

# *Owner's Guide*



## *Battery Systems*

*Solahart PV and battery systems must be installed and serviced by a suitably qualified person.  
Please leave this guide with the system owner.*



**Warning:** For continued safety of this Battery system it must be installed, operated and maintained in accordance with these instructions and the installation guides supplied with the Battery, Inverter and Battery Interface.



**Warning:** Only suitably qualified and accredited personnel should perform work on PV and/or Battery systems, such as design, installation, commissioning, maintenance and repairs. Be sure to follow the safety instructions for all system components. It is also important to observe relevant local codes and regulations for health and safety and accident prevention.

**Only Solahart parts and Solahart approved parts may be used. No substitute parts may be used without prior approval from Solahart Industries Pty Ltd. Only parts supplied by Solahart Industries Pty Ltd are covered by the Solahart warranty.**

**The warranty can become void if safety devices are tampered with or if the installation is not in accordance with these instructions.**

---

#### **PATENTS**

This battery system may be protected by one or more patents or registered designs in the name of Solahart Industries Pty Ltd.

#### **TRADE MARKS**

® Registered trademark of Solahart Industries Pty Ltd.  
™ Trademark of Solahart Industries Pty Ltd.

**Note:** Every care has been taken to ensure accuracy in preparation of this publication. No liability can be accepted for any consequences, which may arise as a result of its application.

---

# CONTENTS

---

<b>Contents .....</b>	<b>3</b>
<b>Important Safety Instructions .....</b>	<b>4</b>
<b>About Your Battery System.....</b>	<b>5</b>
<b>Operating Procedures.....</b>	<b>9</b>
<b>Electrical Safety.....</b>	<b>9</b>
<b>Maintenance.....</b>	<b>10</b>
<b>Solahart PV System and/or Battery Warranty - Australia Only .....</b>	<b>11</b>

---

# IMPORTANT SAFETY INSTRUCTIONS

---

## SAVE THESE IMPORTANT SAFETY INSTRUCTIONS

During installation, testing and inspection, adherence to all the safety instructions is mandatory.

## SAFETY SYMBOLS

The following symbols are used in this document to highlight important information:



**Warning:** **Warning** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



**Caution:** **Caution** indicates potentially hazardous situation which, if not avoided, could result in minor or moderate injury and damage to or destruction of the product.

**Note:** **Note** indicates additional information intended to assist in the understanding of the text or an important step that leads to optimal results but is not safety or damage related.

## GENERAL SAFETY INFORMATION



**Warning:** Adhere to the instructions in this document in addition to each system component installation guide. Failure to follow any instructions or warnings in the supplied documentation can result in electric shock, serious injury, or death.



**Warning:** Only qualified personnel should perform work on photovoltaic and Battery systems.



**Warning:** A Battery can present a risk of electrical shock, fire, or explosion from vented gases. Observe proper precautions.



**Warning:** Ensure electrical connection / disconnection is performed only when the relevant circuit is isolated. Do not connect / disconnect wiring under load conditions.



**Warning:** Do not attempt to disassemble, repair, tamper with, or modify any system component.



**Warning:** Do not expose any component to direct flame or heat sources.



**Warning:** Do not install any component that is defective, appears cracked, broken, or otherwise damaged.



**Warning:** Do not install the system in potentially hazardous locations.



**Warning:** Do not immerse any component in water or other liquids.



**Warning:** Ensure front metal cover is replaced at all times of operation.



**Caution:** Ensure clearances are maintained around the Battery and System Components. Remove debris and other foreign objects from within the clearances areas.



**Caution:** Only Solahart supplied / approved components may be used.

## ACTIONS TO UNDERTAKE IN THE EVENT OF AN EARTH FAULT ALARM

1. Limit access to all parts of the PV and Battery system.
2. Contact Solahart Service on 1800 638 011 or your nearest Solahart dealer.

