iPima

Application for the Hunter-Pro Series and
Captain 8 Intruder Alarm Systems

Installation and User Guide

FOR BETTER PROTECTION

PIMA Electronic Systems Ltd.

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Graphic signs in this guide

Icon		Description
	***Caution***	Issues that may cause malfunctions
	***Warning***	Issues that may cause damage or actual bodily harm
	*Note*	Important note

1 Introduction

This guide will help you in the installation and use of the **iPima** smartphone application by *PIMA Electronic Systems* for the **Hunter-Pro Series** (ver. 6.38 and higher) and **Captain 8** (ver. 8.40 and higher) Intruder Alarm Systems.

iPima is available for **iOS** and **Android** mobile phones. It will let the alarm system's owner arm and disarm his/her alarm system, view the event log and the status of the zones, and activate devices via the outputs.

To use the **iPima** the alarm system must be connected to the internet using the **net4pro**[1] module, or the **GSM-200**[2] communicator.

The GSM-200 and the net4pro must carry a fixed IP address

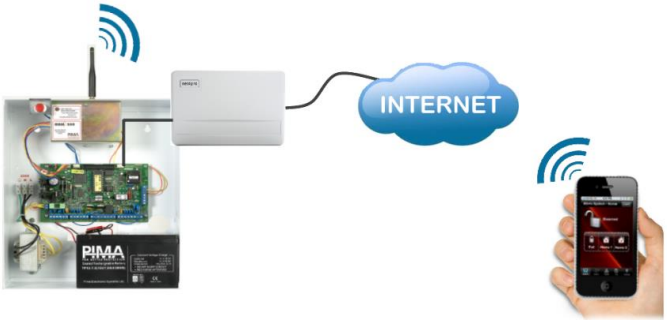


Figure 1. The iPima mode of operation diagram

1.1 Versions 1.2.xx (Android) & 2.12 (iOS) new features

1. Bypassing and un-bypassing zones.
2. Arming and disarming partitions[3].

1.2 Product package contents

net4pro

- The net4pro module, installed in a plastic box (see the image above)
- 2m CAT5 cable
- SA-232 module, installed on a bracket (see the image below)
- A Molex cable for connecting the SA-232 to the control panel

Figure 2. The net4pro

[1] P/N 8180012, version 6.13 and higher
[2] P/N 8300021, version 3.16 and higher
[3] Starting Hunter-Pro Series & Captain 8 version 6.53

Figure 3. The SA-232 mounted on a bracket

GSM-200

- GSM-200 communicator
- Quad-band antenna
- Mounting screws
- 4 wire cable for connecting to the control panel
- 2 wire cable (not in use)

Figure 4. The GSM-200

2 How to Connect the SA-232 and net4pro

The net4pro and the SA-232 should be connected with four separate wires. Do not interface them with the BUS!

To use the net4pro, you will need to configure the router to port forward the communication to the net4pro. See the "Limited support notice" at the end of this guide.

2.1 SA-232

The SA-232 synchronizes the communication between the net4pro and the Control Panel. The net4pro network module must be connected to the Hunter-Pro Series and Captain 8 Control Panels through the SA-232 module.

The SA-232 is supplied mounted on a bracket that is mounted inside the box of the Control Panel. It has a terminal block and a Molex socket with a cable plugged in.

To mount and connect the SA-232, do the following steps:

1. Open the screw on the upper-right side of the PCB of the Control Panel. See the figure.
2. Mount the SA-232 on the right side of the box of the Control Panel, and insert the grip of the bracket into the metal wall.
3. Align the U-shape hole of the bracket with the screw hole, and fasten the SA-232 and the PCB with the screw.
4. Connect the Molex cable of the SA-232 to the "SERIAL" terminal on the Control Panel. See the next figure.

