

Inserting an SSD

To insert an SSD:

- 1 Hold your SSD with the connection pins facing towards the front of your camera.
- 2 Open the spring loaded cover on URSA Mini SSD Recorder and gently insert the SSD into the slot.

TIP URSA Mini SSD Recorder has a pressure plate to keep different sized SSDs in place, so there's no need to use spacers to fit your drive.

- 3 Once your SSD is all the way into the slot gently push it home until you feel it register, then lower URSA Mini SSD Recorder's cover.

To remove an SSD:

Open URSA Mini SSD Recorder's cover and gently grasp the drive between your thumb and forefinger. There's a small recess in the top of the bay to let you get a grip on the drive. Simply pull the drive out and close the cover.

NOTE Blackmagic URSA Mini SSD Recorder occupies the second storage slot in your URSA Mini Pro 4.6K's operating system. This means that, while URSA Mini SSD Recorder is connected and a compatible SSD is inserted, your camera's second CFast 2.0 and SD card slot will be unavailable.

To use these slots instead, disconnect the SSD Recorder SDI connection from URSA Mini Pro. There is no need to remove the SSD Recorder itself from your camera. For more information, see the section 'Blackmagic URSA Mini SSD Recorder' in this manual.

Choosing a fast SSD

SSDs are designed to offer fast, affordable storage for a wide range of devices it's important to note that film making is only one part of the SSD market though, so choosing the right drive is vital to ensuring that you have enough bandwidth to record 4.6K RAW or Ultra HD footage. Many SSDs are designed for home computing and aren't fast enough to record Ultra HD video.

We highly recommend using only the SSDs from our recommended list, which have been tested with Blackmagic URSA Mini Pro 4.6K to ensure support for continuous filming at the specified resolutions. For the most up to date list of recommended SSD's please go to www.blackmagicdesign.com/support

Important Notes About SSD Speed

Some models of SSD can't save video data at the speed the manufacturer claims. This is due to the disk using hidden data compression to attain higher write speeds. This data compression can only save data at the manufacturer's claimed speed when storing data such as blank data or simple files. Video data includes video noise and pixels which are more random so compression will not help, therefore revealing the true speed of the disk.

Some SSDs can have up to 50% lower write speed than the manufacturer's claimed speed. So even though the disk specifications claim an SSD has speeds fast enough to handle video, in reality the disk isn't fast enough when used to store video data for real time capture.

Use Blackmagic Disk Speed Test to accurately measure whether your SSD will be able to handle high data rate video capture and playback. Blackmagic Disk Speed Test uses data to simulate the storage of video so you get results similar to what you'll see when capturing video to a disk. During Blackmagic testing, we have found newer, larger models of SSD and larger capacity SSDs are generally faster.

Preparing Media for Recording

You can format your CFast or SD cards, or SSDs if using URSA Mini SSD Recorder, using the 'format card' feature on URSA Mini's storage and formatting screen, or via a Mac or Windows computer. We recommend formatting storage media using URSA Mini for best performance.

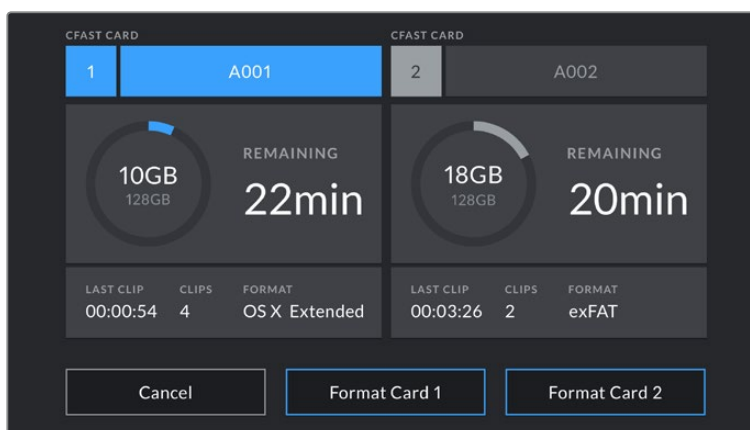
HFS+ is also known as Mac OS extended and is the recommended format as it supports 'journaling'. Data on journaled media is more likely to be recovered in the rare event that your CFast card becomes corrupted. HFS+ is natively supported by Mac OS.

