



Instruction Manual

E881AP Series



Instruction Manual

E881AP Series

Thank you for purchasing this product. Lorex Corporation is committed to providing our customers with a high quality, reliable security solution.

This manual refers to the following models:

E881AP

For the latest online manual, downloads and product updates, and to learn about our complete line of accessory products, please visit our website at:

lorex.com



WARNING

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

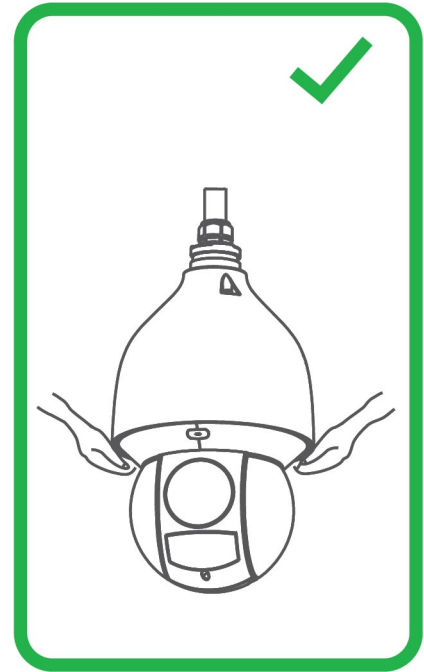
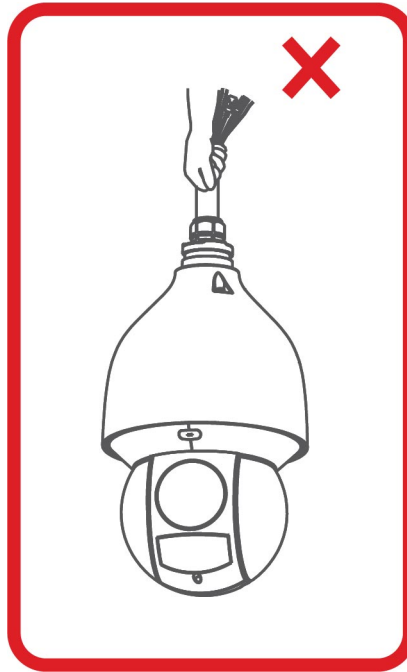
CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF THE PLUG TO THE WIDE SLOT AND FULLY INSERT.

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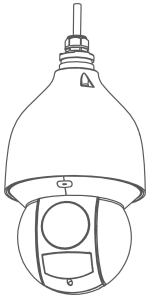
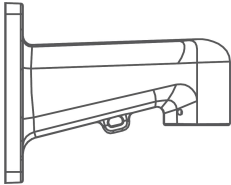
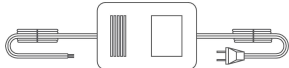
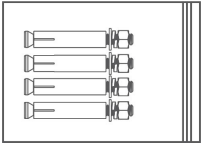
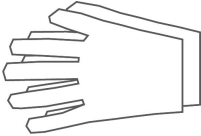
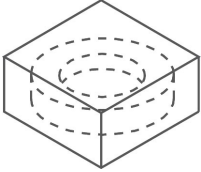
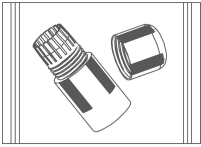
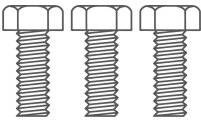
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Safety Instructions

- Read this guide carefully and keep it for future reference.
- Follow all instructions for safe use of the product and handle with care.
- Use the camera within given temperature, humidity, and voltage levels noted in the 10 *Technical Specifications*, page 29.
- Camera is rated for outdoor use and is weatherproof when properly installed. Camera is not intended for submersion in water. Installation under a sheltered environment is recommended.
- Make sure to disconnect the power cabling before installing the camera. Camera will begin moving immediately when power cable is connected.
- Periodic cleaning may be required. Use a damp cloth only. Do not use anything other than water to clean the dome cover, as chemicals such as acetone can permanently damage the plastic.
- Do not disassemble the camera.
- Do not point the camera directly towards the sun or a source of intense light.
- Make sure to secure the camera during installation by connecting the included safety chain.
- Mount the camera in an area that is visible but out of reach.
- Make sure to install the camera in a location that can support the combined weight of the camera and wall mount (weight: 11.7lb/5.3kg).
- Make sure there are no live electrical cables in the area where you plan to mount the camera.
- Ensure that the camera wiring is not exposed or easily cut.
- Use only the supplied regulated power supply. Use of a non-regulated, non-conforming power supply can damage this product and voids the warranty.
- Ensure you adhere to local building codes.
- **Do not** hold the camera from the cable. Hold the camera from the edge of the dome cover



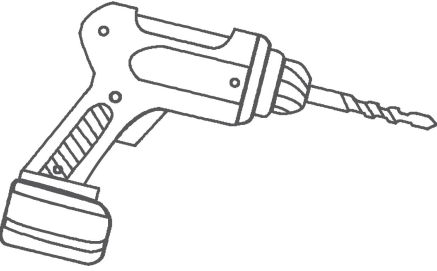
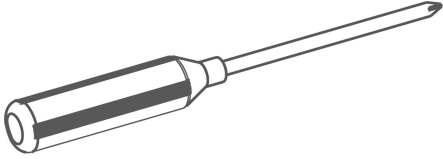
The camera comes with the following components:

		
PTZ Camera	Wall Mount	Power Adapter
		
Mounting anchors, screws, flat washers (x4)	ESD Gloves	Safety Chain
		
Waterproof Tape	Waterproof Connector	Allen Key (A)
		
Allen Key (B)	M6x14 Screws (x3)	Rubber Ring

 **NOTE**

Your accessories might appear different from the ones depicted in this guide.

The following are user supplied tools (not included). You will need use:

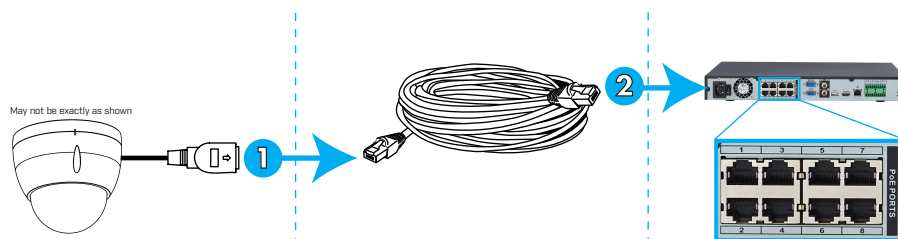
	
Drill	Screwdriver



NOTE

It is recommended to connect the camera to your NVR and test the PTZ controls before permanent installation. For instructions on how to set up PTZ controls, see 5 *Controlling the PTZ camera with an NVR*, page 15.

3.1 Option 1: Connecting the Camera to an NVR



1. Connect the PoE+ connector on the camera cable to an Ethernet extension cable.
2. Connect the Ethernet extension cable to one of the PoE+ ports on the back panel of your NVR.



NOTE

- You can use up to a 300ft (91m) CAT5e Ethernet cable to connect the camera to your NVR (not included).
- For the most up-to-date list of compatible NVRs, please visit lorex.com/compatibility.

3. **Alarm:** Connect the camera to an alarm system using alarm output (blue), alarm communication (green), alarm ground (yellow and green), alarm input (red and/or brown).
4. **Audio:** Connect the camera to external audio device using audio output (red), audio input (white), and audio ground (black).

