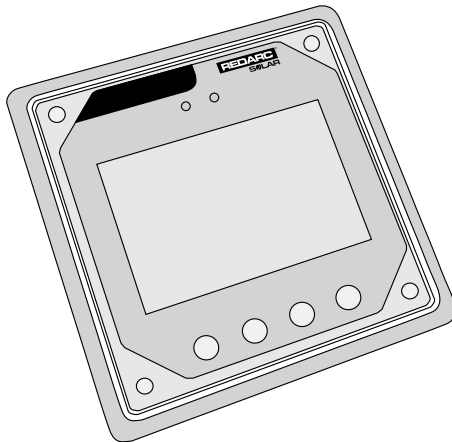


# Remote Monitor for Solar Regulator

**SRP0240-RM**



**For SRP0120 & SRP0240 Solar Regulators**

# THE SOLAR REGULATOR REMOTE MONITOR

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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

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**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.**

### **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 12 V and 24 V batteries.
3. Over Charging Hazard. Failure to connect solar panel's negative wire directly to the regulator may result in overcharging the battery. The solar panel's negative wire must be connected directly to the regulator only.

4. Check the battery manufacturer's data for your battery and ensure that the voltage of the charging profile you select does not exceed the manufacturer's recommended maximum charging voltage. If the absorption and boost voltage for your battery type is too high, please select another charging profile. The Solar Regulator is not intended to supply power to a low voltage electrical system other than to charge a battery.
5. Electrical Hazard. Incorrect connection of batteries and solar panels in Parallel or Series can subject the regulator to high voltages that will damage the regulator. Ensure the recommended connections and sequences are followed and that the rated current, wattage or voltage of the regulator is not exceeded.
6. NEVER smoke or allow a spark or flame in vicinity of battery or engine. This may cause the battery to explode.

## PERSONAL SAFETY PRECAUTIONS

7. 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.
  - 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.

# WARNING & SAFETY INSTRUCTIONS

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## **NOTICE**

1. Designed for use with the REDARC SRP 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 SRP Solar Regulator user manual.

