1. FEATURES

- Includes a fully supervised PowerCode transmitter
- Patented sophisticated motion analysis algorithm - True Motion Recognition (TMR™)
- Two-position vertical adjustment for coverage pattern
- Integral swivel bracket for wall or ceiling installation
- Programmable motion event counter - ON (default) or OFF
- Front cover tamper switch
- Back tamper switch (option)
- Full stabilization achieved 30 seconds after power up
- After detection, the detector disables itself to save battery power. It reverts to the ready state if there is no subsequent detection throughout the following 2-minute period.
- Automatic termination of walk-test after 15 minutes
- Low current consumption
- Microprocessor-controlled temperature compensation
- Sealed chamber protects the optical system
- White light protection
- Elegantly styled, sturdy case
- Keyhole-shaped slot for easy removal of PCB

2. SPECIFICATIONS

OPTICAL
Detector Type: Dual element low-noise pyroelectric sensor.
Detection Pattern: 90° wide angle lens with 19 dual zones in 3 detection layers. Max. coverage is 15 x 15 m (50 x 50 ft).
Adjustment: 2-position vertical adjustment scale: FAR and NEAR.

ELECTRICAL
Internal Battery: 3V Lithium battery, type CR-2.
Nominal Battery Capacity: 750 mAh
Standby Current Drain: 0.015 mA
Transmit Current Drain: 20 mA (including LED)
Battery Life Expectancy: 3 years (for typical use)
Battery Supervision: Automatic reporting of battery status with each alarm and with periodic supervision message.

FUNCTIONAL
True Motion Event Verification: 2 position selector - 1 (OFF) or 2 (ON) motion events.
Alarm Period: 3 seconds.
Visual Indications:
LED lights for about 3 seconds upon transmission of alarm & tamper messages and upon each motion detection in the walk test mode.
LED flashes during the power-up stabilization period, or after restoring (pressing) the tamper switch.
LED does not light upon transmission of supervision messages.
Rearm Timer: Rearms the detector 2 minutes after the last alarm. Timer disabled in the walk test mode.

WIRELESS
Frequency (MHz): 315 (U.S. version), 868.95, 869.2625 or other frequencies according to local requirements.
Transmission Sequence: 3 data bursts at variable intervals within 3 seconds.
Encoding: 24-bit ID, over 16 million possible combinations.
Total Message Length: 36 bits.
Tamper Alert: Reported when a tamper event occurs and in any subsequent message, until the tamper switch is restored.
Supervision Message: Signaling at 60 minutes interval (U.S. version), 15 minute interval (UK version) or according to local standards.

MOUNTING
Height:
With bracket: Up to 3.6 m (12 ft)
Without bracket: 2 - 2.6 m (6.5 - 8.5 ft)
Installation Options:
With bracket: Surface or ceiling
Without bracket: Surface or corner
Bracket Adjustment: 20° downward, 20° left and right.

ENVIRONMENTAL
RFI Protection: >30 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).
EN 50131-1, Grade 2, Class II

PHYSICAL
Dimensions (H x W x D): 117 x 65 x 47 mm.
(4-5/8 x 2-9/16 x 1-7/8 in.).
Weight: 92 g (3.25 oz) without bracket, 107 g (3.75 oz) with bracket.
Color: White
PATENTS: U.S. Patent No. 5,693,943
3. INSTALLATION

3.1 Installation Hints
To minimize false alarms:

<table>
<thead>
<tr>
<th>Do not aim at heat sources</th>
<th>Mount on solid, stable surfaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not expose to air draughts</td>
<td>Do not install outdoors</td>
</tr>
<tr>
<td>Prevent direct sunlight from reaching the detector</td>
<td>Keep wiring away from electrical power cables</td>
</tr>
<tr>
<td>Do not install behind partitions</td>
<td></td>
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</tbody>
</table>

3.2 Battery Insertion
It is recommended to power up the detector and let the target receiver "learn" the transmitter's ID before actual installation. This can be done only after battery installation.

