



UniFi Access Crestron Home Application Guide

Description

This Driver provides control over the UniFi Access system by leveraging its official local API to enable real-time door lock control, access event monitoring, and doorbell integration within the Crestron Home platform. It communicates directly with a local UniFi controller — including but limited to a CloudKey, UDM, or UDM Pro — via TCP/IP, with no reliance on cloud connectivity.

Supported features include door lock and unlock control, door position feedback, temporally unlocking for a period of time, access granted/denied events, and doorbell press events. This guide outlines configuration, licensing, and deployment procedures for integrating UniFi Access hardware with Crestron Home using this Driver.

Supported UniFi Hardware

Below is a list of tested hardware. If your specific hardware is not listed, please [contact us](#).

- UA-Hub-Door-Mini
- EAH-8
- UA-Hub-Door
- UA-Hub-Gate(Gate control is not supported – awaiting on UniFi Firmware to support API)
- UA-Ultra

Supported Processors

This Driver is supported in a Crestron Home processor running Crestron Home OS version 4.005.0285 or later. This Driver is not supported in SIMPL Windows.

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Module Instance License

This Platform Driver requires a Module Instance License, which can be obtained by following the steps in the section [How To Purchase a License](#).

Each instance of a Platform Driver in a system requires an associated license.

Licenses are purchased using an Activation Key unique to each Crestron Home Processor.

You may purchase additional Licenses may at any time using the same Activation Key. If you have purchased one or more licenses for the processor previously, you may return and add additional licenses at any time [following the steps below](#).

Trial Period

To aid testing, the Module includes a complimentary 7-day Trial Period, during which time the Driver is fully functional. This Trial Period functionality requires that the system has active Internet connection and is able to reach ControlWorks' activation servers.

The Trial period is only available when no licenses have been purchased for this Driver. If one or more licenses have been purchased, any additional Unifi Access Drivers that are not licensed will not function until a license is purchased.

The trial period begins when the Driver is initially loaded. Trial Period extensions are not available at this time.

Offline Activation

Some sites may not have internet access to reach the ControlWorks Activation Server. In these cases, the Trial Period is not available, and only fully activated systems are supported. To activate a system offline, please [contact us](#).

License Changes and Transfers

If a processor fails and is replaced, the license will need to be updated. We offer one complimentary reassignment of the license. A processing fee is required for subsequent reassignment of the licenses.

All licenses associated with an Activation Key must be transferred together. Unused licenses, or a quantity of used or unused licenses cannot be transferred.

To Transfer a License

- Ensure the Driver has been added to the system, is operational, and in trial mode.
- Email support@controlworks.com
 - The existing License Unique Identifier
 - The new Activation Key

You can find the existing License Unique Identifier on your receipt (listed as "Activated License UID") or by logging into your account at store.controlworks.com. Navigate to the Your Purchased Services section to locate the License Unique Identifier.

Adding the Driver to a Crestron Home System

Note: These instructions and screenshots have been prepared based on CP4-R Crestron Home version 4.005.0285. Future updates to Crestron Home or Unifi Access may result in changes to the appearance or the steps required to implement the Driver.

- 1) Ensure the UniFi Access system is operational, and doors and readers have been Adopted. You should be able to access and manage the Unifi controller locally or via the cloud portal.
- 2) Ensure your Crestron processor is connected to the network, and is able to reach the Internet. Internet access is required for Driver operation. For additional details on network requirements, please see [Network Requirements](#).
- 3) Add the Driver to Crestron Home - Open the Crestron Home Setup XPanel or Mobile App, navigate to the Drivers by pressing Menu > Settings > Configure System > Pair Devices > Drivers.

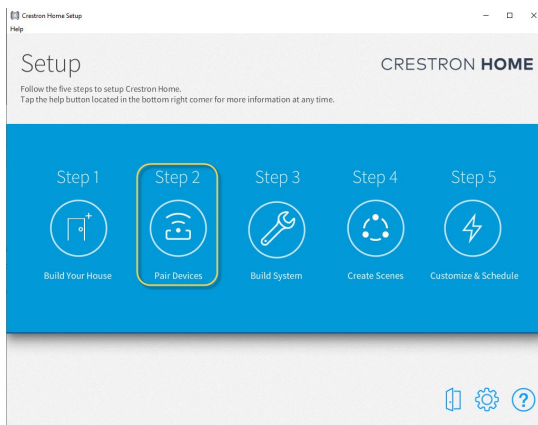


Figure 1 - Pair Devices

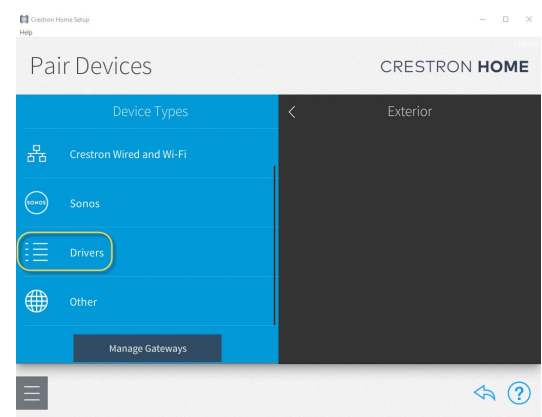


Figure 2 - Drivers

- 4) After Crestron Home refreshes the Driver list, scroll the list of Drivers to locate and select the Platform category, then select "Ubiquiti".

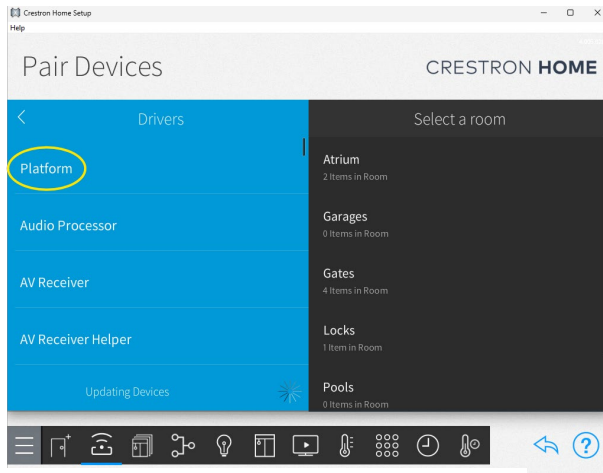


Figure 3 Locating Platform

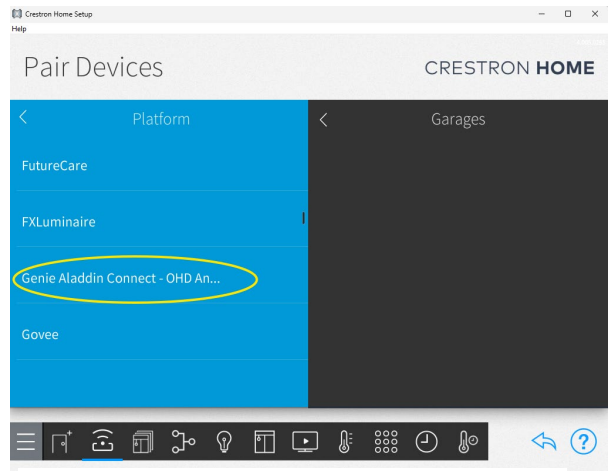


Figure 4 - Ubiquiti

- 5) Select the + button to add the UniFi Access Driver.

