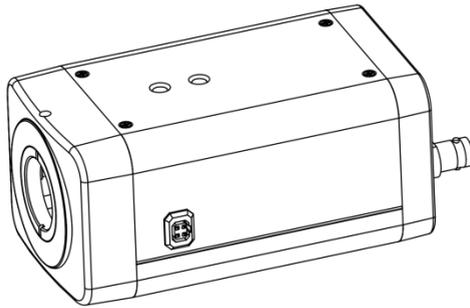


# **HD Color Box Camera**



## **The user manual**

**V1.8 edition**

**(English edition)**

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## 1 Notes

- **Electric Safety**

Installation and operation must accord With electric safety standard.

- **Caution to transport**

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

- **Polarity of power supply**

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



- **Careful of installation**

Do not grasp the camera head when carrying the camera. Don't turn camera head by hand. Doing so may result in mechanical damage.

Never power on before installation is not completed.

- **Don't dismantle the camera**

We are not responsible for any unauthorized modification or dismantling.

**⚠CAUTION!**

The specific frequency of electromagnetic field may affect the image of the camera!

## 2 Main Features

- Highest resolution 1920 x1080, output Full HD 1080p real-time image.
- Advanced coding technology, time delay within 200 ms.
- Support HD-SDI interface, the effective transmission distance up to 200 meters.
- High SNR of CMOS sensor, sensitivity high, low-light good.
- Support 2D and 3D noise reduction.
- ICR infrared filter plate automatic switch, achieve monitoring day and night.
- Support PoE power supply
- Supports dual stream.
- Support automatic aperture, automatic electronic shutter, adapt different monitoring environment.
- Support SDK.

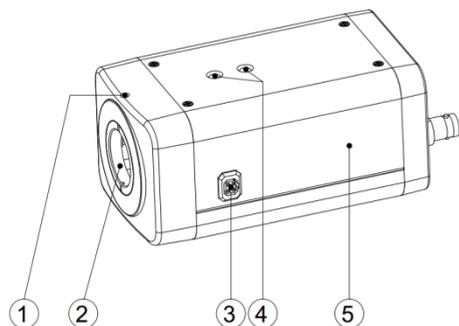
## 3 Standard Accessories

When opened the package, please check and confirm that all attachments shall be provided:

HD color gun type camera	x1
The user manual	x1
Certificate/warranty card	x1

## 4 Interface description

### • Camera appearance



1. Lens focal adjustment after fixed screw holes
2. Lens mounting position (only for C / CS lens \*)
3. Aperture control interface (only applicable DC automatic aperture)
4. The installation location hole
5. Fuselage

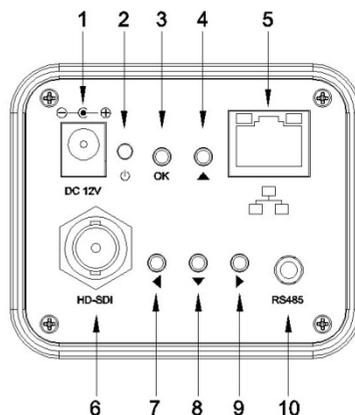
### Operating tips

Both sides threaded hole is consistent with the positioning hole size, installation can be used instead of each other.

### Notice

- Use C camera lens, you need to use special adapter ring.

### • The back of the interface specifications



1. power interface  
Connect external adapter, 12V power supply.
2. power light
3. OK key
4. Up select key
5. Internet interface  
Internet interface for 10/100 m adaptive Ethernet interface, through the interface be connected with various internet Settings, such as hubs, routers, switches etc.
6. HD-SDI interface
7. Right select key
8. Down select key
9. Left select key
10. RS485 interface

### Operating tips

Press "OK" button and then to electricity and keep holding down the "OK" button 8

seconds, the camera will restore factory Settings.

## 5 OSD Menu Operation

### • Key Description

The camera USES five buttons, respectively, to determine key [OK], select key **【▲▼】** up and down, left and right sides choose key "**【◀▶】**"; Under normal image press "OK" key, the screen displays the main menu, press **【▲▼】**, from top to bottom cycle options menu item and press **【◀▶】** select menu options, use a scroll arrow or highlight the selected item, press menu button "OK" to highlight the menu item; Each menu page has a "Return" option, to Return to the superior menu or exit the menu.

### • MENU

Directly press "OK" button to enter the main menu.

