

# ***VISION***

## **Wireless Alarm System**



## **Installation Guide**

System Version: 1.x

# **PIMA**

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***Use of high power lithium-ion battery cells requires appropriate protection in accordance with how they are used. Inappropriate use of the batteries may possibly result in heat generation, ignition or explosion and may cause death, personal injury, property damage or other serious loss.***



***The VISION communicates using wireless (RF) transmissions. Any wireless transmission can be subject to RF interference and, although unlikely, this interference may cause the KAS to not operate as intended.***

***RF transmissions will be attenuated by tinted glass, in wall isolation with metal foils, metal objects, etc.***

### **Safety Instructions. Read Carefully**

The *VISION* security system has been registered in accordance with EN60950 and its rules.

Among other things, EN60950 requires us to advise you the following information:

- Hazards of fire and electric shock exist in this alarm system. To reduce the risk of fire or electric shock, do not expose this alarm system to rain or moisture. Pay attention: Telephone cords could be a good conductor for lightings energy.
- Warning: this equipment has no mains On/Off switch. The plug of the direct plug-in power supply is intended to serve as the disconnecting device.
- Dangerous high voltages are present inside the control panel's enclosure. Refer servicing to qualified personnel only.
- This alarm system should be used with 230VAC/110VAC, 50/60Hz, protected by anti-electric shock breaker. Use only the power supply provided with this equipment. Use of unauthorized power supplies may cause damage.
- Do not spill liquid of any kind onto the unit. If liquid is accidentally spilled onto the unit, immediately consult a qualified service.
- Disposal of used batteries must be made in accordance with local waste recovery and recycling regulations.

### **Default Codes**

Master User: 5555

Master Installer: 1234

### **Signs in this guide**



***Warning***



*Note*

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# 1. INTRODUCTION

Dear customer,

This guide will introduce you with PIMA Electronic Systems' wireless alarm - the **VISION**. Designed to be used with our wireless detectors and peripherals, the **VISION** incorporates advanced technology with high reliability.

The **VISION** offers advanced communication technology, including built-in Ethernet connection. PSTN, cellular, and wi-fi communications are also optional.

The **VISION** is initially programmed using a hardwired technician keypad, and by the **PIMA Total Manager** software remotely, afterwards.

The **PIMAlink 3.0** cloud service and smartphone application allow the end-user to receive notifications and control the alarm system from anywhere.

This Installation guide refers to the **VISION** alarm system, version 1.x. All systems are supplied with three guides:

- This guide that includes the control panel's installation, and wiring instructions.
- The User guide that includes the initial programming, and the system maintenance instructions.
- The **FORCE** and **VISION** system programming guide

## 1.1. Main features

- Zones: up to 64
- Users: up to 64, with a unique code for each + optional key fob.
- Contacts: up to 16, for receiving notifications (by SMS/mobile call).
- Partitions: up to 8, with a separate keypad for each.
- Multi-channel communications: Ethernet, and optional cellular (3G/4G)<sup>1</sup>, wi-fi<sup>1</sup> and PSTN<sup>1</sup>.
- Programming options:
  - Locally, using an LCD keypad.
  - Remotely, using the **PIMA Total Manager** software, via PC or mobile.
- Remote firmware update via the **PIMA Total Manager** software
- Remote operations and receiving notifications via the **PIMAlink 3.0** cloud and smartphone application.
- Up to two CMSs (Central Monitoring Station) with password for each
- Remote upload/download via the **PIMA Total Manager** software, via all media.

<sup>1</sup> Requires a module. Ethernet and wi-fi modules cannot be installed together.

