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› Moray ME201WC Tuya Smart Life APP Ultrasonic Liquid Level Sensor User Manual

MORAYELEC ME201WC

MORAYELEC ME201WC Ultrasonic Liquid Level Sensor User Manual

Model: ME201WC

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the MORAYELEC ME201WC Ultrasonic Liquid Level Sensor. This device is designed for remote monitoring of liquid levels in various tanks, offering smart alerts and control capabilities via the Tuya Smart Life APP.



Image: Overview of the MORAYELEC ME201WC Tank Level Monitor highlighting key features like wide temperature range, remote detection, and IP65 rating.

SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating the ME201WC sensor. Failure to follow these instructions may result in damage to the device, property, or personal injury.

- Ensure the power adapter input voltage (100-240V AC) matches your local power supply.
- Do not expose the sensor to temperatures outside its operating range of -10°C to +70°C.
- The sensor is IP65 waterproof, but avoid submerging the entire unit unless specified for such use.
- Installation should be performed by individuals familiar with basic electrical safety practices.
- Keep the device away from strong electromagnetic interference sources.
- Do not attempt to disassemble or repair the sensor yourself. Contact support for assistance.

PRODUCT OVERVIEW AND COMPONENTS

The ME201WC system includes the ultrasonic liquid level sensor, a power adapter, and a controller. It integrates with the Tuya Smart Life APP for remote monitoring and control.



Image: Main components of the ME201WC system, including the ultrasonic sensor, power adapter, and a representation of the mobile application interface.

Key Features:

- **Long Measuring Distance:** 10cm to 4m (4 to 157 inches) from the sensor.
- **Remote Monitoring:** Check tank levels via smartphone anytime, anywhere.
- **Smart Alerts:** Receive notifications for full or low liquid levels, configurable via the app.
- **Multi-Tank Monitoring:** One app can monitor up to 10 sensors.
- **IP65 Waterproof:** Ensures durability in various environmental conditions.
- **Easy Installation:** Designed for simple setup on top of the tank.

Product Description



Image: Diagram illustrating the system setup with the sensor, pump controller, and mobile app, alongside a display of the product's included components.

Other

OUR

VS



Old style click button

Unable to detect water level
Unable to remotely control



Large size and capacity

Easy to rust, difficult to install,
large volume and weight



Sensor internal settings

Very inconvenient



SMART LIFE APP

WIFI ultrasonic communication
Mobile remote monitoring



ULTRASONIC

Lightweight, durable, and easy
to install



TOUCH BUTTON

Easy to operate

Image: Comparison highlighting the advantages of the ME201WC, such as Smart Life APP integration, ultrasonic technology, and touch button operation, over older systems.

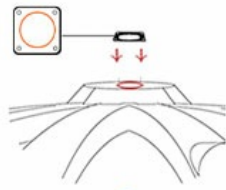
SETUP GUIDE

1. Physical Installation

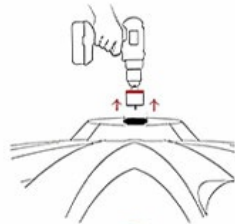
The sensor is designed to be installed on top of the tank. Ensure there are no obstacles within the sensor's beam angle to prevent inaccurate readings.

1. Identify a suitable location on the top of your tank for mounting the sensor. This location should allow the sensor to be perpendicular to the liquid surface.
2. Drill a hole of appropriate size for the sensor's mounting nut.
3. Secure the sensor using the provided nut, ensuring a tight seal to maintain IP65 rating.
4. Connect the sensor to the controller and the power adapter.

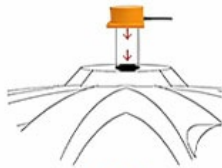
Installation Method



1



2



3



4

Operating Mode



Hold the sensor perpendicular to the liquid



Install the sensor away from the water inlet to avoid pseudo-echo



The sensor installation cannot be close to the bulkhead, otherwise it will cause a strong pseudo-echo

Image: Step-by-step diagrams illustrating the correct and incorrect methods for installing the sensor, emphasizing perpendicular alignment and avoiding obstacles or water inlets.

