

## Remote Control Program for Windows

# MSD-Series V2

MSD-5401 / MSD-5402 / MSD-5403 / MSD-5404

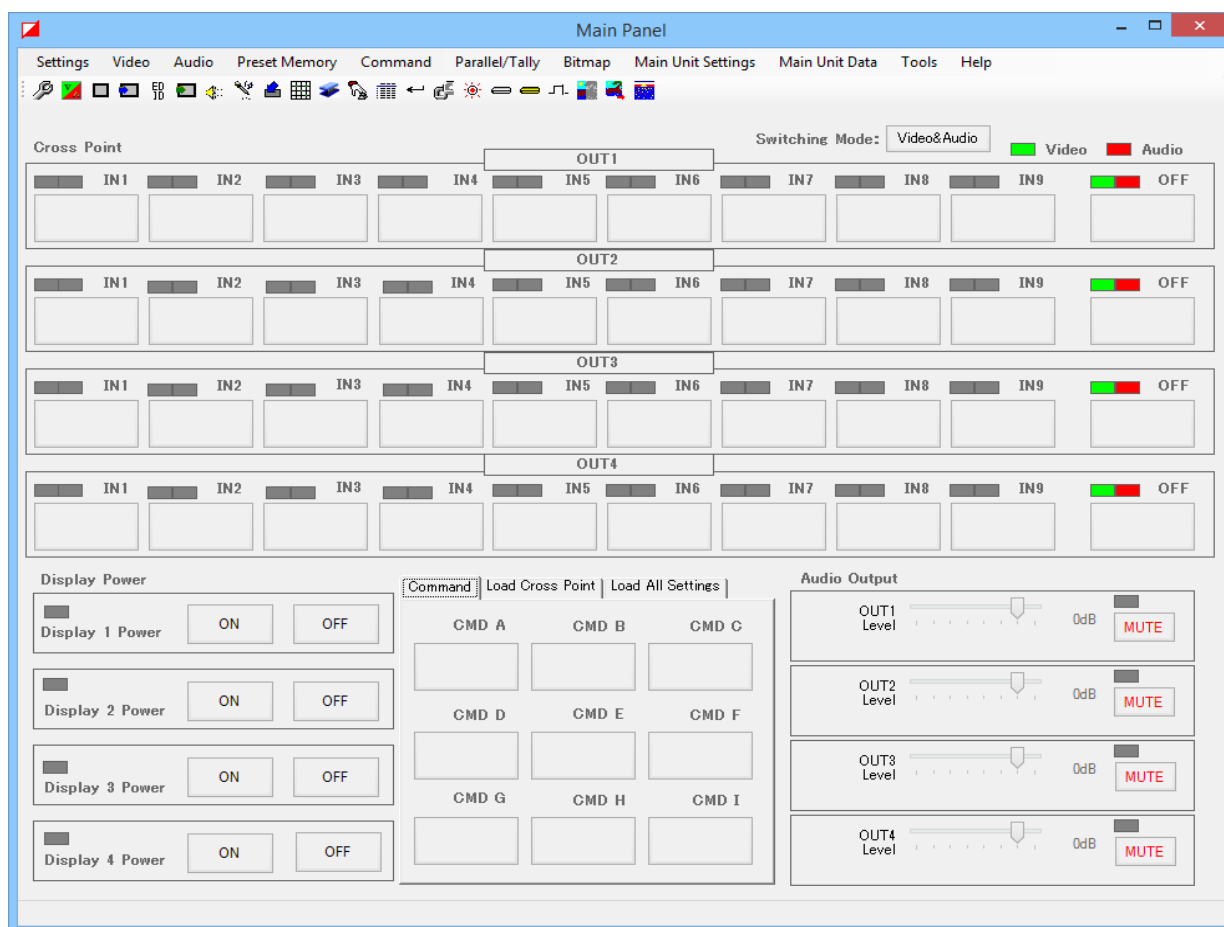
MSD-5401SL / MSD-5402SL

MSD-804FD

MSD-501 / MSD-502 / MSD-701 / MSD-702

<User's Guide>

Ver.1.0.0



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# Before reading this manual

- All rights reserved.
- Some of the contents in this document such as screen structure, menus, and so on may differ depending on the version.
- This User's guide is subject to change without notice. You can download the latest version from IDK's website at: <http://www.idk.co.jp/en/index.html>

## Copyright

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## Warranty

This remote control program is free of charge. However, IDK does not warrant this program. We also do not upgrade the program or respond to any inquiries regarding it, and we may stop providing this control program. We are not responsible for any problems occurring while in use of this program.

For operations, read chapters 1 and 2 which explain the outline and features of the program.  
For settings, read chapter 3 which explains how to configure each setting.

For settings of MSD series, refer to each User's Guides.

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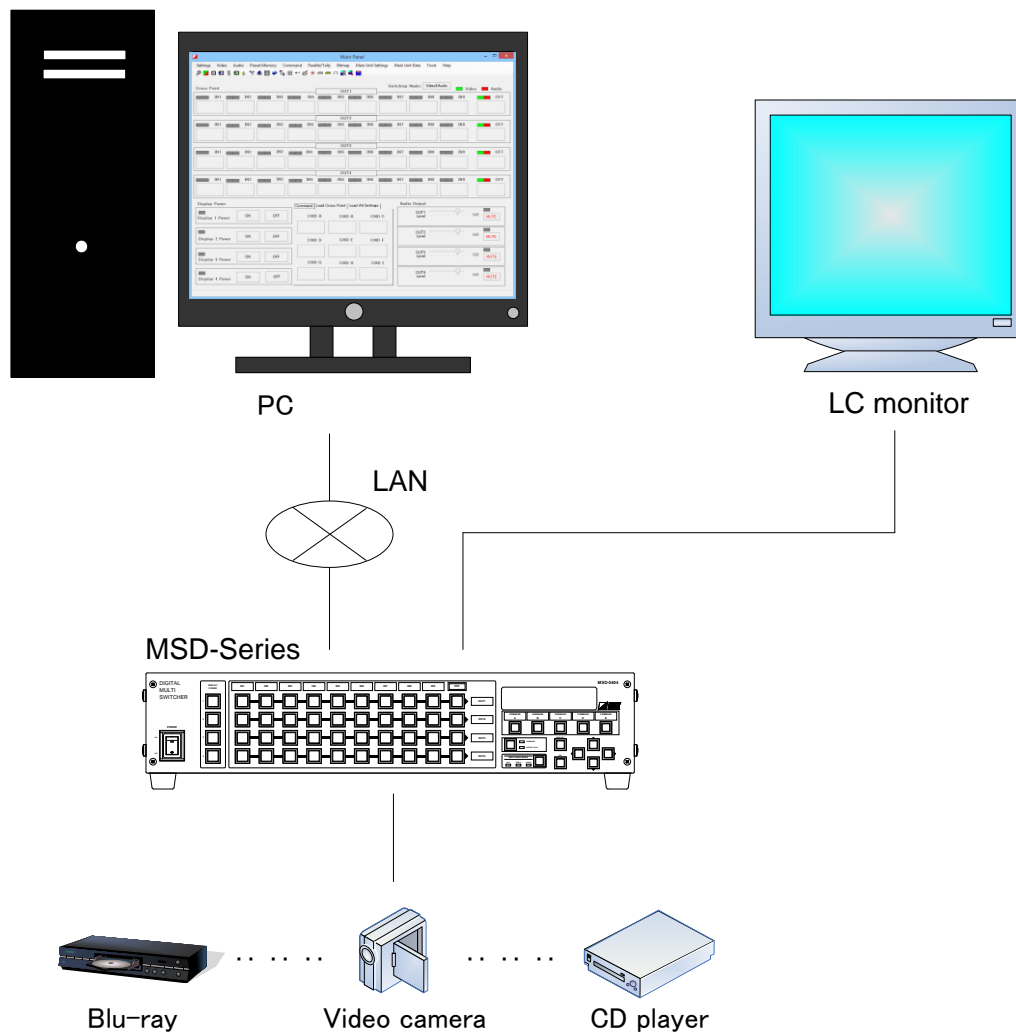
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# 1 Outline

MSD-Series V2 remote control program (hereafter referred to as “program”) is a PC program that allows you to perform the following operations via LAN or RS-232C communication.

- Switching video and audio
- Registering external control commands in the MSD
- Saving/loading cross points
- Transferring bitmaps to the MSD
- Copying settings of the MSD to a PC
- Copying settings of one MSD to several MSDs



[Fig. 1.1] System configuration example (LAN communication)

## 2 Preparation

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### 2.1 Necessary items

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- Program
- MSD
- PC
- LAN cable or RS-232C cable (cross cable)

The program can be downloaded from

<http://www.idk.co.jp/en/products/index.html>

#### 2.1.1 PC environment

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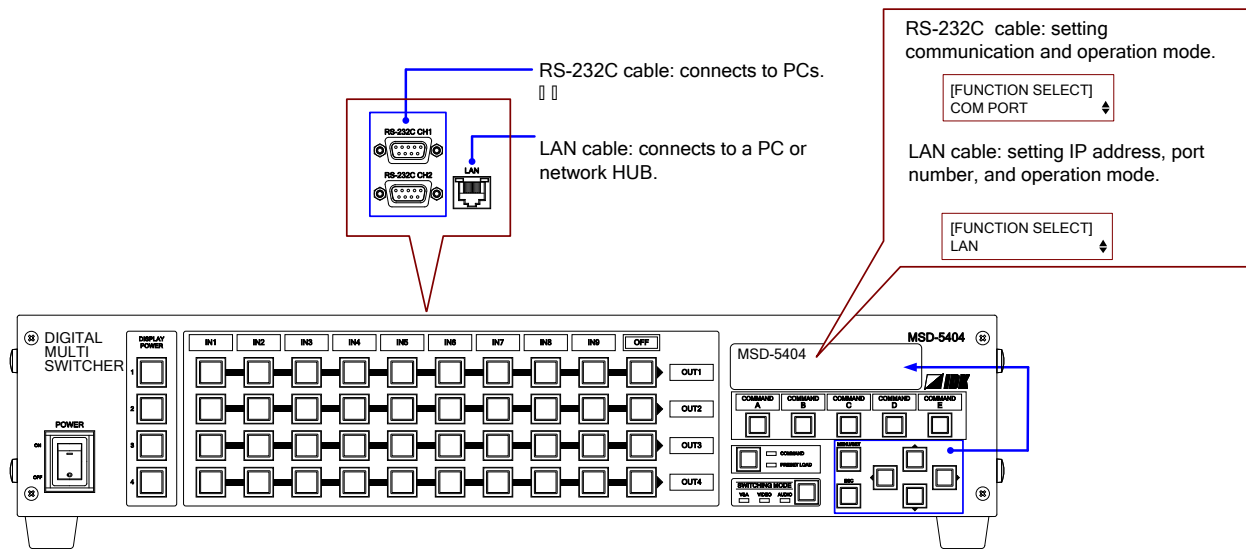
**[Table 2.1] Requirements**

OS	Windows Vista, 7, 8, 8.1 (32 bit/64 bit)
CPU	1 GHz or more
Hard disk	500 MB or more
Memory	500 MB or more
Display resolution	XGA (1024x768) or more
Microsoft .NET Framework	3.5 or more

For Microsoft .NET Framework, refer to the Website of Microsoft Corporation.

## 2.2 Before installation

Connect the MSD, PC, and sink device and then power on them.  
Set the LAN or RS-232C communication to be used in the MSD.



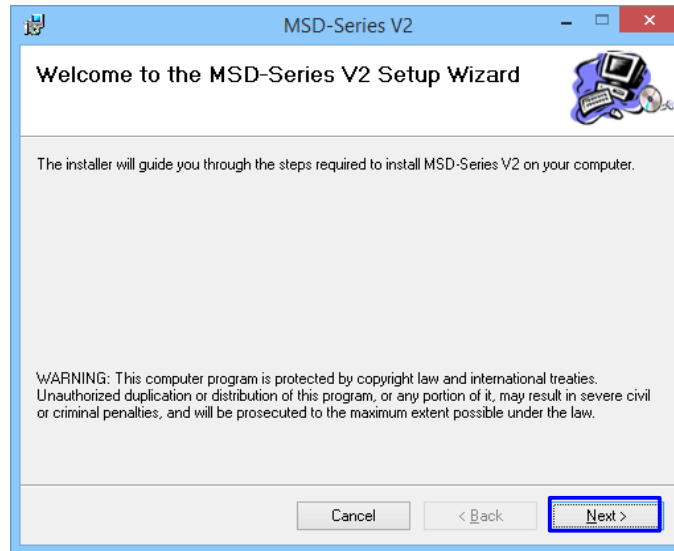
[Fig. 2.1] Connecting and setting communication cable

## 2.3 Installation and uninstallation

---

### ■ To install the software

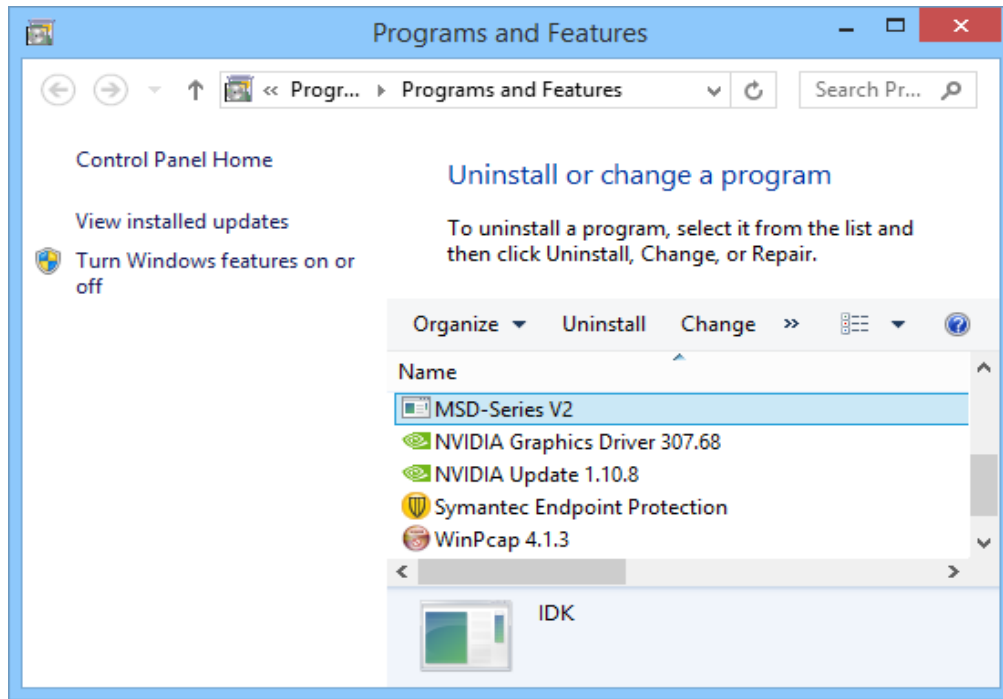
1. Download the program from **Products > Software** at <http://www.idk.co.jp/en/products/index.html>
2. To install the software on your PC, run **MSDSeriesV2VvvvJp.msi** from the compressed file downloaded from our website above.  
(vvv = three-digit program version)



[Fig. 2.2] Setup wizard

### ■ To uninstall the program

Select **Control Panel > Programs and Features**, click **MSD-Series V2** and then click **Uninstall**.



[Fig. 2.3] Programs and Features screen

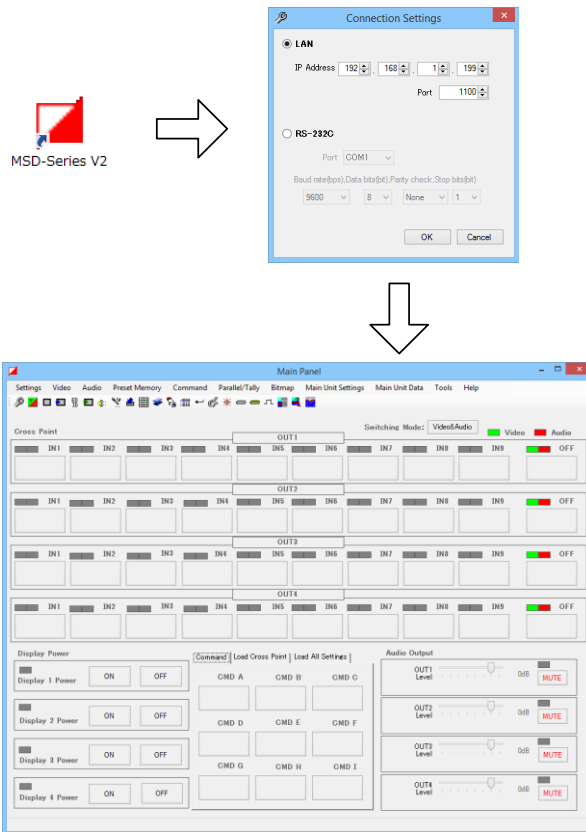
### Notes:

- Run **MSD-Series V2** with the account having administrator authority.
- If **Everyone** was selected at the time of installation, do not move or delete **MSDSeriesV2VvvvJp.msi** until all users start the program for the first time.

## 2.4 Start and termination

### ■ To start the program

On the **Start** menu of the PC select **MSD-Series V2** or run the **MSD-Series V2** shortcut icon.



[Fig. 2.4] Start screen (immediately after installation)

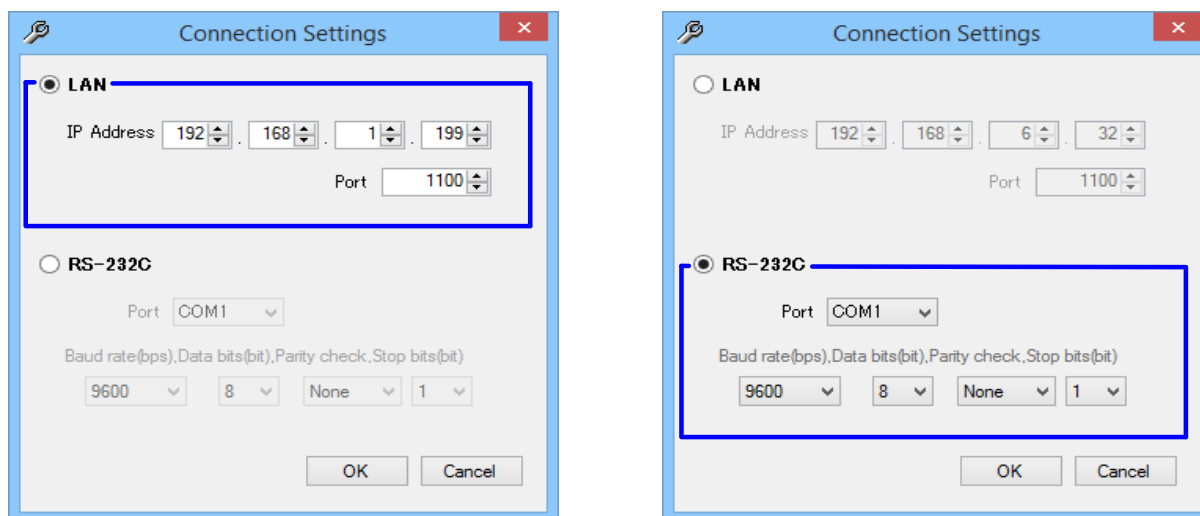
When you start the program for the first time, the **Connection Settings** dialog box will be displayed.

### ■ Terminating program

On the **Settings** menu, select **Close**.

