TRUSTED SINCE 1941

ROVER™ 120Ah / 200Ah

LiFePO4 LITHIUM BATTERY

*Rover™ 120Ah Battery shown

OWNERS MANUAL

Model No. 10001924 / 10001925

QUICK START GUIDE

- Complete a full charge of the battery before use, ensuring the battery charger indicates the battery is full before removing the battery from charge.
- Do not exceed the performance specifications referenced on the sticker on the battery.
- When connecting batteries in a series or parallel configuration, ensure each battery has been fully charged separately before connecting the batteries.
- Ensure all connected loads and charge inputs are connected via appropriately sized fuses.

SAFETY INFORMATION

- The battery should not be used by children or persons 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 product by a person responsible for their safety.
- Always use a lithium battery charger to charge the battery. Using an incorrect charger may cause damage or create a safety hazard.
- Do not charge the battery beyond its recommended voltage or current limits.
- Overcharging can lead to overheating, fire, or explosion.
- Never charge the battery if it is damaged or swollen. Contact Customer Service for support.
- Ensure the battery is installed in a well-ventilated area to prevent overheating.
- Do not expose the battery to extreme temperatures. Charge and operate the battery within the temperature range specified in this manual.
- Follow the installation instructions carefully. Incorrect connections can result in damage or hazardous conditions.
- Do not short-circuit the battery terminals.
- Do not disassemble or modify the battery. Tampering with the battery can result in safety risks and will void the warranty.
- Ensure all connected devices and loads are within with the battery's specifications to prevent overloading.
- In case of a battery fire, use a Class D fire extinguisher. Do not use water, as it can worsen the fire.
- Keep the battery away from children and unauthorised personnel.
- Dispose of the battery according to local regulations and guidelines for hazardous waste.
- DO NOT reverse connections from charger to battery.
- DO NOT throw into fire or incinerate.
- DO NOT heat above 60°C.
- Discontinue charging battery if there is smoke or swelling.
- Never leave battery unattended at any time when being charged or discharged.
- Do not expose the battery to moisture or water.
- Reverse charging the battery is strictly prohibited.
- Battery should not be used or placed at high temperatures. It will cause overheat, function failure or shorter life.
- Battery should be placed in a dry and cool environment when it is not in use.
- Immersing into water is prohibited.
- It is strictly prohibited to install and disassemble the battery pack.
- For optimum performance, charge at 14.6V. If not, the battery will not reach the full usable capacity.
- To ensure the best performance of the battery when stored for a long time, the battery should be charged and discharged every three months.
- After battery discharge protection, it can be removed by the following ways:
  1. Let the battery stand for 15-20 min. The battery will be automatically unprotected after this time.
  2. Use the charger with 0V charging function (it can charge the battery starting from 0V) to charge the battery. After fully charged, the battery can be used normally.
  3. Use another 12V lithium battery with the same capacity to connect in parallel with the battery and put aside for over 12hrs. Then, fully charge the battery and it can be used normally.
- If solar charging is used, set the regulator to the charging mode of lithium battery.
- Avoid charging batteries in direct sunlight or a hot environment.
- Where possible, charge batteries in an outside area that is covered.
- As soon as a battery is fully charged, disconnect the battery from the charger and disconnect the charger from the power source.
- Avoid leaving batteries unattended while charging overnight.
- When charging batteries inside, only charge in an area fitted with smoke alarms.
- Avoid exposure to moisture.
- Avoid storing multiple batteries in close proximity.
- Do not use batteries that show signs of swelling, overheating, or damage.
- Never touch a swollen or ruptured device or battery with bare hands.
- Do not use or store batteries where they are prone to mechanical damage or puncture.
- Never charge batteries resting on soft surfaces, such as beds, sofas or carpets.
- Never charge or store batteries on or near flammable materials.
- Only use original chargers, or chargers compatible, with the lithium battery contained in this product.
- DO NOT open battery casing.
- DO NOT short-circuit battery.
- DO NOT subject battery to heavy impacts.
- Never dispose of damaged batteries in regular household waste or recycling bins.
- Never take damaged batteries to battery recycling collection points or sites.
- Follow local recycling options to safely dispose of the lithium batteries.

