Thumbnail previewer
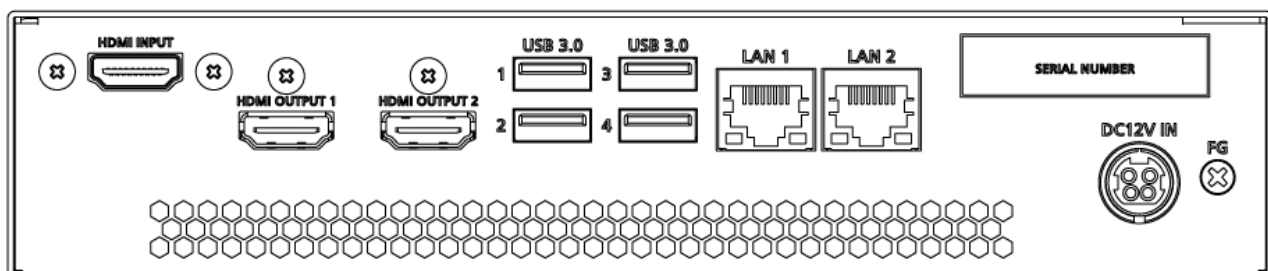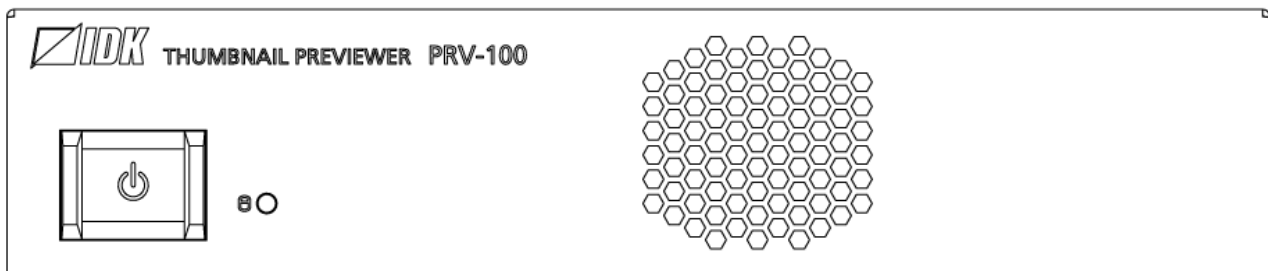
PRV-100

<User Guide>

Ver.1.4.0

- Thank you for choosing our product.
- To ensure the best performance of this product, please read this user guide fully and carefully before using it and keep this manual together with the product for future reference as needed.

IDK Corporation

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Before reading this manual

● Some information contained in this User guide such as exact product appearance, diagrams, menu operations, and so on may differ depending on the product version.
● This User guide is subject to change without notice. You can download the latest version from IDK's website at: www.idkav.com

The reference manual consists of the following two volumes:

■ User guide (this document):
Provides explanations and procedures for operations, installation, connections among devices, I/O adjustment and settings.

■ Command guide: Please download the command guide from the website above.
Provides explanations and procedures for external control using RS-232C and LAN communications.

FCC STATEMENT

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

(Class A)

Supplier's Declaration of Conformity
47 CFR § 2.1077 Compliance Information

Unique Identifier

Type of Equipment: Thumbnail Previewer

Model Name: PRV-100

Responsible Party – U.S. Contact Information

Company Name: IDK America Inc.

Address: 72 Grays Bridge Road Suite 1-C, Brookfield, CT 06804

Telephone number: +1-203-204-2445

URL: www.idkav.com

FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(FCC SDoC)

CE MARKING

This equipment complies with the essential requirements of the relevant European health, safety and environmental protection legislation.

WEEE MARKING

Waste Electrical and Electronic Equipment (WEEE), Directive 2002/96/EC
(This directive is only valid in the EU.)
This equipment complies with the WEEE Directive (2002/96/EC) marking requirement.
The left marking indicates that you must not discard this electrical/electronic equipment in domestic household waste.

Safety Instructions

Read all safety and operating instructions before using this product. Follow instructions and heed warnings/cautions.

Instructions and warnings/cautions for all products are provided. Some of them may not be applicable to your product.

⚠ **Warning**	Indicates the presence of a hazard that may result in death or serious personal injury if the warning is ignored or the product is handled incorrectly.
⚠ **Caution**	Indicates the presence of a hazard that may cause minor personal injury or property damage if the caution is ignored or the product is handled incorrectly.

Symbol	Description	Example
⚠ **Caution**	This symbol is intended to alert the user. (Warning and caution)	**Hot surfaces Caution**
🚫 **Prohibited**	This symbol is intended to prohibit the user from specified actions.	**Do not disassemble**
🔵 **Instruction**	This symbol is intended to instruct the user.	**Unplug**

⚠ Warning

For lifting heavy products:

🔵 **Instruction**	● **Lifting must be done by two or more personnel.** To avoid injury: When lifting the product, bend your knees, keep your back straight and get close to it with two or more persons.

For installing and connecting products:

🚫 **Prohibited**	● **Do not place the product in unstable place.** Install the product in a horizontal and stable place, as this may fall or tip over and cause injury. ● **Secure the product if installing in the locations with vibration.** Vibration may move or tip over the product unexpectedly, resulting in injury.

⚠ **Warning**

! **Instruction**	● **Installation work must be performed by professionals.** The product is intended to be installed by skilled technicians. For installation, please contact a system integrator or IDK. Improper installation may lead to the risk of fire, electric shock, injury, or property damage. ● **Insert the power plug into an outlet that is unobstructed.** Unobstructed access to the plug enables unplugging the product in case of any extraordinary failure, abnormal situation or for easy disconnection during extended periods of non-use. ● **Insert the power plug into an appropriate outlet completely.** If the plug is partially inserted, arching may cause the connection to overheat, increasing the risk of electric shock or fire. Do not use a damaged plug or connect to a loose outlet. ● **Unplug the product from an AC power source during installation or service.** When connecting peripheral devices to this product, unplug all involved devices from outlets. Ground potential differences may cause fire or other difficulties. ● **The product must be electrically earthed/grounded.** To reduce the risk of electric shock, ensure the product is connected to a mains socket outlet with a protective earthing connection. ● **For PoE/PoH, use category cables meeting IEEE802.3af/at.** Otherwise, it may cause problems or a fire.

For operating products:

🚫 **Prohibited**	● **Keep out any foreign objects.** To avoid fire or electric shock, do not permit foreign objects, such as metal and paper, to enter the product from vent holes or other apertures. ● **For power cable/plug and Category cable,** ・ **Do not scratch, heat, or modify, including splicing or lengthening them.** ・ **Do not pull, place heavy objects on them, or pinch them.** ・ **Do not bend, twist, tie or clamp them together forcefully.** Misuse of the power cable and plug may cause fire or electric shock. If power cables/plugs become damaged, contact your IDK representative.
🚫 **Do not disassemble**	● **Do not repair, modify or disassemble.** Since the product includes circuitry that uses potentially lethal, high voltage levels, disassembly by unauthorized personnel may lead to the risk of fire or electric shock. For internal inspection or repair, contact your IDK representative.
🚫 **Do not touch**	● **Do not touch the product and connected cables during electric storms.** Contact may cause electric shock.
! **Instruction**	● **Clean the power plug regularly.** If the plug is covered in dust, it may increase the risk of fire.

If the following problem occurs:

🔌 **Unplug**	● **Unplug immediately if the product smokes, makes unusual noise, or produces a burning odor.** ● **Unplug immediately if the product is damaged by falling or having been dropped.** ● **Unplug immediately if water or other objects are directed inside.** If you continue to use the product under these conditions, it may increase the risk of electric shock or fire. For maintenance and repair, contact your IDK representative.

⚠ **Caution**

For installing and connecting products:

Prohibited	● **Do not place the product in a location where it will be subjected to high temperatures.** If the product is subjected to direct sunlight or high temperatures while under operation, it may affect the product's performance and reliability and may increase the risk of fire. ● **Do not store or operate the product in dusty, oil smoke filled, or humid place.** Placing the product in such environment may increase the risk of fire or electric shock. ● **Do not block the vent holes.** If ventilation slots are blocked, it may cause the product to overheat, affecting performance and reliability and may increase the risk of fire. ● **Do not place or stack heavy items on the product.** Failure to observe this precaution may result in damage to the product itself as well as other property and may lead to the risk of personal injury. ● **Do not exceed ratings of outlet and wiring devices.** Exceeding the rating of an outlet may increase the risk of fire and electric shock.
No wet hands	● **Do not handle power plug with wet hands.** Failure to observe this precaution may increase the risk of electric shock.
Instruction	● **Use and store the product within the specified temperature/humidity range.** If the product is used outside the specified range of temperature and humidity continuously, it may increase the risk of fire or electric shock. ● **Do not place the product at elevations of 1.24 mi. (2,000 m) or higher above sea level.** Failure to do so may shorten the life of the internal parts and result in malfunctions. ● **When mounting the product into the rack, provide sufficient cooling space.** Mount the product in a rack meeting EIA standards, and maintain spaces above and below for air circulation. For your safety as required, attach an L-shaped bracket in addition to the panel mount bracket kit to improve mechanical stability. ● **Never insert screws without the rubber feet into the threaded holes on the bottom of the product.** Never insert screws alone into the threaded holes on the bottom of the product. Doing so may lead to damage when the screws contact electric circuitry or components inside the product. Reinstall the originally supplied rubber feet using the originally supplied screws only.

For operating products:

 Hot surfaces Caution	**For products with the hot surfaces caution label only:** ● **Do not touch the product's hot surface.** If the product is installed without enough space, it may cause malfunction of other products. If you touch product's hot surface, it may cause burns.
 Prohibited	● **Use only the supplied power cable and AC adapter.** ● **Do not use the supplied power cable and AC adapter with other products.** If non-compliant adapter or power cables are used, it may increase the risk of fire or electric shock.
 Unplug	● **If the product won't be used for an extended period of time, unplug it.** Failure to observe this precaution may increase the risk of fire. ● **Unplug the product before cleaning.** To prevent electric shock.
 Instruction	● **Do not prevent heat release.** If cooling fan stops, power off the product and contact IDK. Failure to do so may raise internal temperature and increase the risk of malfunction, fire, or electric shock. ● **Keep vents clear of dust.** If the vent holes near the cooling fan or near the fan are covered with dust, internal temperatures increase and may increase the risk of malfunction. Clean the vent holes and near the fan as needed. If dust accumulates inside of the product, it may increase the risk of fire or electric shock. Periodic internal cleaning, especially before humid rainy season, is recommended. For internal cleaning, contact your IDK representative.

