Professional JVC camcorders GY-HM200 and GY-LS300

# Streaming to Facebook Live, YouTube and Ustream

Setup Guide



Check our comprehensive line of streaming products at pro.jvc.com:





### Follow these steps to setup GY-HM200 / GY-LS300 streaming to Ustream or YouTube:

- 1. Select recording format to enable network / streaming.
- 2. Plug USB adapter, enable camera network function and connect to Wi-Fi (LAN) network.
- 3. Verify camera's IP Address by pressing *Status* button.
- 4. Using PC/Mac browser, type camera's IP Address to access Settings and Remote page.
- 5. Find *RTMP URL* and *Stream Key* from your Ustream / YouTube accounts.
- 6. Copy and paste these values into camera's Streaming / RTMP settings and click *Save*.
- 7. Assign one of User Buttons to Stream function. Example: User 7, next to zoom control

Camera controls to be used during setup:

- Menu button and Joystick for navigation
- User 3 button to confirm Recording Format changes
- Status button to verify camera's IP Address and connection information



By pressing *Menu* button two menu screens are available – *Main Menu* and *Favorites Menu*. Pressing *Menu* button for two seconds toggles between *Main Menu* and *Favorites Menu*. Any items from the *Main Menu* can be added to the *Favorites Menu* for quick access. Example: Added Connection / Streaming Setup and Record Format to the Favorites Menu.

Main Menu 💷	Favorites Menu 🛛 💷
Camera Function	Connection Setup
Camera Process	Live Streaming Set
TC/UB	Record Format
LCD/VF	Edit Favorites
A/V Set	
System	
DISPLAY Favorites USER3 Add	DISPLAY Main USERS Add

1. Selecting camera Recording Mode and Streaming resolution / bitrate.

While Streaming and Recording to SD card are available simultaneously, some recording modes may inhibit streaming functions. Example: Streaming is not available when in 4K or 1080 HD422 recording modes. Progressive streaming formats are not available when recording interlaced video formats; HD streaming is not possible when recording SD etc.

Setting camera to 1080p (25/30/50/60) H.264 (not 422) recording mode enables all streaming formats.

Recording Mode	Streaming			
Necoluting Mode	<b>27</b> 0p	480i	720p	1080i
4K	Streaming is not possible			
HD422				ible
HD + Web				bible
1080 24p				
1080 25-60p				
1080i				
720p				
480i				

720p is recommended for streaming to Ustream / YouTube



2. Plug Wi-Fi, Ethernet (LAN) or 4G LTE adapter into USB Host connector.

Some USB adapters may be not recognized or generate errors during high-bitrate streaming. Please, use JVC certified adapter for error-free streaming – **Hawking Technology HD65U** 

http://hawkingtech.com/products/hawking\_products/wireless\_ac/hd65u.html



Supported **4G LTE** cellular broadband modems:

Provider	Model	4G LTE	XLTE
Verizon	UML290	V	
Verizon	UML295	V	٧
Verizon	U620L	٧	٧
AT&T	AirCard 313U	V	

**XLTE** nearly doubles upload speed due to simultaneous use of two frequencies.



Enable Network function and connect to available network.

Main Menu 💷	System 🎟
Camera Function	Record Set
Camera Process	Media
TC/UB	Setup File
LCD/VF	Tally Lamp Rec
A/V Set	Language English
System	Network On
DISPLAY Favorites USER3 Add	DISPLAY Favorites USER3 Add
Network Settings 🛛 💷	Connection Setup 🚥
Web	Wizard
Live Streaming Set	Load
Connection Setup	Store
Metadata Server	Delete
Clip Server	
Reset Network	
DISPLAY Favorites USER3 Add	DISPLAY Favorites USER3 Add
Available Adapter	Select Connection Type
Wireless LAN	P2P Connect with Access Point
▲Back Next▶	■Back Next

Follow menu prompts until successful connection is established.

