CDVI

Security to Access

ATRIUM
ACCESS CONTROL

Quick Start Guide

Basic Configuration using Controller Web Server

ATRIUM

| Login ID |
| Password |

Enter

CDVI

Table of Contents

1   LOG IN TO CONTROLLER EMBEDDED WEB SERVER

All ATRIUM controllers have an embedded web server that allows connection from any Windows or Apple browser (computer, smartphone or tablet) without having an internet connection.

This quick start manual demonstrates the basic configuration of an ATRIUM system by logging in locally (LAN) to a controller web server.

There are two methods to log into the controller web server: Using a computer browser or any smartphone and tablet.

> ⚠️ Ensure that all system field wiring is complete before using this guide. Consult the wiring diagrams in the ATRIUM controller hardware manual for more information.

METHOD #1: LOG IN USING A COMPUTER BROWSER

> ℹ️ Install the **"ATRIUM Finder"** application (Windows only) which is provided with the ATRIUM controller (USB key) or download it for FREE from CDVI website, www.cdvi.ca. Then make sure your computer is connected to the same network as the ATRIUM controller.

1. Install the **"ATRIUM Finder"** application (Windows only).

> ℹ️ For Apple computers, enter the IP address of the ATRIUM controller directly into the browser. See method #2 to find the IP address of the ATRIUM controller.
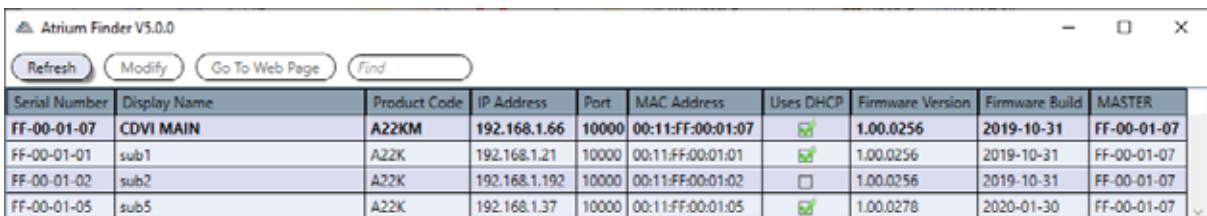
Atrium
Finder

2. From your computer desktop, double-click on the **"ATRIUM Finder"** icon.

1   **LOG IN TO CONTROLLER EMBEDDED WEB SERVER (CONTINUED...)**

3. If you have more than one controller in the list, double-click on the one who will be defined as the **"Master"** controller. The **"Master"** controller (see #3, "Configure a Controller as the Master") manages all the other controllers. These will be added as **"Sub-Controllers"**, up to 49, (see #4, "Adding Sub-Controllers") in your account.

    It is recommended to choose as the **"Master"** controller the one who will have little activity (ex: The one in charge of the door server room).
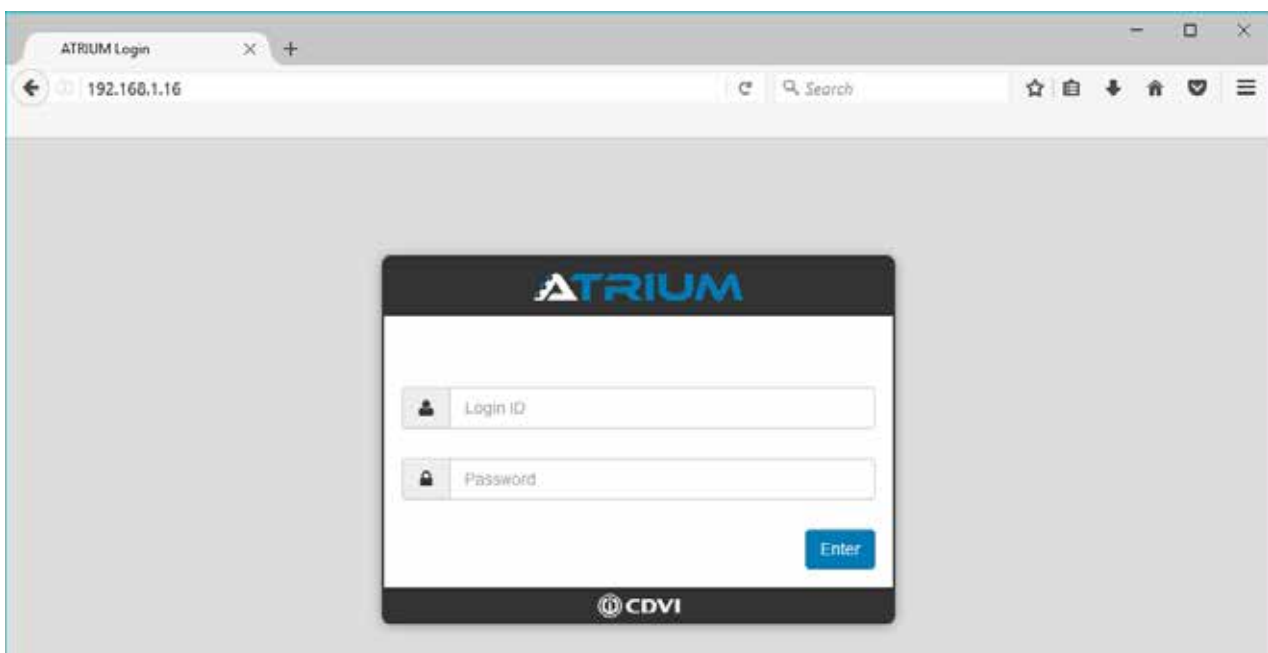

> ℹ️ Once configured, the **"Master"** controller will appear in **bold** in the **"ATRIUM Finder"** utility as shown above.

4. Your web browser will open automatically and go directly to the ATRIUM Login screen.

    Type the Login ID (default: **"admin"**) and Password (default: **"admin"**).
    The Login ID & Password are case-sensitive.

    Click "**Enter**" to log in.

1   LOG IN TO CONTROLLER EMBEDDED WEB SERVER (CONTINUED...)

METHOD #2: LOG IN USING A SMARTPHONE OR TABLET

> Install the **"ATRIUM Finder"** mobile application available for FREE on "Google Play" or "Apple apps store". Then make sure the smartphone or tablet is connected (wifi) to the same network as the ATRIUM controller. The **"ATRIUM Finder"** app will show; display name, serial number and IP address of all ATRIUM controllers connected to the network.

1. Install the **"ATRIUM Finder"** on your smartphone or tablet.

   Then tap the application icon to open.

2. If you have more than one controller in the list, double-click on the one that will be defined as the **"Master"** controller (see note below).

   It is recommended to choose as **"Master"** controller the one who will have little activity (ex: the one in charge of the door server room).

3. Type the Login ID (default: **"admin"**) and Password (default: **"admin")**.

   The Login ID & Password are case-sensitive.

   Click "**Enter"** to log in.
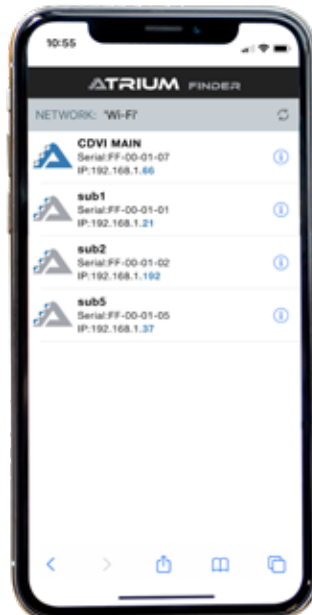
> The **"Master"** controller (see #3, "Configure a Controller as the Master") manages all the other controllers. These will be added as **"Sub-Controllers"**, up to 49, (see #4, "Adding Sub-Controllers") in your account. Once configured, the **"Master"** controller's ATRIUM icon will turn blue as shown above.

2   SET UP THE DATE, TIME AND TIME ZONE

You will be automatically redirected to the date and time setting tab upon first connection. (Menu: Hardware/Control Panel/Date and Time Setting).

> It is recommended to set the date, time and time zone of the location where the ATRIUM controller is installed.

Default settings:

1. The date and time of your device browser (computer, smartphone or tablet) with which you have connected to the ATRIUM system are preloaded in the **"Browser Time"** field.

2. The date and time of the controller (**"Module Time"**) is set at 2000-01-01 - 00:00

3. The time zone is set to Greenwich Mean Time (GMT-5:00) Eastern Time (US & Canada).

To modify:

3. Select the time zone (where the ATRIUM controller is installed) in the drop-down menu.

4. Click **"Save"**. The new time zone, date and time are now set in the controller (**"Module Time"**).

3 CONFIGURE A CONTROLLER AS THE "MASTER"

If you have more than one controller installed, one must be set as a *"Master"* controller. The *"Master"* controller manages all the other controllers. These will be added as *"Sub-Controllers"* (up to 49) in your account. See #4 to learn how to "Add Sub-Controllers"

1. From the *"Hardware"* menu, click on *"Control Panel"*.

2. From the *"Product"* tab, *"Master Controller"* drop down list, select *"Yes"*

3. Click "*Save"*. The controller will reboot to apply new configuration.

4. Once done, controller product code will change from A22K to A22KM.
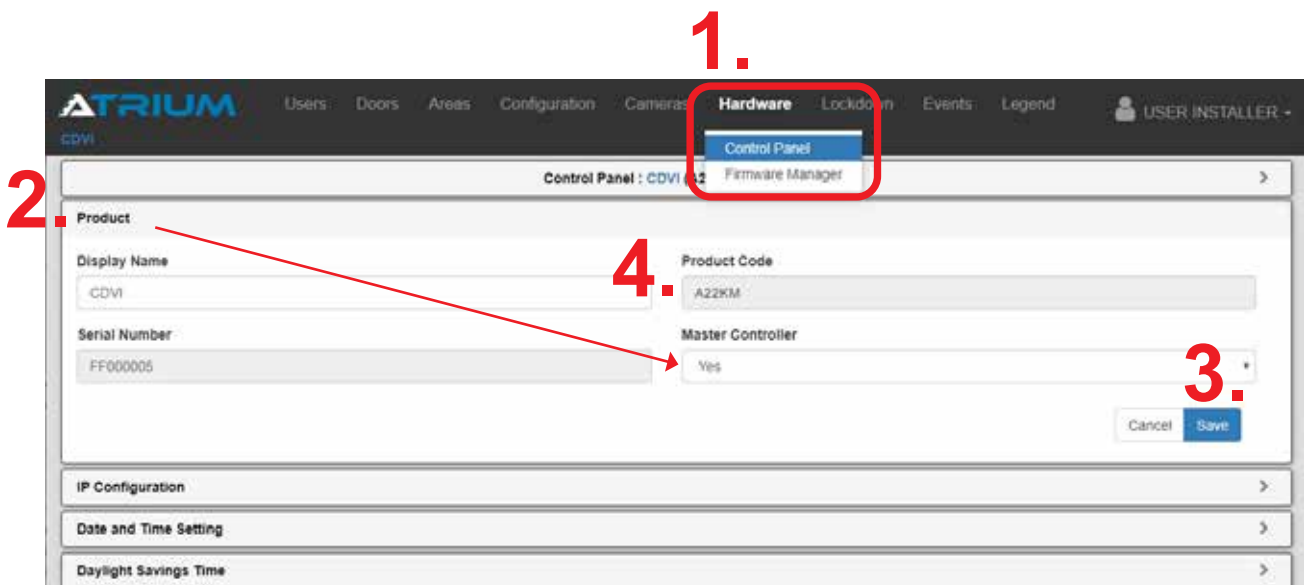
For a remote connection, refer to the guide
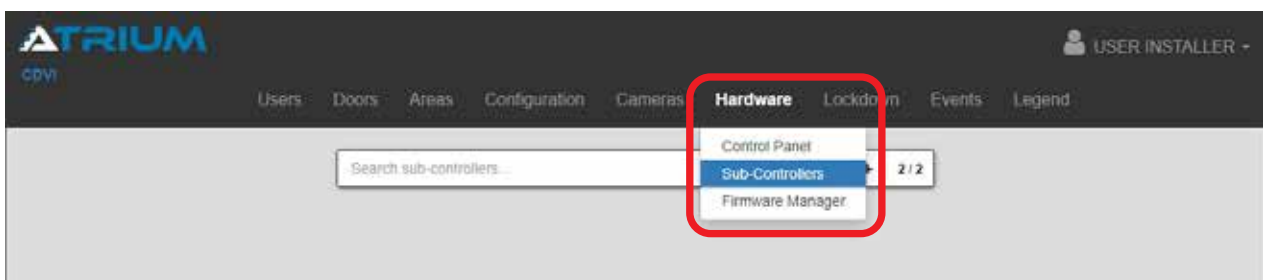"How to establish a remote connection with ATRIUM".

