

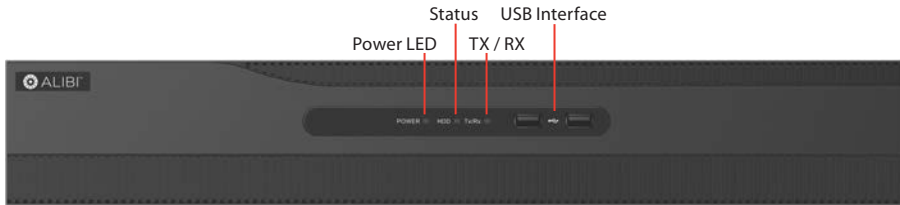
ALIBI™ ALI-QVR5016H 16-Channel AHD, Analog, HD-TVI, 960H and IP Camera Recorder Quick Setup Guide

This guide provides instructions to initially setup the ALI-QVR5016H digital video recorder (DVR) for AHD, HD-TVI, and 960H analog and IP cameras. For information about using your QVR 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*

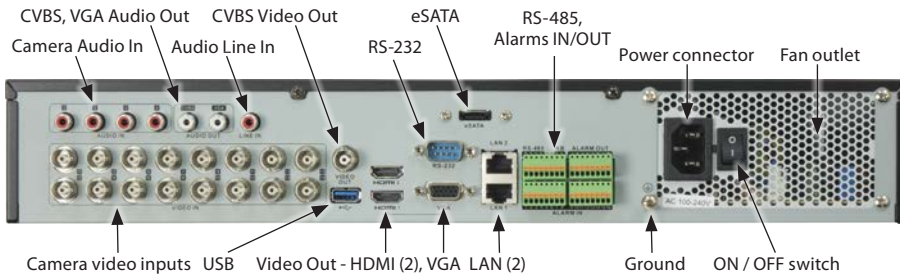
DVR Front Panel



ALI-QVR5016H front panel

Item	Usage
Power LED	Indicator turns green when DVR is powered up.
Status	STATUS indicator lights in red when HDD is reading / writing.
TX / RX	LED indicator blinks green when network connection is functioning properly.
USB Interface	This port can be used for a USB mouse or USB flash memory devices.

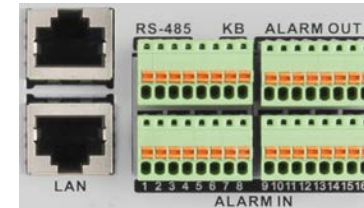
DVR Back panel



Item	Description
eSATA	Connects external SATA HDD, CD/DVD-RW
RS-232 Interface	DB9 (male) connector for RS-232 devices

Item	Description
VIDEO OUT (CVBS, VGA, HDMI)	CVBS – BNC connector for video output VGA – DB15 connector for VGA compatible monitor. See specifications for supported resolutions. HDMI – Two HDMI connectors for an HDMI compatible monitors. See specifications for supported resolutions.
LINE IN	RCA connector for audio input
RS-485, ALARMS IN/OUT	See below, next topic
Power connector	AC 100V ~ 240V power supply.
ON / OFF Switch	Switch for powering the device on or off
GROUND	Terminal for ground. Connect to earth ground before powering on the DVR.
LAN Interface	2 x 10/100/1000BASE-T Ethernet network interface
USB interface	Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).
AUDIO OUT	CVBS AUDIO OUT – RCA connector for audio output. This connector is synchronized with CVBS video output VGA AUDIO OUT – RCA connector for audio output. This connector is synchronized with VGA video output
HD-TVI video inputs	HD-TVI interface for video input

RS-485, ALARMS IN/OUT



Item	Description
RS-485 (T+, T-, R+, R-)	T+ and T- pins connect to R+ and R- pins of PTZ receiver respectively.
KB	Controller port: D+, D- pin connects to Ta, Tb pin of controller. For cascading devices, the first DVR's D+, D- pin should be connected with the D+, D- pin of the next DVR
ALARM IN (1 through 16)	Alarm inputs 1 - 16. Alarm input is tied to ground through the alarm sensor. See “Step 3. Connect alarm devices to the DVR” on page 2 for more information.
ALARM OUT (1-G through 4-G)	Alarm outputs 1 - 4 with ground terminations. See “Step 3. Connect alarm devices to the DVR” on page 2 for more information.

Mouse control

A standard 3-button (left / right / scroll-wheel) USB mouse can also be used with this DVR. To use a USB mouse:

1. Plug the USB mouse into the either the front panel or backpanel USB connector of the DVR.
2. The mouse will be automatically detected. If the mouse is not detected, the mouse may not be compatible with the DVR. Please refer to the recommended device list from your provider.

Using the mouse

Action	Effect
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.