3.2 Option 2: Connecting Cameras to the Local Area Network (LAN)

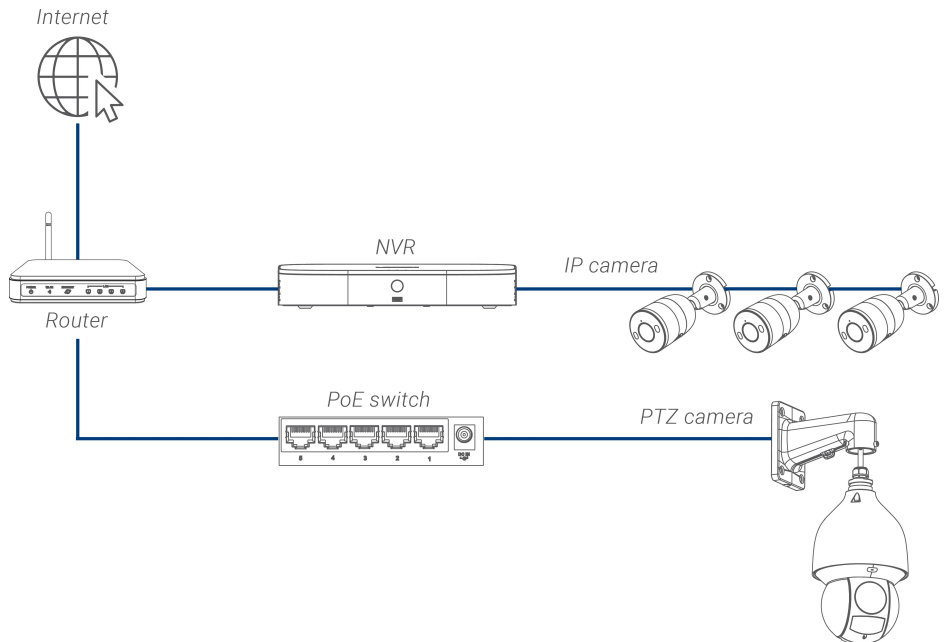
For flexibility, you may also connect the camera to the same Local Area Network (LAN) as the NVR. This is accomplished by connecting the camera to the same router as the NVR. For these installations, an external PoE+ switch (sold separately) or power adapter (included) must be used to provide power to the camera. You also must add the camera on the NVR before it will show a picture on the monitor or be recorded by the NVR.

What is PoE+?

PoE (Power over Ethernet) is a technology that allows Ethernet cables to carry electrical power to connected devices. High-powered devices such as PTZ cameras use PoE+ (also known as PoE class 4 or IEEE 802.3at), which provides more power to connected devices than standard PoE. Compatible NVRs use integrated PoE+ ports to provide power and PTZ commands to the camera, as well as video connection to the NVR. PoE+ ports will provide up to 30W to each connected device, whereas standard PoE (class 3) ports only provide up to 15W. In order to use this PoE+ rated camera without a power adapter, you must connect it directly to a compatible NVR or a PoE+ switch on the same network as the NVR. PoE+ switches are available for purchase on lorex.com.

Complete the following steps to connect the camera to the NVR over the LAN.

Step 1 of 2 — Option A: Connecting the camera to your local network using an optional PoE+ switch:



1. Connect an Ethernet cable of up to 300ft (91m) rated CAT5e or higher (not included) from the LAN port on an external PoE+ switch (sold separately on lorex.com) to your router. Connect the power cable to the PoE+ switch and to a power outlet or surge protector.

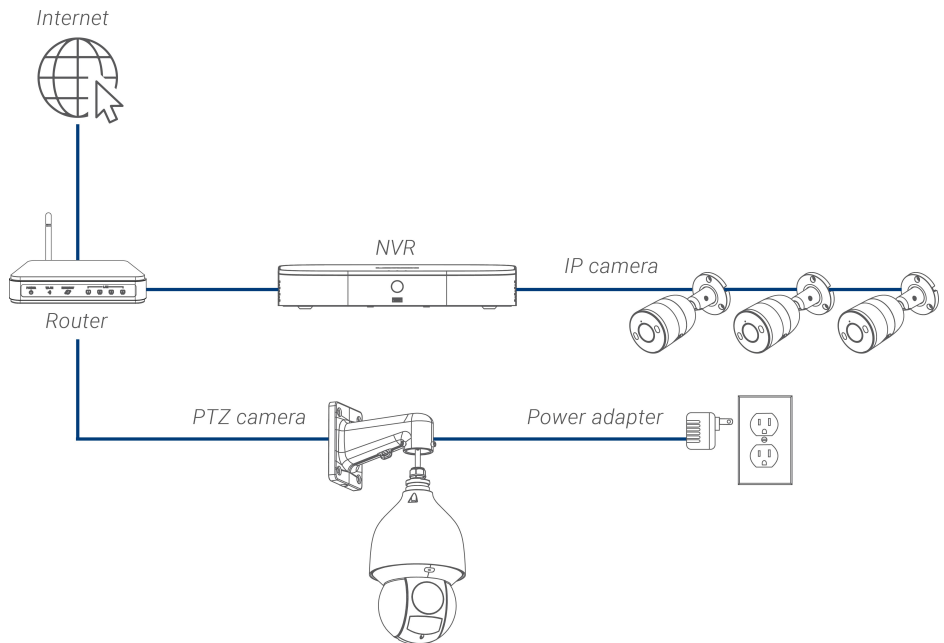


NOTE

Terminology may vary depending on the model of PoE+ switch you have.

2. Connect the camera to the PoE+ switch using an Ethernet cable (or a CAT5e Ethernet cable of up to 300ft (91m) — not included). The PoE+ switch will provide power and video transmission the same way as your NVR.
3. **Alarm:** Connect the camera to an alarm system using alarm output (blue), alarm communication (green), alarm ground (yellow and green), alarm input (red and/or brown).
4. **Audio:** Connect the camera to external audio device using audio output (red), audio input (white), and audio ground (black).

Step 1 of 2 — Option B: Connecting the camera to your local network using a power adapter:



1. Connect the camera to the included power adapter using red for DV24V(+), black for GND (-), yellow & green for earth.
2. Connect the camera to a router in the same network as your NVR using an Ethernet cable (or an Ethernet cable of up to 300ft (91m) rated CAT5e or higher — not included).
3. **Alarm:** Connect the camera to an alarm system using alarm output (blue), alarm communication (green), alarm ground (yellow and green), alarm input (red and/or brown).
4. **Audio:** Connect the camera to external audio device using audio output (red), audio input (white), and audio ground (black).

Step 2 of 2: Add the camera to your NVR:



NOTE

For instructions on how to locate the serial and model number of your recorder, visit www.lorextechnology.com and search for "Where is the Serial and Model Number located".

3.3 Adding the PTZ Camera to an NVR:

The following instructions are based on the N842/N862 Series NVRs. See your NVR's instruction manual for instructions on controlling the PTZ camera with your system.

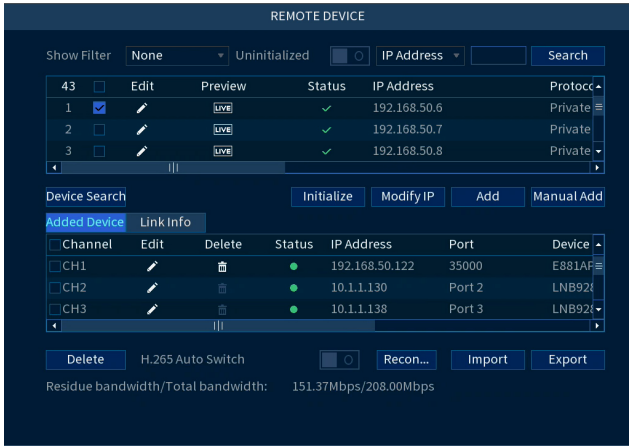


NOTE

You must have at least one empty channel before attempting to add the camera to the NVR.

1. Right-click during live view and select **Camera Registration** or **Device Search**.
2. Log in using the admin account (default User Name: **admin**; default Password: **000000**).

3. Click **Device Search**. The system searches the network for compatible cameras.



4. Check the camera(s) you would like to add.
5. Click **Add**. The Status indicator turns green to show the camera is successfully connected.



**NOTE**

You can also add a camera to a specific channel by hovering the mouse over an empty channel in split-screen view and clicking . Click **Device Search** and double-click the camera you would like to add. Right click to exit.

4.1 Installation Tips & Warnings



WARNING

Make sure to install the camera in a location that can support the combined weight of the camera and wall mount (weight: 11.7lb/5.3kg).

