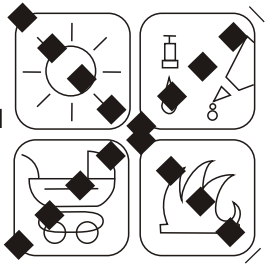
DC TO AC POWER INVERTER

POWER: 100W/150W/175W/200W/250W
300W/400W/500W/600W/800W
1000W/1200W/1500W/1800W
2000W/3000W

CAUTION

(A) PALACE THE INVERTER IN A WELL VENTILATED ENVIRONMENT
(B) DON'T EXPOSED THE INVERTER IN THE DIRECT SUNLIGHT OR HEAT SOURCE
(C) OUT OF THE REACH OF THE CHILDREN
(D) AWAY FROM WATER/MOISTURE, OIL OR GREASE
(E) AWAY FROM ANY FLAMMABLE SUBSTANCE
(F) SECURE AND NO RISK OF FALLING.



DC 12V TO AC
Instruction Manual

Please read user manual before use.

CE ISO9001

1.CONNECTION

Connect to lighter for appliances 0-300W or connect directly to battery (clips included) for appliances of 300-3000W.

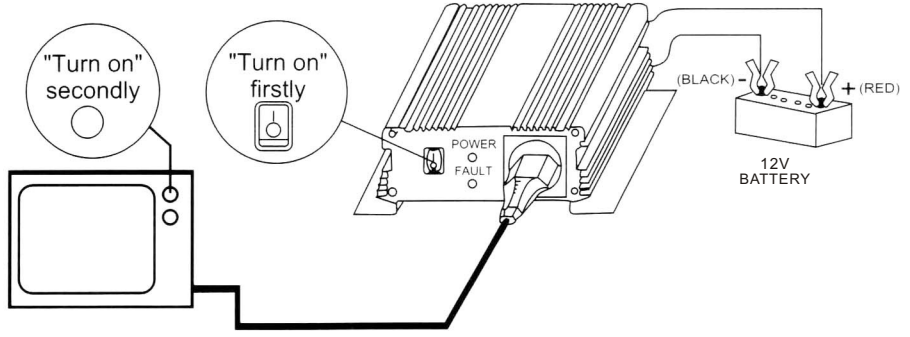
Please verify if you have chosen the right operating voltage for both input and output.

Connect the red cable from the “ + ” terminal (red terminal) of the battery to the “+” binding post (red connection) of the inverter and the black cable from the “- ” terminal (black terminal) of the battery to the “ -” binding post (black connection) of the inverter.

Be sure to right the screws in order to avoid connection loosened.

2.OPERATION

A) When connected to an appliance, remember to turn on the inverter before turning on the appliance. If the buzzer sounds during operation, this indicates that the battery voltage is very low and the inverter will be disconnected in 5 minutes.



B) When connect the electrical appliance that with CRT, such as TV set, computer and so on to the Power Inverter which below 500W, the electrical appliance may be started for several times before it can work smoothly. Don't start the power inverter when it is with loaded, otherwise the power inverter will be damaged.

C) When connect the electrical appliance that with motor or compressor, such as drill, air-condition and so on to the power inverter, please make sure that the output power rating of the power inverter is at least 3 times of the input power rating of the electrical appliance, so that it can work smoothly, because the starting up power in much beyond of the input power rating of the electrical appliance.

3.OUTPUT CAPACITY

The inverter will switch off automatically if the total wattage of the electrical appliance exceeds the inverter's output capacity. This will also happen if the temperature of the inverter exceeds 65℃ due to prolonged use.

4.SPECIAL RECOMMENDATION

Unplug the AC inverter when not in use.

Unplug the AC inverter makes starting the vehicle's motor.

If the AC inverter makes a beeping sound : switch off your appliance, unplug the inverter and restart your vehicle's the engine. The beeping sound is simply the low-battery warning which indicates that the voltage of your battery is getting low. Your inverter will shut down automatically if you continue to use your inverter without restarting your engine. This will leave your vehicle's battery at about 10.5VDC (21VDC when using 24V inverter / 42VDC when using 48V inverter), enabling you to start your engine and resume operation of the inverter. It also eliminates the possibility of being stranded with a dead battery.

