



KENT Home Inverter



H1 1100

H1 2400

August 2026

User Manual

Welcome to KENT New Energy

Dear Customer,

At the outset, allow us to thank you for your trust in KENT New Energy. We take pride in our reputation for product quality and industry proven performance. We are certain that your decision to own KENT H1 Inverter will go a long way because our breakthrough chip embedded sine wave technology delivers the same current as you get from your mains.

This guide will help you in getting the best understanding of your Lithium inverter and its optimum use.

Best Wishes,

KENT New Energy



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OVERVIEW

The H1 inverter with Pure Sine Wave™ is a generation ahead of the entire category. That's because our breakthrough 'chip embedded sine wave' technology delivers the same current as you get from your mains.

FEATURES OF H1 INVERTER

- Sine Wave Output suitable for PC
- DSP Based Intelligent Control Circuit
- Graphical LED Display (Message and Faults)
- Smarter Overload Senses & Short Circuit Protection
- Easy to Service
- Battery State Monitoring
- ASIC Technology
- Great Power Saving
- Future Expandability possible
- DSP Based Smart Charger
- Automatic Power Factor Correction

KNOWING YOUR PRODUCT

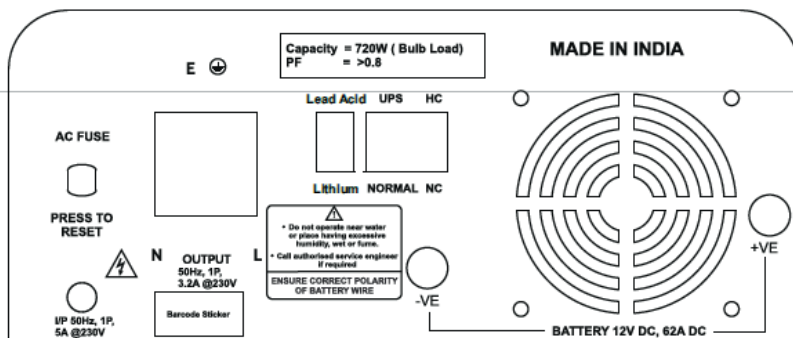
In its most basic form, a transformer transforms Direct current (DC) to Alternating Current (AC). The battery pack with the Inverter acts as a reserve to continuous supply power whenever mains supply from utility power is not available.



(FOR LED MODEL)

No.	Graphical Representation	Status	Meaning
1	Mains	Continuous On	Continuous On
		Blinking (with Buzzer Sound)	Mains Fuse Trip
2	Charge	Blinking	Battery Charging
		Continuous On	Battery Charged
3	Backup	Continuous On	Backup Mode
4	Low Battery	Continuous On (with Buzzer Sound)	Battery Low warning
		Continuous On (No Buzzer Sound)	Battery Low Protection (Reset by front switch or by mains coming)
5	Over Load / Short Circuit	Blinking (with Buzzer Sound)	Over Load Warning
		Continuous ON (No Buzzer Sound)	Overload Protection (reset by front switch or by mains coming)
		Continuous ON (with Buzzer Sound)	Short Circuit Protection
6	Power Switch Status	ON	Power Switch Pressed
		OFF	Power Switch not Pressed

BACK PANEL



S.No.	Function	Remarks
1	Output Socket	Connect your load wire here to get the AC output from H1 Inverter
2	Mains Input Lead	Used to connect H1 Inverter to AC Input Grid Supply
3	Cooling FAN Outlet	To maintain temperature by forced cooling, Avoid blockage to this point
4	Input AC Grid Circuit Breaker (Fuse / MCB)	Used for protection from overload and short circuit-AC Grid Supply\ End
5	UPS/Normal Mode Selection Switch	Used to select between H1 Inverter or Normal (Inverter) Mode
6	HC/NC Mode Selection Switch	Used to select between High (Fast) or Normal Charging Mode ¹
7	TT/FT Mode Selection Switch	Used to select between Tall Tubular (TT) or Flat Tubular (FT) Battery Mode ¹
8	Battery Wires	To connect Battery terminals; Red wire to positive terminal and Black wire to negative terminal

Caution: Do not reverse the battery connections, as it will blow the battery fuse. A power cord has been provided to connect the Home H1 Inverter to incoming AC mains. In that incoming phase (or line) is connected to 'L' (Red). Neutral is connected to 'N' (Black) and earth is connected to 'E' (Green). Output of Solar PCI is connected throughout socket of the Home H1 Inverter .

SAFETY IN GENERAL

Please read the following safety information and instructions before you put the KENT H1 Inverter into operation for the first time, in order to avoid personal injuries and/or property damage. These instructions must be complied with at all times. Do not attempt to install or put the KENT H1 Inverter into service until you have read through all the documentation supplied thoroughly. Read through these safety instructions and all other user instructions and tips before you begin work with this device. This device must be used only for the purpose described in this User Manual. All safety regulations must be complied with. All installation work must be carried out precisely as described in this manual. No modification of any kind to or in this device or to its external wiring is permitted. Any such modification could lead to serious safety problems and danger to life and limb.

