



KVM-5X series / KVM-6X series LCD Monitors

USER MANUAL

V3.3.4

Contents

Notes.....	4
Security.....	5
Features.....	7
Parts and Functions.....	11
A: Front View.....	11
B: Rear View.....	14
OSD Menu.....	17
Menu Operation:.....	17
Menu Item Description.....	18
1. Main Menu:.....	18
2. Sub Menu:.....	19
Status:.....	19
Function Key:.....	20
Picture:.....	22
Image:.....	23
Audio:.....	26
Marker:.....	28
Scope:.....	30
Embedded code:.....	33
Layout:.....	33
IMD:.....	38
Alarm:.....	41
Setup:.....	43
Key Lock:.....	44
3. Function Key.....	45
SDI 2K Signal Display Description.....	48
Factory Reset.....	48
Remote Control.....	49

AC Power Supply Connection..... 49

Notes

For the safety use of products, please read the following instructions regarding the installation, use and maintenance carefully.

- . Please read the product safety and operating instructions carefully before the product is operated.
 - . Please keep the safety and operating instructions for future reference.
 - . Please pay strict attention to the warnings and implement the products according to the operating instructions closely.
 - . All operating instructions should be strictly enforced.
-
1. Please use the power cord recommended by manufacturer.
 2. Please do not place heavy objects on the power cord.
 3. Please do not expose the monitors to rain, humid, dusty places.
 4. Please do not place vessels with liquid (such as cups, beverage bottles) on the monitor.
 5. Please do not place this product in high heat places.
 6. Please make sure the earth terminal is good in order to avoid electric shock.
 7. Please do not open the back cover to avoid electric shock. Please contact professionals for service need.
 8. If there is no image or sound, please unplug the power cord from the AC outlet immediately. Please consult professionals if there still have problems after examining carefully.
 9. Do not place this product at unstable places such as cars, shelves or tables, as it is easy to make the product falling down, may cause severely hurt to children and adults and damage to the product.
 10. Please do not touch the power plug with wet hands, as it will cause electric shock.
 11. Please do not expose the LCD panel in direct sunlight for a long time, it will result in damage or aging of the LCD panel.
 12. Please display this product at a suitable temperature and humidity place.

13. Please do not spray any liquid things and/or add any objects into the monitor, it might cause voltage instability and short-circuit, also can easily cause fires and blackouts.

14. If do not use the device for a long time, please unplug the power cord from the AC outlet.

15. Please keep not less than 5cm space around the vents while using the monitor, in order to obtain good heat dissipation effect.

Security

Screen Maintenance

Please follow the below guidelines carefully to prevent discoloration, stains and scratches on the screen:

- Avoid striking the screen with any object.
- Do not wipe the screen hard.
- Do not wipe the screen with solvents such as alcohol, thinner or gasoline.
- Do not spray detergent or other cleaners on the monitor or LCD panel, as it may cause fault because of water droplets into the monitor.
- Do not write on the screen.
- Do not paste or stick any viscous markers on the screen.

Screen may be cleaned by gently wiping with lint free cloth to remove dust. For the more difficult cleaning, use lint free cloth that has been very lightly dampened with detergent, then dry any excess moisture from the monitor or LCD panel immediately to prevent damage.

Cabinet Maintenance

Please follow the guidelines below to prevent potential damage.

- Do not wipe the cabinet with solvents such as alcohol, thinner or gasoline.
- Do not use any pesticides and/or other volatile substances.
- Do not allow prolonged contact with rubber or plastic.
- Do not wipe the cabinet hard. Use a soft, lint free cloth to clean. If the cabinet cleaning is more difficult, use lint free cloth that has been very lightly dampened with detergent and then dry it to wipe.

Installation

- Keep adequate air circulation to prevent device internal overheating. Please do not place the product on the surface of some certain objects (such as blankets, carpets, etc.), as these objects may block the vents.
- Please keep the device away from heat generating sources, such as radiator, heaters and air duct, also keep it away from much dust or mechanical vibration place.

Rack mount Installation

- For rack mount installation, please keep 1U space from both top and bottom to make sure, adequate air circulation, or install an external electric fan. Please follow the instructions and install with the rack mounts provided by manufacturer.

Transportation

- This monitor is precise equipment and need professional packing materials to transport. So do not to use packing materials provided by suppliers except KONVISION or its authorized packing material suppliers.

When the following situations occur, please turn off the power, do not insert the plug and contact a professional service staff to deal with timely.

- A. This product smells smoke and off-flavor.
- B. When this product displays abnormal operating conditions, such as there is no picture or sound.
- C. When any liquid is splashed into the product or product dropped.
- D. When the product soaked or fall into the water.
- E. When the product has been damaged or other damage circumstances.
- F. When the power cord or plug is damaged.

The following does not belong to failures:

1. If the static image displayed too long, it will have residual image, which should be attributed to the characteristics of LCD display but not a failure. Residual image will disappear automatically after a period of time.
2. If this device used in a cold environment, the screen may appear residual image. This is not a product failure, when the monitor temperature changes, screen will return to normal conditions.
3. LCD screen may appear tiny spots (red, blue or green), this is not a fault, LCD screens are manufactured with high precision technology, and a small number of pixels may not be able to show intermittent.
4. Screen and cabinet will become warm gradually during operating.

Features

High Brightness LCD Panel

- High brightness, high contrast, high-speed response and wide viewing angle technology makes the monitor can be used under variety of lighting conditions.

High Brightness Tally Indicator

- The tally function via GPI or LAN port, with three colors red ,green and yellow.

Auto-detection of all color system (PAL, NTSC, SECAM)

- This unit detects the color system automatically.

3D Video Decoder

- Process 3D decoding on VIDEO signals, to realize better reduce cross color.

Motion-Adaptive Interlace to Progressive

- It converts interlaced video to progressive video by motion detection, reduce the serrated image

10BIT Signal Processing

- Signal input, signal processing and image output are 10bit data processing, to ensure the details display of the image.

Support Multiformat SDI Signals

- The SDI interface supports SD-SDI, HD-SDI, dual link HD-SDI and 3G SDI inputs.

Y/C Input

- Decomposition for the luminance signal (Y) and chrominance signals (C) of the video signal can be input through this connector.

