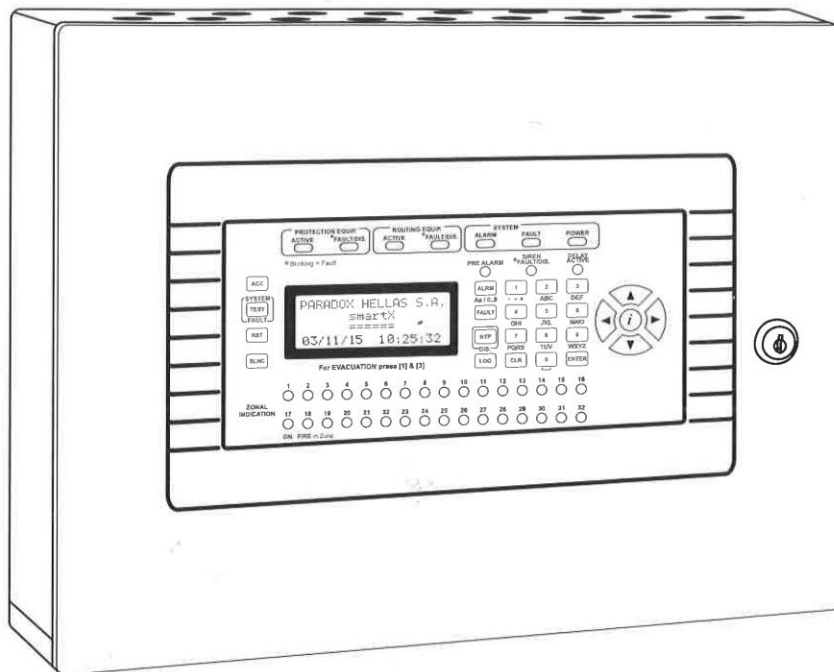


# SMARTX



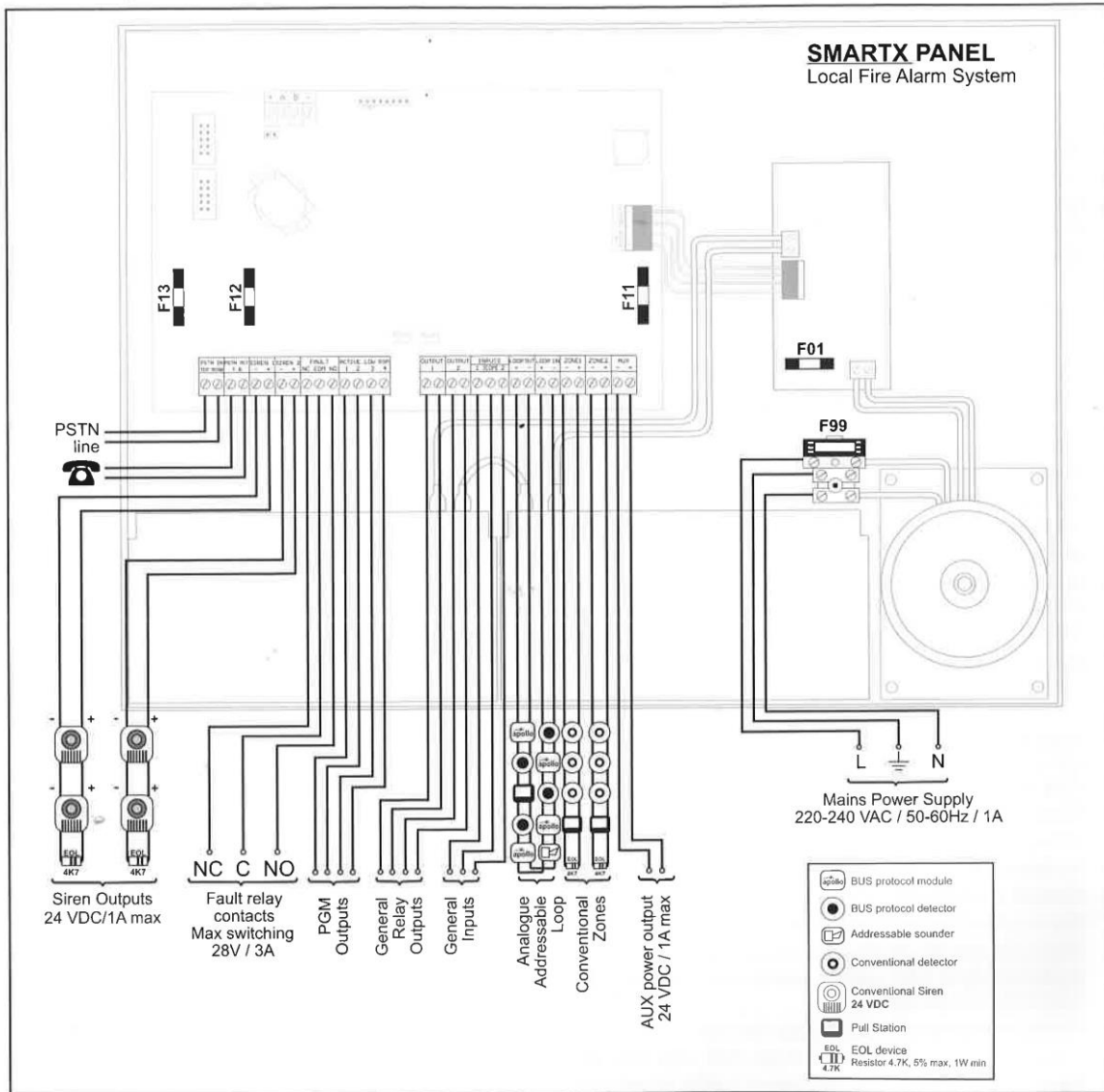
## Manual operare si instalare

