SOLO-NX ext

COMPACT GSM DOOR ENTRY UNIT WITH 1, 2 or 4 CALL BUTTONS



USER MANUAL

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1 FOR YOUR SAFETY

SWITCH ON SAFELY

Do not switch the unit on when use of wireless phone is prohibited or when it may cause interference or danger.

INTERFERENCE

All wireless phones and units may be susceptible to interference, which could affect performance.

SWITCH OFF IN HOSPITALS

Follow any restrictions. Switch the unit off near medical equipment.

SWITCH OFF IN AIRCRAFT

Follow any restrictions. Wireless devices can cause interference in aircraft.

SWITCH OFF WHEN REFUELING

Do not use the unit at a refueling point. Do not use near fuel or chemicals.

SWITCH OFF NEAR BLASTING

Follow any restrictions. Do not use the unit where blasting is in progress.

USE SENSIBLY

Use only in the normal position as explained in the product documentation. Do not touch the antenna unnecessarily.

2 INTRODUCTION

SOLO-NX (SOLO) is a simple GSM intercom communication system designed to ensure low-cost, simple to install/use, reliable and single box solution for intercom application. It is designed for unlimited range, wire free GSM intercom, pin code access, caller ID control and Wiegand access support.

Optional SOLO-NX supports alarm detection, stay-alive messages, credit detection etc...

3 SOLO-NX FEATURES AND APPLICATIONS

Features:

- \Rightarrow Built-in 4 (2G) or 5 (3G) band GSM module
- \Rightarrow Up-to 4 intercom call button support (5 numbers each)
- \Rightarrow Caller ID numbers control (up-to 1000 caller ID numbers)
- \Rightarrow Up to 100 temporary SPIN access codes
- \Rightarrow Up to 1000 PIN access codes
- \Rightarrow 2 x input Wiegand receiver
- \Rightarrow 2 outputs (relay supported)
- ⇒ Programming with PC via "USB to Mini USB cable" connected to the unit
- \Rightarrow Programming by WEB server
- \Rightarrow Programming by SMS commands

Applications:

- \Rightarrow Single box, wire free intercom solution
- \Rightarrow Remote gate opener Caller ID number recognition
- \Rightarrow Simple (Wiegand) access system

4 START UP

SOLO-NX unit accepts a standard GSM SIM cards from any network.

VERY IMPORTANT	USE A MICRO SIM CARD
WARNING	DO NOT Insert or remove the SIM card while the unit is powered ON!!
IMPORTAN	NT Before inserting SIM card to unit make sure the PIN code is removed!!

- \Rightarrow Insert SIM card in SOLO-NX unit.
- ⇒ Connect power cable to SOLO-NX unit (YOU MUST POWER THE SOLO UNIT WITH THE POWER SUPPLY IF INCLUDED. Do not power with any other power supply).
- \Rightarrow Power up the unit.
- \Rightarrow Wait until LED1 (Blue) starts flashing. This is set in around 30 45 seconds.
- \Rightarrow SOLO-NX unit is now ready to operate.



5 LED INDICATION

Blue LED (LED1)

- Indicates the level of the GSM signal from 1 to 5 LED flashes (1 is weak signal, 5 is excellent signal)

Red LED (LED2)

- GSM module Activity

Yellow LED (LED3)

- Short flashing indicates that the GSM module is ON, but it is not yet connected on the GSM network. After connection, yellow led is flashing with short pulse (0,5s) ON and a long pulse OFF (5s).

6 CONNECTION DIAGRAM

Before connection the SOLO-NX please take a look at connection diagram.



Figure 1: SOLO-NX: Connection diagram

IMPORTANT	DO NOT USE Power out (12V AUX) for electric lock driving! Use separate power source for door electric lock!
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7 SOLO-NX UNIT MANAGEMENT

Unit supports different types of management (programming):

- \Rightarrow Unit can be programmed directly by USB connection, with the use of configuration software running on PC (EasySet).
- \Rightarrow Unit can be programmed remotely by using WEB server access.
- \Rightarrow Unit can be programmed remotely by SMS commands (Optional).

8 SOLO-NX FUNCTIONS WITH PROGRAMMING INSTRUCTIONS

As mentioned in previous chapters SOLO-NX unit can be programmed in various ways, this document will focus on most common programming way: WEB programming.



8.1 WEB SERVER - LOG IN

The web server can be find under the address: <u>http://www.easyset.eu/</u>.



Figure 2: WEB Server-Sign In page

User must first use the Sign IN section to create working profile on the server. The profile can be created by using social login like Facebook, Google account or Twitter. The user lacks any of the social profile it can proceed to Sign UP page use standard user name and password entry.



