

**WISENET**

# **NETWORK VIDEO DECODER**

User Manual

SPD-150



# Network Video Decoder

## User Manual

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### Trademark

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### Disclaimer

Hanwha Techwin makes the best to verify the integrity and correctness of the contents in this document, but no formal guarantee shall be provided. Use of this document and the subsequent results shall be entirely on the user's own responsibility. Hanwha Techwin reserves the right to change the contents of this document without prior notice.

- ❖ Design and specifications are subject to change without prior notice.
- ❖ The initial administrator ID is “admin” and the password should be set when logging in for the first time.  
Please change your password every three months to safely protect personal information and to prevent the damage of the information theft.  
Please, take note that it's a user's responsibility for the security and any other problems caused by mismanaging a password.

## IMPORTANT SAFETY INSTRUCTIONS



Read these operating instructions carefully before using the unit.  
Follow all the safety instructions listed below.  
Keep these operating instructions handy for future reference.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean the contaminated area on the product surface with a soft, dry cloth or a damp cloth.  
(Do not use a detergent or cosmetic products that contain alcohol, solvents or surfactants or oil constituents as they may deform or cause damage to the product.)
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15) This product is intended to be supplied by Listed Power Unit marked "Class 2" or "LPS" and rated 12 Vdc, Min. 1.8 A.
- 16) The wired LAN hub providing power over the Ethernet (PoE) in accordance with IEEE 802-3af shall be a UL Listed device with the output evaluated as a Limited Power Source as defined in UL60950-1.
- 17) Associated Ethernet wiring shall be limited to inside the building.



## Standards Approvals



- 
 Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- 
 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.
- 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.

BEFORE START

This manual provides operational information necessary for using the product and contains a description about each component part and its function as well as menu or network settings.  
You have to keep in mind the following notices :

- Hanwha Techwin retains the copyright on this manual.
- This manual cannot be copied without Hanwha Techwin's prior written approval.
- We are not liable for any or all losses to the product incurred by your use of non-standard product or violation of instructions mentioned in this manual.
- Prior to opening the case, please consult a qualified technician first. Whenever this is needed power must be removed from the unit.

Warning

Battery

It is essential that when changing the battery in the unit, the replacement battery must be of the same type otherwise there may be a possibility of an explosion.  
The following are the specifications of the battery you are using now.

- Normal voltage : 3V
- Normal capacity : 210mAh
- Continuous standard load : 0.4mA
- Operating temperature : -20°C ~ +60°C  
(-4°F ~ +140°F)

**CALIFORNIA USA ONLY**  
This Perchlorate warning applies only to primary CR (Manganese Dioxide) Lithium coin cells in the product sold or distributed ONLY in California USA.  
"Perchlorate Material - special handling may apply,  
See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)."

Caution

- Connect the power cord into a grounded outlet.
- The Mains plug is used as a disconnect device and shall stay readily operable at any time.
- Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.
- Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.

Operating Temperature

The guaranteed operating temperature range of this product is 0°C ~ 40°C (32°F ~ 104°F).  
This product may not work properly if you run right after a long period of storage at a temperature below the guaranteed one.  
Prior to using a device that has been stored for a long period in low temperatures, allow the product to stand at room temperature for a period.

Security Precautions

The initial administrator ID is “**admin**” and the password should be set when logging in for the first time.  
Please change your password every three months to safely protect personal information and to prevent the damage of the information theft.  
Please, take note that it's a user's responsibility for the security and any other problems caused by mismanaging a password.



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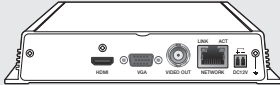





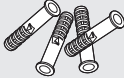
FEATURES

This product can play back the video and audio captured by network cameras.

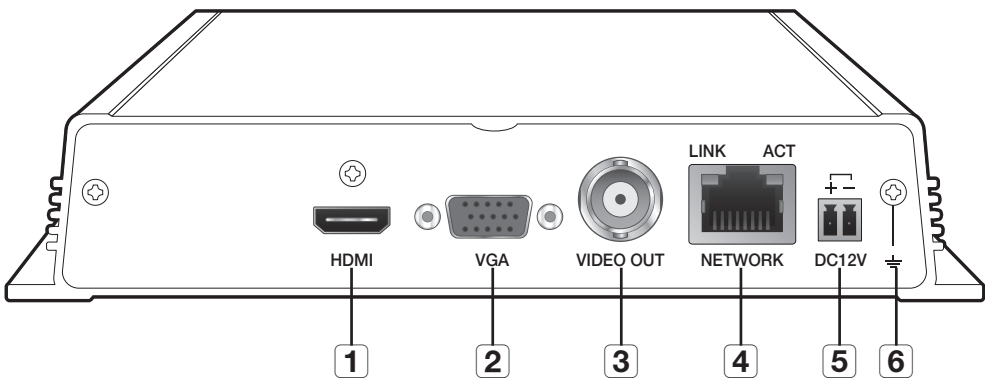
- User-friendly UI
- Supports a range of 4K camera resolutions (3840X2160, 4096X2160, 4000X3000)
- Outputs a 4K high definition image using HDMI
- Supports ONVIF Profile S standard and RTP / RTSP protocols
- 49 channels simultaneous output (HDMI: 32 channels, VGA: 16 channels, BNC: 1 channel)
- Installation Wizard Function (Easy Setup)

Package Contents

Please unwrap the product, and place the product on a flat place or in the place to be installed.  
Please check the following contents are included in addition to the main unit.

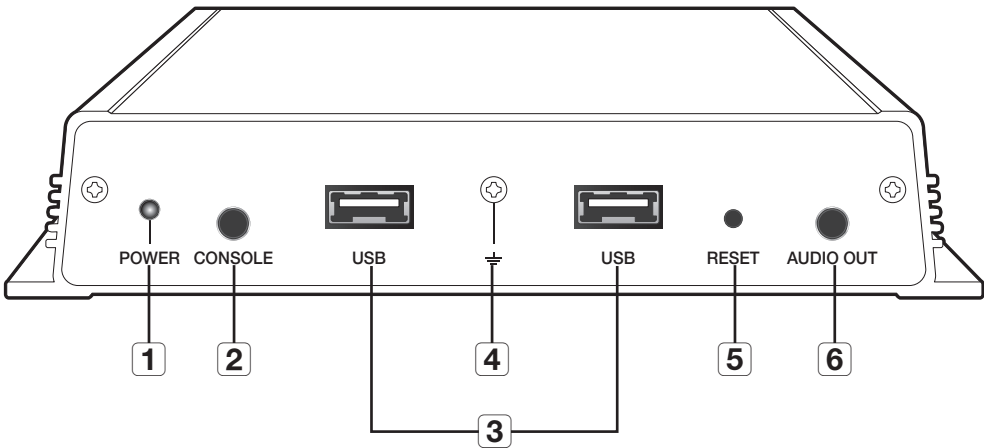
		
Decoder	Mouse	User Manual CD
		
User Manual or Quick Manual	Terminal block	Taping screw
		
Plastic Anchor		

PART NAMES AND FUNCTIONS (FRONT)



Part Names		Functions
1	HDMI	HDMI connector port.
2	VGA	VGA Video Signal Output Port.
3	VIDEO OUT	This is a BNC terminal to display video.
4	NETWORK	This is a terminal to connect to Ethernet cable. <div>▪ Power input can be provided using PoE. (Please see "Product specifications" for the PoE power specifications.)</div>
5	DC12V	This is a terminal to connect a designated power supply.
6	Ground connection	Terminal to connect a separate ground cable. <div>▪ Add a ground cable to support the safe use of the device.</div>

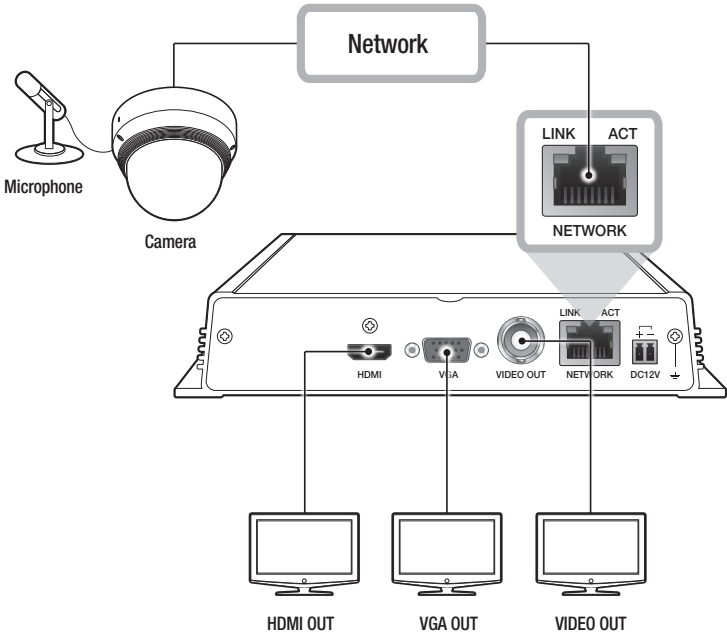
PART NAMES AND FUNCTIONS (REAR)



Part Names		Functions
1	POWER	It displays the power ON/OFF status using an LED. <div>- Normal operation: LED ON</div> <div>- Abnormal operation: LED OFF</div>
2	CONSOLE	[CONSOLE] is designed for the service repair purpose only.
3	USB	Connects the USB devices.
4	Ground connection	Terminal to connect a separate ground cable. <div>▪ Add a ground cable to support the safe use of the device.</div>
5	RESET	This button can be used to initialize the device if you have forgotten your password. <div>If you press and hold the button for about 10 seconds, the password initialization pop-up window will open, prompting you to reset the password.</div>
6	AUDIO OUT	This is a terminal for voice signal output (3.5 $\pi$ ).

# connecting with other device

## CONNECTING TO AN EXTERNAL DEVICE



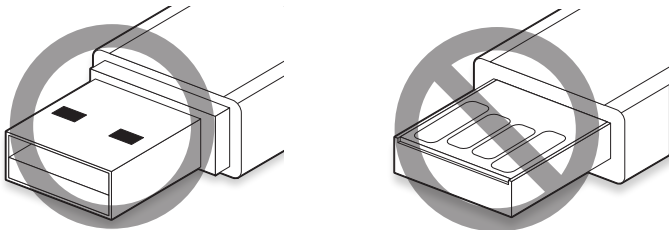
! Unrated or improper power source may cause damage to the system. Ensure that you use only the rated power source before pressing the POWER button.

## CONNECTING THE USB

1. On the front of the product, there is a USB port.
2. You can connect USB memory or mouse to the USB port.
3. The product supports hot plugging function that enables connecting/disconnecting USB devices while in operating the system.

! Some USB devices may fail to function properly due to compatibility issue, please check the device before using.