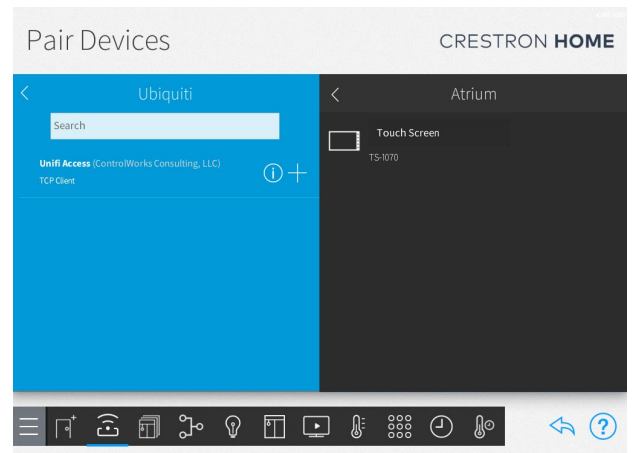


Figure 5 - Adding Driver

- 6) Enter a name of your choosing for the Platform Driver. Then Press OK.

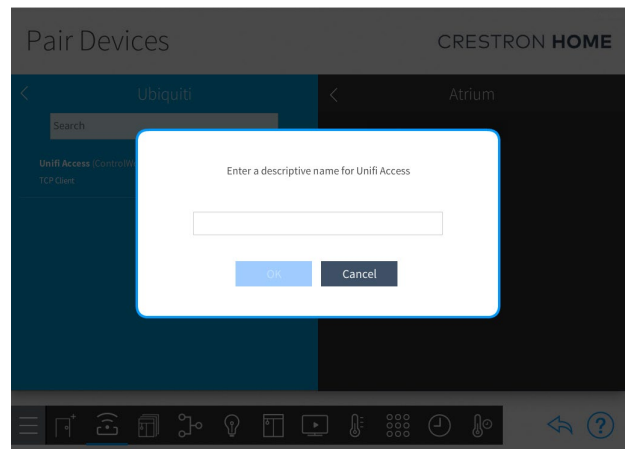


Figure 6 - Entering Name

- 7) Enter the IP Address of the controller running UniFi Access. The port number should be left at the default value 12445.

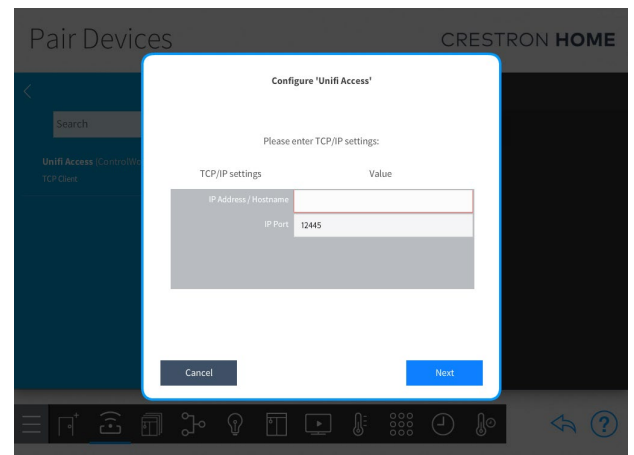


Figure 7 - Enter IP Address

- 8) Obtain a UniFi API Key from the controller:
 - a) Browse to the cloud controller and login to the Access application. This can be done locally or through unifi.ubnt.com.
 - b) Open the Access Settings
 - i) Select the Access Application
 - ii) Select the Gear
 - iii) Select General
 - iv) Locate the "API Token" field and select Create New.
 - v) Give the Token a name. We recommend using "Crestron".
 - vi) Ensure all permissions except System Log are set to "Edit".
 - vii) Press Create.
 - viii) Copy the Token and save in a secure location.

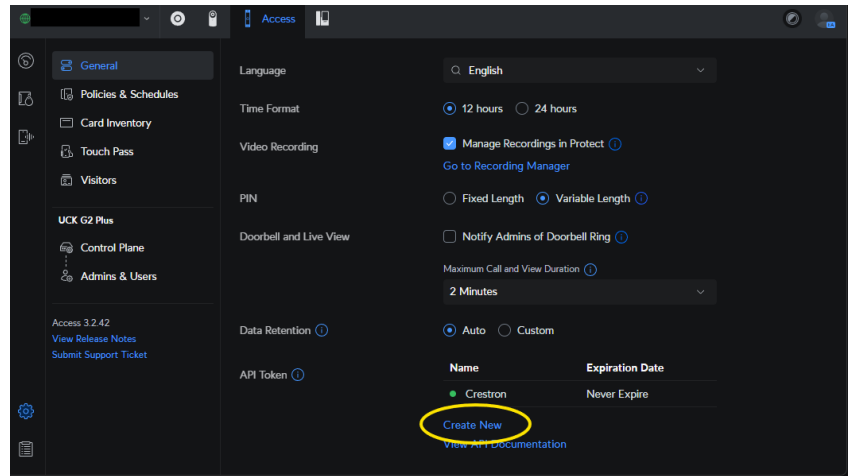


Figure 8 - Create New API Key

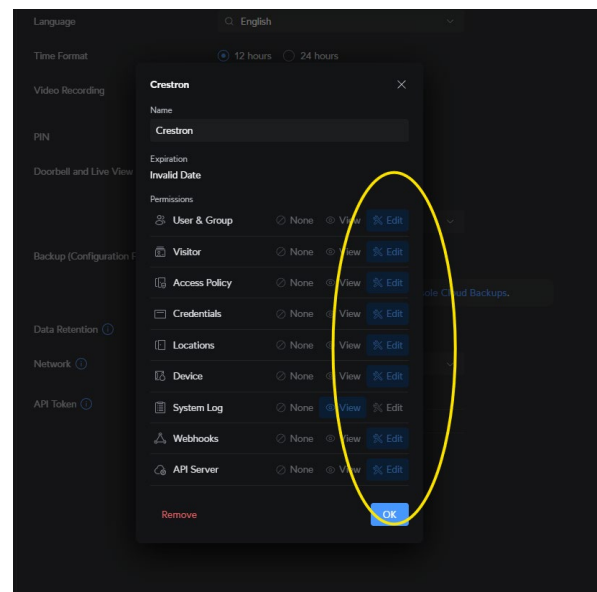


Figure 9 - Set Permissions

9) Next the Driver will ask about installation items:

- a) **API Token:** Paste in the Token acquired in the previous step.
- b) **Show On Room Page and Show On Home Page :** These are used to display the License Extension Tile on the Home Page or Room Page. By default, only the Show On Home Page is checked. Leave this checked until the setup is complete and you have confirmed the Driver is operating properly.
- c) **License URL:** This URL links to the licensing page. One or more licenses must be purchased for the driver to operate. This will be used in the next step.
- d) **Activation Key:** This Key will be populated after the installation is completed. This will be used to purchase a license.
- e) Press Next to complete the installation settings.

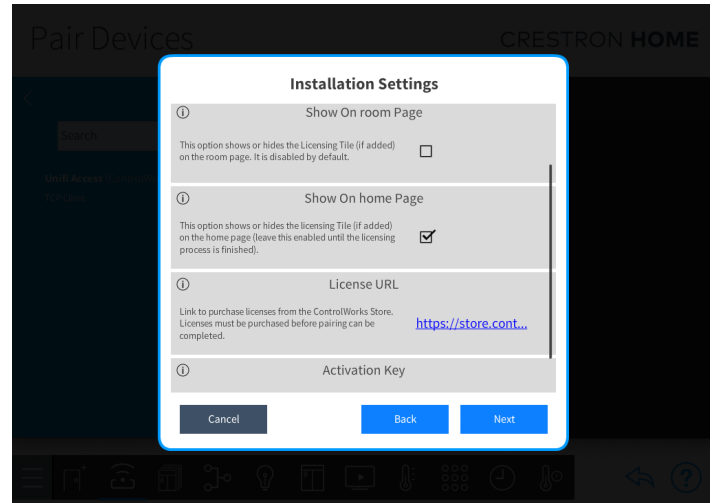


Figure 10 - Installation Settings

10) At this point, the Driver will attempt to retrieve a valid license from the ControlWorks Activation Server and initiate communication with the Unifi Access system to discover available doors, provided a trial or perpetual license is present.