8.2 WEB SERVER – ADDING UNITS TO USER PROFILE

After login the user will be diverted to WEB server main window. This page is used to add/remove/search for SOLO-NX units from the user's profile.

Select "+" sign to select ADD SOLO-NX units to user's profile.



Figure 3: WEB Server-Main page select ADD mode

Device	e list ×	+								x
(•) ()	eisware.com			C Q Searc	h	☆ 自	•	俞	Ø 6	=
Dev	ice list			Th	nemilter ???	EIS WARE	Logg	ed in as	user1 O	
	Name	IMEI	Phone number	GPRS Settings		Location				
	EIS LCD	358884050776892	+18017356435	T-Mobile 🔹					+	
				Not found					~	1.

Figure 4: WEB Server-Main page adding SOLO-NX units

User than provides required data:

- **Name**: Name for the added unit mandatory information.
- **IMEI**: Identification number of the unit, can be found in the enclosure of the unit mandatory information. The IMEI is located on the cellular chip and also should be on the card board box of the SOLO-NX.
- **Phone Number:** The telephone number of the SIM card in the SOLO-NX unit mandatory data.
- **GPRS settings:** Information needed to enable data connection between the server and the unit. Selectable from the drop-down menu mandatory data.
- Location: Notification field, used by the user to provide extra data for its own information optional data.

By clicking the "+" (insert sign) after filling mandatory data, the unit will be added to the user profile.

First building of the unit data-base may take a few minutes.

8.3 WEB SERVER-UNIT MANAGEMENT

After the SOLO-NX unit is added to user database, the user can change the configuration of the specific unit.

All changes made by the user are listed in the **Change Log** window. By clicking **Send to device** button ALL changes are sent to the unit. User can revert all changes made, before sending, by clicking **Revert all** or select particular entry and revert it.

								Transmitter		S VVAN	Logged in a	
Device										Change log		
Derice	_				_	_				• T-+ (4		
Name	EIS LCD)			Sav	e changes	Devic	ce reported va	lues	 Intercom / 1 Pin access / 	table table	
Туре	EIS-L	CD			Cane	cel changes	Signal	3(-87dBm)	00-25)	Send to dev	vice Revert all	
Imei	358884	050550487			x	Export	Network Time	ID 29340				/
Phone number	+50040	100047				-	Uptime	0 days 4 hours				
Location	:				×	Import				Contraction of the local division of the loc		
				128								
GPRS settings	T-Mo	bile: epc.tmobil	e.com	_	- -)							
Status time	: 25.06.2	016 15:15:56										
Settings												
Intercom	Pin acces	s Caller id #	Outputs	Digital interface	Inputs T	emporary pin :	access Se	rvice button Adı	ministration	Misc Event	t log	
Intercom Genera Tables	Pin acces	s Caller id #	Outputs	Digital interface	Table 2)	emporary pin :	access Se	ervice button Ada	ministration	Misc Event	t log	
Intercom Genera Tables Table : Posi	Pin acces	s Caller id # ode: Joint (Output 1 PIN	Outputs	Digital interface	Table 2)	 iemporary pin : iemporary pin : 	access Se Table 2 outpu Position	rvice button Adi ut: Output 2 PIN	ministration	Misc Event	t log •	
Intercom Genera Tables Table : Posi	Pin acces	s Caller id # ode: Joint (Output 1 PIN	Outputs Outputs Mark	Digital interface	Table 2)	Temporary pin to the second	Table 2 outpu Position	ut: Output 2 PIN	ministration	Misc Event	r llog	
Intercom Genera Tables Table : Posi	Pin acces a control mo toutput: tion PIN1 223 PIN2 0	s Caller id # ode: Joint (Output 1 PIN 3	Outputs WINF1 & WINF	Digital interface	Table 2)	emporary pin	Table 2 outpu Position PIN251 PIN252	vvice button Add ut: Output 2 PIN 0	ministration	Misc Event	•)	*
Intercom Genera Tables Table Posi	Pin access a control mo 1 output: tion PIN1 223 PIN2 0 PIN3 0	s Caller id # ode: Joint (Output 1 PIN 3	Outputs	Digital interface	Table 2)	imporary pin	Table 2 outpu Position PIN251 PIN252 PIN253	ut: Output 2 PIN 0 0 0 0 0	ministration	Misc Event		*
Intercom Genera Tables Table	Pin access a control mo toutput: tion PIN1 223 PIN2 0 PIN3 0 PIN4 0	s Caller id # ode: Joint (Output 1 PIN 3	Outputs WINF1 & WINF Mark	Digital interface	Table 2)	 The second sec	Table 2 outpu Position PIN251 PIN252 PIN253 PIN253 PIN254	ut Output 2 PIN 0 0 0 0 0		Misc Event	×	*
Intercom Genera Tables Table Post	Pin access a control mod 1 output: tion 223 PIN2 0 PIN2 0 PIN3 0 PIN5 0	s Caller id #	Outputs Outputs Mark	Digital interface	Table 2)	emporary pin	Table 2 output Position PIN251 PIN252 PIN253 PIN254 PIN254 PIN255	ut: Output 2 PIN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Misc Event	×	*
Intercom Genera Tables Tables Posi	Pin access a control mod 1 output: tion 223 PIN2 0 PIN3 0 PIN3 0 PIN5 0 PIN6 0	s Caller id #	Outputs Outputs MinF1 & WinF1 Mark	Digital interface	Table 2)	 emporary pin * *<	Table 2 output Position PIN251 PIN252 PIN253 PIN254 PIN255 PIN255 PIN255	rvice button Adr Adr PIN 0 0 0 0 0 0 0 0 0 0 0 0 0		Misc Event		*
Intercom Tables Tables Posi	Pin acces a control mo tion PIN1 223 PIN2 0 PIN2 0 PIN4 0 PIN5 0 PIN5 0 PIN7 0	s Caller id #	Outputs Minr1 & Winr1 Mark	Digital interface	Table 2)	 Temporary pin Temporary pin	Table 2 output Position PIN251 PIN253 PIN253 PIN254 PIN255 PIN256 PIN256 PIN257	rvice button Add Add PIN 0 0 0 0 0 0 0 0 0 0 0 0 0		Misc Event		*
Intercom Tables Tables Posit	Pin acces a control mod tion PIN1 223 PIN2 0 PIN3 0 PIN3 0 PIN5 0 PIN7 0 PIN8 0	s Caller id #	Outputs Milling Mark	Digital interface	Table 2)	emporary pin	Table 2 output Position PIN251 PIN253 PIN253 PIN254 PIN255 PIN256 PIN257 PIN257 PIN257	rvice button Add Add PIN 0 0 0 0 0 0 0 0 0 0 0 0 0		Misc Event		* *

