PELEKIS
Electronic Products

Reference Manual

NFC Access control system
INTD1010

Please read the instructions carefully to be able to achieve all the benefits of this device.

NFC Access control system

INTD1010

www.pelekis.tech

Rev. 1.00 August 2017

Firmware

Version history

- v1.00 08/2017 (Initial release)

General description:

The INTD1010 Intelco Access control is a modern and easy-to-use access control system that operates in a multi-user and multi-floor concept. Its operation as well as its access control operation uses NFC smart cards following the technological trend for greater security and more possibilities.

The device has the ability to control up to 8 outputs in its basic version, and it is possible to extend these outputs for larger installations. To operate the device, no internet is required, and so the device can be easily be installed in any type of installation.

The INTD1010 Intelco Access Control is fully programmed with any mobile phone that is compatible with NFC technology and through a specific mobile application that is provided free of charge by Pelekis Electronics. In this way the elevator's "maintainer " or "manager" has the ability to maintain control access to the lift via his mobile phone. So the person responsible for the management of the lift may allow or prohibit the use of the lift based on the persons and the floors that will use it.

Features:

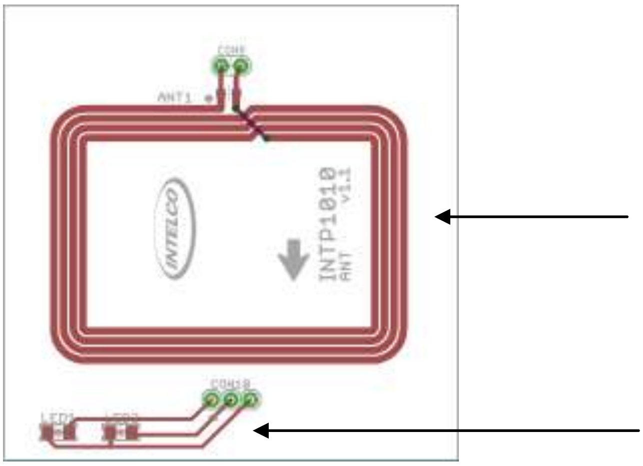
- 8-point access control (Relays).
- Expansion of up to 32 control points.
- Up to 124 different users (smart cards).
- 2 types of operation per control point (time delay - hold).
- Unlimited users per floor (<124).
- Surface or wall mounted installation.
- Brand-logo printed smart cards.

Specifications:

Power supply	12-24 V DC
Rated power	1 Watt
Number of Outputs (Relays)	8
Maximum number of Outputs (using an extension)	32
NFC radio frequency	13,56 MHz
LED indicators	1x green 1x red
Acoustic power buzzer	70db
Operating temperature	0-80°C
Moisture level	10-80% (non condensing)
Dimensions (external)	60 x 210 x 145 mm (H x W x D)
Weight	<1Kg

Wiring Diagram:

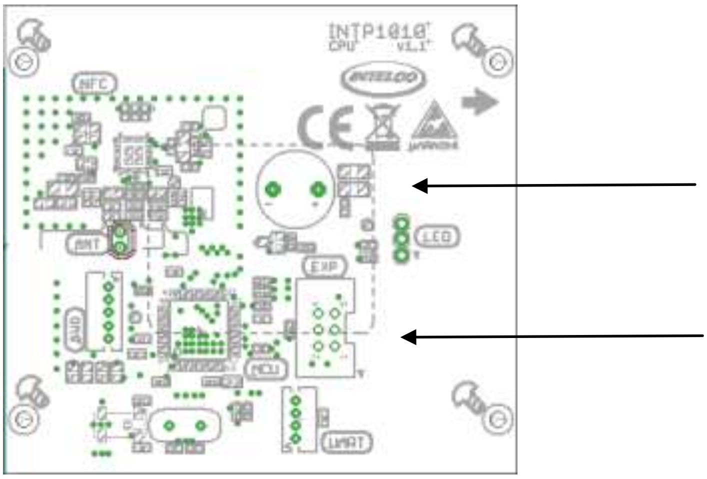
Antenna board



Antenna NFC

Indication LED

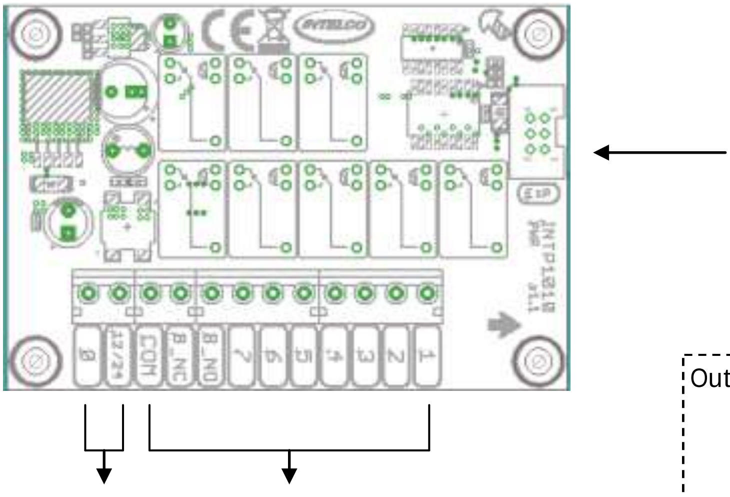
Central unit board



Buzzer

Connector that links the Central unit board with the Power Supply board.

Power supply and outputs board

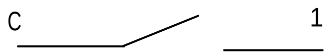


Connector that links the Central unit board with the Power Supply board.

Power supply

Common + Outputs from the relay

Outputs connection (Normal Open)



Device operation

There are 2 different cards to operate the device.

1. *"Transfer Card"*

2. *"User Card"*

With the *Transfer Card*, the device manager-maintainer programs the device. In this way the device updates its internal access list that the system checks in order to give access to authorized and non-authorized individuals and floors.

The *User Card* is the "digital key" that comes into contact with the system to be checked, and the system decides, based on its internal stored access list, whether to allow or deny access to the card holder.

If the device verifies the validity of a *User Card* that comes into contact with, it will perform an action on the dry contact outputs on the back of the board. In this way, any validated *User Card*, can activate one or more Relay Points for a specific time.

Each access point has its own separate delay time, which is the time that disconnection of dry contact will occur after the acceptance of a *User Card* by the system.

For each validated *User Card* by the system, different times for each access point can be set and in this way each individual User may have a different retention time for the same access point.

Additionally, the Administrator of the system has the capability to lock one or more access points (Relay) of the device, through the *Transfer Card*. In this way, one or more Relay can be excluded from the activation process through the User Card and so can be locked permanently in a certain state (armed-disarmed). When locking one or more access points in one of these states, the device will not perform any action on these particular Relays, throughout its operation, until the specific access points are unlocked again by the administrator. This feature helps the administrator to disable some access points in order to easily and quickly use the lift by skipping the access control process under certain conditions (eg celebration in an apartment, work on a floor).

All the above actions are controlled by the system administrator with the help of the transfer card and the specially designed mobile application "Pelekis NFC Access Control" available on PlayStore and Pelekis Electronics website.

Device Programming

Preparation.

We connect the device properly in accordance with page 5, leading properly the outputs to our system’s corresponding operation that according the proper relay will either activate or deactivate. Then we connect the power supply and wait until 2 short tones be listened.

By downloading the application «Pelekis NFC Access control» in a mobile NFC technology, we can begin the step by step programming of the device.

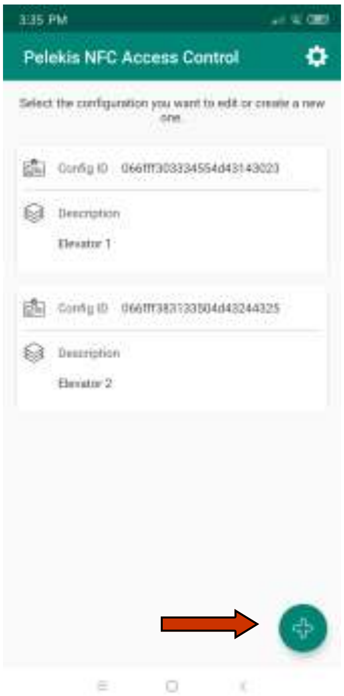
Attention! The application will not work properly if the mobile is not compatible with NFC technology.

Step 1: **Adding a New Device**

At the home page of the application are appeared all the stored devices (INTD1010).
When there are not stored devices in the application, this page is blank and a message prompt the user to add a new one.

In order to add a new device to the application, press the symbol ⊕ which is located to the right down corner of the mobile screen. Next, the application asks to pass a the *Transfer Card* on the back of the mobile in order to create a new profile of the new device.