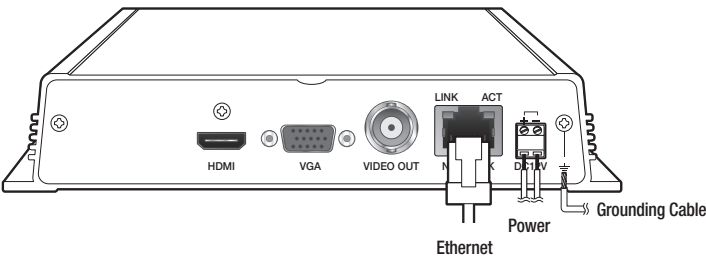
- Only USB storage devices that comply with the standards (having a metal cover) are guaranteed for data transfer.
- In case if the USB device's electric contacts have been worn out, data transfer between the devices may not properly function.



## CONNECT ETHERNET

Connect the Ethernet cable to connect it to a local network or the internet. It can be connected without a power adapter by supplying power separately from the PoE switch.

- Please see "Product specifications" for the PoE power specifications. (Page 26)



## CONNECT POWER

When using a normal Ethernet cable, connect to the power adapter for power supply. Connect the (+, -) wires of the power adapter to the power input terminal of the network video decoder using a screwdriver.

- ! When using PoE and DC 12V power simultaneously, the device will be operated with the external power (DC 12V).
  - If you use and connect a router with a PoE function, no external power is required.
  - PoE should be compatible with IEEE 802.3af.
- As DC 12V has polarity, be careful when you connect it.
- When connecting external devices, you must first turn off the power to the devices.
- Connect the set and adapter power cable first, and then plug it into a wall socket rated 220V.
- Do not extend the adapter output cable.
- If you need to extend the power cable, contact the service center.

### Power Cable Specification for Each Model

Input power	Wire Type (AWG)	Cable Length (Max.)
DC 12V	#18	19m
	#16	30m

## CONNECTING GROUND WIRE

Connect the ground wire to the FG screw at the right side of the power input terminal using a screwdriver.

- ! ■ Grounding protects the product from being damaged by lightning.
- When connecting, be sure to turn off the power to devices.

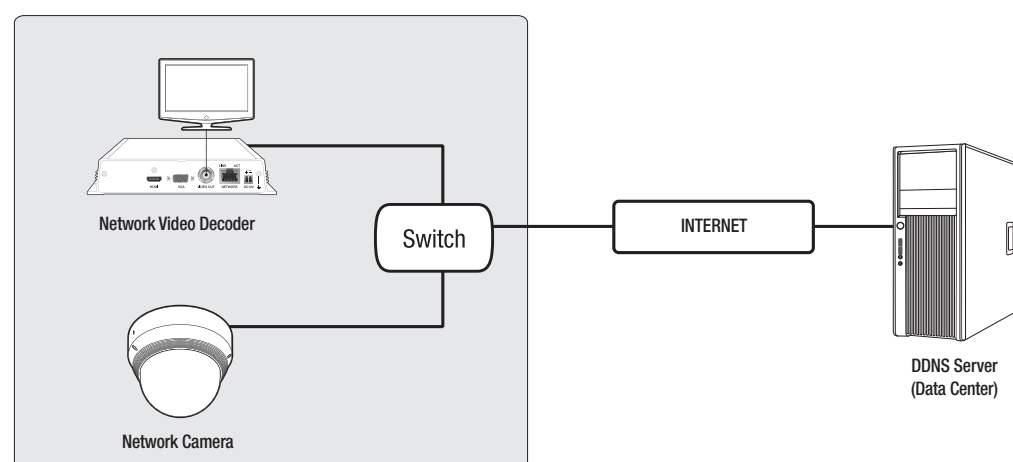
### Recommended specifications for ground wire

- Length: Maximum 3M
- Thickness: 18AWG or thicker  
Ex) UL1007 AWG18/16, UL1015 AWG18/16/14/12, UL2468 AWG18/16/14

## CONNECTING THE NETWORK

- ✍ ■ For more information about network connection, refer to "Network Configuration". (Page 24)

### How to install the network video decoder



## GETTING STARTED

### Starting the system

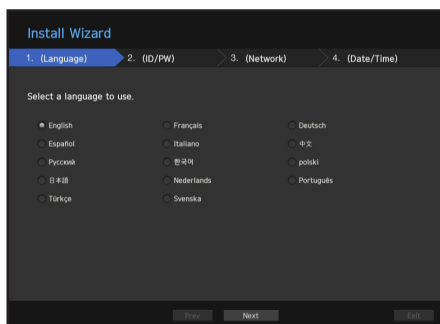
1. Connect the decoder to the power supply.
2. Initialization will proceed in the order of the icons shown.
3. After step 3, the live screen will appear.




### Install Wizard

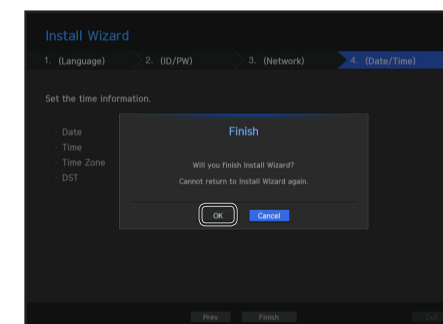
As shown below, proceed through each step of the <Install Wizard>.

1. In the <Language> screen, select the language and press the <Next> button.
2. In the <ID/PW> screen, set the password and press <Next>.
3. In the <Network> screen, set the network access method and the access environment. To use a simple intranet, click <Next>.
  - Network (Camera) : Connects to the camera and receives the video feed from the camera
  - Network Setup
    - IP Type : Choose the network connection method.
    - IP Address, Subnet Mask, Gateway, DNS



-  If the LAN cable is not connected to the port, the setting button will not be activated for use. Check the LAN cable connection.
- For more details on network settings, refer to the user manual.

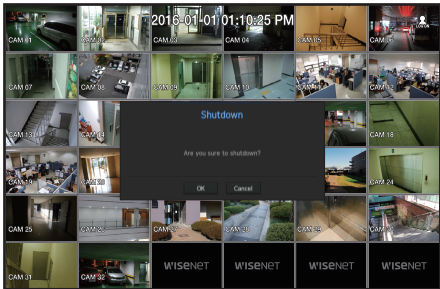
4. After setting the date/time settings in the <Date/Time> screen, click on the <Finish> button to launch the setting completion window.



# Shutting Down the System

1. In the live screen menu, select <Shutdown>.
2. The "Shutdown" confirmation pop-up window will appear.
3. Click on <OK>.  
The system will shut down.

- Only the user with the "shutdown" permission can shut down the system.
- For the permission management, refer to "User > Setting Permissions". (Page 18)



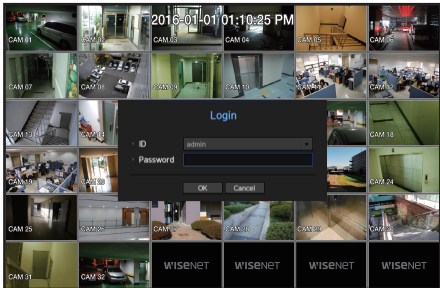
# Login

To use the Decoder menu, you are required to login as a user that is authorized to access the applicable menu.

1. Right click with your mouse button on the live mode screen.  
You will see the context menu on the screen as shown.
2. Select <Login>.  
The login dialog appears.

- The initial administrator ID is set to "admin" and you will need to configure the password in the installation wizard.
- Please change your password every three months to safely protect personal information and to prevent the damage of the information theft.  
Please, take note that it's a user's responsibility for the security and any other problems caused by mismanaging a password.

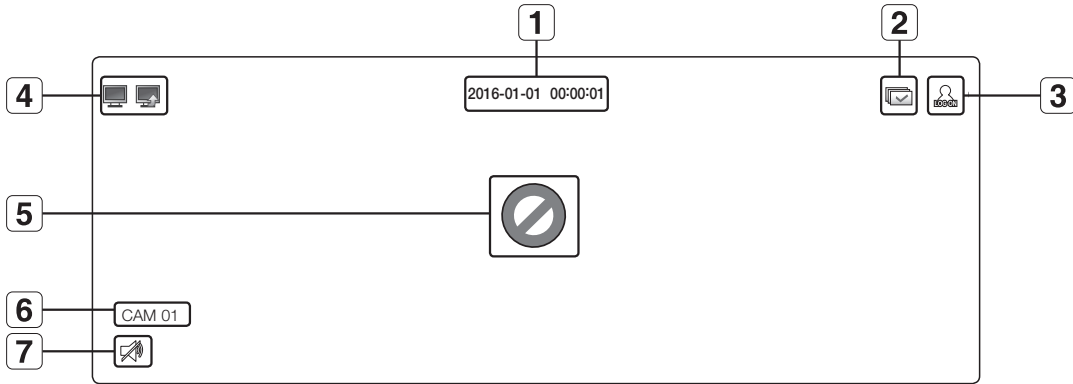
- For the restricted permission, refer to "User > Setting Permissions". (Page 18)



# LIVE SCREEN CONFIGURATION

## Icons on the Live Screen

You can check the status or operation of the Decoder with the icons on the live screen.



Name		Description
1	Current Date, Time	Displays the current time and date.
2	Screen Mode	It is displayed when all the channels are switched at the set time interval.
3	Login Information	When you are logged in, the "LOG ON" icon will be displayed.
4	System Operation	It is displayed when the network is overloaded. <ul style="list-style-type: none"><li>It occurs when the max receiving allowance is exceeded, causing an overload to the CPU. It will disappear if you modify the camera settings or delete a camera to reduce the performance burden.</li></ul>
		It is displayed when there is firmware to update the server.
5	Video Input Status	Displayed if no input is entered in the condition that the camera is set to <ON>.
		Displayed when the live image with the camera turned <ON> exceeds the supported resolution.
		It displays unsupported channels. (Display 32 channels of video in 36 splits)
		If a camera is <OFF>, or if no camera is registered, or it is in <Covert2> mode, nothing will be displayed on the screen. If the camera is set to <Covert1>, the video will be displayed but the OSD menus will not be displayed.
6	Camera Title / Channel	Display the camera title and channel number.
7	Camera Operation	Displays AUDIO ON/MUTE. Not displayed in video mode if deactivated.

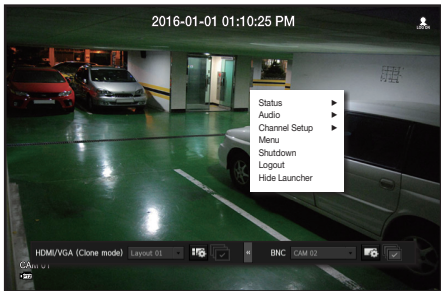
Live Screen Menu

If you right click with your mouse button in live screen mode, it will launch the live screen menu where you can access each menu.

The context menu differs depending on the state of Log in/out, split mode, and Decoder operation status.