---

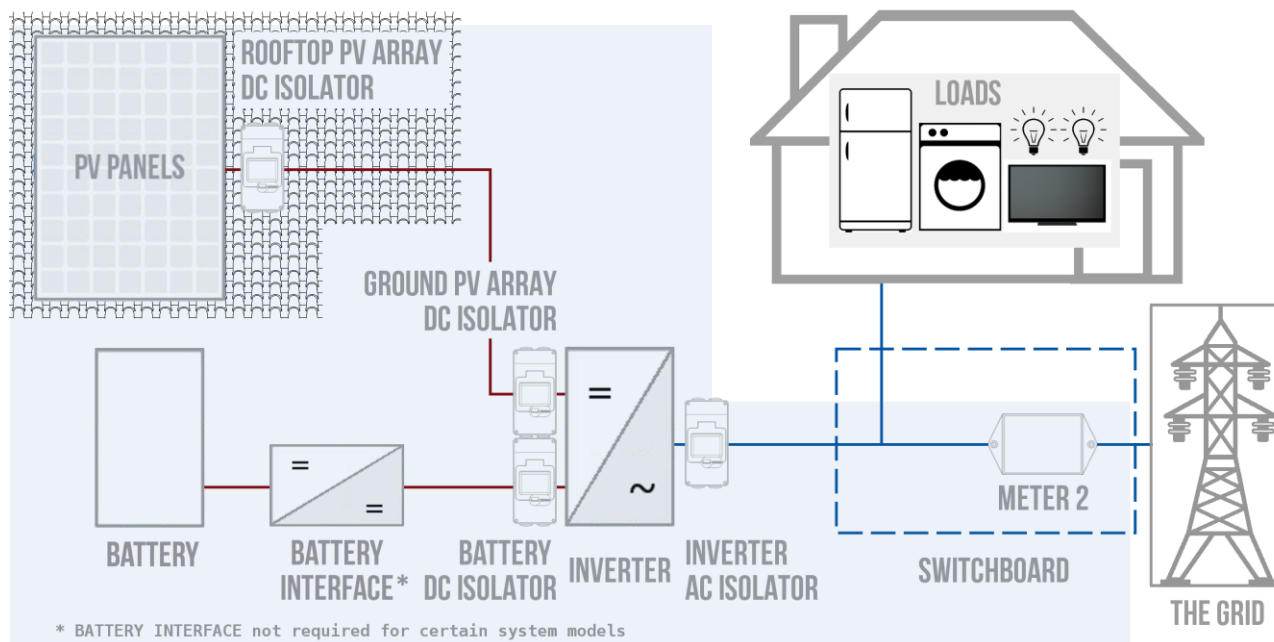
# ABOUT YOUR BATTERY SYSTEM

---

## INTRODUCTION

This Owner's Guide applies to the LG CHEM RESU10H Battery, compatible inverter system and balance of system components. For more information regarding the specific operation of a PV system, refer to "Owners Guide Solahart" for PV systems.

## SYSTEM OVERVIEW – COMPLETE PV AND BATTERY SYSTEM



**Figure 1 System Overview – Complete PV and Battery System**

The Solahart Complete PV and Battery system consists of the following components:

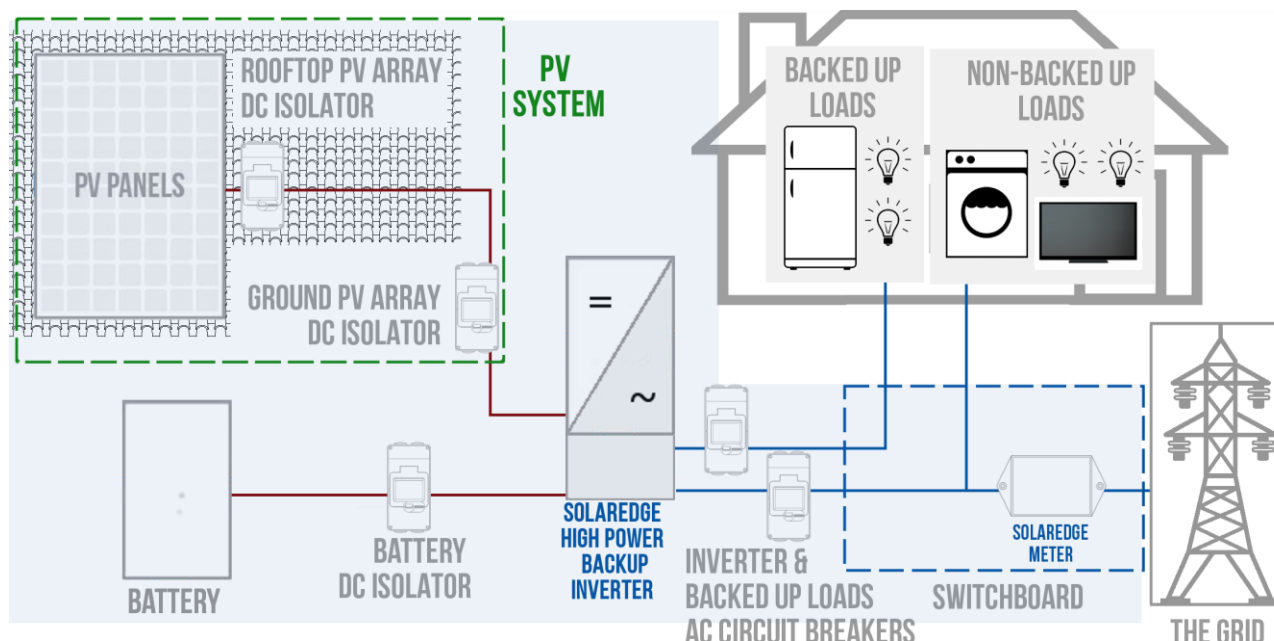
- PV array – generates direct current (DC) power through the conversion of light energy from the sun.
- Inverter – inverts the DC power generated from the PV array or supplied from the Battery into alternating current (AC) power so it can be used in the home or exported to the grid.

**Note:** For safety reasons, the Inverter will only operate when the mains electrical supply is available from the grid. Your Solahart PV and Battery system cannot provide a backup electricity supply to your home appliances if the mains supply is interrupted.

- Battery – stores DC power generated by the PV array so the power can be used when the sun is not shining.
- Battery Interface – manages communication and power between the inverter and battery.
- PV Array DC Isolators – provides means for isolating the PV array.
- Battery DC Isolator – provides a means of isolating the Battery.
- Inverter AC Isolator – provides overcurrent protection of the inverter and a method of isolating the PV System from the electrical distribution grid.
- Meter – measures nett electrical power to and from the grid.

For more information regarding the specific operation of a PV system, refer to the Solahart Owner's Guide – PV systems.

