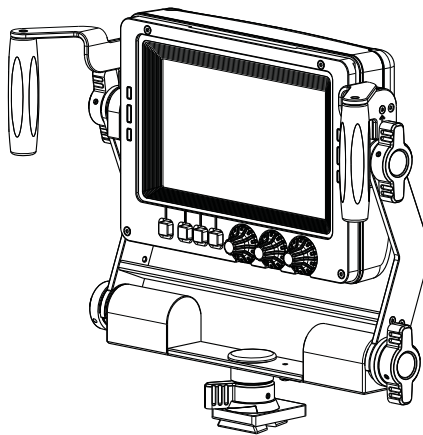


# User's Guide

3922 496 32451 March 2016 v1.1



## Eyecatcher EC 744/15

7.4-Inch OLED VF with articulated bracket

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## Declaration of Conformity

We, Grass Valley Nederland B.V., Bergschot 69, 4817 PA Breda, The Netherlands, declare under our sole responsibility that this product is in compliance with the following standards:

- EN60065 : Safety
- EN55103-1: EMC (Emission)
- EN55103-2: EMC (Immunity)

following the provisions of:

- a. the Low Voltage directive 2006/95/EC
- b. the EMC directive 2004/108/EC

## FCC Class A Statement

This product generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause interference to radio communications.

It has been tested and found to comply with the limits for a class A digital device pursuant to part 15 of the FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this product in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

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## End-of-life product recycling



Grass Valley's innovation and excellence in product design also extends to the programs we've established to manage the recycling of our products. Grass Valley has developed a comprehensive end-of-life product take back program for recycle or disposal of end-of-life products. Our program meets the requirements of the European Union's WEEE Directive and in the United States from the Environmental Protection Agency, individual state or local agencies.

Grass Valley's end-of-life product take back program assures proper disposal by use of Best Available Technology. This program accepts any Grass Valley branded equipment. Upon request, a Certificate of Recycling or a Certificate of Destruction, depending on the ultimate disposition of the product, can be sent to the requester.

Grass Valley will be responsible for all costs associated with recycling and disposal, including freight, however you are responsible for the removal of the equipment from your facility and packing the equipment ready for pickup.

For further information on the Grass Valley product take back system please contact Grass Valley at + 800 80 80 20 20 or +33 1 48 25 20 20 from most other countries. In the US and Canada please call 800-547-8949 or 530-478-4148. Ask to be connected to the EH&S Department. In addition, information concerning Grass Valley's environmental policy can be found at:

[www.grassvalley.com/about/environmental-policy](http://www.grassvalley.com/about/environmental-policy)

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## Packing for return

If a unit is being returned to Grass Valley for servicing, try to use the containers and materials of the original packaging. Attach a tag indicating the type of service required, return address, model number, full serial number and the return number which will be supplied by your Grass Valley service centre.

If the original packing is not available or can no longer be used contact your regional Grass Valley service representative to have a return package provided.

## Notes

- The viewfinder's OLED panel is manufactured using high precision technology that yields a quality of 99.99% or higher. However, it is possible that one or more pixels may constantly display a single color or be permanently off. This does not indicate a defective display and the camera's video signals are not affected.
- Using the viewfinder at low temperatures may result in a decrease of dynamic resolution and brightness.

# Important information

Read this information carefully before installing this equipment and retain them for future reference. Read and comply with the warning and caution notices that appear in the manual. Any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

## Safety Summary

This information is intended as a guide for trained and qualified personnel who are aware of the dangers involved in handling potentially hazardous electrical/electronic equipment. It is not intended to contain a complete list of all safety precautions which should be observed by personnel in using this or other electronic equipment.

The installation of this equipment involves risks both to personnel and equipment and must be performed only by qualified personnel exercising due care.

During installation and operation of this equipment, local building safety and fire protection standards must be observed.

Whenever it is likely that safe operation is impaired, the apparatus must be made inoperative and secured against any unintended operation. The appropriate servicing authority must then be informed. For example, safety is likely to be impaired if the apparatus fails to perform the intended function or shows visible damage.

The unit is protected according to IEC 60529 IPX54 (dust-protected and resistant to splashing water).

## Warnings

Warnings indicate danger that requires correct procedures or practices to prevent death or injury to personnel.

- Do not modify this equipment;
- Do not use any accessories other than those recommended by the manufacturer;
- In case of an emergency ensure that the power is disconnected;
- Mount equipment so that power lead can be accessed to disconnect power;
- There are no user serviceable parts inside. Refer servicing to qualified personnel only or contact your local Grass Valley representative;
- Observe local building safety, fire protection and electrical installation standards during installation and operation of this equipment;
- Whenever it is likely that safe operation is impaired, the apparatus must be made inoperative and secured against any unintended operation.

---

## Cautions

Cautions indicate procedures or practices that should be followed to prevent damage or destruction to equipment or property.

- Do not subject the unit to severe shocks or vibration;
- Do not expose the unit to extremes of temperature;
- To prevent risk of overheating, ventilate the product correctly.



# Wichtige Hinweise

Lesen Sie bitte diese Hinweise genau bevor Sie diese Apparatur installieren und erhalten Sie Sie für künftiges Nachslagen. Beachten und Lesen Sie alle mit "Achtung" und "Vorsicht" gekennzeichneten Warnhinweise.

Änderungen haben zur Folge, dass die Garantie ungültig wird und der Benutzer für etwaige durch die veränderte Ausrüstung verursachte Störungen haftbar gemacht werden könnte.

## Sicherheit (Zusammenfassung)

Diese Informationen sind als Leitfaden für qualifiziertes Fachpersonal gedacht, das die Gefahren beim Umgang mit potenziell gefährlicher elektrischer/elektronischer Ausrüstung kennt. Es handelt sich dabei nicht um eine vollständige Zusammenstellung aller Sicherheitsvorkehrungen, die beim Gebrauch dieser oder anderer elektronischer Geräte zu beachten sind.

