

KICKASS[®]
OUTBACK PROOF GEAR

JAX BOX

POWER STATION USER MANUAL



PATENT PENDING

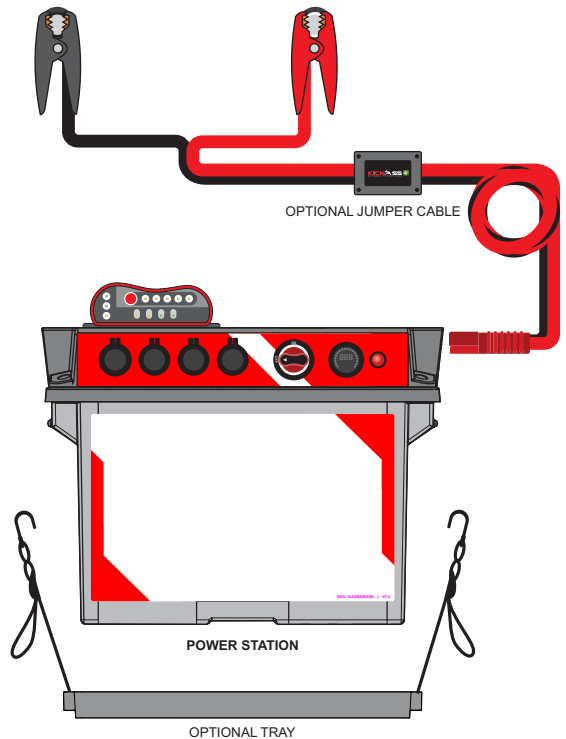
VER 1.36

Why KickAss?

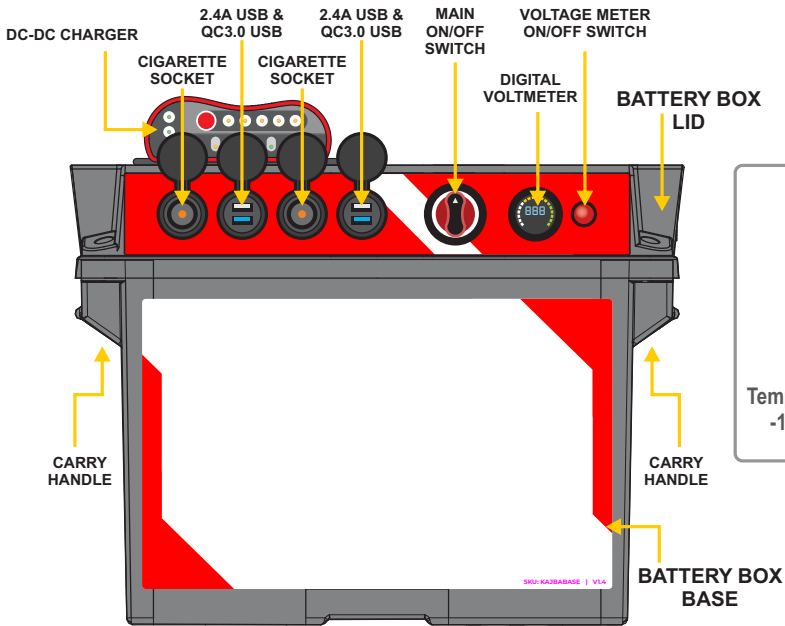
What makes KickAss different is the fact that we offer the complete solution: KickAss Power Station, Solar Panels, Portable Fridges, AC Chargers and everything you need to get your off-grid camping needs solved in one place.

Designed by the KickAss Team

The KickAss Powerstation has been designed in-house by the KickAss Team and has taken over 3 years of hard work and dedication to complete. We listened to our customers over many years to make a feature rich and practical portable power station.



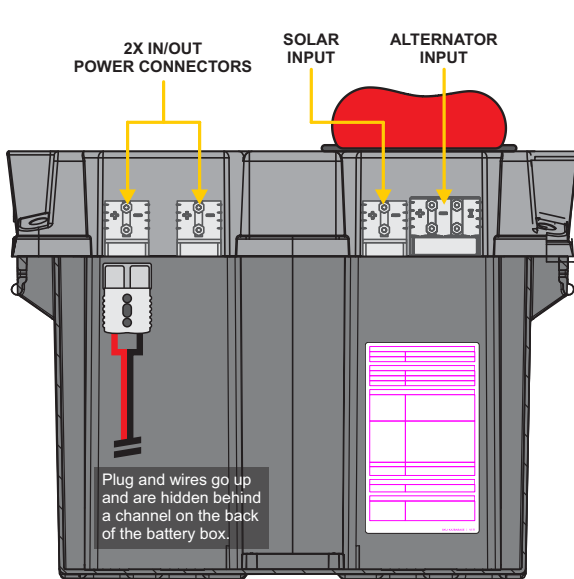
- For charging 12V rechargeable batteries only.
- Never attempt to recharge non-rechargeable batteries.
- The lid of the battery box must remain shut at all times whilst charging a battery or powering a device from an outlet.
- Do not allow any metal objects to fall into the battery box or enter any of the ports.
- Never insert anything other than a compatible electrical plug into any of the ports on the battery box.
- Ensure that the battery box is shut and the screws are tight before powering any devices.
- Do not try to jumpstart when using lithium batteries.