8

Table of Contents

1 Included items

Ensure that all items illustrated below are included in the package.
If any items are missing or damaged, please contact IDK.
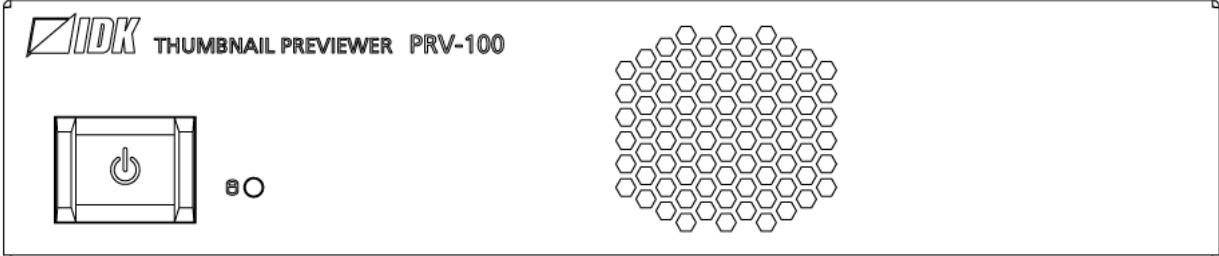
One (1) PRV-100
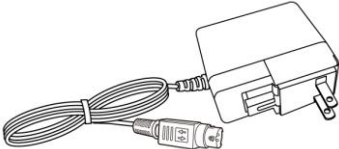
One (1) AC adapter (4 ft. (1.2 m))

[Fig. 1.1] Included items

2 Product outline

The PRV-100 (hereafter referred to as "PRV") creates and displays thumbnails for previewing HDMI input signals, and it encodes video signals into H.264 format and streams the encoded video. Unicast and multicast transmission are supported.

The PRV-100 can be set and controlled from WEB browser.
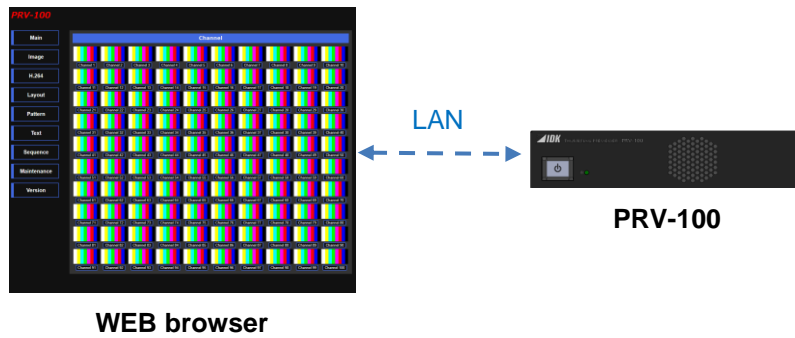
WEB browser

[Fig. 2.1] Remote control from WEB browser
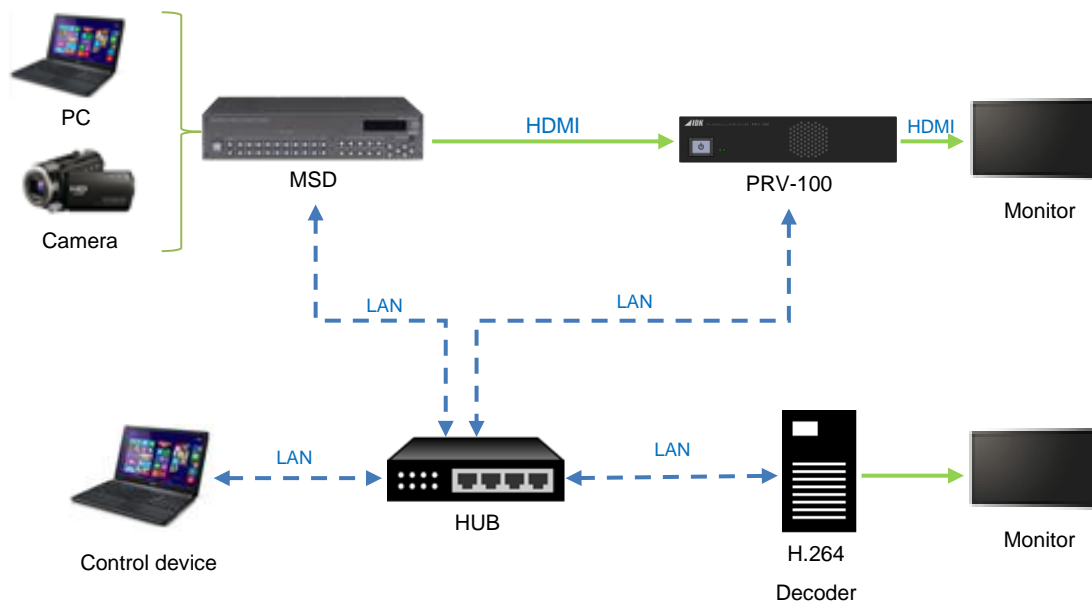
[Fig. 2.2] System configuration

Tip:

Javascript is used for WEB browser windows in the PRV. Ensure to enable Javascript.

3 Features

■ **Thumbnail preview**
- Capturing and viewing up to 100 video channels periodically
- Free thumbnail preview layout
- Up to 128 layouts can be registered

■ **Encode**
- H.264 encoder
- Unicast or multicast transmission

■ **External control**
- WEB browser control - No need to install software
- Images of multi sources can be checked on a single screen by using the PRV-100 with IDK's HDMI products

■ **Others**
- AC adapter with locking mechanism

4 Panels
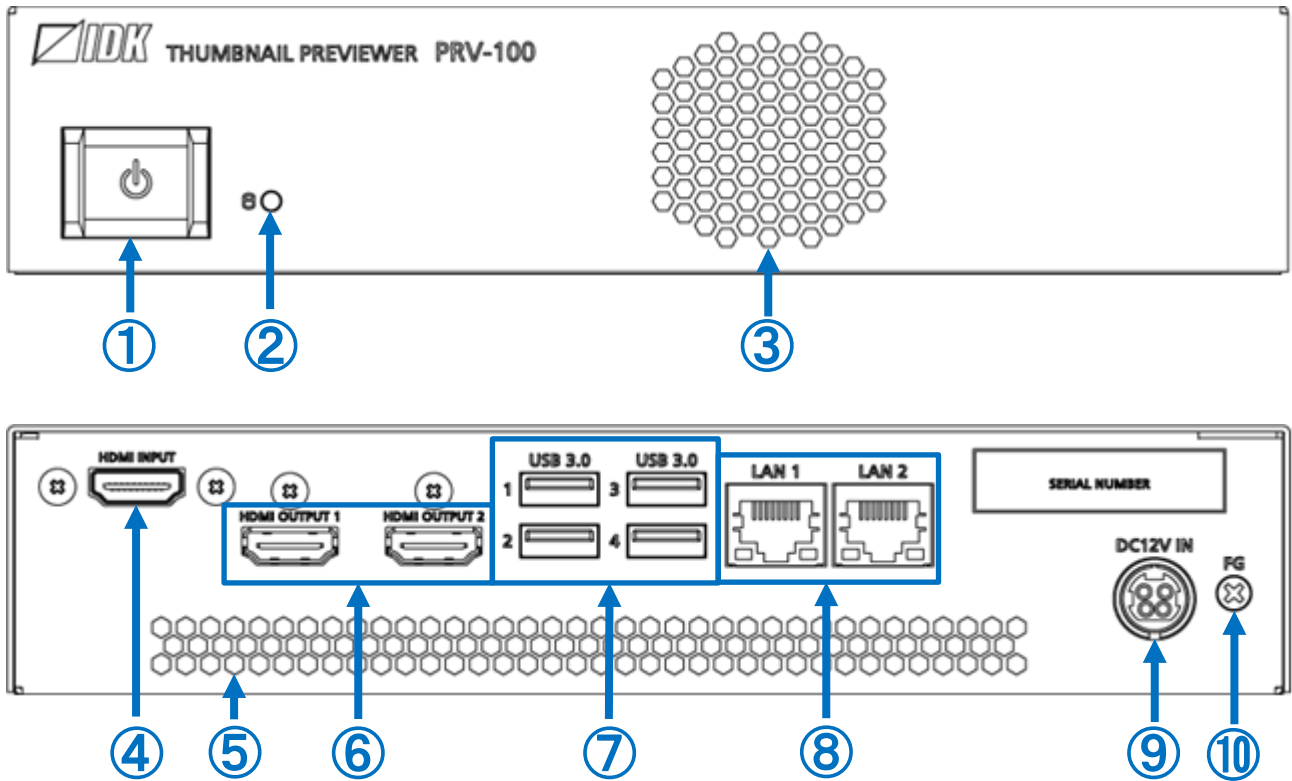
[Fig. 4.1] PRV-100 drawing

[Table 4.1] PRV-100 features

#	Feature	Description
①	Power button (LED)	Powers ON/OFF the PRV 　　Green:　Powered on Turns off:　Powered off
②	WEB access lamp (LED)	Shows access status 　　Green:　Being accessed Turns off:　No access
③	Cooling fan	Maintains proper cooling
④	HDMI input connector	Connector for HDMI signal Connects to a source device
⑤	Ventilation holes	Prevents internal temperature raise Do not block ventilation holes
⑥	HDMI output connector	Output saved thumbnail images as HDMI signal*
⑦	USB connector	Factory use only
⑧	LAN connector	For LAN communication
⑨	Power supply connector	For use with provided power cable
⑩	Frame ground	Use for bonding chassis to local ground. An M3 screw is used.

* The HDMI output connectors are not output simultaneously. Connect an external device to one HDMI output connector.

