

AE12000E



BATTERY CHARGER 12V 120A **MANUAL**



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BATTERY CHARGER 12V 120A



WARNING

To avoid any personal injury, please read the safety instructions below. This manual contains important safety and operating instructions for the AE12000E Jump Starter. Consider ALL safety, warning and caution instructions carefully.

WARNING

1. **WARNING:** Explosive gases. Prevent flames and sparks. Provide adequate ventilation during charging.
2. This manual contains important safety and operating instructions. Please read, understand and follow these instructions and precautions carefully.
3. Use this charger/power supply on 12 volts LEAD ACID, AGM and GELLED ELECTROLYTE (GEL-CELL) and Lithium iron phosphate (LiFePO₄) batteries. Do not attempt to use on other voltages and types of batteries (DRY CELL, NICKEL CADMIUM, NICKEL METAL HYDRIDE, etc.) commonly found in small home appliances. This may cause chargers and batteries to burst, resulting in damage or injury to person and property.
4. Do not expose this charger to direct sunlight, rain or snow.
5. If the battery is installed, please make sure that the vehicle is turned off all loads and no loads are presented.
6. Do not use attachments to this charger that are not recommended. Non-recommended attachments may result in injury, electric shock, or fire and voids the warranty.
7. To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.
8. An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock.
9. Do not operate charger with damaged cord or plug - replace the cord or plug immediately.
10. Do not operate charger if it receives a sharp blow, has been dropped, or otherwise damaged in any way; take it to a qualified service technician.
11. Do not disassemble charger; take it to a qualified service technician when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.



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WARNING

12. To prevent injury during cleaning or maintenance, disconnect all batteries and move them to clear access to the unit. Unplug this charger from the wall outlet. Use a slightly dampened cloth to clean the housing and lead sets. Do not use solvents or soaps.
13. Place the power cords in a location where will not be stepped on, tripped over, or subjected to stress or abuse of any kind.
14. Never attempt to charge a frozen battery. Allow the battery to return to room temperature before connection. Suggested operation range 0°C (32° F) to 40°C (104° F) in ambient temperature.
15. Never use this charger in or on any boat or watercraft directly. You must remove the battery from the boat or watercraft and charge the battery at the properly installed location of this charger.
16. Do not install this charger where it will be exposed to moisture or inclement weather, or around combustibles like trash, flammable liquids and vapours.
17. Do not recharge to non-rechargeable batteries.
18. During charging, batteries must be placed in the well-ventilated area.
19. The battery terminal not connected to the chassis has to be connected first. The other connection is to be made to the chassis, remote from the battery and fuel line.
20. The battery charger is then to be connected to the supply mains.
21. After charging, disconnect the battery charger from the supply mains. Then remove the chassis connection and then the battery connection.
22. The connection to the supply mains is to be in accordance with the national wiring rules.
23. The charger will automatically return to its previous charging status when powering on only if it is shut down from showroom mode.
24. For indoor use only.
25. Disconnect the supply before making or breaking the connections to the battery.

BATTERY CHARGER 12V 120A

SPECIFICATIONS

Compatible Battery Types	12V Flooded, AGM Flat, AGM Spiral, EFB, VRLA, GEL, Lithium (LFP)								
Charge Capacity	20Ah – 400Ah								
Maximum Sustained Output (Mode Dependent)	<table border="0"> <tr> <td>Battery Charging Mode</td> <td>100</td> </tr> <tr> <td>Amps Power Supply Mode</td> <td>120</td> </tr> <tr> <td>Amps Showroom Mode</td> <td>50</td> </tr> <tr> <td>Amps Memory Saver Mode</td> <td>30 Amps</td> </tr> </table>	Battery Charging Mode	100	Amps Power Supply Mode	120	Amps Showroom Mode	50	Amps Memory Saver Mode	30 Amps
Battery Charging Mode	100								
Amps Power Supply Mode	120								
Amps Showroom Mode	50								
Amps Memory Saver Mode	30 Amps								
Battery Type	Charging Voltage								
Flooded	14.7V								
AGM	14.6V								
EFB	14.6V								
VRLA/GEL	14.0V								
LFP	14.4V								
Clamp-Cable Length	3m or 5m								
AC Input	220 - 240V 50/60Hz								
AC Cord	3m (approx. 9.8ft)								
Protection	<ul style="list-style-type: none"> Reverse Polarity Short Circuit Over Voltage Over Current Over Temperature 								
Operating Temperature	0 - 40°C (32 - 104°F) With Dual Fan Active Cooling								
Storage Temperature	-20 - 60°C (-4 - 140°F)								
IP Rating	IP20								
Display	2.5-inch LCD 128 x 64								
Dimension (with handle)	370 x 254 x 110 mm (approx. 14.5 x 10 x 4.3 inches)								
Wall Mount Support	Yes								
Operating Languages	EN, FR, DE, ES, IT, PT . . . up to 25 languages								



