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ALS U ERW PROFESSIONELEN EN ERVARREN BEVEILIGINGSINSTALLATOREN BENT, WENDT U AANVERBOLEN OM DIT PRODUCT NEDER ZELF TE PLATSEN.

ALS U DEZE AANVERBOLEN ZELF, BIEDT VISONIC ERW PROFESSIONELEN EN ERVARREN BEVEILIGINGSINSTALLATOREN BENT VOOR ALLE DIRECTE, INDIRECTE, INCIDENTELE OF GELOEGENDE VAN ALLE AARD DE VOORTLOED UIT OF EEN GEBOCH VAN DE PLATZING VAN HET PRODUKT.

Deutsch

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DIESSES PRODUKT IST AUSSEHENDEN FÜR DIE MONTAGE DURCH QUALIFIZIERTE UND ERFAHRUNGSCHREIBER INSTALLATEUREN VON SICHERHEITSYSTEMEN UND NICHT FÜR DIY-ZWECKEN BESTIMMT. WENN SIE KEIN QUALIFIZIERTER UND ERFAHRUNGSCHREIBER INSTALLATEUR VON SICHERHEITSYSTEMEN SIND, SOLLTEN SIE DIESSES PRODUKT NICHT MONTIEREN.

SOLLTEN SIE DIESEN HINWEIS NICHT BEACHTEN, SO LENDET VISONIC KEINE TECHNISCHEN SUPPORT UND/ODER KEINE GARANTIE FÜR DIESES PRODUKT.

ZÜM HÄFEN SIE IN DIESEM FALL UNEINGESCHRÄNKT FÜR DIRECTE, INDIRECTE ODER ZUFÄLLIGE SCHÄDEN ODER VERLUSTE JEDER ART, DIE SICH AUS DER MONTAGE DIESSES PRODUKTS ERSTEHEN ODER DANNACH FOLGEN.

Italiano

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Se non sono installatori professionali e esperti nel campo della sicurezza si consiglia di non installare questo prodotto.

Se decidono di ignorare questa raccomandazione Visonic non fornirà alcun supporto tecnico o garanzia per il prodotto e si avverte la piena responsabilità per qualsiasi perdita o danno diretto, indiretto, accidentale o conseguenziale di ogni natura che si crei a seguito dell’installazione del prodotto.
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D-306917 PowerMaster-33 G2 Installer's Guide
1. INTRODUCTION

PowerMaster® is a PowerG-enabled professional all-in-one wireless security, fire, and safety system. The PowerMaster supports advanced applications and Visonic's PowerG™ Two-Way, Time Division Multiple Access (TDMA) and Frequency Hopping Spread Spectrum (FHSS) wireless technology. This offers unmatched wireless robustness, superior range, and long battery life. It is a user friendly solution for both monitoring service providers and professional installers.

The system consists of the PowerMaster-33 G2 control panel that operates in conjunction with a wireless keypad display device (KP-250 PG2). The control panel accommodates all control circuitry and operation software for a programmable 64-zone alarm system, while the keypad display unit enables the installer and the user to enter their commands, and provides visual and audible feedback. The PowerMaster-33 G2 control panel has dual path configuration: IP via Ethernet to the customer-premises gateway, and cellular modem (2G or 3G). The reporting is done through IP as primary and cellular modem as secondary.

Depending on the configuration you require the PowerMaster-33 G2 can have one of the following modules installed:

- **Expander Module (LE)**
  - This configuration allows the PowerMaster-33 control panel to operate two additional wired zones, wired sirens, speech box, and one PGM.

- **Expander Module (EXP-33)**
  - This configuration allows the PowerMaster-33 control panel to operate eight additional programmable wired inputs/outputs (zones or PGMs).

The following table compares the LE and EXP-33 module characteristics:

<table>
<thead>
<tr>
<th>External connections</th>
<th>Expander Module</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LE</td>
</tr>
<tr>
<td>Microphone input</td>
<td>Differential</td>
</tr>
<tr>
<td>Speaker output</td>
<td>Differential</td>
</tr>
<tr>
<td>12v output current</td>
<td>450 mA maximum</td>
</tr>
<tr>
<td>Zones (Inputs)</td>
<td>2</td>
</tr>
<tr>
<td>PGMs (Outputs)</td>
<td>2</td>
</tr>
</tbody>
</table>

This manual refers to PowerMaster-33 G2 v19.3 and above. The most updated manuals can be downloaded from the Visonic Web site [http://www.visonic.com](http://www.visonic.com).

**Note:** "Pmaster" is used as an abbreviation for "PowerMaster".

The system is supplied with 3 instruction manuals:

- **PowerMaster-33 G2 Installer’s Guide** (this manual) – used by the system installer during system installation.
- **KP-250 PG2 Installer’s Guide** – used by the system installer during KP-250 PG2 installation and PowerMaster-33 G2 configuration.
- **KP-250 PG2 User’s Guide** – used by the system installer during system installation and configuration. Hand over this manual to the master user of the system, after the installation is completed.
## 1.1 System Features

The following table lists the PowerMaster-33 features with a description of each feature and how to use it.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
<th>How to configure and use</th>
</tr>
</thead>
</table>
| **Visual Alarm Verification**    | The PowerMaster-33 when used with the Next CAM PG2 PIR-camera detector and cellular or IP communication is able to provide the Monitoring Station with clips captured in alarm situations. The system sends the clips to the Monitoring Station automatically for burglary alarms and depending on setup, also for fire and personal emergency alarms. | 1. **Setup cellular communication**: see Cellular Module Installation section 3.5)  
2. **Configure camera settings**: refer to the Next CAM PG2 Installation Instructions  
3. **Enable fire and personal alarm verification**: see KP-250 PG2 Installer's Guide, section 3.6.6 Configuring Motion Cameras for Video Alarm Verification |
| **On demand clips from cameras** | The PowerMaster-33 can provide images from the Next CAM PG2 by demand from a remote PowerManage server. Pictures are taken based on a command from the monitoring station. To protect customers' privacy, the system can be customized to enable the "On Demand View" only during specific system modes (Disarm, Home, Away) and also to a specific time window following an alarm event. | 1. **Setup the On demand feature**: see KP-250 PG2 Installer's Guide, section 3.6.6 Configuring Motion Cameras for Video Alarm Verification  
2. **To request and view images**: refer to the PowerManage User's Guide, Chapter 5 Viewing and Handling Events |
| **Easy Enrollment**              | PowerG devices are enrolled from the control panel. Pre-enrollment can also be performed by entering the PowerG device ID number and then activating the device in the vicinity of the panel. | **To enroll or pre-enroll devices**: see KP-250 PG2 Installer's Guide, section 3.4.2 Adding New Wireless Devices or Wired Sensors |
| **Device Configuration**         | Device parameters and related system behavior can be configured from the KP-250 PG2 keypad or from a remote location. Each PowerG device has its own settings. To configure these settings through the KP-250 PG2 keypad, enter the DEVICE SETTINGS menu. | **To configure devices from the KP-250 PG2**: see KP-250 PG2 Installer's Guide, Chapter 3 Programming and also the individual device's Installation Instructions.  
| **Diagnostics of the control panel and peripherals** | You can test the function of all wireless sensors deployed throughout the protected area to collect information about the received signal strength from each transmitter, and to review accumulated data after the test. | **To perform diagnostics and to obtain signal strength indication**: see KP-250 PG2 Installer's Guide, section 3.9 Diagnostics |
| **Conducting periodic tests**    | The system should be tested at least once a week, and after an alarm. The periodic test can be conducted locally or from a remote location (with the assistance of a non-technical person at the location). | **To conduct a walk test locally**: see KP-250 PG2 Installer's Guide, Chapter 4 Periodic Test by Installer Code or KP-250 PG2 User's Guide, Chapter 8 Periodic Test by User Code  
**To conduct a walk test from remote location**: refer to the Remote Programmer PC software User's Guide, Chapter 6 Data Details Tables. |
Partitions

