briidea LD-167

briidea WiFi Solar Tank Level Monitor LD-167 User Manual

Model: LD-167

1. Introduction

The briidea WiFi Solar Tank Level Monitor LD-167 is designed for remote monitoring of liquid levels in various tanks. This system utilizes a solar-powered ultrasonic sensor and a WiFi repeater to provide real-time data and alerts via a dedicated mobile application. It is suitable for water tanks, oil tanks, sewage pits, and other liquid containers, offering convenience and peace of mind.

2. Product Overview

2.1 Key Features

- **Remote Monitoring:** 2.4G/5G WiFi sensor provides real-time and historical liquid level data via the GeniLife App.
- **Instant Alerts:** Receive immediate notifications from both the app and the repeater for critical level changes.
- **Long-Lasting Power:** Equipped with a 5V solar panel and 1500mAh lithium battery, ensuring up to 6 months of operation even in cloudy conditions.
- **Stable Signal:** New repeater design extends signal range up to 330ft for reliable outdoor-to-indoor connectivity.
- **Durable & Weatherproof:** All-in-one design with ABS housing and sealed base for enhanced protection against outdoor elements.
- **Wide Compatibility:** Non-contact ultrasonic sensor accurately monitors liquid levels from 1 to 13 ft in various tank types.

2.2 Components

The briidea WiFi Solar Tank Level Monitor system includes the following main components:

- **Solar-Powered Liquid Level Sensor:** The outdoor unit that measures liquid levels.
- **WiFi Repeater (Signal Booster):** The indoor unit that extends the WiFi signal and provides audible alerts.

Figure 2.2.1: Dimensions of the Solar-Powered Liquid Level Sensor and WiFi Repeater. The sensor measures 3.7 inches in height, and the repeater measures 3.4 inches by 2.5 inches. A drill hole size of 2 1/2 inches is required for sensor installation.

Figure 2.2.2: The briidea WiFi Solar Tank Level Monitor system in operation, showing the sensor on a tank and the mobile app interface for remote monitoring.

3. Setup Instructions

3.1 App Installation

The briidea WiFi Solar Tank Level Monitor operates with the GeniLife mobile application. Download the app from your device's app store (Google Play for Android or App Store for iOS).

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Video 3.1.1: This video demonstrates the process of downloading and setting up the GeniLife App, including granting necessary permissions and logging in or creating an account.

1. Scan the QR code provided in the product packaging or search for "GeniLife" in your mobile app store.
2. Download and install the GeniLife App.
3. Open the app and follow the on-screen prompts to create an account or log in.
4. Ensure Bluetooth, WiFi, and Cellular Data are enabled on your smartphone for optimal app functionality.
5. Grant necessary permissions to the GeniLife App, such as access to wireless data, Bluetooth, and local network devices, and allow notifications for alerts.

3.2 Physical Installation

Proper physical installation of the sensor and repeater is crucial for accurate readings and stable connectivity.

1. **Sensor Placement:**
    - Identify a suitable location on the top of your tank. The sensor requires a flat surface for mounting.
    - Drill a **2 1/2 inch (63.5 mm) diameter hole** at the chosen location on the tank. Ensure the hole is clean and free of debris.

- Insert the solar-powered liquid level sensor into the drilled hole and secure it firmly using the provided fittings. Ensure a watertight seal.
- Position the sensor so its solar panel receives adequate sunlight for charging.

2. **Repeater Placement:**
    - Place the WiFi repeater indoors, within 330 feet (100 meters) of the outdoor sensor.
    - Ensure the repeater is within range of your home's WiFi router for stable internet connectivity.
    - Avoid placing the repeater near large metal objects or other sources of interference that could obstruct the signal.

Figure 3.2.1: Illustration of the signal path and range between the outdoor sensor, indoor repeater, and WiFi router, highlighting the 330ft transmission distance.

Figure 3.2.2: Examples of compatible liquid containers, including rainwater collection tanks, garden underground tanks, and rooftop tanks, demonstrating the versatility of the sensor.

3.3 Device Pairing

After installing the app and physical components, pair the device with the GeniLife App.

1. Open the GeniLife App on your smartphone.
2. On the app's home screen, look for an option to "Add Device" or a "+" icon.
3. Follow the app's instructions to put the repeater into pairing mode. This typically involves holding a pairing button on the repeater until an indicator light flashes.
4. The app will search for nearby devices. Once your briidea monitor is discovered, select it and proceed with the pairing process.
5. Enter your WiFi network name and password when prompted. Ensure you are connecting to a 2.4G or 5G WiFi network.
6. Wait for the device to connect and confirm successful pairing within the app.

