xenon GPSR WiFi Development Board Instruction Manual

Contents

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Specifications

- **Model**: XYZ-2000
- **Color**: Black
- **Material**: Stainless Steel
- **Power**: 1200W
- **Capacity**: 1.5 liters

Product Usage Instructions

1. **Initial Setup**
   Before using the product for the first time, make sure to wash all removable parts with warm soapy water and dry thoroughly.
2. **Filling the Kettle**
   Open the lid of the kettle and fill it with water up to the maximum capacity line indicated inside. Do not overfill.
3. **Powering On**
   Place the kettle on the power base, ensure it is properly connected, and then plug in the power cord. Press the power button to turn on the kettle.
4. **Boiling Water**
   Once the kettle is turned on, it will start heating the water. The kettle will automatically turn off when the water reaches boiling point.
5. **Pouring and Serving**
   When the water has boiled, carefully pour it out using the spout. Always hold the handle firmly while pouring to avoid spills.

Particle Industries endpoint and repeater development kit is designed for IoT projects and prototyping

- Particle’s Xenon is a powerful mesh-enabled development kit that can act as either an endpoint or repeater for Particle mesh networks. It is based on the Nordic **nRF52840** and has built-in battery-charging circuitry so it is easy to connect a Li-Po and deploy a local network in minutes. The Xenon should be paired with an argon or

boron gateway to connect data to the particle device cloud.

- **BLE** and **NFC** features are available on the Xenon development kit. With wiring APIs for both BLE and NFC, particle applications can be created that interact with mobile devices and integrate with off-the-shelf BLE sensors, peripherals, and other Particle BLE accessories. Plus, BLE and NFC complement one another and offer low-power, low-latency communication, getting critical data where it needs to be without wasting time or money.

The kit includes the Xenon development board, a mini breadboard, and a USB cable. Equipped with the Nordic nRF52840 processor, the Xenon has built-in battery charging circuitry which makes it easier to connect a Li-Po battery and 20 mixed-signal GPIOs to interface with sensors, actuators, and other electronics.

- Nordic Semiconductor nRF52840 SoC
  - ARM Cortex-M4F 32-bit processor @ 64MHz
  - 1MB flash, 256KB RAM
  - IEEE 802.15.4-2006: 250 Kbps
  - Bluetooth 5: 2 Mbps, 1 Mbps, 500 Kbps, 125 Kbps
  - Supports DSP instructions, HW accelerated Floating Point Unit (FPU) calculations
  - ARM TrustZone CryptoCell-310 Cryptographic and security module
  - Up to +8 dBm TX power (down to -20 dBm in 4 dB steps)
  - NFC-A tag
- On-board additional 2MB SPI flash
- 20 mixed signal GPIO (6 x Analog, 8 x PWM), UART, I2C, SPI
- Micro USB 2.0 full speed (12 Mbps)
- Integrated Li-Po charging and battery connector
- JTAG (SWD) Connector
- RGB status LED
- Reset and Mode buttons
- On-board PCB antenna
- U.FL connector for external antenna
- Meets the Feather specification in dimensions and pinout
- FCC, CE and IC certified
- RoHS compliant (lead-free)

All Particle hardware can be set up in minutes using Particle's mobile- and browser-based setup tools. Every device comes pre-installed with Device OS, Particle's powerful embedded operating system. Particle hardware is built to scale, enabling seamless transition from prototype to a global deployment with device cloud hosted infrastructure.

