

Video Decoder

User Manual


Manual Version: V1.00

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

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Disclaimer



CAUTION!

The default password is used for your first login. To ensure account security, please change the password after your first login. You are recommended to set a strong password (no less than eight characters).

- To the maximum extent permitted by applicable law, the product described, with its hardware, software, firmware and documents, is provided on an "as is" basis.
- Best effort has been made to verify the integrity and correctness of the contents in this manual, but no statement, information, or recommendation in this manual shall constitute formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical errors in this manual. The

contents of this manual are subject to change without prior notice. Update will be added to the new version of this manual.

- Use of this manual and the product and the subsequent result shall be entirely on the user's own responsibility. In no event shall we be liable for any special, consequential, incidental, or indirect damages, including, among others, damages for loss of business profits, business interruption, or loss of data or documentation, or product malfunction or information leakage caused by cyber attack, hacking or virus in connection with the use of this product.
- Video and audio surveillance can be regulated by laws that vary from country to country. Check the law in your local region before using this product for surveillance purposes. We shall not be held responsible for any consequences resulting from illegal operations of the device.
- The illustrations in this manual are for reference only and may vary depending on the version or model. The screenshots in this manual may have been customized to meet specific requirements and user preferences. As a result, some of the examples and functions featured may differ from those displayed on your monitor.
- This manual is a guide for multiple product models and so it is not intended for any specific product.
- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.




Environmental Protection

This product has been designed to comply with the requirements on environmental protection. For the proper storage, use and disposal of this product, national laws and regulations must be observed.




Safety and Compliance Information

Safety Symbols

The symbols in the following table may be found on installation-related equipment. Be aware of the situations indicated and take necessary safety precautions during equipment installation and maintenance.

Symbol	Description
	Generic alarm symbol: To suggest a general safety concern.
	ESD protection symbol: To suggest electrostatic-sensitive equipment.
	Electric shock symbol: To suggest a danger of high voltage.

The symbols in the following table may be found in this manual. Carefully follow the instructions indicated by the symbols to avoid hazardous situations and use the product properly.

Symbol	Description
 WARNING!	Indicates a hazardous situation which, if not avoided, could result in bodily injury or death.
 CAUTION!	Indicates a situation which, if not avoided, could result in damage, data loss or malfunction to product.
 NOTE!	Indicates useful or supplemental information about the use of product.

Safety Information

Read through the instructions carefully before starting installation and operation.

- Installation and maintenance must be performed by qualified personnel.

- This device is a class A product and may cause radio interference. Take measures if necessary.
- While shipping, the device should be packed in its original packing.
- Disconnect power before installation and cable connection. Power down the device before connecting and disconnecting cables, accessories and peripherals.
- Verify installation and cable connection are correct before use. Incorrect installation and connection may cause personal injury and device damage.
- Protect the power cable from being stepped on or pressed, particularly at the plug, receptacle, and the part leading out of the device.
- Follow the procedure to shut down the device properly. Use an Uninterrupted Power Supply (UPS) if possible. Sudden power failures can cause disk damage or device malfunction.
- Improper use or replacement of the battery may cause risk of explosion. Use the manufacturer recommended battery. Dispose of the used battery according to local regulations or the battery manufacturer's instructions. Never dispose of the battery in fire.
- Ensure a proper operating environment, including temperature, humidity, ventilation, power supply, and lightning protection. Make sure the device is always properly grounded. Keep the device from dust, excessive vibration and strong electromagnetic radiation.
- Do not use the device near water or expose to rain or moisture. Never spill liquid of any kind on the device. Never let liquid of any kind enter the device.
- Never stare at the optical module or optical fiber connector during operation.
- Take necessary measures to ensure data security and protect the device from network attack and hacking (when connected to

Internet). Possible risks and consequences are at user's sole discretion.

- Contact your dealer if the device does not work properly. Never attempt to disassemble the device yourself. User shall assume all responsibility for damage, loss, or injury caused by unauthorized repair or maintenance.
-



WARNING!



- Never look at the transmit laser while the power is on. Never look directly at the fiber ports and the fiber cable ends when they are powered on.
 - Use of controls or adjustments to the performance or procedures other than those specified herein may result in hazardous laser emissions.
-

Regulatory Compliance

FCC Part 15

This equipment has been tested and found to comply with the limits for 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.

