



# 12V TO 240V INVERTER PURE SINE WAVE RANGE USER MANUAL



KAPSWI1000 | KAPSWDSPY

# SAFETY NOTES


- **WARNING:** Ensure all wiring used is appropriately sized and in good condition.
- **WARNING:** Do not connect the inverter in reverse polarity. Doing so will permanently damage the device
- **WARNING:** When running inductive loads, minimise the number of non-essential devices running from the inverter at the same time.
- **WARNING:** Ensure a minimum clearance distance of 60mm around the inverter intake and outtake vents. Failure to do so may result in inverter failure or fire.
- **WARNING:** It is recommended to install a current limiting device, such as a fuse or a circuit breaker, to protect against short circuit and over current conditions.
- **WARNING: ELECTRICAL SHOCK HAZARD -** Do not disassemble the inverter. Doing so can expose live electrical components and result in injury or death.
- **WARNING: ELECTRICAL SHOCK HAZARD -** This inverter is designed for indoor use only. Do not allow it to get wet or operate in moist environments.
- **WARNING: ELECTRICAL SHOCK HAZARD -** Ensure the DC input and AC outputs are disconnected before cleaning.
- **WARNING: ELECTRICAL SHOCK HAZARD –** Do not insert foreign objects into the AC output terminals. AC outputs are live terminals and may result in injury or death.
- **WARNING:** Do not connect the inverter's output terminals to an incoming AC source under any circumstances. Doing so will cause permanent damage and nullify all warranties.
- **WARNING: EXPLOSION HAZARD -** Avoid using the inverter around flammable materials such as gasses, fuels or engines.

# PRODUCT SPECIFICATIONS

## KAPSWI1000 SPECIFICATIONS

Item	Description
Output Waveform	Pure Sine Wave ( <5%)
DC Input Voltage Range	10 ~ 16V DC
Rated Output Power	1000W
Rated Surge Power (10s)	1200W
Rated Surge Power (2s)	2000W
Frequency	50Hz
Max Efficiency	94%
Environmental Operating Temperature	-15°C ~ +40°C
Storage Temperature	-25°C ~ +75°C
Relative Humidity	20% ~ 90% RH non-condensing
Weight	1.34kg
Dimensions	330mm(L) x 159mm(W) x 75mm(H)
Certification	AS/NZS 4763

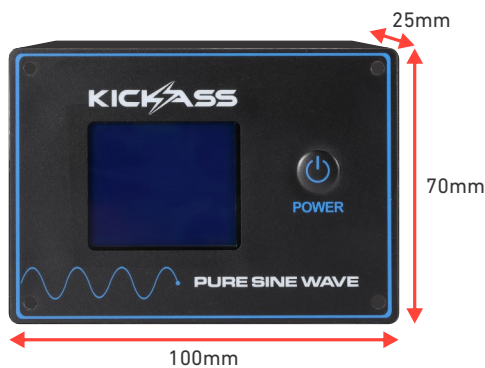
## KAPSWDSPY Specifications

Item	Description
Input Voltage	12V DC
Standby Current	20μA
Environmental Operating Temperature	-15°C ~ +45°C
Storage Temperature	-25°C ~ +75°C
Input Connector	RJ11
Dimensions	100mm x 70mm x 25mm
Weight	0.11kg
Certifications	

**KAPSWI1000 DIMENSIONS**



**KAPSWDSPY DIMENSIONS**



## WHAT'S INCLUDED

### KAPSWI1000



**1000W PURE  
SINE WAVE INVERTER**



**800MM 8AWG BATTERY HOOK UP CABLE**

### KAPSWDSPY



**INVERTER REMOTE  
CONTROL PANEL**



**RJ11 DATA CABLE – 3 METRES**

# PRODUCT FEATURES

## KAPSWI1000

**1000W Continuous Output** - Plenty of power to run all your AC essentials while on the move - KickAss Electric BBQ, compatible low power coffee machines, battery chargers for your power tools and more.

**Pure Sine Wave Output** - Delivers a clean and reliable output sine wave that replicates the AC signal you get from the power point in your home. Unlike other modified sine wave inverters on the market, our KickAss pure sine wave inverter is ideal for running sensitive electronic devices like laptops, Starlink and CPAP machines.

