

## **User Manual**

**V2.0**

**(English)**

**Please read this user manual  
thoroughly before using.**

## **Preface**

Thank you for using this HD Video Conferencing Camera.

This manual introduces the functions, installation process and operation of the HD camera. Prior to installation and usage, please read the manual thoroughly.

## **Precautions**

This product should only be used under the specified conditions in order to avoid any damage to the camera:

- Do not subject the camera to rain or moisture.
- Do not remove the cover. Otherwise, you may risk receiving an electric shock. In case of unintended equipment operation, contact an authorized engineer.
- Never operate under unspecified temperature, humidity or power supply.
- Please use soft dry cloth to clean the camera. If the camera is very dirty, clean it with diluted neuter detergent; do not use any type of solvents, which may damage the surface.

## **Note:**

This is a class A production. Electromagnetic radiation at certain frequencies may affect the image quality of TV in home environment.

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## 1 Attentions

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### ● Electric Safety

Installation and operation must accord with electric safety standard.

### ● Use caution to transport

Avoid stress, vibration or soakage in transport, storage and installation.

### ● Polarity of power supply

The power supply of this product is +12V, the max electrical current is 2A. Polarity of the power supply plug drawing shows as below.



### ● Installation Precautions

Do not grasp the camera lens when carrying it. Don't touch camera lens by hand. Mechanical damage may be caused by doing so.

Do not use in corrosive liquid, gas or solid environment to avoid any cover (plastic material) damage. Make sure there is no obstacle within rotation range.

Please never power on before installation is completed.

### ● Do not dismantle the camera

We are not responsible for any unauthorized modification or dismantling.



Warning

Specific frequencies of electromagnetic field may affect the image of the camera!

## 2 Packing List

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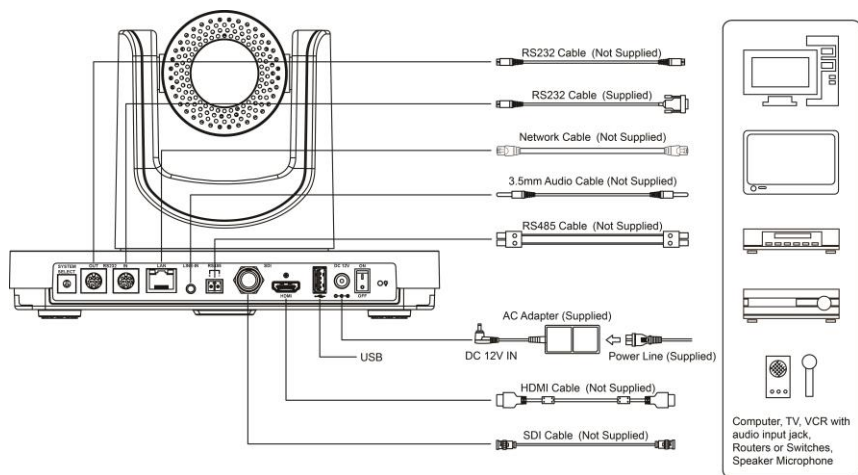
When you unpack, check that all the supplied accessories are included:

Name	Quantity
Camera	1
AC Power Adaptor	1
Power Cable	1
RS232 Cable	1
Remote Control	1
User Manual	1

## 3 Quick Start

---

- 1) Please make sure that all connections are connected correctly before you start.



- 2) Connect the power adapter to the power connector on the rear panel of the camera. The power indicator light on the front panel of the camera will be on.
- 3) After the camera is powered on, it'll start to initialize. When it turns to the center position, the motor stops running, and the initialization is completed.  
(Note: If preset 0 is saved, PTZ will be move to preset 0)

## 4 About AV-1560

### 4.1 Features

- **H.265 Encode**

AV-1560 supports H.265 encoding. It enables full HD 1080p/60 transmission with ultra-low bandwidth.

- **1080P Full HD**

Using Panasonic's 1/2.7", 2.07 million pixels high-quality HD CMOS sensor, AV-1560 can achieve maximum 1920 x 1080 high resolution and a highest output frame rate of 60 fps.

- **20x Optical + 16x Digital Zoom**

With the Tamron high-quality super telephoto lens, the optical zoom is 20X with 16x digital zoom.

- **Abundant & Perfect Interface**

AV-1560 supports HDMI high-definition output, and is equipped with an SDI output, the effective transmission distance is up to 100 meters.

- **High Quality under Low Illumination**

With 2D & 3D noise reduction algorithm, it greatly reduces image noise. Even under the condition of low illumination, it still keeps the picture clean and clear. The SNR of image is as high as 55dB.

- **Remote Control**

Through the RS232 and RS485 serial ports, the camera can be controlled remotely.

