

# MKP-150/151/152

## 2-Way Wireless Keypad



# Visonic®

## User's Guide

### 1. INTRODUCTION

#### NOTE: RELEVANT TO POWERMAX+ VERSION B AND ABOVE

The MKP-150/151 (different color) and MKP-152 operate using two-way encrypted coded transmission and provides aural and visual indications. For each PowerMax+, PowerMax Pro, PowerMaxComplete, PowermaxExpress control panel, a maximum of two MKP-150/151/152 keypad devices may be enrolled.

The MKP-150/151/152 includes an optional partition feature. Partitioning allows you to have up to three independently controllable areas with different user codes assigned to each partition or one user code assigned to up to three partitions. A partition can be armed or disarmed regardless of the status of the other partitions within the system.

**Note:** The Partition feature appears only after Partitioning is enabled via the control panel.

The MKP-150/151/152 may be operated either by AC power supply or by battery power. If AC power is used, the device operates continuously and the system status is constantly updated. If powered by batteries, the keypad enters sleep mode 15 sec after last key press. The keypad immediately becomes operational again upon pressing of any key.

**Note:** In the event of an AC power failure, the MKP-150/151/152 operates on batteries as described above.

The device enables the user to arm/disarm the alarm system, to initiate emergency/fire/panic alarms and to turn lighting devices on and off.

The main features of the MKP-150/151/152 are:

- Status, alarm memory, and trouble data retrieval from the control panel.
- Automatic reporting to the control panel of low battery voltage, AC failure, tamper.
- Visual indications by red/green/amber LED and LCD display.

- Keypad and LCD backlighting activation.
- Light dim / brightness
- Various audible signals sounded by the speaker in response to specific actions.
- Automatic supervision messages.
- Diagnostic test of the control panel.
- Two long-life 3 Volt Lithium batteries.
- Wall mounting.
- Friendly programming.

The Power (green) LED lights when operated using AC power. The Trouble (amber) LED lights if a "trouble" state is currently detected within the control panel. The Chime (green) LED lights when the chime function is active. The Arm (red) LED lights when the system is in armed state (away mode), or flashes (home mode).

A periodic supervision message is transmitted, at regular intervals, from the MKP-150/151/152 to the control panel. This ensures active participation of the MKP-150/151/152 in the system.

Operating power is obtained from two 3 Volt Lithium batteries, or by AC. A weak battery causes a "low battery" message to be sent to the control panel.

A Screen Saver appears on the display (if enabled by the installer on the control panel unit) when no key is pressed for more than 30 seconds. The display reads "POWERMAX" and the LEDs do not light (to prevent an intruder of knowing the system status). The normal display returns after pressing the OFF button followed by entering user code (**Refresh by Code**) or after pressing any key (**Refresh by Key**), depending on the control panel settings of the installer. If **Refresh by Key** was selected, the first key press (except for Fire and Emergency) causes the normal display to return while a second press performs the key function. In the case of the Fire and Emergency keys, the first key press causes the normal display to return and also performs the Fire/Emergency function.

