

User Guide

v. 23.04M



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WARNING: To reduce the risk of electric shock do not remove the cover, no user-serviceable parts inside.
Refer servicing to qualified service personnel.

WARNING: To prevent fire or shock hazards, do not expose the NVR system & power adapters to rain or moisture.

CAUTION: To prevent electric shock, match the wide blade of the plug to the wide slot and fully insert.

Important Safeguards

In addition to the careful attention devoted to quality standards in the manufacturing process of your product, safety is a major factor in the design of every instrument. However, safety is your responsibility too. This sheet lists important information that will help to ensure your enjoyment and proper use of the product and accessory equipment. Please read them carefully before operating and using your product.

General Cautions

1. All warnings and instructions in this manual should be followed.
2. Remove the plug from the outlet before cleaning. Do not use liquid aerosol detergents. Use a water-dampened cloth for cleaning.
3. Do not use this product in humid or wet places.
4. Keep enough space around the product for ventilation. Slots and openings in the storage cabinet should not be blocked.
5. It is highly recommended to connect the product to a surge protector to protect from damage caused by electrical surges. It is also recommended to connect the product to an uninterruptible power supply (UPS), which has an internal battery that will keep the product running in the event of a power outage.

Installation

1. **Read and Follow Instructions:** All the safety and operating instructions should be read before the product is operated. Follow all operating instructions.
2. **Retain Instructions:** The safety and operating instructions should be retained for future reference.
3. **Heed Warnings:** Comply with all warnings on the product and in the operating instructions.
4. **Polarization:** Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
5. **Power Sources:** This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your location, consult your video dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
6. **Overloading:** Do not overload wall outlets or extension cords as this can result in the risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard. Periodically examine the cord, and if its appearance indicates damage or deteriorated insulation, have it replaced by your service technician.
7. **Power-Cord Protection:** Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
8. **Surge Protectors:** It is highly recommended that the product be connected to a surge protector. Doing so will protect the product from damage caused by power surges. Surge protectors should bear the UL listing mark or CSA certification mark.
9. **Uninterrupted Power Supplies (UPS):** Because this product is designed for continuous, 24/7 operation, it is recommended that you connect the product to an uninterrupted power supply. An uninterrupted power supply has an internal battery that will keep the product running in the event of a power outage. Uninterrupted power supplies should bear the UL listing mark or CSA certification mark.
10. **Ventilation:** Slots and openings in the case are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surfaces. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the product manufacturer's instructions have been followed.
11. **Attachments:** Do not use attachments unless recommended by the product manufacturer as they may cause a hazard.
12. **Water and Moisture:** Do not use this product near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, near a swimming pool, and the like.
13. **Heat:** The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
14. **Accessories:** Do not place this product on an unstable cart, stand, tripod, or table. The product may fall, causing serious damage to the product. Use this product only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Any mounting of the product should follow the manufacturer's instructions and use a mounting accessory recommended by the manufacturer.
15. **Camera Extension Cables:** Check the rating of your extension cable(s) to verify compliance with your local authority regulations before installation.
16. **Mounting:** The cameras provided with this system should be mounted only as instructed in this guide or the instructions that came with your cameras, using the provided mounting brackets.
17. **Camera Installation:** Cameras are not intended for submersion in water. Not all cameras can be installed outdoors. Check your camera environmental rating to confirm if they can be installed outdoors. When installing cameras outdoors, installation in a sheltered area is required.

Statement

Though we apply all efforts to make the manual complete and accurate, there could still be some discrepancies due to the products' timely updates.

The products and manual are subject to change without previous notification.

The content in this manual is only for users' reference. We don't promise it's the same with the products you purchase.

Detailed information is per the final products.

The accessories and parts mentioned in this manual are only for product using guide purposes and not necessarily to be included in your purchased item.

About default settings

The default username for NVR is **admin** (administrator ID)

The default password for account admin is '**blank**', which means no password.

The default setting of NVR is to overwrite the oldest recorded videos when the hard drive is full.

The device will start Setup Wizard by default when NVR is powered on.

FCC Compliance Statement

These limits are designed to provide reasonable protection against frequency interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed or used following the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in television reception, which can be determined by turning the equipment off and on.

The user is encouraged to try and correct the interference by one or more of the following measures:

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

Caution!

The Federal Communications Commission warns the user that changes or modifications to the unit not expressly approved by the party responsible for the compliance could void the user's authority to operate the equipment.

Proposition 65 Warning for California Consumers

WARNING: This product can expose you to chemicals including Polybrominated biphenyls which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

Foot Note

1. Internet and Smart device access requires a router and High-Speed Internet connection with a minimum of 5 Mbps upload speed. If your NVR is not connected to the Internet, You will not be able to remotely view your system on your Smart Device or PC/MAC®. May require a free firmware update.
2. The NVR and Push Alerts are currently accessible on iPhone, iPad, and Android™ running on 4G/5G Smart Device. Crystal Vision® doesn't charge monthly fees to view or control your NVR over the Internet and/or Smart Device. Carrier fees and charges may apply.
3. IP-PRO Apps are free downloads compatible with Apple® and Android™ device only. The App and Smart Devices are compatible at the time of manufacturing. Future Apple® and Android™ updates may affect the App experience.
4. 300 ft wireless range when cameras are within direct sight of the NVR with no Obstructions.
5. Night vision range up to 100 ft. under ideal conditions. Objects at or beyond this range may be partially or completely obscured, depending on the camera position.
6. Video streaming may be subject to interruptions or failure for reasons beyond Crystal Vision's control, such as intermittent WiFi or service provider outages. All features require ideal conditions and the latest firmware updates to provide accurate results.
7. Recording capacity may vary. The size of your pre-installed Hard Disk Drive (HDD) will affect recording capabilities. Optimal recording based on using the lowest recording quality settings with one camera.
8. Crystal Vision does not provide third -party monitored emergency notification or response.
9. Human Detection Technology is only compatible with select models.
Please refer to www.cvtus.com for more compatibility information.

Disclaimer

Certain uses, publication and/or distribution of video/audio recordings from security cameras and/or audio devices are prohibited or restricted by federal, state and local laws. When enabling and/or using audio recording features with your hidden security camera, be sure to comply with the laws in your country, state, and locality.

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■ Before You Start...

1. Please read all the manuals before you start.
2. Test the cameras before installing. Check for signal strength and adjust the location of cameras or the location of the system before you mount cameras.
3. Please use the power surge protector and make sure that all the connections are secure from the elements.
4. Although the cameras are rated at IP65, it is recommended that you mount the cameras under protection(e.g., overhang) so that it is not exposed to direct sunlight and other elements.

■ Basic Operation

1. Right Mouse Click: Main Menu(or close the window without saving changes).
2. Left Mouse Click: Make a selection.
3. Click Apply to save changes.
4. It is recommended to set up a password for Admin(default user).
 - * The default password is blank - no password
 - ** 6-8 Alpha-Numeric characters are recommended.
 - *** You may use the space below to record your password:

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I. Getting Ready

We strongly recommend that you install the cameras after the initial testing and setup.

Please have the system and the cameras next to each other for testing.

Please remember that most of the settings can be changed later in the System Setup.



1. NVR (Network Video Recorder)

1. Please attach the antennas (two black antennas) to the NVR.
2. Connect the power adapter(12V3A).
3. Connect the USB mouse.
4. Turn the power on the NVR.

For Non-Built-In Monitor Models (e.g., CVT808N), please connect a Monitor or TV with HDMI or VGA cable.

When you first turn on the NVR, the Setup Wizard will start.

Please follow the NEXT PAGE to set up the system. It is the most efficient way to get your system going.

Please note that all the settings can be changed later.



Audio Out
HDMI Port
Ethernet Port
USB Port
Power Switch
AC Power In

2. Camera

1. Please attach the antenna (White antenna) to the camera.
2. Connect the power adapter (12V1A).
3. Use the included power extension cable if necessary.

Please have the cameras close to the NVR and make sure that all cameras are powered up.



II. Setup Wizard

The Setup Wizard will be launched on the first boot-up. If not, please launch the Setup Wizard from the main menu.

1. WiFi Network Setup

If you are connecting the NVR to your Home WiFi router/network, please check Enable and follow the steps below.

1. Click Wireless Network Settings and you are trying to connect from the table.
2. Confirm the WiFi Name and type in the password.
3. Click **Connect** then Click **Next step**.

