

Pure Sine Wave Inverters

12 Volt Inverters

(2000W/3000W with Automatic
Transfer Switch and RCD)

USER GUIDE









Contents

Warnings and Safety	4 -
Introduction 7	7 -
Specifications 8	8 -
Inverter Overview 9	9 -
Front Panel (2000W Model)	9 -
Front Panel (3000W Model) 10	0-
Front Panel Features 1	1
Rear Panel (2000W and 3000W) 1	5 -
Rear Panel Features 10	6
Remote Control(RC2) 1	7
Remote Control Features 1	8
Connecting the remote control 1	9.
Using the remote control 19	9.
Installation 20	0
Mounting the inverter 20	0 -
Example Wiring Diagrams 2.	2 -
Connecting the inverter 20	4
Automatic Transfer Switch (ATS) AC Input Connection 2	5 -
Operating the inverter 20	6
Residual Current Device - RCD Safety Switch 2	7 -
Automatic Transfer Switch (ATS) 2	7 -
Troubleshooting 2	8
Maintenance and Warranty 3	3 -
Maintenance 3	3 -
Warranty 3	3 -
Return/Repair Policy: 3-	4
Contact Information 3	6.



Warnings and Safety

For safe operation and ideal performance, the iTechworld inverter must be correctly installed and operated correctly. Please carefully read, understand, and follow all instructions and guidelines in this User Guide. iTechworld recommends that all wiring and installation be done by a certified technician or licensed electrician to ensure all applicable electrical wiring regulations and installation codes are met. Failure to follow these instructions may result in damage to the unit and could also result in may result in death or serious injury.

Disclaimer:

While iTechworld has taken every precaution to ensure the accuracy of the contents of this user guide, iTechworld assumes no responsibility for any errors or omissions.

Furthermore, all specifications and functionality may change at any time without notice.

Important:

Please read and understand the entirety of this user guide before using your iTechworld inverter. Any misuse may result in damage to the unit and/or cause harm or serious injury to the user.

!!FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN DEATH OR SERIOUS INJURY!!



- DANGER ELECTRICAL SHOCK HAZARD: Do not disassemble the inverter. The inverter contains hazardous voltages inside. Attempting to service any internal components will void the warranty and may result in death or serious injury.
- DANGER ELECTRICAL SHOCK HAZARD: Do not expose the inverter to bilge water, rain, snow, spray, or dust. The inverter is only intended for indoor use only.
- 3. DANGER ELECTRICAL SHOCK HAZARD: Operating the inverter without proper grounding may result in death or serious injury. Please ensure that proper ground connections are made during installation. Please consult a licensed electrician if you are unsure.
- 4. <u>DANGER ELECTRICAL SHOCK HAZARD:</u> Before attempting to clean the inverter disconnect DC power and any circuits connected to the inverter.
- 5. <u>DANGER ELECTRICAL SHOCK HAZARD Keep away from children:</u>
 This inverter produces 240VAC, please treat the AC output receptacles the same as a regular wall AC socket at home.
- 6. <u>DANGER:</u> Do not under any circumstances connect the output terminals of the inverter to an incoming AC source, this will result in permanent damage to the inverter and void all warranties.
- 7. <u>DANGER EXPLOSION HAZARD:</u> Do not use the inverter in an environment where flammable fumes or gases are present (such as gas bottles, petrol engines or lead-acid battery compartments)
- 8. <u>Warning:</u> Do not use substandard or damaged wiring with this inverter, it may cause fire or a shock hazard.
- 9. Warning: When connecting the DC input, pay close attention to the polarity of the input. A reverse polarity connection will cause permanent damage to the inverter and void all warranties.
- 10. Warning: When using inductive loads, please note that they can draw up to 10 times its rated power draw. Furthermore, when running appliances with a locked rotor current such as pumps, or compressors, please turn off other non-essential appliances that are connected to the inverter.



