



GY-HM200SP

Additional Functions

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Please read this together with the “INSTRUCTIONS”.

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Be sure to format the SDHC/SDXC card on this camera recorder. SDHC/SDXC cards formatted on a PC and other peripheral equipment cannot be used on this camera recorder.

Score Overlay

This camera recorder enables single-camera sports coverage producing real-time score overlays on recorded or streamed HD video. This function is available when the recording resolution is 1920x1080 or 1280x720.

■ Selecting the Scoreboard Type

Memo:

- When displaying Football (Soccer) or Hockey (Ice Hockey), import an SDP file to the camera recorder in advance. Create these SDP files in the SDP Generator.
(P14 “Importing an Image Containing the Team Name and Logo”)
Next, select the imported SDP files from [Main Menu] → [Overlay Settings] → [Layout].
-

Press the [MENU] button of the camera recorder to display the menu screen, and then select a scoreboard type in [Main Menu] → [Overlay Settings] → [Type]. Then press the [MENU] button to close the menu screen. The types that are selectable include Type 1, Type 2, Football (American Football), Basketball, Baseball, Football (Soccer) and Hockey (Ice Hockey).

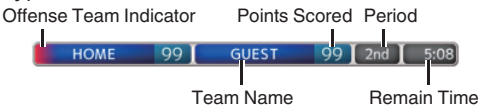
However, the selectable types may vary according to the [Layout] setting.

Selecting a Position to Display the Scoreboard

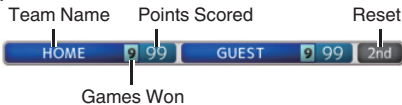
The scoreboard can be displayed at the following positions on the screen. Create an SDP file with the desired display position in the SDP Generator and import the file to the camera recorder. (☞ P14 “Importing an Image Containing the Team Name and Logo”)

Type		Overlay Location
Type 1		Top, Bottom
Type 2		Top, Bottom
Football (American Football)		Top, Bottom
Basketball		Top, Bottom
Baseball		Top Right, Bottom Right, Top Left, Bottom Left
Football (Soccer)	Small	Top Right, Bottom Right, Top Left, Bottom Left
	Large	Bottom (not changeable)
	Penalty Shoot-out	Bottom (not changeable)
Hockey (Ice Hockey)		Top Right, Bottom Right, Top Left, Bottom Left

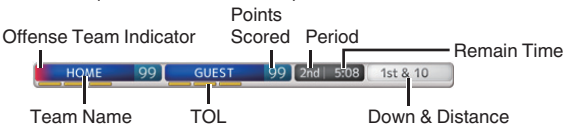
- Type 1:



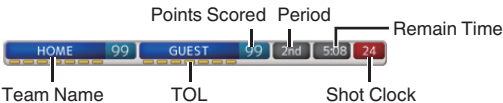
- Type 2:



- Football (American Football):



- Basketball:



- **Baseball:**

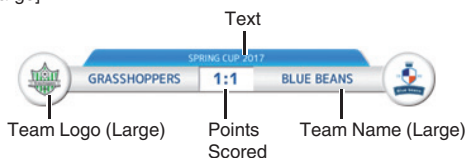


- **Football (Soccer):**

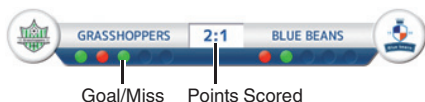
Select [Small], [Large] or [Penalty Shoot-out] in the Overlay Control web screen.



[Large]



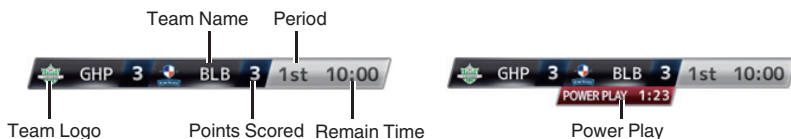
[Penalty Shoot-out]



- **Hockey (Ice Hockey):**

Select [Small] or [SHOOTOUT] in the Overlay Control web screen.