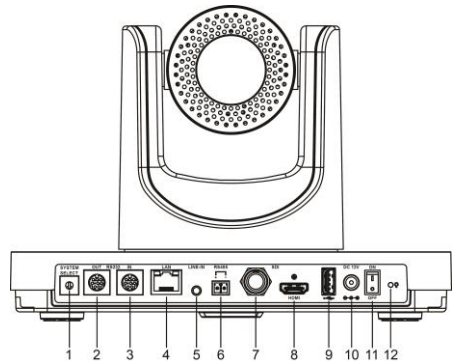
### 4.2 Product Specifications

Name	AV-1560 HD Video Conferencing Camera w/ PoE
Camera	
Signal System	1080P/60, 1080P/50, 1080I/60, 1080I/50, 1080P/30, 1080P/25, 720P/60, 720P/50, 720P/30, 720P/25
Sensor	1/2.7 inch, CMOS, Effective pixels: 2.07M
Scanning Mode	Progressive
Lens	20x, f=4.42mm ~ 88.5mm, F1.8 ~ F2.8
Digital Zoom	16x
Minimum Illumination	0.5 Lux @ (F1.8, AGC ON)
Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One Push, Manual, VAR
Backlight Compensation	Support
Digital Noise Reduction	2D & 3D Digital Noise Reduction
Signal Noise Ratio	≥55dB
Horizontal Angle of View	60.7° ~ 3.36°
Vertical Angle of View	34.1° ~ 1.89°
Horizontal Rotation Range	±170°
Vertical Rotation Range	-30° ~ +90°
Pan Speed Range	1.7° ~ 100°/s
Tilt Speed Range	1.7° ~ 69.9°/s
H & V Flip	Support
Image Freeze	Support
PoE	Support
Local Storage	Support
Number of Preset	255
Preset Accuracy	0.1°

IPC Features	
Video Compression	H.264/H.265/MJPEG
Video Stream	First Stream, Second Stream
First Stream Resolution	1920x1080, 1280x720, 1024x576, 960x540, 640x480, 640x360
Second Stream Resolution	1280x720, 1024x576, 720x576 (50Hz), 720x480 (60Hz), 720x408, 640x360, 480x270, 320x240, 320x180
Video Bit Rate	32Kbps ~ 20480Kbps
Bit Rate Type	Variable Rate, Fixed Rate
Frame Rate	50Hz: 1fps ~ 25fps, 60Hz: 1fps ~ 30fps
Audio Compression	AAC
Audio Bit Rate	96Kbps, 128Kbps, 256Kbps
Protocols	TCP/IP, HTTP, RTSP, RTMP, ONVIF, DHCP, Multicast, etc.
Input/Output Interface	
HD Output	1 x HDMI: Version 1.3
	1 x SDI: BNC type, 800mVp-p, 75Ω, Along to SMPTE 424M standard
Network Interface	1 x RJ45: 10/100/1000M Adaptive Ethernet Ports
USB	1 x USB2.0
Audio Interface	1-ch: 3.5mm Audio Interface, Line In
Communication Interface	1 x RS232 In: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA/Pelco-D/Pelco-P
	1 x RS232 Out: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA network use only
	1 x RS485: Share with RS232 Out, Max Distance: 1200m, Protocol: VISCA/Pelco-D/Pelco-P
Power Jack	JEITA type (DC IN 12V)
Genetic Specifications	

Input Voltage	DC 12V / PoE (802.3af)
Current Consumption	1.0A (Max)
Operating Temperature	-10°C ~ 40°C
Storage Temperature	-40°C ~ 60°C
Power Consumption	12W (Max)
MTBF	>30000h
Size	9.4x5.7x6.7 inch
Net Weight	3.6lb

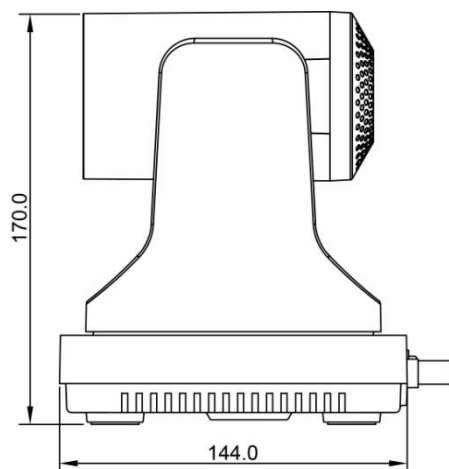
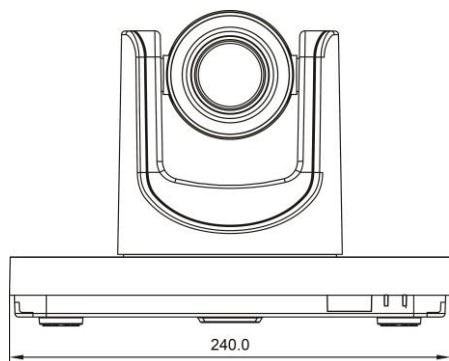
### 4.3 Interfaces



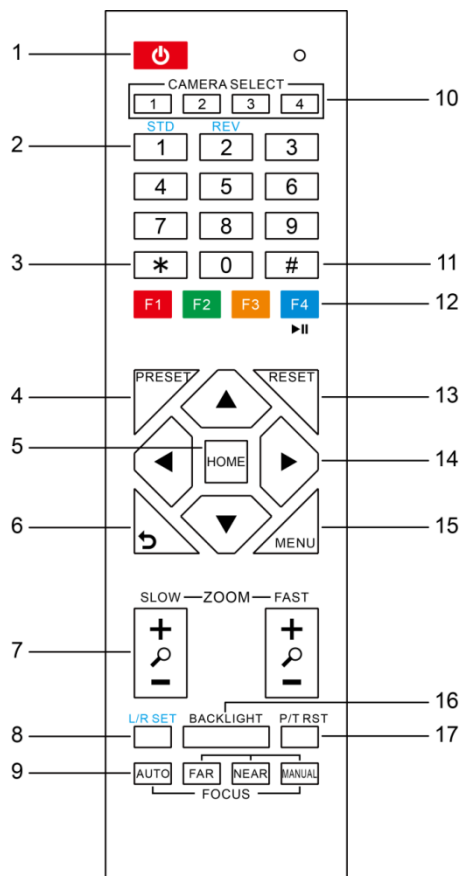


Item	Name
1	System Video Format Switch
2	RS232 OUT Interface
3	RS232 IN Interface
4	Network Interface
5	LINE IN Interface
6	RS485 Interface
7	SDI Interface
8	HDMI Interface
9	USB 2.0 Interface
10	DC 12V Interface
11	Power Switch
12	Power Lamp

#### 4.4 Dimensions



#### 4.5 Remote Control



##### 1. Standby Key

Press it to enter standby mode. Press it again to enter normal mode.

