



300 Series Mini Bullet
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, **connect your camera to the Internet** via your NVR or through a local network router.

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

Required Equipment

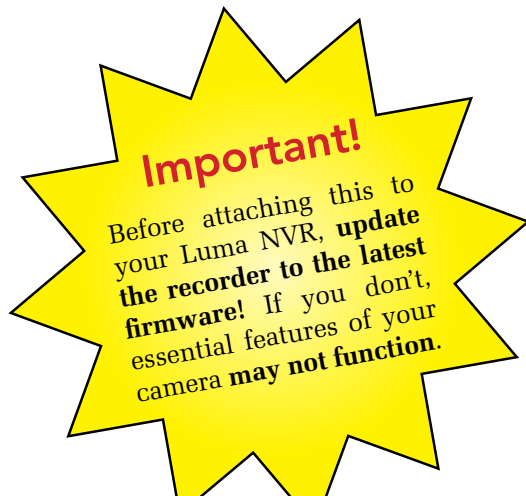
- A network connection (and an NVR, if desired)
- Admin rights to a computer that can access the network
- Power source: PoE or 12V DC
- Mobile device with Luma Surveillance mobile app (recommended) or CCTV tester
- Phillips screwdriver

Box Contents

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

Additional Resources

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



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 -22–140 °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.

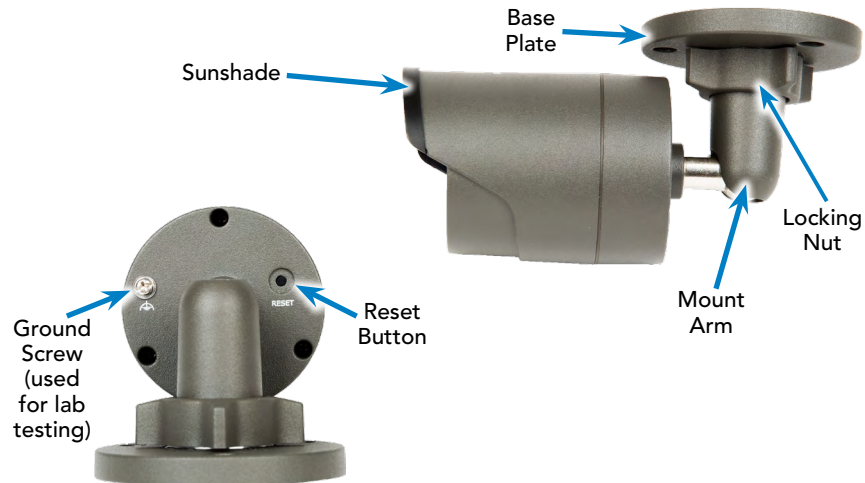
Precautions

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.

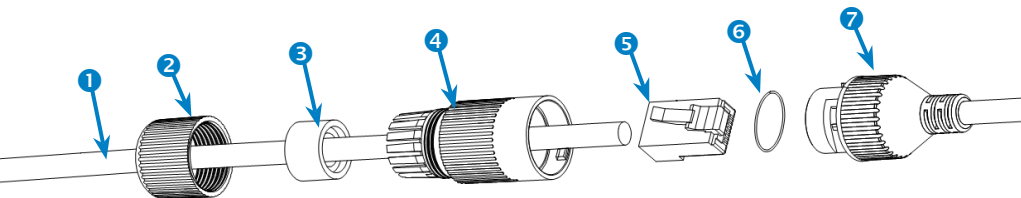
Your Camera

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



Prepare for Installation

1. Drill pilot holes for your screws in the mounting surface, using the supplied template.
2. **CAUTION! Before terminating your RJ45 for an outdoor install, you must weatherproof it! See the next page for details.**
3. 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.
4. Attach the base of the camera to the mounting surface and secure it.



Weatherproofing the PoE 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 to the left.
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.

Install the Camera with an NVR

1. Route the cable through the hole cut in the side of the base.
2. Secure the base of the camera to the mounting surface with screws.
3. Weatherproof the cable where it exits the base.
4. Ensure your NVR has the latest firmware. If it does not, you may experience troubles locating the camera.
5. Plug your camera into your recorder. The NVR autodetects your camera and assigns it an IP address.
6. Check that the camera is powered up.
7. 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.](#)
8. 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 the Camera with No NVR

1. Route the cable through the hole cut in the side of the base.
2. Attach the base of the camera to the mounting surface and secure it with screws.
3. Weatherproof the cable where it exits the base.
4. Plug the camera into your network switch or router, then attach either a PoE cable or a power supply.
5. Check that the camera is powered up.
6. Continue setup using the steps on the following pages.


