TECHNICAL ARTICLE

Electrical - Battery Switches

Our range of battery switches includes single and double pole master battery isolators through to change over battery switches with alternator disconnect and key lock features.

A Basic [ON/OFF] Switch

This is ideal for isolating a single bank of batteries when they are not in use to prevent voltage leakage and to prevent any risks of short circuits in the system.

Basic ON/OFF Switch

A Change Over Switch [1/2/ON/OFF]

This is used when the user has two battery banks, one for starting the engine and the other for domestic use. Being able to switch between the batteries means you can control where you would like the charge to go, either split equally to both battery banks, the engine start battery or the domestic battery. Also when the engine is not running the user can choose which battery will be discharged. This is ideal to make sure you only discharge your domestic batteries ensuring you will always have enough charge in your engine batteries to be able to restart your engine. This simple manual system has little to go wrong, however, they are required to be personally switched over so it is your responsibility to ensure the system is being managed correctly.

Perko Isolator Switch

Perko Change Over Switch

Battery Split Chargers (Split Charge Diodes)

If you would prefer a less manual system, then these may be a better option for you. They are installed on the charge side, in-between the alternator and battery banks. They automatically sense which battery has the lowest voltage and put the most charge into that, until they reach an equal voltage then they split the charge equally. This is a great simple system to ensure both battery banks are well maintained and also due to the nature of a diode (an electrical one way valve) they also prevent either battery discharging into the other. However, like with most great things, there is a slight disadvantage and there is a slight voltage drop. The SIC units are very minimal compared to some others available with a voltage drop of only 0.2 Volts. Whilst the Victron Argo FET Isolators are less than 0.02 volts at low current and only around 0.1 volts at higher currents.

Perko Heavy Duty Change Over Switch

SIC Battery Isolators

Victron Battery Isolators

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