## SYSTEM OVERVIEW – COMPLETE PV AND BATTERY WITH BACKUP SYSTEM



**Figure 2 System Overview – Complete PV and Battery With Backup System**

The Solahart Complete PV and Battery system consists of the following components:

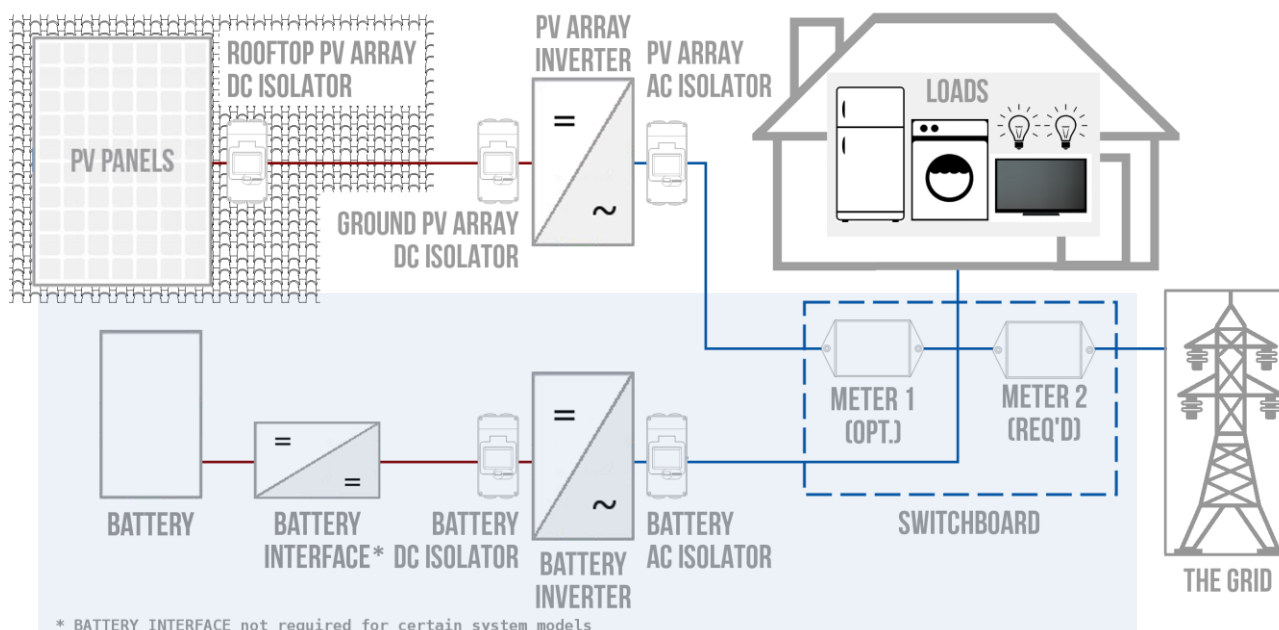
- PV array – generates direct current (DC) power through the conversion of light energy from the sun.
- Backup Inverter – inverts the DC power generated from the PV array or supplied from the Battery into alternating current (AC) power so it can be used in the home or exported to the grid. If configured, the inverter can supply power to selected backed up loads during grid interruptions. The Backup Inverter includes a Battery Interface for managing communication and power between the Inverter and the Battery.

**Note:** Both the Inverter and house wiring will need to be configured for backup functionality to operate. Your Solahart dealer will demonstrate and explain the operation of this configuration.

- Battery – stores DC power generated by the PV array so the power can be used when the sun is not shining.
- PV Array DC Isolators – provides means for isolating the PV array.
- Battery DC Isolator – provides a means of isolating the Battery.
- Inverter AC Isolator – provides overcurrent protection of the inverter and a method of isolating the PV System from the electrical distribution grid.
- Inverter Backup Load AC Isolator – provides a mean of disconnecting the inverter from the backup loads.
- Meter – measures nett electrical power to and from the grid.

For more information regarding the specific operation of a PV system, refer to the Solahart Owner's Guide – PV systems.

## SYSTEM OVERVIEW – RETROFIT BATTERY SYSTEM



**Figure 3 System Overview – Retrofit Battery System**

The Solahart Retrofit Battery system consists of the following components:

- Battery Inverter – converts power between AC and DC to charge and discharge the LG CHEM RESU10H

**Note:** For safety reasons, the Battery Inverter will only operate when the mains electrical supply is available from the grid. Your Solahart PV and Battery system cannot provide a backup electricity supply to your home appliances if the mains supply is interrupted.

- Battery – stores power generated by the PV array or supplied from the grid so the power can be used when the sun is not shining.
- Battery Interface – manages communication and power between the inverter and battery.
- PV Array DC Isolators – provides means for isolating the PV array.
- Battery DC Isolator – provides a means of isolating the Battery.
- Inverter AC Isolator – provides overcurrent protection of the inverter and a method of isolating the PV System from the electrical distribution grid.
- Meter – measures nett electrical power to and from the grid.
- (Optional) Sunny Home Manager - Monitors, tracks and allows for management of the system.

## BASIC SYSTEM OPERATION

The Solahart Complete and Retrofit systems increase energy independence by using the battery to store excess PV energy, which would otherwise be exported to the grid, so it can be used when required.

The Solahart Complete and Retrofit systems are programmed to maximise savings by minimising the power purchased from the grid. If the power delivered by the PV and Battery is insufficient to meet domestic demands, the power necessary to ensure the normal operation of the connected devices is drawn from the grid.

