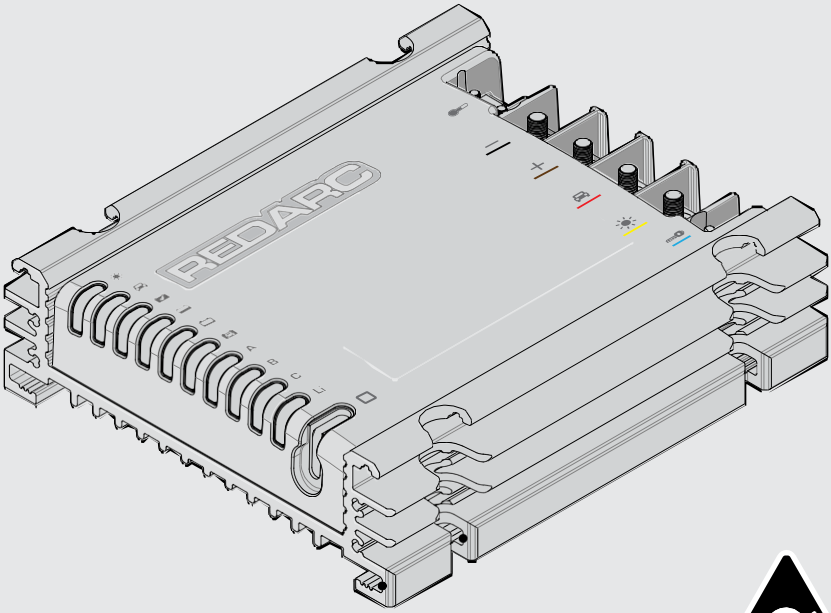
THE POWER OF REDARC®

BCDCX

MODELS:

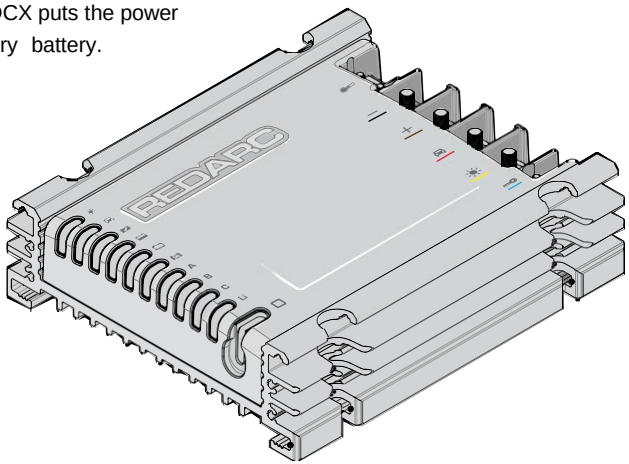
- **BCDCX12025**
- **BCDCX12050**



AUSTRALIAN MADE®

BCDCX

The BCDCX is the next generation of In-vehicle charging technology. Incorporating the latest 4-stage adaptive charging profile, a refined MPPT algorithm and the ability to monitor and upgrade via the RedVision® App, the BCDCX puts the power in your hands and in your auxiliary battery.



Get the Free Configurator App

Configure the settings of the BCDCX using your smartphone via Bluetooth®.

Get the Free RedVision® App

Monitor and control your System using your smartphone via Bluetooth®.

The RedVision® App and the Configurator App and their interactions with the BCDCX have not been tested on all smartphone models. Visit the application pages within each App store to view compatibility details.

CONTENTS

WARNINGS & SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS — this manual contains important safety instructions. Do not operate the system unless you have read and understood this manual. REDARC recommends that the BCDCX referenced in this manual be installed by a suitably qualified person.

Disclaimer: REDARC accepts no liability for any injury, loss or property damage which may occur from the improper or unsafe installation or use of its products.

SAFETY MESSAGE CONVENTIONS

Safety messages in this manual include a signal word to indicate the level of the hazard as follows:

⚠ **WARNING:** Indicates a potentially hazardous situation which could result in death or serious injury to the operator or to bystanders.

⚠ **CAUTION:** Indicates a potentially hazardous situation which may result in moderate or minor injury to the operator or to bystanders.

NOTICE: Indicates a situation that may cause equipment damage.

⚠ WARNING

1. **RISK OF EXPLOSIVE GASES:** Working in 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 when installing and using the Battery Charger.
2. NEVER smoke or allow a spark or flame in vicinity of battery or engine, this may cause the battery to explode.

⚠ CAUTION

1. Do NOT alter or disassemble the Battery Charger under any circumstances. All faulty units must be returned to REDARC for repair. Incorrect handling or reassembly may result in a risk of electric shock or fire and may void the unit warranty.
2. The Battery Charger 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 Battery Charger.
3. Only use the Battery Charger for charging Standard Automotive Lead Acid, Calcium Content, Gel, AGM, SLI, Deep Cycle or Lithium Iron Phosphate type 12 V batteries.
4. When using the Battery Charger to charge a Lithium Iron Phosphate battery, only use batteries that feature an inbuilt battery management system which includes cell balancing, under and over voltage protection.
5. The Battery Charger is not intended to supply power to a low voltage electrical system other than to charge a battery.
6. Check the manufacturer's data for your battery and ensure that the 'Continuous Current Rating' of the charger does not exceed the manufacturer's recommended maximum charging current.
7. Check the manufacturer's data for your battery and ensure that the 'Maximum' voltage of the profile you select does not exceed the manufacturer's recommended maximum charging voltage. If the 'Maximum' voltage is too high for your battery type, please select another charging profile.
8. Cable and fuse sizes are specified by various codes and standards which depend on the type of vehicle the battery is installed in. Selecting the wrong cable or fuse size could result in harm to the installer or user and/or damage to the Battery Charger or other equipment installed in the system. The installer is responsible for ensuring that the correct cable and fuse sizes are used when installing this Battery Charger.
9. Do not crush or puncture the Battery Charger.