Each controller (set as *"Master"*, *"Sub-Controller"* or *"Expander"*) automatically adds 2 pre-configured doors/areas to the ATRIUM system.
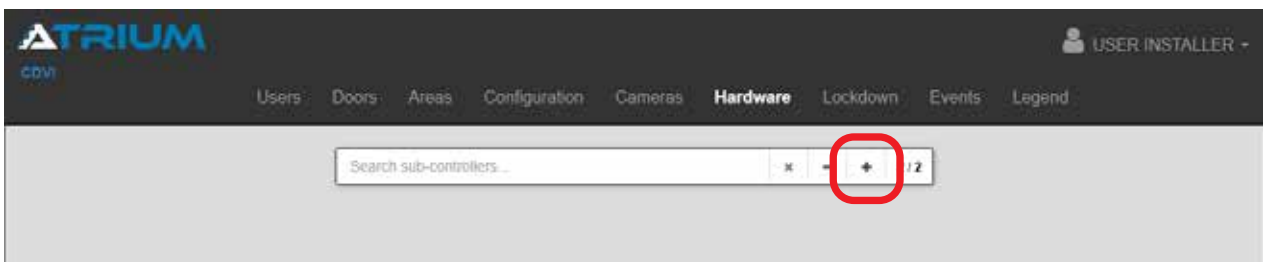
4 ADDING "SUB-CONTROLLERS"

Once connected to the *"Master"* controller, add the other controllers to the ATRIUM system as *"Sub-Controller"*.

1. From the *"Hardware"* menu, click on *"Sub-Controllers"*.

2. Click on **" + "** sign to start adding *"Sub-Controllers"*.

4   ADDING "SUB-CONTROLLERS" (CONTINUED...)
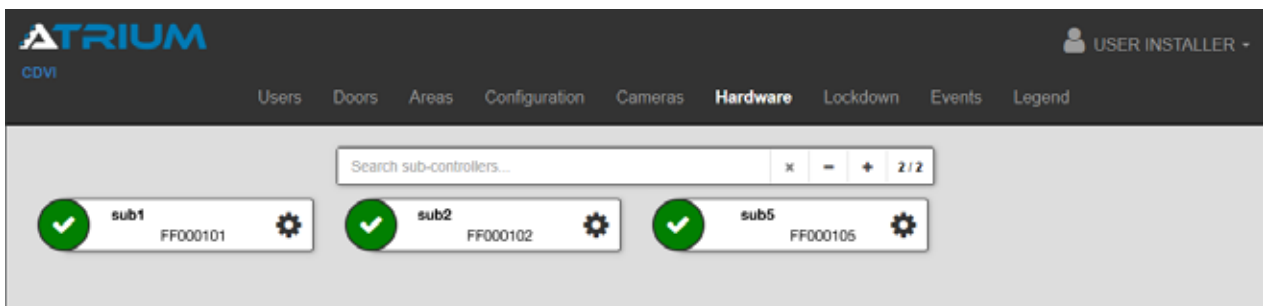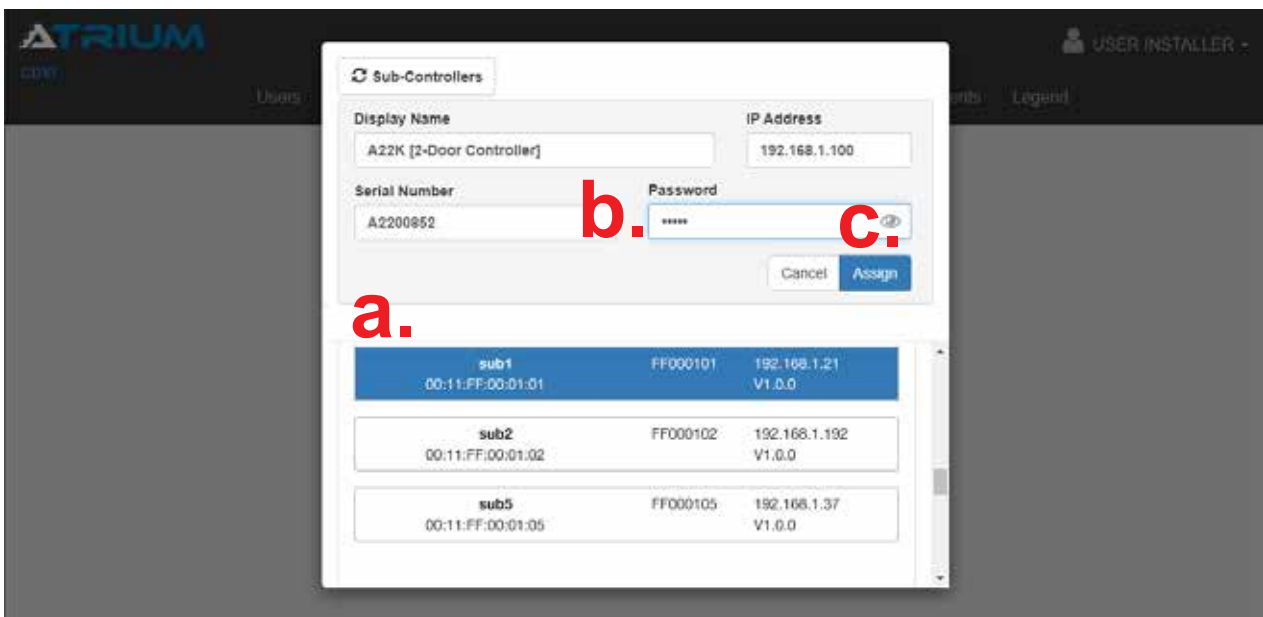
3. ATRIUM automatically scans the network (LAN) and lists ALL connected controllers found.

From the *"Sub-Controllers"* pop-up window:

a.   Select a *"Sub-Controller"*.

b.   Enter its Password (default **"admin"**, case sensitive).

c.   Click *"Assign"* to complete.
Repeat steps a & b for each *"Sub-Controller"* being installed to the system.
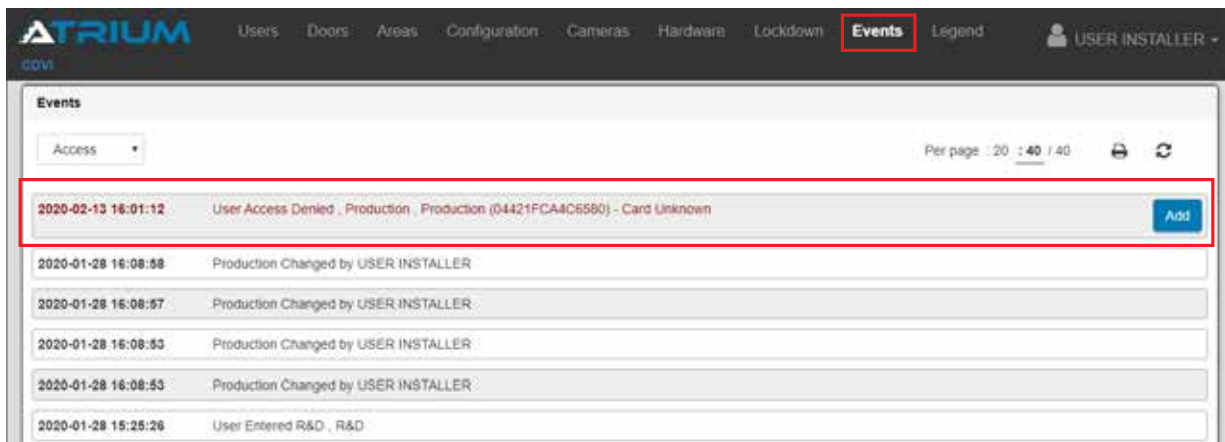Click **"Cancel"** when done.

5   ADD AND ASSIGN A CARD TO A USER

1. Swipe a new card or tag at any card reader on your system.
    The card will be denied access (the card reader beeps and LED flashes red)

2. From the main menu, click on **"Events"**. A "User Access Denied - Card Unknown" event
    appears in the list. Click the **"Add"** button to add the card to the system.

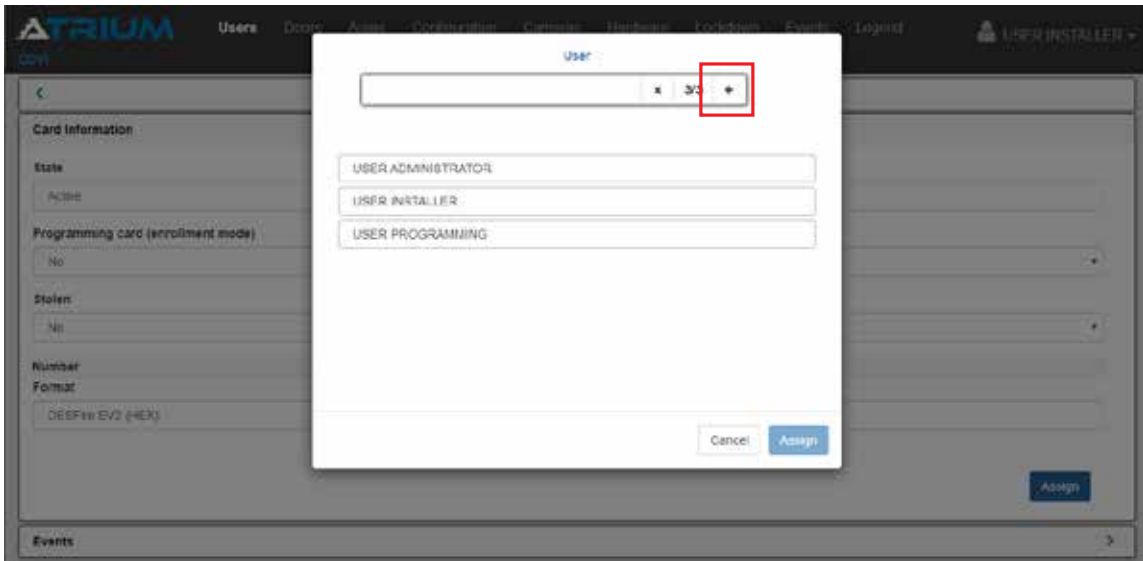## 5   ADD AND ASSIGN A CARD TO A USER (CONTINUED...)

3. This opens the card information window. ATRIUM automatically detects the **"Card Format"** and the **"Card Number (Hex)"** and populates in the appropriate fields.