**High Efficiency, 94% Maximum Conversion** - Converts up to 94% of the power you put in from your battery to power that can be used at the output of your inverter. The higher the efficiency of your inverter, the less power you waste during conversion from DC to AC.

**Multi Stage Safety Protection** - The multilevel safety protection utilises both software and hardware features to protect you, your inverter and your devices. The inverter continuously monitors the input and output signals and will trigger a protection mode if the unit is detected to be operating in an unsafe state.

**Surge Power Rating** - With a peak surge rating of 1000W, this inverter is perfect for supporting devices with a high inrush current like power tool battery chargers, microwaves and induction cooktops.

**Intelligent Cooling Fan** - The intelligent fan system dynamically adjusts the fan speed to keep the inverter running cool and optimising the output power in demanding environments.

## KAPSWDSPY

**Real Time Monitoring** – Unexpected power fluctuations can damage your equipment and waste your power. With real-time monitoring, you can track your energy generation and power usage, and spot any problems early on. This will keep your setup running smoothly and efficiently at all times.

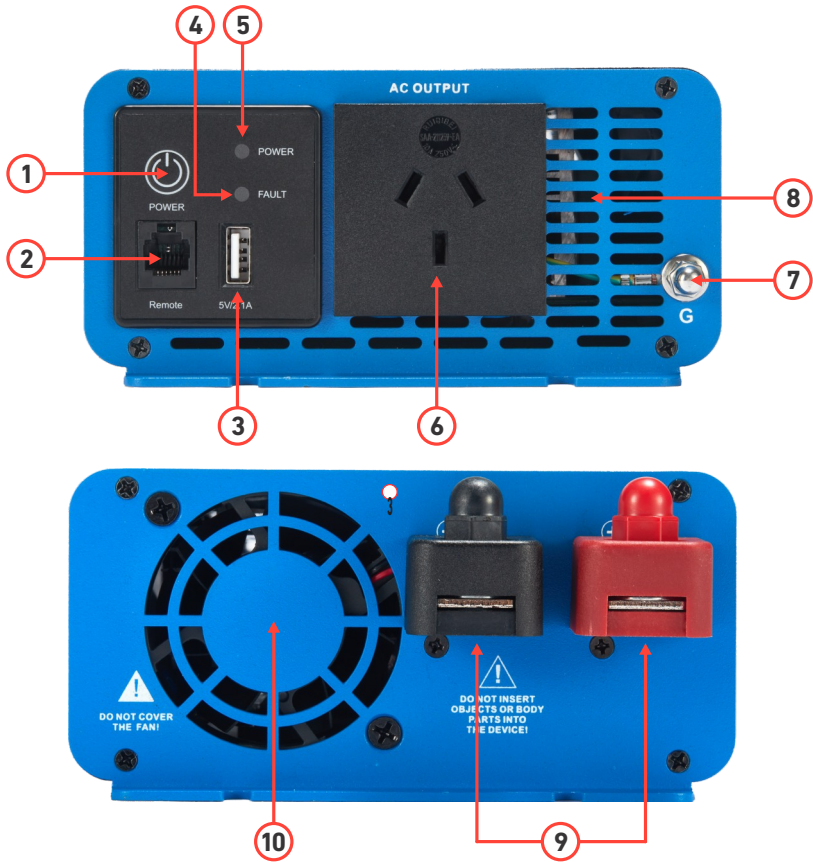
**Remote Control** - Monitor and manage your power consumption from a distance – for example, if you're sitting in the front seat, and have your inverter installed in the back of your truck. You'll be able to access and manage your inverter system from anywhere within reach of the 3 metre cable.

**Fault diagnostics** - If your system malfunctions, it can be challenging and time consuming to figure out the cause. This KickAss Inverter Remote Display automatically identifies and reports faults within the inverter system, and delivers detailed diagnostics. Troubleshooting made easy!

**Intuitive User Interface** - Information on the screen is clear and easy to understand. You can easily navigate through the settings, view energy metrics, and set alerts. No more guesswork – just clear data.