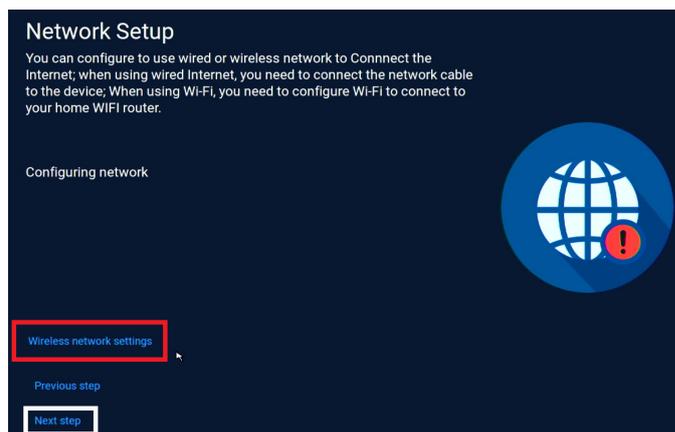
2. General Setup

1. Please select your **Time Zone**.
(E.g., Eastern Standard is “-05:00” UTC)
2. Select your Date and Time (Please use 24-hour format for the time) then click **Save changes**.
3. Set the Date Format.
4. Click **Next step**.

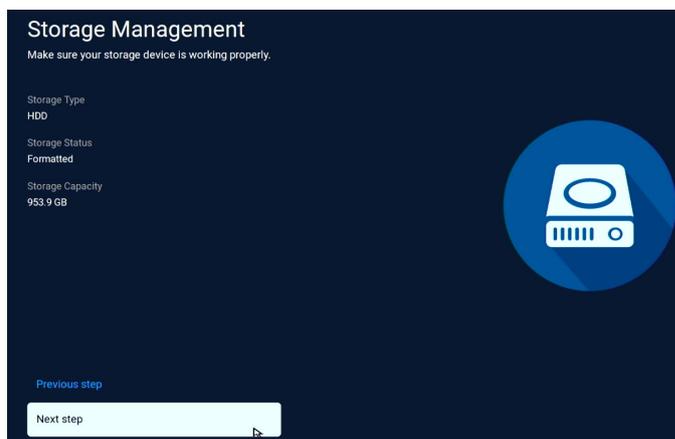
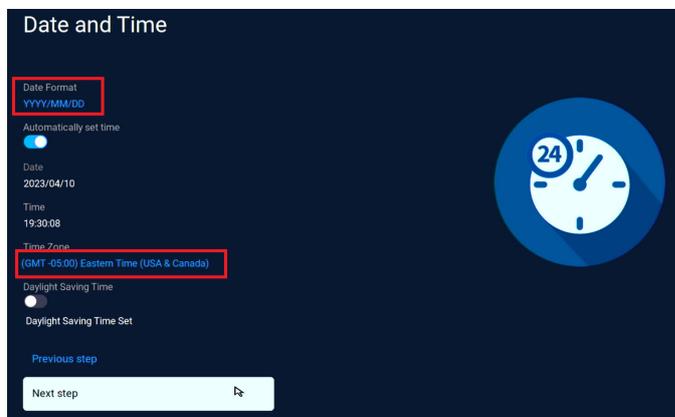
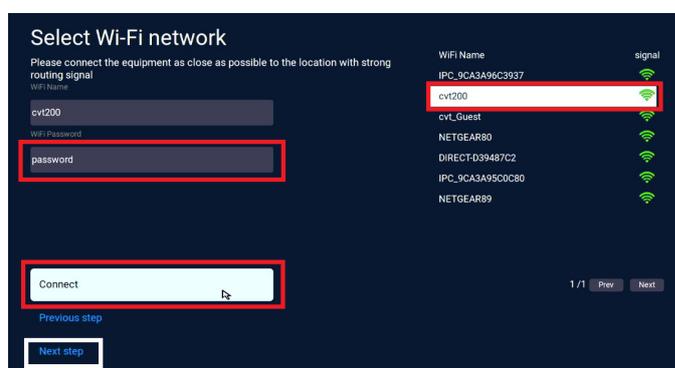
3. Storage Management

Our systems with Hard Drive will come formatted. However, it is recommended that you format the Hard Drive again.

1. Make sure that your Hard Drive is listed in the table.
2. Please check the box in the format column.
3. Click **Format** just below the table.
4. Click **Next step**.



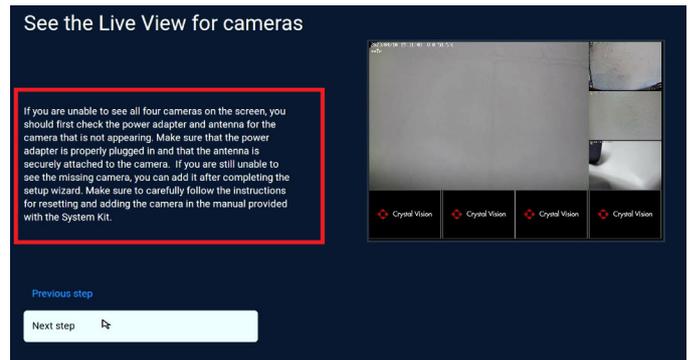
Connecting NVR to Home WIFI Router



4. See the Live View for Cameras

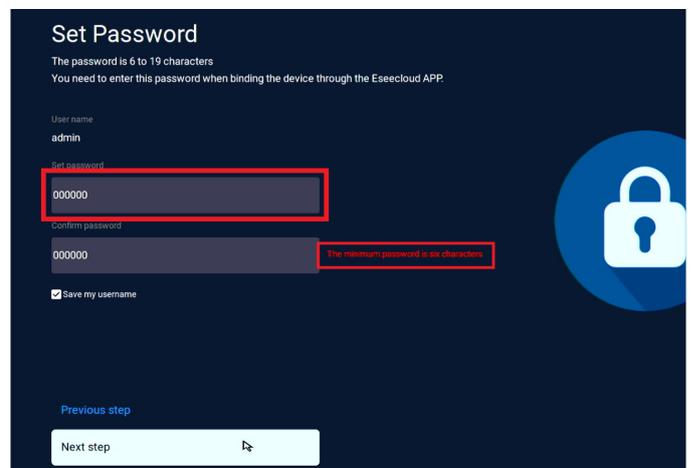
After the camera has started up, you will be able to see the live view of paired camera(s).

1. If you are unable to see all four cameras, there may be an issue with connectivity of the cameras.
2. However, you can add a camera later after completing the setup wizard.
3. To proceed, click on the “Next step” button.



5. Set Password

1. Please enter a password with 6 to 19 characters in length.
2. This password will be required when binding the device through the Eseecloud App. If the connection was successful, the network Status will show **Healthy Network**.
3. Once you have entered the password, click on the “Next Step” button to proceed.

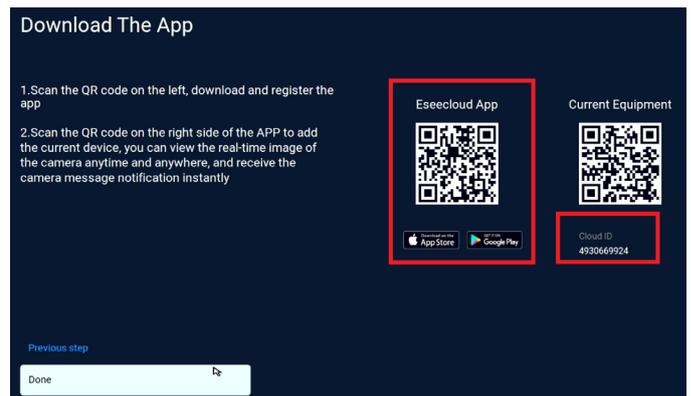


6. Download the App & Setup the Remote View

1. This setup page is intended for setting up remote view on your mobile device. However, if you prefer, you can also set up remote view on your mobile device at a later time.
2. Click **Done**.

To set up the remote view, please visit our website: <https://www.cvtus.com/support/>

Your system is now ready for installation. However, we strongly recommend you move the cameras and test them for signal strength before mounting them.

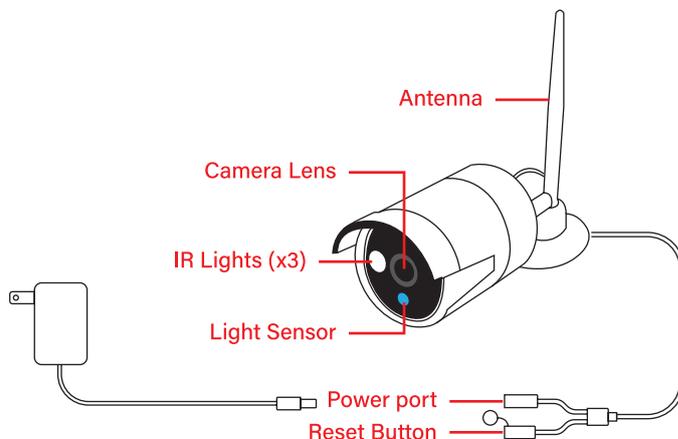


III. Camera

3MP Camera (CVT-30WB)

1. General Description

1. The camera comes with two major parts; the camera and the power adapter.
2. Please note that the camera cable has two ends: one for the power cable and the other has the Reset button inside.
3. Please make sure all the connections are tight as possible and it is recommended that you secure the connection with electrical tape as you see fit.
4. Use the included extension power cable(15 ft) if necessary. You may connect up to four extension cables(60 ft).

