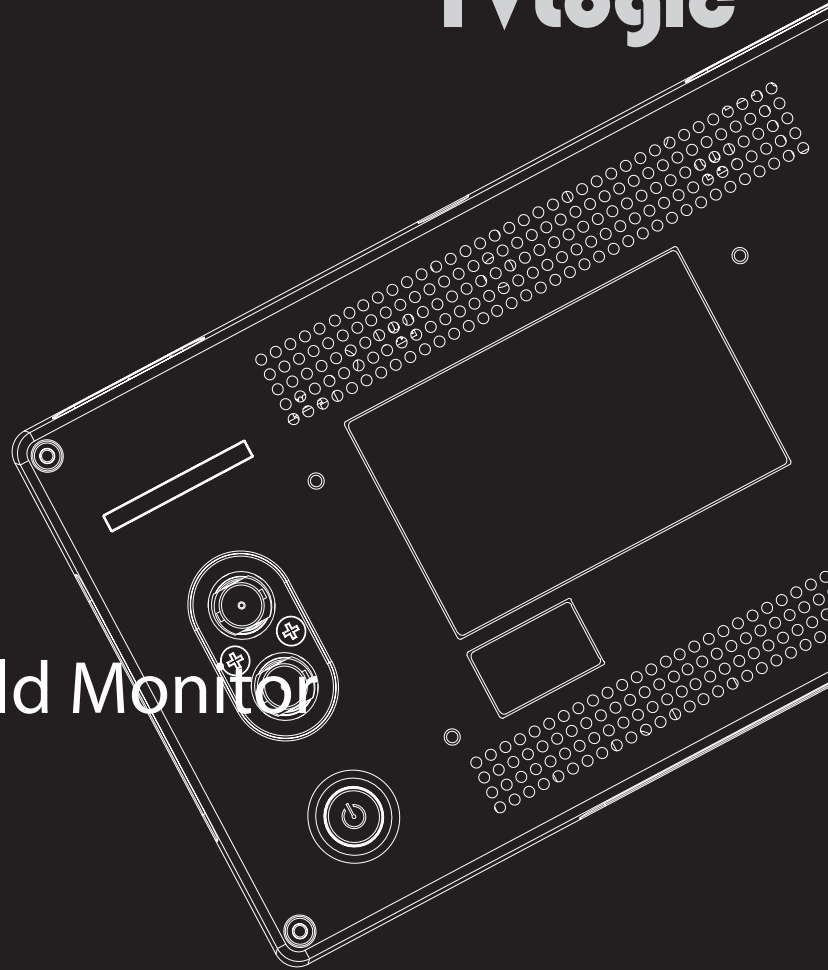


# F-7HS

7" Full HD

High Brightness Field Monitor

Operation manual\_V1.1



**TVlogic**<sup>®</sup>

# CONTENTS

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<b>01</b>	CAUTION	04p
<b>02</b>	MAIN FEATURES	06p
<b>03</b>	CONTROLS & FUNCTIONS	07p
<b>04</b>	MENU TREE & ADJUSTMENT	10p
<b>05</b>	MENU OPERATIONS	11p
	[1] PICTURE	11p
	[2] COLOR	12p
	[3] MARKER	15p
	[4] DISPLAY / VIDEO	16p
	[5] WAVEFORM	19p
	[6] AUDIO	21p
	[7] SYSTEM	22p
<b>06</b>	BUTTON FUNCTIONS	24p
<b>07</b>	OTHER FUNCTIONS	26p
<b>08</b>	AVAILABLE SIGNAL FORMATS	39p
<b>09</b>	VIDEO SUPPORT RESOLUTION	40p
<b>10</b>	PRODUCT SPECIFICATIONS	41p
<b>11</b>	OPTIONAL ACCESSORIES	42p

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# 01 CAUTION

- Always use set voltage. (DC 12V 1.8A / 34V 0.6A)
- When using a DC Adapter other than the one supplied by the manufacturer, please be advised that the adapter with DC 12V/3A ~ 6A can be compatible with the monitor.
- All operating instructions must be read and understood before the product is operated.
- These safety and operating instructions must be kept in safe place for future reference.
- All warnings on the product and in the instructions must be observed closely.
- All operating instructions must be followed.
- Do not use attachments not recommended by the manufacturer. Use of inadequate attachments can result in accidents.
- This product must be operated on a power source specified on the specification label.
- If you are not sure of the type of power supply used in your home, consult your dealer or local power company. For units designed to operate on batteries or another power source, refer to the operating instructions.
- The power cords must be routed properly to prevent people from stepping on them or objects from resting on them. Check the cords at the plugs and product.
- In case of using other 12V DC adapters instead of the standard adapter provided by the manufacturer, please check the proper load capacity (or current capacity) and use an adapter with stable voltage.
- Do not overload DC outlets or extension cords. Overloading can cause or electric shock.
- Never insert an object into the product through vents or openings. High voltage in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.
- Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified service person to perform servicing.
- If any of the following conditions occurs, unplug the power cord from the DC outlet, and request a qualified service person to perform repairs.
  - a. When the power cord or plug is damaged.
  - b. When a liquid was spilled on the product or when objects have fallen into the product.
  - c. When the product has been exposed to rain or water.
  - d. When the product does not operate properly as described in the operating instructions. Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.
  - e. When the product has been dropped or damaged.
  - f. When the product displays an abnormal condition.Any noticeable abnormality in the product indicates that the product needs servicing.
- In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.
- Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.
- Unplug the power cord from the DC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use liquid cleaners or aerosol cleaners.
- Unplug the power cord from the AC outlet if you do not use the product for considerably long time.

# 01 CAUTION

- Do not use the product near water, such as bathtub, washbasin, kitchen sink and laundry tub, swimming pool and in a wet basement.
- Keep the product away from direct rays of the Sun-light.
- Do not place the product on an unstable cart, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instruction. Use only the mounting hardware recommended by the manufacturer.
- When relocating the product placed on a cart, it must be moved with the utmost care.
- The power cord plug shall be connected to a MAINS socket outlet with a protective earthing connection.
- Infrared devices can cause noise or malfunction under condition as below.
  - Parts of the body come into contact with the infrared transmitter or acoustic device.
  - Obstacles can cause electrical changes if there is a partition in the middle or in the wall.
  - Exposure to radio interference from medical equipment, microwave ovens, wireless LAN devices, etc. with the same frequency band.
- Unplug the power cord from the AC outlet when happening any problem in the product.
- Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.
- The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.
- In case of installation the product on the rack, the inside of the product would be overheated due to heat from other devices near by and the decrease of air circulation, which could damage to the monitor. To prevent the damage, please have enough space for the monitors and use fan to avoid heat and maintain the operating temperature. (Refer to the specification of the product).
- The LCD panel used in this product is made of glass. Therefore, it can break when the product is dropped or applied with impact. Be careful not to be injured by broken glass pieces in case the LCD panel breaks.

## [NOTE]

\* If the product is used with the MAXIMUM brightness at a high temperature for extended period of time, the front and rear housing may get very hot. Be sure not to keep using the product with the MAXIMUM brightness. We recommend the user takes an occasional break when using.

- Keep the product away from heat sources such as radiators, heaters, stoves and other heat generating products (including amplifiers).

## WARNING



<Main Switch>

- | means Power on when pressing
- means Power off when pressing



<Beside critical components in circuit diagram>

To identify any terminal which is intended for connection to an external conductor for protection against electric shock in case of a fault, or the terminal of a protective earth (ground) electrode.



<Near the main terminal block>

This mark indicates the possibility of injury or damage to property.

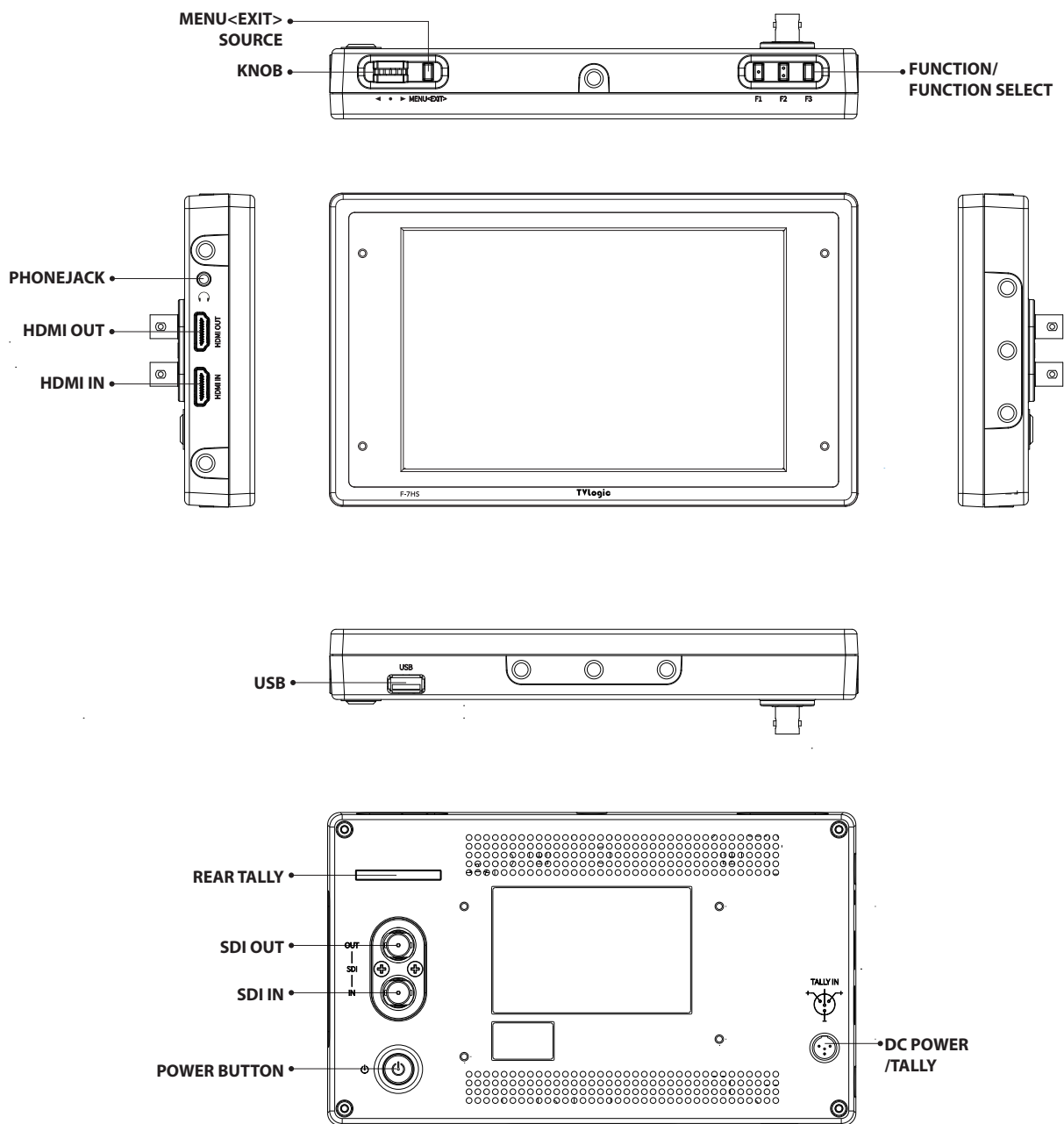
## 02 MAIN FEATURES

F-7HS Monitor contains the following features :

