#### 1.Overview

series vehicle intelligent charger can make energy supplement for vehicle power battery under the status of parking, which use civil 10A socket power for power supply, the charging process is controlled automatically by charging procedures so as to satisfy the requirements of temperature resistance and anti-vibration.

# 2.Expansion function

- 1)Up to 93% work efficiency.
- 2)Strong protection function.
- 3) Working temperature scope of wide temperature range.
- 4)100% full loading aging test.
- 5) Quake proof degree of automotive grade

# 3. Protection features

- 1)Output over voltage protection
- 3)Output short-circuit protection.
- 2)Output over current protection
- 4)Output reverse protection.
- 5) Charger over temperature protection.
- 6)Battery over temperature protection.

### 4.Installation attention items

- 1)The charger produced by our company has intelligent temperature compensation function, including mainly two aspects: One is stopping charging to protect battery when the battery is too hot; the other is to achieve best charging effect according to environmental temperature adjusting charging voltage, so stick tightly the vehicle charger temperature sensor to the battery, it is better to put between two batteries.
- 2)To ensure all the air vent not to be blocked, the heat produced from charger working should be ensured to exhaust out of the vehicle smoothly, the space should not be at seal state to avoid influencing the normal working because of higher temperature.
- 3)Please do not close to pyrotoxin, there should be enough space near charger so as to ensure ventilation, dust proof should also be taken into consideration to avoid influencing heat dissipation effect because of surface dust accumulation.
- 4)Charger installation position should take water proof into consideration, pay attention to keep away from the water splashed from wheels and other parts such as droplet of condenser to avoid the liquid penetrating inside of charger gradually to influence the normal working.
- 5)To ensure the alternating current voltage and current is consistent with the allowed input voltage and current, any query, please contact the supplier or local power supply bureau.
- 6)In view of safety and electromagnetic compatibility, the charger equipped with three plug and suitable for the grounding socket;

- 7)if alternating current power supply need extension line, to ensure the extension line can bear charger maximum input current and make the length of extension line be in a certain limit to avoid influencing the normal work of charger.
- 8) As for the connection line of charger and battery, the maximum current drop of pressure should be low than 1% of current and voltage, otherwise may influence the charging effect, at the same time, the diameter of lead wire should satisfy the output current value.
- 9)Charger mounting plate should be fixed on horizontal level on the vehicle and keep heat radiator vertical, there should be left more than 10 cm space between radiator and around side to ensure good heat radiation status.
- 10) If the battery is found to be abnormal or damaged during working process, please drop the power adapter and connector immediately, then contact the supplier.
- 11 Not allowing disassembling the charger, open the cover of charger casually may result in electric shock hazard or other damages.
- 12) In order to avoid charger wiring harness damage, please do not put the matters onto charger wiring harness or the places easy to be stamped, if there is damage of wiring harness, please change immediately.

### 5. Indicator Status Description

Indicators state	Fault indication
Red indicator flashes every one	
Battery failure (including battery	Battery failure (including battery
seconds:Battery amount<80%	missed/ Backplane/ Overheat/
Yellow indicator flashes every one	Battery Serious Loss Electricity):
Battery Serious Loss Electricity):	The red light flashes for 3 seconds.
seconds: Battery amount>80%	
Green indicator flashes every	Green indicator flashes every three
one,seconds: Battery amount=100%	seconds: Abnormal machine
Green indicator is on: full charge and the	Yellow indicator flashes every three,seconds:
charger turn off	City electric anomaly

# 6.Common faults and solutions

If there is fault of charger, please handle according to the below table:

- 1)Error input voltage: To check if the input voltage compatible with the requirement or not.
- 2) Thin input wire line: To change the suitable input wire line.
- 3) Machine over heat: Pay attention to ventilation at the working place of charger, covering anything on the charger is not allowed.
- 4)Output short-circuit: To check the wire line of output terminal to exclude short-circuit.
- 5)There is no battery or reverse battery: Check the battery connection, connect the battery correctly.
- 6)Lower voltage of battery: to manage to make battery voltage be up to the starting voltage of charger.
- 7)Battery over heat: Pay attention to ventilation; if there set outside temperature sensor, then stick it to the battery surface tightly.
- (The temperature sensor of portable charger is inside of charger)
- 8)Charger overheating: ensure that the charger vents and space remain unobstructed and away from the heat source.

Remark: The Company has the final explanation right for this instruction, if there is revision, no prior notice.

7. Working environment and input characteristics.

Working temperature: -40 $^+$ +60 $^{\circ}$ C Storage temperature: -40 $^+$ +90 $^{\circ}$ C

Relative humidity:5%~9%

Heat dissipation method: Forced cooling

Input voltage:AC 180-265V Input frequency:45-65Hz