4. Enter a descriptive display name for the card.

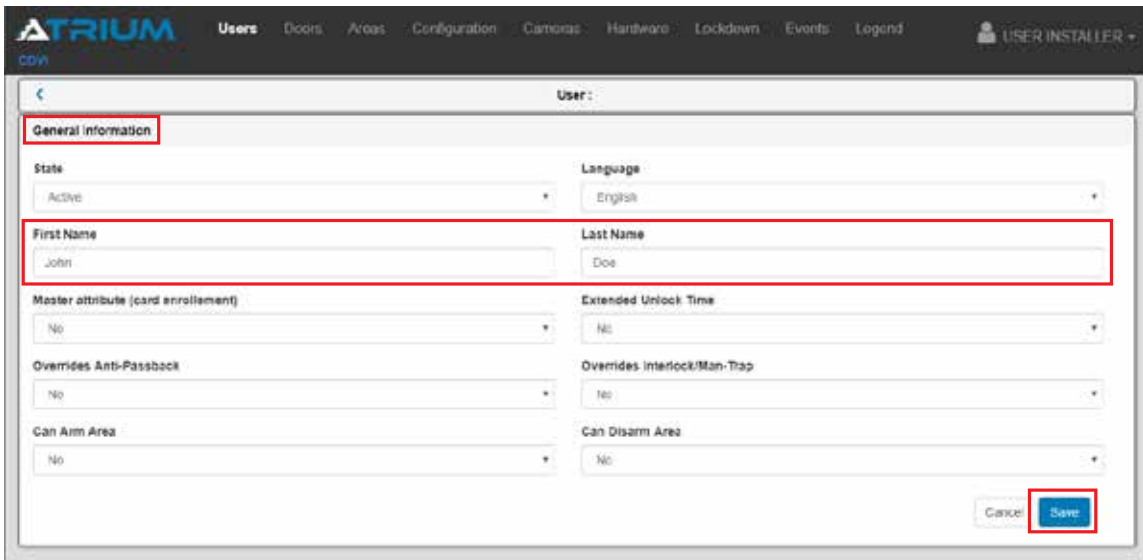5. Click **"Add"**

6. Click the **"Assign"** button.

5 ADD AND ASSIGN A CARD TO A USER (CONTINUED...)

7. Assign the card to an existing User from the list then click **"Assign"** or
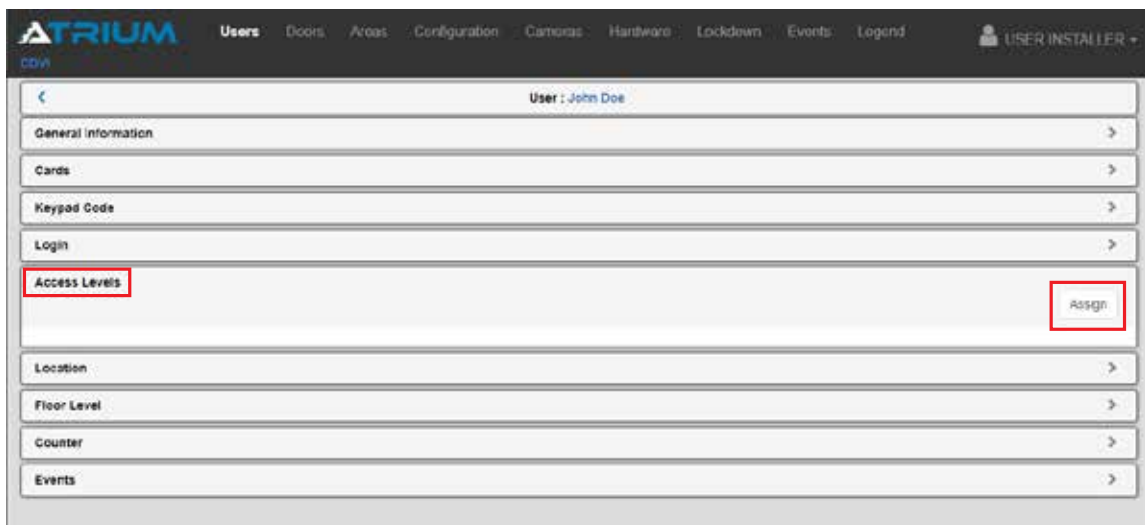   click **" + "** to create and assign the card to a new User.

8. The new User window properties **"General Information"** tab is displayed.
   Enter the first and last name of the new user then click **"Save"**

5 ADD AND ASSIGN A CARD TO A USER (CONTINUED...)

9. A card will only work once you have assigned an **"Access Level"** (access rights) to the User.

   Click the **"Access Levels"** tab then click **"Assign"**.

10. Click on **"Access Level Always"** from the list then click **"Assign"**.
    "Access Level Always" gives a 24 hour, 7 days a week access on any door of the system.
    See #7 to know how to create a custom **"Access Levels"** (access rights).
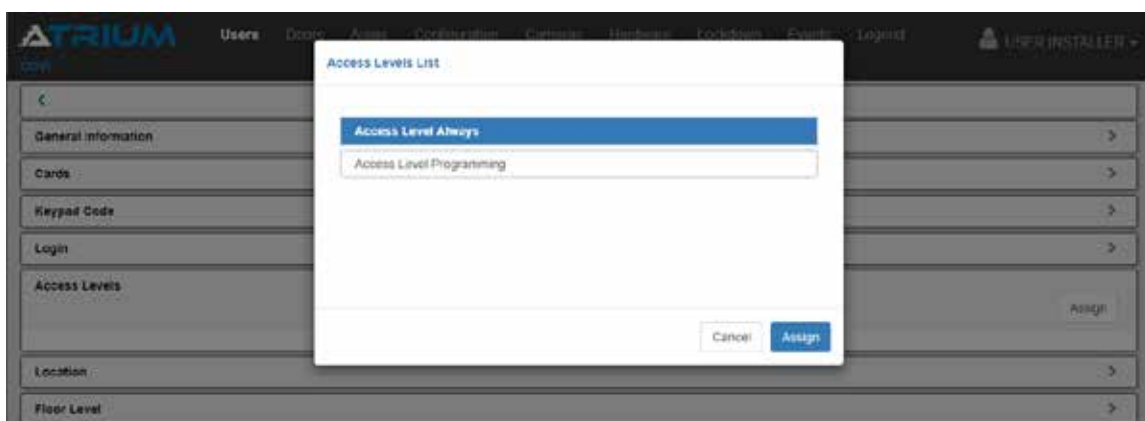
ATRIUM supports 10,000 Users and 10,000 cards.

6 ASSIGN A KEYPAD CODE TO A USER

1.   From User **"Edit"** properties window, cick on **"Keypad Code"** tab then:

    a.   Type in the desired code and then again to confirm. By default code length is 5-digits (between 00001 and 99999).

       The default code length can be changed from 5 up to 8 digits or variable (minimum and maximum length). It can be changed ONLY if you have the **"Installer"** User rights and switch to **"Advance Mode"**. Then, from the main menu, click on **"Configuration"** then click on sub-menu **"Global Settings"**.

    b.   Click on **"Save"**.

> ℹ️ It is recommended to configure the keypad code length before assigning one. You can only change the keypad code length when there is no keypad code assigned to a user.

> ⚠️ A keypad code won't work if the User **DOES NOT** have an access level (access rights). See #7 on how to **"Create & Assign a Custom Access Levels to a User"**

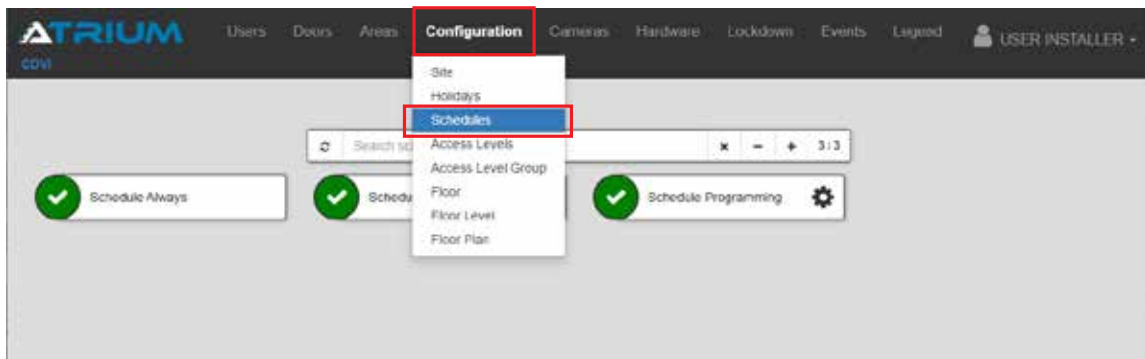### 7 CREATE & ASSIGN A CUSTOM ACCESS LEVEL TO A USER

An access level is a user permission to access an area/door or a group of areas/doors during a defined schedule. It must be assigned to a user to allow usage of the card. Here are the steps to configure an access level (User Access Right) and assign it to a user.

> ℹ️ Typically the same access level will be assigned to all users in a department. As an example, employees from the same department and having the same shift, will usually have access to the same doors during the same working hours. In this case you can assign the same access levels to each of these users.

The first step is to set up a schedule. The schedule can then be associated to one or a group of doors. As an example, here are the steps for a 9 AM to 5 PM, Monday to Friday schedule.

1. From the main menu, click on **"Configuration"** and select **"Schedules"**.

2. Click on **" + "** to add a new schedule.
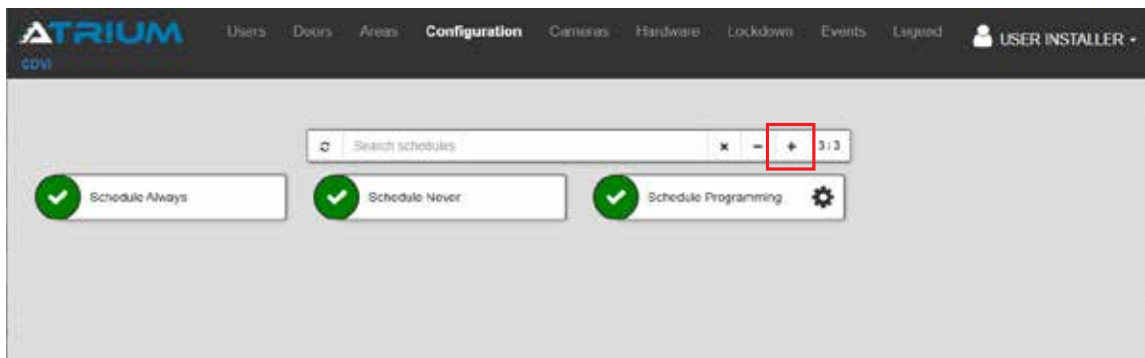
7 CREATE & ASSIGN A
CUSTOM ACCESS LEVEL TO A USER (CONTINUED...)