Installing the System

Step 1. Getting Started: Unpacking the Equipment

What's in the box

Your system includes:

- ALI-QVR5016H DVR
- USB mouse
- HDMI cable
- Power adapter for DVR
- This Quick Start Guide

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:

- Cameras and cables compatible with the DVR. The Video in ports on the back panel support most analog CCTV camera brands and Alibi HD-TVI, AHD, analog or IP cameras
- IP cameras installed on the Ethernet network (LAN) that associated with the DVR must be Alibi IP cameras.
- Tools to install the cameras and route power and video cables

- Fasteners to attach the cameras to the mounting surfaces
- VGA or HDMI compatible computer monitor to connect to the DVR. (An HDMI cable is provided.)
- Uninterruptible power supply (UPS) is recommended. 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. Install the DVR

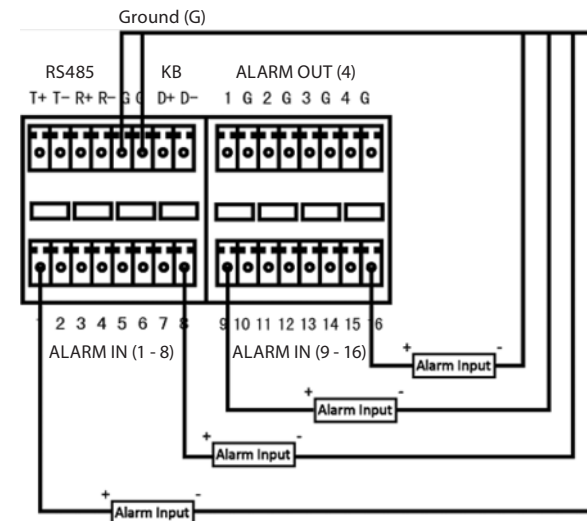
For the following steps, refer to the back panel photo above for the location of connectors.

1. Place the DVR in a location that is secure, well ventilated and clean. The DVR should be positioned such that the backpanel connectors are accessible and the ventilation holes on the sides are not blocked.
2. Connect the ground terminal on the back of the DVR to an earth ground. Refer to local codes for proper grounding.

Step 3. Connect alarm devices to the DVR

Wiring alarm inputs to the DVR

You can wire up to 16 alarm inputs to the DVR. Alarm input ground wiring connects to the RS-485, Alarm IN/OUT connector blocks on the back of the DVR.



RS485, Alarm terminations

Wiring alarm outputs to the DVR

The DVR provides 4 alarm output terminations. These terminations for each output are on the ALARM OUT connector block on the back of the DVR, and are labeled 1 - G, 2 - G, 3 - G, 4 - G (G = ground termination).

There are 4 jumpers (JP1, JP2, JP3, and JP4) inside the chassis on the alarm termination PC board, associated with ALARM OUT pins 1, 2, 3 and 4 respectively. Initially, these jumpers are in place. If connecting an alarm output to a DC loaded alarm out circuit, the jumper must be in

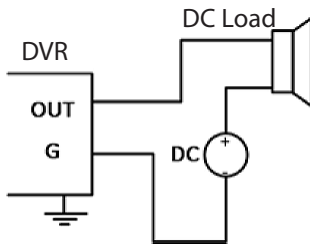
place. If connecting the alarm output to an AC loaded alarm, the corresponding jumper must be removed. Example: If you connect an AC load to the alarm output 3 of the DVR, then you must remove the JP 3.

To remove a jumper for AC load alarm circuits:

1. Disconnect all cabling from the DVR.
2. Remove the DVR top cover.
3. Locate the jumper associated with the alarm output you are using for an AC load alarm, then remove it. Save the jumper for use later, if needed.
4. Reinstall the DVR top cover.

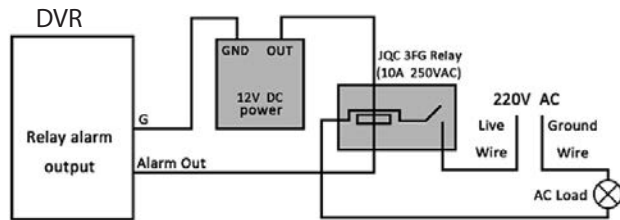
DC load alarm output circuits

DC loads must operate within the limitation of 12V/1A. To connect to a DC alarm output, use the following diagram:



AC load alarm output circuits

To connect an AC load to an alarm output, a jumper, associated with the output on the alarm termination PC board, (within the chassis), must be removed. These jumpers shunt pin pairs J1, J2, J3, and J4 for alarm outputs 1, 2, 3, 4 respectively. Use an external relay for safety.



Step 4. 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 DVR.
4. If you plan to access your DVR remotely, or configure your DVR 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 DVR.
5. Connect the power cord to the power connector on the back panel of the DVR, and then into a UPS (recommended) or surge protector.

Step 5. Install cameras

Install your security cameras. Always follow the installation instructions provided with the camera.

Step 6. Connecting it together – initial system setup

1. Plug the coaxial cables from the cameras into the BNC camera input connectors on the back of the DVR.
2. Power on your cameras.
3. Power on the DVR 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 DVR (HDMI or VGA).