- 11. Warning: Please ensure all ventilation vents and fan vents are not obstructed. Please keep a minimum of 60mm distance around the sides of the inverter to ensure adequate ventilation. Failure to do so may result in fire or failure of the inverter.
- 12. <u>Warning:</u> Avoid dropping any metal tools or objects on the battery. Doing so could create a large spark or short circuit which may cause an explosion.
- 13. Warning: Batteries can supply very large currents in the event of a short circuit. A fuse must be installed on the positive supply cable as close as practical to the battery. Failure to do so provides inadequate protection in the event of a short circuit and may result in a fire hazard.
- 14. LIMITATIONS OF USE:

Do not use the inverter in connection with life support systems or other medical equipment or devices, without full testing.





Introduction

Introduction:

Thank you for purchasing the iTechworld pure sine wave inverter. These inverters produce a pure sine wave output, matching the output of your home 240V AC power point, allowing you to power sensitive electronic appliances, such as laptops and many other AC-powered devices anywhere.

The iTechworld pure sine wave inverter also provides 5V USB power, allowing you to power or charge many devices that require 5V USB power.

The iTechworld pure sine wave inverter also contains an automatic AC transfer switch and an RCD safety switch, allowing seamless switching between AC mains power and inverter power all while being RCD protected.

Key Features:

- Remote operation available (Optional Accessory)
- 1 x USB port: 5V 2.1A
- Temperature and load-controlled cooling fans for quiet and optimal performance
- Pure sine wave output
- LED status indicators with audible alarm
- Australian standard 240V receptacle with hard wire terminal connections (only on 3000W model, requires a licensed electrician for installation)
- Heavy-duty aluminium case for durability and cooling.
- Automatic AC Transfer Switch (ATS) for uninterrupted switching between AC mains power and inverter power.
- RCD safety switch for added protection.





Specifications

	Model	2000W	3000W	
Input	Voltage	12VDC		
	Max Rated	238A	375A	
	Current			
	Fuse Size	250A	450A	
	High Voltage	16VDC ±	0.5VDC	
	Protection			
	Low Voltage	10.5VDC	± 0.5VDC	
	Protection			
	Efficiency	Greater t	han 85%	
Output	Rated	2000W	3000W	
	Output			
	Power			
	Surge Power	2400W-3000W	3600W-4500W	
	(10 sec)			
	Surge Power	3000W-4000W	4500W-6000W	
	(2 sec)			
	AC Voltage	240VAC		
		AC Output Regulation: 10%		
		AC short circuit, Overload Protection		
		·	& RCD protection	
	Waveform	,	Wave (<3% THD) at rated	
		input v	_	
	Frequency	50Hz±1%		
Environment	Operating	-15°C t	o 50°C	
	Temperature	4000	2502	
	Storage	-40°C t	o 85°C	
	Temperature	200/ at 000/ BH		
	Relative	20% ~ 90% RH non-condensing		
\\\aightaight	Humidity	E Clea	7.01.5	
Weight		5.6kg	7.9kg	
Dimensions		380×220×115mm	380×220×150mm	
(LxWxH)				



Inverter Overview

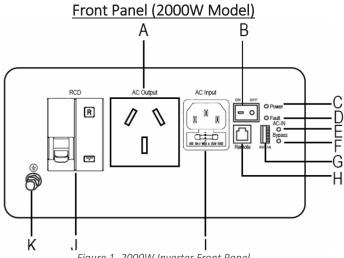


Figure	1-	2000W	Inverter	Front	Panel
--------	----	-------	----------	-------	-------

Α	AC Output Receptacle
В	Main Switch
С	Power LED Indicator
D	Fault LED Indicator
Ε	AC-In LED Indicator
F	By-Pass LED Indicator
G	5V USB Socket
Н	Remote Control Port (RJ11) For connecting the optional remote-
	control switch panel.
ı	AC Input plug (IEC C14)
J	RCD Safety Switch
K	Chassis Ground Terminal



