

# **USER MANUAL**

## **TRUE SINEWAVE**

### **HOME UPS / INVERTER / SOLAR PCU**



## **PRONTO RENEWABLES ENERGY PVT. LTD.**



An ISO 9001 & ISO 14001 CERTIFIED COMPANY

## Dear Customer, Congratulations on Your Purchase!

Thank you for choosing our Inverter / Home UPS / Solar PCU. This user manual is designed to provide you with all the necessary information for safe and efficient operation of your device. Please read through this manual carefully before installing and using the Inverter / Home UPS / Solar PCU.



We wish you many years of reliable and efficient performance with your Inverter / Home UPS / Solar PCU.

### **Electrical Shock Hazard:**

Warning: To reduce the risk of electrical shock, always disconnect the AC power supply and solar panels before performing any maintenance or servicing on the Inverter / Home UPS / Solar PCU.

Caution: Never attempt to open the device's casing while it is connected to the power source. Doing so may expose you to dangerous electrical components.

### **Fire & Burn Hazard:**

Warning: Do not operate the Inverter / Home UPS / Solar PCU in areas with flammable gases or vapors. This could lead to fire or explosion.

Caution: Avoid placing any objects on top of the device, as they may obstruct ventilation and cause overheating.

### **Maintenance & Service Instructions:**

Regularly inspect the device for any signs of damage or wear. If you notice any issues, immediately disconnect the power supply and contact a qualified technician for assistance.

Keep the device clean and free from dust accumulation, as this can affect its performance and lifespan.

It is recommended to have the Inverter / Home UPS / Solar PCU serviced by authorized personnel at least once a year to ensure optimal operation.

Only use compatible batteries with the Inverter / Home UPS / Solar PCU. Using incompatible batteries may damage the device and void the warranty.

Do not expose the device to extreme temperatures or humidity levels, as this can affect its performance and lifespan.

Always use insulated tools when working with the device to prevent electrical shock.

### **HUPS Installation Instructions:**

**Place the Inverter / Home UPS / Solar PCU in a well-ventilated area away from direct sunlight and moisture.**

**Recommended to Install in a cool place less < 30 Deg C.**

Connect the solar panels to the designated input ports on the device, ensuring proper polarity.

Connect the AC power supply to the input port on the device.

Connect the output terminals of the device to the electrical appliances you wish to power.

Switch on the device using the power button and monitor its operation to ensure everything is functioning correctly.

### System Connections at the Back Panel:

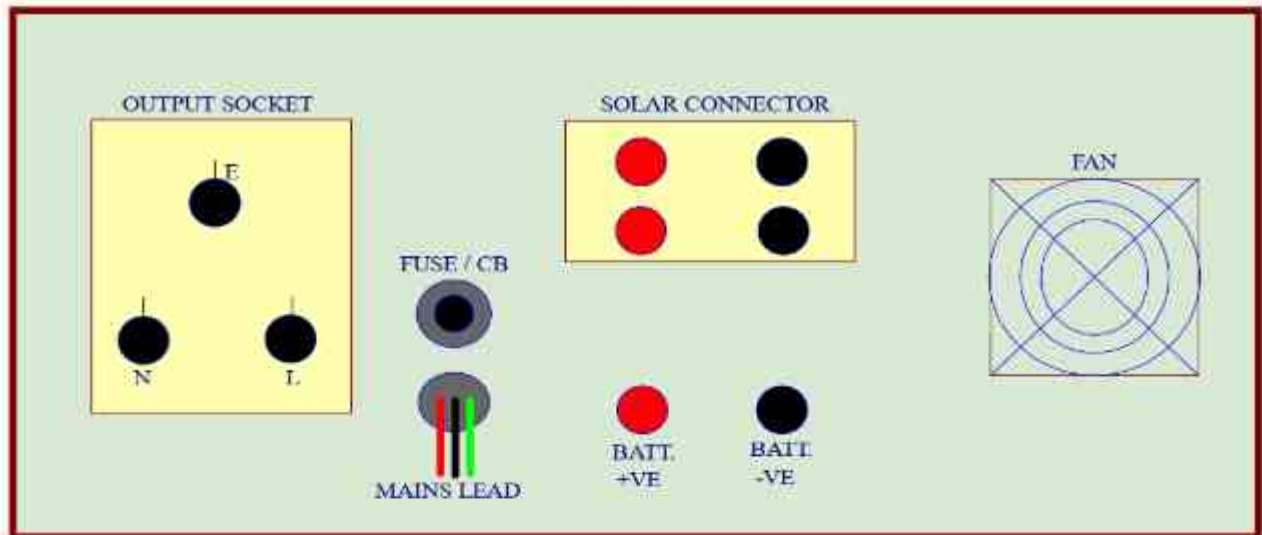
The system has following options for connecting your devices:

