Prestel 4K-A301UH

Intelligent 4K audio and video
integrated conference camera

Attentions

This manual introduces functions, installation and operations for video conferencing BAR in details. 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. Wipe it 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 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. Do not install the product obliquely, otherwise it may display 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 completely installation.

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 application. Appropriate measure is required.
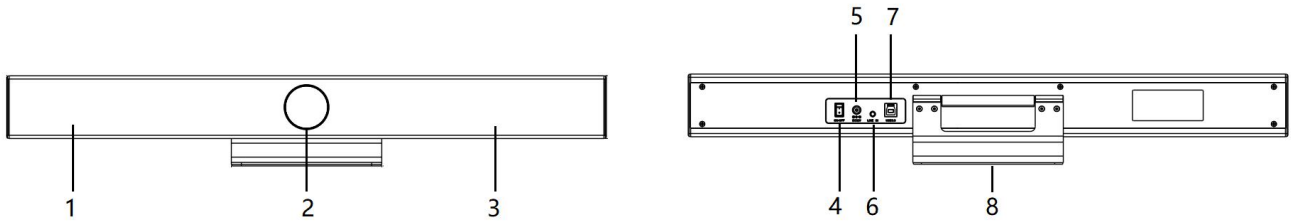
Content

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	

1.2 Product Use

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

2) Power on: Connect the DC12V power adapter to the power input socket.

3) The USB interface is plugged into the computer, video conference terminal or other USB input device through the USB cable, open the conference software, select the image and audio device output and then use it ;

2. Product Overview

2.1 Product Introduction

2.1.1 Dimensions
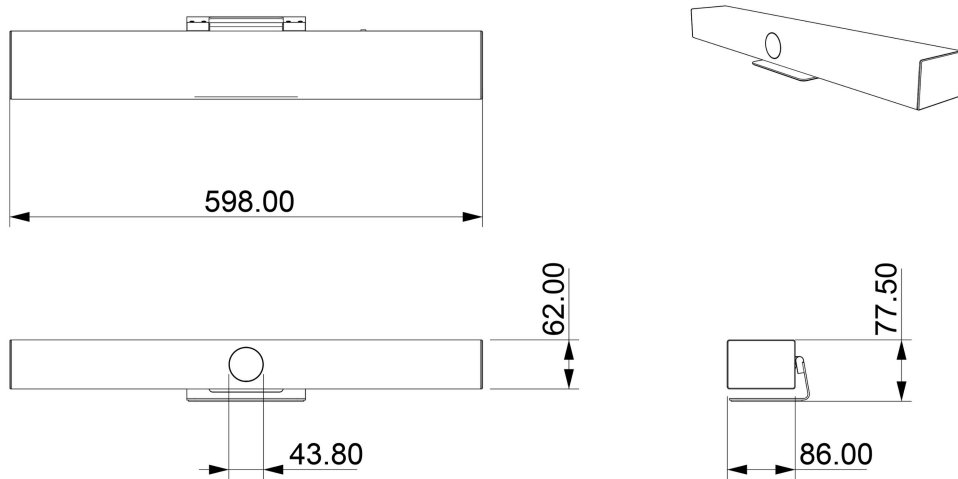
Figure 2.1 Dimensions

2.1.2 Accessories

Standard accessories in the box

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

2.2 Product Features

Features with compact design, crystal clear audio and excellent video quality, it uses advanced AI intelligent algorithms, integrates multiple AI intelligent framing technologies such as facial detection, sound positioning, and voice tracking. It automatically frame the meeting participants and adjust focus area to present the best view. Real-time detection of the speaker's position function enables the presenter to be focused in the view automatically. USB plug-and-play, easy connection to any video conferencing equipment any time any where. It is an ideal solution for small and medium-sized meeting rooms.

