

Thumper OUTBACK DC

Thank you for purchasing a **Thumper Outback DC** 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 Thumper Outback is built with the latest technology Deep cycle AGM battery.

Designed in two optimum sizes (80 AH and 110 AH), the Thumper Outback DC now incorporates the use of a sophisticated DC charger for both vehicle and solar charge. The characteristics of this charger may vary from chargers you have used in the past so we highly encourage you to read through the provided information carefully to ensure a complete understanding of the operation of this unit.

Due to the nature of this type of battery technology, the Thumper will need to be cycled (discharged and recharged) a minimum of three times in order to achieve its full capacity as a heavy duty cyclic battery. *Please note: It is **not** essential for you to do this before you start using your Thumper system, it is simply a guide to inform you that your Thumper will reach its optimum performance only after its third cycle.*

Operating your Thumper

Your Thumper Outback DC unit is completely charged before purchase. You may choose to 'top up' the charge of your Thumper at any stage (the Thumper does not need to be completely discharged prior to recharging again). The condition of your Thumper can be monitored by pressing the black push button located under the outlet sockets.

Pressing this push button will illuminate the digital volt meter which can then be cross-read with the voltage guide printed on the top of your Thumper lid. Please note: In order to obtain an accurate reading of your voltage, please remove any load (input charge or discharging appliances) from your Thumper before taking a voltage reading.



Figure 1
LED Volt meter

Use of the USB socket:

It is important to note that the LED volt meter gauge must be illuminated in order to use the USB socket.

USB sockets will have a minor discharge from a battery, even when not in use. It is therefore important to be able to switch off the use of the USB and Volt meter when your Thumper is in storage. Simply press the push button to turn these on / off.

Internal circuit breaker protection:

Your Thumper Outback DC is fitted with internal automatic reset circuit breaker protection.

The outlet sockets located on the front of your Thumper unit are protected internally with a 30 Amp automatic reset circuit breaker. The 2 x 50Amp Anderson connectors, labelled 'Input / Output' are protected by an independent 50Amp automatic reset circuit breaker.

Your Thumper Outback DC is additionally fitted with 2 x 50 Amp Anderson connectors labelled 'Alternator input' and 'Unregulated solar input'. These outlets are wired directly into the IDC25 DC battery charger via internal circuit breaker protection – *more information below in the IDC25 section*

Using your outlet sockets:

All of the sockets within the Thumper are wired as bi-directional, allowing the user to charge or discharge outlet. *An exclusion to this is the USB socket, which is purely an **outlet** offering 5Volts – min of 2.5 Amp rating. In addition to this, the two externally fitted 50 Amp Anderson connectors, labelled 'Alternator input' and 'Unregulated solar input', allow only for an INPUT charge.

Use of a 240 Volt Battery Charger:

Your Thumper contains a number of SLA (Sealed Lead Acid) AGM (Absorbed Glass Matt) batteries. This type of battery allows for a maximum input voltage of 14.5 Volts. If your charger exceeds 14.5 Volts then damage may occur to the cells within the Thumper pack and warranty will be voided.

When charging via 240 volt, it is recommended to use a regulated or automatic battery charger. If the charger allows an option to select the chemistry of battery, please select GEL. The GEL setting allows for a softer rate of charge and will promote optimum life of your Thumper battery. If your battery charger does not contain a GEL setting, please set to AGM or NORMAL. To confirm the compatibility of your charger, please contact BLUE APPLE THUMPER directly on 08 8391 3121.

The Projecta IDC25 DC Battery Charger

Your Thumper unit is fitted with the latest technology in DC charging; The Projecta IDC25. This particular DC charger is designed to allow for an optimal input charge to be harnessed from the use of both newer and older model vehicles as well as unregulated 12 volt solar panels. The Projecta IDC25 has been hardwired to the Thumper with internal circuit breaker protection and heat sync protection. The IDC25 has a number of key functions, all of which contribute to the operation and charging of your Thumper battery pack. It is important to understand the features of this particular DC charger as sometimes such features can be mistaken for faults.