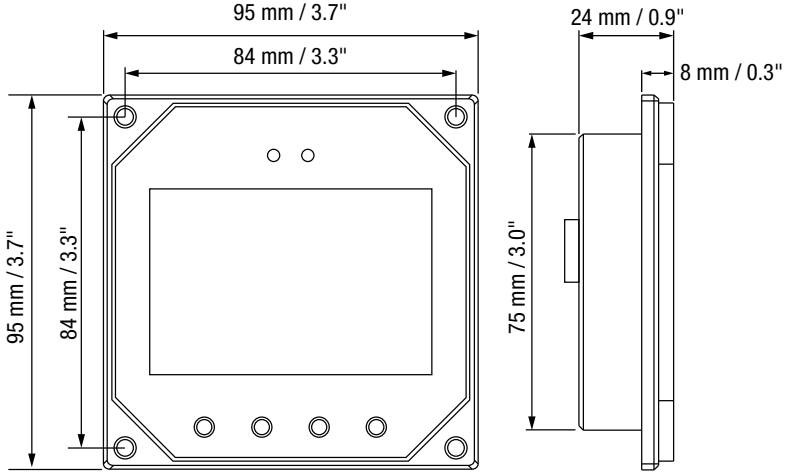
## CONTENTS

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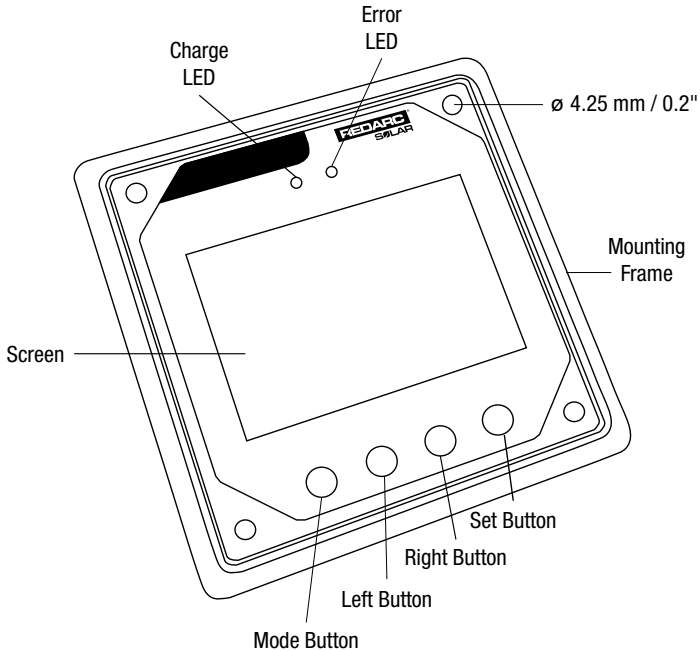
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# 1 SPECIFICATIONS

## 1.1 Dimensions

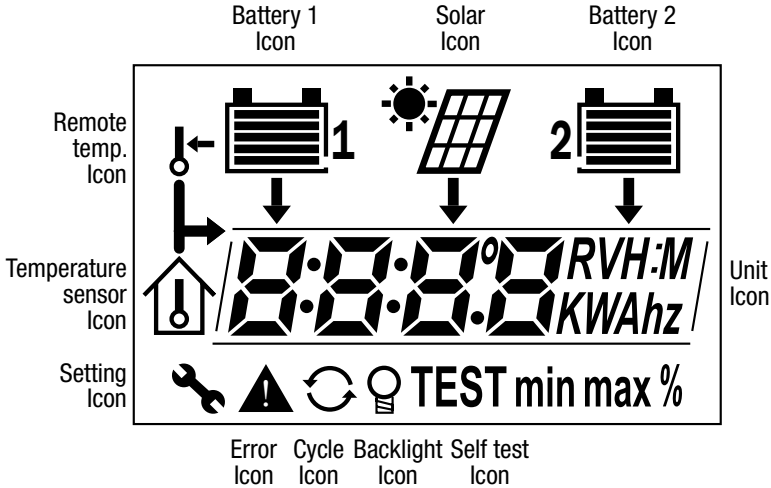


## 1.2 Monitor Function



## 2 THE DISPLAY SCREEN

### 2.1 Screen Function



#### System Checking

At any time pressing and will trigger a system check. The system check will advise of the status of the battery 1, battery 2, solar and temperature conditions as well as performing a check of the LCD icons. The monitor will show 'open' for a currently open connection due to over-voltage of charge priority, and will show 'no' if a battery or temperature sensor is not connected.

#### Fault Indicator





The symbol indicates that a fault has occurred. This symbol will advise of over-voltage, open-circuit, no temperature sensor, battery disconnect, over current and panel short-circuit conditions. The symbol will disappear when the fault is removed and the monitor and regulator restart.

















































#### Data Repeat Option























The data repeat option can be set to cycle through panel, battery or temperature data. When the data repeat option is set to 'auto' the monitor will cycle through the available data for the selected group. Pressing the button will cycle between solar, battery 1, battery 2 and temperature groups, pressing or will cycle back or forward through the data for that group.

# 3 MONITOR OPERATION

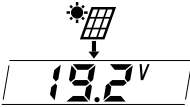
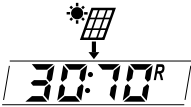
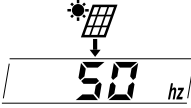
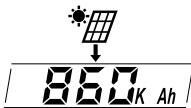
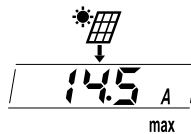
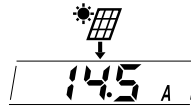
## 3.1 Solar Panel Information