[Small]



[SHOOTOUT]

Rounds 1 to 3



Rounds 4 and later



- **None:** Does not display

I Inputting Scoreboard Data

- 1 Following the “Connecting to the Network” in the “INSTRUCTIONS” manual stored in the CD-ROM or the Mobile User Guide (<http://manual3.jvckenwood.com/pro/mobile/global/index.php>), connect a network device such as a smartphone or a tablet with the camera recorder via network. Then, launch a web browser on the network device.
- 2 Enter the following URL in the address field of the web browser.

http://

Example: <http://192.168.0.1>

To find the “IP address of the camera recorder”, press the [STATUS] button of the camera recorder to display the status screen and then use the cross-shaped button (◀▶) to display the [Network] screen.

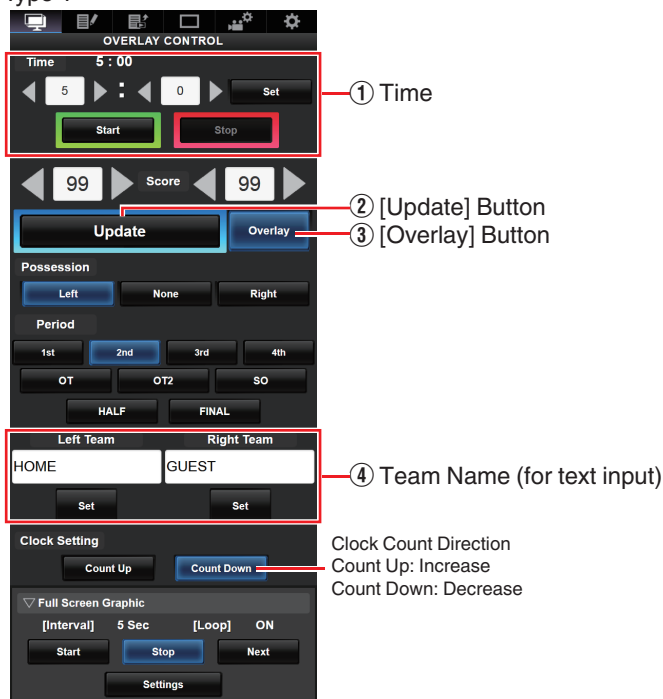
- 3 Enter the username (jvc) and password (default: 0000) on the login screen. And then press the Overlay Control icon at the top left corner of the screen or the [Overlay Control] button to display the score input screen.



- 4 The web browser displays the following screen according to the [Type] setting of the camera menu.

Data other than numerical values will be reflected immediately on the score overlay without having to press the [Update] button.

- Type 1



① **Time**

The start time entered is reflected on the score overlay by pressing the [Set] button.

② **[Update] Button**

Reflects numerical values such as score and distance on the score overlay.

③ **[Overlay] Button**

Turns the score overlay on or off.

④ **Team Name (for text input)**

If the SDP file selected in the menu item [Main Menu] → [Overlay Settings] → [Layout] of the camera recorder contains more than one team name image, this item is grayed out and text input is disabled.

⑤ **[Display] Button**

Displays or hides a specified area.

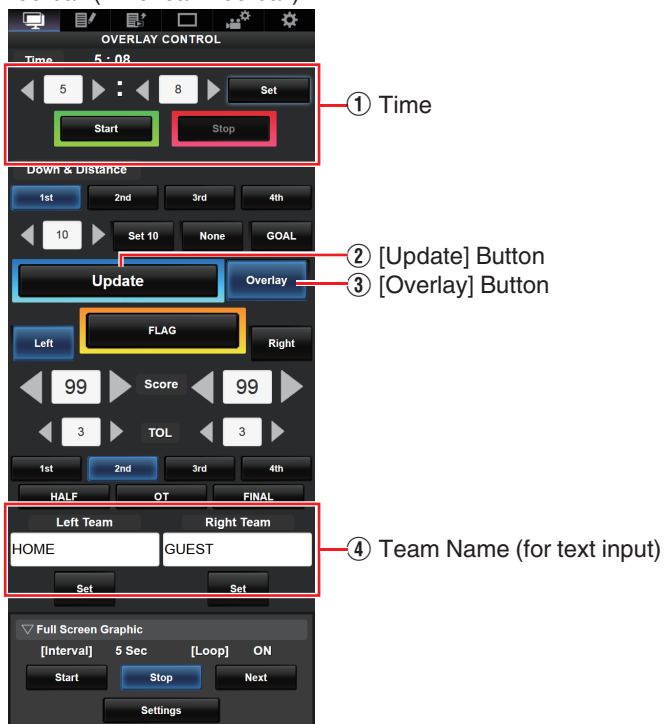
Memo:

- Press the [DISPLAY] button of the camera to switch the display mode if the overlay is difficult to see due to the camera operation graphics.
- When the camera is live streaming while recording, the update interval of the time display may not be constant. When this happens, reduce the resolution of the live streaming.

