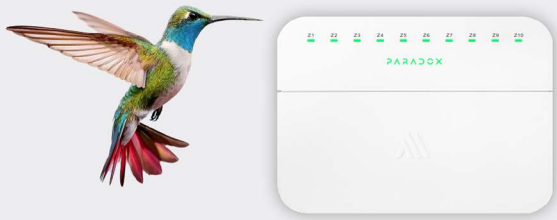
PARADOX

ZX10M

10-Zone Expander



INSTALLATION MANUAL

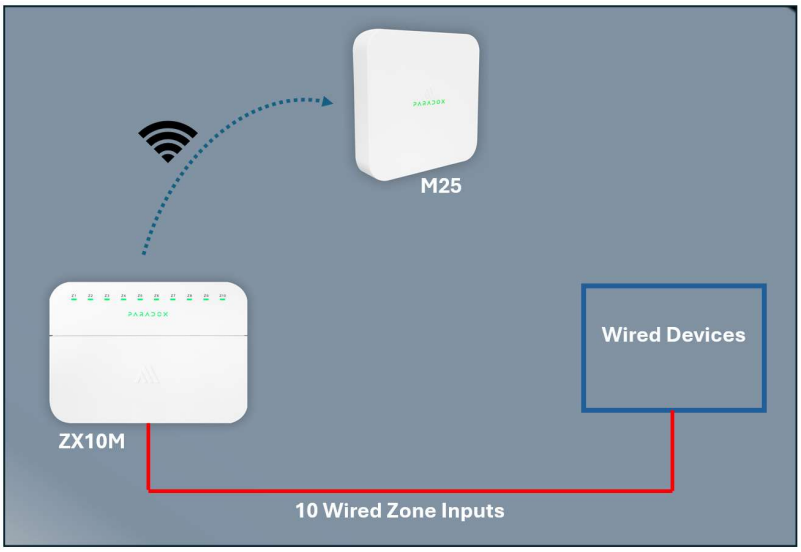
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Introduction

The ZX10M is a 10-zone hardwired wireless expander. It communicates with the Paradox M systems using 2-way wireless communication, featuring the latest Gaussian Frequency Shift Keying (GFSK) technology with frequency and encryption hopping. This ensures superior wireless range, enhanced encryption, supervision, and reliability. The ZX10M is useful when replacing a wired system or expanding the M25 system with wired devices. The ZX10M includes a built-in Lithium battery capable of providing internal operation and auxiliary 12.5V - 13.8V power output at 220mA for up to 12 hours, supporting 5-10 powered devices such as motion detectors or keypads. The batteries are not dealer-replaceable and are designed to last throughout the device's life expectancy.

Input 1 can also be configured as a fire zone, where disarming the fire alarm will reset the connected two-wire smoke detectors. All zone inputs support configurations with no EOL resistor, one EOL resistor, or two EOL resistors. Additionally, the ZX10M features dual tamper protection (wall and cover).

For information about the installation of M systems, see M25 Installation Manual or M20 Installation Manual.
For information about the technical specifications of ZX10M, see the Technical Specifications section in this manual.



Overview

Experienced Installers - Quick Installation

If you are an experienced installer, follow these steps to install ZX10M.

1. Mount the device on the wall with two screws.
2. Provide a 12 - 13.8VDC/1A power supply to power the ZX10M. Connect all the required zones with or without EOL.
3. Pair ZX10M with the console (Using the BlueEye application):

- Go to: Menu icon ☰ > **Installer Menu** > Site name > Tap **+** on the top-right of the page >**Auto learn devices**.
  NOTE: *You can instantly pair ZX10M by either pressing momentarily the **Power off** button, or by opening the tamper or any zone.*

4. Configure ZX10M (Using the BlueEye application):
   - Go to: Menu icon ☰ > **Installer Menu** > Site name > Tap **ZX10M** from the device list > Enter the necessary details > **Save**.

