Operation Manual

VA400 4K UHD Video Bar

Version 1.0

VA400 4K UHD Video Bar Overview

The VA400 is a premium USB 4K video bar for small and medium sized meeting rooms.

Providing face detection, audio positioning, and voice tracking, with simple USB connectivity.

The VA400 Video Bar delivers an efficient video conferencing meeting experience, with exceptional audio and video quality to every participant.

Attention

This manual introduces the functions, installation and operation of the VA400 video conferencing Bar. VA400

Please read this manual carefully before installation and use.

1. How to use

To prevent damage to this product or any product connected to it, this product can only be used within the specified range.

1.1 Do not expose the product to rain or moisture.

1.2 To prevent the risk of electric shock, do not open the case. Installation and maintenance should only be carried out by qualified technicians.

1.3 Do not use the product beyond the specified temperature, humidity or power supply specifications.

1.4 Wipe it with a soft, dry cloth when cleaning the camera lens., or wipe gently with a mild detergent if needed. Do not use strong or corrosive detergents to avoid scratching the lens and affecting the image.

2. Electrical Safety

Installation and use of this product must strictly comply with local electrical safety standards.

3. Handle with care

Avoid damage to the product caused by heavy pressure, strong vibration or immersion during transportation, storage and installation.

4. Install with Caution

1.5 Do not rotate the camera head violently, otherwise it may cause mechanical failure;

1.6 This product should be placed on a stable desktop or other horizontal surface, otherwise it may display an inclined image;

1.7 Housing of this product is made of organic materials. Do not expose it to any liquid, gas or solids which may corrode the shell.

1.8 Ensure there are no obstacles within rotation range of the holder.

1.9 Do not power on before installation is complete.

5. Do not Disassemble the Product without Permission

This product contains no parts which can be maintained by users themselves. Any damage caused by dismantling the product by user without permission is not covered by warranty.

6. Magnetic Interference

Electromagnetic fields at specific frequencies may affect the image. This product is Class A. It may cause radio interference in household applications. Appropriate measures are required.

1. Quick Installation Instructions
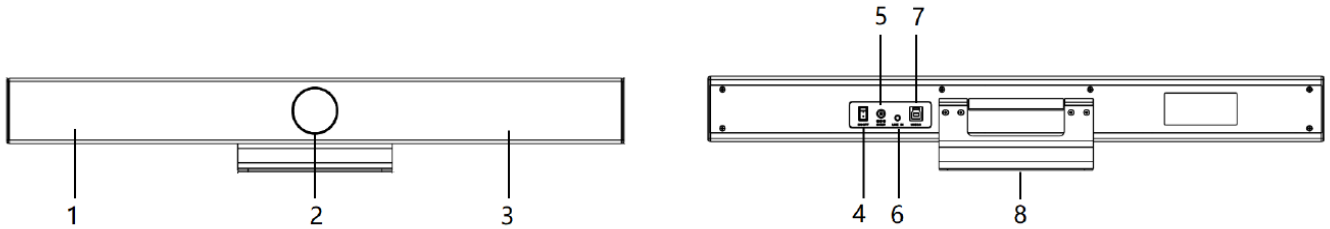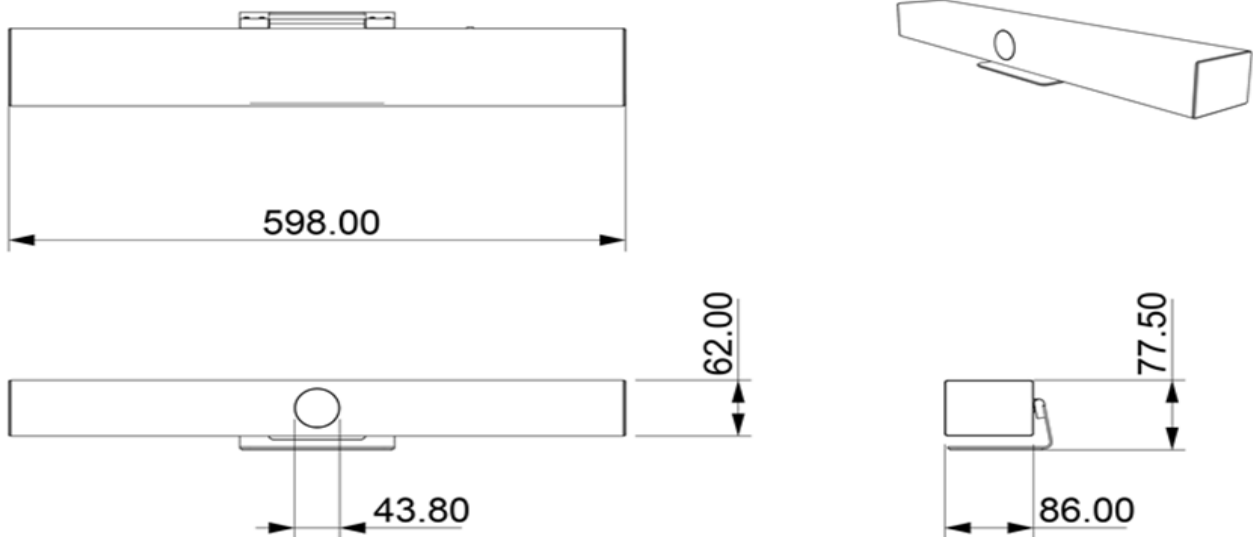
1.1 Product Interface

