# RITE-POWER

## PORTABLE BATTERY POWERED GENERATORS

RITE-POWER 1750 / 1750x2 / 3850 / 5250 / 7700 / 8000
750W / 2500W / 4000W | 110V / 230V

# Operator's Manual


Product Resources

**This user manual covers the Rite-Power 1750 / 1750x2 / 3850 / 5250 / 7700 /8000 industrial portable battery powered generators with the following product options:**
**110V | 230V | Type F | T60309 sockets**



RITELITE (SYSTEMS) LTD

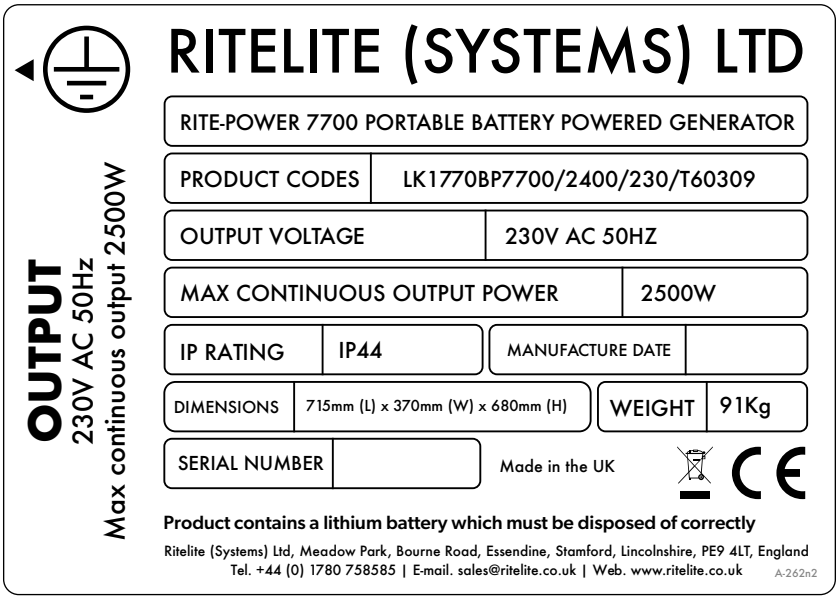
# IMPORTANT INFORMATION ABOUT YOUR RITE-POWER PORTABLE BATTERY POWERED GENERATOR

Use this page to record important information about your RITE-POWER unit.

| | |
|---|---|
| **UNIT PRODUCT REFERENCE** | |
| **UNIT SERIAL NUMBER** | |

This information can be found on your RITE-POWER data plate which is found next to the mains outlet socket on the side of the units.

NOTE: Below is an example of a RITE-POWER data plate.




You will be required to supply the products serial number when contacting Ritelite (Systems) Ltd or one of Ritelite's approved dealers about parts and service.

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# Section 1: INTRODUCTION & APPLICATIONS FOR USE

The RITE-POWER generator is designed as an industrial portable power generator supplying continuous AC mains power up to 750W or 2500W or 4000W for equipment requiring 230V AC 50hz or 110V AC 60hz, depending on model chosen.

It uses bespoke Lithium batteries with a dedicated battery management system to supply a pure sine wave inverter producing a clean reliable supply, powering most equipment up to 750W or 2500W or 4000W (depending on model).

It is housed in a ruggedised waterproof case with industrial input and output sockets for charging and taking power from the unit. Note some options include the charger contained within - on these connect the supplied mains input cable for recharging.

In addition, a display on the outer case indicates run times based on the current load, recharge time based on the current charger connected and other information pertaining to the battery voltage, current, state of charge and capacity. A single switch turns the system on and off and contains a red warning LED to indicate any fault conditions including low battery supply, over temperature, overload and short circuit.

Some models are fitted with a battery isolator switch. Turn off when not in use to prevent unnecessary battery discharge. Turn on for operation, Isolator can be switched off if only recharging is required.

All users must read, understand and obey any instructions and information contained herein these operating instructions before use. Only trained or competent personnel should use the RITE-POWER generator.

This manual should always stay with the RITE-POWER generator.

## APPLICATIONS FOR USE

The RITE-POWER generator is designed for use in the following applications only. It should not be used for any other purpose. If in any doubt about applications for use, please contact either Ritelite (Systems) Ltd or Ritelite (Systems) Ltd's distributor for more information.

- Powering resistive load equipment up to a max continuous load of 750W (1750 and 1750x2 models), 2500W (3850, 5250 and 7700 models) or 4000W (8000 models).
- Powering capacitive load equipment up to a max continuous load of 750W (1750 and 1750x2 models), 2500W (3850, 5250 and 7700 models) or 4000W (8000 models).
- Avoid Powering Inductive loads (Items with motors in) or limit their load to 500W Max (200W for 1750 and 1750x2 models or 800W Max for 8000 models). Note some loads may fail to run at all from the RITE-POWER Generator or cause the inverter system within the generator to behave abnormally causing it to shut down, if this happens disconnect the load and don't attempt to retry.

**⚠WARNING**

**Failure to follow the instructions and safety rules in this manual may result in death or serious injury.**

## Section 2: SAFETY RULES

### It is important that every user understands and observes the safety rules before setting up or using the RITE-POWER Portable Battery Powered Generator.

**The Manufacturer, Ritelite (Systems) Ltd cannot anticipate every possible circumstance that might involve a hazard. The warnings in this manual and on labels affixed to the RITE-POWER generator will therefore not cover every eventuality. If using a procedure or operating method not specifically recommended by the manufacturer then the user must verify that it is safe for others and that it does not make the equipment unsafe.**

**Throughout this manual and on labels on the RITE-POWER generator, DANGER, WARNING and CAUTION blocks are used to alert personnel to special instructions about a particular operation that may be hazardous if performed incorrectly or carelessly. Observe them carefully. Their definitions are as follows:**

| ⚠ DANGER | ⚠ WARNING | ⚠ CAUTION |
|---|---|---|
| Indicates a hazardous situation which, if not avoided, will result in death or serious injury. | Indicates a hazardous situation which, if not avoided, could result in death or serious injury. | Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. |

**These safety alerts cannot eliminate the hazards that they indicate. Common sense and strict compliance with the instructions within this manual are essential to preventing accidents.**