Notice! In case that Transfer Card has already been loaded with data from previous usage on different device, the application will load all the stored data from the Transfer Card in its internal memory.



3:35 PM

Pelekis NFC Access Control

Select the configuration you want to edit or create a new one.

Config ID 066fff303334554d43143023

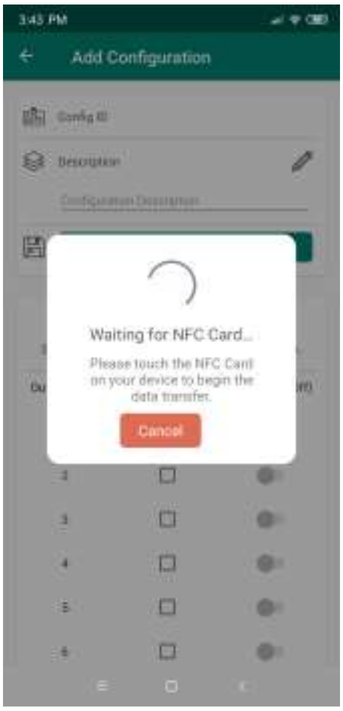
Description

Elevator 1

Config ID 066fff383133504d43244325

Description

Elevator 2



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Add Configuration

Config ID

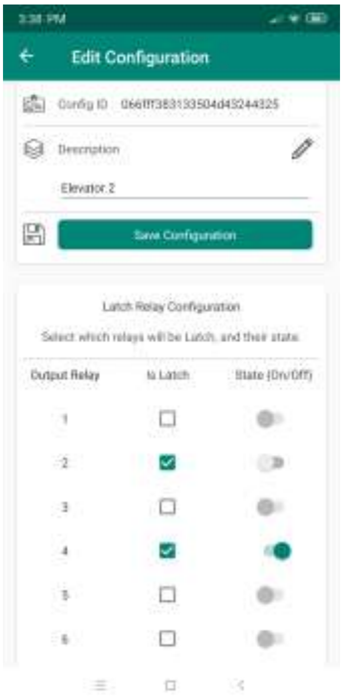
Description

Configuration Description

Waiting for NFC Card...

Please touch the NFC Card on your device to begin the data transfer.

Cancel



3:38 PM

Edit Configuration

Config ID 066fff383133504d43244325

Description

Elevator 2

Save Configuration

Latch Relay Configuration

Select which relays will be Latch, and their state

Output Relay	Is Latch	State (On/Off)
1	□	○
2	☑	○
3	□	○
4	☑	●
5	□	○
6	□	○

Step 2: **Registering user to the device.**

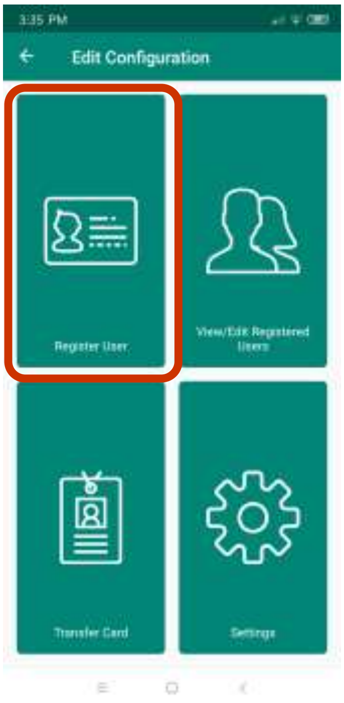
After the successful registration of the device to the application, the application will display the next page. In this screen we can see all the available options.

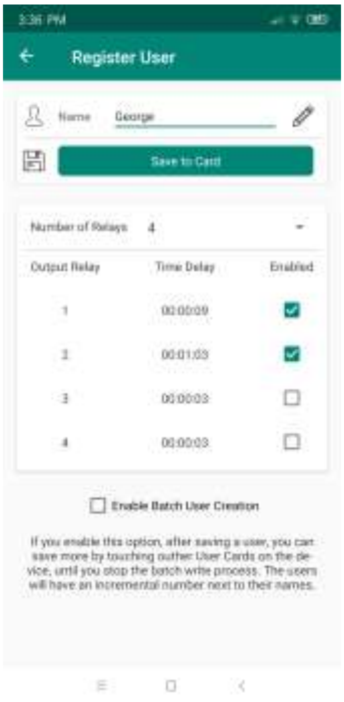
- Register Users
- View/Edit registered Users.
- Transfer Card
- Settings

By pressing Register Users the application asks to create a new User. In this screen the admin make an entry of the info about the person that will possess the specific User card and update the tab with the access points and the delay option for every point separately.