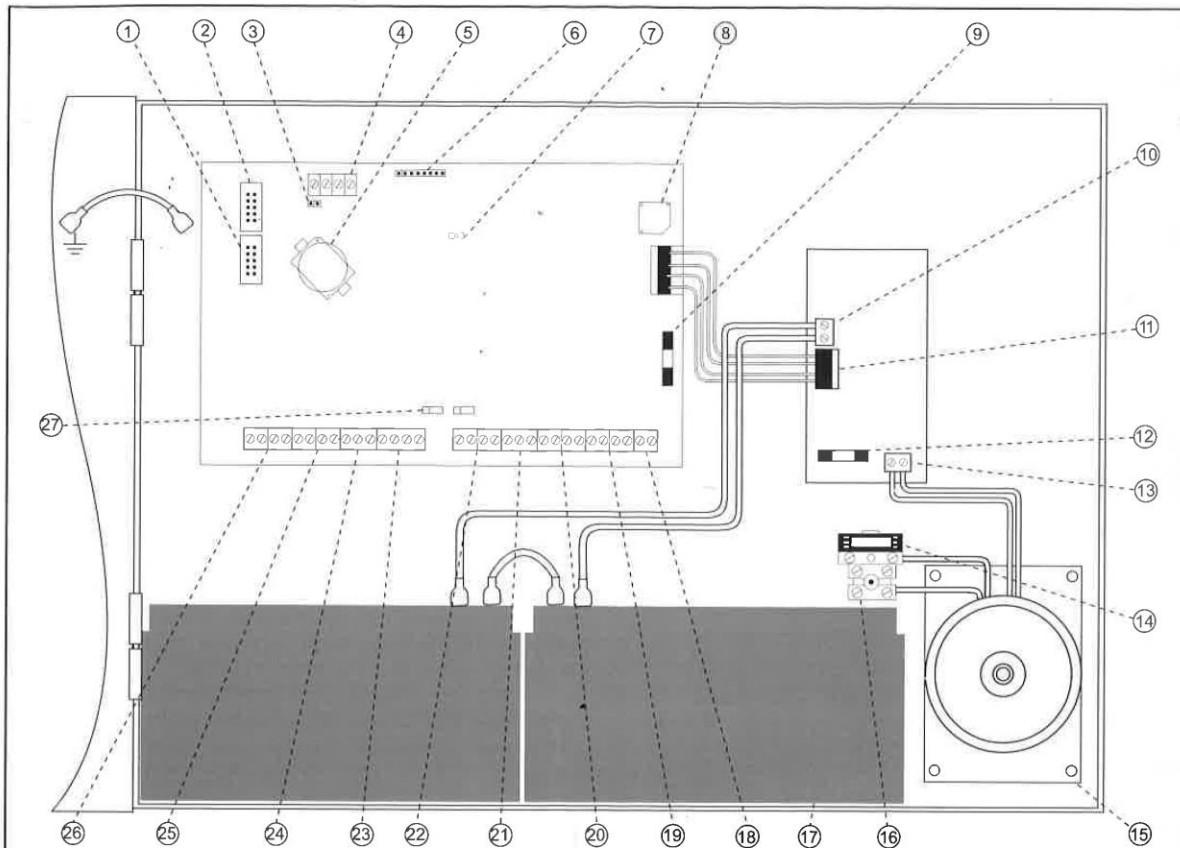
Panou de control analog adresabil cu o singura bucla pentru protocoalele Apollo S90, XP95 si Discovery

