



12V CONTROL BOX (WITHOUT BATTERY) AP12CB-MP

# USER MANUAL



PLEASE READ THIS MANUAL CAREFULLY BEFORE OPERATION AND MAINTENANCE,  
FOLLOW ALL PROVIDED WARNING & CAUTION, AND KEEP IT FOR FUTURE REFERENCE.

V1.1

## ABOUT US

ATEM POWER, born in June 2017, as a synonym for exciting outdoor experience, is an Australian company with dedication and passion for the R&D of high quality products in the field of renewable energy products, batteries and related accessories.

Since the company was founded, we have committed to innovation that aims to make your life infinitely more convenient. And the belief in our conviction for quality and commitment allows us to innovate in developing products that are optimally tailored to the needs of our amazing customers.

We engineer and supply solar products for homes, 4x4s, recreational vehicles and virtually any application you can think of. And we also develop reliable, high performing deep-cycled batteries and lithium batteries for standby or daily power needs. Accessories include battery chargers and inverters that are ideal for RV's, commercial vehicles, boats, yachts and many more applications!

At ATEM POWER, we stay true to our DNA by prioritizing technological innovation designed to improve our products and striving to provide excellent customer care. Because we are motivated to explore the limits of solar power!

## **WARNINGS & CAUTIONS**

- The ATEM POWER 12V Control Box is engineered to be used as a fixed 12V power hub for your vehicle, canopy or trailer. Please seek professional help if you are unsure in 12V systems.
- When unpacking, check that the product has not been damaged during transportation and that all accessories in the package list are present. Any fault must be indicated immediately to the dealer.
- To prevent overheating of 175A Anderson plug, please ensure that the total wattage of all appliances connected to this 12V control box does not exceed 2240W.
- If you plan to connect AC appliances with a full load of 1500W in total, it is important to use a 12V battery that can provide a continuous current of at least 120A. Failure to do so may result in damage to the appliances or the battery.
- Care must be taken to not expose the unit to direct sun irradiation, water, rain, snow, spray or liquid or near to a heat source, flammable fumes or gases.
- This product must be operated in a dry environment at an ambient temperature of between -20°C and 60°C.
- This product is a heavy unit and must be mounted to a solid, non flammable surface designed to bear such a load.
- A sufficient space around it must be provided to guarantee adequate ventilation of the device.
- When working with this unit, a second person must be present in order to lend assistance in the event of problems.
- Pay attention that connections are completely tightened and that each wire is connected at the right place.
- When working with this unit, all metal jewellery such as rings, bracelet watches, earrings, etc., must be taken off.
- Keep children away during installation.
- The inverter inside generates the same potentially lethal AC power as a normal household wall outlet. Treat it with the same respect.
- DO NOT insert foreign objects into the product's AC outlet, fan or vent openings.
- DO NOT connect live AC power to the inverter's AC outlets. The inverter will be damaged even if it is switched OFF.
- The MPPT controller inside is only suitable for regulating solar modules.

## PACKAGE LIST

1PC(s) ATEM POWER 12V Control Box  
 1PC(s) 50A Anderson Style Connector (Red)  
 1PC(s) 50A Anderson Style Connector (Grey)  
 1PC(s) 175A Anderson Style Connector (Grey)  
 6PC(s) Mounting Brackets

6PC(s) M8\*12 Screws  
 12PC(s) M4\*12 Screws  
 7PC(s) Spare Fuses (4 x 10A, 3 x 20A)  
 1Kit(s) Stickers  
 1PC(s) User Manual

## MOUNTING INSTRUCTIONS

The ATEM POWER 12V control box is designed to be stowed in a car, pickup, RV or 4WD or for camping and other outdoor activities where space is at a premium.

Always make sure it is properly strapped down or securely fixed in place before heading out on the road.

