Accessories Guide
Fully supervised wireless accessories for PowerMax systems
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D-302758
KEYFOBS (KF-234 PG2)

Wireless PowerG 2-Way Keyfob

1. INTRODUCTION
KF-234 PG2 is a miniature PowerG 4-button (6-function) keyfob, designed for use with the PowerMax10-G2. Transmission is initiated by pressing any one of the four recessed pushbuttons. Upon pressing a specific button, the KF-234 PG2 transmits a PowerG message associated with the button that was pressed and identifiable by PowerMax10-G2 control panels.

A red LED lights during transmission. When an identified command is received by the PowerMax10-G2 control panel, it acknowledges the command. Upon acknowledgement, the green LED lights and a happy beep is heard to indicate successful completion of the command or the red LED lights and a sad beep is heard to indicate that the control panel cannot perform the command.

In addition, a battery report is transmitted with the outgoing message. PowerMax10-G2 control panels are designed to identify this report and operate a corresponding output, if required.

Each keyfob is supplied with a small key ring.

2. SPECIFICATIONS
- Frequency Band (MHz): Europe: 433, 868, USA: 915
- Modulation: GFSK 50kbs, 25 kHz deviation
- Antenna: Built-in helical antenna
- Communication Protocol: PowerG
- Battery type: 3V CR-2032 Lithium battery
- Caution! Risk of explosion if battery is replaced by an incorrect type. Dispose of used battery according to manufacturer’s instructions.
- Battery Life Expectancy: 8 years (for typical use)
- Note: If transmission is still possible despite the battery condition, the unit will send a low battery signal to the control panel.
- Operating Temperature: 0° to 55°C (32° to 131°F)
- Weight (including battery): 25 g (0.9 oz)
- Color: Black
- Compliance with Standards:
  - Europe: EN 300220, EN 50131-1 Grade 2, Class II and (EN 50134-2 Class II if used for social alarm), EN 301489, EN 50130-4, EN 60950
  - USA: CFR47 Part 15
  - Canada: RSS 210

3. ENROLLMENT
Refer to the PowerMax10-G2 Installer Guide for the device enrollment procedure.

4. MODIFY DEVICE SETTINGS
This section describes how to configure the parameters for home monitoring of people from the PowerMax10-G2 control panel.

To Modify the Keyfob Device Settings

Refer to the PowerMax10-G2 Installer Guide and perform the procedure for Adding A Wireless Device (section 4.4.2), or, Modifying a Device (section 4.4.5). Then continue below to modify the device settings.

1. When the PowerMax10-G2 display reads [DEV SETTINGS], press [OK].
   The PowerMax10-G2 display will read [AUX A].

2. Press the [OK] button.
   The PowerMax10-G2 display will read [instant ■].

3. Press the [or ] button repeatedly to select between "instant", "skip exit delay" and "PGM", for example, "PGM".

4. Press [OK] to confirm the selection.
   The PowerMax10-G2 display will revert to [AUX A].
When exiting “ZONES/DEVICES” menu the PowerMax10-G2 system displays the number of devices that need to be updated, as follows: DEV UPDATING NNN.

For detailed instructions on ADDING DEVICES, DELETING DEVICES and MODIFYING DEVICES see the PowerMax10-G2 Installer Guide.

5. OPERATION

Initiate Panic Alarm: Press ARM AWAY and ARM HOME together for 2 seconds.

Arming Latchkey: Press ARM AWAY/HOME twice.

Arm AWAY/HOME: Press AWAY or HOME button once.

Status: Press ‘*’ button once.

6. MAINTENANCE

6.1 Replacing the Battery

A replacement 3V battery, CR-2032, is available from hardware and electrical supply stores. Replace the battery as shown in Figure 3.

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

6.2 Cleaning

The keyfob may get dirty if touched with greasy fingers. Clean it only with a soft cloth or sponge moistened lightly with a mixture of water and mild detergent, and wipe it dry immediately.

The use of abrasives of any kind is strictly forbidden. Also never use solvents such as kerosene, acetone or thinner.

7. TESTING A NEW UNIT

Since the KF-234 PG2 is supplied with the battery already installed, the unit is practically ready to be tested.

A. Stand 3 m (10 ft) away from a target control panel (or wireless control panel) and press the ARM AWAY button (see Fig. 2). Verify that the red LED lights upon transmission and that the green LED lights upon acknowledgement from the PowerMax10-G2.

B. Make sure that the control panel responds as programmed and as stated in the control panel’s instruction manual.

8. MISCELLANEOUS COMMENTS

8.1 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. Control panels may be blocked by radio signals occurring on or near their operating frequencies, regardless of the code selected.

B. Wireless equipment should be tested regularly to determine whether there are sources of interference and to protect against faults.
MOTION SENSORS (NEXT PG2, NEXT-K9 PG2)

Wireless, PowerG, Digital PIR / Pet Immune PIR Detectors

1. INTRODUCTION

The NEXT PG2 and NEXT-K9 PG2 are 2-way, microprocessor-controlled, wireless digital PIR detectors.

The detectors features are as follows:
- Combined Fresnel and cylindrical optics, up to 15 meters (49 ft).
- The NEXT PG2 includes wall creep zone protection.
- In NEXT PG2 and NEXT-K9 PG2, Target Specific Imaging™ (TSI) technology is used for distinction between human beings and pets weighing up to 38 kg (85 lb).
- Includes a fully supervised PowerG transceiver.
- The advanced True Motion Recognition™ algorithm (patented) allows distinguishing between the true motion of an intruder and any other disturbances which may cause false alarms.
- Sophisticated frequency domain digital signal processing.
- No vertical adjustment is needed.
- Motion event counter determines whether 1 or 2 consecutive motion events will trigger an alarm.
- Automatic termination of walk-test after 15 minutes.
- Microprocessor-controlled temperature compensation.
- Sealed chamber protects the optical system.
- Front cover and back tamper switches, for improved tamper protection.
- White light protection.

2. SPECIFICATIONS

Detector Type: Dual element low-noise pyroelectric sensor.

**Lens Data**
- No. of Curtain Beams / curtains:
  - NEXT PG2: 18 far, 18 mid, 10 close.
  - NEXT K-9 PG2: 18 far, 18 mid, 18 close.
- Max. Coverage: 15 x 15 m. (49 x 49 ft) / 90°
- Pet Immunity (NEXT-K9 PG2 only): Up to 38 kg (85 lb).

**Fig. 1. External View**

**Fig. 2. Coverage Pattern & Walk-test**

**ELECTRICAL**
- Internal Battery: 3V Lithium battery, type CR-123A or equivalent.

**Note:** For UL installations use Panasonic, Sanyo, GP or Varta only. Use only the above battery. Dispose of used battery according to the manufacturer’s instructions.
- Operating Voltage: 2.5 – 3.3V
- Nominal Battery Capacity: 1450 mAh.
- Battery Life (for typical use): 6 years

**FUNCTIONAL**
- True Motion Event Verification: 2 position selector - 1 (OFF) or 2 (ON) motion events.
- Alarm Period: 2 seconds.

**WIRELESS**
- Frequency Band (MHz): Europe: 433, 868, USA: 915
- Modulation: GFSK 50kbs, 25 kHz deviation
- Antenna: Built-in helical antenna
- Communication Protocol: PowerG
- Supervision: Signaling at 4-min. intervals.
- Tamper Alert: Reported when a tamper event occurs and in any subsequent message, until the tamper switch is restored.