# Manual de utilizare

**SmartX** este un panou ce control analog adresabil cu o singura bucla care functioneaza cu protocoalele Apollo s90, xp95 si discovery. Este potrivita pentru instalari mici si medii. Principalele avantaje sunt interfata intuitiva si usurinta utilizari, posibilitatea de a se conecta si programa prin retea si o calitate ridicata. Este o solutie ideala certificate pentru instalari entry level pentru care pot fi integrate cu alte extensii / sisteme in viitor.

## Descriere sistem si diagram cablu

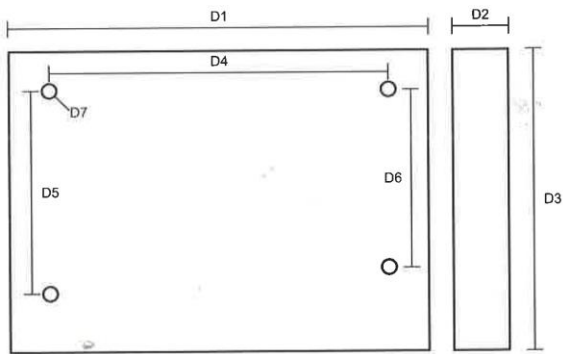




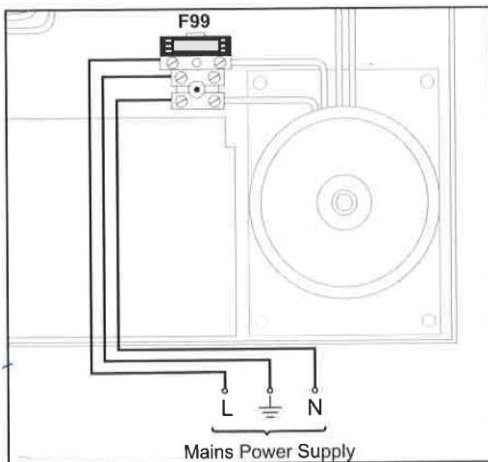
1. Connector to TCP/IP module board.
2. Connector to display board.
3. 485 Line Termination.
4. Vbus connector (RS485).
5. Real Time clock battery: 3,3V CR2032.
6. Flash programmer.
7. Power LED.
8. On board buzzer.
9. Main board fuse.
10. Battery connector: Connects with two 12V 7AH batteries.
11. Power connector: Connection to main Power Supply.
12. Power supply unit fuse: The power supply is protected by a 5 A slow blow fuse.
13. 28 VAC: 28 VAC input from main transformer.
14. Main fuse: Main power supply fuse (1.6 A, fast blow).
15. Main transformer: Transforms 220-240 VAC supply voltage to 28 VAC. Fully isolated.
16. Main connector terminals: Main input for 220-240 VAC (primary power) and earth connection.
17. Batteries: Secondary/standby power source to the panel electronics in the absence of primary power.
18. AUX power output: 24 VDC / 700mA max output for devices that need extra power. This output is fused.
19. 2 conventional zone inputs.
20. Loop connection.
21. General Inputs: Internal pulled up active low inputs. 1.5mA sink current. **ATTENTION! Use dry contacts or open collector to activate. Do not exceed 12V at any time.**
22. 2 general relay outputs: N/O or N/C (jumper selectable, see item 27) dry contacts 28V/3A max.
23. 4 PGM outputs: Open collector 200mA sink max current, 30V max handling voltage. **ATTENTION! Use protected wiring. Very short length (Internal).**
24. Fault output relay: No power, NO/NC contacts.
25. 2 Alarm outputs (signaling devices): Switched 24 VDC for audio and visual signaling devices operation.
26. PSTN connector.
27. JP505 & JP506: Jumper for the General Relay Outputs selection.