- a) If no license for this processor is found on the ControlWorks Activation Server, a fully functional 7-day trial license will be automatically issued. If a valid license is located, it will be stored locally and validated each time the system starts, without requiring access to the Internet.

How to Purchase a License

1) Ensure the previous section [Adding the Driver to a Crestron Home System](#) has been completed.

2) Locate the License URL.

- a) In Crestron Home setup tool, open the Platform Driver installation settings.
- b) In the Crestron Home setup tool:
 - i) Navigate to Pair Devices.
 - ii) Select the room where you added the platform.
 - iii) Locate the Platform Driver (this will have the same name configured in a previous step and select the Gear Icon.
 - iv) Select "Installer Settings".
 - v) Locate the "License URL" field and click

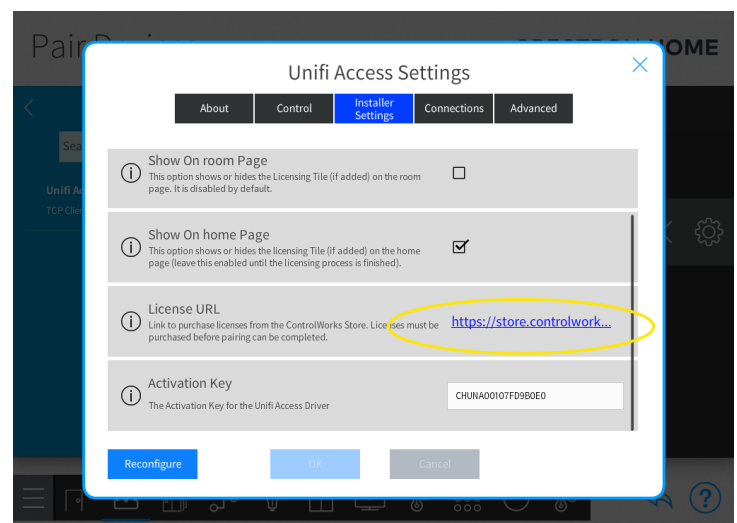


Figure 11 - License URL

the link. This link contains a URL to the ControlWorks store including the Activation Key. When clicked, a browser will open the ControlWorks license page and automatically populate the necessary information in the Activation Key field.

- 3) Complete the license purchase.
 - a) If you need to purchase additional licenses for the same Processor at a later time, you may simply return to the License Page and, using the same Activation Key, purchase additional licenses.
- 4) Add the License Helper Tile
 - a) In the Crestron Home Setup tool, navigate to Pair Devices.
 - b) Select Managed Platforms.
 - c) Select the Driver Folder with the name you used when setting up the driver from a previous step.
 - d) Locate the ControlWorks UniFi Access License Helper and press the + button to add the Helper Driver.
- 5) On a end user touch panel (such as a TS-1070 or Crestron Home App), select the License Helper tile on the Home or Room Page, and press "Update License Information".

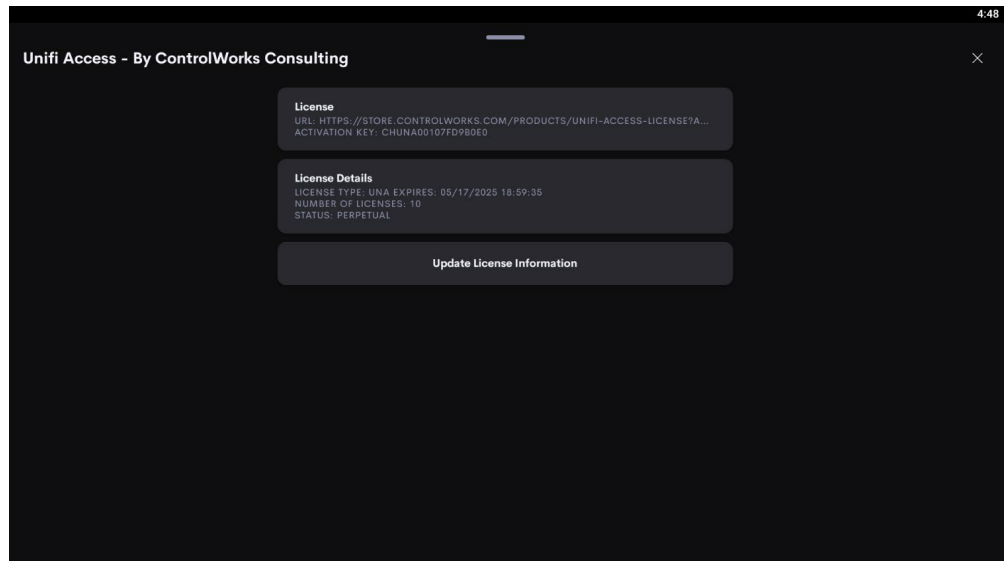


Figure 12 - License Helper Tile

Adding Doors to Crestron Home

You must complete all steps in "Adding the Driver to a Crestron Home System", and have an active trial or perpetual license before completing these steps.

- 1) In the Crestron Home Setup tool, navigate to Pair Devices
- 2) Select Managed Platforms.
- 3) Select the Driver Folder with the name you used when setting up the Driver.
- 4) This list is the list of Doors present on the UniFi Access System. Pressing the + button add the door.
- 5) Crestron Home displays a dialog box to enter a name for the lock. The field is pre populated with the name from UniFi Access. What is entered into this box will be the name for the lock. Changes to the door name in UniFi Access does not change the name in Crestron Home.

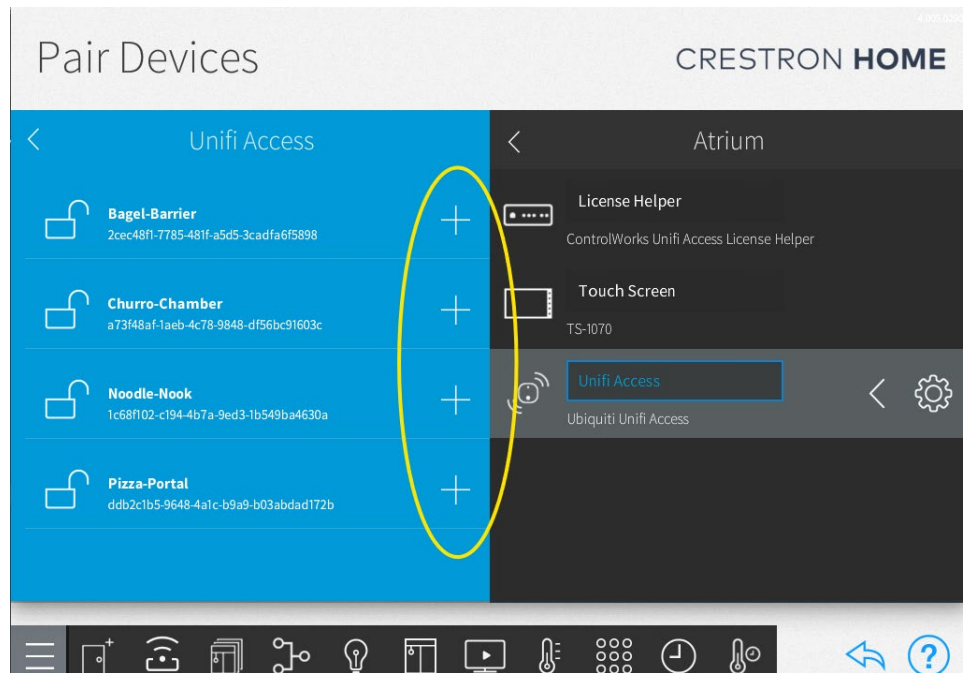


Figure 13 - Add Locks

Adding or Removing Doors After Setup

At this time, adding or removing doors during runtime is not supported. It is a feature we are working on adding but we've seen some inconsistencies within Crestron Home that we are working with Crestron on.

