

Intelligent Battery Charger with Microprocessor Control

K036 v01: 16/07/21

Please read and retain these instructions for future reference



Dimensions

19.9 x 5 x 8.2cm

- 9 Steps intelligent charging cycle ; 6V / 12V selection
- Low battery activation voltage(2V)
- Suitable battery style : STD, GEL, AGM, LITHIUM
- Reverse connect protection, short circuit protection, over charger protection, over-temperature and Fire protection functions
- Special safety design, no output on clips when it not connected to the battery
- Memory charging function
- Convenient mode selection
- LED Indicate
- Independent winter and AGM charging mode
- 12V Recover battery mode
- 0.8A Low current charging mode to protect and recover battery
- IP65

Specification

Specification	6V 2A	12V 2A
Rated AC Input voltage	220V AC-240V AC/ 50HZ/60HZ	
Max charging voltage	7.3V	14.6V
Starting voltage	1.5V	
Max input power	20W	40W

*Calls cost 7 pence per minute plus your telephone company's network access charge

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Charging current	MAX 2.0A	
Environment temperature	0°C -40 °C	
Storage temperature	0 °C -60 °C	

Scope of application

The battery chargers are widely used in 6V/12V DC battery charger and maintenance including ordinary Lead-acid, maintenance-free lead - acid ,AGM and lithium those used for a variety of vehicle such as sports cars, SUV, caravan cars pickup trucks, motorcycles, ATV, boats, sailing, solar systems etc.

Danger of explosive gases

- Working near acid batteries is dangerous, the battery may release explosive gases during normal operation, thus, it is most important to use the charger according to the operation instruction.
- To reduce the risk of battery explosion, please follow these instructions and those published by the battery manufacture and manufacture of any equipment you intend to use in the vicinity of the battery .

Warnings

1. THE INSTRUCTIONS AND WARNINGS SHOULD BE READ AND UNDERSTOOD BEFORE USING AND INSTALLING THE BATTERY CHARGER.
2. THE CHARGER HAS NO USER SERVICEABLE PARTS. DO NOT DISASSEMBLE THE CHARGER.
3. THE CHARGER MIGHT GET HOT WHEN USING. THIS IS NORMAL.
4. PLEASE DO NOT EXPOSE THE CHARGER TO RAIN OR USE IT IN DAMP PLACE TO AVOID DANGER.
5. PLEASE KEEP OUT OF REACH OF CHILDREN.
6. PLEASE CHECK THE POWER CORD OF THE CHARGER BEFORE USE. DO NOT USE THE CHARGER IF THE POWER CORD IS DAMAGED.
7. PLEASE DO NOT ATTEMPT TO CHARGE A DAMAGED OR FROZEN BATTERY
8. PLEASE DO NOT PUT THE CHARGER ON THE BATTERY WHEN CHARGING
9. PLEASE KEEP WELL VENTILATED WHEN USING AND DO NOT COVER THE CHARGER .
10. PLEASE PULL THE AC PLUG WHEN THE BATTERY IS FULL AND DO NOT KEEP CHARGER UNATTENDED FOR A LONG TIME WHILE CHARGING .
11. PLEASE KEEP THE CHARGER AWAY FROM SOURCES OF HEAT.
12. BEFORE CONNECTING THE APPLIANCE, CHECK IF THE VOLTAGE INDICATED ON THE BOTTOM OF THE APPLIANCE IS IN ACCORDANCE WITH THE MAINS VOLTAGE IN YOUR HOME.