The partitioning feature, when enabled, divides your alarm system into distinct areas each of which operates as an individual alarm system. Partitioning can be used in installations where shared security systems are more practical, such as a home office or warehouse building.

2. Setup partition association for each device: see KP-250 PG2 Installer’s Guide, section 3.4.2 Adding New Wireless Devices or Wired Sensors

To understand more about partitioning: see KP-250 PG2 Installer’s Guide, APPENDIX B. Working with Partitions.

Device configuration templates

The default parameters with which a new device is enrolled into the system can be set before you enroll devices. This default template saves time on device configuration.

1. Define enrollment defaults for devices: see KP-250 PG2 Installer’s Guide, section 3.4.7 Defining Configuration Defaults for "Device Settings"
2. Enroll or pre-enroll devices: see KP-250 PG2 Installer’s Guide, section 3.4.2 Adding New Wireless Devices or Wired Sensors

To understand more about device configuration templates: see KP-250 PG2 Installer’s Guide, APPENDIX B. Working with Partitions.

SirenNet – distributed siren using Smoke detectors

All PowerG smoke detectors are able to function as sirens, alerting on any of 4 types of alarm in the system: burglary, gas, fire or flood.

Enable and configure SirenNet for each smoke detector: refer to the SMD-426 PG2 / SMD-427 PG2 Installation Instructions

Wired Siren outputs

The control panel can operate a wired siren and strobe devices

Install and connect wired siren: see section 3.8 Optional Expander Module

Wired zones and programmable outputs (PGM)

The control panel can support wired detectors and control automation devices with programmable wired outputs.

1. Connect a wired zone or PGM device: see section 3.4 Adding a Wired Zone and Siren.
2. Program the wired zone: see KP-250 PG2 Installer’s Guide, section 3.4.2 Adding New Wireless Devices or Wired Sensors

To understand more about wired zones and programmable outputs: see KP-250 PG2 Installer’s Guide, APPENDIX B. Working with Partitions.

Reporting to Private Users and/or Monitoring Station by telephone, SMS and IP communication

The PowerMaster-33 system can be programmed to send notifications of alarm and other events to 4 private telephone subscribers by voice and also to 4 SMS cellular phone numbers and to report these events to the Monitoring Station by SMS, PSTN or IP communication.

To configure notifications to Private phones: see KP-250 PG2 User’s Guide, Chapter 6, section B.12 Programming Private Phone and SMS Reporting
To configure reporting to the Monitoring Station: see KP-250 PG2 Installer’s Guide, section 3.6.4 Configuring Events Reporting to Monitoring Stations

Quick installation with link quality indication

With PowerG devices, there is no need to consult the KP-250 PG2 keypad when mounting a wireless device, because PowerG devices include a built-in link quality indicator. Choosing the mounting location is a quick and easy process.

1. Supported in specific PowerMaster-33 G2 variants (for further details, please contact your Visonic representative).
<table>
<thead>
<tr>
<th>Device Locator</th>
<th>Helps you to easily identify the actual device displayed on the KP-250 PG2 LCD display.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To read more on the Device Locator:</strong> see KP-250 PG2 User’s Guide, Chapter 3, Arming and Disarming the System.</td>
<td></td>
</tr>
<tr>
<td><strong>To use the device locator when bypassing a zone or when clearing a bypassed zone:</strong> see KP-250 PG2 User’s Guide, Chapter 6, section B.1 Setting the Zone Bypass Scheme.</td>
<td></td>
</tr>
<tr>
<td><strong>To use the device locator when conducting the periodic test:</strong> see KP-250 PG2 Installer’s Guide, Chapter 4 Periodic Test by Installer Code or KP-250 PG2 User’s Guide, Chapter 8 Periodic Test by User Code.</td>
<td></td>
</tr>
<tr>
<td>Guard key-safe</td>
<td>The PowerMaster-33 is able to control a safe that holds site keys that are accessible only to the site’s guard or Monitoring Station’s guard in the event of an alarm.</td>
</tr>
<tr>
<td><strong>1. Connect the safe to the panel:</strong> see section 3.8 Optional Expander Module Mounting, Figure 3.8b.</td>
<td></td>
</tr>
<tr>
<td><strong>2. Configure the safe’s zone type to “Guard Zone”:</strong> see KP-250 PG2 Installer’s Guide, section 3.4.2 Adding New Wireless Devices or Wired Sensors.</td>
<td></td>
</tr>
<tr>
<td><strong>3. Setup guard code:</strong> see KP-250 PG2 Installer’s Guide, section 3.3 Setting Installer Codes.</td>
<td></td>
</tr>
<tr>
<td>Arming key</td>
<td>External system can control arming and disarming of the PowerMaster-33 system.</td>
</tr>
<tr>
<td><strong>Connect the external system output to the panel:</strong> see section 3.8 Optional Expander Module Mounting, Figure 3.8b.</td>
<td></td>
</tr>
</tbody>
</table>
System Architecture:

Security Detectors and Transmitters
- Next CAM PG2 Motion Detector with Camera
- Next PG2 Motion Detector
- MC-302 PG2 Magnetic Contact
- TOWER-30AM PG2 Mirror Detector

Control Panel and Display Keypad
- PowerMaster-33 G2
- KP-250 PG2

Keyfobs, Keypad and Keyprox
- KF-234 PG2
- KP-140 PG2
- KF-235 PG2 Two-way Keypad
- KP-160 PG2

