

SENSEON PLUS PROGRAMMING GUIDE

TECHNICAL SPECIFICATIONS



PROGRAMMING GUIDE

Programming Instructions & Technical Specifications

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Card Types

Your Proximity Reader is designed for two types of card access, Administrators and Users:



Master Admin Card

is the primary card for your Senseon system. It is the first card you will activate with your reader and the one that initiates the set up of other cards.



Administrator Cards

have programming rights, but can't unlock cabinets, drawers and doors. At this access level, you can add or delete User Cards and make changes to operational settings.



User Cards

can access secured cabinets but can't change any of your system's settings.



Blank Cards

can be programmed as either additional Administrator Cards or User Cards.

Note: Each Proximity Reader can remember up to 1,000 Cards.

Please mark or indicate the configured access type on a card after programming it.

Card Organization Checklist

Whether your Senseon Plus system includes a single Proximity Reader or multiple readers operating in a common area, the following steps are recommended before you begin programming.

- Identify and label the location of each Proximity Reader.
- Determine who will require Administrator Cards and for which Proximity Readers.
- Organize and label the Administrator Card(s) accordingly.
- Organize, and label the User Cards according to their corresponding Proximity Reader(s). Be sure to record all of this information for future reference in case any cards are lost or stolen.

Note: We highly recommend that you Signal Test the Proximity Reader before finalizing its placements and depth within your cabinet.

Before Programming

Programming Tips

Note:

1. The number of taps and beeps will vary according to each task!
2. Listen for 2 initial beeps after the first tapping of an Administrator Card.
3. Tap access cards as close as possible to your Proximity Reader.



TAP

Tap an Administrator Card to your reader the number of times required for each task.



WAIT

Wait 3 seconds and listen for the reader to beep the same number of times you tapped your Administrator Card.



TAP

Tap the card for your programming task, if needed, and listen for the specified number of beeps to signal programming success.



EXIT

Complete your task by tapping an Administrator Card or wait 15 seconds

Proximity Reader Beep Indicators



Positive Beep:

The tone of the beep rises.



Negative Beep:

The tone of the beep falls.

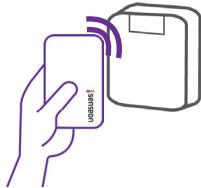
System Set-Up

To set up your system for programming, make sure all systems components are properly connected, then plug in the Power Supply.

- When powered on, the Proximity Reader's LED light will turn blue. This means your system is ready for programming.

Adding Cards

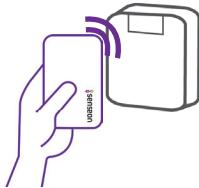
A. New Administrator Cards



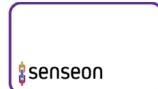
Tap the Administrator Card **5** times at the designated Proximity Reader.



Wait + Listen.
5 beeps will sound.



Tap a Blank Card.
Positive beep will sound.



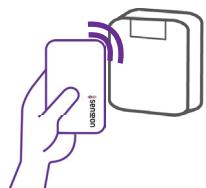
The Blank Card is now a new Administrator Card.



Tap the Administrator Card to the proximity reader to exit.
Or wait 15 seconds.

To add another Administrator Card, tap an additional Blank Card once.
The Reader will beep twice to verify every new Administrator Card added.

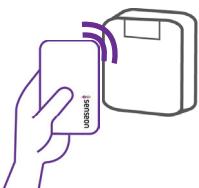
B. Add a User Card



Tap an Administrator Card **1** time at your Proximity Reader.



Wait + Listen.
1 beeps will sound.



Tap a Blank Card.
Positive beep will sound.



The Blank Card is now a new User Card.



Tap the Administrator Card to the proximity reader to exit.
Or wait 15 seconds.

To add another User Card, tap an additional Blank Card once.
You can program up to 1,000 User or Administrator Cards per Controller.
Your Reader will beep to verify every User Card added.

Note: If you attempt to add a User Card that is already programmed to the Proximity Reader, it will negative beep and the LED will flash red.

Deleting Cards

D. Deleting All User + Admin Cards

After deleting all User Cards, your Proximity Reader will auto-exit programming mode. This does not apply to Master Admin Card.



Tap 9x

Tap the Administrator Card.



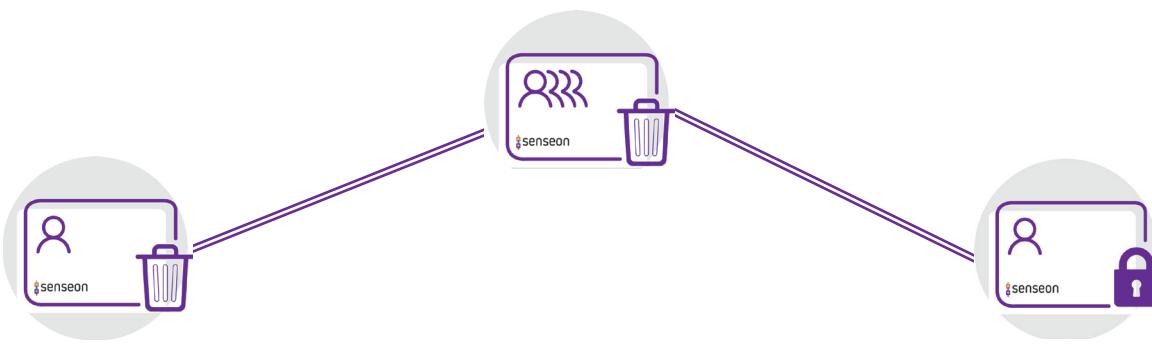
Wait 3sec

And Listen.
9 beeps will sound.



Wait 30sec

Positive Beep will sound.
All User and Admin cards are now deleted.



C. Delete Individual User Cards



Tap 12x

Tap the Administrator Card.



Wait 3sec

and Listen.
12 beeps will sound.



Tap 1x

Tap the User Card you want to delete.
positive beeps will sound.

The User Card is now deleted.

Note: If you attempt to delete a blank User Card, the Proximity Reader will negative beep and the LED will flash red.