ExFAT is supported natively by Mac OS and Windows without needing to purchase any additional software. However, exFAT does not support journaling.

NOTE Before formatting your media, it's important to make sure the media storage switch has been set correctly to either SD card or CFast card. Always check the settings carefully before formatting.

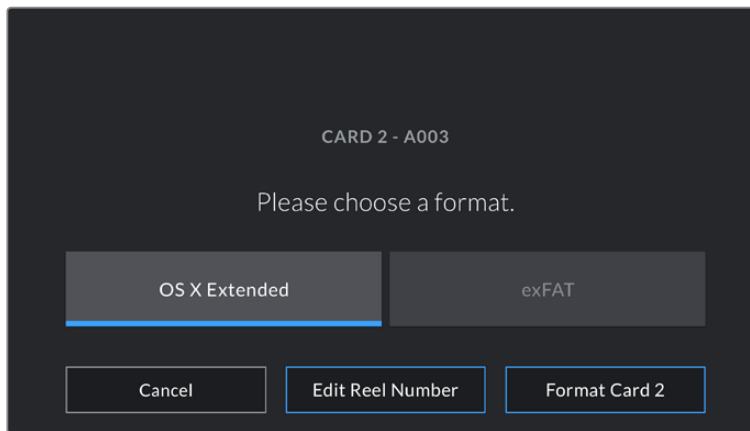
Preparing Media on Blackmagic URSA Mini

- 1 Tap either storage indicator at the bottom of the LCD touchscreen to enter the storage manager.
- 2 Tap 'Format Card 1' or 'Format Card 2' to format the CFast card in slot 1 or 2, respectively.



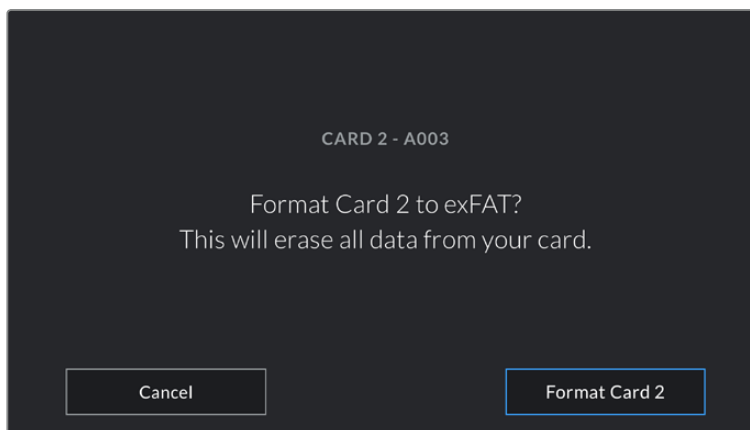
Use your URSA Mini's storage manager to format your camera's CFast cards

- 3 Tap 'edit reel number' if you would like to manually change the reel number.
- 4 Choose OS X Extended or exFAT format and tap the 'format card' button.



Tap 'edit reel number' to manually edit the reel number

- 5 You will be asked to confirm your selection. Tap 'format card' again to continue or 'cancel' to cancel the format.



Check that you have selected the correct card before formatting

- 6 You will be notified when the format is complete.
- 7 Tap 'ok' to return to the storage manager.
- 8 Tap 'exit' to leave the storage manager.

When formatting CFast or SD cards, or SSDs via the URSA Mini SSD Recorder, using the storage manager, your URSA Mini will use the Camera ID from the slate and reel number to name the card. Your URSA Mini automatically increments reel numbers each time you format. If you need to manually enter a specific reel number, tap the 'edit reel number' and enter the number you want to format the card as.

When you start a new project, reel numbering will reset to 1 when you tap on 'reset project data' in the 'project' tab of the slate.

TIP If your URSA Mini Pro 4.6K is set to record to SD cards and you have inserted a locked card, you will be unable to format that card. A padlock icon will appear next to the card's name in the storage manager. Simply unlock the card to format and record. For more information on locking SD cards, see the 'SD cards' section of this manual.

Preparing Media on Blackmagic URSA Mini Pro 4.6K

The process for preparing storage media on your URSA Mini Pro 4.6K is exactly the same as the URSA Mini process outlined above. The only difference is the added option to format SD cards as well as CFast cards. It's worth mentioning that if your camera's media storage switch is set to SD or CFast, only the selected card type will be formatted when you tap 'format card'.