Figure 1.1 Product Interfaces

1. Speaker	4. Power Switch	7. USB3.0
2. Lens	5. Power	8. Bracket
3. Built-in Mic	6. Line in	

Dimensions

Product Use

1) Installation: Fix the device to the wall, over the display screen or directly put it on the desktop.

2. Product Overview

Standard accessories in the box

Accessories	Standard	User Manual
		5m USB2.0 Cable
		Remote Control
		Power Adapter
		Packing List
		Wall Bracket

Product Features

With a compact design, The VA400 is the ideal solution for small and medium sized meeting rooms, with USB plug-and-play, providing easy connection to any PC or laptop.

Integration：A one-piece design integrating camera, microphone, and speaker;

Voice Tracking：Built-in 6-mic array provides voice tracking function and real-time tracking of each speaker.

Built-in speaker: Built-in high-quality double speakers, ensure every participant can hear clearly.

Audio Processing: The audio processing algorithm adopts high-fidelity 48K audio sampling rate, loss-less audio transmission technology, supports AEC, AGC, ANS processing, and supports 6-meters range full-duplex high-quality calls;

Automatic Framing: built-in face detection automatically detects participants and provides ideal framing and view;

Ultra HD: Using 8M high-quality CMOS image sensors, collects 4K ultra-high-definition images, presents clear and lifelike ultra-high-definition video.