Safety Detectors
- SMD-426 PG2 Smoke Detector
- SMD-427 PG2 Smoke & Heat Detector
- GSD-441 PG2 Gas (Methane) Detector
- GSD-442 PG2 Carbon Monoxide (CO) Detector
- TMD-560 PG2 Temperature Detector
- FLD-550 PG2 Flood Detector

Sirens
- SR-730 PG2 Outdoor Siren
- SR-720 PG2 Indoor Siren

Communication

Monitoring Station
- IP Camera
- Surveillance

User Supervision and Notifications
- Mobile phone
- Telephone
- Text/Email
- Image Verification

D-306917 PowerMaster-33 G2 Installer's Guide
2. CHOOSING THE INSTALLATION LOCATION

To ensure the best mounting location for the PowerMaster-33 control panel, the following points should be observed when selecting a location:

- Place approximately in the center of the installation site between all the transmitters, preferably in a hidden location.
- Place in close proximity to an AC source.
- Place in close proximity to a telephone line connection when a PSTN is used.
- Place in close proximity to a home router wired Ethernet connection when an Ethernet network is used.
- Ensure that there is good cellular coverage, when a Cellular Module is used.
- Place far from sources of wireless interference, such as:
  - Computers or other electronic devices, power conductors, cordless phones, light dimmers, etc.
  - Large metal objects such as metal doors or refrigerators.

  Note: A distance of at least 1 meter (3 ft.) is recommended.

When mounting wireless devices, take note of the following:

- Make sure that the signal reception level for each device is either Strong or Good, but not Poor. If the reception of the cellular module is poor, use an external cellular antenna.
- Wireless magnetic contacts should be installed in a vertical position and as high up the door or window as possible.
- Wireless PIR detectors should be installed upright at the height specified in the associated Installation Instructions.
- Repeaters should be located high on the wall in mid-distance between the transmitters and the control panel.

**WARNING!** To comply with FCC and IC RF exposure compliance requirements, the control panel should be located at a distance of at least 20 cm from all persons during normal operation. The antennas used for this product must not be co-located or operated in conjunction with any other antenna or transmitter.

Customer Premises Equipment and Wiring

A. Network Service Provider's Facilities
B. Telephone Line
C. Network Demarcation Point
D. RJ-31X Jack
E. Telephone
F. Alarm Dialing Equipment
G. Answering System
H. Unused RJ-11 Jack
I. Fax Machine
J. Computer

*Note: The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.*

Connection to telephone company provided coin service is prohibited. Connection to party lines service is subject to state tariffs.

The installer should verify line seizure. Be aware of other phone line services such as DSL. If DSL service is present on the phone line, you must install a filter. It is suggested to use the DSL alarm filter model Z-A431PJ31X manufactured by Excelsus Technologies, or equivalent. This filter simply plugs into the RJ-31X jack and allows alarm reporting without breaking the internet connection.
3. POWERMASTER-33 G2 INSTALLATION

Required tool: Philips screwdriver #2.
PowerMaster-33 G2 mounting process is shown in Figures 3.1 - 3.10.

3.1.1 PowerMaster-33 G2 Wiring Diagram with EXP-33 Expander Module

A. Expander Module Flat Cable
B. Wired Zone / Special Siren Terminal Block
C. Battery Connector
D. ENROLL button
E. Front Panel
F. Back Panel
G. Expander EXP-33 module wiring terminal blocks
H. Power Supply
I. EXP-33 Expander Module
J. Power connector
K. Phone Wiring Connectors
L. Cellular Module

* or External Power Supply Unit
** or External Power Connector
*** or Terminal Block in North American Panels

Figure 3.1.1 – PowerMaster-33 G2 Wiring Diagram with EXP-33 Expander module
3.1.2 PowerMaster-33 G2 Wiring Diagram with LE Expander Module

**Figure 3.1.2 – PowerMaster-33 G2 Wiring Diagram with LE Expander and PGM-5 modules**
3.2 Opening the PowerMaster-33 G2 Control Panel and Bracket Mounting

**To Mount the Unit:**
1. Release the screws
2. Remove the front cover
3. Mark 5 drilling points on the mounting surface, then drill 5 holes and insert wall anchors and then fasten the back panel with 5 screws

A. Mounting surface  
B. Back panel  
C. 5 screws  
* For back tamper

**Figure 3.2 – Back Panel Mounting**

3.3 Connecting to the Telephone Line

**PHONE WIRING**

Connect the telephone cable to the SET connector and connect the telephone line cable to the LINE connector (through the desired wiring cable entry). Review Figure 3.1.1 symbol K or Figure 3.1.2 symbol L for details.  

**Note:** The telephone cable should be no longer than 3 meters.  
A. LINE  
B. SET  
C. Tel line wall jack

**Figure 3.3a – Phone Wiring**
Phone wiring in North America:

- **A.** Line
- **B.** Set
- **C.** RJ-31X cord
- **D.** 8-position RJ-31X plug
- **E.** Brown
- **F.** Red
- **G.** Green
- **H.** Gray
- **I.** RJ-31X jack
- **J.** Line from street
- **K.** House phones

**Figure 3.3b – Phone Wiring in North America**

Phone wiring in the UK: Line terminals must be connected to pins 2 and 5 of the wall jack.

**For all installations:** If DSL service is present on the phone line, you must route the phone line through a DSL filter. See Section 2. CHOOSING THE INSTALLATION LOCATION, note about DSL filters for details.

### 3.4 Connecting Wired Zone and Siren

If an expander module is not installed, one wired zone and one low voltage siren can be connected directly to the front panel PCB. Review Figure 3.1.1 or 3.1.2 and identify symbol “B”.

**WIRED ZONE & SIREN WIRING**

- **A.** GND
- **B.** Wired Zone
- **C.** Siren
- **D.** For future use
- **E.** Site external siren MG electronics MG441PDS or equivalent 6-12VDC, 150 mA Max
- **F.** Magnetic contact or any other contact but not a detector
- **G.** Alarm N.C.

**Figure 3.4 – Wired Zone and Siren Wiring**

---

3 Wired zones can be enrolled in any zone in the PowerMaster-33 G2 control panel from 01 to 64
3.5 Cellular Module and SIM Installation

Review Figure 3.1.1 or 3.1.2 depending on the configuration.

To install the cellular external antenna, complete the following steps:

- Mount the optional cellular external antenna on the required site surface.
- Connect the connector to the internal cellular module and insert the SIM card.

Note:
To remove the external antenna if required, hold the connector and pull it out.
Do not attempt to remove the antenna by holding the cable.

Plug in the Cellular module and fasten it as shown in the above drawing making sure that the two leading slots on both sides of the Cellular module slide along the two leading ribs on the front unit.

