Digital HD Video Camera Recorder

Handbook (Additional functions)

This handbook includes operation manual for the additional functions. Please refer to the "Operating Guide" (paper) and the "Handbook" (PDF) for other functions.



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Setting items

The new functions are shown with an asterisk (*). Click the item of the new functions to jump to the corresponding page.

	List of modes		
	Display	Modes	
	MOVIE	Movie Mode	
	РНОТО	Photo Mode	
	INTVL	Interval Photo Recording Mode	
*	LIVE	Live Streaming Mode	
	VMODE	Image Quality Setting Mode	
	SETUP	Setup Mode	
	PLAY	Play Mode	
	PwOFF	Power off	

Items you can set in SETUP

	Display	Items
	STEDY	SteadyShot
	FLIP	Flip
	SCENE	Scene
	LAPSE	Interval Photo Recording
	COLOR	Color Setting
	PRO	XAVC STM
	TC/UB	Time Code/User Bit
	IR-RC	IR-Remote Controller
*	DRIVE	Still image mode switching
*	FPS	Still image shooting interval
*	SELF	SELF-TIMER
	CONFG	Configuration Settings

Items you can set in CONFG

Display	Items
Wi-Fi	Wi-Fi Remote Control
GPS	GPS Log
PLANE	Airplane Mode
USBPw	USB Power Supply
A.OFF	Auto Power Off
BEEP	Веер
DATE	Date & Time Setting
DST	Daylight Saving Time (Summer Time) Setting
LANG	Language Setting
V.SYS	Switching NTSC/PAL
RESET	Resetting the Settings
FORMT	Format

Notes

• The display panel displays only English, French and Brazilian Portuguese. Other languages are not available.

Live Streaming

About Live Streaming

Live Streaming is a function to stream real-time video to a video streaming site such as USTREAM, and can be accomplished by using this camera with a Wi-Fi router or smartphone capable of tethering.

You can also send messages to your registered SNS (Facebook, Twitter, etc.) to announce that you have started Live Streaming of video.*

* Registration to a video streaming site or SNS is required.



To perform Live Streaming, the following preparations are required.

- User registration to USTREAM
- A smartphone (capable of tethering) or a Wi-Fi network environment
- * For the tethering settings of your smartphone or the Wi-Fi network settings of your router, refer to the instructions manual of your smartphone or your Wi-Fi router. For more details about the Wi-Fi network settings, consult the network service provider.

Preparing Live Streaming

Using the dedicated application, "Network Setting Tool," configure the network settings and register the video streaming site account and the SNS settings in advance. You can download the dedicated application from the following support site. http://www.sony.net/nst/

Input the USTREAM account and information of the "Network Setting Tool."



What you can do with network setting

You can set the following with the Live Steaming Settings of your camera.

Network settings

You can set the Wi-Fi network to which your camera connects to.

- Network SSID, password
- Streaming settings

You can set the streaming method and information of videos.

- Streaming site, channel, image quality and the saving settings of the streaming site
- Title and description of streaming video
- SNS settings

By configuring this setting, you can post a comment through social network services when starting streaming video.

- Connection settings for Twitter or Facebook
- Comments you post

🍟 About USTREAM

USTREAM is a video sharing site through which you can stream and view videos with the Live Streaming function of this camera.

For details of USTREAM, see the following site. http://www.ustream.tv/

Notes

• Your personal information (information required when logging in to USTREAM, Twitter or Facebook) is set in the camera. Be sure to reset the camera when you transfer or dispose of it.

Performing Live Streaming

Setting	 	1999	
display	prep →		<i>00020</i>

You can start Live Streaming after the preparation is complete.

When Live Streaming for the first time, it is recommended that you rehearse streaming in a prepared environment after setting up with a computer in advance.

- 1 Press the NEXT button to display [LIVE].
- 2 Press the REC button to start streaming.

The display panel changes from [PREP] (preparing stream) to [ONAIR] (streaming) and the REC lamp (page 7) lights red.

3 Press the REC button again to stop streaming.

CAbout memory cards in the camera

You can record video that is Live Streaming into a memory card in the camera. When a memory card is inserted in the camera, the video is recorded while streaming^{*}. If the memory card becomes full, recording stops automatically without stopping video streaming.

When no memory card is inserted in the camera, only the video streaming is performed.

* The image format/quality of video recorded during streaming is MP4/HQ mode.

Display during Live Streaming

Display	Streaming status
	Preparing to connect to the video streaming site.
	Starts streaming.
	Displays the number of viewers

Notes

• There may be time lag of 10 - 20 seconds between the start of Live Streaming on your camera and video streaming on the video streaming site.

REC lamp indicator during Live Streaming

If you select Live Streaming mode, you can see the streaming status for Live Streaming with the REC lamp on the camera.



REC lamp	Status	Streaming status
0	Off	Before streaming
	On	Streaming
	Slow-blinking (Blinks about once per second)	There are viewers.
	Fast-blinking (Blinks rapidly about 3 times per second)	Streaming error

Restrictions

Restrictions for USTREAM

There are some restrictions for video streaming on USTREAM. For details, see the USTREAM site.

Restrictions on GPS and Wi-Fi functions during Live Streaming

The GPS function is disabled automatically during Live Streaming. Also, you cannot monitor images using a smartphone or the Live-View Remote during Live Streaming.

Network connection

Use a smartphone capable of tethering or Wi-Fi router for Live Streaming. However, proper operation with all smartphones or Wi-Fi routers is not guaranteed. Public wireless LANs cannot be used as connections for Live Streaming.

Simultaneous Live Streaming with multiple cameras

You cannot live stream videos simultaneously using the same account on more than 1 camera. You need to connect using another account.

