RED SHIELD™

Ceiling Alarm - *Model ST-18Q*

Installation and Operating Instructions

These instructions should be retained in a safe place for future reference.

ABOUT THE PIR UNIT

FOREWORD

Congratulations on your purchase on this passive infrared alarm unit ! This stand-alone alarm unit will help you protect and safeguard almost any location you want. It's easy to install and totally wireless.

PACKAGE CONTENTS

- PIR Alarm Unit
- Mounting bracket
- Remote Control
- Instructions

HOW IT WORKS

The PIR sensor is a passive infrared motion sensor, meaning it detects infrared radiation rather than projecting it (unlike a security camera with infrared night vision, which is active infrared). All objects emit this infrared radiation (we commonly call it "heat") and the infrared sensor looks for any of this radiation which moves.The passive sensor is not infallible – in particular, it cannot detect objects/ people which are the same temperature as their background. So a human being moving about on an extremely hot day might go unnoticed. Also, a security camera with active infrared night vision in the same vicinity as the infrared sensor may give false alarms (particularly if it is a moving PTZ system)

LOW BATTERY INDICATOR

When the batteries in the alarm unit are running out, the LED on the front of the alarm unit will flash slowly (more slowly than during the arming delay). If the LED starts flashing in this way, change the batteries immediately.

REPLACING BATTERIES

The batteries in the alarm unit should be replaced every six months. If you're using the sensor in chime mode and get a lot of visitors, you may need to change them more often. On the other hand, if you use the PIR in alarm mode, don't arm it often and use high quality batteries, you may not need to replace them as often.

- Remove the sensor from its mounting bracket.
- On the rear side of the sensor, locate the battery compartment.
- Remove batteries
- Insert three fresh AA batteries. Do not mix battery types, and do not use rechargeable batteries.

RE-PAIRING REMOTE CONTROL

If you find that the remote control isn't operating properly, this indicates that the remote control might need to be paired up again with the alarm unit. This is most likely to happen when the batteries are changed in the alarm unit - the temporary lack of power clears the sensor's memory.

1. Remove the alarm unit from the mounting bracket.
2. Locate and push the button on the rear of the unit labeled "LEARN". The button is recessed, so you'll need a thin screwdriver or similar to push it.
3. The LED on the front of the alarm unit will flash slowly, indicating that the sensor is in Learning Mode.
4. Press any button on the remote control. The alarm unit will beep to confirm the pairing worked.

TECHNICAL SPECIFICATIONS

Power Requirements:	3 x Alkaline AA Batteries (4.5V DC)
Modes:	2 (Alarm and Chime)
PIR Detection Range	> 3m (Typical – varies by environment)
PIR Detection Area	360° horizontal, 110° vertical (approx)

CHIME MODE

Chime Volume	> 90dB
Chime Duration	2s
Re-trigger Delay	5s

ALARM MODE

Mode of Operation	Remote control (included)
Siren Volume	> 110dB
Siren Duration	30s
Entry Delay	30s
Exit Delay	45s
Re-trigger Delay	5s

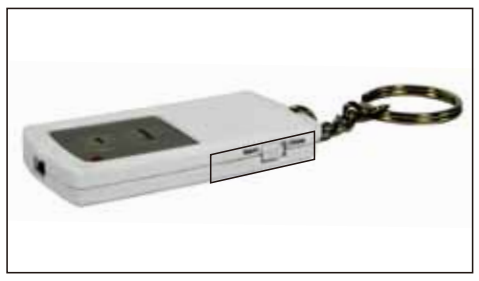
REMOTE CONTROL

Power Requirements	1 x CR2032 Button Cell (3V DC)
Remote Distance	> 20ft / 6m
Remote Angle	60° (approx)

OPERATING THE CEILING PIR UNIT

ALARM / CHIME MODE

The switch to select the mode the sensor operates can be found on the side of the remote control, as shown to the left.



Alarm Mode: When the sensor detects movement whilst the unit is in alarm mode, it will not activate immediately. There is a thirty seconds delay, to allow you to use the remote control to disarm the sensor before it goes off. If the alarm unit is not disarmed within this thirty seconds delay, then the alarm will sound at full volume. The alarm can still be disarmed whilst the alarm is sounding by pressing the disarm button on the remote control.

Chime Mode: When the sensor detects movement when in chime mode, it will sound a chime instantly. There is no entry delay nor exit delay. After the chime sounds, there is a short (a few seconds) delay before it can be sounded again to prevent is sounding constantly if, for example, someone were to be standing in the detection range.

ARMING AND DISARMING THE SYSTEM

To arm the system, simply press ARM on the remote control. The system will arm into whichever mode is currently selected on the remote control.
To disarm the system, press the DISARM button. The DISARM button will disarm the alarm unit whether it is in Chime Mode or Alarm Mode.

Entry and Exit Delays

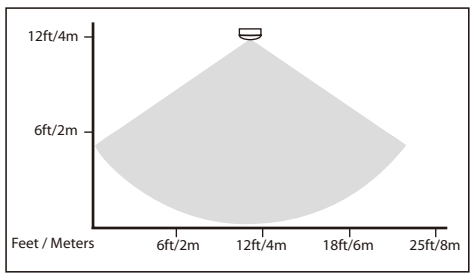
Once you've armed the alarm unit, it will enter the arming delay. This period consists of forty-five seconds, during which time the LED on the front face of the alarm unit will flash. After the arming delay has elapsed, the alarm unit will beep once, indicating that it is armed.Should the alarm be tripped (that is, it detects something) it will not sound instantly. Rather, there is a further thirty seconds delay, to give you time to disarm the system before the siren sounds.