#### MENU

- ▶ Exposure
- Color
- Image
- Noise Reduction
- Setting
- Information
- Restore Factory Settings
- Exit

### Operating tips

Use the select key up and down **【▲▼】** Choose a menu item, press **【OK】** to enter submenu.

choose[Exit]press **【OK】** to exit menu.

### • EXPOSURE

#### EXPOSURE

- |              |           |
|--------------|-----------|
| ▶ Mode       | Full Auto |
| ExpCompMod   | Off       |
| Backlight    | Off       |
| DRC Strength | 4         |
| Anti Flicker | 50Hz      |
| Lens         | Manual    |
| Return       |           |

### Operating tips

Mode: Set the camera exposure mode, Optional items: Full Auto, Bright, Shutter Priority.

**Shutter:** Set the Shutter values, only when the Mode for the Shutter Priority Mode effective, Optional items: 1/10000s,1/6000s, 1/4000s,1/3000s,1/2000s,1/1500s,1/1000s,1/725s,1/500s,1/350s,1/250s,1/200s,1/125s,1/100s, 1/90s,1/60s,1/30s.

**Bright:** Set the brightness values, only when the effective Mode for Bright Mode, Optional items: 0 ~ 17.

**ExpCompMode:** Set the exposure compensation mode, Optional items: On, Off.

**ExpComp:** Set the exposure compensation value, only when ExpCompMode item to On effective, Optional items: -7 ~ 7.

**Backlight:** Set the backlight compensation, Optional items: On, Off.

**DRC Strength:** Set up digital wide dynamic strength, can set up different levels of wide dynamic effect, Optional items: 0 ~ 8.

**Anti Flicker:** Set the flashing function, Optional items: 50Hz, 60Hz, Off.

**Lens:** Set lens mode, Optional items: Manual, DC.

**Return:** get back

## • COLOR

COLOR	
▶ WB Mode	Auto
Saturation	140%
Hue	7
AWB Sens	Low
Style	Fujifilm(301)
Return	



### Operating tips

**WB Mode:** Set the camera white balance mode, Optional items: Auto, 3000K(Indoor), 4000K,5000K(Outdoor),6500K-1,6500K-2,6500K-3,One Push WB(ok), Manual.

**R Gain:** Adjust the camera white balance mode of red gain, are effective only when the white balance mode to Manual, Optional items: 0 ~ 255.

**B Gain:** Adjust the camera white balance mode of blue gain, are effective only when the white balance mode to Manual, Optional items: 0 ~ 255.

**Saturation:** Color saturation adjustment, Optional items: 60% ~ 200%.

**Hue:** Chroma adjustment, Optional items:

0 ~ 14.

AWB Sens: The white balance sensitivity,

Optional items: Low, Middle, High.

Style: Optional items: Ricom, Fujifilm(301),

Fujifilm(300), Fujifilm(500), HE45.

Return: get back.

## • IMAGE

IMAGE	
▶ Luminance	6
Contrast	7
Sharpness	1
Flip-H	Off
Flip-V	Off
LDC	Off
Return	



### Operating tips

Luminance: Brightness adjustment, Optional items: 0~14.

Contrast: Contrast adjustment, Optional items: 0~14.

Sharpness: Sharpness adjustment, Optional items: Auto, 0~15.

Flip-H: Image flipped horizontally. Optional items: On, Off.

Flip-V: Image Flip Vertical. Optional items: On, Off.

LDC: Lens distortion correction, Optional items: 1~10, Off.

Return: get back.

## • NOISE REDUCTION

NOISE REDUCTION	
▶ 2D NR	3
3D NR	3
Return	



### Operating tips

2D NR: 2D noise reduction, Optional items:

1 ~ 5, Close, Auto.

3D NR: 3D noise reduction, Optional items:

1 ~ 8, Close.

Return: get back.

## • SETTING

SETTING	
▶ Language	English
Protocol	VISCA
Visca Address	1
Baudrate	9600
Video Format	1080P30
EPTZ	Off
Return	



### Operating tips

Language: Language Settings, Optional items: English, Chinese.

Protocol: Communication protocol Settings, Optional items: VISCA, PELCO-D, PELCO-P.

Visca Address: Address of the Visca Settings, Optional items: 0 ~ 7.

P-D Address: P-D address settings, valid in PELCO-D mode, Optional items: 0~254.

P-P Address: P-P address settings, valid in PELCO-P model, Optional items: 0~31.

