G-Series PoE NVR Quick Start Guide

Introduction

The exacqVision G-Series Power over Ethernet (PoE) systems are part of the exacqVision series of network video recorders (NVR). Depending on the model, the G-Series PoE has either 8 or 16 PoE camera ports. The exacqVision G-Series PoE includes the full functionality of the exacqVision video management system (VMS), without the need to wire cameras to a power supply.

Installation

Before you turn on the exacqVision G-Series PoE server, ensure that the installation environment meets the following requirements.

Electrical requirements

⚠ **CAUTION:**

Danger of explosion if the battery is incorrectly replaced. Replace the battery with the same or equivalent type according to the manufacturer's instructions. Discard used batteries according to the manufacturer's instructions.

⚠ **CAUTION:** Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.

- This equipment is not suitable for use in locations where children are likely to be present.
- This product must be supplied by a UL listed certificate power supply, with an output rated 54 VDC, 3.33 A minimum, TMA 104°F (40°C) minimum, and a maximum altitude of 16404 ft (5000 m). If you need further assistance, contact https://www.exacq.com/support/techsupport/.
- Connect the information technology equipment (ITE) only to PoE networks without routing to the outside plant.
- The unit uses a three-wire ground cable that is equipped with a third pin to ground the unit and prevent electric shock. Do not remove or alter this pin in any way. If your outlet does not support this kind of plug, contact your electrician to replace your obsolete outlet.
- The PoE port supports 10/100 Mbps, 802.3 af/at in compliance with a total of 120 W for the 8 port device and 240 W for 16 port device.

Mounting and operating environment requirements

- Mount the G-Series PoE in a dust-free and climate-controlled location where the temperature is between 40°F and 95°F (4.5°C to 35°C) and the humidity level is less than 80% non-condensing.
- ⚠ **CAUTION:** Dust may cause components of the server to overheat, and elevated temperatures can contribute to premature hard drive failures.
- If the hard drives are dispatched separately to the system, insert each drive into the hard drive slots. If the drives are numbered, ensure that you insert the correct drive into the appropriate slot.

Electrical environment requirements

- For maximum reliability, connect the G-Series PoE to a UPS power supply. An online UPS filters power surges and dips that can damage the server.
- Connect a keyboard, a monitor, and a mouse to the server.
- Connect the G-Series PoE network interface cards (NIC) to the appropriate network switch ports.
- Use cables with a ferrite core to connect the server to the monitors. If the cable does not have a ferrite core, the unit performs as expected, but may not meet CE safety regulation standards.

Starting the server

When you start the G-Series PoE for the first time, create a user name and password for the operating system, then create a root user name and password for the Enterprise Manager.

1. Turn on the G-Series PoE.
2. To create an operating system user account, in the **Log on** dialog box, enter a user name and password.
3. Configure the operating system settings as required.
4. If prompted, log on to the operating system again with the user name and password that you created.

5. To create an exacqVision admin user account, in the **exacqVision** dialog box, enter a user name and password.

   Note: Use your exacqVision credentials to log on to the G-Series PoE.

Configuring the client

1. Start the exacqVision client application.
2. When you launch the local client for the first time, enter your exacqVision user name and password.
3. Verify that the server appears in the **Systems** list and displays a **Connected** status.

   Note: If the server does not connect to the client, check the remote client machine for antivirus software that can block communication between the server IP addresses and ports.

Configuring the server

1. Open the Exacq client.
2. From the navigation tree, click **Configure System** > **Network**.
3. On the **Network** tab, choose one of the following options:
   - To install the server on a network that uses static IP addressing, click **Static**, and enter the IP address.
   - To install the server on a network using dynamic host configuration protocol (DHCP), click **Dynamic**. If the information does not configure automatically, contact your network administrator.
4. Click **Apply**.
5. Repeat this procedure for any additional network ports. For more information about configuring the server, see https://exacq.com/support/manspecs/.

Connecting cameras with EasyConnect

The EasyConnect feature automatically discovers, and configures most DHCP cameras.