PRODUCT SPECIFICATIONS

ROVER™ 120Ah LiFePO4 LITHIUM BATTERY SPECIFICATIONS

GENERAL INFORMATION	
Model No.	Rover™ 120Ah LiFePO4 Lithium Battery
Weight	10.5kg
Dimensions	330L x 172W x 215H mm
Ingress Protection	IP65

BATTERY SPECIFICATIONS	
Battery Capacity	1536Wh (120Ah @ 12.8V)
Voltage	12.8V Max
Charge Voltage	14.6V
Max Continuous Charge / Discharge	120A
Battery Type	LifePO4
Cycle Life	3000 cycles (80% capacity afterwards)
Parallel / Series	Max 4 batteries

OPERATING TEMPERATURES (RECOMMENDED AMBIENT TEMPERATURES)	
Min / Max Charge Temperature	0^0C to 50^0C
Min / Max Discharge Temperature	-20^0C to 60^0C

ROVER™ 200Ah LiFePO4 LITHIUM BATTERY SPECIFICATIONS

GENERAL INFORMATION	
Model No.	Rover™ 200Ah LiFePO4 Lithium Battery
Weight	19.6kg
Dimensions	384L x 194W x 250H mm
Ingress Protection	IP65

BATTERY SPECIFICATIONS	
Battery Capacity	2560Wh (200Ah @ 12.8V)
Voltage	12.8V Max
Charge Voltage	14.6V
Max Continuous Charge / Discharge	200A
Battery Type	LifePO4
Cycle Life	4000 cycles (80% capacity afterwards)
Parallel / Series	Max 4 batteries

OPERATING TEMPERATURES (RECOMMENDED AMBIENT TEMPERATURES)	
Min / Max Charge Temperature	0^0C to 50^0C
Min / Max Discharge Temperature	-20^0C to 60^0C

PRODUCT OVERVIEW

DIMENSIONS

10.5KG

19.6KG

COMPONENTS

1 X ROVER™ 120Ah LiFePO4 LITHIUM BATTERY

2 X M8 X 16MM BOLT WITH FLAT AND SPRING WASHER

1 X ROVER™ 200Ah LiFePO4 LITHIUM BATTERY

2 X M8 X 16MM BOLT WITH FLAT AND SPRING WASHER

PRODUCT FEATURES

A-Grade LiFePO4 Prismatic Cells

During production, A-Grade prismatic cells are grouped to ensure consistent performance within the battery pack. This matching process allows cells to charge and discharge evenly, helping the battery reach its full capacity while improving long-term durability.

100% Usable Capacity

Delivering the full 100% usable capacity, this battery is perfectly suited to off-grid power needs on weekend trips. The below table outlines average consumption and expected run times for common off-grid devices.

Device	Power Draw	Est. Run Time (120Ah)	Est. Run Time (200Ah)
Fridge	0.6 - 2.2A	54 - 200hrs	90 - 330hrs
Roam Swift Sear BBQ	46A	2.6hrs	4.3hrs
Roam 4L Air Fryer	22A	5 - 6hrs	8 - 9hrs
Coffee Pod Machine	5A	16 - 18hrs	30 - 40hrs

Parallel and Series Configuration

Rover lithium batteries can be linked in either a parallel or series setup - not both at once. Connect up to 4 batteries in series or up to 4 in parallel, provided they are the same model and from the same batch. In a parallel connection, system voltage stays the same while overall capacity (Ah) and the total charge and discharge ratings of the battery bank increase.

Parallel Configuration	System Voltage (V)	System Capacity (Ah)	Max Continuous Discharge (Wh)	Max Continuous Discharge Rate (A)
1 x 120Ah Battery	12.8V	120Ah	1536Wh	120A
2 x 120Ah Battery	12.8V	240Ah	3072Wh	240A
3 x 120Ah Battery	12.8V	360Ah	4608Wh	360A
4 x 120Ah Battery	12.8V	480Ah	6144Wh	480A

Connecting batteries in series raises the system voltage, while the overall capacity in amp hours and the continuous charge/discharge rating remain unchanged.

