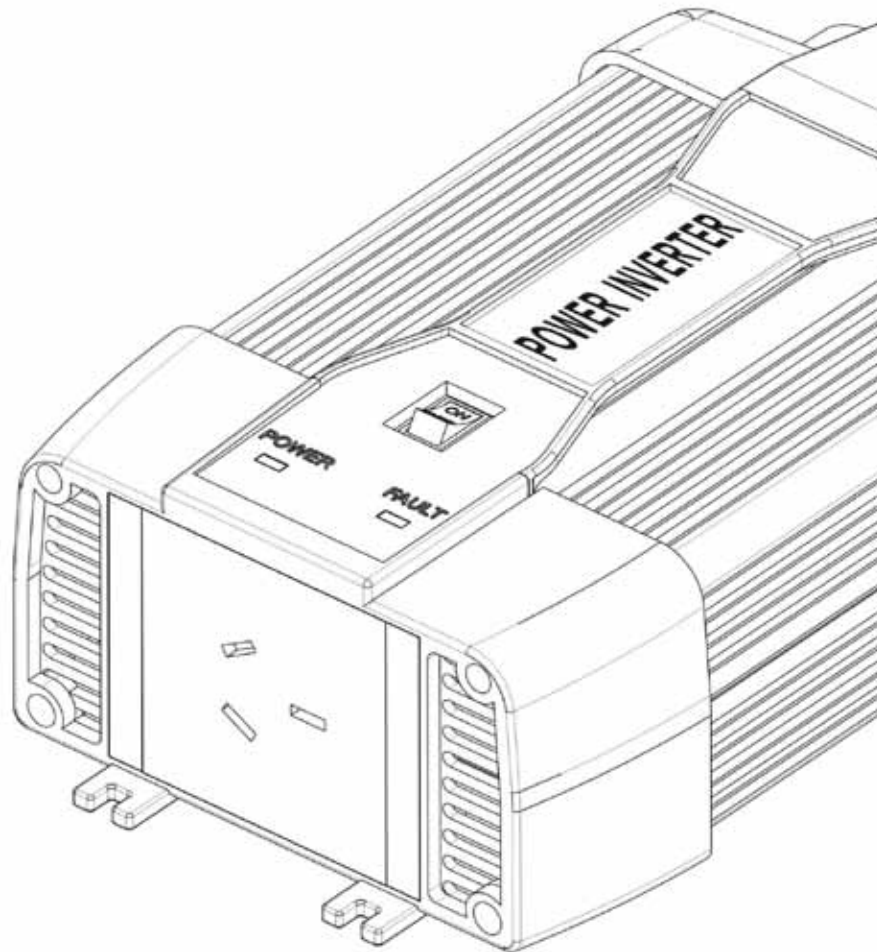




DC TO AC

POWER INVERTER

FTS300P USER INSTRUCTION MANUAL



Applicable for: 300W

I . Description:

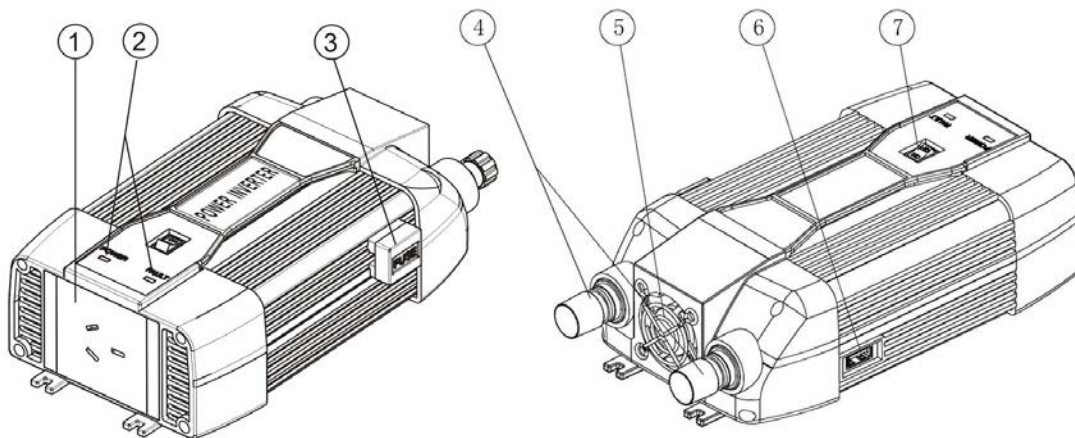
Pure sine wave power inverter converts the DC electricity to AC electricity. It has been widely used in cars, boats, mobile offices, telecommunications, public security, emergency services etc...

