LUMA SURVEILLANCE

510 Series
NVR Surveillance Recorder

Web Interface Quick Start Guide

Read this page *before* you go to the job site!

For maximum control and convenience, **your system should be connected to the Internet** via a local network router. For installation, you must be able to access this network through a personal computer.

Internet connectivity allows you to use OvrC, a powerful remote maintenance service. See OvrC.com for details.

If your surveillance system is isolated from the Internet, go to SnapAV.com and download the technical reference manual for this product, which has a chapter that steps you through installation without using the web interface.

Required Equipment

- The NVR and all cameras to be installed
- Network connection for the NVR
- Admin rights to a network computer that can access the surveillance system
- Phillips screwdriver
- Two AAA batteries for the remote control

You can acquire a PDF of the full NVR technical reference manual, hard drive installation guide, and other materials from SnapAV.com: visit the product page and click on the support tab.

If you are going to install extra hard drives in the recorder, do so *now* before beginning installation.

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

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What's in the Box

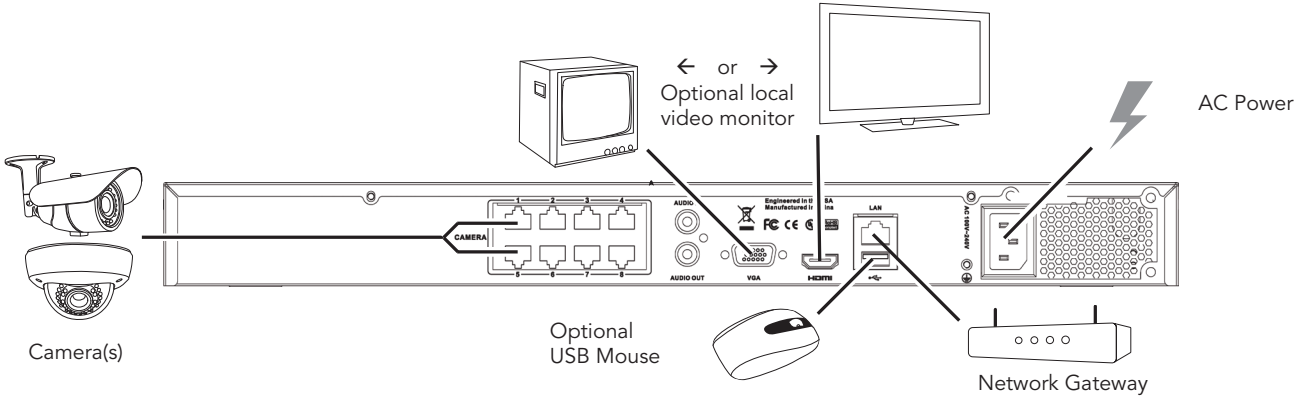
Aside from this guide, your package includes:

- The Luma NVR
- Extra screws for mounting an additional internal hard drive into your NVR
- SATA cables for connecting an additional internal hard drive in your NVR
- Rack ears for installing your NVR into a rack
- Screws for attaching the rack ears to the NVR
- USB mouse
- Remote control
- Power cord
- Stick-on rubber feet for the unit if you will not be installing it in a rack

Safety Tips

- Handle this device with care
- Do not strike or shake this device.
- Do not operate this device beyond its specified power source ratings.
- Protect the power cord from being stepped on or pinched, particularly where it connects to the device and to the power outlet.
- Do not drop items through the ventilation slots. If something falls inside the device, turn off the power immediately and contact qualified personnel for service.
- Do not expose this device to water or moisture. Moisture may damage the device and cause electric shock.
- Take immediate action if the device becomes wet: turn the power off and contact qualified personnel for service.
- Do not use this device in humidity above 85%.
- Do not use this device near any heat sources such as radiators, heat registers, stoves, or other such heat-generating equipment.
- If mounting in a closed space, include adequate ventilation. Do not block ventilation openings.
- The performance and lifespan of the hard drive is affected by temperature. Use this device in temperatures ranging from 14–131 °F.
- Handle the hard drive with care.
- You can damage the hard drive if this device is moved while the hard drive is still spinning. If you must move the device, even just to reposition it, follow the shutdown procedure in the technical reference manual (available online) and wait at least 30 seconds before moving it.
- If servicing or exchanging the hard drive, protect it from static electricity. Use a grounded static wrist guard and mat to properly ground yourself and the hard drive.
- Do not use an electric screwdriver to remove or install a hard drive.
- Clean this device with a dry cloth. Do not use strong or abrasive detergents when cleaning the device chassis. If dirt is hard to remove, use a mild detergent and wipe gently.
- Make a note of the system settings and save them. This helps when changing the system configuration or with recovery if unexpected failure or trouble occurs.