3. Give an appropriate name to the schedule (9 AM to 5 PM, Monday to Friday), then click **"Save"**.
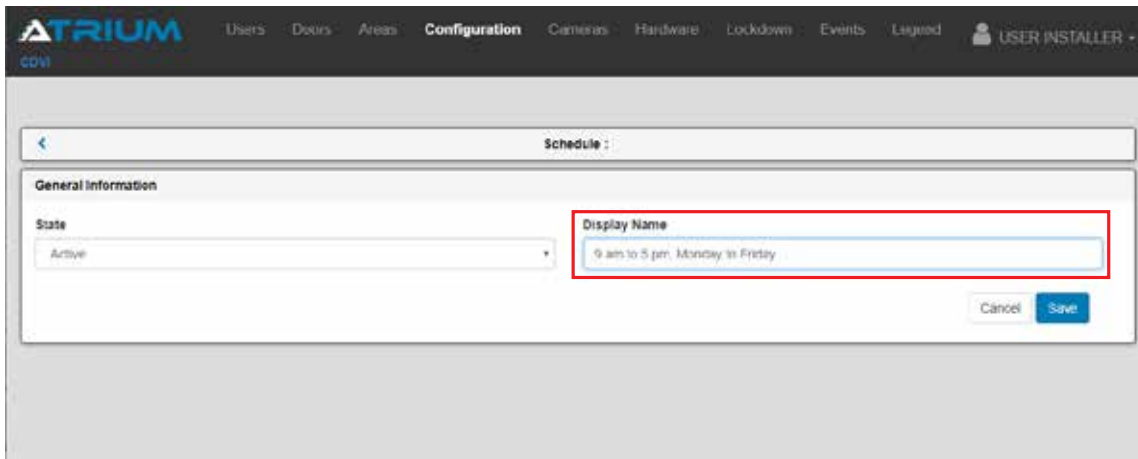

4. By default a schedule has a 7-day cycle (1 week) that begins on Sunday and ends on Saturday. The cycle repeats itself continuously. Now choose the days and between what times Users will have access rights by clicking on **" + "** then **"Basic Mode".**

7
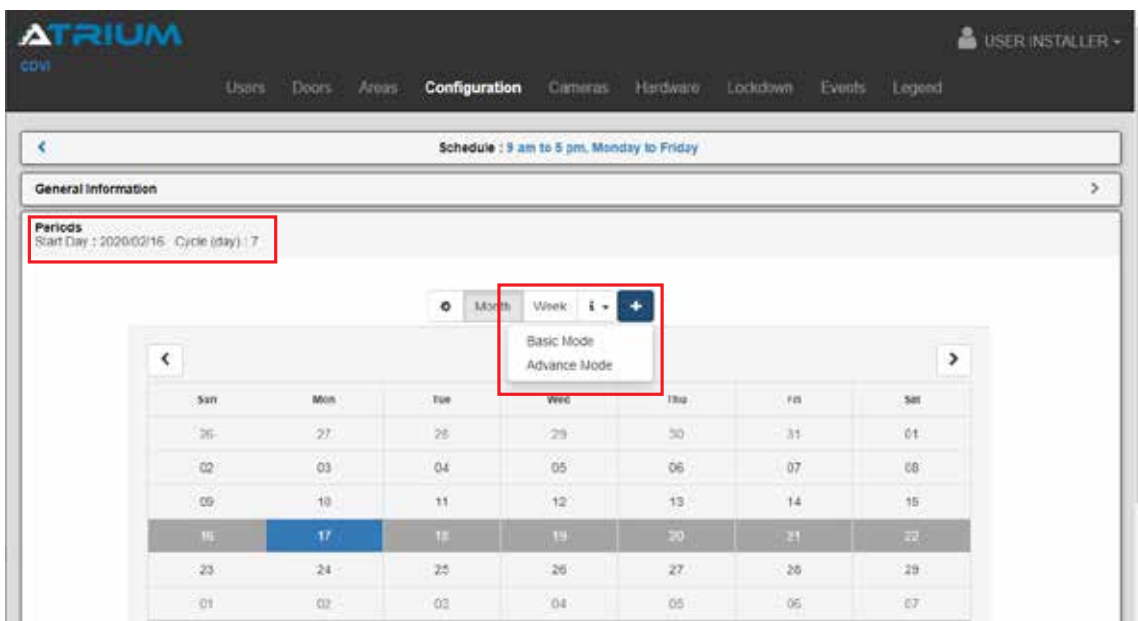
CREATE & ASSIGN A
CUSTOM ACCESS LEVEL TO A USER (CONTINUED...)

5. Let's create a 9 AM to 5 PM, Monday to Friday schedule.
    Select the days and set the Start and End time. Click **"Save"** when done.
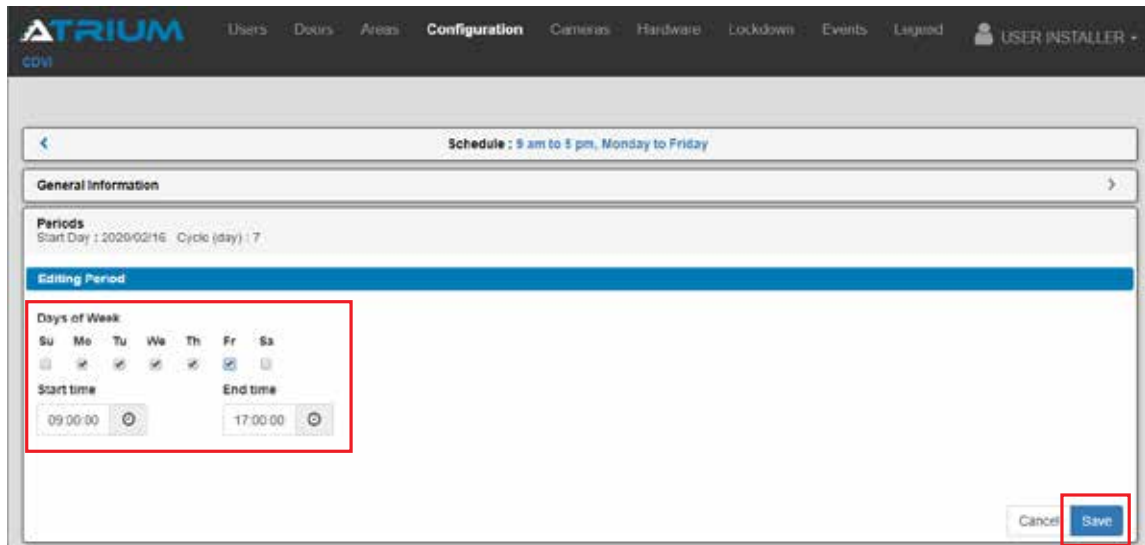
6. Scroll down to view the days and time periods of the schedule.
    If needed, each period can be modified individually by clicking on the **"Edit"** icon.

7
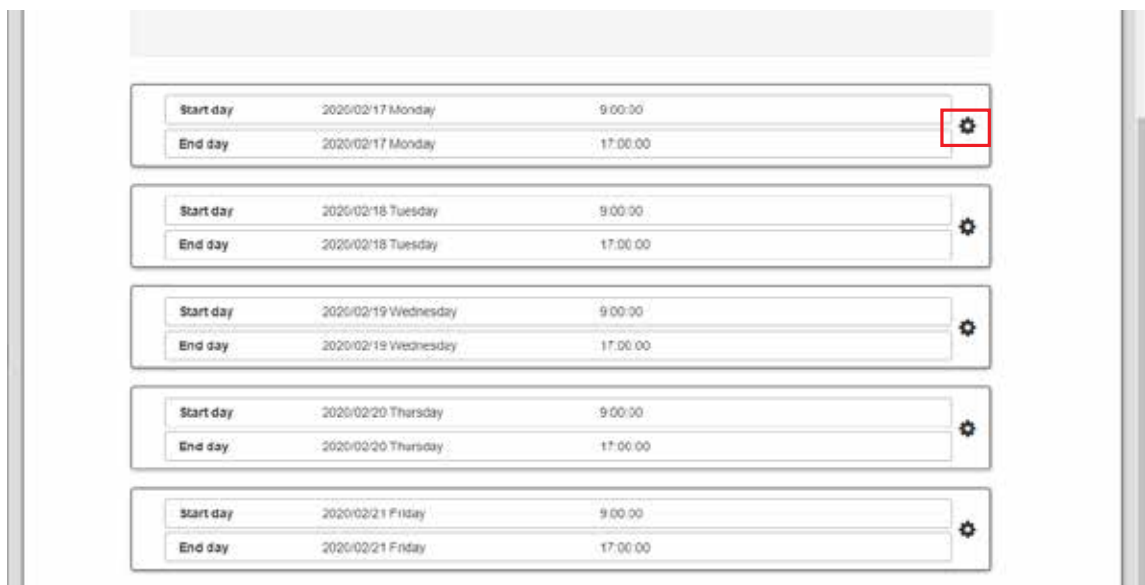
CREATE & ASSIGN A
CUSTOM ACCESS LEVEL TO A USER (CONTINUED...)

7. Let's take our example with a little modification, lets say on Friday, employees finish at 1 PM (no access after 1 PM). Click on the Friday *"Edit"* icon and adjust the time to 1 PM, click on *"Save"*. Now our 7-Day cycle will be Monday to Thursday 9 AM to 5 PM except for Friday 9 AM to 1 PM.
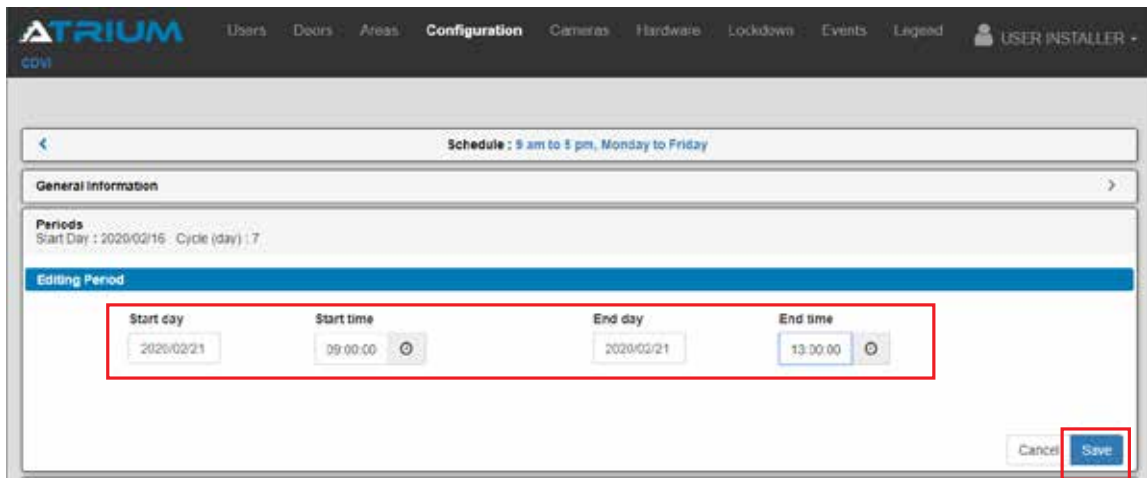
8. Next step is to assign the *"Schedule"* to a door/area or a group of doors/areas. This is called creating an *"Access Level"*.

From the main menu, click on *"Configuration"* and select *"Access Levels"*.
Then, click on **" + "**.
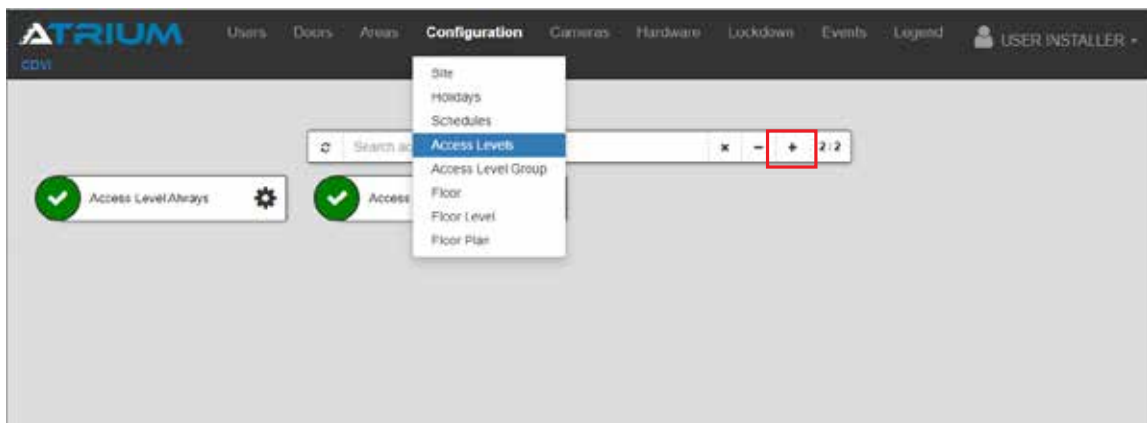
7 CREATE & ASSIGN A
CUSTOM ACCESS LEVEL TO A USER (CONTINUED...)