Note:

Power consumption under standby mode is approximately half of the normal mode

##### 2. Number Key

To set preset or call preset.

##### 3. \* Key

To be used with other buttons.

##### 4. Preset Key

Set preset: Store a preset position.

[PRESET] + Numeric button (0-9): to set a corresponding preset position.

##### 5. HOME Key

To enter submenu or to turn the camera PTZ back to the center position.

#### 6. Return Key

Back to the previous submenu.

#### 7. Zoom Key

Slow Zoom: Zoom In [+] or Zoom Out [-] slowly

Fast Zoom: Zoom In [+] or Zoom Out [-] fast

#### 8. L/R Set Key

Press with [1] or [2] to set the direction of the Pan/Tilt.

- Press [L/R Set]+[1STD] together: set the Pan-Tilt turn the same direction as the L/R Set.
- Press [L/R Set]+[2REV] together: set the Pan-Tilt turn the opposite direction as the L/R Set.

#### 9. Focus Key

Used for focus adjustment.

Press [AUTO] to adjust the focus on the center of the object automatically.

Press [MANUAL] to adjust the focus on the center of the object manually with [Far] (focus on far object) and [NEAR] (focus on near object).

#### 10. Camera Select Keys

Press the number that corresponds to the camera you want to operate with the remote controller.

#### 11. #Key

To be used with other buttons.

#### 12. IR Remote Control Key

[\*]+[#]+[F1]: Camera Address 1

[\*]+[#]+[F2]: Camera Address 2

[\*]+[#]+[F3]: Camera Address 3

[\*]+[#]+[F4]: Camera Address 4

#### 13. Reset Key

[RESET] + [Numeric button (0-9)]: to erase a preset position.

[\*]+[#]+[RESET]: to erase all the preset positions.

#### 14. PTZ Control Key

Press arrow keys to pan/tilt. Press [HOME] to turn the camera back to the center.

#### 15. Menu Key

[MENU]: enter or exit OSD MENU.

#### 16. Backlight Key

[BACKLIGHT]: Press this button to enable backlight compensation. Press it again to disable backlight compensation.

NOTE:

- Effective only in auto exposure mode.
- If there's a light source behind the subject, the subject will become dark. In this case, press this button.

#### 17. P/T RST Key

Pan/Tilt self-test.

#### 18. Shortcuts

[\*]+[#]+[1]: OSD menu default English

[\*]+[#]+[3]: OSD menu default Chinese

[\*]+[#]+[4]: Default IP address

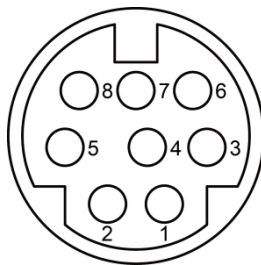
[\*]+[#]+[5]: Save OSD

[\*]+[#]+[6]: Quickly recover the default

[\*]+[#]+[8]: Look the camera version

[\*]+[#]+[9]: Quickly set up inversion

### 4.6 RS-232 Interface



No.	Function
1	DTR
2	DSR
3	TXD
4	GND
5	RXD
6	GND
7	IR OUT
8	NC

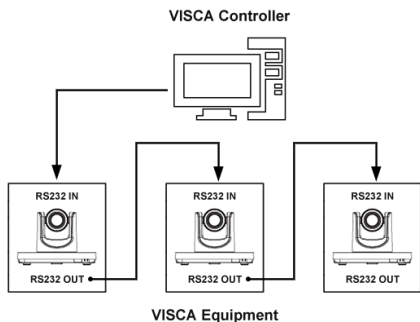
The correspondence between the camera RS232 and Windows DB-9 pin:

Camera	Windows DB-9
1.DTR	1.CD
2.DSR	2.RXD
3.TXD	3.TXD
4.GND	4.DTR
5.RXD	5.GND
6.GND	6.DSR
7.IR OUT	7.RTS
8.NC	8.CTS
	9.RI

The correspondence between camera RS232 and Mini DIN pin:

Camera	Mini DIN
1.DTR	1.DTR
2.DSR	2.DSR
3.TXD	3.TXD
4.GND	4.GND
5.RXD	5.RXD
6.GND	6.GND
7.IR OUT	7.NC
8.NC	8.NC

## 4.7 VISCA Network



## 4.8 Serial Communication Control

### ● RS232 Communication Control

The camera can be controlled via RS232. The parameters of RS232 serial port are as below:

Baud rate: 2400/4800/9600/38400;

Starting Position: 1 bit

Data bit: 8 bits

Stop bit: 1 bit

Check digit: None

### ● RS485 Communication Control

The camera can be controlled via RS485, half duplex mode:

Baud rate: 2400/4800/9600/38400;

Starting position: 1 bit

Data bit: 8 bits

Stop bit: 1 bit

Check digit: None

After powered on, the camera will go through initialization and then turn back to the center position. Zoom lens will pull to the farthest position, auto focus, and the aperture is adjusted to the default value. If the camera has preset 0 saved, the camera will turn to preset position 0 after initialization is completed. At this point, the serial ports are ready to use.

### ● List of protocols

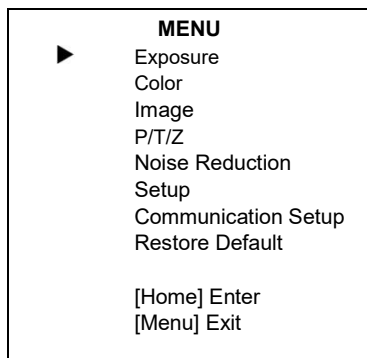
The serial ports of AV-1560 follows VISCA/ Pelco-D/ Pelco-P standard protocols.