A. Cellular module
B. Leading ribs
C. Leading slot (1 of 2)
D. Front panel

Caution! Do not install or remove the Cellular module when the system is powered by AC power or backup battery.

Insert the SIM card into the Cellular module as shown in the above drawing.
1. Slide top cover.
2. Open cover
3. Align SIM card in cover (note cover orientation)
4. Slide SIM card into cover
5. Rotate cover to close
6. Lock cover to close

IMPORTANT! Do not insert or remove SIM card when the control panel is powered by AC power or battery.

Figure 3.5 – Optional Cellular Module Mounting and SIM Card Insertion
3.6 PGM-5 Installation

The PGM-5 module is an output interface module designed to provide alarm, events and status signals to external devices such as long range wireless monitoring transmitters, CCTV systems, automation systems, and LED announcement panels.

Review Figure 3.1.2, symbol F identifies the location for the PGM-5 module. For more information about installing the PGM-5 module, see *D-302182 PGM-5 Installation Instructions*.

PGM-5 module can be used in the panel only when the EXP-33 Expander Module or PowerLink3 Module is not in use.
3.7 PowerLink3 Installation

The PowerLink3 is used to view and control the PowerMaster-33 system over the Internet. To install the PowerLink3, complete the following steps:

1. Mount the internal PowerLink3 into the back panel and fasten it with 2 screws.
2. Connect the flat cable (B) from the front panel to the PowerLink3, as follows: Connector B1 to the front panel; connector B2 to the PowerLink3.
3. Connect the Cat-5 cable from the PowerLink3 to the home router.

**Note:** In order to prevent interference to the PG2 antenna, do not route the Cat-5 cable through the cable entry knockout on the right side of the panel.

A. Cat-5 cable to home router
B. Flat cable
   B1. This side for front panel
   B2. This side for PowerLink3

Figure 3.6 – PowerLink3 Mounting
3.8.1 EXP-33 Expander Module Installation

The Expander Module EXP-33 is an optional module. Review Figure 3.1.1 and identify symbol I.

To mount the Expander module as shown in Figure 3.8a, complete the following steps:

1. Press downward on the Expander module between the two clips to insert the module into the back panel. See Figure 3.7a EXP-33 Expander Module (A) to identify the clips.
2. Connect the EXP-33 Expander Module by the flat cable to the front panel Expander slot "EXPANDER".
EXP-33 EXPANDER MODULE WIRING

A. Back Panel
B. Expander Module Flat Cable
C. Connecting Devices

Pin #1 to #8 can be configured either as zone inputs or as PGM outputs.

For wired zones, the control panel classifies the events according to the resistance it measures as shown in the table below.

**E.O.L or Arming Key Resistance**

<table>
<thead>
<tr>
<th>Range</th>
<th>Zone</th>
<th>Arming Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>~0 kΩ - 1.76 kΩ</td>
<td>Tamper/ Short circuit</td>
<td>Tamper</td>
</tr>
<tr>
<td>~1.77 kΩ - 2.64 kΩ</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>~2.65 kΩ - 3.52 kΩ</td>
<td>Tamper</td>
<td>Tamper</td>
</tr>
<tr>
<td>~3.53 kΩ - 5.26 kΩ</td>
<td>Alarm</td>
<td>Alarm</td>
</tr>
<tr>
<td>~5.26 kΩ - ∞</td>
<td>Tamper</td>
<td>Tamper</td>
</tr>
</tbody>
</table>

**Figure 3.7b – EXP-33 Expander Module Wiring**

**Notes for EXP-33 Expander module wiring:**

Wired zone* terminals can be connected to a normally closed contact of a detector, switch (for example a Tamper switch of any device), or a pushbutton, via a 2.2 KΩ resistor. **The 12V terminal can be used to supply 12V to low power detectors with up to 10mA standby current drain as DA-5; PL-1; Next_PIR; Vi-Motion; Vi-Pet.**

The Speech Box is a wired remote speaker and microphone device for indoor use. It provides two-way voice communication between the user and the central station using the control panel.

**Caution!** Do not install or remove the EXP-33 expander module when the control panel is powered by AC power or battery.
3.8.2 LE Expander Module Installation

A. Back Panel
B. LE Expander module and connecting devices
C. Internal siren or strobe 6-12 VDC, 150 mA Max.
D. External siren MG441PDS or similar siren 12 VDC (nominal) 350 mA Max.
E. Connect wired detectors as illustrated.
   **Note:**
   The wired detector should be installed at least 2 meters away from the control panel.

Regarding the two wired zones, the control panel classifies the events according to the resistance it measures as shown in the table below.

**E.O.L. or Arming Key Resistance**

<table>
<thead>
<tr>
<th>Range</th>
<th>Zone</th>
<th>Arming Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 kΩ ↔ ~1.76 kΩ</td>
<td>Tamper</td>
<td>Tamper</td>
</tr>
<tr>
<td>~1.76 kΩ ↔ ~2.64 kΩ</td>
<td>Normal</td>
<td>Arm</td>
</tr>
<tr>
<td>~2.64 kΩ ↔ ~3.52 kΩ</td>
<td>Tamper</td>
<td>Tamper</td>
</tr>
<tr>
<td>~3.52 kΩ ↔ ~5.26 kΩ</td>
<td>Alarm</td>
<td>Disarm</td>
</tr>
<tr>
<td>~5.26 kΩ ↔ ∞</td>
<td>Tamper</td>
<td>Tamper</td>
</tr>
</tbody>
</table>

F. Detector without tamper switch or arming key
G. Detector with tamper switch or arming key's tamper
H. PGM device
I. Wired connection zones
J. Ground (GND)

**Figure 3.8 – Zone* and Siren Wiring**

**Notes for LE Expander module wiring:**

* Wired zone* terminals can be connected to a normally closed contact of a detector, switch (for example a Tamper switch of any device), or a pushbutton, via a 2.2 KΩ resistor. The 12v terminal can be used to supply 12v (up to 36mA) to a detector (if necessary).

** The EXT terminal can be used to trigger an external siren.
   The IN terminal can be programmed for an "internal siren" or "strobe".
   The 12V and "GND" terminals can be connected to a siren (for constant DC power supply).

** The 12V supply to the PGM device is fused. Current is limited to 100 mA.

IMPORTANT! The terminals for internal and external sirens are DC outputs intended for 12v sirens. Connecting a loudspeaker to any of these outputs will cause a short circuit and will damage the unit.

Caution! Do not install or remove the expander module when the control panel is powered by AC power or battery.
3.9 Connecting Power to the Control Panel

*Note:* This equipment should be installed in accordance with Chapter 2 of the National Fire Alarm Code, ANSI/NFPA 72.

Connect the power cable and close the control panel as shown in Figures 3.9a – 3.10.

