



BLUE APPLE MANUFACTURING

Ph: 08 8391 3121

Thank you for purchasing a **BLUE APPLE** battery pack.

Your satisfaction is important to us, so please take the time to read and use the information enclosed to ensure optimum performance of your power pack for many years to come.

General Information

The **Blue Apple** power packs are designed and manufactured in **Australia** for the harsh Australian environment. The Thumper range is designed to take the place of, or even work alongside of a dual battery system in the vehicle.

Your Thumper unit is designed to offer 12 volt power for the running of portable refrigerators and other 12 volt accessories.

Your Thumper is also designed for **Jump Starting** via the Heavy duty 175 Amp Anderson connector; completely "Spike protected" when jump starting, the Thumper ensures protection of the vehicles computer chips, in built GPS systems, etc.

Your Thumper unit consists of multiple 12 volt AGM (Absorbed Glass Matt) cells, linked in parallel. These cells are maintenance free and will not leak or gas when charging in the correct manner; perfect for use inside the vehicle or enclosed areas.

Your Thumper does not hold a "memory", which means that at any stage, regardless of the state of charge, your Thumper may be recharged or discharged, without damage occurring to the life of the battery.

Constant discharging of your Thumper below **10.5Volts** will result in warranty being voided.

Operating your Blue Apple Thumper

Your **Blue Apple** Thumper unit is completely charged before purchase. The charge status of the cells can be checked by pressing the push button on the front of the unit to illuminate the LCD display gauge. Cross-reference the gauge against the voltage readings on the sticker to determine the remaining voltage available. This gauge is extremely low draw and can be left on if required to monitor the battery's condition. If left illuminated the gauge will draw approx 1 Amp over a 14 day period.

Your battery pack will operate at any angle, in temperatures ranging from -25°C to +75°C. The unit is internally marinised to aid in the protection against salty air and high humidity; perfect for the marine environment.

The outlets on the front of your Thumper are marine grade and are protected via either an external or internal circuit breaker. If the external circuit breaker trips, simply push it back in to reset. All internal circuit breakers are automatic reset.

All connections on the Thumper may be used for recharging or discharging.

Jump leads are provided and may be used as required by connecting to the 175 Amp Anderson connector located on the side of the unit. Disconnect Jump leads after use.

Charging Methods

Your Thumper is provided with a **50 Amp Vehicle Charging System**, which remains the best method of recharge. The charging kit is designed to be hard wired to the vehicle, if installed correctly; this kit will provide a charge rate of up to 50 Amps.

Depending on the unit's requirements and the vehicle's alternator, the charge kit has the ability to recharge the unit within 2 – 4 hours of driving.

Your Blue Apple Thumper can be continuously connected to the vehicle charging kit without risk whilst simultaneously providing power for on-board accessories (for example – car fridge) if desired.

Charging from a 240 Volt source

Your Thumper can be charged from 240 Volt; however, the charger **MUST** be regulated or automatic to ensure that the cells are not damaged if charged for extended periods. Simply connect the alligator clamps of your regulated or automatic charger to the Thumper via the 175Amp Anderson connector (Positive to the positive terminal, negative to the negative terminal).

Chargers should not exceed 14.6 volts as this will result is damaged to the cells and will void the warranty of your Thumper unit.

* A 240 Volt – 12 Volt power supply to run your fridge is not a suitable device for charging.

Blue Apple power packs are considered flat at a voltage of 10.5 Volts.

When recharging via 240 Volt, the charger should have the ability to fully recharge the unit within 24 hours. **Longer periods of charging will not result in better performance and may result in damage to the cells, which will affect your warranty.**

For an accurate reading of your Thumper's state of charge, wait for 30 minutes after disconnecting from the charger as this will allow time for any "surface charge" to fade.

Charging from SOLAR Panels

Your Thumper is compatible to recharge from solar panels, providing they are 'regulated'. Remember that 12 volt solar panels are capable of producing 19 – 21 Volts and will damage the cells of the Thumper if directly connected to the unit without the use of a regulator. The panel may be connected to any outlet of the Thumper in order to recharge, excluding the USB socket as this is purely an output.

** Please feel free to contact **BLUE APPLE** for further information about solar.

Jump starting your vehicle

The **Blue Apple** Thumper power packs are 'spike protected' and are completely safe to use on any 12 Volt vehicle (not suitable for use with 24 volt vehicles). The unit is provided with quality jump leads; fitted with a 175Amp Anderson plug, which connect firmly into the unit.

Simply connect the jump leads to the unit and directly to your car battery (positive to positive and negative to negative).