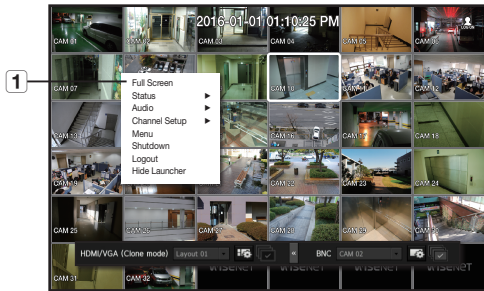
Single Mode Menu

The single mode menu is available only in Single Mode.



< Single Mode Menu >

Menu		Description
1	Full Screen	Select and click a desired channel in Split mode to switch to the full screen of the selected channel.

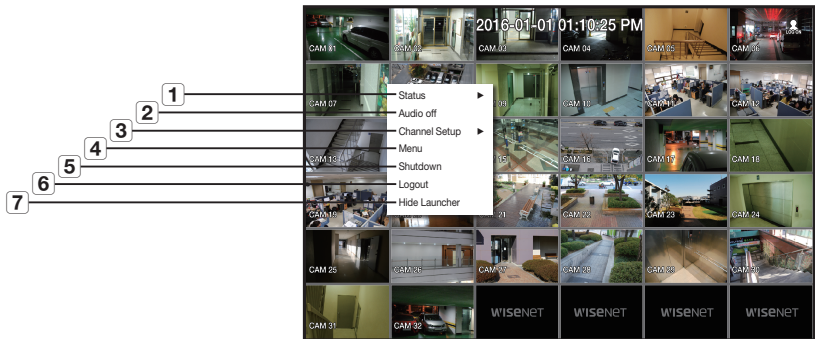


< One channel selection menu in the split screen >

Split Mode Menu

In Live split mode, right-click to display this context menu as shown.

The context sensitive menu in split mode differs, depending on the login/logout status.



Menu		Description
1	Status	This shows the connection information and live status of the cameras connected to each channel. Please see “Status”. (Page 13)
2	Audio On/Off	Turns ON/MUTE the sound of the selected channel. Refer to “Audio ON/OFF”. (Page 14)
3	Channel Setup	Select single channel or multi-channel to change the settings of each channel. Refer to “Channel Setup”. (Page 14)
4	Menu	Enter the main menu. Refer to the menu settings. (Page 17)
5	Shutdown	The system shutdown dialog will appear.
6	Login/Logout	You can log in or out.
7	Show/Hide Launcher	Shows or hides the launcher.



LIVE SCREEN MODE

You can play up to 64 live video channels in single, 10-split, or auto sequence mode.

Method for displaying screen mode

If you want to change to split mode, select 'split mode' in the layout settings.

CH1	CH2	CH3	CH4	CH5	CH6
CH7	CH8	CH9	CH10	CH11	CH12
CH13	CH14	CH15	CH16	CH17	CH18
CH19	CH20	CH21	CH22	CH23	CH24
CH25	CH26	CH27	CH28	CH29	CH30
CH31	CH32	Unset	Unset	Unset	Unset

36-split mode

CH1	CH2
CH3	CH4

4-split mode

CH1	CH2	CH3
-----	-----	-----

3-split mode

CH2	CH3	CH4	CH5
CH6			CH7
CH8	CH1		CH9
CH10	CH11	CH12	CH13

13-split mode

CH1	CH2	CH3	CH4
-----	-----	-----	-----

16-split mode

CH1	CH2	CH3
CH4	CH5	CH6
CH7	CH8	CH9

9-split mode

CH1	CH2	CH3
CH4	CH5	CH6

6-split mode

CH1
-----

Single mode

CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10	CH11	CH12	CH13	CH14	CH15	CH16
-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------

25-split mode

CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10	CH11	CH12	CH13	CH14	CH15	CH16	CH17	CH18	CH19	CH20	CH21	CH22	CH23	CH24	CH25
-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

30-split mode

CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10	CH11	CH12	CH13	CH14	CH15	CH16	CH17	CH18	CH19	CH20	CH21	CH22	CH23	CH24	CH25	CH26	CH27	CH28	CH29	CH30
-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

36-split mode

Auto Sequence

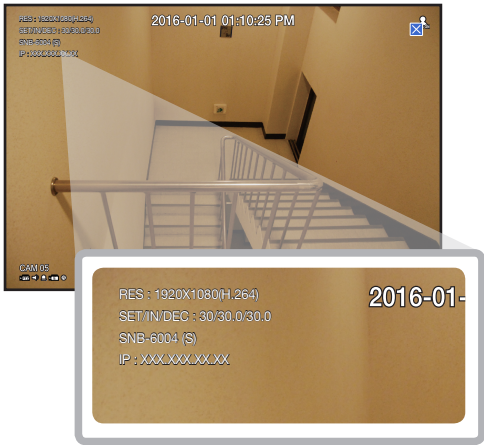
Status

You can check the connection information of the camera to be connected to each channel on the live screen.

Channel info

If you select <CH Info> in the <Status> menu on the live screen, the information of an incoming video on the live screen that you are currently monitoring is output.

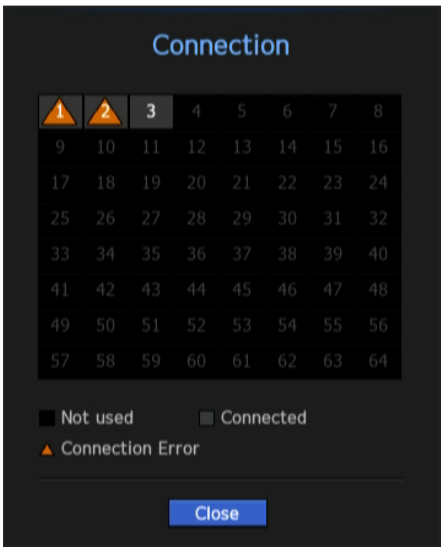
- The letter marked next to the model name indicates the protocol used when registering the camera.
  - S and V indicates Samsung protocol, O indicates ONVIF and R indicates RTSP.
- If connected via RTSP or IPv6, it will not show the IP address.



Connection

If you select <Connection> in the <Status> menu on the live screen, you can check the connection state of the camera connected to each channel.

- Please refer to "Register camera > Error code guide" for details regarding camera connection errors. (Page 21)



Live Status

If you select <Live> in the <Status> menu on the live screen, you can check the transmission information and state of the camera connected to each channel.

Live Status						
CH	Model	Status	IP Address	Codec	Resolution	Frame Rate
1	XNF-B110R	Connected	192.168.4.19	H.264	768X768	30fps
2	SNB-7002	Connected	192.168.4.44	H.264	800X600	20fps
3	--	--	--	--	--	--
4	--	--	--	--	--	--
5	--	--	--	--	--	--
6	--	--	--	--	--	--
7	--	--	--	--	--	--
8	--	--	--	--	--	--
9	--	--	--	--	--	--
10	--	--	--	--	--	--

- Model : Displays the camera model name connected to each channel.
- Status : Displays the status of camera connection set to each channel.
- IP Address : Displays the IP address of a camera set to each channel.
- Codec : Displays the live profile codec information for a camera set to each channel.
- Resolution : Displays the live profile resolution of a camera set to each channel.
- Frame Rate : Displays the live profile transmission rate for a camera set to each channel.

## AUDIO ON/OFF

You can turn the sound on/off corresponding to the channel in Live mode.

### AUDIO ON/OFF in Single mode

Click on the audio icon (🔊) on the screen to turn it ON/OFF.

- ✍ If there is no sound even though the output settings have been properly configured, confirm that the connected network camera supports the audio function, and check to ensure that the audio settings are properly configured. The sound icon can be displayed if the sound signal fails to output from noise.
- Only the channel where <AUDIO> is set to <ON> in "Setting the Device > Camera" displays the audio icon (🔊) in Live mode that you can use to turn the sound on/off.

## Channel Setting

While checking the video of registered channels, change the name of the channel to a name that makes sense for the video being captured.

1. Place the cursor over the camera name of each channel to display the <▼> key to the right on the screen.
  2. Click a camera name to display a channel list where you can select a different channel.
  3. Select a desired channel and click it.  
The current channel will be switched to the selected one.  
Use the cursor to select a channel to move, and drag and drop it to a desired channel; this can also change the channel position.
- Ex : if switching CH 1 to CH 7

CH1	CH2	CH3	CH4
CH5	CH6	CH7	CH8
CH9	CH10	CH11	CH12
CH13	CH14	CH15	CH16

➔

CH7	CH2	CH3	CH4
CH5	CH6	CH1	CH8
CH9	CH10	CH11	CH12
CH13	CH14	CH15	CH16

### Switching to Single Mode

When in split mode, select and double-click a desired channel to switch to its Single mode.

- Ex : If double-clicking CH 3.

CH1	CH2	CH3	CH4
CH5	CH6	CH7	CH8
CH9	CH10	CH11	CH12
CH13	CH14	CH15	CH16

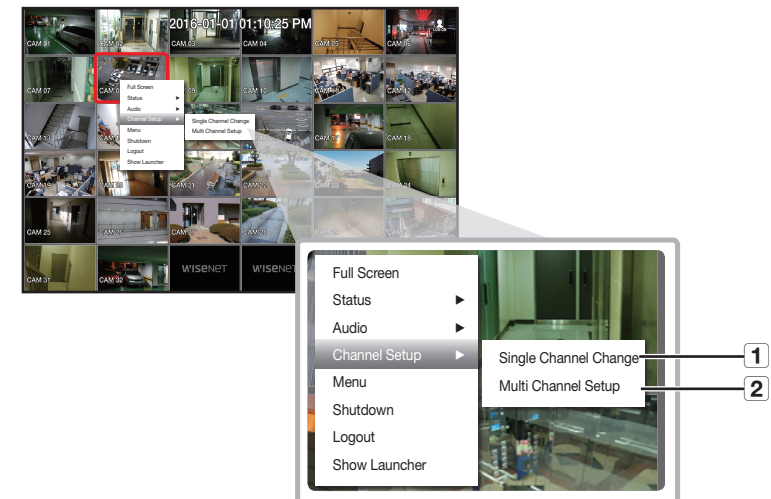
➔

CH3

## 1 Rename single channel

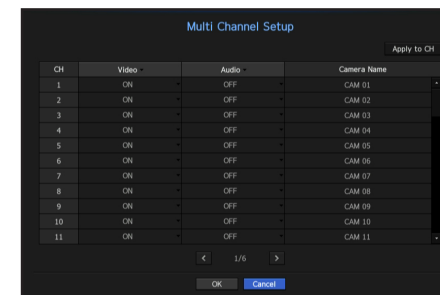
Select one channel from the <Channel Setup> menu of the live screen, and click <Single Channel Change> to change the name of the channel.

