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Luma x20 Resources

Pro Tip: **OvrC now provides extensive surveillance functionality**—take a look at what we've done to make your life easier!

Click the resource you need, or use the index at left:

Luma View App: The surveillance app for your customers.

Luma x20 Quick-Start Using OvrC: Get your newly installed system up and running in minutes.

Luma x20 OvrC Guide: Details on everything you can do without leaving OvrC, including motion detection, smart events, image adjustment, and more.

- NVR Configure Tab
- IP Camera Details Tab
- IP Camera Configure Tab

Luma x20 NVR Interface: For the specialty settings that OvrC does not handle.

Luma x20 Camera Interface: For the few specialty settings that OvrC does not handle.

Back to the Swipe Install Guides

Tech Support FAQs

These are the most common calls that Tech Support gets from technicians in the field.

Pro Tip: You must first claim your NVR and cameras in OvrC and update all firmware before setting up the system.

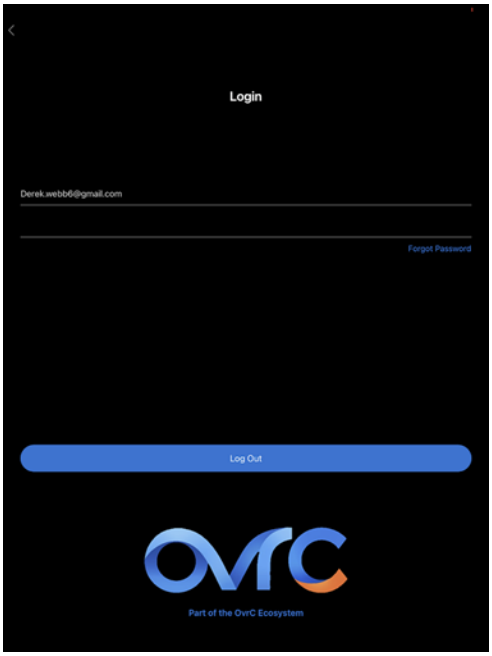
Pro Tip: Most configuration can be handled quickly and easily through OvrC. See the OvrC Quick Start for details.

Setting up a Luma x10 with a Luma x20 (Tech Community).

Luma View App

Initial Login Using OvrC Connect

When you open the Luma View app for the first time you will be prompted to log in to your OvrC Connect account. You can only log in to the Luma View app using OvrC Connect credentials.



A. Luma View app menu

B. Server list - All devices that are assigned to your OvrC Connect account and their current status.

C. Device list - All available devices for viewing. This includes NVRs and standalone IP cameras.

D. Channel display - Change the display of your available channels below.

E. Change channel group - Move entire camera screen between channel groups.

F. Close - Close all live channels on the screen.

G. Two-way talk - Open/Close two-way talk.

H. Audio – Open/Close audio if the camera is equipped with a speaker.

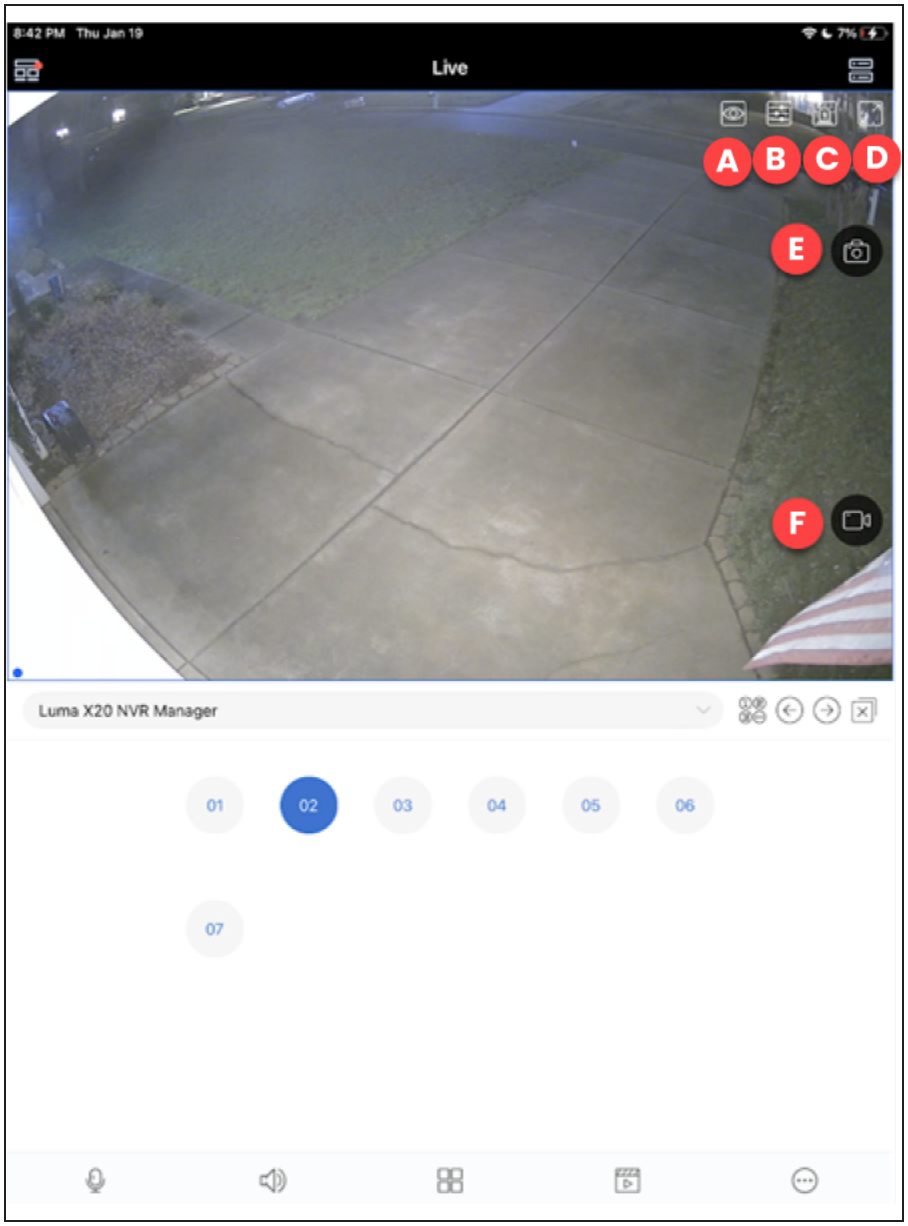
I. Display mode – Choose different displays that can be shown using the Luma View app.

J. Playback – Opens the remote playback interface to view the playback for the camera currently selected.

K. Options – Additional menu options.

Single Channel View

Double tap an image or select the single channel display mode.



A. Change the definition of the current image.

B. Image settings - Brightness, white balance, sharpness, image mirror, and zoom can be set.

C. Alarm.

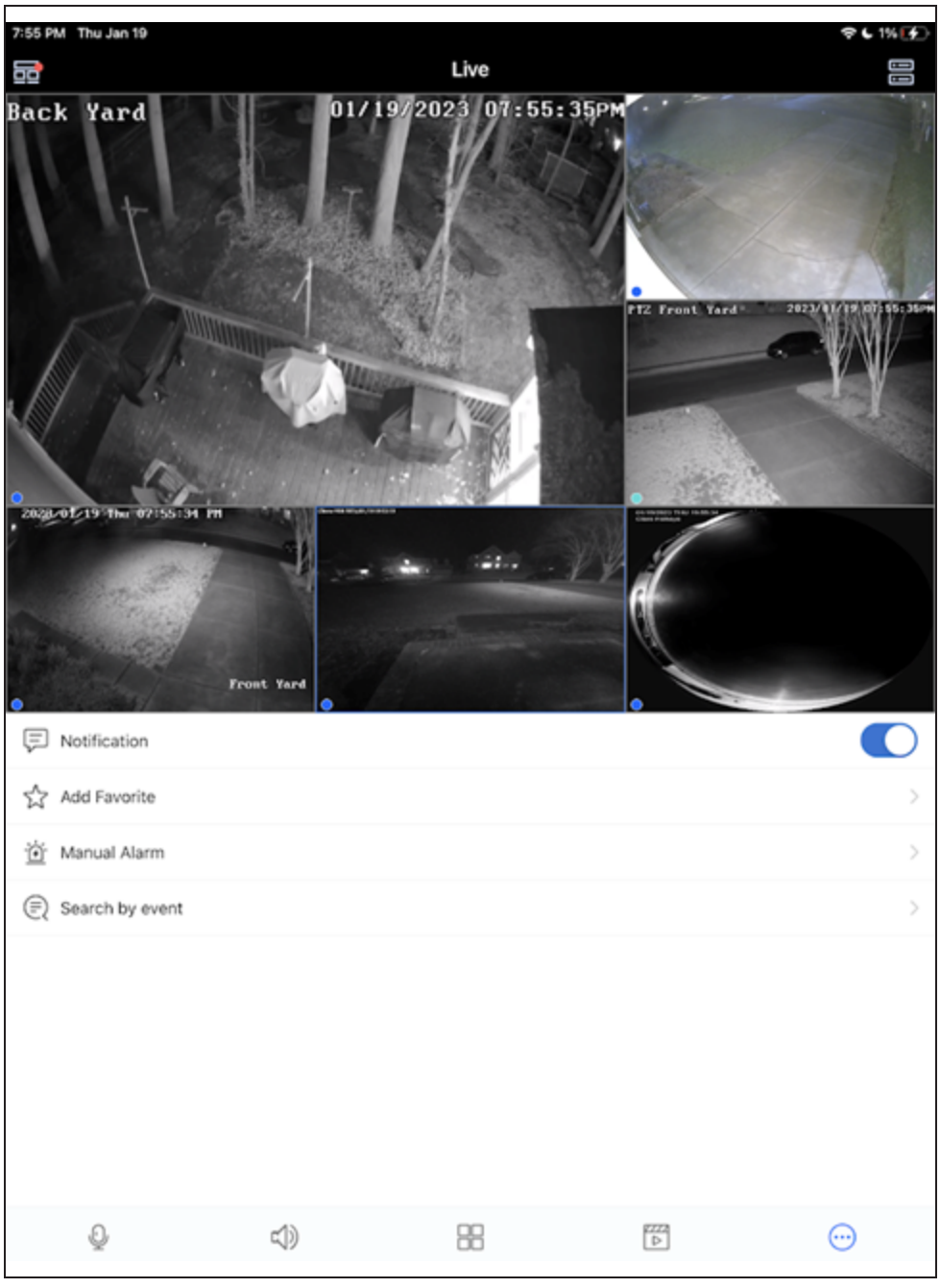
D. Fullscreen.