- Do not expose any part of the alarm unit to any sudden shocks (such as being dropped or struck).
- Do not install the passive infrared (PIR) alarm unit within detection range of any device which emits heat or cold, such as air conditioners, refrigerators, ovens, heaters, microwaves or other electronic equipment which generates heat as a by-product of operation.
- Do not install the PIR sensor in direct sunlight.
- Use only alkaline batteries.
- All components are for indoor use only. Do not install outdoors.
- Replace the batteries in the unit every six months.Test the alarm periodically (every 1 - 2 months and each time you change the batteries) to ensure it is working properly.
- Keep this operating instruction booklet in a safe place.
- This alarm system is designed to be, and acts as, a theft deterrent. This system, like any other, cannot offer complete protection for your home or business - it is simply an alarm system. Like all practical systems, it has limitations and it could be disabled by a skilled intruder. We suggest that you avoid relying solely on the Ceiling Alarm to protect your property, but use it as part of a comprehensive security solution. You can increase your level of protection through the use of high-quality locks, stronger doors, guards for your windows and a CCTV system and recording devices.

DETECTION AREA

Detection Area

The PIR sensor has a 360 degree detection field horizontally, and slightly more than 100 degrees vertically. The diagram below shows an average detection pattern under typical circumstances.



The effective detection area does depend on the height of the ceiling that the alarm unit is mounted on. As a general rule, the effective detection radius when mounted on a ceiling of average height is approximately 9ft/3m.
You can test the functionality of the motion sensor as well as the detection area by setting up the sensor, setting it to chime mode and then moving about in the area you want to protect. It will chime each time it detects movement, allowing you to obtain an accurate impression of it's field of view. Note that the effective detection range may change in different environmental conditions, particularly during very hot periods.

Important:

- Any obstructions in the environment will reduce the sensors effectiveness. It can't see through walls! Even a thin sheet of glass will significantly impair the range of the sensor, as glass blocks more infrared radiation than visible light.
- Small animals (such as dogs, cats or similar) can trigger the PIR sensors. Therefore, we suggest that the PIR sensors are not suited to areas where pets are kept.
- The remote control uses infrared light to communicate with the alarm unit. For the easiest day-to-day operation of the alarm, mount the alarm unit in a location which allows the remote control a clear line of sight from the position you'd like to disarm it from.

INSTALLATION INSTRUCTIONS

MOUNTING

To mount the PIR alarm unit, you'll need the following tools:

- A screwdriver
- A drill (for hardwood or masonry)

The PIR alarm unit should be mounted on a ceiling between 6ft/2m and 9ft/3m high for maximum coverage and reliability.
Do not mount the PIR on a ceiling higher than 4m, as the sensor's range will not reach the ground, and will not be able to detect the heat of a single human body reliably.
You could conceivably mount the alarm unit on a wall. The alarm would still work, though the field of view isn't particularly suited to this application. Under most circumstances, a more focused PIR sensor designed to be wall mounted would be more appropriate for that purpose.

To mount the alarm unit

The PIR sensor mounts in much the same way as a cordless smoke alarm. A circular bracket is attached to the ceiling by screws, and then the main alarm unit is attached to this bracket.

1. First attach the mounting bracket to a ceiling, using the supplied screws. If mounting on to hardwood, you may need to drill guide holes. If mounting onto masonry (brick, concrete and so on) you'll need a drill with a masonry drill bit, and use the wall plugs included with the alarm unit.
2. Push the alarm unit onto the mounting bracket. Turn clockwise to secure in place.

MAINTENANCE

To clean the unit housing, use a soft cloth slightly dampened with water and wipe dry. Do not use chemical agents as this may damage and discolor the unit.

Warning:

Risk of personal injury

- Prolonged exposure to alarm siren may cause permanent hearing loss.

Battery Warning:

- Remove batteries before storing the Alarm for extended periods.
- Batteries may leak harmful liquids or ignitable materials or explode causing injury and product damage.
- Do not mix old and new or other battery types.
- Replace all batteries at the same time.
- Replace fully discharged batteries immediately.
- Do not put the button cells in your mouth as this could impair your health. Keep out of reach of young children as they could swallow these and choke.

For indoor use only; do not use in wet locations.

TROUBLE SHOOTING

Remote Control not operating

- Batteries low, flat, missing or are incorrectly fitted.
- Infra-Red Transmitter LED obscured.
- Remote Control not pointing directly at PIR Alarm Unit.

PIR Alarm Unit not operating

- Batteries low, flat, missing or are incorrectly fitted.
- House code not programmed.

PIR causing false alarms

- PIR badly positioned, (e.g. in direct sunlight, draughts and above a radiator etc.).

DISPOSAL AND RECYCLING

At the end of their useful life the packaging and product should be disposed of via a suitable Recycling Centre.

Do not dispose of with your normal household waste.

DO NOT BURN.

Size:290x210mm 对折，正反印