- 1) Output Socket : For connecting Load / Home Appliances
- 2) Solar Connector (For Solar Models): For connecting Solar Panels as Per Rating of the Device.
- 3) Battery Wires : Connect these to Battery Terminals with Bolt & Nut
- 4) Mains Lead: For Connecting to Mains Input
- 5) Fuse / CB : This is Used to Protect the Overload or Failure from Overload in Mains Mode
- 6) Fan : For Cooling the Internal Parts.

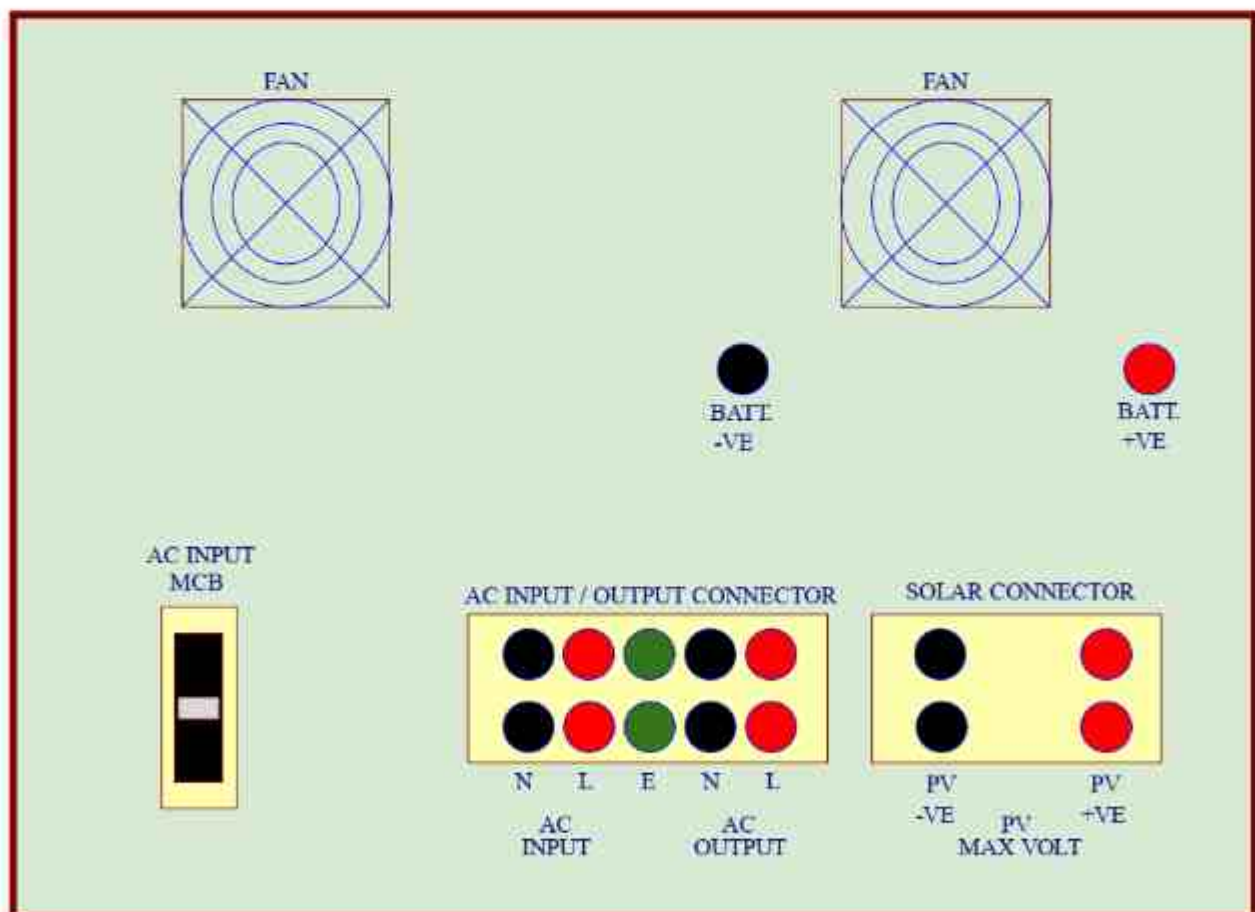