● **Integration**：An one-piece design integrating camera, microphone, and speaker;

● **Voice Tracking**：Built-in 6-mic array to achieve voice tracking function and real-time tracking of each speaker, allowing remote participants to break the limitation of distance and create an immersive, face-to-face experience;

● **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, lossless audio transmission technology, supports AEC, AGC, ANS processing, and supports 6-meters full-duplex high-quality calls;

● **Automatic Framing:** built-in face detection algorithm, 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 videos, vividly show the expressions and actions of each speaker.

● **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, Tencent Conference, Ding Talk, Huawei WeLink and etc.

2.3 Technical Parameters

Module	Features	Description
Video Camera	Image Sensor	8 million pixel high-quality CMOS image sensor
	Camera Angle	120°(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	AEC & AGC & ANS & Sound source localization

	Processing	
	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

3. Product Use

3.1 Remote Instructions

Standby On/Off — Auto Framing&Voice Tracking
Volume Down — Volume Up
Zoom Out — Zoom In
Home — Direction Button
Preset Setting — Menu
Answer Call — Hang Up
0-9 number button (Short press can call back the corresponding preset)
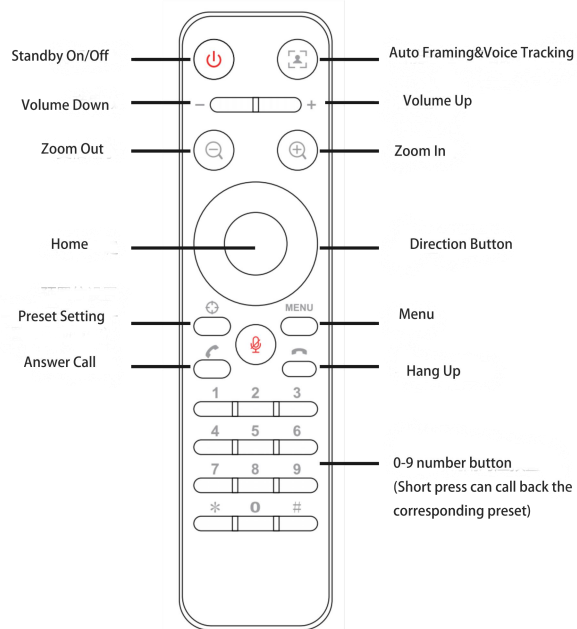
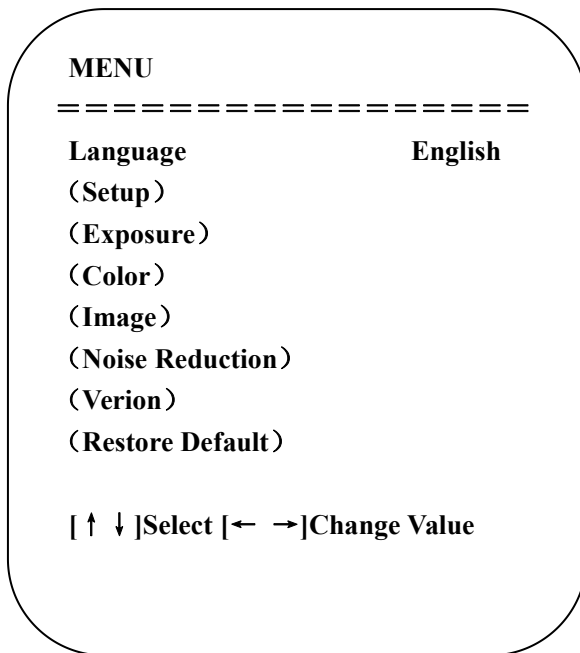## 3.2 Menu   Settings