Figure 5: WEB Server-Unit management window

8.4 INTERCOM CONFIGURATION

Primary function of the SOLO-NX unit is intercom support. Selecting (calling) apartment number is achieved pressing the call button beside appropriate name plate.

This actions will start a voice call procedure from **Phone number 1** till **Phone number 5**. After the call is answered the called user has the option to trigger the output by pressing "11" for opening *Output 1 or "21"* for triggering Output 2.

If the call is answered the unit will stop dialing next numbers on the list.

Management of the intercom function is found under Intercom tab.



Figure 6: WEB Server-Intercom settings.

Intercom management parameters:

- Telephone number 1...Telephone number 5: Number that the unit will call when call button pressed.
- Delay before dialing next no. on the list: Time delay in second before next user on the list gets dialed if the call to the previous user is not answered.
- Extension number: Parameter is used to set the DTMF number in auto self-select function
- Extension no. delay: Parameter is used to set the delay (in sec.) for sending DTMF number in auto self-select function.
- Work time start, Work time end: Parameters are used to define work time schedule. Inside this limits number under position 1 to 4 will be dialed, outside this limits number under position 5 will be dialed.

Voice call setting

- **Microphone level:** Increasing the level will increase the sensitivity of the unit microphone decreasing will decrease the sensitivity.
- **Speaker level:** Increasing the level will increase the volume of the unit speaker, decreasing will decrease the level of the speaker.
- **Ringing sound:** By selecting *Playing* the unit will play the dial tone in the connection phase of the call, by selecting *Muted* the unit will not play any sound in the connection phase of the call.
- On activate input: By selecting *Play beep sound (buzzer)* the unit will provide audio feed back (buzzer BEEP) when the apartment entry is selected, by selected *Muted* unit will provide no audio feedback when the apartment entry is selected.

8.5 WIEGAND ACCESS

SOLO-NX unit has onboard support for 2 Wiegand output based device. With the user of external replicator more Wiegand devices can be connected to the unit.

Configuration of first Wiegand interface is found in **Digital interface** tab. First Wiegand interface can be found on board with a dedicated Wiegand connector and cables.

Settings												
Intercom P	in access	Caller id #	Outputs	Digital interface	Inputs	Temporary pin access	Administration	Misc	Event log	Communications log		
- Input												
Мо	de: 2											
Facility cor	de: Dis	sabled										
- Output												
Wiegand	type: V	N26			-							
Data for	rmat: 0											
Front pa	arity: E	ven										
Trailing pa	arity: 0	bdd										
Facility c	ode: 0	_	÷									

Figure 7: WEB Server-First Wiegand interface support.