## 1.2. Alarm systems comparison table

<b>Feature</b>	<b>VISION</b> <i>(wireless)</i>	<b>FORCE</b> <i>(hardwired)</i>
Wireless zones (max.)	64	64
Hardwired zones	x	144
Wireless keypads	8	8
Hardwired keypads	1 <sup>2</sup>	16
Wireless expanders	1	8 <sup>3</sup>
Communications: network, PSTN, wi-fi, and cellular.	✓	✓
Radio	x	✓
Users	64	144
Contacts	16	32
Partitions	8	16
Open collector outputs	x	2
Relay output	x	1
Siren outputs	x	2

## 1.3. Technical specifications

- Frequencies (MHz): 433.92, 868.95
- Power input:
  - VCD: 12VDC
  - VCA: 120/230VAC
- Battery: 2X 18650, 3.7A, Lithium-ion
- Power supply: 1A, +12VDC
- Power consumption (max):
  - Control panel: 100mA
  - PSTN module: 10mA
  - Cellular Module: 85mA
  - Wi-fi module: 120mA
- Operating temperature: -10 to +50 °C
- Humidity (max.): up to 90% R.H., non-condensing

<sup>2</sup> Future version. For system configuration only.

<sup>3</sup> Version 1.4 and higher

## 1.4. Ordering information

### 1.4.1. Kits

All kits includes the **VISION** alarms system, DPS187 PIR detector, DCM187 door contact, and RMC187 key fob.

Product	P/N
VCA187 Kit (868.95MHz)	8360101
VCD143 Kit (433.92MHz)	8360102
VCA143 Kit (433.92MHz)	8360103

### 1.4.2. Alarm systems

Product	Description	P/N
VCA143 (433.92 MHz)	AC model	8360003
VCA187 (868.95 MHz)		8360004
VCD143 (433.92 MHz)	DC model	8360008
VCD187 (868.95 MHz)		8360007

### 1.4.3. Peripherals

Product	Description	P/N
<b>Cellular</b>		
CLM302	Cellular add-on (2G/3G)	8300045
GSM512	Cellular add-on (3G)	8300043
CLM412	Cellular add-on (4G)	8300049
<b>Detectors<sup>4</sup></b>		
DPS	PIR motion detector	<ul style="list-style-type: none"> <li>143: 8831010</li> <li>187: 8831024</li> </ul>
DPP	PIR motion detector with pet immunity	<ul style="list-style-type: none"> <li>143: 8831012</li> <li>187: 8831025</li> </ul>
DPC	PIR motion curtain detector	<ul style="list-style-type: none"> <li>143: 8831014</li> <li>187: 8831026</li> </ul>
DGS	Gas detector	<ul style="list-style-type: none"> <li>143: 8832004</li> <li>187: 8832009</li> </ul>
DSC	Smoke/CO detector	<ul style="list-style-type: none"> <li>143: 8832006</li> </ul>
DFL	Flood detector	<ul style="list-style-type: none"> <li>143: 8831006</li> <li>187: 8831029</li> </ul>

<sup>4</sup> Frequencies: 143: 433.92Mhz, 187:868.95Mhz

Product	Description	P/N
<b>Others</b>		
DCM	Door contact	• 143: 8831002
		• 187: 8831028
RMC	Key fob (black)	• 143: 8833008
		• 187: 8833013
RPB	Panic button (white)	• 143: 8833006
		• 187: 8833011
KAS	Arming Station	• 143: 8833002
		• 187: 8833014
SRO	Siren	• 143: 8831016
		• 187: 8831023
WRP	Repeater	• 143: 8831020
		• 187: 8831030



