

[Manuals.plus](#) /

› [Livguard](#) /

› Livguard LG900 Square Wave Inverter User Manual

Livguard LG900

Livguard LG900 Square Wave Inverter User Manual

Model: LG900

1. INTRODUCTION

The Livguard LG900 is an 800VA/12V Square Wave Inverter designed to provide reliable power backup for homes, offices, and small shops. This inverter features Smart Artificial Intelligence for efficient operation and supports a single 12V battery. It is engineered for various power conditions, ensuring an uninterrupted power supply for essential appliances.



Image 1.1: Front view of the Livguard LG900 Square Wave Inverter. This image shows the compact design of the inverter.

2. WHAT'S IN THE BOX

Upon unpacking your Livguard LG900 inverter, please ensure all the following components are present:

- Livguard LG900 Inverter Unit
- Installation Kit
- User Manual with Warranty Card

3. PRODUCT FEATURES

The Livguard LG900 inverter incorporates several features designed for performance and user convenience:

- **Square Wave Output:** Provides stable power for most household appliances.
- **800 VA / 12V Rating:** Supports a peak load of 690W.
- **Dual Mode Support (UPS and ECO):** UPS mode ensures safety for sensitive appliances like computers, while ECO mode

optimizes battery usage.

- **Battery Compatibility:** Compatible with 1 x (12V) C20 battery with capacity between 90 Ah - 260 Ah. Features a 4-mode selector switch for Flat Plate, Tubular, SMF, and Local battery types.
- **Dual Thermal Protect:** Provides surge protection for the PCB and Transformer, enhancing durability.
- **Low Maintenance:** Designed for minimal upkeep.



Image 3.1: Key features of the Livguard LG900 Inverter, highlighting its smart power solution, UPS/ECO mode, four-type battery selector switch, and benefits like enhanced battery and inverter life.

4. SETUP AND INSTALLATION

Proper installation is crucial for the safe and efficient operation of your inverter. It is recommended to have the installation performed by a qualified technician.

4.1. Placement

- Place the inverter in a well-ventilated area, away from direct sunlight, moisture, and flammable materials.

- Ensure sufficient clearance around the inverter for proper airflow.
- The inverter should be placed on a flat, stable surface.

4.2. Battery Connection

Connect the inverter to a compatible 12V battery (90 Ah - 260 Ah capacity). Ensure correct polarity.

- Connect the **red** cable from the inverter's **+VE** terminal to the **positive (+)** terminal of the battery.
- Connect the **black** cable from the inverter's **-VE** terminal to the **negative (-)** terminal of the battery.
- Tighten all connections securely to prevent loose contacts and sparking.

4.3. Mains Connection

- Plug the inverter's mains cord into a grounded wall socket.
- Connect your appliances to the output sockets on the rear of the inverter.



Image 4.1: Rear panel of the Livguard LG900 Inverter, showing the Mains Cord input, Battery Terminal +VE and -VE, Output Socket, Thermal Circuit Breaker, UPS/ECO Mode Selection, Charging Selection, and Fan. This image is crucial for understanding connection

5. OPERATING INSTRUCTIONS

5.1. Powering On/Off

- To power on the inverter, press the Power ON/OFF switch located on the front panel.
- To power off, press the Power ON/OFF switch again.

5.2. LED Indicators

The front panel features several LED indicators to display the inverter's status:

- **Mains ON:** Indicates that the inverter is receiving power from the utility grid.
- **Charging:** Indicates that the battery is currently being charged.
- **UPS ON:** Indicates the inverter is operating in UPS mode, providing power to connected appliances.
- **Inverter ON/Overload/Short Circuit:** Indicates the inverter is supplying power. Flashes or changes color to indicate overload or short circuit conditions.
- **Low Battery:** Indicates the battery charge level is low and requires charging.
- **Eco Mode:** Indicates the inverter is operating in ECO mode.
- **Power ON:** Indicates the inverter is powered on.

5.3. Mode Selection (UPS/ECO)

Use the UPS/ECO Mode Selection switch on the rear panel to choose the desired operating mode:

- **UPS Mode:** Provides a faster changeover time during power cuts, ideal for sensitive electronics like computers, ensuring they do not restart.
- **ECO Mode:** Offers a slightly slower changeover but is more energy-efficient, suitable for general household appliances.

