# JVC

# GY-LS300CH INSTRUCTIONS Notification of Changes 2

This is a notification on the addition of new features, feature modifications and onscreen display changes. Please read this together with the "INSTRUCTIONS".

# High speed shooting feature added

A moving subject can be effectively portrayed by shooting smooth slow motion images.

# "High-Speed" added to menu item [System]

"High-Speed" is added to [System]  $\rightarrow$  [Record Set]  $\rightarrow$  [Record Format]  $\rightarrow$  [System].

| System         | Format        | Resolution | Frame<br>Rate   | Bit Rate               |
|----------------|---------------|------------|---|------------------------|
| High-<br>Speed | Quick<br>Time | 1920x1080  | 120/60p<br>100/50p<br>120/30p<br>60/30p<br>100/25p<br>50/25p<br>120/24p<br>60/24p | 50M (XHQ)<br>35M (UHQ) |

#### Memo:

• The [Rec Mode] is fixed at "Normal".

- The following functions cannot be used when "High-Speed" is selected. Network, Time Stamp Recording, Flicker Correction, Shading, Face Detection and WDR
- The settings for slot B are fixed at the same as slot A.
- For the "TC Generator" setting, only "Rec Run" and "Regen" can be selected.
- It is not possible to set a shutter speed that is slower than the frame rate.
- (Example: When 120/60p is selected, 1/120 to 1/10000 can be set.)
- The Variable Scan Mapping for the angle of view is fixed at "46%".
- The sensitivity of high speed shooting is lower than normal shooting. In order to capture more beautiful images, it is recommended to perform shooting in a lighted environment.
- The remaining space on the media (recordable time to a SD card) runs out faster than usual.

(Example: For 120/60p, as the recording speed is twice as fast as usual, the remaining space on the media is reduced by approximately double the speed.)

# Usable Cards

Format Setting and Usable SD Card Combinations

| System     | Format        | Bit Rate                   | Usable<br>SD Card  |
|------------|---------------|----------------------------|--------------------|
| High-Speed | Quick<br>Time | 50M (XHQ)<br>35M (UHQ)     | UHS-I U3 or higher |
| CAK AK     |               | 150M                       |                    |
| 04N, 4N    |               | 70M                        | Class 10 or higher |
| C2K        |               | 50M (YUV422),<br>50M (XHQ) |                    |
|            |               | 50M (YUV422),<br>50M (XHQ) |                    |
| пр         |               | 35M (UHQ)                  | Class 6 or higher  |
|            | AVCHD         | _                          | Class 4 or higher  |
| SD         | _             | _                          |                    |
| Web        | _             | _                          |                    |

# "46%" added to setting value of Variable Scan Mapping

A fixed angle of view at "46%" for high speed shooting is added to the option for normal shooting.

By using the "46%" setting to perform normal shooting, it is possible to shoot at the same angle of view as high speed shooting.

# Variable gain mode added

In addition to the 3 dB increment switching with the GAIN selection switch, it is possible to make finer adjustments using the iris dial.

### "Variable Gain" added to menu item [Iris Dial]

"Variable Gain" is added to [Camera Function]  $\rightarrow$  [Iris Dial]. With this additional setting value, the name of the existing option "Iris/ Shutter/AE Level" is changed to "Selectable".

If "Selectable" is selected, the iris dial that is normally used to adjust the iris will be used to adjust the variable gain when the user button assigned with Variable Gain is pressed. It is used to adjust the shutter speed and the AE level when the shutter button and AE button are pressed respectively. Pressing the respective buttons after adjustment is complete confirms the setting value, and the iris dial resumes its iris operation.

#### ■ "Variable Gain" added to menu items [USER1] to [USER10] and [LCD KEY▲▼◀►]

"Variable Gain" is added to [Camera Function]  $\rightarrow$  [User Switch Set]  $\rightarrow$  [USER1] to [USER10]/[LCD KEY $\blacktriangle \lor \blacklozenge$ ].

