4CH / 8CH / 16CH DIGITAL VIDEO RECORDER AHD

DIGIMASTER SERIES

DR-4M41A / DR-8M41A / DR-16M42A / DR-16F44-AT

OPERATION MANUAL

Before connecting, operating adjusting this product,
read this instruction boolet carefully completely

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Start Up/ Shutdown

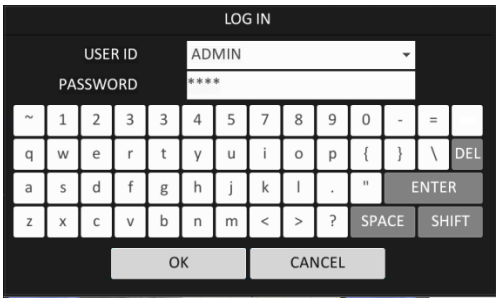
START

1. Connect the adaptor to the 12VDC power input port in the rear panel of DVR.
✓ Make connection when the power is not applied yet.
2. Connect AC cable to the power source. With a beep, the logo screen appears several seconds after the front LED turns on.
3. When the booting process is completed, the live screen then the login screen appears.

Log In

To manipulate or access the menus of DVR, you should have logged in.

1. When the system starts, the login screen appears.
2. Select a user and provide the password.
The default password of the "ADMIN" account is "1234".
3. Click **<OK>**.
If the login information is correct and valid, you will see the live screen.



✓ For safe and secure use of the product, change the password after purchasing.

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Log Out

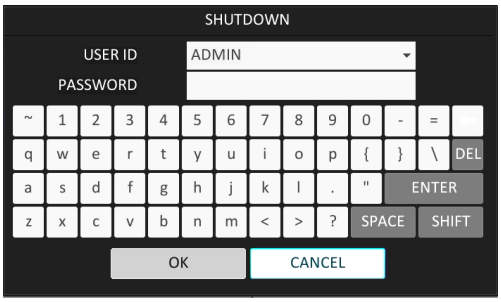
To prevent unauthorized access, it is recommended to log out when you leave the screen.

✓ Hover the cursor near the bottom of the screen to display the menu.

1. In the monitoring screen, click **<MENU>** in the bottom left corner of the screen to **<LOG OUT>**, or press the **[LOGOUT]** button on the remote control.
2. While logged out, Search / Backup / System Setup / Record Setup / System Shutdown menus are restricted to use.

System Shutdown

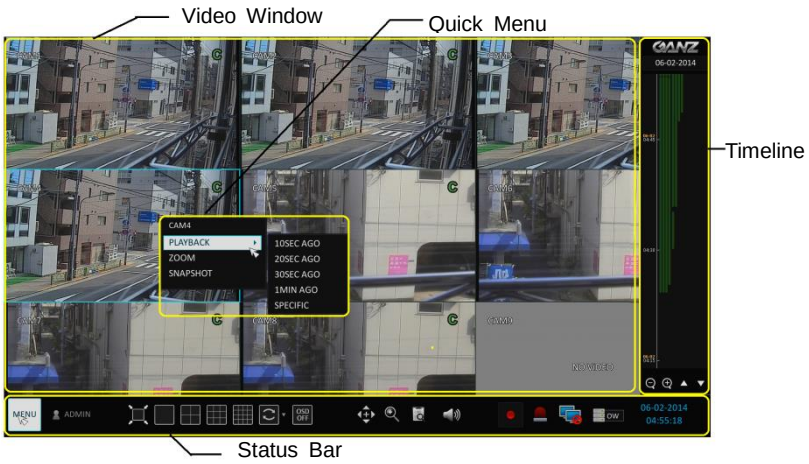
1. In the monitoring screen, click **<Menu>** in the bottom left corner of the screen to **<SHUTDOWN>** the system, or press the **[POWER]** button on the remote control.
2. Use the virtual keyboard to enter the password.
3. Be sure to disconnect the power in the rear panel.



✓ If you turn off the system in an abnormal manner such as removing the power cord while the system is in operation, the disk will have or increase the bad sectors, causing data loss and shortened life cycle of the disk.

Live Screen At a Glance

The live screen largely consists of three components: video window, status bar and timeline zone.



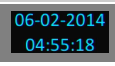
Video Window

Icons used in the video window.

ITEM		Description
Camera ID	CAM1	Show the camera ID
Record Mode Icons		Displayed if an event recording is reserved.
	C	Display the status of the continuous recording.
	A	Display the recording status when an alarm occurs.
	M	Display the recording status when a motion event occurs..
	P	Display the status of the emergency recording..
Audio Icon		The audio signal of the connected camera is outputting.
Motion Detection Icon		A motion is detected by the connected camera.

Status Bar

Press the ▼ button on the remote control, or place the mouse in the lower area of the screen to display the status bar.

ITEM		Description
Menu Button		Select one of the system setup, search and backup menu items before accessing it.
User ID		Show the ID of the user who has currently logged in.
Screen Control Buttons		Change the screen layout so that both status bar and timeline are displayed at all times.
		Select a split mode.
		Select Auto Sequence or Special Split Mode.
		Display or hide the OSD menu on the screen.
PTZ		Move to the PTZ screen. You can control the PTZ operations of a PTZ-compliant camera on the PTZ screen.
Zoom		Move to the Digital Zoom.
Quick Log		Display the log list of the recent recording events.
Audio Channel Selection Button		You can use the camera supporting the audio input to listen to the audio.
Panic Record		Start the panic recording.
Alarm Indicator		Turns on if an event occurs. It does not turn on if no reaction to the event is yet defined. Click this to check the information of the event that occurred.
Network Connection Status		Check if network connection is made via an external PC or mobile device. Click this to view the details of the concurrent users and to check the network connection status. For more information, refer to "Network Setup". (page 28)
Disk Space		Show the disk space information. If you have set the disk overwrite mode, it will be displayed "OW" (Over Write) from the start point of the overwriting. Click this to view the details of the disk status. For more information, refer to "Record Setup".
Date & Time		Display the current time and date.

Timeline

Press the [▶] button on the remote control or move the cursor to the right of the screen to display the timeline. Double-click the timeline to move to the video screen. Drag and drop it to make backup or event search for the specified area.

ITEM	Description	
Timeline Date		Display the date of the current timeline. Click this to select a desired date of the timeline.
Expand/ Collapse the timeline		Expand or collapse the timeline.
Navigation through Timeline		Navigate through the timeline. You can also use the mouse wheel to do the navigation..
Timeline Bar		Display the recording data with time. The color of each bar indicates the following: ✓ Green : Continuous Recording ✓ Red : Alarm Recording ✓ Blue : Motion Recording ✓ Yellow: Panic Recording

Quick Menu.

ITEM	Description
Channel No	Display the number of the current channel.
Play	Start playing the video of the selected channel from the specified time.
Zoom	Zoom the video of the selected channel.
Snapshot Capture	Capture the current live video and save it in the jpeg format. ✓Then, you can save the captured image in the USB device.

Using the status bar in the live mode

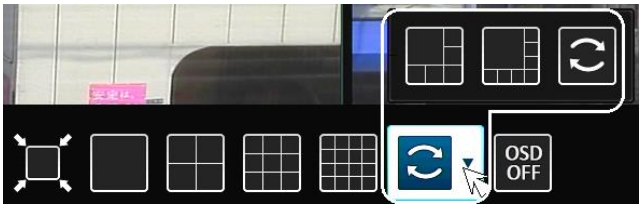
Selecting a split mode

Click a desired split mode from 1, 4, 9, 6, 8 and 16 split screen. Or press the **[DISPLAY]** button on the remote control until a desired split mode is displayed.

- ✓ 4CH DVR model support only 1 and 4 split screen modes.
- ✓ 8CH DVR model does not support 16 split screen modes.

Auto sequence

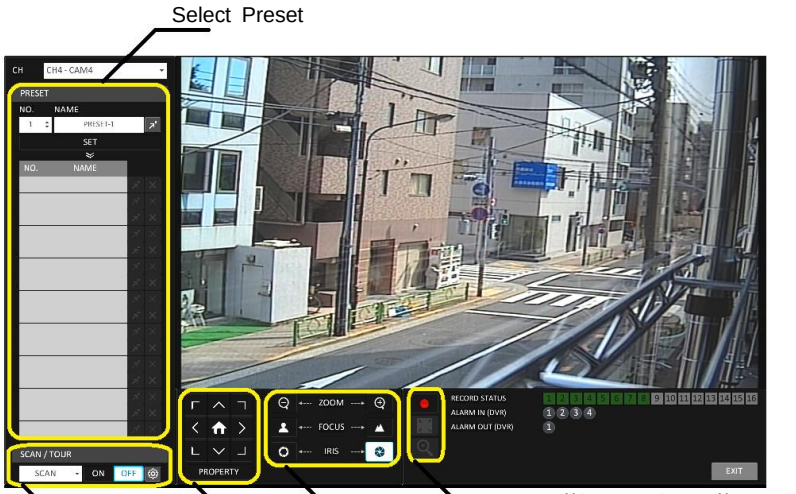
Click the Sequence button in the status bar, or press the **[SEQ]** button on the remote control to perform the specified sequence mode.
You can configure the sequence settings in **<SEQUENCE>**.
For details, refer to "Sequence". (page 20)



Controlling PTZ

You can control PTZ cameras connected to each channel. Use the mouse to click PTZ button on the status bar, or press the **[PTZ]** button of the remote control to initiate the predefined sequence.

In PTZ mode, use buttons on the screen to control PTZ or use **[ZOOM]**, **[FOCUS]** and **[PRESET]** buttons of the remote control.



Digital Zooming

You can enlarge the monitoring screen for better view.
Zooming will enlarge the video of the selected channel. If no channel is selected, channel 1 will be zoomed.

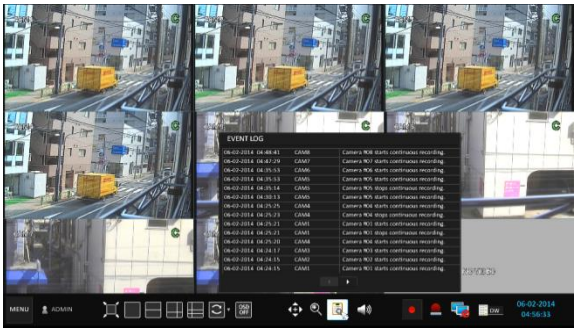
1. Click Zoom in the status bar or move the cursor to a desired channel and right-click it to display the context menu. Select **<ZOOM>**.
   You can also press the **[ZOOM]** button on the remote control.
2. Move to the zoom control screen. When the menu bar appears in the right bottom, use the buttons to control the zooming.

✧ C:\1 - CAM1 Select a channel to zoom in/out.
✧ Zoom out the current (enlarged) image step by step.
✧ Enlarge the current image step by step.

Zoom Box : Use the yellow box to move to or select a desired zooming area.
✧ EXIT Exit the zooming screen and return to the live screen.

To check the event log

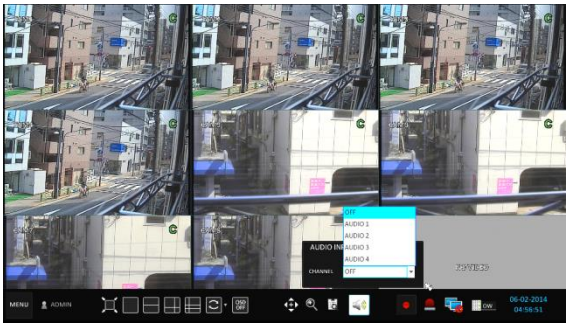
You can check the log of the events that occurred.



1. Click Log to display the **"EVENT LOG"** window. The log list is sorted with the latest one on top.
2. Double-click a desired log to display the event video.
   You will move to the play screen of the selected log.

To select an audio input channel

Select a channel from which the audio signal will be received.

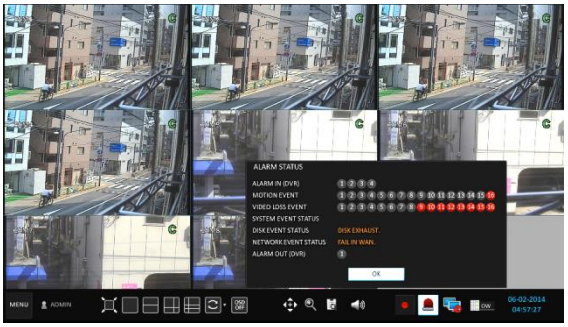


>CHANNEL : Produces the selected channel's Audio, regardless of the split screen mode.

>LINK TO FULL SCREEN :When switching the DVR display mode to view one channel, it Produces the selected channel's audio.

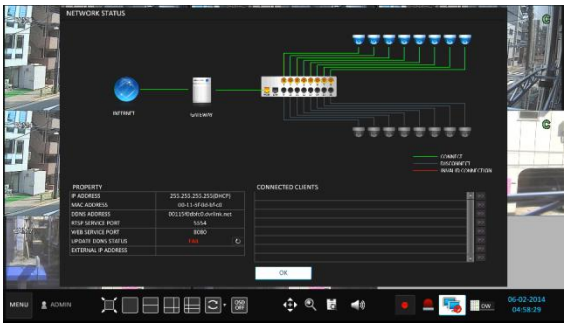
To check the alarm status

You can check the alarm status of each camera.
Click **<OK>** to close the window



To check the network status

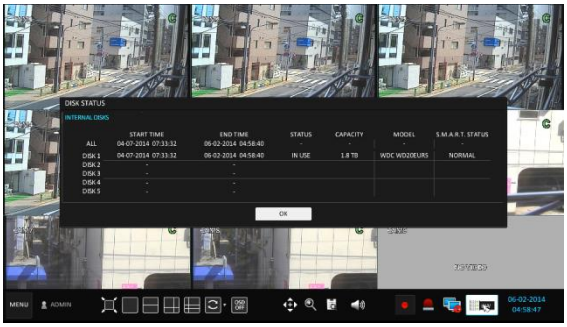
Shows connection status of camera and network devices.
Click to display detailed information on current users and network connection
Click **<OK>** to close the window.



✓ For more information, refer to "Network Status". (page 29).

To check the disk status

You can check the storage space of the current disk and check also if there is any problem with the disk.
Click **<OK>** to close the window.