E. Take a snapshot of the current image to save to your mobile device.

F. Start recording video to save to your mobile device.

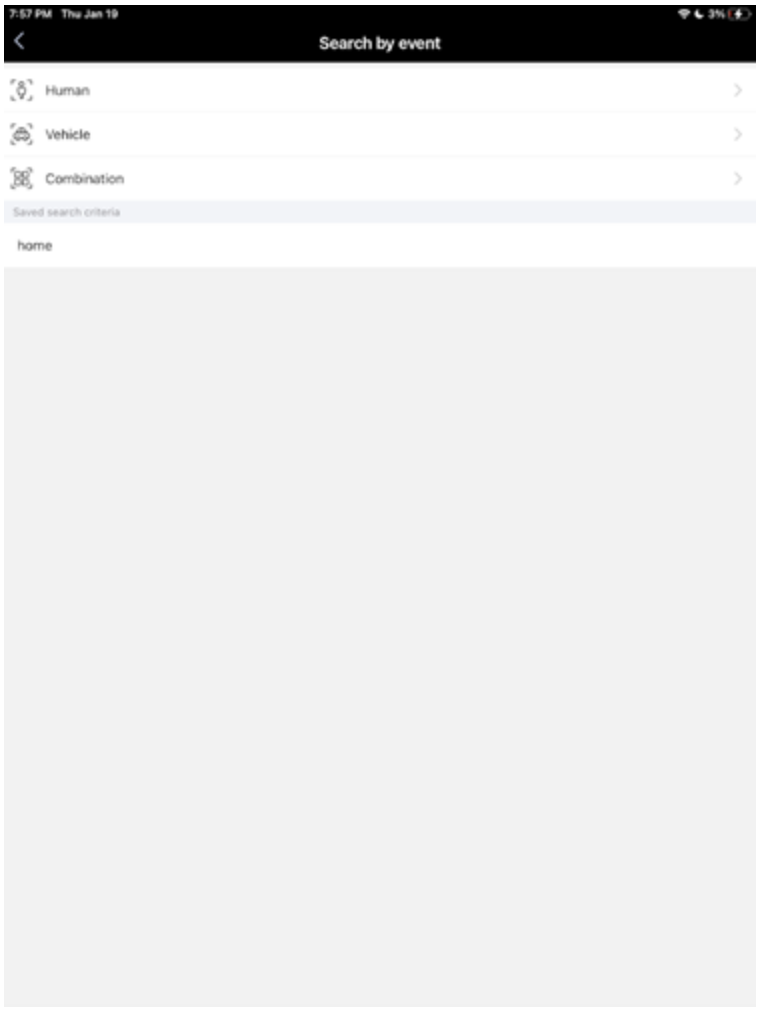
Additional Menu Options

This presents you with these options.

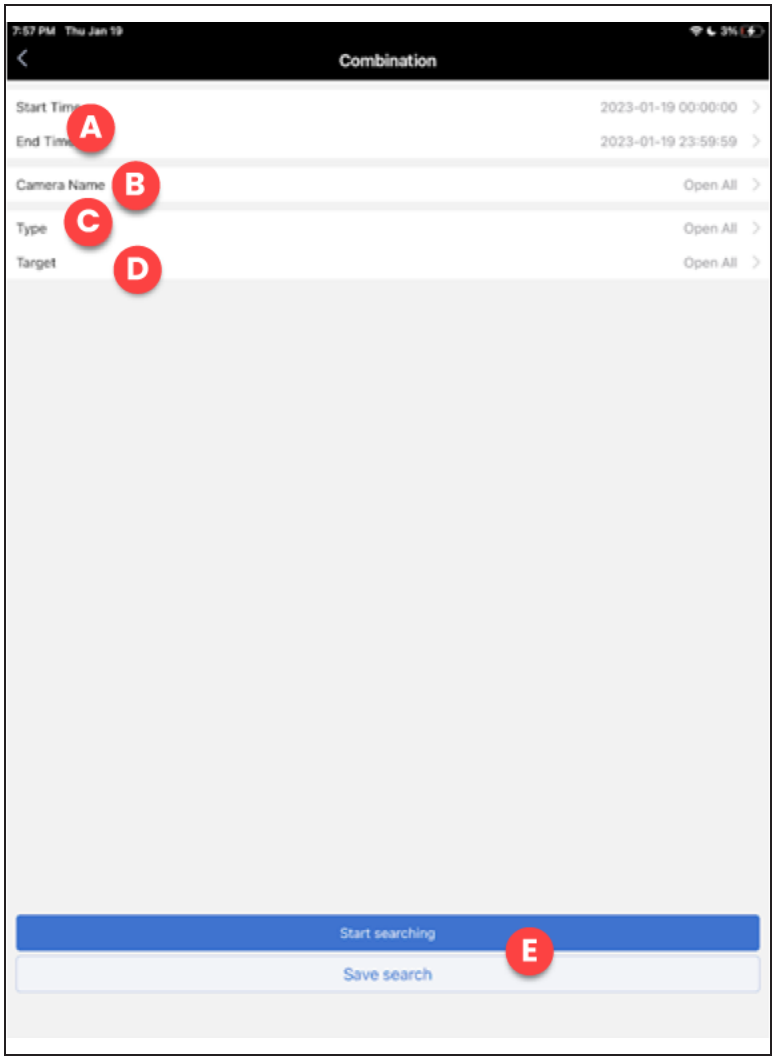


- Notification – Toggle push notifications for the selected device.
- Add favorite – Save the specified view to a favorite group. You can also recall favorite groups by clicking the play button.
- Manual alarm – If your device supports manual alarm connections and they are properly set up, this triggers those outputs.
- Search by event – Search your NVR's playback using the Advanced Analytics from your Luma X20 cameras.

Search by Event Menu



Select the Event type you would like to search by.



A. Start/End time - Select the start time and end time for this search.

B. Camera name - Select the cameras to be included in the search.

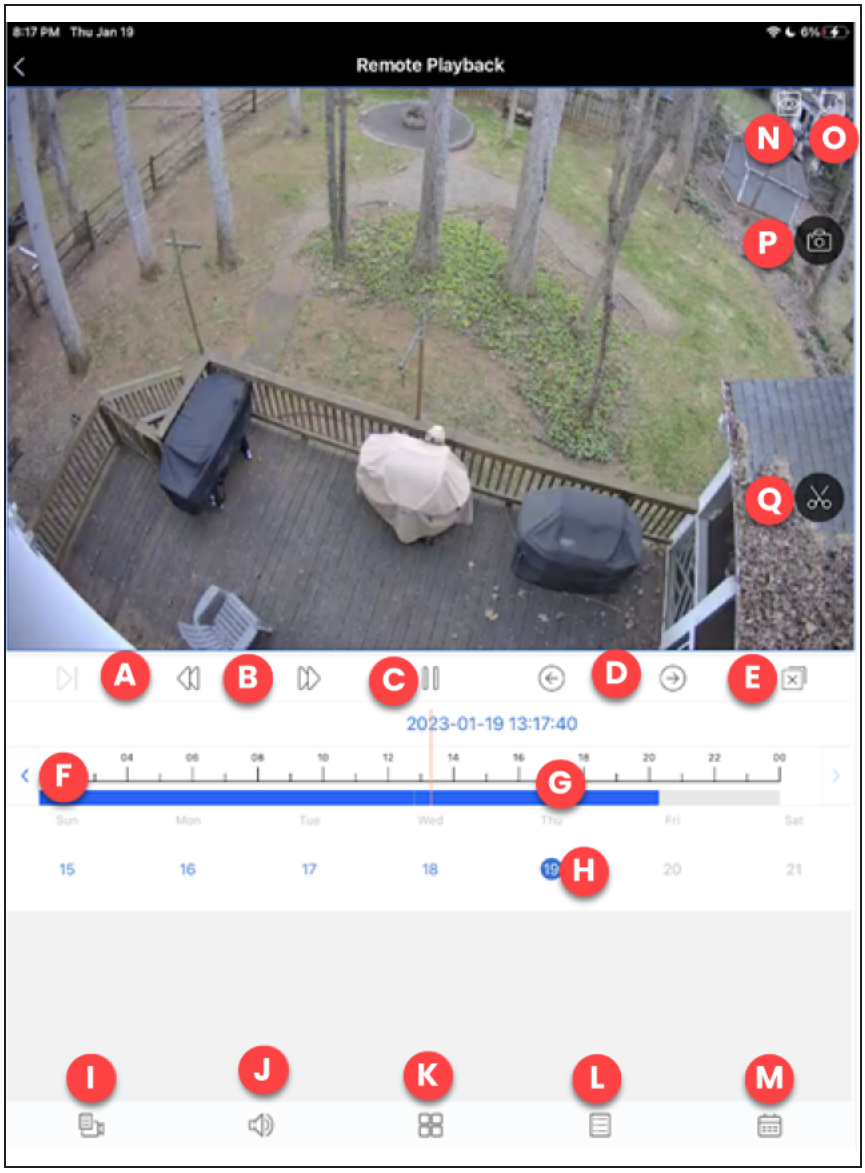
C. Type - Select the Type of AI Event to be included in the search.