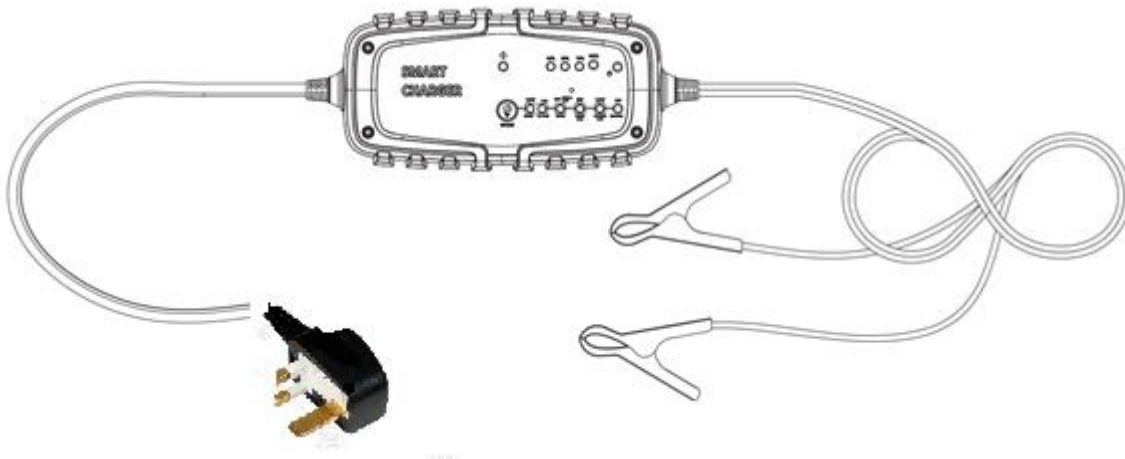
ALWAYS ENSURE THE CHARGER IS SWITCHED OFF BEFORE ATTACHING THE CABLES TO THE BATTERY. ENSURE THE BATTERY CABLES ARE CONNECTED TO THE CORRECT POLARITY OF THE BATTERY TERMINALS.

CHECK ALL IS CORRECT AND STAND CLEAR WHEN CHARGING.

ADULTS MUST CHARGE THE BATTERIES. KEEP AWAY FROM CHILDREN.

ALWAYS SWITCH THE CHARGER OFF BEFORE REMOVING THE CHARGER CABLES FROM THE BATTERY.

Charging instructions

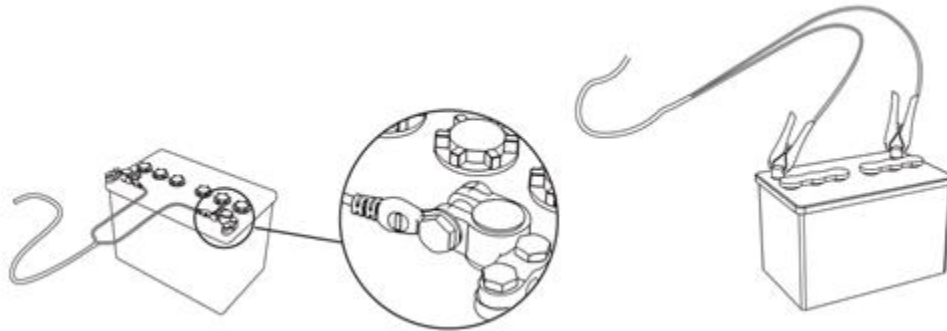


Charging for single Lead-acid battery

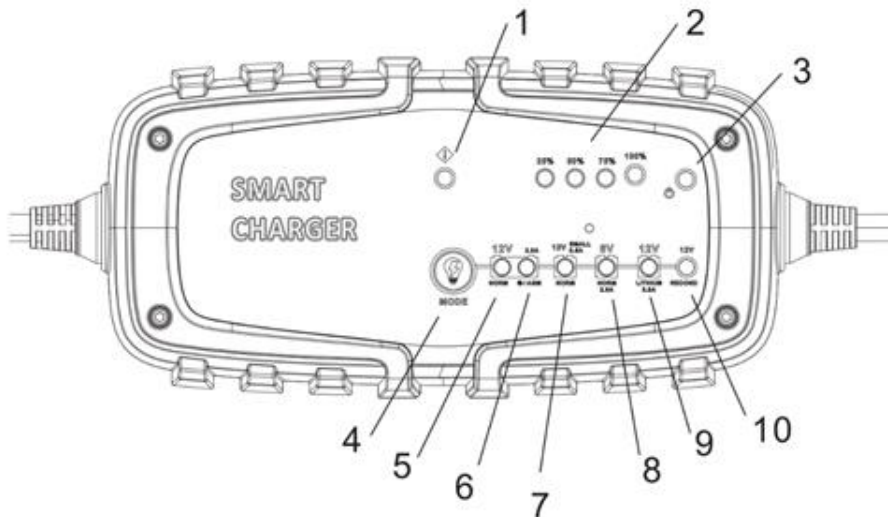
1. Please put AC plug into AC socket.
2. Please select correct charging mode first, then connect red clamp/O ring to positive of battery "+", connect black clamp/O ring to negative of battery "-".
3. Please remove the plug from the AC socket before disconnecting the battery, then remove the clamp/O ring from battery.