Die Montage, Wartung und Instandsetzung dieser Ausrüstung ist mit Risiken für Personal und Ausrüstung verbunden und darf nur von qualifiziertem Personal vorgenommen werden, wobei mit der nötigen Sorgfalt vorzugehen ist.

Beim Einbau und Betrieb dieser Ausrüstung müssen die örtlichen Gebäudesicherheits- und Brandschutzvorschriften beachtet werden.

Wenn eine Beeinträchtigung des sicheren Betriebs wahrscheinlich ist, muss das Gerät außer Betrieb gesetzt und gegen ungewollten Betrieb gesichert werden. Dann muss der zuständige Kundendienst benachrichtigt werden. Eine Beeinträchtigung der Sicherheit ist zum Beispiel dann wahrscheinlich, wenn das Gerät nicht wie vorgesehen funktioniert oder einen sichtbaren Schaden aufweist.

Dieser Ausrüstung ist gemäß IEC 60529 IPX54 geschützt (Staub- und Spritzwassergeschützt).

## Vorsicht

Mit "Vorsicht" wird auf eine Gefahr hingewiesen, die korrekte Arbeits- oder Verfahrensweisen erfordert, um Tod oder Verletzung zu verhindern.

- An dieser Ausrüstung dürfen keine Änderungen vorgenommen werden;
- Es sollen nur von den Hersteller empfohlene Zubehöre verwendet werden;
- Bei Eintreten eines Notfalls unbedingt die Stromzufuhr abschalten;
- Ausrüstung so montieren, daß das Kabel zum Abschalten der Stromzufuhr zugänglich ist;

- Dieses Produkt enthält keine Anwenderteile. Reparatur und Wartung nur von qualifiziertem Fachpersonal vornehmen lassen oder nehmen Sie Kontakt auf mit Ihrem Grass Valley Vertretene;
- Beim Einbau und Betrieb dieser Ausrüstung müssen die örtlichen Gebäudesicherheits- und Brandschutzvorschriften beachtet werden;
- Wenn eine Beeinträchtigung des sicheren Betriebs wahrscheinlich ist, muss das Gerät außer Betrieb gesetzt und gegen ungewollten Betrieb gesichert werden.

## Achtung

Mit "Achtung" werden Arbeitsanweisungen gekennzeichnet, die zu befolgen sind, um eine Beschädigung oder Zerstörung der Ausrüstung bzw. von Eigentum zu verhindern.

- Dieses Produkt darf nicht an extremen stöße oder Zittern ausgesetzt werden;
- Dieses Produkt darf nicht an extremen Temperaturen ausgesetzt werden;
- Um einer Überhitzungsgefahr vorzubeugen, ist das Produkt korrekt zu belüften.

# Chapter 1

## Introduction

### 1.1 Overview

The Eyecatcher EC 744/15 is a high quality, flat panel OLED color viewfinder. Its light-weight construction, multi-format compatibility and its high brightness performance make this viewfinder a perfect match for studio and outside broadcast (OB) applications. Due to its very fast refresh rate, the viewfinder is especially suitable for fast moving sports acquisition and theatrical and show productions.

The Eyecatcher EC 744/15 viewfinder is designed to operate with Grass Valley's LDX Series and LDK Series studio HD cameras and accommodates all required HD video modes. The supplied sun hood provides excellent shading fit for outdoor situations while its 7.4 inch screen size makes fast and accurate focussing easy.

#### **OLED technology**

The Eyecatcher EC 744/15 viewfinder uses OLED technology, which combines the benefits of traditional black and white CRT viewfinders with the magnificent color reproduction of today. Also OLED displays have much wider horizontal and vertical viewing angles.

#### **Camera operation**

Due to its convenient user interface and built-in text generator, the viewfinder allows for easy access to the camera system menu.

#### **Zoom function**

The viewfinder picture can be zoomed in to 1:1 pixel accuracy for precise focussing while the full picture overview is shown in a small overlay area.

#### **Color adjustment**

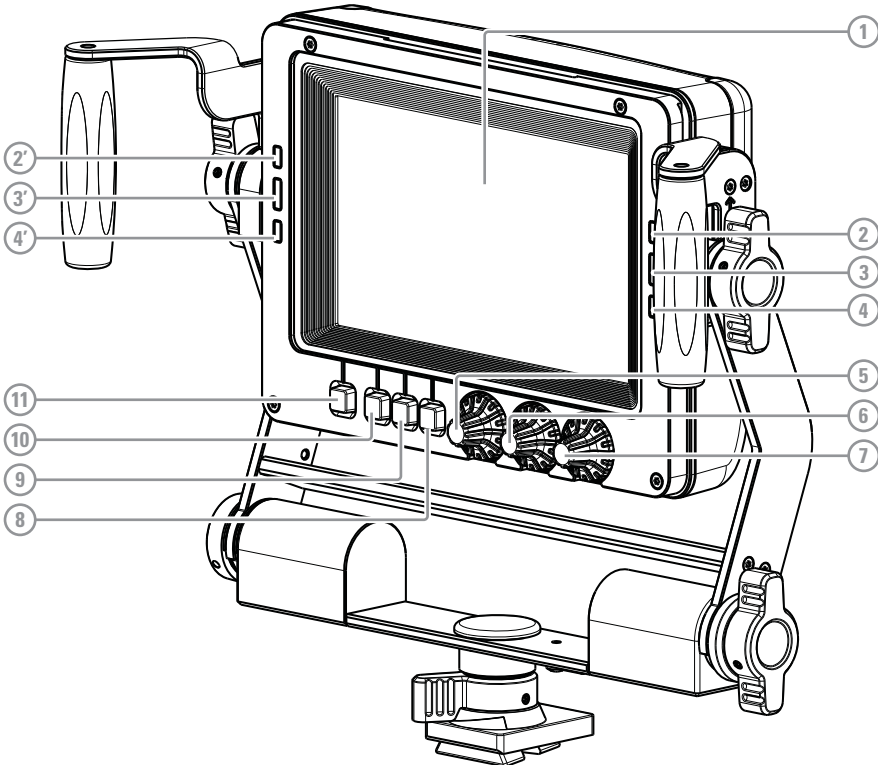
Without influencing the main video signal the viewfinder's color temperature can be adjusted to suit the operator's personal preference.