- **Mode:** Select appropriate data formatting (Advise unit provider for more info if needed, mode 2 is most common setting)
- Facility code: User can *Enable* or *Disable* facility code field.

Second Wiegand interface is shared with alarm input lines, user must select *Wiegand* in **Input operation mode** found in the **Inputs** tab.

Additional settings for Wiegand interface input are found in Wiegand input 2 configuration section.

ttings											
Intercom	Pin access	Caller id #	Outputs	Digital interface	Inputs	Temporary pin access	Service button	Administration	Misc	Event log	
- Input o	peration										
Input	operation mode	Wiegano	i	_	_	·					
► Inputs	configuration										
 Outgoi 	ng SMS identifi	cation labels									
Locati	on identificatior	User Loca	tion								
Inpu	t 1 identificatior	n: Input 1									
Inpu	t 2 identificatior	n: Input 2									
• Wiega	nd input 2 confi	guration									
	Mode: 2	_	_		•						
Facility	code: Disa	bled			•						

Figure 8: WEB Server-Wiegand interface support.

- **Mode:** Select appropriate data formatting (Advise unit provider for more info if needed, mode 2 is most common setting)
- Facility code: User can *Enable* or *Disable* facility code field.

Wiegand devices can be defined in two sections. First section is permanent pin codes and second is temporary pin codes - limited by the number of use.

NOTE	See Chapter 9. WIEGAND INPUT DATA FORMATS for detailed explanation of different data format options.
NOTE	Unit MUST be restarted when switching between <i>Normal</i> and <i>Wiegand</i> mode

Permanent use: devices are added in **Pin access** tables.

They are placed in two tables. For each table user can define which output they will trigger.

Settings														
Intercom	Pin access	Caller id #	Outputs	Digital interface	Inputs	Temporary pin acce	s Service I	outton	Administration	Misc	Timer	Event log	Communications log	1
General														
	Tables cont	rol mode:	Joint (WINI	F1 & WINF2 Control	Table 1 & Ta	able 2) 🔻								
Enable P	N notification	function:	Disabled *											
Table 1 outpu	t: Output	1 -					Table 2 or	itput:	Output 2 🔻					
Position		PIN		User name			Positio	on	PIN			User name		Â.
PIN1	2233		Larry			1	PINI	.001 0					1	<u>^</u>
PIN2	1234		Durd			1	PINI	.002 0					1	
PINS	1122		Quins FOB			1	PINI	003 0					1	
PIN4	0					1	PINI	.004 0					1	
PINS	0					1	PINI	005 0					1	
PIN6	0					1	PINI	006 0					1	
PIN7	0					1	PINI	.007 0					1	
PIN8	0					1	T PINI	008 0					1	-

Figure 9: WEB Server-Adding Wiegand devices with permanent use.

Temporary pin codes are placed in **Temporary pin access** tab.

ttings												
Intercom	Pin access	Caller id #	Outputs	Digital interface	Inputs	Temporary pin acces	Service button	Administration	Misc	Event log		
- Genera	I											
Temp	PIN codes acti	vate output:	Disabled	_	_	•						
Pos	ition		PIN		Coun	ter		User name				Ĵ,
	SPIN1 0			0							1	
	SPIN2 0			0							1	-
	SPIN3 0			0							12	
	SPIN4 0			0							12	
	SPIN5 0			0							19	
	SPIN6 0			0							12	
	SPIN7 0			0							12	
	SPIN8 0			0							114	-

Figure 10: WEB Server-Adding Wiegand devices with temporary use.

• **Temp PIN codes activate output:** Selecting the output that will be triggered in case of correct SPIN code.

• **SPIN entry:** For each SPIN entry user need to select PIN code value, Counter value which defines how many time the PIN code will be valid and optional a User name. Counter will be decreased each time SPIN code will be used.

8.6 CALLER ID ACCESS

Caller ID access is a very simple way to control relay output defined in **Caller ID output** setting. User will by calling in the SOLO-NX unit trigger defined output.

Settings for this function are found in the **Caller id #** tab.

 Settings 										
Intercom Pin acces	s Caller id #	Outputs	Digital interface	Inputs Te	emporary pin access	Service button	Administration	Misc E	event log	Communications log
General settings										
Caller ID security	mode: Caller	ID for specific	users		•					
Caller ID o	utput: Outpu	ıt 1			•					
Position		,	Phone number	_		U	ser			÷
CL	ય									<i>•</i>
CL	22									1
CL	3									1
CL	94									1
CL	25									1
CL	~									1
CL	97									1
CL	%									1
CL	9									1
CLP	10									1
CLP	11									1

Figure 11: WEB Server-Caller ID Access

General settings:

• Caller ID security mode: User can select between 3 options:

Caller ID Disabled deactivates caller ID function – all numbers are restricted *Caller ID for specific users* will limit the caller ID function only to the numbers on the list. *Caller ID always ON* will allow all user that know the number of the unit to open defined output. In last option the user doesn't need to be on the list to trigger the output

• Caller ID output: Selecting the output that will be triggered in Caller ID function.

