

# Intelligent Power Inverter

## Intelligent Power Inverter Users **Operation Instructions**



# 1 . Product Features & Main Components

## Product Features

- ◇ Lightweight In Size, Light In Weight, High In Efficiency, Low In Working Noise, And Reasonable In Design.
- ◇ Adopting Efficient SPWM Pulse Width Control Technology.
- ◇ Adopting Multiple High-tech And Intelligent Driver Chips.
- ◇ SMT Chip Mounting Technology, Precise Control, High Reliability, And Low Failure Rate.
- ◇ High Efficiency Conversion Rate, Strong Load Capacity, And Wide Application Range.
- ◇ Multiple Intelligent Security Protection With Complete Protection Functions.

## Main Components



The Indicator Light Is Green And Works Normally / Red Light On Protection Status

Universal Shaped Socket

Independent Switch



Input Terminal Positive Terminal (Red)

Efficient Cooling Fan

Input Negative Terminal Terminal (Black)

### Important Clause:

All Content In This Document Has Been Carefully Proofread. If There Is Any Printing Or Misunderstanding In The Content, Our Company Reserves The Final Right Of Interpretation. In Case Of Product Technology Or Upgrades, They Will Be Included In The New Version Of The Manual Without Prior Notice; The Appearance Of The Product Is Only Based On One Of The Models As A Reference. Different Models Have Different Appearance Specifications And Functions. Please Refer To The Actual Product As The Standard.

## 2. How To Use The Product

### How To Connection

Attention: When Directly Connected To The Battery For Use, The General Car Battery Is 12V. It Is Necessary To Choose A Battery With The Same Input Voltage As The Power Inverter For Use, And Multiple Batteries Can Be Used In Parallel.

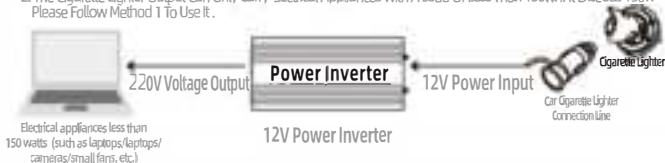


Attention: Must Choose A Battery That Matches The Voltage The Inverter

Used For: 110V Household Appliances, Can Provide Conversion Current For Over A Hundred Types Of Appliances

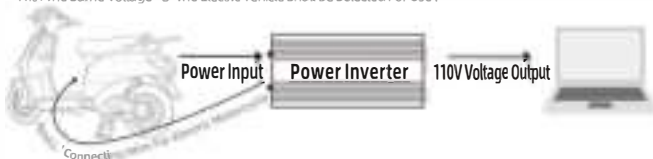
### Connection Method For Car Cigarette Lighters

Attention: 1. Choose A Power Inverter Equipped With A Car Mounted Cigarette Lighter Model To Use This Method .  
2. The Cigarette Lighter Output Can Only Carry Electrical Appliances With A Load Of Less Than 150w. If It Exceeds 150w Please Follow Method 1 To Use It .



### Connection Method Of Electric Motorcycle

Attention: Generally, The Voltage Of Four Batteries Of Electric Motorcycle Is 48V, And That Of Five Batteries Is 60V . The Specific Voltage Shall Be Subject To The Voltage Marked On The Electric Motorcycle, And Then The Inverter With The Same Voltage As The Electric Vehicle Shall Be Selected For Use .



### Operating Instructions :

1. Place the inverter switch in the OFF position, then connect the inverter to the battery and ensure good contact.
2. Confirm That The Power Of All Electrical Appliances Is Within The Rated Power Range (50% Of The Peak Power Marked By The Inverter), And That The Peak Power Of Inductive Load Electrical Appliances Does Not Exceed The Peak Power Marked By The Inverter. Then, Plug The Electrical Plug Into The 110V Output Socket Of The Inverter.
3. Turn On The Switch Of The Power Inverter, And The Green Indicator Light Is On, Indicating Normal Operation .
4. The Red Indicator Light On Indicates That The Inverter Is Turned Off Due To Overvoltage, Undervoltage, Overload, And Overheating .
5. In Many Cases, Due To The Limited Output Of The Vehicle Cigarette Lighter Socket, The Normal Inverter Alarms Or Shuts Down. In This Case, As Long As The Vehicle Is Started Or The Power Consumption Is Reduced, Normal Operation Can Be Restored .

