

September 2025

## Installation and Operation Manual



# HyperDeck Shuttle



HyperDeck Shuttle HD  
HyperDeck Shuttle 4K Pro  
HyperDeck Shuttle 4K Pro 2TB

# Languages

To go directly to your preferred language, simply click on the hyperlinks listed in the contents below.

English.....	3
日本語.....	119
Français.....	236
Deutsch.....	353
Español.....	470
中文.....	587
한국어.....	704
Русский.....	821
Italiano.....	938
Português.....	1055
Türkçe.....	1172
Polski.....	1289
Українська.....	1406



## Welcome

Thank you for purchasing your Blackmagic HyperDeck Shuttle disk recorder!

When we designed the original Blackmagic HyperDeck disk recorders we wanted to make it easier to record and play back video using fast SSD storage. Now we are excited to introduce HyperDeck Shuttle HD and HyperDeck Shuttle 4K Pro!

HyperDeck Shuttle HD is a small, portable HDMI video recorder designed for your desktop. A large search dial and familiar transport controls let you operate the recorder with one hand which makes HyperDeck Shuttle HD the perfect companion for live production with an ATEM Mini switcher.

HyperDeck Shuttle 4K Pro features the same transport controls with a 7 inch touchscreen, 10G Ethernet, internal M.2 storage that can be shared over a network and 12G-SDI inputs and outputs.

HyperDeck Shuttle records to SD cards or external flash disks using ProRes, DNxHD or H.264 codecs for lightning fast recording and playback. You can even use HyperDeck Shuttle as a teleprompter!

Please check the support page at [www.blackmagicdesign.com](http://www.blackmagicdesign.com) for the latest version of this manual and updates to the HyperDeck software. Keeping your software up to date will always ensure you get all the latest features. When downloading software, please register with your information so we can keep you updated when new software is released. We are constantly working on new features and improvements, so we would love to hear from you!

A stylized, handwritten signature in black ink that reads "Grant Petty".

**Grant Petty**

CEO Blackmagic Design

# Contents

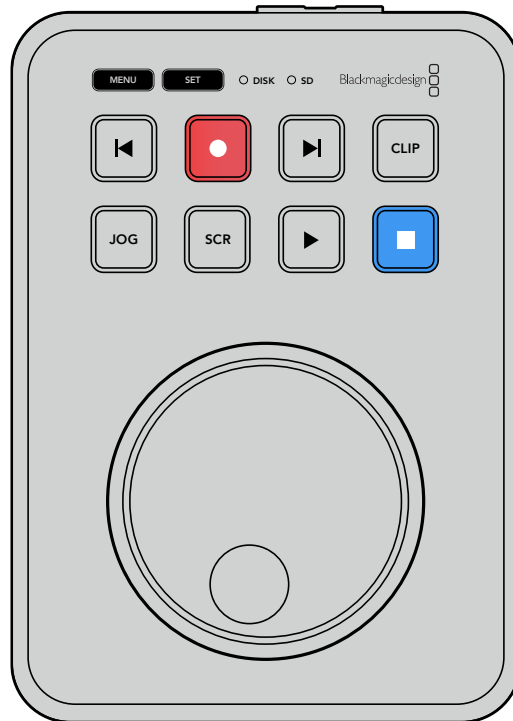
<b>Getting Started</b>	5	EXT Disk	75
Plugging in Power	5	Preparing Media on HyperDeck Shuttle 4K Pro	75
Connecting Video and Audio	6	Formatting Media on a Mac Computer	78
Plugging in Media	7	Formatting Media on a Windows computer	79
<b>Recording Video</b>	8	Storage Indicators	80
<b>Playback</b>	9	Connecting to Network Locations	84
Using the Search Dial	11	<b>Using the Optional Internal M.2 SSD</b>	87
<b>Using HyperDeck Shuttle HD</b>	13	Choosing Network Storage	87
<b>Settings</b>	14	Choosing Record Cache	87
Record Menu	14	Choosing your M.2 SSD	88
Monitor Menu	15	Installing The M.2 SSD	89
Audio Menu	15	Formatting The M.2 SSD	90
Storage Menu	16	Using the M.2 SSD as Network Storage	91
Setup Menu	18	Internal M.2 SSD Icons and Status	92
<b>Rear Panel</b>	25	Accessing the Shared Storage Over a Network	92
<b>Using HyperDeck Shuttle 4K Pro</b>	26	<b>Volume Navigation</b>	94
Touchscreen Features	26	<b>Using the Teleprompter Function</b>	95
Upper Toolbar	26	Controlling Teleprompter Playback Speed	95
Lower Toolbar	34	<b>Blackmagic HyperDeck Setup</b>	97
<b>Settings</b>	38	Setup	98
Record Settings	39	Controlling Multiple HyperDeck Disk Recorders	104
Monitor Settings	43	Updating the Internal Software	105
Audio Settings	48	<b>Transferring Files over a Network</b>	106
Setup Settings	49	<b>RS-422 Control</b>	109
LUTs	59	<b>Help</b>	115
<b>Entering Metadata</b>	61	<b>Regulatory Notices</b>	116
Digital Slate	61	<b>Safety Information</b>	117
<b>HyperDeck Shuttle 4K Pro Rear Panel</b>	68	<b>Warranty</b>	118
<b>Using the Monitor Output</b>	70		
Status Text Overlay	70		
<b>Storage Media</b>	74		
SD Card	74		



## Getting Started

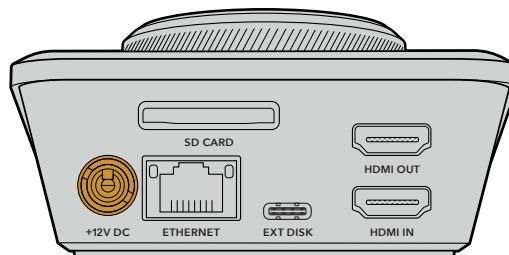
Getting started with your HyperDeck Shuttle is as easy as connecting power, plugging in a video source, inserting an SD card or external media, then pressing record!

This section of the manual shows how to get started using your HyperDeck Shuttle.



### Plugging in Power

To power your HyperDeck Shuttle, plug the supplied power adapter into the power input on the rear panel. Tightening the locking ring secures the power cable to prevent accidental disconnection.



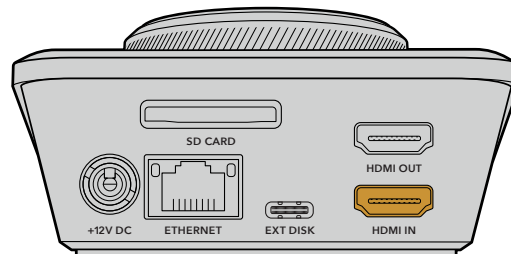
Secure the power adapter into HyperDeck Shuttle HD's power input

Once powered, the HyperDeck Shuttle 4K Pro touchscreen display will prompt you to select your language. To select your language, tap on the language option followed by 'update'. The main window will now appear.



## Connecting Video and Audio

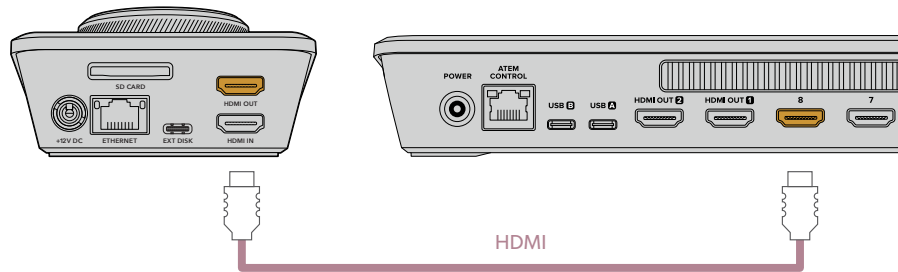
To connect video to your HyperDeck Shuttle HD, plug an HDMI video source into the HDMI input on the rear panel.



Connect your destination equipment to the HDMI output. For example, an ATEM Mini switcher or an HDMI television.

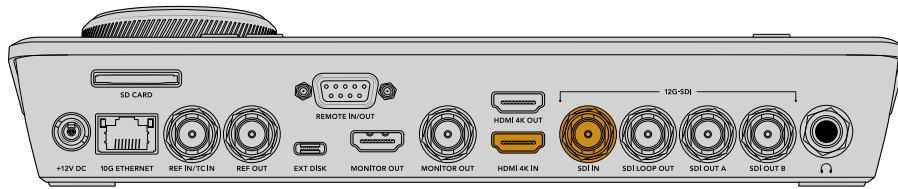
The HDMI output is also used to view the settings menu when changing settings for your HyperDeck. This is because the settings menu is viewed via video overlay on the HDMI output. More information about the menu settings can be found in the 'changing settings' section later in this manual.

**TIP** If you cannot see your input video source on the connected display, you may be in playback mode. Press the record button to enable record mode.



Plug the HDMI output into your destination equipment, such as an HDMI television or ATEM Mini switcher

To connect video to your HyperDeck Shuttle 4K Pro, plug an HDMI or SDI video source into the HDMI or SDI input on the rear panel.



Once connected, the input will appear on the large touchscreen display.



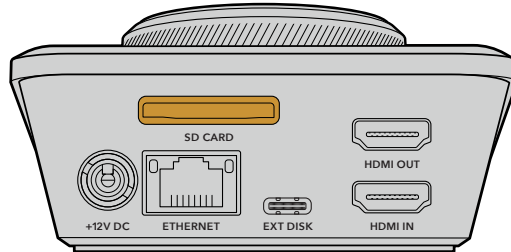
## Plugging in Media

All HyperDeck Shuttle disk recorders ship ready to record immediately without having to configure any settings. All you need is a formatted SD card or external disk. With HyperDeck Shuttle 4K Pro 2TB you can start recording right away to the internal storage.

You can easily format media via the menu settings. You can also format using a computer. Refer to the 'formatting media' section in this manual for more information. You can also find information about the types of media that are best for recording video and a list of recommended SD cards and external disks.

To plug in an SD card:

- 1 Hold the SD card with the gold connectors facing up and align it with the media slot. Now gently push the card into the slot until you feel it lock firmly into place.



- 2 Your HyperDeck will verify the SD card. This is shown by an illuminated green SD indicator on the top of the HyperDeck Shuttle HD. Once verified, the indicator will turn off.



That's all there is to getting started and your HyperDeck Shuttle is now ready for recording and playback!

Keep reading this manual for detailed information about how to record and play back clips, change settings, and much more.

## Recording Video

After confirming that your video source is displayed on the HDMI destination equipment, you can start recording straight away!

To start recording, press the record button. When recording to an SD card, the SD indicator will illuminate red and the record and play buttons will also illuminate. When recording to an external disk, the disk indicator will illuminate red.



To finish recording, press the stop button.

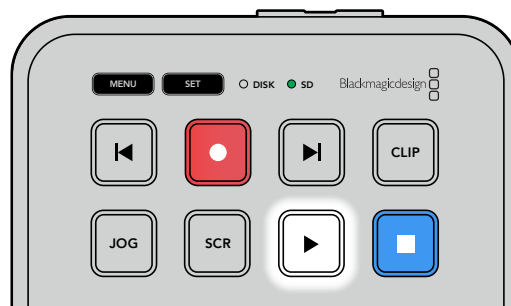
Press the 'record' button on the front panel, or tap the red record icon on the touchscreen. You can see your HyperDeck Shuttle 4K Pro is recording because the record button will illuminate red along with the timecode display and media icon. To stop recording, simply press either the touchscreen or front panel 'stop' button.



## Playback

Press the 'play' button to start playback. During playback, the play button will illuminate and the 'disk' or 'SD' media slot indicator will illuminate green.

If there are multiple clips that have been recorded, you can quickly move through them by pressing the forward and backward skip buttons.



### Using the Skip Buttons

Press the backward skip button to cue the clip at the start. Pressing more than once will move back through previously recorded clips.

Press the forward skip button to move forward through your clips. The skip buttons will also flash when the 'identify HyperDeck' checkbox is selected using HyperDeck Setup utility.



Use the forward and backward skip buttons to cue to the start of each clip

**TIP** To play back video files on your HyperDeck, you will need to set the codec to match the codec used to record the files. You can do this using the menu. Refer to the 'changing settings' section later in this manual for more information.

## Looping Clips

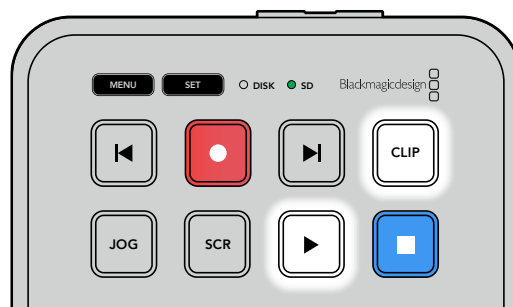
During playback, pressing the 'play' button again will set your HyperDeck Shuttle to loop all clips until you press the 'stop' button.

If you want to loop a single clip, set your HyperDeck to 'clip' mode and press the 'play' button once to play and again to loop.

<b>Loop all clips</b>	During playback, press the 'play' button a second time to loop all recorded clips
<b>Loop current clip</b>	When in clip mode, press the 'play' button a second time to loop the current clip

## Clip Mode

Clip mode lets you limit playback to a single clip. For example, with clip mode enabled you can shuttle or skip to a clip and then press play knowing that playback will stop when the clip ends.






When clip mode is selected, pressing play a second time will loop the current clip

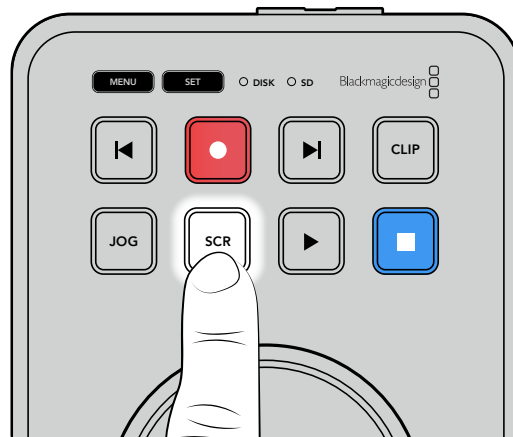


## Using the Search Dial

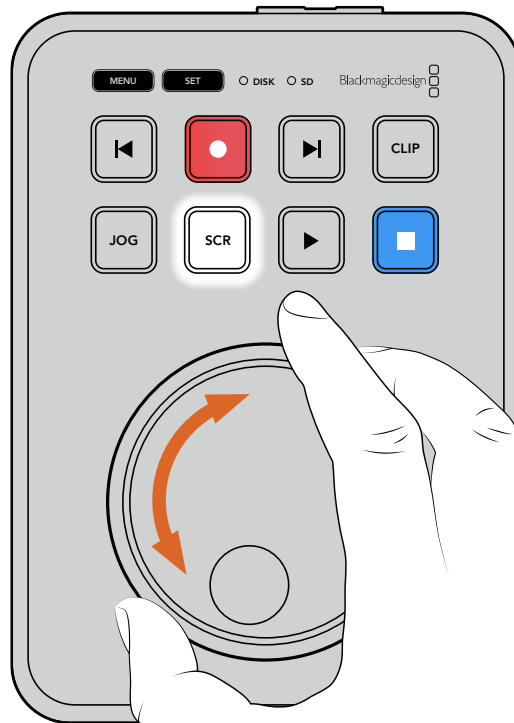
The search dial provides a fast way to move through your clips and select specific moments to play, or review them frame by frame. This can be important if you need to locate a specific moment by visually monitoring the clip as you turn the dial. It is also helpful for parking the playhead at a specific cue point, ready for the clip to be rolled to air during a live broadcast.

Search dial modes include Jog, Scroll and Shuttle.

	<b>Jog</b>	Plays through the clip frame by frame allowing precise control.
	<b>Scroll</b>	<p>Scroll mode lets you quickly move forwards and backwards through all your recorded media. As you turn the search dial, scroll is locked to your movement so you have total control over where to position playback.</p> <p>The scroll button will also bring up the volume navigation window which shows you the file path of the video that you are currently playing. More information about the volume navigation function can be found in the 'volume navigation' section later in this manual.</p>
	<b>Shuttle</b>	<p>Press the 'jog' and 'scr' buttons simultaneously to enter shuttle mode. Once in shuttle mode you can rewind or fast forward through your media by turning the dial left or right. As you turn the dial, the media will shuttle faster until you reach the maximum speed of x50. To slow the shuttle speed to a stop, turn the dial back to the start position. To stop at a specific point during shuttle, press the stop button, or press play to resume playback at the current position. It's worth noting the maximum shuttle speed can be lowered using the setup menu. For more information, see the 'Settings' section later in this manual.</p>



Press the dedicated 'JOG' or 'SCR' buttons to select jog and scroll search modes

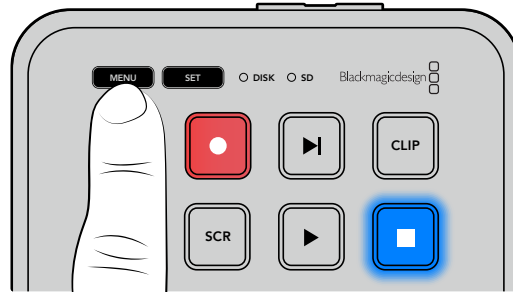


Once a search mode is selected, turn the search dial

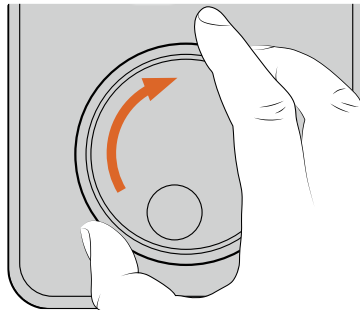
**TIP** To resume normal playback, press the 'play' or 'stop' button.

## Using HyperDeck Shuttle HD

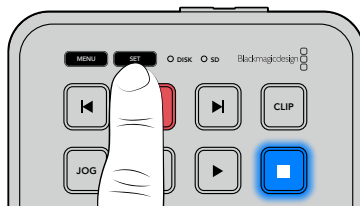
Pressing the 'menu' button will open the settings menu, which will appear as a video overlay on the bottom left corner of your connected HDMI display.



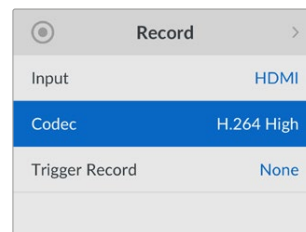
Press the menu button to open the settings menu



Use the search dial to navigate to the submenu or setting



Press the 'set' button to select the submenu or setting



Adjust settings using the search dial or the forward and backward skip buttons. Confirm the selection by pressing the 'set' button.

To leave the menu, press 'menu' to step back through the options and return to the home screen.

**TIP** You can position the menu to any of the four corners of your display using the setup menu. We recommend turning the menu off when you have finished changing settings to make sure the HDMI output is a clean feed when connected to an HDMI switcher, such as ATEM Mini Extreme.

# Settings

The settings menu is arranged into 5 distinct categories, including record, monitor, audio, storage and setup. Each of these submenus contain related settings, most of which can be adjusted using the HyperDeck Shuttle HD control panel. Some settings are display only and will appear grayed out, for instance, filename prefix. In this case, the setting can be adjusted via the HyperDeck Setup utility.

## Record Menu

Record	
Input	HDMI
Codec	H.264 High
Trigger Record	None

### Input

Displays the HyperDeck Shuttle HD HDMI input.

### Codec

HyperDeck Shuttle HD can record compressed video using H.264, Apple ProRes and DNxHD codecs. To use the teleprompter function, select 'teleprompter'.

### Trigger Record

There are two trigger record modes available, including video start/stop and timecode run.

Some cameras, such as Blackmagic Pocket Cinema Camera 4K, send a signal over HDMI to start and stop recording on external recorders. Selecting 'video start/stop' will trigger the HyperDeck to start or stop recording when the record button is pressed on the camera.

Use the 'timecode' run option to trigger the unit to start recording when it receives a valid timecode signal via the HDMI input. When the signal stops, recording will also stop. Disable trigger recording by selecting the 'none' option.

**NOTE** When recording from an HDMI camera, make sure the output is clean with overlays turned off as any overlays that are present in your camera's video output will be recorded with your image.

## Monitor Menu

Monitor	
Teleprompter Layout	
Font Size	450%
Line Spacing	120%
Side Margin	10%
Flip Horizontally	Off
Flip Vertically	Off

### Teleprompter Layout

The monitor menu contains all the settings for when using HyperDeck Shuttle HD as a teleprompter.

#### Font Size

Adjust the size of the text by selecting the font size option and pressing set. Turn the dial clockwise to increase, or counterclockwise to decrease.

#### Line spacing

Turn the dial to increase or decrease the line spacing.

#### Side Margin

Adjust the widths of the side margins on both sides of the teleprompter display.

#### Flip

If your teleprompter monitor is set up to reflect onto glass, such as in front of a camera or at a speaker's podium, you will need to use the flip settings to make it readable for the presenter.

There are two flip modes available:

**Flip Horizontally** - Use this when the bottom of the teleprompter monitor is mounted closest to the base of the glass.

**Flip Vertically** - Use this when the bottom of the teleprompter monitor is mounted away from the base of the glass.

## Audio Menu

Audio	
Recorded Audio Channels	AAC 2

### Recorded Audio Channels

HyperDeck Shuttle HD can record up to 8 channels of PCM audio at a time. To select the number of channels to record, expand the recorded audio channels list and select 2, 4 or 8 channels.

If the codec is set to H.264, you can also select 2 channels of AAC audio so you can upload recordings directly to YouTube.

## Storage Menu

Connected media will appear in the storage settings. Media 1 will list the name of the connected SD card and media 2 will display any USB flash disk plugged into the ext disk connector. When using a USB hub, such as Blackmagic MultiDock 10G, the active disk is displayed.

	Storage	>
Active Media	SD 1: SanDisk 256	
Media 1	SD 1: SanDisk 256	
Media 2	USB: Drive A	
Set Network Location		>
USB Spill	On	
Format Media		>

### Active Media

When using HyperDeck Shuttle you can connect one SD card, multiple external drives and network locations all at once. This means you can access terabytes of recording space all from the one HyperDeck Shuttle disk recorder!

If you only have a single SD card or drive connected, it is your active media for all playback and recording. If you are using more than one you can select which one you want to use for recording and playback.

Selecting your active media:

- 1 Using the search dial, highlight 'active media' in the storage menu and press the flashing set button.
- 2 Attached media will appear in the list. Using the search dial select the media you want to record to.

Active Media	
SD 1	✓
USB	
NET	



## Set Network Location

HyperDeck Shuttle can play HD media from Blackmagic Cloud and other network access storage via Ethernet.

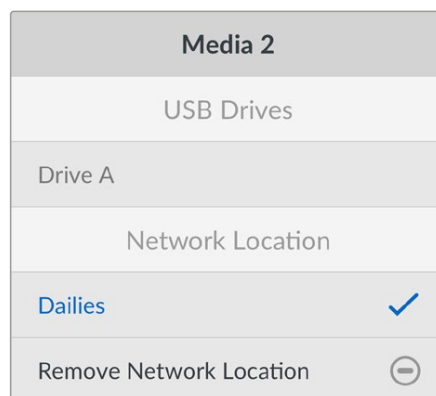
To connect to a network folder:

- 1 Using the search dial and set button, select 'set network location'. A local network search dialog will appear.
- 2 Any servers found on your local network will appear in a list. Highlight the server name using the search dial and press 'set' to select. A list of available shares on the server will appear. Using the search dial highlight the share you want to select and press 'set' and continue until the folder you want to use is displayed at the top of the screen.
- 3 The folder name will now appear at the top of the LCD screen. To select this folder for recording and playback use the search dial to select 'set this location' and press set. A tick will appear to the right.



- 4 Once connected, the location will appear in the media 2 storage list under network locations.

The second media slot on HyperDeck Shuttle disk recorders is allocated for both USB and connected network folders. To select between connected USB drives and network location, select 'media 2' from the storage media menu and press the flashing 'set' button. From the media 2 list select the storage you want to use and press set button. You will now be returned to the storage menu. You can also remove network locations using the media 2 menu and selecting 'remove network location' at the bottom of the menu.



**NOTE** When playing from a network volume, HyperDeck Shuttle HD assumes guest login on the server. Server access that requires a login and password is not currently supported using the menu and set buttons but you can enter credentials using REST API or HyperDeck Ethernet Protocol.

## USB Spill

If you are using a Blackmagic MultiDock 10G or similar to connect more than one drive via the 'ext disk' usb connection, turning USB spill on will ensure that recording will spill from one external disk to the next.

## Format Media

SD cards and media connected via the rear ext disk connection can be formatted directly on the unit or via a Mac or Windows computer.


### Preparing Media on HyperDeck Shuttle HD:

- 1 Using the search dial and set button, select format media.
- 2 Select the media to format from the list and press set.
- 3 Choose the format and press set.
- 4 A confirmation window will appear detailing which card is to be formatted and the selected format option. Select format.
- 5 A formatting window will appear once completed. Select OK.

HFS+ is also known as Mac OS X Extended and is the recommended format as it supports 'journaling'. Data on journaled media is more likely to be recovered in the rare event that your storage media becomes corrupted. HFS+ is natively supported by Mac. exFAT is supported natively by Mac and Windows without needing any additional software but does not support journaling. To format media on a Mac or Windows computer, refer to the 'formatting media' section.

## Setup Menu

The setup menu contains settings including language selection and default standard as well as sections for the menu display, network settings and timecode options.

	Setup	>
Name	HyperDeck Shuttle HD	
Language	English	
Software	8.4.1	
Front Panel	Light Appearance	
Camera	A	
Default Standard	1080p30	
Shuttle Max Speed	x50	

## Name

When more than one HyperDeck Shuttle HD is on the network, you may wish to give them discrete names to help identify the different units. This can be done via Blackmagic HyperDeck Setup or Blackmagic HyperDeck Ethernet Protocol using a terminal application. The name will appear in the setup menu.

## Language

HyperDeck Shuttle HD supports 13 languages, including English, Chinese, Japanese, Korean, Spanish, German, French, Russian, Italian, Portuguese, Turkish, Ukrainian and Polish.

To select the language:

- 1 Once the setup menu is highlighted, press set.
- 2 Scroll the search dial down to select language and press set.
- 3 Use the search dial to select the language and press set. Once selected you will automatically return to the setup menu.

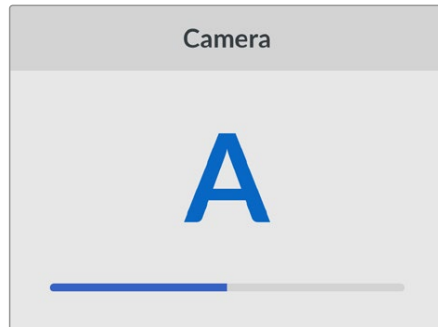
## Software

Displays the current software version.

## Camera

This setting is helpful when using HyperDeck to record ISO files from multiple cameras and then editing them on a multicamera timeline in DaVinci Resolve.

Each individual camera identification letter will appear in the files' metadata, allowing DaVinci Resolve to identify each angle easily when using the sync bin feature.



Assign your camera using characters 1–20 or A-Z

## Default Standard

Sometimes the HyperDeck Shuttle HD does not know what video standard you want to use. This setting will let the HyperDeck know the video standard you want to use most of the time.

A good example is if you have turned on a HyperDeck Shuttle HD, it has no video input connected and you insert a disk with files on it with 2 different video standards. Which video standard should the HyperDeck play? The default video standard will give it an indication which video standard you prefer and it will switch to that standard and play those files.

The default video standard is also useful when you first turn on a HyperDeck Shuttle HD and it has no video input and no media disk inserted. In this case, the HyperDeck does not know which video standard to use for the monitoring output. The default video standard will guide it on what to do.

However, the default video standard is only a guide. It won't override anything. So if you had a media disk with only 1 type of video file on it and you press play, the HyperDeck disk recorder will switch to that video standard and play. It will ignore the default video standard because it's obvious you just want to play the files on the disk.

It's a similar situation with recording. If you press record, the HyperDeck will just record whatever video standard is connected to the video input. Plus, once you have done the recording, the HyperDeck Shuttle HD will playback the same video standard files on the disk, even if there are other files on the disk that match the default video standard. It's assumed you want to playback the same video standard as you just recorded. If you unplug the media disk and plug it back in again, only then will the default video standard be used to choose which type of files to play back.

The default video standard is only a guide to help the HyperDeck Shuttle HD make decisions about what to do when it's not sure. It's not an override that forces the deck to behave in any specific way.

**Shuttle Max Speed**

The maximum shuttle speed on HyperDeck Shuttle HD is x50 speed. If you want to reduce this speed, you can select from one of the other speed presets.

**Date and Time**

Setting the date and time correctly ensures your HyperDeck Shuttle has the same time and date information as your network and also prevents conflicts that can occur with some network systems.

Date and Time	
Auto Set Date and Time	Off
NTP	<a href="https://time.google.com">time.google.com</a>
Date	16/7/2024
Time	14:32
Time Zone	GMT +11:00

**Auto Set Date and Time**

To set your date and time automatically select set the auto set date and time option to 'on'. When setting the date and time automatically, the HyperDeck will use the network time protocol server set in the NTP field. To override the date and time manually, select 'off'.

**NTP**

The default NTP server is [time.cloudflare.com](https://time.cloudflare.com), but you can also manually enter an alternate NTP server using HyperDeck Setup. For more information on setting the NTP server, refer to HyperDeck Setup later in this manual.

**Date**

To enter the date manually, select the date field and press set. Using the menu dial you can select the day, month and year.

**Time**

To adjust the time, select time and press set. Use the menu dial to adjust the hours and minutes. The internal clock is a 24 hour clock.

## Menu Settings

Using the menu settings you can adjust the location and appearance of the menu on the connected HDMI display.

Menu	
Appearance	Light
Opacity	100%
Position	Bottom Left

### Appearance

Set your HyperDeck's onscreen menu to dark or light mode. Light mode will offer more contrast when media is dark, or when you are using the teleprompter function.

Menu	
Appearance	Light
Opacity	100%
Position	Bottom Left

Menu	
Appearance	Dark
Opacity	100%
Position	Bottom Left

### Opacity

Adjust the levels to reduce the opacity of the menu overlay on the connected display from the default 100% to 20%.

### Position

The menu overlay will default to the bottom left hand corner of the screen. To move the menu to a different location, select 'position' and press the 'set' button. Now you can select the top left, top right, bottom left or bottom right corner of the screen.

## Network Settings

Network	
Protocol	Static IP
IP Address	192.168.24.100
Subnet Mask	255.255.255.0
Gateway	192.168.24.1

**Protocol**

Blackmagic HyperDeck is shipped set to DHCP, so once connected, your network server will automatically assign an IP address and no other network settings will need to be adjusted. If you need to set a manual address, you can connect via a static IP.

With 'protocol' selected press the 'set' button to access the menu, scroll to 'Static IP' and press 'set'.

**IP Address, Subnet Mask, Gateway, Primary DNS and Secondary DNS**

Once Static IP is selected, you can enter your network details manually.

To change the IP address:

- 1 Use the search dial to highlight 'IP address' and press the 'set' button on your HyperDeck's control panel.
- 2 Using the search dial, adjust the IP address, rotate the search dial to adjust your IP address, pressing 'set' to confirm before adjusting the next set of values.
- 3 Press 'set' to confirm the change and move to the next value.

When you have finished entering your IP address, you can repeat these steps to adjust the Subnet Mask and Gateway. Once finished, press the 'menu' button to exit and return to the home screen.

**Timecode Settings**

Set your timecode input and output options, including choosing between recording the source timecode, time of day timecode or setting your timecode manually.

Timecode	
Input	Video Input
Drop Frame	Default
Preset	00:00:00:00
Output	Timeline

**Input**

There are four timecode input options available when recording.

Video Input	Selecting video input will take the embedded timecode from HDMI sources with SMPTE RP 188 metadata. This will maintain sync between your HDMI source and the file recorded on the HyperDeck Shuttle HD.
Internal	Use this option to record time of day timecode via the built in timecode generator.
Last Clip Regen	By selecting 'last clip regen' for your timecode input, each file will start one frame after the last frame of the previous clip. For example, if your first clip ends on 10:28:30:10, the next clip timecode will start at 10:28:30:11.
Preset	If you want to set a timecode manually, select the preset option. Recorded clips will start at the timecode set via the 'preset' setting as shown later in this section.