Before you begin:
Before you use the PoE ports, review the following information:

- Each port can connect to only one IP camera.
- Each port provides a DHCP addressing service to connect cameras.
- The 8-port NVR model has the following default IP address range for ports 1 to 8: `192.168.201.x`
- The 16-port NVR model has the following default IP address ranges:
  - Ports 1 to 8: `192.168.201.x`
  - Ports 9 to 16: `192.168.202.x`

To connect cameras to the system, complete the following steps:

1. Ensure that the cameras are in their factory default states.
2. Start the exacqVision client, and click **Config (Setup) page** on the toolbar.
3. From the navigation tree, expand the server and then select the **Configure System** node.
4. Expand **Add IP Cameras**, and then select **PoE Ports**.
5. On the back panel of the server, plug the cameras into the PoE ports.
6. Monitor the **PoE Ports** window in the exacqVision client to ensure that the cameras are configured and connect. The connection may take up to six minutes. The **PoE Ports** window shows a graphical representation of the back panel. The icons show the status of the ports. See the following table.

   Table 1: Port status

Port status	Description
Off	The camera is not connected to the port.
Orange	The camera discovery and configuration is in progress.
Green	The camera is connected and streaming.
Red	The camera has errors. See Troubleshooting for details.

Troubleshooting

Use the status column in the PoE ports window to identify and resolve the problem. Place the cursor over the status message to view suggestions on how to resolve the issue.

The following sections contain information about the status message and possible solutions.

Table 2: Troubleshooting status messages

Status message	Problem	Solution
`Camera connection unsuccessful`	When an EasyConnect camera connects to the system, the status column in the **PoE Ports** window does not display **Connected**.	Delete and reconnect a camera. 1. Open the **Add IP Cameras** window. 2. Select the camera that you want to delete, click **Delete**. 3. Click **Rescan Network** to reconnect the camera.
`Invalid username or password`	The camera's default credentials have changed.	1. Press the **Factory Reset** button on the camera, to restore the camera's default settings. 2. Open the **Add IP Cameras** window and add the camera using the new credentials. For more information, refer to the *exacqVision Client User Manual*. 3. Use an administration account and open the Firefox browser. 4. Navigate to the camera's web page and reset the camera's credentials to its default values.
`Manual intervention required`	Either the camera has no default credentials, or DHCP is not enabled on the camera, or both.	Choose from the following options: • Press the **Factory Reset** button on the camera to restore the camera's default settings. • After resetting the camera, plug it into one of the PoE ports. Start the exacqVision client and complete the following steps: a. Expand the server, select **Configure System**, then click the **Network** tab. b. Select the **Show individual PoE adapters** check box, then select the PoE switch to which the camera has been plugged in. c. In the **Network Configuration** pane, note the original **IP Address** and subnet mask, you will need this information in the last step. d. Change the IP address to an IP address in the same subnet as the camera's IP address, and click **Apply**. e. Open the browser (Firefox). Navigate to the camera's web page and change the camera's IP address to a DHCP address. f. Change the PoE port IP address back to its original IP address.
`No camera detected`	The camera may not be supported.	Choose from the following options: • Ensure that the camera is on the supported camera list. Refer to https://exacq.com/integration/ipcams. • Unplug the camera and then reconnect it into the port. • Open the **Add IP** Cameras window, and click **Rescan Network**.
`Not present`	No device is connected, or there is a problem with the power supply.	Delete and reconnect the cameras to the system. See the information for *Camera connection unsuccessful* status message.

Cybersecurity

Cybersecurity guidance for use in planning, deployment, and maintenance periods is available in the exacqVision Hardening Guide. For additional cybersecurity information and other resources, see https://www.johnsoncontrols.com/trust-center/cybersecurity/resources#AdditionalResources.

Hardware components

For information on the exacqVision G-Series PoE server front and back panel model configurations, see the following figures and tables.

