



SUNGENSYSTEMS
GENERATION FUTURE

LifeBridge2 User Manual

All in one



This manual specifically covers how to operate the LifeBridge2.

LifeBridge2
User Manual

Amendment Record

Revision Number	Update Summary	Updated By	Date of Issue
1.0	First Release	W Skosana	17/06/2025

Contents

1	Introduction	4
2	Operator Safety Precautions	5
3	LifeBridge2 Specifications	8
4	LED Indications	8
5	LifeBridge2 Setup	9
5.1	Verify Package Contents	9
5.2	Connect the AC Cable	9
6	Operating Instructions.....	10
6.1	Set the LifeBridge2 to Inverter Mode.....	10
6.2	Set LifeBridge2 to Charge Mode.....	10
6.3	Switch the LifeBridge2 Off	10
7	Inverter Operation Modes and Alarm Conditions	11
8	Cleaning and Maintenance	12

List of Figures

Figure 1: Cable.....	9
Figure 2: LifeBridge2 Input.....	9
Figure 3: Status Indicator.....	10

List of Tables

Table 1: LifeBridge2 Specifications	8
Table 2: LED Indications.....	8
Table 3: LifeBridge2 Package Checklist.....	9
Table 4: Inverter Operation Modes and Alarm Conditions.....	11

1 Introduction

The LifeBridge2 power backup solution keeps your essential appliances running during power outages. It is equipped with an inverter, and when connected to mains power, it automatically charges the internal battery. During an outage, it switches instantly to battery power, providing silent and reliable backup power.

This all-in-one unit presents a cost-effective and efficient way to manage power disruptions, offering an extended power supply. It is easy to use, with a user-friendly control panel to adjust settings.

This manual provides instructions on how to operate your backup solution. It also includes safety instructions, package contents, and LifeBridge2 specifications.

2 Operator Safety Precautions

Read the safety instructions carefully before using your LifeBridge2 to ensure safe and proper operation.



WARNING Equipment Damage

- Inspect equipment for any damage or hazards before operating.
-



DANGER Electrical Safety Precautions

- Ensure that the equipment is used under the correct ambient conditions. Never operate the product in a wet or dusty environment.
 - Ensure that the required AC supply voltage does not exceed the product's upper limit.
 - Ensure adequate free space for ventilation around the product and ensure that the ventilation vents are not blocked.
-



WARNING Temperature

Do not operate the trolley outside of 0–35° C.



WARNING Environment

The operating environment must be free of dust and moisture.



WARNING Sunlight

Avoid direct sunlight exposure.



WARNING Ventilation

Use the trolley in a well-ventilated area. Do not place it in a cupboard or any other enclosed space.



Usage

This trolley is strictly for indoor use only.



WARNING Important Safety Precautions

- This product has battery energy storage, even if the main AC supply is off, the AC output terminals will still have dangerous voltage.
-



WARNING Safe Handling Precautions

- Do not remove the LifeBridge2 front plate or operate the product if any panels have been removed.
-



DANGER Maintenance Safety Precautions

- Never use the product where there is a risk of gas or dust explosions. Always comply with the LifeBridge2 manufacturer's safety instructions.
-



WARNING Warning Signs and Nameplates

- Do not remove or damage warning signs as they contain critical safety information.
 - The nameplate contains essential product parameters; do not remove or damage them.
-



DANGER

Personnel Safety Precautions

- This appliance is not intended for use by people (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.
 - Do not lift LifeBridge2 without assistance.
-



WARNING

Transportation and Storage Precautions

- No liability can be accepted for any transport damage if the equipment is not shipped in its original packaging.
 - Store the product in a dry environment, the storage temperature must be between 0 °C and 30 °C.
-



Product Scrapping

- When disposing of the energy systems, do not treat them as regular waste. Return to the manufacturer (fees may apply) or contact a local authorised recycling agency.
-

3 LifeBridge2 Specifications

The table below outlines the LifeBridge2 specifications.

Table 1: LifeBridge2 Specifications

Basic Parameter	Specification
Inverter Output Power	1.2kW
Output Voltage	230VAC
Max AC Output Current	5A
Max AC Input Current	5A
Battery Voltage	12VDC
Battery Capacity (Ah)	2X 100Ah
Battery Capacity (kWh)	2.56 kWh
Battery Chemistry	Life PO4
Inverter Charging Power	600W
Input Voltage	230VAC
Weight	50kg
Warranty	5 Years

4 LED Indications

The following table describes the LED characteristics of the LifeBridge2 settings.

