

## AC Nio Elevator Control Guide

### Introduction

This guide goes over how to configure ACS-ELV elevator control panels on the AC Nio™ software, including adding hardware and programming.

These instructions are focused on elevator control. For instructions on initial software, hardware, and account setup, as well as other settings, see these links:

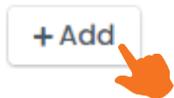
AC Series Quick Start Guide: <https://www.aiphone.com/ACSeriesQuickStartGuide>

AC Series Programming YouTube Playlist: <https://www.aiphone.com/ac-video-guide>

### Adding an Elevator Panel

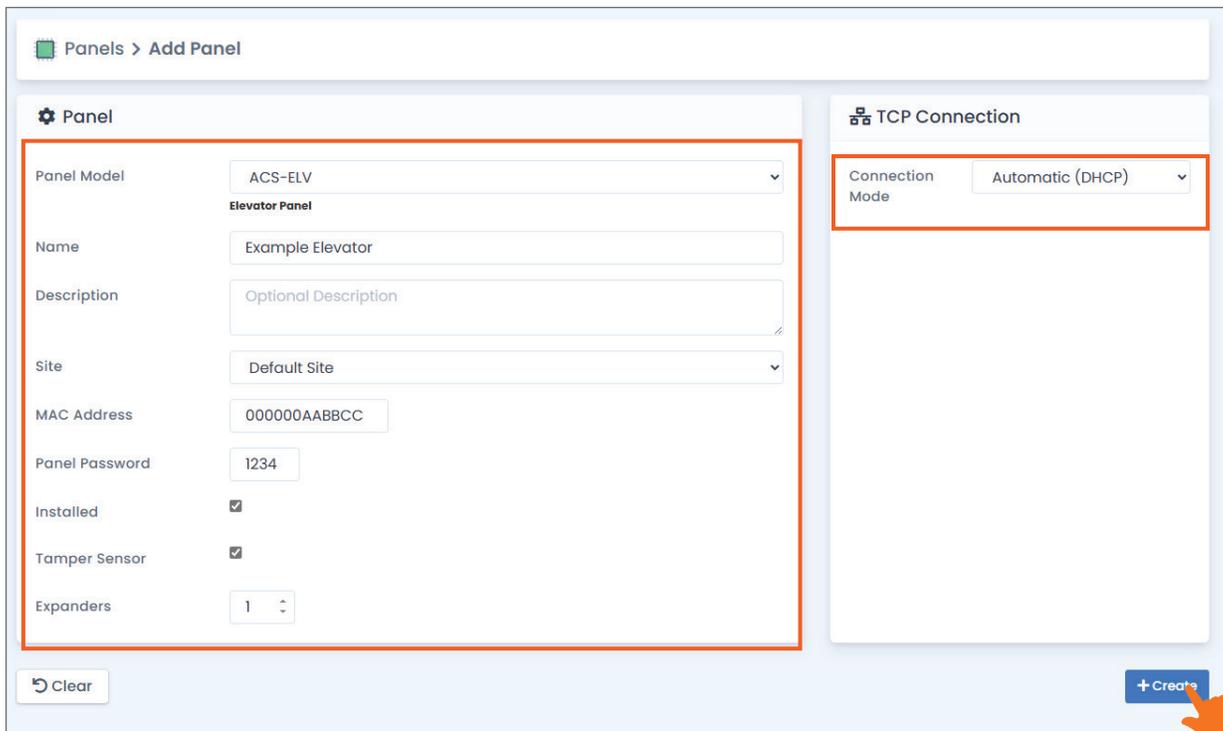
Make sure that the ACS-ELV control panel is connected to the same network as the PC or host running AC Nio. Configure the hardware to be in the same IP range. See the YouTube playlist linked above for assistance with this process.

Log into AC Nio™ on the host or PC. A pop-up may appear indicating that a new panel was discovered. This message can be clicked to bring up a menu to add the panel. If it does not, navigate to **Hardware**, Panels on the left menu. Click **+Add** in the top right corner.



On the new page, set the **Panel Model** to ACS-ELV. Assign the panel a **Name**. Use the drop-down menu next to **Site** to assign the elevator to a site. If it has not already been discovered, add in the panel's **MAC Address**. Add in the **Panel Password**. Check off whether the panel is installed, whether the tamper sensor is being used, and how many AC-IOE expanders have been installed. There will always be at least one expander included with the ACS-ELV.

Under **TCP Connection**, either leave the **Connection Mode** set to DHCP, or set the network information manually. This should match the mode used on the main panel. Once everything is filled out, click **+Create**.