Built-in status indications of ZX10M:

Paradox Logo:

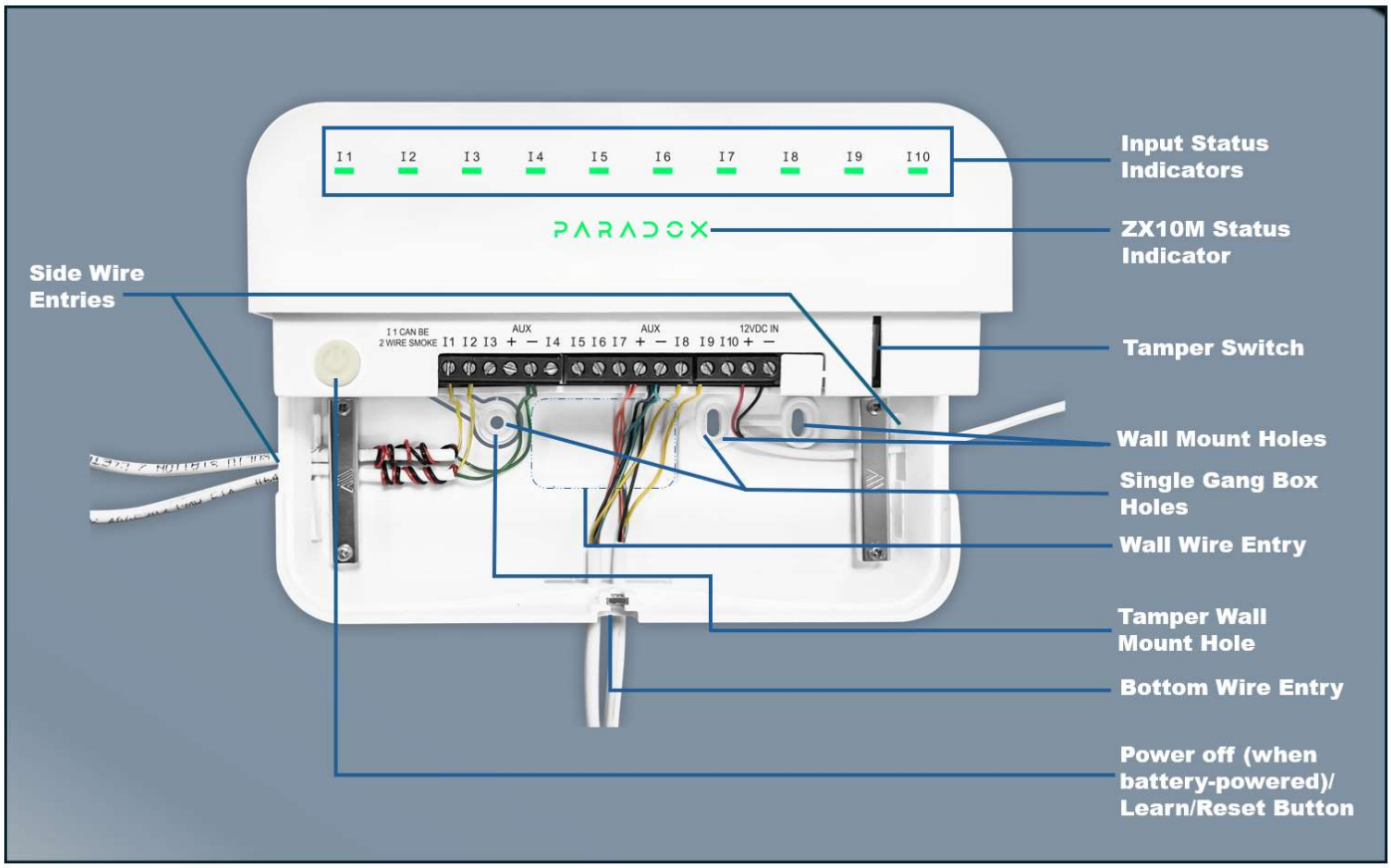
- Amber – Not connected to the console; offline.
- White – Connected to the console; online.
- Green blinking every two seconds – Battery-powered, online with console
- Red blinking every two seconds – Battery-powered, offline, not communicating with the console.
- Red and Green flashing (5x) – Tamper open
- Green flashing (5x) – Tamper closed