Charging for car battery:

1. Please put AC plug into AC socket.
2. Please choose correct charging mode according to battery rated voltage and battery type, press the Enter/ Exit button to start charging. To change charge mode, just press the Enter/ Exit button again to re-select the mode.
3. Please remove the plug from the AC power outlet before disconnecting the battery.
4. Disconnect the black clamp and then disconnect the red clamp. (If the car battery is positively grounded, first disconnect the red clamp and disconnect the black clamp)



Charge Mode



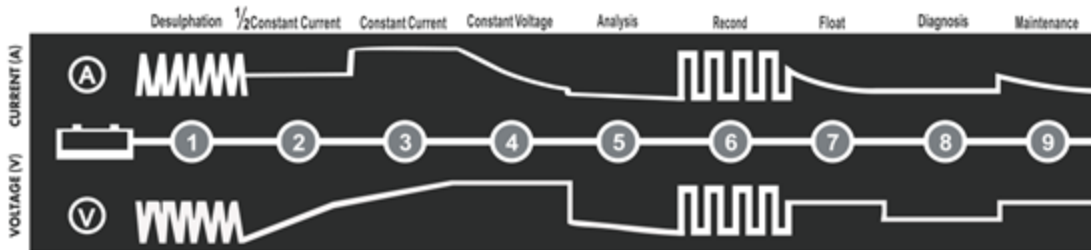
1. Fault indicator light	6. 12V Winter mode indicator light
2. Battery capacity indicator light	7. 12V Maintain mode indicator light
3. Power indicator light	8. 6V Normal mode indicator light
4. Mode selection button	9. 12V Lithium battery mode indicator
5. 1 2V Normal mode indicator light	10. 12V recond mode indicator light

Explanation of battery types:

- STD - standard battery
- GEL - gel lead acid battery
- AGM – absorptive glass mat battery
- LITHIUM - lithium battery (LiFePO4)

Press the MODE button to select the charging mode, then properly connect the charger to the battery according to the operation instruction. About two seconds later, the charger starts in the selected mode.

Charging mode indicator light	Charging status	Applicable Battery Capacity(Ah)
6V NORM	6V normal mode Used for small capacity	RK 2000(2A) : 1.3-60Ah
12V NORM	12V normal mode Used for normal charging	RK 2000(2A) : 1.3-60Ah
*/ AGM	12V winter mode charging most of AGM batteries	RK 2000(2A) :1.3-60Ah
12V SMALL 0.8A	12V maintain mode Small currency maintenance battery	RK 2000(2A) : 1.3-60Ah
12V LITHIUM	12V Lithium battery mode Charging for Lithium battery	RK 2000(2A) : 1.3-60Ah
12V RECOND	12V Recover mode	/



1. Desulphation

Detecting vulcanized batteries, then remove sulfuret from the lead plates of the battery by pulsing current and voltage.

2. 1/2 Constant Current

Charging battery to 25% capacity by 1/2 current

3. Constant Current

Charging battery to 50% capacity by max current

4. Constant Voltage

Charging battery to 75% capacity by constant voltage

5. Analysis

Analyzing power capacity, if cannot store power the battery should be replaced.

6. Recond

Restores power capacity in a stratified battery to sustain ultimate battery life.

7. Float Charge

Charging battery to 100% capacity by small current

8. Diagnosis

To check if battery has been fully charged

9. Maintenance

The charger will use small current to keep battery always be fully charged.

Instructions for each indicator light

Power indicator light (green) is always on	It is connected
Fault indicator light(red)	<p>The red indicator light is always on: wrong connection with positive and negative, please exchange positive and negative. The charger clips have short circuited, please separate the clip.</p> <p>Over-high voltage of battery: please confirm the battery type whether 12V or 6V</p> <p>Over-temperature protection: the environment temperature is too high, please use the unit in o°C - 40°C 。</p>
Battery Capacity indicator light	25%,50%,75% is yellow,100% is green .
12V NORM indicator light(green)	Normally on:12V normal charging mode.
*/AGM indicator light(green)	Normally on:12V winter mode .
12V SMALL 0.8A(green)	Normally on:12V maintain mode.
6V NORM(green)	Normally on:6V normal mode.
12V LITHIUM(green)	Normally on :12V Lithium battery charging mode .
12V RECOND(green)	Normally on :12V recond mode .

