

PARADOX

WD2M

Water Detector



INSTALLATION MANUAL

FW Version: V1.01.020

Introduction

The Paradox WD2M is a compact and highly effective water detector designed to detect the presence of water in areas prone to leaks or flooding. It is equipped with 10 gold-plated sensing contacts that detect water all around the device. It communicates with the Paradox systems using M two-way wireless communication, and is IP67 certified.

The battery life exceeds 10 years under normal operation (based on a few water detections per year). Water detection is indicated on the WD2M by a flashing blue LED and an audible beep.

The WD2M features magnetic bracket mounting and supports magnet-based activation and pairing.

The WD2M is configured as a 24-hour Water Zone in the system, continuously monitoring for water presence and triggering a Water Alert, either audible or silent, with notifications and reporting to the central station. When paired with a WV2M Paradox water valve, the system automatically closes the water supply. The valve remains closed until the user inspects the situation and manually reopens the WV2M using the BlueEye application or a K70M keypad. If water detection is still active, the system alerts the user before allowing the valve to be reopened.

Its compact design allows for easy installation in areas prone to leaks, such as under sinks, near water heaters, sump pumps, or in basements.

Quick Installation- Experienced Installers

To install WD2M:

1. Detach the bracket from the back of the WD2M and mount it on a flat surface.
2. Activate the WD2M:
 - Bring the top of the WD2M (marked with a line) closer to the **Bracket Magnet** and move it away three times within eight seconds. For details, see the [Activation and Mounting of WD2M](#) section.
3. Pair the WD2M (using the BlueEye application):
 - In the BlueEye app, go to **Hardware > Add Devices > Wireless Devices Auto learn/Scan QR code or add devices manually** (by entering the serial number).
NOTE: *If the device is paired by scanning the QR code or entering the serial number before power-up, it appears as **Pending** in the BlueEye application. The device status in BlueEye changes to **Online** after power-up.*
4. Configure WD2M (using the BlueEye application):
 - Go to: **Hardware > WD2M** > enter the necessary details > **Save**.
5. Attach the WD2M back onto the mounted **Bracket Magnet**.

NOTE: *The device beeps once per second for up to 5 minutes when water is detected.*

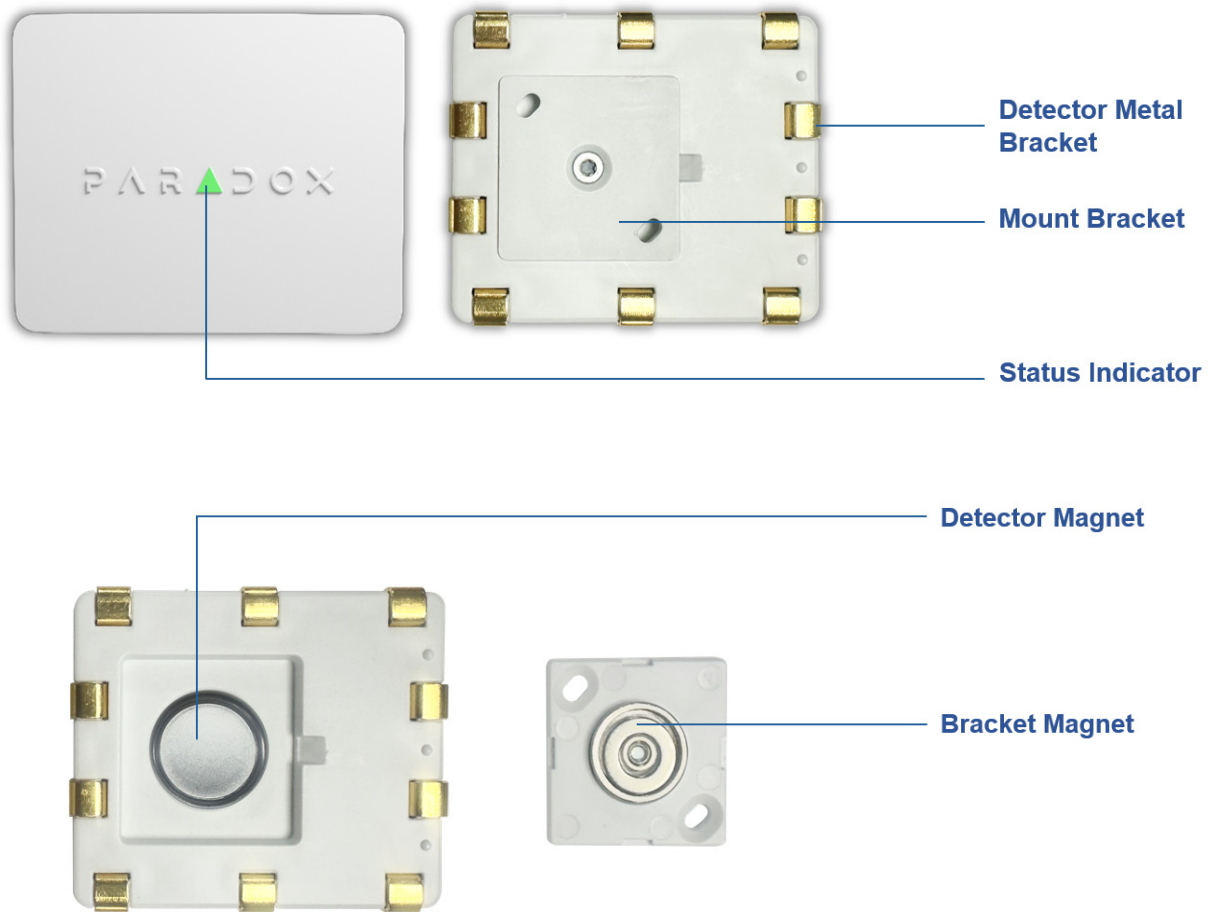
Built-in status indications of WD2M:

