SMALLSMT
YOUR SOURCE FOR SMALL VISION BASED PICK & PLACE MACHINES

2018

Visor Inspection System
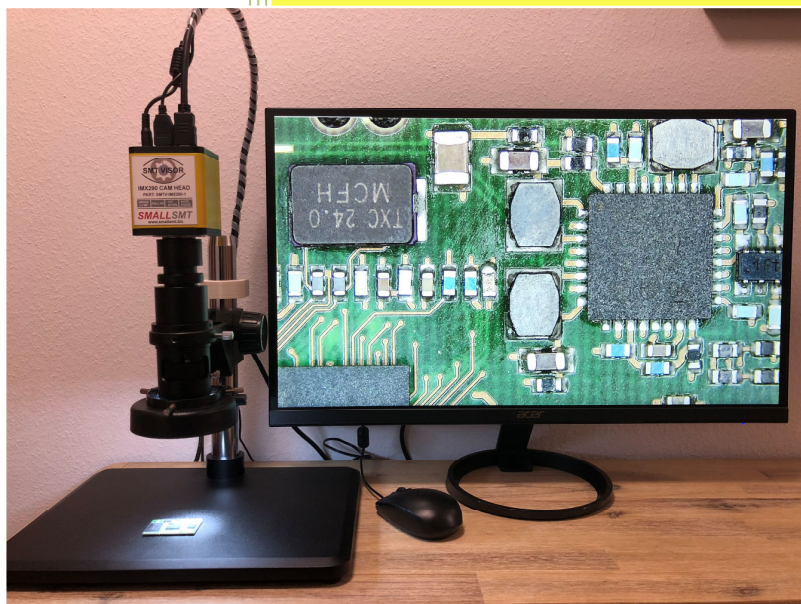
Inhalt

Important notes!

It requires the proper and safe operation of a device, that it is properly transported and stored, properly installed and commissioned and operated as intended. Only individuals allowed operating the device, who are familiar with the installation, commissioning and operation and have the qualifications corresponding to their activity.

Note the contents of the operating instructions, the instructions attached to the device and the relevant safety regulations for the establishment and the operation of electrical installations.

The devices are manufactured according to DIN / EN and tested and left the factory in technically safe condition. If the information contained in the operating instructions in any case is not sufficient, please contact us or your local representative.

Instead of the referred to in these operating instructions and valid in Europe industry standards and regulations, note the relevant regulations in the country of the user when using the device outside their scope.

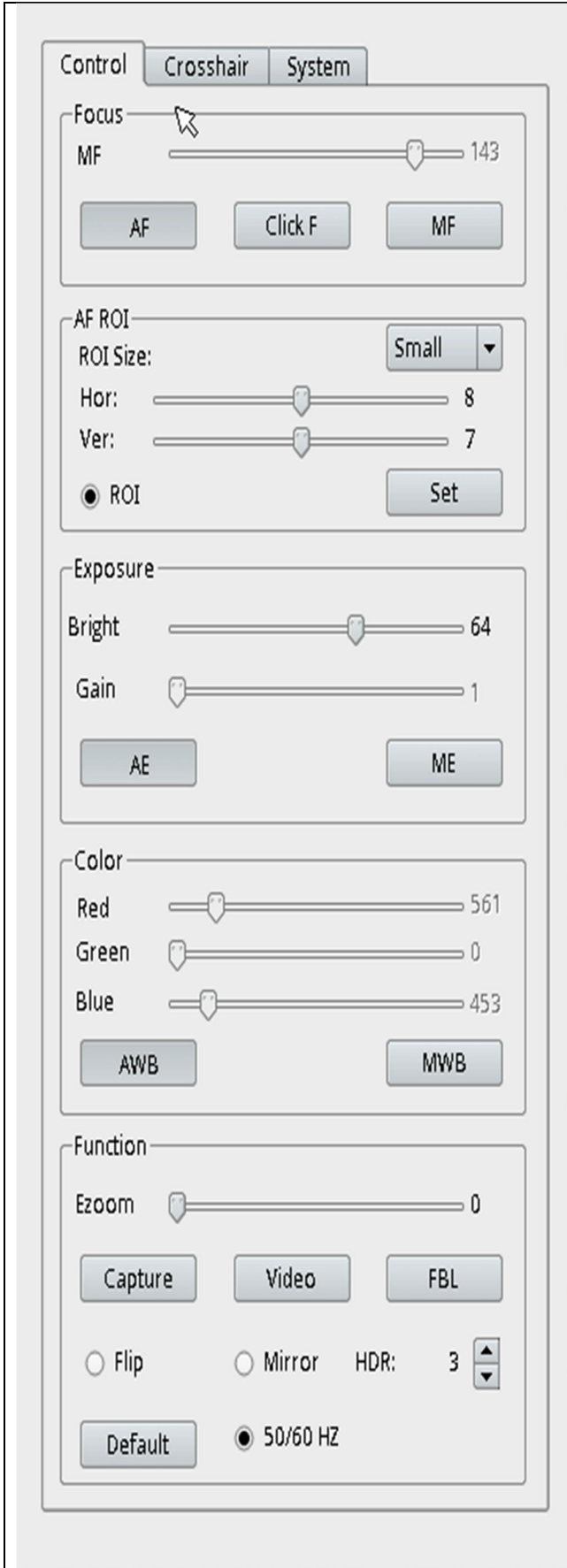WARNING! Dangerous electrical voltage!