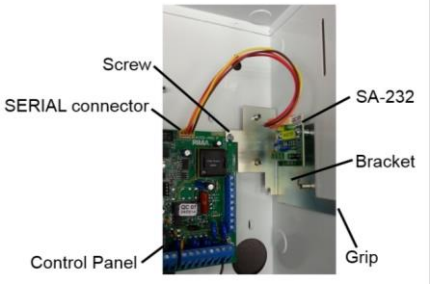


Figure 5. The SA-232 mounted in the box

2.2 net4pro

The net4pro is a network module that will allow you to connect the alarm system to the network.

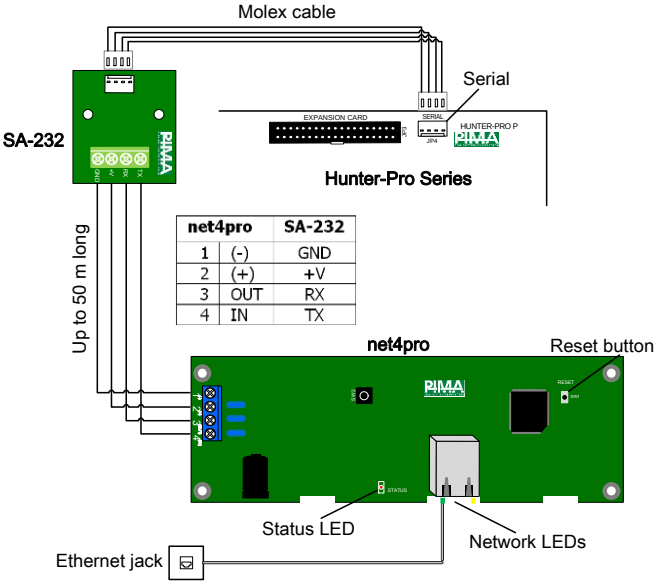
It must carry a fixed IP address

To connect the net4pro, do the following:

1. Open the cover of the plastic box of the net4pro, by unfastening the screw on the bottom side of the box.
2. Mount the box on a solid surface.

The distance between the net4pro and the control panel cannot exceed 50 m

3. Connect four wires (not supplied) between the terminal block on the net4pro, and the terminal block on the SA-232. See the next diagram and table.



net4pro		SA-232
1	(-)	GND
2	(+)	+V
3	OUT	RX
4	IN	TX

Figure 6. net4pro connection diagram

2.2.1 The LEDs

Network		
	Status	**Description**
Green	Steady ON	Network link OK
	OFF	No network link
Yellow	Blinking	Data transmission

STATUS		
	Status	**Description**
Red	Steady ON or OFF	Fault
	Blinking	OK

2.3 GSM-200

See the next diagram on how to connect the GSM-200 to the control panel. The GSM-200 SIM card must carry a fixed IP address.

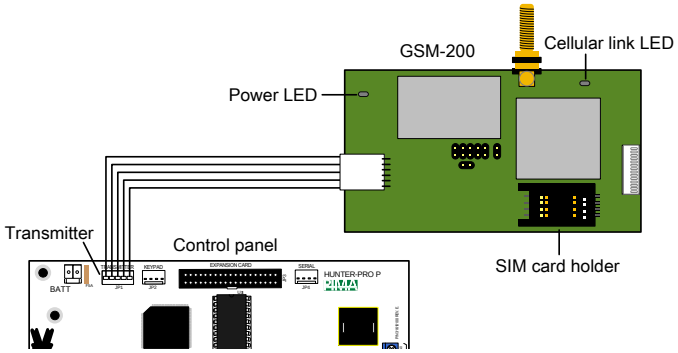


Figure 7. GSM-200 connection diagram

2.3.1 The LEDs

Green

Blinking	**Status**
Once every second	Searching for network/not registered/turning off
Once every 3 seconds	Full service & registered
Steady ON	Communicating
OFF	Off