This product 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.

LVD/EMC Directive



This product complies with the European Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC.

WEEE Directive–2002/96/EC



The product this manual refers to is covered by the Waste Electrical & Electronic Equipment (WEEE) Directive and must be disposed of in a responsible manner.

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1 Introduction

This manual describes how to manage the device on a Web browser. The figures in this manual are only for illustration purpose. The parameters, options and values actually displayed on the Web pages of your device may be different from those in this manual.

2 Login

Before you start, check that:

The device is operating properly.

The computer is connected to the device.

The computer is installed with Microsoft Internet Explorer (IE) 7.0 or higher, and no proxy server is being used.

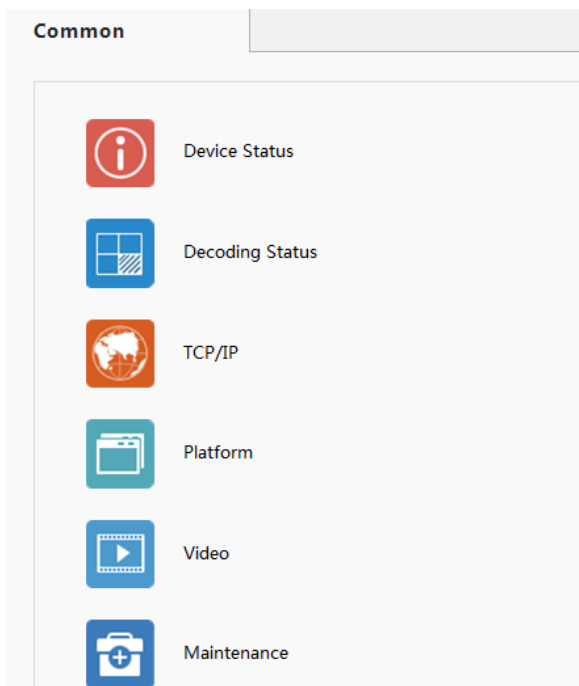


NOTE!

- The default IP address of your device is 192.168.0.14; the default subnet mask is 255.255.255.0; the default gateway is 192.168.0.1.
 - Use **admin** as the username and password for first-time login. Please change the default password under **System** to ensure account security.
-



Follow the steps to log in to the device:





1. Enter the device's IP address in the address bar and then press **Enter**.
2. Log in with the correct username and password. The **Common** page is displayed to list the frequently used functions. For details, see [Common Functions](#).



3 Common Functions

The **Common** page lists functions that are frequently used to manage the device. The table below describes the meaning of the icons on this page.

Icon	Description
	View the basic device information, including device model, firmware version, network settings, and management mode. For more details, see Device Status .
	View the output channel, number of windows that appear on the screen, image resolution and refresh rate, and remaining decoding capacity of the device. For more details, see Decoding Status .

Icon	Description
	Set network parameters such as IP address for the device. For more details, see TCP/IP .
	Set parameters required if the device is to be managed by a management platform (central server). For more details, see Management Platform .
	Set video output parameters, including the number of windows that appear on the screen, image resolution and refresh rate. For details, see Video .
	Set maintenance parameters. For details, see Maintenance .

4 Network

Set network settings include TCP/IP and Telnet so that the device can communicate with other devices on the network.

TCP/IP

Assign a static IP address manually, or obtain one using the DHCP server.

1. Click **Network > TCP/IP**.

TCP/IP

Obtain IP By	Static IP
IPv4 Address	206.8.5.25
IPv4 Subnet Mask	255.255.0.0
IPv4 Default Gateway	206.8.0.1
MTU(Byte)	1500

Save

2. Set the parameters. Some are described in the table below.

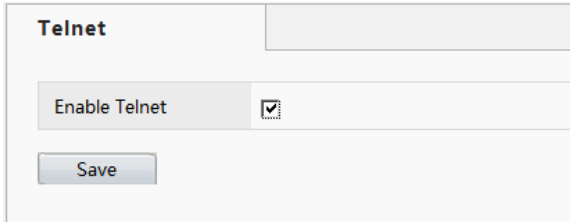
Parameter	Description
Obtain IP By	<ul style="list-style-type: none"> • Static IP: Assign an IP address, subnet mask and default gateway for the device. The IP address must be unique on the network. • DHCP: Use the DHCP server to assign an IP address.
MTU	<p>Maximum Transmission Unit, specifies the maximum value in bytes for the package size (including IP header) to optimize data transmission.</p> <p>Default: 1500 bytes.</p>

3. Click **Save**.

Telnet

Enable Telnet if you want to access the device from a computer with Telnet. The username and password for Telnet are the one you use to access the device on a Web browser. If the password for Web access is changed, the Telnet password changes too. By default the admin username cannot be changed.

