

PTZOptics Webcam



User Manual

Model No: PT-WEBCAM-80

V1.2

(English)

Please check PTZOPTICS.com for the most up to date version of this document

Rev 1.2 9/20

Preface

Thank you for using the PTZ Optics Webcam. This manual introduces the function, installation and operation of the camera. Prior to installation and usage, please read the manual thoroughly.

Precautions

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

- Don't subject the camera to rain or moisture.
- Don't remove the cover. Removal of the cover may result in an electric shock, in addition to voiding the warranty. In case of abnormal operation, contact the manufacturer.
- Never operate outside of the specified operating temperature range, humidity, or with any other power supply than the one originally provided with the camera.
- Please use a soft dry cloth to clean the camera. If the camera is very dirty, clean it with diluted neutral detergent; do not use any type of solvents, which may damage the surface.

Note

This is an FCC Class A Digital device. As such, unintentional electromagnetic radiation may affect the image quality of TV in a home environment.

Warranty

PTZ Optics includes a limited parts & labor warranty for all PTZ Optics manufactured cameras. Warranty lengths are shown below. The warranty is valid only if PTZ Optics receives proper notice of such defects during the warranty period. PTZ Optics, at its option, will repair or replace products that prove to be defective. PTZ Optics manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry standard practices.

Serial Number	Warranty
J2E1231999 and before	3 year warranty
J2F0101001 and after	5 year warranty



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Supplied Accessories

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

- Camera..... 1
- Quick Start Guide 1

Notes

- **Electrical Safety**

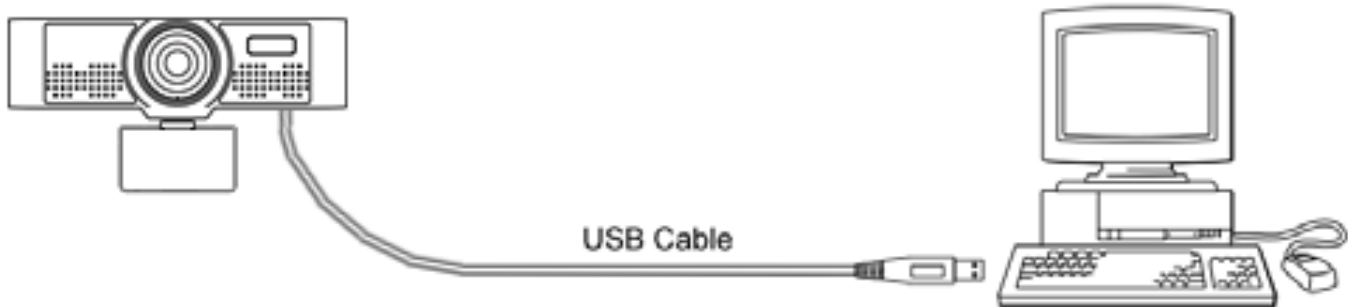
Installation and operation must be in accordance with national and local electric safety standards.

- **Handling**

- Avoid any stress, vibration, or moisture during transportation, storage, installation and operation.
- Do not expose camera to any corrosive solid, liquid, or gas to avoid damage to the cover which is made of a plastic material.
- **DO NOT DISMANTLE THE CAMERA** – The manufacturer is not responsible for any unauthorized modification or dismantling.

Quick Start

Start by connecting the USB 2.0 cable to your Mac or PC to power on and use the camera. To access and control the On Screen Display Menu of the camera, use the OSD Menu tool available at ptzoptics.com/downloads.



