STREAMING VIDEO SWITCHER

V-160HD

Remote Control Guide



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MIDI Implementation

Model: V-160HD
Date: Apr. 11, 2025
Version: 3.30

Symbol	Item	Setting Range
n	MIDI Channel	Fixed at 00H

1. MIDI Messages Received at MIDI IN

■ System Exclusive Messages

Status	Data Byte	Status
F0H	iiH,ddH,...,eeH	F7H

F0H: Status of system exclusive message
ii= ID number: This is the ID to recognize manufacturer of the exclusive message (manufacturer ID). The manufacturer ID of Roland is 41H. The ID numbers of 7EH and 7FH are expansion of MIDI standards and used as universal non-realtime message (7EH) of universal realtime message (7FH).
dd,...,ee= data: 00H–7FH (0–127)
F7H: EOX (end of exclusive)

●Data Request 1 (RQ1)

This is the message to request of "send data" to the connected device. Specify data type and amount using address and size. When this is received, the unit sends the requested data as "Data Set 1 (DT1)" message in case the unit is in status where the sending of data is possible and requested address and size are appropriate. If not, the unit sends nothing.

Status	Data Byte	Status
F0H	41H, 10H, 00H, 00H, 00H, 00H, 02H, 11H, aaH, bbH, ccH, ssH, ttH, uuH, sum	F7H

Byte	Explanation
F0H	Exclusive Status
41H	Manufacturer ID (Roland)
10H	Device ID
00H	1st byte of model ID (V-160HD)
00H	2nd byte of model ID (V-160HD)
00H	3rd byte of model ID (V-160HD)
00H	4th byte of model ID (V-160HD)
02H	5th byte of model ID (V-160HD)
11H	Command ID (RQ1)
aaH	Address upper byte
bbH	Address middle byte
ccH	Address lower byte
ssH	Size upper byte
ttH	Size middle byte
uuH	Size lower byte
sum	Checksum
F7H	EOX (end of exclusive)

* Depending on the data type, the amount of single-time transmission is specified. It is necessary to execute data request according to the specified first address and size. Refer to the "2. Parameter Address Map" (p. 3) for address and size.
* See "Example of an Exclusive Message and Calculating a Checksum" (p. 35) for checksum.

●Data Set 1 (DT1)

This is the message of actual data transmission. Use this when you want to set data to the unit.

Status	Data Byte	Status
F0H	41H, 10H, 00H, 00H, 00H, 00H, 02H, 12H, aaH, bbH, ccH, ddH, ..., eeH, sum	F7H

Byte	Explanation
F0H	Exclusive Status
41H	Manufacturer ID (Roland)
10H	Device ID
00H	1st byte of model ID (V-160HD)
00H	2nd byte of model ID (V-160HD)
00H	3rd byte of model ID (V-160HD)
00H	4th byte of model ID (V-160HD)
02H	5th byte of model ID (V-160HD)
12H	Command ID (DT1)
aaH	Address upper byte
bbH	Address middle byte
ccH	Address lower byte
ddH	Data: actual data to transmit. Multiple byte data is sent in address order.
:	:
eeH	Data
sum	Checksum
F7H	EOX (end of exclusive)

* Depending on the data type, the amount of single-time transmission is specified. It is necessary to execute data request according to the specified first address and size. Refer to the "2. Parameter Address Map" (p. 3) for address and size.
* See "Example of an Exclusive Message and Calculating a Checksum" (p. 35) for checksum.
* Data exceeding 256 bytes should be divided into packets of 256 bytes or smaller. If you send data set 1 successively, set interval of 20 msec or longer between packets.

2. Parameter Address Map

Start Address	Description
00H 00H 00H	Video Parameter Area
01H 00H 00H	Audio Parameter Area
02H 00H 00H	System Parameter Area
0AH 00H 00H	Other Parameter Area
0BH 00H 00H	Panel Control Area
0CH 00H 00H	Tally Area
0DH 00H 00H	Camera Control Area
10H 00H 00H	Video Parameter (Memory 1)
11H 00H 00H	Audio Parameter (Memory 1)
12H 00H 00H	Video Parameter (Memory 2)
13H 00H 00H	Audio Parameter (Memory 2)
14H 00H 00H	Video Parameter (Memory 3)
15H 00H 00H	Audio Parameter (Memory 3)
16H 00H 00H	Video Parameter (Memory 4)

Start Address	Description
17H 00H 00H	Audio Parameter (Memory 4)
18H 00H 00H	Video Parameter (Memory 5)
19H 00H 00H	Audio Parameter (Memory 5)
1AH 00H 00H	Video Parameter (Memory 6)
1BH 00H 00H	Audio Parameter (Memory 6)
1CH 00H 00H	Video Parameter (Memory 7)
1DH 00H 00H	Audio Parameter (Memory 7)
1EH 00H 00H	Video Parameter (Memory 8)
1FH 00H 00H	Audio Parameter (Memory 8)
:	:
4AH 00H 00H	Video Parameter (Memory 30)
4BH 00H 00H	Audio Parameter (Memory 30)
50H 00H 00H	Macro Area
60H 00H 00H	Memory Name

●Video Parameter Area

○VIDEO ASSIGN

Address	Parameter name	SysEx value	Meaning of value
00H 00H 00H	INPUT 1 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 01H	INPUT 2 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 02H	INPUT 3 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 03H	INPUT 4 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 04H	INPUT 5 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 05H	INPUT 6 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 06H	INPUT 7 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 07H	INPUT 8 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 08H	INPUT 9 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 09H	INPUT 10 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 0AH	HDMI OUTPUT 1 ASSIGN	00H–0AH	PROGRAM, SUB PROGRAM, PREVIEW, AUX1–3, DSK 1, 2 SOURCE, MULTI-VIEW, 16 INPUT-VIEW, 16 STILL-VIEW
00H 00H 0BH	HDMI OUTPUT 2 ASSIGN	00H–0AH	PROGRAM, SUB PROGRAM, PREVIEW, AUX1–3, DSK 1, 2 SOURCE, MULTI-VIEW, 16 INPUT-VIEW, 16 STILL-VIEW
00H 00H 0CH	HDMI OUTPUT 3 ASSIGN	00H–0AH	PROGRAM, SUB PROGRAM, PREVIEW, AUX1–3, DSK 1, 2 SOURCE, MULTI-VIEW, 16 INPUT-VIEW, 16 STILL-VIEW
00H 00H 0DH	SDI OUTPUT 1 ASSIGN	00H–0AH	PROGRAM, SUB PROGRAM, PREVIEW, AUX1–3, DSK 1, 2 SOURCE, MULTI-VIEW, 16 INPUT-VIEW, 16 STILL-VIEW
00H 00H 0EH	SDI OUTPUT 2 ASSIGN	00H–0AH	PROGRAM, SUB PROGRAM, PREVIEW, AUX1–3, DSK 1, 2 SOURCE, MULTI-VIEW, 16 INPUT-VIEW, 16 STILL-VIEW
00H 00H 0FH	SDI OUTPUT 3 ASSIGN	00H–0AH	PROGRAM, SUB PROGRAM, PREVIEW, AUX1–3, DSK 1, 2 SOURCE, MULTI-VIEW, 16 INPUT-VIEW, 16 STILL-VIEW
00H 01H 10H	USB OUTPUT ASSIGN	00H–0AH	PROGRAM, SUB PROGRAM, PREVIEW, AUX1–3, DSK 1, 2 SOURCE, MULTI-VIEW, 16 INPUT-VIEW, 16 STILL-VIEW
00H 00H 11H	AUX 1 SOURCE	00H–33H	HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
00H 00H 12H	PROGRAM LAYER PinP & KEY 1	00H–01H	DISABLE, ENABLE
00H 00H 13H	PROGRAM LAYER PinP & KEY 2	00H–01H	DISABLE, ENABLE
00H 00H 14H	PROGRAM LAYER PinP & KEY 3	00H–01H	DISABLE, ENABLE
00H 00H 15H	PROGRAM LAYER PinP & KEY 4	00H–01H	DISABLE, ENABLE
00H 00H 16H	PROGRAM LAYER DSK 1	00H–01H	DISABLE, ENABLE
00H 00H 17H	PROGRAM LAYER DSK 2	00H–01H	DISABLE, ENABLE
00H 00H 18H	SUB PROGRAM LAYER PinP & KEY 1	00H–01H	DISABLE, ENABLE
00H 00H 19H	SUB PROGRAM LAYER PinP & KEY 2	00H–01H	DISABLE, ENABLE
00H 00H 1AH	SUB PROGRAM LAYER PinP & KEY 3	00H–01H	DISABLE, ENABLE
00H 00H 1BH	SUB PROGRAM LAYER PinP & KEY 4	00H–01H	DISABLE, ENABLE
00H 00H 1CH	SUB PROGRAM LAYER DSK 1	00H–01H	DISABLE, ENABLE
00H 00H 1DH	SUB PROGRAM LAYER DSK 2	00H–01H	DISABLE, ENABLE
00H 00H 1EH	AUX 1 LAYER PinP & KEY 1	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 1FH	AUX 1 LAYER PinP & KEY 2	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 20H	AUX 1 LAYER PinP & KEY 3	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 21H	AUX 1 LAYER PinP & KEY 4	00H–02H	DISABLE, ENABLE, ALWAYS ON

Address	Parameter name	SysEx value	Meaning of value
00H 00H 22H	AUX 1 LAYER DSK 1	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 23H	AUX 1 LAYER DSK 2	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 24H	INPUT 11 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 25H	INPUT 12 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 26H	INPUT 13 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 27H	INPUT 14 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 28H	INPUT 15 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 29H	INPUT 16 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 2AH	INPUT 17 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 2BH	INPUT 18 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 2CH	INPUT 19 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 2DH	INPUT 20 ASSIGN	00H–20H	HDMI 1–8, SDI 1–8, STILL 1–16, N/A
00H 00H 2EH	AUX 2 SOURCE	00H–33H	HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
00H 00H 2FH	AUX 3 SOURCE	00H–33H	HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
00H 00H 30H	AUX 2 LAYER PinP & KEY 1	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 31H	AUX 2 LAYER PinP & KEY 2	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 32H	AUX 2 LAYER PinP & KEY 3	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 33H	AUX 2 LAYER PinP & KEY 4	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 34H	AUX 2 LAYER DSK 1	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 35H	AUX 2 LAYER DSK 2	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 36H	AUX 3 LAYER PinP & KEY 1	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 37H	AUX 3 LAYER PinP & KEY 2	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 38H	AUX 3 LAYER PinP & KEY 3	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 39H	AUX 3 LAYER PinP & KEY 4	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 3AH	AUX 3 LAYER DSK 1	00H–02H	DISABLE, ENABLE, ALWAYS ON
00H 00H 3BH	AUX 3 LAYER DSK 2	00H–02H	DISABLE, ENABLE, ALWAYS ON

○ VIDEO INPUT (HDMI)

* xxH: 01H–04H (HDMI IN 1–4)

Address	Parameter name	SysEx value	Meaning of value
00H xxH 00H	FLIP H	00H–01H	OFF, ON
00H xxH 01H	FLIP V	00H–01H	OFF, ON
00H xxH 02H	BRIGHTNESS	60H–00H–1FH	-32–0–31
00H xxH 03H	CONTRAST	60H–00H–1FH	-32–0–31
00H xxH 04H	SATURATION	60H–00H–1FH	-32–0–31
00H xxH 05H	COLOR SPACE	00H–04H	AUTO, RGB (0-255), RGB (16-235), YPbPr (SD), YPbPr (HD)

○ VIDEO INPUT (SCALER)

* xxH: 05H–08H (HDMI IN 5–8)

Address	Parameter name	SysEx value	Meaning of value
00H xxH 00H	FLICKER FILTER	00H–01H	OFF, ON
00H xxH 01H	FLIP H	00H–01H	OFF, ON
00H xxH 02H	FLIP V	00H–01H	OFF, ON
00H xxH 03H	EDID	00H–0BH	INTERNAL, SVGA (800 x 600), XGA (1024 x 768), WXGA (1280 x 800), FWXGA (1366 x 768), SXGA (1280 x 1024), SXGA+ (1400 x 1050), UXGA (1600 x 1200), WUXGA (1920 x 1200), 720p, 1080i, 1080p
00H xxH 04H 05H	ZOOM	00H 64H–4EH 10H	10.0–1000.0%
00H xxH 06H	SCALING TYPE	00H–04H	FULL, LETTER BOX, CROP, DOT BY DOT, MANUAL
00H xxH 07H 08H	MANUAL SIZE H	70H 30H–00H 00H–0FH 50H	-2000–0–2000
00H xxH 09H 0AH	MANUAL SIZE V	70H 30H–00H 00H–0FH 50H	-2000–0–2000
00H xxH 0BH 0CH	POSITION H	71H 00H–00H 00H–0FH 00H	-1920–0–1920
00H xxH 0DH 0EH	POSITION V	76H 50H–00H 00H–09H 30H	-1200–0–1200
00H xxH 0FH	BRIGHTNESS	60H–00H–1FH	-32–0–31
00H xxH 10H	CONTRAST	60H–00H–1FH	-32–0–31
00H xxH 11H	SATURATION	60H–00H–1FH	-32–0–31
00H xxH 12H	RED	40H–00H–3FH	-64–0–63

Address	Parameter name	SysEx value	Meaning of value
00H xxH 13H	GREEN	40H–00H–3FH	-64–0–63
00H xxH 14H	BLUE	40H–00H–3FH	-64–0–63
00H xxH 15H	COLOR SPACE	00H–04H	AUTO, RGB (0-255), RGB (16-235), YPbPr (SD), YPbPr (HD)
00H xxH 16H	TEST PATTERN	00H–05H	OFF, 75% COLOR BAR, 100% COLOR BAR, RAMP, STEP, HATCH

○VIDEO INPUT (SDI)

* xxH: 09H–10H (SDI IN 1–8)

Address	Parameter name	SysEx value	Meaning of value
00H xxH 00H	FLIP H	00H–01H	OFF, ON
00H xxH 01H	FLIP V	00H–01H	OFF, ON
00H xxH 02H	BRIGHTNESS	60H–00H–1FH	-32–0–31
00H xxH 03H	CONTRAST	60H–00H–1FH	-32–0–31
00H xxH 04H	SATURATION	60H–00H–1FH	-32–0–31

○VIDEO OUTPUT (HDMI)

* xxH: 11H–13H (HDMI OUT 1–3)

Address	Parameter name	SysEx value	Meaning of value
00H xxH 00H	COLOR SPACE	00H–03H	YPbPr (4: 4: 4), YPbPr (4: 2: 2), RGB (0-255), RGB (16-235)
00H xxH 01H	DVI-D/HDMI SIGNAL	00H–01H	HDMI, DVI-D
00H xxH 02H	BRIGHTNESS	40H–00H–3FH	-64–0–63
00H xxH 03H	CONTRAST	40H–00H–3FH	-64–0–63
00H xxH 04H	SATURATION	40H–00H–3FH	-64–0–63
00H xxH 05H	RED	40H–00H–3FH	-64–0–63
00H xxH 06H	GREEN	40H–00H–3FH	-64–0–63
00H xxH 07H	BLUE	40H–00H–3FH	-64–0–63
00H xxH 08H	REC CONTROL	00H–01H	OFF, ON

○VIDEO OUTPUT (SDI)

* xxH: 14H–16H (SDI OUT 1–3)

Address	Parameter name	SysEx value	Meaning of value
00H xxH 00H	3G-SDI MAPPING	00H–01H	LEVEL-A, LEVEL-B
00H xxH 01H	BRIGHTNESS	40H–00H–3FH	-64–0–63
00H xxH 02H	CONTRAST	40H–00H–3FH	-64–0–63
00H xxH 03H	SATURATION	40H–00H–3FH	-64–0–63

○TRANSITION TIME

Address	Parameter name	SysEx value	Meaning of value
00H 17H 00H	MIX/WIPE TIME	00H–28H	0.0–4.0sec
00H 17H 01H	PinP & KEY 1 TIME	00H–28H	0.0–4.0sec
00H 17H 02H	PinP & KEY 2 TIME	00H–28H	0.0–4.0sec
00H 17H 03H	PinP & KEY 3 TIME	00H–28H	0.0–4.0sec
00H 17H 04H	PinP & KEY 4 TIME	00H–28H	0.0–4.0sec
00H 17H 05H	DSK 1 TIME	00H–28H	0.0–4.0sec
00H 17H 06H	DSK 2 TIME	00H–28H	0.0–4.0sec
00H 17H 07H	OUTPUT FADE TIME	00H–28H	0.0–4.0sec

○ MIX/WIPE

Address	Parameter name	SysEx value	Meaning of value
00H 18H 00H	TRANSITION TYPE	00H–01H	MIX, WIPE
00H 18H 01H	MIX TYPE	00H–02H	MIX, FAM, NAM
00H 18H 02H	WIPE TYPE	00H–07H	HORIZONTAL, VERTICAL, UPPER LEFT, UPPER RIGHT, LOWER LEFT, LOWER RIGHT, H-CENTER, V-CENTER
00H 18H 03H	WIPE DIRECTION	00H–02H	NORMAL, REVERSE, ROUND TRIP
00H 18H 04H	WIPE BORDER COLOR	00H–09H	WHITE, YELLOW, CYAN, GREEN, MAGENTA, RED, BLUE, BLACK, CUSTOM, SOFT EDGE
00H 18H 05H	WIPE BORDER WIDTH	00H–0EH	0–14
00H xxH 06H 07H	WIPE BORDER COLOR RED	00H 00H–01H 7FH	0–255
00H xxH 08H 09H	WIPE BORDER COLOR GREEN	00H 00H–01H 7FH	0–255
00H xxH 0AH 0BH	WIPE BORDER COLOR BLUE	00H 00H–01H 7FH	0–255

○ SPLIT

* xxH: 19H–1AH (SPLIT 1, 2)

Address	Parameter name	SysEx value	Meaning of value
00H xxH 00H	SPLIT SW	00H–01H	OFF, ON
00H xxH 01H	SPLIT TYPE	00H–01H	SPLIT V, SPLIT H
00H xxH 02H 03H	PGM/A-CENTER	7CH 0CH–00H 00H–03H 74H	-50.0–0.0–50.0%
00H xxH 04H 05H	PST/B-CENTER	7CH 0CH–00H 00H–03H 74H	-50.0–0.0–50.0%
00H xxH 06H 07H	CENTER POSITION	7CH 0CH–00H 00H–03H 74H	-50.0–0.0–50.0%
00H xxH 08H	BORDER COLOR	00H–08H	WHITE, YELLOW, CYAN, GREEN, MAGENTA, RED, BLUE, BLACK, CUSTOM
00H xxH 09H	BORDER WIDTH	00H–0EH	0–14
00H xxH 0AH 0BH	BORDER COLOR RED	00H 00H–01H 7FH	0–255
00H xxH 0CH 0DH	BORDER COLOR GREEN	00H 00H–01H 7FH	0–255
00H xxH 0EH 0FH	BORDER COLOR BLUE	00H 00H–01H 7FH	0–255