5 System configuration example

Example: Connecting the PRV to external device
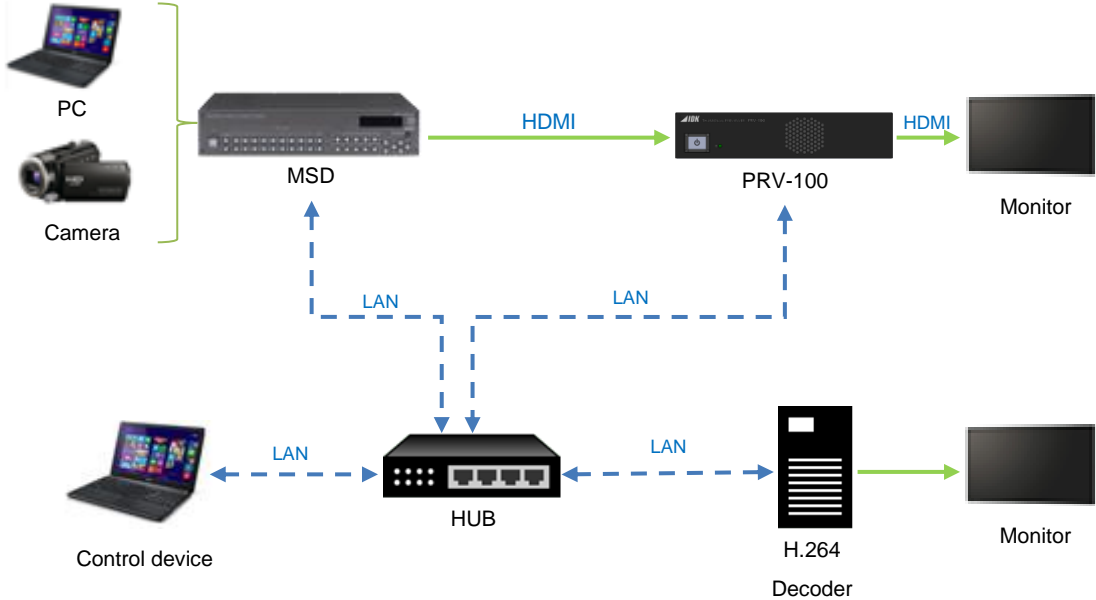
[Fig. 5.1] System configuration

6　Precautions

Before connecting to external devices, follow the precautions below.

6.1　Installation

When installing the PRV, please observe the following precautions.

- ・Do not stack or place one PRV directly on top of another PRV.
- ・Do not block vent holes. To provide adequate ventilation, maintain sufficient clearances around the PRV (1.2 in. (30 mm) or more).
- ・When the PRV needs to be mounted in an enclosed space or an EIA rack without using IDK's rack mounting hardware (RM-44S, RM-44D, and RM-SH), ensure that a sufficient ventilation/cooling system is provided to keep the ambient temperature at 104°F (40°C) or lower. If inadequately vented, the product's service life, operation, and reliability may be affected.

6.2　Cabling

When connecting the PRV to external devices, please observe the following precautions.

- ・Read manuals for the external devices.
- ・Before connecting cables to the PRV or an external device, dissipate static electricity by touching grounded metal such as equipment racks before handling signal cables. Failure to observe this precaution may result in ESD (electrostatic discharge) damage.
- ・Power all units off before connecting cables.
- ・Be sure to fully seat all plugs and connections and dress cables to reduce stress on connectors.

6.2.1 DIN plug AC adapter with locking mechanism

The shapes of AC plugs with screw locking mechanism vary from country to country. The AC plug can be removed from the AC adapter.

Removing AC plug:
Slide the AC plug (②) from the AC adapter while holding down the portion mentioned below (①).
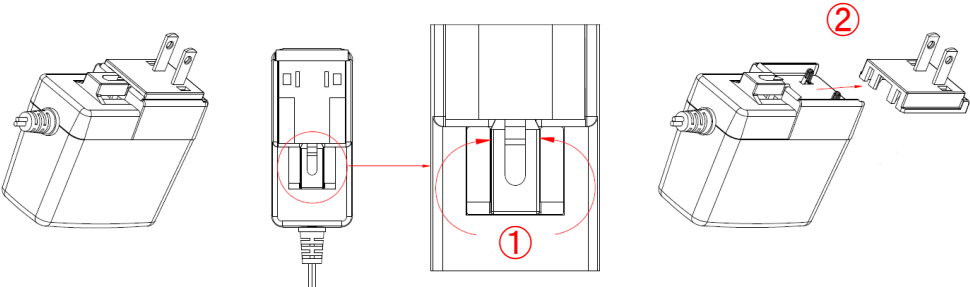
[Fig. 6.1] Removing AC plug (Example: Plug type A)

Attaching AC plug:
Gently slide the AC plug into the AC adapter (③) until it clicks (④).
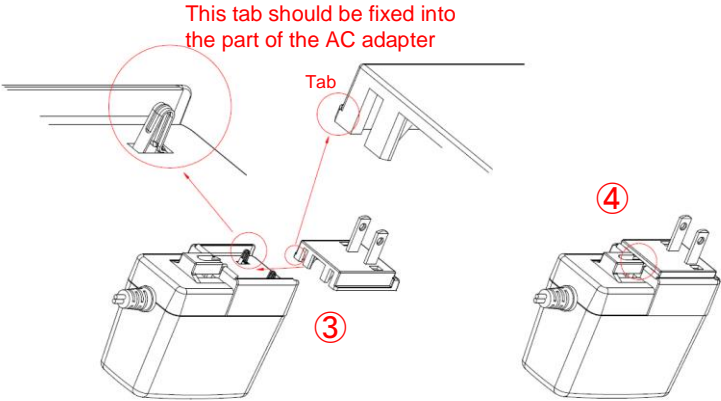
[Fig. 6.2] Attaching AC plug (Example: Plug type A)

■ **Plugging and unplugging DC plug**

Plug the DC plug to the power supply connector of the unit until it clicks.

Hold the portion mentioned below when unplugging the DC plug.

Hold this part and pull the DC plug

Plugging
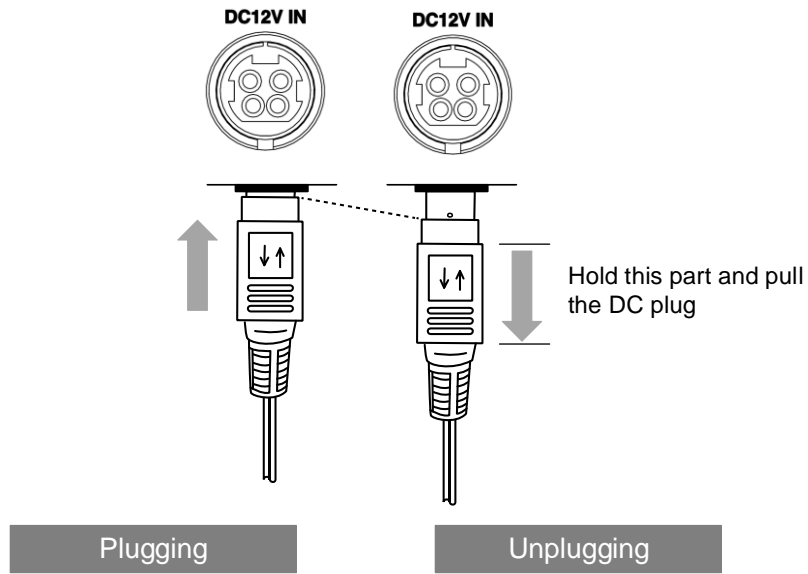
Unplugging

[Fig. 6.3] Plugging and unplugging DC plug

7 Basic Operation

Settings and controlling can be performed from control commands or WEB browser by connecting the LAN port of the PRV to external device such as PC.
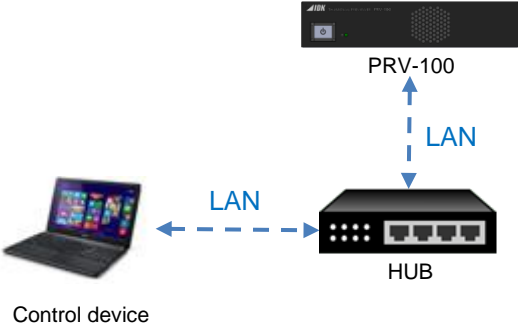
[Fig. 7.1] Setting PRV

7.1 Control command

You can control the PRV and get its status by connecting a control unit, such as PCs, to the PRV over an LAN cable.
For details of control commands, refer to the Command Guide for the PRV.

7.2 Control from WEB browser

The PRV connected to LAN can be accessed and controlled by menu operations on a WEB browser (e.g. Google Chrome).
Enter the PRV's IP address into the address bar of the WEB browser.

For details of control using a WEB browser, see "**8 WEB Browser**".

[Table 7.1] Example URL

Port number	URL to be entered into address
80 (used generally)	http://192.168.1.199

8 WEB Browser

You can set and control settings from WEB browser.

Enter the following IP address, ID, and password.

IP address by default

      LAN1:   DHCP

      LAN2:   192.168.1.199

ID and Password by default

      ID: admin

  Password: admin
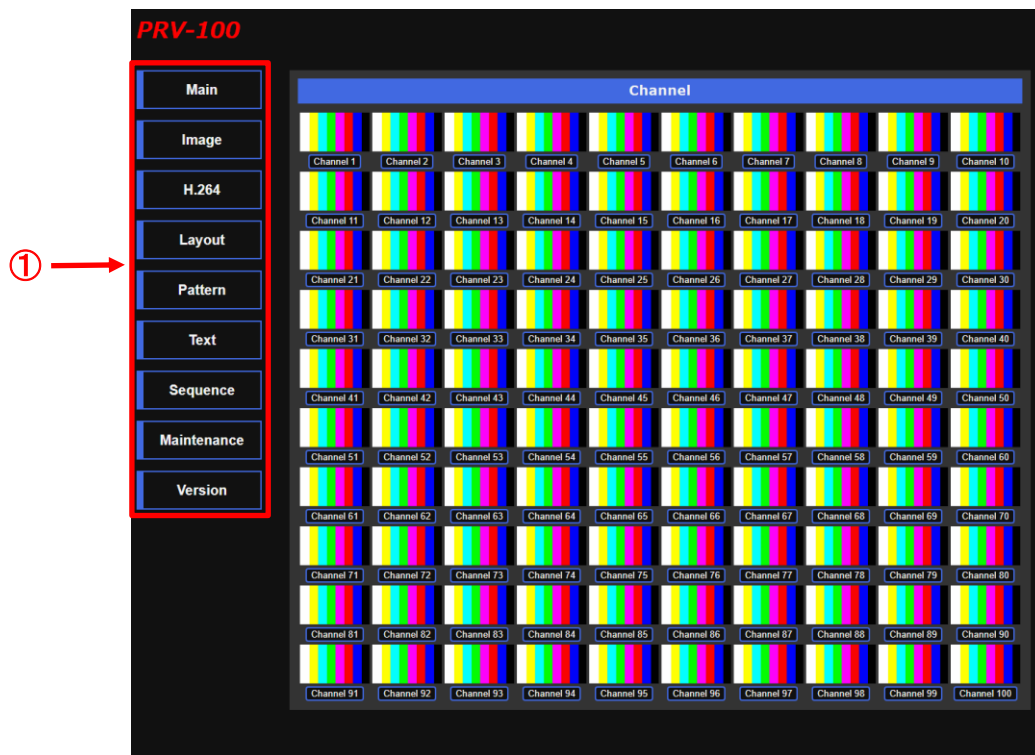
[Fig. 8.1] Setting WEB Browser

①   Setting menus

           Main: Channel list

          Image: Built-in image list

         H.264:   H.264 streaming

       Layout: Preview layout

      Pattern: Display pattern

           Text: Image and channel names

    Sequence: Maintenance

 Maintenance: Advanced settings

     Version: Model name

8.1 [Main]