## ⚠WARNING

**When using the RITE-POWER generator indoors or outdoors, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury including the following:**

**a)** **Ensure the IP rating of the connecting plug to coupler application is suitable for the prevailing conditions.**

**b)** **Read and understand the implications from the MSDS (Material Safety Data Sheet) for the product, for both use and transport/ shipping. The MSDS can be viewed the following link or by scanning the QR code on the right: https://ritelite.co.uk/product-resources/rite-power/**

**c)** **Do NOT allow the RITE-POWER generator to become submersed under water or allow any liquid to enter inside the product.**

**d)** **Use only with an extension cord appropriate for outdoor use.**

**e)** **Do NOT use damaged cables or connectors.**

**f)** **All cables and equipment must be double insulated.**

# GENERAL SAFETY RULES & POTENTIAL HAZARDS WHEN SETTING UP AND USING THE RITE-POWER PORTABLE POWER GENERATOR

## FALL HAZARDS

- Do NOT place the RITE-POWER generator anywhere it could fall on to personnel.
- Do NOT stand on the RITE-POWER generator or use it as any form of step.

## TIP OVER HAZARDS

- Where ground or the area is uneven place the RITE-POWER generator on its base to ensure it can't fall over.
- Prior to setting up check the area for any possible hazardous conditions.
- Do NOT place ladders or scaffolding against any part of the RITE-POWER generator.
- Do NOT use the RITE-POWER generator on a moving or mobile surface without strapping it down to prevent unexpected movement.

- Use the integrated handles or optional trolley (SLK1770BP/TROLLEY or SLK1770BP/TROLLEY/HC) to safely carry/move the RITE-POWER generator (for models 3850, 5250, 7700 and 8000).
- Do NOT use the RITE-POWER generator for any purpose other than that for which it is designed.

## ELECTROCUTION HAZARDS

- Do NOT allow the inside of the RITE-POWER generator to come into contact with water or any other liquids.
- Ensure the RITE-POWER generator is not being set up in a potentially explosive environment – the RITE-POWER generator is not an ATEX approved product.
- The RITE-POWER generator is not designed to be submersed under water.
- Do NOT use if any parts become significantly damaged which may compromise the IP rating of the product.
- Do NOT use if any damage to the sockets on the product occurs.
- If any significant damage occurs the RITE-POWER generator must be returned to Ritelite (systems) Ltd or one of its authorized dealers for repair.
- Do NOT use plugs or cables that are cut or damaged in any way.
- Do NOT connect the RITE-POWER generator to any other mains supply system such as a grid or generator supply, it is not designed for grid tie systems, it will damage the unit.
- Do NOT allow minors or persons of reduced competency to use the RITE-POWER generator, it is NOT a toy.
- Do NOT connect the RITE-POWER generator charger between its charge input and mains outlet sockets, it will damage the unit.

## BODILY INJURY HAZARDS

- It is recommended that the user wears gloves whilst manoeuvring or connecting up the RITE-POWER generator.
- In slippery or uneven terrain, it is recommended that two people manoeuvre the product at all times.
- The RITE-POWER generator is designed to be simple to operate by one person however there may be situations where it is recommended that two people manoeuvre the product.
- Do not manoeuvre the RITE-POWER generator product for long distances in extreme temperatures.
- Where possible the RITE-POWER generator should be set up away from personnel or moving vehicles.

## CRUSHING HAZARDS

- Ensure the RITE-POWER generator is set up on a firm and horizontal flat surface.
- Keep hands and fingers away from any potential pinch points.
- Never place the RITE-POWER generator above personnel where it could fall on them.

## COLLISION HAZARDS

- Use common sense and planning when transporting/carrying the RITE-POWER generator on any incline or slope.
- On slippery or uneven terrain, it is recommended that two people manoeuvre the product at all times.
- Make sure when loading the RITE-POWER generator into a vehicle or trolley that it is securely mounted/retained so it cannot fall off or move in such away that it could harm other items or personnel.

## DAMAGED MACHINE HAZARDS

- Do NOT use a damaged RITE-POWER generator or one that isn't working properly.
- Conduct a thorough pre-operation inspection prior to each use.
- Be sure that all labels are in place and legible.
- Do NOT use if there are any visible damaged parts. Contact your original point of purchase or Ritelite (Systems) Ltd to arrange for spares or repair options.
- Do NOT use any type of abrasive or strong chemicals to clean the RITE-POWER generator.
- Do NOT attempt to defeat / modify any of the wiring or protection fuses.

## IMPROPER USE HAZARD

- Never leave an RITE-POWER generator unattended unless a full risk assessment for the application it is being used for has been undertaken by a competent person. Unauthorized personnel could attempt to operate the RITE-POWER generator without proper instruction potentially causing injury to themselves or others.
- The RITE-POWER generator is to be used only for its prescribed purpose. Any use other than that mentioned is considered to be a case of misuse.
- The user/operator, and not the manufacturer shall be liable for any damage or injury resulting from such cases of misuse.
- It is imperative to observe the local accident prevention regulations.
- The same applies for the general rules of occupational health and safety.
- The manufacturer is not liable for indirect consequential damage and financial loss.
- The manufacturer shall not be liable for any changes made to the device nor for any damage resulting from such changes.
- The RITE-POWER generator is not designed to be setup/used on a live public highway.

## Section 3: TECHNICAL SPECIFICATIONS

| RITE-POWER MODEL | | KEY SPECIFICATION |
|---|---|---|
| 1750 |  | 1750 watt hour battery capacity<br>750W continuous power<br>Pure sine-wave inverter energy<br>110V / 230V options<br>3 charger options<br>22kg one person lift<br>Dimensions: 57 x 36 x 24cm<br>Rated IP65 |
| 1760x2 |  | 3500 watt hour battery capacity<br>750W continuous power<br>Pure sine-wave inverter energy<br>110V / 230V options<br>3 charger options<br>36kg two person lift<br>Dimensions: 58 x 40 x 30cm<br>Rated IP65 |
| 3850 |  | 3850 watt hour battery capacity<br>2500W continuous power output<br>Pure sine-wave inverter energy<br>110V / 230V options<br>3 charger options<br>52kg<br>Dimensions: 72 x 37 x 47cm<br>Rated IP44 |
| 5250 |  | 5250 watt hour battery capacity<br>2500W continuous power<br>Pure sine-wave inverter energy<br>110V / 230V options<br>3 charger options<br>Built-in charger option<br>57kg two person lift<br>Dimensions: 68 x 34 x 68cm<br>Rated IP44 |
| 7700 |  | 7700 watt hour battery capacity<br>2500W continuous power output<br>Pure sine-wave inverter energy<br>110V / 230V options<br>3 charger options<br>91kg<br>Dimensions: 72 x 37 x 68cm<br>Rated IP44 |
| 8000 |  | 7700 watt hour battery capacity<br>4000W continuous power output<br>Pure sine-wave inverter energy<br>110V / 230V options<br>3 charger options<br>96kg<br>Dimensions: 74 x 39 x 75cm<br>Rated IP44 |

Custom battery generator options are available, these may differ in specification to the above.