From the drop- down menu we can choose the number of the Relays of the device (2,4,8). In this example we have chosen 4 relays and we are able to modify the condition of the delay operation for these 4 Relays.

Moreover during in the process, the administrator is able to activate Batch User Creation button which is located to the down section of the screen, in order to perform bulk action during *User Card* registration. This action will give the opportunity to create multiple User Cards with exactly the same settings and configuration(Access points - Delays)





Name: George

Number of Relays: 4

Output Relay	Time Delay	Enabled
1	00:00:09	☑
2	00:01:03	☑
3	00:00:03	□
4	00:00:03	□

□ Enable Batch User Creation

If you enable this option, after saving a user, you can save more by touching outher User Cards on the device, until you stop the batch write process. The users will have an incremental number next to their names.

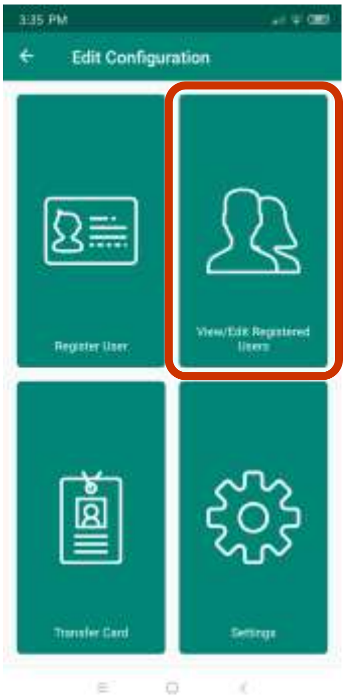
Step 3: **View/ Edit User and Save to the transfer Card**

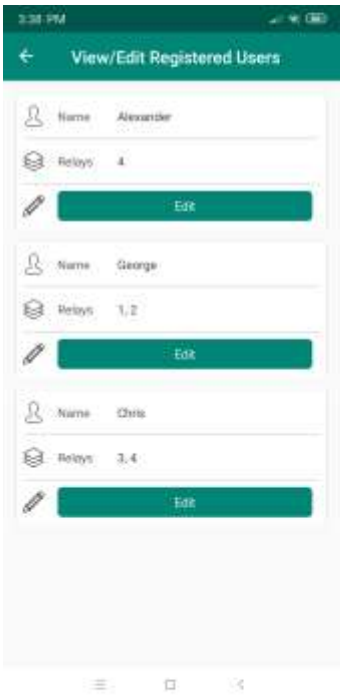
After the successful registration of one or more *User Cards*, we can program the device in order to accomplish access control to desirable Users.

View/ Edit Registered Users.

Before going forward to the process of storing data to the transfer card, we can edit the Users that have already been registered to the application. With this way we can accomplish amendments or modifications to each registered User regards the access points and the delay period, before transferring the information to the *Transfer Card* and afterwards to the device.

As per image below we can accomplish the above operation by pressing the option “View/ edit registered users” in the Edit Configuration screen.





Name Alexander
Relays 4

Name George
Relays 1, 2

Name Chris
Relays 3, 4

Store to the Transfer Card.

After the editing process of the stored users "In case" this was necessary, we are ready to going forward to the saving process of the desirable User Cards to the Transfer Card and to the device afterwards.

As per image below we can perform the above action by pressing the "Transfer Card" button at the Edit Configuration screen.

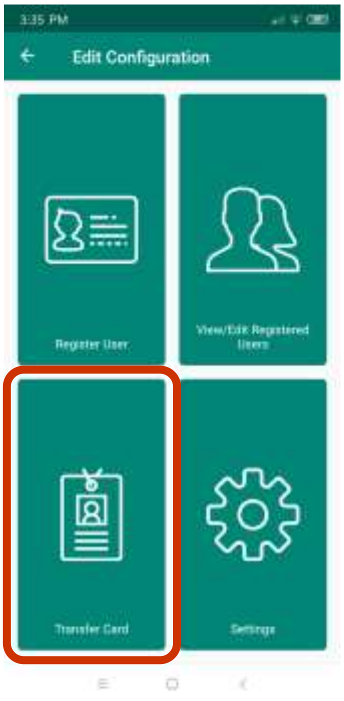
At this point the administrator can have an overview for the stored users on the application for this specific device (i.e "Elevator 2").