You can capture and view HDMI input signals as thumbnail images. You can also download saved images from WEB browser.
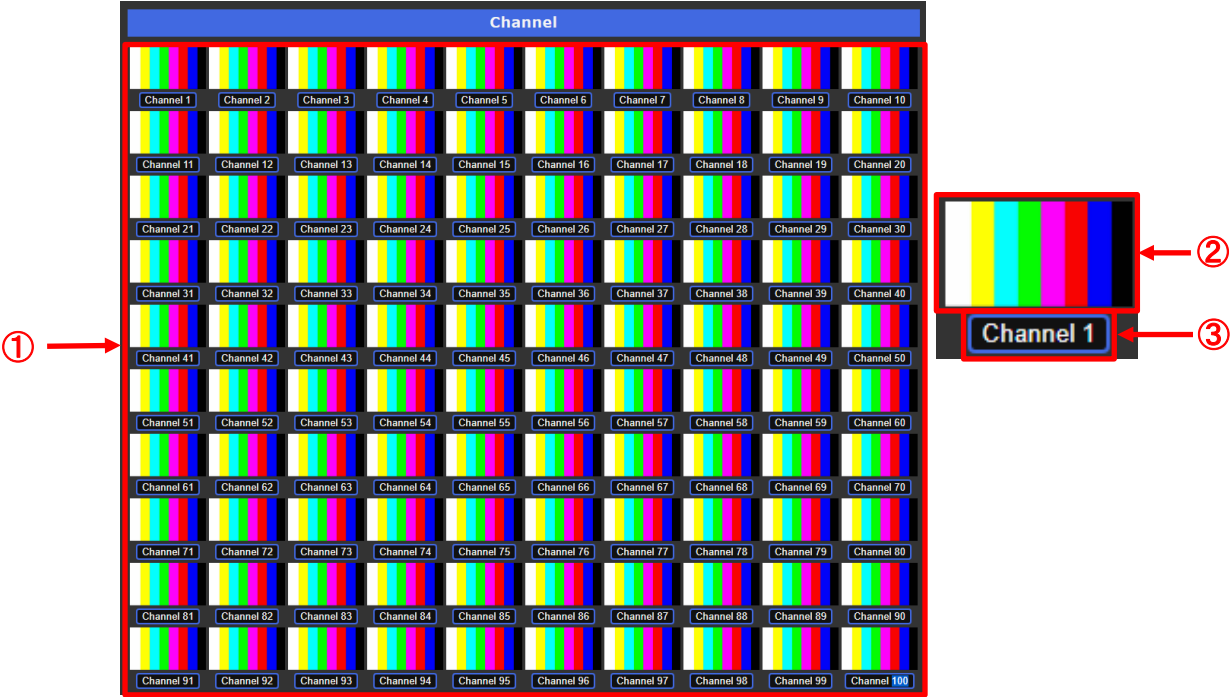
[Fig. 8.2] Captured thumbnail images

①   Captured thumbnail images
②   Each image can be downloaded by clicking the image
③   HDMI input signals can be captured by clicking this button
         If image cannot be captured, the WEB browser list is not updated and the [Failure] image is displayed.

8.2 [Image]

You can view, upload and delete built-in images, such as logos.

8.2.1 Image list
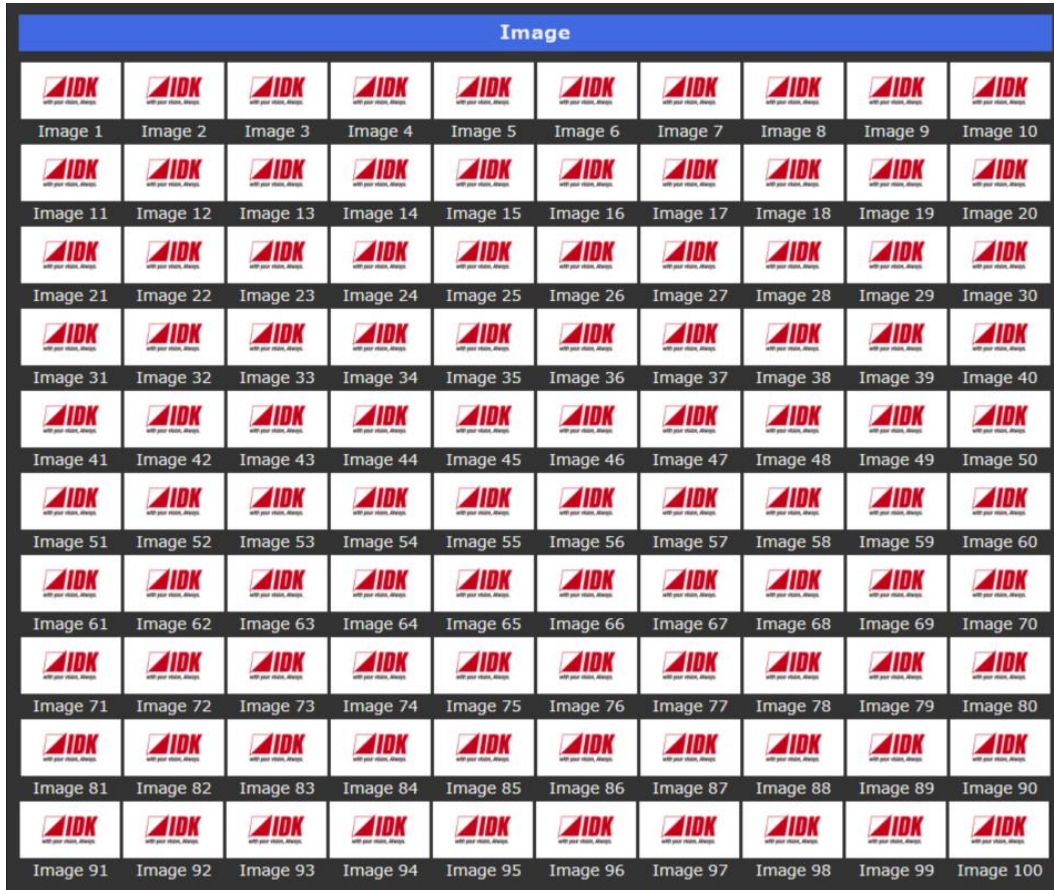
[Fig. 8.3] Built-in images

Built-in images can be downloaded by clicking the desired image

8.2.2 Uploading built-in image
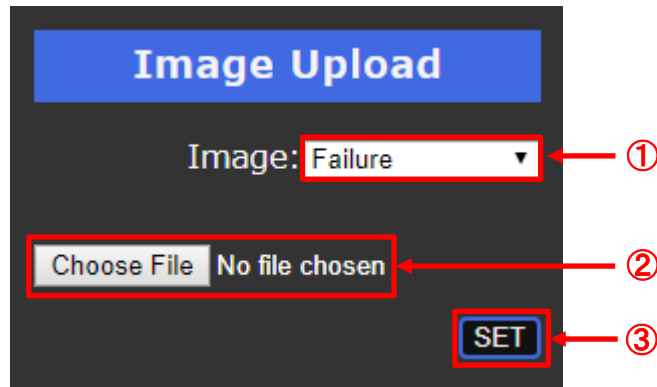
[Fig. 8.4] Uploading built-in image

①   Specify the desired image number

       [Failure]: The selected image will be displayed if a thumbnail image cannot be captured.

②   Select the file to be uploaded

       JPEG/PNG format

③   Click the [SET] button to upload the image

Notes:

・ If an unsupported file is specified, a message, "400 Bad Request", is displayed. Check the file and set an appropriate file.

・ It may take time to upload and display images depending on image size.

8.2.3 Deleting built-in image
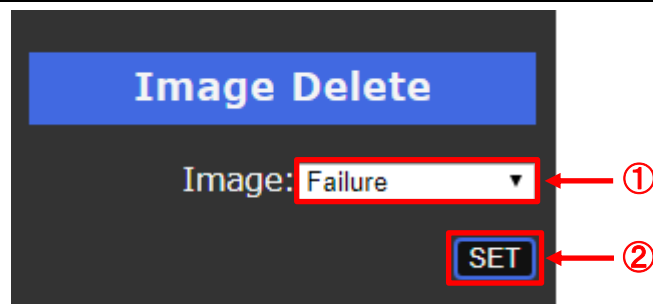
[Fig. 8.5] Deleting built-in image

④   Specify the desired image number

⑤   Click the [SET] button to delete the image

8.3 [H.264]

You can set H.264 streaming destination and encode.

8.3.1 Setting streaming destination
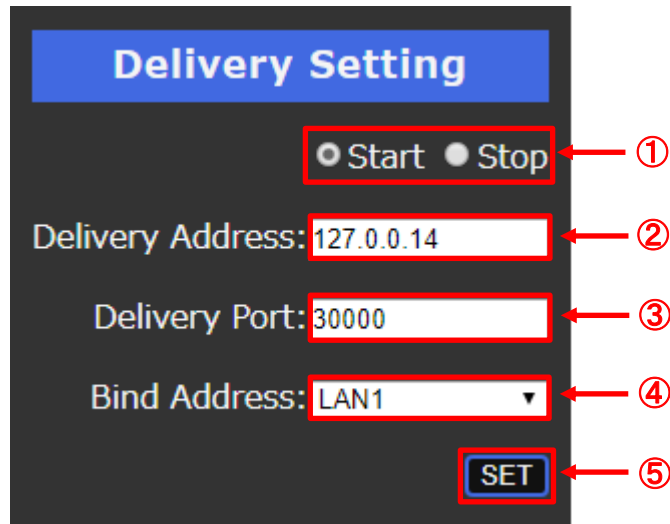
[Fig. 8.6] H.264 destination

①   Select [Start] or [Stop] to start or stop streaming
②   Enter the destination IP address
③   Enter the port
④   Specify the LAN connector ([LAN1]/[LAN2])
⑤   Click the [SET] button to apply the settings

Note:

If set values are not correct, a message, "400 Bad Request", is displayed.
Check the setting and correct the value(s)

8.3.2 Setting encode
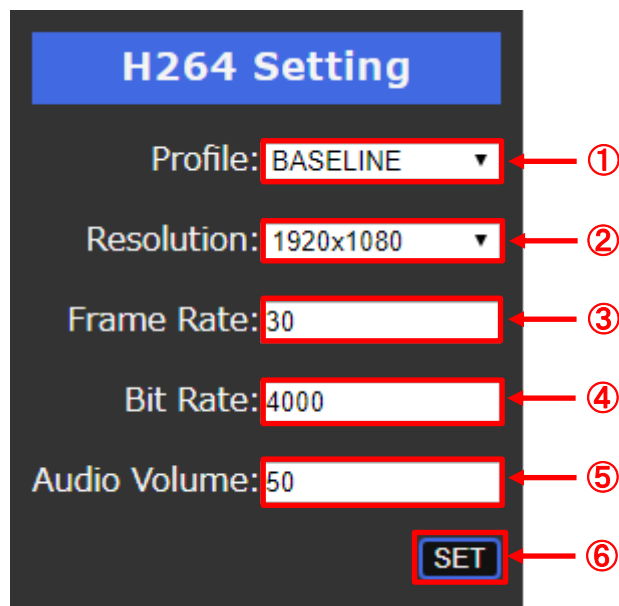
[Fig. 8.7] Setting H.264 encode

①   Select the H.264 profile (BASELINE/MAIN/HIGH)

②   Select the resolution*
(1920x1080/1280x1024/1280x960/1280x720/1024x768/800x600/720x576/720x480/640x480)
Note: Streaming resolution is limited to the input video resolution.