## 2.5 Connecting program and MSD

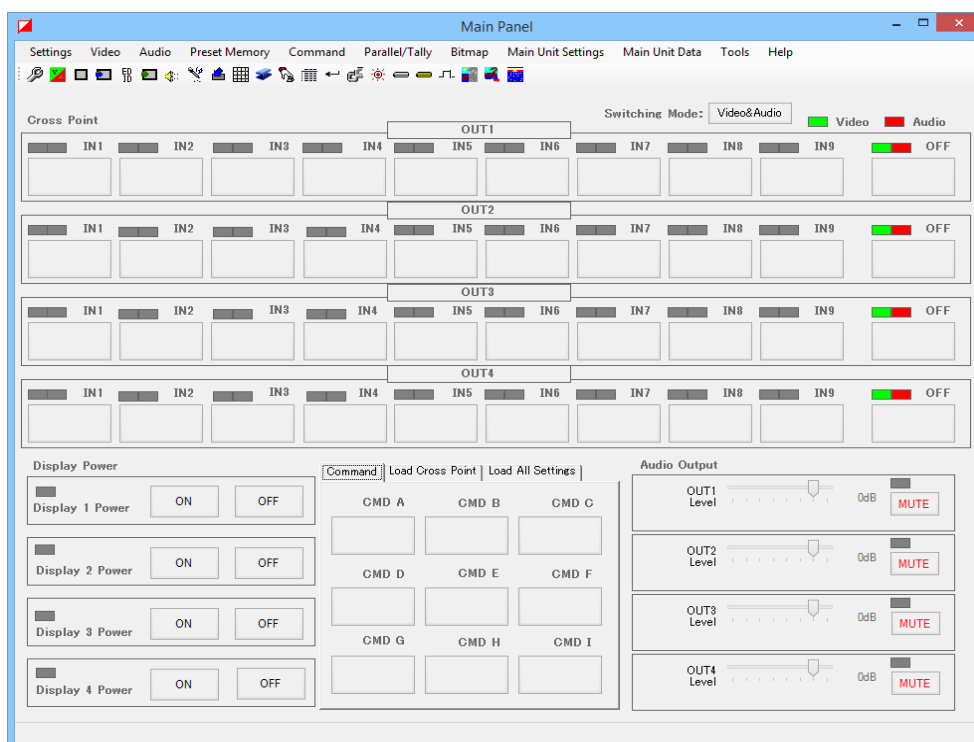
On the **Connection Settings** of the **Settings** menu, set the LAN/RS-232C communication.  
(Default IP address setting of the MSD: 192.168.1.199)



[Fig. 2.5] LAN communication (left) and RS-232C communication (right)

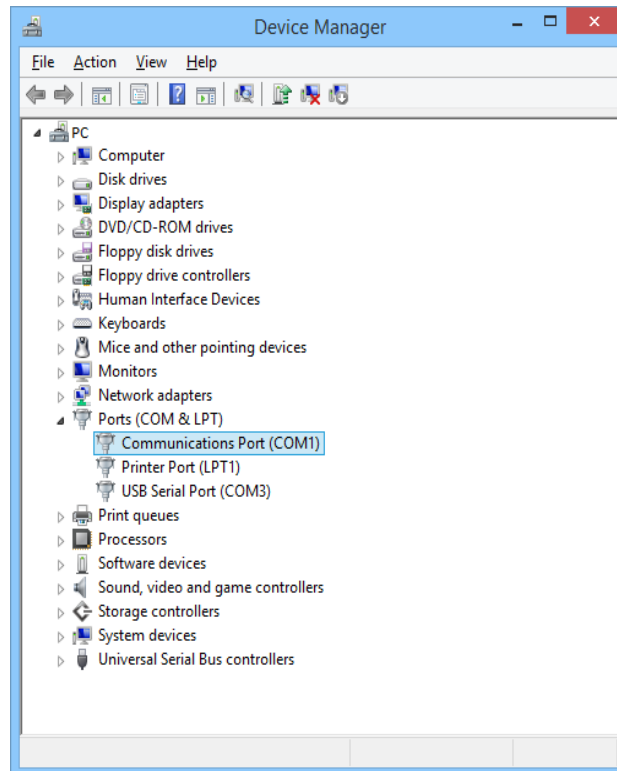
**Note:**

When the connection setting is executed, the program will acquire the settings of the MSD and display the main panel.



[Fig. 2.6] Start screen

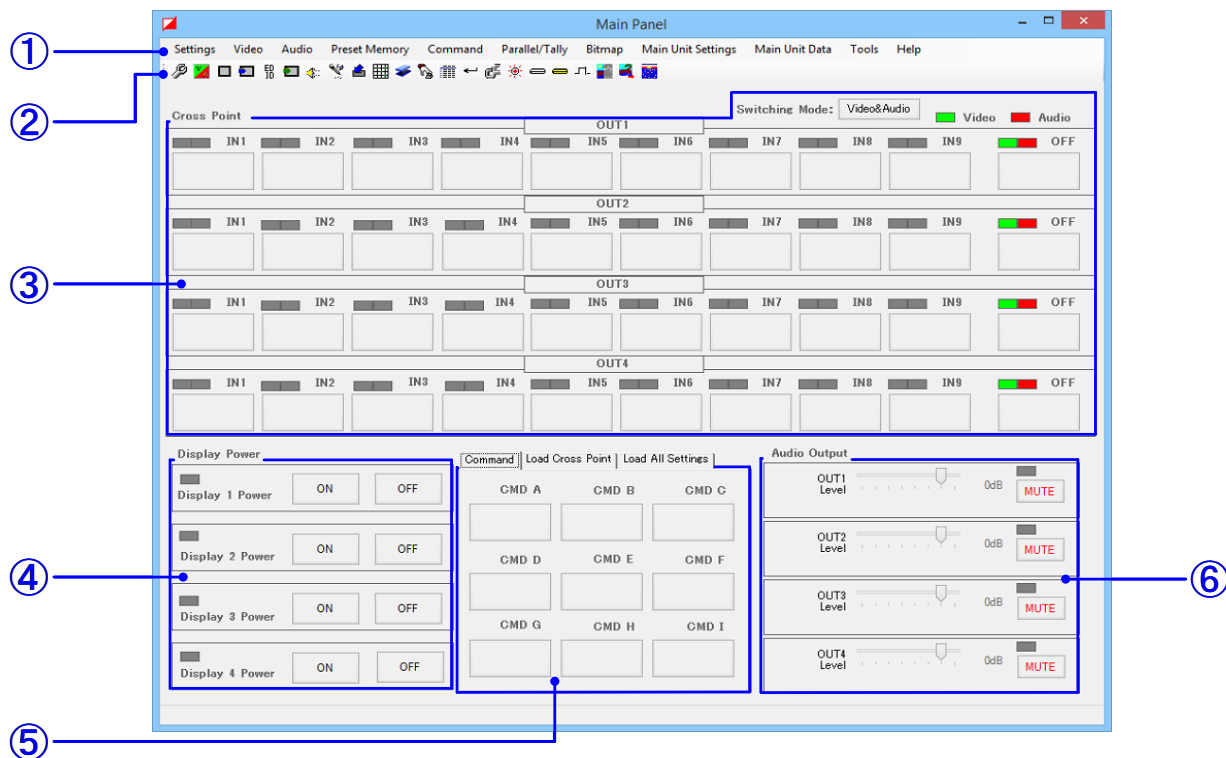
Before setting the port number of the RS-232C communication setting, check the number by selecting **Ports (COM & LPT)** on **Device Manager** of Control panel.



[Fig. 2.7] Device Manager

### 3 Main functions

#### 3.1 Screen structure





































[Fig. 3.1] Screen structure

[Table 3.1] Names and descriptions for Main Panel

#	Name	Description
①	Menu bar	Sets output, registers commands, and others.
②	Tool bar	Calls up menus.
③	Cross point	Selects channels to where video and audio are output.
④	Display Power	Turns on/off monitors. Executes external control commands associated with DISPLAY POWER keys of the front panel.
⑤	Command/Load Cross Point/Load All Settings	Executes external control commands associated with COMMAND keys of the front panel. Loads the saved cross point and all settings.
⑥	Audio Output	Controls audio output level including mute.

**[Table 3.2] Menu bar**

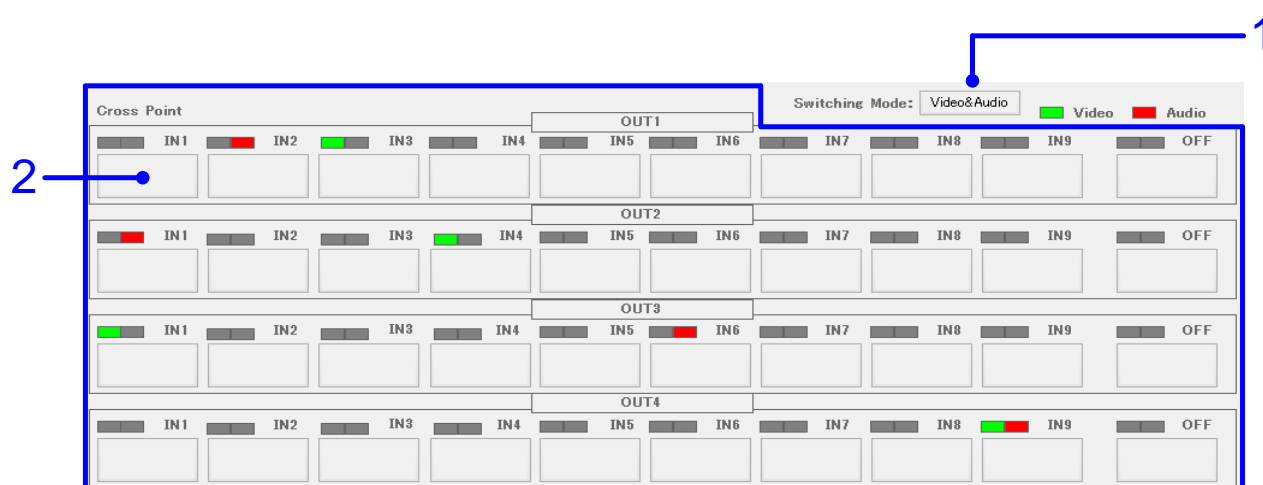
Menu			Description	Related page
Settings		Connection Settings	Sets connection of the program.	12
		Switching Mode	Sets switching mode (Video&Audio/Video/Audio).	17
		Close	Terminates the program.	9
Video		Video Output	Sets video output.	23
		Video Input	Sets video input.	24
		EDID	Sets and checks EDID settings.	25
		Input/Monitor Status	Displays the statuses of input signal and sink device.	26
Audio		Audio Output	Sets audio output.	27
		Audio Input	Sets audio input.	28
Preset Memory		 Save	Saves the current cross point to the cross point memory of the MSD.	29
		 Edit	Edits the saved cross point.	29
		Save All Settings	Saves all settings to the preset memory of the MSD.	30
		Power On Setting	Sets the memory loading at start-up.	30
		External Control Command	Edits external control commands.	36
Command		Reply Command	Edits reply commands.	41
		Command Link	Associates registered external control commands with front keys of the MSD.	42
		Flash Time/Invalid Time/Toggle Startup Status	Sets <b>Flash Time/Invalid Time/Toggle Startup Status</b> of the DISPLAY POWER keys and COMMAND keys.	44
		Edit Function Assign	Assigns a function to each pin of parallel input/tally output.	46
Parallel/Tally		Function Assign Initialize	Initializes function assignments of parallel input/tally output.	47
		Parallel Settings	Sets parallel input.	47

Menu			Description	Related page
Bitmap		Bitmap Output	Outputs registered bitmap to the sink device.	48
		Bitmap Settings	Sets bitmap. (dividing memory for bitmap/transfer/display/bitmap output at start-up/input channel assignment)	49~53
		Video Capture	Captures input video and stores it to the memory for bitmap.	54
Main Unit Settings		Communication Settings	Sets the communication of the MSD.	55
		Keylock/Buzzer	Sets key lock and buzzer sound of the MSD.	56
Main Unit Data		Backup	Backs up settings of the MSD in a PC.	57
		Restore	Restores backed up data to the MSD.	57
Tools		Edit Button Settings	Sets names displayed for each button of the main panel. Sets whether display or not display buttons.	59
		Option Settings	Sets display items of the main panel, menu bar, and tool bar.	60
		Share Setting File	Shares the program configuration file.	61
		Initialization	Initializes the program configuration file.	62
		Password	Provides authentication function for some menus.	63
Help		Version information	Displays the program version of the program and firmware version of the MSD.	64

## 3.2 Basic operation

### 3.2.1 Selecting I/O channels

1. Select a Switching mode (Video or Audio).  
(**Switching Mode** can be set from the menu.)
2. Click the desired **IN** buttons.  
To turn off the video or audio, click the **OFF** button.  
(current selected channels: Video - green; Audio - red)



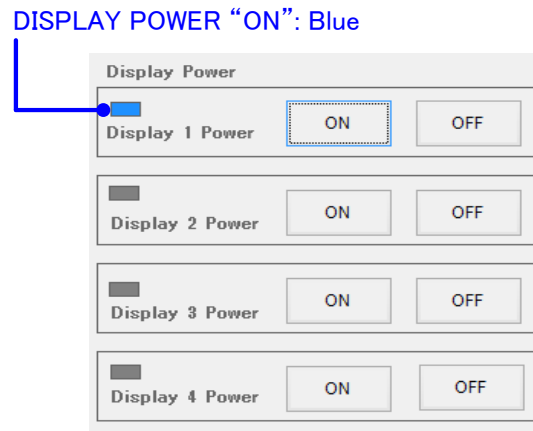
[Fig. 3.2] Selecting I/O channels

【See : 3.3 (P.21) 】

### 3.2.2 Turning on/off DISPLAY POWER

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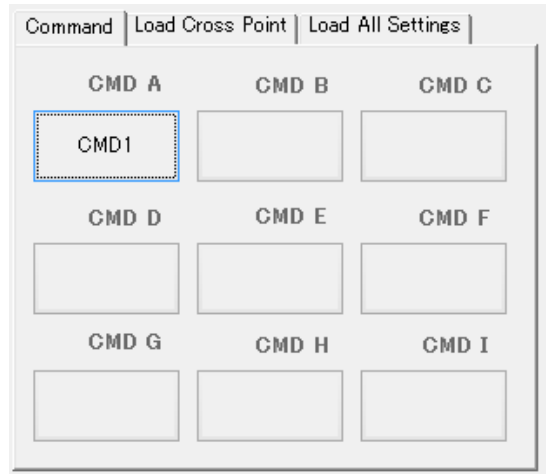
To execute the external control command associated with DISPLAY POWER keys of the front panel, select the **ON** or **OFF** button below.



[Fig. 3.3] DISPLAY POWER

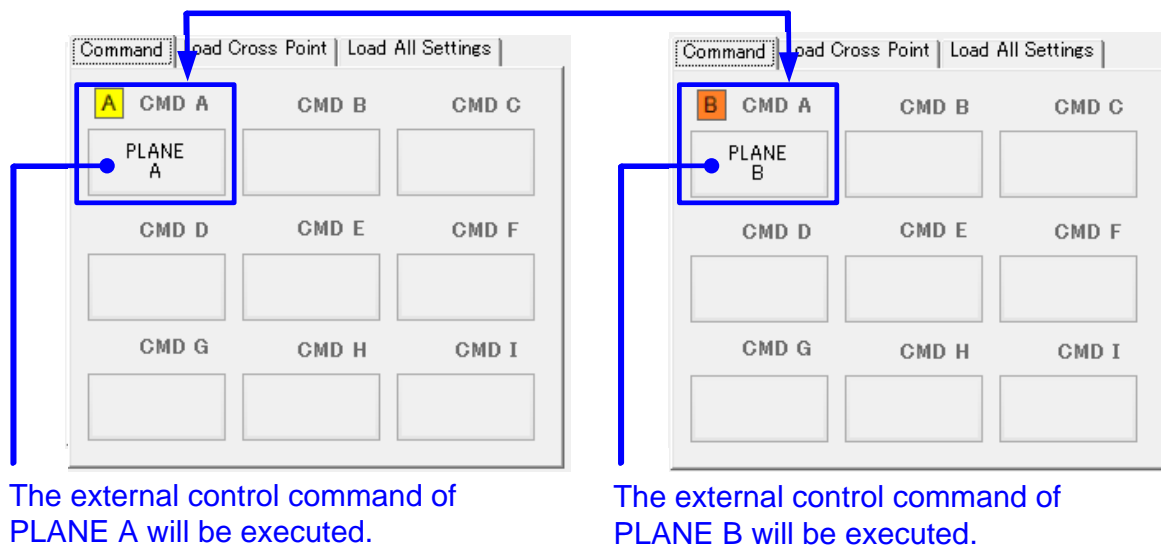
### 3.2.3 Executing external control command

To execute external control commands associated with COMMAND keys of the front panel, select the desired **COMMAND** button on the **Command** tab.



[Fig. 3.4] Executing external control commands

Every time clicking the COMMAND button, PLANE A and B are switched alternatively.



[Fig. 3.5] Executing external control command (when the toggle function is used)

**Note:**

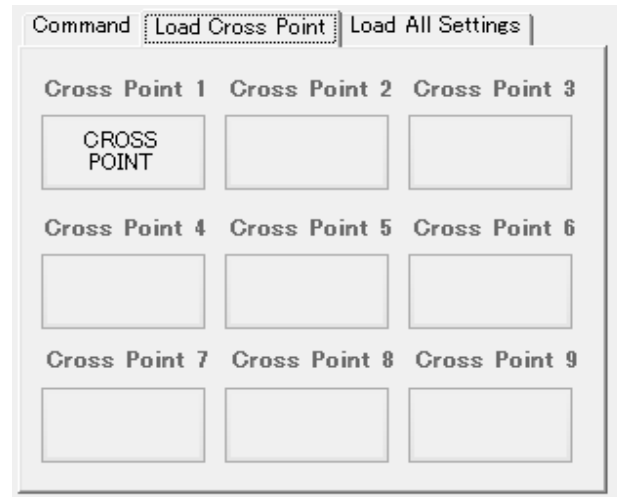
MSD-501 / MSD-502 / MSD-701 / MSD-702 do not support this function.

### 3.2.4 Loading saved cross point

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To load the cross point saved in the cross point memory, select the desired **Cross Point** button on the Load Cross Point tab.

【See : 3.5.3 (P.29) 】



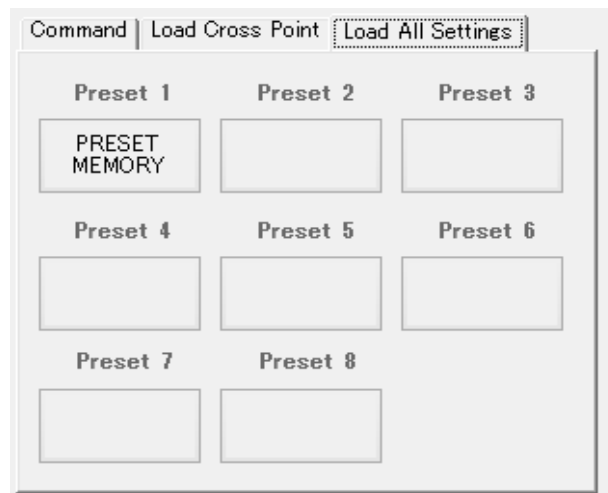
[Fig. 3.6] Loading cross point

### 3.2.5 Loading all saved settings of the MSD

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To load all settings that are saved in the preset memory, select the desired **Preset** button on the **Load All Settings** tab.

【See : 3.5.5 (P.30) 】

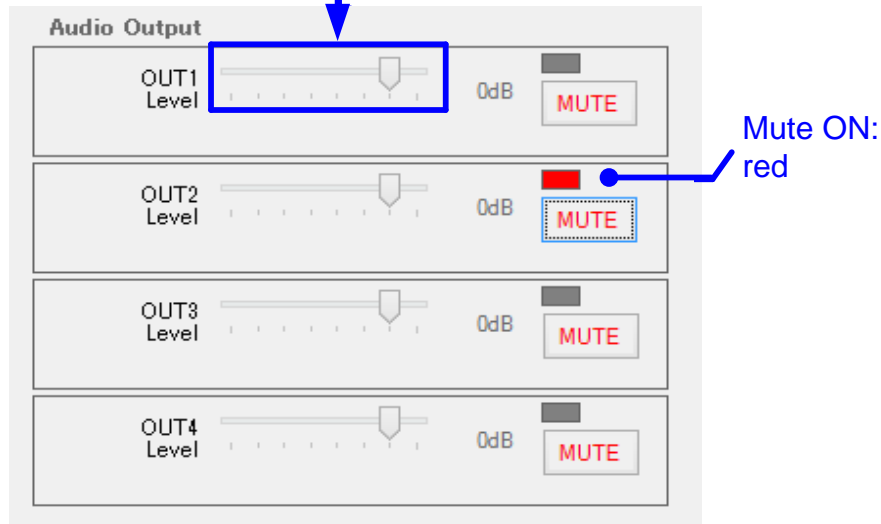


[Fig. 3.7] Loading all settings

### 3.2.6 Adjusting audio output level

Rightward: turns up the volume

Leftward: turns down the volume



[Fig. 3.8] Adjusting audio level

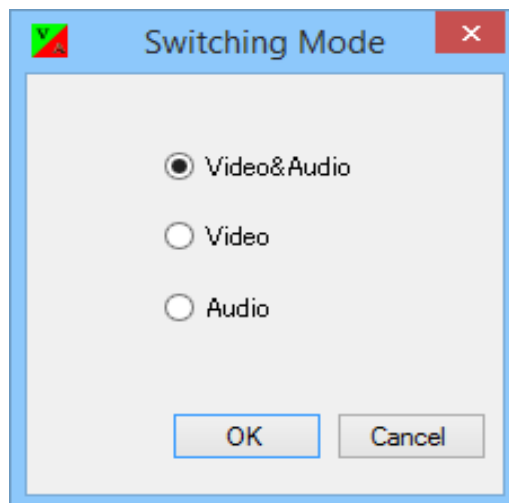
### 3.3 Setting SWITCHING MODE

Menu

Settings menu > Switching Mode

Setting

Set the desired mode (Video&Audio/Video/Audio) of the I/O channel.