- Type 2



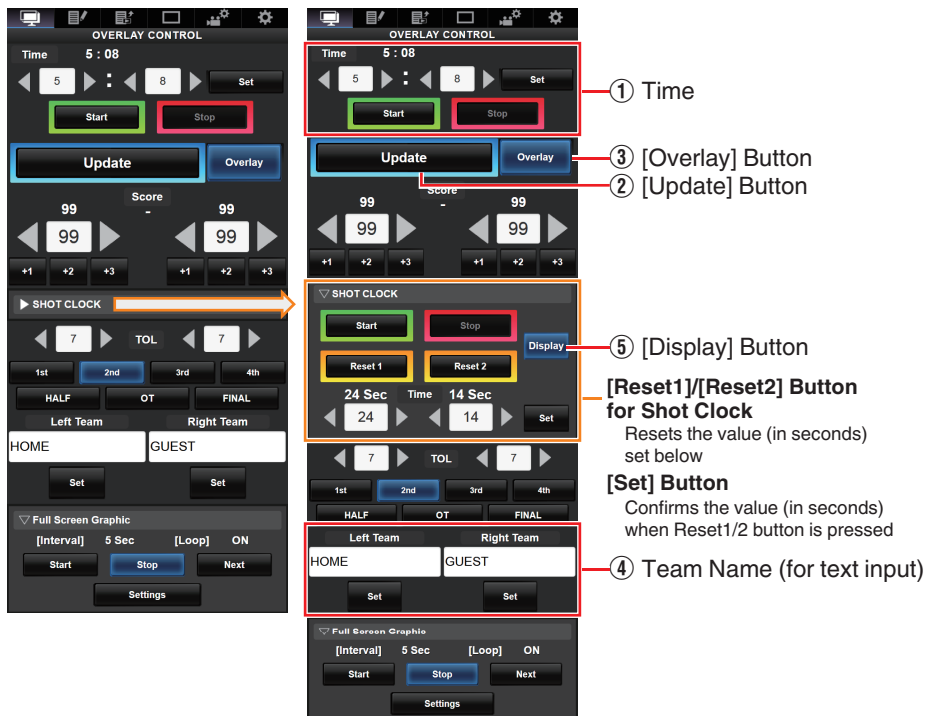
- Football (American Football)



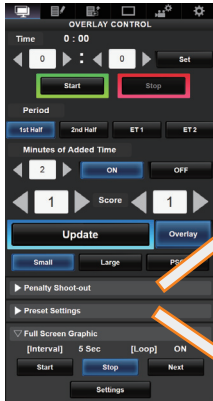
● Baseball



● Basketball



- Football (Soccer)



① Time

Time (Left):

Currently displayed match time.

Time (Right):

Currently displayed additional time.

Displayed only during additional time.

Period:

Can be changed only when the clock is stopped.

Minutes of Added Time:

Displays the additional time granted only during additional time if "ON" is selected.

② [Update] Button

③ [Overlay] Button

Display Type:

[Small] Button: Small display

[Large] Button: Large display

[PSO] Button: Penalty Shoot-out display

Penalty Shoot-out:

Use when "PSO" is selected.

Preset Settings:

Items to be set before the match.

Set the duration of each halftime, texts to be displayed in the Large display, and team names to be used in the Small and Large displays.

④ Team Name (for text input)

- Hockey (Ice Hockey)

1 Time

Power Play:
Entering the penalty time displays the power play state that corresponds to it.

2 [Update] Button

3 [Overlay] Button

Display Type:
[Small] Button: Small display
[SHOOTOUT] Button: Shoot-out display

SHOOTOUT:
[Round 1-3] Tab: For round 1 to 3
[Round 4+] Tab: For round 4 and later

4 Team Name (for text input)

Additional time display for Football (Soccer):

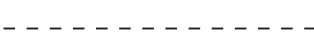
The display of additional time toggles on and off automatically depending on the elapsed time of [Time] and the status of [Period]. Whether a match is in additional time is determined by the setting values of [Duration of Each Half] and [Duration of Each Half of ET] of [Preset Settings]. The display example is as follows.