- Camera is rated for outdoor use. It is recommended to install the camera in a sheltered area, such as under the eaves on a roof.
- It is recommended to install the camera as high up as possible to get the best possible image.
- Mount the camera where the lens is away from direct and intense sunlight.
- Plan your cable wiring so that it does not interfere with power lines or telephone lines.
- Ensure you adhere to local building codes.
- Ensure that the camera wiring is not exposed or easily cut.
- Mount the camera in an area that is visible but out of reach.



NOTE

This camera includes all components required for wall mounting.

For the most up-to-date software and complete instruction manuals:

1. Visit lorex.com.
2. Search for the model number of your product.
3. Click on your product in the search results.
4. Click on the **Downloads** tab.

4.2 Installation (Indoor / Outdoor)

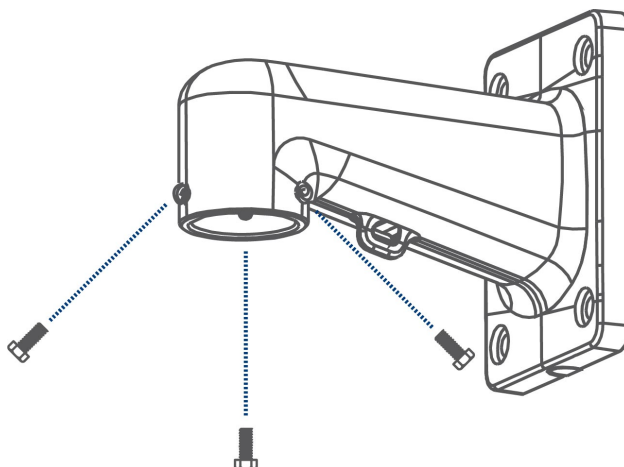


CAUTION

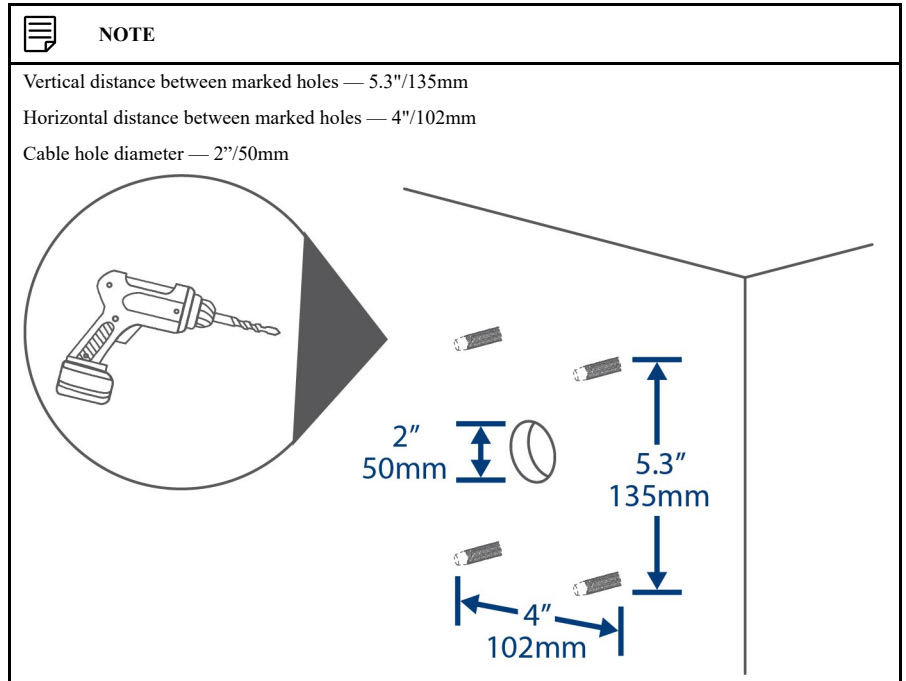
- Make sure to disconnect the power cable before installing the camera. Camera will begin moving immediately when power cable is connected.
- Make sure to install the camera in a location that can support the combined weight of the camera and wall mount (11.7lb/5.3kg).

To install the camera on a wall:

1. Attach the rubber ring to the back of the wall mount to ensure the weatherproof rating of the camera.
2. Use the Allen key (A) with the flat end to attach the M6x14 screws (x3) to the wall mount. Do not tighten all the way.

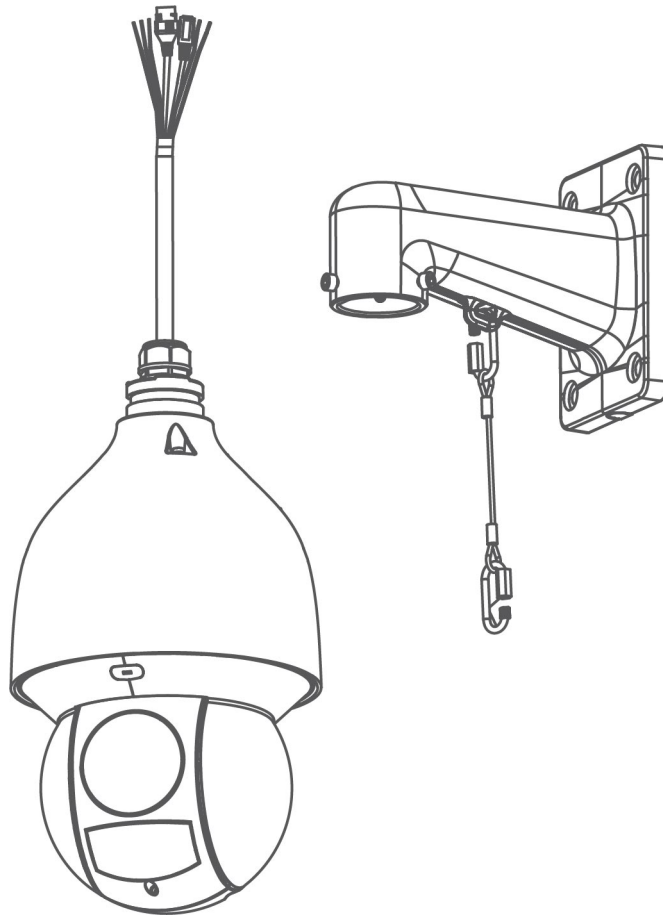


3. Use the included wall mount to mark holes for the mounting anchors (x4) and cables.

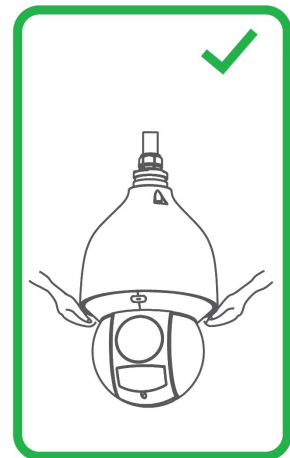
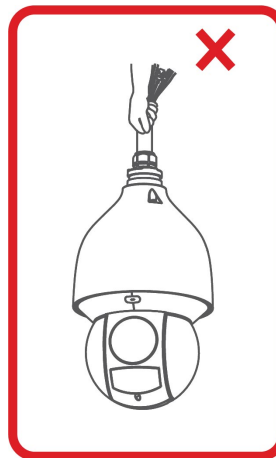


4. Drill holes (drill bit size — 3/8") to a depth of 2.8"/70mm in the mounting surface where marked.
5. Insert the mounting anchors (x4) into the holes and tap them into the wall with a hammer.

