



# OEYE-RED User Manual

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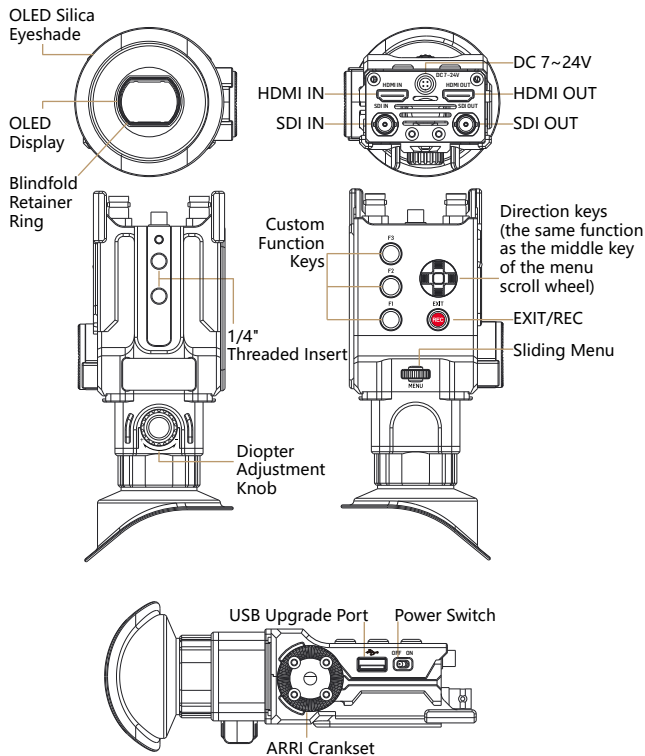
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SHENZHEN PORTKEYS ELECTRONIC TECHNOLOGY CO.,LTD

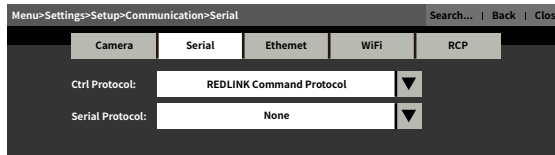
# Product Appearance Size



⚠ Operating temperature range: 0 °C ~ 40 °C

Before OEYE controls RED camera ,please set the Control protocol of RED camera to : REDLINK Command Protocol

Set path: Menu->Setting->Setup->Communication->Serial->Ctrl Protocol->REDLINK Command Protocol



**Non-RED control mode:**  
As F1 F2 F3 shortcut keys for OEYE

**RED control mode :**  
F2 corresponds to 2 shortcut key of RED camera , it is recommended to set to LCD1/2:Cycle Mode according to the interface used by the current LCD

F3 corresponds to 3 shotcut key of RED camera , it is recommended to set to HDMI /SDI :Cycle Mode according to the currently used signal interface.

**After setting :**  
F2 is to set LCD1/2 control menu Opne and close  
F3 is set to HDMI /SDI control menu open and close

**Always be the F1 shortcut key of OEYE**  
(The Default is the peaking function of OEYE , The function can be customized )

Long press 5 second can switch the menu control between OEYE/RED

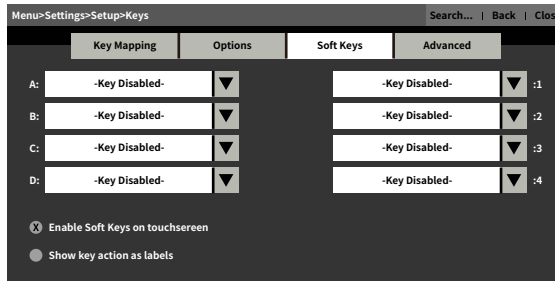
**Non-RED control mode:**  
As the EXIT key for OEYE.

**RED control mode:**  
As record key ,can control the fan synchronization of OEYE and RED.

**Non-RED control mode :**  
As menu key and Ok key for OEYE.

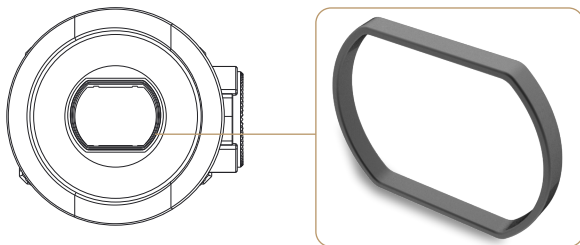
**RED control mode :**  
As menu key and Ok key for RED camera ,corresponding to RED scroll wheel operation key.

