HUNTER-PRO SERIES

INTRUDER ALARM SYSTEMS

INSTALLATION GUIDE

HUNTER-PRO 832, 896, 8144, version 6.XX

Expandable 8-144 zone

PIMA
FOR BETTER PROTECTION

Table of Contents

Factory default codes

MASTER: 5555

INSTALLER: 1234

Quick Reference

Key	Press PROG. 0 for 2 seconds, enter User code and press the key to...	Press the key for 2 seconds* to...
ON/OFF 1	Arm to full mode, disarm	Quickly arm to full mode*
MEMO. 2	Display the log	-
BYPASS 3	Temporarily bypass zones	-
HOME 1 4	Arm to "Home 1" mode	Quickly arm to "Home 1" mode*
ZONE 5	Display modes menu	Display the "All Zones" mode for a minute
PHONES 6	Set the telephone numbers	-
HOME 2 7	Arm to "Home 2" mode	Quickly arm to "Home 2" mode*
CLOCK 8	Set time and date	-
CODES 9	Set the user codes	-
CHIME *	Set the chime per zone	Turn ON/Off the chime feature in chime zones
PROG. 0	Set auto-arming by day and inactivity	-
RESET #	-	Reset smoke detectors. Press briefly: display armed partitions
END	-	Silence the keypad buzzer when it beeps
SERVICE NEXT	Display the system's name & version	Display the service provider
TEST BACK	Initiate system tests	-
ENTR	-	Display the system's name & version
CHIME * + RESET #	**PRESS FOR 2 SECONDS TO GENERATE PANIC ALARM**	
ENTR + END	Press briefly: turn the keypad chime ON/OFF	

* Must be enabled by the Installer

CH. 1. INTRODUCTION

This guide provides the installation, wiring and programming instructions for PIMA's intruder alarm series, Hunter-Pro 832, 896 & 8144 models.

The HUNTER-PRO series is secured against radio-frequency (RF) interferences and electro-magnetic interferences (EMI).

1.1 The Hunter-Pro Series models

	Panel Model		
Feature	**832**	**896**	**8144**
Zones	32	96	144
Users	32	96	144
Partitions	16	16	16
Wireless zones	24	32	32
Key fobs	24	24	24
Memory entries of which non-volatile	500 250	500 250	999 512

1.2 Features

- Hybrid system with up to 32/96/144 zones;
- Up to 24 zones (in Hunter-Pro 832) and 32 (in Hunter-Pro 896/8144) can be wireless, using the I/O-WN wireless module;
- Support in up to 16 partitions;
- Support in zone doubling of the 8 onboard zones (to 16);
- Support in SMS over PSTN or GSM (requires the GSM-200 or SMS 100 modules);
- Full remote control over the telephone, including activating the outputs;
- Full supervision data of wireless zones;
- Compatible with RDC & FSK radio transmitters;
- Compatible with Visonic and Kingdom wireless key fobs;
- Support in LCD, Graphic and LED keypads, including the RXN-416 LED keypad (version 6.04 & up) for programming;
- Integrated communicator for telephone, radio, GSM/GPRS and IP;
- Support in split and double reporting in the PSTN, GSM and GPRS channels;
- Burglary setup prevention: limited bypass time, zone bypassing authorization, pre-alarm and more;
- Continuous battery and telephone line checking;
- Reducing reoccurring reports: if a report is sent 5 times in one hour, will not be reported any more, until a full hour passes with the fault not occurring again. If the system is meanwhile armed or disarmed, the reports will be reinitiated.

1.3 Version 6.33 updates

No.	Feature	Description
Hardware		
1	Battery jump-start	The control panel can be powered up only by AC power. See section 2.2
2	Battery tests	The test are suspended when the alarm is sounded
3	AC siren monitoring	AC sirens are continuously monitored for cut
4	Telkom code	The code have been broadened to have up to 22 digits (for PSTN only)
5	PCB (1)	Battery and AC plugs are now detachable
6	PCB (2)	Siren type jumpers have been cancelled
Software		
7	PIMA app	Support in a new iPhone app that allows to remote control the Hunter-Pro series systems
8	New output type	net4pro communication error: the output type is activated for 5 seconds in any communication error of the net4pro card.
9	RD-200	Support in a new RFID reader RD-200
10	Connecting to COMAX via the net	In the User's Option menu, a new menu allows entering the IP address and port number for connecting to the COMAX application for upload/download data.

1.4 Technical Specifications

	Hunter-Pro 832/896/8144
Input voltage	14VAC/2A
Battery	12VDC, Up to 7.5 Ah
Operating temperatures (°C)	• Control panel: -10 ~ +50 • LCD keypad: 0 ~ +50 • LED keypad: -10 ~ +50
Protection	• Single or double EOL resistor circuits; • Continuous battery & telephone line monitoring; • DC sirens EOL resistor protection.
Humidity	75% (non-condensed)
PCB outputs	• Relay: NO/NC 1A; • Open collector: 4, 100mA max; • Bell/Siren outputs: 2 with separate thermal fuses protection;
Communication Channels	• PSTN: Telephone interface and communicator; • GSM: GSM-200 transmitter; • SMS: SMS-100 module (via PSTN); • Ethernet: net4pro TCP/IP module;

1.5 Power consumption

Module/Accessory	Details
Hunter-Pro PCB	12VDC 80mA rms
LCD keypad	12VDC 20mA rms
LCD keypad illuminating	12VDC 110mA rms
I/O-8N	12VDC 70mA rms
I/O-16N	12VDC 80mA rms
I/O-R	12VDC 130mA rms

Module/Accessory	Details
EXP UNIV	12VDC 10mA rms
net4pro	12VDC 100mA rms
net4pro-i	12VDC 70mA rms
OUT-1000	12VDC 15mA rms
IO-WN	13VDC 100mA rms
GSM-200	13.8VDC 250mA rms
MIC-200	12VDC 5mA rms
VU-20U	12VDC 45mA rms
RXN-400/410	13.8VDC 15-20mA rms
RXN-700	12VDC 0.5A (6W)
SMS-100	13.8VDC 20mA rms
OUT-1000	12VDC 15mA rms
VVR	12VDC 360mA rms

1.6 Safety instructions

The Hunter-Pro 832/896/8144 alarm systems have been registered in accordance with EN-60950 and its rules. EN-60950 requires us to advise you the following information:

1. 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.
2. Do not open the door of the alarm system. Dangerous high voltages are present inside the enclosure. Refer servicing to qualified personnel only.
3. This alarm system should be used with 230VAC/ 110VAC, 50/60Hz, protected by anti-electric shock breaker. To prevent electric shocks and fire hazards, do NOT use any other power source.
4. Do not spill liquid of any kind onto the unit. If liquid is accidentally spilled onto the unit, immediately consult a qualified service.
5. Install this product in a protected location where no one can trip over any line or power cord. Protect cords from damage or abrasion.
6. Disconnect all sources of power supply before proceeding with the installation. Pay attention: do not install low voltage wires near AC wires; they should be separated.
7. Connect the AC transformer output to the terminal block on the control panel properly.
8. Connect the AC line cord to AC terminals properly. (GND; N; L).
9. Connect to Earth-Ground where required.

1.7 Signs in this guide

	Warning
	Note
☞	Press briefly
	Press and hold a key until confirmation beep is sounded

CH. 2. THE CONTROL PANEL

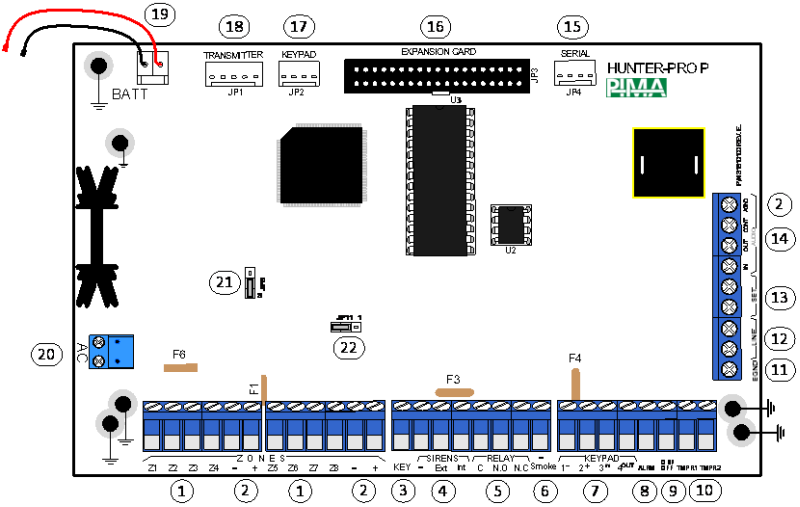


Diagram 1. The PCB

No.	Terminal	Description/Connected accessories
1	ZONES Z1-Z8	8 inputs for dry contact detectors. All loops can have one or two EOL (End-Of-Line) resistors.
2	(+V)/(-)/AGND	• "+": Detectors' 12VDC power supply • "-"/AGND: zones' (-)/Audio common
3	KEY	Input for Momentary or ON/OFF key switches and remote controls
4	SIRENS Ext., Int.	Outputs for external and internal Sirens/horns. The terminals are protected by automatic thermal fuses, F2, F3
5	RELAY	Output for triggering gates, spotlights, etc.
6	Smoke	Fire, Smoke & Anti-Mask detectors' reset output. To manually reset: [*]
7	KEYPAD	Input/output for keypads & expanders (BUS). The terminals are: • '+'/'-': 13.8 VDC power supply; F4 thermal fuse protects the terminals. • IN/OUT: Data
8	ALRM	Transistor output. By default, the output is switched to (-) when an alarm is set off.

No.	Terminal	Description/Connected accessories
9	ON/OFF	Transistor output By default, the output is switched to (-) when the system is being armed.
10	TMPR1/2	Tamper switches TMPR 2 can serve as a zone #9. See section 3.7.1
11	EGND	Earth ground terminal. Can be used in areas of severe electrical activity (abnormal levels of lightning or electrical discharge). When using PIMA's integrated transformer, earth ground is not required. Only when using external transformer and lightning conditions are severe, the EGND terminal can be used. Connect the terminal to earth grounds, such as metal cold water pipe or AC power outlet ground.
12	LINE	Phone line input terminals
13	SET	Answering machine, fax and telephone sets output.
14	AUDIO IN, OUT, CONT	Input for the MIC-200 microphone, VU-20U[1] voice module, GSM-200 cellular module & SMS-100 module.
15	SERIAL	Input for the VVR video reporter, net4pro network card, FSK radio transmitters and "Smart Home" systems.
16	Expansion Cards	Connector for the OUT-1000 & EXP-PRO UNIV local expansion cards.
17	KEYPAD	Connector for Technician keypad
18	TRANSMITTER	Connector for the GSM-200 cellular module, the TRV/TRU-100 radio transmitters and the SMS-100 module. ▪ The GSM-200 and the SMS-100 modules cannot be installed together! ▪ To connect a radio transmitter together with the GSM-200, use a special cable (P/N 3411058).
19	Backup battery	Detachable connector for a rechargeable Lead-Acid battery. The contacts are: Red: (+); Black (-) See the next section for jump-starting with a battery. **Inverting the battery wires will damage the PCB!**
20	AC	Detachable connector for AC transformer
21	JP6	Sirens' power source jumper: Unregulated or battery
22	JP11	EOL resistor loops jumper. See section 3.7.1

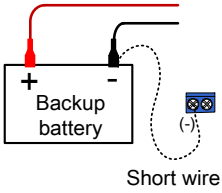
1 Only one of the two devices can be connected at a time.

2.1 Current limit thermal fuses

- F1: Detectors (750mA);
- F2, F3: Siren #1 and #2 (0.9A);
- F4: Keypads (750mA);
- F7: Battery charger protection (200mA);
- F5: PCB and battery high current Thermo-fuse (5A/250VAC) protection;
- F6: PCB AC short Thermo-fuse (3.15A/250V) protection.

2.2 Battery jump-start

- Starting PCB version 3610100 Rev. E., during AC fault, if the backup Battery's voltage drops under 8V, the control panel disconnects it to prevent full battery discharge. This feature extends the battery life cycle.
- Because of this, the control panel cannot be powered up using only the battery, and must be connected to AC voltage first.
- When AC voltage is not available, do the following:
  a) Connect the control panel to the Battery.
  b) Momentarily connect the Battery's (-) terminal to the control panel's (-) terminal.
  c) The control panel will now power up.



CH. 3. CONNECTING AND WIRING

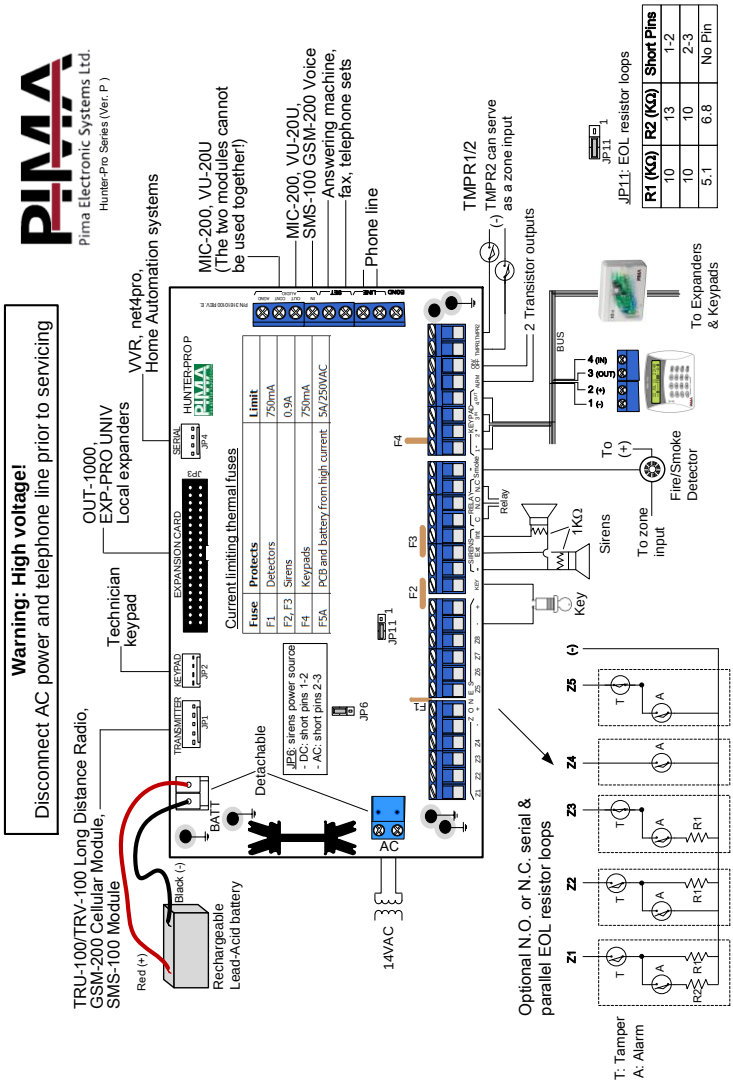


Diagram 2. System wiring diagram

3.1 Connecting zones

- The overall length of the BUS wires cannot exceed 500 meters. If a longer distance is required, refer to section 3.2.7.
- The BUS uses PIMA proprietary protocol.

IMPORTANT! Disconnect all power supply prior to installation!

3.1.1 Common zone wiring

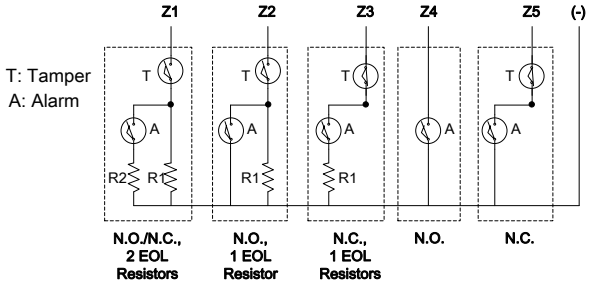


Diagram 3. Zone loop options

The zone type, N.O. or N.C., is set in the "Zone " screen (see section 6.4.1).

3.1.2 Single EOL resistor loops

To set the zone as an EOL resistor loop, refer to the "Zone " screen, parameter "E" (see section 6.4.1).

Make sure parameter "2" in the "**KEY #**5: General Parameters" first screen, is set to "-" (see section 6.8).

3.1.3 2-EOL resistor loop

1. Set the zone as an EOL loop, refer to the "Zone characteristics" screen, parameter "E" (see section 6.4.1).
2. To set the EOL loops as 2-resistor loops (globally), refer to the "**KEY #**5: General Parameters" first screen, parameter "2" (see section 6.8).

3.2 Zone expanders wiring

The following is a brief scan of the zone and outputs expansion options. A detailed installation description is found further on.

Expander	Description
EXP-PRO UNIV	Local 8 zone card; The zones are always given the numbers 9-16. See more on section 3.2.3. It is connected to the panel's "Expansion Card" connector.

Expander	Description
I/O-8N	Remote 8 zone expander with an onboard relay; It is connected to the panel over the BUS wires.
I/O-16	Remote 16 zone expander with an onboard relay; It is connected to the panel over the BUS wires.
I/O-WN	24 (in Hunter-Pro 832)/32 (in Hunter-Pro 896/8144) zone wireless expander; It also supports 24 key fobs.
I/O-R	Remote 8 relay expander; see more on page 19.

3.2.1 Zone numbering

Hardwire zones come before wireless zones.

Local expanders come before any other expander.

The expanders are numbered in ascending order, according to their ID number.

3.2.2 Total number of expanders in Hunter-Pro Series

	832	896	8144
I/O-8N	3 (2)*	11 (10)*	16 (15)*
I/O-16	1	5	8

* In the parenthesis: the number of expanders if the EXP-PRO UNIV is installed.

3.2.3 Setting the expanders' ID

Each card must carry a unique ID. The ID is set by a dip-switch on its PCB. The next figure demonstrates the ID options.

The IDs must be set successively. I/O-16 takes 2 consecutive IDs, e.g., if the ID is set to 3, the next available ID is 5 and not 4. See the next example table.

To program the overall number of expansion cards, refer to section 6.4.

Card #1	Card #2	Card #3	Card #4
I/O-8N	I/O-16	I/O-8N	I/O-16
ID=1	IDs=2 (and 3)	ID=4	IDs=5 (and 6)

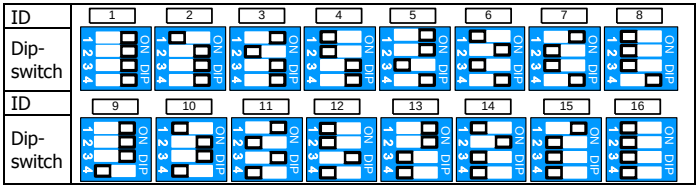


Diagram 4. Expander's Dip-Switch numbering options

3.2.3.1 Examples for expanders and zone numbering

Expander	+ EXP-PRO UNIV	W/O EXP-PRO UNIV
I/O-8N (8 z.)	Zones #17-24	Zones #9-16
Two I/O-8N (16 z.)	Zones #17-32	Zones #9-24
Two I/O-16 (32 z.)	Zones #17-48	Zones #9-40

3.2.4 I/O-8N: remote 8 Zone expander

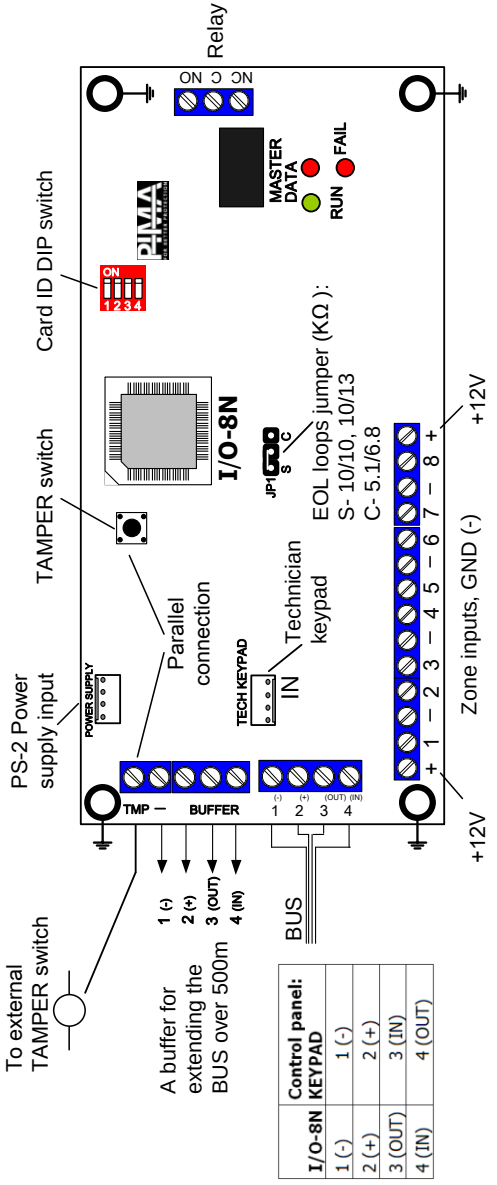


Diagram 5. I/O-8N zone expander

3.2.4.1 I/O-8N & 16 LEDs

LED	Status	Description
RUN (GREEN)	ON	Power ON
	OFF	Power fault
MASTER DATA (RED)	Flashes	Normal mode (DATA transfer)
	ON	Comm. disconnection
	OFF	Comm. short
FAIL (RED)	Flashes once a second	DATA error
	Flashes 2 times a second	Comm. fault (check the keypad's display)
	Flashes 3 times a second	The module is not configured in the control panel