○ PinP & KEY

* xxH: 1BH–1EH (PinP & KEY 1–4)

Address	Parameter name	SysEx value	Meaning of value
00H xxH 00H	PGM SW	00H–01H	OFF, ON
00H xxH 01H	PVW SW	00H–01H	OFF, ON
00H xxH 02H	SOURCE	00H–33H	HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
00H xxH 03H	TYPE	00H–03H	PinP, LUMINANCE-WHITE KEY, LUMINANCE-BLACK KEY, CHROMA KEY
00H xxH 04H 05H	POSITION H	78H 18H–00H 00H–07H 68H	-100.0–0.0–100.0%
00H xxH 06H 07H	POSITION V	78H 18H–00H 00H–07H 68H	-100.0–0.0–100.0%
00H xxH 08H 09H	SIZE	00H 00H–07H 68H	0.0–100.0%
00H xxH 0AH 0BH	CROPPING H	00H 00H–07H 68H	0.0–100.0%
00H xxH 0CH 0DH	CROPPING V	00H 00H–07H 68H	0.0–100.0%
00H xxH 0EH	SHAPE	00H–02H	RECTANGLE, CIRCLE, DIAMOND
00H xxH 0FH	BORDER COLOR	00H–09H	WHITE, YELLOW, CYAN, GREEN, MAGENTA, RED, BLUE, BLACK, CUSTOM, SOFT EDGE
00H xxH 10H	BORDER WIDTH	00H–0EH	0–14
00H xxH 11H 12H	VIEW POSITION H	7CH 0CH–00H 00H–03H 74H	-50.0–0.0–50.0%
00H xxH 13H 14H	VIEW POSITION V	7CH 0CH–00H 00H–03H 74H	-50.0–0.0–50.0%
00H xxH 15H 16H	VIEW ZOOM	00H 64H–03H 10H	100–400%
00H xxH 17H 18H	KEY LEVEL	00H 00H–01H 7FH	0–255
00H xxH 19H 1AH	KEY GAIN	00H 00H–01H 7FH	0–255
00H xxH 1BH 1CH	MIX LEVEL	00H 00H–01H 7FH	0–255
00H xxH 1DH	CHROMA COLOR	00H–01H	GREEN, BLUE
00H xxH 1EH	HUE WIDTH	62H–00H–1EH	-30–0–30
00H xxH 1FH 20H	HUE FINE	00H 00H–02H 68H	0–360
00H xxH 21H 22H	SATURATION WIDTH	7FH 00H–00H 00H –00H 7FH	-128–0–127
00H xxH 23H 24H	SATURATION FINE	00H 00H–01H 7FH	0–255
00H xxH 25H 26H	BORDER COLOR RED	00H 00H–01H 7FH	0–255
00H xxH 27H 28H	BORDER COLOR GREEN	00H 00H–01H 7FH	0–255
00H xxH 29H 2AH	BORDER COLOR BLUE	00H 00H–01H 7FH	0–255
00H xxH 2BH 2CH	VALUE WIDTH	7FH 00H–00H 00H –00H 7FH	-128–0–127
00H xxH 2DH 2EH	VALUE FINE	00H 00H–01H 7FH	0–255
00H xxH 2FH	DESPILL	00H–01H	OFF, ON

○DSK

* xxH: 1FH–20H (DSK 1, 2)

Address	Parameter name	SysEx value	Meaning of value
00H xxH 00H	PGM SW	00H–01H	OFF, ON
00H xxH 01H	PVW SW	00H–01H	OFF, ON
00H xxH 02H	DSK MODE	00H–02H	SELF KEY, ALPHA KEY, EXTERNAL KEY
00H xxH 03H	KEY SOURCE	00H–33H	HDMI 1–8, SDI 1–8, STILL 1–16 (*1), INPUT 1–20
00H xxH 04H	FILL SOURCE (*2)	00H–33H	HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
00H xxH 05H	DSK TYPE (*3)	00H–02H	LUMINANCE-WHITE KEY, LUMINANCE-BLACK KEY, CHROMA KEY
00H xxH 06H 07H	DSK LEVEL	00H 00H–01H 7FH	0–255
00H xxH 08H 09H	DSK GAIN	00H 00H–01H 7FH	0–255
00H xxH 0AH 0BH	MIX LEVEL	00H 00H–01H 7FH	0–255
00H xxH 0CH	CHROMA COLOR	00H–01H	GREEN, BLUE
00H xxH 0DH	HUE WIDTH	62H–00H–1EH	-30–0–30
00H xxH 0EH 0FH	HUE FINE	00H 00H–02H 68H	0–360
00H xxH 10H 11H	SATURATION WIDTH	7FH 00H–00H 00H–00H 7FH	-128–0–127
00H xxH 12H 13H	SATURATION FINE	00H 00H–01H 7FH	0–255
00H xxH 14H	FILL TYPE	00H–01H	BUS, MATTE
00H xxH 15H	MATTE COLOR	00H–08H	WHITE, YELLOW, CYAN, GREEN, MAGENTA, RED, BLUE, BLACK, CUSTOM
00H xxH 16H	EDGE TYPE	00H–04H	OFF, BORDER, DROP, SHADOW, OUTLINE
00H xxH 17H	EDGE COLOR	00H–08H	WHITE, YELLOW, CYAN, GREEN, MAGENTA, RED, BLUE, BLACK, CUSTOM
00H xxH 18H	EDGE WIDTH	00H–07H	0–7
00H xxH 19H	(reserved)		
00H xxH 1AH 1BH	MATTE COLOR RED	00H 00H–01H 7FH	0–255
00H xxH 1CH 1DH	MATTE COLOR GREEN	00H 00H–01H 7FH	0–255
00H xxH 1EH 1FH	MATTE COLOR BLUE	00H 00H–01H 7FH	0–255
00H xxH 20H 21H	EDGE COLOR RED	00H 00H–01H 7FH	0–255
00H xxH 22H 23H	EDGE COLOR GREEN	00H 00H–01H 7FH	0–255
00H xxH 24H 25H	EDGE COLOR BLUE	00H 00H–01H 7FH	0–255
00H xxH 26H 27H	VALUE WIDTH	7FH 00H–00H 00H –00H 7FH	-128–0–127
00H xxH 28H 29H	VALUE FINE	00H 00H–01H 7FH	0–255
00H xxH 2AH	DESPILL	00H–01H	OFF, ON

(*1) When "DSK MODE" is set to "ALPHA KEY", only "STILL 1–16" is available.

(*2) This can be set if "DSK MODE" is "EXTERNAL KEY".

(*3) This can be set if "DSK MODE" is "SELF KEY".

○Panel

Address	Parameter name	SysEx value	Meaning of value
00H 21H 00H	PGM Select	00H–33H	HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
00H 21H 01H	PST Select	00H–33H	HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
00H 21H 02H 03H	AB Fader Level	00H 00H–0FH 7FH	0–2047
00H 21H 04H	AB Bus Select	00H–01H	A bus, B bus
00H 21H 05H	DISSOLVE TAKE TYPE	00H–01H	CUT, AUTO

●Audio Parameter Area

○ AUDIO INPUT

* xxH: 00H–14H (AUDIO IN 1–3/4, USB IN, Bluetooth IN, HDMI IN 1–8, SDI IN 1–8)

Address	Parameter name	SysEx value	Meaning of value
01H xxH 00H	ANALOG GAIN (*1)	00H–40H	0–64dB
01H xxH 01H 02H	DIGITAL GAIN	7CH 5CH–00H 00H–03H 24H	-42.0–0.0–42.0dB
01H xxH 03H 04H 05H	INPUT LEVEL	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H xxH 06H	INPUT MUTE	00H–01H	OFF, ON
01H xxH 07H	PHANTOM +48V (*1)	00H–01H	OFF, ON
01H xxH 08H	PAN (*1)	00H–32H–64H	LEFT–CENTER–RIGHT
01H xxH 09H	STEREO LINK (*2)	00H–01H	OFF, ON
01H xxH 0AH	MONO (*3)	00H–03H	OFF, L ONLY, R ONLY, LR MIX
01H xxH 0BH	SOLO	00H–01H	OFF, ON
01H xxH 0CH	EFFECT PRESET	00H–04H	DEFAULT, MEETING, INTERVIEW, AMBIENT MIC, WINDY FIELD
01H xxH 0DH 0EH	DELAY	00H 00H–27H 08H	0.0–500.0msec
01H xxH 0FH	REVERB SEND	00H–7FH	0–127
01H xxH 10H	HIGH PASS FILTER 80Hz	00H–01H	OFF, ON
01H xxH 11H	ECHO CANELLER SW (*1)	00H–01H	OFF, ON
01H xxH 12H	ECHO CANELLER DEPTH (*1)	01H–0AH	1–10
01H xxH 13H	ANTI-FEEDBACK (*1)	00H–01H	OFF, ON
01H xxH 14H	DE-ESSER SW (*1)	00H–01H	OFF, ON
01H xxH 15H	DE-ESSER SENS (*1)	00H–64H	0–100
01H xxH 16H	DE-ESSER DEPTH (*1)	00H–64H	0–100
01H xxH 17H	NOISE GATE SW	00H–01H	OFF, ON
01H xxH 18H	NOISE GATE THRESHOLD	30H–00H	-80–0dB
01H xxH 19H	NOISE GATE RELEASE	00H–7FH	30–5000msec
01H xxH 1AH	COMPRESSOR SW	00H–01H	OFF, ON
01H xxH 1BH	COMPRESSOR THRESHOLD	4EH–00H	-50–0dB
01H xxH 1CH	COMPRESSOR RATIO	00H–0DH	1.00: 1, 1.12: 1, 1.25: 1, 1.40: 1, 1.60: 1, 1.80: 1, 2.00: 1, 2.50: 1, 3.20: 1, 4.00: 1, 5.60: 1, 8.00: 1, 16.0: 1, INF: 1
01H xxH 1DH	COMPRESSOR ATTACK	00H–73H	0.0–100msec
01H xxH 1EH	COMPRESSOR RELEASE	00H–7FH	30–5000msec
01H xxH 1FH	COMPRESSOR MAKEUP GAIN	58H–00H–28H	-40–0–40dB
01H xxH 20H	EQUALIZER SW	00H–01H	OFF, ON
01H xxH 21H	EQUALIZER Hi GAIN	04H–7CH	-12.0–12dB
01H xxH 22H	EQUALIZER Hi FREQUENCY	24H–3EH	1.00–20.0kHz
01H xxH 23H	EQUALIZER Mid GAIN	04H–7CH	-12.0–12dB
01H xxH 24H	EQUALIZER Mid FREQUENCY	02H–3EH	20Hz–20.0kHz
01H xxH 25H	EQUALIZER Mid Q	00H–05H	0.5, 1.0, 2.0, 4.0, 8.0, 16.0
01H xxH 26H	EQUALIZER Lo GAIN	04H–7CH	-12.0–12dB
01H xxH 27H	EQUALIZER Lo FREQUENCY	02H–2AH	20Hz–2.00kHz
01H xxH 28H	VOICE CHANGER SW (*1)	00H–01H	OFF, ON
01H xxH 29H	VOICE CHANGER PITCH (*1)	74H–00H–0CH	-12–0– +12
01H xxH 2AH	VOICE CHANGER FORMANT (*1)	76H–00H–0AH	-10–0– +10
01H xxH 2BH	VOICE CHANGER ROBOT (*1)	00H–01H	OFF, ON
01H xxH 2CH	VOICE CHANGER MIX (*1)	00H–64H	0–100
01H xxH 2DH	EMBEDDED AUDIO SELECT (*4)	00H–03H	1/2, 3/4, 5/6, 7/8
01H xxH 2EH	MAIN SEND	00H–01H	OFF, ON

(*1) AUDIO IN 1, 2 only

(*2) AUDIO IN 1 only

(*3) Stereo audio only

(*4) HDMI 1–8, SDI 1–8 only

○ AUDIO OUTPUT ASSIGN

Address	Parameter name	SysEx value	Meaning of value
01H 20H 00H	AUDIO OUT (XLR)	00H–03H	MASTER OUTPUT, AUX 1–3
01H 20H 01H	AUDIO OUT (RCA)	00H–03H	MASTER OUTPUT, AUX 1–3
01H 20H 02H	PHONES OUT	00H–03H	MASTER OUTPUT, AUX 1–3
01H 20H 03H	USB OUT	00H–04H	AUTO, MASTER OUTPUT, AUX 1–3
01H 20H 04H	HDMI OUT 1	00H–04H	AUTO, MASTER OUTPUT, AUX 1–3
01H 20H 05H	HDMI OUT 2	00H–04H	AUTO, MASTER OUTPUT, AUX 1–3
01H 20H 06H	HDMI OUT 3	00H–04H	AUTO, MASTER OUTPUT, AUX 1–3
01H 20H 07H	SDI OUT 1	00H–04H	AUTO, MASTER OUTPUT, AUX 1–3
01H 20H 08H	SDI OUT 2	00H–04H	AUTO, MASTER OUTPUT, AUX 1–3
01H 20H 09H	SDI OUT 3	00H–04H	AUTO, MASTER OUTPUT, AUX 1–3

○ AUDIO MASTER OUTPUT

Address	Parameter name	SysEx value	Meaning of value
01H 21H 00H 01H 02H	OUTPUT LEVEL	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 21H 03H	OUTPUT MUTE	00H–01H	OFF, ON
01H 21H 04H 05H	OUTPUT DELAY	00H 00H–27H 08H	0.0–500.0msec
01H 21H 06H	LIMITER SW	00H–01H	OFF, ON
01H 21H 07H	LIMITER THRESHOLD	58H–00H	-40–0dB
01H 21H 08H	REVERB LEVEL	00H–7FH	0–127
01H 21H 09H	REVERB SW	00H–01H	OFF, ON
01H 21H 0AH	REVERB TYPE	00H–01H	ROOM, HALL
01H 21H 0BH	REVERB SIZE	01H–14H	1–20
01H 21H 0CH	EQUALIZER SW	00H–01H	OFF, ON
01H 21H 0DH	EQUALIZER Hi GAIN	04H–7CH	-12.0–12dB
01H 21H 0EH	EQUALIZER Hi FREQUENCY	24H–3EH	1.00–20.0kHz
01H 21H 0FH	EQUALIZER Mid GAIN	04H–7CH	-12.0–12dB
01H 21H 10H	EQUALIZER Mid FREQUENCY	02H–3EH	20Hz–20.0kHz
01H 21H 11H	EQUALIZER Mid Q	00H–05H	0.5, 1.0, 2.0, 4.0, 8.0, 16.0
01H 21H 12H	EQUALIZER Lo GAIN	04H–7CH	-12.0–12dB
01H 21H 13H	EQUALIZER Lo FREQUENCY	02H–2AH	20Hz–2.00kHz
01H 21H 14H	MULTI BAND COMPRESSOR SW	00H–01H	OFF, ON
01H 21H 15H	MB COMP Hi THRESHOLD	58H–00H	-40–0dB
01H 21H 16H	MB COMP Hi RATIO	00H–0DH	1.00: 1, 1.12: 1, 1.25: 1, 1.40: 1, 1.60: 1, 1.80: 1, 2.00: 1, 2.50: 1, 3.20: 1, 4.00: 1, 5.60: 1, 8.00: 1, 16.0: 1, INF: 1
01H 21H 17H	MB COMP Mid THRESHOLD	58H–00H	-40–0dB
01H 21H 18H	MB COMP Mid RATIO	00H–0DH	1.00: 1, 1.12: 1, 1.25: 1, 1.40: 1, 1.60: 1, 1.80: 1, 2.00: 1, 2.50: 1, 3.20: 1, 4.00: 1, 5.60: 1, 8.00: 1, 16.0: 1, INF: 1
01H 21H 19H	MB COMP Lo THRESHOLD	58H–00H	-40–0dB
01H 21H 1AH	MB COMP Lo RATIO	00H–0DH	1.00: 1, 1.12: 1, 1.25: 1, 1.40: 1, 1.60: 1, 1.80: 1, 2.00: 1, 2.50: 1, 3.20: 1, 4.00: 1, 5.60: 1, 8.00: 1, 16.0: 1, INF: 1
01H 21H 1BH	LOUDNESS AUTO GAIN CONTROL SW	00H–01H	OFF, ON
01H 21H 1CH	INTEGRATED GAIN CONTROL	00H–01H	DISABLE, ENABLE
01H 21H 1DH	INTEGRATED GAIN CONTROL SENS	00H–7FH	0–127
01H 21H 1EH	MOMENTARY GAIN CONTROL	00H–01H	DISABLE, ENABLE
01H 21H 1FH	MOMENTARY GAIN CONTROL SENS	00H–7FH	0–127
01H 21H 20H	TARGET LKFS	5EH–76H	-34– -10dB
01H 21H 21H	ADAPTIVE NOISE REDUCTION SW	00H–01H	OFF, ON
01H 21H 22H	ADAPTIVE NOISE REDUCTION DEPTH	00H–7FH	0–127
01H 21H 23H	ADAPTIVE NOISE REDUCTION TALKING DETECTOR	00H–7FH	0–127
01H 21H 24H	ADAPTIVE NOISE REDUCTION AUTO LEARN	00H–01H	DISABLE, ENABLE
01H 21H 25H	LO FREQUENCY CUT SW	00H–01H	OFF, ON
01H 21H 26H 27H 28H	REVERB RETURN LEVEL	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 21H 29H	SOLO	00H–01H	OFF, ON