A. Remove the front cover as shown in Figure 3.
B. Insert the battery into the battery clip - observe polarity (see Figure 4).
C. Press the tamper switch once and release it. This will perform the reset necessary for smooth power up.
D. Put the cover on and observe the LED. It will flash until the detector stabilizes (within about 30 seconds).

3.3 Enrolling the Transmitter ID
Refer to the target receiver's installation instructions and follow the procedure given there for "teaching" the transmitter's ID. It is much easier to carry out this operation in close proximity to the receiver.

3.4 Mounting without Swivel Bracket
A. Remove the front cover as shown in Figure 3.
B. Loosen the vertical adjustment screw, slide the PCB down and remove it via the "keyhole" (see Figure 4).

3.5 Mounting with Swivel Bracket
A. Remove the front cover as shown in Figure 3.
B. Loosen the vertical adjustment screw, slide the PCB down and remove it via the "keyhole" (see Figure 4).
C. Punch out the large knockout in the round bulge at the top part of the base (see Figure 6).
D. Assemble the bracket as shown in Figure 6.
E. Rotate the bracket to the desired position (see Figure 7) but do not yet tighten the screw fully.

![Figure 7. Wall and Ceiling Positions of Bracket](image)

F. Mark the points for drilling through the two mounting holes of the bracket. Attach the bracket to the mounting surface.

G. Tilt down or swivel the detector to face the desired direction. Figure 8 shows the tilt/swivel possibilities.

![Figure 8. Tilt/Swivel Limits](image)

### 3.6 Setting the Motion Event Counter

The location of the motion event jumper is shown in Figure 4. Refer to Figure 9 below and mount the jumper as desired.

![Figure 9. Motion Event Counter Setting Options](image)

### 3.7 Setting the LED Control Jumper

| **ON** Position: Setting the jumper as shown enables the LED. Remember that the detector disables itself for 2-minutes after detection! |
| **OFF** Position: Setting the jumper as shown disables the LED. |

### 3.8 Vertical Adjustment

Refer to Figure 10. Loosen the vertical adjustment screw and slide the printed circuit board up or down to obtain the desired coverage. When done, tighten the screw well.

![Figure 10. Vertical Adjustment](image)

### 3.9 Walk Testing

Upon battery insertion or closing of the cover (which results in closing of the tamper switch) the detector goes into walk-test mode and automatically exits the mode after 15 minutes.

A. Set the motion event counter as required (see Paragraph 3.6).

B. Adjust the vertical angle as desired (see Paragraph 3.8).

C. Remount the cover and fasten the case closure screw. This results in the resetting of the detector and the start of walk-test mode.

D. Wait until the LED stops flashing (about 30 seconds).

E. Walk-test the entire protected area by walking slowly across the detector's field of view, observing the LED. Pause for 5 seconds after each detection to allow the detector to complete its 3-transmission sequence; the LED will light for about 3 seconds.

F. When the walk-test is completed (after 15 minutes), the detector's setting automatically changes according to the LED control jumper setting.

**Notes:**

1. The OFF setting is recommended to prevent unauthorized people from tracing the detector's coverage pattern.

2. If the LED is disabled, you may use the control panel's visual and audible indicators to verify proper function of the detector.

**Attention:** To assure proper function of the detector, the range and coverage area should be checked at least twice a year. Furthermore, the user should be instructed to perform a walk test at the far end of the coverage pattern to assure an alarm signal prior to each time the alarm system is armed.
4. MISCELLANEOUS COMMENTS

4.1 Product Limitations

Visonic Ltd. wireless systems are very reliable and are tested to high standards. However, due to their low transmitting power and limited range (required by FCC and other regulatory authorities), there are some limitations to be considered:

A. Receivers may be blocked by radio signals on or near their operating frequencies, regardless of the code selected.

B. A receiver can only respond to one transmitted signal at a time.

C. Wireless equipment should be tested regularly to determine whether there are sources of interference and to protect against faults.

