



LUM-310-PTZ  
IP Surveillance Camera

# Installation and Quick Start Guide

## 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](http://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.

### 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.
- Temperature affects the performance and lifespan of the camera. For best results, use this device in temperatures ranging from -20°F–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.
- Avoid the possibility of a laser striking the camera's light sensor.

## Inspection

Ensure that the device is in good condition and all the assembly parts are included. If the product does not function properly, please contact technical support. Do not disassemble the camera for repair or maintenance.

### Box Contents

- Camera
- Mounting plate
- 3 × wall anchors with screws (2 sets)
- Weatherproofing kit for PoE cable

### Required Equipment

Aside from the contents of this box, you must provide

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

## Preparation

- **Ensure that your recorder has the very latest firmware.** Use OvrC to update the firmware, or consult your NVR manual.
- Keep all equipment powered off during physical installation.
- Ensure the mounting surface is strong enough to withstand three times the weight of the camera and the mount.

### Additional Resources

You can acquire a PDF of the web interface manual and other materials from the product page at [SnapAV.com](http://SnapAV.com).

### Overview

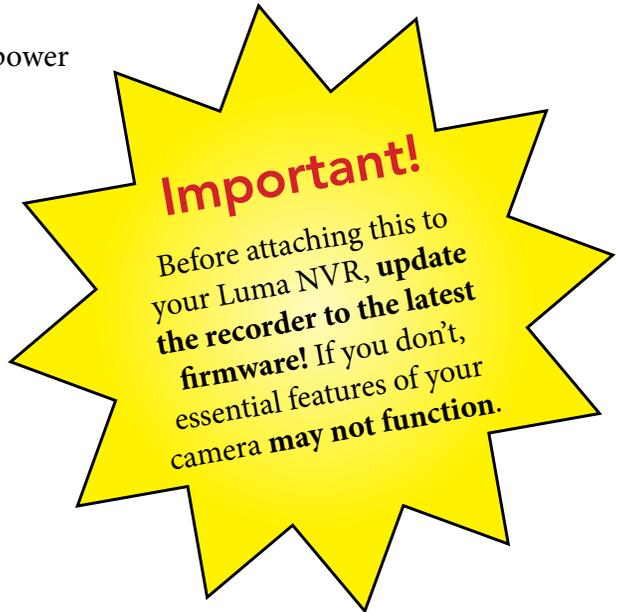
Before installing, familiarize yourself with the parts of your camera.

#### Tails

The PTZ camera has two leads: a 12V power lead, and a network jack.

The power cable ends in a standard barrel connector. Attach this to your 12V power supply.

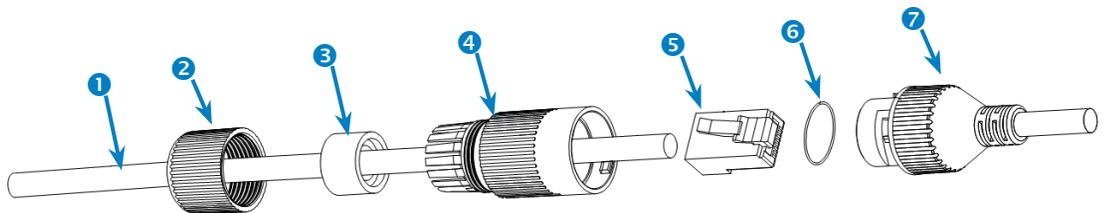
For outdoor installs, be sure to use the waterproofing kit on your network cable, as shown on the next page.



## Weatherproofing the Network Cable

We recommend weatherproofing your cable for all outdoor installations, no matter how shielded your camera may be from the elements. Use the weatherproofing kit provided with the camera, and an unterminated network cable.