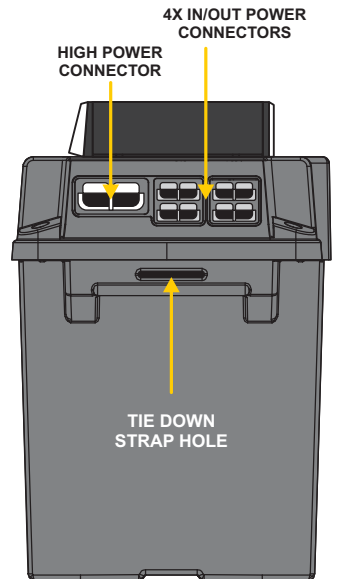
Material
ABS

Temperature Range
-10°C to +60°C

FRONT



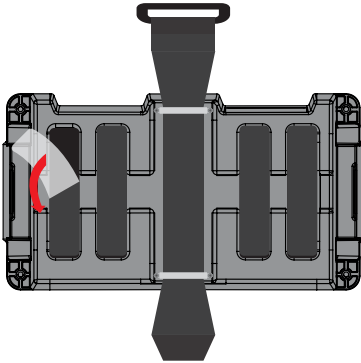
BACK



SIDE

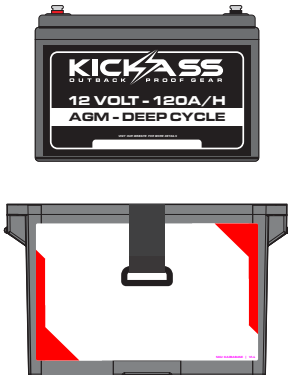
NOTE: If your battery box base was shipped with a battery installed, skip to Step 3.

Peel off the plastic film to expose the non-slip surface of the silicone pads.

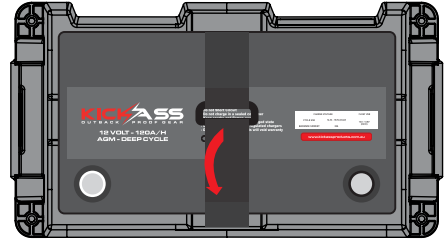


Note: the pads may be washed to regain stickiness.

Lower your battery into the battery box base carefully, locating it as centrally as possible on the non-slip pads.

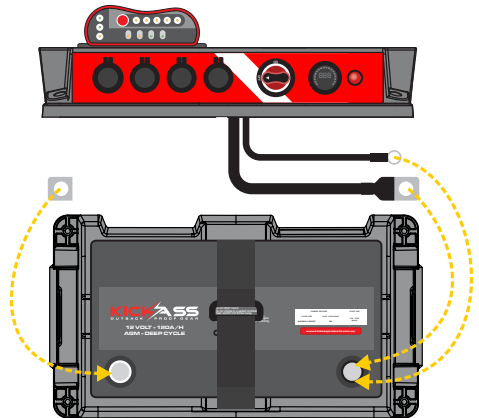


Secure the battery in place by tightening the velcro strap over the battery.

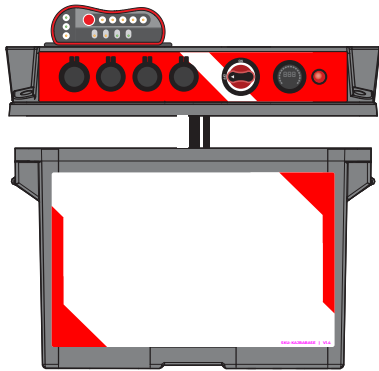


Install the battery cables onto the terminal posts of the battery. Ensure the red cable is connected to the positive (+) terminal and both black cables connected to the negative (-) terminal.

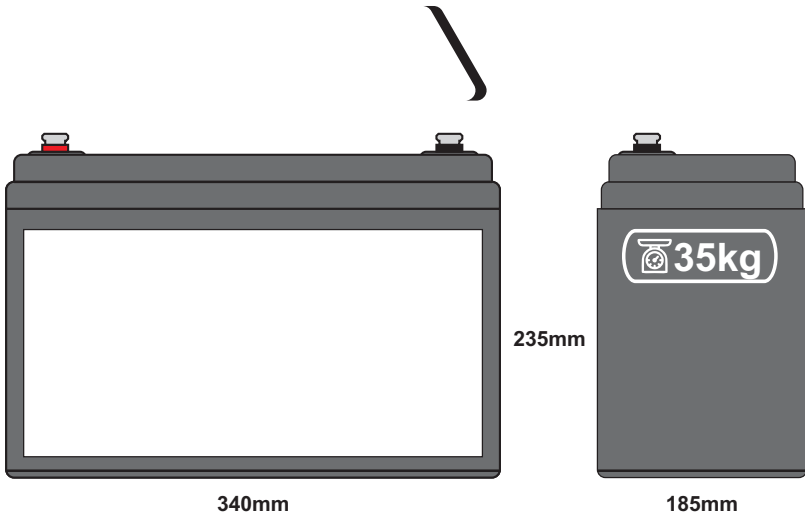
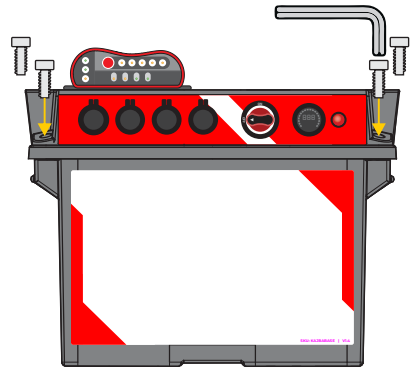
Tighten firmly but be sure not to over tighten the battery terminals.