To Add a new door, simply restart Crestron Home, and the Driver will retrieve all doors present on the UniFi Access system. New doors will be added to the Managed Platforms in Pair Devices. If a door was removed, and is still in Crestron Home, the Crestron Home Setup Tool will indicate missing device and the lock will not function.

User Interface Overview

This section describes the general operation of the customer facing user interface, the exact configuration and display of the Driver is dependent on factors such as the size of the user interface being used and number of locks present on a Device.

Access Tile – Home Page

This tile is added by Crestron Home when adding a Door Lock, and displays all Door Locks added in the System. If the Room containing the lock is hidden, the lock will not be visible in the Access Tile on the Home Page. The example below shows the Access Tile on the Home Page.

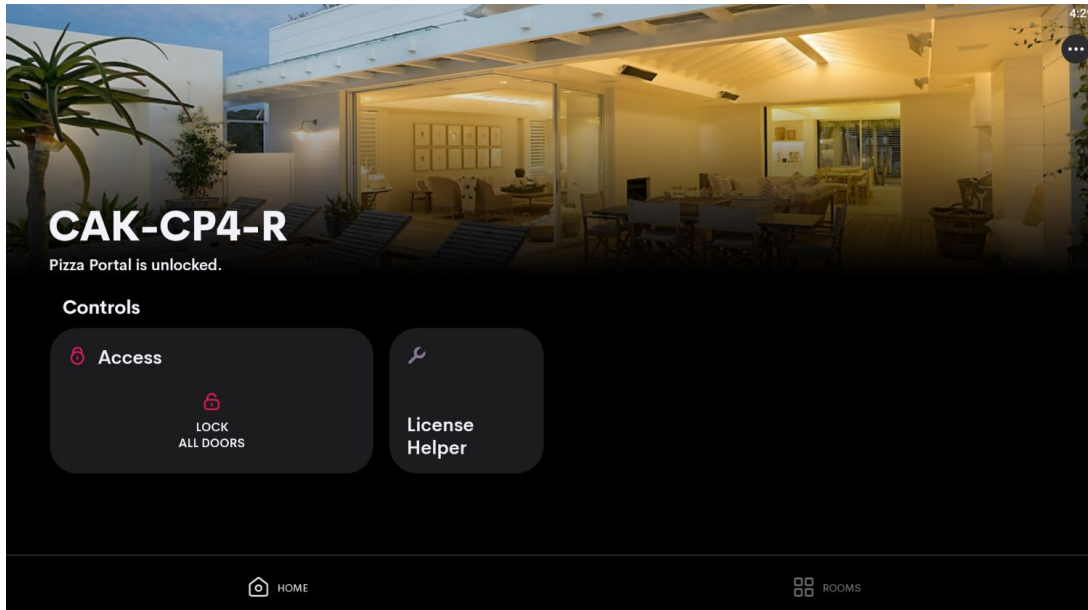


Figure 14 - Access Tile - Home Page

Selecting Access displays the Doors that have been added to the System.

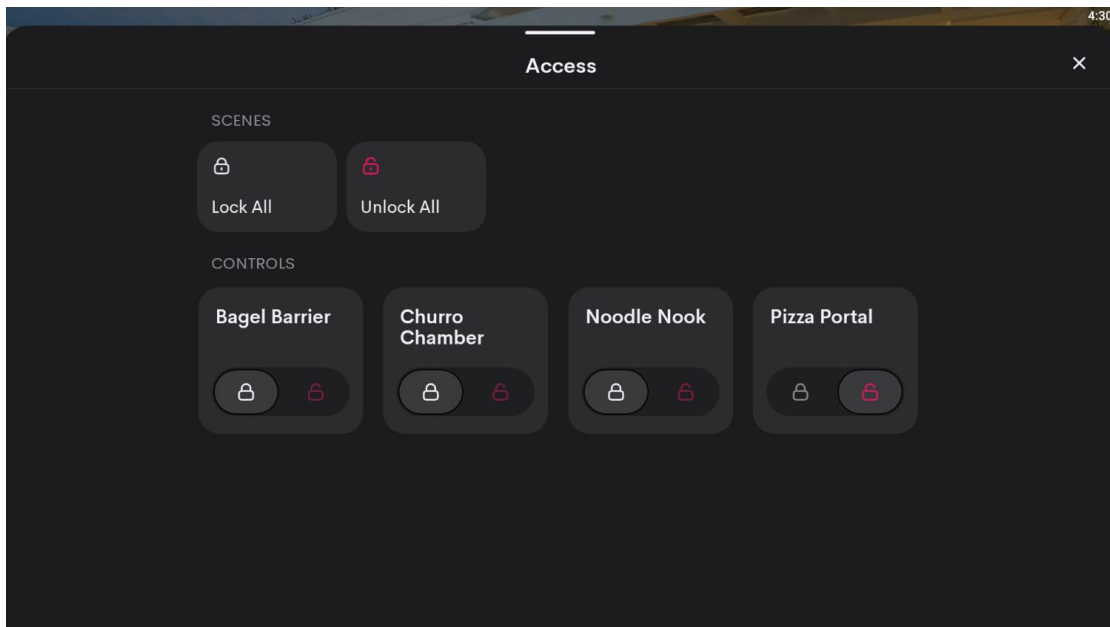


Figure 15 - Access Tile - Locks

Touching Lock All or Unlock All will send the lock or the momentary unlock command to each of the locks. Holding a door unlocked is possible via Crestron Home Sequences and Events.

When a lock command is sent, Crestron Home indicates the transient state. This status is initially generated by Crestron Home, and subsequently updated with live status automatically provided by the UniFi Access application. Additionally, the driver polls to confirm the door lock state after a command is sent.