4.2 Frequency Allocations for Wireless Devices in European (EU) Countries

- 433.92 MHz has no restriction in any EU member state.
- 315 MHz is not allowed in any EU member state.
- 868.95 MHz (wide band) is allowed in all EU member states.
- 869.2625 MHz (narrow band) is not restricted in any EU member state.

WARRANTY

Visonic Limited (the “Manufacturer”) warrants this product only (the “Product”) to the original purchaser only (the “Purchaser”) against defective workmanship and materials under normal use of the Product for a period of twelve (12) months from the date of shipment by the Manufacturer.

This Warranty is absolutely conditional upon the Product having been properly installed, maintained and operated under conditions of normal use in accordance with the Manufacturers recommended installation and operation instructions. Products which have become defective for any other reason, according to the Manufacturers discretion, such as improper installation, failure to follow recommended installation and operational instructions, neglect, willful damage, misuse or vandalism, accidental damage, alteration or tampering, or repair by anyone other than the manufacturer, are not covered by this Warranty.

The Manufacturer does not represent that this Product may not be compromised and/or circumvented or that the Product will prevent any death and/or personal injury and/or damage to property resulting from burglary, robbery, fire or otherwise, or that the Product will in all cases provide adequate warning or protection. The Product, properly installed and maintained, only reduces the risk of such events without warning and it is not a guarantee or insurance that such events will not occur.

This Warranty is EXCLUSIVE AND EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, OBLIGATIONS OR LIABILITIES, WHETHER WRITTEN, ORAL, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE. IN NO CASE SHALL THE MANUFACTURER BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS WARRANTY OR ANY OTHER WARRANTIES WHATSOEVER, AS AFORESAID. THE MANUFACTURER SHALL IN NO EVENT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES FOR LOSS, DAMAGE, OR EXPENSE, INCLUDING LOSS OF USE, PROFITS, REVENUE, OR GOODWILL, DIRECTLY OR INDIRECTLY ARISING FROM PURCHASER’S USE OR INABILITY TO USE THE PRODUCT, OR FOR LOSS OR DESTRUCTION OF OTHER PROPERTY OR FROM ANY OTHER CAUSE, EVEN IF MANUFACTURER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

THE MANUFACTURER SHALL HAVE NO LIABILITY FOR ANY DEATH, PERSONAL AND/OR BODILY INJURY AND/OR DAMAGE TO PROPERTY OR OTHER LOSS WHETHER DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR OTHERWISE, BASED ON A CLAIM THAT THE PRODUCT FAILED TO FUNCTION.

However, if the Manufacturer is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty, THE MANUFACTURER’S MAXIMUM LIABILITY (IF ANY) SHALL NOT IN ANY CASE EXCEED THE PURCHASE PRICE OF THE PRODUCT, which shall be fixed as liquidated damages and not as a penalty, and shall be the complete and exclusive remedy against the Manufacturer.

The 315 MHz model of 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) the user must accept any interference that may be received, including interference that may cause undesired operation.

The user is cautioned that changes or modifications to the unit, not expressly approved by the party responsible, could void the user’s FCC authority to operate the equipment.

INTERNET: www.visonic.com

For information regarding the recycling of this product you must contact the company from which you originally purchased it. If you are discarding this product and not returning it for repair then you must ensure that it is returned as identified by your supplier. This product is not to be thrown away with everyday waste. Directive 2002/96/EC Waste Electrical and Electronic Equipment.

The technical documentation as required by the European Conformity Assessment procedure is kept at:
UNIT 6 MADINGLEY COURT CHIPPENHAM DRIVE KINGSTON MILTON KEYNES MK10 0BZ. Telephone number: 0870 7300800, Fax number: 0870 7300801

A Tyco International Company

EMAIL: info@visonic.com

INTERNET: www.visonic.com

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