

1120/1120DT WIRELESS DUAL TECHNOLOGY MOTION DETECTOR

Installation Guide

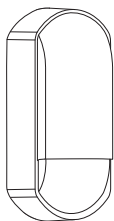


Figure 1: 1120/1120DT Wireless Dual Technology Motion Detector

DESCRIPTION

The 1120 and 1120DT are Wireless PIR Motion Detectors.

The 1120 is designed with passive infrared detection for standard applications, while the 1120DT offers both passive infrared and microwave for environments requiring dual technology.

Features

1120

- Passive Infrared Technology
- Wall and Internal Case Tamper
- Low Battery Indicator
- Wide and Narrow Angle Lens Pattern
- Adjustable Sensitivity
- Pulse Count

1120DT

- Passive Infrared Technology
- Microwave
- Wall and Internal Case Tamper
- Low Battery Indicator
- Wide and Narrow Angle Lens Pattern
- Adjustable Sensitivity
- Pulse Count

What is Included?

- One 1120/1120DT Wireless PIR Motion Detector
- One 3.0 V lithium CR123A battery



1 PROGRAM THE PANEL

When programming the 1120/1120DT in the panel, refer to the panel programming guide as needed.



Note: When setting up a wireless system, it is recommended to program zones and connect the receiver before installing batteries in the transmitters.

1. In **ZONE INFORMATION**, enter the wireless zone number.
2. Enter the zone name.
3. Select **NT** (Night) as the **ZONE TYPE**.
4. Select the **AREA**.
5. At the **NEXT ZN?** prompt, select **NO**.
6. Select **YES** when **WIRELESS?** displays.
7. Enter the eight-digit **SERIAL#** and press **CMD**.
8. Enter the **SUPRVSN TIME** and press **CMD**.
9. Choose whether or not to enable **DISARM DISABLE** (panel firmware Version 172 and higher only). Selecting **YES** allows the 1120/1120DT to be disabled for Night and Exit type zones while the area is disarmed.
10. Choose either **2** or **4** for the **PULSE COUNT**. The pulse count is the number of pulse inputs (trips) the 1120/1120DT needs to sense before going into alarm.
11. Choose either **LOW** or **HIGH** for the **SENSITIVITY**. Selecting **LOW** sensitivity may reduce false alarms for installations in harsh environments.
12. For 1120DT, choose whether or not to enable **PET IMMUNITY** (panel firmware Version 172 and higher only). Enabling Pet Immunity keeps your 1120DT from triggering an alarm when detecting pets shorter than 30 cm.
13. At the **NEXT ZN?** prompt, select **YES** if you are finished programming the zone. Select **NO** if you would like to access additional programming options.

2 INSTALL THE BATTERY

Use only a 3.0 V lithium battery, DMP Model CR123A.

1. Remove the holding screw at the lower end of the 1120/1120DT case and gently lift off the cover.
2. Observing polarity, place the battery in the holder and press into place. See Figure 2 for the battery location.

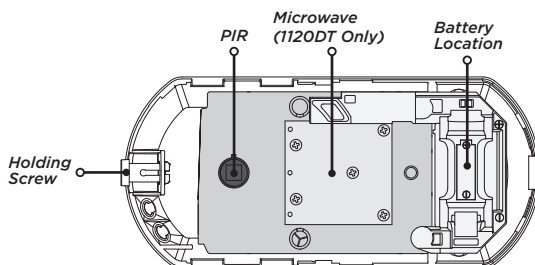


Figure 2: 1120/1120DT Housing and PCB

3 SELECT A LOCATION

The 1120/1120DT provides a survey capability to allow one person to confirm communication with the wireless receiver or panel while the cover is removed. This allows you to easily determine the best location for the 1120/1120DT.

Location Dos

- Install the device on a stable, vibration-free surface.
- Position it so that intruders are likely to move across the detection pattern.
- Mount the device at a height between 4.9 and 8.2 feet.

Location Don'ts

- Avoid placing the device on surfaces exposed to moisture.
- Avoid installing near large or excessive metallic surfaces.
- Keep the device away from direct sunlight, heat sources (like heaters or radiators), and strong air drafts (such as fans or air conditioners) within its field of view.

Check the Location Using the Survey LED

1. Hold the 1120/1120DT in the exact desired location.
2. Press the tamper switch to send data to the receiver and determine if communication is confirmed or faulty.

