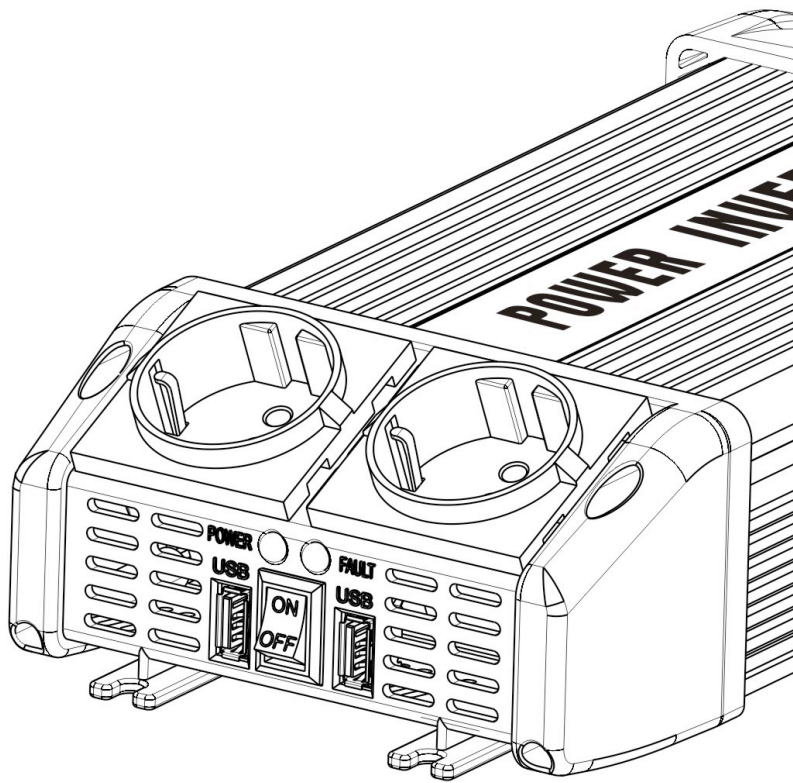




DC TO AC

POWER INVERTER

USER INSTRUCTION MANUAL

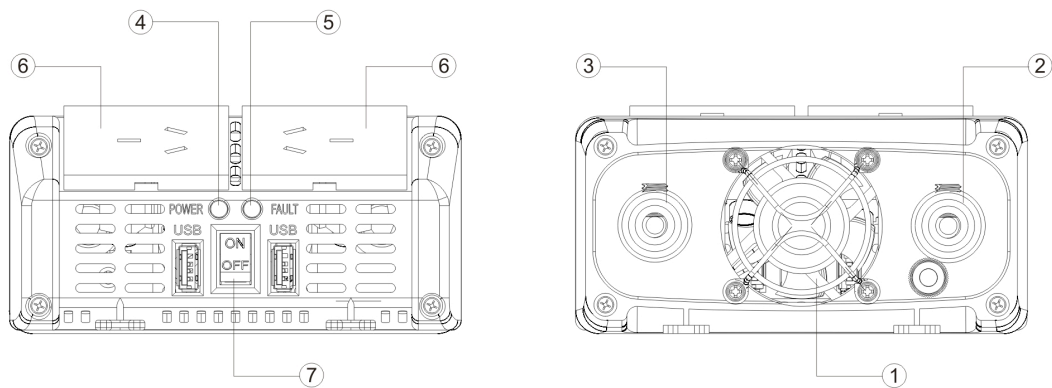


Applicable for: FTS800/FTS1000/FTS1500

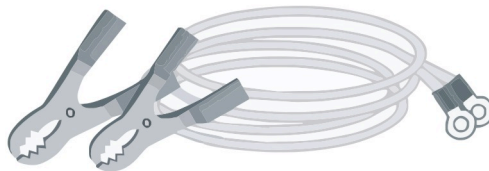
□ Description

Power Inverters are products which change direct current (DC) electricity to alternating current (AC) electricity. It has been widely used in cars, boats, mobile offices, telecommunications, public security, emergency and so on. This power inverter incorporates a unique circuit design, with the advantage of a compact size, light, super stable, and high conversion efficiency. It has five protection functions which include, input under voltage protection, input over voltage protection, overload protection, over temperature protection and output short circuit protection. These five functions can protect the electrical equipment and the circuit of the car. Please read instructions carefully before use.

□ Features and cable diagram



- | | |
|----------------------------------|--------------------------|
| 1. Fan | 5. Fault light red light |
| 2. DC input "+" terminal (RED) | 6. AC output socket |
| 3. DC input "-" terminal (BLACK) | 7. On/Off switch |
| 4. Power light green light | |



(Pictures may look different from the actual product)

Battery to inverter connection cable

The above picture just for reference cables will vary between different models. The green and yellow earth cable is a spike guard cable and is connected to the chassis or negative terminal of your equipment. If you are running an inductive load, for example power tools, microwave ovens and equipment that uses a motor can produce a feed back voltage sufficient to damage an inverter. It is always recommended you connect the spike guard to the load side or chassis of the AC equipment being powered by the inverter.

