

Naloxone Safety Kit User Manual

Building Manager Version, Apr. 3rd, 2023

Table of Contents

User Roles and Permissions	3
Building Manager	3
User Interface	4
Taskbar	4
Pushbuttons	4
Indicators	5
Notifications	6
Home Screen	8
Home Screen Image and Text	8
QR Code for Admin Contact	8
Dashboard Screen	9
Sensor Column	9
CPU Column	9
Network Column	10
Naloxone Column	10
Settings Screen	11
Door Open Screen	12
Pushbutton Function Summary	12
On Door Open	13
Passcode Screen	17
Settings	18
Security Settings	18
Unlock Settings	18
Lock Settings	18
Contact Admin QR Code	19
Naloxone Settings	20
Max Temperature	20
Naloxone Expiration Date	20
Appendix A: Naloxone Replacement Manual For Building Managers	21
Naloxone Replacement Procedure	21
Notifying Admin Procedure	21

User Roles and Permissions

Building Manager

The building manager can replace the naloxone and enter the new expiration date and maximum temperature for the replaced naloxone. The building manager can only change the naloxone information settings and have limited access to the software's settings. The building manager should have knowledge of using the software and proper response to drug overdose. The manager should also help the paramedics resetting the device when needed.

User Interface

Taskbar

The taskbar, which displays the time as well as pushbuttons, indicators, and notifications, is an essential component of the user interface. It can always be found on the screen's bottom. It is intended to adapt to the safety kit's current state dynamically. Indicators for the safety kit's status include whether the CPU fan is on and whether the naloxone has been destroyed. Users can quickly check the safety kit's status and take the necessary action by monitoring the taskbar.

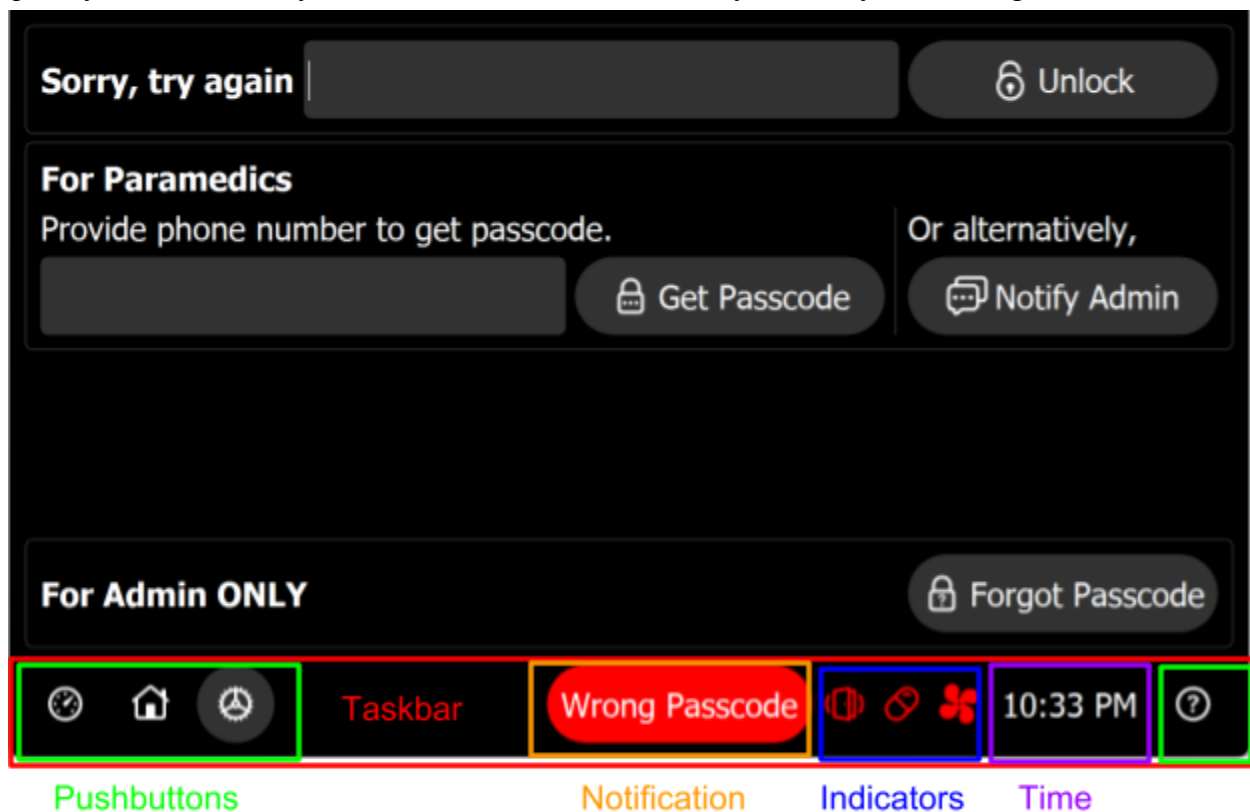


Figure UM1: Taskbar Location.

Pushbuttons

The taskbar's pushbuttons are an essential user interface component that enables fundamental user interactions. To access various software pages, users can click on the push buttons. For instance, the software's settings can be accessed and modified by pressing the "Settings" push button. The software's detailed usage instructions can also be found by pressing the "Help" button. It is essential to keep in mind that although the pushbuttons' availability may change depending on the device's state, they will always offer users an easy way to navigate the software.











Pushbutton	Action
	Go to the home page.
	Go to the dashboard page.
	Go to the settings page.
	Show help for the current page.
	Save the current settings to “safety_kit.conf”. The settings will be applied immediately after saving. You will only see this push button when you are on the settings page.
	Go back to the door open page. You will only see this pushbutton when you access the settings from the door open page.

Table UM1: Taskbar Pushbuttons.

Indicators

Similar to the dashboard of a car, indicators on the taskbar display the device's current state. The indicators may show the state of the door sensor, the network status, or whether the Twilio account has sufficient balance. Users can quickly and easily assess the situation and take the necessary actions thanks to these indicators, which provide essential information about the device's status at a glance.

Indicator	Meaning
	The settings have been unlocked.
	More than one Twilio request is in the request queue.
	The CPU fan has been turned on to prevent CPU overheating.
	The stored naloxone has been destroyed due to expiration or overheating.




