Regulatory Information

FCC Information
Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

FCC compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement
This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, the RoHS Directive 2011/65/EU.
2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points.
2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info

Industry Canada ICES-003 Compliance
This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Trademarks Acknowledgement
Trademarks and logos mentioned are the properties of their respective owners.

The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.
## Symbol Conventions

The symbols that may be found in this document are defined as follows.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="note_icon" alt="Note" /></td>
<td>Provides additional information to emphasize or supplement important points of the main text.</td>
</tr>
<tr>
<td><img src="warning_icon" alt="Warning" /></td>
<td>Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.</td>
</tr>
<tr>
<td><img src="danger_icon" alt="Danger" /></td>
<td>Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.</td>
</tr>
</tbody>
</table>

## Safety Instructions

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- Firmly connect the plug to the power socket. Do not connect several devices to one power adapter. Power off the device before connecting and disconnecting accessories and peripherals.
- Shock hazard! Disconnect all power sources before maintenance.
- The equipment must be connected to an earthed mains socket-outlet.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- ![note_icon] indicates hazardous live and the external wiring connected to the terminals requires installation by an instructed person.
- Never place the equipment in an unstable location. The equipment may fall, causing serious personal injury or death.
- Input voltage should meet the SELV (Safety Extra Low Voltage) and the LPS (Limited Power Source) according to the IEC60950-1.
- High touch current! Connect to earth before connecting to the power supply.
- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
- Use the device in conjunction with an UPS, and use factory recommended HDD if possible.
- This product contains a coin/button cell battery. If the battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
- This equipment is not suitable for use in locations where children are likely to be present.
- CAUTION: Risk of explosion if the battery is replaced by an incorrect type.
- Improper replacement of the battery with an incorrect type may defeat a safeguard (for example, in the case of some lithium battery types).
- Do not dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which may result in an explosion.
- Do not leave the battery in an extremely high temperature surrounding environment, which may result in an explosion or the leakage of flammable liquid or gas.
Do not subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas.

Dispose of used batteries according to the instructions.

Keep body parts away from fan blades and motors. Disconnect the power source during servicing.

Preventive and Cautionary Tips
Before connecting and operating your device, please be advised of the following tips:

- The device is designed for indoor use only. Install it in a well-ventilated, dust-free environment without liquids.
- Ensure recorder is properly secured to a rack or shelf. Major shocks or jolts to the recorder as a result of dropping it may cause damage to the sensitive electronics within the recorder.
- The equipment shall not be exposed to dripping or splashing and that no objects filled with liquids shall be placed on the equipment, such as vases.
- No naked flame sources, such as lighted candles, should be placed on the equipment.
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc. The openings shall never be blocked by placing the equipment on a bed, sofa, rug or other similar surface.
- For certain models, ensure correct wiring of the terminals for connection to an AC mains supply.
- For certain models, the equipment has been designed, when required, modified for connection to an IT power distribution system.
- Use only power supplies listed in the user manual or user instruction.
Chapter 1 Rear Panel Interfaces Description

The rear panel interfaces vary with different models. Refer to Table 1-1 for the common interfaces description.

Table 1-1 Common Interfaces Description of Rear Panel

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>VIDEO IN</td>
<td>BNC interface for Turbo HD and analog video input</td>
<td>VIDEO OUT</td>
<td>BNC connector for video output</td>
</tr>
<tr>
<td>AUDIO IN</td>
<td>RCA connector for audio input</td>
<td>AUDIO OUT</td>
<td>RCA connector for audio output</td>
</tr>
<tr>
<td>LINE IN</td>
<td>RCA connector for two-way audio input</td>
<td>USB</td>
<td>Universal Serial Bus (USB) interface for mouse, keyboard, or USB flash drive</td>
</tr>
<tr>
<td>VGA</td>
<td>DB15 connector for local video output and menu display</td>
<td>HDMI</td>
<td>HDMI interface for video output</td>
</tr>
<tr>
<td>RS-485</td>
<td>RS-485 serial interface for pan/tilt unit, speed dome, etc</td>
<td>RS-232</td>
<td>RS-232 interface for parameter configuration, or transparent channel</td>
</tr>
<tr>
<td>LAN</td>
<td>RJ-45 self-adaptive Ethernet interface</td>
<td>eSATA</td>
<td>Storage and expansion interface for record or backup</td>
</tr>
<tr>
<td>ALARM IN/OUT</td>
<td>Alarm input/output interface</td>
<td>GND</td>
<td>Ground</td>
</tr>
<tr>
<td>Power Switch</td>
<td>Switch for turning on/off the device</td>
<td>Power Supply</td>
<td>100 to 240 VAC, 48 VDC, or 12 VDC power supply, different models vary</td>
</tr>
</tbody>
</table>

