This quick setup guide provides instructions to initially setup and use the ALI-NVR3304P, ALI-NVR3308P and ALI-NVR3316P network video recorders (NVRs). For information about using your NVR and its extensive capabilities, refer to the Alibi Embedded Network Video Recorder Firmware V3.4.x User Manual provided at www.alibisecurity.com/resources.

For more information, refer to these documents – available from your equipment vendor:
- ALIBI™ Tools Utility Installation and User Manual
- ALIBI™ Witness Smartphone App for Android - Quick Start Guide

## Controls and Indicators

### Front panel

**Status indicators**

<table>
<thead>
<tr>
<th>Item</th>
<th>Function / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Indicator is green when the unit is powered on. When the unit is off, the LED is red if power is available.</td>
</tr>
<tr>
<td>HDD</td>
<td>HDD indicator blinks red when data is being read from or written to an HDD.</td>
</tr>
<tr>
<td>TX/RX</td>
<td>Blinks green when the network connection is functioning normally.</td>
</tr>
</tbody>
</table>

**USB Interfaces**

Universal Serial Bus (USB) 2.0 port for additional USB devices such as a mouse or Hard Disk Drive (HDD).

### ALI-NVR3304P Backpanel

Audio IN / OUT

LAN

Power switch

Internal Ethernet switch ports with PoE (4)

Video Out (VGA, HDMI)

Power Adapter connector

Ground terminal

### ALI-NVR3308P Backpanel

Audio IN / OUT

Alarm IN / OUT

LAN

Ground terminal

Power switch

Internal Ethernet switch ports with PoE (8)

Video Out (VGA, HDMI)

USB

Power cord connector

Fan outlet

### ALI-NVR3316P Backpanel

Audio IN / OUT

Alarm IN / OUT

LAN

Ground terminal

Power switch

Internal Ethernet switch ports with PoE (16)

Video Out (VGA, HDMI)

USB

Power cord connector

Fan outlet

### Alarm IN / OUT Terminals (ALI-NVR3308P and ALI-NVR3316P only)

**Item**

**Description**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALARM IN (1 through 4 and G, G (ground))</td>
<td>Alarm inputs 1 - 4. Alarm input is tied to ground at G or G terminals through the alarm sensor (N.O. or N.C.).</td>
</tr>
<tr>
<td>ALARM OUT (1 and G)</td>
<td>Alarm outputs 1 with ground termination.</td>
</tr>
</tbody>
</table>

### Mouse control

A standard 3-button (left / right / scroll-wheel) USB mouse can also be used with this NVR. To use a USB mouse:
1. Plug the USB mouse into the either the front panel or back panel USB connector of the NVR.

2. The mouse will be automatically detected. If the mouse is not detected, the mouse may not be compatible with the NVR. Please refer to the recommended device list from your provider.

### Using the mouse

<table>
<thead>
<tr>
<th>Action</th>
<th>Effect</th>
</tr>
</thead>
</table>
| Left click | Single click: Live view: Select channel and show the quick set menu.  
Menu: Select and enter.  
Double click: Live view: Switch between single-screen and multi-screen.  
Click and drag: PTZ control: pan, tilt and zoom.  
Tamper-proof, privacy mask and motion detection: Select target area.  
Digital zoom-in: Drag and select target area.  
Live view: Drag channel / time bar. |
| Right click | Live view: Show menu.  
Menu: Exit current menu to upper level menu. |
| Scroll wheel | Scroll up: Live view: Previous screen.  
Menu: Previous item.  
Scroll down: Live view: Next screen.  
Menu: Next item. |

### Step 1. Getting Started: Unpacking the Equipment

**What's in the box**

Your system includes:

- NVR
- 48 Vdc power adapter (ALI-NVR3304P only)
- 6 foot Ethernet cable
- 6 foot HDMI cable
- Power cable for ALI-NVR3308P and ALI-NVR3316P, power adapter and cable for ALI-NVR3304P
- HDD SATA and power interface cables for internal hard disk drive(s)

Remove the equipment from its packaging and place it on a flat, clean surface. Inspect each item. If any visible damage is present, contact your supplier for a replacement. Verify that your order is complete.