**** If your vehicle does not start within 15 seconds, stop cranking and wait 30 seconds before repeating the process. Remove the jump leads when not in use.**

Fitting and using INVERTERS

Although your Thumper unit is 12 Volt, it is compatible with the use of inverters. Inverters convert 12volt DC to 240 Volt AC for the running of 240volt appliances when away from power.

Remember to treat you inverter with the same respect as 240 volt household outlets. The use of inverters should be monitored, and used in an environment that is out of reach from young children. * **To avoid electric shock, do not operate inverters in the rain or snow.**

The inverter may be operated when charging the unit from 12 Volt (vehicle charging); however, it is recommended to not exceed a 500 watt draw when doing so.

Do not operate the Inverter when charging from 240 Volts as the increased voltage may result in damage to the inverter.

Any Inverter 150 watts or less may be connected via the battery packs Cigarette / Merit outlet. (If a 300watt Inverter is connected to the Cig/Hella outlet then it is recommended to only utilise up to 150 watt draw as an increase draw may result in damage to the outlet).

Inverters exceeding 300 watts should be connected via the 50 Amp or 175Amp Anderson connection. *Please feel free to contact Blue Apple for more information regarding the connections and use of inverters with the Thumper.

Use of the USB socket

The **Blue Apple** battery packs are now fitted with a dual USB socket. Whilst the input voltage to the USB socket is 12 volt, the output is 5 volts. The USB socket is only to be used to run appliances that would normally operate on a USB point (phones, camera batteries, etc) The dual USB socket on your battery pack is wired with the use of the digital gauge. In order to use the USB outlet, you must have your digital voltage gauge on your battery pack illuminated. The USB sockets have the ability to discharge the battery when not in use, therefore, it is good practice to ensure the gauge is not illuminated (no power to the USB) when you are storing your battery pack.

Care and Maintenance

The Thumper is basically maintenance free. However, there are things that can be done to help prolong the life of your Thumper.

If the unit is **not** continuously charged through the vehicle (which is the best method of prolonging the life expectancy), then it is recommended to:

- Always store the Thumper in a fully charged condition (12.7Volts or above)
- Never store the Thumper directly on a concrete floor for prolonged periods
- Switch off the digital gauge on your Thumper
- Recharge the Thumper unit approx every 6 – 12 weeks when in storage

Care and Maintenance (continued...)

- Before recharging when in storage, it is recommended to drain the battery to approx. 11.5 volts in order to help stimulate the full capacity of the battery.
- Ensure that no inverter or appliance is left on when storing the unit

Cleaning of your Thumper may be done with a damp cloth and with the use of a mild detergent.

Trouble Shooting

- **Thumper fails to operate at front sockets – no 12 volt output**
 - Be sure to check the unit is in a charged condition
 - Check if the circuit breaker has tripped, simply push to reset (applicable models only)
 - Contact Blue Apple if the above does not resolve the problem
- **Thumper fails to operate through jump leads**
 - Check the unit is in a charged condition
 - Check that output terminals are clean and that battery terminals are clean (make sure terminals are making good contact)
 - Be certain that the car's battery terminals are not plastic coated, resulting in no contact being made
 - Be sure that battery in car is fitted, even though battery is flat. Units are designed to download to an existing battery.
- **Thumper fails to recharge in the vehicle through charging kit**
 - Ensure that the charge lead is properly connected to the vehicle and the unit
 - Ensure that you have a good earth for the charging kit connection
- **Thumper fails to recharge from a 240 Volt charger**
 - Use only fully regulated or automatic chargers on all Thumper units. (Refer to the section **Charging from a 240 Volt source**) Many 240 Volt chargers are voltage activated and if the Thumper's voltage is less than 8-9Volts then the charger may not switch on. Charging is then only possible via the vehicle charging system.
- **Thumper fails to charge via 240Volt or Vehicle charging**
 - Check the Voltage of the Thumper – if it is below 8-9 Volts then you will need to connect the jump leads to the unit and connect to the vehicle (as though you are jump starting) – bring your vehicle RPM above 1500 for 3 – 5 seconds then let the vehicle idle with the unit attached via the jump leads for approx. 10-20 minutes. (When the unit has reached between 8 – 10 Volts re-attempt 240Volt charging or vehicle charging) – BE CAREFUL not to overcharge and superheat the cells from 240 volt after excessive voltage has occurred – please contact for more information
- **Thumper performance decreases with each use**
 - The Thumper is not fully charged for subsequent use (Refer to **Charging Methods**)
 - If problem persists contact Blue Apple on 08 8391 3121
 - Possible repack of cells may be required (2 year warranty is renewed)