- Please refer to "Use virtual keyboard". (Page 17)



## 2 Set up multi-channels

You can set up anything related to video by channel.



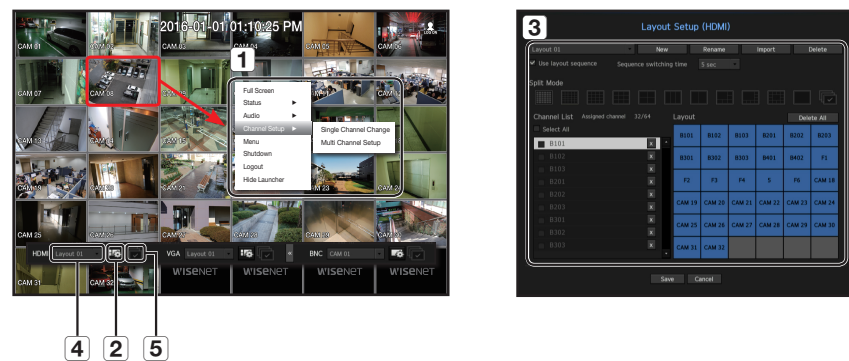
- Select the channel you want to change in live and move to <multi-channel settings>, and then the focus will shift to the video.  
You can change related information immediately by referring to the selected video.



- Please see "Channel Setting" for details about the settings. (Page 23)

## SET UP LAYOUT

You can set up the layout of each channel from the live screen.



1. Designate the channel name related to the video through the single channel or multi-channel settings in the live screen.  
Please see "**Channel Setting**".
2. Run the layout settings screen at launch.
3. Set up layout by composing the split screen mode with channel names.  
You can set up multiple desired layouts at the same time.
4. After settings, you can check it out while changing layout, and change the order of channels by clicking with the mouse in the relevant order.
5. It will replay the live screen using different layouts in consecutive order for the sequence setting time.
  - Check **<Use layout sequence>** in the layout settings window to set up the sequence conversion time.

## SET UP LAUNCHER

You can set up the video output layout by using the launcher menu at the bottom of the live screen.

1. Select **<Show launcher>** from the live screen menu.
2. Click the launcher menu on the bottom of the screen to enter the menu directly.

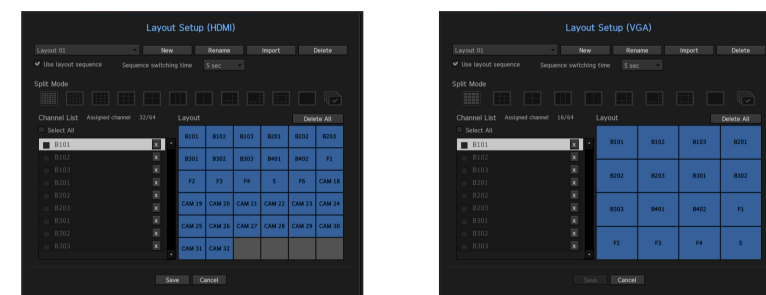


- If there is no input within 10 seconds, it will disappear.
- The launcher menu can only be selected by clicking.

- **Layout 01** : Select the layout to be displayed on the screen from among the layouts you set up.  
This is a layout list batch added from the HDMI/VGA layout settings page, and will be changed when you change it.
- **CAM 01** : It shows the list of cameras registered at BNC layout, and only those cameras can be selected.
- : Set up, change or delete the layout of each channel.
- : Run the sequence.

## HDMI/VGA layout settings

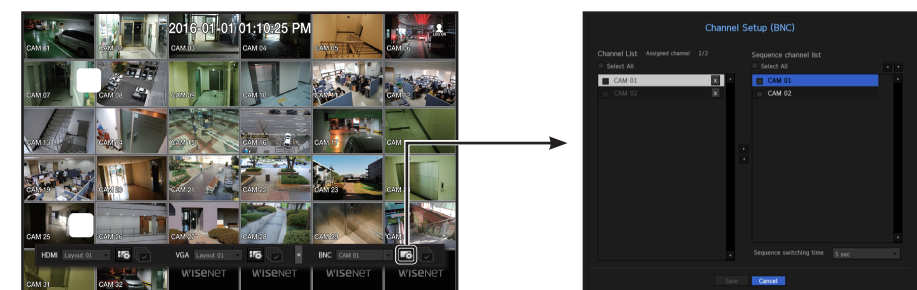
Bundle channels based on user needs, to check them immediately when necessary.



1. Select **<img alt="HDMI icon"/>**.  
The layout settings window will appear.
  - New : You can set up a new layout.
  - Rename : Select the layout you want to set up and change the name.
  - Import : Select and import layouts from the layout list (HDMI, VGA) you have set up already.
  - Delete : You can delete a layout you set up previously.
  - Use layout sequence : Select whether or not you want to use the layout sequence.
  - Sequence switching time : The time when the layout split screen is automatically converted is set up.
  - Split Mode : Select split mode from the layout mode.
    - VGA layout supports up to 16 splits. However, the layout with 25 and 36 splits will be excluded from the HDMI layout list while importing the layout list.
    - **<img alt="Single channel sequence icon"/>** is a single channel sequence, and will be excluded from the layout sequence operation of the live launcher.
    - **<img alt="Use layout sequence icon"/> Use layout sequence** : Live launcher sequence is a layout sequence, and it will be included in the sequence usage and selection in the layout settings page.
  - Select channel: Select the channels which compose the layout.
    - Drag the channel selected from the layout at the right of the screen to move the channel.
2. Push **<Save>** to save the layout.
  - VGA layout and settings can be accessed through "**Devices > Monitor > Expand**".

## BNC LAYOUT SETTINGS

BNC sequence will be operated through the selected channels.



- BNC channel settings and sequence can be used when "**Devices > Monitor > BNC Output**" in the settings is selected as **<ON>**.

## Configure live monitoring

- Please see each page for details of settings.
1. Camera registration (Page 21) > 2. Designate Live channel name (Page 14) > 3. Layout settings (Page 15) > 4. Layout monitoring (Page 15)

### 1. Camera registration

The 'Camera Register' screen displays the following table:

Model	IP Address	MAC	Port	Network	Connection
PHD-900R	192.168.4.26	00:09:1B:11:04:4E	4520	1	-
QW-703R	192.168.4.30	00:16:6C:F7:95:F8	4520	1	-
SMB-7002	192.168.4.41	00:09:1B:30:17:84	4520	1	Registered

The 'Camera' screen displays the following table:

CH	Preview	Protocol	Model	IP Address	Connection	Data Rate
1	Preview	SAMRNG	SMB-7002	192.168.4.44	Connected	0.1Mbps (0.1%)
2	Preview	SAMRNG	SAMRNG CAM	192.168.4.19	Error 01	0.0Mbps (0.0%)
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-

### 2. Designate Live channel name

The 'Multi Channel Setup' screen displays the following table:

CH	Video	Audio	Camera Name
1	ON	OFF	B101
2	ON	OFF	B102
3	ON	OFF	B103
4	ON	OFF	B201
5	ON	OFF	B202
6	ON	OFF	B203
7	ON	OFF	B301
8	ON	OFF	B302
9	ON	OFF	B303
10	ON	OFF	B401
11	ON	OFF	B402

### 3. Layout settings

The 'Layout Setup (HDMI)' screen displays the following table:

Channel List	Assigned channel	32/64	Layout	Delete All
B101	X		B101 B102 B103 B201 B202 B203	
B102	X		F2 F3 F4 5 F6 CAM 19	
B103	X		CAM 19 CAM 20 CAM 21 CAM 22 CAM 23 CAM 24	
B201	X		CAM 25 CAM 26 CAM 27 CAM 28 CAM 29 CAM 30	
B202	X		CAM 31 CAM 32	
B203	X			

The 'Layout Setup (VGA)' screen displays the following table:

Channel List	Assigned channel	16/64	Layout	Delete All
B101	X		B101 B102 B103 B201	
B102	X		B202 B203 B301 B302	
B103	X		B303 B401 B402 F1	
B201	X		F3 F4 5 F6	
B202	X			
B203	X			
B301	X			
B302	X			
B303	X			

### 4. Layout monitoring

The top bar shows the following settings:

- HDMI: PARKING
- VGA: ELEVATOR
- BNC: B101

The monitors are labeled:

- HDMI OUT
- VGA OUT
- BNC OUT

# menu setup

System environment, device and network can be set up.

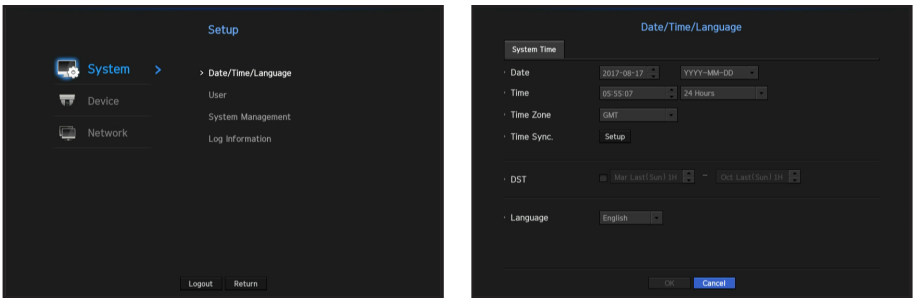
## SYSTEM SETUP

You can setup Date/Time/Language, User, System Properties and Log.

### Date/Time/Language

#### Setting the Date/Time/Language

You can check and setup the current Date/Time and time related properties, as well as the language used for the interface on the screen.



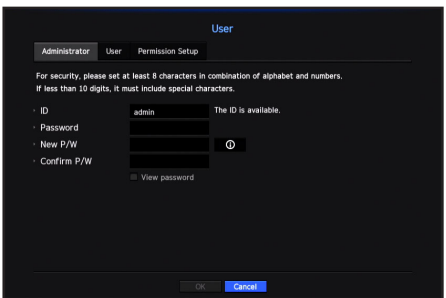
- Date : Sets the date and its format that will appear on the screen.
- Time : Sets the time and its format that will appear on the screen.
- Time Zone : Sets the time zone of your area based on the Greenwich Mean Time (GMT).
  - GMT (Greenwich Mean Time) is standard World Time and the basis of world time zone.
- Time Sync. : Specify the use of synchronization with the time server.  
Click the <Setup> button to display time synchronization setup screen.  
If you select to use the <Time Server>, the current time will be synchronized on a regular basis by the server defined as <Time Server>.  
If this is the case, you cannot change the time setting manually.
  - Synchronization : Specify the use of synchronization with the time server.
  - Time Server : Enter an IP or URL address of the time server.
  - Last Sync Time : Displays the most recent synchronization time from the selected time server.
- DST : Set up Daylight Saving Time with its period to make the time earlier than the GMT of its time zone by 1 hour during the set period.
- Language : Select your language. Sets the language for the interface.  
English, French, German, Spanish, Italian, Chinese, Russian, Korean, Polish, Japanese, Dutch, Portuguese, Turkish and Swedish languages are supported.