**POWER CABLE CLAMP EXTRACTION AND POWER CONNECTION FOR INTERNAL POWER SUPPLY**

Perform steps 1 & 2 on a workbench before mounting.

1. **Thick cable entry:** Pull out the required wiring plastic cap (1 of 4).
2. Extract cable clamp (I) for use in the next step.
3. Insert the power cable through the required wiring channel (A). Route it to the power supply unit (E) and remove the safety cover (D). Connect the 2 wires of the power cable to the power supply terminal block (F) with a screwdriver. Fasten the screws tightly. Fasten the power cable by its clamp (B or C) and close the safety cover (D).
4. Connect the power supply output cable (G) to the power connector (H) in the front panel.

A. Optional wiring channels
B. For thin cable
C. For thick cable (reversed clamp)
D. Safety cover
E. Power supply unit
F. Power supply terminal block
G. Power supply output cable
H. Power connector
(*) Do not route wiring in this area, to enable proper closure of the control panel.
I. Cable clamp.

*Figure 3.9a – Power Cable Clamp Extraction and Power Connection for Internal Power Supply*
Connect the power adaptor to the front panel power connector.

Figure 3.9b – External Power Connection

3.9.1 Battery Insertion

Open battery compartment cover. Insert one 6-battery pack or 8-battery pack and connect its connector as shown in Figure 3.8c.

A. Front panel
B. Battery cable
C. Battery cable connector
D. Slot for battery cable

Figure 3.9c – Battery Insertion

3.9.2 Connect AC Power to the Unit

Connect power to the PowerMaster-33 G2 to mains power outlet (see Figures 3.9a and 3.9b). Disregard any “trouble” indications pertaining to lack of battery or lack of telephone line connection.

For Europe Safety Compliance:

a. The model shall be installed according to the local electrical code.
b. The circuit breaker shall be readily accessible.
c. The rating of the external circuit breaker shall be 16A or less.
## 3.10 Closing the PowerMaster-33 G2 Control Panel

Control panel final closure is shown below.

<table>
<thead>
<tr>
<th>To Close the Control Panel:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Connect the flat cables, between the front and back panel, with the respective connectors. You can have a maximum of 3 connections, depending on the configuration options.</td>
</tr>
<tr>
<td>2. Make sure that the &quot;Power&quot; indicator on the control panel lights green.</td>
</tr>
<tr>
<td>3. Close the panel and fasten the 2 screws.</td>
</tr>
</tbody>
</table>

![Figure 3.10 - Final Closure](image)
4. VISUAL INDICATIONS, FIRST KEYPAD ENROLLMENT AND USING PROX TAG

4.1 PowerMaster-33 LED Indications

The following table provides a detailed description of the LED indications on the PowerMaster-33 panel.

<table>
<thead>
<tr>
<th>Color</th>
<th>Definition</th>
<th>LED Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Local Power indication</td>
<td><strong>STEADY</strong>: Indicates that system has mains power</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>BLINKING</strong>: Low battery state</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>NO LIGHT</strong>: AC failure</td>
</tr>
<tr>
<td>Green</td>
<td>Ready / Not Ready indication</td>
<td><strong>STEADY</strong>: All partitions are ready</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>NO LIGHT</strong>: Not Ready / at least one partition is Not Ready</td>
</tr>
<tr>
<td>Red</td>
<td>System Arming State indication</td>
<td><strong>STEADY</strong>: AWAY / At least one partition is AWAY</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>BLINKING</strong>: HOME / At least one partition is HOME and no partitions are in AWAY</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>NO LIGHT</strong>: The system is presently in the disarmed state</td>
</tr>
<tr>
<td>Orange</td>
<td>System Not Online indication</td>
<td><strong>STEADY</strong>: System is unavailable (Sync/Updating/In-menu)</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>NO LIGHT</strong>: System is available</td>
</tr>
<tr>
<td>Orange</td>
<td>System Trouble indication</td>
<td><strong>STEADY</strong>: System has trouble</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>NO LIGHT</strong>: No trouble – all is well</td>
</tr>
</tbody>
</table>

4.2 Enrollment of the First KP-250 PG2 Keypad

The PowerMaster-33 G2 is designed to operate wirelessly with the KP-250 PG2 keypad installed anywhere within the protected premises. The first keypad is always enrolled as Keypad no. 1.

**Note:** The enrollment procedure described here is for the first KP-250 PG2 keypad only. The enrollment of additional keypads is performed via the first enrolled KP-250 PG2 keypad (for instructions, refer to the KP-250 PG2 Installer’s Guide, section 3.4.2).

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Press the <strong>ENROLL</strong> button for 2 seconds. The Enroll button is physically located inside the front panel of the PowerMaster-33 G2 control panel, see Figure 3.1.1 or 3.1.2 symbol D. If no keypad exists in the first location, the <strong>ENROLL</strong> LED on the PowerMaster-33 G2 blinks slowly for 1 minute (go to step 3). If a keypad already exists in the first location, the <strong>ENROLL</strong> LED on the PowerMaster-33 G2 control panel lights steady for 10 seconds (go to step 2). <strong>Note:</strong> Pressing the <strong>ENROLL</strong> button takes the system out of any menu mode (Installer Mode, User Settings and Periodic Test).</td>
</tr>
<tr>
<td>2</td>
<td>Press the <strong>ENROLL</strong> button again within the timeout period (10 seconds). Any keypad that was enrolled in keypad no. 01 is deleted from the system. The <strong>ENROLL</strong> LED on the PowerMaster-33 G2 blinks slowly for 1 minute.</td>
</tr>
</tbody>
</table>
| 3    | During this 1 minute period, hold the **button for 5-7 seconds, until the **LED on the keypad lights red, and release.** The **ENROLL** LED on the PowerMaster-33 G2 will indicate the result of the enrollment procedure. The **PowerMaster-33 G2 ENROLL LED indication** and **Result** are as follows:  
|       | Blinks fast for 5 sec.  
|       | Lights steadily for 5 sec.  
|       | **Result**  
|       | Successful enrollment of keypad  
|       | Wrong device type  |
| 4    | For V19.3 and up: upon completion of the enrolling procedure, the keypad will get the corresponding update to the current PM SW version. This procedure will take several minutes, and will be automatically skipped if the KP SW version is compatible. Do not turn off or reset the PM or KP during this procedure. In order to perform this procedure, good batteries must be inserted into the KP unit. KP in LOW BAT state will not enter this procedure and will not be able to operate the system. |
| 5    | Upon completion of the enrolling procedure and SW versions adjustment procedure (starting V19.3), the keypad is ready for immediate use even if the system is currently in the Armed state. |

---

4 If the KP-250 PG2 unit is battery-powered: first press any button on the KP-250 PG2 keypad momentarily to take the KP-250 PG2 keypad out of sleep mode and then hold the button for 5-7 seconds, until the LED on the keypad lights red, and release.
4.3 Using Proximity Tags

Proximity tags enable authorized people to enter restricted areas. Presenting a valid proximity tag to the tag reader (as shown in the drawing) while the system is armed causes the system to disarm. Presenting a valid proximity tag to the tag reader while the system is disarmed causes the system to be armed in AWAY (optional HOME) mode. To enroll / delete proximity tags, refer to the KP-250 PG2 User's Guide.