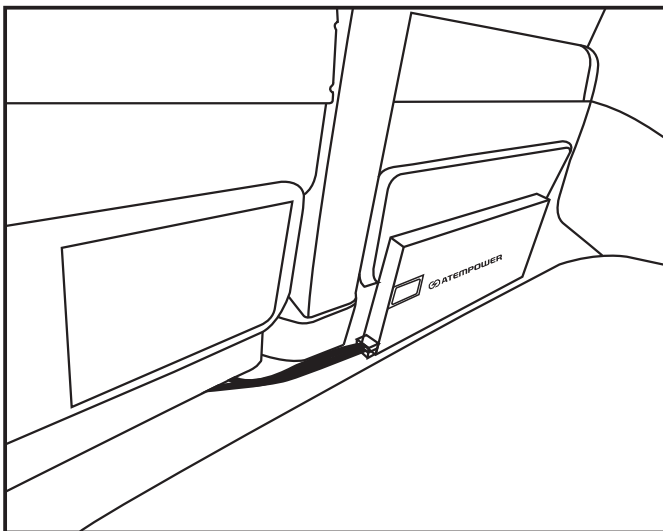


Figure 1a-Strapped at the back of a 4x4

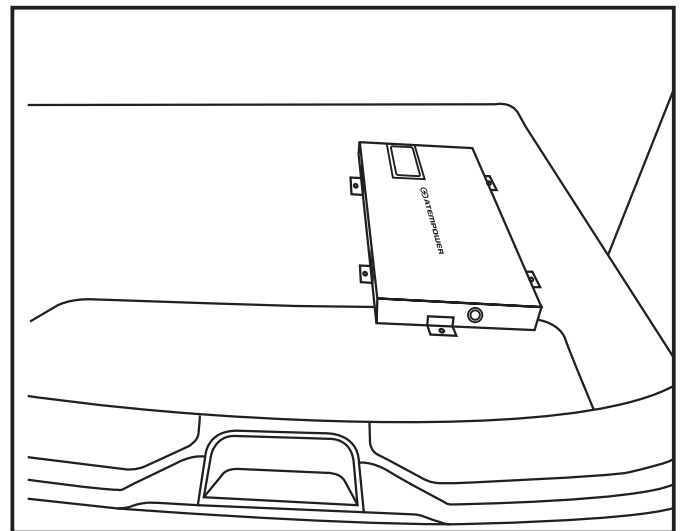


Figure 1b-Back of 4x4

### Note:

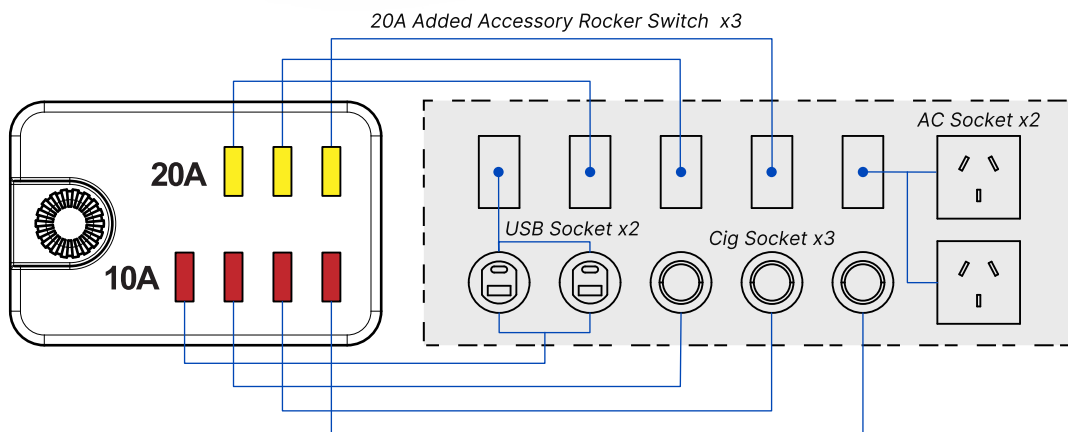
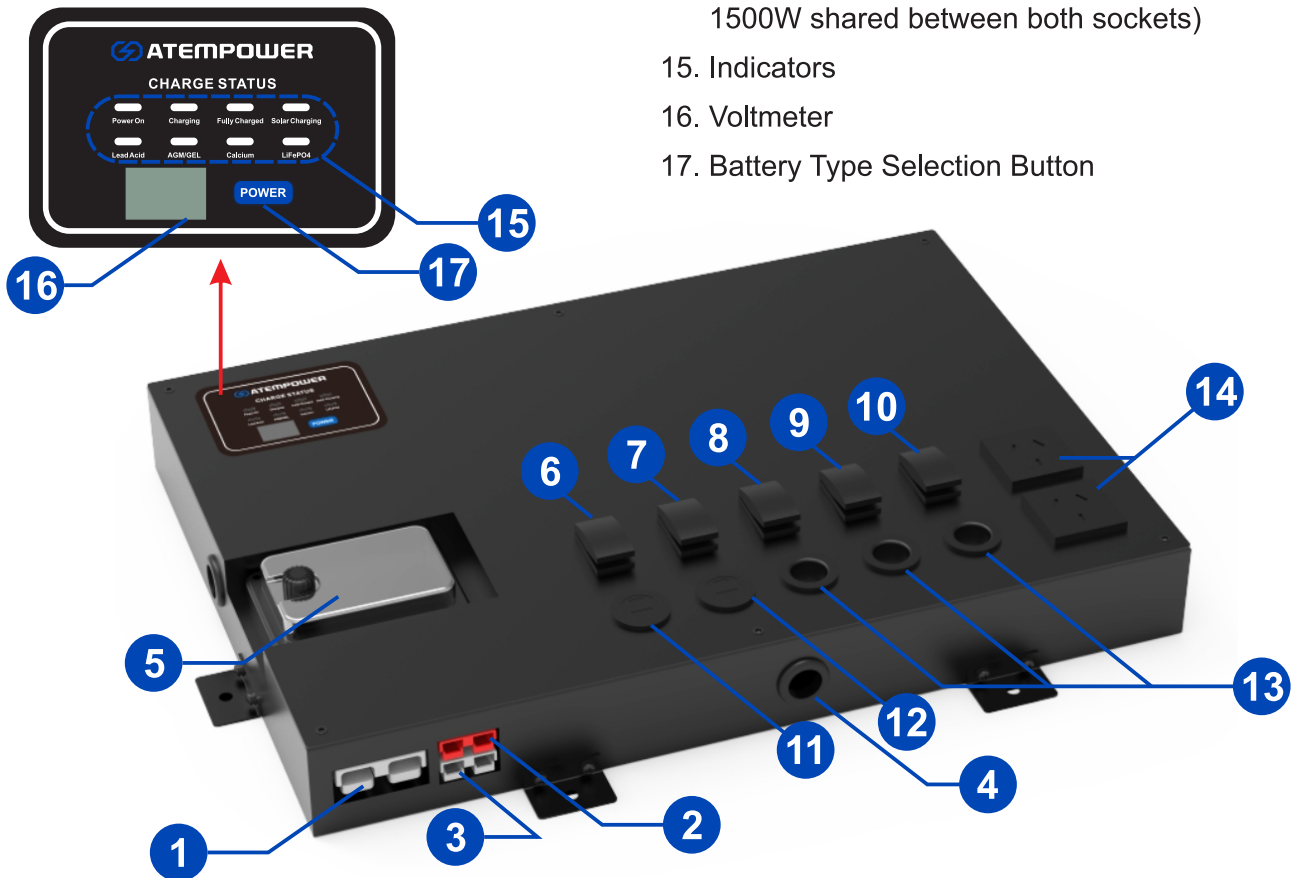
- When mounting this product, DO NOT under any circumstances inadvertently drill or penetrate into the electronic components or wires of your vehicle, which may cause potential threats to your safety.
- Use ONLY the existing mounting holes to mount your control box.
- In addition, this control box MUSTN'T BE mounted loosely.

## ORIENTATION

The control box can be mounted flat or on its side in any orientation.