Wide FOV: With 120 °super wide view angle and non-distortion lens to easily cover all participants in the meeting room;
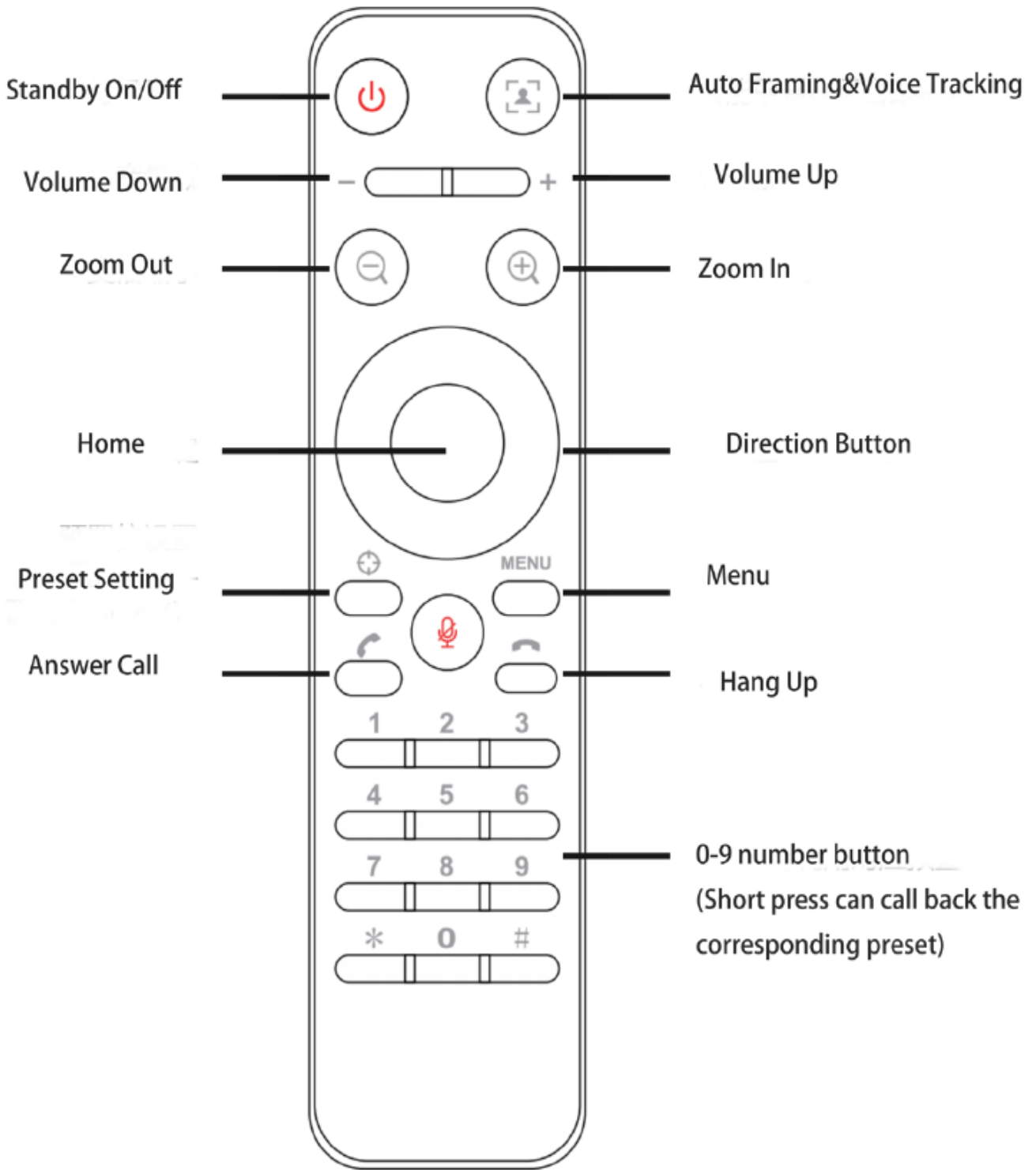
Low noise and High Signal-to-noise ratio: Low-noise CMOS effectively guarantees the ultra-high signal-to-noise ratio of the picture. Adopting advanced 2D and 3D noise reduction technology to further reduce noise while ensuring image clarity;

Compatibility: Compatible with Windows7, Windows10, Mac OS 10.10 or higher operation system. Ideally interoperable with most popular cloud video platforms, including but not limited to the followings: Microsoft Teams, Skype for Business, Zoom Room and Zoom,

3 Technical Parameters

Module	Features	Description
Video Camera	Image Sensor	8 million pixel high-quality CMOS image sensor
	Camera Angle	116°(D)/107.2°(H)/74.1°(V)
	Zoom	5x digital zoom
	Video Output	Up to 4K
	AI Smart Framing	Face detection & sound location & voice tracking
Audio	Microphone Type	6-mic array
	Pickup Distance	6 meters
	Audio Processing	AEC & AGC & ANS & Sound source localization
	Speaker	2*7W
Controller	Remote Control	Infrared remote control
Physical Interfaces	USB Interface	1*USB3.0 (Type-B), compatible with USB2.0
	Audio Port	1*3.5mm linear input
	Power Connector	HEC3800 power socket (DC12V)
	Wall Bracket	Standard wall mount bracket

4 Remote Instructions

Standby On/Off

Auto Framing&Voice Tracking

Volume Down

Volume Up

Zoom Out

Zoom In

Home

Direction Button

Preset Setting

MENU

Menu

Answer Call

Hang Up

0-9 number button
(Short press can call back the
corresponding preset)

