Users' Manual
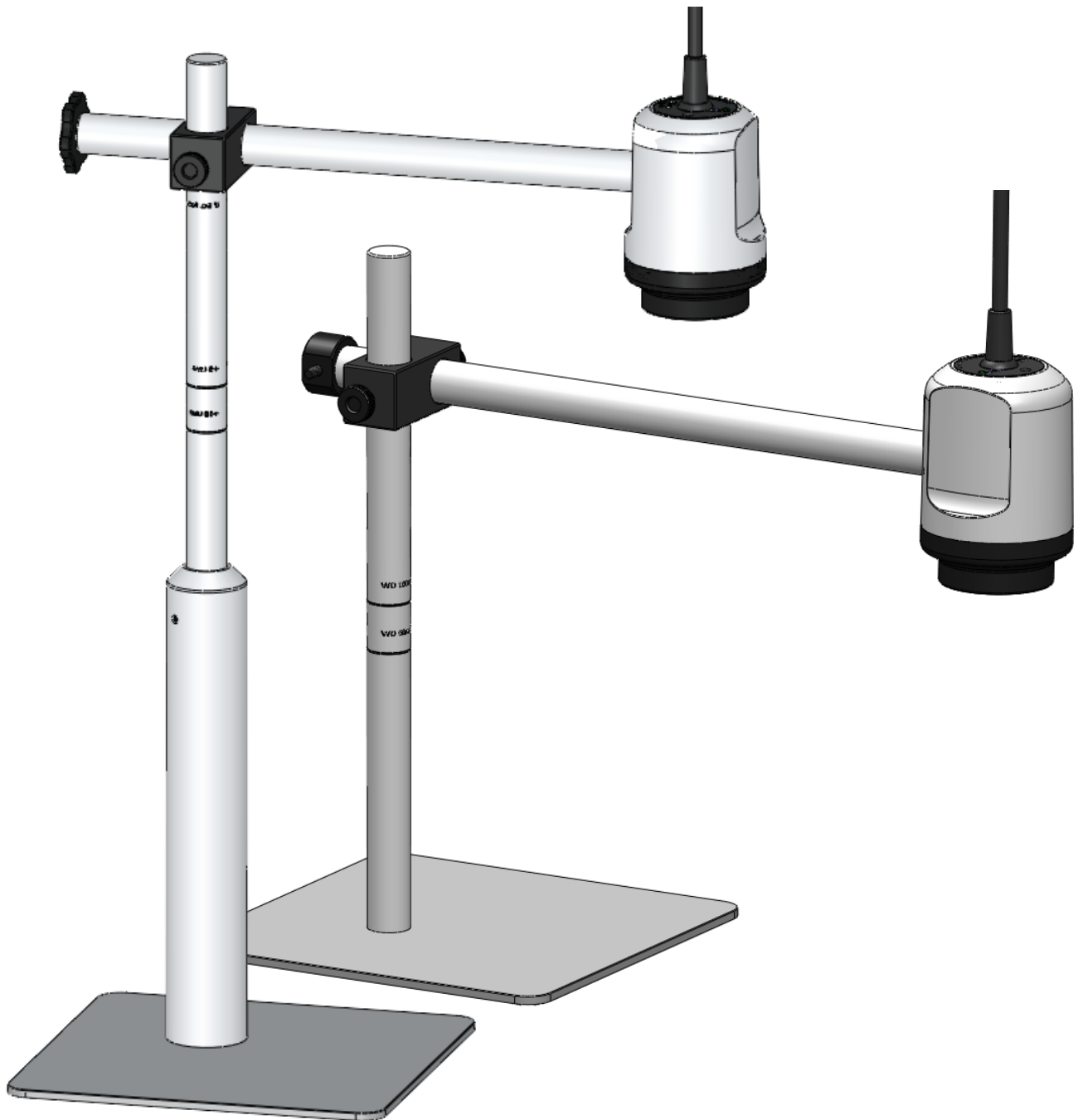
M20x-HD, FreeSight & EasyView
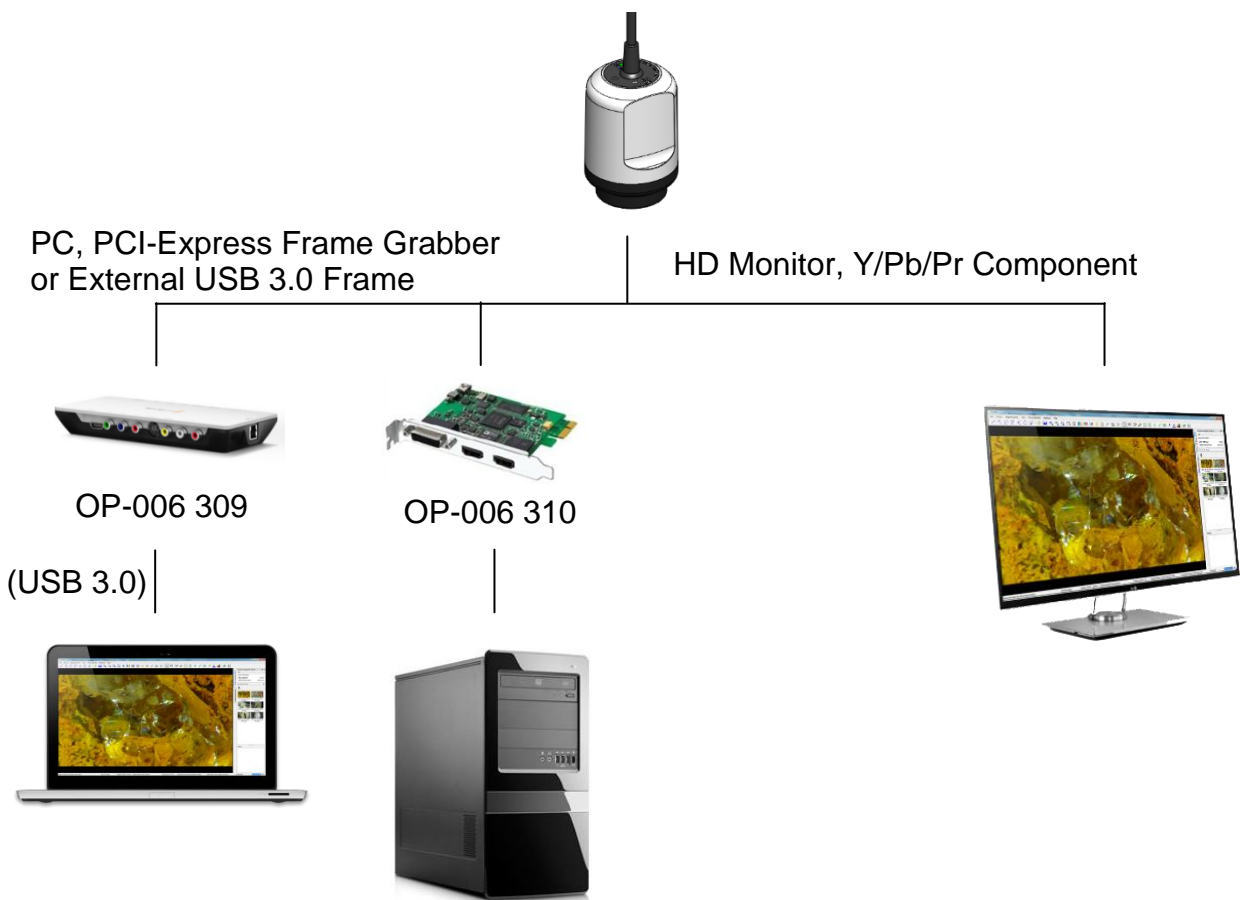