1. Before terminating the RJ45 cable **1**, slide it through the lock nut **2**, the thick rubber gasket **3**, and the weatherproof endcap as shown. Be sure the notched side of the rubber gasket **3** faces toward the endcap, as shown in the diagram below.
2. Terminate the RJ45 cable **1** with a network plug **5**.
3. Place the O-ring **6** onto the end of the camera's network interface socket **7** with the flat side toward the camera. Push it past the locking teeth as far as it easily goes.
4. Connect the RJ45 plug **5** to the camera's network socket **7**.
5. Align the teeth on the weatherproof endcap **4** with the gaps on the camera's network interface socket **7**, then insert the socket into the endcap. Twist until they click into position (the O-ring **6** gives you a little flexibility while still weatherproofing the connection).
6. Slide the thick rubber gasket **3** into the weatherproof endcap **4**, and secure it by screwing the lock nut **2** tightly onto the endcap **4**.



## Installation: On-Ceiling

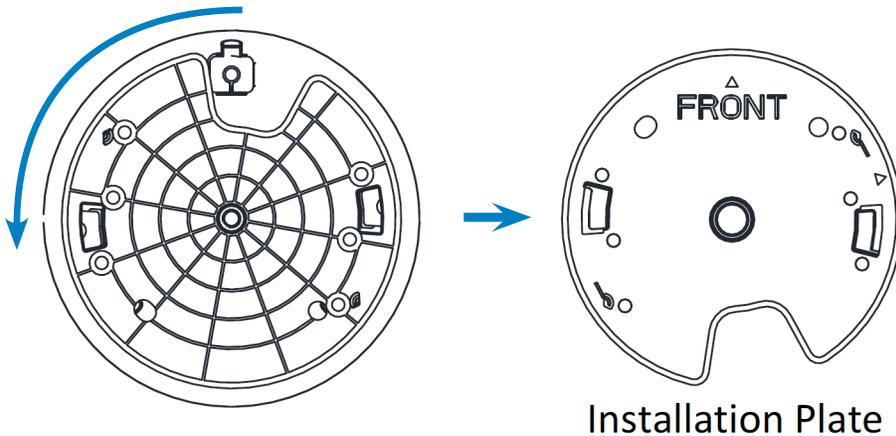
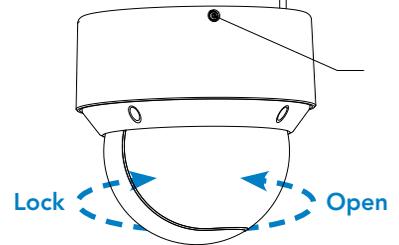
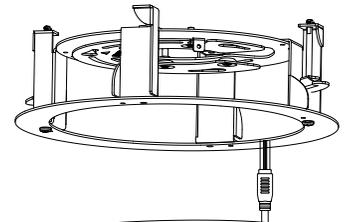
The cables can be routed either from the top of the extension mount and into the ceiling, or out the side of the extension mount to run across the ceiling.

### Requirements

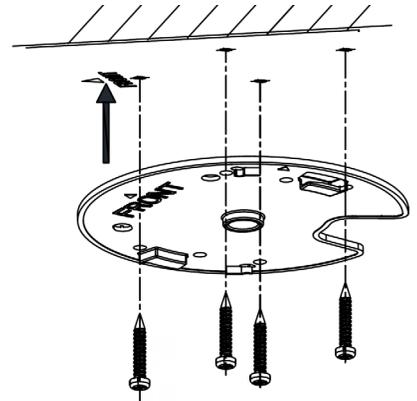
- The ceiling must be strong enough to hold four times the weight of the PTZ camera (and mount).
- The ceiling tiles should be 5–40mm thick.

### Steps

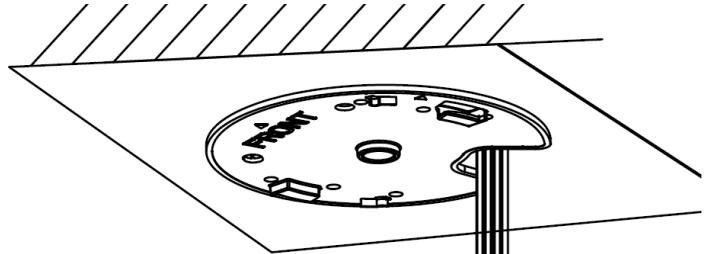
1. Turn the camera over. Rotate the installation plate counterclockwise to separate it from the camera.
2. Place the installation plate in the desired location. Ensure the front of the plate aims toward the primary viewing area; the camera's cabling routes out the back.
3. Holding the installation plate in place, use a pencil to mark the drilling locations using the plate as a guide.
4. Drill four holes for mounting screws.