SDI Input

- Support multi-format SDI input, SD-SDI, HD-SDI, 3G SDI
- Support SMPTE425M-A/B 4:4:4 signals.

YPbPr Input

- YPbPr video signal (Compatible YCbCr) can be input through this connector.

HDMI/DVI/VGA Input

- HDMI signal can be input via HDMI to DVI-I convertor through DVI connector, DVI signal can be input through DVI connector, VGA signal can be input via VGA to DVI-I convertor through DVI connector.

Signal Source Loop Through

- Signal that linked to the input connector will be enlarged and linked to output connector. SDI reclock loop out ensure the signal without enervation.

PIP/PBP

- Two SDI inputs signals display simultaneously under PIP (picture in picture) and PBP (picture by picture) mode. One SDI input signal can be also displayed with another signal of VIDEO, S-VIDEO, COMPONENT, HDMI simultaneously, and showing two pictures on the screen.

SWAP Function

- In PIP/PBP mode, two pictures can be swapped between each other.

Color Temperature

- Different color temperatures can be selected freely

Image Size Setting

- The display mode is switchable among 16:9, 4:3, full screen, 1:1, and the original image proportion.

Marker Setting

- Show frame borders, center marker, and safety area, etc.

HV Delay

- Display horizontal and vertical blanking area of SDI input signal.

Color Space

- Color space include: Rec 709, EBU, DCI P3 D65, DCI P3, Rec2020, USER. (This function only available to KVM-6X series)

Color Calibration

- This enable to calibrate imported color data of the image being measured by color analyzer. (This function only available to KVM-6X series, specific instructions please contact with the dealer.)

Scan Mode

- Scan mode includes Full Scan, Over Scan, Under Scan. Full scan displays the content of all areas of the input signal. Over scan displays 105% of the area of the input signal. Under scan displays 95% of the area of the input signal.

Part Zoom In

- Zoom in any part of the picture, to watch picture details more clearly, and assist for focus.

Audio level meter (UV+PPM)

- Display the audio level meter (UV+PPM) for SDI embedded audio.

Waveform

- Display input signal waveform and color scope for SDI signal input monitoring. It includes luminance waveform, CbCr waveform. Luminance waveform will mark with red if over the value specified by user.

Focus Assist

- Focus assist is to aid the cameraman focus on the main body by marking the sharpest edge of the image with red.

False Color

- False color can Intuitively observe and calculate illumination level in the image, luminance and illumination values display mapping as luminance level, from darkest to brightest, display blue, cyan, green, yellow, orange and red in turn.

Histogram

- YRGB histogram displays the hue distribution of the entire image under SDI input condition, can intuitively display exposure of the image, display R, G, B 3 channels independently.

Vector scope

- Vector UV analysis for color bar signal input

Over exposure

- Over exposure is to aid the cameraman accurately control the lighting to avoid over exposure by marking the brightness exceeds the user-specified range (95% by default) with the form of covering zebra pattern.

Pixel Measurement

- User can measure any pixel's specific position and RGB value, also can compare the YRGB value between any 2 pixels.

Timecode

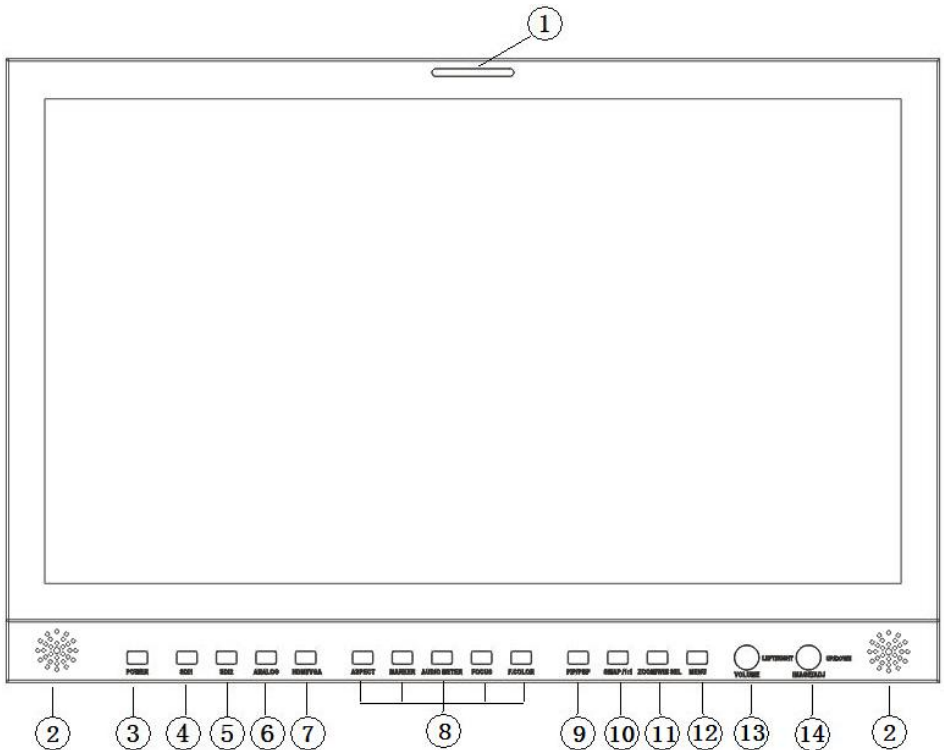
- Display SMPTE timecode (LTC, VITC1, VITC2) under SDI input, it is used for identifying and synchronizing of video data streams.

Remote Control Function

- Available to connect to the remote terminal to operate the equipment directly, select the input signal, longitudinal mode settings and tally indicator, etc.

Parts and Functions

A: Front View



(1) Tally Indicator

There are two method to control the tally indicator

1. GPI port
2. RS422 port: controlled by TSL3.1 or TSL4.0 protocol

(2) Speaker

Stereo audio output.

(3) Power Button and Indicator

When the external AC power supply with electricity, the indicator light is red. Press this POWER button to power on the monitor, and the indicator light turns blue. Press this button for about 2 seconds to turn off the monitor and the indicator light turns red.

(4) SDI1 Button and Indicator

Press this button to select SDI1 signal input, indicator turns blue.

(5) SDI2 Button and Indicator

Press this button to select SDI2 signal input, indicator turns blue.