Chapter 2 Installation and Connections

2.1 Device Installation

During installation of the device:
- Use brackets for rack mounting.
- Ensure ample room for audio and video cables.
- When routing cables, ensure the bend radius of the cables are no less than five times of its diameter.
- Allow at least 2 cm (≈0.75 inch) of space among racks mounted devices.
- Ensure the device is grounded.
- Environmental temperature should be within the range of -10 °C to 55 °C (14 °F to 131 °F).
- Environmental humidity should be within the range of 10% to 90%.
2.2 HDD Installation

Before you start
- Ensure power is disconnected.
- Prepare a factory recommended HDD, and cross screwdriver.

2.2.1 Fix-on-Bottom Installation
Fix-on-bottom installation is applicable when it requires to install the HDD at the internal bottom.

Step 1 Unfasten screws on each panel to remove the device cover. Refer to Figure 2-1.
Step 2 Connect the data cable and power cable. Refer to Figure 2-2.
Step 3 Match HDD screw threads with the reserved holes on the device bottom, and fix HDD with screws. Refer to Figure 2-3.

**NOTE**
You can repeat the steps above to install other HDDs.
Step 4 Reinstall the device cover and fasten screws.

2.2.2 Bracket Installation
Bracket installation is applicable when it requires to remove the device cover and install HDD on the internal bracket.

Step 1 Unfasten screws on the back and push the cover backwards to remove the cover. Refer to Figure 2-4.
Step 2 Fix the HDD on the bracket with screws. Refer to Figure 2-5.

**NOTE**
Please uninstall the upper layer bracket first before installing HDD on the lower layer bracket.
Step 3 Connect the data cable and power cable. Refer to Figure 2-6.

**NOTE**
You can repeat the steps above to install other HDDs.
Step 4 Reinstall the device cover and fasten screws.
2.2.3 Front Panel Plug-Pull Installation

Front panel plug-pull installation is applicable when it requires to open the device front panel with key.

Step 1 Fix mounting ears to HDD with screws. Refer to Figure 2-7.
Step 2 Use attached key to unlock the front panel, and press buttons on both sides to open the front panel. Refer to Figure 2-8.
Step 3 Insert the HDD until it is firmly fixed. Refer to Figure 2-9.

**NOTE**
You can repeat the steps above to install other HDDs.
Step 4 Close the front panel and lock it with key.

Chapter 3 Menu Operation

3.1 Startup

Proper startup is crucial to expand the life of your device. It is HIGHLY recommended to use an Uninterruptible Power Supply (UPS) with the device.
Step 1 Plug power supply into an electrical outlet.
Step 2 Press the power button (certain models may have power button on the front or rear panel). The device begins to start.
3.2 Activate Your Device

No operation is allowed before activation. For the first-time access, it requires to set an admin password for
device activation. You can also activate the device via web browser, SADP or client software.

Step 1 Select a language.
Step 2 Click Next.
Step 3 Enter the same password in Password and Confirm Password.

WARNING

STRONG PASSWORD RECOMMENDED—We highly recommend you create a strong password of your own
choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters,
lower case letters, numbers, and special characters.) in order to increase the security of your product. And we
recommend you reset your password regularly, especially in the high security system, resetting the password
monthly or weekly can better protect your product.

Step 4 Activate network camera(s) connected to the device.
- Check Use Device Password to use the device password to activate the inactive network cameras(s).
- Enter a password to activate network camera(s).

Step 5 (Optional) Set email address for password resetting. When you forget your password, you can reset it by
e-mail.
Step 6 Click Activate.
3.3 Login Unlock Pattern
For the Admin user, you can set the unlock pattern for device login after it is activated.

Step 1 Use mouse to draw a pattern among the 9 dots on the screen. Release the mouse when the pattern is done.

![NOTE]
- The pattern shall have 4 dots at least.
- Each dot can be connected for once only.

Step 2 Draw the same pattern again to confirm it.

![Figure 3-2 Set Unlock Pattern]

3.4 User Login
You have to log in to the device before operating the menu and other functions.

Step 1 Select user account.
Step 2 Enter password for the selected user.
Step 3 Click Login.