BATTERY CHARGER 12V 120A

PERSONAL PRECAUTIONS

1. WARNING - RISK OF EXPLOSIVE GASES.
2. WORKING IN VICINITY OF A LEAD-ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL BATTERY OPERATION. FOR THIS REASON, IT IS OF UTMOST IMPORTANCE THAT YOU FOLLOW THE INSTRUCTIONS EACH TIME YOU USE THE CHARGER.
3. To reduce risk of battery explosion, follow these instructions and those published by the battery manufacturer and manufacturer of any equipment you intend to use in the vicinity of the battery.
4. Someone should be within range of your voice or close enough to come to your aid when you work near a lead acid battery.
5. Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing or eyes.
6. Wear complete eye protection and protective clothing.
7. Avoid touching eyes while working near battery.
8. Be extra cautious to reduce risk of dropping a metal tool onto the battery. It could spark or short-circuit the battery or other electrical parts and could cause an explosion.
9. Remove personal metal items such as rings, bracelets, necklaces and watches when working with a lead acid battery. It can produce a short circuit current high enough to weld a ring or the like to metal causing a severe burn.
10. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
11. Children should be supervised to ensure that they do not play with the appliance.

CHARGER/MAINTAINER LOCATION

1. Locate charger as far away from battery as DC cables permit.
2. Never place charger directly above battery being charged. Gases from battery will corrode and damage charger.
3. Never allow battery acid to drip on charger when reading gravity or filling battery.
4. Do not operate charger in a closed area or restrict ventilation in any way.
5. Do not set a battery on top of charger.

BATTERY CHARGER 12V 120A

PREPARING TO CHARGE

RISK OF CONTACT WITH BATTERY ACID. BATTERY ACID IS A HIGHLY CORROSIVE SULFURIC ACID.

1. Be sure area around battery is well ventilated while battery is being charged. Gas can be forcefully blown away by using a piece of cardboard or other non-metallic material as a fan.
2. Clean battery terminals. Be careful to keep corrosion from coming in contact with eyes.
3. Inspect the battery for cracked or broken case or cover. If battery is damaged, do not use charger.
4. If the battery is not sealed maintenance free, add distilled water in each cell until battery acid reaches level specified by the manufacturer, this helps purge excessive gas from cells. Do not overfill. For a battery without cell caps, carefully follow manufacturer's recharging instructions.
5. If necessary to remove battery from vehicle to charge, always remove ground terminal from battery first. Make sure all accessories in the vehicle are off to ensure you do not cause any arcing.
6. Study all battery manufacturer's specific precautions such as removing or not removing cell caps while charging and recommended rates of charge.
7. Determine voltage of battery by referring to car owner's manual and make sure it matches output rating of battery charger.
8. If the battery and terminals have a white or bluish crust on them, the charging system may be having problem. These problems should be corrected before the battery is replaced after charging.

SETTING UP AND OPERATIONS

1. Make sure the room has plenty of ventilation.
2. Be sure the total amperage used by this charger should not exceed the amperage capacity of the supply source. If you do not know how to determine this, have a qualified electrician determine the capacity for you.
3. Connect and disconnect DC output clips only after setting any charger switches to off position and removing AC cord from electric outlet. Never allow clips to touch each other.
4. Make sure the battery terminals are clean. Wire brush them if necessary. Clamp the black end (NEG, -) to the negative battery terminal. Clamp the red end (POS, +) to the positive battery terminal.

GROUNDING AND AC POWER CORD CONNECTION INSTRUCTIONS

Charger should be grounded to reduce risk of electric shock. Charger is equipped with an electric cord having equipment –grounding conductor and a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER – Never alter AC cord or plug provided – if it will not fit outlet, have proper outlet installed by a qualified electrician. Improper connection can result in a risk of an electric shock.

CHARGING WHEN BATTERY IS INSTALLED IN VEHICLE

1. Position the AC and DC cables to reduce the risk of damage by the hood, door and moving or hot engine parts.
2. NOTE that if it is necessary to close the hood during the charging process, ensure that the hood does not touch the metal part of the battery clips or cut the insulation of the cables.
3. Stay clear of fan blades, belts, pulleys and other parts that can cause injury.
4. Determine which post of the battery is grounded (connected) to the chassis. If the negative post is grounded to the chassis (as in most vehicles), see step NEG-GROUNDED VEHICLE. If the positive post is grounded to the chassis, see step POS-GROUNDED VEHICLE.

