Roland

XS-82H
XS-83H
XS-84H
MULTI-FORMAT MATRIX SWITCHER
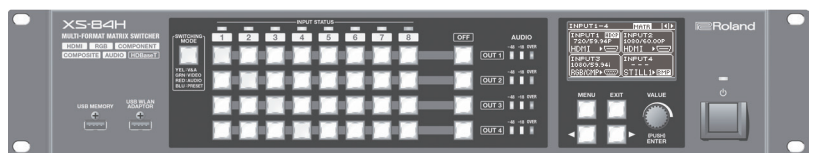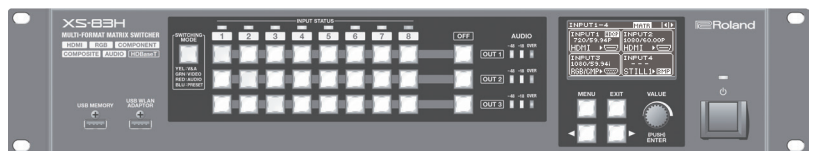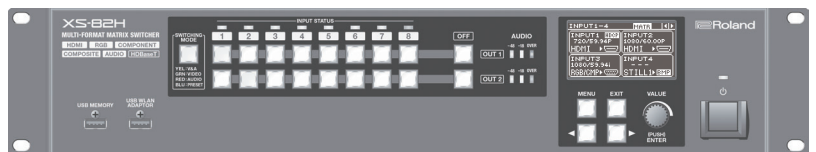
Reference Manual   Version 1.10 and later

Contents

Menu List

Pressing the [MENU] button displays the menu.

MEMO

- The default value is printed in bold characters.
- You can return the menu item you're setting to its factory-default value by holding down the [VALUE] dial and pressing the [EXIT] button.
- You can change the setting value in larger steps by holding down the [VALUE] dial as you turn it.

VIDEO INPUT

* The ranges of settings vary according to input/output format. Also, some changes to setting values do not alter the video picture.

Menu item 2nd level	Menu item 3rd level		Value	Description
INPUT-1 : INPUT-8	INPUT SELECT		**HDMI,** RGB/COMPONENT, COMPOSITE, YC, STILL1, STILL2, STILL3, STILL4, SHARE (*1)	This sets the type of video signal to input.
	COLOR SPACE	(*2)	**AUTO,** RGB (0-255), RGB (16-235), YCC (SD), YCC (HD)	This sets the color space for input video.
	HDCP INPUT ENABLE	(*3)	DISABLE, **ENABLE**	This sets whether input of copyright-protected (HDCP) video is permitted (p. 16).
	FLICKER FILTER	(*2)	**OFF**, ON	Setting this to "ON" reduces flicker in input video.
	ZOOM	(*4)	10 %–**100 %**–1000 %	This adjusts the zoom ratio of input video.
	TYPE		**FULL**, LETTERBOX, CROP, DOT BY DOT, MANUAL	This adjusts the aspect ratio of input video.
	MANUAL SIZE H		-2000–**0**–2000 (pixel)	This adjusts the horizontal size of input video.
	MANUAL SIZE V		-2000–**0**–2000 (pixel)	This adjusts the vertical size of input video.
	POSITION H		-1920–**0**–1920 (pixel)	This adjusts the horizontal position of input video.
	POSITION V		-1200–**0**–1200 (pixel)	This adjusts the vertical position of input video.
	FLIP VERTICAL	(*5)	**OFF**, ON	Setting this to "ON" flips input video vertically.
	BRIGHTNESS		-64–**0**–63	This adjusts the brightness of input video.
	CONTRAST		-64–**0**–63	This adjusts the contrast of input video.
	SATURATION		-64–**0**–63	This adjusts the color saturation of input video.
	RED		-64–**0**–63	This adjusts the red level of input video.
	GREEN		-64–**0**–63	This adjusts the green level of input video.
	BLUE		-64–**0**–63	This adjusts the blue level of input video.
	AUTO SAMPLING	(*6)	(ENTER)	This executes automatic adjustment during RGB signal input.
	FREQUENCY	(*6)	-128–**0**–127	This adjusts the frequency.
	PHASE	(*6)	-128–**0**–127	This adjusts the phase.

(*1): "SHARE" can be set using INPUT-2 through 8. This enables sharing of the video source on the channel previous to the set channel. For details, refer to the Owner's Manual, "Sharing a Video Source (SHARE)" (p. 19).

(*2): This can be set only when "INPUT SELECT" is set to "HDMI" or "RGB/COMPONENT."

(*3): This can be set only when "INPUT SELECT" is set to "HDMI."

(*4): When the settings described below are in effect, reducing to smaller than the input size is not possible.
- When the "MODE" setting is a value from "ROTATION-L1" to "ROTATION-L4" or from "ROTATION-R1" to "ROTATION-R4"
- When "INPUT SELECT" is set to a value from "STILL1" to "STILL4"

(*5): Vertical flipping is not possible when "INPUT SELECT" is set to a value from "STILL1" to "STILL4."

(*6): This can be set only when "INPUT SELECT" is set to "RGB/COMPONENT."

VIDEO OUTPUT

* The ranges of settings vary according to input/output format. Also, some changes to setting values do not alter the video picture.

Menu item		Value	Description
2nd level	3rd level		
OUTPUT-1 : OUTPUT-4 * This varies according to model.	OUTPUT SELECT	**AUTO**, HDMI, HDBaseT	This sets the OUTPUT connector for video output.
	RESOLUTION (*7) (*8)	• When "FRAME RATE" under "SYSTEM" is set to "59.94 Hz" 480i 4: 3, 480i 16: 9, 480p 4: 3, 480p 16: 9, 720/59.94p, **1080/59.94i,** 1080/59.94p, 640 x 480/60, 800 x 600/60, 1024 x 768/60, 1280 x 768/60, 1366 x 768/60, 1280 x 1024/60, 1400 x 1050/60, 1600 x 1200/60, 1920 x 1200/60 • When "FRAME RATE" under "SYSTEM" is set to "50 Hz" 576i 4: 3, 576i 16: 9, 576p 4: 3, 576p 16: 9, 720/50p, **1080/50i,** 1080/50p, 640 x 480/75, 800 x 600/75, 1024 x 768/75, 1280 x 768/75, 1366 x 768/75, 1280 x 1024/75, 1400 x 1050/75, 1600 x 1200/60, 1920 x 1200/60	This sets the output resolution.
	HDCP OUTPUT ENABLE	DISABLE, **ENABLE**	This sets whether output of copyright-protected (HDCP) video is permitted (p. 16).
	COLOR SPACE	**AUTO,** RGB (0-255), RGB (16-235), YCC (422), YCC (444)	This sets the color space of output video.
	DVI-D/HDMI SIGNAL	DVI-D, **HDMI**	This sets the type of video signal to output from the OUTPUT connectors.
	FLIP HORIZONTAL	**OFF**, ON	Setting this to "ON" flips input video horizontally.
	ZOOM (*7) (*9)	10 %–**100 %**–1000 %	This adjusts the zoom ratio of output video.
	MANUAL SIZE H (*7)	-4096–**0**–4096 (pixel)	This adjusts the horizontal size of output video.
	MANUAL SIZE V (*7)	-1920–**0**–1920 (pixel)	This adjusts the vertical size of output video.
	POSITION H (*7)	-4096–**0**–4096 (pixel)	This adjusts the horizontal position of output video.
	POSITION V (*7)	-1200–**0**–1200 (pixel)	This adjusts the vertical position of output video.
	CROPPING ORIENT (*7)	**UPPER LEFT**, UPPER RIGHT, LOWER LEFT, LOWER RIGHT, CENTER	This sets the reference point for cropping.
	CROPPING TYPE (*7)	**FULL**, 4: 3, 16: 9, 5: 4, MANUAL	This sets the type of cropping.
	CROPPING SIZE H (*7) (*10)	10–**128**–2000 (pixel)	This adjusts the horizontal cropping width.
	CROPPING SIZE V (*7) (*10)	10–**128**–2000 (pixel)	This adjusts the vertical cropping width.
	BRIGHTNESS	-128–**0**–127	This adjusts the brightness of output video.
	CONTRAST	-128–**0**–127	This adjusts the contrast of output video.
	SATURATION	-128–**0**–127	This adjusts the color saturation of output video.
	RED	-128–**0**–127	This adjusts the red level of output video.
	GREEN	-128–**0**–127	This adjusts the green level of output video.
	BLUE	-128–**0**–127	This adjusts the blue level of output video.
	TEST PATTERN	**OFF**, 75%.COLOR.BAR, 100%.COLOR.BAR, RAMP, STEP, HATCH, FRAME	This outputs a test pattern.

