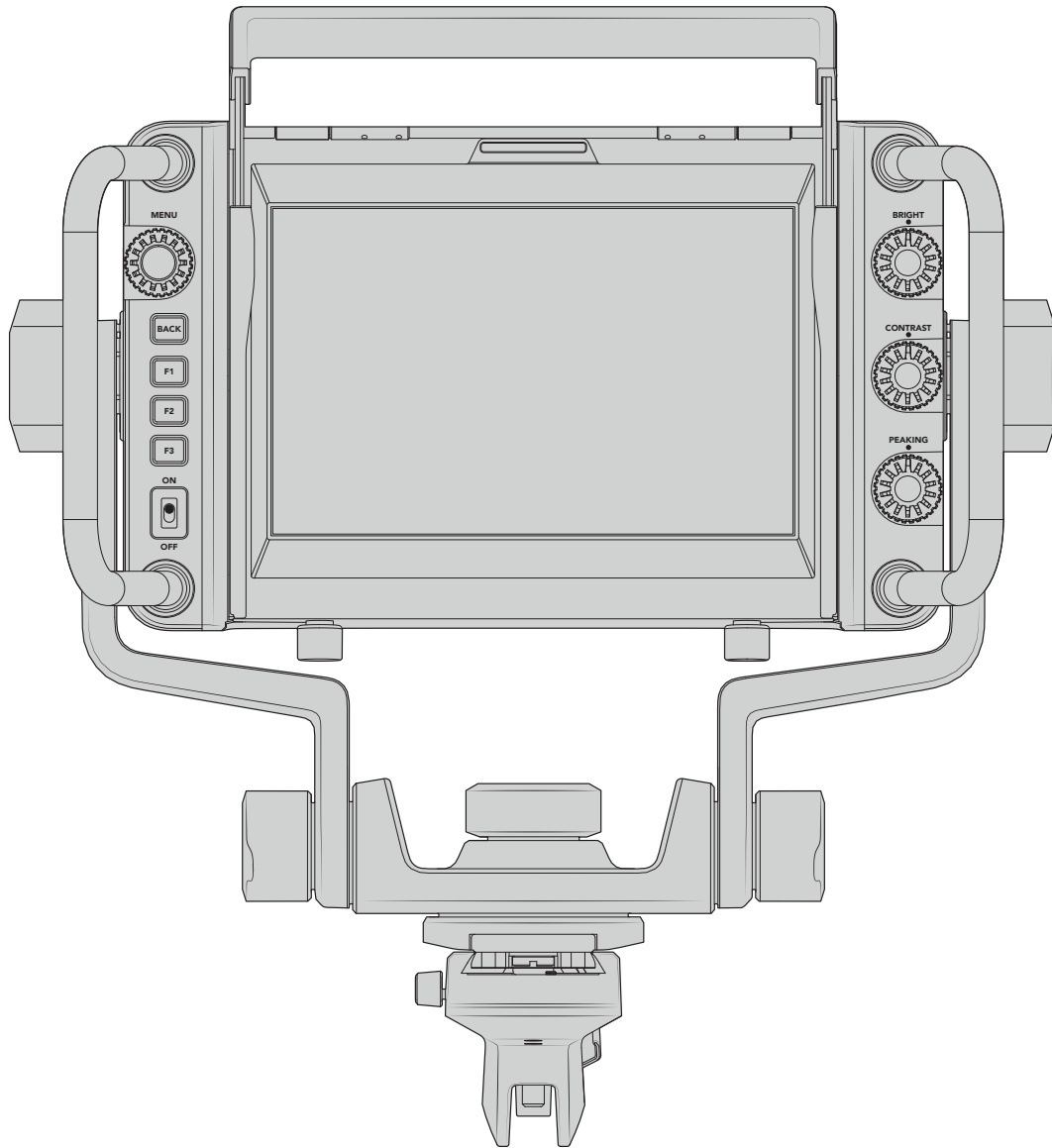


Blackmagic URSA Studio Viewfinder



Blackmagic URSA Studio Viewfinder

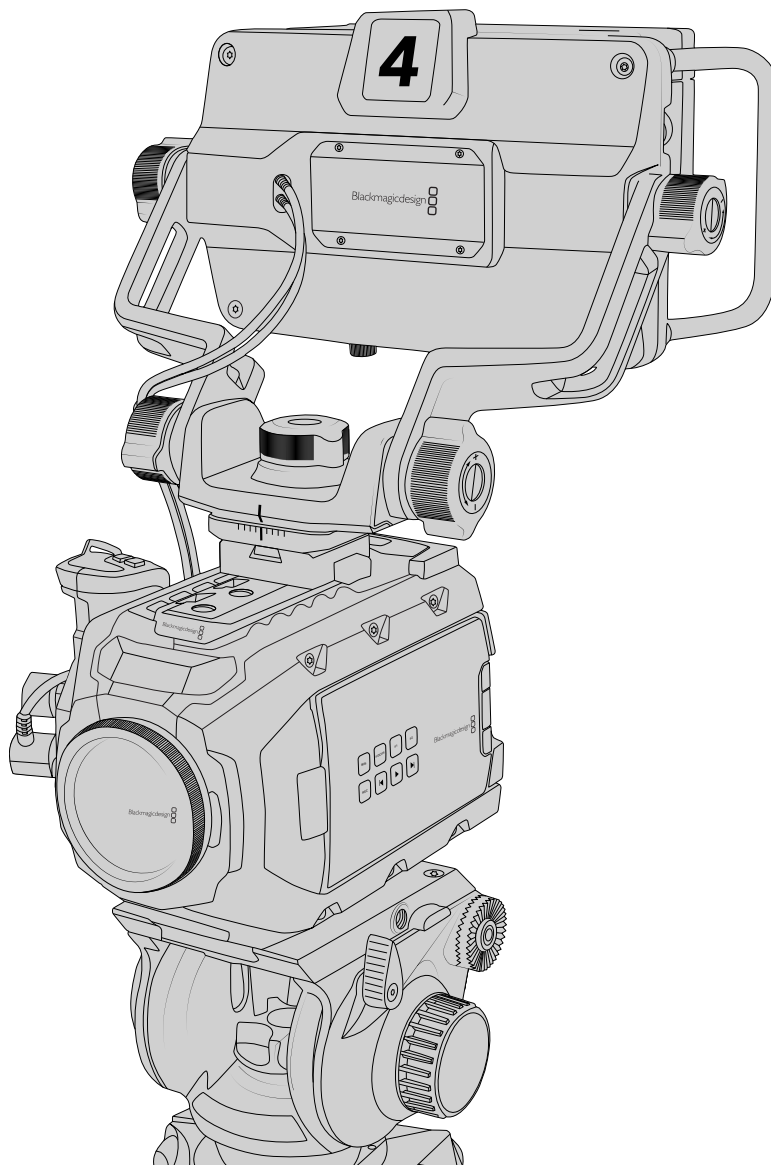
Blackmagic URSA Studio Viewfinder is a powerful viewfinder that allows you to turn your Blackmagic URSA Mini into a professional live production camera. The studio viewfinder features a bright 7" screen and has a large easily viewable tally light, control knobs, large handles, sun hood and variable tension articulated mount. These features make it easy to stand behind the camera and comfortably follow the action for extended periods of time, especially when filming live concerts, sports, and other long events. The URSA Studio Viewfinder is perfect for professional live production in the studio or on location.

Mounting and Connecting to Blackmagic URSA Mini

When using the Blackmagic URSA Studio Viewfinder with Blackmagic URSA Mini, you have the option of mounting the unit to the camera in a number of ways.

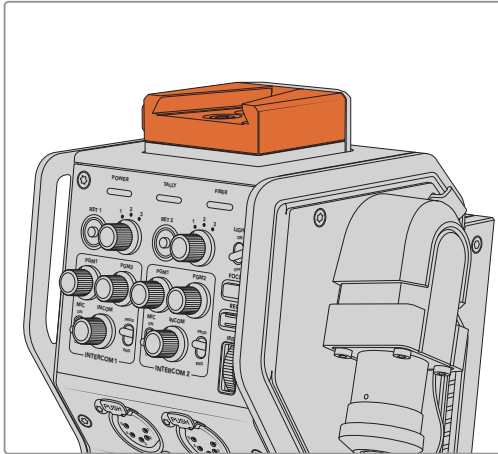