**What you need**

Although each security system installation is different, most require the following items not included with your system components:

- VGA or HDMI compatible computer monitor
- IP cameras and cables compatible with the NVR
- Tools to install the cameras and route power and Ethernet cables
- Fasteners to attach the cameras to the mounting surfaces
- A display device to connect to the NVR. The NVR will connect directly to a VGA video monitor or an HDMI monitor (HDMI cable is provided). The display device is usually needed only for system setup. It can be disconnected when the NVR is networked for access across a LAN or Internet.
- Uninterruptible power supply (UPS). This device is used to ensure system stability during voltage surges, sags, and outages. If a UPS is not available, a power strip with strong surge protection is highly recommended.

### Step 2. HDD Installation

If you purchased your NVR without a HDD, or you want to replace the HDD installed in your NVR or add another, use “APPENDIX A HDD Installation” on page 5 as a guideline.

### Step 3. Install the NVR

For the following steps, refer to the back panel photo above for the location of connectors.

1. Place the NVR in a location that is secure, well ventilated and clean. The NVR should be positioned such that the back panel connectors are accessible and the ventilation holes on the sides are not blocked.

2. Connect the ground terminal on the back of the NVR to an earth ground. Refer to local codes for proper grounding.

### Step 4. Connect alarm devices to the NVR

**Wiring alarm inputs to the NVR**

You can wire up to 4 alarm inputs to the NVR.

**DC load alarm output circuits**

DC loads must operate within the limitation of 12V / 1A. To connect to a DC alarm output, use the following diagram:
Step 5. **Install a monitor, mouse, power**

For the following steps, refer to the back panel photo above for the location of connectors.

1. Install and setup your monitor in accordance with the instructions provided with the monitor. Do not power it on at this time.
2. Cable the HDMI or VGA connector to your monitor’s VGA or HDMI input. The HDMI interface provides the best performance.
3. Plug the mouse into the USB connector on the front or back of the NVR.
4. If you plan to access your NVR remotely, or configure your NVR to transmit alerts, email, etc. to external servers, plug a drop cable from your local area network (LAN) into the RJ45 LAN connector on the back of the NVR.
5. Connect the power cord (or power adapter for ALI-NVR3304P only) to the power connector on the back panel of the NVR, and then into a UPS (recommended) or surge protector.

Step 6. **Install cameras**

Install your security cameras. Always follow the installation instructions provided with the camera. **NOTE** If the cameras feature Power over Ethernet PoE), the cameras that plug into the ports on the back of the NVR can be powered through these ports.

Step 7. **Connecting it together – initial system setup**

1. Plug the Ethernet drop cables from the cameras into the RJ-45 Ethernet Switch Ports on back of the NVR.
2. Power on your cameras.
3. Power on the NVR using the power on / off (I / O) switch on the back panel.
4. Power on the monitor.

**NOTE** Some monitors have multiple inputs such including VGA, HDMI, BNC, etc. If you are using this kind of monitor, configure your monitor to display the input connected to your NVR (HDMI or VGA).

Step 8. **Use the Wizard for basic configuration setup**

Power on the NVR. Normally, an Alibi logo splash screen appears within 2 minutes.

By default, the Setup Wizard will open automatically. Refer to the Alibi Embedded Network Video Recorder Firmware V3.4.90 User Manual provided at www.alibisecurity.com/resources for incomplete instructions for using the Wizard and configuring and using your NVR.

**Important Notes for using the Wizard:**

1. **Password:** When logging into the recorder for the first time, create a “Strong” administrator user password. Follow the on-screen instructions, and save this password and the GUID file created by the firmware in a secure location. **NOTE** There is no factory default password for this device.
2. **Date and Time:** Set the time zone, date and time correctly. All recorded video and capture (photo) files are time stamped.
3. **Storage - HDD:** In the HDD Management wizard, if a new recorder is shipped with a pre-configured HDD, nothing needs to be done with it in this window. If you installed an HDD or replaced the HDD, that HDD needs to be initialized by the recorder before it can be used to record data. Select (check the box for) that HDD, then click **Init** to initialize the disk. **NOTE** **Init** will erase all data from the disk and can take several minutes to complete. When the initialization is complete, click **Next** to continue.
4. **Network Settings:** By default, the recorder acquires it’s network settings using DHCP (dynamic network settings). Depending on the configuration of the network, these settings may change. To improve remote access to the recorder, Observint recommends that you configure the DVR with fixed network settings. To easily change the DHCP acquired network settings to fixed network settings, un-check the **Enable DHCP** option in the network setup menu, and then click **Apply**

Step 9. **Access the Menu system**

After the initial setup of your QVR using the Wizard, the Menus interface enables you to refine your configuration settings and expand the functionality of the system. To use most menus, the user must log into the NVR system, either locally or remotely, with administrative privileges. To open the Menu system from the Live View screen, right click anywhere in the screen, then select **Menu**.
For additional information about using your system, refer to the ALIBI Embedded Network Video Recorder Firmware V3.4.x User Manual provided electronically with your system.

**Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>ALI-NVR3304P</th>
<th>ALI-NVR3306P</th>
<th>ALI-NVR3316P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Channels Supported</strong></td>
<td>4</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td><strong>Recording Performance</strong></td>
<td>40 Mbps max</td>
<td>80 Mbps max</td>
<td>160 Mbps max</td>
</tr>
<tr>
<td><strong>Remote Viewing Output Capacity</strong></td>
<td>80 Mbps max</td>
<td>160 Mbps max</td>
<td>160 Mbps max</td>
</tr>
<tr>
<td><strong>Supported Frame Rate per Channel</strong></td>
<td>Main stream: Up to 60 fps</td>
<td>Sub-stream: Up to 60 fps</td>
<td>--</td>
</tr>
<tr>
<td><strong>Recording Type</strong></td>
<td>Continuous, Schedule, Event, Motion Detection, VCA</td>
<td>Continuous, Schedule, Alarm, Motion Detection, Event</td>
<td></td>
</tr>
<tr>
<td><strong>Supported Playback Resolution</strong></td>
<td>BMP / BMP / SNIP / BMP / 5MP / 1080p / UXGA / 720p / VGA / 4CIF / 2CIF / CIF / QCIF</td>
<td>BMP / BMP / SNIP / BMP / 5MP / 1080p / UXGA / 720p / VGA / 4CIF / 2CIF / CIF / QCIF</td>
<td></td>
</tr>
<tr>
<td><strong>Synchronous Playback</strong></td>
<td>4-ch @ 1080p</td>
<td>2-ch @ 4K, or 8-ch @ 1080p</td>
<td>2-ch @ 4K, 8-ch @ 1080p</td>
</tr>
<tr>
<td><strong>Video Output</strong></td>
<td>VGA, HDMI</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

**HDMI Video Output Formats**

- 4K (3840 × 2160 / 30 Hz)
- 1080p@60 Hz
- 1080p@30 Hz
- 1080p
- 720p@60 Hz
- 720p@30 Hz
- 720p
- 576p@60 Hz
- 576p@30 Hz
- 576p

**VGA Video Output Formats**

- 1080p@60 Hz
- 1080p@30 Hz
- 1080p
- 720p@60 Hz
- 720p@30 Hz
- 720p
- 576p@60 Hz
- 576p@30 Hz
- 576p

**Two Way Audio Input**

- 1-ch, RCA (linear, 16Ω)

**Audio Output**

- 1-ch, RCA (linear, 16Ω)

**Export Formats**

- MPEG4
- MP4, AVI
**APPENDIX A  HDD Installation**

The following procedures illustrate hard disk drive (HDD) installation in a recorder without an HDD, and installation of a second HDD. If you purchased your NVR without an HDD, or you want to replace the HDD installed in your NVR or add another, use this procedure as a guideline.

**NVR compatible HDDs**

For the best performance of your system, install only a high-reliability security grade HDD, such as Western Digital® Purple series or GreenPower™ series HDD. Security grade HDDs are designed to stream video efficiently and have a very low failure rate.

The NVR can accommodate one HDD (ALI-NVR3304P) or two HDDs (ALI-NVR3308P and ALI-NVR3316P), each with a capacity up to 6TB.

**HDD Installation - ALI-NVR3304P**

Cables and screws needed to install the HDD are provided.

Follow recommended electrostatic discharge (ESD) guidelines while performing this procedure. Install the HDD in a static-free environment, wearing a certified ESD wrist strap. If a static-free environment and ESD wrist strap is not available, touch the bare metal of the NVR chassis frequently when installing the drive to dissipate the static charge naturally generated on your skin and clothing and avoid touching electronic components.