(*7): When the "MODE" setting is as shown below, the settings for OUTPUT-2 through OUTPUT-4 are shared with the OUTPUT-1 setting. They cannot be changed individually.

MODE	OUTPUT-2	OUTPUT-3	OUTPUT-4
MULTI-2	Shared with OUTPUT-1 setting	Can be set independently	Can be set independently
MULTI-3	Shared with OUTPUT-1 setting	Shared with OUTPUT-1 setting	Can be set independently
MULTI-4	Shared with OUTPUT-1 setting	Shared with OUTPUT-1 setting	Shared with OUTPUT-1 setting

(*8): When the "MODE" setting is as shown below, the settings for OUTPUT-2 through OUTPUT-4 are shared with the OUTPUT-1 setting. They cannot be changed individually.

MODE	OUTPUT-2	OUTPUT-3	OUTPUT-4
SPAN-2	Shared with OUTPUT-1 setting	Can be set independently	Can be set independently
SPAN-3	Shared with OUTPUT-1 setting	Shared with OUTPUT-1 setting	Can be set independently
SPAN-4, ROTATION-L1–4, ROTATION-R1–4, 4K-1, 4K-2	Shared with OUTPUT-1 setting	Shared with OUTPUT-1 setting	Shared with OUTPUT-1 setting

(*9): When the settings described below are in effect, reducing to smaller than the input size is not possible.
- When the "MODE" setting is a value from "ROTATION-L1" to "ROTATION-L4" or from "ROTATION-R1" to "ROTATION-R4"
- When the "INPUT SELECT" setting under "VIDEO INPUT" is a value from "STILL1" to "STILL4"

(*10): Effective when "CROPPING TYPE" under "OUTPUT VIDEO" is set to "MANUAL."
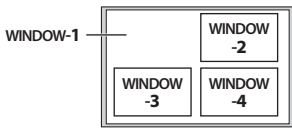
TRANSITION

Menu item		Value	Description
2nd level	3rd level		
TIME	—	0.0 sec–**1.0 sec**–10.0 sec	This adjusts the video transition time/fade time.

OFF SWITCH

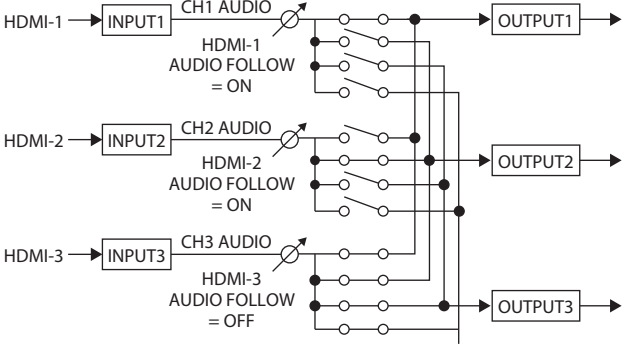| Menu item		Value	Description
2nd level	3rd level		
RED	—	**0**–255	This adjusts the red level of the monochrome picture during a fade.
GREEN	—	**0**–255	This adjusts the green level of the monochrome picture during a fade.
BLUE	—	**0**–255	This adjusts the blue level of the monochrome picture during a fade.
AUDIO FOLLOW	—	OFF, **ON**	This sets the Audio Follow feature on or off.

MULTI (*11)

Menu item		Value	Description
2nd level	3rd level		
WINDOW-1 : WINDOW-4	SOURCE CH (*12)	**CH1**–CH8	This sets the video input channels displayed in the respective windows during video compositing. * The layer positions are fixed and cannot be changed.
	SIZE	10 %–100 %	This adjusts the size of the window.
	POSITION H	-100 %–100 % * The default values for "WINDOW-1" through "WINDOW-4" differ.	This adjusts the horizontal position of the window.
	POSITION V	-100 %–100%	This adjusts the vertical position of the window.
	CROPPING TYPE	**ORIGINAL**, 4: 3, 5: 4, 16: 9, MANUAL	This selects the type when cropping a window.
	MANUAL H (*13)	-2000–**0**–2000	This sets the horizontal cropping width.
	MANUAL V (*13)	-2000–**0**–2000	This sets the vertical cropping width.
	ZOOM	**100 %**–1000%	This adjusts the enlargement factor of the picture.
	ZOOM POSITION H	-1920–**0**–1920	This adjusts the horizontal display position of the video.
	ZOOM POSITION V	-1920–**0**–1920	This adjusts the vertical display position of the video.

(*11): Effective when "MODE" is set to a value from "MULTI-2" to "MULTI-4."

(*12): The "SOURCE CH" setting can be changed only for the windows in multi-view output. For example, when "MODE" is set to "MULTI-2," only WINDOW-1 and WINDOW-2 can be changed.

(*13): Effective when "CROPPING TYPE" under "MULTI" is set to "MANUAL."

AUDIO INPUT

Menu item		Value	Description
2nd level	3rd level		
HDMI-1 : HDMI-8 ANALOG-1 : ANALOG-8	INPUT LEVEL	0 (-INF dB)–**100 (0.0 dB)**–127 (+6.0 dB)	This adjusts the volume level of input audio.
	INPUT MUTE	**OFF**, ON	This sets the Mute feature on or off. Input audio for which this is set to "ON" is silenced.
	AUDIO FOLLOW	OFF, **ON**	This sets the Audio Follow feature on or off. ON: Audio on each output channel synchronizes with switching of the audio inputs. OFF: Audio on each output channel is sent to all channels. (*14)
ANALOG-1 ANALOG-2	PHANTOM POWER	**OFF**, ON	This sets phantom power on or off (R channel only).
	INPUT GAIN	**0 dB**–64 dB	This adjusts the input sensitivity (R channel only).
	MONO INPUT	**OFF**, ON	Setting this to "ON" enables monaural input.
ANALOG-1 : ANALOG-8	HPF	**OFF**, ON	This sets the high-pass filter on or off. Setting this to "ON" attenuates the low band while passing the high band unchanged.
HDMI-1 : HDMI-8 ANALOG-1 : ANALOG-8	4BAND EQUALIZER	**OFF**, ON	This sets the equalizer on or off.
	HIGH GAIN	-15 dB–**0 dB**–15 dB	This boosts or attenuates the high band.
	HIGH FREQ	600 Hz–**8.00 kHz**–12.0 kHz	This adjusts the center frequency when changing the sound quality in the high band.
	HI-MID GAIN	-15 dB–**0 dB**–15 dB	This boosts or attenuates the high-midrange band.
	HI-MID FREQ	20.0 Hz–**2.50 kHz**–10.0 kHz	This adjusts the center frequency when changing the sound quality in the high-midrange band.
	HI-MID Q	0.50–**1.00**–16.0	This adjusts the bandwidth when boosting or attenuating the high-midrange band.
	LOW-MID GAIN	-15 dB–**0 dB**–15 dB	This boosts or attenuates the low-midrange band.
	LOW-MID FREQ	20.0 Hz–**2.50 kHz**–10.0 kHz	This adjusts the center frequency when changing the sound quality in the low-midrange band.
	LOW-MID Q	0.50–**1.00**–16.0	This adjusts the bandwidth when boosting or attenuating the low-midrange band.
	LOW GAIN	-15 dB–**0 dB**–15 dB	This boosts or attenuates the low band.
	LOW FREQ	50.0 Hz–**112 Hz**–800 Hz	This adjusts the center frequency when changing the sound quality in the low band.
	GATE	**OFF**, ON	This sets gate on or off.
	THRESHOLD	-50 dB–**-48 dB**–0 dB	This sets the level used as the threshold for removing audio. Audio that does not reach the threshold level is removed.
	RELEASE	30 ms–**500 ms**–5000 ms	This adjusts the length of time until the gate effect ends after audio falls below the threshold.
	COMPRESSOR/ DUCKING	**OFF**, COMPRESSOR, DUCKING	This sets the compressor or ducking on or off.
	THRESHOLD	-50 dB–**-16 dB**–0 dB	This sets the level used as the threshold when performing audio compression (compressor) or attenuation (ducking). **Compressor:** Compression is applied to audio that exceeds the threshold level. **Ducking:** Audio that exceeds the threshold level is attenuated.
	COMP-RATIO	1.0: 1, 1.2: 1,. 1.5: 1, 2.0: 1, **2.8: 1**, 4.0: 1, 8.0: 1, 16: 1, INF: 1	This specifies the degree of compression applied to the audio. The state in which no compression is applied is defined as "1."
	COMP-ATTACK	0.2 ms–**50 ms**–100 ms	This sets the time until the compression effect peaks after audio exceeding the threshold is input.
	COMP-KNEE	**HARD**, SOFT1–SOFT9	This adjusts the way in which the compressor is applied to the region near the threshold level within a range extending from steep (HARD) to gentle (SOFT9).
	COMP-RELEASE	30 ms–**500 ms**–5000 ms	This adjusts the length of time until compression ends after audio falls below the threshold.