D. Target - Verify the target type.

E. Start/Save search - Begin searching archived footage based on the above parameters or save these search parameters for later.

Playback Interface

This section of the Luma View app used for playback and archiving of video.



A. Frame-by-frame playback

B. Rewind and Fast Forward

C. Play/Pause

D. Switch between channels for playback

E. Close all channels

F. Select to jump back or forward to the next closest event on the timeline

G. Timeline for event playback. Timeline is color coded for different types of playback or events. Pinch to zoom in on the timeline for more precise playback.

 AI Event – Line Crossing

 AI Event – Intrusion

 Other AI Events – Exception Detection

 Manual Recording Playback

 Sensor Events

 Motion Event Playback

 Point of Sale Playback (not currently supported on Luma x20)

H. Day of the current month you are playing back from.

I. Choose the current channel for playback.

J. Enable audio playback from the recording.

K. Enable multi-camera view for synchronous playback.

L. Filter the timeline by event type.

M. Change the date range for your playback timeline.

N. Change the image quality of your playback.

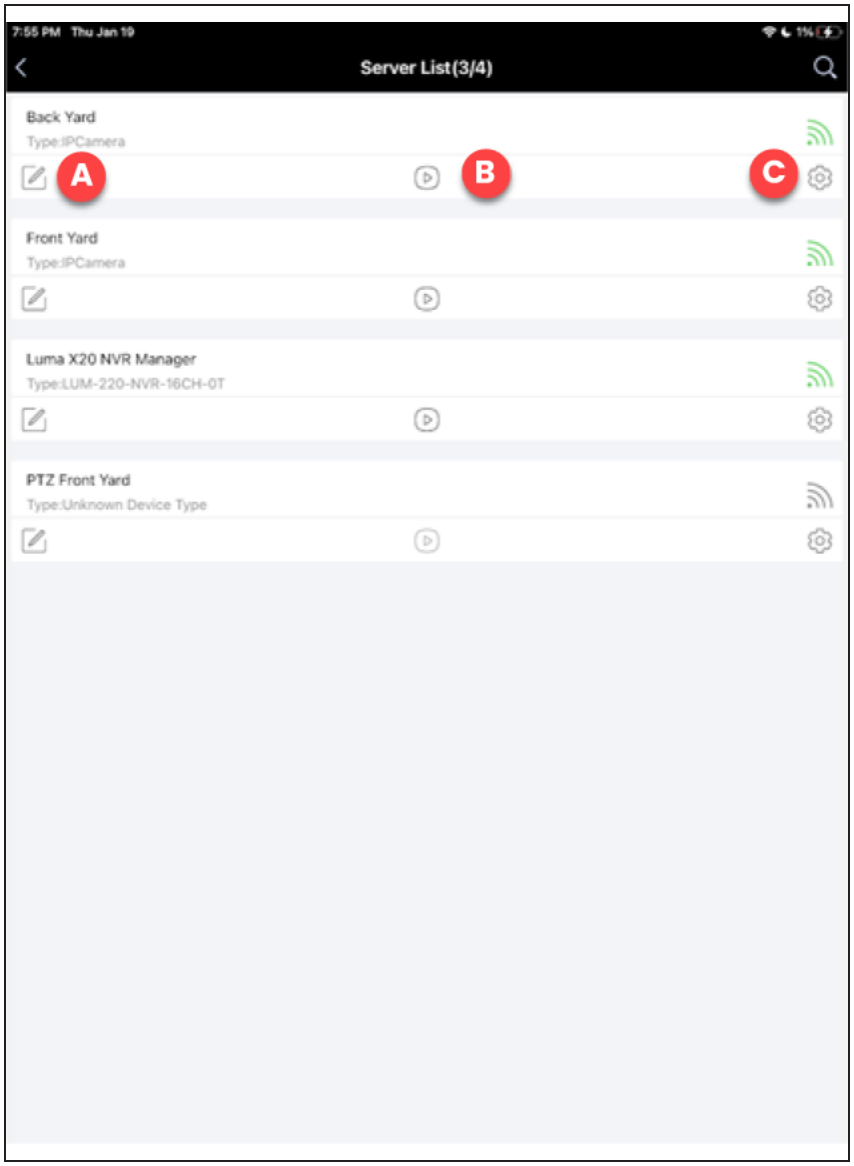
O. Enable full screen playback.

P. Save a snapshot of the current playback frame on your mobile device.

Q. Start a recording of playback on your mobile device. Press again to stop recording.

Server List

The list of all recorders that are synced to the Luma View app through OvrC.



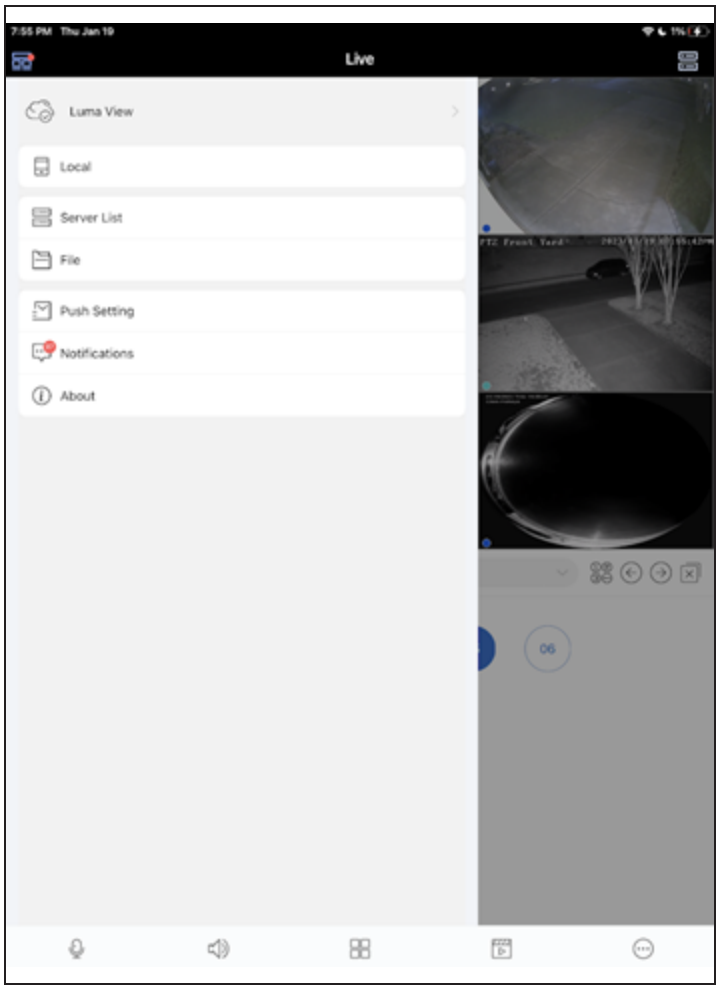
A. Edit – Edit properties of the selected device. The only available option on this screen is Reset Password. This resets the root admin password of the NVR. Other passwords will remain intact.

B. Play – Start playback of this device.

C. Basic info – Obtain basic information of this device like firmware version for IP Cameras and some more detailed status information for NVRs.