[Fig. 3.9] Switching Mode dialog box

## 3.4 Setting video

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[Table 3.3] Setting video

Menu item of MSD	Setup screen
OUTPUT TIMING	Video output (P.23)
IMAGE EFFECT	Video output • Video input (P.24)
INPUT SETTING	Video input
INPUT TIMING	Video input
OUTPUT SETTING	Video output
EDID	EDID (P.25)
INPUT STATUS	Displaying input signal/sink device (P.26)
MONITOR STATUS	
EDID STATUS	

### 3.4.1 Setting video output

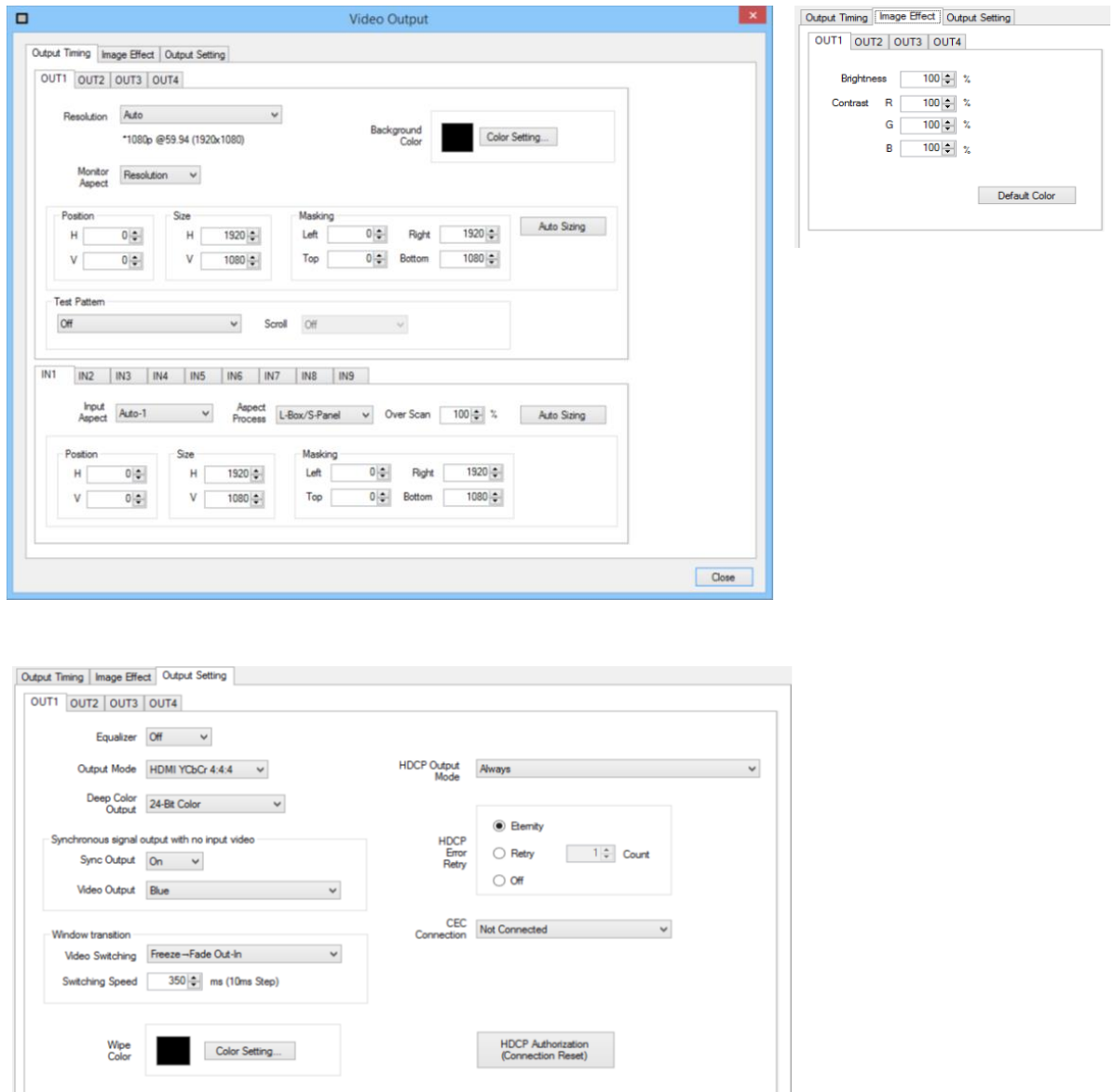
#### Menu

**Video menu > Video Output**

#### Setting

Select the tab you want to set (**Output Timing**, **Image Effect**, **Output Setting**).

The setting will be applied automatically when you set the value.



[Fig. 3.10] Video Output dialog box

### 3.4.2 Setting video input

#### Menu

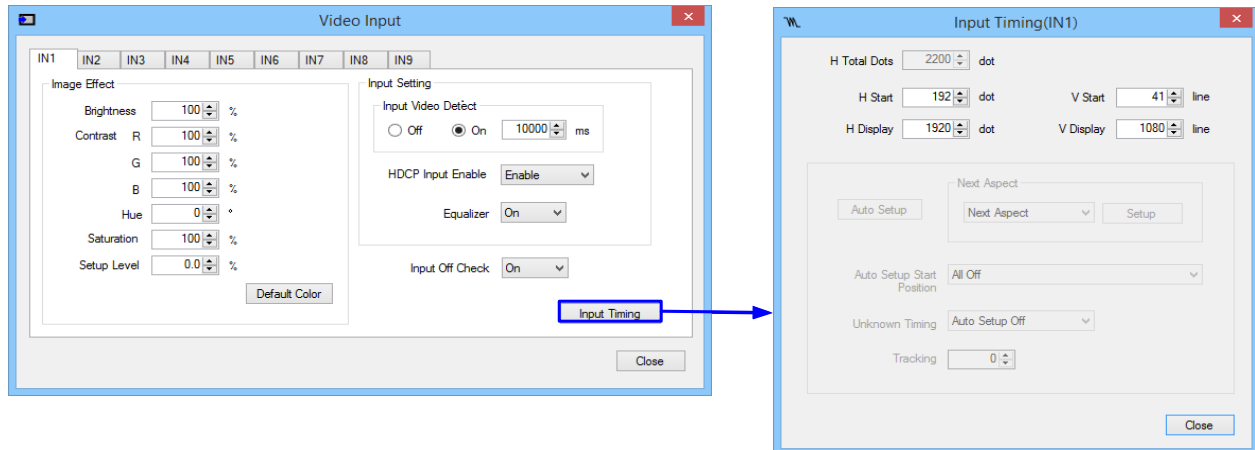
**Video menu > Video Input**

#### Setting

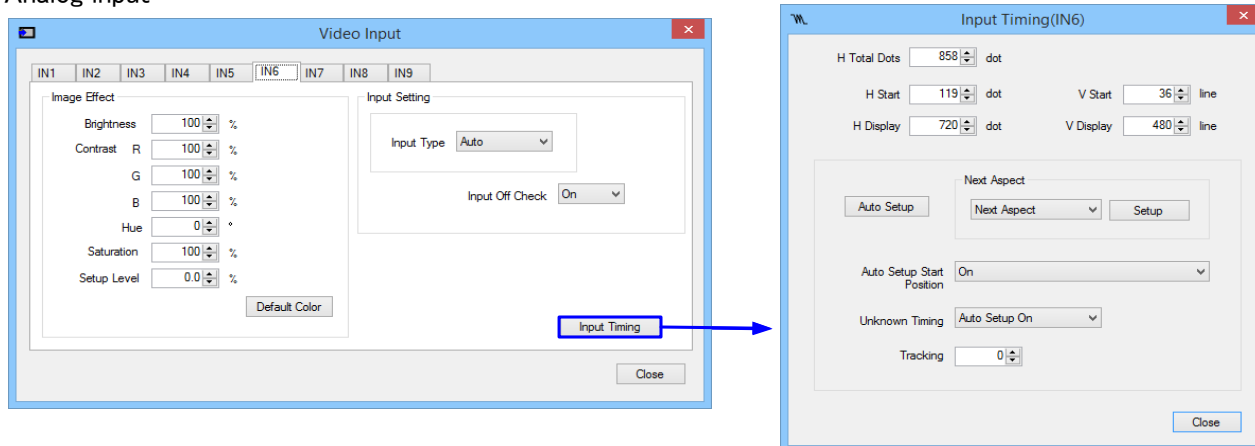
To set the input timing, select the **Input Timing** button.

The setting will be applied automatically when you set the value.

#### ●Digital input



#### ●Analog input



[Fig. 3.11] Dialog boxes of Video Input and Input Timing

### 3.4.3 Setting EDID

**Menu**  
**Setting**

**Video menu > EDID**

You can set EDID that will be sent to the source device connected to the MSD. You can also check EDID information and copy EDID data of the sink device.

EDID information is updated every 3 seconds (approx.) automatically and displayed on the **EDID** dialog box. To update manually, click the **Refresh** button.

●Digital input (Inputs 1 to 5)

EDID

IN1 IN2 IN3 IN4 IN5 IN6 IN7 IN8 IN9

EDID Data  
Internal EDID

PC Resolution  
1080p(1920x1080)

AV Resolution  
Auto

DeepColor Input  
24-Bit Color

Audio Format

PCM	Max Frequency	48	kHz
Dolby Digital	Max Frequency	--	kHz
AAC	Max Frequency	--	kHz
Dolby Digital+	Max Frequency	--	kHz
DTS	Max Frequency	--	kHz
DTS-HD	Max Frequency	--	kHz
Dolby TrueHD	Max Frequency	--	kHz

Register

Speaker

Number  
2

☒ FL/FR ☐ RLC/RR

☐ LFE ☐ FLW/FRW

☐ FC ☐ FLH/FRH

☐ RL/RR ☐ TC

☐ RC ☐ FCH

☐ FLC/FRC

Register

OUT1 OUT2 OUT3 OUT4

MSD-4401-A  
1920x1080 148.50MHz  
HDMI-RGB/YCbCr422/YCbCr444-24BIT COLOR  
LINEAR PCM-32/44.1/48kHz-16/20/24BIT-2CHANNEL

Refresh

EDID Copy

Output No.: 1

Copy Data No.: 1

Name(MSD)

Copy

Up to 10 half-width characters.

Close

●Analog input (Inputs 6 to 9)

IN1 IN2 IN3 IN4 IN5 IN6 IN7 IN8 IN9

PC Resolution  
UXGA(1600x1200)

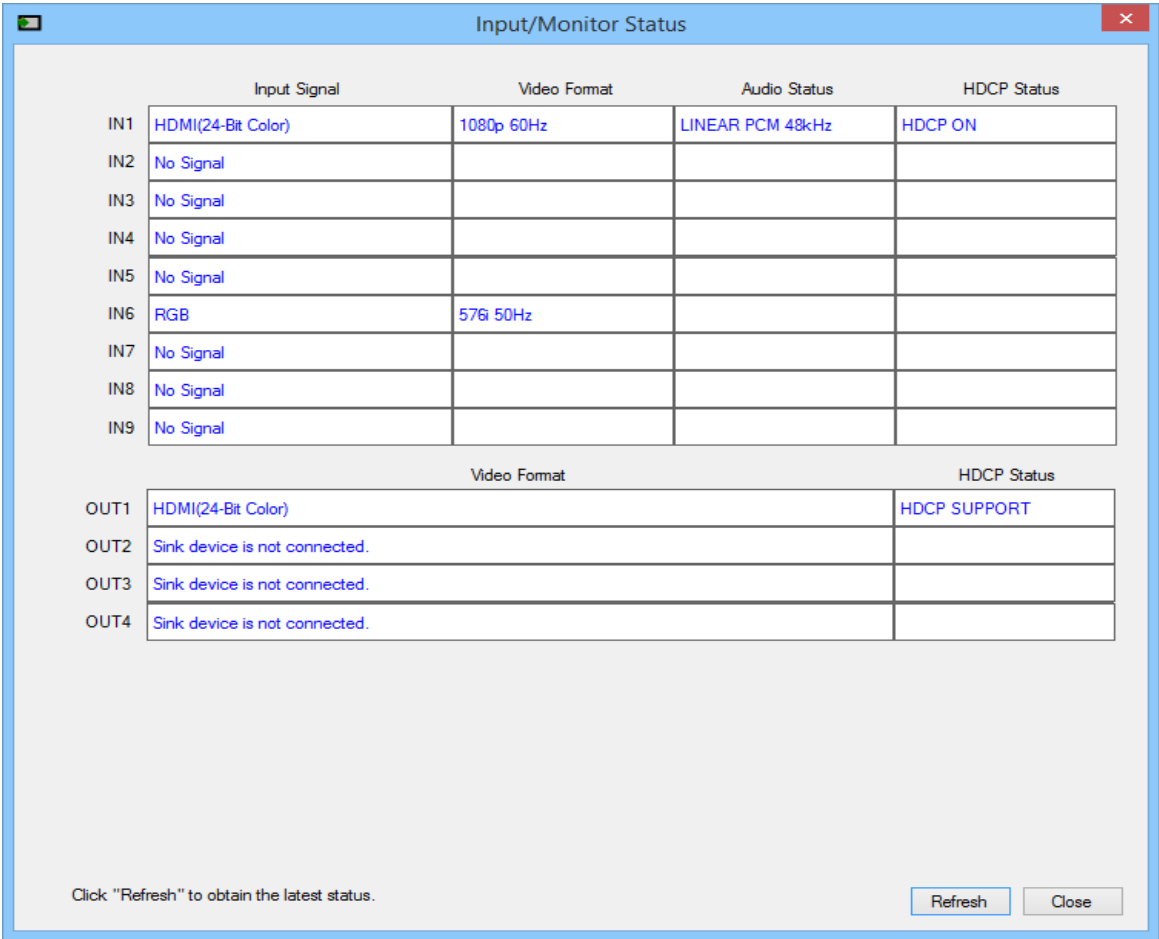
[Fig. 3.12] EDID dialog box

### 3.4.4 Displaying statuses of input signal and sink device

**Menu**      **Video menu > Status**

**Setting**    Displaying statuses of input signal and sink devices.

These statuses are updated every 3 seconds (approx.) automatically and displayed on the **Input/Monitor Status** dialog box. To update manually, click the **Refresh** button.



[Fig. 3.13] Input/Monitor Status dialog box

## 3.5 Setting audio

[Table 3.4] Setting audio

Menu item of MSD	Setup screen
OUTPUT LIP SYNC	Outputting audio (P.27)
SAMPLING FREQUENCY	
OUTPUT CONNECTOR	
MULTI AUDIO	
TEST TONE	
AUDIO INPUT SELECT	Inputting audio (P.28)
INPUT OFFSET	
INPUT LIP SYNC	

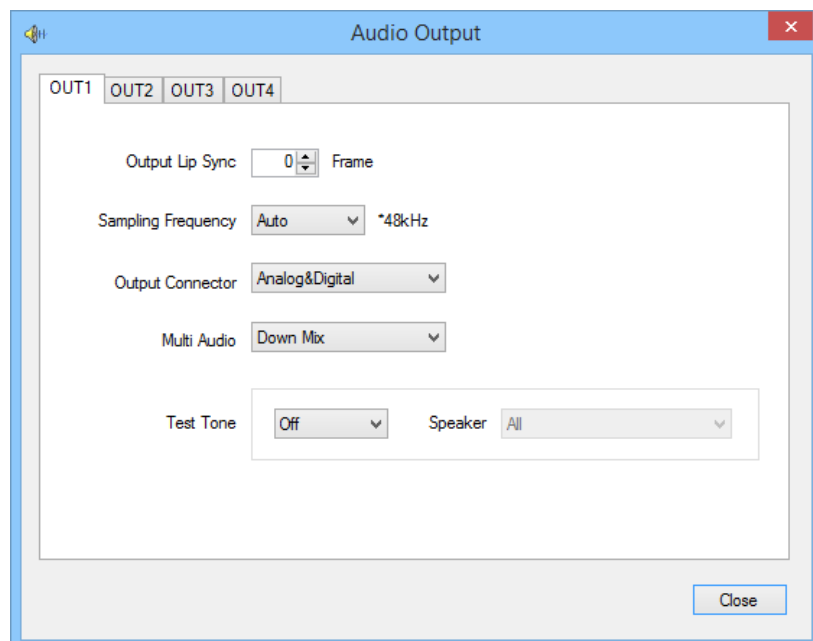
### 3.5.1 Setting audio output

Menu

**Audio menu > Audio Output**

Setting

The setting will be applied automatically when you set the value.



[Fig. 3.14] Audio Output dialog box

### 3.5.2 Setting audio input

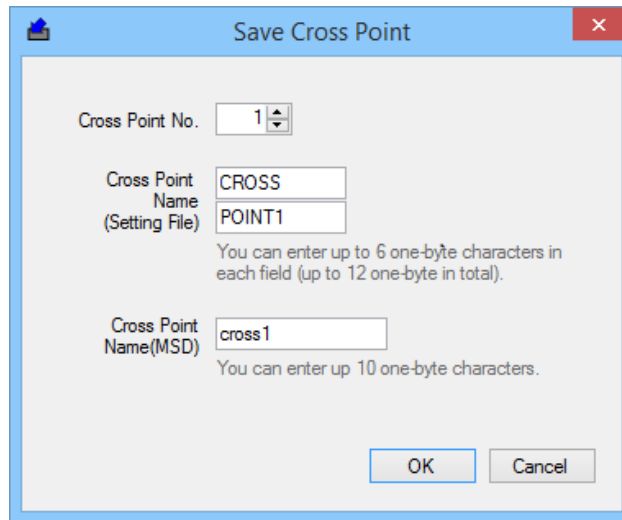
Menu	Audio menu > Audio Input
Setting	The setting will be applied automatically when you set the value.



[Fig. 3.15] Audio Input dialog box

### 3.5.3 Saving cross point

Menu	<b>Preset Memory &gt; Cross Point &gt; Save Cross Point</b>
Setting	Saving the current cross point to the cross point of the MSD.



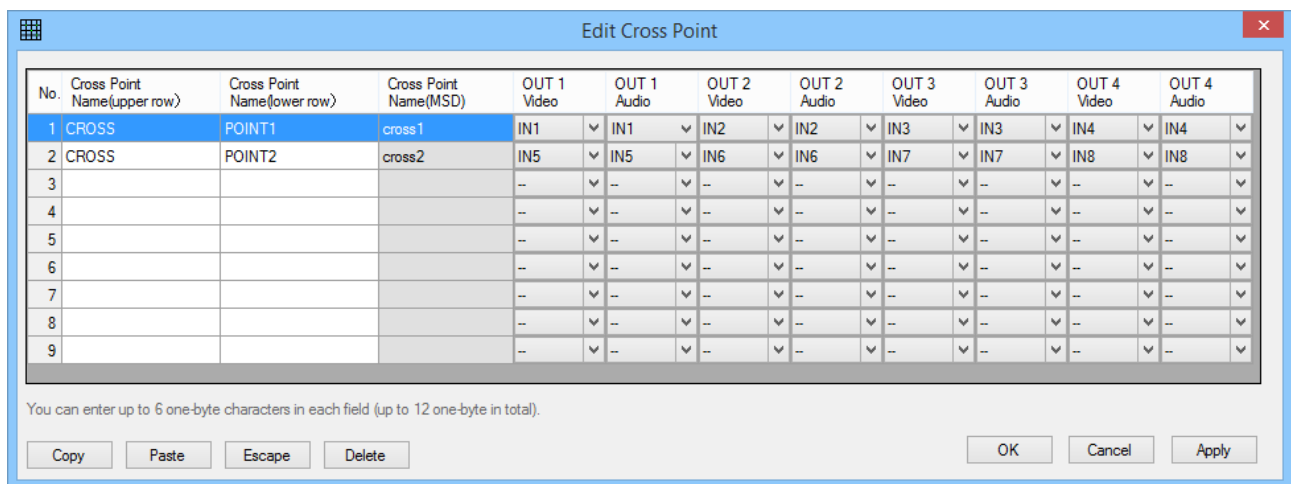
The dialog box titled "Save Cross Point" contains the following fields and instructions:

- Cross Point No.:** A numeric field with a spinner, currently set to 1.
- Cross Point Name:** A text field containing "CROSS".
- (Setting File):** A text field containing "POINT1".
- Instruction:** "You can enter up to 6 one-byte characters in each field (up to 12 one-byte in total)."
- Cross Point Name(MSD):** A text field containing "cross1".
- Instruction:** "You can enter up to 10 one-byte characters."
- Buttons:** "OK" and "Cancel".