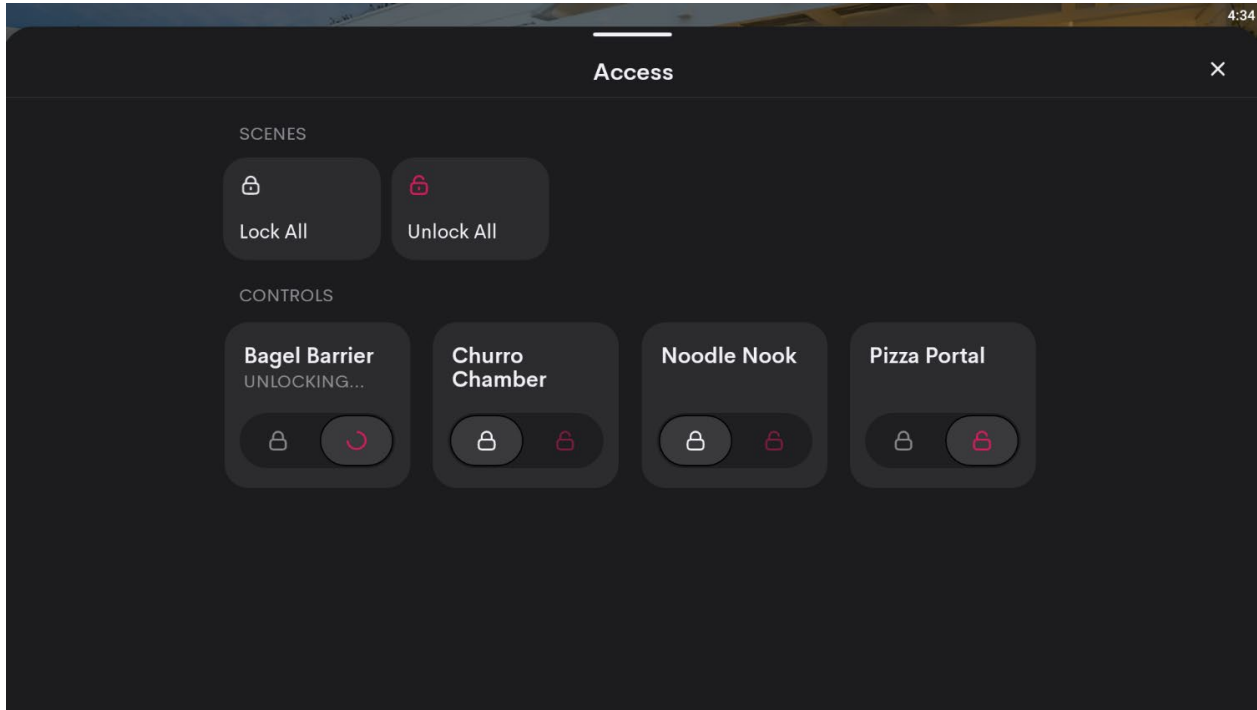


Figure 16 - Unlocking

On the User Interface Room Page, if a single lock is present in the room, the lock is displayed under the services heading with the lock controls directly on the tile.

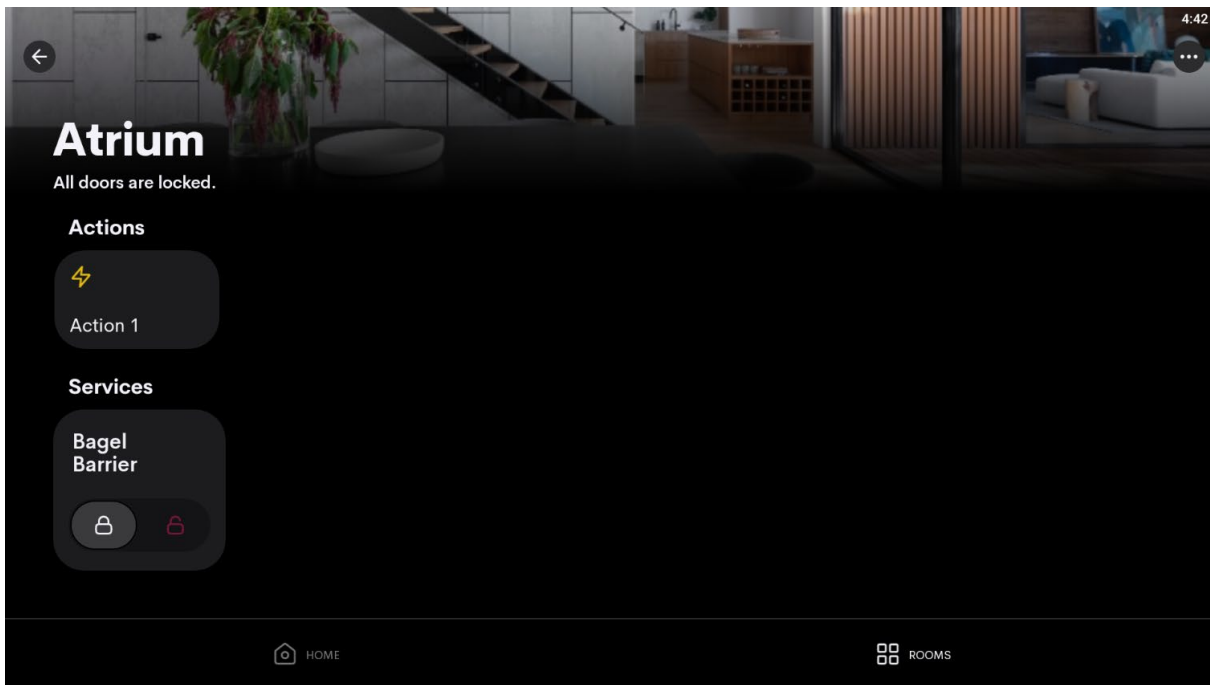


Figure 17 - Room Lock

If multiple locks are in a room, the controls are nested under the tile labeled Doors.

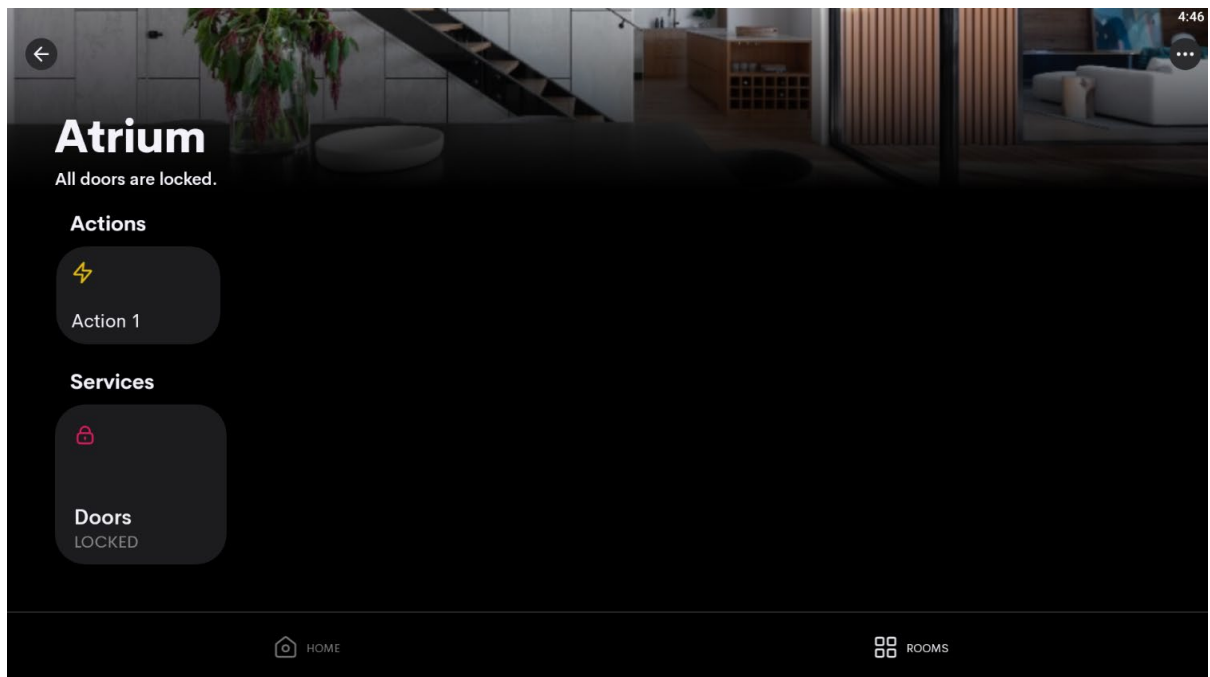


Figure 18 - Multiple Locks - Room Page

Pressing Doors in a room displays the Doors in the room in an Access Style Layout.

