



## VISION Wireless Alarm System Installation Guide

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# VISION

Wireless Alarm System



Installation Guide  
System Version: 1.x

# PIMA



The use of high-power lithium-ion battery cells requires appropriate protection in accordance with how they are used. Inappropriate 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 VISION not to 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 of 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 an Anti-electric shock breaker. Use only the power supply provided with this equipment. The use of unauthorized power supplies may cause damage.
- Do not spill liquid of any kind onto the unit. If the 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

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### **Signs in this guide**

	<b>Warning</b>
	Note

## INTRODUCTION

Dear customer,

This guide will introduce you to 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 a built-in Ethernet connection. PSTN, cellular, and wi-fi communications are optional. The VISION is initially programmed using a hardwired technician keypad, and by the Panel Manager software remotely, afterward. The IMALink 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 includes the initial programming and the system maintenance instructions.
- The FORCE and VISION systems' 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 eight, with a separate keypad arming station for each.
- Multi-channel communications: Ethernet, and optional cellular (3G/4G) 1, wi-fi 1, and PSTN 1.
- Programming options:
  - Locally, using an LCD keypad.
  - Remotely, using the Panel Manager software, via PC or mobile.
  - Remote firmware update via the Panel Manager software
  - Remote operations and receiving notifications via the PIMALink 3.0 cloud and smartphone application.
- Up to two CMSs (Central Monitoring Station) with a password for each
- Remote upload/download via the Panel Manager software, via all media.

1 Requires a module. Ethernet and wi-fi modules cannot be installed together.

### 1.2. Technical specifications

- Frequencies (MHz): 433.92, 868.95
- Power input:
- VCD: 12VDC
- VCA: 120/230VAC

- Battery: 2X 18650, 3.6V, 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

### 1.3. Ordering information

#### 1.3.1. Kits

All kits include 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

#### 1.3.2. 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

#### 1.3.3. Peripherals

Product	Description	P/N
<b>Cellular</b>		
CLM302	Cellular add-on (2G/3G)	8300045

GSM512	Cellular add-on (2G)	8300043
CLM412	Cellular add-on (4G)	8300049
<b>Detectors<sup>2</sup></b>		
DPS	PIR motion detector	143: 8831010 187: 8831024
DPP	PIR motion detector with pet immunity	143: 8831012 187: 8831025
DPC	PIR motion curtain detector	143: 8831014 187: 8831026
DGS	Gas detector	143: 8832004 187: 8832009
DSC	Smoke/CO detector	143: 8832006
DFL	Flood detector	143: 8831006 187: 8831029
<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 Frequencies: 143: 433.92Mhz, 187:868.95Mhz

