Operating Instructions
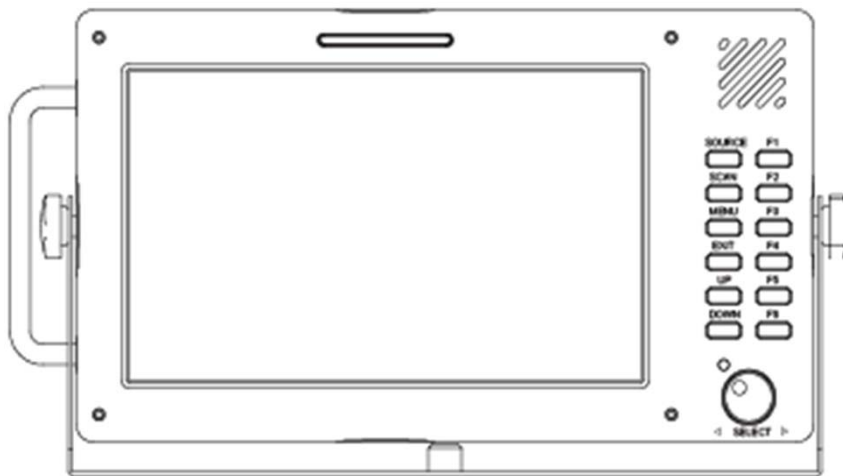
Broadcasting Monitor User guide

ViewZ

Monitor Operation Manual V1.3

VZ-070-TBBSV

VZ-070-TSBSV

3G

Contents

Caution

■ Caution

It is highly recommended to read and understand the cautions listed below thoroughly before you start using the product. And if you are unclear with any parts of the cautions or have questions, please contact us.

- ■ Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

- ■ WARNING – TO PREVENT FIRE OR SHOCK HAZARD DO NOT EXPOSE THE SET TO RAIN OR MOISTURE.

- ■ "IMPORTANT SAFETY INSTRUCTIONS"
  - □ Read these instructions
  - □ Keep these instructions
  - □ Heed all warnings
  - □ Follow all instructions
  - □ Do not use this apparatus near water
  - □ Clean only with a dry cloth
  - □ Do not block any of the ventilation openings. Install in accordance with he manufacturer's instructions
  - □ Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
  - □ Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet
  - □ Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus
  - □ Only use the attachments/accessories specified by the manufacturer.
  - □ Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

  - □ Unplug this apparatus during lightning storms or when unused for long periods of time
  - □ Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
  - □ The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus
  - □ Shall be connected to a MAINS socket outlet with a protective earthing Connection
  - □ The disconnect device shall remain readily operable
  - □ The socket-outlet shall be installed near the equipment and shall be easily accessible

■ Explanation of Safety Related Symbols

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION : TO REDUCE THE RISK OF
ELECTRIC SHOCK, DO NOT
REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS
INSIDE. REFER SERVICING TO
QUALIFIED SERVICE PERSONNEL.
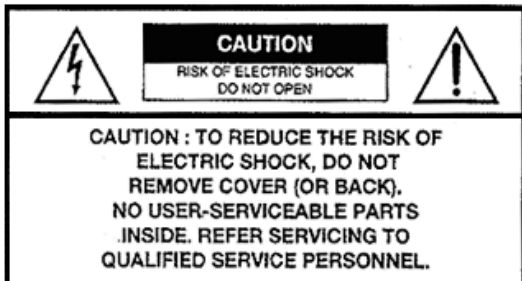
This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