Example) Duration of Each Half: "45:00", Duration of Each half of ET: "15:00"

Period	Time	Time Display
1st Half	1:23	
	46:23	
2nd Half	46:23	
	91:23	
ET 1	91:23	
	106:23	
ET 2	106:23	
	121:23	

Power play for Hockey (Ice Hockey):

Depending on the state of the penalty time, power play is automatically displayed or hidden. The display example is as follows.

Penalty Time				Time Display	
Left Team		Right Team		Display Position	Display Time
Penalty 1	Penalty 2	Penalty 1	Penalty 2		
0:00	0:00	0:00	0:00		—
0:00	0:00	Time C	0:00		Time C
0:00	0:00	Time C	Time D		Time C or D (the smaller of the two)
Time A	0:00	0:00	0:00		Time A
Time A	0:00	Time C	0:00		Time A or C (the smaller of the two)
Time A	0:00	Time C	Time D		Time A, C or D (the smallest of the three)
Time A	Time B	0:00	0:00		Time A or B (the smaller of the two)
Time A	Time B	Time C	0:00		Time A, B or C (the smallest of the three)
Time A	Time B	Time C	Time D		Time A, B, C or D (the smallest of the four)

Setting the Team Display

Team names can be displayed by one of the following ways.

- Specifying texts directly from web browser
- Importing an image containing the team name and logo

Specifying Texts Directly from Web Browser

Enter the texts in the Overlay Control web screen. Available characters are as follows. However, text cannot be entered when using a SDP file containing team name images.

!#\$%&'()*+,-./0123456789;<=>?@ABCDEFGHIJKLMNOpqrstuvwxyz[^_`abcdefg hijklmno
pqrstuvwxyz{|}~¡¢£¥¦§¨ª«¬®¯°±²³´µ¶·¸¹º»¼½¾¿ÀÁÂÃÄÅÆÇÈÉÊËÌÍÎÏÐÒÓÔÕÖ×ØÙÚÛÜÝÞ
ßàáâãäåæçèéêëìíîïðóôõö÷øùúûüýþÿĠġĢģĤĥĦħĨĩĴĵŒœŠšŜŝŽžƒˆ—™“”†‡…‰©€™

Importing an Image Containing the Team Name and Logo

To display a team name with logo or a team name that contains characters that are not available for input, an image can be imported to the camera recorder in place of text input for display at the team name area of the score overlay. The data file (SDP file) to be imported can be generated by an SDP Generator, a PC/Mac application. A maximum of 30 teams can be registered. Please refer to the following GY-HM200SP URL for more details on the SDP Generator.

North America:

http://pro.jvc.com/prof/attributes/features.jsp?model_id=MDL102399

Europe:

<http://jvcpro.eu/video/product/697/qy-hm200sp-sports-production-camera/>

Caution:

- Please check the content and font licenses of the image before use.

- 1 Copy the SDP file generated by the SDP Generator to the root folder of an SDHC/SDXC card. Specify a name for the SDP file that is not longer than 63 alphanumeric characters with a “sdp” extension.
Example: [overlay1.sdp]
- 2 Insert the SDHC/SDXC card in which the SDP file is copied into slot A or B, then select [Main Menu] → [Overlay Settings] → [Import User Layout].

- 3 The SDP files in the root folder of the SDHC/SDXC card are displayed (max. 8 files per slot). However, if the file name is long and cannot be displayed on the menu screen, the file will be displayed with part of the file name omitted. Select an SDP file to import from the list of displayed SDP files.
- 4 Select an import destination from areas 1 to 4 to start importing. If you select an area where a file name is already displayed, a confirmation screen asking whether to overwrite will appear. It will take about 20 to 30 seconds to complete the import. "Complete" will be displayed at the end. A gray display area indicates insufficient space and it cannot be selected. Select another area or delete SDP files that are not required in advance in [Main Menu] → [Overlay Settings] → [Delete User Layout].

Caution:

- Do not turn off the power of the unit during import. You may lose the import data.

In the case of import failure, the following messages may appear.