Set Up the Hardware



Caution: Do not power up the NVR until these steps are complete.

1. If desired, install the NVR in the rack. If not, attach the rubber feet to the bottom corners of the unit.
2. Connect the mouse to the USB port on the rear panel. We suggest that you leave the front USB unused and accessible for later use.
3. If desired, connect a local monitor to the **VGA** or **HDMI** port.
4. Connect your IP surveillance cameras to the **camera** ports. To connect your cameras through your local network, consult the technical reference manual (available online) for additional setup.
5. Connect your network cable to the **Ethernet** port.
6. Connect the power cord and turn on the power switch.

Install and Run the Luma Utility

Use the Luma Utility to locate your surveillance hardware and set up communications. This is a PC-only utility.

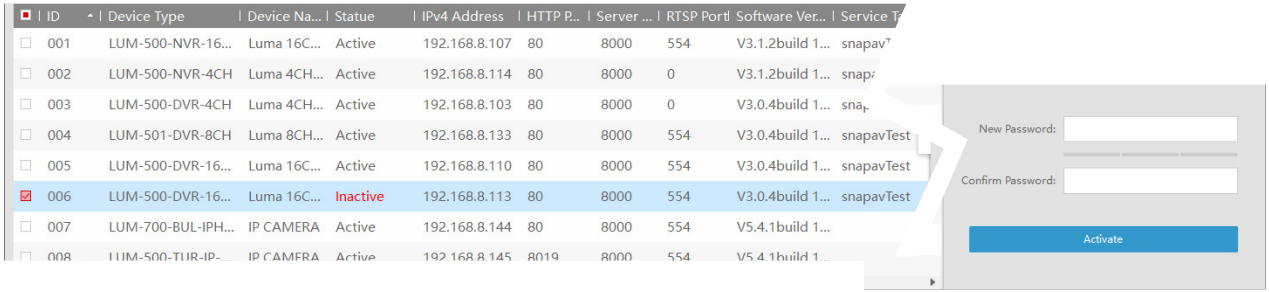
Visit your product page at SnapAV.com and download the Luma Utility installer from the Support tab. **You must use v3.0.0.54 build 20180202 or later! Earlier versions of the utility will not work!**

Run the installer. You can click through and accept the defaults.

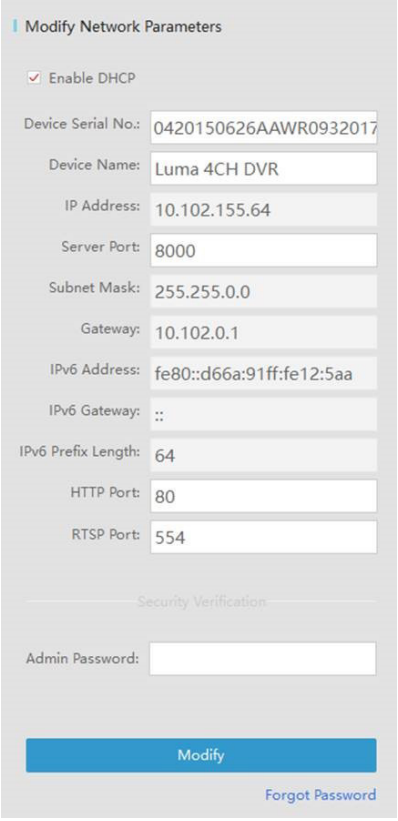
Connect your PC to the network and run the Luma Utility. It searches the local network for all Luma Surveillance devices. If your NVR does not appear, ensure that the network connections are secure and that the unit is powered up, then click the **Refresh** button.

Click on the entry for your NVR to view its details. If the NVR is inactive, use the text boxes at the lower right of the Luma utility window to activate the NVR by creating a new secure password.

- Passwords cannot be longer than 16 characters. To ensure compatibility with the local interface, passwords can only contain numbers, letters, spaces, and the following special characters: . , : - /
- Use a password that is long and easy to remember. A password like *parisinthespring* is much more secure and easier to remember than a password like *D3x^7b*.



Edit the Network Settings



To change the network settings at a later date, consult the NVR manual.