■ Manual contents are subject to change without notice

4

Product Features

■ **Product Features**

Integrated Converter
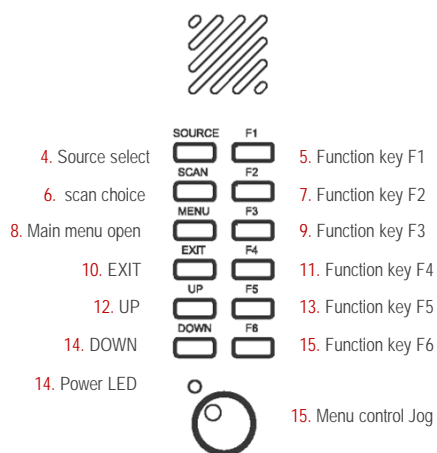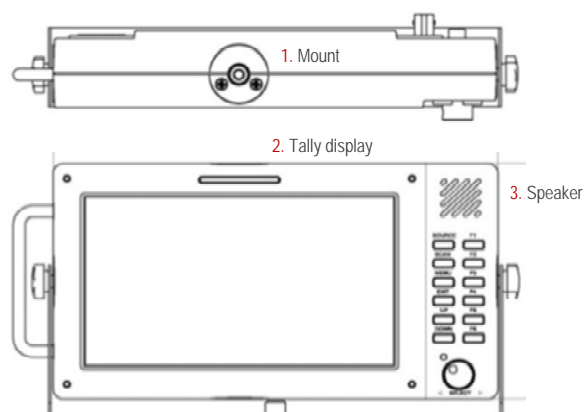Integrated active SDI-HDMI and HDMI-SDI converter allows the transparent conversion of HD to HDMI signal or conversion of HDMI back to HD format

Multi-Format Signal
ViewZ monitors are compatible with various sources including
- HDMI (compatible with DVI)
- SDI signals: 3G(425A/B), HD, SD
- CVBS(composite) and YPbPr(component)

3G-SDI: 3Gb/sec 4:4:4 HD
SMPTE 425 compliant HD display that supports frame rates of 50.60 in 1080p, 1080i, and 720p

SDI-HDMI Loop Through
Supports full SMPTE 425 signal conversion transparency from SDI to HDMI with test and measurement overlays

12Bit Internal Processing
Allows for color temperature and gamma encoding changes to be implemented quickly. Active Video Looping supports full 1080p/60 frames on the HDMI output

2K Input Capability
2k content can be displayed on ViewZ monitors without the loss of HD signal by converting and downscaling the content

Peaking / Focus Assist
Peaking filter shows if the image is out of focus in difficult wide full range DSLR shots by highlighting areas that are out of focus with a cross stripe pattern

DSLR Scaling
Actively scales live video images to reduce the black areas of the screen to allow for a ful screen 16:9 image

False Colors Filter
Color filtering allows users to display different areas of the images as different colors to set portions of the scene as over or under exposed

Under Monitor Display
UMD function displays ancilliary data at the bottom of the screen

Menu Jog Congrol
Jog dial on the front of the monitor enables users to control all features

Waveform Monitor
Onscreen display of video levels with respect to time, used to calibrate multiple camera setups and vertical blanking level and color burst

Vector Scope Monitor
On-screen display of chrominance information in Cb and Cr channels. Display can be opaque or solid against the visual display

Pixel to Pixel Mapping
1:1 pixel mode displays the original image resolution without scaling to match a certain resolution or an aspect ratio

De-Embedded Audio Level Meter
De-embedded audio selected out. Auto sensing to display three range meter of up to 16 ch

Aspect Format Markers
4:3, 14:9, 15:9, 16:9 etc. area, line, safety, center markers display

Gamma Encoding Select
Range from 1.0 to 3.0 users selectable. Factory default setting is 2.8

Time Code
Time code reader displays embedded LTC or VITC formats

H/V Delay
View the blanking area and syncronize signals by displaying the horizontal and vertical intervals in the center of the screen

RJ-45 Remote Control
Plug in your RJ-45 connector to the back of the monitor and communicate with other ViewZ monitors (RS-485 control / Tally Light Control)

* Does not support P.O.E.

Monitor View

■ Exterior Information

VZ-070XXXXX

monitor 221.5 x 126 (mm)   **Stand** 221.5 x 136 (mm)

Front

1. Mount

2. Tally display

3. Speaker

4. Source select
6. scan choice
8. Main menu open
10. EXIT
12. UP
14. DOWN
14. Power LED

5. Function key F1
7. Function key F2
9. Function key F3
11. Function key F4
13. Function key F5
15. Function key F6

15. Menu control Jog

Rear

1. Component [Pr], CVBS 3 in
3. Component [Pb], CVBS 2 in
5. Component [Y], CVBS 1 in
7. Audio in L
9. PC Audio in
11. HDMI in