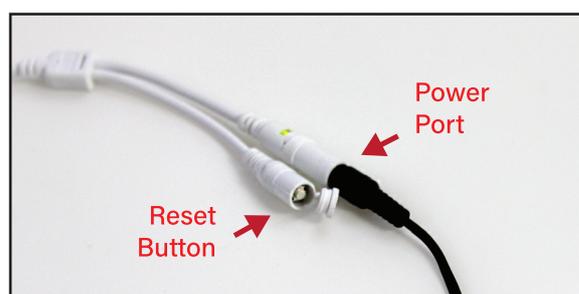
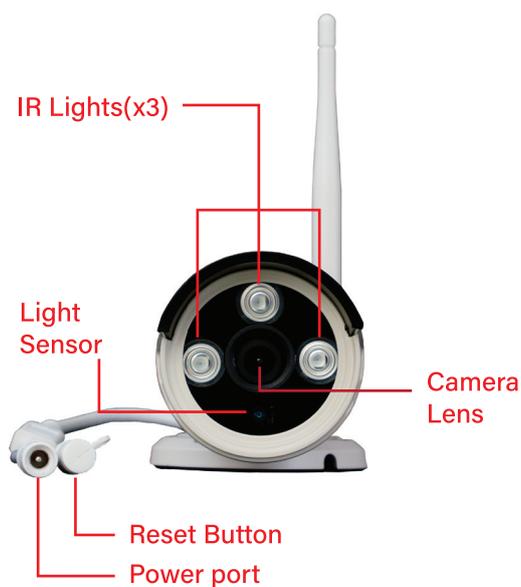


15ft Power Extension Cable



2. Basic Troubleshooting

1. If you did not get the picture on the screen, the first thing you should check is the power.
2. Please make sure that all the connections are tight. If you are using the extension power cable, please remove it and plug the camera directly into the power adapter.
3. Make sure that you are using the correct power adapter(12V 1A).
4. Please try to cover the **Light Sensor**(use your thumb for example) and see if the **IR Lights** come on.
5. Try with the other power adapter from a working camera. If the camera is working with the other power adapter, the power adapter is at fault and needs to be replaced. If you did not see the IR lights come on, the camera may need to be replaced.



Please try to protect your power source from moisture and other foreign elements.

3. Image Setting

1. Smart night vision mode allows the camera to detect motion and automatically turn on a bright floodlight when it detects any movement in its range of view.
(for CVT-35WB, CVT23PWBU Cameras only)
2. Full Color night vision mode allows the camera to capture clear and detailed video footage in low light conditions with full-color images, instead of the traditional black and white images. the camera captures the full spectrum of colors that are present in the scene, making it easier to identify objects and people.
(for CVT-35WB, CVT23PWBU Cameras only)
3. Infrared night vision mode allows the camera to capture clear and detailed video footage in low light by using infrared light to illuminate the scene.
4. Night Vision Off mode allows the camera to disable the infrared night vision function , which can be useful in situations where the camera is capturing video footage in well-lit areas.
5. Infrared always on mode keeps the infrared night vision function on at all times, regardless of the lighting conditions.

4. Panic Siren Button

(for CVT-35WB, CVT23PWBU Cameras only)

A panic siren button function on a surveillance camera is a feature that allows the camera to emit a loud and attention-grabbing siren in case of an emergency or intrusion.

1. The Panic Siren Button function on each camera is a feature that allows the user to activate a loud siren on each individual camera by pressing a button on each channel.
2. The Panic Siren Button for all connected cameras is a feature that allows the user to activate a loud siren on all cameras simultaneously by pressing a button on the main menu.

The panic siren button function is particularly useful in emergency situations, such as a break-in or fire, where time is of the essence and quick action is required. It can also be used as a deterrent to scare off potential intruders and protect the property.

Image Setting on each camera channel

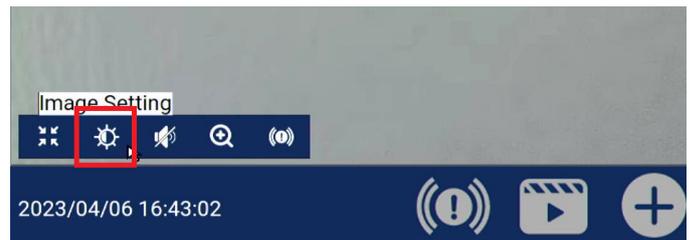
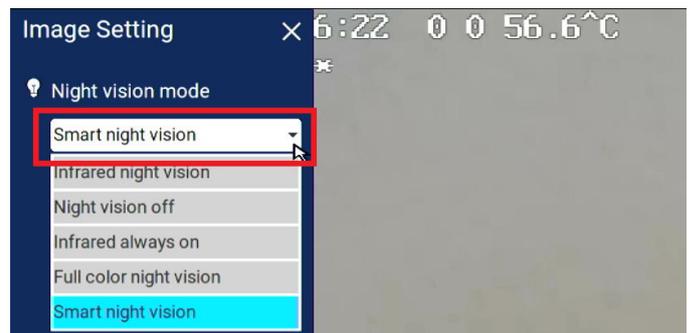


Image Setting Mode



Panic Siren Button on each camera channel



Panic Siren Button on Main Menu



5. Two way Communication (for CVT-35WB, CVT23PWBU Cameras only)

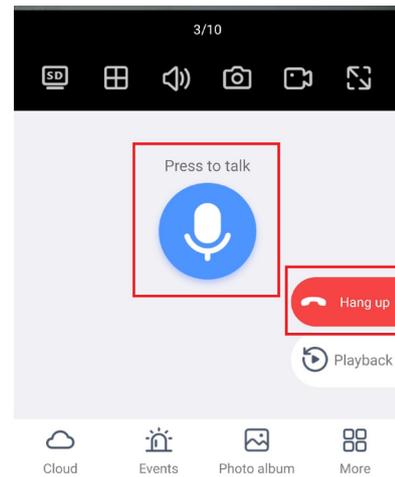
This feature enables the user to hear what is happening in the scene and to speak directly to someone in the vicinity of the camera, using a smartphone APP (Essecloud) .

1. To use the two-way communication function through the Essecloud app, you need to first connect your system to the app on your smartphone. Once your system is connected, you can select the specific camera you would like to use to speak.
2. simply press and hold the talk button in the app while speaking. Once you release the button, you can hear what the person in the scene is saying through the speaker on your phone.
3. Once the conversation is over, click the Hang up button to end the communication.

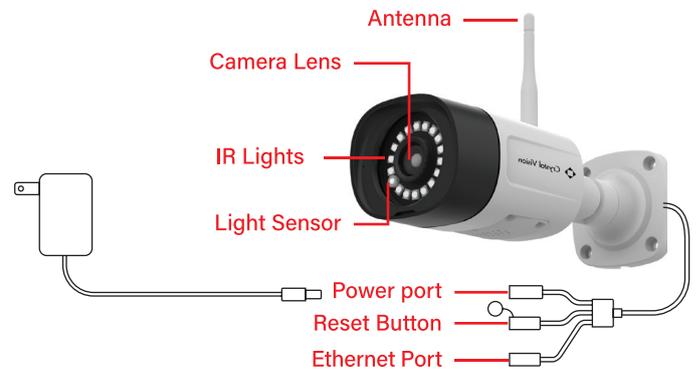
6. Audio Recording (for CVT-35WB, CVT23PWBU Cameras only)

1. Click  on Menu Bar > click Camera > Select channel you want to record audio sound > Click Keep Recording > enable Sound Recording Button.
2. Click **Save changes**.