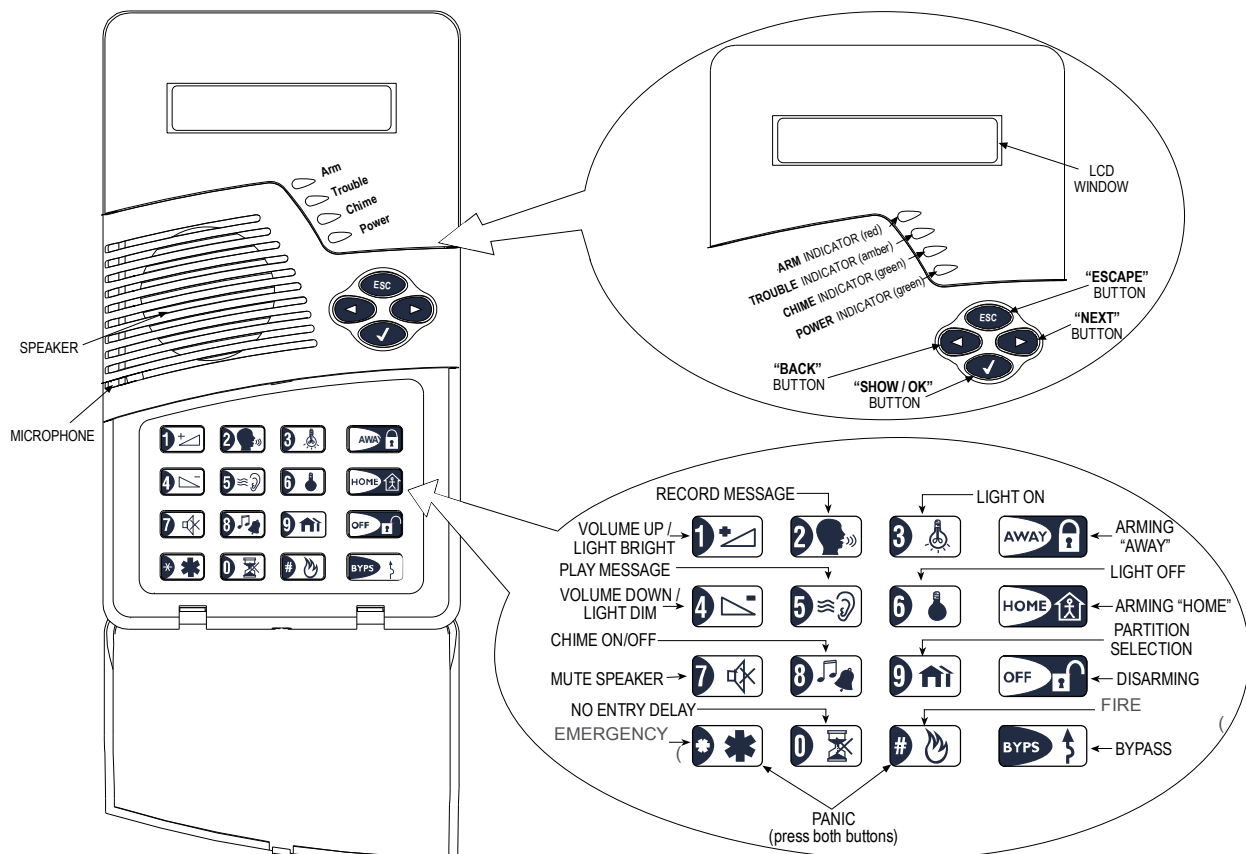


Figure 1a: External View – MKP-150/151

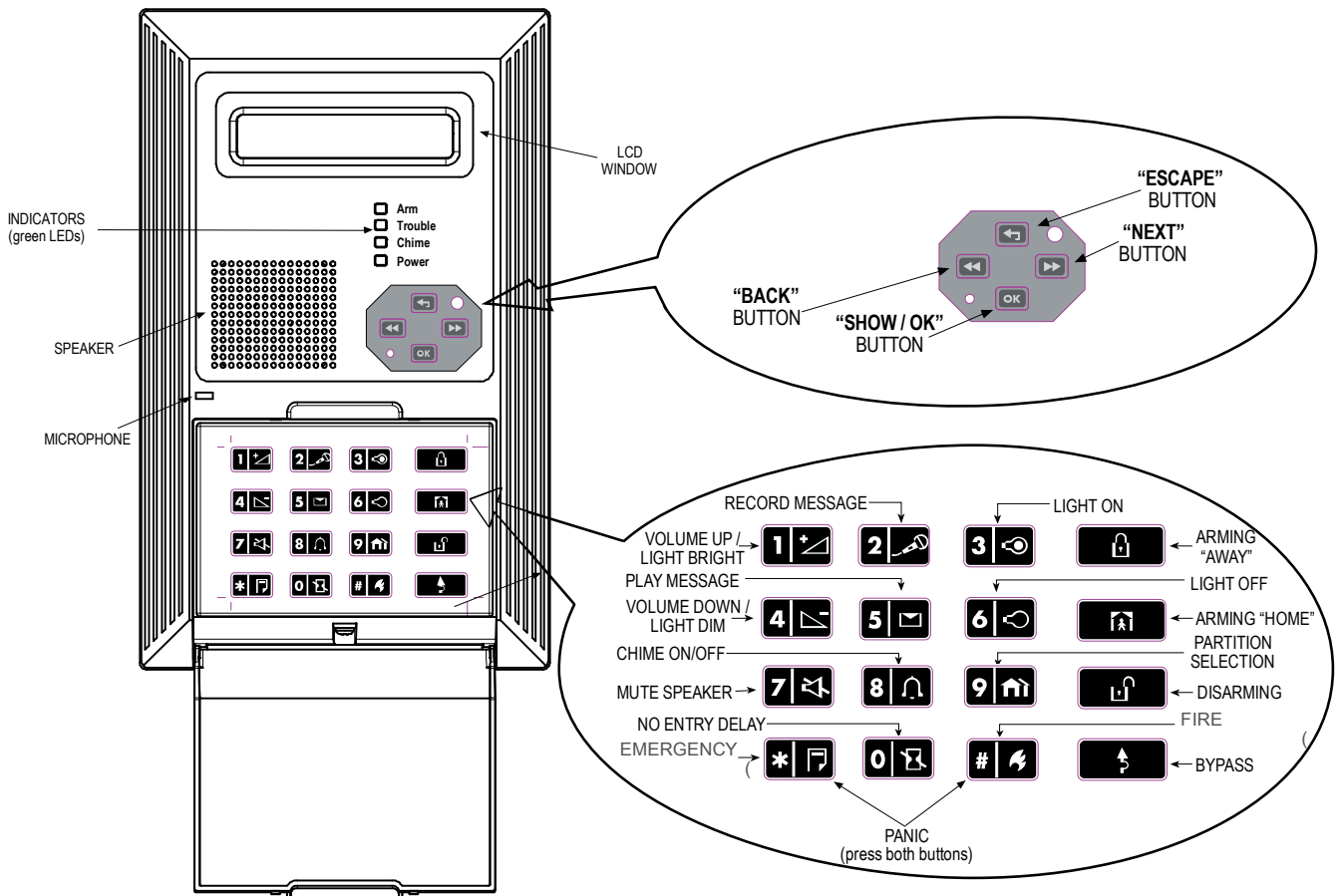


Figure 1b: External View – MKP-152

## 2. SPECIFICATIONS

### ELECTRICAL

**Battery Power Source:** Two 3 Volt Lithium batteries, type CR123A (Sanyo or equivalent).

**Battery Life Expectancy:** 2 years (for typical use).

**AC Power Supply (optional):** Plug-in transformer.

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.