Series Configuration	System Voltage (V)	System Capacity (Ah)	Max Continuous Discharge (Wh)	Max Continuous Discharge Rate (A)
1 x 120Ah Battery	12.8V	120Ah	1536Wh	120A
2 x 120Ah Battery	25.6V (24V Nominal)	120Ah	3072Wh	120A
3 x 120Ah Battery	38.4V (36V Nominal)	120Ah	4608Wh	120A
4 x 120Ah Battery	51.2V (48V Nominal)	120Ah	6144Wh	120A

Cycles at 80% Depth of Discharge

The Rover 120Ah and 200Ah lithium batteries are built for a long life. The 120Ah model is rated for 3000+ cycles, while the 200Ah delivers 4000+ cycles at 80% depth of discharge (DoD). Varying the average DoD will extend or reduce the cycle life accordingly.

Battery Management System

The Battery Management System (BMS) is an essential safeguard within every Rover battery, designed to maximise safety and efficiency. It serves two main roles:

Cell Balancing: During charging, the BMS equalises the voltage across all cells, ensuring consistent performance and extending battery life.

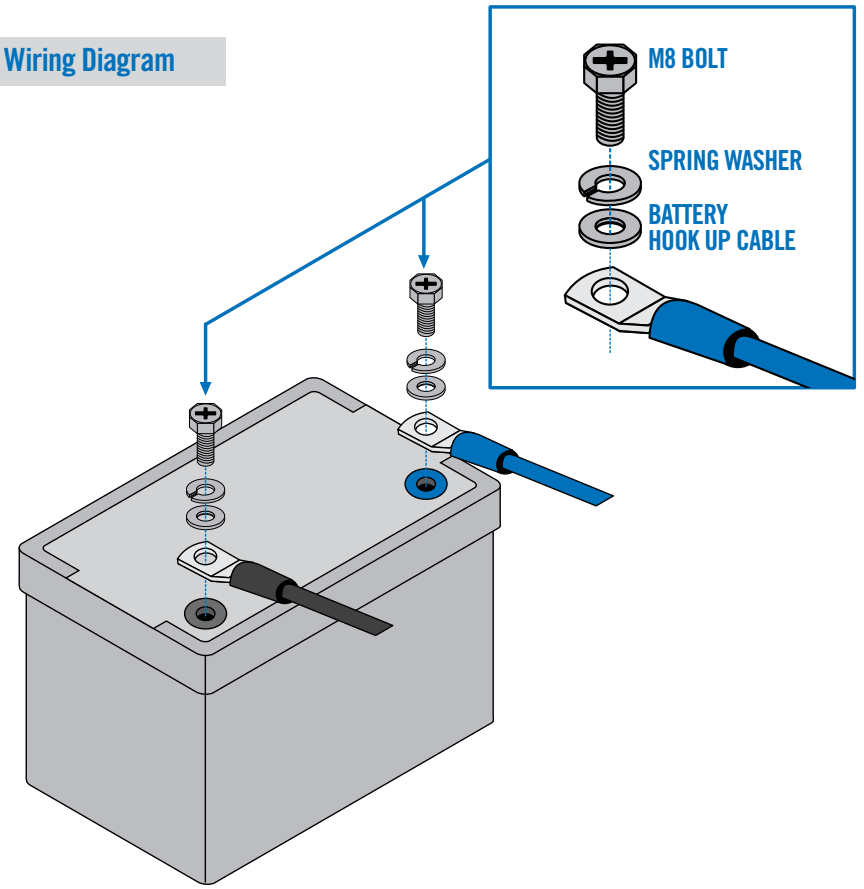
System Monitoring: The BMS constantly checks critical data such as cell voltage, current flow, and temperature. If values move outside safe limits, it activates protective measures, issues a warning, and then automatically restores normal operation once conditions stabilise.