✓ **Confirmed:** If communication is confirmed, the survey LED turns on when data is sent to the receiver and off when acknowledgement is received. Repeat this test to confirm five separate consecutive LED blinks. Any indication otherwise means proper communication has not been established.

✗ **Faulty:** If communication is faulty, the LED remains on for several seconds or flashes multiple times in quick succession. Relocate the 1120/1120DT or receiver until the LED confirms clear communication. Proper communication between the 1120/1120DT and receiver is verified when for each press or release of the tamper switch, the LED blinks immediately on and immediately off.

4 MOUNT THE 1120/1120DT

1. Unlock and open the cover. Remove the main unit.
2. Place the 1120/1120DT base against the wall and screw through the appropriate mounting holes. See *Figure 3* for mounting hole locations.
3. Reinstall the main unit into the base by setting the bottom of the main unit into place and gently pushing the top towards the base. It will be locked when it passes through the protruding clip.
4. Place the cover back onto the 1120/1120DT and tighten the holding screw back into place.

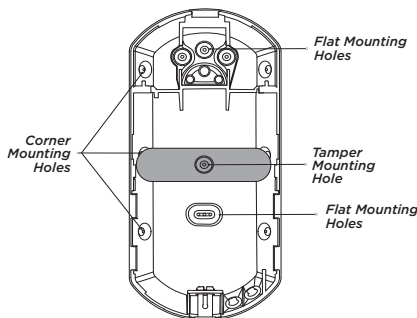


Figure 3: Mounting Hole Locations

5 TEST COMMUNICATION TO THE PANEL

Before performing the following tests, ensure the 1120/1120DT is programmed in the panel.

PIR Walk Test

Perform a PIR Walk Test to confirm that the 1120/1120DT is detecting motion in the necessary areas.



Note: The 1120/1120DT can take up to 3 minutes to begin the PIR Walk Test.

1. At the keypad, enter **8144** (WALK) and select **PIR**.
2. The LED will illuminate steadily for 1 second when it detects motion.
3. Walk test the unit to verify the PIR coverage.
4. To manually end the test, reset the panel. The test will expire on its own after 30 minutes.

Wireless Check-in Test

Perform a Wireless Check-in Test to confirm that the 1120/1120DT is communicating clearly with the panel.

1. At the keypad, enter **8144** (WALK) and select **WLS**.
2. If the 1120/1120DT fails to check in at the keypad, relocate the 1120/1120DT or the receiver.

REPLACE THE BATTERY



Note: Use only 3.0 V Lithium CR123 batteries.

1. Remove the holding screw at the lower end of the 1120/1120DT case and gently lift off the cover.
2. Remove the old battery and dispose of it properly. See *Figure 2* for the battery location.
3. Observing polarity, place the new battery in the holder and press into place.
4. Place the cover back onto the 1120/1120DT and tighten the holding screw back into place.

Sensor Reset to Clear LOBAT

When the battery needs to be replaced, a **LOBAT** message will display on the keypad. Once the battery is replaced, a sensor reset is required at the system keypad to clear the **LOBAT** message.

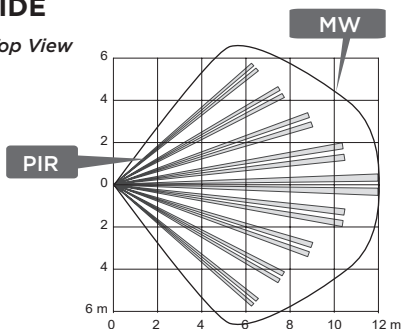
1. On a Thinline keypad, press and hold "2" for two seconds. On a touchscreen keypad press **RESET**.
2. Enter your user code if required.
3. The keypad displays **SENSORS OFF** followed by **SENSORS ON**.

Detection Pattern

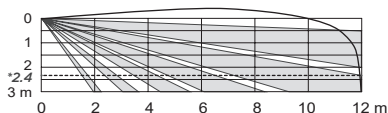
The 1120/1120DT is designed to sense motion that crosses its beam and is more sensitive to movement across the beam than to motion approaching directly toward it. See *Figure 4* for detection patterns.