1. Click **Network > Telnet**.



The screenshot shows a configuration window titled "Telnet". At the top right, there is a greyed-out text input field. Below it, there is a section with a grey background containing the text "Enable Telnet" followed by a checked checkbox. At the bottom left of this section is a "Save" button.

2. Select the check box to enable Telnet, and then click **Save**.

SNMP

Enable Simple Network Management Protocol (SNMPv3) if the device operates in server mode (managed via a central server). Through SNMP the central server synchronizes audio/video channel configurations and some of the scheduled tasks to the device, and the device reports device alarms to the central server.

1. Click **Network > SNMP**.
2. Set the parameters. Some are described in the table below.

SNMP

Enable SNMPv3

Username

Authentication Mode

Authentication

Password

Confirm Password

Encryption Mode

Encryption Password

Confirm Password

Parameter	Description
Enable SNMPv3	Enable or disable SNMP as needed.
Authentication Mode	Authentication mode for access from the central server. Default: MD5
Authentication Password	Authentication password for access from the central server.
Confirm Password	Default: Sntp@123
Encryption Mode	Encryption method used for access from the central server. Default: DES
Encryption Password	Encryption password for access from the central server.
Confirm Password	Default: Sntp@123

5 Audio and Video

Set video, audio and media stream parameters. The major functions provided on the **Video & Audio** menu are listed in the table below.

Submenu	Function
Audio	Mute or adjust sound volume.
Video	<ul style="list-style-type: none">• Set the number of windows on the screen.• Set image resolution and refresh rate.
Media Stream	Set the media stream address and address formats.



NOTE!

- In standalone mode, all parameters under **Video & Audio** can be configured on the client computer.
- In server mode, only **Display Mode** can be configured on the client computer; other parameters can only be configured on the central server.

Audio

Select the output channel and adjust the sound volume as needed.

1. Click **Audio & Video > Audio**.
2. Set the parameters and then click **Save**.

The screenshot shows a configuration window titled "Audio". It has a header bar with the title "Audio" and a close button. Below the header, there are three rows of settings:

- Output Channel:** A dropdown menu showing "Output Channel1".
- Mute:** A checkbox that is checked.
- Volume:** A dropdown menu showing "4".

At the bottom of the window, there is a "Save" button.

Video

Select the output channel and then set the number of windows on the screen, image resolution and refresh rate.

1. Click **Audio & Video > Video**.

Video	
Output Channel	Output Channel1
Split Screen	16
Display Mode	1920X1080(1080P)@60HZ
<small>Note:3840x2160(4K)@30Hz/60Hz is available only for HDMI output.</small>	
<input type="button" value="Save"/>	

2. Set the parameters and then click **Save**.

Media Stream

Set media stream parameters, including the stream source address and address format, so that the device can receive media streams from the connected cameras.

1. Click **Audio & Video > Media Stream**.

Media Stream	
Output Channel	Output Channel1
Stream Address (Window 1)	<input checked="" type="checkbox"/> rtsp://206.8.5.254
Stream Address Format(UDP)	udp://@:60000
Stream Address Format(RTSP)	rtsp://206.8.0.10:5541/media/video1 [username=admin] [password=admin]
<input type="button" value="Save"/>	

2. Set the parameters. Some are described in the table below.

Parameter	Description
Output Channel	Video output channel.
Stream Address (Window 1)	Address of the media stream source.
Stream Address Format(UDP)	Address format for User Datagram Protocol (UDP).
Stream Address Format(RTSP)	Address format for Real Time Streaming Protocol (RTSP).

6 Service

Set image parameters and a transparent channel as needed. The major functions provided on the **Service** menu are listed in the table below.