○ AUDIO AUX 1 OUTPUT

Address	Parameter name	SysEx value	Meaning of value
01H 22H 00H 01H 02H	AUX 1 LEVEL	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 22H 03H	AUX 1 MUTE	00H–01H	OFF, ON
01H 22H 04H 05H	AUX 1 DELAY	00H 00H–27H 08H	0.0–500.0msec
01H 22H 06H	AUX 1 LIMITER SW	00H–01H	OFF, ON
01H 22H 07H	AUX 1 LIMITER THRESHOLD	58H–00H	-40–0dB
01H 22H 08H	AUX 1 SEND VIDEO	00H–01H	AUTO, MANUAL
01H 22H 09H	(reserved)		
01H 22H 0AH	(reserved)		
01H 22H 0BH	(reserved)		
01H 22H 0CH	(reserved)		
01H 22H 0DH	(reserved)		
01H 22H 0EH	(reserved)		
01H 22H 0FH	(reserved)		
01H 22H 10H	(reserved)		
01H 22H 11H	(reserved)		
01H 22H 12H	(reserved)		
01H 22H 13H	(reserved)		
01H 22H 14H	(reserved)		
01H 22H 15H	(reserved)		
01H 22H 16H	(reserved)		
01H 22H 17H	(reserved)		
01H 22H 18H	(reserved)		
01H 22H 19H	(reserved)		
01H 22H 1AH	(reserved)		
01H 22H 1BH	(reserved)		
01H 22H 1CH	(reserved)		
01H 22H 1DH	(reserved)		
01H 22H 1EH	AUX 1 SEND POINT AUDIO IN 1	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 1FH	AUX 1 SEND POINT AUDIO IN 2	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 20H	AUX 1 SEND POINT AUDIO IN 3/4	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 21H	AUX 1 SEND POINT USB IN	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 22H	AUX 1 SEND POINT Bluetooth IN	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 23H	AUX 1 SEND POINT HDMI IN 1	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 24H	AUX 1 SEND POINT HDMI IN 2	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 25H	AUX 1 SEND POINT HDMI IN 3	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 26H	AUX 1 SEND POINT HDMI IN 4	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 27H	AUX 1 SEND POINT HDMI IN 5	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 28H	AUX 1 SEND POINT HDMI IN 6	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 29H	AUX 1 SEND POINT HDMI IN 7	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 2AH	AUX 1 SEND POINT HDMI IN 8	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 2BH	AUX 1 SEND POINT SDI IN 1	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 2CH	AUX 1 SEND POINT SDI IN 2	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 2DH	AUX 1 SEND POINT SDI IN 3	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 2EH	AUX 1 SEND POINT SDI IN 4	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 2FH	AUX 1 SEND POINT SDI IN 5	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 30H	AUX 1 SEND POINT SDI IN 6	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 31H	AUX 1 SEND POINT SDI IN 7	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 32H	AUX 1 SEND POINT SDI IN 8	00H–02H	DRY, PRE FADER, POST FADER
01H 22H 33H 34H 35H	REVERB RETURN LEVEL	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 22H 36H	SOLO	00H–01H	OFF, ON

Address	Parameter name	SysEx value	Meaning of value
01H 22H 37H 38H 39H	AUX 1 SEND AUDIO IN 1	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 22H 3AH 3BH 3CH	AUX 1 SEND AUDIO IN 2	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 3DH 3EH 3FH	AUX 1 SEND AUDIO IN 3/4	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 40H 41H 42H	AUX 1 SEND USB IN	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 43H 44H 45H	AUX 1 SEND Bluetooth IN	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 46H 47H 48H	AUX 1 SEND HDMI IN 1	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 49H 4AH 4BH	AUX 1 SEND HDMI IN 2	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 4CH 4DH 4EH	AUX 1 SEND HDMI IN 3	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 4FH 50H 51H	AUX 1 SEND HDMI IN 4	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 52H 53H 54H	AUX 1 SEND HDMI IN 5	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 55H 56H 57H	AUX 1 SEND HDMI IN 6	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 58H 59H 5AH	AUX 1 SEND HDMI IN 7	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 5BH 5CH 5DH	AUX 1 SEND HDMI IN 8	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 5EH 5FH 60H	AUX 1 SEND SDI IN 1	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 61H 62H 63H	AUX 1 SEND SDI IN 2	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 64H 65H 66H	AUX 1 SEND SDI IN 3	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 67H 68H 69H	AUX 1 SEND SDI IN 4	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 6AH 6BH 6CH	AUX 1 SEND SDI IN 5	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 6DH 6EH 6FH	AUX 1 SEND SDI IN 6	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 70H 71H 72H	AUX 1 SEND SDI IN 7	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 22H 73H 74H 75H	AUX 1 SEND SDI IN 8	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB

○AUDIO USB OUTPUT

Address	Parameter name	SysEx value	Meaning of value
01H 23H 00H 01H 02H	USB OUT LEVEL	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 23H 03H	USB OUT MUTE	00H–01H	OFF, ON
01H 23H 04H 05H	AUX DELAY	00H 00H–27H 08H	0.0–500.0msec
01H 23H 06H	EQUALIZER SW	00H–01H	OFF, ON
01H 23H 07H	EQUALIZER Hi GAIN	04H–7CH	-12.0–12dB
01H 23H 08H	EQUALIZER Hi FREQUENCY	24H–3EH	1.00–20.0kHz
01H 23H 09H	EQUALIZER Mid GAIN	04H–7CH	-12.0–12dB
01H 23H 0AH	EQUALIZER Mid FREQUENCY	02H–3EH	20Hz–20.0kHz
01H 23H 0BH	EQUALIZER Mid Q	00H–05H	0.5, 1.0, 2.0, 4.0, 8.0, 16.0
01H 23H 0CH	EQUALIZER Lo GAIN	04H–7CH	-12.0–12dB
01H 23H 0DH	EQUALIZER Lo FREQUENCY	02H–2AH	20Hz–2.00kHz

○AUDIO EMBEDDED

Address	Parameter name	SysEx value	Meaning of value
01H 24H 00H	HDMI OUT SEND (CH3-4)	00H–14H	AUDIO IN 1–3/4, USB AUDIO IN, Bluetooth AUDIO IN, HDMI IN 1–8, SDI IN 1–8
01H 24H 01H	HDMI OUT SEND (CH5-6)	00H–14H	AUDIO IN 1–3/4, USB AUDIO IN, Bluetooth AUDIO IN, HDMI IN 1–8, SDI IN 1–8
01H 24H 02H	HDMI OUT SEND (CH7-8)	00H–14H	AUDIO IN 1–3/4, USB AUDIO IN, Bluetooth AUDIO IN, HDMI IN 1–8, SDI IN 1–8
01H 24H 03H	SDI OUT SEND (CH3-4)	00H–14H	AUDIO IN 1–3/4, USB AUDIO IN, Bluetooth AUDIO IN, HDMI IN 1–8, SDI IN 1–8
01H 24H 04H	SDI OUT SEND (CH5-6)	00H–14H	AUDIO IN 1–3/4, USB AUDIO IN, Bluetooth AUDIO IN, HDMI IN 1–8, SDI IN 1–8
01H 24H 05H	SDI OUT SEND (CH7-8)	00H–14H	AUDIO IN 1–3/4, USB AUDIO IN, Bluetooth AUDIO IN, HDMI IN 1–8, SDI IN 1–8
01H 24H 06H	AUDIO EMBEDDED AUDIO IN 1	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 07H	AUDIO EMBEDDED AUDIO IN 2	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 08H	AUDIO EMBEDDED AUDIO IN 3/4	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 09H	AUDIO EMBEDDED USB IN	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 0AH	AUDIO EMBEDDED Bluetooth IN	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 0BH	AUDIO EMBEDDED HDMI IN 1	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 0CH	AUDIO EMBEDDED HDMI IN 2	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 0DH	AUDIO EMBEDDED HDMI IN 3	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 0EH	AUDIO EMBEDDED HDMI IN 4	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 0FH	AUDIO EMBEDDED HDMI IN 5	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 10H	AUDIO EMBEDDED HDMI IN 6	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 11H	AUDIO EMBEDDED HDMI IN 7	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 12H	AUDIO EMBEDDED HDMI IN 8	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 13H	AUDIO EMBEDDED SDI IN 1	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 14H	AUDIO EMBEDDED SDI IN 2	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 15H	AUDIO EMBEDDED SDI IN 3	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 16H	AUDIO EMBEDDED SDI IN 4	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 17H	AUDIO EMBEDDED SDI IN 5	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 18H	AUDIO EMBEDDED SDI IN 6	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 19H	AUDIO EMBEDDED SDI IN 7	00H–03H	OFF, DRY, PRE FADER, POST FADER
01H 24H 1AH	AUDIO EMBEDDED SDI IN 8	00H–03H	OFF, DRY, PRE FADER, POST FADER

○ AUDIO AUX 2 OUTPUT

Address	Parameter name	SysEx value	Meaning of value
01H 25H 00H 01H 02H	AUX 2 LEVEL	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 25H 03H	AUX 2 MUTE	00H–01H	OFF, ON
01H 25H 04H 05H	AUX 2 DELAY	00H 00H–27H 08H	0.0–500.0msec
01H 25H 06H	AUX 2 LIMITER SW	00H–01H	OFF, ON
01H 25H 07H	AUX 2 LIMITER THRESHOLD	58H–00H	-40–0dB
01H 25H 08H	AUX 2 SEND VIDEO	00H–01H	AUTO, MANUAL
01H 25H 09H	(reserved)		
01H 25H 0AH	(reserved)		
01H 25H 0BH	(reserved)		
01H 25H 0CH	(reserved)		
01H 25H 0DH	(reserved)		
01H 25H 0EH	(reserved)		
01H 25H 0FH	(reserved)		
01H 25H 10H	(reserved)		
01H 25H 11H	(reserved)		
01H 25H 12H	(reserved)		
01H 25H 13H	(reserved)		
01H 25H 14H	(reserved)		
01H 25H 15H	(reserved)		
01H 25H 16H	(reserved)		
01H 25H 17H	(reserved)		
01H 25H 18H	(reserved)		
01H 25H 19H	(reserved)		
01H 25H 1AH	(reserved)		
01H 25H 1BH	(reserved)		
01H 25H 1CH	(reserved)		
01H 25H 1DH	(reserved)		
01H 25H 1EH	AUX 2 SEND POINT AUDIO IN 1	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 1FH	AUX 2 SEND POINT AUDIO IN 2	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 20H	AUX 2 SEND POINT AUDIO IN 3/4	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 21H	AUX 2 SEND POINT USB IN	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 22H	AUX 2 SEND POINT Bluetooth IN	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 23H	AUX 2 SEND POINT HDMI IN 1	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 24H	AUX 2 SEND POINT HDMI IN 2	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 25H	AUX 2 SEND POINT HDMI IN 3	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 26H	AUX 2 SEND POINT HDMI IN 4	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 27H	AUX 2 SEND POINT HDMI IN 5	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 28H	AUX 2 SEND POINT HDMI IN 6	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 29H	AUX 2 SEND POINT HDMI IN 7	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 2AH	AUX 2 SEND POINT HDMI IN 8	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 2BH	AUX 2 SEND POINT SDI IN 1	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 2CH	AUX 2 SEND POINT SDI IN 2	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 2DH	AUX 2 SEND POINT SDI IN 3	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 2EH	AUX 2 SEND POINT SDI IN 4	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 2FH	AUX 2 SEND POINT SDI IN 5	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 30H	AUX 2 SEND POINT SDI IN 6	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 31H	AUX 2 SEND POINT SDI IN 7	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 32H	AUX 2 SEND POINT SDI IN 8	00H–02H	DRY, PRE FADER, POST FADER
01H 25H 33H 34H 35H	REVERB RETURN LEVEL	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 25H 36H	SOLO	00H–01H	OFF, ON

Address	Parameter name	SysEx value	Meaning of value
01H 25H 37H 38H 39H	AUX 2 SEND AUDIO IN 1	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 25H 3AH 3BH 3CH	AUX 2 SEND AUDIO IN 2	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 3DH 3EH 3FH	AUX 2 SEND AUDIO IN 3/4	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 40H 41H 42H	AUX 2 SEND USB IN	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 43H 44H 45H	AUX 2 SEND Bluetooth IN	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 46H 47H 48H	AUX 2 SEND HDMI IN 1	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 49H 4AH 4BH	AUX 2 SEND HDMI IN 2	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 4CH 4DH 4EH	AUX 2 SEND HDMI IN 3	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 4FH 50H 51H	AUX 2 SEND HDMI IN 4	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 52H 53H 54H	AUX 2 SEND HDMI IN 5	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 55H 56H 57H	AUX 2 SEND HDMI IN 6	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 58H 59H 5AH	AUX 2 SEND HDMI IN 7	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 5BH 5CH 5DH	AUX 2 SEND HDMI IN 8	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 5EH 5FH 60H	AUX 2 SEND SDI IN 1	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 61H 62H 63H	AUX 2 SEND SDI IN 2	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 64H 65H 66H	AUX 2 SEND SDI IN 3	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 67H 68H 69H	AUX 2 SEND SDI IN 4	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 6AH 6BH 6CH	AUX 2 SEND SDI IN 5	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 6DH 6EH 6FH	AUX 2 SEND SDI IN 6	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 70H 71H 72H	AUX 2 SEND SDI IN 7	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 25H 73H 74H 75H	AUX 2 SEND SDI IN 8	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB

○ AUDIO AUX 3 OUTPUT

Address	Parameter name	SysEx value	Meaning of value
01H 26H 00H 01H 02H	AUX 3 LEVEL	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 26H 03H	AUX 3 MUTE	00H–01H	OFF, ON
01H 26H 04H 05H	AUX 3 DELAY	00H 00H–27H 08H	0.0–500.0msec
01H 26H 06H	AUX 3 LIMITER SW	00H–01H	OFF, ON
01H 26H 07H	AUX 3 LIMITER THRESHOLD	58H–00H	-40–0dB
01H 26H 08H	AUX 3 SEND VIDEO	00H–01H	AUTO, MANUAL
01H 26H 09H	(reserved)		
01H 26H 0AH	(reserved)		
01H 26H 0BH	(reserved)		
01H 26H 0CH	(reserved)		
01H 26H 0DH	(reserved)		
01H 26H 0EH	(reserved)		
01H 26H 0FH	(reserved)		
01H 26H 10H	(reserved)		
01H 26H 11H	(reserved)		
01H 26H 12H	(reserved)		
01H 26H 13H	(reserved)		
01H 26H 14H	(reserved)		
01H 26H 15H	(reserved)		
01H 26H 16H	(reserved)		
01H 26H 17H	(reserved)		
01H 26H 18H	(reserved)		
01H 26H 19H	(reserved)		
01H 26H 1AH	(reserved)		
01H 26H 1BH	(reserved)		
01H 26H 1CH	(reserved)		
01H 26H 1DH	(reserved)		
01H 26H 1EH	AUX 3 SEND POINT AUDIO IN 1	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 1FH	AUX 3 SEND POINT AUDIO IN 2	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 20H	AUX 3 SEND POINT AUDIO IN 3/4	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 21H	AUX 3 SEND POINT USB IN	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 22H	AUX 3 SEND POINT Bluetooth IN	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 23H	AUX 3 SEND POINT HDMI IN 1	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 24H	AUX 3 SEND POINT HDMI IN 2	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 25H	AUX 3 SEND POINT HDMI IN 3	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 26H	AUX 3 SEND POINT HDMI IN 4	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 27H	AUX 3 SEND POINT HDMI IN 5	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 28H	AUX 3 SEND POINT HDMI IN 6	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 29H	AUX 3 SEND POINT HDMI IN 7	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 2AH	AUX 3 SEND POINT HDMI IN 8	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 2BH	AUX 3 SEND POINT SDI IN 1	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 2CH	AUX 3 SEND POINT SDI IN 2	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 2DH	AUX 3 SEND POINT SDI IN 3	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 2EH	AUX 3 SEND POINT SDI IN 4	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 2FH	AUX 3 SEND POINT SDI IN 5	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 30H	AUX 3 SEND POINT SDI IN 6	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 31H	AUX 3 SEND POINT SDI IN 7	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 32H	AUX 3 SEND POINT SDI IN 8	00H–02H	DRY, PRE FADER, POST FADER
01H 26H 33H 34H 35H	REVERB RETURN LEVEL	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 26H 36H	SOLO	00H–01H	OFF, ON

Address	Parameter name	SysEx value	Meaning of value
01H 26H 37H 38H 39H	AUX 3 SEND AUDIO IN 1	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
01H 26H 3AH 3BH 3CH	AUX 3 SEND AUDIO IN 2	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 3DH 3EH 3FH	AUX 3 SEND AUDIO IN 3/4	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 40H 41H 42H	AUX 3 SEND USB IN	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 43H 44H 45H	AUX 3 SEND Bluetooth IN	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 46H 47H 48H	AUX 3 SEND HDMI IN 1	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 49H 4AH 4BH	AUX 3 SEND HDMI IN 2	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 4CH 4DH 4EH	AUX 3 SEND HDMI IN 3	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 4FH 50H 51H	AUX 3 SEND HDMI IN 4	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 52H 53H 54H	AUX 3 SEND HDMI IN 5	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 55H 56H 57H	AUX 3 SEND HDMI IN 6	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 58H 59H 5AH	AUX 3 SEND HDMI IN 7	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 5BH 5CH 5DH	AUX 3 SEND HDMI IN 8	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 5EH 5FH 60H	AUX 3 SEND SDI IN 1	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 61H 62H 63H	AUX 3 SEND SDI IN 2	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 64H 65H 66H	AUX 3 SEND SDI IN 3	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 67H 68H 69H	AUX 3 SEND SDI IN 4	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 6AH 6BH 6CH	AUX 3 SEND SDI IN 5	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 6DH 6EH 6FH	AUX 3 SEND SDI IN 6	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 70H 71H 72H	AUX 3 SEND SDI IN 7	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB
1H 26H 73H 74H 75H	AUX 3 SEND SDI IN 8	7EH 00H 00H, 7FH 79H 60H–00H 00H 00H–00H 00H 64H	-INFdB, -80.0–0.0–10.0dB

○ AUDIO FOLLOW

Address	Parameter name	SysEx value	Meaning of value
01H 30H 00H	HDMI IN 1	00H–01H	OFF, ON
01H 30H 01H	HDMI IN 2	00H–01H	OFF, ON
01H 30H 02H	HDMI IN 3	00H–01H	OFF, ON
01H 30H 03H	HDMI IN 4	00H–01H	OFF, ON
01H 30H 04H	HDMI IN 5	00H–01H	OFF, ON
01H 30H 05H	HDMI IN 6	00H–01H	OFF, ON
01H 30H 06H	HDMI IN 7	00H–01H	OFF, ON
01H 30H 07H	HDMI IN 8	00H–01H	OFF, ON
01H 30H 08H	SDI IN 1	00H–01H	OFF, ON
01H 30H 09H	SDI IN 2	00H–01H	OFF, ON
01H 30H 0AH	SDI IN 3	00H–01H	OFF, ON
01H 30H 0BH	SDI IN 4	00H–01H	OFF, ON
01H 30H 0CH	SDI IN 5	00H–01H	OFF, ON
01H 30H 0DH	SDI IN 6	00H–01H	OFF, ON
01H 30H 0EH	SDI IN 7	00H–01H	OFF, ON
01H 30H 0FH	SDI IN 8	00H–01H	OFF, ON
01H 30H 10H	AUDIO IN 1	00H–34H	OFF, HDMI 1-8, SDI 1-8, STILL 1-16, INPUT 1–20
01H 30H 11H	AUDIO IN 2	00H–34H	OFF, HDMI 1-8, SDI 1-8, STILL 1-16, INPUT 1–20
01H 30H 12H	AUDIO IN 3/4	00H–34H	OFF, HDMI 1-8, SDI 1-8, STILL 1-16, INPUT 1–20
01H 30H 13H	USB IN	00H–34H	OFF, HDMI 1-8, SDI 1-8, STILL 1-16, INPUT 1–20
01H 30H 14H	Bluetooth IN	00H–34H	OFF, HDMI 1-8, SDI 1-8, STILL 1-16, INPUT 1–20
01H 30H 15H	PinP & KEY 1 FOLLOW	00H–34H	OFF, HDMI 1-8, SDI 1-8, STILL 1-16, INPUT 1–20
01H 30H 16H	PinP & KEY 2 FOLLOW	00H–01H	OFF, ON
01H 30H 17H	PinP & KEY 3 FOLLOW	00H–01H	OFF, ON
01H 30H 18H	PinP & KEY 4 FOLLOW	00H–01H	OFF, ON
01H 30H 19H	DSK 1 FOLLOW	00H–01H	OFF, ON
01H 30H 1AH	DSK 2 FOLLOW	00H–01H	OFF, ON