10. Give a name to the access level, for our example it will be **"Production"**, then click **"Save"**.
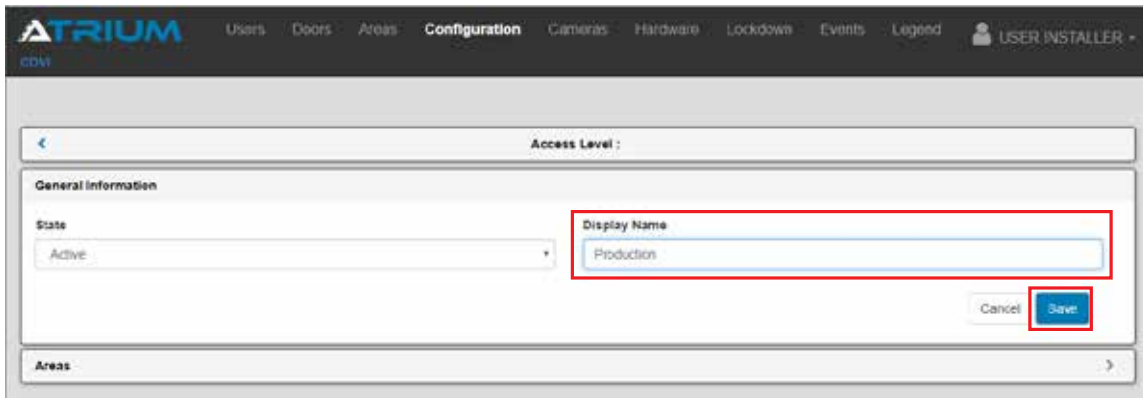

11. At this point we assume that you have renamed default door and area names according to your needs. Click on **"Area"** tab then click on **" + "** to start assigning schedules to areas / doors.

> In the majority of cases there is only one door to access an area. In this case, managing your system will be easier by giving the same name to the area as well as the door that gives it access. See the advanced documentation (software reference manual) for cases where there are several doors giving access to the same area.
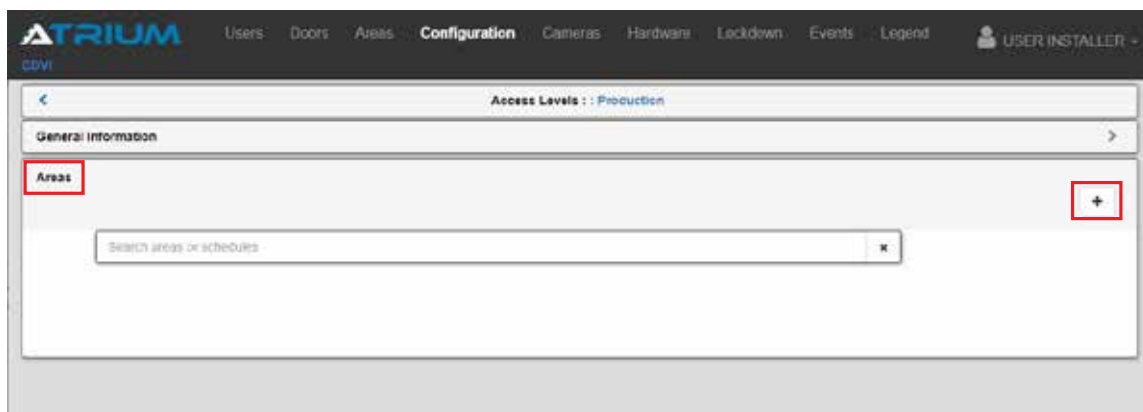
7 CREATE & ASSIGN A CUSTOM ACCESS LEVEL TO A USER (CONTINUED...)

12. Select **"9 AM to 5 PM, Monday to Friday"** schedule from the list, then check all areas / doors you wish to assign to that schedule. Then click **"OK"**
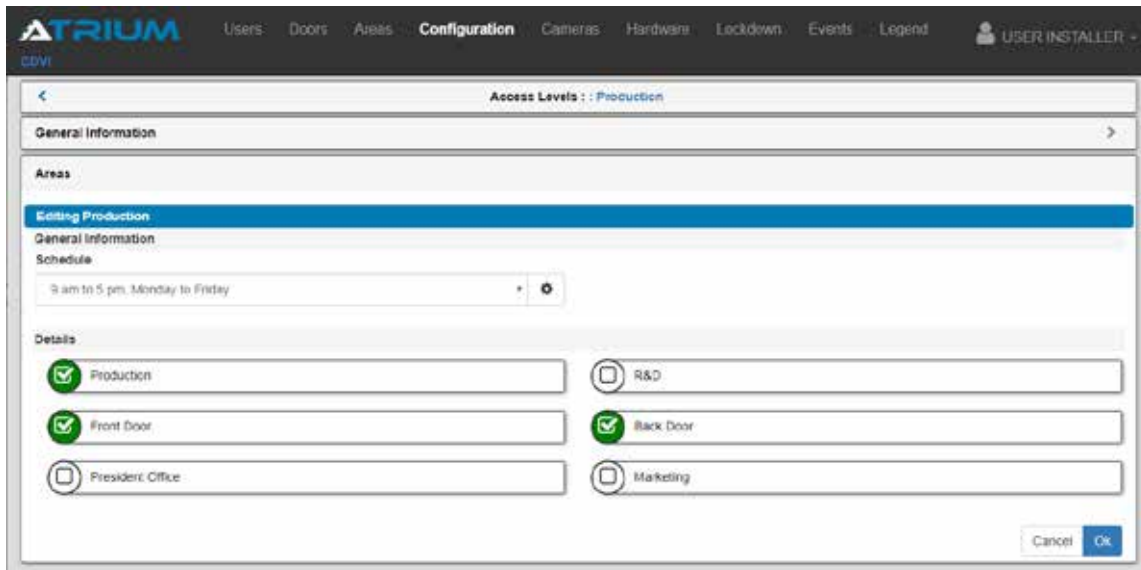
13. Click **"Save"**.
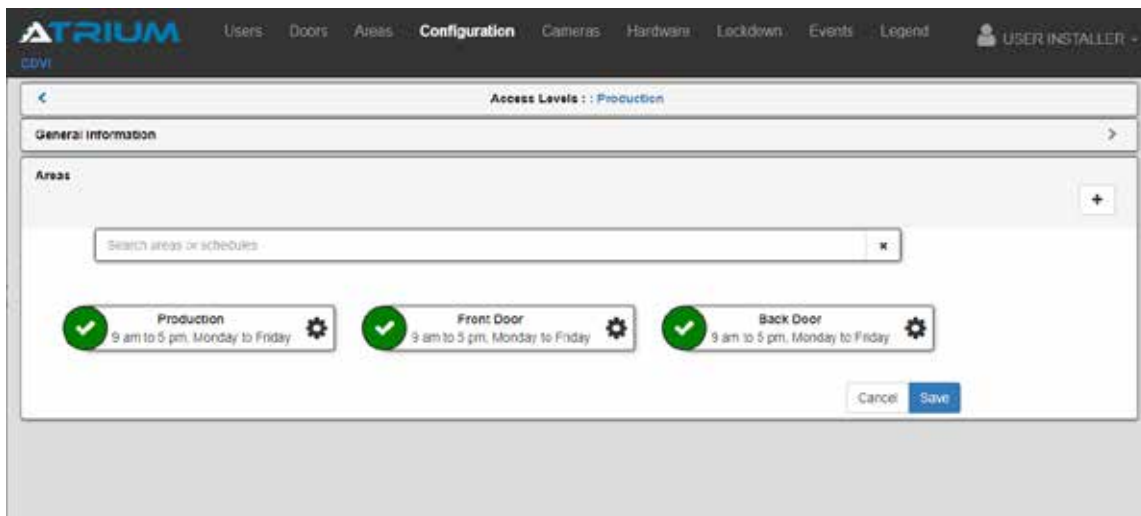
7 CREATE & ASSIGN A CUSTOM ACCESS LEVEL TO A USER (CONTINUED...)

14. From here you can also change a schedule of an area / door by clicking on its **"Edit"** icon. Select a schedule in sub-menu (shows up to 10) or click **"Edit"** for more schedules.

    In our example below, the **"Front Door"**, **"Back Door"** and **"Production"** areas / doors have the **"9 AM to 5 PM, Monday to Friday"** schedule assigned.

    Now, let's assign this access level (User Access Rights) to a User.
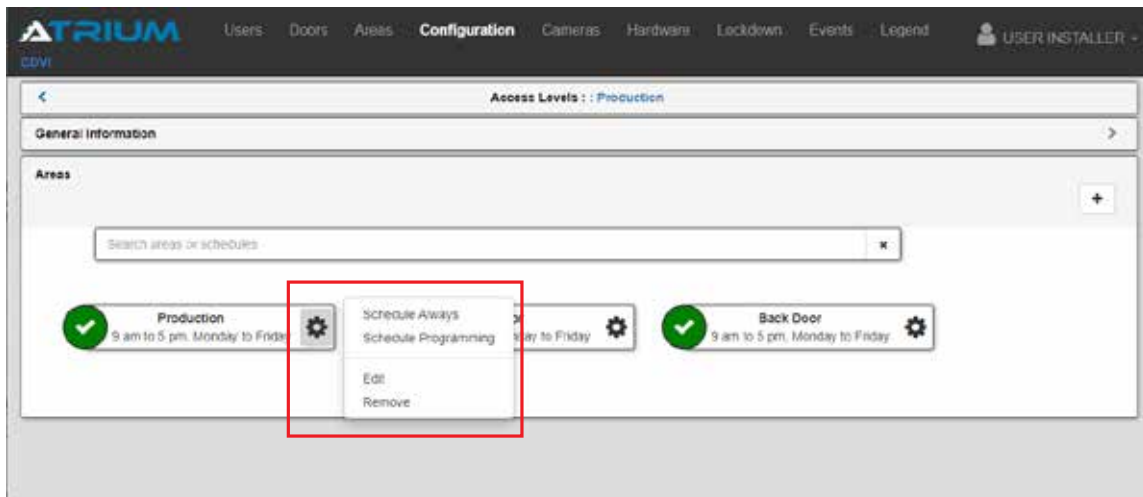
15. From the main menu, click on **"Users"** and select **"Users"**. Then click on the **"Edit"** icon of the User you wish to assign an access level (acces rights).
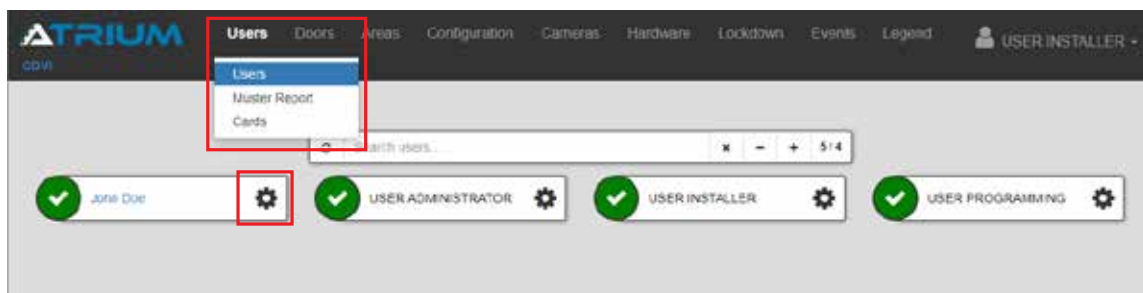
7 CREATE & ASSIGN A
CUSTOM ACCESS LEVEL TO A USER (CONTINUED...)