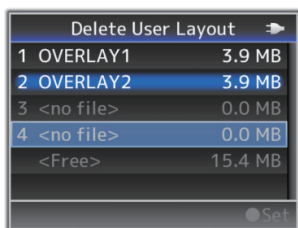
Error Message	Status	Action
Failed To Read File From Media!	• SD card is defective. • SDP file data is corrupted..	• Use other SD card. • Use the SDP file generated by the SDP Generator.
No User Layout Exists.	• SDP file data is corrupted.. • The camera recorder version is old and an unknown SDP file has been imported.	• Use the SDP file generated by the SDP Generator. • Update the firmware for the camera recorder to the latest version.
Failed To Write File To The Camera!	There may be a problem with the camera.	Please contact the local dealers in your area.
Import Error!	An internal error has occurred.	Please contact the local dealers in your area.

- 5** When import is successful, the name of the imported SDP file will be added to the [Main Menu] → [Overlay Settings] → [Layout] item. Select an SDP file name suitable for overlay. If a valid SDP file is not imported to the camera recorder, or if the SDP file imported does not match the recording format of the camera recorder, the [Type] item will be displayed as “None” and grayed out. Import a correct SDP file with [Import User Layout].
- 6** Select the team name to display in [Main Menu] → [Overlay Settings] → [Left Team] (*) or [Right Team] (*).
- * This menu item name can be changed in the SDP Generator settings.

Deleting an Imported SDP File

You can delete an imported SDP file.

- 1** Select [Main Menu] → [Overlay Settings] → [Delete User Layout].
- 2** Select an SDP file to delete. The blue line at the background of the SDP file name indicates that the file is applied for the current overlay.



Memo:

- The imported SDP file cannot be deleted in [Main Menu] → [System] → [Reset All]. Please use this function to delete.
-

■ Displaying the Image in Full-Screen (Full-Screen Graphic Function)

This function allows images of announcements, advertisements and the like to be overlaid on the entire screen.



Importing the Image to Display to the Camera Recorder

- 1 Get ready the image to be displayed. Format supported include JPEG (.jpg extension) and PNG (.png extension).
- 2 Copy the image file to the root folder of the SDHC/SDXC card. The maximum number of files that can be copied is 50. The display order can be sorted according to the file name. Use an SDHC/SDXC card with recording specifications that fit the current recording settings of the camera recorder.

Rules for the file name:

- Add a 2-digit number from 01 to 50 to the beginning of the file name. The files will be displayed in ascending order according to the number.
Example: When files with the names of 01flower.png, 02car.jpg and 13red.png are imported, they will be displayed in the following sequence: 01flower.png → 02car.jpg → 13red.png
 - Only alphanumeric characters and underscore (_) can be used for the 3rd and subsequent characters of the file name.
 - Make sure that the file name does not exceed 31 characters.
-
- 3 Select [Main Menu] → [Overlay Settings] → [Full Screen Graphic] on the camera recorder unit.
 - 4 Insert the SDHC/SDXC card that contains the copied image file into the SD card slot A or B of the camera recorder, followed by selecting [Graphic Import A] or [Graphic Import B] accordingly and execute import.
When import is executed, the previously imported image will be deleted.

- 5** To delete an imported image file, select [Delete Graphic]. The imported image file cannot be deleted in [Main Menu] → [System] → [Reset All].

Memo:

- The total number of imported image files and the amount of space used can be viewed in [Main Menu] → [Overlay Settings] → [Full Screen Graphic] → [Status]. The amount of space that is displayed may be larger than the actual size of the files.
- The largest size that can be imported is approximately 23 MB, which also includes the amount of space as shown in [Status] and the size of the imported SDP files.
- Images that can be displayed are as follows.

	Recording Resolution	
	1920x1080	1280x720
Image Size	960x540	640x360
File Size	1 MB and below	

JPEG

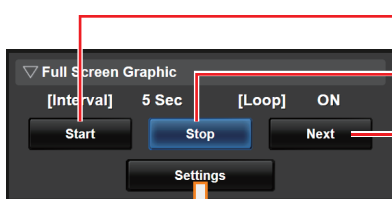
- Gradation: 8 bits
- Pixel format: YCbCr or grayscale
- Baseline JPEG

PNG

- Bits/Channel: 1, 2, 4, 8
 - Pixel format: Grayscale, indexed, truecolor (RGB), grayscale with alpha, truecolor with alpha (RGBA)
 - Non-interlaced PNG
 - When an image that cannot be displayed is imported to the camera recorder, a camera error message indicating that “Unsupported Graphic Format” appears when the camera recorder attempts to display the image. Check in advance to ensure that the image can be displayed as expected.
 - When the frame rate of the recording format is 60i or 50i, the image will not be displayed in the 12 lines at the bottommost part of the screen.
-

Displaying Images

Start from the Input Scoreboard Data web screen. (☞ P6 “Inputting Scoreboard Data”)



Start:

Starts displaying the image.