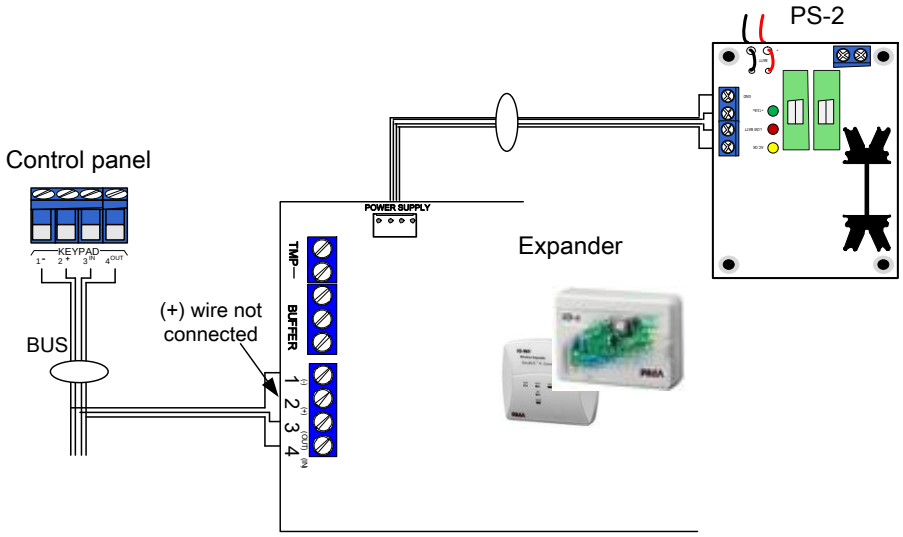


Diagram 6. Wiring diagram of a zone expander with the PS-2 power supply

3.2.5 I/O-16: remote 16 Zone expander

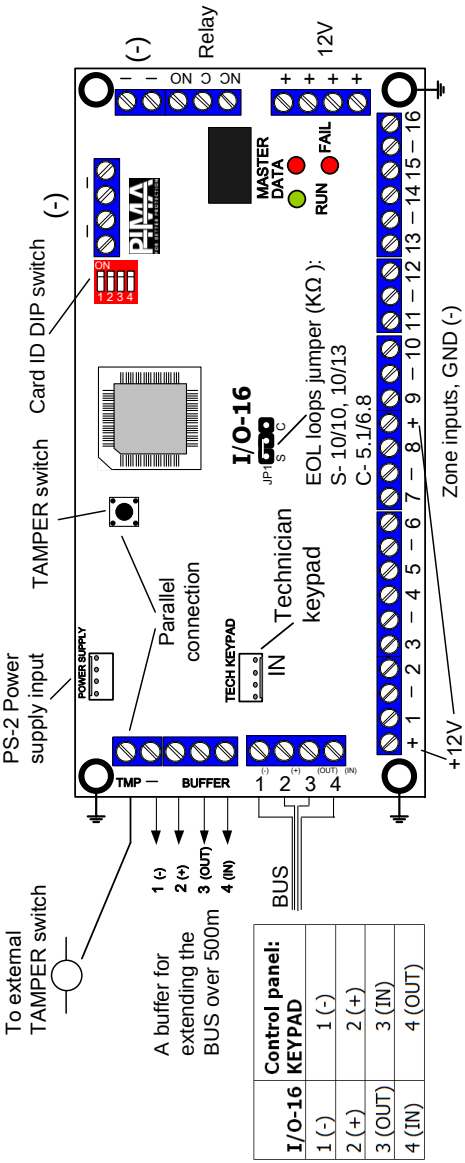
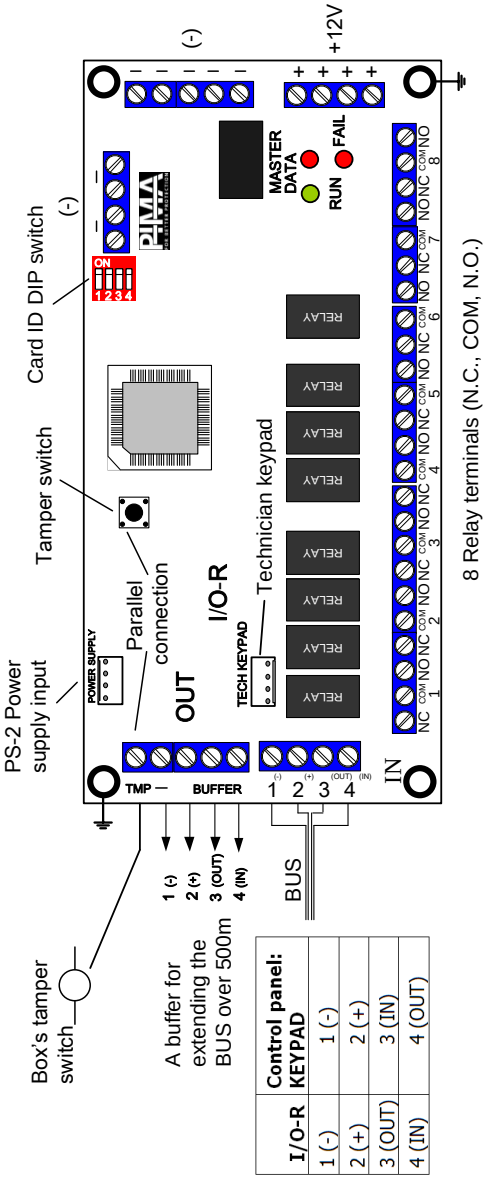


Diagram 7. I/O-16 zone expander

3.2.6 I/O-R: remote 8 Relay expander



I/O-R	Control panel: KEYPAD
1 (-)	1 (-)
2 (+)	2 (+)
3 (OUT)	3 (IN)
4 (IN)	4 (OUT)

Diagram 8. I/O-R relay expander

3.2.7 The BUS length

The BUS wire harness is connected to the KEYPAD 1-4 terminals on the control panel. The control panel can support a BUS that is no longer than 500m, including the connection of each and every expansion card, module and keypad.

If a longer distance than 500m is required every I/O-8N/16/R expander has 'Buffer' terminal block to which the extended braid should be connected. This allows additional 500m BUS to be connected to each of these expanders. See the next diagrams

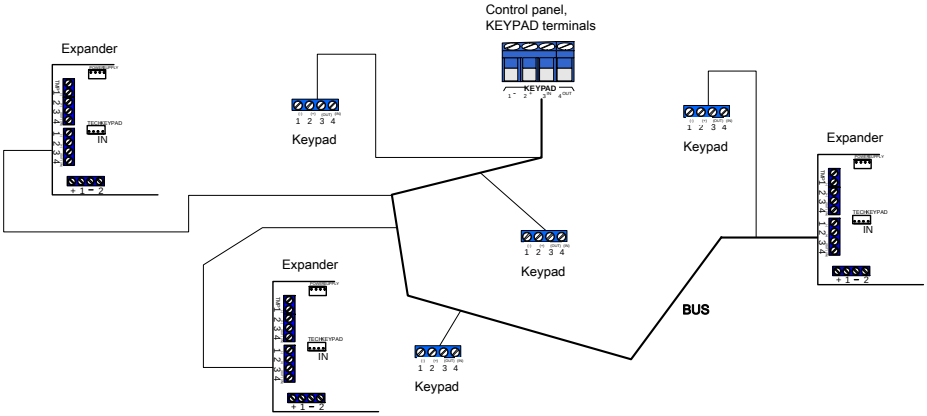


Diagram 9. Single BUS braid, up to 500m wires

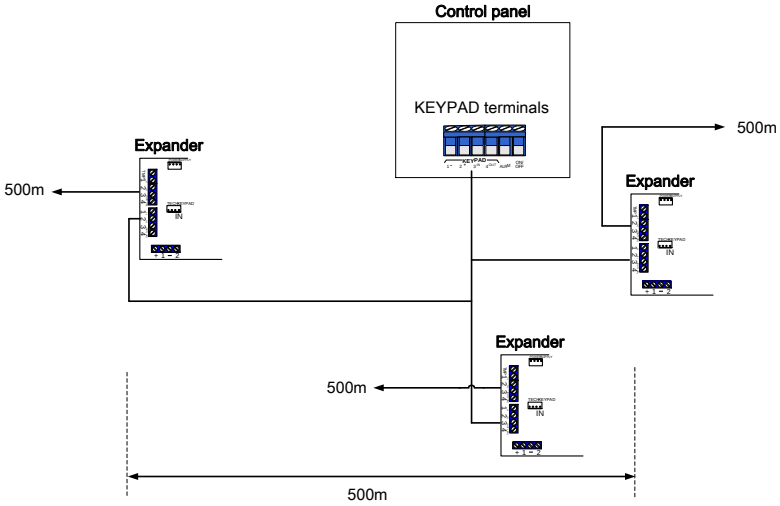


Diagram 10. Multiple 500m BUS braids

3.2.8 I/O-WN

The I/O-WN is an integrated wireless module for adding wireless zones. See section 6.3.3 for more details.

The module connects to the panel over the BUS wires.

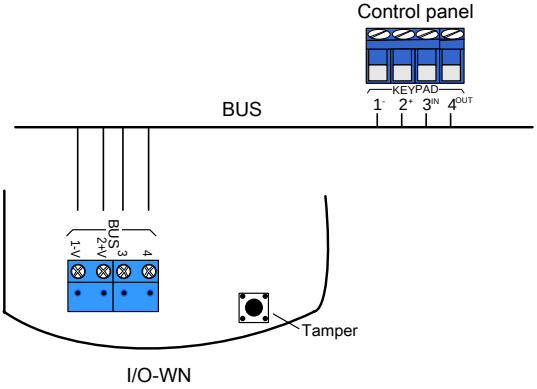


Diagram 11. I/O-WN wiring

	I/O-WN	Control Panel
1	-V	-
2	+V	+
3	OUT	IN
4	IN	OUT

For further information on the I/O-WN, refer to its installation guide

3.2.8.1 I/O-WN LEDs

Legend:

LED is illuminating — LED is blinking fast

LED is off — LED is blinking long blinks

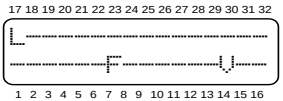
LED	Status	Description
RUN (GREEN)		Voltage OK
		Voltage supply fault
		Module voltage fault
DATA (RED)		Communication fault
		Communication wires short
		Communication OK
RX (RED)		No reception
		Reception OK

LED	Status	Description
VALID (GREEN)		Wireless signal has not been acquired
		Wireless signal has been acquired
FAIL (RED)		No valid frame from the panel
		No ACK from the panel
		The expander is not programmed in the panel
		General/Fatal error: no transmission has been received for one minute from the panel

3.2.9 Wireless faults on the display

3.2.9.1 In "Fast" mode

Wireless accessories faults. For example: zone #7 (tamper) is open, no supervision signal is received from zone (detector) #14, low battery in zone #17.



Zone	Letter	Fault
7	F	Wireless zone; detector's tamper is open
14	V	Supervision
17	L	Low battery

When the display is set to "Fast Display" and a battery, tamper or supervision faults occur, the display is automatically switched to "Open Zones Scan" mode. When all the faults are resolved the Fast display returns.

3.2.9.2 In "Scan Open Zones" displaying mode

The following are example wireless receiver faults:

Display	Fault
2 JUL 07 13:10 Wireless Unit	Communication fault with the I/O-WN receiver
1 JUL 07 03:00 W/L Unit Tamper	I/O-WN's tamper is opened
5 JUN 07 14:20 FL: Zone 14	Tamper open, zone #14
5 JUN 07 14:25 LB: Zone 19	Low Battery, zone #19
7 OCT 07 16:32 SV: Zone 35	No supervision signal, zone #35
W/L Recvr. fail ENTER/NEXT/END	The "W/L Receiver Failure" appears when trying to program the I/O-WN although the receiver is not programmed in "System Installation" (see section 6.3.2.1).

3.2.10 Zone doubling

The 8 onboard zone terminals can be used to connect 8 more zone inputs, to include 16 zones in total, without using any expansion card.

Zone doubling can only be used if no expander is in connected.

For the system to distinguish between every 2 zones, 2 different resistors (10k and 5.1k) must be installed for each couple.

Z1 terminal will be used for zones #1 and #9 inputs, Z2 terminal for zones #2 and #10, Z3 for zones #3 and #11, etc.

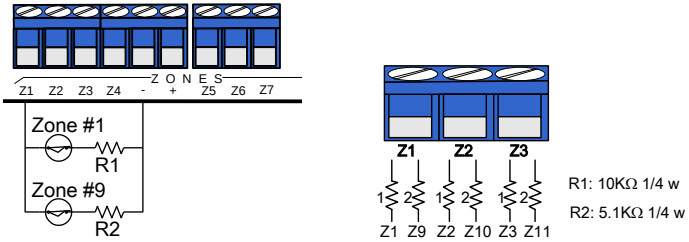


Diagram 12. Zone doubling wiring scheme

3.2.11 Local 8 zone expander EXP-PRO UNIV

1. Install the card inside the system case, above the PCB, using the 2 supplied screws.
2. Connect the supplied flat cable between the EXP-PRO UNIV and PCB's "Expansion Card" socket (see the following figure).
3. To configure the EXP-PRO UNIV, refer to section 6.3.2.

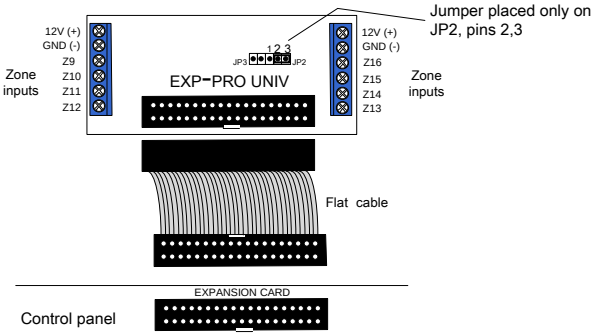


Diagram 13. Connecting the EXP-PRO UNIV

3.3 KEY input and Key zones

The KEY terminal serves as an input for key switches or key fobs.

Connect the switch/key fob between the KEY terminal and GND (-).

Starting system version 6.23, three new zone types were added:

- 'KeySw Arm' for full arming;
- 'KeySw Home 1' for arming to 'Home 1' mode;
- 'KeySw Home 2' for arming to 'Home 2' mode.

These zone types preserve most of the normal KEY input functions. See details ahead.

As any zone type, the Key types can be allocated per partition, i.e., arm per partition.

The KEY terminal and the KeySw zones can be triggered by momentary or two state (toggle) key. The default programming is momentary. See section 6.8.

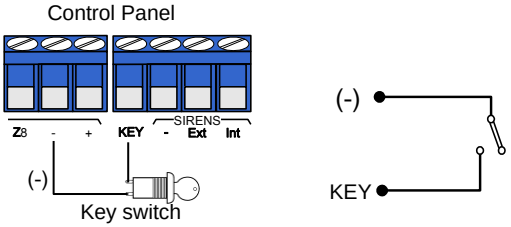


Diagram 14. Key switch wiring

3.3.1 KeySw zone types features

- The Key Switch zone types can only be used for arming and disarming;
- The Key Switch zone types have no other zone response but arming and disarming;
- Key Switch zones can be hardwired (include. zone doubling) or wireless;
- Triggering Key Switch zones cannot be indicated by the keypad chime;
- Tested (soaked) Key zones do report to the Central Monitoring Station when triggered;
- Subject to the user settings, Key zones can be bypassed by users;
- Key zones can be set as N.O. or N.C. and have EOL loops;
- Only monitored keypads display the exit delay countdown, when arming via a Key Switch zone;
- SMS messages reporting on arming via a Key Switch zone, do not contain the zone name;
- The log displays only the first 8 characters of Key Switch zones' names;
- Key Switch zones cannot trigger any output type;
- "Automatic zone bypassing" is not affected when arming via Key Switch zones;
- Zone sensitivity or responses do not affect Key Switch zones;

3.3.2 "FSK" W/L Key fob receiver

Connect the FSK key fob to the KEYPAD terminals over the BUS braid.

See the programming instructions in section 6.3.2.

3.4 Sirens wiring

Use either DC or AC sirens; the two types cannot be connected simultaneously to the outputs!

Activating the external siren always activates the internal one.

3.4.1 AC Siren

This is usually a horn or 8Ω speaker, driven by the control panel's built in oscillator.

Only AC sirens can produce two different tones. See section 6.4.2.

Connect the siren between the Ext. or Int. terminals and GND (-).

In "General Parameters", set "D - DC Siren" to "-" (see section 6.8.1). This will set the siren as AC.

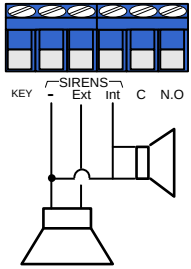


Diagram 15. Sirens wiring

3.4.2 DC Siren

This can be a bell or any other high current device with internal oscillator. The control panel supplies 1.1A for activation only.

Connect the siren between the Ext. or Int. terminals and GND (-).

In "General Parameters", make sure "D - DC Siren" is set to "+" (see section 6.8.1). This will set the siren as DC.

To monitor DC sirens and eliminate noises, use 1kΩ EOL transistors. For programming, see section 6.8.

3.5 RELAY

Relays can be activated when the alarm is set off or a fault occurs, or when a relay code is entered (refer to the Hunter-Pro Series User manual) via one of the keypads or by telephone.

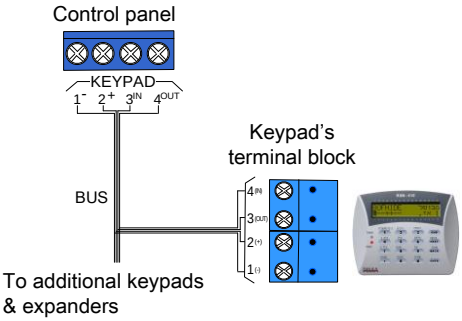
To program the relay trip time, refer to section 6.7.2.

3.6 KEYPAD wiring

Together with the zone expanders, keypads are wired through the BUS wire braid.
The BUS (+) wire must be separated from all other (+) wires, e.g., the zones' (+)!

Up to 8 keypads can be connected to the Hunter-Pro system, supervised or not.

3.6.1 RXN-400/410/RFID LCD Keypads



Keypad	Control Panel
1 -	1 -
2 +	2 +
3 OUT	3 IN
4 IN	4 OUT

Diagram 16. LCD keypads wiring

3.6.2 Setting the keypad's ID

1. Open the keypad's backplate;
2. Place JP1 jumper on pins 1, 2; a message onscreen should say: "Enter new ID: X".
3. In the keypad, enter the new ID, 1-8;
4. Return JP1 jumper to pins 2, 3;
5. Replace the backplate.
6. Repeat steps 1-5 in any other keypad.
7. If keypad supervision is not required, the keypads' IDs should be set to zero.

- Each addressable keypad must carry a unique ID;
- The ID numbers must be set consecutively and ascendingly; see also section 6.3.4 on page 42.

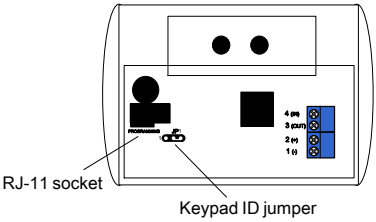


Diagram 17. LCD keypad PCB

3.6.2.1 RXN-416 LED Keypad ID

To set the keypad's ID, follow the instructions in the previous section. The top screen LEDs will show the keypad's ID according to the ID number (1-8), as follows:

ID	LED
0	-
1	#1
2	#2
8	#8

3.7 TMPR1/TMPR2 wiring

Connect tamper switches between the TMPR1/TMPR2 terminals and ground (-).

TMPR1 input is connected to the control panel case's tamper switch.

TMPR2 input can serve as additional zone (#9).

To program the TMPR inputs with EOL loops, refer to section 6.8.1.

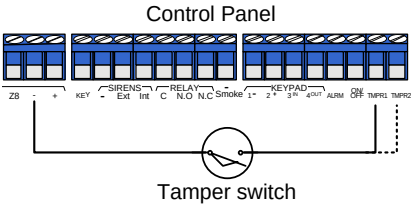


Diagram 18. Tamper switch wiring

3.7.1 TMPR2 input as additional zone input

This feature can only be used if no expander is connected to the panel and zone doubling is not used.

This feature is set in "General Parameters" (see "First Screen", on page 62).

3.7.2 LED Keypad: RXN-9

RXN-9 is a LED keypad that can be used to display how the first 9 zones (per partition);

It connects to the control panel like any LCD keypad and can be supervised too;

To set the keypad ID:

1. Remove the backplate;
2. Place the jumper on the left 2 pins of jumper JP1;
3. In the keypad, enter the new ID, 1-8; the key should illuminate briefly;
4. Return the jumper to the two right pins;
5. Replace the backplate.

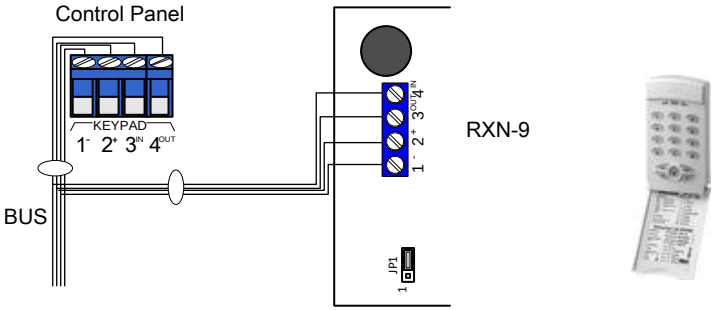


Diagram 19. RXN-9 PCB

3.8 Telephone LINE/SET wiring

Connect the telephone line directly to the LINE terminals. This will give the control panel priority when initiating a phone call.

Connect telephone sets, answering machine, etc to the SET terminals. When the control panel initiate a phone call (or receive one), these terminals are disconnected.

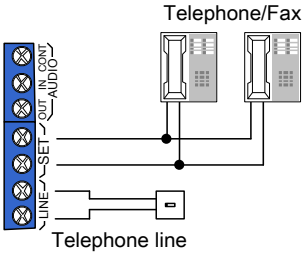


Diagram 20. Telephone wiring

3.9 AUDIO wiring

3.9.1 MIC-200 microphone

Connect the MIC-200 to the AUDIO terminals as follows. See the next figure.

MIC-200	Control panel
CON	AUDIO CONT
OUT	AUDIO IN
(-)/(+)	(-)/(+)

The AUDIO output polarity should be set to '+' (see section 6.10.4).

MIC-200 is supplied without wires.

