



310 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

Additional Resources

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.

Contents

Safety Tips	4	Check the Cameras	11
Set Up the Hardware	5	Set Up Dynamic DNS	12
Install and Run the Luma Utility	6	Camera Passwords	13
Edit the Network Settings	7	Create Users and Set Passwords	14
Optional: Prep for Plugin-Free Browsers	8	Calibrate the System Time	15
Complete Port Forwarding	9	You're Done!	16
Start the Web Interface	10	Support	17

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

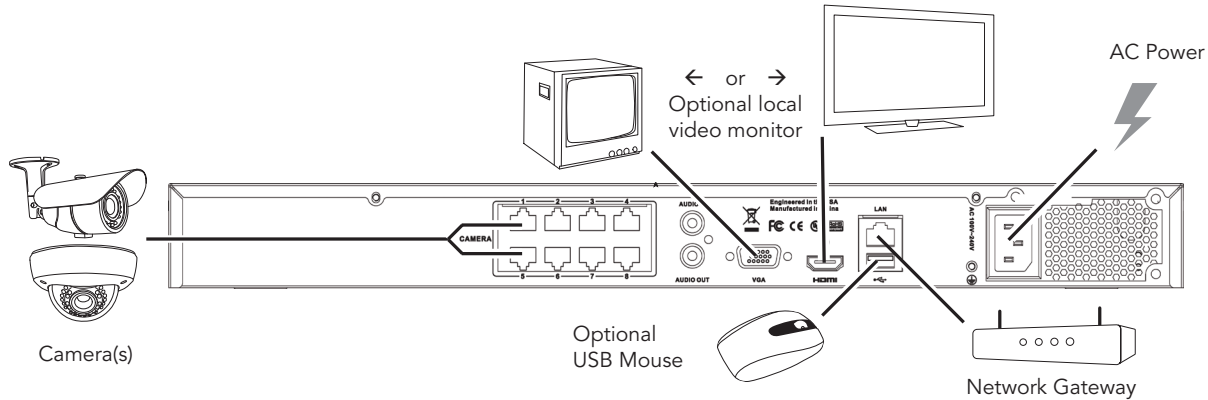
Safety Tips

- 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.



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

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 *parisinthspring* is much more secure and easier to remember than a password like *D3x^7b*.

ID	Device Type	Device Name	Status	IPv4 Address	HTTP Port	Server Port	RTSP Port	Software Ver...	Service T...
001	LUM-500-NVR-16...	Luma 16C...	Active	192.168.8.107	80	8000	554	V3.1.2build 1...	snapav7
002	LUM-500-NVR-4CH	Luma 4CH...	Active	192.168.8.114	80	8000	0	V3.1.2build 1...	snapr
003	LUM-500-DVR-4CH	Luma 4CH...	Active	192.168.8.103	80	8000	0	V3.0.4build 1...	snapr
004	LUM-501-DVR-8CH	Luma 8CH...	Active	192.168.8.133	80	8000	554	V3.0.4build 1...	snapavTest
005	LUM-500-DVR-16...	Luma 16C...	Active	192.168.8.110	80	8000	554	V3.0.4build 1...	snapavTest
006	LUM-500-DVR-16...	Luma 16C...	Inactive	192.168.8.113	80	8000	554	V3.0.4build 1...	snapavTest
007	LUM-700-BUL-IPH...	IP CAMERA	Active	192.168.8.144	80	8000	554	V5.4.1build 1...	
008	LUM-500-TIJR-IP...	IP CAMERA	Active	192.168.8.145	8019	8000	554	V5.4.1build 1...	

New Password:

Confirm Password:

Activate

Edit the Network Settings

Modify Network Parameters

☒ Enable DHCP

Device Serial No.: 0420150626AAWR0932017

Device Name: Luma 4CH DVR

IP Address: 10.102.155.64

Server Port: 8000

Subnet Mask: 255.255.0.0

Gateway: 10.102.0.1

IPv6 Address: fe80::d66a:91ff:fe12:5aa

IPv6 Gateway: ::

IPv6 Prefix Length: 64

HTTP Port: 80

RTSP Port: 554

Security Verification

Admin Password:

Modify

[Forgot Password](#)

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 v3.4.99 build 200508, 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.).

While you cannot change the internal port, 7681, you can perform port translation. Thus while the internal port must be 7681 the external port can be any available port you choose. 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 .

Port Forwarding

Enable	Protocol	External Port	External Address	Internal Port	Internal Address	Description	
☒	TCP	80		80	10.0.0.178	http NVR	
☒	Both	554		554	10.0.0.178	RTSP	
☒	Both	8000		8000	10.0.0.178	Server	
☒	TCP	5900		80	10.0.0.14	AP	
☒	TCP	5901		23	10.0.0.14	AP Telnet	
☒	Both	7681		7681	10.0.0.178	Port Forwarding	

➕ Add Forwarding Rule

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

Complete Port Forwarding

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.