## User

You can set permissions of each user over the Decoder's specific function and settings.

### Setting the Administrator

You can set and change Administrator's ID and password.  
The administrator can use and set all menu items and functions.

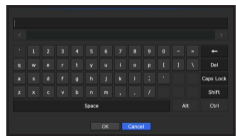


- ID : Change the admin ID.
- Password : Checks the current password.
- New P/W : Enter new password.
- Confirm P/W : Confirms the new password.
  - If <View password> is selected, the password will no longer be hidden on the screen when you type it.



- The initial administrator ID is set to "admin" and you will need to configure the password in the installation wizard.
- Please change your password every three months to safely protect personal information and to prevent the damage of the information theft.  
Please, take note that it's a user's responsibility for the security and any other problems caused by mismanaging a password.
- If you click < ⓘ >, a basic guide for password setup is displayed.

### Using Virtual Keyboard

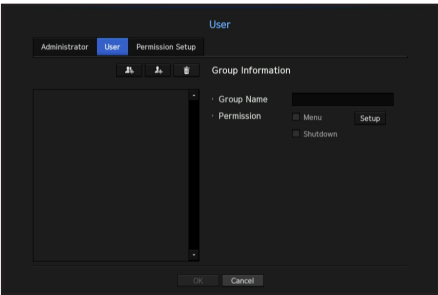


1. For alphanumeric inputs, the virtual keyboard window appears.
2. Using a mouse, click on the desired character tab.
3. In the upper text input box of the virtual keyboard, there displays a list of candidate words containing the selected character.
4. Select a word from the list, or use the keyboard to enter the whole word.
  - If there are many of candidate words, use < < > > buttons to move between them forward and backward.
5. Select <OK>.  
Entered word is applied.
  - For upper case letters, use <Caps Lock> button.
  - For special characters, use <Shift> button.
  - Using the virtual keyboard is the same to a normal keyboard use in your region.
  - ID allows alphanumeric characters only.
  - The password should at a minimum be an 8-digit combination of alphabetical letters and numbers.




User setting

You can create a group or set permissions for each group.  
You can add a user and edit the registered user information.



If you want to add a group

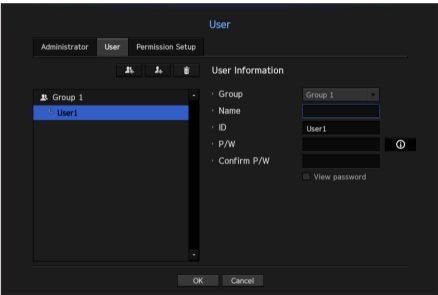
- 1. Click on the [  ] button to launch the Group Addition popup window.  
If you want to add a group, click on <OK>.
- 2. Press the group name item to launch the virtual keyboard used to enter group names.  
Enter the group name to register.
  - You can add a maximum of 10 groups.


If you want to set group permission

Set permission to access each group.  
Each group's users can only access items with a check mark beside them.


- 1. Select the menu to set group permissions.  
The menu with access permissions will appear when a user of the group logs in.
  - Menu : You can select and set the setting menu that can be accessed. A group user can only access the menu selected. If you select the menu, the menu permission setting screen will be displayed.
  - Shutdown : Authority for exiting the system will be given.
- 2. Click <OK>.  
Check a group user to give them the permission to access the selected item.

If you want to register a user



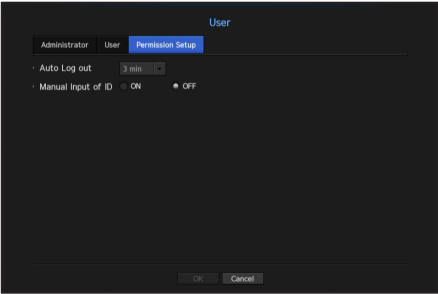
- 1. Click on the [  ] button to launch the user addition popup window.  
To add a user, click on <OK>.
- 2. Select a group.  
When registering a user, the selected group will be automatically registered.
  - A group can be changed after inputting all required information.
- 3. Enter name, ID and password.
- 4. Click <OK>.  
Registered user information will be saved.

When you want to delete the group and user information

- 1. To delete, click on the [  ] button.
- 2. The deletion confirmation window will appear and you can select an item to delete and click on <Delete>.

Setting Permissions

You can set up an automatic log-out time and whether you are required to enter an ID manually or not.

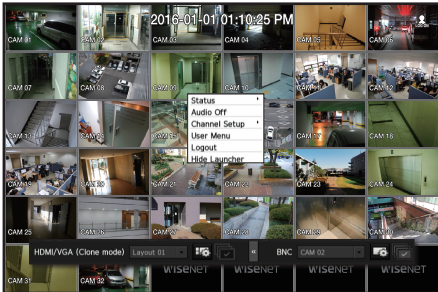


- Auto Log out : A user will be automatically logged out if there is no operation on Decoder for over set period of time.
- Manual Input of ID : In the login window, select whether to enter ID.

## If the user has restricted access

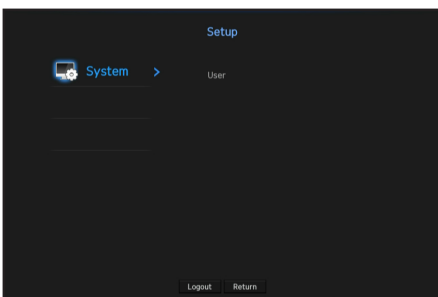
If a new group is restricted to access the entire menus, the users belonging to the group can access only the basic menus and can change only their respective password.

If all permissions are restricted, you will see only some menu items accessible in the Live screen menu.



## To change the user password

If you log in with the user account of a group with restricted access, you just can change your own password.



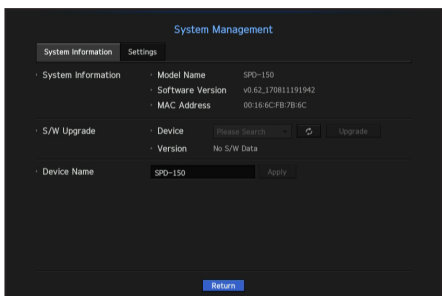
1. Provide the login information.
2. Select <User Menu>.  
The Permission Management screen appears.
3. Select <User>.  
The Password dialog shall appear.
4. Provide a new password.
5. Select <OK>.  
The old password will be changed to a new one.


## System Management

You can check the current system version and upgrade to the newest version, or run settings, backup or initialization of settings.

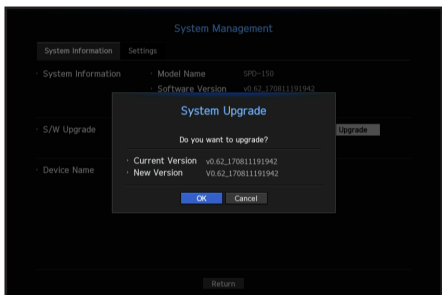
### Checking the System Information

You can check the current software version and MAC address before proceeding with the upgrade.




- System Information : Shows the current system's information.  
The values can not be changed by a user.
- S/W Upgrade : Updates the Decoder's software up to date.  
- Press the <  > button to search for and display the equipment to upgrade.
- Device Name : This is the name of the decoder.

### To upgrade the current software version




1. Connect a device storing the software to be updated.
  - It may take about 10 seconds to recognize the device.
  - Upgradeable devices include USB memory, and network device.
  - When the network is upgraded, the current decoder must be connected to the network.  
Upgrade via the proxy server may not be enabled due to the restricted access.
2. Select <System Management> from <System> window.
3. Select <System Information>.

4. When the recognized device appears, select <Upgrade>.
- If you connect a device in the upgrade menu window, you can press the <> button to search for available software.
- If there is an upgrade image on the network, the popup window will appear.
- The <Upgrade> button will be activated only if the current <Software Version> of the <System Information> is same to or older than that of <S/W Upgrade>.

5. Press &lt;OK&gt; in the "S/W Upgrade" window.

While updating, it shows the progress.

6. When the updating is done, it automatically restarts.  
Do not turn the power off until it finishes restarting.

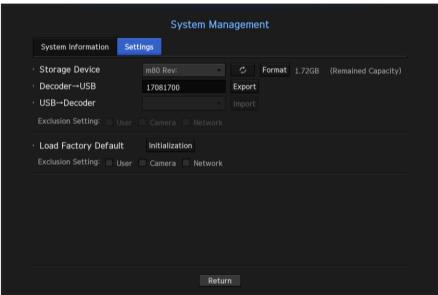



If "Upgrade Failed" appears, retry from the step 4.

When you experience continued failure, consult the service center for assistance.

Settings

You can copy and import the Decoder settings by using a storage media.




- Storage Device : Shows the connected storage device.
- Press the <> button to view the list of storage devices.

- Format : Connected USB device will be formatted.
- Export : Exports Decoder settings to the connected storage device.
- Import : Imports Decoder settings from the storage device and applies to the Decoder.
- Uncheck the checkbox of an item(s) that you want to import.

Only the other items than the selected one will be applied to the Decoder.

<Export> and <Import> settings should be used in the same software version.
- Load Factory Default : Restore the factory default settings of Decoder.
- Uncheck the checkbox of an item(s) that you want to reset. Then, only the other items than the selected one will return to the factory default.

If <Initialization> is selected, a confirmation dialog for "Load Factory Default" prompts. Press <OK> to initialize the system to the factory default.
- 

If you want to initialize the <Authority Setting>, you need to reset the password.

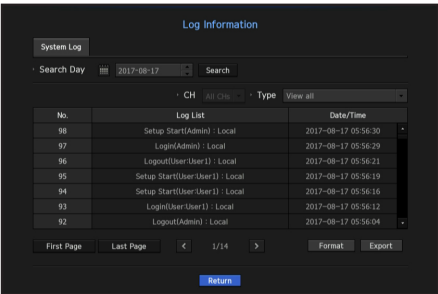
In case you reboot, reset it the Installation Wizard and if not, use the guide screen to reset it.

Log Information

You can check out the record information related to the system.

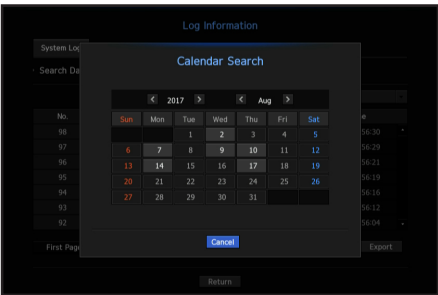
Checking the system log



System Log shows log and timestamp on every system start up, system shutdown, and changes on system settings.



- Search Day : Click the Calendar icon to display the calendar window, or use the direction buttons to specify the search period of the system log.
- Search : Specify the date and press this button to display the search result in the log list.
- Type : When there are too many logs, you can display logs of the desired format by selecting the type.
- Format : Connected USB device will be formatted.
- Export : Save all the logged information recorded in the Decoder into the storage media.

