PTZOptics Webcam

User Manual

Model Nos: PT-WEBCAM-80

V1.0

(English)

Preface

Thank you for using the PTZOptics 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.

Table of Contents

Rev 1.1 8/19

Supplied Accessories

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

- Camera..................................1
- User Manual 1

Notes

- **Electrical Safety**

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

- **Polarity of power supply**

  The power supply output for this product is 12VDC with a maximum current supply of 2A. Polarity of the power supply plug is critical and is as follows.

- **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

Please check that all connections are correct before powering on the camera.
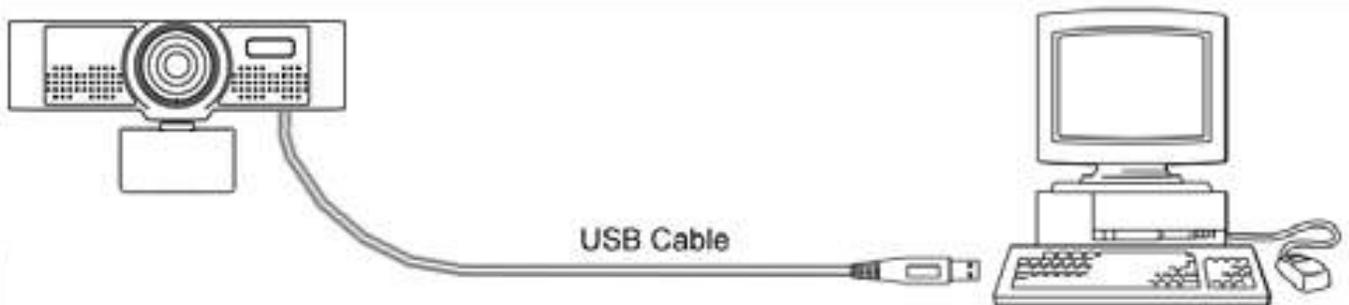
Features

1. Supports up to 1080p-30/25 fps with an 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

Rev 1.1 8/19

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	0.05 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
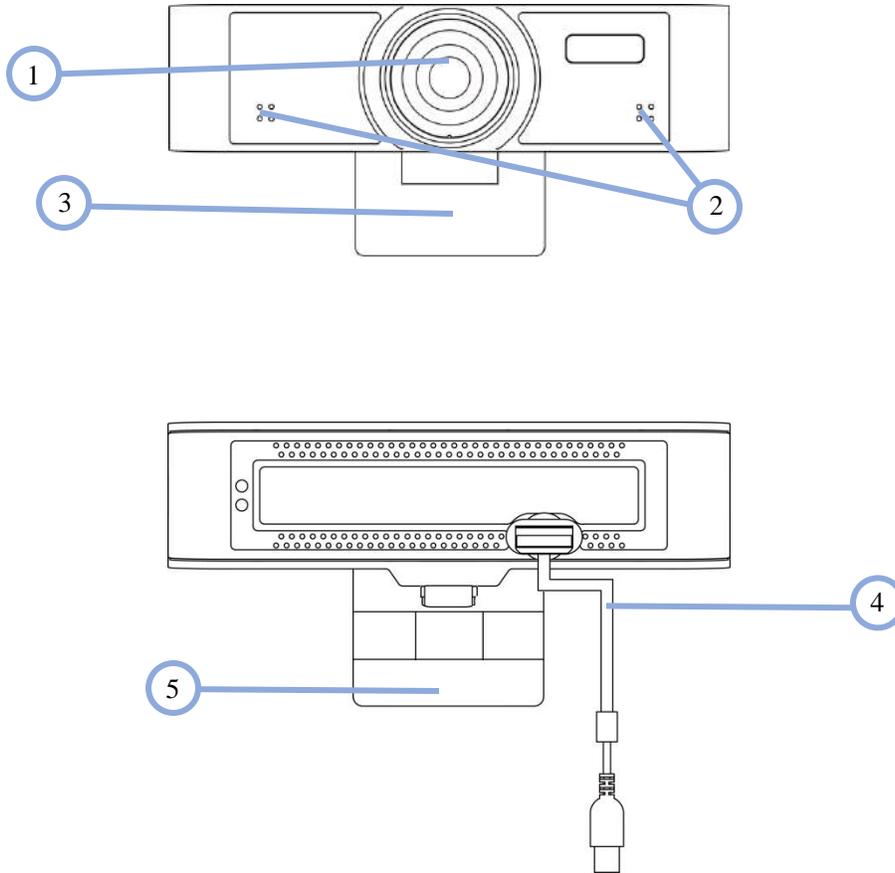
1. Wide Angle Camera lens
2. Microphone Array
3. Bracket with damper
4. Attached USB 2.0 cable
5. 1/4-20 mount (underneath)

