EIS4G -LCD Door Entry Unit

EISWARE
Programming Software

USER MANUAL

Transmitter Solutions®

EIS LCD

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Contacts

For technical questions, please call Transmitter Solutions Technical Support at 866-975-0101 ext. 2

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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. Follow any restrictions.

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 WISELY

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

EIS LCD

2. INTRODUCTION

EIS-LCD, is a simple but powerful GSM intercom communication system designed to ensure low-cost, simple to install/use, a reliable, 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.

EIS-LCD units are built for multi apartment applications.

Optional EIS supports alarm detection, heart-beat messages, and more.

3. EIS LCD FEATURES AND APPLICATIONS

Key Features

- Simple installation and setup
- Back lit for easy visibility
- Up to 200 apartments *(by model)
- 2 phone numbers per apartment
- Easy access: Up to 1000 additional caller ID numbers and 2000 (4 digit) PIN codes
- 2 relay outputs / 2 alarm inputs
- Up to 20,000 log events
- Supports 4G-GSM wireless carrier

Programming Options

- Programming with PC via “USB to Mini USB cable” connected to the unit
- Programming by SMS commands
- Programming by WEB server

Typical Applications

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

EIS LCD

4. START UP

EIS LCD, unit accepts a standard GSM SIM (T-Mobile or AT&T) card.

VERY IMPORTANT	Use ONLY the Micro SIM card provided with the EIS-LCD. No other SIM cards are supported 

- Connect power cable to EIS unit (YOU MUST POWER THE EIS UNIT WITH THE POWER SUPPLY INCLUDED). Do not power with any other power supply.
- Power up the unit.
- Wait until LED1 (Blue) starts flashing. This is set in around 30 – 45 seconds.
- EIS unit is now ready to operate.

NOTE	**EIS device will “beep” in 15 sec. intervals until the unit rbegins normal operation.**

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 (1\2 s) ON and a long pulse OFF (5s)

EIS LCD

6. CONNECTION DIAGRAM

Before connection the EIS please take a look at connection diagram.

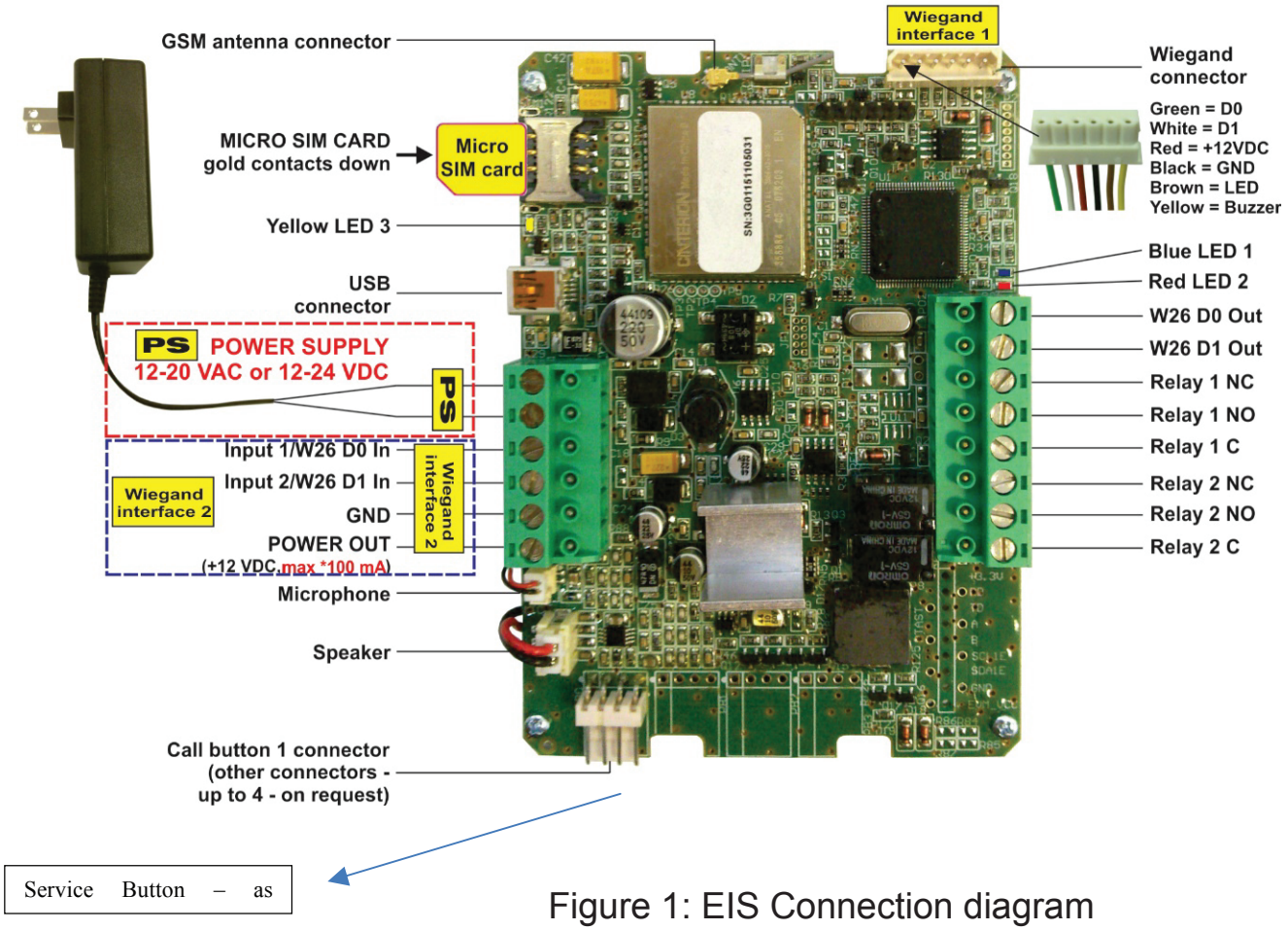

Figure 1: EIS Connection diagram

IMPORTANT	DO NOT USE Power out (12V AUX) to power electric locks! Use a separate power source for electric door locks!

7. EIS MANAGEMENT

Unit supports different types of management (programming):

- Unit can be programmed remotely by using WEB server access.

  Access it by EISWARE.com

- EISWARE APP on IPHONE or ANDROID

  Must have data plan enabled to get data transfer on either method.

These are alternative solutions to accomplish the programming.

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- Unit can be programmed remotely by SMS commands (Optional).
- Unit can be programmed directly by USB connection, with the use of configuration software running on PC (EIS Ware)

8. EIS FUNCTIONS with PROGRAMMING INSTRUCTIONS

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

IMPORTANT	**SIM card in the EIS unit MUST have DATA PLAN to be able to use WEB programming!**

8.1 WEB SERVER - LOG IN

Visit https://www.eisware.com/ to access the web server.

Figure 2: Web Server-Sign In page

Users must first use the Sign In section to create a working profile on the server. A profile can be created using social login options such as Facebook, Google, or Twitter. If the user does not have a social media account, they can proceed to the Sign Up page and create a profile using a standard username and password.

NOTE	**Server supports: Firefox, Google Chrome, Safari.**

8.2 Web SERVER – ADDING UNITS TO USER PROFILE

After logging in, the user will be redirected to the main web server dashboard. From this page, users can add, remove, or search for EIS units linked to their profile.

Select “+” sign to select ADD EIS units to user’s profile.