16. Click on **"Access Levels"** tab. Then click on **"Assign"**.
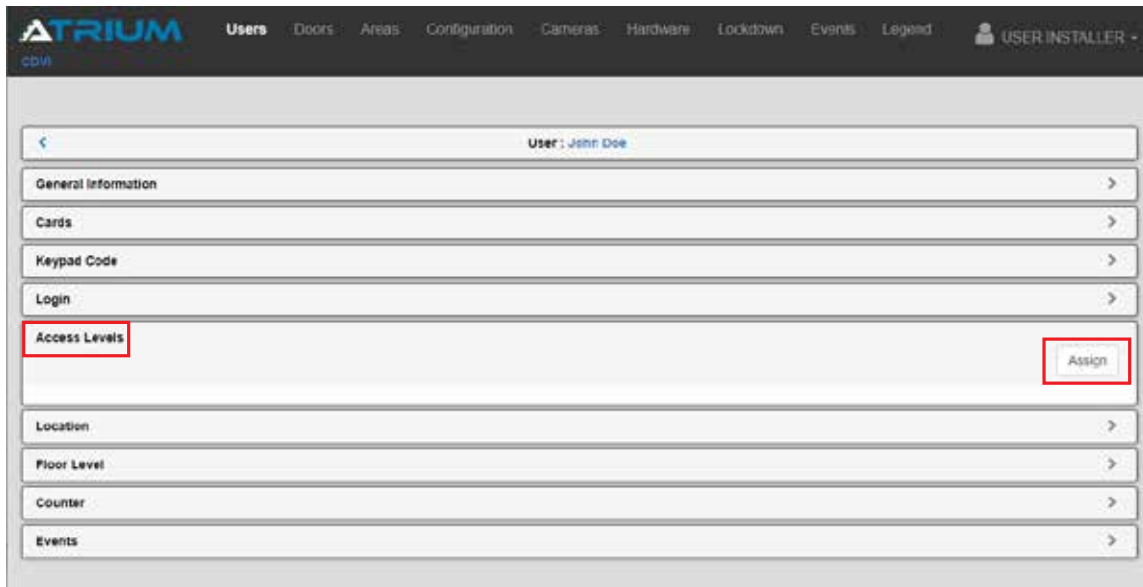
17. Select the **"Production"** access level from the list, then click **"Assign"**.
    Now, that User will be able to use their card at the **Front Door, Back Door** and **Production** doors / areas from **9 AM to 5 PM, Monday to Friday.**
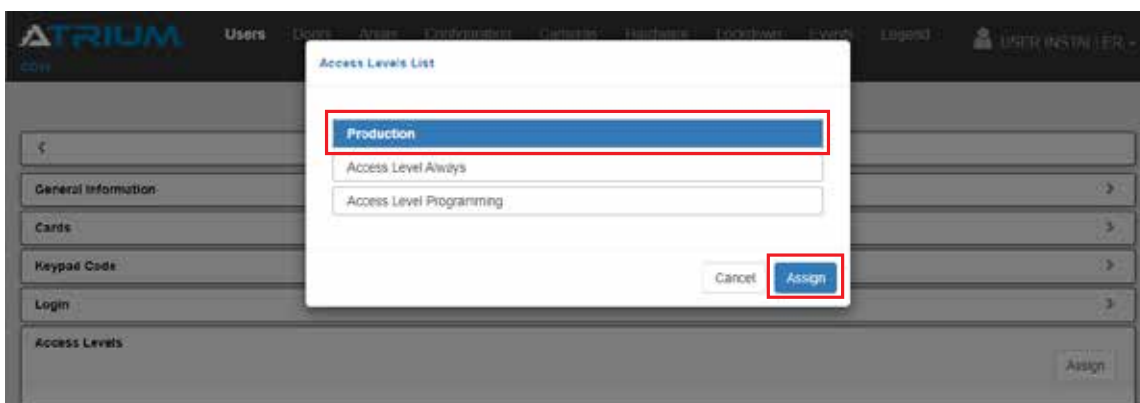
ATRIUM supports 1000 access levels (maximum 5 per User) and 250 schedules each supporting 100 time periods.

8 SET UP AND ASSIGN HOLIDAYS

Holidays will add (**"Included"**) or remove (**"Excluded"**) access rights to a schedule. This schedule can then be assigned to an access level (see step 6) or assigned to a door to unlock automatically (see #9).

A holiday **"Excluded"** from a schedule will **REMOVE** access rights and keep the door locked that day.

A holiday **"Included"** in a schedule will **ADD** access rights and will unlock the door that day.

ATRIUM supports 100 Holidays.

1. From the main menu, click **"Configuration"** and select **"Holidays"**. Then, click on **" + "**.
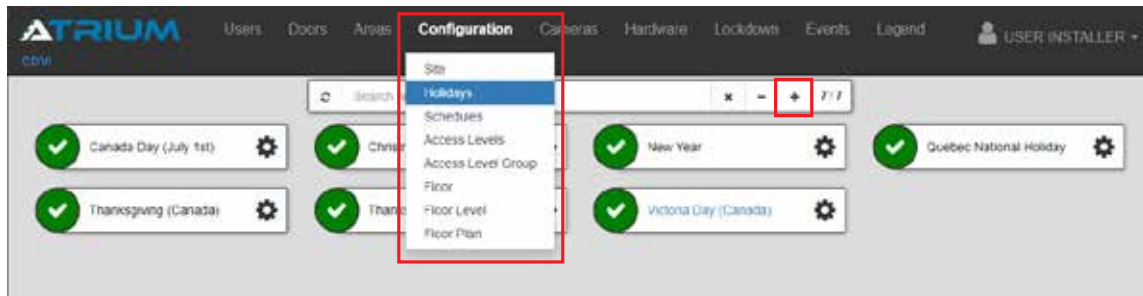
2. Name the holiday (ex: Thanksgiving USA), then click **"Save"**.
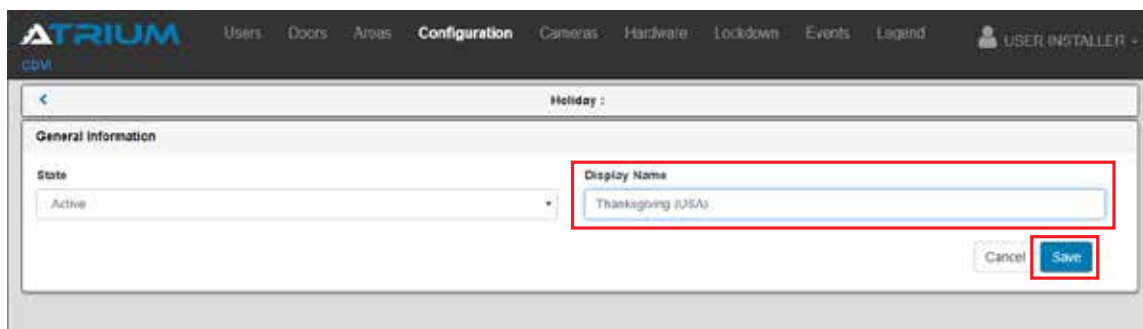
8   SET UP AND ASSIGN HOLIDAYS (CONTINUED...)

3. Click on **"Configuration"** tab. Apply the settings according to the holiday.
    In our example, USA Thanksgiving is the fourth Thursday of November and occurs yearly.
    Then click **"Save"**.

    Repeat from step 1 to add more holidays.
    It is preferable to add all holidays before proceeding to the next step.

> ⚠️ Some holidays do not arrive on the same date annually or in a logical sequence (fourth Thursday in November). As an example, Easter comes on the first Sunday after the date of the full moon. These holidays must be configured every year.

8   SET UP AND ASSIGN HOLIDAYS (CONTINUED...)

4. The next step is to assign holidays to a schedule.

   From the main menu, click **"Configuration"** and select **"Schedules"**.
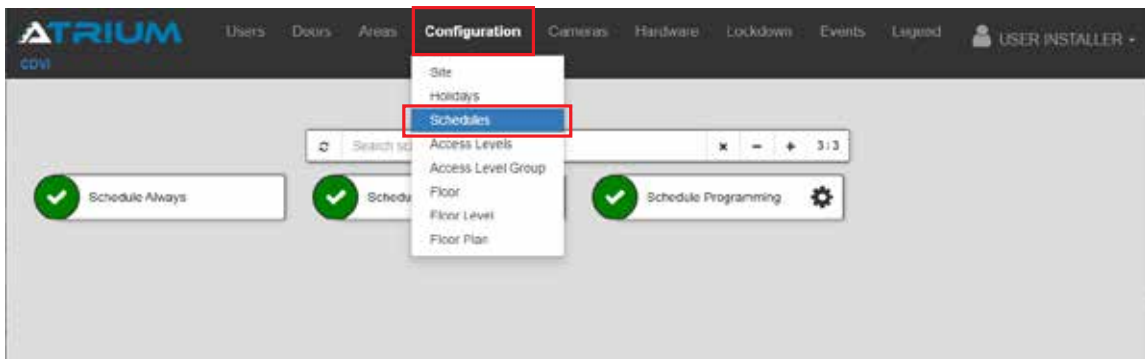
5. Then click on the **"Edit"** icon of the schedule you wish to assign a holiday to.
   In our example, click on schedule **9 AM to 5 PM, Monday to Friday.**
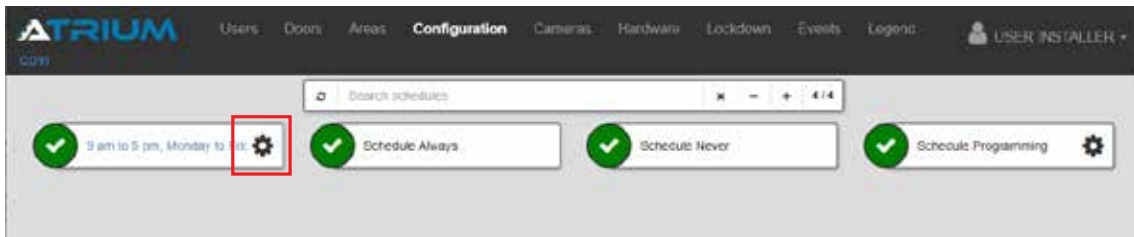
8 SET UP AND ASSIGN HOLIDAYS (CONTINUED...)