(6) ANALOG Button and Indicator Light

Press this button to select input signal between YPbPr, Video, S-video, indicator turns blue.

(7) HDMI/VGA Button and Indicator Light

Press this button to select signal input among DVI/HDMI/VGA, indicator turns blue.

(8) F1-F5 Button and Indicator Light

F1-F5 these buttons can be used as shortcut buttons.

Press the F1-F5 buttons to select the corresponding function.

When the set button function item is set to off in the main menu, those buttons are invalid.

F1-F5 These button functions can be set in the menu Function key options.

(9) PIP/PBP Button

Press this button for window layout among single, PIP, PBP mode. In PIP/PBP mode, one of the signals must be SDI1 input, the other can be any of SDI2, HDMI, PC, Video, YPbPr, etc.

(10) SWAP/1:1 Button

At PIP/PBP mode: press this button to swap 2 windows rapidly.

At single mode: press this button to image display at 1:1 pixel to pixel

(11) ZOOM/WIN SEL Button

At single mode: press this button to zoom in

At PIP/PBP mode: press this button to select windows and adjust parameters of selected window.

(12) MENU Button

Press this button to display the OSD menu, and press it again to exit the menu.

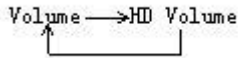
Clear the Marker display.

Clear Display mode.

Turn off the shortcut menu.

(13) VOLUME(LEFT/RIGHT) Knob

When in OSD main menu, press this button to select different main menu items, when in sub-menu, press this button to adjust the parameter of the selected item. When not in OSD menu, press this button for shortcut functions: volume, HD volume.

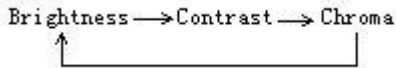


Volume: turn the knob to adjust speaker volume.

HD Volume: turn the knob to adjust headphone volume.

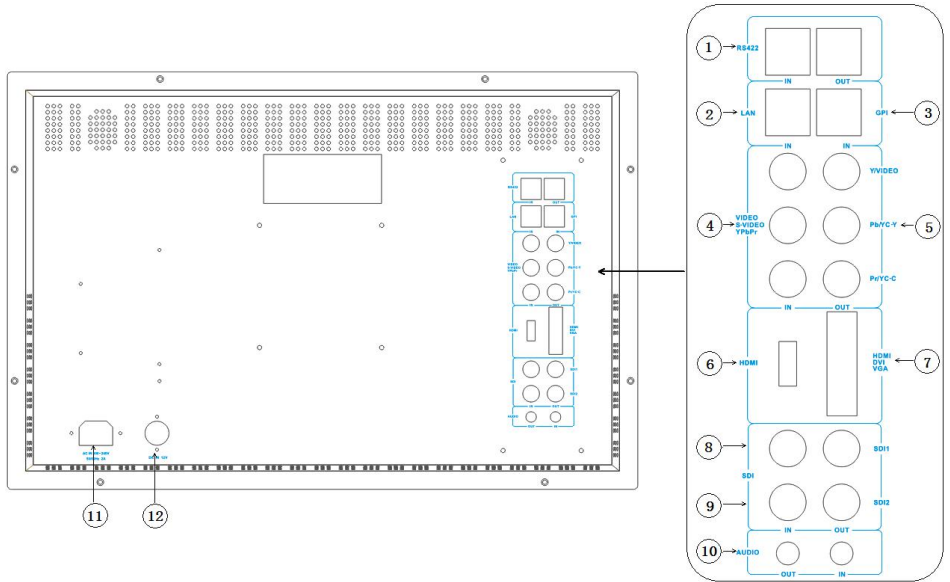
(14) IMAGEADJ(UP/DOWN) Knob

When in OSD main menu, press this button to select different sub-menus. When not in OSD menu, press this button for shortcut functions: Brightness, Contrast and Chroma.



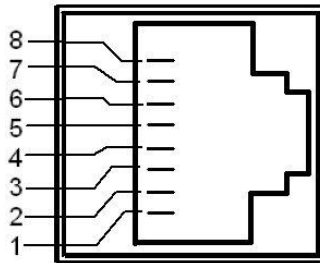
In shortcut functions: Turn the knob to adjust the value of Brightness, Contrast and Chroma respectively.

B: Rear View



(1) RS422 IN and RS422 OUT

RS422 input and output interfaces. RS422 use TSL3.1 or TSL4.0 protocol to control. According to the protocol, it can realize UMD and Tally control.



Pin	RS422 IN Signal name	RS422 OUT Signal name
1	GND	GND
2	GND	GND
3	Tx-	Tx-
4	Rx+	Rx+

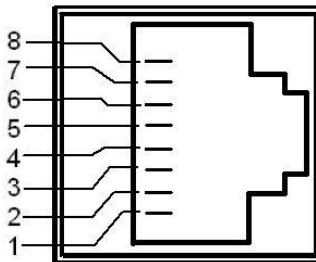
5	Rx-	Rx-
6	Tx+	Tx+
7	NC	NC
8	NC	NC

(2) LAN

Ethernet port for remote network control. Thought this port, along with software “Konvision Device Controller”, you can achieve remote controlling to the monitor easily. (remote control software & instructions please contact with the dealer)

(3) GPI

GPI interface:



Pin	GPI Signal	Description
1	GPI1	when connect GND, GPI1 works, GPI1 function can be set in the menu function option
2	GPI2	when connect GND, GPI2 works, GPI2 function can be set in the menu function option
3	GPI3	when connect GND, GPI3 works, GPI3 function can be set in the menu function option
4	TX	RS232-TX, for MCU program upgrade, please contact the dealer for upgrade operation. When the program is not upgraded, the suspension is not connected.
5	RX	RS232-RX, for MCU program upgrade, please contact

		the dealer for upgrade operation. When the program is not upgraded, the suspension is not connected.
6	GPI4	when connect GND, GPI4 works, GPI4 function can be set in the menu function option
7	NC	Not connect
8	GND	Ground

(4) COMPONENT/VIDEO/YC-IN

Analog video (composite), component (YCbCr,YPbPr, RGB) and S-Video(Y/C) signals input

(5) COMPONENT/VIDEO/YC-OUT

Analog video (composite), component (YCbCr,YPbPr, RGB) and S-Video(Y/C) signals loop through output

(6) HDMI

For HDMI signal input.