This power inverter incorporates a unique circuit design, with the advantage of a compact size, light weight, super stable, and a high rate of conversion efficiency. It has five protection functions which include, input under voltage protection, input over voltage protection, overload protection, over temperature protection, output short circuit protection. Please read this carefully before using.

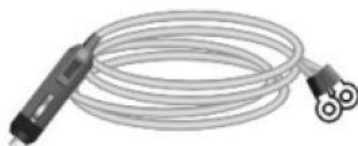
Features and Application

- Pure sine wave output
- High efficient and portable
- Intelligent fan control
- Advanced microprocessor design
- With low voltage, high voltage, overload, short circuit and overheat protection

II . Products and cables diagram:



- ① AC outlet ② Power indicator (green) Fault indicator (red)
③ External fuse ④ DC input “+” terminal (red) DC input “-” terminal (black)
⑤ Cooling fan ⑥ USB port
⑦ ON / OFF Switch



Cigar lighter plug



Alligator clip cable

(The above pictures are for reference and may differ from real products.)

III. Connection Explanation:

Connecting the DC power in the wrong way (reverse polarity) will destroy the power inverter and may damage the electrical equipment in use, please follow the steps below in the correct sequence and make sure to use the inverter in the correct way.

- 1) When used in the car, please connect the inverter to the DC cigar lighter port.
 - a) Connect the red side of the cigar lighter with “+” terminal and fix it, the black side connect with “—” terminal and fix it; Do not reverse them or it will destroy the inverter.
 - b) Insert the cigar lighter to the DC port of the car, turn on the power inverter, the green LED light will turn on.
 - c) Insert the plug of the electric equipment (LOAD) into the AC socket of the inverter.
 - d) Note: When using the power inverter in the car please do not exceed 150W or it will destroy the wiring of the car.
- 2) When using outside car or exceeding 200W :
 - a) When using outside car or exceeding 200W please use the battery clip cable to connect to the battery.
 - b) The battery clip cables have red and black two cables, connect the red cable with “+” and fix it , connecting the black cable with the “—” and fix it;
 - c) The clip on the red cable connects with “+” terminal of the battery and the clip on the black connects with the “—” terminal. Do not reverse or it will destroy the power inverter.
 - d) Turn on the power inverter, the green light will on; Insert the plug of the electric equipment into the AC socket of the inverter.

IV. Application

- 1) Scope of application:
 - a) Only use for class II appliances
Electric power tool series : Electric Saw, Drill, Sander etc..
Office equipment: Computers, printers, displays, scanners, facsimile apparatus ;
Household appliances: Vacuum cleaner, fan, fluorescent lamp, filament lamp, sewing machine;
Kitchen series: Microwave oven, refrigerator, freezer, coffee machine, blender, ice machine; hot oven;
Commercial installation series: Metal halogen light, watercraft, cars, solar energy and wind power generation.
Electric Field series: TV, radio, game player, VCR, power amplifier; monitoring equipment, satellite communication equipment.

Note: While using please follow the related power of the inverter. Do not over load the inverter. It is better to keep the inverter working at 85% of it's related power.

b) Scope of electric appliance that are incompatible with 300W inverter
All electric appliances that exceed the rated power of the inverter ;
Generally capacitive loads and perceptual load appliances are not applicable: Air conditioners, high power electric drills, fridges, microwave ovens, blenders ;
We do not recommend using these inverters with appliances which have strict power requirements, such as precise equipment, if using ordinary power inverters with this kind of equipment it will affect the data measurement.

c) Scope of electric appliance that are incompatible with the USB (Only for inverters with USB port.