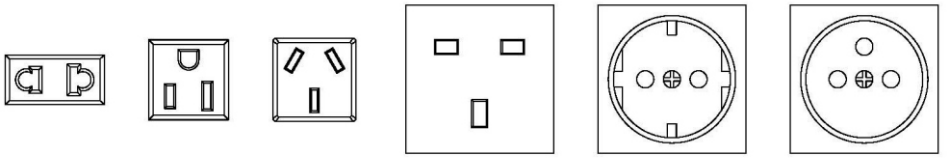
To avoid over-discharging the battery, it is advisable to let your engine run for 10 to 20 minutes after every 2-3 hours of using the AC inverter. This allows your vehicle's battery to recharge.
Please remember to connect the “+” wire to the “+” terminal and the “-” wire to the “-” terminal if you choose to use an adapter in order to establish a direct connection between the AC inverter and the battery terminals. IF YOU CONNECT THE WIRES TO INCORRECT TERMINALS, THE POLARITY WILL DAMAGE THE INVERTER. REVERSED POLARITY WILL INSTANTLY VOID YOUR INVERTER'S WARRANTY.

Please remember to disconnect the AC inverter before using the battery charger to replenish you battery's voltage. Failure to disconnect the inverter prior to connecting a charger may result in an input spike which will damage the inverter. CONNECTING THE INVERTER'S INPUT TO A BATTERY CHARGER WILL VOID THE

POWER INVERTER SPECIFICATION

Model / IDEAL	1800	2000	3000
Output Power(Continous Watts)	1800	2000	3000
Output Power(Peak Watts)	3600	4000	6000
Standby current	≤0.8A	≤0.8A	≤1.0A
Nominal Input Voltage(DC)	12V(11V-15V)		
Nominal Output Voltage(AC)	100VAC 110VAC 115VAC 120VAC 220VAC 230VAC 240VAC		
Frequency	50Hz 60Hz +/-3Hz		
Output Regulation	5% Intelligent Pwm		
Output Waveform	Modified Sine Wave		
Low Battery-Voltage Alarm(Volts)	10.5+/-0.5V		
Low Battery-Voltage Shutdown(Volts)	10+/-0.5V		
High Battery-Voltage Shut down(Volts)	16+/- 1V		
Efficiency	85-90%		
Thermal Protection	<65℃		
Overload	Shut down		
Bttery Polarity Reverse	By Fuse		
Output Short Circuit Protection	Yes		
With Cooling Fan	Yes Auto-operation fan(temperature or load)		
AC Outlets Plug	ABC*3 DEF*2		
Replaceable Fuse	8*30A	8*30A	15*30A
Dimension(L*W*H)cm	37*22*8.2	37*22*8.2	42.5*22*15.5
Weight	4.5Kg	4.5Kg	7.0Kg

AC OUTPUT SOCKET:



11.MAINTENANCE

Very little maintenance is required to keep your inverter operating properly. You should clean the exterior of the unit periodically with a damp cloth to prevent accumulation from dust and dirt. At the same time, tighten the screws on the DC input terminals.

12.NOTE

All specifications typical at nominal line, half load, and 25℃ unless otherwise noted. Specifications subject to change without notice.
WARNING: DO NOT DISASSEMBLY THE UNIT.HAZARDOUS VOL TAGE! DANGER!

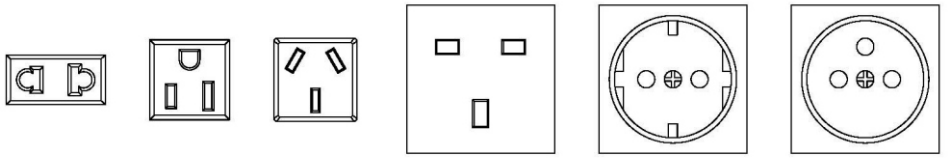
WITH THIS INVERTER YOU WON'T HAVE TO WORRY ABOUT POWER OUTAGES OR BROWNOUTS!

WARNING:
To prevent from the fire or shock hazard, do not expose this appliance in the rain or moisture.

POWER INVERTER SPECIFICATION

Model / IDEAL	100	150	200	250	300A
Output Power(Continous Watts)	100	150	200	250	300
Output Power(Peak Watts)	200	300	400	500	600
Standby current	≤0.30A	≤0.30A	≤0.30A	≤0.30A	≤0.30A
Nominal Input Voltage(DC)	12V(11V-15V)				
Nominal Output Voltage(AC)	100VAC 110VAC 115VAC 120VAC 220VAC 230VAC 240VAC				
Frequency	50Hz 60Hz +/-3Hz				
Output Regulation	5% Intelligent Pwm				
Output Waveform	Modified Sine Wave				
Low Battery-Voltage Alarm(Volts)	10.5+/-0.5V				
Low Battery-Voltage Shutdown(Volts)	10+/-0.5V				
High Battery-Voltage Shut down(Volts)	16+/- 1V				
Efficiency	85-90%				
Thermal Protection	<65℃				
Overload	Shut down				
Bttery Polarity Reverse	By Fuse				
Output Short	Output Short Circuit Protection				
With Cooling Fan	NO	Yes	Yes	Yes	Yes
AC Outlets Plug	ABC*2 DEF*1				
Replaceable Fuse	15A	20A	25A	30A	35A
Dimension(L*W*H)cm	9.5*7*4.6	10.5*7*4.6	12.5*9*4.6	12.5*9*4.6	12.5*9*4.6
Weight	0.35Kg	0.36Kg	0.5Kg	0.5Kg	0.5Kg