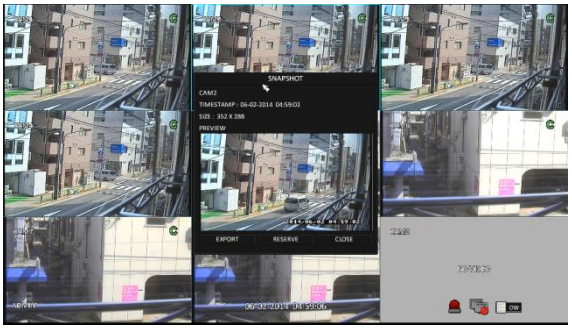


✓ For more information, refer to "Disk Information". (page 36)

Saving captured snapshots

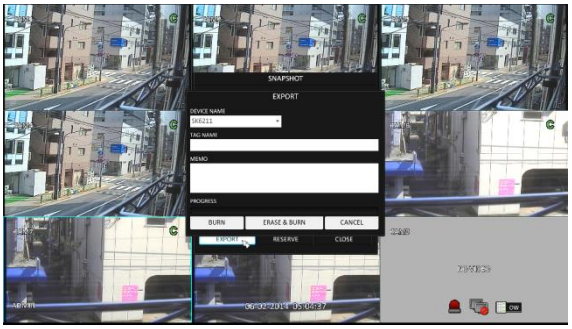
You can capture the current video screen and save or export to a connected storage device.

1. Select a channel first, and right click to open pop up menu, and select **<SNAPSHOT CAPTURE>** menu item, or press the **[SNAPSHOT]** button of the remote control.



2. Connect a storage device, and click **<EXPORT>** button. To save the captured image onto the built-in HDD, press the **<RESERVE>** button.

   ✓ Saved image can be found in the **"Archive> Reserved data management"** and can be backed up.



3. Enter the **<TAG NAME>** and **<MEMO>** and press **<BURN> or <ERASE & BURN>** button
   > A progress bar appears and indicates the progress of exporting to storage device.
   > BURN : Snapshot is stored in the connected USB storage device.
   > ERASE & BURN : Deletes all files in the connected USB storage and then saves the snapshot.

   ✓ Note that **<ERASE & BURN>** option erases all data in the USB storage device and wil l not be restored once deleted.

To move to the System Setup menu

How to use the mouse

How to use the remote control 1 (2U model only)

How to use the remote control 2

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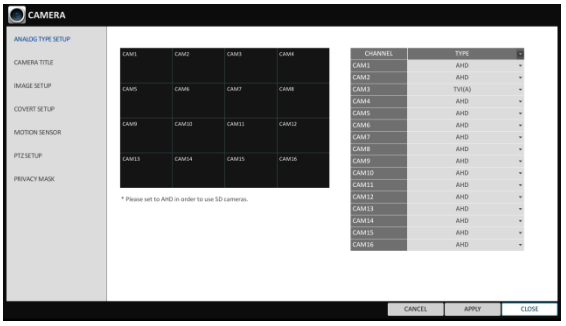
Camera Setting

You can configure the display settings of: camera title, covert option, motion and camera type

ANALOG TYPE SETUP (2U model only)

You can set the analog type of each camera channel.

1. From **<SYSTEM SETUP>** - **<CAMERA>,** select **<ANALOG TYPE SETUP>.**

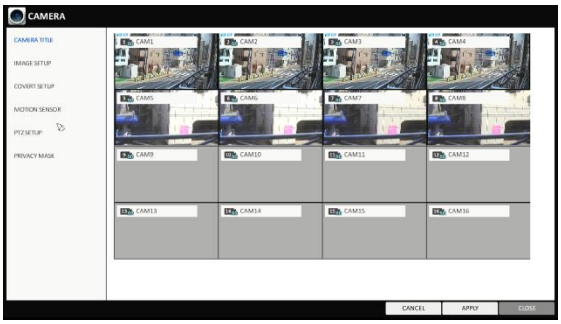


2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to set the type appropriate for the camera connected.
   Not all types are compatible therefore check before connection the camera.
3. To apply the change, click **<APPLY>** in the bottom of the screen.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button.
   The confirmation message appears and you will return to the previous menu.

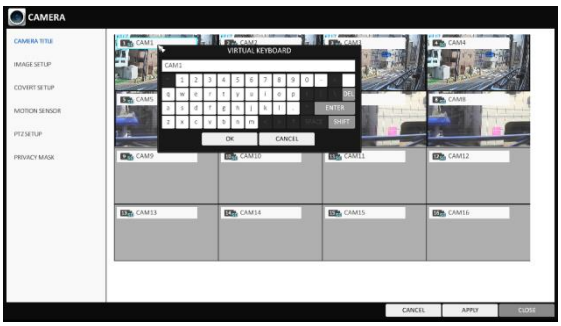
CAMERA TITLE

You can change the camera ID that is displayed on the screen.

1. From **<SYSTEM SETUP>** - **<CAMERA>,** select **<CAMERA TITLE>.**
2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to select a channel that you want to rename.
   Alternatively, simply double-click the camera to rename from the top left corner.



3. Once the virtual keyboard appeared, select desired alphanumeric characters to complete your input, and press the **<OK>** button.



   ✓ The **<SHIFT>** key toggles letter case.

4. To apply the change, click **<APPLY>** in the bottom of the screen.
5. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button.
   The confirmation message appears and you will return to the previous menu.

   ✓ Camera title allows up to 16 letters, combining numbers and upper/lower case alphabets.

Image Setup

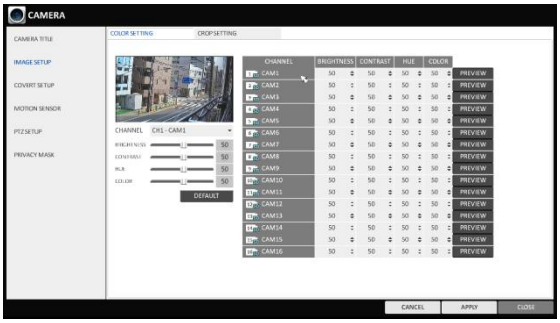
You can adjust brightness, contrast, color and quality setting of each channel's camera.

1. From **<SYSTEM SETUP>** - **<CAMERA>,** select **<IMAGE SETUP>.**

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to set each option of the image menu.

3. To apply your changes, click **<APPLY>** button.

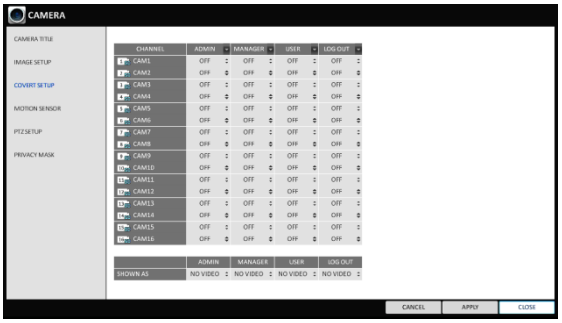
4. Once completed with setup, press **[EXIT]** button of the remote control or click **<CLOSE>** button on the bottom of the screen. A confirmation dialog appears and returns to the previous menu.



✓ Press <PREVIEW> button for adjusting with preview image.

Covert Setup

You can set to hide the camera video so that a specific user or user group cannot view.
Set a channel(s) that you want to hide from a specific user or user group.



1. From **<SYSTEM SETUP>** - **<CAMERA>**, select **<COVERT SETUP>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to select a covert channel(s) from a specific user group.
   >ADMIN, MANAGER, USER : Set them to **<ON>**.
   The selected channel will be hidden from the applicable user account.
   >LOGOUT : Set it to **<ON>**. When the user logs out, the selected channel will not be displayed.

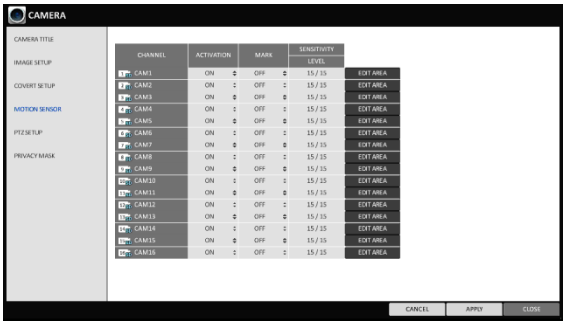
3. Select display title on live view screen for covert channel either "COVERT" or "NO VIDEO" To activate this settings, user need to logoff then login DVR again.

4. To apply the change, click **<APPLY>** button.

5. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button.
   The confirmation message appears and you will return to the previous menu.
   To change the covert settings from user group to user, move to the **<USER>** menu and make necessary changes. (page 25)

Motion Sensor

Set the motion sensor of the camera so that it can detect a motion event.



1. From **<SYSTEM SETUP>** - **<CAMERA>**, select **<MOTION SENSOR>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to specify the use of each option item.
   > ACTIVATION : turn on or off the motion sensor.
   > MOTION MARK: Set it to **<On>**.
   The video window will display the motion mark if a motion is detected.
   > SENSITIVITY : Set the sensitivity level of the motion sensor to either Daytime or Nighttime.
   > EDIT AREA : Specify the motion detection area.

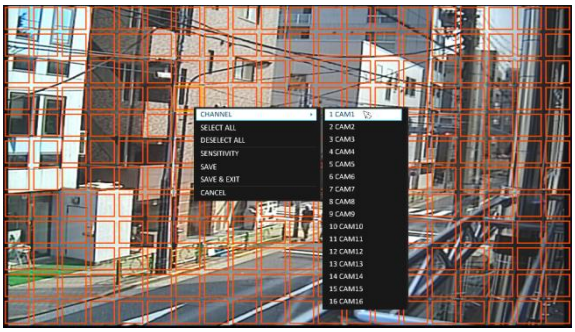
3. To apply the change, click **<APPLY>** button.

4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button.
   The confirmation message appears and you will return to the previous menu.

   ✓ The motion detection sensitivity may differ depending on the characteristics of the connected camera or installation environment.

Motion Area Setup

From the motion setup window, click **<EDIT AREA>** in the right corner.



1. Click **<EDIT AREA>** to move to the motion area setup screen.

2. If using the remote control, press the **[ENTER]** button to mark the current position.

3. Use the arrow buttons to move to a desired block and press **[ENTER]**. The area setup will begin. Then, use the arrow buttons to specify the area.

   ✓ Alternatively, you can use the drag-and-drop method to specify or release the area using mouse.

4. If you select the specified area again, it will be released.

5. Press the **[EXIT]** button on the remote control or right-click any area to display the popup window as in the right picture.

6. While the popup window is displayed, select **<SENSITIVITY>** to set the detection sensitivity.

> CHANNEL : select a channel to set the motion Sensitivity.

> SENSITIVITY : 1(Low) ~ 15(High) - The higher the number is, the more higher the sensitivity level becomes.

> DAYTIME : Specify the time period that will be considered as daytime.

- DAYTIME : specify the **<SENSITIVITY>** for the daytime.
- NIGHTTIME : specify the **<SENSITIVITY>** for the nighttime.

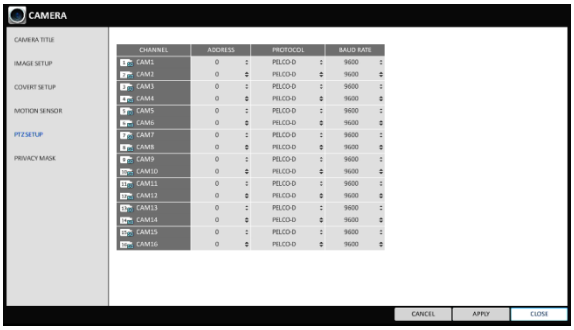
✓ Images recorded in a low contrast scene such as at night cause severe noise, triggering the motion event too often.

✓ If unwanted events occur frequently at night, you may want to reduce the motion sensitivity for the night duty.

PTZ Setup

You can configure PTZ cameras connected to each channel. Set the camera ID, protocol, baud rate and PTZ control speed for each channel.

1. From **<SYSTEM SETUP>** - **<CAMERA>**, select **<PTZ SETUP>**.



2.Use the **[▲▼◂▸/ENTER]** buttons on the remote or mouse to set protocol and baud rate.

✓ Refer to user's manual of the PTZ the camera or consult camera installer for further details on PTZ settings, such as camera address, protocol and baud rate.

3. To apply your changes, click **<APPLY>** button.

4. Once the setup completed, press the **[EXIT]** button of the remote control or click **<CLOSE>** button on a confirmation dialog. Click <CANCEL> to return to the previous menu.

✓ **Select "COAXITRON" to enable CoC (Command over Coax) function.**

Privacy Mask

For privacy purposes, you can specify masking area for a selected camera's video.

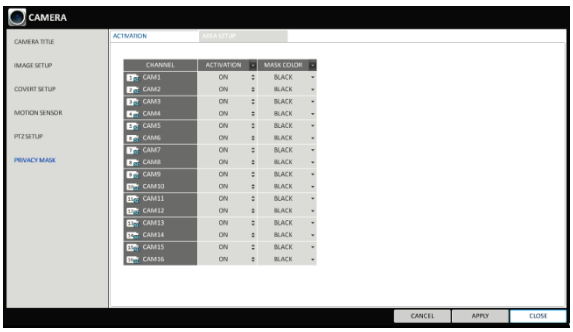
1. From **<SYSTEM SETUP>** - **<CAMERA>**, select **<PRIVACY MASK>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote or mouse to set channels enabled, mask color and its area.

   > ACTIVATION : Turn on or off the privacy mask.
   > MASK COLOR : Select the color of the masked area, which will be displayed on the monitor.

3. To apply your changes, click **<APPLY>** button.

4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button.



Privacy Mask Area Setup

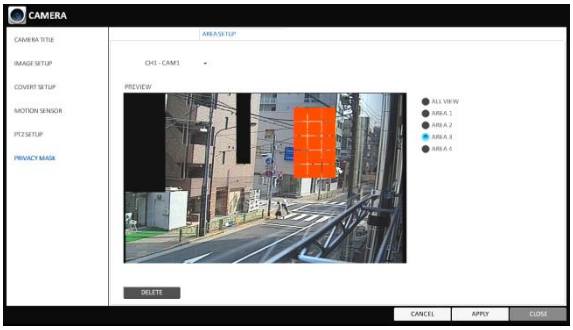
You can specify privacy masking area.

1. From **<AREA SETUP>** tab on the right side.

2. When using the remote, press the **[Select]** button to show the selector first.

3. Use direction key to move to the desired channel, and the press the **[Select]** button to begin area setup.
   Use direction keys to set the masking area.
   When using mouse, hold the mouse left button and drag to set or cancel the masking area.