This manual describes how to use M20x-HD FreeSight and EasyView Systems
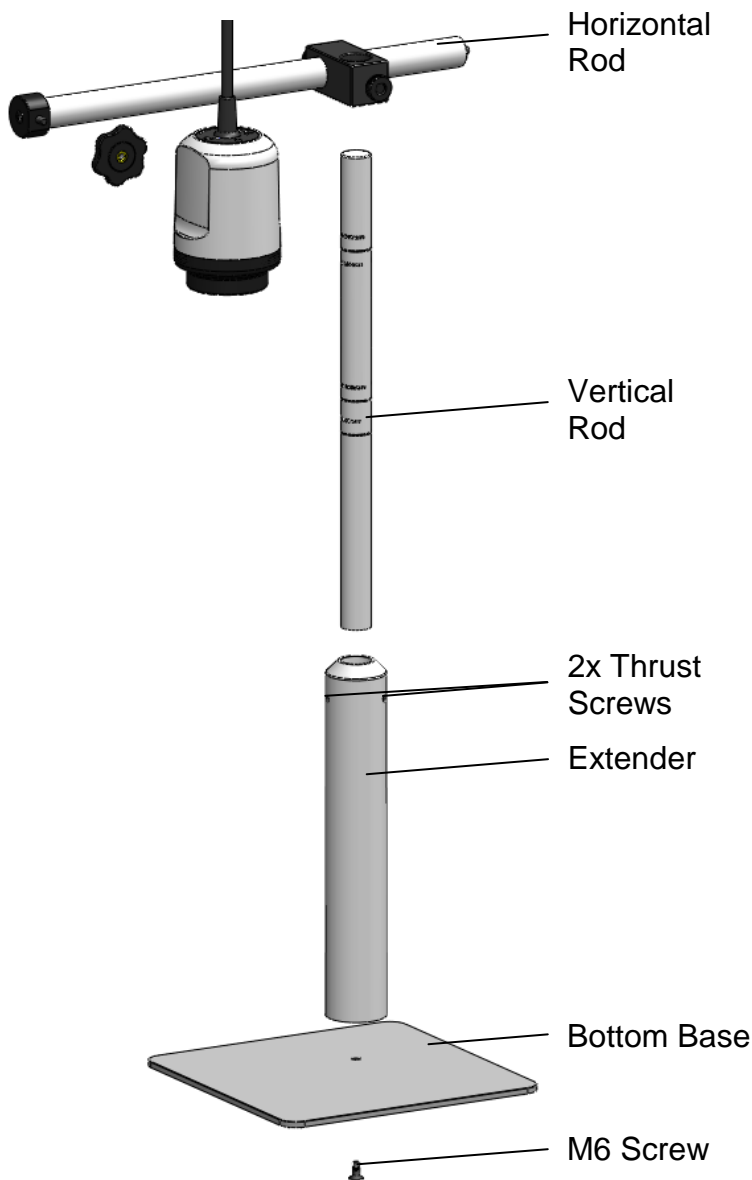
Contents

