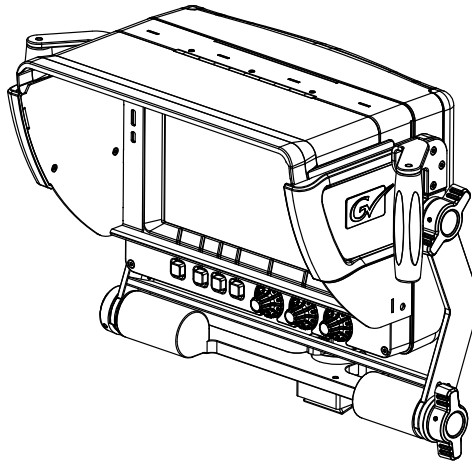


User's Guide

3922 496 31721 March 2016 v1.2



LDK 5309/10

9-inch LCD HD color viewfinder

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

Notes

- The viewfinder's LCD 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.

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.

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 IE 60529 IPX54 geschützt (Staub- und Spritwassergeschützt).

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 Zubehörteile 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 LDK 5309/10 is a high quality, flat panel color viewfinder. Its light-weight construction, multi-format compatibility and its high brightness performance make this viewfinder a perfect match for EFP/portable, studio and outside broadcast applications. The supplied sun hood provides excellent shading fit for outdoor situations. Its 9-inch diagonal screen size makes fast and accurate focussing easy.

The LDK 5309/10 viewfinder is designed to work with Grass Valley's LDK 8000 (Elite), LDK 4000 (Elite) and LDK 3000 series HD cameras and accommodates all required HD frame rates and video modes.

Compact design

The compact design allows for great operator flexibility with much wider panning and tilting angles compared to CRT based viewfinders.

Camera operation

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

Focus bar

Aids focussing by providing a visual indication of the sharpness of the image.

Viewfinder zoom

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

Color adjustment

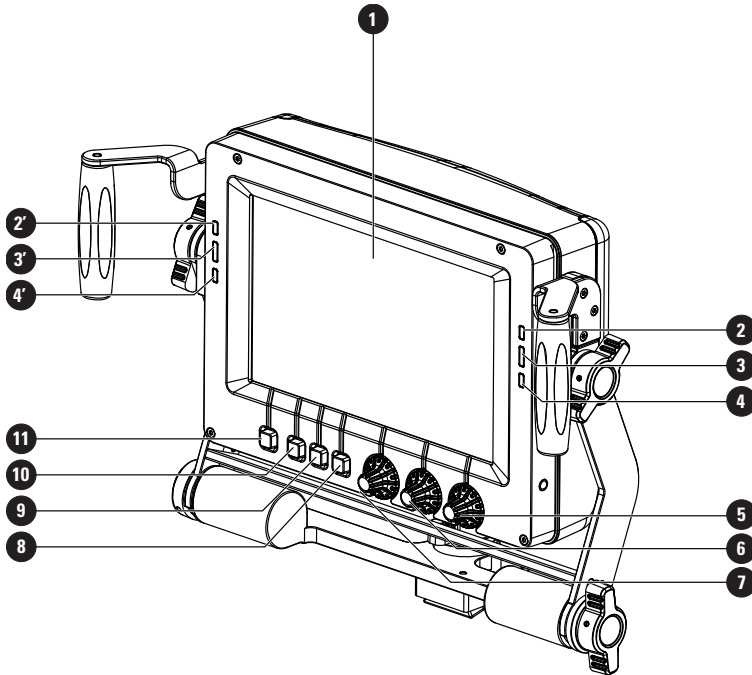
Without influencing the main video signal the viewfinder color temperature can be adjusted to suit the operator's personal preference.

Assignable buttons

Three user buttons are provided that can be assigned to a range of operational functions, customizing the LDK 5309/10 to your personal preferences.

1.2 Locations of indicators and controls

1.2.1 Front panel view



① Display area

Active viewfinder display area.

② ISO indicators

These yellow indicators light when the camera is in ISO status.

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 Contrast control

Controls the contrast level of the VF display.

⑥ Brightness control

Controls the brightness level of the VF display.

⑦ Peaking control

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

⑧ User button 3

Assignable user button 3.