You can mount the Blackmagic URSA Studio Viewfinder directly to the top of Blackmagic URSA Mini via the supplied V-lock mount plate which can be easily removed from the top handle mount.

Unscrew the V-lock plate from the URSA Mini handle mount using a 3/16 Hex key, and then attach it to the top of the camera with the supplied 1/4" screws. As this will make the center of gravity on the camera much higher. We recommend doing this while the camera is attached to a tripod for stability.

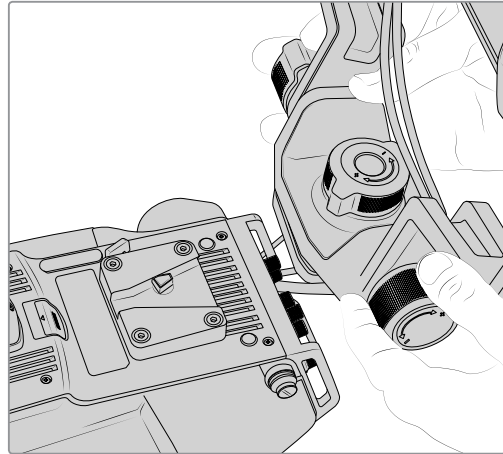


If you are mounting the Blackmagic URSA Studio Viewfinder to your URSA Mini whilst using the URSA Mini Shoulder Kit, you need to attach it using the supplied URSA Mini handle mount. Attach the supplied URSA Mini handle mount to the top handle with three of the supplied 1/4" screws using a 3/16 Hex key. Slide the Studio Viewfinder's V-lock into the V-lock plate slot until it clicks in securely.

See the 'URSA Mini Shoulder Mount Kit' section in this manual for more information.

