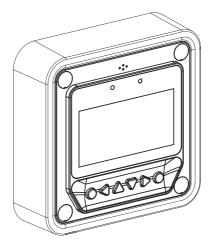


# Remote Monitor for Solar Regulator

**SRPA-RM** 



To suit SRPA0120, SRPA0240 & SRPA0360 Solar Regulators

#### THE SOLAR REGULATOR REMOTE MONITOR

The REDARC Solar Regulator Remote Monitor allows you to monitor how your solar panels are performing and keep track of the charge state of your battery/s.

The unit is simple to setup and control and provides an easy to read graphical interface, which can be modified to suit your preferences.

#### **WARNING & SAFETY INSTRUCTIONS**

SAVE THESE INSTRUCTIONS - This manual contains IMPORTANT SAFETY INSTRUCTIONS for the Redarc Remote Monitor for Redarc Solar Regulators.

DO NOT OPERATE THE SOLAR REGULATOR UNLESS YOU HAVE READ AND UNDERSTOOD THIS MANUAL AND THE SYSTEM IS SETUP AS PER THESE INSTRUCTIONS. REDARC RECOMMENDS THAT ANY REGULATOR/CHARGER BE INSTALLED BY A SUITABLY QUALIFIED PERSON.

# **A** WARNING

#### **RISK OF EXPLOSIVE GASES:**

WORKING IN THE VICINITY OF A LEAD-ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL OPERATION. FOR THIS REASON, IT IS OF UTMOST IMPORTANCE THAT YOU FOLLOW THE INSTRUCTIONS EACH TIME YOU USE THE REGULATOR.

# **▲** CAUTION

- 1. Solar Regulators should not be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or have been instructed on how to use the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the Solar Regulator.
- 2. Do NOT use the Solar Regulator to charge non-rechargeable batteries. Doing so may result in harm to the user and/or damage to the regulator and/or solar blanket. Only use the Solar Regulator for charging standard lead acid. calcium content. Gel & AGM type 12V batteries.
- 3. Check the manufacturer's data for your battery and ensure that the 'Absorption' voltage of the profile selected does not exceed the manufacturer's recommended maximum charging voltage. If the 'Absorption' voltage for your battery type is too high, please select another charging profile. Do not change the original settings without confirming the battery manufacturer's recommendations or consulting the battery manufacturer.
- 4. The Solar Regulator is not intended to supply power to a low voltage electrical system other than to charge a battery.
- 5. NEVER smoke or allow a spark or flame in vicinity of battery or engine. This may cause the battery to explode.
- 6. The remote monitor is not waterproof or designed for installation under bonnet or outdoors. Ensure the monitor is installed in a cool and dry environment.

#### 7. PERSONAL SAFETY PRECAUTIONS

To assist with the safe operation and use of the Solar Regulator:

a) Wear complete eye protection and clothing protection. Avoid touching eyes while working near a battery.

#### **WARNING & SAFETY INSTRUCTIONS**

b) If battery acid contacts your skin or clothing, remove the affected clothing and wash the affected area of your skin immediately with soap and water. If battery acid enters your eye, immediately flood the eye with running cold water for at least 10 minutes and seek medical assistance immediately.

## NOTICE

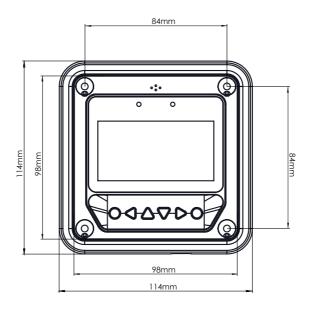
- 1. Designed for use with the Redarc SRPA solar regulator only.
- 2. The screen backlight will increase the current draw. Timing and durations of the backlight can be adjusted to suit individual needs.
- 3. The communication data cable is an 8-Pin RJ45 type Ethernet cable. If a cable of different length is required, Redarc recommend buying a cable of the required length rather than shortening the supplied cable.
- 4. Do not forget your password. The factory default password is '000000'.
- 5. This user manual is to be read in conjunction with the Redarc SRPA solar regulator user manual.