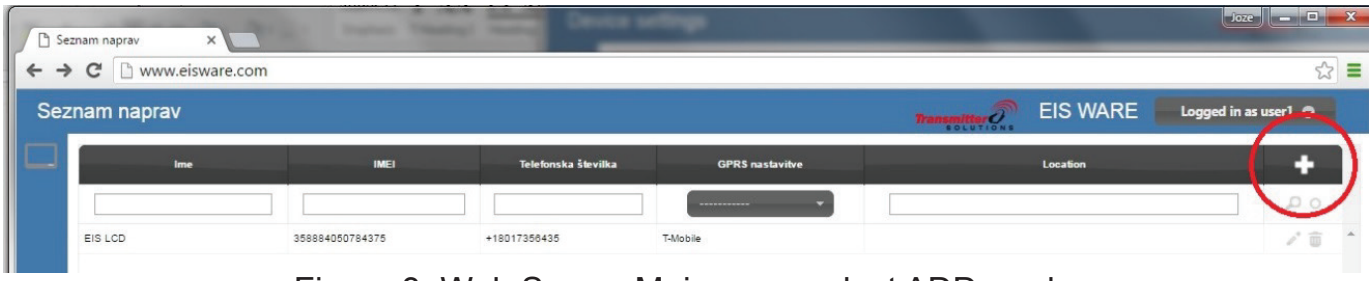

Figure 3: Web Server-Main page select ADD mode

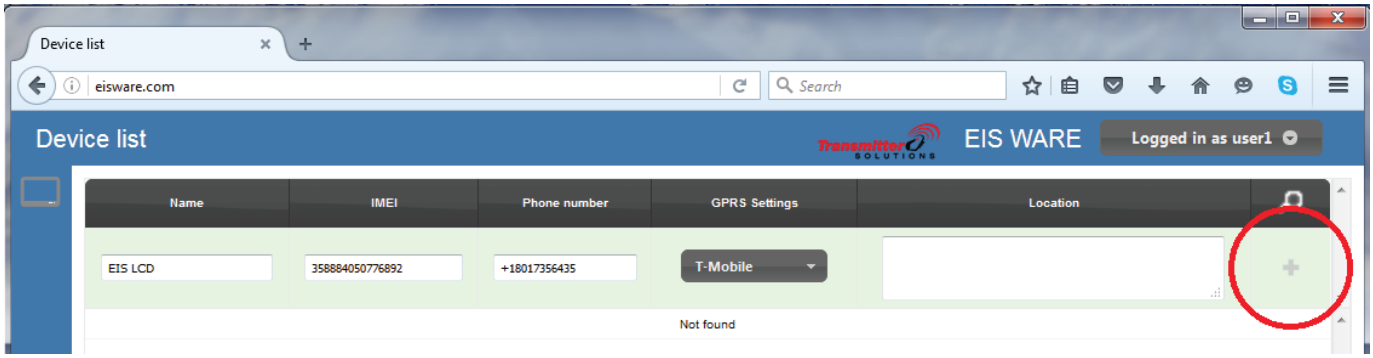

Figure 4: WEB Server-Main page adding EIS units

User then 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 EIS.
- **Phone Number:** The telephone number of the SIM card in the EIS unit - mandatory data.
- **SIM provider:** Information needed to enable data connection between the server and the unit. Selectable from the drop-down menu - mandatory data. If the provider is not on the list, please contact the producer.

Optional Information:

Location: Extra notification field available for the user for their own information

Please note: First-time build of the database may take a few minutes.

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

First building of the unit data-base may take a few minutes. It will show a progress window.

8.3 WEB SERVER-UNIT MANAGEMENT

Once the EIS unit has been added to the user’s database, the configuration settings can be modified as needed.

All changes are tracked in the **Change Log** window. To apply the updates, click the **Send to Device** button—this will transmit all pending changes to the unit. User can (Revert) the changes made, before sending, by clicking (Revert all) or select particular entry and revert it.

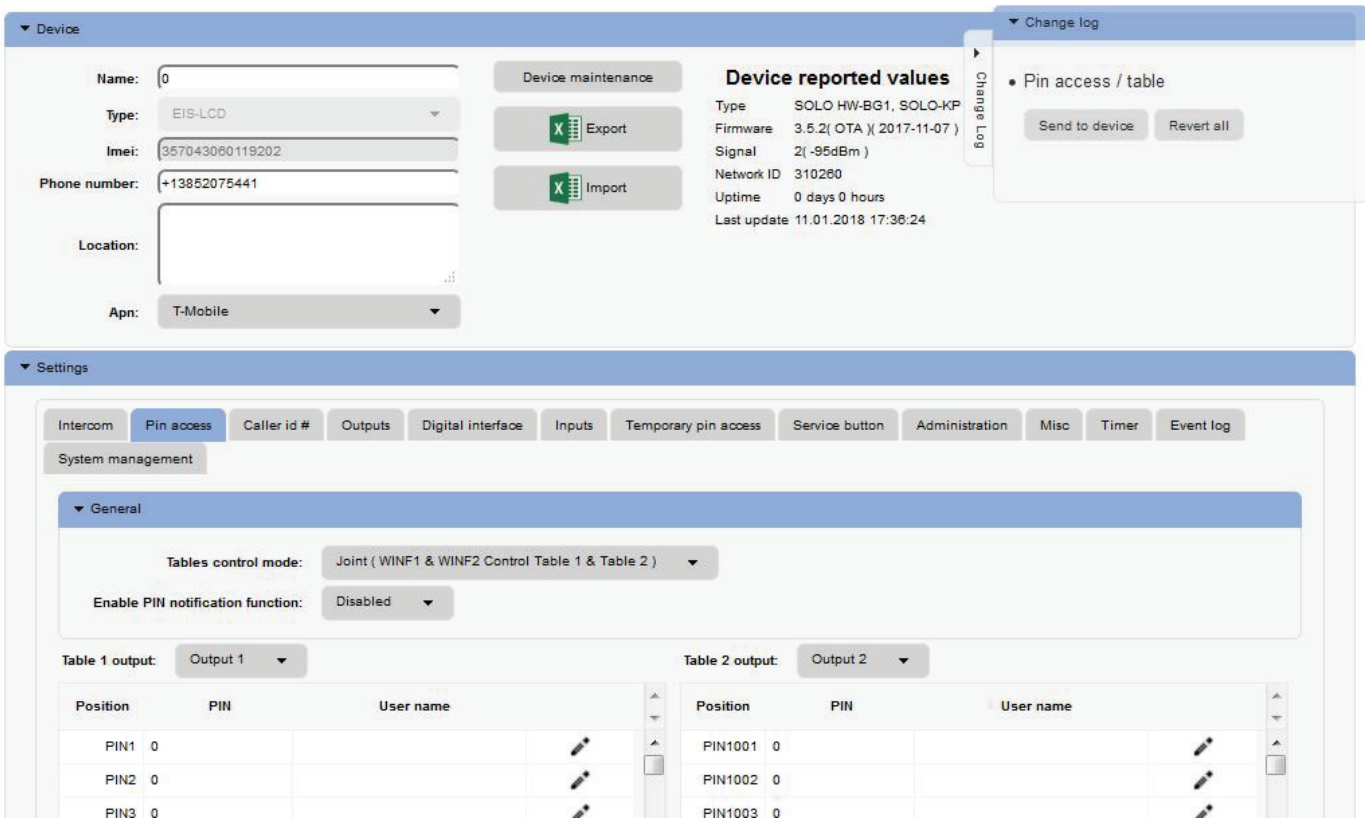

Figure 5: WEB Server-Unit management window

8.4 INTERCOM CONFIGURATION

The primary function of the EIS-LCD unit is intercom support for multi apartment use. Selecting (calling) an apartment number is accomplished in two ways.

- Entering apartment number on the keypad and pressing # at the end.
- Selecting appropriate name with UP/DOWN arrows beside the LCD and press the CALL button

Either of the actions will start a voice call procedure to Phone number 1 and Phone number 2. 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.

** To terminate the call press any button.

Management of the intercom function is found under Intercom tab.

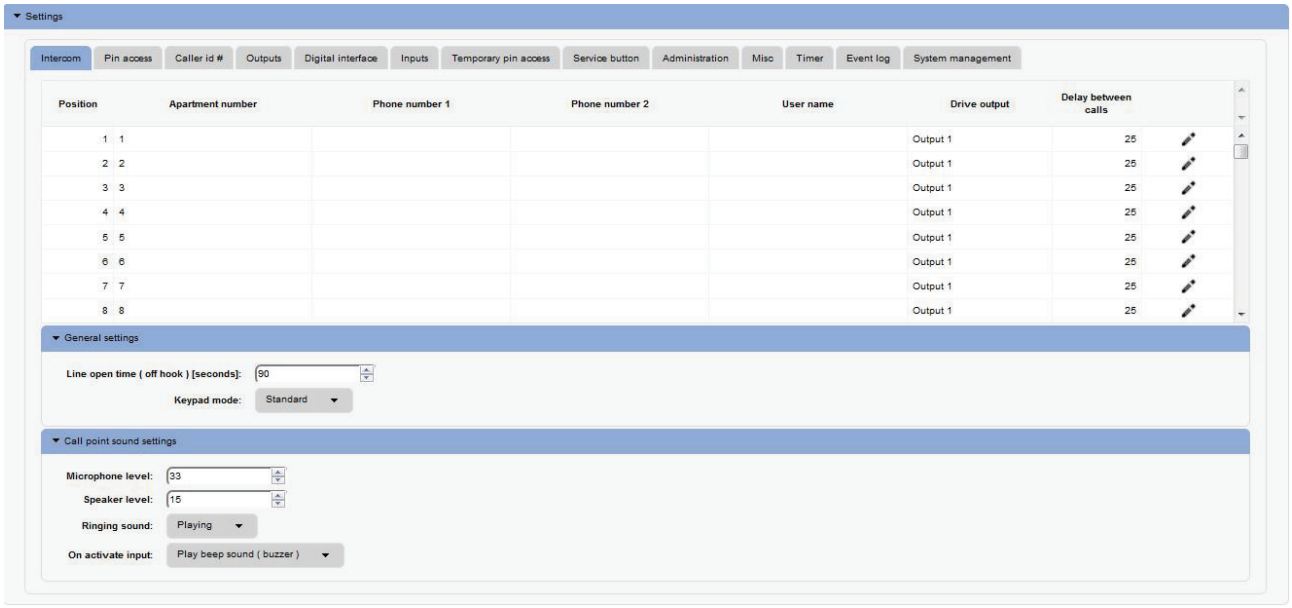

Figure 6: WEB Server-Intercom settings.