E. Deleting A Lost/Stolen Card w/ Back up Card

This is why it's important to organize and label all cards that are programmed (in the event of loss or theft). Refer to the "Card Organization Checklist" for more details.

Tap 7x

Tap the Administrator Card.



Acquire the User Card that was programmed just before the User Card that was lost or stolen (this card should have the preceding number or letter to the stolen card).

Wait 3sec

and Listen
7 beeps will sound.



Tap 1x

Tap the User Card preceding the lost/stolen card.

Positive beep will sound.



The lost or stolen User card is now deleted.

Note: The User Card used for this operation will also be deleted.

System Adjustments - The Proximity Reader will automatically exit programming mode after 15 Seconds.

G. Change Between Auto-Relock + Manual Lock Mode



Tap 4x

Tap the Administrator Card.



Wait 3sec

And Listen 4 beeps will sound.



Wait 1sec

Wait a second and the mode changes automatically.

Positive Beep = Auto-Relock Mode
Negative Beep = Manual Lock Mode



F. Adjusting Auto-Relock Time



Tap 2x

Tap the Administrator Card.



Wait 3sec

2 beeps will sound



Count the Beeps

1 beep = 1 second



Tap 1x

Tap the Administrator Card to stop the beeps at the desired Auto-Relock time.

(maximum is 255 seconds).

Note: The default Auto-Relock time is 10 seconds.
Auto-Relock can be set between 1 and 255 seconds.

H. Adjust Sound Setting

Tap 3x

Tap the Administrator Card.



Wait 3sec

3 beeps will sound + GREEN flashes will continue.



Wait 1sec

Wait a second and the mode changes automatically.



Negative Beep = beeper OFF
Positive Beep = beeper ON

Note: Even when the beeper is turned off, the Proximity Reader will continue to beep while in Programming Mode.

J. Controller Light Indicator On/Off



Tap 8x

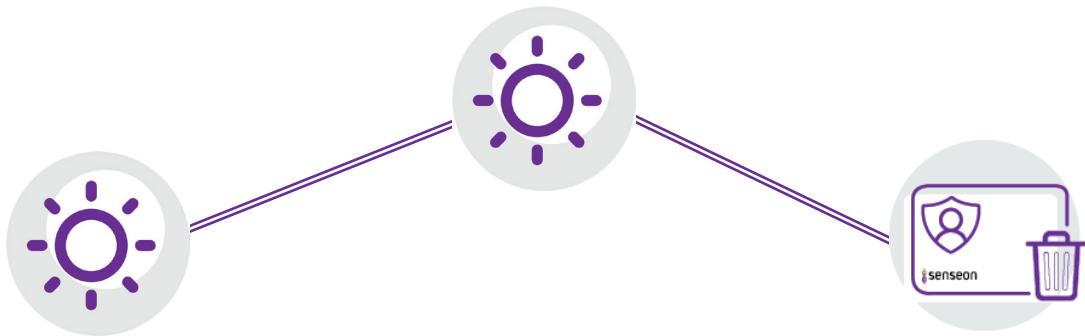
Tap the Administrator Card.

Wait 5sec

And Listen
8 beeps will sound.

Wait 1sec

Positive Beep = Lights Enabled
Negative Beep = Lights Disabled



I. Reader Light Indicator ON/OFF



Tap 6x

Tap the Administrator Card.



Wait 5sec

6 beeps will sound.



Wait 1sec

Positive Beep = Lights Enabled
Negative Beep = Lights Disabled

K. Removing the Admin Card



Tap 11x

Tap the Administrator Card.



Wait 5sec

11 beeps will sound.



Tap 1x

Tap the Admin Card.



Successfully Deleted = Positive Beep
Unsuccessful Attempt = Negative Beep

Note: If the attempt was unsuccessful,
the card is not an Admin or Master Admin Card.

System Reset

A system reset will delete all cards from the system. This includes all Administrator Cards and User Cards.

- Locate the Reset button on the side of your controller.
- With the controller powered on, use the pointed end of a paperclip or similar object to press and hold the Reset button for 6 seconds.
- Wait for the controller to fully reset and power back on.
- The controller light will start blinking blue.

Note: We recommend that system resets are performed by a qualified Senseon technician.

Specifications

Reader

Power Input	12VDC
Read Distance (unobstructed)	4" (10cm)
Card Limit	1,000 cards
Transmit Frequency	13.56 MHz
Relock Delay	1-255 seconds or Toggle mode
Temperature	4°-158°F (-20°-70°C)
Enclosure Rating	IP67
Proximity Reader Dimensions	2.14"x1.72"x0.71" (54x44x18mm)
Certifications	CE, RoHS, FCC

Controller

Outputs	1 relay
Number of Readers	3
Controller Dimensions	3.74"x2.54"x.69" (95x65x18mm)
Relock Delay	1-255 seconds or Toggle mode