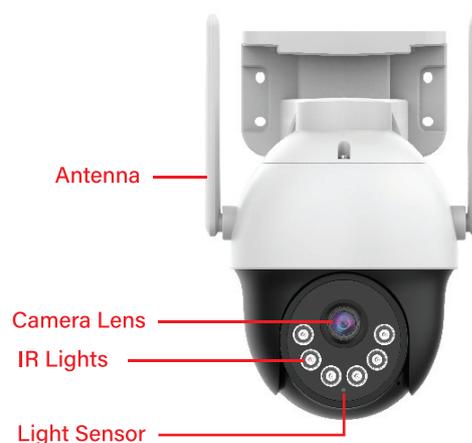
*** It's important to note that laws regarding audio recording can vary by state or jurisdiction. Therefore, it's recommended to research and follow the applicable laws and regulations in your area before using this function that record audio. Additionally, it's important to display signage to notify individuals that they are being recorded and to respect their privacy rights.



3MP Floodlight & Audio Siren Camera (CVT-35WB)



3MP Floodlight & Audio Siren PT Cam (CVT23PWBU)

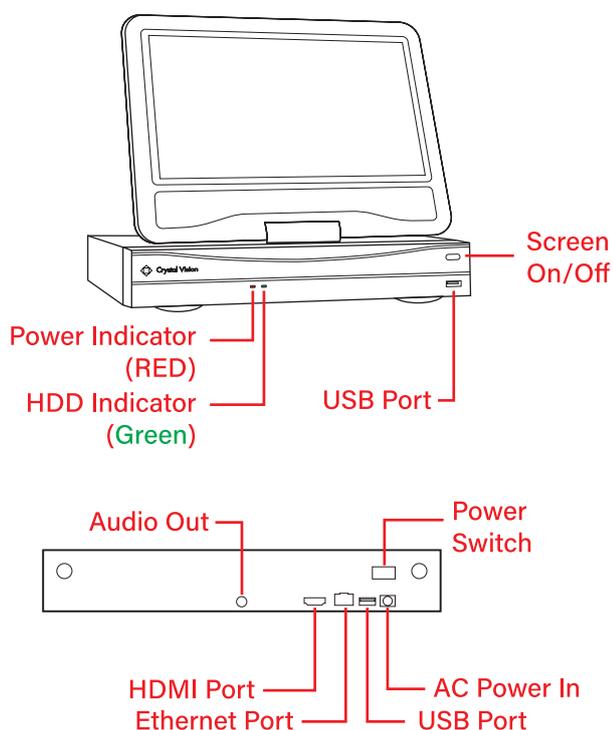


IV. NVR (Main Unit)

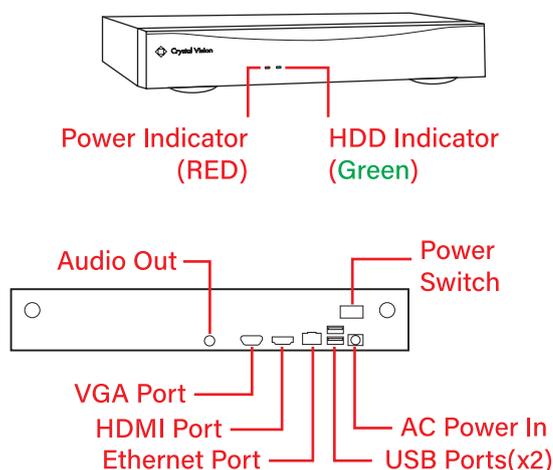
1. General Description

1. The NVR is the main unit that stores recording and enables you to control the settings.
2. Please make sure all the connections are tight as possible and it is recommended that have the unit be protected from the surge with a surge protector or UPS (Uninterrupted Power Supply).
3. We recommend turning the monitor off when not in use for a longer lifetime. If you need to monitor 24/7, please make use of an external monitor. (NVR with Built-in Monitor Models)

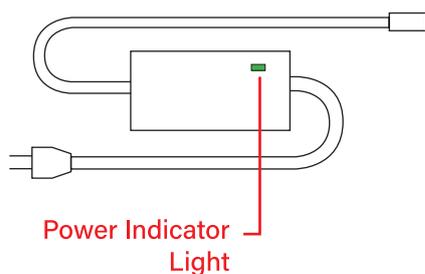
NVR with Built-in Monitor



NVR



12v 3A NVR Power Adapter



4. When powering up the NVR, make sure that the Power Indicator Light on the NVR is solid Red and the HDD Indicator is blinking Green indicating hard drive activity.
5. Please check the power adapter's Power Indicator light. This should be solid. If it is blinking or dimming, stop using the power adapter immediately. A faulty power adapter can damage your NVR system and cause a fire. Please replace the power adapter with the appropriate power supply with the following power output.

Power Supply Output: **12V3A - 5A**

Please try to use a surge protector or UPS (Uninterrupted Power Supply).

V. Record Setup

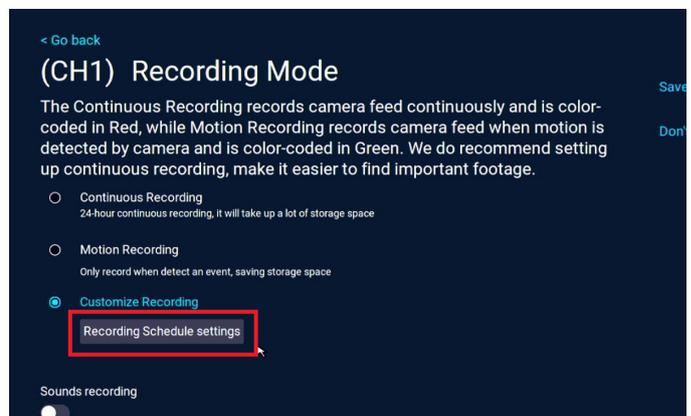
1. General Description

The NVR's main function is to record and store the recordings so that you can access them. There are two main types of recording; Continuous Recording and Motion Recording. The Continuous Recording records the camera feed continuously and is color-coded in **Red**, while the Motion Recording records the camera feed when motion is detected by the camera and is color-coded in **Green**. We do recommend setting up **continuous recording 24/7**, which make it easier to find important footage.

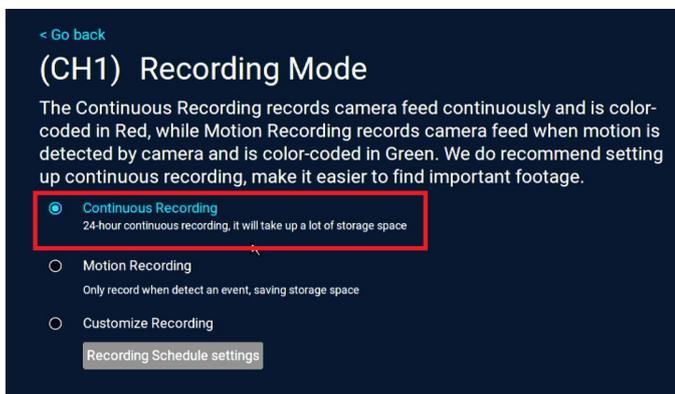
2. Customize Recording Setup

1. Click  on menu Bar > click Camera > Select channel you want to setup recording > Click Keep Recording > check customize recording > Click Recording Schedule Settings
2. Select Record mode **Continuous (Red)** or Motion (Green)
3. Click Select All or Drag and drop a specific time slot on a timetable to set a recording schedule.
4. Click **Save changes** > **Click Go back**
5. Click Copy Camera Settings and check all channels > Click Apply To apply the settings you just made to all of the cameras

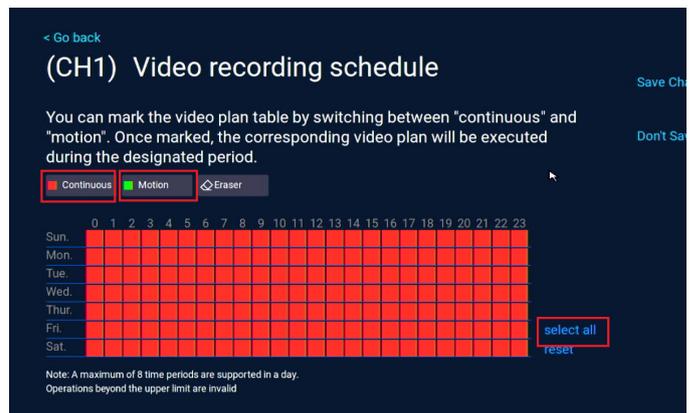
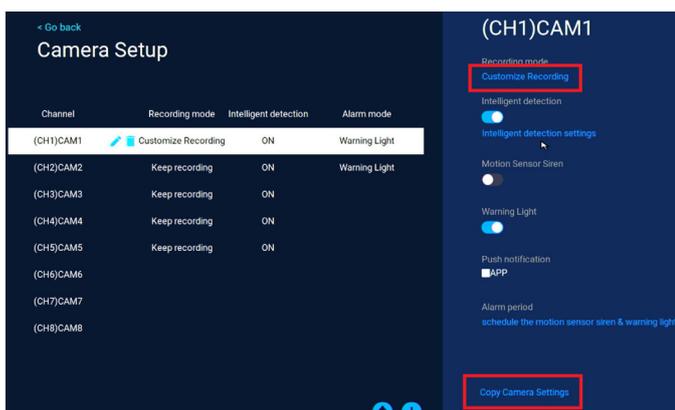
Customize Recording Schedule Settings



Continous Recording mode



Copy camera setting



* The selected mode will have solid Square.