## PHYSICAL

Case Material: Lightweight NK-7 resin (1750, 1750x2)
Powder coated aluminium (3850, 5250, 7700, 8000)
Protection Class: IP65 (1750, 1750x2) IP44 (3850, 5250, 7700, 8000) - (Subject to the product being set up vertically on its supporting feet and not submersed in liquid).
Operating ambient temperature range: 0 deg - +30◦C
Recommended storage temperature: 0 to +25◦C

## ELECTRICAL

Output - 110V 60HZ 750W, 2500W or 4000W Max, or 230V 50HZ 750W, 2500W or 4000W Max AC
(depending on model selected)
Output voltage tolerance +/- 5%
THD < 3%
Efficiency > 90%

**Mains output socket**

CEE 110V 16A 3P IP67 Socket
or
CEE 230V 16A 3P IP67 Socket
or
SCHUKO OUTLET SOCKET 250V 16A 3P IP68 -F

## CHARGING

Via CEE 32A 2P IP67 Socket – use only the following Ritelite (Systems) Ltd model range – SLK350CH, SLK750CH & SLK1000CH.

**Note** this socket is only for charging and must NOT be used for discharging or any other purpose than the sole connection of the SLK350CH, SLK750CH & SLK1000CH model chargers.

**Note** some models are fitted with a battery isolator switch. Turn off when not in use to prevent unnecessary battery discharge. Turn on for operation, Isolator can be switched off if only recharging is required.


Isolator knob can be removed to prevent unauthorised operation.

## PROTECTION SYSTEMS

- Short Circuit Protection – The RITE-POWER Generator will shut down until the fault is removed. It will signal this by flashing the red LED continuously and a beeper will be heard.
- Overload Protection – The RITE-POWER Generator will shut down until the load is reduced. It will however allow small overloads up to 120% for short periods of time up to a minute. It will signal this by flashing the red LED continuously 5 times which will then be repeated and a beeper will be heard until the fault condition is removed.
- Over Temperature Protection – The RITE-POWER Generator will shut down until it has cooled sufficiently to allow it to function again It will signal this by flashing the red LED continuously 4 times which will then be repeated and a beeper will be heard until the fault condition is removed.
- Low Battery Voltage – The RITE-POWER Generator will shut down until the battery has been recharged sufficiently It will signal this by flashing the red LED continuously and a beeper will be heard until the unit is switched off or recharged.
- Low Battery Capacity Shut Off – The RITE-POWER generator has shut down due to insufficient battery capacity. It will signal this by flashing the red LED continuously twice which will then be repeated and a beeper will be heard until the unit is switched off or recharged.
- Automatic shut down - The RITE-POWER Generator will automatically switch the inverter output off if no load or a small load is detected after 12 hours. Switch power button off then on to reset unit to resume normal function.
- Over Voltage Protection – The RITE-POWER Generator will shut down if the voltage from the battery/charger rises above a particular threshold, if this happens this would suggest a permanent fault in the charging system or an incompatible charger has been connected, the issue should be investigated by a competent person – please contact Ritelite (Systems) Ltd or its authorised distributor. It will signal this by flashing the red LED continuously 3 times which will then be repeated and a beeper will be heard until the fault condition is removed.

***Note*** *in most cases the inverter will automatically reset itself after a fault condition has been removed, in some cases it may be necessary to switch off then back on the power switch to reset the unit.*

The RITE-POWER generator is fitted with an appropriate 110V or 230V 30mA RCBO to add an additional layer of protection over that mentioned above. However, all these protection systems can't mitigate against all dangers and situations. Please see the HSE document 482/2 https://www.hse.gov.uk/foi/internalops/ocs/400-499/oc482_2.htm which should be strongly considered and the appropriate risk assessments made to protect all users and those likely to come in to contact with the mains power generated by the RITE-POWER generator. There is particular onus on regular inspection of cables, plugs, sockets and equipment connected by a competent person to make sure any likely hazards are significantly reduced. Appropriate cables, plugs, sockets and equipment must be used for the environment in which the RITE-POWER generator is to be used.

## GUIDANCE ON EARTHING AND PROTECTING USERS

The RITE-POWER battery generator references the neutral to the earth system. This allows the RCBO fitted help protect users as much as reasonably possible in the event of a fault occurring with cables and/or equipment connected to the output.

In addition, there is an external earth point (Next to the outlet socket) on the product that can be connected to true earth using a suitable recognised earth cable, please seek the advice of a qualified electrician if this is to be done. Feasible methods for true earth connections are:

1) An earth rod driven to a depth of not less than 1 metre.
2) The earth terminal of an adjacent fixed installation.
3) Permanent Structural steelwork.
4) Exposed reinforcement bars in concrete foundations or structures.
5) A suitable metal structure known to be earthed.

It should be stressed that it is paramount to use equipment and cables suitable for the environment they are to be used in to make sure a user can be afforded the maximum protection against the likelihood of electrical shocks especially in harsh environments where cables and equipment are subjected to far more physical damage.

Consideration should be given for environments where water is present or could be present from rain or other liquids from elsewhere. Equipment and cables, plugs and sockets should be examined regularly for signs of damage, both physically or through water ingress. Regular PAT (Portable Appliance Testing) should be done according to the associated risks in the environment the equipment is to be used.