Connecting with the Inverter

Connecting the DC power in the wrong way (reverse polarity) will damage the power inverter as well as the electrical equipment, please follow the following steps below and make sure use the inverter in the correct way.

1. When used in the car, please connect the inverter with 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 damage the inverter.
- b. Insert the cigar lighter to the DC port of the car, turn on the power inverter, the green LED light will on.
- c. Insert the plug of the electric equipment (LOAD) into the AC socket of the inverter.

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 cable have red and black two cables, connecting the red cable with “+” and fix it, connecting the black cable with the “_” and fixed it;
- c. The clip on the red cable connect with “+” terminal of the battery and the clip on the black connect 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.

3. Scope of application:

- a. Electrical equipment can be used:
 - Office equipment: Computers, printers, facsimile printers, scanners, working lights;
 - Digital products: All kinds of mobile phone/digital camera/digital projector, tablets, palm computer, recreational machines;
 - Small house electrical equipment: TV, fan, water dispenser, dust collector, small electric iron, hair drier etc
 - Hardware appliance: Portable electric drill, electric iron etc.
- b. Scope of electric appliances that are incompatible:
 - All electric appliances that exceed the rated power of the inverter;
 - Generally capacitive load and perceptual load appliances are not compatible: Air conditioners, high powered electric drills, fridges, microwave ovens, blenders;
 - We do not recommend using this inverter with appliances that 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)
 - USB is only for charging, and does not support data exchange function;
 - Before charging please check carefully if the charging current of the

appliance is below the inverters current. If it exceeds the charging current of the inverter please do not use, or it may destroy the USB port.

Some appliances must be charged using a specific charger, so please don't charge with the inverters USB port.

4. Please use the inverter in ventilated areas and make sure the fan is not blocked. Do not operate the inverter in rain or in humid places, keep it dry.

In order to have a long lifespan of the inverter, please keep it working under 85% of the related power.

5. The inverter has input under voltage protection, input over voltage protection, overload protection, over temperature protection and output short circuit protection. If these conditions occur, the inverter will stop working and after a short period where it has cooled down the inverter will restart working automatically.

6. To save energy, the fan will not work unless:

a. The fan will work when the load exceeds 30% of the related power of the inverter;

b. When the inside temperature of the inverter exceeds 60 degrees the fan will work.

7. Extension cable use:

a. We do not recommend the use of any extension cables between the inverter and the battery, as it will cause a loss of DC electricity and affect the inverters output voltage.

b. If you really need to use an extended cable we suggest you use high quality cable to reduce the loss of electricity.

8. Other matters:

a. This is a modified sine wave inverter; when measuring the voltage please use precise equipment. (RMS)

b. When supplying power to an audio system, radio or TV, the appliance may have interference and this is normal.

c. When using in cars, please don't use the inverter while the engine has stopped.

d. Please do not open the inverter, for servicing please use a professional.

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, this could cause 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 equipment away from the inverter, it will damage the

inverter and also may cause electric shock.

□ 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 has output	When the voltage of the battery returns to the related range, the alarm will stop automatically
Input low voltage shut down	Green on Red on	Alarm	No AC output	When the voltage of the battery returns to the related range, 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 range, 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 protection	Green on Red on	Alarm	No AC output	When the inside temperature returns to acceptable range the inverter will restart work, 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 removed, the inverter will start to work automatically

(PS: The USB port will observe all protection conditions mentioned above)

□ Waste disposal:

Please discard this product thoughtfully, do not pollute the environment.

□ **Specifications:**

Model	800W	1000W	1500W
DC input	DC 12V (DC 11-15V)		
AC output	AC 230V ± 10%		
Output frequency	50 ± 3Hz		
USB output (if have)	DC 5V (2100mA)		
Continuous power	800W	1000W	1500W
Peak power	1600W	2000W	3000W
Output wave	Modified sine wave		
Efficiency	≥80%		
No load current	<0.35A	<0.45A	<0.45A
Input under voltage alarm	DC 10.2 – 10.8V		
Input under voltage shut down	DC 9.2 – 9.8V		
Input over voltage shut down	DC 15 – 16V		
Overload shut down	850W – 1040W	1150W – 1300W	1700W – 1950W
Fuse	25A×4	30A×4	30A×6
The best working temperature	5 – 35℃		
Cooling method	Fan		
Accessories	Cigar cable, Battery clip cable		

Technical Assistance:

If you need technical assistance with your Aerpro inverter now or in the future contact Aerpro Support Australia: www.aerpro.com/Contact