If you want to use the calendar



1. Select a year and month.
- Push the <> , <> key located at the left or right of the year and month to change the year or month in increments of one.
2. If you click dates on the calendar, the date will be selected.
- The dates with data to be searched will be indicated in gray.



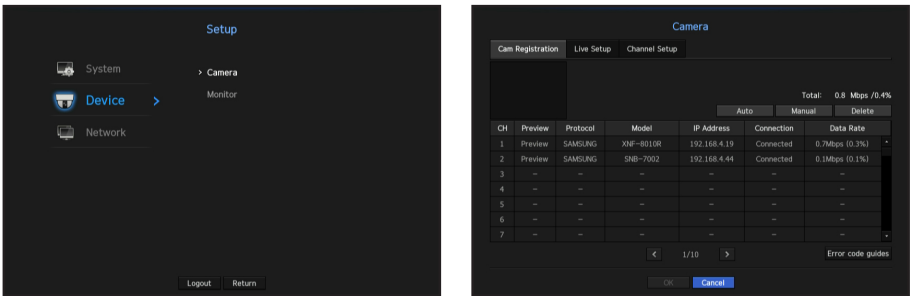
# SETTING THE DEVICE

You can set up content related to the camera and monitor.

## Camera

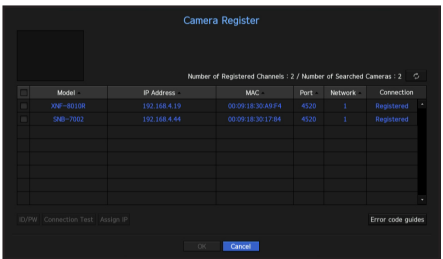
### To register a camera

You can register a network camera for each channel and make connection between.



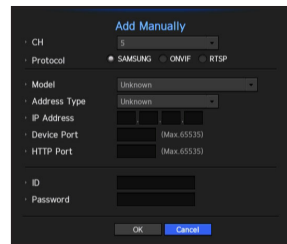
- Preview : View the video of the channel as a current image.
    - Camera searched with ONVIF does not provide previews.
  - Protocol : Show the protocol information of a registered network camera.
  - Model : Show the camera model name.
  - IP Address : Display the IP address of a network camera.
  - Connection : Display the connection status.
  - Data Rate : Displays the total amount of data received by the channel.
  - Error code guide : you can check the details of error codes.
    - Connection failed : The connection has failed due to an unknown error
    - ID/PW authentication failed : ID or PW is incorrect when registering a camera
    - Allowed number of users for camera exceeded : The maximum number of users when registering a camera has been exceeded
    - Unsupported video format : When trying to connect with an unsupported video format in the process of registration
    - 5 times authentication failure : The account of the camera has been locked since ID/PW authentication has failed five times when attempting to register the camera.
- If the Decoder has been initialized, it may not connect to cameras. Configure the network settings first and add cameras. For more information on network settings, refer to "Network Configuration". (Page 24)

### To auto-search for and register a network camera



1. In the <Cam Registration> field, click on the <Auto> button.
2. Search for a network camera connected.
  - An already registered camera will be marked in blue in the list.
  - If you search for the camera again or if the IP is an old IP that was not assigned by the DHCP server (such as -192.168.1.100), then press the <Refresh> button to check if a new IP has been assigned. If the IP is still the same, then select Assign IP to assign the IP manually.
3. Select a camera from the camera list to see a preview of its current video feed.
  - Camera searched with ONVIF does not provide previews.
4. Check the checkbox next to a network camera that you want to connect to.
  - You can select all of the network cameras in the list and provide <ID> and <Password> all at once.
  - Click a header at the top of the list to sort the list according to that header.
- !
  - Registering camera with user account other than admin may restrict camera function.
  - When you change the camera ID/password in the camera web viewer, if the camera is already registered in Decoder, you also have to change the camera ID/passowrd information registered in Decoder.
5. Click on the <ID/PW> button to enter the selected network camera's <ID> and <Password>.
6. Press the <Connection Test> button to make a connection to a camera.
7. Press <Register> to register the selected camera.

If you want to add and register a network camera manually,



1. In the <Cam Registration> menu, click on the <Manual> button.
  2. The manual addition window will appear.
  3. Select a channel and protocol used to connect to a camera.  
The input items may differ depending on the selected protocol.
    - SAMSUNG : Comply with the internal network protocols adopted by Hanwha Techwin.
    - ONVIF : Means the camera supports ONVIF protocols. When connecting a camera that its name cannot be found from the list, select <ONVIF>.
    - RTSP : Comply with RFC 2326, one of "Real Time Streaming Protocol (RTSP)" for real-time streaming.
  4. If you select the <SAMSUNG> protocol, check options as necessary.
    - Model : Select a camera model.
      - Samsung Network Camera/Encoder : Means the camera/encoder supports Hanwha Techwin's SUNAPI, SVNVP protocol. When connecting a camera that does not appear in the camera list, select Samsung Netowrk Camera/Encoder.
        - However, you must select the correct model name of the camera, if it's in the list. Some of obsolete camera models may not be supported.
        - The below models are discontinued. If you register them with ONVIF, some camera functions will be restricted or cause errors. It is recommended you register the Samsung protocol.
          - SNB-2000, SNB-3000, SNC-B2315, SNC-B2331, SNC-B2335, SNC-B5368, SNC-B5395, SNC-B5399, SNC-570, SNC-1300, SND-460V, SND-560, SND-3080, SND-3080C, SND-3080CF, SND-3080F, SND-3081, SNP-3301, SNP-3301H, SNP-3350, SNP-3370, SNP-3370TH, SNP-3750, SNV-3080, SNP-3430
    - Address type : Select an address type of the camera.
      - Address type can be different dependon connected product model.
      - Static(IPv4)/Static(IPv6) : Used to provide the IP address of the camera manually.
      - Wisenet DDNS : This is available only if the camera is registered with the Wisenet DDNS(ddns.hanwha-security.com) server. Provide the registered domain for DDNS ID.
        - Ex) https://www.samsungipolis.com/snb5000 → provide "snb5000" for iPOLiS DDNS
- The DDNS specifications supported by each camera can be found in the user manual for the camera.
- URL : Used for URL address input.
    - When registering the WN5 camera URL, the device port should be changed to 554.

- IP Address : Provide the IP address of the camera.
- Device Port : Provide the device port of the camera.
- HTTP Port : Provide the HTTP port of the camera.
- ID : Provide the ID of the camera that you want to register.
- Password : Enter the password of the camera to be registered.

5. Select <ONVIF> or <RTSP> for the protocol and enter your input for each field appears.

- ONVIF Address / RTSP URL : Enter the camera's RTSP access address that supports ONVIF or RTSP. Please see the user manual for each camera for details on the RTSP address for access.
- ID : Enter the ID for accessing via ONVIF/RTSP protocol.
- Password : Enter the password for accessing via ONVIF/RTSP protocol.
- Mode : If <More Detail> button clicked, setup window will appear. Select a mode that is supported by the network camera in RTSP connection mode.
  - TCP : The connection type with the network camera will switch to "RTP over TCP".
  - UDP : The connection type with the network camera will switch to "RTP over UDP".
  - HTTP : The connection type with the network camera will switch to "RTP over TCP (HTTP)".
  - HTTPS : The connection type with the network camera will switch to "RTP over TCP (HTTPS)".

## If you want to check the error details of camera registration

If you failed to register a camera, the reason for the failure will be displayed.

- **Connection failed due to unknown error.** : This message appears if the camera has failed to be registered due to unknown connection status.
- **Due to the camera account locking, access has failed.** : When you enter a wrong ID/password 5 times to login to the camera account, this message is displayed. Try to log in again after 30 seconds. If the same message appears, you may need to check whether someone has tried to access your camera account from the outside.
- **Connected successfully.** : This message appears if the camera is connected successfully.
- **Incorrect model information. Provide the correct model information.** : This message appears if the model information provided for registering the camera is incorrect.
- **Authentication has failed** : This message appears if the ID or password provided for registering the camera is incorrect.
- **Connection has failed due to excessive concurrent users.** : This message appears if the concurrent user count exceeds the upper limit.
- **Connection has failed due to incorrect HTTP port information.** : This message appears if the HTTP port number of the camera is invalid.
- **Connection has failed. Unknown connection status.** : This message appears if the camera has failed to be connected due to a unknown error.
- **User Model Modification** : When registering a new camera, it is named according to the device's default if user set the model to <Samsung Network Camera/Encoder>. In case if automatic registration fails, user can change the model name of camera to be registered.

### To edit camera profile

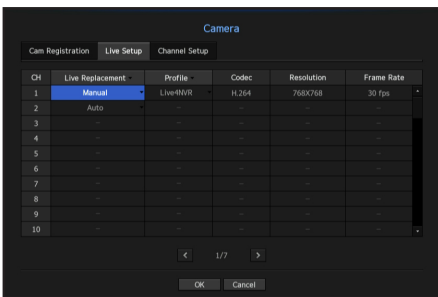
When a camera is added for the first time, it is added as the default profile of H.264, H.265 and MJPEG in order temporarily.

If you want to change the profile, you can change it from "**Live settings**" directly.(Page 23).

- For the decoder, the profile will differ according to the split screen. Please see "**Set up Live > Replace Live**". (Page 23)
- For a single camera, the frame can be guaranteed when sending one profile, but if multiple profiles are sent, the frame to be transferred cannot be guaranteed. As the camera is connected to multiple devices, when you are sending two profiles at 30fps, you will only be able to send it at 20fps even though it is set up for 30fps.

### Live Setting

You can change the live transfer settings of the network camera.



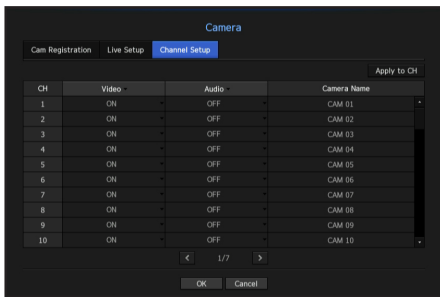
- Live Replacement : You can select the live profile setup mode. (Apply methods for HDMI, VGA)  
If you select **<Manual>**, the profile setup items are enabled, and you can change settings manually.
  - Auto : For the live monitoring profile, when split mode is used, it will show the Live4NVR profile (default: H.264 800\*600 30fps) which was created when you register it; when in single/2/3/4 split mode, it will automatically select the 2nd profile.
  - Manual : Live monitoring is performed with the profile selected by the user from the registered camera profiles.

- In the Replace Live item, when **<Manual input>** is selected, an icon indicating the resolution is too high ( ) may appear due to the split screen.

