

PARADOX

RPT5M

Ethernet/Wi-Fi M Wireless Extender



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RPT5M

INSTALLATION MANUAL

FW Version: V1.00.040

Introduction

The **RPT5M** is an Ethernet/Wi-Fi M wireless extender, designed to extend M wireless systems in new areas not covered wirelessly by the main console. Useful for extending wireless coverage on different floors or nearby buildings or in garages, as long as it is connected to the same local network as the main console. Up to four repeaters can be connected at each site.

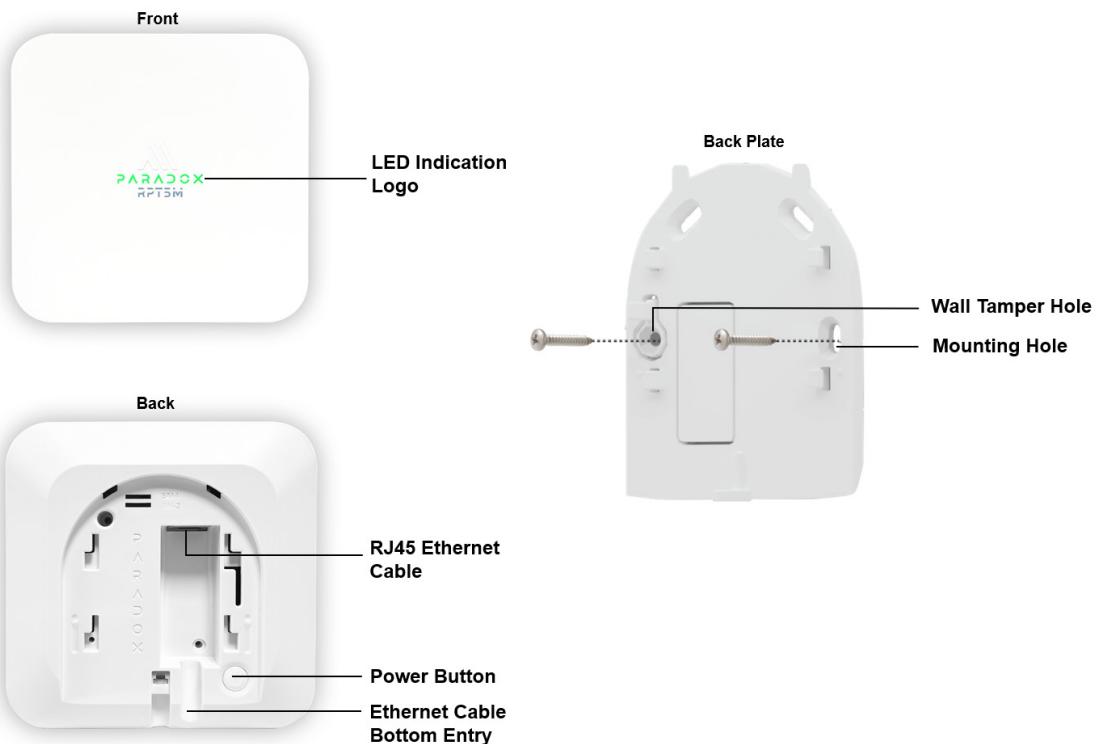


Fig A

Quick Installation- Experienced Installers

NOTE: If Ethernet and Wi-Fi are not connected, the repeater hotspot opens with the Service Set Identifier (SSID) set as the repeater's serial number. To access the Wi-Fi configuration interface via a web browser, use the default IP address: <http://192.168.180.1>.

1. Local Ethernet Connection:
 - Connect Ethernet with PoE, or PoE injector + Wi-Fi. They must be on the same DHCP local router as the main console.
2. Using the BlueEye application, Pair RPT5M with the console

- Go to: **Hardware > Tap Add Devices > Ethernet Devices Auto Learn** (may take up to 30 seconds)/**Scan QR code or add devices manually** (by entering serial number).
- Tap RPT5M under the **Ethernet** section > edit the label and select if LED on or off > **Save**.