In vehicle charging:

The IDC25 used on the Thumper Outback DC is designed to alter the initial voltage of your vehicle's alternator output (input voltage 9-32Volts) in order to produce the voltage selected via the mode setting on the IDC25 (for example: setting the mode to GEL setting will allow for the charging voltage of approx. 14.2 Volts when charging and a float voltage of 13.8 Volts). When charging the Thumper Outback DC is it recommended to **always have the IDC25 set to GEL**. If the charger has reached a 'float mode', then it is common for the voltage display on the Thumper to drop to as low as 13.2 Volts under load before the charger will re-active. This can sometimes take several minutes to activate after the vehicle alternator has begun charging again.



Vehicle isolator:

The IDC25 will disconnect the Thumper Outback DC from the starter battery when your vehicle's charging voltage drops below 12.7 Volts, essentially working as the in-vehicle battery isolator. The vehicles starter battery must reach approx. 13.2Volts in order to re-engage the isolator mode of the IDC25 and allow for charge to begin again.

The Thumper Outback DC is provided with a full wiring loom for your vehicle installation. The wiring loom is as simple as a **twin** core cable running from your main starter battery, through a circuit breaker, to the location of your Thumper unit. The vehicle charge will always connect into the Thumper Outback via the Anderson labelled '**Alternator Input**'. Failure to connect the vehicle charge line to this particular Anderson will result in the Thumper being connected directly to the main starter battery (not isolated), which in turn will run the risk of flattening your starter battery).

The charge kit includes an optional extra connection to allow for an Anderson to be wired to the rear of your vehicle. **This part of the charging system is optional to fit – please refer to the fitting instructions for a more detail explanation of this**

MPPT solar charging:

The IDC25 unit offers a MPPT Solar Regulator rated to 25 Amps. The regulator has been hardwired into your Thumper Outback DC unit via an independent 50 Amp Anderson connector labelled '**Unregulated solar input**'. This outlet has been designed solely for the use of an unregulated solar panel (approx. input capacity 400-450 watts). The input voltage (VOC) of the solar panel must be a minimum of 9 Volts in order to activate the solar charger in the DC unit and must not exceed 23 Volts DC.

Bluetooth battery monitor

The Thumper Outback DC is fitted internally with a Bluetooth monitoring device. This exciting new component of the Thumper unit allows the user to monitor the Thumper's stage of charge via a **FREE** downloadable app (available from the iTunes or google play store). The Thumper instructions include a small 'battery monitor' information pamphlet which highlights how to set up the Bluetooth monitoring via a smart device. *(Smart Device required but not included – may include your smart phone or tablet).*



The Bluetooth battery monitoring app has been designed around the parameters of a fridge operating voltages. The Thumper unit will read 100% charged when the voltage is in excess of 12.7 Volts, however, the Thumper will read 0% or completely discharged at approx. 11.2-11.4 Volts. At this voltage, the Thumper battery contains approx. 30% remaining capacity. It is at this voltage that the majority of fridges on the market will cease to operate successfully, and it would be recommended to begin recharging the Thumper at this point.

The Bluetooth monitoring app provides a number of different parameters that you may choose to monitor, from vehicle input charge, voltage history graph (the information will remain stored in your Bluetooth app for a period of 35 days), cranking tests and more. For more detailed information about the Bluetooth monitoring within the Thumper, please refer to the small information pamphlet labelled 'Battery Monitor', provided with your purchase.

NOTE on Bluetooth monitoring:

It is not essential to download the Bluetooth monitoring app to successfully use your Thumper. You may instead decide to simply monitor your Thumper's voltage purely from the volt meter fitted on the Thumper unit. The Bluetooth monitoring device is simply an added bonus for those looking to be more involved in the charging parameters of the Thumper Outback DC battery system.

When the Thumper cells need replacing:

Blue Apple Thumper offer a full range of DROP IN CELLS designed to refurbish each Thumper unit. Included with a full 2 year manufacturing warranty, these cells are pre-wired and ready for a direct 'DROP IN' to your Thumper unit; so easy, you can do it yourself!

For any additional information or questions you may have about your Thumper range, please contact Blue Apple on 08 8391 3121.