(7) HDMI/DVI/VGA

DVI input, support DVI signal, HDMI signal (via HDMI-DVI convertor), and VGA signal (via VGA-DVI convertor)

(8) SDI1 IN/OUT

SDI1 inputs (3G/HD/SD-SDI auto detect), SDI Reclock loop through output, without enervation.

(9) SDI2 IN/OUT

SDI2 inputs (3G/HD/SD-SDI auto detect), SDI Reclock loop through output, without enervation.

(10) AUDIO(IN/OUT)

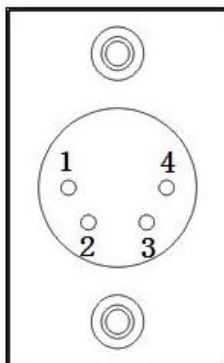
Audio in used for analog signal input, Audio out used for monitoring with 3.5mm earphone.

(11) AC IN

100-240V AC power supply

(12) DC 12V IN

12V DC power supply



The interface pins are defined as:

Pin 1: GND

Pin 2: NC

Pin 3: NC

Pin 4: +12V

OSD Menu

Menu Operation:

1. MENU Button:

Press the Menu button, the main menu will be displayed on the screen, and press the MENU button again to exit the menu.

When in sub-menu, press the MENU button to return to previous menu.

When in setting option, press the MENU button to return to exit.

2. IMAGEADJ(UP/DOWN) Knob:

In the main menu or sub-menu, turn the VOLUME knob to select different items.

3. VOLUME(LEFT/RIGHT) Knob:

In the main menu, turn the VOLUME (right) knob to enter the sub-menu.

In the sub-menu, turn VOLUME (right/left) knob to select the sub-menu item operation.

Menu Item Description

1. Main Menu:

Main menu	Menu item
Status	1
Function Key	1
Picture	1
Image	1
Audio	1
Marker	1
Scope	1
Embedded code	1
Layout	1
IMD	1
Alarm	1
Setup	1
Key Lock	1

2. Sub Menu:

Status:

Main Menu	Status	
Status	Source&Format	SDI1 1920x1080I50
Function Key	Fh	28121Hz
Picture	Fv	50Hz
Image	Color Temp	6500
Audio	Color Space	Rec 709
Marker	Image Size	FILL ASPECT
Scope	Scan Mode	100% Scan
Embedded code	Screen Saver	YES
Layout	Power Saving	YES
IMD	MCU Firmwave Version	XSDIM A Jun 10 2017
Alarm	DSP Firmwave Version	7-0-19-2
Setup		
Key Lock		

Status	
Menu item	Description
Source & Format	Current window input signal and resolution
Fh	The line frequency of the current window input signal
Fv	The field frequency of the current window input signal
Color Temp	The current color temperature
Color Space	The current color space
Image Size	The image size of the current window input signal
Scan Mode	The signal scan mode of the current window input signal
Screen Saver	System screen saver status
Power Saving	System power saving mode status
MCU Firmwave Version	CPU software version
DSP Firmwave Version	DSP software version

Function Key:

Main Menu	Function Key	Function Key
Status	F1	Image Size
Function Key	F2	Marker Enable
Picture	F3	Audio Level Meter
Image	F4	TimeCode Display
Audio	F5	Waveform Mode
Marker	GPI1	Blue Mode
Scope	GPI2	Red TALLY
Embedded code	GPI3	Green TALLY
Layout	GPI4	Marker Enable
IMD		
Alarm		
Setup		
Key Lock		

Function Key		
Menu item	Setting	Description
F1	Image Size No Definition Static frame Time Code Display Audio Level Meter Waveform Mode Vector Focus Assist Pixel Measurement False Color Zebra Histogram Picture Flip Fast Mode	The Function keys can be set to the following functions: Image Size, No Definition, static frame, Time Code Display, Audio Level Meter, Waveform Mode, Vector, Focus Assist, Pixel Measurement, False Color, Zebra, Histogram, Picture Flip, Fast Mode, Blue Mode, Gray Mode, Marker Setting. (Note: Black stretch: When the function key is set to black stretch, press the function key to increase the brightness of the low-brightness part of the screen.)

	Blue Mode Gray Mode Marker Setting Black stretch	
F2	Same as above	Same as above
F3	Same as above	Same as above
F4	Same as above	Same as above
F5	Same as above	Same as above
GPI1	Blue Mode Image Size Marker Display No Definition Red TALLY Green TALLY Yellow TALLY SDI1 SDI2 HDMI DVI VGA YPbPr Video S-Video	Can be set to the following functions: Blue Mode, Image Size, Marker Display, No Definition, Red TALLY, Green TALLY, Yellow TALLY, TALLYSDI1, SDI2, HDMI, DVI, VGA, YPbPr, Video, S-Video
GPI2	Same as above	Same as above
GPI3	Same as above	Same as above
GPI4	Same as above	Same as above

Picture:

Main Menu	Picture	
Status	Backlight	013
Function Key	Data Levels	Limit(64-940)
Picture	Brightness	050
Image	Contrast	059
Audio	Sharpness	007
Marker	Colour	050
Scope	Hue	050
Embedded code	Colour Temp	6500K
Layout		
IMD		
Alarm		
Setup		
Key Lock		

Picture		
Menu item	Setting	Description
Backlight	0-100	Backlight Adjustment
Data Levels	Limit (64-940)	Select Limit (64-940), video level
	Extend (64-1023)	Select Extend (64-1023), ultra-white
	Full (0-1023)	Select Full (0-1023), full data level
	Custom	Custom is for user definition
Brightness	0-100	Brightness Adjustment
Contrast	0-100	Contrast Adjustment
Sharpness	0-15	Sharpness Adjustment
Colour	0-100	Saturation Adjustment
Hue	0-100	Color Adjustment
Colour Temp	5600K	Three modes of the fixed color temperatures selection (5600K, 6500K,
	6500K	

	<p>9300K</p> <p>Custom:</p> <p>Red Gain 0-255</p> <p>Green Gain 0-255</p> <p>Blue Gain 0-255</p> <p>Red offset 0-255</p> <p>Green offset 0-255</p> <p>Blue offset 0-255</p>	<p>9300K) and a custom selection.</p> <p>"Custom" is for user definition, to adjust the gain value and offset value of Red, Green and Blue. It will save the color temperature setting automatically.</p>
--	---	---