## Instalare:

Cutia centralei se monteaza la suprafata pe perete.

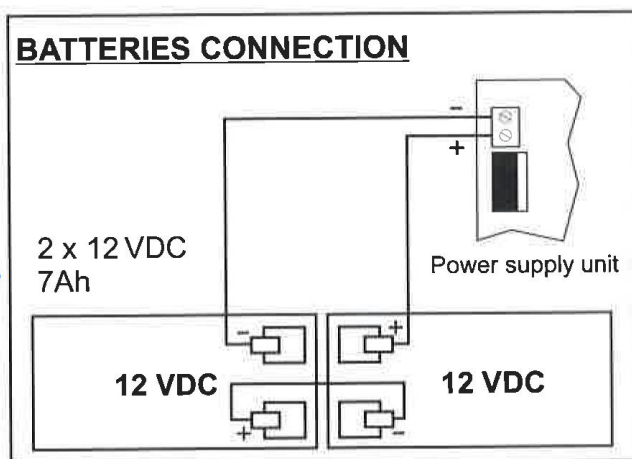


Se folosesc 3 terminale protejate cu siguranta pentru conectarea panoului la sursa de energie electrica. Prima oara conectati impamantarea la conectorul din mijloc al terminalului apoi cablurile de faza si nul.



## Instalarea bateriei

Panoul foloseste 2 baterii de 2V/7Ah conectate in serie.



Panoul de control are nevoie de cateva secunde pentru a pornii si citii toate datele de configurare ctocate in memoria interna.

O indicatie privitoare la procentul de incarcare a sistemului va fi afisata pe display-ul LCD frontal. Dupa ce operatiune de incarcare s a finalizat display-ul se va opri.

In acesta faza sistemul este pregatit pentru utilizare.

### Taste importante

Tasta Enter - este folosita pentru a accesa urmatorul nivel de detalii.

Tasta 1,2 si 3 sunt folosite pentru a naviga in directii diferite ale meniului in vedea afisarii listei cu informatii.

Tasta 5 – seteaza orice filtru ajuta la revenirea meniului initial.

Tasta 7,8 si 9 este folosita atunci cand se aplica filtre asupra continutului listei.

### Utilizatori (master/normal, instalator)

Panoul are 2 niveluri diferite pentru acces, 9 utilizatori au acces la nivelul 2, din care 1 este master si 8 utilizatori normali. Utilizatorul master poate schimba codul pin si pentru cei 8 utilizatori normali. Utilizatorul cu acces la nivelul 3 are control total asupra intregului sistem inclusive asupra utilizatorului master si a utilizatorilor normali.