6. The typical application of holiday is; you have employees with an access level (access rights) giving acces to 3 doors/areas from 9 AM to 5 PM, Monday to Friday. And you do **NOT** want employees to have access to your building during holidays. You will therefore *"Exclude"* holidays from the schedule:

   Cick on *"Holidays"* tab, then click on the *"Assign"* button in the *"Excluded"* frame.
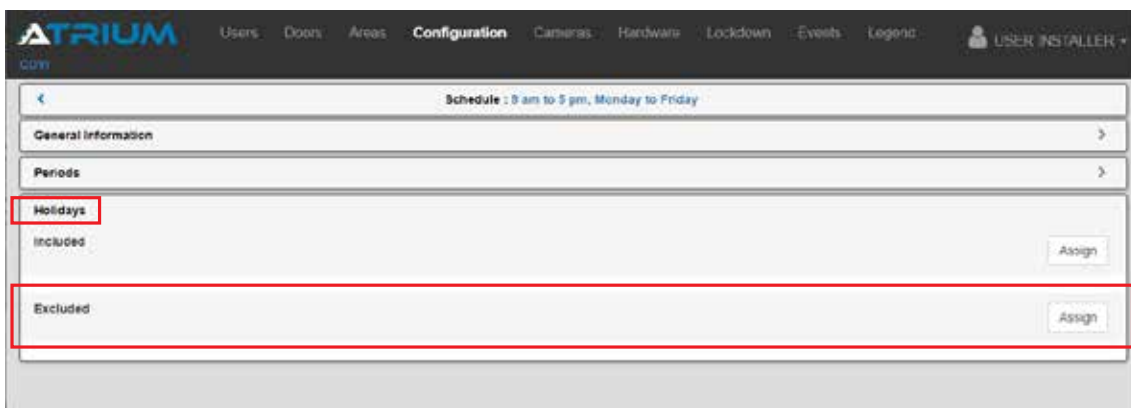
7. Select a holiday from the list then click *"Assign"*.
   Repeat step 6 for each holiday you want to assign to that schedule.
   Once completed, this schedule will always give access rights, except for holidays you have *"Excluded"* (removed) from this schedule.
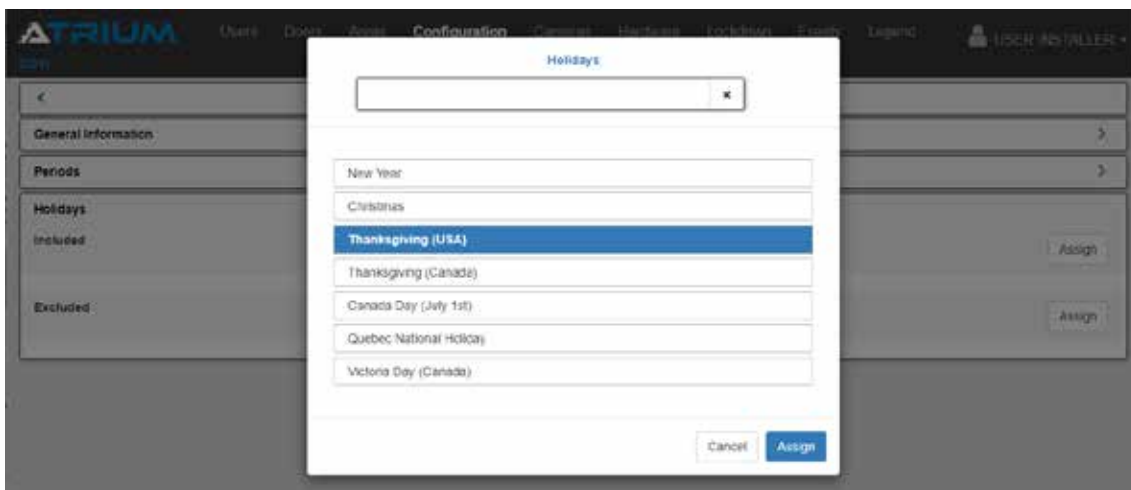
If you have a special employee event (BBQ, annual inventory, etc.) which will take place outside usual access rights. Create a holiday and set up the date & time it will be held. From step 6, click on the *"Assign"* button in the *"Included"* frame, select your "Special Employee Event" holiday from the list and click *"Assign"*. This will *"Add"* access rights to the schedule.

9 SET UP A DOOR TO UNLOCK AUTOMATICALLY (ON SCHEDULE)

Ensure you have created your schedule for the door you want to unlock automatically. (see #7, steps 1 to 7, on how to configure a schedule).

1. From the main menu, click on **"Doors"** then click on the **"Edit"** icon of the door you want to unlock automatically on a schedule.
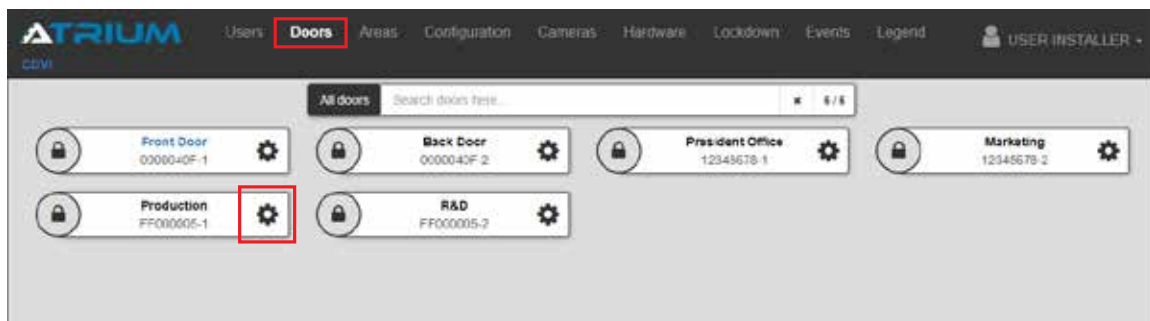
2. Cick the **"Configuration"** tab" then:

   a. Select the schedule from the **"Unlock Schedule"** dropdown menu.
   (The door will automaticaaly unlock according to the selected schedule).

   b. **"Unlock on First Access":** If **"Yes"** is selected, a User (employee) with valid access rights **MUST** scan their card at the door (after the schedule has begin) to **"Activate"** the unlock schedule.

   c. Click on **"Save"**.
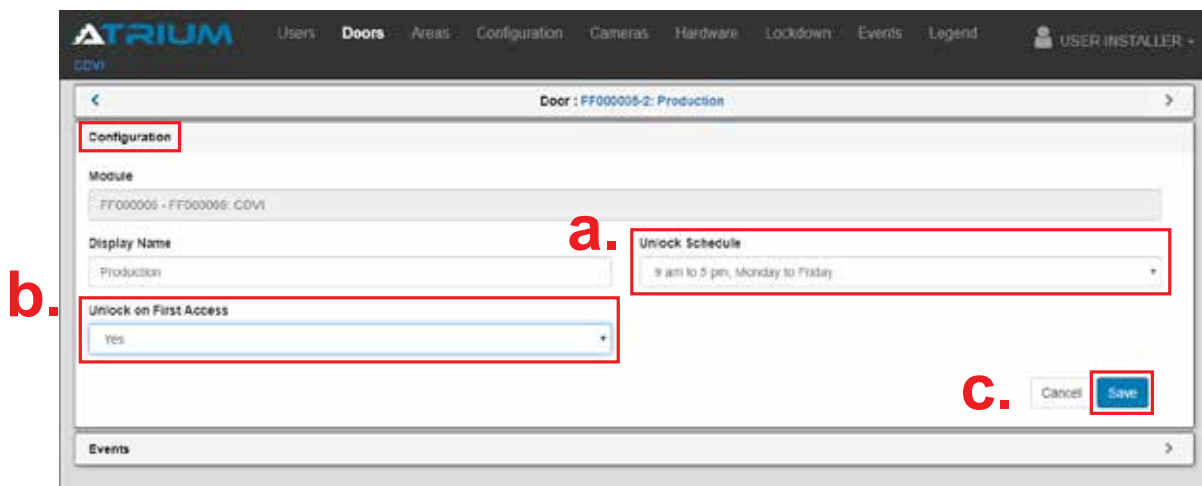
10 BASIC DOOR COMMANDS & STATUS

1. Click on a *"Door Status"* icon to:

   - Grant Access   Activate the door unlock time, default 5 sec.

   - Disable Access   All access will be denied. *"Disable Access"* will change for
                           "Enable Access" in the menu to be able to allow access again.

   - Unlock (Override)   The door overrides its current status and remains *"Unlocked"*,
                           the unlock icon starts to blink, click on *"Normal State"* command to
                           bring the door to its normal state.

   - Lock (Override)   The door overrides its current status and remains *"Locked"*, the door
                           lock icon starts to blink. Click on *"Normal State"* command to
                           bring the door to its normal state.

   - Normal State   Returns the door to its normal state

2. Click on *"All Doors"* to apply one of the same commands as in step 1 but to all the doors
    in the system at the same time.

3. From menu bar, click on *"Legend"* to view all different door status display.
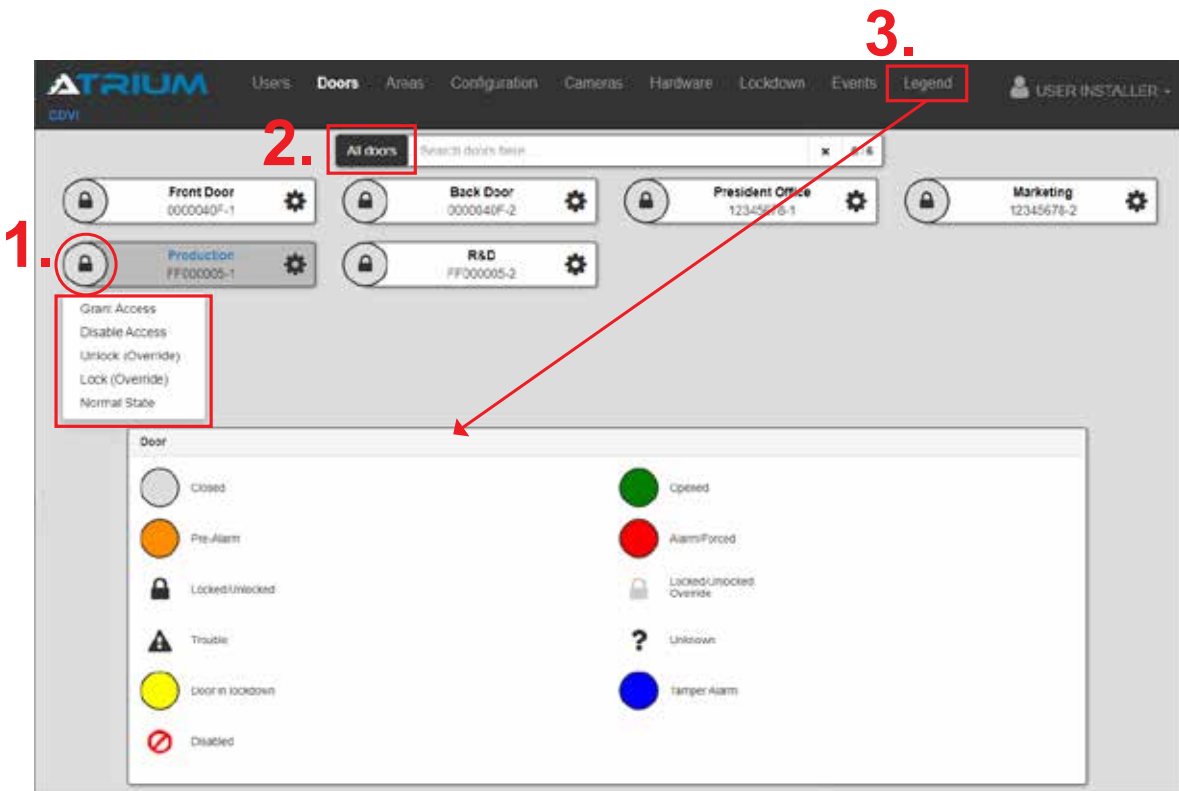
11 SYSTEM USER MANAGEMENT LEVELS (USER RIGHTS)

1. By default, the ATRIUM system includes three users; *"USER INSTALLER"*, *"USER ADMINISTRATOR"* and *"USER PROGRAMMING"*. The ATRIUM system offers four user management levels (User rights). See table below:

SYSTEM USER MANAGEMENT LEVELS (USER RIGHTS)

User Rights	Can do firmware update	Can configure the system	Can add/de-lete/modify users, cards and PIN	View only
1. Installer	✓	✓	✓	✓
2. Administrator		✓	✓	✓
3. Operator			✓	✓
4. View Only				✓

Here are the ATRIUM system user rights for these three default users:

1. "USER INSTALLER"   User Rights: *"Installer"* (full access)
Default Login ID & Password: *"admin"*
Assigned card: None
Access Level (access right): None

2. "USER ADMINISTRATOR"   User Rights: *"Administrator"*
Default Login ID & Password *"admin1"*
Assigned card: *"Master"* card (provided)
Access Level (access right): *"Access Level Always"*

3. "USER PROGRAMMING"   User Rights: *"View Only"*
Default Login ID & Password: None
Assigned card: *"Programming"* card (provided)
(Used for card enrollment mode)
Access Level (access right): *"Access Level Programming"*

> ⚠ It is strongly recommended to change the default login ID and password.