PERSONAL SAFETY PRECAUTIONS: To assist with the safe operation and use of the Battery Charger when connected to the battery:

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

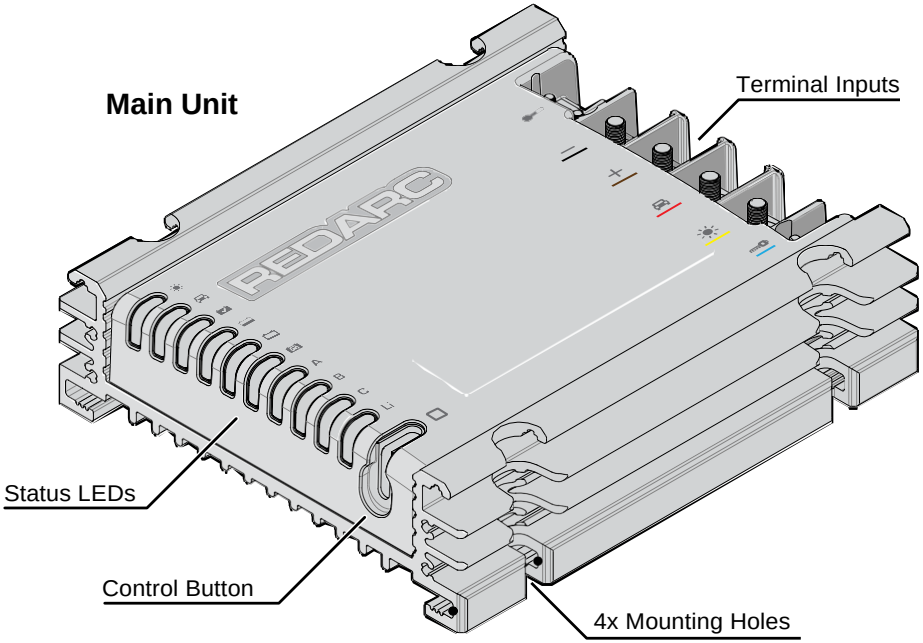
b. If battery acid contacts your skin or clothing, remove the affected clothing and wash the affected area of your skin immediately with soap and water. If battery acid enters your eye, immediately flood the eye with running cold water for at least 10 minutes and seek medical assistance immediately.

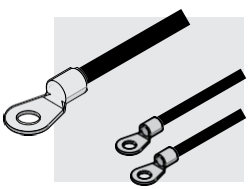

NOTICE

1. Keep the Battery Charger away from major heat sources (e.g. hot exhaust), high voltage, and avoid exposed sunlight for long periods of time.
2. When charging a battery, make sure the settings are correct for the type of battery under charge. Charging a battery with the wrong profile may cause the Battery Charger to indicate a fault or give misleading results and cause injury to person(s).

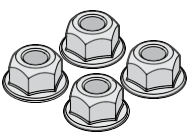
PRODUCT OVERVIEW

KIT CONTENTS





2 m (6.6') Temperature Sensor Cable

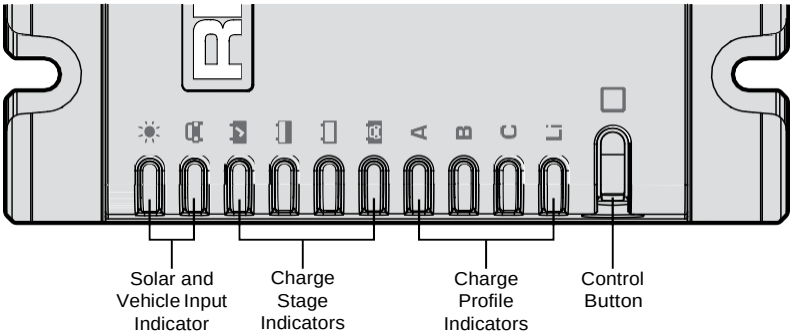


M5 Flanged Nyloc Locking Nuts

M3 Flanged Nyloc Locking Nuts

STATUS LEDS

The Main Unit displays the status and operations of your system, this can be altered and controlled via the Control Button and/or the RedVision® App.



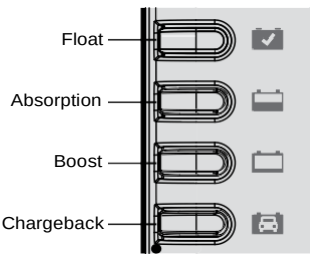
VEHICLE AND SOLAR INDICATORS

The Solar and Vehicle LEDs will be on when the input is available and in use. The BCDCX will always choose Solar before the Vehicle input, see page 23 for more information.

CHARGE STAGE INDICATORS

The Charge Stage indicators are used to show which stage of the charge profile the Battery Charger is in. This may be Boost, Absorption, Float or Chargeback when enabled.

See page 22 for more information about the Charge Stage function.

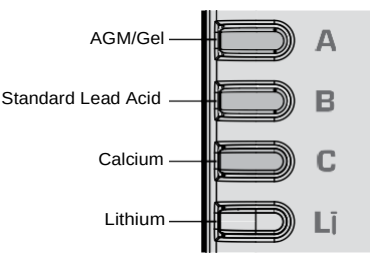


CHARGE PROFILE INDICATORS

The BCDCX supports AGM/Gel, Standard Lead Acid, Calcium and Lithium profiled batteries.

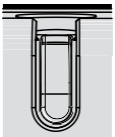
NOTE: Refer to the charging specifications stated by the battery manufacturer before selecting the profile for your installation.

See page 23 for more information on how to select the charging profile and page 25 for voltage specifications.

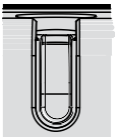


CONTROL BUTTON

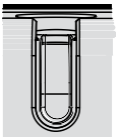
The BCDCX Control Button is used to operate the BCDCX once your installation is complete. The Button is used to cycle through and enter into each mode. Press the Button for **≤ 1 second to cycle** into the next mode and **hold for ≥1 second to enter** into a mode. See page 21 for more information on operating the BCDCX.



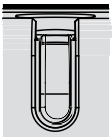
Standby



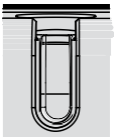
Bluetooth



Start Battery Recovery



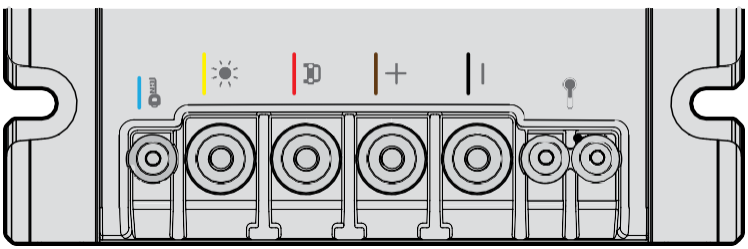
Maximum Charge Current



Profile Select

TERMINAL INPUTS

The Main Unit is equipped with terminal studs to securely hold the required inputs and outputs to charge your auxiliary battery. See 'System Planning' (page 8) for lug and cable requirements.



	Temperature Sensor Input	Monitors the temperature of the auxiliary battery being charged.
	Common Ground Input	Connects to the common ground (see page15).
	Auxiliary Battery Output	Connects to the auxiliary battery positive (+) terminal (see page15).
	Start Battery Input	Connects to the start battery positive (+) terminal (see page15).
	Solar Input	Connects to the solar panel positive (+) input (see page16).
	Vehicle Ignition Input	Connects to an ignition signal for vehicles with smart alternators. See page10 to determine if an ignition connection is required and page15 for installation instructions.