#### Memo:

 While in the Variable Gain state, operating the GAIN selection switch and turning off the power of the camera recorder will cancel the Variable Gain mode. The gain setting assigned to the GAIN selection switch will be used.

# Manual iris mode added

High speed mode is added to the operation speed during Manual Iris mode.

This allows for quick control using the iris dial.

### [Manual Iris Mode] added to menu item

- [Manual Iris Mode] is added to [Camera Function]. • Quiet:
  - Controls the iris smoothly. (Existing operation)
- Quick: Controls the iris with high speed. Drive noise can occur depending on the lens used.
- Auto:

"Quiet" is enabled during recording. For operations other than recording, "Quick" is enabled to control the iris. [Setting Values: ● Quiet, Quick, Auto]

#### Memo:-

This setting may not be effective depending on the lens used.

# Zoom operation expanded with Variable Scan Mapping

Besides using only the zoom lever at the grip to perform zoom operations, it is also possible to do so using the zoom lever at the handle, via remote and via web browser.

# [Zoom Control] added to menu item

[Zoom Control] is added to [Camera Function].

This item is for selecting the control setting during the following zoom operations.

- Grip on the camera unit
- Zoom lever at the handle of the camera recorder
- Control via remote
- Control via web operation

If "Power Zoom" is selected, it is possible to control the zoom operation of a zoom lens equipped with electronic zoom control function. If "VRSM-z" is selected, it is possible to zoom within the boundary of Variable Scan Mapping by adjusting the scan range of the sensor. The maximum zoom range is approximately 1.2x for "4K" and 2.3x for

"HD". The images of the zoom display on the upper right corner of the screen is displayed on the screen.

[Setting Values: ● Power Zoom, VRSM-z]

# Memo:

- If "Grip Zoom" is set to "Focus", the grip on the camera unit operates as a focus control regardless of the [Zoom Control] setting.
- With this additional menu item, "VSM-z" is removed from the setting values for [Camera Function] → [Grip Zoom].

# Ease function added to Preset Zoom

This function helps to smoothen the speed transition at the start and end of the Preset Zoom operation.

#### [Ease In] added to menu item

[Ease In] is added to [Camera Function]  $\rightarrow$  [User Switch Set]. This item is for setting the speed transition at the start of the Preset Zoom operation. The larger the setting value, the smoother the transition. [Setting Values:  $\bigcirc$  Off, 1~5]

[Ease Out] added to menu item

[Ease Out] is added to [Camera Function]  $\rightarrow$  [User Switch Set]. This item is for setting the speed transition at the end of the Preset Zoom operation. The larger the setting value, the smoother the transition. [Setting Values:  $\bigcirc$  Off, 1~5]

#### Memo:

- If "Off" is selected, the Ease function is disabled.
- When [Camera Function] → [Zoom Control] is set to "Power Zoom", this item appears as "Off" and cannot be selected.

# "98%" added to setting value of zebra pattern

This convenient setting is added to keep the video level within 100% during the video production for playback, screening and broadcasting on nonlinear devices and PC.

"98%" added to [Top] and [Bottom] of menu item [Zebra] "98%" is added to the setting values for specifying the upper and lower limits of the luminance level in [LCD/VF] → [Shooting Assist] → [Zebra]/[Top] and [Bottom].

[Top] [Setting Values: 5% to ● 80% to 95%, 98%, 100%, Over] [Bottom] [Setting Values: 0% to ● 70% to 95%, 98%, 100%]

# Improved LCD backlight brightness

A brightness setting that is 2 times the existing brightness setting has been added.

- This improves the visibility and allows for more delicate focusing.
   Setting Values added to menu item [LCD Backlight]
  The brightness is improved by changing the setting value of [LCD/VF]
  → [LCD Backlight] Increasing the value increases the brightness
- → [LCD Backlight]. Increasing the value increases the brightness. [Setting Values: -1, 0, +1]

# SMPTE 2022-1 FEC supported

MPEG2-TS/RTP is added to streaming type and SMPTE2022-1 FEC is supported.