AC OUTPUT SOCKET:



NOTE: The earth terminal of the AC outlet is connected to the neutral terminal. This is the same as a standard household power point where the neutral line is bonded to earth and there is normally no voltage between them.

7. MEASURING AC VOLTAGE

The output wave of the AC inverter is a MODIFIED SINEWAVE. If you choose to measure the AC output voltage, you must use an AUTHENTIC RMS VOLT METER. Using any other type of voltage measuring device will result in an AC voltage reading that is up to 11 to 15 volts lower than the rated value. The reading will only be accurate when using an authentic RMS voltmeter.

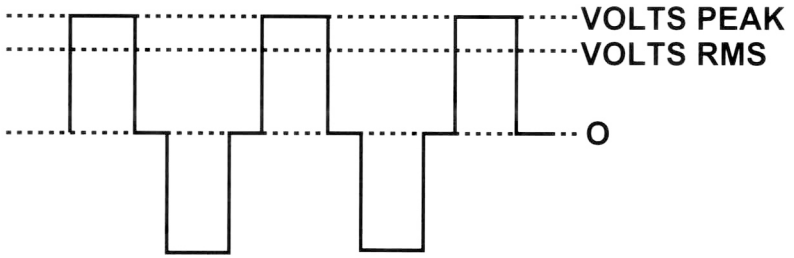
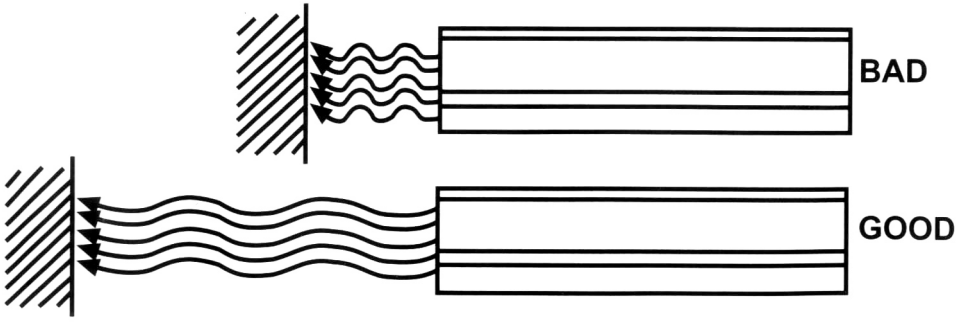


FIGURE 1: D/A INVERTER-MODIFIED SINEWARE

8. VENTILATION

IMPORTANT! During operation, make sure the fan keeps revolving. Check the inverter for possible malfunctions if the fan does not work when this unit is being used.

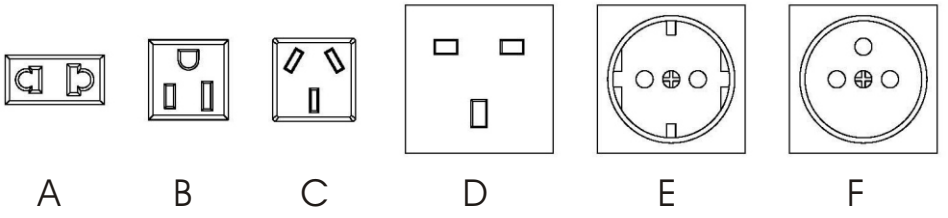
Make sure the fan is not blocked in order to avoid poor ventilation.