Stop:

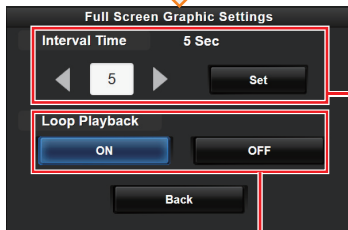
Stops displaying the image.

Next:

When image is displayed: Displays the next image

When image is not displayed: Starts displaying the image following the last image displayed previously.

Depending on the state of the camera, it may take some time before the image is actually displayed after pressing “Next”. (→ Memo)



Interval Time:

For setting the display time for a single image.

Depending on the state of the camera, it may take some time before the image is actually displayed after pressing “Start”. Also, an image may be displayed for a longer period of time than the preset interval time. (→ Memo)

Loop Playback:

Set to [ON] to display the first image after displaying the last image.

Memo:

- To continue displaying a single image, set [Interval Time] to “0”.
- The image may be displayed longer than several tens of seconds when recording and live streaming is being executed simultaneously or when there are many information displayed on the LCD/VF screen. In this case, reduce the resolution and bit rate of the recording and live streaming or press the [DISPLAY] button of the camera recorder several times to minimize the information displayed on the LCD/VF screen.
- To make use of the full-screen graphic function without displaying the score, select a setting other than “None” in [Main Menu] → [Overlay Settings] → [Type], followed by disabling the [Overlay] button on the Overlay Control web screen.
- During the displaying of images, if the format of the next image intended for display is not supported, “Unsupported Graphic Format” message appears on the camera and the image will not be displayed. Import an image with a displayable format.
(☞ P17 “Importing the Image to Display to the Camera Recorder”) → “Memo”

Selecting a Destination to Display the Overlay

When [Type] in the Overlay Settings is set to a value other than “None”, you can select whether to overlay the image onto HD recordings or HDMI/SDI external outputs.

[Main Menu] → [Overlay Settings] → [Output]
▶ HD Recording
For setting whether to overlay a scoreboard on HD recording clips.
▶ HDMI/SDI
For setting whether to overlay a scoreboard on external video outputs such as HDMI, SDI and AV Output terminal.

Memo:

- When the recording format is “HD+Web”, the scoreboard display is always overlaid on the “Web” recording clip.
- The scoreboard display is always overlaid on live video streaming.
- When [HDMI/SDI] is set to “Off”, [AV Set] → [Video Set] → [Display On TV] will become “---”.
- The settings cannot be changed during recording or live streaming.
- When using the SD side cut output function while recording score overlay in HD mode, the left and right edges of the score display may be cropped.
- When the recording format is “HD”, the overlay display settings are also reflected when switched to the Time Stamp output.

Ingesting the Scoreboard Data Automatically

By using a scoreboard solution supplied from Sportzcast, the camera can ingest scoreboard data automatically. This enables the updating of the scoreboard display without having to manually enter the scores from the Web screen. Please contact the local dealers in your area on the Sportzcast solution.

Preparing for Connection

To connect to the Sportzcast cloud service, select “Cloud” in the [Server Settings] (P21).

Meanwhile, connection to a Scorebot that is connected to a local network can be configured using [Search for a local server] (P22). Start search after powering on Scorebot and connecting it to the same network as the camera recorder.

Menu Setting

[Main Menu] → [Overlay Settings]

► **Sportzcast**

Select “Connect” to connect to the Sportzcast server configured below.

Memo:

- “Connect” cannot be selected if network connection is not established.
- Server connection switches to “Disconnect” when moving to a mode other than record mode or when the power is turned off.

[Main Menu] → [Overlay Settings] → [Sportzcast Settings]

► **Server**

For selecting the Sportzcast server to connect to.

► **Server Settings**

For setting the Sportzcast server.

►► **Cloud/Server1/Server2/Server3**

* The name that is selected in [Alias] is displayed individually.

■ **Alias**

For setting a name to distinguish the settings of this camera recorder. The name set in this item will be displayed as the [Server] option.