### Drop Frame

For NTSC sources at frame rates of 29.97 or 59.94, you can select 'drop frame' or 'non-drop frame' timecode. If the source is unknown, select 'default'. This will maintain the standard of the input, or default to drop frame if there is no valid timecode.

### Preset

You can set your timecode manually by pressing the set button and entering the start timecode using the search dial and set button. Make sure the 'preset' option is selected under the input menu.

### Output

Select your timecode options for your outputs.

<b>Timeline</b>	To output a continuous timecode for all clips recorded on a card or drive, select timeline.
<b>Clip</b>	Selecting the clip option will output the timecode of each individual clip.

### File Settings

File Settings	
Filename Prefix	HyperDeck
Timestamp File Suffix	Off

### Filename Prefix

When first set up, your HyperDeck Shuttle HD will record clips to your SD Card or USB flash disk using the following filename convention.

HyperDeck_0001	
<b>HyperDeck_0001</b>	<b>Prefix</b>
<b>HyperDeck_0001</b>	<b>Clip Number</b>

You can change the filename prefix via the HyperDeck Setup utility. For more information, refer to 'Blackmagic HyperDeck Setup' later in this manual.

### Timestamp File Suffix

The timestamp added to the filename is turned off by default. If you would like the date and time recorded in your filename, toggle the 'timestamp file suffix' option to on.

HyperDeck_2201061438_0001	
<b>HyperDeck_2201061438_0001</b>	<b>Filename Prefix</b>
HyperDeck_ <b>22</b> 01061438_0001	<b>Year</b>
HyperDeck_22 <b>01</b> 061438_0001	<b>Month</b>
HyperDeck_2201 <b>06</b> 1438_0001	<b>Day</b>
HyperDeck_220106 <b>14</b> 38_0001	<b>Hour</b>
HyperDeck_22010614 <b>38</b> _0001	<b>Minute</b>
HyperDeck_2201061438_ <b>0001</b>	<b>Clip Number</b>

### Remote Settings

The remote setting lets the HyperDeck be controlled remotely by other video equipment, for example an ATEM Mini Extreme switcher.

Remote

Remote Off

### Remote

Select 'remote' to enable remote control via Ethernet. Deselect remote to control the unit locally.

### Reset Settings

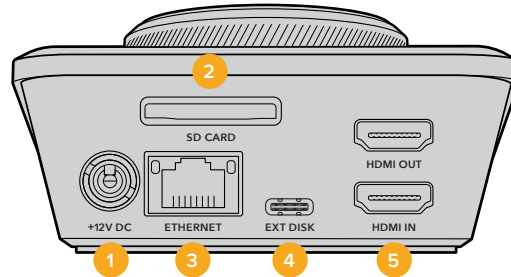
Reset

Factory Reset ↺

### Factory Reset

Highlight 'factory reset' in the setup menu to restore your HyperDeck to factory settings. Once you press 'set', you will be prompted to confirm your selection.

## Rear Panel



### 1 Power

HyperDeck Shuttle HD is powered via an AC plug pack. The supplied power cable included features a locking connector to prevent disconnection, but you can also use any 36W 12V power cable to power the HyperDeck Shuttle HD.

### 2 SD Card

Insert SD cards into the slot for recording and playback.

### 3 Ethernet

The Ethernet port lets you connect to your network for recording to network locations, fast ftp transfers and http transfers via the web media manager. In addition you can remotely control the unit using REST API or the HyperDeck Ethernet Protocol. For more details on transferring files via the web media manager or an FTP client, see the 'transferring files over a network' section later in this manual.

When connected to the same network shared with an ATEM switcher, you can also control your HyperDeck using the ATEM switcher or an ATEM hardware panel.

### 4 Ext Disk

Connect a flash disk to the USB-C connector so you can record to external disks at up to 5Gb/s. You can also connect to multi port USB-C hubs or Blackmagic MultiDock 10G to connect one or multiple SSDs.

### 5 HDMI

Connect the HDMI output to HDMI televisions, monitors or even a switcher, such as ATEM Mini Extreme. The HDMI output is also used to view the menu overlay.

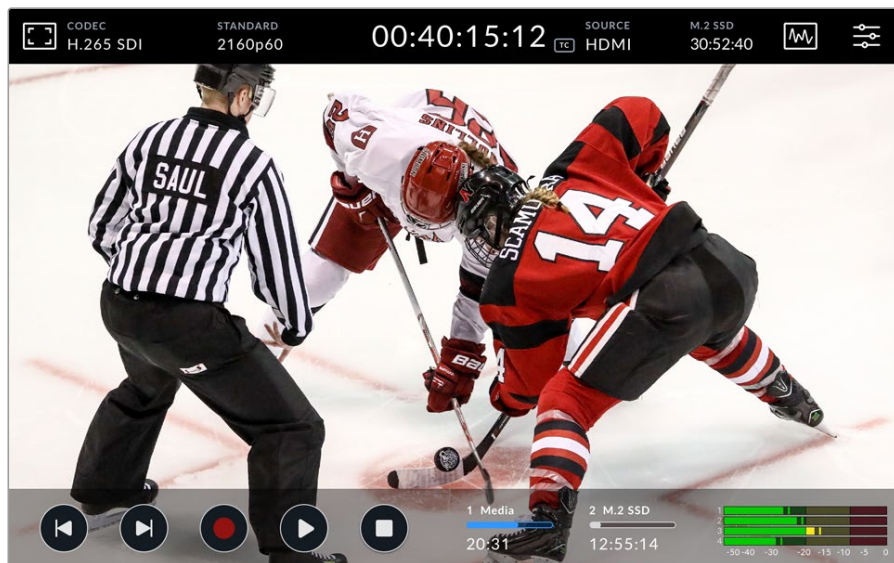
## Using HyperDeck Shuttle 4K Pro

HyperDeck Shuttle 4K Pro models include a large 7 inch LCD touchscreen for live monitoring as well as a menu for setting your codec, overlay and even teleprompter setup.

The HyperDeck Shuttle 4K Pro 2TB also includes 2 terabytes of pre installed media so you can start recording straight away. The following section of the manual details the touchscreen features including monitor overlays and the internal network storage.

### Touchscreen Features

The intuitive 7 inch display lets you view and select many of the HyperDeck Shuttle 4K Pro functions directly from the touchscreen display including accessing the menu and storage media.



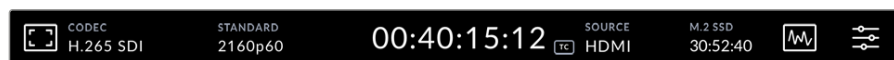
The interactive touchscreen display lets you view and select options directly from the screen

The touchscreen display includes an upper and lower toolbar. These toolbars display settings and status information, for example the current source, or the clip currently being recorded or played. Settings can also be adjusted by tapping on their relevant icons, for example to change the source, tap on the 'source' icon and then tap on one of the source options.

Indicators show the current status for items such as the source video standard and frame rate, timecode, media record time remaining, audio levels and transport controls.

The lower toolbar can be hidden or revealed by swiping the touchscreen up or down.

### Upper Toolbar



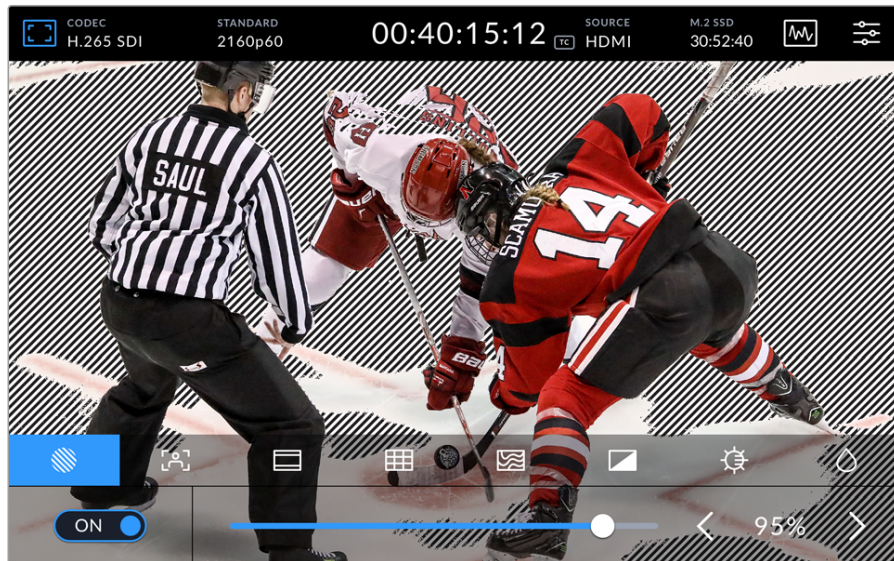
Navigate directly to the related menu options by tapping 'source' or 'codec'.

## Monitor Overlay

Tap on the monitor icon on the left to access the monitor overlay settings. These settings let you select and modify the appearance of overlay options including zebra, focus peaking, guides, grid, false color, contrast, brightness and saturation. This is especially useful when using the HyperDeck Shuttle 4K Pro as a field recorder.

### Zebra

Zebra mode will help you to achieve the optimum exposure by displaying diagonal lines over the areas of content that exceed the set zebra level. To enable zebra mode, toggle the switch to on. Use the slider or the arrows to the left and right of the percentage icon to select your zebra level. A level of 100% will mean any area of the image displaying diagonal lines is overexposed.



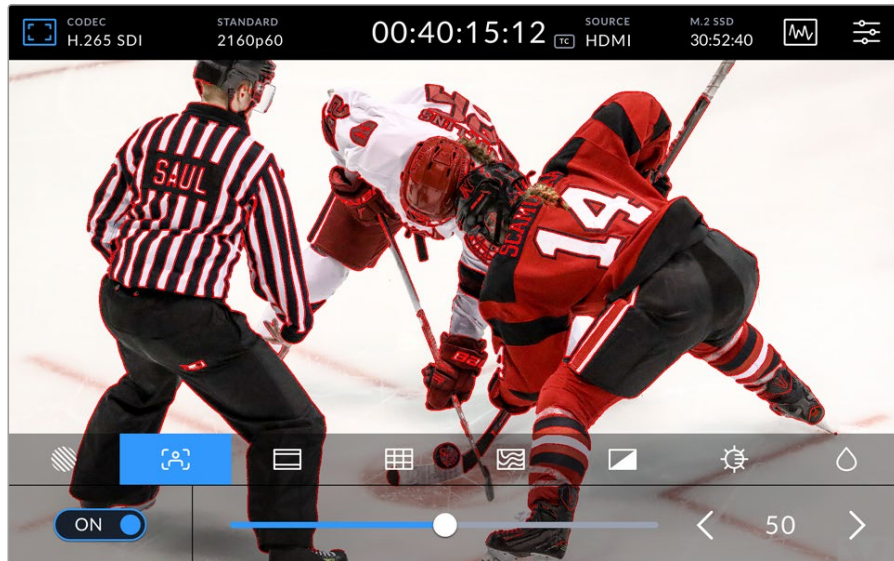
Use the slider or arrow to select your zebra percentage

**TIP** You can also set the zebra to highlight areas of your image that represent specific video levels on a waveform, for example setting the zebra for 50% means you can visually identify which regions of your image will appear at approximately 50% on a waveform scope.

### Focus Assist

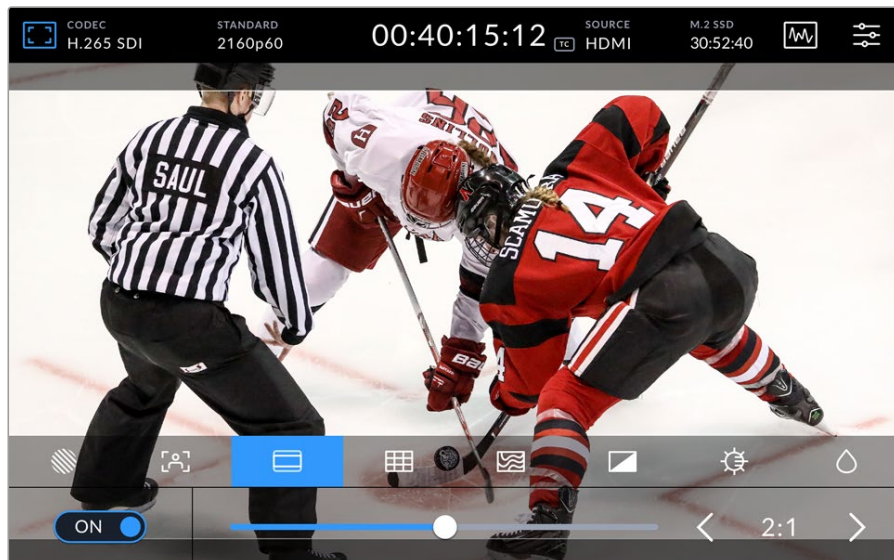
Focus assist gives you powerful tools to help focus your image fast. Focus assist displays edge lines on the sharpest areas of the image. To turn on focus assist, toggle the switch to on. Sensitivity settings let you change how strong the lines are using values from 1-100. In images with lots of detail and high contrast, the lines can be distracting, so in these conditions you can move the slider to between 1 and 50.

Alternatively, for low contrast shots with less detail, move the slider towards 100 so the lines are stronger and easier to see. If you find lines are too visually intrusive, you can select 'peaking' instead. For more information on how to set peak levels, see 'monitor settings' later in this manual.



### Frame Guides

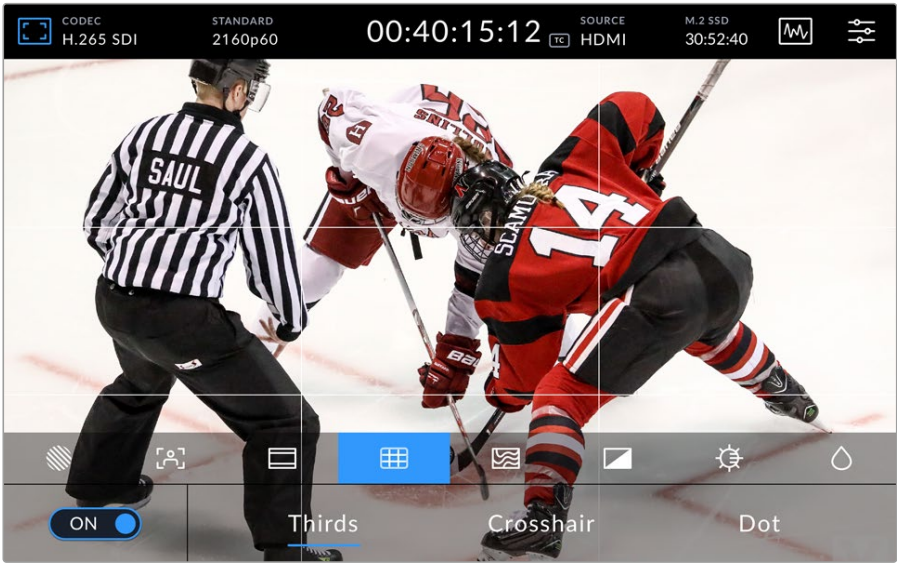
Guides provide a range of aspect ratios from various film, television and online standards. Tap the toggle switch to on and then select your guide by tapping the left and right arrows or by dragging the slider control.





Grid

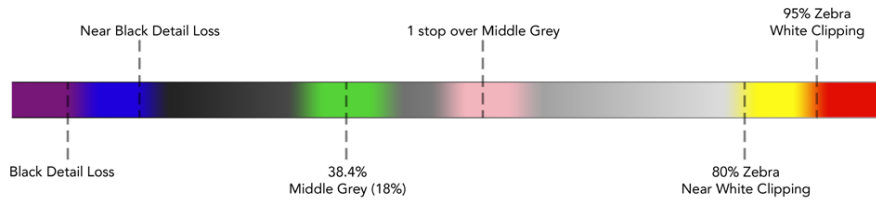
The grid option lets you select overlays to assist with shot framing.



Thirs	Thirs will overlay two horizontal and two vertical lines over your image, breaking it up into 9 smaller sections to help you compose your shot. The human eye typically looks for action near the points where the lines intersect, so it's helpful to frame key points of interest in these zones. An actor's eyeline is commonly framed along the top third of the screen, so you can use the top third to guide your framing.
Crosshairs	The 'crosshairs' setting places a crosshair in the center of the frame. Like thirds, the crosshairs is a very useful compositional tool, making it easy to frame the subject of a shot in the very center of a frame. This is sometimes used when filming scenes that will be assembled using very fast cuts. Keeping viewers' eyes focused on the center of a frame can make rapid editing easier to follow.
Center Dot	<p>The 'center dot' setting places a dot in the center of the frame. This works in exactly the same way as the 'crosshair' setting, albeit with a smaller overlay that you may find less intrusive.</p> <p>You can enable a combination of 'thirds' and 'crosshairs' or 'thirds' and 'center dot' by tapping both options in the 'grids' menu. 'Crosshairs' and 'center dot' cannot be selected together.</p>

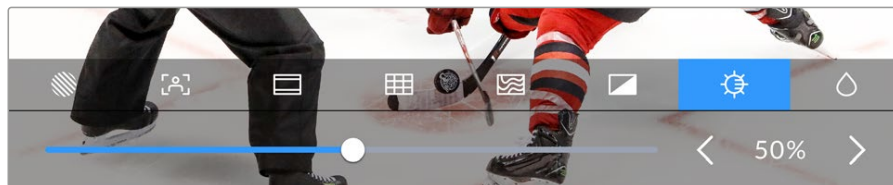
False Color

The 'false color' setting toggles the appearance of false color exposure assistance on the LCD touchscreen and the monitor out. When false color is on, different colors are superimposed over your image to represent different exposure levels. For example, optimal exposure for skin tones can be achieved by using green for dark shades and pink for light shades. Monitoring the colors during recording can help you maintain consistent exposure for skin tones. Similarly, when elements in your image change from yellow to red, that means they are now over exposed.



**TIP** Zebra, focus peaking, guides, grid and false color can be toggled on or off via the 'monitor' tab in the dashboard menu. You can also toggle the overlays for the monitor output. See 'monitor settings' later in this manual for more information.

The three remaining monitor settings alter the LCD display settings.



	<b>Contrast</b>	Adjust the contrast of the HDR display to increase or decrease the range between the brightest and darkest parts. A high contrast image can reveal detail and depth in the image, low contrast can make the image appear soft and flat.
	<b>Brightness</b>	Adjust the brightness of the display by dragging the slider to the left to make the image darker, or the right to make it lighter. Changing the display brightness can make it easier to see images when the HyperDeck Shuttle 4K Pro is in extremely bright or low light locations.
	<b>Saturation</b>	Use the saturation slider to increase or decrease the amount of color in your displayed image.

**NOTE** All settings will be kept when the unit is powered off. It's also worth mentioning that the use of monitor options will affect the image displayed on the LCD display, but not your recorded video.

## Codec

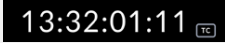
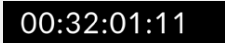

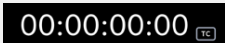
The codec icon displays your currently selected 'record' codec or the 'playback' codec of the file currently playing. You can select a new codec for recording by tapping the codec icon and selecting from the menu options displayed on screen. For more codec information, see the 'record settings' section later in this manual.

## Standard

When in playback mode, the 'standard' icon will display the current clips resolution and frame rate. If you are in 'record' mode, it will display the resolution and frame rate of the current source selected. If 'no signal' appears, it means a valid signal is not detected.

## Timecode

A large timecode view at the top displays either SMPTE timecode or a timeline time counter. Simply toggle between the two by tapping anywhere on the timecode icon.

	SMPTE timecode mode is indicated by a 'tc' icon to the right.
	The time counter displays the timeline timecode.
	The timecode display will appear red while the unit is recording in both timecode and timecounter modes.
	If you don't have a valid timecode source, the timecode for each recording will begin at 00:00:00:00.

The timecode view display SMPTE timecode or time counter.

## Source

The source icon displays the current source input you have selected on the HyperDeck Shuttle 4K Pro. Tap on the source icon to open the record menu where you can select between SDI and HDMI.

## Shared Storage and Record Cache

The next icon in the upper toolbar is for the optional internal M.2 SSD disk and will change depending on whether it is used as shared storage or as a cache.

HyperDeck Shuttle 4K Pro 2TB disk recorders come with an SSD pre installed but can also be added to HyperDeck Shuttle 4K Pro models. Once a disk is installed and formatted 'M.2 SSD' will appear. Clicking on the icon will take you directly to the M.2 SSD setting in the menu to choose how you want the disk to be used.

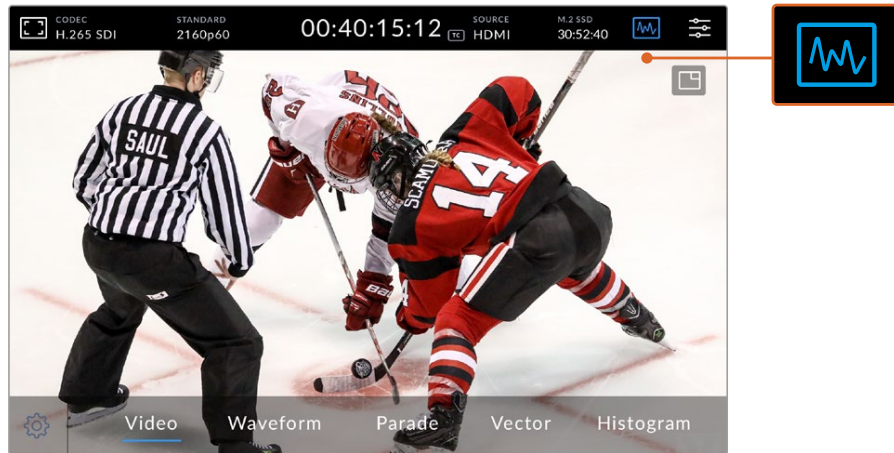
When 'network storage' is selected the icon will remain as 'M.2 SSD' and the remaining space will be displayed in hours:minutes:seconds based on the current standard and your selected codec. If there is no valid signal, the time remaining will be based on the default standard and selected codec.

When set to 'record cache' you can see at a quick glance the space remaining on the drive and the status by looking at the cache icon. When a valid video signal is detected, the remaining space will be displayed in hours:minutes:seconds based on the current standard and your selected codec. Tapping the cache icon will toggle between the space remaining and the space used on the record cache. This can be helpful if you've run out of storage space on your media before the record cache has transferred and you need to know how much space you need on a drive or SD card.

If there is no SSD installed, the icon will appear with 'no drive'. For more details on using the optional internal M.2 SSD feature, see the 'Using the Optional Internal M.2 SSD' section later in this manual.

## Video Scopes

Tap on the video scopes icon to display the video scope options.



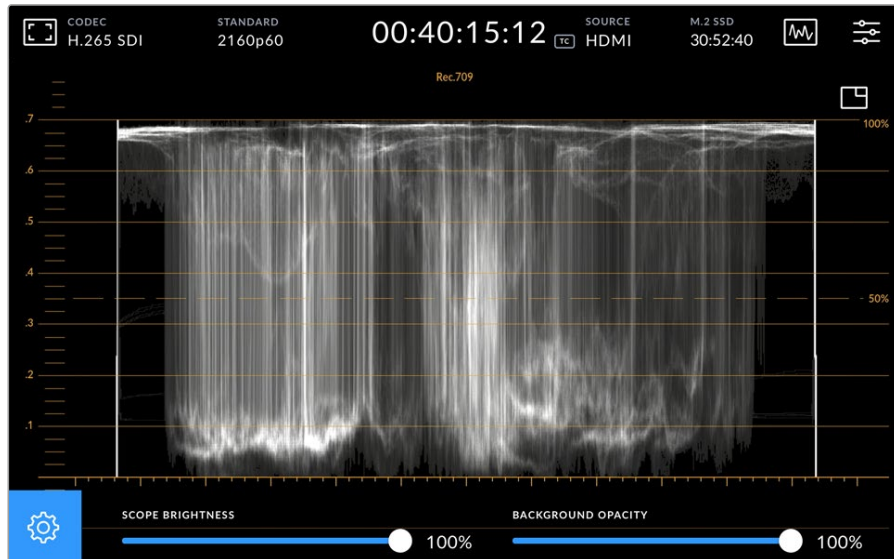
Tap on the scopes icon to reveal the different video scopes you can view

There are 4 different video scopes to choose from:

<b>Waveform</b>	The waveform monitor is a graphical representation of the image, showing luma values in the same position relative to those within the frame. For example, if part of your sky is overexposed you will see it in the same horizontal position on the waveform display as it appears in the frame.
<b>Parade</b>	The real time RGB parade waveform view is the ideal scope for accurate color correction. The parade view separates the value of each channel so that you can identify which colors represent each brightness.
<b>Vector</b>	A vectorscope is the only way to measure colors in video accurately. If you're color correcting video, vectorscope shows when color has been removed or nulled out for accurate white balance. When you need to apply a tint, the vectorscope lets you see exactly how much tint you're adding and what color it is.
<b>Histogram</b>	Histogram view lets you see where the pixels are in your video, and how they are distributed from black to white. You can see if your video is clipping and adjust the camera iris and ISO settings to keep all black and white detail in the image. This means you have the full contrast range of video for easy color correction during post production.

To disable the scopes and return to your full screen video view, select 'video.'

When selecting any of the video scopes, you can click on the settings icon to display brightness and opacity sliders allowing you to alter the view of the scopes and adjust how they appear over the footage. Altering the opacity can assist in reading the scope information depending on your source video.



Adjust the opacity of the background by using the slider adjustment

### Scope Brightness

You can control the brightness of the white scope graphic from 0% to full brightness at 100%. This can help you find areas of fine detail that may not be so clear with a low scope brightness.

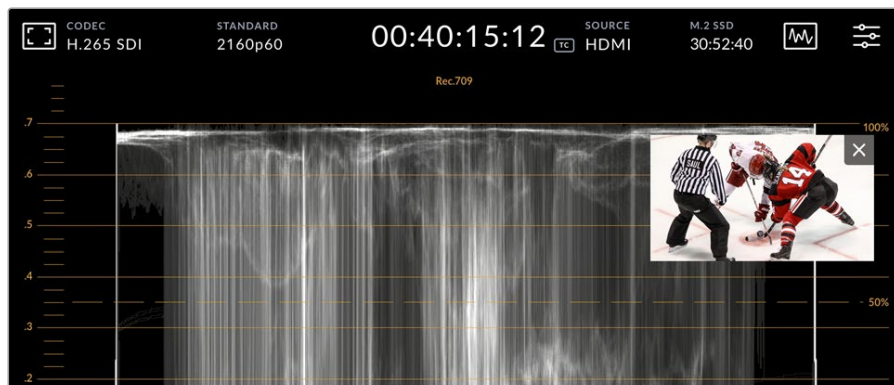
### Background Opacity

Each video scope has a black background. You can modify the display of this background from invisible at 0% to completely black at 100%. The higher the opacity, the darker the background, which will make your video appear and the graticules clear.

**NOTE** It is worth noting that each of the video scope options feature an orange graphic element displaying your levels. Modifying your scope brightness or background opacity has no impact on the display of these orange graphics.

### Picture in Picture

When a video scope is active, a small 'mini preview' icon will appear at the top right of the scope.



Tap on the 'mini preview' icon to display your video in a small preview window

You can use the picture in picture option to minimize the video to a small preview window that can be moved around the display to your preferred location.

**TIP** If your video scopes aren't appearing when you switch them on, make sure 'scopes' is enabled in the monitor page of the dashboard menu. For more information, see the 'monitor settings' section later in this manual.

Menu

The last icon on the top row is the menu icon where you can access the dashboard menu. This dashboard menu is where you can access to all the recording options including source and codec, audio channels, monitor options audio preferences and more.



Tap on the menu icon to open the dashboard menu.

For more information on the menu options available, see the 'dashboard menu' section later in this manual.

Lower Toolbar

Transport Controls

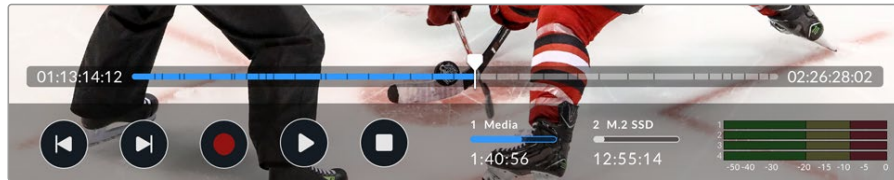
The first five icons on the bottom left of the display are your touchscreen transport controls. The function of these buttons can depend on whether you are in 'record' mode or 'playback' mode.

The 'record', 'play' and 'stop' buttons work just like they do on the front panel.

	To start recording, tap the 'record' button once and both the touchscreen and front panel record buttons will illuminate red. To stop recording, tap the 'stop' button.
	To view your recently recorded clip, tap the 'play' button. You will now be in 'playback' mode. The touchscreen 'play' button will illuminate blue and the soft touch play button on the left of the front panel will illuminate green.
	Pressing 'stop' will stop the HyperDeck Shuttle 4K Pro recording. If you press 'stop' while in playback mode, playback will stop and a clip timeline will appear above the transport controls. Similar to a timeline in editing, it's a visual representation of all the clips on your timeline with a playhead indicating your current playback position.



The time counter to the left of the timeline bar displays the current location of the playhead and the time counter to the right displays the total duration of all clips.

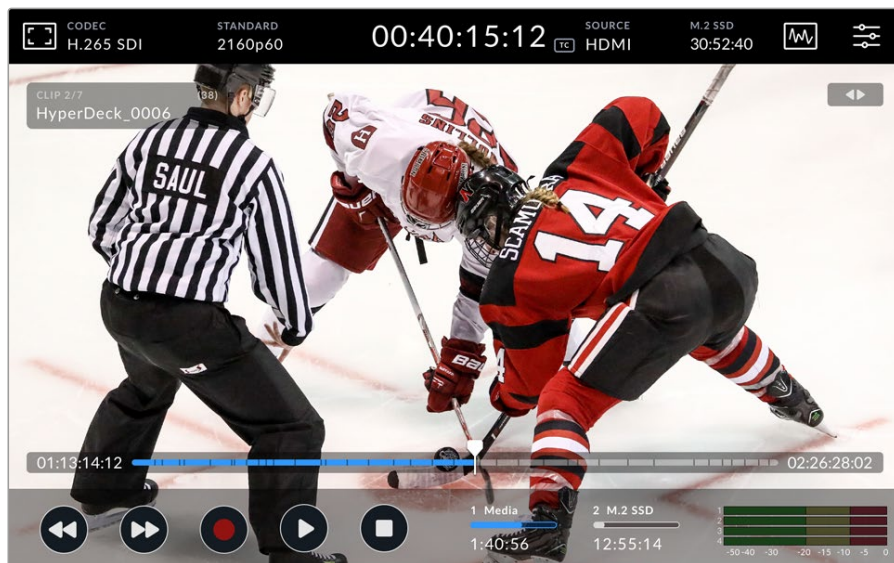


You can navigate along the timeline by tapping the 'skip' back and 'skip' next icons.

	Tap the skip back button once to move the playhead to the first frame of the current clip. If the playhead is already on the start of a clip, it will jump to the first frame of a previous clip. You can also use the skip buttons to enter shuttle mode for greater playback speeds.
	Press and hold either of the skip buttons down until the icon changes to a blue with two arrows. Now you can use can change the playback speed from x1/2 up to x50 speed by either holding down the button or tapping it to change the speed in set increments. To reduce the speed, simply press the shuttle button in the other direction.

To exit shuttle mode, simply press either the 'stop' or 'play' buttons and the buttons will revert to the skip forward and skip backward icons. When in shuttle mode, you can increase shuttle speed by tapping the shuttle forwards or backwards buttons more than once. To decrease the speed, tap on the alternate shuttle button.

For example, when shuttling forwards at an increased speed, tap the shuttle backwards button to decrease the speed. This lets you avoid using the stop button, which will take you out of shuttle mode.



When using the fast forward shuttle mode, press the rewind icon to stop playback but remain in shuttle mode.