Intercom management parameters:

- **Apartment number:** Enter the Dial code of the apartment.
  Example: Dial 12# to get apartment 12.
- **Phone number 1 & Phone number 2:** 2 Numbers that the EIS unit will call when appropriate apartment is selected on the keypad or selected on the LCD screen.
- **User name:** User name shown on the LCD screen.

- **Driver output:** The output that will be triggered if the user with **Phone number 1** or **Phone number 2** will call the unit (Caller Id function)
- **Delay between calls:** Ring time (in seconds) for **Phone number 1** and **Phone number 2.** After the ring time for **Phone number 1** expires and the call is not answered the unit will call **Phone number 2.**
- **Line open time:** Defines maximum in-connection time in second before the unit will automatically disconnect the call.

Voice call setting

- **Microphone level:** Increasing the level will increase the sensitivity of the unit microphon 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 KEYPAD PIN ENTRY – ACCESS

Secondary use of on-board keypad is accessed by entering PIN codes. Pin codes must be at least 4 digits.

Pin codes can be defined in two sections. First section is permanent pin code and second is temporary pin codes which are limited by the consecutive time they are entered.

Permanent pin codes placed in **Pin access** tab.

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

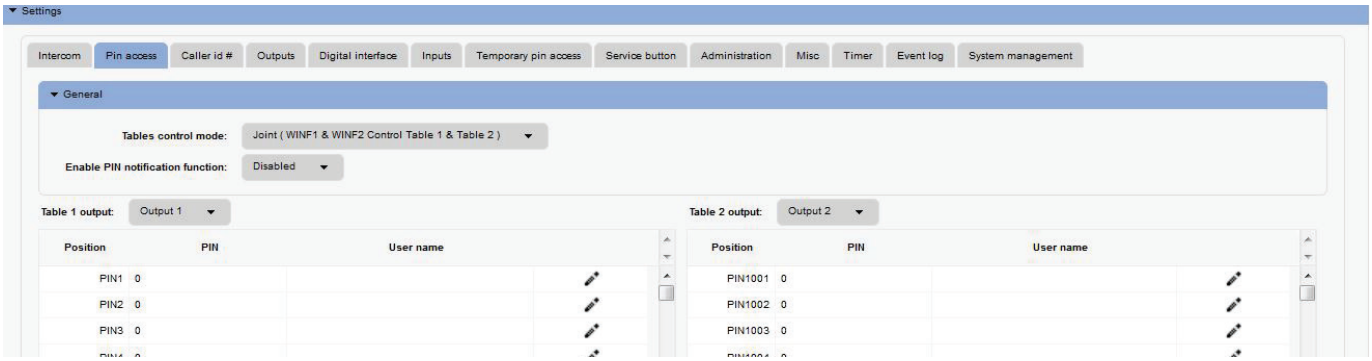

Figure 7: Web Server-Keypad PIN Access: Permanent PIN codes

PIN entry: For each PIN entry user needs to select PIN code value and optional User name. Extended pin codes are placed using the **Extended PIN options** checkbox as seen below.

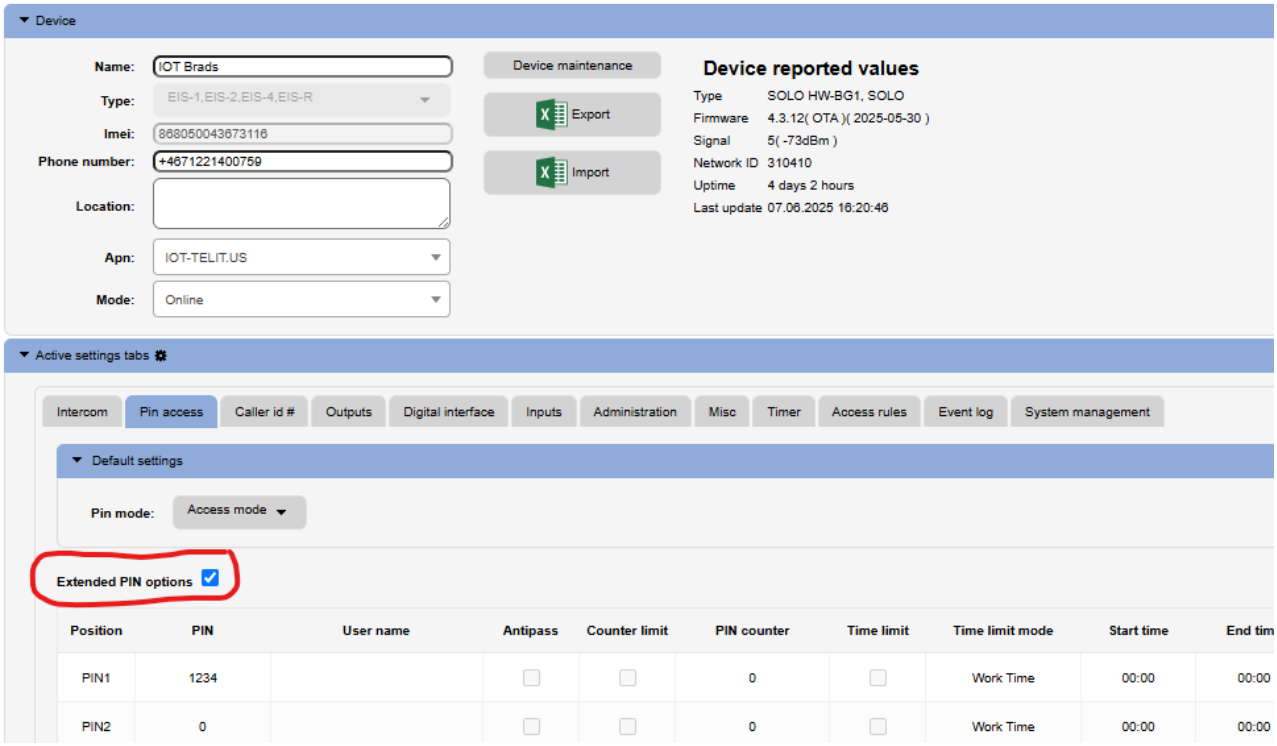

Figure 8: Web Server-Adding Wiegand devices for temporary use using **Extended PIN options** checkbox.

- **Extended PIN codes activate output:** Allows selection of the output that will be triggered in case of correct Extended PIN code.
- **Extended PIN entry:** For each extended PIN entry user needs to select appropriate values.

Extended PIN options	Description
Extended PIN value	Extended PIN code
User name	Name of the user
Notify	With Extended PIN code, administrator numbers CAN be notified
Counter limit	Enable/Disable counter limitation (consecutive use)
Timer limit	Enable/Disable timer limitation
Timer mode	Timer limit mode: Day limit (day limitation), Timer limit (hours of a day access limitation)
Rules valid on weekend	Enable/Disable timer limitation for weekend days
Counter	Number of allowed use of Extended PIN code
Timer start/Timer end	Bottom and Top timer limitation

8.6 WIEGAND ACCESS

EIS unit has onboard support for 2 Wiegand output based devices. With the use 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.

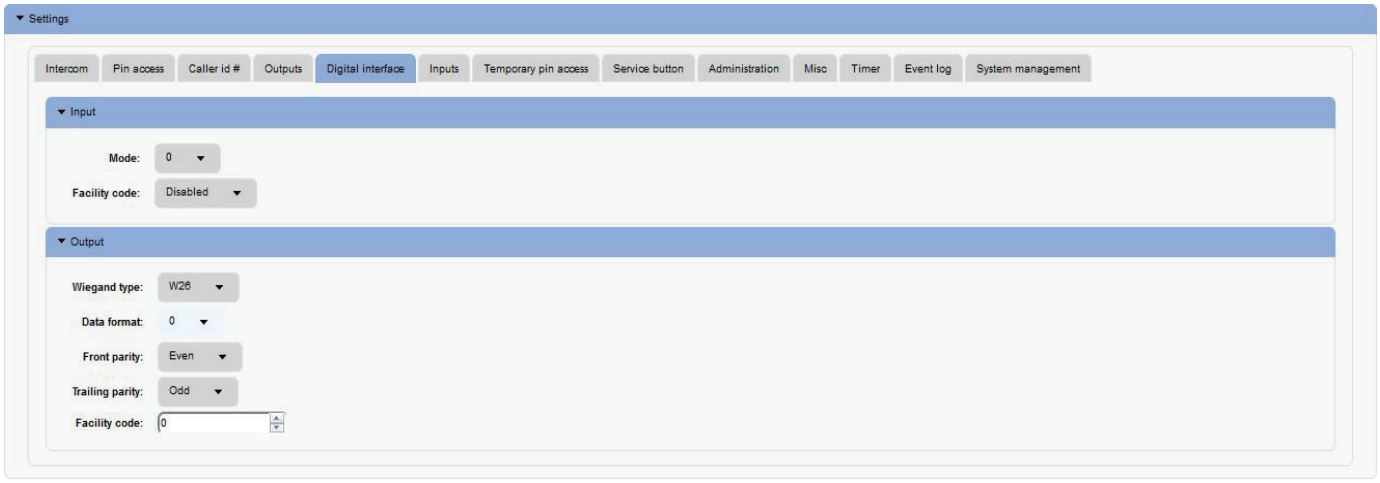

Figure 9: WEB Server-First Wiegand interface support.