5 Menu Settings

5.1 Press [MENU] button in MJPG, YUY2, NV12 or H264 compression encoding formats.

5.2 Language

```
MENU
===================
Language                English
（Setup）
（Exposure）
（Color）
（Image）
（Noise Reduction）
（Verion）
（Restore Default）

[ ↑ ↓ ]Select [← →]Change Value
```
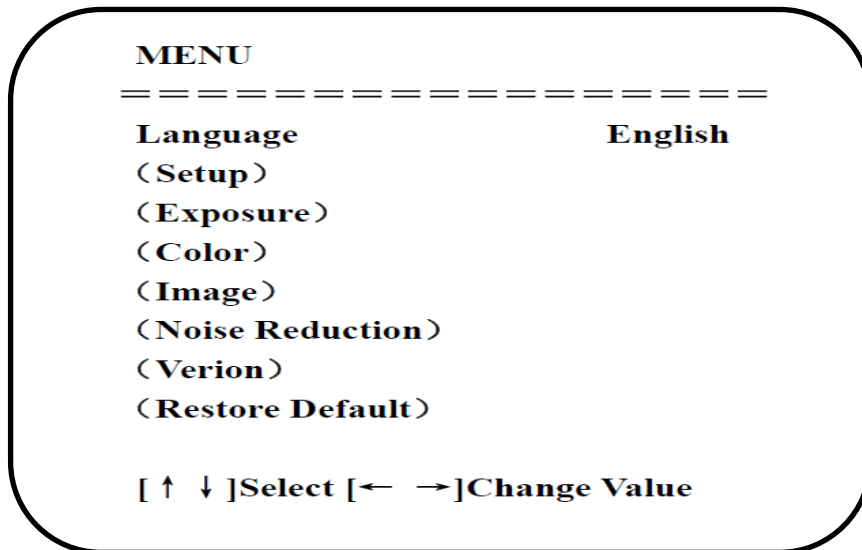
5.3 Setting

Move the pointer to (Settings) in the main menu, press [HOME] to get into the exposure page as shown below.

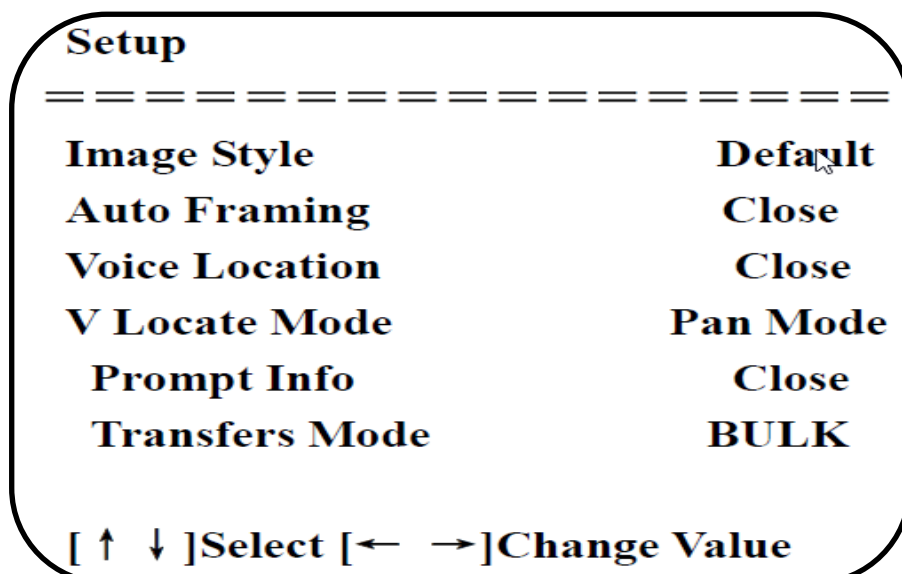Image style: Default/Standard/Clear/Bright/Soft