5. Flip the base plate over and attach it to the ceiling as shown.



6. Route the cables through the cable hole or conduit and connect them to the camera tails.



7. Align the PTZ camera with the base plate. Insert the PTZ camera and rotate it clockwise into the base plate until the camera can turn no further (this is the opposite of step 1). Note the icons on the side of the PTZ to ensure you rotate it properly.



## 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 PoE switch, 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 networked PC. Run the Luma Utility. It searches for attached Luma Surveillance devices. If your camera does not appear, check the connection, ensure the camera has power, then click **Refresh**.

### 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.

|                                     |     |                    |             |          |               |      |      |     |                  |            |
|-------------------------------------|-----|--------------------|-------------|----------|---------------|------|------|-----|------------------|------------|
| <input checked="" type="checkbox"/> | 006 | LUM-500-DVR-16...  | Luma 16C... | Inactive | 192.168.8.113 | 80   | 8000 | 554 | V3.0.4build 1... | snapavTest |
| <input type="checkbox"/>            | 007 | LUM-700-BUL-IPH... | IP CAMERA   | Active   | 192.168.8.144 | 80   | 8000 | 554 | V5.4.1build 1... |            |
| <input type="checkbox"/>            | 008 | LUM-500-TUR-IP...  | IP CAMERA   | Active   | 192.168.8.145 | 8019 | 8000 | 554 | V5.4.1build 1... |            |
| <input type="checkbox"/>            | 009 | LUM-500-TUR-IP...  | Seedfuret   | Active   | 192.168.8.104 | 8025 | 0000 | 554 | V5.3.6build 1... | snapavTest |
| <input type="checkbox"/>            | 010 | LUM-500-BUL-IP...  | IP CAMERA   | Active   | 192.168.254.3 | 80   | 8000 | 554 | V5.4.1build 1... |            |
| <input type="checkbox"/>            | 011 | LUM-500-BUL-IP-GR  | IP CAMERA   | Active   | 192.168.8.112 | 80   | 8000 | 554 | V5.4.1build 1... |            |
| <input type="checkbox"/>            | 012 | LUM-700-DOM-IP...  | IP CAMERA   | Active   | 192.168.8.126 | 8016 | 8000 | 554 | V5.4.1build 1... |            |
| <input type="checkbox"/>            | 013 | LUM-700-BUL-IPH... | IP CAMERA   | Active   | 192.168.254.4 | 80   | 8000 | 554 | V5.4.1build 1... |            |

You can modify the network parameters after the device activation.

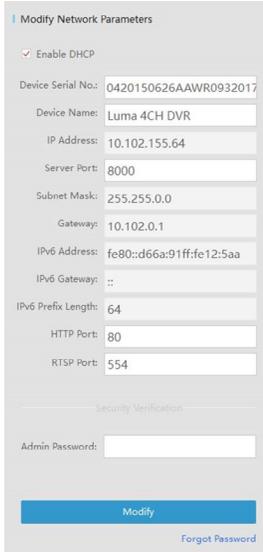
Refresh

New Password:

Confirm 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 *parisinthespring* is more secure and easier to remember than a password like *D3x-7b*.