Effects due to wireless communication conditions

When connected using the tethering function of a smartphone or via a Wi-Fi router, images and sounds may be interrupted, or the communication may be cut off due to wireless communication conditions.

Connection for Live Streaming

The communication time you can use for Live Streaming is limited according to the contract of your smartphone or Wi-Fi router. Confirm it in advance.

Continuous streaming time

Continuous Live Streaming using this camera is limited to about 13 hours.

Restrictions of network connections

In some countries, you cannot connect to Live Streaming sites. Use this function in accordance with the laws of that country.

Error messages

If any trouble occurs when connecting for Live Streaming, the following messages appear. Follow the instructions to resolve the problem.

Setting

NoSET

Set the necessary settings for USTREAM using "Network Setting Tool."

Auth

Log in to USTREAM again and confirm the settings using "Network Setting Tool."

CHANL

- The channel set by "Network Setting Tool" is incorrect.
- This message also displays if other media starts streaming on the same channel while streaming from your camera is performed.
- Set the channel again.

DATE

Set the date and time again on your camera.

APErr

Access point has been found but is not connected. Check the password of the access point and connect again.

Network

PREP

The network is temporarily unavailable.

Netwk

- The saving settings of video cannot be saved to USTREAM because an error has occurred on the network.
- Some other network error has occurred.
- Confirm the setting of the access point or the security of the access point using "Network Setting Tool."

NO AP

Access point cannot be found. Confirm the setting of the access point using "Network Setting Tool."

Network Service

ERROR

An unknown error has occurred on USTREAM. Wait a moment and then try confirming the connection again.

LIMIT

The total time of saved video on USTREAM has reached the limit. Stop streaming video.

TWErr

Twitter post error. Check the network or log in to Twitter again.

FBErr

Facebook post error. Check the network or log in to Facebook again.

The camera

ERROR

Turn the power off and then on again.

HEAT

- The camera temperature has risen. The power may turn off automatically, or you may be unable to record images. Leave the camera in a cool location until the temperature goes down.
- If you record images for an extended period, the camera temperature rises. In this case, stop recording images.

New functions in still image shooting

Still image mode switching



You can set the mode for still image recording. To make the setting, select [SETUP] first.

- 1 Press the NEXT button to display [SETUP], then press the ENTER button.
- 2 Press the NEXT button to display [DRIVE], then press the ENTER button.
- 3 Press the NEXT button to select the setting, then press the ENTER button.

\$ SINGL	Single Shooting: (Image size/13.5M) Shoots one still image.
BURST	Burst Shooting: (Image size/13.5M) Shoots at the continuous shooting interval set in the still image shooting interval [FPS].
MSHOT	Motion Shot LE: (Image size/3.3M) Generates a still image from still images continuously shot at the interval set in the still image shooting interval [FPS].

"To shoot successfully in Motion Shot LE mode

Try the following shooting methods.

- Stabilize the camera to prevent camera shake.
- Use the remote control function with a smartphone or Live-View Remote, or the self-timer function to prevent camera shake for better results.
- Make sure that the moving objects are not too large or too many.
- Shoot in a bright location and avoid changes in brightness.

☆To shoot successfully in Burst Shooting mode

Try the following shooting methods.

- Stabilize the camera to prevent camera shake.
- Use the remote control function with a smartphone or Live-View Remote, or the self-timer function to prevent camera shake for better results.



- If automatic generation in Motion Shot LE mode fails, [FAIL] is display on the display panel. Depending on the display timing of [FAIL], the image may not be saved.
- After shooting with Burst Shooting or Motion Shot LE mode, there is a processing time during which the next operation cannot be operated.
- Only one still image can be transferred to the smartphone. (In Burst Shooting mode, the last still image can be transferred. In Motion Shot LE mode, the generated image can be transferred.)

Still image shooting interval

Setting		
display	SETUP →	FPS

You can select the continuous shooting setting for using Burst Shooting or Motion Shot LE. To make the setting, select [SETUP] first.

- 1 Press the NEXT button to display [SETUP], then press the ENTER button.
- 2 Press the NEXT button to display [FPS], then press the ENTER button.
- 3 Press the NEXT button to select the setting, then press the ENTER button.

\$ 	Shoots 10 still images in one second. (Suitable for shooting fast-moving objects)
5423	Shoots 10 still images in 2 seconds. (Suitable for action shots of objects)
2:53	Shoots 10 still images in 5 seconds. (Suitable for shooting slow-moving objects)

Notes

• [10f1s], [5f2s], [2f5s] are estimates of the maximum speed. The maximum speed may not be reached depending on the shooting conditions.

SELF-TIMER

Setting		:3332
display	SETUP →	SELF

You can set the self-timer when shooting a still image. The self-timer is available in all still image modes.

To make the setting, select [SETUP] first.

- 1 Press the NEXT button to display [SETUP], then press the ENTER button.
- 2 Press the NEXT button to display [SELF], then press the ENTER button.
- 3 Press the NEXT button to select the setting, then press the ENTER button.

\$	Self-timer is not used.
C'sec	Starts shooting after about 2 seconds.
177 1171 112158.C.	Starts shooting after about 10 seconds.

Notes

• Self-timer does not return to [OFF] after shooting.

Estimated number of recordable photos

(unit: image					
	8 GB	16 GB	32 GB	64 GB	
2M (Interval photo recording) (16:9)	7700	15500	31000	40000	
3.3M (Motion Shot LE)	5100	10000	20500	39000	
13.5M (Still images)	1450	3000	6000	12000	

• When using a Sony memory card.

• The number of recordable photos for the memory card shown is for the maximum image size for your camera. The actual number of recordable photos is displayed on the LCD screen during shooting.

• The number of recordable photos for a memory card may vary depending on the shooting conditions.