Auto Framing: on/off

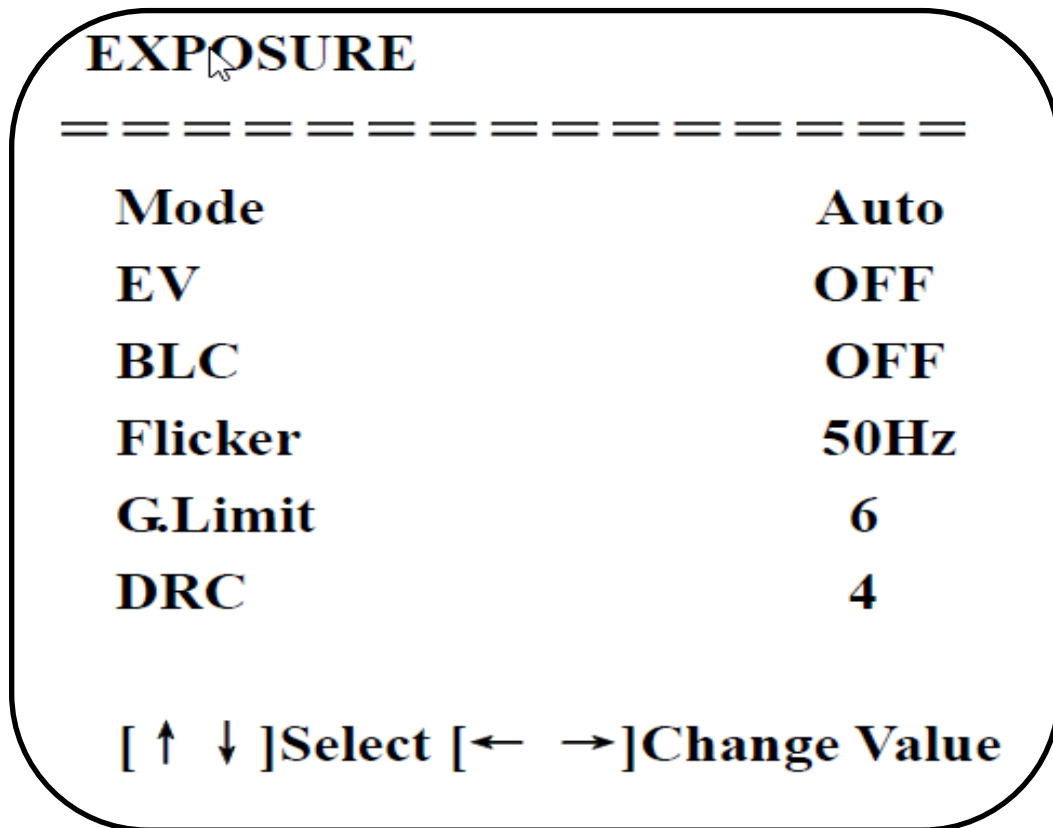Voice Locating: on/off

Switching Mode: pan mode/movie mode

Prompt Info: on/off

Transmission Mode: Bulk/Synchronization

```
Setup
=====================
Image Style            Default
Auto Framing           Close
Voice Location         Close
V Locate Mode          Pan Mode
Prompt Info            Close
Transfers Mode         BULK

[ ↑ ↓ ]Select [← →]Change Value
```

5.4 Exposure

In the main menu, move the pointer to (Exposure), and press [HOME] to enter the exposure page, as shown below.

```
EXPOSURE
================
   Mode              Auto
   EV                OFF
   BLC               OFF
   Flicker           50Hz
   G.Limit           6
   DRC               4

[ ↑  ↓ ]Select [←  →]Change Value
```

Mode: automatic, manual, shutter priority, brightness priority

Exposure Compensation: on/off (only valid in auto mode)

Compensation Level: -7～7 (only valid when "Exposure Compensation" is on in automatic mode)

Backlight: On/Off (only valid in auto mode)

Anti-flicker: off, 50Hz, 60Hz (only valid in auto, aperture priority, brightness priority mode)

