



**Modified wave 2000 watt voltage inverter  
24 volt dc to 230 volt 50Hz ac  
Part 0-856-77**



**Warnings**



**Read all instructions before attempting to install or use the inverter.**

**High voltage, 230 volts ac, is generated by this unit.**

**Do not use with wet hands or near water.**

**This unit is only suitable for 24 volt electrical systems with  
negative earth.**

**To supply 230 volt 50 Hz loads of <2000 watts.**

**Do not connect to any other ac power source.**

**Installation Instructions**

- 1. Disconnect all battery leads, -ve leads first, before installing the inverter.**
- 2. Locate a suitable position for the inverter and fit securely. The site chosen should be:**
  - (a) Well ventilated.**
  - (b) Not exposed to direct sunlight or heat source.**
  - (c) Away from water or moisture.**
  - (d) Out of reach of children.**
  - (e) Away from any flammable or heat sensitive substance.**
- 3. Connect the black 24 volt -ve terminal to the negative side of the supply source and the red 24 volt +ve terminal to a fused positive supply source. Use a minimum of 20.0mm<sup>2</sup> cable and keep all cable runs as short as possible. Fuse size 120amp Max.**
- 4. Connect the inverter case ground terminal to the chassis ground when installing in a vehicle, the vessel's grounding system in a boat or to earth in a fixed location. The case ground terminal is connected to the ground terminal in the ac outlet socket.**
- 5. If using the optional remote control (part 0-856-97), fix the remote control in a suitable position and insert the connector into the remote control socket on the inverter control panel.**

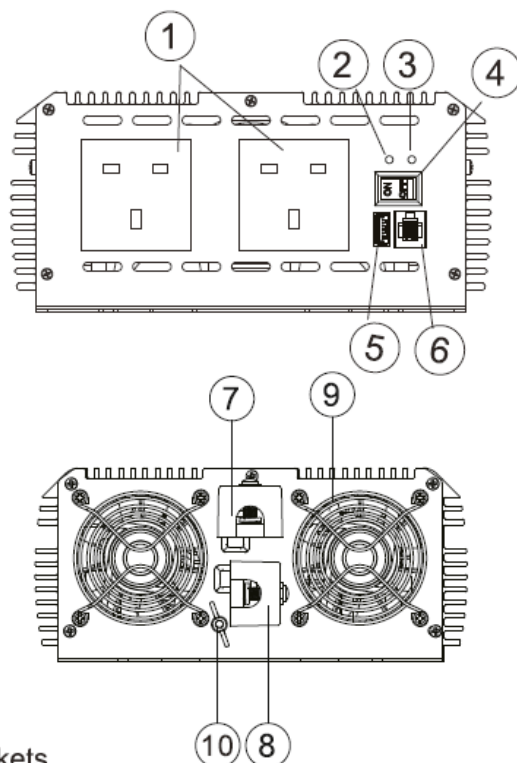
### Operating Instructions

1. Ensure that the inverter is supplied by a 22.0-30.0 volt dc negative earth system and that the load requires <2000 watts at 230 volt 50Hz ac.
2. Plug the appliance into the inverter and then turn on the inverter's power switch, press for 3-5seconds. The LED will illuminate to indicate ac power is present, then switch on the appliance. Always turn on the inverter before turning on loads individually.
3. Switch off the inverter when not in use or when heavy current is drawn from the dc supply, e.g. when starting an engine from the same supply source.
4. In normal operation the inverter will operate in the green region. The inverter protective shutdown will occur if used in the red zone.
5. If the inverter beeps, but is still supplying ac output, this indicates a low supply voltage; switch off the inverter to preserve battery voltage. If left on the inverter will automatically shut down when the supply voltage falls to approximately  $19.0 \pm 0.5$  volts.
6. The fault light indicator illuminates when the inverter has shutdown due to output short-circuit or gross overloading. If this occurs switch the inverter off and correct the cause before switching the inverter on again. For more detail please see below:

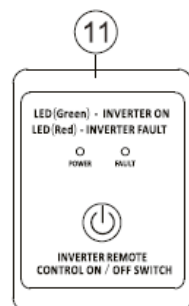
### Troubleshooting

Function	State description			Restart work method
	LED light	Alarm	AC output	
Input low voltage alarm	Green on Red off	Yes	Yes	When the voltage of battery return to related range, alarm stop automatically.
Input low voltage shut down	Green on Red on	No	No	When the voltage of the battery return to related range, turn off the inverter for 3-5 seconds, then turn on to restart: green light on, red light off. Restart voltage of 12V battery: DC11.7V-12.3V Restart voltage of 24V battery: DC23.4V-24.6V
Input over voltage shut down	Green on Red on	No	No	When the voltage of the battery return to related range, turn off the inverter for 3-5 seconds, then turn on to restart: green light on, red light off.
Over load shut down	Green on Red on	No	No	Reduce the load to related range, turn off the inverter for 3-5 seconds, then turn on to restart: green light on, red light off.
Over temperature shut down	Green on Red on	Yes	No	When the inside temperature return to related range, turn off the inverter for 3-5 seconds, then turn on to restart: green light on, red light off.
Output short circuit	Green on Red off	No	No	When short circuit stopped, inverter restart to work automatically.