**UL installation:** Use transformer type OH-35048AT, manufactured by Oriental Hero Electrical Factory.

**In Europe and elsewhere:** Use only Safety National Approved AC adapter, mains-to-9 VAC, 0.35 A min.



**AC Current Drain:** Approx. 30 mA standby, 300 mA max. at full load.

**Display:** Single line, backlit 16-character LCD and 4 LED indicators.

**Control Functions:** Home Arming, Away Arming, Bypass, Disarming, Latchkey, Light ON / OFF, Light Dim / Brightness, Recording, Forced Arming, Panic, Fire and Emergency calls.

**Sleep Mode:** Used to minimize current consumption. The unit enters sleep mode 15 seconds after last use (applies only when using batteries or when there is a power failure).

**Supervision:** A periodic supervision message (programmable) is transmitted automatically once every 15 minutes (Europe), once every 60 minutes (USA), or according to the local standards. This function can be disabled.

**Panic Alarm Message:** Activated by simultaneously pressing the  and  keys.

**Tamper Switch:** Normally closed. A tamper signal is transmitted in three ways: when the MKP-150/151/152 case is opened; when the

keypad assembly is separated from the bracket; or if the MKP-150/151/152 unit is ripped from the wall.

**Compliance with Standards:** FCC part 15, EN 50131-1 Grade 2 Class II, TS 50131-3 and Directive 1999/5/EC

### RF SECTION

**Operating Frequencies:** 315 MHz (in USA & Canada) or other UHF channels per local requirement in the country of use.

**Note:** At 315 MHz the MKP-150 complies with UL 1023.

**Receiver Type:** Super-heterodyne, fixed frequency

**Receiver Range:** 600 ft (180 m) in open space

**Antenna Type:** Spatial

**Coding:** Two-way wireless protocol

### ENVIRONMENTAL

**For indoor use only.**

**Operating Temp. Range:** 0°C to 49°C (32°F to 120°F)

**Storage Temp. Range:** -20°C to 60°C (-4°F to 140°F)

**Humidity:** 85% relative humidity, @ 30°C (86°F)

### PHYSICAL

**Dimensions:**

**MKP-150/151:** 172 x 99 x 39 mm (6 7/8 x 3 15/16 x 1 9/16 in.)

**MKP-152:** 195.27 x 121.27 x 36.3 mm (7.69 x 4.77 x 1.43 in)

**Weight:**

**MKP-150/151:** 375 g. (13 oz)

**MKP-152:** 405 g (14.25 oz)

**Mounting:** Surface-mounted

**Color:** Light gray

### 3. INSTALLATION AND WIRING

Perform the procedures as illustrated in the following figures.

**Note:** Mount the unit inside the secured premises, in a location providing optimum signal reception from the control panel unit, (refer to *Installing Wireless Systems Installation Guide – The Right Way*, document no. DE2000W, for further details).

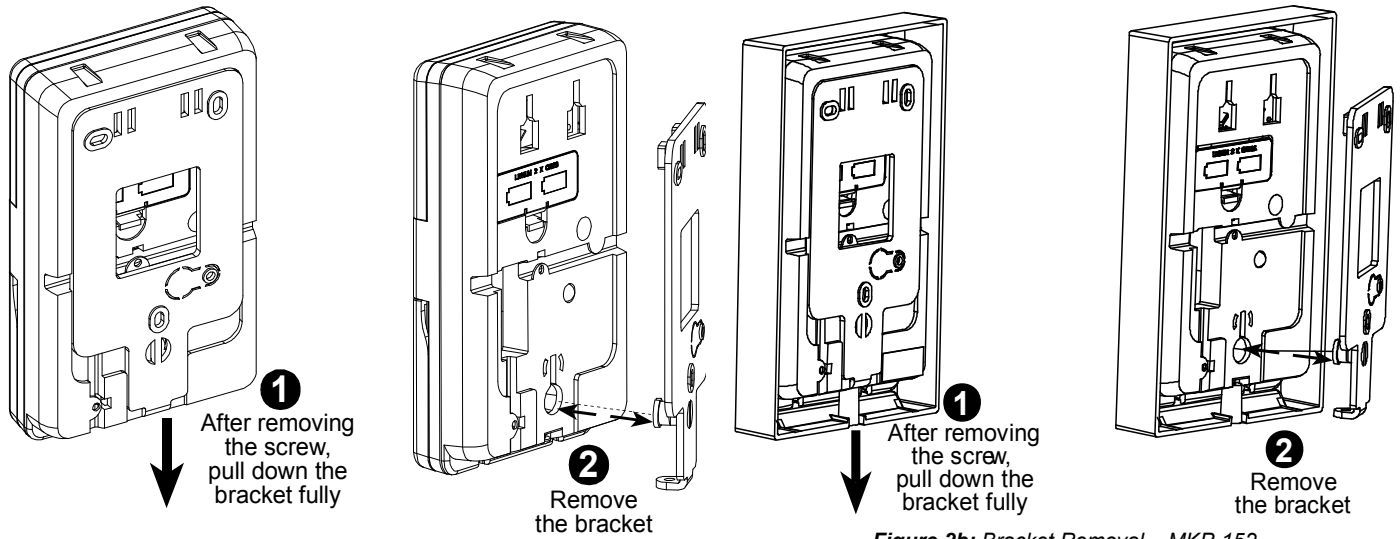
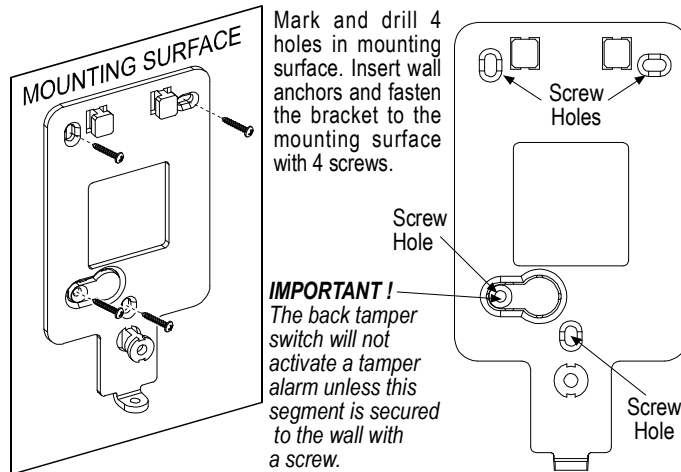