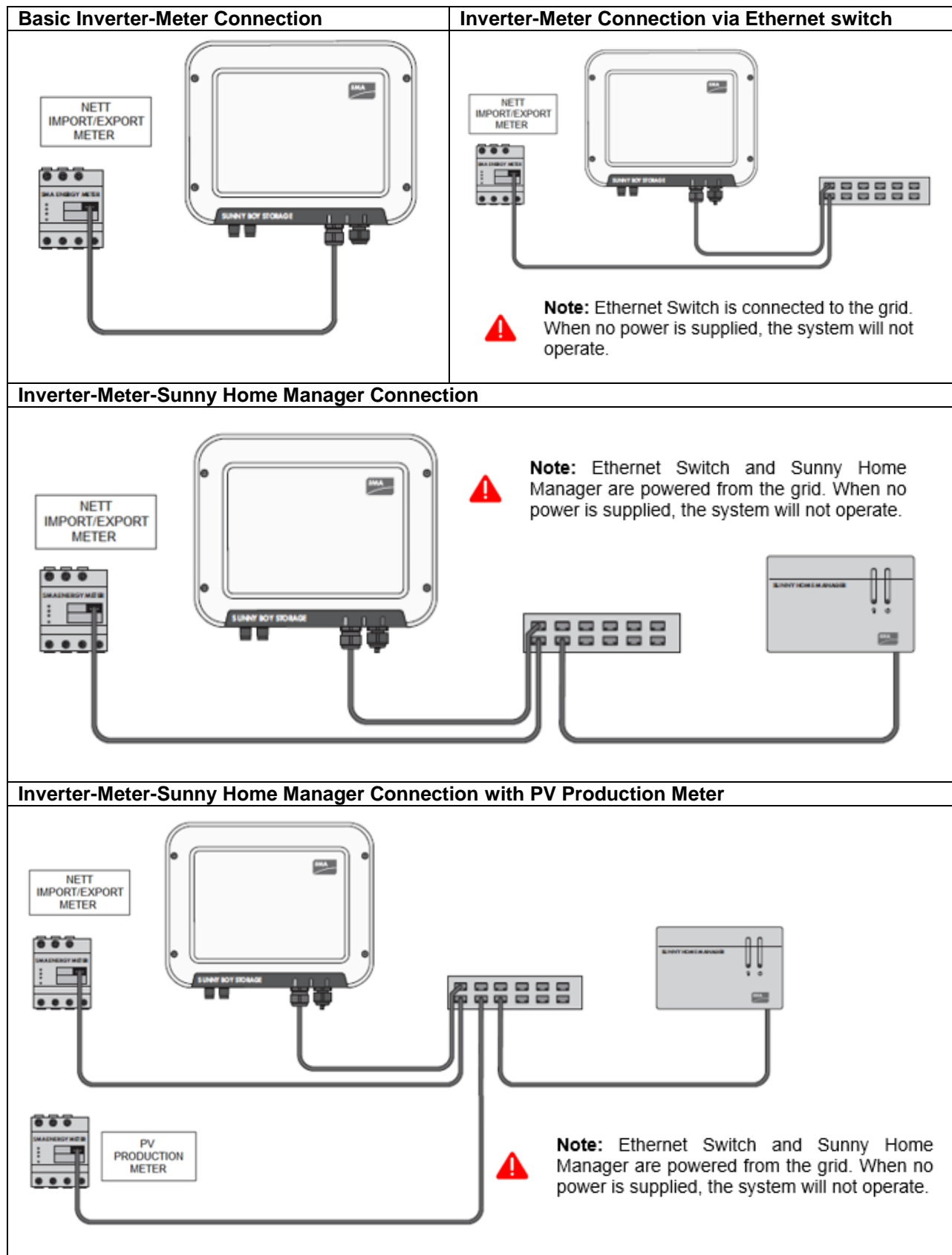
If the energy generated exceeds that required by property demands and the storage capacity of the Battery, your electrical network operator may allow the difference to be directly injected into the grid and become available to other users. Energy injected into the grid can be measured by electricity network operators as either gross (everything generated) or nett (excess generated). Injected energy may or may not be purchased by the local electrical network operator according to national and local standards, and regulations.

## SUNNY HOME MANAGER (OPTIONAL)

Sunny Home Manager is an optional device that can be installed as part of the battery system. It is connected to the battery inverter, energy meter(s) and any SMA PV inverter via an Ethernet switch/router. For full functionality it must also be connected to the Internet by means of a modem/router.



**Caution:** When Sunny Home Manager is switched off, battery will not operate.





---

# OPERATING PROCEDURES

---

## TO TURN PV AND BATTERY SYSTEM ON

1. Turn ON Battery internal Auxiliary Switch (if applicable) and internal circuit breaker switch (refer to Battery Operating Manual)
2. Turn ON Battery DC Isolator(s) located adjacent to inverter.
3. Turn ON PV Array DC Isolator(s) located adjacent to inverter.
4. Turn ON the Inverter AC Isolator at the Inverter (if installed) and the Solar Supply Main Switch at the AC switchboard.
5. Systems with Backup function ONLY: Turn ON the Backed Up Loads AC Isolator.

**Note:** If enable switches are present on the Inverter and Battery Interface, ensure they are in the ON position.

**Note:** The “Solar Supply Main Switch” might be referred to “Main Switch (Inverter Supply)”.

## TO TURN PV AND BATTERY SYSTEM OFF

1. Turn OFF the Solar Supply Main Switch at the AC switchboard and the Inverter AC Isolator at the Inverter (if installed).
2. Systems with Backup function ONLY: Turn OFF the Backed Up Loads AC Isolator.
3. Turn OFF the PV Array DC Isolator(s) located adjacent to inverter.
4. Turn OFF Battery DC Isolator(s) located adjacent to inverter.
5. Turn OFF Battery internal Auxiliary Switch (if applicable) and internal circuit breaker switch (refer to Battery Operating Manual)



**Warning:** Depending upon the system there may be more than one PV Array DC Isolator.



**Warning:** To effectively isolate the wiring between the AC Isolator and switchboard, the Solar Supply Main Switch located in the switchboard must also be in the OFF position.