Panels > Add Panel

**Panel**

Panel Model: ACS-ELV (Elevator Panel)

Name: Example Elevator

Description: Optional Description

Site: Default Site

MAC Address: 000000AABBCC

Panel Password: 1234

Installed:

Tamper Sensor:

Expanders: 1

**TCP Connection**

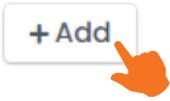
Connection Mode: Automatic (DHCP)

+ Create

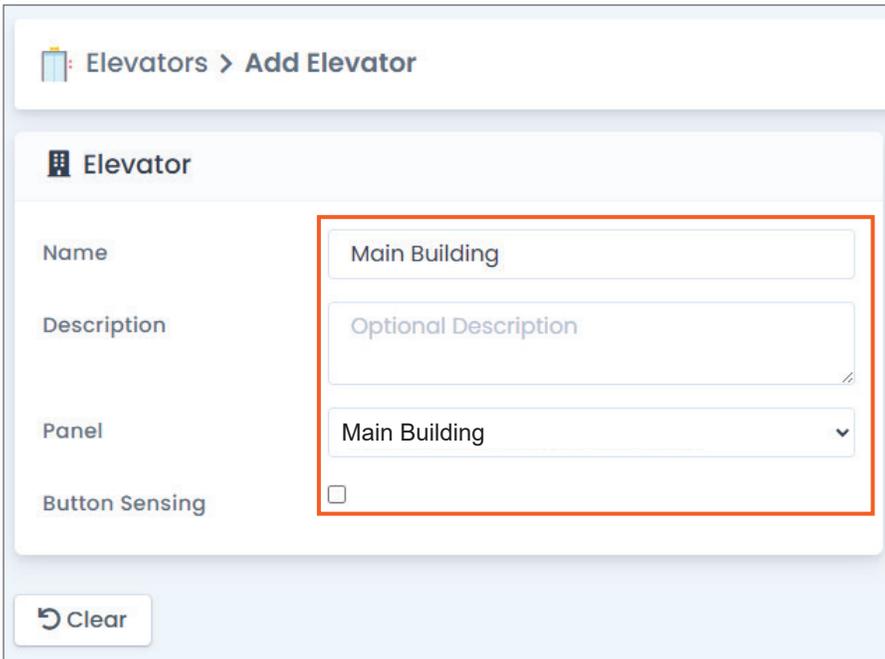
## Adding Elevators to a Panel

Once the initial settings on the panel are complete, elevators will need to be added. Each elevator represents a single elevator cab and the individual floors it reaches.

Navigate to **Hardware**, **Elevators** on the left menu. Click **+Add** in the top right corner.

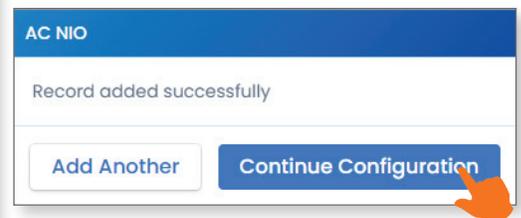
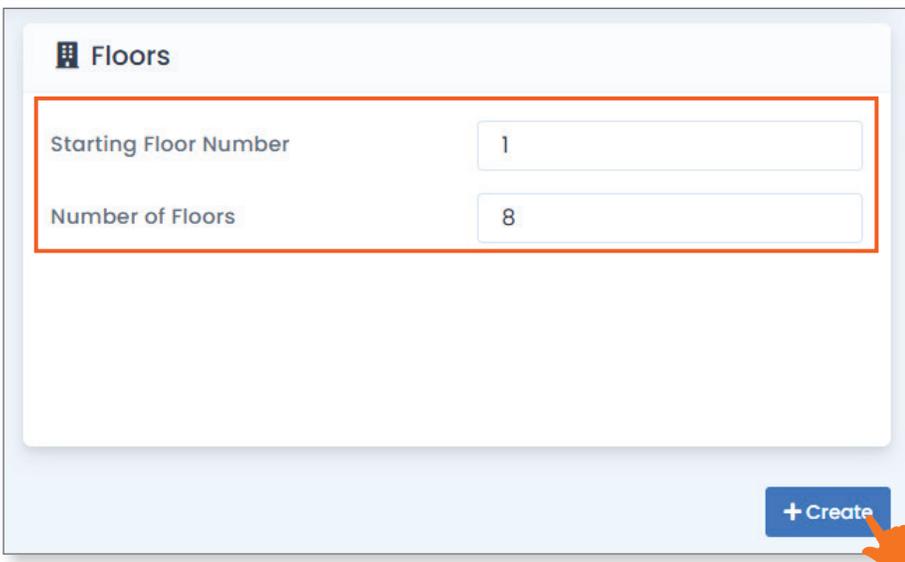


Give the elevator a **Name**. Use the drop-down menu to assign the elevator to the newly created **Panel**. If **Button Sensing** will be used, check off that box. Button sensing configures the ACS-ELV to react to outputs from the elevator buttons themselves. These will need to be directly wired into inputs on one of the expansion boards.