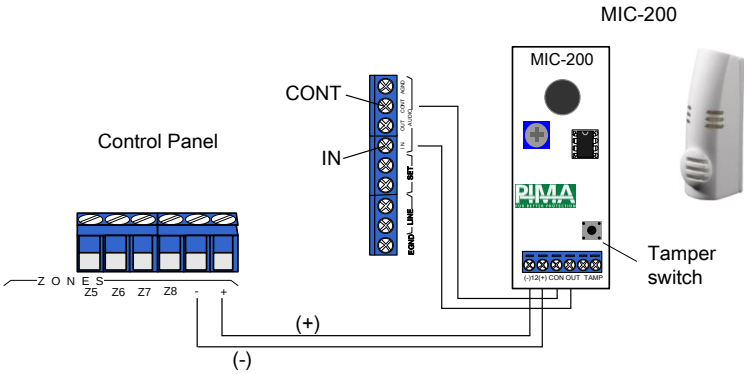


Diagram 21. MIC-200 wiring

3.9.2 VU-20U Voice message module

3.9.2.1 Single message programming

To use the VU-20U for a single message:

1. Connect the Green wire (M1) to any output (including in zone expanders) that is set to be triggered by the 'Audio device' output type; any zone that is set to trigger the 'Audio device' output type, when violated, will trigger the VU-20U.
2. Connect the +/- wires to the zones' AUX power source on the control panel.
3. Connect the Blue wire to the AUDIO IN terminal.

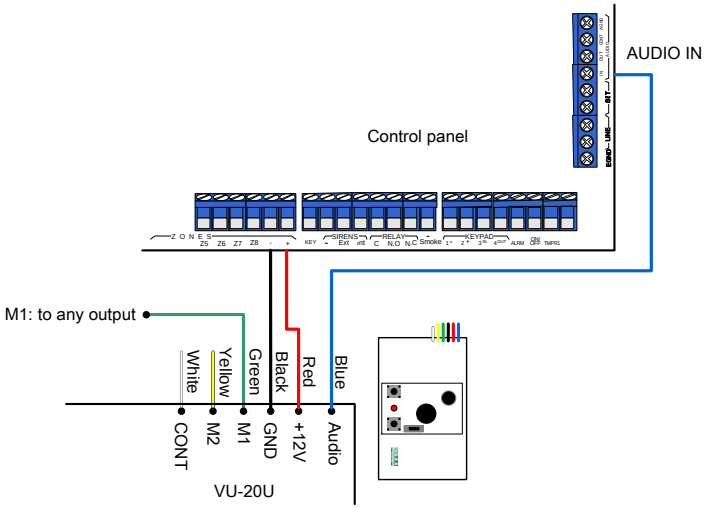
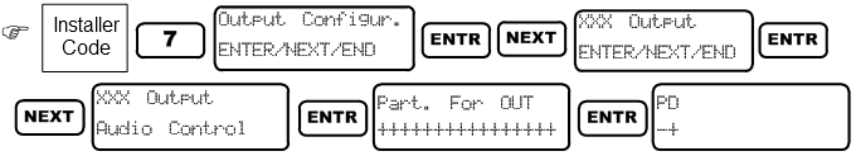


Diagram 22. VU-20U single message wiring

To set a single message:

1. First, choose the triggering output and set its polarity to negative.



   a. "Audio Control" should be the default output type for the VU-20U. You can change it by pressing [NEXT] and select another one.
   b. In "Part. For Out", set to "+" the partition/s should trigger the VU-20U. All other partitions must be set to "-".
   c. The polarity of the output should be set to '-' (under 'P').

2. Set the zone type/s to trigger the audio device when violated.

3. In the responses menu, set "M" to "+". Repeat that step in any other required zone type.
4. Set the panel to sound the voice massage, when it calls to report the end user: in the "Communication Options" menu, set "V" to "+".

3.9.2.2 Two messages programming

To use the VU-20U for two messages, the panel must be set for two partitions: each partition will trigger a different message. See section 6.4.5 for instructions.

1. Connect the Green wire to the AUDIO CONT terminal or to one of the outputs (including outputs in the zone expanders).
2. Connect the Yellow wire to another output.
3. Connect the +/- wires to the zones power source on the control panel.
4. Connect the Blue wire to the AUDIO IN terminal.

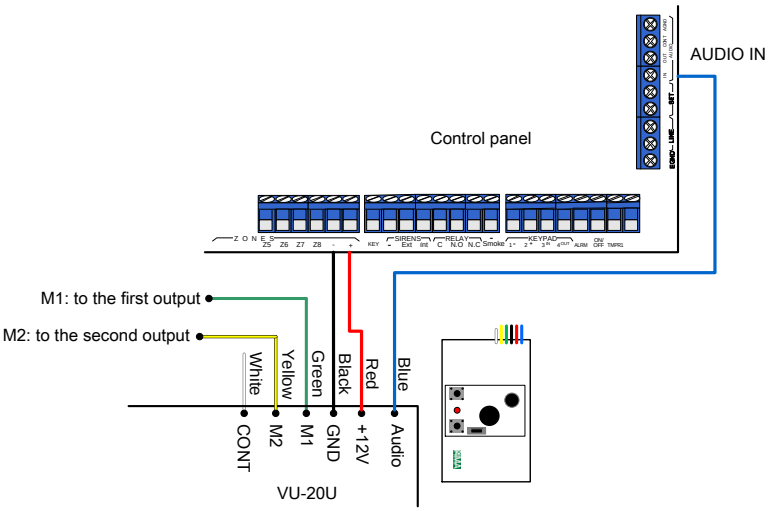


Diagram 23. VU-20U two message wiring

To set the messages:

1. Select the triggering outputs and set their polarity to negative. See the first step in the previous section.
2. In "Part. For Out", for each output set which partition/s should trigger the VU-20U. You must set different partitions for each output.
3. Proceed with the rest of the programming steps in section 3.9.2.1, for each output.

When connecting GSM-200 and VU-20N/U together, a 5.1kΩ resistor must be connected between the AUDIO IN terminal and GND (-)

3.9.3 SMS-100

To connect the SMS-100 module to the control panel, see the next image and table.

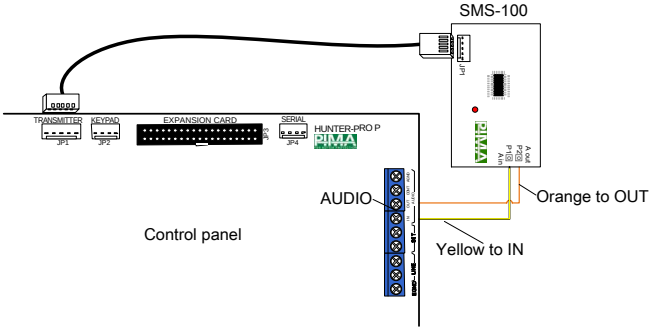


Diagram 24. SMS-100 wiring diagram

SMS-100	Control Panel
P1-Yellow	AUDIO IN
P2-Orange	AUDIO OUT

3.9.4 GSM-200 cellular module

The GSM-200 cellular module can serve both as a main or backup channel.
The module can be used for reporting the end user.
It connects integrally at the control panel case.
See the warning in the VU-20U section (3.9.2.2).

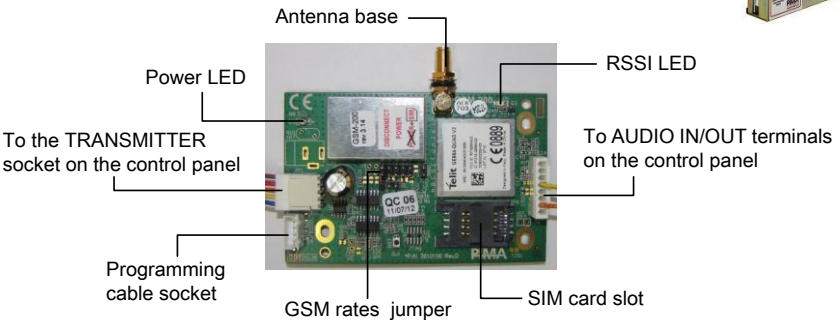


Diagram 25. The GSM-200 PCB (ver. 3.14)

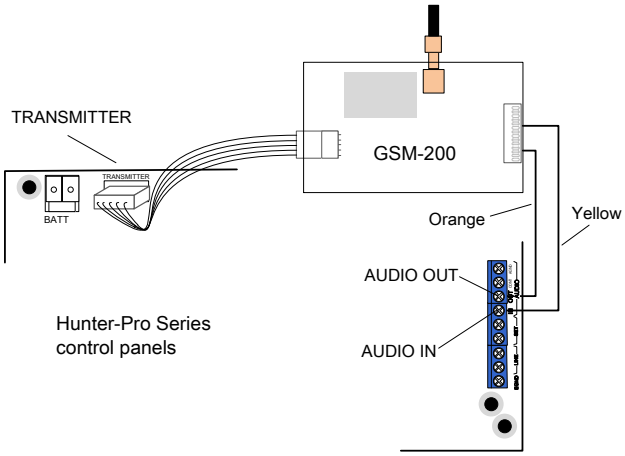


Diagram 26. GSM-200 wiring diagram

GSM-200	AUDIO
Yellow	IN
Orange	OUT

3.9.4.1 Prevent RF interferences

Do not mount the system close to a metal roof or wall;

Check that there is enough space for the antenna between the system and ceiling;

Keep wiring as distant as possible from antenna;

Install the antenna only after system installation is done;

Make sure the antenna is not bended;

3.9.5 VVR: Video Verification module

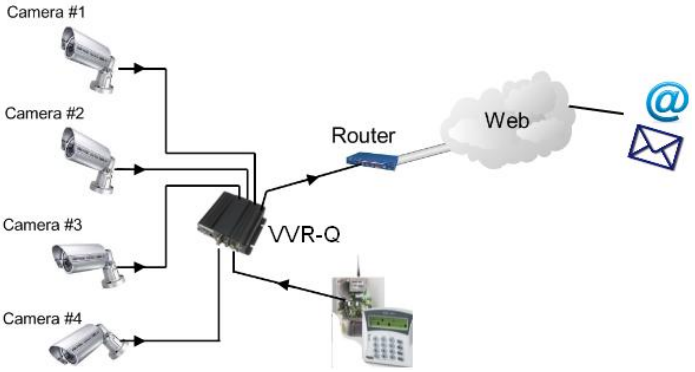


Diagram 27. VVR architecture

The VVR module enables the end user to receive short video clip, every time an alarm is set off in his/her premises. The clips can be used for verification only.

The video clips are received by an email message.

The clips are shoot by cameras that are triggered by the control panel when an alarm is set off, and then sent by the VVR directly to the end user.

The VVR is connected to the control panel in serial, via the SERIAL connector, and can also be connected to non-PIMA panels in parallel.

As many as 4 VVR units with 4 cameras in each, can be connected to the Hunter-Pro Series.

The VVR and the cameras can be operated based on partition system, in which zones that are violated, trigger the camera that is allocated to the same partition they are allocated to.

The VVR is programmed via a separate Video menu (see section 6.15). For complete instructions on the VVR, see its installation guide (P/N 4410302).

3.9.6 VKD4net

The VKD4net is a software/hardware solution that enables the end user to connect and fully control his/her alarm system.

It is made of PIMA's net4pro-i network card and a syncing component, on the control panel side, and a virtual keypad application that is installed on a remote computer.

The use of the VKD4net requires either a static (fixed) IP address on both the control panel and the remote PC, or a URL supplied by a DDNS service. In both ways, the routers must be set to enable port forwarding.

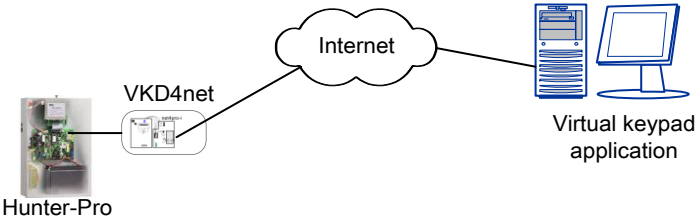


Diagram 28. VKD4net connection diagram

3.10 Backup battery

The control panel is backed up by a rechargeable 12V Lead-Acid battery.

The battery is tested continuously. When a test fails, it triggers various responses according to the programming. See section 6.8.3 for details.

To protect the battery from deep discharging, in case of an AC fault, if the battery voltage reaches 10.5v, the panel reports to the Central Monitoring Station. 30 minutes later a "Keypad Not Connected" error is displayed and the panel becomes idle until power is restored.

When power is restored, the panel reports it within 15 minutes.

3.11 AC power

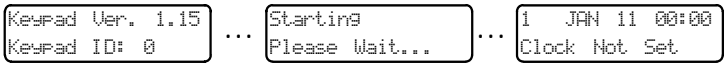
Connect a 16V AC transformer to the AC terminals.

Using an Ohm meter, check for continuity between the grounding holes on the PCB, and the outlet grounding. The resistance must not exceed 1 Ohm.

1. **A current limiting device, such as circuit breaker or fuse, must be connected in serial with the power cord.**
2. **The PCB must be grounded to earth.**
3. **The panel cannot be activated without AC power.**
4. **For jump-starting the panel, short the (-) to one of the AC terminals.**

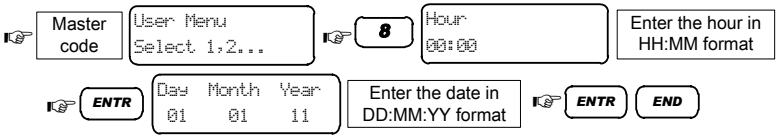
CH. 4. INITIALIZING THE KEYPAD

When AC power is supplied to the control panel, the keypad starts its initializing process:

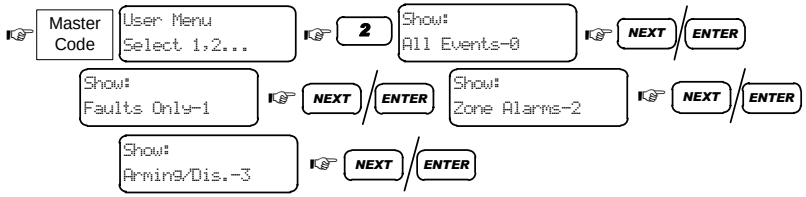


1. The keypad sounds a long beep and the keypad's version & ID are displayed.
2. The fault LED starts flashing;
3. The factory default date is displayed with the message "Clock Not Set".
4. After some time the keypad chime starts sounding beeps; to stop it, [END].

4.1 Setting time & date (User menu)



4.1.1 The memory log

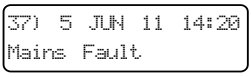


The memory log has 4 viewing options:

- All events (press 0 in any other log screen to display this viewing option)
- Faults only (press 1 in any other log screen to display this viewing option)
- Zone alarms (press 2 in any other log screen to display this viewing option)
- Arming/disarming (press 3 in any other log screen to display this viewing option)

The top line displays the memory serial number (top left) and the time and date in which the event was registered.

The event is displayed in the bottom line. For examples:



CH. 5. PROGRAMMING OPTIONS

The Hunter-Pro series is supplied with factory default parameters. In most installations, none or few parameters should be programmed, except for user-specific parameters, such as users, telephone numbers, zone names, etc.

There are 3 options to program the Hunter-Pro Series:

1. Via the LCD keypad.
2. Locally, via PIMA Fast Programmer PRG-896.
3. Locally or remotely (via telephone or the GPRS) via the Comax application.

5.1 The PRG-896 programmer

The PRG-896 is a flash memory card that can save up to 7 presets for the Hunter-Pro 896 and 4 for Hunter-Pro 8144.

The fast programmer enables the installer to save time on-site, by uploading the presets before installation and use them for other installations too.

The presets are uploaded via the Comax application.

The PRG-896 is connected to any PIMA LCD keypad. See the next figure and section 6.11.3.

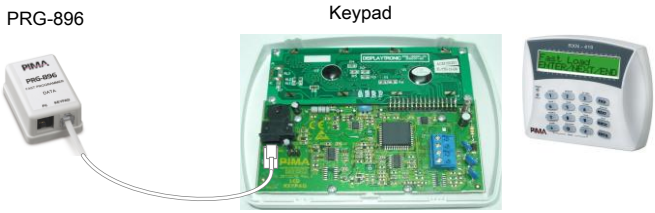


Diagram 29. PRG-896 connected to an LCD Keypad

5.2 Local programming via the COMAX application

Comax gives a quick and easy way to upload sets of parameters in the service station and download them later on at a customer site. Connecting the PC with the Comax to the control panel is done using LCL-11A adaptor.

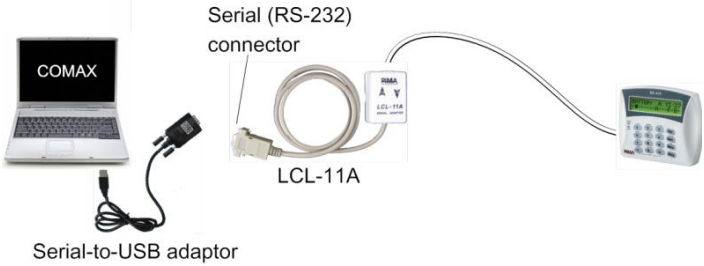


Diagram 30. Local programming connection diagram

5.3 Remote Programming via the COMAX application

The Hunter-Pro series can be programmed and controlled remotely from any PC, using PIMA's Comax software (with PIMA's PSTN modem, P/N 5200012). Refer to the Comax User guide for detailed information.

5.4 Programming via an LCD keypad

The HUNTER-PRO series has two basic menus: User menu, made of single-press key commands (the commands are printed above the keypad's keys), and Installer menu.

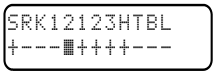


Diagram 31. Example for a zone status bar

This is a parameters set display.

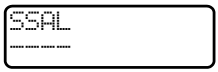
(+): the parameter is enabled.

(-): the parameter is disabled.

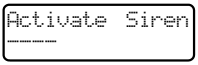
■: the selected parameter. When the flashing ■ sign reaches a letter (by pressing NEXT or BACK), its description is displayed for 3 seconds.

For example:

Parameters screen



Parameter's description automatically appears for few seconds when curser moved upon parameter



5.5 Navigation commands

- [NEXT]/[BACK]: next/previous char/screen/option/parameter;
- [ENTR]: select/confirm/save;
- [END]: exit/end/return to the previous screen without saving;
- [#]: reset/erase/change status between "-" and "+".

5.6 Default codes

The system default codes are:

Master Code: 5555
Installer Code: 1234

5.7 Express Programming menu

To make common installation as easy and quick as possible, the Hunter-Pro Series includes a special menu - the Express Programming menu. It is a series of screens, taken from different parts of the Installer menu, with the necessary parameters for a common installation.

To access the menu, press [*] in the Installer menu main screen.

Following is a table with the express programming screens, as they appear.

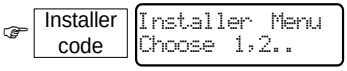
Press [ENTR] to save and continue to the next screen.

Screen	Description
Hour 00:00	Set the time
Day Month Year 01 01 09	Set the date
Priv.Phn 1<Del=# ..... Priv.Phn 4<Del=#	Set the 4 private dialer numbers. Use the asterisk key for '+', '*', '#', 'P' (one second pause)
Entry 1 2 Exit 20 20 60	Set the entry/exit delay
XMWR ————	Set the zone expanders - local, remote and wireless
Remote Expanders 0	Set the number of remote expanders
Acouont.No 1 Ph:0000 Rd:0000	Set phone and radio account ID #1
MS1 Protocol 0 230 T= 0	Set Central Monitoring Station #1 protocol
MS Phone 1<Del=# .... MS Phone 4<Del=#	Set the 4 phone numbers of the Central Station #1. Use the asterisk key for '+', '*', '#', 'P' (one second pause)
AA12PFDMOLTWIR ++++++++++-++1	Set Central Station #1 reports
SSBB —+— Rprt 1	Set the zone bypass and reset reporting channels
Test Time:00:00 Interval:24 Hrs	Set the Central Station #1 test time and interval
Radio Tst. Inter Hrs:24 Min.s:0	Set Central Station #1 radio test interval
Installer Code xxxxxx (4-6)	Set a new Installer code (4-6 digits). You must enter a code or cancel this step.

☞ ENTR to save

CH. 6. PROGRAMMING THE SYSTEM

6.1 The Installer Menu



To enter the Installer menu:

The Installer menu is made of 12 sub-menus, all accessed and programmed with the LCD keypad keys. The keys and sub-menus are:

Key	Functions	Page
ON/OFF 1	System Installation	40
MEMO. 2	Zones	43
BYPASS 3	Communication	47
HOME 1 4	Timers, Counters	59
ZONE 5	General Parameters	62
PHONES 6	System Responses	64
HOME 2 7	Outputs Configurations	65
CLOCK 8	Full Programming (reset), Downloading	70
CODES 9	Change Installer Code	71
CHIME *	Fast Programming	71
PROG. 0	Tests	71
RESET #	Video	75

6.2 Entering names, digits and characters

Each keypad key is used for entering letters, digits and other characters as follows:

	Keystrokes									
Key	1	2	3	4	5	6	7	8	9	10
[1]	.	,	?	!	1					
[2]	A	B	C	2						
[3]	D	E	F	3						
[4]	G	H	I	4						
[5]	J	K	L	5						
[6]	M	N	O	6						
[7]	P	Q	R	S	7					
[8]	T	U	V	8						
[9]	W	X	Y	Z	9					
[0]	Space	Zero								

	Keystrokes									
Key	1	2	3	4	5	6	7	8	9	10
[*]	(	)	/	*	:	-	+	#	&	@
[#]	Enable/Disable									

[END]	Cancel/ Return to previous screen/s without saving		[BACK]	Prev. char.
[NEXT]	Next characters		[ENTR]	Select/Save

6.3 KEY #1: System installation

6.3.1 Service provider and End of service date

☞ **1** → Sys Installation / ENTER/NEXT/END → **ENTR** → Service Provider / ENTER/NEXT/END → **ENTR** → Service Provider / PIMA El. Systems

Enter the details of the service provider: name, telephone number, etc. Up to 16 characters.

When the system is disarmed, pressing the "SERVICE" key [NEXT] for 2 seconds, displays these details.

Press [ENTR] to save and proceed to the next screen.

Enter the date in which the service contract ends. In that date, at noon time, the following messages will appear, in two screens: "Call Service: Provider's details". For example:

14 MAR 11 12:00 / Call Service: ~ 14 MAR 11 12:00 / Tom 8596332571

- The service message appears only if the default service provider and date are changed.
- The message disappears the next time the system is armed, or if the Installer code is entered.
- The service period is limited to one year and thus contains the date only.

6.3.2 Expanders

1 → Sys Installation / ENTR/NEXT/END → **ENTR** **NEXT** → Expanders / ENTR/NEXT/END → **ENTR**

XMWR / _____ → **ENTR** → Remote Expanders / 0

6.3.2.1 XMWR

Par.	Name	Enabling (setting to "+")
X	Local Expander	Local expander EXP-PRO UNIV with 8 additional zones is installed
M	Zone Doubling	This feature is enabled. Note, that zone doubling is available **only** when no zone expander is in use.