FCC Statement

FCC ID: 2AEDR-SPLUSPR-1

Model: SPLUSPR-1

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

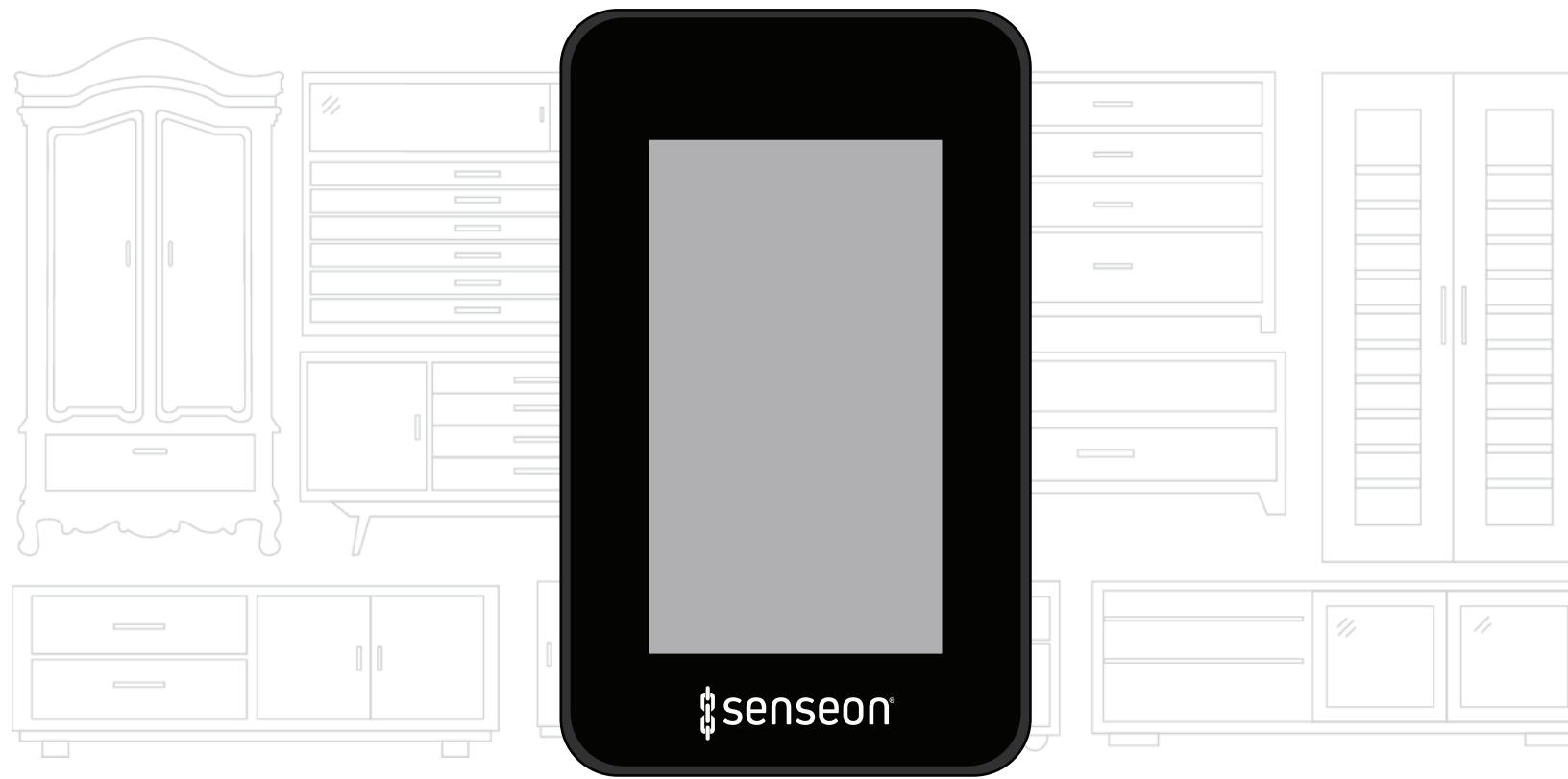
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

This device contains transmitters and receivers which emit Radio Frequency (RF) energy.

The device is designed to comply with the limits for exposure to RF energy set by the Federal Communications Commission (FCC) of the United States.



SENSEON PLUS PROGRAMMING GUIDE

HANDHELD



PROGRAMMING GUIDE

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1 Introduction

The **Senseon Plus Handheld Programmer** streamlines the programming of your Senseon Plus system. The Handheld Programmer enables configuration of Senseon Plus system's advanced capabilities, notably:



Discrete Access



Dual Authorization



Audit Trail Logs



Touch-Screen Programming

1.1 Managing Users

The Programmer makes adding, modifying, and removing users easy and intuitive. On-screen prompts let you manage user permissions with ease.

1.2 Audit Trail

You can download your system's audit trail data via the Programmer's touch-screen. On-screen prompts will guide you through each step of the download process guide you through.

1.3 Advanced Settings

The Programmer lets you access advanced settings for your Senseon Plus System.

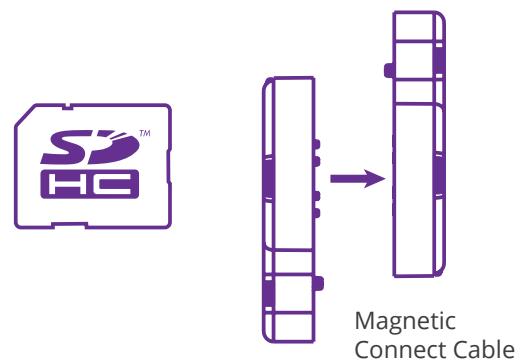
Advanced settings include:

- Unsecure Warning
- Delay to Open
- Dual Authorization
- Relock on Open
- Alarm

2 Programmer Setup

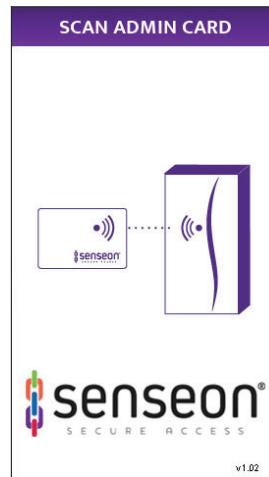
Make sure your **SDHC Card** is placed inside the Handheld Programmer's slot for SD cards.

Connect the Programmer to the **Controller** via the attached **Magnetic Connect Cable**. Your Programmer's screen will illuminate upon connection with the Controller.



2.1 Authentication

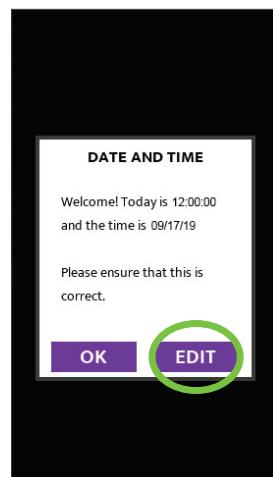
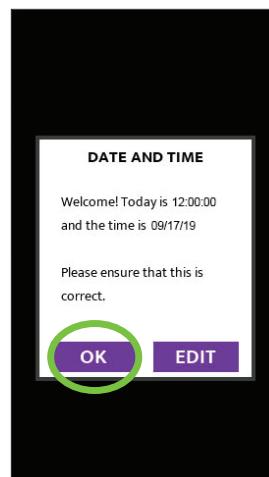
For security, only a user with an authenticated (scanned) **Administrator Card** can access the Senseon Plus Programming Mode. The opening screen will prompt you to "SCAN ADMIN CARD."