③   Enter the frame rate (1 to 60 [fps])

④   Enter the bit rate (1 to 8000 [kbps])

⑤   Enter the audio volume (0 to 100)

⑥   Click the [SET] button to apply the settings

8.4 [Layout]

You can register up to 128 layouts.

8.4.1 Changing layout
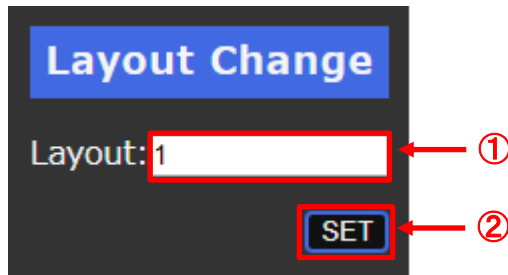
[Fig. 8.8] Changing layout

①   Enter the desired layout (1 to 128)

②   Click the [SET] button to change the layout to be displayed

8.4.2 Setting layout

[Fig. 8.9] Setting layout

①　　　Specify the display pattern number (1 to 128)
②　　　Enter the horizontal position (0 to 3840 [px])
③　　　Enter the vertical position (0 to 2160 [px])
④　　　Enter the width (1 to 3840 [px])
⑤　　　Enter the height (1 to 2160 [px])
⑥　　　Select the background of the thumbnail image
⑦　　　Click the [SET] button to apply the layout settings

8.5 [Pattern]

You can set display pattern. Settings will be applied to the pattern that is displayed currently.

8.5.1 Simple setting
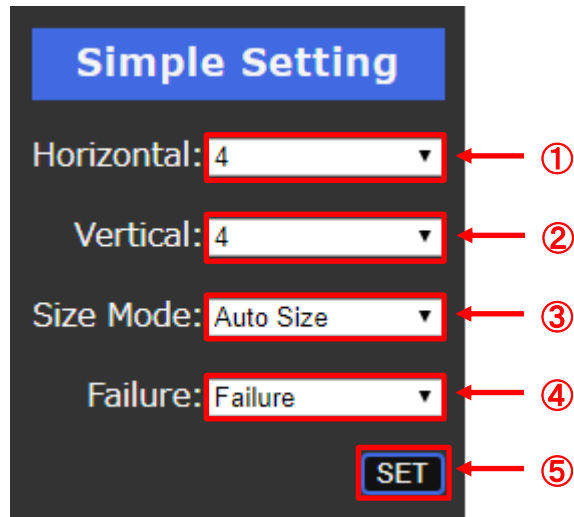
[Fig. 8.10] Simple setting

①   Set the number of images to be displayed horizontally
②   Set the number of images to be displayed vertically
③   Select the display mode
               Normal: Starts from upper left
         Center Image: Centers images
       Stretch Image: Scales images based on monitor size
          Auto Size: Scales and keeps aspect ratio
④   Select the image that will be displayed if a thumbnail image cannot be captured.
⑤   Click the [SET] button to apply the display pattern

8.5.2 Advanced setting

You can set display pattern in detail.
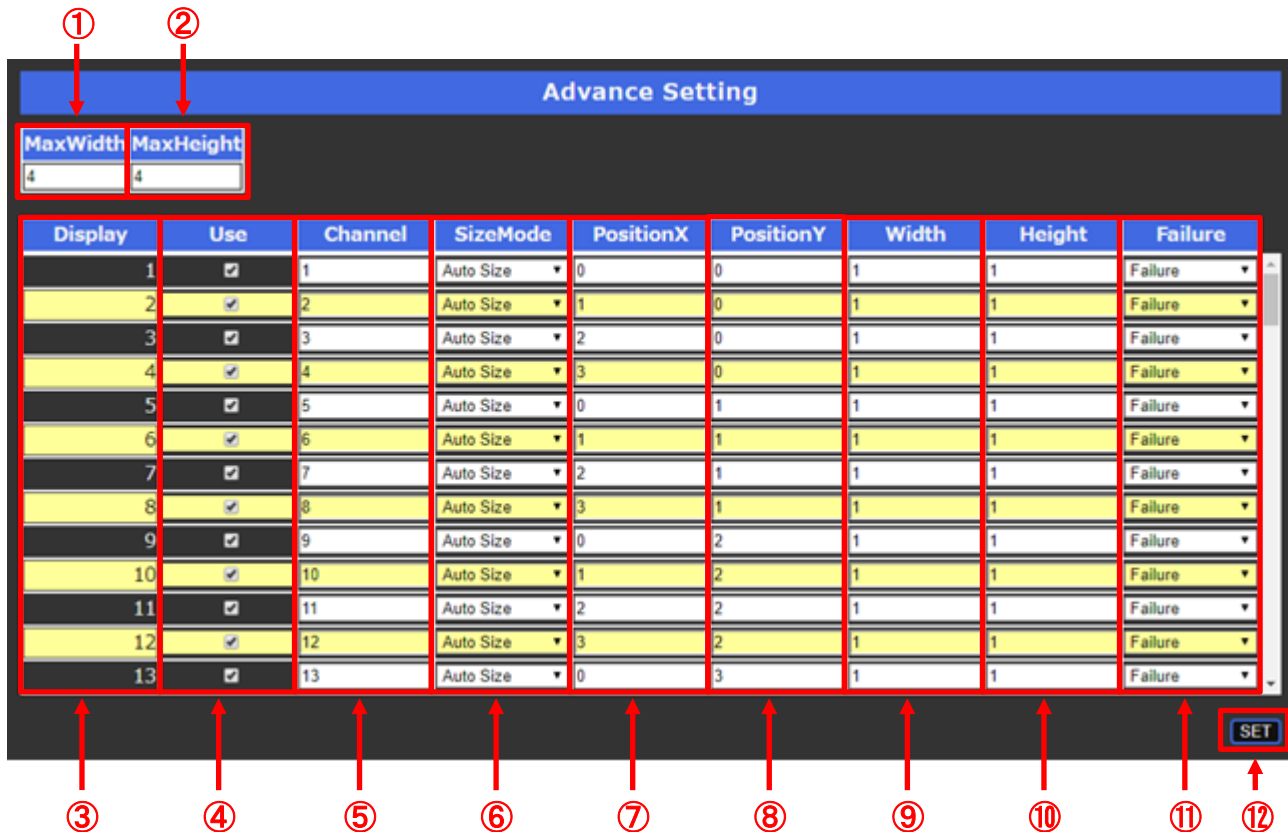
[Fig. 8.11] Advanced setting of layout

①   Enter the maximum horizontal display capacity

The entered number will be used for the horizontal coordinate of screen grid

②   Enter the maximum vertical display capacity

The entered number will be used for the vertical coordinate of screen grid

③   Image layer   1: Front of all other object   100: Back of all other object

④   Ticked: Displays the image   Unticked: Not displaying the image

⑤   Enter the channel number or built-in image number (101 to 200)

     1 to 100:   Channel number

     101 to 200:   Built-in image number

⑥   Select the display mode

            Normal: Starts from upper left

     Center Image: Centers images

    Stretch Image: Scales images based on monitor size

       Auto Size: Scales and keeps aspect ratio

⑦   Enter the position value for the horizontal axis

⑧   Enter the position value for the vertical axis

⑨   Enter the width based on the coordinate unit

⑩   Enter the height based on the coordinate unit

⑪   Select the image displayed for failure of thumbnail image capture

           Failure: Image for failure of thumbnail image capture

    Image1 to 100:   Uploaded image

⑫   Click the [SET] button to apply settings

8.6 [Text]

You can set text as channel names.

8.6.1 Setting name of all channel
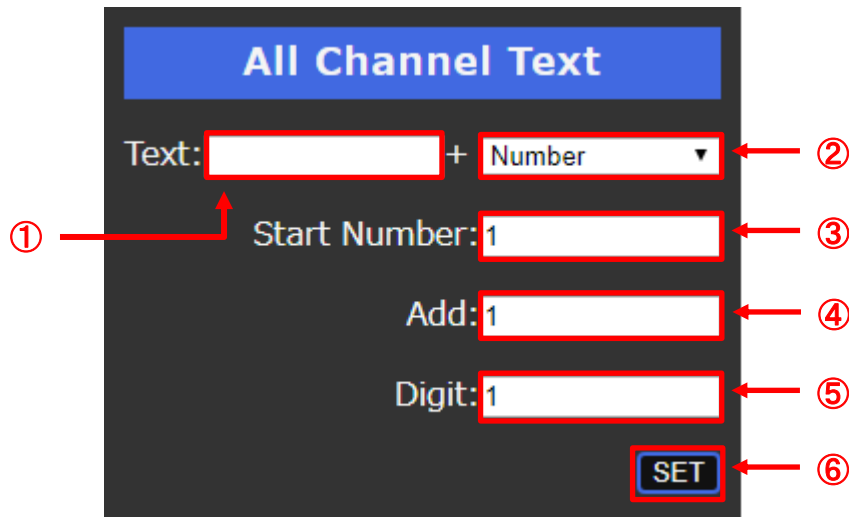
[Fig. 8.12] Setting image name all at once

① Enter up to 15 characters that are common to all channels
   Note: "," cannot be used. In such case, the warning message will appear.
② None: No number is added to the characters that are set in ①
   Number: Number is added to the characters that are set in ①
③ Enter the starting number for when [Number] is selected (-9999 to 9999)
④ Enter the increment value for when [Number] is selected (-999 to 999)
⑤ Enter the digit for number that is following "Text" set in ① (1 to 6)
⑥ Click the [SET] button to apply settings