It can cause electrical shock and burns.

Before starting service work, disconnect the power supply!

Observe the maximum permissible temperature for installation in the control cabinet.

It is to ensure sufficient distance to other devices or sources of heat.

Protect the microscope against water!

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1 Main menu

Control Crosshair System

Focus
MF ———————●— 143

| AF | Click F | MF |

AF ROI
ROI Size: Small ▼
Hor: ———●———— 8
Ver: ———●———— 7
◉ ROI   Set

Exposure
Bright ————●———— 64
Gain ●——————— 1

| AE | ME |

Color
Red ——●————— 561
Green ●——————— 0
Blue ——●————— 453

| AWB | MWB |

Function
Ezoom ●——————— 0

| Capture | Video | FBL |

○ Flip   ○ Mirror   HDR: 3 ▲▼
Default   ◉ 50/60 HZ

1.1 FOCUS
Three button options for focus modes to use.
AF: Enable Auto Focus

CLICK F: One-push focus start

MF: Manual adjust focus using slider

1.2 AF ROI
Select the auto focus area size (area of interest).
The dropdown box set box size presets.

ROI size: "Hor" and "Ver" slider adjust the area

SET: This button saves the ROI settings.

1.3 EXPOSURE

AE: Auto Exposure adjustable contrast (Brightness).

ME: Manual Exposure (Adjustable gain).

1.4 COLOR

AWB: Auto White Balance.

MWB: Manual white balance.

Use the slider to adjust if manual white balance is enabled.

1.5 FUNCTION
HDR: High-Dynamic-Range improvement.
(0=OFF, 1 to 3 the HDR grade)

Ezoom: Add digital zoom.
If SD card inserted FAT32 format!
Capture: Save screenshot to SD card.
Video: Start video recording in H264.
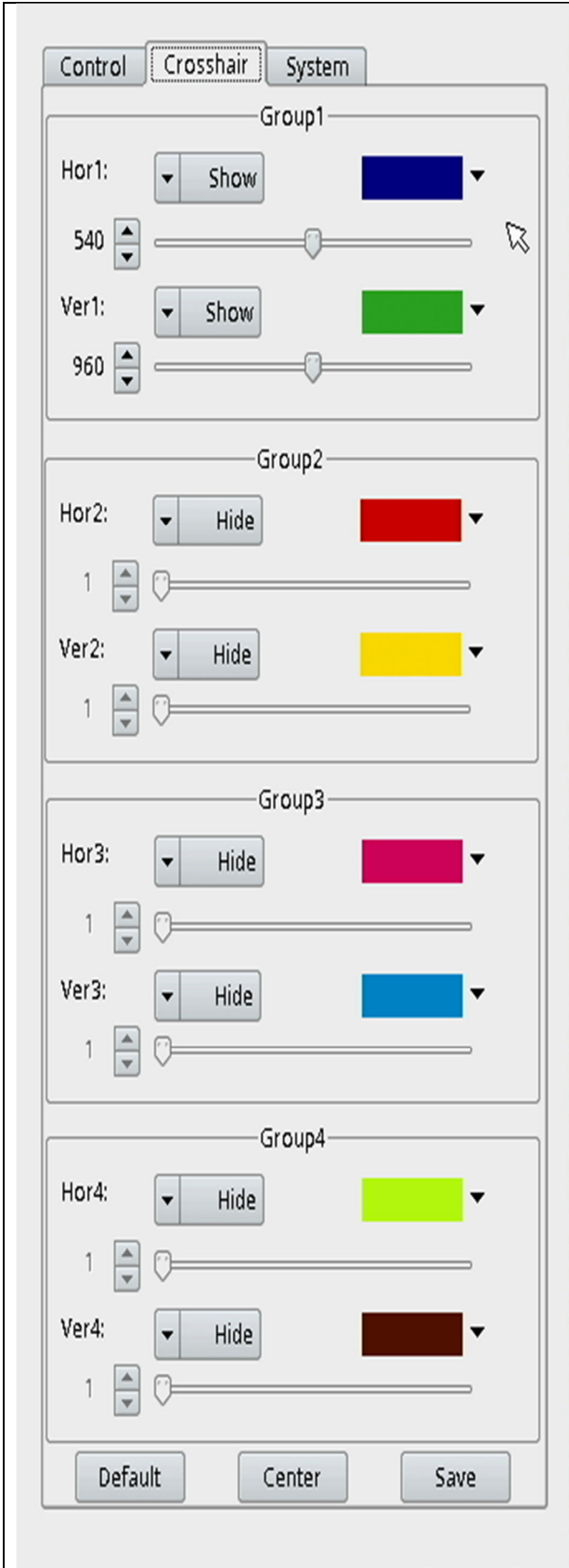**FBL:** Flange back focus.
Flip: Vertical Flip.
Mirror: Horizontal Flip.
50/60Hz: Protection against screen flash.
Default: Reset all to default values.