2.2A Time Verification

Time accuracy is important for use of audit trail data. The Programmer will display a "DATE AND TIME" prompt for verification. If the date and time are correct, press **OK**.

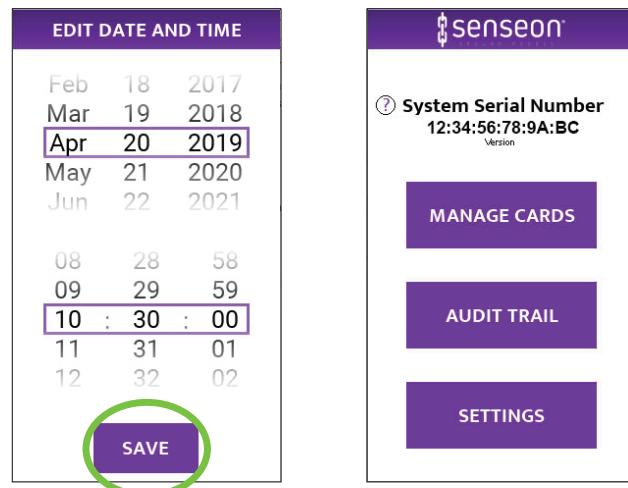
If the date and/or time is incorrect, press **EDIT**.



2.2B

The EDIT button will take you to an “EDIT DATE AND TIME” screen. Dates adjust by month, day, and year. Times adjust by hour, minute, and second. Press **SAVE** when finished.

Once set up, your Programmer will send you back to the home screen.



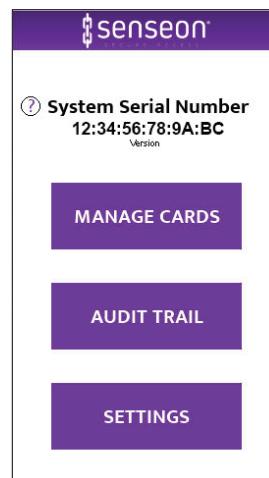
2.2C

Your Programmer’s unique System Serial Number is on top.

Below the System Serial Number, you will find three buttons:

- MANAGE CARDS
- AUDIT TRAIL
- SETTINGS

We’ll cover these buttons in Sections 4 through 8.



3 Administrator & User Description

Senseon Plus cards can be programmed as either Administrator or User.

3.1 Administrator

An Administrator can use the Handheld Programmer to program the system. An Administrator can determine a User's level of access and adjust a system's settings. An Administrator can not access channels.

3.2 User

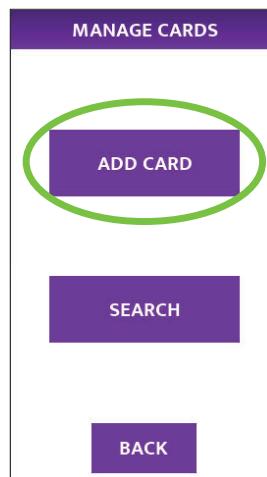
A User has access to channels an Administrator has determined. This may be one or multiple channels.

4 Adding Cards



4A

To add a card, press **MANAGE CARDS** on your Programmer's home screen.

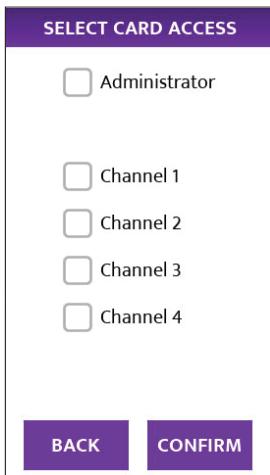


4B

This takes you to the "MANAGE CARDS" screen. You have three buttons:

- ADD CARD
- SEARCH
- BACK

Press **ADD CARD**.



4C

This takes you to the "SELECT CARD ACCESS" screen. Here you can checkmark boxes to determine a card's level of access.



4D

If you select **"Administrator,"** Senseon Plus will block all other boxes. An Administrator Card is used for system configuration but not for unlocking openings.

SELECT CARD ACCESS

<input type="checkbox"/> Administrator
<input checked="" type="checkbox"/> Channel 1
<input type="checkbox"/> Channel 2
<input checked="" type="checkbox"/> Channel 3
<input type="checkbox"/> Channel 4

BACK **CONFIRM**

4E

If you choose to create a User Card, you may choose one or more channels of access. Each channel corresponds to one or more openings.

SELECT CARD ACCESS

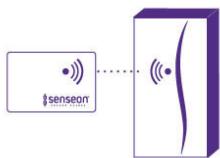
<input type="checkbox"/> Administrator
<input checked="" type="checkbox"/> Channel 1
<input type="checkbox"/> Channel 2
<input checked="" type="checkbox"/> Channel 3
<input type="checkbox"/> Channel 4

BACK **CONFIRM**

4F

Press **CONFIRM** once you have determined your card's level of access.

SCAN CARD TO ADD



BACK

4G

This takes you to a screen labeled "SCAN CARD TO ADD." Tap a blank card on your Senseon Plus Reader.

ENTER ID FOR ADDED CARD

1	2	3
4	5	6
7	8	9
✓	0	☒

SCAN BARCODE

BACK

4H

After tapping your card, you will come to a screen labeled "ENTER ID FOR ADDED CARD."

ENTER ID FOR ADDED CARD

1	2	3
4	5	6
7	8	9
✓	0	☒

SCAN BARCODE

BACK

4I

If your card has a barcode, press **SCAN BARCODE**. This activates the Programmer's scanning system. Use the Programmer to scan your card's barcode to add it into the system.