- Also, the "MPEG2-TS/TCP" setting value is removed.
- "MPEG2-TS/RTP" added to menu item [Type]

"MPEG2-TS/RTP" is added to [System]  $\rightarrow$  [Network]/[Settings]  $\rightarrow$  [Live Streaming Set]  $\rightarrow$  [Server]/[Streaming Server]  $\rightarrow$  [Server1] to [Server4]  $\rightarrow$  [Type].

[Setting Values: ● MPEG2-TS/UDP, MPEG2-TS/RTP, RTSP/RTP, ZIXI, RTMP]

#### Note : -

• With the addition of this setting value, "MPEG2-TS/TCP" is removed from the setting values of [Type].

#### [SMPTE 2022-1 FEC] added to menu item

When "MPEG2-TS/RTP" is selected in [System]  $\rightarrow$  [Network]/[Settings]  $\rightarrow$  [Live Streaming Set]  $\rightarrow$  [Server]/[Streaming Server]  $\rightarrow$  [Server1] to [Server4]  $\rightarrow$  [Type], [SMPTE 2022-1 FEC] can be configured. Set to "On" to use FEC (Forward Error Correction). This is a transmission system that recovers the missing packets in the decoding process without having to retransmit the missing packets. [Setting Values: On,  $\bigoplus$  Off]

The decoder must be compatible with SMPTE 2022-1.

### ■ [FEC Matrix] added to menu item

For setting the amount of FEC (Forward Error Correction) overhead for configuring SMPTE 2022-1.

#### Memo:

- This item is selectable only when [SMPTE2022-1 FEC] is set to "On".
- When [Type] is set to "MPEG2-TS/RTP", only even numbers from 2 to 65530 can be specified as the port number for the transmission destination port.
- When [Type] is set to "MPEG2-TS/RTP" and [SMPTE2022-1 FEC] is set to "On", N+2 and N+4 port numbers are also used in addition to the port number (N) specified for the transmission destination port.

#### Setting the FEC Matrix

Set the amount of "FEC" (Forward Error Correction) overhead for configuring [SMPTE 2022-1].

Select [System] → [Network]/[Settings] → [Live Streaming Set] → [Server]/[Streaming Server] → [Server1] to [Server4] → [Type] → [FEC Matrix], then press the Set button (●).

The FEC adjustment screen appears.



# 2 Adjust the L and D values.

Use the  $\blacktriangleleft/\blacktriangleright$  buttons to adjust the L value, and the  $\blacktriangle/\blacktriangledown$  buttons to adjust the D value.

The amount of FEC overhead changes when the L and D values are changed.

To restore the L and D values to their default values, press the [C.REVIEW/4] button.

# • Setting range

- $4 \leq L \leq 20$  (Default value: L = 10)
- $4 \leq D \leq 20$  (Default value: D = 10)
- $L \times D \leq 100$  (Default value:  $L \times D = 10 \times 10$ )

# **3** Press the Set button (ullet).

The screen returns to the streaming server setting screen.

| Streaming Server Set 🚥 |              |  |  |  |  |
|------------------------|--------------|--|--|--|--|
| Alias                  | Server1      |  |  |  |  |
| Type 🛛 🛚               | 1PEG2-TS/RTP |  |  |  |  |
| Destination Address    |              |  |  |  |  |
| Destination Por        | t 6504       |  |  |  |  |
| SMPTE 2022-1           | FEC On       |  |  |  |  |
| FEC Matrix             | 10×10        |  |  |  |  |
| DISPLAY Favorites      |              |  |  |  |  |

#### Memo:

- Increasing the amount of FEC overhead increases the packet loss resilience but more network bandwidth is used.
- Even with the same amount of overhead, increasing the L value will increase the packet loss (continuous packet loss) resilience.

# High reliability mode added to ZIXI

High latency (high reliability) mode is added to ZIXI.

"High" is added to menu item [Latency]
 "High" is added to [System] → [Network]/[Settings] → [Live Streaming Set] → [Server]/[Streaming Server] → [Server1] to [Server4] → [Latency].

[Setting Values: High, Medium, ● Low, Minimum (ZIXI Off)]

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