Tuck cables in under battery box lid, lowering lid carefully onto box - ensuring the lid is correctly oriented.



Install the 4 provided screws to fasten the lid to the base, being sure not to over tighten with the supplied allen key.



Max. Battery Dimensions:	340mm L x 185mm W x 235mm H (with Silicone Mat)
Max. Battery Weight:	35kg
Supported Chemistries:	AGM, Calcium, Wet, Gel or Lithium LiFePO4 (Deep Cycle Batteries)

Confirm install location of tray, drilling any required holes.

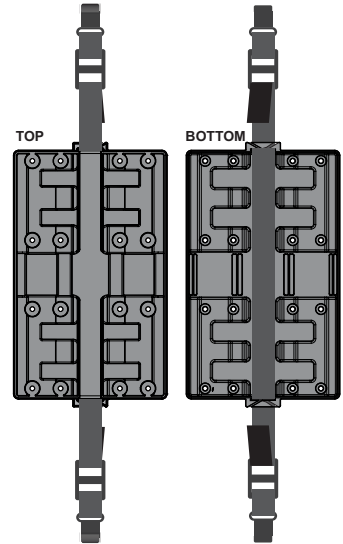
Install the strap under the tray, sliding the strap into the slots either side.

Ensure strap is oriented correctly so that the hooks face toward the Power Station when installed.

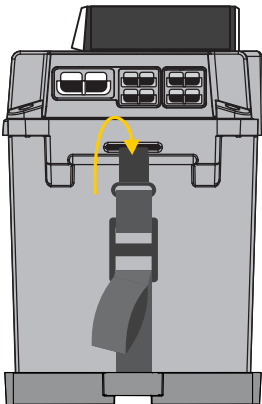
Securely affix the tray in position using bolts or screws, whichever is applicable.

Ensure that washers are used when installing the tray, to avoid damage.

Note: We do not provide the screws or bolts for this installation.

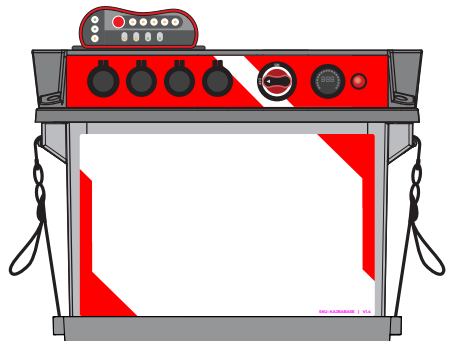


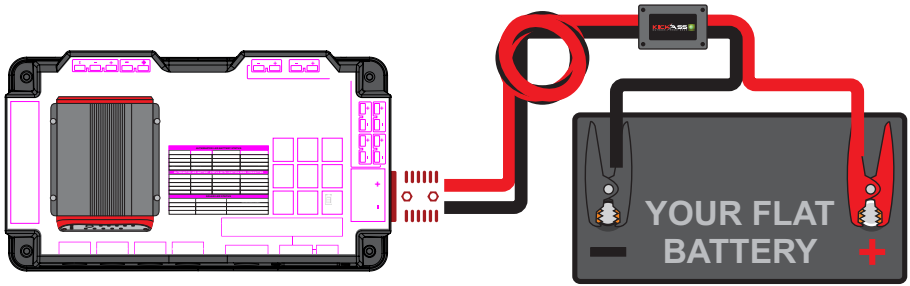
Ensure straps are laying outside the tray before lowering the battery box carefully onto the tray. Attach each strap hook to the corresponding slot in the Power Station.



For ease of tightening, place thumbs in each strap loop, pushing firmly downwards. The strap should tighten and hold the Power Station firmly in place.

To release, depress the buckle and pull the strap to loosen.





KickAss 1000 Amp Jumper Cables have been designed to give you the optimum starting power in the case of a flat starter battery. When it comes to Jumper Cables there is no substitute for quality and these KickAss Jumper Cables have been designed to be tough, durable and most of all, work flawlessly when you need them.

Note:

- Do not use jumper cables with lithium batteries.
- Leave the jumper cables connected to the flat battery for 5 minutes before attempting to jump start battery.



The Master Switch

The master switch disconnects everything (except for the large 175 amp Anderson style plug) from the battery including the DC-DC Charger. Turning it off is a quick way to disconnect all devices to ensure your battery is not being drained.