- Profile : You can select the video profile of the connected camera setting.
- Codec : Show the codec of the selected recording profile.
- Resolution : Show the resolution of the selected profile.
- Frame Rate : Show the frame rate of the selected profile.

### Channel Setting

You can configure the video settings for each channel.



- Apply to CH : If you select **<Apply to CH>**, the "**Apply to CH**" confirmation window will appear. After selecting channels that the settings will be applied to, click on **<OK>** to apply them to the selected channels.
- Video
  - **<ON/OFF>** : You can turn ON/OFF the selected channel's camera.
  - **<Covert1>** : Shows information other than the video of the selected channel.
  - **<Covert2>** : It displays an empty screen rather than all information of the selected channel.

- If the channel is set to **<Covert1>** or **<Covert2>** mode, the channel's sound is not hearable.

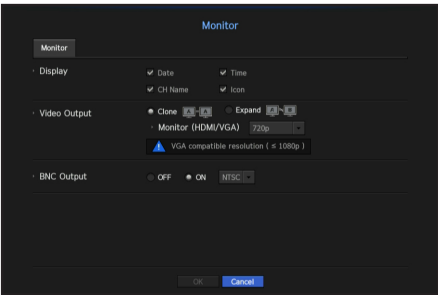
- Audio
  - If set to **<ON>**, you can turn the audio of the channel ON/OFF on the Live screen.
  - If **<OFF>** is set up, audio will not be output from Live screen.
- Camera Name : Provide a camera Name.
  - You can enter up to 15 characters including space.





## Monitor

You can set the information displayed on the monitor as well as the output system.

### Monitor settings

You can configure the monitor output-related settings including the displayed information, dwell time and output system.



- Display : Displays only checked items on the monitor screen.
  - Video Output : Selects either <Clone> or <Expand> mode to output the video, and sets the resolution of <HDMI> and <VGA>.
    - Clone mode: You can set the resolution of the main monitor (HDMI) and the sub monitor (VGA) as identical to each other.
      - When operating in copy mode, if the resolution is set to a value exceeding 1080p, no image will be displayed on the sub monitor.
    - Expand mode: You can separately set the resolution of the main monitor (HDMI) and the sub monitor (VGA).
  - BNC Output : This sets up whether you select BNC output or not. (NTSC/PAL can be selected)
-  ■ If you set up extension mode, then you can use the VGA layout and layout sequence function from the live launcher.
-  ■ You have to select <ON> for BNC output to use the BNC channel and channel sequence function from live launcher. Please see "Set up launcher". (page 15)
-  ■ When you copy, if you select the extension mode or BNC output, video output of specific resolution via HDMI may be restricted, and it will be displayed as < >.

## NETWORK CONFIGURATION

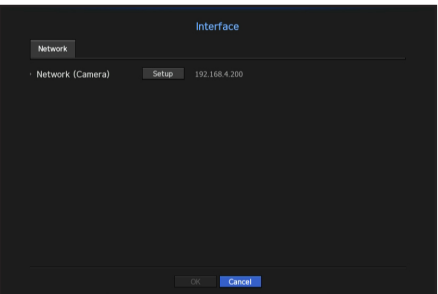
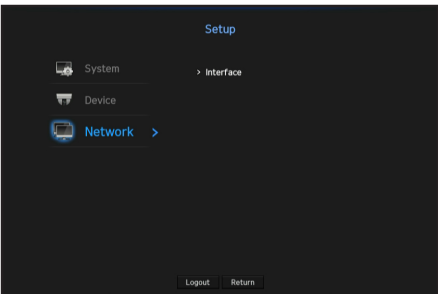
Users can set up the network to connect network cameras.


### Interface

You can set the network connection route and protocol.

### Setting a network connection

Sets the protocol and environment of the network.



- Network (Camera) : Port recommended for camera connection, which receives a image from the camera.
  - Network (Camera) setup
    - IP Type : Select a network connection type.
    - IP Address, Subnet Mask, Gateway, DNS
      - <Static> : You can manually enter IP address, subnet mask, gateway and DNS.
      - <DHCP> : IP address, subnet mask and gateway values will be automatically set.
-  ■ You can enter the DNS value of <DHCP> only when <Manual input> is selected.

## Connecting and Setting the Network

Networking may differ from the connection method, check your environment before setting the connection mode.

### When no router is used

#### • Static mode

- Internet connection : Static IP, leased line allows connection.
- Decoder Network Settings : Set the <Network> in <Interface> menu of the connected Decoder to <Static>.
  - Consult your network manager for IP, Gateway and Subnet Mask.

#### • DHCP mode

- Internet connection : Connect the Decoder directly to a cable modem, DHCP ADSL modem or FTTH network.
- Decoder Network Settings : Set the <Network> in <Interface> menu of the connected Decoder to <DHCP>.

### When a router is used



- To avoid IP address conflict with the Decoder's static IP, check followings :

#### • Setting the Decoder with a static IP

- Internet connection : You can connect the Decoder to a router which is connected to an PPPoE/Cable modem or a router in a Local Area Network (LAN) environment.

#### • Setting the Decoder Network

1. Set the <Network> in <Interface> menu of the connected Decoder to <Static>.
2. Check whether the set IP address is in the static IP range provided by the Broadband Router.  
IP Address, Gateway, and Subnet Mask : Consult your network manager.
  - Check whether the set IP address is in the static IP range provided by the Broadband Router.



- If a DHCP server is configured with starting address (192.168.0.100) and end address (192.168.0.200), you should set the IP address out of the configured DHCP range (192.168.0.2 ~ 192.168.0.99 and 192.168.0.201 ~ 192.168.0.254).

3. Check the Gateway address and subnet mask are equal to those set in the Broadband Router.

#### • Setting the DHCP IP Address of the Broadband Router

1. To access the Broadband Router's configurations, open a web browser on the local PC that is connected to the Broadband Router and enter the router's address (ex : http://192.168.1.1).
2. At this stage, make the local PC's windows network configurations to the below example :  
Ex) IP : 192.168.1.2  
Subnet Mask : 255.255.255.0  
Gateway : 192.168.1.1
  - Once connected to the Broadband Router, it prompts with password. While entering nothing to the User Name field, enter "admin" into the password field and press <OK> to access the router configurations.
  - Access the router's DHCP configuration menu and set its DHCP server activation, and provide the start and end address.  
Set the start address (192.168.0.100) and end address (192.168.0.200).



- Above steps may differ from the router devices depending on the manufacturer.

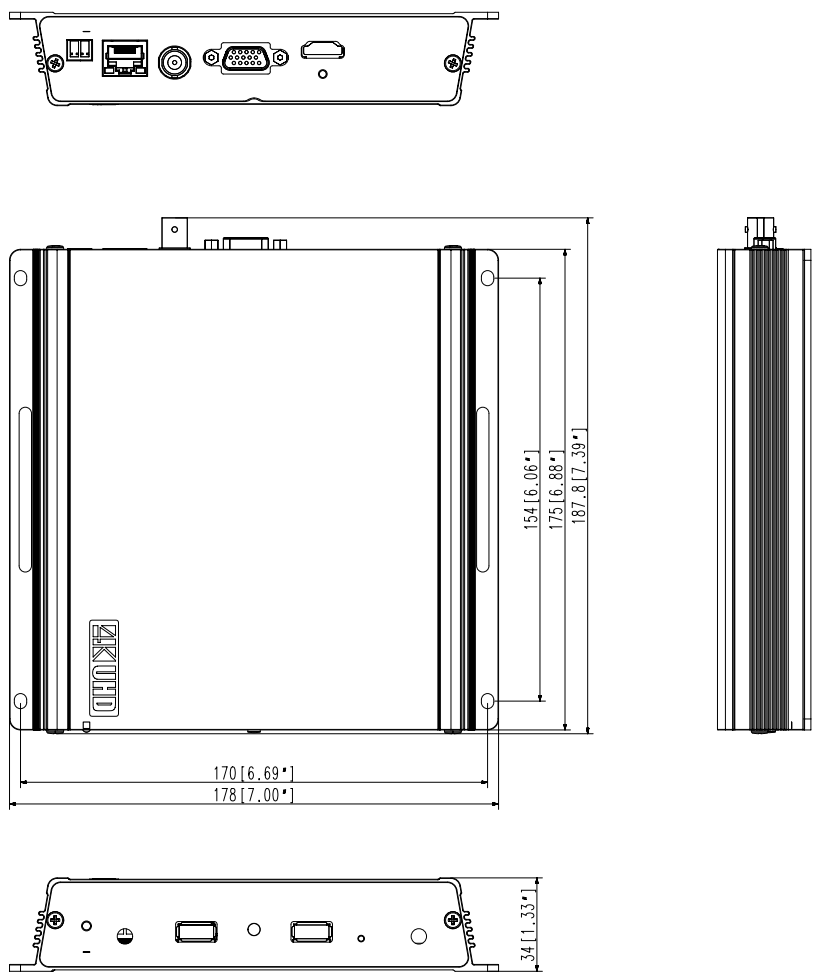
PRODUCT SPECIFICATION

Item			Details
H/W	Operating System		Embedded Linux
	Output	HDMI	1ch (up-to 4K)
		VGA	1ea (up-to 1080p)
		CVBS	1ch, 704x480 (30fps), 704x576 (25fps)
	External	Ethernet	1ea (10/100/1000BASE-T)
		USB	USB 2.0 2ea
		Audio Out	1 out
	Environmental	Operating Temperature	+0°C to +40°C(+32°F to +104°F)
		Humidity	20% ~ 85% RH
	Electrical	Power	DC12V, PoE(IEEE802.3af)
		Power Consumption	Max. 8.4W(12VDC), Max. 8.4W(PoE)
	Mechanical	Color / Material	Dark Gray / Metal
		Dimension (WxHxD)	178 x 34 x 187.8mm (7.00" x 1.33" x 7.39")
		Weight	Approx. 0.68Kg

Item			Details
S/W	Video	Codec	H.265/H.264/MJPEG
		Network Performance	200Mbps
		Max. Channel	49ch (HDMI: 32ch, VGA: 16ch, CVBS: 1ch)
		Max. Decoding Performance	120fps@8MP, up-to 12MP
		Division (/monitor)	Clone mode 1/4/6/8/9/13/16/25/36(32)/2V/3V
			Expand mode (HDMI) 1/4/6/8/9/13/16/25/36(32)/2V/3V (VGA) 1/4/6/8/9/13/16/2V/3V
		Layout	Up-to 20
	Audio	Codec	G.711/G.726/AAC
	Management		Local GUI
	Time Setting		NTP/Manual

PRODUCT OVERVIEW

unit : mm (inches)



DEFAULT SETTING

- To reset the system, move to "System Management > Settings > Load Factory Default" and press the <Initialization> button.
- This returns the factory default settings.
- When you initialize with the <Authority Management Settings> included, you are required to reboot the camera and reset the password.
  - The initial administrator ID is "admin" and the password should be set when logging in for the first time.
  - Please change your password every three months to safely protect personal information and to prevent the damage of the information theft. Please, take note that it's a user's responsibility for the security and any other problems caused by mismanaging a password.