For a detailed list of VISCA/Pelco-D/Pelco-P protocols, please contact the manufacturer.

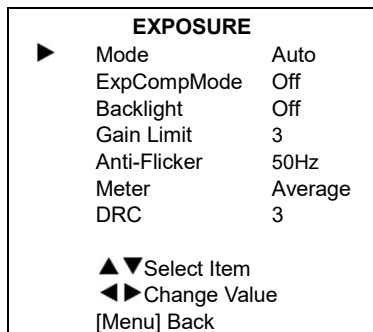
## 5 GUI Settings

### 5.1 MENU

Press [MENU] to display the main menu on the monitoring screen. Use arrow keys to move the cursor to the submenu. Press [HOME] to enter the corresponding sub-menu.



### 5.2 EXPOSURE



Mode: Exposure mode. Options: Auto, Manual, SAE, AAE, Bright.

ExpCompMode: Exposure compensation mode. Options: On, Off (effective only in Auto mode).

ExpComp: Exposure compensation value. -7~7 (effective only when ExpCompMode On).

Backlight: Backlight compensation. Options: On, Off (effective only in Auto mode).

Bright: Intensity control. 0 ~ 17 (effective only in

Bright mode).

Gain Limit: Maximum gain limit. 0~15 (effective only in Auto, SAE, AAE, Bright modes).

Anti-Flicker: Options: Off, 50Hz, 60Hz (effective only in Auto, AAE, Bright modes).

Meter: Options: Average, Center, Smart, Top.

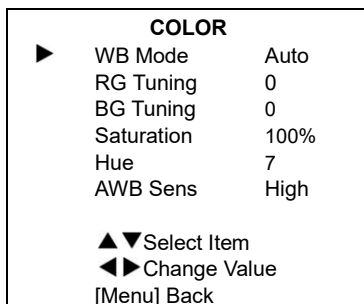
Iris: Aperture value. Options: F1.8, F2.0, F2.4, F2.8, F3.4, F4.0, F4.8, F5.6, F6.8, F8.0, F9.6, F11.0, Close (effective only in Manual, AAE modes).

Shutter: Options: 1/30, 1/60, 1/90, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000 (effective only in Manual, SAE modes).

Gain: 0 ~ 7 (effective only in Manual mode).

DRC: DRC value, 0 ~ 8.

### 5.3 COLOR



WB Mode: White balance mode. Options: Auto, Indoor, Outdoor, One Push, Manual, VAR.

RG Tuning: Red gain fine-tuning. -10~+10 (effective only in Auto, One Push, VAR modes).

BG Tuning: Blue gain fine-tuning. -10~+10 (effective only in Auto, One Push, VAR modes).

Saturation: 60% ~ 200%.

Hue: 0 ~ 14.

AWB Sens: White balance sensitivity. Options: Low, Middle, High.

RG: Red gain. 0~255 (effective only in Manual mode).

BG: Blue gain. 0~255 (effective only in Manual mode).

Colortemp: 2500K ~ 8000K (effective only in VAR mode).

## 5.4 IMAGE

IMAGE		
▶	Luminance	7
	Contrast	10
	Sharpness	3
	Flip-H	Off
	Flip-V	Off
	B&W-Mode	Off
	Gamma	Default
	Style	Clarity
▲▼Select Item		
◀▶Change Value		
[Menu] Back		

Luminance: Brightness adjustment. 0 ~ 14.

Contrast: Contrast adjustment. 0 ~ 14.

Sharpness: Sharpness adjustment. Options: Auto, 0 ~ 15.

Flip-H: Flip image horizontally. Options: On, Off.

Flip-V: Flip image vertically. Options: On, Off.

B&W-Mode: Options: On, Off.

Gamma: Options: Default, 0.45, 0.5, 0.56, 0.63.

Style: Options: Default, Norm, Clarity, Clarity (LED), Bright, Soft, 5S.

AF-Zone: Adjust the focusing area. Options: Top, Center, Bottom.

AF-Sense: Adjust the auto-focusing sensitivity.

Options: Low, Normal, High.

L/R Set: Options: STD, REV.

Image Freeze: On, Off.

Display Info: On, Off.

Digital Zoom: Options: Off, 2x, 4x, 8x, 16x.

Call Preset Speed: 1 ~ 24.

Fast Zoom: Options: On, Off.

## 5.5 P/T/Z

P/T/Z		
▶	SpeedByZoom	On
	AF-Zone	Center
	AF-Sense	High
	L/R Set	STD
	Display Info	On
	Image Freeze	Off
	Digital Zoom	Off
	Call Preset Speed	24
	Fast Zoom	Off
▲▼Select Item		
◀▶Change Value		
[Menu] Back		

SpeedByZoom: Adjust the depth of field scale.  
Options: On, Off.

## 5.6 NOISE REDUCTION

NOISE REDUCTION	
▶ NR2D-Level	1
NR3D-Level	3
▲▼Select Item	
◀▶Change Value	
[Menu] Back	

NR2D Level: 2D noise reduction. Options: Off, Auto, 1 ~ 5.

NR3D Level: 3D noise reduction. Options: Off, 1 ~ 8.

## 5.7 SETUP

SETUP	
▶ Language	EN
DVI Mode	DVI
Lens	Type 2
auto scan shoot	Off
▲▼Select Item	
◀▶Change Value	
[Menu] Back	

Language: Options: EN, Chinese, Russian.