- **Compatible with various SDI signals formats**
  - This product is compatible with various SDI signals : 480i, 576i, 720p, 1080i, 1080p, 1080psf
- **HDMI Signal**
  - This product is compatible with various HDMI signals.
- **HDMI To SDI / SDI To HDMI Conversion Output**
  - This product features an HDMI To SDI conversion output so that video source from HDMI In terminal can be output through SDI Out terminal.
  - The SDI To HDMI conversion output is also supported. The video source from SDI In terminal can be output through HDMI Out terminal.
- **Audio Out**
  - Stereo Audio Out through phone Jack.
- **Knob Control**
  - Easy to adjust user configuration using the control knob on the top of the monitor.
- **Custom 3D LUT Import**
  - Allows the users to load their own created 3D LUT files generated by color grading tools and apply them to the monitor.
- **Integrated Camera LUT**
  - LUTs for every major camera manufacturers are integrated to the LUM-095G, and they can be applied to the live input video.
  - Log-C, C-Log, S-Log1, S-Log2, S-Log3, RED Gamma 3, RED Gamma 4
- **Advanced Color Adjustment OSD**
  - Provides various color adjustment menus which enable the user to monitor the video signal in the optimal settings.
- **Waveform & VectorScope**
  - Provides various modes: Waveform, VectorScope, Waveform Wide, Waveform YCbCr, Waveform RGB, Waveform & VectorScope, Waveform YCbCr & VectorScope, Waveform Full, VectorScope Full
- **Audio Level Meter:** 16 Channel, Direction adjustable, Pair or Group selectable, Size changeable(Small, Large)
- **Video Range Adjustment:** Limited 109%, Full
- **Various Marker**
- **Grid Display:** 3x3, 4x4, 5x5, 6x6
- **Timecode Display:** LTC, VITC
- **ARRI Camera Status:** LDS Info, Index Letter
- **Various Scan:** Zero Scan, Over Scan, 1:1 Scan
- **User Aspect**
- **H Flip, V Flip, H/V Flip:** Manual, Auto
- **Focus Assist**
- **H/V Delay**
- **Blue/Mono Only**
- **Various Aspect:** 16:9, 4:3, 2.35:1, 1.85:1, 15:9, 16:10
- **Anamorphic:** 1.3X, 1.5X, 1.8X
- **Luma(Y') Zone Check**
- **Range Error**
- **Zoom:** 10%, 20%, ..., 90%
- **Zoom Split:** Left-Top, Right-Top, Left-Bottom, Right-Bottom, Center
- **Freeze**
- **Internal Pattern Display**
- **Tally Lamp and Screen Tally**
- **Remote Control via RS-422(RJ-45)**
- **GPI Control via REMOTE port**
- **Firmware Update & Calibration via USB(A Type)**
- **Power**
  - Basically, the product is powered by a normal DC source.
  - The product can be battery-powered.
  - \* DC 12V 1.8A / 34V 0.6A (Typical)

# 03 CONTROLS & FUNCTIONS

## F-7HS ALL PART



## 03 CONTROLS & FUNCTIONS

### TOP / FRONT

- **[MENU/EXIT/SOURCE] Button**
  - Used to activate the OSD menu.
  - When the OSD menu is activated, press this button to exit from the menu.
  - Press the button for more than 2 seconds to activate Input Select menu. (SDI, HDMI)
  - Use the [ENCODER] Knob to change the Input Signal.
- **[UP/DOWN/ENTER] Knob**
  - Used to move within the menu when OSD menu is activated, and is also used to decrease or increase the value of the selected feature.
  - Press the knob to select the main menu and the sub menus.
  - Press the button for more than 2 seconds to activate the HOT Key menu.  
(VOLUME / BRIGHTNESS / CONTRAST / CHROMA / SHARPNESS / PEAKING BOOST)
- **[F1]~[F3] Button**
  - Press the button for less than 2 seconds to activate the function.
  - Press the button for more than 2 seconds to activate Function Select menu.  
(Scan, Aspect, H/V delay, etc.)
  - Press the button for more than 2 seconds to indicate previously selected function.
  - Use the Knob to change the function.

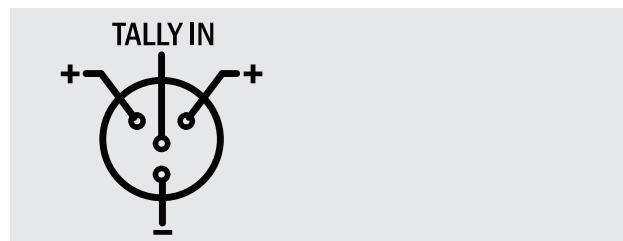


## 03 CONTROLS & FUNCTIONS

### SIDE & BOTTOM / REAR

- **[HDMI IN]**
  - Signal input terminal for HDMI signal.
- **[HDMI OUT]**
  - Signal output terminal for HDMI signal.
  - Video source from SDI input terminal can be converted to HDMI format.
- **[HEADPHONE] (Phone Jack)**
  - Used for Stereo Audio Output through Phone Jack. (video signals with embedded audio only)
- **[USB]**
  - This terminal is used to upgrade the firmware or color calibration made by TVLogic.
- **[REAR TALLY]**
  - Activates same as [SCREEN TALLY].
- **[SDI OUT] (BNC)**
  - Signal output terminal for HD/SD/3G SDI signal.
  - Video source from HDMI input terminal can be converted to SDI format.

\* SDI Output is not activated when the unit is turned off or in Standby mode.
- **[SDI IN] (BNC)**
  - Signal input terminal for HD/SD/3G SDI signal.
- **[POWER] Switch**
  - Used to turn the power on and off.
- **[DC POWER / TALLY] (XLR 4P)**
  - Tally Signal In Level DC 5V  $\pm$ 2V
  - Battery Power Input terminal for DC 12V
  - Rated Power Input : DC 12V 1.8A / 34V 0.6A
  - \* When using a DC Adapter other than the one supplied by the manufacturer, please be advised that the adapter with DC 12V/3A ~ 6A can be compatible with the monitor.



< Warning! >

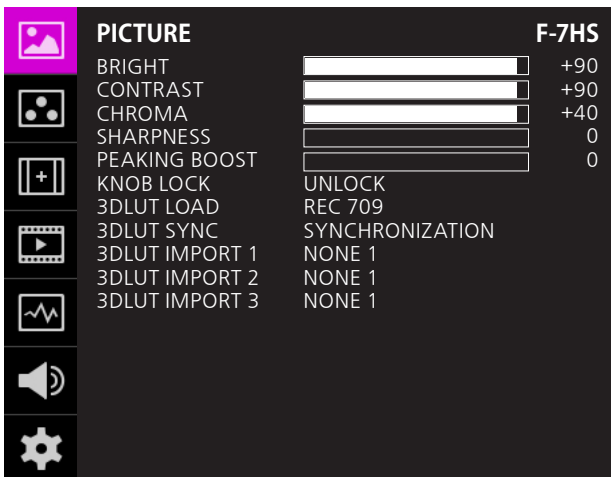
When using the product make sure to ground, whenever possible, before connecting the input signal cable in order to prevent any possible damage to the product or connected devices. The damage may include signal noise, malfunction of main board or display panel. And the connected devices such as camera or video source player may also be influenced through signal cable. Please check if the AC power source and the power extender or power distributor is grounded.

# 04 MENU TREE & ADJUSTMENT

## MENU TREE & MENU CONTROL & MENU CONTROL SEQUENCE

### [1] MENU TREE

- OSD(On-Screen Display) Menu helps to use various different functions.
- This Picture is the menu structure for F-7HS.



### [2] MENU CONTROL

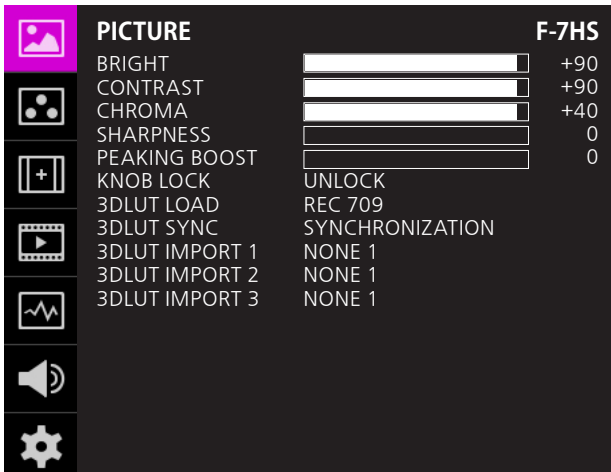
- User may control various functions using the MENU button and the Knob on the top of the monitor.

### [3] MENU CONTROL SEQUENCE

- Menu control sequence follows the order below.
  1. Press MENU button to activate the OSD menu.
  2. Move to a desired menu using the Knob.
  3. Press the Knob to select a menu and move to select a sub-menu by scrolling the Knob.
  4. Press the Knob to select the desired sub menu. (The selected sub-menu will be highlighted)
  5. Press the ENTER button or the MENU button to save the new value after adjusting the value by scrolling the Knob.
  6. Press MENU button to return to previous menu and if there is no previous menu, the OSD menu will be removed from the screen.

# 05 MENU OPERATIONS

## [1] PICTURE



- **BRIGHT**

  - Used to set the brightness(=offset) level from -100 to 100.
  - \* Brightness can be adjusted by using the Knob on the top of the monitor.
- **CONTRAST**

  - Used to set the contrast(gain) level from -100 to 100.
  - \* Contrast can be adjusted by using the Knob on the top of the monitor.
- **CHROMA**

  - Used to set the saturation level from -50 to 50.
  - \* Chroma can be adjusted by using the Knob on the top of the monitor.
- **SHARPNESS**

  - Used to set the Sharpness level from 0 to 24.
  - \* Sharpness can be adjusted by using the Knob on the top of the monitor.
- **PEAKING BOOST**

  - Used to set the Peaking Boost level from 0 to 24.
  - \* Peaking Boost can be adjusted by using the Knob on the top of the monitor.
- **KNOB LOCK**

  - Locks the Knob control.
  - If [KNOB LOCK] is set to [LOCK], the Knob is activated only when the OSD pops up. While the OSD doesn't pop up, the Knob is deactivated.
- **3DLUT LOAD**

  - Used to apply the internally stored 3D LUT.
  - Maximum three files of 3D LUT can be stored.
  - The file name can be set up to 20 characters including the extension.
- **3DLUT SYNC**

  - Used to load a list of available 3D LUT files currently stored in the FLASH MEMORY.
  - Available 3D LUT format is CUBE.
  - Available sizes of the 3D LUT are 17 or 33.
- **3DLUT IMPORT 1/2/3**

  - Used to save the 3D LUT stored in the external memory to the internal memory 1/2/3 area.
  - Once saved, the 3D LUT can be maintained even when the power is turned ON/OFF.
  - The file name can be set up to 20 characters including the extension.