To keep the battery operating safely, the BMS features:

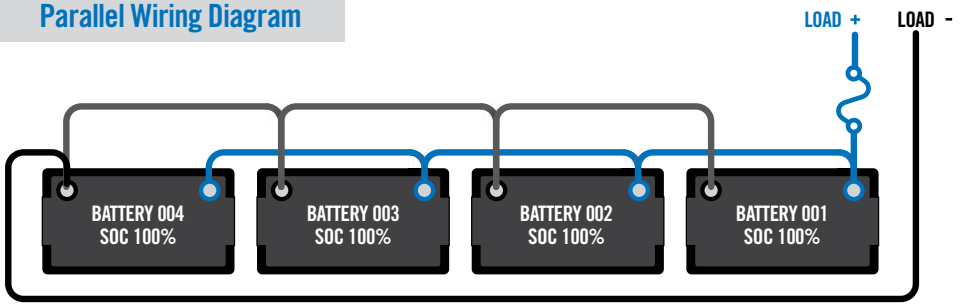
- Voltage Protection
- Under Voltage Protection
- High Temperature Protection
- Short Circuit Protection
- Cell Balance

WIRING

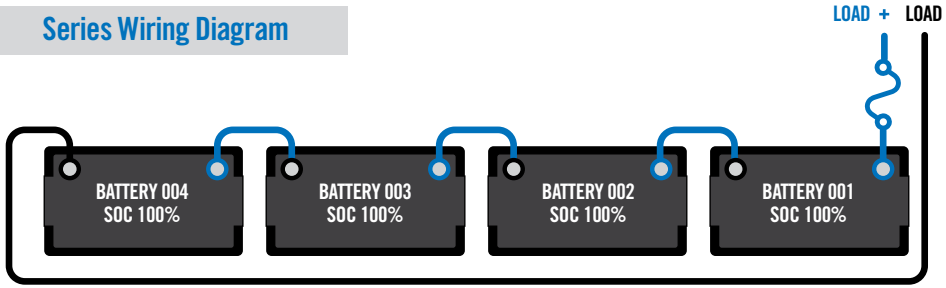
Wiring Diagram



Parallel Wiring Diagram



Series Wiring Diagram



NOTE: All batteries must be fully charged and allowed to rest for 30 minutes before being connected in parallel or series. Failure to follow this procedure may affect the performance and lifespan of the LiFePO4 batteries.

PRODUCT INSTALLATION

INSTALLATION STEPS

1. Place the battery in its chosen mounting location.
2. Secure it firmly using a battery tray or other suitable mounting method.
3. Check that all positive device and fuse connections are correctly terminated.
4. Check that all negative device connections are correctly terminated.
5. Connect the main battery positive terminal to the system fuse. Tighten the supplied M8 bolts with a 13mm socket to 20Nm torque. (If multiple positive connections are needed, attach each to the main positive terminal and tighten to 20Nm).
6. Connect the main system negative terminal, tightening the M8 bolts with a 13mm socket to 20Nm. (If multiple negative connections are needed, attach each to the main negative terminal and tighten to 20Nm).
7. Once all connections are secure, switch ON isolation devices and power up any connected equipment.

CHARGING THE BATTERY

For best performance and safe use, fully charge the battery and let it rest for 30 minutes before connecting any loads. This step is especially important when setting up batteries in parallel or series.

During the first charge, always use an ACDC charger to deliver a complete charge. Avoid relying on vehicle alternators or solar alone, as they may not supply consistent input. Factors like shutting off the engine or low solar conditions can prevent the battery from reaching full charge.

IMPORTANT SAFETY NOTICES

1. Use a 14.6V lithium AC to DC or DC to DC battery charger to maximise the battery's usable capacity.

⚠ WARNING

Do not use a lead acid vehicle battery charger.

2. You won't be able to fully utilize the battery's usable capacity if you use an inappropriate charger or charge it at a lower voltage.

⚠ WARNING

When charging, don't set the charger to a voltage greater than the battery's nominal voltage, as it may permanently damage the battery.