Table 2: LED Indications

Parameter	Status Colour and Meaning
Inverter	When activated, the inverter LED emits a green light. This indicates its operational status. • The inverter is turned on and supplies power to the load.
Charge	When activated, the charge LED emits a yellow light. • This indicates the battery is in charging mode.
Alarm	When activated, the alarm LED emits a red light. This alerts you to the following conditions: • Overload • Low battery voltage • High inverter temperature

5 LifeBridge2 Setup

5.1 Verify Package Contents

Refer to the LifeBridge2 package checklist in **Error! Reference source not found.**to ensure all items are present before installation.

Table 3: LifeBridge2 Package Checklist

Item	Number
LifeBridge2	1
AC Cable	1(2m)
LifeBridge2 User Manual	1

5.2 Connect the AC Cable

The LifeBridge2 comes with a 2m AC cable that must be connected between the LifeBridge2 and a power socket to provide power.

To connect the AC cable to the LifeBridge2, follow the steps below.



Figure 1: Cable

1. Connect the 2m AC cable to the LifeBridge2 input (220V).



Figure 2: LifeBridge2 Input

2. Plug the AC cable into the power source (for example, a wall outlet).
3. Set the power supply from the power source ON.

6 Operating Instructions

6.1 Set the LifeBridge2 to Inverter Mode

This mode supplies power to the AC output using the main power supply and charges the battery. Follow the steps below to set the LifeBridge2 to inverter mode.



Figure 3: Status Indicator

1. Turn the LifeBridge2 control switch to the "Inverter" position.
2. The inverter will turn ON, and the "Inverter" LED will illuminate green. After turning ON the inverter, the LED may not illuminate immediately. Wait a few seconds for the LED to illuminate.

6.2 Set LifeBridge2 to Charge Mode

This mode only charges the battery; it does not provide power to the AC output from the inverter. Follow the steps below to set the LifeBridge2 to Charge mode.

1. Turn the LifeBridge2 control switch to the "Charge" position.
2. The battery charger will operate if mains voltage is present.
3. The LifeBridge2 will start charging, and the "Charge" LED will illuminate yellow.



When using the charge-only function, ensure that the switch is set to the "Charge" position. This prevents the inverter from turning ON if the mains voltage is lost, which could drain the battery.

6.3 Switch the LifeBridge2 Off

To switch OFF the LifeBridge2, do the following.

1. Turn the LifeBridge2 control switch to the OFF position (O) to stop the battery or inverter from operating.

7 Inverter Operation Modes and Alarm Conditions

The table below outlines the inverter operation modes and alarm conditions.

LED Legend

-  LED Off
-  LED Flashes
-  LED Illuminated (Solid)

Table 4: Inverter Operation Modes and Alarm Conditions

Parameter	Settings
 Alarm  Charger  Inverter	Inverter ON and Powering Load: The inverter is turned on and supplies power to the load.
 Alarm  Charger  Inverter	Inverter ON and Powering Load: The inverter is turned on and supplies power to the load. Pre-Alarm Conditions: The inverter will alert to the following conditions: - Overload - Low battery voltage - High inverter temperature
 Alarm  Charger  Inverter	Inverter OFF: The inverter is turned off due to the following alarm conditions: - Overload - Low battery voltage - High inverter temperature - DC ripple voltage is too high
 Alarm  Charger  Inverter	Charger ON: The AC input voltage is passed through to the output. The charger operates in float mode, maintaining the battery charge.
 Alarm  Charger  Inverter	Inverter flashes: - AC input is passed through to the output. - The charger current is zero. - The inverter is on and supplies power to the load (Power Assist mode) Assists AC input with additional power (if needed)

 Alarm  Charger  Inverter	Inverter ON (ESS Mode): The AC input voltage is passed through. The inverter is on and supplies power to the load and sends excess power back to the mains.
 Alarm  Charger  Inverter	Charge ON: The AC input voltage is passed through. The charger operates in bulk mode and absorption mode.
 Alarm  Charger  Inverter	Charger ON: AC input is passed through. The charger operates in Float mode and Storage mode.

8 Cleaning and Maintenance

LifeBridge2 cleaning tips.

1. Clean up spills with a dry microfiber cloth immediately to prevent electric shock.
2. Avoid using abrasive cleaners or scrubbers, as they can damage the LifeBridge2 surface.
3. Check that the vent on the side of the LifeBridge2 is clean to ensure proper airflow and prevent grease buildup.