# 05 MENU OPERATIONS

## [2] COLOR

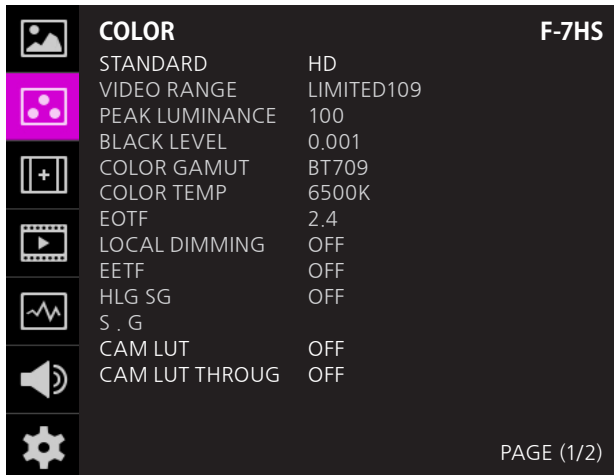
COLOR		F-7HS
STANDARD	HD	
VIDEO RANGE	LIMITED109	
PEAK LUMINANCE	100	
BLACK LEVEL	0.001	
COLOR GAMUT	BT709	
COLOR TEMP	6500K	
EOTF	2.4	
LOCAL DIMMING	OFF	
EETF	OFF	
HLG SG	OFF	
S . G		
CAM LUT	OFF	
CAM LUT THROUGH	OFF	

PAGE (1/2)

- STANDARD**
  - Used to select the color and dynamic range of the screen.
  - Available options are HD, UHD, DCI-P3, PQ, HLG, SLog3 and User1/2/3.
- VIDEO RANGE**
  - Used to select the range of digital video signal.
  - [FULL]: Input signal 1~254(8bit), 4~1019(10bit)
  - [LIMITED109]: Input signal Y': 16~254, CbCr: 16~240(8bit) / Y': 64~1019, CbCr: 64~1019(10bit)
  - \*Activates only in [STANDARD - USER 1/2/3] mode.
- PEAK LUMINANCE**
  - Used to select the Peak Luminance of the monitor.
  - Selectable levels are [100] ~ [1000] with 100 increment, [1000] ~ [10000] with 1000 increment.
  - \*Activates only in [STANDARD - USER 1/2/3] mode.
- BLACK LEVEL**
  - The minimum black level of the video signal can be set differently depending on the performance of the monitor or the lighting environment.
  - Available modes are from [0.000] to [0.010] with 0.001 increment, from [0.010] to [0.100] with 0.010 increment, from [0.100] to [0.900] with 0.100 increment.
  - \* Activates only in the User1/2/3 mode.
- COLOR GAMUT**
  - Used to select the standard color gamut.
  - Available options are BT709, DCI, BT2020, NATIVE.
  - \*Activates only in [STANDARD - USER 1/2/3] mode.
- COLOR TEMP (Color Temperature)**
  - Controls the color temperature.
  - Available options are 6500K, 9300K, USER 1/2/3.
  - \*Activates only in [STANDARD - USER 1/2/3] mode.
- EOTF (Electro-Optical Transfer Function)**
  - Electrophotonic conversion Functions(ex: Gamma or HDR curve).
  - Available modes are 2.2, 2.4, 2.6, PQ, HLG and SLOG3.
  - \*Activates only in [STANDARD - USER 1/2/3] mode.
- LOCAL DIMMING (\* Not Supported)**
  - Used to set the Local Dimming Backlight mode.
  - This mode is supported by the local dimming backlight model and does not support F-7HS.

# 05 MENU OPERATIONS

## [2] COLOR



- EETF (Electrical-Electrical Transfer Function)**
  - Used to display the HDR image(without clipping) within the actual luminance range (black level and peak luminance) that the monitor can express. In the ON mode, the HDR image is converted within the range of set peak luminance and black level. In the OFF mode, the video signal outside of the set range is clipped.
  - Available modes are OFF and ON.
  - Available only when the EOTF is set to PQ or SLOG3.
  - \*Activates only in [STANDARD - USER 1/2/3] mode.
- HLG SG (HLG System Gamma)**
  - Used to set the System Gamma of HLG mode.
  - In the ON mode, the value of the System Gamma changes automatically according to the previously set peak luminance. When it is OFF, the value is set to default value of 1.2.
  - \* Activates only when the EOTF is set to HLG, and STANDARD is set to USER 1/2/3.

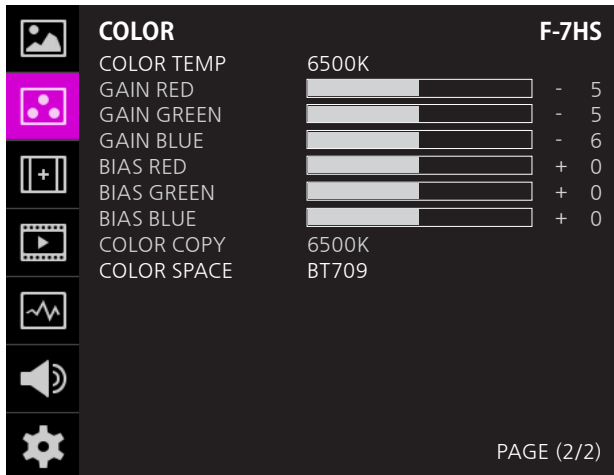
- SG (System Gamma)**
  - The System Gamma of HLG is automatically calculated and displayed according to the set [PEAK LUMINANCE].
  - Activates only when the EOTF is set to HLG and the HLG SG is ON.

PEAK LUMINANCE	SG (System Gamma)
100	0.78
200	0.91
300	0.98
400	1.03
500	1.07
600	1.11
700	1.13
800	1.16
900	1.18
1000	1.20
2000	1.33
3000	1.40
4000	1.45
5000	1.49
6000	1.53
7000	1.55
8000	1.58
9000	1.60
10000	1.62

- CAM LUT (Camera LUT)**
  - Used to change the Camera LUT.
  - Available LUTs are LOG-C, C-LOG, S-LOG1, S-LOG2, S-LOG3, REDGAMMA3, REDGAMMA4.
  - \* Activates only when STANDARD is set to USER 1/2/3, and EOTF is set to 2.2, 2.4, 2.6.
- CAM LUT THROUGH (Camera LUT Through)**
  - Apply the currently applied LUT to Through Out.

# 05 MENU OPERATIONS

## [2] COLOR



### • COLOR COPY

- Used to copy the R/G/B Gain value of pre-stored color temperature settings.
- In User mode, find and select the color temperature and press the Knob to copy and apply the Gain value to GAIN RED, GAIN GREEN, GAIN BLUE.
- \* Available only in User 1/2/3 mode.

### • COLOR SPACE

- Used to select the standard color space.
- Available options are BT709, DCI, BT2020, NATIVE.

### • COLOR TEMP

- Controls the color temperature and allows instant access to preset the color temperature settings.
- Available color temperatures are 6500K, 9300K and User1/2/3.
- \* In User 1/2/3 modes, user can define custom RGB GAIN, BIAS (=Offset) and Color Copy values.

### • GAIN RED / GREEN / BLUE

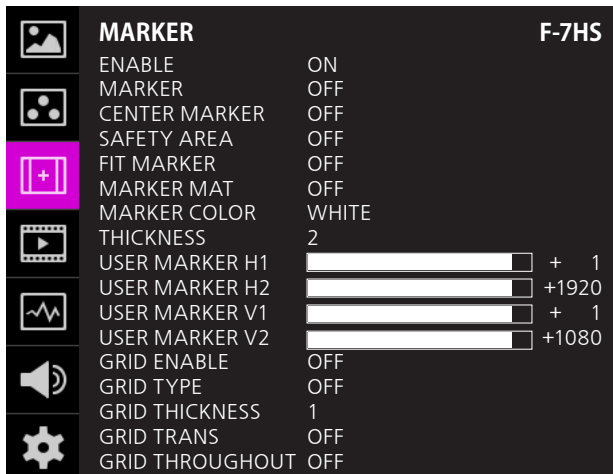
- Used to set Red/Green/Blue Gain (or Picture, Contrast) level from -256 to 255.
- \* Available only in User 1/2/3 mode.

### • BIAS RED / GREEN / BLUE

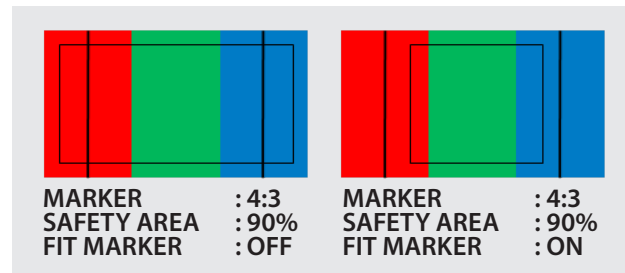
- Used to set Red/Green/Blue Bias (or Offset, mainly affects on Black level) from -100 to 100.
- \* Available only in User 1/2/3 mode.

# 05 MENU OPERATIONS

## [3] MARKER



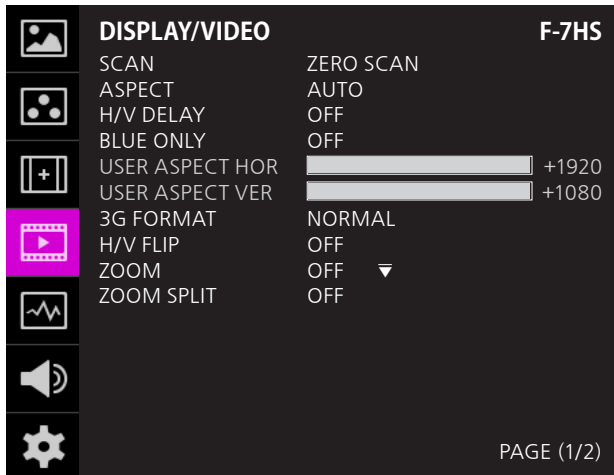
- **ENABLE**
  - Used to activate the Marker function.
- **MARKER**
  - Available Marker types are OFF, 16:9, 4:3, 4:3 ON AIR, 15:9, 14:9, 13:9, 1.85:1, 2.35:1, 1.85:1 & 4:3 and USER.
- **CENTER MARKER**
  - Displays the Center Marker on the screen.
- **SAFETY AREA**
  - Used to select and controls the size and availability of the Safety Area.
  - Available sizes are 80%, 85%, 88%, 90%, 93%, 100%, EBU ACTION 16:9, EBU GRAPHIC 16:9, EBU ACTION 14:9, EBU GRAPHIC 14:9, EBU ACTION 4:3 and EBU GRAPHIC 4:3.
- **FIT MARKER**
  - Used to activate or inactivate the Fit Marker function.
  - When the Marker type is selected in the Marker menu, a border line of the Safety Area will be displayed inside the Marker. Images below show the difference between Fit Marker ON and OFF.
- **MARKER MAT**
  - Used to set the darkness level outside of the MARKER area from OFF(transparent) to 7(Black).
  - The bigger the value, the darker the color.



- **MARKER COLOR**
  - Used to set the color of the MARKER lines.
  - Available colors are WHITE, YELLOW, CYAN, GREEN, MAGENTA, RED, BLUE, BLACK.
- **THICKNESS**
  - Used to set the thickness of the MARKER lines.
  - Thickness level is from 1 to 7 by the pixel unit.
- **USER MARKER H1/H2**
  - Used to set the position of the first and second horizontal marker lines.
  - Displayed when the MARKER menu is set to USER.
- **USER MARKER V1/V2**
  - Used to set the position of the first and second vertical marker lines.
  - Displayed when the MARKER menu is set to USER.
- **GRID ENABLE**
  - Used to activate the GRID lines.
- **GRID TYPE**
  - Available grid types are 3X3, 4X4, 5X5, 6X6.
- **GRID THICKNESS**
  - Used to set the thickness of the grid lines.
  - Thickness level is from 1 to 5 by the pixel unit.
- **GRID TRANS**
  - Used to set the transparency level of the grid lines.
  - [ON]: transparent
  - [OFF]: opaque
- **GRID THROUGHOUT**
  - Used to apply the currently selected GRID to Through Out.
  - [ON]: Applied to Through Out
  - [OFF]: Not applied to Through Out

# 05 MENU OPERATIONS

## [4] DISPLAY / VIDEO



### • SCAN

- Used to change the Scan mode.
- Available modes are ZERO SCAN, OVER SCAN, PIXEL TO PIXEL, USER ASPECT.
- \* [PIXEL TO PIXEL] : When the resolution of the input video is less than 1920 x 1080 such as 1280x720, NTSC, PAL, this function displays the image pixel to pixel on the screen, not upscaling it to 1920x1080.
- \* [USER ASPECT] : User can control the aspect ratio by adjusting width and height of the display.

### • ASPECT

- Used to change the Aspect Ratio.
- Regardless of the original Aspect ratio of the input signal, the Aspect Modes are changed as follow sequence. : [Auto][16:9][4:3][2.35:1][1.85:1][15:9][16:10][Anamorphic1.3x][Anamorphic1.5x][Anamorphic 1.8X] [Anamorphic 2.0X].
- \* [Auto] mode enables the Aspect Ratio of the output signal to be synchronized to the original Aspect Ratio of the input signal.

### • H/V DELAY

- Used to monitor the Blanking area of H sync and V sync.

### • BLUE ONLY

- Available modes are [OFF] [BLUE ONLY] [MONO].
- [BLUE ONLY] : Remove red and green components from the input signal and display blue component only.
- [MONO] : Used to remove the color(Chroma) from the input signal and display the monochrome component only.