Main Menu for Luma View

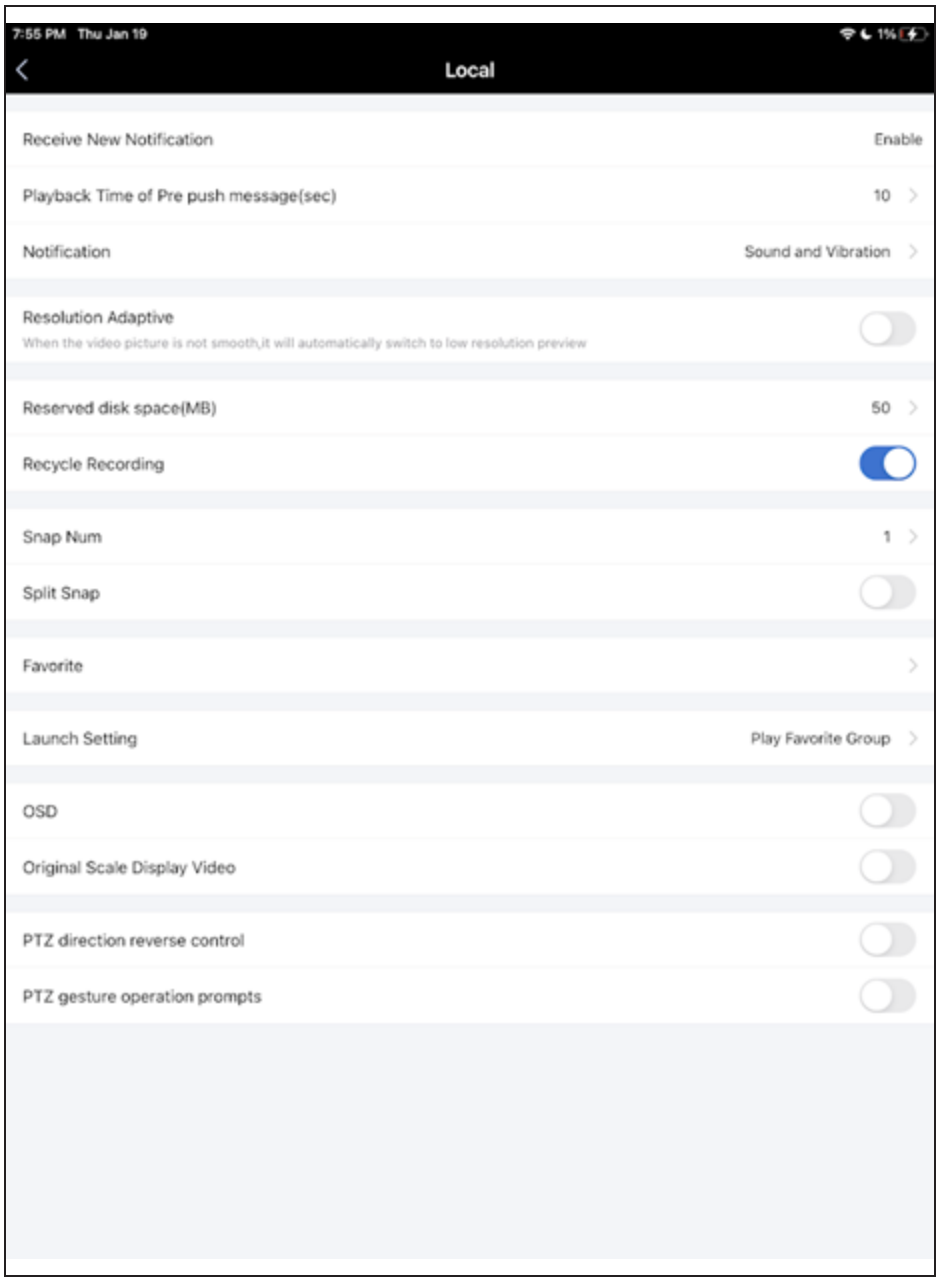
Selecting the top left icon from Live slides out the main menu.



- Luma View – This opens your login for OvrC Connect.
- Local – This menu provides settings that are unique to your mobile device's experience with Luma View.
- Server list – Opens the Server list of all available Luma X20 devices.
- File – Opens the file explorer of saved snapshots and videos from the Luma View App. You can save and share from this section.
- Push setting – View the push notification status for all of your Luma X20 NVRs.

- Notifications – Shows the last 99 push notifications that your Luma View app has received.
- About – Shows various information about the Luma View app.

Local Settings Page



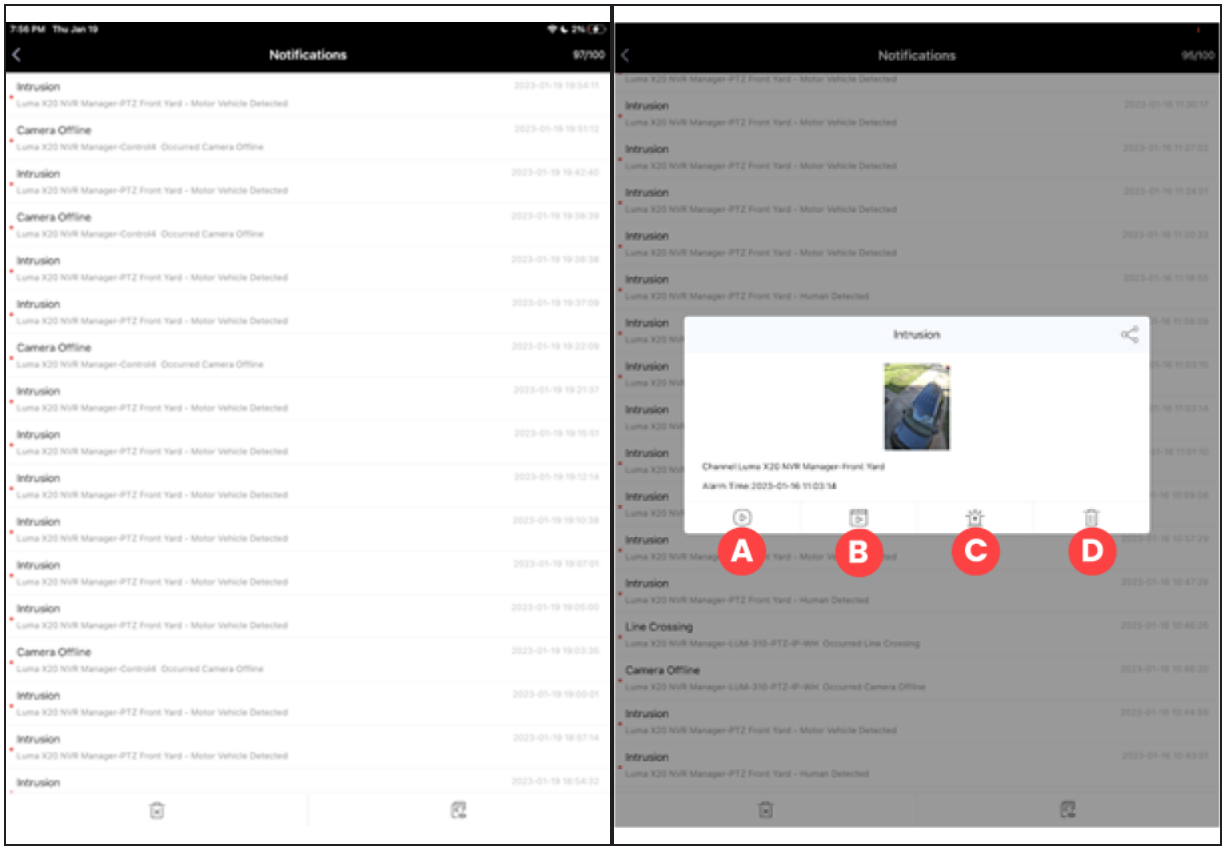
- Receive new notification – Globally turn off notifications from your Luma View app.
- Playback time of pre-push message (sec) – Set the playback start-time for a push message (event) based on the actual alarm time. For example, when you click on the alarm video playback icon, playback starts 10 seconds before the alarm occurred.
- Notification – Choose how you would like push notifications to operate on your phone.
- Resolution adaptive – When enabled, video automatically switches to a lower resolution when the image is not smooth.
- Reserved disk space (MB) – Luma View reserves space on your phone so that it always has room to backup archived footage. Set the reserved space here.
- Recycle recording – Enable/Disable record cycle. If enabled, the system automatically deletes old recordings and recycles the space if needed.
- Snap num – Select the number of snapshots to be taken when you click Snapshot in preview or playback.
- Split snap – When disabled, Luma View takes snapshots of the selected channel only. When enabled, Luma View generates snapshots of all channels in the current layout view. For example, if Split Snap is disabled and you are using 2x2 (4) channel layout view with Channel 1 selected, snapshots of Channel 1 will be generated. If Split Snap were enabled, snapshots of all the channels in the layout will be generated.
- Favorite – Edit your favorites after you have set them.
- Launch setting – Set to play favorite group, play a specific device, or play last preview channels when you open the app.
- OSD – Enable or Disable on screen display option pop-up icons.
- Original scale display video – When enabled, the native video ratio will be used, not fitted to the layout window.
- PTZ gesture operation prompts – Tapping the PTZ icon in Live view, displays eight directional touch controls. When this setting is disabled, the eight directional touch controls are displayed for only three seconds. When enabled, the eight directional touch controls remain

on the screen.

- PTZ direction reverse control – When enabled, the eight directional PTZ controls are reversed.

Notifications Menu

You will receive pop-up notifications for the selected notifications. If that notification was for an AI event, you will see an image of the object that triggered the notification. The share icon allows you to share that image.



A. Go directly to live view of the camera that is associated with the notification.

B. Go directly to playback of the event associated with the notification.

C. Go directly to the manual alarm page of the camera associated with the notification.

D. Delete this notification from your list. This does not delete the recording.

Luma x20 Quick Start - Using OvrC

Using OvrC can get your Luma x20 NVR up and running in minutes—installs have never been easier!

Claim the Gear

The Luma x20 line integrates seamlessly with OvrC.

Before you claim your NVR, first attach it to the network, then connect all cameras that will be wired directly to NVR ports. Once that is done, power everything up (the NVR beeps when powered up, and beeps three times when it finishes booting).