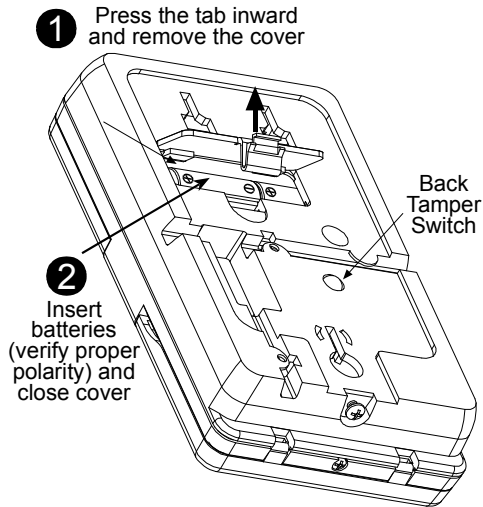
Figure 2a: Bracket Removal – MKP-150/151

Figure 2b: Bracket Removal – MKP-152

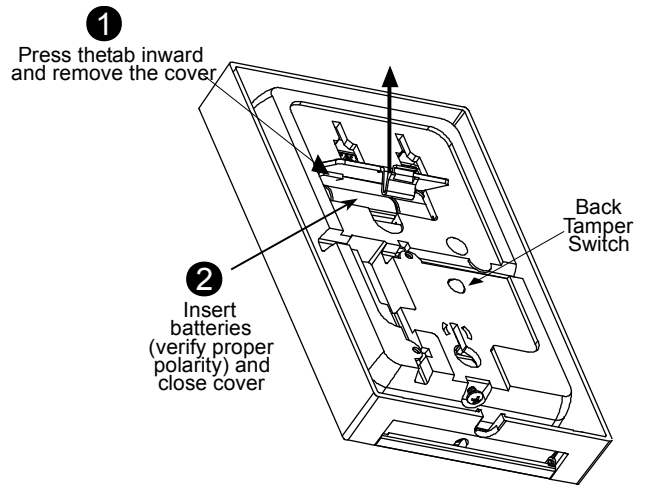


**Note:** Leave at least 3 cm (1.25 in.) free space around the bracket.

Figure 3: Bracket Mounting



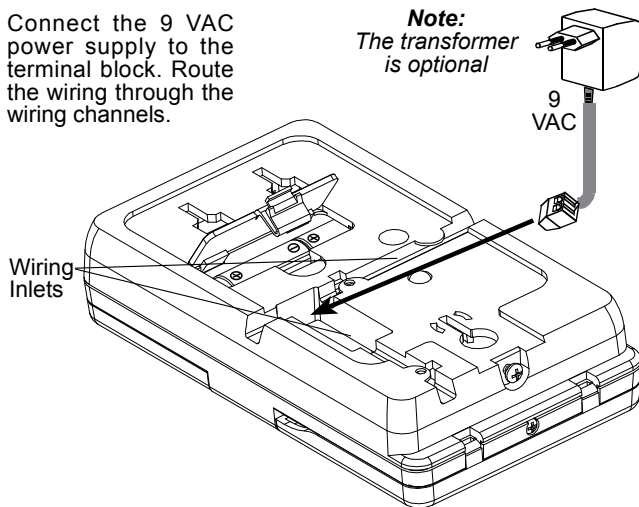
**Figure 4a: Battery Insertion – MKP-150/151**



**Figure 4a: Battery Insertion – MKP-152**

Connect the 9 VAC power supply to the terminal block. Route the wiring through the wiring channels.

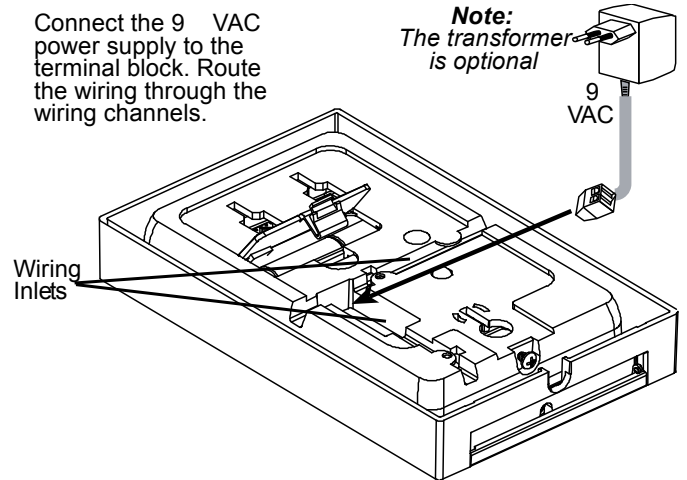
**Note:**  
The transformer is optional



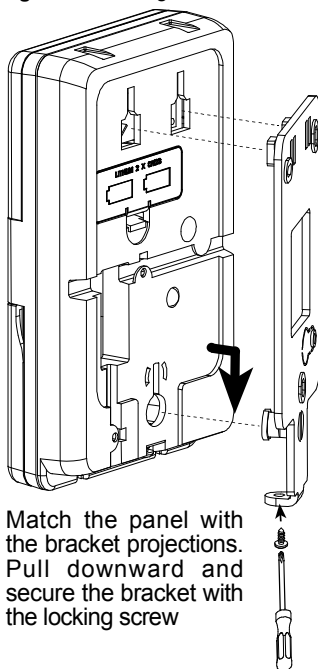
**Figure 5a: Wiring – MKP-150/151**

Connect the 9 VAC power supply to the terminal block. Route the wiring through the wiring channels.