## Edit the Network Settings



**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    |
|                   |

## 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.

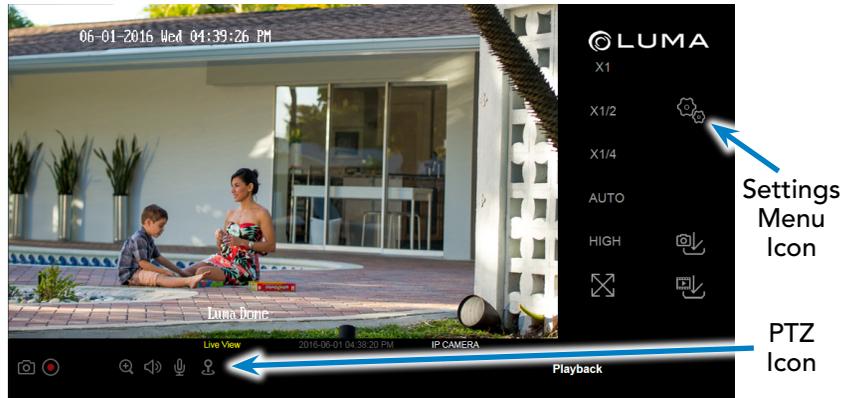
Install the *LumaWebComponents* plug-in, restart your browser and go to your camera's login window. Log in as *admin* using the password you created.

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.



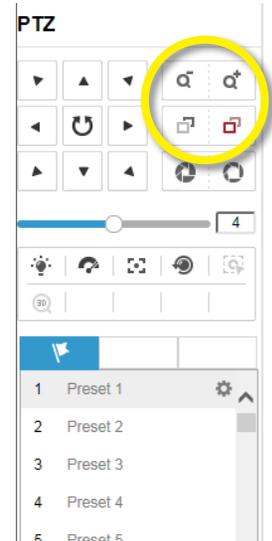
## Zoom and Focus

This camera has a motorized varifocal lens.

To adjust the focus, return to the live screen (see previous page) and click the PTZ icon . This opens up the PTZ menu on your screen.

In the PTZ menu, the buttons circled control the lens.

- The Zoom- button on the top left widens the angle of vision, providing a more panoramic view.
- The Zoom+ button on the top right lowers the angle of vision, providing a tighter view.
- The Focus- button on the bottom left focuses on near objects.
- The Focus+ button on the bottom right focuses on distant ones.



## Set Up Presets

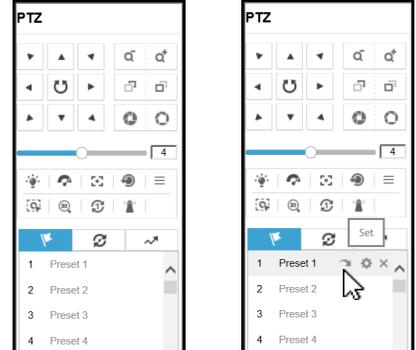
To set up presets and patrols, go to the live page and click the PTZ icon . This opens up the PTZ menu on your screen.

### Set Up Presets

You can set up to 300 different presets. To set a preset, click the flag button on the PTZ menu to open the preset tab. Use the arrow, zoom, and focus buttons to move your camera to a desired alignment. When you are satisfied, click the preset number you want it to be, then press the gear button to save the position.

To call a preset, press the arrow on the preset's button. Clicking X deletes the associated preset.

Presets 33–45 and 92–105 are reserved for system use. They cannot be overwritten.



## 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 12) 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  | <b>DDNS</b> | PPPoE                  | Ports | NAT |
|---|-------------|------------------------|-------|-----|
| <input checked="" type="checkbox"/> Enable DDNS |             |                        |       |     |
| DDNS Type                                       |             | WirepathDDNS           |       |     |
| Server Address                                  |             | ns2.wirepathdns.com    |       |     |
| Domain  |             | myhome                 |       |     |
| User Name                                       |             |                        |       |     |
| Port  |             | 1                      |       |     |
| Password  |             |                        |       |     |
| Confirm   |             |                        |       |     |
| Device URL                                      |             | myhome.wirepathdns.com |       |     |

## Final Steps

### 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**.

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).

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

### Need Help? Contact Tech Support!

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

### 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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Version 191220-1117

**WARNING:** This product can expose you to chemicals including cadmium, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



310 Series IP PTZ Camera