3. Add device to RPT5M:

- Tap **Add Devices** next to RPT5M > **Wireless Devices Auto Learn**.
All available wireless devices will appear within 6 minutes.

Built-in status indications of RPT5M:

- **Amber (flashing)** – Power-up /initial sequence/attempting to connect to the Ethernet router, Hotspot open.
- **Steady Amber** – Connected to local Ethernet router, not paired with a panel, Hotspot open.
- **Purple** – Connected to the panel
- **Green Blinking** – Battery powered, connected to the panel via Wi-Fi.
- **Red** – Powered and paired with the panel, but lost connection with the panel. Hotspot open for Wi-Fi setup. SSID: RPT5M serial number.
- **Red Blinking** – Battery powered, lost connection with panel (no hotspot).

For detailed installation information, refer to the following sections.

NOTE: *The low battery voltage threshold of the RPT5M is 3.4V, and the battery is considered restored at 3.6V (on power-up only).*

Supported Devices: All Paradox Wireless product models ending with M are supported, for example, ZX10M, PGM8M, REM28M.

Mounting RPT5M

Locate the RPT5M in a central area where the M wireless network is required, not in proximity to a big electrical box or metal objects. Connect it to Wi-Fi via hotspot or Ethernet, ensuring it is on the same local network as the main console.

Installation:

1. Loosen the **Release/Tighten Screw**, slide down and remove the backplate (see **Fig A**).
2. Fix the backplate with screws not larger than M4 conical head.

NOTE: *One screw must be secured in the tamper hole as per the EN security standards. The use of double-sided tape does not trigger a tamper alarm when the cover is removed and may not meet security approval standards in your country.*

3. Run Ethernet cable or connect to Wi-Fi. If the Ethernet cable does not support PoE, use a PoE injector.
4. *If the router connection is provided only through Wi-Fi, after connecting to PoE injector, the repeater hotspot opens with the Service Set Identifier (SSID) set as the repeater's serial number. To access the Wi-Fi configuration interface via a web browser, use the default IP address: <http://192.168.180.1>.*
5. Slide the RPT5M repeater downward onto the backplate and secure the repeater by tightening the screw at the bottom (See **Fig D**).



Fig B



Fig C



Fig D

After pairing, the Paradox logo on the repeater lights up purple.

Power/Reset Button Functions

The Power/Reset button on the RPT5M has the following functions:

- **Power OFF**

This feature is designed to be used when the unit is in transport and can be performed only when no PoE power is connected. Press the power button twice momentarily within 5 seconds to turn off the device. To power on, connect PoE power or press and hold the power button for at least one second to power it ON.

- **Reset to Default**

To reset the repeater to its default settings, press and hold the power button for 8 seconds (the logo blinks once per second). After 8 seconds/blinks, when the logo starts flashing slowly, press the power button three times within 5 seconds. See the LED Indications section for details.

After pressing the power button three times, the logo will turn: **Purple > Quick Blue > Flashing Amber > Steady Amber (on Ethernet)/Flashing Amber (on PoE, no Ethernet)**.

Pairing RPT5M with the Wireless Console

The pairing and configuration settings of RPT5M are managed through the BlueEye application.

NOTE: *Devices can be paired to the repeater using the installer or owner credentials.*

Prerequisites

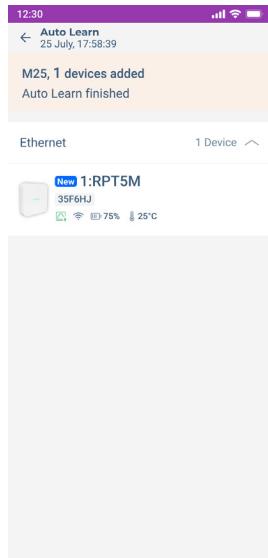
To pair the RPT5M with the panel, you must ensure that:

1. The RPT5M is powered up.
2. The BlueEye application is installed on your mobile.
3. The M panel is powered on (Paradox logo color - White or Green).