#### **Assignable buttons**

Three user buttons are provided that can be assigned to a range of operational functions, customizing the Eyecatcher EC 744/15 to your personal preferences.

## 1.2 Locations of indicators and controls

### 1.2.1 Front panel view



#### ① Display area

Active viewfinder display area. Displays live video, indicators and text overlay.

#### ② ISO indicators

These yellow indicators light when the camera is in ISO status. The yellow indicator on the right side flashes when the viewfinder is switched off with the power switch.

#### ③ On Air indicators

These red indicators light when the camera is On Air.

#### ④ Call indicators

These green Call indicators light when a Call signal is activated.

**⑤ Peaking**

Controls the level of peaking that is applied to the viewfinder signal.

**⑥ Brightness**

Controls the brightness level of the display.

**⑦ Contrast**

Controls the contrast level of the display.

**⑧ User button 3**

Assignable user button 3.

**⑨ User button 2**

Assignable user button 2.

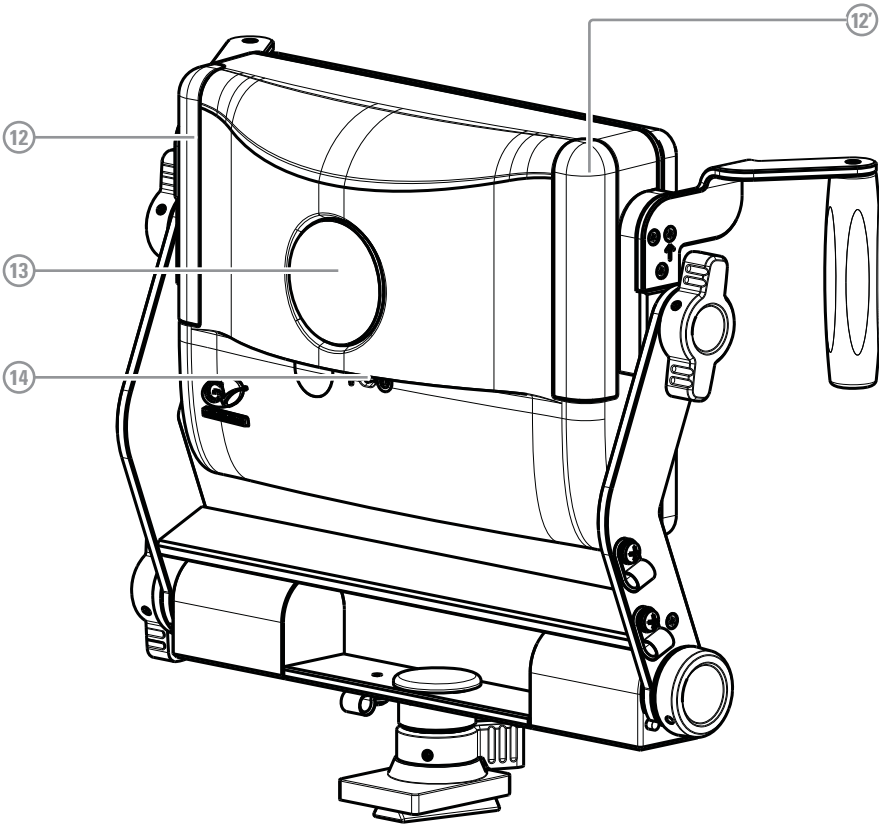
**⑩ User button 1**

Assignable user button 1.

**⑪ Menu button**

Access to viewfinder or camera menus and button assignment menu.

## 1.2.2 Back panel view



### ⑫ Tally lights (On Air lamps)

These two bright red tally lights are lit when the camera is On Air. They can be enabled or disabled in the viewfinder setup menu.

### ⑬ Number plate

Recess for an optional camera number plate.

### ⑭ Power switch

This switch is used to switch the viewfinder on or off.

NOTE: When the viewfinder is switched off, the yellow ISO indicator on the right flashes

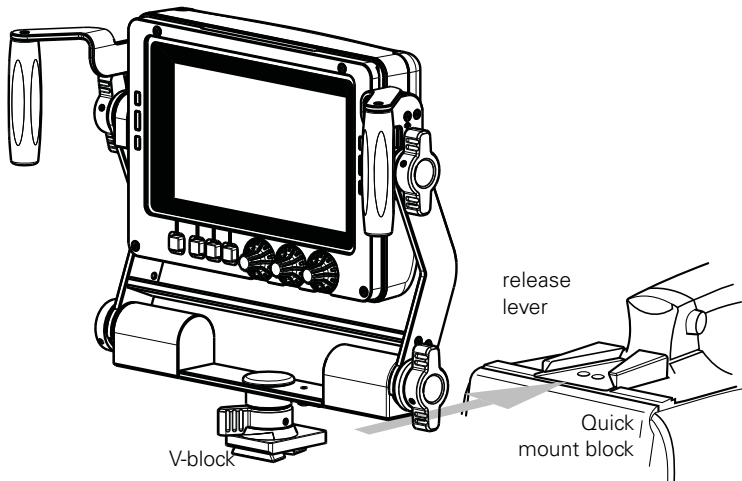
# Chapter 2

## Installation

### 2.1 Mounting the viewfinder

To mount the viewfinder on top of the camera adapter proceed as follows:

1. Switch off the camera.
2. Slide the V-block of the viewfinder onto the quick mount block on the camera adapter until it clicks firmly into place.