2 Crosshair Menu

Crosshair function divides into four groups, each group has horizontal alignment.

The drop-down box show / hides the line.
Use the cursor to relocate the line.

Add the color using color drop-down box.

Default: Rest the settings.

Center: Display a set of crosshairs at the center of the screen.
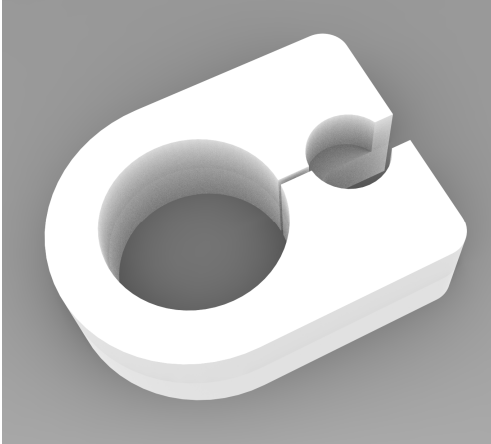
Save: Save the settings.

3 System Menu

Adjust date and time in system menu.

Select the language in combo box.

![SMALLSMT - YOUR SOURCE FOR SMALL VISION BASED PICK & PLACE MACHINES](logo)

4. Parts

Cable Holder Clamp

Add the cable holder clamp to the microscope stand tube.

CAMERA, MOUSE, CABLE

Mount the lens at C-mount thread of camera body. Connect mouse, HDMI cable and power supply cable and combine using the cable spiral. Put the cable assembly in second small hole of cable holder clamp.

![SMALLSMT - YOUR SOURCE FOR SMALL VISION BASED PICK & PLACE MACHINES]

The final result should look like this.

CAMERA HEAD TOP VIEW

5. Operating instructions

Use the microscope in 100 to 140mm distance.

Set HDR parameter to 3 and enable the AF mode.

If you want to save pictures to SD CARD use FAT32 format and max 4Gb (speed rating 10) cards.

Video files saved in H264 format.

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7. Technical Data

Parts delivered

Full working inspection system including:

Camera Head IMX290, Microscope zoom lens, Stand, Mouse, HDMI cable, Power supply

Product parameter	
Model	SMTV-IMX290-1
Lens	16X-160X Adjustable Magnification 25mm Zoom
	C-mount Lens 0.7X~5X, working distance 110 - 170mm
Camera	IMX290 Sony 2.2MP, wide range automatic zoom
	BSI high light sensitive sensor
Pixel Size	1/2.8"
Lens mount	C / CS type
Exposure	automatic and manual
Display frame rate	60Hz at 1080P
Shutter Speed	1/50s(1/60s) ~ 1/10000s
Software functions	HDR mode, AWB / MWB, Color adjust
	Save picture to micro SD
	Save H264 Video to micro SD
	Add Lines horizontal and vertical
	Real Time Clock
Machine dimensions	300x300x250mm
Machine weight	5kg
Shipping weight	8kg
Shipping size	400x400x300mm
Power supply	AC 230V / 110V
Warranty	12 Months parts exchange including shipping fee excluding
	Customer need to exchange parts on machine.

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