3. Ensure the battery cables are tight, secure and have a good connection.

4. Follow the instructions on the battery charger.

5. Charge the battery using a solar panel and a compatible regulator with a lithium profile (select LiFePO4 mode on the solar regulator). It is recommended that the controller is set to the below parameters to avoid the battery failing to recover when the BMS cuts off the battery for protection after a continuous small current discharge.

- Overcharge protection voltage: 14.6V
- Overcharge recovery voltage: 14.2V
- Over-discharge protection voltage: 10V
- Over-discharge recovery voltage: 11V

The above settings can ensure that the controller triggers the protection first instead of the battery BMS, which can prolong the service life of the battery.

⚠ WARNING

- Always fully charge the battery and let it rest for 30 minutes before making any connections.
- Ensure isolation switches are in the OFF position before beginning work.
- Confirm that all devices and loads intended to run from the Rover battery are switched off prior to installation.
- The battery should not be charged directly through a vehicle's alternator.

LONG TERM STORAGE

To prolong the battery's lifespan, it is advisable to store it at an 80% charge level.
Store the battery in a fireproof container.
Keep out of reach of children.

- LiFePO4 batteries have a low self-discharge rate of 2% per month.
- To prevent excessive discharge during storage, store LiFePO4 batteries at an 80% state of charge (SOC) if storing for longer than three months.
- Failure to charge the battery before storage can cause over-discharge, resulting in the battery's discharge level falling below the protection level of the BMS.
- It is strongly recommended to store the battery at room temperature, particularly for extended storage periods.

Cycling through the battery power every 3 months is an excellent way to add to the longevity of the battery.

To cycle through the battery's power:

- Connect the battery to an appliance and allow it to discharge without reaching the over-discharge voltage level.
- Charge the battery until it reaches 100%.
- Reconnect the battery to an appliance and discharge it to reduce its charge level back to 80% before storing.

BATTERY RE-ACTIVATION

HOW TO RE-ACTIVATE A BATTERY THAT NO LONGER CHARGES

The over-discharge protection voltage for this battery is set at 10V, and if the voltage drops below this level, the Battery Management System (BMS) will trigger a safety cut-off to protect the battery. In such an event, follow the reset procedure for the battery as outlined below.

Method 1

1. Disconnect the load from the battery and set it aside for at least 30 minutes.
2. The battery should recover to a normal voltage level automatically.
3. The battery can then be fully charged for normal use.

NOTE: It is important to note that in some cases, METHOD 1 may not be sufficient, and you may need to proceed with METHOD 2 or METHOD 3 to reset the battery.

Method 2 (requires a charger with 0V function)

1. Use a charger equipped with a 0V charging function.
2. Charge the battery fully with the charge on 0V setting.
3. Once the battery is fully charged, the BMS will reset automatically.
4. The battery can now be used as normal.

Method 3 (requires a second battery)

1. Using suitable cabling, connect the battery in parallel with another 12V lithium battery.
2. Connect the charger. When the charger starts charging, disconnect the other battery after 30 seconds.
3. Disconnect the second battery and charge your battery fully using a regular lithium battery charger.
4. Once fully charged, the BMS will reset automatically, and the battery can be used normally.
5. A lead-acid battery with a voltage more than or equal to 12V and less than or equal to 14.6V will also work.