⑨ User button 2

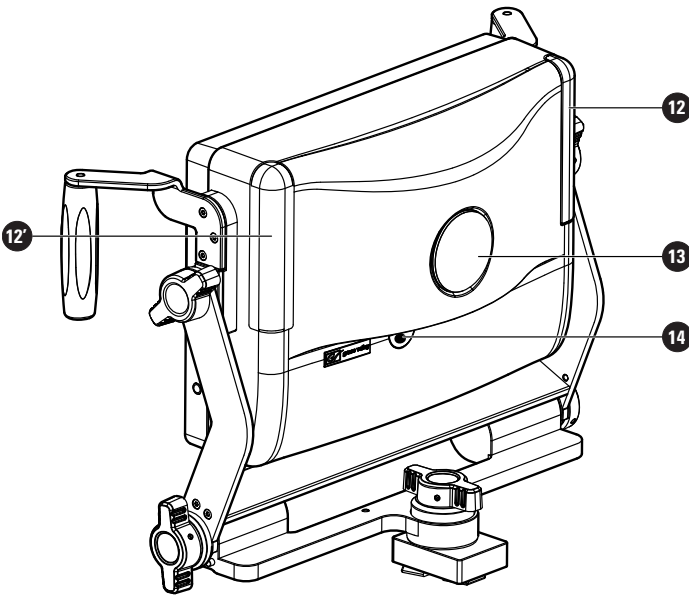
Assignable user button 2.

⑩ User button 1

Assignable user button 1.

⑪ Menu button

Press this button to open the viewfinder, camera system or button assignment menus.

1.2.2 Back panel view**⑫ Tally lights (On-Air)**

These two bright red tally lights are lit when the camera is On-Air.

⑭ Power switch

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

⑬ Number plate

Recess for camera number plate (optional).

Chapter 2

Installation

2.1 Attaching the quick mount support

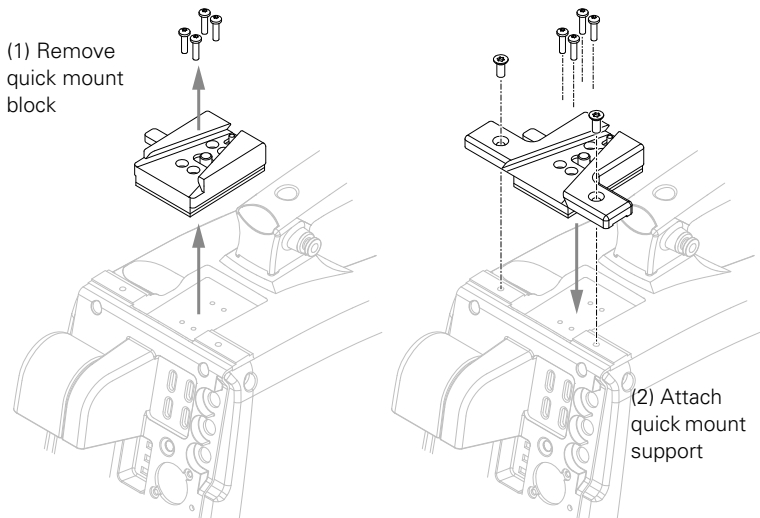


Note

For improved viewfinder stability it is recommended to exchange the existing quick mount block with the supplied quick mount support.

To attach the quick mount support to the camera adapter proceed as follows:

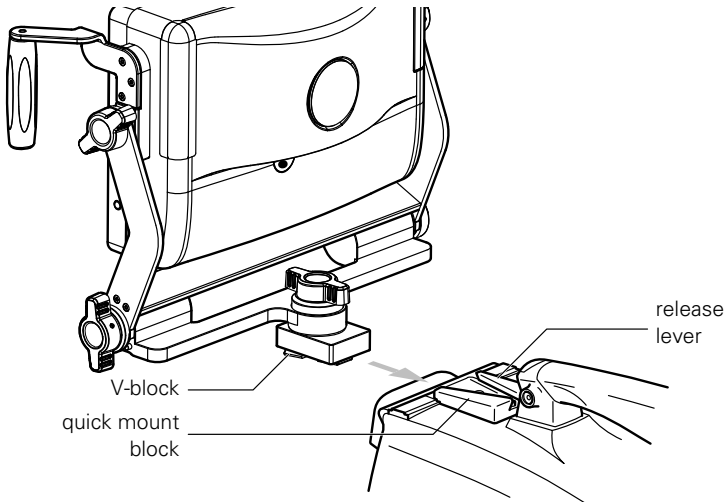
1. Loosen the four (Torx 15) screws from the existing quick mount block and remove the block from the camera adapter.
2. Fit the quick mount support into the hole and fasten the support using the four existing screws and two supplied (Torx 20) screws at the sides.