Gain Limit: 0～15 (only valid in auto, aperture priority, brightness priority mode)
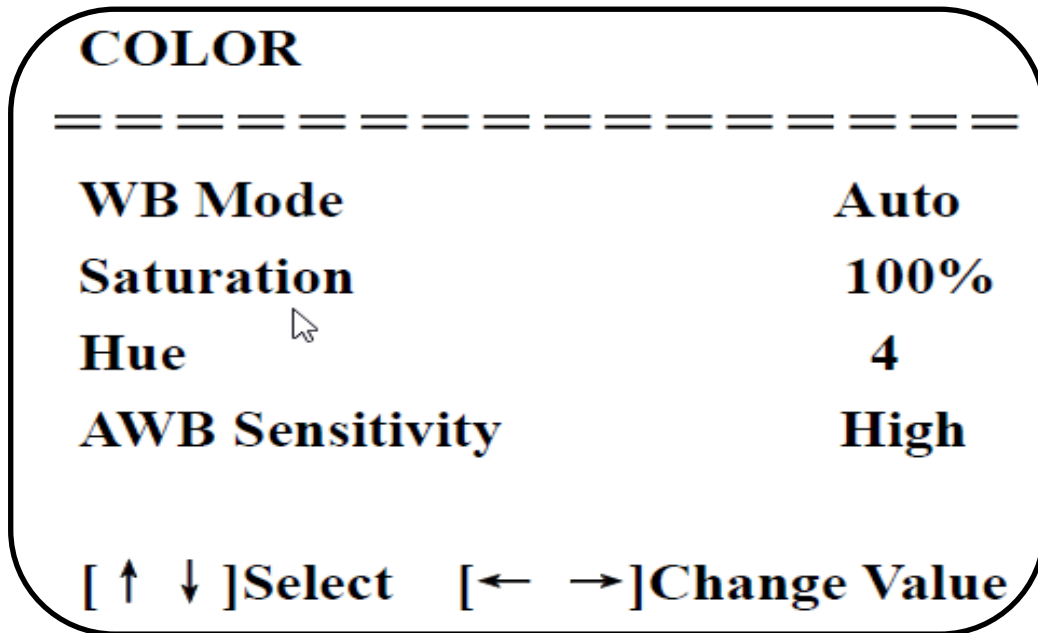
Dynamic Range: 1～8, off

Shutter priority: 1/30, 1/50, 1/60, 1/90, 1/100, 1/120, 1/180, 1/250, 1/350, 1/500, 1/1000 , 1/2000, 1/3000, 1/4000, 1/6000, 1/10000 (only valid in manual and shutter priority mode)

Brightness: 0～23 (only valid in brightness priority mode)

5.5 Colour

Move the pointer to (Colour) in the main menu, and press [HOME] to get into the colour page, as shown below

```
COLOR
===================
WB Mode              Auto
Saturation           100%
Hue                  4
AWB Sensitivity      High

[ ↑  ↓ ]Select   [←  →]Change Value
```

WB Mode: automatic, manual, white balance, a key, specified colour temperature
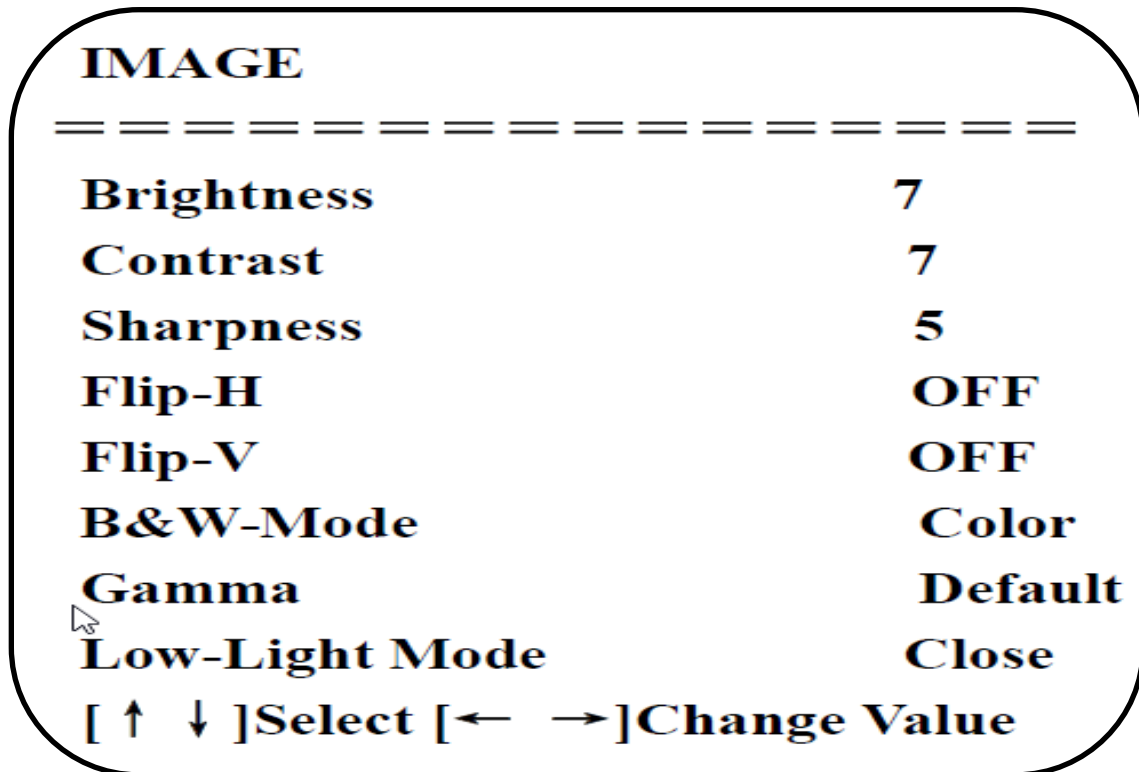