**Warning:** PV Array DC Isolators do not de-energise the PV array and array cabling.



**Caution:** If the Solahart Battery system is expected to be OFF for longer than one month, refer to the instructions supplied with the Battery.

---

# ELECTRICAL SAFETY

---

## SAFETY REQUIREMENTS

The voltages and currents produced by the Battery system can be dangerous.

## UNIQUE HAZARDS OF DC ELECTRICITY

Batteries typically operate using DC electricity. Once the current is flowing, breaking or opening a connection (e.g. disconnecting a DC cable from the Inverter) can cause a DC electrical arc. Unlike arcs occurring in conventional low voltage AC wiring, DC arcs are not self-extinguishing. They are a potentially lethal burn and fire hazard, capable of creating high temperatures that can destroy contacts and connectors.

## EARTH FAULTS

An earth fault is a system fault where a short circuit is formed between the DC circuitry of the PV and Battery system and earth. As the PV system owner, please be aware of the method of communication of earth faults on your system. Refer to Earth Fault Alarms in the Solahart Owner's Guide for PV systems.

---

## MAINTENANCE

---

### GENERAL

The Solahart Battery system has been designed for minimal and easy maintenance.

For recommended maintenance of the PV system, refer to the Solahart Owner's Guide for PV systems.

### RECOMMENDED MAINTENANCE SCHEDULE

Maintenance Action	Frequency	Remarks
If you have an internet connected system, log in to your Inverter manufacturer's web portal and check that your system is operating, data has been logged and communication has been maintained. Ensure that the contact details of the PV system owner or responsible officer are up to date to ensure that Inverter fault notifications are delivered.	Monthly	If you are unable to log in or your system is not operating correctly, contact your Solahart dealer.
Clear leaves and other debris from the top edge of the Battery if installed outside  Ensure Battery System is connected to the grid and switched on.	Quarterly	Maintains optimal airflow through the Battery.  Prevents Battery discharge below acceptable limits.
If applicable, check backup circuit functionality.	Yearly	Contact your local Solahart dealer to arrange for a check up.
Clean the exterior of the Battery with a soft, lint-free cloth. The cloth can be dampened with only water if needed. It should not be dripping.	When required	Do NOT use cleaning solvents to clean the Battery.

---

# SOLAHART PV SYSTEM AND/OR BATTERY WARRANTY - AUSTRALIA ONLY

---

**IMPORTANT NOTE: This Limited Warranty covers a range of systems, products and components. This Warranty only applies in respect of the specific items you have purchased and which are delivered to you in conjunction with this hard copy Warranty document.**

Your new PV System comprises a PV Module, an Inverter, a racking system and balance of system components (together the **PV System**). Alternatively, you may add components sourced from Solahart to your existing PV System, including an LG Chem Battery and associated products.

The PV System, the Battery, and any other components supplied by Solahart (collectively, the 'Products') are covered by a warranty given by Solahart Industries Pty Ltd ABN 45 064 945 848 of 1 Alan Street, Rydalmere NSW 2116 (**Solahart**). The terms of your warranty are set out below. This warranty consists of a number of parts (not all of which will apply, depending on the Products you have purchased):

- A. The specific warranty terms for Modules supplied by Solahart;
- B. The specific warranty terms for the LG Chem Battery;
- C. The specific warranty terms for Inverters – SMA and ABB;
- D. The specific warranty terms for SolarEdge Inverters and associated SolarEdge products;
- E. The specific warranty terms for the racking system;
- F. The specific warranty terms for the balance of the system;
- G. The specific warranty terms for the labour; and
- H. General terms which apply to all of the above.

This Limited Warranty is valid in Australia for all Products sold after 17 March 2016. If a subsequent version of this warranty is published, the terms of that warranty will apply to Products manufactured after the date specified in the subsequent version.

Solahart issues the following voluntary warranty to:

1. The end-user who purchased the System in Australia and put the System into use for the first time (the 'Original End-User'); and
2. In the case of SolarEdge Products only, any owner of the Product subsequent to the Original End-User who provides proof of title transfer, provided that the Product has never been relocated from its original installation location without the express written consent of Solahart.

This warranty is in addition to any rights and remedies that you may have under the Australian Consumer Law.

Solahart offers national service through its Dealer network. Solahart will repair or replace parts subject to the terms of this Limited Warranty. Solahart, in addition can provide preventative maintenance and advice on the operation of the PV System. You can contact Solahart on 1800 638 011 to arrange a service call or to find out details about this warranty.

Notification of a claim under this Limited Warranty must be given without undue delay after detection of the defect and prior to the expiration of the applicable Warranty Period and in accordance with the procedure set out below.

## PART A - MODULES

### Warranty coverage for the Module

Subject to the terms and conditions of this Limited Warranty, Solahart warrants that the Modules:

1. Are free from defects in material and workmanship for a period of (10) years after the date of installation of the Module (the 'Module Warranty Period') if installed and used in accordance with the installation instructions set out in the Solahart Owner's Guide and Installation Instructions – PV Systems which

accompanies the Module, and with all relevant statutory and local requirements in the State or Territory in which the Module is installed.