## 3. Operating Environment/Precautions/Parameters

### Requirements For The Usage Environment .....

**Based On Safety And Performance Considerations, The Installation Environment Should Meet The Following Conditions .**

- ◇ Dry: Do Not Immerse In Water Or Rain .
- ◇ Temperature Conditions: A Cool Place With A Temperature Between 0 °C And 40 °C .
- ◇ Space Conditions: Do Not Use The Power Inverter In A Narrow Space, Do Not Cover The Machine For Use, And Pay Attention To Good Ventilation!

### Matters Needing Attention .....

- ◇ When The Refrigerator Compressor, Motor, And Other Appliances Reach Their Peak Power During Startup, Although The Inverter Can Withstand The Nominal Peak Power, The Peak Power Of Some Appliances That Meet The Requirements May Exceed The Peak Output Rate Of The Inverter, Causing Overload Protection, Output Being Turned Off, And Driving Multiple Appliances Simultaneously. This Situation May Occur. Therefore, At This Time, The Electrical Switch Should Be Turned Off First, The Inverter Switch Should Be Turned On, And Then The Electrical Switches Should Be Turned On One By One, And The Highest Peak Electrical Appliance Should Be Turned On First.
- ◇ During Use, The Battery Voltage Begins To Decrease. Taking A 12V Battery As An Example, If The Voltage At The Dc Input End Of The Inverter Drops To 10.4-11.0V, The Alarm Will Sound A Buzzing Sound. At This Time, The Computer Or Other Sensitive Electrical Appliances Should Be Turned Off In A Timely Manner And The Alarm Sound Should Be Ignored. The Inverter Will Stop Outputting Current When The Voltage Drops To 9.7-10.3V, And The Red Indicator Light Will Light Up .
- ◇ The Vehicle Should Be Started Or The Battery Should Be Charged In A Timely Manner To Prevent Battery Depletion From Affecting The Start And Battery Life Of The Vehicle .
- ◇ Although The Power Inverter Design Has The Ability To Protect Against Overvoltage, Taking A 12V Battery As An Example, It Is Still Possible To Damage The Power Inverter When The Input Voltage Exceeds 16V .
- ◇ After Continuous Use Of The Power Inverter, The Surface Temperature Of The Machine Casing Will Rise To 60 °C . It Is Necessary To Ensure Smooth Airflow And Keep Away From Objects Susceptible To High Temperature Noise .
- ◇ This Power Inverter Is Prohibited For Use By Minors !

### Main Technical Parameters .....

1. Output Voltage : 220V                      Current Frequency : 50/ 60Hz  
Current Waveform : Corrected Sine Wave Or Pure Sine Wave
2. Input Voltage : 10-15V / 22-30V / 40-60V / 60-80V  
Built-in Fuse : 10A / 15A / 20A / 40A / 70A / 120A / 240A
3. Under Voltage Alarm : 10.4-11.0V / 20.5-22V / 42-45V / 54-57V  
Low Pressure Shutdown : 9.7-10.3V / 19.4-20.6V / 39-42V / 48-52V  
Overpressure Shutdown : 14.5-15.5V / 29-31V / 58-62V / 74-80V
4. No-load Energy Efficiency Data :              INPUT VOLTAGE ( 12V / 24V / 48V / 60V )  
No-load Current ( < 0.3A )                      Conversion Rate ( > 90% )