Features

- **No single point of failure**: build a local mesh network that is self-healing so if an individual device goes offline the network can reconfigure itself to the closest connection
- **Self-extending**: if more range is needed, add another node and the messages can hop through the mesh back to the gateway
- **Reliable networks**: interconnected devices can simultaneously transfer data smoothly and will not complicate

the network connection
- **Low-cost, low-power**: using wireless mesh networks eliminates the cost and complexity of installing fiber/wires between facilities

Applications

- Smart home
- Farming
- Smart cities
- Healthcare equipment
- Industrial internet

more: [store.particle.io]

SAFETY, INSTALLATION, AND USAGE INSTRUCTIONS

PURPOSE / APPLICATION
The electrical product you have purchased fully complies with the requirements of the European Union, has undergone the conformity assessment procedure, and is marked with the Ce marking. Depending on its design, it can be sately connected to the power grid (~230V 50Hz) or through an auxiliary device (power supply/converter) with appropriate parameters, or used without being connected to the power grid (products with batteries or photovoltaic panels).

SAFETY

- The installation and connection of the electrical product may only be carried out by a person authorized to work with electrical equipment.
- During installation, all applicable regulations and standards must be followed.
- Damages resulting from improper installation will not be considered as grounds for complaint, and we assume no responsibility for the consequences of such damages.
- The electrical product should be connected as shown in figures 1 to 7, depending on the type of product. Further instructions are provided in the diagrams included in the graphical installation guide.
- No alterations or modifications to the product are allowed. Do not attach anything to the product, and do not cover the product. The product is not a toy, and during operation, always ensure that children are not harmed by coming into contact with it. For the installation of the electrical product, use a certified connection terminal in compliance with EN 60998 standards. When used in humid environments or outdoors, products with a protection rating higher than IP20 must be applied.
- During installation, transportation, and other activities related to the electrical product, strong shocks, impacts, and any other mechanical blows should be avoided.
- Electrical products with an IP rating lower than IP68 should not be submerged in water or any other liquids.
- Contact between the electrical product and grease, solvents, penetrating substances, or any other materials that may permanently stain or damage the external coating of the fixture, or penetrate its interior, must be avoided.
- **Attention**! Before starting any installation work, the power supply must be disconnected by unscrewing or switching off the fuse.
- Technical specifications can be found on the product label and the labels indicating power information.

INSTALLATION INSTRUCTIONS PRODUCTS PERMANENTLY MOUNTED TO THE SURFACE

1. Disconnect the ~230V power supply by unscrewing or switching off the fuse.
2. Drill holes in the surtace and insert wall plugs or mount the hanger.
3. Hang or securely attach the product to the surface.
4. Connect the installation wires to the terminal block.
5. Screw in the light source or light sources.
6. Restore power to the electrical network.

PORTABLE PRODUCTS

1. Screw in the light source or light sources.
2. Connect the power cord to the power outlet.

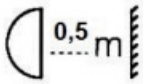
OPERATION / MAINTENANCE
Electrical products may only be cleaned after they have been turned off and cooled down. Ensure that no moisture enters the connection points of the product or the electrically conductive parts. We recommend using only a damp cloth tor cleaning. After cleaning, the products should remain unplugged until they are completely dry. Light sources, if included with the electrical product, are not subject to replacement under warranty claims, as they are provided as decorative and promotional elements. When replacing light sources, it is essential to ensure that the replacements are appropriate and have the same specifications. The maximum allowable wattage (W), rated voltage (V), and the light source socket must match exactly. Electrical products may only be used while maintaining a sufficient distance from illuminated objects, ensuring that they do not cause excessive heating of those objects.