SYSTEM PLANNING

WHAT YOU WILL NEED

- Appropriate cables, lugs and heatshrink for **auxiliary, start battery, common ground, solar** and **vehicle ignition** (if required) connections (see below and page 9).
- Fuses for **auxiliary** and **start battery** (see page 9).
- Appropriate tools and consumables, including a suitable crimping tool, screwdriver, hex-head tool, power drill, common fasteners, cable cutters, pliers and cable ties.

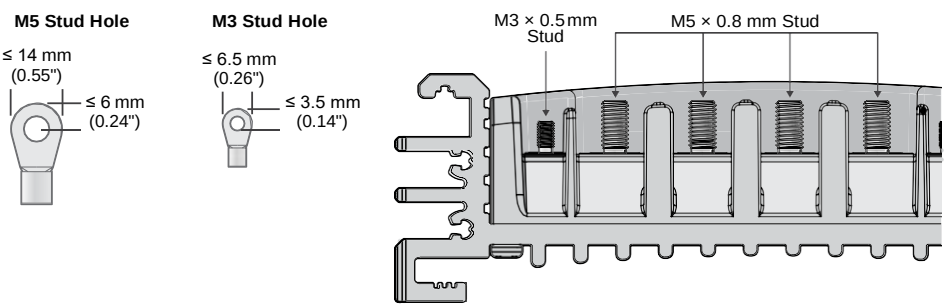
⚠ CAUTION: Selecting the wrong cable or fuse size could result in harm to the installer or user and/or damage to the battery or other equipment installed in the system. The installer is responsible for ensuring that the correct cable type and fuse sizes are used when installing the BCDCX.

Wiring must be installed in protected areas away from heat sources and sharp objects. Cables must not be routed over or through moving parts of the vehicle. Additional protection such as conduit may be required, especially if routing cables through the engine bay.

LUG REQUIREMENTS

Select a lug size for **auxiliary, start battery, common ground and solar** terminal inputs with an M5 stud hole and a cable input size that suits the required cable gauge for your installation.

If your vehicle requires a **vehicle ignition** connection select a lug size with an M3 stud hole and a cable input size that suits the required cable gauge for your installation (see page 10 to determine vehicle ignition type).



CABLE AND LUG SIZING

NOTE: The auxiliary output cable should be no more than 1.5 m (4.9') in length.

The BCDCX12025 and BCDCX12050 can carry peak currents up to 30 / 55 A. To carry this current effectively it is important to select the cable gauge based on the length of cable run required. Refer to the table below for appropriate cable sizes.

Before making any connections run the cables required for your setup and then trim any excess.

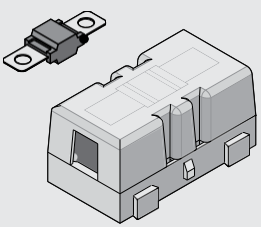
Part Number	Cable Install Length		Cable Cross Sectional Area	Lug Cable Size
BCDCX12025	1 – 5 m	3 – 16'	≥ 7.7 mm²	8 B&S / 10 mm²
	5 – 9 m	16 – 30'	≥ 13.6 mm²	6 B&S / 16 mm²
BCDCX12050	1 – 5 m	3 – 16'	≥ 13.6 mm²	6 B&S / 16 mm²
	5 – 9 m	16 – 30'	≥ 20.3 mm²	4 B&S / 25 mm²

FUSE REQUIREMENTS

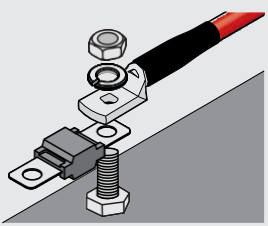
Fuses are required for the **auxiliary** and **start battery** connections and should be mounted within 100 mm (3.9") of cable length from the battery positive (+) terminal. Refer to the table below for suitable fuse sizing.

Part Number	Fuse Rating	Fuse Type	Recommended Fuse Kit
BCDCX12025	40 A	MIDI	FK40
BCDCX12050	60 A	MIDI	FK60

MIDI Fuse (with holder)



Fuse Assembly



CONSIDERATIONS PRIOR TO INSTALLATION

CABLE MANAGEMENT

During installation, ensure there is adequate spacing around the Main Unit to allow for strain-relief and cable management once cabling is complete. See page 17 for further information.

COMMON GROUND

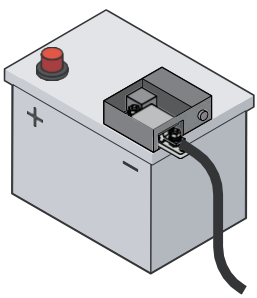
Consider that the common ground connection and all components in your setup must share a common electrical ground for correct system operation. This is typically achieved by connecting all grounds to the vehicle body.

VEHICLE ALTERNATOR TYPE

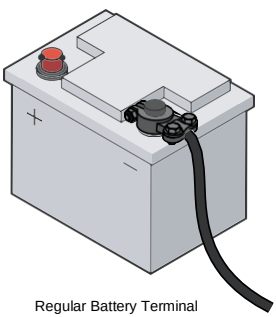
Confirm the type of alternator your vehicle has by checking for a battery sensor on your vehicles start battery as illustrated below. This will determine if a **vehicle ignition** connection is required for the BCDCX to function correctly.

If your vehicle has a variable-voltage (smart alternator) the **vehicle ignition** connection will need to be made at a point that is live only when the ignition is turned on. For Idle-stop vehicles this connection will need to be made at the D+ or engine running signal.

Vehicles without a battery sensor, have a fixed voltage or temperature compensating alternator, these are considered to have a 'standard alternator' and do not require a **vehicle ignition** cable connection.



Battery Terminal with Sensor
(Variable Voltage Alternator)



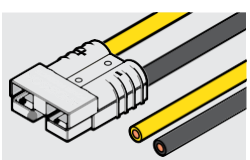
Regular Battery Terminal
(Standard Alternator)