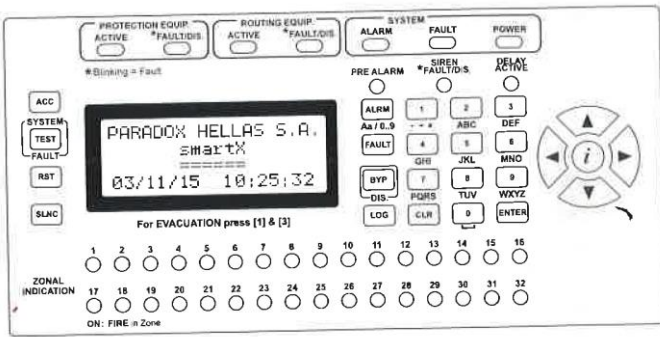
Codul PIN "0000" face ca un utilizator sa devine inactive.

Sistemul furnizeaza un cod de Securitate de rezerva in cazul in care pinul aferent nivelului 3 este pierdut sau uitat.

Pinul de reset este definit in ultima intrare a ALM3.

I<LOOP1:DEVICES>I: Tasta 1 – acesta este ecranul principal unde sunt indicate adresele folosite si daca este conectat un dispozitiv secundar.

## Descrierea tastaturii



Fiecare tastatura are cateva butoane cu functii diferite in fuctie de starea sistemului. Acestea sunt:

<b>*POWER*</b>	<b>Indicator:</b> On or blinking while the panel is powered up.
<b>*PRE ALARM*</b>	<b>Indicator:</b> The system has received the "first alarm" and is in prealarm condition. While lit, any more alarms from alarm verification inputs will cause an immediate alarm.
<b>*SIREN FAULT/ DIS.*</b>	<b>Indicator:</b> The siren when blinking is in Fault, else is Disabled.
<b>*DELAY ACTIVE*</b>	<b>Indicator:</b> Alarm verification is active for some alarm events. This causes a possible alarm condition to be delayed before the generic alarm state is activated.
<b>*SYSTEM FAULT*</b>	<b>Indicator:</b> System Fault.

<b>[ACC]</b>	<p>"Access Level".</p> <p><b>Indicator:</b></p> <ul style="list-style-type: none"> <li>• OFF: Keypad in access level 1.</li> <li>• ON: Keypad in access level 2.</li> <li>• Flashing: Keypad in access level 3.</li> </ul> <p><b>Button:</b> Press to enter elevated access level. Factory default access codes are "2222" and "3333" for access levels 2 and 3 respectively.</p>
<b>[SLNC]</b>	<p><b>Button:</b> Activate a silence operation.</p> <p><b>Indicator:</b> There are active silenced notifications either from buzzers or alarm output devices.</p>
<b>[BYP] / DIS.</b>	<p>"Bypasses". Also known as Disables.</p> <p><b>Button:</b> Display active disablements list. Press [ENTER] to modify.</p> <p><b>Indicator:</b> There are active disablements of either inputs or outputs.</p>
<b>[RST]</b>	<p><b>Button</b></p> <p>Resets the panel's state including alarm zones, faults etc. (needs access level 2 or 3).</p>
<b>[ALRM] (Aa / 0..9)</b>	<p><b>Button:</b> Displays a list of zones in Alarm.</p> <p><b>Alternative function:</b> During text input field editing (access level 2 and 3 programming), changes character entry mode from numeric to T9 (text entry mode as used on mobile and telephone devices).</p>
<b>[FAULT]</b>	<p><b>Button:</b> Displays a list of zones in fault.</p> <p><b>Alternative function:</b> During text input field editing (access level 2 and 3 programming), deletes the character that the cursor is over.</p>
<b>[LOG]</b>	<p><b>Button:</b> Shows the log events from the main board. While in the LOG screen the user can navigate through the log using the arrow keys (UP=RIGHT=get next log and DOWN=LEFT=get previous log).</p>
<b>[NUM PAD] (keys 0-9)</b>	<p><b>Button:</b> Keys used for:</p> <ul style="list-style-type: none"> <li>• Data entry in numeric or text fields (T9 mode).</li> <li>• Special operations in lists and overviews. In general: <ul style="list-style-type: none"> <li>[1], [2], [3]: Select how the information is displayed (format)</li> <li>[7], [8], [9]: Select what information is displayed (filters)</li> <li>[5]: Reset filters to default</li> <li>[0]: Lock/unlock first displayed field (usually ID) for horizontal scrolling.</li> </ul> </li> </ul> <p>See section 5.1.2 for detailed description</p>
<b>[CLR]</b>	<p><b>Button:</b> Returns to the previous menu or to main menu depending the current menu.</p>
<b>[ENTER]</b>	<p><b>Button:</b> Selects an option/menu or submits a change during editing.</p>
<b>[i] (info key)</b>	<p><b>Button:</b> Displays help information about a menu or action. In the main screen it displays the Menu of Access Level 1 (informational).</p>
<b>[ARROW KEYS]</b>	<p><b>Button:</b> Navigate through menus, lists and log.</p>
<b>PROTECTION EQUIP.</b>	<p><b>*ACTIVE* Indicator:</b> Protection equipment is active</p> <p><b>*FAULT/DIS.* Indicator:</b> This indicator when blinking is used to indicate faults to any inputs or outputs that are programmed for the "Routing equipment" and "Protection equipment" systems, when lit it indicates that they are Disabled.</p>
<b>ROUTING EQUIP.</b>	<p><b>*ACTIVE* Indicator:</b> Routing equipment is active</p> <p><b>*FAULT/DIS.* Indicator:</b> Routing equipment when blinking is in Fault, else is Disabled</p>
<b>*ALARM*</b>	<p><b>Indicator:</b> The General Alarm indicator. Lit when there is an alarm (including evacuation) condition.</p>
<b>*FAULT*</b>	<p><b>Indicator:</b> There is an identified fault condition.</p>