The RITE-POWER Generator and equipment powered from it should be inspected before and after use and those inspections documented. If any damage or concerns are highlighted, then the RITE-POWER Generator and/or equipment must be taken out of service and marked up accordingly so it can't be used until repair/inspected by a suitable qualified person.

## Section 4: SETTING UP THE RITE-POWER GENERATOR

Inspect the proposed area for use.

An inspection of the proposed area in which to set up the RITE-POWER generator is necessary to ensure it is suitable for safe operation. This inspection should be performed by the operator prior to using the RITE-POWER generator.

The area should be free from moving vehicles, machinery, pedestrians or other factors which may mean the RITE-POWER generator could form a hazard.

Set the RITE-POWER generator up in such a way that it cannot obstruct walkways or areas that form emergency exit routes.

Do not leave unattended if there is potential for minors or non-competent persons to tamper with the RITE-POWER generator whilst in use.

**⚠WARNING**

**Operators should be aware of the following possible hazardous situations. The operator should also remember these hazards, watch and avoid them while moving, setting up and operating the RITE-POWER generator.**

- **Forming a trip hazard**
- **Mains electricity at 110V AC or 230V AC (depending on model) is produced by this product.**
- **Minors or non-competent persons**
- **Debris either on proposed site or on route to site**
- **Inadequate surface support to withstand the RITE-POWER generator weight**
- **Water which could allow the RITE-POWER generator to be submersed**
- **All other possible unsafe conditions**

# Section 5: OPERATING INSTRUCTIONS

Do not use the RITE-POWER generator for any purpose other than that for which it is designed – as a portable mains electricity generator.

If more than one operator is expected to set up or use a RITE-POWER generator at different times, each operator is required to follow all safety rules and instructions in the operator's manual. That means every new operator should perform a pre-operation inspection and function tests before using the unit.

## 5a) PRE-OPERATION INSPECTION

**Always perform a pre-operation inspection.**

The Pre-operation inspection is a visual inspection performed by the operator prior to each use of the RITE-POWER generator. This inspection is designed to discover if anything is obviously wrong with a unit prior to use.

A damaged or modified RITE-POWER generator must never be used. If any damage is discovered the RITE-POWER generator must be removed from service until it has been repaired and appropriate clear labelling added to warn and prevent its use.

Maintenance and repairs can be executed only by authorised personnel. If any person maintaining or repairing the device is in any doubt, they should contact their supplying dealer or Ritelite (Systems) Ltd.

Check the following parts or areas for any signs of damage or missing parts.

- Cables (for kinks, frays, abrasions, bare conductors showing)
- Plugs and Sockets for physical damage
- Catches and locking mechanisms.
- Make sure the case is free from cracks or areas of damage where water could enter
- Make sure all labels and warnings are present and readable on the product as detailed on the following pages.

## RITE-POWER 1750

RITE-POWER
1750 PORTABLE BATTERY POWERED GENERATOR

**RECHARGE AFTER USE**
**DO NOT LEAVE FOR EXTENDED PERIODS IN A DISCHARGED STATE**
**USE ONLY WITH CORRECT CHARGER**

ON/OFF

Ensure the unit is switched off after use to prevent unnecessary battery discharge

PRODUCT INFO

**RITELITE (SYSTEMS) LTD**

| | | | |
|---|---|---|---|
| RITE-POWER 1750 PORTABLE BATTERY POWERED GENERATOR | | | |
| PRODUCT CODE | SLK1770BP | | |
| OUTPUT VOLTAGE | 230V AC 50HZ | | |
| MAX CONTINUOUS OUTPUT POWER | 750W | | |
| IP RATING | IP65 | MANUFACTURE DATE | |
| DIMENSIONS | 565mm (L) x 360mm (W) x 235mm (H) (EXCLUDING SOCKETS) | WEIGHT | 22Kg |
| SERIAL NUMBER | | | |

Made in the UK

Ritelite (Systems) Ltd, Meadow Park, Bourne Road, Essendine, Stamford, Lincolnshire, PE9 4LT, England
Tel. +44 (0) 1780 758585 | E-mail. sales@ritelite.co.uk | Web. www.ritelite.co.uk

CHARGER INPUT
USE APPROVED RITELITE SLK350CH, SLK750CH OR SLK1000CH CHARGER ONLY (29.4V DC MAX)

OUTPUT
230V AC 50Hz

**READ INSTRUCTIONS BEFORE USE**
**RISK OF ELECTRIC SHOCK**

WARNING: Hazardous voltage, potential shock hazard. No user serviceable parts inside. Contact manufacturer for service or repair. Do not use / place in direct sunlight.

Product contains a lithium battery which must be disposed of correctly

A-26113

**CAUTION**
Risk of electric shock

## RITE-POWER 1750x2

RITE-POWER
1750x2 PORTABLE BATTERY POWERED GENERATOR

**RECHARGE AFTER USE**
**DO NOT LEAVE FOR EXTENDED PERIODS IN A DISCHARGED STATE**
**USE ONLY WITH CORRECT CHARGER**

**CAUTION** Risk of electric shock

PRODUCT INFO

**CAUTION** READ INSTRUCTIONS BEFORE USE
RISK OF ELECTRIC SHOCK

ON/OFF

**CHARGER INPUT**
USE APPROVED RITELITE SLK350CH, SLK750CH OR SLK1000CH CHARGER ONLY (29.4V DC MAX)

**OUTPUT**
110V AC 60Hz
Max continuous output 750W

**RITELITE (SYSTEMS) LTD**

| | | | |
|---|---|---|---|
| RITE-POWER 1750x2 PORTABLE BATTERY POWERED GENERATOR | | | |
| PRODUCT CODE | SLK1770BP2/750/110/T60309 | | |
| OUTPUT VOLTAGE1 | 10V AC 60Hz | | |
| MAX CONTINUOUS OUTPUT POWER | 750W | | |
| IP RATING | IP65 | MANUFACTURE DATE | |
| DIMENSIONS | 580mm (L) x 400mm (W) x 340mm (H) (EXCLUDING SOCKETS) | WEIGHT | 36Kg |
| SERIAL NUMBER | | Made in the UK | |

**Product contains a lithium battery which must be disposed of correctly**

Ritelite (Systems) Ltd, Meadow Park, Bourne Road, Essendine, Stamford, Lincolnshire, PE9 4LT, England
Tel. +44 (0) 1780 758585 | E-mail. sales@ritelite.co.uk | Web. www.ritelite.co.uk

**INSTRUCTIONS**

**CHECK VOLTAGE OF LOAD IS COMPATIBLE WITH INVERTER OUTPUT**

1. Connect load to output not exceeding 750W (subject to load type).
2. Press green button to activate inverter - a continuous red LED will illuminate to show mains power is on.
3. Display will show:
   - Battery state of charge in percentage
   - Estimated run time based on load
   - Estimated recharge time to full based on progress of charging.