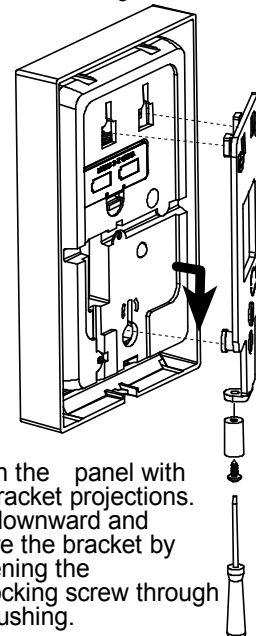
**Note:**  
The transformer is optional



**Figure 5b: Wiring – MKP-152**



**Figure 6a: Panel Mounting – MKP-150/151**



**Figure 6b: Panel Mounting – MKP-152**

## 4. ENROLLING/DELETING THE KEYPAD FROM THE POWERMAX+ MEMORY

To enroll all the MKP-150/151/152 functions (for complete list see PowerMax+ Installer Guide), enter the PowerMax+ Installer Mode from the PowerMax+ keypad, and proceed as shown in the following illustration.

**Note:** For PowerMax Pro, PowerMaxComplete and PowerMaxExpress control panels, please refer to the respective Installer Guide.

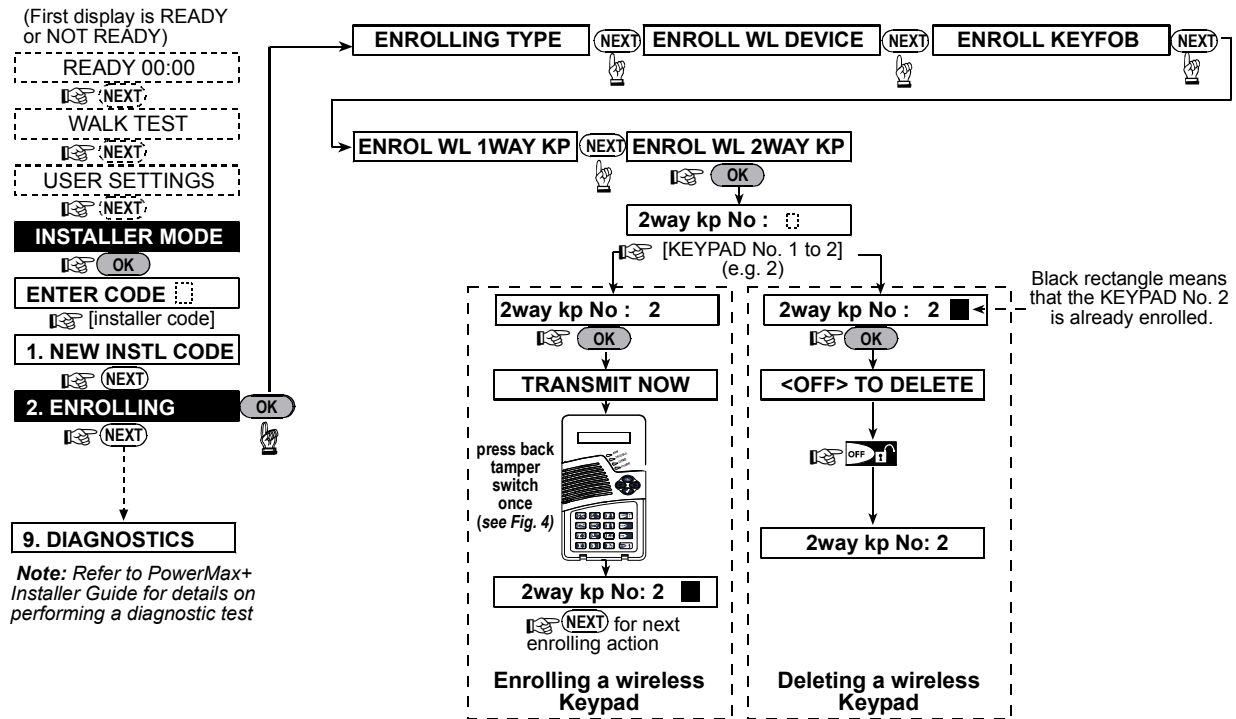


Figure 7: Enrolling / Deleting a MKP-150/151/152 Device from PowerMax+ Memory

## 5. DEFINING MKP-150/151/152 PARAMETERS

### 5.1 Installer Menu Functions

**Important:** All installer settings affect only the specific keypad on which the settings were performed.

The Installer menu enables you to perform the following functions:

#### SUPERVISION

The keypad transmits supervision reports periodically to the control panel.

The options are: **15 minutes**, **1 hour** and **disable**.

**Note:** In FCC installations, the keypad must be set to 1 hour.

#### PIEZO BEEP

Here you determine whether warning beeps will sound or be muted during exit and entry delays.