2. SDI signal in
4. SDI signal out
6. Composite out
8. Audio in R
10. PC Audio out
12. HDMI out

13. V mount

14. RS-485 IN
15. RS-485 OUT
16. DC 12V Power in
17. XLR Power in
18. On/Off switch

6

Initial Setup

■ First Steps

When the monitor is powered on and connected to your source,

1	Selecting Input
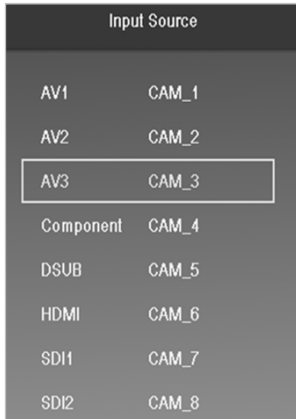
- To select your source, please press **SOURCE** button

- Turn the main **jog** to make your choice, and click the jog to select

- **Factory default is HDMI**. Please skip this step if you are connected to HDMI source

Input Source

AV1	CAM_1
AV2	CAM_2
AV3	CAM_3
Component	CAM_4
DSUB	CAM_5
HDMI	CAM_6
SDI1	CAM_7
SDI2	CAM_8

2	Menu Control

- Press the main jog on the front of the monitor for 2 seconds to enter or exit the menu

- Turn the jog to move around the menu

- Click the jog to make your selection

- Main jog allows users to move one step at a time. If you wish to move back to previous step in the menu, press the jog for two seconds. If you want to exit the menu and restart, press exit button depending on where you are in menu tree

- If you click the jog without entering the main menu, brightness, contrast, color, and volume control will be available. For an example, click the jog 2 times to control contrst and 4 times to change **volume**

3	Function key

Factory default setting for programmable keys on the front of the monitor

VZ-070XXXXX

F1	Blue/Mono	F2	H/V Delay
F3	Max Bright	F4	SDI Output
F5	HDMI Output	F6	Aspect

- Users can program 6 function buttons on the front by

MENU	▶	**Function Key**	▶	**Function Key #**

- All featuress in the monitor can be programmed in one of these six keys

Basic Information

■ Display information

  ■ Settings you have entered are displayed on the screen with graphs and texts.

1	2	3	4	5
Audio Level meter [Left]	Center Maker	Tally Display	Timecode Display	Audio Level meter [Right]
CH-1 CH-3 CH-5 CH-7 CH-9 CH-11 CH-13 CH-15				CH-2 CH-4 CH-6 CH-8 CH-10 CH-12 CH-14 CH-16

6

Video Signal information Graph
[Waveform _ LUMA, Cb, Cr , Vectorscope]