POWER INVERTER SPECIFICATION

IDEAL \ Model	800A	800B	1000A	1000B
Output Power(Continous Watts)	800	800	1000	1000
Output Power(Peak Watts)	1600	1600	2000	2000
Standby current	⩽0.5A	⩽0.5A	⩽0.5A	⩽0.5A
Nominal Input Voltage(DC)	12V(11V-15V)			
Nominal Output Voltage(AC)	100VAC 110VAC 115VAC 120VAC 220VAC 230VAC 240VAC			
Frequency	50Hz 60Hz +/-3Hz			
Output Regulation	5% Intelligent Pwm			
Output Waveform	Modified Sine Wave			
Low Battery-Voltage Alarm(Volts)	10.5+/-0.5V			
Low Battery-Voltage Shutdown(Volts)	10+/-0.5V			
High Battery-Voltage Shut down(Volts)	16+/- 1V			
Efficiency	85-90%			
Thermal Protection	<65℃			
Overload	Shut down			
Battery Polatity Reverse	By Fuse			
Output Short Circuit Protection	Yes			
With Cooling Fan	YesAuto-operation fan(temperature or load)			
AC Outlets Plug	ABC*2 DEF*1			
Replaceable Fuse	3*35A	4*30A	4*30A	4*30A
Dimension(L*W*H)cm	24*14.5*7.6	30*23*7	27*14.5*7.6	30*23*7.8
Weight	1.55Kg	2.7Kg	1.85Kg	2.7Kg

AC OUTPUT SOCKET:



WARRANTY AND MAY DAMAGE THE INVERTER Make sure that the battery's voltage never exceeds 15VDC (30VDC when 24V version is used /60VDC when 48V version is used). CONNECTING THE INVERTER TO A DC POWER SOURCE HIGHER THAN 15VDC (NO MORE THAN 30V WHEN YOU ARE USING 48V INVERTER). WILL VOID THE WARRANTY AND MAY DAMAGE THE INVERTER.

5.ADDING EXTENSION CORD

We recommend that the buyer refrain from using an extension cord between the DC power source and the inverter's DC input. Connecting an extension cord to the DC input will create a voltage drop , reduce the efficiency and decrease the output power .Instead, we recommend using an extension cord between the AC output and the AC appliance. You may use up to 100ft(30m) of high quality extension cord. A longer cord may result in reduced power.

6.GROUNDING CONNECTION

WARNING: BEFORE USING THIS INVERTER YOU MUST PROVIDE A GROUND CONNECTION TO THE INVERTER.

There is a screw terminal labelled CHASSIS GND on the rear panel of the Inverter . This terminal is connected to the case of the AC output socket. The use of this terminal will depend on your particular installation. In any installation, heavy duty, green-insulated wire should be used for this connection.

In a stationary land based installation, the earth terminal should be connected to a metal earthing stake driven into the ground to a depth of 1.2m or more, if the battery system powering the inverter does not have a connection to ground, one of the battery terminals (commonly the negative terminal) should also be connected to the earthing stake.

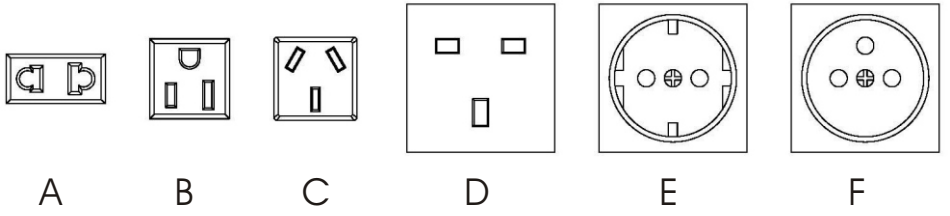
In a vehicle where the inverter is wired directly to the battery, the earth terminal is simply connected to the vehicle on a temporary basis and will be powered via the cigarette lighter socket in the vehicle, the earth terminal should be connected via a short link to either the negative or positive DC input terminal of the inverter, depending on whether the vehicle has a negative or positive chassis connection. However when using the Inverter to power equipment used outside the vehicle, an earthing stake should also be used, as described above.

In a boat, the earth terminal should be connected to the existing grounding system, which may be the hull of the craft, or a network of ground wires.

POWER INVERTER SPECIFICATION

IDEAL \ Model	1200A	1200D	1500
Output Power(Continous Watts)	1200	1200	1500
Output Power(Peak Watts)	2400	2400	3000
Standby current	≤0.5A	≤0.5A	≤0.80A
Nominal Input Voltage(DC)	12V(11V-15V)		
Nominal Output Voltage(AC)	100VAC 110VAC 115VAC 120VAC 220VAC 230VAC 240VAC		
Frequency	50Hz 60Hz +/-3Hz		
Output Regulation	5% Intelligent Pwm		
Output Waveform	Modified Sine Wave		
Low Battery-Voltage Alarm(Volts)	10.5+/-0.5V		
Low Battery-Voltage Shutdown(Volts)	10+/-0.5V		
High Battery-Voltage Shut down(Volts)	16+/- 1V		
Efficiency	85-90%		
Thermal Protection	<65℃		
Overload	Shut down		
Bttery Polarity Reverse	By Fuse		
Output Short Circuit Protection	Yes		
With Cooling Fan	YesAuto-operation fan(temperature or load)		
AC Outlets Plug	ABC*3 DEF*2		
Replaceable Fuse	6*25A	6*25A	6*30A
Dimension(L*W*H)cm	30*23*7.8	30*23*7.8	34*22*8.7
Weight	3.0Kg	3.0Kg	3.7Kg