1. USB is only for charging and does not have data exchange function;
2. Before charging please check carefully if the charging current of the appliance is below the inverters current, if it is exceed the charging current of the inverter please do not use, or it may destroy the USB port.
3. Some appliance must be charged using a specific charger, so please don't charge with the inverters USB port.

2) Usage.

a) The inverters input voltage must be same as battery's voltage. The appliance's working voltage must be same as inverters output voltage; once all are the same, connect them in right way based on "**Connection Explanation**" of the manual.

b) Please use the inverter in ventilated areas and make sure the fan is not blocked.

c) Do not put the inverter in rain or in humid places, keep it dry. In order to keep a long lifespan of the inverter, please keep it working under 85% of the related power.

d) The inverters have an input under voltage protect function, input over voltage protect function, over load protection function, over temperature protect function and short circuit protect function. If these conditions occur, the inverter will stop working, after a short period where it may need to cool down the inverter will restart work automatically. Please check all appliance ratings and connections.

e) To save energy, the fan will not work unless

1. The fan will work when the load is exceeded by 30% of the related power of the inverter;
2. When the inside temperature of the inverter exceeds 60 degree, the fans will work.

f. About extension cable use:

1. We do not recommend the use of any extended cables between the inverter and the battery, It will cause loss of DC electricity and the inverters output voltage.
2. If you really need use an extension cable we suggest you use high quality cable to reduce the loss of electricity.

g. Other matters :

1. This is a pure sine wave inverter; If you are measuring the voltage please use precise equipment. (RMS)
2. When supplying power to audio system, radio or TV, the appliance may have interference and this is normal.
3. When using in cars, please don't run the inverter while the engine has stopped.
4. Please do not open the inverter, for service please use a professional to mend it.

V. Safety:

1. Please do not operate the inverter while your hands are wet, Keep it away from children.
2. The temperature of the shell will be high after extended use, so do not touch it in case of scalding;
3. Do not put metal objects into the inverter into the case to prevent electric shock.
4. Do not touch the metal of the socket while inserting the plug into the socket of the inverter.
5. Keep the inverter away from explosives;
6. Keep all AC electric away from the inverter DC input or it will damage the inverter and also may cause severe electric shock.

VI. Protect function and Restart work method;

Function	State description			Restart work method
	LED light	alarm	AC output	
Input low voltage alarm	Green on Red off	Alarm	AC have output	When the voltage of the battery returns to the related voltage, alarm will stop automatically.
Input low voltage shut down	Green on Red on	No alarm	No AC output	When the voltage of the battery returns to the related voltage the inverter will start working, green light will go on, red light will go off.
Input over voltage protection	Green on Red on	No alarm	No AC output	When the voltage of the battery returns to the related voltage the inverter will start working, green light will go on, red light will go off.
Over load protection	Green on Red on	No alarm	No AC output	Reduce the load to acceptable range, the inverter will start working, green light will go on, red light will go off
Over temperature shut down	Green on Red on	Alarm	No AC output	When the inside temperature returns to acceptable range, inverter will start working, green light will go on ,red light will go off.
Output short circuit	Green on Red off	No Alarm	No AC output	When short circuit is removed, inverter will start to work automatically.

The USB port will observe all protection conditions as above.

VII. Waste disposal :

Please discard this product thoughtfully as it may cause environmental pollution.

VIII. Specification :

Model	FTS300P	
Input voltage	DC 12V (DC 11-15V)	
Output voltage	AC 220V \pm 10%	
Output frequency	50 \pm 1Hz	
USB output x 1	DC 5V, 2100mA	
Continuous power	300W	
Peak power	600W	
Output wave	Pure sine wave	
Distortion rate	< 3%	
Efficiency	> 85%	
No load current	< 0.8A	
Input under	12V input	DC 10.2 – 10.8V
Input under voltage shut down	12V input	DC 9.2 – 9.8V
Input over voltage shut down	12V input	DC 15 – 16V
Overload shut down	360W-460W	
Working temperature	5 – 35°C	
Heat dissipation method	Fan	
Cable	Red/Black Battery Cable, Cigar Lighter Plug	



Technical Assistance

If you need assistance Aerpro Inverter now or in the future, contact
Aerpro Support Australia: www.aerpro.com/Contact