7

[DISPLAY] DCAM 6 : 1080I 60Hz   [SDI - OUT] DCAM 6 : 1080I 60Hz   [HDMI - OUT] DCAM 6 : 1080I 60Hz
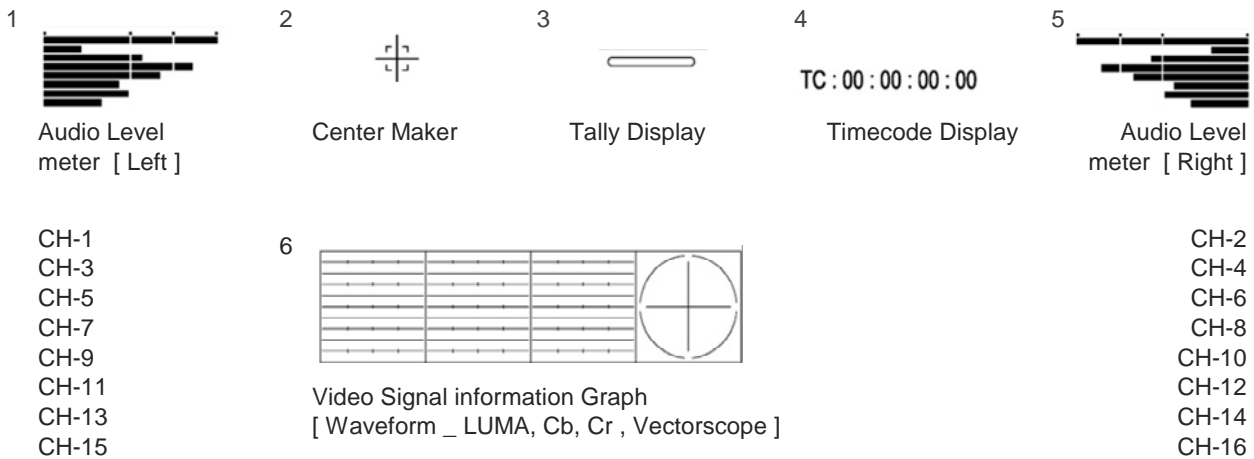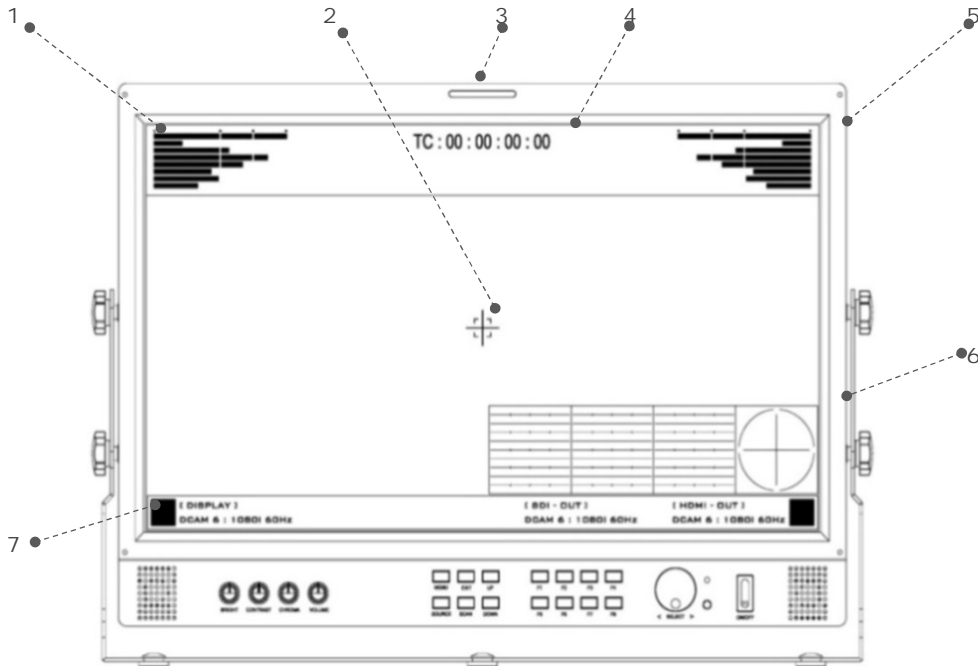
Under Monitor Display including source resolution, signal coverting status, tally etc.

Connecting to Various Signals

■ BNC

BNC SDI signal 3Gbps~270Mbps

Signal Formats		INPUT	OUTPUT
425M(3G) 4 : 2 : 2	1080 60P	○	○
	1080 50p	○	○
425M(3G) 4 : 4 : 4	720 24p	○	○
	720 25p	○	○
	720 50p	○	○
	720 60p	○	○
	1080 23.98p	○	○
	1080 23.98psf	○	○
	1080 24p	○	○
	1080 25p	○	○
	1080 30p	○	○
	1080 50i	○	○
	1080 60i	○	○
260M(1.5G) 4 : 2 : 2	1035 60i	○	○
274M (1.5G) 4 : 2 : 2	1080 24psf	○	○
	1080 24p	○	○
	1080 23.98p	○	○
	1080 23.98psf	○	○
	1080 25p	○	○
	1080 30p	○	○
	1080 50i	○	○
	1080 60i	○	○
296M(1.5G) 4 : 2 : 2	720 60p	○	○
	720 50p	○	○
	720 30p	○	○
	720 25p	○	○
	720 24p	○	○
125M (270M) 4 : 2 : 2	720 X 487 60i	○	○
	720 x 507 60i	○	○