3. Connect the viewfinder cable to the viewfinder connector on the camera head. Guide the cable along the top of the camera body.



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**Note**

When the Eyecatcher EC 744/15 is used with a camera that is mounted in a SuperXpander, make sure to plug the viewfinder cable into the **SuperXpander VF** socket, not the camera VF socket.

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To release the viewfinder proceed as follows:

1. Switch off the camera.
2. Disconnect the viewfinder cable from the camera head or SuperXpander VF socket.
3. Press the release lever on the camera and slide the viewfinder out of the quick mount block.

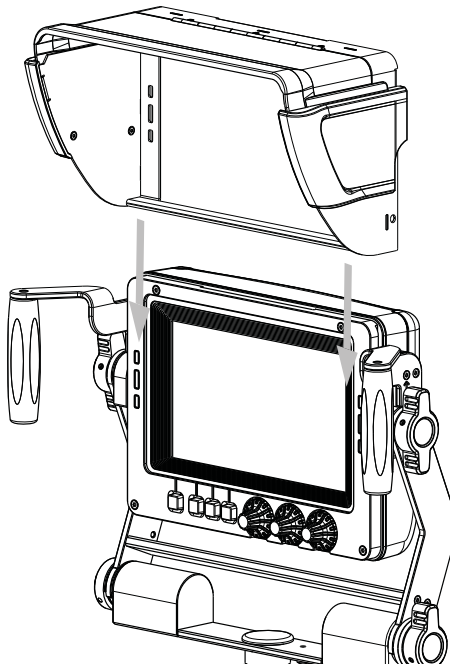


## 2.2 Attaching accessories

### 2.2.1 Sunhood

A sunhood is supplied for outdoor use. To attach the sunhood to the viewfinder proceed as follows:

1. Make sure that the viewfinder is mounted and that its position is fixed.
2. Lift the sunhood above the viewfinder and lower it until the hooked edges at the sides touch the guiding rail on the viewfinder.



3. Slide down the sunhood until it clicks into place.



#### Caution

Do not hold the sunhood to carry the viewfinder as it may damage the viewfinder or sunhood.

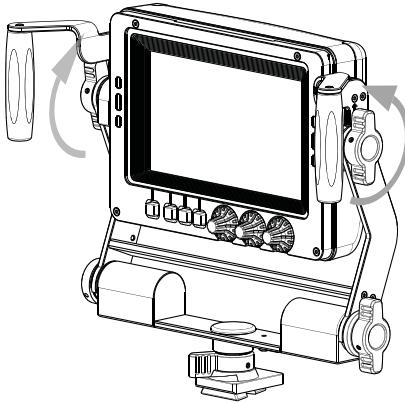
## 2.2.2 LDK 6400/20 Identification numbers (option)

A set of camera identification numbers (1 to 15) is available as an option. To mount a number remove the blind number plate from the back panel of the viewfinder and click the number of choice into the holes in the recess.