○ AUDIO AUTO MIXING

Address	Parameter name	SysEx value	Meaning of value
01H 31H 00H	AUTO MIXING SW	00H–01H	OFF, ON
01H 31H 01H	AUDIO IN 1 SW	00H–01H	DISABLE, ENABLE
01H 31H 02H	AUDIO IN 1 WEIGHT	00H–64H	0–100%
01H 31H 03H	AUDIO IN 2 SW	00H–01H	DISABLE, ENABLE
01H 31H 04H	AUDIO IN 2 WEIGHT	00H–64H	0–100%
01H 31H 05H	AUDIO IN 3/4 SW	00H–01H	DISABLE, ENABLE
01H 31H 06H	AUDIO IN 3/4 WEIGHT	00H–64H	0–100%
01H 31H 07H	USB IN SW	00H–01H	DISABLE, ENABLE
01H 31H 08H	USB IN WEIGHT	00H–64H	0–100%
01H 31H 09H	Bluetooth IN SW	00H–01H	DISABLE, ENABLE
01H 31H 0AH	Bluetooth IN WEIGHT	00H–64H	0–100%
01H 31H 0BH	HDMI IN 1 SW	00H–01H	DISABLE, ENABLE
01H 31H 0CH	HDMI IN 1 WEIGHT	00H–64H	0–100%
01H 31H 0DH	HDMI IN 2 SW	00H–01H	DISABLE, ENABLE
01H 31H 0EH	HDMI IN 2 WEIGHT	00H–64H	0–100%
01H 31H 0FH	HDMI IN 3 SW	00H–01H	DISABLE, ENABLE
01H 31H 10H	HDMI IN 3 WEIGHT	00H–64H	0–100%
01H 31H 11H	HDMI IN 4 SW	00H–01H	DISABLE, ENABLE
01H 31H 12H	HDMI IN 4 WEIGHT	00H–64H	0–100%
01H 31H 13H	HDMI IN 5 SW	00H–01H	DISABLE, ENABLE
01H 31H 14H	HDMI IN 5 WEIGHT	00H–64H	0–100%
01H 31H 15H	HDMI IN 6 SW	00H–01H	DISABLE, ENABLE
01H 31H 16H	HDMI IN 6 WEIGHT	00H–64H	0–100%
01H 31H 17H	HDMI IN 7 SW	00H–01H	DISABLE, ENABLE
01H 31H 18H	HDMI IN 7 WEIGHT	00H–64H	0–100%
01H 31H 19H	HDMI IN 8 SW	00H–01H	DISABLE, ENABLE
01H 31H 1AH	HDMI IN 8 WEIGHT	00H–64H	0–100%
01H 31H 1BH	SDI IN 1 SW	00H–01H	DISABLE, ENABLE
01H 31H 1CH	SDI IN 1 WEIGHT	00H–64H	0–100%
01H 31H 1DH	SDI IN 2 SW	00H–01H	DISABLE, ENABLE
01H 31H 1EH	SDI IN 2 WEIGHT	00H–64H	0–100%
01H 31H 1FH	SDI IN 3 SW	00H–01H	DISABLE, ENABLE
01H 31H 20H	SDI IN 3 WEIGHT	00H–64H	0–100%

Address	Parameter name	SysEx value	Meaning of value
01H 31H 21H	SDI IN 4 SW	00H–01H	DISABLE, ENABLE
01H 31H 22H	SDI IN 4 WEIGHT	00H–64H	0–100%
01H 31H 23H	SDI IN 5 SW	00H–01H	DISABLE, ENABLE
01H 31H 24H	SDI IN 5 WEIGHT	00H–64H	0–100%
01H 31H 25H	SDI IN 6 SW	00H–01H	DISABLE, ENABLE
01H 31H 26H	SDI IN 6 WEIGHT	00H–64H	0–100%
01H 31H 27H	SDI IN 7 SW	00H–01H	DISABLE, ENABLE
01H 31H 28H	SDI IN 7 WEIGHT	00H–64H	0–100%
01H 31H 29H	SDI IN 8 SW	00H–01H	DISABLE, ENABLE
01H 31H 2AH	SDI IN 8 WEIGHT	00H–64H	0–100%

○ AUDIO KNOB ASSIGN

Address	Parameter name	SysEx value	Meaning of value
01H 40H 00H	AUDIO IN 1 KNOB	00H–14H	AUDIO 1–3/4, USB IN, Bluetooth IN, HDMI IN 1–8, SDI IN 1–8
01H 40H 01H	AUDIO IN 2 KNOB	00H–14H	AUDIO 1–3/4, USB IN, Bluetooth IN, HDMI IN 1–8, SDI IN 1–8
01H 40H 02H	AUDIO IN 3/4 KNOB	00H–14H	AUDIO 1–3/4, USB IN, Bluetooth IN, HDMI IN 1–8, SDI IN 1–8
01H 40H 03H	AUX KNOB	00H–04H	MASTER OUTPUT, AUX 1–3, USB OUT
01H 40H 04H	USB STREAM KNOB	00H–04H	MASTER OUTPUT, AUX 1–3, USB OUT
01H 40H 05H	MASTER OUTPUT KNOB	00H–04H	MASTER OUTPUT, AUX 1–3, USB OUT

●System Parameter Area

○Version

Address	Parameter name	SysEx value	Meaning of value
02H 00H 00H	System Version Major	00H–09H	0–9
02H 00H 01H	System Version Minor (1)	00H–09H	0–9
02H 00H 02H	System Version Minor (2)	00H–09H	0–9
02H 00H 03H	System Version Build (1)	00H–09H	0–9
02H 00H 04H	System Version Build (2)	00H–09H	0–9
02H 00H 05H	System Version Build (3)	00H–09H	0–9

○SYSTEM

Address	Parameter name	SysEx value	Meaning of value
02H 01H 00H	HDCP	00H–01H	OFF, ON
02H 01H 01H	FRAME RATE	00H–07H	60Hz, 59.94Hz, 50Hz, 30Hz, 29.97Hz, 25Hz, 24Hz, 23.98Hz
02H 01H 02H	USB OUT	00H–01H	HALF RATE, NORMAL * The value differs depending on the "FRAME RATE" setting.
02H 01H 03H	SYSTEM FORMAT	00H–01H	1080p, 720p
02H 01H 04H	REFERENCE SOURCE	00H–09H	INTERNAL, EXTERNAL, SDI 1–8
02H 01H 05H 06H	REFERENCE CLOCK ADJUST	71H 00H–00H 00H–0FH 00H	-1920–0 –1920
02H 01H 07H 08H	REFERENCE LINE ADJUST	76H 50H–00H 00H–09H 30H	-1200–0–1200
02H 01H 09H	Bluetooth SW	00H–01H	OFF, ON
02H 01H 0AH	PANEL OPERATION	00H–03H	A/B, PGM/PST, DISSOLVE, PGM/PST(20)
02H 01H 0BH	EFFECT TRANSITION SYNC (*1)	00H–01H	OFF, ON
02H 01H 0CH	EFFECT SPOT	00H–01H	DISABLE, ENABLE
02H 01H 0DH	AUX LINKED PGM	00H–02H	OFF, AUTO LINK, MANUAL LINK
02H 01H 0EH	CUT SW ASSIGN	00H–04H	▲AUDIO TAKE, ▲AUTO TAKE▼, ▲CUT, ▲CUT▼, ▲TRANSFORM
02H 01H 0FH	AUTO SW ASSIGN	00H–04H	AUDIO TAKE▼, ▲AUTO TAKE▼, CUT▼, ▲CUT▼, TRANSFORM▼
02H 01H 10H	OUTPUT FADE ASSIGN VIDEO FADE	00H–05H	N/A, BLACK, WHITE, AUX 1–3
02H 01H 11H	OUTPUT FADE ASSIGN AUDIO FADE	00H–01H	DISABLE, ENABLE
02H 01H 12H	(reserved)		
02H 01H 13H	(reserved)		
02H 01H 14H	(reserved)		
02H 01H 15H	(reserved)		
02H 01H 16H	MONITOR SW 1 ASSIGN	00H–0BH	N/A, MULTI-VIEW, 16 INPUT-VIEW, 16 STILL-VIEW, PROGRAM, SUB PROGRAM, PREVIEW, AUX 1–3, DSK 1, 2 SOURCE
02H 01H 17H	MONITOR SW 2 ASSIGN	00H–0BH	
02H 01H 18H	MONITOR SW 3 ASSIGN	00H–0BH	
02H 01H 19H	MONITOR SW 4 ASSIGN	00H–0BH	
02H 01H 1AH	LED DIMMER	01H–08H	1–8
02H 01H 1BH	LCD DIMMER	01H–08H	1–8
02H 01H 1CH	ON SCREEN MENU	00H–03H	UPPER LEFT, UPPER RIGHT, LOWER LEFT, LOWER RIGHT
02H 01H 1DH	TALLY FRAME	00H–01H	OFF, ON
02H 01H 1EH	AUX/SOURCE INDICATOR	00H–01H	OFF, ON
02H 01H 1FH	REC INDICATOR	00H–01H	OFF, ON
02H 01H 20H	AUDIO LEVEL METER SW	00H–01H	OFF, ON
02H 01H 21H	AUDIO LEVEL METER MASTER OUTPUT	00H–02H	OFF, LEFT, RIGHT
02H 01H 22H	AUDIO LEVEL METER AUX 1	00H–02H	OFF, LEFT, RIGHT
02H 01H 23H	AUDIO LEVEL METER USB OUT	00H–02H	OFF, LEFT, RIGHT
02H 01H 24H	AUDIO LEVEL METER AUDIO IN/USB/ Bluetooth	00H–02H	OFF, LOWER, UPPER
02H 01H 25H	MULTI-VIEW LABEL SW	00H–01H	OFF, ON
02H 01H 26H	MULTI-VIEW LABEL AUTO HIDE	00H–01H	OFF, ON
02H 01H 27H	MULTI-VIEW LABEL SIZE	00H–01H	SMALL, NORMAL
02H 01H 28H	MULTI-VIEW LAYOUT LEFT	00H–08H	PROGRAM, SUB PROGRAM, PREVIEW, AUX1–3, DSK 1, 2 SOURCE, BLACK
02H 01H 29H	MULTI-VIEW LAYOUT RIGHT	00H–08H	PROGRAM, SUB PROGRAM, PREVIEW, AUX1–3, DSK 1, 2 SOURCE, BLACK
02H 01H 2AH	OUTPUT 3 OSD ON SCREEN MENU	00H–01H	OFF, ON
02H 01H 2BH	OUTPUT 3 OSD TALLY FRAME	00H–01H	OFF, ON
02H 01H 2CH	OUTPUT 3 OSD LABEL/LEVEL METER/MARK	00H–01H	OFF, ON
02H 01H 2DH	AUTO INPUT DETECT	00H–01H	OFF, ON

Address	Parameter name	SysEx value	Meaning of value
02H 01H 2EH	TEST PATTERN	00H–05H	OFF, 75% COLOR BAR, 100% COLOR BAR, RAMP, STEP, HATCH
02H 01H 2FH	TEST PATTERN MOTION	00H–02H	DISABLE, SLOW, FAST
02H 01H 30H	TEST TONE LEVEL	00H–03H	OFF, -20dB, -10dB, 0dB
02H 01H 31H	TEST TONE FREQ L	00H–02H	500Hz, 1kHz, 2kHz
02H 01H 32H	TEST TONE FREQ R	00H–02H	500Hz, 1kHz, 2kHz
02H 01H 33H	AUX SW MODE	00H–02H	AUX, MEMORY, MACRO
02H 01H 34H	(reserved)		
02H 01H 35H	USB OUT FORMAT	00H–01H	YUY2 & MJPEG, YUY2
02H 01H 36H	OUTPUT FORMAT-USB OUT (*2)	00H–01H	1080p, 720p
02H 01H 37H	OUTPUT FORMAT-HDMI OUT 1 (*3)	00H–01H	1080p, 1080i
02H 01H 38H	OUTPUT FORMAT-HDMI OUT 2 (*3)	00H–01H	1080p, 1080i
02H 01H 39H	OUTPUT FORMAT-SDI OUT 1 (*3)	00H–01H	1080p, 1080i
02H 01H 3AH	OUTPUT FORMAT-SDI OUT 2 (*3)	00H–01H	1080p, 1080i
02H 01H 3BH	OUTPUT FORMAT-SDI OUT 3 (*3)	00H–01H	1080p, 1080i
02H 01H 3CH	16 INPUT-VIEW LAYOUT-INPUT 1	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 3DH	16 INPUT-VIEW LAYOUT-INPUT 2	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 3EH	16 INPUT-VIEW LAYOUT-INPUT 3	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 3FH	16 INPUT-VIEW LAYOUT-INPUT 4	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 40H	16 INPUT-VIEW LAYOUT-INPUT 5	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 41H	16 INPUT-VIEW LAYOUT-INPUT 6	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 42H	16 INPUT-VIEW LAYOUT-INPUT 7	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 43H	16 INPUT-VIEW LAYOUT-INPUT 8	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 44H	16 INPUT-VIEW LAYOUT-INPUT 9	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 45H	16 INPUT-VIEW LAYOUT-INPUT 10	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 46H	16 INPUT-VIEW LAYOUT-INPUT 11	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 47H	16 INPUT-VIEW LAYOUT-INPUT 12	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 48H	16 INPUT-VIEW LAYOUT-INPUT 13	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 49H	16 INPUT-VIEW LAYOUT-INPUT 14	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 4AH	16 INPUT-VIEW LAYOUT-INPUT 15	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 4BH	16 INPUT-VIEW LAYOUT-INPUT 16	00H–34H	N/A, HDMI 1–8, SDI 1–8, STILL 1–16, INPUT 1–20
02H 01H 4CH 4DH	USER 1 SW ASSIGN	00H 00H–03H 10H	N/A, FREEZE, AUTO SWITCHING SW, BPM TAP, INPUT 1–20 ASSIGN, STILL 1–16 OUTPUT, AUDIO MUTE (for each INPUT, OUTPUT), VOICE CHANGER 1, 2 SW, REVERB (MOMENTARY), REVERB (ALTERNATE), INPUT SCAN NORMAL/REVERSE, MEMORY SCAN NORMAL/REVERSE, PinP & KEY 1 SCAN NORMAL/REVERSE, PinP & KEY 2 SCAN NORMAL/REVERSE, PinP & KEY 3 SCAN NORMAL/REVERSE, PinP & KEY 4 SCAN NORMAL/REVERSE, DSK 1 SCAN NORMAL/REVERSE, DSK 2 SCAN NORMAL/REVERSE, REC CONTROL, MACRO 1–100 EXECUTE, GPO (ONE SHOT), GPO (ALTERNATE), CAMERA CONTROL (MODE, PAN, TILT, ZOOM, FOCUS, AUTO FOCUS, EXPOSURE), GRAPHICS PRESENTER CONTROL (SELECT NEXT CONTENTS, SELECT CONTENT 1–124, HIDE FRONT CONTENTS, HIDE BACKGROUND CONTENTS, ON AIR SWITCH), VC-100UHD CONTROL, SYSTEM (EFFECTS TRANSITION SYNC, Bluetooth CONTROL)
02H 01H 4EH 4FH	USER 2 SW ASSIGN	00H 00H–03H 10H	
02H 01H 50H 51H	USER 3 SW ASSIGN	00H 00H–03H 10H	
02H 01H 52H 53H	USER 4 SW ASSIGN	00H 00H–03H 10H	
02H 01H 54H	AUX LINKED PGM AUX 1	00H–01H	OFF, ON
02H 01H 55H	AUX LINKED PGM AUX 2	00H–01H	OFF, ON
02H 01H 56H	AUX LINKED PGM AUX 3	00H–01H	OFF, ON
02H 01H 57H	AUDIO LEVEL METER AUX 2	00H–02H	OFF, LEFT, RIGHT
02H 01H 58H	AUDIO LEVEL METER AUX 3	00H–02H	OFF, LEFT, RIGHT

(*1) This parameter is disabled if the "PANEL OPERATION" is set to "DISSOLVE".

(*2) In the following cases are disabled.

- When "SYSTEM FORMAT" is set to "720p"
- When "FRAME RATE" is set to"30Hz"or less
- When "FRAME RATE (USB OUT)" and "FRAME RATE" are different

(*3) In the following cases are disabled.