(*14): Setting "AUDIO FOLLOW" to "OFF" during input or output of copyright-protected (HDCP) video might result in no audio output on other channels. For details, refer to
"Important Notes When Working with Copyright-protected (HDCP) Video" (p. 16).

Menu item		Value	Description
2nd level	3rd level		
HDMI-1 : HDMI-8 ANALOG-1 : ANALOG-8	DUCK-KEY IN SELECT	HDMI INPUT1–8, ANALOG INPUT1–8 * Default values differ according to input channel.	This sets the channel to use as the key-in signal.
	DUCK-ATTACK	0.2 ms–**50 ms**–100 ms	This sets the time until the ducking effect peaks after audio exceeding the threshold is input.
	DUCK-RELEASE	30 ms–**500 ms**–5000 ms	This adjusts the time until the ducking effect disappears after the time set for "DUCK-HOLD" has passed.
	DUCK-HOLD	0 ms–**250 ms**–5000 ms	This adjusts the length of time until the ducking effect starts to end after audio falls below the threshold.

AUDIO OUTPUT

Menu item		Value	Description
2nd level	3rd level		
OUTPUT-1 : OUTPUT-4 * This varies according to model.	OUTPUT LEVEL	0 (-INF dB)–**100 (0.0 dB)**–127 (+6.0 dB)	This adjusts the volume level of output audio.
	OUTPUT MUTE	**OFF**, ON	This sets the Mute feature on or off. Output audio for which this is set to "ON" is silenced.
	OUTPUT DELAY	0 ms–**60 ms**–170 ms	This adjusts the delay time for output audio.
	DOWN MIX	**OFF,** STEREO > MONO, 5.1ch > STEREO, 5.1ch >MONO	This sets downmixing on or off. STEREO > MONO: This downmixes stereo audio and outputs it as monaural. 5.1ch > STEREO: This downmixes 5.1-channel audio and outputs it as stereo. 5.1ch >MONO: This downmixes 5.1-channel audio and outputs it as monaural.
	4BAND EQUALIZER	**OFF**, ON	This sets the equalizer on or off.
	HIGH GAIN	-15 dB–**0 dB**–15 dB	This boosts or attenuates the high band.
	HIGH FREQ	600 Hz–**8.00 kHz**–12.0 kHz	This adjusts the center frequency when changing the sound quality in the high band.
	HI-MID GAIN	-15 dB–**0 dB**–15 dB	This boosts or attenuates the high-midrange band.
	HI-MID FREQ	20.0 Hz–**2.50 kHz**–10.0 kHz	This adjusts the center frequency when changing the sound quality in the high-midrange band.
	HI-MID Q	0.50–**1.00**–16.0	This adjusts the bandwidth when boosting or attenuating the high-midrange band.
	LOW-MID GAIN	-15 dB–**0 dB**–15 dB	This boosts or attenuates the low-midrange band.
	LOW-MID FREQ	20.0 Hz–**2.50 kHz**–10.0 kHz	This adjusts the center frequency when changing the sound quality in the low-midrange band.
	LOW-MID Q	0.50–**1.00**–16.0	This adjusts the bandwidth when boosting or attenuating the low-midrange band.
	LOW GAIN	-15 dB–**0 dB**–15 dB	This boosts or attenuates the low band.
	LOW FREQ	50.0 Hz–**112 Hz**–800 Hz	This adjusts the center frequency when changing the sound quality in the low band.
	GATE/COMPRESSOR	**OFF**, GATE, COMPRESSOR	This sets the gate or compressor on or off.
	GATE-THRESHOLD	-50 dB–**-48 dB**–0 dB	This sets the level used as the threshold for removing audio. Audio that does not reach the threshold level is removed.
	GATE-RELEASE	30 ms–**500 ms**–5000 ms	This adjusts the length of time until the gate effect ends after audio falls below the threshold.
	COMP-THRESHOLD	-50 dB–**-16 dB**–0 dB	This sets the level used as the threshold when performing audio compression. Compression is applied to audio that exceeds the threshold level.
	COMP-RAITO	1.0: 1, 1.2: 1, 1.5: 1, 2.0: 1, **2.8: 1**, 4.0: 1, 8.0: 1, 16: 1, INF: 1	This specifies the degree of compression applied to the audio. The state in which no compression is applied is defined as "1."
	COMP-ATTACK	0.2 ms–**50 ms**–100 ms	This sets the time until the compression effect peaks after audio exceeding the threshold is input.
	COMP-KNEE	**HARD**, SOFT1–SOFT9	This adjusts the way in which the compressor is applied to the region near the threshold level within a range extending from steep (HARD) to gentle (SOFT9).
	COMP-RELEASE	30 ms–**500 ms**–5000 ms	This adjusts the length of time until compression ends after audio falls below the threshold.
	TEST TONE	**OFF**, ON	Setting this to "ON" outputs a test tone. The frequency of the test tone is fixed at 1 kHz (+4 dBu).

AUDIO CONTROL

Menu item		Value	Description
2nd level	3rd level		
FADER 1	—	**HDMI INPUT1**–8, ANALOG INPUT1–8	These set the audio input channels assigned to audio faders 1 through 8 at the audio volume control screen.
FADER 2	—	HDMI INPUT1–**HDMI INPUT2**–8, ANALOG INPUT1–8	
FADER 3	—	HDMI INPUT1–**HDMI INPUT3**–8, ANALOG INPUT1–8	
FADER 4	—	HDMI INPUT1–**HDMI INPUT4**–8, ANALOG INPUT1–8	
FADER 5	—	HDMI INPUT1–**HDMI INPUT5**–8, ANALOG INPUT1–8	
FADER 6	—	HDMI INPUT1–**HDMI INPUT6**–8, ANALOG INPUT1–8	
FADER 7	—	HDMI INPUT1–**HDMI INPUT7**–8, ANALOG INPUT1–8	
FADER 8	—	HDMI INPUT1–**HDMI INPUT8**, ANALOG INPUT1–8	
OUTPUT FADER	—	**ALL**, OUTPUT1–4	This sets the audio output channel assigned to the output fader at the audio volume control screen. Setting this to "ALL" lets you adjust the audio on all audio output channels simultaneously.

MODE

Menu item		Value	Description
2nd level	3rd level		
MODE	—	**MATRIX**, MULTI-2, MULTI-3, MULTI-4, SPAN-2, SPAN-3 (*15), SPAN-4 (*16), ROTATION-L1, ROTATION-L2, ROTATION-L3 (*15), ROTATION-L4 (*16), ROTATION-R1, ROTATION-R2, ROTATION-R3 (*15), ROTATION-R4 (*16), 4K-1 (*15), 4K-2 (*16)	This sets the video output mode. * The output picture might be interrupted during switching of the output mode. * For the output images of the respective output modes, refer to the Owner's Manual, "Switching the Video Output Mode" (p. 22).