**OEYE body schematic**

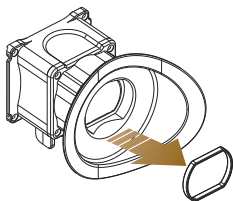


F2 /F3 correspond to 2/3 customized keys in Menu -Setting -Setup -Keys-SoftKeys

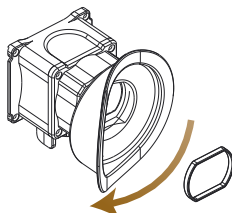
## Silicone Eye Mask Installation Instruction



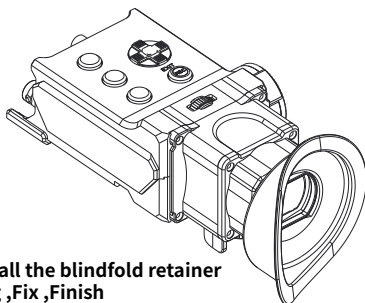
Removable blindfold retainer ring,  
To adjust the left and right direction  
of the silicone eye mask



1. Take out the blindfold  
retainer ring



2. Rotate the silicone eye  
mask 180 degrees



3. Install the blindfold retainer  
ring ,Fix ,Finish

## Standard Accessories

OEYE-RED *1	Safety Plastic Box *1
Power Cord(3pin Aviation Connector - D-TAP) *1	SDI Cable *1
Power Cord(5pin Aviation Connector) *1	Pipe Clamp *1
Control Cable(4pin LEMO - 3pin Aviation Connector) *1	Warm Prompt *1
	U Disk(Manual, 3D LUTs, Firmware Inside) *1
	OLED-RED Hub *1
L-type Inner Allen Key Diameter 4.7mm *1	

## Parameter

Size:	0.71"
Dimension:	180x69.7x72.4mm
Contrast:	1:100000
Brightness:	200nit
Resolution:	1920x1080
Weight:	400g
Color:	8bit
Backlight:	OLED
Material:	All Aluminum
Input Voltage:	DC 7~24V
Operating Power:	10W
Diopter:	+8D~-3D
Signal Input:	3G SDI, 4K HDMI
Signal Out:	3G SDI, 4K HDMI
USB-A	Upgrade Firmware / Load 3D LUT
Menu Language:	简体中文/English
Fan:	Yes

## Supported input/output resolution and frame rate

### HDMI signal

- 4096×2160p@24Hz
- 3840×2160p@23.97Hz,24Hz,25Hz,29.97Hz,30Hz
- 1920×1080p@23.97Hz,24Hz,25Hz,29.97Hz,30Hz,50Hz,59.94Hz,60Hz
- 1920×1080psf@23.97Hz,24Hz,25Hz,29.97Hz,30Hz
- 1920×1080i@50Hz,59.94Hz,60Hz
- 1280×720p@50Hz,59.94Hz,60Hz
- 720×576p&720×576i@50Hz
- 720×480p&720×480i@50Hz,59.94Hz,60Hz

## Supported input/output resolution and frame rate

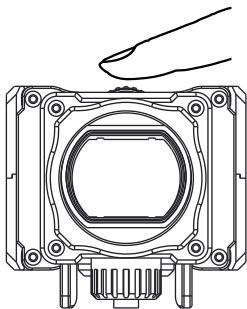
### SDI signal

- 1920×1080p@50fps,59.94fps,60fps
- 1920×1080p@50Hz,59.94Hz,60Hz YUV422
- 1920×1080p@23.98Hz,24Hz,25Hz,29.94Hz,30Hz YUV444/YUV422/RGB444
- 1920×1080psf@23.98Hz,24Hz,25Hz,29.97Hz,30Hz YUV444/YUV422/RGB444
- 1920×1080i@50Hz,59.94Hz,60Hz YUV444/YUV422/RGB444
- 1280×720p @50Hz,59.94Hz,60Hz YUV444/YUV422/RGB444