[Fig. 3.16] Save Cross Point dialog box

### 3.5.4 Editing cross point

Menu	<b>Preset Memory menu &gt; Cross Point &gt; Edit Cross Point</b>
Setting	Editing settings of the cross point memory. The setting will be applied when you click the <b>Apply</b> button.



The dialog box titled "Edit Cross Point" contains a table for editing cross point settings. Below the table are buttons for "Copy", "Paste", "Escape", "Delete", "OK", "Cancel", and "Apply".

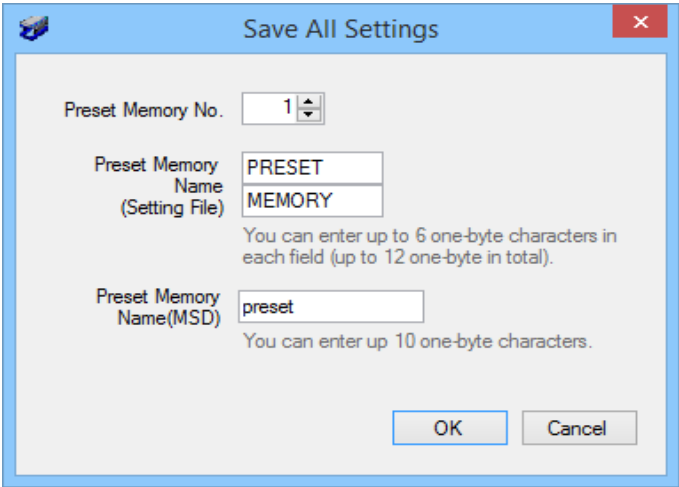
No.	Cross Point Name(upper row)	Cross Point Name(lower row)	Cross Point Name(MSD)	OUT 1 Video	OUT 1 Audio	OUT 2 Video	OUT 2 Audio	OUT 3 Video	OUT 3 Audio	OUT 4 Video	OUT 4 Audio
1	CROSS	POINT1	cross1	IN1	IN1	IN2	IN2	IN3	IN3	IN4	IN4
2	CROSS	POINT2	cross2	IN5	IN5	IN6	IN6	IN7	IN7	IN8	IN8
3				--	--	--	--	--	--	--	--
4				--	--	--	--	--	--	--	--
5				--	--	--	--	--	--	--	--
6				--	--	--	--	--	--	--	--
7				--	--	--	--	--	--	--	--
8				--	--	--	--	--	--	--	--
9				--	--	--	--	--	--	--	--

You can enter up to 6 one-byte characters in each field (up to 12 one-byte in total).

[Fig. 3.17] Edit Cross Point dialog box

### 3.5.5 Saving all settings of MSD

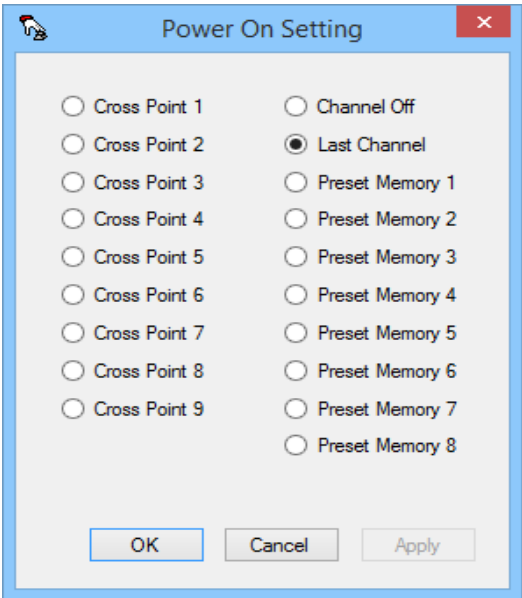
Menu	<b>Preset Memory</b> menu > <b>Saving All Settings</b>
Setting	Saving all settings of the MSD to the preset memory.



[Fig. 3.18] Saving All Settings dialog box

### 3.5.6 Setting memory to be loaded at start-up

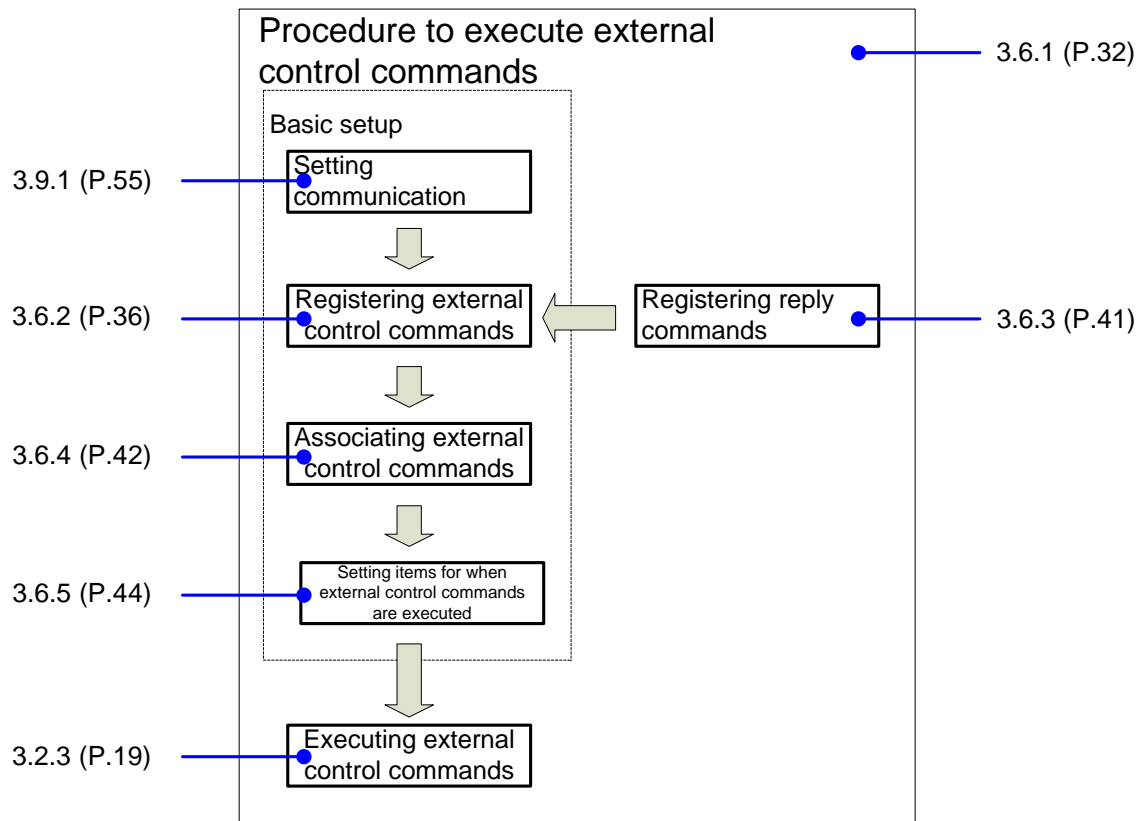
Menu	<b>Preset Memory</b> menu > <b>Power On Setting</b>
Setting	Which data will be loaded at start-up of the MSD. The setting will be applied when you click the <b>Apply</b> button.



[Fig. 3.19] Power On Setting dialog box

## 3.6 Setting external control command

---



[Fig. 3.20] Procedure for executing external control commands

### 3.6.1 Controlling external devices using external control commands

#### 1. Setting communication of the MSD.

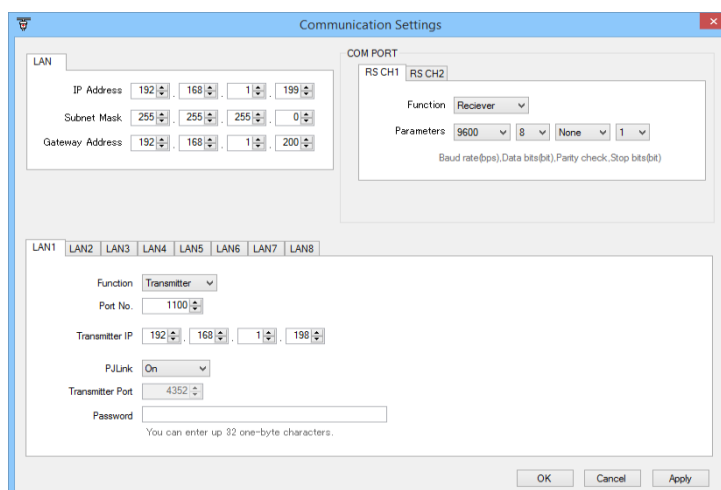
To display the **Communication Settings** dialog box, select **Main Unit Settings** menu > **Communication Settings**.

Enter the external device information and select **Transmitter** for **Function**.

To enable PJLink, select **On** for **PJLink**.

The settings will be applied when you click the **Apply** button.

【See : 3.9.1 (P.55) 】

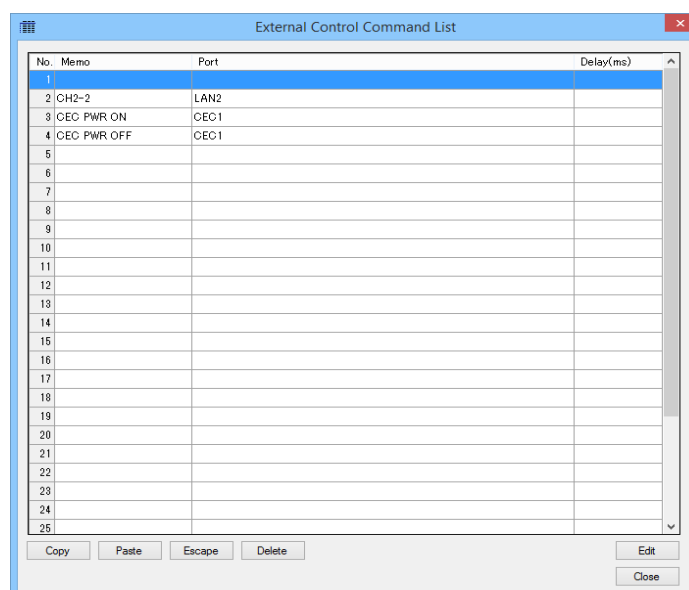


[Fig. 3.21] Communication Settings dialog box (when LAN communication is used.)

#### 2. Registering external control commands to the MSD

- (1) To display the **External Control Command List** dialog box, select **Command** menu > **External Control Command**.

Select the destination and click the **Edit** button.



[Fig. 3.22] External Control Command List dialog box

- (2) On the **Edit External Control Command** dialog box, set the following items needed for the registration of the external control command.

The settings will be applied when you click the **Apply** button.

- **Memo**
- **Port (COM/Tally/CEC)**
- **Communication Port (RS/LAN/Loopback)**
- **Delay**
- **Timeout**
- **Retry, Interval, Error (Stop/Exec)**
- **Data**
- **Reply Display (Off/ASCII/HEX)**
- **Delimiter (None/Used)**
- **Link of Reply Command List**

**Data:** select **ASCII**, **PJLink**, **Keyboard**, or **Manufacturer** for **Template** and then enter each value. You can also enter values directly in hex.

【See : 3.6.2 (P.36) 】

For **Communication Port**, select the COM PORT (RS-232C) and LAN1 to LAN8 (LAN) that were set in the step 1 above ([Fig. 3.21] (P.32)).

To specify the reply commands, on **Reply Command List**, place a check mark for **Link** of the desired reply command.

【See : 3.6.3 (P.41) 】

Command No. 1 Memo CH2-1 You can enter up 14 one-byte characters.

Port COM

Delay 0 (0~99999ms)

Communication Port

☐ RS1 ☐ RS2

☐ LAN1 ☒ LAN2 ☐ LAN3 ☐ LAN4 ☐ LAN5 ☐ LAN6 ☐ LAN7 ☐ LAN8 ☐ Loopback

Green: Transmitter Port

Blue: PJLink Port

Timeout 1000 (0~9999ms)

Retry 5 (0~99)

Error Stop

Reply Display Off

Delimiter None HEX 00

Interval 1000 (0~9999ms)

ASCII NUL

Data

Size 10 Clear

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
HEX	40	53	53	57	2C	31	2C	32	0D	0A	20	20	20	20	20
ASCII	@	S	S	W	.	1	.	2	CR	LF	SP	SP	SP	SP	SP

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
HEX	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
ASCII	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP

Template ASCII

Reply Command List

No.	Memo	Link
1	OK	<input checked="" type="checkbox"/>
2		<input type="checkbox"/>
3		<input type="checkbox"/>
4		<input type="checkbox"/>
5		<input type="checkbox"/>
6		<input type="checkbox"/>
7		<input type="checkbox"/>
8		<input type="checkbox"/>
9		<input type="checkbox"/>
10		<input type="checkbox"/>
11		<input type="checkbox"/>
12		<input type="checkbox"/>
13		<input type="checkbox"/>
14		<input type="checkbox"/>
15		<input type="checkbox"/>
16		<input type="checkbox"/>
17		<input type="checkbox"/>
18		<input type="checkbox"/>
19		<input type="checkbox"/>
20		<input type="checkbox"/>
21		<input type="checkbox"/>

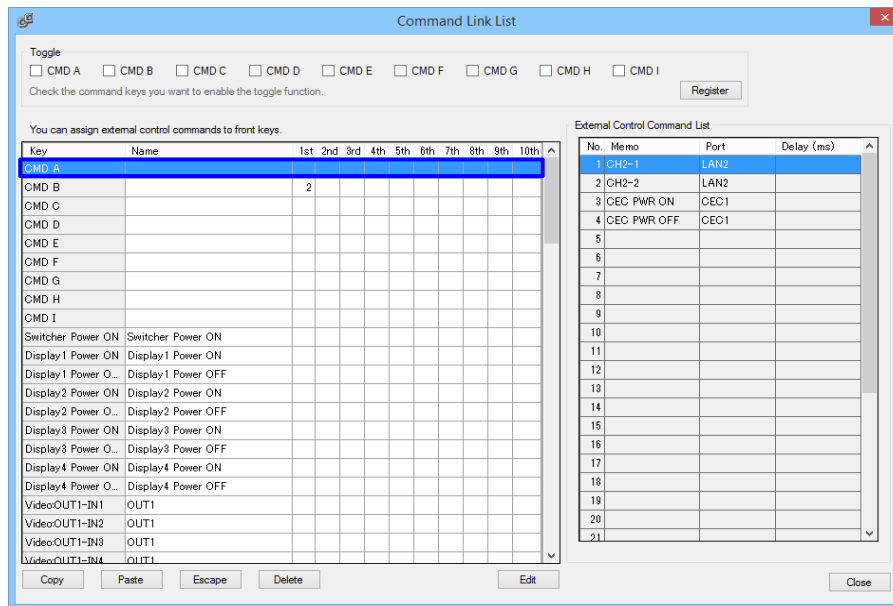
Delete Edit

OK Cancel Apply

[Fig. 3.23] Edit External Control Command dialog box

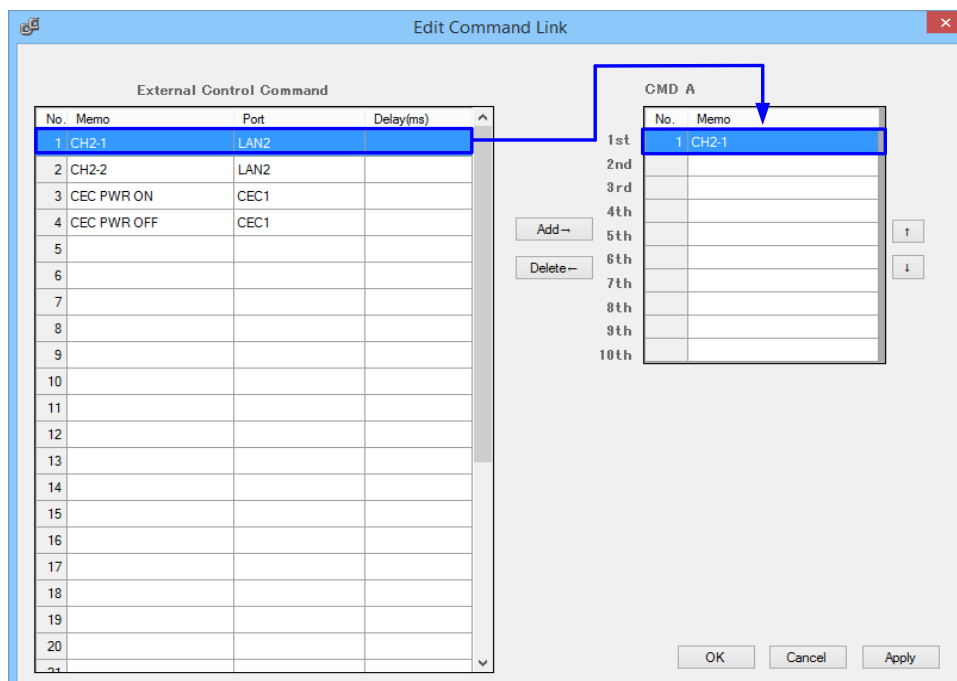
### 3. Associating external control commands with front keys of the MSD.

- (1) To display the **Command Link Unit** dialog box, select **Command Link** on the **Command** menu.  
Select the destination and click the **Edit** button.



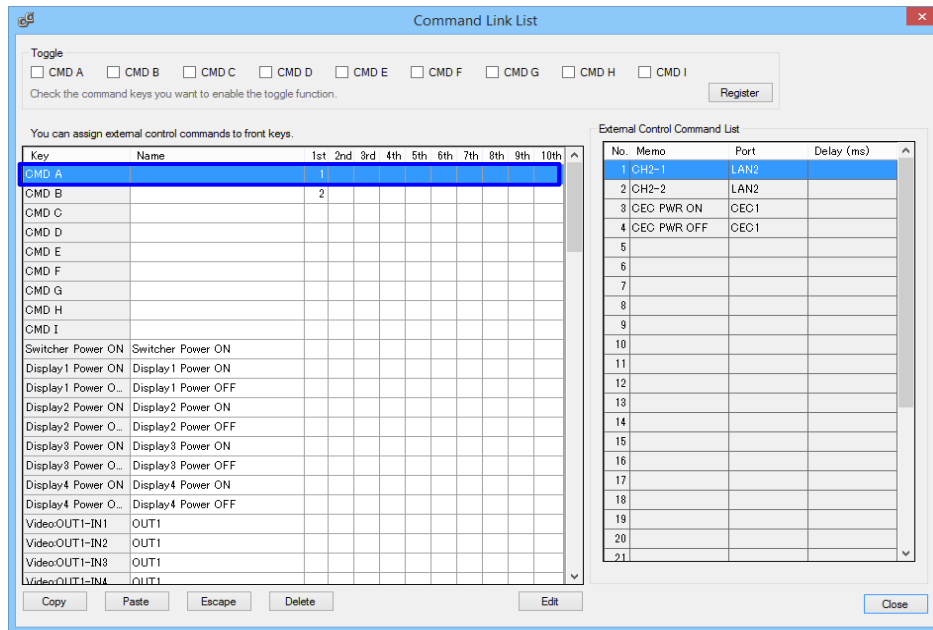
[Fig. 3.24] Command Link List dialog box (before association)

- (2) Select the external control command to be associated from **External Control Command** and then click the **Add** button.  
The setting will be applied when you click the **Apply** button.



[Fig. 3.25] Edit Command Link dialog box

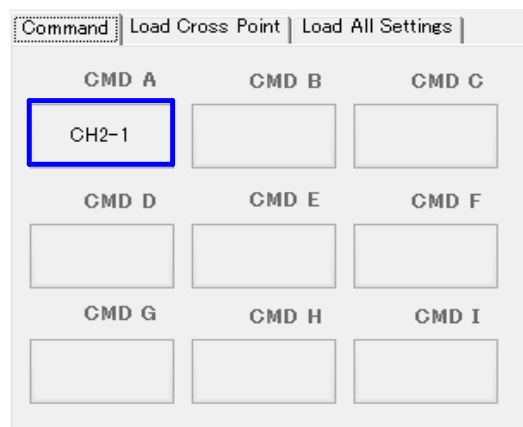
- (3) Check if the settings are applied correctly.