2. Will remain safe and operational if cable and connector plugs are installed professionally and are not permanently positioned in water; provided however, that damage to the cable caused by abrasion on a rough surface due to insufficient fixing or to unprotected running of the cable over sharp edges is excluded. Damage caused by animals is also excluded.
3. Will not experience freezing up of the aluminium frames if installed correctly.

The outer appearance of the Module, including scratches, stains, rust, mould, discoloration and other signs of normal wear and tear, which occurred after delivery or installation, do not constitute defects, provided the functionality of the Module is not affected. Glass breakage constitutes a defect only if not caused by any external influence.

If a defect (as described above) occurs during the Module Warranty Period materially affecting the functionality of the Module, Solahart will, at its sole option:

1. Repair the defective Module;
2. Replace the Module with an equivalent product; or
3. Refund the original purchase price for the Module as determined by Solahart.

#### **Warranty Terms, Limitations and Exclusions**

This Limited Warranty applies to the original Module and to any approved replacement parts and is not transferable by the Original End-User, except to the subsequent owner of the property at which the original PV System was installed and remains installed, provided that this PV System has not been altered in any way or moved from the structure or property at which it was originally installed.

There are many factors that affect the output of your Module. Solahart does not warrant a specific power output for your Modules. All modules degrade over time and power output is subject to many variables including the age of the Module.

### **PART B – BATTERIES**

#### **Warranty coverage for capacity retention – LG Chem Battery**

Subject to the terms and conditions of this Limited Warranty, Solahart warrants that the LG Chem Battery will retain the capacity levels specified in Exhibit A during the applicable periods identified in the Exhibit (each, an ‘**LG Chem Capacity Retention Warranty Period**’).

#### **Remedies**

If Solahart determines that a reported defect in relation to a LG Chem Battery is eligible for coverage under this Limited Warranty, Solahart will, at its sole option:

1. Repair the defective LG Chem Battery;
2. Replace the LG Chem Battery; or
3. Provide a Refund to be calculated in accordance with the formula below.

100% of the purchase price from the initial installation date to 24th month

72% of the purchase price from 25th to 36th month

58% of the purchase price from 37th to 48th month

44% of the purchase price from 49th to 60th month

30% of the purchase price from 61st to 72nd month

16% of the purchase price from 73rd to 84th month

6% of the purchase price from 85th to 96th month

4% of the purchase price from 97th to 108th month

2% of the purchase price from 109th to 120th month

**PART C – INVERTERS – SMA AND ABB****Warranty coverage for SMA and ABB Inverters**

Solahart warrants that the Inverter, when located at its original installation, will operate in accordance with its specifications in the Solahart's Owner's Guide and Installation Instructions for a period of five (5) years from the date of installation of the inverter. If the Inverter fails to operate in accordance with its specifications and this materially affects the usability of the Inverter, Solahart will, at its sole option:

1. Repair the Inverter;
2. Provide a replacement Inverter swapped; or
3. Refund the original purchase price for the Inverter as determined by Solahart.

**PART D – INVERTERS AND ASSOCIATED COMPONENTS – SOLAREEDGE**

(In this Part D, a reference to "Products" is to the SolarEdge Products as described below).

**Warranty coverage for SolarEdge Inverter**

Subject to the terms and conditions of this Limited Warranty, Solahart provides a warranty against defects in workmanship and materials in relation to the SolarEdge Inverter, when located at its original installation, for a period of ten (10) years commencing on the earlier of:

1. 4 months from the date the Inverter is shipped from the manufacturer; and
2. The date of installation of the Inverter.

**Warranty coverage for StorEdge Interface**

Subject to the terms and conditions of this Limited Warranty, Solahart provides a warranty against defects in workmanship and materials in relation to the StorEdge Interface for a period of ten (10) years commencing on the earlier of:

1. 4 months from the date the Interface is shipped from the manufacturer; and
2. The date of installation of the Interface.

**Warranty coverage for Power Optimizers**

Subject to the terms and conditions of this Limited Warranty, Solahart provides a warranty against defects in workmanship and materials in relation to the Power Optimizers for a period of ten (10) years commencing on the earlier of:

1. 4 months from the date the Power Optimizers are shipped from the manufacturer; and
2. The date of installation of the Power Optimizers.

For all Power Optimizers with a part number ending in C, this warranty does not apply to the input connector.

**Warranty coverage for Power Meter**

Subject to the terms and conditions of this Limited Warranty, Solahart provides a warranty against defects in workmanship and materials in relation to the Power Meter for a period of five (5) years commencing on the earlier of:

1. 4 months from the date the Power Meter is shipped from the manufacturer; and
2. The date of installation of the Power Meter.

**Remedies**

If Solahart determines that a reported defect in relation to a Product is eligible for coverage under this Limited Warranty (including retention capacity), Solahart will, at its sole option:

1. Repair the defective Product;
2. Issue a credit note for the defective Product in an amount up to its actual value at the time buyer notifies Solahart of the defect, as determined by Solahart, for use toward the purchase of a new Product; or
3. Provide the buyer with replacement units for the Product.

**Exclusions**

The Limited Warranty does not apply to components which are separate from the Products, ancillary equipment and consumables, such as, for example, cables, fuses, wires and connectors.