	The device cannot connect to the Twilio service.
	The door sensor is disarmed. Emergency service will not be called when the door opens.
	The remaining Twilio account balance is less than \$5.

Table UM2: Taskbar Indicators.

Notifications

Notifications displayed on the taskbar provide more detailed information about critical events or changes in the status of the safety kit. These notifications may include alerts for missing config files, destroyed naloxone, and disarmed sensors. Users should pay close attention to notifications and take appropriate action to ensure the safety kit functions properly. Notifications may also provide instructions on resolving the issue or seeking further assistance.

Notification	Meaning
Config File Missing	The file “safety_kit.conf” does not exist.
Wrong Passcode	The provided passcode does not match the admin or paramedic's passcode.
911 Requested	The emergency call request has been created and placed in the request queue.
Naloxone Destroyed	The stored naloxone has been destroyed because of expiration or overheating.
Door Sensor OFF	The door sensor has been disarmed. The device will not place emergency phone calls until the door sensor has been armed again.
Close Door First	When trying to reset the system, the door is open.
SMS Requested	An SMS request has been created and placed in the request queue.
SMS Failed	The device cannot send the SMS using the Twilio service.
SMS Delivered	The device successfully sends the SMS using the Twilio service.

Call Requested	A non-emergency call has been created and placed in the request queue.
Call Failed	The device cannot send the call using the Twilio service.
Call Delivered	The device successfully sends the call using the Twilio service.
System Reset	The system has been reset to the default state.
Alarm Generated	An alarm mp3 file called “alarm.mp3” has been generated in the ./res directory. If the device cannot place emergency calls, it will be played during an emergency.
Settings Saved	The settings have been saved to “safety_kit.conf”.

Table UM3: Taskbar Notifications.

Home Screen

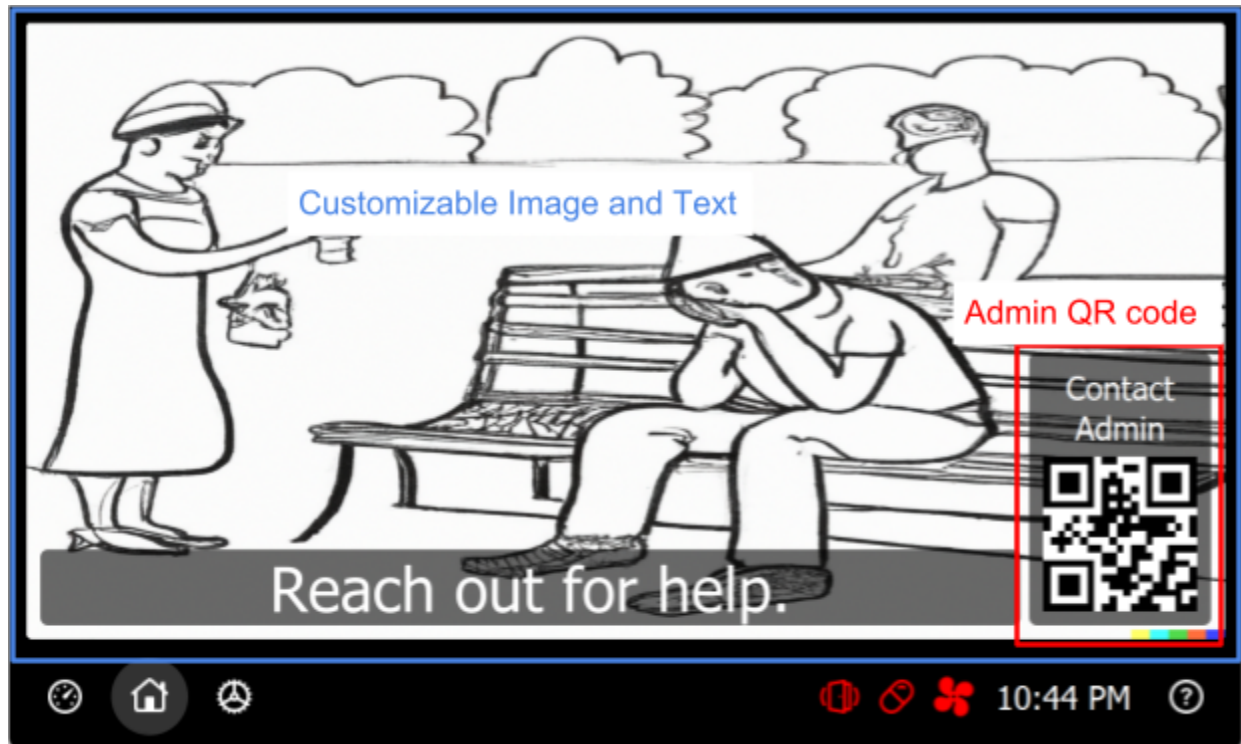


Figure UM2: Home Screen.

Home Screen Image and Text

The home screen of the Naloxone safety kit displays images and text that aim to increase public awareness about the overdose epidemic. This screen serves as an educational tool to raise awareness about the prevalence of drug overdoses and how to respond to an overdose emergency. The admin can customize the pictures and text displayed on the home screen before deployment to meet specific demands and maximize public awareness. This allows the admin to tailor the content to the target audience and location of the safety kit.

QR Code for Admin Contact

The admin's phone number is displayed in a QR code on the home screen in addition to the educational content. Anyone with a smartphone can scan this code to contact the administrator to report any problems or learn more about the Naloxone safety kit. The public can quickly and conveniently contact the administrator through this feature to report whether the safety kit works appropriately.

Dashboard Screen

The device's current state is shown on the Dashboard page. The user can view the current state of various device components on this page and take any necessary action. The Dashboard page helps the user monitor the device and take the necessary steps to ensure its proper operation by providing a comprehensive overview of its status. The dashboard screen will transit to the home screen after 1 minute automatically.