Below the name of every stored User take place the information about the access points which have been entered by the administrator.

In order to continue the process of Saving the desirable Users to the Transfer Card, we choose the option "Add to Transfer Card" located at the bottom of each User entry.

By clicking this button, we notice that the color of the button change its color to screen in order to let administrator understand which Users have been chosen to be transferred to the device.

In order to complete the process , we press the button, that is located to the right down corner of the screen and the user of the application is requested to touch a valid Transfer Card to the mobile in order to accomplish the save process.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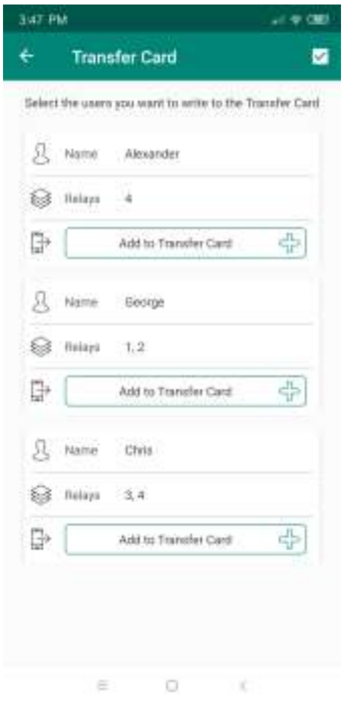
Edit Configuration


3:47 PM

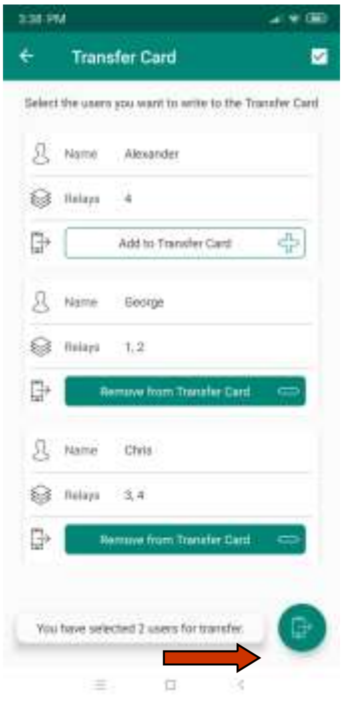
Transfer Card

Select the users you want to write to the Transfer Card

Name Alexander
Relays 4
Add to Transfer Card

Name George
Relays 1, 2
Add to Transfer Card

Name Chris
Relays 3, 4
Add to Transfer Card


3:38 PM

Transfer Card

Select the users you want to write to the Transfer Card

Name Alexander
Relays 4
Add to Transfer Card

Name George
Relays 1, 2
Remove from Transfer Card

Name Chris
Relays 3, 4
Remove from Transfer Card

You have selected 2 users for transfer.

Step 4: **Save to the Device**
To complete the device programming process, we need to transfer and store the Transfer Card data to our INTD1010 device.

This can be done by bringing in contact, the Transmission Card with the card reader on the INTD1010 device that is usually marked with the NFC symbol:

After the Transfer Card' data has successfully been transferred on the device, two short sounds as well as two flashes on the green LED will let user know that process has been completed.

Attention !
Each Device is designed to recognize a "specific" Transfer Card and therefore we can not program our INTD1010 with any Transfer Card. This ensures the possibility of changing the Device's data from unauthorized persons.

In case of damage or loss of the Transfer Card you should contact our company to arrange the replacement.

Replacing the Transfer Card DOES NOT require the device to be uncounted from the installation.

Additional Programming:

Settings

From the Edit Configuration screen we can change the Settings of the current Device by pressing the button “Setings”.

Below we can find the explanation of the available options in this Settings category.