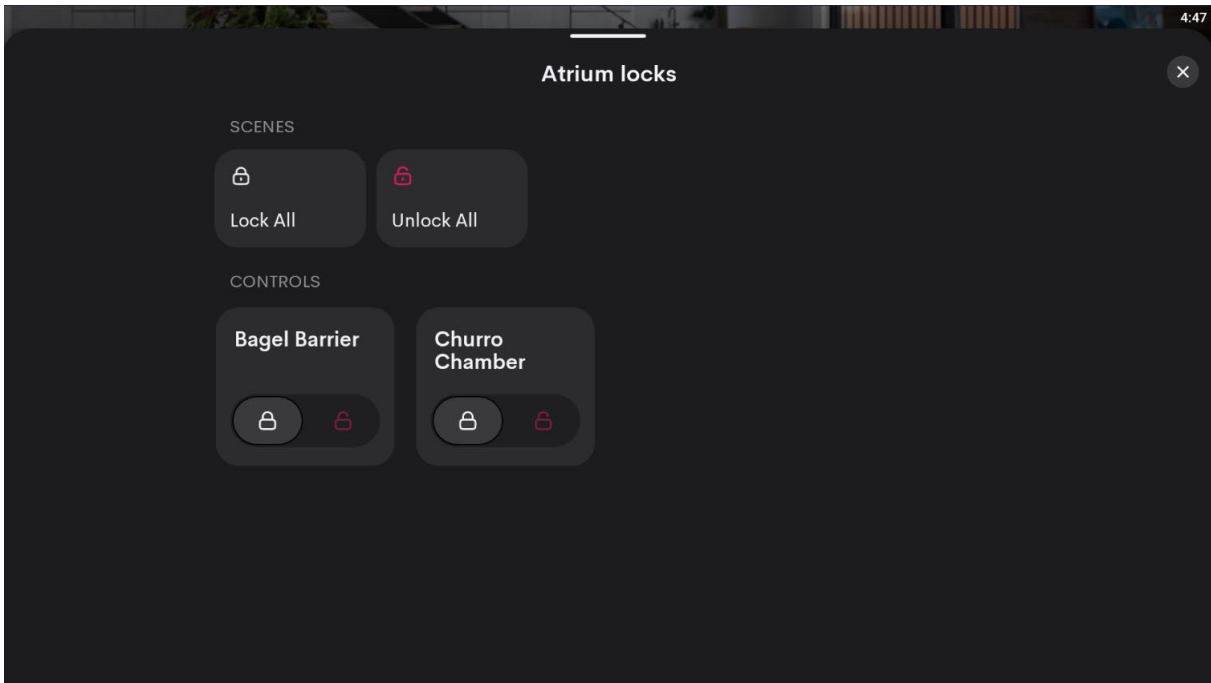


Figure 19 - Multiple Locks - Room Page

Events

The complete list of steps to create Quick Actions and Events in Crestron Home can be found here: <https://docs.crestron.com/en-us/8525/Content/CP4R/Installer-Config/Configure-Quick-Actions.htm>.

Below are descriptions of events provided by each lock.

- **Locked**

- Event triggered when the UniFi Access system indicates the lock state has changed to "Locked".

- **Unlocked**

- Event triggered when the UniFi Access system indicates the lock state has changed to "Unlocked".

- **Door Position State Close**

- Event triggered when the UniFi Access system indicates the door position sensor has changed to "Closed".

- **Door Position State Open**

- Event triggered when the

UniFi Access system indicates the door position sensor has changed to "Open".

- **Door Position State Unknown**

- Event triggered when the UniFi Access system indicates the door position sensor has changed to "Unknown" i.e. no sensor connected to the DPS input.

- **Doorbell Event**

- Event triggered when a user rings the door bell on a UniFi Access Device.

- **Unlock Access Denied**

- Event triggered when access is denied. i.e. incorrect PIN, invalid tag read.

- **Unlock Access Granted**

- Event triggered when access is granted. i.e. correct PIN, valid tag read.

Note: updating or removing the Driver or Platform device may break the link between the Driver and any Events. Upon adding a new or updated Driver, please verify Quick Action programming.

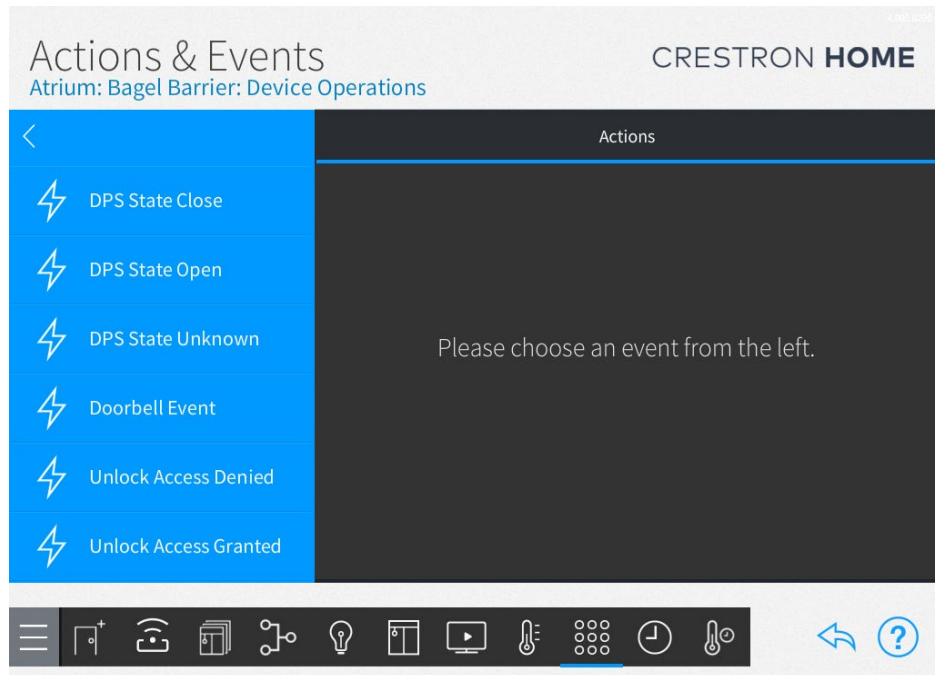


Figure 20 - Events

Sequences

The complete list of steps to create a Sequence in Crestron Home can be found here: <https://docs.crestron.com/en-us/8525/Content/CP4R/Installer-Config/Configure-Quick-Actions.htm>.

Below are descriptions of Sequences provided by each lock.

Crestron Standard Commands

- **Lock**
 - Generally, use this command to lock a door. This command involves logic to send the proper lock command based on the current unlock state. Unifi Access requires different lock commands depending on how the door is being held unlocked.
- **Unlock**
 - This command sends the momentary unlock command.

Custom Commands

- **Keep Locked (Lockdown)**
 - This command is used to set the door to the locked state and display the Lockdown on the reader.
 - Use the Reset Lock function to reset the state.
- **Lock Door Early (Schedule)**
 - This command is used to lock a door early during a scheduled unlock period. i.e. a scheduled unlock period created in UniFi Access.
- **Rest Lock**
 - This command is used to set the lock to the locked state from a Keep Locked, Temporary Unlock No Duration, or Temporary Unlock With Duration mode.
- **Temporary Unlock No Duration**
 - This command is used to set the door to the unlocked state indefinitely.
 - Use the Reset Lock command to lock the door in this state.
 - Using the Lock (Crestron Standard Command) will also reset this state to a locked state.
- **Temporary Unlock With Duration**
 - This command you are prompted for the number of minutes the door should remain unlocked. Valid values are 1-1339 minutes. Once a value is assigned, and the command is sent, the door will be unlocked for the specified duration.
 - Use the Reset Lock command to set the door to the locked state.
 - Using the Lock (Crestron Standard Command) will also reset this state to a locked state.
- **Unlock Door Momentary**
 - This command is used to temporarily unlock a door. Same as "Unlock (Crestron Standard Command)"

