

AUXILIARY BATTERIES SIMPLIFIED

What do I need?

The systems we install will isolate your vehicle or boat starter battery from your auxiliary battery to ensure that it maintains maximum charge for starting. All your accessory items will be powered by the auxiliary battery leaving your start battery fully charged. We have systems available for fitting in the engine bay, under the tray of utes or in your camper trailer, caravan or boat.

To safely operate your electrical accessories from an auxiliary battery you will require the following:

- Electrical Management System
- Battery tray frame or battery box to suit your vehicle, trailer or caravan
- Battery suitable for your application
- Power outlets and cabling to suit your accessories

Electronic Management Systems

To maximise the capacity of an auxiliary battery you need to charge it to 100% of its capacity. This can only be successfully done by charging at 14.2-14.5 volts. Most current model vehicles will not do this.

There are 3 main types of vehicle alternator charging systems. Listed below are the vehicle types and the recommended electronic management charging system to gain maximum charge.

- Fixed Voltage Alternator - **requires Electronic Isolator or DC-DC Battery Charger**
- Temperature Compensating Alternator - **requires DC-DC Battery Charger**
- Variable Voltage Alternator - **requires DC-DC Battery Charger**



Electronic Isolators are suitable for wet cell battery types only. AGM, Gell, Calcium, Lead Crystal & Lithium batteries require the use of a DC Battery Charger.

The 3 stage charging system of a DC Charger boosts the voltage output of your alternator to allow full charging of your auxiliary battery.

We recommend the use of the TJM Projecta DC Charger which also has an inbuilt 400w MPPT Solar controller which can charge simultaneously from both solar and alternator inputs.



Batteries and Battery Packs

We offer a comprehensive range of batteries, Deep Cycle, Marine, Industrial, Calcium, AGM & Lithium. Lithium batteries are the ultimate battery offering very high higher capacity at approx half the weight.

Probably the best value battery is the Beta Batteries Lead Crystal AGM offering significantly higher capacity than all other Deep Cycle, Marine and AGM batteries.

Portable battery packs like the Baintech AGM 100AH Power Top for remote camping or for where a vehicle mounted battery is not practical or physically possible to fit.



Battery Trays

All our battery trays are engineered to get the optimum size battery mounted in the most appropriate secure location under the bonnet. Where necessary they include mounting hardware to relocate under body components that may interfere with the positioning of the auxiliary battery.

Trays are constructed from 2mm steel sheet and incorporate strategic folds and MIG welds to withstand the toughest conditions. They are electroplated so will not chip and corrode easily like powder coated units. We have a range of battery boxes and trays suitable for mounting batteries in and under utes, boats, caravans and campers.



(Continued overleaf)

Camper Trailers and Caravan Battery Systems

Auxiliary batteries mounted in a camper trailer or caravan ideally require a separate DC Charging system to your vehicle to correctly fully charge them. The DC charger should be mounted in the caravan or trailer as close as possible to the auxiliary battery. The TJM Projecta DC Charger also has an inbuilt 400w MPPT Solar controller which can also control the charge from your fixed or portable solar panels.

We also have Battery Management Systems with AC/DC/Solar inputs suitable for caravans, motorhomes and camper trailers with multiple batteries. The power supply from the vehicle should be connected with an Anderson plug or heavy duty trailer socket with minimum of 50amp rating pins and sufficient size cabling.



Fridge & Accessory Socket Wiring

This is another important area that you need to ensure is correct for optimum operation of your fridge. Please do not plug a fridge lead into the OE vehicle cigarette socket, in particular the ones mounted in the rear of wagons. These sockets are not designed for the current draw of a fridge and are not a positive fit so create resistance across the socket and may even melt and catch fire in the back of your wagon.

In store we have a range of quality sockets including versions with inbuilt volt and amp meters, Engel sockets and versions suitable for internal and external mounting. The wiring of your accessory outlets in particular your fridge socket should be wired with the largest practical size wiring to avoid voltage drop.



Solar Panels

Solar Panels have significantly improved in output and reduced in price in the last 5 years to become a very cost effective option. We have available a range of quality solar panels and regulators to suit both fixed mounting and portable applications with adjustable stands and carry bags. We also have a range of flexi foldable blanket panels which are light weight, durable, compact to carry and very efficient even in low light conditions.

Please be aware there are many cheaply produced poor quality and performance solar panels available for sale on the Australian market.



Inverters & Chargers

We have available a range of smart 5 stage 240vac battery chargers and pure sine wave inverters suitable for sensitive electronic equipment like computers & digital televisions.

Please visit your local store to discuss your requirements.

Brendale:
1 Hinkler Court
Brendale QLD 4500
P: 07 3490 6900
www.tjmbrendale.com.au



Cairns:
221 Scott Street
Bungalow QLD 4870
P: 07 4047 8900
www.tjmproducts.com

Darwin:
454 Stuart Highway
Winnellie NT 0821
P: 08 8995 8800
www.tjmproducts.com

Mackay:
95 Gordon Street
Mackay QLD 4740
P: 07 4841 8100
www.tjmproducts.com

Mount Isa:
17 Simpson Street
Mount Isa QLD 4825
P: 07 4749 6100
www.tjmproducts.com

Townsville:
55-63 Dalrymple Road
Garbutt QLD 4814
P: 07 4758 0995
www.tjmproducts.com