Options: **enable beeps**, **off when home** and **disable beeps**.

#### BACK LIGHT

The keypad and LCD back light can be activated in one of two ways:

- **By key press:** back light is activated for ten seconds by a long press (2 sec) of any key.
- **Always on:** back light remains on continuously. (Enabled only when the unit is connected to the AC supply.)

The options are: **OFF after 10s** and **always ON**.

#### JAM DETECTION

**Note:** For PowerMax+ control panel, this feature is enabled only with version 3.3.14 and above.

Here you determine whether jamming (interfering transmissions on the radio channel used by the system) will be detected.

The options are: **UL 20/20**, **EN 30/60**, **class 6 (30/60)**, or **disable**.

#### RECORD SPEECH

This mode allows you to record up to 5 custom zone names.

#### SERIAL NUMBER

Enables reading the system serial number for support purposes only.

### 5.1.1 To Set Supervision Time

Make sure the system is not in Arm mode.

The installer's menu is accessible only to those who know the installer's code, which is **9→9→9→9** by factory default.

A. Press the next button (▶) repeatedly until the display reads:

**INSTALLER MODE**

B. Press the Show / OK button (√). The display should read:

**ENTER CODE : [ ]**

**Note:** For control panels with two installer codes, the default **INSTALLER** code is 8888 and the default **MASTER INSTALLER** code is 9999.

C. Enter the installer code. The display will change to:

**SUPERVISION**

D. Press <√>.

E. Press <▶> repeatedly to select one of the available options.

F. Press <√> to set the selected option.

### 5.1.2 To Activate the Recording Mode

A. Upon gaining access to the installer menu (see section 5.1.1 A to C), the display will read "SUPERVISION".

B. Press <▶>; **RECORD SPEECH** is displayed.

C. Press <√>. The display will change to:

**USER TERM # 1**

**Note:** User Term refers to the name assigned to the recorded zone.

**Note:** It is recommended to assign custom names that are identical to the custom names defined in the control panel.

D. Press the key until this is displayed briefly:

**RECORD A MESSAGE**

Immediately thereafter, the display will change to:

**TALK NOW**

E. Do not release the key and start talking immediately (for example, living room or library), while facing the front panel.

The dark square boxes will slowly disappear one by one, from right to left. When the last one disappears (5 seconds later) the following message will be displayed:

**RECORDING ENDED**

F. Release the key. To check the message, press the key and listen to the playback.

G. Press . The display will change to:

**USER TERM # 2**

H. Repeat the procedure for User Terms #2 - #5 to record the names of zones 2 - 5.

### 5.1.3 To Enable/Disable Piezo Beeps

A. Upon gaining access to the installer menu (see section 5.1.1 points A to C) the display will read "SUPERVISION".

B. Press twice; **PIEZO BEEP** is displayed.

C. Press .

D. Press to select between **enable beeps**, **off when home** and **disable beeps**.

E. Press to set the selected option.

### 5.1.4 Keypad Back Light

A. Upon gaining access to the installer menu (see section 5.1.1 points A to C) the display will read "SUPERVISION".

B. Press repeatedly until **BACK LIGHT** is displayed.

C. Press .

D. Press to select between **OFF after 10s** and **always ON**.

E. Press to set the selected option.

### 5.1.5 Jam Detection

A. Upon gaining access to the installer menu (see section 5.1.1 points A to C) the display will read "SUPERVISION".

B. Press repeatedly until **JAM DETECTION** is displayed.

C. Press .

D. Press to select between **UL 20/20**, **EN 30/60**, **class 6 (30/60)**, **disable** and **other**.

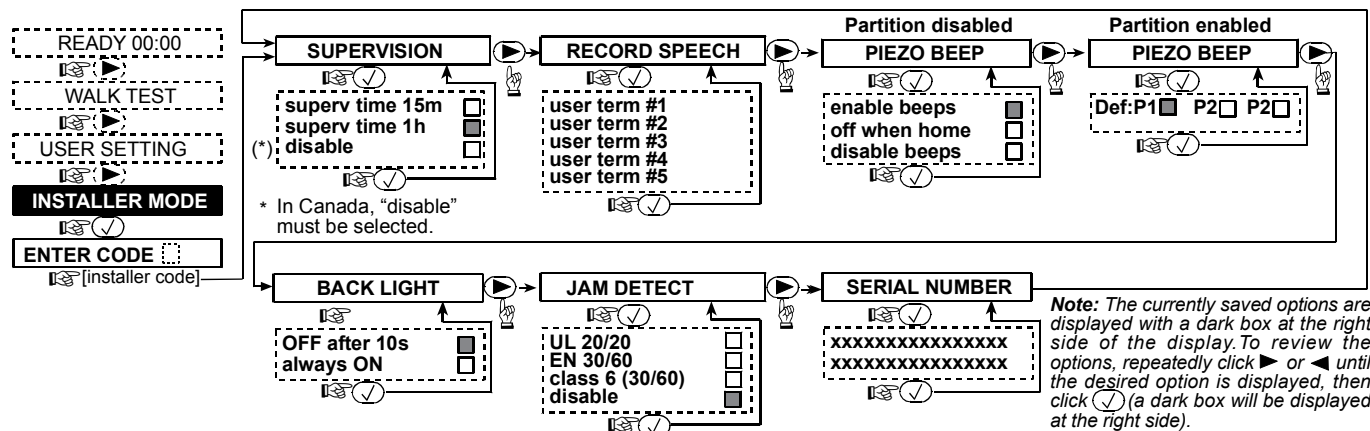
E. Press to set the selected option.