- Continuous Blue Flashing (up to 5 minutes) - Water detected and connected to the console.
- Continuous Red Flashing (up to 5 minutes) - Water detected and not connected to the console or unpaired.

- Greenish Yellow Flashing (about 1 minute) - Not synchronized with the console/lost communication with the console (after power-up or magnet activation).

Components of WD2M

The following figure displays the components of WD2M.



Components of WD2M

Activation and Mounting of WD2M

The WD2M should be installed on a flat surface in areas prone to flooding, leaks, and water infiltration. Ensure that the **Detector Metal Brackets** make contact with the monitored surface. When water touches any of the metal brackets, an alarm is sent to the panel. The WD2M will continue to transmit the alarm until the panel acknowledges it.

To mount the WD2M water detector:

1. Detach the mounting bracket from the device and secure it to a flat surface using screws.
2. Bring the top of the WD2M (marked with a line) closer to the **Bracket Magnet** and move it away three times within eight seconds to activate the device. See **Fig A**.
NOTE: The **Status Indicator** flashes red each time the detector is moved away. After 3 times, the WD2M turns ON and the LED flashes red 5 times.
3. Pair the detector with the console and configure it using the BlueEye application. See the [Pairing WD2M with the Wireless M Console](#) and [Configuring the WD2M](#) sections in this manual.



Fig A: Activation

4. Align the detector with the mounted **Bracket Magnet**, then secure the WD2M onto the bracket.

Power-up Sequence

During the power-up sequence, the LED will flash five times red if the device is not paired to the console or five times green if paired to the console. The WD2M waits between 0 -10 seconds before connecting/pairing with the console.

Pairing WD2M with the Wireless M Console

The pairing and configuration settings of WD2M are managed through the BlueEye application.

Prerequisites

Ensure that:

1. The WD2M is within the range of the console.
2. The BlueEye application is installed on your mobile and connected to the site.
3. The M console is powered on (Paradox logo color - white, red, or green).

Pairing WD2M

To pair the WD2M with the wireless console, by an installer:

1. When in the **Hardware** tab, tap **Add Devices**, and then tap **Wireless Devices Auto learn**. The wireless console searches for new devices and a rotating radar icon is displayed. All unpaired devices pair within 6 minutes and appear at the top of the device list with a **new** tag and voice announcements.