## 4. Common Problems & Solutions

Abnormal Phenomenon	Reason	Exception Resolution Method
The Indicator Light Is Not On, And The Electrical Appliance Is Not Working	The Cause Of The Malfunction Caused By The Battery	Check If The Output Voltage Of The Battery Is Consistent With The Voltage Marked On The Machine, And Replace It According To The Specific Situation
	Reverse Connection Of Positive And Negative Poles	Check The Battery Connection. The Power Inverter May Be Damaged And The Machine Needs To Be Replaced Or Returned For Warranty
	Poor Contact At The Wiring	Check The Connecting Wires And Connections, And Tighten The Wiring Terminals
The Indicator Light Is Red, And The Electrical Appliance Is Not Working	The Power Of The Electrical Appliance Exceeds The Continuous Power Of The Power Inverter, Causing Overload Shutdown	Use Electrical Appliances With A Power Lower Than The Continuous Power Of The Power Inverter
	The Power Of The Electrical Appliance Is Less Than The Continuous Power Of The Power Inverter, But The Peak Power Is Too High	The Peak Power Of The Electrical Appliances Used Should Be Within The Peak Power Range Of The Power Inverter
	Battery Discharged (Alarm)	Charging Or Replacing The Battery
	Poor Ventilation, Causing Overheating Shutdown	Turn Off The Machine, Cool Down For 15 Minutes, Remove Items Around The Fan And Converter, Place The Inverter In A Cool Place, Reduce The Use Of Electrical Appliances As Required, And Restart
	Input Voltage Too High	Check The Working Status Of The Charging System
Detected That The Output Voltage Of The Power Inverter Is Too Low	The Measured Output Voltage Of Voltmeter Is Too Low	The Output Data Of The Correction Wave Inverter Should Be Measured Using A "true Rms Multimeter" To Obtain Accurate Data
The Power Inverter Emits A Buzzing Alarm Sound	Under voltage or over temperature protection	Shorten Or Use Thicker Wires To Connect The Battery, Lower The Temperature Of The Machine, Improve Ventilation Conditions Around The Machine, Place The Machine In A Cool Place, And Reduce The Use Of Electrical Appliances As Required.
The Power Inverter Can Only Be Used For Low-power Appliances	When Current Passes Through A Wire, The Voltage Decays	Reduce The Length Of The Wire And Use Thicker Wires
Battery Usage Time Is Too Short	Electrical Power Consumption Is Greater Than The Rated Power Of The Power Inverter	Using A Larger Capacity Battery
	Poor or damaged battery health	Replacing The Battery
	The Electricity Stored After Being Fully Charged Is Still Insufficient	The Charger Cannot Fully Charge The Appliance, Replace It With A Better Intelligent Charger
	Current Decays As It Passes Through A Wire	Reduce The Length Of The Wire And Use Thicker Wires

# 5. After-sale Service

## Return And Exchange Registration Form

Purchase Account (Required) : \_\_\_\_\_

Order Number (Required) : \_\_\_\_\_

Buyer Name (Required) : \_\_\_\_\_

Telephone (Required) : \_\_\_\_\_

Address (Required) : \_\_\_\_\_

☐ Return Of Goods ☐ Maintenance ☐ Exchange Goods Please Tick Option

### Returning Products (Required)

Product Number / Name	Return Reason

### Swap Out Products (No Need To Fill In When Applying For Return Only)

Product Number / Name	Notes

Criticism Or Suggestions Towards Us :

Please Contact Customer Service To Obtain The Return Address And Phone Number For Returns And Exchanges

## Warranty Terms

**In Order To Ensure The After-sales Service Of The Product Is Intact Andbetter, Customers Must Strictly Follow The Instructions When Receiving The Product. This Product Has A Three-year Warranty!**

1. Product Exchange Application: The Accessories Must Be Complete And Not Affect Secondary Sales. (Missing Relevant Accessories Will Be Deducted Based On The Factory Price)
2. Product Warranty Application: If The Machine Encounters Quality Problems Without Opening Or Modifying The Original Packaging, It Will Be Repaired, Replaced, Send It Back To The Manufacturer For Free Repair, No Charge For Repairif The Product Encounters Quality Problems Due To Unauthorized Opening Or Modification, It Will Be Paid Maintenance.
3. If The Machine Casing Is Too Dirty Or Old And Used In Harsh Environments, Resulting In Product Damage, It Will Be Paid Maintenance.
4. For High-power Machine Casings That Are Severely Scratched, Dirty Or Old, They Should Be Returned To The Factory For Repair. After Being Repaired Within The Warranty Period, The Machine Will Be Returned To The Customer In Its Original Condition And Will Be Repaired For Free. For Machines That Have Been Modified Or Unpacked Without Permission, Any Malfunctions Will Be Paid Maintenance. Please Contact Customer Service For Specific Costs.
5. After Receiving The Relevant Fees, We Will Promptly Handle The After-sales Service And Deliver The Product To The Customer By Express Delivery.