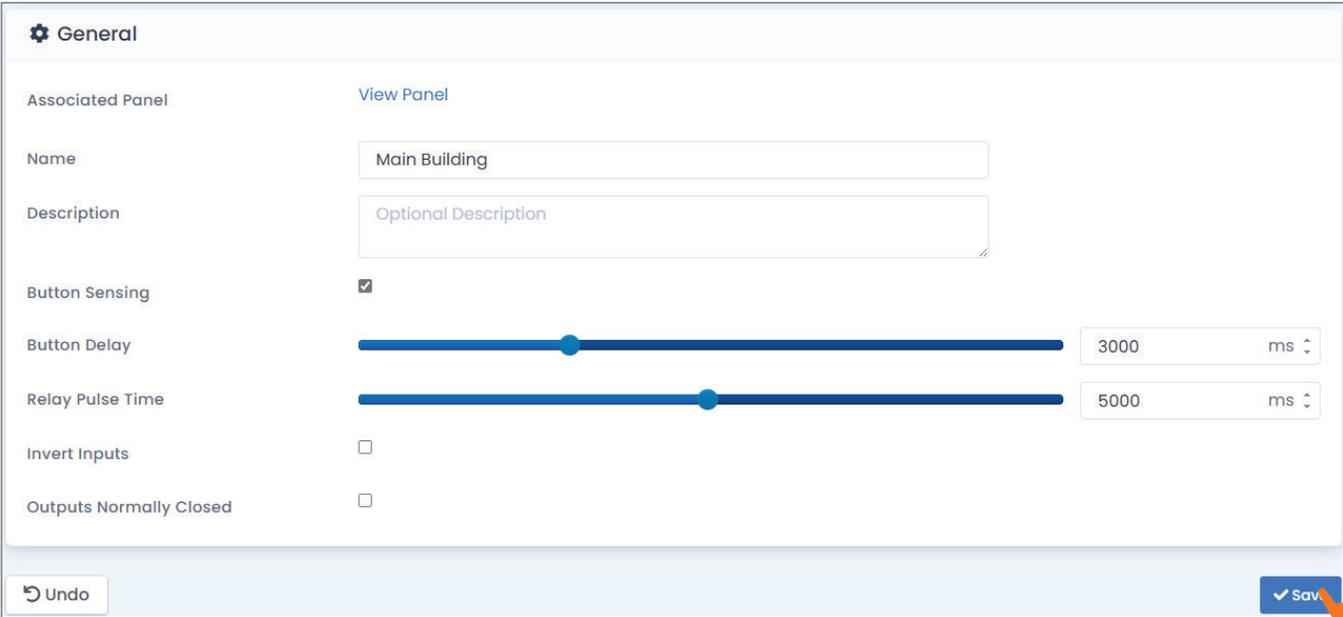
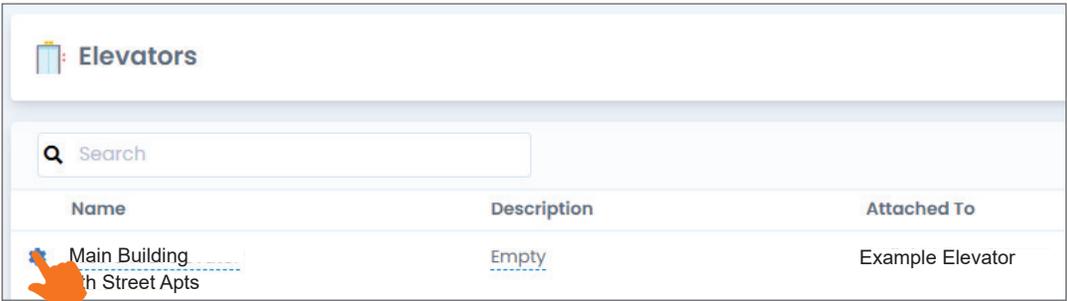
Assign a **Starting Floor Number** and set the number of floors. The equipment included with the ACS-ELV will support a single elevator with eight floors. With the maximum number of expanders, an ACS-ELV panel can support one elevator with 64 floors or two elevators with up to 32 floors each.

Once everything is configured, click **+Create**. Click **+Add Another** to repeat the process and add more elevators, or click **+Continue Configuration** to set up the newly created elevator.



## Configuring an Elevator

If **+Continue Configuration** was clicked on the last screen, the **General** settings page for the elevator will open. The settings can also be reached under **Hardware**, Elevators on the left menu. An elevator can be selected from the list by clicking its gear symbol.



Below is a list of functions available under the **General** menu. Once all settings are configured, click **Save**.