LITHIUM HUPS FRONT & SIDE PANEL

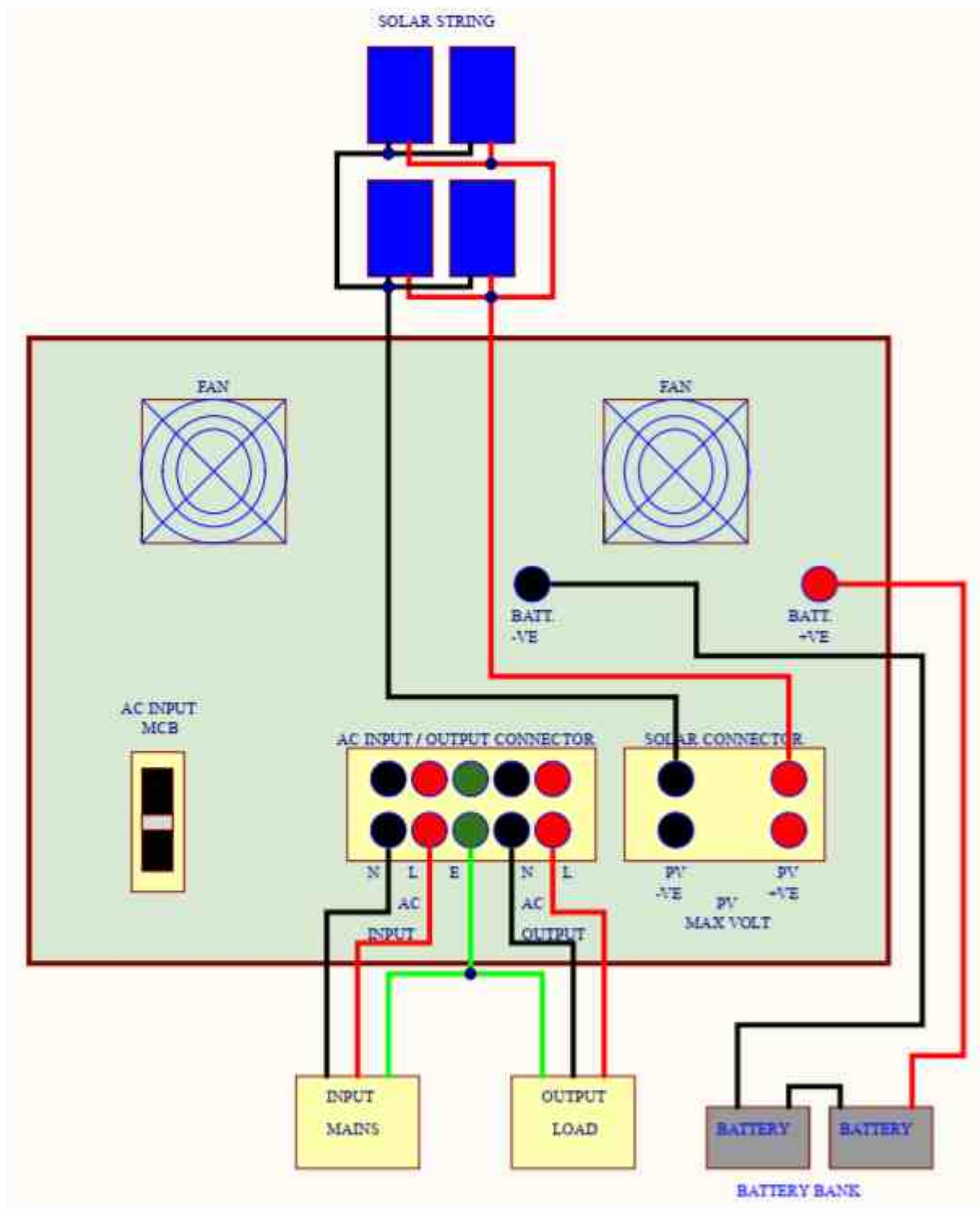




HUPS 12V BACK PANEL



HUPS 24V BACK PANEL

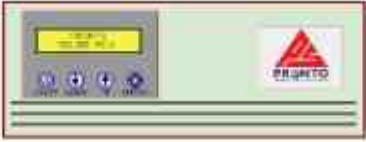
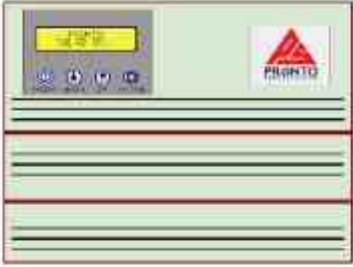


**HOME UPS/INV Wiring Diagram for 12V / 24V / 48V**

**NOTE:**

**Ensure that all the Connections are done as per Rating of the Device & Markings Given on the System Or it may void the Warranty. It should be done by Authorized personal only.**