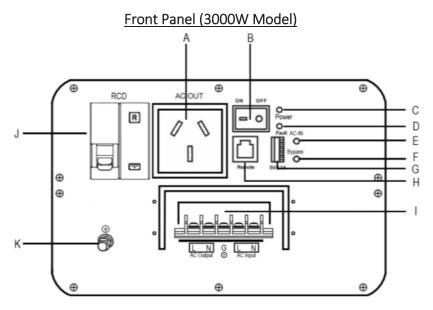


Figure 2- 3000W Inverter Front Panel

Α	AC Output Receptacle
В	Main Switch
С	Power LED Indicator
D	Fault LED Indicator
Ε	AC-In LED Indicator
F	By-Pass LED Indicator
G	5V USB Socket
Н	Remote Control Port (RJ11) For connecting the optional RC2
	remote-control switch panel.
ı	Hard-wire AC input and output terminal block for ATS and
	connecting large electrical loads (15Amps and above)



	(MUST BE CONNECTED BY A LICENSED ELECTRICIAN)
J	RCD Safety Switch
К	Chassis Ground Terminal

Front Panel Features

A. AC Output Receptacle

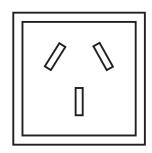


Figure 3-Standard 10A 240VAC Australia / New Zealand receptacle

For connecting 240VAC appliances to the inverter

B. Main Switch

The main switch is used for turning ON or OFF the output of the inverter.

With the switch in the ON position, the Power indicator LED(C) will glow green, and a single beep will be emitted to indicate 240VAC is being produced.

C. Power LED indicator

Illuminates green to show that the inverter is outputting 240VAC power.

D. Fault LED indicator

Will illuminate/flash red when a fault is detected, the 240VAC output will be turned off. Please refer to the troubleshooting section.

E. By-Pass LED Indicator





Will illuminate when the inverter is in by-pass mode, the inverter is placed on standby, and the power output of the inverter is from the AC input.

F. AC-In LED Indicator

Will illuminate when AC power is present at the AC input connection.

G. 5V USB Socket

USB socket is for charging/powering 5V USB devices, such as mobile phones. When the inverter is connected to a battery, the 5V USB port will continuously output power, regardless of whether the Main Switch(A) is in the ON or OFF position.

H. Remote Control Port (RJ11)

The remote-control port is for connecting the optional remote-control panel (sold separately).

I. Automatic Transfer Switch (ATS) AC Input Connection

On 2000W models the is an IEC C14 socket (a.k.a. a 'kettle plug') On 3000W models, the AC input for the ATS is connected on the hard wire terminal block along with the AC Output terminals, **this is to be connected by a licensed electrician only**.

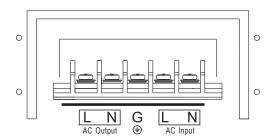


Figure 4-3000W Inverter Hard-wire Terminal Block

Connection designations:

L- Live/Active

N- Neutral

G- Ground/Earth

When using loads requiring 15Amps or more, the hard-wire terminal block must be used.





Make sure the terminal block cover is installed prior to turning on the inverter. Please pay close attention to the AC input and AC output terminals, as back-feeding mains supply into the output of the inverter will cause irreparable damage to the inverter and void all warranties.

DANGER ELECTRICAL SHOCK HAZARD: ONLY LICENSED
ELECTRICIANS ARE PERMITTED TO CONNECT LOADS AND AC INPUT
TO THE HARD-WIRE TERMINAL BLOCK.

J. RCD Safety Switch



Figure 5- RCD Safety Switch

Α	Actuator Lever
В	Reset Button
С	Test Button

A. Actuator Lever

The actuator lever is used to manually turn off/trip or for resetting the RCD safety switch. It is also to indicate the status of the RCD, in the up position, it is "ON", and in the down position, the RCD is "OFF" (or tripped).

