PARADOX

AMD12M

Motion Sensor

INSTALLATION MANUAL

Version 1.0

Introduction

The Paradox AMD12M is an indoor wireless motion sensor that utilizes three-axis accelerometer technology to monitor movement along the X, Y, and Z. 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, reliability, and extended battery life.

AMD12M Motion Sensor

Quick Installation - Experienced Installers

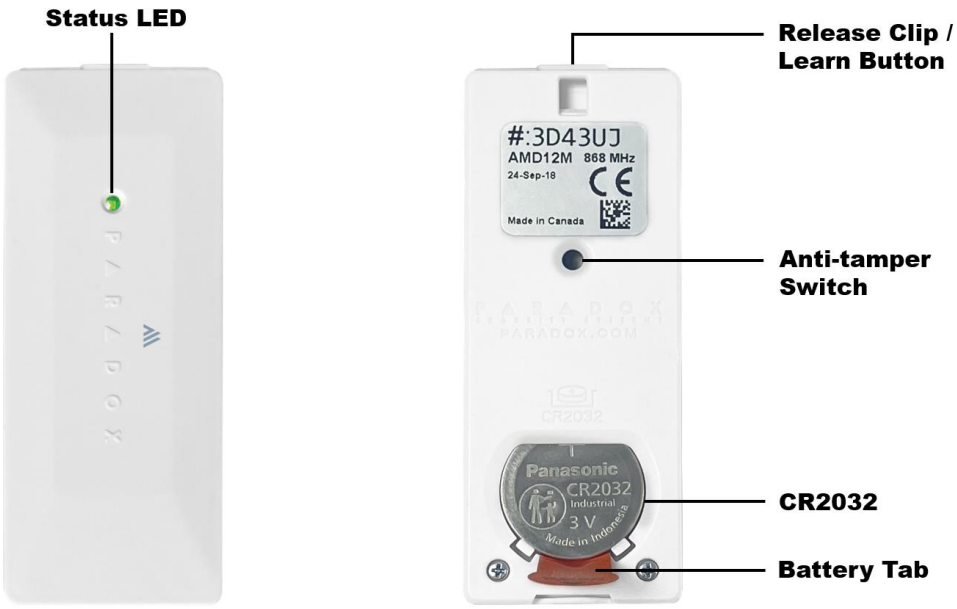
To install AMD12M:

1. Press the release clip and separate the mounting bracket from the unit.
2. Attach the mounting bracket to the protected object by using the three screws or adhesive tape.
3. Remove the battery tab.
4. Pair **AMD12M** with the console (using the BlueEye application):
   - Go to: **Hardware** name > Tap **+** on the top-right of the page >**Auto learn devices**. **NOTE**: *You can instantly pair the AMD12M by opening the tamper or long-pressing the Learn button.*
5. Configure AMD12M (using the BlueEye application):
   - Go to: **Hardware** > Tap **AMD12M** from the device list > Enter the necessary details > **Save**.

   Built-in status indications of AMD12M:
   - Red Blinking 3 times - Not connected to the console; the device is new or unpaired.
   - Red (3 seconds) - Not connected to the console; but the device is paired.
   - Green (3 seconds) - Detection and transmission occurred.
   - Red/Green - After tamper is detected, the device blinks red and green alternately for 3 seconds. After the tamper is resolved and the device is closed, the device blinks green for 3 seconds.

Components of AMD12M

The following figure displays the components of AMD12M.

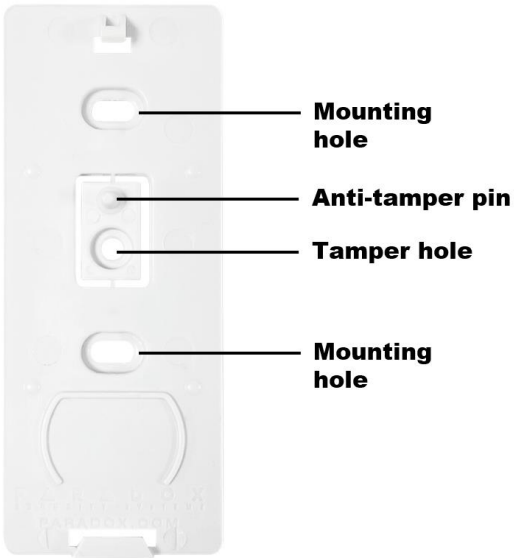


Components of AMD12M

Physical Mounting

To mount the AMD12M motion sensor:

1. Press the release clip and separate the mounting bracket from the unit.
2. Attach the mounting bracket to the protected object by using the three screws or adhesive tape. When using the tape, separate the anti-tamper pin from the mounting bracket by breaking the knockouts. Make sure to glue the pin back in its original position (tamper pin facing the top/release clip).
3. Remove the battery tab.
4. Reattach the AMD12M to the mounting 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 AMD12M waits between 0-10 seconds before connecting/pairing with the console. If the cover of the device is open, green and red LEDs will flash quickly.