*Note: Display lights up to show when power is being drawn. Display light blinks when charging.*

4. Red LED flashes on switch to indicate battery low or fault condition - turn off then on to reset after fault removed - see manual for further information.

*Note: Unit shuts down after 12 hours if no load or a load less than 30W is detected. Press switch off then back on to reset.*
*WARNING: Hazardous voltage, potential shock hazard. No user serviceable parts inside. Contact manufacturer for service or repair. Do not use / place in direct sunlight.*

A-26071

## RITE-POWER 3850

RITE-POWER
3850 PORTABLE BATTERY POWERED GENERATOR

CHARGER **INPUT**
USE APPROVED RITELITE SLK350CH, SLK750CH OR SLK1000CH CHARGER ONLY (29.4V DC MAX)

**CAUTION**
Risk of electric shock

**RITELITE (SYSTEMS) LTD**

| | | | |
|---|---|---|---|
| RITE-POWER 3850 PORTABLE BATTERY POWERED GENERATOR | | | |
| PRODUCT CODES | LK1770BP3850/2400/230/T60309 | | |
| OUTPUT VOLTAGE | 230V AC 50HZ | | |
| MAX CONTINUOUS OUTPUT POWER | 2500W | | |
| IP RATING | IP44 | MANUFACTURE DATE | |
| DIMENSIONS | 715mm (L) x 370mm (W) x 470mm (H) | WEIGHT | 52Kg |
| SERIAL NUMBER | | Made in the UK | |

**OUTPUT**
230V AC 50Hz
Max continuous output 2500W

**Product contains a lithium battery which must be disposed of correctly**

Ritelite (Systems) Ltd, Meadow Park, Bourne Road, Essendine, Stamford, Lincolnshire, PE9 4LT, England
Tel. +44 (0) 1780 758585 | E-mail. sales@ritelite.co.uk | Web. www.ritelite.co.uk

A-26062

PRODUCT INFO

WARNING: Hazardous voltage, potential shock hazard. No user serviceable parts inside. Contact manufacturer for service or repair. Do not use / place in direct sunlight.

**READ INSTRUCTIONS BEFORE USE**

**CHECK VOLTAGE OF LOAD IS COMPATIBLE WITH INVERTER OUTPUT**

1. Connect load to output not exceeding 2500W (2.5KW, subject to load type).
2. Press green button to activate inverter - a continuous red LED will illuminate to show mains power is on.
3. Display will show:
   - Battery state of charge in percentage
   - Estimated run time based on load
   - Estimated recharge time to full based on progress of charging.

*Note: Display lights up to show when power is being drawn. Display light blinks when charging.*

4. Red LED flashes on switch to indicate battery low or fault condition - turn off then on to reset after fault removed - see manual for further information.

*Note: Unit shuts down after 12 hours if no load is detected. Press switch off then back on to reset.*

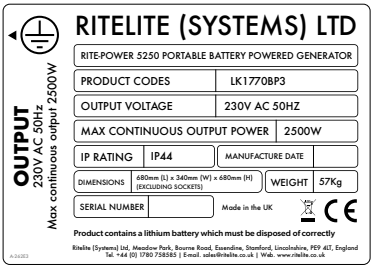
**SYSTEM ENERGY MONITOR**

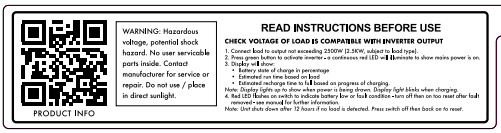
ON/OFF

**ENSURE UNIT IS SWITCHED OFF AFTER USE TO PREVENT UNNECESSARY BATTERY DISCHARGE. RECHARGE AFTER USE. DO NOT LEAVE FOR EXTENDED PERIODS IN A DISCHARGED STATE. USE ONLY WITH CORRECT CHARGER. CHECK CIRCUIT BREAKERS ARE ON FOR OPERATION.**

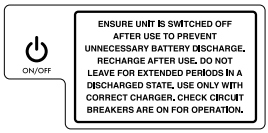
## RITE-POWER 5250



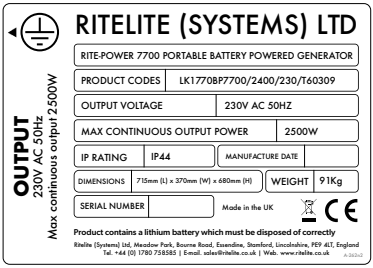



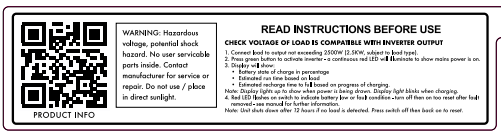

SYSTEM ENERGY MONITOR



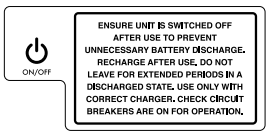

## RITE-POWER 7700



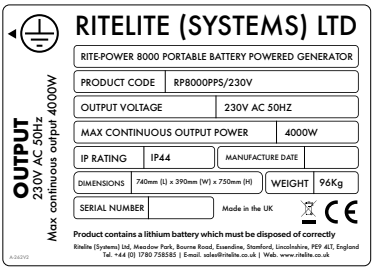




SYSTEM ENERGY MONITOR




## RITE-POWER 8000





*Note All labels shown above and on page 15 show one voltage only. Labels will differ between 110V and 240V units. Units with built-in chargers will have slightly different labels to include extra weight and different basic instructions for use.*

## 5b) USING THE RITE-POWER GENERATOR

Chose a suitable location, heeding the warnings in sections 4 & 5 of this manual.


**1.** Check there is sufficient battery capacity for the task in hand, this is indicated by the display on the front of the unit showing the battery capacity in a percentage, where 100% is full capacity.