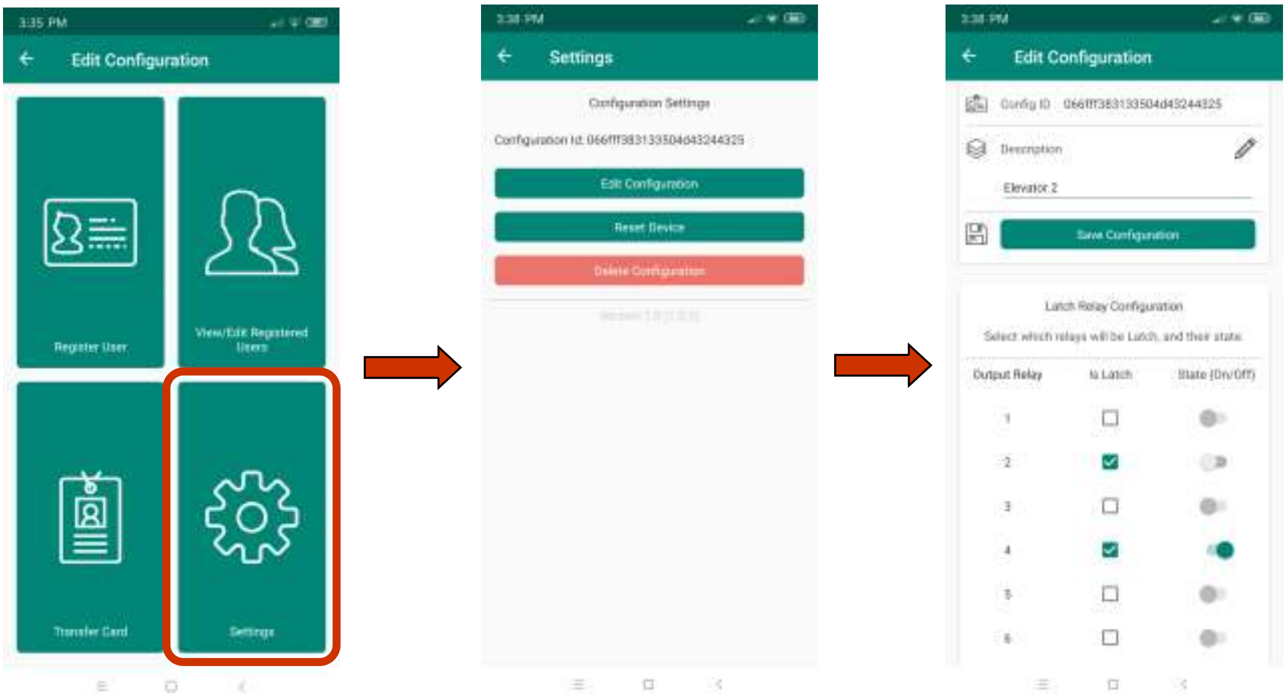
Settings: ***Edit Configuration***

By pressing the "Edit Configuration" button, administrator can update the list of Relay in locked state.

Therefore, easily and with the use of the Transfer Card, we change the behavior of the device, at specific access points.

When we finish editing the device, we press the save button to save the data in the application.

Attention!
For the above changes to take effect, we will need to transfer the data to the Transfer Card from the initial Edit Configuration screen as done in Step 3: **“View/ Edit User and Save to the transfer Card”.**