Baudrate: Camera baud rate Settings, Optional items: 38400,19200, 9600,4800,2400.

Video Format: Camera system Settings, Optional items: 1080P30, 1080P25, 1080I60, 1080I50, 720P60, 720P50.

EPTZ: e-PTZ, Optional items: On, Off.

Zoom Limit: Optional items: 1.5x, 2x, 3x, 4x, 8x.

Return: get back.

#### ● INFORMATION

INFORMATION	
Version	1.53D-H
Data	2015-07-02
IP	192.168.100.88
Gateway	192.168.100.1
Netmask	255.255.255.0
▶Return	

#### ● RESTORE FACTORY SETTINGS

### RESTORE FACTORY SETTINGS

- ▶ Yes
- No
- Return



#### Operating tips

Yes: verify, press **【OK】** to restore factory Settings.

No: cancel, press **【OK】** to back to menu.

Return: get back.

## 6 Serial port command description

### ● Serial port control

Camera on the electric initialization complete, available command (VISCA) with RS485 and RS232 serial port for communication. The camera provides the following commands to control menu:

function	command packet	Notes
UP	8x 01 06 01 08 08 03 01 FF	Equivalent to the back four direction keys.
DOWN	8x 01 06 01 08 08 03 02 FF	
LEFT	8x 01 06 01 08 08 01 03 FF	

RIGHT	8x 01 06 01 08 08 02 03 FF	
OK	8x 01 04 0B 02 FF 或 8x 01 04 0B 03 FF	Equivalent to the back 【 OK 】 key.

x:Camera address.

## 7 Network Control

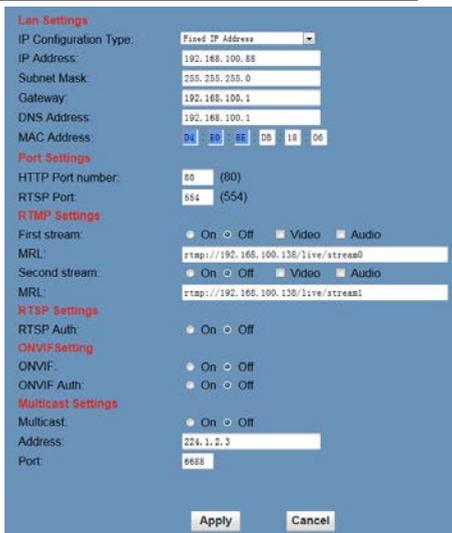
### 1. View from Web browser (better in IE)

- To view from web browser, firstly need to check camera IP address. Connect camera to PC with ethernet cable, use upgrade software to search for IP address (If you need the upgrade software, please contact the manufacturer)

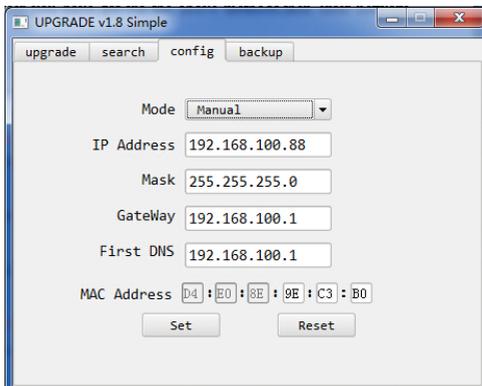
- Please enter the IP address, username, password to web browser you have got via the above methods, then enter network control/viewing.

### 2. Change IP address, 2 methods as below:

Method 1: On web control page, find "Network" ---> Change IP ----> Click "Apply" ----> Restart camera



Method 2: Open "upgrade\_En.exe", change IP and click "Set"



3. Once IP changed, need to restart the camera.

2 methods to restart as below:

Method 1: Turn off and turn on manually to restart camera

Method 2: On web page, find "System"

and click "Apply" (when under remote controlling environment, better use this method)



### Operating tips

Default IP address: 192.168.100.88

## 8 Maintenance and troubleshooting

### • Maintenance of the camera

If the camera is not used for a long time, after use, please disconnect the power switch, at the same time the ac power adapter and ac socket to disconnect.

Clear the dust on the camera housing, please use soft cloth or cotton paper.

Clean the camera lens, please use dry soft cloth to wipe, such as dirt serious when, please use neutral detergent wipe gently. Don't use strong or with corrosive cleaner, so as to avoid the lens scratches, influence the image effect;

### • Beyond the camera work intensity of illumination

Camera may be more than camera work intensity of illumination, the image cannot achieve the best effect.