## Cabluri recomandate pentru zonele de intrare

In tabelul de mai jos sunt prezentate cablurile recomandate pentru instalare si lungimea maxima a acestora.

Cablurile trebuie sa fie in conformitate cu standardele EN cu rezistenta la flacara/temperaturi pana la 830 grade C pentru 15 minute (standardul NR 50200, categorie minima PH30).

Lungimea maxima a cablului				
Current required [A]	18 AWG (0.823 mm <sup>2</sup> ) [ft / m]	16 AWG (1.31 mm <sup>2</sup> ) [ft / m]	14 AWG (2.08 mm <sup>2</sup> ) [ft / m]	12 AWG (3.31 mm <sup>2</sup> ) [ft / m]
0.25	584 / 178	950 / 290	1460 / 445	2170 / 660
0.50	292 / 89	474 / 144	730 / 222	1084 / 330
0.75	194 / 58	316 / 96	486 / 148	722 / 220
1.00	146 / 44	236 / 72	364 / 111	542 / 165
1.25	116 / 35	190 / 58	292 / 89	434 / 132
1.50	92 / 28	158 / 48	242 / 74	362 / 110
Resistance / 1000 ft	13 Ohm	8 Ohm	5.2 Ohm	3.5 Ohm

## Anexa: Dispozitive compatibile Apollo

### Senzori

Tip	Descriere
S90 Ionisation Det.	S90 Ionisation Detector
XP95 Ionisation Det.	XP95 Ionisation Detecto
DISC Ionisation Det.	DISCOVERY Ionisation Detector
DISC Metal/Oxide	DISCOVERY Metal/Oxide Sensor
DISC CO Gaseous Det.	DISCOVERY CO: Gaseous Fire Detector
DISC Heat Detector	DISCOVERY Heat Detector
XP95 Aspirating Det.	XP95 Aspirating Detector
DISC Aspirating Det.	DISCOVERY Aspirating Detector
S90 Optical Detector	S90 Optical Detector / Beam Detector
XP95 Optical Detect.	XP95 Optical Detector / Beam Detector
DISC Optical Detect.	DISC Optical Detector / Beam Detector
XP95 Beam Detector	XP95 Beam Detector & Reflective Beam
XP95 Flame Detector	XP95 Flame Detector
DISC Multi-Sensor	DISCOVERY Multi-Sensor (Optical/Heat)
XP95 Multi-Sensor	XP95 Multi-Sensor (Optical/Heat)
S90 Heat Detector	S90 Heat Detector
XP95 Heat Detector	XP95 Heat Detector
XP95 High Temp Det.	XP95 High Temperature Detector