- When "SYSTEM FORMAT" is set to "720p"
- When "FRAME RATE" is set to"30Hz"or less

○ PANEL LOCK

Address	Parameter name	SysEx value	Meaning of value
02H 02H 00H	A/PGM 1 SW	00H–01H	OFF, ON
02H 02H 01H	A/PGM 2 SW	00H–01H	OFF, ON
02H 02H 02H	A/PGM 3 SW	00H–01H	OFF, ON
02H 02H 03H	A/PGM 4 SW	00H–01H	OFF, ON
02H 02H 04H	A/PGM 5 SW	00H–01H	OFF, ON
02H 02H 05H	A/PGM 6 SW	00H–01H	OFF, ON
02H 02H 06H	A/PGM 7 SW	00H–01H	OFF, ON
02H 02H 07H	A/PGM 8 SW	00H–01H	OFF, ON
02H 02H 08H	A/PGM 9 SW	00H–01H	OFF, ON
02H 02H 09H	A/PGM 10 SW	00H–01H	OFF, ON
02H 02H 0AH	B/PST 1 SW	00H–01H	OFF, ON
02H 02H 0BH	B/PST 2 SW	00H–01H	OFF, ON
02H 02H 0CH	B/PST 3 SW	00H–01H	OFF, ON
02H 02H 0DH	B/PST 4 SW	00H–01H	OFF, ON
02H 02H 0EH	B/PST 5 SW	00H–01H	OFF, ON
02H 02H 0FH	B/PST 6 SW	00H–01H	OFF, ON
02H 02H 10H	B/PST 7 SW	00H–01H	OFF, ON
02H 02H 11H	B/PST 8 SW	00H–01H	OFF, ON
02H 02H 12H	B/PST 9 SW	00H–01H	OFF, ON
02H 02H 13H	B/PST 10 SW	00H–01H	OFF, ON
02H 02H 14H	INPUT ASSIGN SW	00H–01H	OFF, ON
02H 02H 15H	CUT SW	00H–01H	OFF, ON
02H 02H 16H	AUTO SW	00H–01H	OFF, ON
02H 02H 17H	MODE SW	00H–01H	OFF, ON
02H 02H 18H	AUX SW	00H–01H	OFF, ON
02H 02H 19H	MEMORY SW	00H–01H	OFF, ON
02H 02H 1AH	MACRO SW	00H–01H	OFF, ON
02H 02H 1BH	TRANSITION SW	00H–01H	OFF, ON
02H 02H 1CH	VIDEO FADER	00H–01H	OFF, ON
02H 02H 1DH	SPLIT 1 SW	00H–01H	OFF, ON
02H 02H 1EH	SEQUENCER BLOCK	00H–01H	OFF, ON
02H 02H 1FH	PinP & KEY 1 SOURCE SW	00H–01H	OFF, ON
02H 02H 20H	PinP & KEY 2 SOURCE SW	00H–01H	OFF, ON
02H 02H 21H	PinP & KEY 3 SOURCE SW	00H–01H	OFF, ON
02H 02H 22H	PinP & KEY 4 SOURCE SW	00H–01H	OFF, ON
02H 02H 23H	DSK 1 SOURCE SW	00H–01H	OFF, ON
02H 02H 24H	DSK 2 SOURCE SW	00H–01H	OFF, ON
02H 02H 25H	MONITOR 1 SW	00H–01H	OFF, ON
02H 02H 26H	MONITOR 2 SW	00H–01H	OFF, ON
02H 02H 27H	MONITOR 3 SW	00H–01H	OFF, ON
02H 02H 28H	MONITOR 4 SW	00H–01H	OFF, ON
02H 02H 29H	OUTPUT FADE SW	00H–01H	OFF, ON
02H 02H 2AH	CAPTURE IMAGE SW	00H–01H	OFF, ON
02H 02H 2BH	USER 1 SW	00H–01H	OFF, ON
02H 02H 2CH	USER 2 SW	00H–01H	OFF, ON
02H 02H 2DH	USER 3 SW	00H–01H	OFF, ON
02H 02H 2EH	USER 4 SW	00H–01H	OFF, ON
02H 02H 2FH	AUDIO IN 1 VOLUME	00H–01H	OFF, ON
02H 02H 30H	AUDIO IN 2 VOLUME	00H–01H	OFF, ON
02H 02H 31H	AUDIO IN 3/4 VOLUME	00H–01H	OFF, ON
02H 02H 32H	AUTO MIXING SW	00H–01H	OFF, ON
02H 02H 33H	AUX VOLUME	00H–01H	OFF, ON
02H 02H 34H	USB STREAM VOLUME	00H–01H	OFF, ON
02H 02H 35H	MASTER OUTPUT VOLUME	00H–01H	OFF, ON
02H 02H 36H	SPLIT 2 SW	00H–01H	OFF, ON
02H 02H 37H	SPLIT PGM CENTER	00H–01H	OFF, ON
02H 02H 38H	SPLIT PST CENTER	00H–01H	OFF, ON
02H 02H 39H	PinP & KEY 1 PVW SW	00H–01H	OFF, ON
02H 02H 3AH	PinP & KEY 2 PVW SW	00H–01H	OFF, ON
02H 02H 3BH	PinP & KEY 3 PVW SW	00H–01H	OFF, ON

Address	Parameter name	SysEx value	Meaning of value
02H 02H 3CH	PinP & KEY 4 PVW SW	00H–01H	OFF, ON
02H 02H 3DH	DSK 1 PVW SW	00H–01H	OFF, ON
02H 02H 3EH	DSK 2 PVW SW	00H–01H	OFF, ON
02H 02H 3FH	PinP & KEY 1 PGM SW	00H–01H	OFF, ON
02H 02H 40H	PinP & KEY 2 PGM SW	00H–01H	OFF, ON
02H 02H 41H	PinP & KEY 3 PGM SW	00H–01H	OFF, ON
02H 02H 42H	PinP & KEY 4 PGM SW	00H–01H	OFF, ON
02H 02H 43H	DSK 1 PGM SW	00H–01H	OFF, ON
02H 02H 44H	DSK 2 PGM SW	00H–01H	OFF, ON
02H 02H 45H	PinP & KEY 1 POSITION H	00H–01H	OFF, ON
02H 02H 46H	PinP & KEY 2 POSITION H	00H–01H	OFF, ON
02H 02H 47H	PinP & KEY 3 POSITION H	00H–01H	OFF, ON
02H 02H 48H	PinP & KEY 4 POSITION H	00H–01H	OFF, ON
02H 02H 49H	DSK 1 LEVEL VOLUME	00H–01H	OFF, ON
02H 02H 4AH	DSK 2 LEVEL VOLUME	00H–01H	OFF, ON
02H 02H 4BH	PinP & KEY 1 POSITION V	00H–01H	OFF, ON
02H 02H 4CH	PinP & KEY 2 POSITION V	00H–01H	OFF, ON
02H 02H 4DH	PinP & KEY 3 POSITION V	00H–01H	OFF, ON
02H 02H 4EH	PinP & KEY 4 POSITION V	00H–01H	OFF, ON
02H 02H 4FH	DSK 1 GAIN VOLUME	00H–01H	OFF, ON
02H 02H 50H	DSK 2 GAIN VOLUME	00H–01H	OFF, ON

○ PRESET MEMORY

Address	Parameter name	SysEx value	Meaning of value
02H 03H 00H	START UP	00H–1EH	LAST MEMORY, MEMORY 1–30
02H 03H 01H	MEMORY PROTECT	00H–01H	OFF, ON
02H 03H 02H	NUMBER OF MEMORY SW	00H–01H	10, 30
02H 03H 03H	FADE TIME	00H–28H	0.0–4.0sec
02H 03H 04H	FADE MIX/WIPE	00H–01H	OFF, ON
02H 03H 05H	FADE PinP & KEY 1	00H–01H	OFF, ON
02H 03H 06H	FADE PinP & KEY 2	00H–01H	OFF, ON
02H 03H 07H	FADE PinP & KEY 3	00H–01H	OFF, ON
02H 03H 08H	FADE PinP & KEY 4	00H–01H	OFF, ON
02H 03H 09H	FADE DSK 1	00H–01H	OFF, ON
02H 03H 0AH	FADE DSK 2	00H–01H	OFF, ON
02H 03H 0BH	LOAD PARAMETER / VIDEO ASSIGN	00H–01H	OFF, ON
02H 03H 0CH	LOAD PARAMETER / VIDEO INPUT	00H–01H	OFF, ON
02H 03H 0DH	LOAD PARAMETER / VIDEO OUTPUT	00H–01H	OFF, ON
02H 03H 0EH	LOAD PARAMETER / TRANSITION TIME	00H–01H	OFF, ON
02H 03H 0FH	LOAD PARAMETER / MIX/WIPE	00H–01H	OFF, ON
02H 03H 10H	LOAD PARAMETER / SPLIT 1	00H–01H	OFF, ON
02H 03H 11H	LOAD PARAMETER / PinP & KEY 1	00H–01H	OFF, ON
02H 03H 12H	LOAD PARAMETER / DSK 1	00H–01H	OFF, ON
02H 03H 13H	LOAD PARAMETER / CROSSPOINT	00H–01H	OFF, ON
02H 03H 14H	LOAD PARAMETER / VIDEO FADER	00H–01H	INITIALIZE, ON
02H 03H 15H	LOAD PARAMETER / AUDIO INPUT	00H–01H	OFF, ON
02H 03H 16H	LOAD PARAMETER / AUDIO OUTPUT	00H–01H	OFF, ON
02H 03H 17H	LOAD PARAMETER / AUDIO FOLLOW	00H–01H	OFF, ON
02H 03H 18H	LOAD PARAMETER / AUTO MIXING	00H–01H	OFF, ON
02H 03H 19H	LOAD PARAMETER / SPLIT 2	00H–01H	OFF, ON
02H 03H 1AH	LOAD PARAMETER / PinP & KEY 2	00H–01H	OFF, ON
02H 03H 1BH	LOAD PARAMETER / PinP & KEY 3	00H–01H	OFF, ON
02H 03H 1CH	LOAD PARAMETER / PinP & KEY 4	00H–01H	OFF, ON
02H 03H 1DH	LOAD PARAMETER / DSK 2	00H–01H	OFF, ON
02H 03H 1EH	START UP PRIORITY	00H–01H	MEMORY, PANEL
02H 03H 1FH	LOAD PARAMETER / AUX 1	00H–01H	OFF, ON
02H 03H 20H	LOAD PARAMETER / AUX 2	00H–01H	OFF, ON
02H 03H 21H	LOAD PARAMETER / AUX 3	00H–01H	OFF, ON

○ STILL IMAGE

Address	Parameter name	SysEx value	Meaning of value
02H 04H 00H	SAVE TO INTERNAL STORAGE	00H–01H	DISABLE, ENABLE

○ FREEZE

Address	Parameter name	SysEx value	Meaning of value
02H 05H 00H	FREEZE SW	00H–01H	OFF, ON
02H 05H 01H	FREEZE TYPE	00H–01H	ALL, SELECT
02H 05H 02H	FREEZE SELECT HDMI IN 1	00H–01H	DISABLE, ENABLE
02H 05H 03H	FREEZE SELECT HDMI IN 2	00H–01H	DISABLE, ENABLE
02H 05H 04H	FREEZE SELECT HDMI IN 3	00H–01H	DISABLE, ENABLE
02H 05H 05H	FREEZE SELECT HDMI IN 4	00H–01H	DISABLE, ENABLE
02H 05H 06H	FREEZE SELECT HDMI IN 5	00H–01H	DISABLE, ENABLE
02H 05H 07H	FREEZE SELECT HDMI IN 6	00H–01H	DISABLE, ENABLE
02H 05H 08H	FREEZE SELECT HDMI IN 7	00H–01H	DISABLE, ENABLE
02H 05H 09H	FREEZE SELECT HDMI IN 8	00H–01H	DISABLE, ENABLE
02H 05H 0AH	FREEZE SELECT SDI IN 1	00H–01H	DISABLE, ENABLE
02H 05H 0BH	FREEZE SELECT SDI IN 2	00H–01H	DISABLE, ENABLE
02H 05H 0CH	FREEZE SELECT SDI IN 3	00H–01H	DISABLE, ENABLE
02H 05H 0DH	FREEZE SELECT SDI IN 4	00H–01H	DISABLE, ENABLE
02H 05H 0EH	FREEZE SELECT SDI IN 5	00H–01H	DISABLE, ENABLE
02H 05H 0FH	FREEZE SELECT SDI IN 6	00H–01H	DISABLE, ENABLE
02H 05H 10H	FREEZE SELECT SDI IN 7	00H–01H	DISABLE, ENABLE
02H 05H 11H	FREEZE SELECT SDI IN 8	00H–01H	DISABLE, ENABLE

○ AUTO SWITCHING

Address	Parameter name	SysEx value	Meaning of value
02H 06H 00H	AUTO SWITCHING SW	00H–01H	OFF, ON
02H 06H 01H	AUTO SWITCHING TYPE	00H–08H	INPUT SCAN, PRESET MEMORY SCAN, BPM SYNC, PinP & KEY 1–4 SCAN, DSK 1, 2 SCAN
02H 06H 02H	INPUT SCAN SEQUENCE	00H–02H	NORMAL, REVERSE, RANDOM
02H 06H 03H	INPUT SCAN TRANSITION TIME	00H–28H	0.0–4.0sec
02H 06H 04H	INPUT SCAN TARGET	00H–06H	PGM/A & PST/B, PinP & KEY 1–4, DSK 1, 2
02H 06H 05H	INPUT SCAN TIME / INPUT 1	00H–78H	OFF, 1–120sec
02H 06H 06H	INPUT SCAN TIME / INPUT 2	00H–78H	OFF, 1–120sec
02H 06H 07H	INPUT SCAN TIME / INPUT 3	00H–78H	OFF, 1–120sec
02H 06H 08H	INPUT SCAN TIME / INPUT 4	00H–78H	OFF, 1–120sec
02H 06H 09H	INPUT SCAN TIME / INPUT 5	00H–78H	OFF, 1–120sec
02H 06H 0AH	INPUT SCAN TIME / INPUT 6	00H–78H	OFF, 1–120sec
02H 06H 0BH	INPUT SCAN TIME / INPUT 7	00H–78H	OFF, 1–120sec
02H 06H 0CH	INPUT SCAN TIME / INPUT 8	00H–78H	OFF, 1–120sec
02H 06H 0DH	INPUT SCAN TIME / INPUT 9	00H–78H	OFF, 1–120sec
02H 06H 0EH	INPUT SCAN TIME / INPUT 10	00H–78H	OFF, 1–120sec
02H 06H 0FH	MEMORY SCAN SEQUENCE	00H–02H	NORMAL, REVERSE, RANDOM
02H 06H 10H 11H	BPM SYNC BPM	00H 14H–01H 7AH	20–250
02H 06H 12H	BPM SYNC MODE	00H–01H	TRANSITION, CUT
02H 06H 13H	BPM SYNC SPEED	00H–03H	x1/4, x1/2, x1, x2
02H 06H 14H	MEMORY SCAN TIME / MEMORY 1	00H–78H	OFF, 1–120sec
:	:		
02H 06H 31H	MEMORY SCAN TIME / MEMORY 30	00H–78H	OFF, 1–120sec
02H 06H 32H	INPUT SCAN TIME / INPUT 11	00H–78H	OFF, 1–120sec
02H 06H 33H	INPUT SCAN TIME / INPUT 12	00H–78H	OFF, 1–120sec
02H 06H 34H	INPUT SCAN TIME / INPUT 13	00H–78H	OFF, 1–120sec
02H 06H 35H	INPUT SCAN TIME / INPUT 14	00H–78H	OFF, 1–120sec
02H 06H 36H	INPUT SCAN TIME / INPUT 15	00H–78H	OFF, 1–120sec
02H 06H 37H	INPUT SCAN TIME / INPUT 16	00H–78H	OFF, 1–120sec
02H 06H 38H	INPUT SCAN TIME / INPUT 17	00H–78H	OFF, 1–120sec
02H 06H 39H	INPUT SCAN TIME / INPUT 18	00H–78H	OFF, 1–120sec
02H 06H 3AH	INPUT SCAN TIME / INPUT 19	00H–78H	OFF, 1–120sec
02H 06H 3BH	INPUT SCAN TIME / INPUT 20	00H–78H	OFF, 1–120sec

○ AUTO SWITCHING (PinP & KEY 1 SCAN)

Address	Parameter name	SysEx value	Meaning of value
02H 34H 00H	PinP & KEY 1 SCAN SEQUENCE	00H–02H	NORMAL, REVERSE, RANDOM
02H 34H 01H	PinP & KEY 1 SCAN TIME / HDMI IN 1	00H–78H	OFF, 1–120sec
02H 34H 02H	PinP & KEY 1 SCAN TIME / HDMI IN 2	00H–78H	OFF, 1–120sec
02H 34H 03H	PinP & KEY 1 SCAN TIME / HDMI IN 3	00H–78H	OFF, 1–120sec
02H 34H 04H	PinP & KEY 1 SCAN TIME / HDMI IN 4	00H–78H	OFF, 1–120sec
02H 34H 05H	PinP & KEY 1 SCAN TIME / HDMI IN 5	00H–78H	OFF, 1–120sec
02H 34H 06H	PinP & KEY 1 SCAN TIME / HDMI IN 6	00H–78H	OFF, 1–120sec
02H 34H 07H	PinP & KEY 1 SCAN TIME / HDMI IN 7	00H–78H	OFF, 1–120sec
02H 34H 08H	PinP & KEY 1 SCAN TIME / HDMI IN 8	00H–78H	OFF, 1–120sec
02H 34H 09H	PinP & KEY 1 SCAN TIME / SDI IN 1	00H–78H	OFF, 1–120sec
02H 34H 0AH	PinP & KEY 1 SCAN TIME / SDI IN 2	00H–78H	OFF, 1–120sec
02H 34H 0BH	PinP & KEY 1 SCAN TIME / SDI IN 3	00H–78H	OFF, 1–120sec
02H 34H 0CH	PinP & KEY 1 SCAN TIME / SDI IN 4	00H–78H	OFF, 1–120sec
02H 34H 0DH	PinP & KEY 1 SCAN TIME / SDI IN 5	00H–78H	OFF, 1–120sec
02H 34H 0EH	PinP & KEY 1 SCAN TIME / SDI IN 6	00H–78H	OFF, 1–120sec
02H 34H 0FH	PinP & KEY 1 SCAN TIME / SDI IN 7	00H–78H	OFF, 1–120sec
02H 34H 10H	PinP & KEY 1 SCAN TIME / SDI IN 8	00H–78H	OFF, 1–120sec
02H 34H 11H	PinP & KEY 1 SCAN TIME / STILL 1	00H–78H	OFF, 1–120sec
02H 34H 12H	PinP & KEY 1 SCAN TIME / STILL 2	00H–78H	OFF, 1–120sec
02H 34H 13H	PinP & KEY 1 SCAN TIME / STILL 3	00H–78H	OFF, 1–120sec
02H 34H 14H	PinP & KEY 1 SCAN TIME / STILL 4	00H–78H	OFF, 1–120sec
02H 34H 15H	PinP & KEY 1 SCAN TIME / STILL 5	00H–78H	OFF, 1–120sec
02H 34H 16H	PinP & KEY 1 SCAN TIME / STILL 6	00H–78H	OFF, 1–120sec
02H 34H 17H	PinP & KEY 1 SCAN TIME / STILL 7	00H–78H	OFF, 1–120sec
02H 34H 18H	PinP & KEY 1 SCAN TIME / STILL 8	00H–78H	OFF, 1–120sec
02H 34H 19H	PinP & KEY 1 SCAN TIME / STILL 9	00H–78H	OFF, 1–120sec
02H 34H 1AH	PinP & KEY 1 SCAN TIME / STILL 10	00H–78H	OFF, 1–120sec
02H 34H 1BH	PinP & KEY 1 SCAN TIME / STILL 11	00H–78H	OFF, 1–120sec
02H 34H 1CH	PinP & KEY 1 SCAN TIME / STILL 12	00H–78H	OFF, 1–120sec
02H 34H 1DH	PinP & KEY 1 SCAN TIME / STILL 13	00H–78H	OFF, 1–120sec
02H 34H 1EH	PinP & KEY 1 SCAN TIME / STILL 14	00H–78H	OFF, 1–120sec
02H 34H 1FH	PinP & KEY 1 SCAN TIME / STILL 15	00H–78H	OFF, 1–120sec
02H 34H 20H	PinP & KEY 1 SCAN TIME / STILL 16	00H–78H	OFF, 1–120sec