TROUBLESHOOTING

Protection Type	Action	Release Condition	User Action
Cell over-voltage protection	BMS will stop the battery from charging.	Protection is automatically released once the battery cell voltage returns to a safe level.	Check that the output voltage of the connected charger is below the maximum charge voltage of the battery.
Cell under-voltage protection	BMS will stop the battery from discharging.	Protection is automatically released once the battery cell voltage returns to a safe level.	Check the output voltage of the battery terminals. If it is less than 10V, the battery has been completely discharged. Charge the battery.
Continuous over charge current thermal protection	BMS will stop the battery from charging.	Protection is automatically released once the charge current temperature sensor returns to a safe level.	The battery charge current has exceeded the maximum charge rating of the battery. Check the maximum charge current of the battery.
Continuous over discharge current thermal protection	BMS will stop the battery from discharging.	Protection is automatically released once the discharge current temperature sensor returns to a safe level.	The battery discharge current has exceeded the maximum charge rating of the battery. Reduce the total load on the battery.
Pulse over charge current protection	BMS will stop the battery from charging.	Protection is automatically released once the charger is disconnected.	The battery charge current has exceeded the maximum charge rating. Check that the connected battery charger is not faulty.
Pulse over discharge current protection	BMS will stop the battery from discharging.	Protection is automatically released once the load is disconnected or a charging source is connected to the battery.	The battery discharge current has exceeded the maximum charge rating of the battery. Check for any faults with the connected loads of the battery.
Short circuit protection	BMS will stop the battery from discharging.	Protection is automatically released once the load is disconnected or a charging source is connected to the battery.	Check the installation for any signs of a short circuit. Rectify the installation if required.
Cell charge over-temperature protection	BMS will stop the battery from charging.	Protection is automatically released after the cell temperature reduces to a safe level.	Ensure adequate ventilation around the battery. Avoid charging at high rates for extended periods in high temperature environments.
Cell discharge under-temperature protection	BMS will stop the battery from discharging.	Protection is automatically released after the cell temperature increases to a safe level.	In colder climates, consider installing thermal insulation around the battery.
Cell discharge over-temperature protection	BMS will stop the battery from discharging.	Protection is automatically released after the cell temperature reduces to a safe level.	Ensure adequate ventilation around the battery. Avoid discharging at high rates for extended periods in high temperature environments.

WARRANTY POLICY

LIMITED WARRANTY AGAINST DEFECTS

1. This Limited Warranty is provided by Adventure Operations Australia Pty Ltd ABN [43 622 679 887] trading as Companion in our capacity as supplier and manufacturer of the Products. Our contact details are:

Address: 71 Charles Ulm Place, Eagle Farm, 4009 QLD.

Phone number: 07 3193 1110

Email address: warranty@adventureoperations.com

OUR LIMITED WARRANTY

2. This Limited Warranty applies in addition to any other express warranty or warranties against defects we may supply from time to time for specific Products. If the individual packaging, accompanying product information or labelling of a Product specifies a different warranty period from the **3 Years** warranty period provided in this Limited Warranty, the packaging Warranty Period will apply instead but on the same terms as this Limited Warranty.

THE WARRANTY PERIOD FOR THIS PRODUCT IS: 3 YEARS

3. Moving forward, in this Limited Warranty, Warranty Period means:

a) for all Companion Products, 12 months from the date of original purchase of the relevant Companion Product; or

b) another time period set out in the individual packaging, product information, labelling, or accompanying a specific Companion Product.

4. Under this Limited Warranty, we warrant that products distributed by Adventure Operations Australia Pty Ltd and any of our subsidiaries (Products) will be free from defects in materials and workmanship under normal use (as described in the published product documentation accompanying or applicable to the relevant product) for the relevant Warranty Period (Limited Warranty).

5. If a defect in materials or workmanship becomes apparent under this Limited Warranty within the Warranty Period described above, subject to any additional rights you have under the Australian Consumer Law or any applicable local law, we agree to replace or refund covered Product parts that prove defective through normal use during the Warranty Period. We may alternatively agree to repair certain Products through our qualified agents, where such facilities are available. Without limiting any rights you have under the Consumer Law, the following conditions also apply to the Limited Warranty:

a) in replacing a defective product under the Limited Warranty, we may, at our discretion, substitute the product with a product model of equivalent nature where the exact model of the defective product is unavailable;

b) we may elect, at our discretion and as an alternative to repairing or replacing a defective part, to refund the cost of the relevant product upon it being returned to us or one of our authorised resellers;

c) this Limited Warranty does not extend or apply to any claim you or any other person may have for damage for any loss (including without limitation consequential damages or loss of profit, freight/shipping or travel costs), or otherwise damage howsoever caused whether or not such loss or damage arises as a result of any defect in the product or from the failure or omission on our part to comply with any obligation at law relating to the defect;

d) this Limited Warranty does not apply to damage caused by your failure and damage caused by improper use and abuse, fair wear and tear, accidents, misuse (including failure to follow instructions regarding care and maintenance of the product), neglect, disassembly, alterations or external causes such as, but not limited to, water damage, exposure to sharp objects, exposure to excessive force, anomalies in the electrical current supplied to the product (if applicable), and extreme thermal or environmental conditions; and

e) this Limited Warranty does not extend to any Products acquired for the purposes of re-supply, or for use in a manufacturing, or repair processes.