## IDENTIFICATION OF PARTS

1. Grey 175A Anderson Plug  
(DC input / output, input 10~16V)
2. Red 50A Anderson Plug  
(DC input, MAX 24V 40A)
3. Grey 50A Anderson Plug  
(solar input, MAX 26V 40A)
4. Cable Access Points
5. Fuse Block (7x blade fuses supplied,  
room for 3x spare fuses)
6. 20 A Rocker Switch (USB sockets)
7. 20 A Rocker Switch (Added Accessory)
8. 20 A Rocker Switch (Added Accessory)
9. 20 A Rocker Switch (Added Accessory)
10. 20 A Rocker Switch (AC sockets)
11. USB Socket (Type-A 5V 1A & Type-A 5V 2.1A)
12. USB Socket (Type-A QC 18W & Type-C PD 18W)
13. Cig Sockets (12V, 8A MAX)
14. AC Sockets ( 240V (AUS) OR 220V (CHN)  
OR 120V (USA) OR 100V (JPN) 230V (EUR)  
1500W shared between both sockets)
15. Indicators
16. Voltmeter
17. Battery Type Selection Button



## ADDED ACCESSORY WIRING INSTRUCTIONS

### STEP 1:

Unscrew the socket head cap screws holding the lid onto the box and open the lid.

### STEP 2:

Use a wire stripper to remove about 1cm insulation from the wires.

### STEP 3:

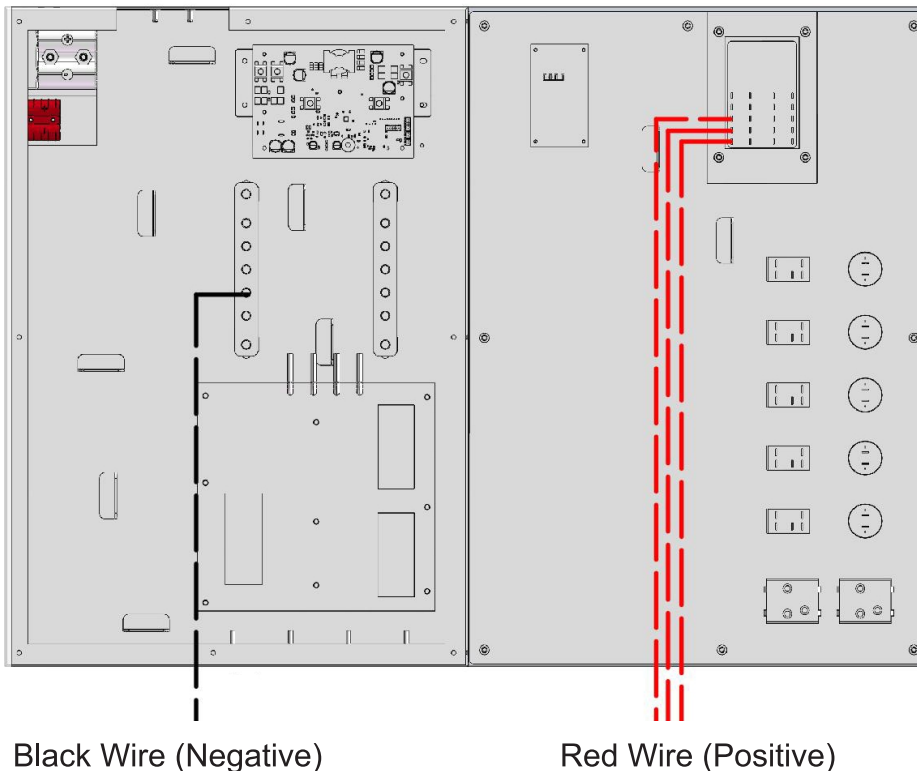
Crimp a 6.3x1mm spade terminal onto the positive wire and an OT2.5-8 ring terminal onto the negative wire of an electrical appliance.

### STEP 4:

Pass the positive wire and the negative wire through a cable access point. Connect the spade terminal to a spare tab terminal under the fuse box, and connect the ring terminal to a spare bolt on the negative terminal.

**Note:** 1. ONLY use 12V electrical appliance with working current no more than 20A.

2. Make sure the rocker switch is in off position before wiring an added accessory.



### STEP 5:

Put back the lid and tighten the socket head cap screws.