Instant pairing:

After tapping **Wireless Devices Auto learn**, bring the device close to the bracket magnet and move it away to pair the device instantly.

NOTE: When pairing is successful, the LED flashes green five times (within up to 10 seconds) to confirm pairing with the console.

Pairing Previously Used Devices

You can pair used devices under the following conditions:

- **When the previously used device is not online with another wireless console:** Start Auto learn. Bring the top of the device (marked with a line) close to the bracket magnet and move it away to pair instantly.
- **When the previously used device is online with another wireless console:** Delete the device, reset it, and then initiate Auto learn. To reset the device, see the [Resetting](#) section in this manual.

Pairing After Deleting the Device from the BlueEye Application

After deleting the device from the BlueEye application, do one of the following to pair it again:

- Reset the device and then pair it using Instant Pairing or Auto learn.
- Wait for up to 10 minutes, and then pair it using Instant Pairing or Auto learn.

Configuring the WD2M

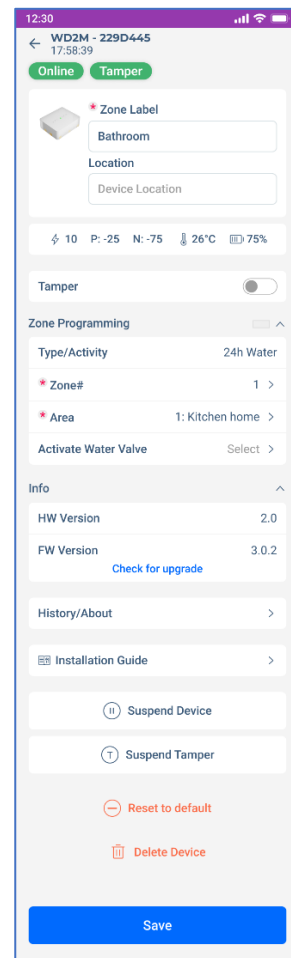
To configure the WD2M settings:

1. When in the **Hardware**, tap the **WD2M** device.
2. On the page that opens, enter the necessary details for the parameters and then tap **Save**.
For details about each parameter displayed on the page, see [Table 1](#).

The following table lists the parameters displayed for configuring the WD2M, along with their descriptions.

Table 1

Parameter		Description
Label		Enter a name for the zone.
Zone Programming	Zone# and Area	Assign a zone and area number.
	Zone Type	The Zone Type is defined as 24h Water – The 24-hour zone generates a water alarm that remains active until the zone is closed.
	Activate Water Valve	This option lets you select the water valve that will control the water flow.
About		This tab displays details such as the installation date, production date, last programming date, battery replacements, battery history, and upgrade history.
Suspend Device		Disables monitoring of the device in the system.
Suspend Tamper		Disables tamper monitoring for the device.
Reset to Default		This will reset the device to the factory default settings. NOTE: Only an installer can reset the device.
Delete Device		This option deletes the device from the system completely. After deletion, the system generates a push notification only if the owner registration is complete, not during installation. NOTE: Only an installer can delete the device.



LED Indications

After configuring WD2M, the detector displays various LED indications based on specific events. The following table lists the LED indications and their corresponding event.

Table 2

LED Indication	Event
Continuous Blue Flashing (up to 5 minutes)	Water detected and connected to the console.
Continuous Red Flashing (up to 5 minutes)	Water detected and not connected to the console or unpaired.
Greenish Yellow Flashing (about 1 minute)	Not synchronized with the console/lost communication with the console (after power-up or magnet activation).

Resetting

Bring the top of the WD2M (marked with a line) close to the **Bracket Magnet** and hold it there for 8 seconds, then move it away. The LED flashes red five times. Bring the top of the WD2M (marked with a line) close to the **Bracket Magnet** again within these five flashes, and then move it away to reset the device to its default settings. The red LED flashes rapidly three times to confirm the reset.

NOTE: If the device is already paired and online, delete the device first, then perform the reset on the device, and pair it again. Otherwise, the reset will have no effect.

Upgrading Firmware

To upgrade the firmware:

1. When in the **Hardware** tab, tap on the device from the list > **Check for Upgrade**.
2. If an upgrade is available, tap **Upgrade** when prompted.