Note: The DC-DC Charger + Solar Regulator cannot charge the internal battery while the Master Switch is in the OFF position, nor can an external charger.

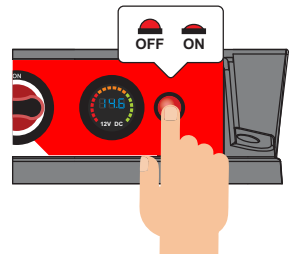
If another, external battery is connected through one of the IN/OUT connectors, the DC-DC is able to charge that battery, even with the Master Switch in the OFF position - bypassing the internal battery.



The Voltmeter

The inbuilt voltmeter will display the voltage of your battery. For an accurate voltage reading, disconnect all loads and charging sources from the power station and test.

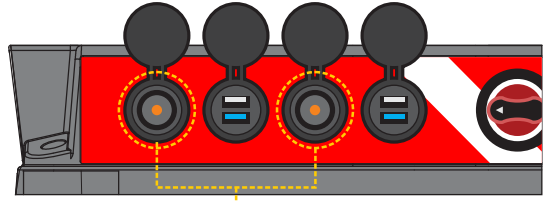
Note: The battery voltage table on the top sticker of the battery box is to be used as a guide only, check your battery specifications if you want to be precise.





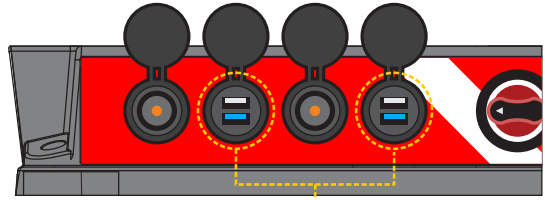
▶ OUTPUTS

- Maximum 10A output per socket



2 x Cigarette Socket Outputs

- 2 x 2.4A High Powered USB (White)
- 2 x Quick Charge QC 3.0 Ultra High Powered USB Outputs (5V/3.1A, 9V/2A, 12V/1.5A - Blue)



2 x Dual USB / QC3.0 Outputs

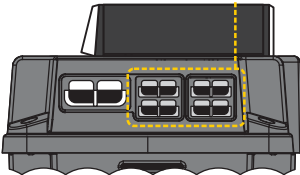
Benefits of Quick Charge

When paired with compatible devices, a Quick Charge-enabled charger delivers more power, allowing the connected device to charge faster. As one of the most widely used of the fast charging technologies, Quick Charge is already in many of your favorite smartphones. If your smartphone is Quick Charge 3.0-compatible, you can charge up to 80% in just 35 minutes.

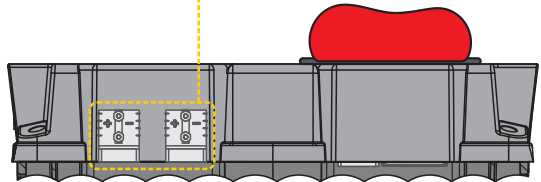
To future-proof your chargers, each new Quick Charge generation is backwards compatible, meaning it will work with the generations that came before.

▶ INPUTS/OUTPUTS

4 x (50A) Anderson Style Plugs on the side



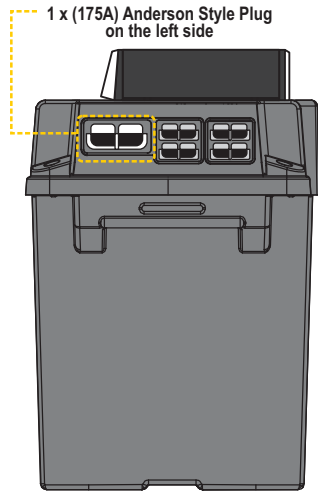
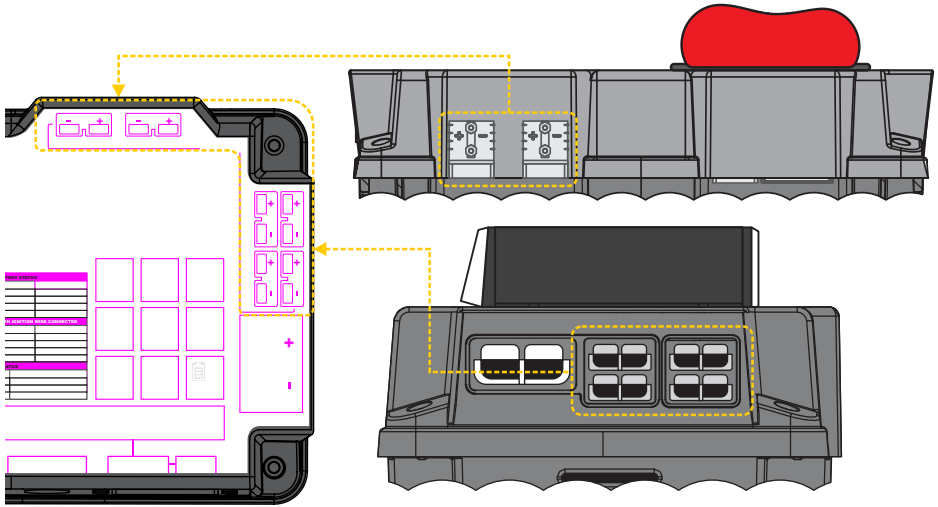
2 x (50A) Anderson Style Plugs on the back



- Input / Output Capable.
- All Anderson Plugs combined must not exceed 50A total current.