**[MAIN]**

**MAIN**

- Input Source >
- Guides >
- Video Config >
- System Config >
- LUT Config >
- Function Setup >
- Firmware >
- Exit ↵



Function selection "Direction key" can adjust ← → ↑ ↓ ,click middle of menu key and direction key for OK function

## Input Source

- HDMI ◀ ▶
- HD/SDI ◀ ▶
- Back ↵

function selection Scroll direction key and menu Kay can adjust the function parameters,click middle of menu key and direction key for OK function.

## Guides

- Guides ◀ Off/80%/90%/15:9/1.33:1/1.5:1/1.85:1/2:1/2.35:1/2.39:1/Custom ▶
- H (Custom) ◀ 1%~100% ▶
- V (Custom) ◀ 1%~100% ▶
- Guide Masks ◀ On/Off ▶
- Crosshair ◀ On/Off ▶
- Grids ◀ 1/2/3/4/5/6/7/8/9/10/Off ▶
- Back ↵

function selection Scroll direction key and menu Kay can adjust the function parameters,click middle of menu key and direction key for OK function.

## Video Config

Brightness	◀ 0~100 ▶
Contrast	◀ 0~100 ▶
Chroma	◀ 0~100 ▶
Sharpness	◀ 0/10/20/30/40/50/60/70/80/90/100 ▶
Tint	◀ 0~100 ▶
Color Temperature	◀ 5600K/6500K/7500K/9300K/Manual ▶
Backlight	◀ 0~100 ▶
Aspect	◀ User/16:9/15:9/1.33:1/1.5:1/1.85:1/2:1/2.35:1 ▶
Back	↩

Color Temperature adjusts to Manual Setting(Confirm by MENU)

Aspect adjusts to User (Confirm by MENU)

Color Temperature	Manual
Red	◀ 0~255 ▶
Green	◀ 0~255 ▶
Blue	◀ 0~255 ▶
Back	↩

Aspect Setting	
Aspect	◀ User/16:9/15:9/1.33:1/1.5:1/1.85:1/2:1/2.35:1 ▶
Wide	◀ 50~100 ▶
Height	◀ 50~100 ▶
Back	↩

function selection Scroll direction key and menu Kay can adjust the function parameters,click middle of menu key and direction key for OK function.

## System Config

OSD-Language	◀ 简体中文/English ▶
OSD-Duration	◀ 5Sec/10Sec/15Sec/20Sec/25Sec/30Sec/Off ▶
OSD-Transparency	◀ Low/Middle/High/Off ▶
Menu Setup	◀ User1/User2/User3/User4/User5 ▶
System Reset	Are you sure ? Press MENU, Then ↔ Yes/No
Flip Control	>
Waveform Source	◀ Load LUT/Original ▶
Back	↩

## Flip Control

Display Flip Mode	◀ On/Off ▶
H Flip	◀ On/Off ▶
V Flip	◀ On/Off ▶
Osd Flip Mode	◀ On/Off ▶
H Flip	◀ On/Off ▶
V Flip	◀ On/Off ▶
Back	↩

## LUT Config

LUT	◀ On(Null)/Off ▶
Stored from	USB >
USB Looks	>
Back	↩

## LUT File Deletion

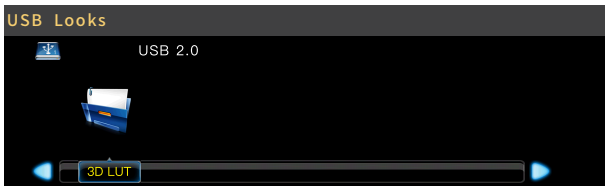
(Needs to be performed in the state of access signal)

### Stored from USB

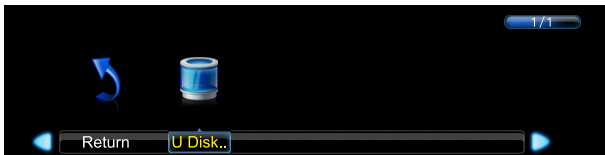
XXXXXXXX (Stored LUT configuration)	■
XXXXXXXX (Stored LUT configuration)	[ ]
XXXXXXXX (Stored LUT configuration)	[ ]
Back	↩