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## 1 SPECIFICATIONS

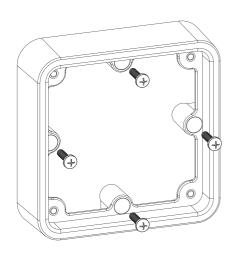
## 1.1 DIMENSIONS

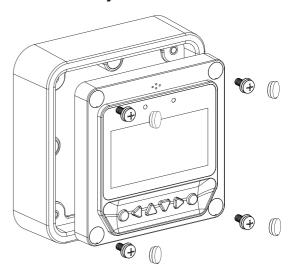


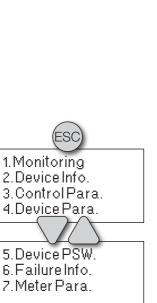
## 1.2 MOUNTING

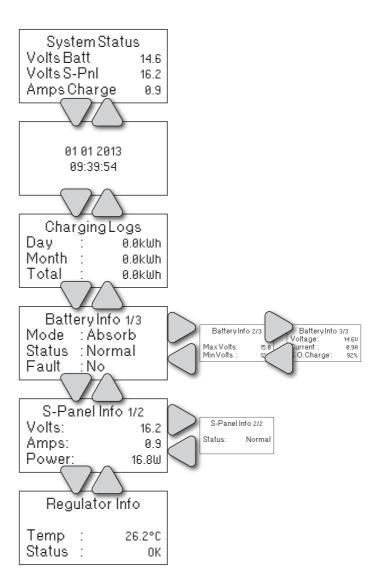
# **▲** CAUTION

The remote monitor is not waterproof or designed for installation under bonnet or outdoors. Ensure the monitor is installed in a cool and dry environment.









#### 3.1 MONITORING

System Status Volts Batt Volts S-PnL 16.2 Amps Charge й9.

**System Status** 

14.6 This screen shows the essential voltage and charging status of your system:

Volts Batt Volts S-Pnl The voltage level of the battery

Amps Charge

The input voltage from the solar panel

The real time charging performance in amps

01 01 2013 09:39:54

**Date & Time** 

This screen shows the date and time:

MM - DD - YYYY format Date 24hr - HH: MM: SS format Time

Note: The date and clock can be set in the Device Parameter menu

Charging Logs Day 0.0kWh Month:

Total

0.0kWh 0.0kWh

**Charging Logs** 

This screen shows the charging performance of the system since it

was connected:

Day Power supplied in the last 24 hours Power supplied in the last 30 days Month Total power supplied since connection Total

BatteryInfo 1/3 Mode : Absorb Status : Normal Fault : No.

**Battery Information (3 screens)** 

These screens show detailed battery information:

The current charging stage/mode: No Charge, Boost, Absorb or Float Mode

The battery status: Normal etc. Status

Fault diagnostics, if a fault has occurred. Fault

The maximum voltage the battery has reached Max Volts The minimum voltage the battery has reached Min Volts

Voltage The battery real time voltage

The Charging current into the battery Current

The State Of Charge of the battery in percentage S.O.Charge

S-Panel Info 1/2 Volts: 16.2 **Solar Panel Information (2 Screens)** 

Amps: 0.9 Power: 16.8W

These screens show detailed solar panel information:

Volts Solar panel real time voltage

Amps Solar panel real time amperage from the panel Power The calculated power (watts) the panel is producing

Status The solar panels charging status (Normal, No Charge)

Normal - Charging without error or fault

No Charge - No solar panel or battery connected, check wiring or system

Regulator Info

**Regulator Information** 

This screen shows you detailed regulator information:

*Temp* The regulators internal temperature

Status The regulator's status

26.2°C

0K

ESC

Temp

Status

Pressing the 'ESC' from any screen will take you to the 'MENU' list.

#### 3.2 MENU

- 1. Monitoring
- 2. Device Info.
- 3.ControlPara.
- 4. Device Para.
- 1. Monitoring
  2. Device Info

Performance indicators, scroll during normal operation.

Information about the manufacture of the unit.

3. Control Parameters Installation settings including battery type and size.

Allows backlight and date/time changes.

5. Device PSW.

4. Device Parameters

- 6. Failure Info.
- 7. Meter Para.
- 5. Device Password
- 6. Failure Information
- 7. Meter parameters

Set the device password, needed to change battery type.

If faults occur they will be logged here.