## PARAMETERS

Model	AP12CB-MP
Box Material	Steel
Coating	Black Powder Coating
Box Size	570 x 400 x 70mm
Weight	11kg
Lid Thickness	1.5mm
Box Thickness	1.5mm
Recommended Fuse Size for Batteries	1~50A
Recommended Cable Size for Batteries Depending on Length	0~1m = 2 x 6 AWG UL1015 1~3m = 2 x 4 AWG UL1015 3m+= 2 x 2 AWG UL1015
Integrated Inverter Continuous Output Power	1500W
Integrated DCDC Rated Charge Current	40A
Switch Specifications	12V 20A Max Current
AC Socket Specifications	240V (AUS) OR 220V (CHN) OR 120V (USA) OR 100V (JPN) 230V (EUR) 1500W shared between both sockets
Cig Socket Specifications	12V, 8A MAX
USB Socket Specifications	USB Socket 1: Type-A 5V 1A & Type-A 5V 2.1A USB Socket 2: Type-A QC 18W & Type-C PD 18W
Anderson Plug Specifications	Grey 175A Anderson Plug (DC input / output, input 10~16V) Red 50A Anderson Plug (DC input, MAX 24V 40A) Grey 50A Anderson Plug (solar input, MAX 26V 40A)
Fuse Block	7x blade fuses supplied, room for 3x spare fuses
Standard Operation/ Charge/ Discharge Temperature	-20°C~60°C

## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
If the volt meter does not light up or display the battery's voltage,	1. Loose connection. 2. The battery may have run out of power. 3. The fuse may have blown.	1. Reconnect. 2. Charge the battery. 3. Change the fuse.
If you are not receiving power through the cigarette lighter sockets or USB ports,		
If you are not receiving power through the AC socket,		





# WARRANTY



ATEM POWER (“Manufacturer”) warrants, to the original purchaser, (“User”) that its 12V control box, if purchased from Manufacturer or an authorized distributor or dealer, will be free of defects in material and/or workmanship from the date sold and for the duration (the “Warranty Period”) of 1 YEAR. Within the Warranty Period, subject to the exclusions listed below, the Manufacturer will replace or repair, if serviceable, the control box and/or components of the control box, if the components in question are determined to be defective in material or workmanship. If the manufacturer deems the control box and/or components to be not repairable, a new, similar control box will be offered. This Limited Warranty is to the original purchaser of the control box and is not transferable to any other person or entity.

## EXCLUSIONS:

This warranty does not cover defects that are caused by normal wear and tear, inadequate maintenance, insufficient ventilation, transportation, storage or faulty repair, misuse, neglect, accident or abuse, modification to the control box, failure to observe warnings and cautions. For further clarity, this warranty is also void if the control box:

- is used as a primary or backup power source for life support systems or other medical equipment, or any use where product failure could lead to injury to persons or loss of life or catastrophic property damage,
- operates (charge or discharge) below or above its authorized temperature range,
- is used for applications other than which it was designed and intended for,
- is not maintained in accordance with the specifications as set forth in the user manual,
- is subjected to excess vibration as might be caused by out of balance or improperly operated pads in floor burnishing machines,
- is disassembled, altered, or repaired by someone other than an authorized Manufacturer's agent,
- has been subject to misuse, abuse or physical damage, or has been modified, altered or operated with other components not approved by ATEM POWER,
- has been damaged by force majeure (e.g. flash of lightning, overvoltage, storm, fire),
- selected by the user is not of the correct size, design, and capacity for the intended application,
- is damaged due to loose connections, under-sized cabling, or reverse polarity connections, inappropriate storage conditions as defined by the Manufacturer; exposure to fire or freezing, or water damage including submersion.

## CLAIMS:

Request return authorization. No returns will be credited without an authorization. In the case of returned products, the control box must be packed with enough padding and in the appropriate cartons to eliminate the risk of damage in transit.

Manufacturer's exclusive liability for breach of any warranty on the control box shall be to replace the control box within the warranty period in accordance with the terms of this limited warranty. In no event shall Manufacturer be liable for any loss or damages of any other kind, whether direct, incidental, consequential including lost profits, exemplary, special or otherwise, including any lost profits or removal, shipping, or installation expenses.