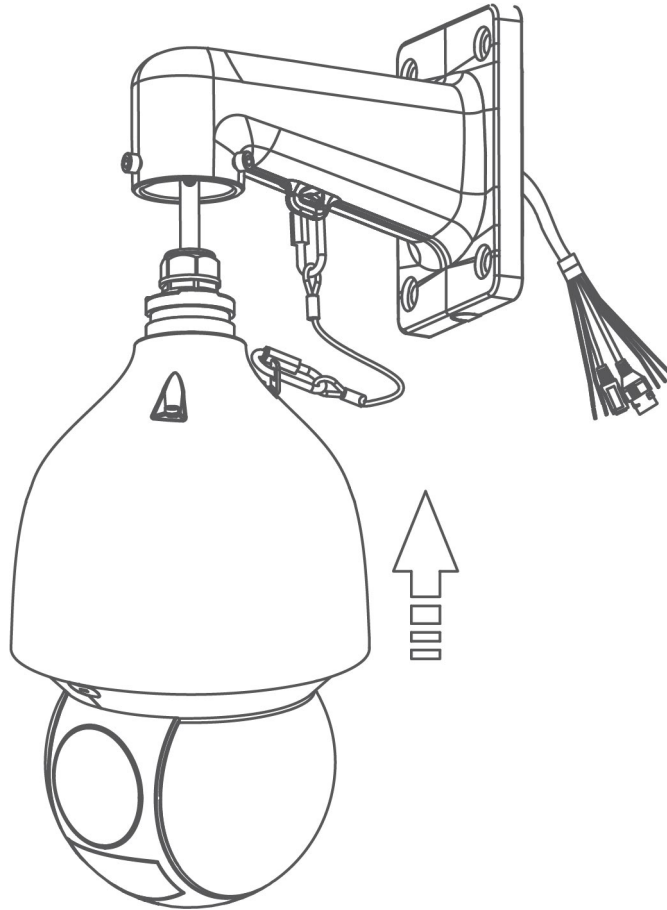
6. Connect the safety chain between the camera and the wall mount. This allows the camera to hang from the wall mount while connecting the cables.

**CAUTION**

- You must connect the safety chain between the camera and the wall mount to protect the camera from falling while connecting the cables.
- Do not hold the camera from the cable. Hold the camera from the edge of the dome cover.

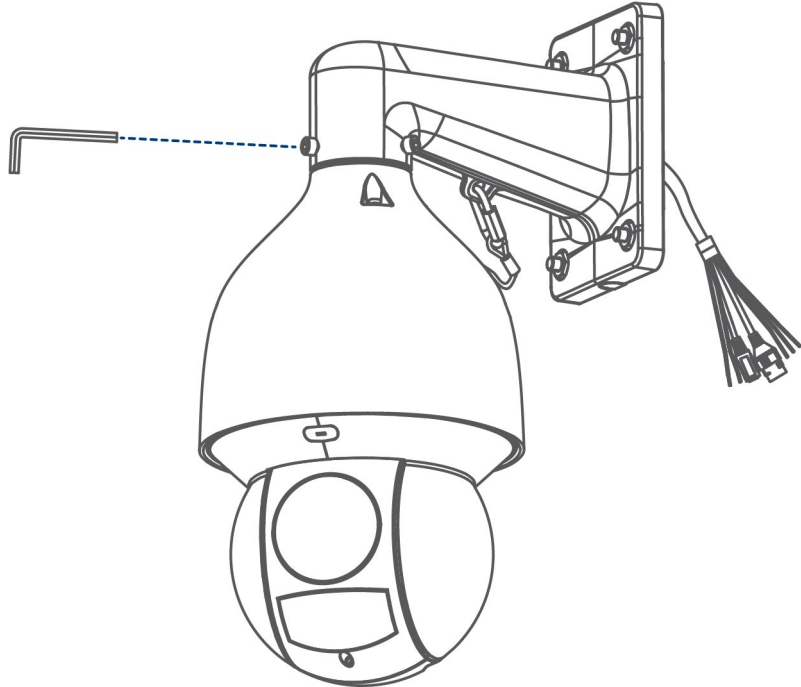


-
7. Push the connection cables into the wall mount



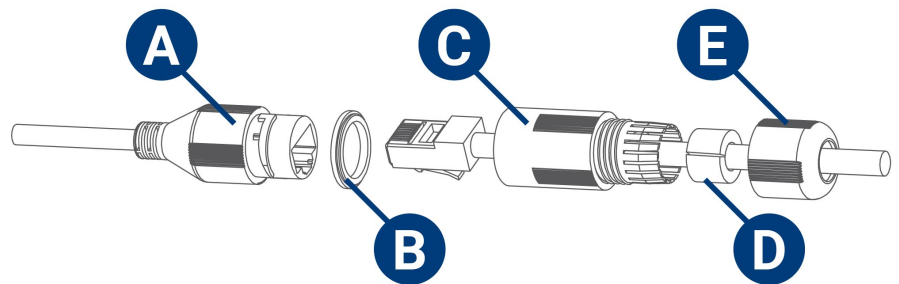
8. Push the camera into the wall mount with the flat surfaces aligned on the inside. This will allow the M6x14 screws (x3) to align with the holes on the camera.

9. Use the included Allen key (A) to tighten the M6x14 screws and secure the camera in place.



10. Connect the connection cables.

To connect the cables using the waterproof connector:



A: Camera Ethernet Connector

B: O-ring

C: Barrel

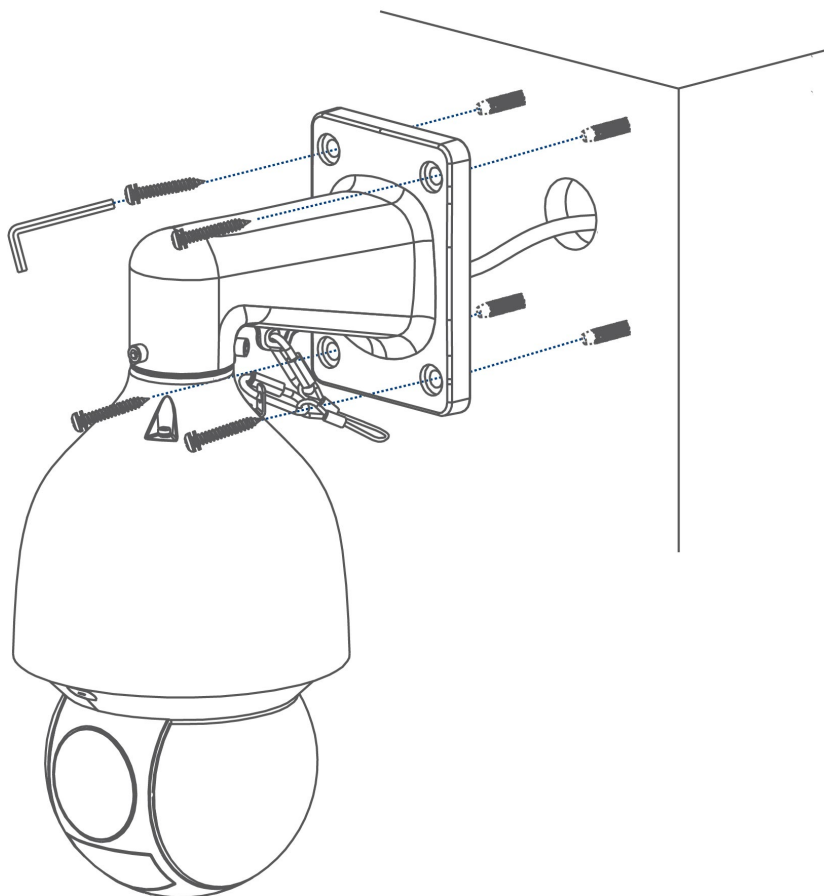
D: Stopper

E: End Cap

- 10.1. Fit the o-ring around the camera Ethernet connector.
- 10.2. Feed the Ethernet extension cable through the end cap and the barrel then connect the cable to the camera Ethernet connector.
- 10.3. Twist the barrel securely onto the camera Ethernet connector. The o-ring becomes compressed when the seal is properly tight.

- 10.4. Split the stopper to wrap it around the cable between the barrel and end cap as shown above.
 - 10.5. Push the stopper toward the barrel until it is underneath the teeth at the end of the barrel.
 - 10.6. Twist the end cap clockwise to secure it onto the barrel. The stopper becomes compressed and will stick out of the end cap slightly when the seal is properly tight.
11. Pull the connection cables through the wall mount and mounting surface.
 12. Attach the flat washers (x4) to the mounting screws (x4).