Image:

Main Menu	Image
Status	Image Size FILL ASPECT
Function Key	Scan Mode 100%Scan
Picture	Part Zoom in <Right>Enter,<ZOOM>Part Zoom in
Image	Gray Mode OFF
Audio	Blue Mode OFF
Marker	Fast Mode OFF
Scope	H/V Delay OFF
Embedded code	Log Mode OFF
Layout	ColorSpace Rec 709(Gamma2.4)
IMD	Start Color Correction <Right>to start color Correction
Alarm	
Setup	
Key Lock	

Image		
Menu item	Setting	Description
Image Size	FILL ASPECT	Original ratio of the signal source
	Full Screen	Full screen image
	1: 1	At 1:1 pixel-to-pixel display. It is invalid in PIP sub-screen and PBP mode.
	16: 9	16:9 aspect ratio

	4: 3	4:3 aspect ratio
Scan Mode	100% Scan Over Scan 5% Under Scan 5%	100% Image display 105% Image display 95% image display
Part Zoom in	<Right>Enter, <PIP>Part Zoom in	Zoom in any part of the picture, to watch picture details more clearly, and assist for focus.
Gray Mode	On Off	Monochrome mode with black and white image
Blue Mode	On Off	Display in Blue only
Fast Mode	On Off	Interlace scan without converting into progressive scan
H/V Delay	On Off	Display horizontal & vertical blanking area of SDI input signal
Gamma Mode	Turn off Gamma 2.0 Gamma 2.2 Gamma 2.4 Gamma 2.6 Rec.2100 HLG 1.0 Rec.2100 HLG 1.1 Rec.2100 HLG 1.2 Rec.2100 HLG 1.3 Rec.2100 HLG 1.4 Rec.2100 HLG 1.5 ST2084 PQ	Users can choose different Gamma or turn it off (this function only available to KVM-6X series)

	<p>S-Log3 (HDR) Slog (SDR) Slog2 (SDR) Slog3 (SDR)</p>	
Color Space	<p>Bypass Rec 709 EBU DCI P3 D65 DCI P3 Rec2020 USER1 USER2</p>	<p>Color Space Choose Bypass Color Space Choose Rec709 Color Space Choose EBU Color Space Choose DCI P3 D65 Color Space Choose DCI P3 Color Space Choose Rec2020 Color Space Choose User1 Color Space Choose User2 (Remark: 1. KVM-5X series only support Rec709 and Bypass. 2. User1 and user2 option, support user loads their own LUT table, store in there, specific instructions please contact with the dealer)</p>
Start Color Correction	<p><Right> to start color Correction</p>	<p>In the menu of Color calibration, press right key to start color calibration, must connect with color</p>

		<p>analyzer to start color calibration.</p> <p>Notice: restart the monitor to back from color calibration function when misled to the function.</p>
--	--	---

Audio:

Main Menu	Audio	
Status	Volume	50
Function Key	Headphone Volume	50
Picture	Audio Out Channel	CH1&CH2
Image	Audio Level Meter	OFF
Audio	Audio Display Channels	1-2Channels
Marker	Audio Display Mode	Vertical
Scope	Audio Phase Meter	OFF
Embedded code	Audio Phase Channel	CH1&CH2
Layout		
IMD		
Alarm		
Setup		
Key Lock		

Audio		
Menu item	Setting	Description
Volume	0–100	Speaker volume adjustment
Headphone Volume	0–100	Headphone volume adjustment
Audio Out Mode (only for SDI and HDMI/DVI signal)	Normal Left Channel Mute Right Channel Mute	Left and right channel out normal Left channel mute, just out the right channel Right channel mute, just out

		the left channel
Audio Out Channel (only for SDI/HDMI/DVI signal)	CH1&CH2 CH3&CH4 CH5&CH6 CH7&CH8	When in SDI Signal: SDI embedded audio select in CH1&CH2、CH3&CH4、CH5&CH6、CH7&CH8. When in HDMI Signal: HDMI embedded audio selects in CH1&CH2.
Audio Level Meter (only for SDI/HDMI/DVI signal)	On Off	Turn on/off audio level meter display
Audio Display Channels (only for SDI/HDMI/DVI signal)	1-4 Channel 1-8 Channel 1-16 Channel 9-16 Channel 1-2 Channel (Only HDMI signal)	When in SDI Signal: 1-4 channels: 1-4 channels are displayed horizontally or vertically on the left side of the screen. 1-8 channels: 1-8 channels are displayed horizontally or vertically on the left side of the screen. 1-16 channels: 1-8 channels are displayed horizontally or vertically on the left side of the screen. 9-16 channels are displayed horizontally or vertically on the left side of the screen. When in HDMI Signal: Only displayed 1-2 channel

		horizontally or vertically on the left side of the screen.
Audio Display Mode (only for SDI/HDMI/DVI signal)	Horizontal Vertical	Audio level meter display horizontal/vertical
Audio Phase Meter (only for SDI/HDMI/DVI signal)	ON OFF	Turn on/off Audio Phase Meter display
Audio Phase Channel (only for SDI/HDMI/DVI signal)	CH1&CH2 CH3&CH4 CH5&CH6 CH7&CH8	When in SDI Signal: SDI Audio Phase Channel can be selected in CH1&CH2 、 CH3&CH4 、 CH5&CH6、 CH7&CH8. When in HDMI Signal: HDMI Audio Phase Channel only can be selected in CH1&CH2.