## QUICK GUIDE

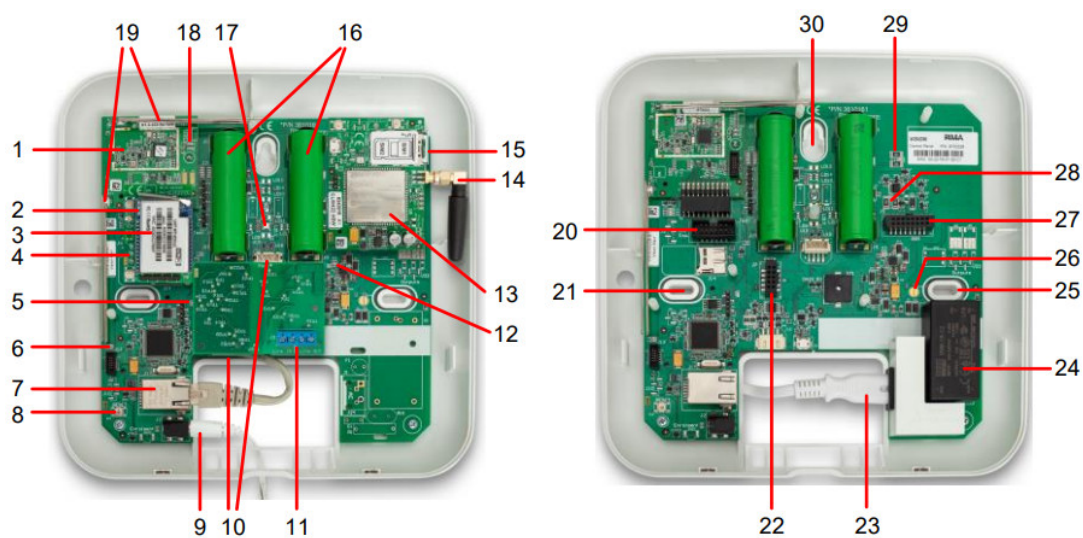


Figure 1. The control panel (VCD model (left), VCA model (right))

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

No.	Module/socket	Description
1	Wireless transceiver (onboard)	Supplied in two frequencies: 433.92MHz, and 868.95MHz.
2	Wi-fi module's LEDs	
3	Wi-fi module	2.4GHz, optional
4	Wireless transceiver's LEDs	Green, flashing: running Orange, flashing: bus communication Blue: wireless communication
5	CPU LED	Blue: OK
6	Ethernet LEDs	Green, flashing: running Orange, flashing: On – 100Mb, off – 10Mb
7	Ethernet socket	Serves the Ethernet card or the wi-fi module.
8	Reset button	Power reset
9	External power supply plug	For the VCD model
10	Hardwired keypad sockets	Including for technician keypad
11	PSTN module	The module is supplied with a terminal block, or with RJ11 sockets.
12	Battery charger LEDs	<ul style="list-style-type: none"> <li>· Green: monitoring</li> <li>· Red: charging</li> </ul>

No.	Module/socket	Description
13	Cellular module	Optional 2G/3G/4G
14	Cellular antenna	SMA
15	SIM card tray	Optional double SIM
16	Li-Ion batteries	Backup
17	System status LEDs (illuminate externally)	Red, steady on Armed Green: Steady on Disarmed Flashing: AC loss
18	Wireless transceiver's LED	Green, flashing: running
19	Wireless antennas	—
20	Wi-fi module socket	—
21	Mounting hole	—
22	PSTN module socket	—
23	AC plug	Power cord for VCA model
24	Internal power supply	VCA model
25	Mounting hole + tamper knockout	—
26	Tamper	Enclosure's lid and back tamper
27	Cellular module socket	—



28	Battery fault LED	Left battery (front view)
29	Battery fault LED	Right battery (front view)
30	Mounting hole	—

## 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. bathtub, 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.

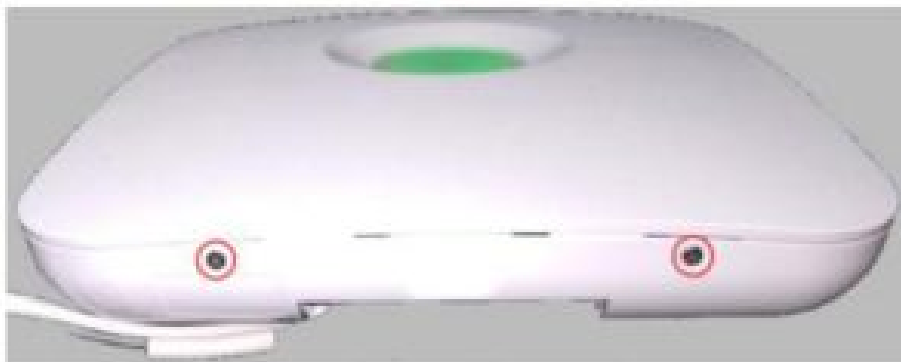


Figure 2. The lid screws

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): Legth:20 Width:20 Height:5