### Audio/Vizuale

S90 Sounder/Beacon	S90 Sounder/Beacon Control Unit
XP95 Sounder/Beacon	XP95 Sounder/Beacon Control Unit
DISC Sounder/Beacon	DISCOVERY Sounder/Beacon
DISC Voice S/Beacon	DISCOVERY Voice Sounder/Beacon
DISC Voice Sounder	DISCOVERY Voice Sounder
DISC Sounder/Beacon	DISCOVERY Sounder/Beacon Base

### Butoane

S90 Call Point	S90 Manual Call Point & Monitor
XP95 Call Point -INT	XP95 Manual Call Point & Mini Switch w/ INT
DISC Call Point -INT	DISC Manual Call Point & Mini Switch w/ INT

### Module

XP95A Sounder Module	XP95A Sounder Control Module
I/O Units & Relays	I/O & Output Units and Relay Output Modules
XP95A Mini Switch	XP95A Mini Switch Monitor Module
XP95A Switch Monitor	XP95A Switch Monitor Module
XP95A Switch I/O	XP95A Switch Monitor I/O Module
DISC CO:Personal Mon	DISCOVERY CO: Personal Protection Monitor
DISC CO:Environ. Gas	DISCOVERY CO: Environmental Gas Monitor
S90 Zone Mon. Unit	S90 Zone Monitor/Control Unit / Xpander
XP95 Zone Mon. Unit	XP95 Zone Monitor/Control Unit / Xpander
XP95 Mini Switch Mon	XP95 Mini Switch Monitor / Unit
XP95 Mini Prior Sw	XP95 Mini Priority Switch Monitor Module
XP95 Priority Switch	XP95 Priority Switch Monitor Module



## Descoperirea seturilor de sunete predefinite ale dispozitivelor

Tone Number	Tone	Frequency
1	Apollo Alert Tone	1s off, 825Hz for 1s
2	Continuous (Hochiki & Fullerton)	925Hz
3	Continuous	970Hz
4	Continuous	2850Hz
5	Continuous	825Hz
6	Continuous	825Hz
7	Swedish all clear signal-Continuous	660Hz
8	Aus Alert Tone	420Hz, 0.625s, 0.625s off
9	NZ Alert Tone	420Hz, 0.625s, 0.625s off
10	Continuous	970Hz
11	Continuous	2850Hz
12	Simulated Bell - Intermittent	1s off, 1s on
13	Emergency Warning Siren All Clear	N/A
14	Pulsed at 1s off, 1s on	970Hz
15	Apollo Alert Tone	1s off, 825Hz for 1s
	Continuous (UL)	2900Hz
	IMO Code 2, Continuous (Marine)	1311Hz
16	Apollo Evacuation Tone	550Hz for 0.5s, 825Hz for 0.5s
17	Alternating (Hochiki & Fullerton)	925Hz for 0.25s, 626Hz for 0.25s
18	Medium Sweep	800Hz to 970Hz at 1Hz
19	Fast Sweep	2500Hz-2850Hz at 9Hz
20	Dutch Slow Whoop (sweep)	500Hz-1200Hz for 3.5s, 0.5s off
21	DIN Tone (sweep)	1200Hz-500Hz for 1s
22	Swedish Fire Tone	660Hz, 150ms on, 150ms off
23	Aus (fast rise sweep)	3x (500Hz-1200Hz for 0.5s), 0.5s off
24	NZ (slow rise sweep)	500Hz-1200Hz for 3.75s, 0.25s off
25	US Temporal LF (ISO 8201)	3x (970Hz, 0.5s on, 0.5s off), 1s off
26	US Temporal HF (ISO 8201)	3x (2850Hz, 0.5s on, 0.5s off), 1s off
27	Simulated Bell - Continuous	N/A
28	Emergency Warning Siren	N/A
29	Continuous	970Hz
30	Apollo Evacuation Tone	550Hz for 0.5s, 825Hz for 0.5s
	US Temporal LF (ISO 8201) - (UL)	3x (2900Hz, 0.5s on, 0.5s off), 1s off
	General Alarm (Marine)	1s off 7x (1311Hz, 1s on, 1s off), 7s on