[Fig. 3.26] Command Link List dialog box (after association)

#### 4. Executing external control command associated with front keys of the MSD.

On the **Command** tab, select the command button you want to execute.



[Fig. 3.27] Executing external control command (Associated with COMMAND keys)

### 3.6.2 Editing external control commands

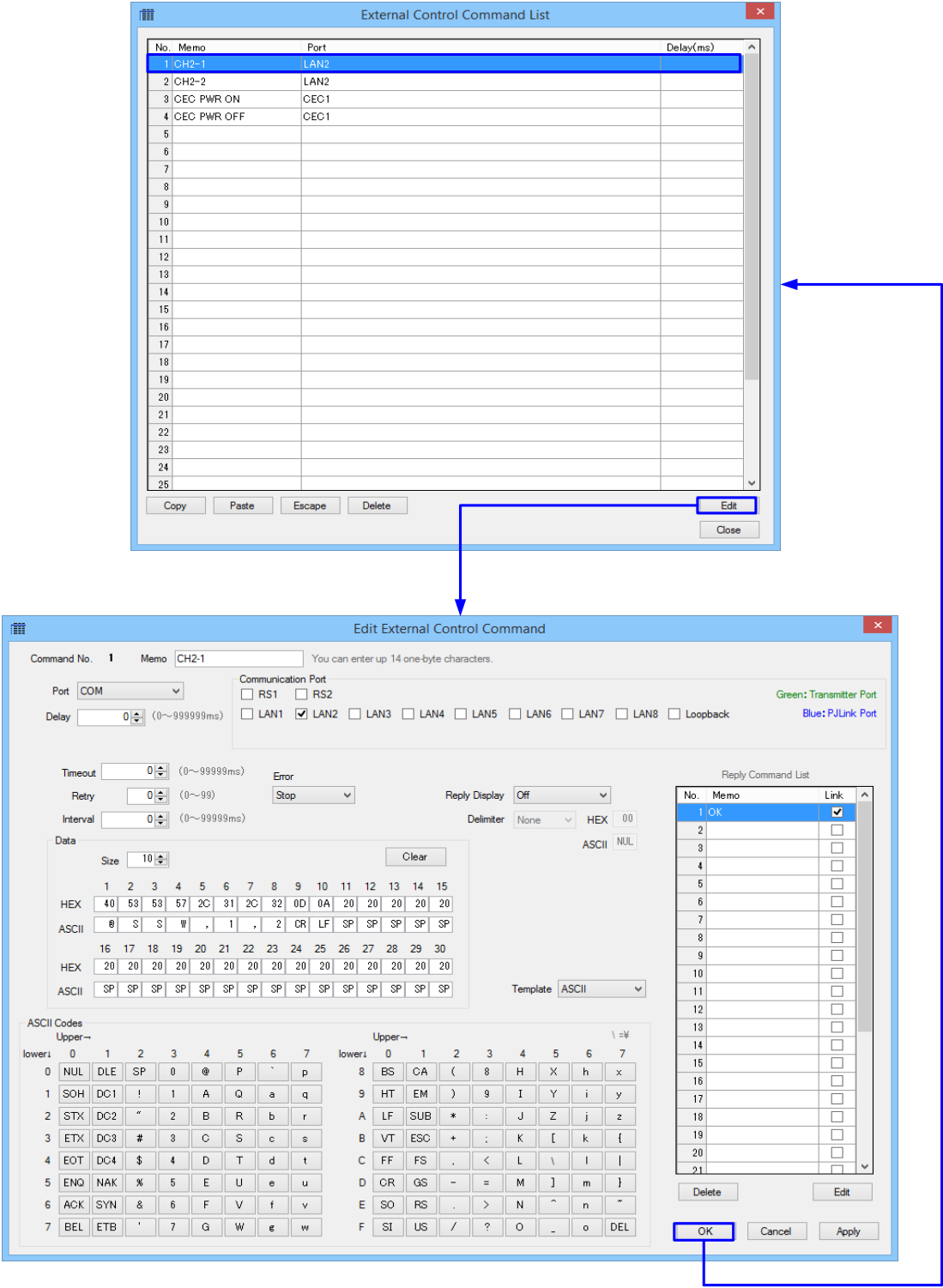
**Menu**

**Command menu > External Control Command**

**Setting**

On **External Control Command List**, select the command you want to edit and click the **Edit** button.

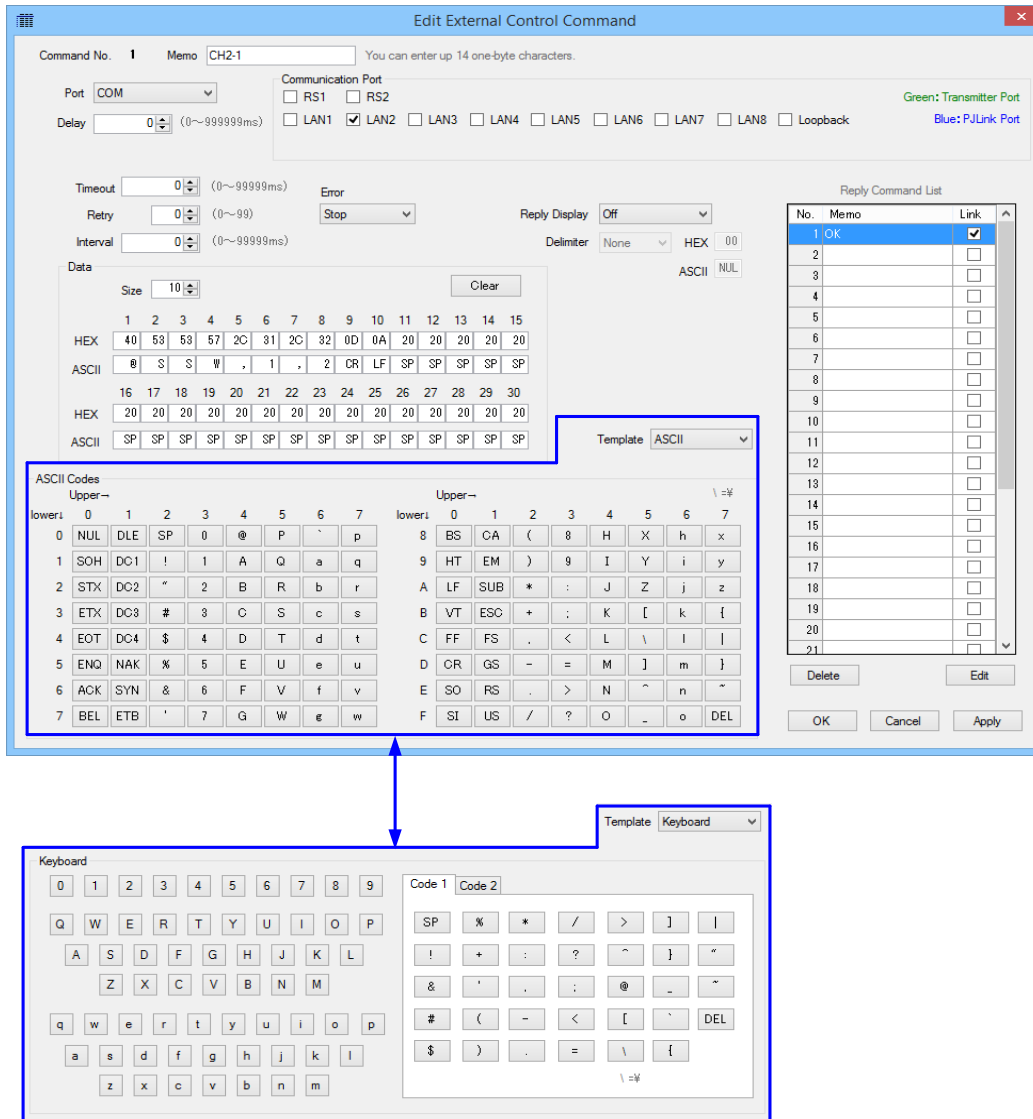
The setting will be applied when you click the **Apply** button.



[Fig. 3.28] Editing external control command

## ■ Editing communication command

On the **Edit External Control Command** dialog box, select **ASCII** or **Keyboard** for **Template**.



[Fig. 3.29] Edit External Control Command dialog box (communication command)

### ■ Editing PJLink command

On the **Edit External Control Command** dialog box, select **PJLink** for **Template** and then select the command you want to edit from the **PJLink Command** list and click the **Add** button.

The dialog box is titled "Edit External Control Command". It contains several sections:

- Command No. 1** and **Memo CH2-1** (with a note: "You can enter up to 14 one-byte characters.").
- Port** dropdown set to **COM**.
- Delay** spinner set to **0** (range: 0~999999ms).
- Communication Port** section with checkboxes for RS1, RS2, LAN1, LAN2 (checked), LAN3, LAN4, LAN5, LAN6, LAN7, LAN8, and Loopback. Legend: Green: Transmitter Port, Blue: PJLink Port.
- Timeout** spinner set to **0** (range: 0~99999ms).
- Retry** spinner set to **0** (range: 0~99).
- Interval** spinner set to **0** (range: 0~99999ms).
- Error** dropdown set to **Stop**.
- Reply Display** dropdown set to **Off**.
- Delimiter** dropdown set to **None**, with **HEX** (00) and **ASCII** (NUL) options.
- Data** section with **Size** spinner set to **10** and a **Clear** button. It contains a table for data entry:

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
HEX	40	53	53	57	2C	31	2C	32	0D	0A	20	20	20	20	20
ASCII	@	S	S	W	,	1	,	2	CR	LF	SP	SP	SP	SP	SP

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
HEX	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
ASCII	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP

- Template** dropdown set to **PJLink**.
- PJLink Command** list:
 

No.	PJLink Command
1	POWER OFF
2	POWER ON
3	POWER STATUS
4	INPUT RGB1
5	INPUT RGB2
6	INPUT RGB3
7	INPUT RGB4
8	INPUT RGB5
9	INPUT RGB6
10	INPUT RGB7
- Add** button.
- Reply Command List** table:
 

No.	Memo	Link
1	OK	<input checked="" type="checkbox"/>
2		<input type="checkbox"/>
3		<input type="checkbox"/>
4		<input type="checkbox"/>
5		<input type="checkbox"/>
6		<input type="checkbox"/>
7		<input type="checkbox"/>
8		<input type="checkbox"/>
9		<input type="checkbox"/>
10		<input type="checkbox"/>
11		<input type="checkbox"/>
12		<input type="checkbox"/>
13		<input type="checkbox"/>
14		<input type="checkbox"/>
15		<input type="checkbox"/>
16		<input type="checkbox"/>
17		<input type="checkbox"/>
18		<input type="checkbox"/>
19		<input type="checkbox"/>
20		<input type="checkbox"/>
21		<input type="checkbox"/>
- Delete**, **Edit**, **OK**, **Cancel**, and **Apply** buttons.

[Fig. 3.30] Edit External Control Command dialog box (PJLink command)

## ■ Editing manufacturer command

On the **Edit External Control Command** dialog box, select **Manufacturer** for **Template** and then select the command you want to edit from the manufacturer command list and click the **Add** button.

The dialog box is titled "Edit External Control Command". It contains several sections:

- Command No. 1** and **Memo** CH2-1. A note says "You can enter up to 14 one-byte characters."
- Port** COM (dropdown). **Delay** 0 (0~999999ms).
- Communication Port** section with checkboxes for RS1, RS2, LAN1, LAN2 (checked), LAN3, LAN4, LAN5, LAN6, LAN7, LAN8, and Loopback. Notes: "Green: Transmitter Port", "Blue: PJLink Port".
- Timeout** 0 (0~999999ms), **Retry** 0 (0~99), **Interval** 0 (0~999999ms).
- Error** Stop (dropdown), **Reply Display** Off (dropdown), **Delimiter** None (dropdown), **HEX** 00, **ASCII** NUL.
- Data** section with **Size** 10 and a **Clear** button. It shows a grid for HEX and ASCII values.
- Template** dropdown set to **Manufacturer**.
- Manufacturer** list:
 

No.	Manufacturer
1	BenQ
2	Canon
3	CASIO
4	CHRISTIE
5	EPSON
6	HITACHI
7	MITSUBISHI
8	NEC
9	Panasonic-1
10	Panasonic-2
11	Panasonic-3
12	Panasonic-4
13	Panasonic-5
14	Panasonic-6
15	Panasonic-7
16	Panasonic-8
17	Panasonic-9
18	Panasonic-10
19	Panasonic-11
20	Panasonic-12
21	Panasonic-13
22	Panasonic-14
23	Panasonic-15
24	Panasonic-16
25	Panasonic-17
26	Panasonic-18
27	Panasonic-19
28	Panasonic-20
29	Panasonic-21
30	Panasonic-22
31	Panasonic-23
32	Panasonic-24
33	Panasonic-25
34	Panasonic-26
35	Panasonic-27
36	Panasonic-28
37	Panasonic-29
38	Panasonic-30
39	Panasonic-31
40	Panasonic-32
41	Panasonic-33
42	Panasonic-34
43	Panasonic-35
44	Panasonic-36
45	Panasonic-37
46	Panasonic-38
47	Panasonic-39
48	Panasonic-40
49	Panasonic-41
50	Panasonic-42
51	Panasonic-43
52	Panasonic-44
53	Panasonic-45
54	Panasonic-46
55	Panasonic-47
56	Panasonic-48
57	Panasonic-49
58	Panasonic-50
59	Panasonic-51
60	Panasonic-52
61	Panasonic-53
62	Panasonic-54
63	Panasonic-55
64	Panasonic-56
65	Panasonic-57
66	Panasonic-58
67	Panasonic-59
68	Panasonic-60
69	Panasonic-61
70	Panasonic-62
71	Panasonic-63
72	Panasonic-64
73	Panasonic-65
74	Panasonic-66
75	Panasonic-67
76	Panasonic-68
77	Panasonic-69
78	Panasonic-70
79	Panasonic-71
80	Panasonic-72
81	Panasonic-73
82	Panasonic-74
83	Panasonic-75
84	Panasonic-76
85	Panasonic-77
86	Panasonic-78
87	Panasonic-79
88	Panasonic-80
89	Panasonic-81
90	Panasonic-82
91	Panasonic-83
92	Panasonic-84
93	Panasonic-85
94	Panasonic-86
95	Panasonic-87
96	Panasonic-88
97	Panasonic-89
98	Panasonic-90
99	Panasonic-91
100	Panasonic-92
101	Panasonic-93
102	Panasonic-94
103	Panasonic-95
104	Panasonic-96
105	Panasonic-97
106	Panasonic-98
107	Panasonic-99
108	Panasonic-100
- Command** list:
 

No.	Command
1	POWER ON
2	POWER OFF
- Add** button.
- Reply Command List** table:
 

No.	Memo	Link
1	OK	<input checked="" type="checkbox"/>
2		<input type="checkbox"/>
3		<input type="checkbox"/>
4		<input type="checkbox"/>
5		<input type="checkbox"/>
6		<input type="checkbox"/>
7		<input type="checkbox"/>
8		<input type="checkbox"/>
9		<input type="checkbox"/>
10		<input type="checkbox"/>
11		<input type="checkbox"/>
12		<input type="checkbox"/>
13		<input type="checkbox"/>
14		<input type="checkbox"/>
15		<input type="checkbox"/>
16		<input type="checkbox"/>
17		<input type="checkbox"/>
18		<input type="checkbox"/>
19		<input type="checkbox"/>
20		<input type="checkbox"/>
21		<input type="checkbox"/>
- Delete**, **Edit**, **OK**, **Cancel**, **Apply** buttons.

[Fig. 3.31] Edit External Control Command dialog box (manufacturer command)

### ■ Editing tally output command

On the **Edit External Control Command** dialog box, select **Tally** for **Port**.

The dialog box titled "Edit External Control Command" has a close button (X) in the top right corner. It contains the following fields and controls:

- Command No.:** 1
- Memo:** A text input field with a placeholder "You can enter up to 14 one-byte characters."
- Port:** A dropdown menu set to "Tally".
- Delay:** A numeric input field set to 0, with a range of "(0~999999ms)".
- Pin No.:** A list of pins: 22, 23, 24, 47, 48, 49. Each pin has a dropdown menu set to "--".
- Pulse:** A list of pulse values: 0, 0, 0, 0, 0, 0. Each value is followed by "ms" and a range "100~9990ms (10ms Step)".
- Set "Pulse" to "0" ms to keep On or Off state**
- Buttons:** OK, Cancel, and Apply.

[Fig. 3.32] Edit External Control Command dialog box (tally output command)

### Note:

MSD-804FD / MSD-501 / MSD-502 / MSD-701 / MSD-702 do not support the tally output command.

### ■ Editing HDMI CEC command

On the **Edit External Control Command** dialog box, select **CEC** for **Port**.

The dialog box titled "Edit External Control Command" has a close button (X) in the top right corner. It contains the following fields and controls:

- Command No.:** 1
- Memo:** A text input field with a placeholder "You can enter up to 14 one-byte characters."
- Port:** A dropdown menu set to "CEC".
- Delay:** A numeric input field set to 0, with a range of "(0~999999ms)".
- CEC Error:** Two radio buttons: "Exec" (selected) and "Stop".
- Power Control:** A section containing four dropdown menus: OUT1, OUT2, OUT3, and OUT4, each set to "--".
- Buttons:** OK, Cancel, and Apply.

[Fig. 3.33] Edit External Control Command dialog box (HDMI CEC command)

### 3.6.3 Editing reply command

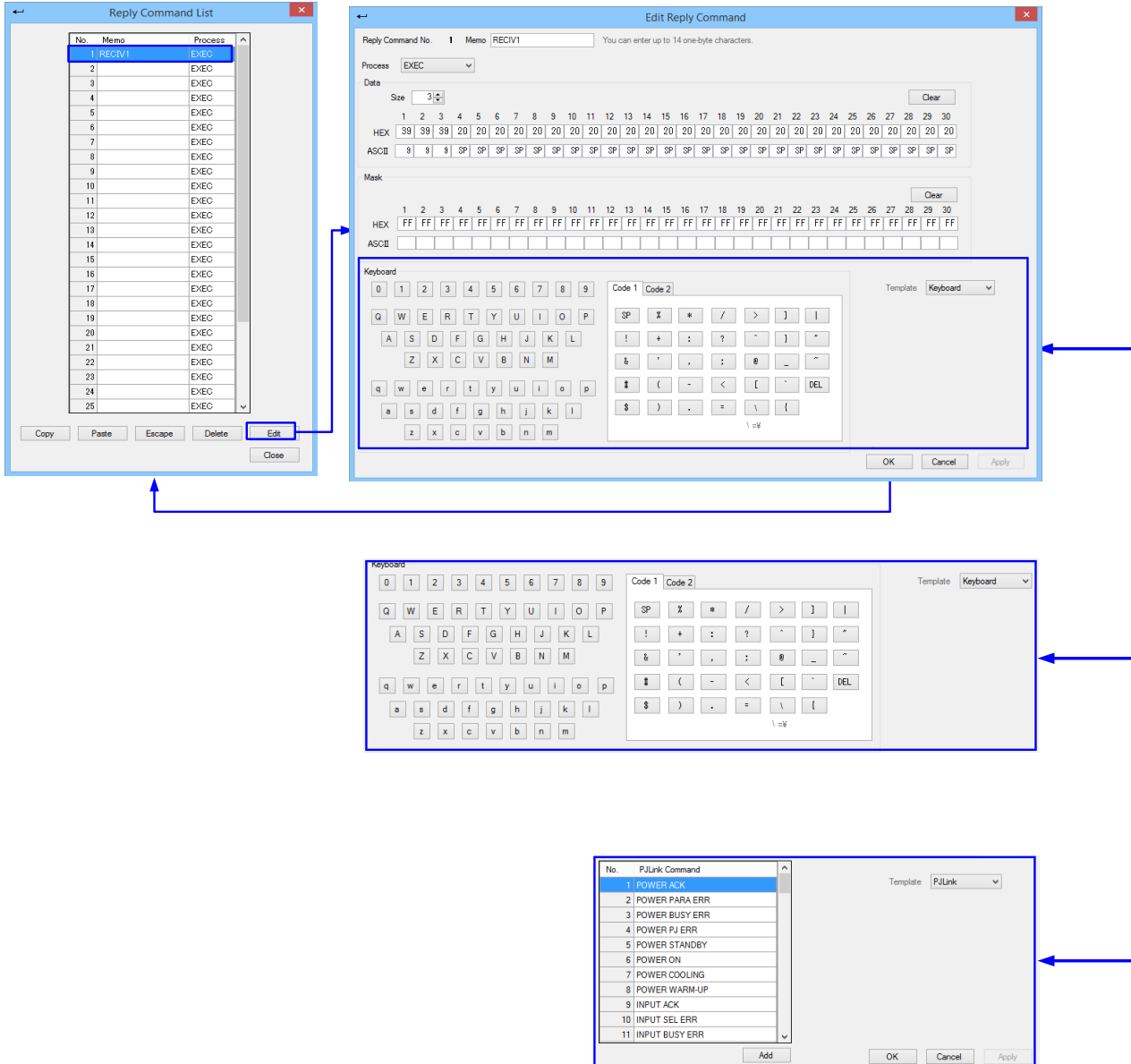
#### Menu

**Command menu > Reply Command**

#### Setting

On **Reply Command List**, select the command you want to edit and click the **Edit** button.