Notes:
1. Use of the Proximity tags is optional.
2. Proximity tags are not compatible for use when partition is enabled.

5. MAINTENANCE

5.1 Dismounting the Control Panel
A. Remove the screw that fastens the front panel to the back panel, see Figure 3.2.
B. Remove the 4 screws that fasten the back panel to the mounting surface, see Figure 3.2 and remove the control panel.

5.2 Replacing the Backup Battery
Replacement and first-time insertion of battery pack is similar, see Figure 3.9c.
With a fresh battery pack, correct insertion and tightened battery compartment lid, the TROUBLE indicator on the kp-250 PG2 keypad should extinguish. However, the MEMORY message will now blink in the display (caused by the tamper alarm you triggered when opening the battery compartment lid). Clear it by arming the system and immediately disarming.

5.3 Fuse Replacement
The PowerMaster-33 G2 has several internal fuses that reset automatically. Therefore, there is no need to replace the fuses.
When over current condition occurs, the fuse cuts off the circuit current. Upon fault current being removed for several seconds, the fuse is automatically reset and allows current flow through the circuit again.

5.4 Replacing/Relocating Detectors
Whenever maintenance work involves replacement or re-location of detectors, always perform a full diagnostic test according to the KP-250 PG2 User's Guide, section 12.9.
Caution: A poor signal is not acceptable.

5.5 Annual System Check
Note: The PowerMaster system must be checked by a qualified technician at least once every three (3) years (preferably every year).
The annual system check is designed to ensure proper operation of the alarm system by performing the following checks:
• Periodic test
• Arm/disarm function
• No trouble messages are displayed on control panel
• The clock displays the correct time
• Reporting: generating an event to be transmitted to the Monitoring Station and to the user.
APPENDIX A. Specifications

A1. Functional

Zones Number  Up to 64 wireless zones. The EXP-33 Expander Module includes 8 hard-wired inputs and the Expander Module includes 2 hard-wired inputs.

Hard-wired Zone Requirements

Maximum Loop Current  1.5 mA
Maximum Loop Voltage  3.3 V
Shorted Loop Voltage  0 – 1.38 V (0 – 1.76 Ω)
Normal Loop Voltage  1.38 – 1.69 V (1.77 k Ω – 2.64 k Ω)
Open Loop Voltage  2.18 – 3.3 V (5.26 k Ω – ∞ Ω)

- 1 master installer (9999 by default)*
- 1 installer (8888 by default)*
- 1 master user, no. 1 (1111 by default)
- Users nos. 2 - 48
* Codes must not be identical

Installer and User Codes

Control Facilities

- Integral keypad, wireless keyfobs and keypads
- SMS commands via optional cellular module.
- Remote control by telephone.

Arming Modes

AWAY, HOME, AWAY-INSTANT, HOME-INSTANT, LATCHKEY, FORCED, BYPASS.

Alarm Types

Silent, personal panic/emergency, burglary, gas, fire and flood.

Siren Signals

Continuous (intrusion / 24 hours / panic); triple pulse – short pause - triple pulse... (fire);
four pulses – long pause – four pulses... (gas);
long pulse – long pause – long pulse... (flood).

Siren (bell) Timeout

Programmable (4 min. by default)

Internal Sounder Output

Programmable time frame for inactivity alert

Supervision

- Chime zones
- Diagnostic test and event log.
- Local and Remote Programming over Telephone, cellular connections.
- Calling for help by using an emergency transmitter.
- Tracking inactivity of elderly, physically handicapped and infirm people.
- Message center (recording and playback)

Data Retrieval

Alarm memory, trouble, event log

Real Time Clock (RTC)

The control panel keeps and displays (by KP-250) time and date. This feature is also used for the log file by providing the date and time of each event

Battery Test

Once every 10 seconds

Note:
The PowerMaster-33 system allows you to authorize up to 48 people to arm and disarm the system by providing each with a unique 4 digit personal security code (code 0000 is not allowed, maximum number of variations of PIN codes for each user - 10000 for logical keys), and assigning them with different security levels and functionalities. For more information, refer to Chapter 6, section B.4 of the KP-250 PG2 manual.

For details on programmable functions provided, information about number of invalid code entries before user interface is disabled, refer to Chapter 6, section A1, A2 of the KP-250 PG2 manual.

Up to 1000 events are stored in the event log that can be reviewed via the Remote Programmer PC software application or by the remote PowerManage server. For further information about event log capacity, refer to Chapter 9, Maintenance of the KP-250 PG2.
A2. Wireless

RF Network
PowerG – 2-way synchronized Frequency Hopping (TDMA / FHSS)

Frequency bands (MHz)
<table>
<thead>
<tr>
<th>2G Band</th>
<th>3G Band</th>
</tr>
</thead>
<tbody>
<tr>
<td>850, 900, 1800, 1900</td>
<td>850, 900, 1900, 2100</td>
</tr>
</tbody>
</table>

Hopping frequencies
8
4
50

Region
Worldwide
Europe
North America and selected countries

Encryption
AES-128

A3. Electrical

External AC/AC adaptor
NA

External AC/DC adaptor
External (wall-mounted) switching power supply 100VAC to 240VAC, 50/60 Hz, 1A / 12.5 VDC, 1.5A

Internal AC/DC
Internal switching power supply:
Input: 100-240VAC/1A, 50/60 Hz
Output: 12.5 VDC, 1.5A.

Current Drain
Approx. 260 mA standby at the beginning (power ON) and then goes down to 60 mA, 1400 mA maximum current drain during alarm.
Average current consumption of each Supervised Premises Transceiver (SPT) – at IP: 120mA, at cellular: 150mA
Peak current consumption of each SPT – at IP: 440mA, at cellular: 280mA

Low Battery Threshold
7.2 V (6-cell battery pack)
9.6 V (8-cell battery pack)

Backup Battery Pack
Backup Battery Options:
(1) The external devices must be connected between 12V and ground. The current for each specified backup period can be drawn from the batteries with the internal cellular module and the proximity reader connected to the PowerMaster-33 G2.
(2) 7.2V 1300 mAh, rechargeable NiMH battery pack, p/n 130AAH6BMX, manufactured by GP or p/n LTT-AA1300LSDX6B, manufactured by LTT.
(3) 9.6V 1800 mAh, rechargeable NiMH battery pack, p/n GP180AAH8BMX, manufactured by GP or p/n LTT-AA1800LSDX8B, manufactured by LTT.
(4) 9.6V 2200 mAh, rechargeable NiMH battery pack p/n 220AAH8BMX, manufactured by GP or p/n LTT-AA2200LSDX8B, manufactured by LTT.
Caution! Risk of explosion, if battery is replaced by an incorrect type. Dispose of used batteries according to the manufacturer's instructions.