○ AUTO SWITCHING (PinP & KEY 2 SCAN)

Address	Parameter name	SysEx value	Meaning of value
02H 35H 00H	PinP & KEY 2 SCAN SEQUENCE	00H–02H	NORMAL, REVERSE, RANDOM
02H 35H 01H	PinP & KEY 2 SCAN TIME / HDMI IN 1	00H–78H	OFF, 1–120sec
02H 35H 02H	PinP & KEY 2 SCAN TIME / HDMI IN 2	00H–78H	OFF, 1–120sec
02H 35H 03H	PinP & KEY 2 SCAN TIME / HDMI IN 3	00H–78H	OFF, 1–120sec
02H 35H 04H	PinP & KEY 2 SCAN TIME / HDMI IN 4	00H–78H	OFF, 1–120sec
02H 35H 05H	PinP & KEY 2 SCAN TIME / HDMI IN 5	00H–78H	OFF, 1–120sec
02H 35H 06H	PinP & KEY 2 SCAN TIME / HDMI IN 6	00H–78H	OFF, 1–120sec
02H 35H 07H	PinP & KEY 2 SCAN TIME / HDMI IN 7	00H–78H	OFF, 1–120sec
02H 35H 08H	PinP & KEY 2 SCAN TIME / HDMI IN 8	00H–78H	OFF, 1–120sec
02H 35H 09H	PinP & KEY 2 SCAN TIME / SDI IN 1	00H–78H	OFF, 1–120sec
02H 35H 0AH	PinP & KEY 2 SCAN TIME / SDI IN 2	00H–78H	OFF, 1–120sec
02H 35H 0BH	PinP & KEY 2 SCAN TIME / SDI IN 3	00H–78H	OFF, 1–120sec
02H 35H 0CH	PinP & KEY 2 SCAN TIME / SDI IN 4	00H–78H	OFF, 1–120sec
02H 35H 0DH	PinP & KEY 2 SCAN TIME / SDI IN 5	00H–78H	OFF, 1–120sec
02H 35H 0EH	PinP & KEY 2 SCAN TIME / SDI IN 6	00H–78H	OFF, 1–120sec
02H 35H 0FH	PinP & KEY 2 SCAN TIME / SDI IN 7	00H–78H	OFF, 1–120sec
02H 35H 10H	PinP & KEY 2 SCAN TIME / SDI IN 8	00H–78H	OFF, 1–120sec
02H 35H 11H	PinP & KEY 2 SCAN TIME / STILL 1	00H–78H	OFF, 1–120sec
02H 35H 12H	PinP & KEY 2 SCAN TIME / STILL 2	00H–78H	OFF, 1–120sec
02H 35H 13H	PinP & KEY 2 SCAN TIME / STILL 3	00H–78H	OFF, 1–120sec
02H 35H 14H	PinP & KEY 2 SCAN TIME / STILL 4	00H–78H	OFF, 1–120sec
02H 35H 15H	PinP & KEY 2 SCAN TIME / STILL 5	00H–78H	OFF, 1–120sec
02H 35H 16H	PinP & KEY 2 SCAN TIME / STILL 6	00H–78H	OFF, 1–120sec
02H 35H 17H	PinP & KEY 2 SCAN TIME / STILL 7	00H–78H	OFF, 1–120sec
02H 35H 18H	PinP & KEY 2 SCAN TIME / STILL 8	00H–78H	OFF, 1–120sec
02H 35H 19H	PinP & KEY 2 SCAN TIME / STILL 9	00H–78H	OFF, 1–120sec

Address	Parameter name	SysEx value	Meaning of value
02H 35H 1AH	PinP & KEY 2 SCAN TIME / STILL 10	00H–78H	OFF, 1–120sec
02H 35H 1BH	PinP & KEY 2 SCAN TIME / STILL 11	00H–78H	OFF, 1–120sec
02H 35H 1CH	PinP & KEY 2 SCAN TIME / STILL 12	00H–78H	OFF, 1–120sec
02H 35H 1DH	PinP & KEY 2 SCAN TIME / STILL 13	00H–78H	OFF, 1–120sec
02H 35H 1EH	PinP & KEY 2 SCAN TIME / STILL 14	00H–78H	OFF, 1–120sec
02H 35H 1FH	PinP & KEY 2 SCAN TIME / STILL 15	00H–78H	OFF, 1–120sec
02H 35H 20H	PinP & KEY 2 SCAN TIME / STILL 16	00H–78H	OFF, 1–120sec

○ AUTO SWITCHING (PinP & KEY 3 SCAN)

Address	Parameter name	SysEx value	Meaning of value
02H 36H 00H	PinP & KEY 3 SCAN SEQUENCE	00H–02H	NORMAL, REVERSE, RANDOM
02H 36H 01H	PinP & KEY 3 SCAN TIME / HDMI IN 1	00H–78H	OFF, 1–120sec
02H 36H 02H	PinP & KEY 3 SCAN TIME / HDMI IN 2	00H–78H	OFF, 1–120sec
02H 36H 03H	PinP & KEY 3 SCAN TIME / HDMI IN 3	00H–78H	OFF, 1–120sec
02H 36H 04H	PinP & KEY 3 SCAN TIME / HDMI IN 4	00H–78H	OFF, 1–120sec
02H 36H 05H	PinP & KEY 3 SCAN TIME / HDMI IN 5	00H–78H	OFF, 1–120sec
02H 36H 06H	PinP & KEY 3 SCAN TIME / HDMI IN 6	00H–78H	OFF, 1–120sec
02H 36H 07H	PinP & KEY 3 SCAN TIME / HDMI IN 7	00H–78H	OFF, 1–120sec
02H 36H 08H	PinP & KEY 3 SCAN TIME / HDMI IN 8	00H–78H	OFF, 1–120sec
02H 36H 09H	PinP & KEY 3 SCAN TIME / SDI IN 1	00H–78H	OFF, 1–120sec
02H 36H 0AH	PinP & KEY 3 SCAN TIME / SDI IN 2	00H–78H	OFF, 1–120sec
02H 36H 0BH	PinP & KEY 3 SCAN TIME / SDI IN 3	00H–78H	OFF, 1–120sec
02H 36H 0CH	PinP & KEY 3 SCAN TIME / SDI IN 4	00H–78H	OFF, 1–120sec
02H 36H 0DH	PinP & KEY 3 SCAN TIME / SDI IN 5	00H–78H	OFF, 1–120sec
02H 36H 0EH	PinP & KEY 3 SCAN TIME / SDI IN 6	00H–78H	OFF, 1–120sec
02H 36H 0FH	PinP & KEY 3 SCAN TIME / SDI IN 7	00H–78H	OFF, 1–120sec
02H 36H 10H	PinP & KEY 3 SCAN TIME / SDI IN 8	00H–78H	OFF, 1–120sec
02H 36H 11H	PinP & KEY 3 SCAN TIME / STILL 1	00H–78H	OFF, 1–120sec
02H 36H 12H	PinP & KEY 3 SCAN TIME / STILL 2	00H–78H	OFF, 1–120sec
02H 36H 13H	PinP & KEY 3 SCAN TIME / STILL 3	00H–78H	OFF, 1–120sec
02H 36H 14H	PinP & KEY 3 SCAN TIME / STILL 4	00H–78H	OFF, 1–120sec
02H 36H 15H	PinP & KEY 3 SCAN TIME / STILL 5	00H–78H	OFF, 1–120sec
02H 36H 16H	PinP & KEY 3 SCAN TIME / STILL 6	00H–78H	OFF, 1–120sec
02H 36H 17H	PinP & KEY 3 SCAN TIME / STILL 7	00H–78H	OFF, 1–120sec
02H 36H 18H	PinP & KEY 3 SCAN TIME / STILL 8	00H–78H	OFF, 1–120sec
02H 36H 19H	PinP & KEY 3 SCAN TIME / STILL 9	00H–78H	OFF, 1–120sec
02H 36H 1AH	PinP & KEY 3 SCAN TIME / STILL 10	00H–78H	OFF, 1–120sec
02H 36H 1BH	PinP & KEY 3 SCAN TIME / STILL 11	00H–78H	OFF, 1–120sec
02H 36H 1CH	PinP & KEY 3 SCAN TIME / STILL 12	00H–78H	OFF, 1–120sec
02H 36H 1DH	PinP & KEY 3 SCAN TIME / STILL 13	00H–78H	OFF, 1–120sec
02H 36H 1EH	PinP & KEY 3 SCAN TIME / STILL 14	00H–78H	OFF, 1–120sec
02H 36H 1FH	PinP & KEY 3 SCAN TIME / STILL 15	00H–78H	OFF, 1–120sec
02H 36H 20H	PinP & KEY 3 SCAN TIME / STILL 16	00H–78H	OFF, 1–120sec

○ AUTO SWITCHING (PinP & KEY 4 SCAN)

Address	Parameter name	SysEx value	Meaning of value
02H 37H 00H	PinP & KEY 4 SCAN SEQUENCE	00H–02H	NORMAL, REVERSE, RANDOM
02H 37H 01H	PinP & KEY 4 SCAN TIME / HDMI IN 1	00H–78H	OFF, 1–120sec
02H 37H 02H	PinP & KEY 4 SCAN TIME / HDMI IN 2	00H–78H	OFF, 1–120sec
02H 37H 03H	PinP & KEY 4 SCAN TIME / HDMI IN 3	00H–78H	OFF, 1–120sec
02H 37H 04H	PinP & KEY 4 SCAN TIME / HDMI IN 4	00H–78H	OFF, 1–120sec
02H 37H 05H	PinP & KEY 4 SCAN TIME / HDMI IN 5	00H–78H	OFF, 1–120sec
02H 37H 06H	PinP & KEY 4 SCAN TIME / HDMI IN 6	00H–78H	OFF, 1–120sec
02H 37H 07H	PinP & KEY 4 SCAN TIME / HDMI IN 7	00H–78H	OFF, 1–120sec
02H 37H 08H	PinP & KEY 4 SCAN TIME / HDMI IN 8	00H–78H	OFF, 1–120sec
02H 37H 09H	PinP & KEY 4 SCAN TIME / SDI IN 1	00H–78H	OFF, 1–120sec
02H 37H 0AH	PinP & KEY 4 SCAN TIME / SDI IN 2	00H–78H	OFF, 1–120sec
02H 37H 0BH	PinP & KEY 4 SCAN TIME / SDI IN 3	00H–78H	OFF, 1–120sec
02H 37H 0CH	PinP & KEY 4 SCAN TIME / SDI IN 4	00H–78H	OFF, 1–120sec
02H 37H 0DH	PinP & KEY 4 SCAN TIME / SDI IN 5	00H–78H	OFF, 1–120sec
02H 37H 0EH	PinP & KEY 4 SCAN TIME / SDI IN 6	00H–78H	OFF, 1–120sec
02H 37H 0FH	PinP & KEY 4 SCAN TIME / SDI IN 7	00H–78H	OFF, 1–120sec

Address	Parameter name	SysEx value	Meaning of value
02H 37H 10H	PinP & KEY 4 SCAN TIME / SDI IN 8	00H–78H	OFF, 1–120sec
02H 37H 11H	PinP & KEY 4 SCAN TIME / STILL 1	00H–78H	OFF, 1–120sec
02H 37H 12H	PinP & KEY 4 SCAN TIME / STILL 2	00H–78H	OFF, 1–120sec
02H 37H 13H	PinP & KEY 4 SCAN TIME / STILL 3	00H–78H	OFF, 1–120sec
02H 37H 14H	PinP & KEY 4 SCAN TIME / STILL 4	00H–78H	OFF, 1–120sec
02H 37H 15H	PinP & KEY 4 SCAN TIME / STILL 5	00H–78H	OFF, 1–120sec
02H 37H 16H	PinP & KEY 4 SCAN TIME / STILL 6	00H–78H	OFF, 1–120sec
02H 37H 17H	PinP & KEY 4 SCAN TIME / STILL 7	00H–78H	OFF, 1–120sec
02H 37H 18H	PinP & KEY 4 SCAN TIME / STILL 8	00H–78H	OFF, 1–120sec
02H 37H 19H	PinP & KEY 4 SCAN TIME / STILL 9	00H–78H	OFF, 1–120sec
02H 37H 1AH	PinP & KEY 4 SCAN TIME / STILL 10	00H–78H	OFF, 1–120sec
02H 37H 1BH	PinP & KEY 4 SCAN TIME / STILL 11	00H–78H	OFF, 1–120sec
02H 37H 1CH	PinP & KEY 4 SCAN TIME / STILL 12	00H–78H	OFF, 1–120sec
02H 37H 1DH	PinP & KEY 4 SCAN TIME / STILL 13	00H–78H	OFF, 1–120sec
02H 37H 1EH	PinP & KEY 4 SCAN TIME / STILL 14	00H–78H	OFF, 1–120sec
02H 37H 1FH	PinP & KEY 4 SCAN TIME / STILL 15	00H–78H	OFF, 1–120sec
02H 37H 20H	PinP & KEY 4 SCAN TIME / STILL 16	00H–78H	OFF, 1–120sec

○ AUTO SWITCHING (DSK 1 SCAN)

Address	Parameter name	SysEx value	Meaning of value
02H 38H 00H	DSK 1 SCAN SEQUENCE	00H–02H	NORMAL, REVERSE, RANDOM
02H 38H 01H	DSK 1 SCAN TIME / HDMI IN 1	00H–78H	OFF, 1–120sec
02H 38H 02H	DSK 1 SCAN TIME / HDMI IN 2	00H–78H	OFF, 1–120sec
02H 38H 03H	DSK 1 SCAN TIME / HDMI IN 3	00H–78H	OFF, 1–120sec
02H 38H 04H	DSK 1 SCAN TIME / HDMI IN 4	00H–78H	OFF, 1–120sec
02H 38H 05H	DSK 1 SCAN TIME / HDMI IN 5	00H–78H	OFF, 1–120sec
02H 38H 06H	DSK 1 SCAN TIME / HDMI IN 6	00H–78H	OFF, 1–120sec
02H 38H 07H	DSK 1 SCAN TIME / HDMI IN 7	00H–78H	OFF, 1–120sec
02H 38H 08H	DSK 1 SCAN TIME / HDMI IN 8	00H–78H	OFF, 1–120sec
02H 38H 09H	DSK 1 SCAN TIME / SDI IN 1	00H–78H	OFF, 1–120sec
02H 38H 0AH	DSK 1 SCAN TIME / SDI IN 2	00H–78H	OFF, 1–120sec
02H 38H 0BH	DSK 1 SCAN TIME / SDI IN 3	00H–78H	OFF, 1–120sec
02H 38H 0CH	DSK 1 SCAN TIME / SDI IN 4	00H–78H	OFF, 1–120sec
02H 38H 0DH	DSK 1 SCAN TIME / SDI IN 5	00H–78H	OFF, 1–120sec
02H 38H 0EH	DSK 1 SCAN TIME / SDI IN 6	00H–78H	OFF, 1–120sec
02H 38H 0FH	DSK 1 SCAN TIME / SDI IN 7	00H–78H	OFF, 1–120sec
02H 38H 10H	DSK 1 SCAN TIME / SDI IN 8	00H–78H	OFF, 1–120sec
02H 38H 11H	DSK 1 SCAN TIME / STILL 1	00H–78H	OFF, 1–120sec
02H 38H 12H	DSK 1 SCAN TIME / STILL 2	00H–78H	OFF, 1–120sec
02H 38H 13H	DSK 1 SCAN TIME / STILL 3	00H–78H	OFF, 1–120sec
02H 38H 14H	DSK 1 SCAN TIME / STILL 4	00H–78H	OFF, 1–120sec
02H 38H 15H	DSK 1 SCAN TIME / STILL 5	00H–78H	OFF, 1–120sec
02H 38H 16H	DSK 1 SCAN TIME / STILL 6	00H–78H	OFF, 1–120sec
02H 38H 17H	DSK 1 SCAN TIME / STILL 7	00H–78H	OFF, 1–120sec
02H 38H 18H	DSK 1 SCAN TIME / STILL 8	00H–78H	OFF, 1–120sec
02H 38H 19H	DSK 1 SCAN TIME / STILL 9	00H–78H	OFF, 1–120sec
02H 38H 1AH	DSK 1 SCAN TIME / STILL 10	00H–78H	OFF, 1–120sec
02H 38H 1BH	DSK 1 SCAN TIME / STILL 11	00H–78H	OFF, 1–120sec
02H 38H 1CH	DSK 1 SCAN TIME / STILL 12	00H–78H	OFF, 1–120sec
02H 38H 1DH	DSK 1 SCAN TIME / STILL 13	00H–78H	OFF, 1–120sec
02H 38H 1EH	DSK 1 SCAN TIME / STILL 14	00H–78H	OFF, 1–120sec
02H 38H 1FH	DSK 1 SCAN TIME / STILL 15	00H–78H	OFF, 1–120sec
02H 38H 20H	DSK 1 SCAN TIME / STILL 16	00H–78H	OFF, 1–120sec

○ AUTO SWITCHING (DSK 2 SCAN)