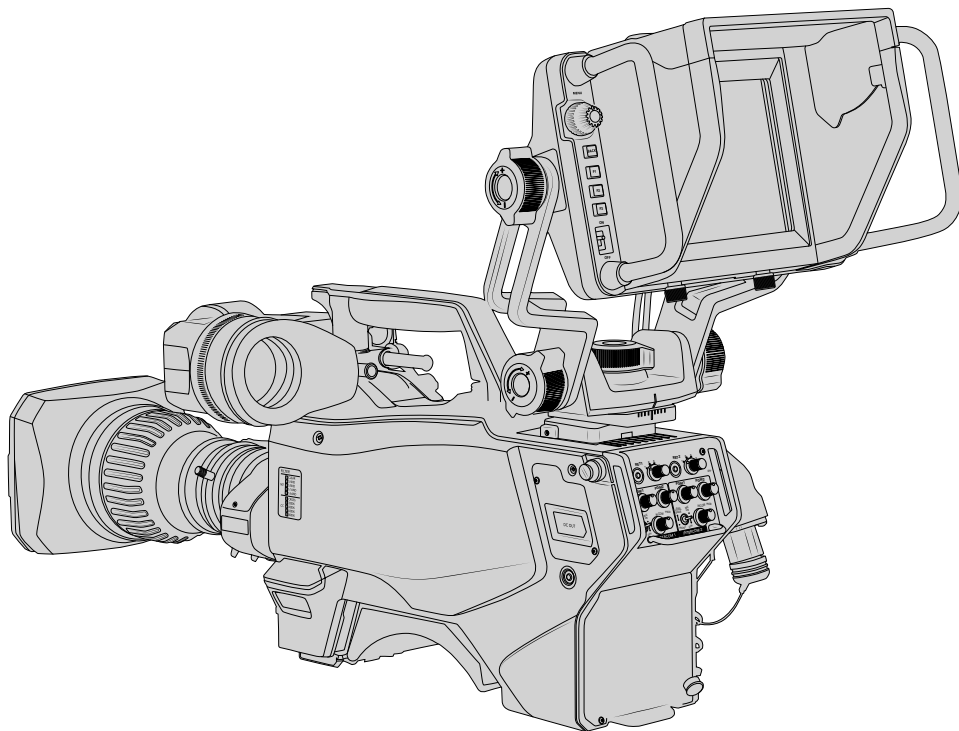


You can attach your Blackmagic Studio Viewfinder to the V-lock plate on the top of the Blackmagic Camera Fiber Converter



V-Lock mount plate being attached to 3rd party camera

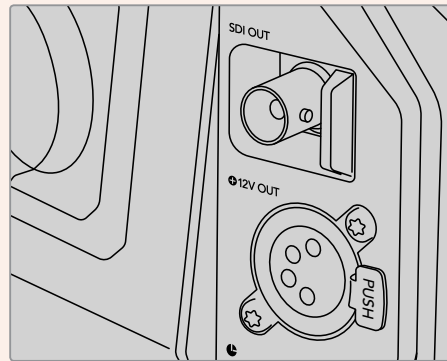
The V-Lock mount plate can also be installed on any camera you want to use the URSA Studio Viewfinder with that has 1/4" mounting points, or by using a third party cheese plate. You can also mount the Blackmagic URSA Studio Viewfinder to a third party camera system that has an existing V-lock mount plate as many of them have this quick release plate on them already.



TIP The Blackmagic URSA Studio Viewfinder connects to the camera via a quick release V-lock mount plate, which means that the viewfinder can be removed quickly if you need to take the camera off a tripod. When filming sports matches it can be advantageous to leave both the Blackmagic URSA Viewfinder and Blackmagic URSA Studio Viewfinder attached to the camera, so that at the conclusion of the match you can quickly switch to the URSA Viewfinder for handheld filming. Both viewfinders use the same 12V power and 3G-SDI cables to connect to the camera, making it easy to swap cables in such a situation.

To connect your Blackmagic URSA Studio Viewfinder to your URSA Mini, simply connect the viewfinder's attached cables to URSA's front 12V power and 3G-SDI outputs.

The power switch on the viewfinder will then allow you to turn on the viewfinder instantly when your camera is powered. Note that there are cable clamps on the side of the URSA Mini handle mount to keep your cables neat and hold the cables in place.

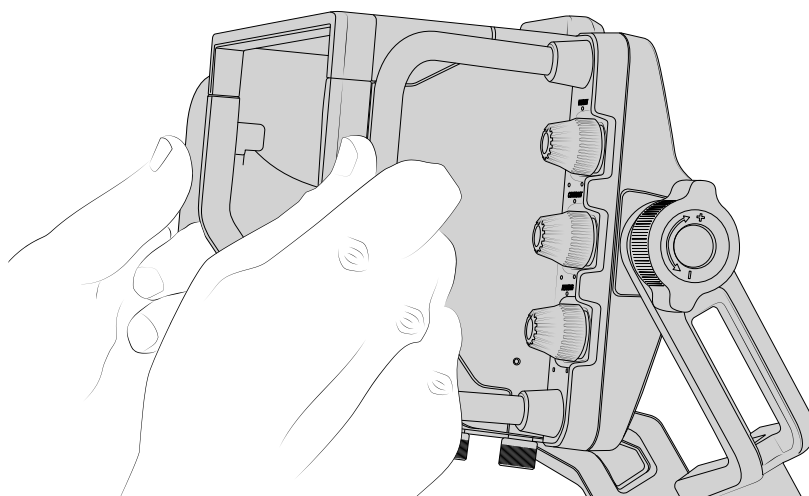


SDI and 12v power connections on URSA Mini

TIP The URSA Studio Viewfinder uses open standard SDI and broadcast 4 pin XLR power connections so it can be used with any other camera or even as an adjustable portable location monitor. It also uses the open standard ATEM tally and device control protocol so any other camera system can add this information to their SDI stream to allow them to work with the tally and overlays on the URSA Studio Viewfinder.