WARNING:

1. Do not plug in multiple chargers as inputs.
2. Do not use an external charger while the DC-DC Charger is operating.
3. Exceeding 50A combined current rating will trigger the safety breaker. Safety breaker will auto-reset in time.



- High Current Inverter Output
- Emergency 600A Jump Starter Output (7 seconds)
- Connected directly to battery

WARNING:

1. Master switch does not disconnect the battery from this connector.
2. This output is NOT Fused or Short Circuit Protected.
3. Do not jump start a vehicle for longer than 7 seconds.
4. KickAss Deep Cycle batteries should be used for jump starting in emergency situations ONLY, as it will affect battery health.
5. Check battery specifications and compatibility with high current draw before using jump start connector.
6. Lithium batteries should not be used for jump starting.

► INPUTS

- 9-32V DC Starter Battery Input (+/-)
- Ignition source connection

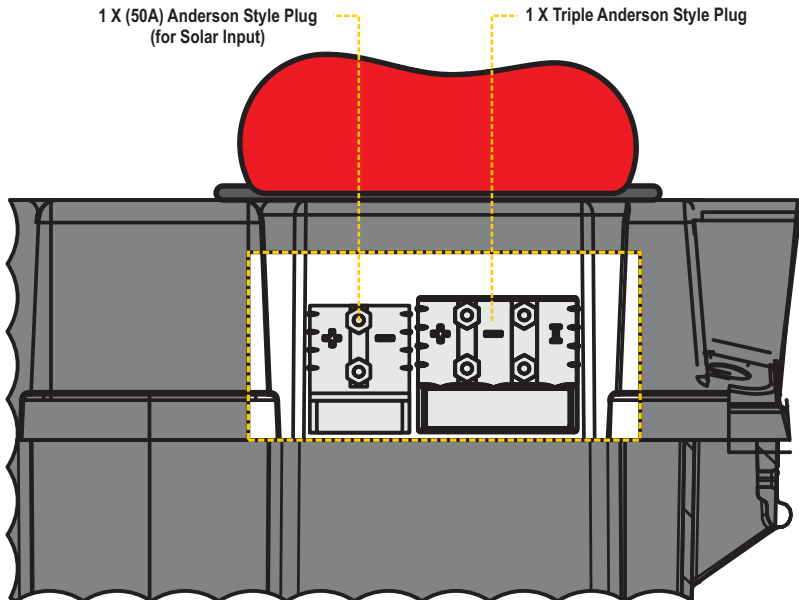
- Minimum Solar Input Voltage: 9V DC
- Maximum Solar Input Voltage: 23V DC
- Maximum Solar Input Current: 25A

Unregulated Solar Input - utilises in built DC-DC MPPT regulator.

Not suitable for regulated solar input, connect to a standard in/out connector when using an external or panel-mounted solar controller/regulator.

WARNING:

1. Do not exceed the Maximum Voltage of 23V DC
2. Do not exceed the Maximum Input Current of 25A





The KickAss Power Station may be charged in a number of ways:

- Connecting alternator power to inbuilt DC-DC Charger in a vehicle.
- Connecting an unregulated solar panel input to inbuilt DC-DC Charger.
- Connecting a solar panel with regulator/controller to any of the in/out Anderson style connectors.



KickAss Intelligent 9 Stage
8 Amp Battery Charger
SKU: KACHG128



KickAss Intelligent 8 Stage
12 Amp Battery Charger
SKU: KACHG1212



KickAss Intelligent 8 Stage
20 Amp Battery Charger
SKU: KACHG1220



KickAss Intelligent 9 Stage
22 Amp Battery Charger
SKU: KACHG1222

Warning:

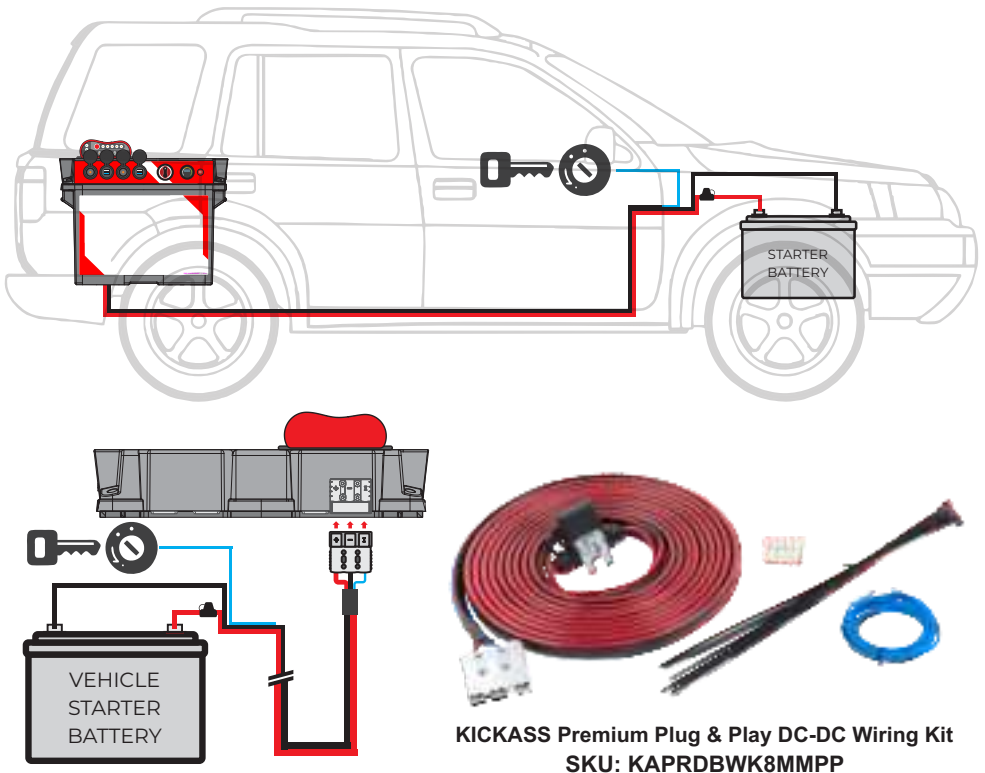
- Do not connect multiple external chargers.
- Do not connect an external 240V Mains Powered charger or similar while the DC-DC Charger is operating.
- Do not connect an unregulated solar panel directly to the battery via any of the in/out connectors.
- Do not connect a solar panel with regulator/controller to the unregulated solar connector.

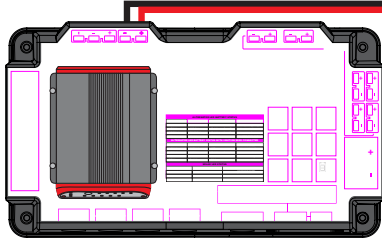
The KickAss Power Station includes a built-in DC-DC Charger suitable for charging from a vehicle alternator.

The easiest way to connect the Power Station to your vehicle is by using the KickAss Plug & Play Wiring Kit (sold separately).

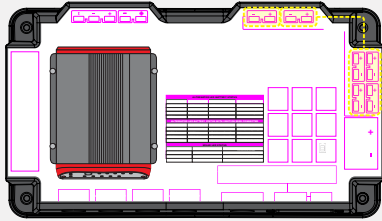
The triple Anderson style connector fitted to the Power Station interfaces with the KickAss Plug & Play Wiring Kit, providing a simple, quick release vehicle charging solution. This triple connector and cable provides alternator power to the DC-DC on the Power Station, along with an Ignition Source for charging in vehicles that are fitted with Smart or Temperature Compensating Alternator.

For more information on installing a Dual Battery Wiring Kit and Ignition Wire, please visit kickassproducts.com.au/support

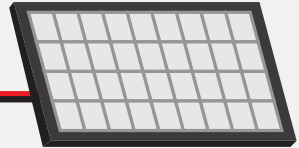




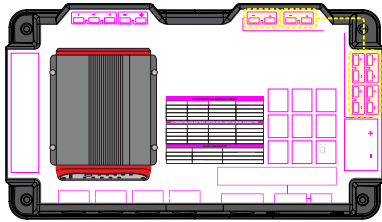
UNREGULATED SOLAR PANEL 23V MAX



plug-in to any of these sockets

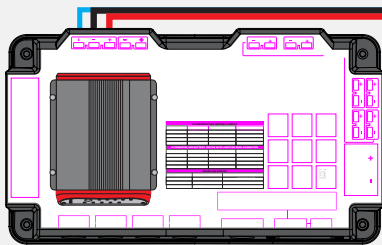
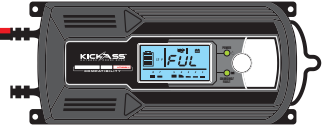


REGULATED SOLAR PANEL

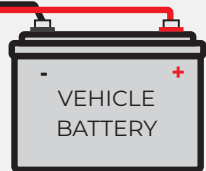


plug-in to any of these sockets

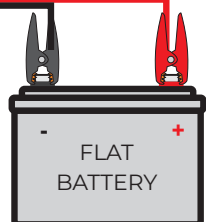
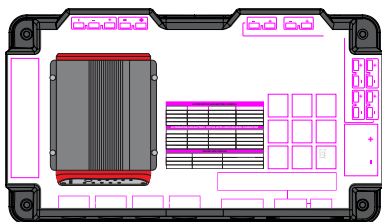
AC CHARGER



VEHICLE IGNITION

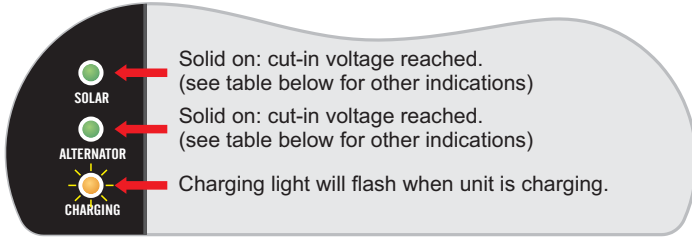



VEHICLE BATTERY



FLAT BATTERY

Note: Not for lithium




NOTE
 • Alternator has priority over solar therefore, if both solar and alternator are connected, only alternator LED is solid and alternator is charging.
 • 30 sec delay between cut-in voltage being reached and charging beginning & a 60 second delay before disconnecting when under cut-out voltage.