5.4. Battery Type Selection

The inverter features a 4-mode selector switch for different battery types. Ensure this switch is set correctly according to your connected battery (Flat Plate, Tubular, SMF, or Local) for optimal charging and battery life.

5.5. Load Management

The LG900 supports a peak load of 690W. Refer to the table below for typical appliance loads and recommended usage:

Choose the Right Inverter

Inverter Model Name		LG700E	LG900	LG1100	LG1450i	LG1550i	LG1950i
Peak Load (in Watts)		525	690	780	924	1050	1386
Appliances	Power Rating (In VA)	600 VA, 12V	800 VA, 12V	900 VA, 12V	1100 VA, 12V	1250 VA, 12V	1650VA, 24V
 LED Bulb	10	1	3	3	4	4	5
 LED Tube Light	20	1	1	1	3	3	4
 Wifi Router	20	1	1	1	1		1
 LED TV	75	1	1	1	1		2
 Laptop	65	1	1	1	1		1
 Ceiling Fan	80	1	3	3	4	4	5
 Room Cooler	120	1	1	1	1	1	1
 Fridge	200			1	1	1	1
 Blender/Mixer Grinder	300					1	1
 Water Pump	800				*	*	*
Total Load		390	570	770	900	1040	1385

Note:

- Backup time depends on Battery Ah and condition
- Load of appliances depends on Inverter VA
- * Please check the power consumption of your appliances to choose the suitable Inverter.



Image 5.1: "Choose the Right Inverter" table, illustrating the peak load (in Watts) and appliance capacity for various Livguard inverter models, including the LG900. This helps users understand what appliances can be run.

Note: Backup time depends on battery Ah rating and condition. The load of appliances depends on the inverter's VA rating. Always check the power consumption of your appliances to ensure they are within the inverter's capacity.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Livguard LG900 inverter and battery.

- **Keep Clean:** Periodically clean the inverter's exterior with a dry cloth. Ensure ventilation openings are free from dust and obstructions.
- **Check Connections:** Regularly inspect battery terminals for corrosion. Clean them if necessary and ensure they are tightly secured.
- **Battery Water Level (for Tubular/Flat Plate batteries):** If using a non-SMF battery, check the electrolyte level periodically and top up with distilled water as required.
- **Avoid Overloading:** Do not connect appliances that exceed the inverter's rated capacity (690W peak load).
- **Ventilation:** Ensure the inverter is always in a well-ventilated area to prevent overheating.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your inverter. For problems not listed here, please contact customer support.

Problem	Possible Cause	Solution
Inverter not turning ON	No battery connection, low battery voltage, faulty power switch.	Check battery connections. Ensure battery is charged. Press power switch firmly.
No output power	Overload, short circuit, low battery, inverter in standby mode.	Reduce connected load. Check for short circuits in wiring. Charge battery. Ensure inverter is ON.
Low Battery indicator ON	Battery discharged.	Connect inverter to mains power to charge the battery.
Overload/Short Circuit indicator ON	Too many appliances connected, faulty appliance, short circuit in wiring.	Disconnect some appliances. Check appliances for faults. Inspect wiring for short circuits. Reset the Thermal Circuit Breaker if tripped.
Inverter making unusual noise	Loose connections, internal fault, fan obstruction.	Check all connections. Ensure fan is not obstructed. If noise persists, contact service.

8. SPECIFICATIONS

Detailed technical specifications for the Livguard LG900 Square Wave Inverter:

Specification	Detail
Model Name	LG900
Inverter Type	Square Wave
VA Rating	800 VA / 12V
Peak Load Capacity	690 Watts
Voltage	12 Volts
Frequency	50 Hz
Battery Compatibility	1 x (12V) C20 battery, 90 Ah - 260 Ah (Flat Plate, Tubular, SMF, Local)
Operating Modes	UPS and ECO Mode
Dimensions (L x W x H)	275mm x 242mm x 124mm
Weight	8.2 Kg (7700 Grams)
Color	Black
Manufacturer	Livguard Batteries Pvt. LTD.

9. WARRANTY INFORMATION

The Livguard LG900 Inverter comes with a comprehensive warranty to ensure peace of mind.

- **Warranty Period:** 3 years manufacturer warranty on the inverter unit.
- The warranty covers manufacturing defects and malfunctions under normal operating conditions.
- Please retain your purchase invoice and the warranty card provided in the box for warranty claims.