Marker:

Main Menu	Marker Setting	
Status	Marker Enable	OFF
Function Key	Marker Select	4:3
Picture	Target Marker	Center
Image	Safety Area	OFF
Audio	Marker Level	Middle
Marker	Marker Mat	Translucency
Scope		
Embedded code		
Layout		
IMD		
Alarm		
Setup		
Key Lock		

Marker Setting		
Menu item	Setting	Description
Marker Enable	ON	All markers on
	OFF	All markers off
Marker Select	OFF	NO marker displays
	4:3	Marker display 4:3
	16:9	Marker display 16:9
	15:9	Marker display 15:9
	14:9	Marker display 14:9
	13:9	Marker display 13:9
	1.85:1	Marker display 1.85:1
2.35:1	Marker display 2.35:1	
Target Marker	ON	Turn on target marker
	OFF	Turn on center mark
	USER	Turn on user target tag
Safety Area	OFF	No Safety Area display
	80%	80% Safety Area display

	85% 88% 90% 93%	85% Safety Area display 88% Safety Area display 90% Safety Area display 93% Safety Area display
Marker Level	White Gray Black	Marker line is white Marker line is gray Marker line is black
Marker Mat	OFF Gray Black Half Transparency	Turn off Fill up the background beyond marker Background beyond marker is gray Background beyond marker is black Background beyond marker is half transparent

Scope:

Main Menu	Scope	
Status	Waveform Mode	OFF
Function Key	Waveform Alarm	100%
Picture	Waveform Scale	Digital
Image	Histogram Mode	OFF
Audio	Vector	OFF
Marker	Vector Scale	100%
Scope	Zebra	OFF
Embedded code	Zebra Level	95%
Layout	Pixel Measure	OFF
IMD	False Color	OFF
Alarm	focus Assist	OFF
Setup	Focus Gain	25
Key Lock	Focus Color	RED
	H Flip	OFF

Scope (only for SDI/HDMI/DVI signal)		
Menu item	Setting	Description
Waveform Mode	OFF LUMA YUV FULL LUMA	Turn off the waveform mode Display Y(luminance) waveform Display YCbCr waveform Display Y (luminance) waveform, one-to-one correspondence between its horizontal coordinates and image horizontal coordinates
Waveform Alarm	84%-100%	Waveform alarm can be set at any percentage between 84%-100%, it will alarm when measured waveform reach or exceed the value you set and mark them with red

Waveform Scale	Digital IRE	Display in digital Display in percentage of luminance
Histogram Mode	OFF LUMA RGB	Turn off the histogram mode Display luminance histogram Display R G B histogram
Vector	ON OFF	Turn on/off vector
Vector Scale	100% 75%	Vector 100% display Vector zoom out to 75% display
Zebra	ON OFF	Turn on/off zebra
Zebra Level	84%-100%	Zebra level can be set at any percentage between 84%-100%, it will alarm when measured luminance reach or exceed the value you set and overlay display with red zebra stripes
Pixel Measure	ON OFF	Turn on/off pixel measure
False Color	ON OFF	Turn on/off false color
Focus Assist	ON OFF	Turn on/off focus assist
Focus Gain	0-31	Focus gainadjustment0-31
Focus Color	Red Green Blue White	Focus color use Red Focus color use Green Focus color use Blue Focus color use White

H Flip	ON	Turn on/off Horizontal flip
	OFF	

Embedded code:

Main Menu	Embedded code	
Status	TimeCode Display	OFF
Function Key	TimeCode Mode	LTC
Picture		
Image		
Audio		
Marker		
Scope		
Embedded code		
Layout		
IMD		
Alarm		
Setup		
Key Lock		

Embedded code (only for SDI signal)		
Menu item	Setting	Description
Time Code Display	ON OFF	Turn on/off Time code
Time Code Mode	LTC VITC1 VITC2	Time code display as LTC mode Time code display as VITC1 Time code display as VITC2

Layout:

Main Menu	Layout	
Status	Layout	Single
Function Key	Main Window Source	SDI1
Picture	Current Source Rename	SDI1
Image		
Audio		
Marker		
Scope		
Embedded code		
Layout		
IMD		
Alarm		
Setup		
Key Lock		

Layout		
Menu item	Setting	Description
Layout	Single	Display only a single signal picture on screen
	PIP	Display two signals pictures simultaneously on screen, the sub picture in the main picture.
	Side by Side	Display two signals pictures side-by-side simultaneously on screen, the sub picture at the right side of the main picture. Note: In PIP/PBP mode, one of the signals must be SDI1, the other signal is any of other input signals.

		Can display 2 SDI simultaneously.
Main Window Source	Video S-Video YPbPr SDI1 SDI2 VGA HDMI DVI	Main Window select signal input among Video/ S-Video/ YPbPr/ SDI1/SDI2/VGA/ HDMI (Note: YPbPr is compatible with RGB, YCbCr, YPbPr)
Second Window Source (this item shows in PIP/PBP)	Video S-Video YPbPr SDI1 SDI2 VGA HDMI DVi	Second Window select signal input among Video/ S-Video/ YPbPr / SDI1/SDI2/ VGA/HDMI/DVI (Note: YPbPr is compatible with RGB, YCbCr, YPbPr)
PIP Size (this item shows in PIP mode)	Large Middle Small	The second window is Large size The second window is medium size The second window is small size
PIP position (this item shows in PIP mode)	Left Top Right Top Center	The second window in the left-top corner of screen. The second window in the right-top corner. The second window in the

	Right Bottom Left Bottom Custom	center. The second window in the right-bottom corner. The second window in the left-bottom corner. The second window is adjusted by user When the user selects this option, it will automatically pop up at the following "horizontal position" and "vertical position" menu items
H Position (this item shows when PIP position selects "Custom")	0—100	Horizontal position adjustment of picture-in-picture's second window
V Position (this item shows when PIP position selects "Custom")	0—100	Vertical position adjustment of picture-in-picture's second window
Alpha Blend (this item shows in PIP mode)	0—100	Adjustment of PIP's second window and the main window alpha blend degrees. When the value is 0, the second window is translucent blend with the main window; when the value is 100, the second window blend directly to the main screen.