Category	Details			Factory Default
System	Date/Time/Language	System time	Date	YYYY-MM-DD
			Time	24 hours
			Time Zone	GMT
			Time Sync.	OFF
			DST	OFF
			Language	English
	User	Admin	ID	admin
		Permission Setup	Auto Log out	3 Min
Device	System Management	System Information	Manual Input of ID	OFF
			Device Name	SPD-150
	Log Information	System Log	Type	View all
			Camera Register	OFF
	Camera	Channel Setup	Live Setup	OFF
			Video	ON
			Audio	OFF
			Camera Name	CAM 01 ~ CAM 64
Network	Monitor	Monitor	Display	All
			Video Output	Clone
			BNC Output	OFF
			IP Type	Static IP
	Interface	Network	Network (Camera)	192.168.1.200
			Subnet Mask	255.255.255.0
			Gateway	192.168.1.1
			DNS	168.126.63.1

TROUBLESHOOTING

Problem	Action
Live video will be slow or cut off.	<ul style="list-style-type: none"><li>• The frame number set for multiple data transmission set in camera or network environment could differ from the actual rate of transmission. Right click with the mouse button and select &lt;Channel Information&gt; to check the number of incoming frames for each channel and the actual number of framed played. Basically, when you register a camera, the Live4NVR profile is created and the rate is set to H.264.800*600fps.</li><li>• If you keep seeing video slow down or cut off, then check the network environment or camera condition.</li></ul>
The system does not turn on and the indicator on the front panel does not work at all.	<ul style="list-style-type: none"><li>• Check if the power supply system is properly connected.</li><li>• Check the system for the input voltage from the power source.</li><li>• If the power is not turned on after the inspection processes above, check or replace the adapter.</li></ul>
Some channels display just a black screen even if they receive video sources.	<ul style="list-style-type: none"><li>• Check if the camera is properly supplied with power.</li><li>• Check the video output connecting the camera's webviewer.</li><li>• Check if the network port is properly connected and the network setting is set correctly.</li><li>• Change the hub supporting Gigabit, it may solves.</li></ul>
The screen displays the logo image repeatedly.	<ul style="list-style-type: none"><li>• This may occur from a problem with the main board, or the related software is corrupt. Contact the nearest service center for more information.</li></ul>
No video is played on the connected monitor.	<ul style="list-style-type: none"><li>• Check if the necessary cables are connected to the monitor properly.</li><li>• Some monitors do not support the Decoder output (HDMI or VGA). (Output resolution : VGA : 1280*720, 1280*1024, 1920*1080, HDMI : 720P, 1080P, 1440P, 2160P) Check the monitor resolution</li><li>• In case of a 4K video, check whether the cable in use supports HDMI 2.0.</li></ul>
Camera cannot be connected.	<ul style="list-style-type: none"><li>• Check if the network cable is connected properly.</li><li>• Check whether network - interface is set up.</li><li>• Check the IP settings of the camera.</li><li>• Try the Ping Test.</li><li>• Check if there is a different device near the product uses the same IP.</li></ul>

Problem	Action
The Live screen is too bright or too dark.	<ul style="list-style-type: none"><li>• Check the video settings of the registered camera.</li></ul>
A message of "Need to reset date/time." Is displayed on the screen.	<ul style="list-style-type: none"><li>• This message is displayed if there occurs a problem with the time setting of the internal clock or an error in the clock itself. Contact the retailer or the service center for more information.</li></ul>
I cannot see the result after connecting an external storage device (USB memory stick) to the decoder.	<ul style="list-style-type: none"><li>• See the compatibility list of external storage devices to check if the connected device is supported by the Decoder. For the compatibility list, contact the retailer where you purchased the Decoder.</li></ul>
I forgot the password.	<ul style="list-style-type: none"><li>• Press and hold the RESET button on the rear side at the right for 10 seconds.<ul style="list-style-type: none"><li>■ Please refer to No. 5 "<b>Part Names and Functions (Rear)</b>". (page 7)</li></ul></li></ul>



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3. [3]Viraj Bais <vbais@mailman1.intel.com> and [4]Clayton Kirkwood <kirkwood@striderfm.intel.com> port to WindowsNT 3.5

4. [5]Michael Barone <michael.barone@lmco.com> GPSVME fixes

5. [6]Karl Berry <karl@owl.HQ.ileaf.com> syslog to file option

6. [7]Greg Brackley <greg.brackley@bigfoot.com> Major rework of WINNT port. Clean up recvbuf and iosignal code into separate modules.

7. [8]Marc Brett <Marc.Brett@westgeo.com> Magnavox GPS clock driver

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11. [12]Casey Crellin <casey@csc.co.za> vxWorks (Tornado) port and help with target configuration

12. [13]Sven Dietrich <sven\_dietrich@trimble.com> Palisade reference clock driver, NT adj. residuals, integrated Greg's Winnt port.

13. [14]John A. Dundas III <dundas@salt.jpl.nasa.gov> Apple A/UX port

14. [15]Torsten Duwe <duwe@immd4.informatik.uni-erlangen.de> Linux port

15. [16]Dennis Ferguson <dennis@mrbill.canet.ca> foundation code for NTP Version 2 as specified in RFC-1119

16. [17]Glenn Hollinger <glenn@herald.usask.ca> GOES clock driver

17. [18]Mike Iglesias <iglesias@uci.edu> DEC Alpha port

18. [19]Jim Jagielski <jim@jagubox.gsfc.nasa.gov> A/UX port

19. [20]Jeff Johnson <jbj@chatham.usdesign.com> massive prototyping overhaul

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22. [24]Frank Kardel [25]<Frank.Kardel@informatik.uni-erlangen.de> PARSE <GENERIC> driver (14 reference clocks), STREAMS modules for PARSE, support scripts, syslog cleanup

23. [26]William L. Jones <jones@hermes.chpc.utexas.edu> RS/6000 AIX modifications, HPUX modifications

24. [27]Dave Katz <dkatz@cisco.com> RS/6000 AIX port

25. [28]Craig Leres <leres@ee.lbl.gov> 4.4BSD port, ppsclock, Magnavox GPS clock driver

26. [29]George Lindholm <lindholm@ucs.ubc.ca> SunOS 5.1 port

27. [30]Louis A. Mamakos <louie@ni.umd.edu> MD5-based authentication

28. [31]Lars H. Mathiesen <thorinn@diku.dk> adaptation of foundation code for Version 3 as specified in RFC-1305

29. [32]David L. Mills <mills@udel.edu> Version 4 foundation: clock discipline, authentication, precision kernel; clock drivers: Spectracom, Austron, Arbiter, Heath, ATOM, ACTS, KSI/Odetics; audio clock drivers: CHU, WWW/H, IRIG

30. [33]Wolfgang Moeller <moeller@gwdgv1.dnet.gwdg.de> VMS port

31. [34]Jeffrey Mogul <mogul@pa.dec.com> ntptrace utility

32. [35]Tom Moore <tmoore@fiemel.daytonoh.ncr.com> i386 svr4 port

33. [36]Kamal A Mostafa <kamal@whence.com> SCO OpenServer port

34. [37]Derek Mulcahy <derek@toybox.demon.co.uk> and [38]Damon Hart-Davis <d@hd.org> ARCRON MSF clock driver

35. [39]Rainer Pruy <Rainer.Pruy@informatik.uni-erlangen.de> monitoring/trap scripts, statistics file handling

36. [40]Dirce Richards <dirce@zk3.dec.com> Digital UNIX V4.0 port

37. [41]Wilfredo Sánchez <wsanchez@apple.com> added support for NetInfo

38. [42]Nick Sayer <mrapple@quack.kfu.com> SunOS streams modules

39. [43]Jack Sasportas <jack@innovativeinternet.com> Saved a Lot of space on the stuff in the html/pic/ subdirectory

40. [44]Ray Schnitzler <schnitz@unipress.com> Unixware1 port

41. [45]Michael Shields <shields@tembel.org> USNO clock driver

42. [46]Jeff Steinman <jss@pebbles.jpl.nasa.gov> Datum PTS clock driver

43. [47]Harlan Stenn <harlan@pfcs.com> GNU automake/autoconfigure makeover, various other bits (see the ChangeLog)

44. [48]Kenneth Stone <ken@sdd.hp.com> HP-UX port

45. [49]Ajit Thyagarajan <ajit@ee.udel.edu> IP multicast/anycast support

46. [50]Tomoaki TSURUOKA <tsuruoka@nc.fukuoka-u.ac.jp> TRAK clock driver

47. [51]Paul A Vixie <vixie@vix.com> TrueTime GPS driver, generic TrueTime clock driver

48. [52]Ulrich Windl <Ulrich.Windl@rz.uni-regensburg.de> corrected and validated HTML documents according to the HTML DTD

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20. mailto:jbj@chatham.usdesign.com

21. mailto:Hans.Lambermont@nl.origin-it.comv

22. mailto:H.Lambermont@chello.nl

23. mailto:phk@FreeBSD.ORG

24. http://www4.informatik.uni-erlangen.de/kardel

25. mailto:Frank.Kardel@informatik.uni-erlangen.de

26. mailto:jones@hermes.chpc.utexas.edu

27. mailto:dkatz@cisco.com

28. mailto:leres@ee.lbl.gov

29. mailto:lindholm@ucs.ubc.ca

30. mailto:louie@ni.umd.edu

31. mailto:thorinn@diku.dk

32. mailto:mills@udel.edu

33. mailto:moeller@gwdgv1.dnet.gwdg.de

34. mailto:mogul@pa.dec.com

35. mailto:tmoore@fiemel.daytonoh.ncr.com

36. mailto:kamal@whence.com

37. mailto:derek@toybox.demon.co.uk

38. mailto:d@hd.org

39. mailto:Rainer.Pruy@informatik.uni-erlangen.de

40. mailto:dirce@zk3.dec.com

41. mailto:wsanchez@apple.com

42. mailto:mrapple@quack.kfu.com

43. mailto:jack@innovativeinternet.com

44. mailto:schnitz@unipress.com

45. mailto:shields@tembel.org

46. mailto:pebbles.jpl.nasa.gov

47. mailto:harlan@pfcs.com

48. mailto:ken@sdd.hp.com

49. mailto:ajit@ee.udel.edu

50. mailto:tsuruoka@nc.fukuoka-u.ac.jp

51. mailto:vixie@vix.com

52. mailto:Ulrich.Windl@rz.uni-regensburg.de

53. file://localhost/backroom/ntp-stable/html/index.htm

54. mailto:mills@udel.edu

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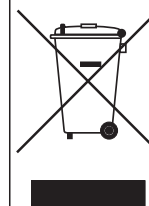
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