Red

Blinking	**Pattern**	**Description**
Fast, uniformed		Internal process
Uneven		Communicating with the control panel
Very fast, uniformed		Boot loading
Once every second		Idle mode
Twice every second		Resetting
Steady ON, OFF	-	Fault

3 How to Program net4pro in the Alarm System[4]

There are two options to program the alarm system to allow iPima to connect to it:

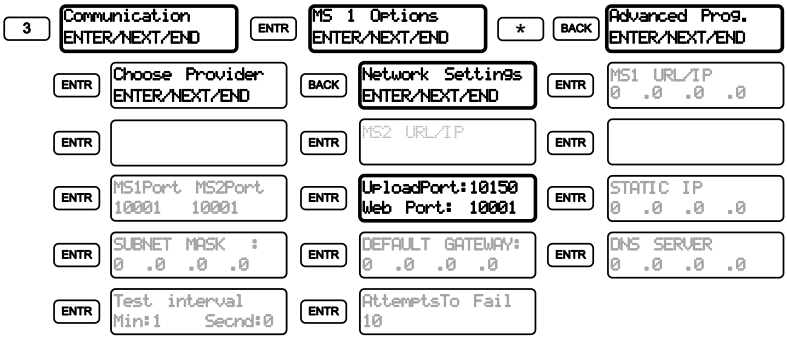
- Option A: the alarm system already transmits to a monitoring station via the net4pro and so network and account related parameters are already configured.
- Option B: the alarm system only reports to the private users.

In either of the above options the net4pro must carry a Static (fixed) IP address

3.1 Option A

If the alarm system is configured to transmit via the network, only set the **Upload Port** in the **Communication** menu, as follows:

1. In the **Technician** menu, press [**3**] → **Communication**
2. Press [**ENTR**] → **MS 1 Options**
3. Press the asterisk [*****] key to enable the Advanced Programming menu
4. Press [**BACK**] → **Advanced Prog.**
5. Press [**ENTR**] [**BACK**] → **Network Settings**
6. Press [**ENTR**] X5 → **Upload Port**. Set it to **10150** - for iOS, and to any port between **10150** and **10160** - for Android.
7. Press [**ENTR**] [**END**]



[4] Version 6.38 and higher

3.2 Option B

You have to set some network and MS 1 PSTN Account ID parameters.

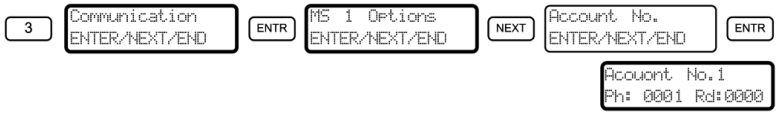
Network settings

Set the following parameters. See section 3.1 on the previous page for the programming steps.

MS1 URL/IP	**127.0.0.1**
Upload port	**10150** - in iOS, any port between **10150** and **10160** - in Android
Static IP	The net4pro's IP address
Subnet Mask	The local network's Subnet Mask address
Default Gateway	The local network's gateway (Router) address. See our "Limited support notice" at the end of this guide, about port forwarding and other network issues

Account No.

In the **Communication** menu, set the PSTN **Account No.** of Monitoring Station 1 to **0001**.



4 How to Program the Alarm System for using the GSM-200

There are two options to program the alarm system to allow iPima to connect to it:

- Option A: the alarm system already transmits to a monitoring station via the GSM-200[5]. If it uses GPRS communication, you only need to set the upload port in the network Settings menu. If the GSM-200 uses the voice channel, refer to option B
- Option B: the system transmits via the GSM-200 voice channel or is not configured to transmit via the GSM-200 at all

In either of the above options the GSM-200 must carry a Static (fixed) IP address

4.1 Option A

Set the **Upload port** in the Network Settings menu. See section 3.1 on page 8 for details.