Safety feature

1.Enter into floating mode automatically:

The charger will enter into floating mode to prevent overcharging when the battery is fully charged.

2.DC output short circuit protection:

The charger will stop output automatically when DC output clips short circuit.

3.Over temperature protection

The charger will enter into over temperature protection automatically when the internal temperature reaches the preset temperature if the charger used in high environment temperature for a long time. When the temperature is reduced to a normal level, the charger will enter into charging mode automatically.

4.Over voltage protection

5.Fire protection

To avoid sparks, no output passes through the clips when disconnected from the battery.

6.Low voltage starting

The charger will enter into charging mode automatically if the voltage of clamps is higher than 1.5V DC. No output passes through the clips if the voltage lower than 1.5V DC.

7.Warning

Please do not close the hood, door or cover when using spring clips in the battery, or it will cause dangerously high current short circuit to battery terminal.

8.Warning

Please choose correct charging voltage according to rated voltage of battery, or battery will be damaged.

9.Warning

Please do not charge the battery while the car engine is running.

10.Warning

LITHIUM mode is only available for Lithium Iron Phosphate Battery.

Trouble Shooting

(NO .)	Faults Phenomenon	Troubleshooting
1	There is no reaction when connected	1. Check chargers is plugged into a socket 2. Check there is electricity from the AC socket
2	The power indicator light is on but the charger is not working	1. Check if the clamp is properly connected. 2. Check whether the positive and negative terminals of the battery are vulcanized and cause poor contact.
3	The power indicator light and red light is on at the same time	1.Check if the clamp is connected correctly. 2.The charger is under over-temperature protection 3.Check correct battery voltage has been selected.
4	Normal charge, but the power indicator light is off	1.Poor indicator light
5	Normal charge, but mode indicator light is off	1.Poor indicator light
6	The charging mode cannot be changed or the switch button is insensitive	1. Operate the switch correctly. 2. Switch is damaged. 3. Please check the charger is connected to the battery. Mode needs to be changed when the charger is not connected.

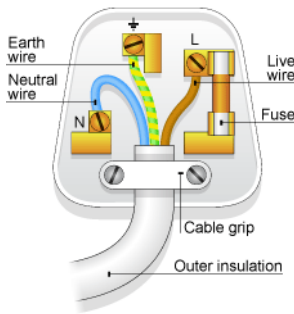
PLUG WIRING (UK & IRELAND)

This appliance is fitted with a BS 1363 13-amp plug. If you have to replace the fuse, only those that are ASTA or BSI approved to BS1362 and with a rated current of 13-amperes should be used. If there is a fuse cover fitted, this cover must be re-fitted after changing the fuse. If the fuse cover is lost or damaged the plug must not be used. Spare fuse holders and fuses are available from electrical outlets. If the socket outlets in your home or

office are not suitable for this product's plug, the plug must be removed and disposed of safely. Attempts to insert the plug into the wrong socket is likely to cause electric hazard. A replacement plug should be wired according to the following instructions:

The cable

A mains electricity cable contains two or three inner wires. Each has a core of copper and an outer layer of flexible plastic. This product is earthed; the wires in the cord set are colour coded in the following way:




- | | |
|----------------|---------|
| BLUE | NEUTRAL |
| BROWN | LIVE |
| GREEN & YELLOW | EARTH |

The diagram shows the key features of a correctly wired three-pin mains plug.

DISPOSAL

- Coopers of Stortford use recyclable or recycled packaging where possible.
- Please dispose of all packaging, paper, cartons, packaging in accordance with your local recycling regulations.
- Plastics, polybags – Contains the following recyclable plastic.



Code & Symbol	 OTHER
Type of Plastic	ABS, PC (Polycarbonate)
Commonly used for	CD's, crisp packets, various flexible packaging, baby bottles, sunglass lenses
Notes	Not often or widely recycled

- At the end of the product's lifespan please check with your local council authorised household waste recycling centre for disposal.