4. Selecting masked area again will exclude the corresponding block from the masking area.



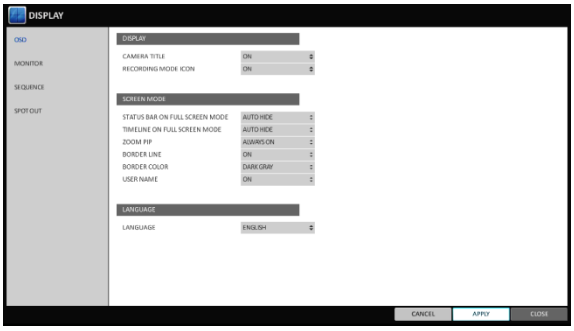
Display Setting

You can configure the display settings regarding the OSD, sequence monitor and SPOT output.

OSD

You can set Camera Name, Icon, Status Bar, Timeline, Borderline, User Name and Language

1. From **<SYSTEM SETUP> - <DISPLAY>**, select **<OSD>**.



2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to set each option of the OSD item.

   > CAMERA TITLE : specify the display of the camera title on the screen.

   > RECORDING MODE ICON : specify the display of the record mode icon on the screen.

   > STATUS BAR ON FULL SCREEN MODE : select to show or hide the status bar in full screen mode.
   - AUTO HIDE : place the cursor in the lower area of the screen to display the status bar. If moving the cursor up, the status bar will disappear.
   - ALWAYS ON : The status bar will be displayed at all times.
   - 5 SEC ~1 MIN : If no mouse movement is detected for from 5 seconds to 1 minute, the status bar will disappear.

   > TIMELINE ON FULL SCREEN MODE : select to show or hide the timeline in full screen mode.
   - AUTO HIDE : place the cursor in the right corner to display the timeline. If moving the cursor to the left, the timeline will disappear.
   - ALWAYS ON : The timeline will be displayed at all times.
   - ALWAYS OFF : The timeline will not be displayed.

   > ZOOM PIP : Select to show or hide the Picture in Picture window on Digital Zoom.
   -ALWAYS ON : PIP window will be displayed at all time.
   -1/3/5 SEC : PIP window will disappear after selected time.

   > BORDER LINE : specify the display of the cross-border between channels in a split mode

   > BORDER COLOR : select a color for the border.

   > USER NAME : specify the display of the currently logged-in users on the status bar.

   > LANGUAGE : select a menu display language.

3. To apply the change, click **<APPLY>** button.

4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button. The confirmation message appears and you will return to the previous menu.

Monitor

If you change from monitoring mode to sequence, you will have to set the interval of the sequence.

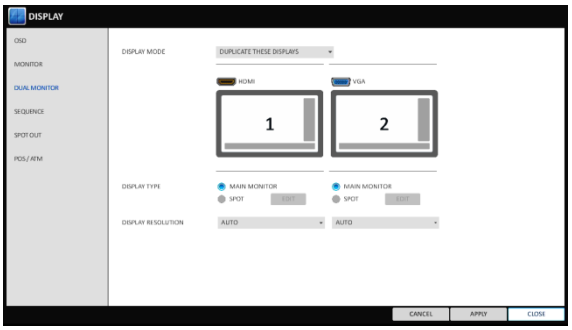
1. From **<SYSTEM SETUP> - <DISPLAY>**, select **<MONITOR>**.
2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to set dwell for sequence mode and SPOT Out dwell.
   > SEQUENCE DWELL : Sets the time interval to the next screen mode for Live monitoring, which defines individual screen mode□s dwell time in the Sequence. (Can set to 1 sec ~ 60 sec)
   > SPOT DWELL : Sets the time interval to the next view type, which defines individual view type's dwell time for SPOT OUT. (Can set to 1 ~ 60sec)
3. To apply the change, click **<APPLY>** button.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button. The confirmation message appears and you will return to the previous menu.

Dual Monitor (Only available on 2U model)

When using the Dual Monitor during surveillance, you can also set the screen mode, type, resolution and other settings.

If you change from monitoring mode to sequence, you will have to set the interval of the sequence.

1. From **<SYSTEM SETUP> - <DISPLAY>**, select **<DUAL MONITOR>**.
2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to set each item of the Dual Monitor.
   > DISPLAY MODE: When connecting two monitors, you can set the monitor management type.
   -DULICATE THESE DISPLAYS : The same screen will be displayed on each monitor at the same time.
   -MAIN MONITOR +SPOT : You can use one Monitor as the main monitor while using the Other as a SPOT output monitor.



   > DISPLAY TYPE: Select which monitor to use as the main surveillance and the SPOT output. If you selected SPOT output monitor, click **<ADD VIEW TYPE>** to add the view type.
   > DISPLAY RESOLUTION: Set the resolution for each monitor.
3. To apply the change, click **<APPLY>** button.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button. The confirmation message appears and you will return to the previous menu.

Sequence

Select a split mode for the sequence, and also select a list of active items when the sequence is performed.

1. From **<SYSTEM SETUP> - <DISPLAY>**, select **<SEQUENCE>**.
2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to add a sequence or change the settings of the existing sequence.

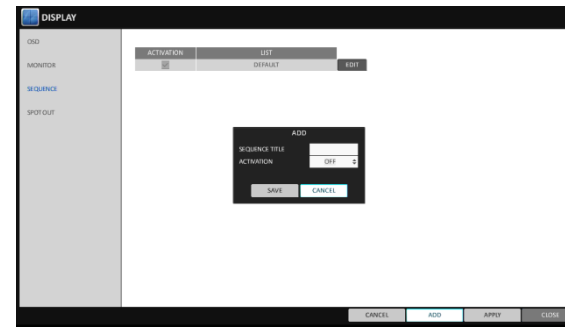
   >ACTIVATION : Select a list that you want to activate the sequence for.
   Only one list will become active.

   >ADD : add a sequence.

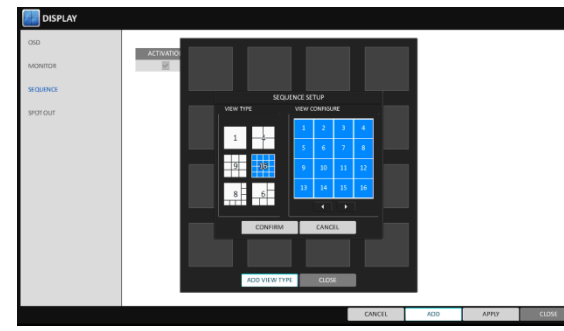
3. To apply the change, click **<APPLY>** button.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>**button.
   The confirmation message appears and you will return to the previous menu.

To add a sequence

1. Click **<ADD>** in the bottom of the screen.
2. When the "ADD" dialog appears, enter a title using the virtual keyboard.
3. Enter the name of the sequence and click **<ADD>**.
4. When the **<ADD VIEW TYPE>** dialog appears, click **<ADD>**.



5. When the **"SEQUENCE SETUP"** dialog appears, select a split mode that you want to add from **<VIEW TYPE>**.
6. If the selected split mode is displayed on **<VIEW CONFIGURE>**, select a channel you want to display in each split screen.
7. Click **<CONFIRM>**.
   The set sequence mode is confirmed and will be added to the Add Sequence list in order
8. When done, click **<CLOSE>** in the bottom of the screen.
   After the sequence type is saved, you will return to the previous screen.



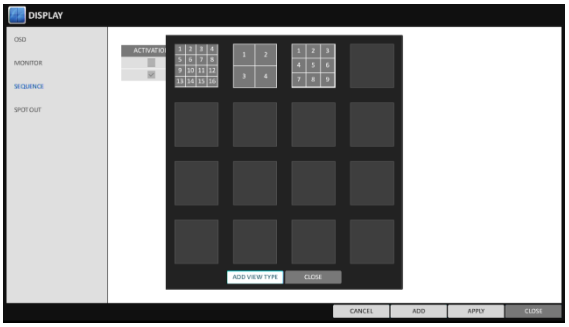
9. Place your mouse cursor over desired tile of added sequence, right Right-click on it or press the **[ENTER]** button on the remote control to edit or delete it.

To edit a sequence

1. Select a sequence that you want to edit in the list.
2. The "EDIT" dialog appears.
3. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to edit the selected sequence.

   >SEQUENCE TITLE : enter a new sequence name.
   >ACTIVATION : specify the use of the sequence.
   >MODIFY : change the settings of the sequence mode.
   >DELETE : delete the selected sequence list.
   >CANCEL : cancel the changes.

4. Pressing the **<EDIT>** button will display the Edit Sequence window.
5. To change the existing settings, select a screen mode that you want to edit and right-click to display the context menu. Then, select **<EDIT>**.
6. When done, click **<CLOSE>** to close the window.
7. To apply your changes, click **<APPLY>**.



SPOT OUT (Only available on 2U Model)

Apart from the main screen display, you can configure the Spot Out to display a Live channel as needed in various live view types. You can set the live view type of display output through the **[SPOT]** terminal and activate / deactivate it.

1. From **<SYSTEM SETUP>** - **<DISPLAY>**, select **<SPOT OUT>**.

2. Use **[▲▼◄►/ENTER]** button of the remote control or mouse to edit Spot Out properties.

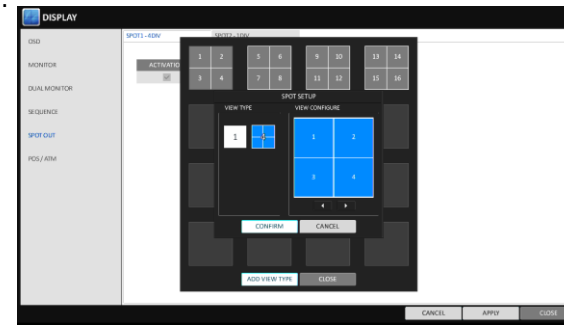
>SPOT TITLE : Name the Spot Out setup.
>ACTIVATION : Set whether to activate / deactivate the spot out setup.
>MODIFY : Edit the view type of the spot output.
>SAVE : Save the changes of spot output settings.

3. To apply your changes, click **<APPLY>** button.

4. Once completed with setup, press **[EXIT]** button of the remote control or click **<CLOSE>** button on the bottom of the screen. A confirmation dialog appears and returns to the previous menu.

To add a View Type to a SPOT OUT

1. Select an item from the SPOT OUT list to be changed.



2. The "**MODIFY**" window appears, click **<MODIFY>** button.

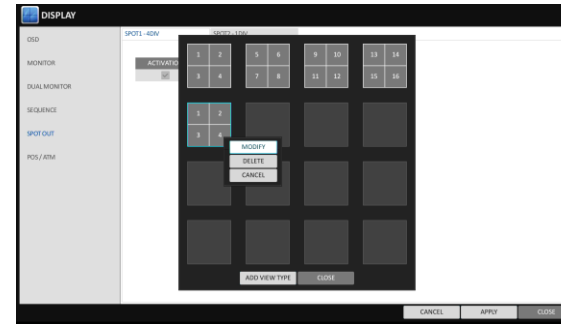
3. When the View Type selection window appears, click **<ADD VIEW TYPE>** button.

4. Select the desired View Type and configuration, and click **<CONFIRM>** button.

5. Complete adding and click **<CLOSE>** to close the edit window.

To edit or delete View type of the SPOT Out

1. Select an item from the SPOT OUT list to be changed.



2. The **"MODIFY"** window appears, click **<MODIFY>** button.

3. When the View Type selection window appears, select the desired View Type to be edited or deleted, and press **[ENTER]** button of the remote control or right click on it.

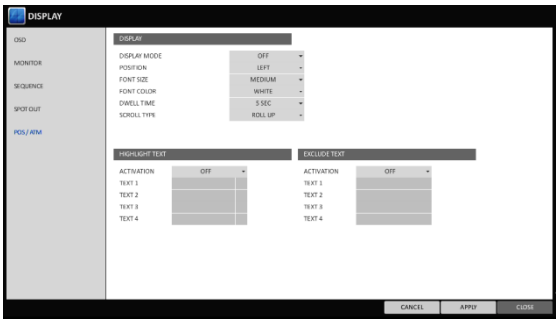
> MODIFY : Displays **"SPOT SETUP"** window for editing View Type and other properties.

> DELETE : Deletes the selected View Type.

5. Complete editing and click **<CLOSE>** to close the edit window.

POS/ATM

You can change the settings required to interlock the POS/ATM device connected to DVR.



1. From **<SYSTEM SETUP> - <DISPLAY>**, select **<POS/ATM>**.

2. Use **[▲▼◂▸/ENTER]** button of the remote control or use the mouse to check POS/ATM settings.

> DISPLAY MODE : You can select the screen where the data entered from POS/ATM are displayed.

-OFF : nothing is displayed on screen.
-BOTH: POS/ATM data are displayed on both LIVE and PLAYBACK screens.
-LIVE : The data are displayed on only LIVE screen.
-PLAYBACK : The data are displayed on only PLAYBACK screen.

> POSITION : Select LEFT or RIGHT for the screen position.
> FONT SIZE : Select SMALL, MEDIUM or LARGE for your desired font size.

✓ The font size is applied to a single screen mode only.

> FONT COLOR : Select WHITE, GLAY, YELLOW, BLUE, GREEN or RED for your desired font color
> DWELL TIME : You can set how long the data is displayed on screen.

-UNTIL NEXT : Keep the data displayed on screen until the next data are input.
-1-60SEC : The data are displayed for the specified time.

> SCROLL TYPE : Set the scroll type for screen.

-CLEAR : Display the data without scrolling.
-ROOL UP : Display the data with roll-up type scrolling.

> HIGHLIGHT TEXT : Select whether to activate the highlighted text or not before entering the text and specifying its color.
> EXCLUDE TEXT : Select whether to activate the excluded text or not before entering the text.

✓ The POS data are displayed only in 1, 4, 6 and 8-split screen mode.

3. To apply the changes, click **<APPLY>** in the button of the screen.

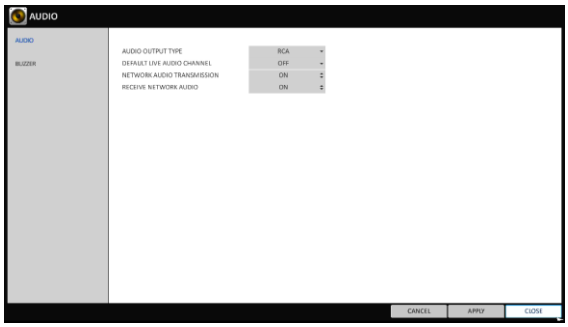
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the screen. The confirmation message appears and you will return to the previous menu.

