



**LB-50-750A**

## **Welding Load Bank User Manual**



# Catalog

Catalog .....	1
1 Important Safety Instructions .....	2
2 Product Overview .....	3
2.1 Foreword.....	3
2.2 Technical Parameters .....	3
2.3 Measuring Control Function.....	4
2.4 Protection.....	4
3 Installation.....	5
3.1 Appearance .....	5
4 Installation and Operation .....	7
4.1 Installation.....	7
4.2 Simple Operation.....	8
4.3 Power Off.....	8
5 After-sale Service .....	9

# 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 be used in environments 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 environments to avoid damage to the unit.
- ◆ After powering 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 operation, 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

The LB-50-750 welding load bank provides an efficient and reliable load for troubleshooting, calibrating or demonstrating welding power sources and generators.

### 2.2 Technical Parameters

Model	LB-50-750 Load Bank
Rated Voltage	Maximum voltage is 50 VAC/VDC Can discharge for a long time at 50V.
Rated Current	750A at 50 VAC/VDC
Load Steps	Switch 1: 25, 50, 75, 100, 125, 150A Switch 2: 100, 200, 300, 400, 500, 600A  When the connected voltage is lower than the rated voltage, the load bank output current changes according to Ohm's law.
Load Tolerance (each step)	±5%
Load Tolerance (overall)	±3%
Current Measurement Accuracy	±1A
Voltage Measurement Accuracy	±0.5%
Display	0.5 Class
Input Power	External AC single-phase 115 VAC 50 / 60Hz.
Wire Connection	Load Bank Input --- terminal block Control Power Input --- 3 pin socket
Insulation	F
Working Mode	Continuous Working
Cooling	Forced air cooling, horizontal air intake and exhaust

Transportation	Base with casters (4 in), side with handles.
Color	Pantone Cool Gray 11 C
Weight	About 80kg
Operational Site	Indoor
Ambient Temperature	-15°C - +50°C
Relative Humidity	≤95%
Altitude	≤2520 meters
Atmospheric Pressure	86~106kPa

## 2.3 Measuring Control Function

- (1) Load test: it can load any combined current within the rated value, and measure and display the voltage, current and other parameters of the tested equipment.
- (2) Control mode: manual mode to control the load.
- (3) Local control: the load is equipped with a local control panel, and is divided into a number of current gears, which can be added through the current button switch / load reduction control.
- (4) Local instrument display data: the voltage, current and other data can be displayed through the local measurement instrument.

## 2.4 Protection

- (1) Emergency Stop: you can press the Emergency Stop switch in the panel, when the load bank is locked in this state, it cannot add any load.
- (2) Overvoltage Protection: when input voltage is over the safe value, it can unload automatically and give an alarm.
- (3) Short Circuit Protection: when short circuit, fuses in the load bank can insure to unload automatically.
- (4) Overheating Protection: when temperature is over the safe value, it can unload automatically and give an alarm.
- (5) Fan Interlock Protection: load bank cannot add any load when working power of fan is off.
- (6) Chassis Ground Protection: to avoid the danger of electric shock when operating, the load bank is equipped with special ground protection terminal.