4.2 Option B

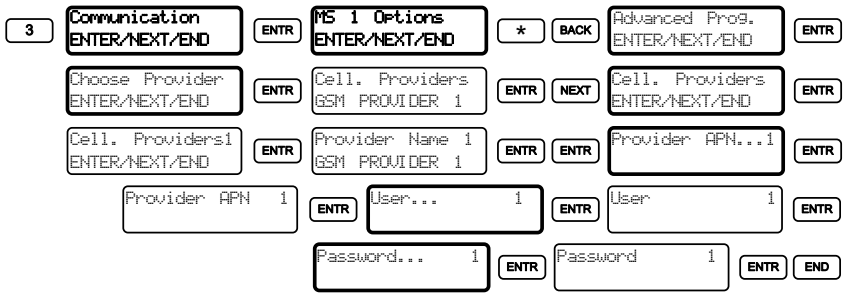
4.2.1 Cellular provider

The information required should be obtained from the GSM provider.

1. In the **Technician** menu, press [**3**] → **Communication**
2. Press [**ENTR**] → **MS 1 Options**
3. Press the asterisk [*****] key to enable the Advanced Programming menu
4. Press [**BACK**] → **Advanced Prog.**
5. Press [**ENTR**] → **Choose Provider**. The parameters in this menu are described in the following table and screen diagram.

Parameter	Information to enter
Provider Name 1	User defined name
Provider APN…1	The provider's APN (Access Point Name). If the text is longer than 16 characters, press [**ENTR**] and continue to the next blank screen
Provider APN 1	Continue from previous screen if necessary
User…1	The service's username. If the name has more than 16 characters, press [**ENTR**] and continue to the next screen.
User 1	Continue from previous screen if necessary
Password… 1	The service's password. If the password has more than 16 characters, press [**ENTR**] and continue to the next screen
Password 1	Continue from previous screen if necessary

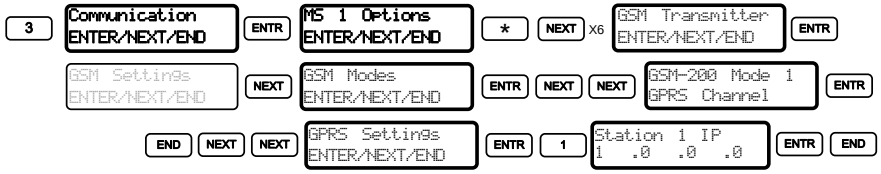
[5] For Hunter-Pro Series ver. 6.50 and higher, Captain 8 ver. 8.50 and higher



4.2.2 GSM & GPRS parameters

Set the **GSM Mode** to **GPRS Channel** and change the default **IP** address of MS1.

1. In the **Technician** menu, press [**3**] → **Communication**
2. If you didn't do it previously, press the asterisk [*****] key to enable the Advanced Programming menu
3. Press [**NEXT**] X6 → **GSM Transmitter**
4. Press [**ENTR**] [**NEXT**] → **GSM Modes**
5. Press [**ENTR**] [**NEXT**] [**NEXT**] → **GPRS Channel**
6. Press [**ENTR**] [**END**] [**NEXT**] X2 → **GPRS Settings**
7. Press [**ENTR**] → **Station 1 IP**
8. Type the CMS's IP address
9. Press [**ENTR**] [**ENTR**] → **MS1PORT**
10. Press [**1**] → **1.0.0.0**
11. Press [**ENTR**] [**END**]



5 How to Use iPima

5.1 Installation

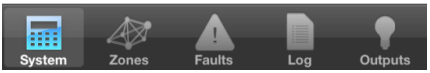
Browse to the App Store[6] or Google Play[7] websites, download PIMA Intruder Alarm Systems' **iPima** and install it. After installing the application, open it and do the following steps:

1. Tap the "**+**" button on the main screen to add the alarm system
2. In the next screen, enter a **Name** for the alarm system
3. Enter the **IP** address of the net4pro or GSM-200, or the net4pro's **URL**
4. Enter the **Port** no.
5. Tap "Done"

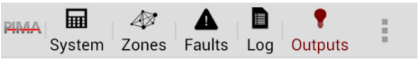
You can add other alarm systems the same way.