(*15): XS-83H/XS-84H only

(*16): XS-84H only

PRESET MEMORY

Menu item		Value	Description
2nd level	3rd level		
LOAD SETTING	—	**1**–32	This loads the settings at the specified preset number.
RECALL SAFE	—	**OFF**, ON	Setting this to "ON" recalls only the specified settings from the preset. Setting this to "ON" and pressing the [VALUE] dial displays the "RECALL SAFE" popup. Specify whether the settings for the following items are individually recalled (OFF) or not individually recalled (ON). |Setting items|Value|Description
---	---	---
VIDEO INPUT	**OFF**, ON	Video input settings, input EDID assignment settings
VIDEO OUTPUT	**OFF**, ON	Video output settings
OUT RESOLUTION	**OFF**, ON	Output resolution setting
TRANSITION	**OFF**, ON	Video transition time/fade time setting
OFF SWITCH	**OFF**, ON	[OFF] button settings
MULTI	**OFF**, ON	Multi-view settings
AUDIO INPUT	**OFF**, ON	Audio input settings
AUDIO OUTPUT	**OFF**, ON	Audio output settings
AUDIO CONTROL	**OFF**, ON	Fader assignment settings at the audio volume control screen
MODE	**OFF**, ON	Output mode settings
CROSSPOINT	**OFF**, ON	Cross-point selection button settings	
SAVE SETTING	—	**1**–32	This saves settings at the specified preset number.
DELETE SETTING	—	**1**–32	This deletes the settings at the specified preset number.

EDID

Menu item		Value	Description
2nd level	3rd level		
HDMI EDID IN-1 : HDMI EDID IN-8	—	**INTERNAL**, 640 x 480, 800 x 600, 1024 x 768, 1280 x 768, 1366 x 768, 1280 x 1024, 1400 x 1050, 1600 x 1200, 1920 x 1200, DATA1–8 (*17)	These set the EDID values for HDMI INPUT. INTERNAL: Information on computer-use input resolution and video-use input resolution is sent. (Refer to the chart below.) DATA1–8: EDID values copied using "HDMI EDID COPY" are sent. (Refer to the chart below.) * Supported audio formats are shared by "INTERNAL" through "1920 x 1200." For details, refer to the chart below. * Pressing the [VALUE] dial after changing settings displays a popup prompting you to confirm the changes. Pressing the [VALUE] dial applies the changes to the settings.
RGB EDID IN-1 : RGB EDID IN-8	—	**INTERNAL**, 640 x 480, 800 x 600, 1024 x 768, 1280 x 768, 1366 x 768, 1280 x 1024, 1400 x 1050, 1600 x 1200, 1920 x 1200	These set the EDID values for RGB INPUT. INTERNAL: Information on computer-use input resolution is sent. (Refer to the chart below.) * Pressing the [VALUE] dial after changing settings displays a popup prompting you to confirm the changes. Pressing the [VALUE] dial applies the changes to the settings.
EDID COPY OUTPUT	—	**OUTPUT1**–4 * This varies according to model.	This selects the HDMI OUTPUT connector for copying the EDID.
HDMI EDID COPY	—	**DATA1**–8	Specifying a copy destination (DATA1 through 8) and pressing the [VALUE] dial displays the "HDMI EDID COPY" popup. This copies the EDID of the display connected to the HDMI OUTPUT connector selected using "EDIT COPY OUTPUT."

(*17): The "DATA1– 8" settings are not saved at individual presets. Only a single set is saved in the unit. After settings for menu items have been made, the new values are saved in the unit's internal memory when you exit the menu.

Data Sent When Set to "INTERNAL"

● When frame rate is set to "59.94 Hz"

Computer-use input resolution			
640 x 480/60 Hz (VGA)	800 x 600/60 Hz (SVGA)	1024×768/60 Hz (XGA)	1280×800/60 Hz (WXGA)
1280 x 1024/60 Hz (SXGA)	1400×1050/60 Hz (SXGA+)	1600×1200/60 Hz (UXGA)	1920×1200/60Hz (Reduced Blanking) (WUXGA)
1280 x 768/60 Hz (WXGA)	1366×768/60 Hz (FWXGA)	1920×1080/59.94p, 60p	1920×1080/59.94i
Video-use input resolution			
1920×1080/59.94p, 60p (16:9) [Native]	1920×1080/50p (16:9)	1920×1080/59.94i, 60i (16:9)	1920×1080/50i (16:9)
1280×720/59.94p, 60p (16:9)	1280×720/50p (16:9)	720×480/59.94p, 60p (16:9)	720×480/59.94p, 60p (4:3)
720×576/50p (16:9)	720×576/50p (4:3)	720×480/59.94i (16:9)	720×480/59.94i (4:3)
720×576/50i (16:9)	720×576/50i (4:3)		

● When frame rate is set to "50 Hz"

Computer-use input resolution			
640×480/60 Hz (VGA)	640×480/75 Hz (VGA)	800×600/60 Hz (SVGA)	800×600/75 Hz (SVGA)
1024×768/60 Hz (XGA)	1024×768/75 Hz (XGA)	1280×800/60 Hz (WXGA)	1280×800/75 Hz (WXGA)
1280×1024/ 60Hz (SXGA)	1280×1024/75 Hz (SXGA)	1400×1050/60 Hz (SXGA+)	1400×1050/75 Hz (SXGA+)
1600×1200/60 Hz (UXGA)	1920×1200/60 Hz (Reduced Blanking) (WUXGA)	1280×768/60 Hz (WXGA)	1366×768/60 Hz (FWXGA)
1920×1080/59.94p, 60p	1920×1080/59.94i		
Video-use input resolution			
1920×1080/59.94p, 60p (16:9)	1920×1080/50p (16:9) [Native]	1920×1080/59.94i, 60i (16:9)	1920×1080/50i (16:9)
1280×720/59.94p, 60p (16:9)	1280×720/50p (16:9)	720×480/59.94p, 60p (16:9)	720×480/59.94p, 60p (4:3)
720×576/50p (16:9)	720×576/50p (4:3)	720×480/59.94i (16:9)	720×480/59.94i (4:3)
720×576/50i (16:9)	720×576/50i (4:3)		

● Supported audio format

Linear PCM/48 kHz/24 bits/8 channels

* Speaker configurations are as follows.
  • Front Left/Front Right
  • Front Center
  • Rear Left/Rear Right
  • Rear Left Center/Rear Right Center
  • LFE

Menu List

* The settings for the following menu items are not saved at individual presets. Only a single set is saved in the unit. After settings for menu items have been made, the new values are saved in the unit's internal memory when you exit the menu.

RS-232C

Menu item		Value	Description
2nd level	3rd level		
BAUD RATE	—	**9600**, 38400	This sets the communication speed (bps) of the RS-232C connector.

FUNCTION	—	**RECEIVER**, HDBaseT1, HDBaseT2, HDBaseT3, HDBaseT4	This specifies the functioning of the RS-232C connector.
			
			RECEIVER:
			  The unit receives commands via the RS-232C interface and is operated remotely.
			
			HDBaseT1–4:
			  Commands sent and received via RS-232C are sent and received unchanged via the specified HDBaseT connector. The unit is not under remote control.

LAN

Menu item		Value	Description
2nd level	3rd level		
CONFIGURE	—	**USING DHCP**, MANUALLY	This sets whether the IP address is obtained automatically (USING DHCP) or set manually (MANUALLY).
IP ADDRESS (*18)	—	**192.168.2.254**	This sets the IP address. * The subnet mask is fixed at "255.255.255.0" and cannot be changed.
INFORMATION	—	(ENTER)	Pressing the [VALUE] dial displays the "LAN INFORMATION" popup. This displays the setting information for the LAN (p. 17).

(*18): Effective when "CONFIGURE" is set to "MANUALLY."

WIRELESS LAN

Menu item		Value	Description
2nd level	3rd level		
ACCESS POINT	—	(ENTER)	Pressing the [VALUE] dial displays the "ACCESS POINT" popup. From the list of wireless LAN access points, you select the Wi-Fi router to connect to.
WPS	—	(ENTER)	Pressing the [VALUE] dial displays the "WPS" popup. This establishes a WPS connection to the Wi-Fi router.
AD-HOC MODE	—	**OFF,** ON	This sets the ad-hoc mode on or off.
AD-HOC CH	—	**1**–11	This sets the channel of the ad-hoc mode.
WIRELESS ID	—	**0**–99	This sets the wireless ID. * The wireless ID is a setting shared by the wired LAN and the wireless LAN.
INFORMATION	—	(ENTER)	Pressing the [VALUE] dial displays the "WLAN INFORMATION" popup. This displays the Wi-Fi setting information (p. 15).