Zone LED:

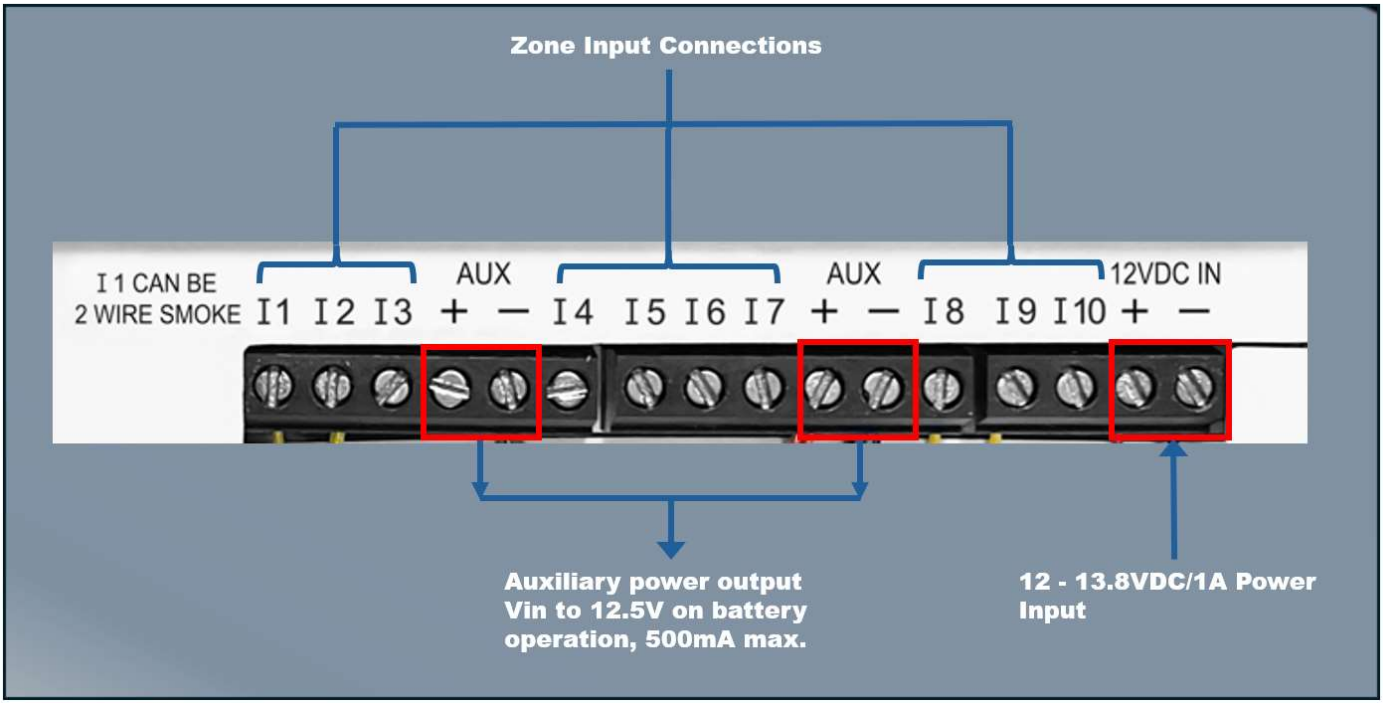
- Green – Zone is open
- Off – Zone is closed

Components and Connection Diagram of ZX10M

The following figure displays the components and connection diagrams of ZX10M.



Components of ZX10M



Connection Diagram

Physical Mounting

To mount ZX10M:

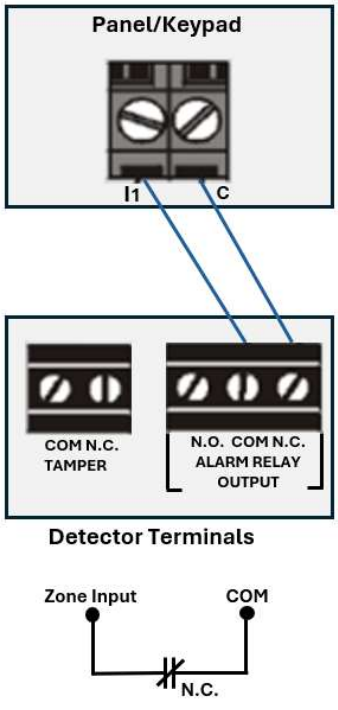
1. Release the screw from the bottom of the ZX10M and remove the front cover.