5.2 Quick Reference Guide

iPhone



Android



The buttons are:

Button	Press this button to…
System	receive the system's state - armed or disarmed
Zone	receive the zones' status
Faults	receive the faults' status
Log	see the event log
Outputs	activate outputs, that is, external devices

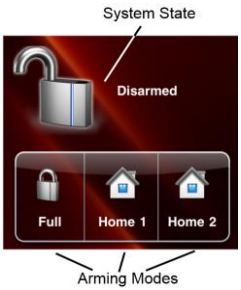


Figure 8. The main screen

[6] itunes.apple.com/us/app/pima-intruder-alarm-systems/id571648433?mt=8

[7] play.google.com/store/apps/details?id=com.pima.apps.ipima

6 How to Operate the Alarm System

To operate the Alarm System via the application, do the following:

1. Press the **Connect** button on the main screen, next to your alarm system.
2. Enter the **Master Code** of the alarm system in the password screen.

User codes cannot be used to access the Alarm System by iPima

3. Tap the **Connect** button.
4. After connection is established, the state of the system (Armed or Disarmed) is displayed in the main screen.
5. Now you can:
   a. **Arm** the entire alarm system or arm a partition to **Full**, **Home 1** or **Home 2** modes.
   b. **Disarm** the entire system or just a partition.
   c. Receive information like the status of the zones and partitions or see the log.. See the previous page for details.

After disarming the alarm system, it needs to disconnect from the application. If you need to perform other actions, wait 2 minutes before reconnecting.

6.1 How to bypass zones

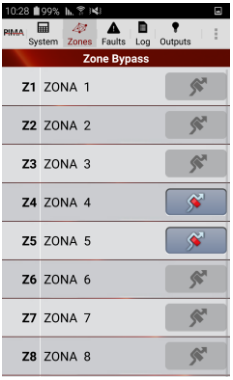
<u>On iPhone</u>

1. Tap on **Zones**.
2. Tap on **Zone Bypass**.
3. In the zone list, un-bypassed (normal state) zones appear with gray only buttons; red & gray buttons are zones currently bypassed. To (temporarily) bypass a zone, tap its gray button. To un-bypass a zone, tap its red & gray button.
4. To check if the zone was bypassed/un-bypassed, tap on System for the zone state list.

On Android

1. Tap on **Zones**
2. Tap the 3-dot button on the top right and tap on **Zone Bypass**.
3. In the zone list, grayed bypass icons represent un-bypassed (normal state) zones. To temporarily bypass a zone, tap its grayed bypass button.
4. To un-bypass a zone, tap its colored bypass button.

Bypassed zones appear on the zone list in the Zones screen.



6.2 How to arm and disarm partitions

On iPhone

1. Tap on **System**.
2. Tap on **Partitons** to see the partition list and state - armed or disarmed.
3. Tap on any partition to arm or disarm it.
4. When you tap on **System State** you will be able to arm and disarm the entire alarm system (all the partiotns, provided that all have no open immediate zones).

On Android

1. Tap on **System**.
2. Tap the 3-dot button on the top right and tap on **Partitons** to see the partition list and state - armed or disarmed.
3. Tap on any partition to arm or disarm it.
4. When you tap on **System State** you will be able to arm and disarm the entire alarm system (all the partiotns, provided that all have no open immediate zones).

6.3 How to Operate the Outputs

If the Alarm System has devices connected to it (like electric gates, or projectors), you operate them by activating and de-activating the outputs (electric switches) that operate them. The outputs are listed in a table on page 17.