Setting	Function
Associated Panel	Click <b>View Panel</b> to navigate to the panel settings
Name	Displays the name of the elevator. This can be changed.
Description	Optional descriptive text for the elevator.
Button Sensing	If a floor button in the elevator cab is directly connected to an input on the ACS-ELV, this allows different features in AC Nio™ software to be activated.
Button Delay	Sets how long the elevator's floor buttons are enabled after a credential is presented.
Relay Pulse Time	How long a programmed relay will activate once access is granted to a particular floor or group of floors.
Invert Inputs	Change inputs associated with the elevator from normally open to normally closed.
Outputs Normally Closed	Change outputs associated with the elevator from normally open to normally closed.

## Configuring an Elevator (continued)

The **Floors** page sets the schedules related to each floor. The settings are described below. Click the green disc to save any changes.

**Floors**

Create Floor:

Disabled	Floor	Name	Schedule	Holiday Group	
<input type="checkbox"/>	<input type="text" value="1"/>	<input type="text" value="Floor 1"/>	<input type="text" value="Card Always"/>	<input type="text" value="Default Holiday Group"/>	<input type="button" value="x"/>
<input type="checkbox"/>	<input type="text" value="2"/>	<input type="text" value="Floor 2"/>	<input type="text" value="Card Always"/>	<input type="text" value="Default Holiday Group"/>	<input type="button" value="x"/>
<input type="checkbox"/>	<input type="text" value="3"/>	<input type="text" value="Floor 3"/>	<input type="text" value="Card Always"/>	<input type="text" value="Default Holiday Group"/>	<input type="button" value="x"/>
<input type="checkbox"/>	<input type="text" value="4"/>	<input type="text" value="Floor 4"/>	<input type="text" value="Card Always"/>	<input type="text" value="Default Holiday Group"/>	<input type="button" value="x"/>
<input type="checkbox"/>	<input type="text" value="5"/>	<input type="text" value="Floor 5"/>	<input type="text" value="Card Always"/>	<input type="text" value="Default Holiday Group"/>	<input type="button" value="x"/>
<input type="checkbox"/>	<input type="text" value="6"/>	<input type="text" value="Floor 6"/>	<input type="text" value="Card Always"/>	<input type="text" value="Default Holiday Group"/>	<input type="button" value="x"/>
<input type="checkbox"/>	<input type="text" value="7"/>	<input type="text" value="Floor 7"/>	<input type="text" value="Card Always"/>	<input type="text" value="Default Holiday Group"/>	<input type="button" value="x"/>
<input type="checkbox"/>	<input type="text" value="8"/>	<input type="text" value="Floor 8"/>	<input type="text" value="Card Always"/>	<input type="text" value="Default Holiday Group"/>	<input type="button" value="x"/>

Setting	Function
Create Floor	Add a new floor to the system. Requires a floor number and name.
Disabled	Disables all settings on a floor.
Floor	Displays the floor number of the elevator.
Name	Displays the name of the elevator. This can be changed from this menu.
Schedule	Use the drop-down menu to assign a schedule to the floor. These are configured under <b>Scheduling</b> , <i>Schedules</i> , <i>Floors</i> . See the AC Nio™ software's Quick Start Guide or the video playlist linked on page 1 of this guide for instructions on configuring new schedules.
Holiday Group	Use the drop-down menu to assign a holiday group to the floor. See the AC Nio™ Quick Start Guide or video playlist linked on page 1 of this guide for instructions on configuring new holiday groups.
Red X symbol	Delete a floor and all associated settings.

## Configuring an Elevator (continued)

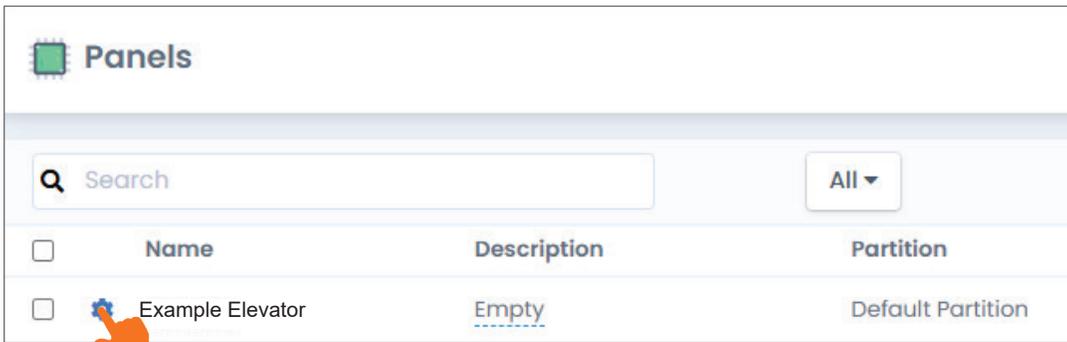
The **Reader** menu configures a card reader associated with the elevator cab, usually mounted inside of it. The settings are described below. Once all settings are configured, click **Save**.