1.   About M20x

Cost effective and ergonomic video inspection system producing bright pictures for fast and reliable optical inspection. The M20x family consists of two models; the FreeSight as well as the EasyView. EasyView has a 60 mm to 240 mm working distance range while FreeSight has 350 mm to 500 mm. Both has a 20x optical zoom and a swift auto focus for clear examination of your object in 720p High Definition. An extensive range of lenses, illuminations, software, mounting and stand configurations a lows for versatile installation in all working situations. The systems can be directly connected to a HD Monitor or a PC, see illustration below.

PC, PCI-Express Frame Grabber
or External USB 3.0 Frame

HD Monitor, Y/Pb/Pr Component

OP-006 309

OP-006 310

(USB 3.0)

2. Assembling the Stand

The following instructions describes how to assembly the FreeSight Stand and the EasyView Stand.

Horizontal Rod

Vertical Rod

2x Thrust Screws

Extender

Bottom Base

M6 Screw

FreeSight

1.1. Fasten the extender onto the base with the M6 Screw

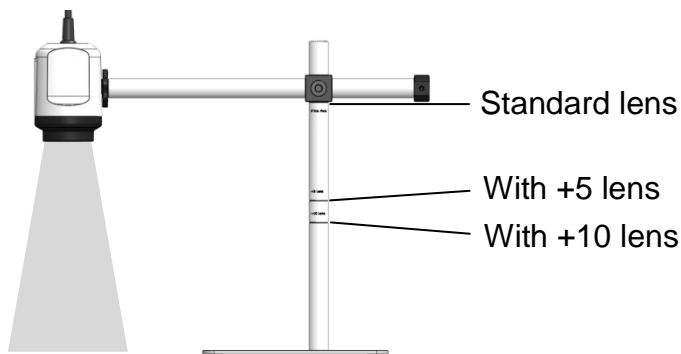1.2. Fasten the extender with the vertical rod by tighten the two thrust screws. Continue to 2 below.

EasyView

1.1. Fasten the vertical rod onto the base by using the M6 Screw.

2. Fasten the camera onto the horizontal rod with the help of the knob. Depending on the desired direction it is possible to mount the camera on each of the rod's ends.