Pairing RPT5M

To pair the RPT5M with the panel by an installer, that is, when the Repeater logo is solid Amber:

1. When in the **Hardware** tab, tap **Add Devices** next to M25 console, and then tap **Ethernet Devices Auto Learn**. The panel/ console searches for new Ethernet devices, and a rotating radar icon is displayed. All unpaired Ethernet devices will pair within 30 seconds and appear at the top of the device list with a **new** tag and voice announcements.

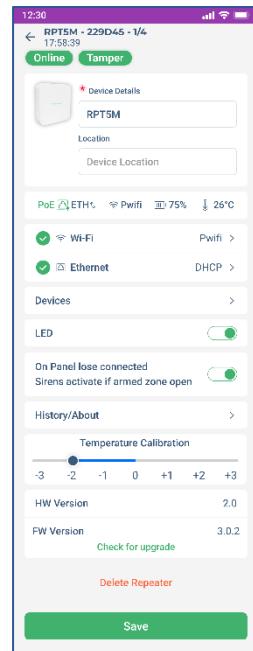


After pairing, tap the **RPT5M** device under the **Ethernet** section below the console.

The following table lists the parameters displayed for the RPT5M, along with their descriptions.

Table 1

Parameter	Description
Label	Enter a name for the zone.
LED	Determines whether the LED indications for the device are enabled or disabled.
Wi-Fi	Select the Wi-Fi network and then tap Save .
Ethernet	Ethernet network
Devices	Displays all the devices paired with RPT5M.
On Panel lose connected Sirens activate if armed zone open	When armed, if the panel loses connection with the RPT5M, opening any zone will trigger the sirens (<i>NOT ACTIVE YET</i>). To disarm, remotes in the RPT5M wireless coverage can be used to mute siren.
Temperature Calibration	Allows manual calibration of the device's reported temperature to match the actual ambient temperature.
History/About	View device history or information.
Delete Repeater	Deletes the RPT5M from the system.



Pairing Devices with RPT5M

1. When in the **Hardware** tab > **Ethernet** > **RPT5M** > tap **Add Devices**.
2. Choose one of the following:
 - **Wireless Devices Auto Learn** - Automatically pairs all nearby unpaired devices within 6 minutes.
 - **Scan QR code or add wireless devices manually** - Scan QR code or enter serial number.
 - **Replace Repeater: Recover devices from a deleted or offline repeater** - Recover devices from a deleted/offline repeater using its serial number.
3. Follow the on-screen prompts to complete pairing.

NOTE: A node can be paired either to the panel or to an RPT5M—but not to both. Auto-learn cannot be performed simultaneously on the panel and the repeater. Programmed user remotes in the panel are registered to RPT5M automatically.

Internal Battery

The RPT5M comes with a built-in lithium backup battery. Once fully charged, it can operate on battery power for up to 26 hours. The battery is expected to last for the product's lifetime; installer access to the battery is not required. The RPT5M charges from 5% to 100% in 18 hours (about 5% per hour).

NOTE: The device is delivered with a battery charge of 10% or less.

LED Indications

After the RPT5M repeater is powered on, it provides LED indications to signal different states or events that are happening in the repeater. The Paradox logo on the front of the repeater illuminates in amber, red, green, or purple, depending on the state of the repeater.

The following table lists the indications displayed by the logo and the event.

Table 1

LED Indication	Event
Amber (flashing)	Power-up /initial sequence/attempting to connect to the Ethernet router, Hotspot open.

Steady Amber	Connected to local Ethernet router, not paired with a panel, Hotspot open.
Purple	Connected to the panel
Red	Powered and paired with panel but lost connection with the panel. Hotspot open for Wi-Fi setup. SSID: RPT5M serial number.
Green Blinking	Battery powered, connected to the panel via Wi-Fi.
Red Blinking	Battery powered, lost connection with panel (no hotspot).