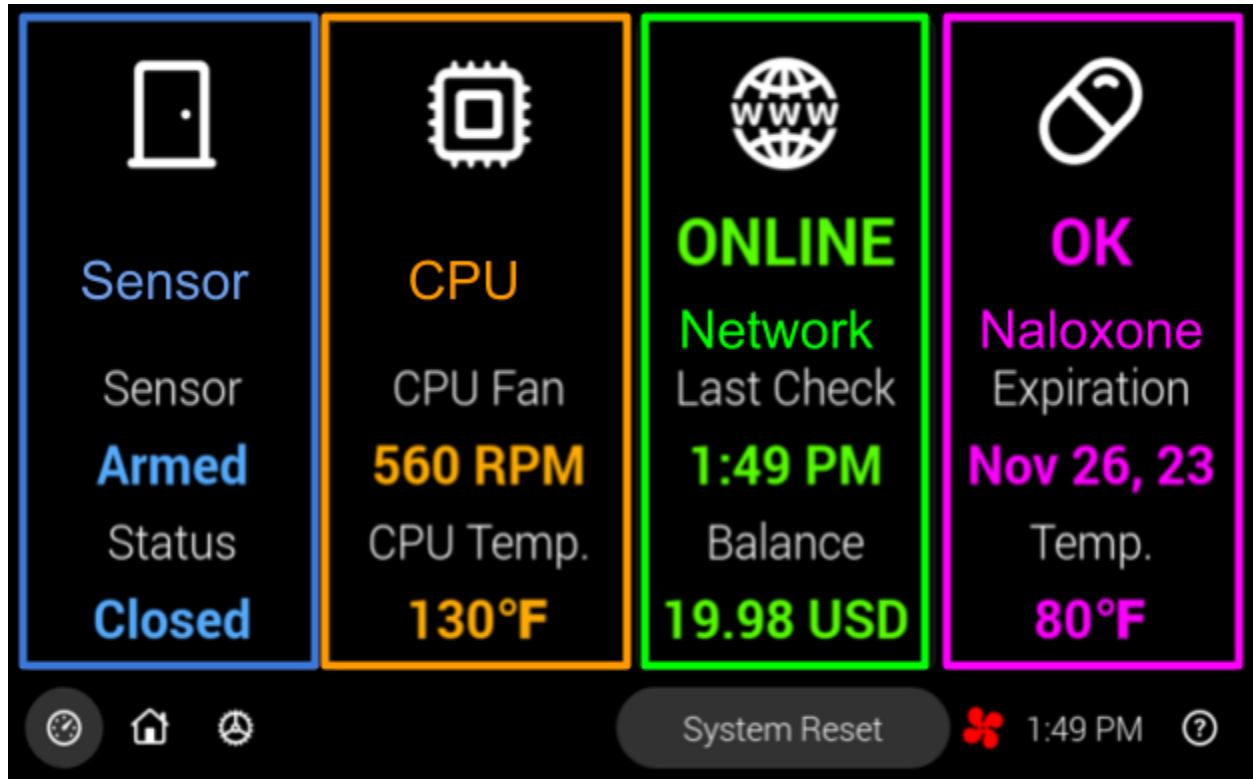


Figure UM3: Dashboard Screen.

Sensor Column

The Sensor column displays the door's status, including whether it is closed and whether the door sensor is disabled. This column provides information on the door sensor of the device.

CPU Column

The CPU column displays the CPU's current temperature and the CPU fan's speed. Monitoring the CPU temperature can help identify potential issues with the device's hardware, and the CPU fan speed indicates the device's workload.

Network Column

The Network column shows whether the device is connected to the Twilio service and the remaining Twilio account balance. This information helps the user ensure that the device functions correctly and that there is sufficient balance to cover communication costs.

Naloxone Column

The Naloxone column shows the expiration date of the naloxone and whether the naloxone has been destroyed due to overheating or expiration. The status of the naloxone can help the user ensure that the device has a reliable naloxone supply.

Settings Screen

The Settings allows the user to set different device parts. Security, Naloxone, Twilio, Emergency Call, Alarm, Power Management, and Admin are among the tabs on the settings page. Users can lock or unlock settings through the Security tab. Users can set the naloxone's expiration date and maximum temperature in the Naloxone tab. Users can modify the information associated with their Twilio account through the Twilio tab. Users can set the phone number called in an emergency using the Emergency Call tab. The Alarm tab permits users to create MP3 documents to alarm nearby people and change the volume. The Power Management tab lets users decide whether to enable active cooling and adjust screen brightness. The Admin tab helps users to test their settings utilizing calls or SMS messages. The software can be tailored to meet the user's specific requirements by allowing users to modify these settings. For the building managers, only the Security tab and Naloxone tab will be available.