Swap (this item shows in PIP/PBP mode)	<Right> to swap two windows	In PIP and PBP, turn right the VOLUME knob to swap the signal pictures between two windows (main window and second window).
Current Source Rename	xxxxxxx	The current signal rename display characters can be arbitrarily set in 8 "xxxxxxx". The setting process: Select the option to the character option, press the VOLUME (LEFT / RIGHT) knob, the option is displayed as "xxxxxxx ok", and the first character becomes red, the user can rotate VOLUME (LEFT / RIGHT) Button to select the desired character. After the first bit is finished, press the VOLUME (LEFT / RIGHT) knob, the second character will be skipped, the second character will be red, and the VOLUME (LEFT / RIGHT) Select the desired character, and so on, the eighth character selection, when the eighth character selection is good, press the

		<p>VOLUME (LEFT / RIGHT) knob, then "ok" will turn red, rotate VOLUME (LEFT / RIGHT) Knob to "ok" will turn yellow, then press the MENU button to save the exit can be completed UMD main screen character settings. In the setting, only the character "ok" for the yellow state press the MENU button to exit will make the previous character settings saved successfully. If you do not change the "ok" character from red to yellow and press MENU to exit, the previously set characters are not saved.</p>
--	--	--

IMD:

Main Menu	IMD	
Status	UMD Display	OFF
Function Key	UMD ID	128
Picture	UMD Position	Bottom Center
Image	UMD Local Color	GREEN
Audio	UMD Main Window Char	UMD-WINO
Marker	UMD Second Window Char	UMD-WIN1
Scope	UMD PROTOCOL	TSL 3.1
Embedded code	OSD Tally Mode	RG
Layout	LED Tally	OFF
IMD	LED Tally Source	GPI
Alarm		
Setup		
Key Lock		

IMD		
Menu item	Setting	Description
UMD Display	ON OFF	Turn on/off the UMD display
UMD ID	128-255	UMD ID can be set any value from 128-255. It can be used for multidevice cascading, set different UMD ID for different devices. In remote control situation, this function can be used for distinguishing different devices so as to remote control different devices.
UMD Position	Top Left Top Center	UMD display at Top Left UMD display at Top Center

	Bottom Center Bottom Right	UMD display at Bottom Center UMD display at Bottom Right
UMD Local Color	GREEN RED White	UMD character display in green UMD character display in red UMD character display in white
UMD Main Window Char	xxxxxxxx	It can be set any character in "xxxxxxxx".Setup process: Select the UMD Main Window item, press VOLUME knob, it shows "xxxxxxxx ok", meanwhile, the first character becomes red, user can select the character you need by rotating the VOLUME knob (Left/Right), press the VOLUME knob after finishing first character, it will turn to the second character, select the character you need same as first character, it's also applied to other characters. After finishing selecting the 8 th character, press the

		VOLUME knob, the “ok” will turn red, rotate the VOLUME knob to make the “ok” turn yellow, press MENU to save and exit. Only the “ok” turn yellow, it will save successfully when press MENU, otherwise, it will not save.
UMD Second Window Char (this item shows in PIP/PBP mode)	xxxxxxx	Setting is same as UMD Main Window Char.
UMD PROTOCOL	TSL3.1 TSL4.0 TSL5.0	Select TSL3.1 Select TSL4.0 Select TSL5.0
OSD Tally Mode	OFF RG GR RGY	Turn off OSD Tally OSD Tally select RG mode OSD Tally select GR mode OSD Tally select RGY mode
LED Tally	ON OFF	Turn on/off the LED Tally
LED Tally Source	GPI TSL	Select GPI control Select TSL protocol control

Alarm:

Main Menu	Alarm	
Status	Alarm Display	OFF
Function Key	No Signal Alarm	OFF
Picture	Black Frame Alarm	OFF
Image	Static Frame Alarm	OFF
Audio	Audio Mute Alarm	OFF
Marker	Audio Level High Alarm	OFF
Scope	Audio Level Low Alarm	OFF
Embedded code	EDH Error Alarm	OFF
Layout	CRC Error Alarm	OFF
IMD		
Alarm		
Setup		
Key Lock		

Alarm		
Menu item	Setting	Description
Alarm Display	Off On	Turn off/on the alarm display
No Signal Alarm	Off On	Turn off/on the signal alarm
Black Frame Alarm	Off On	Turn off/on the black frame alarm
Static Frame Alarm	Off On	Turn off/on the static frame alarm
Audio Mute Alarm	Off On	Turn off/on the audio mute alarm
Audio Level High Alarm	Off On	Turn off/on the audio level high alarm
Audio Level Low Alarm	Off On	Turn off/on the audio level low alarm
EDH Error Alarm	Off	Turn off/on the EDH error

	On	alarm
CRC Error Alarm	Off	Turn off/on the CRC error
	On	alarm

Setup:

Main Menu	Setup
Status	Language English
Function Key	OSD Settings =>
Picture	Format Display Auto
Image	Power Saving ON
Audio	Screen Saver ON
Marker	Factory Reset <Right>to Factory Reset
Scope	
Embedded code	
Layout	
IMD	
Alarm	
Setup	
Key Lock	

Setup		
Menu item	Setting	Description
Language	Chinese English	Select Chinese/English in menu
OSD Settings	0-100	Menu background from opaque to completely transparent selection
	1-30	Menu disappear time when no button operation
	0-100	Menu horizontal position
	0-100	adjust

		Menu vertical position adjust
Format Display	OFF ON Auto	Turn off the display info of signal format. Turn on the display info of signal format. Automatically display info of signal format when signal changes, disappear after 4s.
Power Saving	ON OFF	Enter power-saving mode, the system will switch off some functions when the main input is without signal more than 10 minutes. This feature is invalid in PIP/PBP status.
Screen Saver	ON OFF	The system will enter screen saver mode when the main input is without signal. This feature is invalid in PIP/PBP status.
Factory Reset	<Right> to Factory Reset	Turn right the VOLUME knob, the system restore to factory setting

Key Lock:

Main Menu	Key Lock	
Status	Key Lock	OFF
Function Key		
Picture		
Image		
Audio		
Marker		
Scope		
Embedded code		
Layout		
IMD		
Alarm		
Setup		
Key Lock		

Key Lock		
Menu item	Setting	Description
Key Lock	OFF	Key Lock Off
	ON	When the key lock is turn on, only MENU and VOLUME(LEFT/RIGHT) knob, IMAGEADJ(UP/DOWN) knob can be operate, the rest cannot.

