



HDCVI

FAQ Manual



Foreword

General

This manual provides the solutions to HDCVI problems during daily use.

Attention

This manual is for reference only. Not all the HDCVI problems are included.

- You can contact us for any unknown problems, and we will add them into the manual to perfect it.
- You can contact your local retailer or after-sale engineer directly for more help.

Safety Instructions

The following signal words might appear in the manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
 TIPS	Provides methods to help you solve a problem or save time.
 NOTE	Provides additional information as a supplement to the text.

Revision History

Version	Revision Content	Release Time
V1.0.0	First release.	December 2024

About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.

- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

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1 Image Problems

1.1 No image output after the camera is powered on

Solutions:

1. Check whether the power supply is connected properly.
2. Use a multimeter to measure if the voltage is normal.
3. Check whether the video cable is properly connected.

1.2 After the camera is powered on, the image appears for a while and then disappears

Solutions:

- Check whether the video cable is connected properly.
- Ensure that the outgoing cable from the video input port is well soldered.

1.3 Black and white images appear during the day

Solutions:

- Confirm whether the camera is installed in a dark corner. If yes, move it to a brighter location.
- Check whether the B\W mode is set in the menu. If yes, turn off the B\W mode.

1.4 Image is upside down

Solutions:

Check whether the camera is installed correctly. If yes, check whether the mirror function in the menu is on.

1.5 Image is poor in definition and blurred

Solutions:

- Check whether the video format parameters of the camera are modified.
- Check whether the output mode of the XVR matches the camera and cannot be lower than the output.

1.6 When the motorized vari-focal device is unpacked on camera, the image presented at startup is blurred

Solutions:

The motorized vari-focal device is not securely fixed and may drop due to vibrations during transportation, causing changes in the image. You can perform automatic focusing once to restore it when using it.

1.7 In fixed-focus cameras, the focus at the corners of the image might differ from that at the center, causing the center to be clear while the edges appear blurred

Solutions:

Test cameras by using a focus test chart and verify whether the devices conform to the ex-factory requirements. If yes, they are normal.

1.8 The color in the image is abnormal, and not consistent with the actual color

Solutions:

Check whether the image parameters in the menu are modified, click **restore default**, and then check whether the image configuration parameters of XVR are default.

1.9 The camera has rolling interference stripes during the day or night

Solutions:

- Check whether the video cable contacts well and is oxidized.
- If a centralized power supply is used, disconnect other circuits and only keep one camera working to see whether there is any interference.
- If this is caused by centralized power supply, use a single power supply or Dahua's centralized power supply. For devices with low power consumption (less than 5 W), perform power supply isolation.

1.10 The camera installed in the elevator has stripes

Solutions:

Check whether the video cable and casing of the camera contact the elevator or not. The camera shall be installed to avoid interference of elevator signals.

1.11 Image has fuzzy stains

Solutions:

Restore the camera parameters to the default. If there are still fuzzy stains, adjust its noise reduction parameters and lower the level until the fuzzy stains are acceptable.

1.12 Image has noises at night

Solutions:

Restore the camera parameters to the default. If there is still image noise, adjust its noise reduction parameters and increase the level until the noise is acceptable.

1.13 After adjusting the noise reduction parameters of the camera, how to remove the fuzzy stains on the image

Solutions:

1. Check the coding parameters of the XVR. Set the coding to have the real-time frame rate (PAL system 25 fps, NTSC system 30 fps), and the variable stream or stream to the maximum value.
2. If there are still fuzzy stains, set the image noise reduction parameter to 50, and lower the value until the fuzzy stains are acceptable.

2 IR Problems

2.1 The camera restarts at night when the IR is turned on

Solutions:

Use a multimeter to measure the working voltage of the camera at night. When the IR is on at night, the power consumption increases and the voltage will decrease. If the voltage is below the lower limit of its rated value, the device will not operate normally. Please increase the input voltage.

2.2 Image is dark at night

Solutions:

- Check whether the camera is an IR camera.
- For ordinary cameras without fill light, the image is darker at night. For IR cameras, ensure that the IR light is on, check whether it is in black and white mode, and confirm that the ICR is switched on.

2.3 The ICR keeps switching at night

Solutions:

- For non-photosensitive cameras, verify that there are no obstacles directly in front of the camera installation location.
- For photosensitive cameras, check for any flashing strong light sources or other IR light sources present in the monitored scene.

2.4 The IR speed dome camera has white circular arc shadow in the image at night

Solutions:

Remove the cover to check whether the image still has a circular arc shadow. If not, reassemble the aperture stop and cover, then verify if the shadow has disappeared. If the shadow persists, replace the device for maintenance.

3 Power Supply Problems

3.1 How to select the power supply

Solutions:

The label on the camera indicates the power type, such as 12 VDC or 12 VDC / 24 VAC. Select a power supply that exceeds the rated current specified on the label.

3.2 In the lower right corner of the camera, the battery identification flashes

Solutions:

When the battery identification flashes, it indicates that the working voltage is either above or below the rated voltage. Check the power supply for any issues.

3.3 How to measure the working current of the camera

Solutions:

The camera is connected to the power supply and is operational. To measure the working current, set the multimeter to current measurement mode and connect it in series within the circuit.