Rev 1.1 8/19

Dimensional Drawings (mm)
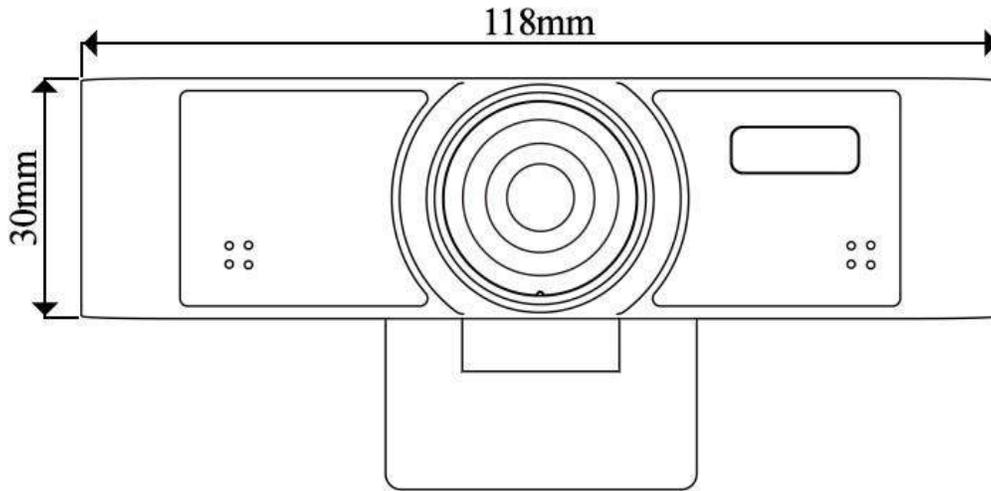
Menu Settings

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.

```
                    MENU
          ▶ Exposure
             Color
             Image
             Noise Reduction
             Setting
             Information
             Restore Default


          [Home] Enter
          [Menu] Exit
```
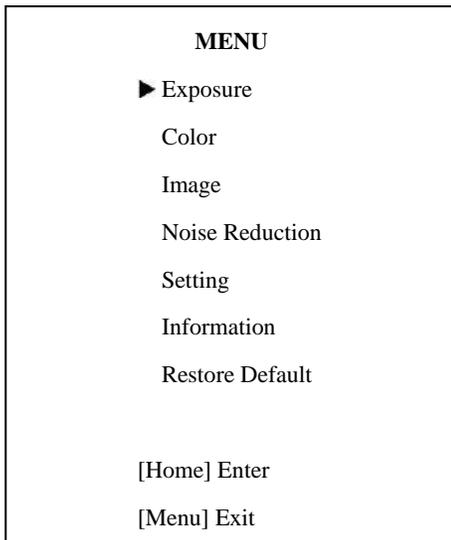
2. EXPOSURE

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

```
                EXPOSURE
       ▶ Mode              Full Auto
          ExpCompMode       On
          ExpComp           1
          Gain Limit        3
          Backlight         Off
          DRC Strength      5
          Anti-Flicker      60Hz


       ▲▼  Select Item
       ◀▶  Change Value
       [Menu] Back
```
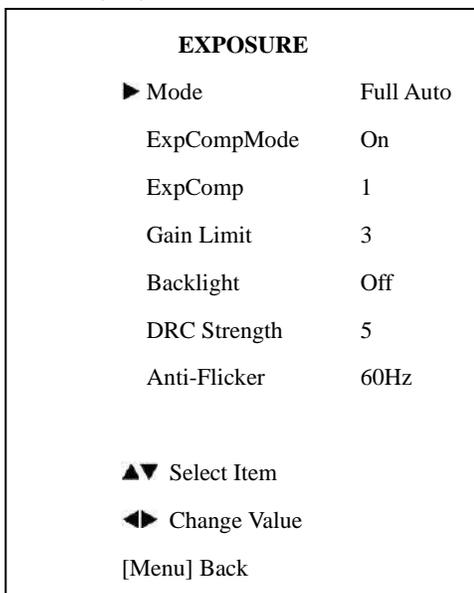
Mode: Exposure mode, optional items: Full Auto, WDR, Shutter Priority, Bright, Manual