Connection status is displayed in the upper right corner of Viewfinder and LCD screen:

(Ⅲ 172min A)115min B)min	STBY	100:02:44.04
		Feb 15,2015 08:05:51PM
1280×720 60p 35M		
		ND 1/16 0dB
CH1 111. -∞ 4030 20 10 0 CH2 11	(III) M	F1.2 B< 5600K> 1/60

Network symbol is **Yellow** while obtaining IP address and **White** when connected to network.

System Reset: *Menu* → *System* → *Reset All* is recommended if connectivity problem occurs.

3. Press Status button and using left-right joystick controls, navigate to the *Network* Status page. (Press Status again to cancel)

	Net	work	
	Туре	Access Point	
	SSID	Home_Wi-Fi	
And	Security Type	WPA2	
	Passphrase	******	
	DHCP	On	
and a status	IP Address	192.168.1.109	
	MAC Address	7CDD908029CD	

Note that 192.168.1.109 is camera's IP Address. (Your IP address may be different)

4. Now, you will need PC/Mac connected to the same network.



Enter <u>http://192.168.1.109</u> in PC/Mac browser to access camera's Remote Control page.

User Name: jvc Password: 0000 (four zeroes)



5. Open your Ustream account page in the new browser window and navigate to *Channel Settings*. Click on *Broadcast Settings* and select *Encoder Settings* 

CHANNELS	Broadcast Settings		
<b>бүнм200</b>	ow Auto-recording	Settings	
Info	Auto-recording is enabled for this channel. Only you can see your auto-recorded videos.		
Events			
Email Capture	Multi-quality streaming           Multi quality streaming is enabled for this channel.	Settings	
Videos			
Security	Encoder settings	View	
Off Air			
Chat	Encoder settings		
Channel page	<ul> <li>Back to Broadcast settings</li> </ul>		
Metrics	Manual Fata		
Followers	Manual Entry Enter these values into the appropriate fields in your encoder's configuration interface.		
Sharing	RTMP URL:		
Player settings	rtmp://1.19958973.fme.ustream.tv/ustreamVi		
Embed	Stream Key:		
Broadcast settings	G4jxvJrG82UhAaEj8PpEPwCMPCt8HCMJ		

6. Copy and Paste RTMP URL and Stream Key (one by one) into camera's RTMP setup page.

<ul> <li>♦ ● 192.168.1.109</li> </ul>	
	🗆 🚆 🌣
Setting	s > Live Streaming
Destination Server	Select
Alias	Ustream
Type UDP	TCP RTSP Zixi RTMP
URL	rtmp://1.19931266.fme.ustream.tv/ust
Stream Key	ZmxYcZYuuLgHCZG6sYa2DRy4b6U
Cancel	Save



#### For YouTube, proceed to: My Channel - Video Manager - Live Events - New Live Event

You Tube  $\equiv \cdot$ Q CREATOR STUDIO / Info and Settings Ingestion Settings Cards Live Control Room DASHBOARD Event successfully saved. VIDEO MANAGER GY-HM200 Videos Live Events Main Camera Add a Camera Playlists **Copyright Notices** Thumbnail Please upload as large an image as possible (suggested: 1280x720) since the image will also be used as the 2 COMMUNITY embedded on other sites. You can upload a JPG, GIF, BMP, or PNG file. Maximum file size is 2MB. × Browse CHANNEL × Choose maximum sustained bitrate of your encoder \* ANALYTICS ~ Select a range that corresponds to the maximum sustained output your encoder provides. C Basic ingestion Custom ingestion CREATE × 720p (720p) 🔻 Send feedback Select your encoder YouTube Live provides support for a variety of encoders. Select one of the encoder options below and follow the instructions. Other encoders • 1. Configure your encoder Recommended settings 🕐 2. Copy and paste into your encoder Enter the stream names and URLs in the configuration options of your encoding software. Stream Name Stream Key gy-hm200-8681.aw4f-vqp0-f4m6-4re8 Primary Server URL rtmp://a.rtmp.youtube.com/live2 URL Backup Server URL rtmp://b.rtmp.youtube.com/live2?backup=1 3. Start your encoder In your encoder, start sending us your video stream. 4. Go to the Live Control Room. You can preview and start your event from the Live Control Room.

