## Contents

- IP Dome Camera\*
- Mounting Screw Kit\*
- Mounting Template\*
- 100ft Cat5e Ethernet Cable\* \* Per camera

WARNING - The cameras are only compatible with Lorex LNR200 Series NVR's and use PoE for power and data transmission over Ethernet cables. A power adapter is not required for the use of the camera. Use of the camera with power adapters or with other, non-approved PoE equipment is not covered under warranty.

## Features

- H.264 video compression technology
- Full HD 1080P resolution
- Plug-and-play Power over Ethernet (PoE) connection to NVR
- True Day/Night mode: Picture automatically switches to B&W delivering better clarity in low light conditions
- 3D DNR Frame-to-frame Digital Noise Reduction combined with Spatial Noise Reduction, delivering a cleaner, more accurate image, with better clarity, sharpness, greater disc space for storage, and improved motion detection.
- Digital-Wide Dynamic Range backlight compensation provides clear detailed images where very bright and very dark areas are in the same field of view and frame of the camera.
- Outstanding Night Vision up to 150ft away in typical night time ambient lighting and up to 100ft away total darkness\*
- Automatic Infrared Filter ensures true & accurate color in all lighting conditions
- Wide angle 4mm lens for superior detail (75° diagonal FOV)
- Weatherproof (IP66) rated aluminum housing for indoor/outdoor installations\*
- Close-up recognition at night with auto light compensation prevents washout effect
- Anti-alare feature ensures clear images under strong lighting conditions
- Set It and Forget It -Auto-Detect pre-configured cameras\*\*\*

#### **Disclaimers:**

\* Stated IR illumination range is based on ideal conditions in typical outdoor night time ambient lighting and in total darkness. Actual range and image clarity depends on installation location, viewing area and light reflection / absorption level of object. \*\* Not intended for submersion in water. Installation in a sheltered location recom

\*\*\* 1 minute discovery time when connecting a new camera to NVR.

# Warning/Caution

- Use the camera only with compatible Lorex LNR200 Series NVR's
- 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 Camera Specifications
- Do not disassemble the camera
- Do not point the camera directly towards the sun or a source of intense light
- Periodic cleaning may be required. Use a damp cloth only. Do not use harsh cleaners or aerosol cleaners
- The supplied extension cable is rated for surface mounting only
- Cables for in-wall / floor-to-floor installations are sold separately

# Installation Tips

- Point the camera where there is the least amount of obstructions (i.e. tree branches)
- Install the camera in a location that is difficult for vandals to reach
- Secure cabling so that it is not exposed or easily cut
- Camera rated for outdoor use. Installation in a sheltered location recommended

# **Camera Specifications**

Image Sensor	1/3" Color Image Sensor	
Video Format	NTSC	
Effective Pixels	H: 1920 V: 1080	
Resolution	1080P @ 30FPS (Frames Per Second)	
Scan System	Progressive	
Sync System	Internal	
lris	Auto Iris	
AES Shutter Speed	1/25 ~ 1/100,000 Sec.	
Min. Illumination	0.14 Lux without IR LED 0 Lux with IR LED	
Lens / Lens Type	4mm F1.2 / Fixed	
Digital Noise Reduction	3D-DNR	
Wide Dynamic Range	Digital WDR	
FOV (Diagonal)	75°	
Termination	RJ45 10M / 100M Ethernet	
IR LED Qty. / Type	30 pieces / 850nm	
Night Vision Range*	150ft (45m) / 100ft (30m)	
Power Requirement	РоЕ	
Operating Temp. Range	14° ~ 140°F / –10° ~ 60°C	
Operating Humidity Range	< 95% RH	
Indoor/Outdoor**	Both (IP66)	
Weight (including stand)	0.9lbs / 0.4kg	

\* Stated IR illumination range is based on ideal conditions in typical outdoor night time ambient lighting and in total darkness. Actual range and image clarity depends on installation location, viewing area and light reflection / absorption level of object.