**MOUNTING**
- Height: 1.8 - 2.4 m (6 - 8 ft). For NEXT PG2, the recommended height is up to 2.1 m (7 ft)
- Installation Options: Surface or corner.

**ACCESSORIES:**
- BR-1: Surface mounted swivel bracket, adjustable 30° down and 45° left/45° right.
- BR-2: BR-1 with a corner adapter
- BR-3: BR-1 with a ceiling adapter

**ENVIRONMENTAL**
- RFI Protection: >20 V/m up to 2000 MHz, excluding inband frequencies.
- Operating Temperatures: -10°C to 50°C (14°F to 122°F) indoor.
- Storage Temperatures: -20°C to 60°C (-4°F to 140°F).
- Compliance with Standards:
  - Europe: EN 300220, EN 50131-1 Grade 2, Class II. EN 301489, EN 50130-4, EN 60950, EN 50131-2-2
  - USA: CFR47 Part 15
  - Canada: RSS 210

**PHYSICAL**
- Size (H x W x D): 94.5 x 63.5 x 53.0 mm (3-11/16 x 2-1/2 x 2-1/16"
- Weight (with battery): 70 g (2.5 oz).
- Color: White.

**PATENTS:**
- U.S. Patents 5,693,943 ● 6,211,522 ● D445,709 (another patent pending)

3. ENROLLMENT

Refer to the PowerMax10-G2 Installer Guide for the device enrollment procedure.
4. MODIFY DEVICE SETTINGS
This section describes how to configure the parameters of the PIR detector from the PowerMax10-G2 control panel.

To Modify the PIR Detector Device Settings
Refer to the PowerMax10-G2 Installer Guide and perform the procedure for Adding A Wireless Device (section 4.4.2), or, Modifying a Device (section 4.4.5). Then continue below to modify the device settings.

1. When the PowerMax10-G2 display reads [DEV SETTINGS], press [OK]. The PowerMax10-G2 display will read [Alarm LED].

2. Press the [OK] button. The PowerMax10-G2 display will read [LED ON].

3. Press the [or] button to select between "LED ON" and "LED OFF", for example, "LED OFF".

4. Press [OK] to confirm the selection.

5. Press the [ ] button. The PowerMax10-G2 display will revert to [Alarm LED].

6. Press the [ ] button. The PowerMax10-G2 display will read [Event counter].

7. Press the [or] button to select between "LOW sensitive" and "HIGH sensitive", for example, "HIGH sensitive".

8. Press [OK] to confirm the selection.

9. Press the [ ] button. The PowerMax10-G2 display will revert to [Event counter].

10. Press the [ ] button. The PowerMax10-G2 display will read [DISARM Activity].

11. Press the [ !! ] button repeatedly to select between "NOT Active", "YES – no delay", "YES + 5s delay", "YES + 15s delay", "YES + 30s delay", "YES + 1m delay", "YES + 2m delay", "YES + 5m delay", "YES + 10m delay", "YES + 20m delay", and "YES + 60m delay", for example, "YES – no delay".

12. Press [OK] to confirm the selection.

When exiting "ZONES / DEVICES" menu the PowerMax10-G2 system displays the number of devices that need to be updated, as follows: DEV UPDATING NNN.

For detailed instructions on ADDING DEVICES, DELETING DEVICES and MODIFYING DEVICES see the PowerMax10-G2 Installer Guide.
5. LOCAL DIAGNOSTICS TEST
Before testing, separate the base from the cover (see Fig. 5).
A. Press the front tamper switch once and release it.
B. Put back the cover to return the tamper switch to its normal (undisturbed) position, and then secure the front cover to the base with the case closure screw.
C. Walk-test the coverage area - see fig. 2. Walk across the far end of coverage pattern in both directions. The red LED lights each time your motion is detected followed by 3 LED blinks.
The following table indicates received signal strength indication.

<table>
<thead>
<tr>
<th>LED response</th>
<th>Reception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green LED blinks</td>
<td>Strong</td>
</tr>
<tr>
<td>Orange LED blinks</td>
<td>Good</td>
</tr>
<tr>
<td>Red LED blinks</td>
<td>Poor</td>
</tr>
<tr>
<td>No blinks</td>
<td>No communication</td>
</tr>
</tbody>
</table>

IMPORTANT! Reliable reception must be assured. Therefore, "poor" signal strength is not acceptable. If you receive a "poor" signal from the detector, re-locate it and re-test until a "good" or "strong" signal strength is received.

Note: For detailed Diagnostics Test instructions refer to PowerMax10-G2 Installer Guide.

6. INSTALLATION
6.1 General Guidance (see fig. 4)

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.

Important! The K9-85 detector is immune to 38 kg (85 lb) animals moving on the floor or climbing on furniture as long as the activity takes place below 1 m (3 ft). Above the 1 m (3 ft) height limit, the detector is immune to 19 kg (42 lb) pets, but the pet immunity will decrease as the pet gets closer to the detector. It is therefore recommended to select a mounting location that minimizes potential close proximity of animals.

6.2 General Guidelines (see fig. 6)

- Mount on solid stable surface.
- Do not install behind partitions.
- Do not install outdoors.
- Avoid direct sunshine.
- Keep wiring away from power cables.
- Keep away from heat sources.

7. 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.

**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.
SMOKE SENSORS (SMD-426, SMD-427)

Supervised Wireless PowerG Smoke / Heat and Smoke Detector

1. DESCRIPTION AND APPLICATIONS

SMD-426 (smoke detector) and SMD-427 (heat and smoke detector) are automatic fire detectors with integral audible signal for open area protection, designed to sense heat or smoke (not flame) and fitted with a PowerG type UHF transceiver.

SMD-426 / SMD-427 provides early warning of developing fire by sounding an alarm with its built-in alarm horn, and by transmitting a coded alarm signal to a PowerG receiver or to a compatible wireless alarm control panel.

SMD-427 will activate a fire alarm upon either smoke or heat (temperature rate-of-rise) condition. With two fire sensors (heat and smoke), the SMD-427 detector may shorten the time to fire alarm activation.

It must be borne in mind, though, that effective prewarning of fire accidents is only possible if the detector is located, installed and maintained as described here.

In alarm condition, the buzzer sound can be stopped for 12 minutes by pressing the TEST/MUTE switch. It will not restore the alarm condition, but will temporarily silence the buzzer while you correct the condition. After 12 minutes, the detector restarts the alarm buzzer sound.

Note: The TEST/MUTE switch functions as TEST switch (in normal operation) or as MUTE switch (in alarm condition).

The tamper switch actuator (Fig. 3) is pressed against the bracket when the unit is attached to the bracket. Removal of the unit from the bracket causes the switch contacts to open, creating a tamper event, which is reported by the transceiver to the alarm system control panel.

2. SPECIFICATIONS

SMOKE DETECTOR
Alarm Sound Level: 85 dB at 3 m (10 feet)

WIRELESS
Frequency Band (MHz): 433, 868, USA: 915
Modulation: GFSK 50kbs, 25 kHz deviation
Tamper Alerts: Tamper event (removal of the unit from its bracket) is reported once. Tamper restore is reported when the tamper switch is restored.