2.2 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
4. Guide the cable along the top of the camera body.



Note

When the LDK 5309/10 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.

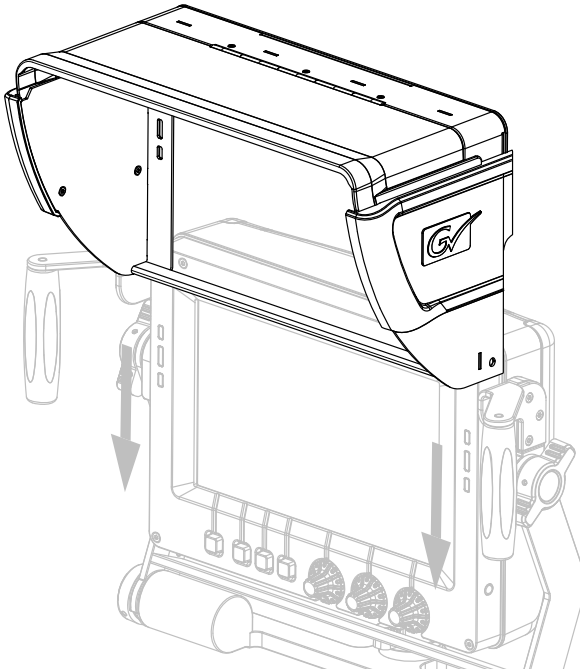
To release the viewfinder proceed as follows:

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

2.3 Attaching accessories

2.3.1 Sunhood

A short 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.



Tip

Draw out and tilt the upper half of the sunhood to get a larger vertical viewing angle.



Caution

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

2.3.2 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.

2.4 Adjusting the position



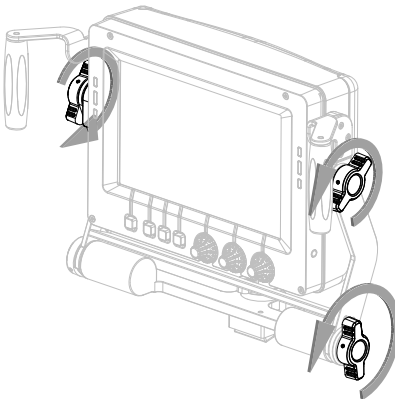
Note

Adjustment range may be limited when other accessories are attached to the camera.

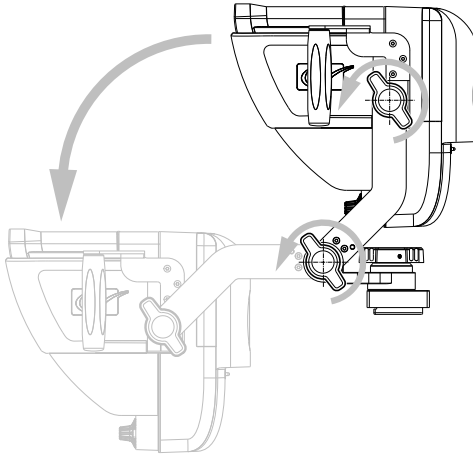
2.4.1 Height adjustment

The height of the viewfinder can be adjusted over a wide range.

1. Loosen the two upper rotation knobs with two hands in a contrary direction;
2. Loosen lower rotation knob (at the right).



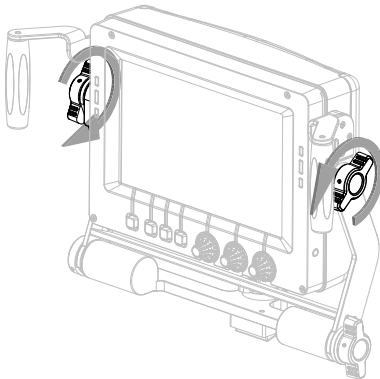
3. Bring the viewfinder to the desired height using the hand grips and fasten the lower rotation knob and then the two upper knobs.