Suggested Best Practices

Ensure the **Enable DHCP** box is activated. In your router, reserve an IP address and assign it to the NVR's MAC address (found on the recorder's box, or under **System Settings > System Information**). See your router's documentation for details.

Change the Server and HTTP Ports

The HTTP port defaults to 80. This port enables you to access your recorder through a web browser.

The server port defaults to 8000. This port enables the Luma mobile application to access your system.

For security reasons, we suggest you change your ports and record the new numbers on the back page of this guide. Consult your server or router manual for common and reserved port numbers to avoid.

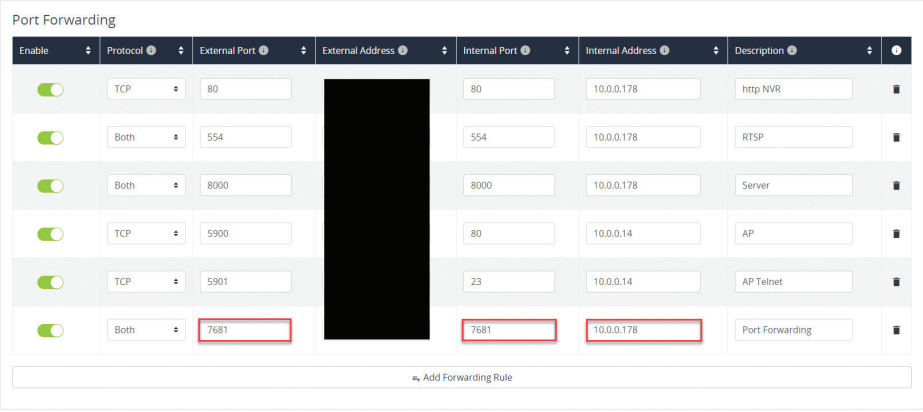
To confirm changes, enter the password that you just created and then click **Save**.

Optional: Prep for Plugin-Free Browsers

With the update to firmware v3.4.95 build 191127, Chrome, Safari, and Microsoft Edge can view your system remotely. Port forwarding setup allows you to access the NVR from the internet for remote viewing and other operations. These settings are entered in your network router, typically in a menu called *Port Forwarding* or *Applications and Gaming*. Refer to your router manual for help.

To remotely access your recorder from a browser other than Internet Explorer, forward port 7681 on your router. This port allows you to use browsers that no longer allow plugins (Chrome, Firefox, etc.).

As you cannot perform port translation, both your internal and external port must be 7681. You do not need to append this port at the end of your URL as it does ***not*** replace your HTTP port. It is simply a special port that needs to be forwarded on your router and that is the sole place the port is used. Thus, if your HTTP port is (for example) 8042, your web address stays the same: e.g., MyHome.WirepathDNS.com:8042 .



Find the NVR settings you need, then log in to the router and enter the new port forwarding rules.

Complete Port Forwarding

Once you've finished, your device's URL (e.g., MyHome.WirepathDNS.com) gets you to the login page of your NVR, no matter where you are. If you changed your HTTP port from the default location (80), add a colon and the new port number to the URL (e.g., MyHome.WirepathDNS.com:8042).

Port Name	Default Value	New Value	Protocol
HTTP	80		TCP/UDP
Server	8000		TCP/UDP
RTSP	554		TCP/UDP

NVR IP Address
Admin Password

Port Forward Attached Cameras

If your cameras are attached directly to your NVR and you want to access individual cameras remotely, you'll also need to set up port forwarding for them.

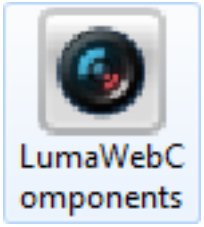
The cameras are accessed with the IP address of the NVR, modified by port numbers 65001 (for camera 1) through 65016 (for camera 16). Forward these ports on your router. This can also be referenced through the camera management links shown on page 11.

Start the Web Interface

Get the Luma Plug-In

Open your browser, type the IP address of the recorder (from page 7) into the address bar, and hit **Return**.

Below the login window, there may be a link that reads, "Please click here to download and install the plug-in. Close the browser when installing the plug-in." If so, download the plug-in and close all instances of your browser, including any running in the background.



Install the *LumaWebComponents* plug-in.

Restart your browser and return to your recorder's login window.

Enter *admin* for the user name, and the password you just created on page 6.

You might get a pop-up message that asks you whether you want to run the Luma Web Components plug-in. You must allow the plug-in to access your system.