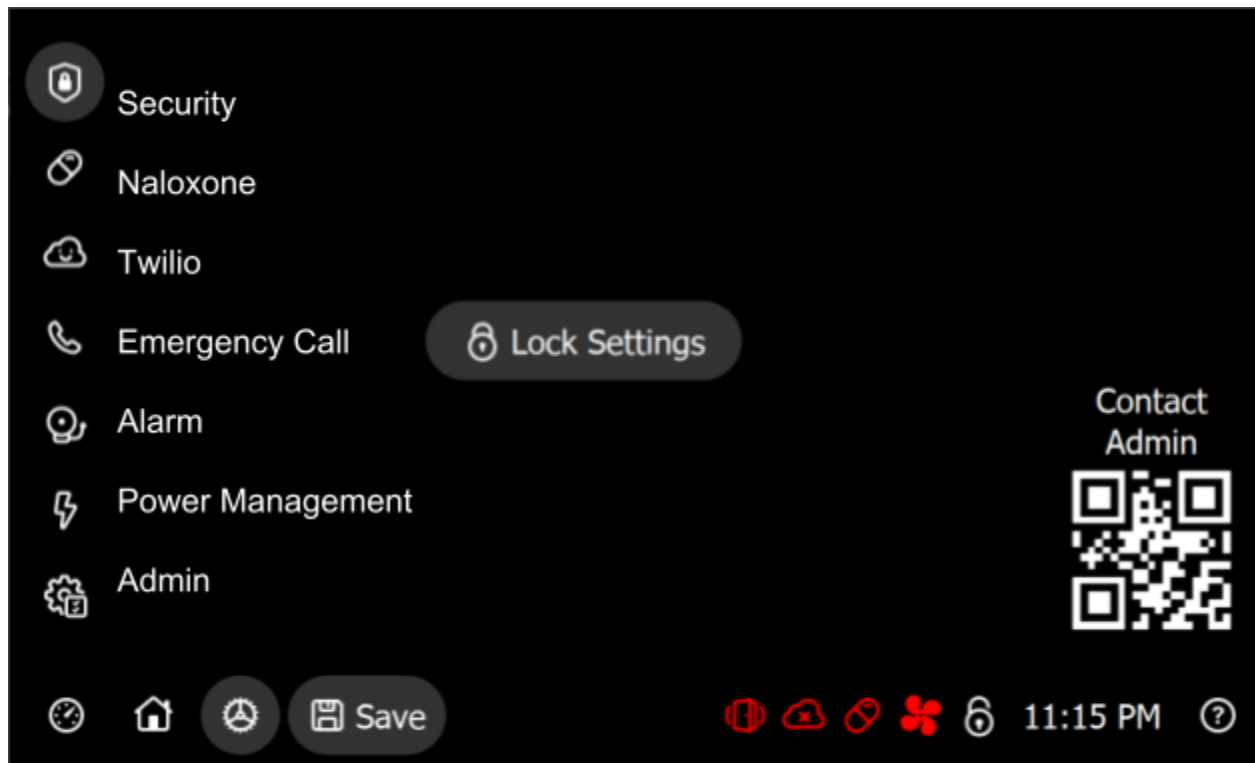


Figure UM4: Settings Tabs.

Door Open Screen

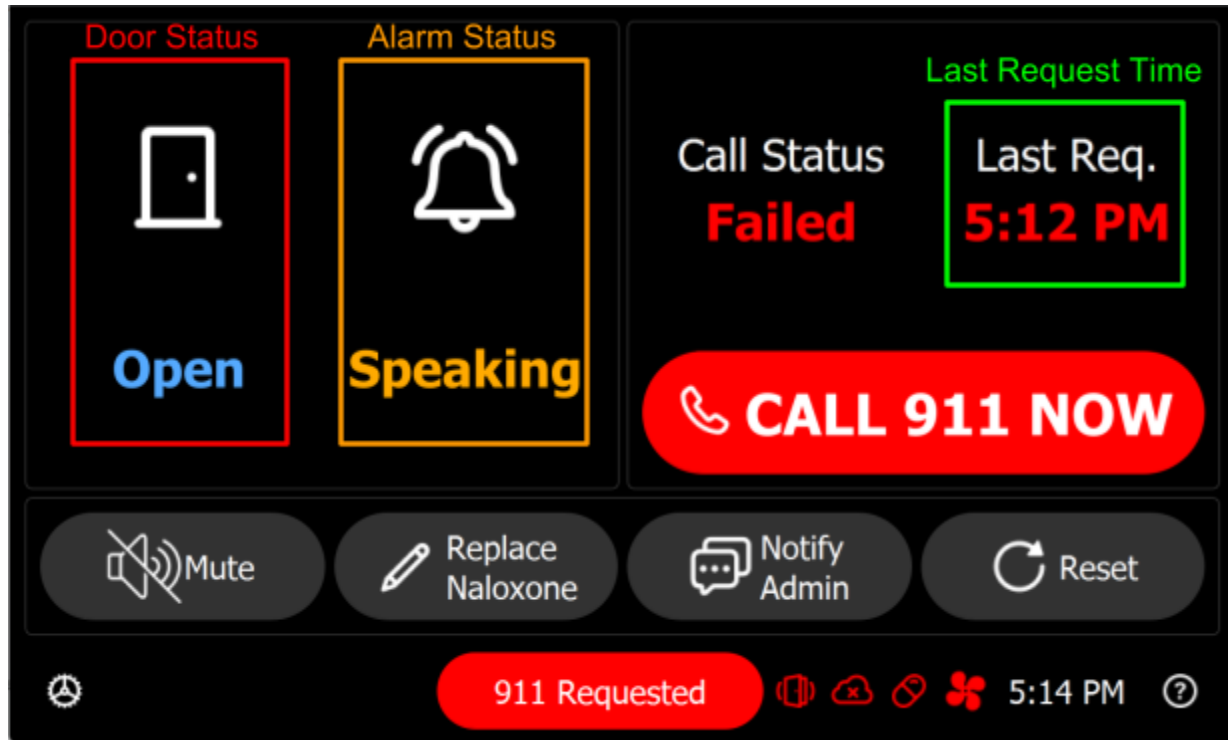


Figure UM5: Door Open Page UI.

Pushbutton Function Summary

Note that not all pushbuttons will be shown on the door open screen at the same time. The UI will adjust itself so that the user can get access to the most needed function in a simplified manner.

Pushbutton	Function
Stop	Stop the countdown timer so that the emergency phone call will not be automatically called.
CALL 911 NOW	Call the emergency number immediately. Pressing this button will automatically set the countdown timer to timeout.
Mute	Stop the alarm sound. You cannot enable the alarm again unless the next emergency call request failed.
Replace Naloxone	The settings page will appear so the user can enter new information about the replaced

	naloxone.
Notify Admin	The admin will receive an SMS saying that paramedics have arrived.
Reset	Reset the device to the default state. Always close the door before pressing this button.

Table UM4: Door Open Screen Pushbuttons.

On Door Open

The door open screen will be shown when the door is opened, and the door sensor is enabled. It will first show a countdown timer. Within the countdown period, the user can stop the countdown to disable emergency phone calls by pressing the “Stop.” They can also shut down the door to go back to the previous screen when opening it accidentally.