Information on the Unit.

#### 3.3 DEVICE INFORMATION

**Device Information (2 Screens)** 

Rate. Vol: 240 These screens show the regulators default ratings and serial number:

Ilulibei

Rate. Vol The regulators rated voltage 12 or 24v Char. Cur The regulators rated charging current

SN Internal serial number (REDARC use only)

## 3.4 CONTROL PARAMETERS

To change settings, press the 'OK' button, enter the device password and press 'OK' again. Change the setting to the desired value and press 'OK' once more to save the setting.

# **A** CAUTION

Check the manufacturer's data for your battery and ensure that the 'Absorption' voltage of the profile selected does not exceed the manufacturer's recommended maximum charging voltage. If the 'Absorption' voltage for your battery type is too high, please select another charging profile. Do not change the original settings without confirming the battery manufacturer's recommendations or consulting the battery manufacturer.

Batt. Type AGM Batt. AH 199AH

## **Batt. Type**

This screen shows and allows changes to the Battery Type & Battery size setting:

Batt. Type

The Battery type can selected from AGM, Standard & Calcium types. **AGM** - is the low setting, with a maximum charge rate of 14.4 volts, AGM batteries are a sealed deep cycle battery, similar to a Gel battery. **Standard** - is the medium setting, with a maximum charge rate of 14.6 volts, Standard batteries are not sealed and have vents/caps to allow maintenance of the water levels in the cells

**Calcium** - Is the High setting, with a maximum charge rate of 14.8 volts, Calcium batteries can be sealed or vented, they are constructed of a calcium/lead mix to improve its strength, heat and corrosion resistance, generally used for marine or 4wd starting batteries.

#### MONITOR INFORMATION

Batt. AH

3

The Battery amp hours can be set to offer a state of charge percentage, the range is from 1 - 9999Ah.

**Note1**: This a calculated guide available on the Battery Information page 3. **Note2**: This setting is a guide only, the battery size does not need to be set for correct function/charging.

Temp Comp. Coeff -3mv/°C/2V Rated Voltage Auto

## **Temp Comp. Coeff**

This screen shows and allows changes to the Temperature compensation coefficient and systems rated voltage:

Temp Comp.

Compensation coefficient and systems rated voltage.

The temperature coefficient is the reduction in voltage (millivolt)

Rated Voltage

The battery nominal voltage (12v, 24v or Auto)

per degree Celsius rise in temperature.

Over Volt. Disc. 16.5V Charge Limit 16.0V

#### Over Volt Disc.

This screen shows the Over Voltage Disconnect and Charge voltage limit setting:

Over Volt Disc.

The battery voltage level that will disconnect the solar panel and stop

charging the battery

Charge limit

The highest charging voltage allowed to be set.

Over Volt. Rec. 15.8V Equal. Charge ----V

#### Over Volt Rec.

This screen shows the Over Voltage Reconnect voltage setting and the Equalisation charge state:

Over Volt Rec.

The battery voltage level that will reconnect the solar panel to the battery and resume charging after a previous high voltage disconnection

Equal. Charge

The Equalisation charging stage voltage setting.

Note: this will be zero for AGM battery setting and two 2 hours for Calcium and Standard battery types)

Absorb. Charge 14.4V Float Charge 13.6V

## Absorb. Charge

This screen shows the Absorb & Float charging stage voltage levels:

Absorb Charge

The battery voltage limit for the Absorb Stage of charging, Absorb stage is when the battery is approaching full and the regulator is maintaining a constant output voltage.

Float Charge

The battery voltage limit for the Float stage of charging, Float stage is when the battery is full and will be trickle charged from the solar panel.

Absorb, Rec. 13.2V Low Volt, Rect. 11.5V

#### Absorb. Rec.

This screen shows the Absorption Recover voltage setting and the Low Voltage Reconnect setting:

Absorb. Rec.

The voltage level that will re-trigger the charger back into the Absorption

stage of charge.

Low Volt. Rect.

Not applicable.