USB MEMORY

Menu item		Value	Description
2nd level	3rd level		
LOAD PRESET	—	(ENTER)	Pressing the [VALUE] dial displays the "LOAD PRESET" popup. This loads into the unit a settings file saved on a USB flash drive.
SAVE PRESET	—	(ENTER)	Pressing the [VALUE] dial displays the "SAVE PRESET" popup. Any settings file already saved on the USB flash drive is overwritten.
SAVE AS PRESET	—	(ENTER)	Pressing the [VALUE] dial displays the "SAVE AS PRESET" popup. This saves the settings file to the USB flash drive with a name assigned to it.
LOAD STILL IMAGE	—	**1**–4	Selecting a still-image save destination from 1 to 4 and pressing the [VALUE] dial displays the "LOAD STILL IMAGE" popup. At the popup, you select a file and load the still image into the unit.
FORMAT	—	(ENTER)	This formats a USB flash drive.

* The settings for the following menu items are not saved at individual presets. Only a single set is saved in the unit. After settings for menu items have been made, the new values are saved in the unit's internal memory when you exit the menu.

SYSTEM

| Menu item		Value	Description
2nd level	3rd level		
FRAME RATE	—	59.94 Hz, 50 Hz	This sets the system clock.
FIELD SYNC	—	OFF, **ON**	This sets field sync on or off.
KEY LOCK MODE	—	(ENTER)	Pressing the [VALUE] dial displays the "KEY LOCK MODE" popup. This sets whether key locking is activated (ON) or deactivated (OFF) for each of the following buttons. <table><tr><th>Setting items</th><th>Value</th></tr><tr><td>CROSSPOINT</td><td>**OFF**, ON</td></tr><tr><td>SWITCH MODE</td><td>**OFF**, ON</td></tr><tr><td>MENU+EXIT</td><td>**OFF**, ON</td></tr><tr><td>CURSOR+VALUE</td><td>**OFF**, ON</td></tr></table> **Operation: Turns key lock mode on/off** 1. For "KEY LOCK MODE," set the parameter to "ON" for buttons whose operations you want to have no effect. 2. Hold down the [EXIT] button and press and hold the [MENU] button (for 3 seconds or longer). The message "KEY LOCKED!!" is displayed and the key lock mode is turned on. The buttons you specified in step 1 are locked. Again holding down the [EXIT] button and pressing and holding the [MENU] button (for 3 seconds or longer) makes the message "KEY RELEASED!!" appear and turns off the key lock mode.
MEMORY PROTECT	—	**OFF**, ON	Setting this to "ON" prohibits saving to presets.
RECALL LOCK	—	**OFF**, ON	Setting this to "ON" prohibits recalling presets.
BEEP	—	OFF, **ON**	This sets the audible beep on or off.
LCD BACKLIGHT	—	0–**7**	This adjusts the brightness of the display. * When this is set to "0," the display's backlight is completely dark.
DIMMER	—	0–**7**	This adjusts the brightness of the LEDs. * When this is set to "0," the LEDs are completely dark.
TOP DISPLAY	—	IN/OUT STATUS, INPUT STATUS1, INPUT STATUS2, **OUTPUT STATUS**, AUDIO VOLUME	This sets the top screen displayed at startup.
START UP	—	**LAST MEMORY**, PRESET1–32	This sets the settings loaded at startup. LAST MEMORY: The last-saved settings are loaded. When "LAST MEMORY" has been selected, settings are saved in internal memory at the following times. • On displaying a menu • On exiting a menu • When 10 seconds has elapsed since the last operation was performed
MONITOR STATUS	—	(ENTER)	Pressing the [VALUE] dial displays the "MONITOR STATUS" popup. This displays the status of equipment connected to the HDBaseT OUTPUT or HDMI OUTPUT connectors.
INPUT STATUS	—	**CH1**–8	Selecting an input video channel and pressing the [VALUE] dial displays the "INPUT STATUS" popup. This displays format information for the input video.
DELETE STILL IMAGE		**1**–4	Selecting a still-image save destination from 1 to 4 and pressing the [VALUE] dial displays the "DELETE STILL" popup. Here you delete the still image at the save destination.
VERSION	—	—	This displays program version information for the system.
FACTORY RESET	—	(ENTER)	This returns the unit's settings to their factory defaults.

Network Settings

Network Functions

USB WLAN ADAPTOR Connector

Attaching an optional wireless USB adaptor to the USB WLAN ADAPTOR port lets you operate the unit remotely using the XS-80H Remote iPad application.

* For the wireless USB adaptor, use the ONKYO UWF-1 or Roland WNA1100-RL.

You can use either of the following two methods to make the Wi-Fi connection.

① Direct connection to the iPad (ad-hoc mode) → p. 13
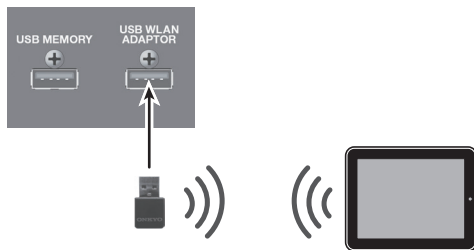
② Connection through a Wi-Fi router

You make a wireless connection between the unit and a Wi-Fi router, and make a wireless connection to the iPad via the router.
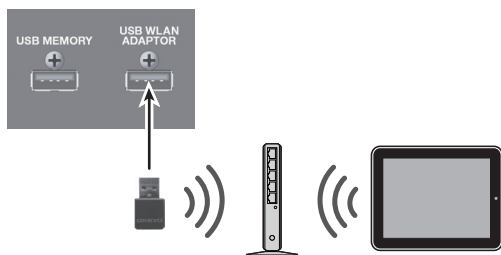
→ Connecting to a Wi-Fi Router by WPS: p. 14
→ Selecting and Connecting to a Wi-Fi Router: p. 14

LAN Port

XS-84H
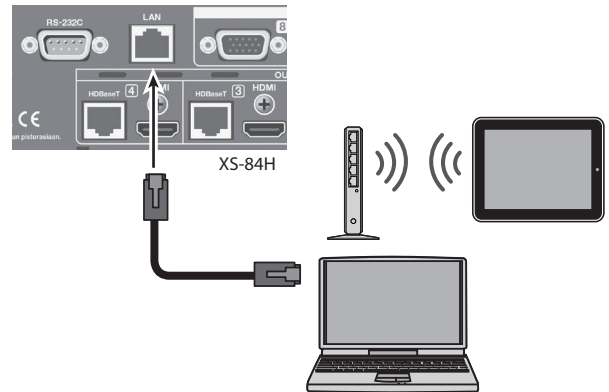
You can operate the unit remotely using TCP control commands from a computer, network device, or other such external equipment connected via the LAN port.
For details, refer to "Control Using the LAN Port" (p. 17).

You can also use the XS-80H Remote iPad application to operate the unit remotely via a Wi-Fi router connected to the LAN port.
For details, refer to "Making a Wired Connection to the Wi-Fi Router" (p. 15).

Connecting via Wi-Fi

Preparations

To make the connections over Wi-Fi, have the following equipment on hand.

- Wireless USB adaptor
  (ONKYO UWF-1 or Roland WNA1100-RL, sold separately)
- iPad
- Wi-Fi router (wireless LAN router, etc.) (*1) (*2)

(*1) Connection with all Wi-Fi routers is not assured.
(*2) This is not required when connecting in ad-hoc mode (p. 13).

Checking the Wi-Fi Connection Status

Wi-Fi connection status is shown by an icon at the top right of the display.
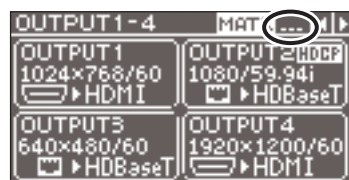
Icon	Description
	Connected to the Wi-Fi router. The signal strength (the strength of the radio waves from the Wi-Fi router) is indicated by three bars.
	A wireless USB adaptor is attached, but no connection to the Wi-Fi router is in effect.
	No wireless USB adaptor is attached.
	In ad-hoc mode.