■ HDMI

HDMI signal

Signal Formats	INPUT	OUTPUT
1080 60P	○	○
1080 50p	○	○
720 24p	○	○
720 25p	○	○
720 50p	○	○
720 60p	○	○
1080 24p	○	○
1080 25p	○	○
1080 30p	○	○
1080 50i	○	○
1080 60i	○	○
1035 60i	○	○
1080 24psf	○	○
1080 24p	○	○
1080 25p	○	○
1080 30p	○	○
1080 50i	○	○
1080 60i	○	○
720 60p	○	○
720 50p	○	○
720 30p	○	○
720 25p	○	○
720 24p	○	○
720 X 487 60i	○	○
720 x 507 60i	○	○
640 X 480	○	○
720 X 400	○	○
800 X 600	○	○
1024 X 768	○	○
1280 X 768	○	○
1360 X 768	○	○
1920 X 1080	○	○
1920 X 1200	○	○

ViewZ

Connecting to Analog Signals

■ Component

Component Input signal 1.0Vpp (Y with Sync), 0.7Vpp (Pb,Pr)

Input Signal Formats	VZ-070XXXXX
480 50i	○
480 60i	○
480 60p	○
576 50i	○
576 50p	○
720 50p	○
720 60p	○
1080 50i	○
1080 60i	○
1080 50p	○
1080 60p	○

■ Composite

Composite Input signal 1.0Vpp (with Sync)

Input Signal Formats	VZ-070XXXXX
NTSC	○
PAL	○
SECAM	○

VIDEO

■ **Color Temp**   Main ▶ Video ▶ Color model
- Select your preferred color temperature settings
  [User, 9300K, 7500K, 6500K **]**

      RED gain
      GREEN gain   - adjusts R, G, B Gain
                    - selectable level between [0min ~ 100max]
      BLUE gain

      RED bias
      GREEN bias   - adjusts R, G, B Bias or Offset
                    - selectable between [-50min ~ 50max]
      BLUE bias

      Color Copy To   used to copy User color temp to 6500K, 7500K, or 9300K

*IMPORTANT

Once user color temp overwrites factory default value of 6500K, 7500K, or 9300K, it will apply PERMANENT change and monitor reset will NOT restore factory default values

■ **Brightness**   Main ▶ Video ▶ Brightness
- adjust the brightness(offset)
- selectable level between [0min ~ 100max]
- shortcut by clicking the main jog 1 time

■ **Contrast**   Main ▶ Video ▶ Contrast
- adjust the contrast
- selectable level between [0min ~ 100max]
- shortcut by clicking the main jog 2 consecutive times

■ **Color**   Main ▶ Video ▶ Color
- selectable level between [0min ~ 100max]
- shortcut by clicking the main jog 3 consecutive times

■ **Color Only**   Main ▶ Video ▶ Color Only
- Select your preferred color type.
  [Color, Green, Red, Blue, Mono]

■ **NTSC Setup**   Main ▶ Video ▶ NTSC Setup
- adjust IRE value under NTSC mode between Off (0 IRE) and On (7.5 IRE)

■ **Max Bright**   Main ▶ Video ▶ Max Bright
- enabling this feature changes brightness to maximum level (100)
- disabling this feature will apply the previous brightness level

Aspect

■ **Scan**   Main ▶ Aspect ▶ Scan

- This product supports various scan modes
  [Zreoscan, Underscan, Overscan **]**

▶ VZ-185 for demonstration

Zeroscan	Underscan	Overscan
Zooms in/out of the image without changing the aspect ratio.	Zooms in/out of the image without changing the aspect ratio. Also, displays the data at the top of the horizontal blanking edge.	Zooms in/out of the image to 96% of its original size without changing the aspect ratio.

■ **Aspect**   Main ▶ Aspect ▶ Aspect

- Used to change the display ratio between
  [fullscreen, 16:9, 4:3, 1:1 **]**

▶ VZ-185 for demonstration

Fullscreen	16 : 9	4 : 3
Enlarges the aspect ratio of the picture to fit the entire screen.	Stretches the image in "4:3 mode" to fit to 16:9 aspect ratio.	Cuts left and right of the original image to fit to 4:3 aspect ratio.

1 : 1

1:1 pixel mapping of original image. This feature is available only when the size of the original image is bigger than the screen size.