SOLAR PANEL SELECTION

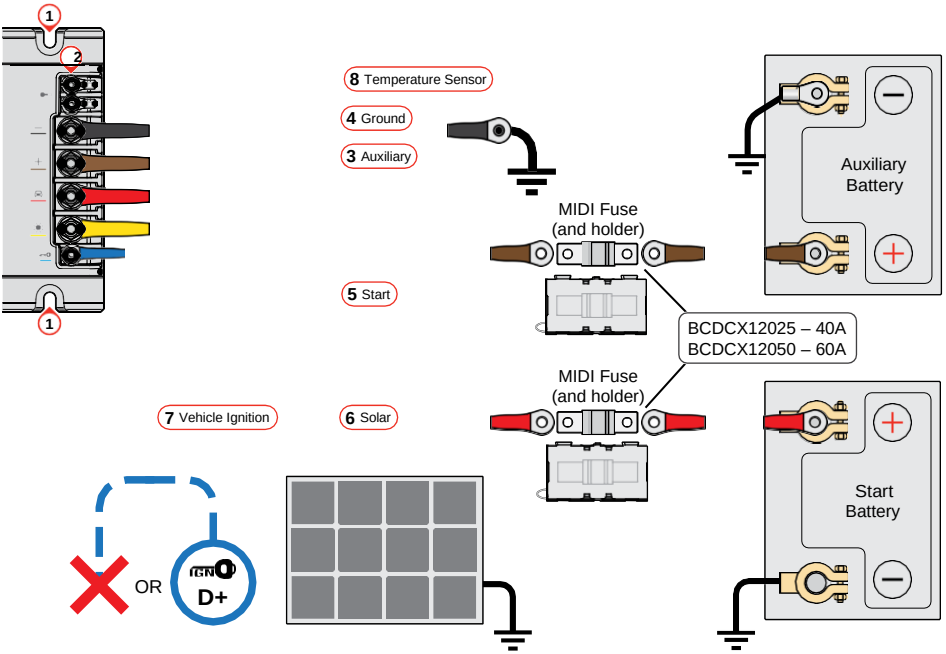
Consider if your solar panel/s will be in a fixed or portable position, this influences the connector choice from the Main Unit to your solar panel/s.

NOTE: Ensure the panel is 12 V or 24 V nominal and does not have a built in solar regulator.

Anderson SB50 connectors are recommended for portable solar panel setups.



BASIC SETUP



The BCDCX must be installed in the following order:

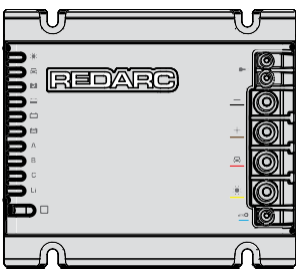
1. Mounting the Main Unit (page 12).
2. Lug Connections to the Main Unit (page 14).
3. Auxiliary battery cable connection (page 15).
4. Ground cable connection (page 15).
5. Start battery cable connection (page 15).
6. Solar cable connection (page 16).
7. Vehicle ignition cable connection (if required) (page 16).
8. Temperature sensor cable connection (page 16).

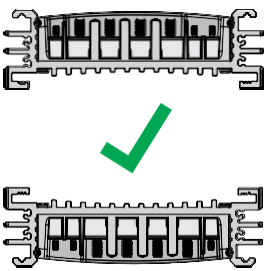
INSTALLATION — MOUNTING

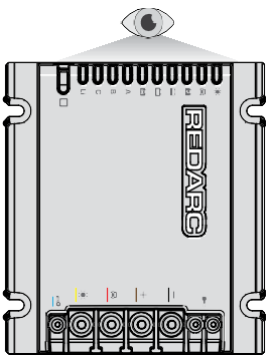
MOUNTING REQUIREMENTS

The Main Unit can be installed in the engine bay of a vehicle, along a chassis rail or in the cabin of the vehicle.

- Mount as close as possible to the auxiliary battery. There should be no more than 1.5 m (4.9') of cable length between the Main Unit and auxiliary battery.
- Mount securely to a structural surface that can support the Main Unit and the lug connections. Do not mount on moveable parts.
- The Main Unit can be mounted in any orientation ensuring that the Control Button and LED indicators are visible and accessible.
- The mounting surface must be flat and safe to drill — check the reverse side before drilling.

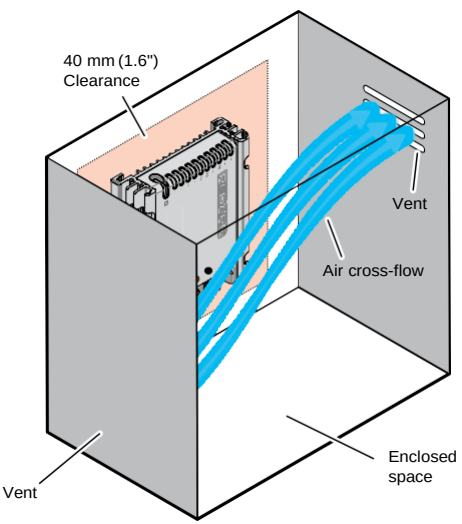






MOUNTING CLEARANCES

- Leave at least 40 mm (1.6") of clearance around the Main Unit for hand access and cable management.
- If installing the Main Unit in an enclosed space, make sure to leave adequate venting and clearance around all sides of the Unit. Two vents should ideally be positioned at the top and bottom of the enclosure for cross-flow of air.



MOUNTING INSTRUCTIONS

MOUNTING HARDWARE

Do not use adhesives or adhesive tape to mount the Main Unit.

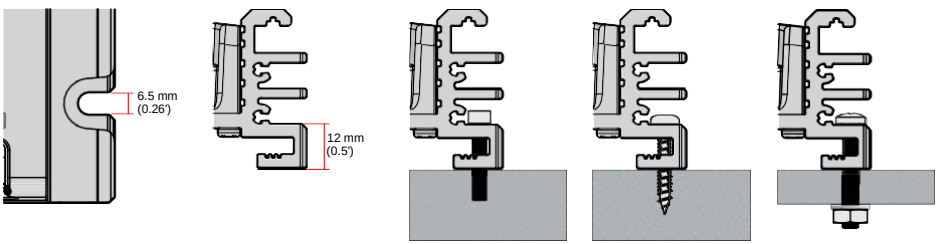
When mounting the Main Unit, any fasteners may be used as long as:

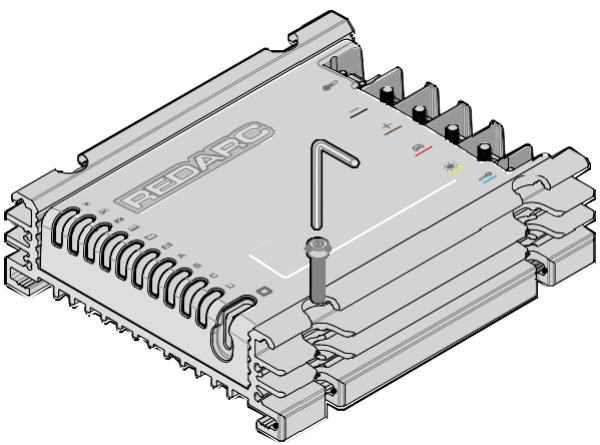
- They are suitable for the selected mounting surface and;
- They have a clearance-fit through the mounting holes on the Main Unit.

REDARC recommend mounting the Main Unit using four M6 fasteners and suitable tools based of the type of fasteners selected. Washers are not required for mounting.