3.4 How to measure the input voltage of the camera

Solutions:

The camera is connected to the power supply and is operational. To measure the input voltage, set the multimeter to voltage measurement mode and connect it in parallel to the circuit.

4 Menu Problems

4.1 The camera image is normal, but the menu cannot be operated through the XVR

Solutions:

1. Logging into the XVR configuration page.
2. On the live view page, right-click and select **Main Menu**.
3. Select **CAMERA > PTZ**, and then set the PTZ parameters.
Set the **Control Mode** and **Protocol** to **HDCVI**.
4. On the live view page, right-click and select **PTZ Control**.
5. Click **Enter Menu** to enter the OSD menu, and then select parameters by pressing the up, down, left and right keys.

4.2 How to switch the camera output system

Solutions:

Enter the camera menu, in the **Format** option, switch left and right to select the format, and then exit to save settings.

4.3 How to switch the 4 modes of the camera

Solutions:

- For the camera with a DIP switch, switch modes according to the switch diagram.
- For the camera without a DIP switch, switch modes by selecting them in the advanced options in the menu or by external UTC.

4.4 The up and down keys in the camera menu automatically jump differently and cannot be controlled

Solutions:

This problem occurs because the XVR sends commands to the camera all the time. Disconnect the video cable to check whether they still jump. Then restart the XVR or set the XVR parameters to the default.

4.5 Reset the camera

Solutions:

The coaxial camera does not have a hardware reset button. You can reset the camera using the following method:

- Go to the OSD menu and select **default** to restore to factory settings.



When you use OSD menu to restore the device to default settings, the resolution, mode, frame rate and language of the device will not be restored.

- Upgrade the camera to restore to the default.



The upgrade is normally done on the XVR control page.

5 Water Mist Problems

5.1 Water mist on M bullet cameras

Solutions:

Inspect the screw hole of the M bullet camera for any cracks. Cracks in the screw hole can allow water to infiltrate the device.

5.2 The standard bullet camera installed in the protective cover shows clear images during the day, but fuzzy images at night

Solutions:

Check the front glass of the protective cover for fogging at night; if due to water mist, add desiccant onto the shield and ensure that the waterproof performance of the shield reaches the standard.

6 Basic Problems

6.1 What type of cable is suitable for camera transmission

Solutions:

RG59/RG6 video cables.

If using twisted pair transmission, add a pair of baluns for connecting the camera and the XVR.
Connect the sending terminal of the balun to the BNC connector on the camera and the receiving terminal of the balun to the BNC connector on the XVR.

6.2 What is the maximum transmission distance for the video cable of the camera

Solutions:

The maximum transmission distance depends on the output pixels of the camera, as shown in the following table:

Table 6-1 Maximum transmission of the video cable

Cable		720P	1080P	4MP/4K
Coaxial Cable	RG6	1200 m	800 m	700 m
	RG59	800 m	500 m	500 m
UTP	CAT6	450 m	300 m	300 m

6.3 How does the focal length of the camera correspond to the monitoring distance

Solutions:

The smaller the focal length of the lens, the larger the field angle, and the shorter the monitoring distance. Please refer to the following table.



The table is for reference only, and might differ from the actual product.

Table 6-2 Relationship between focal length and monitoring distance

Focal Length	Field Angle (Example)	Recommended Monitoring Distance
2.8 mm	98.5°	3 m
4 mm	79°	6 m

Focal Length	Field Angle (Example)	Recommended Monitoring Distance
6 mm	49°	10 m
8 mm	40°	20 m
12 mm	23°	30 m
16 mm	19.2°	50 m
25 mm	12.4°	80 m

6.4 How to adjust the sunshade of the camera to the best position

Solutions:

The camera installation height is determined by the actual monitoring scene. The installation height is recommended to be above 3 meters, and there should be no large obstructions such as walls or trees in front of the installation location.

6.5 How to waterproof the power cable and video cable of the outdoor camera

Solutions:

Install the junction box and place the cable connection inside it. Use pipe threading to connect the cables, and wrap the cable connection with black insulating tape to ensure a degree of waterproofing.

6.6 What are the 4 output modes of the camera

Solutions:

The multi-output camera has 4 modes: CVI, TVI, AHD, and CVBS. The first 3 modes provide coaxial HD signals, while CVBS provides an analog SD signal.

6.7 How to use UTC switcher on the camera

Solutions:

Transfer the UTC switching module to the video cable. Connect one end of the UTC to the BNC output of the camera, and the other end to the video cable, which should then be connected to the video input terminal of the XVR.

6.8 How to adjust the audio function of the camera

Solutions:

For cameras with audio function, select **Menu > Advanced Settings > Audio Mode**, and then set headphone or external audio function, while the XVR access channel turns on the coaxial audio function.

6.9 The screws fixing the bracket on the camera are loose

Solutions:

Confirm whether screws are to be tightened manually or with power tools, and check that the torque does not exceed the specified requirements. If a loose screw is attributed to normal torque usage, please return the faulty product.

6.10 The camera cannot reach the maximum supported frame rate after being connected to the XVR

Problem Description:

Two identical cameras both support a maximum frame rate of 15 fps. After connecting to the XVR, one of them can only reach a maximum frame rate of 8 fps.

Solutions:

The frame rate of one channel is set too high, resulting in insufficient frame rate of the other channel. It is recommended to reduce the frame rate.

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