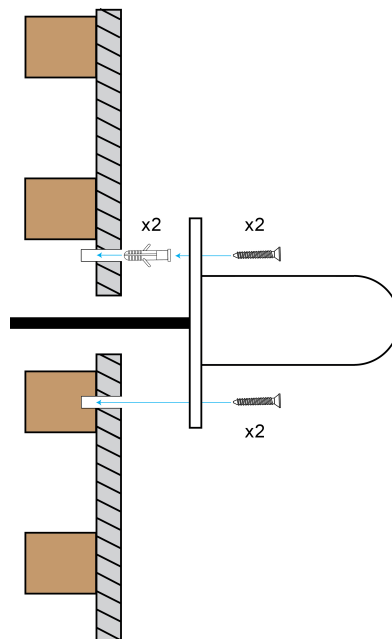
-
13. Use the included Allen key (B), mounting screws (x4) and flat washers (x4) to firmly attach the wall mount to the mounting surface.

**NOTE**

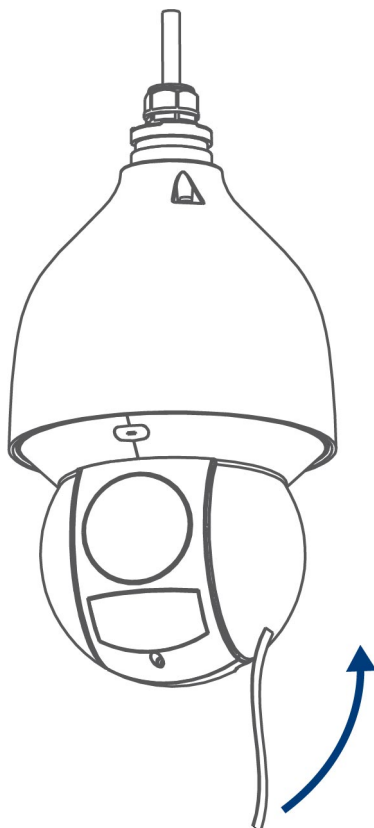
Imagery for illustration purposes only.

**WARNING**

Make sure to install the wall mount bracket in a location that can support the camera's weight. If mounting the camera on a drywall surface, you must drill at least 2 of the mounting screws through a wooden stud to ensure a stable mount. See the diagram below for details.



14. Remove the protective vinyl sheet covering the camera lens once installation is completed.



Controlling the PTZ camera with an NVR

The camera can accept PTZ commands directly through the Ethernet cable. There is no need to run special wiring to control the movement of the PTZ camera.

- For instructions on controlling the PTZ camera with the N882 Series NVRs, see 6 *Controlling the PTZ camera with N882 Series NVR*, page 16
- For instructions on controlling the PTZ camera with the N842/N862 Series NVRs, see 7 *Controlling the PTZ camera with N842/N862 Series NVRs*, page 21

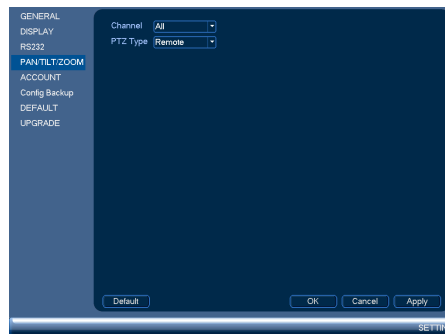
Controlling the PTZ camera with N882 Series NVR

The following instructions are based on the N882 Series NVR. See your NVR's instruction manual for instructions on controlling the PTZ camera with your system. For the latest list of compatible NVRs, please visit lorex.com/compatibility.

To connect the PTZ camera to the system:

1. Connect the camera to your NVR as detailed in 3 *Connecting the Camera*, page 3.
2. Right-click on the live view of the PTZ camera and click **Main Menu**. Enter the system user name (default: **admin**) and password (default: **000000**) if prompted.

3. Click  > **SETTING** > **PAN/TILT/ZOOM**.

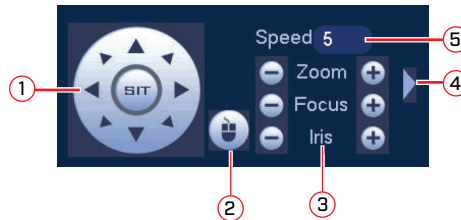


4. Under **Channel**, select the channel your PTZ camera is connected to.
5. Under **PTZ Type**, select **Remote**.
6. Click **OK**. You can now control your PTZ camera using the system.

6.1 Controlling the PTZ Camera

1. In Live View, double-click the channel that has the PTZ camera connected to open in full-screen.
2. Right-click and click **PTZ**. Enter the system user name and password if prompted. The PTZ menu opens.
3. Use the on-screen controls to control the camera.

PTZ Controls



1. **Direction keys:** Click to pan and tilt the camera. Click **SIT** to stop the current action.
2. **PTZ Trace:** Click to activate mouse PTZ Trace mode. You can do the following:
 - Click and drag to move the camera.
 - Use the scroll wheel to zoom in and out.
 - Right-click to exit and return to normal PTZ controls.
3. **Zoom/Focus/Iris:** Click +/- to adjust the zoom, focus, and iris. Adjusting the camera's iris settings allow you to control the amount of light that enters the camera's lens. The higher the iris value, the greater the amount of light that enters the camera's lens.



CAUTION

Adjust the camera's iris settings to match the environment where the camera is installed. Too much light exposure might result in a very bright camera image.

4. **Advanced controls:** Click to open advanced PTZ controls.
5. **Speed:** Enter a PTZ speed between **1** (slowest) and **8** (fastest).

6.2 Advanced PTZ Controls

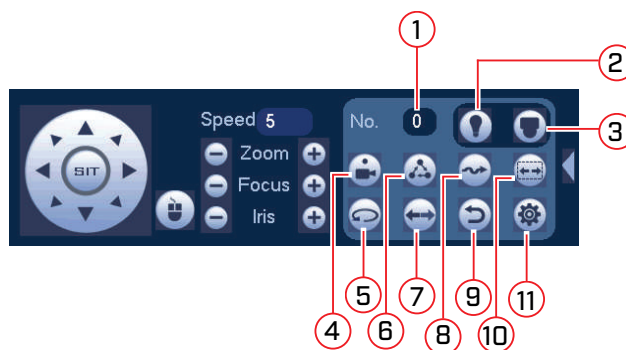
Advanced PTZ controls can be used to save camera positions and cycle through various positions, and automate camera actions.

To open advanced PTZ controls:

- Click the arrow in the PTZ control window to open advanced controls.



Advanced PTZ controls overview:



1. **No.:** Click to select the number of the action you want to perform.
2. **Not supported.**
3. **Not supported.**
4. **Preset:** Click to call the selected preset.

5. **Autopan**: Click to start autopan. During autopan, the camera will continuously pan 360°.
6. **Tour**: Click to run the selected tour.
7. **Not supported**.
8. **Pattern**: Click to run the selected pattern.
9. **Not supported**.
10. **Auto scan**: Click to run the selected autoscan.
11. : Click to open the **PAN/TILT/ZOOM** menu, where you can set up Presets, Tours, Patterns, and Auto Scans.

6.2.1 Presets

Presets will save a camera position for quick retrieval.

To add presets:

1. Click  to open the **PAN/TILT/ZOOM** menu.
2. Click the **Preset** tab.



3. Under the **Preset** text box, enter the number of the preset you want to create.
4. Move the camera to the desired position and click **Set**.



NOTE

Click **Del Preset** to delete a preset.

5. Right-click to return to the advanced PTZ controls window.

To go to a preset:

- Under **No.**, select the number of the preset you would like to go to and click .

6.2.2 Tours

Tours will cycle through a set of presets.

To create a tour:

1. Click  to open the **PAN/TILT/ZOOM** menu.
2. Click the **Tour** tab.



3. Under **Patrol No.**, select the tour you would like to configure.
4. Under **Preset**, select a preset you would like to add to the tour.
5. Click **Add Preset**.
6. Repeat steps 4 and 5 to add additional presets to the tour.

**NOTE**

Click **Del Tour** to clear all presets from a tour.

7. Right-click to return to the advanced PTZ controls window.

To run a tour:

- Under **No.**, select the number of the tour you would like to go to and click .

**NOTE**

- There is a 5 second minimum pause between presets.
- Tour panning / tilting speed is slower than manual panning / tilting speed. The reduced speed maximizes reliability.
- We recommend you do not make the camera pan more than 270° between any two points in a tour.