### • USER ASPECT HORIZONTAL/USER ASPECT VERTICAL

- Activated only when the [SCAN] mode is set to [User Aspect] .
- User can adjust the Horizontal and Vertical size of the screen.
- See section "7. Other Functions [1] User Aspect" for more information.

### • 3G FORMAT

- Used to select 3G-SDI A/B input format.
- [NORMAL]
- [A 444 10BIT YCbCr], [A 444 10BIT RGB]
- [A 444 12BIT YCbCr], [A 444 12BIT RGB]
- [A 422 12BIT YCbCr], [B 444 10/12BIT YCbCr]
- [B 444 10/12BIT RGB], [B 422 12BIT YCbCr]
- [B 422 10BIT YCbCr 60P]
- In NORMAL MODE, automatically detected when Payload signal is contained

### • H/V FLIP

- Allows the displayed image to be flipped horizontally or vertically.
- This feature provides flexible mounting options for camera operators.
- Activates in the order : [H Flip]-[V Flip]-[H/V Flip]-[AUTO]
- In the [AUTO] mode, the vertical FLIP operates automatically according to the position of the unit.

### • ZOOM

- Used to magnify the image up to 90% on a pixel basis and display on full screen.
- ZOOM range is 10% to 90% by 10% increment.
- \* ex) 10% Zoom : If the input signal's resolution is 1920 x 1080, only 90% (1728(H) x 972(V)) of the image would be shown on full screen without the remaining 10% (192(H) x 108(V)) of the image.
- \* See section "7. Other Functions -> [4] Zoom" for more information.

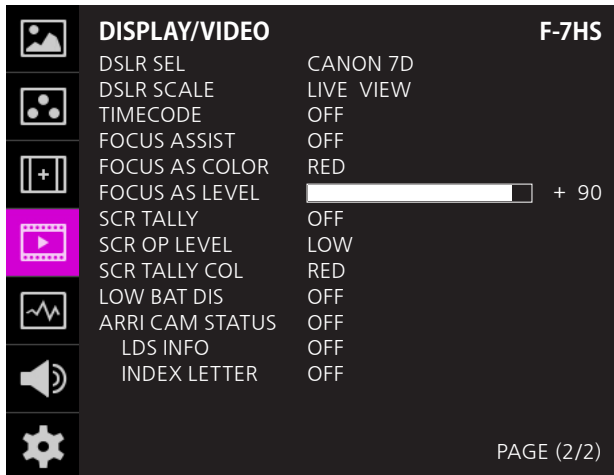
### • ZOOM SPLIT

- Used to magnify the image.
- Used to zoom the specified area sequentially.
- Designable areas are Left-Top, Right-Top, Left-Bottom, Right-Bottom and Center.



# 05 MENU OPERATIONS

## [4] DISPLAY / VIDEO



- **DSLR SEL**

  - Select the DSLR camera to be used with the monitor. Available mode is [CANON 7D].
  - \* DSLR cameras' screen size and aspect ratio of Live / Record / Playback modes vary depending to their manufacturer.
- **DSLR SCALE**

  - This is a special function for CANON/NIKON DSLR cameras.
  - Used to scale the image with different resolution as to the operation mode (Live View/ Record/ PlayBack) of the camera to fullfill the screen.
  - \* See section "7. Other Functions [08] DSLR SCALE" for more information.
- **TIMECODE**

  - Used to set the Time Code.
  - Available modes are VITC (UP), VITC (DOWN), LTC (UP), LTC (DOWN).
- **FOCUS ASSIST**

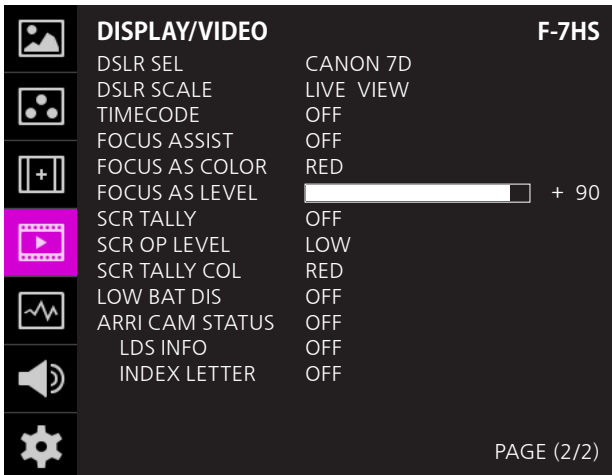
  - Focus Assist helps the shooters to easily find out the exact area in the picture with good focus, simply by adding colors on the shape or boundaries of the object in the picture.
  - Activates in order of [Mono On]-[Color On]-[Off].
  - \* [Color On] : Only the boudary of the area with good focus is displayed with the designated color.
  - \* [Mono On] : The boundary of the area with good focus is colored with the designated color, while the rest of the areas(pixels) have only Y'(Luma) signals to be black & white image.
  - \* See section "7. Other Functions [6] Focus Assist" for more information.
- **FOCUS AS COLOR (Focus Assist Color)**

  - Used to select a color for Focus Assist among RED, GREEN, BLUE, WHITE.
  - This feature is available only when the Focus Assist mode is activated.
- **FOCUS AS LEVEL (Focus Assist Level)**

  - Used to set the edge difference value between the edges in an image.
  - Available values are from 0 to 100. Larger the value the more sophisticated the detail detection.
  - Designated color is displayed when the difference of the edges exceeds the previously set value.
  - This feature is available only when the FOCUS ASSIST mode is activated.

# 05 MENU OPERATIONS

## [4] DISPLAY / VIDEO



- **LDS INFO (Lens Data System Information)**  
- Used to set the information display of the Lens Data System.
- **INDEX LETTER**  
- Used to set the monitor identification character notation in the upper right corner of the screen.

- **SCR TALLY (Screen Tally)**  
- Used to set Tally operation according to the input level of TALLY IN terminal which is among the terminals of XLR 4P connector in the rear.
- **SCR OP LEVEL (Screen Tally Operation Level)**  
- Used to set the input level of Tally operation.  
(Open&Low: less than 0.6V, High Range: 5V±2.5V)  
- High : Set the level as "High" to activate the Tally and set the level as "Low" to inactivate the Tally.  
- Low : Set the level as "Low" to activate the Tally and set the level as "High" to inactivate the Tally.
- **SCR TALLY COL (Screen Tally Color)**  
- Used to set Tally color.  
- Available colors are Red, Green and Yellow.
- **LOW BAT DIS (Low Battery Display)**  
- Used to set Low Battery Display function.  
- When the battery becomes weak, [Low Battery] sign is indicated on the OSD.
- **ARRI CAM STATUS (Arri Camera Status)**  
- Used to display the camera status information provided by ARRI ALEXA camera on the OSD.  
- When the Arri Cam Status is activated, the screen is squeezed to the 1742 x 980 resolution.

# 05 MENU OPERATIONS

## [5] WAVEFORM

WAVEFORM		F-7HS
ENABLE	OFF	
TYPE	OFF	
INTENSITY	<input type="range"/>	1
TRANS	OPAQUE	
SIZE	SAMLL	
LINE WAVEFORM	OFF	
SEL LINE POS	<input type="range"/>	0
LUMA CHECK	OFF	
LUMA ADJUST	<input type="range"/>	0
RANGE ERROR	OFF	
Y MAX	<input type="range"/>	0
Y MIN	<input type="range"/>	0
C MAX	<input type="range"/>	0
C MIN	<input type="range"/>	0
Y PICTURE BLINK	OFF	
C PICTURE BLINK	OFF	

- ENABLE**
  - Used to activate/ deactivate the Waveform which is selected in TYPE menu.
- TYPE**
  - This function sets the Waveform and Vectorscope.
  - Available options are different according to the Input signal.
  - Activates in the order: Waveform - Vectorscope - Waveform Wide - Waveform YCbCr - Waveform RGB - Wave Vector - YCbCr Vector - Full Waveform - Full Vector - Off.
- INTENSITY**
  - Used to set the brightness level of the Waveform/ Vectorscope display from 1 to 63.
  - The higher the number the brighter the waveform will be.
- TRANS (Transparency)**
  - Used to select the transparency option of the Waveform / Vectorscope between [OPAQUE] and [TRANS].
  - Even though the option is set to [Opaque], it will automatically turn to [Trans] when the main OSD overlaps the waveform/vectorscope. And turns back to [Opaque] when the main OSD disappears.
- SIZE**
  - Adjust the size of the Waveform or Vectorscope.
  - Available options are [SMALL] and [LARGE].
  - \* See section "7. Other Function [2] Waveform/ Vectorscope" for more information.
- LINE WAVEFORM**
  - This item is utilized to display the one line data on the Waveform.
- SEL LINE POS (Select Line Position)**
  - Used to select specific horizontal line for Waveform / Vectorscope.
  - This is available when LINE Waveform is activated.
  - Use the Knob to select a desired vertical line.
  - Control range varies according to the resolution of the input SDI signal.
    - \* PAL : Min. 1, Max. 625
    - \* NTSC : Min. 1, Max. 525
    - \* 720p : Min. 1, Max. 750
    - \* 1080i : Min. 1, Max. 1125
    - \* 1080p : Min. 1, Max. 1125
- LUMA CHECK**
  - Analyzes the Luma(Y') level of the input image and displays the selected zone on the screen.
  - Available modes are [Color Pattern] and [Zebra Pattern].
  - After each pixel's Y' level is analyzed, it is displayed as a certain color or zebra pattern according to the Index on the right side of the screen.
  - When a pixel's Y' level is under 0%(16), the pixel is displayed as green color or green diagonal lines, and over 100%(235) as red color or red diagonal lines.
  - When the Y' level of a pixel is between 0~100%, the pixel is displayed as Gray level, except for selected Luma Zone.
  - In the [Color Pattern] mode, the zone the user adjusted is displayed as Yellow (10% lower zone), Pink ( $\pm 2.5\%$ ), Cyan (10% upper zone).
  - In the [Zebra Pattern] mode,  $\pm 5\%$  of the selected Y' Level will be displayed as diagonal lines.

# 05 MENU OPERATIONS

## [5] WAVEFORM

WAVEFORM		F-7HS
ENABLE	OFF	
TYPE	OFF	
INTENSITY	<input type="text"/>	1
TRANS	OPAQUE	
SIZE	SAMLL	
LINE WAVEOFORM	OFF	
SEL LINE POS	<input type="text"/>	0
LUMA CHECK	OFF	
LUMA ADJUST	<input type="text"/>	0
RANGE ERROR	OFF	
Y MAX	<input type="text"/>	0
Y MIN	<input type="text"/>	0
C MAX	<input type="text"/>	0
C MIN	<input type="text"/>	0
Y PICTURE BLINK	OFF	
C PICTURE BLINK	OFF	

### • LUMA ADJUST

- Used to set the Y' level to be colored Yellow, Pink and Cyan in [Color Pattern] mode, or to set Y' level zone to be displayed with diagonal lines in [Zebra Pattern] mode simply by scrolling the Knob.

- Available values are 0% ~ 100%.

\* See section "7. Other Function [5] Luma(Y') Zone Check" for more information.

### • RANGE ERROR

- Used to set whether or not to activate Y MAX, Y MIN, C MAX, C MIN, Y PICTURE BLINK and C PICTURE BLINK functions.

- The values of Y MAX, Y MIN, C MAX, C MIN are indicated in Waveform/Vectorscope.

- If [Y PICTURE BLINK] or [C PICTURE BLINK] is enabled, the section of image that exceeds the selected values of Y MAX, Y MIN, C MAX and C MIN shall blink.

\* See section "7. Other Function [7] Range Error" for more information.

### • Y MAX

- Used to set the maximum Luma(Y') level from 0 to 255.

- Pixels with values exceeding the maximum luma(Y') level blink on the screen, and are displayed in red on the Waveform.

### • Y MIN

- Used to set the minimum Luma(Y') level from 0 to 255.

- Pixels with values below the minimum luma(Y') level blink on the screen, and are displayed in red on the Waveform.

### • C MAX

- Used to set the maximum chroma(C') level from 0 to 255.