REPAIR FACILITIES AND SPARE PARTS

6. Please note that we have very limited repair facilities for our Products. This means that subject to any limited repair facilities offered through authorised repair agents, we are not able to repair broken or damaged Products that are broken or damaged by you or are defective. For defective Products, this Limited Warranty and your rights under the Australian Consumer Law will apply and in most cases the remedy will be limited to a refund or replacement.

7. Companion carries spare parts for many, but not all, of our Products. A comprehensive catalogue of our spare parts can be found at: Camping Gear Spare Parts. This means that where a Product is broken or damaged by you, we may not be able to provide you with a spare part for that Product. Where a Product is defective, you will be entitled to your rights under this Limited Warranty and the Australian Consumer Law, and in most cases the remedy will be limited to a refund or replacement.

HOW TO CLAIM THE LIMITED WARRANTY

8. This Limited Warranty is only valid and enforceable in Australia or New Zealand and will apply only if you have purchased the Product from us directly or from one of our authorised resellers.

9. This Limited Warranty may be claimed by you if a defect becomes apparent in the Product within the Warranty Period.

10. To claim this Limited Warranty you must do either of the following:

a) return the defective product to its place of purchase within the Product's Warranty Period, with a detailed proof-of-purchase clearly showing the date and detail of the purchase;

b) make the warranty claim directly with us by returning the defective Product to our address at Adventure Operations, 71 Charles Ulm Place, Eagle Farm, 4009 QLD accompanied by a detailed proof-of-purchase clearly showing the date and detail of the purchase;

c) make the warranty claim directly with us by emailing us at **warranty@adventureoperations.com** accompanied by a detailed proof-of-purchase clearly showing the date and detail of the purchase. We may require you to mail us the product or email us photographs of the defect and Product.

11. Where you return the defective Product in-store to the place of purchase, our authorised reseller will inspect the Product and proof-of-purchase to determine if this Limited Warranty has been complied with and can be claimed. They will also determine the remedy available to you under this Limited Warranty.

12. Where you make the warranty claim directly with us, we will inspect the Product (including by inspecting photographs you send to us over email) and the proof-of-purchase to determine if this Limited Warranty has been complied with and can be claimed. We will also determine the remedy available to you under this Limited Warranty.

EXPENSES

13. You must bear the expense of claiming a remedy under this Limited Warranty, including postage and transport costs of returning the product. If we or our authorised reseller determine you are entitled to a remedy under this Limited Warranty, we will reimburse you for any reasonable expenses you have incurred in making the claim, provided you supply us with proof of such expenses.

YOUR RIGHTS UNDER THE CONSUMER LAW

14. Products distributed by Adventure Operations Australia Pty Ltd and any of our subsidiaries come with guarantees that cannot be excluded under the Australian Consumer Law or the New Zealand Consumer Guarantees Act 1993 (Consumer Law) (as the case may be). You are entitled to a replacement or refund for a major failure (or, where the New Zealand Consumer Guarantees Act 1993 applies, a failure of a 'substantial character') and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if products fail to be of acceptable quality and the failure does not amount to a major failure (or a failure of a substantial character, as the case may be).

CONTACT US

15. If you have any questions concerning this warranty policy, you may contact us in writing:

Adventure Operations, 71 Charles Ulm Place, Eagle Farm, 4009 QLD

or by email: warranty@adventureoperations.com

or visit our website: adventureoperations.com

NOTES:

WARRANTY - For details see www.companionoutdoor.com/warranty

Designed by:
Adventure Trading Australia Pty Ltd
71 Charles Ulm Place,
Eagle Farm, QLD 4009
AUSTRALIA

Made in China