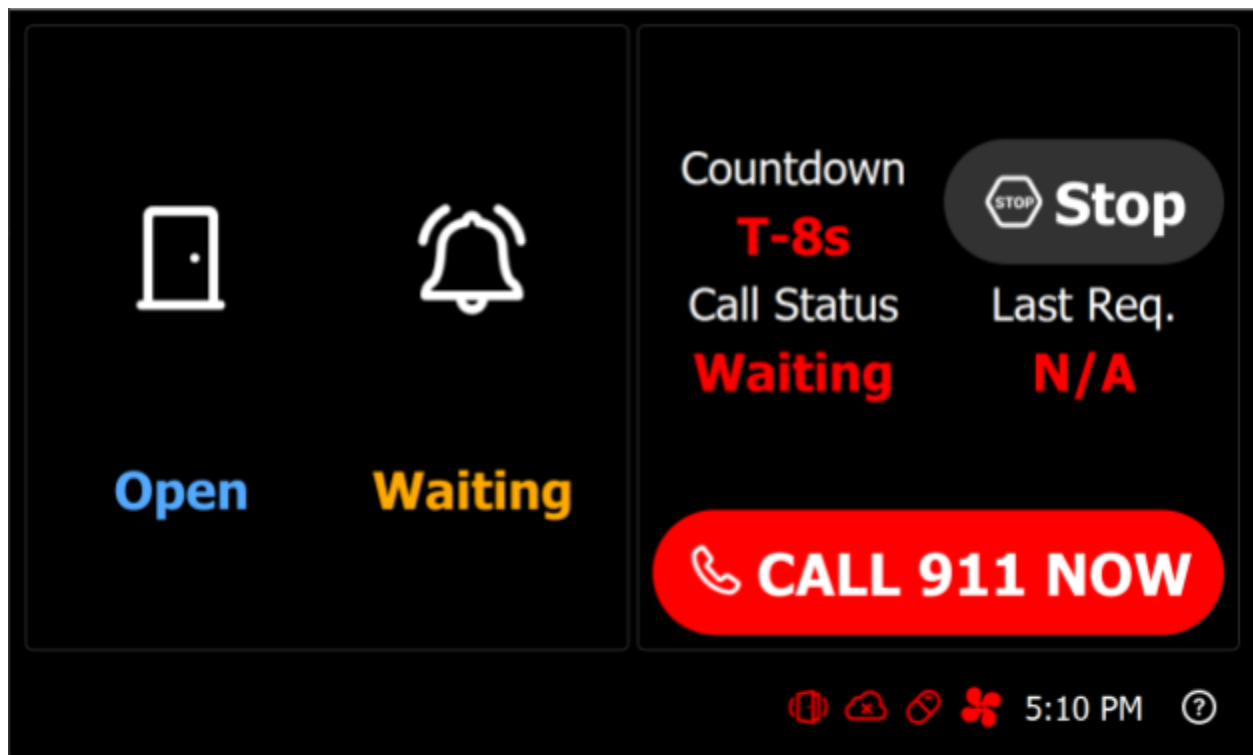


Figure UM6: Door Open Page with Countdown Timer.

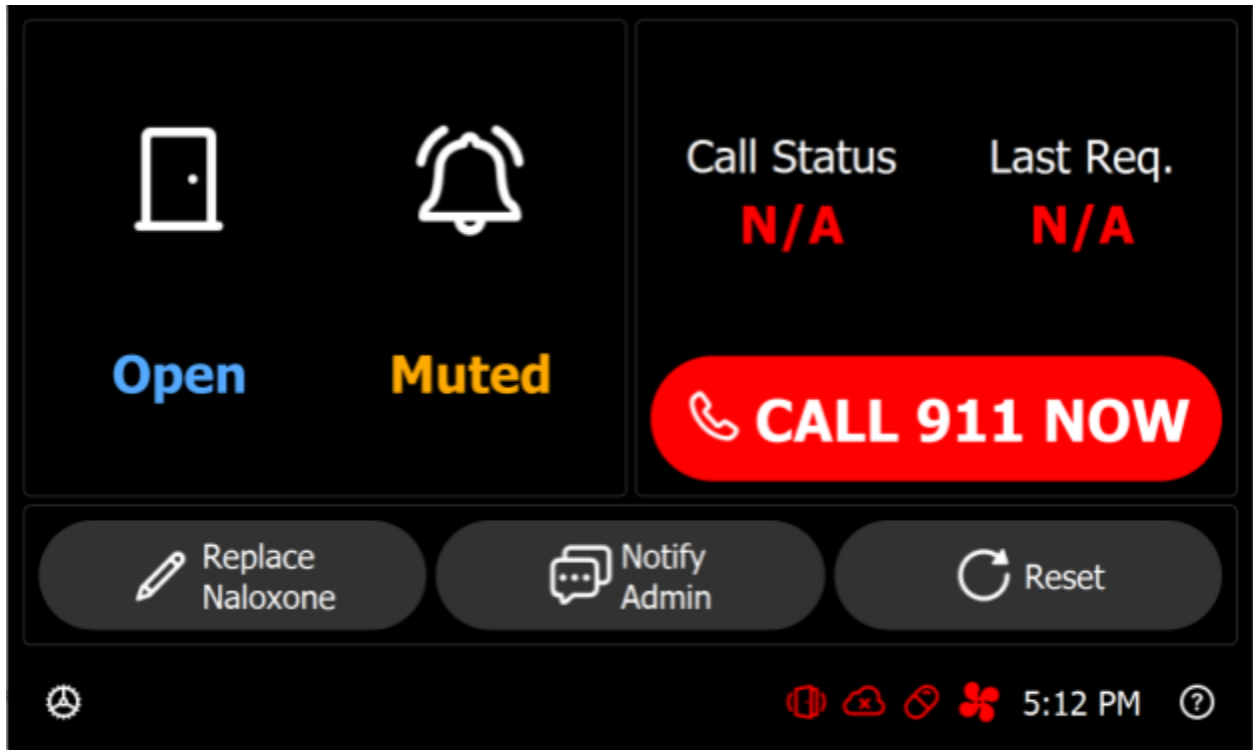


Figure UM7: Door Open Page after Pressing Stop.

After pressing the “Stop” button, the user must manually reset the device. They need to ensure that the door is closed before resetting. Otherwise, the device will not be reset and a warning will be shown in the taskbar. They can also observe the text under the door icon to check whether the door is closed or not.