Notes:
1. For compliance with CE standards the battery backup period must be at least 12 hours
2. For compliance with UL standards the battery backup period must be at least 24 hours

Time to Charge
80 % (< 30 hours) for all battery types

Optional Backup Battery Pack
See "Backup Battery Options" table above

Time to Charge (optional backup battery pack)
NA

Wired Detectors Total (Sum)
<table>
<thead>
<tr>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>36* mA max.</td>
</tr>
</tbody>
</table>

Site External Siren Current (EXT)
450* mA max @ 12.5 VDC when powered by AC/DC (10.5 VDC when in standby mode)

Site Internal Siren Current (INT)
450* mA max @ 12.5 VDC when powered by AC/DC (10.5 VDC when in standby mode)

* Total PowerMaster-33 G2 output current (of INT & EXT sirens, PGM output and detectors) cannot exceed 550 mA.

PGM
Current sink to control panel GND 100 mA max.
Max. external DC voltage +15 VDC

High Current / Short Circuit Protection
All outputs are protected (automatic reset fuse)
A4. Communication

**Communication**
- PSTN; cellular; IP

**Built-in Modem**
- 300 baud, Bell 103 protocol

**Type of SPT (IP and cellular modules) to CIE (control panel) interconnections**
- Serial UART interfaces

**Built-in Modem 300 baud, Bell 103 protocol**

**Type of SPT (IP and cellular modules) to CIE (control panel) interconnections**
- Serial UART interfaces

**STP Substitution Security**
- The control Panel has a unique ID used for enrolment to the server that burns during production process. The server has a special procedure that the operator uses to deliver an encrypted message with the ID to the panel.

**Information Security**
- Keep alive messages are protected with TLS protocol that prevents the transmitted data from being read, and replaces the server name/IP (Power Manage). Events reporting and tunneling with the ATS protect AES 128 encryption.

**Data Transfer to Local Computer**
- Via RS232 serial port

**Report Destinations**
- 2 Monitoring Stations, 4 private telephones

**Reporting Format Options**
- SIA, Contact ID, Scancom, SIA IP, Visonic PowerNet.

**Pulse Rate**
- 10, 20, 33 and 40 pps – programmable

**Message to Private Phones**
- Tone or voice, SMS

**Ring Detection**
- The unit does not support ring detection without DC voltage present on the telephone lines

**Notes:**

1. After all trouble messages have been reviewed and if a SIM card is installed in the panel, the KP-250 keypad displays the following indications:
   - **Cell signal strength:** indicated as CELL RSSI STRONG / CELL RSSI GOOD / CELL RSSI POOR.
   - **Network Type:** indicates the type of network the cellular modem is registered to. Represented by two characters, for example 2G or 3G.
   - **Cellular provider:** indicates the name of the cellular provider, which the cellular modem is registered to. Represented by 13 characters, for example Orange.

2. If a PIR camera is enrolled in the system, the control panel will read GPRS initialize to indicate that the modem is undergoing initialization. This message appears at the end of all trouble messages and immediately following the cellular signal strength indication (if a SIM card is installed). The trouble indications (illuminated TROUBLE indicator and flashing TRBL message) are cleared once you eliminate the cause of trouble. The table below describes the system faults and respective corrective actions. If you do not know how to correct a trouble situation, report it to your installer and seek his advice.

<table>
<thead>
<tr>
<th>Fault</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>CELL NET FAIL</td>
<td>The cellular communicator is not able to connect to the cellular network</td>
</tr>
<tr>
<td>COMM. FAILURE</td>
<td>A message could not be sent to the monitoring station or to a private telephone (or a message was sent but was not acknowledged)</td>
</tr>
</tbody>
</table>

3. For user programming features and information about entering an invalid user code refer to Chapter 6 sections A1 and A2.

4. PowerMaster-33 system allows you to authorize up to 48 people to arm and disarm the system by providing each with a unique 4 digit personal security code (code 0000 is not allowed, minimum number of variations of PIN codes for each user - 10000 for logical keys), and assigning them with different security levels and functionalities. For more information refer to Chapter 6, section B.4 of the KP-250 PG2 guide.

5. Up to 1000 events are stored in the event log that can be reviewed via the Remote Programmer PC software application or by remote PowerManage server.
### A5. Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temp. Range</td>
<td>14°F to 120°F (-10°C to 49°C)</td>
</tr>
<tr>
<td>Storage Temp. Range</td>
<td>-4°F to 140°F (-20°C to 60°C)</td>
</tr>
<tr>
<td>Humidity</td>
<td>85% relative humidity, @ 30°C (86°F)</td>
</tr>
<tr>
<td>Size (WxHxD)</td>
<td>266 x 201 x 46 mm (10-7/16 x 7-7/8 x 1-13/16 in.)</td>
</tr>
<tr>
<td>Weight</td>
<td>1.44Kg (3.2 pounds) (with battery)</td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
</tr>
</tbody>
</table>
## A6. Peripherals and Accessory Devices

<table>
<thead>
<tr>
<th>Modules</th>
<th>Additional wireless devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellular (2G or 2G/3G), IP</td>
<td>64 detectors, 32 keyfobs, 32 keypads (10 KP-250 PG2), 8 sirens, 4 repeaters, 32 proximity tags</td>
</tr>
</tbody>
</table>

### Wireless Devices and peripherals

- **Magnetic Contact**: MC-302 PG2, MC-302E PG2, MC-302EL PG2, MC-302V PG2
- **Motion Detectors**: Next PG2; Next K9 PG2, TOWER-32AM PG2, TOWER-32AM K9 PG2, TOWER-30AM PG2, TOWER-30AM K9 PG2, TOWER-20 PG2, TOWER-CAM PG2, CLIP PG2
- **PIR Camera Detectors**: Next CAM PG2; Next CAM-K9 PG2
- **Smoke Detector**: SMD-426 PG2, SMD-427 PG2
- **Cellular Module**: Cellular Module
- **Keyfob**: KF-234 PG2, KF-235 PG2
- **Keypad**: KP-140 PG2/KP-141 PG2 (with proximity tag), KP-160 PG2, KP-250 PG2
- **Indoor Siren**: SR-720 PG2
- **Outdoor Sirens**: SR-730 PG2, SR-740 PG2, SR-740 HEX PG2
- **Repeater**: RP-600 PG2
- **Gas**: GSD-441 PG2, GSD-442 PG2
- **Glass-break**: GB-501 PG2
- **Temperature**: TMD-560 PG2
- **Flood**: FLD-550 PG2
- **Shock**: SD-304 PG2
APPENDIX B. Compliance with Standards