### **Specifications:**

INVERTER SPECIFICATIONS							
PRODUCT PICS							
MODEL	PS-700	PS-900	PS-1100	PS-1600	PS-2100	PS-2500	PS-3000
Capacity in VA	700VA	900VA	1100VA	1600VA	2100VA	2500VA	3000VA
Battery Voltage	12V	12V	12V	24V	24V	24V	24V
BULB LOAD (WATT)	560	720	880	1240	1680	2000	2400
POWER FACTOR	0.8	0.8	0.8	0.8	0.8	0.8	0.8
DISCHARGING CURRENT (DC AMP)	45	60	70	56	68	85	100
SOLAR VOC RANGE	20V-50V	20V-50V	20V-50V	35V-50V	35V-50V	35V-50V	35V-50V
MAX SOLAR INPUT CURRENT	40A	40A	50A	50A	50A	50A	70A
RECOMMENDED SOLAR PANEL	100WP-200WP	100WP-200WP	100WP-200WP	250WP-400WP	250WP-400WP	250WP-400WP	250WP-400WP
SOLAR PANEL CONNECTION TYPE	ALL PANEL PARALLEL	ALL PANEL PARALLEL	ALL PANEL PARALLEL	ALL PANEL PARALLEL	ALL PANEL PARALLEL	ALL PANEL PARALLEL	ALL PANEL PARALLEL

### **PACKAGE INCLUDES**

1 x HOME UPS Unit

1 x User manual

### **Note:**

- We supply only the UPS / INV Unit thus, Wires are not the part of the system.
- Warranty is only applicable for Manufacturing Defects of the UPS/INV Unit only if any & there is no warranty on Mechanical Parts.