Address	Parameter name	SysEx value	Meaning of value
02H 39H 00H	DSK 2 SCAN SEQUENCE	00H–02H	NORMAL, REVERSE, RANDOM
02H 39H 01H	DSK 2 SCAN TIME / HDMI IN 1	00H–78H	OFF, 1–120sec
02H 39H 02H	DSK 2 SCAN TIME / HDMI IN 2	00H–78H	OFF, 1–120sec
02H 39H 03H	DSK 2 SCAN TIME / HDMI IN 3	00H–78H	OFF, 1–120sec
02H 39H 04H	DSK 2 SCAN TIME / HDMI IN 4	00H–78H	OFF, 1–120sec
02H 39H 05H	DSK 2 SCAN TIME / HDMI IN 5	00H–78H	OFF, 1–120sec
02H 39H 06H	DSK 2 SCAN TIME / HDMI IN 6	00H–78H	OFF, 1–120sec
02H 39H 07H	DSK 2 SCAN TIME / HDMI IN 7	00H–78H	OFF, 1–120sec
02H 39H 08H	DSK 2 SCAN TIME / HDMI IN 8	00H–78H	OFF, 1–120sec
02H 39H 09H	DSK 2 SCAN TIME / SDI IN 1	00H–78H	OFF, 1–120sec
02H 39H 0AH	DSK 2 SCAN TIME / SDI IN 2	00H–78H	OFF, 1–120sec
02H 39H 0BH	DSK 2 SCAN TIME / SDI IN 3	00H–78H	OFF, 1–120sec
02H 39H 0CH	DSK 2 SCAN TIME / SDI IN 4	00H–78H	OFF, 1–120sec
02H 39H 0DH	DSK 2 SCAN TIME / SDI IN 5	00H–78H	OFF, 1–120sec
02H 39H 0EH	DSK 2 SCAN TIME / SDI IN 6	00H–78H	OFF, 1–120sec
02H 39H 0FH	DSK 2 SCAN TIME / SDI IN 7	00H–78H	OFF, 1–120sec
02H 39H 10H	DSK 2 SCAN TIME / SDI IN 8	00H–78H	OFF, 1–120sec
02H 39H 11H	DSK 2 SCAN TIME / STILL 1	00H–78H	OFF, 1–120sec
02H 39H 12H	DSK 2 SCAN TIME / STILL 2	00H–78H	OFF, 1–120sec
02H 39H 13H	DSK 2 SCAN TIME / STILL 3	00H–78H	OFF, 1–120sec
02H 39H 14H	DSK 2 SCAN TIME / STILL 4	00H–78H	OFF, 1–120sec
02H 39H 15H	DSK 2 SCAN TIME / STILL 5	00H–78H	OFF, 1–120sec
02H 39H 16H	DSK 2 SCAN TIME / STILL 6	00H–78H	OFF, 1–120sec
02H 39H 17H	DSK 2 SCAN TIME / STILL 7	00H–78H	OFF, 1–120sec
02H 39H 18H	DSK 2 SCAN TIME / STILL 8	00H–78H	OFF, 1–120sec
02H 39H 19H	DSK 2 SCAN TIME / STILL 9	00H–78H	OFF, 1–120sec
02H 39H 1AH	DSK 2 SCAN TIME / STILL 10	00H–78H	OFF, 1–120sec
02H 39H 1BH	DSK 2 SCAN TIME / STILL 11	00H–78H	OFF, 1–120sec
02H 39H 1CH	DSK 2 SCAN TIME / STILL 12	00H–78H	OFF, 1–120sec
02H 39H 1DH	DSK 2 SCAN TIME / STILL 13	00H–78H	OFF, 1–120sec
02H 39H 1EH	DSK 2 SCAN TIME / STILL 14	00H–78H	OFF, 1–120sec
02H 39H 1FH	DSK 2 SCAN TIME / STILL 15	00H–78H	OFF, 1–120sec
02H 39H 20H	DSK 2 SCAN TIME / STILL 16	00H–78H	OFF, 1–120sec

○ CTL/EXP

* xxH: 07H, 08H (CTL/EXP 1, 2)

Address	Parameter name	SysEx value	Meaning of value
02H xxH 00H	CTL/EXP TYPE	00H–02H	OFF, CTL A & CTL B, EXP
02H xxH 01H 02H	CTL A ASSIGN	00H 00H–0DH 07H	See "Menu List" in the "Reference Manual" (PDF).
02H xxH 03H 04H	CTL B ASSIGN	00H 00H–0DH 07H	
02H xxH 05H	EXP ASSIGN	00H–33H	

○ RS-232/TALLY/GPO/GPI/KEY

Address	Parameter name	SysEx value	Meaning of value
02H 09H 00H	RS-232 SW	00H–01H	OFF, ON
02H 09H 01H	RS-232 BAUDRATE	00H–02H	9600, 38400, 115200
02H 09H 02H	TALLY/GPO TEMPLATE	00H–04H	HDMI TALLY, SDI TALLY, GPO, HDMI TALLY/GPO, SDI TALLY/GPO
02H 09H 03H	TALLY/GPO 1	00H–77H	PGM HDMI 1–8, PGM SDI 1–8, PGM STILL 1–16, PGM INPUT 1–20, PST HDMI 1–8, PST SDI 1–8, PST STILL 1–16, PST INPUT 1–20, GPO 1–16
:	:		
02H 09H 12H	TALLY/GPO 16	00H–77H	PGM HDMI 1–8, PGM SDI 1–8, PGM STILL 1–16, PGM INPUT 1–20, PST HDMI 1–8, PST SDI 1–8, PST STILL 1–16, PST INPUT 1–20, GPO 1–16
02H 09H 13H 14H	GPI 1	00H 00H–0DH 07H	See "Menu List" in the "Reference Manual" (PDF).
:	:		
02H 09H 21H 22H	GPI 8	00H 00H–0DH 07H	

Address	Parameter name	SysEx value	Meaning of value
02H 09H 23H 24H	NUMERIC KEY 0	00H 00H–0DH 07H	
:	:		
02H 09H 35H 36H	NUMERIC KEY 9	00H 00H–0DH 07H	
02H 09H 37H 38H	NUMERIC KEY +	00H 00H–0DH 07H	
02H 09H 39H 3AH	NUMERIC KEY -	00H 00H–0DH 07H	
02H 09H 3BH 3CH	NUMERIC KEY *	00H 00H–0DH 07H	
02H 09H 3DH 3EH	NUMERIC KEY /	00H 00H–0DH 07H	
02H 09H 3FH 40H	NUMERIC KEY .	00H 00H–0DH 07H	
02H 09H 41H 42H	NUMERIC KEY ENTER	00H 00H–0DH 07H	
02H 09H 43H	TALLY SETTINGS AUX 1	00H–01H	DSIABLE, ENABLE
02H 09H 44H	TALLY SETTINGS PinP & KEY 1	00H–01H	DSIABLE, ENABLE
02H 09H 45H	TALLY SETTINGS PinP & KEY 2	00H–01H	DSIABLE, ENABLE
02H 09H 46H	TALLY SETTINGS PinP & KEY 3	00H–01H	DSIABLE, ENABLE
02H 09H 47H	TALLY SETTINGS PinP & KEY 4	00H–01H	DSIABLE, ENABLE
02H 09H 48H	TALLY SETTINGS DSK 1	00H–01H	DSIABLE, ENABLE
02H 09H 49H	TALLY SETTINGS DSK 2	00H–01H	DSIABLE, ENABLE
02H 09H 4AH	TALLY SETTINGS AUX 2	00H–01H	DSIABLE, ENABLE
02H 09H 4BH	TALLY SETTINGS AUX 3	00H–01H	DSIABLE, ENABLE

○Roland FILL+KEY

Address	Parameter name	SysEx value	Meaning of value
02H 0CH 00H	MODE	00H–02H	OFF, DSK 1, DSK 2

○VC-100UHD CONTROL

Address	Parameter name	SysEx value	Meaning of value
02H 0DH 00H	CONTROL	00H–01H	OFF, ON
02H 0DH 01H 02H	IP ADDRESS (1)	00H 00H–01H 7FH	0–255
02H 0DH 03H 04H	IP ADDRESS (2)	00H 00H–01H 7FH	0–255
02H 0DH 05H 06H	IP ADDRESS (3)	00H 00H–01H 7FH	0–255
02H 0DH 07H 08H	IP ADDRESS (4)	00H 00H–01H 7FH	0–255
02H 0DH 09H	STATUS	00H–0AH	NOT CONNECTED, CONNECTING, CONNECTING, CONNECTING, CONNECTING, CONNECTING, CONNECTED, NOT FOUND, NO REMOTE PASSWORD, NO LOCAL PASSWORD, PASSWORD MISMATCH (Read only)

○LABEL EDIT

* xxH: 10H–33H (HDMI 1–8, SDI 1–8, STILL 1–16, PGM, SUB PGM, PVW, AUX 1), 3AH–3DH (AUX 2–3, DSK 1–2 SOURCE)

Address	Parameter name	SysEx value	Meaning of value
02H xxH 00H	LABEL (0)	00H–7FH	The label name (1st character)
02H xxH 01H	LABEL (1)	00H–7FH	The label name (2nd character)
02H xxH 02H	LABEL (2)	00H–7FH	The label name (3rd character)
02H xxH 03H	LABEL (3)	00H–7FH	The label name (4th character)
02H xxH 04H	LABEL (4)	00H–7FH	The label name (5th character)
02H xxH 05H	LABEL (5)	00H–7FH	The label name (6th character)
02H xxH 06H	LABEL (6)	00H–7FH	The label name (7th character)
02H xxH 07H	LABEL (7)	00H–7FH	The label name (8th character)

○ CAMERA CONTROL COMMON

Address	Parameter name	SysEx value	Meaning of value
02H 40H 00H	CAMERA ID	00H–0FH	CAMERA 1–16
02H 40H 01H	CAMERA MODE	00H–01H	OFF, ON
02H 40H 02H	ALL CAMERAS RECALL	00H–01H	OFF, ON

○ CAMERA CONTROL

* xxH: 41H–50H (CAMERA 1–16)

Address	Parameter name	SysEx value	Meaning of value
02H xxH 00H	PROTOCOL	00H–06H	N/A, JVC, Panasonic, Canon, VISCA over IP, PTZOptics, Avonic
02H xxH 01H 02H	IP ADDRESS 1	00H 00H–01H 7FH	0–255
02H xxH 03H 04H	IP ADDRESS 2	00H 00H–01H 7FH	0–255
02H xxH 05H 06H	IP ADDRESS 3	00H 00H–01H 7FH	0–255
02H xxH 07H 08H	IP ADDRESS 4	00H 00H–01H 7FH	0–255
02H xxH 09H	LOGIN NAME 1	00H–7FH	Login name (1st character)
02H xxH 0AH	LOGIN NAME 2	00H–7FH	Login name (2nd character)
02H xxH 0BH	LOGIN NAME 3	00H–7FH	Login name (3rd character)
02H xxH 0CH	LOGIN NAME 4	00H–7FH	Login name (4th character)
02H xxH 0DH	LOGIN NAME 5	00H–7FH	Login name (5th character)
02H xxH 0EH	LOGIN NAME 6	00H–7FH	Login name (6th character)
02H xxH 0FH	LOGIN NAME 7	00H–7FH	Login name (7th character)
02H xxH 10H	LOGIN NAME 8	00H–7FH	Login name (8th character)
02H xxH 11H	PASSWORD 1	00H–7FH	Password (1st character)
02H xxH 12H	PASSWORD 2	00H–7FH	Password (2nd character)
02H xxH 13H	PASSWORD 3	00H–7FH	Password (3rd character)
02H xxH 14H	PASSWORD 4	00H–7FH	Password (4th character)
02H xxH 15H	PASSWORD 5	00H–7FH	Password (5th character)
02H xxH 16H	PASSWORD 6	00H–7FH	Password (6th character)
02H xxH 17H	PASSWORD 7	00H–7FH	Password (7th character)
02H xxH 18H	PASSWORD 8	00H–7FH	Password (8th character)
02H xxH 19H	PASSWORD 9	00H–7FH	Password (9th character)
02H xxH 1AH	PASSWORD 10	00H–7FH	Password (10th character)
02H xxH 1BH	PASSWORD 11	00H–7FH	Password (11th character)
02H xxH 1CH	PASSWORD 12	00H–7FH	Password (12th character)
02H xxH 1DH	PASSWORD 13	00H–7FH	Password (13th character)
02H xxH 1EH	PASSWORD 14	00H–7FH	Password (14th character)
02H xxH 1FH	PASSWORD 15	00H–7FH	Password (15th character)
02H xxH 20H	PASSWORD 16	00H–7FH	Password (16th character)
02H xxH 21H	CURRENT PRESET	7FH–00H–09H	NONE, PRESET 1–10
02H xxH 22H	PAN	7FH, 00H, 01H	LEFT, STOP, RIGHT
02H xxH 23H	TILT	7FH, 00H, 01H	DOWN, STOP, UP
02H xxH 24H	PAN/TILT SPEED	01H–18H	1–24
02H xxH 25H	ZOOM	7EH–00H–02H	WIDE (FAST), WIDE (SLOW), STOP, TELE (SLOW), TELE (FAST)
02H xxH 26H	FOCUS	7FH, 00H, 01H	NEAR, STOP, FAR
02H xxH 27H	AUTO FOCUS	00H–01H	OFF, ON
02H xxH 28H	EXPOSURE	00H–01H	MANUAL, AUTO
02H xxH 29H	TALLY CH	00H–0FH	HDMI 1–8, SDI 1–8
02H xxH 2AH 2BH	PORT	00H 00H 00H–03H 7FH 7FH	0-65535

●Other Parameter Area

○Memory

Address	Parameter name	SysEx value	Meaning of value
0AH 00H 00H	Memory Load Trigger	00H–1DH	Memory 1–30 (Write only)
0AH 00H 01H	Memory Save Trigger	00H–1DH	Memory 1–30 (Write only)
0AH 00H 02H	Memory Initialize Trigger	00H–1DH	Memory 1–30 (Write only)
0AH 00H 03H	Loaded Memory Number	00H–1DH, 7FH	Memory 1–30, Last Memory (Read only)

●Panel Control Area

○Button Control

Address	Parameter name	SysEx value	Meaning of value
0BH 00H 00H	PGM/A cross-point [1] button	00H–01H	Release, press (Write Only)
0BH 00H 01H	PGM/A cross-point [2] button	00H–01H	Release, press (Write Only)
0BH 00H 02H	PGM/A cross-point [3] button	00H–01H	Release, press (Write Only)
0BH 00H 03H	PGM/A cross-point [4] button	00H–01H	Release, press (Write Only)
0BH 00H 04H	PGM/A cross-point [5] button	00H–01H	Release, press (Write Only)
0BH 00H 05H	PGM/A cross-point [6] button	00H–01H	Release, press (Write Only)
0BH 00H 06H	PGM/A cross-point [7] button	00H–01H	Release, press (Write Only)
0BH 00H 07H	PGM/A cross-point [8] button	00H–01H	Release, press (Write Only)
0BH 00H 08H	PGM/A cross-point [9] button	00H–01H	Release, press (Write Only)
0BH 00H 09H	PGM/A cross-point [10] button	00H–01H	Release, press (Write Only)
0BH 00H 0AH	PST/B cross-point [1] button	00H–01H	Release, press (Write Only)
0BH 00H 0BH	PST/B cross-point [2] button	00H–01H	Release, press (Write Only)
0BH 00H 0CH	PST/B cross-point [3] button	00H–01H	Release, press (Write Only)
0BH 00H 0DH	PST/B cross-point [4] button	00H–01H	Release, press (Write Only)
0BH 00H 0EH	PST/B cross-point [5] button	00H–01H	Release, press (Write Only)
0BH 00H 0FH	PST/B cross-point [6] button	00H–01H	Release, press (Write Only)
0BH 00H 10H	PST/B cross-point [7] button	00H–01H	Release, press (Write Only)
0BH 00H 11H	PST/B cross-point [8] button	00H–01H	Release, press (Write Only)
0BH 00H 12H	PST/B cross-point [9] button	00H–01H	Release, press (Write Only)
0BH 00H 13H	PST/B cross-point [10] button	00H–01H	Release, press (Write Only)
0BH 00H 14H	AUX [1] button	00H–01H	Release, press (Write Only)
0BH 00H 15H	AUX [2] button	00H–01H	Release, press (Write Only)
0BH 00H 16H	AUX [3] button	00H–01H	Release, press (Write Only)
0BH 00H 17H	AUX [4] button	00H–01H	Release, press (Write Only)
0BH 00H 18H	AUX [5] button	00H–01H	Release, press (Write Only)
0BH 00H 19H	AUX [6] button	00H–01H	Release, press (Write Only)
0BH 00H 1AH	AUX [7] button	00H–01H	Release, press (Write Only)
0BH 00H 1BH	AUX [8] button	00H–01H	Release, press (Write Only)
0BH 00H 1CH	AUX [9] button	00H–01H	Release, press (Write Only)
0BH 00H 1DH	AUX [10] button	00H–01H	Release, press (Write Only)
0BH 00H 1EH	[CUT] button	00H–01H	Release, press (Write Only)
0BH 00H 1FH	[AUTO] button	00H–01H	Release, press (Write Only)
0BH 00H 20H	[TRANSITION] button	00H–01H	Release, press (Write Only)
0BH 00H 21H	[MODE] button	00H–01H	Release, press (Write Only)
0BH 00H 22H	[INPUT ASSIGN] button	00H–01H	Release, press (Write Only)
0BH 00H 23H	[PGM/A-CENTER] knob	00H–01H	Release, press (Write Only)
0BH 00H 24H	[PST/B-CENTER] knob	00H–01H	Release, press (Write Only)
0BH 00H 25H	[SPLIT 1] button	00H–01H	Release, press (Write Only)
0BH 00H 26H	[SPLIT 2] button	00H–01H	Release, press (Write Only)
0BH 00H 27H	[AUTO MIXING] button	00H–01H	Release, press (Write Only)
0BH 00H 28H	[CAPTURE IMAGE] button	00H–01H	Release, press (Write Only)
0BH 00H 29H	USER [1] button	00H–01H	Release, press (Write Only)
0BH 00H 2AH	USER [2] button	00H–01H	Release, press (Write Only)
0BH 00H 2BH	USER [3] button	00H–01H	Release, press (Write Only)
0BH 00H 2CH	USER [4] button	00H–01H	Release, press (Write Only)
0BH 00H 2DH	PinP & KEY 1 [POSITION H] knob	00H–01H	Release, press (Write Only)
0BH 00H 2EH	PinP & KEY 1 [POSITION V] knob	00H–01H	Release, press (Write Only)
0BH 00H 2FH	PinP & KEY 1 [SOURCE] button	00H–01H	Release, press (Write Only)
0BH 00H 30H	PinP & KEY 1 [PVW] button	00H–01H	Release, press (Write Only)
0BH 00H 31H	PinP & KEY 1 [PGM] button	00H–01H	Release, press (Write Only)
0BH 00H 32H	PinP & KEY 2 [POSITION H] knob	00H–01H	Release, press (Write Only)
0BH 00H 33H	PinP & KEY 2 [POSITION V] knob	00H–01H	Release, press (Write Only)
0BH 00H 34H	PinP & KEY 2 [SOURCE] button	00H–01H	Release, press (Write Only)

