



D-306094

English

XHS1-TY / MP-841

ZigBee Home Automation 1.2

Wireless Digital Pet Immune PIR Detector



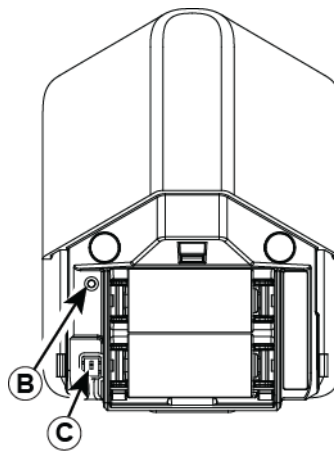
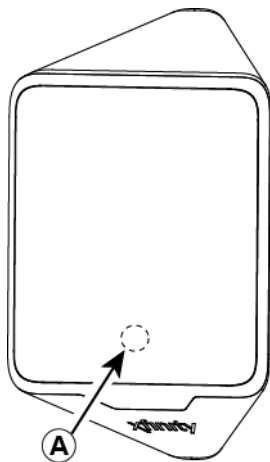
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Installation Instructions

1. INTRODUCTION

The XHS1-TY or MP-841 (pet immune) is a microprocessor-controlled wireless digital PIR detector supported by ZigBee HA 1.2. The detector's features are as follows :

- Up to 15 meters (49.2 ft)
- Uniform Detection
- White light immunity (Black mirror technology)
- Enhanced Pet immunity up to 85lbs (Target Specific Imaging™ (TSI) technology (patented)
- Enhanced false alarm rejection (The advanced True Motion Recognition™ algorithm (patented)
- No vertical adjustment is needed.
- In normal mode, after detection, the detector goes to sleep to save battery power. It wakes again (reverts to the ready state) if there is no subsequent detection throughout the following 2-minute period.
- Temperature compensation.
- Front and back tamper protection.
- Black mirror technology provides excellent white light protection.
- Elegantly styled, sturdy case.



- A. Red LED
- B. Green LED
- C. Tamper Switch

Figure 1 - MP-841

. SPECIFICATIONS

Detector Type	Dual element low-noise pyroelectric sensor
Optical Data	27 "far" parabolic black mirrors (54 "beams") 9 "near" cylinder black mirrors (18 "curtains") Pet immune protection is provided by a specific optical attenuator on the mirror
Max. Coverage	15 x 15 m, (49.2 x 49.2 ft) / 90°
Pet Immunity	Up to 38 kg (85 lb)

ELECTRICAL

Internal Batteries	Two 3V Lithium batteries, type CR-123A. For UL installations, use Panasonic, and GP only
Nominal Battery Capacity	1400 mAh
Battery Life (with LED on)	Typically over 5 years <i>Note: Inability to connect with wireless network, or wireless link quality no higher than 20% may significantly reduce the expected battery life.</i>
Battery Power Test	Performed immediately upon battery insertion and periodically after every several hours

FUNCTIONAL

Alarm Period	3 seconds
Visual Indications	Red LED lights for about 3 seconds upon transmission of alarm & tamper messages and upon motion detection in the walk test mode only. Red LED flashes during the power-up stabilization period, or after restoring (pressing) the tamper switch. Red LED does not light upon transmissions of supervision messages or alarm detection after termination of walk test mode.
Rearm Timer	Rearms the detector 2 minutes after the last alarm. Timer disabled in the walk test mode

WIRELESS

Supported Network	ZigBee H.A 1.2
Frequency	2.405 – 2.480 Ghz as per IEEE 802.15.4
Tamper Alert	Reported when a tamper event occurs and in any subsequent message, until the tamper switch is restored
PFD	Signaling at 5 minute intervals
Check in	Signaling at 27 minute intervals

MOUNTING

Height	1.8-2.4 m (6 - 8 ft). For pet rejection , the optimal height is 2.1 m (7 ft)
Installation Options	Surface or corner

ENVIRONMENTAL

RFI Protection	>20 V/m up to 1000 MHz
Operating Temperatures	-10°C to 50°C (14°F to 122°F)
Storage Temperatures	-20°C to 60°C (-4°F to 140°F)