![NOTE]
For the admin, if you have entered the wrong password for 7 times, the account will be locked for 60 seconds.
For the operator, if you have entered the wrong password for 5 times, the account will be locked for 60 seconds.
3.5 User Logout, Shutdown and Reboot
You can log out of the system, shut down, or reboot the device.

Step 1 Click at the upper-right corner.
Step 2 Click Logout, Shutdown, or Reboot as your desire.

3.6 Add Network Cameras
Before you can get live video or record the video files, you should add network cameras to the device.

Before you start
Ensure the network connection is valid and correct, and the network camera has already been activated.

Step 1 Go to Configuration > Camera > IP Camera.
Step 2 Click .
Step 3 Set the IP camera parameters, including IP address, protocol, management port, etc. You can enable Use Camera Activation Password to use the device password to add the IP camera.
Step 4 (Optional) Click Add More to add other IP cameras.
Step 5 Click OK.

Figure 3-3 Add IP Camera

3.7 Network Settings
3.7.1 Configure General Settings
You shall properly configure the network settings before you operate your device over network.

Step 1 Go to Configuration > Network > General.
Step 2 Set the general network parameters.
Step 3 Click Apply.
3.7.2 Configure Guarding Vision

Guarding Vision provides mobile phone application and platform service to access and manage your connected devices, which enables you to get a convenient remote access to the surveillance system.

Step 1 Go to **Configuration > Network > Guarding Vision**.

Step 2 Turn on **Enable** to activate the function and accept service terms. The service terms will pop up.
   1) Scan the QR code to read the service terms and privacy statement.
   2) Check **I have read and agree to Service Terms and Privacy Statement** if you agree the service terms and privacy statement.
   3) Click **OK** to save the settings.

Step 3 Click **enable** to set verification code.

Step 4 Enable **Platform Time Sync**, the device will sync time with the platform server instead of NTP server.

Step 5 (Optional) Check **Stream Encryption**. It requires to enter verification code in remote access and live view after this function is enabled.

Step 6 (Optional) Edit **Server IP**.

Step 7 Bind your device with a Guarding Vision account.
   1) Use a smart phone to scan the QR code, and download Guarding Vision app.
   2) Use Guarding Vision to scan the device QR and bind the device.

**NOTE**
- If the device is already bound with an account, you can click **Unbind** to unbind with the current account.
- You can also use the QR code in **at the upper-left corner to download Guarding Vision and bind your device.

Step 8 Click **Apply**.
What to do next:
After configuration, you can access and manage your devices via app or website.

3.8 Live View and Record Settings
Live view shows you the video image getting from each camera in real time. The device will automatically enter live mode when powered on. In the live mode, there are icons at the right top of the screen to indicate the status of record and alarm for each channel.

Live View Icons
In the live view mode, there are icons on the screen to indicate the record and alarm status of each channel.

<table>
<thead>
<tr>
<th>Item</th>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>📣</td>
<td>Alarm (video loss, tampering, motion detection, VCA or sensor alarm)</td>
<td>📣📞</td>
<td>Alarm and Record</td>
</tr>
<tr>
<td>📺</td>
<td>Record (manual record, continuous record, motion detection, VCA or alarm triggered record)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.9 Playback
The recorded files on HDD can be played back. Refer to the user manual for details of each playback mode.

Step 1 Go to Playback.
Step 2 Check the channel(s) in the channel list for playback.
Step 3 Double click a date on the calendar.
Step 4 (Optional) Use the toolbar in the bottom to control the playing progress.
Step 5 (Optional) Select the channel(s) to execute simultaneous playback of multiple channels.

Figure 3-5 Playback
Chapter 4 Access by Web Browser

**NOTE**
The use of the product with Internet access might be under network security risks. For avoidance of any network attacks and information leakage, please strengthen your own protection. If the product does not work properly, please contact with your dealer or the nearest service center.

You can get access to the device via web browser. The following web browsers are supported: Internet Explorer 6.0, Internet Explorer 7.0, Internet Explorer 8.0, Internet Explorer 9.0, Internet Explorer 10.0, Apple Safari, Mozilla Firefox, and Google Chrome. The supported resolutions include 1024*768 and above.

**Step 1** Open web browser, enter the IP address of the device and then press **Enter**.

**Step 2** Log in to the device.
- If the device has not been activated, activate the device first by setting the password for the admin user account.
- If the device is already activated, enter the username and password to log in.

**Step 3** Follow the installation prompts to install the plug-in before viewing the live video and managing the device.

**NOTE**
- You may have to close the web browser to finish the installation of the plug-in.
- After login, you can perform the operation and configuration of the device, including the live view, playback, log search, configuration, etc.