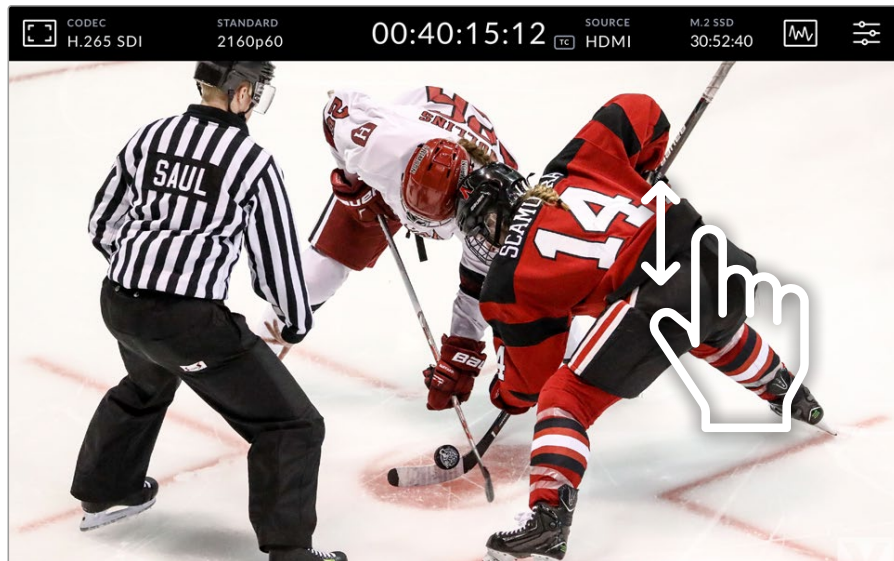
To leave playback mode, press 'stop' once to stop playback and 'stop' again to return to record mode.

**NOTE** It is worth noting that when in record mode, pressing the skip buttons performs no action.

## Clip Name and Transport Status

During playback only the top and bottom toolbars will be in view. When playback is paused or you are playing at greater than real time speed, the transport status will appear on the top right hand side of the display. The clip name will be visible on the top left of the display so you can see at a quick glance exactly what is playing and its transport status.

The clip name and transport status can be hidden from the display by setting the status text setting to 'off' in the monitor menu or by swiping the display up or down. This will also move the lower menu bar out of view. On the monitor output it will remove text at the top and bottom of the screen. For more information on status text, see the 'monitor settings' section later in this manual.



Swipe the display up or down to remove the lower toolbar and timeline

## Touch and Swipe Controls

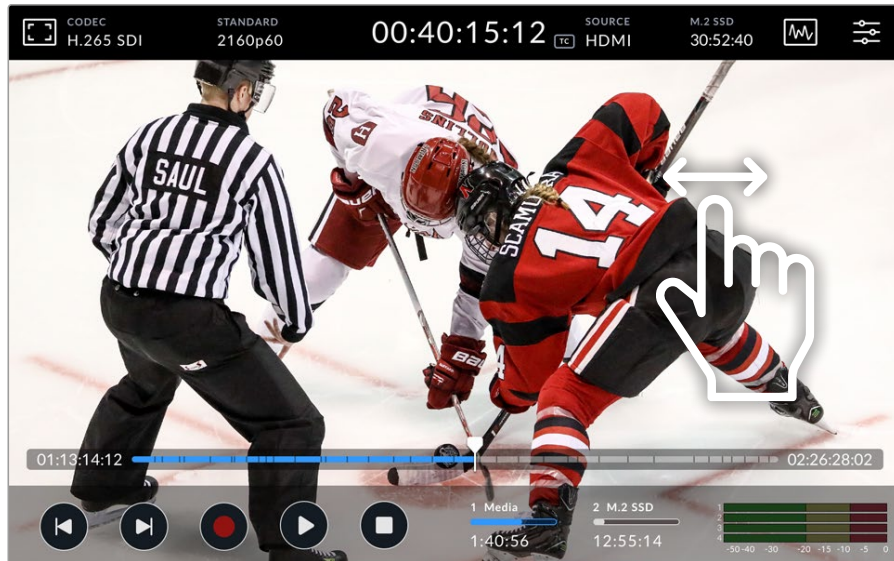
You can also use touch and swipe gestures to jog through your clip for precision control over playback down to the frame!

Tap on the timeline and the playhead will immediately move to the location of your finger.

To scrub through the footage, drag the playhead to the left and right along the timeline. The playhead will move to the location of your finger.

For precision jog movements, simply swipe your finger on the video above the timeline and below the top toolbar. The speed adjusts to your momentum, meaning the faster you swipe, the faster the playhead will move!

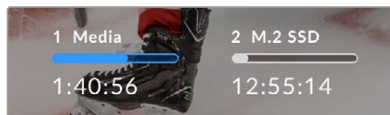




Swipe left or right for precision control

## Storage Indicators

The storage indicators display the status of the media slots including record duration available. The first represents the SD card slot on the rear of the HyperDeck. The second drive icon displays the active USB flash disk connected via the 'ext disk' connector on the rear panel, internal M.2 SSD when set to 'network storage' or network location connected via Ethernet.



On screen icons let you see the status of your storage at a quick glance

Your active drive is used for playback and recording. Once a drive is filled, recording will spill over to the next drive, ensuring you don't miss a frame.

For more information on storage indicators, see the 'storage media' section later in this manual.

## Audio Meters

On screen audio meters display four audio channels of any source. Channels 1 and 2 will always appear first followed by a second pair of channels, which are usually 3 and 4. Using the monitor channels settings in the audio menu, you can select a different pair of channels to monitor. For more information, refer to the audio tab in the dashboard menu section later in this manual.



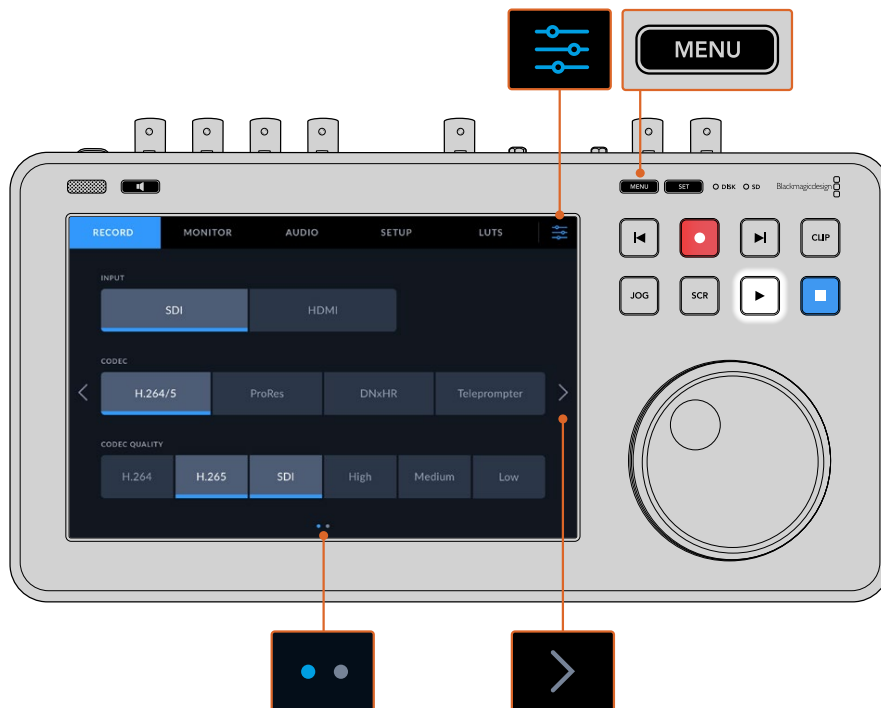
The audio meters will display your current audio as a VU or PPM audio monitor. Tap on the audio meters to adjust levels

You can select your meter type via the audio tab in the dashboard menu. Tapping on the audio meters will reveal the level control for the headphones and front panel speaker. Tap the audio meter again to hide the settings.

## Settings

Pressing the 'menu' icon or menu button on your HyperDeck Shuttle 4K Pro will open the dashboard menu. This is a tabbed menu containing the settings not available from your HyperDeck's front upper and lower toolbars.

Settings are divided by function into 'record', 'monitor', 'audio', 'setup' and 'LUTs'. Dots at the bottom of the menu let you know when a tab contains multiple pages. You can navigate between by swiping the touchscreen display to the left or right or by tapping on the arrows.

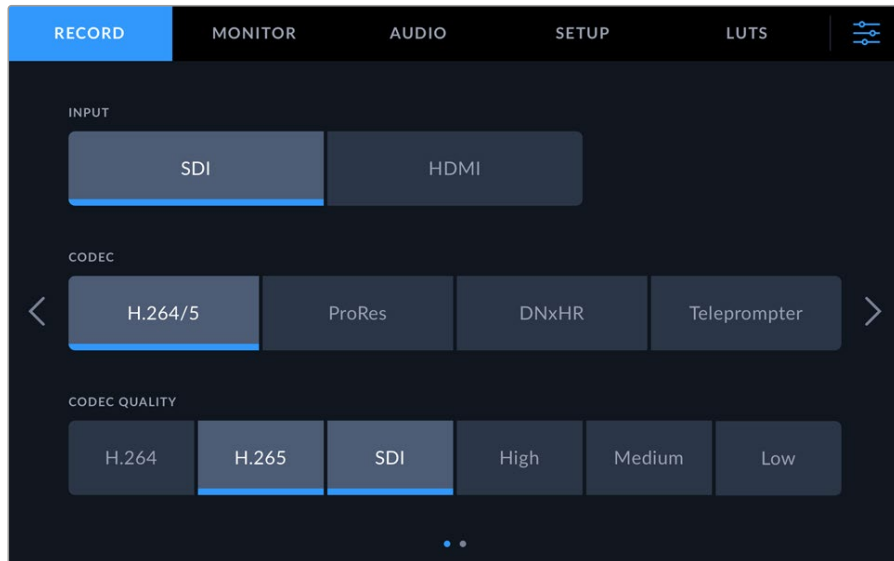


Return to the full screen view at any time by tapping on the 'dashboard menu' icon at any time

## Record Settings

Use the 'record' tab to select your input and choose your codec and quality settings along with trigger record options.

### Record Page 1



#### Input

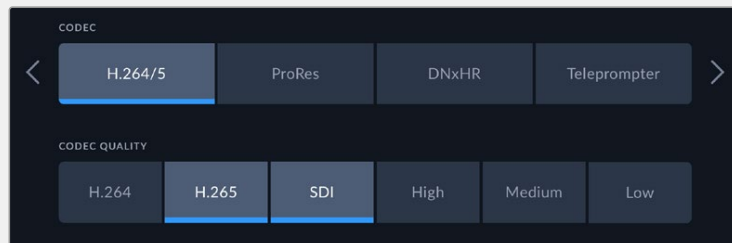
Once your source is connected, tap on SDI or HDMI.

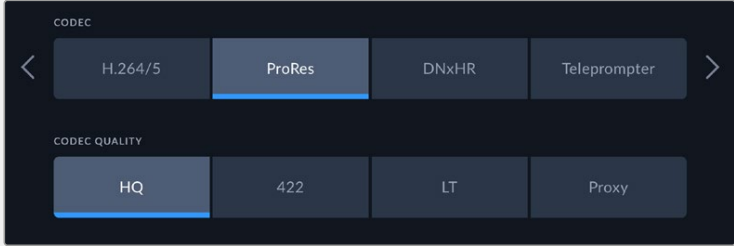
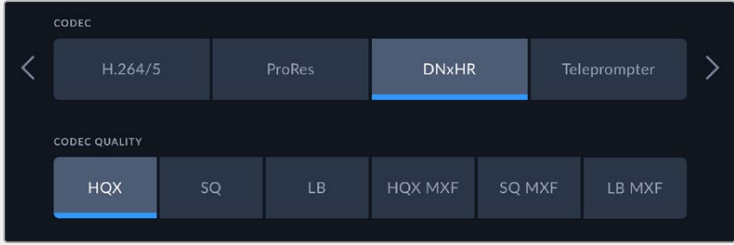
#### Codec and Quality

With HyperDeck Shuttle 4K Pro, you can record compressed video using H.264, H.265, Apple ProRes or DNx codecs. For each codec, there are different quality settings you can choose to record to.

##### H.264/5

If you select H.264/5 as your recording codec there are four different quality settings available: SDI, high, medium and low. High quality is the perfect choice for when you want the highest quality with the least amount of compression. Low provides a much smaller file size as the file is more compressed. Before selecting the quality, make sure you tap on H.264 or H.265, H.264 can be used when recording 1080p or lower resolutions.



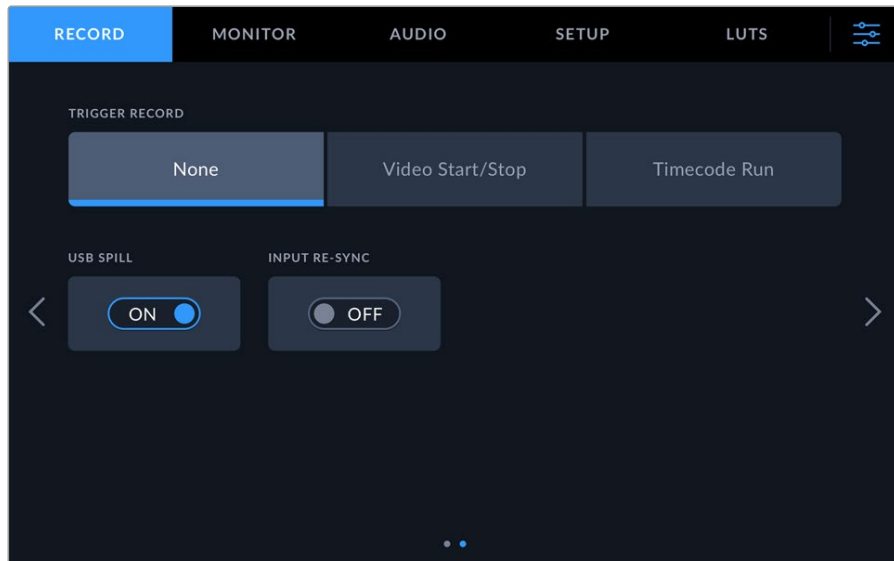
<b>ProRes</b>	<p>When ProRes is selected, there are four options available: HQ, 422, LT and Proxy. Choose HQ for times when you need to record the highest quality available and therefore larger file sizes. When you want your recordings to take up less space, you can choose ProRes LT which has a higher compression and therefore smaller overall file size.</p> 
<b>DNxHR</b>	<p>When DNxHR is selected, there are three options available: HQX, SQ and LB. To record the highest quality 12 bit, select HQX. If you need to optimize your storage select LB which will result in higher compression. When recording HD sources, the recorded file will be in the corresponding DNxHD quality. Select between recording QuickTime or MXF files.</p> 

When selecting your codec, it's important to take into account what storage media you are recording to. For SD cards and external disks, you can record up to 2160p60 using H.265 or ProRes HQ. With the optional M.2 SSD drive installed, all codec and quality options are available for recording up to 2160p60 internally to the M.2 SSD or to other media when using the record cache function.

**NOTE** HyperDeck Shuttle 4K Pro will play back H.265 files recorded on a HyperDeck Shuttle, but not H.265 files recorded on other video equipment.

The fourth option under codec is for the teleprompter. Tapping on the teleprompter setting will turn the teleprompter on for both the LCD and monitor outputs. More information on using the teleprompter is in the 'monitor settings' section later in this manual.

## Record Page 2

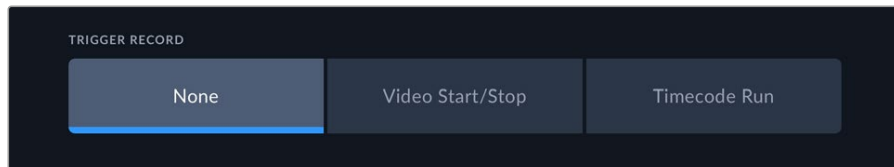


Additional settings on the second record page

### Trigger Record

There are two trigger record modes available, video start/stop and timecode run. Some cameras, such as the URSA Mini, send a signal over SDI to start and stop recording on external recorders. Tapping on 'video start/stop' will trigger the HyperDeck Shuttle 4K Pro to start or stop recording when the record button is pressed on the camera.

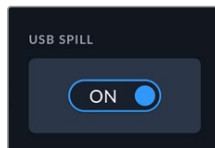
You can use the time 'timecode run' option to trigger the unit to start recording when it receives a valid timecode signal via the inputs. When the signal stops, recording will also stop. You can disable trigger recording by tapping the 'none' option.



Select 'none' to disable trigger recording

### USB Spill

If you are using a Blackmagic MultiDock 10G or similar to connect more than one drive via the 'ext disk' usb connection, turn USB Spill on. This will ensure that recording will continue from one USB drive to the next.



### Input Re-Sync

This setting will enable a re-sync on the video input and ensure video is locked to the external reference before recording. The video output will remain locked to reference even when switched to recording, as the input itself is being resynchronized. This feature is used for ISO recording where you need multiple decks timecode locked but some sources are non-sync. This feature is normally turned off so video inputs are recorded without frames being added or removed from the input video.

All broadcast decks can normally use a reference input to lock the video output during playback. This means the output of the HyperDeck playback will be locked to the reference input so it won't need to be resynchronized when connected to a large broadcast system.

However, when the deck goes into record, the output will switch over to the input because you normally want the input video recorded untouched with the same untouched video sent to other downstream equipment that's connected to the HyperDeck video outputs.

However, HyperDeck Shuttle 4K Pro has a unique feature that helps with ISO recording. It will allow you to completely reverse this process and resynchronize the video input to the reference input. What this means is you can connect a non-sync source to the HyperDeck and it will retime the video input to the video reference and then record it.

Non-sync sources could be computers, consumer cameras or any video equipment that is unable to have a reference connected to it. It could even be an incoming video feed from another studio or external broadcaster. Non-sync sources cause problems with ISO recording, as you need the timecode on all recordings to match perfectly over time. A non-sync source will run faster or slower than your other sources and slip out of sync vs the timecode quite quickly during the recording. This makes multi-cam editing a horrific process as the sources won't have matching timecode.



With input re-sync turned on, the HyperDeck video input will be analyzed and if it starts falling behind a frame will be repeated, or if it starts running ahead of the reference, a frame will be removed. This is called resynchronization and the processing on the input is called a frame re-sync. It means the timecode in the clips being recorded on all decks will have the same events happening at the same timecode. It makes multi-cam editing possible.

Of course the downside is you are adding some frames to the input, or removing some frames from the input before recording. This is why it's best to leave this feature turned off and to only use it when you absolutely cannot do anything to connect a reference to an ISO source because it's a computer or consumer device.

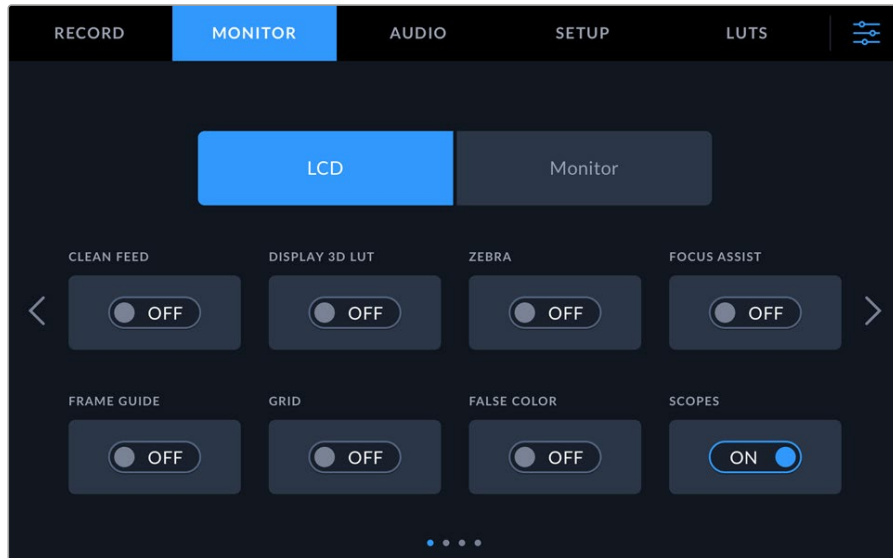
However, there is one situation where you can turn the input re-sync feature on and use it. When input re-sync is turned on, the HyperDeck video output will remain reference locked even when the deck is recording. What this means is you can connect the SDI output of the HyperDeck to a camera to lock the camera to the reference via the program return feed. A good example is the Blackmagic Studio Camera 4K Pro and it can set its reference to the external video. Then the camera feed will be reference locked from the HyperDeck and the HyperDeck input re-sync won't have to add or remove frames because the camera is not running fast or slow.

The input re-sync only does something if the video input is not locked to the same reference as the HyperDeck. But in this case, the HyperDeck output is the reference source to the camera and the HyperDeck is locked to its video reference input. If you have multiple HyperDecks all locked together by looping the reference connections, then all cameras and HyperDecks will be locked as a single group. Then if one of the HyperDecks in a group has a non-sync source, such as a computer, then that one input will be resynchronized, but the other sources won't need anything.

The re-sync is automatic so you can just connect sources and it will work. The input re-sync feature can be extremely powerful, however, it's important to know when it's going to do something and what it will do. Try some experiments with multiple HyperDecks and multi-cam editing software to see how it works! It's a fantastic way to do program production that's very fast.

## Monitor Settings

The 'monitor' tab lets you toggle the monitor options as well as Display 3D LUT and Scopes. The settings are divided into four pages and can be set for the LCD touchscreen and the dedicated HDMI and SDI monitor outputs.



Tap on LCD or Monitor to toggle the options on or off the selected output

These include:

### Clean Feed

Turn clean feed 'on' to disable all status text and overlays for the LCD display and monitor output. This option is a quick way to turn off all the outputs at once.

### Display 3D LUT

Toggles display LUTs on and off to your LCD or monitor SDI. The toggle appears disabled when no LUT is active. For information on how to set a LUT, see the LUTs section later in this manual.

## Zebra

Tap the 'zebra' setting on to enable zebra guides. When your zebra guides are on, diagonal lines with appear to let you know what areas may be clipped.

## Focus Assist

Toggle focus assist 'on' to view the focus assist overlay lines. Focus assist type and color options can be set under LCD or monitor outputs.

## Frame Guides

To see frame guide overlays for different film, television and online aspect ratios, toggle on frame guides. To choose which frame guide is displayed tap on the monitor overlays icon on the home screens and select from the available options including 2.40:1, 2:1 and 16:9.

## Grid

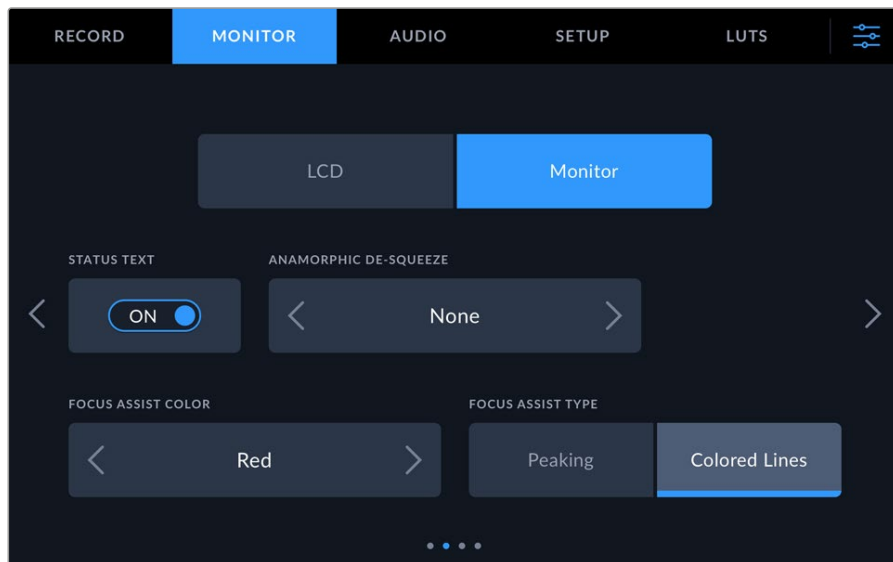
To see one of three grid options to assist with framing, toggle 'grid' on. Grid options include thirds, center dot and crosshair. Toggle grid on or off. To set the desired grid, tap on the menu icon in the top right corner to return to the LCD display and tap on the 'monitor overlays' option.

## False Color

The 'false color' setting toggles the appearance of false color exposure assistance on the LCD touchscreen. For more information on false color options, see the 'upper toolbar' section earlier in this manual.

You can also turn on the display options for the LCD by tapping on the monitor overlays icon on the home screen. More information on selecting frame guides and other monitor overlays can be found earlier in this manual under upper toolbar features.

## Monitor Page 2



You can adjust the appearance of focus assistance settings using the focus assist color and type settings. These options affect the look of for both the LCD display and the monitor output.

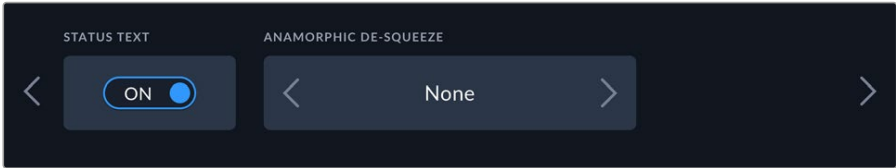


**Status Text**

You can turn status text on or off for each monitor output. On the LCD turning status text off will remove the lower toolbar from view. You can also do this by swiping the touchscreen down. On the SDI and HDMI monitor outputs turning status text off will remove both the top and bottom text. More information on the monitor output can be found in the 'status text overlay' section later in this manual.

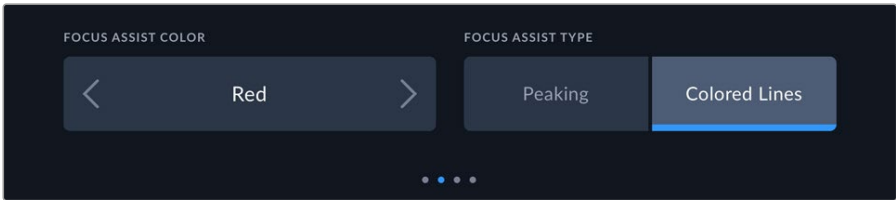
**Anamorphic De-squeeze**

The anamorphic de-squeeze option allows you to correctly display horizontally squeezed images from any anamorphic sources, such as digi-beta tapes containing anamorphic 16:9 content or anamorphic lenses. Tap 'none' for non anamorphic sources.



**Focus Assist Color**

When you are using colored lines for focus assistance on your LCD display or monitor out, you can select your preferred color for the lines from red, blue, white or green. Changing the color can help to make your area of focus stand out more.



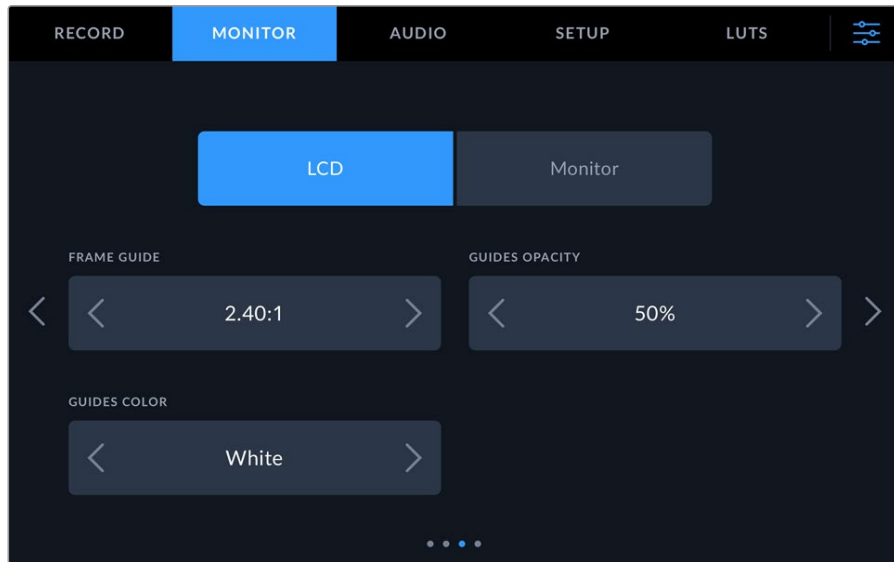
**Focus Assist Type**

There are two focus assist modes, 'peaking' and 'colored lines'.

<b>Peaking</b>	When you select focus peaking the areas within your frame with the highest contrast will be highlighted.
<b>Colored Lines</b>	If colored lines is selected, lines will be super imposed over any part of the image in focus. This can be a more visually intrusive than using 'peak'.

### Monitor Page 3

The third page of monitor settings contains options for frame guides on the LCD and monitor outputs including guides, opacity and color. These settings apply to both the LCD and monitor outputs when frame guides are enabled.



#### Frame Guide

Guides provide a range of aspect ratios from various film, television and online standards. Select your guide by tapping the left and right arrows. This will update the guide on both the LCD and monitor outputs.

#### Guides Opacity

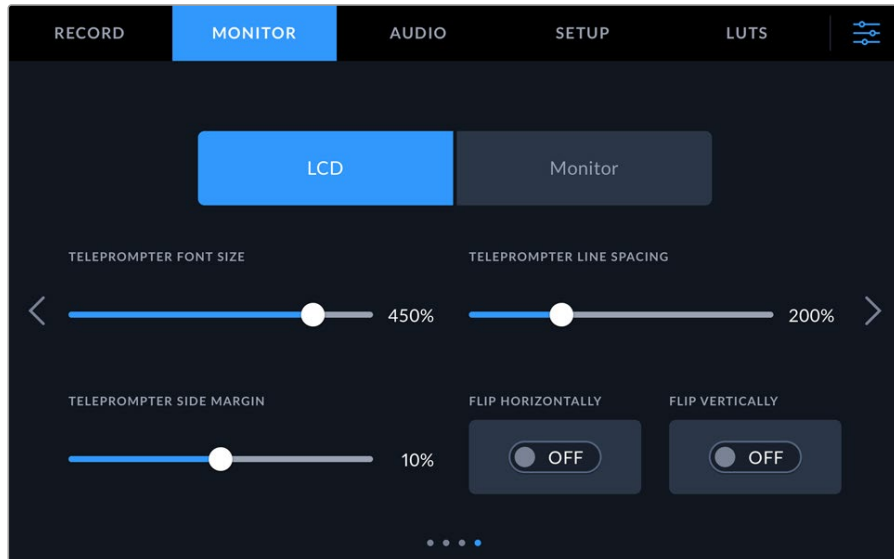
Reduce the appearance of the guides by lowering the opacity level or increase by raising the level. The opacity will adjust both the LCD and monitor output overlays.

#### Guides Color

Select the color for the selected frame guide and grid overlays by tapping on the arrows. There are five colors available including white, black, red, blue and green. This will adjust the color for both the LCD and monitor outputs.

## Monitor Page 4

The fourth page of monitor contains all the settings for when using HyperDeck Shuttle 4K Pro as a teleprompter. Any changes made will affect the layout of the teleprompter on both the LCD display and monitor outputs. To use the teleprompter feature you will need to select 'teleprompter' from the codec options on the record tab.



### Teleprompter Font Size

Adjust the size of the text by dragging the font size option left to decrease the size or right to increase the size up to 600%.

### Teleprompter Line spacing

Adjust the slider to increase or decrease the line spacing. Values range from 100% to 400%.

### Teleprompter Side Margin

Adjust the widths of the side margins on both sides of the teleprompter display.

If your teleprompter monitor is set up to reflect onto glass, such as in front of a camera or at a speakers podium, you will need to use the flip settings to make it readable for the presenter.