- Pixels with values exceeding the maximum chroma(C') level blink on the screen, and are displayed in red on the Waveform.

### • C MIN

- Used to set the minimum chroma(C') level from 0 to 255.

- Pixels with values below the minimum chroma(C') level blink on the screen, and are displayed in red on the Waveform.

### • Y PICTURE BLINK

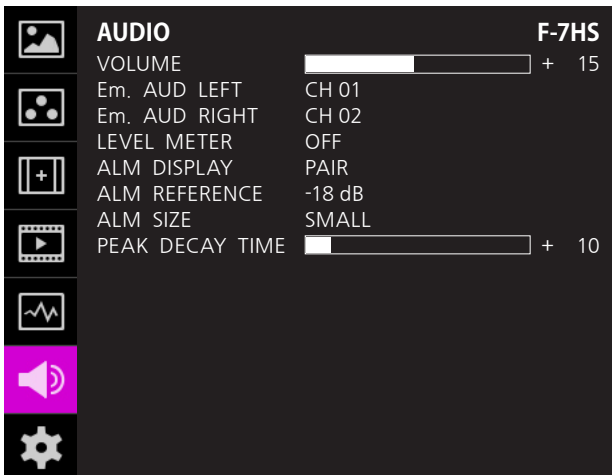
- Used to set whether or not to blink pixels with values exceeding Y MAX and Y MIN.

### • C PICTURE BLINK

- Used to set whether or not to blink pixels with values exceeding C MAX and C MIN.

# 05 MENU OPERATIONS

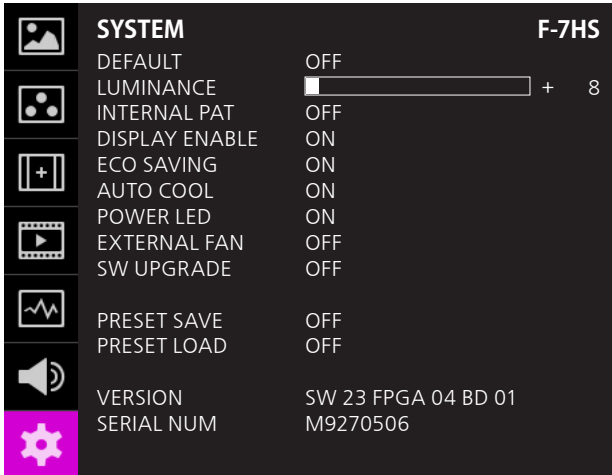
## [6] AUDIO



- VOLUME**
  - Used to control the output volume for the [AUDIO OUT] on the side of the monitor.
  - Control range is from 0 to 30.
- Em. AUD LEFT (Audio Left)**
  - Used to set embedded audio channel for left audio out of [AUDIO OUT] terminal on the side of the monitor.
  - Available options are [CH 01] to [CH 16].
  - \* In the HDMI mode, Left is set to [CH 01].
- Em. AUD RIGHT (Audio Right)**
  - Used to set embedded audio channel for right audio out of [AUDIO OUT] terminal on the side of the monitor.
  - Available options are [CH 01] to [CH 16].
  - \* In the HDMI mode, RIGHT is set to [CH 02].
- LEVEL METER**
  - Used to set the Level Meter for the embedded audio.
  - Available options are :
    - SDI Input : [Off]-[16CH(Hor.)]-[16CH(Ver.)]
    - HDMI Input: [Off]-[2CH(Hor.)]-[2CH(Ver.)]
  - \* 16 CH(HOR.) : Displays 8 channels on top left and 8 channels on top right of the screen horizontally.
  - \* 16 CH(VER.) : Displays 8 channels on center left and 8 channels on top right of the screen vertically.
  - \* In the HDMI mode, only 2 channels are displayed.
- ALM DISPLAY (Audio Level Meter Display)**
  - Used to set the display method for audio level meter.
  - Available modes are [GROUP] and [PAIR].
  - \* In the HDMI mode, the mode is set to [PAIR].
- ALM REFERENCE (Audio Level Meter Reference)**
  - Display the default audio level meter value,
  - Available options are -18dB and -20dB.
  - Audio level meter within selected value turns to green and exceeded audio level is displayed in yellow.
  - Audio level exceeding -4dB is displayed in red.
- ALM SIZE (Audio Level Meter Size)**
  - Used to control the size of the audio level meters.
  - Available options are [SMALL] and [LAGRE].
- PEAK DECAY TIME**
  - Sets the reduction time for max value indication of audio signals.
  - Control range is from MIN 0 to MAX 100. Bigger number means a longer display time for max value.

# 05 MENU OPERATIONS

## [7] SYSTEM



### • DEFAULT

- Used to initialize OSD values to factory default.
- Available modes are DEFALUT and FACTORY.
- In the DEFALUT mode, except for the stored 3D LUT, all values are initialized.
- In the FACTORY mode, all values are initialized to factory default.

### • LUMINANCE

- Used to indicate the current Luminance value .
- In the case of System Default, the value returns to factory default(after color calibration).
- Available values are from 1 to 200.

### • INTERNAL PAT (INTERNAL PATTERN)

- Generates Color Bar+Pludge and Grayscale Pattern internally.
- Selectable range for Gray Pattern is from 0% to 100% with 5% increment.
- \* See section "7. Other Function -> [11] Internal Pattern" for more information.

### • DISPLAY ENABLE

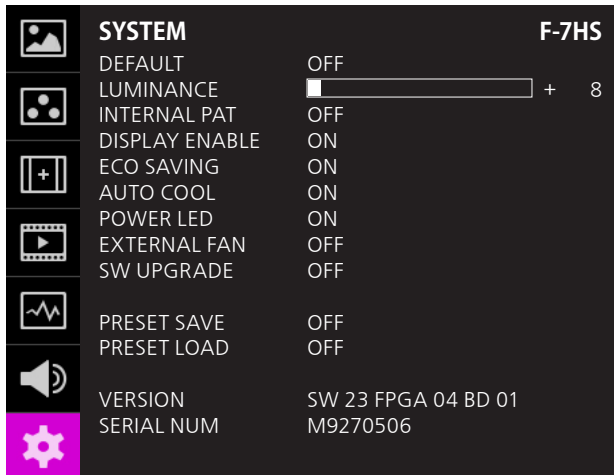
- Used to set the LUMINANCE to the minimum value when the time set in the still image output is exceeded.
- When video is output or the MENU button is pressed, the LUMINANCE is reset to the original value.
- Settable options are ON, 5 MIN, 10 MIN, 20 MIN and 30 MIN.
- In the Function Key, the screen can be turned ON/OFF immediately by user's choice.

### • ECO SAVING

- Used to save power consumption automatically when there is no monitor signal.
- When the signal is supplied, the brightness of the monitor will be changed to the set value.

# 05 MENU OPERATIONS

## [7] SYSTEM



### • AUTO COOL

- If [AUTO COOL] is set ON, the brightness mode is automatically changed to cool down the monitor and protect the hardware when the internal temperature is increased to the particular level.
- When the temperature detected on the main board reaches 75°C (167°F), the MAX BRIGHTNESS mode is automatically changed to INDOOR mode. And, 'MONITOR TOO HOT' and 'CHANGE TO INDOOR' warning signs appear on the screen alternately. When these warning signs appear, the MAX BRIGHTNESS mode cannot be selected.
- When the internal temperature detected on the main board goes down to 64°C (147°F), the warning signs disappear and the MAX BRIGHTNESS mode can be selected.

### • POWER LED

- Used to turn on or off the Power LED on the back of the monitor.
- [ON]: When the monitor power is on, the Power LED on the back turns green.
- [OFF]: When the monitor power is on, the power LED on the back turns off.

### • EXTERNAL FAN

- When [EXTERNAL FAN] mode is set ON, the USB port outputs the 5V power, which allows the external fan attached on the monitor to receive the power for the fan operation.

### • S/W UPGRADE

- Used to upgrade the firmware using USB (Thumb drive).
- \* See section "7. Other Functions -> [14] Firmware Upgrade" for more information.

### • PRESET SAVE

- Available values are from PRESET 01 to PRESET 04.
- Used to save the current settings in the PRESET position.

### • PRESET LOAD

- Available values are from PRESET 01 to PRESET 04.
- Used to load the settings saved in PRESET 01 to PRESET 04.

### • VERSION

- Displays current firmware version.

### • SERIAL NUM (Serial Number)

- Displays the serial number of the monitor.

# 06 BUTTON FUNCTIONS

## MENU <EXIT> BUTTON / KNOB BUTTON

### [1] MENU <EXIT> BUTTON

SDI A  
HDMI  
1920 x 1080 50p

- F-7HS unit is capable of processing SDI/HDMI Input Signal.

1. Press the [MENU<EXIT>] button on the top of the monitor for more than 2 seconds and activate the input selection menu as shown above.
2. The resolution of the input video is displayed on the bottom of the OSD screen.
3. Press the [MENU<EXIT>] button again to remove the OSD menu from display.


\* If no image displays after selecting the desired input mode, check and make sure that your connection is not lost or disconnected.

### [2] KNOB BUTTON

VOLUME

 + 15

BRIGHTNESS

 + 0

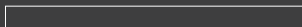
CONTRAST

 + 0

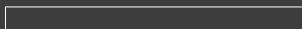
CHROMA

 + 0

SHARPNESS

 + 0

PEAKING BOOST

 + 0

- F-7HS monitor supports the HOT KEY input.

1. Press the [Knob] button on the top of the monitor for more than 2 seconds and activate the settings adjustment menu as shown above. Move to a desired menu with the Knob and press the Knob to select. The mode changes in this order: VOLUME → BRIGHTNESS → CONTRST → CHROMA → SHARPNESS → PEAKING BOOST
2. Adjust the set value by rotating the Knob.
3. Press the [MENU<EXIT>] on the top of the monitor again to remove the OSD menu from display.



# 06 BUTTON FUNCTIONS

## FUNCTION BUTTON

### [3] FUNCTION BUTTON

F1 FUNC.SEL  
SCAN  
ASPECT  
MARKER  
H/V DELAY  
BLUE ONLY  
ZOOM  
ZOOM SPLIT  
FREEZE  
DSLR SCALE  
AUDIO LVM  
TIME CODE  
FOCUS ASSIST  
WAVEFORM  
LUMA(Y') ZONE  
RANGE ERROR  
H/V FLIP  
MAX BRIGHTNESS  
CAMERA LUT  
DISPLAY ENABLE  
INPUT SELECT  
ARRI METADATA  
EXTERNAL FAN  
GRID  
3D LUT LOAD