## Display and Controls

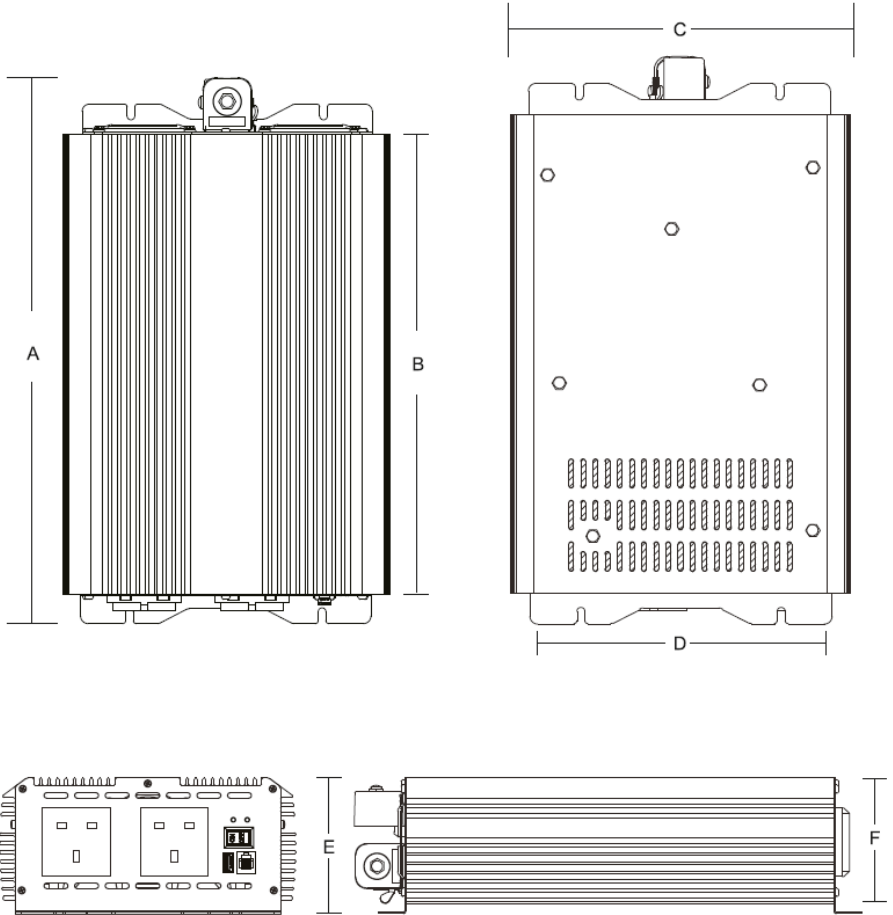


1. AC Output Sockets
2. Power Indicator(Green)
3. Fault Indicator(Red)
4. ON/OFF Switch
5. USB Output
6. Remote Port
7. DC Input "+" Terminal (Red)
8. DC Input "-" Terminal (Black)
9. Fan
10. Grounding
11. Inverter Remote Control Switch



Before operating with the remote control, please shut down the inverter and turn the switch to 'OFF' otherwise the remote control will not be active.

## Dimensional Drawing



A	B	C	D	E	F
367.6mm	310mm	218.4mm	195.4mm	98.5mm	90.2mm

### Specifications

DC input voltage.....	24VDC (22.0VDC-30.0VDC)
AC output voltage.....	230VAC +/- 10%
Output frequency.....	50Hz +/-3Hz
USB Output.....	DC 5V, Max 2100mA
Output waveform.....	Modified Wave
Continuous output power.....	2000W
Surge output power.....	4000W
Efficiency.....	85% Max
No load current.....	<0.5Amps
Input Under Voltage Alarm.....	20.4 - 21.6VDC
Input Under Voltage Shut Down.....	18.4 - 19.6VDC
Input Over Voltage Shut Down.....	30.0-32.0VDC
Alarm and Thermal Shutdown.....	60 +/- 5°C
Input 100% load current draw.....	104 Amps
Output 100% load current draw.....	8.7 Amps
Operating Temperature.....	5 - 35°C
Cooling Method.....	Fan Assisted
Dimensions.....	375*218*100mm
Weight.....	5.375Kg