Electronic Viewfinder
Operation Manual_v1.6

EVF-035W-3G

Contents

FCC (Federal Communications Commission)

This equipment has been tested and found to comply with the limits for class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interface when the equipment is operated in a commercial environment.

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential to correct the interference at his own expense

CAUTION: Change or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

Disposal of Old Electrical & Electronic Equipment

(Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packing indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequence for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources.

1. Caution

- **Always use set voltage. (DC 6.8-12V)**
- **D-tap to mini XLR connection.**

- 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 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.

1. Caution

- 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.

- 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.

- 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.

- 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.

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

- Risk of explosion if battery is replaced by and incorrect type.
  Dispose of used batteries according to the instructions.

- The magnification lens in the viewfinder may also magnify tiny dusts on the LCD screen which may look like defects of the LCD panel. Please wipe out or blow off the dusts on the screen before using the EVF-035W-3G.

- To avoid scratches on the LCD screen please only blow off the dust and don't use a cloth or fingers to clean the screen.
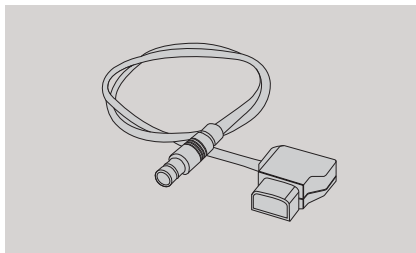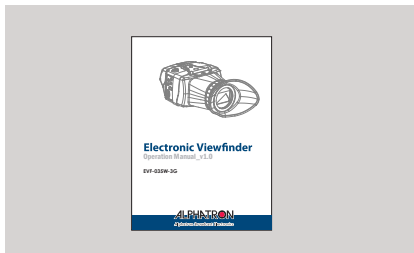
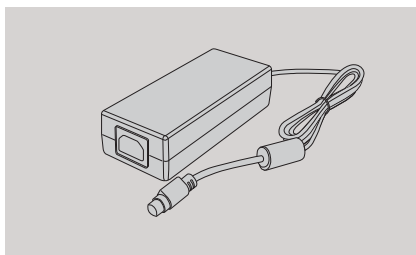# 2. Components

EVF-035W-3G
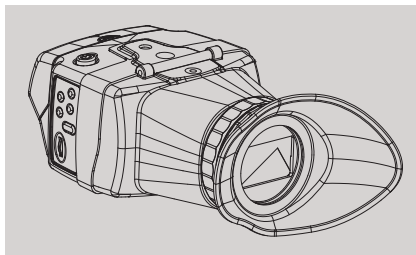
Camera Mount x 2
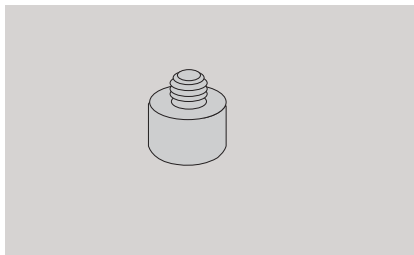
D-Tap Cable

Operation Manual

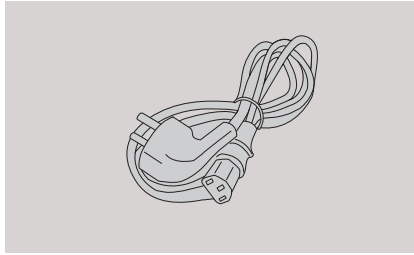**Electronic Viewfinder**
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DC Power Adapter (Option)
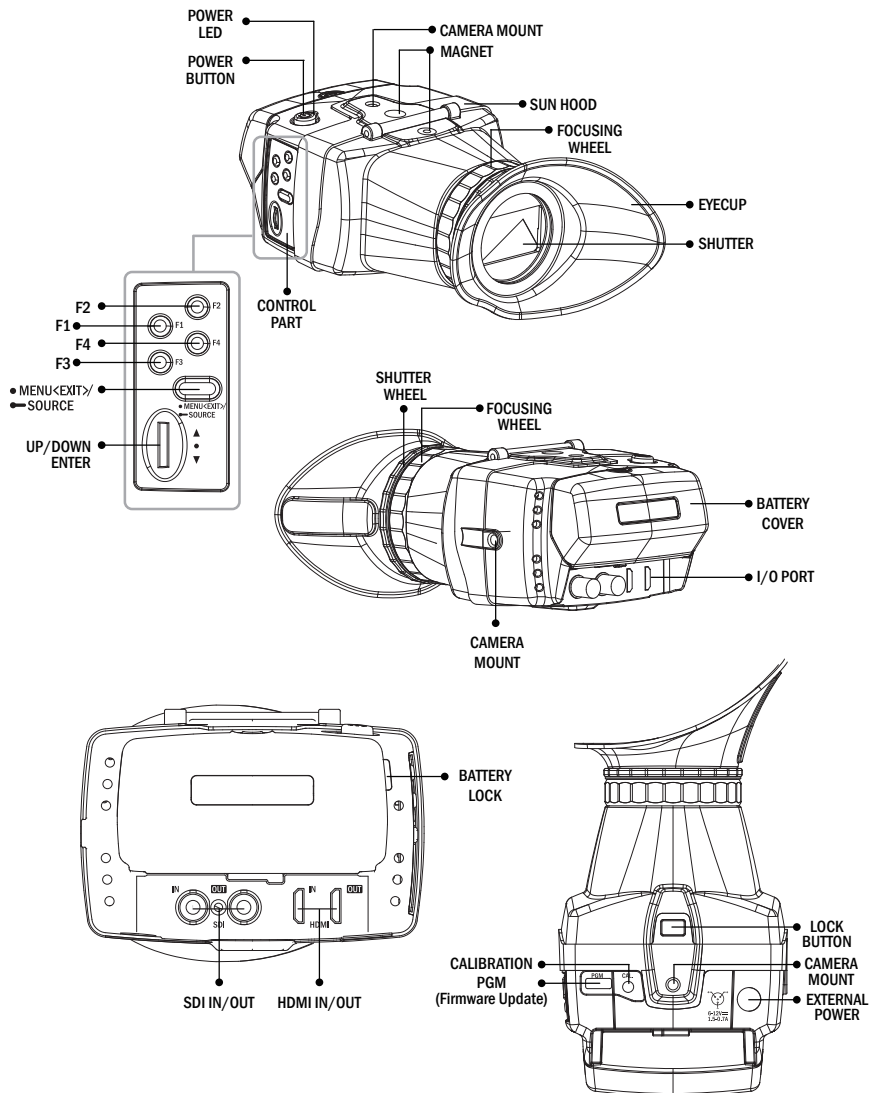