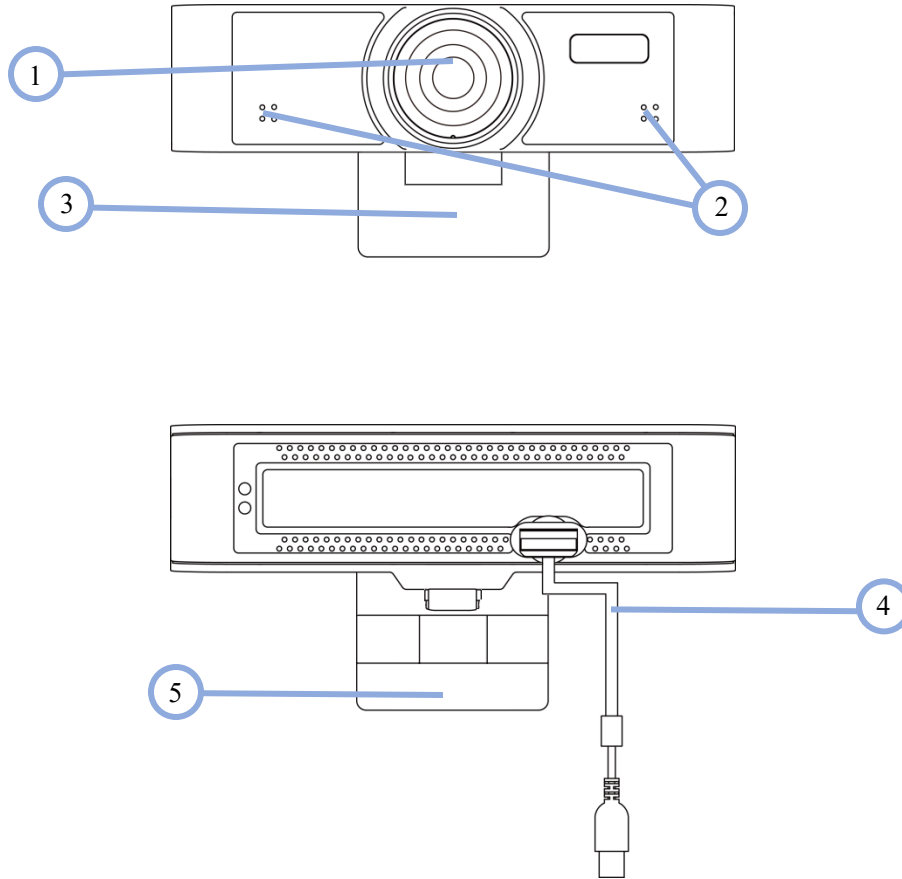
Features

1. Supports up to 1080p-30/25 fps with a wide 80° field of view.
2. Plug and play USB 2.0 video & audio connectivity.
3. Built in microphone array with unique noise reduction algorithm to accurately present your voice up to 15 feet away.
4. Wide Dynamic Range to deliver high quality video during various lighting environments.
5. Features star-level CMOS sensor and 2D/3D noise reduction algorithm, delivering ultra-high SNR for optimized noise reduction. 55dB SNR for clear video in low light environments.
6. EPTZ - Electronic Pan/Tilt/Zoom up to 8x
7. 5-year warranty