Audio Setup

Choose whether to receive the live sound source and select an audio channel.

1. From **<SYSTEM SETUP> - <AUDIO>**, select **<AUDIO>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to select an item that you want to edit.



>AUDIO OUTPUT TYPE : You can select and use the conventional RCA audio output or the HDMI audio output.

>DEFAULT LIVE AUDIO CHANNEL : select an Audio channel to monitor on the live screen.

>NETWORK AUDIO TRANSMISSION : decide if DVR transfers the audio signal to the remote client.
DVR ➔ PC(Remote client)

>RECEIVE NETWORK AUDIO : decide if DVR receives the audio signal from the remote client.
PC(Remote client) ➔ DVR

3. To apply the change, click **<APPLY>**button.

4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button.
The confirmation message appears and you will return to the previous menu.

Buzzer output (Only available on 2U Model)

You can set to output the buzzer if you manipulate the remote control.

1. From **<SYSTEM SETUP> - <AUDIO>**, select **<BUZZER>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to select an item that you want to edit.

> REMOTE CONTROL : specify the output of a beep when you press a button on the remote control.

3. To apply the change, click **<APPLY>** button/

4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button.
The confirmation message appears and you will return to the previous menu.

User Setting

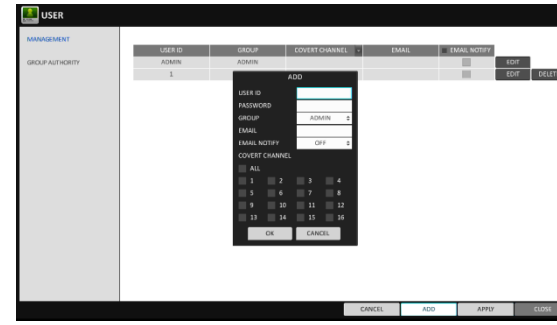
You can configure the settings regarding user management and user and group permissions.

Management

You can add a user account(s) that can be edited at a later time.

1. From **<SYSTEM SETUP> - <USER>**, select **<MANAGEMENT>**.
2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to add a user account or select an item that you want to edit.
3. To apply the change, click **<APPLY>** in the bottom ofthe screen.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen.
   The confirmation message appears and you will return to the previous menu.

To add a user account



1. Click **<ADD>** in the bottom of the screen.
2. Use the **[▲▼◂▸]** buttons on the remote control and move to a desired item. Then, press **[ENTER]** to select the item.

   > USER ID : enter the user ID using the virtual keyboard.

   > PASSWORD : With the virtual keyboard, enter the password.

   > GROUP : From **<ADMIN>**, **<MANAGER>** and **<USER>**, select a group that the user belongs to.

   > EMAIL : Type in the e-mail address to which you will receive notification of an event if it occurs.

   > EMAIL NOTIFY : Choose whether you will receive notification of an event if it occurs.
   - ✓ To use <EMAIL NOTIFY>, a send mail server and its port should be configured previously.

   > COVERT CHANNEL : You can set the channel to hide from a specific user.
   - ✓ < COVERT CHANNEL >, option hides the video of the selected channel from being displayed on the screen.

3. When done, click **<OK>**. The added user account will be listed.

To edit the user account information

1. From the list of users, select a user account to edit and click **<EDIT>** next to it.
2. From the Edit window, make necessary changes and click **<OK>**.
3. To delete the user account, click **<DELETE>**.
   - ✓ The **<ADMIN>** account cannot be changed or deleted.

Group Authority

You can grant different user groups different permissions to a specific menu.

1. From **<SYSTEM SETUP> - <USER>**, select **<GROUP AUTHORITY>**.
2. Use the **[▲▼◂▸/ENTER]** buttons or use the mouse to set the permissions for both **<MANAGER>**and **<USER>** groups.

>SEARCH : Set the permissions for the Search menu.

>ARCHIVING : Set the permissions for the Backup menu.

>SYSTEM SETUP : Set the permissions for the System Setup menu.

>RECORD SETUP : Set the Access Permissions for the Record Setup menu.

>EVENT ACTION CONTROL : Set the permissions to output the alarm or control the buzzer if an event such as alarm occurs.

>LISTEN TO AUDIO : Set the permission to listen to the audio.

>REMOTE LOG IN : Set the permission to access remotely.

>SHUTDOWN : Set the permission to shut down DVR from the System menu.

- ✓ The <ADMIN> account is the master account allowed for all permissions, which is not edited for individual permissions.

3. To apply the change, click <**APPLY>** in the bottom of the screen.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button. The confirmation message appears and you will return to the previous menu.

Network Setup

You can set IP address, DDNS and E-mail settings, and check network status.

IP Setup

Specify the IP address as well as the remote service port.

1. From **<SYSTEM SETUP> - <NETWORK>**, select **<IP SETUP>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to specify each item of the network settings.

   >DHCP : If it is checked, set the IP address of the DVR to Dynamic IP.

   ✓ For DHCP address allocation, the DVR should be connected to a network environment such as router that provides with DHCP server.

3. Deselect DHCP option to enable manual static address configuration. service.

   >IP ADDRESS : Provide the IP address.

   >GATEWAY : provide the gateway address.

   >SUBNET MASK : provide the subnet mask address.

   >1ST DNS SERVER : Enter the address of the primary DNS server.

   >2ND DNS SERVER : Enter the address of the secondary DNS server.

   >RTSP SERVICE PORT : port number that the remote client receives the DVR video from.

   >WEB SERVER PORT : port number used for connecting to the DVR with the web browser.

   >PORT FORWARDING : If you are using a router, you can set the port forwarding so that external access to the DVR is enabled.
   If the router does not support the uPnP protocol, you must set the port forwarding manually.
   For more information, contact your network administrator.

   >DELETE PORT : release the port forwarding settings for the router.

   >MAX TX SPEED : Limit the network transfer rate to access a remote client.
   The video signal may be transferred at a less rate than specified, which depends on the status of your network connection.

4. To apply the change, click **<APPLY>** button.

5. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button.
   The confirmation message appears and you will return to the previous menu.

DDNS

You can configure the DDNS settings so that remote users who are connected to the network can access remotely.

- ✓ DDNS is an IP redirection service in a dynamic IP environment that redirects (maps) the new IP address to a registered domain name each time the IP address is changed.

1. From **<SYSTEM SETUP> - <Network>**, select **<DDNS>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to specify the use of DDNS and select a server.

>DDNS : Specify the use of DDNS connection.

>DDNS SERVER : Select a server to connect to.

>DVR NAME : Enter the name of the DVR that you want to use as DDNS.

>DDNS REGISTRATION TEST : Check if the <DVR NAME> can be set as DDNS. If there is a duplicate name in the server, the registration will fail. If this is the case, rename the **<DVR NAME>** and press Test to check if it works properly.

>DVR ADDRESS : Provide the **<DVR NAME>** and press the **<DDNS REGISTRATION TEST>** button. The name will be added automatically.

>DDNS CONNECTION TEST : Perform the connection test to check if DDNS is normally registered.

3. To apply the change, click **<APPLY>** in the bottom of the screen.

4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

Email

You can register and test an email address so that an email notification is delivered at a specific interval or if an event occurs.

1. From **<SYSTEM SETUP> - <NETWORK>**, select **<EMAIL>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to specify the use of email and select a server.

>SERVER : Set up the mail server. Set the mail Server that will be used for notification to the DVR.
>PORT : Enter the mail server port.

>SECURITY : If it is set to **<On>**, the email will be transferred in secure mode.
If it is set to **<Off>**, the email will be transferred to a server that does not support SSL.

>USER : Provide the email account (ID) of the sender.

>PASSWORD : Provide the password of the sender.

>TEST EMAIL ADDRESS : Enter an email address for the test purpose.

>TEST : Send a test email and check if the test email is delivered normally.

3. To apply the change, click **<APPLY>** in the bottom of the screen.

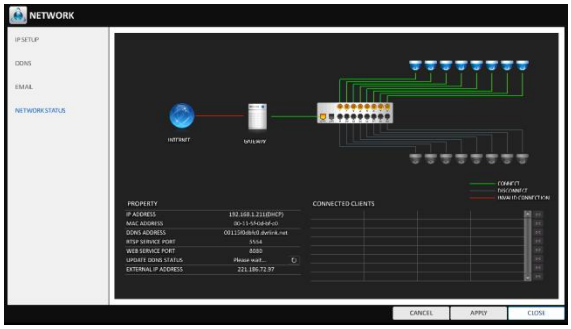
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

Network Status

From the network map screen, you can check the internet connection status and camera connection status, and Check also the details of the connection status for each camera.

1. From **<SYSTEM SETUP> - <NETWORK>**, select **<NETWORK STATUS>**.

2. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button. The confirmation message appears and you will return to the previous menu.



Network status

> IP ADDRRESS : Indicates the internal IP address of the DVR.

> MAC ADDRESS: Indicates the internal MAC address of the DVR.

>DDNS ADDRESS: Indicates the internal DDNS address of the DVR.

>RTSP SERVICE PORT : Indicates the network port of the video service. For remote service, the router must have set up the port forwarding.

>WEB SERVICE PORT : Indicates the web service network port. For the remote service to be enabled, the corresponding port of the router should have set up the port forwarding.

>DDNS UPDATE STATUS : Shows if the DDNS address was registered to the DDNS server normally. Press <> to try to register the DDNS address forcibly.

>EXTERNAL IP ADDRESS : Indicate the IP address for the internet, accessible from the DVR. The DVR can be granted access with the web browser at http://<External IP Address>:<Web Service Port>. The IP address can vary in a dynamic IP environment.

>CONNECTED CLIENTS :Shows the list of clients that are currently connected. Press <> to terminate the connection of an unwanted client forcibly.

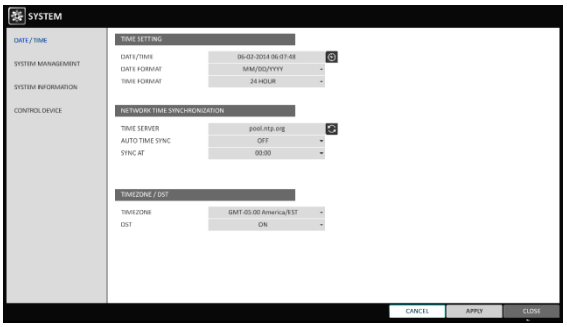
✓ Termination is limited to only users in a lower group than the current user.

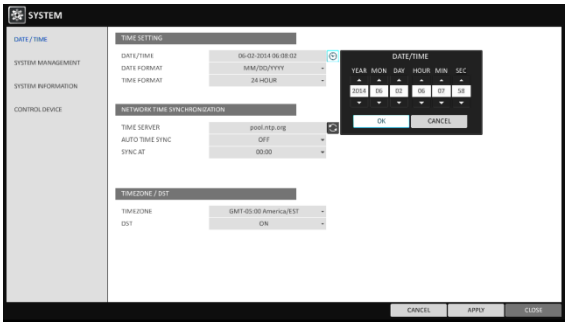
System Setting

You can configure the settings of date/time, system management, and keyboard controller.

Date/Time

Specify the current date and time.





1. From **<SYSTEM SETUP> - <SYSTEM>**, select **<DATE/TIME>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to change the time or set the options as necessary.

   >DATE/TIME : Set the current time and date. Click< > to adjust the time manually.

   >DATE FORMAT : specify the date format.

   >TIME FORMAT : specify the time format.

   >TIME SERVER : obtain the current time from the time server. Click < > to get the current time.

   >AUTO TIME SYNC : automatically synchronize the time with the time server at a specific time.

   >SYNC AT : Set the time to sync with the time server.

   >TIMEZONE : specify the GMT standard time for your local area.

   >DST : You can set up or release the DST (Daylight Saving Time).

   ✓ Both **<TIME SERVER>** and **<AUTO TIME SYNC>** will be enabled only if the DVR is connected to the Internet.

3. To apply the change, click **<APPLY>** in the bottom of the screen.

4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

System Management

You can check, update or reset the system information.

1. From **<SYSTEM SETUP> - <SYSTEM>**, select **<SYSTEM MANAGEMENT>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to set each option of the system management.

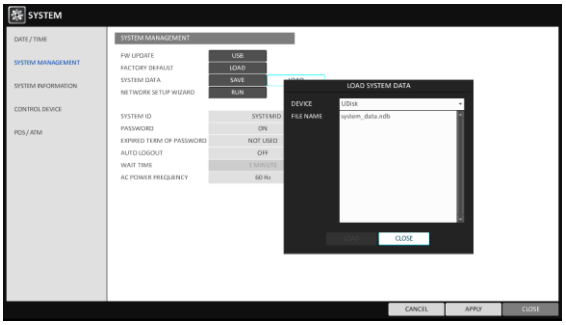
>FW UPDATE : you can update the current software with the latest version.

>FACTORY DEFAULT : Return the DVR settings to the factory default.

- ✓ If you proceed with the firmware upgrade or select to reset to the factory default, all current settings of the DVR will be erased.
  In such a case, you must configure the network, time and recording settings again.

>SYSTEM DATA : Save the system settings or get the system information from other device.

- SAVE : Store the DVR settings to a storage device. Connect the storage device to the USB port of DVR.
- LOAD : Apply the settings of the storage device to the DVR. Connect the storage device to the USB port of DVR.



>NETWORK SETUP WIZARD : Triggered when the correspondin button is pressed or upon factory Initialization. The wizard guides through network configuration such as setting the DHCP or static IP address, WEB and RTSP service ports.

>SYSTEM ID : Assign an ID to the DVR to distinguish it out from others when there are multiple DVR used.

- ✓ The default value is “SYSTEM ID”.

>PASSWORD : Open or close the dialog box for settings of the menus: quit, system settings, record settings, backup, and search.

- ✓ If it is set to **<Off>**, note that the ADMIN account is only effective and access to all menus will be restricted.

>EXPIRED TERM OF PASSWORD : You will be prompted to change the current password after a certain period of time.

>AUTO LOGOUT : If there is no user input for a certain period of time, you can set to log out automatically.

>WAIT TIME : Specify the waiting time for Auto Logout.
>AC POWER FREQUENCY : Set 60Hz for NTSC signal, 50Hz for PAL signal

3. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen to return to the previous menu.