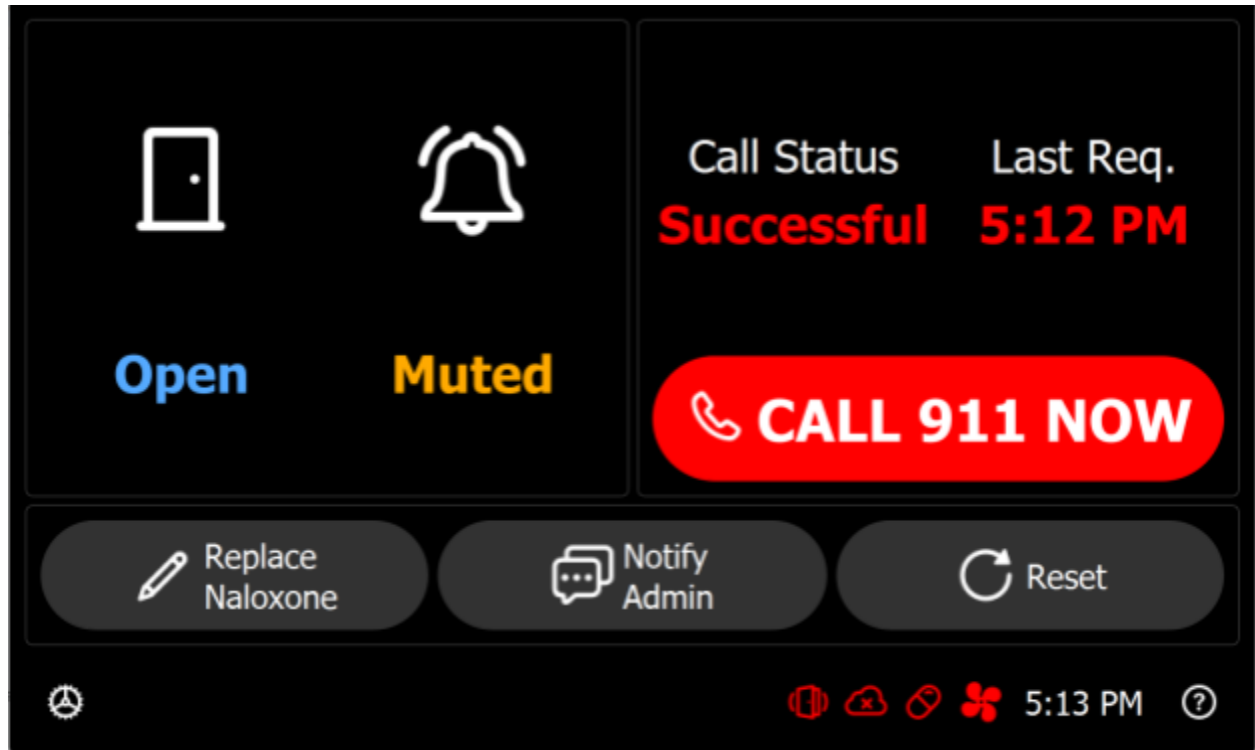


Figure UM8: Door Open Page after Successful Emergency Call.

If there is indeed an emergency, the user can press the “CALL 911 NOW” to call the emergency immediately or wait for 10 seconds before the device calls 911 by itself. If the 911 is placed successfully, the alarm will not be played by the device to minimize disruption.

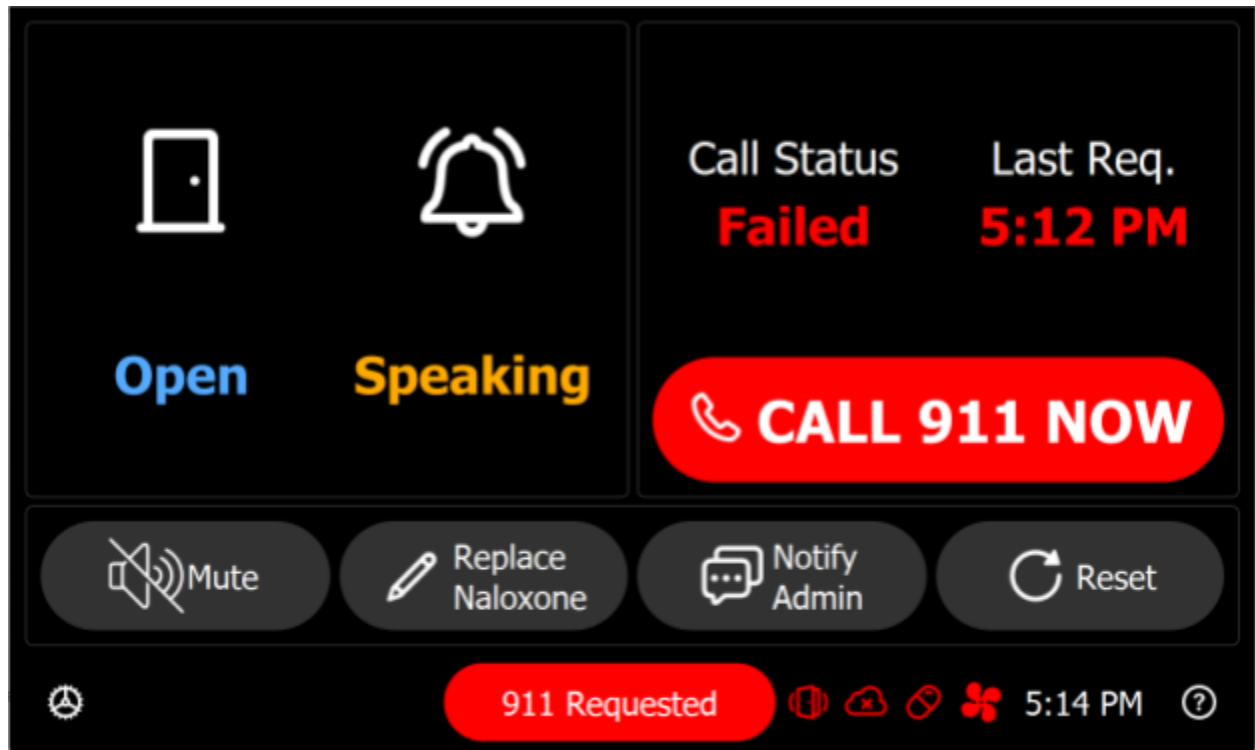


Figure UM9: Door Open Page After Unsuccessful Emergency Call.

If the emergency call cannot be placed successfully, the device will play the alarm file generated when setting up. The user can press “Mute” to stop the alarm if they want to.