ALARM REPORT:
In the alarm condition, the detector sends the alarm event to the control panel. When the alarm condition is restored, the detector sends an alarm restore event to the control panel and sets the alarm restore indication (red LED blinks once per sec.)

Note: The alarm restore indication can be cleared via the control panel only.

ELECTRICAL DATA
Power Source: 3 Volt CR123A / CR17450 lithium.
Operation Voltage: From 2.7 V to 3 V.
Current Drain: 18 µA standby, 70 mA max. in operation
Smoke Density:
Europe: 0.09 – 0.14 db/m
USA: 1.44%/ft to 2.74%/ft
Cover Range: 50 – 100 cubic meters (1770 – 3530 cubic ft.)

Battery Supervision: Automatic transmission of battery status data as part of any transmitted message.

Battery Life Expectancy: 5 years for CR123A, 8 years for CR17450.

Audible and Visual Low Battery Warning: Built-in horn beeps every 30 seconds simultaneously with red LED flashing (for up to 30 days when the battery voltage drops).

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

Audible and Visual Degraded Chamber Sensitivity Warning: Built-in horn beeps every 30 seconds in the middle of red LED flashing intervals – indicates that the detector must be replaced.

Clean Warning Transmission: A clean (maintenance) signal is transmitted when the detector’s chamber becomes stained, causing the detector to operate at high sensitivity.

PHYSICAL DATA
Operating Temperature: -10°C to 50°C (14°F to 122°F).
Relative Humidity: 10% to 85%
Dimensions: SMD-426 120 mm (4.7") x 58 mm (2.3")
SMD-427 120 mm (4.7") x 63 mm (2.5")

Weight (including battery): 165 g (5.8 oz)

Compliance with Standard:
EN54-7, EN 14604, EN 54-5, EN 60950, EN 300220,
EN 301489,
USA: (FCC) CFR47 Part 15
Canada: RSS210

Designed to comply with: UL 268

3. INSTALLATION

3.1 Disassembly
Separate the unit from its mounting bracket as shown in Figure 2.

Figure 1. General View (SMD-427)

Figure 2. Separating the Detector from Its Bracket
3.2 Where to Install Smoke Detectors
Smoke detectors should be installed in accordance with the NFPA Standard 74 (National Fire Protection Association, Batterymarch Park, Quincy, MA 02169). For complete coverage in residential units, smoke detectors should be installed in all rooms, halls, storage areas, basements and attics in each family living unit. Minimum coverage is one detector on each floor and one in each sleeping area and attics in each family living unit. For maximum protection, a smoke detector should be located outside primary sleeping areas or on each level of your home. Here are a few useful tips for you:

- Install a smoke detector in the hallway outside every separate bedroom area, as in Figure 5. Two detectors are required in homes with two bedroom areas, as in Figure 6.
- Install a smoke detector on every floor of a multi-floor home or apartment, as shown in Figure 7.
- Install a minimum of two detectors in any household.
- Install a smoke detector inside every bedroom.
- Install smoke detectors at both ends of a bedroom hallway if the hallway is more than 12 meters (40 feet) long.

![Figure 5. Locations for Placing Smoke Detectors in a Single Residence with only One Sleeping Area](image1)

- Install a smoke detector inside every room where one sleeps with the door partly or completely closed, since smoke could be blocked by the closed door and a hallway alarm may not wake up the sleeper if the door is closed.

![Figure 6. Locations for Placing Smoke Detectors in Single-Floor Residence with More than One Sleeping Area](image2)

- Be sure no door or other obstruction blocks the path of smoke to the detector.
- Install additional smoke detectors in your living room, dining room, family room, attic and storage rooms.
- Install smoke detectors as close to the center of the ceiling as possible. If this is not practical, put the detector on the ceiling, at least 10 cm (4 inches) away from any wall or corner, as shown in Figure 8.
- If ceiling mounting is not possible and wall mounting is permitted by your local and state codes, locate the detectors between 10 - 15 cm (4 - 6 inches) from the ceiling, also see Figure 8.
- If some of your rooms have sloped, peaked, or gabled ceilings, try to mount detectors 0.9 meter (3 feet) measured horizontally from the highest point of the ceiling as shown in Figure 9.

![Figure 8. Recommended Best and Acceptable Locations to Mount Smoke Detectors](image3)

- Install basement detectors at the bottom of the basement stairwell.
- Install second-floor detectors at the top of the first-to-second floor stairwell.

![Figure 7. Placing Smoke Detectors in a Multi-Floor Residence](image4)

- CAUTION (As required by the California State Fire Marshall)
"Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows:
(1) A smoke detector installed in each separate sleeping area (in the vicinity, but outside the bedrooms), and (2) Heat or smoke detectors in the living rooms, dining rooms, bedrooms, kitchens, hallways, attics, furnace rooms, closets, utility and storage rooms, basements and attached garages."

3.3 Where Not to Install Smoke Detectors
False alarms occur when smoke detectors are installed where they will not work properly. To avoid false alarms, do not install smoke detectors in the following situations:

- Combustion particles are by-products of something burning. Do not install smoke detectors in or near areas where combustion particles are present, such as kitchens with few windows or poor ventilation, garages where there may be vehicle exhaust, near furnaces, hot water heaters and space heaters.
- Do not install smoke detectors less than 6 meters (20 feet) away from places where combustion particles are normally present, like kitchens. If a 20-foot distance is not possible, try to install the detector as far away from the combustion particles as possible, preferably on the wall. To prevent false alarms, provide good ventilation in such places.

![Figure 9. Recommended Location to Mount Smoke Detectors in Rooms with Sloped, Gabled or Peaked Ceiling](image5)

- IMPORTANT: Never try to avoid false alarms by disabling the detector.
- Do not mount smoke detectors in the path of fresh air intake. The flow of fresh air in and out can drive smoke away from the smoke detector; thus reducing its efficiency. Figure 10 indicates the correct and incorrect locations concerning this problem.
- Near paint thinner fumes.
In close proximity to an automobile exhaust pipe; this will damage the detector.

In damp or very humid areas or near bathrooms with showers. Moisture in humid air can enter the sensing chamber, then turns into droplets upon cooling, which can cause false alarms. Install smoke detectors at least 3 meters (10 feet) away from bathrooms.

In very cold or very hot areas, including unheated buildings or outdoor rooms. If the temperature goes above or below the operating range of smoke detector, it will not work properly. Verify that the temperature range of the detector falls within the Operating Temperature, (see chapter 2. Specifications).

In very dusty or dirty areas, dirt and dust can build up on the detector's sensing chamber, to make it overly sensitive.

Additionally, dust or dirt can block openings to the sensing chamber and keep the detector from sensing smoke.

Near fresh air vents or very drafty areas like air conditioners, heaters or fans. Fresh air vents and drafts can drive smoke away from smoke detectors.

Dead air spaces are often at the top of a peaked roof, or in the corners between ceilings and walls. Dead air may prevent smoke from reaching a detector. See Figures 8 and 9 for recommended mounting locations.

In insect-infested areas. If insects enter a detector's sensing chamber, they may cause a false alarm. Where bugs are a problem, get rid of them before putting up a detector.

Near fluorescent lights, electrical "noise" from fluorescent lights may cause false alarms. Install smoke detectors at least 1.5 meters (5 feet) from such lights.

Smoke detection depends on the smoke density present in a room. Smoke density is greater in small rooms, for the same amount of smoke, than in large rooms.