### Flip Horizontally

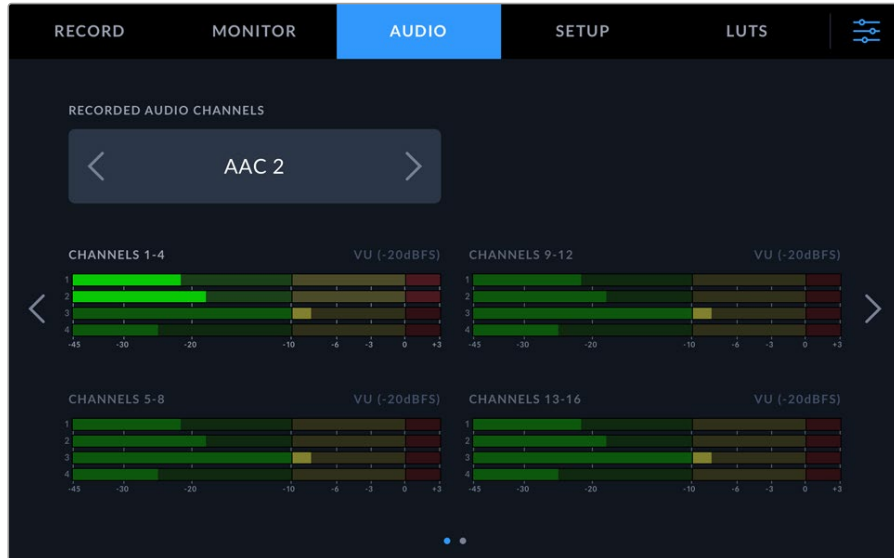
Use this when the bottom of the teleprompter monitor is mounted closest to the base of the glass.

### Flip Vertically

Use this when the bottom of the teleprompter monitor is mounted away from the base of the glass.

## Audio Settings

### Audio Page 1



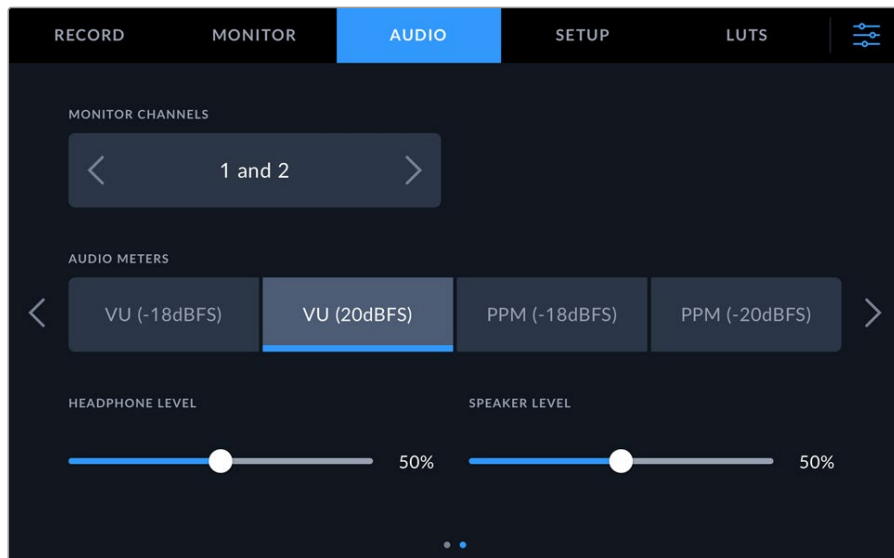
#### Recorded Audio Channels

HyperDeck Shuttle 4K Pro can record up to 64 channels of audio at a time. Select how many channels you wish to record by tapping 2, 4, 8, 16, 32 or 64 channels. You can also select 2 channels of AAC audio which means when recording H.264 or H.265 files, you can upload recordings directly to YouTube.

#### Audio Meters

The audio meters default to a 4 channel view for embedded audio. When recording 32 or 64 audio channels, the view will expand to 32 or 64 audio meters. The meter type can be set to PPM or VU via the second page of the audio menu.

### Audio Page 2



### Monitor Channels

When recording more than two channels, you can select a second pair of channels you want to see on the front panel via the monitor channels option. This setting also sets which channels of audio will play back through the front panel speaker and headphones connection.

### Audio Meters

You can choose from two different audio meter display types.

<b>PPM</b>	PPM meters, or 'peak program meters' displays a 'peak hold' feature that momentarily holds the signal peaks and a slow fall back so you can easily see where your audio is peaking.
<b>VU</b>	The VU meter, or 'volume units' meter, averages out short peaks and troughs in your audio signal. If you are using VU metering, adjust the input levels on the HyperDeck Shuttle 4K Pro so that the meter peaks at the 0db indicator on the audio meter. This maximizes the signal to noise ratio and ensures your audio is at the highest quality. If your audio peaks beyond the 0dB indicator there is a high risk of sound distortion.

Both VU and PPM meters are available at reference levels of -18dB or -20dB so you can monitor your audio to suit different international broadcasting standards.

### Headphone Level

If you are using headphones, adjust the volume using the slider.

### Speaker Level

Adjust the speaker volume using the slider. The default level is 50%.

## Setup Settings

The setup tab provides access to network, timecode and reference settings as well as setting the function of the internal M.2 SSD.

### Setup Page 1

Add your HyperDeck name and network settings on the Setup tab

### HyperDeck Name

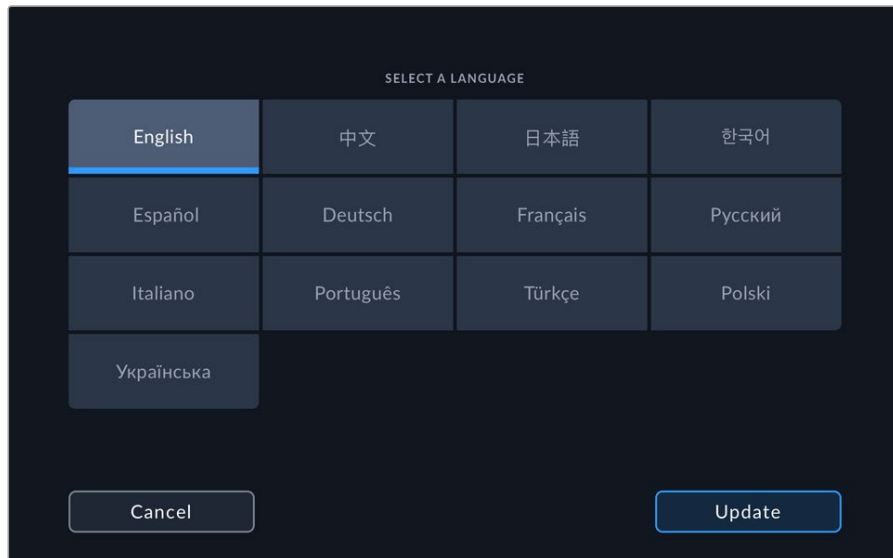
Change the name of the unit by clicking on the pencil icon to the right of the name. It can be especially useful to name your device when you have more than one HyperDeck Shuttle 4K Pro disk recorder on your network for easy identification. The name is also displayed on the lower left corner of the monitor output.

### Language

HyperDeck Shuttle 4K Pro supports 13 popular languages including English, Chinese, Japanese, Korean, Spanish, German, French, Russian, Italian, Portuguese, Polish, Turkish and Ukrainian. The language page will also appear on initial start up.

To select your language:

- 1 Tap on the 'language' and select your language from the list.
- 2 Select 'update' to return to the setup menu.



### Date and Time

Set your date and time automatically or manually by tapping your selection. When setting the date and time automatically, your HyperDeck Shuttle will use the network time protocol set in the NTP field as long as the HyperDeck Shuttle is connected to a computer via USB or a network via the Ethernet connection. The default NTP is time.cloudflare.com, but you can tap on the pencil if you want to manually enter an alternate NTP. When recording to a network location we recommend setting the date and time automatically.

SET DATE AND TIME

Automatically **Manually**

NETWORK TIME PROTOCOL (NTP)

time.google.com

YEAR MONTH DAY

2025 05 23

HOURS MINUTES TIME ZONE

07 06 < GMT +10:00 >

Cancel Update

Use the arrows to change your date and time

If you are entering your date and time manually, tap the arrows either side of each setting to select your year, month and day. Repeat the process to set your hour, minute and time zone. Press update to save the settings. Setting the date and time is important to ensure your recordings have accurate information. It will also provide the date and time for when the timestamp file suffix option is selected.

### Software

Displays the current software version.

### Camera

This setting is helpful when using HyperDeck to record ISO files from multiple cameras and then editing them on a multicamera timeline in DaVinci Resolve. Camera identifiers can use characters A to Z and numbers 1 to 20.

Each individual camera ID will appear in the files' metadata, allowing DaVinci Resolve to identify each angle easily when using the sync bin feature.

### Default Standard

Sometimes the HyperDeck Shuttle does not know what video standard you want to use. This setting will let the HyperDeck know the video standard you want to use most of the time. A good example is if you have turn on HyperDeck Shuttle, it has no video input connected and you insert a disk with files on it with 2 different video standards. Which video standard should the HyperDeck play? The default video standard will give it an indication which video standard you prefer and it will switch to that standard and play those files.

The default video standard is also useful when you first turn on a HyperDeck, and it has no video input and no media disk inserted. In this case, HyperDeck Shuttle does not know which video standard to use for the monitoring output. The default video standard will guide it on what to do.

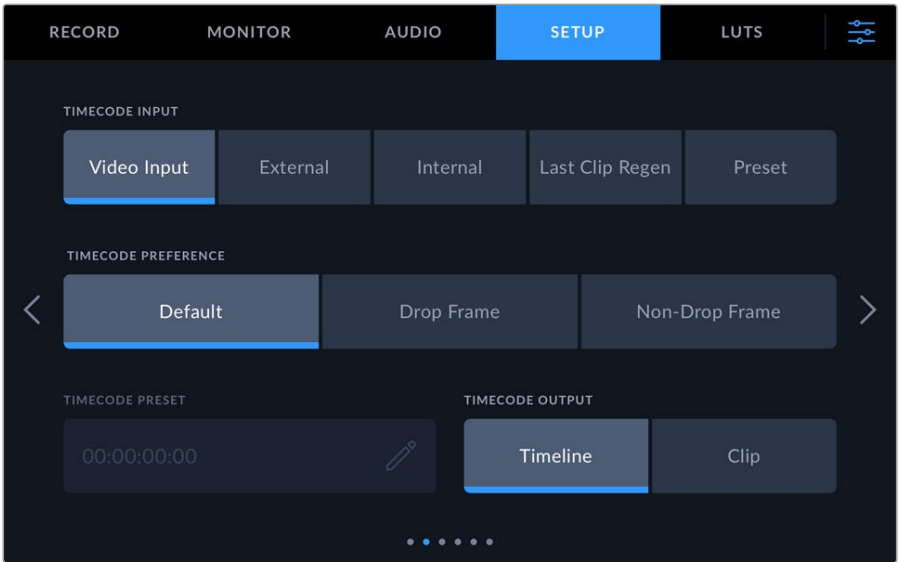
However, the default video standard is only a guide. It won't override anything. So if you had a media disk with only 1 type of video file on it and you press play, HyperDeck Shuttle will switch to that video standard and play. It will ignore the default video standard because it's obvious you just want to play the files on the disk.

It's a similar situation with recording. If you press record, the HyperDeck will just record whatever video standard is connected to the video input. Plus, once you have done the recording, the HyperDeck Shuttle will playback the same video standard files on the disk, even if there are other files on the disk that match the default video standard. It's assumed you want to playback the same video standard as you just recorded. If you unplug the media disk and plug it back in again, only then will the default video standard be used to choose which type of files to play back.

The default video standard is only a guide to help HyperDeck Shuttle make decisions about what to do when it's not sure. It's not an override that forces the deck to behave in any specific way.

### Setup Page 2

Set your timecode settings on the second setup page



#### Timecode Input

There are five timecode input options available when recording.

<b>Video Input</b>	Selecting video input will take the embedded timecode from SDI and HDMI sources with embedded SMPTE RP 188 metadata. This will maintain sync between your SDI or HDMI source and the file recorded on HyperDeck Shuttle.
<b>External</b>	Tap this option when using a timecode source connected to the 'TC IN' on the rear of the HyperDeck.
<b>Internal</b>	Use this option to record time of day timecode via the built in timecode generator.
<b>Last Clip Regen</b>	By selecting 'last clip regen' for your timecode input, each file will start one frame after the last frame of the previous clip. For example, if your first clip ends on 10:28:30:10, the next clip timecode will start at 10:28:30:11.
<b>Preset</b>	Preset will use the set timecode under 'timecode preset'.

#### Timecode Preference

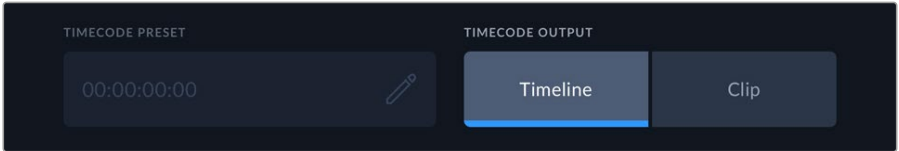
For NTSC sources at frame rates of 29.97 or 59.94, you can select 'drop frame' or 'non-drop frame' recording. If the source is unknown, tap on default. This will maintain the standard of the input, or default to drop frame if there is no valid timecode.



**Timecode Preset**

You can set your time code manually by tapping on the pencil icon and entering the start time code via the touchscreen keypad.

**Timecode Output**



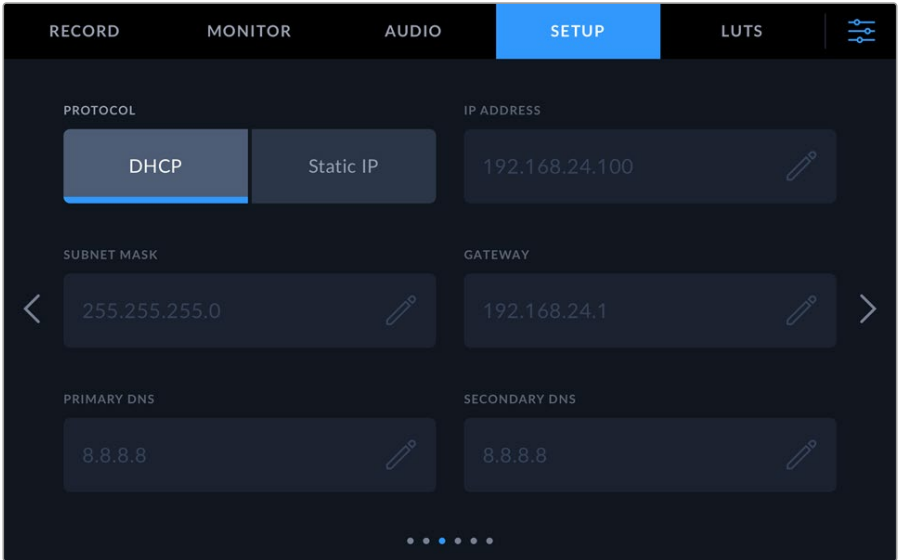
Tap on clip or timeline to select your timecode output

Select your timecode options for your SDI outputs.

Timeline	Tap the timeline option to output your timeline timecode.
Clip	The clip option will output the timecode of your clip.

**Setup Page 3**

The third page of the setup tab lets you set your network preferences. This can also be set via the HyperDeck Setup utility. Connecting HyperDeck Shuttle to your network means you can record directly to a network location, remotely control the unit via HyperDeck Ethernet protocol or transfer files to and from the unit using an FTP client or the Blackmagic Web Media Manager.

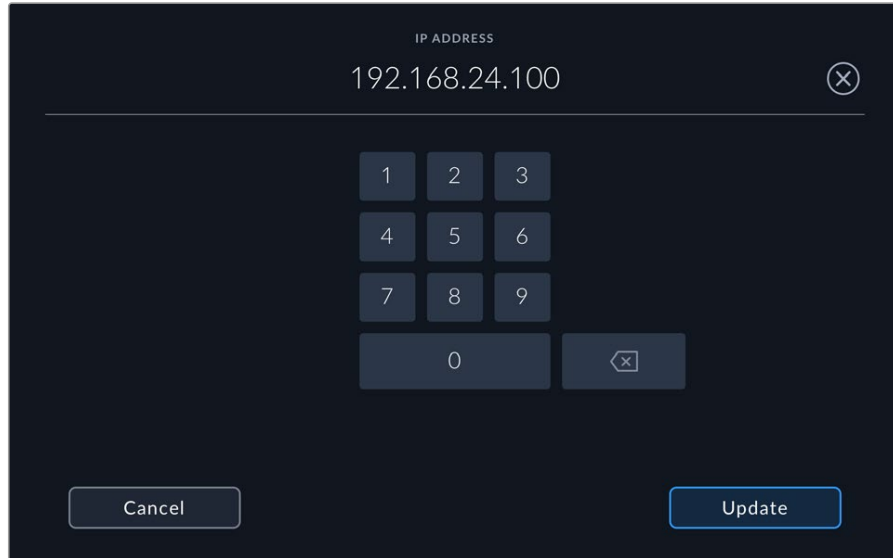


**DHCP**

To connect to your network via a dynamic IP address, toggle the switch to on. To manually set a static IP address, toggle it to off.

### IP Address

When DHCP is switched 'off', you can enter your network details manually. Click on the pencil edit icon. Enter the IP address into the numeric keypad view. Once you have entered your address, press the 'update' button.

The image shows a dark-themed user interface for configuring an IP address. At the top, the text "IP ADDRESS" is centered. Below it, the IP address "192.168.24.100" is displayed in a large font. To the right of the IP address is a small circular icon with an 'X' inside. Below the IP address is a numeric keypad with buttons for digits 1 through 9, 0, and a backspace icon (a square with an 'X' and a left arrow). At the bottom of the screen are two buttons: "Cancel" on the left and "Update" on the right.

When you edit any numeric option, a numeric keyboard will appear. Type in the address and press update to confirm.

### Gateway

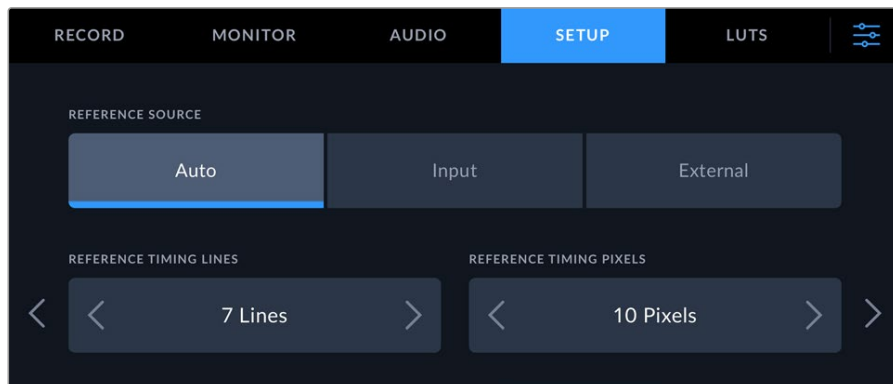
Set your network gateway address by clicking on the pencil icon to open the numeric keypad. Press update to return to the menu.

### Subnet Mask

Your subnet mask can be manually entered by clicking pencil edit icon. Once you have entered your address, click the update icon to return to the menu.

### Setup Page 4

The settings on the fourth page of the setup menu include setting the reference source as well as reference timing.

The image shows a dark-themed user interface for the "SETUP" page. At the top, there is a navigation bar with tabs: "RECORD", "MONITOR", "AUDIO", "SETUP" (which is highlighted in blue), and "LUTS". To the right of the tabs is a small icon of a person. Below the navigation bar, the "REFERENCE SOURCE" section has three buttons: "Auto" (highlighted with a blue underline), "Input", and "External". Below this, there are two sections: "REFERENCE TIMING LINES" and "REFERENCE TIMING PIXELS". The "REFERENCE TIMING LINES" section has a button labeled "7 Lines" with left and right arrow icons. The "REFERENCE TIMING PIXELS" section has a button labeled "10 Pixels" with left and right arrow icons.

### Reference Source

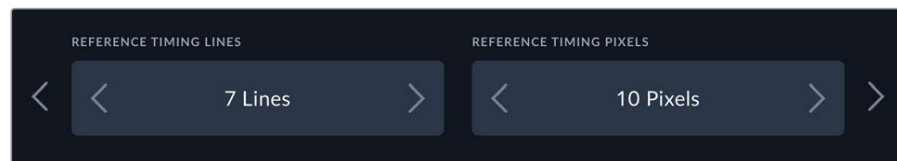
Select your reference source from the three options.

<b>Auto</b>	'Auto' mode will default to external if there is a signal connected to the 'ref in' connection on the rear panel. If there is no reference connected, it will default to the input SDI or HDMI source.
<b>Input</b>	Select 'input' if your source has embedded reference that you want to sync to. An example of this would be where your tape based deck may have a genlock source directly connected.
<b>External</b>	If you have an external reference device, for example the Blackmagic Sync Generator, connected via the 'ref in' connection on the rear, select 'external'.

### Reference Timing

Reference timing can be adjusted if you are archiving from analog tape decks and you need frame synchronization. The reference adjustment is in samples so you can get an extremely accurate timing adjustment down to the sample level.

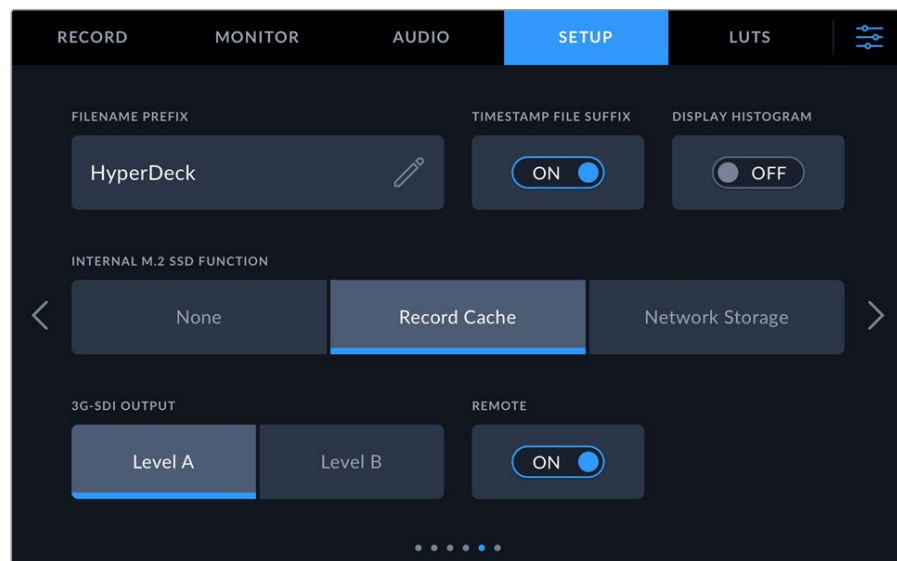
Adjust the number of lines and pixels by tapping the arrow to the left to decrease or the arrow to the right to increase.



Tap on the arrows to increase or decrease your timing lines and pixels.

### Setup Page 5

Using the fifth page of the setup menu you can modify the filename prefix, set the internal M.2 SSD function and turn on remote to allow control of the HyperDeck from another disk recorder.



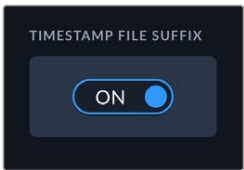
Filename Prefix

When first set up, HyperDeck Shuttle will record clips using the following filename convention.

HyperDeck_0001	
HyperDeck_0001	Filename Prefix
HyperDeck_0001	Clip Number

You can edit the filename of your recorded files by tapping the 'edit' pencil icon. A touchscreen keyboard will appear. Type in the filename prefix.

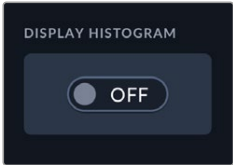
Timestamp File Suffix



The timestamp added to the filename is turned off by default. If you would like the date and time recorded in your filename, toggle the 'timestamp file suffix' option to on. Make sure the date and time is set correctly, either via the touchscreen setup menu or by using the Blackmagic HyperDeck Setup utility.

Untitled_1904061438_0001	
Untitled_1904061438_0001	Filename
Untitled_1904061438_0001	Year
Untitled_1904061438_0001	Month
Untitled_1904061438_0001	Day
Untitled_1904061438_0001	Hour
Untitled_1904061438_0001	Minute
Untitled_1904061438_0001	Clip Number

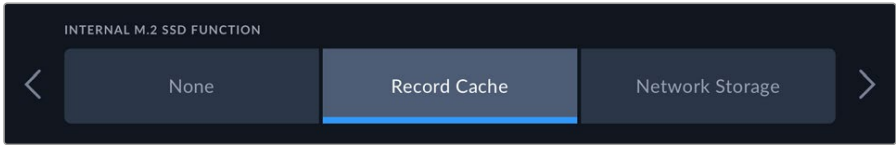
Display Histogram



The RGB histogram display on the lower toolbar will be off by default. If you want to turn the histogram display on, toggle the 'display histogram' switch to on.

Internal M.2 SSD Function

Choose the function for the optional internal M.2 SSD between 'none', 'record cache' and 'network storage'.



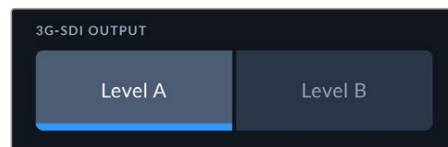
Selecting 'network storage' will let you record internally to the M.2 SSD. When you start recording, these growing files are immediately accessible over the network so multiple users can start editing right away in DaVinci Resolve. This eliminates any need to copy media from SD cards or external USB disks. More information on accessing the internal recordings over the network is later in this manual.

When 'record cache' is selected you can record high resolution video to slower and lower cost media, such as SD cards. This lets you record at higher resolutions without needing the most expensive media. It also ensures your recordings are intact if there are problems with your media. For instance, you might be recording in a remote location without network access and you need to make sure your media doesn't fail.

To disable the M.2 SSD, tap the 'none' option.

### 3G-SDI Output

Some broadcast equipment can only receive level A or level B 3G-SDI video. To maintain compatibility, tap either 'level A' or 'level B'.

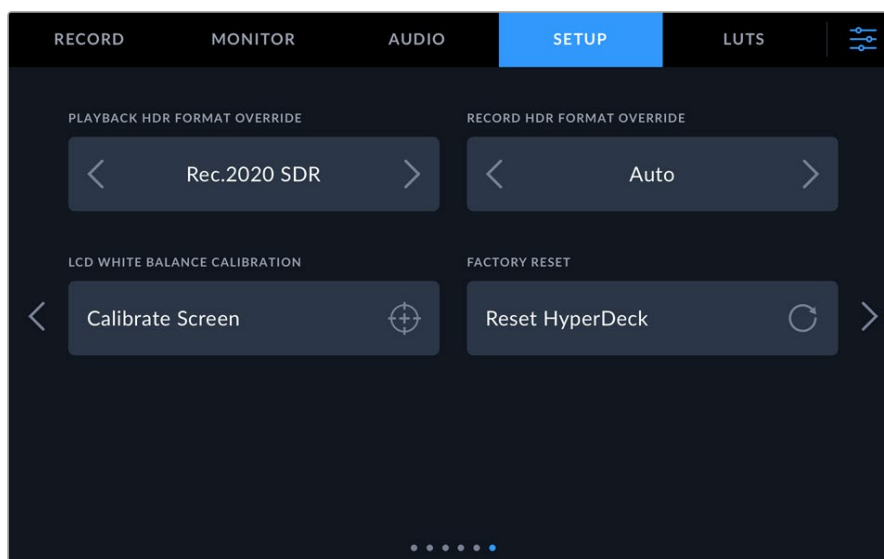


### Remote

Select 'remote' to enable remote control via RS-422, this will let the HyperDeck be controlled remotely by another device, for example, HyperDeck Extreme Control. Deselect remote to control the unit locally. It's worth noting that while you cannot use HyperDeck Shuttle 4K Pro as a controller, it can be controlled by a HyperDeck Pro or Plus model.

### Setup Page 6

The last setup page contains settings for HDR format override, calibrating the LCD and performing a factory reset.



### HDR Format Override

HyperDeck Shuttle 4K Pro will automatically detect embedded HDR metadata in a 4K video signal or file and display it via the HDMI output. If the signal or file is tagged incorrectly, or your external display is not HDR compatible, you can override the HDR format for playback and recording independently.

To do this, set the 'HDR format override' setting to an SDR option, such as Rec.2020 SDR. The available HDR playback and record settings are:

<b>Auto</b>	Auto is the default setting that will let HyperDeck automatically select the output format that conforms to the clip's HDR metadata.
<b>Rec.709</b>	For high definition video using standard dynamic range.
<b>Rec.2020 SDR</b>	This setting is used for Ultra HD video using standard dynamic range.
<b>HLG</b>	<p>HLG stands for 'hybrid log gamma'. This format allows HDR video to be played back on HDR capable TVs and monitors, including those that support up to Rec.2020 SDR.</p> <p>The following settings support the Rec.2020 color gamut, plus PQ, or perceptual quantizer published as SMPTE ST2084. PQ is the function of wide gamut HDR that allows for the display of brighter images. Luminance values in candelas per meter squared, for example 1000 cd/m<sup>2</sup> indicate the maximum luminance per square meter supported by the corresponding format.</p>
<b>ST2084 (300)</b>	300 cd/m <sup>2</sup> luminance.
<b>ST2084 (500)</b>	500 cd/m <sup>2</sup> luminance.
<b>ST2084 (800)</b>	800 cd/m <sup>2</sup> luminance.
<b>ST2084 (1000)</b>	1000 cd/m <sup>2</sup> luminance.
<b>ST2084 (2000)</b>	2000 cd/m <sup>2</sup> luminance.
<b>ST2084 (4000)</b>	4000 cd/m <sup>2</sup> luminance.

### LCD White Balance Calibration

To perform LCD white balance calibration, adjust the 'LCD temperature' and 'LCD tint' controls so that the two reference patches look neutral. After you change the settings, you can use the 'reset' button to return the controls to the factory calibration. The 'restore' button brings back your new settings, which helps you compare the appearance before and after calibration. When the LCD shows an accurate white balance, save your settings.

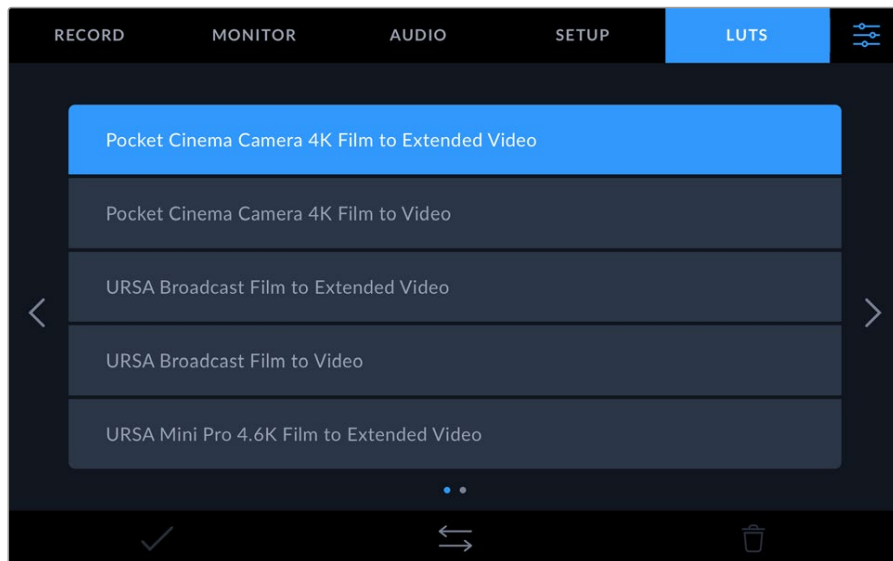
### Factory Reset

Tap on 'reset HyperDeck' to restore your HyperDeck to factory settings.

## LUTs

Display LUTs can be especially helpful when using the HyperDeck Shuttle 4K Pro as a field recorder. They work by telling the unit what color and luminance output to display. This can be useful for when you are using the 'film' dynamic range on your camera which has an intentionally undersaturated, 'flat' appearance. By applying a display LUT, you can get an idea of what your video will look like after it has been graded. 17 point, 33 point and 65 point .cube LUT files are supported.

Display LUTs can be applied to the LCD display as well as the monitor out. To view a LUT you first need to select your active LUT. In the LUT menu, tap on the LUT you want to use, it will highlight blue. Tap the tick icon at the bottom. A vertical blue line will appear to the left of the LUT name to confirm the LUT is active.