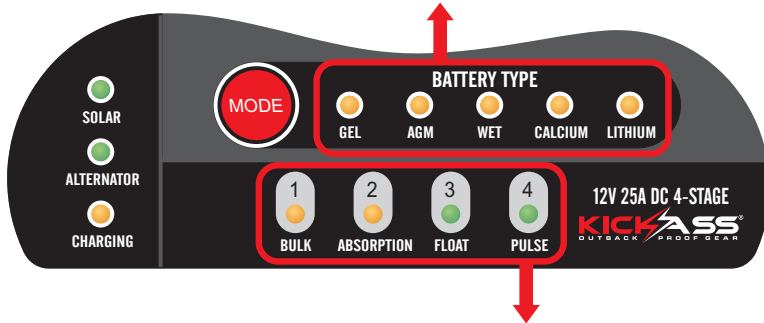
ALTERNATOR LED BATTERY STATUS

ALTERNATOR LED BATTERY STATUS WITH IGNITION WIRE CONNECTED

SOLAR LED STATUS

The default battery setting is AGM.

When the auxiliary battery is connected, press and hold the mode button for 5 seconds or until the battery light starts flashing. Then select from either GEL, AGM, WET, CALCIUM or LITHIUM and wait for the battery light to stop flashing. When this occurs, your selection is saved.



STAGE	DESCRIPTION				
BULK	GEL 100% Current Until 14.1 V	AGM 100% Current Until 14.4 V	WET 100% Current Until 14.7 V	CALCIUM 100% Current Until 15.4 V	LITHIUM 100% Current Until 14.4 V
ABSORPTION	Constant 14.1 V Until 3.8A	Constant 14.4 V Until 3.8A	Constant 14.7 V Until 3.8A	Constant 15.4 V Until 3.8A	Constant 14.4 V Until 3.8A
FLOAT	13.7V at 100% Current Max				
PULSE	Begins after a continuous float stage of 10 days and pulses power through the battery using the same current and voltage as the absorption stage to maintain charge and desulphate. During this time, if the voltage of the auxiliary battery drops below 12.6V, the charger will restart the charge cycle at Bulk. Once pulse is completed, the charger reverts to float stage.				

NOTE: When in float stage, the battery is fully charged. At float stage, when battery voltage drops to 12.7V, the charger will restart charging from BULK stage.

Lithium BMS Sleep Mode & Recovery Feature:

Most lithium batteries are built with a Battery Management System (BMS) inside to protect the battery from overcharging, over discharging and extreme temperature changes.

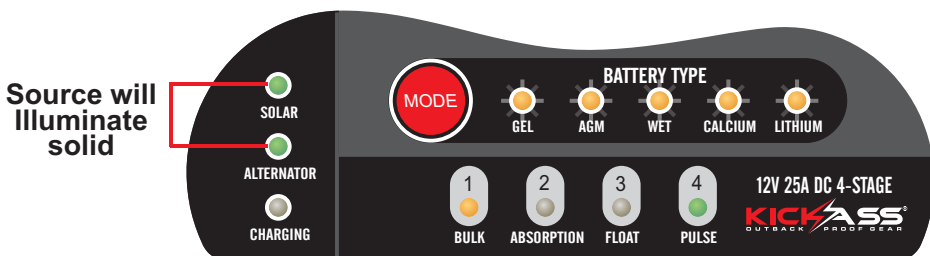
One of the key functions of the BMS is to protect your battery by internally disconnecting the load¹ when voltage drops below specific parameters, this will then result in the battery entering into a “sleep” mode.

¹ (Load includes any accessories and/or device/s drawing charge from the battery. Eg: fridges, pumps, food sealers, etc)

The KickAss DC-DC MPPT Solar Battery Charger has a lithium battery recovery function. This function has been designed to recover lithium batteries from a sleep mode.

Lithium Battery Sleep Mode Indication:

When the lithium battery has entered sleep mode, the charger will show fault codes of output open circuit, until all loads¹ are disconnected and a sufficient charge source is connected.



IMPORTANT : You must select 'LITHIUM' as the battery type by using the 'MODE' button prior to connecting it to a lithium battery in sleep mode to attempt recovery.

How to Wake a Lithium Battery to Begin Recovery Mode:

First disconnect any load connected to the lithium battery.