2. Screw the ZX10M device onto the wall through the mounting holes.
   NOTE: *As per the EN security standards, one screw must be secured in the tamper hole. The use of double-sided tape does not trigger a wall tamper alarm.*
3. Provide a 12 - 13.8VDC/1A input connection to power the ZX10M. Connect all required zones by routing cables through the wire entry holes of the device with or without EOL. Each two-wire zone connects to the zone input and the negative aux terminal.

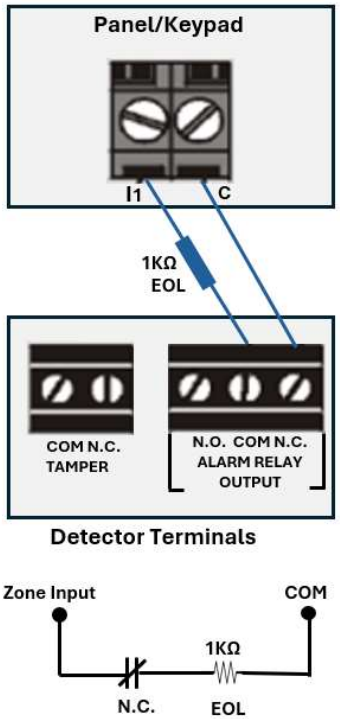
N.C. Contacts, No EOL

No EOL



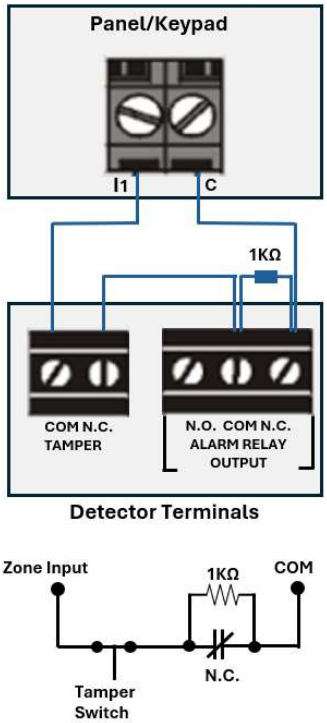
N.C., With EOL
UL/ULC Configuration

1 EOL 1A



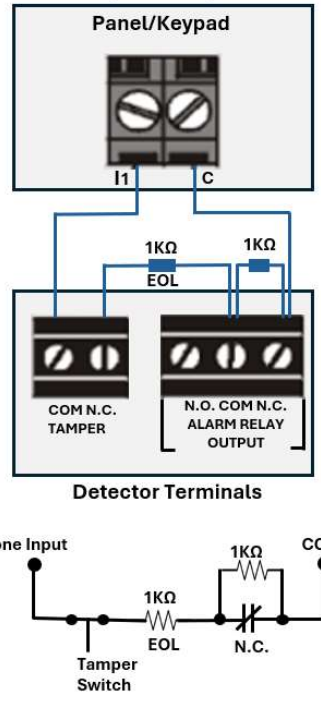
N.C. Contacts, No EOL,
With Tamper Recognition