European: EN 300 220, EN 300 330, EN 301489, EN 50130-4, EN 60850-1, EN 50130-5, EN 50131-3, EN 50131-6, EN 50136-1, EN 50136-2
For Control Panel PMASTER-33 EXP: EN 50131-10

The PowerMaster is compatible with the RED Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014. According to the European standard EN50131-1 and EN 50131-3, the PowerMaster security grading is 2 - "low to medium risk" and environmental classification is II – "indoor general" and the power supply type is A. EN 50131-6, and ATS Category SP4, by GPRS (module only), DP4 with IP module primary path, and GPRS secondary according to EN50136-1, EN50136-2 (pass through Operation Mode) and according to EN 50131-10 – Supervised Premises Transceiver (SPT).
Certified by Applica T&C in accordance with EN 50131 and EN 50136.

UK: The Powermaster 33 G2 is suitable for use in systems installed to conform to PD6662:2010 at Grade 2 and environmental CLASS II, DD243 and BS8243
Security Grade: Grade 2
Environmental Class: Class II

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.
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 OR 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.

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 Manufacturers 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. This warranty shall apply to the Product only. All products, accessories or attachments of others, 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 the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Products. 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.

The Quick Start Guide is intended for the user of the system. Please remove this detachable sheet and hand it to the user.

Arming and Disarming the System

<table>
<thead>
<tr>
<th>Step</th>
<th>Operation</th>
<th>User Actions</th>
<th>Key &amp; Keypad Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Press the Partition Selection button and then select a PARTITION (if Partition is enabled)</td>
<td># followed by any combination of 1 2 3</td>
<td>The selected key blinks.</td>
</tr>
<tr>
<td>2</td>
<td>Arm AWAY</td>
<td>+ [ ] or enter code</td>
<td>The selected key and the &quot;Present Prox Tag&quot; LED ( ) begin to blink and prompt you to present your Tag or enter your user code.</td>
</tr>
<tr>
<td></td>
<td>Arm HOME</td>
<td>+ [ ] or enter code</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disarm (OFF)</td>
<td>+ [ ] or enter code</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quick arm AWAY (If Quick Arm is enabled)</td>
<td></td>
<td>The keypad's LED blinks red once to indicate transmission of the arming command to the control panel.</td>
</tr>
<tr>
<td></td>
<td>Quick arm HOME (If Quick Arm is enabled)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Forced arming AWAY (system not ready)</td>
<td>+ [ ] or enter code to silence the &quot;protest&quot; buzzer</td>
<td>The LED and the buzzer then indicate the control panel's response – refer to the KP-250 PG2 User's Guide, Chapter 4 “System Status and Indications”.</td>
</tr>
<tr>
<td></td>
<td>Forced arming HOME (system not ready)</td>
<td>+ [ ] or enter code to silence the &quot;protest&quot; buzzer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INSTANT</td>
<td>LATCHKEY</td>
<td>(After arming HOME/AWAY) 0</td>
</tr>
</tbody>
</table>

Note: The factory default master user code is 1111. The code is not required if quick arming has been permitted by the installer. Change the factory default code to a secret code without delay (refer to the KP-250 PG2 User's Guide, Chapter 6, section B.4).

Initiating Alarms

<table>
<thead>
<tr>
<th>Alarms</th>
<th>Actions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency alarm</td>
<td>+ [ ]  (≈ 2 sec.)</td>
<td>When pressing the Fire or Emergency icons, the KP-250 PG2 starts beeping. After pressing the button for approx. 2 seconds, the KP-250 PG2 sends the command.</td>
</tr>
<tr>
<td>Fire alarm</td>
<td>+ [ ]   (≈ 2 sec.)</td>
<td></td>
</tr>
<tr>
<td>Panic alarm</td>
<td>+ [ ]</td>
<td>(≈ 2 sec.)</td>
</tr>
</tbody>
</table>
Preparing to Arm

Before arming, make sure that READY is displayed.

HH:MM READY This indicates that all zones are secured and you may arm the system as desired.

If at least one zone is open (disturbed) the display will read:

HH:MM NOT READY This indicates that the system is not ready for arming and in most cases that one or more zones are not secured. However, it can also mean that an unresolved condition exists such as certain trouble conditions, jamming etc., depending on system configuration.

To review the open zones press  OK . The details and location of the first open zone detector (usually an open door or window sensor) will be displayed. To fix the open zone, locate the sensor and secure it (close the door or window) – see "device locator" below. Each press of  OK will display another open zone or trouble indication. It is highly recommended to fix the open zone(s), thus restoring the system to the state of "ready to arm". If you do not know how to do this, consult your installer.

Note: To quit at any stage and to revert to the "READY" display, press the Delete or Escape key.

Device Locator: The PowerMaster system has a powerful device locator that helps you to identify open or troubled devices indicated on the LCD display. While the LCD displays an open or faulty device, the LED on the respective device flashes indicating "it's me". The "it's me" indication will appear on the device within max. 16 seconds and will last for as long as the LCD displays the device.

Zone Bypass Scheme

Bypassing permits arming only part of the system and at the same time allowing free movement of people within certain zones when the system is armed. It is also used to temporarily remove from service faulty zones that require repair work or to deactivate a sensor if, for example, you are decorating a room.

You can set the Zone Bypass Scheme i.e. to scroll through the list of registered (enrolled) sensors to your PowerMaster system and to Bypass (deactivate) faulty or disturbed sensors (either READY or NOT-READY) or to Clear (reactivate) BYPASSED zones (sensors).

Once you have set a Bypass Scheme you can use the following 3 options:

• To quickly review the bypassed zones – refer to Chapter 6, section A.2 of the KP-250 PG2 User’s Guide.
• To quickly clear a bypassed zone i.e. to reactivate the bypassed zone – refer to Chapter 6, section A.1 of the KP-250 PG2 User’s Guide.
• To repeat (recall) the last used zone bypassing scheme – refer to Chapter 6, section A.3 of the KP-250 PG2 User’s Guide.

Notes:
1. Zones will be bypassed throughout one disarm-arm period only. Disarming the system after arming will suspend the entire bypassing scheme but you can recall and reuse it as described in Chapter 6, section A.3 of the KP-250 PG2 User’s Guide.
2. Fire zones cannot be bypassed.