## 3 Installation

### 3.1 Appearance



**3.1.1 Voltage meter:** Displays the measured voltage data.

**3.1.2 Voltage sampling line:**

+: Red, used to collect the positive voltage

-: Black, used to collect the negative voltage

**3.1.3 Current meter:** Displays the measured current data.

**3.1.4 Current sampling line:**

+: Red for collecting positive current

-: Black, used to collect negative current

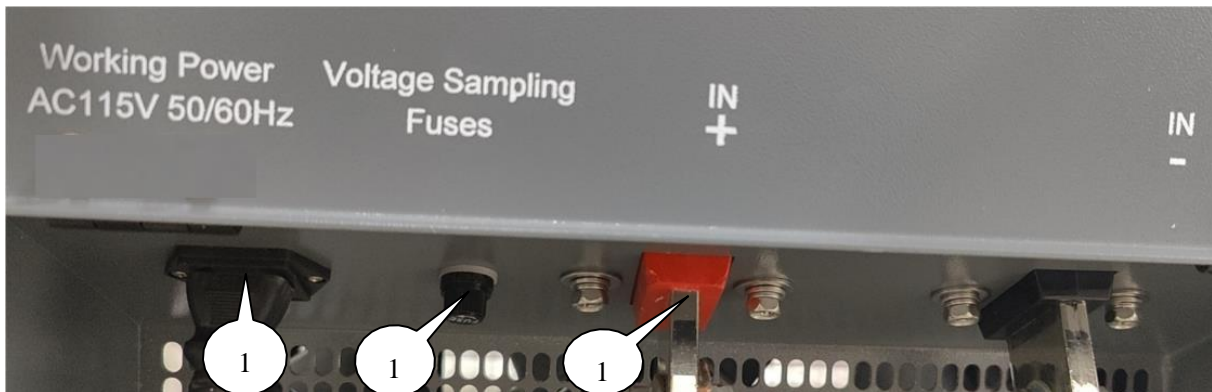
**3.1.5 Gear switch:** There are six gear positions, namely 25,50,75,100,125,150A, the switch points to that gear, and the device is loaded according to the corresponding gear.

**3.1.6 Gear switch:** There are six gear positions, namely 100,200,300,400,500,600A, the switch points to that gear, and the device is loaded according to the corresponding gear.

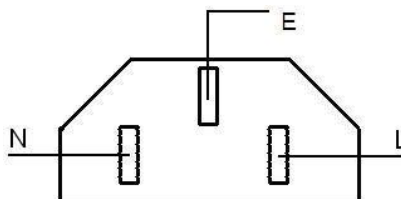
**3.1.7 Fault:** Red indicator light, accompanied by alarm sound, indicating that the machine is in a protected state

**3.1.8 Fan power switch:** Press the switch, the indicator is on, and the fan is running.

**3.1.9 Power switch:** Pull the switch upward to power on the device.



**3.1.10 Working Power:** A three-core power cable connects to a single-phase AC power supply of 115V at 50Hz or 60Hz to supply power to the device. See interface diagram as below:



**3.1.11 Voltage Sampling Fuses:** For replacing fuses.

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

## 4 Installation and Operation

### 4.1 Installation

**4.1.1 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 IN(+) 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 IN (-) 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 Simple Operation

**(1) Start the device to be tested:** After all cables are correctly connected, power on the device to be tested.

**(2) Start the equipment:** Pull the < power switch > upward, the equipment is powered on to start, press the < fan power switch > the fan starts to run.

**(3) Loading:** Point the < gear switch > to the corresponding gear value, and the device loads according to the gear value.

## 4.3 Power Off

**(1) Shutdown:** First turn off the < gear switch >, the device stops loading, let the fan continue to run for 3 minutes, turn off the < fan power switch >, the fan stops running.

**(2) Disconnect:** After shutdown, first remove the working power cord of the machine, turn off the output power supply of the device to be tested, then remove the test cable, and finally remove the remaining cable to restore the original state before the machine works.



Dangerous: Please turn off the fan power switch after the remaining heat dissipation!



Dangerous: Must not make disconnection when power on!

## Service

- 1 The machine is under warranty for one year.
- 2 If you have any issues, please contact Eagle Eye for support.
- 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.

**Phone:** 1-877-805-3377

**Email:** [info@eepowersolutions.com](mailto:info@eepowersolutions.com)

**Website:** [eepowersolutions.com](http://eepowersolutions.com)

### **Mailing address:**

Eagle Eye Power Solutions, LLC

6306 Eastwood Court Mequon, WI 53092

**Eagle Eye Power Solutions LLC**

6306 Eastwood Court • Mequon, WI 53092 • 1-414-962-3660

[info@eepowersolutions.com](mailto:info@eepowersolutions.com) • [eepowersolutions.com](http://eepowersolutions.com)

20241209-1