## 2. QUICK GUIDE

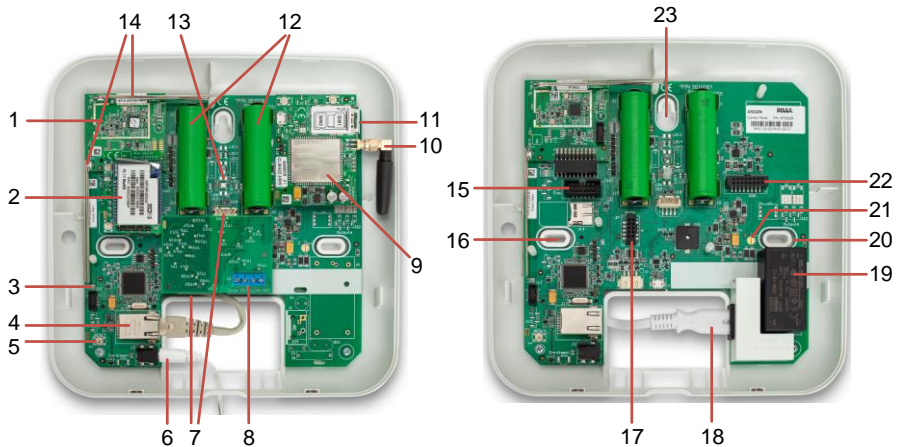


Figure 1. The control panel (VCD model (left), VCA model (right))

Following is a table of the control panel's optional modules and sockets.

No.	Module/socket	Description
<b>1</b>	Wireless transceiver (onboard)	Supplied in two frequencies: 433.92MHz, and 868.95MHz.
<b>2</b>	Wi-fi module	2.4GHz, optional
<b>3</b>	LEDs	BUS indicators
<b>4</b>	Ethernet socket	Serves the Ethernet card or the wi-fi module.
<b>5</b>	Reset button	Resets the control panel
<b>6</b>	Power supply plug	External power supply connector for VCD model
<b>7</b>	Hardwired keypad sockets	Including for technician keypad
<b>8</b>	PSTN module	The module is supplied with terminal block, or with RJ11 sockets.
<b>9</b>	Cellular module	2G/3G/4G
<b>10</b>	Cellular antenna	SMA
<b>11</b>	SIM card tray	Optional double SIM
<b>12</b>	Li-Ion batteries	Backup
<b>13</b>	Armed/Disarmed LEDs	<b>Red:</b> system armed; <b>Green:</b> system disarmed
<b>14</b>	Wireless antennas	-
<b>15</b>	Wi-fi module socket	-

No.	Module/socket	Description
<b>16</b>	Mounting hole	-
<b>17</b>	PSTN module socket	-
<b>18</b>	AC plug	Power cord for VCA model
<b>19</b>	Internal power supply	VCA model
<b>20</b>	Mounting hole + tamper knockout	-
<b>21</b>	Tamper switch	-
<b>22</b>	Cellular module socket	-
<b>23</b>	Mounting hole	-

## 3. INSTALLATION

### 3.1. Location guidelines

Use the following list as a guide, to find a suitable location to install the **VISION**.

- Install the control panel in a protected location, where people cannot trip over any power cord.
- Select a location free from vibration and shock.
- Mount the control panel on a flat stable surface, near a network socket, a telephone plug (if in use), and an AC power outlet.
- Do not choose a location that exposes the control panel to direct sunlight, excessive heat, moisture, vapors, chemicals, or dust.
- Protect cords from damage or abrasion.
- Do not install this product near water, e.g. bath tub, sink, wet basement.

### 3.2. Instructions



***Verify that AC power and batteries are not connected, prior to installation.***

To install the control panel, follow the next steps.

1. Remove the two screws at the bottom of the enclosure, and remove the lid.



Figure 2. The lid screws

2. Use the backplate to mark the three hanging holes (see next image). When installing near the ceiling, leave a minimum space of 5 centimeters.  
The enclosure's dimensions are (cm): Length:20 Width:20 Height:5

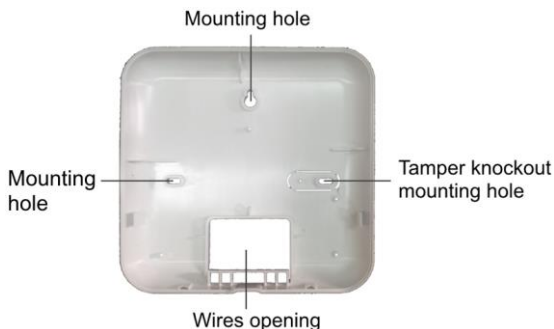


Figure 3. Mounting holes



***Make sure to use the tamper's knockout hole, for the control panel to alert when removed from the surface.***

3. Pass the wiring through the opening and according to the designated surface, use appropriate wall plugs (if necessary) and screws, and mount the backplate.
4. Connect CAT5 cable and modules (if used).
5. Depending on the model, connect the AC plug (no. 18 in the *Quick guide*) or power supply (no. 6 in the *Quick guide*).
6. Insert the batteries in place (no. 12 in the *Quick guide*). Observe polarity!