- **Mode:** Select appropriate data formatting (See advance settings section if needed, mode 2 is most common setting)
- **Facility code:** User can Enable or Disable facility code field.

NOTE	See Chapter 9-WIEGAND INPUT DATA FORMATs for detailed explanation of different data format options.

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.

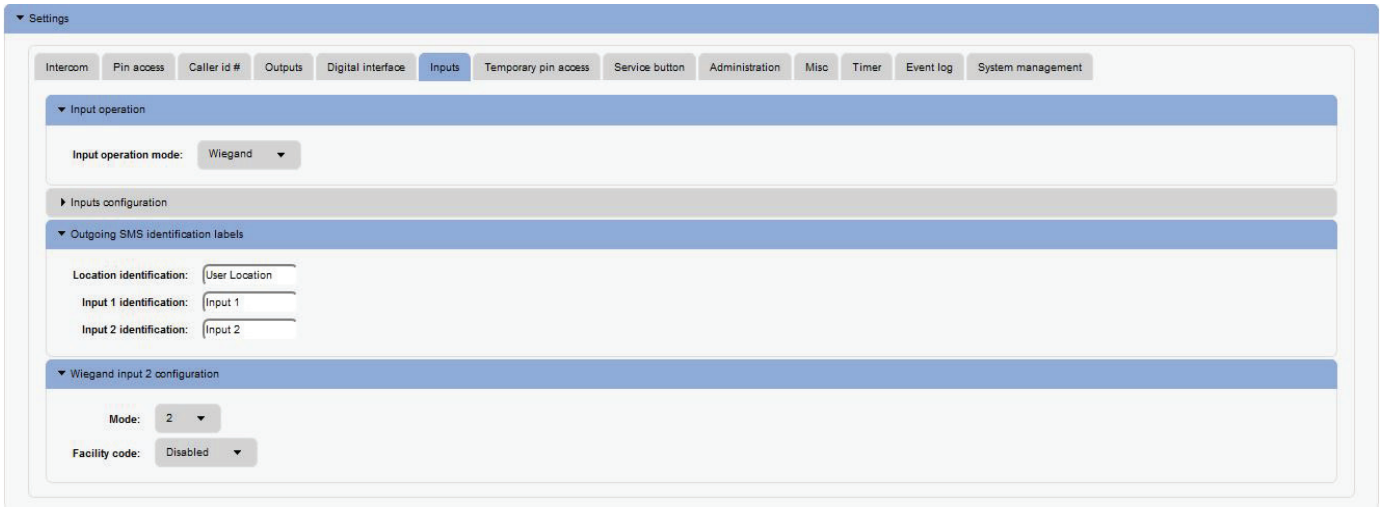

Figure 10: WEB Server-Wiegand interface support.

- **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.

NOTE	See Chapter 9-WIEGAND INPUT DATA FORMATs for detailed explanation of different data format options.

IMPORTANT	Unit MUST be restarted when switching between Normal and Wiegand mode in the **Input operation mode.**

8.7 CALLER ID ACCESS

Caller ID access offers a simple and convenient method for triggering relay outputs. When an authorized user places a call to the EIS unit, the system automatically recognizes the number and activates the designated output.

Configuration settings for this feature can be found under the Caller ID # tab in the web interface.

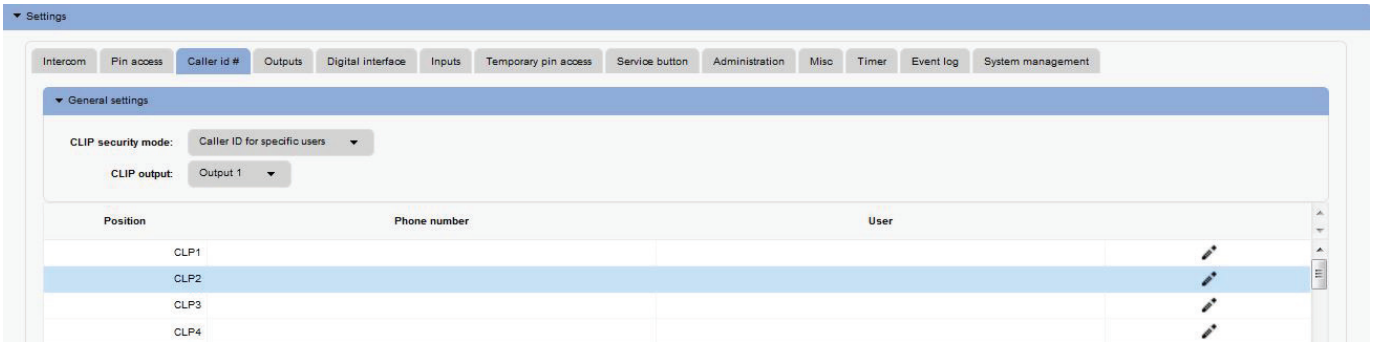

Figure 11: WEB Server-Caller ID Access.

General Settings:

- **Caller ID Security Mode:** Defines how the system handles incoming calls for access control.
  The user can select from three modes:
  Caller ID Disabled – Deactivates the Caller ID function; no numbers are permitted.
  Caller ID for Specific Users – Only phone numbers listed in the system are allowed to trigger outputs.
  Caller ID Always ON – Any caller who knows the unit's number can trigger the output, regardless of whether they are listed. Use this setting with caution.
- **Caller ID Output:** Specifies which output is activated when a valid call is received.

NOTE	Selection **Caller ID always ON** will allow anybody with the knowledge of the SIM card number and the EIS unit to trigger the output by calling the unit. Use this setting with caution.

8.8 OUTPUTS SETTINGS

The behavior on the outputs is defined in the Output tab

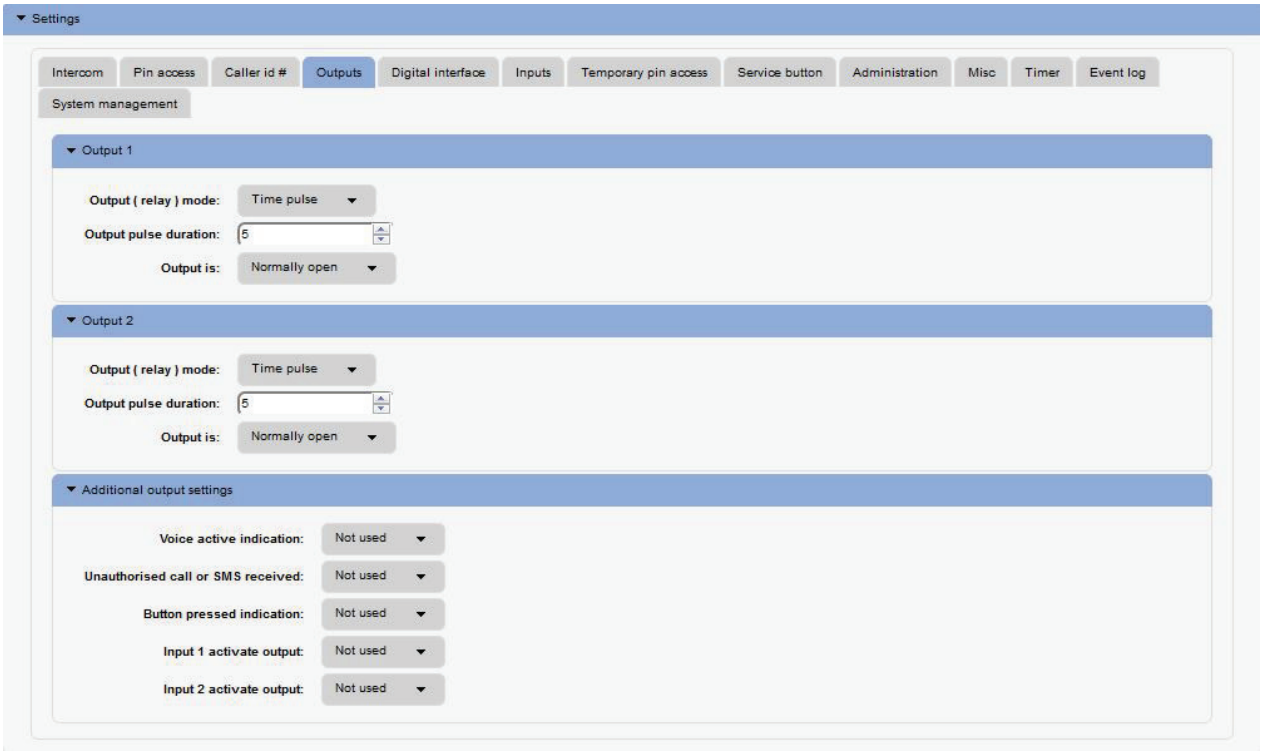

Figure 12: WEB Server-Output setting

Output 1- Settings

- **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 connection 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 connection 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.