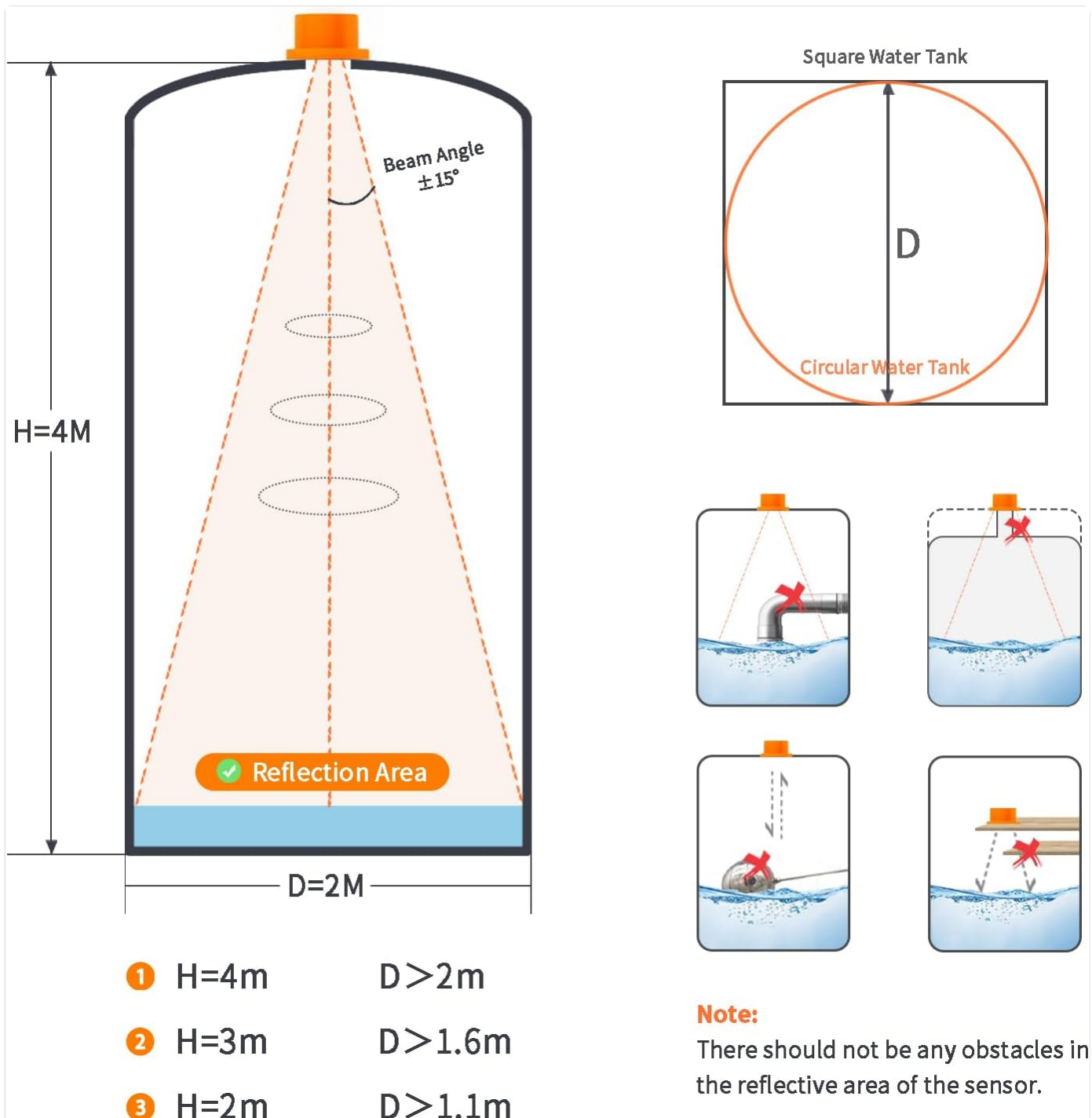


Image: Diagram showing the ultrasonic sensor's beam angle ($\pm 15^\circ$) and recommended tank dimensions (H and D) to ensure accurate reflection and avoid obstacles within the measurement area.