FOR A NEGATIVE-GROUNDED VEHICLE

Connect the POSITIVE (red) clip from the battery charger to the POSITIVE (POS, +) ungrounded post of the battery. Connect the NEGATIVE (black) clip to the vehicle chassis or engine block away from the battery. Do not connect the clip to the vehicle chassis or engine block sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block.

FOR A POSITIVE-GROUNDED VEHICLE

Connect the NEGATIVE (black) clip from the battery charger to the NEGATIVE (NEG, -) ungrounded post of the battery. Connect the POSITIVE (red) clip to the vehicle chassis or engine block away from the battery. Do not connect the clip to the carburettor, fuel lines or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block.

Connect the AC supply cord to the electrical outlet for processing the charging.

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CHARGING WHEN BATTERY IS OUTSIDE VEHICLE

1. Connect the POSITIVE (red) charger clamp to the POSITIVE (POS, +) post of the battery.
2. Connect the NEGATIVE (black) charger clamp to the NEGATIVE (NEG, -) post of the battery.
3. Connect the AC supply cord to the electrical outlet.
4. When disconnecting the charger, always do so in the reverse order of the connecting procedure and break the first connection while as far away from the battery as practical.



NOTE: that a marine battery must be removed and charged on shore. To charge it on-board requires equipment specially designed for marine use.

REFERENCE OF MAX OUTPUT CURRENT

When Using The 5 Meters (Diameter: 25mm²) Cable Set

Voltage Set	Max current @ operating temperature between 0-25° C
12.5V	120A
13.0V	120A
14.0V	114A
14.5V	111A
14.8V	109A



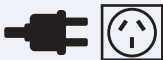
NOTE: Under the OTP function, the charger can operate at 100A and 14.8V at temperature 40°C.

OPERATE

1. Connect red clamp (+) to the (+) terminal of battery and black clamp (-) to the (-) terminal of battery.



2. Plug AC plug of charger into the outlet properly.

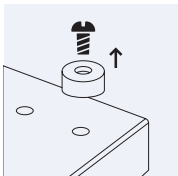


3. Turn on the switch.

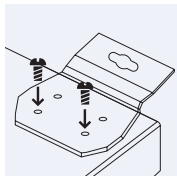


WALL MOUNT BRACKET INSTALLATION

1. Unscrew 4 bases



2. Screw 4 brackets



Screw on device x 8 pcs

Wall mount bracket x 4 pcs

Screws for fixing the bracket on wall are not included.

Please secure the charger with wall mount brackets before using.

MENU

Press ▲▼ keys to select mode. Press "ENTER" key to confirm.

MENU
CHARGE BATTERY



MENU
POWER SUPPLY



MENU
SHOWROOM

MENU
REPLACE BATTERY




MENU
SETTING

BATTERY CHARGER 12V 120A

CHARGE BATTERY MODE

WARNING: Don't Charge Lithium Batteries (Lifepo4) To Select Flooded, AGM, EFF, GEL/VRLA Lead Acid Battery Programs.

<p>Press "ENTER" key.</p>	<p>MENU CHARGE BATTERY</p>
<p>Press ▲▼ keys to select battery type. Press "ENTER" key to confirm.</p>	<p>BATTERY TYPE FLOODED AGM EFB GEL/VRLA LITHIUM(LiFePO4)</p>
<p>Press ▲▼ keys to choose battery size (AH). Press "ENTER" key to confirm. (Available range: 20~1,000Ah)</p>	<p>BATTERY CAPACITY 100 AH</p>
<p>Press ▲▼ keys to choose Auto or Manually set charging current</p>	<p>CHARGING CURRENT AUTO MANUAL</p>
<p>If "MANUAL" is selected, press ▲▼ keys to adjust the charging current.</p>	<p>CHARGING CURRENT 20A</p>
<p>Press ▲▼ key to choose ON OFF or LEAVE. ON: Start charging the battery. OFF: Stop charging the battery. EXIT: Return to main menu.</p>	<p>FLOODED 100 AH 14V > ON/OFF 20A EXIT</p> 

WAKE UP FUNCTION FOR LITHIUM BATTERY (LIFEPO4)

For some Lithium batteries equipped a battery protection board to disconnect lithium battery cells to avoid lithium battery being deeply discharged.