↓  
Stored LUT Configuration  
(Long press menu key and middle key of direction key)

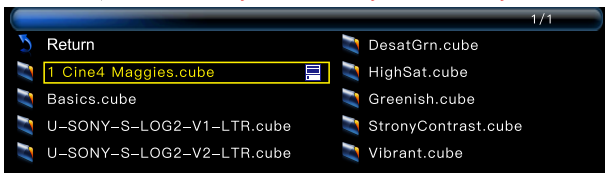
Delete  
Are you sure?  
Yes No



↓ (Press menu key and middle key of direction key)



↓ (Press menu key and middle key of direction key)

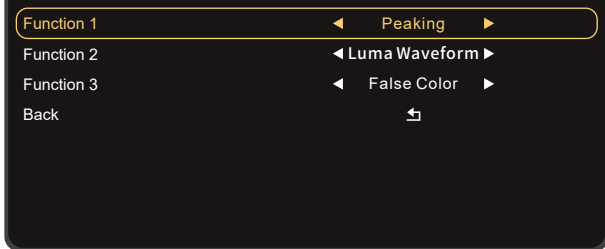


↓ (Press menu key and middle key of direction key)

Apply 3D LUT mode and it will be saved automatically to "user storage" (Click MENU as Confirm) EXIT

\*LUT file could be stored repeatedly, to delete, please enter the user storage interface and delete it by the above steps. LUT file format Cube, support 16/17/32/33/64/65 precision (LUT\_3D\_SIZE).

### Function Setup



Function 1

- \*Peaking
- \*False Color
- \*Zebra
- \*UnderScan
- \*Histogram
- \*Luma Waveform
- \*Zooming
- \*Audio Meters
- \*Pixel To Pixel
- LUT
- Brightness\*
- Contrast\*

- Chroma\*
- Sharpness\*
- Tint\*
- Aspect\*
- Backlight\*
- Display Flip
- Osd Flip
- Check Field\*
- H/V Delay\*
- \*Guides\*
- \*Cross Hair
- \*Grids\*

▲function 2, function 3 (The function setting is same with function 1)

\*Attention: Please set the functions to the customized short key F1-F4. Long press 3 seconds (F1-F4) will be showing the setting menu of this function.

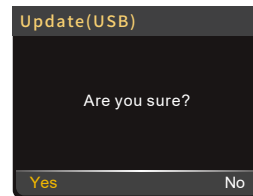
\*Continuously click shortcut function key, which can be switched.

\*The parameters can be adjusted in the +/- button of the function.

### Firmware



(Press menu key and middle key of direction key)  
(Please check page 14-16 for firmware update)



## Fast to Set the Function Parameter

Long press 3 seconds will be allowed to enter into the "Function Set" to set the factor the function

### Peaking Setting

Factor ◀ 1/2/3/4/5/6/7/8/9/10 ▶  
 Color ◀ Red/Green/Blue/White ▶  
 Mode ◀ Colour/Grayscale/Colour(Edge Enhance) ▶  
 Grayscale Level ◀ 50%~100% ▶  
 Exit ↵

### False Color Setting

Under Warn. ◀ -10~15 ▶  
 Over Warn. ◀ 85~110 ▶  
 Tooltip ◀ On/Off ▶  
 Exit ↵

### Zebra Setting

High Area ◀ On/Off ▶  
 Factor ◀ 128~255 ▶  
 Color ◀ Red/Green/Blue/Black/White ▶  
 Low Area ◀ On/Off ▶  
 Factor ◀ 0~128 ▶  
 Color ◀ Red/Green/Blue/Black/White ▶  
 Exit ↵

### UnderScan Setting

Factor ◀ 50~100 ▶  
 Exit ↵

### Histogram Setting

Position ◀ R+B/L+B/L+T/R+T ▶  
 Size ◀ Small/Large ▶  
 Transparent ◀ On/Off ▶  
 Exit ↵