8.9 EIS WIEGAND OUTPUT INTEGRATION

EIS unit can be integrated into a bigger access system using a Wiegand interface. In this case numbers calling the unit will be transferred, over Wiegand interface, to access system.

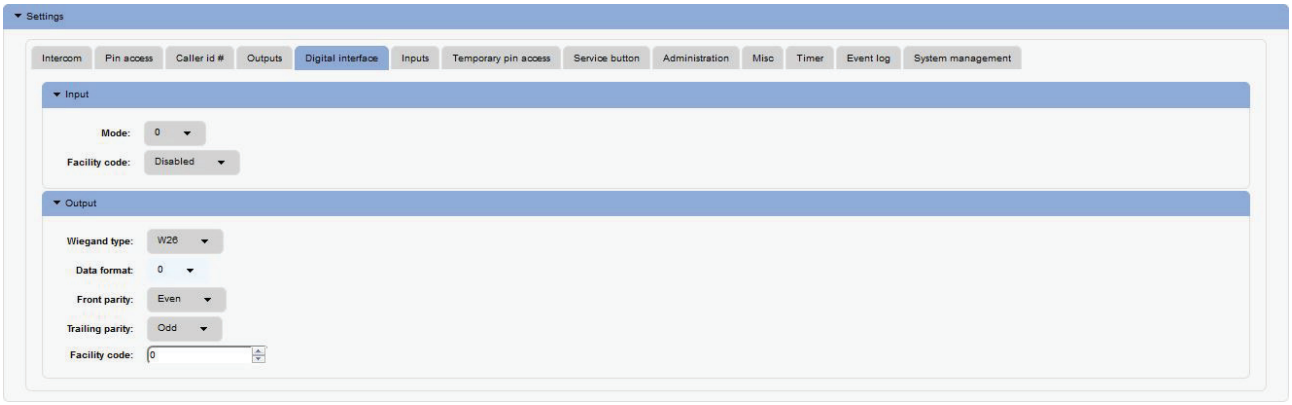

Figure 13: WEB Server-Wiegand Output settings.

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.

NOTE	See Chapter 9-WIEGAND INPUT DATA FORMATs for detailed explanation of different data format options.

8.10 TIMER-TIMED CONTROLLED OUTPUT

EIS unit features 2 timers that can be used to control the outputs 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.

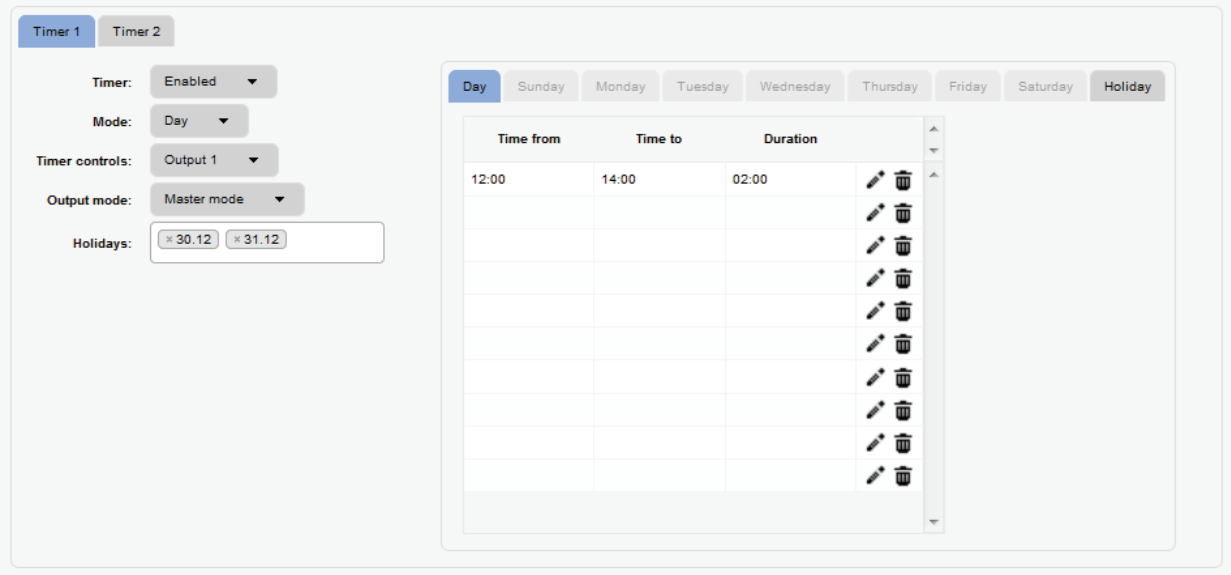

Figure 14: WEB Server-Timer setting →Day mode.

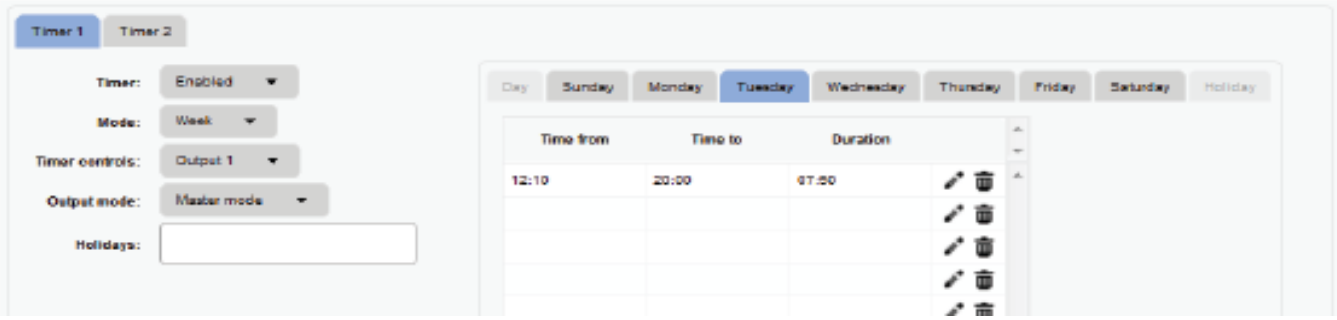

Figure 15: WEB Server-Timer setting →Week mode.

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.
  Output1 or Output2
- **Output mode:** Output mode management definition.

OUTPUT mode	Description
Slave mode	The behavior of the outputs (Time pulse or Latching mode) is defined in the Output tab.
Master mode:	When the output is driven by the timer (output is activated by the timer) the outputs are in latching mode regardless of the setting in Output tab. When the output is not activated by the timer, the outputs are working by the defined settings in Output tab.
Output precondition	In this mode Timer is used as PRECONDITION for output control used by other functions like PIN access or Called ID #.

Table 2: WEB Server-Timer setting, output mode options

- **Holidays:** With the definition of the holiday days (use day picker), user can define special behavior on the holiday days.

The described settings are the same for both timers.

8.11 OUTPUTS SETTINGS

Service button is a dedicated button that is used to directly call numbers or directly trigger defined output on the EIS unit. It typically is mounted outside of the EIS Unit and is an additional component not included.

If the Call mode is selected in the Service button mode, unit will call number defined. If needed it is possible to define work hour schedule. In working time limits, unit will call first 4 number defined, out of working time limits unit will call 5th number defined.