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NOTE	Selection <i>Caller ID always ON</i> will allow anybody with the knowledge of the unit number to trigger the output by calling the unit. Use this setting with caution.

8.7 OUTPUTS SETTINGS

The behavior on the outputs is defined in the **Output tab.**

tercom Pin access Caller id #	Outputs Digital interface			
	Digital Interface	Inputs Temporary pin access	Service button Administration	Misc Event log
Output 1				
Output (relay) mode : Time p	ulse	~		
Output pulse duration: 5				
Output is: Norma	lly open	-		
Output 2				
Output (relay) mode : Time p	ulse	•		
Output pulse duration: 5	×			
Output is: Norma	illy open	•		
Additional output settings				
Voice active indication:	Not used	•		
Unathorised call or SMS received:	Not used	*		
Button presssed indication:	Not used	*		
Input 1 activate output:	Not used	•		
Input 2 activate output:	Not used	•		

Figure 12: WEB Server-Output setting

Output 1 - Settings for output 1:

• Output (relay) mode: User can select between 3 options

Disable-Output is disabled.

Latching-Output is in latching mode. First Caller ID or PIN entry will activate the output, second Caller ID or PIN entry will deactivate the output.

Time Pulse-Output is time pulse mode. After output is triggered it will be activated for the time defined in **Output pulse duration**, after that time output will be restored.

- **Output pulse duration:** ON time for output in case of output mode *Timer pulse*.
- **Output is:** Output can work in normal or inverted (normally close) mode.

Normally open-In idle mode output pins are in open position. *Normally closed*-In idle mode output connections are closed.

Output 2 - Settings for output 2:

- Output (relay) mode: User can select between 3 options
 Disable-Output is disabled
 Latching-Output is in latching mode. First Caller ID or PIN entry will activate the output,
 second Caller ID or PIN entry will deactivate the output.
 Time Pulse-Output is time pulse mode. After output is triggered it will be activated for the
 time defined in Output pulse duration, after that time output will be restored.
- **Output pulse duration:** ON time for output in case of output mode *Timer pulse*.
- **Output is:** Output can work in normal or inverted (normally close) mode. *Normally open-*In idle mode output pins are in open position. *Normally closed-*In idle mode output connections are closed.

Additional output settings - Setting are used to link onboard actions with the outputs if needed:

- Voice active indication: When unit reaches voice connection (intercom call) output defined under this section gets activated.
- Unauthorized call or SMS received: If unauthorized call or SMS is received on the unit this event will activate output defined under this section.
- **Button pressed indication:** When intercom call button is pressed output defined under this section gets activated.
- Input 1 activate output: If input 1 is in alarm mode (Input operation mode: *Normal* mode selected) alarm input event on the input will activate output defined under this section.
- **Input 2 activate output:** If input 2 is in alarm mode (**Input operation mode:** *Normal* mode selected) alarm input event on the input will activate output defined under this section.

NOTE	Do to limitation of the outputs use additional outputs settings with care.
------	--

8.8 SOLO-NX WIEGAND OUTPUT INTEGRATION

SOLO-NX unit can be integrated into a bigger access system using a Wiegand interface. In this case number's calling the SOLO-NX unit will be transferred, over Wiegand interface, to access system.

Settings											
Intercom	Pin access	i Caller id #	Outputs	Digital interface	Inputs	Temporary pin access	Service button	Administration	Misc	Event log	
• Output											
Wiega	nd type:	W26			-						
Data	format:	0			•						
Fron	t parity:	Even			•						
Trailing	g parity:	Odd			.]					
Facili	ty code:	0									

Figure 13: WEB Server-Wiegand Output settings.

Configuration of the Wiegand output interface

- Wiegand Type: Type of the Wiegand used (W26 is most common setting)
- Data format: Format of data set on the selected Wiegand type.
- Front parity, trailing parity: Selection of the proper parity in selected Wiegand type.
- Facility code: Is required, user can define facility code to Wiegand data.

8.9 TIMER-TIMED CONTROLED OUTPUT

SOLO-NX unit features 2 timers that can be used to control the ouputs on the unit. Timers can run in day or week mode depending on the selected setting. For each timer user can select which output it will control. The behavior of the outputs (Time pulse or Latching mode) is defined in the **Output** tab.