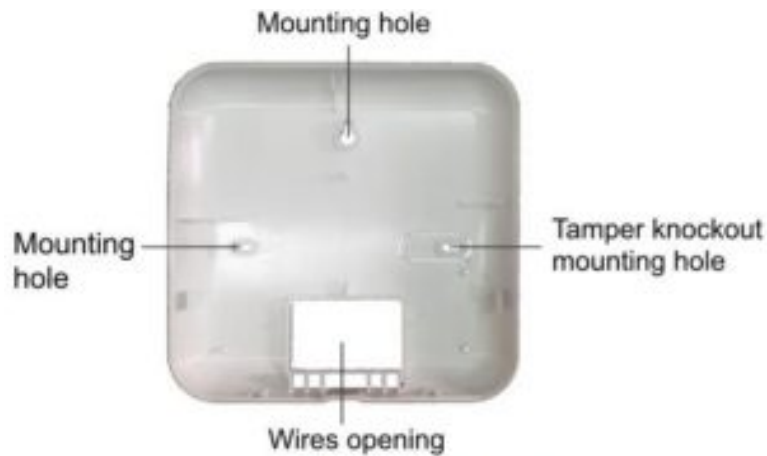


Figure 3. Mounting holes



**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 → Tamper and ELOs menu.



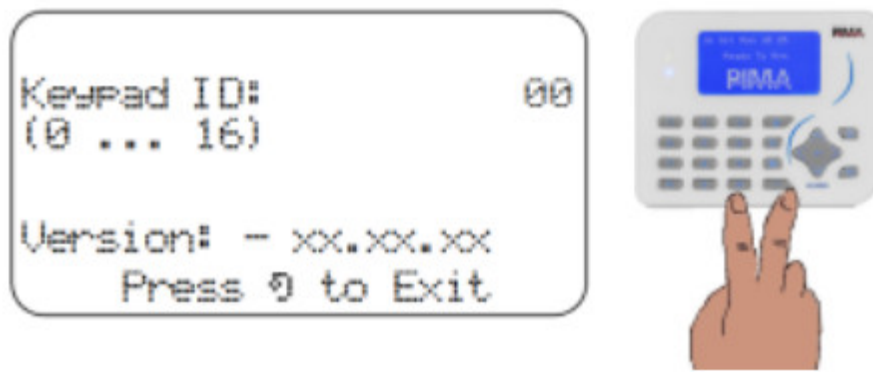
### 3.4. Hardwired keypad

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  $\square$  to save and exit.



### 3.5. Peripherals

#### 3.5.1. PSTN module

1. Connect the PSTN module to its connector (see no. 22 in Figure 1, on page 7).
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).

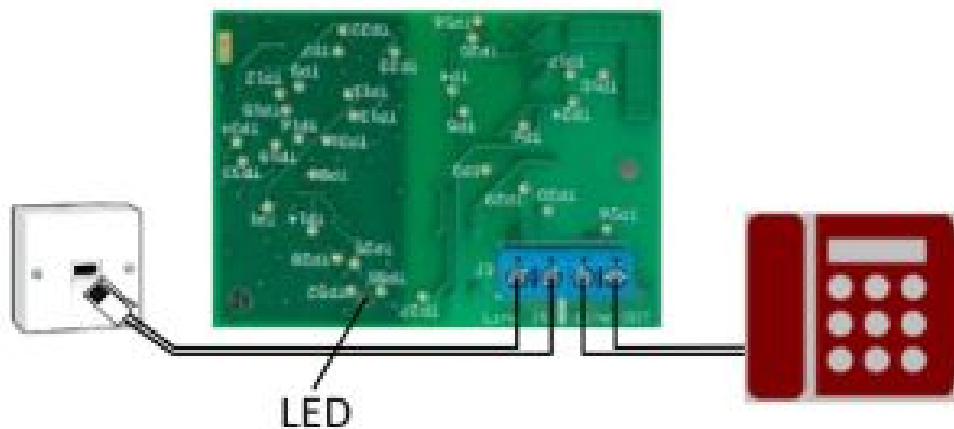


Figure 4. PSTN module

#### 3.5.2. Cellular module

1. Connect the cellular module to its connector (see no. 27 in Figure 1, on page 7).
2. Set the cellular parameters in the CMS and Communications → Cellular Settings menu.