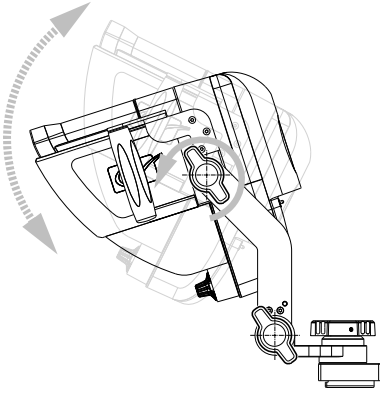
2.4.2 Tilting

The viewfinder can be tilted up and down.

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



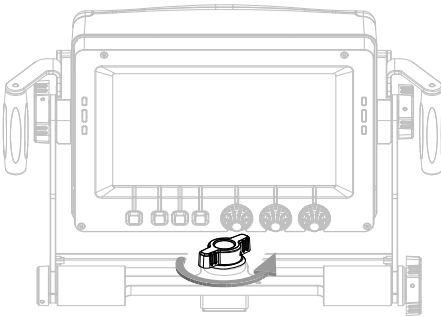
2. Tilt the viewfinder to the desired angle and fasten the rotation knobs.



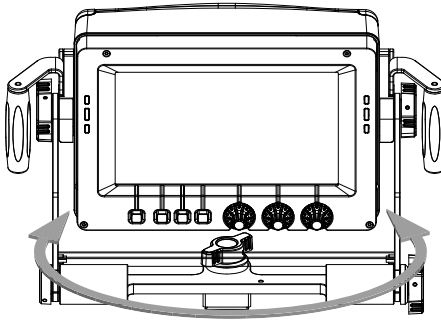
2.4.3 Panning

The viewfinder can be panned over an angle of 90° to the right and 90° to the left.

1. Reach behind the viewfinder and loosen the rotation locking wheel.



2. Grasp the side bars and rotate the viewfinder to the desired angle and fasten the rotation locking wheel.



Chapter 3

Operation

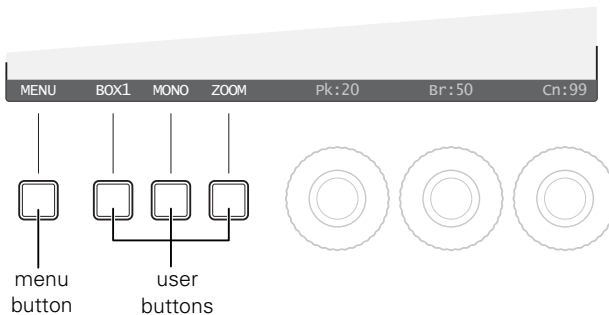
3.1 Controls

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 left green LED indicator flashes. The power to the viewfinder is supplied by the camera through the viewfinder lead cable.

3.1.2 Buttons

The front panel of the viewfinder holds the operational controls.



Menu button

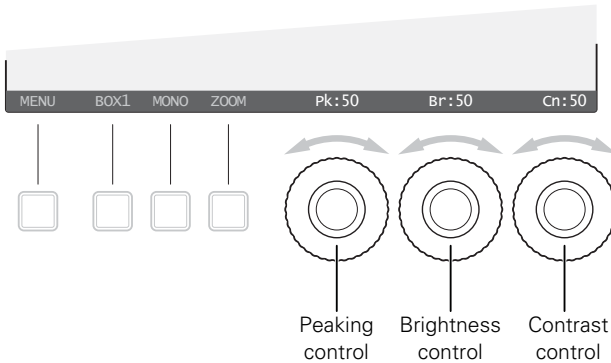
This button is used to enter the camera system menu, the viewfinder setup menu or the button assignment menu. Refer to [“Menus” on page 30](#) for a detailed description of these menus.

User buttons

Three buttons can be assigned to different operational functions. Their default functions are: Box, Mono and Zoom. Refer to “ ” on page 27 for more information about these functions and other functions that can be assigned.

3.1.3 Rotary controls

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



Peaking control (A)

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 factory default value is 20.



Tip

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

Brightness control (B)

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 factory default value is 50.

Contrast control (C)

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 factory default value is 99.

3.1.4 Indicators

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 indicator brightness level can be changed in the viewfinder setup menu. Refer to ["Configuration #2 \("Config2"\)" on page 34](#) for more information.

