

SJCAM

SJ7 STAR



User's Manual

FW Ver1.21

ENGLISH



INTRODUCTION

We believe everyone has a dream. Our mission is to make you express yourself, your vision and dreams in order to make them real, and share them with others.

In the last 10 years of experience in Research and Development and Commercialization, we have gained world recognition from customers and retailers, with the ambition to give people the possibility to create, explore and empower their dreams. Having our own factory, controlling the whole production process, and a facility with more than 500 employees, makes us more versatile and able to reach the market fast, ensuring that the highest quality standards are met. It is all about dreams. Dare to join the SJCAM Revolution.

-SJCAM CEO



Congratulations on your new SJCAM Action Camera!

We know you're excited to use your SJ7 STAR, please take time to read this manual before doing anything with it. This is the very first true-4K resolution SJCAM, and there's plenty you can do, so you need to familiarize yourself with the features now to get the most out of it.

It is important to keep your camera's firmware up to date. You may connect your camera via WiFi to the SJCAM ZONE app to automatically download and install the latest firmware, or visit www.sjcam.com/firmware.

CAUTION!

1. This is a high-precision product. Do not drop.
2. Do not expose the unit to strong magnetic fields, such as magnets, electrical motors, and machinery that use strong radio waves.
3. Never leave the unit in high temperature areas. Electronics and optics can be damaged under prolonged exposure to heat.
4. Do not submerge the camera without putting it in the included waterproof case.
5. Avoid extended periods of battery charging. Keep it away from children and pets while charging to avoid accidents.

SJCAM

SJ7 STAR SPECIFICATIONS

Model: SJ7 Star

Type: Aluminum Body Sports Camera

Type of Camera: 4K

Chipset: Ambarella A12S75

Sensor: Sony IMX117 12MP

Max External Card Supported: Micro SD 128GB (UHS-3 High Speed suggested)

Screen size: 2 inch LCD Touchscreen

Battery Type: Removable

Capacity: 1000mAh

Power Supply: 5V 1A

Charge way: AC adapter, Car charger, USB charge by PC

166 degree wide angle lens

Decode Format: H.264

Video format: MOV,MP4

Video Resolution: 1080P (120fps), 1080P (30fps), 1080P (60fps), 1440P (2560 x 1440), 1440P (30fps), 1440P (60fps), 2.5K (30fps), 2.5K (60fps), 2.7K (30fps), 2160P (2880 x 2160), 4K (25fps), 4K (30fps), 720P (120fps), 720P (30fps), 720P (60fps), 960P (120fps), 960P (30fps), 960P (60fps)

Image Format : JPEG

Video Output: HDMI

Audio System: Built-in microphone/speaker (AAC)

White Balance: Auto, Cloudy, D4000, D5000, Daylight, Fluorescent, Incandescent, Underwater
WIFI: Yes

Image Stabilization: Yes

Remote Control capable: Yes

Interface Type: HDMI, USB 2.0, TF Card Slot

Language: Czech, Danish, English, French, German, Hungarian, Italian, Japanese,

Polski, Portuguese, Romanian, Russian, Simplified Chinese, Slovak, Spanish, and Traditional Chinese



PARTS OF YOUR CAMERA



NOTE: Some design elements like mic-hole placement and housing labels may vary slightly.

SJCAM SJ7 STAR

SJ SMART REMOTE (Optional)

SJCAM

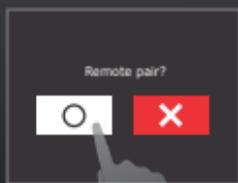
WIFI On/Off Switch

Camera-Off Button

Burst Shot Button

Record Video Start/Stop

Shutter Button



To pair your remote to your SJ7 STAR: Swipe down from the top > Select Remote Control
Tap the "O" to start pairing. A picture instruction will appear. Press the Video and the Photo buttons on the Remote simultaneously. "Pairing Completion ID" will show.



Once your Remote is paired, you will never need to pair it again.

Once the SJ7 STAR is powered on, SJ Remote can begin sending commands to your camera.