Par.	Name	Enabling (setting to "+")
W	Wireless Expander	I/O-WN wireless receiver is installed and is monitored (see the next note). Key fobs are Visonic's.
R	Key fob Receiver	Not in use

Enabling both 'W' & 'R' is not applicable

6.3.2.2 Remote Expanders

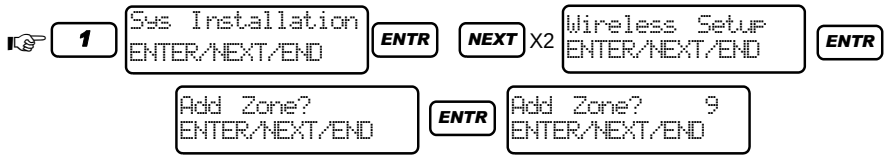
Set the number of the installed remote expanders, e.g. I/O-8N, I/O-16. Note that the I/O-16 takes two IDs. See section 3.2.3.

The number of remote expanders that can be installed varies according to the panel model:

	Options		
Model	**I/O-8N only**	**I/O-16 only**	**I/O-8N + I/O-16 only**
Hunter-Pro 832	3	1	A total of 24 zones
Hunter-Pro 896	11	5	A total of 88 zones
Hunter-Pro 8144	16	8	A total of 136 zones

6.3.3 Wireless expander setup

6.3.3.1 Adding a Wireless zone



Before you install the wireless expander, you must enable "W" in the previous menu. See section 6.3.2.1.

The number of wireless zones & accessories varies according to the system. See the table in section 1.1.

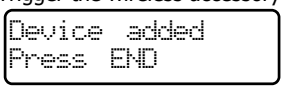
After pressing [ENTR] in the "Add Zone?" screen, the first available zone number is displayed. If no expander is installed, zone #9 is the first.

The wireless zones are numbered only after all other zones are, including hardwired expanders.

Press [ENTR]

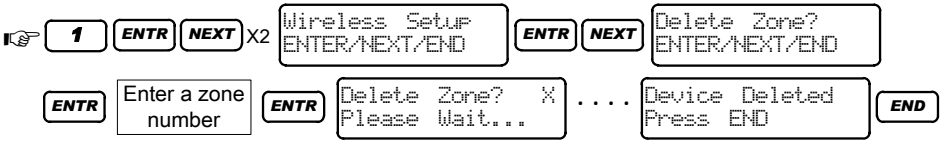
.

Trigger the wireless accessory and wait for confirmation message and beep:

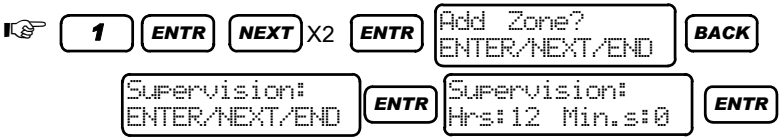


Press [END].

6.3.3.2 Deleting a Wireless Zone



6.3.3.3 Supervision interval



Set the interval for the control panel to expect a supervision signal.

The interval is set in hours and minutes and is the same for all the wireless accessories.

To avoid false alarms, it is recommended to set an interval that is 3 times the interval of the wireless device. For Visonic modules, a period of 50 minutes will do.

6.3.4 Keypads

Set the number of monitored keypads. The keypads must have an ID between 1-8.

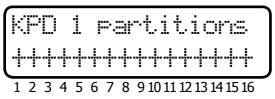
Up to 8 monitored or unmonitored keypads can be connected.

The IDs should be given consecutively from #1.

Keypads with the ID of zero are not monitored.

If monitoring the keypads is not required, the number of keypads should be left zero.

6.3.4.1 Keypad partitions

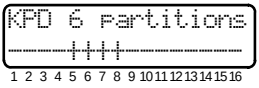


Set to "+" the partition/s that are to be controlled by the programmed keypad. The keypad will display only the information of the zones of these partitions.

The keypad ID must be set to be other than zero, for the use of partitions.

By default, every new keypad controls all the partitions.

Press [ENTR] to save and advance to the next keypad.

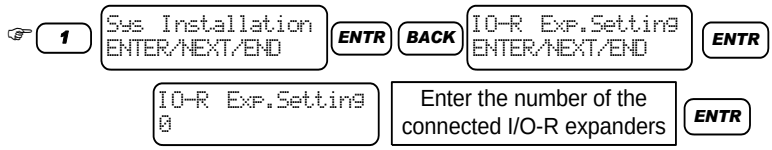


Example: keypad #6 will control the zones in partitions 5-8.

6.3.5 I/O-R expander settings

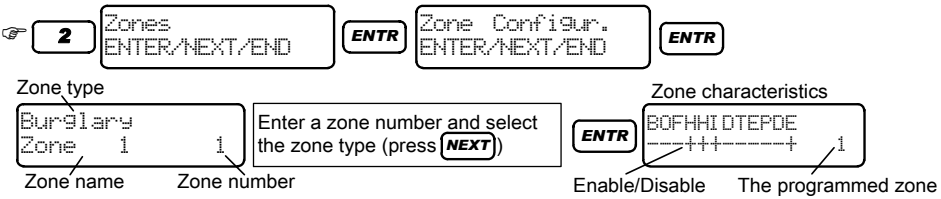
Set the number of I/O-R relay expanders that are connected to the system.

Up to 4 I/O-Rs can be used.



6.4 KEY 2: Zones

6.4.1 Zone configuration



Zone configuration includes setting the zone type and the zone characteristics.

6.4.1.1 Zone types

The available zone types are: Burglary, Panic, Fire, Duress/Hold-Up, Medical, Anti-Mask, "Special Burglary 1", "Special Burglary 2", "Silent Panic", "Special Fire", "KeySw Arm", "KeySw Home 1" "KeySw Home 2".

The KeySw, or Key Switch, zone types enable to arm the panel to full mode or partial "Home" modes. See section 3.3 for more details.

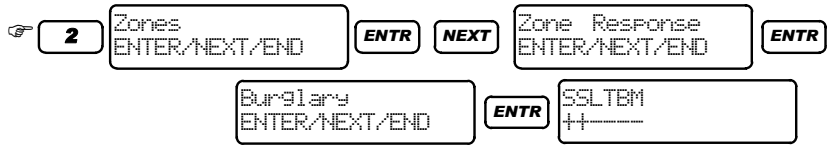
6.4.1.2 Zone characteristics

The next table lists the zone characteristics (see the previous figure):

Par.	Text	When the character is enabled (set to "+")
B	Bypassed Permanently	The zone is permanently bypassed
0	Normally Open	"+": N.O. zone "-": N.C. zone
F	24 Hour Zone	The zone is permanently armed, regardless of the system status
H	Active in 'Home 1'	The zone will be armed in 'Home 1' partial arming mode
H	Active in 'Home 2'	The zone will be armed in 'Home 2' partial arming mode
I	Entry Delay	During the entry delay, this zone will not sound the alarm if violated

Par.	Text	When the character is enabled (set to "+")
D	Zone Follower	As long as any delayed zone is still "open", the zone will not sound the alarm during the entry delay, if violated.
T	Second Delay Time	If this zone is entry delayed zone ("I" is set to "+"), it will be delayed for the second Exit/Entry delay time (refer to section 6.7)
E	EOL protected	This is an EOL resistor loop zone. To set the EOL number, refer to section
P	Conditioned Zone	The zone triggers the alarm, only if other conditioned zone is violated within the "Cond. Zone Time" (refer to section 6.7.1)
D	Double Knock	The zone triggers the alarm only if 2 pulses occur within a preset period of time (refer to section 6.7.7). **If a Double Knock zone is violated continuously, an alarm will be set off after the preset time.**
E	User Bypass	Users can set the zone to be bypassed (temporarily)

6.4.2 Zone Responses



The parameters set in this screen are the available zone responses, when the zone is violated.

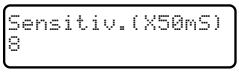
All the parameters are per zone type only, i.e., disabling daytime reports in the "KetSw Arm" zone type does not affect the same parameter for "Burglary" zone types.

The parameters are:

Par.	Text	Response
S	Activate Siren	Trigger the sirens
S	Ext. SRN in OFF	Trigger the sirens even when the panel is disarmed
L	No Daytime MS	Disable reporting to the Central Monitoring Station when the panel is disarmed
T	Dif. Siren Tone	Different siren tone (for horns only)
B	Automatic Bypass	The zone is automatically bypassed after 3 consecutive alarms and will be reinstated after the next disarming.
M	Activate Audio	Triggering audio accessories - VU-20U[1] or MIC-200

1 Together with enabling "V" in Communication menu (section 6.5.4); in VU-20U only.

6.4.3 Sensitivity

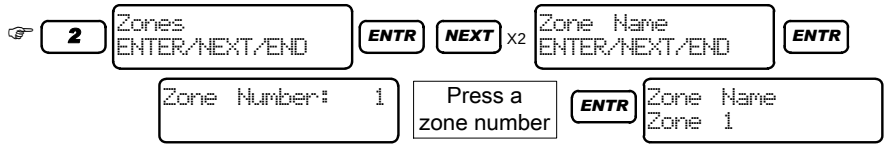


Set the zone sensitivity in milliseconds.

Sensitivity is the time a zone must be violated, for the panel to identify it as a zone violation.

The number entered is multiplied by 50. In the example screen above, 8 means a sensitivity of 8 times 50, that is 400ms.

6.4.4 Zone name



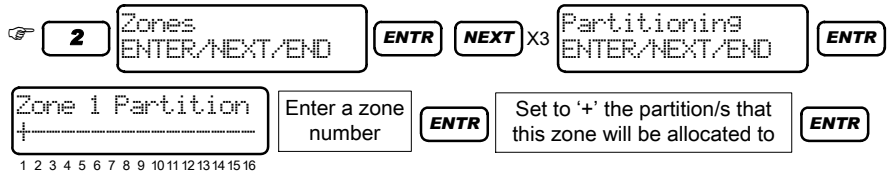
Set the zone name. A name can have up to 13 characters.

The text is entered like in cellular phones. See section 6.2.

For example, to enter the text "REAR DOOR", press [NEXT] after each letter:

1. Press [7] three times=R
2. Press [3] two times =E
3. Press [2] once=A
4. Press [7] three times=R
5. Press [0] once=Space
6. Press [3] once=D
7. Press [6] three times=O
8. Press [6] three times=O
9. Press [7] three times=R

6.4.5 Partitioning

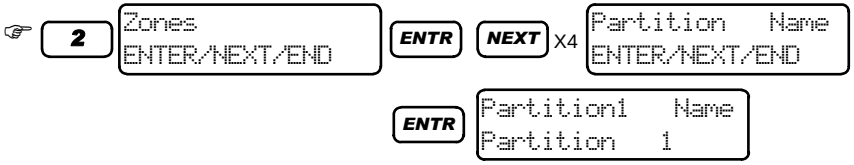


Set the partition/s to which this zone will be allocated to.

Setting the partitions along with setting the keypads' partitions, determines the nature of the system (i.e. Split/Partitioned System).

Setting to "+" allocates a zone to a corresponding partition. For more details on partitions, refer to CH. 8.

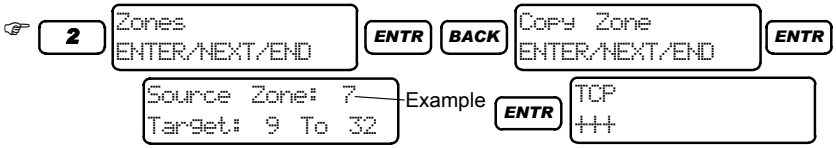
6.4.6 Partition name



To display the partitions and their names:

Partition's name can only be displayed in partitioned keypads.

6.4.7 Copy zone



Copy all or some characteristics of one zone to others.

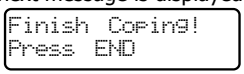
This feature saves time during installation, by avoiding the need to program zones with the same characteristics, more than once.

To copy a zone, select it as a "Source" zone, then select "Target" zone or zone range, define what to copy (see the next sub-section) and press [ENTR].

6.4.7.1 Copy options

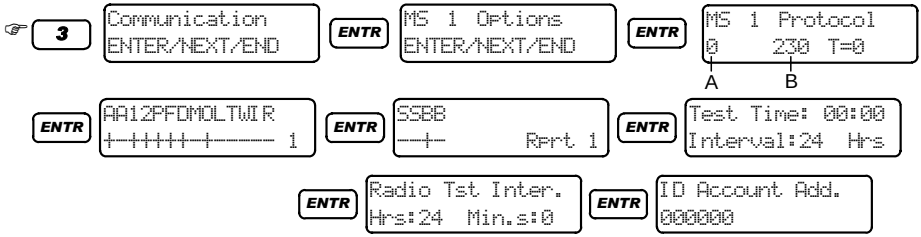
Par.	Copy
T	The zone type
C	The zone characteristics
P	The zone partitions

When copying is done the next message is displayed:



6.5 KEY #3: Communication

6.5.1 Monitoring Station #1 options



6.5.1.1 Protocol

Set the PSTN protocol and the long-range Radio station number, of Central Monitoring Station #1.

"A" & "B" in the Protocol screen, refer to the same columns in the codes table, on section 9.4. and set the PSTN protocol. 0-230 is the ContactID© protocol, which is the default protocol.

"T" is not in use.

6.5.1.2 Reporting parameters

Set which event types will be reported to Central Monitoring Station #1:

Par.	Event type
A	Any alarm
A	Anti-mask alarm
1	Special Burglary 1 alarm
2	Special Burglary 2 alarm
P	Panic alarm
F	Fire alarm
D	Duress/Hold-up alarm
M	Medical alarm
O	Arming/Disarming reports are sent by the telephone
L	Failures
T	Periodic tests
W	Remote tests: the Monitoring Station can test the panel while it is armed, by the next procedure: it calls the panel and hang up after 2 rings. In response, the panel sends a test report .
I	Entering the Installer code
R	Arming/Disarming reports are sent by the radio (FSK/RDC)

6.5.1.3 Other reports

Par.	Report
S	Zone restore events are reported via the telephone
S	Zone restore events are reported via the radio (FSK/RDC)
B	Zone bypass events are reported via the telephone
B	Zone bypass events are reported via the radio (FSK/RDC)

6.5.1.4 Telephone testing time, interval

Set the time and interval for sending test reports to the Central Monitoring Station via the telephone.

If left as 00:00 the panel ignores the "Time" parameter.

The timer starts running only when pressing [ENTR]

Example:

```
Test Time: 23:00
Interval:3   Hrs
```

The panel will send test reports every day at 23:00 (11 PM) and every 3 Hrs.

6.5.1.5 Radio Test Interval

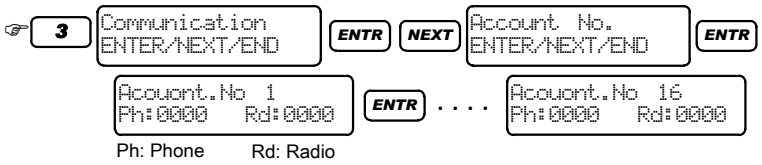
Set the radio test interval, the same as in the telephone interval reports.

6.5.1.6 ID account addition

To use six digit account numbers (in PSTN only), set here the first two (tens of thousands; the other digits are programmed in the next section, "Account numbers").

Note that the 2 digits will be added to all the partitions.

6.5.2 Account numbers



Set the account numbers for the telephone ("Ph") and radio ("Rd") reports.

Up to 16 accounts (one for each partition) can be set, each with different subscriber numbers.

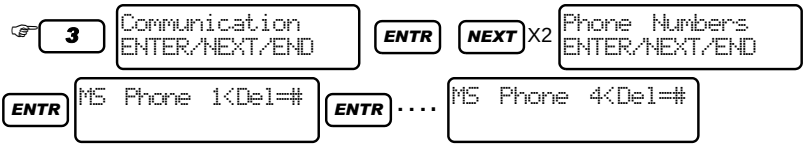
If all the accounts report with the same subscriber number, set only the first account. "Open/Close" events will be sent without account numbers. To report "Open/Close" per partition, set the protocol to "1 230" in the "MS 1 protocol" screen.

If no subscriber number is set, no report will be sent to the Central Monitoring Station.

In a system with no partitions, reports will send only by account #1.

To report to two monitoring stations, set Account #1 as the first monitoring station account and Account #2 for the second.

6.5.3 Telephone numbers



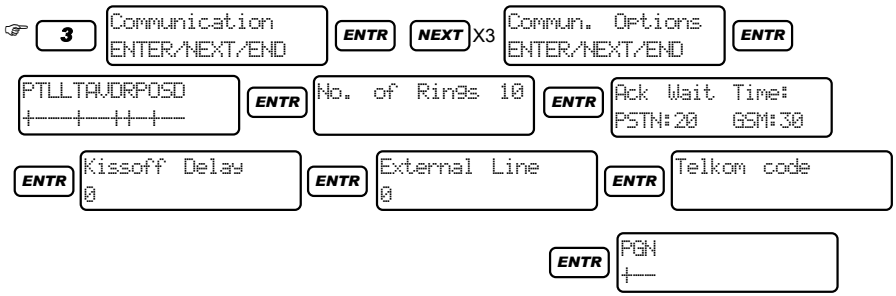
Set Central Monitoring Station #1 telephone numbers. To delete a number, press [#].

Up to 4 numbers can be set.

In the "Communication Options" (next), when "Split Account No." is enabled, "MS Phone #1" & #2 are allocated to Monitoring Station #1 and #3 & #4 to Monitoring Station #2.

If the Monitoring Station's telephone #1 is not answered, the panel tries to call number #2 and so on, up to 8 dialing attempts per number. See section 6.5.4.1.

6.5.4 Communication options



Par.	Description	When enabled (set to '+')
P	Connected T.Line	The panel monitors the telephone line
T	No Dia. tone chck	The system will dial without checking for a dial tone first; to be used when the panel is connected via switch-board or the line is not clear
L	Line Test in ON	When the panel is armed, the line is tested once a minute[1]
L	Line Test in OFF	When the panel is disarmed, the line is tested once a minute. The "Line Test in OFF" can be enabled, only when the "Line Test in ON" is.
T	Tone Dial	• "+": Tone (DTMF) dialing • "-": Pulse dialing
A	Answer. Machine	Answering machine or fax are connected to the telephone line. This enables the panel to snap a remote control call. The answering machine should be set to pick calls only after more than 3 rings.
V	Voice Unit	VU-20U or MIC-200 voice modules are connected to the panel
D	Download Disable	Downloading parameters remotely using COMAX is disabled. As a precaution, before the first downloading call, the end user must enter the Master code and press [ENTR] twice, just before the call.[2]

1 Regardless of this parameter's status, the panel tests the telephone line every time it is armed and disarmed.

2 If the Comax does not call within 2 minutes, the parameter is reset to '+' [disabled].

Par.	Description	When enabled (set to '+')
R	Rem. Disarm Disab	Remote disarming by the touch-tone telephone is disabled
P	Pre Alarm Report	The panel reports when the Entry delay is starting (so if an intruder cuts off the panel before the delay ends, the monitoring station is still alerted)
O	Tst Rprt in OFF	Test reports are sent even when the system is disarmed
S	Split Account No.	The panel use split reporting Reporting per partition is disabled
D	Disarm after Al.	The panel will report a zone open event that occurs immediately after alarm, regardless the status of the "Open/Close Phone" parameter, in MS1 options (section 6.5.1).

6.5.4.1 Number of rings & dials

Set the number of rings before the system picks up a phone call.

To manually answer a call, enter the Master code and press [ENTR] twice.

Set the number of dial tries before the panel quits the dialing attempts: Min. - 1, Max. - 99.

6.5.4.2 ACK waiting time

In the PSTN and GSM channels, set the time in seconds for the panel to wait for handshake signal.

The max. waiting time for both channels is limited to 60 sec.

6.5.4.3 Kissoff delay

Set the time for the panel to wait for a closing ACK. This feature is useful for GSM comm. faults.

The time is set in 250ms steps, i.e., the number is multiplied by 250. For example, setting the delay to 7 means a delay of 7X250=1750ms

6.5.4.1 External line

Set one or two digits/characters to serve as prefix for the PSTN numbers.

6.5.4.2 Telkom code

Set up to 12 digits as a prefix for (all) the PSTN numbers; together with the possible 16 digits of the telephone numbers they make 28 possible digits.

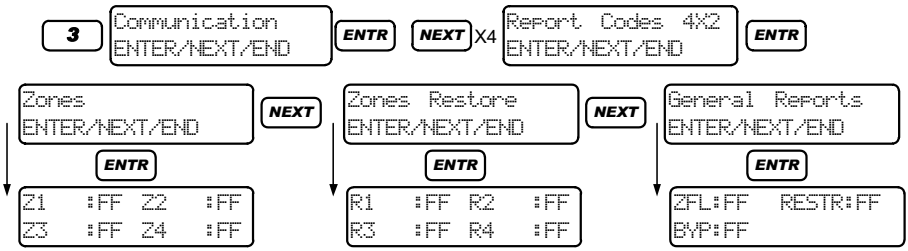
6.5.4.3 PGN: reporting channels

Set to "+" the panel's main reporting channel: PSTN, GSM or Ethernet.

Par.	Channel
P	PSTN
G	GSM
N	Ethernet

If the panel cannot report via the main channel, it tries in any way to report via the other two, while continuing to try via the first one, until it succeeds.

6.5.5 Reporting codes in 4X2 format



The reporting codes are hexadecimal numbers (0-9, A-F).

The restore code is displayed as "RX".

The default ContactID© or PAF & NPAF code for all the zones is "FF".

To report a ContactID© code different than the default one, the default code needs to be converted to hex. To do so:

1. Subtract 100 from the ContactID event number;
2. Convert the result to hex number;

For example, "High Temperature" is ContactID© event #158; subtracting 100 from 158 makes 58; converted to hex it is '3A'.

Press [NEXT] to advance, [BACK] to move back, [*] to enter letters, the digits keys, [ENTR] to save, and proceed to the next screen.

When using the ContactID protocol, the Restore and Alarm codes must be the same!