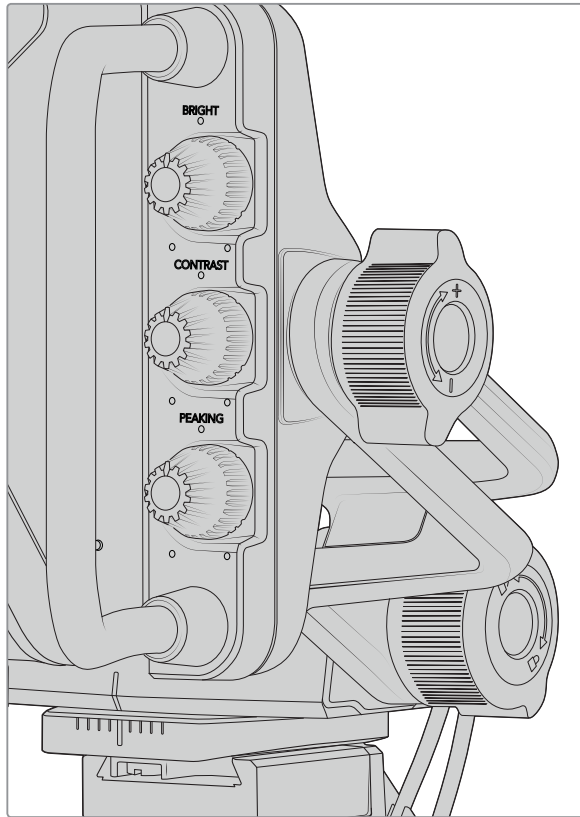
Adjusting the Blackmagic URSA Studio Viewfinder

The Blackmagic URSA Studio Viewfinder features large handles and variable tension articulated mounting that allow you to adjust the position and angle of the viewfinder. The large handles allow you to quickly and easily take hold of the viewfinder and adjust the angle and direction of the unit. Combined with the sun hood the handles also help to protect the screen from damage, which means that you can store the fully assembled Blackmagic URSA Studio Viewfinder in a carry case without disassembly. The large handles also allow you easily to pick up and carry the unit between locations.

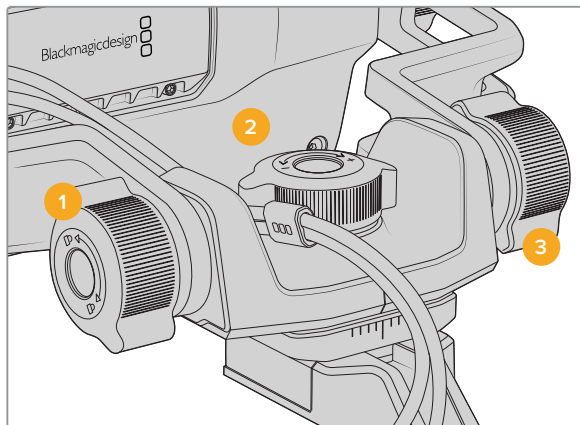


The supplied mount features tension dials for pan and tilt, with additional tension dials on either side of the viewfinder for additional friction control. The left hand dial allows you to adjust the drag friction of the arm and the right hand dial allows you to lock the Viewfinder in place once you have found the angle you require.

These tension dials have a very large range of tension adjustment, allowing you to select a specific amount of resistance. This allows you to easily pan and tilt the viewfinder to the precise position you require.



Tension dials on either side of the viewfinder

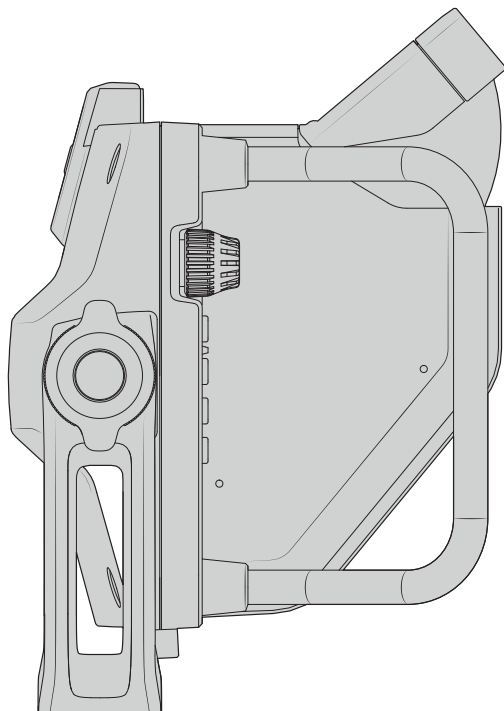
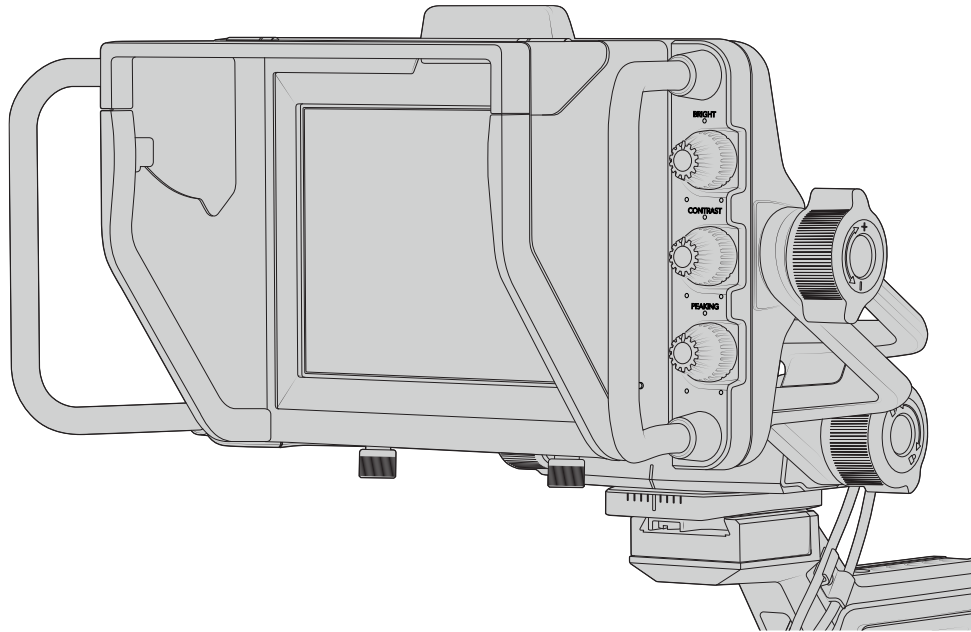


- 1 Tilt Lock Dial**
Locks the angle of tilt on the viewfinder mechanism.
- 2 Pan Tension Dial**
Controls pan tension.
- 3 Tilt Tension Dial**
Controls tilt tension.