Setting	Function
Enabled	Enable or disable the reader.
Name	Enter a name for the reader.
Reader Port	Select which port on the panel the reader will connect to.
Action	Selects which action is initiated when the reader is scanned. Click the pen symbol to the right to choose from a list of available actions.
Perform Action Only On Access Granted	Sets the action to only activate if a valid credential is selected.

The **Camera Association** menu allows a camera from an associated camera system to be assigned to the elevator. Use the drop-down menu to select a camera system, then place a check next to the desired camera. Only one camera can be selected. Click **Save** to confirm.

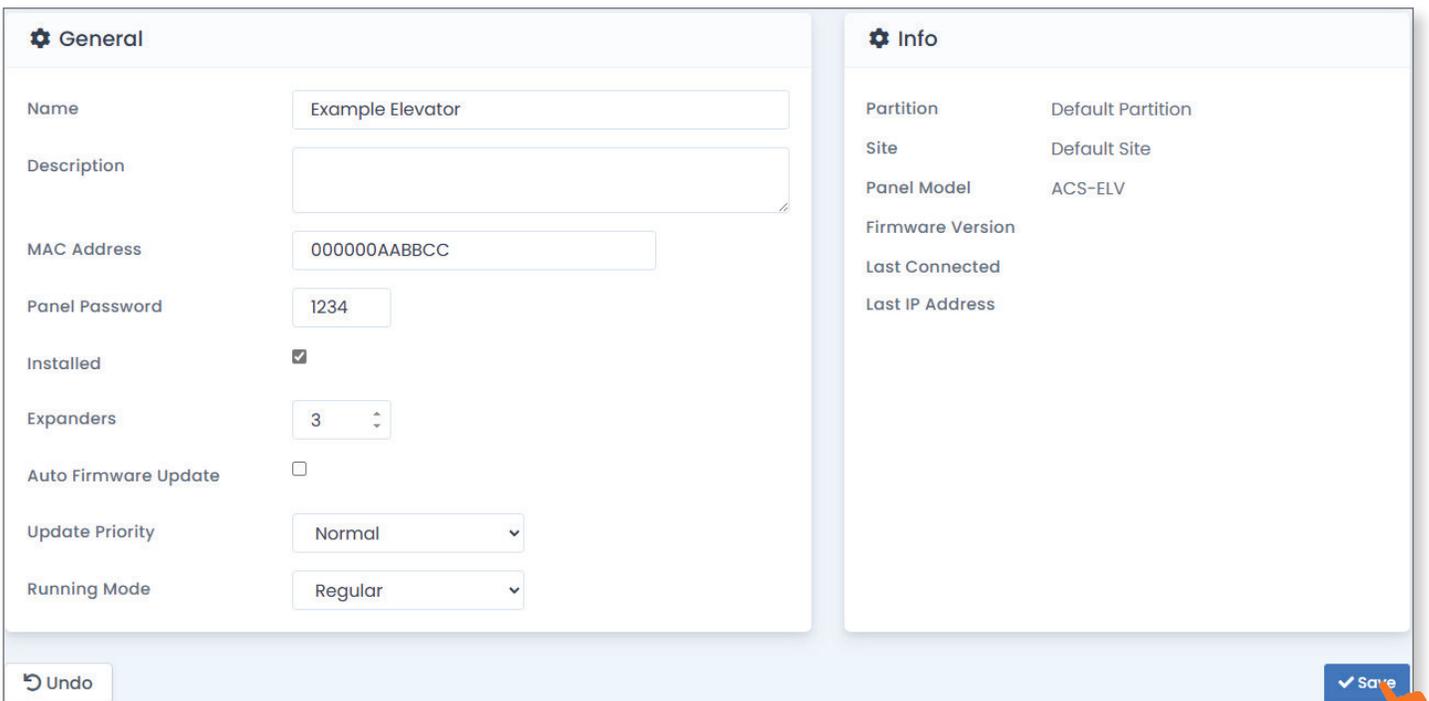
## Configuring a Panel

Once at least one elevator is added, other settings on the panel can be configured. Navigate to **Hardware**, Panels on the left menu. Select the panel from the list by clicking the gear symbol.



<input type="checkbox"/>	Name	Description	Partition
<input type="checkbox"/>	Example Elevator	Empty	Default Partition

This will open the **General** page. The available settings are described on the next page. Once all settings are configured, click **Save**.