B. Reset Button

In the event a fault has been detected, the RCD will trip, and the actuator lever will be in the off position, to reset the RCD, switch off or disconnect all loads from the inverter, press the reset button(B) so that it is flush with the surface of the RCD, then move the actuator lever (A) to the on position. If the reset button has not been depressed, the RCD will not reset, and the actuator arm will constantly return to the off/tripped position.

C. Test Button

This button only tests the internal mechanism of the RCD.



iTechworld recommends for the RCD be tested once every 3 months to ensure maximum safety. To test the RCD, press the test button and verify that the actuator lever moves from the on position to the Off/tripped position and that there is no longer any power output from the output of the inverter. If the RCD does not trip, please contact iTechworld. Furthermore, iTechworld recommends for the RCD and your installation be checked by a licensed electrician every 12 months.

K. Chassis Ground Terminal

On 2000W models, A proper ground connection <u>must</u> be made before using the inverter. The inverter is grounded through the grounding terminal located on the front panel near the 240V outputs.

The chassis ground terminal must be connected to the negative terminal of the DC input. Please use a minimum of 1.5mm² cable. Please consult with a Licensed Electrician to ensure your application meets current Australian/New Zealand standards.

On 3000W models, the chassis ground terminal is only used if only the 10A GPO is used, otherwise, this is not required if the inverter is hard-wired with the terminal block.





Rear Panel (2000W and 3000W)

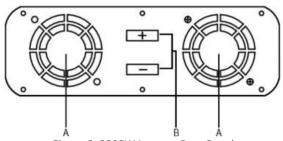


Figure 6- 2000W Inverter Rear Panel

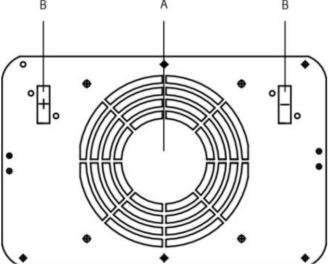


Figure 7- 3000W Inverter Rear Panel



Α	Cooling fan
В	DC Input Terminals

Rear Panel Features

A. Cooling fan

The cooling fan(s) on the inverter are temperature and/or load-controlled.

The fan(s) will automatically turn on when the AC load is 20% or more, or when the internal temperature is above 45°C.

B. DC Input Terminals

<u>Warning:</u> When connecting the DC input, pay close attention to the polarity of the input. A reverse polarity connection will cause permanent damage to the inverter and void all warranties.

Warning: A fuse or DC circuit breaker is required; it must be installed no further than 20cm from the positive terminal of your battery. Failure to install a fuse or circuit breaker could cause a fire. Please use the recommended fuse and minimum cable size as shown in the table below. Please keep the DC input cables as short as

possible, if long-run cables are required, please use a larger cable.

Recommended Cable Size and Fuse Rating.

Model	Cable Size	Fuse/ Circuit Breaker
2000W	25mm ² for	250A
Inverter	lengths <1M	
3000W	35mm ² for	450A
Inverter	lengths <1M	





Remote Control(RC2)

(Sold Separately)

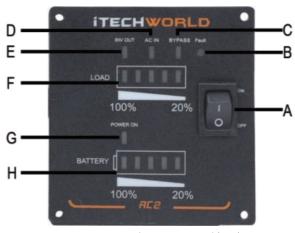


Figure 8- Optional Remote Control (RC2)

Α	Remote Control Main Switch
В	Fault Indicator
С	By-Pass Indicator
D	AC Input Indicator
Ε	AC Output Indicator
F	Inverter Load Indicator
G	DC Input Power Indicator
Н	Battery Capacity Indicator

Remote Control Features

A. Remote Control Main Switch

The main switch is used for turning ON or OFF the output of the inverter. With the switch in the ON position, the AC Output Indicator LED(C) will illuminate green to indicate 240VAC is being produced.

B. Fault Indicator

Will illuminate/flash red when a fault is detected, the 240VAC output will be turned off. Please refer to the troubleshooting section.