DVI Mode: Options: DVI, HDMI.

Lens: Options: Type1, Type2.

auto scan shoot: Options: On, Off.

## 5.8 COMMUNICATION SETUP

COMMUNICATION SETUP	
▶ Protocol	VISCA
V_Address	1
V_AddrFix	Off
Net Mode	Serial
Baudrate	9600
▲▼Select Item	
◀▶Change Value	
[Menu] Back	

Protocol: Control protocol. Options: Auto, VISCA, PELCO-D, PELCO-P.

V\_Address: 1~7. (effective only in Auto, VISCA protocol).

V\_AddrFix: Options: On, Off (when On, 88 30

01 FF command is invalid).

P\_D\_Address: 0~254. (effective only in PELCO-D protocol).

P\_P\_Address: 0 ~ 31. (effective only in PELCO-P protocol).

Net Mode: Set the serial port network control.

Options: Serial, Paral.

Baudrate: Serial port baud rate. Options: 2400, 4800, 9600, 38400.

## 5.9 RESTORE DEFAULT

RESTORE DEFAULT	
▶ Restore?	No
◀▶Change Value	
[Home] OK	
[Menu] Back	

Restore: Confirm to restore factory settings.

Options: Yes, No.

Note: Press [HOME] to confirm, all parameters will be restored to default, including IR Remote address and VISICA address.

## 6 Network Functions

### 6.1 Operating Environment

Operating System: Windows 2000/2003/XP/  
vista/7/8/10

Network Protocol: TCP/IP

Client PC: P4/128M RAM/40G HDD/ support  
scaled graphics card, support DirectX 8.0 or  
more advanced version.

### 6.2 Equipment Installation

- 1) Connect the camera to your internet or to  
your PC directly via internet cable.
- 2) Turn on DC 12V power.
- 3) If the network connection is working, the  
connection light (green) at the network  
interface will light up within 5 seconds,  
and the data indicator (orange) will flash,  
indicating that the physical connection of  
the camera has been completed.

### 6.3 Internet Connection



Connect directly via Network Cable



Connect via Switch/Router

### 6.4 IP camera controlled via LAN

#### 6.4.1 Setup IP address

To view the camera IP, follow the steps below:

Method 1: Press [\*] + [#] + [4] on remote  
controller sequentially, the camera IP address  
will show on screen.

Method 2: Connect camera to PC with an  
Ethernet cable, use “upgrade\_En.exe” to  
search for IP address. Contact the  
manufacturer for upgrade\_En.exe.



upgrade

To change the camera IP, follow the steps  
below:

Method 1: Login the web UI, select “Network >  
Lan Settings”, change IP address. Click “Apply”  
and then restart the camera.

**Lan Settings**

IP Configuration Type: Fixed IP Address

IP Address: 192.168.100.88

Subnet Mask: 255.255.255.0

Gateway: 192.168.100.1

DNS Address: 10.0.0.1

DNS Address: D4 E0 8E 11 22 33

Apply Cancel

**Port Settings**

HTTP Port number: 80 (80)

RTSP Port: 554 (554)

PTZ Port: 5678 (5678)

**Control Protocol Settings**

Visca Address: 1 (1~7)

Pelco-D Address: 0 (0~255)

Pelco-P Address: 0 (0~31)

**RTMP Settings**

First stream: ☒ On ☐ Off ☐ Video ☐ Audio

MRL: rtmp://192.168.100.138/live/stream0

Second stream: ☒ On ☐ Off ☐ Video ☐ Audio

MRL: rtmp://192.168.100.138/live/stream1

**RTSP Settings**

RTSP Auth: ☒ On ☐ Off

**ONVIF Settings**

ONVIF: ☒ On ☐ Off

ONVIF Auth: ☒ On ☐ Off

**Multicast Settings**

Multicast: ☒ On ☐ Off

Address: 224.1.2.3

Port: 6688

**SDK Settings**

Active Connection: ☒ On ☐ Off

Address: 192.168.100.138

Port: 1234

**NTP Settings**

NTP time sync: ☒ On ☐ Off

Server address: cn.ntp.org.cn

Time interval: 1440 minutes

Main time show: ☒ On ☐ Off

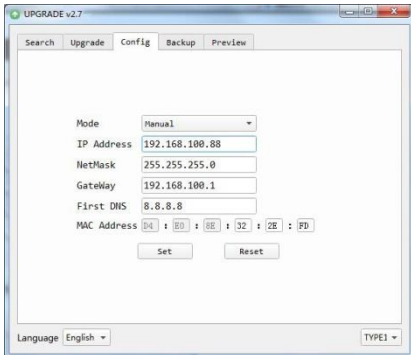
Position: X 0 Y 0 (0~100)

Sub time show: ☒ On ☐ Off

Position: X 0 Y 0 (0~100)

Method 2: Use “upgrade\_En.exe”, change IP

and click “Set”. The camera will restart.



The default IP address of AV-1560 is: “192.168.100.88”, username “admin”, password “admin”.

#### 6.4.2 Visit/Access IP Camera

Input <http://192.168.100.88> to IE (better with IE web browser, others will cause little latency). Login window will pop up, input login name: “admin”, password: “admin”, then “OK”.



After login, the interface is as below:



For the first-time user, there could be a black screen for the preview screen. IE browser will ask to install a player software (VLC). Please go to VLC website. After installation, login again.