### Waveform Setting

Waveform ◀ On/Off ▶  
 Blending ◀ On/Off ▶  
 Position ◀ R+B/L+B/L+T/R+T ▶  
 Exit ↵

### Zooming Setting

Position ◀ User/Middle/L+T/R+T/R+B/L+B ▶  
 X Offset ◀ -480 ~ +480 ▶  
 Y Offset ◀ -270 ~ +270 ▶  
 Ratio ◀ User/X1.5/X2/X2.5/X3 ▶  
 H: ◀ X1.01 ~ X3.00 ▶  
 V: ◀ X1.01 ~ X3.00 ▶  
 Exit ↵

⚠ The resolution of the input signal is different and the offset value changes.

## Audio Meters

Audio Meters	◀ On/Off ▶
Position	◀ Top/Left/Division/Right/Bottom ▶
Blending	◀ 0~100 ▶
Exit	↩

## Pixel To Pixel Setting

Position	◀ User/Middle/L+T/R+T/R+B/L+B ▶
X Offset	◀ -240 ~ +240 ▶
Y Offset	◀ -270 ~ +270 ▶
Exit	↩

⚠ The resolution of the input signal is different and the offset value changes.

## Guides Setting

Guides	◀ Off/80%/90%/15:9/1.33:1/1.5:1/1.85:1/2:1/2.35:1/2.39:1/Custom ▶
H (Custom)	◀ 1%~100% ▶
V (Custom)	◀ 1%~100% ▶
Color	◀ White/Red/Green/Blue/Black ▶
Thickness	◀ 0~50 ▶
Guide Masks	◀ On/Off ▶
Exit	↩

## CrossHair Setting

Crosshair	◀ On/Off ▶
Color	◀ White/Red/Green/Blue/Black ▶
X Offset	◀ 0%~100% ▶
Y Offset	◀ 0%~100% ▶
Exit	↩

## Grids Setting

Grids	◀ Off/1/2/3/4/5/6/7/8/9/10 ▶
Color	◀ White/Red/Green/Blue/Black ▶
Exit	↩

## Universal Software Upgrade Tutorial

### Attention:

1. Place the new firmware in the root directory of the U disk.
2. Keep the device powering on during updating.
3. Supports FAT, FAT32, ExFAT and NTFS U disk. (FAT32 is highly recommended)
4. Use the U disk with the storage below 4G.
5. If the firmware isn't updated successfully, please follow from step ③ and update again.

⚠ Update method takes OEYE as an example, for other models, please download the corresponding model upgrade package in our official website and follow the steps below.

### Firmware Upgrade:

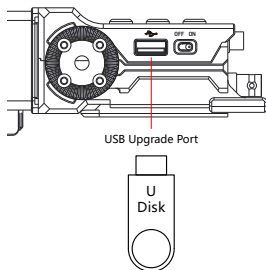
1

Download the firmware zip, unzip it, and then send the upgrade file (OEYE\_RED.bin)(EVF\_MIU.bin) to the root directory of the U disk.



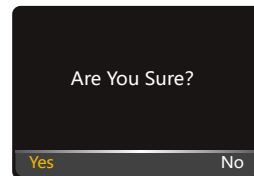
2

Supply power to the monitor, insert the U disk with upgrade file into the USB interface of the body.



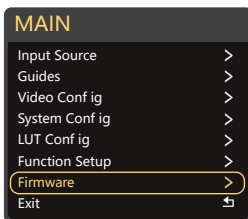
5

Click and confirm upgrade.



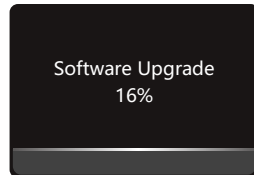
3

Boot up the monitor, click MENU to open main menu, select "Firmware" and click into firmware interface.



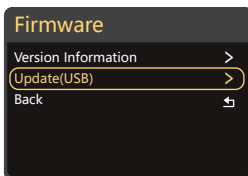
6

Upgrading is in progress. After that, the monitor will restart in black screen automatically (Do not power off during this process).



4

Select Firmware Upgrade(USB)



7

After completing the upgrade, boot up the monitor and click Main Menu → Firmware → Version Information to confirm whether the software is successfully upgraded.