C. By-Pass Indicator

Will illuminate when the automatic transfer switch is activated, power is being drawn from the AC input and the Inverter is put into Stand-by mode.

D. AC Input Indicator

Illuminates green to show that the Inverter is receiving 240VAC power from the AC input.

E. AC Output Indicator

Will illuminate green to show that the Inverter is outputting 240VAC power.

F. Inverter Load Indicator

Displays the approximate load being drawn from the inverter.

G. DC Power Indicator

Will illuminate green to show that DC power is being supplied to the inverter.

H. Battery Capacity Indicator

Displays the approximate remaining capacity of the battery running that is connected to the inverter. For a more accurate method of tracking the remaining battery capacity, please consider purchasing the iTECHBM500, 500-amp battery monitor with a shunt.



Connecting the remote control

The remote control is connected to the inverter with the communications cable, the communications cable supplied with the purchase of the remote control. The cable is a 6-conductor RJ11 style cable, the pinout of the connector is **not wired like a normal telephone-type cable**.

Do not attempt to extend or use a different cable than the one supplied by iTECHWORLD. Doing so will damage the remote, this is not covered by any warranty, you will need to purchase a replacement remote.

Using the remote control

When using the remote control to turn the inverter on or off, please make sure the Main Switch on the inverter front panel is in the <u>OFF</u> position, or the remote-control main switch will not work.



Installation

Mounting the inverter

The location where the inverter is to be mounted must be:

- **Dry:** Do not allow any liquids to drip or splash onto the unit.
- Cool: Do not install in direct sunlight or close to any heat sources, the ideal ambient air temperature is between 15°C to 25°C.
- Ventilated: Allow at least 60mm of clearance around the inverter to allow adequate airflow, and make sure that the fans and vent holes are not obstructed.
- Safe: Do not install the inverter in the same compartment as the batteries (only applies to Lead Acid, AGM, Gel and Sealed Lead Acid) to prevent corrosion, or in any compartments where flammable liquids or fumes may be or may become present.
- Clean: Do not install the inverter in a dusty environment, as the inverter contains cooling fans, any dust present will be sucked into the inverter which may damage or shorten the life of the inverter.
- Close to batteries: Avoid excessive cable lengths as this will cause a voltage drop and lowers the performance of the inverter.
- **Fused:** A fuse must be installed between the battery and the inverter, and as close as possible to the battery.





Please Note: This inverter may generate radio frequency energy, if not installed and used in accordance with the instructions in this user guide, this inverter may cause interference with radio communications. There is no guarantee that interference will not occur in a particular installation. If the inverter does cause interference to radios or television reception, which can be determined by turning the inverter off and on, if this is the case you may try to correct the interference by one or more of the following possible solutions:

- Reorient or relocate the receiving antenna of the affected device
- Increase separation between the affected device and the inverter
- Consult the dealer or an experienced radio/TV technician for help.





Example Wiring Diagrams

<u>DANGER ELECTRICAL SHOCK HAZARD:</u> iTechworld recommends that all wiring and installation be done by a certified technician or licensed electrician to ensure all applicable electrical wiring regulations and installation codes are met. Failure to follow these instructions may result in damage to the unit and could also result in may result in death or serious injury.

<u>Warning:</u> When connecting the DC input, pay close attention to the polarity of the input. A reverse polarity connection may cause permanent damage to the inverter and void all warranties. Furthermore, please ensure no form of AC power is connected to the outputs of the inverter, this will cause irreparable damage and void all warranties.