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

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.

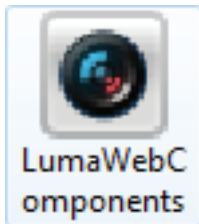
The cameras are accessed with the IP address of the NVR, modified by port numbers 65001 (for camera 1) through 65016 (for camera 16). Forward these ports on your router. This can also be referenced through the camera management links shown on page 11.

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.

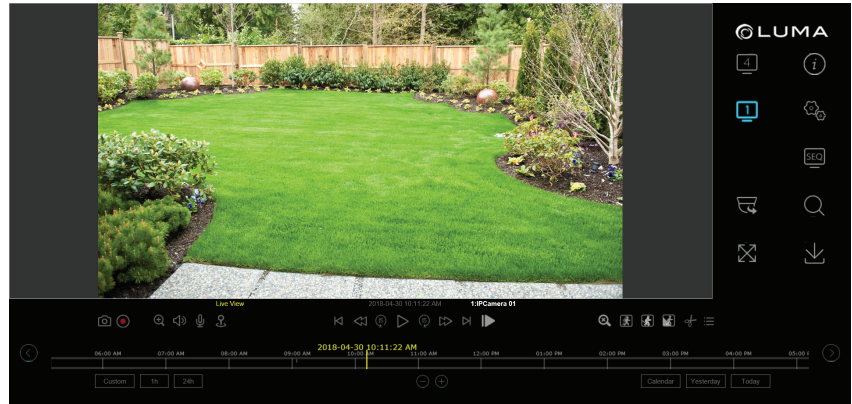
Check the Cameras

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.



us	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
ne	Wirepath	http://192.168.0.21:80
ne	Wirepath	http://192.168.0.23:80
ne	Wirepath	http://192.168.0.41:80

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).

The screenshot shows the 'Basic Network Settings' menu on the left, with 'Basic Network Settings' selected. The main area displays the 'DDNS' configuration page. The 'DDNS' tab is active, showing options to 'Enable DDNS' (checked), 'DDNS Type' (WirepathDDNS), 'Server Address' (ns2.wirepathdns.com), 'Domain' (ndidihome), 'User Name', 'Password', 'Confirm', 'Status' (Status of DDNS is normal), and 'Device URL' (ndidihome.wirepathdns.com). A 'Save' button is at the bottom right.

TCP/IP	DDNS	PPPoE	Port
☒ Enable DDNS			
DDNS Type		WirepathDDNS	
Server Address		ns2.wirepathdns.com	
Domain		ndidihome	
User Name			
Password			
Confirm			
Status		Status of DDNS is normal	
Device URL		ndidihome.wirepathdns.com	

Save

Camera Passwords

Configure This Computer

System Settings

Maintenance

Security

Camera Management

User Management

Basic Network Settings

Advanced Network Settings

Video/Audio

Image

Events

Smart Motion

Storage Schedule

Storage Management

Advanced Settings

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.](#)

Final Setup

Configure This Computer

System Settings

Maintenance

Security

Camera Management

User Management

Basic Network Settings

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. See the technical reference manual (available online) for more details.

Synchronize the Time

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

Choose your time zone. North American time zones range from GMT-10:00 (Hawaii) to GMT-03:30 (Newfoundland). Disable the **Enable DST** checkbox, if necessary.

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).

Click **Save** to confirm changes.

Configure This Computer

System Settings

Maintenance

Security

Camera Management

User Management

Basic Network Settings

You're Done!

Your system is now operational.

Next Steps

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.
- Arrange for the system to send alert emails when an alarm is triggered.
- Create privacy masks.
- Set up alarms to trigger from the camera, and vice versa.

... and more!

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

Support

Need Help? Contact Tech Support!

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

Find details of this product's 3-Year Limited Warranty at snapav.com/warranty, or request a paper copy from Customer Service at (866) 424-4489. Find other legal resources, such as regulatory notices and patent information, at snapav.com/legal

Copyright ©2021, Wirepath Home Systems, LLC. All rights reserved. Control4 and Snap AV and their respective logos are registered trademarks or trademarks of Wirepath Home Systems, LLC, dba "Control4" and/or dba "SnapAV" in the United States and/or other countries. Snap AV, Luma, OvrC, and Wirepath are also registered trademarks or trademarks of Wirepath Home Systems, LLC. Other names and brands may be claimed as the property of their respective owners. All specifications subject to change without notice.

Version 200-LU-310-003 210415 MS