To perform the upgrade

1. Connect the USB storage device that contains the updatable files.
2. Click **<USB>**.
3. Select one(s) from the updatable files LIST listed in **<F/W >**.

4. Click **<UPGRADE>**.
5. When the confirmation message appears, click **<OK>**.

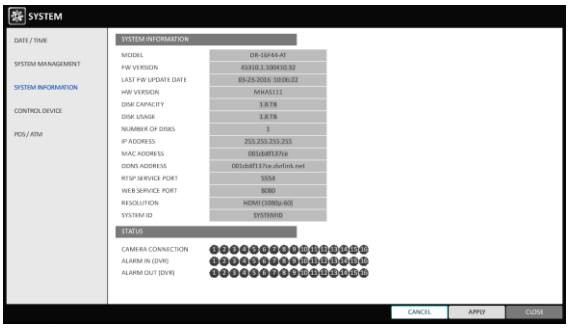
6. The progress bar displays the progress of the firmware upgrade process.
7. When the upgrade is complete, reboot the system.

✓ During the updating, never turn off the DVR forcibly or disconnect the USB storage device to avoid serious damage to the product or data. If required, consult your nearest service center for professional assistance.

System Information

You can check the current system version and system-related settings.

1. From **<SYSTEM SETUP> - <SYSTEM>**, Select **<SYSTEM INFORMATION>**.
2. Check the status of the current system.
3. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button.



Control Device

Configure the settings of the remote control and keyboard controller.

1. From **<SYSTEM SETUP> - <SYSTEM>**, select **<CONTROL DEVICE>**.
2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to set the connection options for the control device.

   >SYSTEM ID : Set the ID of the DVR so that the keyboard controller can identify.

   >PROTOCOL : Set up the protocol of the keyboard controller.

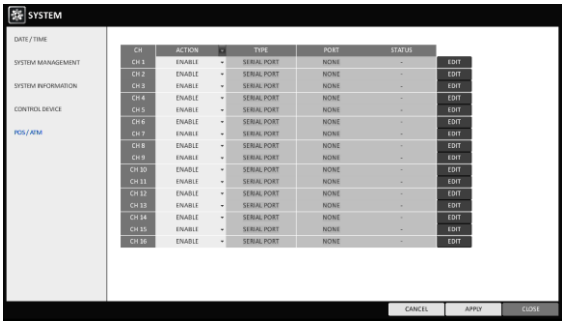
   >BAUD RATE : Specify the RS485 communication speed.

   >REMOTE CONTROLLER ID : Set the ID of the remote control. **(Only available on 2U model)**
3. To apply the change, click **<APPLY>** in the bottom of the screen.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

POS/ATM

You can check the configuration of the POS/ATM device connected to DVR.

1. From **<SYSTEM SETUP> - <SYSTEM>**, select **<POS/ATM>**.



2. Use **[▲▼◂▸/ENTER]** on your remote control or use the mouse to check POS/ATM settings.
   > ACTION : Specify whether to activate the POS/ATM device or not.
   > TYPE : Display the type for each channel.
   > PORT : Display the port for each channel.
3. Click **<EDIT>** to change the POS/ATM settings.
4. To apply the change, click **<APPLY>** in the bottom of the screen.
5. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen.

To set the POS

1. Press the **<EDIT>** button to change in each channel.
   > PORT : You can change the linked port by dropdown list.
   - ✓ The USB to serial device is required to add port.

   > PROTOCOL : GENERAL is designated for PROTOCOL by default.
   > BAUDRATE : Select the BAUDRATE between 2400-115200.
   > DATA BIT : You can select between 5 and 8 for DATA BIT.
   > CHARACTER SET : The ASCII CHARACTER SET is designated by default.
   > PARITY : You can select NONE, ODD or EVEN for PARITY BIT.
   > STOP BIT : You can select 1 or 2 for STOP BIT.
   > TRANSACTION START : Enter the value for TRANSACTION START by using virtual keyboard.
   > TRANSACTION END : Enter the value for TRANSACTION END by using virtual keyboard.
   > LINE DELIMITER : Enter value for LINE DELIMITER by using virtual keyboard.
   > IGNORE STRING : Enter the string to ignore by using virtual keyboard.
   > COPY SETTING TO : You can copy the settings to each channel.
   > TEST : you can test the settings through the POS.
2. Complete editing and click **<OK>** to close the edit window.

Storage

You can configure the settings of and view information of the disk and external storage device.

2U model (DR-16F44-AT) supports both **<INTERNAL>** and **<EXTERNAL STORAGE>**.

Disk Information

It will show information about the connected disk.

1. From **<SYSTEM SETUP> - <STORAGE**>, select **<DISK INFORMATION>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to check each connected peripherals.

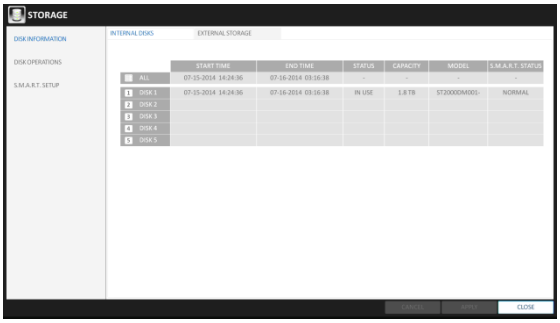
   >START / END TIME : show the start time and end time of data stored in each disk.

   >STATUS : check if the connected disk is being used by the DVR. If you encounter a problem with the disk, the DVR will terminate the connection to the disk and mark it as ‘Not In Use’.

   >CAPACITY : show the capacity of the disk.

   >MODEL : indicate the disk model.

   >S.M.A.R.T STATUS : Read the S.M.A.R.T information of the disk and check to display if the current disk is in normal operation.



   - NORMAL : The disk is in a normal state.
   - CHECK : The disk has an error so that you need to check the disk or the connection cables of the disk. If you leave the problem unresolved, no recording may be enabled. So it is recommended that you replace the disk immediately.
   - ERROR : The disk fails or is unable to use due to an error of the disk or the cable. The disk should be replaced immediately. Contact the retailer or the customer service to replace the disk.

3. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen to return to the previous menu.

Disk Operations

You can set to delete the recording automatically and set the overwrite options, and you can also format the HDD recording data.

1. From **<SYSTEM SETUP> - <STORAGE>**, select **<DISK OPERATIONS>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to set the operation conditions of the disk.

   >DISK WRITE MODE

   - If it is set to **<OVERWRITE>**, the existing data will be overwritten by new recording data if the recording data size exceeds the free space of the HDD.
   - If the option is set to **<ONCE>** and the HDD is full, the DVR will stop recording and output the beep or alarm that is pre-defined at **<EVENT>**.

   >RECORDING TIME LIMIT : The recording data will be deleted after a specific time of reservation. If it is set to **<OFF>**, this function will be disabled.

   >DISK FORMAT : format the hard disk.

❗ Note that formatting the HDD will delete all video data and logs.

3. To apply the change, click **<APPLY>** in the bottom of the screen.

4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button. The confirmation message appears and you will return to the previous menu.

Disk Configuration (Only available on model)

You can generate and configure a RAID array in your internal disks.

- ✓ What is RAID?
  RAID is a backup storage technology which allows you to use multiple independent disks as if they were just a single one.

  RAID 1 : The same duplicated data are also recorded in a different drive. That is the data equally stored in a pair of drives.
  RAID 5 : This mode is the best known RAID array. It distributes and stores data and parity across at least 3 dives.

1. From **<SYSTEM SETUP> - <STORAGE>**, select **<DISK CONFIGURATION>**.

2. Use the **[▲▼◂▸/ENTER]** on your remote control or use the mouse to change your DISK CONFIGURATION.
   > MODEL : Display the model name of each disk.
   > CAPACITY : Display the capacity of each disk.
   > STATUS : If any problem occurs in the disk where a RAID array has been configured, the disk is displayed as Degrade.
   > REBUILD : Display whether to rebuild each disk or not.
   > REFRESH : Reload the status of the RAID array.
   > CREATE RAID : Press the button to create a RAID array.
3. To apply the change, click **<APPLY>** in the bottom of the screen.
4. When done, press the **[EXIT]** button on the remote control or click **<APPLY>** in the lower screen. The confirmation message appears and you will return to the previous menu.

To configure a RAID array

1. Press the **<CREATE RAID>** button on screen.
   - ✓ To configure RAID 1, at least 2 disks are required.
   - ✓ To configure RAID 5, at least 3 disks are required.
   - ✓ If you install deferent capacity of HDDs, smaller capacity will be configured for RAID.

2. Check the model and capacity of each disk, configure your desired RAID array, and then press the **<OK>** button.

- ❗ If you modify the RAID configuration, all the data will be formatted.
- ❗ To apply the modified RAID configuration, reboot the system

S.M.A.R.T settings

You can check the S.M.A.R.T information of the disk and specify the check frequency.

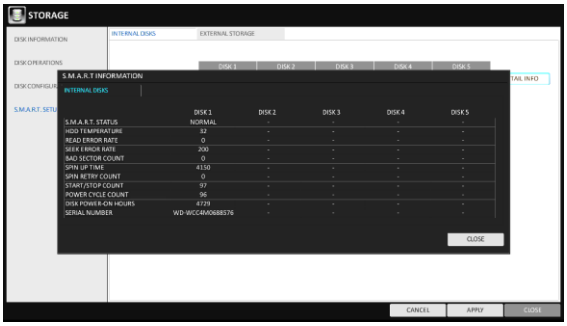
- ✓ What is S.M.A.R.T information?
- ✓ S.M.A.R.T (Self-Monitoring, Analysis and Report Technology) is to detect a HDD that is likely to cause a problem in the future with a warning message.

2U model (DR8/16FX5) supports both **<INTERNAL>** and **<EXTERNAL STORAGE>**.

1. From **<SYSTEM SETUP> - <STORAGE>**, select **<S.M.A.R.T. SETUP>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to check the S.M.A.R.T operation and specify the check interval.

   >S.M.A.R.T STATUS : Read the S.M.A.R.T information of the disk and check to display if the current disk is in normal operation.
   Click **<DETAIL INFO>** to view the details.



   - NORMAL : The disk is in a normal state.

   - CHECK : The disk has an error so that you need to check the disk or the connection cables of the disk. If you leave the problem unresolved, no recording may be enabled.
   So it is recommended that you replace the disk immediately.

   - ERROR : The disk fails or is unable to use due to an error of the disk or the cable.
   The disk should be replaced immediately.
   Contact the retailer or the customer service to replace the disk.

- ✓ S.M.A.R.T CHECK INTERVAL : Specify the S.M.A.R.T check interval. Click **<CHECK NOW>** to start checking.

3. To apply the change, click **<APPLY>** in the bottom of the screen.

4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button.
   The confirmation message appears and you will return to the previous menu.

Event Setup

Define various events, and specify the conditions to notify the user in various ways.

Alarm Out

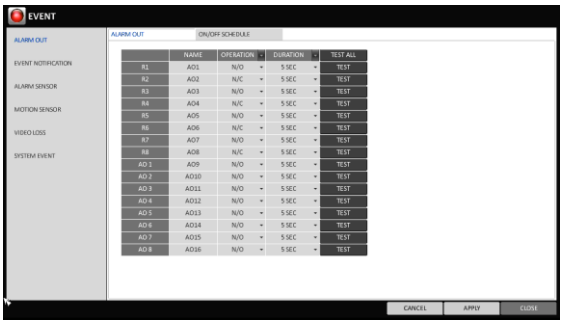
Specify the alarm output conditions with the work schedule.

✓ Number of alarm output is different on each models.

Model	Relay output	Alarm (TTL) output
DR-4M41	N/A	N/A
DR-8M41	N/A	N/A
DR-16M42	1	N/A
DR-16F44-AT	8	8

1. From **<SYSTEM SETUP> - <EVENT>**, select **<ALARM OUT>**.

2. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to select **<ALARM OUT>**and configure the related settings.



>NAME : You can rename the alarm.

>OPERATION : Set the alarm output mode.

- N/O (Normal Open) : It normally stays Open. If an event occurs, it will switch to Close.
- N/C (Normal Close) : It normally stays Close. If an event occurs, it will switch to Open.

>DURATION : Specify the duration of the alarm output.

- TRANSPARENT : Keep the alarm out for as much time as the event lasts.
- UNTIL KEY : Keep the alarm out until a mouse or remote control button is pressed.
- 5 ~ 300 SEC : Keep the alarm out for as long as specified.

>TEST : Forcibly output the alarm for the test purpose.

3. To apply the change, click **<APPLY>** in the bottom of the screen.

4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE**> button. The confirmation message appears and you will return to the previous menu.

ON/OFF Schedule

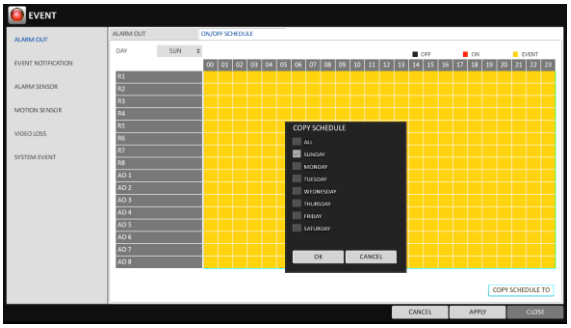
You can activate or turn off the alarm output as scheduled.

1. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to select a **<DATE>** for the schedule.
2. Drag the mouse to resize the cell or use the on the **[▲▼◂▸]** buttons to move to the cell, then press **[ENTER]**.
3. Select a desired alarm output mode.

   >ON : The alarm output is always turned on.

   >OFF : The alarm output is always turned off.

   >EVENT : Trigger the alarm output in sync with the event.



4. Click **<COPY SCHEDULE>** to check the checkbox of the date that you want to copy the schedule at.
5. When done, click **<OK>** to apply the settings.
6. To apply the change, click **<APPLY>** button.
7. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button. The confirmation message appears and you will return to the previous menu.

Event Notification

Specify the methods of notification such as buzzer, video popup or email if an event occurs.

1. From **<SYSTEM SETUP> - <EVENT>**, select **<EVENT NOTIFICATION>**.
2. Use the **[▲▼◂▸]** buttons on the remote control or use the mouse to select one from **<BUZZER>**, **<DISPLAY>** and **<EMAIL>**.
3. Use the **[▲▼◂▸/ENTER]** buttons on the remote control or use the mouse to set the output method and duration.
4. To apply the change, click **<APPLY>** in the bottom of the screen.
5. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** button. The confirmation message appears and you will return to the previous menu.