3.2.1 Main Menu

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

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


[↑↓]Select [← →]Change Value
```

1) Language

Move the pointer to (Language) in the main menu, press 【← →】 to select the language.

2) Setting

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

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


[↑↓]Select [← →]Change Value
```
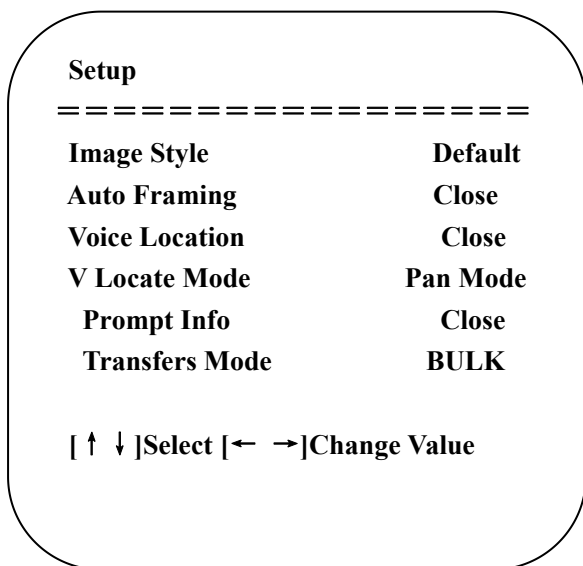
Image style: Default/Standard/Clear/Bright/Soft

Auto Framing: on/off
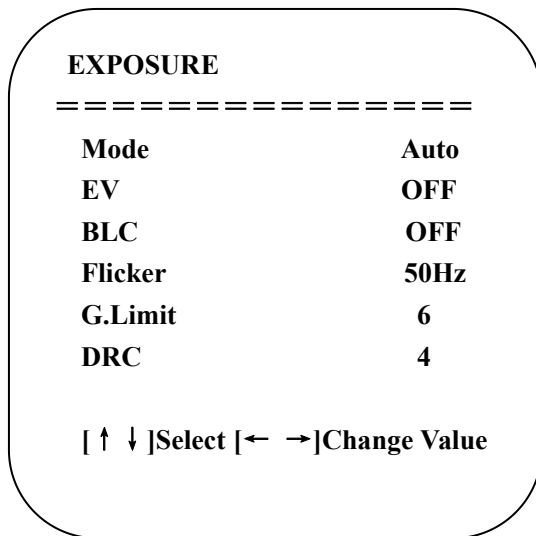
Voice Locating: on/off

Switching Mode: pan mode/movie mode

Prompt Info: on/off

Transmission Mode: Bulk/Synchronization

3) Explosure

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)

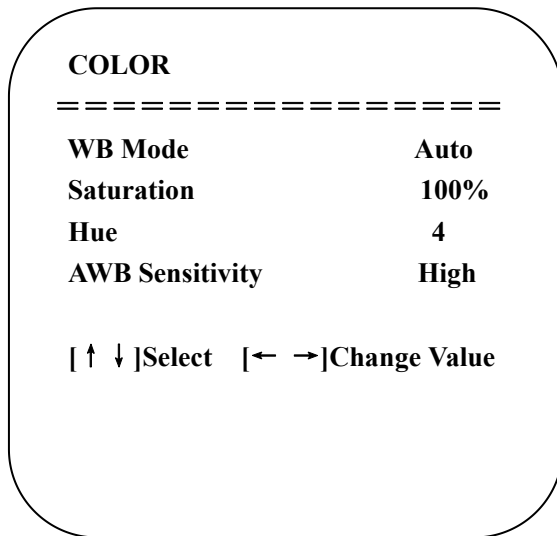**Gain Limit:** 0～15 (only valid in auto, aperture priority, brightness priority mode)

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)