Aspect (cont'd)

■ **Anamorphic**   Main ▶ Aspect ▶ Anamorphic

- Select your preferred anamorphic type among 17 options

1.	1.37:1		10.	2.35:1 (cinema)
2.	1.50:1 (3:2)		11.	2.37:1
3.	1.55:1 (14:9)		12.	2.39:1 (widescreen)
4.	1.60:1 (16:10)		13.	2.40:1 (widescreen)
5.	1.66:1 (15:9)		14.	2.55:1 (cinema DCI)
6.	1.75:1		15.	2.59:1 (cinema)
7.	1.85:1 (widescreen)		16.	2.76:1 (ultra panavision)
8.	2.00:1 (superscope org)		17.	3.56:1
9.	2.20:1 (70mm standard)			

▶ VZ-185 for demonstration

■ **Zoom Mode**   Main ▶ Aspect ▶ Zoom Mode

- Used to magnify the image up to 230% of the original display

[Zoom, Pixel To Pixel, Disable]

Pixel To Pixel	Zoom
If the resolution of the input signal is greater than that of ViewZ monitor, only area equivalent to monitor resolution out of the input resolution will be displayed in this mode	**Zoom Ratio** Used to change zoom ratio between [0min ~ 230max] **H Position** adjust the horizontal position of image [0 (left) ~ 100 (right)] **V Position** adjust the horizontal position of image [0 (top) ~ 100 (bottom)]

*IMPORTANT

When Zoom mode is activated, the main jog operates for zoom feature.

Shortcut for brightness, contrast, and color by clicking the jog once, twice, and third changes to zoom ratio, H position, and V position.

▶ VZ-185 for demonstration

■ **H/V Delay**   Main ▶ Aspect ▶ H/V Dealy

- Used to monitor blanking area

[Off, H/V Delay, H Delay, V Delay]

■ **Still**   Main ▶ Aspect ▶ Still

- Used to freeze the display

[Off, On]

13

A/V Scope

■ **Scope Position**   Main ▶ A/V Scope ▶ Scope Position

- Used to change the position of scopes

[Right/Bottom, Right/Top, Left/Bottom, Left Top]

L/T		R/T
L/B		R/B
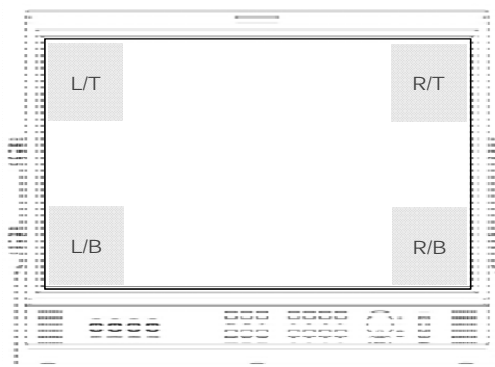
▶ VZ-185 for demonstration

■ **Waveform Enable**   Main ▶ A/V Scope ▶ Waveform Enable

- Used to turn on waveform on the screen

[On, Off]

■ **Waveform Source**   Main ▶ A/V Scope ▶ Waveform Source

- Users can choose to display scopes of their needs

[LUMA, Cb, Cr. LUMA/Cb/Cr]

LUMA	Cb	Cr

■ **Vector Enable**   Main ▶ A/V Scope ▶ Vector Enable

- Used to turn on vector scope on the screen

[On, Off]

Vector

■ **Audio Level Meter**   Main ▶ A/V Scope ▶ Audio Level Mete

- Used to turn on 16 channel audio level meter on top of the screen

[On, Off]

■ **Scope Blend**   Main ▶ A/V Scope ▶ Scope Blend

- Used to control transparency level of scopes

[On, Off]

- When OSD is on and overlaps with scopes, scope blend automatically turns on even if it is off. When users exit OSD, scope blend option goes back to user's original setting

Setting

■ **OSD**   Main ▶ Setting ▶ OSD

  - Used to change options in on-screen display

    Language   English

    OSD Blend   used to change the trasparency level of OSD [0 (opaque) ~ 10 (transparent)]

    OSD Position used to change the position of OSD

          [Left/Top, Center/Top, Right/Top, Left/Middle, Center/Middle, Right/Middle, Left/Bottom, Center/Bottom, Right/Bottom]