WIDE

Top View

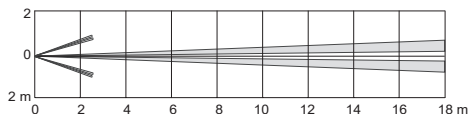


Side View

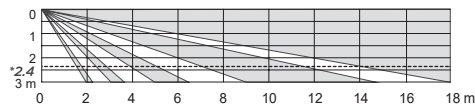


NARROW

Top View



Side View



*The dotted line indicates the recommended mounting height.

Figure 4: Detection Pattern

Setting Detection Area

The initial configuration of the lens is set for the **WIDE** detection area. Follow the steps below to set the detection area. See *Figure 5*.

1. Gently remove the lens by carefully maneuvering it over the small rib holding it in place.
2. Locate the wording written on the lens and the bottom of the base. To set the detector to narrow, match **NARROW** on the lens to **NARROW** at the bottom of the base. Match **WIDE** to **WIDE** for the wide setting.
3. Press the lens in until it catches under the rib, starting at the bottom and then moving to the two sides.

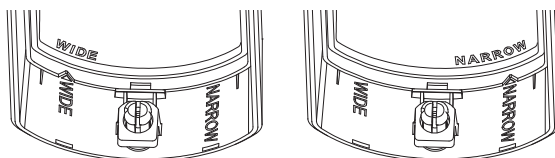


Figure 5: Detection Area Settings

FCC INFORMATION

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.
- The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm (7.874 in.) from all persons. It must not be located or operated in conjunction with any other antenna or transmitter.

Changes or modifications made by the user and not expressly approved by the party responsible for compliance could void the user's authority to operate the 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:

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

Industry Canada Information

This device complies with Industry Canada Licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- 1. This device may not cause interference, and
 - 2. this device must accept any interference, including interference that may cause undesired operation of the device.
- Le présent appareil est conforme aux CNR d'Industrie 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, et*
- 2. *l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

This system has been evaluated for RF Exposure per RSS-102 and is in compliance with the limits specified by Health Canada Safety Code 6. The system must be installed at a minimum separation distance from the antenna to a general bystander of 7.87 inches (20 cm) to maintain compliance with the General Population limits.

L'exposition aux radiofréquences de ce système a été évaluée selon la norme RSS-102 et est jugée conforme aux limites établies par le Code de sécurité 6 de Santé Canada. Le système doit être installé à une distance minimale de 7,87 pouces (20 cm) séparant l'antenne d'une personne présente en conformité avec les limites permises d'exposition du grand public.

1120DT WIRELESS DUAL TECHNOLOGY MOTION DETECTOR



Specifications

1120DT (PIR + Microwave)

Battery	
Life Expectancy	4 Years (Disarm Disable enabled) 3 years (Disarm Disable not enabled)
Cooldown	30 Seconds
Type	3.0 V Lithium R123A
Frequency Range	904-927 MHz
Detection	PIR + Microwave
Wide	39.37 ft 90°
Narrow	59.05 ft 5°
Mounting Height	6.56 to 9.84 ft
Transmit Condition	Alarm, Low Battery, Tamper
Color	White
Housing Material	Flame retardant ABS
Dimensions	5" Length x 2.42" Width x 2" Depth

1120 (PIR)

Battery	
Life Expectancy	4 Years (Disarm Disable enabled) 3 years (Disarm Disable not enabled)
Cooldown	30 Seconds
Type	3.0 V Lithium R123A
Frequency Range	904-927 MHz
Detection	PIR
Wide	39.37 ft 90°
Narrow	59.05 ft 5°
Mounting Height	6.56 to 9.84 ft
Transmit Condition	Alarm, Low Battery, Tamper
Color	White
Housing Material	Flame retardant ABS
Dimensions	5" Length x 2.42" Width x 2" Depth

Compatibility

- XT75 Control Panels
XT30/XT50, XTlplus, XTltouch, and XR Series Control Panels
- Firmware Version 171 and lower (Basic functionality + adjustable sensitivity and pulse count.)
 - Firmware Version 172 and higher (Basic functionality + adjustable sensitivity, pulse count, pet immunity, and disarm/disable.)

Certifications

FCC Part 15 Registration ID CCK1120
Industry Canada Registration ID 5251A-1120

Patents

U.S. Patent No. 7,239,236



Designed, engineered, and
manufactured in Springfield, MO
using U.S. and global components.

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