Product Specifications

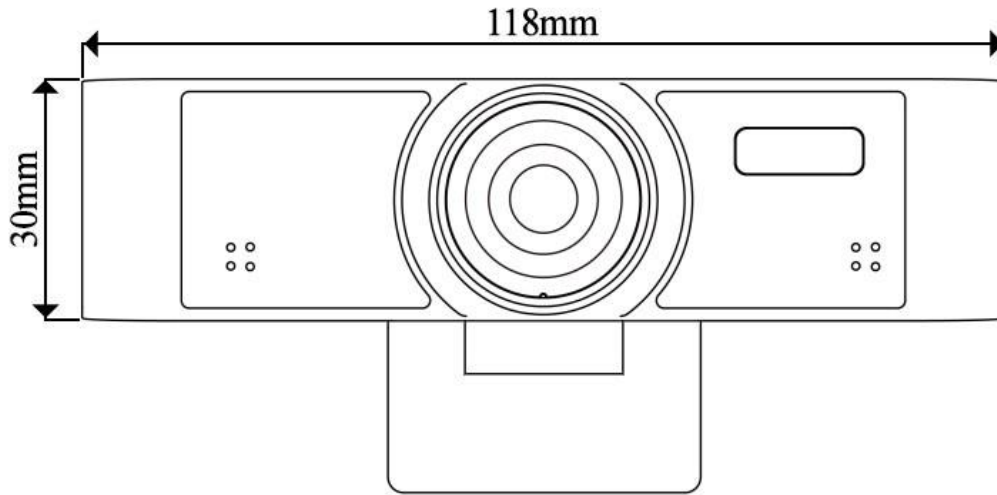
Model	PT-WEBCAM-80
Type	PTZOptics Webcam
Camera	
Video System	1080p-30/25, 720p-30/25, 960x540p-30/25, 640x360p-30/25 50Hz: 1fps ~ 25fps, 60Hz: 1fps ~ 30fps
Sensor	1/2.7", CMOS, Effective Pixel: 2.07M
Scanning Mode	Progressive
Lens	F=3.5mm, F1.8 ~ F2.8
Minimal Illumination	0.5 Lux @ (F1.8, AGC ON)
Camera Bracket	Bracket with damper
Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One Push, Manual
Backlight Compensation	Support
Digital Noise Reduction	2D & 3D Digital Noise Reduction
Video S/N	≥ 55dB
Horizontal Angle of View	80°
H & V flip	Support
Input/Output Interface	
HD Output	1 x USB: Version 2.0
Audio Output	1 x Internal Microphone Array
Generic Specification	
Input Voltage	5V (USB Power Supply)
Operating Temperature	-10°C ~ 40°C (14°F ~ 104°F)
Storage Temperature	-40°C ~ 60°C (-40°F ~ 140°F)
Current Consumption	270mA
Power Consumption	1.4W (Max)
MTBF	>30000h
Size	118mm x 37.2mm x 30.8mm (not including bracket)
Net Weight	93g (not including bracket)

Main Unit



1. Wide Angle Camera lens
2. Microphone Array
3. Bracket with damper
4. Attached USB 2.0 cable
5. 1/4-20 mount (underneath)

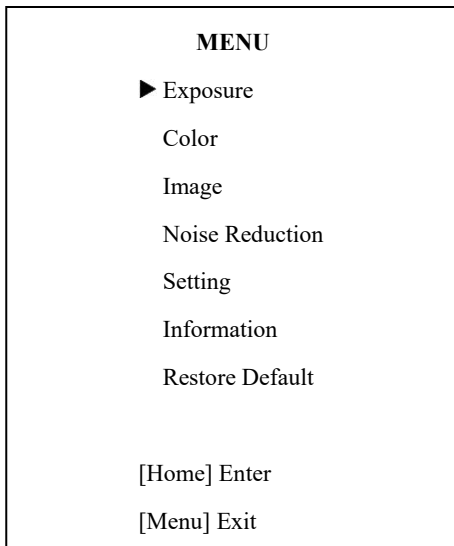
Dimensional Drawings (mm)



Menu Settings

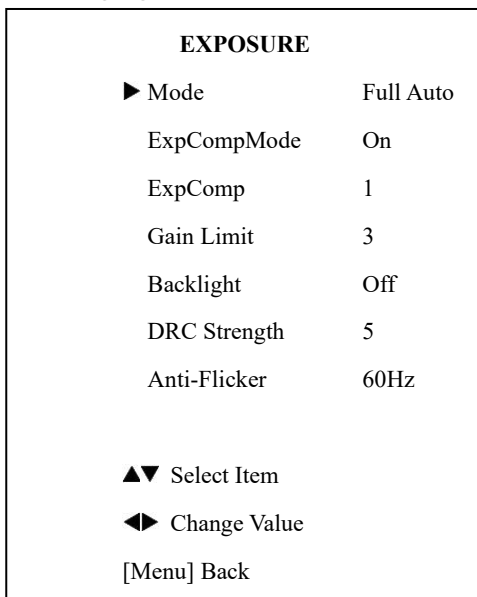
1. MENU

To access the OSD Menu of the Webcam, you will first need to download the PTZOptics Webcam OSD application from ptzoptics.com/downloads. From there, select your device, and use the arrows to traverse the menu.



2. EXPOSURE

Move the main menu cursor to [EXPOSURE], and press [OK] button enter the exposure page, as shown in the following figure.