TIP The center tension dial on the supplied mount controls pan tension, and can be loosened to allow you to take hold of the viewfinder and move the camera independently. This means that you can film things like motorsport, where you need to pan the camera left and right to follow the action, whilst holding the viewfinder positioned towards your eyes. A visual guide on the mount helps to ensure that the viewfinder can easily be returned to the center.

Sun hood

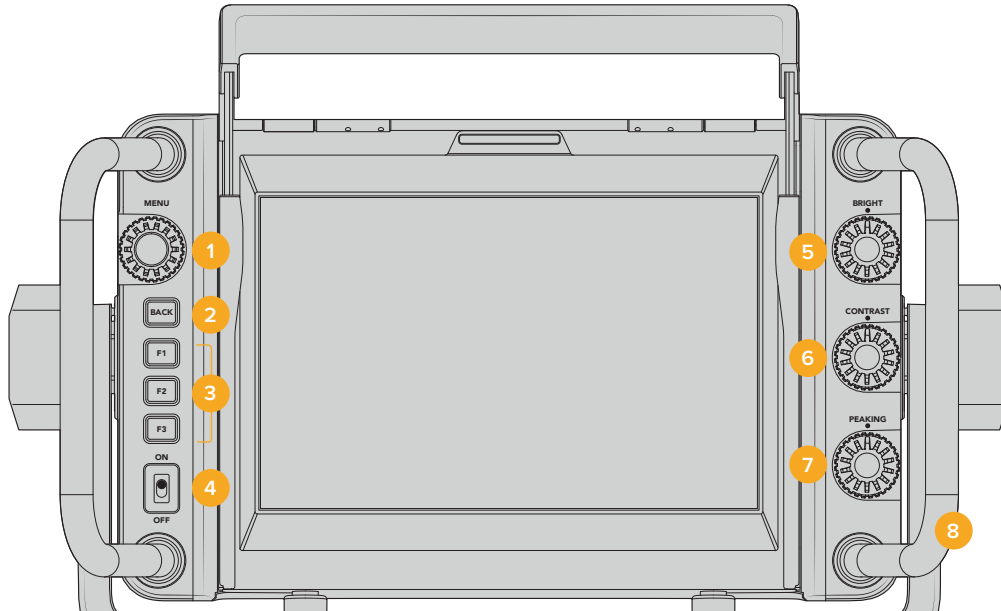
The sun hood helps you to see the screen in bright or sunny conditions. To attach the sun hood, slide it over the top of the Blackmagic URSA Studio Viewfinder and push it into place, securing it with the two captive screws on the base of the sun hood. The top section of the visor is adjustable, and can raise and lower to provide additional viewing angles. The sun hood provides additional protection for the 7" screen, and can be removed quickly and easily if desired or to access the USB-C connector for software updates.



Sun hood and adjustable visor

Button Features

The tactile dials down the right hand side let you change brightness, contrast, peaking quickly and easily. The dials are ergonomically designed so you can adjust the dials from the side with your thumb when using the sun hood, or with two fingers for finer more controlled adjustment.



1 Menu Dial

The push button 'menu' dial allows you to enter the menu, and navigate through the viewfinder settings.

2 Back button

Exits the menu system

3 F1, F2, F3

Assignable function buttons. You can assign functions to these buttons for easy access to your most commonly used functions.

4 ON/OFF switch

Switches the Blackmagic URSA Studio Viewfinder on and off.

5 Bright

Adjusts the brightness of the image on screen. Overlays on screen will show the brightness level on a scale of -100 to +100.

6 Contrast

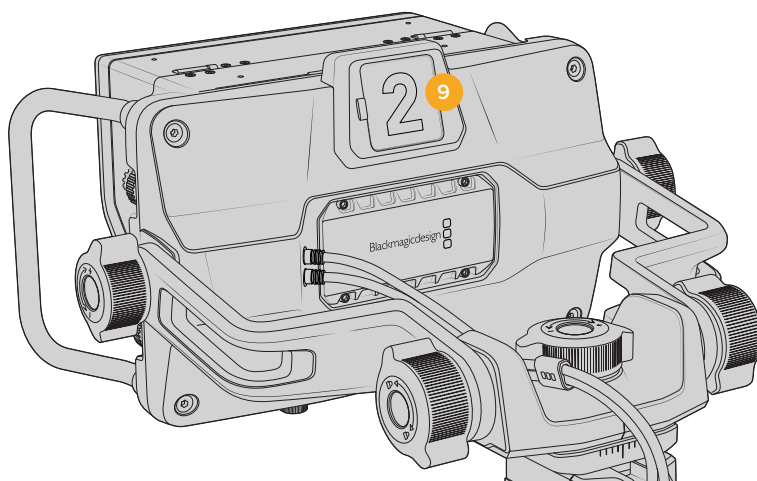
Adjusts the contrast of the image on screen. Overlays on screen will show the contrast level on a scale of -100 to +100.