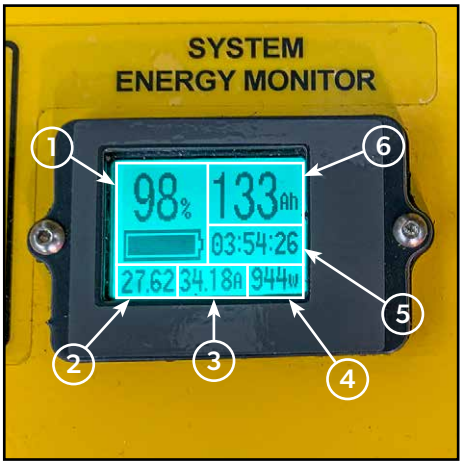

**2.** If necessary, recharge the RITE-POWER generator. As a point of note it is good practice to always recharge the unit to full after every use.


**3.** Make sure the RITE-POWER generator is switched off via the button next to the display. The display will automatically light up when the unit is switched on and go dark when the unit is switched off to conserve power when not in use.


**4.** Make connections to the mains output socket of the RITE-POWER generator. Making sure the output voltage of the RITE-POWER generator is within the constraints of the equipment to be powered from it.

**5.** Check the device to be powered is within the maximum constraints of the RITE-POWER generator, see technical specifications contained within this manual and on the RITE-POWER generator. Heed the notes in the section Applications and Restrictions of use with regard to Inductive, Resistive and capacitive loads and their limitations.


**6.** Once everything is connected press the power on button. The display will light up and a red LED should light in the middle of the switch to indicate that mains power is on and everything is ok.




**7.** Note the estimated run time on the display, this will vary according to the load driven by the RITE-POWER generator. In the example here the display indicates 3 hours, 54 minutes remaining at the current power drawn.

**SYSTEM ENERGY MONITOR KEY**

1. State of charge
2. Battery voltage (V)
3. Current draw (A)
4. Wattage (W)
5. Estimated run / recharge time
6. Battery capacity (Ah)

The display also shows various other parameters such as wattage, this can be a useful gauge to understand what different powers are consumed by different equipment and the runtime that might be expected.
**Note** Display pictured above may vary in size depending on model.

**Note** Some models are fitted with a battery isolator switch. Turn off when not in use to prevent unnecessary battery discharge. Turn on for operation, Isolator can be switched off if only recharging is required. Isolator knob can be removed to prevent unauthorised operation.


**8.** Certain equipment such as some lighting can be dimmed, this can be useful to extend the runtime required while still potentially providing enough light for the task in hand.


**9.** In use note the fall of the battery capacity so power isn't suddenly lost unexpectedly. Once the RITE-POWER generator gets towards the end of the available capacity a beeping will be heard from the unit and the red LED in the middle of the switch will flash to denote the low power level, depending on the size of the load being drawn will dictate how soon until the load is then switched off.


**10.** Once the load has been switched off from the depleted power pack the switch should be pressed to switch the system off and the pack placed on charge as soon as possible.

***Note** – If the battery is left to run completely empty after the low battery warning has been indicating so for a while, the battery will completely shut down and the display turn completely off to preserve it's lifetime. Please ensure it is then recharged within 12 hours. See note under charging.*

## 5c) RECHARGING THE RITE-POWER GENERATOR

The RITE-POWER generator should be placed on charge to return it to full capacity once used. Choose a suitable location to recharge the unit away from any aforementioned hazards. Ideally the RITE-POWER generator should be charged in a cool ventilated environment.

***Note** – It is good practice to always keep the RITE-POWER generator fully charged up so it is always ready for use.*

**Follow the steps below to recharge your RITE-POWER unit if it is fitted with a white charger input connector.**

**Some units are fitted with an in-built charger, if this is the case the unit will not have a white input connector, but will have either a yellow or blue connector. To charge these units simply connect the supplied mains power cable (110V yellow or 240V blue) and the unit will begin to charge.**

### CHARGING UNITS WITH WHITE CHARGER INPUT CONNECTOR


**1.** Plug in either the SLK350CH, SLK750CH or SLK1000CH charger into the RITE-POWER Generator via the white 32A industrial connector, turn the plug locking ring to secure the plug to the socket and aid a secure connection.

**2.** Plug the charger into a suitable mains supply and switch the power on.

***Note** – charger connections to the RITE-POWER generator should always be done with the mains power off to the charger, once connected the mains supply to the charger can then be switched on.*


**3.** The charger will display via its LED indication once powered up, see the instruction manual for the charger for a full guide to it's operation.


**4.** Check the display on the RITE-POWER generator, once the charger is connected and everything is ok the display will blink slowly as energy flows into the battery to recharge it. You can monitor progress on the display, the capacity percentage will gradually rise as will the capacity in AH and the voltage. The run time display will now show an estimated time to complete the charge process. You may notice the energy go in slowly to start with, this depends on the state of discharge of the battery.

***Note** – If the display is blank or no energy appears to be flowing into the battery on the display, switch the power button on, this should wake up the battery to start charging - this only happens if the battery has been left in an over discharged stage. Once energy is seen to be flowing in the power button can be switched off - make sure any mains plugs are disconnected from the output.*

***Note** – Display may be larger than example pictured above depending on model.*


**5.** Once the display shows 100% the power pack is fully recharged, the charger can be switched off and disconnected from the power pack. Make sure the power pack is always switched off via the button next to the display when not in use to prevent any unnecessary discharge.

## 5d) OPTIONAL 'PASS THROUGH' POWER TRANSFER SYSTEM

If this option is fitted this allows the RITE-POWER battery generator to receive mains power in from either a 110V or a 240V AC source (the source must be the same voltage rating as the battery generator) and pass it through to the output socket of the battery generator to drive a load. The load must be not greater than the max output of the battery generator as per its specifications and limitations as detailed in 'Applications For Use' on page 4 of this manual.

This option is useful if a simple mains failure back up is needed to provide power in the event of a grid failure or power failure from a traditional petrol or diesel generator.

In addition, you can link multiple battery generators together which have this same functionality, effectively this will give a longer duration to run the load and as the first supplying battery generator runs out of charge this will automatically cause the next in line to take over and so on. All that's required is a 3 core mains cable with a male plug to female coupler in the appropriate voltage type linking the packs. Switch over time is typically less than 20 milliseconds.