### **Beneficiary of Limited Warranty**

The Limited Warranty only applies to the buyer who purchased the Products from Solahart, for use in accordance with their intended purpose ('Original Buyer'). The Limited Warranty may be transferred from the Original Buyer to any assignee, and will remain in effect for the time period remaining under the above Warranty Periods, provided that the Products are not moved outside their original country of installation and any reinstallation is done in accordance with the installation directions and use guidelines accompanying the Products.

## **PART E – THE RACKING SYSTEM**

### **Warranty coverage for the Racking System**

Solahart warrants that the racking system supplied with the PV System shall be free from defects in material and workmanship for a period of five (5) years from the date of installation.

This Warranty shall be void if installation of the racking system is not performed in accordance with the Owner's Guide and Installation Instructions, or if the racking system has been modified, repaired, or reworked in a manner not previously authorized by Solahart in writing. If within the specified Warranty period the racking system shall be reasonably proven to be defective, then Solahart shall repair or replace the defective component(s) at Solahart's sole discretion. Such repair or replacement shall completely satisfy and discharge all of Solahart's liability with respect to this Limited Warranty.

## **PART F - BALANCE OF THE SYSTEM**

### **Warranty coverage for the balance of the system**

The balance of the PV System (**BOS**) consists of PV module cabling, circuit breakers, isolators, enclosures and labels. Solahart warrants that the BOS supplied by it will operate in accordance with its specifications in the Owner's Guide and Installation Instructions for a period of five (5) years from the date of installation of the BOS. If the BOS fails to operate in accordance with its specifications and this materially affects the usability of the BOS, Solahart will, at its sole option, repair or replace the defective component.

## **PART G - LABOUR WARRANTY**

### **Warranty coverage for labour – PV System and LG Chem Battery**

In addition to the above coverage, Solahart provides you with five (5) years of coverage, from the date of installation, for all labour costs involved with inspection by Solahart, removal or installation of warranted parts or components by Solahart of your PV System. Other than this five (5) years coverage, this Warranty does not cover, nor will Solahart reimburse, any on-site labor or other costs incurred in connection with the inspection, de-installation or removal of defective parts or components, or the re-installation of replaced or repaired parts or components for your PV System.

### **Warranty coverage for labour - SolarEdge Products**

If Solahart determines that a reported defect in relation to a SolarEdge Product is eligible for coverage under this Limited Warranty and Solahart decides to repair the Product or part(s), warranty coverage includes labour and material costs necessarily incurred to correct the Product defect; and where Solahart decides to replace the Product or part(s) to which the Limited Warranty applies, warranty coverage includes the cost of the replacement of the Product or part(s). All other costs will be borne by you.

## **PART H - GENERAL TERMS**

### **Back-up if sole or dominant power supply**

If the PV System is to be the sole or dominant power supply for your business or application, you should ensure that you have back up redundancy if the PV System were to become inoperable for any reason. We suggest that you seek advice from your electrician or qualified professional about your needs and build backup redundancy into your electricity supply system.

### **Application of this warranty**

This warranty requires the Products to be installed according to the latest safety, installation and operation instructions provided by Solahart and with all relevant statutory and local requirements in the State or Territory in which the Products are installed, and does not apply to defects, damage, malfunction, power output or service failures which have been caused by:

1. Storage, installation, commissioning, repair, modifications, alterations, attachments or movement to or of the Product, or (in the case of the LG Chem Battery) opening of the external casing of the LG Chem Battery, performed by someone other than a Solahart Dealer or a Solahart Accredited Service Agent or otherwise without the prior written consent of Solahart;

2. Abuse, misuse or abnormal use, accident, negligent acts, power failures or surges, force majeure events including but not limited to lightning, fire, flood, hail, extreme cold weather, or any other natural disaster, any other force majeure event, pest damage, accidental breakage, actions of third parties, and any other events or accidents outside Solahart's control and/or not arising under normal operating conditions;
3. Operating the Product in an unintended environment or under incorrect safety or protection conditions;
4. Failure to install, operate and/or maintain the Product in accordance with the applicable Solahart Owner's Guide and Installation Instructions;
5. Transport damage;
6. Wear and tear from adverse conditions including corrosive atmospheric conditions e.g. salt, ocean spray, dust storm or other weather damage;
7. Cosmetic defects;
8. Any improper attachment, installation or application of the Product, and in respect of the PV System, any insufficient framing if the PV System is a frameless module;
9. Any attempt to extend or reduce the life of the Product, whether by physical means, programming or otherwise, without the prior written consent of Solahart;
10. Removal and reinstallation at a location other than the original installation location, without the prior written consent of Solahart;
11. Insufficient ventilation of the Product;
12. Failure to observe the applicable safety regulations; or any factor identified in the applicable Solahart Owner's Guide and Installation Instructions; or
13. Ignoring safety warnings and instructions contained in all documents relevant to the applicable Product.

If your claim relates to a failure to operate in accordance with the Solahart Owner's Guide and Installation Instructions as a result of one of the factors listed above, Solahart may charge you at its standard rates for its time and materials related to your claim.

Without limiting the above exclusions:

1. In relation to LG Chem Batteries, the Warranty does not cover damage from any of the following activities: (a) improper transportation, storage, installation or wiring; (b) modification, alteration, disassembly, repair or replacement without authorization from Solahart; (c) noncompliance with the manufacturer's product Installation Manual; (d) external influences including unusual physical or electrical stress (power failure surges, inrush current, lightning, flood, fire, accidental breakage, etc); or (e) use of an incompatible inverter, rectifier or power conditioning system.
2. In relation to SolarEdge Products, the Warranty does not cover: (a) Products which are installed or operated not in strict accordance with the accompanying instruction documentation, including without limitation, not ensuring sufficient ventilation for the Product as described in the applicable installation guide; (b) Products which are opened, modified or disassembled in any way without Solahart's prior written consent; (c) Products which are used in combination with equipment, items or materials not permitted in the instruction documentation or in violation of local codes and standards; or (d) cosmetic or superficial defects, dents, marks or scratches which do not influence the proper functioning of the Products.