Saturation: 60%, 70%, 80%, 90%, 100%, 110%, 120%, 130%, 140%, 150%, 160%, 170%, 180%, 190%, 200 %

AWB Sensitivity: high, medium, low (valid only in automatic mode)

Chroma (Hue): 0~8

5.6 Image

Move the pointer to (Image) in the main menu, and press [HOME] to get into the image page, as shown below.

```
IMAGE
================================
Brightness                7
Contrast                  7
Sharpness                 5
Flip-H                    OFF
Flip-V                    OFF
B&W-Mode                  Color
Gamma                     Default
Low-Light Mode            Close
[ ↑  ↓ ]Select [←  →]Change Value
```

Brightness：Settable：0～14

Contrast：0～14
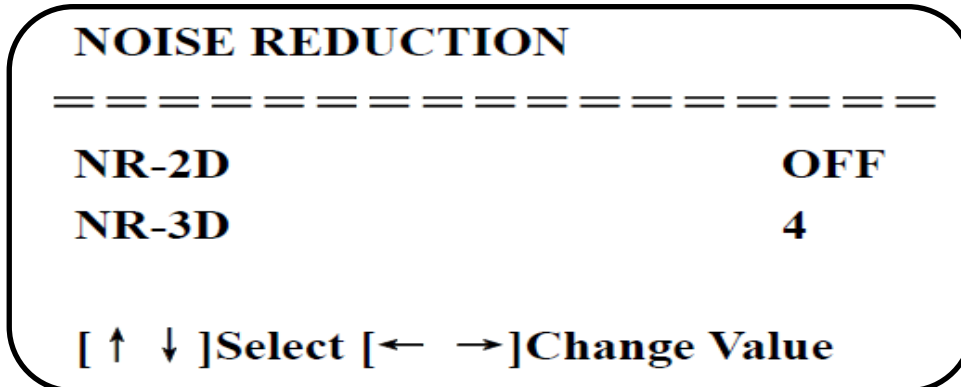
Sharpness：0～15

Flip-H：On/Off

Flip-V：On/Off

B&W Mode：Colour, Black and White

Gamma Curve：Default.0.34.0.39.0.47.0.50 Low-light Mode：On/Off

5.7 Noise Reduction

Move the pointer to (Noise Reduction) in the main menu, press [HOME] to get into the noise reduction page, as shown below.
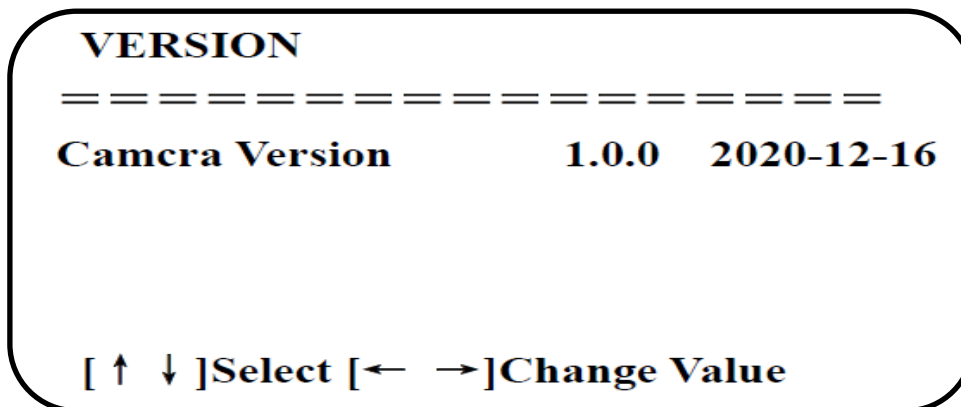
```
NOISE REDUCTION
==========================
NR-2D                    OFF
NR-3D                    4


[ ↑  ↓ ]Select [←  →]Change Value
```

2D Noise Reduction: Auto, Off, 1-7   3**D Noise Reduction:** Off, 1-8

6 Camera Version

Move the pointer to (version) in the main menu.

```
VERSION
==========================