Submenu	Function
Image	<ul style="list-style-type: none">• Set image display mode: stretch or scale.• Crop images.• Set the width and color of the divider line for windows on the screen.• Set the length of time to retain the last image when no stream is received.• Enable/disable 3D noise reduction.
Transparent Channel	Set a transparent channel to a third-party device.

Image

Set the image display ratio, width and color of the divider line on the screen, and crop images as needed.

1. Click **Service > Image**.

Image

Display Ratio	Stretch ▼
Crop Upper Edge(pix)	0 ▼
Crop Lower Edge(pix)	0 ▼
Crop Left Edge(pix)	0 ▼
Crop Right Edge(pix)	0 ▼
Divider Line Width(pix)	0 ▼
Divider Line Color	Black ▼
Image Retention Time(s)	0
3D Noise Reduction	<input type="checkbox"/>

2. Set the parameters. Some are described in the table below.

Parameter	Description
Display Ratio	Set the image display ratio.
Crop Upper Edge(pix)	Crop images as needed.
Crop Lower Edge(pix)	
Crop Left Edge(pix)	
Crop Right Edge(pix)	
Divider Line Color	Set the width and color of the divider line on the screen.
Divider Line Color	
Image Retention Time(s)	Set the length of time to retain the last image when no stream is received from the camera.

Transparent Channel

Set the transparent channel to transfer video and audio signals through a serial port.

1. Click **Service > Transparent Channel**.

Transparent Channel

Transparent Channel	<input type="checkbox"/>
Port	COM 2
Source IP	206.8.5.25
Source Port	17081
Destination IP	192.168.0.30
Destination Port	17081

Save

2. Set the parameters. Some are described in the table below.

Parameter	Description
Transparent Channel	Enable or disable transparent channel.
Port	Port used for transparent channel.
Source IP	IP address of the device.
Source Port	Port number of the device.
Destination IP	IP address of the opposite device. Available when transparent channel is enabled.
Destination Port	Port number of the opposite device. Available when transparent channel is enabled.

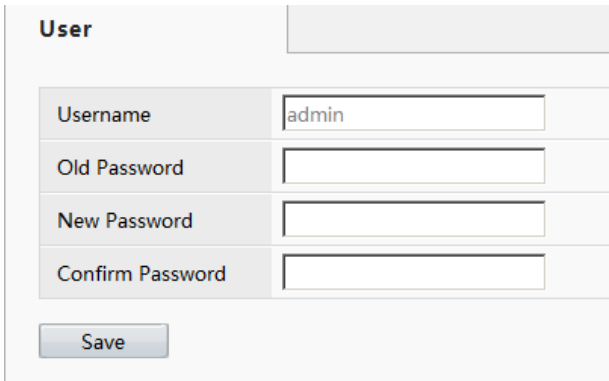
7 System

Set system parameters, including the user password, system time, system language, management platform, and serial port.

User

Change the default password to a strong one (at least 8 digits) after your first login. It is also recommended that you change the password periodically to ensure account security.

1. Click **System > User**.



User	
Username	<input type="text" value="admin"/>
Old Password	<input type="password"/>
New Password	<input type="password"/>
Confirm Password	<input type="password"/>

2. Enter the old and new passwords.
3. Click **Save**.

Time

Set system time for your device and how the time is updated.

1. Click **System > Time**.

Time

Time Zone: (GMT+08:00) Beijing, Urumqi, Singapore

Auto Update: On Off

System Time: 2016-03-07 10:33:32

Set Time: 2016-03-07 10:51:10 Sync with PC

Save

2. Set the parameters. Some are described in the table below.

Parameter	Description
Time Zone	Choose a time zone for your device.
Auto Update	Enable this function if you have a Network Time Protocol (NTP) server on the network. The device synchronizes time with the NTP server at the set interval when enabled. The NTP server's IP address, port number, and update interval are required.
System Time	Current system time of the device. Click the Set Time text box and then set the time manually, or select Sync with PC and then the device automatically synchronizes time with your computer.



NOTE!

The device synchronizes time with the central server when operating in server mode.

Management Platform

Configure the management platform only when the device operates in server mode (managed by a central server).