Claim the NVR

If you have an OvrC Pro device in your network (an OvrC Hub, Araknis router, or Control4 Controller), your OvrC device automatically claims your x20 NVR as soon as it is connected to the system.

If you do not have an OvrC pro device, claim your NVR manually using its MAC address and service tag number.

What Happens When the NVR is Claimed?

OvrC automatically activates the NVR. This creates a SuperAdmin password for the NVR that Snap One Technical Support can use for emergency recovery. This password is not visible to anyone else, but can be reset using the Luma View app.

Activation also creates two unique passwords:

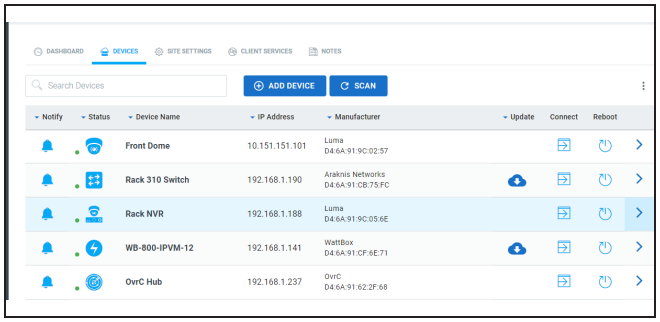
- **SupportAdmin:** Use this password to connect to the NVR's web UI.
- **SystemConnect:** Use this password for control system integration or for external systems like a third-party VMS. It does not provide access to the web interface.

These passwords match across all devices that OvrC Pro claims for your system.

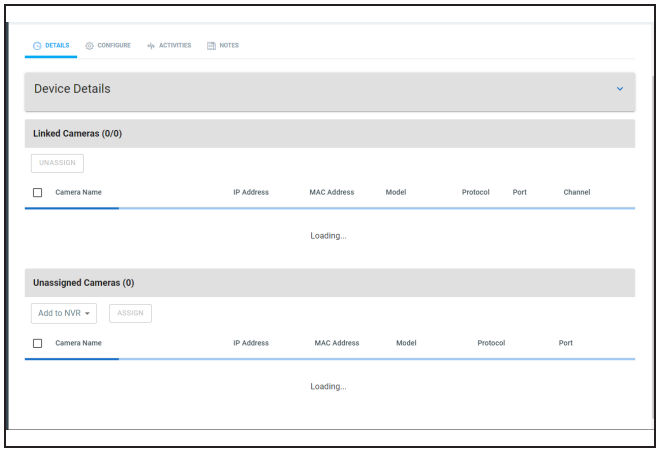
Since your passwords are generated automatically and randomly, your system is already secured, and you can immediately begin customization.

Fetch the NVR's Cameras

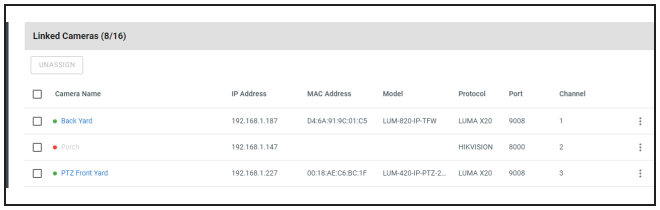
In OvrC, go to the Devices tab, then click the NVR to go to the NVR's Details tab.



You'll see the message *Loading…* under the Linked Cameras and Unassigned Cameras sections as OvrC scans the network for all available cameras that can connect to the NVR.



Once OvrC has finished scanning, it populates camera data, including a dot to the left of each camera to show its status.

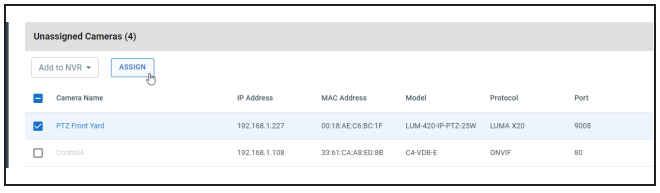


- **Linked Cameras:** The top section shows all x20 cameras connected to the NVR's PoE ports. X10 cameras also show, but with less information. Third-party cameras using ONVIF should also show. OvrC activates all cameras in this section and sets them up with the same passwords that the NVR uses.
- **Unassigned Cameras:** This section shows all cameras connected to your network that can connect to the NVR. Cameras here are either third-party cameras, older Luma cameras, or x20 cameras attached to a network switch.

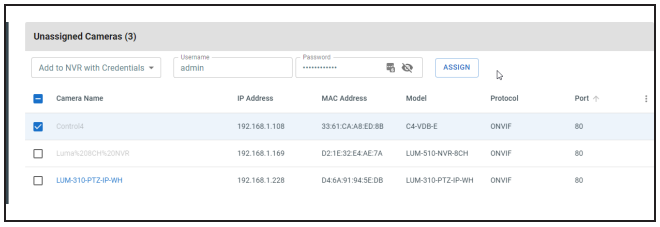
Pro Tip: If a third-party camera is not showing up as expected, manually add it using the NVR's web interface. Luma x20 NVRs are ONVIF conformant.

Adding Unassigned Cameras to the NVR

When adding cameras that have a password that matches the SupportAdmin password on the NVR, click the selection box next to the cameras, ensure "Add to NVR" shows in the dropdown, and click **Assign**. The cameras move up to the Linked Cameras section.



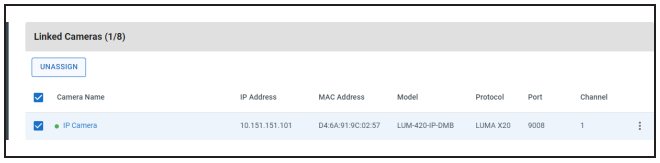
When adding a camera that does not share the NVR's password, select the camera's checkbox, and change the dropdown to "Add to NVR with Credentials". Where prompted, type the username and password for that camera, then click **Assign**. OvrC processes the transaction, and, after about 10 seconds (time enough to communicate with the OvrC servers), the screen displays the change.



The dot next to an added camera may show red (offline) for a short while. If it still shows red after 30 seconds, refresh your screen. If it still shows red, you may need to do some troubleshooting.

Removing a Camera

You can unassign a network camera listed in the Linked Camera section. Click the camera's checkbox and click **Unassign** at the top of the list. It takes a few seconds for OvrC to update the screen with the change. You cannot unassign a camera that is plugged into the NVR itself; you can only remove network cameras.



Finalize the Setup

Now that the NVR has been activated and the cameras claimed, your system is fully operational. Your NVR is set to record all cameras around the clock. But that's not what most people want.

Perform Maintenance

If your NVR or cameras have a cloud icon under the Update column, click that icon to start a firmware update. Update your NVR's firmware first and ensure the device is back online before initiating any camera updates.

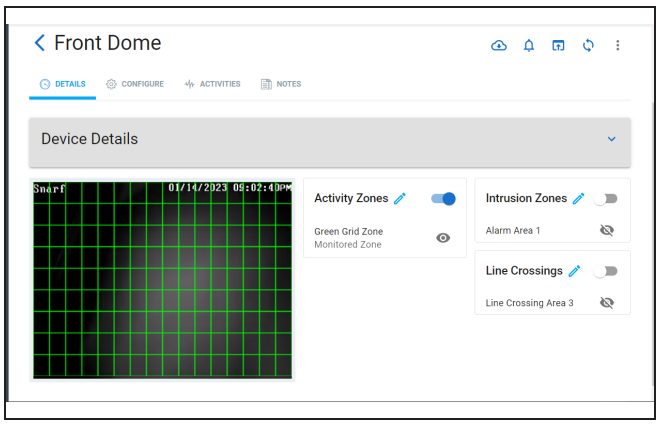
Choose a Recording Schedule

You do not need to change your recording schedule unless the install has very specific needs.

Activate Motion Events

Your NVR is already prepared to record whatever the cameras send, including motion and AI events (area intrusion, e.g.), however you must set those cameras to use events, rather than record 24/7 (which consumes a lot of disk space). For this quick-start, we'll just set up motion events.

From the NVR's Details tab, click on the camera's name in blue. Alternatively, click the camera in the OvrC Device list. Either way, you are taken to the camera's Details tab. Click on the eye icon in the area labeled Activity Zones. Check that the entire camera view is covered with a green grid.

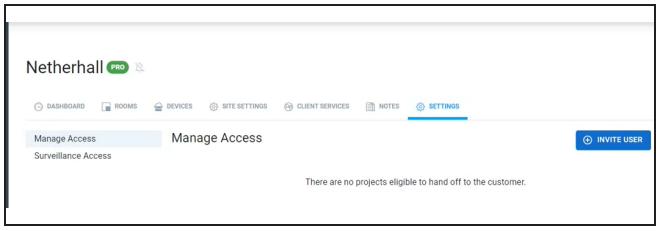


At the top right of that box, flip the toggle to enabled. Motion detection is now activated, and the camera switches from recording 24/7, to recording motion events 24/7.

Hand the System Off to the Customer

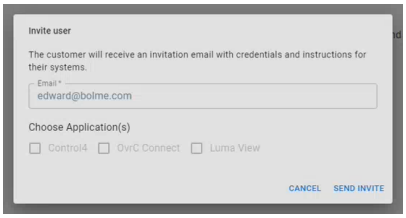
Once you have performed any additional customization, it's time to hand the system over to the customer. The hand-off process gives the customer access to the Luma View app on their mobile devices.