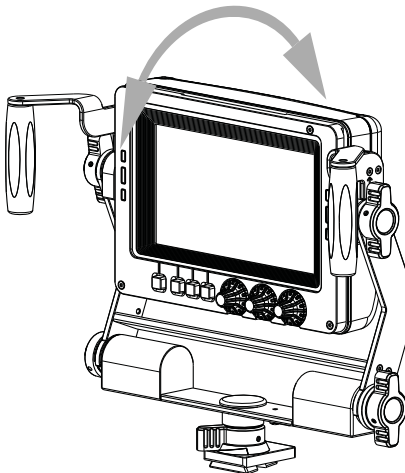
## 2.3 Adjusting the position

### 2.3.1 Tilting

1. Loosen both rotation knobs with two hands in a contrary direction;

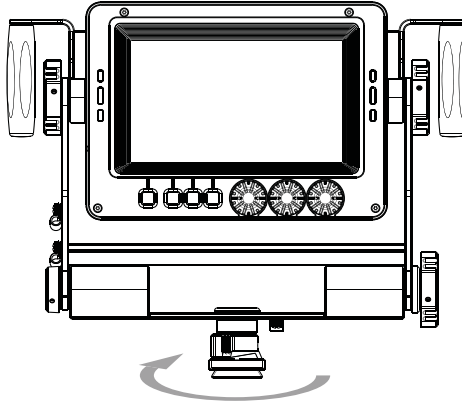


2. Tilt the viewfinder to the desired angle and fasten the rotation knobs.

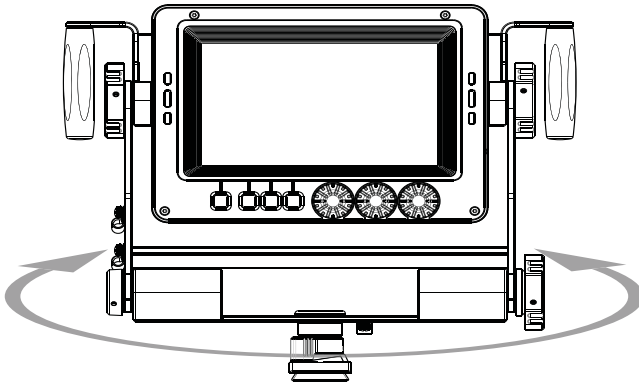


## 2.3.2 Panning

1. Loosen the rotation locking wheel at the bottom of the bracket:



2. Rotate the viewfinder to the desired angle.



3. Fasten the rotation locking wheel to fix the position.

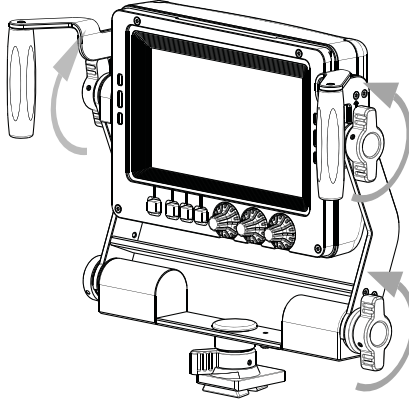


### Tip

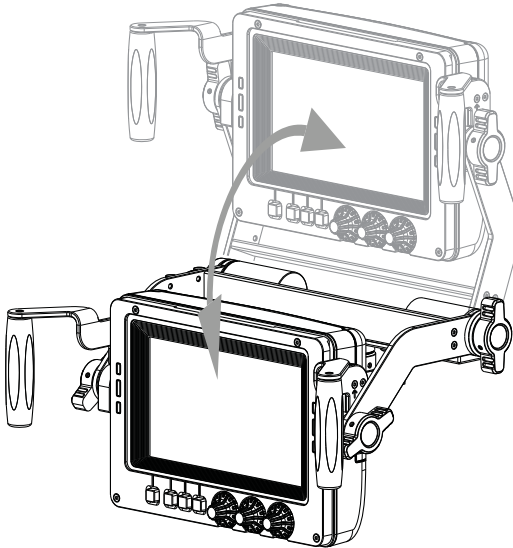
Pan the viewfinder completely to the left to set up a large lens (e.g. for back focus adjustment) while still observing the viewfinder image.

### 2.3.3 Lifting

1. Loosen both top rotation knobs and the bottom right knob on the bracket:



2. Use the side handgrips to lift the viewfinder to the desired position:



3. Fasten the (three) rotation knobs to fix the position.



# Chapter 3

## Operation

### 3.1 Controls

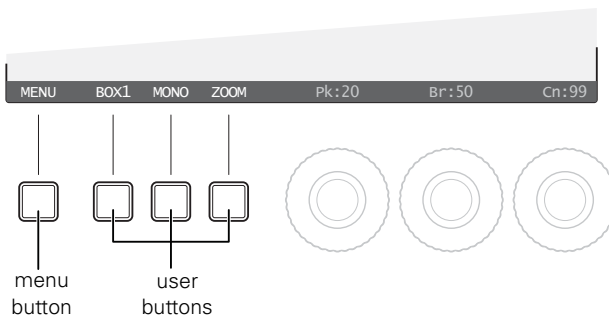
#### 3.1.1 Power switch

The toggle switch at the back panel is used to switch the viewfinder on or off. When the viewfinder is switched off, the yellow ISO indicator on the right flashes. Power is supplied by the camera through the viewfinder cable.

When used with an LDX Series camera, allow some time before the viewfinder is fully operational. The indicators on both sides of the screen flash during start-up.

#### 3.1.2 Buttons

The front panel of the viewfinder holds the operational controls.



#### Menu button

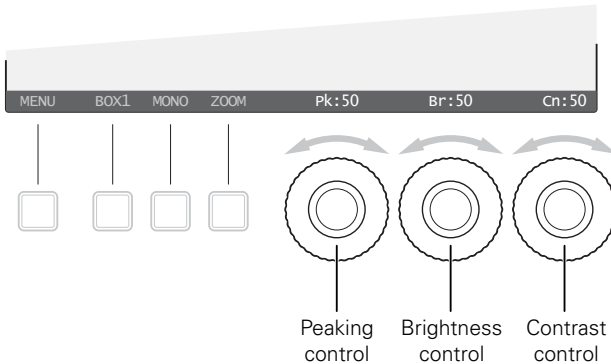
This button gives access to the camera system menu, the viewfinder setup menu and the button assignment menu. Refer to [“Menu operation” on page 28](#) for a detailed description of these menus.

## User buttons

Three buttons can be assigned to different operational functions. Their default functions are: Box1, Mono and Zoom. Refer to [“Viewfinder functions” on page 26](#) for more information about these functions and other functions that can be assigned.

### 3.1.3 Rotary controls

Adjust the viewfinder to your personal preference using the rotary controls:



#### Peaking control

Controls the level of peaking that is applied to the viewfinder signal. Peaking makes the edges of the image look sharper. Turn the rotary control clockwise to increase peaking. The adjustment range is from 0 to 99 and its default value is 20.



#### Tip

When camera gain is set to high values, reduce peaking level for a better image.

#### Brightness control

Controls the brightness level of the viewfinder display. Turn the rotary control clockwise to increase brightness. The adjustment range is from 0 to 99 and its default value is 50.

#### Contrast control

Controls the contrast level of the viewfinder display. Turn the rotary control clockwise to increase contrast. The adjustment range is from 0 to 99 and its default value is 99.



### 3.1.4 Indicators

The following signalling indicators are available:

#### ISO indicators (yellow)

The yellow LEDs light to indicate that the camera is currently in ISO mode.

#### On Air indicators (red)

The red LEDs light to indicate that the camera is currently On Air.

#### Call indicators (green)

The green LEDs light to attract attention when a Call signal is activated.

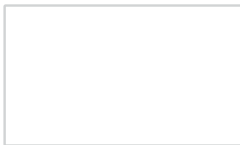


#### Tip

The brightness level of the signalling indicators can be adjusted in the viewfinder setup menu. Refer to [“Configuration 2 menu \(CONFIG2\)” on page 32](#) for more information.

#### On screen signalling indicators

To further improve visibility under difficult viewing circumstances, the signalling indicators can also be superimposed on the viewfinder picture. Refer to the [“Indicator adjustment submenu \(INDADJ\)” on page 33](#) for more information. The following settings can be selected:



OSsig = off



OSsig = top



OSsig = bottom

#### Tally lights

The large red Tally lights at the back of the viewfinder light when the camera is On Air. These lights can be enabled or disabled in the viewfinder setup menu.

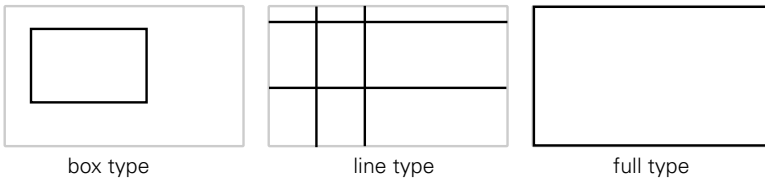
Brightness level of the Tally lights can be adjusted on an Operational or Master Control Panel or on a SuperXpander.