Discover the Camera

If you plugged your camera into an NVR, do not continue using this guide! Complete the setup using the manual provided with your NVR.

Visit any NVR's product page at SnapAV.com and download the Luma Utility installer. Once it has downloaded, double-click on the Luma Utility icon to run the installer. You can accept the defaults.



Double-click the Luma Utility icon to run the program.

The utility searches the local network for all Luma Surveillance devices. If your camera does not appear, ensure that the network connections are secure and that the camera is powered up, then click the  Refresh button.

Click on the entry for your camera to view its details. Double-clicking on the camera opens its web interface. **Note that Chrome is not a supported browser for the web interface.**

Set the IP Address

Modify Network Parameters	
IP Address:	192.168.1.172
Server Port:	8008
HTTP Port:	80
Subnet Mask:	255.255.255.0
IPv4 Gateway:	192.168.1.1
IPv6 Address:	4:49f0:d66a:91ff:fe14:2939
IPv6 Gateway:	
IPv6 Prefix Length:	64
Device Name:	IP CAMERA
Device Serial No.:	LUM-700-DOM-IPH-WH20
<input checked="" type="checkbox"/> Enable DHCP	

If you need to change the network settings at a later date, consult the camera's web interface manual.

At the top of the right column of the Luma Utility, make a note of the IP address; you'll need it in the next step.

Deselect the **Enable DHCP** box to make the IP address static.

Change the Port Numbers

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

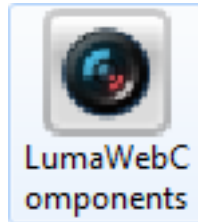
The server port defaults to 8000. This port enables the Luma Surveillance mobile app to access your system.

For security reasons, we suggest you change your ports and make a note of the new port numbers for your records. Consult your server or router manual for common and reserved port numbers to avoid.

To confirm changes, enter the password *admin* and then click **Save**.

Start the Web Interface

Open your browser, type the IP address of the camera into the address bar, and hit **Return**.



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.

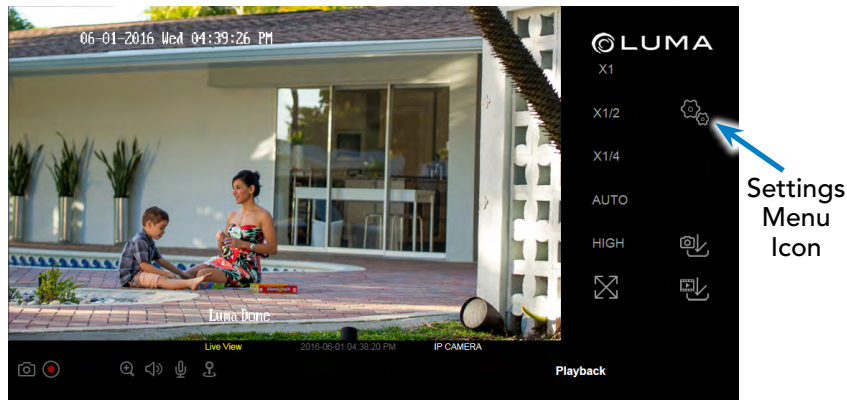
Enter *admin* for both the user name and password.

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

This camera's mount arm can rotate 360° around the mounting base. It has an elbow joint that allows the camera to be angled. In addition, the camera can rotate 360° within the elbow joint.

1. Loosen the locking nut at the mounting base until the mount arm can rotate.
2. Aim the camera in the direction desired, ensuring that it remains upright with the sunshade on top.
3. While holding the camera with one hand, tighten the locking nut to secure the camera in position.

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 **Basic Network Settings > DDNS**.

Click the box labeled **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 a unique ID (typically two to four digits) to your domain.

Example: If you choose the domain myhome (as shown), your system's URL would be myhome.WirepathDDNS.com. If someone already had claimed the myhome URL, then your system's URL would be something like myhome13.WirepathDDNS.com.

If you do not like these digits, try another domain or server address.

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

TCP/IP	DDNS	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		

Set Up Port Forwarding

Port forwarding is typically found under the Applications & Gaming section of your router. Refer to your router's user manual for full details.

To complete port forwarding, you will need:

- the IP address of the camera, and
- the server and HTTP port.

You set these values on page 13.

Once you've finished, pointing your browser to your device's URL (example: MyHome.WirepathDDNS.com) gets you to the login page of your camera, 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.WirepathDDNS:8042).

Change the Admin Password

Configure This Computer

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Storage Management

Click on **User Management**.

Click on the admin account, then click **Modify**.

Passwords cannot be longer than 16 characters. If you are using an NVR, to ensure compatibility with the NVR's 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*.

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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