Continuous Selected:  Continuous  Motion

Motion Selected:  Continuous  Motion

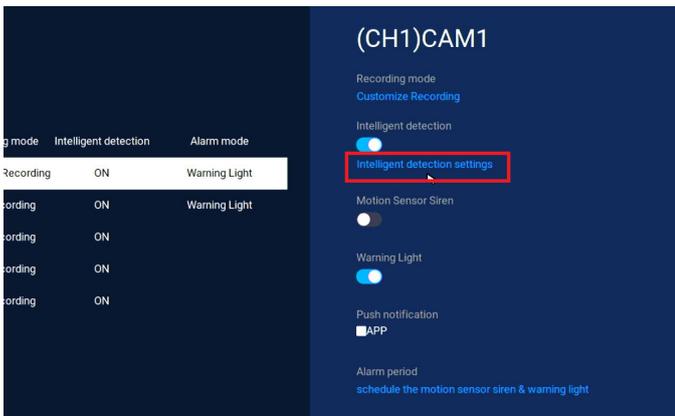
VI. Motion Detection Setup

1. General Description

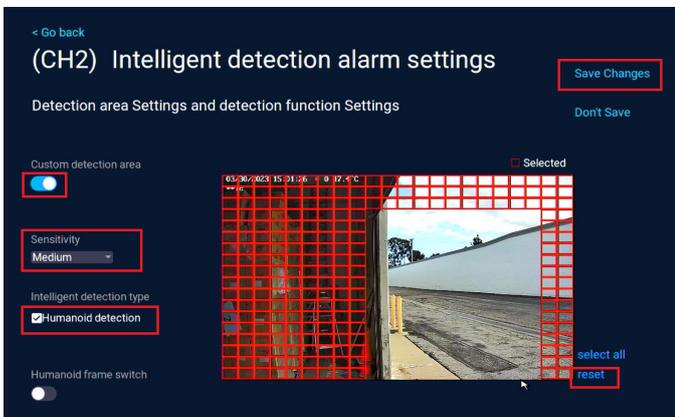
Motion detection is one of the key features that can be used to alert you and used when reviewing the recording. Motion detection has three major components: Motion Detection, Humanoid Detection, and Detection Area. Please follow the steps to get the best results.

2. Intelligent Detection Settings

1. Click  on menu Bar > click Camera > Select channel to setup intelligent Detection > enable and click Intelligent detection settings

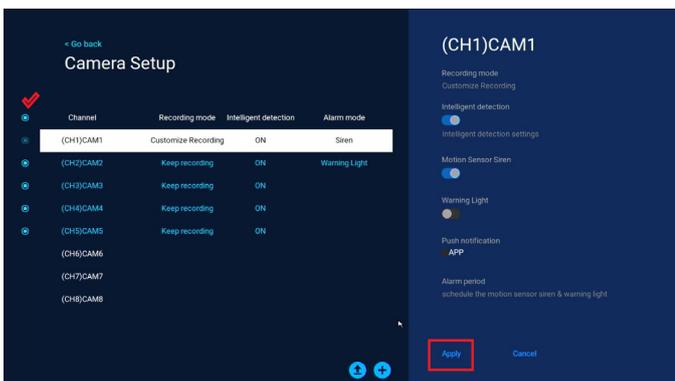


2. enable Custom detection area
3. Select **Sensitivity** - Start with the default and adjust from Low to Highest as needed.
4. Click Reset to remove RED grid. Drag and drop a specific area on the table to set a detection Area.
5. The red grid area on the Table represents the specific area where motion detection is enabled.*
6. Check the **Humanoid detection** as needed **
7. Click **save changes** > Click Go back > Click Copy Camera Settings and check all channels > Click Apply To apply the settings you just made to all of the cameras.



* The red grid area is used to define the area where the camera will detect motion. When motion is detected in this area, the camera will typically trigger an event, such as recording video footage or sounding an alarm, or Warning Light

** The Humanoid detection allows the camera to differentiate between humans and other objects or animals, which can be particularly useful in situations where it is important to monitor human activity or identify potential threats.



Tip! - To prevent false alarms caused by known objects or areas in the camera's field of view, the Detection Area function on a surveillance camera allows the user to specify an area where motion detection should be ignored, such as a sidewalk, ceiling fan, restroom, or neighbor's backyard.

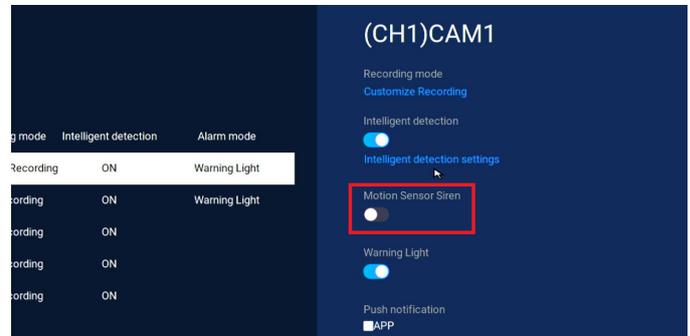
Continue >>

3. Motion Sensor Siren (for CVT-35WB, CVT23PWBU Cameras only)

When motion is detected in the camera's field of view, the motion sensor siren function can automatically trigger an alarm or siren to alert the user to the presence of potential intruders and deter them from continuing their activity.

1. Click  on menu Bar > click Camera > Select channel to setup Motion Sensor Siren > enable it.
2. Once you are done, Click Copy Camera Settings and check all channels > Click Apply To apply the settings you just made to all of the cameras.

Motion Sensor Siren



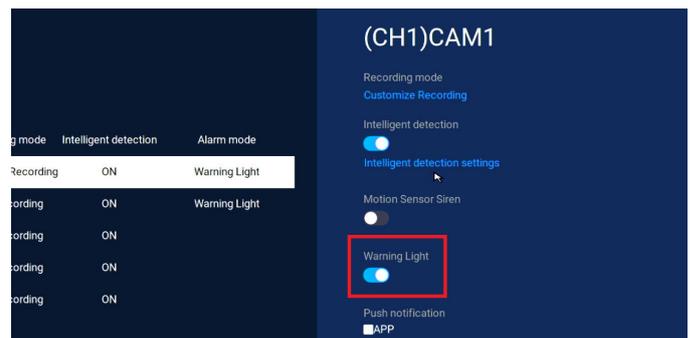
4. Warning Light

(for CVT-35WB, CVT23PWBU Cameras only)

Warning Light function on Floodlight camera is a feature that uses a bright flashing light to alert potential intruders to the presence of the camera and deter them from continuing their activity.

1. Click  on menu Bar > click Camera > Select channel to setup Warnig light > enable it.
2. Once you are done, Click Copy Camera Settings and check all channels > Click Apply To apply the settings you just made to all of the cameras

Warning light



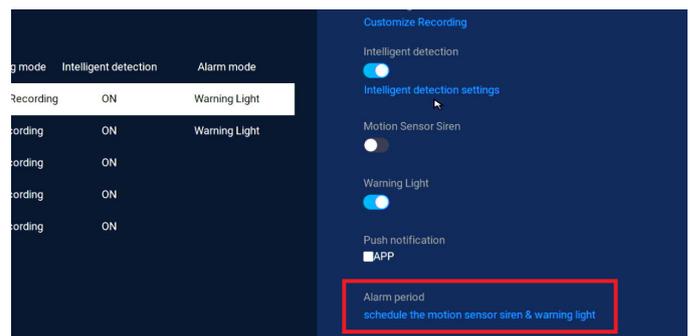
Tip! - Even if the motion sensor siren function is disabled, the panic siren button still work properly. The panic siren button is a separate feature that is designed to trigger loud siren when the button is pressed.