AC Power Cord (Option)

3. Main Features

EVF-035W-3G Monitor contains the following features:

- **SDI signal compatibility**
  - This product is compatible with various SDI signals - SD/HD/3G(A/B)-SDI 480i, 576i, 1080i, 1080p, 1080psf

- **HDMI signal compatibility**
  - Supports HDMI(w/ HDCP) input is available without any other accessory.

- **HDMI To HDMI Active Loop Throughout**
  - Supports HDMI-To-HDMI Active Loop Throughout function.

- **Compact and powerful**
  - Compact size for best space utilization and powerful features that requires no other accessories

- **Wide Screen / Wide Viewing Angle**

- **Rotary Control**
  - Easy to adjust user configuration using the Rotary control on the left side of the viewfinder.

- **BLUE ONLY/MONO/Focus Assist/H/V Delay Function**

- **Range Error/Luma(Y') Zone Check (Color/Zebra Type) Function**

- **Internal Pattern Generator (0~100% Gray/ColorBar+Pluge)**

- **Markers & Safety Areas**
  - Center Marker, Safety Area Marker, Aspect Marker, Display Size(Scan)

- **HDMI-SDI Active Loop Through-out**

- **Pixel To Pixel/Zoom mode**
  - Used to display the original image resolution without scaling to match a certain resolution or an aspect ratio.
  - Select 'Pixel to pixel' to display unscaled images, and select 'Zoom' to enlarge the original image.
  - Zoom Scroll Function (Left/Right,Top/Bottom)

- **Power**
  - Basically, the product is powered by normal DC source.
  - The product can be battery-powered.
  - * DC 6.8V ~ 12V
  - * D-tap to mini XLR connection.

- **Additional features**
  - 3 Camera Mounting Holes, Luminance of 500cd/m^2, Contrast Ratio of 1000 : 1, OSD user interface

4. Control & Functions

EVF-035W-3G

POWER LED

POWER BUTTON

CAMERA MOUNT

MAGNET

SUN HOOD

FOCUSING WHEEL

EYECUP

SHUTTER

F2

F1

F4

F3

MENU<EXIT>/SOURCE

UP/DOWN ENTER

CONTROL PART

SHUTTER WHEEL

FOCUSING WHEEL

BATTERY COVER

I/O PORT

CAMERA MOUNT

BATTERY LOCK

SDI IN/OUT

HDMI IN/OUT

CALIBRATION PGM (Firmware Update)

LOCK BUTTON

CAMERA MOUNT

EXTERNAL POWER

4. Control & Functions

SIDE

- **[F1](SCAN) Button**
  - This Functions button is used to activate the feature selected in "DISPLAY & SET – F1 Key" menu.
  - Default setting of F1 Button is Scan Mode.

- **[F2](ASPECT) Button**
  - This Functions button is used to activate the feature selected in "DISPLAY & SET – F2 Key" menu.
  - Default setting of F2 Button is Aspect.

- **[F3](MARKER) Button**
  - This Functions button is used to activate the feature selected in "DISPLAY & SET – F3 Key" menu.
  - Default setting of F3 Button is Marker Enable.