The described settings are the same for both timers.



Figure 14: WEB Server-Timer setting \rightarrow Day mode.

tercom	Pin access	s Caller id #	Outputs	Digital interface	Inputs	Temporary pin access	Service button	Administration	Misc	Timer	Event log	
ommunica	tions log											
Timer 1	Timer 2											
	Timer:	Enabled			•	Day Sunday	Monday Tuesd	lay Wednesday	Thursd	lay	Friday Saturday	
	Mode:	Week			•	Time from	Time to	Duration		^		
Timer o	ontrols:	Output 2	_	_	•	06:12	07:22	01:10	1	÷		
						15:00	16:35	01:35	11	î		
									1	Û		
									1	Î		
									1	Î		
									1	Î		
									1	Î		
									1			
									1			
									1			



Timer settings:

- **Timer:** Parameter is used to enable and disable the timer function.
- **Mode:** User can select between day or week mode. In day mode the timer will control on the day table which is the same for all week. In week mode the user can define different setting for each day in the week.
- **Timer controls:** Output controlled by the timer function.

8.10 ADMINISTRATION

Administration tab allows user to enable advanced settings: notification of unauthorized access, periodic test messages, lock down of the unit...

ttings											
Intercom	Pin access Caller id #	Outputs Digital	nterface Inputs	Temporary	pin access	Service button	Administration	Misc Ev	vent log		
Position	Phone number	Us	er name	Input 1	Input 2	Periodic test	Low credit alert	Unauthorised call	Log full		Ĵ
1				1						12	^
2										1	
з										1	H
4										1	
5										12	-
General	l settings	ogram by SMS: An	rone			•					
	Automatic call to a	dministrator 1: 0	A	Period in days							
	Periodic test tim	e gan settings: 0		Period in hours							
	Periodic test uni	ergap settings: 0									

Figure 16: WEB Server-Notification numbers

- **Phone number**, **User name:** Phone number and user name of the user that will be receiving notification messages.
- Input1, Input2: If input lines 1 & 2 are defined in alarm mode (Input operation mode: *Normal* mode) and if alarm condition is meet, users with check boxes will receive alarm notification SMS.



Figure 17: WEB Server-Input alarm configuration

- **Periodic test:** User can receive periodic (keep-alive) SMS, tick the check box for the appropriate user. Timer period is defined under parameter **Automatic periodic test SMS**, it is definable in hours.
- Low credit alert: In case of prepaid SIM card the unit can notify the user if the credit on the SIM card is low. To enable notification SMS tick the check box in corresponding position. Note that additional input in the **Misc** tab is needed to fully enable credit checking function.

- Unauthorized call: In case of unauthorized call the unit can notify user. To enable notification SMS tick the check box in corresponding position.
- Administration allowed to remote program by SMS: By selection this option the user can "Lock down" the SOLO-NX unit, preventing any unauthorized user to change any configuration on the unit.
- Automatic call to administrator 1: To prevent SIM card provider to lock out the SIM card from the network, user can define a periodic call out to telephone number under position 1. Parameter is defined in days (It is not mandatory to set this parameter).

8.11 EVENT LOGING

SOLO-NX unit itself supports a 20000 log event entry. These log events can be pull up to the server by clicking **Read Log** button in the "Event Log" tab. Events are listed in the table.

Settings														
Intercom	Pin access	Caller id #	Outputs	Digital interfa	ce Inputs	Temporary pi	n access	Service buttor	n Adminis	tration Misc	Event log	Communicatio	ons log	
- Genera	al				Event	type	Time		User			Output	Extr	ra info
Autor	natic log clearin	g: Enable	ed	•	PIN CODE		13.06.201	6 12:53:53	44121		Output 1:	ON		A
	Event logging: ON - internal memory				PIN CODE		13.06.201	6 08:36:04	44121		Output 1:	ON		
					DIGITAL INPUT		12.06.201	6 11:26:44	APT.258		None		8326407054	
Read log	Last log read	24.06.2016 2	3:08:08		PIN CODE		12.06.201	6 00:26:44	44190		Output 2:	ON		
					NAC		11.06.201	6 19:49:37			None		9366616616	
					PIN CODE		11.06.201	6 15:25:56	44092		Output 1:	OFF		
					PIN CODE		11.06.201	6 15:25:55	44092		Output 1:	ON		
					PIN CODE		11.06.201	6 15:25:55	44092		Output 1:	OFF		
					PIN CODE		11.06.201	6 15:25:54	44092		Output 1:	ON		
					CLIP		11.06.201	6 11:55:09	2818408073		Output 1:	ON		-

Figure 18: WEB Server-Log event

Each event is equipped with the event type, time, output if triggered and the user name of the user responsible for the event.