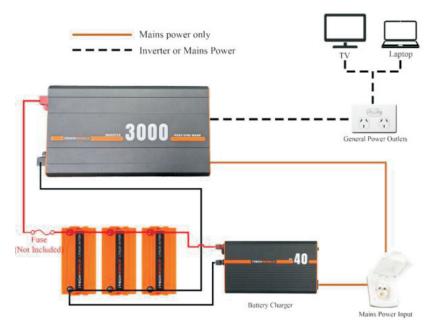


Figure 9- Example Integration of the Automatic Transfer Switch



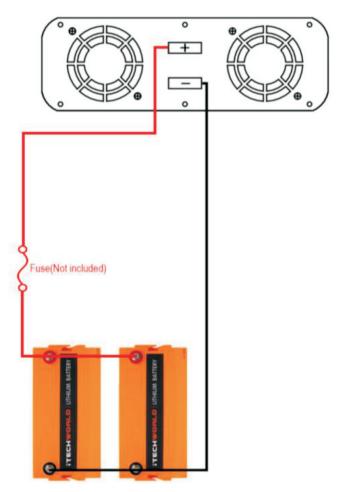


Figure 10- Recommended Wiring Connection (2000W model shown)



Connecting the inverter

Before connecting the DC input connections to the inverter, make sure that the main and remote main switch (if remote is installed) (refer to Figures 1, 2 and 7) are in the **OFF** position.

- 1. Connect one end of the positive DC input cable to the inverter's positive DC input terminal.
 - Connect the other end of the positive DC input cable to one of the terminals of the fuse holder or circuit breaker. Then connect another DC input cable from the other terminal of the fuse holder/ circuit breaker to the positive terminal of your battery.
- 2. Connect one end of the negative DC input cable to the inverter's negative DC input terminal.
 - Connect the other end of the negative DC input cable to the negative battery terminal.
 - <u>Caution:</u> When connecting the negative cable to the negative terminal of the battery, some sparking may occur, this is due to the internal capacitors charging up and is normal. It is best to spread the load across 2 batteries connected in parallel (i.e., Have the positive connection to the inverter on one battery, and the negative battery connection to the last battery in the battery array)
 - <u>Please note:</u> The cabling used to link batteries in parallel must be the same gauge (or better) as the cables used for connecting to the inverter.

<u>Caution:</u> Please ensure that all DC connections are tight, as any loose connections could result in overheating and could be a potential fire hazard.



Automatic Transfer Switch (ATS) AC Input Connection

On 2000W models the is an IEC C14 socket (a.k.a. a 'kettle plug')
On 3000W models, the AC input for the ATS is connected on the hard wire terminal block along with the AC Output terminals, this is to be connected by a licensed electrician only.

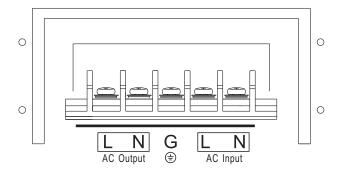


Figure 11-3000W Inverter Hard-wire Terminal Block

Connection designations:

L- Live/Active

N- Neutral

G- Ground/Earth

When using loads requiring 15Amps or more, the hard-wire terminal block must be used.

Make sure the terminal block cover is installed prior to turning on the inverter. Please pay close attention to the AC input and AC output terminals, as back-feeding mains supply into the output of the inverter will cause irreparable damage to the inverter and void all warranties.

DANGER ELECTRICAL SHOCK HAZARD: ONLY LICENSED ELECTRICIANS ARE PERMITTED TO CONNECT LOADS AND AC INPUT TO THE HARD-WIRE TERMINAL BLOCK.





Operating the inverter

- 1. Before turning on the inverter, make sure the connected AC appliance is turned OFF.
- 2. Turn on the inverter by moving the Main Switch to the ON position.
- 3. Once the Power LED indicator is illuminated, turn on the connected AC appliance.
- 4. Once you are done with using the connected AC appliance, turn off the appliance, then turn off the inverter by moving the Main Switch to the OFF position.

Please note, that although the inverter can provide high surge power up to double the rated power output, some appliances may still trigger the inverter overload protection. If this is the case, a larger inverter will be required for those appliances.