The Remote is tested to work at a maximum distance of 10 meters (30 feet) away from your SJ7 STAR, unobstructed Line-Of-Sight.

The battery on your Remote will last you a long time as it only uses power when you press any of the buttons.

The remote is powered with a Lithium CR2032 button-cell battery.

Shown here is Version2.
Can be momentarily submerged in water up to 3 Meters (approx: 10feet).
Ver.1 has white icon labels, not waterproof, and production has been discontinued.



Removing the SJ7 from the Waterproof Case.



Remove the camera from the waterproof case by lifting the clasp from the front side of the case, following the steps shown above.

Once free, swing the backdoor open, then pull the camera out from the waterproof case.

Charging your camera using the MiniUSB cable.



Plug the MiniUSB cable to the slot on the side of the camera as indicated above, and the other end to a USB wall charger with an output of 5V 1A, or plug it to a computer.

Removing the battery.



Remove your battery by pressing the button and sliding the lock at the bottom of the camera to release the compartment door.

Pull the battery out by the flap, plug it to an External Dual Charger Accessory (not shown, sold separately).

Powering ON/OFF your SJ7



Press and hold the Power/Mode button to turn your camera on. You will hear a chime, indicator LEDs will light up, and the screen will display the SJCAM logo. To turn off your camera, press the Power button once.

Inserting / Removing Memory Cards



Insert a MicroSD card as shown in the illustration above, with the label facing the touchscreen LCD, until it clicks into place. To remove, just push it in gently and the card will eject.

NOTE: To make sure you do not lose any data, only remove or insert your card while the camera is turned completely off.

The Main Screen

Resolution Aspect Ratio and Framerate Image Quality (Photo or Video) FOV Setting - (W)ide; (M)edium; (N)arrow

Current Mode Icon
Icon will show what mode you are currently in. The options will vary depending on the mode.

Status LEDs
Blue lights will indicate the status of the camera operation.

Date and Time
Shows system date and time for reference.

Battery Level Indicator
Displays approximate power left on the battery. Battery blinks when almost empty.

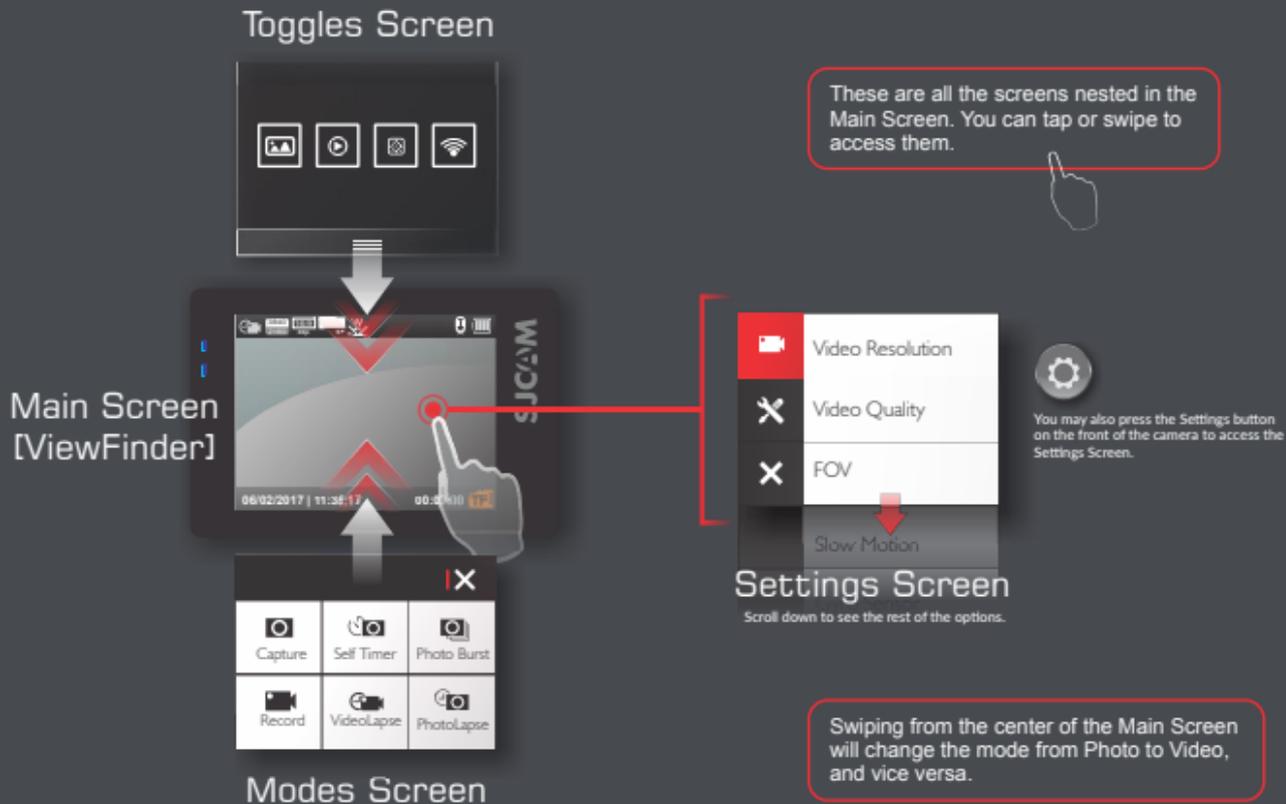
Microphone Active
Indicates that the microphone is active and will record audio. When disabled, this icon will be in orange with a big slash across it.