6.5.5.1 The codes

Code	Details
Z1 ,Z2 … ,ZX	Zone alarm
R1 ,R2 … ,RX	Zone restore. This report is sent at the end of the siren time, or when the control panel is disarmed immediately after alarm
ZFL + RESTR	Zone fault in End Of Line loop + the restore
BYP	Zone bypassed
TM1, TM2 + RESTR	TMPR1 / 2 alarm + the restore
AC + RESTR	AC fault + the restore
LB + RESTR	Low battery + the restore
PF + RESTR	Power failure: PCB voltage is lower than 9v + the restore Low card voltage indicates both AC failure and low battery
PHN + RESTR	Telephone line fault + the restore
PNC	Panic alarm
ICODE	Incorrect code entered

Code	Details
FUS + RESTR	Fail unsafe: detectors' voltage fault + the restore
ARM	System has been armed
DISAR	System has been disarmed
TST	System has been tested (manually, automatically, or "wake-up").

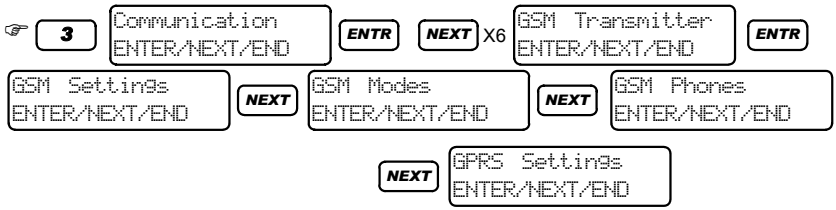
6.5.6 GSM Transmitter

The following menus are available only if the "Enhanced Menu" is enabled (see section 6.5.12).

Configure the GSM-200 cellular transmitter.

To see the GSM-200 system version (and the SMS-100), press [ENTR] in the normal display, until it is displayed.

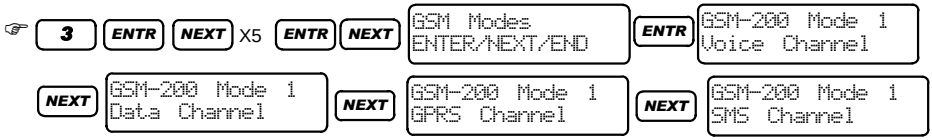
The GSM-200 and the SMS-100 modules cannot be installed in the same system



6.5.6.1 GSM Settings

Par.	Name	Enabling (setting to "+")
G	GSM TX Installed	The GSM-200 is connected
R	Use Radio ID Account	The radio account ID will be used for the GSM-200 reports
T	Auto Test Report	In addition to sending via the phone, auto test reports will be sent via the GSM-200.
Y	GPRS Encryption	The information sent via the GSM-200 will be encrypted and sent via the GPRS mode
S	SMS Backup	When the GSM-200 fails to report via the GPRS, the panel sends the report via the first GSM phone number: "+": as an SMS message "-": via the voice channel

6.5.6.2 GSM Modes



The GSM-200 has two operation modes, for two Monitoring Stations: Mode 1 for MS #1 and Mode 2 for MS #2.

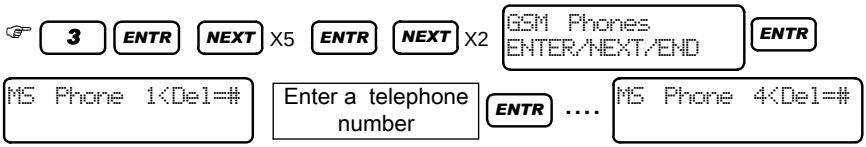
To set Mode 2, press [ENTR] in the required channel screen.

Each mode has 4 channels: Voice, Data, GPRS or SMS.

The Data channel can be used for the Comax application. To do so, the GSM-200 SIM card must support two channels.

If both Monitoring Stations use the GPRS, the Mode 2 will be used to report to Monitoring Station #2.

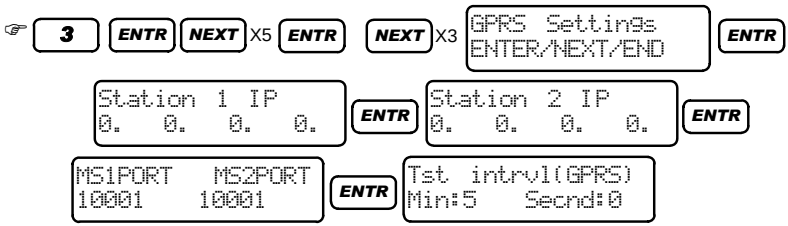
6.5.6.3 GSM Phones



Set the Monitoring Stations' up to 4 GSM phone numbers.

When "Split account number" is enabled (see section 6.5.4), phone numbers #1 & #2 will be Monitoring Station #1 numbers; phone numbers #3, #4 will be Monitoring Station #2 numbers.

6.5.6.4 GPRS Settings



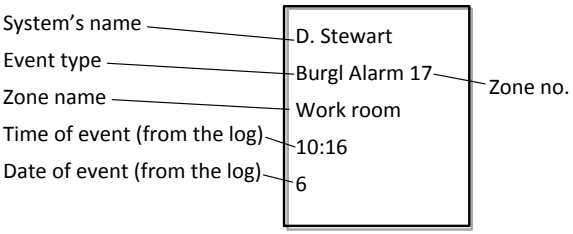
Set the GPRS channel parameters.

The parameters are: the Monitoring Station's IP no., port no. and test interval.

6.5.7 SMS Settings

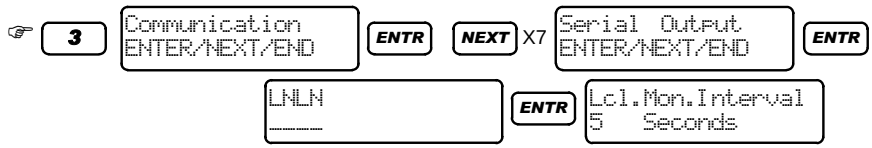
Set a fixed text for the SMS reports. The text can be the customer's name, for example. "Alarm System" is the default name.

6.5.7.1 A demo SMS message



For further SMS instructions, refer to section 6.6.3.

6.5.8 Serial Output



Set the serial communication to the Central Monitoring Station.

PIMA proprietary protocol can be used for Home Automation and Building Management monitoring.

Par.	Name	Set to "+" if..
L	Home Automat. 1	MS1 uses Home Automation or Building Management protocol
N	Network MS	MS1 uses PIMA's proprietary protocol
L	Home Automat. 2	MS2 uses Home Automation or Building Management protocol
N	Network MS	MS2 uses PIMA's proprietary protocol

6.5.8.1 Local monitoring interval

- Set an interval for the local monitoring test reports.

6.5.8.2 Example A for using the SERIAL output

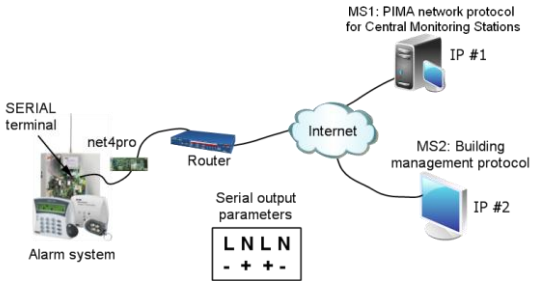


Diagram 32. Serial output – example A

In this example, Central Monitoring Station #2 can be located anywhere. Reports to Central Monitoring Station #1 (IP #1) are sent over IP in PIMA network protocol for central station; reports to Central Station #2 (IP #2) are sent the same way, but in Building Management/Home Automation protocol. Both IPs are forwarded by default to port #10001.

If the Central Station management application supports it, both Central Stations #1 & #2 applications can be installed on the same PC: the applications must be able to receive events through 2 different ports, using the same IP.

6.5.8.3 Example B for configuring the SERIAL output

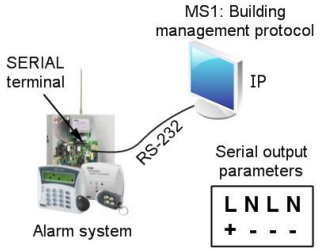
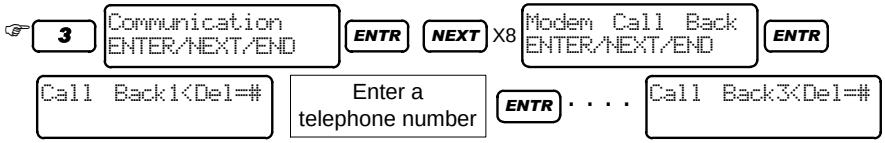


Diagram 33. Serial output - example B

In this example, Central Monitoring Station #1 management application is installed locally and connects directly to the SERIAL terminal, using RS-232 cable

6.5.9 Modem Call Back

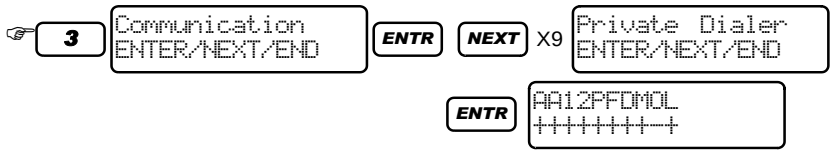


Set the modem callback phone numbers.

Up to 3 numbers can be used.

When call back number #1 is set, in any attempt to call the panel it will disconnect the call and call back to the selected number. This is yet another measurement to protect the system from unauthorized access.

6.5.10 Private Dialer



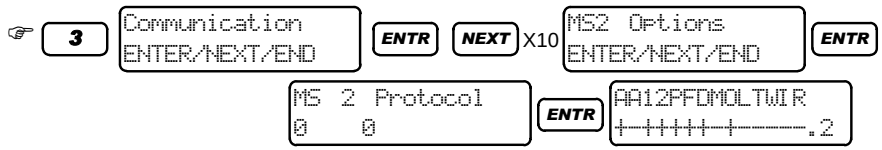
Set which events will be reported to the end user via the phone.

At least one telephone number must be set in the User menu.

Par.	Report
A	Any alarm
A	Anti-mask alarms
1	Special Burglary 1 alarms
2	Special Burglary 2 alarms
P	Panic alarms
F	Fire alarms
D	Duress alarms
M	Medical alarms
O	Open/Close*
L	Failure reports

* This parameter is in use only for SMS reports: when it is enabled, arming/disarming by any code other than a user code - Master, Short, etc. - is reported via SMS (SMS reports are set in the user code menu).

6.5.11 MS2 Options1



6.5.11.1 Protocol

Set the PSTN protocol for Monitoring Station #2.

By setting this protocol the panel is configured to "Double report" option.

To use 2 different accounts, each for a different Monitoring Station, set to "+" the "S - Split Account no." parameter in "Communication Options" menu (see section 6.5). In this case, Account #1 will be reported to MS1 and Account #2 to MS2.

Protocol (0 0) signifies that "Double Report" is not in use.

6.5.11.2 Reporting parameters

All parameters, accept for the radio ('R'), are similar to those of Monitoring Station 1; see section 6.5.1.

Reporting to MS2 via the Radio is not possible.

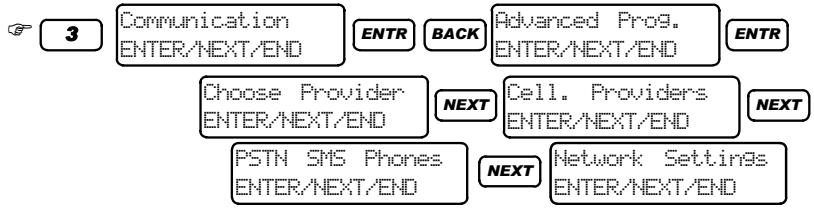
6.5.12 Enhanced Menu

Enhanced menu contains a collection of some menus, that require professional knowledge in communication protocols.

To enable the enhanced menu, set to "+" the parameter "P - Enhanced Menu" in the "General Parameters" menu (see section 6.8.1). To temporarily enable it press [*] for 2 seconds in the first "Communication" (#3) menu screen.

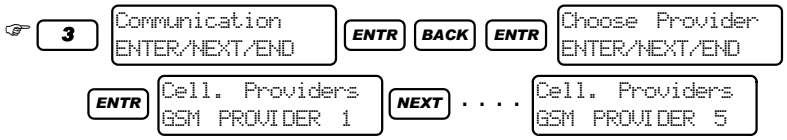
1 If this screen is not seen, press [*] in the "Communication" menu main screen.

6.6 Advanced Programming



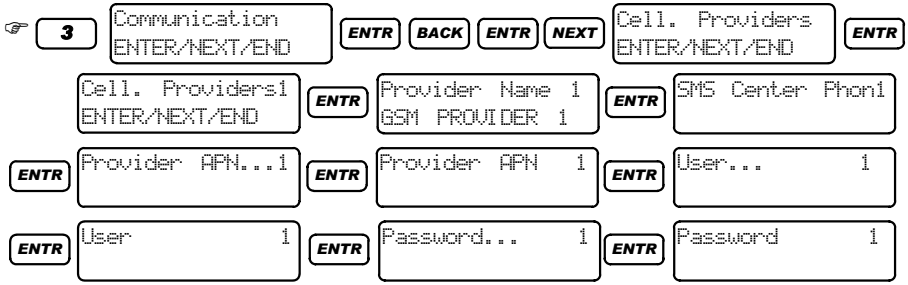
The advanced programming menu contains the programming of the cellular providers, the SMS settings and the network settings.

6.6.1 Selecting the GSM provider



Select the cellular provider. This will conjunct with the provider's parameters on the next menu. Up to 5 providers can be used. The panel may be pre-programmed with some local providers. The information should be provided by the cellular provider.

6.6.2 The provider's settings



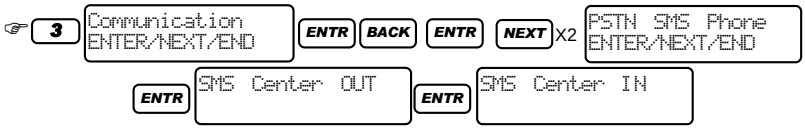
The provider's parameters are:

Screen	Provider X information
Provider Name 1	Free text
SMS center phone 1	SMS center telephone #1. Enter a number only if the number is different from the one on the SIM card.
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 screen.
Provider APN 1	Continue from previous screen

Screen	Provider X information
User… 1	Enter the username for the service. If the text is longer than 16 characters, press [ENTR] and continue to the next screen.
User 1	Continue from previous screen
Password… 1	Enter the password for the service. If the text is longer than 16 characters, press [ENTR] and continue to the next screen
Password 1	Continue from previous screen

To set another provider, press [NEXT] in the "Cell. Providers1" screen.

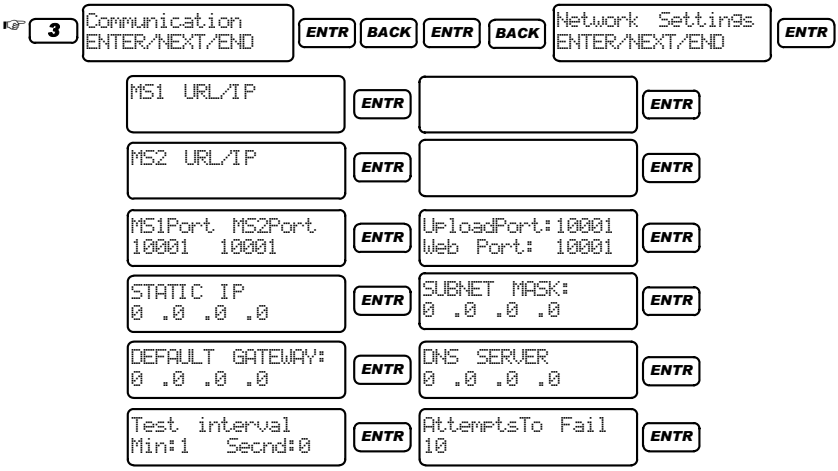
6.6.3 The PSTN SMS center phones



Set the details for the SMS-100 PSTN module.

Par.	Description
OUT	PSTN SMS center phone no.
IN	Not in use

6.6.4 Network Settings



Set the parameters for the IP communication.

The IP no. can be static (fixed) or dynamic (DHCP).

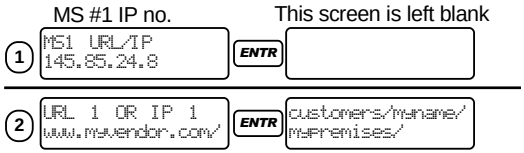
When using net4pro-i (P/N 6247001), the URL/IP screens must be left blank!

For static IP, fill in the address. To use DHCP, leave the static IP's zeros. The panel will ignore the 3 following screens.

MS1 & 2 URL/IP and Port screens are mandatory, both when using static or dynamic IP. See the next table for further details.

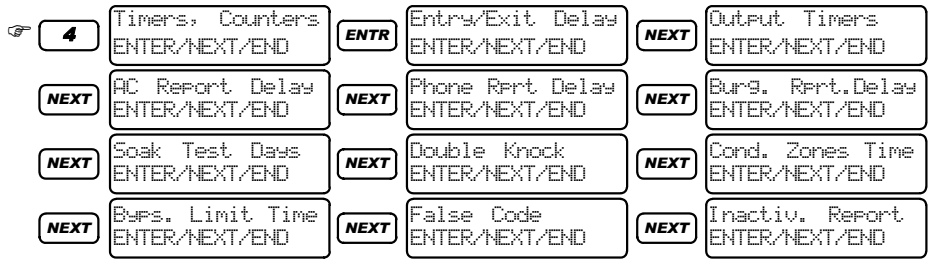
Screen	Data to enter
URL or IP	The MS IP address or URL. If the text is longer than 16 characters, press [ENTR] and continue to the next screen. Up to 47 characters, including spaces can be used.
MS1/2 port	The NETsoft/PIMAnet application port numbers
Upload port	To be used with the Comax application
Web port	For future use
Static IP	The net4pro fixed (static) IP address
Default gateway	The gateway's IP address
DNS server	The DNS server address
Test Interval	The time in minutes and seconds
Attempts to Fail	The number of attempts (max. 250) to connect with the Monitoring Station, before "comm. error" is displayed.

Example: entering IP no. or URL



MS #1 URL. The address is entered under the restriction of 16 characters per line (and 47 in all) and continue to the next screen (after pressing [ENTR])

6.7 KEY #4: Timers, Counters



Set the panel's timers.

Press [ENTR] in each screen to set the timer.

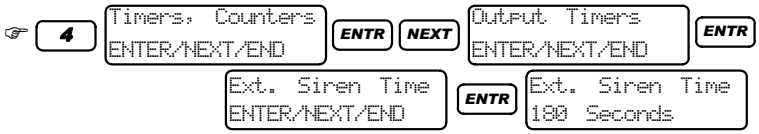
6.7.1 Entry & Exit delay

Set the entry delays #1 and #2 and the exit delay in seconds (max. 250).

Press [NEXT] to set the next parameter.

To use entry delay #2, refer to section 6.4.1, parameter 'T'.

6.7.2 Output types timers



Set the timers of the output types. Because output types trigger the PCB outputs, some of these timers also set the physical output's tripping time.

The timer options are listed in the next table:

Time (in sec.)	The output type is activated...
0	Until the panel is disarmed
1-9998	For this time
9999	For as long as the event that triggered it is alive. For example, when the programming of a telephone line failure is to trigger a relay, the relay will continuously be tripped until the line failure is fixed.

The following table lists the output types (see section 6.10.2) and their default timers.

Output type timers	Press [NEXT]	Timer (Sec.)
Ext. Siren	-	180
Int. Siren	X1	180
Burglary	X2	240
Anti-mask	X3	240
Special Burglary 1	X4	240
Special Burglary 2	X5	240
Smoke	X6	240
Fire	X7	240
Special Fire	X8	240
Panic	X9	240
Silent Panic	X10	240
Hold Up	X11	240
Medical	X12	240
Tamper	X13	240
Mains Fault	X14	9999
Low Battery	X15	9999
Phone Fault	X16	9999
Zone Tamper	X17	9999

Output type timers	Press [NEXT]	Timer (Sec.)
Zone Bypass	X18	9999
GSM Fault	X19	9999
Communication Fault	X20	9999
Tag Activation	X21	240
Door code	X22	5
W/L Remote	X23	5
Test	X24	5
Audio Device	X25	60
Remote control*	X26	60
Zone Open Hold**	X27	0 (min.)

* The time span that a physical output, triggered by phone (only in Hunter-pro Series), remains so.

** A timer that starts running when all the zones are closed. It can be used for energy saving, by turning off (using a Relay) the light, for example, when the premises is not occupied anymore.

6.7.3 AC report delay

Set the time (in minutes, max. 250) to delay AC failure reports.

The default is 15 min.

6.7.4 Phone report delay

Set the time (in minutes) to delay telephone line fault reports.

If the parameter "No Dia. tone chck" (section 6.5.4) is disabled, this parameter is negligible.

If the line is usually clear, leave the delay time as zero.

6.7.5 Burglary report delay

Set the time (in seconds. The default is zero) to delay reporting on violation of 24-hour zones, if occurred during the entry delay. The sirens will be sounding in anyway.

This delay is valid to all the burglary alarm types.

If the panel is disarmed while the timer is still running, the report will not be sent at all.

6.7.6 Soak test Days

Set the number of days (max. 7) a zone can be in soak (testing) mode (see section 6.14.4).

When the timer finishes, the zone is automatically reinstated.

If set to "0", the zone is automatically reinstated at midnight of the same day the test begun.

6.7.7 Double Knock

Set the time (in seconds) of the "Double Knock" feature, i.e. the time in which, if a zone was violated twice, it will sound the alarm. See also section 6.4.

6.7.8 Conditioned zones time

Set the time (in seconds) for two (or more) conditioned zones to sound the alarm, if both are violated within it. See also section 6.4.

6.7.9 Bypass Limit Time

Set a time span (in minutes, max. 250) for any zone to be temporarily bypassed (when arming the panel).

This is to protect the premises from burglary setup; when the timer stops running, the zone is automatically reinstated.

6.7.10 False code

Set the number of allowed keystrokes (default is 24, min. is 10, max. 250), when entering a code. When this number is exceeded, a report is sent to the Central Monitoring Station and the panel responds according to the programmed responses. See also section 6.8.3.

6.7.11 Inactivity report

Set a number of days (250 max, default is zero) that if the panel has not been armed within, the Central Monitoring Station is being reported.