Residual Current Device - RCD Safety Switch

For models with an RCD Safety Switch installed:

An RCD Safety Switch is a device designed to prevent electrocution by cutting power to a circuit in the event of an earth leakage. It works by monitoring the current flow in and out of the device and will trip when an imbalance occurs.

The inverter has an internal Mains Earth Neutral (M.E.N.) connection only on the Inverter side of the Automatic Transfer Switch, this allows the RCD to work correctly while on Inverter output.

When the transfer switch is active (By-Pass mode), the internal M.E.N connection is disconnected, for the RCD to function correctly and provide maximum protection, please ensure that there is a M.E.N. connection from the input AC source.

Please note- that most generators do not have a M.E.N connection. If there is no M.E.N connection, the RCD will not provide maximum protection through the transfer switch.

Automatic Transfer Switch (ATS)

The inverter has an automatic transfer switch (ATS) built-in, to allow for seamless and uninterrupted switching between mains/generator supply and/or the inverter power supply through the AC output receptacle and/or the hard-wire terminal block (Only found on the 3000W model).

On the 3000W inverter model, the AC input is only to be hard-wired by an electrician. -full 3000W is to be hard-wired, and the GPO is maxed 10A.

On the 2000W inverter model, the inverter uses a Fused IEC C14 socket ("kettle plug") for AC input for the ATS.

Please ensure the main switch on the inverter or the remote is in the **ON** position for the ATS to function as intended. If the switch is in the off position, when the mains input is disconnected, all loads that are connected to the inverter will turn off.





Troubleshooting

Symptom:

The Main Switch is ON, but there is no 240V AC output or any LED indicator lights on.

Possible Cause	Solutions
There is no voltage at the DC input.	 Check that the battery fuse is not blown and in-tact Check that all the DC input connections are tight. Check the continuity of the DC input circuit If using a lithium battery, check to see if it has gone into protection/safe mode, if so, please follow your battery manufacturer's instructions on how to reset the battery.
The polarity of the DC input has been reversed and has blown the	The inverter will need to be returned to iTechworld for
internal fuses. (NOTE: This may	further assessment.
have caused permanent damage	
to the inverter, and void all	
warranties)	



Symptom:

The inverter beeps once, Power LED indicator illuminates green. But the connected AC appliance does not turn on.

Possible Cause	<u>Solutions</u>
	1. Double-check that all AC
	output connections are tight
1. Loose AC output	and not loose. (Consult a
connections.	licensed electrician)
2. Short circuit of AC output	2. Check for short circuits with
wiring	your AC wiring.
3. The AC appliance is faulty	3. Test the AC appliance on
4. The AC appliance is switched	your house 240V AC socket
off	4. Turn on the AC appliance
RCD safety switch has tripped	5. Reset the RCD safety switch
	If there is still no output, contact
	iTechworld

Symptom: The inverter beeps twice:

Possible Cause	Solutions
Low DC input voltage warning.	1. Check that the battery is not
The voltage at the DC input reads	flat, and is fully charged,
below 10.5±0.5VDC	recharge if low
	2. Check that the battery
	cables are thick enough to
	carry the required current
	over the required length.
	Use thicker cable if required.
	3. Check for any loose
	connections on the DC input
	circuit.

Symptom: The inverter beeps 3 times and the red Fault Indicator LED illuminates, and there is no AC output.

Possible Cause	Solutions
Low DC input voltage shutdown	1. Check that the battery is not
warning.	flat, and is fully charged,
When the voltage at the DC input	recharge if low
reads below 10.0±0.5VDC, the AC	2. Check that the battery
output of the inverter will shut	cables are thick enough to
down.	carry the required current
	over the required length.
	Use thicker cable if required.
	3. Check for any loose
	connections on the DC input
	circuit.