2. App Setup and Connection (Tuya Smart Life APP)

The sensor requires a 2.4G Wi-Fi signal to connect to your router. The Wi-Fi range is approximately 30m without obstacles.

1. Download the "Tuya Smart" or "Smart Life" app from your mobile device's app store (iOS App Store or Google Play Store).
2. Register or log in to your account.
3. Add the device by following the in-app instructions. Typically, this involves selecting "Add Device" or the "+" icon, then choosing the appropriate sensor category (e.g., "Sensor" or "Water Detector").
4. Ensure your phone is connected to a 2.4GHz Wi-Fi network.
5. Follow the app's prompts to put the sensor into pairing mode (refer to the sensor's specific pairing button/indicator if available).

6. Enter your Wi-Fi network password when prompted.
7. Once connected, the sensor will appear in your app, and you can begin monitoring.

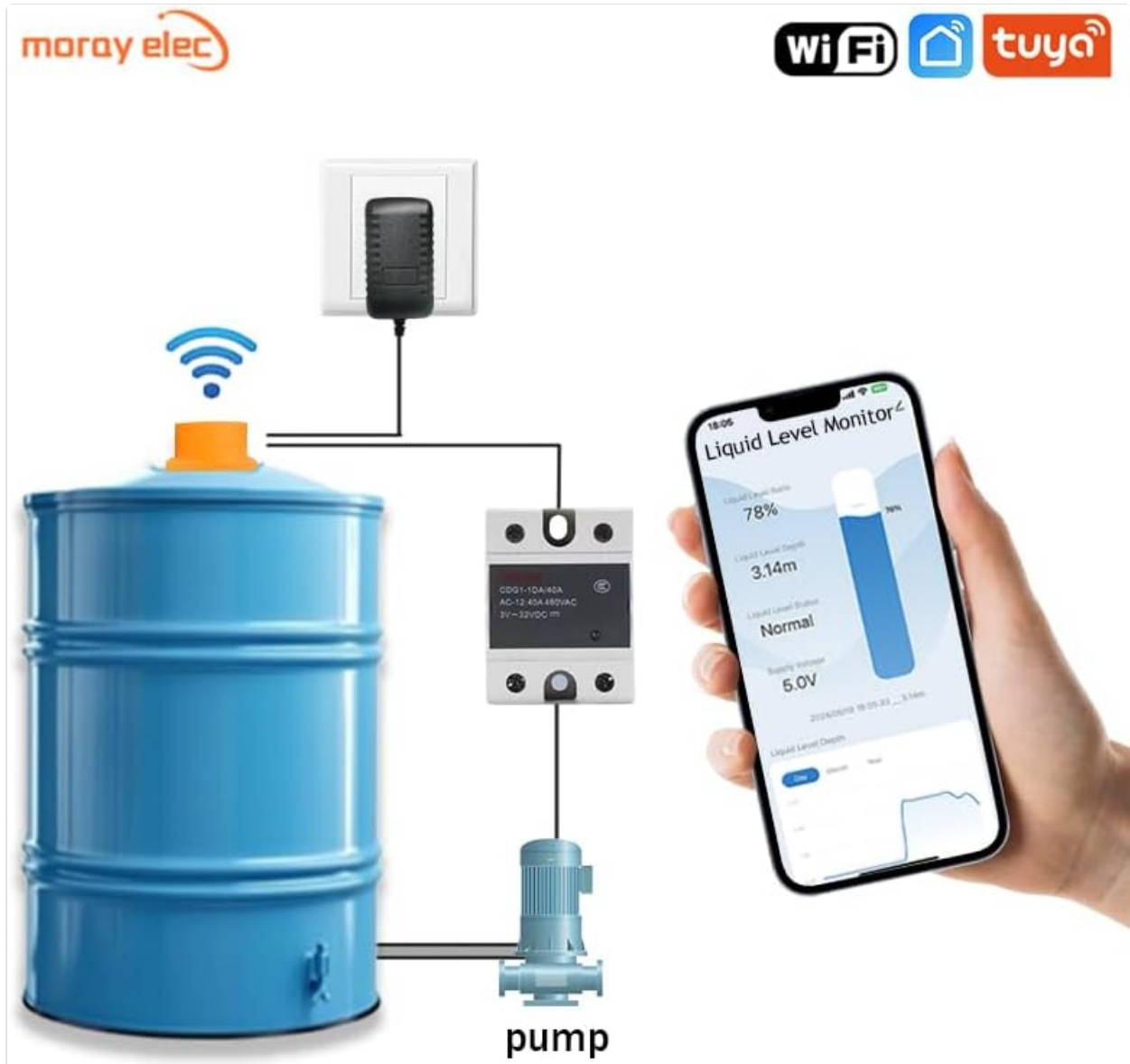


Image: Diagram illustrating the complete system setup, including the sensor on a tank, its connection to a pump controller, and remote monitoring via a smartphone app.

OPERATING INSTRUCTIONS

1. Monitoring Liquid Levels

Once connected, open the Tuya Smart Life APP to view the current liquid level ratio, depth, and status. The app provides real-time data and historical trends.

Sensor Status Interface

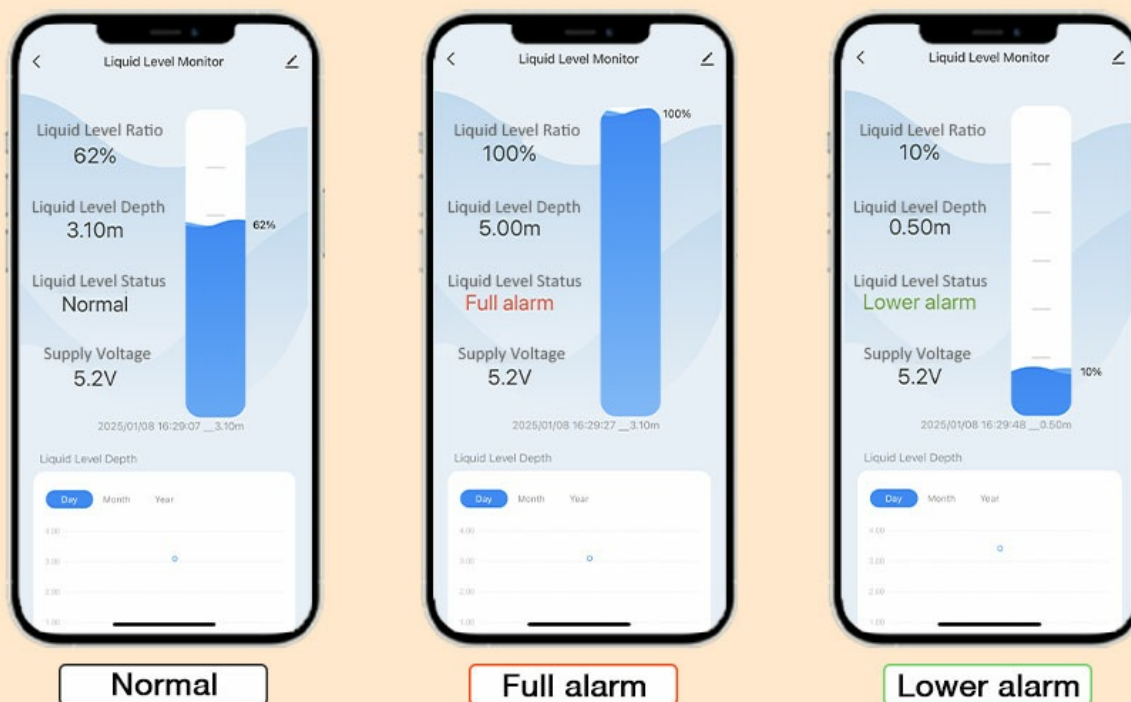


Image: Screenshots of the mobile application interface displaying different sensor statuses: Normal, Full alarm, and Lower alarm, with corresponding liquid level ratios and depths.