Passcode Screen

Both the administrator and the building manager can enter their passcodes on the passcode screen to access the various settings that are available to them. Paramedics can use the "Notify Admin" button to send an SMS to the admin so that the admin can come and replace the Naloxone on their own if the admin has restricted access to only the admin. Paramedics can enter their phone number into the designated field to retrieve the Naloxone passcode on their phone if the administrator grants them access. Using the "Forgot Passcode" function, the administrator can also get their passcode by sending an SMS to their registered phone number. This screen with a passcode helps ensure that only authorized individuals have access to the sensitive safety kit settings.

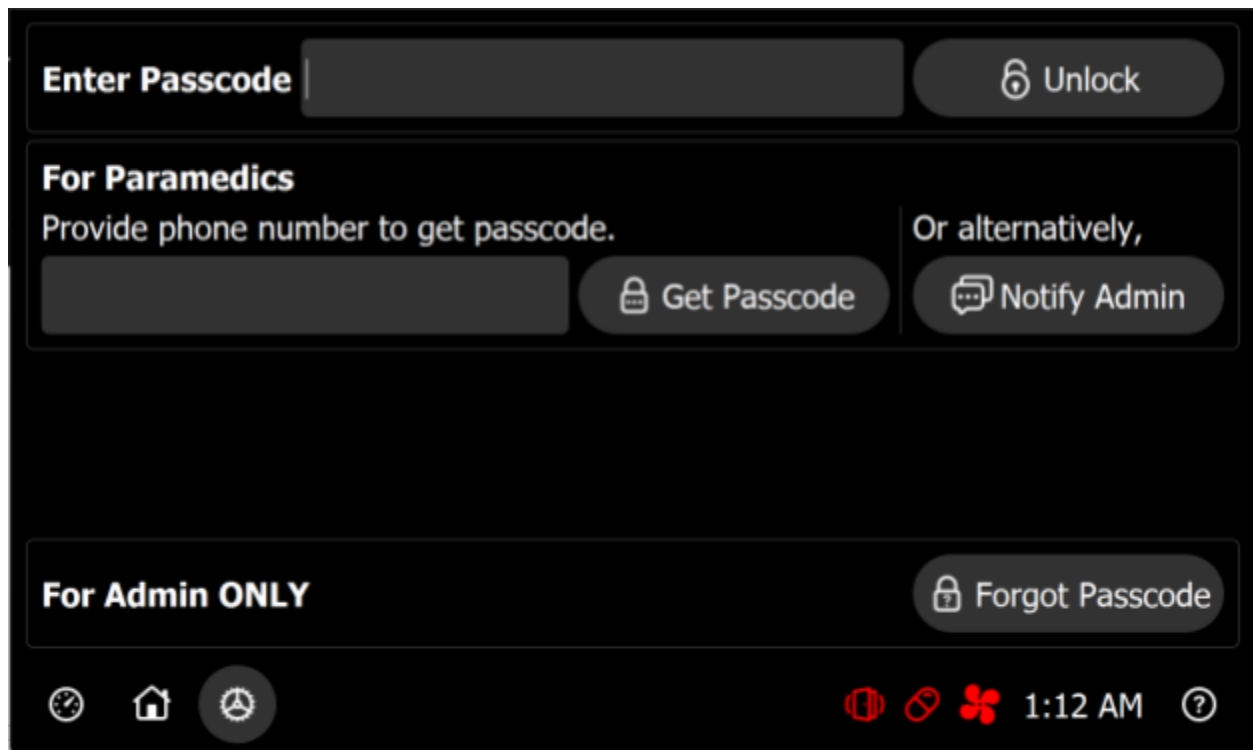


Figure UM10: Passcode Screen.

Settings

This section includes detailed information about all available settings to customize the user experience.

Security Settings

The Security page of the Naloxone safety kit allows you to secure the device's settings by locking or unlocking them. By default, all settings are locked, and you need to enter an admin passcode to unlock them.

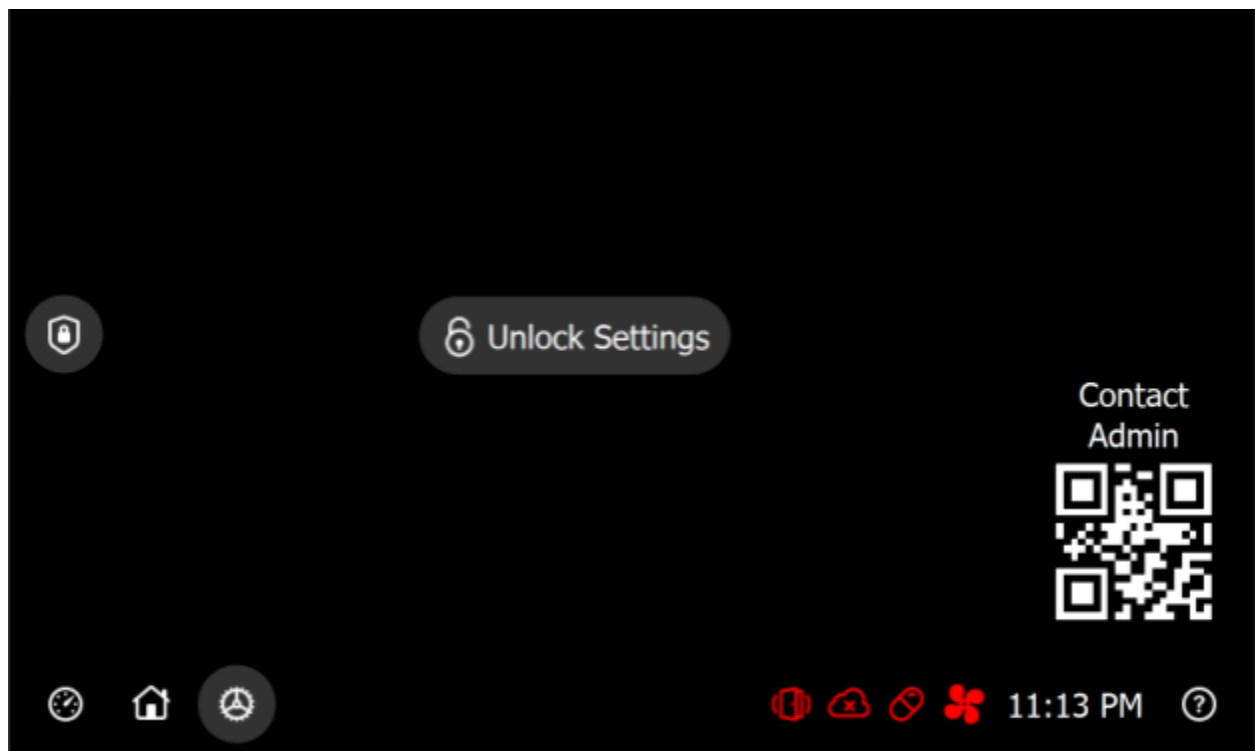


Figure UM11: Security Settings.

