, and the test cable is connected to the input terminal of the machine and the output terminal of the device under test. Connect both ends of the cable marked with red to the L(+) phase of the load power input terminal of the local device and the positive terminal of the output terminal of the device to be measured, and connect the N (-) phase of the cable to the negative terminal of the output terminal of the device to be measured. and then fix it with screw.

 Dangerous: Don't make connection if power on !

 Dangerous: The cable must withstand the current passing through it during working!

 Dangerous: Terminals must be connected firmly, otherwise overheat would happen.

 Dangerous: Must not reverse polarity.

**4.1.3 Install power cords:** Input one end of 3-pin plug of power cord into 3-pin socket in the machine, the other end into 115VAC 50/60Hz socket to provide electricity for this machine.

**4.1.4 Install the voltage sampling line:** If additional voltage acquisition is required, plug the red voltage sampling line into the red positive +. The plug of the black voltage sampling line is inserted into the black negative -, the other end is connected to its own voltmeter.

**4.1.5 Install the current sampling line:** If you need to collect additional current, insert the plug of the red current sampling line into the red positive +. The plug of the black current sampling line is inserted into the black negative -. The other end is connected to its own ammeter.

## 4.2 Start Operation

- (1) Start the device to be tested: After all cables are correctly connected, power on the device to be tested.
- (2) Start the machine: Push the < power switch > of the machine upward, then the machine starts and the fan enters the running state.
- (3) Loading: Calculate the gear value to be loaded according to the test needs, press the corresponding < gear switch > on the control panel, then the machine works according to the corresponding gear value.

## 4.3 Power Off

- (1) Shutdown: Turn down the < power switch > of the machine, and the fan continues to run for about 3 minutes, blowing the waste heat in the chassis, and stopping the fan operation.
- (2) Disconnecting: After shutdown, first remove the working power cord of the machine, and turn off the output power supply of the device to be tested, and then remove the test cable, and finally remove the remaining cables to restore the machine to its original state before work.

## 5 Service

**5.1** The machine is under warranty for one year.

**5.2** If you have any issues, please contact Eagle Eye for support.

**5.3** Do not open the machine without prior instruction, or the warranty will be void.

### Contact Us

If you have any questions or comments, please contact Eagle Eye Power Solutions. You can reach our team any of the following ways.

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