Be sure to save your recorder's page as a favorite in your browser.

LumaLink

LumaLink is our free remote access service that makes it easier than ever to set up your customer's Luma app for remote viewing.

Using point-to-point (P2P) technology to replace traditional DDNS/port forwarding, LumaLink provides you with a robust setup solution that's efficient and convenient, while offering increased security to clients.

To use LumaLink simply add the device to your OvrC account, log in to LumaLink on your Luma mobile application, and refresh your device list.

Check the Cameras

After log-in, your screen shows the live page, which should look similar to the illustration below. If a camera is out, check its connection to your NVR, and ensure that it is powered up.

Edit Camera Settings (Optional)

To adjust camera settings, click on the settings icon ( ). In the configuration screen, click on **Camera Management**.

This displays a table of all IP cameras configured for the NVR. In the rightmost column is a link to each such IP camera. This link opens a new tab in your browser for your camera's web interface menu (see your camera manual for details). It can only be used from within the network.

To modify a camera, clicking on its entry to highlight the row. Click the **Modify** button to edit the camera. Luma cameras use the LUMA protocol; third-party cameras may require the ONVIF protocol.

tus	Protocol	Connect
ne	Wirepath	http://192.168.0.11:80
ne	Wirepath	http://192.168.0.13:80
ne	Wirepath	http://192.168.0.14:80
ne	Wirepath	http://192.168.0.15:80
ne	Wirepath	http://192.168.0.16:80

Reinstalling Network Cameras

If you are taking cameras that were previously attached to a network and plugging them directly into your NVR, you must do a hardware reset on the cameras. See your camera's manual or the technical reference manual for details.

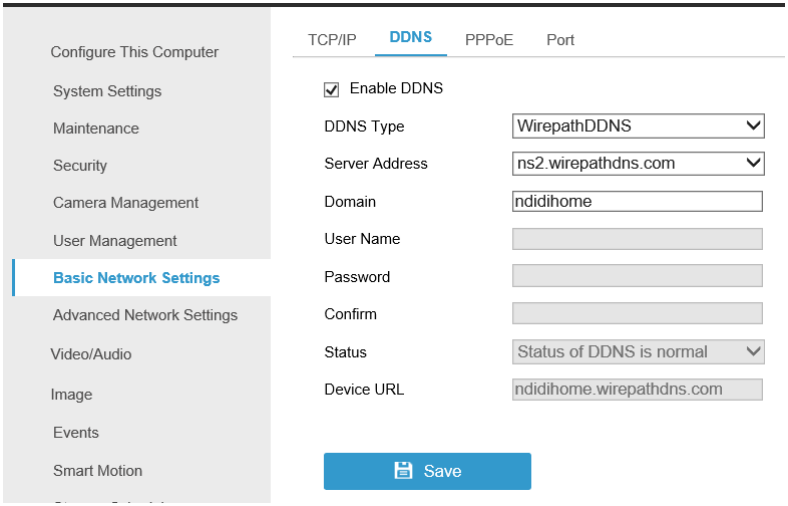
Set Up Dynamic DNS

This allows you to connect to your surveillance system from anywhere, via the Internet, using a web address that's easy to remember.

Click on **Basic Network Settings** > **DDNS**.

Click the box labeled **Enable DDNS**, then choose a type from the **DDNS Type** menu. Next, choose a server address. We recommend WirepathDDNS. This service is hosted specifically for use with Luma equipment and requires no additional setup after following these steps.

Enter your desired domain in the **Domain** box. This creates a personalized server address, which is shown under **Device URL**.



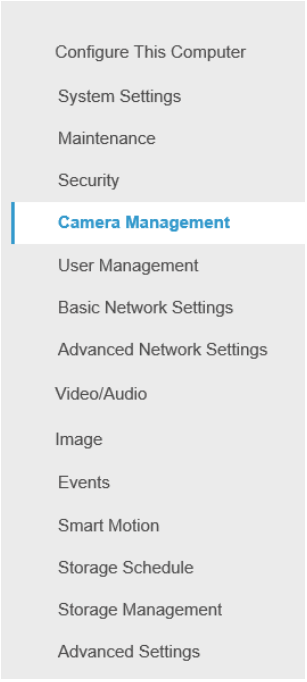
If someone has already registered your desired domain, the system adds a unique ID (typically two to four digits) to your domain. If you do not like these digits, try another domain or server address.