# PRODUCT OVERVIEW


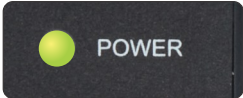
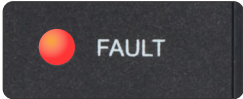
## KAPSWI1000 COMPONENT OVERVIEW



Item	Description	Item	Description
1	On / Off Button	6	AC Output
2	Remote Display Communication Port	7	Ground Terminal
3	5V 1A USB-A Charging Port	8	Air Intake
4	Fault LED	9	DC Input Terminals
5	Power LED	10	Intelligent Cooling Fan



# KAPSWI1000 INVERTER BUTTON AND LED DISPLAY

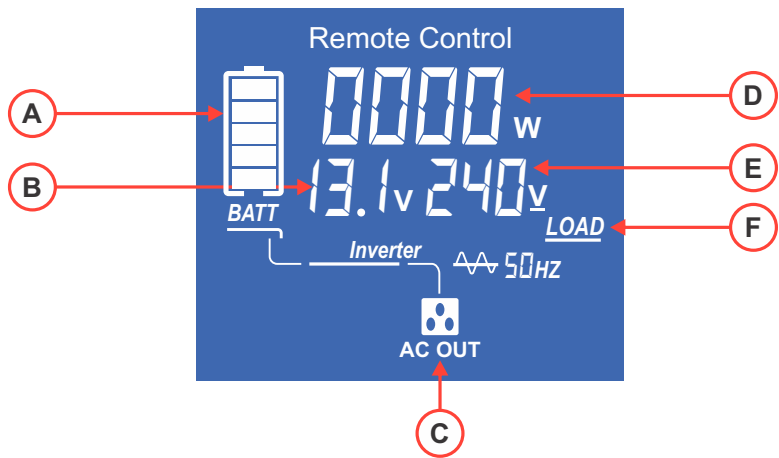
INPUT/OUTPUT	OPERATION	ACTION
	Long Press	Turn the inverter on / off.
	Solid Green	Indicates the inverter is powered on.
	Flashing Red	Indicates a system fault is occurring.

# KAPSWDSPY COMPONENT OVERVIEW



Item	Description
1	Power On / Off Button
2	LCD Display Screen
3	Mounting Holes
4	RJ11 Power / Data Input
5	RJ11 Power / Data Cable