### 5.1.6 To Read the Device Serial Number

A. Upon gaining access to the installer menu (see section 5.1.1 points A to C) the display will read "SUPERVISION".

B. Press repeatedly until **SERIAL NUMBER** is displayed.

C. Press to read the serial number assigned to the unit.



**Note:** The currently saved options are displayed with a dark box at the right side of the display. To review the options, repeatedly click or until the desired option is displayed, then click (a dark box will be displayed at the right side).

Figure 8: Defining MKP-150/151/152 Functions

## 5.2 User Setting Functions

**Note:** The Partition feature appears only after Partitioning is enabled via the control panel.

The user settings on your MKP-150/151/152 keypad include the following functions (for instructions see *PowerMax+*, *PowerMax Pro*, *PowerMaxComplete*, *PowerMaxExpress User's guide*):

- Set Bypass
- Show Bypass
- Recall Bypass (applicable when Partition is disabled)
- Set Phone Number
- Set User Codes
- Set Voice Option
- Auto Arm Option
- Auto Arm Time
- Squawk Option
- Light by Timer (for further details, refer to the control panel User's Guide).
- Light by Sensor (for further details, refer to the control panel User's Guide).
- Make sure the system is not in Arm mode. The display should read:

**READY**

### TO SET FUNCTIONS

The user's menu is accessible only to those who know the master user code, which is **1→1→1→1** by factory default.

Use this code for initial access, and replace it with a new code known only to you, (see *PowerMax+*, *PowerMax Pro*, *PowerMaxComplete*, *PowerMaxExpress User's Guide*).

A. Press the button twice.

The display should read:

**USER SETTING**

B. Press the . The display should read:

**ENTER CODE:**

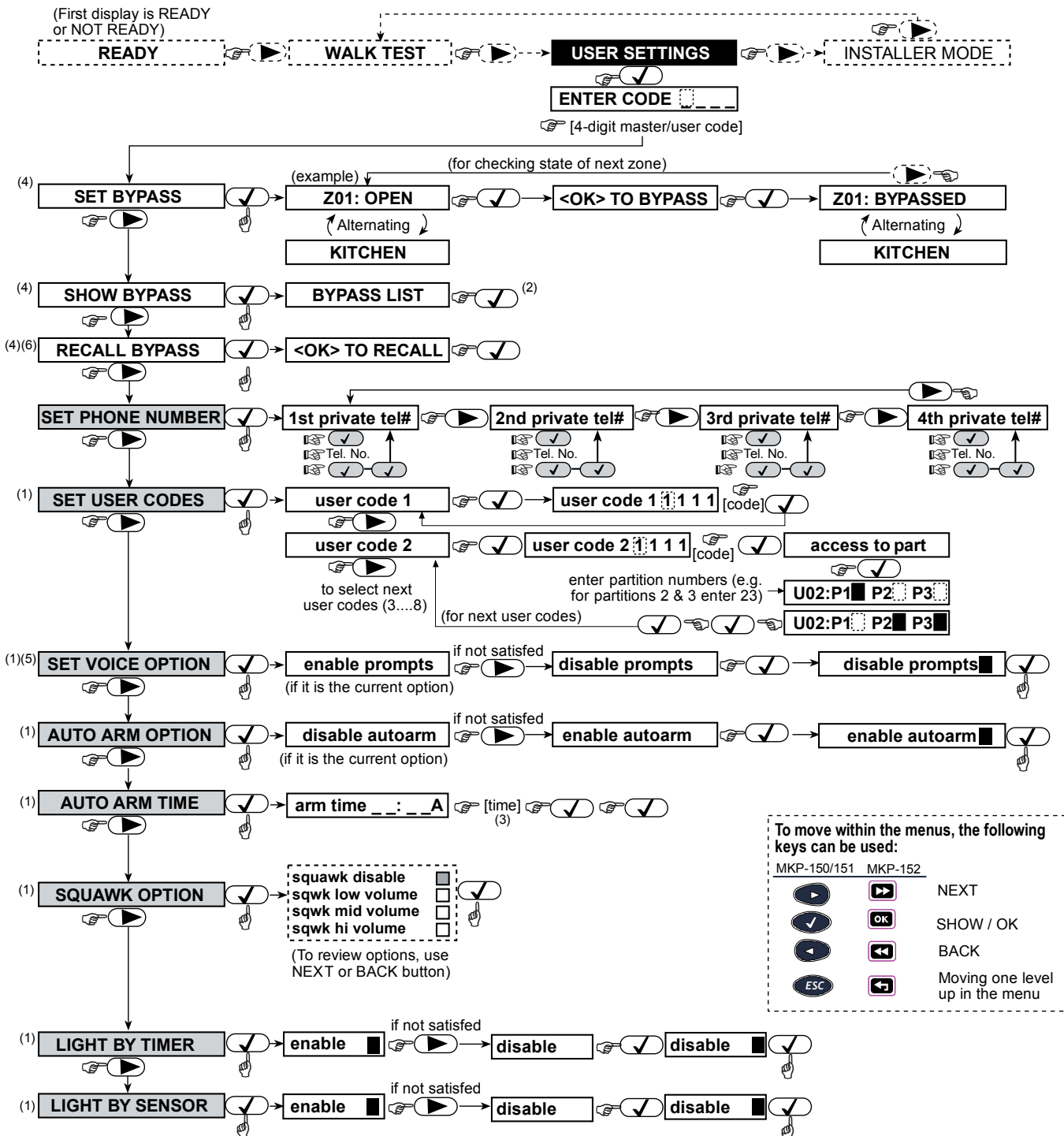
C. Enter your code. The display will change to:

**SET BYPASS**

**Note:** If the bypass function is disabled, the display will change to:

**SET PHONE NUMBER**

D. Having gained access to the user's menu, you may now select any other item on the User Settings menu as detailed in Figure 9.