Example: If you choose the domain myhome*, your system's URL is myhome.WirepathDNS.com. If someone has already claimed the myhome URL, then your system's URL would be something like myhome13.WirepathDNS.com.*

Click **Save** to finalize the settings here.

Note: When your ports have also been forwarded properly on your router, the Status entry changes to indicate that the DDNS status is normal (as shown in the illustration).

Camera Passwords



When the Luma NVR is activated, it sets the password for all the connected cameras to match the NVR password that you created on page 6.

If you add a camera manually, you must enter the camera's password. Default passwords represent a security risk after installation. We strongly recommend that you change the password on any camera that has a default password like *admin*.

To add a camera manually, click on **Camera Management** > **IP Camera**.

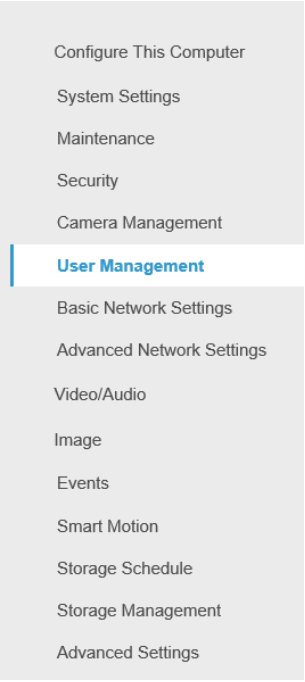
At the top of the window, click on the **Modify** button. This opens a dialog box that lets you enter the camera information, including:

- IP address
- protocol
- the camera's management port
- a custom name (e.g. Front Porch)
- the camera's username and password
- set Adding Method to Manual.

Camera passwords cannot be longer than 31 characters. The camera password can only contain numbers and letters; no spaces or special characters.

For added security, use a password that is long and easy to remember.

Create Users and Set Passwords



Click on **User Management**.

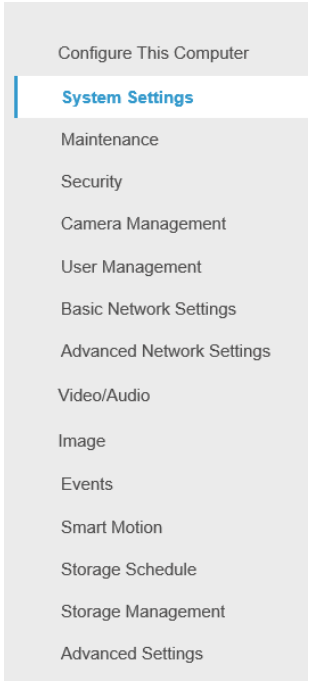
Click the **Add** button. Enter the new account's user name and password. Account names can be up to 32 characters long, and can contain numbers and letters only.

We recommend that you add accounts by individual users' names, so that if someone reboots the system or erases a log, you know which user did it.

Choose the account's level. There are two levels for users: operator and user. The only difference is the default permissions they are given. You can customize permissions for each account individually. See the technical reference manual (available online) for more details.

Important! To protect your security and privacy, your device must be activated *with a valid password* for you to be able to view them when using LumaLink.

Calibrate the System Time



Click on **System Settings** and select the **Time Settings** tab.

Synchronize the Time

Choose your time zone. North American time zones range from GMT-10:00 (Hawaii) to GMT-03:30 (Newfoundland).

By default, the system uses network time protocol (NTP) to synchronize your system to Coordinated Universal Time. We strongly recommend using NTP to keep your system well calibrated.

If you want to use manual time sync, or if your system is isolated from the Internet, see the technical reference manual (available online).

Disable DST if Necessary

If you are in a location that does not observe daylight saving time, click the **Enable DST** checkbox to deselect it.

Click **Save** to confirm changes.

You're Done!

Your system is now operational. Next, you'll want to customize your system for your customer's needs. Using the simple web interface, you can:

- Set protocols for remote computers for when they log in to the surveillance system.
- Change the cameras' frame rates to manage hard disk space.
- Set a custom recording schedule.

… and more!

To learn more, go to the product page at SnapAV.com and download the technical reference manual.

If you need further clarification, please email support@SnapAV.com. For more information, instructional videos, support documentation, or ideas, visit our website and view your item's product page at SnapAV.com.

3-Year Limited Warranty

This Luma Surveillance™ product has a 3-Year Limited Warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products that have been abused, modified or disassembled. Products to be repaired under this warranty must be returned to SnapAV or a designated service center with prior notification and an assigned return authorization (RA) number.

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