In small rooms less than 25 cubic meters (883 cubic ft.) in size, a small amount of smoke may activate a smoke alert. For example, smoking or bathroom steam may activate a smoke alert.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Visual Indication (LEDs)</th>
<th>Audio Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke alarm</td>
<td>Flash every 500ms</td>
<td>3 long beeps every 4 sec.</td>
</tr>
<tr>
<td>Heat alarm(***</td>
<td>Flash every 500ms</td>
<td>Long beep every 2 sec.</td>
</tr>
<tr>
<td>Tamper alarm(*)</td>
<td>-</td>
<td>Long beep every 2 sec.</td>
</tr>
<tr>
<td>Standby</td>
<td>Flash every 30 sec.</td>
<td>-</td>
</tr>
<tr>
<td>Low battery</td>
<td>Flash every 30 sec.</td>
<td>Short beep every 30 sec.</td>
</tr>
<tr>
<td>Smoke sensor trouble</td>
<td>Flash every 60 sec.</td>
<td>Short beep every 60 sec.</td>
</tr>
<tr>
<td>Low sensitivity alarm</td>
<td>Flash every 30 sec.(**)</td>
<td>Short beep every 30 sec.</td>
</tr>
<tr>
<td>Heat sensor trouble(***</td>
<td>Flash every 60 sec.</td>
<td>Short beep every 60 sec.</td>
</tr>
<tr>
<td>Need to clean</td>
<td>2 flashes every 30 sec.</td>
<td>2 short beeps every 30 sec.</td>
</tr>
<tr>
<td>Test</td>
<td>See par. 6.1</td>
<td></td>
</tr>
</tbody>
</table>

** The tamper alarm will mute for 3 minutes at first power on, and will revert to normal mode when the tamper switch condition is changed.
*** Delay of 15 sec. between buzzer beep and LED operation
*** SMD-427 only

### 3.5 Battery Connection and Initial Test

**Attention:** The detector battery cover is fitted with a red button that prevents the detector from locking onto bracket if there is no battery inside.

The smoke detector is supplied with a 3V CR123A / CR17450 battery. Battery connection for both types of batteries is illustrated in Figure 3a and 3b below.

![Battery Connection for CR123A](image)

**WARNING:** Never remove batteries to stop a false alarm. Open a window or fan the air around the detector to get rid of the smoke. The alarm will turn itself off when the smoke is gone. If false alarms persist, attempt to clean the detector as described in this manual.

**WARNING:** Do not stand close to the detector when the alarm is sounding. The alarm is loud in order to wake you in an emergency. Too much exposure to the horn at close range may be harmful to your hearing.

### 3.4 Audible and Visual Indications

The dual color LED and buzzer are used to signal various alarm and trouble messages as shown in Table 1 below.
Open battery cover and connect the battery to its terminals.

Note: When the battery first makes contact, the alarm horn may sound for one second. This indicates that the battery is connected properly.

Close the cover, then press the test button (see fig. 1) for about 2 seconds, (for further details see par. 3.6).

3.6 Resetting the Transceiver Module

The detector has a wall / rear tamper switch to alert removal of detector. The tamper switch actuator, extending through a hole in the base (see Figure 3), is pressed against the bracket when the unit is attached to the bracket. Removal of the unit from the bracket will cause the switch contacts to open, creating a tamper event, which will be reported by the transceiver to the control panel.

4. ENROLLMENT

Refer to the PowerMax10-G2 Installer Guide for the device enrollment procedure.

5. MODIFY DEVICE SETTINGS

This section describes how to configure the parameters of the smoke detector from the PowerMax10-G2 control panel.

To Modify the Smoke Detector Device Settings

Refer to the PowerMax10-G2 Installer Guide and perform the procedure for Adding A Wireless Device (section 4.4.2), or, Modifying a Device (section 4.4.5). Then continue below to modify the device settings.

1. When the PowerMax10-G2 display reads [DEV SETTINGS], press [OK].

   The PowerMax10-G2 display will read [Burglary Siren].

2. Press the [OK] button.

   The PowerMax10-G2 display will read [enable ■].

3. Press the ▶ or ◀ button to select between "enable" and "disable", for example, "disable".

4. Press [OK] to confirm the selection.

   The PowerMax10-G2 display will revert to [Burglary Siren].

5. Press the ▶ button.
The PowerMax10-G2 display will read [Fire Siren].

6. Press the button.
   The PowerMax10-G2 display will read [enable ].

7. Press the or button to select between "enable" and "disable", for example, "disable".

8. Press to confirm the selection.

The PowerMax10-G2 display will revert to [Fire Siren].

9. Press the button.
   The PowerMax10-G2 display will read [Gas / CO Siren].

10. Press the button.
    The PowerMax10-G2 display will read [enable ].

11. Press the or button to select between "enable" and "disable", for example, "disable".

12. Press to confirm the selection.

The PowerMax10-G2 display will revert to [Gas / CO Siren].

13. Press the button.
    The PowerMax10-G2 display will read [Flood Siren].

14. Press the button.
    The PowerMax10-G2 display will read [enable ].

15. Press the or button to select between "enable" and "disable", for example, "disable".

16. Press to confirm the selection.

The PowerMax10-G2 display will revert to [Flood Siren].

When exiting "ZONES / DEVICES" menu the PowerMax10-G2 system displays the number of devices that need to be updated, as follows: DEV UPDATING NNN.

For detailed instructions on ADDING DEVICES, DELETING DEVICES and MODIFYING DEVICES see the PowerMax10-G2 Installer Guide.

6. SMOKE DETECTOR TEST

Enter the test mode by pressing the test button for 2 seconds and release it. In this mode, the detector will test smoke, heat and battery functions. If all functions are good, the red LED lights 0.5s, off 0.5s, the yellow LED lights 0.5s, off 0.5s followed by a loud 3-beep alarm and the red LED flashes simultaneously. Otherwise, the detector produces the warning signals as detailed in Table 1.

If the detector is in any diagnostics mode, the detector performs the diagnostics test as described in section 6.1.

6.1 Diagnostics Test

Caution! The diagnostics test cannot be performed while tamper is in "open" state.

A. The detector performs a LED communication test.
B. When the LED lights orange (red and green), this indicates correct operation of the LEDs.
C. The detector now performs the link quality test.

Note: If the detector is not in local diagnostics or installer diagnostics mode, the detector will not perform the link quality test.
D. At the end of the diagnostics test the LED blinks 3 times.
The following table indicates received signal strength indication.

<table>
<thead>
<tr>
<th>LED response</th>
<th>Reception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green LED blinks</td>
<td>Strong</td>
</tr>
<tr>
<td>Orange LED blinks</td>
<td>Good</td>
</tr>
<tr>
<td>Red LED blinks</td>
<td>Poor</td>
</tr>
<tr>
<td>No blinks</td>
<td>No communication</td>
</tr>
</tbody>
</table>

**IMPORTANT!** Reliable reception must be assured. Therefore, "poor" signal strength is not acceptable. If you receive a "poor" signal from the detector, re-locate it and re-test until a "good" or "strong" signal strength is received.

---

**7. MOUNTING**

![Mounting Diagram]

Notes
1. A battery must be inserted into the detector before the detector can be mounted onto the bracket.
2. Unauthorized removal of the unit from the bracket will initiate a tamper alert!