In the Customer page, go to the Settings tab. It opens into the Manage Access section.



Click **+ Invite User.**

The dialog loads with the customer's email (if possible, otherwise you need to enter it).



Click all the apps they need for their install.

Click **Send Invite.**

The customer then appears on the Manage Access page with the status "Validating."

What Does the Customer See?

OvrC sends an email to the customer welcoming them to OvrC Connect and Luma View. This email gives them instructions as well as a six-digit code that serves as their temporary password. Once they log in to OvrC Connect and change their password, they'll be able to download Luma View and connect to that, as well.

Video Decoupling

Video decoupling is an upcoming OvrC feature that will provide your customers with privacy and protect you from legal exposure, while still allowing you to perform maintenance on your customers' systems.

24 hours after handoff, you (as an installer) lose access to live video from the customers' cameras. You can request access for a limited time for maintenance or upgrades, but the default state will be to protect the customer's privacy.

This section of the manual will be updated once it launches.

Luma x20 OvrC Guide

OvrC gives you significant options without having to log in to each device's interface. This document assumes you have a solid understanding of how to use OvrC.

OvrC and Luma Dual Firmware

Luma x20 devices run in a dual-firmware mode to protect the hardware (and your installs) from unforeseen glitches.

Once the firmware has been applied to the first (operational) partition, the device goes into an observation mode to ensure the new firmware operates properly. Observation mode lasts for about ten minutes once the firmware update is completed.

Once proper function has been verified, the device applies the firmware to the second (backup) partition and logs the new firmware version with OvrC. If the new firmware fails, the device restores the backup firmware to the first (operational) partition.

As of this writing, OvrC does not track whether a Luma x20 device is in observation mode. This means that, for about ten minutes in OvrC, it looks like the firmware update didn't take, and that an update is available. If you try to update the firmware again while your Luma is in observation mode, the update will fail in OvrC but this will not impact the performance of the device.

While in observation mode, you can log in to the device's web UI to see the proper firmware version.

Jump to:

Camera Configure Tab

You can customize a given camera by clicking on the camera under the Devices page and navigating to the Configure tab.

IP Settings

Here you can change the NVR's IP address between DHCP and static. We recommend keeping your gear set to DHCP and handling all IP addresses through the router.

Click **Save** if you made changes here.

Time Settings

In this section you choose the time zone for your camera. This affects the time as it appears on your channel feeds. Changes to this setting are saved automatically.

We do not recommend changing time from the camera; if you change it from the NVR, the change propagates across all x20 cameras connected to the NVR.

Image Settings

Here you adjust the appearance of the video image.

(Left Column)

At the top left is a view of the camera's current image.

Below the image, if your camera is motorized, are buttons to adjust the zoom and focus.

At the bottom of the left column are three buttons (four if you have a varifocal camera).

- **Rotate Image** rotates the view 90° clockwise.
- **Mirror Image** flips the camera image horizontally (not accounting for any image rotation).
- **One-Key Focus** appears only if you have a motorized camera model. It lets the camera use its AI to determine the best focus value. It can be adjusted from there.

Restore Default cancels all image adjustments ever made.

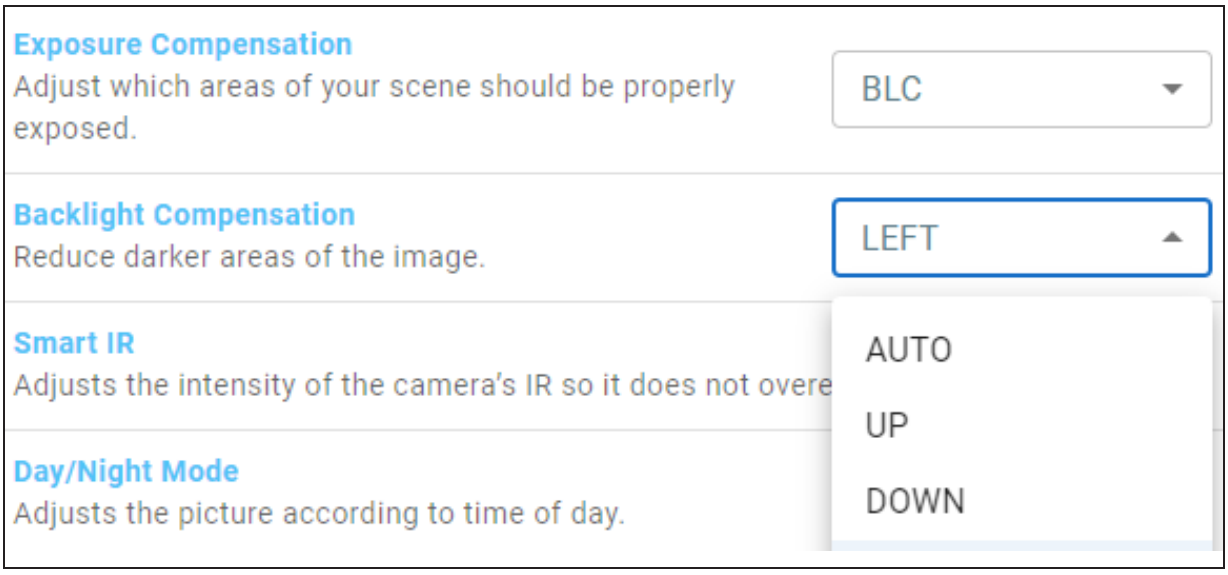
(Right Column)

The right column has a number of image settings.

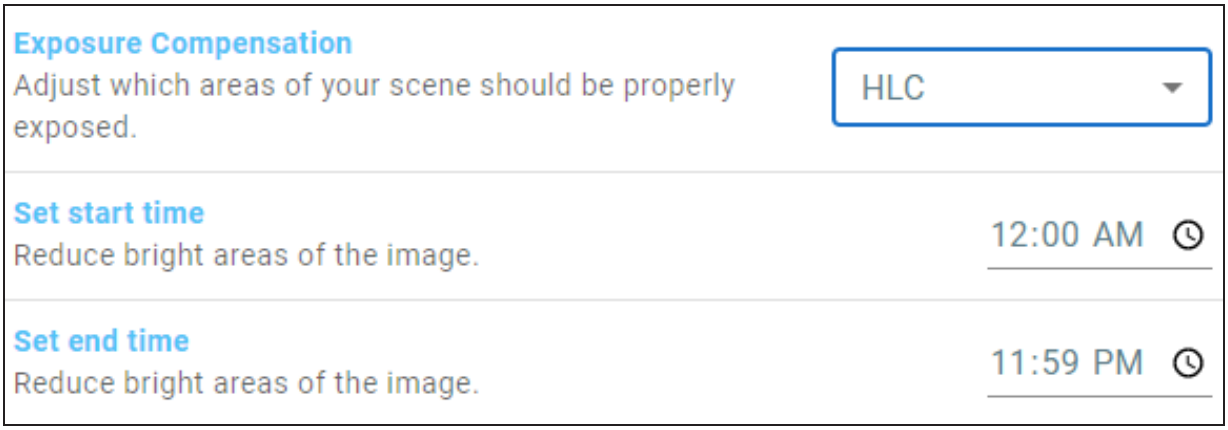
Image Sliders: Adjust the sliders either by clicking on the track, or clicking and dragging the dot. When dragging, the image does not change while your mouse button is down.

Exposure Compensation compensates for areas with uneven lighting. You can choose one of the following options:

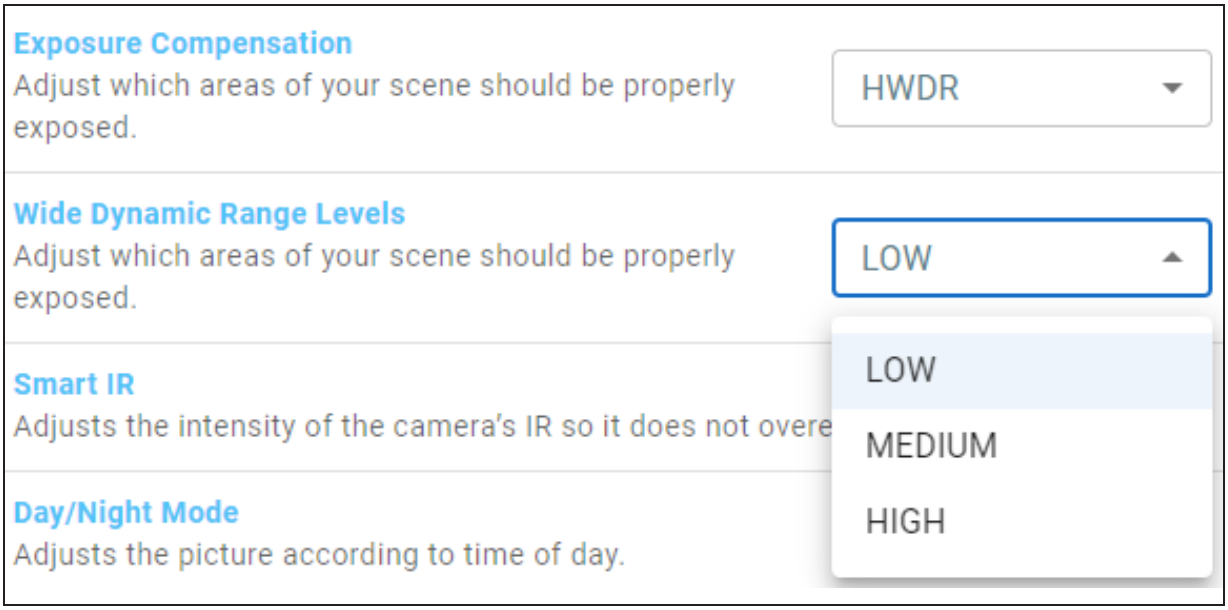
- **BLC** is backlight compensation. It adjusts for areas where the backlight is strong, making areas that are too dark brighter. When BLC is selected, a new option appears below: Backlight Compensation. Here you select which area of the screen has the backlight. To preserve a natural look, BLC affects the look of the whole screen.