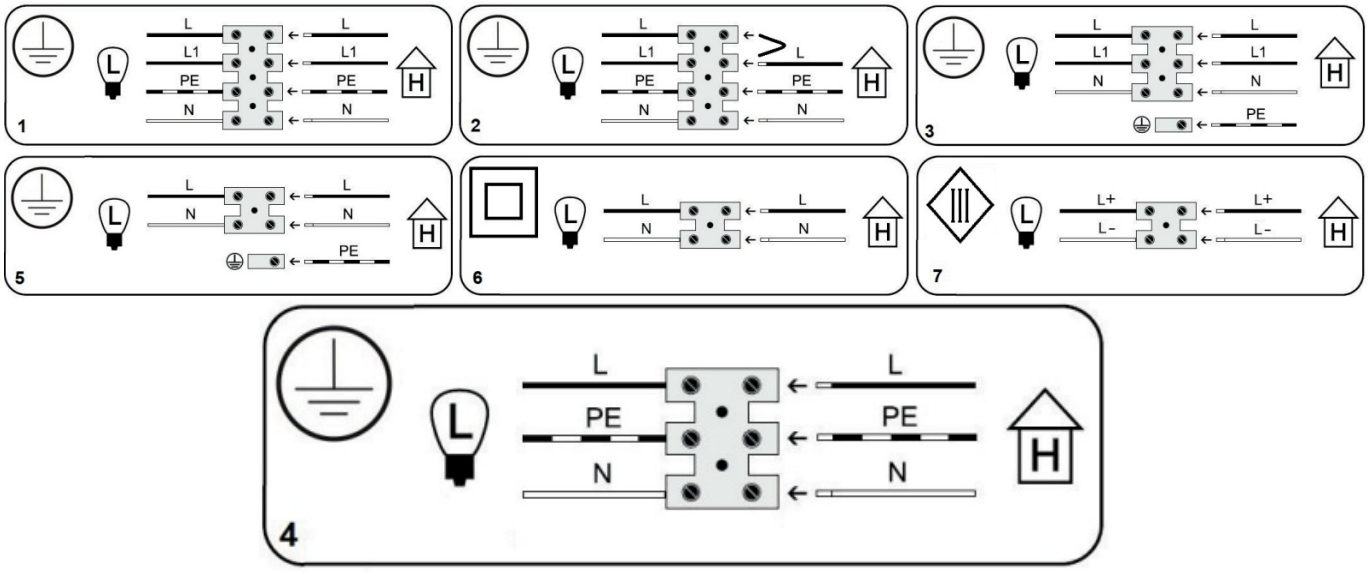
DISPOSAL OF ELECTRICAL DEVICES / ENVIRONMENTAL PROTECTION
The crossed-out wheeled bin symbol signifies selective collection and indicates that used electrical and electronic devices must not be disposed of together with unsorted municipal waste. These devices may contain hazardous substances necessary for their proper functioning and safety. Proper disposal of this product will help conserve valuable resources and prevent potentially harmful impacts on the environment and human health, which could occur due to improper waste handling, Information on selective waste collection points can be obtained from the retailer or the local municipality.

NOTES / GUIDELINES
The manufacturer (supplier) assumes no responsibility for injuries or damages that may result from improper use of the product.

SAFETY GUIDELINES FOR INSTALLATION AND USE OF LIGHTING FIXTURES

- **L** Power conductor (phase) black
- **L1** Power conductor (phase) brown
- **N** Neutral conductor (neutral) blue
- **PE** Protective conductor (yellow/green)
- **L**+ Power conductor – positive potential “+” – red
- **L-** Power conductor – negative potential “” – black
-  Protection class I: Fixture with a protective ground wire
-  Protection class II: Fixture without a protective ground wire

-  Protection class III: Fixture powered by safe low voltage
-  Minimum distance from illuminated objects
-  Symbol: Connection to the network from the installation side
-  Symbol: Connection to the network from the fixture side
-  Replace cracked glass protective cover
- **IPXX** Degree of protection against solid objects and water ingress
-  For indoor use
-  For outdoor use



FAQ

Q: Can I use the kettle for purposes other than boiling water?
A: No, this kettle is designed specifically for boiling water. Do not use it for any other liquids or purposes.

Q: How do I clean the exterior of the kettle?
A: Wipe the exterior of the kettle with a damp cloth. Do not immerse the kettle in water or use abrasive cleaners.

Documents / Resources

xenon GPSR WiFi Development Board [pdf] Instruction Manual
GPSR WiFi Development Board, GPSR, WiFi Development Board, Development Board, Board

References

- **User Manual**