Figure 3.3.1: The WiFi repeater, indicating its various status lights and buttons for pairing and alarm reset.

4. Operating Instructions

Once the device is successfully paired, you can begin monitoring your tank levels and managing alerts through the GeniLife App.

1. **Real-Time Monitoring:** Open the GeniLife App to view the current liquid level in your tank. The app displays data in an easy-to-understand format, often with historical graphs.
2. **Setting Alerts:**
    - Navigate to the device settings within the app.
    - Set custom low and high-level thresholds for alerts.
    - Configure notification preferences (e.g., push notifications, sound alerts).
3. **Repeater Alerts:** The indoor repeater will emit an audible alarm when a predefined low or high liquid level is detected, providing an immediate local notification.
4. **Historical Data:** Review past liquid level data within the app to track consumption patterns or identify potential issues.

Figure 4.1.1: The GeniLife App displaying an instant alert notification for a synchronized alert, alongside the WiFi repeater.

5. Maintenance

The briidea WiFi Solar Tank Level Monitor is designed for low maintenance. Follow these guidelines to ensure optimal performance:

- **Solar Panel:** Periodically clean the solar panel on the sensor to ensure maximum sunlight absorption for efficient charging.
- **Battery Life:** The integrated 1500mAh lithium battery, combined with solar charging, provides stable operation for at least 6 months, even during extended cloudy periods. No user intervention is typically required for battery maintenance.
- **Weather Resistance:** The sensor's ABS housing and sealed base are designed to withstand rain, wind, and sun. Ensure the sensor remains securely mounted and the seal is intact.
- **Software Updates:** Keep the GeniLife App updated to the latest version to benefit from new features and performance improvements.

Figure 5.1.1: The solar panel ensures long-lasting power, providing stable battery life for up to 6 months, even in challenging weather conditions.

6. Troubleshooting

If you encounter issues with your briidea WiFi Solar Tank Level Monitor, refer to the following troubleshooting tips:

Problem	Possible Cause	Solution
Device not pairing with app	Bluetooth or WiFi disabled; incorrect WiFi password; device not in pairing mode; app permissions not granted.	Ensure Bluetooth and WiFi are enabled on your phone. Verify the WiFi password. Put the repeater into pairing mode as per instructions. Check app permissions in your phone settings.
Inaccurate liquid level readings	Sensor obstruction; incorrect installation; sensor not calibrated (if applicable).	Ensure there are no obstructions directly below the sensor inside the tank. Verify the sensor is installed correctly and securely. Consult the app for any calibration options.
Weak or unstable signal	Distance between sensor/repeater/router too great; physical obstructions; interference.	Reduce the distance between the sensor, repeater, and WiFi router. Reposition the repeater to minimize obstructions. Ensure no large metal objects are between units.

Problem	Possible Cause	Solution
Repeater alarm sounds unexpectedly	Incorrect alert thresholds set in app; temporary signal fluctuation.	Check and adjust the low/high-level alert thresholds in the GeniLife App. If it's a false alarm, press the "Water Alarm RESET" button on the repeater.
App not receiving notifications	App notification permissions disabled; app not running in background; phone's "Do Not Disturb" mode.	Check your phone's notification settings for the GeniLife App and ensure they are enabled. Disable "Do Not Disturb" or similar modes. Ensure the app is allowed to run in the background.

7. Specifications

Feature	Detail
Model Number	LD-167
Brand	briidea
Control Method	App
Mounting Type	Wall Mount (for repeater)
Sensor Technology	Ultrasonic Sensor
Liquid Level Range	1 to 13 ft
Power Source	Solar Powered (5V solar panel)
Battery	1500mAh Lithium Battery
Battery Life	Up to 6 months (even in continuous cloudy conditions)
Signal Range	Up to 330ft (between sensor and repeater)
WiFi Compatibility	2.4G/5G WiFi
Housing Material	ABS
Product Dimensions	Sensor: Approx. 3.7 inches height; Repeater: Approx. 3.4 x 2.5 inches
Item Weight	1.3 pounds
Smart Home Compatibility	Smart Home Compatible

8. Warranty and Support

For warranty information, technical support, or any inquiries regarding your briidea WiFi Solar Tank Level Monitor LD-167, please contact briidea customer service. Refer to the product packaging or the official briidea website for contact details.