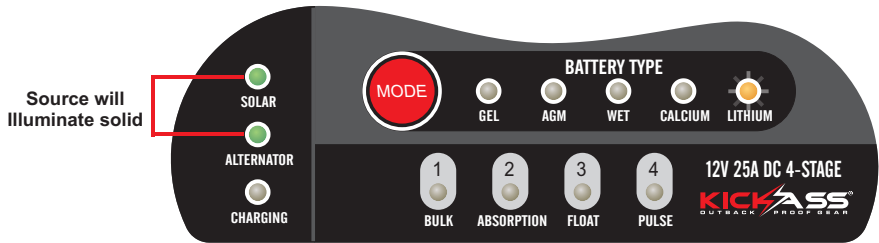
Secondly, connect Alternator Input or Solar Input² to the KickAss DC-DC MPPT Solar Battery Charger.

Thirdly, connect the output from the DC-DC charger to the lithium battery. The Charger will have all battery types (GEL, AGM, WET CALCIUM, LITHIUM) flashing and the BULK and PULSE LED lights will remain on for 30 seconds (Indicated in diagram above,) before entering Recovery Mode.

²(Alternator and Solar inputs must be above cut-in voltage for DC-DC Charger)

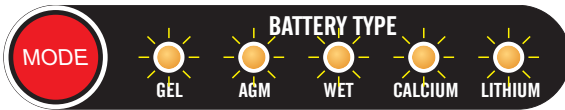
Recovery Mode Indicator:

When the lithium battery has entered recovery mode, the KickAss DC-DC MPPT Solar Battery Charger display will have the source indicator illuminated (eg; SOLAR) and the battery type LITHIUM will be flashing. See diagram below.



When the battery voltage has been recovered to 12V, the DC-DC charger will automatically change to normal stage charging programs and loads may be reconnected.

If all battery type selection lights are flashing simultaneously please see troubleshooting guide below.



There are error codes that may be displayed. These will be displayed in the following way:

Stage LED	S1 LED	S2 LED	S3 LED	S4 LED	Cause	Remedy
Solar input high voltage	●		●		Over voltage is detected at solar input	Check solar panel open circuit voltage
Solar input reverse		●		●	Solar input is reversely connected	Check solar input connection
Alternator high voltage		●			Overvoltage is detected at alternator input	Check vehicle battery voltage
Alternator input reverse	●	●	●		Alternator input is reversely connected	Check alternator input connection
Output fault mode	●			●	Output battery is reversely connected	Check output cable connection
					Overvoltage is detected at output	Check auxiliary battery voltage
					Output open circuit or dead battery	Check auxiliary battery voltage & cable connections



Material	ABS
Temperature Range	-10°C - +60°C
Supported Chemistries	AGM, Calcium, Wet, Gel or Lithium (Deep Cycle Only)
MAX Battery Dimensions	340mm L x 185mm W x 235mm H (with Silicone Mat)
MAX Battery Weight	35kg
6 x (50A) Anderson Style Plugs	Input / Output Capable Maximum Combined 50A Current Rating WARNING: 1. Do not plug in multiple chargers as inputs 2. Do not use an external charger while the DC DC Charger is operating 3. Exceeding 50A combined current rating will trigger the safety breaker
1 x (175A) Anderson Style Plug	High Current Inverter Output WARNING: 1. Master switch does not disconnect the battery from this connector 2. This output is NOT Fused or Short Circuit Protected 3. Do not jump start a vehicle for longer than 7s 4. KA deep cycle batteries should be used for jump starting in emergency situations ONLY, as it will affect battery health 5. Check battery specifications and compatibility with high current draw before using jump start connector 6. Lithium batteries should not be used in this box when intending to jump start
2 x Cigarette Socket Outputs	Maximum 10A output per socket
2 x Dual USB / QC 3.0 Outputs	2 x 2.4A Standard USB Output 2 x QC 3.0 Output (5V/3.1A, 9V/2A, 12V1.5A)
1 x Triple Anderson Style Plug	9-32V DC Starter Battery Input (+/-) Ignition Override Input (I)
1 x (50A) Anderson Style Plug	Minimum Solar Input Voltage: 9V DC Maximum Solar Input Voltage: 23V DC Maximum Solar Input Current: 25A WARNING: 1. Do not exceed the Maximum Voltage of 23V DC 2. Do not exceed the Maximum Input Current of 25A



The battery box is compatible with most 12V deep cycle batteries. This includes AGM, Calcium, Wet, Gel or Lithium LiFePO4.

An AGM battery is best stored fully charged. The KickAss Power Station is fitted with a Master Switch that allows all outlets to be disconnected from the battery for storage - meaning nothing can drain the battery over time.

For short term storage we recommend fully charging the battery with a 240V mains charger, before switching off the Master Switch and storing.

For longer term storage, we recommend instead to connect a 240V mains charger to the battery in order to continually maintain a full state of charge - this process is called trickle charging.

The KickAss Power Station has been designed to be as resistant to moisture and dust as possible, though it is not waterproof.

Do not leave exposed to rain or weather, and do not submerge.

For more information visit us at kickassproducts.com.au/support

THANK YOU FOR CHOOSING
KICKASS®
JAXBOX X1
POWERSTATION



YOUR COMPLETE
12-VOLT POWER
SOLUTION