GENERAL SAFETY INSTRUCTION

Danger !

- High voltage due to incorrect connection! Risk of fatal or bodily injury from H1 Inverter shall accept no liability for damages resulting from non-observance of the warnings given in this User Manual. Read the operating, maintenance and safety instructions before you put the device into operation for the first time. If you are not able to understand the language used in this documentation sufficiently, please contact and inform the supplier of the situation.

NON-OBSERVANCE OF THIS USER MANUAL

- Trouble-free and safe operation of this inverter presumes proper, professional and workmanlike transportation, storage, mounting and installation as well as careful operation and thorough maintenance.
- The surface of the inverter housing can become hot when the inverter is in operation. Very hot! Do not touch!

Notice !

- KENT H1 Inverter is not liable for the consequences arising from faulty installation of the H1 Inverter .

Among these consequences are: -

- Damage to the display and keyboard foil, deterioration of the readability.
 - Fading of the print on the housing, the look of the housing deteriorates. Therefore, chose the place of installation for the inverter so that the device is not directly or indirectly exposed to UV radiation: -
 - The device must not be exposed to direct sunlight.
 - The device must be protected from reflections by glass facades.
- 

SAFETY INSTRUCTIONS FOR THE HUPS & SUPS COMPARTMENT

Warning ! Ignoring the instructions can cause physical injury or death, or damage to the equipment.

- Do not expose H1 Inverter to any type of chemicals. The KENT H1 Inverter is designed for interior only.
- Do not disassemble the KENT H1 Inverter call at KENT customer service when service or repair is required. Opening by unqualified personnel can lead to electrical shock or fire hazard.
- To reduce risk of electric shock, disconnect all wiring before cleaning.

SAFETY INSTRUCTIONS FOR THE UPS COMPARTMENT

- If it is necessary to remove any battery, always remove the grounded terminal from the battery first. Make all the accessories are off, so as not to cause arcing.
- Be that the area around the battery is well ventilated.
- Clear battery terminals. Be careful not to allow corrosion to come in contact with eyes.
- Study all battery manufacturer's specific precautions and recommended rates of charge.
- Add only distilled water in each cell until battery acid reaches level specified by battery manufacturer. This helps purge excessive gas from cells. Do not overfill. For a battery with caps, carefully follow manufacturer's recharging instructions.
- KENT is not responsible for any kind of battery related problems.

EXPLANATION OF THE SYMBOLS USED ON THE NAMEPLATE

Attention & Danger !

O/P Socket, AC Fuse, AC Input Power Cord carrying high voltage, and it has been remain even after disconnected. Please be to Wait until the capacitor have fully discharged (discharge period)

Attention

DC Voltage via battery wires. Ens correct polarity of these wires. Incorrect polarity may cause physical injury or death, or damage to the equipment.



CONCEPT OF CHARGING

Five State ATM Pulse Charging

Bulk : Batteries are charged at maximum allowed continuous constant charging current at constant voltage for speedy charging battery up to 13.6V (For a 12V Battery).

Boost : The charger checks the charging current when the battery voltage reaches 13.6V for 12V batteries. The boost mode of the charger will be activated, which will boost the battery up to 20% more than its rated voltage Generally 14.4V per 12V battery (If battery selection switch is there then 14.6V for Lead Acid battery.) per 12V battery and charging current reduce to 50% of bulk charging (i.e. 4 to 5AMP).

Taper : When the voltage level of the battery is 20% more than its rated voltage, the taper mode of the charger will be activated, which will keep the charging current about 4AMP to achieve the specific gravity of the electrolyte for a fully charged battery.

Float : In float stage, the charger keeps the charging voltage and current level at its trickle charging set point generally 13.7V for 12V battery ; if battery Selector Switch is there then 13.8V for Lead Acid battery per 12V battery with minimum charging current of 1.0 Amp.

Pulse (Reset) : To maintain the float level, the charger resets to zero current at 13.6V for some time and starts again with pulse charging for <1AMP current at the same voltage. This keeps the battery in full charge condition even when not in use.

Special Notice:

The H1 Inverter charger is for use with nominal battery supply voltage of 12V DC.

No AC or DC disconnects are provided as an integral part of this H1 Inverter . Both AC and DC disconnects must be provided as part of system installation.

No over current protection for the battery supply is provided as an integral part of this H1 Inverter.

Over current protection for the battery cables must be provided as part of the system installation.



No over current protection for the AC output wiring is provided as an integral part of this H1 Inverter . Over current protection for the AC output wiring must be provided as part of the system installation.

Grounding Instructions: This H1 Inverter must be connected to a grounded, permanent wiring system.

Note:-

KENT H1 Inverter charges the Lithium ion battery according to battery requirement. Refer Battery voltage related data in specifications sheet.

INSTALLING KENT H1 INVERTER

Step:1

Environment : H1 Inverter are sophisticated devices and must be treated accordingly. Keep the H1 Inverter in a non-condensing, well-ventilated environment, ensuring that there is no ingress of moisture of foreign material.