In this case, the charger will start a wake up function to reconnect the battery cells.

LITHIUM(LiFePO4)

100 AH

14V > ON/OFF

20A LEAVE



The voltage is less than 2V. Press "ENTER" key

Battery voltage is too low.

Please make sure the charger is connected to the battery!

Press ▲▼ to select YES or NO

Do you want to start wake up the battery?

YES NO

Press "ENTER" key to EXIT.

Wake up will complete in 60 seconds.

EXIT

When wake up is success, the charger will go to next charging stage.

Battery wake up success!

If wake up is failure, the charger will stop charging.

Battery wake up Fail.

Please contact battery supplier!

Press "ENTER" to choose ON or OFF to re wake up or stop charging battery.

LITHIUM(LiFePO4)

100 AH

14V > ON/OFF

20A EXIT



Press ▲▼ keys to choose EXIT and then press "ENTER" key to return to MENU.

LITHIUM(LiFePO4)

100 AH

14V ON/OFF


20 A > EXIT



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POWER SUPPLY MODE

Use to supply the power to vehicle when diagnosing or reprogramming.

Press "ENTER" key.	MENU POWER SUPPLY	
Press ▲▼ keys to set the voltage value. Press "ENTER" key to confirm.	SET VOLTAGE 13.2V	
Press ▲▼ key to choose ON OFF or LEAVE. Press "ENTER" to choose ON or OFF to start or stop power supply.	POWER SUPPLY 14V 20A > ON/OFF EXIT	

Press ▲▼ keys to choose >EXIT and then press "ENTER" key to return to MENU.

SHOWROOM MODE

Press "ENTER" key.	MENU SHOWROOM	
Press ▲▼ keys to set voltage value.	SET VOLTAGE 13.2V	
Press "ENTER"(BACK) key to start SHOWROOM mode.	SHOWROOM 14V 20A > ON/OFF EXIT	 

Press ▲▼ key to choose > ON OFF or > LEAVE.

Press "ENTER" to choose ON or OFF to start or stop SHOWROOM mode.

Press ▲▼ keys to choose > EXIT and then press "ENTER" key to return to MENU.

TO LOCK OR UNLOCK THE SHOWROOM MODE

Press "BACK" key under SHOWROOM mode, the instruction of lock / unlock showroom mode will be displayed.

To lock or unlock
Press: ▲▼ ▲▼ Enter

Press ▲▼ ▲▼ "ENTER" keys sequentially to lock the showroom mode.

Once locked, A lock icon will be displayed and the buttons are locked to preventing mis-operation.

SHOWROOM

14V
20A > ON/OFF
EXIT



Press "BACK" key under locked mode again, the instruction of lock / unlock showroom mode will be displayed.

To lock or unlock
Press: ▲▼ ▲▼ Enter

Press ▲▼ ▲▼ "ENTER" keys sequentially to unlock the showroom mode.

Once unlocked, an unlock icon will be displayed.

SHOWROOM

14V
20A > ON/OFF
EXIT



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REPLACE BATTERY MODE

Connect red clamp (+) to the (+) terminal of battery. Connect black clamp (-) to the vehicle chassis or earth.

WARNING: The polarity reversal can damage the electronic devices in vehicle.

Press "ENTER" key.	MENU REPLACE BATTERY
Press ▲▼ key to choose ON/OFF or > EXIT	REPLACE BATTERY 14V 20A > ON/OFF EXIT



Press "ENTER" to choose ON or OFF to start or stop REPLACE BATTERY mode.
Please be careful not to disconnect the clamps to avoid losing data stored in vehicles.
Press ▲▼ keys to choose > EXIT and then press "ENTER" key to return to MENU.

SETTING

Press "ENTER" key.	MENU SETTING
Press ▲▼ keys to select. Press "ENTER" key to confirm.	SETTING BACKLIGHT CONTRAST LANGUAGE LCD ROTATE AUTO RESTART CLOCK DEVICE INFO CABLE SETTING FW UPDATE

BACKLIGHT

Press ▲▼ keys to adjust.
Press "ENTER" key to confirm.



CONTRAST

Press ▲▼ keys to adjust.
Press "ENTER" key to confirm.



LANGUAGE

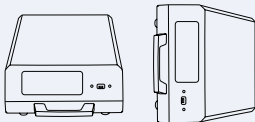
Press ▲▼ keys to select.
Press "ENTER" key to confirm.