Storage Space Left
Displays time left on MicroSD (TransFlash) card or file space left. Icon appears white when card is present, orange when removed.

Other Main Screen Icons

 Super Fine	 Wide FOV	 Microphone Off
 Fine	 Medium FOV	 Gyro Antishake On
 Normal	 Narrow FOV	 Motion Detection

The Nested Screens



The Toggles Screen



To get here,
swipe from the top.



Photo Gallery Playback

Tap this to open the Photo Gallery, tap an image to view in full screen. Use the Left and Right arrows to view previous or next image.



Video Gallery Playback

Tap this to open the Video Gallery, tap an image to view in full screen. Use the Left and Right arrows to view previous or next video.



Remote Toggle

Enable the remote by tapping this and setting it to ON. You will also see the Pair SJRemote option in here.



WiFi Toggle

Enable or disable the WiFi by tapping this and setting it.



Swipe Up to return to Main Screen

Swipe this up to hide the Toggles Screen

The Playback Screen

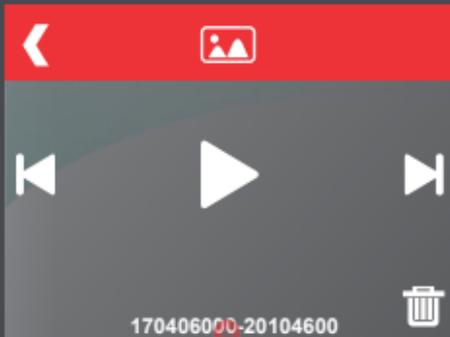
Back to Main Screen

Visual indicator that you are in Playback mode.



Go to previous file

Tap or swipe to get to the previous file.



File Name



Go to Next File

Tap or swipe to get to the next file.



Delete Current File

Tap to delete the file currently shown on screen.

To get here,
swipe from the top.



Or use buttons

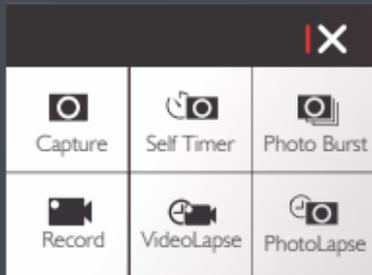
Start/Stop Playback

Exit File/Gallery

Go to next file



The Modes Screen



X Exit to Main Screen
Tap this X icon to exit.

To get here, swipe up.



Still photograph mode.



A preset delay to time the shutter release to start recording or taking photos.