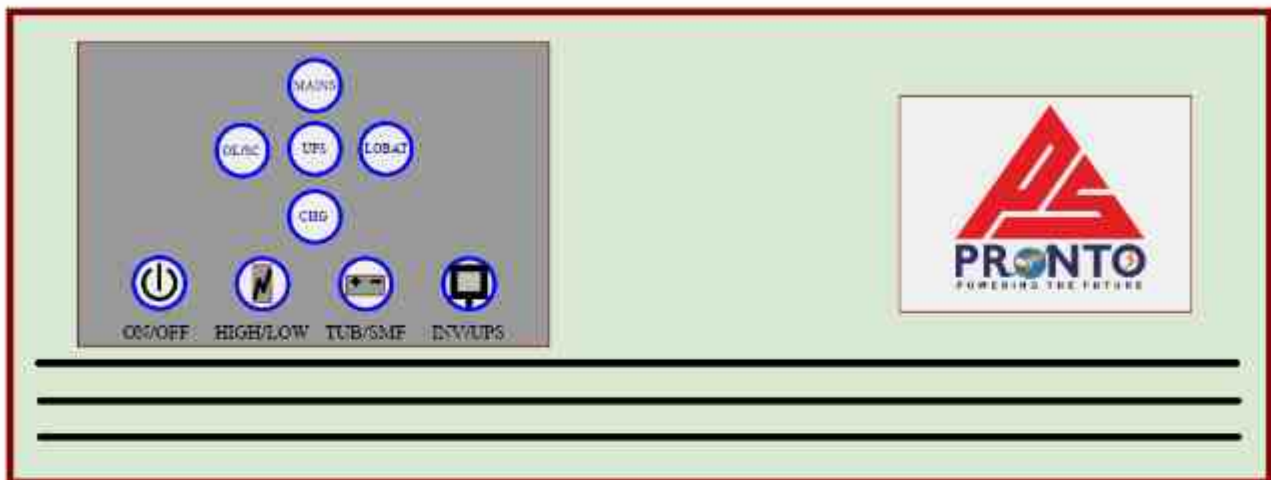


**Key Features:**

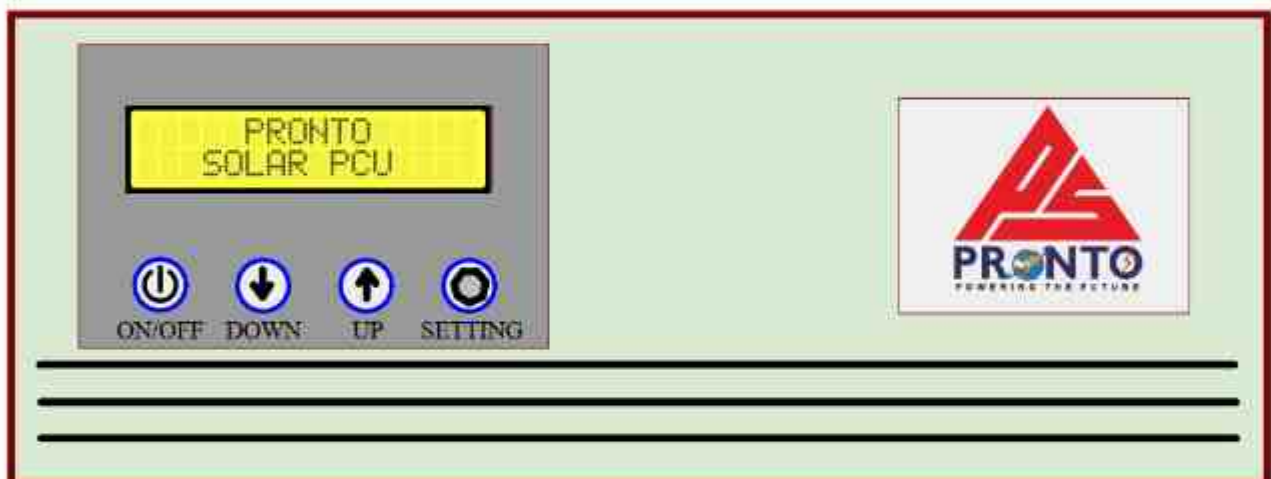
NO.	FEATURES	ADVANTAGE FOR CUSTOMER
1	BATTERY EQUALISATION MODE	CAN GET LONGER BACKUP & MAINTAIN BATTERY HEALTH
2	ZERO VOLT CHARGING PICKUP	GET TROUBLE FREE OPERATION
3	TAPERED CHARGING TECHNOLOGY	WILL DECREASE WATER TOP-UP FREQUENCY & LOW BATTERY MAINTENANCE (POWER COST SAVING AS WELL)
4	READY TO LITHIUM & FOR LITHIUM INVERTER TWO LEVEL BATTERY HIGH/LOW CUT SETTING	IN FUTURE CUSTOMER CAN SWITCH LITHIUM BATTERY, NO NEED TO BUY NEW LITHIUM SUPPORTED INVERTER
5	THREE LEVEL GRID CHARGING SETTING (8A,12A,16A)	WILL INCREASE BATTERY LIFE
6	POWER SAVING MODE / INVERTER COST RECOVER IN 3-4 YEAR ( OPTIONAL FEATURE)	CUSTOMER CAN RECOVER INVERTER COST IN 3-4 YEAR & REST OF LIFE WILL ENJOY THE POWER SAVING
7	30-40V STABILIZER FUNCTION (OPTIONAL/ADDITIONAL)	WILL BOOST TO GRID VOLTAGE by 30-40V, SUPPOSE GRID INPUT VOLTAGE IS 180, INVERTER WILL GIVE 220V & WORK AS a STABILIZER & SIMULTANEOUSLY WILL KEEPS MAINTAIN INVERTER FUNCTION ALSO.
8	IOT READY (WITH MODBUS COMMUNICATION FOR RMS)	CAN GET REMOTE MONITORING
9	UPS MODE	NO NEED TO KEEP EXTRA UPS FOR COMPUTER APPLICATION
10	GRID CHARGING DISABLE MODE CONFIGURABLE/USER SELECTABLE	IF BATTERY IS NOT DISCHARGE FROM LONG TIME, CUSTOMER CAN STOP BATTERY CHARGING THROUGH GRID CHARGING DISABLE FUNCTION. DURING THIS TIME LOAD WILL FEED BY GRID IN BYPASS MODE & IN ABSENCE OF GRID BATTERY WILL SUPPORT TO LOAD, ONCE BATTERY WILL BE EMPTY THEY CAN START GRID CHARGING. IN THIS PRACTICE BATTERY HEALTH WILL BE MAINTAIN & WILL GET GOOD BACKUP & BATTERY LIFE
11	BEEP SOUND IN UPS MODE CONFIGURABLE/USER SELECTABLE	INVERTER WILL PASS BEEP SOUND IN UPS MODE TO INDICATE LOAD IS SUPPORTED BY BATTERY SO THAT CUSTOMER CAN GET ALERT,IF HE IS WORKING ON COMPUTER.
12	ENABLED WITH AI (SMART POWER SAVING TECHNOLOGY) *OPTIONAL*	GREAT POWER SAVING WILL SAVE 10-12UNIT/MONTH , WILL SAVE RS.1200-1500/YEAR
13	WIDE INPUT VOLTAGE RANGE FROM 90V-285V	GOOD FOR RURAL CUSTOMER
14	TRUE PWM TECHNOLOGY FOR SOLAR INVERTER	ENABLED WITH SMART ENERGY SAVER FUNCTION
15	2X QUICK CHARGING ON SOLAR (20AMP & 25 AMP)	CAN GET FAST BATTERY CHARGING ON SOLAR SYSTEM
16	TRUE MPPT TECHNOLOGY	WILL GET MAXIMUM POWER FROM SOLAR PLANT, WILL INCREASE POWER SAVING.
17	FACTORY RESET FEATURE	TO AVOID ANY CONFUSION & FOR EASY UNDERSTANDING OF THE WORKING
18	LCD SCREEN HOLD FEATURE	CAN SEE REQUIRED WINDOW ALWAYS/ TIME SAVING