**8. SMOKE DETECTOR LIMITATIONS**

**A.** This smoke detector is designed for use in a **single residential unit or office**, which means that it should be used inside a single family home or apartment or office.

**B.** Please refer to NFPA 101, the Life Safety Code, NFPA72 for smoke detector requirements for fire protection in buildings not defined as "households".

**C.** The smoke detector will not sense a fire if the smoke does not reach the sensor. In order for a smoke detector to sense smoke, it must be installed in the immediate vicinity of the fire.

In addition, smoke from fires in chimneys, in walls, on roofs, in remote parts of the building, or on another level from where the smoke detector is located, may not reach the smoke detector quickly enough for occupants to escape unharmed. For this reason, installer shall install smoke detectors on every level, in every sleeping area and in every bedroom of the household.

**D. Smoke detector may not be heard.** The alarm horn in this smoke detector meets or exceeds current Underwriter’s Laboratories standards. However, if the smoke detector is not located in the same room as the occupant or if it is blocked by a closed door or normal noise, the alarm horn may not be heard. In addition, sound sleepers, or persons who are under the influence of drugs or alcohol may not hear the alarm or be able to react to it. Therefore, locate this smoke detector, which has a sounder rated at 85 dB at 10 feet, on every level, in every sleeping area and in every bedroom of the household.

**E.** This detector, if used as a stand-alone unit, will not alert people who are hard of hearing.

**F. In general, detectors may not always warn you about fires caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches or arson.

**G.** Smoke detectors are not fool-proof. Like all electronic devices, smoke detectors have limitations. No type of smoke detector can sense every kind of fire every time. In addition, smoke from slow, smoldering fires rises slowly and may not reach the smoke detector until actual flame breaks out. This type of smoke may not reach the smoke detector in time for occupants to escape unharmed.

**H.** Smoke detectors are not a substitute for life or property insurance. Though smoke detectors have been responsible for saving many lives, they are not warranted or implied to protect lives or property in the event of fire.

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

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

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

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

---

**9. TAKING CARE OF THE SMD-426 or SMD-427**

**9.1 Battery Replacement**

The SMD-426 and SMD-427 were designed to be as maintenance-free as possible. To keep the smoke detector in good working order, you must test it weekly, as instructed in Para. 6.1 below.

**Make it a rule to replace the detector’s battery (lithium) once every 8 years even if there is no indication that the battery is weak.** Also be sure to replace it immediately upon reception of a low battery message via your control panel.

If you disregard this message, an audible reminder in the form of once-per-minute “beep” will sound after a few days. The low-battery "beep" should last at least 30 days before the battery dies out completely.

**NOTE:** For best performance, use only lithium batteries as replacement batteries (see specifications). Carbon zinc batteries are not acceptable.
Replace the battery as follows:

A. Separate the detector from its bracket (see figure 2).
B. Replace battery (see Figure 3a or Figure 3b according to the battery used).

9.2 Maintenance

It is necessary to maintain the detector frequently to ensure it working properly. Follow these tips for taking care of your detector:

- Use a vacuum cleaner to clean the air vents occasionally to keep them free of dust. When a "Clean Warning" transmission is received, the detector should be cleaned. When a trouble event is received, the detector should be removed (see Table 1 for visual and audible indications).
- Perform detector functional test (see par. 3.7) weekly.
- A clean (maintenance) signal is transmitted when the detector's chamber sensitivity becomes degraded.

Note: This transmission applies to the PowerMax+ control panel only.

Note: If false alarms keep occurring, check whether the detector's location is adequate (see Para. 4.1 and 4.2). Relocate the unit if it is not located properly. Clean as described above.

10. ADDITIONAL ADVICE

10.1 Routine Testing

The detector should be tested weekly and also whenever you suspect that it does not go into alarm (for further details see par. 3.6). If the detector fails, have it repaired or replaced immediately, to ensure that it works properly.

Every 3 months the smoke detector must be checked by using smoke detectors test sprayer.

WARNING: Never use an open flame of any kind to test your detector. You may set fire to damage the detector as well as your home. The built-in test switch accurately tests all detector functions, as required by Underwriters' Laboratories. This is the only correct way to test the unit.

Note: If the alarm horn produces a loud continuous sound and the red LED flashes when you are not testing the unit, this means the detector has sensed smoke or combustion particles in the air. Verify that the alarm is a result of a possible serious situation, which requires your immediate attention.

- The alarm could be caused by a false situation. Cooking smoke or a dusty furnace, sometimes called "friendly fires" can cause the alarm to sound. If this happens, open a window or fan the air away to remove the smoke or dust. The alarm will turn off as soon as the air is completely clear.
- CAUTION: Do not disconnect the battery from the detector. This will remove your protection from fires.
- If there is any question as to the cause of an alarm, it should be assumed that the alarm is due to an actual fire and the residence should be evacuated immediately.
- If the alarm horn begins to beep once every 30 sec (for further details, see par. 3.2), this signal means that the detector’s battery is weak. Install a new battery immediately. Keep fresh batteries on hand for this purpose.

10.2 Tips to Enhance Your Protection From Fires

Putting up smoke detectors is only one step in protecting your family from fires. You must also reduce the chances of fires starting in your home. You must also increase your chances of escaping safely if one does start. To have a good fire safety program you must apply the following tips to enhance your family's protection from fires:

A. Install smoke detectors properly. Carefully follow all the instructions in this manual. Keep your smoke detectors clean and test them every week.
B. Remember that detectors that do not work will not alert you. Replace your smoke detectors immediately if they are not working properly.
C. Follow fire safety rules, and prevent hazardous situations:
   - Use smoking materials properly. Never smoke in bed.
   - Keep matches and cigarette lighters away from children.
   - Store flammable materials in proper containers. Never use them near open flame or sparks.
   - Keep electrical appliances in good condition. Do not overload electrical circuits.
   - Keep stoves, fireplaces, chimneys, and barbecue grills grease free. Make sure they are properly installed and away from any combustible materials.
   - Keep portable heaters and open flames such as candles away from combustible materials.
   - Do not allow rubbish to accumulate.
D. Develop a family escape plan and practice it with your entire family. Be sure to include small children in your practice.
   - Draw a floor plan of your home, and find two ways to exit from each room. There should be one way to get out of each bedroom without opening the door.
   - Explain to children what the smoke detector alarm signal means. Teach them that they must be prepared to leave the home by themselves if necessary. Show them how to check to see if doors are hot before opening them. Show them how to stay close to the floor and crawl if necessary. Show them how to use the alternate exit if the door is hot and should not be opened.
   - Decide on a meeting place which has a safe distance from your house. Make sure that all your children understand that they should go and wait for you there if there is a fire.
   - Hold fire drills at least every 6 months, making sure that everyone, even small children, knows what to do to escape safely.
   - Know where to go to call the Fire Department outside your home.
   - Provide emergency equipment, such as fire extinguishers, and teach your family to use this equipment properly.
10.3 More Tips on How to Face a Fire at Home

If you have made an escape plan and practiced it with your family, their chances of escaping safely are increased. Go over the following rules with your children when you have fire drills. This will help everyone remember the rules in a real emergency.

A. Don't panic and stay calm. Your safe escape may depend on thinking clearly and remembering what you have practiced.

B. Get out of the house as quickly as possible. Follow a planned escape route. Do not stop to collect anything or to get dressed.