- NOTES**
- (1) Function inside black rectangles are accessible only if master user code was entered.
  - (2) Press OK to display the number, state and name of first by passed zone. Press NEXT/BACK repeatedly to view all the by passed zones.
  - (3) To enter "A" (AM) press [ ] ( or one of the 3 keys above it), to enter "P" (PM) press [ ] ( or one of the 3 keys above it). (Not functional if the time format has been set to the 24 hour clock via the PowerMax+.)
  - (4) SET/SHOW/RECALL BYPASS menus are accessible only if "manual bypass" has been selected by the installer via the PowerMax+.
  - (5) In the SET VOICE OPTION, if you select "enable prompts", the PowerMax+ mute speaker button [ ] is active.
  - (6) RECALL BYPASS is applicable when Partition is disabled.

Figure 9: User Settings Flow Chart

## 6. OPERATION

For simplicity and clarity, the table below displays only the MKP-150/151 keys. For the MKP-152 equivalents, please refer to Figures 2a and 2b.

Function	Actions
Partition selection (when enabled)	[Partition No.]
Arming HOME	[user code] <sup>(1) (3)</sup>
Arming HOME INSTANT	[user code] <sup>(1)</sup>
Arming AWAY	[user code] <sup>(1)</sup>
Arming AWAY INSTANT	[user code] <sup>(1)</sup>
Forced Arming HOME	[user code] <sup>(1)</sup>
Forced Arming AWAY	[user code] <sup>(1)</sup>
Disarming	[user code] <sup>(1)</sup>
X-10 device (1-15) ON	unit # [1-15]
X-10 device (1-15) OFF	unit # [1-15]
Light dim / brightness	or  unit # [1-15] or
Emergency alarm	(≈ 2 sec.) <sup>(5)</sup>
Fire alarm	(≈ 2 sec.) <sup>(5)</sup>
Panic alarm	

Latchkey arming	[user code] <sup>(1)</sup> <sup>(2)</sup>
Quick arm / HOME / AWAY	(operates only if enabled in the control panel)
Chime ON/OFF	(press again to select option)
Local Recording	(press continuously while talking)
Playback	
Local Voice On / Off	
Testing	[user code] <sup>(1) (3)</sup>
Bypass	[user code] <sup>(1)</sup>
Duress	[duress code] (2580 by default)

### Notes

1. The factory default master user code is 1 1 1 1. The code is not required if **quick arming** has been permitted by the installer.
2. For LATCHKEY arming function, press the AWAY key, and then press the AWAY key again.
3. Pressing a non-valid code combination (not master / user code) causes a long failure beep.
4. If a keying sequence is not completed within a five second period, the desired function will not be executed.
5. Emergency, Fire or Panic buttons become active only if enabled in the control panel.

## 7. COMPLIANCE WITH STANDARDS

This device complies with the essential requirements and provisions of Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio and telecommunications terminal equipment.

### Frequency Allocations for Wireless Devices in European Countries:

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

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.

The 315 MHz model of this device complies with Part 15 of the FCC Rules and RSS-210 of Industry and Science Canada. Operation is subject to these two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation.

The digital circuit of this device had 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.

	<b>W.E.E.E. Product Recycling Declaration</b> For information regarding the recycling of this product you must contact the company from which you originally purchased it. If you are discarding this product and not returning it for repair then you must ensure that it is returned as identified by your supplier. <u>This product is not to be thrown away with everyday waste.</u> Directive 2002/96/EC Waste Electrical and Electronic Equipment.
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The technical documentation as required by the European Conformity Assessment procedure is kept at:  
UNIT 6 MADINGLEY COURT CHIPPENHAM DRIVE KINGSTON MILTON KEYNES MK10 0BZ. Telephone number: 0870 7300800, Fax number: 0870 7300801



**VISONIC LTD. (ISRAEL):** P.O.B 22020 TEL-AVIV 61220 ISRAEL. PHONE: (972-3) 645-6789, FAX: (972-3) 645-6788  
**VISONIC INC. (U.S.A.):** 65 WEST DUDLEY TOWN ROAD, BLOOMFIELD CT. 06002-1376. PHONE: (860) 243-0833, (800) 223-0020. FAX: (860) 242-8094  
**VISONIC LTD. (UK):** UNIT 6 MADINGLEY COURT CHIPPENHAM DRIVE KINGSTON MILTON KEYNES MK10 0BZ. TEL: (0870) 7300800 FAX: (0870) 7300801  
**PRODUCT SUPPORT:** (0870) 7300830  
**VISONIC GmbH (D-A-CH):** KIRCHFELDSTR. 118, D-40215 DÜSSELDORF, TEL.: +49 (0)211 600696-0, FAX: +49 (0)211 600696-19  
**VISONIC IBERICA:** ISLA DE PALMA, 32 NAVE 7, POLÍGONO INDUSTRIAL NORTE, 28700 SAN SEBASTIÁN DE LOS REYES, (MADRID), ESPAÑA.  
 TEL (34) 91659-3120, FAX (34) 91663-8468. www.visonic-iberica.es  
 INTERNET: www.visonic.com  
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