8.6.2 Setting name of all built-in images
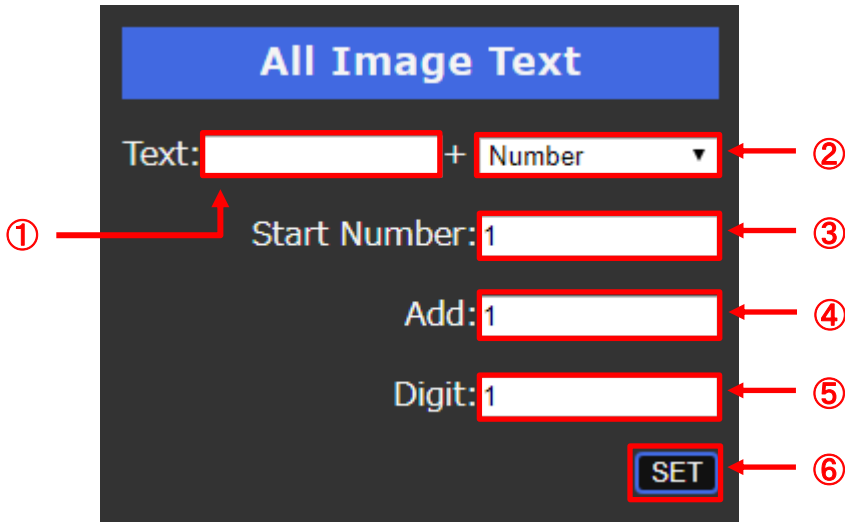
[Fig. 8.13] Setting image name all at once

①   Enter up to 15 characters that are common to all built-in images
        Note: "," cannot be used

②   None: No number is added to the characters that are set in ①
      Number: Number is added to the characters that are set in ①

③   Enter the starting number for when [Number] is selected (-9999 to 9999)

④   Enter the additional value for when [Number] is selected (-999 to 999)

⑤   Enter the digit for when [Number] is selected (1 to 6)

⑥   Click the [SET] button to apply settings

8.6.3 Setting name of channel

[Fig. 8.14] Setting each captured image name

①   Enter up to 15 characters
      Note: "," cannot be used
②   Click the [SET] button to apply settings

8.6.4 Setting name of each built-in image

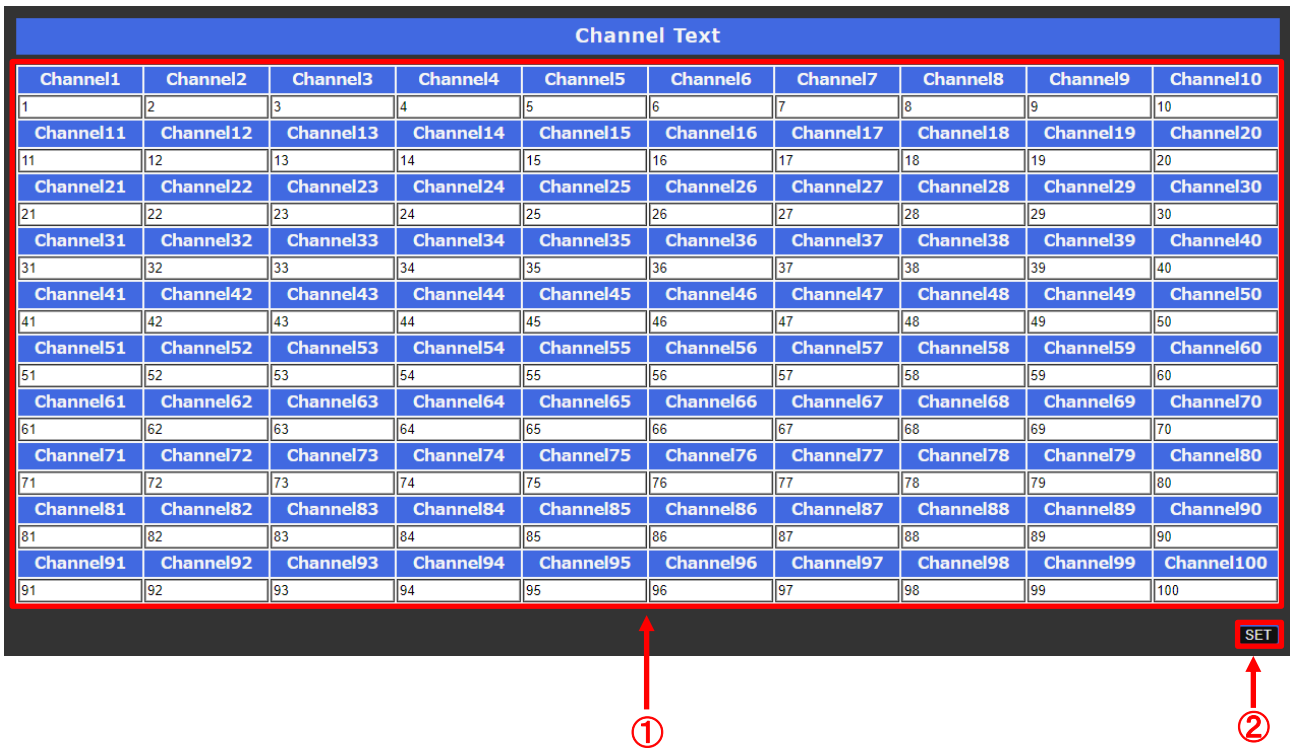| Image Text									
Image1	**Image2**	**Image3**	**Image4**	**Image5**	**Image6**	**Image7**	**Image8**	**Image9**	**Image10**
Image1	Image2	Image3	Image4	Image5	Image6	Image7	Image8	Image9	Image10
Image11	**Image12**	**Image13**	**Image14**	**Image15**	**Image16**	**Image17**	**Image18**	**Image19**	**Image20**
Image11	Image12	Image13	Image14	Image15	Image16	Image17	Image18	Image19	Image20
Image21	**Image22**	**Image23**	**Image24**	**Image25**	**Image26**	**Image27**	**Image28**	**Image29**	**Image30**
Image21	Image22	Image23	Image24	Image25	Image26	Image27	Image28	Image29	Image30
Image31	**Image32**	**Image33**	**Image34**	**Image35**	**Image36**	**Image37**	**Image38**	**Image39**	**Image40**
Image31	Image32	Image33	Image34	Image35	Image36	Image37	Image38	Image39	Image40
Image41	**Image42**	**Image43**	**Image44**	**Image45**	**Image46**	**Image47**	**Image48**	**Image49**	**Image50**
Image41	Image42	Image43	Image44	Image45	Image46	Image47	Image48	Image49	Image50
Image51	**Image52**	**Image53**	**Image54**	**Image55**	**Image56**	**Image57**	**Image58**	**Image59**	**Image60**
Image51	Image52	Image53	Image54	Image55	Image56	Image57	Image58	Image59	Image60
Image61	**Image62**	**Image63**	**Image64**	**Image65**	**Image66**	**Image67**	**Image68**	**Image69**	**Image70**
Image61	Image62	Image63	Image64	Image65	Image66	Image67	Image68	Image69	Image70
Image71	**Image72**	**Image73**	**Image74**	**Image75**	**Image76**	**Image77**	**Image78**	**Image79**	**Image80**
Image71	Image72	Image73	Image74	Image75	Image76	Image77	Image78	Image79	Image80
Image81	**Image82**	**Image83**	**Image84**	**Image85**	**Image86**	**Image87**	**Image88**	**Image89**	**Image90**
Image81	Image82	Image83	Image84	Image85	Image86	Image87	Image88	Image89	Image90
Image91	**Image92**	**Image93**	**Image94**	**Image95**	**Image96**	**Image97**	**Image98**	**Image99**	**Image100**
Image91	Image92	Image93	Image94	Image95	Image96	Image97	Image98	Image99	Image100

SET

① ②

[Fig. 8.15] Setting each built-in image name

①   Enter up to 15 characters
        Note: "," cannot be used
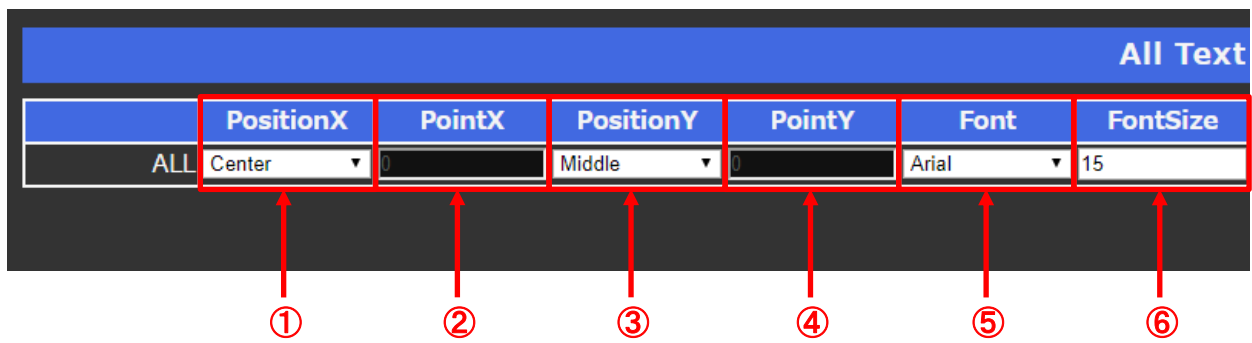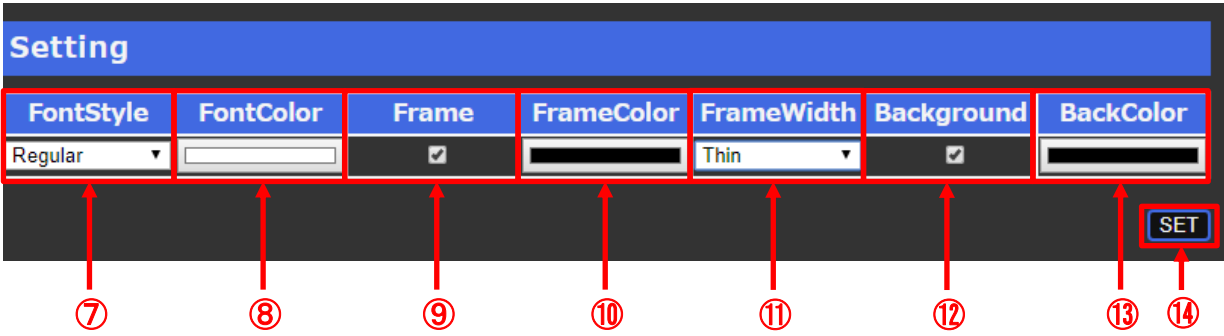
②   Click the [SET] button to apply settings

8.6.5 Setting display position and text of all image names


[Fig. 8.16] Setting all text (1/2)

①   Select the horizontal position ([Center], [Right], [Optional])

     ②   Optional: Specify the horizontal position by number (0 to 1920)

③   Select the vertical position ([Middle], [Bottom], [Optional])

     ④   Optional: Specify the vertical position by number (0 to 1080)