Under Volt. Rect 11.8V Under Volt. Warn 11.5V

#### **Under Volt. Rect**

This screen shows the Under Voltage Reconnect and Under Voltage Warning voltage levels:

Under Volt. Rect The battery voltage level that will reconnect the solar panel to the battery and resume charging after a previous low voltage disconnection

Under Volt. Warn The voltage level that will trigger the LED to turn yellow, warning you that the battery voltage is low. At this point you should manage your loads and disconnect or turn off non essential loads to save battery power.

Low Volt. Disc 10.5V Discharge Limit 10.1V

#### Low Volt. Disc

This screen shows the Low Voltage Disconnect and Discharge voltage limit for the battery:

Low Volt. Disc Not applicable. Discharge Limit Not applicable.

Equalize Time
---min
Absorb Time
10min

## **Equalize Time**

This screen shows the Equalize and Absorption charging stage time limits:

Equalize Time

The time duration for the equalization charging stage, this stage is required for battery maintenance of permanent installations and will trigger every

28 days

Absorb time

This is the Absorb charging stage time duration, this setting is defaulted to

180 minutes, and can be adjusted from 10 - 180 minutes.

Note: Redarc does not recommend changing this or any of the default settings.

## 3.5 DEVICE PARAMETERS

Device Parameter Ver: U02.32+U7.18

ID : 001

## **Device Parameter (Version)**

This Screen shows the Remote Monitors software version and ID number:

Ver. The internal software version, this information is for Redarc use only.

The internal software ID number, this information is for Redarc use only

Device Parameter Bklight: 100S 01 - 01 - 2013 19:10:50

# **Device Parameter (Backlight)**

This screen shows and allows you to set the backlight illumination timing and date/time settings:

## **NOTICE**

The screen backlight will increase the current draw. Timing and durations of the backlight can be adjusted to suit individual needs.

Bklight The led backlight illumination time duration, adjustable from 1 - 999

seconds.

Date MM - DD - YYYY format
Time 24hr - HH : MM : SS format

## 3.6 DEVICE PASSWORD

Device PSW
OriPsw: xxxxxx
NewPsw: xxxxxx

## **Device Password**

This screen shows and allows you to set the password for Parameter changes:

## NOTICE

Do not forget your password. The factory default password is '000000'.

OriPsw This is the device password before setting.

NewPsw This is the new device password.

If changed, Redarc recommend recording your new password in the box provided:



## 3 MONITOR INFORMATION

### 3.7 FAILURE INFORMATION

Failure Info.

#### **Failure Info**

This screen shows any fault information that has occurred with the solar panel or battery connection and voltage limits:

#### 3.8 METER PARAMETERS

: H02.02+S02.02

: 201510160000001

Meter Para. Type : SRPA-RM

Ver

SN

**Meter Parameters (Screen 1)** 

This screen shows the SRPA remote monitors model number,

software version and serial number:

Type The remote monitors part number (SRPA-RM)

Ver The software version, for Redarc use only.

SN The units serial number, for Redarc use only.

Meter Para.

**Meter Parameters (Screen 2)** 

Sw-Pages: 000S Bklight: 020S

This screen shows and allows changes to the time duration of the

display default screen switching and backlight time:

Sw-Pages Timeout / time delay in seconds before the screen defaults back to the

monitoring default page.

Bklight The led backlight illumination time duration, adjustable from 1 - 999

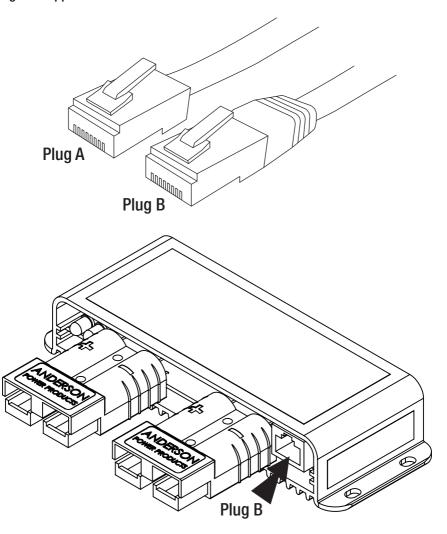
seconds.

#### 4

## NOTICE

The Remote monitor cable is equipped with 2 different styles of plug (as shown above). In order to fit within the remote monitor's mounting bracket - Plug A should be connected to the remote monitor and Plug B to the regulator.