2. Setting Alerts

The app allows you to customize alert thresholds for full and low liquid levels. You will receive message alerts on your smartphone when these thresholds are met.

- Navigate to the sensor's settings within the app.
- Locate the "Alarm Level" or "Notification Settings" option.
- Set your desired percentage or depth for both high and low level alerts.
- Save the settings.

3. Multi-Tank Monitoring

The Tuya Smart Life APP supports monitoring multiple ME201WC sensors. You can add up to 10 sensors to a single app account, allowing centralized management of various tanks.

- Repeat the "App Setup and Connection" steps for each additional sensor.
- Each sensor will appear as a separate device in your app's device list.
- You can rename each sensor in the app settings for easy identification (e.g., "Main Water Tank", "Rainwater Barrel").

MAINTENANCE

The MORAYELEC ME201WC sensor is designed for low maintenance. Follow these guidelines to ensure optimal performance:

- **Cleaning:** Periodically inspect the sensor's surface for dirt, dust, or debris. Clean with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Obstruction Check:** Regularly check the area directly below the sensor inside the tank for any new obstructions (e.g., floating debris, sediment buildup) that could interfere with the ultrasonic beam.

- **Firmware Updates:** Check the Tuya Smart Life APP periodically for any available firmware updates for the sensor. Install updates as recommended to ensure the latest features and bug fixes.
- **Power Supply:** Ensure the power adapter is securely connected and free from damage.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Sensor not connecting to Wi-Fi.	Incorrect Wi-Fi password; Sensor too far from router; Router is 5GHz only; Weak Wi-Fi signal.	Verify Wi-Fi password; Move sensor closer to router; Ensure router supports 2.4GHz and connect to it; Check Wi-Fi signal strength.
Inaccurate liquid level readings.	Obstruction in sensor's beam path; Sensor not perpendicular to liquid; Sensor too close to tank wall/inlet.	Remove obstructions; Re-position sensor to be perpendicular; Adjust sensor placement away from walls/inlets. Refer to installation diagrams.
No alerts received.	Alert thresholds not set; App notifications disabled; Sensor offline.	Configure alert levels in the app; Enable notifications for the Tuya Smart Life app on your phone; Check sensor's Wi-Fi connection.
Sensor offline in app.	Power outage; Wi-Fi disconnected; Sensor malfunction.	Check power supply to sensor; Verify router is working and Wi-Fi is active; Re-pair sensor if necessary; Contact support if issue persists.

SPECIFICATIONS

Feature	Detail
Model Number	ME201WC
Measuring Distance	10cm to 4m (4 to 157 inches)
Power Input	100-240V AC (via adapter)
Power Output	5V DC
Wi-Fi Frequency	2.4GHz
Wi-Fi Range	Up to 30m (without obstacles)
Waterproof Rating	IP65
Operating Temperature	-10°C to +70°C
Control Method	App, Remote
Sensor Technology	Ultrasonic Sensor
Item Weight	14.4 ounces
Product Dimensions	7.48 x 7.48 x 2.76 inches

WARRANTY AND SUPPORT

MORAYELEC provides a 1-year warranty for the ME201WC Ultrasonic Liquid Level Sensor, ensuring long-term service and reliability.

For technical support, troubleshooting assistance, or warranty claims, please contact MORAYELEC customer service through the contact information provided with your purchase or visit the official MORAYELEC website.

Please have your model number (ME201WC) and purchase details ready when contacting support.