Symptom: The inverter beeps 4 times and the red Fault Indicator LED illuminates, and there is no AC output.

mullimates, and there is no AC output.	
Possible Cause	<u>Solutions</u>
Overvoltage detected on the DC	1. Check that the voltage at the
input. When the voltage at the	DC input terminals does not
DC input reads higher than	exceed 16VDC, if so, attempt
16.0±0.5VDC, the AC output will	to lower the voltage of the
shut down.	battery and check battery
	charging voltages.
	2. Ensure that the maximum
	charging voltage of any
	chargers connected to the
	battery is set below 16.0VDC
	3. Ensure that there are no
	unregulated charging
	sources such as solar panels
	with no regular are
	connected to the battery.



Symptom: The inverter beeps 5 times and the red Fault Indicator LED illuminates, and there is no AC output.

Possible Cause	Solutions
The inverter is overheating.	1. Reset the inverter by turning
When the internal temperature	it off and on again and check
exceeds 75°C the AC output will	to see if the cooling fan(s)
shut down.	are working (fans
	automatically turn on when
	the inverter is at 20% load or
	internal temperatures are at
	45°C). If the cooling fans are
	not functioning, the inverter
	will need further
	assessment, please contact
	iTechworld.
	2. If the fan is functioning,
	check that all ventilation
	slots and fan openings are
	not obstructed. Also, ensure
	that adequate cool air is
	being circulated to the
	inverter and make sure
	ambient temperatures do
	not exceed 50°C.
	3. Reduce the AC load on the
	inverter.

Symptom: The inverter beeps 11 times and the red fault indication LED illuminates, and there is no AC output.

Possible Cause	<u>Solutions</u>
The inverter has detected a short	Please check that the connected
circuit with the AC output.	device is not faulty and that there
	are no short circuits in the AC
	circuit. Please consult a licensed
	electrician.



Symptom: The inverter is constantly beeping and the red fault indicator LED illuminates, and there is no AC output.

Possible Cause	Solutions
The inverter has shut down due	1. Disconnect the connected
to overload. (Connected load has	load.
exceeded the surge rating of the	2. Reduce the connected load.
inverter)	

Maintenance and Warranty

Maintenance

Make sure that the inverter is turned off while performing any maintenance.

To keep your inverter operating properly, there is very little maintenance required.

You should clean the exterior periodically with a dry cloth to prevent the build-up of dust and dirt.

Also, check and tighten the fasteners on the DC input terminals.

Warranty

iTechworld guarantees this product against defects in materials and workmanship for 12 months from the date of purchase. This warranty will be considered void if the unit has been misused, altered, or accidentally damaged. iTechworld will not be liable for any amount of damage in excess of the retail purchase price of the unit under any circumstances. Incidental and consequential damages are specifically excluded from coverage under this warranty.

This inverter is not intended for commercial use. This warranty does not apply to damage to units from misuse or incorrect installation/connection. Misuse includes wiring or connecting to improper polarity sources.





Return/Repair Policy:

In the unlikely event that a technical problem arises, please contact iTechworld customer service at (08) 9472 7200 or email service@itechworld.com.au before returning the inverter to the store.

If such a unit is returned within the warranty period, iTechworld will repair the unit or, at its discretion, replace it, free of charge. If the unit is repaired, new or reconditioned replacement parts may be used, at the manufacturer's discretion. A unit may be replaced with a new or reconditioned unit of the same or comparable design. The repaired or replaced unit will then be warranted under these terms for the remainder of the warranty period. The customer is responsible for the shipping charges on all returned items back to iTechworld.

Limitations:

This warranty does not cover accessories, such as adapters and batteries, defects or damage resulting from normal wear and tear (including but not limited to chips, scratches, abrasions, discolouration or fading due to usage or exposure to sun or environmental elements), accidents, damage during shipping to iTechworld's service facility, alterations unauthorized use or repair, neglect, misuse, abuse, failure to follow instructions for care and maintenance, fire, and flood.





Contact Information

iTechworld 281 Great Eastern Hwy Burswood WA 6100

Phone: (08)9472 7200

Website:

www.itechworld.com.au

E-mail:

service@itechworld.com.au