## Operating Manual



### LED MODEL'S FRONT PANEL



### LCD MODEL'S FRONT PANEL

#### Functional description to BUTTONS / SWITCHES / KEYS / LED / LCD on FRONT panel

1. ON/OFF SWITCH - To Switch on the Backup Mode.
2. HIGH/LOW SWITCH (**DOWN**) - To Select the Battery Charging current from Mains or to change the LCD Options.
3. TUB / SMF (**UP**) - To Select the Battery Type or to Change the LCD Options.
4. INV / UPS (**SETTINGS**) - To Select Backup Type / Mode & To Enter the LCD Menu.

### Initial Operation

- 1) Connect the INV/UPS to the Battery Terminals Using Nut & Bolts
- 2) LCD Will display its Welcome Screen & then will starts to scroll.
- 3) Following Home Auto Scrolling Screens Regularly rotates one by one in sequence.

Sr. No.	PARAMETERS LCD SCREEN	LCD SCREEN STATUS	Remarks
H1	PRONTO SOLAR PCU	PRONTO SOLAR PCU	WELCOME SCREEN
H2	BKUP SWIT:ON BKUP MODE:INV	BKUP SWIT:ON BKUP MODE:INV	BACKUP SWITCH STATE BACKUP MODE
H3	GRID STAT:OFF LOAD PERC:0%	GRID STAT:OFF LOAD PERC:0%	GRID STATUS LOAD PERCENTAGE
H4	BATT VOLT:29.0V BATT CRNT:2.7A	BATT VOLT:29.0V BATT CRNT:2.7A	BATTERY VOLTAGE BATTERY CHG. AMPERE
H5	GRID VOLT:0V GRID FREQ:0.0Hz	GRID VOLT:0V GRID FREQ:0.0Hz	GRID VOLTAGE GRID FREQUENCY
H6	OUTP VOLT:220V OUTP FREQ:50.0Hz	OUTP VOLT:220V OUTP FREQ:50.0Hz	OUTPUT VOLTAGE OUTPUT FREQUENCY
H7	GRID CHGF:EN BATT EQZN:OFF	GRID CHGF:EN BATTERY EQZN:OFF	GRID CHG. FUNCTION BATTERY EQUALISATION STATUS
H8	LOAD STAT:S+B	LOAD STAT:S+B	LOAD RUNNING STATUS
H9	BATT TYPE:TTB CHG TYPE:16A	BATT TYPE:TTB CHG TYPE:16A	BATTERY TYPE CHARGING TYPE
H10	SOL STATE:ON ESA LEVEL:25.0V	SOL STATE:ON ESA LEVEL:25.0V	SOLAR STATUS ENERGY SAVER LEVEL
H11	SOL OPAMP:8.1A	SOL IPVOLT:45.0V SOL OPAMP:8.1A	SOLAR INPUT VOLT SOLAR OUTPUT AMPERE
H12	SOL POWER:200W ESA STATE:OFF	SOL POWER:200W ESA STATE:OFF	SOLAR POWER INPUT ENERGY SAVER STATE

### Setting / Configuring the system:

- 1) Press Setting Switch.
- 2) System will ask for confirmation as below, then again has to press Setting Switch to Login to admin panel.