■ **Load System Default**   Main ▶ Setting ▶ Load Sys Default

  - Used to reset the monitor to factory default setting

  [No, Yes]

  * except for changes in color temperature (refer to Color Temp in Video section)

■ **Bklight Dimming**   Main ▶ Setting ▶ Bklight Dimming

  - Used to control backlight brightness control [0min ~ 100max]

■ **Misc**   Main ▶ Setting ▶ Misc

  - Used to apply changes to below

    Background Gray   gray level in blank section of source [0min ~ 7max]

    Gamma Correction used to activate gamma correction on the sreen [On, Off]

          *It takes time to change the mode depending on source, screen size, etc.

    Gamma Curve   when gamma correction is ON, users can change gamma level [1.0 ~ 3.0]

Advanced

■ **Input Output**   Main ▶ Advanced ▶ Input Output

- Used to control input and output signal including embedded converter

HDMI Output	
Source	select output signal [Disable, SDI, Display, HDMI/ADC]
Color Format	select color space [RGB, 4:2:2, 4:4:4]
RGB Range	Select color range of RGB color format [0-255, 16-235]
YCbCr Range	Select color range of 422 or 444 color format
	[Video(16~235), Extended(1~254), Full(0~255)]

HDMI Input	
RGB Range	Select color range of HDMI input format in RGB [0-255, 16-235]
YCbCr Range	Select color range of HDMI input format in 422 or 444
	[Video(16~235), Extended(1~254), Full(0~255)]

SDI Output / Input	
Output Source	Select output signal [Disable, SDI, HDMI/ADC]
Output Range	Select color range of output signal [Video(16~235), Extended(1~254), Full(0~255)]
Input Range	Select color range of input signal [Video(16~235), Extended(1~254), Full(0~255)]

■ **Timecode**   Main ▶ Advanced ▶ Timecode

- Used to show timecode on top of the screen

[On, Off]

■ **Source Alias**   Main ▶ Advanced ▶ Source Alias

- Provides users with ability to name the input source shown in UMD

AVI1   M o n i t **o** **r**

AVI2

AVI3

Component

HDMI   ViewZ

SDI

- example above will name HDMI input source as ViewZ and AVI1 to Monitor

- red box to change alphabet and black box to confirm

■ **UMD**   Main ▶ Advanced ▶ UMD

- Used to turn on/off UMD and control UMD options at the bottom of the monitor

UMD Type	Off, Signal (info about input/output sources), Function (info about programmable key setting)
Color	UMD color selection [white, red, green, blue]
Blend	UMD transparency [On, Off]

[DISPLAY]	[SDI - OUT]	[HDMI - OUT]
DCAM 6 : 1080I 60Hz	DCAM 6 : 1080I 60Hz	DCAM 6 : 1080I 60Hz

- two color (yellow in standard) boxes are additional on-screen tally

Adavnced (cont'd)

■ **System Info**   Main ▶ Advanced ▶ System Info
- Used to control all additional updates

    Firmware Version   displays current firmware version
    FPGA Version   displays current FPGA version

■ **H Flip**   Main ▶ Advanced ▶ H Flip
- Used to reverse the display image horizontally
 [On, Off]
*remark: OSD also flips which gives difficulty to read OSD menu

■ **Test Pattern**   Main ▶ Advanced ▶ Test Pattern
- Used to generate internal test patters

    Enable   On / Off
    Type   SMPTE Color, Gray Ramp, Color Ramp

Function key

■ **Function Key**   Main ▶ Function Key
- All front function keys are programmable with any features that are included in the monitor
- Only one feature can be assigned per one function key

    Function Key 1
    Function Key 2   [Blue/ mono, HDMI, UMD Type, Vectorscope, H/V
    Function Key 3   Delay, SDI Output, HDMI Output, Cneter Marker,
    Function Key 4   Safrety Area, Audio Level Meter, Timecode, Max,
    Function Key 5   Bright, Aspect, HDMI CSC, Zoom Mode, Still, Focus
    Function Key 6   Assist, DSLR Scale, YPBPR, SDI]