- **[F4](L(Y')ZoneCheck) Button**
  - This Functions button is used to activate the feature selected in "DISPLAY & SET – F4 Key" menu.
  - Default setting of F4 Button is L(Y')Zone Check.

- **[MENU<EXIT>/SOURCE] Button**
  - Press the button for less than 2 seconds to activate the main OSD menu.
  - Used to return from sub menu to main menu.
  - Press the button for more than 2 seconds to change the Input Signal. (SDI <--> HDMI) (SDI, HDMI)

- **[UP/DOWN/ENTER] Rotary Control**
  - When OSD menu is inactivated, press the Rotary Control to adjust the value of Brightness, Contrast, Chroma or Aperture.
  - Also the Rotary Control is used to decrease or increase the value of the selected feature.

BOTTOM/REAR

- **[CAL.]**
  - This terminal is for firmware upgrade or color calibration by using the Tool made by TVLogic.

- **[USB] Port**
  - Used to update new program for future enhancements.

- **[SDI-IN] (BNC)**
  - Signal input terminal for SD/HD SDI.

- **[SDI-OUT] (BNC)**
  - SD/HD-SDI Signal Output which is input through [SDI-IN] terminal.

- **[HDMI] IN**
  - Signal input terminal for HDMI signal.

- **[HDMI] OUT**
  - Signal output terminal for HDMI signal.

- **BATTERY IN**
  - Battery Power Input : DC 6.8 ~12V
  - * Rated Power Input : DC 6.8 ~ 18V
  - * D-Tap to mini XLR connection.

- **DC POWER IN (Mini XLR 4P)**
  - DC power input terminal for DC 12V.
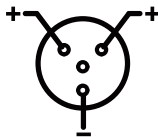
<Warning!!>
When using the product make sure to ground the product before connecting the input signal line. The unit may not operate properly if the input line is connected before the GND is connected.

5. Menu Tree & Adjustment

[1] Menu Structure

- **OSD(On-Screen Display) Menu helps you use various functions.**
- **This Picture is the menu structure for EVF-035W-3G**

PICTURE	
Brightness	0
Contrast	0
Chroma	0
Aperture	0
Scan Mode	Over
Aspect	16:9
3G Format	Normal
DSLR Camera	CANON 5D/7D
DSLR Scale	Playback
Rotary Lock	Unlock

[2] Menu Control

- **User may control various functions using MENU button and the Rotary Control on the side of the monitor.**

[3] Menu Control Sequence

1. Press MENU button to activate the OSD menu.
2. Move to a desired menu by rotating the rotary control.
3. Press the Rotary Control to select a menu and move to select a sub-menu by rotating the Rotary Control.
4. Press the Rotary Control to select the desired sub menu. (The selected sub-menu will be highlighted)
5. Press ENTER button or MENU button to save the new value after adjusting the value by rotating the Rotary Control.
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.

5. Menu Tree & Adjustment

[4] Menu Tree

PICTURE		COLOR	
Brightness	-100 ~ +100	Color Temp	3200K 5600K 6500K 9300K User1 User2 User3
Contrast	-100 ~ +100		
Chroma	50 ~ +50	Gain Red	-128 ~ +127
Aperture (Sharpness)	25 ~ +25	Gain Green	-128 ~ +127
Scan Mode	Zero Over Pixel To Pixel User	Gain Blue	-128 ~ +127
		Bias Red	-128 ~ +127
Aspect	16:9 4:3 2.35:1 1.85:1 15:9 16:10 Auto	Bias Green	-128 ~ +127
3G Format	Normal A444 10B_YCbCr A444 10B_RGB A444 12B_YCbCr A444 12B_RGB A422 12B_YCbCr B444 10/12B_YCbCr B444 10/12B_RGB B444 12B_YCbCr B444 10B_YCbCr/P	Bias Blue	-128 ~ +127
DSLR CAMERA	CADNON 5D/7D SONY A77 NIKON D7000	Color Copy	3200K 5600K 6500K 9300K User1 User2 User3
DSLR Scale	Playback Live/REC Full Live/REC 16:9		
Rotary Lock	Unlock Lock		

5. Menu Tree & Adjustment

[4] Menu Tree

MARKER			
Marker Enable	Off On	Marker Color	White Gray Black Red Green Blue
Marker Type	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 User	Marker Thickness	1~6
Center Marker	Off On	User Marker H1	1~960
Safety Area	Off 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 EBU Graphic 4:3	User Marker H2	1~960
Fit Marker	Off On	User Marker V1	1~640
Marker Mat	Off 1 ~ 7	User Marker V2	1~640

5. Menu Tree & Adjustment

[4] Menu Tree

ERROR CHECK		AUDIO	
L(Y')Zone Check	Off Color Zebra	Level Meter	Off 16CH Hor 16CH Ver
L(Y')Zone Adjust	0 ~ 100	Lv Meter Disp	Pair Group
Range Error	Off On	Lv Meter Ref	-18dB -20dB
Y' Max	0 ~ 255	Lv Meter Size	Small Large
Y' Min	0 ~ 255	Peak Decay Time	0 ~ 100
C Max	0 ~ 255		
C Min	0 ~ 255		
Y' Pic Blink	Off On		
C Pic Blink	Off On		