1EOL 1B

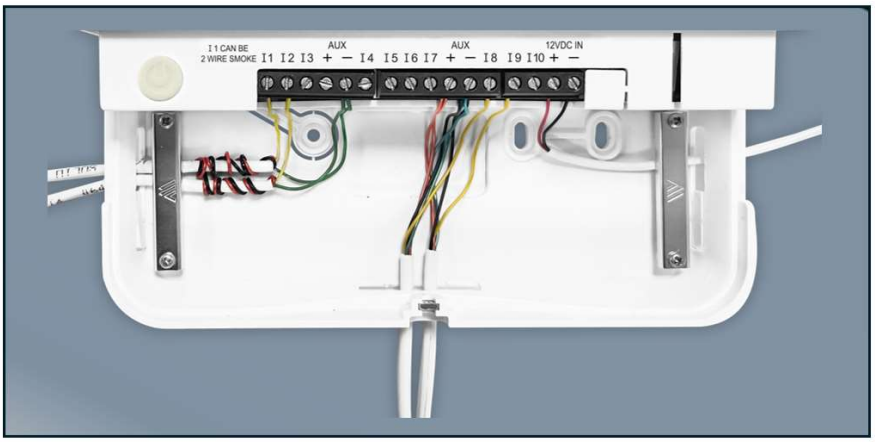


N.C., With EOL, With Tamper
& Wire Fault Recognition
(UL/ULC)

2EOL



EOL Connection Options



4. After completing the wire connection, reattach the front cover and tighten the screw at the bottom. Ensure the logo flashes green 5 times to confirm the screw is secured properly and the tamper is closed.

Pairing ZX10M with the Wireless Console

The pairing and configuration settings of ZX10M are managed through the BlueEye application.
NOTE: *Devices can be paired to the console using the installer or owner credentials.*

Prerequisites

To pair the ZX10M with your wireless console, you must ensure that:

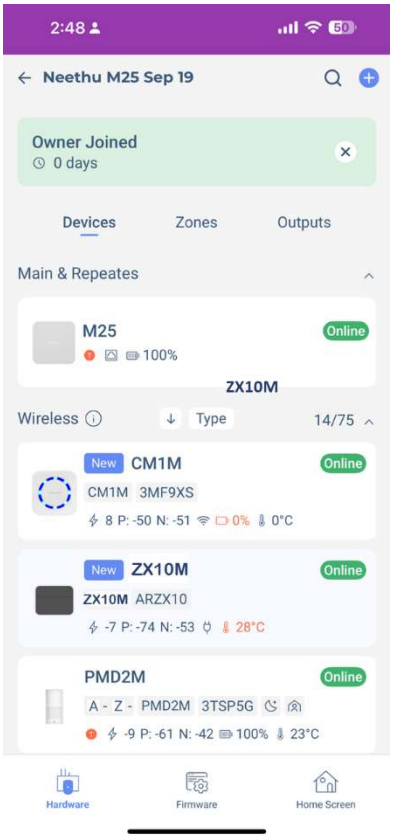
1. The ZX10M is powered up (Paradox logo color is RED).
2. The BlueEye application is installed on your mobile.
3. The wireless console is powered on (Paradox logo color - White, Red, or Green).

Ensure that the M-site is added to your BlueEye application. For M20, ensure the antennas are erected properly outside the metal box. To add an M25/M20 site, see the M25/M20 installation manual.

Pairing ZX10M

To pair the ZX10M with the wireless console by an installer:

1. When in the M site, tap **+** on the top-right of the page, and then tap **Auto learn wireless devices**. The wireless console searches for new devices and a rotating radar icon is displayed. This may take up to 5 minutes. To pair instantly, press momentarily on the power off button, or open the tamper or any zone. The device pairs with the console and it appears at the top of the device list with a ***new*** tag and voice announcements.



After pairing, to identify the new device, you can trigger the ZX10M tamper. A T symbol appears on the device tab in the BlueEye application.

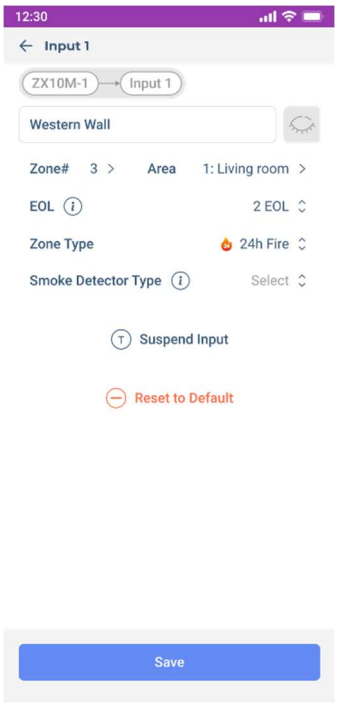
Alternatively, you can find a device by finding the serial number in the device list, or use the **Search** tool at the top right of the screen in the BlueEye application.