C. Feel the doors to see if they are hot. If they are not, open them carefully. Do not open a door if it is hot. Use an alternate escape route.

D. Stay close to the floor. Smoke and hot gases rise.

E. Cover your nose and mouth with a wet or damp cloth. Take short, shallow breaths.

F. Keep doors and windows closed. Open them only if you have to in order to escape.

G. Meet at your planned meeting place after leaving the house.

H. Call the Fire Department as soon as possible from outside your house. Give the address and your name.

I. Never go back inside a burning building. Contact your local Fire Department. They will give you more ideas about how to make your home safer from fires and how to plan your family's escape.

11. STATEMENTS OF COMPLIANCE

The 315 MHz version 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) This device must accept any interference received, including interference that may cause undesired operation.

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.

The digital circuit of 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 which supplies power to the receiver.
– Consult the dealer or an experienced radio/TV technician.

CONTACT SENSORS (MC-302 PG2)

Supervised PowerG Magnetic Contact Device

1. INTRODUCTION

The MCT-302 PG2 is a fully supervised, PowerG magnetic contact device. The device includes a built-in reed switch (that opens upon removal of a magnet placed near it). The MC-302 PG sends the parameters of the specific alarm to the control panel using PC II 2-way communications protocol.

The MC-302 PG II tamper switch is activated when the cover is removed. A periodic supervision message is transmitted automatically. The control panel is thus informed, at regular intervals, of the unit’s active participation in the system. An LED lights whenever alarm or tamper events are reported. The LED does not light while a supervision message is being transmitted.

Operating power is obtained from an on-board 3 V Lithium battery. When the battery voltage is low, a “low battery” message is sent to the receiver.

2. SPECIFICATIONS

Frequency Band (MHz): Europe: 433, 868, USA: 915.
Modulation: GFSK 50kbs, 25 kHz deviation
Antenna: Built-in helical antenna
Communication Protocol: PowerG II
Alarm Input: One internal.
Supervision: Signaling at 4-min. intervals.
Tamper Alert: Reported when a tamper event occurs.
Battery Type: 3 V Lithium CR-123 type battery, Panasonic or Sanyo only.
Battery Life Expectancy: 8 years (for typical use)
Battery Supervision: Automatic transmission of battery condition data as part of periodic status report and immediately upon low battery condition detection.
Operating Temperature: 0°C to 49°C (32°F to 120°F).
Dimensions: 81 x 34 x 25 mm (3-3/16 x 1-1/4 x 1 in.)
Weight: 53g (1.9 oz)

Standards:
USA: CFR47 part 15 (FCC)
Europe: EN 301 489-3, EN 50130-4: (95) & A1 : (98) & A2: (03), EN 300 220-2, EN 60950-1, EN 50130-5,EN 50131-1, CLC/TS 50131-2-6
Canada: RSS 210

3. INSTALLATION

3.1 Mounting (Fig. 3a and 3b)

It is highly recommended to attach the transmitter to the top of the door/window on the fixed frame and the magnet to the movable part (door or window). Make sure that the magnet is located not more than 6 mm (0.25 in.) from the transmitter’s marked side.

Note: Once the cover is removed, a tamper message is transmitted to the receiver. Subsequent removal of the battery prevents transmission of “TAMPER RESTORE”, leaving the receiver in permanent alert. To avoid this, during the enrolling process, press the tamper switch while you remove the battery.

Attention! The unit has a back tamper switch (optional) under the PCB. As long as the PCB is seated firmly within the base, the switch lever will be pressed against a special break-away base segment that is loosely connected to the base (Figures 2 and 3a). Be sure to fasten the break-away segment to the wall. If the detector unit is forcibly removed from the wall, this segment will break away from the base, causing the tamper switch to open.
4. ENROLLMENT
Refer to the PowerMax10-G2 Installer Guide for the device enrollment procedure.

5. MODIFY DEVICE SETTINGS
This section describes how to configure the parameters of contact sensors from the PowerMax10-G2 control panel.

### To Modify the Contact Sensor Settings

Refer to the PowerMax10-G2 Installer Guide and perform the procedure for Adding A Wireless Device (section 4.4.2), or, Modifying a Device (section 4.4.5). Then continue below to modify the device settings.

1. When the PowerMax10-G2 display reads [DEV SETTINGs], press [OK].
   The PowerMax10-G2 display will read [Alarm LED].

2. Press the [LED] button.
   The PowerMax10-G2 display will read [LED ON].

3. Press the [LED] or [LED OFF] button to select between "LED ON" and "LED OFF".
   For example, "LED OFF".

4. Press [OK] to confirm the selection.
   The PowerMax10-G2 display will revert to [Alarm LED].

   **When exiting **"ZONES / DEVICES" menu the PowerMax10-G2 system displays the number of devices that need to be updated, as follows: DEV UPDATING NNN.
   For detailed instructions on ADDING DEVICES, DELETING DEVICES and MODIFYING DEVICES see the PowerMax10-G2 Installer Guide.

6. LOCAL DIAGNOSTICS TEST
Before testing, separate the base from the cover (see Fig. 3a).  
   **A.** Press the tamper switch once and release it.  
   **B.** Put back the cover to return the tamper switch to its normal (undisturbed) position, and then secure the front cover to the base with the case closure screw.  
   **C.** Momentarily open the door or window and verify the red LED blinks, indicating detection.  
   **D.** After 2 seconds the LED blinks 3 times.
   The following table indicates received signal strength indication.

<table>
<thead>
<tr>
<th>LED response</th>
<th>Reception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green LED blinks</td>
<td>Strong</td>
</tr>
<tr>
<td>Orange LED blinks</td>
<td>Good</td>
</tr>
<tr>
<td>Red LED blinks</td>
<td>Poor</td>
</tr>
<tr>
<td>No blinks</td>
<td>No communication</td>
</tr>
</tbody>
</table>

   **IMPORTANT!** Reliable reception must be assured. Therefore, "poor" signal strength is not acceptable. If you receive a "poor" signal from the device, re-locate it and re-test until a "good" or "strong" signal strength is received.  
   **Note:** For detailed Diagnostics Test instructions refer to PowerMax10-G2 Installer Guide.

7. MISCELLANEOUS COMMENTS
Visonic Ltd. wireless systems are very reliable and are tested to high standards. However, due to 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 occurring on or near their operating frequencies, regardless of the digital code used.
   **B.** A receiver responds only to one transmitted signal at a time.
C. Wireless devices should be tested regularly to determine whether there are sources of interference and to protect against faults.

The user is cautioned that changes or modifications to the unit, not expressly approved by Visonic Ltd., could void the user’s FCC or other authority to operate the equipment.
REPEATERS (RP-600 PG2)

Wireless Repeater for PowerG Communications

1. INTRODUCTION
The RP-600 PG2 is a range extender designed to relay digital data between wireless PowerMax10-G2 Devices and a PowerMax10-G2 Control Panel. Repeater links are required when the Control Panel is beyond the range of at least some of the devices and is therefore incapable of receiving transmissions directly (see Figure 2).