3. Mount the horizontal rod on the vertical rod by using the boom assembly. See below for advised positions.

3.   Camera Positions and Working Distances

Following illustrations and tables shows the different working distances using different lenses. The position of the lenses are marked on the vertical rod.
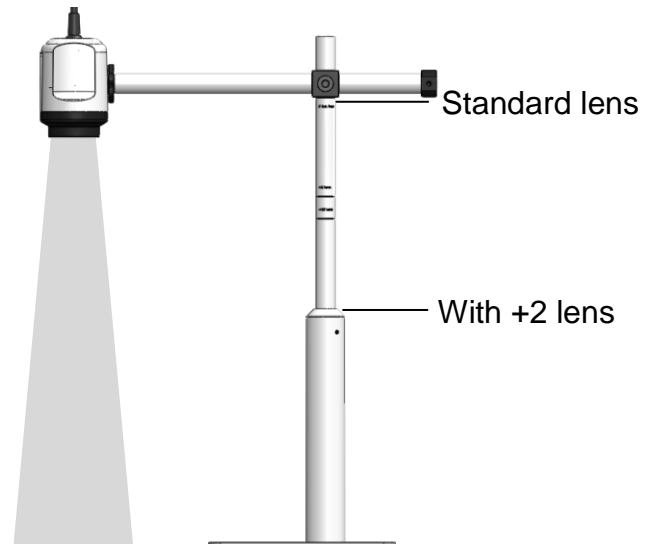
EasyView	FreeSight

Standard lens

With +5 lens

With +10 lens

Standard lens

With +2 lens

Working distances

Standard Lens	**~ 210 - 240 mm**
+2 Close-up Lens	**~ 145 - 160 mm**
+5 Close-up Lens	**~ 95 - 110 mm**
+10 Close-up Lens	**~ 60 - 70 mm**

Working distances

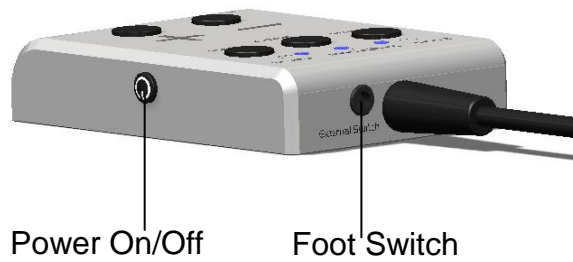| Standard Lens	**~ 350 - 500 mm**
+2 Close-up lens	**~ 210 - 245 mm**

4.   Control Unit

4.1. Connections
   a) Connect the camera to Y/Pb/Pr component video inputs of a HD Monitor or HD Frame Grabber.
   b) Attach the Foot Switch to external foot switch input of the control unit (Optional)
   c) Connect the Power supply to 12/5 V DC-input of the camera.

After connecting the power supply the LEDs will start to flash on the control unit and will load the last saved configuration and start the camera.

Power On/Off   Foot Switch

4.2. Functions

Power on/off:

- Power off: Hold the Power on/off button for two seconds and release. All LEDs on the control unit turns off. Camera will be switched off and the current configuration will be saved.
- Power on: Hold the Power on/off button for two second and release. LEDs will start to flash on the control unit and will load the last saved configuration and start the camera.

Select: Selects **Zoom**, **Brightness** and **Focus** functions.

+/-: Increase/Decrease value of the selected function.

Brightness: When **Brightness** is selected, brightness of the picture can be adjusted by **+/-** controls

Zoom: When **Zoom** is selected, zoom level can be adjusted by *+/-* controls.

Focus/Auto: Switches between automatic focus and manual focus control modes.

- When **Auto** is activated, camera will adjust the focus automatically. Indication led will light constantly
- When manual **Focus** is selected, image focus is adjusted manually by *+/-* controls. Indication led will blink periodically.

*Note: Image brightness needs to be set to sufficient level for smooth **Auto Focus** function.*

Note: Working distance of the camera shall be set right. Camera cannot focus on the object if working distance is out of the specified range.

Freeze: Freezes the live video. Indication LED lights when image is freeze. Pressing any button or moving joystick will reset the image to live.

Foot Switch: Optional foot switch allows user to increase/decrease the selected function for hands free operation.

5. Notes

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