6.3.1 How to add output

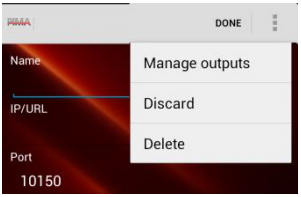
On iPhone

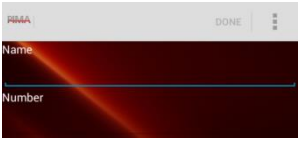
1. Tap the alarm system in the main screen.
2. In the details screen**,** tap the **Manage Outputs** button
3. In the **Manage Outputs** screen, tap the "**+**" button
4. Tap **Add new output**

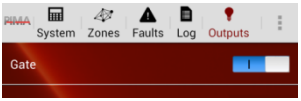
5. Enter a **Name** for the output.
6. Enter the **Number** of the output. Consult your Installer for details. You can view the list of the outputs and their numbers, by pressing the **Help** button.
7. Press **Done**. The output that you have just added will be displayed in the Outputs screen.
8. To the right of every output is a 2-state button: **ON** (Azure) and **OFF** (Gray). Activate and de-activate the output by tapping this button.

On Android

1. Tap the alarm system line in the main screen.
2. In the details screen**,** tap the 3-dot button on the top right
3. Tap **Manage Outputs**
4. In the **Manage Outputs** screen, tap **Add new output**
5. Enter a **Name** for the output.
6. Enter the **Number** of the output. Consult your Installer for details. You can view the list of the outputs and their numbers, by pressing the **Help** button.
7. Press **Done**. The output that you have just added will be displayed in the Outputs screen.
8. To the right of every output is a 2-state button: **ON** (Azure) and **OFF** (Gray). Activate and de-activate the output by tapping this button.







Appendix: Outputs Activation

To activate and de-activate an output, press its number from the following tables. The outputs and their numbers are displayed in the "Help" screen of the outputs.

Hunter-Pro Series

On-board	Tap
External siren	**1**
Internal siren	**2**
Relay	**3**
Smoke	**4**
ON/OFF	**5**
Alarm	**6**
Audio	**7**

I/O-R relays[8]							
Expander #1		Expander #2		Expander #3		Expander #4	
Relay	Tap	Relay	Tap	Relay	Tap	Relay	Tap
#1	**16**	#1	**24**	#1	**32**	#1	**40**
#2	**17**	#2	**25**	#2	**33**	#2	**41**
#3	**18**	#3	**26**	#3	**34**	#3	**42**
#4	**19**	#4	**27**	#4	**35**	#4	**43**
#5	**20**	#5	**28**	#5	**36**	#5	**44**
#6	**21**	#6	**29**	#6	**37**	#6	**45**
#7	**22**	#7	**30**	#7	**38**	#7	**46**
#8	**23**	#8	**31**	#8	**39**	#8	**47**

I/O-8N							
Expan.	Tap	Expan.	Tap	Expan.	Tap	Expan.	Tap
#1	**48**	#5	**52**	#9	**56**	#13	**60**
#2	**49**	#6	**53**	#10	**57**	#14	**61**
#3	**50**	#7	**54**	#11	**58**	#15	**62**
#4	**51**	#8	**55**	#12	**59**	#16	**63**

Captain 8

On-board	Tap
External siren	**1**
Smoke	**2**
PGM	**3**

I/O-R relays					
Relay	Tap	Relay	Tap	Relay	Tap
#1	**4**	#4	**7**	#7	**10**
#2	**5**	#5	**8**	#8	**11**
#3	**6**	#6	**9**		

I/O-8N relay
Tap
12

[8] Maximum two expanders, each with 8 relays

Limited support notice:

Due to the diverse mix of networks, we are not able to offer support on routers, modems, switches or any other network/internet related devices or services.

Our support for internet or network related features, that are not directly related to the product are limited.

The following must be completed before calling our support team with network/internet related features:

Your network/internet must be configured and working.

IP address and port number for the product must be pre- configured on the network.

Also, have the following information available: default Gateway, Subnet mask, port numbers and all other network information.

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

Please read this guide 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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