2. SPECIFICATIONS
Frequency Band (MHz): Europe 433, 868, USA: 915
Modulation Type: FSK (Frequency Shift Key).
Antenna: Built-in antenna
Communication Protocol: PowerG II
AC Power Supply: AC to AC adaptor.
120 VAC, 60 Hz / 9 VAC, 0.35 A min. (in the U.S.A.)
230 VAC, 50 Hz / 9 VAC, 0.35 A min.
Backup Battery: 4.8-Volt 1300 mAh NiMH rechargeable.
Note: Dispose of used batteries according to the manufacturer's instructions.

Current drain at 5.7 VDC

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>433</th>
<th>868</th>
<th>915</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 mA</td>
<td>100 mA</td>
<td>100 mA</td>
<td></td>
</tr>
</tbody>
</table>

Battery Backup Duration (with fully charged 1300 mA/h battery) 48 hours:
LED indicator: Green LED lights when AC power on.
Compliance with Standards:
Europe: EN 50131-1, EN 50130-5, EN 50131-6, EN 301489, EN 50130-4, EN 300 220
USA: (FCC) CFR47 Part 15
Canada: RSS210
Operating Temperature: 0°C to 49°C (32°F to 120°F).
Dimensions (H x W x D): 161x161x50mm (6 7/16 x 6 7/16 x 1 3/4 in)
Weight: (with battery): 470g (16.5 oz.)

3. INSTALLATION
3.1 Repeater’s Location Selection
A. In a repeater setup, install the repeater where good communication is assured with the target receiver and with the transmitters deployed in the repeater's coverage area.
B. Mount the repeater as high as possible above the floor and well away from metal chimneys, large metal cabinets, metal doors and reinforced concrete walls, all of which may reduce the communication range.
C. Make sure that the location you have selected is near an electrical outlet.

For back tamper screw

Figure 1: External View

Figure 2 - Installation.
4. ENROLLMENT
Refer to the PowerMax10-G2 Installer Guide for the device enrollment procedure.

5. CONFIGURATION AND OPERATION
5.1 Service Messages
Five kinds of event codes are automatically included in a service transmission in addition to the repeater's:
- AC fail
- Low Battery
- End of life
- Tamper
- Supervision.
Upon power failure, recharging stops and the backup battery takes over. It is therefore correct to assume that without power input the battery is gradually weakening and may be reported as "low".

**Power / battery restore** is reported only in the following test report.

**End of life** is reported when battery power is depleted and device is about to shut down.

**Tamper restore** is reported immediately upon occurrence. If the tamper or power failure condition persists long enough, respective alerts will be sent out again with each test report.

6. MAINTENANCE
*Note: Battery replacement should be done by a service man.*

7. LOCAL DIAGNOSTICS TEST
Before testing, separate the base from the cover (see Fig. 2).

A. Press the self-test button once and release it:
   - The red LED and then the green LED will switch ON and then OFF in turn to indicate that the repeater is now fully operational.

B. After 2 seconds the LED blinks 3 times.
   - The following table indicates received signal strength indication.

<table>
<thead>
<tr>
<th>LED response</th>
<th>Reception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green LED blinks</td>
<td>Strong</td>
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<tr>
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<td>Good</td>
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<tr>
<td>Red LED blinks</td>
<td>Poor</td>
</tr>
<tr>
<td>No blinks</td>
<td>No communication</td>
</tr>
</tbody>
</table>

**IMPORTANT!** Reliable reception must be assured. Therefore, "poor" signal strength is not acceptable. If you receive a "poor" signal from the device, re-locate it and re-test until a "good" or "strong" signal strength is received.

*Note: For detailed Diagnostics Test instructions refer to PowerMax10-G2 Installer Guide.*

8. COVER CLOSURE
See figure 5.

9. NOTES AND WARNINGS
9.1 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 occurring on or near their operating frequencies, regardless of the code selected.

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

9.2 Compliance with Standards

**Interference Prevention**
This device complies with FCC Rules Part 15. Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation.
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.

The digital circuitry of 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 which supplies power to the receiver.
- Consult the dealer or an experienced radio/TV technician.

SIRENS (SR-730 PG2)

Fully Wireless PowerG Outdoor Siren

1. INTRODUCTION

The SR-730 PG2 is a fully wireless outdoor siren, designed for installation in areas in which wiring action is difficult or impossible. The siren is compatible with PowerMax10-G2 control panels.

Features

- Siren and strobe light activation: When an identified event message is received from the compatible PowerMax10-G2 alarm system, the siren activates its sounder & strobe light.

Notes:
The sounder is activated for a predefined “Bell Time” (refer to PowerMax10-G2 Installer Guide, par. 4.3), according to local authorities requirements, or until the system is disarmed, whichever occurs first.
The strobe light operates as described in the PowerMax10-G2 Installer Guide, par. 4.3.

- Tamper indication: In case of tamper while the system is armed, the siren transmits the message to the alarm system and then the alarm system determines whether the siren should be activated or not. If the siren does not receive an acknowledge message from the alarm system, the siren will function independently.

- Low battery voltage alert
When the battery voltage is low, a low battery message is sent to the alarm system. After the low voltage message delivery, at least 2 siren alarms are possible before the siren is totally inactive.

- Power Supply Options: Non-rechargeable battery. Optional - two non-rechargeable batteries.

- Sound Types: Burglar (between 1400Hz - 3200Hz), fire, gas/Co and flood.

- Entry/Exit: Exit delay beeps sound once the user has armed the system. Entry delay beeps sound once the user has entered the protected area. (Entry/exit beeps can be enabled / disabled from the PowerMax10-G2 Installer menu.)

- Squawk indications: Squawk (beep) sounds can be enabled / disabled from the PowerMax10-G2 User menu.

- Strobe Light Color: The siren can be purchased with red, blue, amber or transparent lens, according to the desired strobe light color.

- Siren activity LED: A flashing LED (optional, at the bottom of the siren front panel) indicates siren activity (can be disabled by the control panel)

- Double Tamper protection: When the siren front panel is removed or when the siren is removed from the wall, tamper alarm is sent to the alarm system.

2. SPECIFICATIONS

Frequency Band (MHz): 433, 868, USA: 915.
Modulation: GFSK 50kbs, 25 kHz deviation
Antenna: Built-in antenna
Communication Protocol: PowerG II
Siren Type: One Piezo 109 db min. Sound Pressure Level @ 1m, 1.4-3.2 kHz, sweep frequency 7 Hz. Additional piezo is optional.
Battery: 3.6V/14.5A/H Lithium battery (EVE ER34615M/w200), Visonic assembly cat. No. 0-9912-K.
Note: The strobe flashes 5 times and the red LED lights continuously during first battery installation.
Note: Use only the above battery. Dispose of used battery according to the manufacturer’s instructions.

Battery Life Expectancy: 8 years (for typical use).
 Compliance with Standards:
Europe: EN50131-1 Grade 2 Class 4, EN 50131-4, EN 301489, EN 50130-4, EN 300 220, EN 60950-1, EN 60950-22
Environmental IP55.
USA: CFR47 Part 15
Canada: RSS 210
Supervision Time: 4 minutes
Strobe Light: Pulsed @ 1 sec.
Dimensions (LxWxD): 295x186x63mm (11-5/8 x 7-5/16 x 2-1/2 in)
Color: White (with red, blue, amber or transparent lens)
Operating Temperature: -33°C to 70°C (-27.4°F to 158°F), RH humidity 75%.
Weight (including battery): 970g (34 oz)

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Interference Prevention
This device complies with FCC Rules Part 15. Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation.