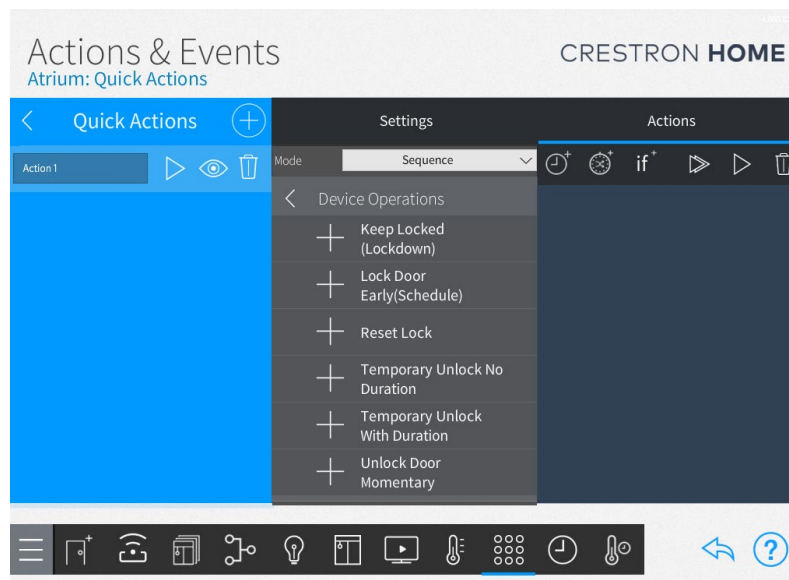


Figure 21 - Custom Commands

Note: updating or removing the Driver or Platform device may break the link between the Driver and any sequences. Upon adding a new or updated Driver, please verify Quick Action programming.

Touch Screen/NAX Notifications when a doorbell event occurs

This section describes how an integrator might want to play a doorbell sound through touch panels and NAX when a doorbell event is triggered. SIP calls from Unifi Access are not supported.

At the time this document was written, there is not a way to link an extension driver event to directly invoke a doorbell notification in Crestron Home. There is a workaround for this which requires an unused relay and digital input or Versaport on your Crestron processor:

1. Ensure the Driver has been added in Crestron Home.
2. Using the Crestron Home Setup App, add a Doorbell device by touching Pair Devices -> Other -> Doorbell in the Crestron Home setup app.

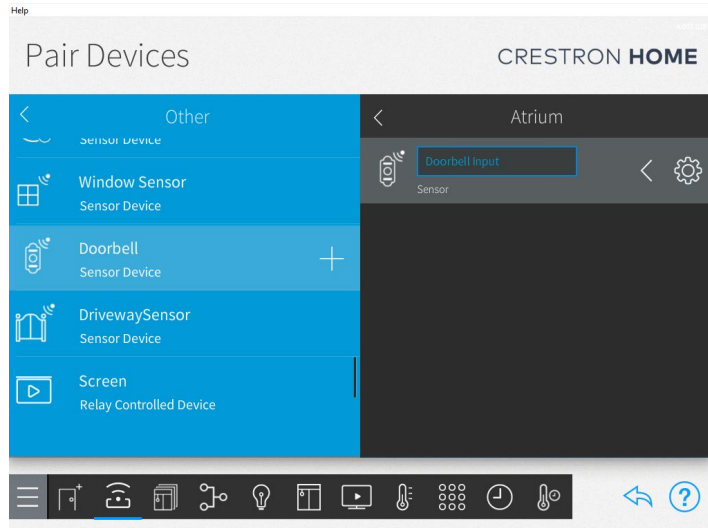


Figure 22 - Adding Doorbell Sensor

3. In the settings of the Doorbell Sensor, select a Digital Input on the Crestron processor that the doorbell will monitor.

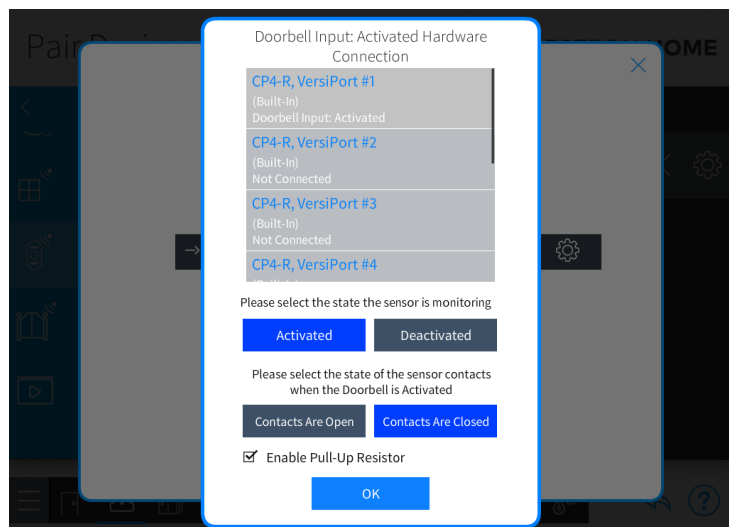


Figure 24 - Doorbell Sensor Setup

4. Add a Generic Relay: Using the Crestron Home setup app -> Pair Devices -> Other -> Generic Relay.

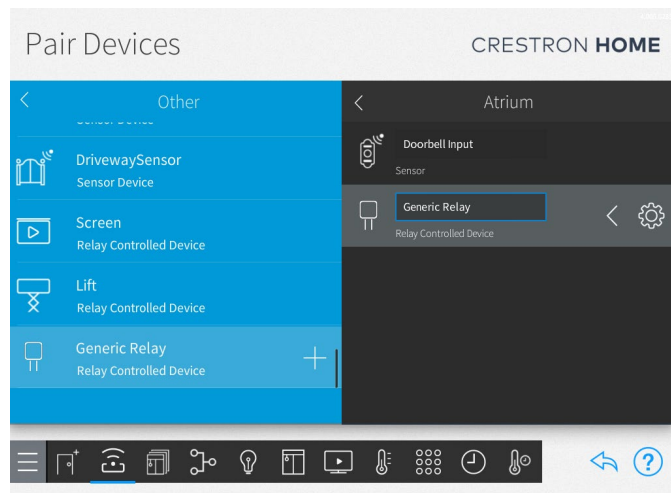


Figure 25 - Adding Relay

5. Setup the Relay as a Momentary Relay, and select an available Relay port.

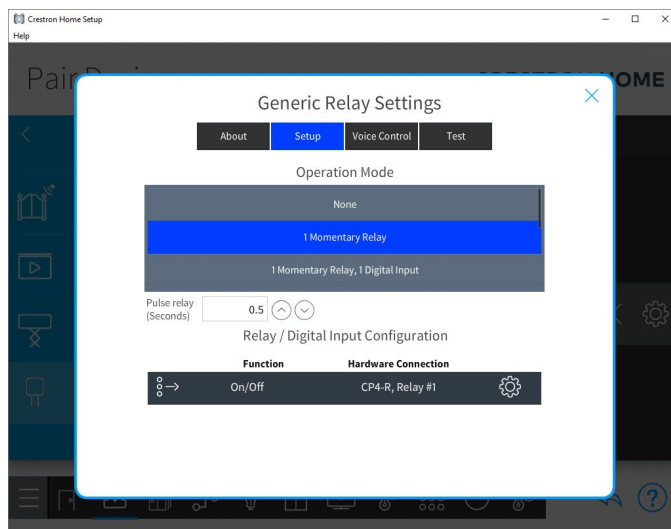


Figure 26 - Relay Setup

6. Connect a physical wire between one terminal on the Relay output (the relay chosen during step 5) on your processor and the I/O Input for the doorbell sensor (the Input defined during step 4). Connect the other terminal on the Relay output, to the Ground (G) port on the Crestron Home Processor.