Mode: Exposure mode, optional items: Full Auto, WDR, Shutter Priority, Bright, Manual

ExpCompMode: Exposure compensation mode, optional items: On, Off (Effective only in Auto mode).

ExpComp: Exposure compensation value, optional items: -7 ~ 7 (Effective only in ExpCompMode item to On).

Gain Limit: Maximum gain limit, optional items: 0 ~ 15 (Effective in Full Auto, WDR, Shutter Priority, Bright, & Manual).

Backlight: Set the backlight compensation, optional items: On, Off (Effective only in Auto mode).

DRC Strength: optional items: 0 ~ 8 (Effective in Full Auto, Shutter Priority, Bright, & Manual mode).

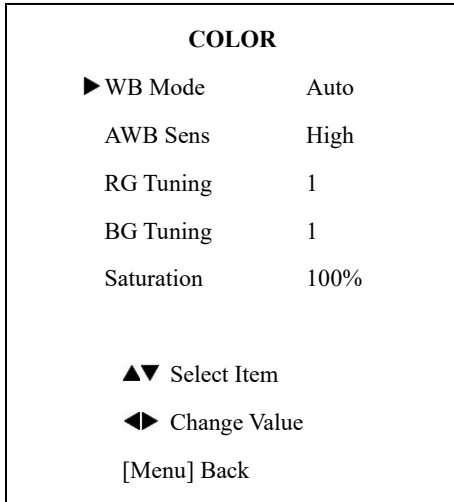
Anti-Flicker: Anti-flicker, optional items: Off, 50Hz, 60Hz (Effective only in Auto & Bright mode).

Shutter: Shutter value, optional items: 1/30, 1/60, 1/90, 1/100, 1/125, 1/200, 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 Shutter Priority & Manual)

Gain: Sets gain limit, optional items: 0 ~ 7 (Effective only in Manual)

3. COLOR

Move the main menu cursor to [COLOR], and press [OK] button enter the color page, as shown in the following figure.



WB-Mode: White balance mode. optional items: Auto, 3000K/Indoor, 5000K/Outdoor, OnePush, Manual, VAR.

Color Temp: Optional items: 2500K ~ 8000K (Effective only in VAR mode).

RG Tuning: Red gain fine-tuning, optional items: -10 ~ +10

BG Tuning: Blue gain fine-tuning, optional items: -10 ~ +10

Saturation: optional items: 60% ~ 200%.

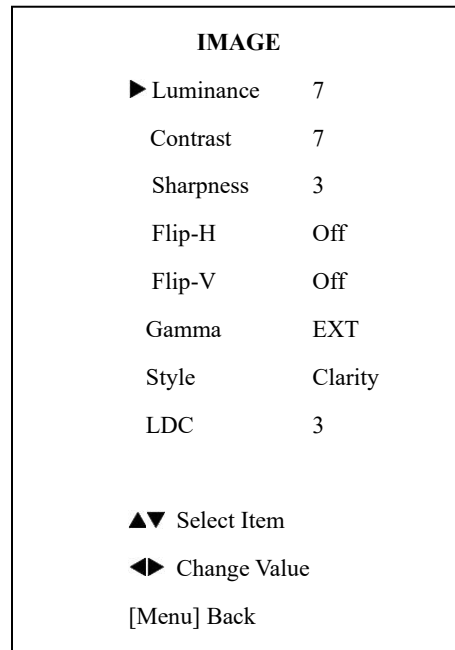
AWB Sens: The white balance sensitivity, optional items: Low, Normal, High. Only effective in Auto, 5000K/Outdoor, & 3000K/Indoor

R Gain: Red gain fine tuning, optional items: 0 ~ 255. (Effective only in Manual)

R Gain: Red gain fine tuning, optional items: 0 ~ 255. (Effective only in Manual)

4. IMAGE

Move the cursor to the Image item in the main menu and press [OK] button, [IMAGE] menu appears, as shown in the following figure.



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

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

Sharpness: Sharpness adjustment, optional items: Auto, 0 ~ 14.