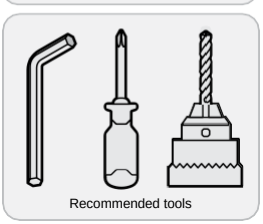
MOUNTING STEPS

- All four mounting points must be used to mount the Main Unit.
- If clearance/pilot holes need to be drilled, place the Main Unit in its final position and carefully mark the centre of each mounting hole.
- Remove the Main Unit and drill clearance/pilot holes. De-burr the drilled holes and clear away swarf. Touch up any bare metal surfaces that have been exposed with a rust-inhibitor (e.g. primer). Fasten the Main Unit in place.






Recommended fasteners


Recommended tools

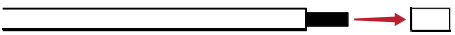
INSTALLATION — WIRING

LUG ASSEMBLY

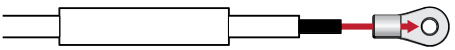
Before making any connections to the Main Unit, assemble each cable with the appropriate sized lug using heatshrink as demonstrated below.

REDARC recommend using heatshrink as it protects the cable and lug connection from harsh environments, sharp cutting edges and abrasion.

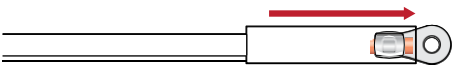
Strip the end of the cable back enough to ensure the insulation does not enter the barrel of the lug when fully inserted.



Slide heatshrink over the cable and insert the cable into the lug. Crimp the lug using a suitable crimping tool.



Slide the heatshrink to partially cover the lug, leaving the lug tongue exposed. Ensure there is adequate space around the stud hole for the Nyloc Locking Nuts.



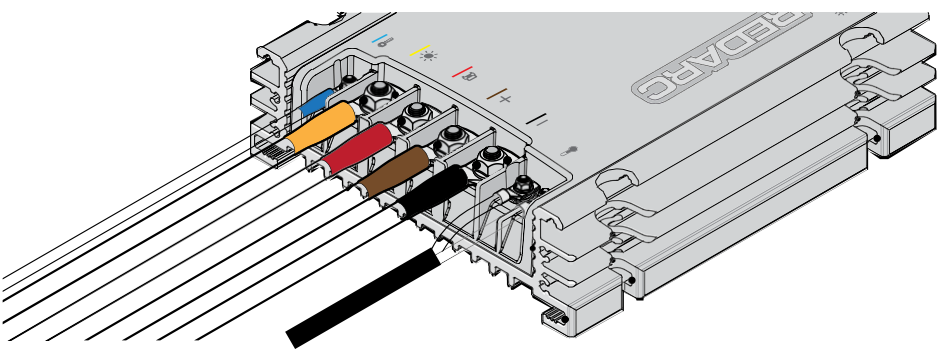
Shrink the heatshrink.

LUG CONNECTIONS

Connect **auxiliary battery, common ground, start battery,** and **solar** to the terminal studs on the Main Unit. Fasten using the supplied M5 Nyloc Locking Nuts.

Connect the **temperature sensor** and **vehicle ignition** (if required) to the terminal studs on the Main Unit. Fasten using the supplied M3 Nyloc Locking Nuts.

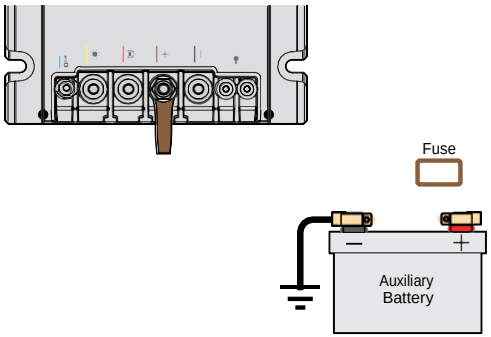
Torque M5 Nyloc Locking Nuts to 4 Nm (2.9 ft-lbf) and M3 Lyloc Locking Nuts to 1 Nm (0.74 ft-lbf).



CABLE CONNECTIONS

AUXILIARY BATTERY CABLE

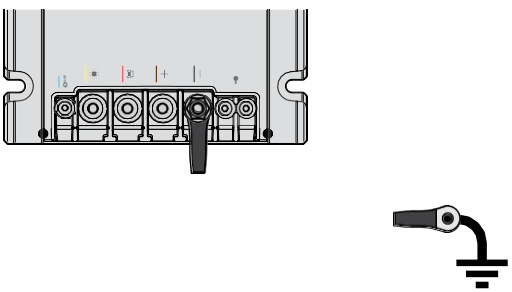
Connect to the auxiliary battery positive (+) terminal. Mount a MIDI fuse no more than 100 mm (3.9") away from the battery terminal.



COMMON GROUND

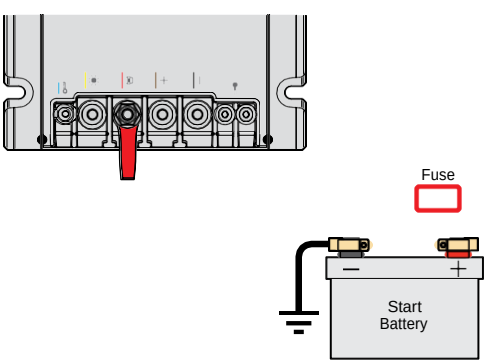
Connect to a ground point, such as a ground stud on the metal of the bodywork.

The **common ground** cable must be connected to a ground point that forms a common ground with both the auxiliary and start battery.



START BATTERY CABLE

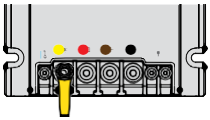
Connect to the start battery positive (+) terminal. Mount a MIDI fuse no more than 100 mm (3.9") away from the battery terminal.



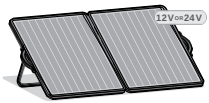
SOLAR CABLE

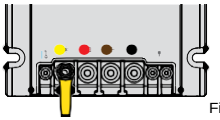
Connect to either a 12 V or 24 V solar panel. Ensure that the solar panel ground is connected to the common ground on the vehicle.

IMPORTANT: Connect to unregulated solar panel/s only.

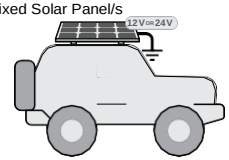


Portable Solar Panel/s





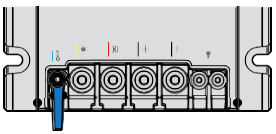
Fixed Solar Panel/s



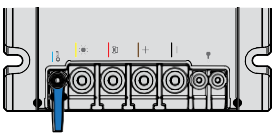
VEHICLE IGNITION CABLE

Vehicles with variable-voltage smart alternators, connect the **vehicle ignition** cable to a signal which is active when the engine is running.

IMPORTANT: Do not connect any other cable to the vehicle ignition input on the Main Unit if a vehicle ignition connection is not required.