### • The camera should avoid using at the following specific situation

Camera should avoid shooting especially bright objects, such as sunshine, lamplight, etc.

The camera don't work in lighting conditions unstable environment, otherwise the image will happen.

Don't can launch a large power of the facilities around the use of radio waves, such as television or radio transmitters, etc.

## 9 Fault phenomenon and processing

### 9.1 Images

#### • Display shows no image

1, Check whether the camera power supply is connected and the voltage is normal, whether the power light shine.

2, Check whether video platform, TV cable connection is normal

3, Check for manual lens aperture and open the aperture.

#### • Sometimes there is no image

1, Check whether video platform, TV cable connection is normal.

2, check whether the camera installation safety, if there is a strong shock.

#### • image blurring

1, Check whether the installation.

2, Check whether the lens focusing accurately.

• When modify IP address in an incorrect way cause the wrong IP address or forget web passwords, press OK button 2 s to restore the default value (Default IP: 192.168.100.88 Default username: admin Default password: admin),restart pages times will have image.

## 9.2 Control

Serial port can't control

1, The camera control parameters is set up correctly.

2, Check whether control line connection is good.

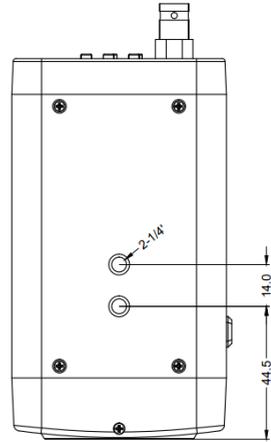
## 10 Standard Specification

Model parameter	HD Color Box Camera
<b>Camera</b>	
Video System	1080i/60,1080i/50,1080p/30,1080p/25,720p/60,720p/50
Sensor Type	1/2.7", CMOS, Effective pixel: 2.07M
Scanning Mode	Progressive
Lens	C/CS lens
Auto Iris	DC
minimal illumination	0.05 Lux @ (F1.2, AGC ON)
shutter	1s ~ 1/10000s
white balance	Auto, 3000K(Indoor), 4000K, 5000K(Outdoor),6000K,6500K_1,6500K_2,6500K_3,One Push

	WB(ok), Manual
Day-night mode	ICR Infrared filter plate
Digital noise reduction	2D&3D Digital noise reduction
Backlight compensation	Support
Video standard	H.264
Video rate	32 Kbps~8Mbps
Audio standard	AAC
Audio rate	96K, 128K, 256K
Control mode	Support control port and internet control method
Auto/manual control	Support auto/manual white balance,auto/manual exposure(aperture, shutter, gain), fixed focus
Support protocols	TCP/IP,HTTP,DHCP,DNS,RTP, RTMP,RTSP,NTP,QoS,802.11X (Optional)
Interface protocols	ONVIF,SDK etc
General function	A key recovery, flicker, double stream, heartbeat, mirror, password etc
Video output	1x,HD-SDI:75Ω/BNC
Internet	1x,RJ45:10M/100M adaptive Ethernet ports
Communication interface	1xRS-485: 2pin Phoenix port, Max Distance: 1200m, Protocol: VISCA/Pelco-D/Pelco-P
Power Connector	JEITA (DC IN 12V)
Reset Button	Support

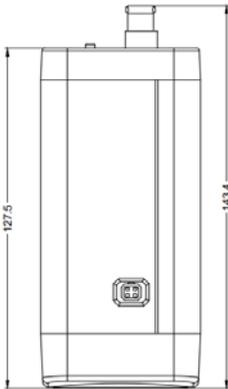
General specification	
Input Voltage	DC 12V DC
Current Consumption	0.4A (Maximum)
Operating Temperature	-15°C ~ 60°C
Storage Temperature	-20°C ~ 80°C
Power Consumption	4.8W
Size	127.5mm x 72.0mm x 60.0mm
Weight	0.5Kg

front view

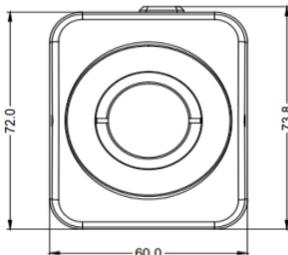


top view

## 11 Dimension



left view



## 12 Copyright Notice

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