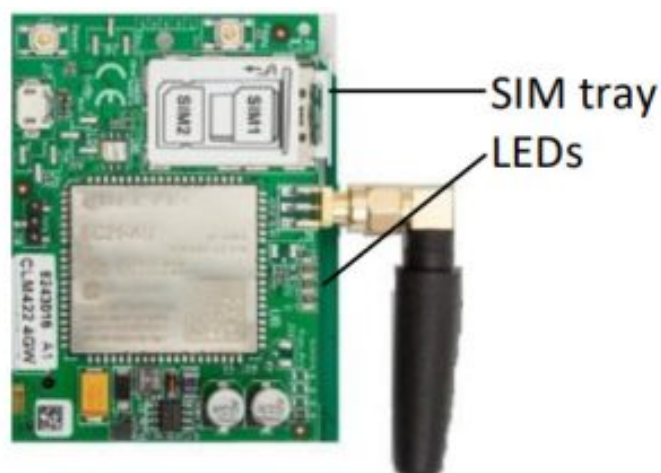


Figure 5. Cellular module

### 3.5.3. Wi-fi module

1. Connect the wi-fi module to its connector (see no. 20 in Figure 1, on page 7).
2. Connect the module's CAT5 cable to the onboard Ethernet socket.
3. Set the module; see the next section.

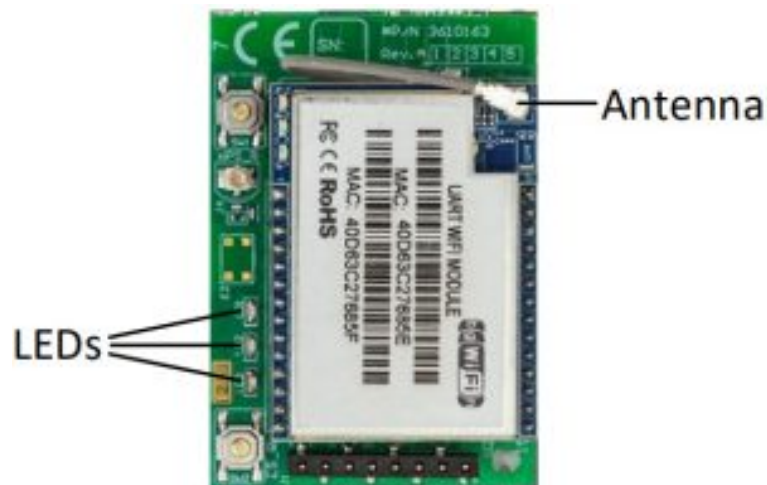


Figure 6. Wi-fi module

## HOW TO CONFIGURE THE WI-FI MODULE

The VMW500 is a module that enables the VISION to connect to a wi-fi network. Before you configure it, make sure the VISION is connected to power, and the module is up and running (the module's LEDs illuminate). At this point, do not connect the module's Ethernet cable. To configure the wi-fi module you will need a PC/laptop with a wi-fi adapter, or use your smartphone. Also, you will need to temporarily set a static IP to your PC/laptop/smartphone. The static IP address for configuring the module should be 192.168.16.100 (or any available address in the range of 192.168.16.1-192.168.16.255).

### 4.1. How to connect and configure the module



The module is supplied with predefined configurations for PIMA systems. Use this section if you reset it to factory defaults.

1. Click the wi-fi network icon on your PC/laptop's desktop tray.
2. On the list of the available wi-fi devices, select HI-LINK\_XXXX. If it is not on the list, make sure the wi-fi module is up and running. If it is, the signal may not be strong enough.
3. Open a web browser, type 192.168.16.254 (the module's default IP address), and press Enter, to browse to the module's configuration application (if the module has just been powered up, wait 1-2 minutes).
4. In the login window, enter admin as username and as password and select OK (or Sign in).

#### 4.1.1. Operation Mode

1. Click Operation Mode on the left-hand side.
2. Make sure Bridge is checked (see next image).
3. Make sure Enable is selected in AP Client Enabled and click Apply.