The communication data cable is an 8-Pin RJ45 type Ethernet cable. If a cable of different length is required, Redarc recommend buying a cable of the required length rather than shortening the supplied cable.



#### REDARC SOLAR PRODUCT WARRANTY

Over the last three decades our company has established a reputation as the power conversion specialist.

A 100% Australian-owned company, we have met the needs of customers in transport and other industries through exciting, innovative thinking. We believe in total customer satisfaction and practice this by offering our customers:

- Technical advice free of jargon and free of charge
- Prompt turnaround of orders throughout Australia and globally
- Friendly, personalised, professional service and product support

In the unlikely event that a technical issue arises with a Redarc product, customers are encouraged to initially contact the Redarc Technical Support Team on (08) 8322 4848 or power@redarc.com.au for prompt and efficient diagnosis and product support.

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.

The benefits of this Warranty are in addition to other rights and remedies available at law in respect of the Solar Products and shall not derogate from any applicable mandatory statutory provisions or rights under the Australian Consumer Law.

Redarc Electronics Pty Ltd atf the Redarc Trust trading as Redarc Solar ("Redarc") offers a warranty in respect of its Solar Products where the Solar Products are purchased from an authorised Redarc Solar distributor or reseller by a person ("Purchaser"), on the terms and conditions, and for the duration, outlined below in this document ("Warranty").

- In this Warranty, the term Solar Products means:
  - 1.1 Redarc Solar Monocrystalline Solar Panels;
  - 1.2 Redarc Solar Monocrystalline Folding Portable Solar Panel Kits:
  - 1.3 Redarc Solar Monocrystalline Folding Solar Panels;
  - 1.4 Redarc Solar Amorphous Flexible Solar Panels;
  - 1.5 Redarc Solar Amorphous Folding Solar Panels; (collectively the "**Modules**");
  - 1.6 Redarc Solar Regulators and Displays;
  - 1.7 all other solar products manufactured or supplied by Redarc that are designed for use in recreational vehicles and boats, not otherwise specifically referred to in this clause 1: and
  - 1.8 any component of or accessory for any product in clause 1.1 to 1.7 (inclusive) manufactured or supplied by Redarc.

#### Offer and duration of product warranties

- Subject to this clause 2, Redarc warrants that its Solar Products will be free, under normal application, installation, use and service conditions, from defects in materials and workmanship affecting normal use, for the relevant periods set out below:
  - 2.1 Redarc Solar Monocrystalline Solar Panels 5 years from the date of purchase;
  - 2.2 Redarc Solar Monocrystalline Folding Portable Solar Panel Kits 5 years from the date of purchase;
  - 2.3 Redarc Solar Monocrystalline Folding Solar Panels 2 year from the date of purchase;;
  - 2.4 Redarc Solar Amorphous Flexible Solar Panels -2 years from the date of purchase;
  - 2.5 Redarc Solar Amorphous Folding Solar Panels 2 years from the date of purchase;
  - 2.6 Redarc Solar Regulators and Displays 2 years from the date of purchase: and
  - 2.7 all other Solar Products not otherwise set out in this clause 2 2 years from the date of purchase.
- 3. Where a Solar Product malfunctions (excluding as a result of a reduction in power output levels, which is the subject of clause 4) or becomes inoperative during the relevant warranty period applicable to that Solar Product pursuant to clause 2, due to a defect in materials or workmanship, as determined by Redarc, then subject to further rights conferred by the Australian Consumer Law on the Purchaser, Redarc will, in exercise of its sole discretion, either:
  - 3.1 repair the defective Solar Product;
  - 3.2 replace the defective Solar Product: or
  - 3.3 provide a refund to the Purchaser for the purchase price paid for the defective Solar Product,