⑤   Select the text font

            (Arial, Georgia, Impact, Lucida Console, Times New Roman, Verdana, Meiryo UI)

⑥   Enter the font size (1 to 100 [pt])

[Fig. 8.17] Setting all text (2/2)

⑦ Select the font type (Regular, Bold, Italic, Bold&Italic)
⑧ Select the font color
⑨ Tick to display text outline
Untick not to display text outline
⑩ Select the color of text outline
⑪ Select the line width of text outline
⑫ Tick to display text background color
Untick not to display text background color
⑬ Select the text background color
⑭ Click the [SET] button to apply settings

8.6.6 Setting display position and text of each image name
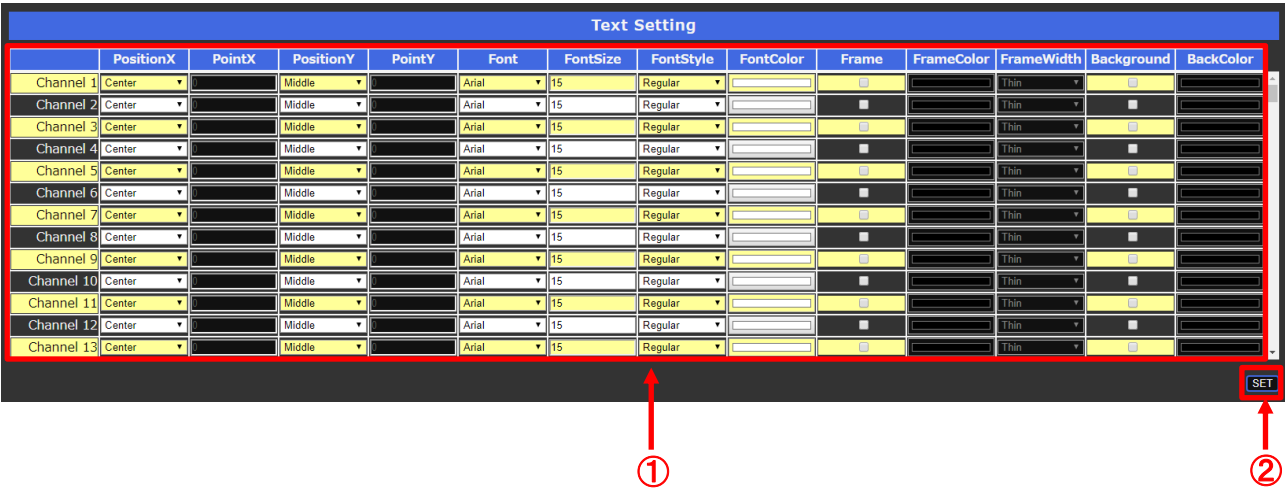
[Fig. 8.18] Setting text

① Set the text by following to "**8.6.5 Setting display position and text of all image names**"
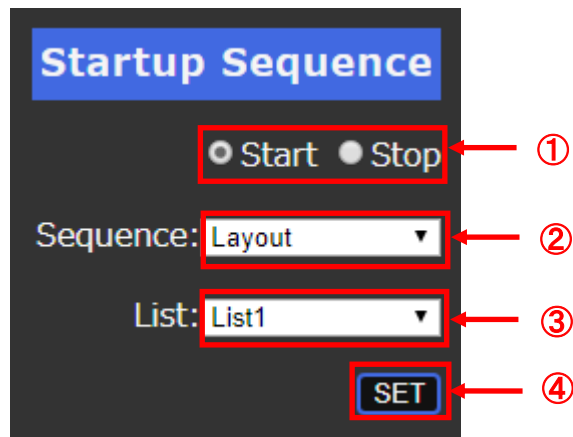② Click the [SET] button to apply settings

8.7 [Sequence]

Layout switching and image capturing can be operated automatically

8.7.1 Setting startup sequence

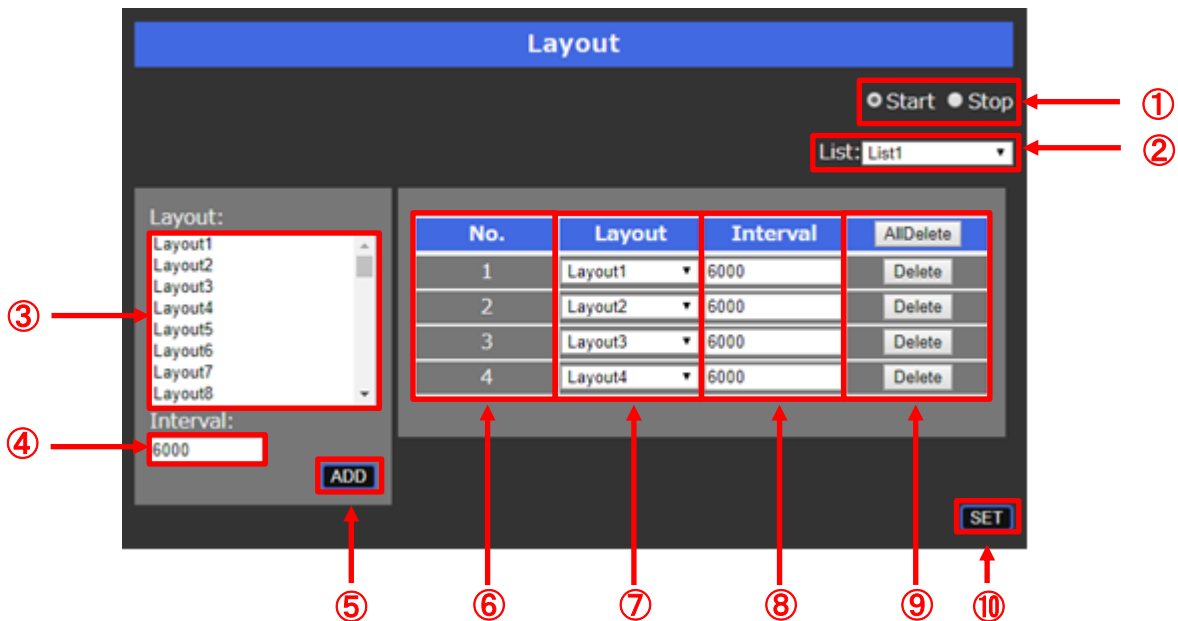You can set startup sequence.

[Fig. 8.19] Setting startup sequence

①   Select [Start] or [Stop] to enable or disable startup sequence.

②   Select the desired item.

           Layout

           Channel

           Command Link

③   Specify the desired list number ([List1] to [List10])

④   Click the [SET] button to apply settings.

8.7.2 Switching layout settings
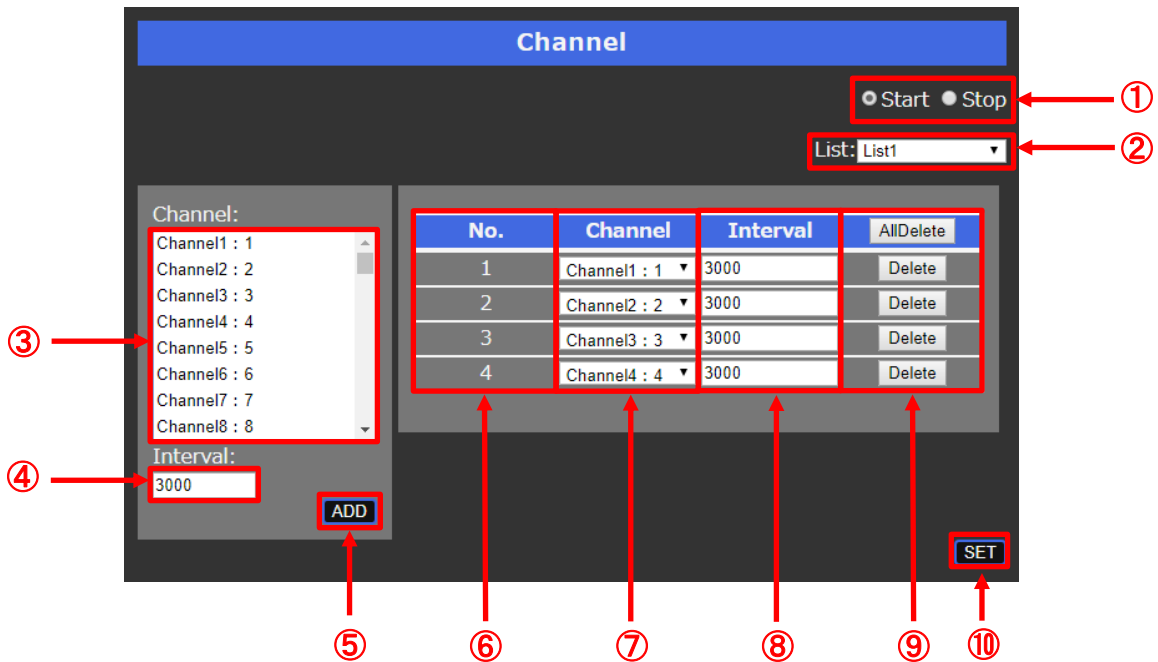
You can set automatic switching of layouts.

[Fig. 8.20] Switching layout automatically

①   Select [Start] or [Stop] to start or stop switching automatically
②   Specify the desired list number ([List1] to [List10])
③   Select the layouts
④   Enter the interval (6000 to 600000 [ms])
⑤   Click the [ADD] button to apply the settings of ③ and ④
⑥   [No.] shows the order of switching layout
         After the last switching, it starts from No.1 again
⑦   Change the layout to be switched
⑧   Change the interval (6000 to 600000 [ms])
⑨   Delete the selected registration
⑩   Click the [SET] button to apply settings and save settings in the list number

8.7.3 Capturing channel automatically
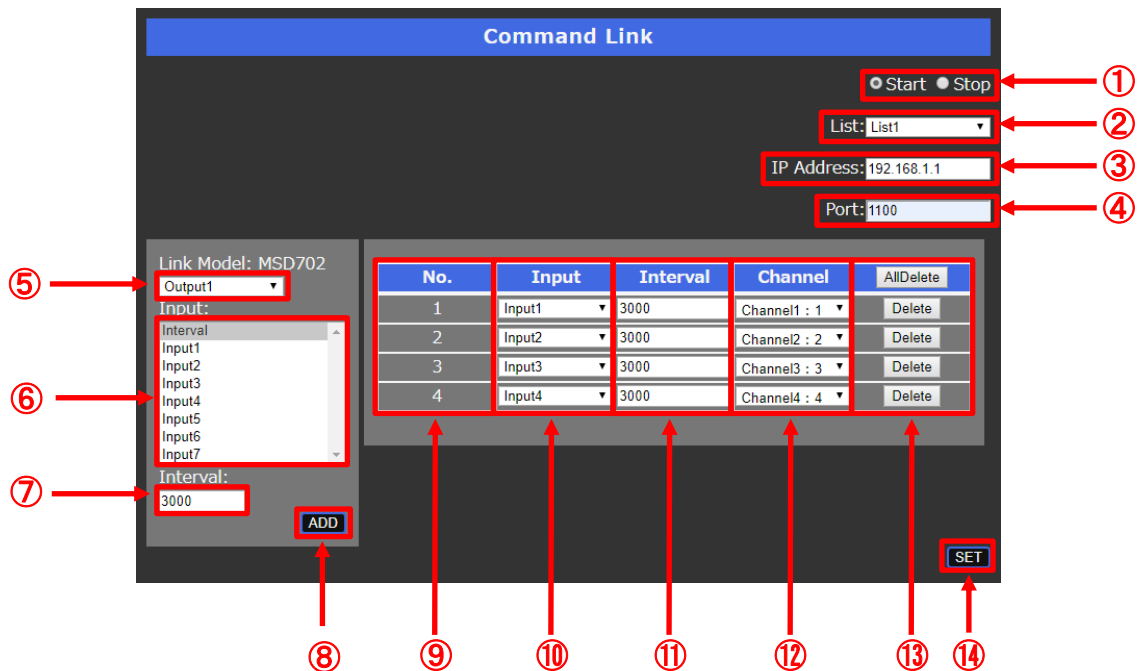
You can set automatic capturing thumbnail images.