5. Menu Tree & Adjustment

[4] Menu Tree

DISPLAY & SET		SYSTEM	
System Default	No Yes	RS-232 Type	Upgrade Calibration
Back Light	0 ~ 100	HDMI To SDI	Off On
Int Pattern	Off Color + Pluge Gray 0% ~ 100%	FPGA : MCU :	
Time Code	Off VITC LTC		
Focus Assist	Off Mono On Color On		
F/A Color	Red Green Blue		
F/A Level	0 ~ 100%		
F1 Key	Scan Mode Aspect Marker Enable L(Y')Zone Check Range Error Audio Level Meter Time Code Focus Assist Blue Only		
F2 Key			
F3 Key			
F4 Key			

6. Menu Operations

[1] PICTURE

```
                    P I C T U R E
Brightness                                    0
Contrast                                      0
Chroma                                        0
Aperture                                      0
Scan Mode                                  Over
Aspect                                     16:9
3G Format                                Normal
DSLR Camera                        CANON 5D/7D
DSLR Scale                             Playback
Rotary Lock                              Unlock
```

● **Brightness**
  - Used to set the brightness(=offset) level from
    -100 to 100.

● **Contrast**
  - Used to set the contrast(gain) level from
    -100 to 100.

● **Chroma**
  - Used to set the saturation level from -50 to 50.

● **Aperture (Sharpness)**
  - Used to set the sharpness level from -25 to 25.

● **Scan Mode**
  - Used to change the Scan mode. Scroll up
    and down the Rotary Control and the mode
    will be changed as the following sequence.
    [Over Scan] -> [Zero Scan] -> [User] ->[Pixel-
    To-Pixel]
  * See section "6. Other Functions -> [1] Pixel to
    Pixel and [2] User Aspect" for more
    information.

● **ASPECT**
  - Used to change Aspect Ratio.
  - The Aspect Modes are changed as the following
    sequence. : 4:3, 16:9, 15:9, 1.85:1, 2.35:1
  - When the original Aspect ratio of the Input
    Signal is 16:9, the Aspect Mode is fixed as 16:9.

● **3G Format**
  - Used to select 3G-SDI A/B input format
    among NORMAL MODE(AUTO - A 422 10BIT_
    YCbCr 50/60P), A 444 10/12BIT_YCbCr, A 444
    10/12BIT_RGB, A 422 12BIT_YCbCr, B 444
    10/12BIT_YCbCr, B 444 10/12BIT_RGB, B 422
    12BIT_YCbCr, B 422 10BIT_YCbCr 50/60P.
  - In NORMAL MODE, automatically detected
    when Payload signal is contained.

● **DSLR Camera**
  - Select the DSLR camera to be used with EVF-
    035W-3G . Available models are [CANON
    5D/7D],   [SONY A77] and [NIKON D7000].
  * DSLR cameras' screen size and aspect ratio
    of Live / Record / Playback modes vary
    according to their manufacturer.

● **DSLR SCALE (HDMI Format Only)**
  - This is a special function for CANON/NIKON/
    SONY DSLR cameras.
  - Used to scale the image with different
    resolution as to the operation mode(Playback,
    Live/REC Full, Live/REC 16:9) of the camera to
    fullfill the screen.
  * See section "6. Other Functions [7] DSLR
    SCALE" for more information.

● **Rotary Lock**
  - Locks the Rotary control.

6. Menu Operations

[2] COLOR

C O L O R	
Color Temp	6500K
Gain Red	0
Gain Green	0
Gain Blue	0
Bias Red	0
Bias Green	0
Bias Blue	0
Color Copy	6500K

● **Color Temp.**
  - Controls color temperature and allows instant access to preset color temperature settings.
  - Available color temperatures are 3200K, 5600K, 6500K, 9300K and User 1/2/3.
  - In User 1/2/3 modes, user can define custom RGB GAIN and BIAS (=Offset) values.

● **Gain Red/Green/Blue**
  - Used to set R/G/B Gain(or Picture, Contrast) level from -128 to 127.
  # Only available in User 1/2/3 mode.

● **Bias Red/Green/Blue**
  - Used to set R/G/B Bias(or Offset, mainly affects on Black level) from -100 to 100.
  # Only available in User 1/2/3 mode.

● **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 Enter button to copy and apply the Gain value to GAIN RED, GAIN GREEN, GAIN BLUE.
  # Only available in User 1/2/3 mode.