- **Used to make a quick setting of the Function Key.**

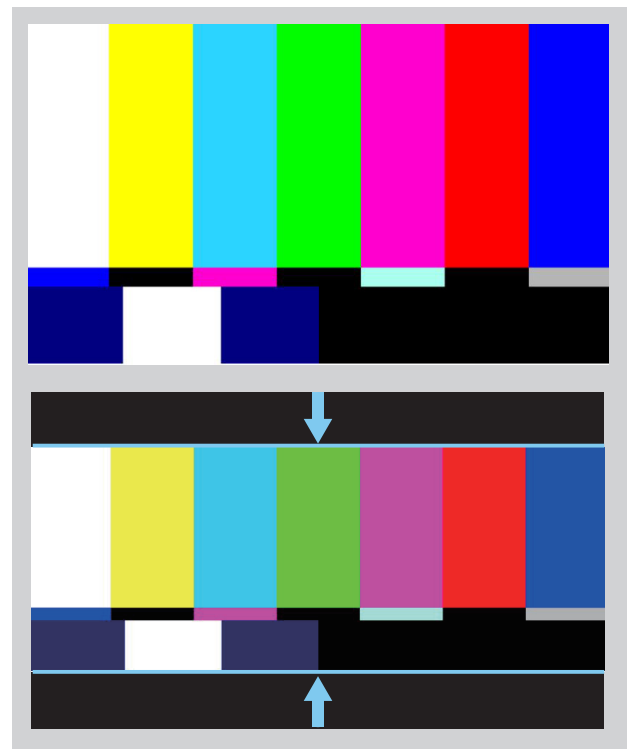
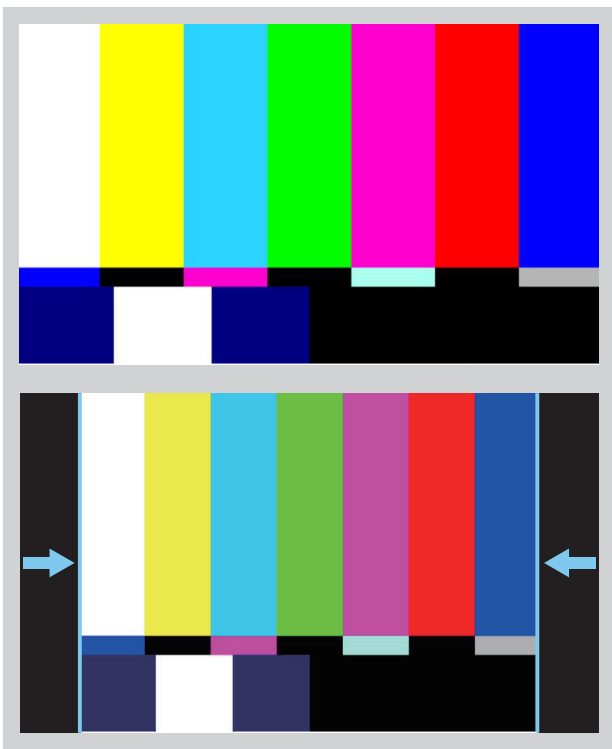
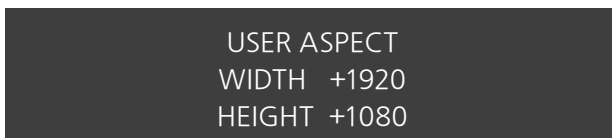
1. Press the function button(F1~F3) on the top of the monitor for more than 2 seconds and activate the OSD menu as follows.
2. Move to a desired function with the Knob and press the Knob to select.
3. Once the function is set, press the Function button(F1~F3) to activate the function.

# 07 OTHER FUNCTIONS

## [1] USER ASPECT

- Used to adjust the Width /Height display ratio.

1. There are two ways activate [USER ASPECT] mode.
  - Go to MENU → DISPLAY/VIDEO → SCAN and select the [USER ASPECT] mode.
  - Assign [ASPECT] mode to one of the Function button, press the Function button and select the [USER ASPECT] mode.
2. After the activation, press the Knob to begin controlling. Adjust the ratio using the knob.



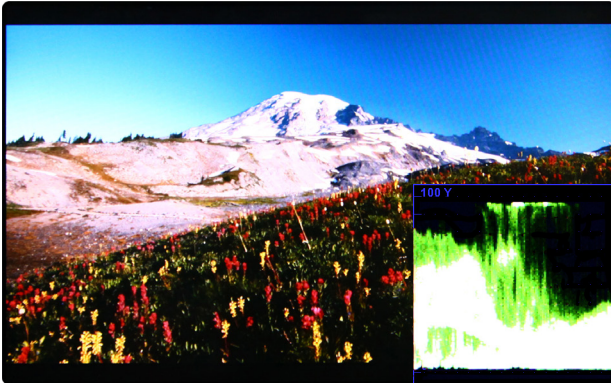
- Adjust the ratio using the Knob (UP / DOWN).
- Control range for width: 0~1920.
- Control range for height : 0~1080.
- The size-adjusted picture always stays in the center of the screen.
- The size can be adjustable with 2 increment and decrement.

# 07 OTHER FUNCTIONS

## [2] WAVEFORM / VECTORSCOPE

### • WAVEFORM Y

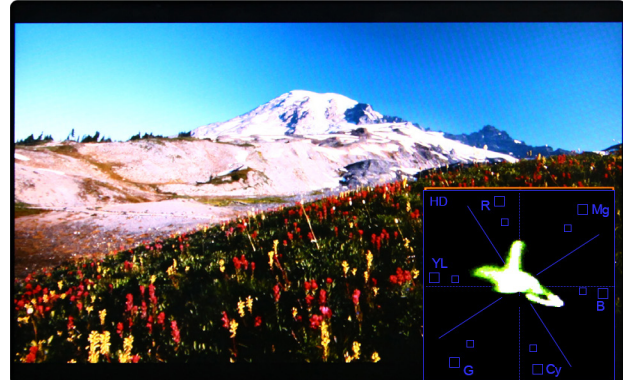
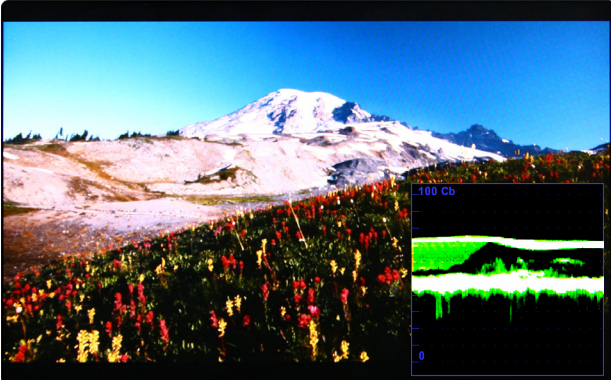
- Displays the Luma(Y') component of the input signal into waveform.



- The Waveform/ Vectorscope function can be used only when the input signal is YUV.
- In the case of RGB input, Waveform RGB is supported.
- Available modes in the YUV signal:
  - Waveform
  - Vectorscope
  - Waveform Wide
  - Waveform YCbCr
  - Waveform RGB
  - Wave\_Vector
  - YCbCr Vector
  - Full Waveform
  - Full Vector

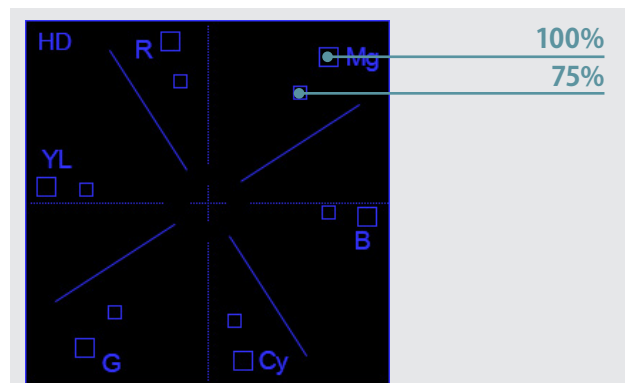
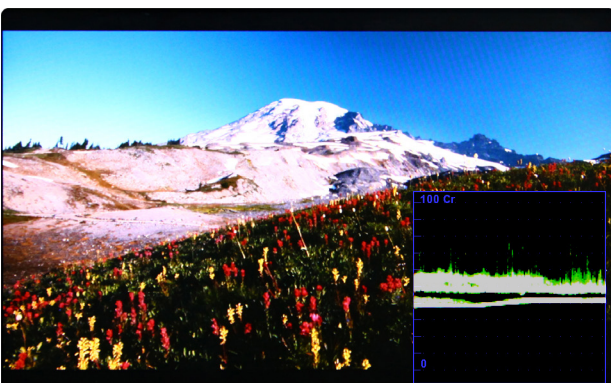
### • WAVEFORM Cb, Cr

- Displays the Cb, Cr components of the input signal into waveform.



### • VECTORSCOPE

- Displays the color components 'B-Y' and 'R-Y' of the input signals onto the X-Y axis.
- Two different types of Vetorscopes are displayed according to SD or HD input signals.
- 100% and 75% scales are indicated on the Vetorscope.

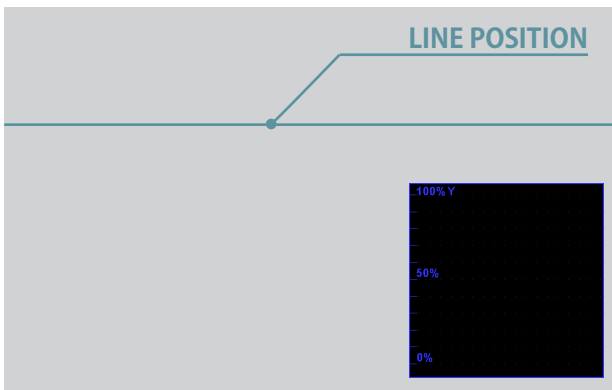


## 07 OTHER FUNCTIONS

### [3] LINE SELECT (WAVEFORM / VECTORSCOPE)

- **Used to select specific Vertical Line for WaveForm / VectorScope.**

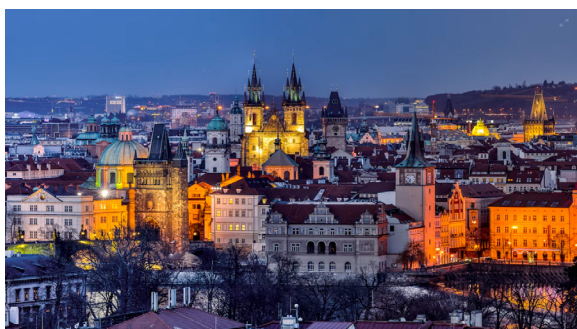
- This is available when LINE WaveForm is activated.
- To activate this feature, set [WAVEFORM] - [LINE WAVEFORM] - [ON], and select the desired horizontal line using the KNOB in [SEL LINE POS].
- Control range varies according to the resolution of the input SDI signal.
  - \* PAL : 0~625
  - \* NTSC : 0~525
  - \* 720p : 0~750
  - \* 1080 i/p : 0~1125
- Control range for HDMI signal varies according to the output resolution of the signal.
- \* Selected line is indicated on the screen.



# 07 OTHER FUNCTIONS

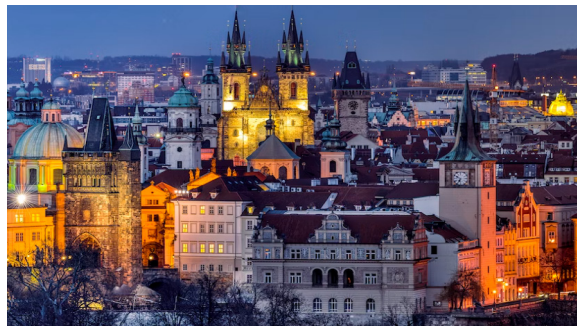
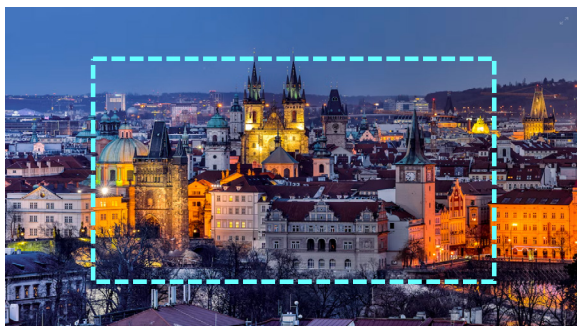
## [4] ZOOM

- Used to magnify the input signal from 0% to 90%.
- Supports Zoom Width Scroll / Zoom Height Scroll function.
- Zooms IN/OUT focused on the scrolled area.



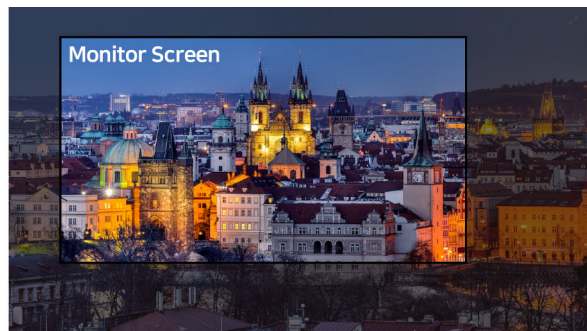
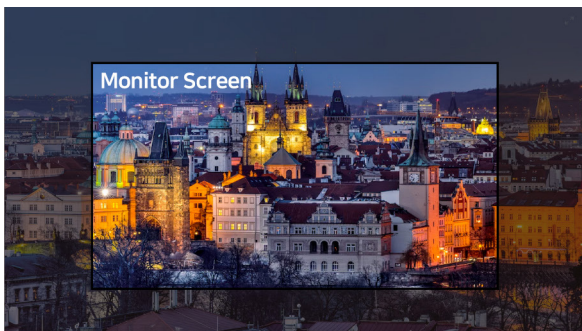
<ZOOM OFF>

ZOOM	OFF
WIDTH	+ 0
HEIGHT	+ 0



<ZOOM 30%>

- When the image is zoomed up, you can move the zoomed image vertically and horizontally with the zoom-up rate maintaining.