6.2.3 Pattern

Patterns automatically cycle the camera between two positions.

To create a pattern:

1. Click  to open the **PAN/TILT/ZOOM** menu.
2. Click the **Pattern** tab.



3. Under **Pattern**, enter the pattern you would like to configure.
4. Move the camera into the desired start position and click **Start**.
5. Move the camera into the desired end position and click **End**.
6. Right-click to return to the advanced PTZ controls window.

To run a pattern:

- Under **No.**, select the number of the pattern you would like to go to and click .

**NOTE**

- We recommend you do not make the camera pan more than 270° between any two points in a pattern.
- For instructions on how to control the PTZ camera using the smartphone or tablet app, refer to your NVR's instructional manual.

6.2.4 Auto Scan

An auto scan automatically cycles between a left and right point.

To create a new auto scan:

-
1. Click  to open the **PAN/TILT/ZOOM** menu.
 2. Click the **Border** tab.



3. Move the camera into the desired left position and click **Left**.
4. Move the camera into the desired right position and click **Right**.

To run an auto scan:

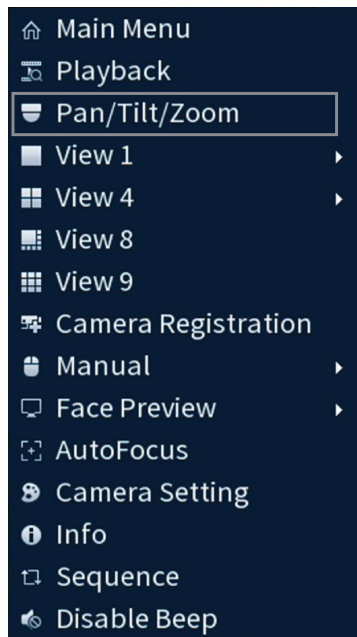
- Click .

Controlling the PTZ camera with N842/N862 Series NVRs

The following instructions are based on the N842/N862 Series NVRs. See your NVR's instruction manual for instructions on controlling the PTZ camera with your system. For the latest list of compatible NVRs, please visit lorex.com/compatibility.

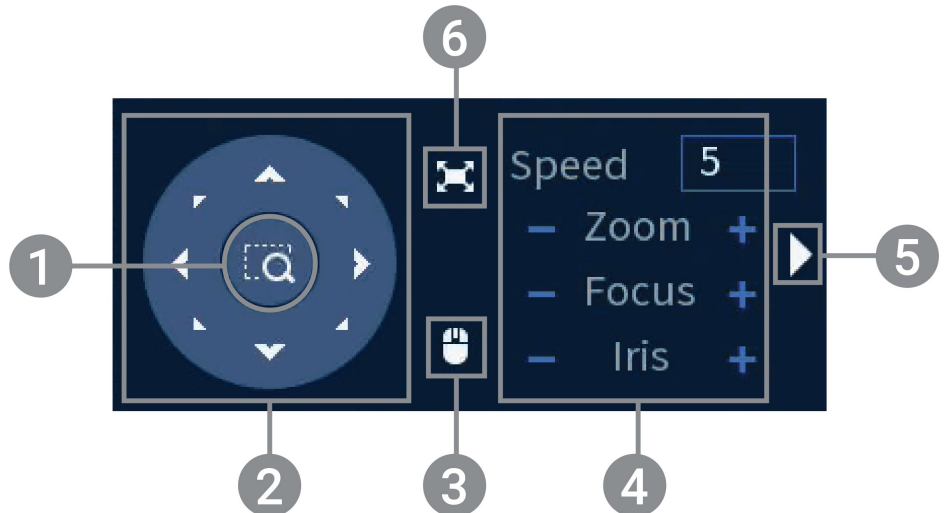
7.1 Controlling the PTZ Camera

1. Connect the camera to your NVR as detailed in 3 *Connecting the Camera*, page 3.
2. Open the Live View screen for your PTZ camera in single-channel view (full screen).
3. Right-click to open the Quick Menu, then click **Pan/Tilt/Zoom**.



4. Enter the system user name and password if prompted. The PTZ menu opens.
5. Use the on-screen controls to control the camera.

PTZ Controls



1. **Zoom-to-Area:** Click, then click-and-drag to draw a box on the camera image. The PTZ camera will zoom in to the selected area.
2. **Navigation Controls:** Click the directional arrows to move the PTZ camera manually.
3. **Mouse Tracking:** Click to enable/disable mouse tracking. When enabled, you can do the following:
 - Click-and-drag in the direction you would like the PTZ camera to move.
 - Use the scroll wheel to zoom in and out.
 - Right-click to exit and return to normal PTZ controls.
4. **PTZ Settings:**
 - **Speed:** The speed of PTZ camera movement. A higher value means the camera will move faster.
 - **Zoom:** Optical zoom level. Click + to zoom in, and – to zoom out
 - **Focus:** Manually control focus level. Click + to focus on objects further from the camera, or – to focus on objects closer to the camera.
 - **Iris:** Controls the amount of light coming through the lens. Click + to allow more light, or – for less.



CAUTION

Adjust the camera's iris settings to match the environment where the camera is installed. Too much light exposure might result in a very bright camera image.

5. **Advanced controls:** Click to open advanced PTZ controls.
6. **Full Screen:** Click to enable/disable full screen mode. Double-click the mouse to exit the full screen.

7.2 Advanced PTZ Controls

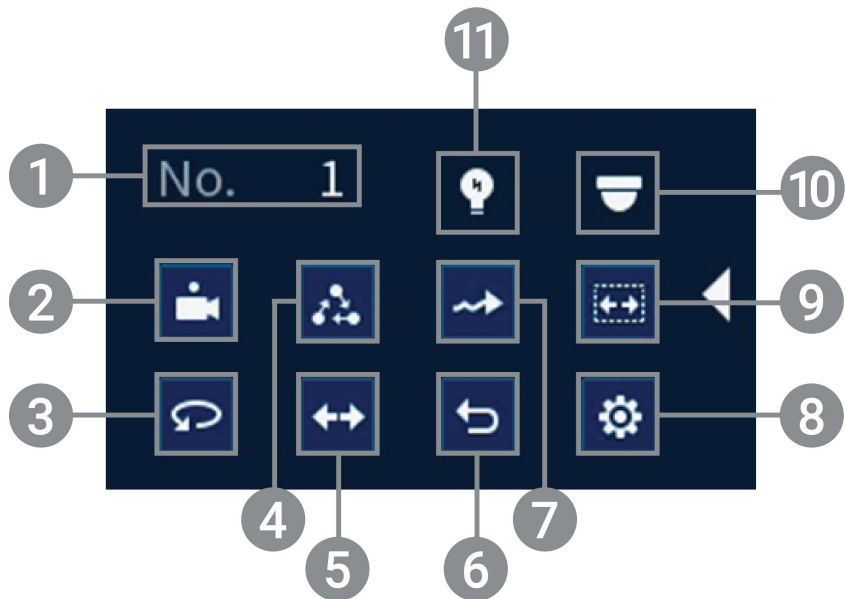
Advanced PTZ controls can be used to save camera positions and cycle through various positions, and automate camera actions.

To open advanced PTZ controls:

- Click the arrow in the PTZ control window to open advanced controls.



Advanced PTZ controls overview:



1. **No.:** Enter the ID number for a preset, tour, or pattern you want to activate.
2. **Preset:** Click to call the selected preset.
3. **Autopan:** Click to start autopan. During autopan, the camera will continuously pan 360°.
4. **Tour:** Click to run the selected tour.
5. **Not supported.**
6. **Not supported.**
7. **Pattern:** Click to run the selected pattern.
8. : Click to open the **PAN/TILT/ZOOM** menu, where you can set up Presets, Tours, Patterns, and Auto Scans.
9. **Auto scan:** Click to run the selected autoscan.
10. **Not supported.**
11. **Not supported.**

7.2.1 Presets

Presets will save a camera position for quick retrieval.