6.8 KEY #5: General Parameters

☞ **5** | Gen. Parameters
ENTER/NEXT/END | **ENTR**

6.8.1 First screen

```
KD1E2EKAB2SMPZTF
--+-+----------+++
```

Par.	Name	Setting to "+"...
K	State Key Switch	(+) Toggle key (On/Off) (-) Momentary key
D	DC Siren	(+) The sirens are DC sirens (default) (-) The sirens are horn sirens
1	TAMPER 1 Connec.	TMPR #1 input is monitored
E	TAMPER 1 - EOL	TMPR #1 input is monitored with EOL resistor loop/s
2	TAMPER 2 Connec.	(+) TMPR #2 input is monitored (-) TMPR #2 input serves as an additional zone (#9). See section 3.7.1
E	TAMPER 2 - EOL	TMPR #2 input is monitored with EOL resistor loop/s
K	Key-> Home State	Triggering the onboard KEY input, arms the panel to 'HOME 1' mode
A	Automatic-> HOME	Automatic arming arms the panel to 'HOME 1' mode

Par.	Name	Setting to "+"...
B	Byps. Zone in Au.	Open zones are bypassed, when auto-arming. Nevertheless, a bypassed zone that is tripped, does trigger the alarm.
2	2 EOL Resistors	All EOL loops have 2 resistors. The resistors' value is set by the onboard jumper JP11.
S	Siren beep in ARM	The external siren beeps once when arming the panel, and twice, when disarming it with a key switch or remote control. See also parameter "O" in the next screen.
M	User Code-> Menu	(+) Entering a User code displays the user menu; (-) Entering a User code arms/disarms the panel (toggle mode);
P	Advanced Menu	The advanced communication screens are visible
Z	-	Not in use
T	Byps. Tmpr. in Arm	The panel can be armed with tamper alerts
F	Byps. Fail in Arm	The panel can be armed with fault alerts

Press [ENTR] to save and proceed to the next screen.

6.8.2 Second screen

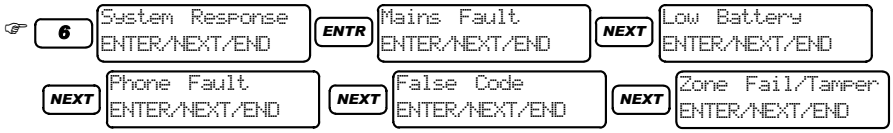
Par.	Name	When setting to "+"...
C	Light KP continu	The keypads illuminate (weakly) continuously
L	Light KP in Alrm	The keypads illuminate during alarms
D	Light KP in Dely	The keypads illuminate during the entry/exit delays
S	Buzzer In Alarm	The Keypads sound the buzzer during alarms
F	Enable Fast Arm	Arming using single long key press is enabled. ▪ [1] - to arm to full mode; ▪ [4] - to arm to "HOME 1" mode; ▪ [7] - to arm to "HOME 2" mode;
1	Cancel HOME1 Del	The entry delay is cancelled when arming to "HOME 1" mode
2	Cancel HOME2 Del	The entry delay is cancelled when arming to "HOME 2" mode
Z	Disp. Alrm in ON	When the panel is armed, the keypads display violated zones. Recommended for control rooms.
E	EN-50131	Not in use
R	Retrigger Opn.Zn	Violated zones will be re-triggered and re-reported, until they are closed or the panel is disarmed. See also parameter "B" in section 6.4.2

Par.	Name	When setting to "+"...
P	Disp. Armed Part	• (+) Armed partitions are displayed in the Scan Open Zone displaying mode (together with any other information). • (-) Armed partitions are not displayed, but can be momentarily displayed by pressing [#] in the Scan Open Zone displaying mode only.
F	Final door	When the final delayed zone is closed, the exit delay terminates.
C	Full remote cont	• (+) Full remote control mode B is enabled; • (-) Mode A of the remote control is enabled. See section 7.2
J	Report W/L Jamm.	Wireless jamming is reported
A	Part. AutoArming	Inactivity auto-arming is enabled per partition
O	Beep in Disarm	The sirens beep once when the panel is disarmed via a keypad

6.8.3 Third screen

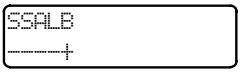
Par.	Name	Setting to '+' means:
S	DC siren EOL	The siren (DC only) loops are protected by EOL resistors. The protection type varies according to the system status: • System is disarmed: monitoring cut; • System is armed: monitoring short.
K	Not in use	-

6.9 KEY #6: System Responses



Set the panel's responses to 5 events: mains fault, low battery, phone line fault, false code and zone failure/tampering.

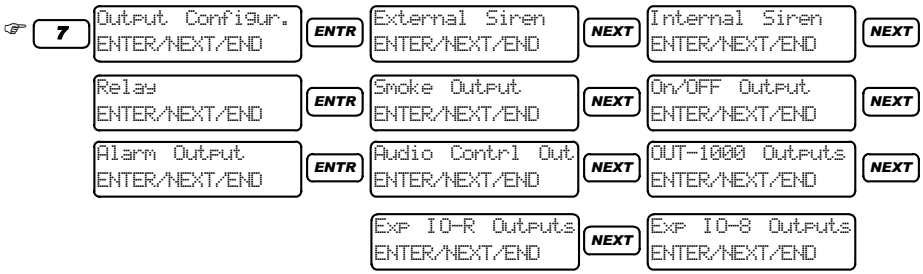
In each screen, press [ENTR] to display the next parameters screen:



Par.	Response	When setting to "+" ...
S	Activate Siren	(+) When the panel is armed, alarms activate the sirens (-) When the panel is disarmed, alarms activate the internal siren only
S	Ext. SRN in OFF	When the panel is disarmed, alarms activate the external siren

Par.	Response	When setting to "+" ...
A	Act. Burgl Output	Alarms activate the Burglary output type
L	No Daytime MS	The panel does not report the Monitoring Station when it is disarmed
B	Activate Buzzer	Alarms activate the keypad buzzer

6.10 KEY #7: Outputs configuration



Set which output type will trigger the PCB or expanders' outputs.

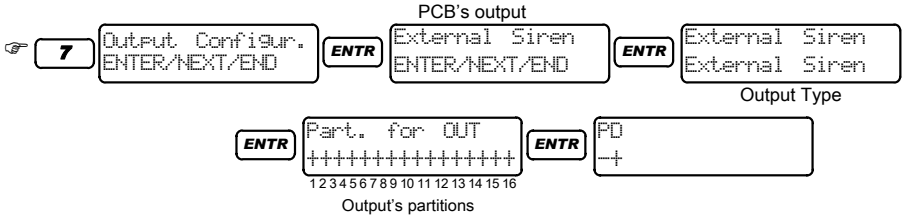
The panel: has 7 onboard outputs: Ext. & Int. SIRENS, SMOKE, RELAY, ON/OFF, ALRM, Audio Ctrl.

Expansion cards: the OUT-1000 has 8 transistor outputs; the I/O-R have 8 relay outputs; the I/O-8N and the I/O-16 each have one output.

A physical output can be triggered by only a single output type, whereas a single output type can trigger as much as all the outputs.

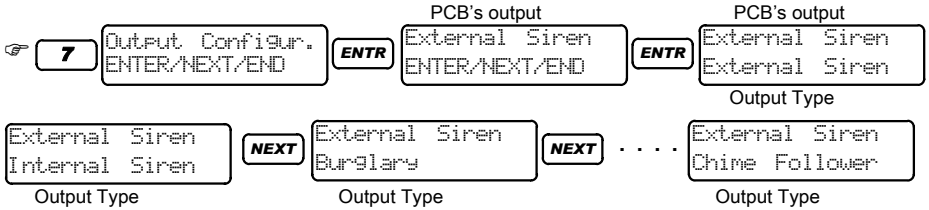
Outputs can be triggered per partition.

6.10.1 The physical outputs



For each physical output, set the output type that triggers it (see the next section), the partitions it is allocated to, its polarity and whether it is active when the panel is disarmed.

6.10.2 The output types



In this menu, the output type is allocated to one or more physical outputs, e.g., the "Panic" output type can be allocated to the Smoke and Alarm outputs in the panel. This means, that in the event of a panic alert, both the Smoke and the Alarm outputs are triggered.

Following, is a table of the output types and what triggers them.

Output type	**The triggering event**
External Siren	A zone that is set (in the "Zone Responses"; see section 6.4.2) to trigger the external siren, is violated.
Internal Siren	A zone that is set (in the "Zone Responses"; see section 6.4.2) to trigger the internal siren, is violated.
Burglary	A "Burglary" zone is violated
Anti Mask	An "Anti Mask" zone is violated
Special Burglary 1	A "Special Burglary 1" zone is violated
Special Burglary 2	A "Special Burglary 2" zone is violated
Burglary - All Types	"Burglary", or "Special Burglary 1" or "Special Burglary 2" zones are violated
Fire	A "Fire" zone is violated
Special Fire	A "Special Fire" zone is violated
Panic	A "Panic" zone is violated, or a Panic alert is received via the keypad (pressing together [*]+[#])
Silent Panic	A "Silent Panic" zone is violated
Hold-Up (Duress)	A "Duress/Hold-Up" zone is violated, or the Duress code was entered via the keypad
Medical	A "Medical" zone is violated
Alarms - All Types	Any type of alarm was activated
Audio Control	A zone that is set (in the "Zone Responses"; see section 6.4.2) to trigger an audio module, MIC-200 or VU-20U, is violated.
Zone Opened	One or more zones are violated
Zone Bypassed	One or more zones are bypassed
Smoke Detector Power	A smoke detector is reset
Tamper	One or more tamper switches are opened
Zone Tamper/fail	Short or cut in an EOL resistor loop or the keypad
Buzzer	The keypad buzzer (chime) is activated
Armed	The panel or a partition is being fully armed
Installer Programming	The Installer code is entered
General Fault	One or more faults, including communication and modules faults
MAINS Fault	Mains fault

Output type	The triggering event
Low Battery	Low battery fault
Phone Fault	Phone fault
GSM Fault	GSM fault
Communication Fault	Communication fault
Not In Use	-
Door Code	The Door code is entered
Wireless Remote	An output is activated by a remote control/key fob
Test	A test is being performed
Not In Use	-
Not In Use	-
Remote Control	An output is activated remotely via the telephone
Not In Use	-
Station ACK*	An ACK is received
Chime Follower	The keypad chime (buzzer) is activated

* "Station ACK" output type is used to indicate receiving an ACK;
* Upon receiving the ACK, the output that is triggered by the "Station ACK" output type is tripped for 10 seconds (not programmable).

6.10.3 Outputs partitions

Set to which partitions an output will be allocated to, i.e., which zones would be enabled to trigger this output (by the output types).

6.10.4 Polarity & activation when disarmed

Set the polarity of the outputs and whether they are active when the panel is disarmed.

Par.	Screen	The output is...
P	Polarity <+=Pos.	(+): constantly tripped; disconnects when triggered (-): tripped when triggered
D	Active in Disarm	(+): active when the panel is disarmed; (-): not active when the panel is disarmed; can be used for external siren output, for example.

6.10.5 'Ext. Siren' and 'Int. Siren' Outputs

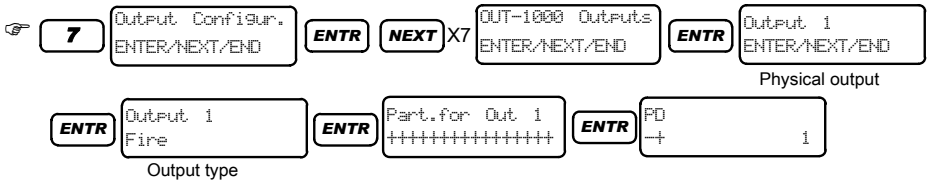
The 'Siren Ext.' external siren and 'Siren Int.' internal siren outputs supply high current to sirens. AC sirens must be connected only to these outputs.

The 'Ext. Siren' output cannot be triggered separately from the 'Int. Siren' output (but not vice versa); therefore, the external siren can be activated only when the internal one is.

It is recommended to allocate to the 'Ext. Siren' and 'Int. Siren' outputs the same output types.

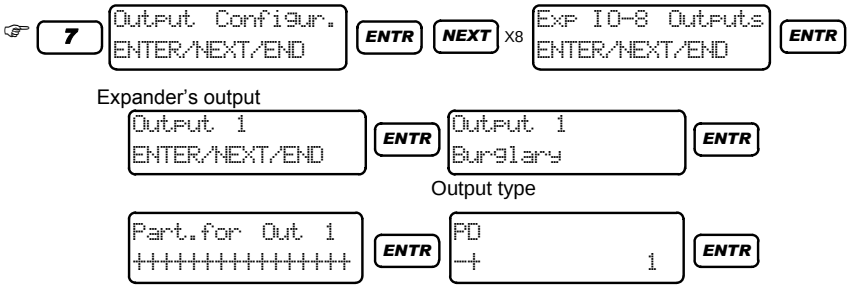
6.10.6 Outputs on expanders

6.10.6.1 OUT-1000



Configure the OUT-1000 (8 output expansion card) outputs. The screens are the same as those of the PCB outputs.

6.10.6.2 I/O-8N & I-O/16 outputs



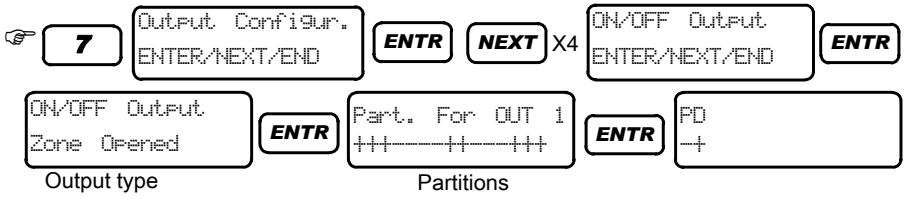
Configure the expansion card's outputs. Each I/O-8N output refers to the matching expander number, e.g., "Output 1" refers to I/O-8N #1.

For the I/O-16, set an output but skip the next one (each two output numbers are reserved for the same I/O-16).

1. Pick the first output.
2. Press [NEXT] to the other outputs.
3. Set the output type to trigger it.
4. Set the partitions that would be enabled to trigger it and the polarity and active in disarm status. See section 6.10.4.

6.10.6.3 Examples

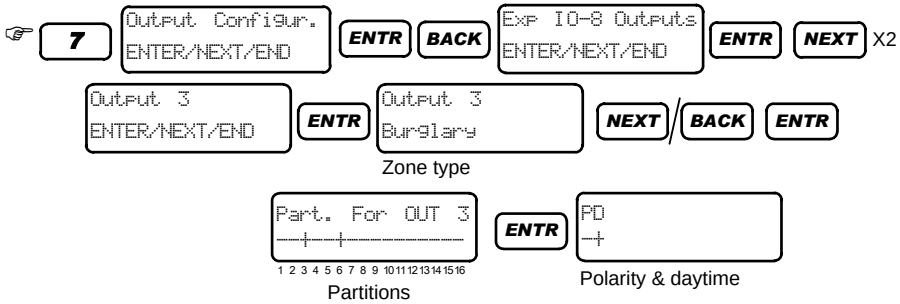
1. Programming the ON/OFF output:



The procedure is as follows:

1. In the "Output Configuration" menu, press [NEXT] to the ON/OFF output screen;
2. Press [ENTR];
3. Press [NEXT] to select the triggering output type. In this example, the ON/OFF output will be tripped every time one of the zones (subject to the partitions, where relevant) is opened;
4. Press [ENTR];
5. Set to "+" the partition/s this output can be triggered from;
6. Press [ENTR];
7. Set the output polarity
8. Set the daytime feature;
9. Press [ENTR].

2. Programming output #3 in the I/O-8N expander:

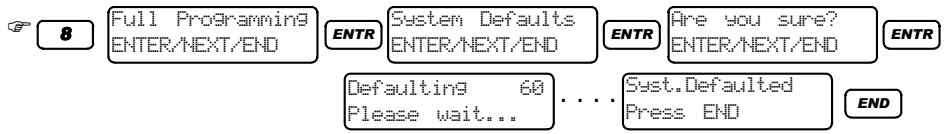


1. In the "Output Configuration" menu, press [BACK] to the "Exp IO-8 Outputs" screen;
2. Press [ENTR];
3. Press [NEXT] twice to "Output 3";
4. Press [ENTR];
5. Press [NEXT] or [BACK] to select the triggering output type. In this example, the I/O-8N's output #3 will be tripped every time a Burglary alarm is set off (subject to the partitions, where relevant);
6. Press [ENTR];
7. Set to "+" the partition/s this output can be triggered from;
8. Press [ENTR];
9. Set the polarity of the output and the daytime feature;
10. Press [ENTR].

6.11 KEY #8: Full programming

6.11.1 System defaults

Reset the panel to the factory defaults.



6.11.2 Local Download

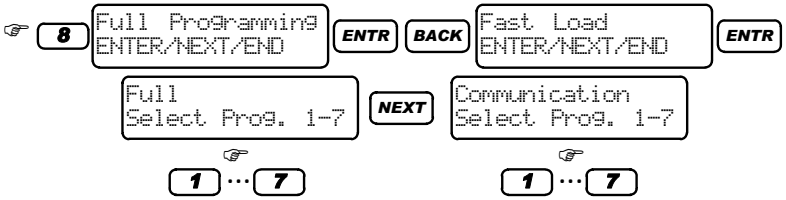
"Local Download" is used for uploading/downloading by the Comax application. See section 5.2 and the COMAX user guide for more details.

Pressing [ENTR] puts the panel on standby, waiting to receive data.

Immediately press the "Local" icon in the Comax.

Wait until "Connected" message is displayed in the Comax status bar and a beep is sounded. You can now start upload/download.

6.11.3 Fast Load



"Fast Load" is used with the PRG-896 fast programmer, for uploading presets to the panel and downloading the current panel configuration.

The fast programmer has 2 uploading options:

1. Upload any of the up to 7 presets of parameters.
2. Upload only the communication parameters.

Use the DPU adaptor to connect the PRG-896 to the Comax application.

6.12 KEY #9: Installer code

Set/change the Installer code.

The default Installer code must be replaced immediately after installation!

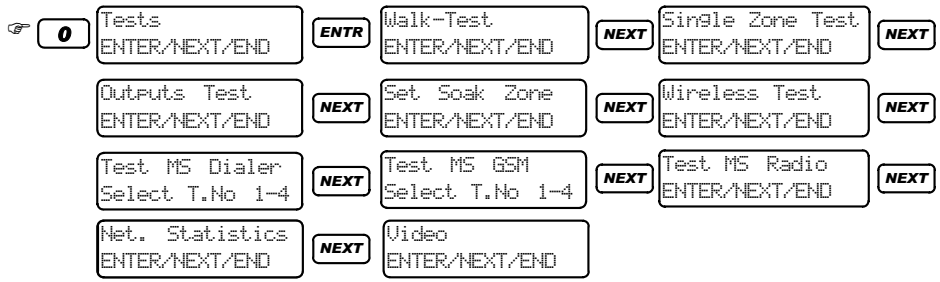
The code can have up 4 - 6 digits.

If the code starts with zero, it cannot be reset to default (1234), in case of power loss. This is a security measure. If it does happen, contact your dealer.

6.13 ASTERISK KEY *: Express programming

For details, refer to section 5.7.

6.14 KEY #0: Tests



Test the zones, the outputs, and the communication.

The tests are registered in the memory log.

6.14.1 Walk-Test

Test the zones. During the test, the number of tested zones out of the overall number of the zones is displayed.

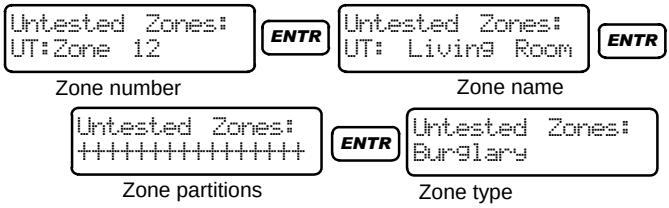
The keypad buzzer (chime) indicates every time a tested zone is opened.

To indicate by the sirens too, set to "+":

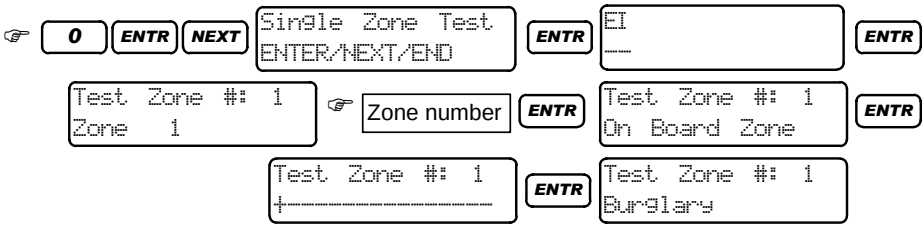
"E", for the external siren; the internal siren will be activated too.

"I", for the internal siren only.

If all zones were successfully tested: Untested Zones: / All Zones Tested. If not, the system displays the names of the zones not tested, in the following order:



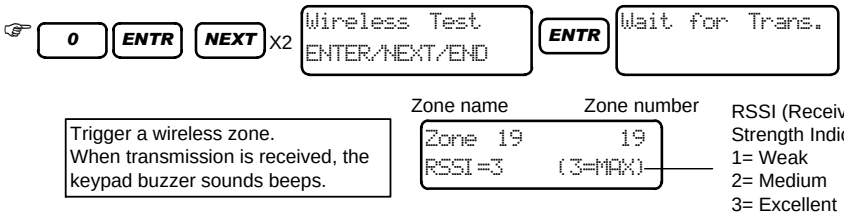
6.14.2 Single Zone Test



Press the desired zone number. The first 8 zones are the onboard outputs and are named "on board zone".

Pressing [ENTR] displays the zone's name and then its partitions and type.

6.14.3 Wireless Test



Testing a wireless zone is the same as testing any zone.

When a transmission from a wireless zone is received, its level (RSSI) is displayed (and the keypad buzzer beeps).

6.14.4 Set soak zones

A zone that is suspected in causing false alarms, can be tested, by setting it as a soak zone.

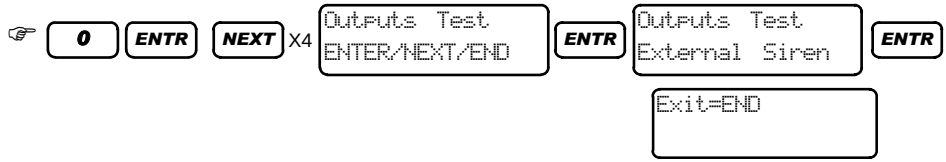
A soak test can last up to 7 days. To set the number of soak days, refer to section 6.7.6.