ENTER ID FOR ADDED CARD

123456

1	2	3
4	5	6
7	8	9
✓	0	☒

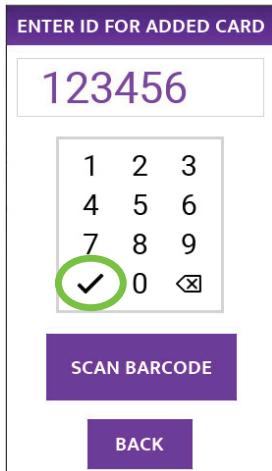
SCAN BARCODE

BACK

4J

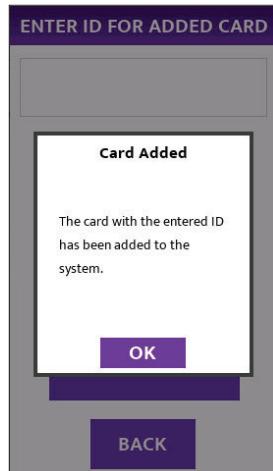
Alternately, you can apply one using the numbered pad on screen. You can apply a numeric ID from one to eight digits. In the example shown, the numeric ID is 123456.

(Note: You cannot choose a single-digit ID of "0.")



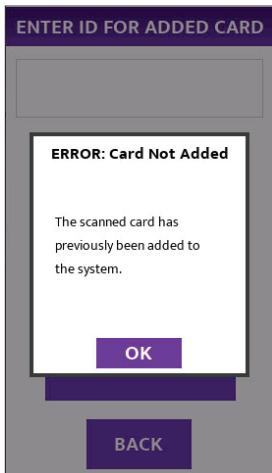
4K

Once you have entered an ID, press the ✓ in the lower left of the numbered pad to confirm.



4L

Once confirmed, a prompt labeled "Card Added" will appear.

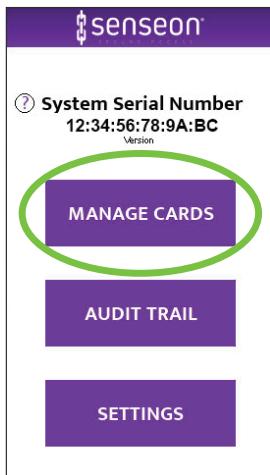


4M

If the card you tried to add is already in the system, you will receive a prompt labeled "ERROR: Card Not Added."

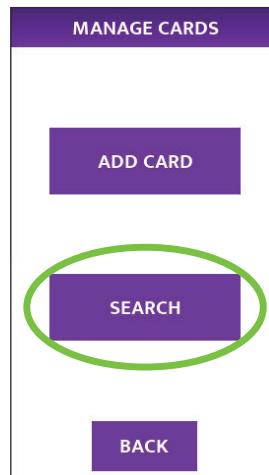
Either of the above prompts will take you back to the "SCAN CARD TO ADD" screen. From there you can continue to add cards.

5 Modifying Cards



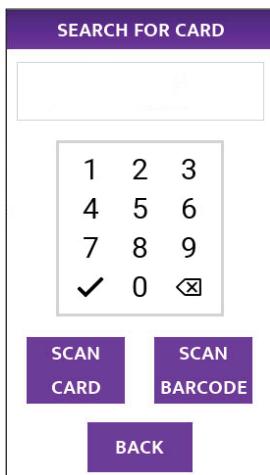
5A

To modify a card, press **MANAGE CARDS** on your Programmer's home screen.



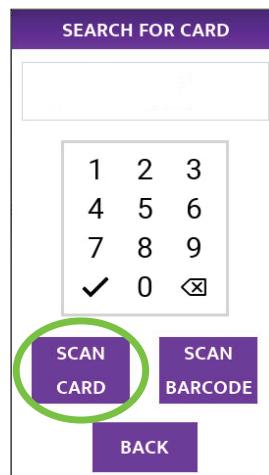
5B

On the "MANAGE CARDS" screen, press **SEARCH**.



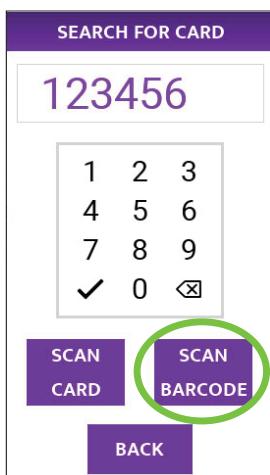
5C

This will take you to the "SEARCH FOR CARD" screen. From here, you can modify a card in three ways.



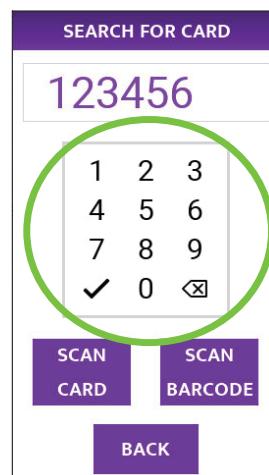
5D

Option 1.
Press **SCAN CARD**, then tap the card you wish to modify at the Reader.



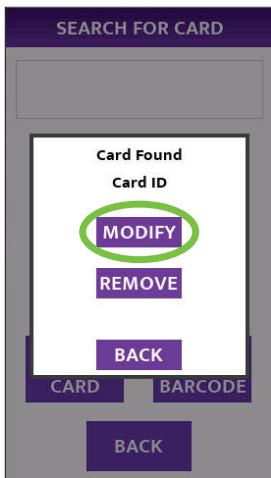
5E

Option 2.
Press **SCAN BARCODE**, then scan your card's barcode with your Programmer. Confirm with the press of the ✓ in the lower left of the numeric pad.



5F

Option 3.
Input your card's ID number using the on-screen numeric pad. Confirm with the press of the ✓ in the lower left of the numeric pad.

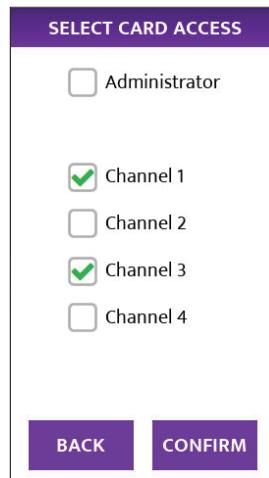


5G

Once you've scanned or entered your card ID, you will receive a prompt with three buttons:

- MODIFY
- REMOVE
- BACK

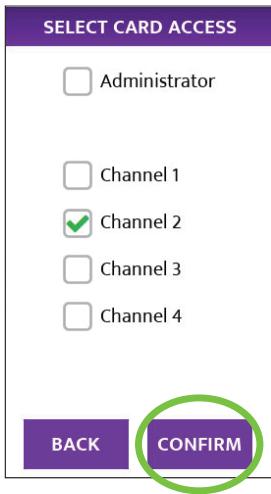
Press **MODIFY**.