3 See how in the following link: <https://kb.netgear.com/27476/How-do-I-set-a-static-IP-address-in-Windows>  
 4 XXXX are the last four characters of the module's MAC number.

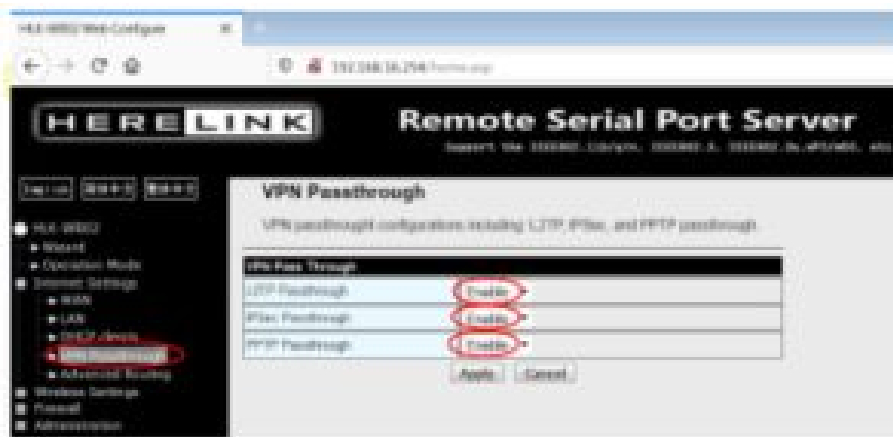
#### 4.1.2. LAN

1. Click Internet Settings.
2. Click LAN (see next image).
3. Make sure Disable is selected in DHCP Type' and click Apply; wait for the module to reboot.



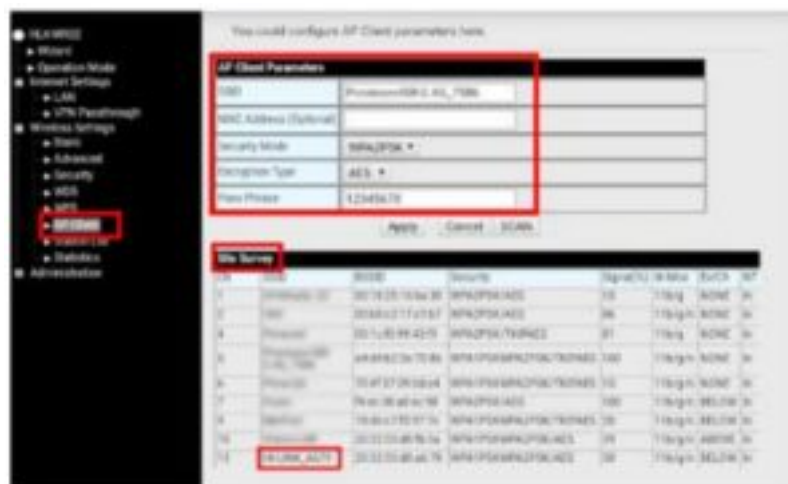
#### 4.1.3. VPN Passthrough

1. Click VPN Passthrough.
2. Make sure Enable is selected for L2TP Passthrough, IPSec Passthrough, and PPTP Passthrough, and click Apply.



#### 4.1.4. AP Client

1. Click AP Client (Access Point), enter the router's SSID and other parameters, and click Apply (see next image).
2. The Site Survey below is where all the wireless devices on the wi-fi network are listed.



Connect the Ethernet cable to the VISION's socket (see no. 4 in Figure 1, on page 7).

#### 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 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 environmental 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. This document may not be duplicated, circulated, altered, modified, translated, reduced to any form or otherwise changed unless PIMA's prior written consent is granted. 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. Copyright 02020 by PIMA Electronic Systems Ltd. All rights reserved.


# VISION



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## Documents / Resources

 The image shows the cover of the "VISION Wireless Alarm System Installation Guide". It features the PIMA logo at the bottom and a small illustration of the alarm system components at the top.	<p><a href="#">VISION Wireless Alarm System</a> [pdf] Installation Guide VISION, Wireless, Alarm System</p>
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