6. Menu Operations

[3] MARKER

M A R K E R	
Marker Enable	Off
Marker Type	Off
Center Marker	Off
Safety Area	Off
Fit Marker	Off
Marker Mat	Off
Marker Color	White
Thickness	1
User Marker H1	1
User Marker H2	960
User Marker V1	1
User Marker V2	640

● **Marker Enable**
  - Used to activate the Marker function.
  - 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.
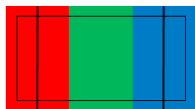
● **Marker Type**
  - Used to select the marker type.
  - Available marker types are OFF, 16:9, 4:3, 4:3 ON AIR, 15:9, 14:9, 13:9, 1.85:1, 2.35:1, 1.85:1 & 4:3 and USER.
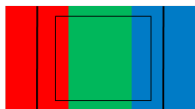
● **Center Marker**
  - Displays the Center Marker on the screen.

● **Safety Area**
  - Used to select to display 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.

MARKER   : 4:3
SAFETY AREA : 90%
FIT MARKER : OFF

MARKER   : 4:3
SAFETY AREA : 90%
FIT MARKER : ON

● **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, gray, black, red, green and blue.

● **Thickness**
  - Used to set the thickness of the MARKER lines.
  - Thickness level is from 1 to 7 by the pixel unit.

● **USER Marker H1**
  - Used to set the position of the first horizontal marker line.
  - Displayed when MARKER menu is set to USER.

● **USER Marker H2**
  - Used to set the position of the second horizontal marker line.
  - Displayed when MARKER menu is set to USER.

● **USER Marker V1**
  - Used to set the position of the first vertical marker line.
  - Displayed when MARKER menu is set to USER.

● **USER Marker V2**
  - Used to set the position of the second vertical marker line.
  - Displayed when MARKER menu is set to USER.

6. Menu Operations

[4] ERROR CHECK

```
        E R R O R   C H E C K
L(Y')Zone Check                    Off
L(Y')Zone Adj                      75%
Range Error                        Off
Y' Max                             255
Y' Min                               0
C Max                              255
C Min                                0
Y' Pic Blink                       Off
C Pic Blink                        Off
```

- **L (Y') Zone Check (Luma Zone Check)**
  - Displays the Luma(Y') level of the input image with specific colors.
  - Each pixel's Y' is analyzed and changed to a specific color according to the Index on the right side of the screen.
  - * See section "6. Other Function [3] L(Y')Zone Check" for more information.
  - When a pixel's Y' level is under 0%(16), the color /diagonal line will be colored Green.
  - When the pixel's Y' level is over 100%(235), the color / diagonal line will be colored Red.
  - When the Y' level of a pixel is between 0~100%, the pixel is displayed with Gray, except for selected Luma Zone.
  - A 5% zone of the selected Y' level will be colored Pink(5%) and ±10% will be colored Yellow(-10% from Pink) and Cyan(+10% from Pink).

- **L (Y') Zone Adj. (Luma Zone Adjust)**
  - Used to set the Y' level to be colored Yellow, Pink and Cyan simply by scrolling the Rotary Control.
  - Available values are 0 ~ 100%.

- **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/VECTOR.
  - 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 "6. Other Function [5] Range Error" for more information.

- **Y' Max**
  - Used to set the maximum luma(Y') level from 0 to 255.
  - Pixels with values exceeding the max Y' level will blink in the screen.

- **Y' Min**
  - Used to set the minimum luma(Y') level from 0 to 255.
  - Pixels with values exceeding the min Y' level will blink in the screen.

- **C Max**
  - Used to set the maximum chroma(C') level from 0 to 255.
  - Pixels with values exceeding the max C' level will blink in the screen.

- **C Min**
  - Used to set the minimum chroma(C') level from 0 to 255.
  - Pixels with values exceeding the min C' level will blink in the screen.

- **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.

6. Menu Operations

[5] AUDIO

```
                    A U D I O
Level Meter                            Off
Lv Meter Disp                         Pair
Lv Meter Ref                         -18dB
Lv Meter Size                        Small
Peak Decay Time                          0
```

● **Level Meter**
  - Used to set the Level Meter for the embedded audio.
  - Available options are OFF, 16 CH(HOR.) and 16 CH(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.

● **Lv Meter Disp (Level Meter Display)**
  - Used to set the display method for audio level meter.
  - Available modes are GROUP and PAIR.

● **Lv Meter Ref (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.

● **Level Meter Size**
  - Used to control the size of the audio level meters.
  - Available options are NORMAL 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.

6. Menu Operations

[6] DISPLAY & SET

```
D I S P L A Y & S E T

System Default                          No
Back Light                               0
Int Patern                             Off
Time Code                              Off
Focus Assist                           Off
F/A Color                              Red
F/A Level                               0%
F1 Key                            ScanMode
F2 Key                              Aspect
F3 Key                        Marker Enable
F4 Key                      L(Y')ZoneCheck
```

● **System Default**
  - Used to initialize OSD values to factory
    default.

● **Back Light**
  - Used to indicate the backlight level.
  - In case of System Default, the value returns to
    factory default(after color calibration).
  - Available values are from 0 to 50.