Fast multiple succession of snapshots, choose the number of photos desired (Max: 10).



Record

Mode for recording videos



VideoLapse

Timelapse photography stitched on-cam to produce a video.



PhotoLapse

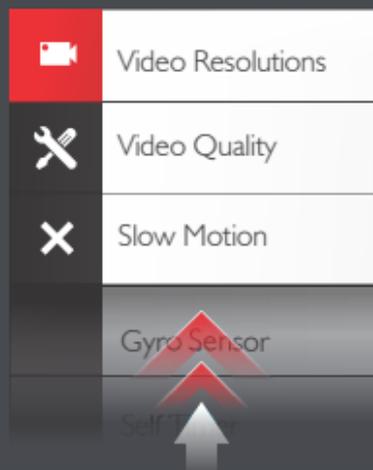
A series of still photos for creating timelapse. Each photo will have its own file..

The Settings Screen

Current Mode Icon
Icon will show what mode you are currently in.
The options will vary depending on the mode.

General Settings Button
Tap the icon to go to the General Settings.
Changes you make will reflect on all modes.

Exit to Main Screen
Tap this X icon to exit.



Current Menu Options

Depending on what mode you are in, the menu options will vary. All the options for the particular mode will show on this side, scroll down for other items. Once set, the settings will be the same for that particular Mode everytime you go back until you change it again.

To get here, tap this.



You may also press the Settings button on the front of the camera to access the Settings Screen.

Scroll UP for more options

☑	Photo Size
✕	Photo Quality
✕	RAW Photo
	Long Exposure
	Photo Stamp
	Self Timer
	Photo Burst
	Timelapse Photo
	Sharpness
	AWB
	EV Value
	ISO

PHOTO MODE - Page 1

PHOTO SIZE › Changes the size of still photos that will be recorded. Of course, the bigger the size the more detailed your pictures are, at the expense of filesize.

PHOTO QUALITY › Refers to how much compression the output image will have. The higher the setting the bigger the file is, and will contain more detail.

RAW PHOTO › Activates or deactivates recording of RAW image files, which is used to make adjustments to photos. RAW files need to be processed first using specialized software before a standard viewable image file is created (JPEG, PNG, BMP etc.).

LONG EXPOSURE › Sets how long the sensor collects light through the lens.

PHOTO STAMP › When enabled, will display the time and date on your photos.

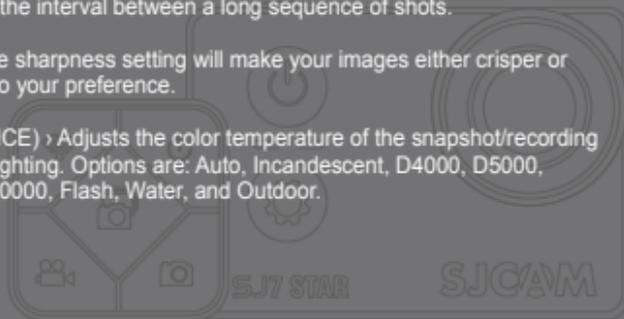
SELF TIMER: Sets a delay timer to trigger the shutter at the set number of seconds.

PHOTO-BURST › Fast multiple succession of snapshots, choose the number of photos desired (Max: 10 consecutive shots).

TIMELAPSE PHOTO › Sets the interval between a long sequence of shots.

SHARPNESS › Changing the sharpness setting will make your images either crisper or smoother, adjust according to your preference.

AWB (AUTO WHITE BALANCE) › Adjusts the color temperature of the snapshot/recording to compensate for ambient lighting. Options are: Auto, Incandescent, D4000, D5000, Daylight, Cloudy, D9000, D10000, Flash, Water, and Outdoor.