Variable-Voltage Alternators

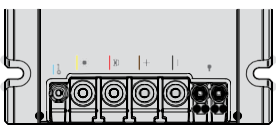


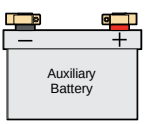
Standard Alternators

TEMPERATURE SENSOR CABLE

The supplied **temperature sensor** cable monitors the temperature of the auxiliary battery while its being charged.

Connect the cable to the negative (–) terminal on the auxiliary battery.

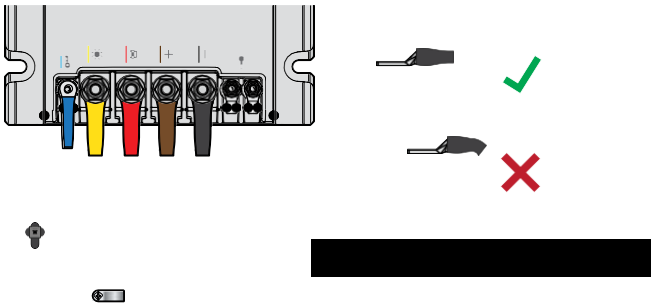




STRAIN-RELIEF AND CABLE MANAGEMENT

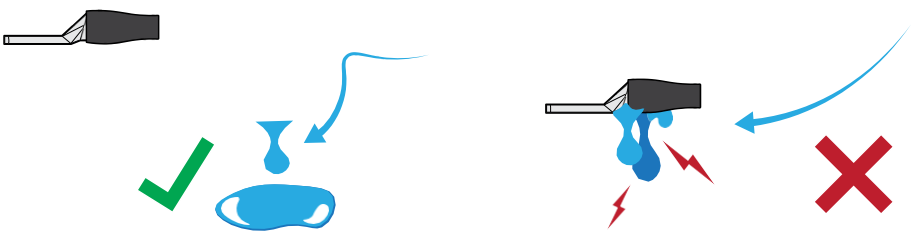
PROTECT AND SECURE THE CABLES

Secure the cables to a fixed point close to the Main Unit, cable ties, cable clips and P-clips are recommended. Flexible conduit can be used to manage and protect cabling running in the same direction. An example is shown below.



AVOIDING WATER ENTRY

When making cable connections to the Main Unit, it is good practice to route cables with drip loops. This is to prevent moisture from running down the cables into the Main Unit.



CARE AND MAINTENANCE

After installation is complete, spray the terminals on the Main Unit with a battery terminal protection coating.

Periodically check that all connections are firm, and that all cables are adequately managed.
Parts of the system may have moved as a result of repeated vibration, particularly if the vehicle has been travelling on uneven/corrugated road surfaces.

SYSTEM CONFIGURATION

GET THE REDVISION® CONFIGURATION APP

Get the RedVision® Configurator App

Download the free REDARC RedVision® Configurator App to Configure the settings of the BCDCX using your smartphone via Bluetooth®.

The Configurator App and its interactions with the BCDCX have not been tested on all smartphone models. Visit the application pages with your App store to view compatibility details.

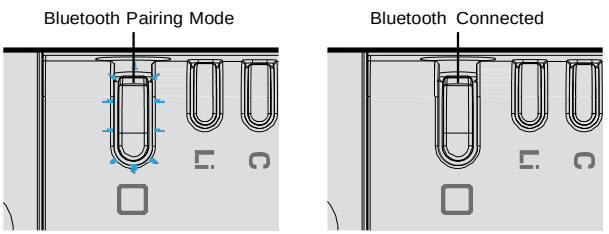
NOTICE: Only use this app if you have read and fully understand all instructions in this manual.

PAIRING THE BCDCX TO THE CONFIGURATOR APP:

When the Control Button is flashing **BLUE**, push and hold the Control Button to enter Bluetooth® paring mode.

1. Download the RedVision® Configurator App and make sure Bluetooth® is enabled on your smartphone.
2. Open the Configurator App and navigate to the **Choose System** screen in the App, select the system that matches the product ID on the Main Unit.
3. Once the Control Button turns solid **BLUE**, and the Configuration Main Menu in the App opens, the Bluetooth® pairing is complete (first time pairing may take a few minutes).

To clear pairings, hold the Control Button until the Control Button is flashing quickly/intensely.



EDIT A CONFIGURATION

1. Open the RedVision® Configurator App.
2. From the **Choose System** screen, tap **Open Configuration**  .
3. From the list, choose the configuration you want to edit.
4. Edit the configuration as required to suit your setup — remember to tap **Save**  each time you make a change.

END-USER LOCKOUT

The BCDCX allows you to add an Installer PIN (personal identification number) to prevent end-users from changing the Configuration of their RedVision® system. This is to avoid safety hazards if the system is reconfigured in an unsafe way by persons who do not fully understand the system requirements.

IMPORTANT: By adding an Installer PIN, the saved Configuration cannot be edited without entering the correct PIN. DO NOT forget the PIN.

ADD AN INSTALLER PIN:

1. Open the RedVision® Configurator App.
2. From the **Choose System** screen, tap **Open Configuration**  then select the configuration you want to add an installer PIN to.
3. Tap the gear icon  at the top right of the screen, then select **Add Installer PIN** from the pop-up list.
4. Type a 4 to 8 digit PIN into the **New PIN** field, then retype it in the **Confirm New PIN** field. Tap **Add**.
5. The PIN will now have to be entered in order to make any changes to the locked configuration.

REMOVE THE INSTALLER PIN:

1. Open the RedVision® Configurator App.
2. From the **Choose System** screen, tap **Open Configuration**  then select the configuration you want to remove the Installer PIN from.
3. Tap the gear icon  at the top right of the screen then select **Remove Installer PIN** from the pop-up list.
4. Type the PIN into the **Current PIN** field, then tap **Remove**.

SYSTEM TESTING

System testing is an important step to confirm the end-user experience of the configured system. Identifying and correcting errors is important before the system is operational and on-the-road.

1. Download and install the RedVision® App.
2. Open the App and check that each connected device appears and functions as intended.
3. Make sure that the device labels and icons are easy to understand.

DOWNLOAD THE REDVISION® APP

Get the RedVision® App

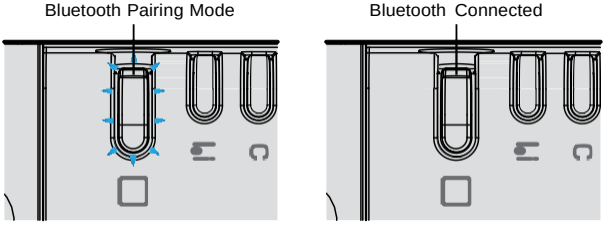
The RedVision® App gives you remote access to BCDCX functions and features including battery level monitoring, system and input source monitoring.

The RedVision® App and its interactions with the BCDCX have not been tested on all smartphone models. Visit the application pages with your App store to view compatibility details.