The setting will be applied automatically when you click the **Apply** button.



[Fig. 3.34] Edit Reply Command

### 3.6.4 Associating external control command with MSD

#### Menu

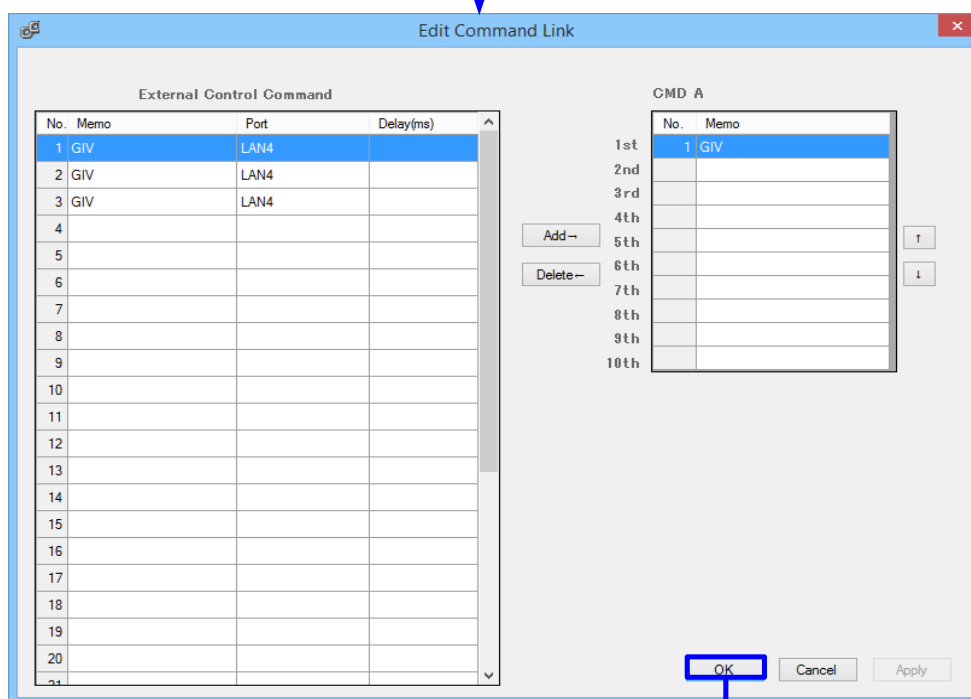
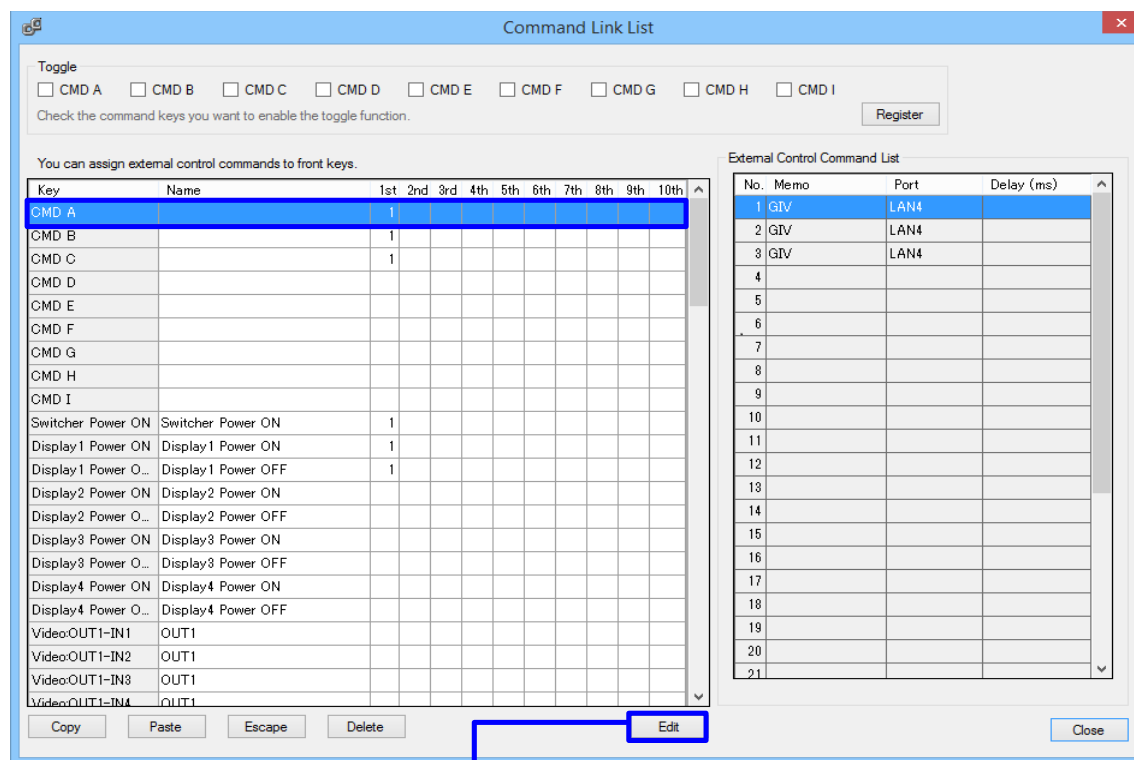
**Command menu > Command Link**

#### Setting

On the left list of the **Command Link List** dialog box, select the command you want to edit and click the **Edit** button.

The setting will be applied when you click the **Apply** button.

【See : 3.6.1 (P.32)】



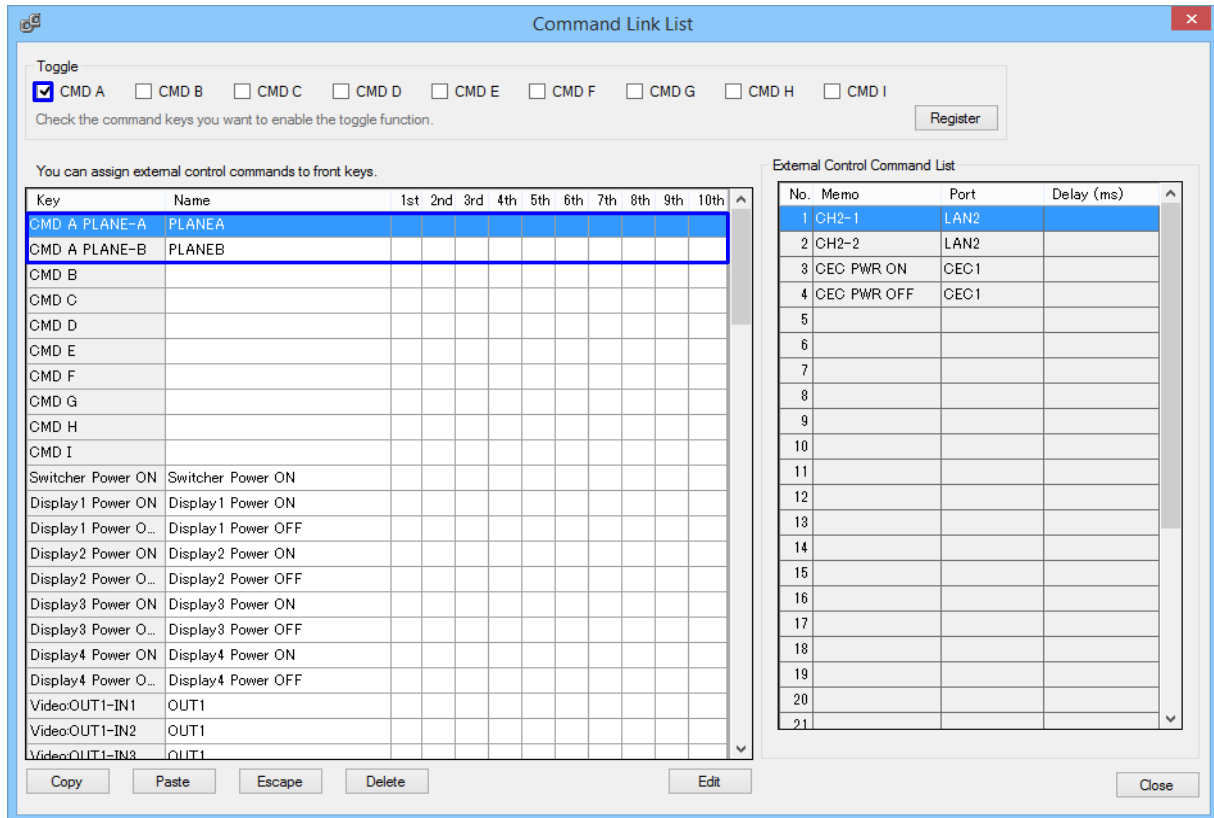
[Fig. 3.35] Edit Reply Command

### ■ Enabling toggle function for COMMAND key

This function allows you to turn on/off external devices by just clicking a button.

On the **Toggle** area of the **Command Link List** dialog box, select the COMMAND key for which you want to set the toggle function and click the **Register** button.

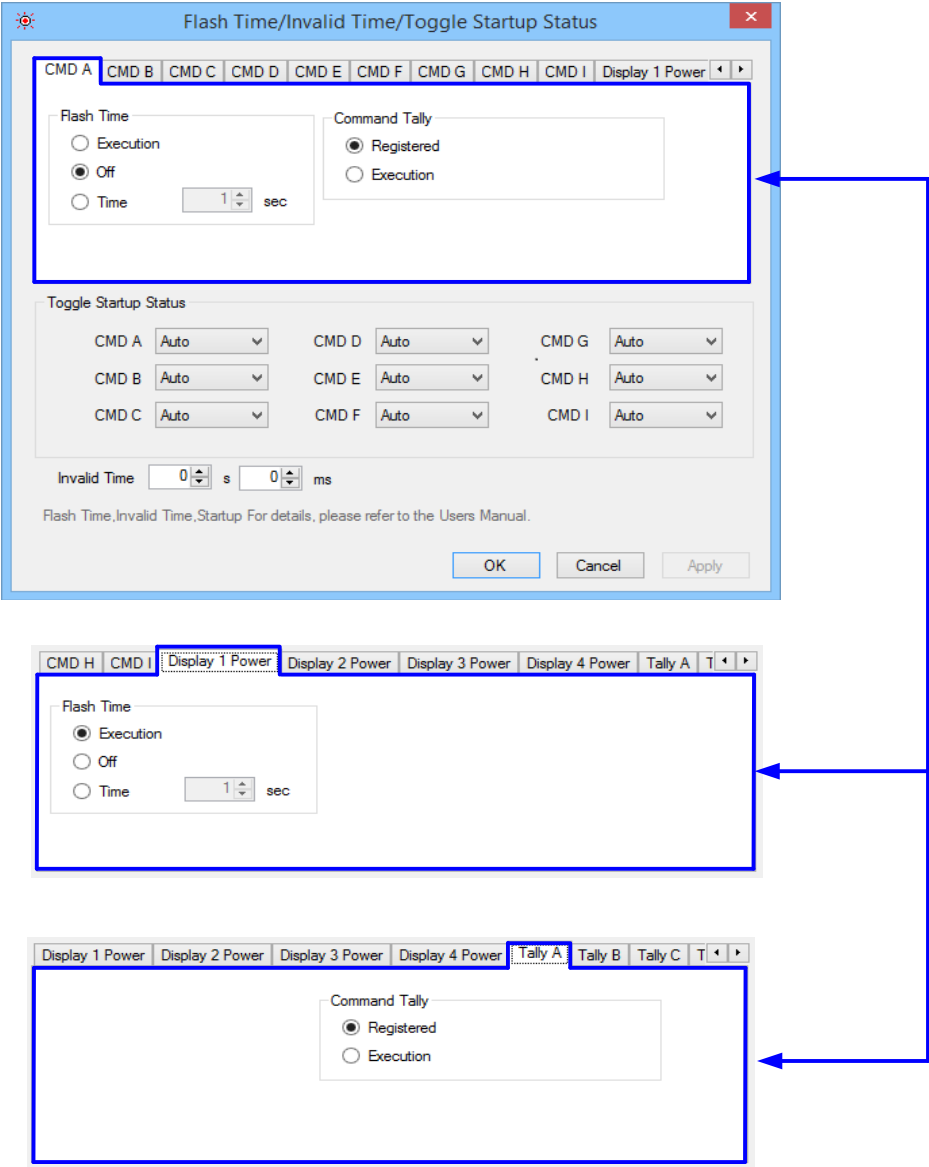
The setting will be applied to **External Command Link List** when you click the **Register** button.



[Fig. 3.36] Command Link List dialog box (toggle function is enabled.)

3.6.5 Setting keys and execution plane

**Menu**      **Command menu > Flash Time/Invalid Time/Toggle Startup Status**  
**Setting**    Setting the following items for DISPLAY POWER keys and COMMAND keys: Flashing time/  
                 lighting condition and the plane to be executed at start-up.  
                 The setting will be applied when you click the **Apply** button.



[Fig. 3.37] Flash Time/Invalid Time/Toggle Startup Status dialog box

## 3.7 Setting parallel/tally

---

[Table 3.5] Setting parallel/tally

Menu item of MSD	Setup screen
FUNCTION ASSIGN	Assigning function (P.46)
PARALLEL INITIALIZE	Initializing function assignment (P.47)
TALLY INITIALIZE	
AUDIO VOLUME	Setting parallel (P.47)
ROTARY ENCODER	
LOCK SETTING	
SWITCHING MODE	
CHANNEL TOGGLE	
CHATTERING FILTER	

### 3.7.1 Assigning function to parallel input/ tally output

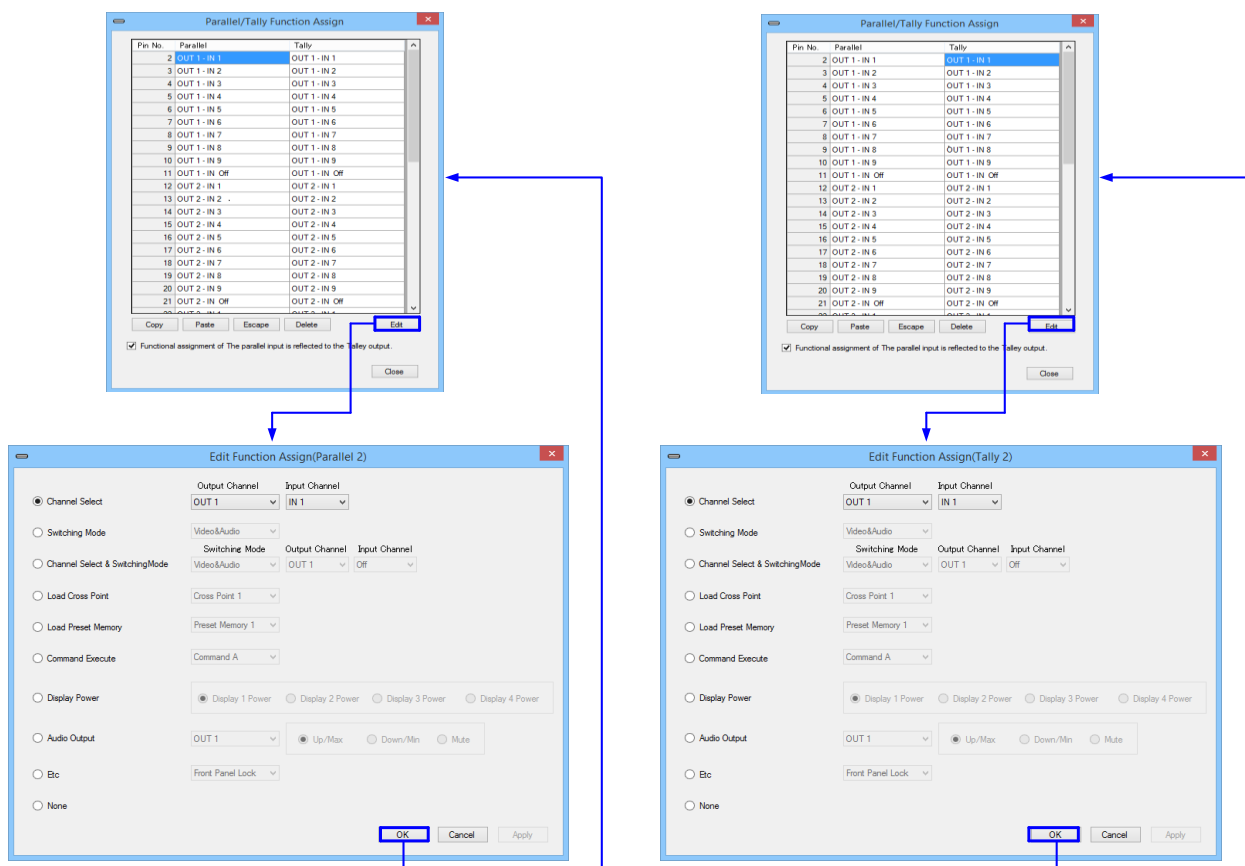
#### Menu

**Parallel/Tally menu > Function Assign**

#### Setting

On the **Parallel/Tally Function Assign** dialog box, select the parallel or tally you want to edit and click the **Edit** button.

The setting will be applied when you click the **Apply** button.



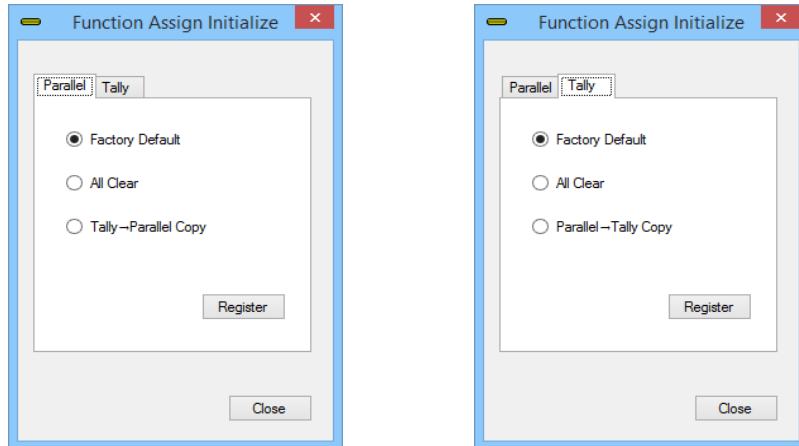
[Fig. 3.38] Editing assignment of parallel and tally functions

#### Note:

MSD-804FD / MSD-501 / MSD-502 / MSD-701 / MSD-702 do not support this function.

### 3.7.2 Initializing assignment of parallel input/tally output

Menu	<b>Parallel/Tally menu &gt; Function Assign Initialize</b>
Setting	On the <b>Function Assign Initialize</b> dialog box, select <b>Factory Default</b> .



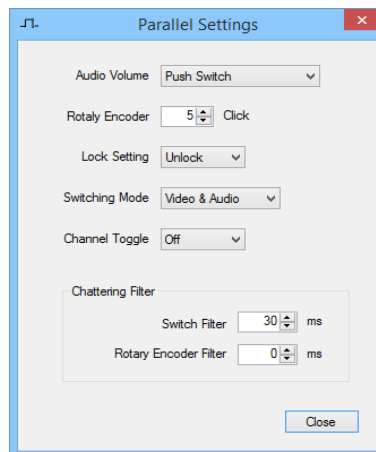
[Fig. 3.39] Function Assign Initialize dialog box

**Note:**

MSD-804FD / MSD-501 / MSD-502 / MSD-701 / MSD-702 do not support this function.

### 3.7.3 Setting parallel input

Menu	<b>Parallel/Tally menu &gt; Parallel Settings</b>
Setting	On the <b>Parallel Settings</b> dialog box, set the parallel input. The setting will be applied automatically when each value is set.



[Fig. 3.40] Parallel Settings dialog box

**Note:**

MSD-804FD / MSD-501 / MSD-502 / MSD-701 / MSD-702 do not support this function.