Key: Mode  Left  Right  Set 

Solar Panel Information						
              	132 V	30:10 <sup>R</sup>	50 Hz	860 K Ah	145 A <sub>max</sub>	145 A
Battery 1 Information						
           	138 V	144 V <sub>max</sub>	108 V <sub>min</sub>	186 K Ah		
Battery 2 Information						
           	138 V	144 V <sub>max</sub>	108 V <sub>min</sub>	186 K Ah		
Temperature and Time Information						
        	36°C	14:59 <sup>HM</sup>	30°C			

Press 	Set Temperature Unit					
 	88.9°C	88.9°F				
↓ Or 	Set Backlight Timeout					
 	6:10	6:20	6:30	0n	OFF	6:05
↓ Or 	Set Backlight Brightness					
 	FULL	HALF				
↓ Or 	Set Data Repeat Option (see below)					
 	Auto	OFF	This will cycle through the solar panel, Battery 1, Battery 2 or Temperature data.			
↓ Or 	Set Time (hours)					
 Increase hours 	14:59 <sup>HM</sup>					
 Decrease hours 						
↓ Or 	Set Time (minutes)					
 Increase minutes 	14:59 <sup>HM</sup>					
 Decrease minutes 						

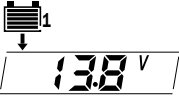
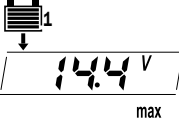

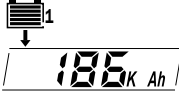
### 3 MONITOR INFORMATION

	Displays voltage the solar panel is producing.
	Displays a ratio showing the percentage of charge being sent to each battery. (Only when two batteries are connected).
	Displays the pulsing frequency setting which can be changed between 25Hz and 50Hz depending on radio interference.
	Displays the total charge (Amp Hours) generated from the solar panel(s) since the remote monitor was connected.*
	Displays the maximum current (Amps) achieved by the solar panel(s) since the remote monitor was connected.*
	Displays the instantaneous current (Amps) being produced by the solar panel(s).

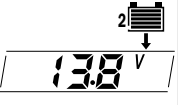
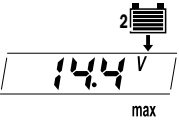

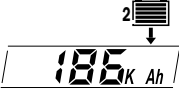
\*Disconnect and reconnect the remote monitor to reset the data.

### 3 MONITOR INFORMATION

#### 3.2 Battery 1 Information

	Displays voltage of Battery 1.
	Displays the maximum voltage measured at Battery 1 since the remote monitor was connected.*
	Displays the minimum voltage measured at Battery 1 since the remote monitor was connected.*
	Displays the total charge (Amp Hours) into Battery 1 generated from the solar panel(s) since the remote monitor was connected.*

#### 3.3 Battery 2 Information


	Displays voltage of Battery 2.
	Displays the maximum voltage measured at Battery 2 since the remote monitor was connected.*
	Displays the minimum voltage measured at Battery 2 since the remote monitor was connected.*
	Displays the total charge (Amp Hours) into Battery 2 generated from the solar panel(s) since the remote monitor was connected.*

\*Disconnect and reconnect the remote monitor to reset the data.

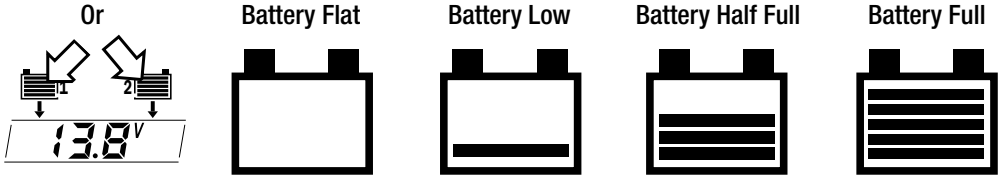


### 3 MONITOR INFORMATION



#### 3.4 Time / Clock Information

	Displays the time in the format HH:MM, the clock is set to 24Hr time.
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#### 3.5 Battery Charge Level Indicator