Tally lights (red)

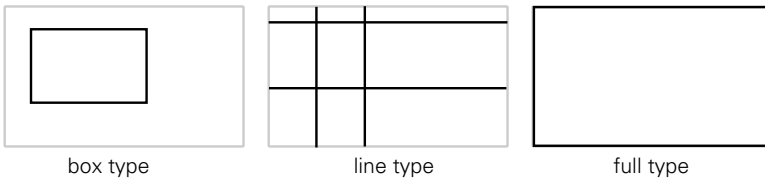
The large red tally lights at the back of the viewfinder light when the camera is currently On-Air. These lights can be enabled or disabled in the camera system menu. Brightness level can also be adjusted using an Operational or Master Control Panel or a SuperXpander.

3.2 Operational functions

Many operational functions can be assigned to the user buttons at the bottom of the viewfinder. Refer to [“Button assignment menu” on page 31](#) to read more about assigning user buttons.

3.2.1 Box

Turns the framing box on or off. This superimposed box is a very useful feature to help focussing and framing while shooting. Three box types are available:



The framing box can be selected and set up in the viewfinder setup menu. Refer to [“Box setup \(“Box”\)” on page 37](#) for more information.

3.2.2 Monochrome

Switches the viewfinder to monochrome mode. Select the source (Y, R, G, B or -G) in the viewfinder setup menu. When the camera color bar is switched on, the viewfinder returns to color mode.

3.2.3 Ext1

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

3.2.4 Ext2

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

3.2.5 Zoom

Zooms in to the center of the image to indicate an uncropped ('pixel exact') viewing area. Both the border color and screen position of the Picture in Picture box can be selected in the viewfinder setup menu.



Note

The zoom factor depends on the selected camera video mode.

3.2.6 Focus bar

The focus bar is intended to be used as a tool for the camera operator to support the judgement of sharpness by looking at the viewfinder picture with peaking.

The screen position (top, bottom, left, right) of the focus bar can be selected in the viewfinder setup menu. The focus bar has a peak/hold indicator (green cadre) with a typical hold time of 2 seconds, which allows the operator to indicate the maximum focus of the current picture.

A preset gain control is available in the viewfinder setup menu to control the selectivity of the focus bar.

3.2.7 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.

3.2.8 Call

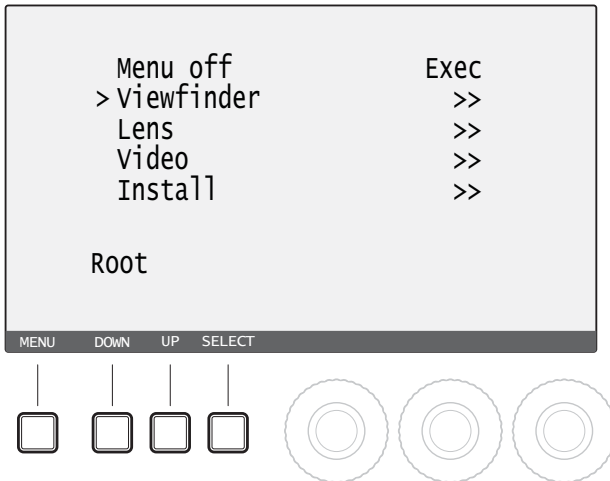
Press the button to activate the system Call function. The green Call indicators on the viewfinder light.

3.3 Menus

3.3.1 Camera system menu

The camera can be conveniently controlled by the viewfinder:

- Press the **menu** button to open the menus.
- Press the **system menu** button to open the camera system menu. The camera system 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.



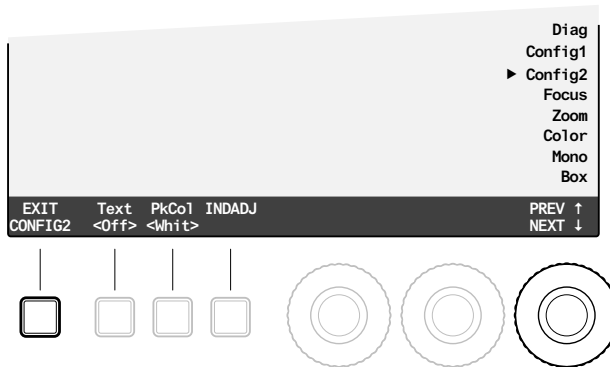
Note

More viewfinder functions such as on-screen indicators and markers can be found in the viewfinder submenu 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 submenus is shown.