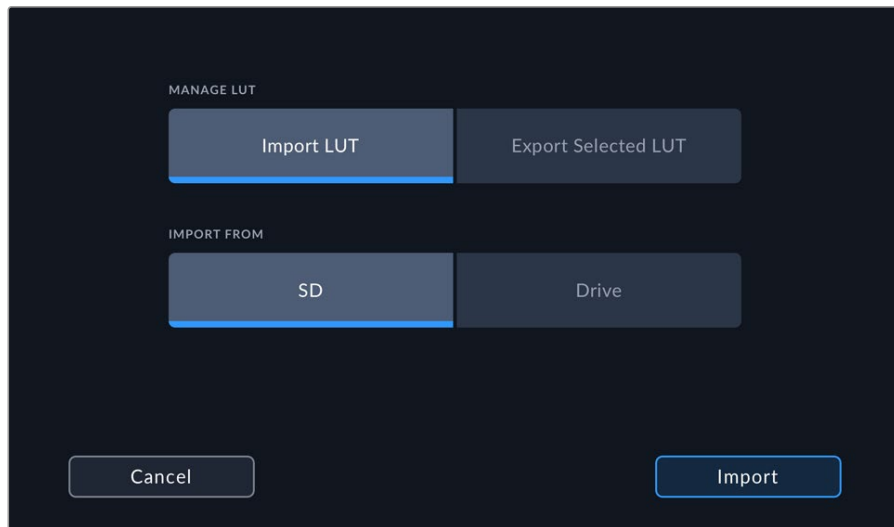
You can now press the '3DLUT' button on the front of the panel to display the selected LUT. The button will illuminate when selected. Press the button again to toggle it off.

**TIP** You can also toggle the display LUT on the LCD and Monitor SDI via the 'monitor' tab in the touchscreen menu. For more information, see the 'monitor settings' earlier in this manual.

You are not limited to using the preloaded display LUTs either, you can import or export your own!

To import a LUT:

- 1 On the LUTS tab, tap on the double head arrow icon at the bottom center of the display.
- 2 Under manage LUT, tap on 'import LUT'.
- 3 Select the storage media where the LUT is located and tap 'import'.



Select the location of your stored LUT and tap import.

- 4 Tap on the LUT you want to import followed by 'import'. A progress screen will let you know the LUT is importing. Once done, the LUT will appear in the list.

The LUT will now appear in the list and once you make it active you can apply it to the LCD and external monitor.

**NOTE** If you try to import a LUT that already exists, a screen will prompt you to either keep both or replace the existing LUT.



## Entering Metadata

Metadata is information saved inside your clip, such as take numbers, lens information and other identifying details. This is extremely useful when sorting and processing footage in post production. For example, take, shot and scene numbers are essential organizational tools, while lens information can be used to automatically remove distortion or better match VFX assets to plates.

HyperDeck Shuttle 4K Pro automatically saves some metadata to each clip, such as timecode, date and time. You can use the digital slate to add many additional details.

### Digital Slate

Swipe from the far left edge on HyperDeck Shuttle 4K Pro to reveal the slate. The slate is divided into 'clips', 'project' and 'lens data' tabs. The 'clips' tab contains information that may vary clip by clip, while 'project' is where you enter details common between clips, such as the project name, director, and camera and operator ID. The 'lens data' tab is where you can enter information about the lens in use.

#### Clips

Making changes to clip metadata works differently in standby mode to playback mode. In standby mode, when your HyperDeck Shuttle 4K Pro is ready to record, clip metadata gets saved to the next clip recorded, except the 'good take last clip' button applies a 'good take' tag to the most recently recorded clip. In 'playback' mode, when you are reviewing footage already shot, the 'good take' button is shown and clip metadata is always attached to the current clip being viewed.

The screenshot shows the digital slate interface with three tabs: CLIPS, PROJECT, and LENS DATA. The CLIPS tab is active. It displays the following information:

SLATE FOR		LENS DATA	
HyperDeck_0078.mov		Sigma 18-35mm f/1.8 DC HSM	
REEL	SCENE	BCU	TAKE
< 3 >	< 10 >		< 2 >
		A	
Good Take	Interior	Exterior	Day
			Night

When HyperDeck Shuttle 4K Pro is in playback mode, 'slate for' displays the clip the slate applies to and shows the 'good take' button. In standby mode, the slate is for 'next clip' and shows the 'good take last clip' button.

**Slate For**

This setting shows the clip which the metadata currently displayed in the ‘clip’ applies to. In ‘playback’ mode it applies to the current clip. In ‘standby’ mode it refers to the next clip you record.

**Lens Data**

The lens data field displays the lens type information. To manually add lens data information, including lens model, focal length and filter, tap on the ‘lens data’ tab at the top. For information on entering lens data, see the lens data section later in this manual.

**Reel**

Displays the current reel. Adjust the reel number manually by tapping the arrow right. When you are moving to a new project and want to start from reel ‘1’ again, tap the arrow on the left until you reach ‘1’.

**Scene**

The ‘scene’ indicator shows the current scene number, and can also show the current shot number and type. The number on this indicator always refers to the current scene. You can adjust it with the left and right arrows on either side of the scene number, or tap the scene number to enter the scene number editor.

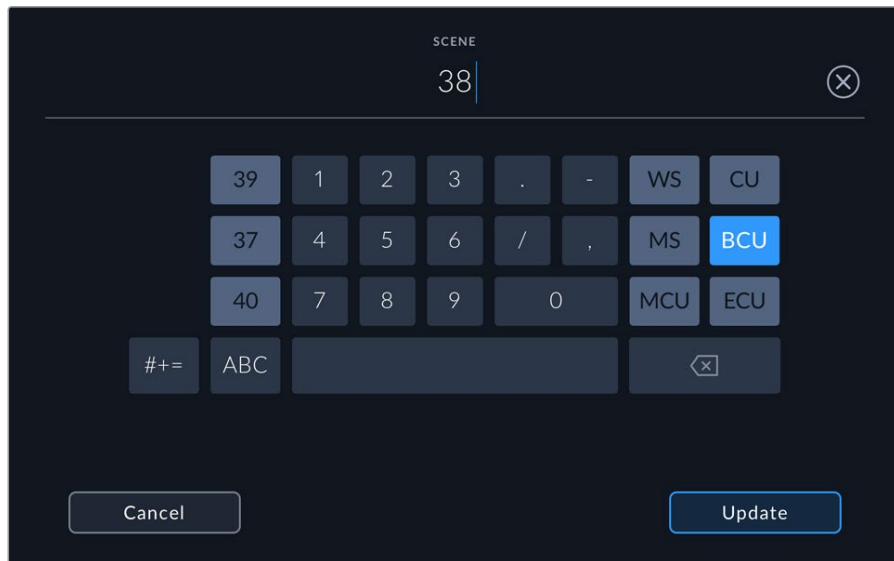
Scene numbers range from 1 to 999.

By adding a letter to the scene number in the scene number editor, you can also indicate the current shot. For example 23A indicates scene twenty three, shot one. If you have a shot letter added to your scene number, your HyperDeck suggests the next scene number and shot letter whenever you enter the scene number editor. For example, if your current scene number is 7B, the HyperDeck suggests ‘8’ and ‘7C’.

The scene number indicator can also show information about the current shot type in the top right corner. You can select these in the scene number editor at the right hand side of the shot keyboard.

The shot types available are:

<b>WS</b>	wide shot
<b>MS</b>	medium shot
<b>MCU</b>	medium close up
<b>CU</b>	close up
<b>BCU</b>	big close up
<b>ECU</b>	extreme close up



When entering 'scene' metadata, HyperDeck Shuttle 4K Pro prompts you with scene number suggestions to the left of the touch keyboard, and shot types to the right

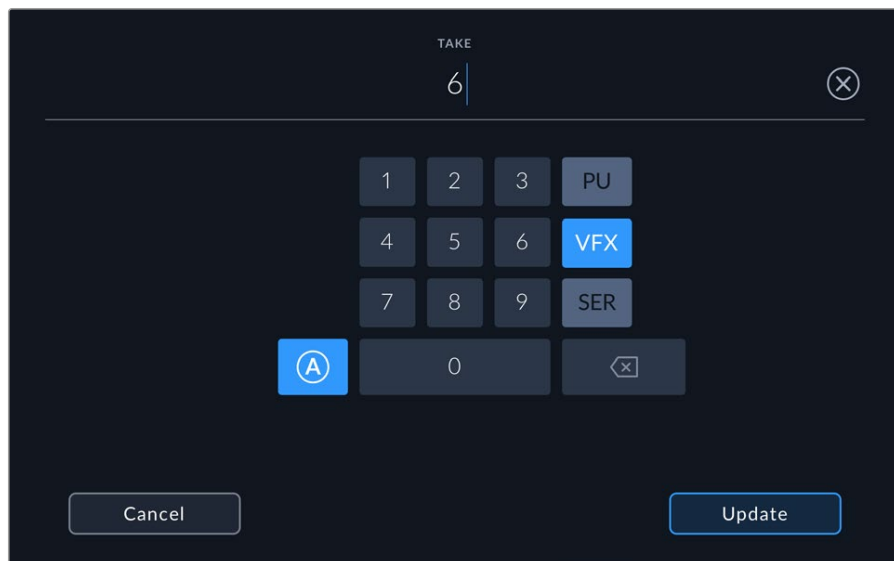
### Take

The 'take' indicator shows the take number for the current shot. You can adjust it by tapping the left or right arrows on either side of the take number, or tapping the indicator to enter the take number editor.

**TIP** When the shot number or scene letter advance the take number reverts to '1.'

You can add descriptions in the take number editor. These are on the right of the take number keyboard and correspond to the following scenarios:

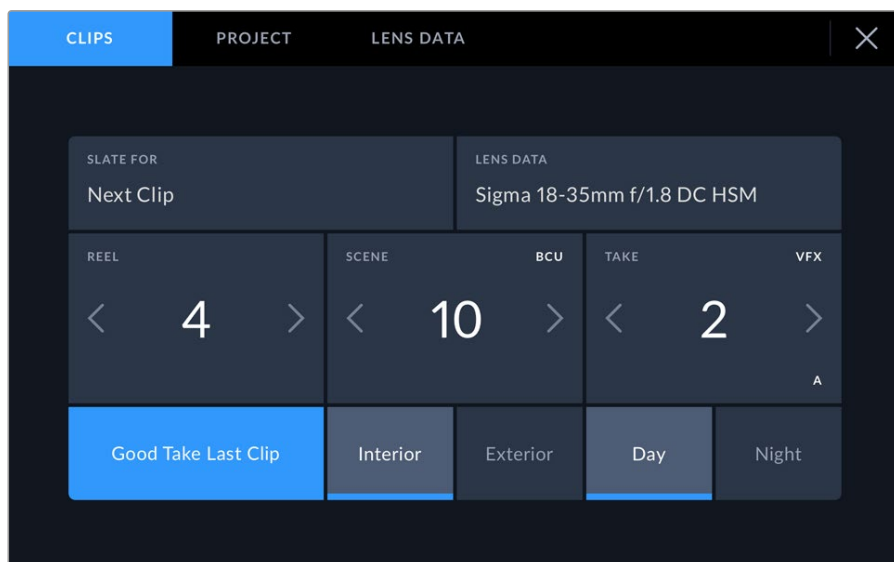
<b>PU</b>	'Pick up.' This refers to a reshoot of a previous take to add additional material after principal photography has wrapped.
<b>VFX</b>	'Visual effects.' This refers to a take or shot for visual effect use.
<b>SER</b>	'Series.' This refers to a situation in which multiple takes are shot while the camera is kept running.



Tap 'A' to enable 'auto take increment' when in 'standby' mode. This will automatically advance the take number for each clip recorded. A small 'A' appears next to the take number on the slate when enabled. When entering 'take' metadata, prompts for additional shot types will appear to the right of the touch keyboard

### Good Take

Tap the 'good take' indicator to tag good takes for easy recall in post production. This button applies the 'good take' tag to the clip currently being viewed in 'playback' mode. If the HyperDeck is in 'standby' mode and ready to record, the 'good take last clip' button applies a 'good take' tag to the last clip recorded.



### Interior / Exterior

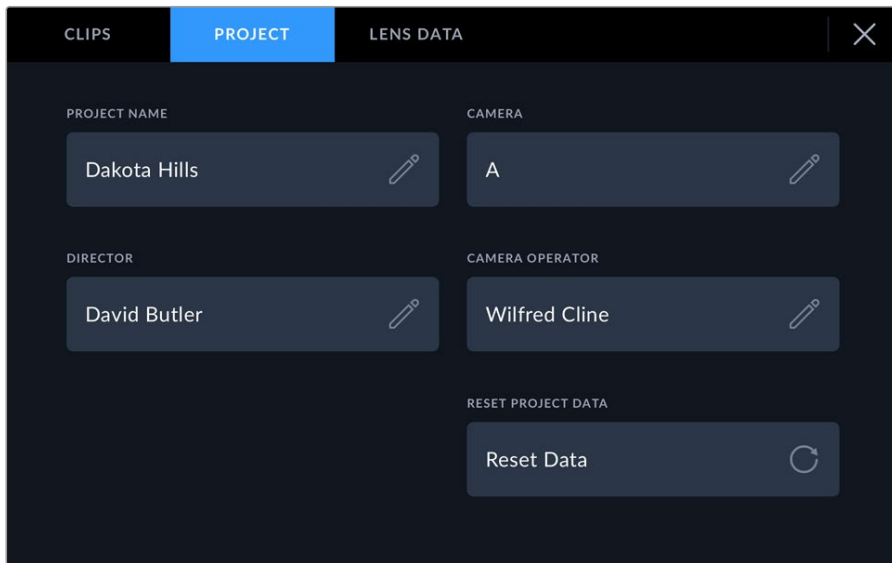
Tap 'interior' or 'exterior' to add a tag to the next clip in standby mode, or the current clip in playback mode.

### Day / Night

Tap the 'day' or 'night' icons to add a 'day' or 'night' tag to the next clip in standby mode, or the current clip in playback mode.

### Project

Project metadata behaves the same way whether you are in 'standby' or 'playback' mode. This metadata always refers to your project as a whole and is independent of clip numbers.

The image shows a dark-themed user interface for a project slate. At the top, there are three tabs: 'CLIPS', 'PROJECT' (which is highlighted in blue), and 'LENS DATA'. A close button (an 'X' icon) is in the top right corner. Below the tabs, there are four input fields arranged in a 2x2 grid. Each field has a label above it, a text input area, and a pencil icon on the right for editing. The fields are: 'PROJECT NAME' with the value 'Dakota Hills', 'CAMERA' with the value 'A', 'DIRECTOR' with the value 'David Butler', and 'CAMERA OPERATOR' with the value 'Wilfred Cline'. Below these fields, there is a 'RESET PROJECT DATA' section with a button labeled 'Reset Data' and a circular refresh icon.

Enter project details using HyperDeck Shuttle 4K Pro's 'project' slate tab

#### Project Name

Displays your current project name. Tap the pencil icon to change the project name.

#### Director

Displays the director's name for the current project. Tap the pencil icon to change the director name.

#### Camera

Set the camera ID using letters A-Z or numbers 1-20. Each individual camera ID will appear in the files' metadata, allowing DaVinci Resolve to identify each angle easily when using the sync bin feature.

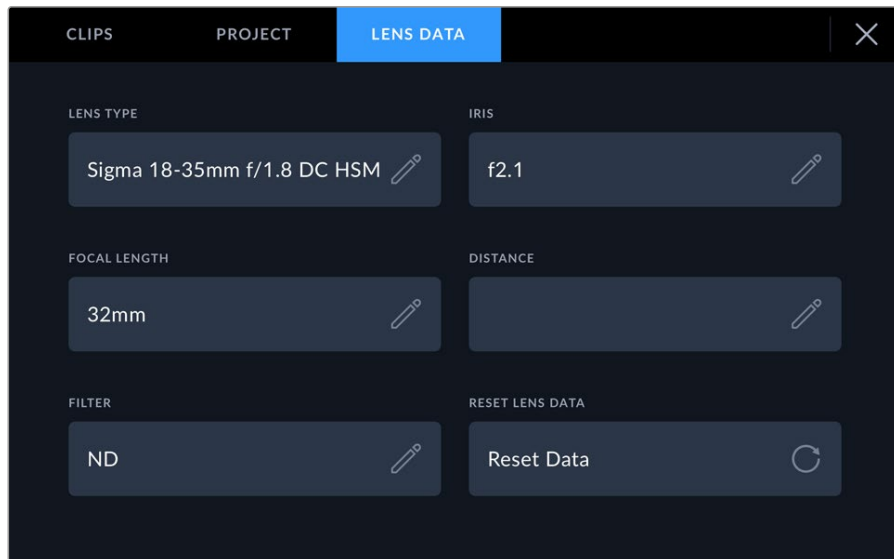
The camera ID can also be set via the first page of the setup menu.

#### Camera Operator

Displays the camera operator. Tap the pencil icon to change the camera operator name.

#### Lens Data

The 'lens data' menu contains the following information:



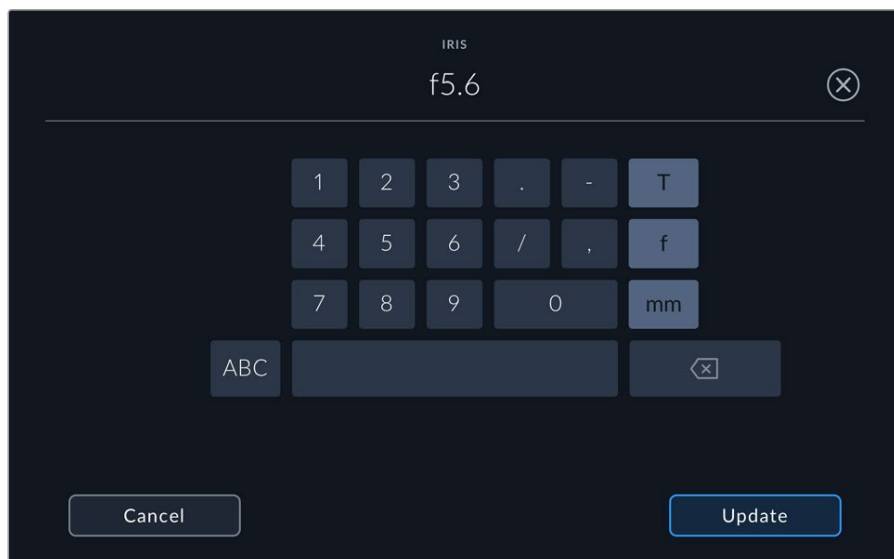
The 'lens data' menu showing information that has been manually entered

### Lens Type

Shows the lens model. Tap this setting to enter the data manually. HyperDeck Shuttle 4K Pro has an internal database stored for many commonly used lenses, so it will suggest names automatically as you type. This makes entering data much faster.

### Iris

Shows the iris aperture setting at the start of your clip. This information can be displayed in f- or T-stops depending on the lens used. Tap this setting to enter data.



Enter the iris setting using the keyboard

**Focal Length**

Shows the focal length setting of the lens at the start of the recorded clip and is shown in millimeters. Tap this setting to enter the focal length manually.

**Distance**

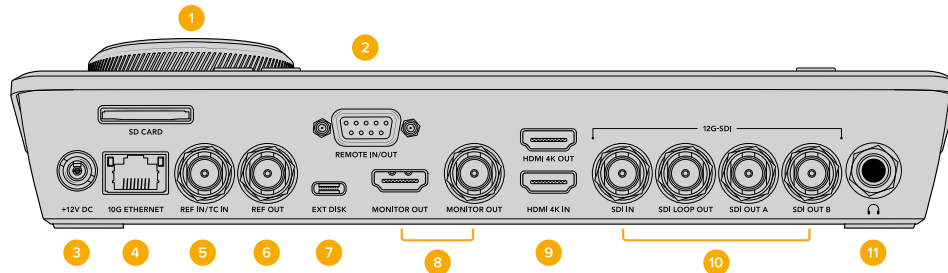
Shows the focus distance settings of the lens for the recorded clip in millimeters. Tap to enter this data manually.

**Filter**

Shows the current lens filters used. Tap this setting to enter data manually. You can make multiple entries separated by commas.

**NOTE** You can clear lens data at any time by tapping the 'reset lens data' icon in the 'lens data' menu. If you have manually entered any information into these fields, you will need to reset the lens data the next time you mount a lens, otherwise the manually entered value will remain.

# HyperDeck Shuttle 4K Pro Rear Panel



## 1 SD Card

Insert SD cards into the slot for recording and playback.

## 2 Remote

HyperDeck Shuttle 4K Pro features an RS-422 DE-9 connector for remote in. When remote is enabled, you can mirror the transport controls from one HyperDeck to another. When the HyperDeck Shuttle 4K Pro has the remote setting enabled it can be controlled by a connected HyperDeck Studio Pro or Extreme model disk recorder.

## 3 Power

HyperDeck Shuttle 4K Pro is powered via an AC plug pack. The supplied power cable included features a locking connector to prevent disconnection, but you can also use any 60W 12V power cable to power the HyperDeck Shuttle 4K Pro.

## 4 Ethernet

A 10Gb/s Ethernet connection lets you connect directly to your network for recording and playback with Blackmagic Cloud Store or other network location. Access media recorded onto SD cards, external disks or the optional internal M.2 SSD via the web media manager, SMB file sharing or an FTP client for fast transfers or control the unit remotely using HyperDeck Ethernet Protocol.

Connect to the same network as an ATEM Switcher and you can use your HyperDeck for playback using the HyperDecks palette in ATEM Software Control or via an ATEM broadcast panel. For more details on transferring files via an FTP client, see the 'transferring files over a network' section later in this manual.

## 5 Reference In and Timecode In

Connect a reference or timecode BNC to the 'ref in/tc in' connection on the rear to receive external reference or timecode. To use external an external timecode source, select via the second page of the setup menu. You can also connect a reference signal to the reference input and sync your HyperDeck to an external master sync source.

## 6 Reference Out

HyperDeck Shuttle 4K Pro features a built in sync generator that generates stabilized black burst and tri-sync video reference signals. This means you can connect your HyperDeck's reference output to other video equipment's reference input and lock them to a master reference signal generated by your HyperDeck.



## **7 Ext Disk**

Connect a flash disk to the USB-C connector on the rear so you can record to external disks at up to 10Gb/s. You can also connect to multi port USB-C hubs or the MultiDock 10G allowing you to connect one or multiple SSDs for far greater storage capacity! Recording to high speed SSDs and hard drives reduces the risk of problems with your media compared to SD cards. For more information on external disks, see the 'storage media' section later in this manual.

## **8 Monitor Out**

The SDI and HDMI monitor out connections provides a downscaled output with overlays so that you can monitor on an external display. The overlays include drive icons, audio meters and a time counter display as well as a display LUT. For more information on the monitor settings, including how to output a clean signal, see the 'settings' section earlier in this manual.

## **9 HDMI**

The HDMI connections are perfect for when you're using the unit as a field recorder and connecting to an HDMI enabled display for playback. For signals from standard definition to 2160p60, the HDMI input will auto detect SDR and HDR video standards when the signal is flagged with the correct metadata. This means you can display stunning HDR images on HDR enabled HDMI screens using the HDMI out.

## **10 12G-SDI**

HyperDeck Shuttle 4K Pro models features 12G-SDI inputs and outputs allowing for resolutions up to 2160p60.

The two SDI outputs can be used to play back ProRes 4444 files for simultaneous fill and key when connected to ATEM switchers.

## **11 Headphone Port**

Connect a set of headphones to the 1/4" headphone jack on the rear panel to listen to the audio. To change the headphone volume level, tap on the volume meters on the touchscreen display and adjust the 'headphone level' slider.

## Using the Monitor Output

The monitor output is a fast way to visually check your recording or playback video, with overlays displaying important status information such as the codec being used, the video and signal standard, frame rate, timecode, file name, transport control status, storage media status, and audio levels.



Monitor overlays can be turned on via the second page of the monitor settings or you can remove them from display by turning 'status text' off. More information on monitor settings, including turning on frame guides and other focus assist tools can be found in the 'settings' section earlier in this manual.

### Status Text Overlay

Below is a description of the information displayed.

#### Codec

Displays the codec selected via the LCD menu.

#### Standard

Displays the current clip's resolution and frame rate when in playback mode. If you are in record mode, it will display the resolution and frame rate of the video connected to the currently selected source.

#### Timecode

Displays the timecode present in your video clip during playback, or currently being recorded via the video or timecode inputs. You can also select between displaying clip timecode or the time counter for the timeline.

#### Source

Displays the currently selected SDI or HDMI source. If 'no signal' appears, it means a valid signal is not detected.

## Cache

HyperDeck Shuttle 4K Pro models display the current status of the cache.

<b>Standby</b>	The cache icon information will be white when the cache is in standby mode. When the cache has space remaining, the duration available will be displayed in hours:minutes:seconds based on the current source standard and your chosen codec and quality settings. If there is less than an hour left, minutes:seconds remaining will be displayed.
<b>Recording</b>	The cache duration indicator will be red during recording and will reduce as the space is filled. If you have fast storage media connected with usable space, the duration indicator may not appear to move much as the storage media can copy files as fast as your cache can record them. If you are using slower media or you have run out of space, the available cache duration will decrease.
<b>Stored</b>	If you run out of available on space on your connected storage media, the cache icon will flash green and white until sufficient storage is connected and the information stored on the cache is transferred over.
<b>Transferring</b>	The cache icon will illuminate green while the cache media is being transferred to other storage. Due to the nature of how the cache records, this process can be very quick depending on your storage media.  If your media runs out of available storage space, the recording will continue to the cache until the media is swapped.
<b>Off</b>	Off will appear when the record cache is turned off via the record menu.
<b>Format</b>	You can format the cache via the setup menu using the front panel LCD.

## Name

Shows the name of your HyperDeck disk recorder. For information on how to change the name, see 'Blackmagic HyperDeck Setup' later in this manual.

## Status

As you play back or record a clip, this indicator will display the transport control status and controls currently being used. These include:

<b>STOP</b>	HyperDeck is in standby mode.	<b>LOOP</b>	Indicates playback is set to 'loop' all recorded clips sharing the currently selected video standard.
<b>PLAY</b>	Video is being played.	<b>LOOP CLIP</b>	Indicates playback is set to loop a single clip.
<b>REC</b>	Video is being recorded. The indicator will illuminate red during recording.	<b>SHUTTLE</b>	Indicates shuttle mode is enabled, but in standby.
<b>REW x4</b>	Displayed during fast forward or rewind. The numbers indicate the speed.	<b>JOG</b>	HyperDeck is in jog mode.
<b>FFWD x16</b>		<b>SCROLL</b>	HyperDeck is in scroll mode.

Storage Media Status

The storage indicators display the name and status of the connected storage. The first indicator displays the SD card slot. The second indicator displays the selected external disk, M.2 SSD or network location when connected. If you are using a USB hub or dock such as Blackmagic MultiDock 10G the current drive will be displayed.

HyperDeck Shuttle 4K Pro	1 26:14	2 1:03:16
	SD slot in use	Selected network storage, external disk or network location

Disk or Drive Indicator

The text above the progress bar indicates the media slot.



Progress Bar

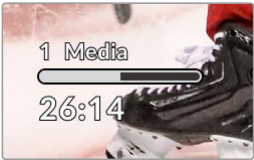
The progress bar icon will be either blue, white or red depending on its current status and will display the used space on the card.

	The blue drive icon indicates the active drive. This is the drive that will be used for playback and recording.
	A white drive icon indicates there is media present, but not active. A solid white icon indicates the media is full.
	The bar will illuminate red during recording.

Text underneath the progress bar will display either the record time remaining or the status of the slot.

Time remaining

When your storage media has space remaining, the duration available will be displayed in hours:minutes:seconds based on the current source standard and your chosen codec and quality settings. If there is less than an hour left, minutes:seconds remaining will be displayed.



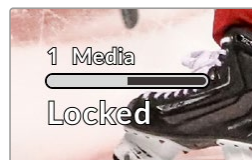
## Slot status

'No card' and 'no drive' will display if there is no media connected to that media slot.

Once an SD card, USB drive or the M.2 SSD disk is full, the icon will display 'card full' or 'drive full' so you know it's time to swap out the storage media. If you have an external disk connected, the recording will spill over once the SD card is full.

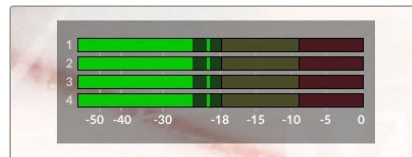


A locked drive will be shown with 'locked' under the progress bar.



## Audio Meters

On screen audio meters will display 4 channels of audio. These can be set to either PPM or VU meters via the audio tab of the LCD menu.



To select which channels you want to monitor, or to change to a different audio meter, use the audio tab of the LCD menu. For more information, refer to the 'settings' section earlier in this manual.

# Storage Media

## SD Card

For high quality HD recording we recommend high speed UHS-I SD cards. These cards need to be capable of write speeds above 220MB/s for recording up to Ultra HD 2160p60.

However, if you are recording at a lower bit rate with higher compression you might be able to use slower cards. Generally, the faster the cards the better.

It's worth regularly checking the latest version of this manual for more up to date information and can always be downloaded from the Blackmagic Design website at [www.blackmagicdesign.com/support](http://www.blackmagicdesign.com/support)

### What SD cards should I use with HyperDeck Shuttle?

The following SD Cards are recommended for 1080p up to 60 fps:

Brand	Model	Capacity
Angelbird	AV PRO SD UHS-II 300MB/s V90 SDXC	256GB
Angelbird	AV PRO SD UHS-II 260MB/s V60 SDXC	128GB
Angelbird	AV PRO SD UHS-II 260MB/s V60 SDXC	64GB
SanDisk	Extreme Pro UHS-I 95MB/s SDXC	64GB
Wise	SD2-64U3 UHS-II 285MB/s SDXC	64GB
Lexar	Professional 1000x UHS-II 150MB/s SDXC	128GB
SONY	Tough SF-G128T	128GB
Kingston	CANVAS GO! Plus 170MB/s V30	64GB
Kingston	CANVAS GO! Plus 170MB/s V30	128GB
Kingston	CANVAS GO! Plus 170MB/s V30	512GB
ProGrade Digital	SDXC UHS-II V90 300R	64GB
ProGrade Digital	SDXC UHS-II V90 300R	128GB
SONY	Tough SF-G64T UHS-II SDXC	64GB
Delkin Devices	Black UHS-II V90 SDXC	256GB
Delkin Devices	Power UHS-II V90 SDXC	128GB
Delkin Devices	Power UHS-II V90 SDXC	256GB
Delkin Devices	Black UHS-II V90 SDXC	128GB
Exascend	Essential SDXC UHS-II V90 R 300MB/s	64GB
Exascend	Essential SDXC UHS-II V90 R 300MB/s	128GB
Exascend	Catalyst SDXC UHS-II V90 R 300MB/s	64GB

## EXT Disk

All HyperDeck models can record directly to USB-C flash disks. These fast, high capacity drives allow you to record video for long periods. You can then connect the flash disk to your computer and edit directly from them!

For even higher storage capacities, you can connect a USB-C dock or external hard drive. To connect your Blackmagic MultiDock 10G or USB-C flash disk, connect a cable from your USB-C connected device to the 'ext disk' port on the rear panel of your HyperDeck.

### What USB-C drives should I use with HyperDeck Shuttle?

The following USB-C drives are recommended for 1080p ProRes HQ at up to 60 fps:

Brand	Model	Capacity
Wise	PTS-256 Portable SSD 4K	256GB
OWC	Envoy Pro Ex	240GB
BUFFALO	SSD-PHE500U3-BA	500GB

The following USB-C drives are recommended for 1080p ProRes HQ at up to 60 fps:

Brand	Model	Capacity
OWC	Envoy Pro Ex	240GB

The following USB-C drives are recommended for 1080p H.264 at up to 60 fps:

Brand	Model	Capacity
OWC	Envoy Pro Ex	240GB

## Preparing Media on HyperDeck Shuttle 4K Pro

SD cards, internal M.2 SSD drives and storage media connected via the rear 'ext disk' USB-C port can be formatted directly on the unit or via a Mac or Windows computer.

HFS+, is also known as Mac OS X Extended, and is the recommended format as it supports 'journaling'. Data on journaled media is more likely to be recovered in the rare event that your storage media becomes corrupted. HFS+ is natively supported by Mac. ExFat is supported natively by Mac and Windows without needing any additional software, but does not support journaling.

Formatting Media on HyperDeck Shuttle 4K Pro:

- 1 Tap the drive area icon on the front panel to enter the storage manager.