4) Color

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

```
  COLOR
  ================

  WB Mode            Auto
  Saturation         100%
  Hue                4
  AWB Sensitivity    High


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

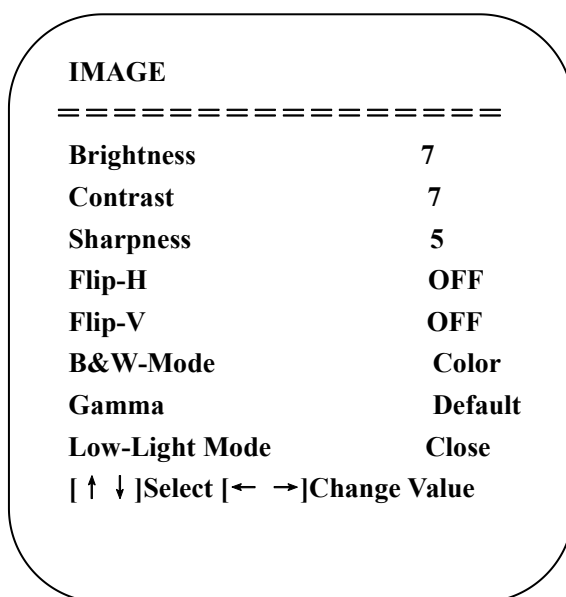**WB Mode:** automatic, manual, white balance, a key, specified color temperature

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) 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**： Color, Black and White
Gamma Curve：Default.0.34.0.39.0.47.0.50	**Low-light Mode**：On/Off	

6) Noise Reduction

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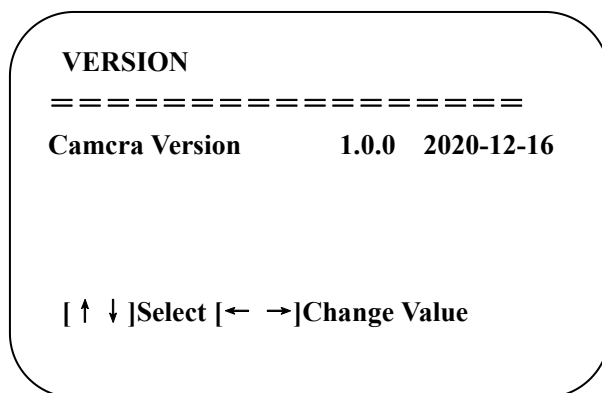
```
 NOISE REDUCTION
 =================
 NR-2D              OFF
 NR-3D              4

 [↑ ↓]Select [← →]Change Value
```
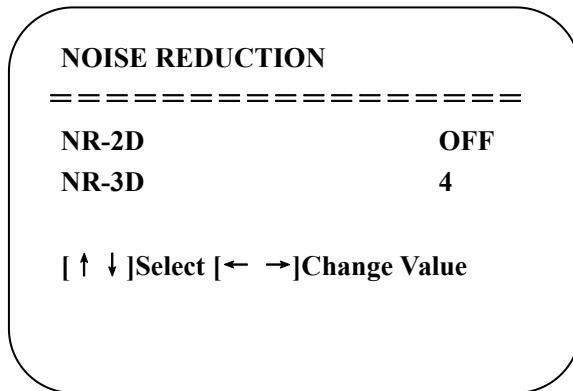
2D Noise Reduction： Auto, Off, 1-7   **3D Noise Reduction**：Off, 1-8

7) Version

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

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




 [↑ ↓]Select [← →]Change Value
```

8) 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
```
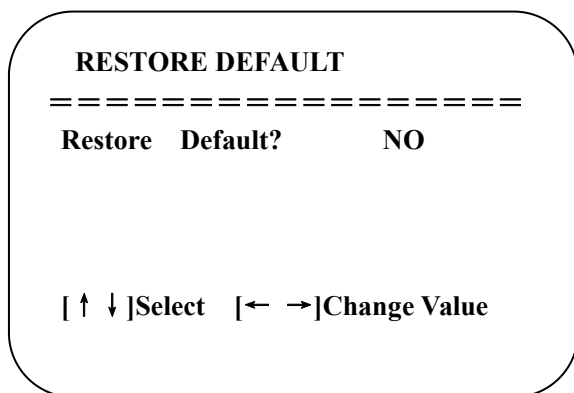
Notice：Color style and video format will not be restored to factory default

4. Maintenance and Troubleshooting

4.1 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.

4.2 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