3. Function Key

Function Key		
F1	Image Size	FILL ASPECT
F2	Marker Enable	OFF
F3	Audio Level Meter	OFF
F4	TimeCode Display	OFF
F5	Waveform Mode	OFF

Function Key		
Shortcut Menu	Set up	Setting Description
F1	Press main menu Function key to set	Press main menu Function key to set
F2	Press main menu Function key to set	Press main menu Function key to set
F3	Press main menu Function key to set	Press main menu Function key to set
F4	Press main menu Function key to set	Press main menu Function key to set
F5	Press main menu Function key to set	Press main menu Function key to set

Function Key Menu Operation Instructions:

The Function key function can be set in the main menu. Press the function key to call up the function key menu and press the function key again to turn on / off the function. In the function key menu, use the IMAGEADJ (UP / DOWN) knob, you can also select the function key up / down. If the function key function contains a variety of modes, use the VOLUME (LEFT / RIGHT) knob, you can also quickly select the included other functions. For example, the F1 function key function on the figure is the image size, and the image size includes the following functions: original ratio, full screen, 1: 1, 16: 9, 4: 3 mode, use VOLUME (LEFT / RIGHT) You can quickly select the original ratio, full screen, 1: 1, 16: 9, 4: 3 in the Function key menu.

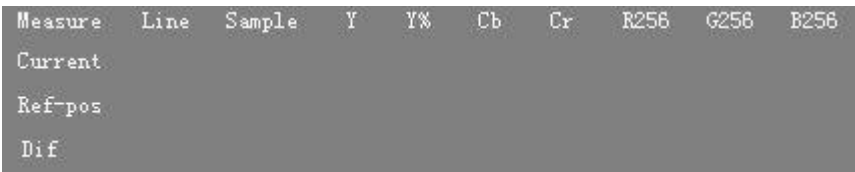
Dual picture operation:

Continuous press PIP / PBP button, you can quickly from single-picture and dual-picture by the fast switch. In the dual picture, press the SWAP key, you can quickly exchange the left and right pictures. In the dual picture, press the WIN SEL button, you can select the picture window, at the same time, the selected window, you can also adjust the parameters alone, does not affect the other picture.

Pixel Measurements Operating Instructions:

When you enter the pixel measurement function, rotate the VOLUME (LEFT / RIGHT) knob left / right or IMAGEADJ (UP / DOWN) knob up / down function, you can measure the large cross of the pixel measurement to move, you can measure any pixel Position and R, G, B values.

Use the pixel measurement function to compare two pixel contrast: When entering the pixel measurement function, rotate the VOLUME (LEFT / RIGHT) knob left / right or IMAGEADJ (UP / DOWN) knob up / down function to move the big cross to the first pixel , Press the VOLUME (LEFT / RIGHT) knob or the switch function of the IMAGEADJ (UP / DOWN) knob to mark the first pixel, and the pixel is marked with a small cross mark and then rotated VOLUME (LEFT / RIGHT) Knob on the left / right or IMAGEADJ (UP / DOWN) knob up / down function, then the operation will continue to move with a large cross, when the big cross standard to move you to the need to compare another pixel, You can compare the difference between the current pixel and the previous marker pixel.



Measure: Measure

Current: Current pixel

Ref-pos: Previous markup pixels

Diff: The difference between the current pixel and the previous pixel

Line: The vertical position of the pixel

Sample: The horizontal position of the pixel

Y: The Y component value of the pixel (range between 0-1023)

Y%: The percentage of the Y component of the pixel relative to the maximum, i.e., (Y component value / 256) * 100%

Cb: The blue chroma component of the pixel

Cr: The red color component of the pixel

R: The red component value of the pixel (range between 0-255)

G: The green component value of the pixel (range between 0-255)

B: The blue component value of the pixel (range between 0-255)

SDI 2K Signal Display Description

SDI in the 2K signal, the signal beyond the screen display, so look at the part of the image, you need the following operations:

- 1, Press the SWAP / 1: 1 button, the image is set to 1: 1 display.
- 2, Rotate the VOLUME (LEFT / RIGHT) knob, you can move the screen left and right, so you can view the screen beyond the screen display.

Factory Reset

This function is to reset the monitor to factory preset.

Please try to reset the monitor, when the following situations occur:

1. The monitor parameters are adjusted incorrect by user.
2. The monitor picture or sound is abnormal, and not due to hardware problem.

To do factory reset, please follow the below five steps:

Main Menu	Setup
Status	Language English
Function Key	OSD Settings =>
Picture	Format Display Auto
Image	Power Saving ON
Audio	Screen Saver ON
Marker	Factory Reset <Right>to Factory Reset
Scope	
Embedded code	
Layout	
IMD	
Alarm	
Setup	
Key Lock	

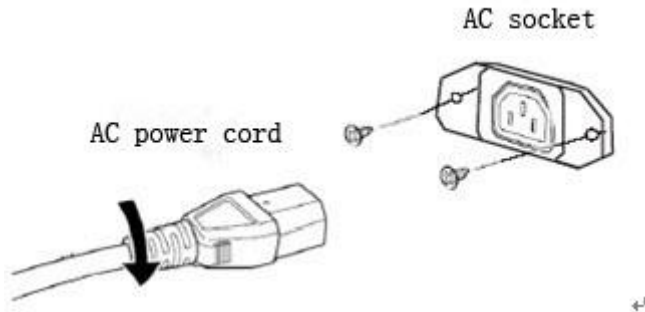
1. Press MENU button to enter main menu.
2. Turn VOLUME knob to item Setup and select it.
3. Turn IMAGE ADJ knob to Factory Reset and select it.
4. The screen will refresh after following the instruction of turning the VOLUME knob.
5. Power off the monitor, and must wait for at least 5 seconds, then restart the monitor.
The monitor resets to factory preset.

Remote Control

Remote control the monitor through Ethernet:

1. Connected with monitor via LAN, and you can achieve remote controlling by software "Konvision Device Controller".(Network remote control software and instructions please contact with the dealer)
2. The LAN cable should be parallel connection for both two ends, for example 568B LAN cable, with pin definition:
orange-white, orange, green-white, blue, blue-white, green, brown-white, brown.

AC Power Supply Connection



- Note:** 1) Please hold the plug tight when you pull out the power cord.
2) Please do not connect the power supply before you insert the cable well.
3) Please use power cord match to monitors.

Warranty Card

User		Tel		Postal Code	
Address					
Product Model			Serial Number		
Dealer			Purchase Date		

Maintenance Record

Date	Contents of Reparation	Replacement parts		Repairer	User Signature
		Name	Qty		

This warranty card should be filled in immediately when purchasing

Please keep a proper record of this warranty card.

As the continuous improvement of the products, this will subject to change without notice

All contents on this data have been carefully checked, if there is any printing errors & omissions or any misunderstanding, our Company reserves the right of interpretation.