<http://www.videolan.org/vlc/#download>

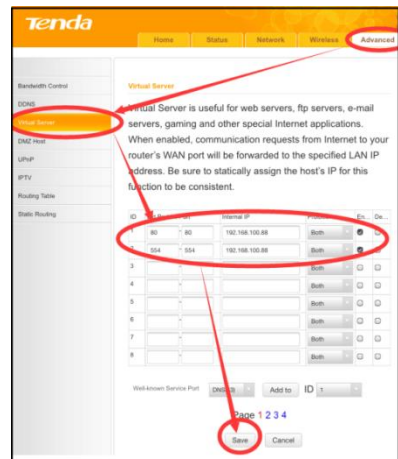
## 6.5 IP Camera controlled via WAN

### 6.5.1 Setup IPC controlled by dynamic DNS

Two dynamic DNS: DynDNS.org, 3322.org.

#### Router Port Mapping:

Take Tenda router for instance, on the Router Homepage, select “Advanced”-“Virtual Server”, add a new port number in “Ext Port”, add a new port number in “Int port”, put camera IP address to “Internal IP”, then select “Save”, shown as below:



### 6.5.2 Dynamic DNS visit camera

Set domain name to camera, setup the parameter, then dynamic DNS can access camera. Access link: <http://hostname:port>. For instance, set up host computer name: youdomain.f3322.org, the camera port



is then <http://youdomain.3322.org:89>.



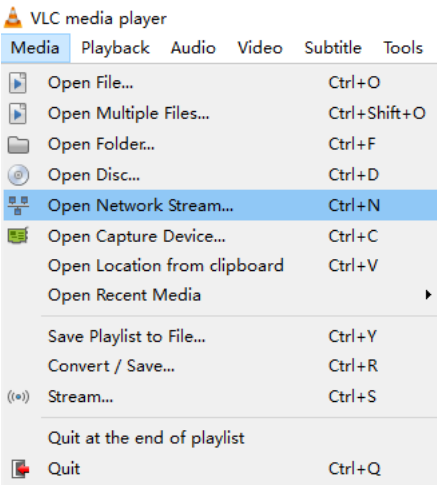
If the camera port default is 80, then the port number can be omitted. Use host name can access camera directly.

### 6.5.3 VLC stream media player monitoring

To visit VLC media server:

**Step 1** Open VLC media player.

**Step 2** Click “Media”>“Open Network Stream”,  
or click “Ctrl + N”:



**Step 3** Input URL address:

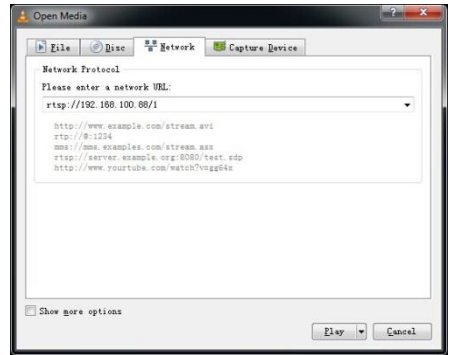
rtsp://ip address: port number/1 (1st stream);

rtsp://ip address: port number/2 (2<sup>nd</sup> stream).

**Step 4** Finish.



RTSP port number default: 554.



## 6.6 IP Camera Parameter Set Up

### 6.6.1 Homepage

All pages include two menu bars:

Real time monitoring: displaying video image;  
Parameter setup: with function buttons.

#### A. Video viewing window

Video viewing window always matches video resolution, the higher the resolution is, the bigger the viewing area is. Double click on the viewing window, enter full-screen; double click again, exit full-screen.

Status bar in viewing window is as below:



- 1) Video playback pause button: control real-time video pause/play, click again to resume video.
- 2) Audio control button: volume control and mute.
- 3) Full screen switch button.

## B. PTZ Setup



PTZ control box: arrow keys to control the camera move Up, down, left and right. Home button to return to the center.

Rate: Pan Speed can be set 1 ~ 24,  
Tilt Speed can be set 1 ~ 20.

Zoom In/Zoom out: For zooming in or zooming out.

Focus In/Focus Out: Focusing on distant objects or focusing on closer objects.

Set/Call: To set/call preset positions. First adjust the PTZ to a wanted position.

Method 1: Type a number into the Preset box, then click "Set".



Method 2: Type the name into the Presets

Information, then click "Set".

Presets Information		
No.	Name	
1	<input type="text"/>	Set
2	<input type="text"/>	Set
3	<input type="text"/>	Set
4	<input type="text"/>	Set
5	<input type="text"/>	Set
6	<input type="text"/>	Set
7	<input type="text"/>	Set
8	<input type="text"/>	Set
9	<input type="text"/>	Set

When PTZ turns to other positions, type in the corresponding position number and click "Call" button or click "No." of the Presets Information, PTZ will turn back to that preset position.

PTZ / MENU: MENU mode: when push the [MENU] button on the remote controller, camera OSD menu will display in the upper corner of the viewing area. Use arrow keys to enter submenus.

PTZ: system in PTZ control mode. Use arrow keys to move the PTZ.

## C. Language selection

Language English ▼

Chinese/English/Russian

## 6.6.2 Video Settings

**Video Settings**

Video Format:

Dial Priority

Encode Level:

mainprofile

**First stream**

Encode Protocol:

H264

Resolution:

1920x1080

Bit Rate:

4096

 (32~20480) kbps

Frame Rate:

30

 fps

I Key Frame Interval:

30

 (2~150)

Bit Rate Control:

☒ CBR ☐ VBR

Fluctuate Level:

1

Slice Split Enable:

☐ On ☒ Off

Split Mode:

☒ Fixed blocks ☐ Fixed bytes

Slice Size:

68

 blocks/bytes

**Second stream**

Encode Protocol:

H264

Resolution:

320x240

Bit Rate:

1024

 (32~6144) kbps

Frame Rate:

30

 fps

I Key Frame Interval:

30

 (2~150)

Bit Rate Control:

☒ CBR ☐ VBR

Fluctuate Level:

1

Slice Split Enable:

☐ On ☒ Off

Split Mode:

☒ Fixed blocks ☐ Fixed bytes

Slice Size:

15

 blocks/bytes

Apply

Cancel

### 1) Video Format

Support 3 formats: 50Hz (PAL) and 60Hz (NTSC), and Dial Priority.