Navigating the menus using the SJ7 buttons

When in the settings and other menu screens, you may also move through the items by using these buttons:



Available in FW ver1.13 or higher

☑	Photo Size
✕	Photo Quality
✕	Long Exposure
	Photo Stamp
	Self Timer
	Photo Burst
	Timelapse
	Sharpness
	AWB
	EV Value
	ISO
	Metering

PHOTO MODE - Page 2

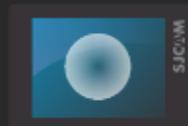
EV › Exposure Value - Changing EV compensates for the amount of light that is allowed in. You can change this value to a lower setting if the scene is too bright, to compensate. Or higher, if it is too dark, but still depends on your desired outcome. A higher EV will take longer for a photo to be taken, and will add blur to photos as they take longer to expose.

ISO › Sets the image sensor's sensitivity to light. Choose "Auto" on your camera if you are not familiar with this setting. Depending on the lighting conditions, use the lowest ISO whenever possible, as higher settings will introduce more noise while pixel sensitivity also goes up. Adjust depending on your preference.

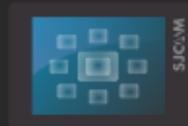
METERING › Prioritizes the brightness level of specific parts of the scene depending on the Metering Mode that is used: Center Weighted, Multi, or Spot.



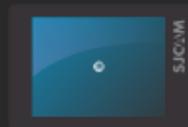
METERING MODES



CENTER



MULTI



SPOT



VIDEO RECORD - Page 1



Video Resolutions



Video Quality



FOV

Slow Motion

Auto Low Light

Gyro Sensor

Detection

Dual Files

Video Stamp

Timelapse Video

Loop Record

Car DV

Microphone Volume

Sharpness

AWB

EV Value

ISO

Flare

VIDEO RESOLUTIONS : A higher resolution will have more detail in your video at the expense of file size. A lower resolution has a smaller filesize but will have less details in your video. Conversely, a higher resolution will contain more detail.

Note: FPS (Frames Per Second) is part of the options in video resolution:

The higher the FPS, the more images will be displayed per second, and the smoother the movement in the video is, at the expense of filesize.

VIDEO QUALITY : Sets how much detail is recorded in the video.

Available in 3 presets: Super Fine, Fine, and Normal.

FOV : Field Of View. The wider the setting, the more parts of the scene are included in the recording. **NOTE:** When using the gyro, 1080p in 30 or 60fps will **not** have FOV options as they conflict with stabilization.

SLOW MOTION: Sets the framerate to run at the set speed. When recording in higher FPS, video will appear slow.

AUTO LOW LIGHT : When on, the image sensor will compensate for low light, at the expense of framecount. Turning the feature off will lock the framecount to the selected framerate (FPS) regardless of lighting conditions.

GYRO SENSOR : Sets the gyro sensor to stabilize the movement seen in the frame.

DETECTION : Sets the camera to record everytime a movement is detected.

DUAL FILES : Will save 2 versions of the recorded video, one in the selected resolution and another in low resolution (768x432pixels) for use in editing.

VIDEO STAMP : When enabled, will display the date and time of your recording.

TIMELAPSE VIDEO : Sets the time interval between shots; recorded files will have a single video output (MP4) instead of multiple image files.

Video Resolutions
Video Quality
FOV
Slow Motion
Auto Low Light
Gyro Sensor
Detection
Dual Files
Video Stamp
Timelapse Video
Loop Record
Car DV
Microphone Volume
Sharpness
AWB
EV Value
ISO
Metering

VIDEO RECORD - Page 2

LOOP RECORD › Auto-saves your video in small sections, depending on selected length. It will record over your oldest video once there is no more space on your memory card.)

CAR DV › Enables powering on the camera and auto-record when the engine is started. Requires that the camera is plugged in to a car power adaptor.

MICROPHONE VOLUME › Sets the sensitivity of the microphone.

SHARPNESS › Changing the sharpness setting will make your images either crisper or smoother, adjust according to your preference.

AWB (AUTO WHITE BALANCE) › Adjusts the color temperature of the snapshot/recording to compensate for ambient lighting. Options are: Auto, Incandescent, D4000, D5000, Daylight, Cloudy, D9000, D10000, Flash, Fluorescent, Water, and Outdoor.