● **Int Pattern (Internal Pattern)**
  - Generates ColorBar, Pluge and Grayscale
    Pattern internally.
  - Selectable range for Gray Pattern is from 0%
    to 100% with 5% increment.
  * See section "6. Other Function -> [6] Iternal
    Pattern" for more information.

● **Time Code**
  - Used to display the Time Code.
  - Available modes are VITC, LTC and OFF.

● **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.
  - Available modes are Mono and Color.
  * See section "6. Other Function -> [4] Focus
    Assist" for more information.

● **F/A COLOR**
  - Used to select a color for FOCUS ASSIST
    among red, green and blue.

● **F/A LEVEL**
  - Used to set the edge difference value
    between the edges in an image.
  - Available values are from 0 to 100. Larger
    value means more sophisticated 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.
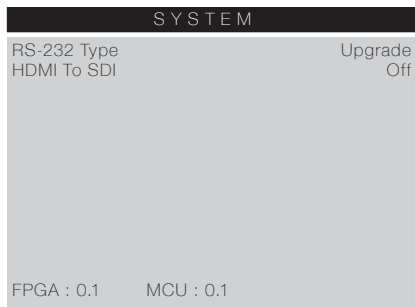
● **F1 Key**
  - User can select the function for [F1] Key.
  - Selectable Items : Scan Mode, Aspect, Marker
    Enable, L(Y') Zone Check, Range Error, Audio
    Level Meter, Time Code, Focus Assist, BLUE
    ONLY, DSLR Scale and Off.

● **F2 Key**
  - User can select the function for [F2] Key.
  - Selectable Items : Scan Mode, Aspect, Marker
    Enable, L(Y') Zone Check, Range Error, Audio
    Level Meter, Time Code, Focus Assist, BLUE
    ONLY, DSLR Scale and Off.

● **F3 Key**
  - User can select the function for [F3] Key.
  - Selectable Items : Scan Mode, Aspect, Marker
    Enable, L(Y') Zone Check, Range Error, Audio
    Level Meter, Time Code, Focus Assist, BLUE
    ONLY, DSLR Scale and Off.

● **F4 Key**
  - User can select the function for [F4] Key.
  - Selectable Items : Scan Mode, Aspect, Marker
    Enable, L(Y') Zone Check, Range Error, Audio
    Level Meter, Time Code, Focus Assist, BLUE
    ONLY, DSLR Scale and Off.

6. Menu Operations

[7] SYSTEM

```
                  S Y S T E M
RS-232 Type                          Upgrade
HDMI To SDI                              Off




FPGA : 0.1      MCU : 0.1
```

- **RS-232 Type**
  - Choose between Firmware Upgrade or
    Calibration with RS-232(Phone Jack) terminal.
  - When Calibration is selected the screen is
    changed to white. To return to normal screen
    mode, choose upgrade mode.

- **HDMI To SDI**
  - Select SDI output teminal Singal.
  - When it is "ON" HDMI input signal is output to
    SDI terminal.
  - When it is "OFF" SDI input signal is output to
    SDI terminal.
  - Avilable HDMI support signal formats
    are 480i/p, 576i/p, 720 50p/60p, 1080
    60p/50p/60i/50i/24/25/30p

- **Displays FPGA, MCU and Calibration
  information.**

7. Other Functions

[1] Pixel to Pixel

- EVF-035W-3G provides pixel count information using Pixel to Pixel mode.
Select [Scan] mode in the DISPLAY & SET menu or set the Scan mode to function Key to activate the[Pixel To Pixel] mode.

- After activation of [Pixel To Pixel] mode, use the Rotary Control to move the position before the message window disappears.

- If the message window disappears, repositioning menu is not available. Then activate the [Pixel To Pixel] mode again and adjust the position by using the Rotary Control.

- Available range: H position 0~10 , V potion 0~10

[2] User Scan

- The EVF-035W-3G can adjust the Scan Size in the User Scan Mode.

- Select [User] mode in the DISPLAY & SET menu or set the Aspect to function Key to activate the[User] mode.

- After activation of [User] mode, use the Rotary Control to move the position and adjust the size before the message window disappears.

- If the message window disappears, resizing menu is not available. Then activate the [User] mode again and adjust the position and size by using the Rotary Control.

- Available range: H Size 480~960 , V Size 320 ~ 640

7. Other Functions

[3] Luma(Y') Zone Check

■ Color Pattern Type

- Displays the Luma(Y') level of the input image in colors.

- Y' ≥ 100% : Pixels with higher Y' level than 100 turn to red.

- Y' ≤ 0% : Pixels with lower Y' level than 0 turn to green.

- Pixels with Y' levels designated by the user are displayed as following colors - yellow, pink, cyan.

- Factory Default Y' (Border line between pink and yellow) level is 75% and pink color is assigned to pixels with Y' level from 70% to 75%.

- Yellow color is assigned to pixels with Y' level from 75% to 85%, and Cyan from 60% to 70%.