Select Custom ingestion and Other encoders to see RTMP credentials

## For Facebook Live:

# https://www.facebook.com/facebookmedia/get-started/live

Page Messages Notific	tions 7 Insights Publishing Tools		Settings Help -
Posts	Video Library		+ Live + Upload
Published Posts Scheduled Posts	Search Q Actions -		Filters
Drafts	Video	Views	Date Added 🗸
Expiring Posts Expired Posts		<b>(</b> ) 0	• May 26, 2016 at 5:33pm Lucas Veras
Videos Video Library	ref video 26 may 1	7	• May 26, 2016 at 5:34am Ankita Patel
	, streamed directly from your professional video e	equipment or encoding	g software. This is not
r creating live videos iror	i your computer's webcam.		
Secure connection (SSL) A secure connection is bet	er, but it may not work with all encoders.		
	oftware, you will use either the Single Field or Separate F	Fields option below. Copy	the contents of these text
elds into your video streaming	software's set-up fields. Learn more about live video		
Server or Stream URL ()	rtmp://rtmp-api.facebook.com:80/rtmp/1226317077418	250?ds=1&s_l=1&a=AaZ2	Z8P5Au7L8KN5F
	OR		
eparate Fields			
Server URL 👩	rtmp://rtmp-api.facebook.com:80/rtmp/		
Stream Key 😗	1226317077418250?ds=1&s_l=1&a=AaZZ8P5Au7L8K	N5F	
	secret. Anyone can use them to stream video to your pos I have up to 5 hours to go live. If you need more time, cre		
			Next

## Selecting Streaming Format and Bitrate.

Depending on local conditions and type of connection (Wi-Fi, Ethernet or 4G LTE) different streaming formats and bitrates may be chosen to provide smooth streaming and pleasant viewing experience. Keep in mind that slightly lower resolution but stable stream is always preferable vs. higher resolution video, which stops and breaks abruptly.

It is always good idea to check you connection speed with Speed Test tools utilizing smart phone, tablet or PC prior to start streaming. Check *Upload speed*, not *Download* since you will be uploading (pushing) video to the server.



JVC camcorders offer wide range of streaming bitrates from as low as 0.2 Mbps for Skype-like video to broadcast-quality streaming @ 5-8-12 Mbps.

	Streaming - Bit Rate, Mbps							
Format	0.2	0.3	0.8	1.5	3	5	8	12
480x270p								
720x480i	recommended							
1280x720p	recommended							
1920x1080i						re	ecomm	nended

The rule of thumb is to select *streaming bitrate* at approximately 50-65% of *available upload speed*. Depending on type of video: low motion (interview, focus group, "talking head" etc.) or high-motion (sports, action, stage) chose 480i or 720p/1080i formats.

Speed Test		Type of Video		
speed	Test	Low Motion	High Motion	
Download	Upload		High Motion	
	1.5	480i @ 0.8 Mbps		
	3	720p @ 1.5	480i @ 1.5	
-	5	720p @ 3 Mbps		
	7	720p / 1080i @ 5 Mbps		

8. And finally, one of camera's eight *User Buttons* can be assigned to Streaming function.

 $\mathsf{Menu} \rightarrow \mathsf{Camera} \; \mathsf{Function} \rightarrow \mathsf{USER} \; \mathsf{Switch} \; \mathsf{Set} \rightarrow \mathsf{USER7} \rightarrow \mathsf{Live} \; \mathsf{Streaming}$ 

Example: We chose *Rec*/7 (User 7) button located next to zoom rocker.



Setup is complete and now, you can stream live to Ustream by pushing *Rec*/7 button.

All settings are stored in the camera (four separate Ustream channels/accounts can be saved).



For more information visit: pro.jvc.com