## 3.2 Viewfinder functions

Many operational functions can be assigned to the user buttons at the bottom of the viewfinder. Refer to [“Button assign menu” on page 29](#) to read more about assigning user buttons.

### 3.2.1 Box 1 and 2

Two user definable framing boxes are available. Use the assignable button to switch a framing box on or off. These superimposed boxes are very useful to help focussing and framing while shooting. Three box types (for each box) are available:



The framing boxes can be set up in the viewfinder setup menu. Refer to [“Box 1 setup menu \(BOX1\)” on page 35](#) for more information.

### 3.2.2 Monochrome

Switches the viewfinder to monochrome mode. In the viewfinder setup menu the source (Y, R, G, B or -G) can be selected. When the camera color bar is switched on, the viewfinder returns to color mode. Note: this is a camera function.

### 3.2.3 Ext 1

Press the button to show the external (return) video channel 1.

### 3.2.4 Ext 2

Press the button to show the external (return) video channel 2.

### 3.2.5 Zoom

Zooms in to the center of the image. The zoom factor depends on the selected camera video mode. Note: this is a camera function.

### 3.2.6 Text

Removes all text from the viewfinder image. This includes menu and message texts and camera indicators. Markers and cadres are not removed from the image. Press again to restore all text. Note: this is a camera function.

### 3.2.7 Tally

Enables or disables the red Tally lights at the back of the viewfinder—when disabled, the Tally lights never light, even when the camera is On Air.

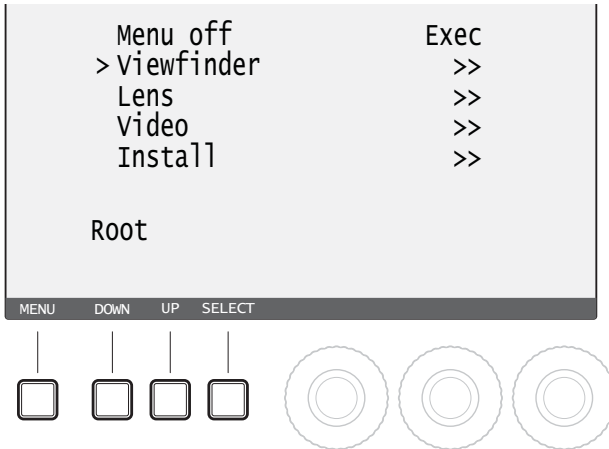
### 3.2.8 Call

Press the button to activate the system Call function. The green Call indicators on the viewfinder light. Note: this is a camera function.

## 3.3 Menu operation

### 3.3.1 System menu

- Press the **menu** button to open the menus.
- Press the **system menu** button to open the camera system menu. The menu is superimposed on the viewfinder image.



- Use the **down**, **up** and **select** buttons to navigate through the menu system.
- Press the **menu** button to leave the camera system menu.



#### Note

For more information on navigating the camera system menu and for a complete description of the menu contents, refer to the user's guide of your camera.



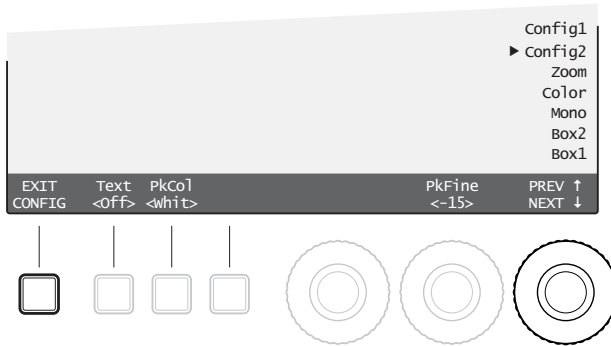
#### Note

More viewfinder functions such as on-screen indicators and markers can be found in the viewfinder menu of the camera system menu.

### 3.3.2 Viewfinder setup menu

Many viewfinder functions can be set in the viewfinder setup menu.

- Press the **menu** button to open the menus.
- Press **vf setup** to open the viewfinder setup menu. At the right side of the screen a list of functions is shown.



- Turn the rotary control at the right to loop through the list of functions. An arrow indicates the selected function.
- Press the **menu** button again to leave the setup menu.



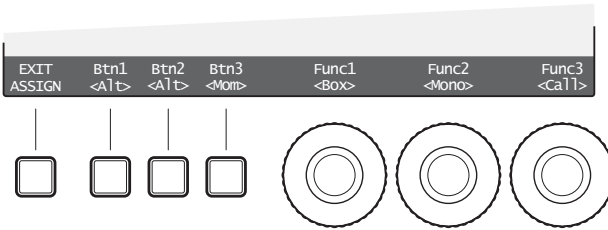
#### Tip

Hold the **menu** button and press a **user** button to quickly configure the function that is assigned to that button.

### 3.3.3 Button assign menu

- Press the **menu** button to open the menus.
- Press **button assign** to open the button assign menu.
- Press a **user** button to change its switching mode: toggle between momentary (<Mom>) and alternating (<Alt>).

- Use the **rotary** controls to select a function for the corresponding **user** button.



- Press **EXIT ASSIGN** to leave the button assign menu.



### Note

When a button is assigned to the Call function, its switching mode is automatically set to *momentary*.

## 3.4 Cleaning the viewfinder



### Caution

Always turn off the viewfinder before cleaning the screen.



### Caution

Never use cleaning solvents such as glass cleaner or soap to clean the screen.

Use a slightly damp soft cloth to clean the screen and then immediately a soft dry cloth (preferably micro fiber tissue - no paper products) to dry the screen. Wipe gently and do not apply strong pressure as this may damage the screen.