Unlock Settings

To unlock the settings, navigate to the Security page and press the "Unlock Settings" button. You will be taken to the Enter Passcode page, where you can enter the admin passcode. If no passcode is set, pressing the "Unlock Settings" button will automatically unlock all settings. Once the settings are unlocked, a white unlock icon will appear in the bottom right corner of the screen.

Lock Settings

To lock the settings on your device, navigate to the Security page and press the "Lock Settings" button. If a passcode is set, you will need to enter it again to access the settings. Alternatively,

the settings will be automatically locked when you leave the settings pages. By locking the settings, you can prevent unauthorized access to your device and ensure the safety of the Naloxone safety kit.

Contact Admin QR Code

Similar to the QR code on the home screen, the user can get the admin phone number by scanning the QR code.

Naloxone Settings

The Naloxone page on the Naloxone safety kit allows you to update information about the Naloxone nasal spray stored in the device. By using the controls on this page, you can set a new maximum temperature for storing the Naloxone and update the expiration date of the Naloxone using the calendar widget.

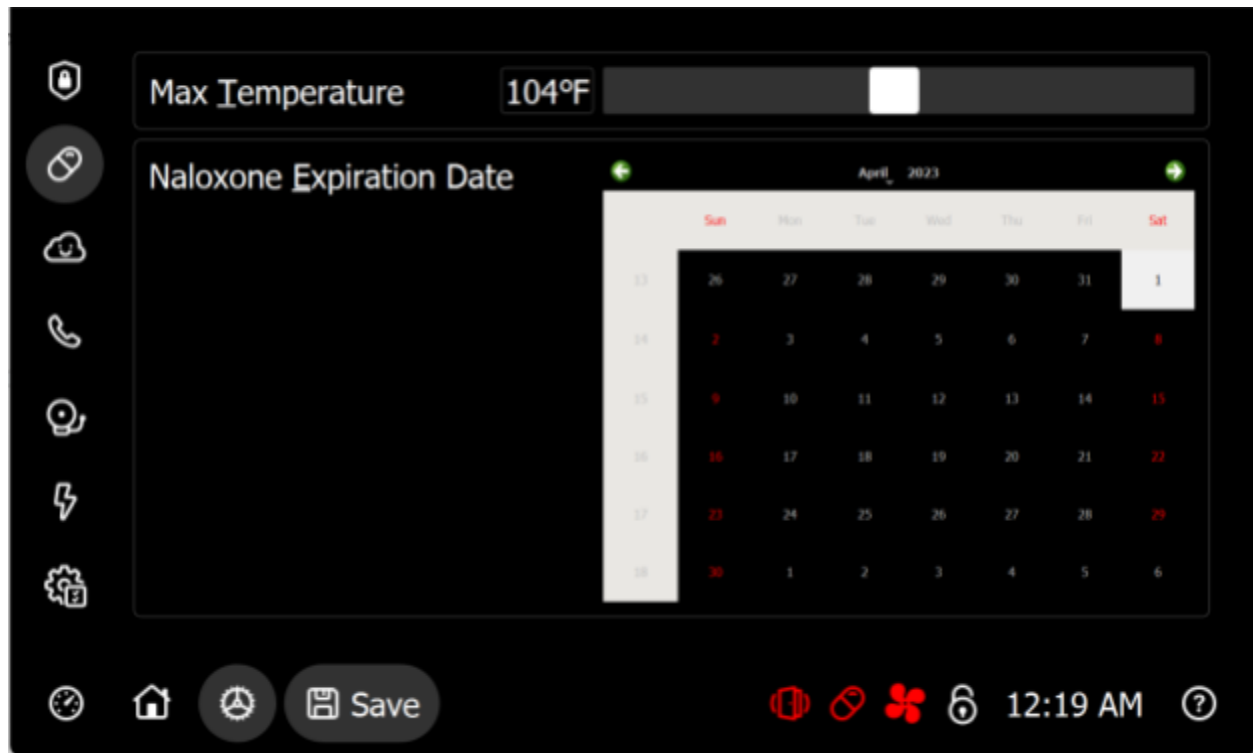


Figure UM12: Naloxone Settings.

Max Temperature

The Naloxone nasal spray should be stored at a maximum temperature of 104 degrees Fahrenheit to ensure its effectiveness. You can adjust this temperature by using the slider control on the Naloxone page. The current temperature setting will be displayed on the adjacent label. If the maximum temperature is reached, the system will display a red pill icon in the taskbar as well as a persistent notification. To ensure the proper functioning of the Naloxone safety kit, it is recommended to enable SMS reporting so that the admin can be notified in the event of overheating.

Naloxone Expiration Date

The Naloxone page also allows you to view and update the expiration date of the Naloxone. Once the Naloxone has expired, the system will display a red pill icon in the bottom right corner of the screen. It is recommended to enable SMS reporting so that the admin can be notified in the event of an expired Naloxone.

Appendix A: Naloxone Replacement Manual For Building Managers

Naloxone Replacement Procedure

1. Enter the passcode in the top box on the screen and press the “Unlock” button to gain access to the Naloxone expiration date settings.
2. Update the expiration date for Naloxone by using the calendar widget or entering the date manually.
3. Also change the maximum storing temperature if needed. You should be able to find the maximum storing temperature at the box of the naloxone.
4. After entering the new expiration date, press the “Save” button to save the changes.
5. Once you have saved the changes, press the “Home” button to exit the settings page.

Notifying Admin Procedure

Press the “Notify Admin” button so that the admin can know that an overdose incident has occurred.