VISION

Wireless Alarm System

Installation Guide

System Version: 1.x

PIMA

Table of Contents

1. Introduction 4
1.1. Main features 4
1.2. Technical specifications 5
1.3. Ordering information 5
1.3.1. Kits 5
1.3.2. Alarm systems 5
1.3.3. Peripherals 6
2. Quick guide 7
3. Installation 9
3.1. Location guidelines 9
3.2. Instructions 9
3.3. Tamper switch 10
3.4. Hardwired keypad 11
3.4.1. Keypad ID number and version 11
3.5. Peripherals 11
3.5.1. PSTN module 11
3.5.2. Cellular module 12
3.5.3. Wi-fi module 12
4. How to configure the wi-fi module 13
4.1. How to connect and configure the module 13
4.1.1. Operation Mode 13
4.1.2. LAN 14
4.1.3. VPN Passthrough 14
4.1.4. AP Client 14

Table of Figures

Figure 1. The control panel (VCD model (left), VCA model (right)) 7
Figure 2. The lid screws 9
Figure 3. Mounting holes 10
Figure 4. PSTN module 11
Figure 5. Cellular module 12
Figure 6. Wi-fi module 12

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 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 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

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 optional.

The ***VISION*** is initially programmed using a hardwired technician keypad, and by the ***Panel 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*** 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 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 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

1.3.2. 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
Cellular		
CLM302	Cellular add-on (2G/3G)	8300045
GSM512	Cellular add-on (2G)	8300043
CLM412	Cellular add-on (4G)	8300049
Detectors[2]		
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
Others		
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

2. QUICK GUIDE

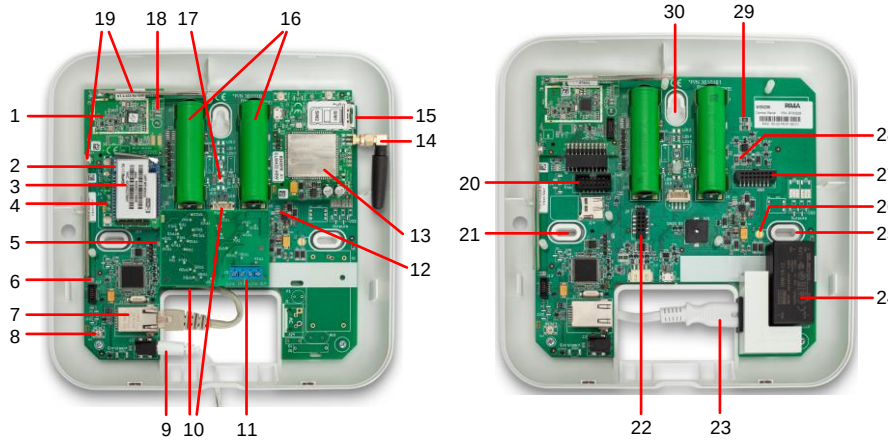


Figure 1. The control panel (VCD model (left), VCA model (right))

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 terminal block, or with RJ11 sockets.
12	Battery charger LEDs	• Green: monitoring • Red: charging

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	-

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): Legth:20 Width:20 Height:5

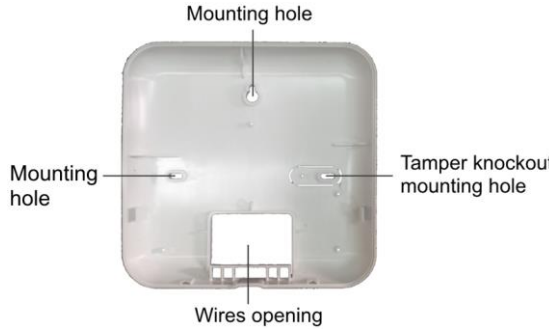


Figure 3. Mounting holes

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!

Note *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.

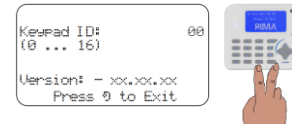
3.4. Hardwired keypad

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.



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).

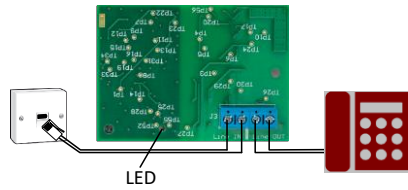


Figure 4. PSTN module

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.

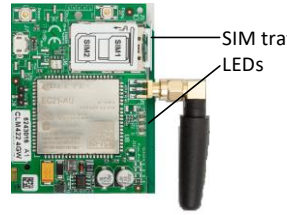


Figure 5. Cellular module

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 next section.

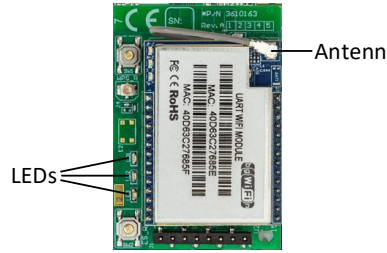


Figure 6. Wi-fi module

4. HOW TO CONFIGURE THE WI-FI MODULE

The VMW500 is a module that enables the ***VISION*** to connect to 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[3]. 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 configuration 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*[4]. 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. Enter 12345678 in the password window that pops up, and select *Connect*.
4. 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).
5. In the login window, enter *admin* as username and as password, and select *OK* (or Sign in).

4.1.1. Operation Mode

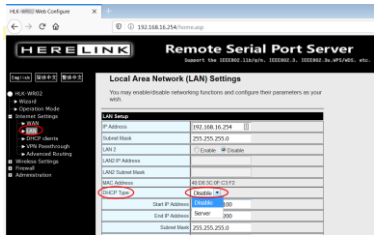
1. Click *Operation Mode* on the left hand side.
2. Make sure *Bridge* is checked (see next image).
3. Make sure *Enable* is selected in *AP Client Enabled* and click *Apply*.

[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.

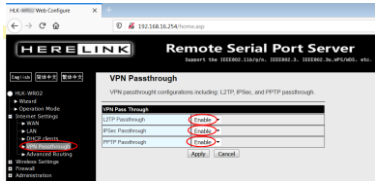
4.1.2. LAN

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.



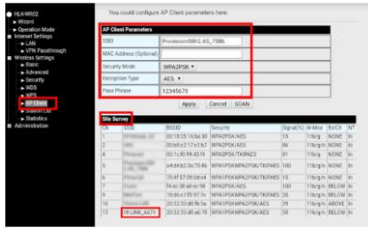
4.1.3. VPN Passthrough

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 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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Manufactured by:

PIMA Electronic Systems Ltd.

www.pima-alarms.com

5 Hatzoref Street, Holon 5885633, ISRAEL

Tel: +972.3.6506414 Fax: +972.3.5500442

Email: support@pima-alarms.com

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