# Chapter 4

## Viewfinder setup

### 4.1 Menu contents

The following tables show the items and functions that can be set up in the viewfinder setup menu.

#### 4.1.1 Diagnostics menu (DIAG)

Control	Item	Value(s)	Description
Menu	EXIT	DIAG	Exits the diagnostics menu.
Button1	STATUS	INFO	Press to jump to the viewfinder status information screen. More information can be found in the paragraph " <a href="#">Viewfinder status information</a> " on page 36.
Button2	—	—	—
Button3	OLED	nn C	Info: shows the current OLED display temperature in degrees celsius.
Rotary1	Format	<list of video formats>	Info: shows the current video format.
Rotary2	VF Temp	nn C	Info: shows the current operating temperature in degrees celsius.
Rotary3	PREV ↑	NEXT ↓	Selects a menu from the list.

## 4.1.2 Configuration 1 menu (CONFIG1)

Control	Item	Value(s)	Description
Menu	EXIT	CONFIG	Exits the configuration 1 menu.
Button1	INDADJ	—	Press to jump to the indicator adjustment submenu (see below).
Button2	Tally	<b>Ena</b> > Dis	Enables or disables the red Tally lights at the back of the viewfinder—when disabled, the Tally lights never light, even when the camera is On Air.
Button3	FACTORY	RESET	Resets the viewfinder's settings to their factory defaults. The factory defaults are shown in the value(s) column in <b>bold</b> .
Rotary1	—	—	—
Rotary 2	NoSignal	<b>Black</b> , Input, Bars	Selects signal when no camera signal is present.
Rotary 3	PREV ↑	NEXT ↓	Selects a menu from the list.

## 4.1.3 Configuration 2 menu (CONFIG2)

Control	Item	Value(s)	Description
Menu	EXIT	CONFIG	Exits the configuration 2 menu.
Button1	Text *)	On > <b>Off</b>	Turns viewfinder on-screen text on or off.
Button2	PkCol	<b>Whit</b> , Red, Grn, Blue, Yell, Mgnt, Cyan	Selects the color of the viewfinder Peaking indication.
Button3	—	—	—
Rotary1	PkFine	-20 .. 50	Sets the Peaking Fine level.
Rotary2	—	—	—
Rotary3	PREV ↑	NEXT ↓	Selects a menu from the list.

\*) This is a camera system function.



### 4.1.4 Indicator adjustment submenu (INDADJ)

Control	Item	Value(s)	Description
Menu	EXIT	INDADJ	Exits the indicator adjustment submenu. Set indicator levels are stored in memory.
Button1	IndLvl	Low, <b>Med</b> , High	Selects the indicator level for the ISO, On Air and Call indicators.
Button2	OSsig	<b>Off</b> , top, bottom	Selects On Screen Display signalling indicators to be displayed at the top or at the bottom of the screen. Select Off to turn the indicators off.
Button3	—	—	—
Rotary1	ISO	0..99 ( <b>99</b> )	Adjusts the intensity of the selected indicator (Low, Med or High) level for the ISO (yellow) indicators (both left and right).
Rotary2	OnAir	0..99 ( <b>99</b> )	Adjusts the intensity of the selected indicator (Low, Med or High) level for the On Air (red) indicators (both left and right).
Rotary3	Call	0..99 ( <b>99</b> )	Adjusts the intensity of the selected indicator (Low, Med or High) level for the Call (green) indicators (both left and right).

### 4.1.5 Zoom menu (ZOOM)

Control	Item	Value(s)	Description
Menu	EXIT	ZOOM	Exits the zoom menu.
Button1	PIP	On > <b>Off</b>	Turns Picture in Picture function on or off.
Button2	PIPCol	<b>Whit</b> , Red, Grn, Blue, Yell, Mgnt, Cyan	Selects the color for the Picture in Picture image box.
Button3	—	—	—
Rotary1	—	—	—
Rotary2	—	—	—
Rotary3	PREV ↑	NEXT ↓	Selects a menu from the list.

### 4.1.6 Color menu (COLOR)

Control	Item	Value(s)	Description
Menu	EXIT	COLOR	Exits the color menu.
Button1	—	—	—
Button2	—	—	—
Button3	—	—	—
Rotary1	Satur	0..99 (50)	Sets the color saturation level.
Rotary2	ColTemp	3200K .. 9500K (6500K)	Sets the color temperature.
Rotary3	PREV ↑	NEXT ↓	Selects a menu from the list.

### 4.1.7 Monochrome menu (MONO)

Control	Item	Value(s)	Description
Menu	EXIT	MONO	Exits the monochrome menu.
Button1	Mono *)	On > Off	Turns monochrome mode on or off.
Button2	Source *)	Y, R, G, B, -G	Selects a signal source for the monochrome image when monochrome mode is on.
Button3	—	—	—
Rotary1	—	—	—
Rotary2	—	—	—
Rotary3	PREV ↑	NEXT ↓	Selects a menu from the list.

\*) This is a camera system function.

### 4.1.8 Box 2 setup menu (BOX2)

Control	Item	Value(s)	Description
Menu	EXIT	BOX2	Exits the box 2 menu.
Button1	Box	Off, Box, Line, Full	Selects the box type.
Button2	Color	Whit, Red, Grn, Blue, Yell, Mgnt, Cyan	Selects the line color of the box.
Button3	Side	T/B > L/R	Selects the side of the box to be adjusted: T/B = Top/Bottom; L/R = Left/Right
Rotary1	Top	0..99 (24)	Sets the top position of the box.
Rotary2	Bottom	0..99 (73)	Sets the bottom position of the box.
Rotary1	Left	0..99 (24)	Sets the left position of the box.
Rotary2	Right	0..99 (74)	Sets the right position of the box.
Rotary3	PREV ↑	NEXT ↓	Selects a menu from the list.