[Fig. 8.21] Capturing channel automatically

①   Select [Start] or [Stop] to start or stop capturing channel automatically

②   Specify the desired list number ([List1] to [List10])

③   Select the channels

④   Enter the interval (3000 to 600000 [ms])

⑤   Click the [ADD] button to apply the settings of ③ and ④

⑥   [No.] shows the order of capturing channel automatically
     After the last capture, it starts from No.1 again

⑦   Select the layout

⑧   Enter the interval (3000 to 600000 [ms])

⑨   Delete the selected registration

⑩   Click the [SET] button to apply settings and save settings in the list number

8.7.4 Command link function

The PRV controls external devices over LAN communication. It automatically captures images and switches external device input by linking external device input channels and the PRV channels.

[Fig. 8.22] Channel link function

①   Select [Start] or [Stop] to start or stop linking channels

②   Specify the desired list number ([List1] to [List10])

③   Enter the IP address of the external device

④   Enter the port number of the external device

⑤   Enter the Output of the external device
         [Optional]: Sends desired commands

⑥   Select inputs of the external device to be switched
         [Interval]: Only captures thumbnail images

⑦   After switching input of the external device, enter the interval for capturing image
         (3000 to 600000 [ms])

⑧   Click the[ADD] button to register those settings

⑨   [No.] shows the order of switching input channel automatically
         After the last switching, it starts from No.1 again

⑩   Change the input channel of the external device

⑪   Change the interval for capturing image after switching input of the external device
         (3000 to 600000 [ms])

⑫   Change the channel that is linked to the input channel of the external device

⑬   Click the [Delete] button to delete the selected registration

⑭   Click the [SET] button to apply settings and save settings in the list number

8.8 [Maintenance]

8.8.1 Setting name of setting window

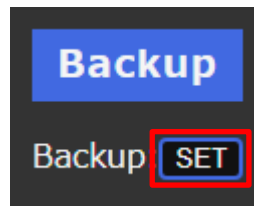You can set the title to be displayed.

[Fig. 8.23] Setting name of setting window

①   Select the model number or blank.

②   Enter up to 30 characters.

③   Click the [SET] button and then refresh the WEB browser to apply the setting.
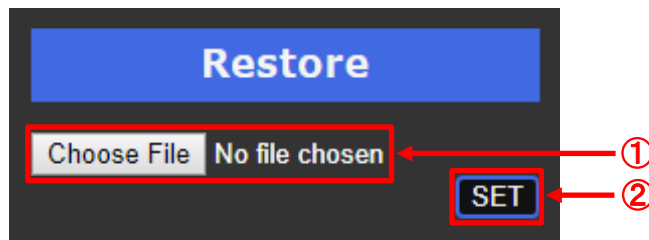
8.8.2 Backing up setting

[Fig. 8.24] Backing up

Click the [SET] button to download settings as backup data.

## 8.8.3 Restoring setting

[Fig. 8.25] Restoring settings

①   Select the backup file that is downloaded in "**8.8.2 Backing up setting**"
②   Click the [SET] button to apply the setting

Notes:
・ If using a backup file other than the file copied from the PRV, a message, "400 Bad Request" is displayed.
   Check the file and set an appropriate file.
・ If IP address is changed, the communication may be disconnected. In such case, enter the new IP
   address into the address bar.

8.8.4 Resetting to factory defaults
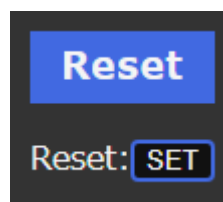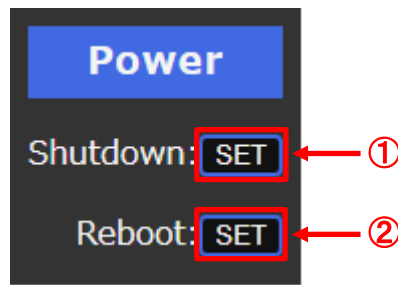

[Fig. 8.26] Initialization

Click the [SET] button to reset settings to factory defaults

Note:
If IP address is changed, the communication may be disconnected. In such case, enter the new IP address
into the address bar.

8.8.5 Shutting down and Rebooting

[Fig. 8.27] Shutting down and rebooting

①   Click the upper [SET] button to shut down the PRV
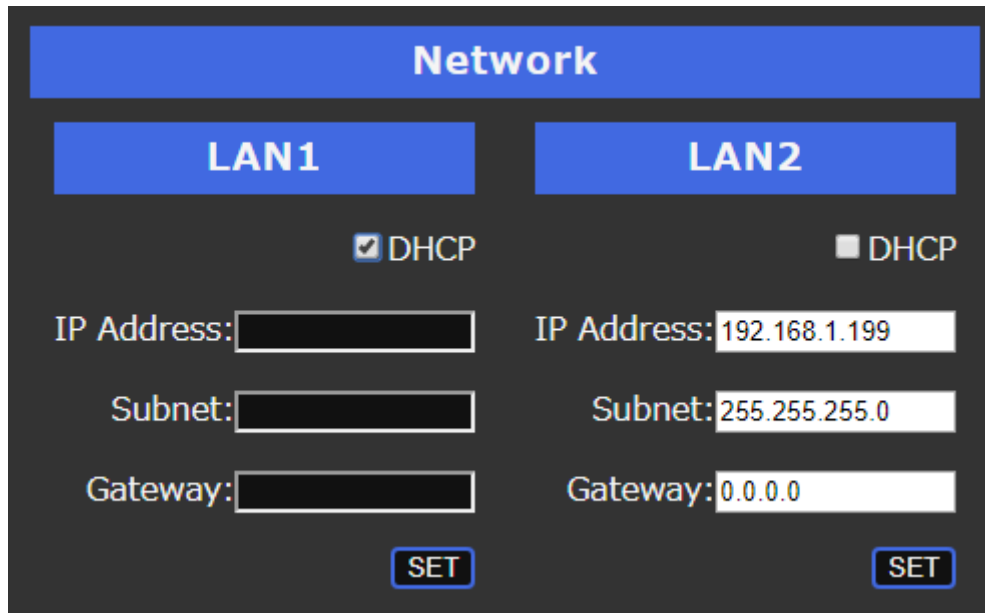②   Click the lower [SET] button to reboot the PRV

8.8.6 Login setting

[Fig. 8.28] Logging in

Enter all information above and click the [SET] button to login

8.8.7 Setting LAN

[Fig. 8.29] Setting LAN

For LAN1

Enter all information above and click the [SET] button to apply settings

For LAN2

Enter all information above and click the [SET] button to apply settings

Notes:

・ If set values are not correct, a message, "400 Bad Request", is displayed. Check the setting and correct the value(s).

・ If IP address is changed, the communication may be disconnected. In such case, enter the new IP address into the address bar.

8.9 Version

[Fig. 8.30] Version

9 Product specification

Item			Description
Input			1
Output			1
Video	Input	Resolution	Up to 1920x1080@60
	Output	Resolution	Up to 3840x2160@30
Protocol			TCP/IP, UDP/IP, HTTP, ICMP, DHCP
Connectors	LAN		2 ports/RJ-45 10Base-T/100Base-TX/1000Base-T (Auto Negotiation), Auto MDI/MDI-X
	HDMI		1 input　　: Female HDMI Type A (19-pin) 2 outputs : Female HDMI Type A (19-pin) (*1)
	USB 3.0		4 ports: Female USB 3.0 Type A
Functions	Preview layout		Up to 128 layouts can be registered
	Thumbnail capture		Up to 100 images can be displayed Capture interval : 3 sec. to 600 sec. Capture format　: .jpg
	Encode		Communication : Unicast, Multicast Coding standard : H.264 BP/MP/HP Bit rate　　　　 : 8 Mbps Frame rate　　　: Up to 60 fps Resolution　　　 : Up to 1920x1080 (*2)
General	AC adapter		Input　 : 100 - 240 VAC ±10%, 50 Hz/60 Hz ±3 Hz Output : DC 12 V 3 A 36.0 W (A dedicated AC adapter is provided)
	Power consumption		About 18 W
	Dimensions		8.3 (W) × 1.7 (H) × 5.9 (D)" 210 (W) × 44 (H) × 150 (D) mm (EIA 1U high, full rack wide) (Excluding connectors and the like)
	Weight		3.3 lbs. (1.5 kg)
	Temperature		Operating: 32°F to 104°F (0°C to +40°C) Storage　: -4°F to +176°F (-20°C to +80°C)
	Humidity		Operating/Storage: 20% to 90% (Non Condensing)

*1　Two HDMI output connector cannot output signals simultaneously.
*2　The resolution of H.264 is limited to the resolution of the input video.

10 Troubleshooting

In case the PRV does not work correctly, please check the following items first. Also refer to manuals for connected devices as well, since they may possibly be the cause of the problem.

・ Are the PRV and all devices plugged in and powered on normally?
・ Are cables connected correctly?
・ Are there no loose connections?
・ Are correct cables for PRV being used?
・ Are signal specifications of connected devices matched to each other?
・ Are there any nearby objects that may cause noise?

If additional assistance is required, please perform the following tests and then contact us.

No.	Checking items	Result
1	Does the same problem occur at all connectors?	Yes or No
2	Connect the devices using genuine cables without connecting the PRV. The problem still cannot be solved? Please contact us for assistance.	Yes or No

User Guide of PRV-100

Ver.1.4.0

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