1. Click **System > Platform**.

2. Select **Connect to Platform**.

Platform	
Connect to Platform	<input checked="" type="checkbox"/>
Device ID	<input type="text" value="2068525"/>
Protocol	<input type="text" value="Private"/>
Server IP	<input type="text" value="206.8.0.10"/>
Server Port	<input type="text" value="5060"/>
Note: Modification of platform connection, device ID, protocol, server ID and address will restart the device and restore default settings. After disabling Connect to Platform, please reset the login password on the Web if the device cannot be accessed via ONVIF.	
<input type="button" value="Save"/>	

3. Set the parameters. Some are described in the table below.

Parameter	Description
Device ID	Must be unique on the network.
Protocol	Private: Private protocol used to manage the device.
Server IP	IP address of the central server. Must be consistent with the server address.
Server Port	Port number of the central server. Must be consistent with the port number set on the server.

4. Click **Save**.

Serial Port

Set the serial port on the device, including the port type, baud rate, parity check, and flow control method.

1. Click **System > Serial Port**.
2. Select the desired port and then set parameters accordingly. The parameters displayed vary with the serial port selected. The figure below shows the parameters displayed when **COM 1** is selected.

Serial Port	
Port	COM 1
Port Type	RS232
Baud Rate	115200
Data Bit	8
Stop Bit	1
Parity Bit	None
Flow Control	None
<input type="button" value="Save"/>	

The figure below shows the parameters displayed when **COM 2** is selected.

Serial Port	
Port	COM 2
Port Type	RS485/422
Port Mode	Transparent Channel
Duplex	Full Duplex
Baud Rate	115200
Data Bit	8
Stop Bit	1
Parity Bit	None
Flow Control	None
<input type="button" value="Save"/>	

3. Some parameters are described in the table below.

Parameter	Description
Port	Select the serial port to set.
Port Type	RS232 or RS485/422 interface.
Port Mode	Available only when Port is set to COM 2 . Transparent Channel: Used for data transfer between the device and a third-party device; available only when Port Type is set to RS485/422 .
Duplex	Full duplex or half duplex. Available only when Port is set to COM 2 .
Baud Rate	Transmission rate in bps. The baud rate must be consistent with that on the connected external device.
Data Bit	Number of data bits per character.
Stop Bit	Number of stop bits per character.
Parity Bit	Type of parity check.
Flow Control	Whether and how to control flow of data through the serial port.



NOTE!

In server mode, only **Duplex** can be configured on the Web browser, and all the other parameters can be configured only on the central server.

8 Maintenance

The major functions provided on the **Maintenance** menu are listed in the table below.

Submenu	Function
Maintenance	<ul style="list-style-type: none"> Restart the device. Restore factory default settings. Import and export configuration file.

Submenu	Function
	<ul style="list-style-type: none"> • Export logs. • Upgrade the software.
Device Status	View device information, including device model, version, network settings, and management mode.
Decoding Status	View decoding status, including output channel, number of windows on the screen, display mode, and remaining decoding capacity.

Maintenance

Click **Maintenance** > **Maintenance** and then perform maintenance operations as needed. You can restart the device, restore some factory default settings, import and export configuration files, export logs, and upgrade the device.

Maintenance

Restart Device

All settings will be restored to factory default except network and user settings.

Export Configuration File

Export Logs

Import Configurations

Upgrade

[Note: Do not disconnect power or perform any other operation during upgrade.](#)

Device Status

Click **Maintenance** > **Device Status** to view basic information of the device, its network settings and operation status. The following shows an example.

Device Status	
Basic	
Device Model	DC
Software Version	B3702P15
Hardware Version	A
Bootloader Version	1.25
Network	
IP Address	206.8.5.25
Subnet Mask	255.255.0.0
Default Gateway	206.8.0.1
NIC1	Connected/1000M
NIC2	Disconnected
Status	
Management Mode	Standalone
System Time	2016-03-07 15:49:30

Decoding Status

Click **Maintenance** > **Decoding Status** to view decoding status, including the output channel, number of windows on the screen, image resolution and refresh rate, remaining decoding capacity, and stream source address. The following shows an example.

Decoding Status

Output Channel	Output Channel1
Split Screen	1
Display Mode	1920X1080(1080P)@60HZ
Remaining Decoding Capacity	3840X2160(4K)@60HZ
Window	
1	Stream Address
	udp://@:60000