Configuration Settings

Configuration Id: 066fff383133504d43244325

Config ID 066fff383133504d43244325

Description

Elevator 2

Latch Relay Configuration

Select which relays will be Latch, and their state

Output Relay	Is Latch	State (On/Off)
1	□	○
2	☑	○
3	□	○
4	☑	●
5	□	○
6	□	○

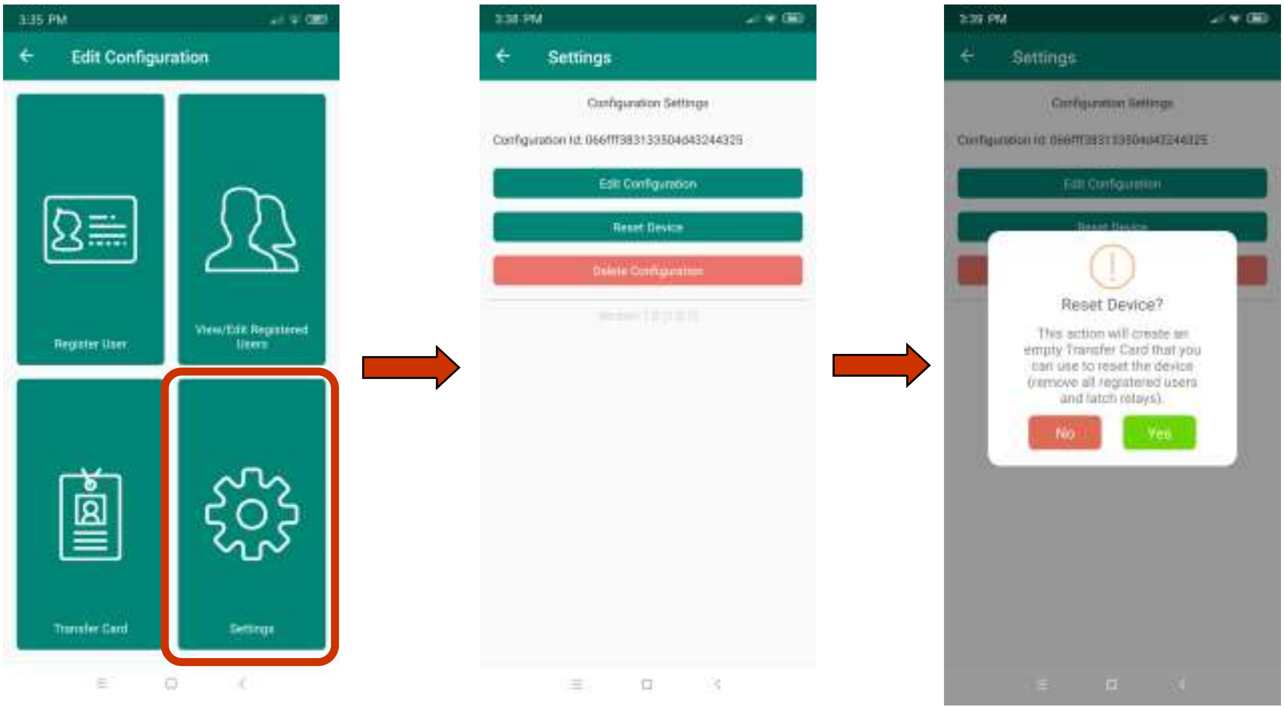
Settings: **Reset Device**

By pressing the "Reset Device" button, the administrator can reset the device to its factory default settings. This means that all data stored on the device, will be deleted and the locked relays will be unlocked and will remain disarmed.

This option will not affect the data stored in the application for that Device, but will clear the data on the Transfer Card by preparing it to reset the device to its Factory Default state when the last one, comes in contact with that Transfer Card.

As shown in the images below, selecting "Reset Device" a message with "No" and "Yes" options appears.

If the "No" option is selected, the process is canceled, in case "Yes" option is selected the manager is asked to bring the mobile phone into contact with the Transfer Card.



Configuration Id: 066fff383133504d43244325

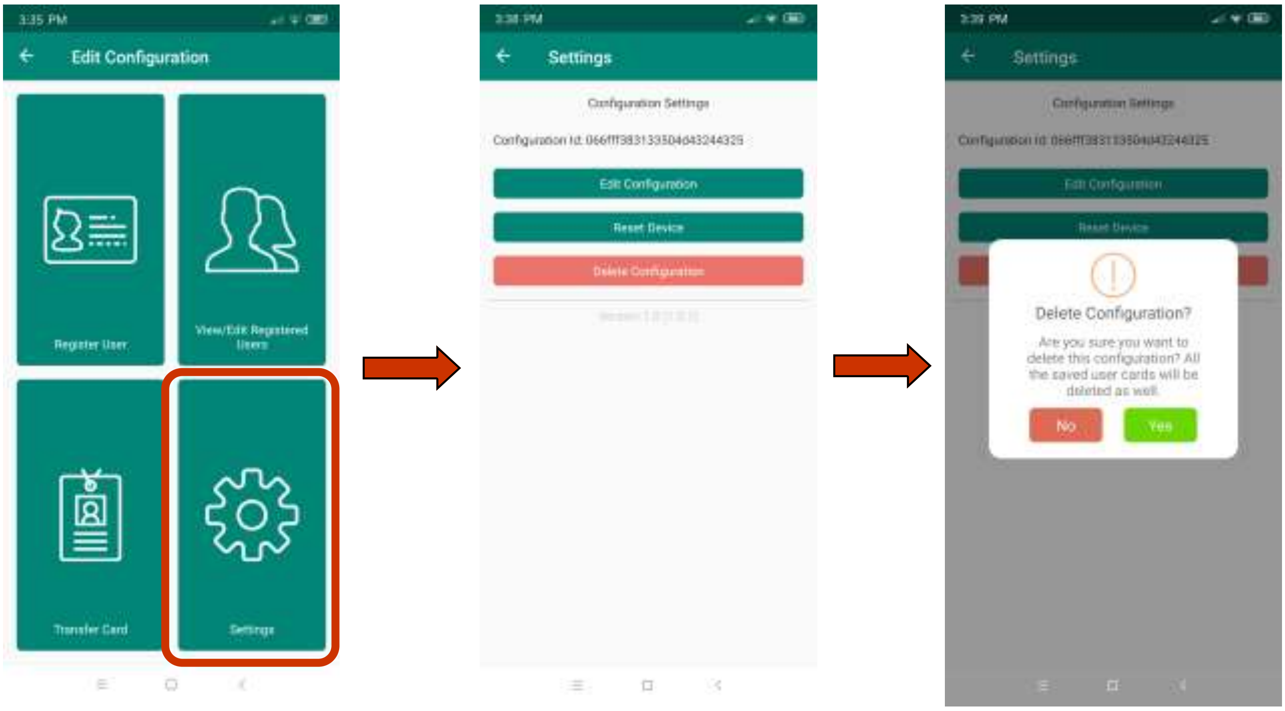
Reset Device?