### General

Name: Example Elevator

Description:

MAC Address: 000000AABBCC

Panel Password: 1234

Installed:

Expanders: 3

Auto Firmware Update:

Update Priority: Normal

Running Mode: Regular

### Info

Partition: Default Partition

Site: Default Site

Panel Model: ACS-ELV

Firmware Version:

Last Connected:

Last IP Address:

Undo Save

## Configuring a Panel *(continued)*

Setting	Function
Name	How the panel is labeled under <b>Hardware, Panels</b> .
Description	Information text about the panel. Optional.
MAC Address	The panel's MAC address. Only change this if the panel's hardware is replaced.
Panel Password	The panel hardware's password. Setting a new panel here and uploading it will also change this on the panel's interface itself.
Installed	A check mark that shows whether or not the panel has been installed.
Expanders	Sets the number of AC-IOE expander boards installed on the ACS-ELV.
Auto Firmware Update	Set AC Nio™ software to automatically push firmware updates to the panel.
Update Priority	This sets the panel's priority to receive settings uploads when multiple panels are updated at once.
Running Mode	Sets whether the panel is operating normally or in debug mode.

On the **Connectivity** page, the network settings of the panel can be set. By default, the panel uses DHCP for its **Connection Mode**, which can be changed over to using a static IP address. An **Override Server Address** can also be set to for hosts and panels that may need multiple paths to connect to each other. Once all settings are configured, click **Save**.

### TCP Connection

Connection Mode:

Override Server Address:

*Under specific circumstances it may be required to override one or more panel's server addresses to avoid reverse NAT lookups. In most cases we recommended leaving this field empty and using the primary server address under system configuration. Any value entered in this field will take precedence over the global server address field but only for this panel. This value may be a DNS name or IP address.*

## Configuring a Panel *(continued)*

The **Option** page shows various settings for the panel hardware itself. The options are described below. Once all settings are configured, click **Save**.

### LCD

Backlight Mode Automatic

Backlight Duty 50

Backlight On Time 120 s



### Tamper Sensor

Enabled

Sensitivity 30



Setting	Function
Backlight Mode	Sets the behavior for the backlight on the panel's LCD display. The options are for it to activate automatically, to be on, or be off.
Backlight Duty	Sets how bright the backlight is, measured from 0 to 100.
Backlight On Time	How long the backlight will activate when automatically engaged, measured in seconds.
Enabled	Enables or disables the tamper sensor on the panel.
Sensitivity	Sets the sensitivity of the tamper sensor. The default setting is 30 on a scale from 0 to 255.

## Configuring a Panel *(continued)*

Settings for each input and output are configured on the **I/O** page. Click on an input or output to display the available options, which are described below. Once all settings are configured, click **Save** at the bottom of the page.

The screenshot shows the 'I/O' configuration page. At the top right are 'Import' and 'Export' buttons. Below is a dropdown for 'I/O Expander' set to '1'. A list of inputs is shown on the left, each with a diamond icon, name, and function. On the right, the configuration details for 'Input 1-1' are displayed:

- Name: Input 1-1
- Function: Elevator Button
- Detection Time: 0 s
- Schedule: -- No Schedule --
- Holiday Group: -- No Holiday Group --
- Options:
  - Supervised
  - Normally Closed
  - Send Events
- Action: No Action
- Secondary Action: No Action

Shared Settings	Function
I/O Expander	Select which expansion board to display.

Input Settings	Function
Name	Enter a name for the input.
Function	Select the desired function for the input.
Detection Time	Set how long the contact closure needs to last before the input is triggered.
Schedule	Applies a schedule to the input.
Holiday Group	Applies a holiday schedule to the input.
Options	Toggle on or off with the check boxes. Supervised: indicates whether resistors are in place to detect tampering. Off by default. Normally Closed: change the input from normally open to normally closed. Send Events: set whether events are generated when the input is triggered.
Action	Choose from a list of available actions.
Secondary Action	Choose an additional action from a list of available actions.

Output Setting	Function
Name	Enter a name for the output.
Function	Select the desired function for the output from a list of options.
Options	Toggle options on or off with the check boxes. Normally Closed: change the input from normally open to normally closed. No Events: change whether events are generated when the output is triggered.

## Configuring a Panel *(continued)*

The **Floor I/O Map** page displays the expanders and the names and statuses of all of the floors assigned to them. There are no settings to configure on this page.