3. INSTALLATION

- Open plastic cover screw
- Using Philips screwdriver, remove screw and remove cover.
- Optional step only: Hang back unit with a screw on mounting surface to make the next step (drill marking) easier.
- Mark for drilling
- Drill 5 holes
- Fasten with 5 screws
- Release catch (A) and open battery cover (B)
- Self-test button
- Enroll button
- Connect battery / optional battery and 9VAC power to the proper connectors and set the optional jumpers as desired

Figure 3: Installation

4. ENROLLMENT
Refer to the PowerMax10-G2 Installer Guide for the device enrollment procedure.
5. MODIFY DEVICE SETTINGS

This section describes how to configure the parameters of the siren from the PowerMax10-G2 control panel.

To Modify the Siren Device Settings

Refer to the PowerMax10-G2 Installer Guide and perform the procedure for Adding A Wireless Device (section 4.4.2), or, Modifying a Device (section 4.4.5). Then continue below to modify the device settings.

1. When the PowerMax10-G2 display reads [DEV SETTNGS], press OK.
   The PowerMax10-G2 display will read [STROBE ALARM].

2. Press the OK button.
   The PowerMax10-G2 display will read [Timer limited].

3. Press the or button repeatedly to select between "Timer limited", "Disabled" and "Until Disarmed" for example, "Until Disarmed".

4. Press OK to confirm the selection.
   The PowerMax10-G2 display will revert to [STROBE ALARM].

5. Press the button.
   The PowerMax10-G2 display will read [EXIT-ENTRY Beeps].

6. Press the OK button.
   The PowerMax10-G2 display will read [Disabled].

7. Press the or button repeatedly to select between "Disabled", "Disabled @ Home" and "Enabled", for example, "Enabled".

8. Press OK to confirm the selection.
   The PowerMax10-G2 display will revert to [EXIT-ENTRY Beeps].

9. Press the button.
   The PowerMax10-G2 display will read [SQUAWK].

10. Press the OK button.
    The PowerMax10-G2 display will read [Disabled].

11. Press the or button repeatedly to select between "Disabled", "Sounder only", "Strobe only" and "Sounder+strobe" for example, "Sounder+Strobe".

12. Press OK to confirm the selection.
    The PowerMax10-G2 display will revert to [SQUAWK].

13. Press the button.
    The PowerMax10-G2 display will read [SOUNDER VOLUME].

14. Press the OK button.
    The PowerMax10-G2 display will read [Volume HIGH].

15. Press the or button to select between "Volume HIGH".

   The PowerMax10-G2 display will revert to [SOUNDER VOLUME].

17. Press the ➪ button.

   The PowerMax10-G2 display will read [ACTIVITY LED].

18. Press the ➪ button.

   The PowerMax10-G2 display will read [Disabled ■].

19. Press the ➪ or ➪ button to select between "Disabled" and "Enabled", for example, "Enabled".

20. Press [OKI] to confirm the selection.

   The PowerMax10-G2 display will revert to [ACTIVITY LED].

21. Press the ➪ button.

   The PowerMax10-G2 display will read [AC POWER Connect].

22. Press the ➪ button.

   The PowerMax10-G2 display will read [NOT Connected ■].

23. Press the ➪ or ➪ button to select between "NOT Connected" and "Connected to AC", for example, "Connected to AC".

24. Press [OKI] to confirm the selection.

   The PowerMax10-G2 display will revert to [AC POWER Connect].

25. Press the ➪ button.

   The PowerMax10-G2 display will read [AUTO TAMPER ALRM].

26. Press the ➪ button.

   The PowerMax10-G2 display will read [Disabled ■].

27. Press the ➪ or ➪ button to select between "Disabled" and "Enabled", for example, "Enabled".

28. Press [OKI] to confirm the selection.

   The PowerMax10-G2 display will revert to [AUTO TAMPER ALRM].

When exiting "ZONES / DEVICES" menu the PowerMax10-G2 system displays the number of devices that need to be updated, as follows: DEV UPDATING NNN.

For detailed instructions on ADDING DEVICES, DELETING DEVICES and MODIFYING DEVICES see the PowerMax10-G2 Installer Guide.
6. LOCAL DIAGNOSTICS TEST

Before testing, remove the plastic cover and then open the battery cover (see Fig. 3).

A. Press the self-test button once and release it; the following procedure should occur in turn:
   The red LED will switch ON and then OFF, the green LED will switch ON and then OFF, the strobe light will switch ON and then OFF and the piezo siren will sound to indicate that the siren is now fully operational.

B. After 2 seconds the LED blinks 3 times.
   The following table indicates received signal strength indication.

<table>
<thead>
<tr>
<th>LED response</th>
<th>Reception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green LED blinks</td>
<td>Strong</td>
</tr>
<tr>
<td>Orange LED blinks</td>
<td>Good</td>
</tr>
<tr>
<td>Red LED blinks</td>
<td>Poor</td>
</tr>
<tr>
<td>No blinks</td>
<td>No communication</td>
</tr>
</tbody>
</table>

**IMPORTANT!** Reliable reception must be assured. Therefore, "poor" signal strength is not acceptable. If you receive a "poor" signal from the device, re-locate it and re-test until a "good" or "strong" signal strength is received.

**Note:** For detailed Diagnostics Test instructions refer to PowerMax10-G2 Installer Guide.
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 Manufacturer's recommended installation and operation instructions. Products which have become defective for any other reason, according to the Manufacturer's discretion, such as improper installation, failure to follow recommended installation and operational instructions, neglect, willful 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, indirect, incidental, punitive or exemplary damages or for loss, damage, or expense, including loss of use, profits, revenue, goodwill, or otherwise arising out of or in connection with the use of the Product, or for loss or destruction of other property or from any other cause, even if the 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.

When accepting the delivery of the Product, the Purchaser agrees to the said conditions of sale and warranty and he recognizes having been informed of.

Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so these limitations may not apply under certain circumstances.

The Manufacturer shall be under no liability whatsoever arising out of the corruption and/or malfunctioning of any telecommunication or electronic equipment or any programs. The Manufacturer's obligations under this Warranty are limited solely to repair and/or replace at the Manufacturer's discretion any Product or part thereof that may prove defective. Any repair and/or replacement shall not extend the original Warranty period. The Manufacturer shall not be responsible for dismantling and/or reinstallation costs. To exercise this Warranty the Product must be returned to the Manufacturer freight pre-paid and insured. All freight and insurance costs are the responsibility of the Purchaser and are not included in this Warranty.

This warranty shall not be modified, varied or extended, and the Manufacturer does not authorize any person to act on its behalf in the modification, variation or extension of this warranty. The warranty shall apply to the Product only. All products, accessories or attachments of others used in conjunction with the Product, including batteries, shall be covered solely by their own warranty, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, caused by the malfunction of or failure to operate the Product when used in conjunction with the Product. This Warranty is exclusive to the original Purchaser and is not assignable.

This Warranty is in addition to and does not affect your legal rights. Any provision in this warranty which is contrary to the Law in the state or country were the Product is supplied shall not apply. Warranty: The user must follow the Manufacturer's installation and operational instructions including testing the Product and its whole system at least once a week and to take all necessary precautions for his/her safety and the protection of his/her property.

1/08
The technical documentation as required by the European Conformity Assessment procedure is kept at:
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