

VONBLAY SSLC109V55

VONBLAY SANS SSLC109V55 54V Smart Charger Instruction Manual

Model: SSLC109V55

1. INTRODUCTION

This manual provides essential instructions for the safe and efficient operation of your VONBLAY SANS SSLC109V55 54V Smart Charger. This charger is specifically designed for charging 48V Li-ion battery packs used in electric bikes and electric scooters. It features smart charging technology for high efficiency and includes multiple protection mechanisms. Please read this manual thoroughly before use and retain it for future reference.

2. SAFETY INFORMATION

WARNING: Improper use can lead to electric shock, fire, or serious injury.

- This charger is for indoor use only.
- Ensure the charger is compatible with your battery type (48V Li-ion) and connector (XLR Head). Using an incompatible charger can cause damage or safety hazards.
- Do not use the charger if your battery voltage is below 35.7V, as this is dangerous and can damage the battery.
- Keep the charger away from water, moisture, and extreme temperatures.
- Do not disassemble or modify the charger. Refer all servicing to qualified personnel.
- Always connect the DC terminal to the battery first, then plug in the AC power cable.
- After charging is complete, unplug the AC terminal first, then unplug the DC terminal.
- Unplug both DC and AC terminals when not charging or after charging is complete.
- The charger may become warm during operation. Ensure adequate ventilation and do not cover it.

3. PRODUCT OVERVIEW

The VONBLAY SANS SSLC109V55 charger is a compact and efficient unit designed for 48V lithium-ion

battery packs.

Package Contents:

- 1 x VONBLAY SANS SSLC109V55 54V 2A Lithium Battery Charger
- 1 x US AC Power Wire

Key Features:

- **Input Voltage:** 120VAC 50/60HZ
- **Output:** 54.6V / 2.0A
- **DC Connector:** XLR Head (Microphone Connector)
- **Protections:** Over Output Voltage Protection (OVP), Over Output Current Protection (OCP), Short Circuit Protection (SCP)
- **Charging Mode:** Constant Current - Constant Voltage - Trickle (Floating Charge) intelligent three-mode charging
- **Efficiency:** $\geq 85\%$ (full load)



Figure 1: Front view of the SANS 54V Smart Charger, showing the SANS logo and the XLR output connector.



Figure 2: Back view of the SANS 54V Smart Charger, displaying the product label with model number SSLC109V55, input/output specifications, and safety certifications. The AC input port and XLR output cable are visible.



Figure 3: Close-up view of the XLR Head (Microphone Connector) output plug, showing its three pins. This is the DC connector for the battery.

4. SETUP

1. **Verify Compatibility:** Before connecting, ensure your battery pack is a 48V Li-ion type and has an XLR Head (Microphone Connector) charging port. Incompatibility can cause damage or safety hazards.
2. **Placement:** Place the charger on a stable, flat surface in a well-ventilated area, away from direct sunlight, heat sources, and flammable materials.
3. **Connect to Battery:** First, connect the XLR Head DC connector of the charger securely into the charging port of your 48V Li-ion battery pack.
4. **Connect to Power:** Next, plug the US AC power wire into the charger's AC input port, and then plug the other end into a standard 120V AC wall outlet.

IMPORTANT: Always connect the DC terminal to the battery first, and then the AC power cable to the wall outlet.



Figure 4: The SANS 54V Smart Charger shown with its detachable AC power cord and the integrated XLR output cable, ready for connection.

5. OPERATING INSTRUCTIONS

Charging Process:

1. Once the charger is correctly connected to both the battery and the AC power source, the charging process will begin automatically.
2. The charger employs a three-mode intelligent charging system: Constant Current, Constant Voltage, and Trickle (Floating Charge) to optimize battery life and charging efficiency.

LED Indicator Status:

- **LED 1 (Red):** Indicates that the charger is powered on and receiving AC input.
- **LED 2 (Red):** Indicates that the battery is currently being charged.
- **LED 2 (Flashing Red):** Indicates that the battery is nearing full charge.
- **LED 2 (Green):** Indicates that the battery has been fully charged. The charger will switch to trickle charge mode.

CAUTION: If LED 2 turns green immediately after connecting the battery, disconnect the charger and measure your battery voltage. If the voltage is below 35.7V, do not use the charger; the battery may be damaged or require specialized recovery.

Disconnection:

1. After charging is complete (LED 2 is green), first unplug the AC power cable from the wall outlet.
2. Then, unplug the XLR Head DC connector from the battery.
3. When not in use, ensure both AC and DC terminals are unplugged.

6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the charger. Do not use liquid cleaners or solvents.
- **Storage:** Store the charger in a cool, dry place when not in use. Avoid extreme temperatures and humidity.
- **Inspection:** Periodically inspect the charger and cables for any signs of damage. Do not use if damaged.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Charger not working / No LED indication	<ul style="list-style-type: none">• AC power not connected or faulty outlet.• Charger or cable damage.	<ul style="list-style-type: none">• Ensure AC power cable is securely plugged into both charger and a working wall outlet.• Inspect charger and cables for visible damage. Do not use if damaged.
LED 2 immediately turns green after connecting battery	<ul style="list-style-type: none">• Battery is already fully charged.• Battery voltage is too low (below 35.7V) or battery is faulty.	<ul style="list-style-type: none">• Verify battery charge level.• Disconnect charger and measure battery voltage. If below 35.7V, do not use the charger; the battery may be damaged or require specialized recovery.
Charger gets very hot during charging	<ul style="list-style-type: none">• Lack of ventilation.• High ambient temperature.• Prolonged charging at high current.	<ul style="list-style-type: none">• Ensure the charger is placed in a well-ventilated area.• Avoid charging in direct sunlight or hot environments.• If overheating persists, discontinue use and contact support.
XLR connector does not fit	<ul style="list-style-type: none">• Incompatible DC connector type.	<ul style="list-style-type: none">• This charger uses an XLR Head connector. Verify your battery's charging port matches this type.

8. SPECIFICATIONS

Feature	Detail
Model Number	SSLC109V55
Input Voltage/Current	AC120V / 2.0A (50/60Hz)
Output Voltage/Current	54.6V / 2.0A
DC Connector	XLR Head (Microphone Connector)
Net Weight	710g (1.51 pounds)
Battery Protection	SCP (Short Circuit Protection), OVP (Over Output Voltage Protection), OCP (Over Output Current Protection), OTP (Over Temperature Protection)
Charging Mode	Constant Current - Constant Voltage - Trickle (Floating Charge)
Charging Efficiency	≥85% (full load)
Working Temperature	-5 °C ~ +40 °C (23°F ~ 104°F)
Storage Temperature	-40 °C ~ +70 °C (-40°F ~ 158°F)
Product Dimensions	6.69 x 3.27 x 1.97 inches
Compatible Devices	Scooter, E-Bike (with 48V Li-ion battery and XLR connector)

9. WARRANTY AND SUPPORT

VONBLAY offers a guarantee for this product. If you are not satisfied with your purchase, you may be offered a full refund or replacement. For specific warranty terms, return policies, or technical support, please refer to your purchase documentation or contact the seller directly.