### 4.1.9 Box 1 setup menu (BOX1)

Control	Item	Value(s)	Description
Menu	EXIT	BOX1	Exits the box 1 menu.
Button1	Box	Off, Box, Line, Full	Selects the box type.
Button2	Color	Whit, Red, Grn, Blue, Yell, Mgnt, Cyan	Selects the line color of the box.
Button3	Side	T/B > L/R	Selects the side of the box to be adjusted: T/B = Top/Bottom; L/R = Left/Right
Rotary1	Top	0..99 (24)	Sets the top position of the box.
Rotary2	Bottom	0..99 (73)	Sets the bottom position of the box.
Rotary1	Left	0..99 (24)	Sets the left position of the box.

Control	Item	Value(s)	Description
Rotary2	Right	0..99 (74)	Sets the right position of the box.
Rotary3	PREV ↑	NEXT ↓	Selects a menu from the list.

## 4.2 Viewfinder status information

The status information screen shows information about the viewfinder's internal hardware and software components. This information can be useful when contacting Grass Valley service support. Press EXIT to leave this screen.

Viewfinder Status Information					
Type:	EC744	PID:		xxxxxx	
Main Brd:	12NC: 3922 406 xxxxx	St:	xx	Date:	xx/xx/xx
	PID: xxxxx				
Package:	12NC: 3922 407 xxxxx	vxx.xx	Date:	xx/xx/xx	
Firmware:	12NC: 3922 407 xxxxx	vxx.xx	Date:	xx/xx/xx	
App1.Sw:	12NC: 3922 407 xxxxx	vxx.xx	Date:	xx/xx/xx	
Conf.Sw:	12NC: 3922 407 xxxxx	vxx.xx	Date:	xx/xx/xx	
Configuration Software active: YES					
EXIT					

# Chapter 5

## Specifications

### 5.1 Technical specifications

#### 5.1.1 General

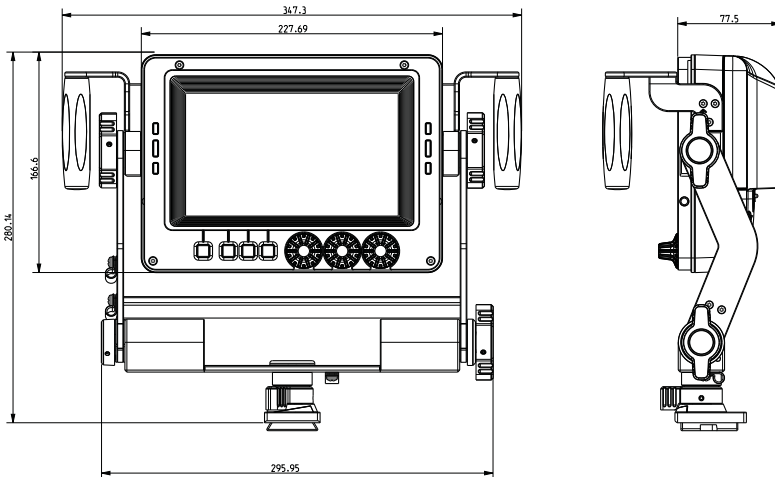
Dimensions (W x H x D)	296 x 280 x 77.5 mm (11.7 x 11.0 x 3.1 in) without sunhood and handgrips, including mounting bracket.
Weight (approx.)	2.94 kg (6.5 lbs) without sunhood, including mounting bracket.
Operating temperatures	-20 to +45 °C (-4 to +113 °F)
Storage temperatures	-25 to +70 °C (-13 to +158 °F)
Power supply	12 VDC or -50 to -100 VDC (supplied by the camera head, depending on configuration)
Power consumption	typ. 12 W with color bar and all indicators; max. 18 W with full white picture, all indicators on
Input signals	Y, Pr, Pb
Controls	Menu button, assignable user buttons (3), rotary controls (3) for brightness, contrast and peaking.
Indicators	ISO (yellow), On Air (red), Call (green), Tally (red)

#### 5.1.2 Screen

Diagonal screen size	7.4 in (~19.8 cm)
Colour depth	1,07 billion colors (10 bits/color)

Screen drive system	AMOLED top emission, active matrix
Total display area	960 (H) x 540 (V) pixels (QHD)
Viewing angle	170° horizontal; 170° vertical
Pixel pitch	0.171 x 0.171 mm
Response time	< 1 ms
Luminance	max. 350 Cd/m <sup>2</sup> (peak value); typ. 200 Cd/m <sup>2</sup> (full white picture);
Contrast ratio	1,000,000:1
Color temperature	6500 K (adjustable)
Screen coating	ARfilm Haze; 2% hardness; 2H

### 5.1.3 Dimensions

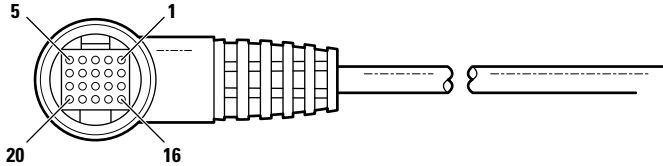


### 5.1.4 Accessories

- Articulated pan/tilt mounting bracket (supplied)
- Short sunhood (supplied)
- LDK 6400/20 Set of identification numbers (optional)

## 5.2 Connector

### 5.2.1 Viewfinder connector (lead)



20-pin male VF-connector, moulded to viewfinder lead cable.  
(manufacturer code: Hirose HR12-14LA20P)

Pin	Description
1	-80 VDC
2	Not connected
3	GND
4	INTN-D (I <sup>2</sup> C interface)
5	Not connected
6	Not connected
7	VF video return
8	SDA-D (I <sup>2</sup> C interface)
9	SCL-D (I <sup>2</sup> C interface)
10	Not connected

Pin	Description
11	GND
12	VF video signal
13	Pb VF return
14	Pr VF return
15	GND
16	+Batt (10.5 to 17 VDC)
17	-Batt (10.5 to 17 VDC)
18	Pb VF video signal
19	Pr VF video signal
20	Shield