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.

```
              COLOR
  ▶ WB Mode        Auto
    AWB Sens       High
    RG Tuning      1
    BG Tuning      1
    Saturation     100%


    ▲▼  Select Item
    ◄►  Change Value
    [Menu] Back
```
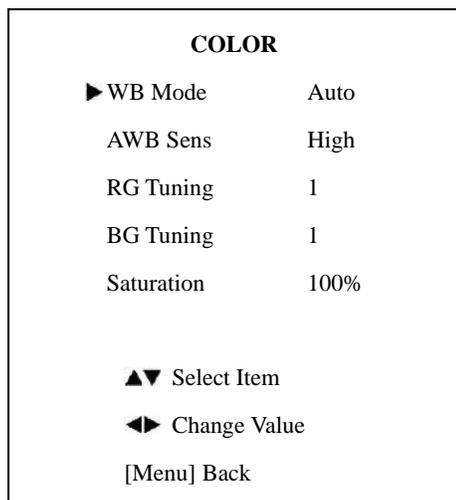
WB-Mode: White balance mode. optional items: Auto, 3000K/Indoor, 5000K/Outdoor, OnePush, Manual, VAR.

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.

```
              IMAGE
  ▶ Luminance      7
    Contrast       7
    Sharpness      3
    Flip-H         Off
    Flip-V         Off
    Gamma          EXT
    Style          Clarity
    LDC            3


    ▲▼  Select Item
    ◄►  Change Value
    [Menu] Back
```
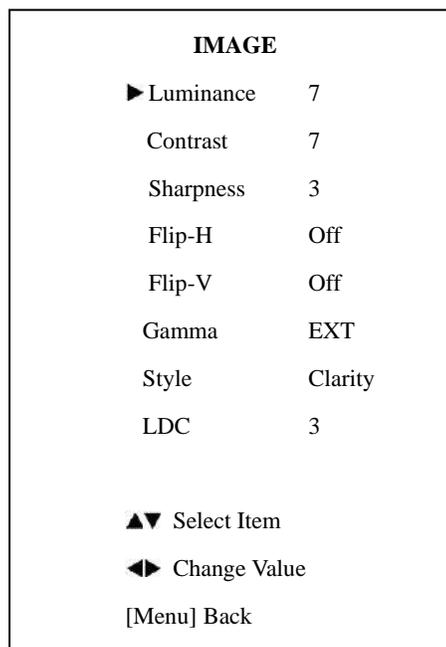
Luminance: Brightness adjustment, optional items: 0 ~ 14.

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.

```
            NOISE REDUCTION

         ▶ NR2D-Level   3

            NR3D-Level   4

         Dynamic Filter   3


         ▲▼  Select Item

         ◀▶  Change Value

         [Menu] Back
```
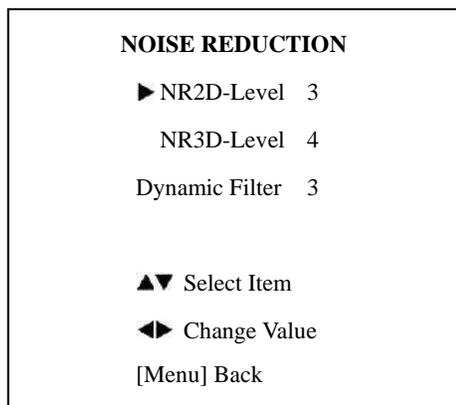
NR2D Level: 2D noise reduction, optional items: Close, Auto, 1 ~ 5.

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.

```
               SETUP

         ▶ Language     English

         ▶ EPTZ         On

         ▶ Zoom Limit    4x


         ▲▼  Select Item

         ◀▶  Change Value

         [Menu] Back
```
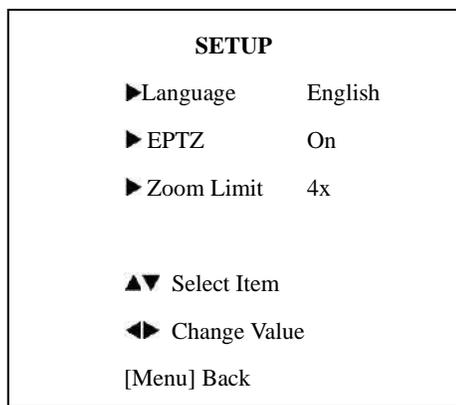
Language: Optional items: English, Chinese

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 DEFAULT

        ▶ Restore?        No


        ◀▶ Change Value

        [Home] OK

        [Menu] Back
```
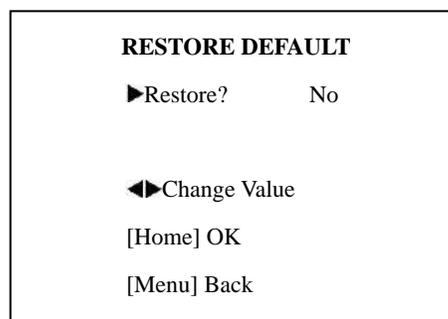
Restore: Confirm restore factory settings, optional items: Yes, No.

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

Copyright Notice

Rev 1.1 8/19