



500 Series Turret
IP-Enabled HD Surveillance Camera

Installation Manual

Important!

Ensure your NVR
has the latest
firmware!

Read this *before* you go on site!

For maximum control and convenience, **install your camera with a connection to the Internet** via your NVR or through a local network router. **This allows you to use OvrC**, a powerful remote maintenance tool. See OvrC.com for details. In addition, your client can use the Luma Surveillance mobile app to check on the camera from anywhere.

For installation using this guide, you must be able to access this camera through a personal computer. If your surveillance system is not on a network, you'll have to use the NVR's local interface for installation. See the NVR user's manual for details.

Additional Resources

You can acquire a PDF of the web interface manual and other materials from the camera's product page at SnapAV.com.

Required Equipment

- A network connection (and an NVR, if desired)
- Admin rights to a computer that can access the network
- Mobile device with Luma Surveillance mobile app (recommended) or CCTV tester
- Power source: PoE or 12V DC
- Phillips screwdriver

Box Contents

- Camera
- Self-adhesive mounting template
- 4 x wall anchors with screws
- 3mm hex wrench
- CC tester cable
- Weatherproofing kit for PoE cable

Important!

Before attaching this to your Luma NVR, **update the recorder to the latest firmware!** If you don't, essential features of your camera **may not function.**

Safety Tips

- Handle this device with care.
- Do not strike or shake this device.
- Protect the power cord from being stepped on or pinched, particularly where it connects to the device and the power outlet.
- Do not operate this device beyond its specified power ratings.
- Do not use this device near any heat sources such as radiators, heat registers, stoves, or other such heat-generating equipment.
- The performance and lifespan of the camera is affected by temperature. For best results, use this device in temperatures ranging from -20–140 °F.
- Clean this device with a dry cloth. Do not use strong or abrasive detergents when cleaning the device, especially the lens. If dirt is hard to remove, use a mild detergent and wipe gently.
- Make a note of the configuration settings and save them. This helps when changing the configuration, when upgrading the device, or with recovery if unexpected failure or trouble occurs.

Precautions

Before you start, ensure that the device is in good condition and all the assembly parts are included. **Also ensure that your recorder has the very latest firmware.** Use OvrC to update the firmware, or consult your NVR manual.

- Make sure that all equipment is powered off during installation.
- Ensure the mounting surface is strong enough to hold three times the weight of the camera and the mount.
- If the mounting surface is cement, use the included expansion screws to install the camera. If mounting to a wood surface, use self-tapping wood screws (not included) to secure the camera.
- If the product does not function properly, please contact technical support. Do not disassemble the camera for repair or maintenance.

Your Camera

Before installing, familiarize yourself with the parts of your camera.



Installation with an NVR

If you are installing with an NVR, follow these instructions. Otherwise, follow the instructions starting on the next page.

1. Ensure your NVR has the latest firmware. If it does not, your NVR may be unable to locate and activate your camera.
1. Perform the physical installation of your camera by following the instructions given on pages 12–17.
2. Plug your camera into your recorder. The NVR autodetects your camera, activates it (giving it the same admin password that it has), and assigns it an IP address.
3. Complete the installation using the instructions given in your NVR manual. You do not need to continue using this guide. [Where possible, we recommend changing settings using your NVR.](#)
4. Optional: This camera has a few features that are not available on your NVR: line crossing and area intrusion. After completing installation, see the camera's web interface manual to set these up.

Install and Run the Luma Utility

Use the Luma Utility to locate your camera and set it up.



Visit your product page at SnapAV.com and download the Luma Utility installer from the Support tab. **You must use v3.0.0.53 build 20170426 or later! Earlier versions of the utility will not work!**

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

Pre-Installation Camera Configuration

You'll find it easiest to connect the camera directly to your PC, making most adjustments to the camera from the convenience of your table (prior to physical installation), rather than from atop a ladder.

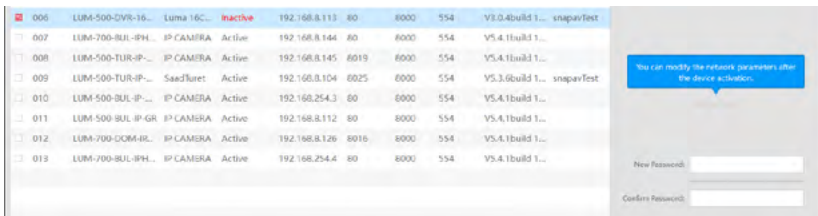


Connect the camera to your PC and run the Luma Utility. It searches for attached Luma Surveillance devices. If your camera does not appear, check the connection, ensure the camera is powered up, then click the **Refresh** button.

Activate the Camera

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

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



The screenshot displays a table of camera configurations. The first row shows a camera with ID 006, model LUM-500-DVR-16, which is currently inactive. The configuration panel on the right includes a blue notification box stating: "You can modify the network parameters after the device activation." Below this, there are input fields for "New Password:" and "Confirm Password:".