* The default value is “Cloud/Server1/Server2/Server3”.

* You can enter up to 31 characters and ASCII characters.

■ **Address**

For setting details such as the host name and the IP address of the server.

* Enter not more than 127 characters using single-byte alphanumeric characters (a to z, 0 to 9), single-byte hyphen [-], or dot [.].

■ **Broadcast**

To connect 3 or more camera recorder units to Scorebot at the same time, set this to “On”. The broadcast setting of Scorebot also needs to be turned on. For details on how to configure Scorebot, please consult Sportzcast directly.

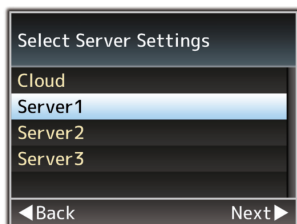
► Search for a local server

Search for the local server (Scorebot) that is connected to the local network using the wizard, and set the selected Scorebot in [Server Settings]. Before doing so, make sure that both Scorebot and the camera recorder are connected to the local network with the same subnet.

- 1 From the list of search results, select the Scorebot to connect and press the right (►) button of the cross-shaped button.



- 2 Details of the selected Scorebot will be displayed. Check the information and press the right (►) button.
- 3 Once the connection is successfully established, a confirmation screen appears. Press the right (►) button.
- 4 Select [Server Settings] of the destination for saving and press the right (►) button.



- 5 Enter the [Alias] name to save and press the right (►) button.
- 6 After the connection complete screen appears, press (●) of the cross-shaped button to close the menu screen.

Memo:

- If connection to a Scorebot has already been established, search cannot be executed until it has been disconnected.
- Old settings in [Server Settings] at the destination for saving will be overwritten.
- Connection is established automatically after exiting the wizard, and the settings in [Server] switch to the connected [Server Settings].

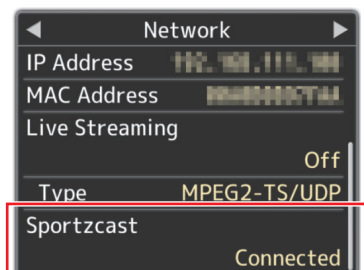
► License Name
For setting the license name provided by Sportzcast. Please note that you cannot use a license name you have already used in another camera.
► BOT Number
For setting the BOT number provided by Sportzcast.
► Channel
For setting the channel provided by Sportzcast.
► Score Input Source
When [Sportzcast] is set to “Connect”, select whether to obtain subsequent score information from the server or enter the information manually from the Web screen. This is useful when you want to enter only some information manually.
Memo: _____ ● The [Display] and [Overlay] buttons on the Web input screen are always enabled regardless of this setting.
► Display Order (Home)
For selecting whether to display the score information of the home team acquired from the Sportzcast server at the left, right, top or bottom of the screen. For Baseball, however, the information is always displayed at the bottom of the screen regardless of this setting. ● First: Displays at the left or top of the screen. ● Last: Displays at the right or bottom of the screen.
► Team Name
For selecting the data reference source for the team name.
► Shot Clock
For selecting the data reference source for the shot clock.
► Others
For score information other than the above stated, select the data reference source.

Memo:

- [Settings] cannot be selected when [Overlay Settings] → [Sportzcast] is set to "Connect".
- When an overlay display data is not updated despite connecting to the Sportzcast server, please check that [Score Input Source] is set to "Sportzcast".

The connection status to the Sportzcast server is displayed in the "Sportzcast" item of the status screen (Network) as follows.

- Press the [STATUS] button on the camera recorder to display the status screen. Press the cross-shaped button (◀▶) to display the [Network] screen.
- Check the displayed [Sportzcast].



Message	Status	Action
Connected	Successfully connected.	—
Connecting...	Connection in progress.	—
Disconnected	Not connected yet.	—
Cannot Connect to Server	Cannot connect to the Sportzcast server.	• Check that the network connection settings are correct. • Enter the IP address or host name of the Sportzcast server correctly.
Invalid License	Sportzcast license is invalid.	Enter the license name correctly. Please note that you cannot use a license name you have already used in another camera.
Cannot Get Node	Server response is invalid.	Please contact Sportzcast.
Invalid BOT Number	The BOT number entered is invalid.	Enter the Sportzcast BOT number correctly.

Memo

Memo