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

# **Dimensions**



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- O Quick Start Guides
- Software Upgrades

**Specification Sheets** 

Firmware Upgrades



Quick Start Guide English Version 3.0





User Manuals

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- C Product Information

# **Installing the Camera**

**ATTENTION** - Ensure the camera is working correctly prior to permanent installation by temporarily connecting the camera(s) and cable(s) to the NVR.

**NOTE** - This camera may only be mounted to a ceiling. The image will appear sideways if mounted to a wall.

### Before installing the camera:

- Decide whether to run the cables through the ceiling (drilling required) or along the ceiling.
- If you run the cables along the ceiling, you must run the cable through the cable notch on the base. This will keep the camera base flush to the ceiling when mounted.

#### To install the camera:

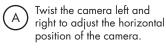
- 1. Use the included mounting template to mark holes for the mounting screws.
- Connect the Ethernet cable to the camera as shown in the section 'Connecting the Camera'. If you are running the cables against the ceiling, make sure to pass the cable through the cable notch as shown above.
- 3. Loosen the 3 cover screws and then lift the cover away from the camera.



4. Mount the camera to the ceiling using the included mounting screws.



5. If you need to adjust the viewing angle of the camera:



B Loosen the adjustment screw on the side of the camera. Tilt the camera to A adjust its vertical position. When finished, tighten the adjustment screw to lock the position.

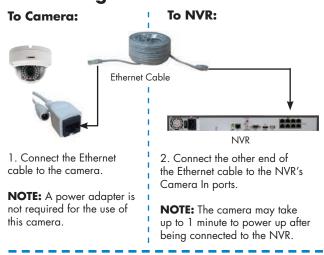
Do not remove any screws from inside the camera. Do not loosen any screws other than the one shown.

6. Replace the cover and tighten the cover screws.



- Ensure that the cable and strap are fully inside the camera when replacing the cover.
- 7. Remove the protective film from the dome cover.

# Connecting the Camera



## **Setup Diagram**



**ATTENTION** - This camera includes an Auto Mechanical IR Cut Filter. When the camera changes between Day/Night viewing modes, an audible clicking noise may be heard from the camera. This clicking is normal, and indicates that the camera filter is working.

## **Cable Extension Options**

Extend the Ethernet cable run for your camera up to 300ft. See table below.

Cable Type	Max Cable Run Distance	Max # of Extensions
Cat5e or higher Ethernet cable	300ft / 92m	3

You can use RJ45 Couplers (not included) to connect male ends of Ethernet cable together.



RJ45 Coupler

# Troubleshooting

Problem	Solution
No picture / signal	<ul> <li>Ensure the camera is connected to one of the Camera In ports on your NVR</li> <li>The camera may take up to 1 minute to power up after being connected to the NVR. Wait two minutes and then follow the steps below to troubleshoot</li> <li>Ensure your NVR is connected to a TV/monitor</li> <li>There may be an issue with your extension cable run. Connect the camera to the NVR using a different Ethernet cable</li> </ul>
Picture is too bright	<ul> <li>Ensure your camera isn't pointed directly at a source of light (e.g. sun or spot light)</li> <li>Slide the sunshade (bullet cameras featuring adjustable sunshades only) forward to block excess light</li> <li>Move your camera to a different location</li> <li>Check the brightness and contrast settings on the NVR</li> </ul>
Picture is too dark	<ul> <li>If using during the day, the camera may not be getting enough light. Slide the sunshade (bullet cameras featuring adjustable sunshades only) backwards to let in more light</li> <li>Check the brightness and contrast settings on the NVR</li> </ul>
Night vision is not working	<ul> <li>The night vision activates when light levels drop. The area may have too much light</li> </ul>
Picture is not clear	<ul> <li>Check the camera lens for dirt, dust, spiderwebs. Clean the lens with a soft, clean cloth</li> <li>Make sure that the cable run is within the limitations specified in the section 'Cable Extension Options'</li> </ul>
Bright spot in video when viewing camera at night	• Night vision reflects when pointing a camera at a window. Move the camera to a different location