- Turn the rotary control at the right to loop through the submenus. An arrow indicates the selected submenu. The actions of the user buttons change depending on the selected submenu.
- Carry out any changes you want to do.
- Press the **menu** button again to store the changes and leave the viewfinder setup menu.



Tip

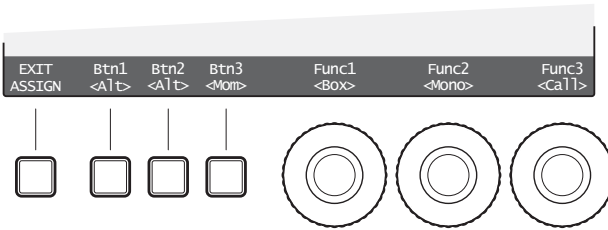
Hold the **menu** button and at the same time press a **user** button to quickly configure the function that is assigned to that button.

3.3.3 Button assignment menu

To assign a function to each of the three user buttons, proceed as follows:

- 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 store the changes and 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. The use of purified (distilled) water is strongly recommended. Wipe gently and do not apply strong pressure as this may damage the screen.

Chapter 4

Viewfinder setup menu

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 (“Diag”)

Control	Item	Value(s)	Description
Menu	EXIT	DIAG	Exits the diagnostics menu.
Button1	STATUS	INFO	Go to the viewfinder status information screen. More information can be found in the paragraph “Viewfinder status information” on page 38.
Button2	—	—	—
Button3	—	—	—
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 (“Config1”)

Control	Item	Value(s)	Description
Menu	EXIT	CONFIG	Exits the configuration 1 menu.
Button1	—	—	—
Button2	—	—	—
Button3	FACTORY	RESET	Resets the viewfinder’s settings to their factory defaults. The factory defaults are shown in the value(s) column in bold .
Rotary1	—	—	—
Rotary 2	NoSignal	{ Black , 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 (“Config2”)

Control	Item	Value(s)	Description
Menu	EXIT	CONFIG	Exits the configuration 2 menu.
Button1	Text	On > Off	Turns viewfinder on-screen text on or off (this is a camera system function).
Button2	PkCol	{ Whit , Red, Grn, Blue, Yell, Mgnt, Cyan}	Selects the color of the viewfinder peaking indication.
Button3	INDADJ	—	Push to enter the indicator adjustment submenu.
Rotary1	—	—	—
Rotary2	—	—	—
Rotary3	PREV ↑	NEXT ↓	Selects a menu from the list.

4.1.4 Indicator adjustment

Control	Item	Value(s)	Description
Menu	EXIT	INDADJ	Exits the indicator adjustment menu. Set indicator levels are stored in memory.
Button1	IndLvl	{Low, Med , High}	Selects the indicator level for the ISO, On-Air and Call indicators.
Button2	—	—	—
Button3	—	—	—
Rotary1	ISO	0..99 (99)	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 (99)	Adjusts the intensity of the selected indicator (Low, Med or High) level for the OnAir (red) indicators (both left and right).
Rotary3	Call	0..99 (99)	Adjusts the intensity of the selected indicator (Low, Med or High) level for the Call (green) indicators (both left and right).

4.1.5 Focus (“Focus”)

Control	Item	Value(s)	Description
Menu	EXIT	FOCUS	Exits the focus menu.
Button1	Bar	{ Off , Top, Right, Bttm, Left}	Selects the screen position of the focus bar.
Button2	Area	{ Centre , All, Zoom}	Focus measurement window: centre = center-weighted average; All = full screen average; Zoom = follow zoom area
Button3	—	—	—
Rotary1	Gain	0..99 (50)	Sets sensitivity of focus bar range
Rotary2	P/Hold	0..99 (50)	Sets peak/hold time (0 = 0 video frames, 99 = 255 frames)
Rotary3	PREV ↑	NEXT ↓	Selects a menu from the list.

4.1.6 Zoom (“Zoom”)

Control	Item	Value(s)	Description
Menu	EXIT	ZOOM	Exits the zoom menu.
Button1	PIP	On > Off	Turns Picture in Picture function on or off.
Button2	PIPCol	{Whit, Red, Grn, Blue, Yell, Mgnt, Cyan}	Selects the color for the Picture in Picture box.
Button3	Pos	{Centre, TopL, TopR, BtmL, BtmR}	Selects the position of the Picture in Picture box (centre, top left, top right, bottom left, bottom right).
Rotary1	—	—	—
Rotary2	—	—	—
Rotary3	PREV ↑	NEXT ↓	Selects a menu from the list.