Location : H1 Inverter should be kept as close as possible to the battery in order to keep the battery cables short, however do not locate the H1 Inverter in the same compartment as non-sealed batteries. Batteries generated gases, which are very corrosive to electronic equipment and everything else.

Step:2

Before connection of battery wires, ensure battery voltage should be greater than 8V per battery minimum.

DC Cabling :

-En that the ON/OFF switch on the front panel is in the OFF Position before you begin the installation.

-Connect the positive terminal of the battery bank to the positive (Red) wire of the H1 Inverter, it is a advised to no to use any other extra cable for batteries other than those supplied by the Company.

-Connect the negative terminal of the battery bank to the negative (Black) wire of the H1 Inverter .

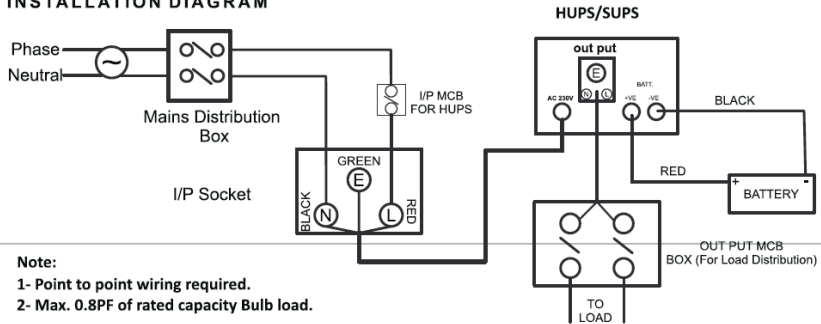


AC Cabling :

-Connect AC input supply to the Power cord of H1 Inverter such that the phase is connected to L (Red), neutral is connected to N (Black) and earth is connected to E (Green).

-Connect output load wires to the output socket/terminal of H1 Inverter, such that the phase is connected to L (Red), Neutral is connected to N (Black) and earth is connected to E (Green).

INSTALLATION DIAGRAM



AC and DC Wiring Separation :

-Do not mix AC and DC wiring in the same conduit. A separate conduit should be used for each, where DC wiring must cross AC and vice-versa. Make the wires at the crossing point 90 degrees to one another.

*It is recommended that wiring should be point to point otherwise warranty will be void.

WARM UP

-Secure all the wiring with ties or other non-conductive fasteners to prevent damage.

-Check to see that H1 Inverter, front switch in the OFF position.

-Switch ON DC MCB for battery (if any).

OPERATION : Once the AC and DC wiring have been installed and connected, take a moment to re-examine all the connections and make they are secured and in the proper terminals.

Check to see that the H1 Inverter is turned off, and then apply battery (DC) power to it. Ensure that all wiring has been installed properly. It is recommended that wiring should be point to point. Next turn on the battery bank DC, disconnects or connect the proper fuse in line to the battery to complete the battery circuit.

Put ON/OFF switch to the ON position. The H1 Inverter should run a load without AC input (battery only). Place a load on the H1 Inverter and make it works.

To charge your batteries connect AC power to the H1 Inverter by plugging in the AC power and turning on the Main line. This shows that charger is working properly. Any AC load powered by the H1 Inverter should also work at this point since a portion of the AC power is passed through the H1 Inverter to power the loads. The delay before connecting is provided within acceptable frequency and voltage limits.

Disconnect the AC power. The H1 Inverter should transfer to backup mode immediately. This will be indicated by a clicking sound as the internal transfer relay changes position. The H1 Inverter will begin to take power from batteries and use it.

To Power the load and the load continuous to operate uninterrupted. The above steps will complete a functional test of the H1 Inverter if all area pass, the H1 Inverter is ready for use, if anything fail, figure out why before proceeding.



TROUBLESHOOTING

SYMPTOMS	REMEDY / RECTIFICATION
Mains Power is coming. Still H1 Inverter shows Mains Fuse Blown/MCB Trip	Reduce / disconnect the load and replace the glass fuse or reset the AC MCB given at rear side of H1 Inverter
Back-up mode but no output condition	Check display if low battery power is present. remove all loads and switch the power switch ON/OFF.Allow the battery to charge when the mains is resumed, before running the H1 Inverter on battery again.Check display if overload/short circuit condition is present.Reduce load and switch the power switch ON/OFF.
H1 Inverter does not operate & no message on display	Check the battery and incoming grid supply connections.
H1 Inverter trips frequently at back-up mode	Reduce the load and reset the H1 Inverter
There is not output power	Low Battery — Check condition of batteries and recharge Loose or corroded battery connection — Check & Clean all Connections Loose AC output Connection — Check all AC output Connections
H1 Inverter shuts down after 20 seconds no display at all	Output of H1 Inverter is wired back to its own output — Check for proper AC input and output and output wiring
Low Surge Power	Weak batteries, batteries cable too long — Check whether extra cable add on battery wires, if yes then remove that
Unit Overheats	Unit is hot — Reduce Load and let the unit cool down





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*T&C Apply. This warranty is only applicable to the products sold in India.