Figure 1: Front panel connectors 8 Port G-Series PoE

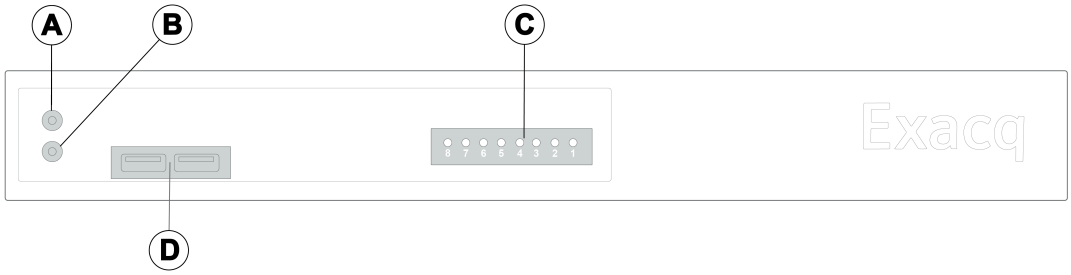
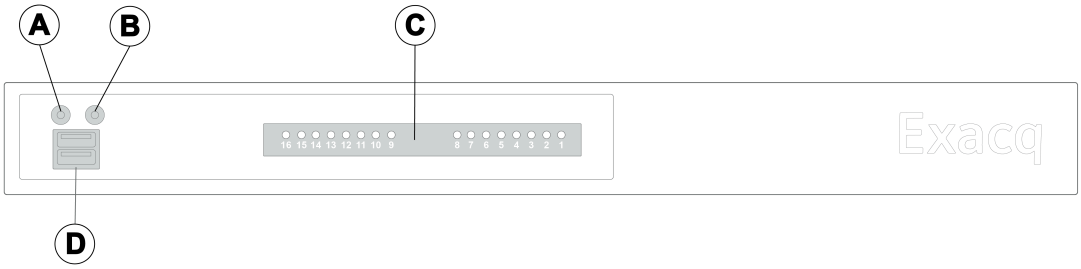


Figure 2: Front panel connectors 16 Port G-Series PoE



Callout	Component	Callout	Component
A	Power indicator LED	C	PoE ports window
B	HDD activity LED	D	2 x USB 2.0 ports

Figure 3: Back panel connectors 8 Port G-Series PoE

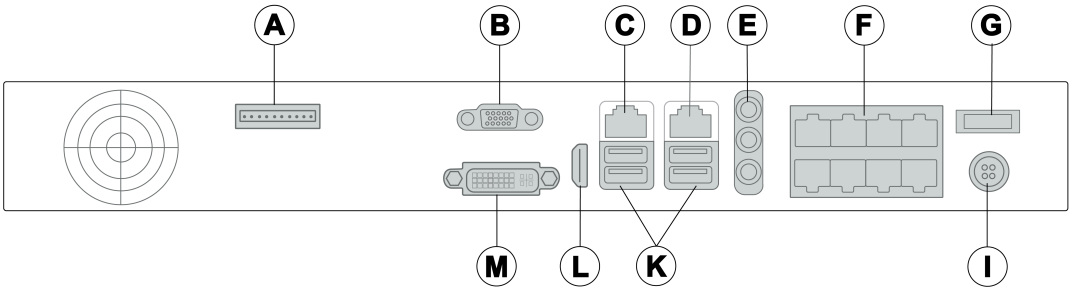
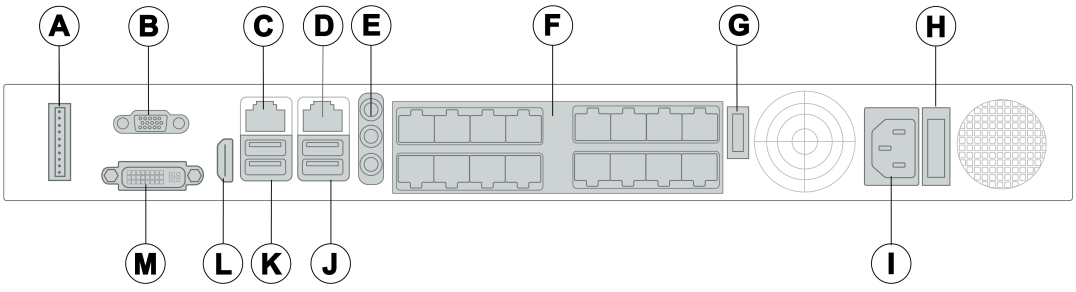


Figure 4: Back panel connectors 16 Port G-Series PoE



⚠ **WARNING:** Do not connect switches, routers, computers, printers, encoders, or non-camera devices to the PoE camera ports.

Callout	Component	Callout	Component
A	GPIO (currently unsupported)	H	Power supply switch. On the 16 port model only.
B	RS232 or RS485 port	I	Power supply input • 8 port model: 54 VDC input • 16 port model: AC input
C	2.5 Gbps Ethernet port	J	USB 2.0 ports
D	1 Gbps Ethernet port	K	USB 3.0 ports
E	Audio connectors • Blue: Line in, receives audio signal input • Yellow: Line out, provides audio signal output • Red: Mic in, use to connect to an external microphone	L	HDMI port
F	PoE LAN ports. 8 or 16 ports labeled cameras-only to connect the IP PoE cameras.	M	DVI-I
G	Momentary power switch		