To add presets:

1. Click  to open the **PAN/TILT/ZOOM** menu.
2. Click the **Preset** tab.



3. Under the **Preset** text box, enter the number of the preset you want to create.
4. Move the camera to the desired position and click **Setup**.

**NOTE**

Click **Del Preset** to delete a preset.

5. Right-click to return to the advanced PTZ controls window.

To go to a preset:

- Under **No.**, select the number of the preset you would like to go to and click .

7.2.2 Tours

Tours will cycle through a set of presets.

To create a tour:

1. Click  to open the **PAN/TILT/ZOOM** menu.
2. Click the **Tour** tab.



3. Under **Patrol No.**, select the tour you would like to configure.
4. Under **Preset**, select a preset you would like to add to the tour.
5. Click **Add Preset**.
6. Repeat steps 4 and 5 to add additional presets to the tour.

**NOTE**

Click **Del Tour** to clear all presets from a tour.

7. Right-click to return to the advanced PTZ controls window.

To run a tour:

- Under **No.**, select the number of the tour you would like to go to and click .

**NOTE**

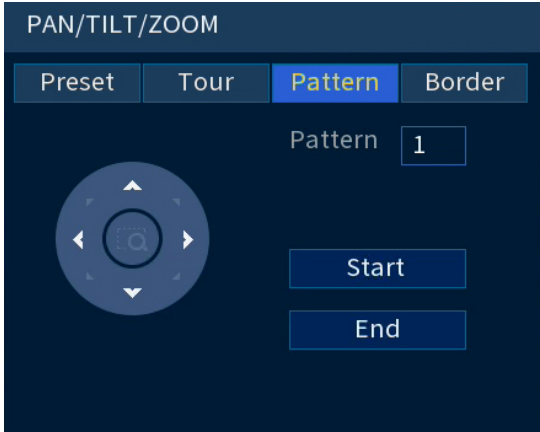
- There is a 5 second minimum pause between presets.
- Tour panning / tilting speed is slower than manual panning / tilting speed. The reduced speed maximizes reliability.
- We recommend you do not make the camera pan more than 270° between any two points in a tour.

7.2.3 Pattern

Patterns automatically cycle the camera between two positions.

To create a pattern:

- 1. Click  to open the **PAN/TILT/ZOOM** menu.
- 2. Click the **Pattern** tab.



- 3. Under **Pattern**, enter the pattern you would like to configure.
- 4. Move the camera into the desired start position and click **Start**.
- 5. Move the camera into the desired end position and click **End**.
- 6. Right-click to return to the advanced PTZ controls window.

To run a pattern:

- Under **No.**, select the number of the pattern you would like to go to and click .

 **NOTE**

- We recommend you do not make the camera pan more than 270° between any two points in a pattern.
- For instructions on how to control the PTZ camera using the smartphone or tablet app, refer to your NVR's instructional manual.

7.2.4 Auto Scan

An auto scan automatically cycles between a left and right point.

To create a new auto scan:

- 1. Click  to open the **PAN/TILT/ZOOM** menu.
- 2. Click the **Border** tab.



3. Move the camera into the desired left position and click **Left**.
4. Move the camera into the desired right position and click **Right**.

To run an auto scan:

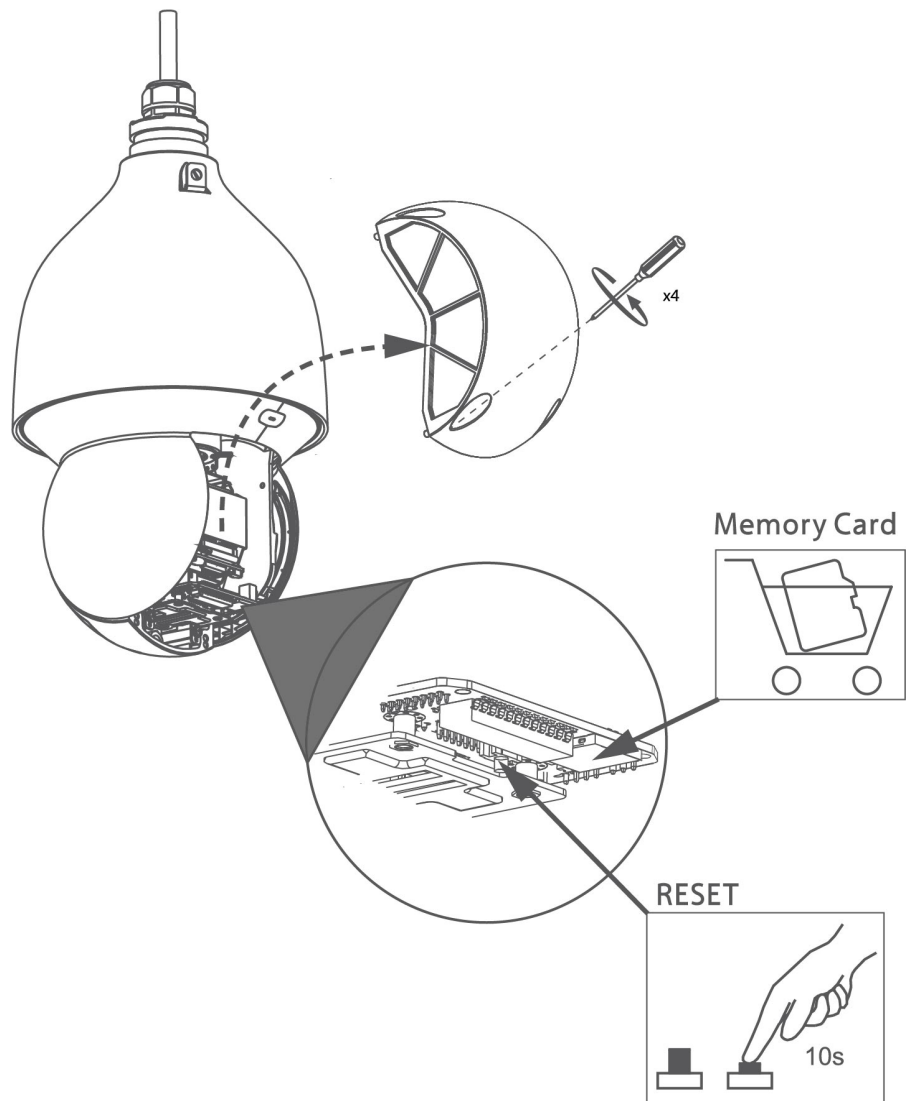
- Click .

Inserting the microSD Card (Optional) and Resetting the Camera

The camera features a hard reset button that is used to reset all camera settings back to the default values. This is useful in case you want to revert camera image settings back to the default values.

To reset the camera:

1. Connect the camera as detailed in 3 *Connecting the Camera*, page 3. Make sure the camera is powered on.
2. Loosen the service panel screws (x4), but do not remove them. Remove the service panel cover.



3. The service panel allows you to perform the following:
 - Insert a microSD card into the microSD card slot. For local recording, you can install a microSD card up to 128GB. SanDisk™ or Kingston™ brand microSD cards are recommended. microSD card Class 10 or higher required.
 - Press and hold the reset button for 10 seconds to reset the camera to default settings



NOTE

It may take few minutes for the camera image to reappear on the screen.

9.1 Troubleshooting

There is no picture at night.

- Camera is capable of seeing in extremely low light conditions, but it cannot see in total darkness. It is recommended to install the camera where there is some ambient light (e.g. street lighting, starlight, moonlight, etc.) or leave a light on in the area where the camera is installed.

No image at startup.

- The camera may take up to 1 minute to power up after being connected to the NVR. Wait 2 minutes before following steps below.
- Check to ensure your camera is properly connected (see 3 *Connecting the Camera*, page 3).
- If you are using a PoE switch, it must be PoE+ rated (PoE class 4). Standard PoE switches are not adequate to power the camera. PoE+ switches are available for purchase on lorex.com (model #: **ACCLPS241B (4-channel model)** or **ACCLPS281B (8-channel model)**).
- Ensure the camera is connected to a router on the same network as the NVR.
- If the camera is connected to the LAN, you must search your network for cameras using the NVR. See your NVR's instruction manual for details.
- Make sure that the cable run is within the limitations specified in 3 *Connecting the Camera*, page 3. All Ethernet cables must be rated CAT5e or higher.
- If using the included power adapter, connect it to a different outlet.
- Ethernet cable may be damaged or not connected properly. Check your cable run or try a different cable.
- Reset the camera to factory default settings. See 8 *Inserting the microSD Card (Optional) and Resetting the Camera*, page 27 for details.