Buzzer output

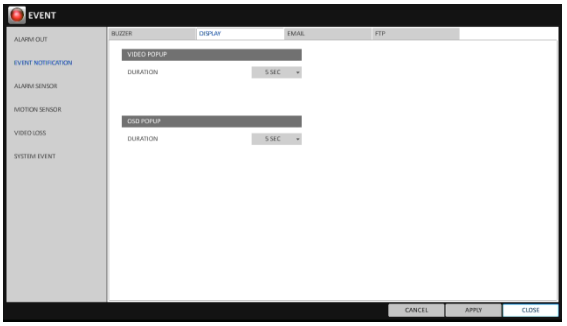
You can notify the user of the event using the buzzer.

>DURATION
- TRANSPARENT : Keep the buzzer out for as much time as the event lasts.
- UNTIL KEY : Keep the buzzer out until a mouse or remote control button is pressed.
- 5 ~ 300 SEC : Keep the buzzer out for as long as specified.

Display

If an event occurs, you can display the video screen or a popup message to notify the user.

>VIDEO POPUP : Display the video channel that is synchronized with the event on a single split screen. Set the DURATION of the single split screen.



- TRANSPARENT : Keep the video popup displayed for as much time as the event lasts.
- UNTIL KEY : Keep the video popup displayed until a mouse or remote control button is pressed.
- 5 ~ 300 SEC : Keep the video popup displayed for as long as specified.

✓ If multiple events occur at the same time, or if multiple event-related video channels exist, the video popup will be displayed in the maximum split screen mode rather than the single split screen mode.

>OSD POPUP : This will notify the user of the event with a popup message if an OSD popup event occurs. You can adjust the duration of the popup message.

- UNTIL KEY : Keep the OSD popup displayed until a mouse or remote control button is pressed.
- 5 ~ 300 SEC : Keep the OSD popup displayed for as long as specified.

Email

If an event occurs, this will notify registered users of the event by email. If you do not want to receive the email, uncheck the **<EMAIL NOTIFY>** option in **<USER>** ,**<MANAGEMENT>**. (Page 25)

>ADD NEW EMAIL
If you want to add a new mail recipient beside the existing ones, click this to add the recipient.

>MINIMUM EMAIL FREQUENCY
Adjust the minimum frequency of sending the email. For example, even if you have set the frequency to one minute and another event occurs in less than one minute after the last email sending, the email for the new event will be sent one minute after.

✓ Some email servers can block the email sending if the email delivery cycle is too short, and classify it as spam. Contact your email service provider to adjust the minimum delivery cycle so that the server does not classify the email as spam.

FTP

Upon events, uploads event notification onto the added FTP server.

> FTP SERVER : Enter the FTP server address For event transfer.

> DIRECTORY : Select or manually enter the destination folder of the FTP for event transfer.

> FILE NAME : Select the uploading event file's format or manually set the file name.

> MINUMUM FREQUENCY : Set the minimum recurrence delay for uploading event notification onto the FTP server.
For example, when the minimum recurrence is set to 1 minute, the next FTP event notification will be uploaded after 1 minute from the last event, even if another event is detected within 1 minute form the last one.

> INCULUDE WEBRA LINK: Select whether to include WEBRA link address of the event generating DVR, which can be accessed with web browser (Internet Explorer).

✓ Check to playback the event footage.

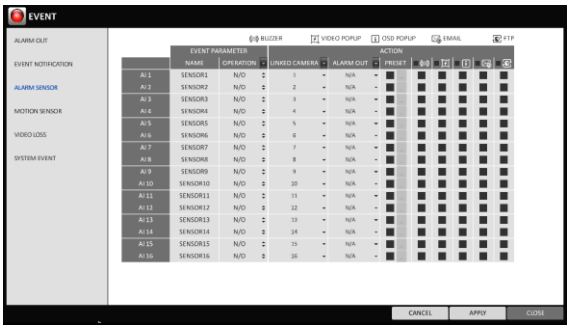
> INCULUDE SNAPSHOT IMAGE : Set whether to include snapshot (still image) or not.

Alarm Sensor

You can configure the settings of the alarm sensor and specify the operation of the sensor if an event occurs. Number of alarm sensor depends on the model,

Model	# of Alarm Sensor
DR-4M41	0
DR-8M41	0
DR-16M42	8
DR-16F44-AT	18

1. From **<SYSTEM SETUP> - <EVENT>**, select **<ALARM SENSOR>**.



2. Use the **[▲▼◂▸]** buttons on the remote control or use the mouse to specify the sensor input method and operation.

   >NAME : You can specify the name of the alarm sensor.

   >OPERATION : You can specify the type of the alarm sensor.

   - N/O (Normal Open) : Normally the sensor is left Open.
     If the sensor switches to Close, an event will be triggered.
   - N/C (Normal Close) : Normally the sensor is left Close.
     If the sensor switches to Open, an event will be triggered.

   >LINKED CAMERA : Set the camera to sync with the alarm sensor if it is triggered. If you have set the alarm recording and the sensor detects the recording, all synchronized cameras will start alarm recording.

   >ALARM OUTPUT (Available on 16 ch models) : Specify the alarm output channel if it is detected by the alarm sensor.

   >BUZZER : Specify the output of the buzzer if an alarm is detected by the alarm sensor.

   >VIDEO POPUP : Select to display the video popup if an alarm is detected by the alarm sensor. If there exist multiple **<LINKED CAMERA>**, the video popup will be displayed in the maximum split mode.

   >OSD POPUP : Select to display the OSD popup message if it is detected by the alarm sensor.

   >EMAIL : Select to send an email if detected by the alarm sensor.

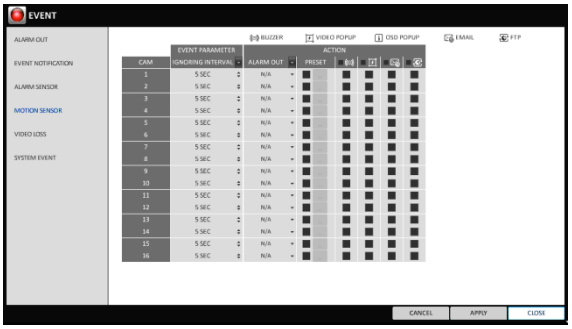
   >FTP : Select whether to upload event notification onto the FTP upon detected alarm event.

3. To apply the change, click **<APPLY>** in the bottom of the screen.

4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

Motion Sensor

You can set an action to execute when a motion is detected. For the settings of the motion sensor, move to <CAMERA SETUP>.



1. From **<SYSTEM SETUP> - <EVENT>**, select **<MOTION SENSOR>**.
2. Use the **[▲▼◂▸]** buttons on the remote control or use the mouse to specify the ignorance interval and operation.

   >IGNORING INTERVAL : Specify the minimum interval of the motion event occurrence.
   For example, even if you have set the minimum frequency to 5 seconds and another motion event occurs in less than 5 seconds after the last motion event occurred, the new event will be ignored.
   If too many motion events occur, adjust to shorten the interval.

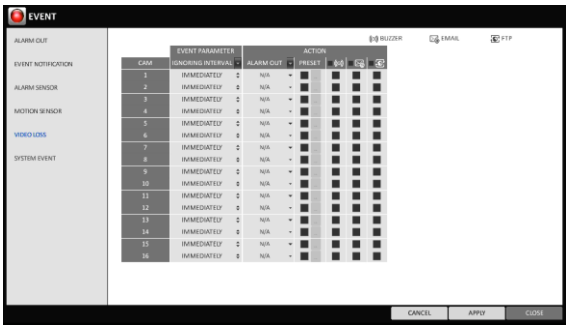
✓ Motion recording will be triggered immediately after the motion occurred regardless of the above settings.

> ALARM OUTPUT (Available on 16 ch models) : Specify the alarm output channel if a motion is detected by the motion sensor.
>BUZZER : Specify the output of the buzzer if a motion is detected by the motion sensor.
>VIDEO POPUP : Select to display the video popup if a motion is detected by the motion sensor.
>EMAIL : Select to send an email if a motion is detected by the motion sensor.
>FTP : Select whether to upload event notification onto the FTP upon detected motion event.

3. To apply the change, click **<APPLY>** in the bottom of the screen.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

Video Loss

You can specify a reaction to the case where no video is received from the camera.



1. From **<SYSTEM SETUP> - <EVENT>**, select **<VIDEO LOSS>**.
2. Use the **[▲▼◂▸]** buttons on the remote control or use the mouse to specify the reaction to a video loss.

   > ALARM OUTPUT (Available on 16 ch models): Specify the alarm output channel if a video loss occurs.
   >BUZZER : Specify the output of the buzzer if a video loss occurs.
   >EMAIL : Select to send an email if a video loss occurs.
   >FTP : Select whether to upload event notification onto the FTP upon detected video loss event.

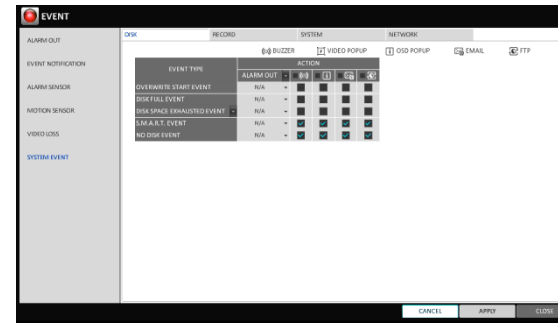
3. To apply the change, click **<APPLY>** in the bottom of the screen.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

System Event

You can set any action to an event related to the disk, recording, network or system. Like the other events, you may notify the event to the user using the alarm/buzzer output, OSD pop-up or email.

1. From **<SYSTEM SETUP> - <EVENT>**, select **<SYSTEM EVENT>**.
2. Use the **[▲▼◂▸]** buttons on the remote control or use the mouse to specify the reaction to each event.
3. To apply the change, click **<APPLY>** in the bottom of the screen.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

Disk



>OVERWRITE START EVENT : if you set the disk write mode to **<OVERWRITE>**, this event occurs when the disk is full and the overwriting begins accordingly.

>DISK FULL EVENT : if you set the disk write mode to **<ONCE>**, this event occurs when the disk is full (100%).

>DISK SPACE EXHAUSTED EVENT : Event that is triggered if the disk is almost full.
Click to specify the threshold percentage of usage to trigger the event.

>S.M.A.R.T EVENT : Occurs if the disk causes the S.M.A.R.T error.

>NO DISK EVENT : Occurs if no disk is recognized after the booting due to a disk failure or cable problem.

To detect the disk error, it is recommended not to change the settings of the S.M.A.R.T event, no disk event and buzzer output.

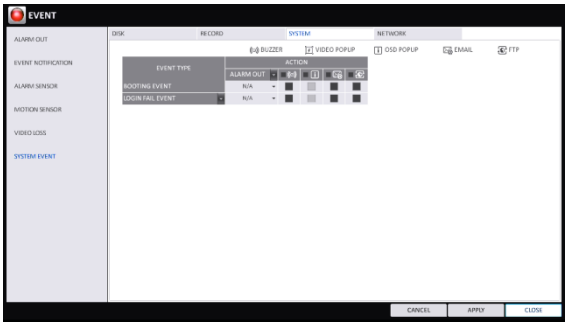
Record

>PANIC RECORD START EVENT : Specify the action to perform when the panic recording begins.

System

>BOOTING EVENT: This event occurs when the DVR is booting.

>LOGIN FAIL EVENT: This event occurs when the DVR fails to log in.
You can specify the times of clicking < > to trigger the event.



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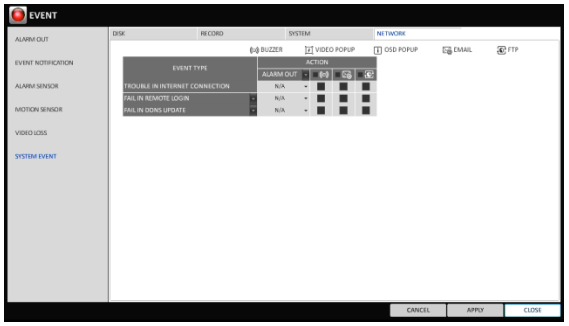
Network

>TROUBLE IN INTERNET CONNECTION : Occurs if the Internet connection to the DVR fails.
If you do not want to connect the DVR to the network, leave the **<Action>** item blank.

>FAIL IN REMOTE LOGIN : This event occurs if a remote client fails to log in due to an invalid ID or password.
You can specify the times of clicking < > to trigger the event.

>FAIL IN DDNS UPDATE : This event occurs if the DVR tried to update the DDNS address but failed.



✓ If the DDNS address fails to be updated, the DVR may not connect to a remote client.
If this is the case, enter the IP address from the client side to allow access from the DVR.
This is just a temporary measure.
For the IP address, move to and check **EXTERNAL IP ADDRESS>** from the **<NETWORK>** window. Note that the **<EXTERNAL IP ADDRESS >** is subject to change if the DVR does not use the static IP.

Note that the **<EXTERNAL IP ADDRESS>** can change at any time in a dynamic IP environment.

Record Setting

You can configure the record settings for the DVR. Only authorized users can access the Record Setup menu.

To start the Record Setup menu

How to use the mouse

How to use the remote control 1

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Record Setup

Operation Mode

You can set the recording options for Auto or Manual mode.

1. From **<RECORD SETUP>** menu, select **<OPERATION MODE>**.
2. Use the **[▲▼◂▸]** buttons or use the mouse to set **<RECORDING CONFIGURATIONMODE>** to **<AUTO CONFIGURATION>** or **<MANUAL CONFIGURATION>**.
3. Set the recording options for each selected Record mode.
4. To apply the change, click **<APPLY>** in the bottom of the screen.
5. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>**.

Auto Configuration

If you choose your preferred record mode, the DVR will recommend you the optimized settings for the selected record mode.

>CONTINUOUS RECORD : Recording will proceed in the best quality regardless of the event at all times.
As this option will always make recording in the best quality, the recording period is the shortest compared to the other record modes.

>MOTION RECORD : Recording will proceed only if a motion is detected.

>ALARM RECORD : Recording will proceed only if an alarm event occurs.

>MOTION/ALARM RECORD : Recording will proceed only if a motion is detected or an alarm event occurs.

>INTENSIVE MOTION RECORD : Normally recording will be performed in a low quality. However, the quality will switch to high if a motion is detected.

>INTENSIVE ALARM RECORD : Normally recording will be performed in a low quality. However, the quality will switch to high if an alarm event occurs.