\*\*\*\*MENU\*\*\*\*  
PRESS ENT TO SET

- 3) Press UP / DN KEY to EDIT MENU Options & Press Setting Switch to Move forward One by one

Sr. No.	PARAMTERS LCD SCREEN	Description (Defaults)	Remarks
S1	****MENU**** BKUP MODE: INV	BKUP MODE: INV (BACKUP MODE)	Select Backup Mode UPS / INV
S2	****MENU**** BATT TYPE: TTB	BATT TYPE: TTB (BATTERY TYPE)	Select Battery Type TTB/FTB/SMF/LP3 LP1/LP2/LP3/LP4
S3	****MENU**** GRID CHGA: 16A	GRID CHGA: 16A (GRID CHARGING AMPERE)	Select Battery Charging Ampere from Mains 8A/12A/16A
S4	****MENU**** AUTO SCRL: EN	AUTO SCRL: EN (AUTO SCROLL)	Enable / Disable AUTO SCROLL LCD SCREENS
S5	****MENU**** ESA MODES: EN	ESA MODES: EN (ENERGY SAVER MODES)	Enable / Disable Energy Saver Mode
S6	****MENU**** ESA REC V: 25.0V	ESA REC V: 25.0V (ENERGY SAVER RECOVERY VOLTAGE)	Select Energy Saver Recovery Voltage 12.5V/12.0V/11.5V/11.0V.
S7	****MENU**** SOL CHG A: 20A	SOL CHG A: 20A (SOLAR CHARGING CURRENT)	Select Battery Charging Ampere from Solar 20A/25A
S8	****MENU**** SOL CHGF : EN	SOL CHGF : EN (SOLAR CHARGING FUNCTION)	Enable / Disable SOLAR CHARGING FUNCTION
S9	****MENU**** EXT MENU: DIS	EXT MENU: DIS (EXTENDED MENU)	Enable / Disable EXTENDED MENU

- 4) Complete the setup & Then Press Setting Switch to Go to Home Screens
- 5) There are Some Extended Menu Items Also which can be seen by Changing the EXT MENU : EN (Enable).



6) Extra Menu Options are as Follows:

Sr. No.	PARAMTERS LCD SCREEN	Description (Defaults)	Remarks
SE1	***MENU*** BATT EQZN:OFF	BATT EQZN:OFF (BATTERY EQUALIZATION)	ON /OFF BATTERY EQUALIZATION FEATURE
SE2	***MENU*** GRID CHGF:EN	GRID CHGF:EN (GRID CHARGING FUNCTION)	Enable / Disable GRID CHARGING FUNCTION
SE3	***MENU*** UPS BEEPS:DIS	UPS BEEPS:DIS (UPS MODE BEEPS)	Enable / Disable BUZZER BEEPS IN UPS MODE
SE4	***MENU*** SOL CHGF:DIS	SOL CHGF:DIS (SOLAR CHARGING FUNCTION)	Enable / Disable SOLAR CHARGING FUNCTION
SE5	***MENU*** SW:01.1/07C24	SW:01.1/07C24 (SOFTWARE VERSION)	SOFTWARE VERSION
SE6	***MENU*** HW:30BLT04410	HW:30BLT04410 (HARDWARE VERSION)	HARDWARE VERSION

## TROUBLESHOOTING

### (WARNINGS)

SN	WARNINGS LCD SCREEN	LED & BUZZER INDICATIONS	Remarks
W1	*** WARNING *** INV OVERLOAD	OL/SC LED BLINK BUZ BEEPS	Reduce Load
W2	*** WARNING *** LOW BATTERY	LB LED BLINK BUZ BEEPS	Give Time to Charge Battery
W3	*** WARNING *** OVER TEMPERATURE	ALL LED BLINK BUZ ON	FAN is Faulty Inverter Ventilation Issue
W4	*** WARNING *** PV REVERSE	PV LED ON BUZ ON	Solar Reverse Check PV Connection
W5	*** WARNING *** PV CRNT HI	PV LED FAST BLINK BUZ ON	PV Current High Reduce Solar Panel
W6	*** WARNING *** PV VOLT HI	PV LED BLINK BUZ ON	Solar Voltage High Check Solar Volt