- 2 Tap the format button to open the format menu. The format media window will open displaying all the connected media.

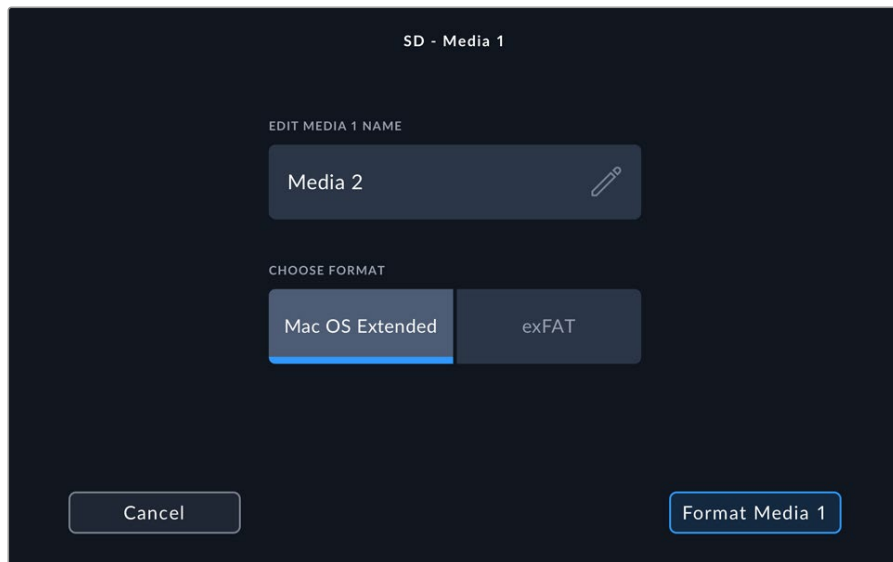
Select the media you wish to format and tap the 'format media' button.



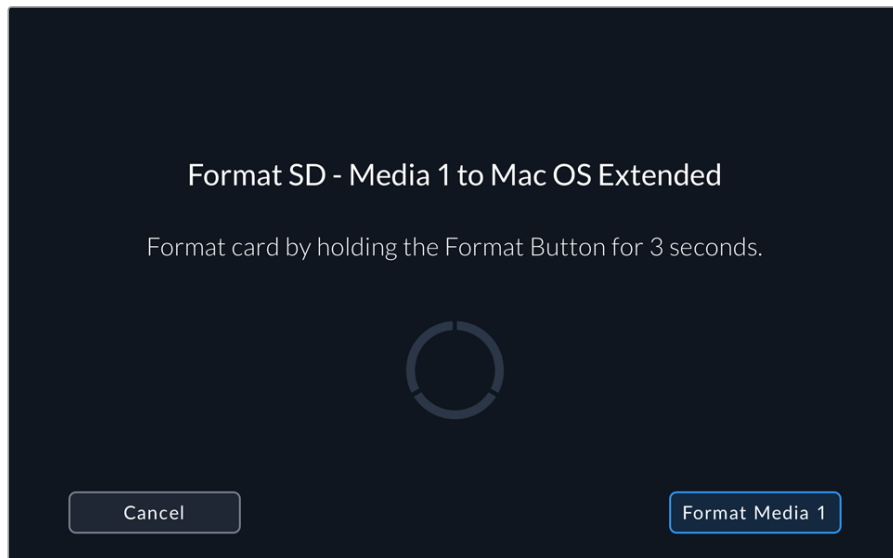
- 3 If you want to rename the media, tap on the pencil icon to open the keyboard, type the new name using the touchscreen keyboard and press 'update'.



- 4 Choose 'Mac OS Extended' or 'exFat' and tap the format button.



- 5 A confirmation window will appear detailing which card is to be formatted, the selected format option and the card name. Tap on the format button.
- 6 When prompted, hold down the format button for three seconds to format your media. Formatting will begin. While the card is being formatted the status led for the SD card slot will illuminate green.



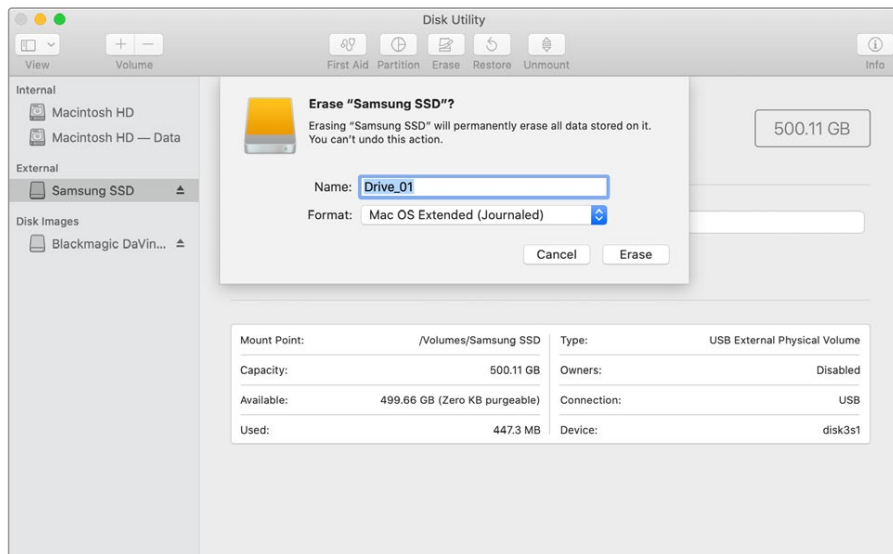
- 7 Once formatting is complete, tap 'ok'.

## Formatting Media on a Mac Computer

The Disk Utility application included with Mac can format a drive in the HFS+ or exFAT formats.

Make sure you back up anything important from your disk as you will lose everything on it when it is formatted.

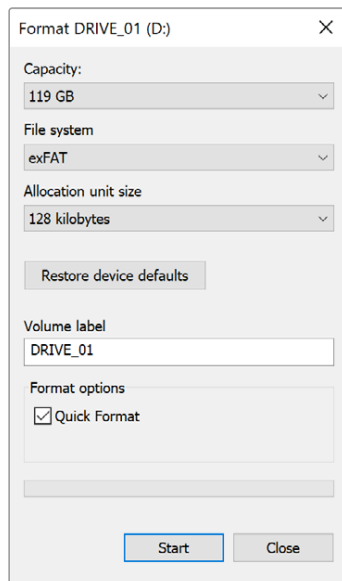
- 1 Connect a USB flash disk to your computer with an external dock or cable adapter and dismiss any message offering to use your SSD for Time Machine backups. For SD cards, connect it to your computer via an external card reader.
- 2 Go to applications/utilities and launch Disk Utility.
- 3 Click on the disk icon of your SD card or USB flash disk and then click the erase tab.
- 4 Set the format to Mac OS Extended (Journaled) or exFAT.
- 5 Type a name for the new volume and then click erase. Your media will quickly be formatted and made ready for use with HyperDeck.



## Formatting Media on a Windows computer

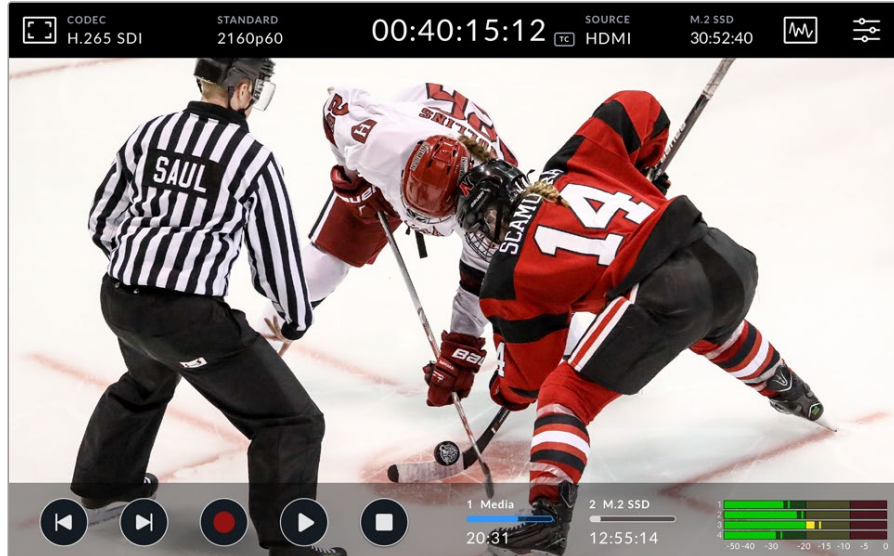
The format dialog box can format a drive in the exFAT format on a Windows PC. Make sure you back up anything important from your SSD or SD card as you will lose everything on it when it is formatted.

- 1 Connect a USB flash disk to your computer with an external dock or cable adapter. For SD cards, connect it to your computer via an external card reader.
- 2 Open the start menu or start screen and choose computer. Right-click on your USB flash disk or SD card.
- 3 From the contextual menu, choose format.
- 4 Set the file system to exFAT and the allocation unit size to 128 kilobytes.
- 5 Type a volume label, select quick format and click Start.
- 6 Your media will quickly be formatted and made ready for use with HyperDeck.



## Storage Indicators

The status of the storage media slots can be seen on the bottom toolbar of the main display.



These icons display the number, name, progress bar and status of the SD card and active media 2 slot which could be an USB Drive, external network location or the optional M.2 SSD when set to 'network storage'.

### Number

Drive '1' shows the SD card slot on the front panel. Drive '2' shows the active media for the second slot. This could be any external drive connected via the 'ext disk' USB-C port on the rear, external network location or the optional M.2 SSD if it is set to 'network storage'.

**TIP** If you are using a drive hub you can connect multiple drives via the 'ext disk' connector on the rear. In this case the second drive icon will only display the active drive.

### Name


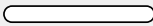



The text to the right of the number is the name of the SD card, USB drive, network location or M.2 SSD when recording internally. For SD cards, USB drives and external SSDs, this will be the name you selected when formatting the storage

and is especially helpful if you are using the Blackmagic MultiDock in order to make sure you are playing or recording to the correct drive. For network locations, it will be the name of the network folder you have connected to. For the internal 'network storage' function 'M.2 SSD' will appear.

## Progress Bar

The bar icon will be either blue, white or red depending on its current status. The intensity of the color will also display the used space on the media.

	The blue drive icon indicates the active drive. If you press play, playback will start from this drive, if you want to record video, it will be to this drive.
	A white drive icon indicates there is storage media connected, but not active. A solid white icon indicates the drive is full.
	The bar will be red during recording.

## Status

Text underneath the progress bar will display either the storage space remaining or the status of the slot.

### Capacity remaining

When your storage media has space remaining, the duration available will be displayed in hours:minutes:seconds based on the current source standard and your chosen codec and quality settings. If there is less than an hour left, it will display minutes:seconds remaining only.

If a valid source is not detected, the available storage remaining on the media will display in gigabytes or terabytes.

### Slot status

'No card' and 'no drive' will display if there is no media connected to that drive slot.

Once a SD card or drive is full, the icon will display 'card full' or 'drive full' so you know it's time to swap out the storage media. If you have USB-C disk connected or M.2 SSD installed, the recording will spill over when the SD card is full.

A locked drive will be shown with 'locked' under the progress bar.

If you see 'blocked' display underneath the progress bar, this means you are unable to play or record to that media. To resume playback or recording on that SD card or drive, eject it and reconnect. The SD card or ext disk will now be available.

## Active storage media

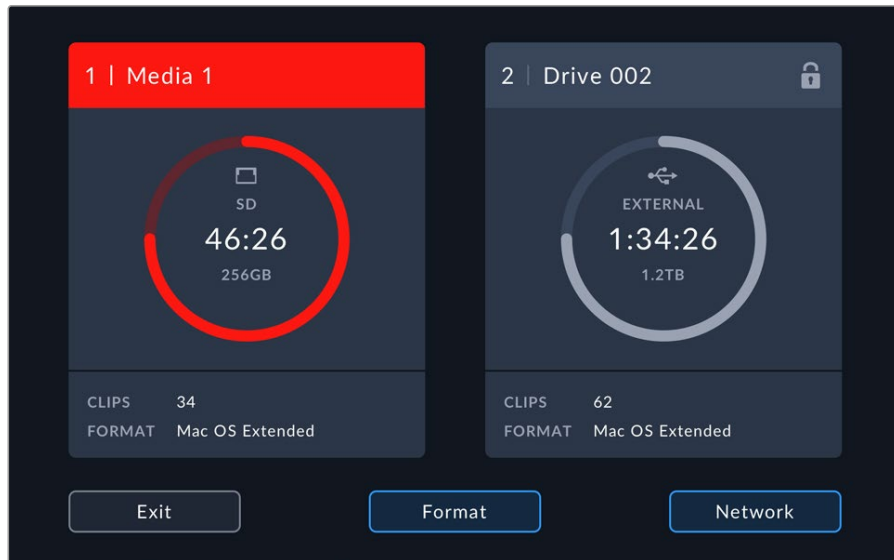
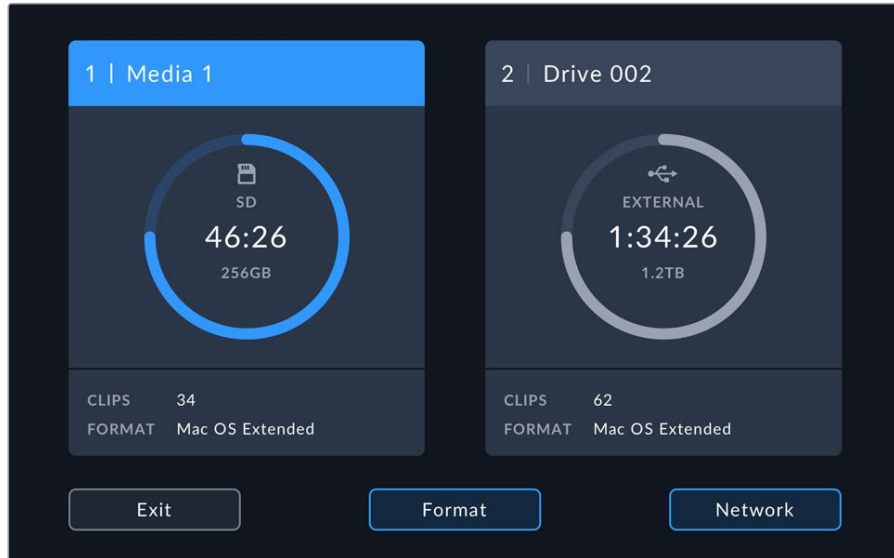
When using HyperDeck Shuttle 4K Pro you can connect an SD card, 5 ext drives, internal M.2 SSD and network location all at once. This means you can access terabytes of recording space all from the one HyperDeck disk recorder.

If you only have a single drive or SD card connected, it is your active media for all playback and recording.

If you are using more than one card or drive, you can select which one you want to use for recording and playback.

### Selecting Active Media

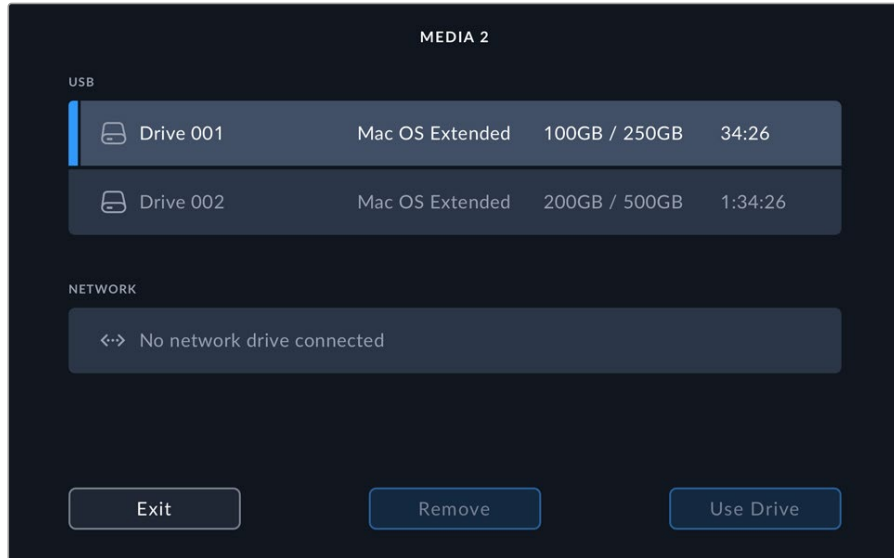
- 1 Tap on the drive icon area in the bottom screen.
- 2 In the storage media window, three large icons will appear. Tap on the heading of the media you want to make active. In playback mode the active media will appear blue. In record mode the active drive will be red.



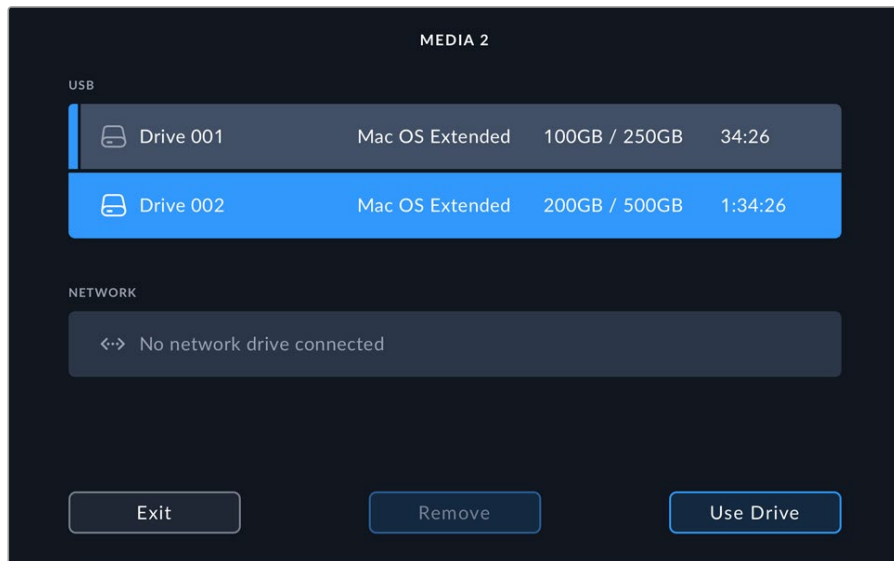
If you are using a dock to connect multiple external disks, such as the Blackmagic MultiDock 10G, or connecting to network locations, you can access the full list of attached drives by tapping below the heading on the second media slot.

To select an active drive from the drive list:

- 1 Tap the center of the storage icon to open the drive list. The current active drive is indicated by a blue line to the left of the name.



- 2 Select a drive from the list, once it is highlighted blue, press use drive. This drive will now be the active drive. Press exit to return to the previous screen. Once a network location is added, selected volumes will appear under the drive list.



The blue line on the left hand side indicates which drive is selected.

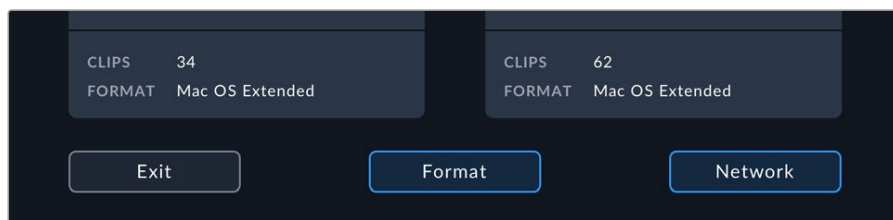
**NOTE** Spill recording is available when multiple cards and drives are connected. Once the SD card is full, recording will spill over to the active USB disk.

## Connecting to Network Locations

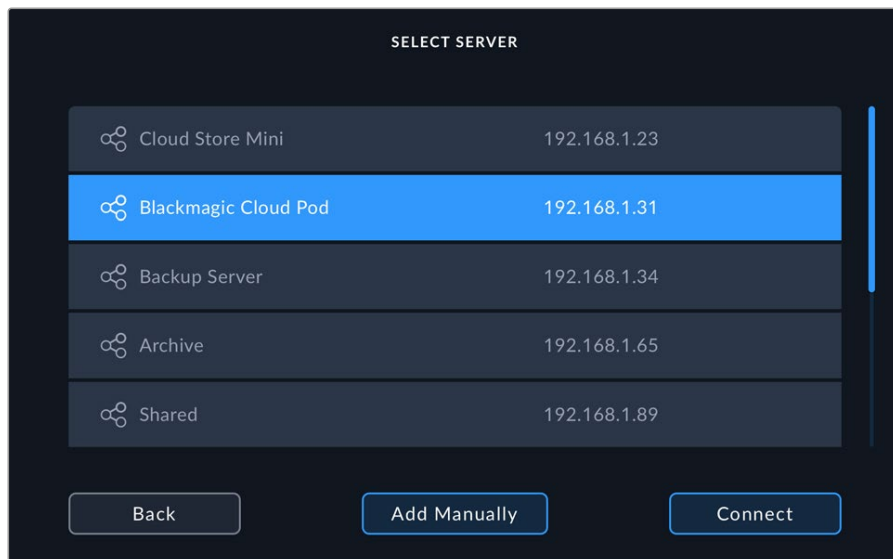
When HyperDeck Shuttle disk recorders are connected to your network via Ethernet, you can use network locations for recording and playback. For example, recording clips to Blackmagic Cloud Store. Once your HyperDeck Shuttle and network location are on the same network, you can add the network location to HyperDeck Shuttle. It's worth noting that the optional record cache can be used when recording to network location to prevent the recording ending in the event of a network outage or dropout.

To add a network location:

- 1 Tap on the storage icons in the lower toolbar on the HyperDeck Shuttle 4K Pro to open the storage display.
- 2 Tap the 'network' button on the lower right hand corner of the display.

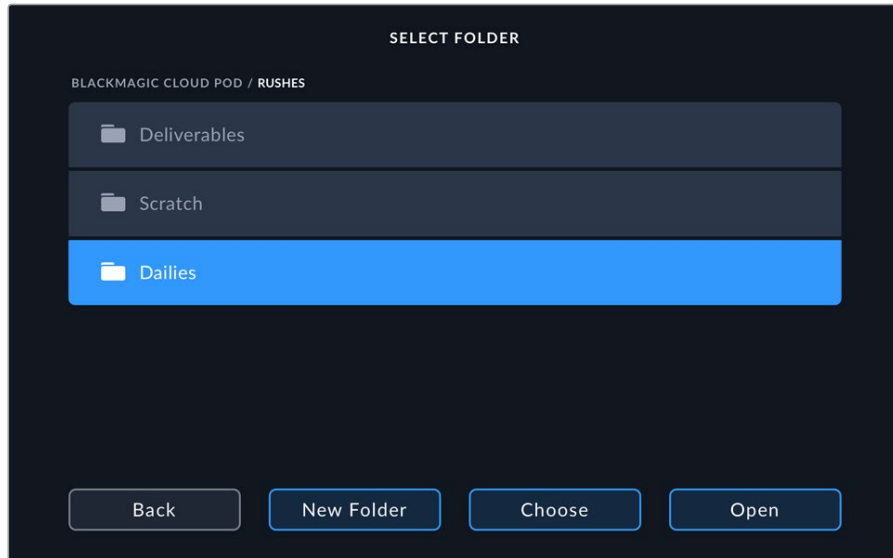


- 3 Servers on your network will appear in the list view. If you can find your preferred server, tap the name to highlight it and tap the 'connect' button. When prompted enter your username and password or tap 'connect as guest' if your storage does not require credentials.

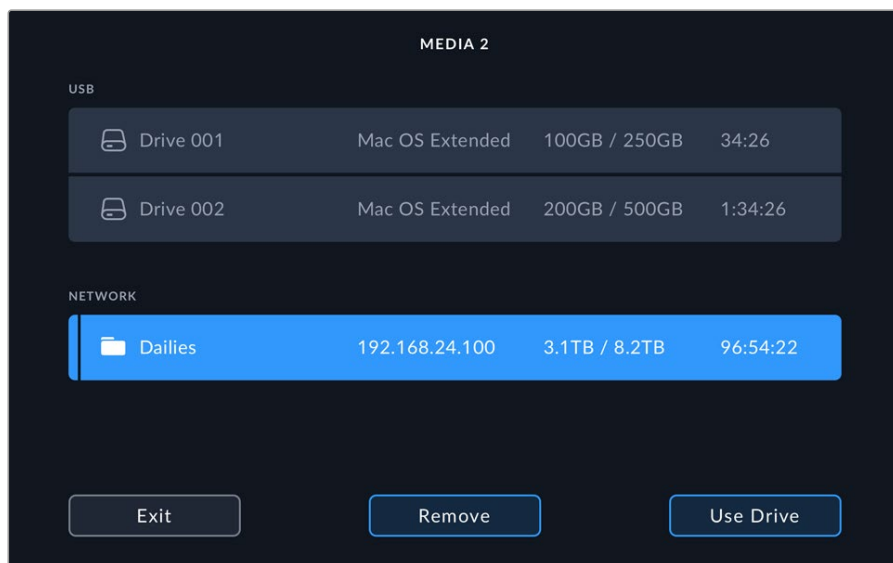




- 4 Tap on the shared disk. To select the volume and record files in the first folder, tap on the 'choose' button. To navigate within the shared disk to find different folder, tap on 'open'.



- 5 Continue navigating within the file path or tap 'choose' to select the current folder or tap 'new folder' to create a new location. The menu will return to the drive list.
- 6 The mounted storage folder will now appear under the second media icon. Touch the media to highlight and tap 'use drive' to select it, then tap on 'exit' to return to the main display.



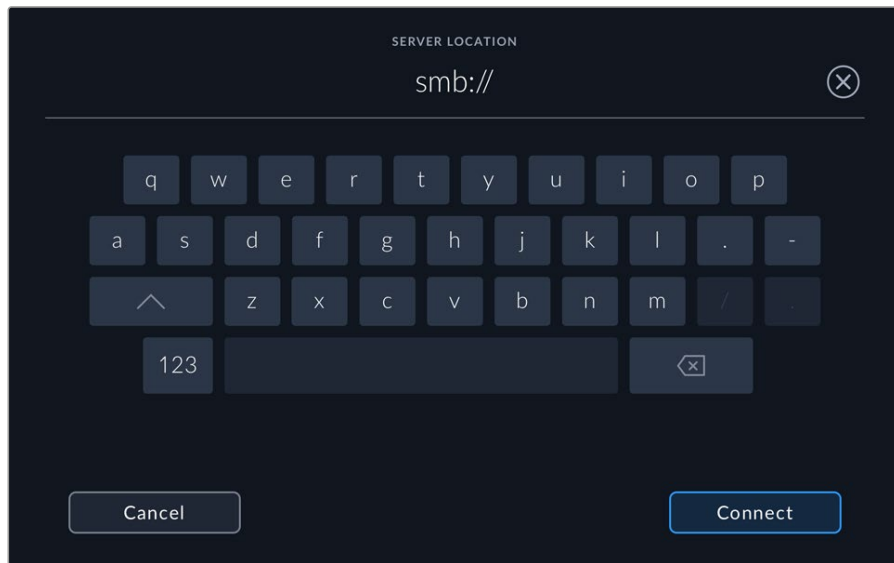
Add more folders or volumes by repeating the steps. Once multiple network locations are added, they will appear in a list and you can select between each by highlighting the folder in the list and tapping 'use drive'.

To remove a volume, select it in the list and tap 'remove drive'.

If your shared server isn't seen by HyperDeck Shuttle 4K Pro, you can also add network location manually using the touch screen.

To add a network location manually:

- 1 Tap on the storage icons in the lower toolbar on the HyperDeck Shuttle 4K Pro to open the storage display.
- 2 Tap the 'network' button on the lower right hand corner of the display and tap on 'add manually'.
- 3 Using the touchscreen keyboard enter the address for your network share. This might be an IP address or the network server name.

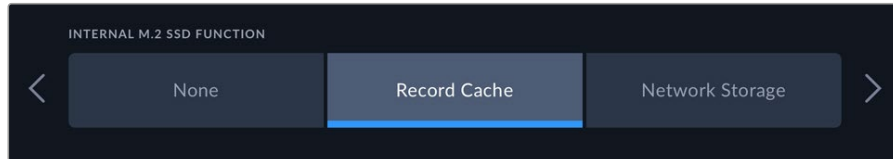


- 4 Tap 'connect'. A confirmation window will appear as the connection is made. Once connected, select your folder using the list.

Once you've mounted folders from the network they will appear in the list when selecting your active drive. For more information on selecting an active drive, refer to 'active media' earlier in this manual.

## Using the Optional Internal M.2 SSD

The internal M.2 SSD feature on HyperDeck Shuttle 4K Pro can be used as for recording internally allowing other hardware and software, such as DaVinci Resolve to use the media over a network.



### Choosing Network Storage

Installing an M.2 SSD enables HyperDeck Shuttle 4K Pro to record broadcast quality video internally. M.2 SSDs are very fast and can record the highest resolution with the lowest compression.

By connecting HyperDeck Shuttle 4K Pro to a network, the unit becomes a disk recorder and a shared storage solution. For example, with support for M.2 SSDs up to 8TB of storage, the HyperDeck can serve as a central hub for multiple computers on the same network. This means editors, colorists and other team members can access and work on growing files instantly, saving time and boosting collaboration. You can even use the HyperDeck's internal M.2 SSD storage for multi camera recording with DaVinci Resolve replay!

### Choosing Record Cache

If you don't need to share the recordings over a network, or need to record on slower external media you can use the 'record cache' setting. The cache works as short term storage, recording your video and audio to the internal M.2 PCIe flash disk before transferring the files to your selected media in 5 second segments. These 5 second segments then make up a single continuous file on your storage media.

Even if you turn your HyperDeck Shuttle 4K Pro off, any files recorded prior that weren't transferred to a SD card or external disk will still be there!

## Choosing your M.2 SSD

When choosing an M.2 SSD it is a good idea to keep in mind future workflows and not just current ones. By selecting an M.2 SSD that is capable of recording the highest frame rates and resolutions, you can be sure you won't miss a frame, even when recording four video channels.

The following M.2 SSDs are recommended for Ultra HD Apple Pro Res HQ up to 60 fps.

Brand	Card Name	Storage
Samsung	960 EVO NVMe	1TB
Samsung	970 PRO V-NAND	1TB
Samsung	970 EVO Plus V-NAND	1TB
Samsung	980 Pro NVMe M.2 SSD (MZ-V8P1T0BW)	1TB
Samsung	980 Pro NVMe M.2 SSD (MZ-V8P2T0BW)	2TB
SanDisk	Extreme PRO 3D SSD	1TB
Western Digital	WD Black SN750 NVMe SSD (WDBRPG5000ANC)	500GB
Western Digital	WD Black SN750 NVMe SSD (WDS100T3X0C)	1TB
Western Digital	WD Black SN750 NVMe SSD (WDS200T3X0C)	2TB

Brand	Card Name	Storage
Kingston	KC2000	500GB
Kingston	KC2000	1TB
Kingston	KC2000	2TB
Samsung	980 Pro NVMe M.2 SSD (MZ-V8P500BW)	500GB
SanDisk	Extreme Pro 3D SSD	500GB
WD	Black 3400MB/s 3D NAND	500GB

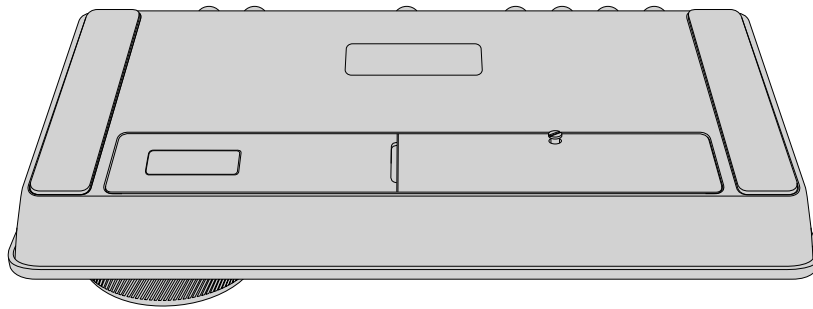
Brand	Card Name	Storage
Kingston	KC2500	250GB
Kingston	KC2500	500GB
Kingston	KC2500	1TB
Kingston	KC2500	2TB
Samsung	980 NVMe M.2 SSD (MZ-V8V250BW)	250GB
Samsung	980 NVMe M.2 SSD (MZ-V8V500BW)	500GB
Samsung	980 NVMe M.2 SSD (MZ-V8V1T0BW)	1TB
Samsung	980 Pro NVMe M.2 SSD (MZ-V8P250BW)	250GB

## Installing The M.2 SSD

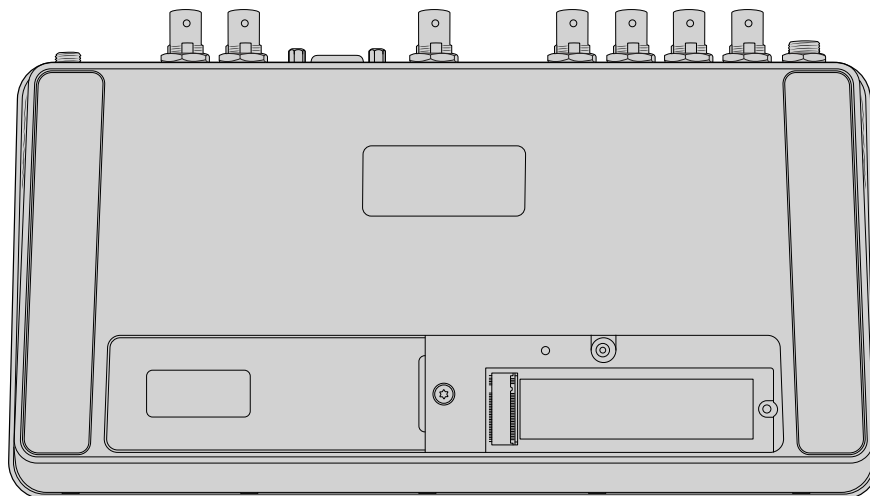
HyperDeck Shuttle 4K Pro 2TB models ship with an internal M.2 SSD already installed. With HyperDeck Shuttle 4K Pro, you can install your own M.2 SSD disk. Installing a M.2 SSD is easy and only needs to be done once. You can access the cache location via a removable panel underneath the unit. HyperDeck Shuttle 4K Pro is compatible with M.2 2280 SSDs. These SSDs are 22 millimeters wide by 80 millimeters long.