>INTENSIVE MOTION/ALARM RECORD : Normally recording will be performed in a low quality. However, the quality will switch to high if an alarm event occurs or a motion is detected.

✓ Motion : Normally, it means movement of an object. However, it implies a change to the illumination in the content of the DVR. Ex) Vehicle lights(headlights) illumination change, etc.

>BITRATE CONTROL : You can select Constant bitrate (CBR) encoding or Variable Bitrate (VBR) Encoding.

✓ If the scene does not have a lot of motion, generally you can save HDD storage space. However, it may be (very difficult to estimate the HDD space usage with VBR mode.

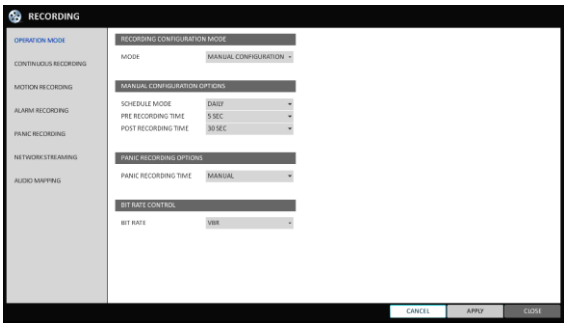
Record Setting

Manual Configuration

You can set the manual recording and panic recording options.

>MANUAL CONFIGURATION OPTIONS : You can configure the recording settings by the time, date, and channel.
- SCHEDULE MODE : Set the recording schedule for a day (daily) or for a week (weekly).
- PRE RECORDING TIME : Set the pre-recording time.
- POST RECORDING TIME : Set the post-recording time.

>PANIC RECORDING OPTIONS : Set the panic recording duration.
If it is set to **<MANUAL CONFIGURATION>**, recording will continue until you turn it off manually.



Continuous Recording

You can configure the settings of: continuous recording time, recording size, frame rate per second and quality.

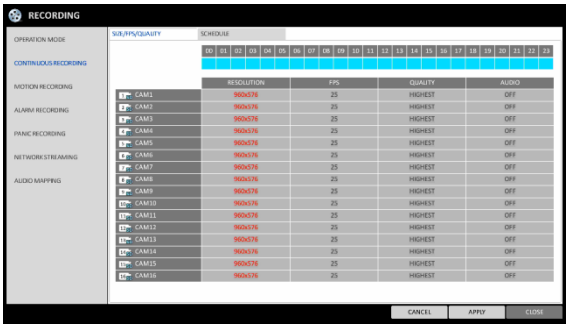
1. From the **<RECORD SETUP>** menu, select **<CONTINUOUS MODE>**.

✓ From **<OPERATION MODE>**, you must set **<RECORDING CONFIGURATIONMODE>** to **<MANUAL CONFIGURATION>** before you can set the **<CONTINUOUS RECORDING>**.

2. Use the **[▲▼◄►]** buttons on the remote control or use the mouse to select either **<SIZE/FPS/QUALITY>** or **<SCHEDULE>**.

Size/FPS/Quality Setting

1. Please select the day of the week to perform the continuous recording.
From **<OPERATION MODE>**, you must set the **<SCHENDULE MODE>** of the **<MANUAL RECORD >** to **<WEEKLY>** before you can specify the **<DAY>**.



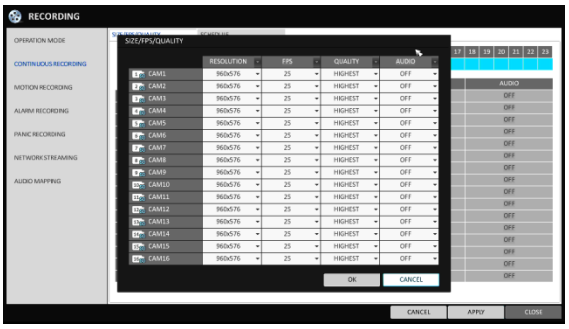
2. Click a time cell from which you want to edit the SIZE/FPS/Quality and drag it to a desired cell.
Or use the **[▲▼◄►]** buttons on the remote control to move to the cell and press **[ENTER]**.
Then, use the **[▲▼◄►]** buttons to move to a desired cell and press **[ENTER]** again.

3. When the cell selection is completed, the **"SIZE/FPS/QUALITY"** table appears.

Specify the **<RESOLUTION>**, **<FPS>**, **<QUALITY>** and use of the **<AUDIO>** recording for each channel.

>RESOLUTION : set the size of the video recording.
>FPS : set the frame rate per second.
>QUALITY : set the recording quality.
>AUDIO : specify the use of the audio recording.

4. When done, click **<OK>**.
You can check the recording size in the size table under the time selection bar.

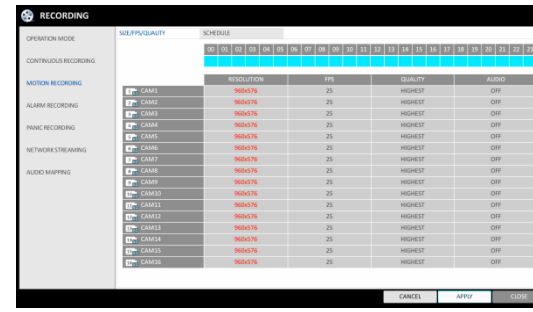


Schedule Setting

1. Select a start day of the week on the schedule.
2. Click a time cell from which you want to make the schedule and drag it to a desired cell. Or use the **[▲▼◄►]** buttons on the remote control to move to the cell and press **[ENTER]**. Then, use the **[▲▼◄►]** buttons to move to a desired cell and press **[ENTER]** again.
3. When the time selection is complete, you will be prompted to specify the use of recording in the Record Setup window.
4. To apply the change, click **<APPLY>** in the bottom of the screen.
5. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

Motion Recording

Specify the recording size of the motion event if it occurs and make schedule for that recording.



1. From the **<RECORD SETUP>** menu, select **<MOTION RECORD>**.
2. Use the **[▲▼◄►]** buttons on the remote control or use the mouse to select either **<SIZE/FPS/QUALITY>** or **<SCHEDULE>**.
3. Set each item of **<RESOLUTION>**, **<FPS>**, **<QUALITY>**and use of the **<AUDIO>** for the motion recording.

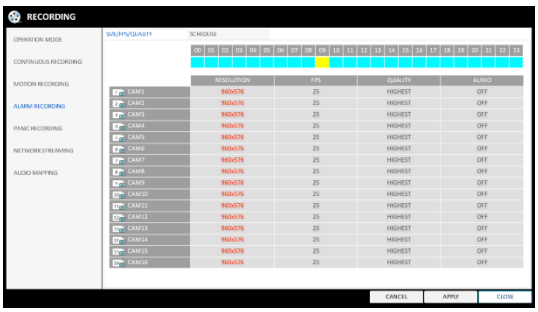
✓ For more information, see the "Continuous Recording". (page 50)

4. To apply the change, click **<APPLY>** in the bottom of the screen.
5. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

Alarm Recording (Only available on 16 ch model)

Specify the recording size of the alarm event if it occurs and make schedule for that recording.

1. From the **<RECORD SETUP>** menu, select **<ALARM RECORD>**.
2. Use the **[▲▼◂▸]** buttons on the remote control or use the mouse to select either **<SIZE/FPS/QUALITY>** or **<SCHEDULE>**.
3. Set each item of **<RESOLUTION>**, **<FPS>**, **<QUALITY>** and use of the **<AUDIO>** for the alarm recording.



✓ For more information, see the "Continuous Recording". (page 50)

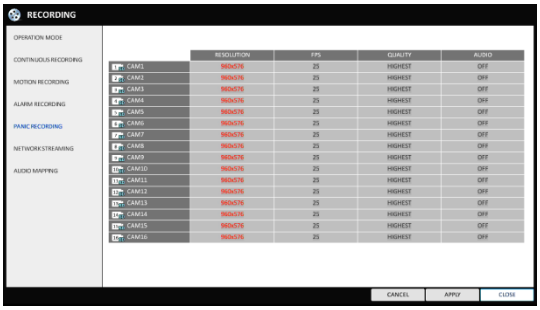
4. To apply the change, click **<APPLY>** in the bottom of the screen.
5. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

Panic Recording

In panic recording mode, you can specify the recording size and quality of the video.

1. From the **<RECORD SETUP>** menu, select **<PANIC RECORD>**
2. Set each item of **<RESOLUTION>**, **<FPS>**, **<QUALITY>** and use of the **<AUDIO>** for the panic recording.

✓ For more information, see the "Continuous Recording". (page 50)

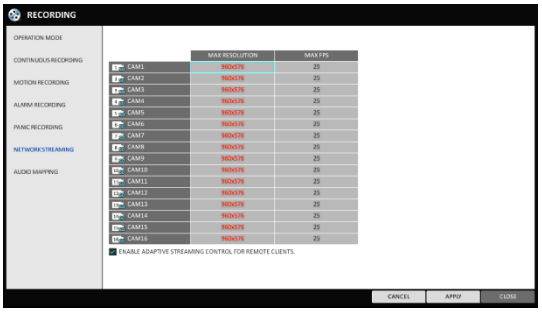


3. To apply the change, click **<APPLY>** in the bottom of the screen.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

Network Streaming

You can specify the maximum resolution and FPS of network streaming for remote users.

✓ Even if you set the resolution and FPS to high for the network streaming, the DVR will reduce the size or FPS according to the network status (Speed) before transferring the recording video.



1. From the **<RECORD SETUP>** menu, select **<NETWORK STREAMING>**.
2. Use the **[▲▼◄►]** buttons on the remote control or use the mouse to select an item that you want to edit.
3. Set the **<MAX RESOLUTION>** and **<MAX FPS>** for each channel.
4. When done, click **<OK>**.
5. To apply the change, click **<APPLY>** in the bottom of the screen.
6. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

Audio Mapping

1. From the **<RECORD SETUP>** menu, select **<AUDIO MAPPING>**.
2. Set the **<AUDIO IN>** for each channel.
3. To apply the change, click **<APPLY>** in the bottom of the screen.
4. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

You can configure the record settings for the DVR. Only authorized users can access the Record Setup menu.

To move to the Search menu while in monitoring

How to use the mouse

How to use the remote control 1

How to use the remote control 2

To move to the Search menu while in playback mode

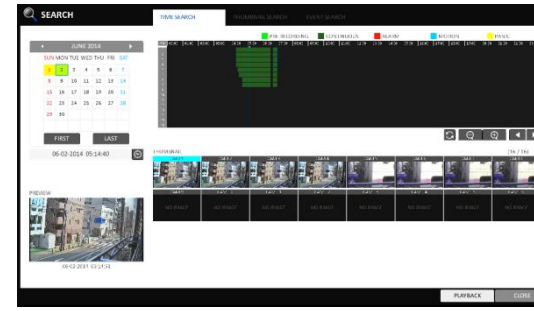
How to use the mouse

How to use the remote control I

Time Search

With the calendar, you can search for the recording data by the recorded date.

1. From the **<SEARCH>** menu, select **<TIME SEARCH>**.



2. Use the **[▲▼◂▸]** buttons or use the mouse to specify the search date and time from the calendar in the left corner of the screen.

   >FIRST : The first date of recording is automatically selected.

   >LAST : The last date of recording is automatically selected.

   > : Press this to display the time selection menu where you can specify the time and date.

3. You can identify the type of the recording data by the color in the bar.

   >Yellow green (Pre-recording) : The pre-recording is performed on the recording data after you set the **<PRE RECORDING TIME >** from **<OPERATION MODE>**.

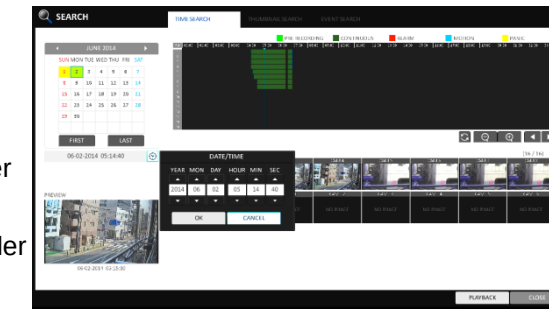
   >Green (Continuous) : The continuous recording is performed on the recording data.

   >Red (Alarm) : The alarm event recording is performed on the recording data.

   >Blue (Motion) : The motion event recording is performed on the recording data.

   >Yellow (Panic) : The panic manual recording is performed on the recording data.

4. Click to move to a desired start time in the time bar, or use the buttons at the bottom of the status bar to make search.



   > : Recall the recording data.

   > : Expand the timeline of the time bar to a greater unit of time.

   > : Collapse the timeline of the time bar to a smaller unit of time..

   > : Use this to move to a previous time that is hidden in the time bar as it is expanded to a greater time unit.

   > : Use this to move to a next time that is hidden in the time bar as it is expanded to a greater time unit.

5. Click a thumbnail channel or use the **[▲▼◂▸]** buttons on the remote control to move to a desired channel and press **[ENTER]**. You can check the video in **<PREVIEW>**.

Click to move to a desired time, or simply double-click a desired time in the time bar to play the video data on that time.

6. Press the **[ENTER]** button again on the remote control, or simply double-click on the channel with the mouse. You will move to the playback screen.

7. If you want to stop playing and return to the search screen, press **[EXIT]** or **[SEARCH]** on the remote control. You can also click **<MENU>** in the left corner and select desired menu.

Thumbnail Search

To improve your search, you will be provided with a list of thumbnails.
Select Day, Hour or Minute to narrow down the search results.

1. From the **<SEARCH>** menu, select **<THUMBNAIL SERARCH>**.

2. Use the **[▲▼◂▸]** buttons or use the mouse to specify the search date and time from the calendar in the left corner of the thumbnail search screen.

   >FIRST : The first date of recording is automatically selected.

   >LAST : The last date of recording is automatically selected.

   >CHANNEL : Select a channel to search for.

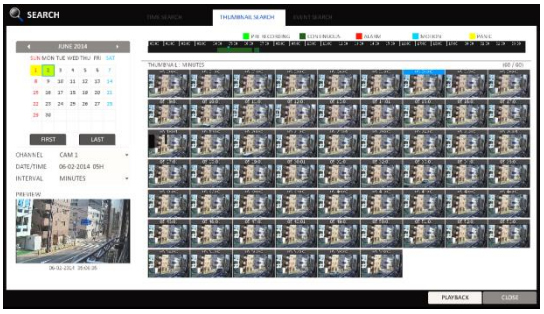
   >DATE/TIME : Specify the search date and time.