COMPLIANCE WITH STANDARDS

USA	CFR 47 part 15, Canada: RSS 210
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PHYSICAL

Size (H x W x D)	83 x 61 x 42 mm (3.27 x 2.4 x 1.66")
Weight (with battery)	90 g (3.17 oz)
Color	White
PATENTS	U.S. Patents 5,693,943 ● 6,211,522

3. INSTALLATION

3.1 General Guidance

1. Keep away from heat sources.
2. Do not expose to air drafts.
3. Do not install outdoors.
4. Avoid direct sunshine.
5. Keep wiring away from power cables.
6. Do not install behind partitions.
7. Mount on solid stable surface.

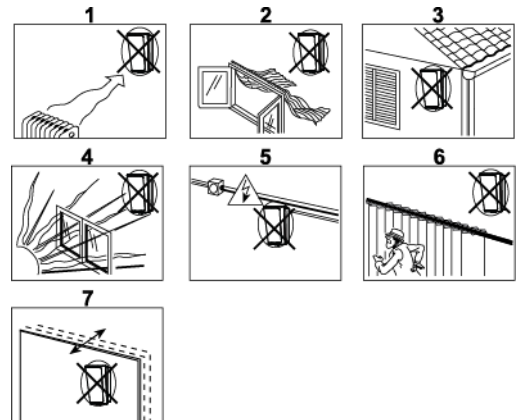


Figure 2. General Guidelines

3.2 Installation Procedure

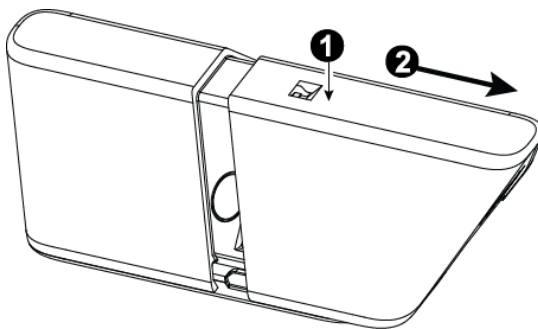


Figure 3 – Opening the Unit

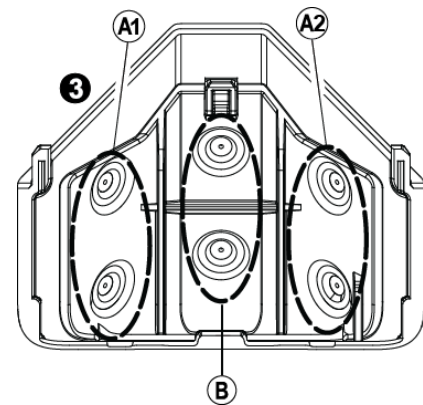


Figure 4 – Bracket Mounting

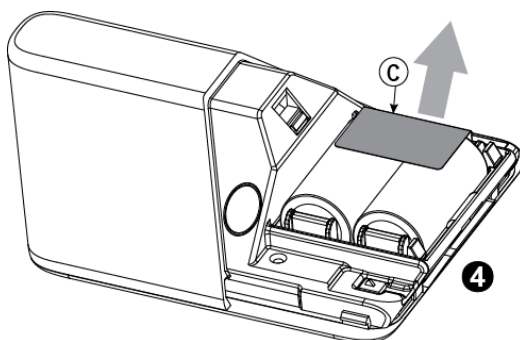


Figure 5 – Removing activation strip

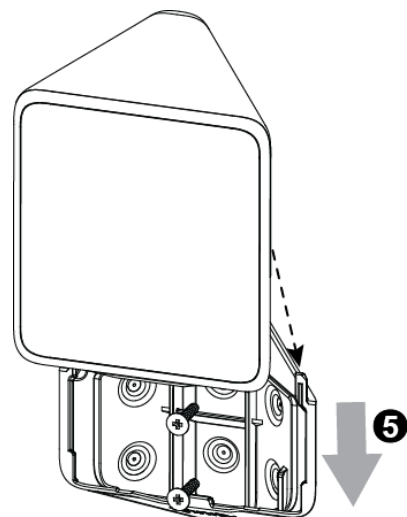


Figure 6 – Mounting Detector on Bracket

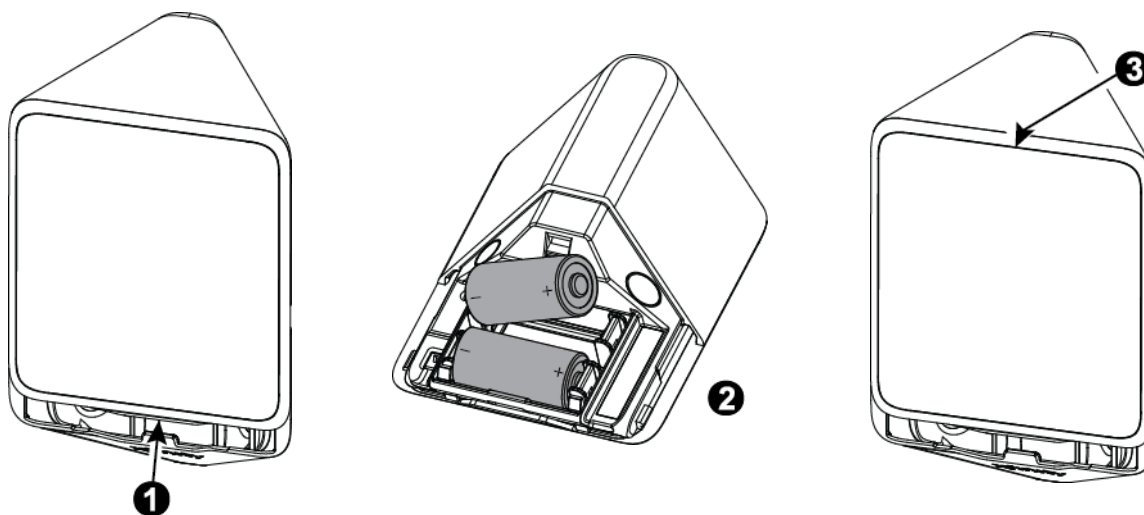
1. Press in this point.
 2. Push in the direction of the arrow shown in the drawing to separate the detector from the bracket.
 3. Mount the bracket on the wall.
 4. Install new batteries.
- OR-
- If batteries are already installed, pull the activation strip.
5. Mount the detector on the bracket by sliding it downward until a click is heard.

- A. Use A1 or A2 for corner mounting
 B. Use for surface mounting
 C. Activation strip

Note: It is recommended to wait about 1 minute after battery removal, before inserting the new battery.

Caution! Risk of explosion if battery is replaced by an incorrect type. Dispose of used battery according to the manufacturer's instructions