 <b>General</b>			
Output	Status	Elevator	Floor
<b>Expander 1</b>			
Elevator: Main Building			
Address: 1			
1	Enabled	Main Building	[1] Floor 1
2	Enabled	Main Building	[2] Floor 2
3	Enabled	Main Building	[3] Floor 3
4	Enabled	Main Building	[4] Floor 4
5	Enabled	Main Building	[5] Floor 5
6	Enabled	Main Building	[6] Floor 6
7	Enabled	Main Building	[7] Floor 7
8	Enabled	Main Building	[8] Floor 8
<b>Expander 2</b>			
Elevator: Service Elevator			
Address: 2			
1	Enabled	Service Elevator	[1] Floor 1
2	Enabled	Service Elevator	[2] Floor 2
3	Enabled	Service Elevator	[3] Floor 3
4	Enabled	Service Elevator	[4] Floor 4
5	Enabled	Service Elevator	[5] Floor 5
6	Enabled	Service Elevator	[6] Floor 6
7	Enabled	Service Elevator	[7] Floor 7
8	Enabled	Service Elevator	[8] Floor 8

## Configuring a Panel (continued)

Settings related to card credentials are adjusted on the **Card Formats** page. The options are described below. Once all settings are configured, click **Save**.

### Card Settings

- Use Fixed Site Code of 60000
- Remap Site Code 0 to 60000
- Suppress Invalid Card Format Events
- Suppress Unknown Card Format Events

### Card Formats

**Multicard format is enabled.** If required by your site our readers and controllers support a wide variety of card formats but in the case of overlapping formats you may need to specify your preferred format. Your software license must also be configured to allow multiple card formats. If your license does not have multi card enabled, and you believe it is required, please contact your dealer/installer.

Override Site's card format settings

Standard Format	Aiphone (40 Bit)	⌵
26 Bit Format	HID 26bit (Industry Standard)	⌵
32 Bit Format	Kantech	⌵
33 Bit Format	DSX	⌵
34 Bit Format	HID Standard	⌵
35 Bit Format	XceedID	⌵
36 Bit Format	Keyscan Indala	⌵
37 Bit Format	STid 37-V FS01	⌵
39 Bit Format	Kantech XSF	⌵
48 Bit Format	HID H2004604	⌵
50 Bit Format	RBH	⌵
75 Bit Format	Common Access Card	⌵

↶ Undo
+ Save



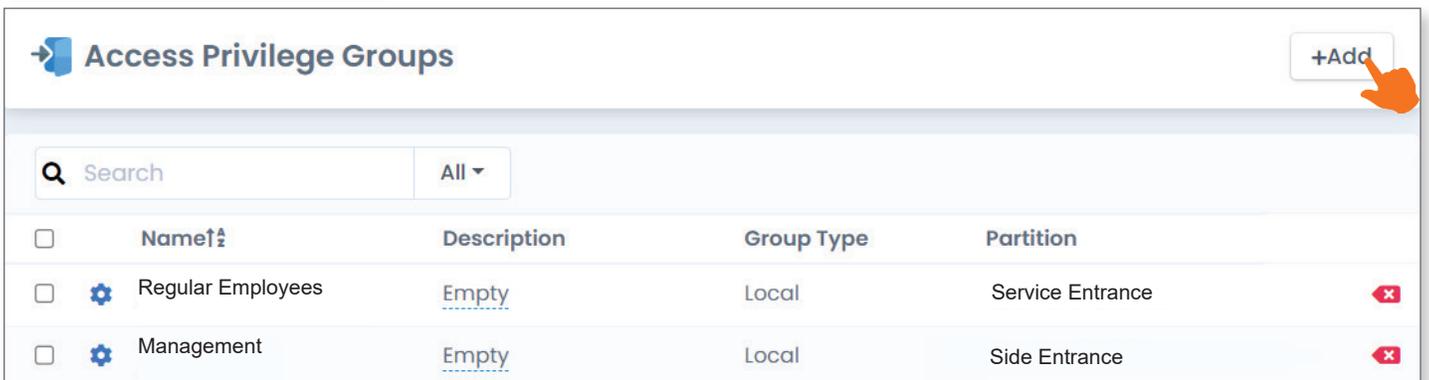
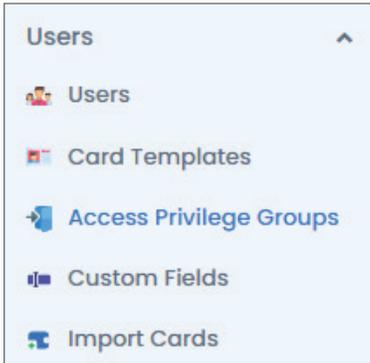
Card Settings	Function
Use Fixed Site Code of 60000	For sites without a site code or there are too many site codes to track, set all credentials presented to readers on this panel will report a site code of 60000. Toggle on or off. Default is Off.
Remap Site Code 0 to 60000	All credentials presented with a site code of 0 and a format other than 8 bit bursts are set to a site code of 60000. Toggle on or off. Default is Off.
Suppress Invalid Card Format Events	Panel does not report events related to invalid card formats. Toggle on or off. Default is Off, meaning it that it will report the events.
Suppress Unknown Card Format Events	Panel does not report events related to unknown card formats. Toggle on or off. Default is Off, meaning that it will report the events.