All alarms from a soaked zone neither sound the alarm, nor are reported to the Monitoring Station. However, they are logged.

When the soak test time is over, the zone is automatically reinstated.

To manually reinstate a soak zone, press [#] in the "Zone Number: X" screen.

6.14.5 Outputs Test



Test the panel's and the expander's outputs.

Pressing [ENTR] in any output screen, trips the output for 10 seconds.

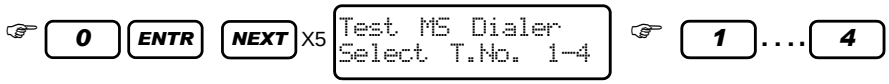
Pressing [END] stops the test.

In case of a fault, a successful test indicates that the fault is originated in wrong programming or communication failure, but not the output itself.

The outputs test screens are listed in the next table:

Output/Screen	**Key Presses**	**Notes**
External Siren	-	Also triggers the internal siren
Internal Siren	[NEXT]	
Relay	[NEXT] X2	
Smoke Output	[NEXT] X3	
ON/OFF Output	[NEXT] X4	
ALARM Output	[NEXT] X5	
Audio Contrl Out	[NEXT] X6	
OUT-1000 Outputs	[NEXT] X7	Press [ENTR] to select an output
Exp IO-R Outputs	[NEXT] X8	Press [ENTR] to select an output
Exp IO-8 Outputs	[NEXT] X9	Press [ENTR] to select an output

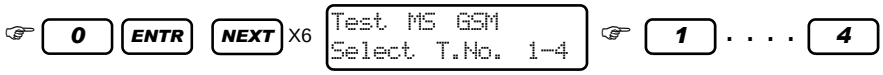
6.14.6 Monitoring Station's PSTN dialer test



Test the Monitoring Station's PSTN numbers: press [1] to dial to telephone #1; press [2] to dial to telephone #2, and so on.

If you press a number that is not programmed, an error message is displayed; press [END]. The telephone programming screen will automatically be displayed.

6.14.7 Monitoring Station's GSM dialer test



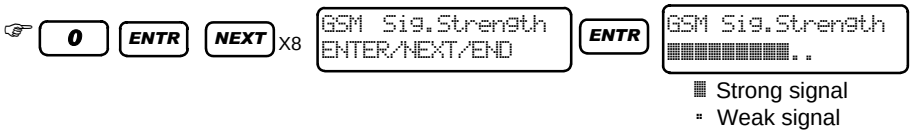
Test the Monitoring Station's GSM numbers. The test is similar to the PSTN test (see the previous section).

6.14.8 Radio MS Test

Test the communication to the Monitoring Station via the radio transmitter. Pressing [ENTR] initiates a test report.

No ACK can be received in this test.

6.14.9 GSM Signal Strength



Check the GSM signal strength. The signal is indicated by squares: if reception is lower than 8 squares, the GSM module needs to be relocated.

6.14.10 Network Statistics

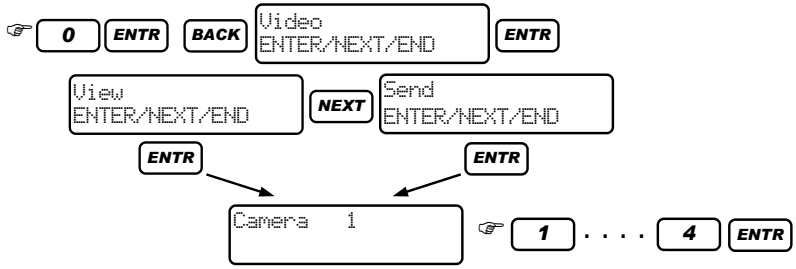
Check the network and GPRS statistics. The top line displays the PIMAnet information, and the bottom shows the GPRS'.

The numbers are the sent and received packets.

The connection is OK, when the 'L' and 'R' values in each line are equal or almost equal.

To reset the counters press [*].

6.14.11 Video

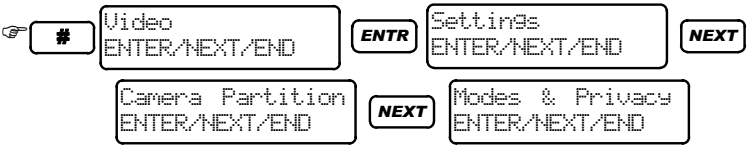


Test the video cameras. In the "View" menu, you can watch the video stream by a monitor or by the VVR video module's application. See the VVR Installation guide, P/N 4410302).

In the "Send" menu, you can send a video clip via email.

In both menus, click a camera number and [ENTR].

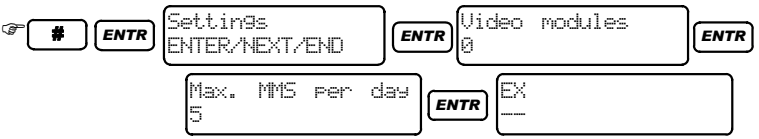
6.15 KEY #: Video



Configure PIMA's Video Verification Reporter, the VVR.

This menu includes 3 sub-menus: Video settings, Camera partition and Modes & Privacy.

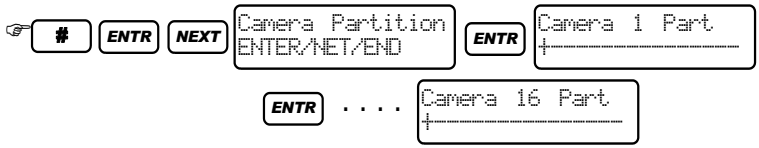
6.15.1 Settings



Par./Screen	Description
Video modules	Set the number of VVR modules. The limit is: • 4 modules in Hunter-Pro 896/8144; • 2 modules in Hunter-Pro 832.
Max. MMS per day	Not in use
E	Opening a delayed zone triggers the VVR to record a clip[1]
X	Not in use

1 Requires an SD card (not supplies by PIMA).

6.15.2 Camera partitions



Allocate the cameras to partitions, so only some zones can trigger them. With regard to privacy, partitions can be used to limit zones and users from watching the video stream.

For each camera, press [ENTR] and set to "+" the allocated partitions.

6.15.3 Modes & Privacy

Configure the VVR's sending & recording limitations. These parameters set the privacy issue, i.e., the conditions in which the VVR can be used.

The parameters are set per camera, i.e., they refer only to the zones of the currently selected camera.

The parameters are set in refer to the system status;

The parameters are divided into 3 groups:

- SN12: for sending and recording clips;
- RN12: for recording clips;
- VN12: for viewing the online stream;

Note, that sending a clip is always accompanied by recording it too. Therefore, when you enable (set to "+") any of sending parameters ("SN12"), DO NOT set the matching one in the recording parameters ("RN12"), e.g., if "N" in "SN12" is set to "+", make sure "N" in "RN12" is set to "-".

Par.	Command	Description
S	Send in disarm	When the panel is disarmed, the VVR is triggered to send (and record) clips, by the violation of 24-hour zones.
N	Send in full arm	When the panel is fully armed, the VVR is triggered to send (and record) clips, by the violation of any zone.
1	Send in Home 1	When the panel is armed to "Home 1" partial arming mode, the VVR is triggered to send (and record) clips, by the violation of any armed zone.
2	Send in Home 2	When the panel is armed to "Home 2" partial arming mode, the VVR is triggered to send (and record) clips, by the violation of any armed zone.
R	Record in disarm	When the panel is disarmed, the VVR is triggered to record clips, by the violation of any zone. **This feature can be used similar to a DVR.**
N	Record in full arm	When the panel is fully armed, the VVR is triggered to record clips, by the violation of any zone.

Par.	Command	Description
1	Record in Home 1	When the panel is armed to "Home 1" partial arming mode, the VVR is triggered to record clips, by the violation of any armed zone.
2	Record in Home 2	When the panel is armed to "Home 2" partial arming mode, the VVR is triggered to record clips, by the violation of any armed zone.
V	View in disarm	When the panel is disarmed, viewing the video stream is enabled. **Privacy should be carefully considered in this parameter**.
N	View in full arm	When the panel is fully armed, viewing the video stream is enabled.
1	View in Home 1	When the panel is armed to "Home 1" partial arming mode, viewing the video stream is enabled.
2	View in Home 2	When the panel is armed to "Home 2" partial arming mode, viewing the video stream is enabled.

CH. 7. REMOTE CONTROL VIA TOUCH-TONE TELEPHONE

The Hunter-Pro Series models can be remotely controlled via a touch-tone or cellular telephone.

A remote control call can be initiated both by calling the panel or receiving a call from the panel.

The panel can be remotely controlled in one of 2 modes:

- Basic control mode: basic operations, including arming and disarming. That's the default mode;
- Full control mode: all the basic operations and in addition, triggering the outputs.

7.1 Basic control mode

Basic mode is the default mode. It includes operations such as arming and disarming the panel to full and partial modes, and some more operations. To control the panel in basic mode:

1. Dial the panel's telephone number (or pick a call from the panel);
2. Wait for a confirmation tone: a long tone followed by 2 beeps;
3. Dial the panel's Master code;
4. Wait for a status tone:

   Continuous: The panel is disarmed;

   Beeps: The panel is armed;

The panel does not respond to commands while sounding the confirmation tone. Therefore, it is important to wait until the confirmation tone is over before pressing any telephone key.

5. Press a key according to the next table. The panel confirms every command by 2 beeps.

key	Command
⓪	Stop the external siren and the dialer
①	Arm the panel
②	Disarm the panel
④	Arm the panel to 'Home 1' partial arming mode
⑤	Trigger the onboard relay output
⑥	Stop triggering the onboard relay output
⑦	Arm the panel to 'Home 2' partial arming mode
⑧	Listen in for one minute (available only with MIC-200). Press again as required, to extend listen in time in one minute.

6. While the panel is engaged in remote control call, the following message is displayed on all the keypads: "Other keypad in use".
7. If no command is received for 60 seconds, the panel disconnects the call. It remains in standby mode (displaying "Other keypad in use") for another 60 seconds.

7.1.1 Example for basic mode

Arming the panel

Dial the panel's phone number → the panel picks up the call → wait for the confirmation tone to end → dial the Master code → wait for command confirmation tone to end → dial [1].

7.2 Full control mode

To enable the full mode, set to "+" parameter "C" ("Full Remote Ctrl") in "General Parameters" menu, section 6.8.2.

To control the panel in full mode:

1. Repeat steps 1-4 in the basic mode to contact the panel.
2. To trigger an output, press [*] and the corresponding command, as listed in the following tables.
3. To deactivate an output, press [#] and the corresponding command from the following tables.

General Commands	
Dial	**Command**
∗**00**	Turn off the external siren and stop the dialer
∗**01**	Arm the system
#01	Disarm the system
∗**04**	Arm to 'Home 1'
∗**07**	Arm to 'Home 2'
∗**08**	Start listening-in

PCB Outputs	
Dial	**Command**
11	Ext. SIREN
12	Int. SIREN
13	RELAY
14	SMOKE
15	ON/OFF
16	ALARM
17	Audio Ctrl

OUT-1000	
Dial	**Output**
21	#1
22	#2
23	#3
24	#4
25	#5
26	#6
27	#7
28	#8

Relays on I/O-8N Expanders					
Dial	**I/O-8N**	**Dial**	**I/O-8N**	**Dial**	**I/O-8N**
31	#1	**37**	#7	**43**	#13
32	#2	**38**	#8	**44**	#14
33	#3	**39**	#9	**45**	#15
34	#4	**40**	#10	**46**	#16
35	#5	**41**	#11		
36	#6	**42**	#12		

I/O-R expander #1				I/O-R expander #2			
Dial	**Relay**	**Dial**	**Relay**	**Dial**	**Relay**	**Dial**	**Relay**
51	#1	**55**	#5	**59**	#1	**63**	#5
52	#2	**56**	#6	**60**	#2	**64**	#6
53	#3	**57**	#7	**61**	#3	**65**	#7
54	#4	**58**	#8	**62**	#4	**66**	#8
I/O-R expander #3				**I/O-R expander #4**			
Dial	**Relay**	**Dial**	**Relay**	**Dial**	**Relay**	**Dial**	**Relay**
67	#1	**71**	#5	**75**	#1	**79**	#5
68	#2	**72**	#6	**76**	#2	**80**	#6
69	#3	**73**	#7	**77**	#3	**81**	#7
70	#4	**74**	#8	**78**	#4	**82**	#8

Send system status via SMS to the private dialer			
Dial	**Phone**	**Dial**	**Phone**
91	#1	**93**	# 3
92	#2	**94**	# 4

7.2.1 Examples of Full control mode

Activate the 'Ext. SIREN' output:
Dial the panel's phone number → the panel picks up the call → wait for the confirmation tone to end → dial the Master code → wait for command confirmation tone to end → dial ∗11

Deactivate relay#2 on I/O-R #2:
Dial the panel's phone number → the panel picks up the call → wait for the confirmation tone to end → dial the Master code → wait for command confirmation tone to end → dial #60

CH. 8. PARTITIONS

A partition (or "sub-system") is an area made of several zones that can be armed, while other zones are not. In this way, only those zones that are part of the armed partition/s will activate the alarm when they are opened; zones outside those partitions can be occupied at the same time.

There can be up to 16 partitions in Hunter-Pro Series.

In addition to zone partitions, PIMA's systems provide keypad partitions as well: monitored (addressable) keypads can be assigned to partitions and control (or display information about) only zones that are part of these partitions.

Using partitions the alarm system can be split to 8 separate sub-systems including sirens in Hunter-Pro systems.

Users can be limited to some partitions, i.e., being enable to arm & disarm only some zones.

8.1 Examples

Example A: private premises, single keypad

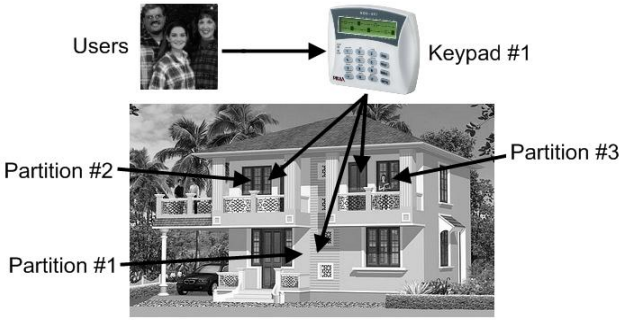


Diagram 34. Implementing partitions - Example A[1]

In this example, a single keypad, Keypad #1, controls all 3 of the premises partitions; the users are all assigned to all 3 partitions and can therefore control them all.

A user can control several partitions using a single code.

1 Published under 'Creative Commons' license (source: http://www.flickr.com/photos/axiomestates/3081558445/)

Example B: private premises, 3 keypads

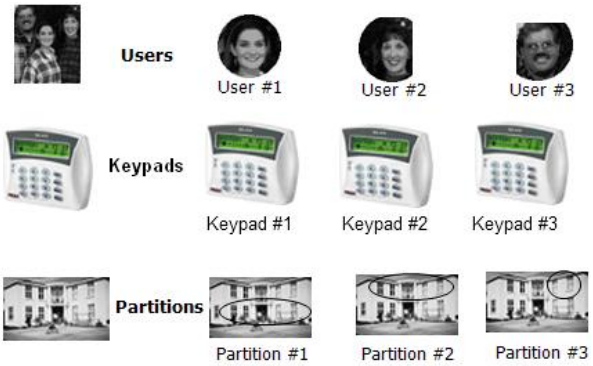


Diagram 35. Implementing partitions - Example B

The system is divided into partitions, each controlled by a separate keypad. The users have authorization levels based on partition/s, e.g., user 12 can only control Partition #3 & #14.

Every keypad displays the status of its assigned partitions only.

Example C: variable options[1]

Diagram 36. Implementing partitions - Example C

In a 3 floors building, the first floor is defined as Partition #1, the second as Partition #2 and the third as Partition #3. There are 3 users and 3 keypads, with different authorization levels:

- User #2 is authorized to use only Keypad #2 which controls and displays all 3 partitions;
- User #3 is authorized to use only keypad #3 which controls and displays partition #3 only;

1 Published under 'Creative Commons' license (source: http://awkwardfamilyphotos.com/wp-content/uploads/2009/07/shari-awkward-plaid-family-photo.jpg)

Example D: office compound

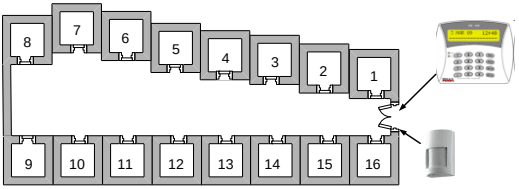


Diagram 37. Implementing partitions - Example D

A compound is made of 16 offices; each is located in a separate room. Each room is assigned as a partition and can be controlled by different users, remote controls, key switches and RFID tags.

The single keypad in this example will display the status of all partitions, though the users will only be able to control their authorized partition/s.

A detector located at the entrance and allocated to all partitions protects the entrance, as soon as all partitions are armed. This detector will be disarmed as soon as the first partition is disarmed.

Example E: business installation

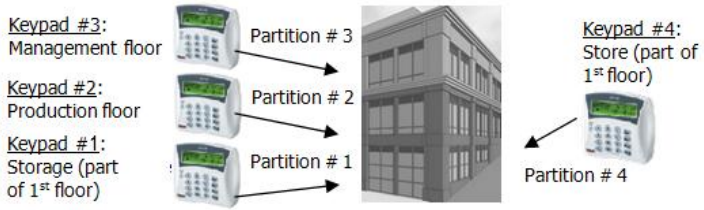
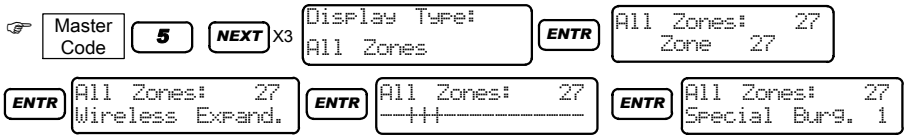


Diagram 38. Common application of partitions

The headquarters of a company is divided into 4 departments: each has its own keypad, employees, working hours, etc. The employees (i.e. users) can have access only to their department/partition, or to several.

8.1 Locating an Expander's Zone

- The "All Zones" display type (selected in the User menu) gives detailed information on every zone and enables the installer to quickly locate it. For example, zone #27 is a wireless "Special Burglary 1" zone, that is allocated to 3 partitions.



CH. 9. TROUBLESHOOTING

This chapter describes failures displayed on the keypad, various problems that may be encountered due to improper programming, and options for troubleshooting failures that might occur due to incorrect installation and/or programming.

9.1 Restoring the master & installer Codes

In case both these codes are not available:

1. Disconnect mains
2. Disconnect the battery
3. Wait 10 seconds and reconnect the battery
4. Wait for "Clock Not Set" to be displayed
5. Enter 5555 (default master code)
6. Press [9] and enter the new Master code (4-6 digits) and press [ENTR]
7. Press [END] to the main screen.
8. Press 1234 (default installer code) to enter the installer menu.
9. Press [9] and enter a new installer code (4-6 digits). Press [ENTR]
10. Connect mains.
11. Set time & date.

After connecting power, the system enables access to the menus using the default master code (5555) for 30 seconds only. If access does not occur during this time, the process needs to be repeated

The process is also useful for Installer code (Default code 1234), with the exception of a code that begins with zero. In this case the code cannot be reset and you need to call PIMA support

9.2 Faults Displayed on the LCD Keypad

In case a fault occurs, the red fault LED on the keypad flashes. The description of the fault appears on the first line of the LCD Keypad at the right side. The faults are:

Fault	**Description & Repair**
Clock Not Set	Appears on first operation and when reconnecting after power/battery failure. Set time & date
Low Battery	1. Make sure the battery fuse is intact. 2. Check battery charge voltage. 3. Wait 24 hours for recharging and recheck. 4. If the message stays on, replace battery.
Low Voltage	Low PCB DC charge. Mostly occurs after long mains power failure that causes the battery to get drained. Programming is unavailable when this fault occurs. To repair: connect to mains and replace battery if required.
Mains Fault	No mains power. If other appliances around are on, check the system's electric socket and fuse. If ok connect mains and the PCB AC fuse
TAMPER 1	Tamper 1 is open
TAMPER 2	Tamper 2 is open

Fault	Description & Repair
Zone Fault	1. F - Cut, S - Short (in EOL circuits). In fast display mode: FL- Cut, SH- Short 2. In wireless zones: detector's tamper is open
KEYPAD NOT CONNECTED	No communication between the keypad and the PCB. Check the following: 1. Disconnection between PCB's "OUT" and keypad. 2. Keypad's voltage supply is lower than 13V (Verify that no more than 8 keypads are connected) 3. Keypad fault - replace it 4. PCB fault - replace it
Phone Line Fault	The system does not indicate any dial tone. The system checks the phone line constantly.  To manually test the phone line, disconnect any appliance connected to it
Keypad X Fault	1. Check keypad X ID (if possible) 2. Check keypad X wiring 3. If ID and wiring is OK, disconnect the keypad and connect it as close as possible (50 cm max.) to the system box. If the keypad still out-of-order, consult PIMA support
Detec. Vol. Fault	Check for short in the detectors' wires
Expander X Fault	Expander's X comm. or vol. connection fault
Expander X Tamper	Expander's X tamper is open
Keypad X Tamper	Keypad's X tamper is open
Other Keypad in use	When more than one keypad is connected and one is being programmed, the others will have this message on screen. This message appears also when the system is being programmed from a different source such as remote programming via computer and telephone.
GSM-200 faults	
GSM Unit Fault	Connection problem or fault in GSM-200 receiver
GSM Comm. Fault	GSM-200 to MS1 connection problem
GSM Link Fault	Low reception or jamming in GSM channel
SIM Card Fault	No SIM card installed in GSM-200 or SIM card fault
GSM Com. Fault 2	GSM-200 to MS2 connection problem
 For further information on GSM-200 refer to the GSM-200 guide	
Communication faults	
W/L Unit Tamper	Wireless receiver's tamper is opened or out-of-order. Check that its cover is closed
 For further information on I/O-WN, refer to the I/O-WN guide	
Check Keypad number	Keypad's ID does not match the programmed no. of keypads

Fault	Description & Repair
MS. Com. Fault	Failure to communicate with the MS including in test mode. This fault appears if the HUNTER-PRO communicator cannot transfer reports to MS. Possible reasons are incompatible protocol or phone line failure. Check the following: • The telephone line is properly connected to the LINE terminal blocks. • In Communication menu (section. 5.4) the "P" for telephone is programmed with "+". • At least one MS telephone number is programmed. • Telephone account ID for MS is other than 0. • Comm. format is compatible with the one used in the MS. • Correct telephone numbers have been entered. • If the system is connected to an extension of a private switchboard a prefix has been programmed.
SMS Com. Failure	Communication failure between the system and the provider's SMS center
Install SMS Unit	SMS-100 unit is not installed
Network Fault	Communication failure between the system and the PIMAnet card.
IO-R X Fault	Fault in I/O-R relay expander
IO-R X Tamper	I/O-R tamper is open
IO-R X Voltage	Low voltage to I/O-R
Wireless Jamming	Radio channel is jammed
IO-8 X Voltage	Low voltage to I/O-8
Supervision:	Wireless detector ceased to send reports to the system
System Error	The EPROM version and the system's software version do not match. Contact PIMA support

If more than one fault occurs simultaneously they will be displayed one by one

9.3 Other faults

9.3.1 Communication

If a communication fault occurs, you can execute a telephone test and view the communication process onscreen: press [6] for 2 seconds and enter the Installer code. All the testing process will be displayed on the keypad.