Replacing Battery

To replace the battery of the AMD12M:

1. Press the release clip and separate the mounting bracket from the unit.
2. Insert a flathead screwdriver into the battery pry slot and remove the battery.
3. Replace with a new battery. Ensure the positive side of the battery is facing up.

4. Reattach to the mounting bracket.

Pairing AMD12M with the Wireless M Console

The pairing and configuration settings of AMD12M are managed through the BlueEye application.

Prerequisites

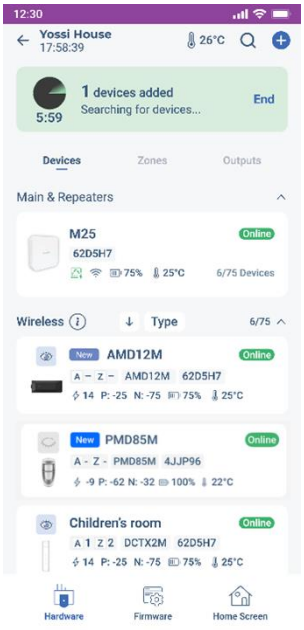
Ensure that:

1. The AMD12M 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 AMD12M

To pair the AMD12M with the wireless console by an installer:

1. In BlueEye, when in the **Hardware** tab, 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. All unpaired devices pair within 6 minutes and appear at the top of the device list with a ***new*** tag and voice announcements. You can open the cover of the sensor and press the **Learn** button for 8 seconds or open the tamper or a zone for immediate pairing.



To identify the device that you want to pair, you can either open or close the zone, or trigger the device tamper, and then check the device's screen in the BlueEye application to see the corresponding display. When you open or close the zone, an eye icon displayed beside the device name shows opening and closing. When you trigger the device tamper, a T symbol appears on the device name in the BlueEye application.

Pairing Previously Used Devices

You can enroll used devices under the following conditions:

- **When the previously used device is not online with another wireless console:** Start auto-learn. Open the device or press the **Learn** button for 8 seconds for immediate pairing or wait up to 6 minutes for automatic pairing.

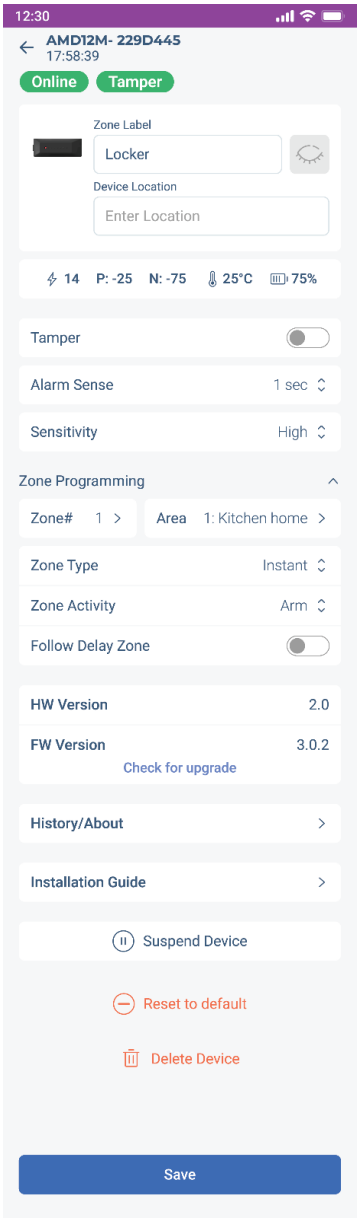
- **When the previously used device is online with another wireless console:** Press and hold firmly the **Release clip/Learn** button for 8 seconds to reset the device to its default settings. Reset is indicated by the LED flashing red three times. Once the reset is complete, initiate auto-learn. **NOTE:** *Ensure the device is not connected or paired with the previous console before resetting the device.*

Configuring the AMD12M

You can configure the AMD12M settings in the BlueEye application.

To configure the AMD12M settings:

1. When in the **Hardware** tab, tap AMD12M from the device list if the device is already paired.
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.


12:30
AMD12M- 229D445
17:58:39
Online
Tamper
Zone Label
Locker
Device Location
Enter Location
14 P: -25 N: -75 25°C 75%
Tamper
Alarm Sense 1 sec
Sensitivity High
Zone Programming
Zone# 1
Area 1: Kitchen home
Zone Type Instant
Zone Activity Arm
Follow Delay Zone
HW Version 2.0
FW Version 3.0.2
Check for upgrade
History/About
Installation Guide
Suspend Device
Reset to default
Delete Device
Save

The following table lists the parameters displayed for configuring the AMD12M, along with their descriptions.