*Fully charging new batteries may take up to six hours.*

7. Close the screws at the bottom of the enclosure tightly.
8. Check the arm and disarm LEDs (no. 16 in the *Quick guide*).

### 3.3. Tamper switch

The **VISION**'s control panel has a double-side tamper switch (marked with a circle in the image below), for detecting if the enclosure is removed from the mounting surface, or if its cover is being removed.

Set the tamper in the *Peripherals* → *Tampers and ELOs* menu.



### 3.4. Hardwired keypad

Use a hardwired keypad (KLT/KLR500) for the initial programming of the **VISION**. The keypad connects to one of the parallel keypad connectors (marked in red in the image below), on the control panel.

The keypad is set with the ID zero ('0').



#### 3.4.1. Keypad ID number and version

1. To display the keypad ID and version screen on an LCD keypad, press and hold the pound and question mark keys (# and ?).
2. Press zero twice.
3. Press ↻ to save and exit.

```
Keypad ID:      00
(0 ... 16)

Version: - xx.xx.xx
Press 0 to Exit
```



## 3.5. Peripherals

### 3.5.1. PSTN module

1. Connect the PSTN module to its connector (see no. 17 in Figure 1, on page 9).
2. Connect the phone cords between the phone socket and the PSTN module's Line IN terminals (or RJ11 socket).
3. Connect phone set, fax machine or answering machine to the Line OUT terminals (or RJ11 socket).

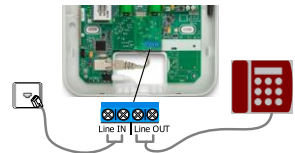


Figure 4. Line In/Out terminals

### 3.5.2. Cellular module

1. Connect the cellular module to its connector (see no. 21 in Figure 1, on page 9).
2. Set the cellular parameters in the *CMS and Communications* → *Cellular Settings* menu.



Figure 5. Cellular module

### 3.5.3. Wi-fi module

1. Connect the wi-fi module to its connector (see no. 15 in Figure 1, on page 9).
2. Connect the module's CAT5 cable to the onboard Ethernet socket.
3. To set the wi-fi module parameters, refer to the VWM500 installation instructions.



Figure 6. Wi-fi module

## Limited Warranty

PIMA Electronic Systems Ltd. does not represent that its Product may not be compromised and/or circumvented, or that the Product will prevent any death, personal and/or bodily 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 User understands that a properly installed and maintained equipment may only reduce the risk of events such as burglary, robbery, and fire without warning, but it is not insurance or a guarantee that such will not occur or that there will be no death, personal damage and/or damage to property as a result.

PIMA Electronic Systems Ltd. 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.

Refer to a separate warranty statement found on our website at <https://www.pima-alarms.com/help-support/pima-product-warranty/>

**Warning:** The user should follow the installation and operation instructions and among other things test the Product and the whole system at least once a week. For various reasons, including, but not limited to, changes in environment conditions, electric or electronic disruptions and tampering, the Product may not perform as expected. The user is advised to take all necessary precautions for his/her safety and the protection of his/her property.

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All efforts have been made to ensure that the content of this manual is accurate. Pima retains the right to modify this manual or any part thereof, from time to time, without serving any prior notice of such modification.

Please read this manual in its entirety before attempting to program or operate your system. Should you misunderstand any part of this guide, please contact the supplier or installer of this system.

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