1. Power off the NVR, if necessary, then disconnect the power adapter and all other cables from the recorder.
2. Remove the top cover from the NVR by removing the six cover screws. Two cover screws are located on each side, and two are located on the back. See the drawing below. Save the screws for use later.
3. The photo below shows the inside of the recorder without an HDD. Become familiar with the items identified in the photo.
4. Unpackage the HDD you are installing in the chassis, and then place it underside up on a clean, electrostatic-free surface. Follow the ESD guidelines described above.
5. Screw the four HDD mounting screws provided into the holes on the underside of the HDD until the screw heads are about 1/8 inch above the surface.
6. Position the HDD in the recorder chassis with the HDD mounting screws fully seated in the holes and slots in the bottom of the chassis. The HDD should be above the front panel ribbon cable, and under the front panel black cable. See the photo above for the location of these cables.
8. Turn the chassis over, and then attach the HDD power cable and SATA cable to the mating connectors on the HDD and PC board. These connectors must be fully seated.

9. Reinstall the NVR cover using the cover using the screws removed earlier.

10. During the NVR initialization, follow the options in the Wizard to initialize/reformat the HDD. You can also initialize the HDD using the Menu | HDD feature. For more information, refer to the ALIBI Embedded Network Video Recorder Firmware V3.4.x User Manual available for download from your vendor.

11. Initialize (Init) the HDD when you setup the NVR using Wizard.

HDD Installation - ALI-NVR3308P and ALI-NVR3316P

The recorder will accommodate one or two internal HDDs. If your recorder doesn’t have an HDD installed, use this procedure to install an HDD. The HDD mounting screws and HDD cables are provided with your recorder.

Follow recommended electrostatic discharge (ESD) guidelines while performing this procedure. Install the HDD in a static-free environment, wearing a certified ESD wrist strap. If a static free environment and ESD wrist strap is not available, touch the bare metal of the NVR chassis frequently when installing the drive to dissipate the static charge naturally generated on your skin and clothing and avoid touching electronic components.

CAUTION

1. Disconnect all cables from the recorder, and then set the recorder on a clean, static free surface, top up.

2. Remove the top cover from the recorder by removing the cover screws on the back of the chassis, and on each side. The screw arrangement of your NVR may be different than that shown in the drawing below.

7. While holding the HDD in place in the chassis, turn the chassis over, and then ensure that the mounting screws are fully seated in the mounting screw slots as shown in the photo below. Tighten the HDD mounting screws until snug. Be careful to not over-tighten the screws.
3. Orient the chassis as shown in the picture below. Become familiar with the locations of the HDD mounting screws for HDD 1 (initial HDD) and HDD 2 (second HDD), and the location of the HDD 1 SATA connector on the PC board.

4. If the SATA power cable assembly and the SATA data cables provided are not plugged into the PC board, plug them into the board as shown above.

5. Un-package the HDD. In the photo below, note the location of the HDD mounting screw holes on the underside of the HDD. Also shown are the SATA and Power cable connectors.

6. Screw the four HDD mounting screws into the mounting screw holes until the screw heads are about 1/8 inch from the surface of the HDD.

   **CAUTION**

   Follow recommended electrostatic discharge (ESD) guidelines while performing this procedure. Install the HDD in a static-free environment, wearing a certified ESD wrist strap. If a static free environment and ESD wrist strap is not available, touch the bare metal of the NVR chassis frequently when installing the drive to dissipate the static charge naturally generated on your skin and clothing and avoid touching electronic components.

7. Position the HDD in HDD bay 1 such that the HDD cable connectors are toward the middle of the chassis and the HDD mounting screws are fully seated in the mounting screw slots.
8. While holding the HDD in place, carefully turn over the chassis with the HDD and then tighten the mounting screws to secure the HDD. Be careful not to overtighten the screws.

9. Turn the chassis over so the top is up.

10. Attach the SATA data cable that is plugged into the HDD 1 SATA data cable connector to the HDD 1 SATA data connector. When the connector is fully seated, it clips into place. See the photo below.

11. Plug either HDD power cable connectors into the SATA power cable connector on the HDD.

12. If you are installing a second HDD in the chassis, follow steps 7 through 11 above to position, secure and cable the second HDD in HDD bay 2. See the photo below.

13. Check all the HDD cable connectors to verify they are fully seated, and then reinstall the NVR top cover.

14. When powering on the NVR, use the Alibi Wizard to initialize (Init) the HDD(s).