- This function is designed for better performance in setting the exposure of lighting when shooting with vDSLR cameras.
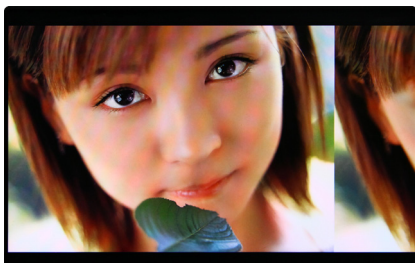
■ Zebra Pattern Type

- Displays the pixels with designated Luma(Y') levels with zebra pattern.

- Y' ≥ 100%: Pixels with Y' level over 100% turn to red diagonal line.

- Y' ≤ 0% : Pixels with Y' level under 0% turn to green diagonal line.

- User defined Y' levels are displayed as black diagonal line.

- Factory Default Y' level is 70% and the pixels with Y' level from 65% to 75% is displayed with zebra pattern

- Pixels with 10% of Y' level is displayed as black diagonal line.

- This function is designed for better performance in setting the exposure of lighting when shooting with vDSLR cameras.

<Luma Zone Check OFF>

<Luma Zone Check ON_Zebra Pattern Type>

<Luma Zone Check ON_Color Pattern Type>

7. Other Functions

[4] Focus Assist

- Focus Assist function assigns a color to the pixels in the shape or boundary area of the image to inform the user to make the best focus.

- With this function, user can easily differenciate the focused area from out-focused area especially shooting with shallow depth of field.

- Available types are [Mono] and [Color] types.
  * [Mono] : Background image is mono type.
   [Color] : Background image is original color type.

<Focus Assist OFF>

<Focus Assist ON>

<Focus Assist ON>

[5] 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 better exposure setting.
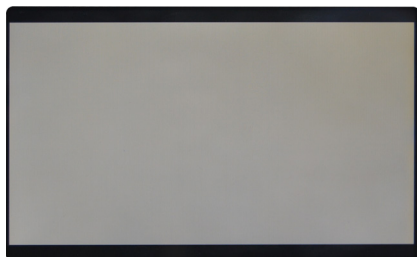

<Range Error OFF>

<Range Error ON>
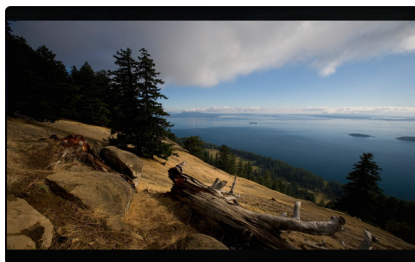
7. Other Functions

[6] Internal Pattern

- Displays internally generated test patterns.

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

<Color Bar + Pluge Pattern>

<Gray Pattern>

7. Other Functions

[7] DSLR Scale

- This function is designed for some DSLR cameras(Canon 5D, 550D and Nikon D7000) that output different resolution from the operation mode (Playback, Live/REC Full, Live/REC 16:9).

- **Select the Camera model in the [Picture]-[DSLR Camera] menu.**

■ CANON
- 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 1620x1080 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 640×390 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 EVF-035W-3G connected DSLR and EVF-035W-3G connected HDMI to SDI Conversion should be compared to cirlce in Zeroscan mode. It is deformed if user selects in Overscan and Underscan mode.

■ NIKON
- In StandBy/Record mode of NIKON, actual resolution of the output signal from HDMI terminal is   952x634, failing to display 16:9 aspect ratio and making marginal blank area. Activating DSLR SCALE function will scale the 952x634 raster image to fill the full screen.

■ SONY
- In StandBy/Record mode of SONY, actual resolution of the output signal from HDMI terminal is   1440x1080, failing to display 16:9 aspect ratio and making marginal blank area. Activating DSLR SCALE function will scale the 1440x1080 raster image to fill the full screen.

<DSLR Scale OFF>

<DSLR Scale ON>

8. Product Specifications

		EVF-035W-3G
LCD	Size	3.54"
	Resolution	960 X 640
	Pixel Pitch	0.078(H) X 0.078(W) mm
	Color Depth	24-bits (R8, G8, B8)
	Viewing Angle	160(H) / 160 (V)
	Luminance of white	500cd/㎡
	Contrast Ratio	1000 : 1
	Display Area	74.88(H) X 49.92(V) mm
Input Connector	1 X BNC	SDI Channel Input
	1 X HDMI	HDMI Input
Output	1 X BNC	SDI Channel (Active Loop Through Out)
	1 X HDMI	HDMI Channel (Active Loop Through Out)
Input Signal	3G-SDI	2.970Gbps
	HD-SDI	1.485Gbps
	SD-SDI	270 Mbps
	HDMI	480i/480p/720p/1080i & VESA/IBM Modes
SDI Input Signal Formats	SMPTE-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-274M	1080i (60/59.94/50)
		1080p (30/29.97/25/24/24sF/23.98/23.98sF)
	SMPTE-296M	720p (60/59.94/50)
	SMPTE-260M	1035i (60/59.94)
	SMPTE-125M	480i (59.94)
	ITU-R BT.656	576i (50)
Power		DC 6.8~12V
Power Consumption (Approx.)		9.6Watts(Typ.)
Operating Temperature		0℃ to 40℃ (32°F to 104°F)
Storage Temperature		-20℃ to 60℃ (-4°F to 140°F)
Main Body Dimensions (mm/inch)		111.39 x 83.34 x 213.08 (4.38 X 3.28 X 8.39)
Box Dimensions (mm/inch)		285 X 155 X 124 (11.22 X 6.10 X 4.88)
Weight		Net Weight : 460g / 1.01lbs Gross Weight : 840g / 1.85lbs
Basic Accessories		Manual, D-Tap Cable, Camera Mount Support x2
Optional Accessories		Adaptor + Power Cord(US/UK/EU)