Alarm Period Setting

5. Alarm Period Setting

(for CVT-35WB, CVT23PWBU Cameras only)

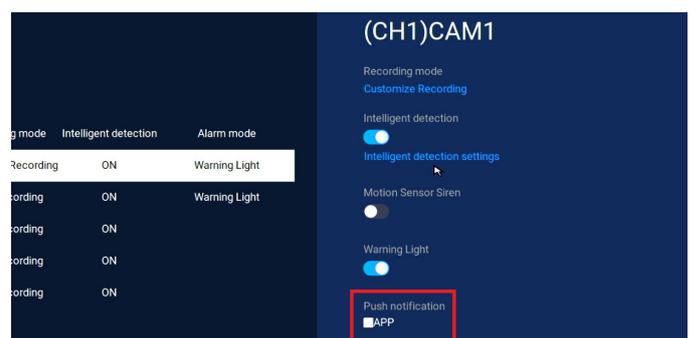
Scheduling the motion sensor siren and warning light function on the camera allows the user to customize when these features are enabled and disabled throughout the day or night. This can be useful in situations where the user want to avoid unnecessary Siren triggers during certain times of the day.



Push Notification

6. Push notification

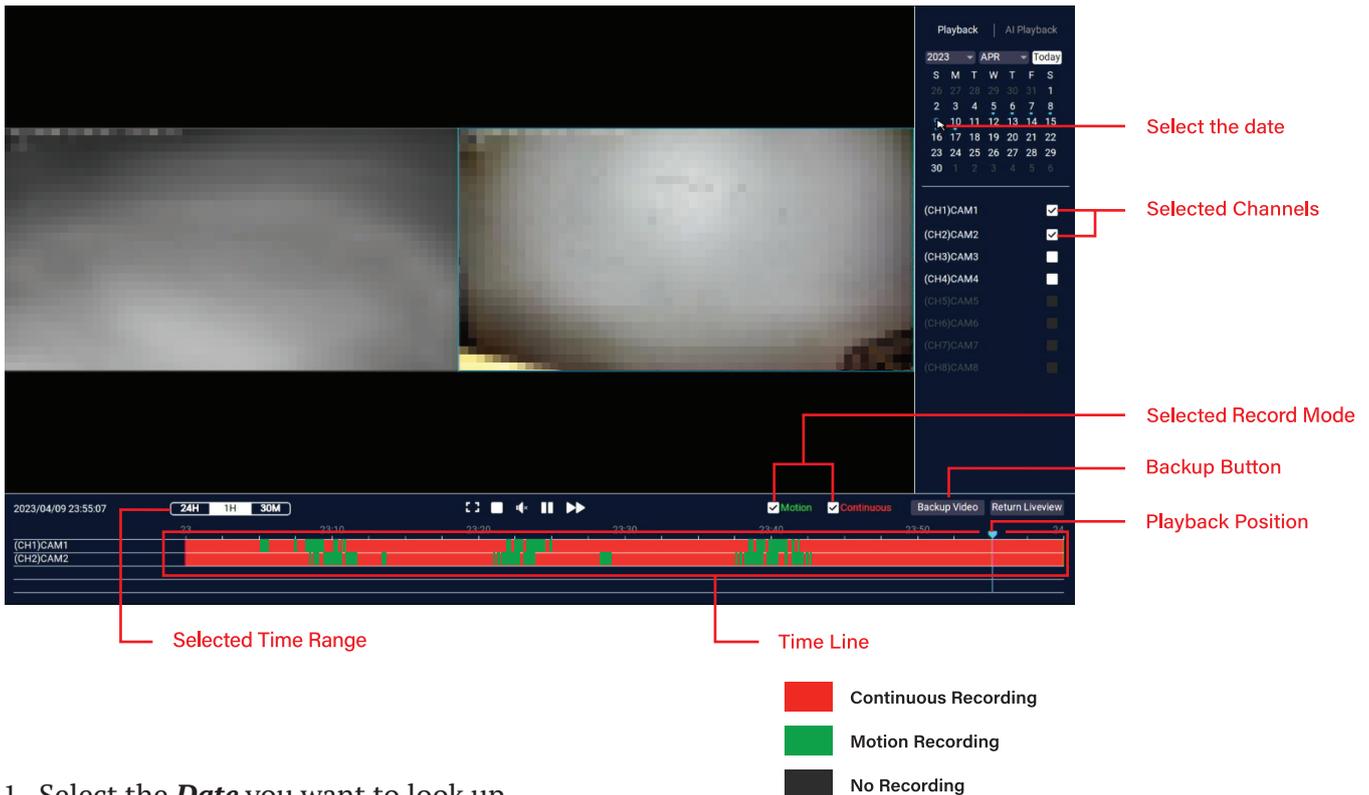
Push notification to a smartphone Eseecloud app is a feature that allows the camera to send an alerts to the user's smartphone app when an event is triggered. To enable it, the user needs to check mark the "APP" option from the NVR. And then, Open the Eseecloud app and find the option to enable push notification.



VII. Video Playback

1. Click  Playback on Menu Bar

*It may take some time to pull the record from the HDD and may seem like the system is not responding. You may want to restart the system and format the HDD(**Formatting the HDD will result in deletion of all the data/recording from the HDD).



Annotations in the screenshot:

- Select the date
- Selected Channels
- Selected Record Mode
- Backup Button
- Playback Position
- Selected Time Range
- Time Line

Legend:

- Continuous Recording
- Motion Recording
- No Recording

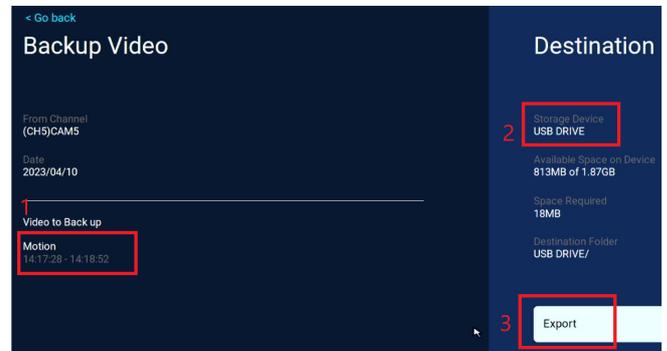
1. Select the **Date** you want to look up.
2. Check the **Channel(s)** you want to playback
You can select up to Two channels
3. Have both **Continuous** and **Motion** checked.
4. Click on the Timeline to move the playback position marker(white vertical line).
5. Use the Day and Hour button to zoom in and out of the timeline.

The green portion of the timeline will indicate the motion recording that corresponds to the footage you want to review. By double clicking on this portion of the timeline, you can quickly and easily access the footage that you need, without having to search through hours of footage.

2. Export File to USB Drive (Motion Backup)

1. Select the camera channel that you want to playback
2. Double-click on the specific time on the green portion of the timeline that corresponds to the footage you want to review to play it
3. Use the 1H or 30M buttons to zoom in and out of the timeline, giving you a closer or broader view of the events that occurred during that hour
4. Click Backup on right side of screen to go to backup video page, where you can confirm the motion time period that you want to backup.
5. Before inserting a USB Drive into the NVR, make sure your USB drive is formatted in FAT32 file format.
6. Click the Export button to start the backup process. The backup will be saved onto the USB drive and can be played back on a computer

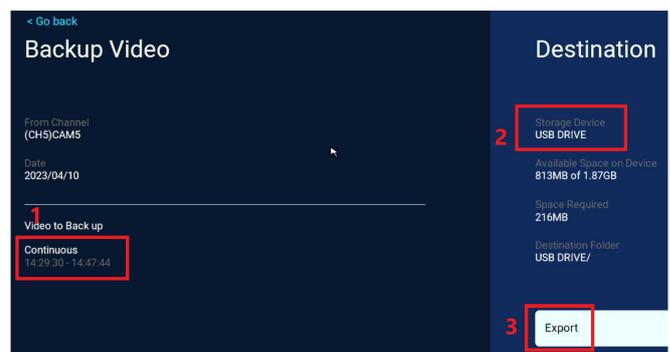
Motion Backup



3. Export File to USB Drive (Continuous Backup)

1. Select the camera channel that you want to playback
2. Double-click on the specific time on the Red portion of the timeline that corresponds to the footage you want to review to play it
3. Use the 1H or 30M buttons to zoom in and out of the timeline, giving you a closer or broader view of the events that occurred during that hour
4. Click Backup on right side of screen to go to backup video page, where you can confirm the motion time period that you want to backup.
5. Before inserting a USB Drive into the NVR, make sure your USB drive is formatted in FAT32 file format.
6. Click the Export button to start the backup process. The backup will be saved onto the USB drive and can be played back on a computer

Continuous Backup



* The USB drive should be formatted in FAT32 file format.

**The file format is AVI and you might need an appropriate video codec such as VLC Player or GOM Player to play the file on your computer.