To install the cache:

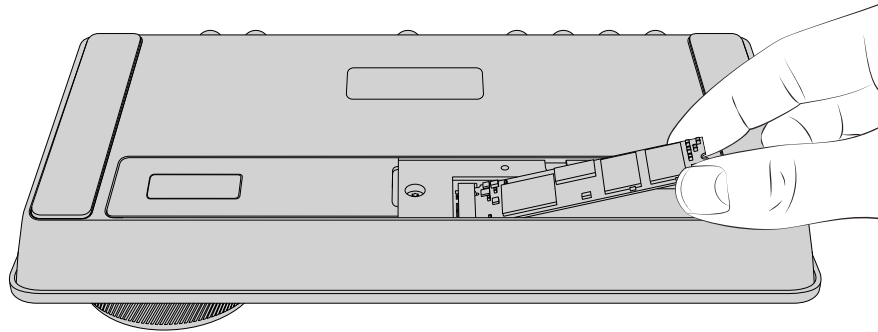
- 1 Disconnect your HyperDeck Shuttle 4K Pro from the power source. You can leave other cables connected, but you may find it easier to remove them.
- 2 Turn the unit upside down and unfasten the screw from the cover plate to remove it.



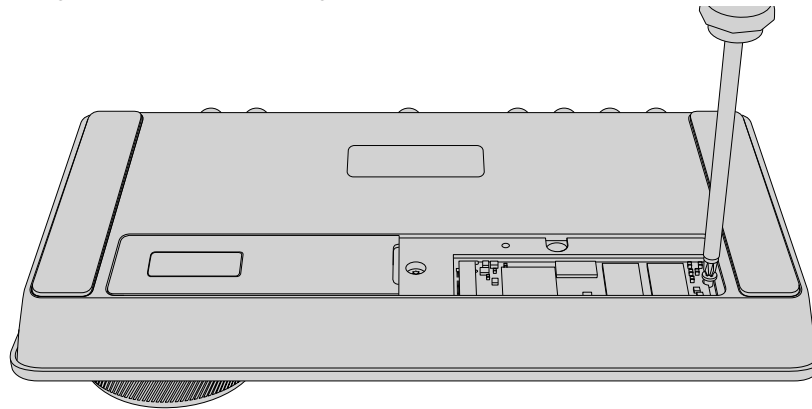
- 3 Unfasten the screw.
- 4 HyperDeck Shuttle 4K Pro ships with a package of thermally conductive heat pads to fill the air gaps between your PCIe flash disk and the unit. These work by transferring the heat away from the PCIe flash disk to the HyperDeck Shuttle. There are 4 heat pads in the pack to suit varying M.2 PCIe sizes as the width of the card is greater the higher the capacity. Pick the best heat pad to suit your storage and attach to the underside of the HyperDeck. Peel back the protective blue film on the motherboard heat pad.



- 5 Remove the M.2 SSD from the packaging and slide the card into place in the PCIe slot. The slot will pivot up to 30 degrees to help installation.



- 6 Push the card down lightly onto the heat pad and fasten the screw. You only need to tighten enough to keep the M.2 SSD snug.



- 7 Replace the cover plate and screw in place.
- 8 Turn the unit right side up and reconnect your power and other cables.

## Formatting The M.2 SSD

Once your M.2 SSD is installed you will need to format it.

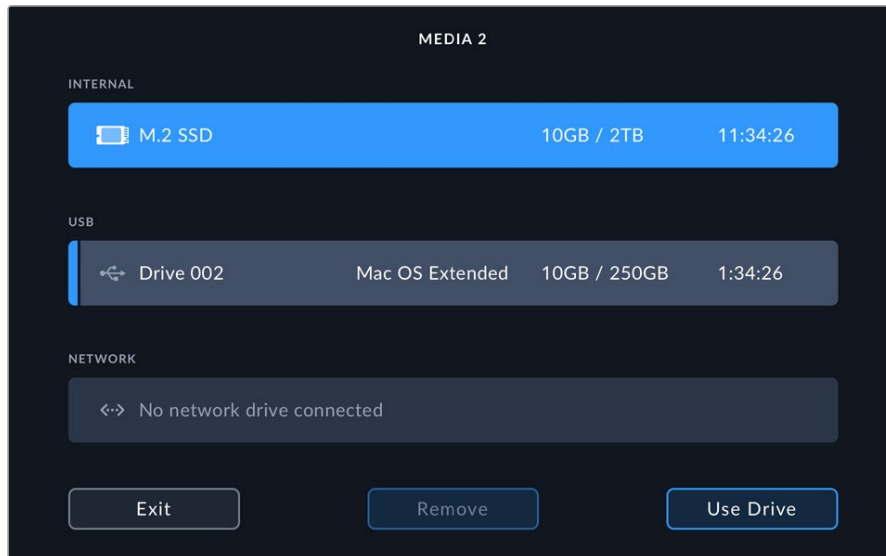
- 1 When a recognized drive is installed, the 'M.2 SSD' icon in the upper toolbar displays 'format' instead of 'no drive'. Tap on the icon to open the format window.
- 2 A window will appear prompting you to format the internal M.2 SSD. Tap on 'format drive'. This will erase any data on the M.2 SSD.
- 3 Formatting will begin. Once complete the internal M.2 SSD will be ready to use. Tap 'ok'.

Once your M.2 SSD is formatted, you will not need to format it again unless you remove the SSD and install a different one, such as one with a higher capacity. If the internal M.2 SSD is set to the 'network storage' function you can format at anytime using the format media window. It's worth noting this will delete any record cache files not yet transferred to other media. For more information on formatting drives refer to 'Preparing Media For Recording' earlier in this manual.

## Using the M.2 SSD as Network Storage

Once you've selected the 'network storage' function you need to set it as the active media.

- 1 On the home screen tap on the storage icons in the lower toolbar to open the storage media window. The M.2 SSD shares the second media slot with USB drives and external network storage.
- 2 Tap on the heading of the second media slot to display the media 2 drive list.
- 3 Tap the M.2 SSD under the internal options to highlight it and tap 'use drive'.



- 4 Tap exit to return to the home screen.

Now the second storage icon in the lower toolbar will display the status for the M.2 SSD. More information about what is displayed is detailed in the 'storage indicators' section earlier in this manual.

## Internal M.2 SSD Icons and Status

The icon display on the upper toolbar will appear differently depending on which function has been selected using the setup menu. When using the internal drive as a record cache, a 'cache' icon will appear. When set to the 'network storage' function, a M.2 SSD icon will appear instead but some of the details shown will be similar. The storage capacity of the internal M.2 SSD is dependent on the SSD media size and the codec and resolution you are recording. When you have a valid signal connected to the rear of HyperDeck Shuttle 4K Pro, the icon on the front panel will display the duration available to record based on your current resolution and selected codec. Tap on the cache icon to reveal cache time used. This is indicated by the + symbol before the duration.

There are four different status modes for the record cache:

<b>Standby</b>	The cache icon information will be white when the cache is in standby mode
<b>Recording</b>	The cache icon will be red during recording and the duration indicator will reduce as the space is filled. If you have fast storage media connected with usable space, the duration indicator may not appear to move much as the storage media can copy files as fast as your cache can record them. If you are using slower media or you have run out of space, the available cache duration will decrease.
<b>Stored</b>	If you run out of available on space on your connected storage media, the cache icon will flash green and white until sufficient storage is connected and the information stored on the cache is transferred over.
<b>Transferring</b>	The cache icon will illuminate green while the cache media is being transferred to SD card or USB-C external storage. Due to the nature of how the cache records, this process can be very quick depending on your storage media.  If your media runs out of available storage space, the recording will continue to the cache until the media is swapped.

When using the 'network storage' function the M.2 SSD icon will display time remaining in hours:minutes:seconds.

The storage icon for media slot 2 in the lower toolbar will indicate red when recording and blue when selected. For more information on the media status using the lower toolbar refer to 'storage indicators' section earlier in this manual.

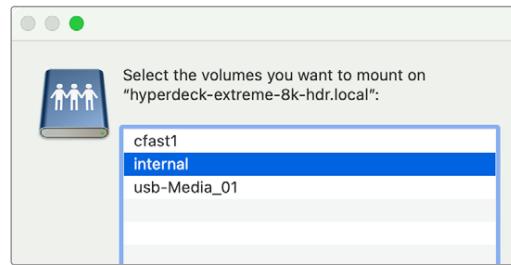
## Accessing the Shared Storage Over a Network

You can use your computer's file browser to access the storage over a network.

To access storage on a Mac computer:

- 1 Open Finder and click on 'network' in the sidebar menu of a finder window.
- 2 Select your HyperDeck Shuttle 4K Pro from the list.
- 3 You will be prompted to connect as a guest or enter a username and password. Choose the guest option and click 'connect'.
- 4 A window will appear prompting you to select which volumes you want to mount. Select 'internal' and click 'OK'





Your HyperDeck Shuttle 4K Pro will now appear in the locations sidebar. Now you can mount the folder into DaVinci Resolve for editing right away.

To access storage on a Windows computer:

- 1 Click on the 'Network' menu item in File Explorer sidebar. You will see your HyperDeck Shuttle 4K Pro listed.
- 2 Double-click on your HyperDeck and a Windows security dialog box will appear asking for network credentials.
- 3 Set the username and password to 'guest'.

**NOTE** If your computer fails to connect, your HyperDeck may belong to a Windows workgroup. Use 'workgroup\guest' as your username and 'guest' as your password to log into your storage.

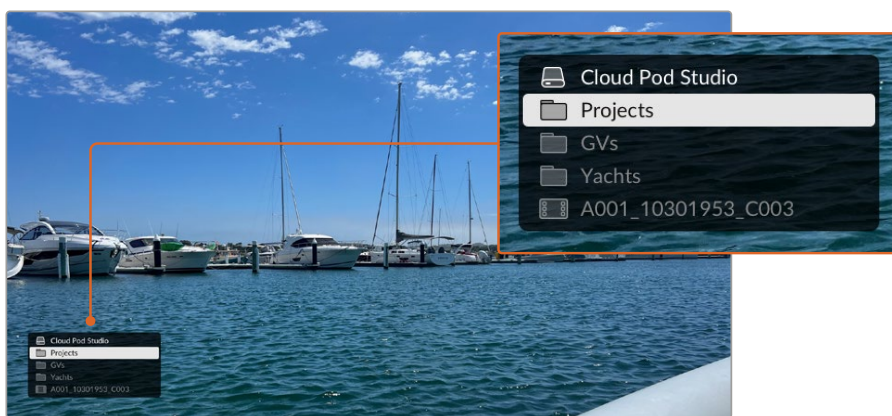
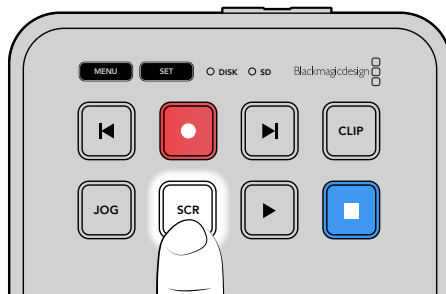
- 4 Click 'OK'.

You will now see your HyperDeck Shuttle 4K Pro in the File Explorer window and can access the storage like any other network location.

## Volume Navigation

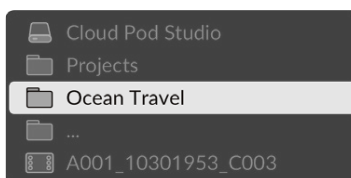
Volume navigation lets you open a file path overlay so you can locate clips on media cards, disks and network drives. When enabled, the overlay appears on the HDMI output of the HyperDeck Shuttle HD and the LCD display of the HyperDeck Shuttle 4K Pro. Once enabled you can navigate through directories using the scroll button, clip button and jog wheel.

- 1 Open the volume navigation window by pressing the scroll button marked SCR.



Press the scroll button to open the volume navigation window on the HDMI output

- 2 Scrub or skip through the footage on display until you find a clip from the folder you are interested in.



- 3 Press the scroll button to move down through the volumes and the clip button to move up.

To close the volume navigation window press the stop button, or press 'play' to close the window and immediately start playback.

**NOTE** To view clips that were recorded using a different codec, resolution or frame rate, set your HyperDeck's codec and default standard to match.

## Using the Teleprompter Function

Using a standard RTF or plain TXT file, you can use Blackmagic HyperDeck Shuttle as a teleprompter. Create your file in TextEdit or WordPad and save as a rich text format or plain text file in any of the 13 supported languages. Once opened with HyperDeck Shuttle, you can adjust the font size and line spacing of your script.

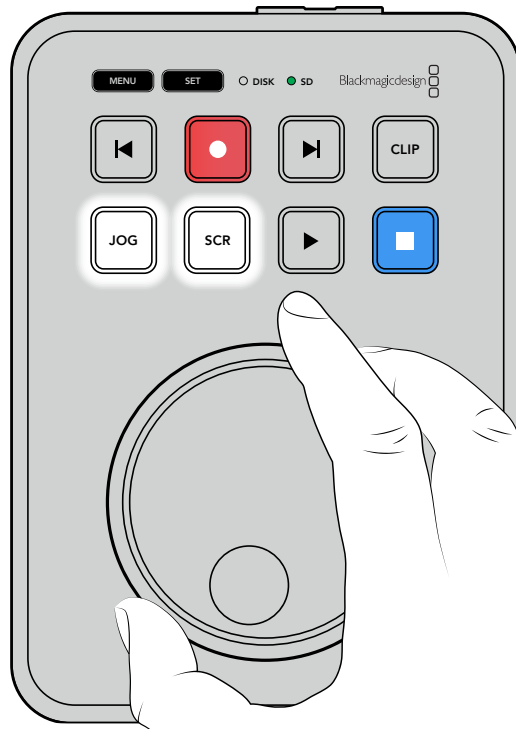
To use the teleprompter:

- 1 Connect HyperDeck Shuttle HD's HDMI out to the HDMI display you want to use. On HyperDeck Shuttle 4K Pro disk recorder you can view the teleprompter output via the LCD display or connecting a display to the SDI or HDMI monitor out connectors on the rear.
- 2 Select the media containing the script for the teleprompter as your active media. This could be an SD card, USB flash disk or network location. Scripts can also be saved to the internal M.2 SSD storage on HyperDeck Shuttle 4K Pro disk recorders.
- 3 From the record menu select the codec option. Navigate to 'teleprompter' setting and press set.

The script will appear on your display. From here you can start playback automatically using the play button, or for additional control use the dial.

### Controlling Teleprompter Playback Speed

The large dial on HyperDeck Shuttle can be used to control playback when using the teleprompter function much in the same way as it does for media playback. With a script loaded, press the 'jog' and 'scr' buttons together to turn on variable speed playback. Once selected, turn the dial. The script will move at a speed relative to the movement of the dial. For example, the faster the dial is turned, the faster the script will scroll.



For constant speeds, you can use the jog and scroll buttons individually. Once selected, turning the dial will move the script at a constant low speed in jog mode, or a faster speed in scroll mode.

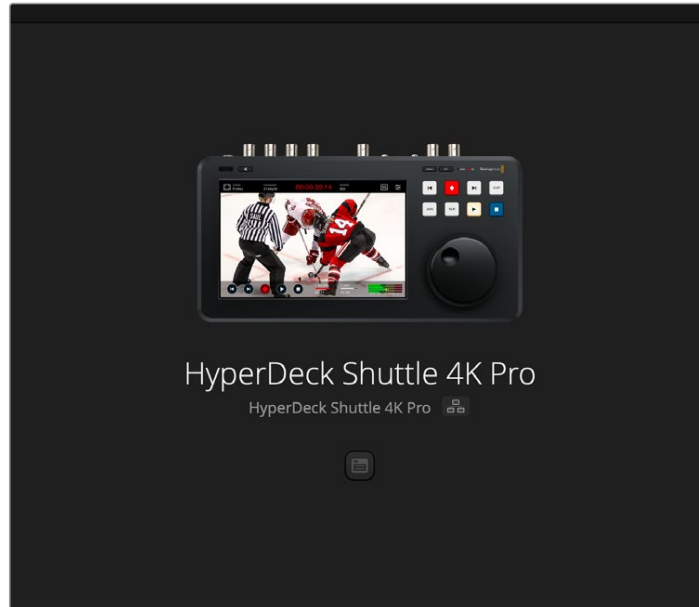


To navigate between files on your SD card or external disk, press the forward and back keys.

The teleprompter will acknowledge the font size, color and whether it is set to bold from the file. Additionally, you can adjust the font size, line spacing, margins or flip the display horizontally or vertically for when you are projecting the display to beam splitter glass using the monitor menu. For more information see 'menu settings' earlier in this manual.

# Blackmagic HyperDeck Setup

Blackmagic HyperDeck Setup is a software utility you can use to change settings and update the internal software in your HyperDeck.



To install the software:

- 1 Download the newest Blackmagic HyperDeck Setup installer from [www.blackmagicdesign.com/support](http://www.blackmagicdesign.com/support).
- 2 Run the Blackmagic HyperDeck Setup installer on your computer and follow the onscreen instructions.
- 3 After installation is complete, connect your HyperDeck Shuttle to the computer via the USB or Ethernet connector on the rear panel.
- 4 Launch Blackmagic HyperDeck Setup and follow any onscreen prompt to update the internal software. If no prompt appears, the internal software is up to date and there is nothing further you need to do.

Click on the HyperDeck image or the settings icon to open the settings menu.

The home screen will show your HyperDeck Shuttle and the name of the unit. This name is helpful to identify the unit when more than one HyperDeck is connected to your computer and can be set using the utility's settings menu.

## Setup

If you have more than one HyperDeck disk recorder, you may wish to give each unit a discrete name to make them easy to identify. You can do this by entering a new name into the name field and clicking the 'set' button. It's worth noting that changing the name of the HyperDeck will invalidate any digital certificates in use, so it's worth changing the name before generating a certificate signing request or self signed certificate.

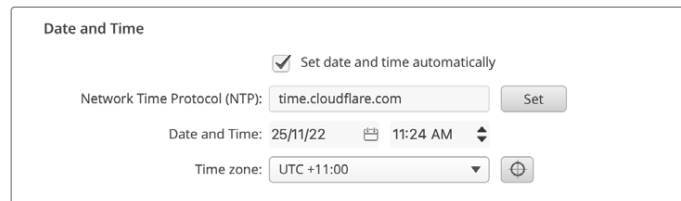
### Identify HyperDeck

Clicking the 'identify' button will make the skip buttons on the top of your HyperDeck Shuttle flash. This can be useful when you have more than one HyperDeck Shuttle and you want to identify which one you are connected to via the HyperDeck Setup utility.

## Date and Time

Set your date and time automatically by ticking the box. When setting the date and time automatically, your HyperDeck Shuttle will use the network time protocol server set in the NTP field. The default NTP server is time.cloudflare.com, but you can also manually enter an alternate NTP server and then click on 'set'.

If you are entering your date and time manually, use the fields to enter your date, time and time zone. Setting the date and time correctly ensures your recordings have the same time and date information as your network and also prevents conflicts that can occur with some network storage systems.

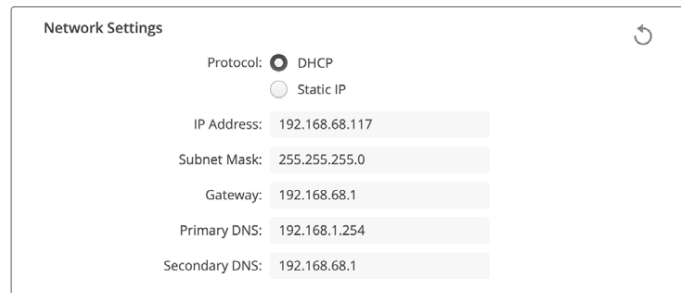


The screenshot shows the 'Date and Time' settings window. At the top, there is a checkbox labeled 'Set date and time automatically' which is checked. Below this, the 'Network Time Protocol (NTP):' field contains 'time.cloudflare.com' and a 'Set' button. The 'Date and Time:' field shows '25/11/22' and '11:24 AM' with a calendar icon and a time selector. The 'Time zone:' field shows 'UTC +11:00' with a dropdown arrow and a refresh icon.

## Network Settings

### Protocol

To control your HyperDeck Shuttle with ATEM switchers, or to control it remotely via HyperDeck Ethernet Protocol, the HyperDeck Shuttle needs be on the same network as your other equipment using DHCP or by manually adding a fixed IP address.



The screenshot shows the 'Network Settings' window. At the top right is a refresh icon. The 'Protocol:' section has two radio buttons: 'DHCP' (selected) and 'Static IP'. Below this, there are input fields for 'IP Address:' (192.168.68.117), 'Subnet Mask:' (255.255.255.0), 'Gateway:' (192.168.68.1), 'Primary DNS:' (192.168.1.254), and 'Secondary DNS:' (192.168.68.1).

<b>DHCP</b>	HyperDeck Shuttle disk recorders arrive set to DHCP by default. The dynamic host configuration protocol, or DHCP, is a service on network servers that automatically finds your HyperDeck disk recorder and assigns an IP address. The DHCP is a great service that makes it easy to connect equipment via Ethernet and ensure their IP addresses do not conflict with each other. Most computers and network switchers support DHCP.
<b>Static IP</b>	When 'static IP' is selected, you can enter your network details manually. When setting IP addresses manually so all units can communicate, they must share the same subnet mask and gateway settings.

## Network Access

HyperDeck Shuttle can be accessed via a network for file transfer and remote control via HyperDeck Ethernet Protocol. Access will be enabled by default, but you can choose to disable access individually or enable access via a username and password for added security when using the web media manager or HyperDeck Ethernet Protocol.

The screenshot shows the 'Network Access' settings window. It contains several sections with radio button options and text input fields. The 'File transfer protocol (FTP)' section has 'Enabled' selected. The 'URL' field contains 'ftp://HyperDeck-Shuttle-HD.local' with a copy icon. The 'Web media manager (HTTP)' section has 'Enabled' selected. The 'URL' field contains 'http://HyperDeck-Shuttle-HD.l...' with a copy icon. The 'HyperDeck Ethernet protocol' section has 'Enabled' selected. The 'Allow utility administration' section has 'via USB' selected.

Setting	Options	Selected	URL
File transfer protocol (FTP)	Disabled, Enabled	Enabled	ftp://HyperDeck-Shuttle-HD.local
Web media manager (HTTP)	Disabled, Enabled, Enabled with security only	Enabled	http://HyperDeck-Shuttle-HD.l...
HyperDeck Ethernet protocol	Disabled, Enabled, Enabled with security only	Enabled	
Allow utility administration	via USB, via USB and Ethernet	via USB	

### File Transfer Protocol

Enable or disable access via FTP using the check box. If you are supplying access via an FTP client such as CyberDuck, click the icon to copy the FTP address. For more information, refer to the section 'transferring files over a network'.

### Web Media Manager

Media recorded on SD cards or external disks can be accessed via a web browser using the web media manager. When you click on the link or copy and paste it into your web browser, a simple interface will open where you can upload or download files directly to the SD cards over your network.

Access is enabled via HTTP by default but you can disable access entirely or require a secure certificate using the 'enabled with security only' option. When using a digital certificate, connections to web media manager are encrypted via HTTPS. More information on digital certificates is available in the 'secure certificate' section.

### HyperDeck Ethernet Protocol

You can connect to your HyperDeck disk recorder using the HyperDeck Ethernet Protocol and a command line program on your computer, such as Terminal on a Mac and PuTTY on a Windows computer. Access can be enabled with or without a username and password, or disabled entirely. You can use an SSL program to encrypt your session when using a utility program such as netcat. For more information on the available commands, refer to the 'developer information' section in this manual.

### Allow Utility Administration

Blackmagic HyperDeck Setup can be accessed when your disk recorder is connected via the network or via USB. To prevent users having access via the network, select USB only.



## Secure Login Settings

A dialog box titled "Secure Login Settings". It contains two input fields: "Username:" and "Password:". The "Password:" field has a small eye icon to its right, which is currently closed (showing a slash). There is also a small key icon to the right of the password field.

If you have selected 'enabled with security' for HyperDeck Ethernet Protocol access you will need to enter a username and password. Type a username and password and click 'save'. The password field will appear empty once a password is entered. Once a username and password is set, you will need to enter it when accessing the web media manager if 'enabled with security' is selected.

## Secure Certificate

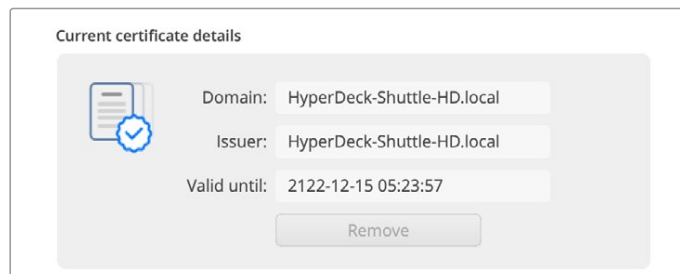
To enable web media manager access via HTTPS, or when HyperDeck Ethernet protocol has been configured to the security only option, you will require a secure certificate. This digital certificate acts as an identification card for your HyperDeck Shuttle HD so that any incoming connections can confirm they are connecting to the correct unit. Along with confirming the identity of the unit, using a secure certificate ensures data transmitted between HyperDeck Shuttle and a computer or server will be encrypted. When using the secure login settings the connection will not only be encrypted but require authentication for access.

There are two certificate types you can use with HyperDeck Shuttle, a secure certificate signed by a certificate authority, or a self signed certificate. A self signed certificate may be secure enough for some user workflows, for instance only accessing the HyperDeck Shuttle via a local network.

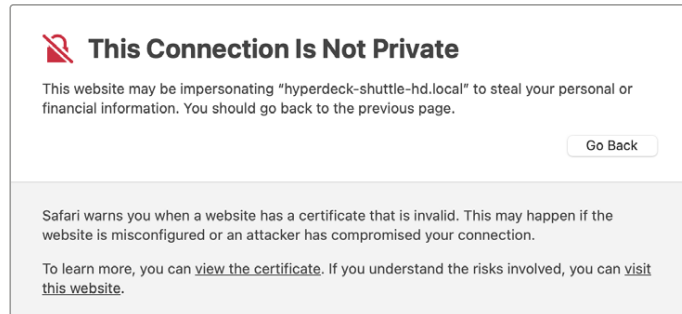
To generate a self signed certificate click on 'create certificate'. You will be prompted to confirm you understand the risks with using a self signed certificate. Once you click on 'create', the certificate details will autofill the 'domain', 'issuer' and 'valid until' fields in the HyperDeck Setup utility.

A dialog box titled "Self-Signed Certificate". It has a subtitle "Self-Signed Certificate Creation". Below the subtitle is a paragraph of text: "This type of certificate does not provide the security guarantee of a certificate issued by a Certificate Authority. Before your self-signed certificate is accepted, the recipient will be asked to confirm that they wish to trust and accept it." At the bottom of the dialog are two buttons: "Cancel" and "Create".

Following a factory reset any current certificate will be deleted, but you can also remove it at any time by clicking on the 'remove' button and following the prompts.

A dialog box titled "Current certificate details". It contains a list of certificate details: "Domain: HyperDeck-Shuttle-HD.local", "Issuer: HyperDeck-Shuttle-HD.local", and "Valid until: 2122-12-15 05:23:57". To the left of these details is a small icon of a document with a blue checkmark. At the bottom of the dialog is a button labeled "Remove".

When using a self signed certificate to access media files using HTTPS, your web browser will alert you to the risks of accessing the site. Some browsers will allow you to proceed once you confirm you understand the risks, however other web browsers may prevent you from proceeding at all.

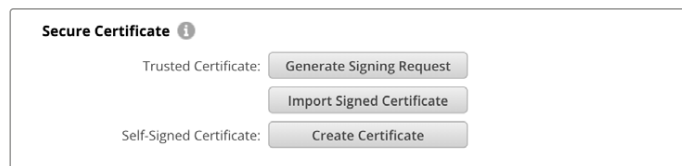


To ensure access is granted to any web browser, you will need to use a signed certificate. To obtain a signed certificate, you first need to generate a certificate signing request, or CSR, using Blackmagic HyperDeck Setup utility. This signing request is then sent to a certificate authority, also known as a CA, or your IT department to be signed. Once completed, a signed certificate with a .cert, .crt or .pem file extension will be returned which you can import into your HyperDeck Shuttle.



To generate the certificate signing request CSR:

- 1 Click on the 'generate signing request' button.



- 2 A window will appear prompting you to enter a common name and subject alternative name for the HyperDeck. Adjust any other details as required using the table below.

Information	Description	Example
<b>Common Name</b>	The domain name you will use	hyperdeck.melbourne.com
<b>Subject Alternative Name</b>	An alternate domain name	hyperdeck.melbourne.net
<b>Country</b>	Country for your organization	AU
<b>State</b>	Province, region, county or state	Victoria
<b>Location</b>	Town, city, village etc. name	Port Melbourne
<b>Organization Name</b>	Name of your organization	Blackmagic Design

- 3 Once you have filled in the certificate details, press 'generate'.

When you generate a .csr you will also be creating a public key and private key at the same time. The public key will be included with the signing request while the private key will remain with the unit. Once the CA or IT department have verified the information in the CSR with your organization, they will generate a signed certificate with the above details along with your public key.

Once imported, the HyperDeck Shuttle will use the public and private key to confirm the identity of the HyperDeck and to encrypt and decrypt data share via HTTPS or via HyperDeck Ethernet Protocol when using an SSL program.

Importing a signed certificate:

- 1 Click on 'import signed certificate'.
- 2 Navigate to the location of the signed certificate using the file browser and once the file is selected click on 'open'.

The domain, issuer and valid until fields will update with the information from your CA. Generally, a signed certificate will be valid for about a year so the process will need to be repeated as you reach the expiration date.