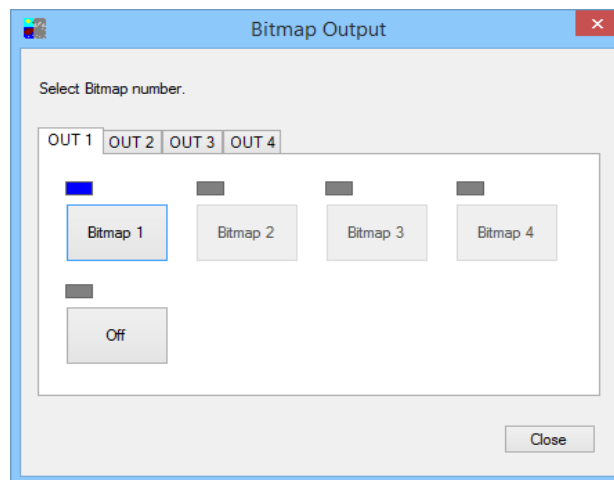
## 3.8 Setting bitmap

[Table 3.6] Setting parallel/tally

Menu item of MSD	Setup screen
BITMAP OUTPUT	Outputting bitmap (P.48)
DIVIDE MEMORY	Setting bitmap (P.49)
BACK GROUND COLOR	
ASPECT	
POSITION	
CHANNEL ASSIGN	
POWER ON BITMAP	
VIDEO CAPTURE	Capturing input image (P.54)

### 3.8.1 Outputting bitmap

**Menu**      **Bitmap menu > Bitmap Output**  
**Setting**    Select the bitmap number you want to output.

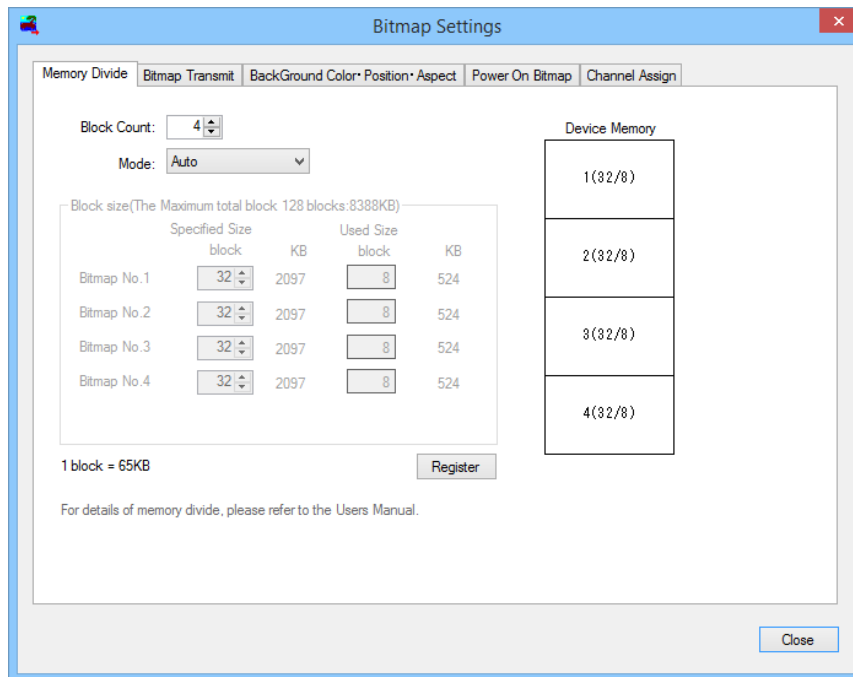


[Fig. 3.41] Bitmap Output dialog box

### 3.8.2 Dividing memory area for bitmap of MSD

Menu  
Setting

**Bitmap menu > Bitmap Settings > Memory Divide tab**  
Dividing memory area for bitmap (up to four parts, quarters).



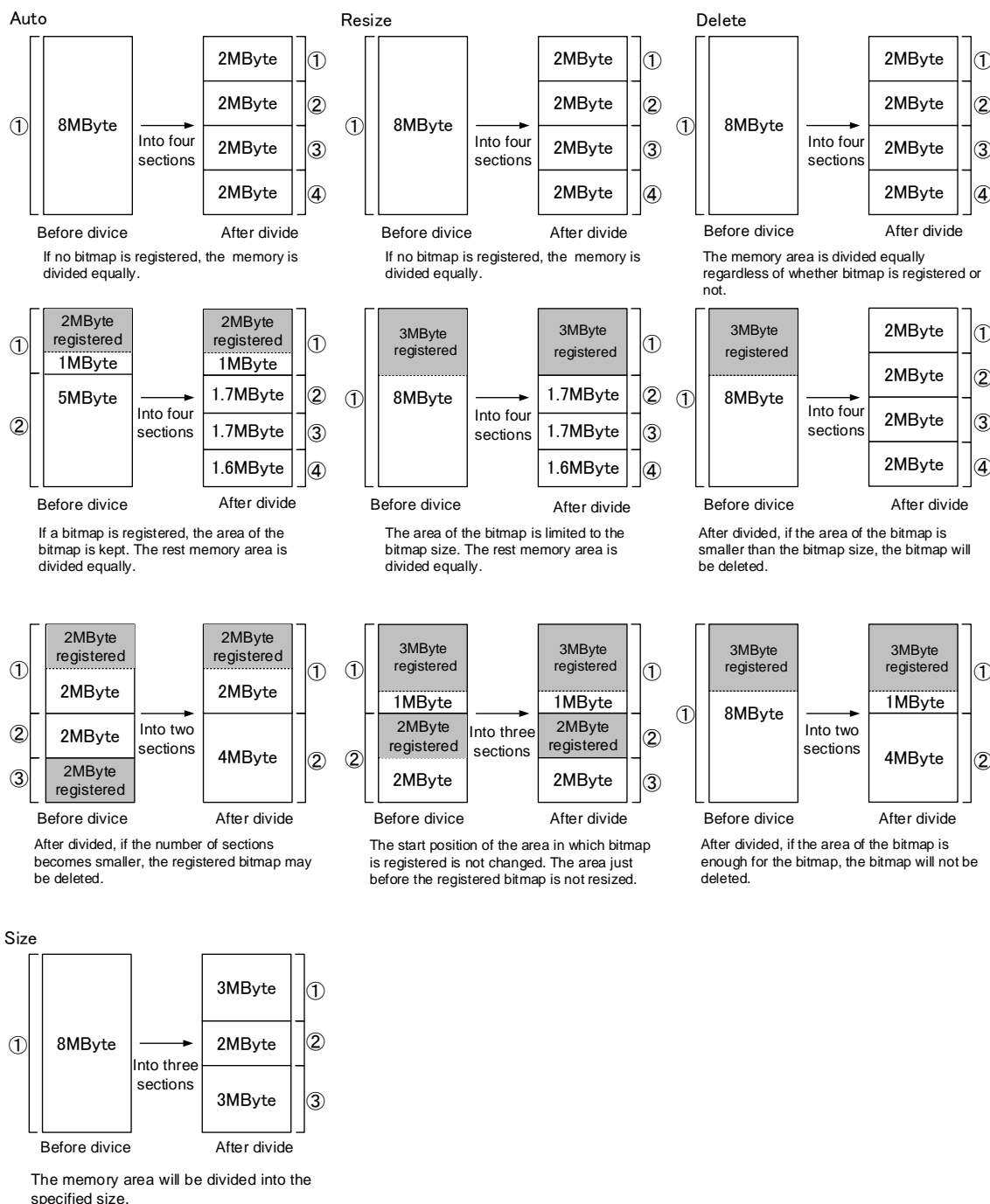
**[Fig. 3.42] Bitmap Setting dialog box (dividing memory area)**

## ■ The number of partitions and dividing mode

Dividing modes: Auto, Resize, Delete and Size.

Memory areas are controlled by blocks. 1 block = 65,536 bytes; 128 blocks = 8,388,608 bytes in total.

If you select **Size**, you can directly specify the number of partitions and after-divide size from the maximum total block size (128 blocks).



[Fig. 3.43] Memory division and divide mode

### 3.8.3 Transferring bitmap to MSD bitmap memory

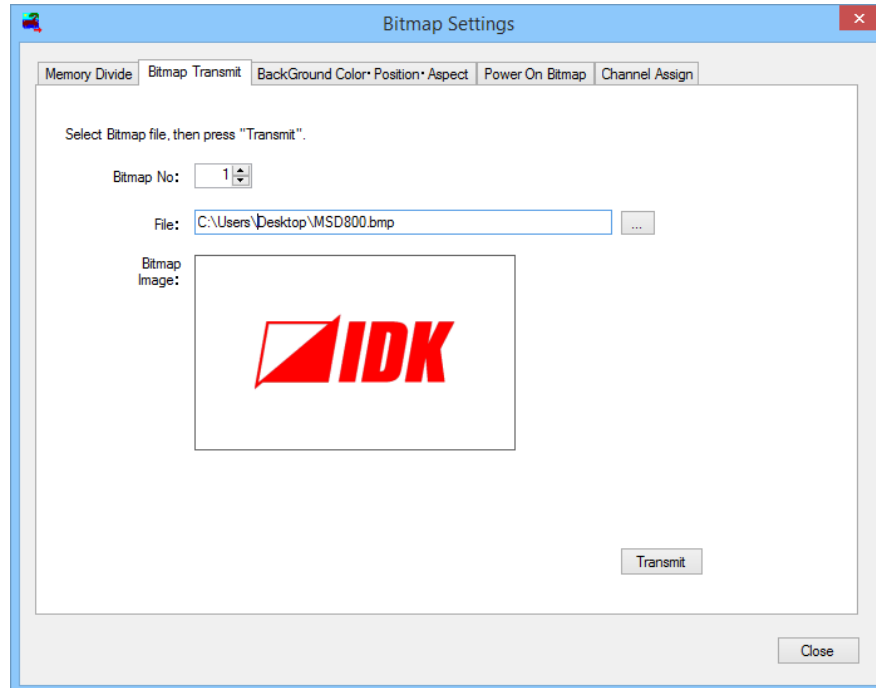
Menu  
Setting

**Bitmap menu > Bitmap Settings > Bitmap Transmit tab**

Select the bitmap number you want to transfer to the memory for bitmap in the MSD.

You can register bitmaps up to the number of partitions set in the **Memory Divide** tab.

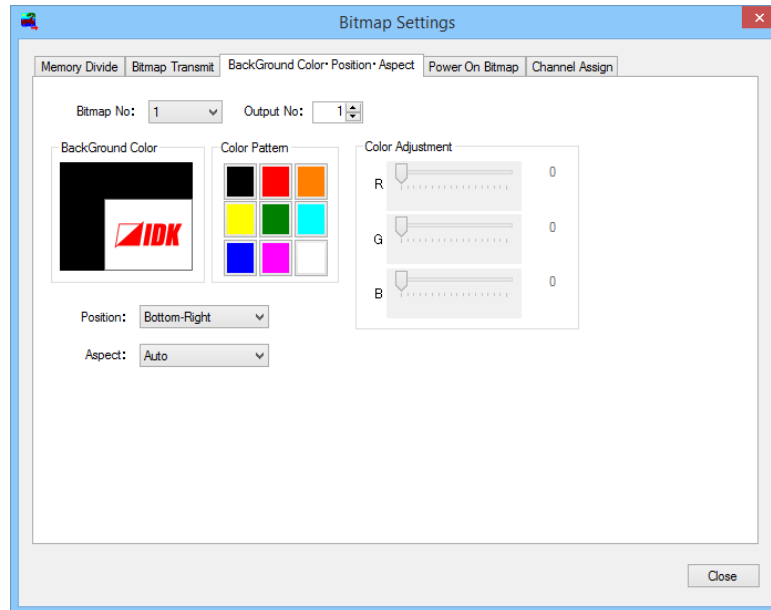
【See : 3.8.2 (P.49) 】



[Fig. 3.44] Bitmap Settings dialog box (bitmap transfer)

### 3.8.4 Setting bitmap display

Menu	<b>Bitmap menu &gt; Bitmap Settings &gt; Background Color /Position/Aspect tab</b>
Setting	Background color, display position, and aspect ratio of the registered bitmap. The setting will be applied automatically when each value is set.



[Fig. 3.45] Bitmap Settings dialog box (Background Color /Position/Aspect)

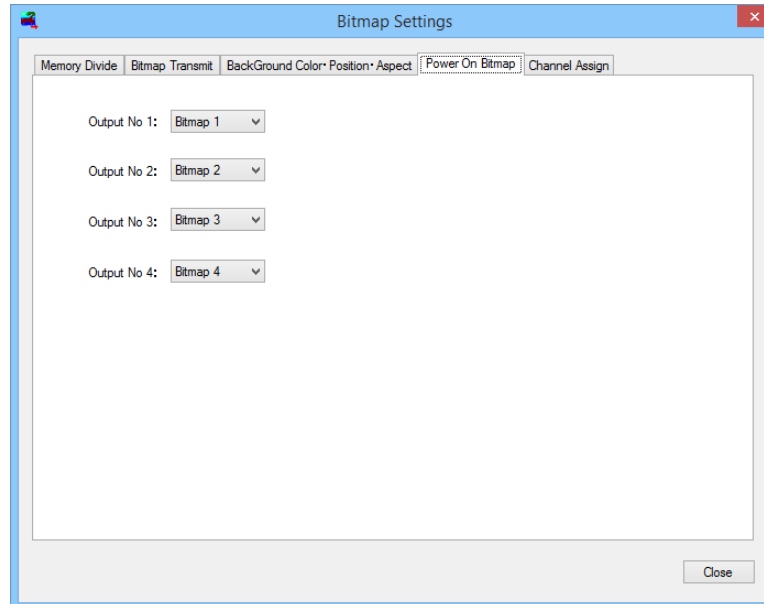
**Note:**

The IDK logo displayed on **Background Color** is a sample image. The image differs from the bitmap displayed on the sink device.

### 3.8.5 Setting bitmap output at start-up of MSD

**Menu****Bitmap menu > Bitmap Settings > Power On Bitmap tab****Setting**On the **Power On Bitmap** tab, select the bitmap to be output.

The setting will be applied automatically when each value is set.



[Fig. 3.46] Bitmap Settings dialog box (outputting bitmap at start-up)

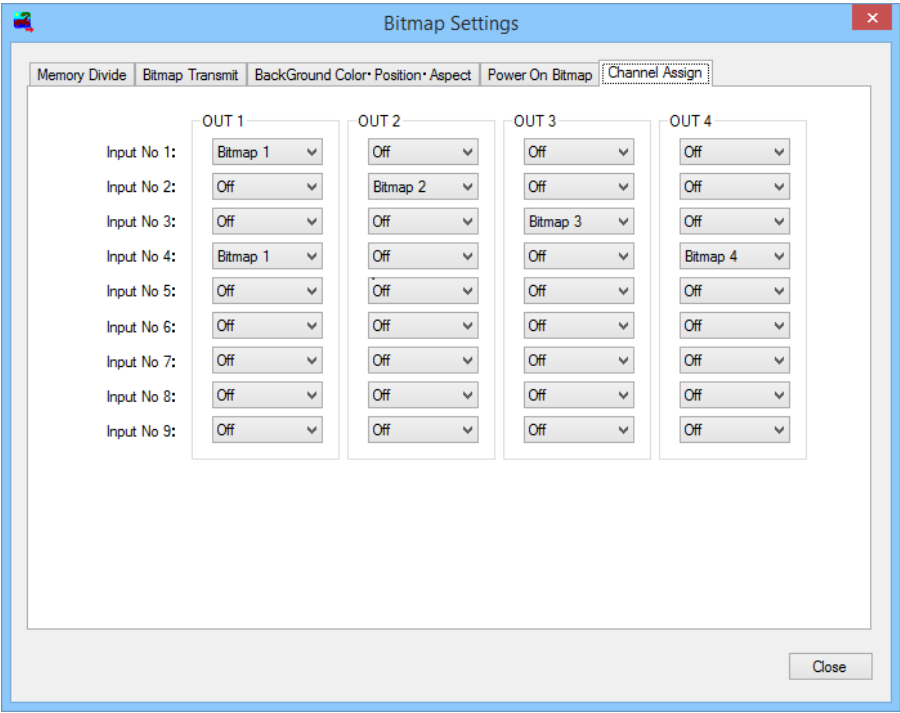
### 3.8.6 Assigning bitmap to input channel

- Menu

Setting
- Bitmap menu > Bitmap Settings > Channel Assign tab**

On the **Channel Assign** tab, select the bitmap number and assign the registered bitmap to the desired input channel.

The setting will be applied automatically when each value is set.



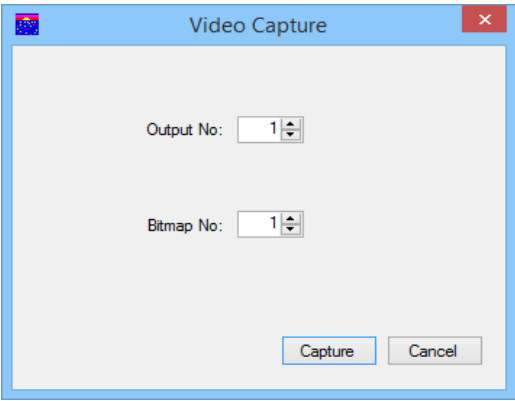
[Fig. 3.47] Bitmap Settings dialog box (assigning input channel)

### 3.8.7 Capturing input image

- Menu

Setting
- Bitmap menu > Video Capture**

On the **Video Capture** dialog box, select the output channel number you want to capture and specify the destination bitmap number.



[Fig. 3.48] Video Capture dialog box

## 3.9 Setting MSD

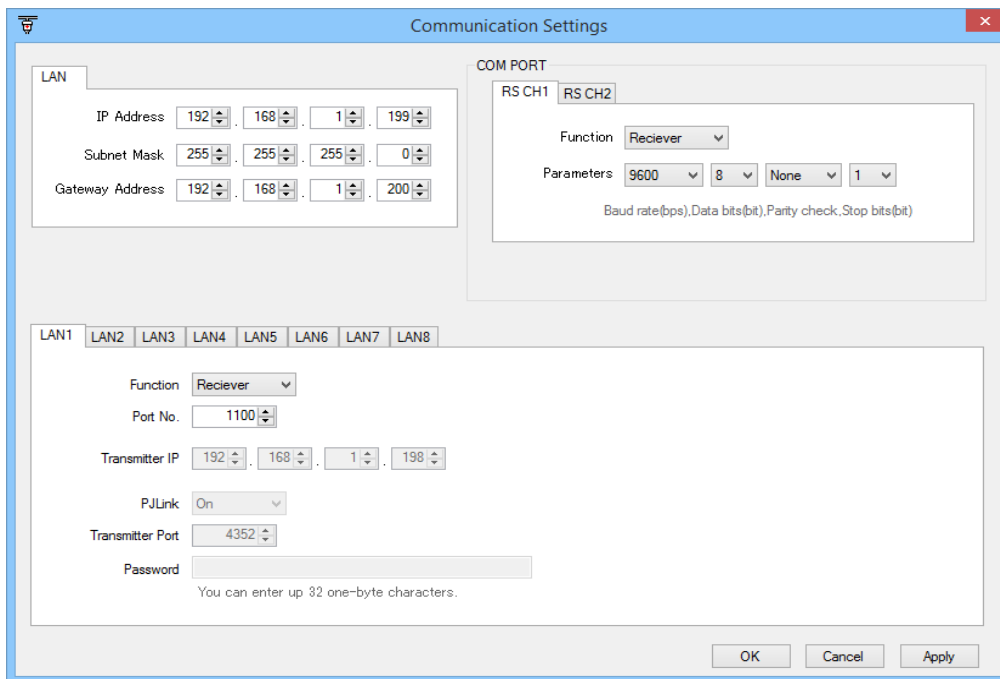
[Table 3.7] MSD settings

Menu item of MSD	Setup screen
COM PORT	Setting communication (P.55)
LAN	
KEY LOCK MODE	Key lock//buzzer sound (P.56)
BUZZER	

### 3.9.1 Setting communication of MSD

**Menu**      **Main Unit Settings** menu > **Communication Settings**

**Setting**    To control an external device from the MSD, select **Transmitter** for **Function**.  
 To control the MSD from a PC (or the like), select **Receiver** for **Function**.  
 To use PJLink, select **On** for **PJLink**.  
 The setting will be applied when you click the **Apply** button.