ID	Model	Type	Status	IP	Port	MAC	Version	Notes
006	LUM-500-DVR-16	Luma 16C	Inactive	192.168.8.113	80	8000	554	V3.0.4build 1... snapvTest
007	LUM-700-BUL-IPH...	IP CAMERA	Active	192.168.8.144	80	8000	554	V5.4.1build 1...
008	LUM-500-TUR-IP...	IP CAMERA	Active	192.168.8.145	8019	8000	554	V5.4.1build 1...
009	LUM-500-TUR-IP...	SaedTurret	Active	192.168.8.104	8025	8000	554	V5.3.6build 1... snapvTest
010	LUM-500-BUL-IP...	IP CAMERA	Active	192.168.254.3	80	8000	554	V5.4.1build 1...
011	LUM-500-BUL-IP-GR	IP CAMERA	Active	192.168.8.112	80	8000	554	V5.4.1build 1...
012	LUM-700-DOM-IRL...	IP CAMERA	Active	192.168.8.126	8016	8000	554	V5.4.1build 1...
013	LUM-700-BUL-IPH...	IP CAMERA	Active	192.168.254.4	80	8000	554	V5.4.1build 1...

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

Admin Password:

[Forgot Password](#)

Suggested Best Practices: Ensure the **Enable DHCP** box is activated. In your router, reserve an IP address and assign it to the camera's MAC address (found on its box). See your router's documentation for details.

The HTTP port defaults to 80. It allows you to access your camera through a web browser.

The server port defaults to 8000. The Luma mobile application uses it to access the camera.

For security reasons, change your ports and record the new numbers. Consult your manual for reserved port numbers to avoid.

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

Complete Port Forwarding

Port forwarding allows you to access the camera from the internet for remote 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 settings you need, then log in to the router and enter the new ports.

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

Camera IP Address
Admin Password

Physical Installation

1. Drill pilot holes for your screws using the supplied template. Do not drill too close to a wall, or you may not be able to attach the skirt.
2. **CAUTION! Before terminating your RJ45 for an outdoor install, you must weatherproof it! See the following pages for details.**
3. Remove the skirt by gently twisting it clockwise as shown.
4. Loosen the locking screw on the base and move the locking tab out of the way. Remove the camera body.
5. Secure the mounting base to the ceiling and with screws.
6. Attach power to the camera.
 - **If using PoE**, attach the RJ45 cable to the connector.
 - **If using 12V DC**, locate the red and black wire bundle. Attach the hot line to the red wire, and the ground to the black wire.
7. Insert the camera into the mounting base and rotate it so the front of the camera aims at the surveillance area. Reposition the locking tab, and tighten the locking screw.

Diagram: Removing the camera skirt

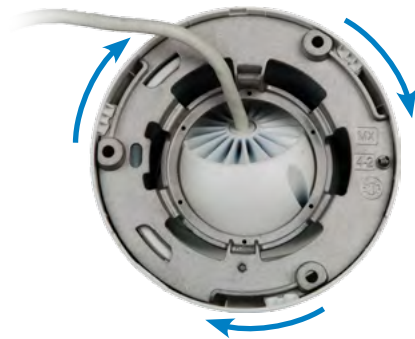
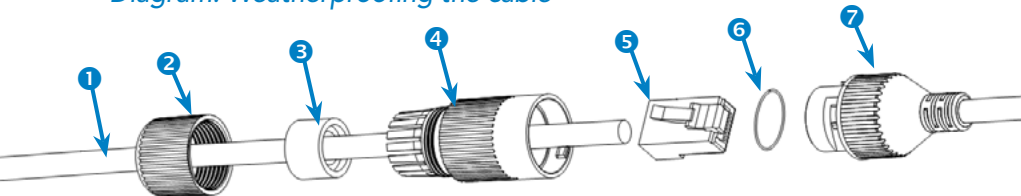


Diagram: Weatherproofing the cable



Weatherproofing the PoE Cable

1. Before terminating the RJ45 cable ❶, slide it through the lock nut ❷, the thick rubber gasket ❸, and the weatherproof endcap as shown. Be sure the notched side of the rubber gasket ❸ faces toward the endcap, as shown in the diagram to the left.
2. Terminate the RJ45 cable ❶ with a network plug ❹.
3. Place the O-ring ❺ onto the end of the camera's network interface socket ❽ with the flat side toward the camera. Push it past the locking teeth as far as it easily goes.
4. Connect the RJ45 plug ❹ to the camera's network socket ❽.
5. Align the teeth on the weatherproof endcap ❹ with the gaps on the camera's network interface socket ❽, then insert the socket into the endcap. Twist until they click into position (the O-ring ❺ gives you a little flexibility while still weatherproofing the connection).
6. Slide the thick rubber gasket ❸ into the weatherproof endcap ❹, and secure it by screwing the lock nut ❷ tightly onto the endcap ❹.