## Descoperirea tonului sirenelor si a mesajelor dispozitivelor

Tone Number	Tone	Message
1	Apollo Evacuation Tone	Attention please. Attention please. Fire has been reported in the building. Please leave immediately, by the nearest exit. (repeated 2x)
2		In the interest of safety please evacuate the building now. (repeated 3x)
3		This is a test on the fire alarm system. Please do not take any action. (repeated 2x)
4	Fast Sweep	Spare
5	Dutch Slow Whoop (sweep)	Spare
6	DIN Tone (sweep)	Spare
7	Swedish Fire Tone	Spare
8	Aus (fast rise sweep)	Spare
9	NZ (slow rise sweep)	Spare
10	US Temporal LF (ISO 8201)	Spare
11	US Temporal HF (ISO 8201)	Spare
12	Simulated Bell - Continuous	Spare
13	Apollo Evacuation Tone	Spare
14	Continuous 970Hz	Spare
15	Apollo Evacuation Tone	Spare
16	Apollo Alert Tone	This is a fire Alert. This is a fire Alert. Await further instructions. Await further instructions. (repeated 2x)
17		All Clear. The emergency has been resolved. It is safe to resume normal activities.
18		The fire alarm test is now complete. (repeated 3x)
19	Continuous 2850Hz	Spare
20	Continuous 825Hz	Spare
21	Continuous 825Hz	Spare
22	Swedish all clear signal-Continuous 660Hz	Spare
23	Aus Alert Tone	Spare
24	NZ Alert Tone	Spare
25	Continuous 970Hz	Spare
26	Continuous 2850Hz	Spare
27	Simulated Bell - Intermittent	Spare
28	Apollo Alert Tone	Spare
29	Intermittent 970Hz	Spare
30	Apollo Alert Tone	Spare

## Anexa : Configurare initiala a sistemului

### Intrari

Type	Causes Alarm			Causes Evacuation			Alarm Verification			Latched		
	L	M	R	L	M	R	L	M	R	L	M	R
Sensors	Y		Y							Y		Y
Call Points	Y		Y	Y		Y				Y		Y
Analogue Zones			Y									Y
Other Inputs												

### Iesiri

Type	Pre-Alarm			Alarm			Evacuation		
	L	M	R	L	M	R	L	M	R
Sounders				Y		Y	Y		Y
Beacons				Y		Y			
SIR 1, 2 relays						Y			Y
EXP Relays (8)									
OUT 1, 2						Y			Y
PGMs 1-4									

L: Invatare automata  
M: Adaugare manuala  
R: Resetare la defaults

### Instalat de

Nume \_\_\_\_\_  
Companie \_\_\_\_\_  
Adresa \_\_\_\_\_  
Numar \_\_\_\_\_

### Contact service

Companie \_\_\_\_\_  
Adresa \_\_\_\_\_  
Numar \_\_\_\_\_

### Inspectie acceptata

Data \_\_\_\_\_

### Dezvoltat de

**PARADOX HELLAS S.A.**  
fire alarm & security systems  
Korinthou 3, Metamorfosi  
144 51 - Athens, Greece

ISO 9001

BUREAU VERITAS  
Certification

No GR14.7538Q



**SmartX - Panou de control analog adresabil cu o sigura bucla pentru seriile Apollo S90, XP95 si Discovery.**