Directly Connecting the Unit and the iPad (Ad-hoc Mode)

This makes a direct wireless connection between the unit and the iPad without using a Wi-Fi router (ad-hoc mode).

NOTE

The iPad connected in ad-hoc mode cannot connect to the Internet or communicate with other Wi-Fi devices.

1. Insert the optional wireless USB adaptor into the unit's USB WLAN ADAPTOR port.

For the wireless USB adaptor, use the ONKYO UWF-1 or Roland WNA1100-RL.

2. Use the [MENU] button to select "WIRELESS LAN," then set "AD-HOC MODE" to "ON."

This turns on ad-hoc mode.

3. From the WIRELESS LAN menu, select "INFORMATION," then press the [VALUE] dial.

The "WLAN INFORMATION" popup (p. 15) appears.
The following information is required when making the connection to the iPad.

Indication	Description
SSID	This displays the SSID.
AD-HOC KEY	This displays the ad-hoc key.

MEMO

When connecting multiple units of the same model, to distinguish between SSIDs, set the wireless ID on each device. For details, refer to "Setting the Wireless ID" (p. 15).

4. On the iPad, make the network settings.

① On the iPad, tap "Settings" → "Wi-Fi" and make sure "Wi-Fi" is turned on, then for "Device," select the SSID displayed in the "WLAN INFORMATION" popup on the unit.

② If a screen for entering a password appears, enter the ad-hoc key displayed in the "WLAN INFORMATION" popup on the unit.

MEMO

- If the connection cannot be made smoothly, changing the channel of the ad-hoc mode on the unit might help.
  Use the [MENU] button to select "WIRELESS LAN" → "AD-HOC CH," and change the ad-hoc mode channel (1 through 11).
- When you're not making a connection in ad-hoc mode, return the iPad's "Settings" → "Wi-Fi" settings to their original values.

5. Press the [MENU] button to quit the menu.

Connecting to a Wi-Fi Router by WPS

This connects the unit and Wi-Fi router by using WPS.
"**WPS**" is a feature that makes it easy to connect to a Wi-Fi router and make security-related settings.

MEMO

- The Wi-Fi router you're using must support WPS.
- When a WPS connection is made to a Wi-Fi router, the connection information is saved in memory, and thereafter the connection is established automatically.

1. Insert the optional wireless USB adaptor into the unit's USB WLAN ADAPTOR port.
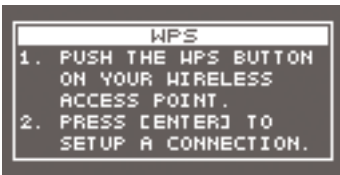
For the wireless USB adaptor, use the ONKYO UWF-1 or Roland WNA1100-RL.

2. Wait until the icon shown below appears at the upper right of the unit's display.
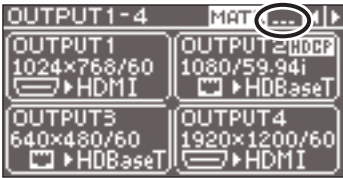
3. Use the [MENU] button to select "WIRELESS LAN" → "WPS," then press the [VALUE] dial.

The "WPS" popup appears.

4. Enable WPS on the Wi-Fi router (e.g., press the router's WPS button).

 * To enable WPS on the Wi-Fi router, refer to the documentation for the router.

5. Press the [VALUE] dial.

The WPS connection is established.
When connection is successful, the "WPS" popup disappears and the unit returns to the WIRELESS LAN menu.

6. Press the [MENU] button to quit the menu.

7. Connect the iPad and the Wi-Fi router.

 ① **On the iPad, tap "Settings" → "Wi-Fi," make sure Wi-Fi is turned on, then at "Choose a Network," select the Wi-Fi router to which the unit is connected.**

Selecting and Connecting to a Wi-Fi Router

From the list of Wi-Fi access points, select the Wi-Fi router where you want to connect the unit.

 * The 802.11g/n (2.4-GHz) wireless protocols and WPS and WPS2 authentication methods are supported.

 * For information on how to operate the Wi-Fi router, refer to the router's documentation.

1. Insert the optional wireless USB adaptor into the unit's USB WLAN ADAPTOR port.

For the wireless USB adaptor, use the ONKYO UWF-1 or Roland WNA1100-RL.

2. Use the [MENU] button to select "WIRELESS LAN" → "ACCESS POINT," then press the [VALUE] dial.

The "ACCESS POINT" popup appears.

- The number of the currently selected Wi-Fi router is highlighted.
- Names that use other than single-byte alphanumeric characters are not displayed correctly.

3. Select the Wi-Fi router you want to connect to and press the [VALUE] dial.

- **When the Wi-Fi router is one you're connecting to for the first time**
 The "PASSPHRASE" popup appears. Go on to step 4.

- **When the Wi-Fi router is one that you've connected to in the past**
 The connection is made as soon as you select the Wi-Fi router. When a successful connection is made, the unit returns to the WIRELESS LAN menu. Go on to step 7.

Entering Security Data

 * This procedure is necessary only when the Wi-Fi router is one you're connecting to for the first time.

4. Enter the security data (passphrase) for the Wi-Fi router.

Pressing the [VALUE] dial lets you change the character at the cursor location. Turn the [VALUE] dial to change the character, then press the [VALUE] dial to apply the change.

Moving the cursor	Turn the [VALUE] dial. The cursor moves forward or backward.
Inserting a character	Press the [◄] button. The same character as the one just before the cursor location is inserted.
Deleting a character	Press the [►] button. The character at the cursor location is deleted.

5. When you've finished entering the text, press the [EXIT] button.

6. Check the message and press the [VALUE] dial.

(If you want to quit, press the [EXIT] button.)
When a successful connection is made, the unit returns to the WIRELESS LAN menu.

7. Press the [MENU] button to quit the menu.

8. Connect the iPad and the Wi-Fi router.

 ① **On the iPad, tap "Settings" → "Wi-Fi," make sure Wi-Fi is turned on, then at "Choose a Network," select the Wi-Fi router to which the unit is connected.**

Setting the Wireless ID

Here you set the device name and SSID for the Wi-Fi-connected unit displayed in the XS-80H Remote iPad application.

When multiple units are on the network, you can change the device names and SSIDs by setting wireless IDs within a range of 1 to 99.

The XS-84H is used in the following example.

Wireless ID = 0: "XS-84H" (default)
Wireless ID = 1: "XS-84H-1"
    :
Wireless ID = 99: "XS-84H-99"

> * The wireless ID is a setting shared by the wired LAN and the wireless LAN.

1. Use the [MENU] button to select "WIRELESS LAN," then use "WIRELESS ID" to set the wireless ID.

The device name and SSID change automatically when you make the "WIRELESS ID" setting.

2. Press the [MENU] button to quit the menu.

Checking the Wi-Fi Information

Here you check the Wi-Fi information for the unit.

1. Use the [MENU] button to select "WIRELESS LAN" → "INFORMATION," then press the [VALUE] dial.

The "WLAN INFORMATION" popup appears.

You can check and verify the following information.

Indication	Description

STATUS	This displays the connection status.
	
	CONNECTED:
	    Connected to the Wi-Fi router.
	
	NOT CONNECTED:
	    A wireless USB adaptor is attached, but no connection to the Wi-Fi router is in effect.
	
	NOT AVAILABLE:
	    No wireless USB adaptor is attached.
	
	AD-HOC:
	    In ad-hoc mode.

SSID	This displays the SSID.
IP ADDRESS	This displays the IP address.
SUBNET MASK	This displays the subnet mask.
MAC ADDRESS	This displays the MAC address.
AD-HOC KEY	This displays the ad-hoc key.

2. Press the [MENU] button to quit the menu.

Making a Wired Connection to the Wi-Fi Router

Here you connect the unit to the Wi-Fi router using a network cable and make a wireless connection to the iPad via the router.

> * For information on how to operate the Wi-Fi router, refer to the router's documentation.