- **HLC** is high light compensation. It adjusts for areas where the light is too strong, making areas that are too bright darker. It is most commonly used to compensate for IR light that is too close to the subject. When HLC is selected, two new options appear below: Set start time and Set end time. Here you select when HLC is active.



- **HWDR** stands for hardware wide dynamic range (that is, WDR that happens immediately, not in post-processing). If your image usually contains both bright and dim areas, this brings everything toward the middle. When HWDR is selected, a new option appears below: Wide Dynamic Range Levels. Here you choose how much HWDR adjusts your camera image.



Smart IR uses the camera's AI to ensure the IR image does not wash everything out.

Day/Night Mode lets you (or the camera) decide how to deal with the ambient light.

IR Mode sets the method the camera uses to add IR light to boost the image visibility.

White Balance customizes the way that colors appear in the image.

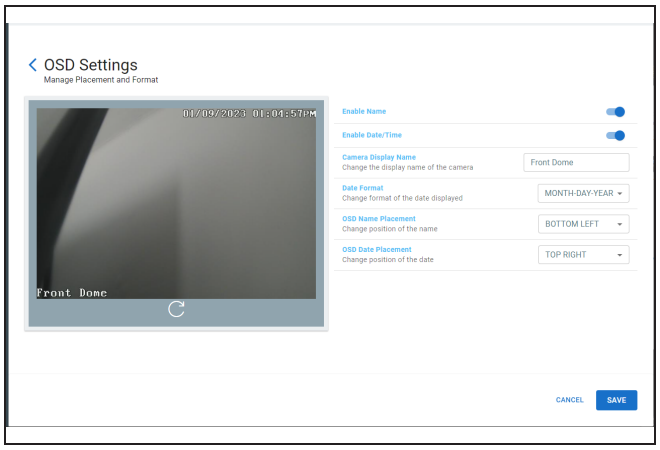
Scheduled Reboot

Use this toggle to set a time for your camera and reboot. Use the dropdown to choose a day of the week (or all days). You can directly edit the time.Changes to this setting are saved automatically.

On Screen Display Settings

Here you set what additional information appears on the camera's channel, and where on the screen it appears.

Click the refresh icon below the camera view image to reset the display to the current specs.



SD Card Settings

If you installed an SD card in your camera, you can customize its use here. The SD card is used only for scheduled recording only; it does not record motion or AI events.

Changes to these settings are saved automatically.

Enable Recording: This toggle determines whether or not you use the SD card.

Overwrite SD Card: Here you decide whether your camera will overwrite old data on the SD card when it gets full.

Recording Stream: Choose which stream you want to use. The main stream is the full resolution feed. The sub stream is a lower-resolution stream used when viewing multiple cameras simultaneously on your NVR or through LumaView. The third stream is optimized for use with control systems, and is typically the stream with the lowest bandwidth.

Pre-recording Time: Your camera always has several seconds of current video in memory; it uses this to analyze for motion. When motion is detected, the camera can add a few seconds of this video to the start of the motion recording to provide some context.

Format SD Card: Click Format to prepare a new SD card for use.

Schedule: Here you choose when you want the video feed to be recorded to the SD card.

Camera Credentials

The passwords for SupportAdmin (your technicians) and System Connect (end users) are found here. You cannot change these usernames or passwords. Icons are also available to copy the username and password to your clipboard.

Video Quality

Use the dropdown to adjust your video quality to your network capacity. Changes to this setting are saved automatically. The Custom option activates if you make changes to the stream in the camera's or NVR's web interface.

Microphone / Audio Input

OvrC detects your camera model. If your camera has a built-in microphone or a microphone jack in its tail, this section is labeled Microphone. Otherwise, it's labeled Audio Input.

You can toggle audio operation on and off here, as well as adjust sound sensitivity. Changes to these settings are saved automatically.

Apply Video Quality Settings

This applies the Video Quality setting (above) to all x20 cameras that you select.

Camera Details Tab

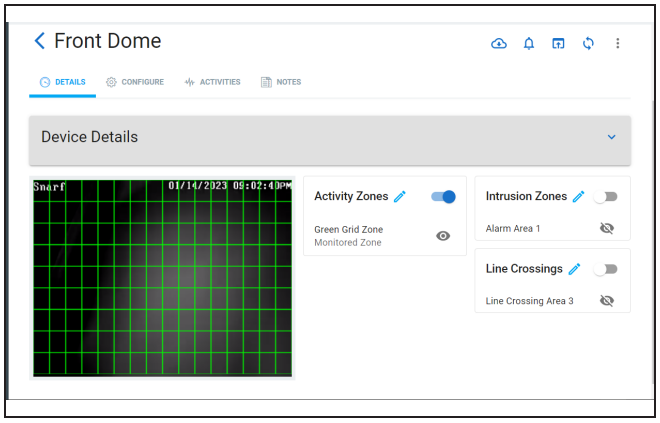
You can customize the operations of a given camera by clicking on the camera under the Devices page and navigating to the Configure tab.

The left side of this page shows a (reasonably) current view from the camera.

To the center and right, control boxes allow you to manage the following:

Activity Zones

These are where the camera checks for basic motion events.



Click the toggle on the right to activate or deactivate the use of activity zones. Click the eyeball icon to display all zones currently defined (the eyeball icon does not appear if no zones are configured).

Click the pencil icon to create or edit zones. This opens the Create Activity Zone window.

The camera divides its view into a grid of squares, 9 rows tall and 16 columns wide. The activity zone is the collection of these squares that the camera uses when detecting motion.

Under **Zone Controls**, select whether you are adding squares or removing squares from the activity zone. Click and drag in the camera view image to add or remove squares from being analyzed. Click Select All to use the entire view, or Clear All to use none of the camera's field of view.

Sensitivity determines how readily the camera decides if something is motion. You can have multiple activity zones each using different motion sensitivities. To create such zones, first set the sensitivity level (note that the color of the sensitivity slider likewise changes as you adjust it), then draw your box. The color of the box matches that of the sensitivity level.

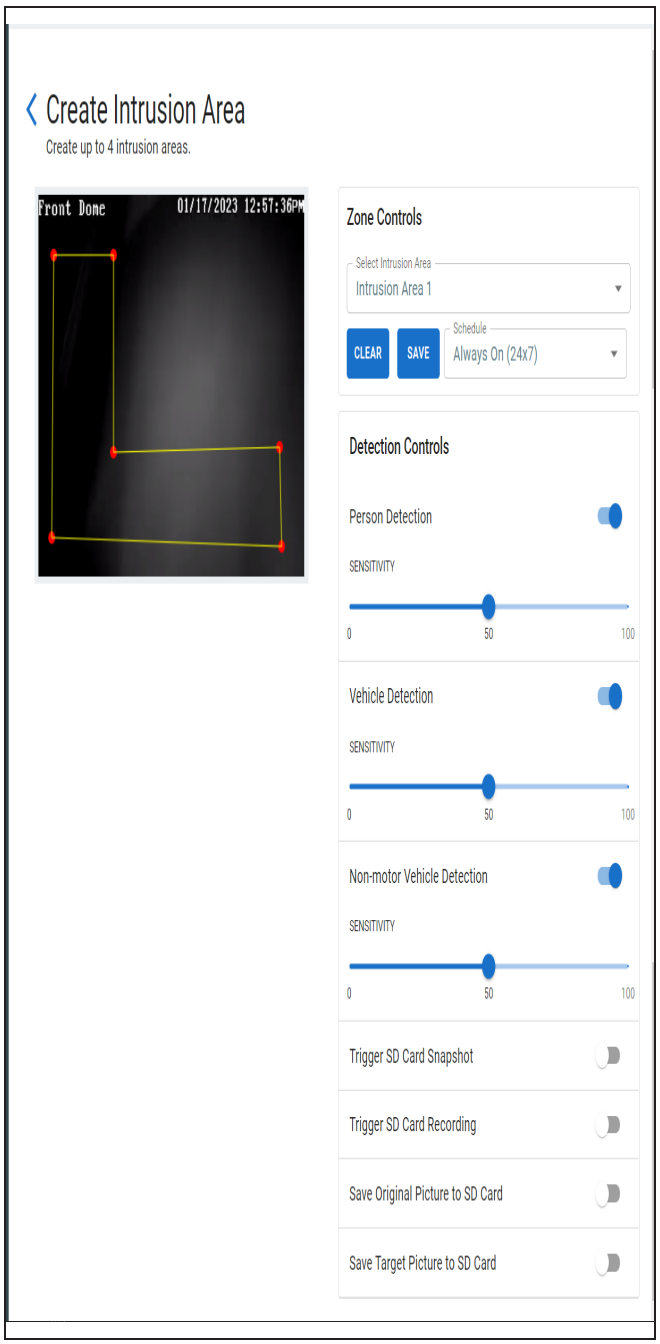
Choose your schedule preference from the dropdown.