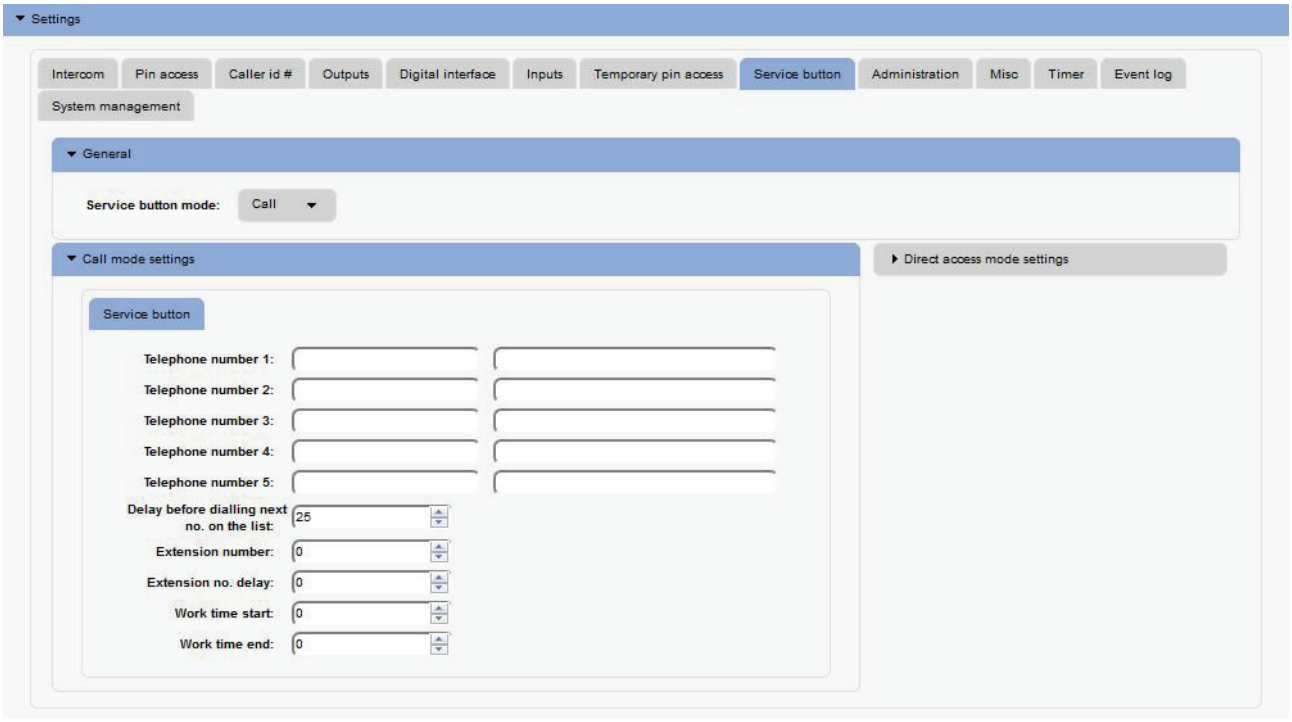

Figure 16: WEB Server-Service button settings (Call mode).

Call mode settings

- **Telephone number 1...Telephone number 5:** Number that the unit will call if 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.

If the *direct access* mode is selected in the **Service button mode**, service button press will activate output defined.

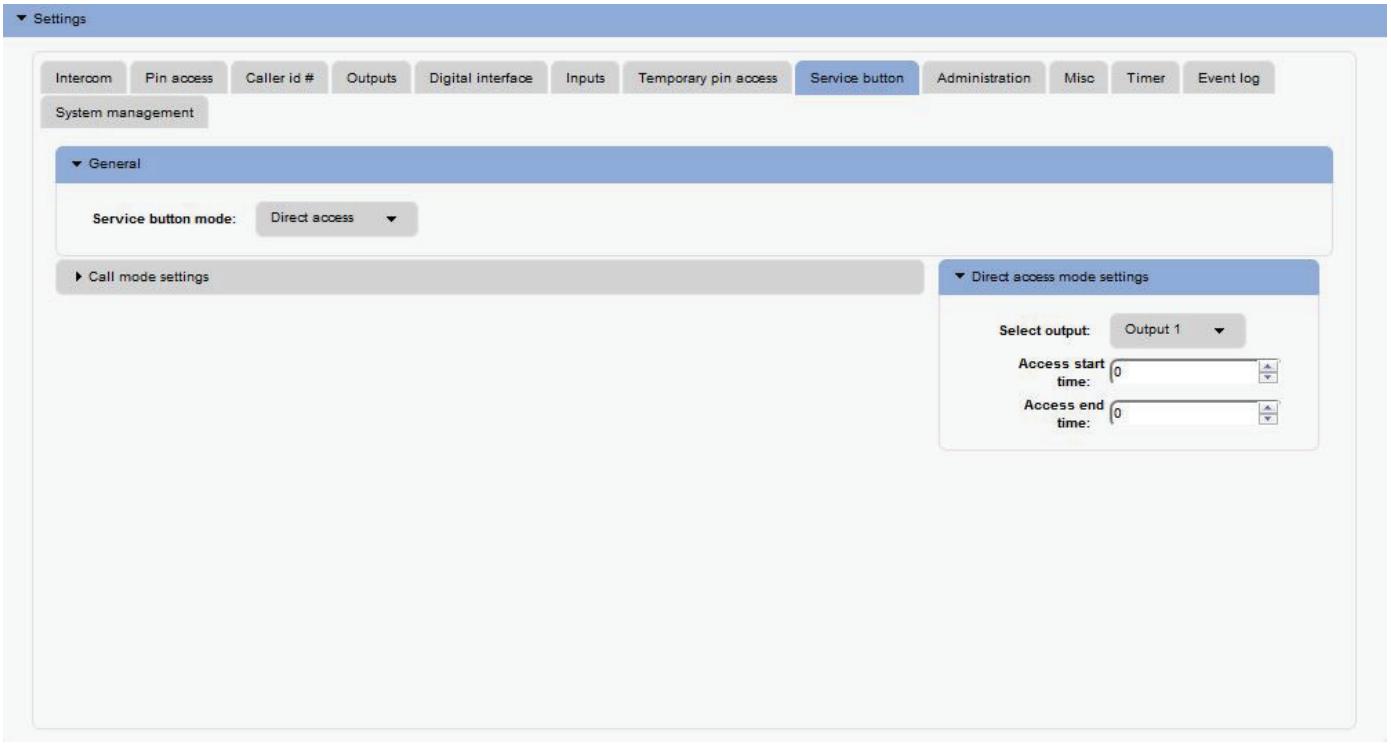

Figure 17: WEB Server-Service button settings (Direct access).

Call mode settings

- **Select output:** The output that will be triggered if service button is pressed
- **Access start time, Access end time:** Parameters are used to define work time schedule. If limits defined than only inside this limits the output defined gets triggered. If 24h access is needed don't use this limits.

NOTE	Service button is a special button that may/or may not be a part of the EIS unit. Please advise your installer if this function is needed.

8.12 ADMINISTRATION

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

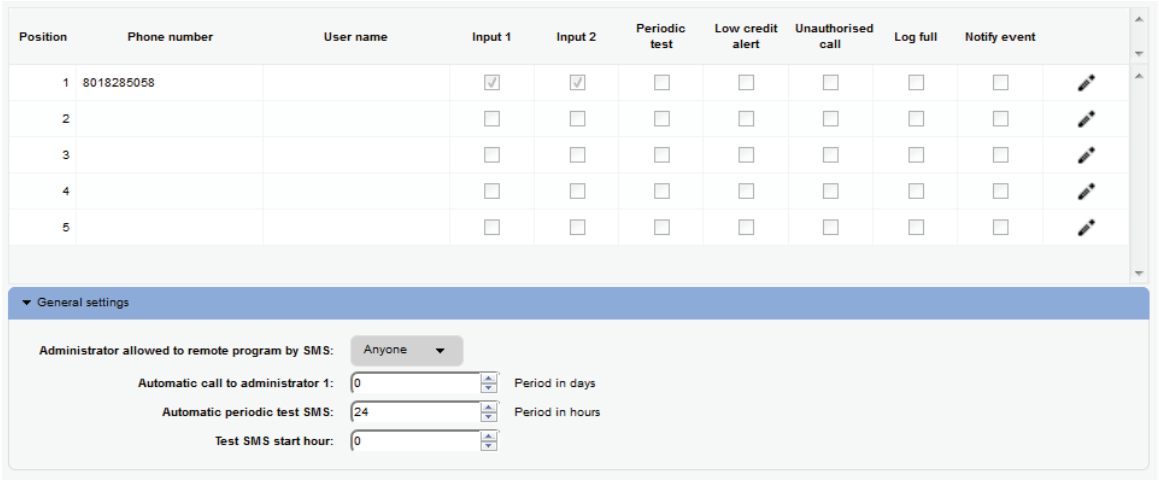

Figure 18: WEB Server-Notification numbers

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

Figure 19: Web Server-Input alarm configuration.

- **Periodic test:** User can receive periodic (heart-beat) SMS, tick the check box for the appropriate user. Timer period is defined under parameter Automatic periodic test SMS, and is definable in hours.