7 Peaking

Adjusts the focus peaking level for the image on screen. Overlays on screen will show the peaking level on a scale of -100 to +100. In the setup menu you can select between various styles of peaking to suit your environment. There is the option for the traditional style of focus peaking that many will be familiar with from other broadcast systems, as well as the option to use colored lines for focus. As with URSA Mini you have the option of 'red', 'green', 'blue', 'black' and 'white' lines which gives you flexibility to make them easily viewable when shooting in environments that have a lot of a particular color.

8 Handles

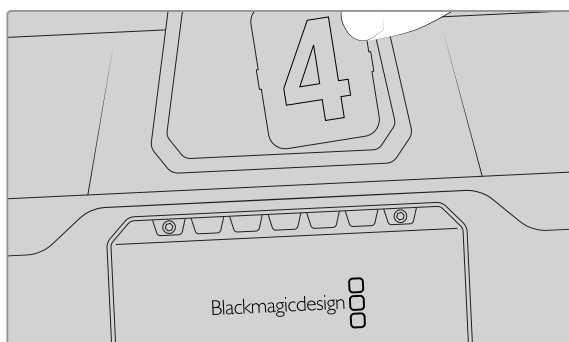
The built in handles are large and allow you to hold the Studio Viewfinder in place as you reposition the camera while shooting. They also provide protection for the screen when setting up and packing down.



9 Tally Light

The large tally light on the rear of the Blackmagic URSA Studio Viewfinder lets both the talent and operator know which camera is on the air, which camera is about to be on air, and if they are ISO recording. The tally illuminates red for on-air, green for preview and when used with URSA Mini will illuminate orange for ISO record.

As the director cuts between cameras on the ATEM switcher, tally information is sent back to the camera over SDI so the light is lit when the camera is being previewed to switch to, on the air or recording. In addition, the URSA Studio Viewfinder also includes clip-on transparent camera numbers that attach to the tally light, making it easy for talent to clearly see camera numbers from up to 20 feet away.



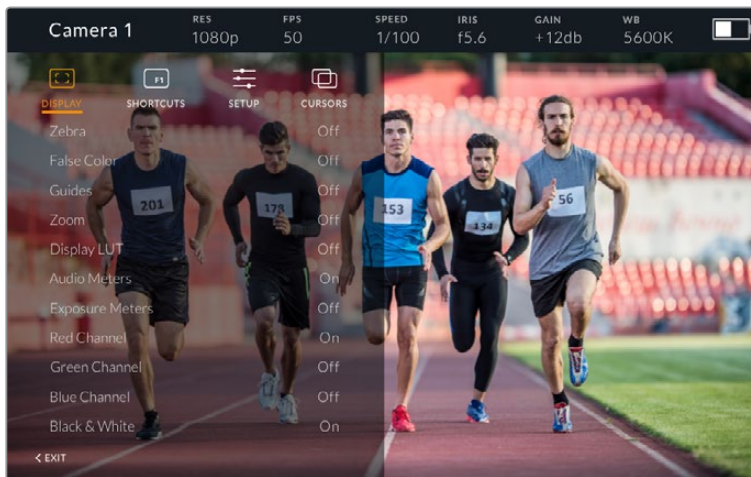
We have included editable PDF's in the software installer that allows you to edit and print out your own tally numbers to match the ones provided, and also to create your own custom tally number inserts. After installing Camera 4.1 software these can be found on a Mac in the Application > Blackmagic Cameras > Documents folder and on a PC in the Blackmagic Design > Documents folder.

The tally light will illuminate according to the ATEM switching operations, and when the camera is not connected to a switcher the tally light will illuminate red as a simple record tally indicator. Refer to the 'Understanding Studio Camera Control' section in this manual for more information.

TIP When using the Blackmagic URSA Studio Viewfinder with an ATEM switcher, it is important to select 'clean feed' on URSA Mini to ensure that you don't see overlays or the focus box on the SDI output to the ATEM switcher. Navigate to the 'monitor' menu on URSA and select 'clean feed' for 'main SDI'.

Menu Settings

The push button 'menu' dial allows you to enter the menu by pressing it, whilst rotating the dial navigates up and down through the menu options. Pressing the 'menu' dial whilst a menu heading is highlighted, will allow you to switch between the display, shortcuts, setup and cursor sub menus. Rotating the dial will scroll through the settings in each menu. Pressing the dial when a setting is highlighted allows you to adjust that setting by rotating the 'menu' dial. Confirm your selection by pressing the 'menu' dial once more. You can exit out of the menu by hitting the 'back' button or by navigating to and selecting exit.



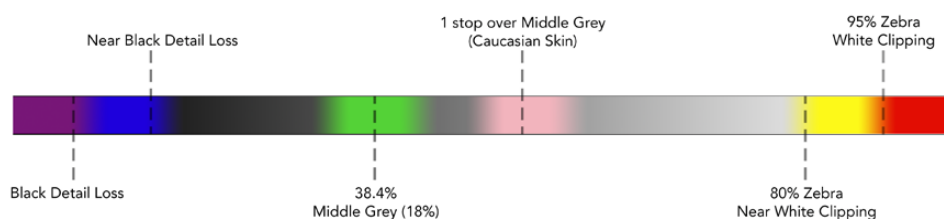
Display

Zebra

Switches zebra levels on and off. The level of zebra will be determined by the setting on your URSA Mini, in the 'All' section of the 'Monitor' menu. When the Studio Viewfinder is not connected with URSA Mini, the zebra level will represent 95% of the luminance levels of a Rec 709 signal. For more information, refer to the 'settings' section in this manual.

False Color

Switches the false color feature on and off. False color overlays different colors onto your image that represent exposure values for different elements in your image. For example, pink represents optimum exposure for skin tones. By monitoring the pink false color when recording people, you can maintain consistent exposure for skin tones. Similarly, when elements in your image change from yellow to red, that means they are now over exposed. False color is a good feature to assign to one of the function buttons, as it provides quick and easy access to a commonly used reference tool for exposure.