LANGUAGE

ENGLISH
FRENCH
GERMAN
SPANISH
ITALIAN
PORTUGUESE

LCD ROTATE

Start LCD ROTATE when the device is mounted on the wall.
Press ▲▼ keys to select ON/OFF.
Press "ENTER" key to confirm.



LCD ROTATE
ON / OFF

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AUTO RESTART

This function works with <SHOWROOM> mode. If the AC power is cut, the display of charger will keep staying at <SHOWROOM> mode when the charger is restarted.

Press ▲▼ keys to select ON or OFF.
Press "ENTER" key to confirm.

AUTO RESTART
ON / OFF

CLOCK

Press "ENTER" and ▲▼ keys to adjust "Year"
Press " " to complete "Year setting & enter "Month "



2020/02/20 15:00:00

Please follow previous steps to finish "Day", "Hour", "Minute" & "Second" setting. After finishing "Second" setting, press "ENTER" to MENU.

DEVICE INFO (INFORMATION)

Press "ENTER" to see the version.
Press "ENTER" key to MENU.

Hardware Version
M_V00.A / C_V01.B
Firmware Version
V00.A

CABLE SETTING

If the enclosed 3M or 5M cable in charger is changed. Please reset the correct length.

CABLE SETTING
3 METERS
5 METERS
CABLE CALIBRATION

CABLE CALIBRATION

When the cable is changed except 3M or 5M, please use this mode to reset. Press "ENTER" key.

CABLE SETTING
3 METERS
5 METERS
CABLE CALIBRATION

Check the cable is in good condition. Connect Red clamp (+) to Black clamp (-) in short circuit.

Connect Red clamp (+) to Black clamp (-) in short circuit.
Press START

Press ENTER and ▲▼ keys to select START



After selecting START, press "ENTER" for cable calibration.

CABLE CALIBRATION
START
EXIT

Calibration Success!

Press ▲▼ keys to select EXIT to return to MENU.

CABLE CALIBRATION
START
EXIT

BATTERY CHARGER 12V 120A

TROUBLESHOOTING

Display & Alarm Beep	Cause	Action
Over current! Please check the cable connections!	The consumption of current exceeds the output current of charger.	Turn off the electrical devices to lower the power demand.
Detect no battery.	Battery is short circuited or broken. Clamp cable is damaged or short circuited. Poor connection between clamps and battery. 6V Battery is connected	Replace battery. Check clamp cable or replace. Check connection. Charger works on 12V battery.
Error: The polarity of clamp is reversed!	Reversed polarity or short circuited in charge cables.	Check clamp (+) to (+) terminal of battery and clamp (-) to (-) terminal of battery.
Charger over temperature!	Defective fan The area around the device is not well ventilated Expose charger to sunlight	Contact with the technical support. Move the device to ventilation area. Don't expose charger to sunlight.
Charger output error! Please contact technical support.	The charger may be damaged.	Contact with the technical support.
Please check the cable connections!	The cables may be short circuited or damaged.	Check the cables or cable connection to battery.
Battery voltage is too high.	The charger is connected to 24V battery instead of 12V battery.	Connect to 12V battery.

TROUBLESHOOTING

Display & Alarm Beep	Cause	Action
Bad battery!	Bad battery	Before replacing battery, check connections and setting.
The power supply is supplying the maximum power. Soon the voltage will drop.	Over the power limit: 1750W	Decrease the load under 1750W.
Calibration Fail!	The cable is damaged. Output current cannot reach to 100A.	Use the new cable. The clamps are not connected to battery well. Check the connection.
Battery over temperature!	The battery is too hot to charge.	Let the battery cool down or the battery is damaged and may need to be replaced.
Battery voltage is too low, please charge battery first.	The battery voltage is under 12V before entering power supply mode.	Charge the battery first before proceeding with power supply mode.



BATTERY CHARGER 12V 120A

WARRANTY POLICY

Products developed and sold by Tridon Australia Pty Ltd come with a guarantee for the reasonable life of the product, for the purpose it is commonly used. This is in addition to the rights of the consumer under the Australian Consumer Law.

To be considered for warranty please take the product with proof of purchase to the store where you purchased the product or contact Tridon Australia.

The warranty is given by: Tridon Australia, 21-25 Derby St, Silverwater, NSW 2128.

Tel: 1300 362 263.

Email: mail@tridon.com.au

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage incurred if the product fails when used for the purpose for which it was intended. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Tridon Australia will bear costs associated with claiming legitimate warranties. Proof of expenses incurred must be submitted to Tridon Australia Pty Ltd.