Zone Configuring

You can configure the ZX10M settings in the BlueEye application.

To configure the ZX10M settings:

1. When in the M site, tap the **ZX10M** device.
2. On the page that opens, tap the input you want to configure and enter the necessary details.
3. Tap **Save**.
   For details about each parameter displayed on the page, see Table 1.
   NOTE: *Only Input 1 can be configured as a two-wire smoke fire zone.*



The following table lists the parameters displayed for configuring the ZX10M, along with their descriptions.

Table 1

Parameter		Description
Zones		Lists all 10 additional zone inputs provided by the ZX10M. Each zone can be configured individually with the following parameters:
	EOL (End of Line Resistors)	Configures the wiring supervision for zones. Options: • **No EOL** (Default): No resistors are used for supervision. • **1EOL 1A**: Single resistor (1K ohm) for basic supervision. • **1EOL 1B**: Single resistor (1K ohm) for basic supervision. • **2EOL**: Two resistors (2 x 1K ohm) for enhanced supervision and tamper detection.
	Zone#	Assign input to a zone number to a specific area or zone in the security system.
	Zone Type and **Zone Activity**	Select the type of zone – Instant, Delay, 24 Hours, 24 Water, 24 Fire when the device is active in the Arm, Stay, or Sleep modes. The following are the different zone types: • **Instant** – When a zone is opened in any armed status, no entry delay is triggered, and an immediate alarm occurs. However, a delay period can be added to the **Instant** zone when arming in the Stay and Sleep modes. • **Delay** – When a zone is opened, it triggers an entry delay in any arming mode. • **24 Hours** – **24 hours** is an instant zone that is always armed. The system remains in alarm as long as this zone is open. The system can be armed even if the 24-hour zone is in alarm. An Owner, Master, or Dealer can deactivate the 24-hour zone. However, doing so generates a push notification and an email to the Owner, Master, and Dealer. • **24 Water** – Detects and responds to water-related events (for example, flooding) and triggers water alarm. • **24 Fire** – Detects and responds to fire-related alarms and triggers fire alarm that cannot be reset until zone closed.

	Follow Delay Zone	This zone is instant unless a delay zone is opened first, triggering an entry delay. A delay can be added to this zone when arming in the Stay and Sleep modes.
	Suspend Input	The **Suspend Input** option allows you to disable the monitoring of the device and tamper with the alarm, PGM, or access system. You can set this option to be disabled either permanently or until the next disarm. The Owner, Master, or Dealer can disable this option. The device generates push notifications for suspension and resumption only after the owner registration is complete, and not during installation.
	Reset to Default	This will reset the device to the factory default settings. **NOTE**: *Only an installer can reset the device.*
History Info		This tab displays details such as the installation date, production date, last programming date, battery replacements, battery history, and upgrade history.
Delete Device		This option deletes the device from the system completely. Deleted device generates a push notification only after the owner registration is complete, and not during installation. **NOTE**: *Only an installer can delete the device. If deleted, the device can be paired again.*

LED Indications

After configuring ZX10M, the device displays various LED indications based on specific events.
The following table lists the LED indications and their corresponding event.

Table 2

LED Indication	Event
Paradox Logo	
Amber	Not connected to the console; offline.
White	Connected to the console; online.
Green blinking every two seconds	Battery-powered, online with console
Red blinking every two seconds	Battery-powered, offline, not communicating with the console.
Red and green flashing (5x)	Tamper open
Green flashing (5x)	Tamper closed
Zone LED	
Green	Zone is open
Off	Zone is closed

Functionalities of Power Button

The power-off button on the ZX10M is used to:

- **Power Off (battery-operated only)**: Press and release the power off button on the device to turn it off. To turn it back on, provide an input power supply.
- **Reset**: Press and hold the power off button for 8 seconds to reset the device to its default settings. After 8 seconds the Paradox logo will display **amber.**
  NOTE: *Deleting ZX10M from BlueEye will force the device to enter learning mode.*

Upgrading Firmware

When the firmware upgrade is in progress, the Paradox logo on the device displays steady blue. To upgrade the firmware:

1. In the BlueEye application, tap on the device > **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.

Signal Strength and Transmit Power Monitoring

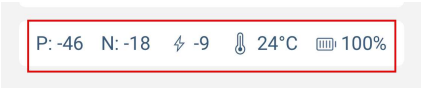
The BlueEye application provides insights into each device's received signal strength and transmission power to optimize performance.

To view the RSSI and transmit power range:

1. When in the M site, tap the ⓘ icon next to the **Wireless** tab.
   A pop-up window with the RSSI and transmit power range is displayed.
2. Power transmitted by ZX10M:
   - 868MHz: +14dbm
   - 914MHz: +22dbm



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.

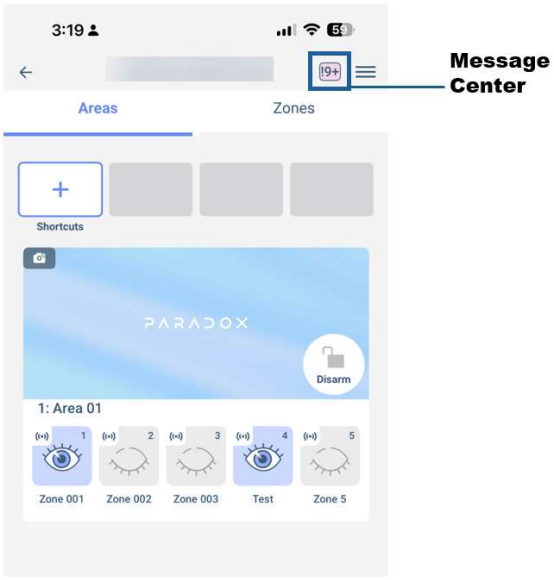
NOTE: *Values below -93 with maximum Tx power are not recommended values, and RPT5 can be used to extend the range.*

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.

Dual Tamper Protection

The ZX10M zone expansion device is equipped with dual tamper protection (wall and cover). If the system is armed, any tamper activation immediately triggers a system alarm. When the system is disarmed, a tamper activation generates a report to the CMS, sends a push notification, and displays a tamper trouble alert in the BlueEye application.



Technical Specifications

The following table lists the technical specifications of ZX10M along with their descriptions.
NOTE: *The specifications are subject to change without prior notice.*

Table 3

Specification	Description
Power Input	12-13.8VDC/1A
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 Might vary in different countries.
Number of Inputs	10
Input connection type	Two wires, No EOL, 1EOL A (1K ohm), 1EOL B (1K ohm), 2EOL (2 x 1K ohm)
RF power	868 MHz: +14 dBm radiated, 914 MHz: +22 dBm in permitted countries.
Status Indicators in Application	Zone open/close, tamper status, power supply, battery level, temperature, TX/RX values
ZX10M Status indication	Logo: online, offline, battery or power operation, upgrade in process, tamper, zone LEDs - open/close
Internal Battery	2 x 3.7V Li-ion battery, 5000mAh
Aux output supply	12.5V - 13.8V (Vin to 12.5V when operating on battery) Max 500mA, 220mA for 12H backup time.
Transmission Time	Less than 20ms
Supervision Time	20 minutes, 10 minutes (Default), and 3 minutes
Installation Environment	Indoor

Firmware Upgrade	Remotely over the air, Via BlueEye, about 2 minutes after start delay, delay up to supervision time or any action on ZX10M
Operating Temperature	-20°C to +50°C (-4°F to 122°F)
Auto Learn	Yes
Colors	White
Weight	365g, 567g with batteries
Dimensions	13W x 18H x 4.5D cm (5.12W x 7.09H x 1.79D in.)
Certification	CE, EN50131-3, FCC 15.247

Warranty

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

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