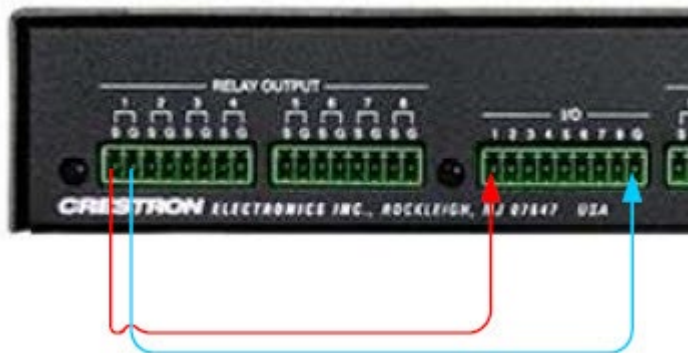


Figure 27 - CP4-R Relay Wiring

7. Next, using the Crestron Home setup app, navigate to "Customize and Schedule" -> "Customize Actions & Events" and Select the room the lock is in.

8. Select the lock -> Device Operations -> Doorbell Event.

9. In the Actions pane, under mode, select Sequence -> select the Room the previously added Relay is in -> select the Relay -> select the "+" next to On/Off.

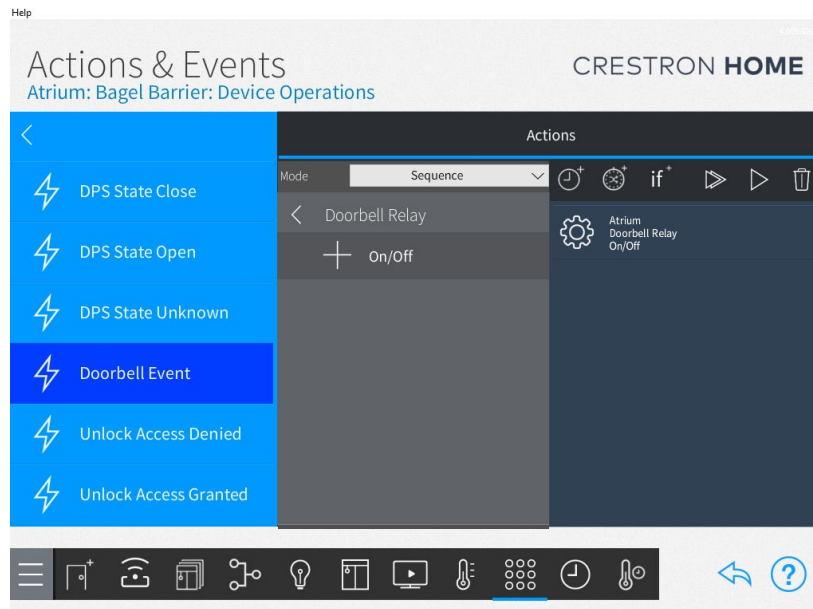


Figure 28 - Connecting Event to Relay

After completing these steps, when the doorbell rings the Crestron Home Processor will momentarily close the generic relay, the doorbell input will see the relay closure, and the Touch Screens and NAX will play the notification sound.

Support

This Driver is supported by ControlWorks Consulting, LLC. Should you need support for this Driver please email support@controlworks.com or call us at (+1) 440 449 1100. ControlWorks normal office hours are 9 AM to 5 PM Eastern, Monday through Friday, excluding holidays.

Updates, when available, are automatically distributed via our webstore and through the Crestron Home Setup App. If you have purchased a license, we will send a notification to the address entered when the license was purchased when updates are available. In addition, the current versions may be obtained at any time using your username and password at <https://store.controlworks.com/account/login.aspx>.

Should you have any questions regarding the operation of Unifi Access, support for the service can be found at <https://community.ui.com/> and is not provided by ControlWorks.

Distribution Package Contents

The distribution package for this Driver should include:

ControlWorks_Door_Lock_Unifi_Access_TCP-IP.pkg	Crestron Home Driver
ControlWorks_Door_Lock_Unifi_Access_TCP-IP.pdf	This Help File

Revision History

V1.0 caleb@controlworks.com 2025.05.16

-Initial Version

Development Environment

This Driver version was developed on the following hardware and software. Different versions of hardware or software may or may not operate properly. If you have questions, please contact us.

Crestron Hardware	Firmware Version
CP4-R Processor	4.005.0285
SDK Version	V21.0100.0042
TS-1070	V2.004.1029
TSW-1060	v3.002.0028
UCK G2 Plus	4.2.12
Unifi Access	3.2.42

ControlWorks Consulting, LLC Type 5 Module/Driver License Agreement

Definitions:

"ControlWorks", "We", and "Us" refers to ControlWorks Consulting, LLC, with headquarters located at 8228 Mayfield Road Suite 6B Rear, Chesterland, Ohio 44026.

"You" refer to the entity installing, integrating, or otherwise deploying the Module.

"End User" refer to the person or entity for whom the Crestron hardware is being installed, utilize, and/or will utilize the installed system.

"Module", "Driver", and "Licensed Software" each include all components provided by ControlWorks pursuant to this license agreement required for or useful in implementing the functionality described herein. The Licensed Software includes but is not limited to files with extensions such as UMC, USP, CLZ, SMW, VTP, and PKG.

"Type 2 Module/Driver License" refers to a module license that is granted to a specific Crestron processor and a single controlled device; a separate license must be purchased for each combination of Crestron processor and controlled device.

"System" refers to all components described herein as well as other components, services, or utilities required to achieve the functionality described herein.

"Demo Program" refers to a group of files used to demonstrate the capabilities of the Module, for example a SIMPL Windows program and VisionTools Touchpanel file(s) illustrating the use of the Module but not including the Module.

"Software" refers to the Module and the Demo Program and any files provided by ControlWorks as part of the distribution package including the Module, Demo Program, and associated documentation.

Disclaimer of Warranties

ControlWorks Consulting, LLC software is licensed to You as is. You, the consumer, bear the entire risk relating to the quality and performance of the Licensed Software. In no event will We or any of our Licensors be liable for direct, indirect, incidental or consequential damages resulting from your use or attempt to use the Licensed Software, or for any defect in the Software, breach of security, or other failure or malfunction even if We had reason to know of the possibility of such damage. If the Licensed Software proves to have defects, You and not Us must assume the entire cost of any necessary service, repair, or other loss resulting from such defects.

Indemnification/Hold Harmless

ControlWorks, in its sole and absolute discretion may refuse to provide support for the application of the Module in such a manner that We feel has the potential for property damage, or physical injury to any person. Dealer shall fully and unconditionally indemnify and hold harmless ControlWorks Consulting LLC, its employees, agents, licensors, and owners from any and all liability, including direct, indirect, and consequential damages, including but not limited to personal injury, property damage, or lost profits which may result in any way from the operation (or failure to operate) of a program or System containing Licensed Software or any component thereof.

Provision of Support

We provide limited levels of technical support only for the most recent version of the Module as determined by Us. We do not provide support for previous versions of the Module, modifications to the module not made by Us, or to persons who have not purchased the Module from Us. In addition, we may decline to provide support if the demo Program has not been utilized. We may withdraw a module from sale and discontinue providing support at any time and for any reason, including, for example, if the equipment for which the Module is written is discontinued or substantially modified. The remainder of your rights and obligations pursuant to this license will not be affected should We discontinue support for a Module.

Modification of Software

You may not decrypt (if encrypted), reverse engineer, modify, translate, disassemble, or de-compile the Licensed Software in whole or part. Any modifications to the Licensed Software shall immediately terminate any licenses purchased with respect thereto. You may, however, modify the Demo Program.

License Grant

You may use the Licensed Software on the specific Crestron Processor identified when the license was purchased or otherwise granted by ControlWorks. You may integrate with only as many devices using the Licensed Software as you have been granted licenses for (for example, if you purchase 3 licenses associated with a processor, you may control up to 3 devices using the Licensed Software from that processor).

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You may permit End Users to utilize the functionality provided by the Licensed Software as part of a Crestron Home configuration or Crestron Program, as applicable.

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