### Setting up a system

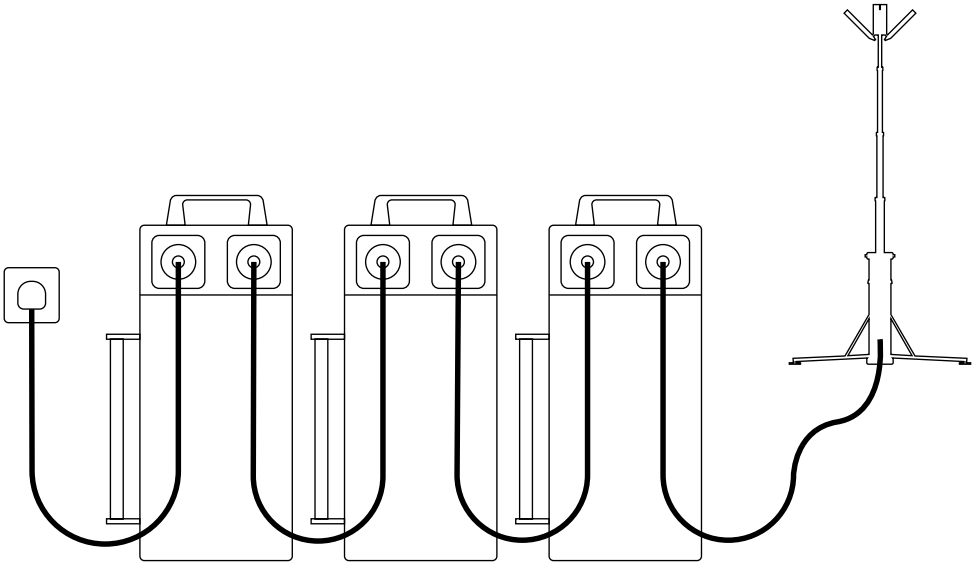
To set up a system connect a suitable power cable from the mains outlet of a fixed installation or generator to the battery generator input socket. Use appropriate connectors with the same IP67 locking system to provide a secure and watertight connection. Use an appropriate outdoor cable with the connectors such as a rubber HO7RN-F with a 2.5mm cross section cable, an earth conductor MUST be used to afford the safest setup and allow any RCBO's to work effectively. Note – Ritelite (Systems) Ltd can supply suitable cables as required, please contact the sales office for information.

Before connecting any output loads to the battery generator turn the red battery isolator switch to 'On', then switch on the battery generator by depressing the green button, the LED on the green button should now show a constant red (if it flashes this indicates a fault condition, please see 'Protection Systems' page 10 and 'Troubleshooting' page 23 in this manual if this occurs).

Connect the load to the battery generator 16A outlet, if there is no power on/off switch on the connected load make sure the power is turned on/off via the supplying source, either the wall mains socket or other generator/battery generator via its RCBO/MCB switch. Do not make or break live connections using the plug or socket or this will cause arcing/burning of the contact pins. Note the battery generator has its own in built RCBO, this is solely designed to work with the battery generator it resides in and doesn't control or protect any in bound supplies or outbound loads until it is the sole source of the power. With this in mind make sure those other supplies have suitable protective RCBO's for the application/environment the load is used in, consider all potential risks such as physical damage or the effects of water on the load being driven.

Once all connections are made switch on the supply feeding the battery generator (you should hear a click as the battery generator sees the inbound supply), this supply will pass through to run the load until it is switched off, at this point the load will then be supported by the battery generator if it is within the scope of the battery generator. It is good practice to test the battery generator will support the load before relying on it to do so in a 'live' situation.

Theoretically any number of battery generators with the pass through option can be connected from one to another to provide a greater duration (bigger 'fuel tank') to run a load. This allows for a very flexible system where four units could be used independently in separate jobs or locations or bought together to form one bigger system. Note - it doesn't matter if different sizes of pass-through enabled battery generators are used together and or/if their states of charge are different, basically as the lowest capacity/state of charge generator drops out the load will be supported by the next one and so on. In a system using multiple battery generators linked together they should all be switched on, so they are in standby waiting to be called upon.



## 5e) PACKING AWAY & TRANSPORT

**⚠CAUTION**

**In slippery or uneven terrain, it is recommended that two people manoeuvre the product at all times.**

## TRANSPORT AND LIFTING INSTRUCTIONS

- The transport vehicle/trolley must be parked on a level surface.
- The transport vehicle/trolley must be secured to prevent rolling while the RITE-POWER generator is being loaded.
- Be sure the vehicle/trolley capacity, loading surfaces/storage area and chains or straps are sufficient to withstand the RITE-POWER generator weight. See the data plate on the RITE-POWER generator for their exact weight.
- The RITE-POWER generator must be secured when transported in any vehicles with straps of ample load capacity.
- The RITE-POWER generator must NOT be transported within the passenger area of any vehicle.
- Observe the specific transport requirements and check the MSDS (Material Safety Data Sheet) when transporting the product by vehicle. This is available online at the following link: https://ritelite.co.uk/product-resources/rite-power/ or by scanning the following QR code:

## 5f) STORAGE / TRANSPORT MODE

When planning to not use the RITE-POWER generator it is possible to put the unit into a storage or transport mode which reduces any unnecessary discharge of the battery. To do this press and hold the power button for a minimum of 6 seconds then release. The display will turn off completely to show that has happened. To use the unit simply press the power button or plug into charge, the unit will wake up and work as normal again. Check the unit every three months for its state of charge and recharge as required.

- Always store the unit in a secure location away from minors or persons of reduced competency, it is NOT a toy.
- Always store in a cool, dry location.