**Secure Certificate** ⓘ

Trusted Certificate:

Generate Signing Request

Import Signed Certificate

Self-Signed Certificate:

Create Certificate

Current certificate details

Domain:

hyperdeck.melbourne.com

Issuer:

COMODO RSA Organization Valid

Valid until:

2024-02-06 01:15:00

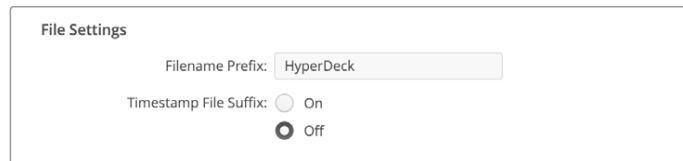
Remove

Since a domain name was selected, you will need to speak to your IT department about resolving the DNS entry for the HyperDeck Shuttle unit. This will point all traffic for the IP address of the HyperDeck Shuttle to the selected domain address in the signing request.

This will also be the HTTPS address you use to access files via the web media manager, for example <https://hyperdeck.melbourne.com>

It's worth noting that the certificate will be invalidated following a factory reset and a new certificate will need to be generated and signed.

## File Settings

A screenshot of the 'File Settings' dialog box. It has a title bar 'File Settings'. Inside, there is a label 'Filename Prefix:' followed by a text input field containing 'HyperDeck'. Below that is a label 'Timestamp File Suffix:' followed by two radio buttons. The 'On' radio button is unselected, and the 'Off' radio button is selected.

When first set up, your HyperDeck Shuttle will record clips to your SD card, USB flash disk or network location using 'HyperDeck' as the prefix. Type in a new filename to change the prefix.

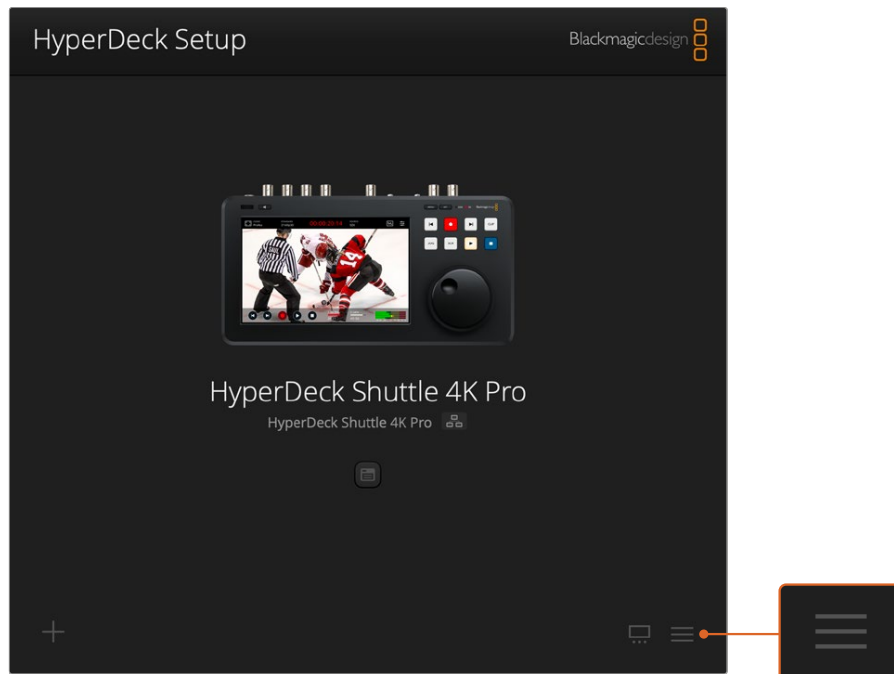
The timestamp added to the filename is turned off by default. If you would like the date and time recorded in your filename, switch it to on. Filename prefix and timestamp settings are also available via onscreen menu on HyperDeck Shuttle.

## Reset

Select 'factory reset' to restore your HyperDeck to factory settings. A factory reset will invalidate the current certificate. If a secure certificate is being used you will need to generate a new certificate signing request to be signed by a certificate authority or IT department.

## Controlling Multiple HyperDeck Disk Recorders

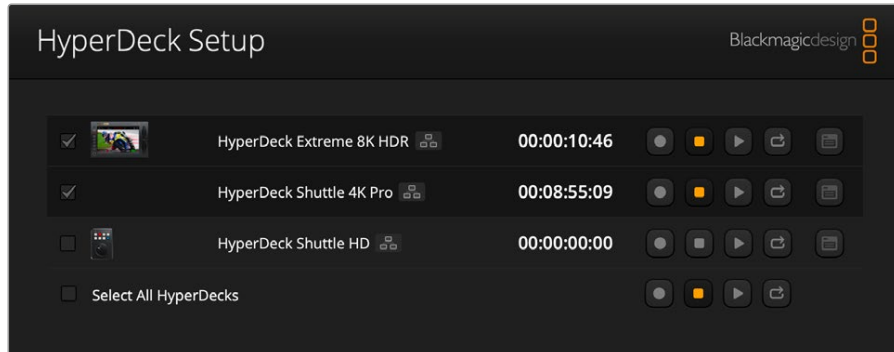
If you have more than one HyperDeck disk recorder on your local network you can control playback individually or as a group by clicking the three line icon in the lower right hand corner of the HyperDeck Setup Utility.



Playback controls include record, stop, play and loop.

To press play on multiple HyperDeck disk recorders on your network at the same time:

- 1 Click the checkbox beside each HyperDeck you want to control.



- 2 Click on the play button. You can also loop playback by clicking on the loop icon.

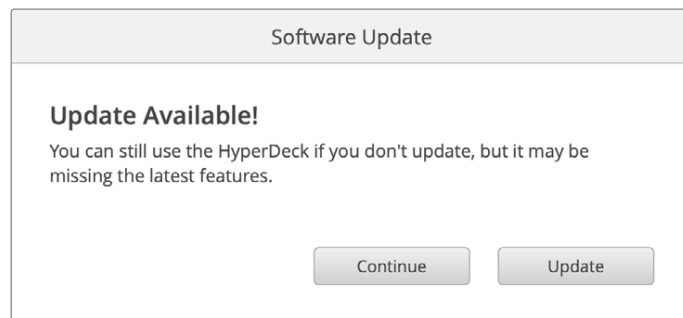
To control all the HyperDecks on your network tick the 'select all HyperDecks' checkbox and then use the transport controls to the right.

It's worth noting that this network control may not be as precise as using remote control via RS-422.

## Updating the Internal Software

To update the internal software:

- 1 Download the newest Blackmagic HyperDeck Setup installer from [www.blackmagicdesign.com/support](http://www.blackmagicdesign.com/support).
- 2 Run the Blackmagic HyperDeck Setup installer on your computer and follow the onscreen instructions.
- 3 After installation is complete, connect your HyperDeck Shuttle to the computer via the USB or Ethernet connector on the rear panel.
- 4 Launch Blackmagic HyperDeck Setup and follow any onscreen prompt to update the internal software. If no prompt appears, the internal software is up to date and there is nothing further you need to do.



## Transferring Files over a Network

HyperDeck Shuttle supports file transfer via both hypertext transfer protocol secure, known as HTTPS, and file transfer protocol known as FTP. This lets you copy files directly from your computer to your HyperDeck via a network with the fast speeds a local network can provide. For example, you could be copying new files to a HyperDeck unit being used for playing back video on monitor walls and digital signage.

You can transfer any file to and from your HyperDeck, but it's worth noting that any files you intend to play back from HyperDeck Shuttle will need to conform to your HyperDeck's supported codecs and resolutions.

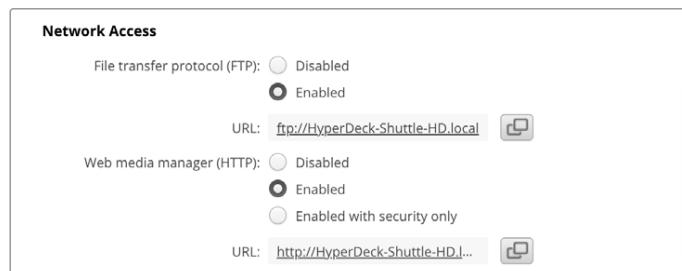
**TIP** You can transfer files over a network while your HyperDeck is recording. HyperDeck will automatically adjust transfer speeds to make sure recording is not affected.

Access to HyperDeck Shuttle via either of these protocols can be enabled or disabled via the HyperDeck Setup utility. For example, you could disable FTP access and enable HTTPS access at the same time.

### Connecting to HyperDeck Shuttle via HTTPS

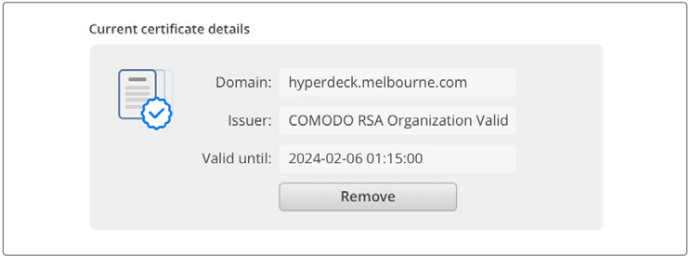
To access HyperDeck Shuttle via the web media manager you will need the URL available via the network access settings. Network access settings appear in HyperDeck Setup utility when your computer is connected via USB or Ethernet but are disabled when only Ethernet is connected.

- 1 Using a USB-C cable, connect your computer to HyperDeck Shuttle via the USB port on the rear panel and open HyperDeck Setup. You should see a USB connection icon next to the unit name. Click on the circular icon or anywhere on the product image to open the settings.
- 2 When using a self signed certificate, navigate to the network access settings and click on the copy icon beside the URL. This URL is based on the name of your HyperDeck. To modify the URL, modify the name of the unit.



When using a self signed certificate click on the link

- 3 If you have imported a certificate signed by a CA or IT department, copy and paste the address in the domain field for the current certificate.



Copy the domain address and paste into a browser

- 4 Open your web browser and paste the address into a new window. If you have enabled access with security only you will be prompted to enter the username and password set in HyperDeck Setup utility.

When using a self signed certificate, a browser warning will appear regarding the privacy of the connection, this means a trusted signed certificate has not been imported via HyperDeck Setup utility.

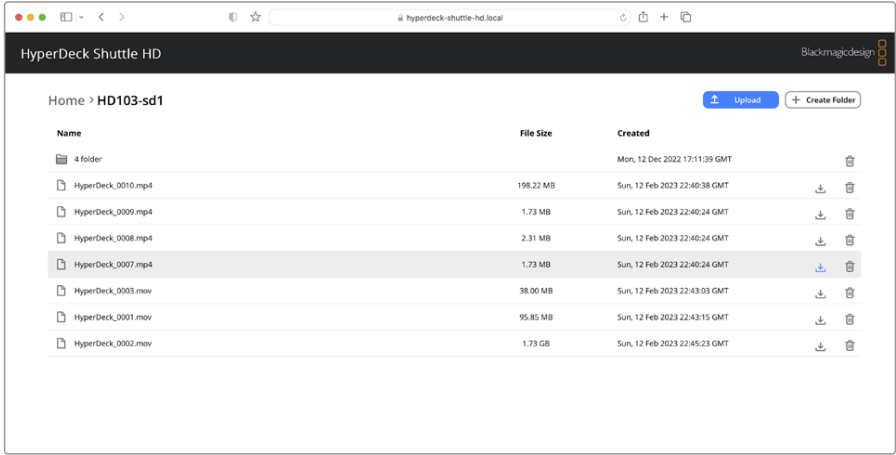
To continue without a valid and trusted certificate, follow your browser prompts to acknowledge the risks and proceed to the website.

Transferring Files Using Web Media Manager

When you first open the web media manager browser view you will see your files will be sorted via the relevant media slots.

sd1	Media on SD cards.
USB	Connected USB drives will be will be listed with the prefix USB/.

Double click the media to reveal the contents of the SD card or drive.



Click the upload button to add files

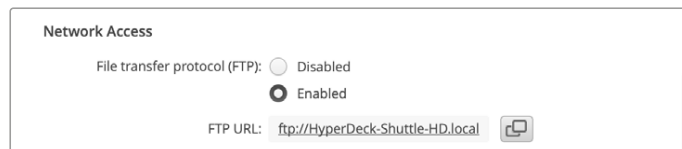
To add files remotely for playback, click on the 'upload' button. Using the file browser navigate to your file and click 'upload'. A status window will appear during the upload. You can also add folders if needed using the 'create folder' button.

To download files, use the arrow icon on the far right. Your browser may prompt you to allow downloads from the site. Click on 'allow'. To delete a file, click the trash can icon and a delete file window will appear. Click 'delete' to proceed.

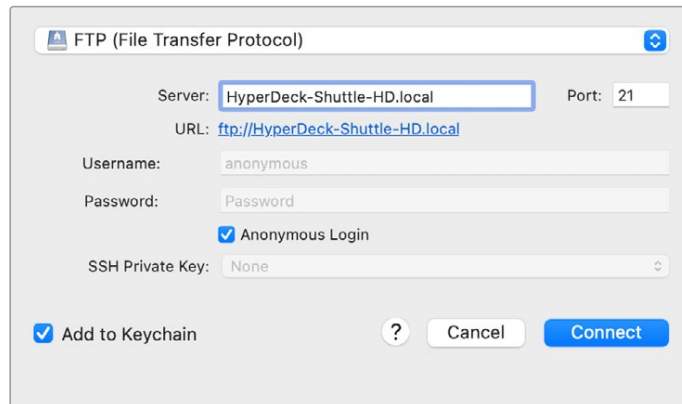
## Transferring Files via FTP

With your computer and HyperDeck Shuttle on the same network, all you need is an ftp client and your HyperDeck Shuttle's IP address or the FTP URL in the HyperDeck Setup utility.

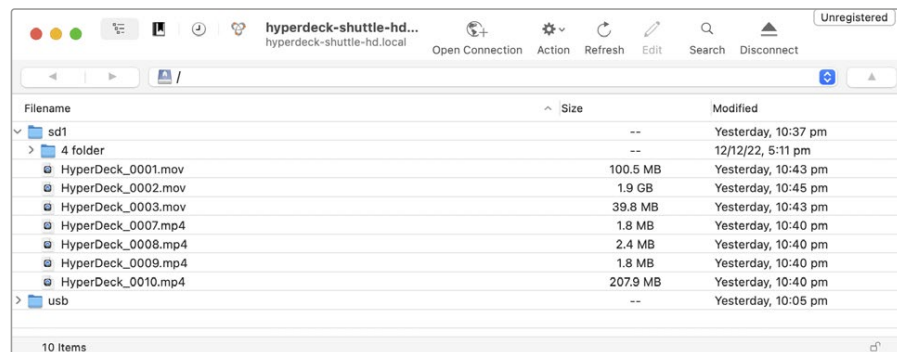
- 1 Download and install an FTP client on the computer you want to connect your HyperDeck Shuttle to. We recommend Cyberduck, FileZilla or Transmit but most FTP applications will work. Cyberduck and FileZilla are free downloads.
- 2 With HyperDeck Shuttle connected to your network, open HyperDeck Setup and click on the FTP URL or press the copy icon to paste it manually. You may need to click the link a second time if the FTP program doesn't open a connection.



- 3 If you are manually opening an FTP connection, paste the URL into the server field. Check 'anonymous login' if available.



- 4 SD cards will be identified by sd1.



You can now drag and drop files using the FTP interface.



# RS-422 Control

## What is RS-422 Control?

The RS-422 standard is a serial deck control broadcast standard and has been used by broadcasters since the early 1980s and is found on many decks, linear editors, nonlinear editors and broadcast automation products. All current HyperDeck models support this standard so can be integrated into broadcast automation, remote control systems, editing systems and any kind of custom control you might like to design yourself.

HyperDeck Studio also supports file based commands from the Advanced Media Protocol via RS-422. This lets you control your HyperDeck with an external device using AMP commands such as adding clips to a playlist, determining the filename of the next clip, looping a single clip or timeline, or clearing a playlist.

### Using an External RS-422 Controller

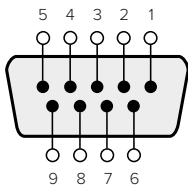
All current HyperDeck models feature an industry standard Sony™ compatible RS-422 deck control port, which has the correct pin connections for a direct connection to any remote controller with RS-422, for example HyperDeck Extreme Control.

You can use pre-manufactured 9 pin cables as long as each end of the cable is wired 'pin for pin' where the same pin numbers on each end of the cable are connected together. If you would like to make custom cables, please refer to the accompanying wiring diagram.

You can remotely control your HyperDeck from HyperDeck Extreme Control instead of locally pushing buttons.

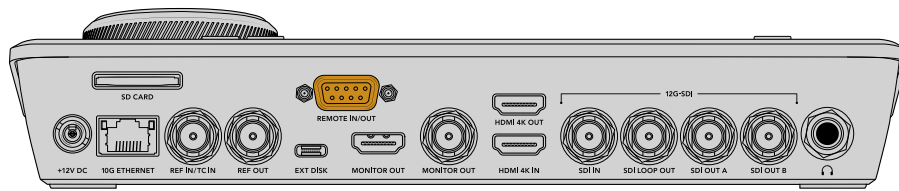
- 1 Connect a video signal to your HyperDeck's video input.
- 2 Connect an RS-422 cable from your HyperDeck Extreme Control to your HyperDeck Studio.
- 3 Enable remote control by pressing the remote button on the front control panel, or via the LCD menu in HyperDeck Studio Mini, to allow remote deck control.

You can now remotely start and stop recording and playback of your HyperDeck as well as performing other common jog and shuttle functions. The full list of supported RS-422 commands is in the following section named 'supported RS-422 commands'.



Receive (-)	Receive (+)	Transmit (-)	Transmit (+)	Ground Pins
2	7	8	3	1, 4, 6, 9

RS-422 remote pin connections



HyperDeck Shuttle 4K Pro models support remote control via the RS-422 port on the rear panel

## Supported RS-422 Commands

Command			Reply	No Remote	Notes
<b>0 - System Control</b>					
0x00	0x11	DeviceTypeRequest	NTSC: 0xF0E0 PAL: 0xF1E0 24P: 0xF2E0	Enabled	
<b>1 - Slave Response</b>					
0x20	0x00	Stop	Acknowledge	Disabled	
0x20	0x01	Play	Acknowledge	Disabled	
0x20	0x02	Record	Acknowledge	Disabled	
0x20	0x04	StandbyOff	Acknowledge	Disabled	
0x20	0x05	StandbyOn	Acknowledge	Disabled	
0x20	0x0F	Eject	Acknowledge	Disabled	
0x20	0x10	FastFwd	Acknowledge	Disabled	
0x21	0x11	JogFwd1	Acknowledge	Disabled	
0x22	0x11	JogFwd2	Acknowledge	Disabled	Treated as N=1; Same as JogFwd1
0x21	0x12	VarFwd1	Acknowledge	Disabled	Uses ShuttleFwd1
0x22	0x12	VarFwd2	Acknowledge	Disabled	Treated as N=1; Same as VarFwd1
0x21	0x13	ShuttleFwd1	Acknowledge	Disabled	
0x22	0x13	ShuttleFwd2	Acknowledge	Disabled	Treated as N=1; Same as ShuttleFwd1
0x20	0x20	Rewind	Acknowledge	Disabled	
0x21	0x21	JogRev1	Acknowledge	Disabled	
0x22	0x21	JogRev2	Acknowledge	Disabled	Treated as N=1; Same as JogRev1
0x21	0x22	VarRev1	Acknowledge	Disabled	Uses ShuttleRev1
0x22	0x22	VarRev2	Acknowledge	Disabled	Treated as N=1; Same as VarRev1
0x21	0x23	ShuttleRev1	Acknowledge	Disabled	
0x22	0x23	ShuttleRev2	Acknowledge	Disabled	Treated as N=1; Same as ShuttleRev1
0x20	0x30	Preroll	Acknowledge	Disabled	
0x24	0x31	CueData	Acknowledge	Disabled	
0x20	0x34	SyncPlay	Acknowledge	Disabled	
0x20	0x40	Preview	Acknowledge	Disabled	Status bits are set

		Command	Reply	No Remote	Notes
0x20	0x41	Review	Acknowledge	Disabled	Status bits are set
0x20	0x43	OutpointPreview	Acknowledge	Disabled	
0x22	0x5C	DMCSetFwd	Acknowledge	Disabled	
0x22	0x5D	DMCSetRev	Acknowledge	Disabled	
0x20	0x60	FullEEOff	Acknowledge	Disabled	
0x20	0x61	FullEEOn	Acknowledge	Disabled	
0x20	0x63	SelectEEOn	Acknowledge	Disabled	
<b>4 - Preset/Select Control</b>					
0x40	0x10	InEntry	Acknowledge	Disabled	
0x40	0x11	OutEntry	Acknowledge	Disabled	
0x44	0x14	InDataPreset	Acknowledge	Disabled	
0x44	0x15	OutDataPreset	Acknowledge	Disabled	
0x40	0x18	InShift+	Acknowledge	Disabled	
0x40	0x19	InShift-	Acknowledge	Disabled	
0x40	0x1A	OutShift+	Acknowledge	Disabled	
0x40	0x1B	OutShift-	Acknowledge	Disabled	
0x40	0x20	InReset	Acknowledge	Disabled	
0x40	0x21	OutReset	Acknowledge	Disabled	
0x40	0x22	AlnReset	Acknowledge	Disabled	
0x40	0x23	AOutReset	Acknowledge	Disabled	
0x44	0x31	PrerollPreset	Acknowledge	Disabled	
0x40	0x40	AutoModeOff	Acknowledge	Disabled	ignored, Status bit remembered
0x40	0x41	AutoModeOn	Acknowledge	Disabled	ignored, Status bit remembered
0x41	0x37	InputCheck	Acknowledge	Disabled	
<b>6 - Sense Request</b>					
0x61	0x0A	TimeCodeGenSense	—	—	
0x61	0x0C	CurrentTimeSense	—	—	
0x60	0x10	InDataSense	InData	Enabled	
0x60	0x11	OutDataSense	OutData	Enabled	
0x60	0x12	AlnDataSense	AlnData	Enabled	
0x60	0x13	AOutDataSense	AOutData	Enabled	
0x61	0x20	StatusSense	StatusData	Enabled	
0x60	0x2B	RemainTimeSense	RemainTimeData	Enabled	
0x60	0x2E	SpeedSense	SpeedData	Enabled	
0x60	0x31	PrerollTimeSense	PreRollTimeData	Enabled	
0x60	0x36	TimerModeSense	TimerModeData	Enabled	
0x60	0x3E	RecordInhibitSense	RecordInhibitStatus	Enabled	

		Command	Reply	No Remote	Notes
<b>7 - Sense Reply</b>					
0x78	0x00	Timer1Data	—	—	Current Time and 00:00:00:00
0x78	0x04	LTCUserBitsTimeData	—	—	Current Time and 00:00:00:00
0x78	0x06	VITCUserBitsTimeData	—	—	Current Time and 00:00:00:00
0x74	0x06	VITCTimeData	—	—	Current Time
0x74	0x07	UserBitsVITCTimeData	—	—	00:00:00:00
0x74	0x08	GenTCData	—	—	Current Time
0x78	0x08	GenTCUBData	—	—	Current Time and 00:00:00:00
0x74	0x09	GenUBData	—	—	00:00:00:00
0x74	0x10	InData	—	—	
0x74	0x11	OutData	—	—	
0x74	0x12	AlnData	—	—	
0x74	0x13	AOutData	—	—	
0x74	0x14	CorrectedLTCTimeData	—	—	Current Time
0x70	0x20	StatusData	—	—	Please see "Status Bits" sheet: Limited to 9 bytes of status, silently truncated
0x76	0x2B	RemainTimeData	—	—	
0x71	0x2E	SpeedData	—	—	
0x74	0x31	PrerollTimeData	—	—	
0x71	0x36	TimerModeData	—	—	Returns 0 (TimeCode)
0x72	0x3E	RecordInhibitStatus	—	—	
<b>A - Advanced Media Protocol</b>					
0xA1	0x01	AutoSkip	Acknowledge	Disabled	8-bit signed number of clips to skip from current clip
0xAx	0x15	ListNextID	IDListing	Enabled	when x = 0 single clip request when x = 1, # clips can be specified in the send data
0x20	0x29	ClearPlaylist	Acknowledge	Disabled	
0x41	0x42	SetPlaybackLoop	Acknowledge	Disabled	Bit 0 loop mode enable, 0=false 1=true Bit 1 is single clip/timeline 0=single clip 1=timeline
0x41	0x44	SetStopMode	Acknowledge	Disabled	0 = Off 1 = Freeze on last frame 2 = Freeze on next clip 3 = Show black

		Command	Reply	No Remote	Notes
0x4f	0x16	AppendPreset	Acknowledge	Disabled	2 Bytes for the length N of the clip name N Bytes for each character of the clip name 4 Byte in point timecode (format is FFSSMMHH) 4 Byte out point timecode (format is FFSSMMHH)
<b>Blackmagic Extensions</b>					
0x82	0x02	BMDSeekToTimelinePosition	Acknowledge	Disabled	16-bit big endian fractional position [0..65535]
0x81	0x03	BMDSeekRelativeClip	Acknowledge	Disabled	One-byte signed integer, which is the number of clips to skip (negative for backwards).
0x87	0x04	BMDScrubTimelineDelta	Acknowledge	Disabled	1 Byte unsigned integer, which is the whence, where 0 = Set 1 = Current 2 = End 4 Byte 32bit big endian unsigned integer, which is the delta to scrub by. 1 Byte signed integer, which is the delta's sign, where a value less than 0 will set the delta scrub to a negative value. 1 Byte unsigned integer, which is the unit of time to scrub by, where 0 = Frames 1 = Milliseconds
0x85	0x05	BMDPlay	Acknowledge	Disabled	2 Bytes 16bit big endian signed integer, which is the speed to play at, where a value of 100 = 1.0x 1 Byte unsigned integer, which is the playback flags bitfield, where bit 0 = Loop bit 1 = SingleClip 1 Byte unsigned integer, which is the playback type, where 0 = Play 1 = Jog 2 = Shuttle 3 = Var 1 Byte unsigned integer, which is the scroll boolean flag, where 0 evaluates as false and all other values evaluate as true.
0x80	0x06	BMDClip	Acknowledge	Disabled	

## RS-422 Developer Information

	bit 7	bit 6	bit 5	bit 4	bit 3	bit 2	bit 1	bit 0
<b>Byte 0</b>	0	0	Cassette out	Servo Ref	0	0	0	Local
<b>Byte 1</b>	Standby	0	Stop	0	Rewind	Forward	Record	Play
<b>Byte 2</b>	Servo Lock	0	Shuttle	Jog	Var	Direction	Still	1
<b>Byte 3</b>	Auto Mode	0	0	0	Aout Set	Ain Set	Out Set	In Set
<b>Byte 4</b>	Select EE	Full EE	Loop Playback	0	0	0	0	0
<b>Byte 5</b>	Scroll	0	0	0	Loop Clip	0	0	0
<b>Byte 6</b>	0	Lamp Still	Lamp Fwd	Lamp Rev	0	0	0	0
<b>Byte 7</b>	0	0	0	0	0	0	0	0
<b>Byte 8</b>	0	0	Near EOT	EOT	0	0	0	Rec Inhibit
<b>Byte 9</b>	0	0	0	0	0	0	0	0

### Variables

<b>Cassette Out</b>	Set if no SSD is present
<b>Local</b>	Set if Remote is disabled (local control)
<b>Standby</b>	Set if a disk is available
<b>Direction</b>	Clear if playback is forwarding, set if playback is reversing
<b>Still</b>	Set if playback is paused, or if in input preview mode
<b>Auto Mode</b>	Set if in Auto Mode
<b>Select EE, Full EE</b>	Set if in input preview mode
<b>Lamp Still/Fwd/Rev</b>	Set according to playback speed and direction
<b>Near EOT</b>	Set if total space left on available SSDs is less than 3 minutes
<b>EOT</b>	Set if total space left on available SSDs is less than 30 seconds

### Others

<b>Cue Complete (byte 2, bit 0)</b>	Always 1: Cue requests are always instantaneous
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### HyperDeck Serial RS-422 Protocol

<b>Protocol</b>	Based on Sony 9-pin protocol	
<b>Interface</b>	Baud rate	38.4 Kbps
	1 start bit	
	8 data bits	
	1 stop bit	
	1 parity bit	
	Odd parity	

# Help

## Getting Help

The fastest way to obtain help is to go to the Blackmagic Design online support pages and check the latest support material available for your Blackmagic HyperDeck disk recorder.

### Blackmagic Design Online Support Pages

The latest manual, software and support notes can be found at the Blackmagic Design support center at [www.blackmagicdesign.com/support](http://www.blackmagicdesign.com/support).

### Blackmagic Design Forum

The Blackmagic Design forum on our website is a helpful resource you can visit for more information and creative ideas. This can also be a faster way of getting help as there may already be answers you can find from other experienced users and Blackmagic Design staff which will keep you moving forward. You can visit the forum at <https://forum.blackmagicdesign.com>

### Contacting Blackmagic Design Support

If you can't find the help you need in our support material or on the forum, please use the "Send us an email" button on the support page to email a support request. Alternatively, click on the "Find your local support team" button on the support page and call your nearest Blackmagic Design support office.

### Checking the Software Version Currently Installed

To check which version of Blackmagic HyperDeck software is installed on your computer, open the About Blackmagic HyperDeck Setup window.

- On Mac OS, open Blackmagic HyperDeck Setup from the Applications folder. Select About Blackmagic HyperDeck Setup from the application menu to reveal the version number.
- On Windows, open Blackmagic HyperDeck Setup utility from your Start menu or Start Screen. Click on the Help menu and select About Blackmagic HyperDeck Setup to reveal the version number.

### How to Get the Latest Software Updates

After checking the version of Blackmagic HyperDeck Setup software installed on your computer, please visit the Blackmagic Design support center at [www.blackmagicdesign.com/support](http://www.blackmagicdesign.com/support) to check for the latest updates. While it is usually a good idea to run the latest updates, it is wise to avoid updating any software if you are in the middle of an important project.

## Regulatory Notices

### Disposal of Waste of Electrical and Electronic Equipment Within the European Union.



The symbol on the product indicates that this equipment must not be disposed of with other waste materials. In order to dispose of your waste equipment, it must be handed over to a designated collection point for recycling. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city recycling office or the dealer from whom you purchased the product.



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this product in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at personal expense.

Operation is subject to the following two conditions:

- 1 This device may not cause harmful interference.
- 2 This device must accept any interference received, including interference that may cause undesired operation.



R-R-BMD-20211410001  
R-R-BMD-20250128001  
R-R-BMD-20250203002

### ISED Canada Statement



This device complies with Canadian standards for Class A digital apparatus.

Any modifications or use of this product outside its intended use could void compliance to these standards.

Connection to HDMI interfaces must be made with high quality shielded HDMI cables.

This equipment has been tested for compliance with the intended use in a commercial environment. If the equipment is used in a domestic environment, it may cause radio interference.



## Safety Information

Product is suitable for use in tropical locations with an ambient temperature of up to 40°C.

Ensure that adequate ventilation is provided around the product and that it is not restricted.

No operator serviceable parts inside product. Refer servicing to your local Blackmagic Design service center.



Use only at altitudes not more than 2000m above sea level.

### State of California statement

This product can expose you to chemicals such as trace amounts of polybrominated biphenyls within plastic parts, which is known to the state of California to cause cancer and birth defects or other reproductive harm.

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### European Office

Blackmagic Design B.V, Amsterdam  
Sloterdijk Teleport Towers Office 2.17,  
Kingsfordweg 151,  
Amsterdam, 1043GR.

# Warranty

## 12 Month Limited Warranty

Blackmagic Design warrants that this product will be free from defects in materials and workmanship for a period of 12 months from the date of purchase. If a product proves to be defective during this warranty period, Blackmagic Design, at its option, either will repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product.

In order to obtain service under this warranty, you the Customer, must notify Blackmagic Design of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. The Customer shall be responsible for packaging and shipping the defective product to a designated service center nominated by Blackmagic Design, with shipping charges pre paid. Customer shall be responsible for paying all shipping charges, insurance, duties, taxes, and any other charges for products returned to us for any reason.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. Blackmagic Design shall not be obligated to furnish service under this warranty: a) to repair damage resulting from attempts by personnel other than Blackmagic Design representatives to install, repair or service the product, b) to repair damage resulting from improper use or connection to incompatible equipment, c) to repair any damage or malfunction caused by the use of non Blackmagic Design parts or supplies, or d) to service a product that has been modified or integrated with other products when the effect of such a modification or integration increases the time or difficulty of servicing the product.

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