5H

This takes you to the "SELECT CARD ACCESS" channel screen. Select which channels you wish to modify for this card.

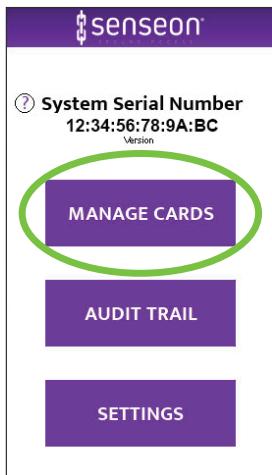
Each channel, labeled next to a box, corresponds to one or more cabinet openings. You can even turn a User Card into an Admin Card and vice-versa.



5I

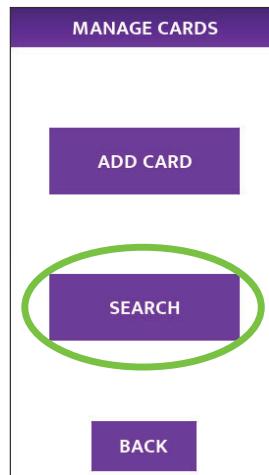
Press **CONFIRM** when finished to return you to the prior screen.

6 Removing a Card



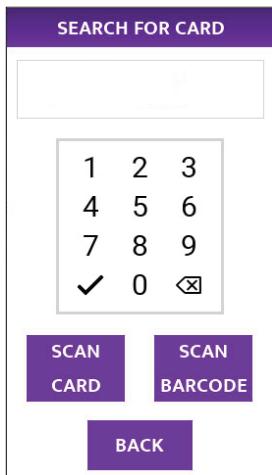
6A

To remove a card, press **MANAGE CARDS** on your Programmer's home screen.



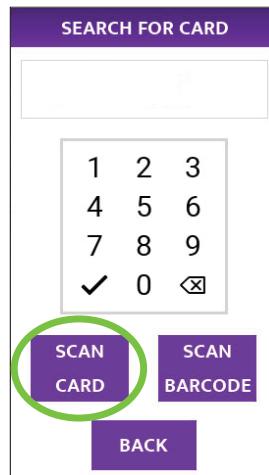
6B

On the "MANAGE CARDS" screen, press **SEARCH**.



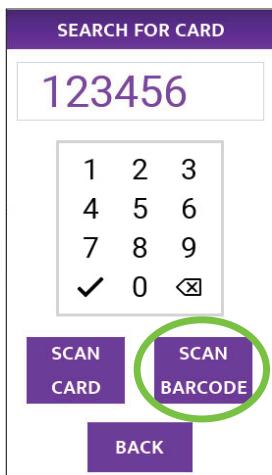
6C

This will take you to the "SEARCH FOR CARD" screen. From here, you can search for a card in three ways.



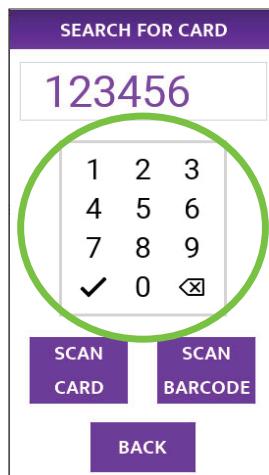
6D

Option 1.
Press **SCAN CARD**, then tap the card you wish to modify on the Reader.



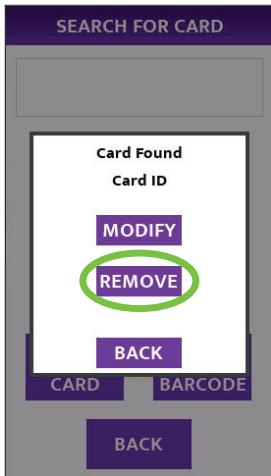
6E

Option 2.
Press **SCAN BARCODE**, then scan your card's barcode with your Programmer. Confirm with the press of the ✓ in the lower left of the numeric pad.



6F

Option 3.
Input your card's ID number using the on-screen numeric pad. Confirm with the press of the ✓ in the lower left of the numeric pad.



6G

Once you've scanned or input your card, you will receive a prompt with three buttons:

- MODIFY
- REMOVE
- BACK

Press **REMOVE**. This will remove the card from file and return you to the prior screen.

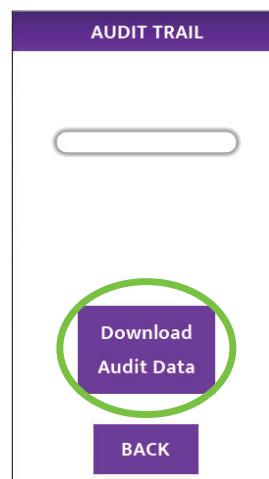
7 Audit Trail



7A

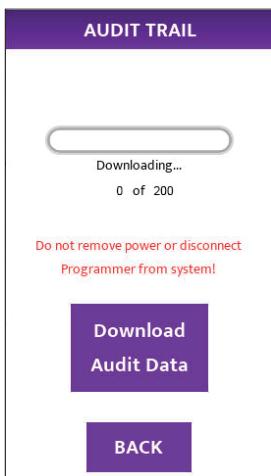
A Senseon Plus Controller stores your most recent 15,000 audit trail transactions. You can download a list of these transactions by pressing **AUDIT TRAIL** on the home screen.

Note: Before any download, verify your SDHC Card inside your Programmer.