## Section 6: TROUBLESHOOTING

The following notes are here for help and guidance to get the best from your RITE-POWER generator. They describe possible errors/faults, what might cause them and how they are rectified.

| FAULT / ERROR | SOLUTION |
|---|---|
| No mains output from the unit | Check the mains connection to the rear of the RITE-POWER generator, check the equipment to be powered is switched on, checked the equipment to be switched on works from another mains source. |
| No mains output from the unit | Check unit is switched on via the switch next to the display. Display should be lit up to show system is on. |
| No mains output from the unit. Display is lit up to show the system is on. | Check to see if the red LED is lit in the centre of the switch. If the red LED is flashing then check the capacity on the display shows higher than 0%, it not, recharge the battery. Note battery voltage needs to be 22V to 24.5V or higher for system to turn on the mains. |
| No mains output from the unit. Red LED flashes but there is capacity in the battery. | Check the output isn't short circuited – disconnect the mains output plug, turn the RITE-POWER generator off then on and check the red fault LED isn't flashing. Have repaired the cable/equipment causing the short circuit. |
| No mains output from the unit. Red LED flashes but there is capacity in the battery. | Check the output isn't overloaded – disconnect the mains output plug or reduce the load on the output, turn the RITE-POWER generator off then on and check the red fault LED isn't flashing and mains power is restored. |
| No mains output from the unit. Red LED flashes but there is capacity in the battery. | Check the RITE-POWER generator isn't too hot – it will automatically shut down if temperatures rise beyond the allowed thresholds of the inverter contained within to protect from permanent damage. Once cooled the RITE-POWER generator will allow mains power to be restored. Switch the unit off then on to reset it. Should the problem persist the RITE-POWER generator should be moved to a cooler environment and/or the load should be reduced. |
| No mains output from the unit. Red LED flashes but there is capacity in the battery. | Check the RITE-POWER generator hasn't been left switched on, it will automatically switch off if no load or a load less than 30W is detected (750W inverter) or 75W (2500W inverter) on the output after 12 hours. Turn power off then on to reset. |
| The display is blank, no red LED flashing indicating a fault. | Check the RITE-POWER generator isn't too cold – it will automatically shut down if temperatures fall below the allowed thresholds of the battery contained within to protect from permanent damage. Once the temperature is raised the RITE-POWER generator will automatically reboot the system and can be operated as normal. Should the problem persist the RITE-POWER generator should be moved to a warmer environment. |
| The display is blank, no red LED flashing indicating a fault. | Check the RITE-POWER generator isn't too hot – it will automatically shut down if temperatures rise beyond the allowed thresholds of the battery contained within to protect from permanent damage. Once cooled the RITE-POWER generator will automatically reboot the system and can be operated as normal. Should the problem persist the RITE-POWER generator should be moved to a cooler environment. |
| The display is blank, no red LED flashing indicating a fault. | Check the RITE-POWER generator hasn't been left with the battery over discharged. – it will automatically shut down if the battery voltage is left to fall below the allowed threshold of the battery contained within to protect from permanent damage. Plug in either an SLK350CH, SLK750CH or SLK1000CH charger to automatically recover the battery back to full charge. |

**Note** Some models are fitted with a battery isolator switch. Turn off when not in use to prevent unnecessary battery discharge. Turn on for operation, Isolator can be switched off if only recharging is required. Isolator knob can be removed to prevent unauthorised operation.

**Note:** ***The battery should always be recharged fully after every use.***

***The system should always be powered off after every use via the button next to the display. Although the inverter will automatically shut down once a low battery voltage is detected there is still a small parasitic load from the system which will eventually discharge the battery in time if it's not subsequently recharged.***

| FAULT / ERROR | SOLUTION |
|---|---|
| The charger doesn't appear to be recharging the battery. | The most likely cause is the battery is too hot, this can be due to high ambient temperatures or from just trying to recharge the unit straight after heavy use when in high ambient temperatures. To rectify, move unit to a cooler location or allow unit to cool and the system will automatically start charging once temperatures around the battery have fallen to below 40°C. As temperature has a huge affect on the continued performance, safety and longevity of the Lithium batteries contained within your RITE-POWER generator there are numerous protection systems incorporated within the unit to make sure of its long and trouble free use. |
| The charger doesn't appear to be recharging the battery. | The charger lights are on (amber and green alternate flashing) but the capacity display on the battery pack shows no energy going in to recharge the battery. The battery may be over discharged. Normally if this is the case the display will be blank. Connect the charger to the battery pack, turn power on to charger at the mains. The display should light up. Next press the battery on button. The charging process should start and energy can be seen on the display going into the battery. Once charging starts the power button can be turned off to switch off the inverter system. Note please disconnect any items plugged into the mains socket of the unit whilst doing this. |

# Section 7: MAINTENANCE

- It is recommended that a regular inspection of the complete product is carried out to look for signs of wear and tear and identify possible maintenance required. This should be done by a competent person on at least an annual basis depending on the type of use.

- The RCBO should be checked once a month to make sure it still functions correctly. To do this switch on the RITE-POWER generator via its green on/off button, the red LED in the centre of the switch should light to indicate mains power is on. Make sure the main on/off button on the RCBO is set to 'on' or '1' then press the 'Test' button, the switch should reset to 'Off' or '0'. If it doesn't, have the RITE-POWER generator serviced/checked by a competent electrician or qualified person.

- It is recommended that gloves are worn during operation/setting up, breaking down, cleaning and maintenance to protect the user.

- Never allow the inside (Top enclosure) of the RITE-POWER generator to become wet, it will potentially damage the electronics contained within. If any wetness is discovered the unit must NOT be switched on under any circumstance and the manufacturer Ritelite (Systems) Ltd or its authorised dealer must be contacted for guidance with regards to repair.

- All fasteners, locking mechanisms and latches to be checked for correct operation prior to use.

- Any damaged parts that could pose a risk to the user/personnel must be replaced.

- The RITE-POWER generator must be taken out of service if, during use, or repair and maintenance serious damage is discovered.

- The RITE-POWER generator can only be put back into use after it has been properly repaired and examined and signed off by authorised personnel.

- The use of spares other than original parts from Ritelite (Systems) Ltd will invalidate any warranty.

## 7a) ADVICE ON DISPOSAL OF RITELITE PRODUCTS AT END OF LIFE

For our latest advice on the disposal of Ritelite products at end of life please visit the link below.
https://www.ritelite.co.uk/disposal-advice

## 7b) DISCLAIMER OF WARRANTY

For details about the warranty offered on Ritelite products please visit the link below.
https://www.ritelite.co.uk/warranty-information

The contents of this manual are subject to change without prior notice. We take no responsibility for errors or admissions.

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