EV › Exposure Value - Changing EV compensates for the amount of light that is allowed in. You can change this value to a lower setting if the scene is too bright, to compensate. Or higher, if it is too dark, but still depends on your desired effect. A higher EV will take longer for a photo to be taken, and may add blur to videos as each frame takes longer to expose.

ISO › Sets the image sensor's sensitivity to light. Choose "Auto" on your camera if you are not familiar with this setting. Depending on the lighting conditions, use the lowest ISO whenever possible, as higher settings will introduce more noise while pixel sensitivity also goes up. Adjust depending on your preference.

METERING › Prioritizes the brightness level of specific parts of the scene depending on the Metering Mode that is used: Center Weighted, Multi, or Spot.

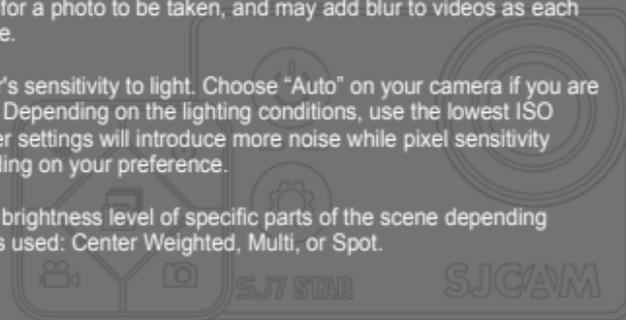
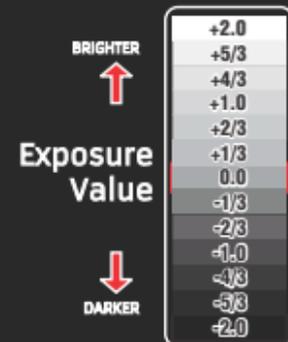
TIP: When using your camera as a dashcam, use a car charger cable and remove the internal battery to make sure it does not die out while you travel, and to avoid overcharging/overheating the battery.



WARNING:

Operating your camera while driving a vehicle is potentially dangerous. It is strongly advised to set up your camera before your trip.

EV works by controlling how much light is allowed in.



Quick Capture
✗ Delay Off
✗ FPV
TV Mode
Gimbal Control
Light Frequency
Distortion Correction
Image Rotation
Logo Watermark
Auto Shutdown
Screen Off
Status LED
WiFi LED
Beep
Date Setup
Time Setup
Date Format
Language
WiFi

GENERAL SETTINGS - Page 1

QUICK CAPTURE : Enables automatic recording when the camera is turned on.

DELAY OFF : In dashcam mode, the camera will power down 10 seconds later after the power from the vehicle is shut off.

FPV : Allows the camera to be controlled remotely via PWM shutter cable.

TV MODE › Options are NTSC or PAL. The color encoding and Framerate for video recording. Users in the US and Asia use NTSC (60Hz), most other countries use PAL (50Hz) and is the camera's default. Please check what you use in your country.

GIMBAL CONTROL : Allows SJGimbal to take control of certain camera functions.

LIGHT FREQUENCY : For adjusting the framerate frequency (50Hz or 60Hz). Also used to counter flicker-effects of fluorescent lamps or jello-effect of fast moving objects.

DISTORTION CORRECTION : Electronically removes the bulging look in images (A.K.A.: Barrel Distortion) and makes the recorded images look flatter.

IMAGE ROTATION: For use when the camera needs to be mounted upside down, turn this feature on so that the image is right side up.

LOGO WATERMARK : Sets the SJCAM logo to be superimposed onto the recorded images.

AUTO SHUTDOWN : Time settings to turn off camera when there is no activity.

SCREEN OFF : Sets LCD screen timeout or disables it.

STATUS LED : Enables or disables the LED status indicators.

WiFi LED : Enables or disables the LED status indicator for WiFi.