PAIRING THE BCDCX TO THE REDVISION APP:

When the Control Button is flashing **BLUE**, push and hold the Control Button to enter Bluetooth® paring mode.

1. Download the RedVision® App on your smartphone. Make sure Bluetooth® is enabled on your smartphone, then open the RedVision® App.
2. In the RedVision® App, tap the Menu icon (☰). Under the devices heading, tap the Add icon (**+**).
3. Find and select the device that matches the Product ID on your BCDCX. Read and agree to the disclaimer.
4. Once the Control Button turns solid **BLUE**, and system information appears on your smartphone the Bluetooth® pairing is complete (first time pairing may take a few minutes).



SUBSEQUENT CONNECTIONS

Once the smartphone has been paired with the BCDCX, it will automatically reconnect when the RedVision® App is opened and the BCDCX is selected — Tap the Menu icon ☰ at the top right, then select the BCDCX from the list of devices.

PAIR MULTIPLE SMARTPHONES

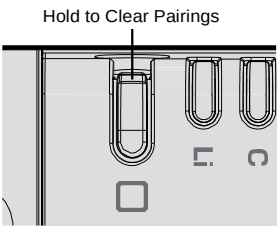
The BCDCX can be paired to multiple smartphones, however it can only be monitored/controlled by the one smartphone at a time. When the RedVision® App is minimised on one smartphone, the RedVision® App can be opened on another smartphone and will connect automatically if it has previously been paired.

To pair another smartphone, repeat the steps ###.

CLEAR PAIRINGS

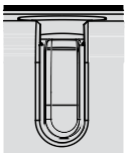
To clear a smartphone pairing ensure the smartphone you want to clear is connected to the BCDCX via the RedVision® App and the Control Button LED is BLUE.

Hold the Control Button until the LED flashes BLUE intensely/quickly, once the LED stop flashing BLUE the smartphone pairing has been cleared.

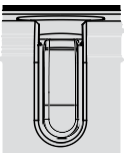


OPERATION

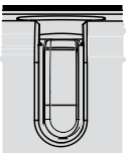
The BCDCX Control Button has five modes. To cycle between modes, a **momentary push (≤ 1 second push)** of the Control Button will change the colour of the flashing LED, indicating a move to the next mode. To enter a mode, **press and hold** the Control Button **(> 1 second push)** until the LED stops flashing.



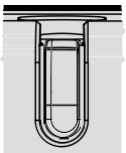
Standby



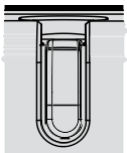
Bluetooth



Start Battery Recovery



Maximum Charge Current

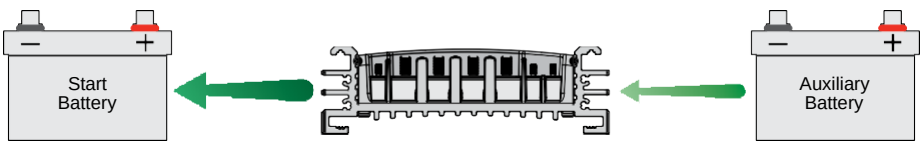


Profile Select

START BATTERY RECOVERY

The Recovery mode returns enough charge from your auxiliary battery to your start battery in order to start your vehicle in the event of a flat battery. This mode can be activated using the Control Button or via the RedVision® App.

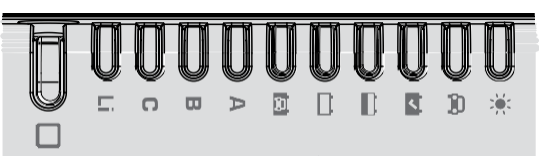
Recovery Function



ENTERING RECOVERY MODE VIA THE CONTROL BUTTON

When the Control Button is flashing **GREEN**, press and hold (> 1 second push) the Control Button to enter the Recovery mode.

The Recovery mode will take approximately 15 minutes, once the Chargeback, Boost, Absorption and Float LEDs are solid, the Recovery mode is complete.



Recovery Complete

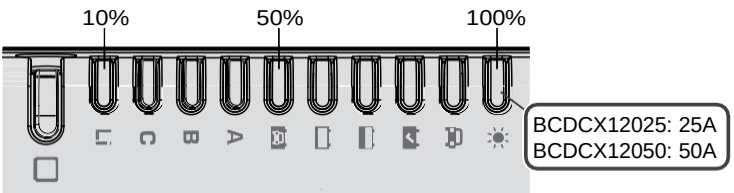
MAXIMUM CHARGE CURRENT SETTING

The Maximum Charge Current setting will set the output current of the BCDCX to a certain percentage of the maximum current the Main Unit can output. This can be set using the Control Button or via the RedVision® App.

SETTING MAXIMUM CHARGE CURRENT VIA THE CONTROL BUTTON

When the Control Button is flashing **ORANGE**, press and hold (> 1 second push) the Control Button to enter Maximum Charge Current setting.

A momentary push (≤ 1 second push) will increase the current setting in increments of 10%. To confirm the maximum charge current push and hold the Control Button.



PROFILE SELECT SETTING

NOTE: Refer to the charging specifications stated by the battery manufacturer, before selecting the profile for your installation.

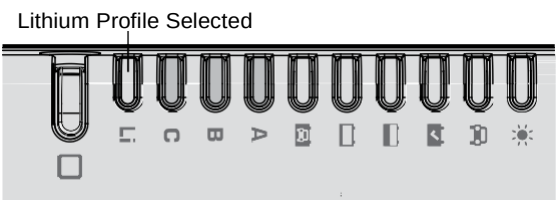
The Profile Select setting is used to inform the BCDCX the type of profile your auxiliary battery is. This can be set using the Control Button or via the RedVision® App.

SETTING BATTERY PROFILE VIA THE CONTROL BUTTON

When the Control Button is flashing **PURPLE**, press and hold (> 1 second push) the Control Button to enter Profile Select setting.

A momentary push (≤ 1 second push) of the Control Button will cycle through the Charging Profile LEDs, to confirm push and hold (> 1 second push) the Control Button. When the selected Profile LED is solid, the BCDCX is ON and charging.

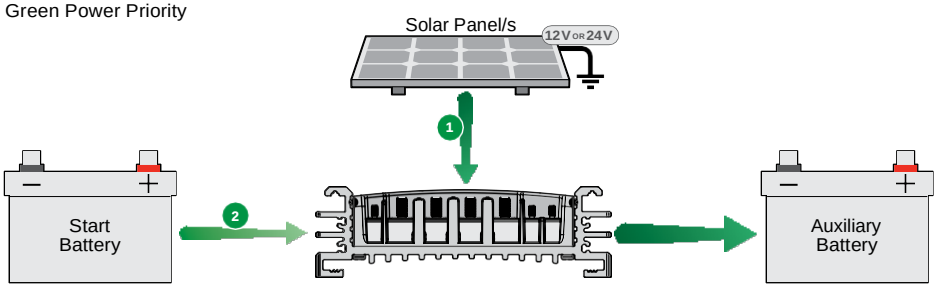
Refer to 'Specifications' (page 25) for Battery Profile specifications.