No image or camera image is unclear.

- Dome cover is dirty. Clean the dome cover with a soft, slightly damp cloth. Do not use anything other than water to clean the dome cover, as chemicals such as acetone can permanently damage the plastic.

Image is distorted.

- Digital zoom is activated. Activating digital zoom may reduce the resolution of the camera image. Zoom out completely to return to the camera's optimal resolution. See 5 *Controlling the PTZ camera with an NVR*, page 15 to be directed to instructions on using the zoom controls.
- Image may become unclear when camera is tilted too close to the camera base (e.g. pointed parallel to the ceiling). Tilt the camera using NVR PTZ controls.

Image is too bright.

- Ensure your camera isn't pointed directly at a source of light (e.g. sun or spot light).
- Check your NVR's brightness and contrast settings.
- Move your camera to a different location.
- Enable HDR (High Dynamic Range) in your NVR. HDR is optimized for outdoor environments to help with over- or under-exposed images of scenes with both bright and dark areas in the same picture.

Image is too dark.

- Check your NVR's brightness and contrast settings.
- Move your camera to a different location.
- Enable HDR (High Dynamic Range) in your NVR. HDR is optimized for outdoor environments to help with over- or under-exposed images of scenes with both bright and dark areas in the same picture.

NVR motion detection is constantly triggering.

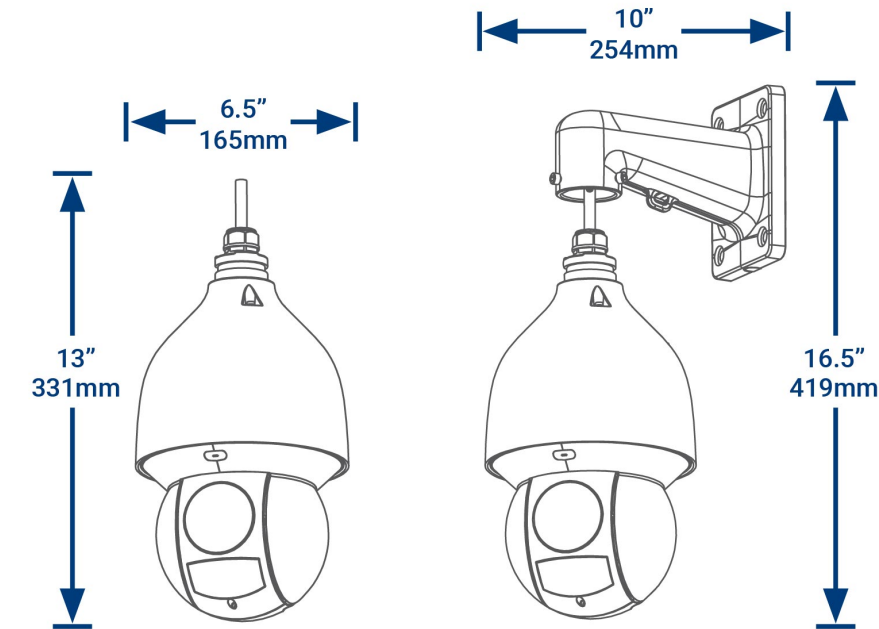
- Turn off motion detection on the channel the PTZ camera is connected to. NVRs use video motion detection, which means they detect motion by looking for changes between frames (images) in the video. If the camera is moving, the NVR will detect this as motion.

Video Output	IP
Image Sensor	4K (8MP), 1.8" CMOS
Video Format	NTSC
Video Compression	H.265/H.264H (Main Stream & Sub Stream)
Effective Pixels	3840 (H) x 2160 (V)
Resolution/Frame Rate	Up to 4K (8MP) @30fps
Field of View	Horizontal: 61.6°– 3.6°/Diagonal: 66.6°– 4°
Optical Zoom	25×
Digital Zoom	Yes — Digital zoom is a function controlled by the connected NVR. For a list of compatible NVRs visit: lorex.com/compatibility .
Lens/Lens Type	5.3-135mm F1.6- F4.0/Zoom Module
Pan/Tilt Range	0°□360° Pan (Endless); –15°□90° Tilt
Pan/Tilt Speed	Manual Speed — Max 300°/Sec Pan; Max 200°/Sec Tilt Preset Speed — Max 400°/Sec Pan; Max 300°/Sec Tilt
Auto Flip	300°
Presets	300
Patterns	5
Tours	8
Other PTZ Functions	Auto Scans, Auto Pan
Continuous Rotation	Yes
Camera OSD	Yes
HDR	Yes
Color Night Vision	Yes
Night Vision Range	492ft (150m)
Termination	RJ45
Power Requirement	PoE+ (802.3at); 24V DC (Optional)
Power Consumption	Max. 1A / 24W
Operating Temperature Range	-22°F ~ 140°F / -30°C ~ 60°C
Operating Humidity Range	<95%RH
Indoor/Outdoor	Both (IP67) ¹
Body Material	Aluminum Alloy
Weight (Camera & Wall Mount)	11.7lbs / 5.3kg
Dimensions	Camera & Wall Mount = (L) 10" x (W) 6.5" x (H) 16.5" Camera = (W) 6.5" x (H) 13" Wall Mount = (L) 4.5" x (W) 8" x (H) 6.5" Vertical Wall Mount Holes = 5.3" Horizontal Wall Mount Holes = 4" Cable Hole = 2"

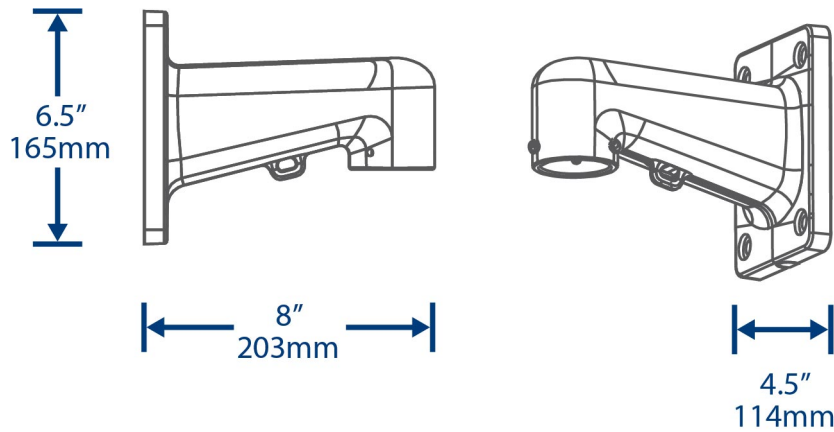
1. Not intended for submersion in water. Installation in a sheltered location recommended.

10.1 Dimensions

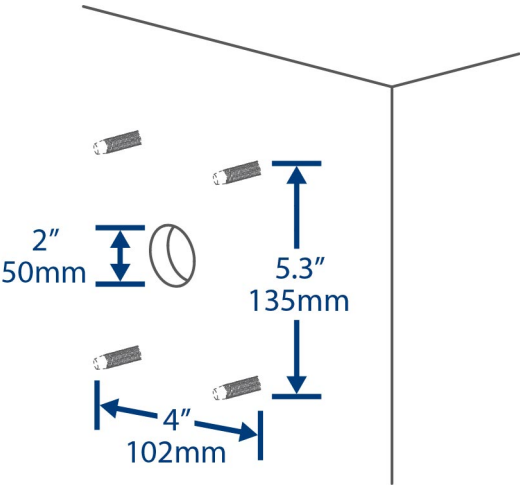
10.1.1 Camera & Wall Mount



10.1.2 Wall Mount



10.1.3 Wall Mount Holes & Cable Hole





Website

www.lorextechnology.com

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