3.3 Replacing the Batteries



1. Press upward to separate the detector from the bracket.
2. Replace the batteries.
3. Put back the detector on the bracket.

Figure 7 – Replacing Batteries

3.4 Activating and Pairing the Detector

To pair the detector to the Touchscreen (control panel), you must set it to pairing mode.

1. First set the Touchscreen (panel) to pairing mode and then the detector.
2. To activate, pull the activation strip that protrudes from the back of the detector (see Figure 5).
3. The green LED (see Figure 1) blinks 3 times every 5 seconds (repeated up to 20 times) to indicate that the detector is searching for the Touchscreen (control panel).

Note: If detector pairing is not successful during the searching process – by tripping the motion detector or by pressing the tamper switch – the searching process will restart.

4. Complete the pairing procedure on the Touchscreen (control panel) (see the pairing instructions in the Touchscreen / control panel's installation guide).

Note: Pairing should be performed before installation.

(Detector installation will have a good link with panel, if RSSI indicated on the Panel higher than -70dBm and LQI stronger than 250. If values of RSSI and LQI are lower, change Detector placement)

3.5 Rebooting the Detector

You can reboot the detector, as follows.

1. Remove the battery cover.
2. Press and release the tamper switch for 1 to 2 sec. (see Figure 1).
3. Close the battery cover.

3.6 Defaulting the Detector

CAUTION! The defaulting process removes the device from the network and enables re-pairing.

Separate the detector from the bracket to remove both batteries. (see Figure 7).