### 2) Encode Level

Support 4 levels: baseline, mainprofile, highprofile and svc-t.

### 3) Encode Protocol

Support 3 formats: H.264, H.265 and MJPEG.

### 4) Resolution

First stream: 1920x1080, 1280x720, 1024x576, 960x540, 640x480, 640x360.

Second stream: 1280x720, 1024x576, 720x576(50Hz), 720x480(60Hz), 720x408, 640x360, 480x270, 320x240, 320x180.

### 5) Bit Rate

Generally speaking, a higher bit rate will give a clearer image. However, the configuration of the bit rate needs to be considered along with the network bandwidth. When the network bandwidth is narrow and the bit rate is configured too high, the video stream cannot be transmitted properly, and the actual video will be worse.

### 6) Frame Rate

With a higher frame rate, the image will be smoother. However, the configuration of the frame rate needs to be considered along with the network bandwidth. When the network bandwidth is narrow and the frame rate is configured too high, the video stream cannot be transmitted properly, and the actual video will be worse.

### 7) I Key Frame Interval

It refers to the interval between 2 I frames. the larger the interval is, the slower the response will be seen from the viewing window.

### 8) Bit Rate Control

To control the code stream:

Constant Bit Rate: Video coder will be coding according to preset speed.

Variable Bit Rate: Video coder will adjust the speed based on preset speed to gain the best image quality.

### 9) Fluctuate Level

Restrain the fluctuation magnitude of variable rate, 1 ~ 6.

## 10) Slice Split Enable

Enable or disable slice split function.

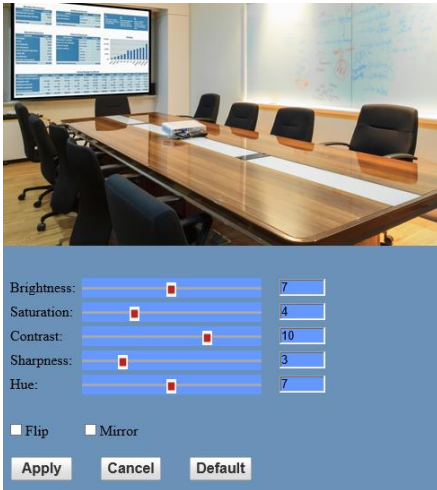
## 11) Split Mode

Select split mode. Options: Fixed blocks, Fixed bytes.

## 12) Slice Size

Set the size of slice.

### 6.6.3 Image Settings



#### 1) Brightness

0~14, slider control, the corresponding numerical shows on the right. Default value is 7.

#### 2) Saturation

0~14, slider control, the corresponding numerical shows on the right. Default value is 4.

#### 3) Contrast

0~14, slider control, the corresponding numerical shows on the right. Default value is 10.

#### 4) Sharpness

0~15, slider control, the corresponding numerical shows on the right. Default value is 3.

## 5) Hue

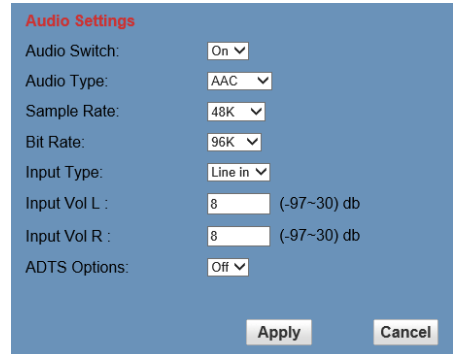
0~14, slider control, the corresponding numerical shows on the right.

Default value is 7.

## 6) Flip & Mirror

Click flip to flip the image upside down. Click mirror to mirror the image.

### 6.6.4 Audio Settings



#### 1) Audio Switch

Enable or disable audio input.

#### 2) Audio Type

Audio type AAC.

#### 3) Sample Rate

Sample rate options: 44.1K, 48K.

#### 4) Bit Rate

Bit rate options: 96K, 128K, 256K.

#### 5) Input Type

Input type: line in.

#### 6) Input Vol L

Volume of the left audio channel.

#### 7) Input Vol R

Volume of the right audio channel.

#### 8) ADTS Options

Options: On, Off.

## 6.6.5 System Settings

**Initialize**  
Work Mode: RTSP  
Reboot: Reboot

**User**  
UserName: admin  
Passwd: \*\*\*\*\*  
Guest: guest  
Passwd: \*\*\*\*\*

Apply Cancel

### 1) Work Mode

The default work mode: RTSP.  
Options: RTSP, SDK, Multicast.

### 2) Reboot

Restart the camera (system).

### 3) Username and password

The user can change the password (letters and Numbers only).