The storage manager on your URSA Mini Pro 4.6K will indicate whether you are currently managing CFast or SD media

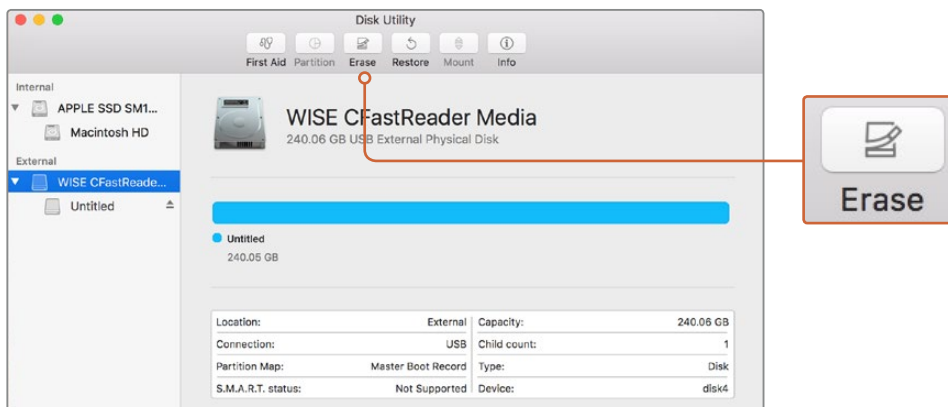
For information on switching between CFast and SD storage see the 'SD Cards' section earlier in this manual.

NOTE If you have the optional URSA Mini SSD Recorder connected, an "SSD" indicator will appear over storage slot 2.

Preparing Media on Mac

Use the Disk Utility application included with Mac OS to format your card in the HFS+ or exFAT formats. Remember to back up anything important from your CFast or SD card as all data will be lost when it is formatted.

- 1 Connect the CFast or SD card to your computer using a CFast 2.0 or SD reader/writer or CFast drive, and dismiss any message offering to use your card for Time Machine backups.
- 2 Go to applications/utilities and launch Disk Utility.
- 3 Click on the disk icon of your CFast or SD card 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 CFast or SD card will quickly be formatted and made ready for use.

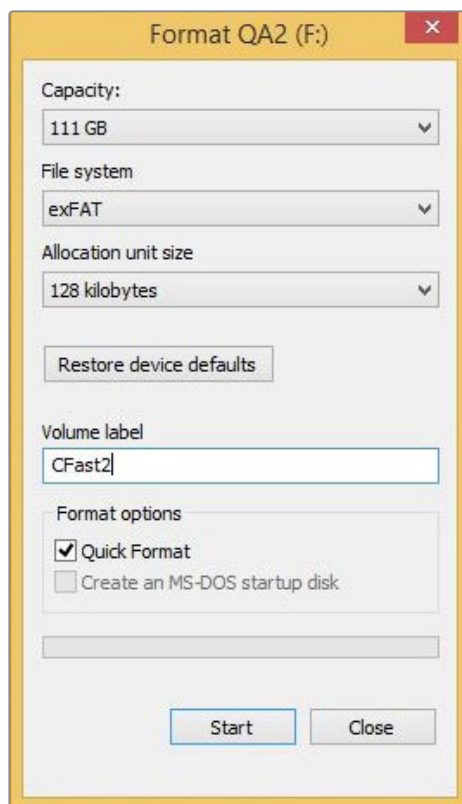


Use Disk Utility on Mac OS to erase your CFast card in the Mac OS extended (journaled) or exFAT format

Preparing Media on Windows

The 'format' dialog box can format a drive in the exFAT format on a Windows PC. Remember to back up anything important from your card as all data will be lost when it is formatted.

- 1 Connect the CFast or SD card to your computer using an external reader/writer or CFast drive.
- 2 Open the 'start' menu or 'start' screen and choose 'computer'. Right click on your CFast 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 storage media will quickly be formatted and made ready for use.



Use the 'format' dialog box feature in Windows to format your CFast or SD card in the exFAT format

NOTE If your recordings are dropping frames, check that your card is on our list of recommended media for the codec and frame size you are using. For lower data rates try lowering your frame rate, resolution, or try a compressed codec such as ProRes. Check the Blackmagic Design website for the latest information at www.blackmagicdesign.com