- without charge to the Purchaser.
- . Redarc warrants that:
  - 4.1 if any Redarc Solar Monocrystalline Solar Panels or any Redarc Solar Monocrystalline Folding Portable Solar Panel Kits exhibit a power output of less than 80% of Peak Power under Standard Test Conditions, within 25 years of the date of purchase;
  - 4.2 if any Redarc Solar Monocrystalline Folding Solar Panels, Redarc Solar Amorphous Flexible Solar Panels or any Redarc Solar Amorphous Folding Solar Panels exhibit a power output of less than 80% of Peak Power under Standard Test Conditions, within 5 years of the date of purchase; and such loss of power is determined by Redarc to be due to a
    - and such loss of power is determined by Redarc to be due to a defect in materials or workmanship, then subject to further rights conferred by the Australian Consumer Law on the Purchaser, Redarc will, in exercise of its sole discretion, either:
  - 4.3 make up the loss in power by supplying the Purchaser with relevant additional Modules; or
  - 4.4 repair or replace the defective Modules, without charge to the Purchaser.
- 5. For the purposes of clause 4:
  - 5.1 Peak Power means the minimum peak power level in Watts that a Module generates in its maximum power point (as stated on the label affixed to the Module or on the product information sheet accompanying the Module); and
  - 5.2 Standard Test Conditions means:
    - (a) light spectrum of AM 1.5;
    - (b) an irradiation of 1,000 Watts per square metre; and
    - a cell temperature of 25 degrees centigrade at right angle irridation,

the measurements being carried out in accordance with IEC61215 as tested at the connectors or junction box terminals (as applicable) per the calibration and testing standards of Redarc in effect on the date of manufacture of the Module.

- 5. The warranties given by Redarc in clauses 2 to 4 cover the reasonable costs of delivery and installation of any repaired or replaced Solar Products or components of Solar Products to the Purchaser's usual residential address notified to Redarc, together with the reasonable costs of removal and return of any Solar Products determined by Redarc to be defective.
- If the Purchaser incurs expenses of the nature referred to in clause 6 in the context of making a claim pursuant to this Warranty that is accepted by Redarc, the Purchaser will be entitled to claim for reimbursement of those expenses which Redarc determines, in exercise of its sole

discretion, to be reasonably incurred, provided that the claim is notified to Redarc in writing at the postal address or email address specified in clause 23 and includes:

- 7.1 details of the relevant expenses incurred by the Purchaser; and
- 7.2 proof of the relevant expenses having been incurred by the Purchaser.

#### **Exclusions and limitations**

- This Warranty will not apply to, or include any defect, damage, fault, failure or malfunction of a Solar Product, which Redarc determines to be due to:
  - 8.1 normal wear and tear or exposure to weather conditions over time:
  - 8.2 accident, misuse, abuse, negligence, vandalism, alteration or modification;
  - 8.3 non-observance of any of the instructions supplied by Redarc, including instructions concerning installation, configuring, connecting, commissioning, use or application of the Solar Product, including without limitation choice of location;
  - 8.4 failure to ensure proper maintenance of the Solar Product strictly in accordance with Redarc's instructions or failure to ensure proper maintenance of any associated equipment or machinery.
  - proper maintenance of any associated equipment or machinery; 8.5 repairs to the Solar Product that are not strictly in accordance with Redarc's instructions:
  - 8.6 installation, repairs or maintenance of the Solar Product by, or under the supervision of, a person who is not a qualified auto electrician or technician, or if non-genuine or non-approved parts have been fitted;
  - 8.7 faulty power supply, power failure, electrical spikes or surges, lightning, flood, storm, hail, extreme heat, fire or other occurrence outside the control of Redarc;
  - 8.8 use other than for any reasonable purpose for which the Solar Product was manufactured;
  - 8.9 any indirect or incidental damage of whatever nature outside the control of Redarc.
- 9. Warranty claims in respect of a Solar Product must be made in writing to Redarc at the postal address or email address specified in clause 23 within the relevant warranty period applicable to that Solar Product pursuant to clause 2 or clause 4. Such claims must include the following:
  - details of the alleged defect or fault and the circumstances surrounding the defect or fault;
  - 9.2 evidence of the claim, including photographs of the Solar Product (where the subject of the claim is capable of being photographed);
  - 9.3 the serial number of the Solar Product, specified on the label affixed to the Solar Product: and
  - 9.4 proof of purchase documentation for the Solar Product from an authorised distributor or reseller of Redarc, which clearly shows the date and place of purchase.

The return of any Solar Products without the prior written instructions of Redarc will not be accepted by Redarc.