LIST OF AVAILABLE RESOLUTIONS:

- 4K 30fps 16:9
- 4K 25fps SuperView
- 2160p 30fps 4:3
- 2.7K 30fps 4:3
- 2.7K 30fps SuperView
- 2.7K 30fps 16:9
- 2.5K 60fps 16:9
- 2.5K 30fps 16:9
- 1440p 60fps 4:3
- 1440p 30fps 4:3
- 1080p 120fps 16:9
- 1080p 60fps 16:9
- 1080p 30fps 16:9
- 1080p 60fps SuperView
- 1080p 30fps SuperView
- 960p 120fps 4:3
- 960p 30fps 4:3
- 720p 240fps 16:9
- 720p 120fps 16:9
- 720p 60fps 16:9
- 720p 30fps 16:9
- 720p 120fps SuperView
- 720p 30fps SuperView



TIP: For a more stable video or photo, turn on the Gyro Sensor. You will know if it's active when you see a blinking hand on the upper right hand of the Display.

[Works in certain resolutions only, FOV off]





GENERAL SETTINGS - Page 2

Auto Shutdown
Screen Off
Status LED
WIFI LED
Beep
Date Setup
Time Setup
Date Format
Language
WiFi
WiFi SSID
WiFi Password
Format
Default Setting
SJ7 STAR (Version)

BEEP : Enables camera sounds like power on chime, shutter sounds, etc.

DATE SETUP : For adjusting the camera date.

TIME SETUP : For adjusting the camera time.

DATE FORMAT : Sets the preferred date format (Y/M/D; D/M/Y; M/D/Y).

LANGUAGE : Sets the camera language.

WIFI : Options to turn the WiFi on or off.

WIFI SSID : Change from default WiFi name to anything you want.

WIFI PASSWORD : For changing the default password when connecting to a mobile device.

FORMAT : Resets the memory card to factory settings, deletes all files.

DEFAULT SETTING : Resets the camera to factory settings.

SJ7 STAR (VERSION) : Shows the current firmware version number that is installed.



When plugged into a computer using a MiniUSB Data-Cable, you will be asked these three options:

Mass Storage: For transferring files
Ext Power: Charging while On
Charge: Shut down to charge

NOTE: These options will not be available when using a charge-only MiniUSB cable.



Like with any real 4K-capable camera, such high-resolution recordings like 4K demands a lot of processing power from the chipset and will generate heat. This is normal.

The aluminum shell of the SJ7 is specifically designed to transfer heat from the internal components so it can be dissipated properly, even during prolonged use.

To ensure efficient processing, always use a UHS-rated MicroSD card, U3 recommended.

FILE MANAGEMENT

You can transfer files from your camera by using any of these 4 methods.

- 1. Via USB cable connected from your camera's miniUSB slot to a Windows or Mac computer:**
 - a) Connect the USB cable, choose "Mass Storage" on your camera.
 - b) Your device will show as a drive on your File Manager (Explorer on Windows; Finder in OSX).
- 2. Via WIFI through the SJCAM Zone App:**
 - a) Connect your camera to your phone: **Device Settings>Wifi>Choose your camera**
 - b) Go to the app, tap the Gallery icon, then download the files you wish to transfer by tapping the Down arrow icon next to each file.
- 3. By using a microSD card adaptor:**
 - a) Power off your camera and remove the microSD card.
 - b) Insert it to a card adaptor and plug it to your computer.
 - c) Your card will show as a drive on your File Manager.
 - d) When you're done transferring files, right-click the drive > choose "Eject" before removing the card from your computer.
- 4. By transferring the microSD card to your smartphone with removable storage:**
 - a) Power off your camera and remove the microSD card;
 - b) Insert the microSD to your mobile device; your microSD card will show up as a drive on your mobile device's file manager;
 - c) Transfer the files you choose to your mobile device;
 - d) When you're done, "eject" the microSD card by choosing "Unmount".

Optional: Format the microSD card on your camera to remove files added by your mobile device.

SJCAM



Via USB



Via WIFI

Included Accessories



More accessories available on the sjcam.com website, sold separately.



Get the app.



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Join the discussions at sjcam.com/community
For technical assistance, go to support.sjcam.com