ZOOM	<b>30%</b>
WIDTH	+ 0
HEIGHT	+ 0

ZOOM	<b>30%</b>
WIDTH	- 70
HEIGHT	- 100



# 07 OTHER FUNCTIONS

## [5] LUMA (Y') ZONE CHECK

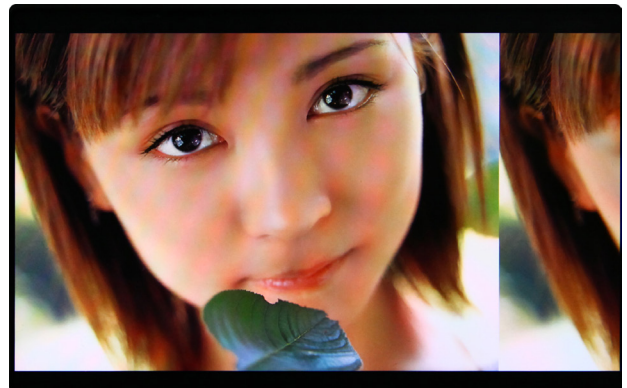
### • COLOR PATTERN TYPE

- Displays the pixels with the designated Luma(Y') levels of the input image in colors. Pixels whose Y' level is over 100% are displayed as Red. Pixels whose Y' level is below 0% are displayed as Green.
- Pixels with Y' levels which are designated by the user are displayed in following colors - yellow, pink, cyan.
- Factory Default Y' (Border line between pink and yellow) level is 70%. The upper 2.5% and lower 2.5% zone from the Y' level set in [LUMA(Y') ZONE ADJUST] menu is displayed in Pink. The upper 10% zone from the Pink zone is displayed in Yellow, and the lower 10% zone from the Pink zone is displayed in Cyan. So, 25% zone is displayed in colors and the other 75% zone is displayed mono and white.

- LUMA(Y') ZONE CHECK function is convenient to set the exposure or the lighting so that the skin tone or the specific color tone is correctly shot.

### • ZEBRA PATTERN TYPE

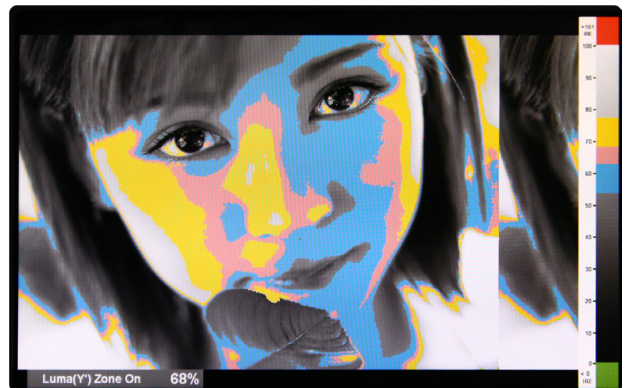
- Displays the pixels with the designated Luma(Y') levels of the input image in zebra pattern. Pixels whose Y' level is over 100% are displayed as red diagonal stripes. Pixels whose Y' level is below 0% are displayed as green diagonal stripes.
- Pixels with Y' levels which are designated by the user are displayed as black diagonal stripes.
- Factory Default Y' level is 70%. The pixels with Y' level from 65% to 75% are displayed as black zebra pattern. So, totally 10% zone is displayed as black diagonal stripes.



<Luma Zone Check OFF>



<Luma Zone Check ON\_Zebra Pattern Type>



<Luma Zone Check ON\_Color Pattern Type>

## 07 OTHER FUNCTIONS

### [6] FOCUS ASSIST

- **Focus Assist function assigns a color on the pixels of the shape or boundary of the image, which helps the user easily see which part of the image is in focus or out of focus.**
  - With this function, the user can easily differentiate the focused area from the out-focused area especially when shooting with a shallow depth of field.
  - Available types are [COLOR ON] and [MONO ON].
    - [COLOR ON]: Background image is original color type.
    - [MONO ON]: Background image is mono type.



<FOCUS ASSIST - COLOR ON>

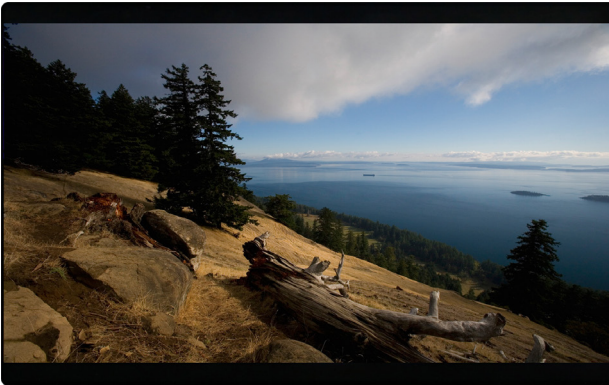


<FOCUS ASSIST - MONO ON>

## 07 OTHER FUNCTIONS

### [7] RANGE ERROR

- Pixels with Y' or C' levels exceeding the designated levels of Y MAX, Y MIN, C MAX and C MIN shall blink.
- Analyzes the input signal's Luma(Y') and chroma information(C') and if the input signal exceeds the designated minimum value and maximum value, the pixel shall blink. This function is to help the user to easily find out any unwanted level of signals and for a better exposure setting.
- \* In the case of RGB input, Range Error is not supported.



<Range Error OFF>



<Range Error ON>



## 07 OTHER FUNCTIONS

### [8] DSLR SCALE

- This function is designed for some DSLR cameras of Canon(7D) that output different resolution from the operation mode (StandBy, Record, Play Back)
  - Select the Camera model in the [Display/Vide]- [DSLR Camera Sel.] menu.
  - **CANON (5D/550D)**
    - In StandBy mode of Canon 5D Mark II, 1080i of HD resolution is indicated. However, real output resolution is 1620x1080 so blank area is displayed on the screen because the 16:9 aspect ratio is not realized.
    - In this case, use DSLR SCALE function to enlarge the 1920x1080 image and display full screen.
    - In Recording mode of CANON 5D Mark II, the output resolution is SD(480p).
    - Although it is SD, the real output resolution is 640x390 not 720x480.
    - DSLR SCALE function scales the 640x390 image to 1280x800(panel resolution) and display full screen.
- ※ Note
1. When you compare the circle chart or the camera shooting chart with DSLR connected monitor(HDMI) and HDMI to SDI Conversion connected monitor, The function of Live/Rec 16:9 mode should be selected to compare circle and it is equal to its actual. If the circle is compared in Live/Rec Full mode, the output of the circle is deformed.
  2. Both the DSLR Camera connected monitor and HDMI to SDI Conversion connected monitor should be compared to circle in Zeroscan mode. It is deformed if user selects in Overscan and Underscan mode.



<DSLR Scale Off>



<DSLR Scale On>

# 07 OTHER FUNCTIONS

## [9] HDMI To SDI CONVERSION-OUT / SDI To HDMI CONVERSION-OUT

### HDMI TO SDI CONVERSION-OUT

- Video source from 'HDMI input' terminal can be output through 'SDI throughout' terminal.

Input Format	Output Format	
	1080/50p	1080/60p
480/59.94i		●
576/50i	●	
480/60p		●
576/50p	●	
720/50p		
720/59.94p		
720/60p		
1080/50i		
1080/59.94i		
1080/60i	Converted out in the same format as the input format	
1080/24p		
1080/25p		
1080/30p		
1080/50p		
1080/59.94p		
1080/60p		

### SDI TO HDMI CONVERSION-OUT

- 3G/HD/SD SDI signals from 'SDI input' terminal can be output through 'HDMI out' terminal.

Input Format	Output Format	
	1080/50p	1080/60p
480/59.94i		●
576/50i	●	
720/50p	●	
720/59.94p		●
720/60p		●
1080/50i	●	
1080/59.94i		●
1080/60i		●
1080/24p		●
1080/25p	●	
1080/30p		●
1080/24psF		●
1080/50p	●	
1080/59.94p		●
1080/60p		●

※ **Note** : DSLR camera manufacturers usually specify the resolution and frame rate for the recording. The signal format that is output through HDMI terminal of cameras may differ from makers to makers. The signal format for HDMI output and playback function of Canon DSLRs is 59.94i. And even though 60i or 60p is specified in the specification of the cameras, the actual recording or HDMI output format would be 59.94i or 59.94p.

# 07 OTHER FUNCTIONS

## [10] SCREEN TALLY / REAR TALLY

- **Activates with the Rear Tally on the rear of the monitor at the same time.**
- **Screen TALLY On/Off**
  - Used to set Tally operation according to the input level of TALLY IN terminal which is among the terminals of XLR 4P connector in the rear.
- **Screen TALLY Operating Level**
  - Used to set the input level of Tally operation. (Open&Low : less than 0.6V, High : more than 2.5V)
  - High : Set the level as "High" to activate the Tally and set the level as "Low" to inactivate the Tally.
  - Low : Set the level as "Low" to activate the Tally and set the level as "High" to inactivate the Tally.
- **Screen TALLY Color**
  - Used to set Tally color.
  - Available colors are Red, Green and Yellow.



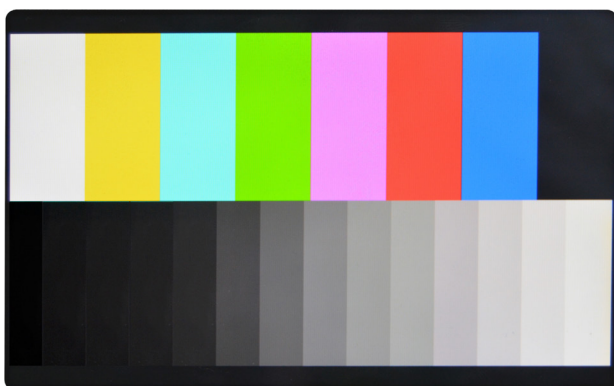
<Screen TALLY ON>

## 07 OTHER FUNCTIONS

### [11] INTERNAL PATTERN

- **Displays internally generated test patterns.**

- The pattern consists of Color Bar + Pluge pattern and Grayscale patterns.  
Full screen colors of various gray levels (0~100%) are also embedded.



<Color Bar + Pluge Pattern>



<Gray Pattern>

# 07 OTHER FUNCTIONS

## [12] ARRI CAM STATUS

- Used to display the camera status information provided by ARRI ALEXA camera on the OSD.
  - Displays the information in the order: [Project FPS]-[Exposure Time]-[White Balance]-[White Balance CC]-[Camera Index Letter] / [Lens Name]-[Focal Length]-[Iris]-[Focus Distance] / [Lens Squeeze Factor]-[Scene]
  - When the Arri Cam Status is activated, the screen will be scaled to 1742 x 980.



<ARRI CAM Status On>

## 07 OTHER FUNCTIONS

### [13] MAX BRIGHTNESS

- This function sets the brightness of the panel.
- Available values are below :
  - INDOOR : 100 nits
  - OUTDOOR : 1500 nits
  - MAXIMUM : 1800 nits

### [14] FIRMWARE UPGRADE

- The USB(Thumb drive) which contains the F/W file is needed for Firmware Upgrade.
- Select the SW UPGRADE in the SYSTEM menu.
  1. Connect the USB to the USB Slot on the bottom of the monitor.
  2. Go to [MENU] → [SYSTEM] → [SW UPGRADE], and select what to update among ALL, CPU, FPGA, IMAGE.
  3. When the USB connection is completed, the S/W upgrade starts and the progress displays on the bottom left side of the screen.
  4. If the USB doesn't connect properly or there is no file in the specified location, the error message will be displayed on the bottom left side of the screen and the upgrade won't start.
  5. In that case, check the USB or the file location and try again.
- After USB connection, turn off and then on the monitor.