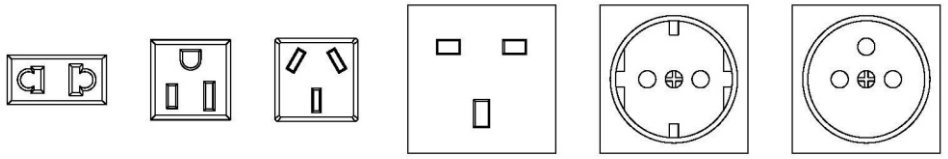
AC OUTPUT SOCKET:



POWER INVERTER SPECIFICATION

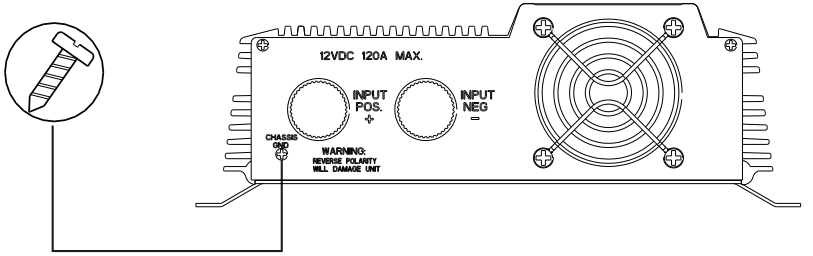
IDEAL \ Model	300B	400	500	600A	600B
OUTPUT Power(Continous Watts)	300	400	500	600	600
Output Power(Peak Watts)	600	800	1000	1200	1200
Standby current	≤0.30A	≤0.50A	≤0.50A	≤0.5A	≤0.5A
Nominal Input Voltage(DC)	12V(11V-15V)				
Nominal Output Voltage(AC)	100VAC 110VAC 115VAC 120VAC 220VAC 230VAC 240VAC				
Frequency	50Hz 60Hz +/-3Hz				
Output Regulation	5% Intelligent Pwm				
Output Waveform	Modified Sine Wave				
Low Battery-Voltage Alarm(Volts)	10.5+/-0.5V				
Low Battery-Voltage Shutdown(Volts)	10+/-0.5V				
High Battery-VoltageShut down(Volts)	16+/- 1V				
Efficiency	85-90%				
Thermal Protection	<65℃				
Overload	Shut down				
Bttery Polarity Reverse	By Fuse				
Output Short	Output Short Circuit Protection				
With Cooling Fan	Yes	Yes	Yes Auto-operation fan(temperature or load)		
AC Outlets Plug	ABC*2 DEF*1				
Replaceable Fuse	35A	2*25A	2*30A	2*35A	2*35A
Dimension(L*W*H)cm	15.5*11.9*4.5	19.3*12.4*5.4	19.3*12.4*5.4	29*18*6.2	29*18*6.2
Weight	0.83Kg	0.82Kg	0.83Kg	1.8Kg	1.8Kg

AC OUTPUT SOCKET:



9. CHASSIS EARTHING

The Chassis earthing lug should be connected to an earthing point, which will very depending on where the power inverter is installed. In a vehicle, connect the chassis ground lug the chassis of the vehicle. In a boat, connect to the boat's grounding systems. In a fixed location, connect to earth.



10.CAUTION

In case of trouble with the AC output, e.g. short-circuit, overload, etc... the protection circuit will automatically cut off the output.
In such cases: (A) switch off the power at once
(B) disconnect all units
(C) check the connected devices
(D) use the units again as soon as any problems concerning the connected devices have been solved

When in use for a prolonged period of time, the AC output may suddenly be cut off although the battery voltage is still very strong. This may be caused by excessive temperatures. If this happen, please proceed as follows:
(A)Switch off the inverter at once
(B)Disconnect some of the appliances or wait until the inverter cools off
(C)Switch the inverter back on
Always keep the inverter in an environment which is:
(A)Well-ventilated
(B)Not exposed to direct sunlight or any other heat source
(C)Inaccessible to children
(D)Safe from water/moisture, oil or grease
(E)Safe from any flammable substance

If the inverter is connected in the wrong way, this will void the warranty.