### **Location and positioning**

Where the Product is installed outside the boundaries of a metropolitan area (as defined by Solahart) or further than 25 km from a regional Solahart Dealer, the cost of transport, insurance and travelling costs to the nearest Solahart Dealer shall be the owner's responsibility. Where the Product is installed in a position that does not allow safe, ready access, the cost of accessing the site safely, including the cost of additional materials handling and/or safety equipment, shall be the owner's responsibility.

### **Replacements**

Solahart may use new, used, remanufactured or refurbished parts or products when repairing or replacing any Product under this Limited Warranty. Any exchanged or replaced parts or Products will become the property of Solahart. Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired.

If the Product is repaired or replaced under this Warranty, the remainder of the applicable Warranty Period will apply to the repaired or replaced Product and the repaired or replaced Product or parts will not carry a new Solahart Warranty. The Warranty Periods set out above will not be extended in any way in the event of a replacement or repair of a Product, but this does not affect any rights you may have under the Australian Consumer Law in relation to the replaced or repaired Product (see the section below entitled "The Australian Consumer Law" for further details).

#### **Limitation of this warranty**

This Limited Warranty is provided voluntarily and free of charge and does not constitute an independent guarantee promise. Therefore, if any defect materially affects the functionality of any Product, the remedies under this Warranty are limited exclusively to the remedies set out above in the warranty cases specified herein.

Subject to any statutory provisions to the contrary, Solahart assumes no warranties, express or implied, written or oral, other than the warranties made herein and specifically disclaims all other warranties, merchantability or fitness for a particular purpose and Solahart excludes all liabilities for any special, incidental, indirect, consequential or punitive damages arising from or in connection with the use or loss of use of the Product to perform as warranted, regardless of the form of action and regardless of whether a party has been informed of or otherwise might have anticipated the possibility of such damages; including but not limited to damages for loss of power, lost profits or savings nor expenses arising from third-party claims. This does not apply to the extent Solahart is liable under applicable mandatory laws.

If you require a call out and we find that the fault is not covered by Solahart's warranty, you are responsible for our standard call out charge. If you wish to have the relevant component repaired or replaced by Solahart that service will be at your cost.

#### **Entitlement to claim under this warranty**

To be entitled to make a claim under this warranty you need to:

1. Provide proof of purchase documentation and be the owner of the Product or have the consent of the owner to act on their behalf.
2. Contact your Solahart dealer without undue delay after detection of the defect and, in any event, within the applicable Warranty Period.

You are not entitled to make a claim under this warranty if the relevant Product:

1. Does not have its original serial numbers and type plate or numbers are illegible; or
2. Is not installed in Australia.

#### **Warranty claim procedure**

If you wish to make a claim under this warranty, you need to:

1. Contact your Solahart dealer, provide proof of purchase (and in the case of a SolarEdge Product, any subsequent transfers of ownership of the Product) and owner's details, address of the Product, a contact number and date of installation of the Product, the serial number of the Product, and a description of the alleged defect(s).
2. Solahart will arrange for the Product to be tested and assessed. Solahart will inform you whether this will occur on-site or whether the Product must be sent elsewhere for testing and assessment.
3. If Solahart determines in its sole discretion that you have a valid warranty claim, Solahart will organise for the repair or replacement of the Product or any component in accordance with this warranty.

Any expenses incurred in the making of a claim under this Warranty will be borne by you.

#### **The Australian Consumer Law**

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.



**Exhibit A****LG CHEM CAPACITY RETENTION LEVELS****References in this Exhibit to the “Product” are to a LG Chem Battery.**

The Product will retain at least 60% of Nominal Energy\* when the Product is operated under normal use, consistent with the specification and the Installation Manual provided by LG Chem is followed until the earliest to occur of:

- (a) 10 years after the date of the initial installation; or
- (b) the Product has had a minimum Energy Throughput as per the table below:

Product Name	Nominal Energy	Energy Throughput
RESU10H	9.8kWh	27.4MWh

\* Nominal Energy means the initially rated capacity of the Products as printed on the label of the Products.

During measurement of the Product's capacity:

- The ambient temperature will be 25~30°C
- The initial battery temperature from BMS: 25~30°C
- Charging/discharging method:
  - Charge: 0.2CC/CV (Constant voltage: RESU7H\_BPI126V/  
RESU10H\_BPI 176.4V, Cut-off current 0.05C)
  - Discharge: 0.2CC (Cut-off voltage: RESU7H\_BPI 90V/  
RESU10H\_BPI 126V)
  - Current at 0.2C: 12.6A
- Current and voltage measurement at battery DC side

---

**Solahart Industries Pty Ltd** (A.B.N. 45064945848)  
Registered Office  
1 Alan Street  
Rydalmere New South Wales 2116  
Australia

For SERVICE Telephone - **1800 638 011**  
or your nearest Solahart Dealer  
For Sales Telephone - **1300 769 475**  
or your nearest Solahart Dealer  
[www.solahart.com.au](http://www.solahart.com.au)