7B

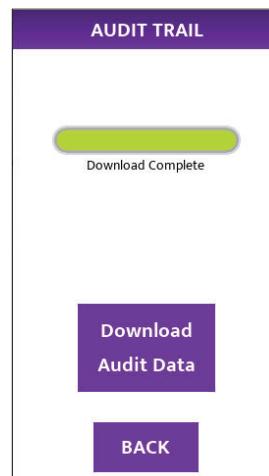
Press the button **"Download Audit Data"** on the next screen.



7C

A progress bar will show the status of the download.

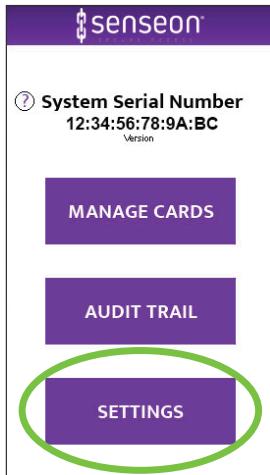
Note: Do not remove power or disconnect Programmer from system.



7D

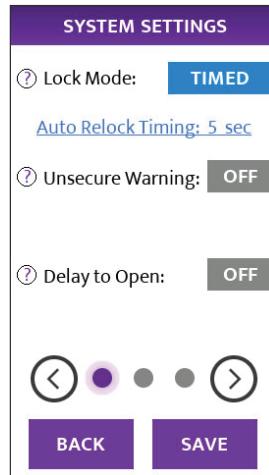
The bar will read **"Download Complete"** when finished. You can find the downloaded audit trail on your Programmer's SDHC Card.

8 System Settings



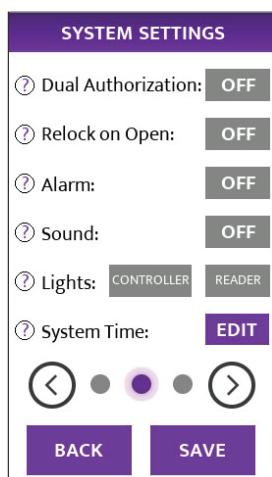
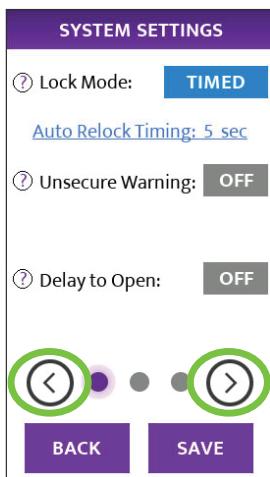
8A

You can access your system settings via the **SETTINGS** button on the home screen.



8B

This sends you to the "SYSTEM SETTINGS" menu where you shut off or modify features.

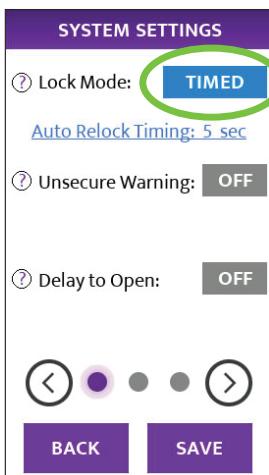


8C

The SYSTEM SETTINGS menu has three screens. Use the < and > buttons to navigate between them.

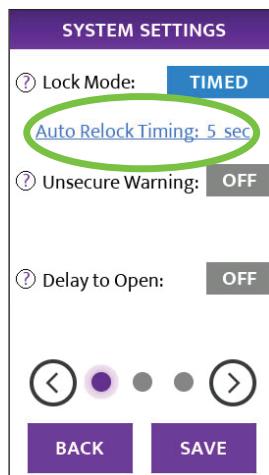
Next, we'll explore the different settings on the menu.

8.1 Lock Mode



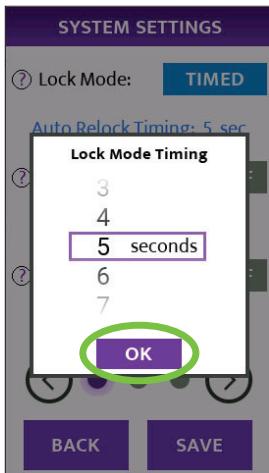
8.1A

Your Programmer enables you to choose from two lock modes. You can activate either mode by pressing the colored button next to the setting labeled "Lock Mode."



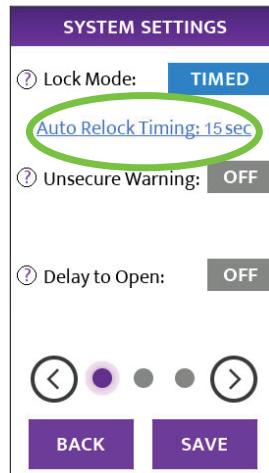
8.1B

The **TIMED** setting activates a relock condition after a programmed amount of time. Press the underlined section labeled "Auto Relock Timing" to activate a prompt.



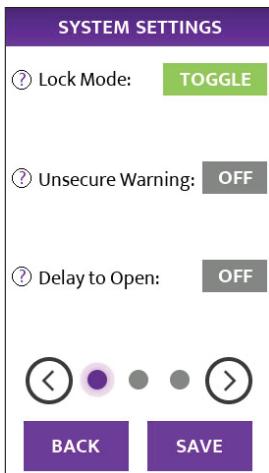
8.1C

A prompt allows you to adjust the time for your cabinet's to auto relock. You can choose from 1 to 255 sec. Press **OK** when done.



8.1D

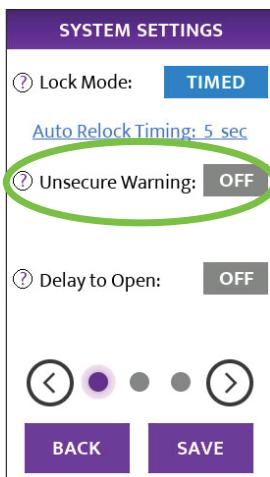
You can see your system's auto relock timing below the "Lock Mode" section. In this example, we have it set to 15 sec.



8.1E

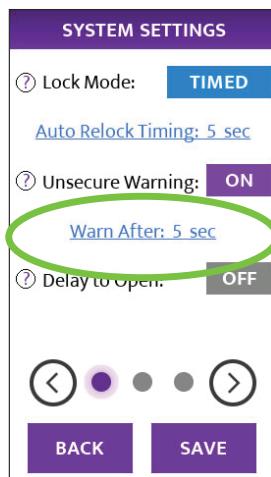
The **TOGGLE** setting requires you to present a User Card to lock or unlock any opening.