Marker

■ **Marker**   Main ▶ Marker
- Used to activate marker feature

Marker Type   market type selection
    [Off, 16:9, 4:3, 15:9, 14:9, 13:9, 1.85:1, 2.35:1]
Safety Area   select input of the safety resolution rate
    [Off, 95%, 93%, 90%, 88%, 85%, 80%, EBU Action, EBU Graphic]
Center Marker   On / Off Center Marker

Handheld

■ **DSLR Scale**   Main ▶ Handheld ▶ DSLR Scale

- selectable image to enlarge to full screen

[Off, Rec/Live Normal, Rec/Live Fullfill]

■ **Peaking**   Main ▶ Handheld ▶ Peaking

- Used to aid the focus setting of camera. Peak colors will be displayed where there are sharp edges in the image

[On, Off]

■ **Peaking Sensitivity**   Main ▶ Handheld ▶ Peaking Sensitivity

- Used to control peaking intensity level [0 (strongest) to 255 (weakest)]

■ **Peaking Color**   Main ▶ Handheld ▶ Peaking Color

- Used to change peaking color [Red, Blue, Green, Yellow]

■ **Peaking Blinking**   Main ▶ Handheld ▶ Peaking Blinking

- Used to turn on peaking blinking [On, Off]

■ **False Color**   Main ▶ Handheld ▶ False Color

- Used to assist the setting of camera exposure by different ranges of input luminance values are displayed in different color to indicate exact areas of under or over exposure

[On, Off]

■ **False Color U/L**   Main ▶ Handheld ▶ False Color U/L

- Used to control upper level of false color [min 0 ~ max 100]

■ **False Color L/L**   Main ▶ Handheld ▶ False Color L/L

- Used to control lower level of false color [min 0 ~ max 100]

■ **False Color Palette**   Main ▶ Handheld ▶ False Color Palette

- Used to show false color palette on screen [On, Off]

■ **Limit Emphasis**   Main ▶ Handheld ▶ Limit Emphasis

- Used to apply black and white in the back when false color is on rather than gray as usual [On, Off]

■ **False Color Blink**   Main ▶ Handheld ▶ False Color Blink

- Used to turn on false color blinking [On, Off]

■ **Limit Blink**   Main ▶ Handheld ▶ Limit Blink

- Used to turn on false color limit blinking [On, Off]

Accessory

■ Accessory

| Wallmount Hardware | 19" Rack Mountable | Camera Mount |

| Protective Carrying Bag | Protective Sun Visor | Battery Mount |

| AC Power Cable | ND Filter | AR Glass |

| Adaptor |

Specification

ViewZ

■ Specifications

Product			VZ-070XXXXX
Lcd spec		Size	**7 inch**
		Resolution	1024 x 600 (16:9)
		Back light Type	LED
		Color Depth	16.7M (8 Bit)
		viewing Angle (Typ.)	170°(H) / 170°(V)
		Luminance (Max.)	400 cd/m²
		Contrast Ratio	800 : 1
		Display Area	
Case features		Monitor Dim	221.5 x 126 (mm)
		Stand Dim	221.5 x 136 (mm)
		Weight (g)	916.5
Convertor features		SDI to HDMI	○
		SDI to SDI	○
		HDMI to SDI	○
		HDMI to HDMI	○
		Comp to SDI	○
		Comp to HDMI	○
		CVBS to SDI	○
		CVBS to HDMI	○
		VGA to SDI	-
		VGA to HDMI	-
INPUT Connector		SDI BNC	1
		HDMI	1
		D-SUB	-
		Analog BNC **(CVBS,Component)**	3 **(RCA JACK)**
		Audio Phone jack **(Analog Stereo)**	1
		Audio BNC jack **(Component audio L, R)**	2 **(RCA JACK)**
OUTPUT Connector		SDI BNC	1
		HDMI	1
		Composite BNC	-
		Audio Phone jack **(Analog Stereo)**	1
Speaker		Built in Speaker	2W X 1
INPUT POWER		AC 100~240V	-
		DC 12V/24V **(XLR, DC JACK)**	○ 12V/24V (DC JACK , XLR)

Operating Instruction
Broadcast Monitor User guide

Thank you