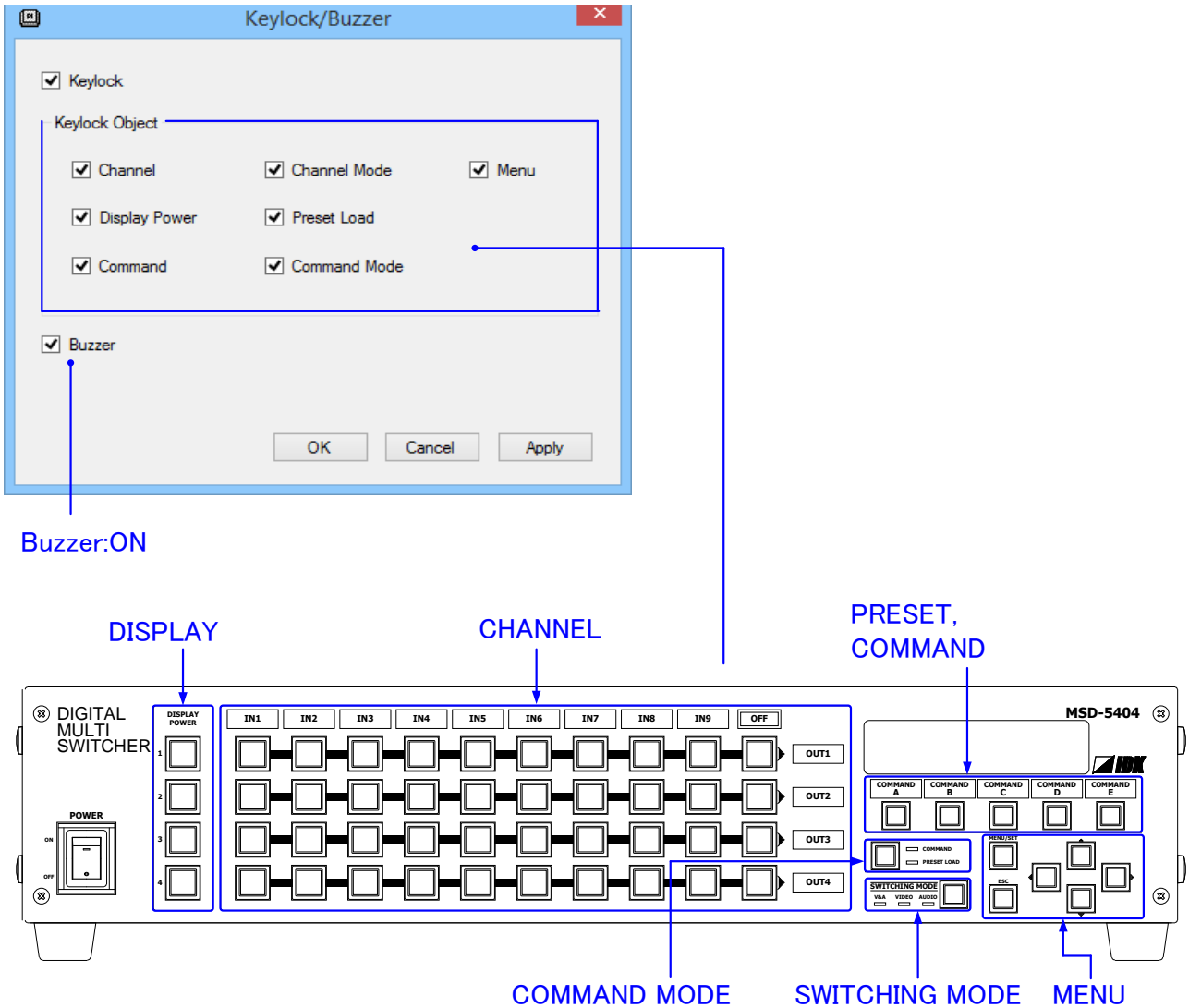
[Fig. 3.49] Communication Settings dialog box

### 3.9.2 Setting key lock and buzzer of MSD

- Menu

Setting
- Main Unit Settings > Keylock/Buzzer

On the **Keylock/Buzzer** dialog box, set the keylock and buzzer sound.  
The setting will be applied when you click the **Apply** button.



[Fig. 3.50] Keylock/Buzzer dialog box

## 3.10 Setting backup/restore

Restoring and backing up the settings of the MSD to a PC

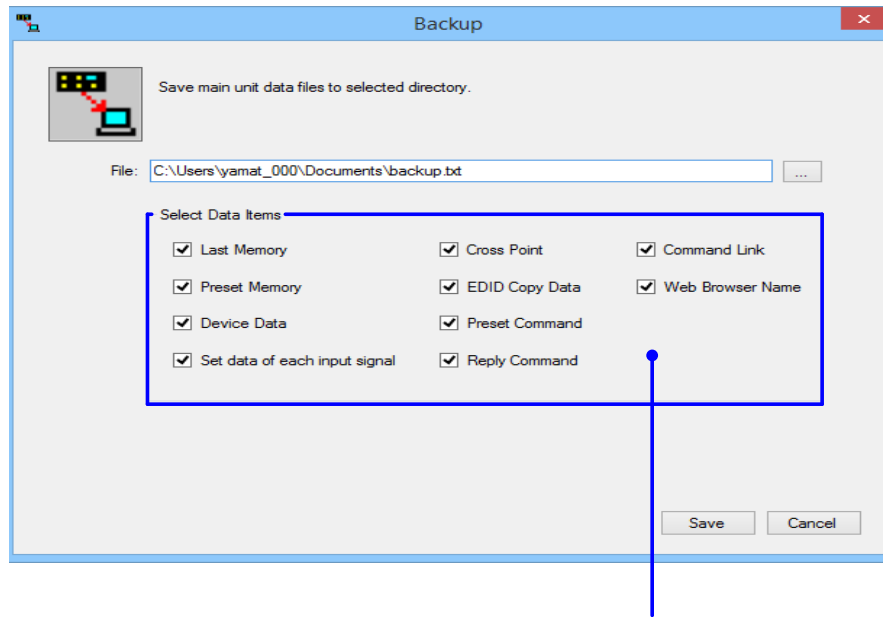
### 3.10.1 Backing up the setting of MSD to a PC

Menu

**Main Unit Data menu > Backup**

Setting

On the **Backup** dialog box, select items you want to back up.



Select items you want to back up.

[Fig. 3.51] Backup dialog box

**Note:**

Backup/restore between different models (for example, MSD5401 and MSD701) cannot be done. If the model is the same (for example, MSD5401 and MSD5401) but these firmware versions are not the same, settings may not be backed up/restored from the new firmware version to the old firmware version.

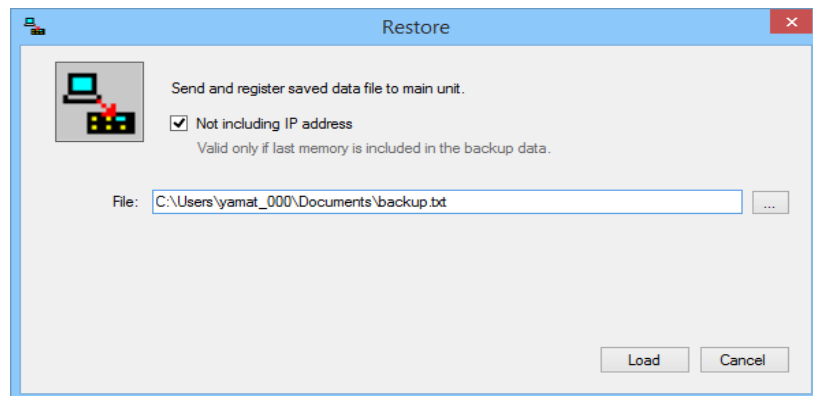
【See : 3.10.2 (P.58) 】

【See : 3.11.6 (P.64) 】

### 3.10.2 Restoring backed up data saved on PC to MSD

Menu

Main Unit Data menu > Restore



[Fig. 3.52] Restore dialog box

**Note:**

Backup/restore between different models (for example, MSD5401 and MSD701) cannot be done. If the model is the same (for example, MSD5401 and MSD5401) but these firmware versions are not the same, settings may not be backed up/restored from the new firmware version to the old firmware version.

【See : 3.10.1 (P.57) 】

【See : 3.11.6 (P.64) 】

### 3.11 Other settings

Settings of the program do not affect the MSD.

#### 3.11.1 Setting buttons of main panel

Menu

Tools menu > Edit Button Settings

Setting

Title of **Main Panel**, button names, displaying/not displaying each button.

Edit Button Settings

Title

Main Panel

Up to 30 half-width characters.

Command/Cross Point/All Settings

Input/Output

Command

PLANE-A

PLANE-B

CMD A

CMD1

☒ Display

CMD F

☒ Display

CMD B

☒ Display

CMD G

☒ Display

CMD C

☒ Display

CMD H

☒ Display

CMD D

☒ Display

CMD I

☒ Display

CMD E

☒ Display

Cross Point

Cross Point 1

☒ Display

Cross Point 2

☒ Display

Cross Point 3

☒ Display

Cross Point 4

☒ Display

Cross Point 5

☒ Display

Cross Point 6

☒ Display

Cross Point 7

☒ Display

Cross Point 8

☒ Display

Cross Point 9

☒ Display

All Settings

Preset 1

☒ Display

Preset 2

☒ Display

Preset 3

☒ Display

Preset 4

☒ Display

Preset 5

☒ Display

Preset 6

☒ Display

Preset 7

☒ Display

Preset 8

☒ Display

You can enter up to 6 one-byte characters in each field (up to 12 one-byte in total).

OK

Cancel

Command/Cross Point/All Settings

Input/Output

Input

IN 1

☒ Display

IN 6

☒ Display

IN 2

☒ Display

IN 7

☒ Display

IN 3

☒ Display

IN 8

☒ Display

IN 4

☒ Display

IN 9

☒ Display

IN 5

☒ Display

OFF

☒ Display

Output

OUT1

☒ Display

OUT1 Audio Level

☒ Display

OUT2

☒ Display

OUT2 Audio Level

☒ Display

OUT3

☒ Display

OUT3 Audio Level

☒ Display

OUT4

☒ Display

OUT4 Audio Level

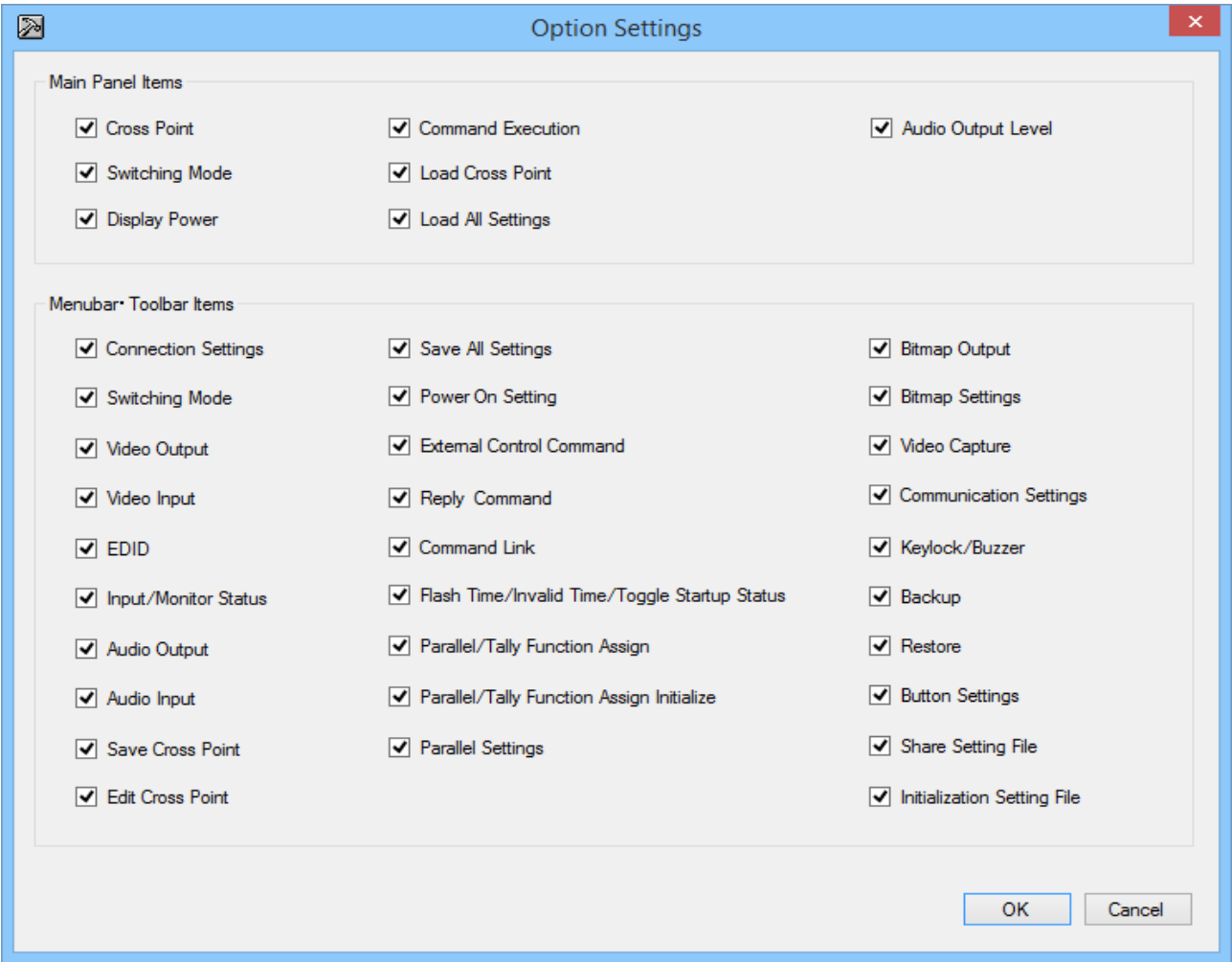
☒ Display

You can enter up to 12 one-byte characters.

[Fig. 3.53] Edit Button Settings dialog box

3.11.2 Setting display items of main panel/ Menu bar

Menu      Tools menu > Option Settings



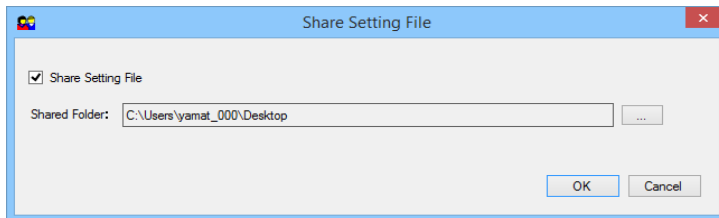
[Fig. 3.54] Option Settings dialog box

### 3.11.3 Sharing setup file

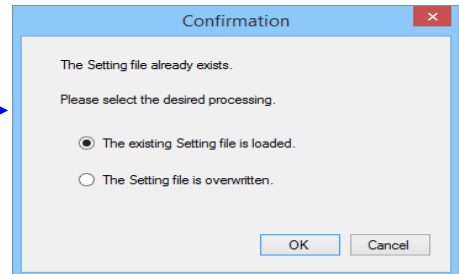
**Menu**      **Tools menu > Share Setting File**

**Setting**      The setup file includes settings of connections, buttons, and options.

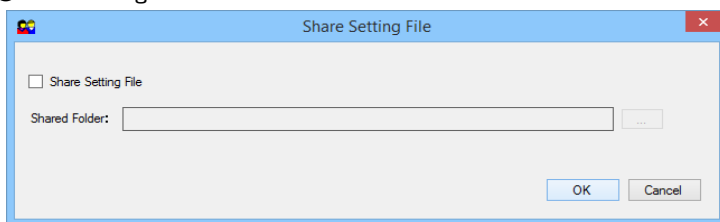
● **Shareing**



● **If there is an existing file.**



● **Not sharing**

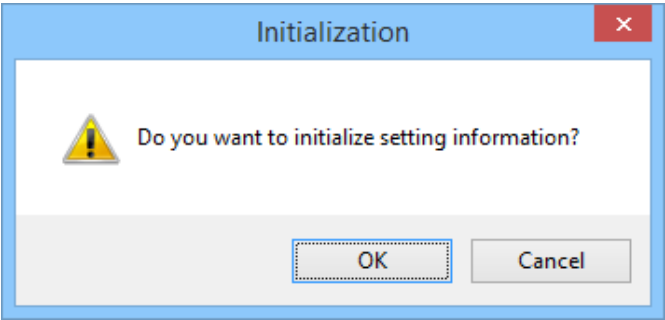


**[Fig. 3.55] Share Setting File dialog box**

The setup file is not deleted even if the program is uninstalled.

3.11.4 Initializing setup file

Menu      Tools menu > Initialization



[Fig. 3.56] Initialization of setup file dialog box

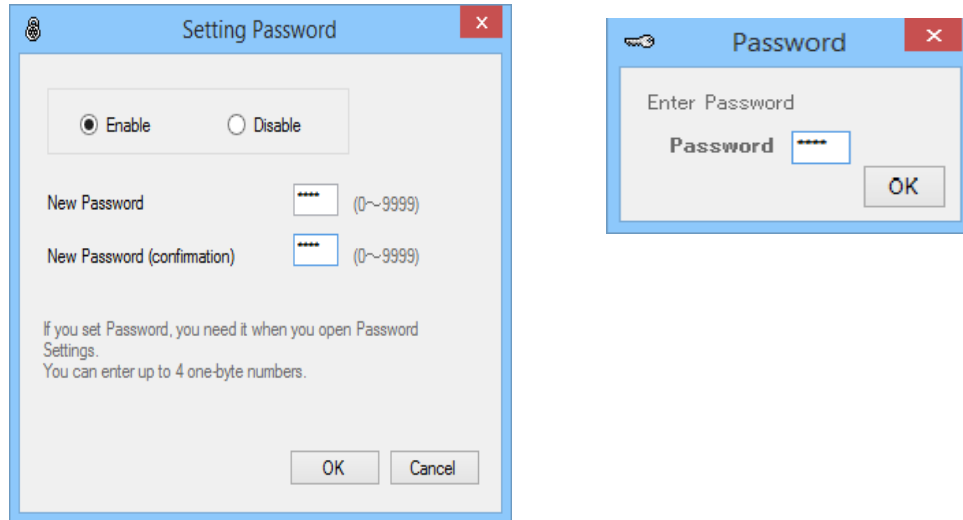
[Table 3.8] Default value of menu

Menu		Default value	Related page
Setting	Button	Title name: main panel Command name : none Cross point name: none Preset memory: none Input channel name: none Output channel name: OUT or Level Display: ticked	59
Tool	Optional	Display items of main panel: all items are ticked. Display items of menu bar and tool bar: all items are ticked.	60
	Sharing setup file	None	61

### 3.11.5 Setting password for menu display

**Menu****Tools menu > Setting Password****Setting**

To enable the authentication function for the **Option Settings** and **Setting Password** dialog box, select **Enable** and enter the password.



[Fig. 3.57] Dialog boxes for setting password

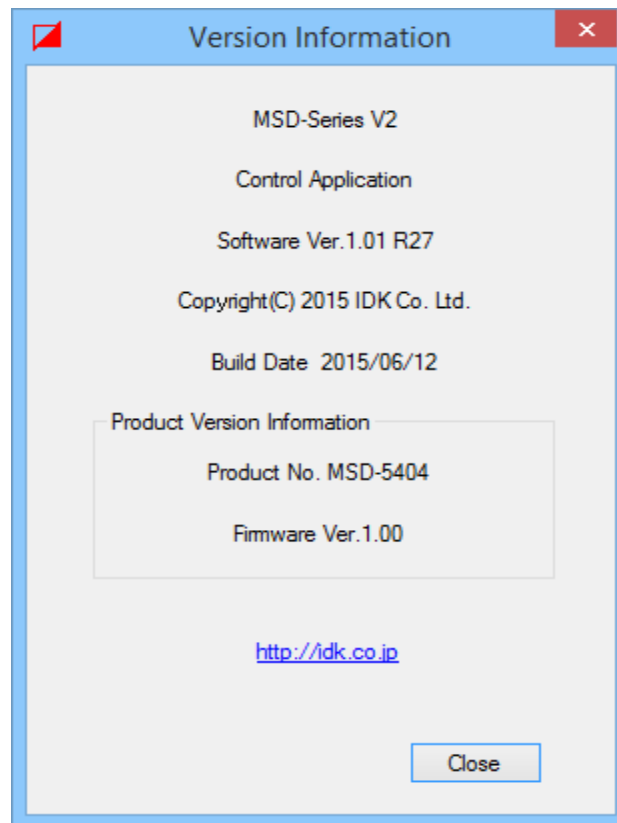
**Note:**

The password is encrypted and saved. Even if you forget the password, it cannot be found.

### 3.11.6 Displaying versions of the program and MSD firmware

Menu

Help menu > Version Information



[Fig. 3.58] Version Information dialog box

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## Users guide of MSD-Series V2 Remote Control Program

Ver.1.0.0

Issued on: 5 November 2015

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