# 08 AVAILABLE SIGNAL FORMATS

	INPUT SIGNAL	DISPLAY CHARACTER EXAMPLE	SDI	HDMI
VIDEO	480 / 59.94i (NTSC)	720x480 60i	●	●
	480 / 60p	720x480 60p		●
	576 / 50i (PAL)	720x576 50i	●	●
	576 / 50p	720x576 50p		●
	720 / 23.98p	1280x720 24p	●	
	720 / 24p	1280x720 24p	●	
	720 / 25p	1280x720 25p	●	
	720 / 30p	1280x720 30p	●	
	720 / 50p	1280x720 50p	●	●
	720 / 59.94p	1280x720 60p	●	●
	720 / 60p	1280x720 60p	●	●
	1080 / 23.98PsF	1920x1080 48i	●	
	1080 / 24PsF	1920x1080 48i	●	
	1080 / 25PsF	1920x1080 50i	●	
	1080 / 23.98p	1920x1080 24p	●	●
	1080 / 30PsF	1920x1080 60i	●	
	1080 / 29.97PsF	1920x1080 60i	●	
	1080 / 24p	1920x1080 24p	●	●
	1080 / 25p	1920x1080 25p	●	●
	1080 / 29.97p	1920x1080 30p	●	●
	1080 / 30p	1920x1080 30p	●	●
	1080 / 50i	1920x1080 50i	●	●
	1080 / 50p	1920x1080 25p	●	●
	1080 / 59.94i	1920x1080 60i	●	●
	1080 / 60i	1920x1080 60i	●	●
	1080 / 59.94p	1920x1080 60p	●	●
	1080 / 60p	1920x1080 60p	●	●
	PC	640 x 400 (70Hz)	640x400 70p	
640 x 480 (60Hz)		640x480 60p		●
640 x 480 (75Hz)		640x480 75p		●
800 x 600 (60Hz)		800x600 60p		●
800 x 600 (75Hz)		800x600 75p		●
1024 x 768 (60Hz)		1024x768 60p		●
1024 x 768 (70Hz)		1024x768 70p		●
1024 x 768 (75Hz)		1024x768 75p		●
1280 x 768 (60Hz)		1280x768 60p		●
1280 x 800 (60Hz)		1280x800 60p		●
1280 x 1024 (60Hz)		1280x1024 60p		●
1920 x 1080 (60Hz)		1920x1080 60p		●

# 09 VIDEO SUPPORT RESOLUTION

INPUT SIGNAL INTERFACES	SIGNAL FORMAT (SD SDI)	
SD SDI single link	720x487 (59.94i) 720x576 (50i)	YCbCr 4:2:2 10bit
INPUT SIGNAL INTERFACES	SIGNAL FORMAT (HD SDI)	
HD SDI single link	1920x1080 (23.98/24/25/29.97/30p) (50/59.94/60i) (24/25/29.97/30psf) 1280x720 (50/59.94/60p)	YCbCr 4:2:2 10bit
INPUT SIGNAL INTERFACES	SIGNAL FORMAT (3G SDI)	
3G-SDI (A/B) single link	1920x1080 (60p/59.94p/50p)	YCbCr 4:2:2 10bit
	1920x1080 (30/29.97/25/24/23.98/ 30sF/29.97sF/25sF/24sF/23.98sF)	RGB 4:4:4 10bit / 12bit YCbCr 4:4:4 10bit / 12bit
INPUT SIGNAL INTERFACES	SIGNAL FORMAT (HDMI/DP)	
HDMI single link	1080p (60/59.94/50/30/29.97/25/24/23.98) 1080i (60/59.94/50) 720p (50/59.94/60p) 480i (60) / 576i (50) 480p (60) / 576p (50)	RGB 4:4:4 8bit / 10bit / 12bit YCbCr 4:4:4 8bit / 10bit / 12bit YCbCr 4:2:2 8bit / 10bit / 12bit





# 10 PRODUCT SPECIFICATIONS







Specifications		F-7HS
LCD	Size	7"
	Resolution	1920×1200 (16:10)
	Pixel Pitch	0.07875(H) X 0.07875(V) mm
	Color Depth	1.073B Colors (10 bit)
	Viewing Angle	160°(H) / 160°(V)
	Luminance of white	1800 nits(Max)
	Contrast Ratio	1200 : 1
	Display Area	151.2(H) X 94.5(V) mm
Input	1 X HDMI	HDMI Input
	1 X BNC	3G/HD/SD SDI Input
Output	1 X HDMI	HDMI Output (HDMI loop out, SDI-to-HDMI Conversion output)
	1 X BNC	3G/HD/SD SDI Output (SDI loop out, HDMI-to-SDI Conversion output)
Input Signal	3G-SDI	2.970 Gb/s
	HD-SDI	1.485 Gb/s
	SD-SDI	270 Mb/s
	HDMI	480i / 480p / 576i / 576p / 720p / 1080i / 1080p
SDI Input Signal Formats	SMPTE ST-425M-A/B	1080p (60/59.94/50/30/29.97/25/24/23.98/30sF/29.97sF/25sF/24sF/23.98sF)
		1080i (60/59.94/50)
	SMPTE ST-274M	1080i (60/59.94/50)
		1080p (30/29.97/25/24/24sF/23.98/23.98sF)
	SMPTE ST-296M	720p (60/59.94/50)
	SMPTE ST-125M	480i (59.94)
ITU-R BT.656	576i (50)	
Update	1 x USB	USB A type, Firmware Upgrade
Audio In	SDI Embedded Audio (Group, Ch Selectable)	
Audio Out	External Output Port (3.5m Phone Jack)	
Power	DC 6V ~ 34V	
Power Consumption (Approx.)	21W(Max)	
Operating Temperature	0°C to 40°C (32°F to 104°F)	
Storage Temperature	-20°C to 60°C (-4°F to 140°F)	
Dimensions	Main Body	211 x 125 x 28.3mm (8.3 x 4.95 x 1.11 inch)
	Shipping Box	290 X 158 X 83mm (11.42 X 6.22 X 3.27 inch)
Weight	0.76kg / 1.67lbs	
Basic Accessories	D-Tap-C Cable, Camera Mount	
Optional Accessories	External Acrylic Protector, Sun Hood, D-Tap Power Cable, Battery Bracket, V-Mount Battery Bracket, Anton-Bauer(Gold) Battery Bracket, Carrying Case, DC Adapter, HDMI Bracket	

\* The specification above may be changed without notice.





# 11 OPTIONAL ACCESSORIES

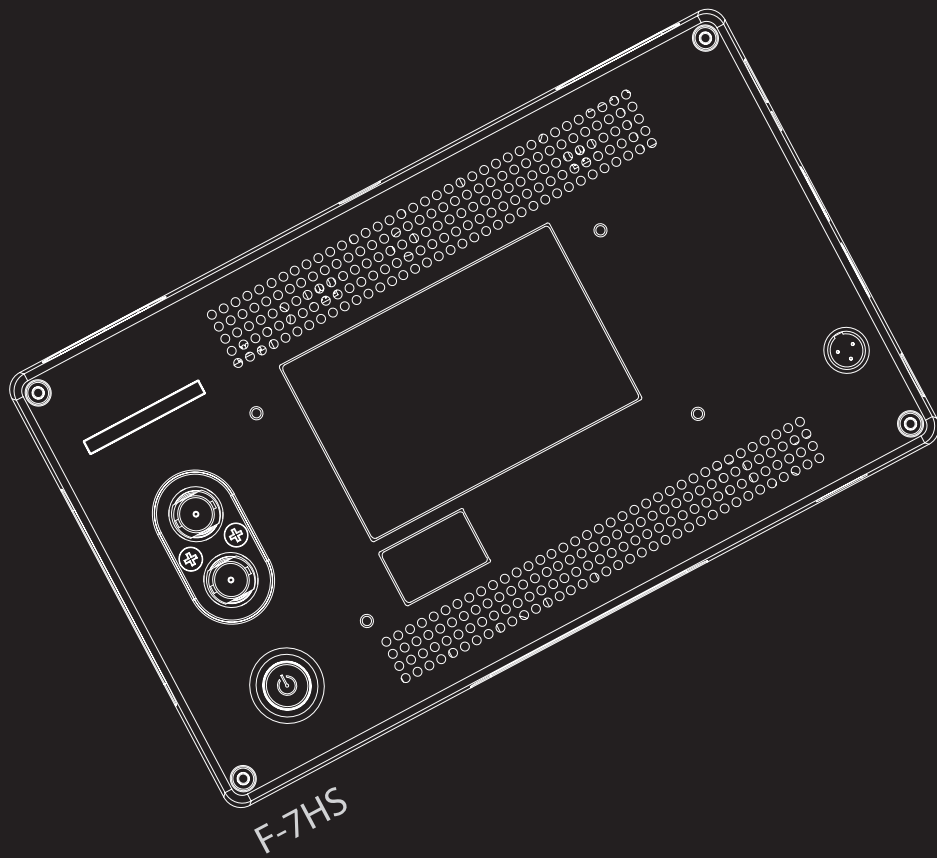
Model	Product Description	
OPT-AF-F-7H	External Acrylic filter for F-7H / F-7HS	
Hood-F-7H	Sun Hood for F-7H / F-7H mk2 / F-7HS	
HDMI BKT-F7H	HDMI Bracket for F-7H / F-7H mk2 / F-7HS	
TH-Mount-F7H	Camera Mount for F-7H / F-7H mk2 / F-7HS (Screw head length 20mm)	
V-Mount-F7H-C	Battery Adapter for F-7H / F-7H mk2 / F-7HS/ F-10A (Cost effective)	
V-Mount-F7H	Battery Adapter for F-7H / F-7H mk2 / F-7HS/ F-10A (IDX V-Mount Plate)	

# 11 OPTIONAL ACCESSORIES

Model	Product Description	
AB-mount-F7H (AP) G-Mount-F7H (EMEA)	Anton-Bauer(Gold) Battery Adapter for F-7H / F-7H mk2 / F-7HS / F-10A	
D-Tap-C cable	D-Tap Adapter for VFM-056WP, 058W, 055A & LVM-074, 070C, 075A / SRM-074W(-N) / F-7H / F-7H mk2 / F-7HS / F-10A (Coil Type)	
D-Tap-S cable	D-Tap Adapter for VFM-056WP, 058W, 055A & LVM-074, 070C, 075A / SRM-074W(-N) / F-7H / F-7H mk2 / F-7HS / F-10A (Short - 17" length)	
D-Tap-L cable	D-Tap Adapter for VFM-056WP, 058W, 055A & LVM-074W, 070C, 075A / SRM-074W(-N) / F-7H / F-7H mk2 / F-7HS / F-10A (Long - 29" length)	
BB-F7H-S	Battery Bracket for F-7H / F-7H mk2 / F-7HS / F-10A (Sony NP-F770/F970)	
BB-F7H-C	Battery Bracket for F-7H / F-7H mk2 / F-7HS / F-10A (Canon BP Series)	

# 11 OPTIONAL ACCESSORIES

Model	Product Description	
BB-F7H-P	Battery Bracket for F-7H / F-7H mk2 / F-7HS / F-10A (Panasonic CGA/VB Series)	
BB-F7H-U	Battery Bracket for F-7H / F-7H mk2 / F-7HS / F-10A (Sony BP-U30/U60)	
BB-F7H-E	Battery Bracket for F-7H / F-7H mk2 / F-7HS / F-10A (Canon LP-E6 Series, DSLR EOS 5D/7D)	
BB-F7H-B	Battery Bracket for F-7H / F-7H mk2 / F-7HS / F-10A (Panasonic AF-100)	



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