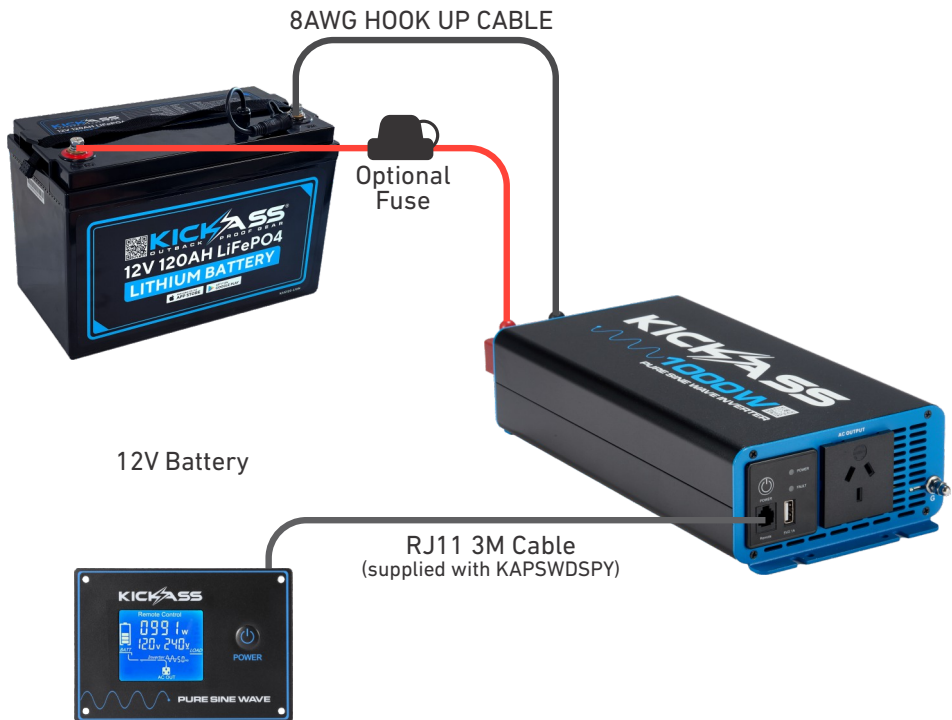
# KAPSWDSPY LCD DISPLAY



Item	Icon Name	Description
A	Battery Indication	This icon provides an estimate of the battery capacity based on the battery voltage. This should be used as a guide only and only referenced when the inverter or battery are not under load.
B	Battery Voltage	A reading of the real-time voltage detected at the battery terminal input.
C	AC Output Running	Indicates that there is AC power available at the AC output. Any device connected to the output will become live.
D	Power Consumption	Real-time display of the AC output power.
E	AC Output Voltage	Real-time display of the AC output voltage.
F	Load Indication	Indicates when there is load/power being drawn from the inverter.

# PRODUCT INSTALLATION

## WIRING DIAGRAM



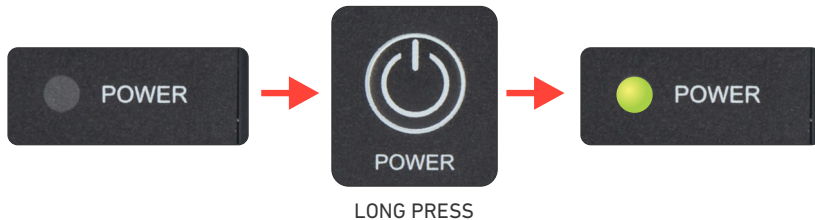
Recommended Fuse Rating	175A
Recommended Cable Size	8AWG – 0.8m

## INSTALLATION INSTRUCTIONS

1. If permanently installing the device, use suitable mounting hardware to secure the inverter to the mounting surface. The inverter can be installed in any orientation.
2. If permanently installing the optional Remote LCD Display unit, mount it in the desired location using suitable hardware.
3. Connect the positive and then the negative battery cable. Ensure appropriately sized cable and fuses are used.  
*Caution:* When connecting the negative terminal of the inverter, it is possible for arcing (sparks) to occur as the internal capacitors of the device charge up. This is normal operation.
4. Connect the optional Remote LCD Display (if using one in the installation).

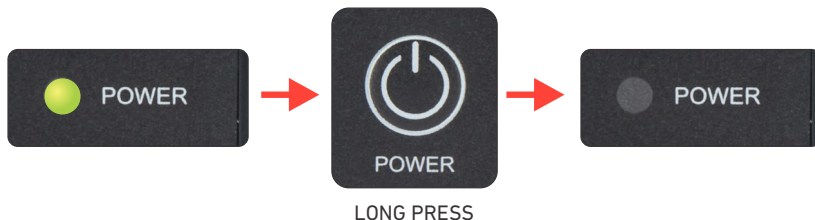
## OPERATING THE INVERTER

To turn on the inverter, long press (3 seconds) the on / off button.



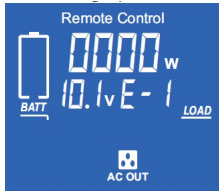
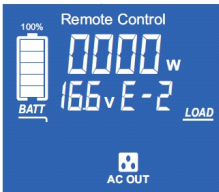
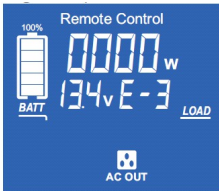
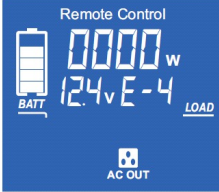
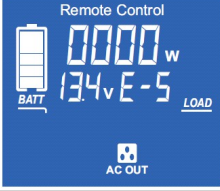
The device is now ready for operation. Connect the AC device to the AC Output, the AC device is now live.

To turn off the inverter, long press (3 seconds) the on / off button.