If user names are available (Called ID #, PIN codes, Intercom user ...) user name will be shown in the user column.

NOTE After events are read and stored to the server, the local copy on the unit gets deleted.
NOTE deleted.

8.12 MISCELLANEOUS

This tab is split into 2 sections.

itercom Pin access	Caller id #	Outputs	Digital interface	Inputs	Temporary pin access	Administration	Misc	Event log	Communications log		
 General settings 											
SN	1S text langua	ge: Engli	sh		•						
Automatic GSM modul	e restart inter	val: 0	*								
				_							
Sel	f updating clo	ck: Enab	led		•						
Sel	f updating clo	ock: Enab	led		•						
Prepaid SIM card setting	f updating clo gs	ock: Enab	led		· ·						
Prepaid SIM card setting Provider preset:	f updating clo gs AT&T	ock: Enab	led		•						
Prepaid SIM card settin Provider preset: Calling code:	f updating clo gs AT&T *777#	ock: Enab	led	_	•						
Prepaid SIM card settin, Provider preset: Calling code: Currency code:	f updating clo gs AT&T *777# USD	ck: Enab	led		•						
Prepaid SIM card settin Provider preset: Calling code: Currency code: Value:	f updating clo gs AT&T *777# USD 1	ck: Enab	led	-	•						
Prepaid SIM card settin Provider preset: Calling code: Currency code: Value: Low credit SMS alert:	f updating clo gs AT&T *777# USD 1 1	ck: Enab	led	3	•						

Figure 19: WEB Server-Misc

General settings can be found:

- SMS text Language: define the language of the SMS information send out. User can select appropriate language in drop-down menu.
- Automatic GSM module restart interval: User can select GSM module restart interval (hours) if needed (Not advisable to use this parameter if not advised otherwise).
- **Self-updating clock:** Parameter is used to allow unit to synchronize to real time. To have the correct time along in log event it is advisable to enable this function.

Prepaid SIM card setting is used the enable credit checking/parsing in case if prepaid SIM card is used. User can select the proper setting by selecting used SIM card provider in the drop down menu in **Provider preset**.

8.13 PIN ACCESS NOTIFICATION FUNCTION

This function is used to notify administrator when a selected pin code is being used. Notification is done by SMS send to the selected administrator numbers.

Global enabling of the notification function is done in 2. steps.

STEP 1: User has to select **Enable** option in the **Enable Pin Notificaiton function**.

STEP 2: Send the configuration to the device!!

This procedure is ONLY done 1 time when enabling this function.

ttings															
Intercom	Pin access	Caller id # (Dutputs Digital interface	Inputs	Temporary pin access	Service button	Administration	Misc	Timer	Event log	Communicatio	ns log			
- General	- General														
	Tables control mode: Joint (WINF1 & WINF2 Control Table 1 & Table 2) 🔻														
Fnable P	Tables control mode: Joint (WINF & WINF 2 Control Table 1 & Table 2) * Enable PIN notification function: Enabled *														
	Enable PIN notification function: Enabled														
Table 1 outpu	Table 1 output 1 * Table 2 output: Output 2 *														
Position	PIN		User name	Notify	<u></u>	Position	PIN		User na	me	Notify		÷		
PIN1	2233	Larry			<i>•</i>	PIN1001 0						17	^		
PIN2	1234	Durd		1	1	PIN1002 0						1			
PIN3	1122	Quins	FOB		1	PIN1003 0						12			
PIN4	0				1	PIN1004 0						1			
PIN5	0				1	PIN1005 0						12			
PIN6	0				1	PIN1006 0						1			
PIN7	0				1	PIN1007 0						12			
PIN8	0				1	PIN1008 0						1.			

Figure 20: WEB Server-Global enabling of the notificaton function.

After the notification function is enabled, user can select which pin code will send the notification SMS. This is done by placing a tick in the check box of the pin code notify field.

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The last step is selecting a number that will be reciving the notification SMS. Selecting is done in the **Administraton** tab. In the **Notify PIN** column put a tick in the check box for the appropriate phone number, multiple choices are possible.

ttings																
Intercom	Pin access	Caller id #	Outputs	Digital interface	Inputs	Temporary pin a	access Servi	ce button	Admi	inistration	Misc	Timer	Event log	Communications	log	
Position	Pł	ione number		User name		Input 1	Input 2	Periodic	test	Low credit alert	Una	uthorised call	Log full	Notify PIN		÷
1	1212121212													1	P	-
2	2222222222														12	
3															12	=
4															12	
5															12	-
General s	ettings trator allowed Auto Pe	d to remote pro omatic call to a Automatic peri eriodic test time	ogram by SM dministrator iodic test SM e gap setting	S: Anyone ▼ 1: 0 S: 24 s: 0	Pe Pe	riod in days riod in hours										

Figure 21: WEB Server-Selecting administrator numbers for notification.