VIII. Adding a new camera & Air Bridge setup

1. Add a New Camera

1. First set the camera next to the NVR and power up the camera.
2. Check the status light on the camera to confirm that it is in "Sync" mode, which is indicated by rapid blinking.
3. Look for a  button at the bottom of the menu bar to add a new camera.
4. Click the "continue" button to start searching for new cameras.
5. Wait for the NVR to automatically search for cameras for 30 to 40 seconds. Once the search is complete, your camera should appear in an empty channel in the table on the right side of the interface.
6. If the camera is successfully connected, click the "continue" button to proceed. Check the live view for the newly-added camera to confirm that it is connecting properly.
7. If you have issues with the live view, try resetting the camera to send it back into "Sync mode" (see instruction for how to reset the Camera), then initiate the search process again.

TIP! - If you are replacing a camera, please delete the camera from the connected device first, to make room for a new camera.

It is possible to change the channel assigned to the camera by deleting it then re-adding it.

2. Add IPC Repeater

The IPC Repeater can be added to extend the range of the camera by relaying the signal (Air Bridge Function). If the Repeater came with the system, it is already paired with the system, but if you are adding an IPC repeater, you will need to add the IPC Repeater by following the following steps

If your IPC Repeater came with the system kit, please skip the following.

** Instructions for resetting Camera.

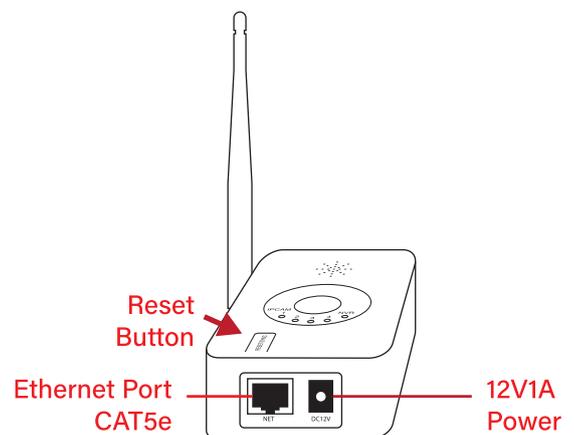
1. Reset the Camera, Press and hold the Reset/Sync button for 10 seconds
2. Wait for 40-50 seconds for the camera to reboot. 3. Check the status light on the camera to confirm that it is in "Sync" mode, which is indicated by rapid blinking.

When you are installing the cameras, please consider the position of the camera on the screen.

e.g.,

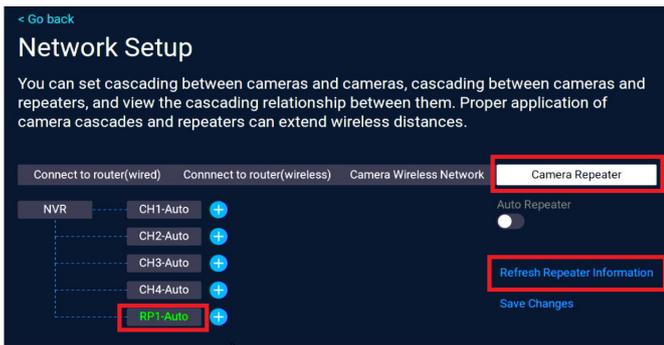
CH1 Front Gate	CH2 Front Porch
CH3 Garage	CH4 Backyard

IPC Repeater (Model : CVTAR4S2)

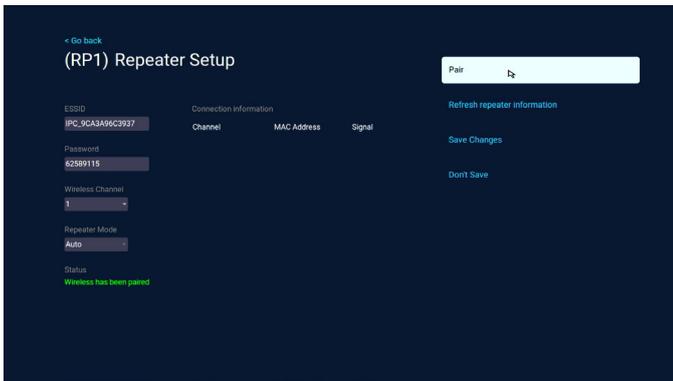




1. Have the Repeater next to the NVR system and plug in the power.
2. Wait for 30-40 seconds for the camera to boot.
3. Go to the System setup and click **Network** > Camera Network Tap.
4. Click **Refresh Repeater Information** button to Add the device.
5. Click **RPi-Auto** to enter repeater setup and click Pair Button and click Save changes. Now the IPC Repeater is ready.
 - *** If you want to use a cable to Connect the Repeater to the NVR, Connect the repeater to the NVR with an Ethernet cable (Cat5e cable).
 - Please repeat the step from 1-5. and remove the Ethernet cable from the IPC Repeater after completed.



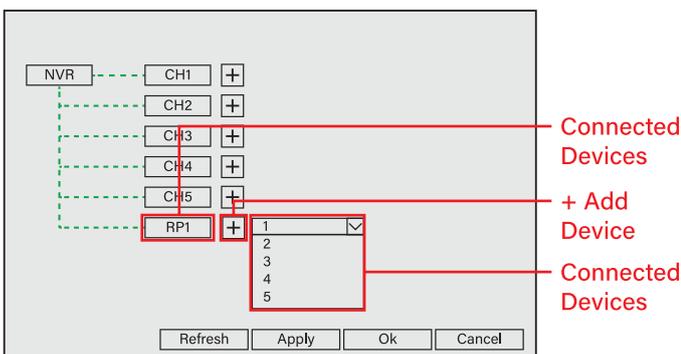
Click refresh reater information to refresh the available device list table and see if the IPC Repeater is still in the list. If you do not see the repeater (RP1-Auto) in the list, please repeat the step from the step 2 - 5.



3. AirBridge

If the Auto Repeater is enabled, you will not be able to configure manually. Please disable(uncheck the check box) to manually configure.

1. Go to Video Manage and click the **Repeater** button to open the Repeater window.
2. Diagram shows the connected devices.
3. Click on the **+** next to the connected device to get the drop-down menu.
4. Click on the drop-down menu to select the channel you want to connect to.
5. Click **Apply** to save the change.



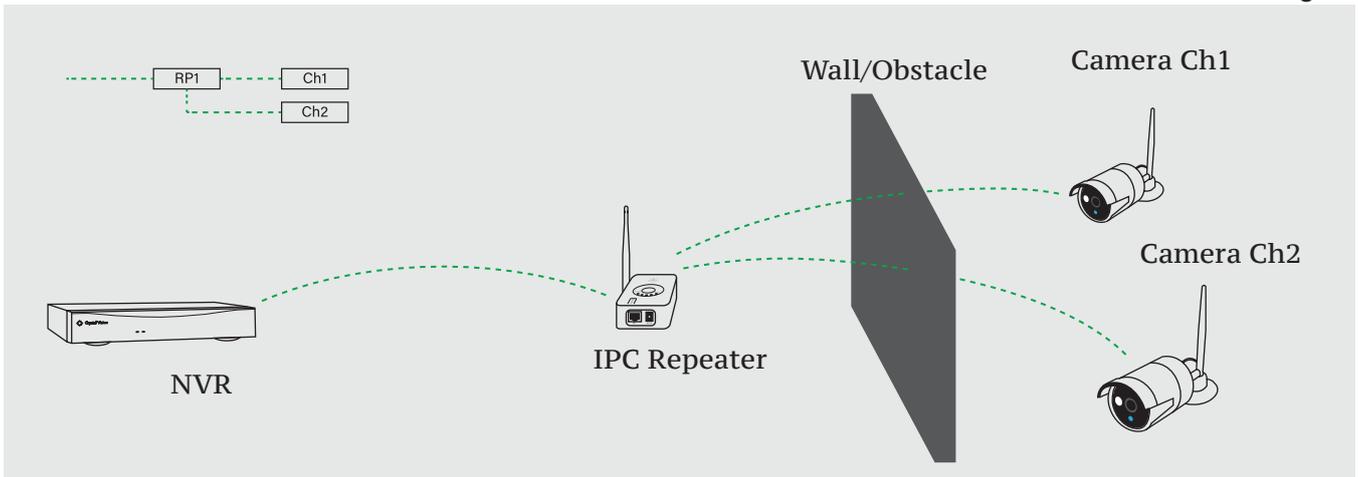
Please check the connection status:

- - - - - Wireless Connected	- - - - - Wireless Disconnected
_ _ _ _ _ Wired Connected	_ _ _ _ _ Wired Disconnected