# TROUBLESHOOTING

## ERROR CODES

ERROR CODE	IMAGE	DESCRIPTION	TROUBLESHOOTING
E1		<b>Low Voltage Protection</b> – The voltage at the battery input terminals is below the low voltage cut out threshold of 10V.	Check the following: A) The battery is sufficiently charged. If the battery voltage is low, recharge the battery. B) If the battery is sufficiently charged and the low voltage protection occurs when the inverter is under load, check the terminals of the battery connections and cables. Loose connections may cause excessive voltage drop. If the issue persists, increase the cable size, or check the condition and suitability of the battery.
E2		<b>Over Voltage Protection</b> – The voltage at the battery input terminals is above the high voltage cut out threshold of 16V.	Check the condition of the connected battery and of the connected battery charger. An over-voltage fault condition indicates a possible issue with the connected battery or charger.
E3		<b>High Temperature Protection</b> – The internal thermocouple of the inverter has reached the high temperature cut-off threshold.	Check there is sufficient clearance (60mm) around the air intake and cooling fan. Turn the unit off, allow it to cool and try operating the unit again. If in operating in high ambient temperatures, be mindful of prolonged operation.
E4		<b>Over Load Protection</b> – The output power of the inverter has exceeded one of the following thresholds: a) 1000W > 10s b) 1200W: 2s ~ 10s c) 2000W > 2s	<b>Check the following:</b> A) If multiple devices are connected, try running only one device at a time. B) If the output power of the connected device can be reduced (i.e. induction cooktop, air fryer), reduce the output power of the device during start up.
E5		<b>Short Circuit Protection</b> – A high current condition has been detected on the AC Output.	Check the wiring of the connected AC output device. <b>WARNING:</b> Ensure this test is performed with AC output device disconnected.

## AUDIBLE ALARMS

ALARM SEQUENCE	DESCRIPTION	TROUBLESHOOTING
<b>One Beep</b>	<b>Poor Connection of AC Output Device</b> - indicates there is a potential loose connection between the connected AC device and the inverter, or the AC device is faulty.	Check the condition of the connected AC device.
<b>Two Beeps</b>	<b>Low Voltage Input Warning</b> - The voltage at the battery input terminals of the inverter reads above 10V but less than 10.5V.	<b>Check the following:</b> A) The battery is sufficiently charged. If the battery voltage is low, recharge the battery. B) If the battery is sufficiently charged and the low voltage protection occurs when the inverter is under load, check the terminals of the battery connections and cables. Loose connections may cause excessive voltage drop. If the issue still persists, increase the cable size, or check the condition and suitability of the battery.
<b>Three Beeps</b>	<b>Low Voltage Input Shutdown</b> - The voltage at the battery input terminals of the inverter reads less than 10.V.	<b>Check the following:</b> A) The battery is sufficiently charged. If the battery voltage is low, recharge the battery. B) If the battery is sufficiently charged and the low voltage protection occurs when the inverter is under load, check the terminals of the battery connections and cables. Loose connections may cause excessive voltage drop. If the issue still occurs, increase the cable size.
<b>Four Beeps</b>	<b>High Voltage Input Shutdown</b> - The voltage at the battery input terminals is above the high voltage cut out threshold of 16V.	Check the condition of the connected battery and of the connected battery charger. An over-voltage fault condition indicates a possible fault with the connected battery or charger.
<b>Five Beeps</b>	<b>High Temperature Shutdown</b> - The internal thermocouple of the inverter has reached the high temperature cut-off threshold.	Check there is sufficient clearance (60mm) around the air intake and cooling fan. Turn the unit off, allow it to cool and try operating the unit again. If operating in high ambient temperatures, be mindful of prolonged operation.
<b>Eleven Beeps</b>	<b>AC Output Short Circuit</b> - A high current condition has been detected on the AC Output.	Check the wiring of the connected AC output device. <b>WARNING:</b> Ensure this test is performed with AC output device disconnected.
<b>Continuously Beeps</b>	<b>AC Output Power Overload</b> - The output power of the inverter has exceeded one of the following thresholds: a) 1000W > 10s b) 1200W: 2s ~ 10s c) 2000W > 2s	Check the following: A) If multiple devices are connected, try running only one device at a time. B) If the output power of the connected device can be reduced (i.e. induction cooktop, air fryer), reduce the output power of the device during start up.

## WARRANTY & SUPPORT INFORMATION



Need help? For product support or to make a warranty claim, reach out to the KickAss Customer Service team on (07) 3123 1415 or at [support@kickassproducts.com.au](mailto:support@kickassproducts.com.au).

Alternatively, visit our Customer Support Portal at:

<https://supportportal.kickassproducts.com.au/>





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