GREEN POWER PRIORITY

Green Power Priority is a automatic function that defines the order that input sources are prioritised. The BCDCX will always take as much power available from the solar input before supplementing from other sources. This lightens the load on your vehicle and maximises the collection of free solar energy.

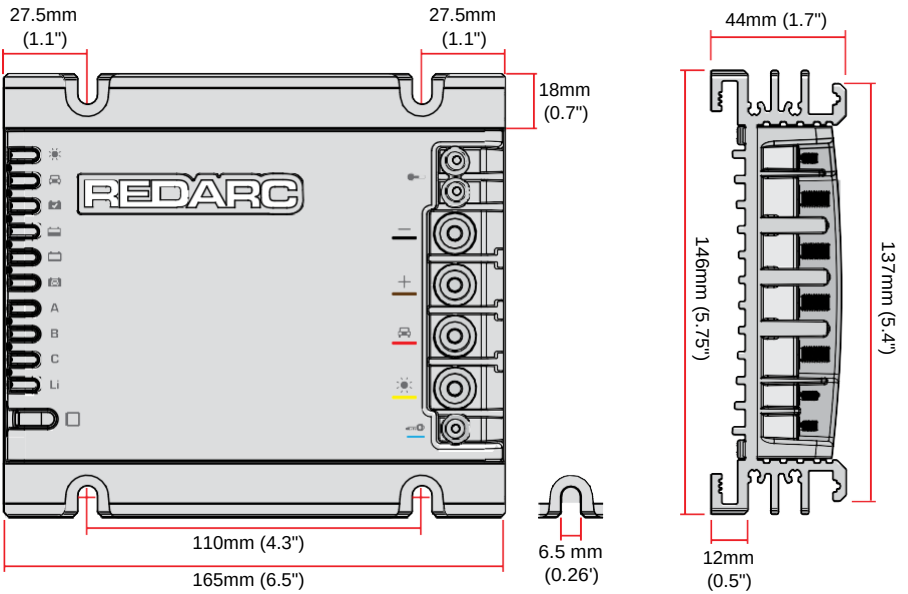
Green Power Priority



SPECIFICATIONS

GENERAL SPECIFICATIONS

Weight	950 g (33.5 oz)
Dimensions	165 × 146 × 44 mm (6.5" × 5.75" × 1.7")



ELECTRICAL SPECIFICATIONS

	BCDCX12025	BCDCX12050
Continuous Current Rating	25 A	50 A
Maximum Current Rating	30 A	55 A
Vehicle Input and Output Fuse Rating	40 A (not supplied, FK60 recommended)	60 A (not supplied, FK60 recommended)
Maximum Power	400 W	800 W
Vehicle Input		
Voltage Range	9 — 32 VDC ⎓	
Vehicle Over Voltage Threshold	12.7 – 15.8 V (in 12 V installation, ignition not connected) 12.0 – 15.8 V (in 12 V installation, ignition connected) 25.4 – 32.0 V (in 24 V installation, ignition not connected) 24.0 – 32.0 V (in 24 V installation, ignition connected)	
Solar Input		
Voltage Range	9 — 48 VDC ⎓	
Turn On Threshold	9 VDC ⎓	

CHARGING PROFILE SPECIFICATIONS

	A	B	C	Li
Maximum Voltage	14.6 VDC ⎓	15.0 VDC ⎓	15.3 VDC ⎓	14.5 VDC ⎓
Float Voltage		13.3 VDC ⎓		13.6 VDC ⎓
No Load Current	<100 mA			
Standby Current	<8 mA			
Charging Temperature	Charging Profile: A/B/C Output Battery > 10.5 VDC ⎓		–15°C to +80°C (+5°F to +176°F)	
	Charging Profile: A/B/C Output Battery < 10.5 VDC ⎓		0°C to +80°C (+32°F to +176°F)	
	Charging Profile: Li $LiFePO_4$ Output Battery		0°C to +80°C (+32°F to +176°F)	
Minimum O/P Battery Volts	0.1 VDC ⎓			

COMPLIANCE AND STANDARDS

Standards	     
IP Rating	IP68/IP69K
FCC ID	2BAH6-BCDCX01
IC ID	30290-BCDCX01

Internal Transmission Notice

1. **WARNING: Any changes or modifications not expressively approved by the grantee could void the user's authority to operate this equipment.**
2. **Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
   - Reorient or relocate the receiving antenna.
   - Increase the separation between the equipment and receiver.
   - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
   - Consult the dealer or an experienced radio/TV technician for help
3. This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS (s). Operation is subject to the following two conditions:

   (1) This device may not cause interference.

   (2) This device must accept any interference, including interference that may cause undesired operation of the device.

   L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

   (1) L'appareil ne doit pas produire de brouillage.

   (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillardest susceptible d'en compromettre le fonctionnement
4. This equipment complies with the FCC and ISED Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and all persons during normal operation.

   Cet équipement est conforme aux limites d'exposition aux rayonnements de la FCC et ISED Canada établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et toutes les personnes pendant le fonctionnement normal.

WARRANTY

LIMITED WARRANTY

For full warranty terms and conditions, visit the Warranty page of the REDARC website:
www.redarcelectronics.com/warranty

Australia, New Zealand & Europe

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

Australia	+61 8 8322 4848
New Zealand	+64 9 222 1024
UK & Europe	+44 (0)20 3930 8109

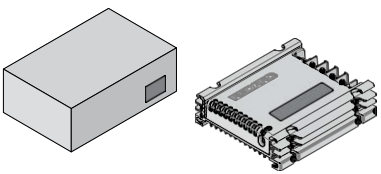
North America

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

CHECKING THE PRODUCT SERIAL NUMBER

The Product Serial Number is located on the Main Unit and on the product packaging.



IMPORTER CONTACT INFORMATION

UK

Ozparts UK Ltd
1 Prospect Place
Pride Park
DE24 8HG, Derby
UK

Europe

Ozparts Sp. z o. o. Sp. kom.
Slowackiego 32/5
87−100 Torun
Poland

For written request please email **power@redarcelectronics.eu**

Tech Support
1300 REDARC (1300-733-272)

Australia
+61 8 8322 4848

New Zealand
+64 9 222 1024

UK & Europe
+44 (0)20 3930 8109

USA
+1 (704) 247-5150

Canada
+1 (604) 260-5512

Mexico
+52 (558) 526-2898

redarcelectronics.com

THE POWER OF REDARC®

INST185-1