1. Use a network cable to connect the LAN port on the unit to the Wi-Fi router.

2. Use the [MENU] button to select "LAN" and then make the following settings.

Menu item	Description
CONFIGURE	This sets whether the IP address is obtained automatically (USING DHCP) or set manually (MANUALLY).
IP ADDRESS	This sets the IP address when "CONFIGURE" is set to "MANUALLY." * The subnet mask is fixed at "255.255.255.0" and cannot be changed.

3. Press the [MENU] button to quit the menu.

4. Connect the iPad and the Wi-Fi router.

① On the iPad, tap "Settings" → "Wi-Fi," make sure Wi-Fi is turned on, then at "Choose a Network," select the Wi-Fi router to which the unit is connected.

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Important Notes When Working with Copyright-protected (HDCP) Video

Setting "AUDIO FOLLOW" under "AUDIO INPUT" to "OFF" sends audio to all output channels. For this reason, setting "AUDIO FOLLOW" to "OFF" during input or output of copyright-protected (HDCP) video combines the HDCP signal with the audio signals on other channels. This intermixing of the HDCP signal might inhibit output of audio on the other channels.

For example, when the HDMI-2 input video (video without HDCP) is output with HDCP = "DISABLE" as shown in the figure below, setting "AUDIO FOLLOW" for HDMI-3 to "OFF" combines the HDCP signal with the audio signal on HDMI-2, and so output of audio on HDMI-2 stops (shown by *1 in the figure below).

XS-82H/83H/84H
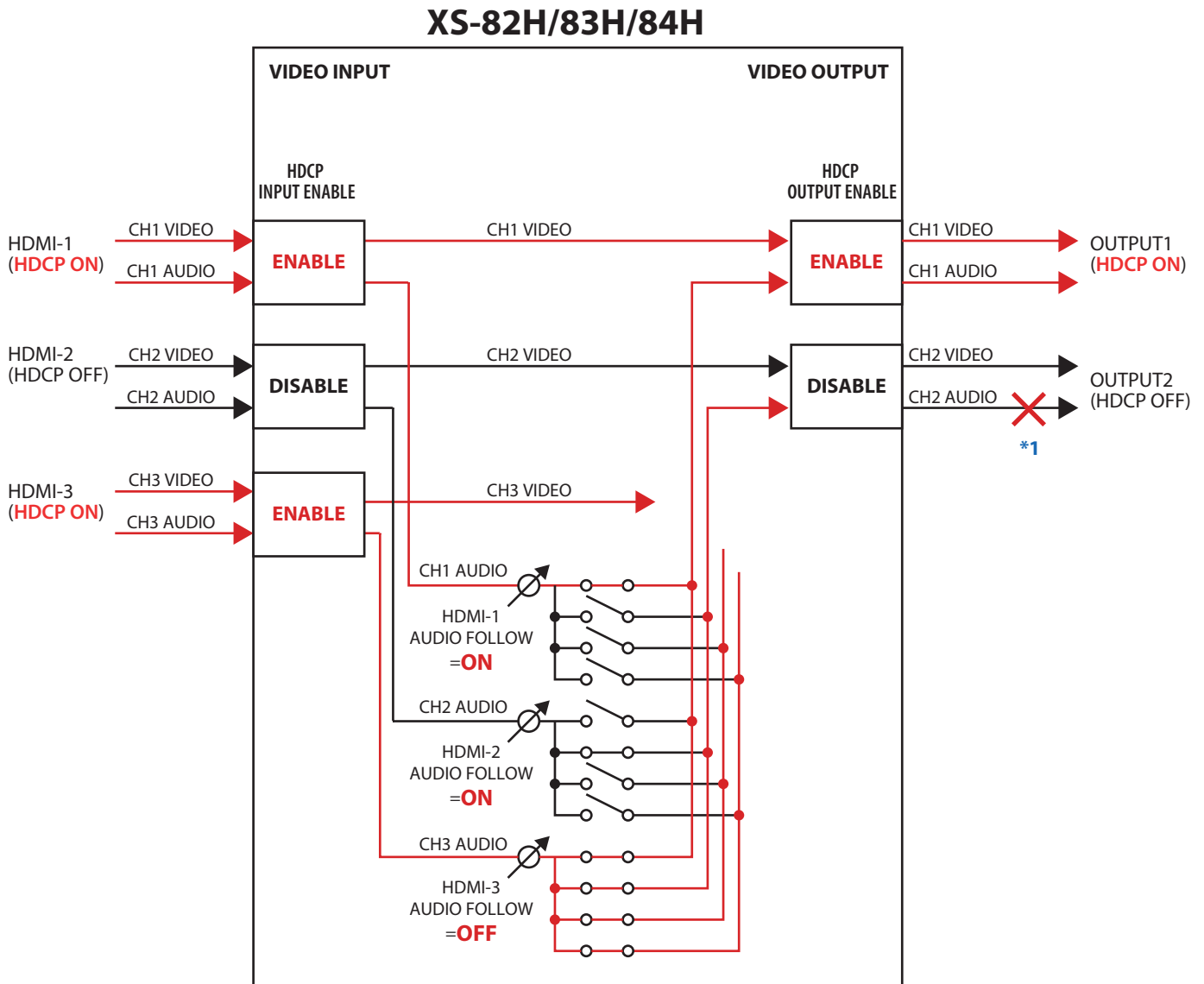
Command Reference

You can use the RS-232C connector and LAN port to operate the unit from an external device.

Specification of the RS-232C Connector
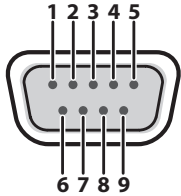
Pin No.	Signal
1	N.C.
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	N.C.

D-sub 9-pin (male)

Communication method	Synchronous (asynchronous), full-duplex
Communication speed	9600 bps / 38400 bps
Parity	none
Data length	8 bit
Stop bit	1 bit
Code set	ASCII
Flow control	XON/XOFF

MEMO

To operate the unit remotely by receiving commands from an external device via the RS-232C connector, press the [MENU] button and select "RS-232C," then set "FUNCTION" to "RECEIVER."

Overview of Commands

The format of commands is an ASCII code string composed of "3 letters (upper case)" plus ";" (semicolon) plus "CR" (0dH).

If the command has an argument, a colon (":") is inserted between the command letters and the argument. When multiple arguments occur, they are separated by commas (",").

":"

This is the code to separate the command and its argument.

";" "CR"

This is the code that the unit recognizes as the end of a command.

* When using RS-232C, no "CR" is required.
* The codes of CR (0DH), Xon (11H)/ Xoff (13H)are the control codes.
* When successively sending commands to the unit from an external device, after each command, be sure that "ACK;" is returned before sending the next command.

Control Using the LAN Port

You can use TCP control commands to operate the unit remotely from an external device.

Port	LAN port
Protocol	TCP
Port number	8023

Making the LAN Settings

1. **Use the [MENU] button to select "LAN" and then make the following settings.**

Menu item	Description
CONFIGURE	This sets whether the IP address is obtained automatically (USING DHCP) or set manually (MANUALLY).
IP ADDRESS	This sets the IP address when "CONFIGURE" is set to "MANUALLY." * The subnet mask is fixed at "255.255.255.0" and cannot be changed.

2. **Press the [MENU] button to quit the menu.**

Verifying the LAN Information

1. **Use the [MENU] button to select "LAN" and then "INFORMATION," then press the [VALUE] dial.**

   The "LAN INFORMATION" popup appears.

   You can check and verify the following information.

Indication	Description
STATUS	CONNECTED: A LAN cable is connected. NOT CONNECTED: No LAN cable is connected.
IP ADDRESS	This displays the IP address.
SUBNET MASK	This displays the subnet mask.
MAC ADDRESS	This displays the MAC address.

2. **Press the [MENU] button to quit and close the "LAN INFORMATION" popup.**

Received Commands

VIS   This selects the type for a video input channel.

VIS:a,b;

a: Input channel number 0 (CH 1)–7 (CH 8)

b: Input type

    0: HDMI, 1: RGB/COMPONENT, 2: COMPOSITE, 3: YC,
    4: STILL1, 5: STILL2, 6: STILL3, 7: STILL4, 8: SHARE

VIC   This selects the color space for a video input channel.