4.1.7 Color (“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.

4.1.8 Monochrome (“Mono”)

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

4.1.9 Box setup (“Box”)

Control	Item	Value(s)	Description
Menu	EXIT	BOX	Exits the box 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.

4.2 Viewfinder status information

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

Viewfinder Status Information					
	Type:	LDKxxxx		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

EXIT

Chapter 5

Specifications

5.1 Technical specifications

5.1.1 General

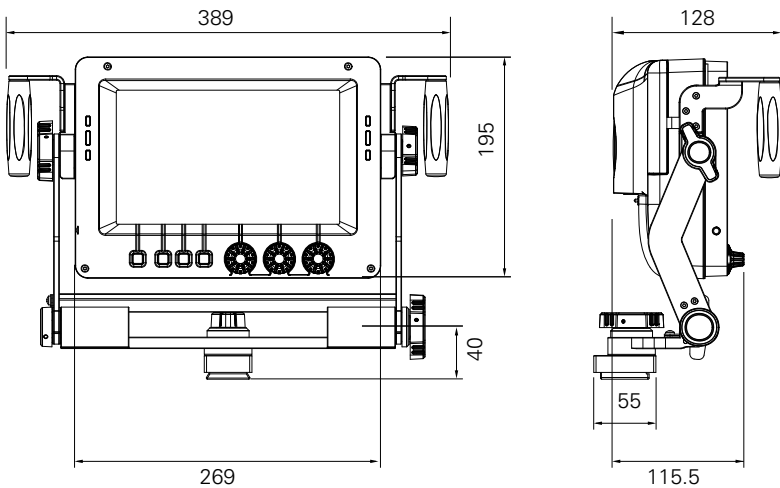
Dimensions (W x H x D)	389 x 287 x 133 mm (15.3 x 11.3 x 5.2 in) without sunhood, including mounting bracket.
Weight (approx.)	3.6 kg (7.9 lbs) without sunhood, including mounting bracket.
Operating temperatures	-20 to +45 °C (-4 to +113 °F)
Storage temperatures	-25 to +70 °C (-13 to +158 °F)
Power supply	-50 to -100 VDC (supplied by the camera head)
Power consumption (typ.)	20 W (supplied by the camera head)
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 size	9 inch (~229 mm)
Colour depth	16.7M colors
Total display area	800 (H) x 480 (V) pixels
Active image area	800 (H) x 450 (V) pixels (16:9 aspect ratio)

Viewing angle	-85° to +80° (horizontal); -80° to +60° (vertical)
Pixel pitch	0.246 x 0.246 mm (0.0097 x 0.0097 in)
Brightness (typical)	800 Cd/m ²
Contrast ratio (typical)	800:1
Color temperature	6500 K (adjustable)
Screen coating	Anti reflective layer (Anti-glare and 3H hard-coating)

5.1.3 Dimensions

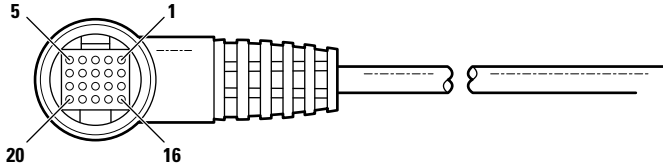


5.1.4 Accessories

- Mounting bracket (supplied)
- Short sunhood (supplied)
- LDK 6506/30 Quick mount support for 9-inch viewfinder (supplied)
- LDK 6992/13 Long closed sunhood (optional)
- LDK 6400/20 Set of identification numbers (optional)

5.2 Connectors

5.2.1 Viewfinder connector (lead)



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

Pin	Description	Pin	Description
1	-80 VDC	11	GND
2	Not connected	12	VF video
3	GND	13	Pb VF video return
4	INTN-D (I ² C interface)	14	Pr VF video return
5	Not connected	15	GND
6	Not connected	16	+Batt (10.5 to 17 VDC)
7	VF video return	17	-Batt (10.5 to 17 VDC)
8	SDA-D (I ² C interface)	18	Pb VF video
9	SCL-D (I ² C interface)	19	Pr VF video
10	Not connected	20	Shield