## 6.6.6 Network Settings

**Lan Settings**  
IP Configuration Type: Fixed IP Address  
IP Address: 192.168.100.88  
Subnet Mask: 255.255.255.0  
Gateway: 192.168.100.1  
DNS Address: 10.0.0.1  
MAC Address: 04 E0 8E 11 22 33  
Apply Cancel

**Port Settings**  
HTTP Port number: 80 (80)  
RTSP Port: 554 (554)  
PTZ Port: 5678 (5678)

**Control Protocol Settings**  
Visca Address: 1 (1~7)  
Pelco-D Address: 0 (0~255)  
Pelco-P Address: 0 (0~31)

**RTMP Settings**  
First stream: On Off Video Audio  
MRL: rtmp://192.168.100.138/live/stream0  
Second stream: On Off Video Audio  
MRL: rtmp://192.168.100.138/live/stream1

**RTSP Settings**  
RTSP Auth: On Off

**ONVIF Settings**  
ONVIF: On Off  
ONVIF Auth: On Off

**Multicast Settings**  
Multicast: On Off  
Address: 224.1.2.3  
Port: 6688

**SDK Settings**  
Active Connection: On Off  
Address: 192.168.100.138  
Port: 1234

**NTP Settings**  
NTP time sync: On Off  
Server address: cn.ntp.org.cn  
Time interval: 1440 minutes  
Main time show: On Off  
Position: X 0 Y 0 (0~100)  
Sub time show: On Off  
Position: X 0 Y 0 (0~100)

### 1) Lan Settings

Default IP address: 192.168.100.88.

MAC address cannot be modified.

### 2) Port Settings

#### A. HTTP Port

IP address identifies the network device. One device can run multiple web applications, each network program uses its own network port to transmit data. Port setting is to set the port each web server program is using to transmit data. For port mapping, it needs to be consistent with the port numbers (default port: 80).

#### B. RTSP Port

AV-1560 supports RTSP protocol. It can use the VLC tool to broadcast.

#### C. PTZ Port

Support PTZ protocols, default port: 5678.

### 3) Control Protocol Settings

Set the camera communication control protocol.  
Options: Visca address, Pelco-D address and Pelco-P address.

### 4) RTMP Settings

Set the MRL of RTMP. On/Off to enable/disable the video and audio streams.

### 5) RTSP Settings

On/Off to enable/disable RTSP authorization.

### 6) ONVIF Settings

On/Off to enable/disable ONVIF and ONVIF auth.

### 7) Multicast Settings

On/Off to enable/disable multicast. Set the multicast address (default value is 224.1.2.3) and port (default value is 6688 for 1st stream; 6690 for 2nd stream).

## 8) SDK Settings

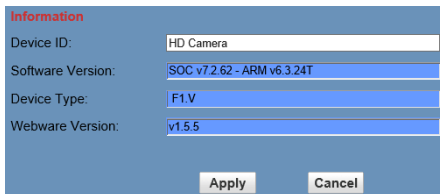
On/Off to enable/disable active connection. Set SDK address (default value is 192.168.100.138) and port (default value is 1234).

## 9) NTP Settings

On/Off to enable/disable NTP time sync, main time show and sub time show. Set NTP server address, time interval, main stream position and sub stream position.

### 6.6.7 Device Information

Display the current device information.



Information	
Device ID:	HD Camera
Software Version:	SOC v7.2.62 - ARM v6.3.24T
Device Type:	F1.V
Webware Version:	v1.5.5

Apply Cancel

## 6.7 Download and Upgrade Program

If camera upgrade program is needed, please contact the manufacturer.

# 7 Maintenance and Troubleshooting

## Camera Maintenance

- If camera will be off for a long time, please turn off the power switch, disconnect AC power cord and AC adaptor from the outlet.
- Use soft cloth or tissue to clean the camera cover.
- Please use soft dry cloth to clean the lens. If the camera is very dirty, clean it with diluted neuter detergent. Do not use any type of solvents, which may damage the surface.

## Unqualified Application

- No shooting extremely bright object for a long time, such as direct sunlight, light sources, etc.
- No operating in unstable lighting conditions, otherwise image will be flickering.
- No operating close to powerful electromagnetic radiation, such as TV or radio transmitters, etc.

## Troubleshooting Image

- The monitor shows no image
  - 1) Check the camera power supply, make sure it is connected, the voltage is normal, and the power indicator light is on.
  - 2) Reboot the camera, see whether the camera is self-testing.
  - 3) Check the video output connections.
- Intermittent image

Check whether the video output connections are stable.

- Image jitters when camera zooms in
- 4) Check whether the camera is mounted at a stable position.
- 5) Check whether there is vibrating machinery or object near the camera.
- No video image in IE Browser

Please visit VLC website

(<http://www.videolan.org/vlc>), download and install VLC media player, after it is installed, login IP Camera web UI again.

- Unable to Access IP Camera using IE Browser

- 1) Disconnect the network, connect camera and PC directly, and reset the IP address of PC.
- 2) Check IP address, subnet mask, and

gateway settings of the Camera.

- 3) Check whether the MAC addresses conflict.
  - 4) Check whether the web port is occupied by another device.
- Forget the IP address or login password.

The default IP address: 192.168.100.88;  
default user name: admin; default password:  
admin.

### **Control**

- Remote control cannot control
  - 1) Check and replace the batteries for the remote controller.
  - 2) Check whether the camera is working under PTZ mode.
  - 3) Check whether the address of remote control matches the camera.
- Series port cannot control
  - 1) Check whether the camera protocol, address and baudrate is set to the same as control device.
  - 2) Check whether the control line is connected properly.

## Warranty

Thank you for your interest in the products of AVIPAS Inc.

This Limited Warranty applies to HD Conference Camera purchased from AVIPAS Inc.

This Limited Warranty covers any defect in material and workmanship under normal use within the Warranty Period. AVIPAS Inc. will repair or replace the qualified products at no charge.

AVIPAS Inc. provides a one (1)-year warranty (from the date of purchase) for this HD Conference Camera.

This Limited Warranty does not cover problems including but not limited to: improper handling, malfunction or damage not resulting from defects in material.

To receive warranty service, please contact AVIPAS Inc. first. We will decide whether a repair or replacement is needed and will advise you of the cost of such repair or replacement.

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