9.3.2 Radio

Make sure that:

1. The system and the radio transmitter are correctly connected
2. The radio account number is other than '0'
3. The communication format is compatible with the one used in the MS
4. The transmitter's antenna is intact, not bended and is attached vertically
5. If the antenna is installed on a separate surface, check its wires

9.3.3 Dialer

Make sure that:

1. The telephone line is properly connected to the LINE terminal blocks.
2. At least one private telephone number is programmed.
3. Correct telephone numbers have been entered
4. In Communication menu the "P" for telephone is set to "+".
5. In Communication/Private Dialer menu the parameters are programmed.
6. If the system is connected to an extension of a private switchboard a prefix has been programmed.

Disarming immediately after alarm will stop the dialer. To test the dialer, arm the system and wait for dialing

9.3.4 Incoming calls

If the system does not receive calls, make sure that:

1. In Communication menu (section. 5.4) the "P" for telephone is set to "+".
2. The programmed number of rings exceeds its limit.
3. The telephone line is properly connected to the LINE terminal blocks.

9.3.5 Tamper

- TAMPER 1: Tamper 1 is triggered.
- TAMPER 2: Tamper 2 is triggered.

9.3.6 Auto-Arming & Auto-Arming per Partition

Make sure that:

1. Auto-arming start time is programmed (see the HUNTER-PRO Series User guide).
2. Auto-arming by inactivity time[1] per partition is programmed.
3. System time is correct.
4. The desired partition is programmed as so.

9.3.7 Violating a rone does not set off the alarm

Make sure that:

1. The zone is neither temporarily nor permanently bypassed.
2. The zone is programmed to the desired responses (sirens, relay, etc.)
3. The zone is programmed to only one partition.
4. The detectors are in order and installed correctly.
5. The zone sensitivity is correct.

[1] Inactivity time is the same for all partitions.

6. The zone conditioning is correct.
7. The zone number of pulses is correct.
8. The zone is not programmed as a soak zone.

9.4 Formats & Codes

9.4.1 Pulse (4-2)

Name	Rate (pps)	ACK (Hz)	Error Control	A	B
Ademco Slow	10	1400	Double Round	163	129
			Checksum	163	193
		2300	Double Round	163	145
			Checksum	163	209
Silent Knight Fast	14	1400	Double Round	171	129
			Checksum	171	193
		2300	Double Round	171	145
			Checksum	171	209
Franklin	20	1400	Double Round	209	129
			Checksum	209	193
Franklin	20	2300	Double Round	209	145
			Checksum	209	209
Universal High-Speed	20	2300	Double Round	83	145
Universal High-Speed	20	2300	Checksum	83	209
Radionics	40	1400	Double Round	121	129
			Checksum	121	193
Radionics	40	2300	Double Round	121	145
			Checksum	121	209

9.4.2 DTMF (4-2)

Name	ACK (Hz)	Error Control	A	B
DTMF	1400	Double Round	1	130
		Checksum	1	194
	2300	Double Round	1	146
		Checksum	1	210
Contact ID			0	230
PAF™	1400		0	5
	2300		0	21
NPAF™			Call PIMA support	
EPAF™				

CH. 10. SUPPLEMENTARY PRODUCTS FOR THE HUNTER-PRO SERIES

LCD Keypads

RXN-400 - Small LCD Display
RXN-410 - Large LCD Display
RXN-400 ACE – LCD Display
W/RFID Tag

Communication Modules

SMS-100 - SMS Generated Via PSTN
GSM-200 - GSM/GPRS Transmitter
net4pro (Network) – TCP/IP Module

Wireless Accessories

MCT-234 - Key Fob
MCT-201 WP – Panic Pendant
MCT-302 - Magnetic Contact
NEXT PIR MCW – Supervised PIR

Voice Accessories

VU-20N – Dual Voice Message module
MIC-200 - Microphone

Led Keypads

RXN-416 – For 16 Zones
RXN-9 – For 9 Zones

Special Keypads

Wireless Installer Keypad
RXN-200 - Anti-Vandal (IP65)

System Expanders

EXP-PRO UNIV – 8 Zones, Local
I/O-8N – 8 Zones, Remote
I/O-16 - 16 Zones, Remote
I/O-WN – 32 Ch. Wireless receiver
I/O-R – 8 Relays, Remote
OUT-1000 – 8 Open Collectors, Local
RD-200 - Standalone RFID reader

Programming Modules

LCL-11A – Serial Interface
PRG-896 – Fast Programmer

CH. 11. SYSTEM DEFAULTS

System

Service Provider Name	PIMA El. Systems
End of Service Date	00/00
Local Expander	☐
Zone Doubling	☐
I/O-W Expander	☐
Keyfobs Receiver	☐
WL Supervisor Time (hrs)	12
WL Supervisor Time (min)	0
Number of Keypads	0
Number of Expanders	0
Number of Relay Expanders	0

Keypad/Part.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Show Part Name
Keypad 1	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐
Keypad 2	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐
Keypad 3	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐
Keypad 4	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐
Keypad 5	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐
Keypad 6	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐
Keypad 7	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐
Keypad 8	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐

Response/s to Fault->	Mains Fault	Low Battery	Phone Fault	False Code	Zone, Tamper
Siren	☐	☐	☐	☐	☑
Ext. siren in Disarm	☐	☐	☐	☐	☑
Burglary Output	☐	☐	☐	☐	☐
No CMS Reporting When Disarm	☐	☐	☐	☐	☐
Buzzer	☑	☑	☑	☑	☑

Zones (1)

Zone	Zone Name	Zone Type	Bypass	N.O.	24 Hour	Home 1	Home 2	Entry Delay	Entry Follower	2nd Delay	E.O.L	Pair	D. Knock	Bypass Enabled	Chime	User Bypass	WL
01	Zone 1	Burglary	☐	☐	☐	☑	☑	☑	☐	☐	☑	☐	☐	☑	☐	☐	☐
02	Zone 2	Burglary	☐	☐	☐	☑	☑	☐	☑	☐	☑	☐	☐	☑	☐	☐	☐
03	Zone 3	Burglary	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐
04	Zone 4	Burglary	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐
05	Zone 5	Burglary	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐
06	Zone 6	Burglary	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐
07	Zone 7	Burglary	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐
08	Zone 8	Panic	☐	☐	☑	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐
09	Zone 9	Burglary	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐
10	Zone 10	Burglary	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐
29	Zone 29	Burglary	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐
30	Zone 30	Burglary	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐
31	Zone 31	Burglary	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐
32	Zone 32	Burglary	☐	☐	☐	☑	☑	☐	☐	☐	☑	☐	☐	☑	☐	☐	☐

Zones (2)

Type / Response	Sens.	Siren	Ext. Siren	No Daytime CMS	Different Siren Tone	Auto Bypass	Audio Device
Burglary	8	☑	☑	☐	☐	☐	☐
Panic (*+#)	8	☑	☑	☐	☐	☐	☐
Fire	8	☑	☑	☐	☐	☐	☐
Duress	8	☐	☐	☐	☐	☐	☐
Medical	8	☑	☑	☐	☐	☐	☐
Anti Mask	8	☑	☑	☐	☐	☐	☐
Special Burglary 1	8	☑	☑	☐	☐	☐	☐
Special Burglary 2	8	☑	☑	☐	☐	☐	☐
Silent Panic	8	☐	☐	☐	☐	☐	☐
Special Fire	8	☑	☑	☐	☑	☐	☐

Part./Zones->	Partition Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	Partition 1	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
2	Partition 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3	Partition 3	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4	Partition 4	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5	Partition 5	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6	Partition 6	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7	Partition 7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8	Partition 8	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9	Partition 9	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10	Partition 10	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
11	Partition 11	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
12	Partition 12	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
13	Partition 13	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
14	Partition 14	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
15	Partition 15	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
16	Partition 16	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Communication

Tel. Line Connected	☐
Bypass Dial Tone	☐
Line Test In ON	☐
Line Test In OFF	☐
Tone Dialing	☑
Answering Machine	☑
Voice Unit	☐
Dis. Download	☐
Dis. Remote Disarm	☑
Pre-Alarm	☐
Test report in OFF	☑
Split Account Number	☐
Disarm After Alarm	☐
Ext. Line Access	
Number of Rings	15
Number of Dials	8
Wait Phone for Ack (sec)	20
Kissoff delay	0
Auto Test Time (HH:MM)	00:00
Phone interval Test (hrs)	24
ID Account Addition	0
Phone Primary	☑
GSM Primary	☐
Net Primary	☐

GSM-200 Settings + PIMAnet IP		
GSM-200 TX Installed	☐	
Use Radio Account	☐	
Auto Test	☐	
GPRS Encryption	☐	
SMS Backup	☐	
Wait For Ack (sec)	30	
GSM First Mode (CMS 1)	Voice	
GSM Second Mode (CMS 2)	Voice	
GPRS Test Interval (min, sec)	5	0
Station 1 Port	10001	
Station 2 Port	10001	
GPRS Station 1 IP	000.000.000.000	
GPRS Station 2 IP	000.000.000.000	
Cellular Operator No.	1	

Report/Station->	CMS 1	CMS 2	User Phones
Phone A Format	0	0	
Phone B Format	230	0	
Burglary	☑	☑	☑
Anti Mask	☐	☐	☑
Special Burglary 1	☑	☑	☑
Special Burglary 2	☑	☑	☑
Panic (*+#)	☑	☑	☑
Fire	☑	☑	☑
Duress	☑	☑	☑
Medical	☐	☐	☑
Open/Close by Phone	☑	☑	☐
Failures	☐	☐	☑
Periodic Tests	☐	☐	
Remote Test	☐	☐	
Enter. Installer Code	☐	☐	
Open/Close By Radio	☐		
Zone Restore By Phone	☐	☐	
Zone Restore By Radio	☐		
Zone Bypass By Phone	☑	☑	
Zone Bypass By Radio	☐		

Account No.	Phone	Radio
Part. 1	0	0
Part. 2	0	0
Part. 3	0	0
Part. 4	0	0
Part. 5	0	0
Part. 6	0	0
Part. 7	0	0
Part. 8	0	0
Part. 9	0	0
Part. 10	0	0
Part. 11	0	0
Part. 12	0	0
Part. 13	0	0
Part. 14	0	0
Part. 15	0	0
Part. 16	0	0

No.	Private Phone	SMS	Monitoring Station Phone	Callback Number	GSM phone(s)
1		☐			
2		☐			
3		☐			
4		☐			

SMS System Name	Alarm System
SMS Outgoing Phone	
SMS Incoming Call ID	

Radio format	0
Radio Test (hrs)	24
Radio Test (min)	0

Report codes

No.	Alarms (Phone)	Restore (Phone)
1	FF	FF
2	FF	FF
3	FF	FF
4	FF	FF
5	FF	FF
6	FF	FF
7	FF	FF
8	FF	FF
9	FF	FF
10	FF	FF
11	FF	FF
12	FF	FF
13	FF	FF
14	FF	FF
15	FF	FF
16	FF	FF
17	FF	FF
18	FF	FF
19	FF	FF
20	FF	FF
21	FF	FF
22	FF	FF
23	FF	FF
24	FF	FF
25	FF	FF
26	FF	FF
27	FF	FF
28	FF	FF
29	FF	FF
30	FF	FF
31	FF	FF

Other report codes (Phone)	
Zone Failures (ZFL)	FF
Zone Restore (RESTR)	FF
Bypass (BYP)	FF
Tamper 1 Opened (TM1)	FF
Tamper 1 Closed (RESTR)	FF
Tamper 2 Opened (TM2)	FF
Tamper 2 Closed (RESTR)	FF
AC Failure (AC)	FF
AC Restore (RESTR)	FF
Low Battery (LB)	FF
Battery Restore (RESTR)	FF
Power Failure (PF)	FF
Power Restore (RESTR)	FF
Phone Line Failure (PHN)	FF
Phone Line Restore (RESTR)	FF
Fuse Failure (FUS)	FF
Fuse Restore (RESTR)	FF
Panic (*+#) (PNC)	FF
Invalid Code (ICODE)	FF
Arming (ARM)	FF
Disarming (DISARM)	FF
Test (TST)	FF

No.	Alarms (Radio)	Restore (Radio)
2	FF	FF
3	FF	FF
4	FF	FF
5	FF	FF
6	FF	FF
7	FF	FF
8	FF	FF
9	FF	FF
10	FF	FF
11	FF	FF
12	FF	FF
13	FF	FF
14	FF	FF
15	FF	FF
16	FF	FF
17	FF	FF
18	FF	FF
19	FF	FF
20	FF	FF
21	FF	FF
22	FF	FF
23	FF	FF
24	FF	FF
25	FF	FF
26	FF	FF
27	FF	FF
28	FF	FF
29	FF	FF
30	FF	FF
31	FF	FF
32	FF	FF

Other report codes (Radio)	
Zone Failures	FF
Zone Restore	FF
Bypassing	FF
Tamper 1 Opened	FF
Tamper 1 Closed	FF
Tamper 2 Opened	FF
Tamper 2 Closed	FF
AC Failure	FF
AC Restore	FF
Low Battery	FF
Battery Restore	FF
Power Fail	FF
Power Restore	FF
Phone Line Fail	FF
Phone line Restore	FF
Fuse Failure	FF
Fuse Restore	FF
Panic (*+#)	FF
False Code	FF
Arming	FF
Disarming	FF
Test	FF

Advanced comm. Config.

ADVANCED	Warning: Resetting IP address will disable network communication
CMS 1 URL/IP	
CMS 1 Port	10001
CMS 2 URL/IP	
CMS 2 Port	10001
Upload Port	10001
net4pro Web Port	10001
net4pro IP	000.000.000.000
net4pro NetMask	000.000.000.000
net4pro Gateway	000.000.000.000
net4pro DNS	000.000.000.000

Serial Output	
Home Automat 1	☐
Network MS 1	☐
Home Automat 2	☐
Network MS 2	☐
Home automation supervision interval (sec.)	5

net4pro	Minutes	Seconds
net4pro Test Interval (min, sec)	1	0

Attempts up to Fault (net4pro)
10

Cellular Operator 1	
Name	GSM PROVIDER 1
APN	
Username	
Password	
Cell. SMS Center	

Cellular Operator 2	
Name	GSM PROVIDER 2
APN	
Username	
Password	
Cell. SMS Center	

Cellular Operator 3	
Name	GSM PROVIDER 3
APN	
Username	
Password	
Cell. SMS Center	

Cellular Operator 4	
Name	GSM PROVIDER 4
APN	
Username	
Password	
Cell. SMS Center	

Cellular Operator 5	
Name	GSM PROVIDER 5
APN	
Username	
Password	
Cell. SMS Center	

System | Zones (1) | Zones (2) | Communication | Report codes | Advanced comm. Config. | Timers , Parameters

Entry Delay 1 (sec)	20
Entry Delay 2 (sec)	60
Exit Delay (sec)	60
Soak Test Days	3
MAINS Fail Report Delay (min)	15
Phone Line Fail Report Delay (min)	3
Burglary Report Delay (sec)	0
Double Knock (sec)	30
Cond. Zones Time (sec)	30
Bypass Time Limit (min)	0
Invalid Code Count	24
Inactivity Days	0
Output Type Times:	
External Siren Time (sec)	180
Internal Siren Time (sec)	180
Burglary Time (sec)	240
Anti Mask Time (sec)	240
Special Burglary 1 Time (sec)	240
Special Burglary 2 Time (sec)	240
Smoke Det. Power Time (sec)	240
Fire Time (sec)	240
Special Fire Time (sec)	240
Panic Time (*+#) (sec)	240
Silent Panic Time (sec)	240
Duress Time (sec)	240
Medical Time (sec)	240
Tamper Time (sec)	240
MAINS Fail Time (sec)	9999
Low Battery Time (sec)	9999
Phone Fault Time (sec)	9999
Trouble (Zone) Time (sec)	9999
Zone Bypassed Time (sec)	9999
GSM Fail Time (sec)	9999
Communication Fail Time (sec)	9999
RFID Activating Time (sec)	240
Door Code Time (sec)	5
Wireless Remote Time <*> (sec)	5
Test Time (sec)	5
Audio Control Time (sec)	60
Remote Control Time (sec)	60
Zone Open Hold Time (min)	0

2 States Key	☐
DC - Siren	☑
Tamper 1	☑
Tamper 1 is E.O.L. Protected	☐
Tamper 2	☑
Tamper 2 is E.O.L Protected	☐
Key to Home State	☐
Auto-arming to Home State	☐
Bypass Zones In Auto. Arming	☐
2 E.O.L Resistors	☐
Siren Beep On Arming	☐
User Code Can Access Menu	☐
Enhanced Menu	☐
Bypass Tamper in Arming	☑
Bypass Fault in Arming	☑
Kpd Light Always ON	☑
Kpd Light On Alarm	☐
Kpd Light On Delay	☐
Buzzer Follows Siren	☐
Enable Quick Arming	☐
Cancel Delays In Home 1	☐
Cancel Delays In Home 2	☐
Display Alarms In Armed State	☑
EN- 50131	☐
Repeating Alarms	☐
Display Partitions Status	☐
Final Door	☐
Full Remote Control	☐
Report Wireless Jamming	☐
Partitioned Auto-arming	☐
Beep Siren on Disarming (Ver.6.09 and up)	☐
Siren Protection (ver. 6.09 and up)	☑

Users

Master Code	Short	Duress Code	Door	Installer
5555				1234

User	Code	Name	Disarm. Start	Disarm. End	Codes	Telephones	Date & Time	View Log	Zone Bypassing	Any Keypad	Aut. Arm. Menu	SMS Open/Close	Remote Control User	Disarm RFID & Code (Ver.6.09 and up)	RFID
1		User 1	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
2		User 2	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
3		User 3	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
4		User 4	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
5		User 5	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
6		User 6	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
7		User 7	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
8		User 8	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
9		User 9	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
10		User 10	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
11		User 11	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
12		User 12	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
13		User 13	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
14		User 14	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
15		User 15	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐
16		User 16	00:00	23:59	☑	☑	☑	☑	☑	☐	☑	☐	☐	☐	☐

Part. / User	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
01	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
02	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
03	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
04	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
05	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
06	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
07	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
08	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
09	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
10	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
11	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
12	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
13	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
14	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
15	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
16	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑

Auto-arming

Silent Time (min)	0
Partition 1	☑
Partition 2	☑
Partition 3	☑
Partition 4	☑
Partition 5	☑
Partition 6	☑
Partition 7	☑
Partition 8	☑
Partition 9	☑
Partition 10	☑
Partition 11	☑
Partition 12	☑
Partition 13	☑
Partition 14	☑
Partition 15	☑
Partition 16	☑

Day	Auto-arming Hours
Sunday	00:00
Monday	00:00
Tuesday	00:00
Wednesday	00:00
Thursday	00:00
Friday	00:00
Saturday	00:00

Screen saver	☑
Auto turn-off	☑

Video (Ver.6.09 and up)

Operation\Camera	1	2	3	4	5	6	7	8
Send in Disarm	☐	☐	☐	☐	☐	☐	☐	☐
Send in Full Arm	☑	☑	☑	☑	☑	☑	☑	☑
Send in Home 1	☐	☐	☐	☐	☐	☐	☐	☐
Send in Hme 2	☐	☐	☐	☐	☐	☐	☐	☐
Send in Home 2	☐	☐	☐	☐	☐	☐	☐	☐
Record in Disarm	☐	☐	☐	☐	☐	☐	☐	☐
Record in Full Arm	☐	☐	☐	☐	☐	☐	☐	☐
Record in Home 1	☐	☐	☐	☐	☐	☐	☐	☐
Record in Home 2	☐	☐	☐	☐	☐	☐	☐	☐
View in Disarm	☑	☑	☑	☑	☑	☑	☑	☑
View in Full Arm	☐	☐	☐	☐	☐	☐	☐	☐
View in Home 1	☐	☐	☐	☐	☐	☐	☐	☐

Number of Video Units (1-2)	0
MMS per Day	5
Entry Delay Recording	☐

Partiton\Camera	Cam. 1	Cam. 2	Cam. 3	Cam. 4	Cam. 5	Cam. 6	Cam. 7	Cam. 8
Part. 1	☑	☐	☐	☐	☑	☐	☐	☐
Part. 2	☐	☑	☐	☐	☐	☑	☐	☐
Part. 3	☐	☐	☑	☐	☐	☐	☑	☐
Part. 4	☐	☐	☐	☑	☐	☐	☐	☑
Part. 5	☐	☐	☐	☐	☐	☐	☐	☐
Part. 6	☐	☐	☐	☐	☐	☐	☐	☐
Part. 7	☐	☐	☐	☐	☐	☐	☐	☐
Part. 8	☐	☐	☐	☐	☐	☐	☐	☐
Part. 9	☐	☐	☐	☐	☐	☐	☐	☐
Part. 10	☐	☐	☐	☐	☐	☐	☐	☐
Part. 11	☐	☐	☐	☐	☐	☐	☐	☐
Part. 12	☐	☐	☐	☐	☐	☐	☐	☐
Part. 13	☐	☐	☐	☐	☐	☐	☐	☐
Part. 14	☐	☐	☐	☐	☐	☐	☐	☐
Part. 15	☐	☐	☐	☐	☐	☐	☐	☐
Part. 16	☐	☐	☐	☐	☐	☐	☐	☐

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