Card Formats	Function
Override Card Format	Toggle on or off. Default is Off. By default, the panel will follow the site's card format settings. If this is toggled on, options for each available card format can be configured individually by using the drop-down menu. Not all formats will have more than one option available.

## Assigning Floors to an Access Privilege Group

Access Privilege Groups define which users can access particular areas of the building, and on what schedule. These can be used to define which floors users can access.

Navigate to **Users**, Access Privilege Groups on the left side menu. To create a new group, click **+Add**.



The screenshot shows the 'Access Privilege Groups' management interface. At the top left is a header with a key icon and the text 'Access Privilege Groups'. At the top right is a '+Add' button with an orange hand icon pointing to it. Below the header is a search bar with a magnifying glass icon and the text 'Search', and a dropdown menu currently set to 'All'. Below the search bar is a table with the following columns: 'Name' (with a sort icon), 'Description', 'Group Type', and 'Partition'. There are two rows of data in the table, each with a checkbox on the left and a red 'x' icon on the right.

<input type="checkbox"/>	Name↑↓	Description	Group Type	Partition	
<input type="checkbox"/>	⚙️ Regular Employees	<a href="#">Empty</a>	Local	Service Entrance	
<input type="checkbox"/>	⚙️ Management	<a href="#">Empty</a>	Local	Side Entrance	

## Assigning Floors to an Access Privilege Group *(continued)*

Fill out the information for the new access group.

[Access Privilege Groups](#) > **Add Access Privilege Group**

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**Access Group**

Group Type:

Name:

Description:

Tags:

Partition:

---

**Note**  
Starts On and Expires On only work with PRS controllers and are accurate to within 10 minutes.

Starts On:

Expires On:

---

**Users**

Page  Page  All  All

Jane Doe

Tom Robinson

Richard Roe

Bob Smith

10 2 of 4 Selected < 1 >

Access Group Settings	Definition
Group Type	Options for LDAP (Lightweight Directory Access Protocol) or Local.
Name	A name for the site.
Description	Optional descriptive text for the site.
Partition	Select the partition this group will apply to.
Holiday Group	Set if any of the existing holiday schedules will be applied to this group.
Starts On / Ends On	Groups can be temporary. These settings set a start and end date for the group.
Users	Use the check boxes to select which users will be part of this group.

## Assigning Floors to an Access Privilege Group (continued)

Under **Readers**, use the check boxes to select all readers that are assigned to the elevator.

Readers Import Search

Page  Page  All  All Access 9AM to 5PM Set

Main Vault  
Main Vault (Default Site) Access 9AM to 5PM

10 1 of 1 Selected < 1 >

Under **Floors**, use the check boxes to select all floors the group's users can access. Once everything is configured, click **+Create**.

Floors Import Search

Page  Page  All  All Access 9AM to 5PM Set

Floor 1  
Main Building (Default Site) Always Access

Floor 2  
Main Building (Default Site) Always Access

Floor 3  
Main Building (Default Site) Always Access

Floor 4  
Main Building (Default Site) Always Access

Floor 5  
Main Building (Default Site) Always Access

Floor 6  
Main Building (Default Site) Always Access

Floor 7  
Main Building (Default Site) Always Access

Floor 8  
Main Building (Default Site) Always Access

50 3 of 32 Selected < 1 >

Clear +Create

All of these settings can be adjusted afterwards by navigating back to **+Create**.

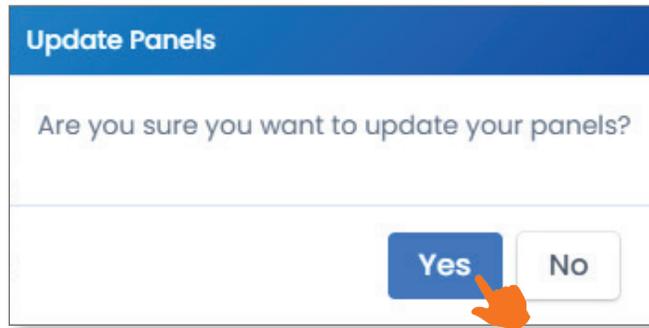
Access Privilege Groups +Add

Search All

<input type="checkbox"/>	Name↑	Description	Group Type	Partition
<input type="checkbox"/>	Regular Employees	Empty	Local	Service Entrance
<input type="checkbox"/>	Management	Empty	Local	Side Entrance

## Updating a Panel

Once all settings are configured, the panel will need to be updated. Click **Update Panels** towards the top of the page, then click **Yes** to confirm.



A list of all stations will appear, showing their update status. Once the upload is finished, click the **X** symbol to return to normal operation.