Upgrading Firmware

To upgrade the firmware of the repeater:

1. In the BlueEye application > **Hardware** > tap the repeater.
2. On the **Device Details** page, tap **History/About**.
3. Tap **Check for Upgrade**.

Keep track of the progress in the BlueEye application to ensure that the upgrade is completed successfully. The process may take a few minutes depending on the network quality.

NOTE: *If devices are connected through repeaters, the firmware upgrade is transmitted via the repeater, ensuring that devices located farther from the main console still receive the update. An internet connection is required for the firmware upgrades for nodes connected to the RPT5M and for the RPT5M itself.*

IMPORTANT: The firmware upgrade can only be performed when the system is disarmed and PoE is supplied. The important firmware upgrades are done automatically when accessing the site.

EN 50131-5-3 Standards Compliance

The RPT5M complies with the EN 50131-5-3 standards. According to the requirements specified in Table 1 of the EN 50131-5-3 standard, during the auto-learn mode, the RPT5M and all unlearned devices transmit at +6 dBm, and not at the maximum power of +14 dBm. After the device is successfully added to the system, it continues normal operation, managing power between -6 dBm and +14 dBm for optimal battery management. The RPT5M continues to be at +14 dBm full power transmission after auto-learn mode ends.

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. Maximum power transmitted by RPT5M:
 - 868 MHz: +14 dBm
 - 914 MHz: +30dBm in north America, +22 dBm in 914Mhz band restricted power countries.



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 repeater and the device.

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

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

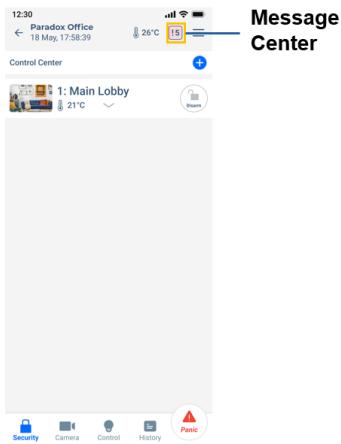
Power transmission impacts only **P**:

- When power transmission increases, the **P** value at the repeater 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.

Wall Tamper Protection

The RPT5M repeater is equipped with wall tamper protection. 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 the RPT5M repeater.

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

Table 3

Component	Specifications
Power Supply	PoE, 10W max
Wireless Type	GFSK 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 band (+14 dBm), 914 MHz band (+30dBm or +22 dBm)
Battery	3.7V Lithium-ion battery, 5000 mAh
Battery Backup Time	26H on Ethernet, 24H on Wi-Fi
Humidity	93% maximum (ULC)
Firmware Upgrade	Via BlueEye app (An internet connection is required)
Operating Temperature	-25°C to +55°C (-13°F to 131°F) Battery charge disabled below 0°C and above +55°C internal temperature
Ethernet/ Wi-Fi	Built-in Wi-Fi – 2.4 GHz B/G/N
Remotes	Follow Console
Wireless Devices	75 per system
Adding Devices	Via the auto-learn feature or manual
Installation	By registered installer with a Paradox Company ID (PCI) from BlueEye or the Service Company Portal.
Programming	via the BlueEye application or PC software
Dimensions	12.4W x 12.4H x 3.55D cm (4.89" W x 4.89" H x 1.4" D)
Weight	0.26 Kg
Certifications	CE, EN 50131-3, EN 50131-6, EN 50131-5-3, FCC 15.247, Security Grade – 2, Environmental Class – II. Type of PS – Type A Certification Body: Applica Test & Certification

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 20cm between the radiator and your body.

FCC ID: KDYRPT5M
IC: 2438A-RPT5M

- 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

US, Canadian, and international patents may apply. Paradox is a trademark or registered trademark of Paradox Security Systems (Bahamas) Ltd.

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