Table 1

Parameter		Description
Tamper		Determines whether tamper is enabled or disabled.
Alarm Scene		Defines the number of seconds of constant motion for detection.
Sensitivity		There are two sensitivity levels, High (default) and Low. • **High** sensitivity mode detects smaller, subtle movements; useful for high-security areas or when precise detection is needed. • **Low** sensitivity mode requires larger movements to trigger detection. It is recommended in areas where the incidence of false alarms from vibrations may be greater.
Zone Programming	**Zone#** and **Area**	Assign a zone and area number.
	Zone Type and **Zone Activity**	Select the type of zone – Instant, Delay, 24 hours when the device is active in the Arm, Stay, or Sleep modes. The following are the different zone types: • **Instant** – When in any armed status, 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** – 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.
	Follow Delay Zone	This zone is instant and becomes a delay zone if a delay zone is opened first.
History Info		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.
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 AMD12M, it displays various LED indications based on specific events.
The following table lists the LED indications and their corresponding event.

Table 2

LED	Magnet
Red Blinking 3 times	Not connected to the console; the device is new or unpaired.
Red (3 seconds)	Not connected to the console, but the device is paired.
Green (3 seconds)	Detection and transmission occurred.
Red/Green	After the tamper is detected, the device blinks red and green alternately for 3 seconds. After the tamper is resolved and the device is closed, the device blinks green for 3 seconds.

Resetting

Press and hold the **Learn** button/Release Clip for 8 seconds using a screwdriver or a paper clip to reset the device to its default settings. Reset is indicated by LED flashing red three times.

Upgrading Firmware

To upgrade the firmware:

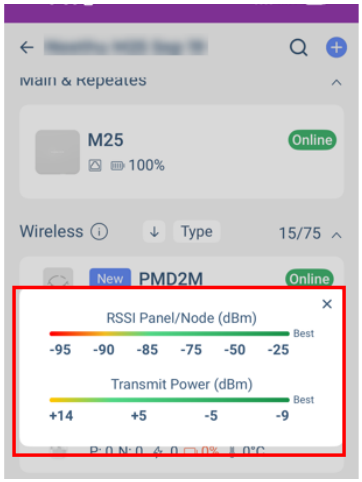
1. In the **Hardware** tab, tap on the device > **Check for Upgrade**.
2. If an upgrade is available, tap **Upgrade** when prompted.
   The process may take a few minutes. Keep track of the progress in the BlueEye application to ensure that the upgrade is completed successfully. Both the Installers and owners can perform the upgrade.
   NOTE: *As the AMD12M uses a small-capacity coin cell battery, each upgrade may consume 2-4% of battery life.*

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 AMD12M:
   - 868 MHz: +14 dBm
   - 914 MHz: +14 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 high Tx power are not recommended values, and RPT5M may be used to extend the range. However, if the device does not generate rejoin events, the connection is considered sufficient—but it might impact battery life.*

Power transmission management impacts only **P** (signal received at the panel side from nodes): The device will keep the P value not lower than -87 dBm (also depends on other conditions like floor noise) and reduces power accordingly to save battery life.

Wall Tamper Protection

The SD760M motion detector 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 AMD12M, along with their descriptions.
NOTE: *The specifications are subject to change without prior notice.*

Table 3

Specification	Description
Wireless Type	GFSK two-way with frequency and encryption hopping
Sensor Type	Three-axis accelerometer
RF Frequency	868 (865.05 - 867.95) MHz or 914 (902.25 - 927.55) MHz Other countries might change
RF power	868 MHz up to +14 dBm radiated, 914 MHz up to +14 dBm maximum, power managed.
Transmission Time	Less than 20 ms
Supervision Time	20 minutes
Status Indicators	Battery, temperature, TX/RX values
Battery Lithium	1 x 3V CR2032 (included) about 3 years of battery life
Installation Environment	Indoor
Firmware Upgrade	Remotely over the air, via BlueEye
Operating Temperature (with lithium batteries)	-20°C to +50°C (32°F to 122°F)
Auto Learn	Yes
Colors	White / Black
Weight	20 g
Dimensions	3W x 7.6H x 1D cm (1.2W x 3H x 0.4D in.)
Certification	CE, EN 50131-6, EN 50131-5-3, 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 20cm between the radiator and your body.

FCC ID: KDYAMD12M
IC: 2438A-AMD12M

- This Class B digital apparatus complies with Canadian ICES-003.

IC Statements

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-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.

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.