* D-tap to mini XLR connection.
* The specification above may be changed without notice.

9. Warranty Registration

ALPHATR●N

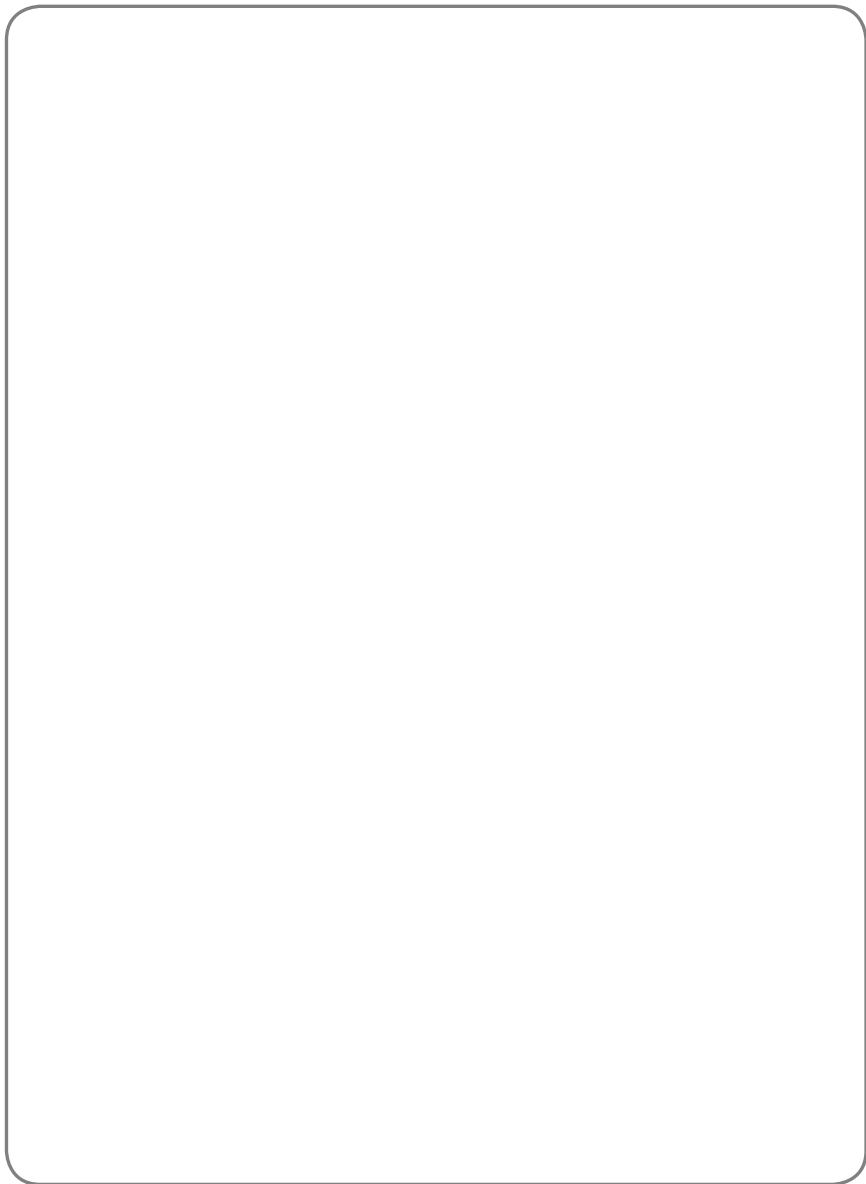Alphatron Broadcast Electronics   **Registration Warranty**

Dear User,
You became the owner of the Alphatron Electronic View Finder EVF-035W-3G. We advise you to register your EVF-035W-3G before using.
Direct registration at www.evf.tv/registration will give you the advantage to:
- professional assistance through authorized Technical Service Providers

Please keep this warranty card in a safe place together with your purchase invoice!
You will receive a confirmation e-mail of your registration.

Product type: EVF-035W-3G

Serial No.:   _____

MEMO

ALPHATR●N

Alphatron Broadcast Electronics