Address	Parameter name	SysEx value	Meaning of value
0BH 00H 35H	PinP & KEY 2 [PVW] button	00H–01H	Release, press (Write Only)
0BH 00H 36H	PinP & KEY 2 [PGM] button	00H–01H	Release, press (Write Only)
0BH 00H 37H	PinP & KEY 3 [POSITION H] knob	00H–01H	Release, press (Write Only)
0BH 00H 38H	PinP & KEY 3 [POSITION V] knob	00H–01H	Release, press (Write Only)
0BH 00H 39H	PinP & KEY 3 [SOURCE] button	00H–01H	Release, press (Write Only)
0BH 00H 3AH	PinP & KEY 3 [PVW] button	00H–01H	Release, press (Write Only)
0BH 00H 3BH	PinP & KEY 3 [PGM] button	00H–01H	Release, press (Write Only)
0BH 00H 3CH	PinP & KEY 4 [POSITION H] knob	00H–01H	Release, press (Write Only)
0BH 00H 3DH	PinP & KEY 4 [POSITION V] knob	00H–01H	Release, press (Write Only)
0BH 00H 3EH	PinP & KEY 4 [SOURCE] button	00H–01H	Release, press (Write Only)
0BH 00H 3FH	PinP & KEY 4 [PVW] button	00H–01H	Release, press (Write Only)
0BH 00H 40H	PinP & KEY 4 [PGM] button	00H–01H	Release, press (Write Only)
0BH 00H 41H	DSK 1 [SOURCE] button	00H–01H	Release, press (Write Only)
0BH 00H 42H	DSK 1 [PVW] button	00H–01H	Release, press (Write Only)
0BH 00H 43H	DSK 1 [PGM] button	00H–01H	Release, press (Write Only)
0BH 00H 44H	DSK 2 [SOURCE] button	00H–01H	Release, press (Write Only)
0BH 00H 45H	DSK 2 [PVW] button	00H–01H	Release, press (Write Only)
0BH 00H 46H	DSK 2 [PGM] button	00H–01H	Release, press (Write Only)
0BH 00H 47H	MONITOR [1] button	00H–01H	Release, press (Write Only)
0BH 00H 48H	MONITOR [2] button	00H–01H	Release, press (Write Only)
0BH 00H 49H	MONITOR [3] button	00H–01H	Release, press (Write Only)
0BH 00H 4AH	MONITOR [4] button	00H–01H	Release, press (Write Only)
0BH 00H 4BH	[MENU] button	00H–01H	Release, press (Write Only)
0BH 00H 4CH	[EXIT] button	00H–01H	Release, press (Write Only)
0BH 00H 4DH	[VALUE] knob	00H–01H	Release, press (Write Only)
0BH 00H 4EH	[OUTPUT FADE] button	00H–01H	Release, press (Write Only)
0BH 00H 4FH	SEQUENCER [ON] button	00H–01H	Release, press (Write Only)
0BH 00H 50H	SEQUENCER [AUTO SEQUENCE] button	00H–01H	Release, press (Write Only)
0BH 00H 51H	SEQUENCER [PREVIOUS] button	00H–01H	Release, press (Write Only)
0BH 00H 52H	SEQUENCER [NEXT] button	00H–01H	Release, press (Write Only)

●Tally Area

○Tally Info

Address	Parameter name	SysEx value	Meaning of value
0CH 00H 00H	HDMI IN 1 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 01H	HDMI IN 2 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 02H	HDMI IN 3 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 03H	HDMI IN 4 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 04H	HDMI IN 5 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 05H	HDMI IN 6 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 06H	HDMI IN 7 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 07H	HDMI IN 8 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 08H	SDI IN 1 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 09H	SDI IN 2 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 0AH	SDI IN 3 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 0BH	SDI IN 4 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 0CH	SDI IN 5 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 0DH	SDI IN 6 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 0EH	SDI IN 7 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 0FH	SDI IN 8 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 10H	STILL 1 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 11H	STILL 2 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 10H	STILL 1 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 11H	STILL 2 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 12H	STILL 3 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 13H	STILL 4 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 14H	STILL 5 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 15H	STILL 6 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 16H	STILL 7 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 17H	STILL 8 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 18H	STILL 9 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 19H	STILL 10 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 1AH	STILL 11 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 1BH	STILL 12 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)

Address	Parameter name	SysEx value	Meaning of value
0CH 00H 1CH	STILL 13 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 1DH	STILL 14 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 1EH	STILL 15 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 1FH	STILL 16 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 20H	INPUT 1 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 21H	INPUT 2 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 22H	INPUT 3 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 23H	INPUT 4 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 24H	INPUT 5 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 25H	INPUT 6 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 26H	INPUT 7 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 27H	INPUT 8 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 28H	INPUT 9 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 29H	INPUT 10 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 2AH	INPUT 11 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 2BH	INPUT 12 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 2CH	INPUT 13 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 2DH	INPUT 14 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 2EH	INPUT 15 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 2FH	INPUT 16 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 30H	INPUT 17 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 31H	INPUT 18 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 32H	INPUT 19 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)
0CH 00H 33H	INPUT 20 TALLY	00H–03H	OFF, PGM, PST, PGM&PST (Read only)

○Tally Audio Send

Address	Parameter name	SysEx value	Meaning of value
0CH 01H 00H	TALLY AUTO SEND	00H–01H	OFF, ON

●Camera Control Area

○Camera Control Command

* xxH: 00H–0FH (CAMERA 1–16)

Address	Parameter name	SysEx value	Meaning of value
0DH xxH 00H	PRESET RECALL	00H–09H	PRESET 1–10
0DH xxH 01H	PRESET STORE	00H–09H	PRESET 1–10
0DH xxH 02H	ZOOM RESET	01H	Reset the value

●Preset Memory Area

You can load or rewrite the stored contents of the preset memories.

* The ranges for the second and third bytes of the address and the values are shared with Video Parameter Area (00H 00H 00H) and Audio Parameter Area (01H 00H 00H).

Address	Parameter name	Meaning of value
10H 00H 00H	Video Parameter (Memory 1)	Load/rewrite video parameter stored in Memory 1
11H 00H 00H	Audio Parameter (Memory 1)	Load/rewrite audio parameter stored in Memory 1
12H 00H 00H	Video Parameter (Memory 2)	Load/rewrite video parameter stored in Memory 2
13H 00H 00H	Audio Parameter (Memory 2)	Load/rewrite audio parameter stored in Memory 2
14H 00H 00H	Video Parameter (Memory 3)	Load/rewrite video parameter stored in Memory 3
15H 00H 00H	Audio Parameter (Memory 3)	Load/rewrite audio parameter stored in Memory 3
16H 00H 00H	Video Parameter (Memory 4)	Load/rewrite video parameter stored in Memory 4
17H 00H 00H	Audio Parameter (Memory 4)	Load/rewrite audio parameter stored in Memory 4
18H 00H 00H	Video Parameter (Memory 5)	Load/rewrite video parameter stored in Memory 5
19H 00H 00H	Audio Parameter (Memory 5)	Load/rewrite audio parameter stored in Memory 5
1AH 00H 00H	Video Parameter (Memory 6)	Load/rewrite video parameter stored in Memory 6
1BH 00H 00H	Audio Parameter (Memory 6)	Load/rewrite audio parameter stored in Memory 6
1CH 00H 00H	Video Parameter (Memory 7)	Load/rewrite video parameter stored in Memory 7
1DH 00H 00H	Audio Parameter (Memory 7)	Load/rewrite audio parameter stored in Memory 7
1EH 00H 00H	Video Parameter (Memory 8)	Load/rewrite video parameter stored in Memory 8
1FH 00H 00H	Audio Parameter (Memory 8)	Load/rewrite audio parameter stored in Memory 8
:	:	
4AH 00H 00H	Video Parameter (Memory 30)	Load/rewrite video parameter stored in Memory 30
4BH 00H 00H	Audio Parameter (Memory 30)	Load/rewrite audio parameter stored in Memory 30

●Macro Area

○Macro Command

Address	Parameter name	SysEx value	Meaning of value
50H 05H 00H	(reserved)		
50H 05H 01H	(reserved)		
50H 05H 02H	(reserved)		
50H 05H 03H	(reserved)		
50H 05H 04H	EXEC MACRO TRIGGER	00H–63H	MACRO 1–100
50H 05H 05H	PREVIEW MACRO TRIGGER	00H–63H	MACRO 1–100

●Preset Memory Name Area

* xxH: 00H–1DH (MEMORY 1–30)

Address	Parameter Name	Meaning of value
60H xxH 00H	NAME (0)	Name of preset memory number xx (1st character)
60H xxH 01H	NAME (1)	Name of preset memory number xx (2nd character)
60H xxH 02H	NAME (2)	Name of preset memory number xx (3rd character)
60H xxH 03H	NAME (3)	Name of preset memory number xx (4th character)
60H xxH 04H	NAME (4)	Name of preset memory number xx (5th character)
60H xxH 05H	NAME (5)	Name of preset memory number xx (6th character)
60H xxH 06H	NAME (6)	Name of preset memory number xx (7th character)
60H xxH 07H	NAME (7)	Name of preset memory number xx (8th character)

3. Supplementary Material

●Decimal and Hexadecimal Table

(Hexadecimal Numbers are Indicated by "H")

In MIDI documentation, data values and addresses/sizes of exclusive messages etc. are expressed as hexadecimal values for each 7 bits.

The following table shows how these correspond to decimal numbers.

D	H	D	H	D	H	D	H
0	00H	32	20H	64	40H	96	60H
1	01H	33	21H	65	41H	97	61H
2	02H	34	22H	66	42H	98	62H
3	03H	35	23H	67	43H	99	63H
4	04H	36	24H	68	44H	100	64H
5	05H	37	25H	69	45H	101	65H
6	06H	38	26H	70	46H	102	66H
7	07H	39	27H	71	47H	103	67H
8	08H	40	28H	72	48H	104	68H
9	09H	41	29H	73	49H	105	69H
10	0AH	42	2AH	74	4AH	106	6AH
11	0BH	43	2BH	75	4BH	107	6BH
12	0CH	44	2CH	76	4CH	108	6CH
13	0DH	45	2DH	77	4DH	109	6DH
14	0EH	46	2EH	78	4EH	110	6EH
15	0FH	47	2FH	79	4FH	111	6FH
16	10H	48	30H	80	50H	112	70H
17	11H	49	31H	81	51H	113	71H
18	12H	50	32H	82	52H	114	72H
19	13H	51	33H	83	53H	115	73H
20	14H	52	34H	84	54H	116	74H
21	15H	53	35H	85	55H	117	75H
22	16H	54	36H	86	56H	118	76H
23	17H	55	37H	87	57H	119	77H
24	18H	56	38H	88	58H	120	78H
25	19H	57	39H	89	59H	121	79H
26	1AH	58	3AH	90	5AH	122	7AH
27	1BH	59	3BH	91	5BH	123	7BH
28	1CH	60	3CH	92	5CH	124	7CH
29	1DH	61	3DH	93	5DH	125	7DH
30	1EH	62	3EH	94	5EH	126	7EH
31	1FH	63	3FH	95	5FH	127	7FH

D: decimal

H: hexadecimal

* Decimal expressions used for MIDI channel, bank select, and program change are 1 greater than the decimal value shown in the above table.
* Hexadecimal values in 7-bit units can express a maximum of 128 levels in one byte of data. If the data requires greater resolution, two or more bytes are used. For example, a value indicated by a hexadecimal expression in two 7-bit bytes aa bbH would be aa x 128 + bb.
* Data marked "nibbled" is expressed in hexadecimal in 4-bit units. A value expressed as a 2-byte nibble 0a 0bH has the value of a x 16 + b.

<Example 1>

What is the decimal expression of 5AH?

From the preceding table, 5AH = 90

<Example 2>

What is the decimal expression of the value 12 34H given as hexadecimal for each 7 bits?

From the preceding table, since 12H = 18 and 34H = 52

18 x 128 + 52 = 2356

●Example of an Exclusive Message and Calculating a Checksum

Roland Exclusive messages are transmitted with a checksum at the end (before F7) to make sure that the message was correctly received. The value of the checksum is determined by the address and data (or size) of the transmitted exclusive message.

○How to Calculate the Checksum

(Hexadecimal Numbers are Indicated by "H")

The checksum is a value that produces a lower 7 bits of zero when the address, size, and checksum itself are summed. If the exclusive message to be transmitted has an address of aa bb ccH and the data is dd ee ffH, the actual calculation would be as follows:

aa + bb + cc + dd + ee + ff = sum

sum / 128 = quotient ... remainder

128 - remainder = checksum

(However, the checksum will be 0 if the remainder is 0.)

<Example>

When setting PGM Select to INPUT 2 for data set 1

From the "Parameter Address Map", the address of the PGM Select is 00H 21H 00H and the INPUT 2 parameter is 01H. Therefore ...

F0H	41H	10H	00H 00H 00H 00H 02H	12H	00H 21H 00H	01H	??H	F7H
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

(1) Exclusive Status

(2) ID Number (Roland)

(3) Device ID

(4) Model ID

(5) Command ID (DT1)

(6) Address

(7) Data

(8) Checksum

(9) EOX

Next calculate the checksum. Add (6) to (7).

00H + 21H + 00H + 01H = 0 + 33 + 0 + 1 = 34 (sum)

34 (sum) / 128 = 0 (quotient) ... 34 (remainder)

Checksum = 128 − 34 (remainder) = 94 = 5EH

Thus, the message to transmit is :

F0H 41H 10H 00H 00H 00H 00H 02H 12H 00H 21H 00H 01H 5EH F7H

Streaming Video Switcher
Model V-160HD

MIDI Implementation Chart

Date: Feb. 13, 2023
Version: 2.00

Function		Transmitted	Recognized	Remarks
Basic	Default	1	1	
Channel	Changed	1	1	
	Default	×	×	
Mode	Messages	×	×	
	Altered	**********	**********	
Note Number	True Voice	×	×	
Velocity	Note On	×	×	
	Note Off	×	×	
After Touch	Key's	×	×	
	Channel's	×	×	
Pitch Bend		×	×	
Control Change	0–9	×	×	
	10–31	×	×	
	32–46	×	×	
	46–51	×	×	
	52–65	×	×	
	66–119	×	×	
Program Change	: True Number	×	×	
System Exclusive		O	O	
System Common	: Song Position	×	×	
	: Song Select	×	×	
	: Tune Request	×	×	
System Real Time	: Clock	×	×	
	: Commands	×	×	
Aux Messages	: All Sound Off	×	×	
	: Reset All Controllers	×	×	
	: Local On/Off	×	×	
	: All Notes Off	×	×	
	: Active Sensing	×	×	
	: System Reset	×	×	
Notes				

Mode 1 : OMNI ON, POLY
Mode 2 : OMNI ON, MONO
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO

O : Yes
× : No

LAN/RS-232 Command Reference

The V-160HD support two types of remote-interface communication: LAN and RS-232.

Using the LAN CONTROL port or RS-232 connector to send specific commands to the V-160HD from a controlling device lets you operate the V-160HD remotely.

LAN Interface

This uses the LAN CONTROL port on the V-160HD.

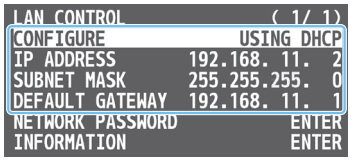
You use Telnet to operate the V-160HD remotely over a LAN (TCP/IP protocol).

Communication standards

Port	LAN CONTROL port
TCP port number	8023

Specifying the V-160HD's Network Settings

1. [MENU] button → "LAN CONTROL" → select the menu item shown below, and press the [VALUE] knob.



Menu item	Explanation
CONFIGURE	Selects how settings are made for the IP address, subnet mask, and default gateway. **USING DHCP:** The IP address and other information needed for connecting to the network is obtained automatically from the DHCP server of the LAN. **MANUAL:** The IP address, subnet mask, and default gateway are specified manually.
IP ADDRESS	Shows the IP address. (*1)
SUBNET MASK	Shows the subnet mask. (*1)
DEFAULT GATEWAY	Shows the default gateway. (*1)

(*1) When "CONFIGURE" is set to "MANUAL", set these respectively according to the network.

2. Use the [VALUE] knob to change the value of the setting.

3. Use the [VALUE] knob to select "NETWORK PASSWORD", and press the [VALUE] knob.

The NETWORK PASSWORD screen appears.

4. Set a network password (four characters).

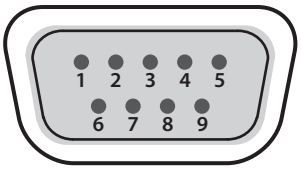
Input the password that's set here when connecting a computer or other device on the same network to access the V-160HD.



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

RS-232 Interface

RS-232 connector pin layout



DB-9 type (male)

Pin assignments

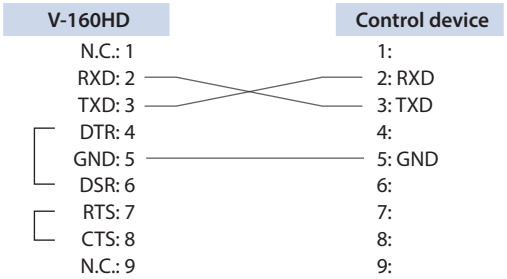
Pin No.	Signal
1	N.C.
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	N.C.

Communication standards

Communication method	Synchronous (asynchronous), full-duplex
Communication speed	9,600/38,400/115,200 bps
Parity	none
Data length	8 bits
Stop bit	1 bit
Code set	ASCII

Cable wiring diagram

Use an RS-232 crossover cable to connect the V-160HD and the controller (an RS-232-compatible computer or other device).



(Crossover connection)

* The connections between 4 and 6 and between 7 and 8 are inside the V-160HD.

Command Format

Commands are formatted using the configuration shown below. Commands are all in ASCII code.

* Commands are common to the LAN and the RS-232 interface.

stx	Command code	:	Parameter	,	Parameter	;

stx	ASCII code "02H" is a control code indicating the start of a command. "H" indicates that it is a hexadecimal value.
Command code	This specifies the command type (three single-byte alphanumeric characters).
Parameter	This is appended to a command that requires one or more parameter. The command and the parameter portion are separated by a " : " (colon). When there are multiple parameters, they are each separated by " , " (comma) characters.
;	This is the code that this unit recognizes as the end of a command.

* The codes of stx (02H), ack (06H), xon (11H), and xoff (13H) are the control codes.

List of Commands

See "MIDI Implementation" (p. 2) for the SysEx addresses and setting values.

* When controlling via LAN (Telnet), "stx (02H)" may be omitted.

Item	Sent command	Response command	Parameter
Parameter write (SysEx-supported command)	stxDTH:a,b;	ack	a: SysEx address (hexadecimal, three bytes) b: Setting value (hexadecimal) <Example> When setting "01H" to address 12H 34H 56H → stxDTH:123456,01;
Parameter value retrieve (SysEx-supported command)	stxRQH:a,b;	stxDTH:a,c;	a: SysEx address (hexadecimal, three bytes) b: Request size (hexadecimal, three bytes) c: Setting value (hexadecimal)
Version information	stxVER;	stxVER:a,b;	a: V-160HD (Product name) b: Version number <Example> 1.00
Flow control	xon		
Flow control	xoff		

Commands spontaneously sent from the V-160HD

Item	Sent command	Response command	Parameter
Error detected		stxERR:a;	a: 0 (syntax error) The received command contains an error. 4 (invalid) This has no effect because it is controlled by another setting. 5 (out of range error) An argument of the received command is out of range. 6 (no stx error) The command does not have a "stx" prefix. * Only RS-232
Flow control		xon	
Flow control		xoff	