EIS LCD

- **Unauthorized call:** In case of unauthorized call the unit can notify user. To enable notification SMS tick the check box in corresponding position.
- **Log full:** Administrator can receive a SMS when LOG event buffer gets at a critical full level.
- **Notify event:** Selection of administrators that will be notified if the notification event is enabled in Temporary pin access tab or Pin access tab.
- **Administration allowed to remote program by SMS:** By selection this option the user can “Lock down” the EIS 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).
- **Automatic periodic test SMS:** Definition of Time Out for periodic SMS sending.
- **Test SMS start hour:** Periodic SMS, first send-out hour..

8.13 EVENT LOGING

EIS unit itself support 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.

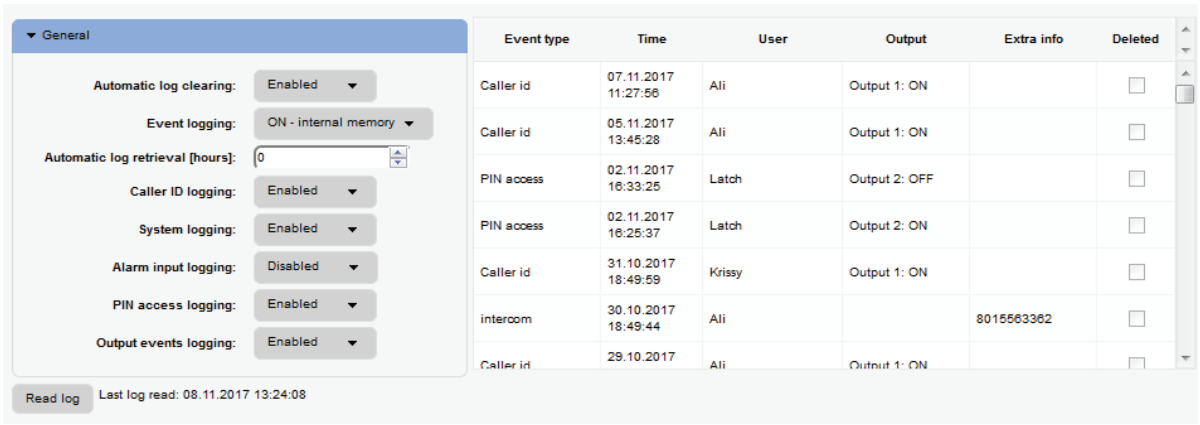

Figure 20: WEB Server-Log events.

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.

- **Automatic Log Clearing** Behavior if the internal LOG buffer on the unit is FULL of events, unit can CLEAR events or STOP recording new events.
- **Event Logging** User can select between, not logging, logging to internal memory (unit) or optional sending events over units USB connection to the external PC.
- **Automatic Log Retrieval** Definition of Time Out period for unit to upload LOG events to the WEB server.
- **Caller ID Logging** Enable/Disable logging of the Caller ID # events.
- **System logging:** Enable/Disable logging of special system evens.
- **Alarm input logging:** Enable/Disable logging for input alarm events.
- **Pin access logging:** Enable/Disable of the Pin access and Temporary pin access events.
- **Output events logging:** Enable/Disable of the events triggering the outputs (Timer,

8.14 MISCELLANEOUS

This tab is split into 2 sections.

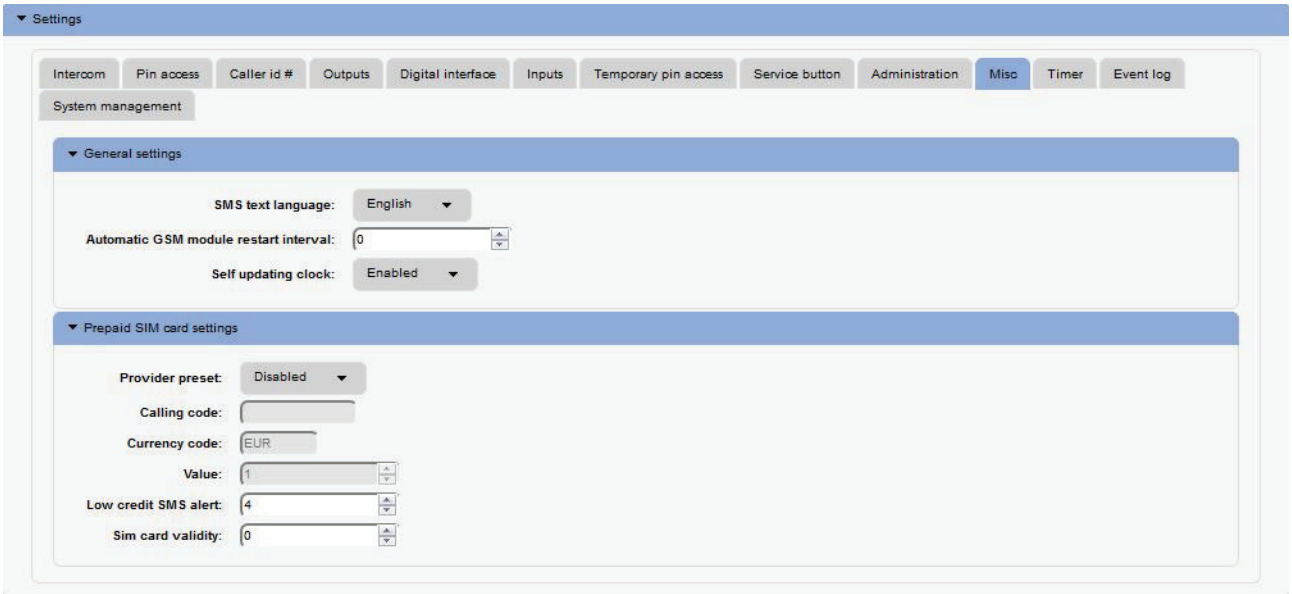

Figure 21: WEB Server-Misc.

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.**

8.15 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 Notification function.** STEP 2: Send the configuration to the device!!

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

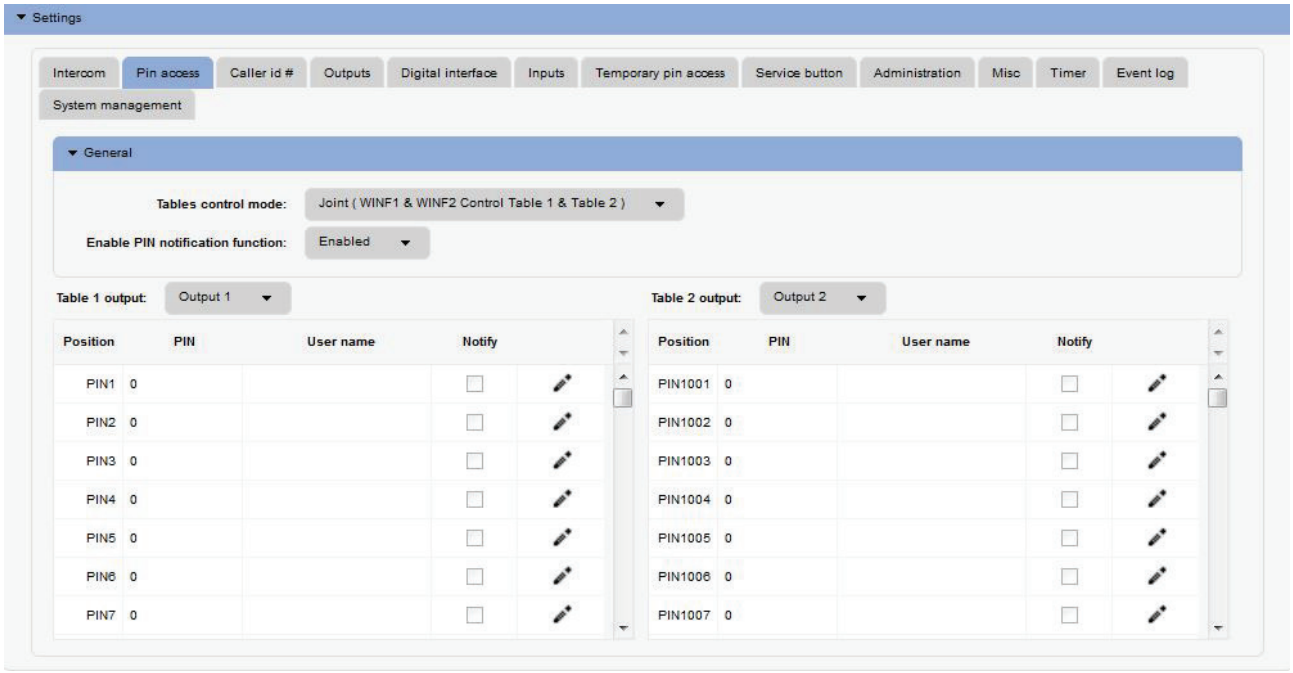

Figure 22: WEB Server-Global enabling of the notification function.

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.