11   SYSTEM USER MANAGEMENT LEVELS (CONTINUED...)

2. You can add, modify or remove user rights to any User.

    From the main menu, click on **"Users"** then from the sub-menu click **"Users"**.
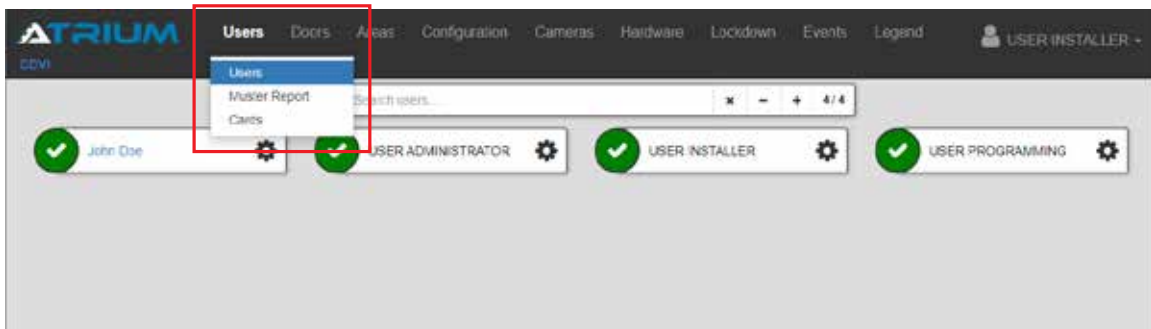
3. Click on the **"Edit"** icon of the User.
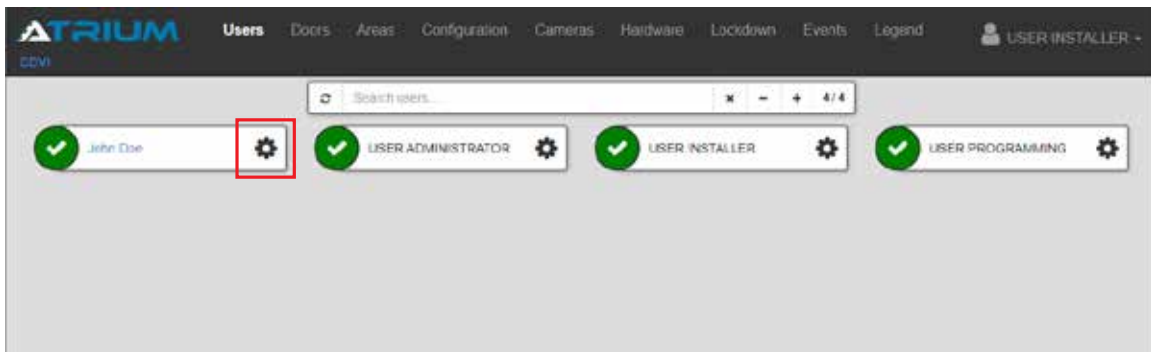
11 SYSTEM USER MANAGEMENT LEVELS (CONTINUED...)

4. Cick on **"Login"** tab then:

    a. Type a Login ID name

    b. Type a Password twice to confirm.

    c. Type a **"Recovery Hint"** question in case of forgotten Password.
       (A "Forgot your password?" link appears ONLY if an incorrect Password is entered)

    d. From the **"User Right"** dropdown menu, select the system management level for the User. Refer to the table **"User Management Levels (User Rights)"** at step 1.

    e. Click on **"Save"**.

12 ATRIUM NETWORK CONNECTIVITY
500 door system (100 doors connected IP + 400 doors connected RS485)

IP CONNECTIVITY

Out of the box the A22K is ready for IP connectivity, fifty (50) A22K per account.
If you have more than one A22K controller per account, one must be set as
the *"Master"* controller to manage the others. These forty-nine (49) others are defined as *"Sub-Controllers"*.

"MASTER" CONTROLLER

The *"Master"* controller manages up to forty-nine (49) *"Sub-Controllers"*. (100 doors fully IP)

AES256 ENCRYPTION
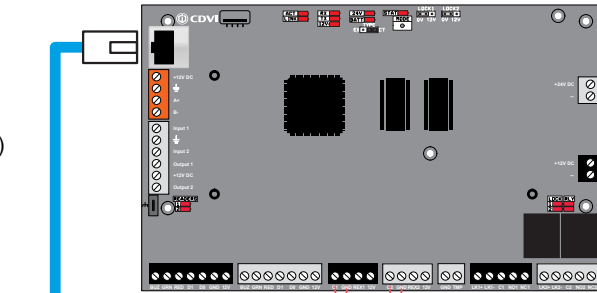
Communication between the *"Master"* controller and *"Sub-Controllers"* is established via TCP/IP **ONLY**.

IP Network
Maximum 300 ft (100 m)

LAN or WAN

"SUB-CONTROLLERS"

Up to forty-nine (49) A22K defined as *"Sub-Controllers"*.

RS485 CONNECTIVITY

An A22K can be set as an *"Expander"*. Up to four (4) can be connected to the RS485 network (orange connector) of the *"Master"* and each *"Sub-Controller"*.

A22K *"Master"* or *"Sub-Controllers"* RS485 port (orange connector).

+12V DC
⏚
A+
B-

Use twisted pair wiring for RS485 connection (1 pair for ground and 1 pair for A+ B-)

Maximum 4000 ft (1220 m)
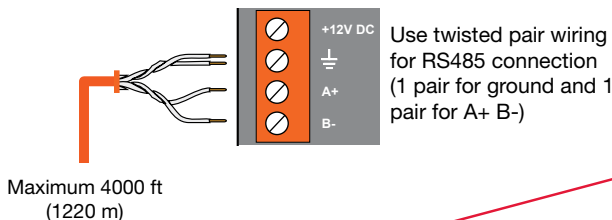
How to set an A22K as an "Expander"

On power OFF, move the *"Module Type"* jumper setting to the two pins closest to *"EX"*.

EX   CT
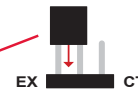
DO NOT use IP connection when an A22K is set as an *"Expander"*.
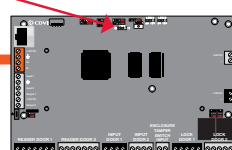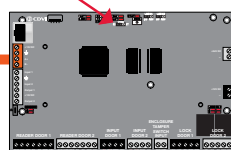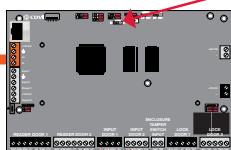
A22K set as *"Expander"*   A22K set as *"Expander"*   A22K set as *"Expander"*   A22K set as *"Expander"*

13

ATRIUM SYSTEM OVERVIEW
Supports any combination of fifty A22K, A22KEC and/or ADH10 (maximum of 500 doors)

KRYPTO
HIGH SECURITY SOLUTION

SSL/TLS ENCRYPTION

AES256 ENCRYPTION

AES256 ENCRYPTION

AES128 ENCRYPTION

LAN/WAN (TCP/IP)

IP (Ethernet)

RS485 (4 wires)

A22K
ATRIUM Controller

K1
KRYPTO Card Reader

TAG-EV2
Mifare DESFire EV2

Supports any combination of fifty A22K, A22KEC and/or ADH10 controllers for a maximum of 500 doors

A22K
Encrypted Web-Based IP 2-Door Controller
Manages up to 20 card readers
(A22K set as a controller)

A22K
Set as Expander

A22K
Set as Expander

A22K
Set as Expander

A22K
Set as Expander

LAN/WAN (TCP/IP)

K1
Card Readers
(Door #1)

K1
Card Readers
(Door #2)

A22KEC
Elevator Controller
Manages 2 elevator cabs
(A22K converts to A22KEC with free firmware)

RS485

CA-A480-A
Manages 16 floors

CA-A480-A
Manages 16 floors

CA-A480-A
Manages 16 floors

CA-A480-A
Manages 16 floors

CA-A480-A
Manages 16 floors

CA-A480-A
Manages 16 floors

CA-A480-A
Manages 16 floors

CA-A480-A
Manages 16 floors

K1
Card Reader
(Cab #1)

K1
Card Reader
(Cab #2)

14 ATRIUM SYSTEM LED STATUS INDICATORS

1	ETHERNET	ACT	Green LED flashing: Data transmitted/received.
		LNK	Steady Green LED: Ethernet network detected.
2	LOCAL BUS	RX	Green LED flashing: Data received on local bus.
		TX	Green LED flashing: Data transmitted on local bus.
		12V	Steady Green LED: 12V on local bus.
3	24Vdc Input / Battery	24V	Steady DC IN Green LED: A22K is powered properly.
			Red LED: No primary power.
		BATT	Green LED: On primary power present and battery charging.
			Green LED Off Steady: Primary power present and battery full.
			Red LED: No battery or battery not properly connected.
			Red LED flashing: Battery power is below 11.8Vdc.
4	STATUS	STAT	Flash once per second: Firmware is operating normally.
			Flash rapidly: Firmware is upgrading.
			Blink once per 3 seconds: Card enrollment mode.
5	READERS	#1	Green LED flashing: Data received from Reader #1.
		#2	Green LED flashing: Data received from Reader #2.
6	LOCK & RELAY	LOCK 1	Green LED: Door 1 Lock Relay is active/triggered.
		LOCK 2	Green LED: Door 2 Lock Relay is active/triggered.
		RLY1	Green LED: Auxiliary Relay 1 is active/triggered.
		RLY2	Green LED: Auxiliary Relay 2 is active/triggered.

14 ATRIUM SYSTEM LED STATUS INDICATORS (CONTINUED...)

Here are the LED status for a K1 card reader connected to an A22K ATRIUM controller :

LED State	Buzzer	Description
Steady blue	-	Standby (door secure)
Turn green for 5 sec.	Chirp beep	Access granted
5 rapid red blinks	Steady beep for 3 sec.	Access denied
Flashing blue	-	Reader compromised (lost its encryption key)
Blinks green every 3 sec.	-	door unlock schedule or unlock override
Flashing red	Steady beep	Door forced alarm
Flashing red	Beep every 2 sec.	Door open too long pre-alarm
Flashing red rapidly	Fast beep	Door open too long alarm

CDVI

Security to Access

CDVI AMERICAS
[CANADA - USA - LATIN AMERICA]
www.cdvi.ca

CDVI BENELUX
[BELGIUM - NETHERLAND - LUXEMBOURG]
www.cdvibenelux.com

CDVI CHINA

CDVI FRANCE
www.cdvi.com

CDVI IBÉRICA
[SPAIN - PORTUGAL]
www.cdviberica.com

CDVI ITALIA
www.cdvi.it

CDVI MAROC
www.cdvi.ma

CDVI POLSKA
www.cdvi.com.pl

CDVI SUISSE
[SWITZERLAND]
www.cdvi.ch

CDVI SWEDEN
[SWEDEN - DENMARK - NORWAY - FINLAND]
www.cdvi.se

CDVI UK
[UNITED KINGDOM - IRELAND - SOUTH AFRICA]
www.cdvi.co.uk

www.cdvi.ca