9 WIEGAND INPUT DATA FORMATs

SOLO-NX supports standard Wiegand interface, it will work with Wiegand 26bit and Wiegand 30bit protocol. On each Wiegand protocol SOLO unit support 4 different data formats, they all can be selected through all possible management systems.

Selecting the appropriate data format for FIRST Wiegand interface is done by connecting the WEB server, selecting the **Digital interface** and in **Input** section selecting proper **Mode** option.



Figure 22: WEB Server-First Wiegand interface support.

Selecting the appropriate data format for SECOND Wiegand interface is done by connecting to the WEB server, selecting the **Input** tab and in **Wiegand input 2 configuration** section selecting proper **Mode** option.

Se	ttings											
I	Intercom	Pin access	Caller id #	Outputs	Digital interface	Inputs	Temporary pin access	Service button	Administration	Misc	Event log	
	- Input o	peration										
	Input	operation mod	e: Wiegan	1		=	•					
	→ Inputs	configuration										
	 Outgoi 	ng SMS identif	ication labels									
	Locati	on identificatio	User Loca	tion								
	Inpu	t 1 identificatio	n: Input 1									
	Inpu	t 2 identificatio	n: Input 2									
	• Wiegar	nd input 2 conf	iguration									
		Mode: 2				•						
	Facility	code: Dis	abled			•						

Figure 23: WEB Server-Second Wiegand interface support.

9.1 WIEGAND 26 BIT, DIFFERENT DATA FORMATS

Possible data format:

Mode 0: All 24bit of data are used a decimal representation, no option for facility code

Р	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	Р
Parity										2	24Bi	t care	d nw	mber	•										Parity

	Limits
Card Number	0 - 16777215
Facility Number	None

Table 1: Wiegand 26: Mode 0.

|--|

Р	F	F	F	F	F	F	F	F	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	Р
Parity		8Bit	car	d fac	cility	nun	nber							-	16Bi	t car	d nu	mbei	•						Parity

	Limits
Card Number	0 - 16777215
Facility Number	NOT USED

Table 2: Wiegand 26: Mode 1.

Mode 2: 24bit of data is divided between facility code 8 bits and 16bits for card number

Р	F	F	F	F	F	F	F	F	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	Р
Parity		8Bi	car	d fac	cility	nun	nber							-	16Bit	t car	d nu	mber	•						Parity

	Limits
Card Number	0 - 16777215
Facility Number	0 - 255

Table 3: Wiegand 26: Mode 2.

Mode 3: Sections of 4bit data are used as decimals values for number

Р	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	Р
Parity		Dee	c. 6			De	c. 5			Dee	e . 4			Dee	c. 3			Dee	e. 2			De	c. 1		Parity

	Limits
Card Number	0 - 99999
Facility Number	None

Table 4: Wiegand 26: Mode 3.

9.2 WIEGAND 30 BIT, DIFFERENT DATA FORMATS

Possible data format:

Mode 0: All 30bit of data are used a decimal representation, no option for facility code

Р	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	Р
Parity													28Bi	t car	d nui	nber													Parity

	Limits
Card Number	0 - 268435455
Facility Number	None

Table 5: Wiegand 30: Mode 0.

Mode 1: 30bit of data is divided between facility code 8 bits, 16bits for card number and 4bits of unused data.

Р	0	0	0	0	F	F	F	F	F	F	F	F	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	Р
Parity		Not	used	8Bit facility number														16Bit	caro	l nur	nber							Parity	

	Limits
Card Number	0 - 16777215
Facility Number	NOT USED

Table 6: Wiegand 30: Mode 1.

Mode 2: 28bit of data is divided between facility code 8 bits, 16bits for card number and 4bits of unused data.

Р	0	0	0	0	F	F	F	F	F	F	F	F	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	Р
Parity		Not	used			8	Bit f	acilit	y nu	mber	r							1	16Bit	card	l nun	ıber							Parity

	Limits
Card Number	0 - 16777215
Facility Number	0 - 255

Table 7: Wiegand 30: Mode 2.

Mode 3: Sections of 4bit data are used as decimals values for number

Р	0	0	0	0	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	В	E	3	В	В	Р
Parity	Not Used Dec. 6						De	c. 5			Dee	c . 4			Dee	c. 3			Dec	. 2			D	ec.	1		Parity			

	Limits
Card Number	0 - 99999
Facility Number	None

Table 8: Wiegand 30: Mode 3.

10 CONTACTS

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