Camera Version        1.0.0   2020-12-16



[ ↑  ↓ ]Select [←  →]Change Value
```

7 Restore Default

Move the pointer to (Reset) in the main menu, press [HOME] to get into the reset page, as shown below.

```
RESTORE DEFAULT
==========================
Restore   Default?           NO



[ ↑  ↓ ]Select   [←  →]Change Value
```
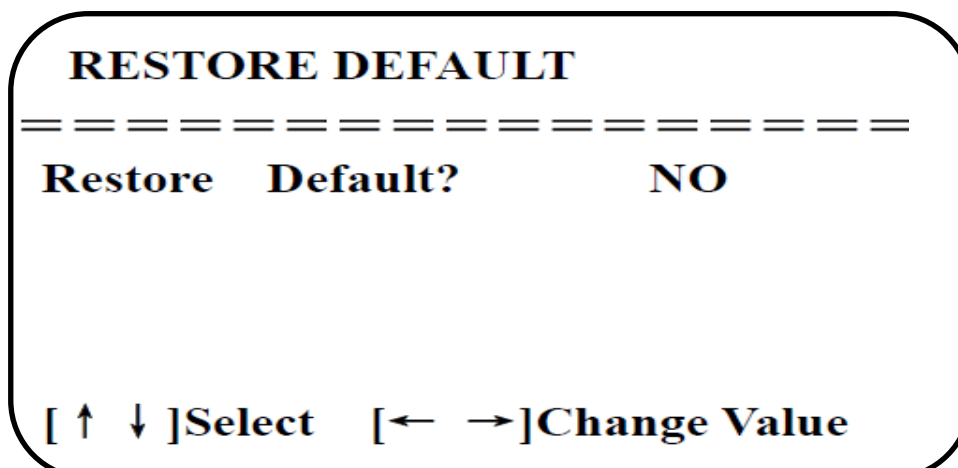
8 Maintenance and Troubleshooting

8.1 Product Maintenance

1) If camera is not used for long time, please turn off power adapter switch and AC plug.

2) Use soft cloth or tissue to clean the camera cover.

3) Use soft cloth to clean the lens; Use neuter cleanser if bad smeared. No use strong or corrosive cleanser or corrosive cleanser avoiding scuffing.

8.2 Troubleshooting

1) No picture for video output

Solution:

a. Check whether the USB cable of the device is connected well and whether the power indicator is on

b. Check whether the device is normal after power-off and restart

c. Restart the computer to check whether it is normal

d. Check whether the video output cable is normal

e. Check whether the device is recognized normally, uninstall the device when it is displayed in the device manager that cannot be recognized normally, and reload it

2) Sometimes there is no image

Solution:

a. Check whether the USB cable is normal

b. Check whether the USB cable of the device is well connected