8.2 Unsecure Warning



8.2A

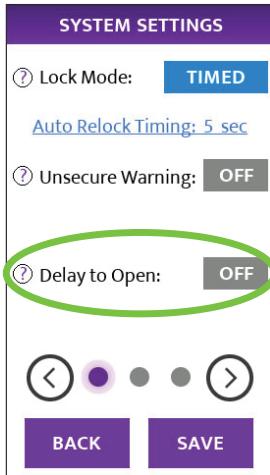
This setting activates warning beeps when a cabinet remains open or unlocked past a programmed time. You can tap this setting **ON** or **OFF**.



8.2B

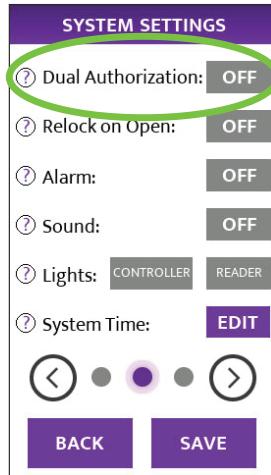
When ON, adjust the "Warn After" prompt to the amount of time you wish. You can adjust this warning to appear anywhere from 1 to 255 sec. after opening.

8.3 Delay to Open



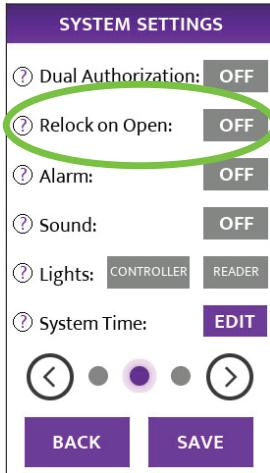
This setting activates a timed delay before your system unlocks a cabinet. You can adjust this delay to last anywhere from 1 to 255 sec.

8.4 Dual Authorization



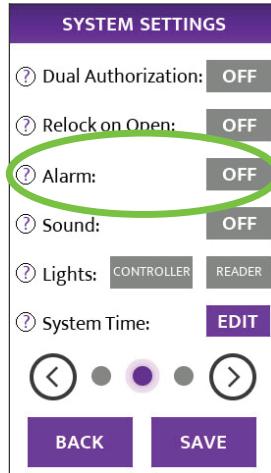
This setting requires validation of two User Cards for access and locking. Only the channels common to both User Cards will unlock or lock.

8.5 Relock on Open



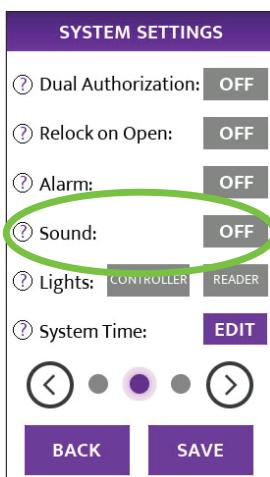
This setting unlocks all openings authorized for that User until said User opens one. Once a User accesses an opening, all other authorized openings relock.

8.6 Alarm



This setting activates an alarm. The alarm triggers when a cabinet is opened without a valid card being presented first. The alarm sounds from the Reader or an external alarm (if installed).

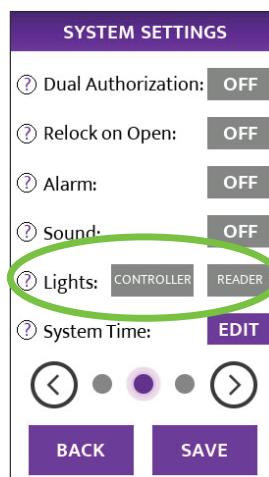
8.7 Sound



This setting turns the Reader's speaker **ON** or **OFF**.

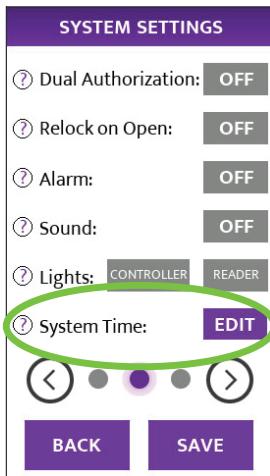
Note: The sound during system programming is always on.

8.8 Lights



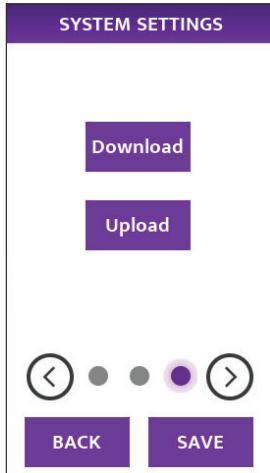
This setting lets you turn LED lights on your Controller or Reader on or off.

8.9 System Time



This setting lets you edit time. Proper time is vital to ensuring accurate audit trail information.

8.10 Copy & Transfer



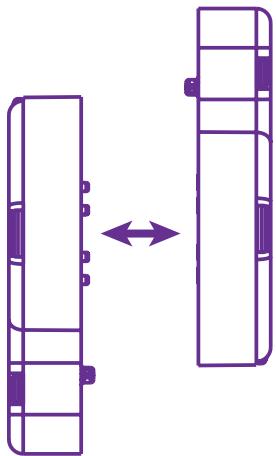
These buttons enable you to copy and transfer your cards and settings information from one controller to another.

Press **DOWNLOAD** to copy the system configuration from the Controller to the Handheld. You can connect your Handheld to another Senseon Plus Controller.

Press **UPLOAD** to transfer that configuration into another Controller. This saves time spent in configuring Senseon Plus. (Be aware that previous data and settings will be overwritten.)

Note: For security, you will have 5 min. to copy or transfer configurations.

9 Exit Programming Mode



To exit programming mode, disconnect the Programmer's round Mag-Connect Cable from its counterpart. The system will return to normal operating mode.

senseonsecure.com

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