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

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

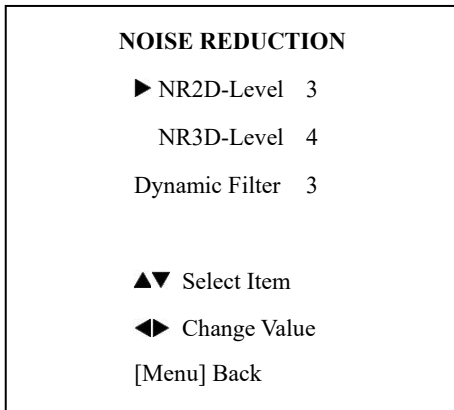
Gamma: Optional items: EXT, Default, 0.45, 0.5, 0.56, 0.63.

Style: Optional items: Norm, Clarity, Soft, 5S, Bright.

LDC: Optional items: Off, 1 ~ 6

5. NOISE REDUCTION

Move the main menu cursor to [NOISE REDUCTION], and press [OK] button enter the noise reduction page, as shown in the following figure.



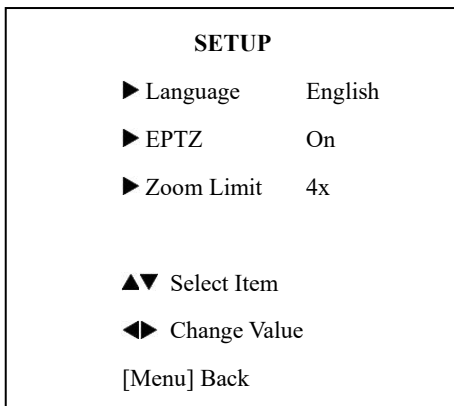
NR2D Level: 2D noise reduction, optional items: Close, Auto, 1 ~ 5.

NR3D Level: 3D noise reduction, optional items: Close, 1 ~ 8.

Dynamic Filter: Noise reduction filter, optional items: Close, 1 ~ 6

6. SETTING

Move the main menu cursor to [SETUP], and press [OK] button enter the setup page, as shown in the following figure.



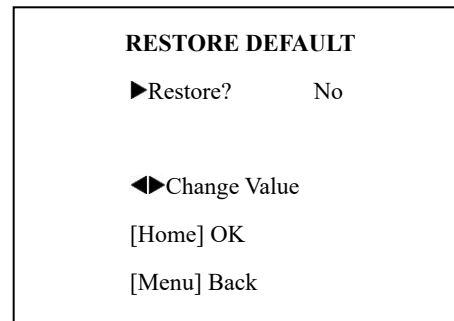
Language: Optional items: English, Chinese

EPTZ: Electronic Pan/Tilt/Zoom. Optional items: On, Off

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

7. RESTORE DEFAULT

Move the main menu cursor to [RESTORE DEFAULT], and press [HOME] key enter the restore default page, as shown in the following figure.



Restore: Confirm restore factory settings, optional items: Yes, No.

Note: Press [HOME] button to confirm, all parameter restore default, include IR Remote address and VISICA address.

Maintenance and Troubleshooting

Camera Maintenance

- If the camera will not be used for a long time, please disconnect from PC.
- Use a soft cloth or lotion-free tissue to clean the camera body.
- Use a soft dry lint-free cloth to clean the lens. If the camera is very dirty, clean it with a diluted neutral detergent. Do not use any type of solvent or harsh detergent, which may damage the surface.

Unqualified Applications

- Do not shoot extremely bright objects for a long period of time, such as sunlight, ultra-bright light sources, etc...
- Do not operate in unstable lighting conditions, otherwise the image may flicker.
- Do not operate close to powerful electromagnetic radiation, such as TV or radio transmitters, etc...

Troubleshooting

- No image
 1. Check whether the USB cable is connected properly to the PC.
 2. Check whether the LED glows when USB is connected to the PC.
- Abnormal display of image
 1. Check OSD of camera through the OSD Menu app.
 2. Check settings of software you're viewing the video feed in.
- Image is shaky or vibrating.
 1. Check whether camera is mounted solidly or sitting on a steady horizontal and level surface.
 2. Check the building and any supporting furniture for vibration.
 3. Any external vibration that is affecting the camera will be more apparent when in tele zoom (zoomed in) settings

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