Long-term Coverage for **Peace of Mind**





To avail warranty, contact us on | **WhatsApp: +91 - 74281 91000 (automated service)**
Phone: 1800 102 5551

Image 9.1: Visual representation of the 3-year long warranty offered with Livguard inverters.

10. SUPPORT AND SERVICE

For any queries, technical assistance, or service requests, please contact Livguard customer support.

- **Free Installation Service:** Livguard offers 100% free doorstep installation service.
- **Service Network:** A pan-India service network covering over 16,000+ pin codes with a team of 750+ certified service engineers.
- **WhatsApp Support:** +91 - 74281 91000 (automated service)
- **Customer Care:** 1800 102 5551
- **Manufacturer Address:** Livguard Batteries Pvt. LTD., Plot No. - 221, Udyog Vihar Phase - 1, Gurugram - 122016, Haryana

Pan India service network in **16,000+ pin codes**

Livguard™
INVERTER & BATTERIES

- 100% free doorstep installation service
- Homegrown team of 750+ certified service engineers

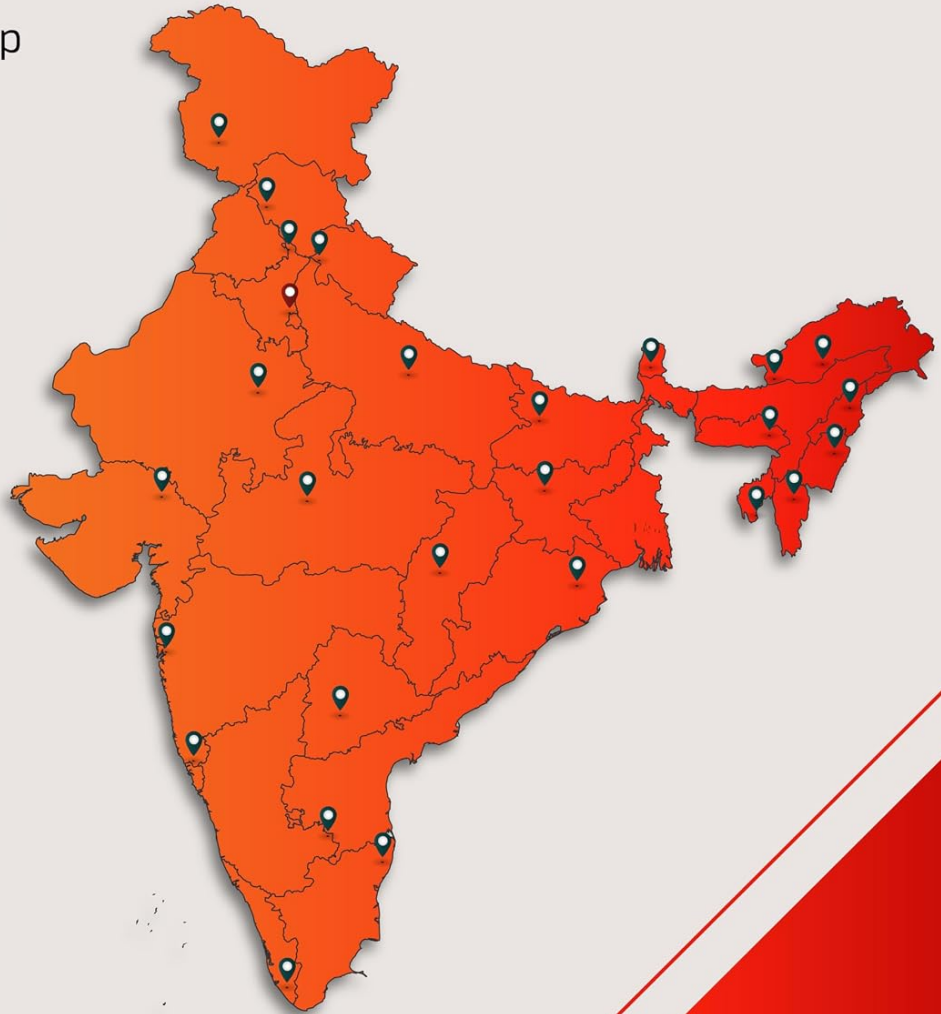


Image 10.1: Map illustrating Livguard's extensive pan-India service network, emphasizing their 100% free doorstep installation service and large team of certified engineers.