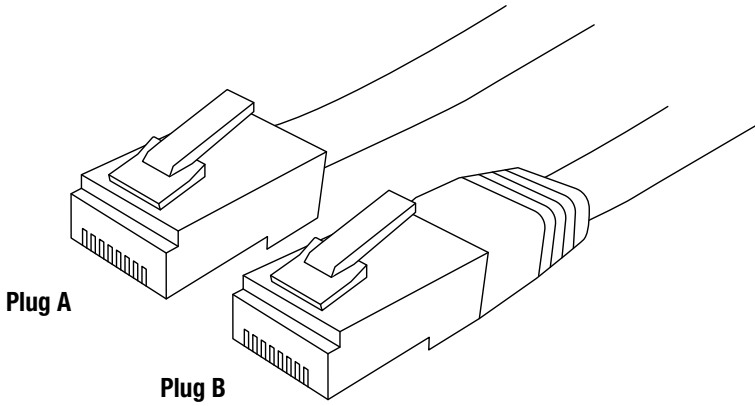


#### 3.6 Temperature Information

	Displays the temperature measured at the external temperature probe (in °C). (Optional temperature probe SRP0240-TP sold separately)
	Displays the temperature measured at the solar regulator (in °C).

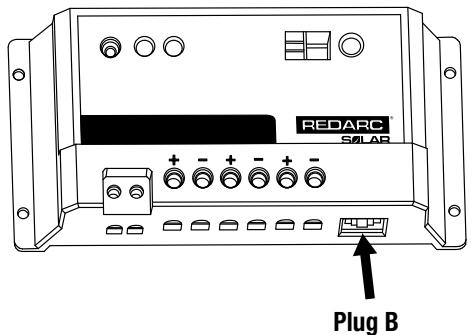
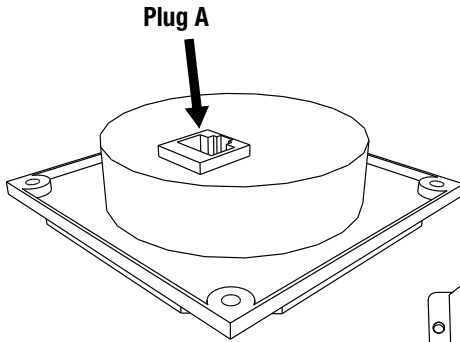
\*Disconnect and reconnect the remote monitor to reset the data.

## 4 REMOTE MONITOR CABLE (8-PIN RJ45 10 M / 32.8 FT)



### **⚠ PRECAUTION**

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.



## 5 WARRANTY

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### Limited Warranty

For full warranty terms and conditions, visit the link below or refer to the contact details applicable to your region.

#### Australia, New Zealand

[www.redarc.com.au/warranty](http://www.redarc.com.au/warranty)

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

**Australia** 1300 REDARC (1300 733 272)  
**New Zealand** +64 9 222 1024  
**UK/Europe** +44 (0)20 3930 8109

#### North America

[www.redarcelectronics.com/warranty](http://www.redarcelectronics.com/warranty)

REDARC Corporation  
c/o Shallco, Inc.  
308 Component Dr.  
Smithfield, NC 27577  
USA

**USA** +1 (704) 247 5150  
**Canada** +1 (604) 260 5512  
**Mexico** +52 (558) 526 2898

THE POWER OF



**Australia**

power@redarc.com.au  
www.redarc.com.au  
1300 REDARC (1300 733 272)

**New Zealand**

power@redarcelectronics.co.nz  
www.redarcelectronics.co.nz  
+64 9 222 1024

**North America**

power@redarcelectronics.com  
www.redarcelectronics.com

**United States**

+1 (704) 247 5150

**Canada**

+1 (604) 260 5512

**Mexico**

+52 (558) 526 2898

**UK/Europe**

power@redarcelectronics.eu  
www.redarcelectronics.eu  
+44 (0)20 3930 8109

**www.redarc.com.au**