This action will create an empty Transfer Card that you can use to reset the device (remove all registered users and latch relays).

Settings: **Delete Configuration**

By clicking the "Delete Configuration" button, the administrator can permanently delete all data related to the current Device from the application.

By selecting the "No" button in the pop-up text ,the deletion process is canceled while on the other hand by selecting the "Yes" button, the process is been completed.



Configuration Id: 066fff383133504d43244325

Delete Configuration?

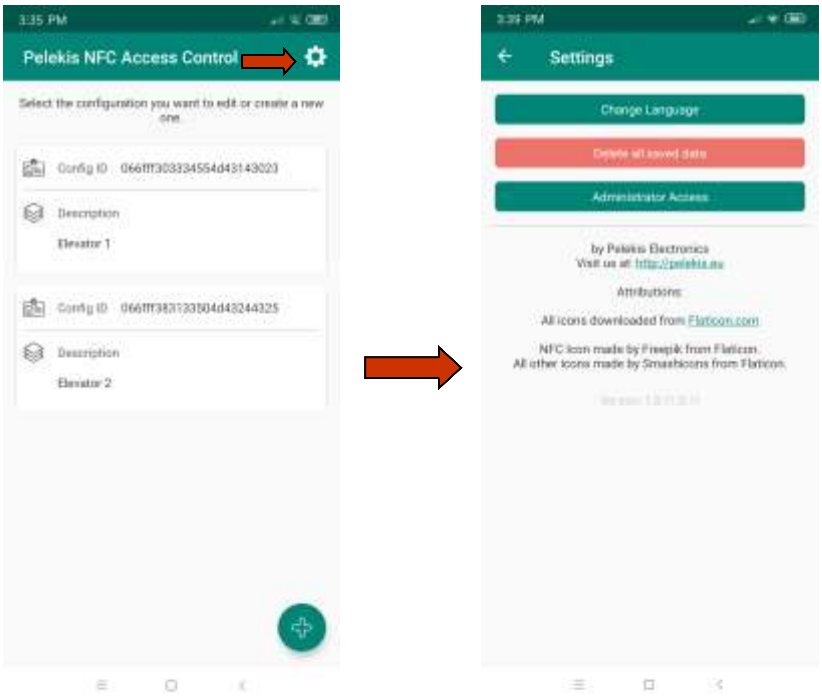
Are you sure you want to delete this configuration? All the saved user cards will be deleted as well.

General Application Settings

From the app's home screen, the user can navigate through the General Settings of the app by clicking the button ⚙ at the top right corner of the screen.

In the General Settings of the application, the user can change the application language and can perform deletion of all stored data.

In addition, through the "Administrator Access" button, some additional actions may be performed that are not part of this manual. Administrator access requires a password provided by our company for specific use.



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Pelekis NFC Access Control

Select the configuration you want to edit or create a new one.

Config ID 066fff303334554d43143023

Description

Elevator 1

Config ID 066fff383133504d43244325

Description

Elevator 2

3:35 PM

Settings

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Version [illegible]

Technical support:

For technical support on this product, please contact a local reseller or directly Pelekis Electronics.

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