VIC:a,b;

a: Input channel number 0 (CH 1)–7 (CH 8)

b: Color space

    0: Auto, 1: RGB (0–255), 2: RGB (6–235), 3: YCC (SD), 4: YCC (HD)

VIH   This sets HDCP for a video input channel.

VIH:a,b;

a: Input channel number 0 (CH 1)–7 (CH 8)

b: HDCP Input Enable   0: Disable, 1: Enable

VIA   This sets the aspect ratio for a video input channel.

VIA:a,b;

a: Input channel number 0 (CH 1)–7 (CH 8)

b: Aspect ratio

    0: Full, 1: Letterbox, 2: Crop, 3: Dot by Dot, 4: Manual

VOS   This makes the OUTPUT SELECT setting for a video output channel.

VOS:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: OUTPUT SELECT 0: Auto, 1: HDMI, 2: HDBaseT

VOR   This sets the video output resolution.

VOR:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: OUTPUT RESOLUTION

    0: 480i 4:3/576i 4:3, 1: 480i 16:9/576i 16:9, 2: 480p 4:3/576p 4:3,
    3: 480p 16:9/576p 16:9, 4: 720/59.94P, 5: 1080/59.94i, 6: 1080/59.94P,
    7: 640 x 480, 8: 800 x 600, 9: 1024 x 768, 10: 1280 x 768, 11: 1366 x 768,
    12: 1280 x 1024, 14: 1600 x 1200, 15: 1920 x 1200

VOH   This sets HDCP for a video output channel.

VOH:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: HDCP Output Enable   0: Disable, 1: Enable

VOC   This selects the color space for a video output channel.

VOC:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: Color space

    0: Auto, 1: RGB (0–255), 2: RGB (6–235), 3: YCC (422), 4: YCC (444)

VOD   This sets the signal type for a video output channel.

VOD:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: DVI-D/HDMI Signal   0: DVI-D, 1: HDMI

OAV   This selects the input channel for video and audio sent to OUTPUT.

OAV:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: Input channel number 0 (CH 1)–7 (CH 8)

OVS   This selects the input channel for video sent to OUTPUT.

OVS:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: Input channel number 0 (CH 1)–7 (CH 8)

OAS   This selects the input channel for audio sent to OUTPUT.

OAS:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: Input channel number 0 (CH 1)–7 (CH 8)

OFS   This changes the state of the [OFF] button.

OFS:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: [OFF] button   0: Off, 1: On

IDL   This sets the level of audio input via the HDMI INPUT connectors.

IDL:a,b;

a: Input channel number 0 (CH 1)–7 (CH 8)

b: Level 0–127

IAL   This sets the level of audio input via the AUDIO INPUT connectors.

IAL:a,b;

a: Input channel number 0 (CH 1)–7 (CH 8)

b: Level 0–127

OAL   This sets the output level for audio.

OAL:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: Level 0–127

IDM   This sets muting on or off of audio input via the HDMI INPUT connectors.

IDM:a,b;

a: Input channel number 0 (CH 1)–7 (CH 8)

b: Mute 0: Off, 1: On

IAM   This sets muting on or off of audio input via the AUDIO INPUT connectors.

IAM:a,b;

a: Input channel number 0 (CH 1)–7 (CH 8)

b: Mute 0: Off, 1: On

OAM   This sets muting on or off for output audio.

OAM:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: Mute 0: Off, 1: On

ADT   This sets the delay time for output audio.

ADT:a,b;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: Level 0–170 (ms)

MOD   This sets the video output mode.

MOD:a;

a: Mode type

0: MATRIX, 1: MULTI-2, 2: MULTI-3, 3: MULTI-4, 4: SPAN-2, 5: SPAN-3,
6: SPAN-4, 7: ROTATION-L1, 8: ROTATION-L2, 9: ROTATION-L3, 10: ROTATION-L4,
11: ROTATION-R1, 12: ROTATION-R2, 13: ROTATION-R3, 14: ROTATION-R4,
15: 4K-1, 16: 4K-2

PSE   This calls up settings saved at a preset.

PSE:a;

a: Preset number 0 (1)–31 (32)

ITS   This returns the state of INPUT.

ITS:a;

a: Input channel number0 (CH 1)–7 (CH 8)

OTS   This returns the state of OUTPUT.

OTS:a;

a: Output channel number 0 (CH 1)–3 (CH 4)

CTS   This returns the state of the cross-point selection buttons.

CTS:a;

a: Output channel number 0 (CH 1)–3 (CH 4)

PLS   This sets panel lock on or off.

PLS:a;

a: Panel Lock Sw   0: Off, 1: On

*   When the parameters for "KEY LOCK MODE" under "SYSTEM" are all set to
    "OFF," panel lock is not set on when "On" is sent.

KLM   This sets the key lock mode.

KLM:a,b;

a: Key Lock Mode

0: CROSSPOINT, 1: SWITCHING MODE, 2: MENU+EXIT, 3: CURSOR+VALUE

b: Key Lock Sw   0: Off, 1: On

KLS   This returns the state of the key lock mode.

KLS;

VER   This returns version information.

VER;

ACS   This verifies the status of the unit. While in operation, "ACK;" is returned.

ACS;

XON   This is flow control.

XON

XOFF   This is flow control.

XOFF

Command Reference

Sent Commands

ACK   This is sent when a transmitted command has been correctly received.

    ACK;

ERR   This is sent when a transmitted command has not been correctly received.

    ERR:a;

a: 0 (syntax error): The received command contains an error.

    4 (invalid value error): An argument of the received command is invalid.

    5 (out of range error): An argument of the received command is out of range.

ITS   This verifies the state of a video input channel.

    ITS:a,b,c,d,e;

a: Input channel number 0 (CH 1)–7 (CH 8)

b: Input type

    0: HDMI, 1: RGB/COMPONENT, 2: COMPOSITE, 3: YC, 4: STILL1, 5: STILL2,
    6: STILL3, 7: STILL4, 8: SHARE

c: Color space

    0: Auto, 1: RGB (0–255), 2: RGB (6–235), 3: YCC (SD), 4: YCC (HD)

d: HDCP Input Enable   0: Disable, 1: Enable

e: Aspect ratio

    0: Full, 1: Letterbox, 2: Crop, 3: Dot by Dot, 4: Manual

OTS   This verifies the state of a video output channel.

    OTS:a,b,c,d,e,f;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: OUTPUT SELECT   0: Auto, 1: HDMI, 2: HDBaseT

c: OUTPUT RESOLUTION

    0: 480i 4:3/576i 4:3, 1: 480i 16:9/576i 16:9,
    2: 480p 4:3/576p 4:3, 3: 480p 16:9/576p 16:9,
    4: 720/59.94P, 5: 1080/59.94i, 6: 1080/59.94P, 7: 640 x 480,
    8: 800 x 600, 9:1024 x 768, 10: 1280 x 768,
    11: 1366 x 768, 12: 1280 x 1024, 14: 1600 x 1200, 15: 1920 x 1200

d: HDCP Output Enable   0: Disable, 1: Enable

e: Color space

    0: Auto, 1: RGB (0–255), 2: RGB (6–235), 3: YCC (422), 4: YCC (444)

f: DVI-D/HDMI Signal   0: DVI-D, 1: HDMI

CTS   This verifies the state of the cross-point selection buttons.

    CTS:a,b,c,d;

a: Output channel number 0 (CH 1)–3 (CH 4)

b: Video selection channel number 0 (CH 1)–7 (CH 8)

c: Audio selection channel number 0 (CH 1)–7 (CH 8)

d: OUTPUT [OFF] button status   0: Off, 1: On

KLS   This verifies the state of the key lock mode.

    KLS:a,b,c,d,e;

a: Lock Status	0: Off, 1: On
b: Cross Point	0: Off, 1: On
c: Switch Mode	0: Off, 1: On
d: Menu+Exit	0: Off, 1: On
e: Cursor+Value	0: Off, 1: On

VER   This is sent when a VER command has been received.

    VER:XS-8aH,b;

a: XS-82H=2, XS-83H=3, XS-84H=4

b: Version   * The version info is ASCII text strings.

XON   This is flow control.

    XON

XOFF   This is flow control.

    XOFF