The process may take a few minutes. Keep track of the progress in the BlueEye application to ensure that the upgrade is completed successfully. Both the Installers and owners can perform the upgrade.

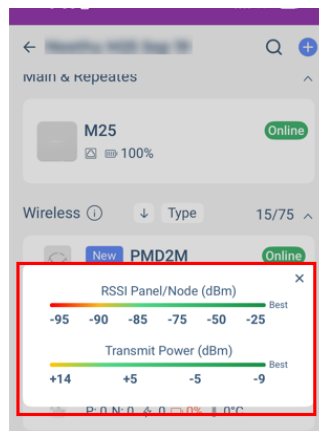
IMPORTANT: The firmware upgrade can be done only when the system is disarmed.

Signal Strength and Transmit Power Monitoring

The BlueEye application provides insights into each device's received signal strength and transmission power to optimize performance.

To view the RSSI and transmit power range:

1. When in the **Hardware tab**, tap the ⓘ icon next to the **Wireless** tab.
A pop-up window with the RSSI and transmit power range is displayed.
2. Maximum power transmitted by WD2M:
 - 868 MHz: +14 dBm
 - 914 MHz: +22 dBm



Tap on any listed device to view signal strength and additional device metrics. The following parameters are displayed for each device:



- **P** - Received signal strength at the panel
- **N** - Received signal strength at the device
- ⚡ - Transmit power of the device
- 🌡️ - Current temperature reading of the device
- 🔋 - Battery level of the device

A higher P and N value indicates stronger and clearer communication between the console and the device.

- If **P** is low, the console struggles to receive signals from the device.
- If **N** is low, the device struggles to receive signals from the console.

NOTE: Values below -93 with maximum Tx power are not recommended values, and RPT5M can be used to extend the range.

Power transmission impacts only **P**:

- When **power transmission** increases, the **P** value at the console generally improves, as a stronger signal is sent.

- If the **P** value is good, the device can reduce its transmission power to save battery life.

IMPORTANT: All nodes adjust their transmission power to save battery life. The adjustment depends on the surrounding noise level and is updated at intervals set by the supervision timer or during a node status update.

Replacing Battery

To replace the battery:

1. Remove the front cover from WD2M.
2. Take out the old battery and insert a new one, ensuring correct polarity.
3. Reattach the front cover and secure the device.

Technical Specifications

The following table lists the technical specifications of WD2M along with their descriptions.

NOTE: *The specifications are subject to change without prior notice.*

Table 3

Specification	Description
Detection	Water, Oil,
Wireless Type	GFSK two-way with frequency and encryption hopping
RF Frequency	868 (865.05 - 867.95) MHz or 914 (902.25 - 927.55) MHz May vary by region.
RF Power	868 MHz up to +14 dBm radiated, 914 MHz up to +22 dBm in permitted countries.
Transmission Time	Less than 20 ms
Supervision Time	20 minutes, 10 minutes (Default), and 3 minutes
Status Indicators	Battery, temperature, TX/RX values, open, close
Battery	1 ER17335 lithium battery, 10+ years of battery life before replacement
Installation Environment	Indoor
Firmware Upgrade	Remotely over the air, via BlueEye
Operating Temperature	-30°C to 50°C (-22°F to 122°F)
IP Rating	IP67
Auto Learn	Yes
Colors	Grey, White
Dimensions	6.5W x 5.3H x 2.2D cm (2.6" W x 2" H x 0.9" D)
Weight	77 g
Certification	CE, FCC 15.247

FCC Statements

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and the receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

WARNING – RF EXPOSURE COMPLIANCE: This equipment should be installed and operated with a minimum distance 20 cm between the radiator and your body.

FCC ID: KDYWD2M

IC: 2438A-WD2M

- This Class B digital apparatus complies with Canadian ICES-003.
- -Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

IC Statements

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

AVERTISSEMENT – CONFORMITÉ AUX NORMES D'EXPOSITION AUX RF: Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps.

Warranty

For complete warranty information on this product, see the [Limited Warranty Statement](#) document, or contact your local Paradox distributor.

Patents

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