False Color Chart

Guides

This setting gives you the option to show or hide your guides. The guides will match the style of guides that have been set in the URSA Mini in the camera 'all' section of the 'monitor' menu.

The aspect ratio, frame guide opacity level, safe area percentage, and the type of grids shown will match what you have set in the camera. The 'setup' menu in the Studio Viewfinder then allows you to configure which type of guides you would like to see in the Studio Viewfinder when guides in the display menu are switched on. Guides then allows you to then switch these 'on' or 'off' with one command.

Zoom

Turns the 'zoom' feature on and off. The 'zoom' feature helps you find sharp focus by zooming into your picture. When zoomed in, you can navigate to specific parts of the screen by rotating the menu dial left and right. The overlay will indicate which part of the picture you are zoomed into.

Display LUT

When sending a 'film' dynamic range SDI signal from your URSA Mini, the 'film to video' and 'film to extended video' settings allows you to apply a more colorful and contrasty LUT to the image. The viewfinder will detect when either of these LUTs are used and will give you the option to toggle them on or off in your viewfinder. When a display LUT is active on the front SDI output, or you are using a different LUT, the option is disabled to prevent multiple LUTs being applied.

Audio Meters

The audio meters display the audio level that is being input via SDI into the Blackmagic URSA Studio Viewfinder, therefore the meters will show you URSA Mini's audio input levels. If you have program input selected, the audio meter will display these audio levels.

Exposure Meters

Switches the display of the histogram 'on' or 'off'.

Red Channel

Allows you to switch on or off the red channel of your image.

Green Channel

Allows you to switch on or off the green channel of your image.

Blue Channel

Allows you to switch on or off the blue channel of your image.

Black and White

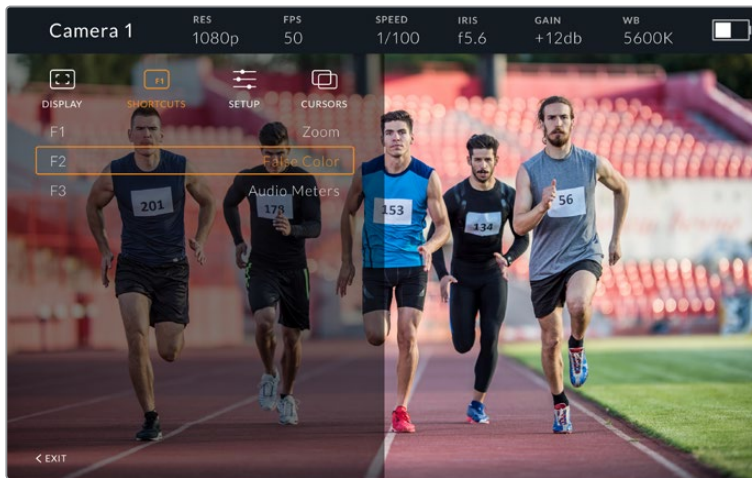
Switches between color and monochrome.

Shortcuts

The shortcut function allows you to map specific functions to the F1, F2 and F3 buttons. These shortcut buttons allow you to quickly toggle 'on' and 'off' any of the settings in the display menu, or your cursors. This is extremely useful when you need to quickly access a particular setting for a frequently used feature.

To customize your shortcut buttons: In the 'shortcuts' menu, rotate the push button 'menu' dial to move up or down and select one of the 3 buttons. Press the 'menu' dial to confirm your selection and then rotate the 'menu' dial to scroll through the assignable features. You will have the option to select one of the following features: 'zoom', 'cursor 1', 'cursor 2', 'cursor 3', 'zebra', 'false color', 'guides', 'film to video', 'audio meters', 'exposure meters', 'red channel', 'green channel', 'blue channel', 'black and white'. Once chosen click the menu button to confirm that selection, and assign that function to the chosen shortcut button. Pressing the shortcut button will now switch this feature 'on' and 'off'.

Once you have set up your shortcuts as required you can either scroll to 'exit' and press the 'menu' dial to close the menu display view, or hit the back button to exit out of the menu.



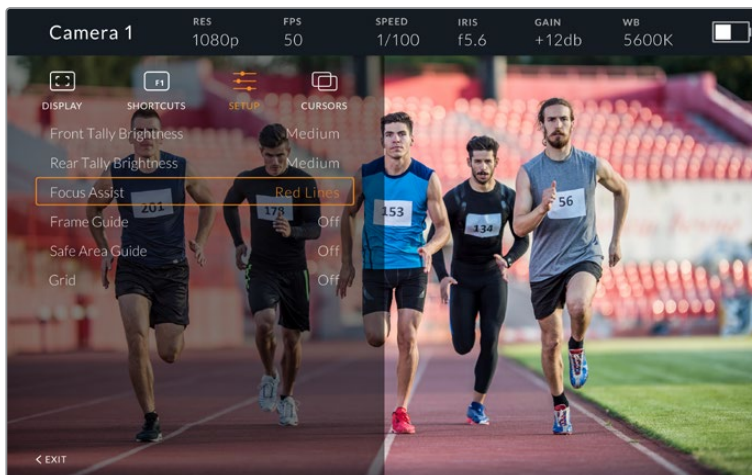
The 'shortcuts' submenu

Setup

The 'setup' menu is where you choose your preferences for how the viewfinder is setup.

Front Tally Brightness

Allows adjustments of tally LED brightness between 'off', 'low', 'medium' and 'high'. The tally light will illuminate whilst adjustments are being made so you can see what each brightness level represents.