6. When you add the second camera to the repeater, you can do it in two different ways for different applications.
7. Click the **+** next to the repeater to attach the second camera to the repeater. This will result in Fig. 1

Fig. 1



8. The next method is more useful when one of the cameras is too far to connect to the repeater directly.
9. Click the **+** next to the first added camera to attach the second camera to the first camera. This will result in Fig. 2

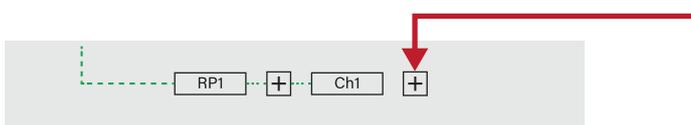
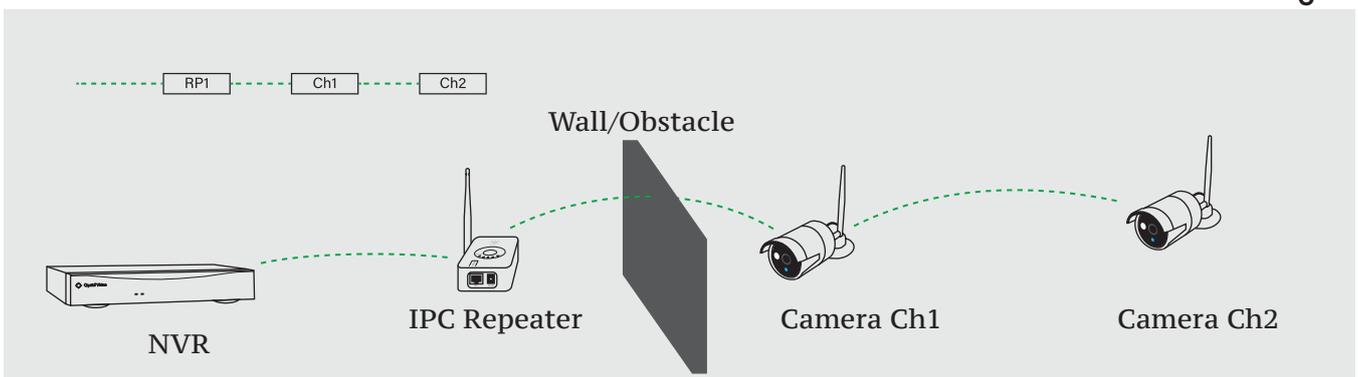


Fig. 2



Both methods in Step 7(Fig. 1) and Step 8(Fig. 2) have their advantages and disadvantages and can be applied depending on the camera location, distance, and signal strength. Please understand that the result may vary and a little experiment before mounting the camera is strongly recommended for a better result.

4. Auto Repeater

The Auto Repeater function only works with Auto Repeater capable cameras such as CVT-30WB, CVT-35WB, and IPC Repeater.

1. Please try to maintain good signal and constant power with all connected devices.
2. Access the **Camera Wireless Network** tab from Network setup page.
3. Make sure that each camera has a good signal.

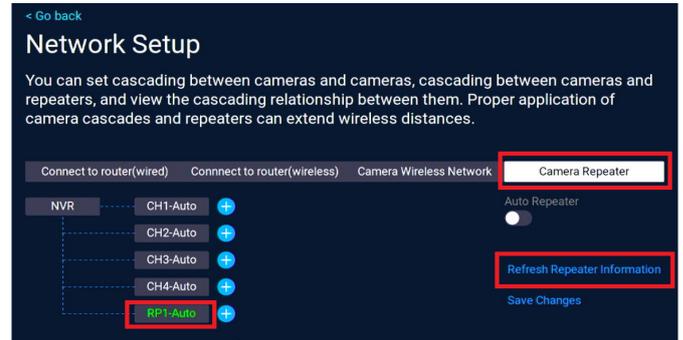
It is very important that you have a good strong signal and power while setting this up.

4. Go to Camera Repeater tab and click Refresh Repeater information Button if necessary.
5. enable the auto Repeater and click Save changes.

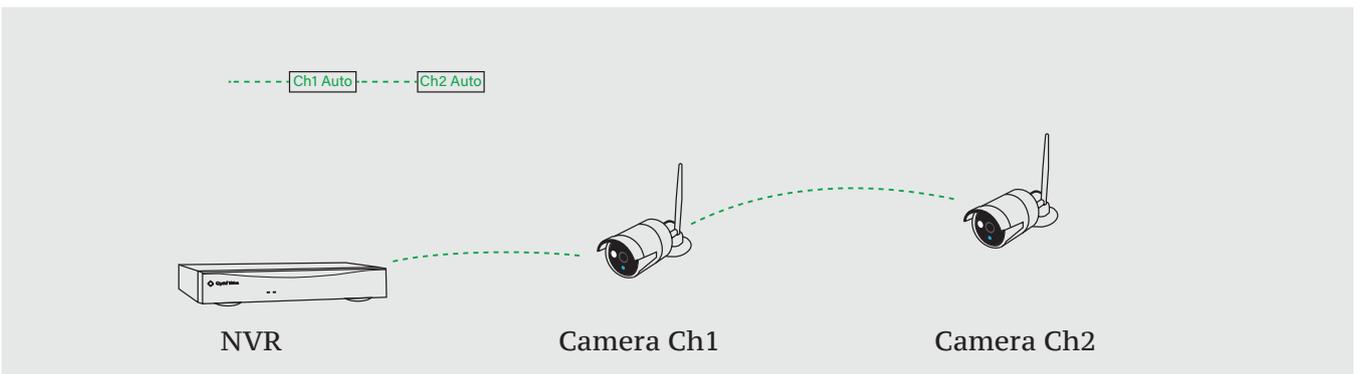
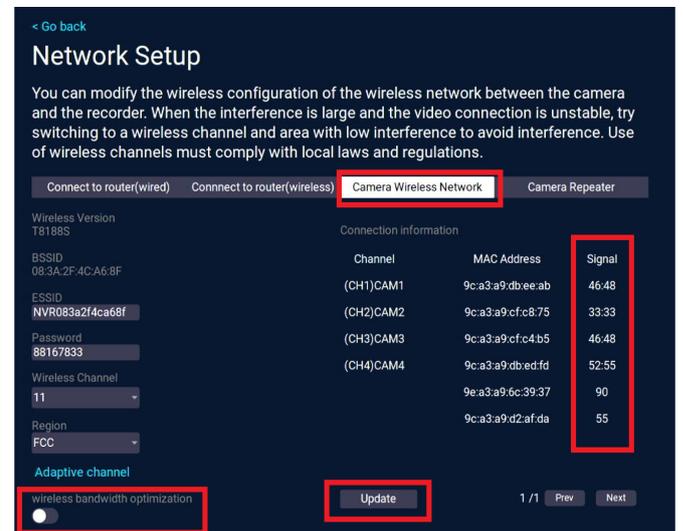
When an Auto Repeater enabled camera can not connect to the NVR directly, it will try to seek a camera or IPC repeater to attach to and make a connection the NVR through AirBridge function.

The Auto Repeater will try to find the best connection possible and it may take 1-5 minutes depending on the signal strength and the complexity of the scene.

Auto Repeater



Check up Camera



Use with caution. If not satisfied with the result, please try manual setup (p. 19 - 20). Please disable(uncheck the check box) Auto Repeater to setup manually.

USE

1. **Cleaning:** Unplug the product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
2. **Product and Cart Combination:** When a product is installed on a cart, the product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
3. **Object and Liquid Entry:** Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
4. **Lightning:** For added protection of this product during a lightning storm, or when it is left unattended and unused for long periods, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

Service

1. **Servicing:** Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
2. **Conditions Requiring Service:** Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
When the power supply cord or plug is damaged.
 - If liquid has been spilled or objects have fallen into the product.
 - If the product has been exposed to rain or water.
 - If the product has been dropped or the cabinet has been damaged
 - If the product does not operate normally by following the operating instructions.Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
3. When the product exhibits a distinct change in performance. This indicates a need for service.
4. **Replacement Parts:** When replacement parts are required, have the service technician verify that the replacements used have the same safety characteristics as the original parts. The use of replacements specified by the product manufacturer can prevent fire, electric shock, or other hazards.
5. **Safety Check:** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks recommended by the manufacturer to determine that the product is in safe operating condition.

Crystal Vision Support

Our Help Desk page provides FAQ guideline and plus, If it needs further assistant then please create a Ticket at the help desk page.

1. <https://www.cvtus.com/support/help-desk/>
2. provide (FAQ) frequently Asked Questions:
3. For assistant, create a New Ticket at our help desk.

Email : support@cvtus.com

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Crystal Vision Technology, Inc