Under **Detection Controls**, adjust the SD settings as desired to cover for low hard disk space, or to ensure against a network outage.

Click **Save** before exiting.

Intrusion Zones

The camera can use AI to determine whether someone enters the marked area. Intrusion cannot be used if line crossing (below) is being used.



Once you have created an intrusion zone, click the toggle on the right to activate or deactivate the use of intrusion zones. Click the eyeball icon to display all zones currently defined (the eyeball icon does not appear if no zones are configured).

Click the pencil icon to create or edit zones. This opens the Create Intrusion Area window.

Under **Zone Controls**, select which of the 4 zones you want to modify. Each zone has six corners; click in the camera view image to add each corner one at a time. If you want fewer than six corners, make the corners you want, then click **Stop Draw.** The camera will complete your shape when you click **Save.**

You cannot edit a zone; you must instead click **Clear** and start a new one.

If you don't want to use the default of 24/7 recording, choose your schedule preference from the dropdown. Click Clear to delete the selected zone.

Under **Detection Controls**, choose whether to analyze for people, vehicles, or non-motor vehicles like bikes. Set the sensitivity levels, then test your settings for efficacy.

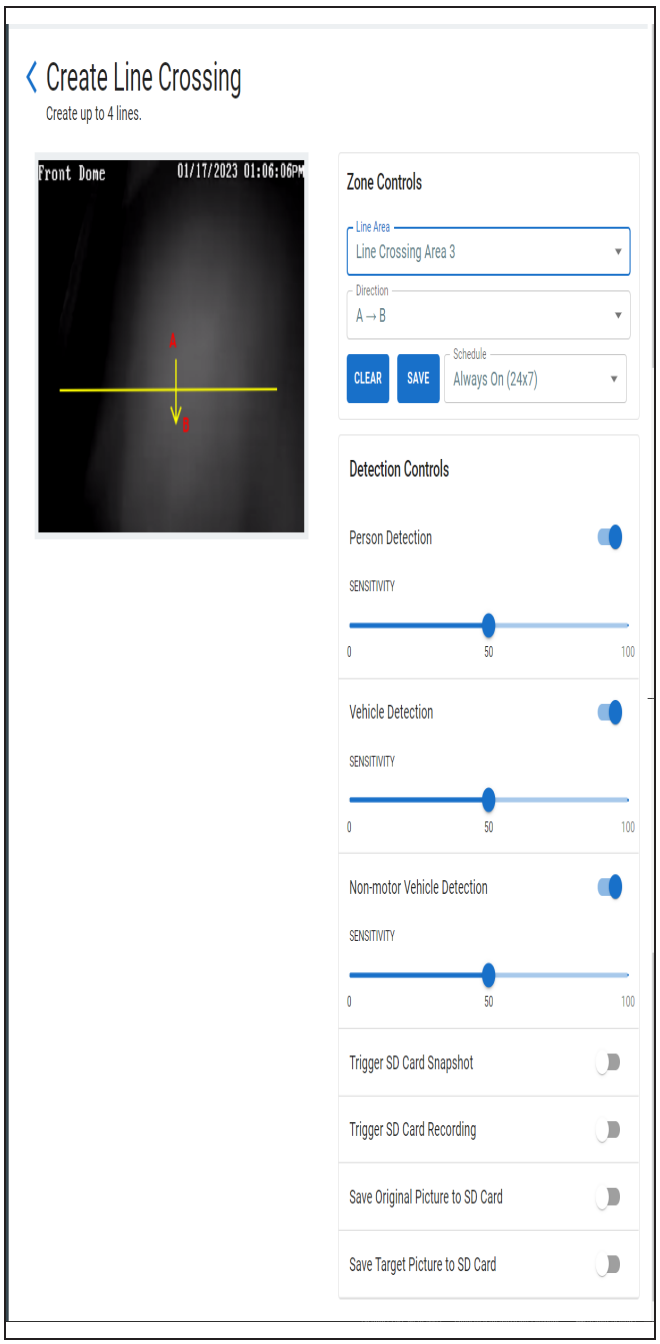
Adjust the SD settings as desired to cover for low hard disk space, or to ensure against a network outage.

- **Save Original Picture:** This saves the complete image of the moment that the event was triggered.
- **Save Target Picture:** This saves just a cutout of the target object that triggered the event.

Click **Save** before exiting.

Line Crossings

The camera can use AI to determine whether something crosses a line. Line crossing cannot be used if area intrusion (above) is being used.



Click the toggle on the right to activate or deactivate the use of lines. Click the eyeball icon to display all lines currently defined (the eyeball icon does not appear if no lines are configured).

Click the pencil icon to create or edit lines. This opens the Create Line Crossing window.

Under **Zone Controls**, select which of the 4 lines you want to modify. Click and drag in the camera view image to create the line. You cannot edit a line; as soon as you click in the camera view, it erases any old line and starts a new one.

If you don't want to use the default of 24/7 recording, choose your schedule preference from the dropdown. Click Clear to delete the selected line.

Under **Detection Controls**, choose whether to analyze for people, vehicles, and/or non-motor vehicles like bikes. Set the sensitivity levels, then test your settings for efficacy.

Adjust the SD settings as desired to cover for low hard disk space, or to ensure against a network outage.

- **Save Original Picture:** This saves the complete image of the moment that the event was triggered.
- **Save Target Picture:** This saves just a cutout of the target object that triggered the event.

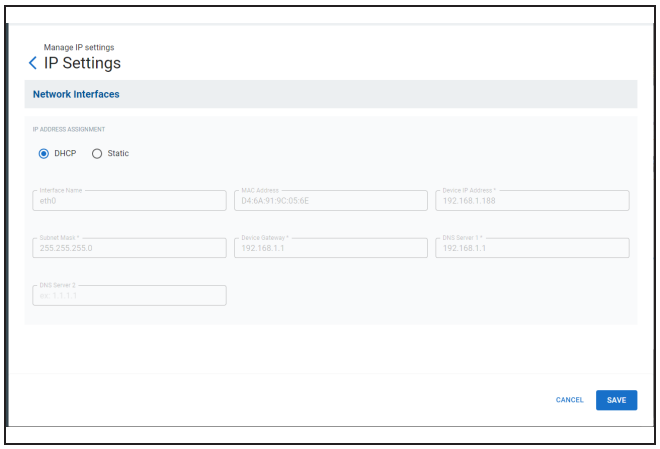
Click **Save** before exiting.

NVR Configure Tab

You can customize your NVR by clicking on the NVR under the Devices page and navigating to the Configure tab.

IP Settings

Here you can change the NVR's IP address between DHCP and static. We recommend keeping your gear set to DHCP and handling all IP addresses through the router.



Time Settings

In this section you choose the time zone for your NVR. This affects the time as it appears on your channel feeds.

Channel Settings

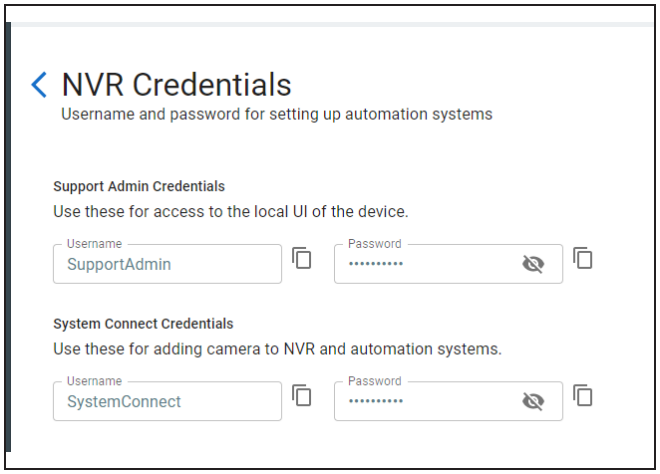
This page displays all of the NVR's channels. You can directly edit the channel name here. This changes the camera name that shows on the OSD. It does not change the name of the camera as shown in OvrC's device list.

Disk Management

This lists details of each hard drive in your NVR. If you have installed a new hard drive, you can format it for use by clicking Format Disk.

NVR Credentials

The passwords for SupportAdmin and SystemConnect are found here. You cannot change these usernames or passwords. Icons are available to copy the username and password to your clipboard.



Enable Recording

This toggle turns recording off or on.

Overwrite Hard Drive

This toggle determines whether the NVR can overwrite old surveillance data when the hard drive gets full.

Technical Support

For chat and telephone, visit snp1.co/techsupport • Email: TechSupport@SnapOne.com. Visit snp1.co/tc for discussions, instructional videos, news, and more.

Warranty and Legal Notices

Find details of the product's Limited Warranty and other resources such as regulatory notices and patent and safety information, at snapone.com/legal or request a paper copy from Customer Service at **866.424.4489**.

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