1. Press and hold down the detector's tamper switch.
2. Insert one of the two batteries into the detector while observing battery polarity.
3. Release the tamper switch within 4 seconds (the LED blinks 3 times every 5 seconds).
4. To re-pair the detector, follow the instructions in section 3.4.

3.7 Walk Testing

Walk across the far end of coverage pattern in both directions. The LED should light for 2-3 seconds each time your motion is detected.

Important! Instruct the user to walk test at least once a week to verify proper function of the detector.

Note: Upon battery insertion or closing the cover (which results in closing the tamper switch) the LED flashes for 2 minutes and the detector goes into walk-test mode for 15 minutes. In walk-test mode the LED lights upon every motion detection. After 15 minutes the detector automatically enters normal mode in which the LED will not blink after detection.

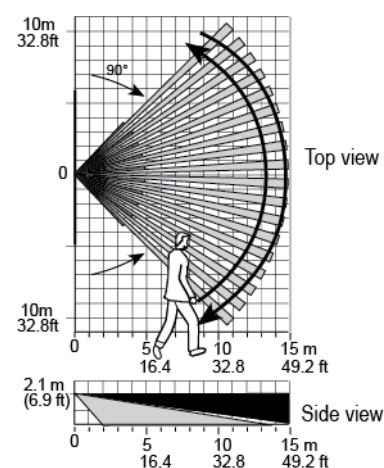


Figure 8 - Coverage Pattern Walk-Test

TROUBLESHOOTING

If you encounter one of the following problems with the MP-841, perform the suggested remedy:

Problem	Remedy
Attempt to pair the sensor is unsuccessful.	Make sure that the sensor has been defaulted and is set to pairing mode (see section 3.4).
The sensor and the Touchscreen (panel) do not communicate.	Perform the signal strength testing procedure described in the control panel installation manual. Make sure that the signal is sufficient. If necessary, replace the sensor's battery.
The sensor sends a Low Battery indication.	To ensure continuous proper operation, replace both batteries within two weeks of the first Low Battery indication.
Panel does not arm because of an unrecognized sensor malfunction	Consult with your installer or system provider before you disable a zone. Disable the sensor zone (see the control panel user manual). Note that disabling a sensor zone lowers the overall security level of your system.

SPECIAL COMMENTS

Even the most sophisticated detectors can sometimes be defeated or may fail to warn due to: DC power failure / improper connection, malicious masking of the lens, tampering with the optical system, decreased sensitivity in ambient temperatures close to that of the human body and unexpected failure of a component part.

The above list includes the most common reasons for failure to detect intrusion, but is by no means comprehensive. It is therefore recommended that the detector and the entire alarm system be checked weekly, to ensure proper performance.

An alarm system should not be regarded as a substitute for insurance. Home and property owners or renters should be prudent enough to continue insuring their lives and property, even though they are protected by an alarm system.

This device 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 residential installations. 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 and television reception. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause such interference, which can be verified by turning the device off and on, the user is encouraged to eliminate the interference by one or more of the following measures:

- Re-orient or re-locate the receiving antenna.

- Increase the distance between the device and the receiver.

- Connect the device to an outlet on a circuit different from the one that supplies power to the receiver.

- Consult the dealer or an experienced radio/TV technician.

Even the most sophisticated detectors can sometimes be defeated or may fail to warn due to: DC power failure / improper connection, malicious masking of the lens, tampering with the optical system, decreased sensitivity in ambient temperatures close to that of the human body and unexpected failure of a component part.

COMPLIANCE WITH STANDARDS

FCC

This device complies with Part 15 of the FCC Rules and RSS-210 of Industry and Science Canada. 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.

This device complies with Industry Canada license-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.

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

To comply with FCC Section 1.1310 for human exposure to radio frequency electromagnetic fields and IC requirements, implement the following instruction: A distance of at least 20cm. between the equipment and all persons should be maintained during the operation of the equipment.



Europe (CE): EN 300328, EN 301489, EN 60950, EN 50130-4, EN 50131-1,

The MP-840 is compatible with the RTTE requirements - Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999

USA: CFR 47 Part 15

Canada: RSS 210



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