- 10. Without limiting any other clause in this Warranty, Redarc has the right to reject any warranty claim made by a Purchaser pursuant to this Warranty where:
  - 10.1 the Purchaser does not notify Redarc in writing of a warranty claim within relevant warranty period applicable to that Solar Product;
  - 10.2 the Purchaser does not notify Redarc in writing of a warranty claim within 1 month of becoming aware of the relevant circumstances giving rise to the claim, so that any further problems with the Solar Product are minimised;
  - 10.3 the serial number of the Solar Product has been altered, removed or made illegible without the written authority of Redarc;
  - 10.4 the Purchaser is unable to provide proof of purchase documentation in accordance with clause 9.4 or evidence that the Solar Product was properly installed, and that proper maintenance has been performed on the Solar Product, by, or

under the supervision of, a qualified auto electrician or technician, in accordance with the instructions of Redarc.

- 11. If the Solar Product is found to be working satisfactorily on return to Redarc or upon investigation by Redarc, the Purchaser must pay Redarc's reasonable costs of testing and investigating the Solar Product in addition to shipping and transportation charges. Where Redarc is in possession of the Solar Product, the Solar Product will be returned to the Purchaser on receipt of the amount charged.
- 12. Any replaced Solar Products or components of Solar Products shall become the property of Redarc.
- 13. Redarc may, in exercise of its sole discretion, deliver another type of Solar Product or component of a Solar Product (different in size, colour, shape, weight, brand and/or other specifications) in fulfilling its obligations under this Warranty, in the event that Redarc has discontinued manufacturing or supplying the relevant Solar Product or component at the time of the warranty claim, or where such Solar Product or component is superior to that originally purchased by the Purchaser.

#### Other conditions of Warranty

- If the Purchaser acquired a Solar Product for the purpose of resupply, then this Warranty shall not apply to that Solar Product.
- 15. In particular, the sale of a Solar Product via an online auction, online store or other internet website by a party that is not an authorised distributor or reseller of the Solar Product will be deemed to be a resupply within the meaning of the Australian Consumer Law and will render this Warranty void, as Redarc has no control over the storage, handling, quality or safety of Solar Products sold by such persons.
- A Purchaser shall only be entitled to the benefit of this Warranty after all amounts owing in respect of the Solar Product have been paid.
- 17. While Redarc warrants that the Solar Products will be free from defects in materials and workmanship in the circumstances set out in this Warranty, to the maximum extent permitted by law Redarc does not warrant that the operation of the Solar Products will be uninterrupted or error-free.
- To the maximum extent permitted by law, Redarc's determination of the existence of any defect and the cause of any defect will be conclusive.
- Spare parts or materials for the Solar Products are guaranteed to be available for a period of at least 2 years after purchase of the Solar Products.
- The agents, officers and employees of any distributor or reseller of the Solar Products and of Redarc are not authorised to vary or extend the terms of this Warranty.
- 21. Redarc shall not be responsible or liable to the Customer or any third party in connection with any non-performance or delay in performance of any terms and conditions of this Warranty, due to acts of God, war, riots, strikes, warlike conditions, plague or other epidemic, fire, flood, blizzard, hurricane, changes of public policies, terrorism and other events which are beyond the control of Redarc. In such circumstances, Redarc may suspend performance of this Warranty without liability for the period of the delay reasonably attributable to such causes.
- 22. If a clause or part of a clause in this Warranty can be read in a way that makes it illegal, unenforceable or invalid, but can also be read in a way that makes it legal, enforceable and valid, it must be read in the latter way. If any clause or part of a clause in this Warranty is illegal, unenforceable or invalid, that clause or part is to be treated as removed from this Warranty, but the rest of this Warranty is not affected.

#### Redarc's contact details

 Redarc's contact details for the sending of warranty claims under the Warranty are:

Redarc Electronics Pty Ltd 23 Brodie Road (North), Lonsdale SA 5160

Email: power@redarc.com.au

Telephone: +61 8 8322 4848

This product has been specified and tested in Australia in accordance with REDARC specifications and testing requirements by REDARC Engineers. You can be assured that this product meets the stringent quality levels of all REDARC products.





For free technical assistance please contact Redarc Electronics 23 Brodie Road North, Lonsdale SA (08) 8322 4848 power@redarc.com.au

www.redarcsolar.com.au

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This product is manufactured in China.