The 'setup' submenu

Rear Tally Brightness

Allows adjustments of tally LED brightness between 'low', 'medium' and 'high'. The tally light will illuminate whilst adjustments are being made so you can see what each brightness level represents.

TIP A high LED brightness setting is recommended for bright conditions, as it will provide greater visibility for talent and operators in the conditions. A low LED brightness is recommended when filming in darker environments where it is easier to see when the light is on.

Focus Assist

The 'focus assist' setting toggles the appearance of peaking on the viewfinder. You have the choice of 'red', 'green', 'blue', 'black' and 'white' as well as traditional peaking.

Frame Guide

Gives you the option to show 'frame guides' as part of your Studio Viewfinder's 'Guides'. When connected to URSA Mini they will match your camera's 'frame guides' aspect ratio. When connected to other systems they will default to the 14:9 aspect ratio.

Safe Area Guide

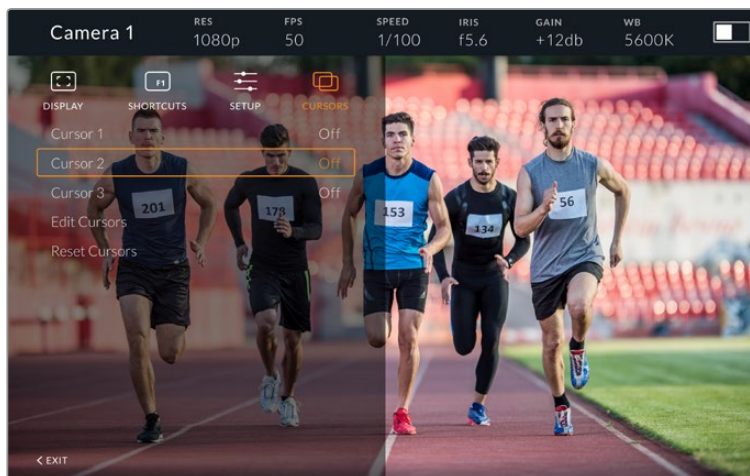
Gives you the option to show the 'safe area' indicator as part of your Studio Viewfinder's 'Guides'. When connected to URSA Mini these will match your camera's 'safe area guide' percentage. When connected to other systems they will default to 90%.

Grid

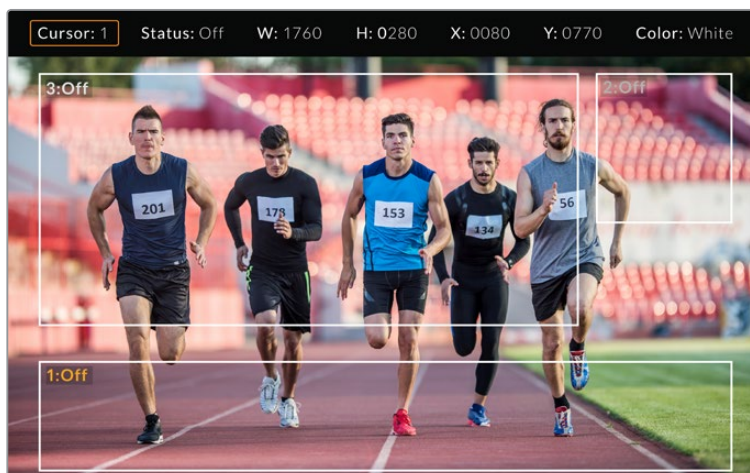
Gives you the option to show grids as part of your Studio Viewfinder's 'Guides'. When connected to URSA Mini these will match your camera's 'grids' settings. When not connected, this will switch your crosshairs on or off.

Cursors

The cursors allow you to mark an area on screen where graphics like a lower third, graphic, logo or ticker will be overlaid. To adjust these cursors go to 'cursors' and select 'edit cursors'. This will bring up a page that shows you all three cursors and allows you to select each one individually and then dial in the width, height, x and y co-ordinates for positioning each one individually.



The cursors submenu



Cursors displayed on screen

Once you have set them up they can be switched on or off from the 'cursors' menu or assigned to your function keys for quick access. This is important for live production, as it allows the camera operator to take this into consideration and accurately compose and frame shots. You can create up to three black or white custom cursors that can have variable height, width and position, making it easy to match the size and location for all the graphics that will be added live or during later broadcast. You also have the option to reset the cursors to their default state.

Using a headset with the Blackmagic URSA Studio Viewfinder

When using the Blackmagic URSA Studio Viewfinder with URSA Mini, the headphone connection on the camera will now become a talkback headset connection, allowing for direct communication with the director.

TIP Because URSA Mini's headphone socket is iPhone headset compatible, you can use your iPhone headset to communicate with the director. Pushing the button on the built-in remote will allow you to talk back to the director.

Updating URSA Viewfinder's Internal Software

Update your viewfinder using the Blackmagic Camera Setup utility software. The viewfinder will need to be powered when updating, so we recommend keeping the viewfinder connected to your URSA during the update process. This also means your URSA will need to supply consistent power, so be sure to plug into external power.

Remove the sun hood to provide access to the small USB-C connection located on the bottom of the Blackmagic URSA Studio Viewfinder, and connect your computer to the USB-C port. When Blackmagic Camera Utility is launched and your viewfinder is connected to your computer, you will be prompted to update if your computer detects that your viewfinder is using an older version. Follow the on screen prompts to update your viewfinder's internal software. Refer to the 'Blackmagic Camera Setup Utility' section in this manual for more information.

We recommend updating all your Blackmagic URSA equipment at the same time for optimized performance.