**(TRIP ERROR LIST)**

Sr. No.	TRIP ERROR LCD SCREEN	LED & BUZZER INDICATIONS	Remarks
T1	***** TRIP ***** INV OVERLOAD	OL/SC LED ON BUZ ON 45 SEC.	REDUCE LOAD AND SWITCH ON THE INVERTER
T2	***** TRIP ***** LOW BATTERY	LB LED ON BUZ ON 45 SEC.	BATTERY NEEDS TIME TO CHARGE
T3	***** TRIP ***** BATT VOLT HIGH	LB LED ON BUZ ON 45 SEC.	BATTERY INPUT VOLTAGE HIGH WRONG BATTERY CONNECTED
T4	***** TRIP ***** SHORT CIRCUIT	OL/SC LED ON BUZ ON 45 SEC.	OUTPUT SHORT OR INV CARD FAULT
T5	***** TRIP ***** OP FB OPEN	INV LED BLINK BUZ ON 45 SEC.	CHECK THE FEEDBACK WIRE
T6	***** TRIP ***** MAINS MCB TRIP	MAINS LED ON BUZ ON 45 SEC.	OUTPUT OVERLOAD OR OUTPUT SHORT CHANGE THE FUSE
T7	***** TRIP ***** MAINS IN OP SKT	OL/SC LED ON BUZ ON 45 SEC.	MAINS INPUT & INV. OUTPUT SHORT CHECK THE WIRING
T8	***** TRIP ***** OVER TEMPERATURE	ALL LED ON BUZ ON 45 SEC.	CHECK TERMISTOR, FAN, VENTILATION
T9	***** TRIP ***** NTC OPEN	ALL LED ON BUZ ON 45 SEC.	CHECK NTC THERMISTOR
T10	***** TRIP ***** PV OVER VOLT	PV LED ON BUZ ON 45 SEC.	REDUCE PV VOLT *

**\* Options Available in Selected Models Only**

## **TERMS & CONDITIONS FOR PRODUCT WARRANTY:**

1. **Coverage:** This warranty covers defects in materials and workmanship of the Inverter / Home UPS / Solar PCU for a period of 24 Months from the date of purchase. The warranty is valid only for the original purchaser and is non-transferable.
2. **Exclusions:** This warranty does not cover damages or defects resulting from:
  - a) Misuse, abuse, negligence, or accidents.
  - b) Improper installation, operation, or maintenance.
  - c) Unauthorized modifications or repairs.
  - d) Use of incompatible accessories or components.
  - e) Acts of nature, including but not limited to lightning, floods, or earthquakes.
3. **Claim Procedure:** In the event of a warranty claim, the purchaser must provide proof of purchase (such as a sales receipt or invoice) and contact our customer support team. Our team will provide instructions on how to proceed with the warranty claim, which may include returning the product for inspection.
4. **Repair or Replacement:** If a defect covered by this warranty is found, we will, at our discretion, repair or replace the defective part or product. The repaired or replaced product will be covered under the remaining duration of the original warranty period.
5. **Limitation of Liability:** Our liability under this warranty is limited solely to the repair or replacement of defective parts or products. We shall not be liable for any incidental, consequential, or indirect damages arising from the use or inability to use the Inverter / Home UPS / Solar PCU.
6. **Voiding of Warranty:** This warranty shall be void if:
  - The product is used in a manner inconsistent with the instructions provided in the user manual.
  - The product is tampered with or repaired by unauthorized personnel.
  - The serial number or warranty seal is removed, altered, or defaced.
  - The product is damaged due to improper voltage, power surges, or electrical disturbances.
7. **No Other Warranties:** Except as expressly stated herein, we make no other warranties, either expressed or implied, including but not limited to warranties of merchantability or fitness for a particular purpose.
8. **Modification of Terms:** We reserve the right to modify or amend the terms and conditions of this warranty at any time without prior notice.

By using the Inverter / Home UPS / Solar PCU, the purchaser acknowledges that they have read, understood, and agreed to the terms and conditions of this warranty. If you have any questions or concerns regarding this warranty, please contact our customer support team for assistance.

## Certificate of Warranty



# WARRANTY

## *Certificate*

Customer Name: \_\_\_\_\_

Address: \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Purchase Date: \_\_\_\_\_ Invoice No. \_\_\_\_\_

Warranty Years / Months : \_\_\_\_\_

Dealer Name: \_\_\_\_\_ Contact No. \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_





# **OUR OTHER PRODUCTS**

- **Lithium Batteries for Inverter**
- **Lithium Batteries for EV / E-Rickshaws**
- **Lithium Energy Storage System (ESS)**
- **LEAD Acid / SMF Batteries**
- **Battery Less Inverter**
- **High-Frequency Inverter**
- **Gird-Tie / On-Grid Inverter**
- **Solar MPPT HOME PCU**
- **Solar MPPT INDUSTRIAL PCU**
- **Online UPS**
- **Solar Power Plants**
- **Solar Projects**
- **Solar Street Lights**
- **AC Street Lights**
- **Solar Pump Controller**
- **Solar Panels**
- **DB Box**
- **Solar Non-Solar Lighting Projects**

**For any Queries, Kindly contact**

Email : [info@pronto-solution.com](mailto:info@pronto-solution.com)  
[sales@pronto-solution.com](mailto:sales@pronto-solution.com)

Website: <https://www.prontorenewable.com/>

Manufactured By : PRONTO

Marketed By : PRONTO