Start the Web Interface

Open your browser and navigate to the camera's IP address.



Below the login area, you may see: “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 browser windows.

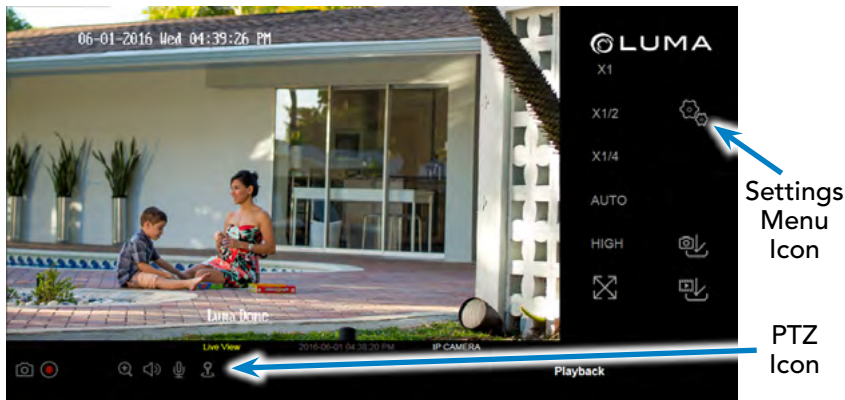
Install the *LumaWebComponents* plug-in, restart your browser and go to your camera's login window. Log in as *admin* using the password you created.

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

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

Check the Camera

After logging in, your screen shows the live page, similar to the illustration below. If it does not appear, check the connection to your NVR or network, and ensure that the camera is powered up. Click the **Settings** icon to access the web interface and finish setup.

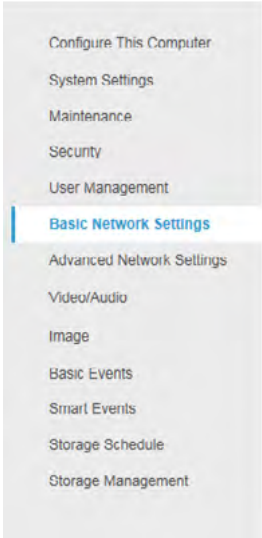


Adjust the Camera

The camera itself is mounted in a free-floating ball within the camera body. This free-floating ball can be aimed freely. In addition, if the locking screw is loosened slightly, the entire camera body can rotate.

1. If needed, loosen the locking screw slightly and rotate the camera body as desired. Tighten the locking screw.
2. Taking care to avoid touching the camera's lenses, aim the camera in the direction desired. Ensure that the up indicator remains at the top of the camera body.
3. Align the tabs on the skirt with the skirt notches in the mounting base. Install the skirt over the base, then turn the skirt clockwise until it clicks into place.

Set Up Dynamic DNS



Configure This Computer

System Settings

Maintenance

Security

User Management

Basic Network Settings

Advanced Network Settings

Video/Audio

Image

Basic Events

Smart Events

Storage Schedule

Storage Management

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

Click on the **Settings Menu** icon (page 16) and navigate to **Basic Network Settings > DDNS**.

Click **Enable DDNS**, then choose a type from the DDNS Type drop-down menu. [We recommend WirepathDDNS](#). Next, choose a server address. [We recommend ns2.wirepathdns.com](#).

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 two to four digits to your domain.

Example: If you choose the domain myhome, your system's custom URL would become myhome.wirepathdns.com. If someone already had claimed the myhome URL, then your system's URL would look like myhome13.wirepathdns.com.

If you changed your HTTP port (see page 11), add a colon and the port number to the URL (e.g., myhome.wirepathdns.com:8402).

NOTE: All your network devices now use this same DNS (with appropriate port numbers)!

Click **Save** to finalize the settings.

TCP/IP	DDNS	PPPoE	Ports	NAT
<input checked="" type="checkbox"/>	Enable DDNS			
	DDNS Type			
	Server Address			
	Domain			
	User Name			
	Port			
	Password			
	Confirm			
	Device URL			

Add Additional Users

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. If you are using an NVR, to ensure compatibility with the NVR's local interface, user names should contain numbers and letters only.

We recommend that you add accounts by individual users' names, so that you always know which user is involved with any activity.

Passwords cannot be longer than 16 characters. To ensure compatibility with the NVR's local interface, passwords can only contain numbers, letters, spaces, and the following special characters: . , : - /

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 camera web interface manual (available online on your camera's product page) for more details.

Calibrate the Camera's Clock

Click on **System Settings > Time Settings**.

Synchronize the Time

At the top, choose your time zone.

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 camera web interface 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.

Support

If you need help, email support@SnapAV.com. For information, instructional videos, support documentation, or ideas, visit our website.

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 a designated service center with an assigned return authorization (RA) number. Contact technical support for an RA number.

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