Step 7. Using the Wizard for basic configuration setup

Power on the DVR. 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.x User Manual** for incomplete instructions for using the Wizard and configuring and using your DVR.

Important Notes for using the Wizard:

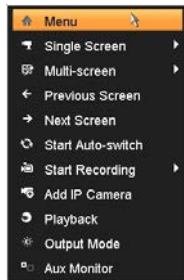
- **Password:** When logging into the recorder for the first time, create a “**Strong**” administrator user password. Follow the on-screen instructions, and save this password and the GUID file created by the firmware in a secure location. **NOTE:** There is no factory default password for this device.
- **Date and Time:** Set the time zone, date and time correctly. All recorded video and capture (photo) files are time stamped.
- **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.

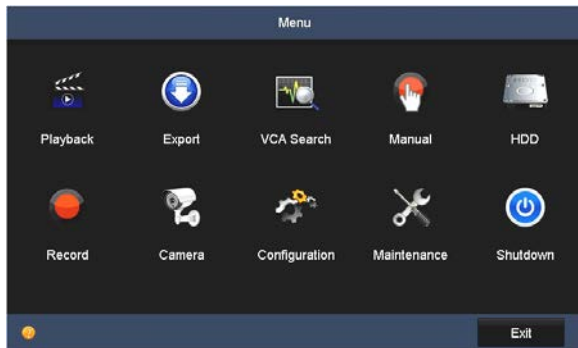
- **Network Settings:** By default, the recorder acquires its network settings using DHCP (dynamic network settings). Depending on the configuration of the network, these settings may change. To improve remote access to the recorder, Observint recommends that you configure the DVR with fixed network 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 8. Access the Menu system

After the initial setup of your QVR using the Wizard, the Menu 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**.



If ID Authentication is not disabled (see the **Menu | Configuration | General** settings), a login window will open. In the Login window, select a User Name with administrative privileges, enter its password, then click **OK**. A window of Menu icons will open.



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

Video/Audio input	Video compression	H.264 / H.265 for IP camera
	Video input	16-ch
		BNC interface (1.0 Vp-p, 75 Ω), supporting coaxitron connection
	Supported HD-TVI input	1080p/25Hz, 1080p/30 Hz, 720p/25 Hz, 720p/30 Hz, 720P/50 Hz, 720p/60 Hz, 3MP
	Supported AHD input	720p/25Hz, 720p/30Hz
	CVBS input	Support
	IP video input	18-ch
		Up to 8.0 MP resolution
Audio compression	G.711u	
Audio input	4-ch, RCA (2.0 Vp-p, 1 KΩ)	
Video/Audio output	CVBS output	Support
	HDMI/VGA output	HDMI 1/VGA: 1-ch, 1920 × 1080/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz, 1024 × 768/60 Hz
		HDMI 2: 1-ch, 4K (3840 × 2160)/30 Hz, 2K (2560 × 1440)/60 Hz, 1920 × 1080/60 Hz, 1280 × 1024/60 Hz, 1280 × 720/60 Hz, 1024 × 768/60 Hz
	Encoding resolution	3MP (non-real-time); 1080P / 720P / 960H / 4CIF / VGA / CIF (real-time)
	Frame rate	Main stream: 25 fps (P) / 30 fps (N)
		Sub-stream: 960H / 4CIF / 2CIF (non-real-time); CIF (real time)
	Video bit rate	32 Kbps to 10 Mbps
	Audio output	2-ch, RCA (Linear, 1 KΩ) for CVBS, VGA
	Audio bit rate	64 Kbps
	Dual-stream	Support
	Stream type	Video, Video & Audio
	Synchronous playback	16-ch
	Network management	Remote connections
Network protocols		TCP/IP, PPPoE, DHCP, Hik Cloud P2P, DNS, DDNS, NTP, SADP, NFS, iSCSI, UPnP™, HTTPS, ONVIF
Hard disk	SATA	4 SATA interfaces (4 HDDs max)
	eSATA	Support
	Capacity	Up to 6TB capacity per HDD.
External interface	Two-way audio input	1-ch, RCA (2.0 Vp-p, 1 KΩ) (independent)
	Network interface	2, RJ45 10M/100M/1000M self-adaptive Ethernet interfaces
	USB interface	2 USB 2.0 on the front panel 1 USB 3.0 on the rear panel
	Serial interface	1 RS-232 serial interface 1 RS-485 serial interface, full-duplex 1 RS-485 keyboard interface
	Alarm in/out	16 / 4
General	Power supply	100 to 240 Vac
	Consumption (without HDD)	≤ 65 W
	Working temperature	14 °F to 131 °F (-10 °C to +55 °C)
	Working humidity	10% to 90%
	Dimensions (W × D × H)	17.5 × 15.4 × 2.8 inch (445 × 390 × 70 mm)
Weight (without HDD)	≤ 11.0 lb (5 kg)	