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

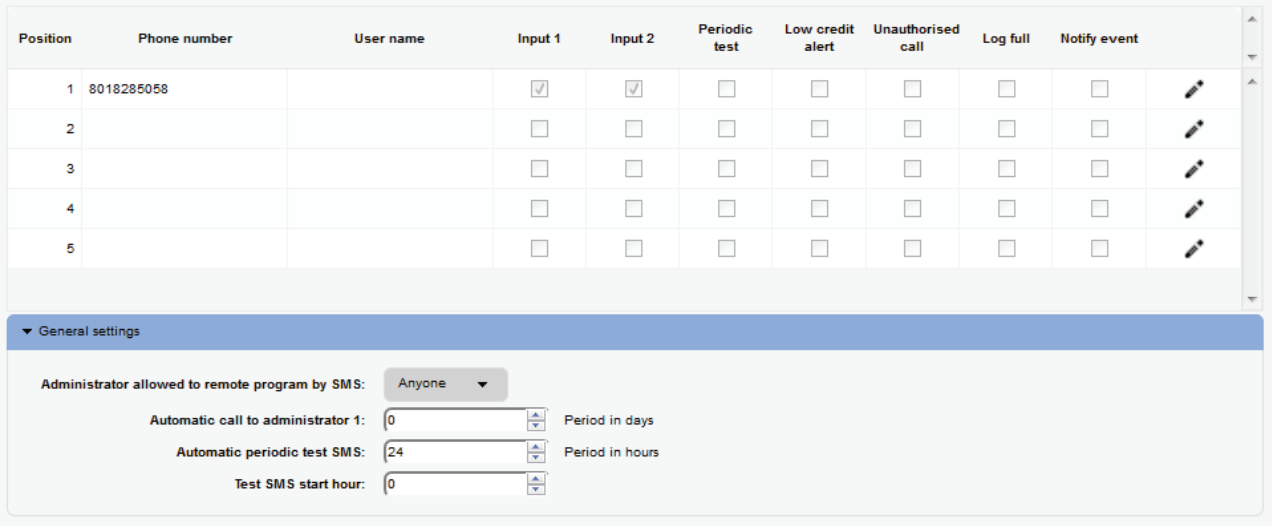

Figure 23: WEB Server-Selecting administrator numbers for notification.

9 WIEGAND INPUT DATA FORMATs

EIS units support standard Wiegand interface, it will work with Wiegand 26bit and Wiegand 30bit protocol. On each Wiegand protocol EIS 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.

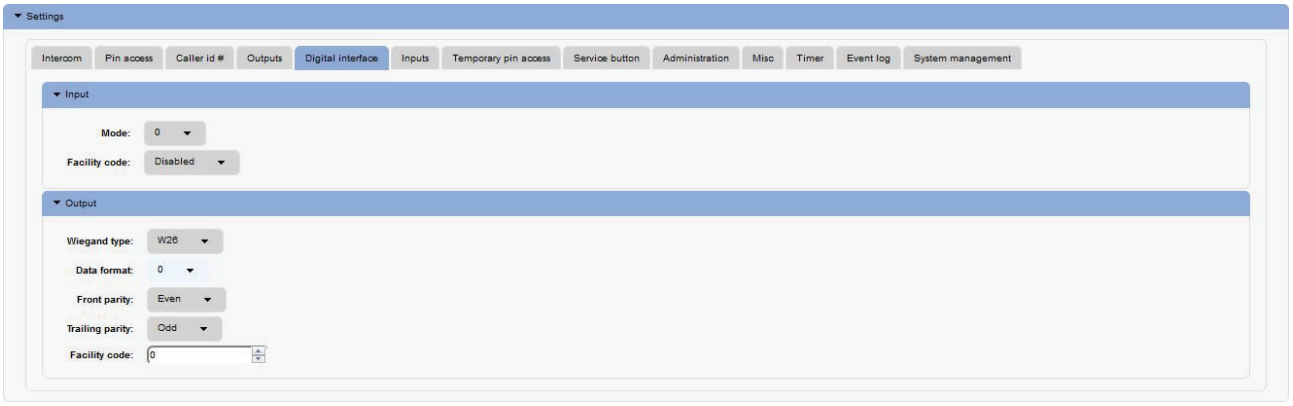

Figure 24: WEB Server-First Wiegand interface support.

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..

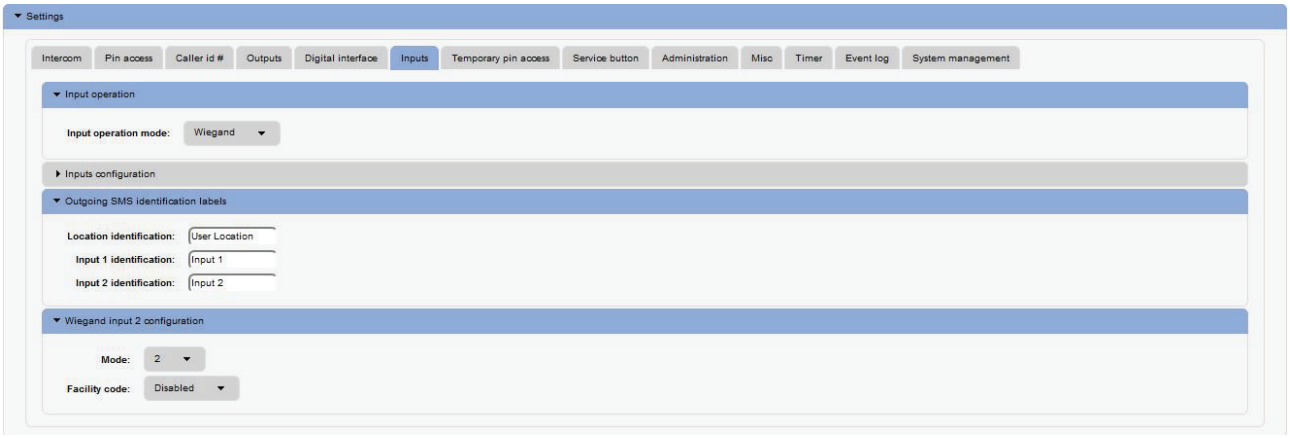

Figure 25: WEB Server-Second Wiegand interface support.

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

P	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	P
Parity	24Bit card number																						Parity

	Limits
Card Number	0 - 16777215
Facility Number	None

Table 3: Wiegand 26: Mode 0.

Mode 1: 24bit of data is divided between facility code 8 bits and 16bits for card number

P	F	F	F	F	F	F	F	F	B	B	B	B	B	B	B	B	B	B	B	B	B	B	P
Parity	8Bit card facility number								16Bit card number														Parity

	Limits
Card Number	0 - 16777215
Facility Number	NOT USED

Table 4: Wiegand 26: Mode 1.

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

P	F	F	F	F	F	F	F	F	B	B	B	B	B	B	B	B	B	B	B	B	B	B	P
Parity	8Bit card facility number								16Bit card number														Parity

	Limits
Card Number	0 - 16777215
Facility Number	0 - 255

Table 5: Wiegand 26: Mode 2.

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

P	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	P
Parity	Dec. 6				Dec. 5				Dec. 4				Dec. 3				Dec. 2				Dec. 1				Parity

	Limits
Card Number	0 - 99999
Facility Number	None

Table 6: 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

P	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	P
Parity	28Bit card number																										Parity

	Limits
Card Number	0 - 268435455
Facility Number	None

Table 7: 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.

P	0	0	0	0	F	F	F	F	F	F	F	F	B	B	B	B	B	B	B	B	B	B	B	B	B	B	P
Parity	Not used				8Bit facility number								16Bit card number														Parity

	Limits
Card Number	0 - 16777215
Facility Number	NOT USED

Table 8: 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.

P	0	0	0	0	F	F	F	F	F	F	F	F	B	B	B	B	B	B	B	B	B	B	B	B	B	B	P
Parity	Not used				8Bit facility number								16Bit card number														Parity

	Limits
Card Number	0 - 16777215
Facility Number	0 - 255

Table 9: Wiegand 30: Mode 2.

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

P	0	0	0	0	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	P
Parity	Not Used				Dec. 6				Dec. 5				Dec. 4				Dec. 3				Dec. 2				Dec. 1				Parity

	Limits
Card Number	0 - 99999
Facility Number	None

Table 10: Wiegand 30: Mode 3.

TRANSMITTER SOLUTIONS WARRANTY

The warranty period of this Transmitter Solutions product is twenty-four (24) months. This warranty shall begin on the date the product is manufactured. During the warranty period, the product will be repaired or replaced (at the sole discretion of Transmitter Solutions) if the product does not operate correctly due to a defective component. This warranty does not extend to (a) the product case, which can be damaged by conditions outside the control of Transmitter Solutions, or (b) battery life of the product. This warranty is further limited by the following disclaimer of warranty and liability:

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