   ✓ The menus available differ depending on the selected interval mode.

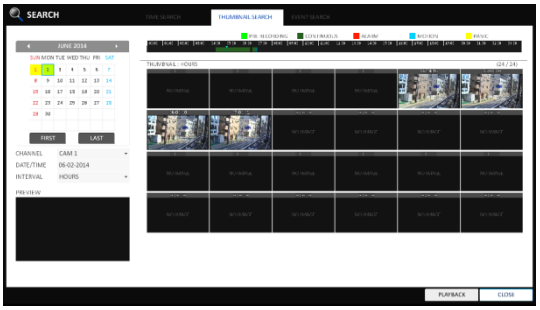
   >INTERVAL: Select a time interval of the thumbnail view.

3. Double-click a desired play time in the recording data bar, or double-click a desired time image from the thumbnail list.
   You will move to the playback screen.

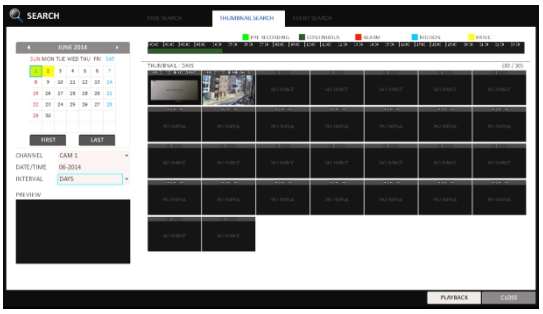
4. If you want to stop playing and return to the search screen, press **[EXIT]** or **[SEARCH]** on the remote control. You can also click **<MENU>** in the lower left corner and select a desired menu.



< "Minute" selection screen >



< "Hour" selection screen >

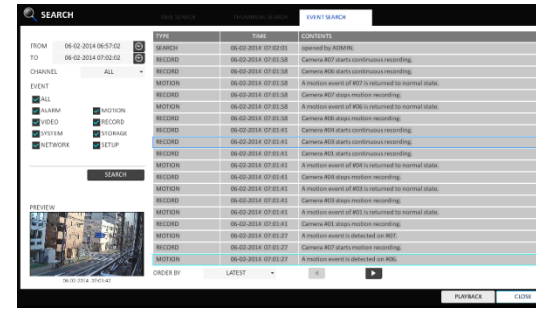


< "Day" selection screen >

Event Search

Search for events that occurred at the specified time and select an event to play from the list.

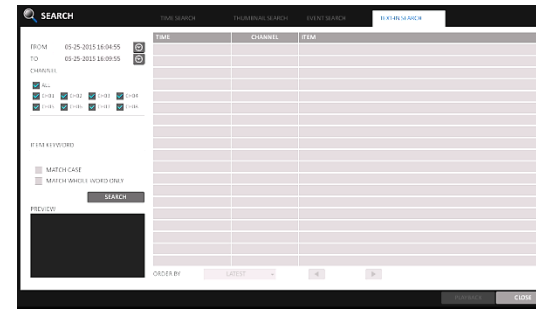
1. From the **<SEARCH>** menu, select **<EVENT SEARCH>**.
2. Use the **[▲▼◄►]** buttons or use the mouse to specify the **<FROM>** and **<TO>** times in the left of the event search list.
3. Select a channel to search.
4. Mark the checkbox of the event to search from The **<EVENT>** list.
5. Press the **<SEARCH>** button.
   The search results will be listed as shown.
   >TYPE : displays the event type.
   >TIME : displays the recording start time.
   >CONTENTS : shows the details of the event found.
   >ORDER BY : If you select **<OLDEST>**, the list will be sorted with the earliest one on top.



6. Double-click a desired event or click **<PLAY>** in the lower right corner to move to the play screen.
7. If you want to stop playing and return to the search screen, press **[EXIT]** or **[SEARCH]** on the remote control. You can also click **<MENU>** in the lower left corner and select a desired menu.

Text-in Search

1. From the **<SEARCH>** menu, select **<TEXT-IN SEARCH>**.
2. Use the **[▲▼◄►]** buttons or use the mouse to specify the **<FROM>** and **<TO>** times in the left of the event search list.
3. Select the channel box(es) for the channel(s) to search.
4. Enter the keyword in **<ITEM KEYWORD>** to search for.
   >MATCH CASE : perform a case-sensitive search for the keyword entered.
   >MATCH WHOLE WORD ONLY : Perform an exact word search for the keyword entered.
5. Press the **<SEARCH>** button.
   The searched keywords are displayed in the list.
   >TIME : Recording Start time is displayed.
   >CHANNEL : Selected channel is displayed.
   >ITEM : Detail keywords are displayed.
   >ORDER BY : Select the **<LATEST>** to display the keywords in sequence from the beginning in the list.



6. Double-click a desired event or click **<PLAYBACK>** to the play screen.
7. If you want to stop playing and return to the search screen, press **[EXIT]** or **[SEARCH]** on the remote control. You can also click **<MENU>** in the lower left corner and select a desired menu.

If you want to play

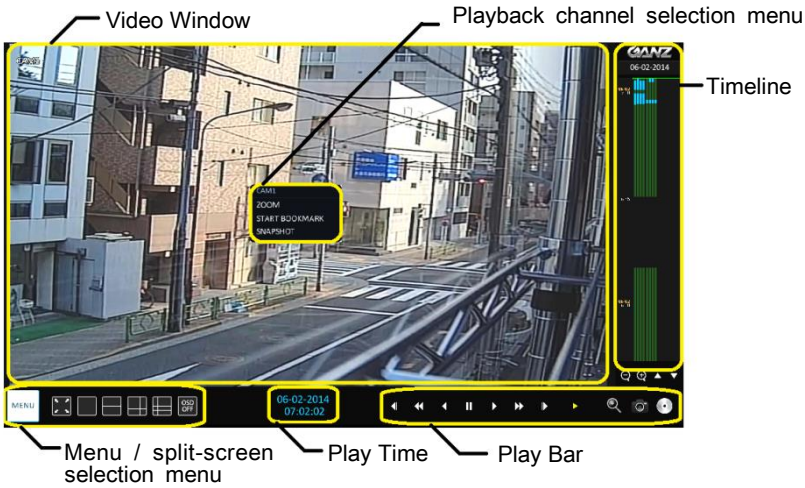
1. To play the searched data
   - You can search for and play a searched data.

2. To play with the live viewer
   - Simply double-click a desired time point in the right corner of the play screen.

✓ If you move the cursor to the rightmost, the "Timeline" bar will be displayed.

- Select a desired channel in the live screen and right-click to select **<PLAY>** in the context menu. Then, select a desire play time.

Playback screen configuration



Video Window

Display the current video.

Timeline

Display the type of recording data.
The vertical bar in the timeline indicates the current point of playback. Double-click a desired point in the timeline to start playing the video from that point.
Once you drag to specify an area, you can perform the backup or event search for that area.

Menu/split-screen selection menu

For more information about how to use each button, refer to "Using the status bar in the live mode". (page 8)

Play Bar

You can start playing, stop playing or change the play speed of the current video.

Playback channel selection menu

ITEM	Description
CAM1	Display the title of the selected channel.
Zoom	Zoom the video of the selected channel. (The zooming function is active only in '1'split screen.
Start bookmarking	The "Set bookmark" popup appears, and you can bookmark a play point for the backup purpose
Snapshot Capture	Capture the current video and save it in the jpeg format

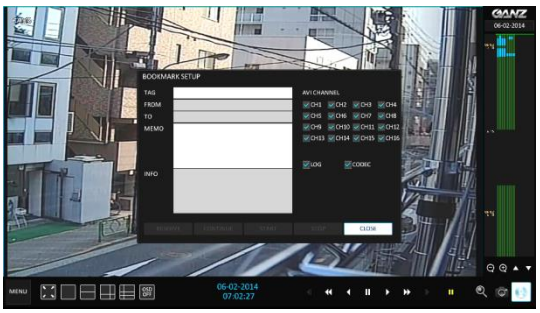
Using the play bar

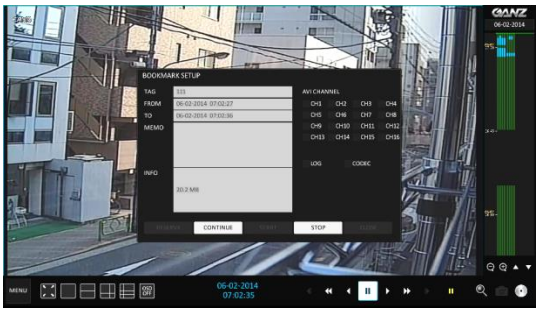
ITEM	Description
Jump	Move forward or backward.
Reverse Fast Play	The video will be reversely played at the speed of x64 > 32> 16 > 8 > 4 > 2 in this order.
Reverse Play	Play the video in the reverse direction.
Pause	Stop playing forward or playback temporarily.
Play	Play the video forward.
Fast Forward	The video will be played forward at the speed of x2 < 4 < 8 < 16 < 32 < 64 in this order.
Zoom In	Move to the zoom in/out screen of the selected channel.
Snapshot	Capture the current video and save it in jpeg format. Then, you can save the captured video in the HDD or export it to an external USB memory device. While you perform the snapshot, the current video will be stopped playing.
Start/end bookmark	Add a bookmark for the current playback screen. Press this to display the "SET BOOKMARK" window. Fill in all information required and click Start. The arrow in the bookmark button blinks to indicate that the bookmarking is in process. If you press the Bookmark button again, the bookmarking stops and the current settings will be reserved. Then, the reserved data can be backed up in Archive menu or can be played in the "RESERVED DATA MANAGEMENT" menu.

Bookmarking

During playback, you can add a bookmark for reserving the video data.
You can view the bookmarked data in the Archive menu, which can be saved to a connected device for the backup purpose.

1. Provide a tag in the **<TAG>** item for data reservation.
2. Provide the details of the reserved data in the **<MEMO>** input box.
3. Click **<START>**.You will return to the play screen with the backup progress.
4. To stop the bookmarking, click **<BOOKMARK( )>**.
5. To quit the bookmarking, click **<STOP>**. To continue with bookmarking, just click **<CONTINUE>**.
6. Click **<RESERVE>**.You can export the reserved data to a connected storage device using the **<ARCHIVE>**menu.





✓ What is the **<RESERVE>** function?
With the **<RESERVE>** function, you can reserve data even in overwrite mode.
This is useful if you want to backup data but you have no backup device available such as USB memory.
If you use "Reserve", the recording days will be compromised.
When you have backed up the reserved data to an external device, it is recommended to delete the internal reserved data.

To start the Archive menu

Using the Archive menu during playback

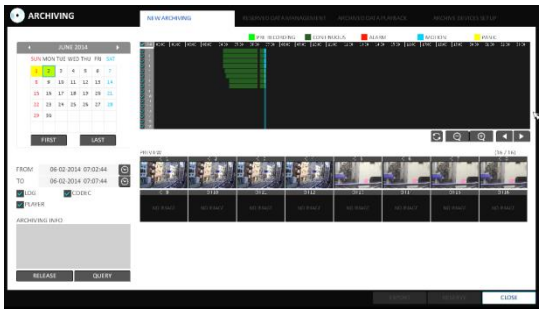
1. During the playback, click **<NEW ARCHIVE( )>**.
2. The "ARCHIVING SETUP" window appears where you can reserve the data.
3. Click **<MENU(MENU)>** in the lower left corner and select the **<ARCHIVE>** menu.
4. Press the **[ARCHIVE]** button on the remote control.

Using the Archive menu during monitoring

1. Click **<MENU(MENU)>** in the lower left corner and select the **<ARCHIVE>** menu.
2. Press the **[ARCHIVE]** button on the remote control.

Archive

You can archive the searched data or reserve it.



1. From the **<ARCHIVE>** menu, select **<NEW ARCHIVING>**.
2. Select a date for the archive from the calendar in the left.

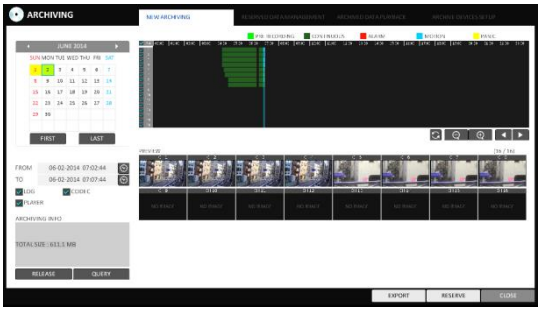
✓ The date containing recording data will be marked in a colored box.
- FIRST : The first date of recording is automatically selected.
- LAST : The last date of recording is automatically selected.

3. Check the **<START>** and **<END>** times.

✓ Drag the timeline to specify the start and end time.

4. Mark the **<LOG>** and **<CODEC>** checkboxes and select to include the archiving.

5. Click **<QUERY>**. The results will be listed in **<ARCHIVING INFO>**.



✓ The maximum backup capacity for one time is 20GB.

✓ If the archiving request exceeds 20GB, the end time will be adjusted to within 20GB.

6. If you want to import to a storage device, connect it to the DVR and click **<EXPORT>**.
7. If you just want to reserve the data, click **<RESERVE>**. If the **<TAG NAME>** dialog appears, enter the name and click **<OK>**. Click**<RESERVE>** to save it to the HDD.

✓ Using **<RESERVE>** will compromise the recording days available. When you have archived the reserved data to an external device, it is recommended to delete the internal reserved data.

8. To exit the Archive menu, click **<CLOSE>**.

Reserved data management

You can search for the reserved data and delete or import it to a storage device.

1. From the **<ARCHIVE>** menu, select **<RESERVED DATA MANAGEMENT>**. The reserved data will be listed.

2. Select a data type form **<AVI>** and **<Snapshot Capture>**

   >AVI : Searches AVI video files stored in the DVR.

   >SNAPSHOT CAPTURE : Searches captured Snapshots stored in the DVR.

3. If you want to play the data, double-click a desired data item or click it and select **<PLAY>**.
4. If you want to import to a storage device, connect it to the DVR and click **<EXPORT>**.
5. If you want to delete the reserved data, click <> next to the list. Click **<CANCEL ALL>** to cancel reserving the whole page at once.
6. To exit the Archive menu, click **<CLOSE>**.

Playing the archived data

You can search the storage device for the archived data and check the details of or play it.

1. Connect the storage device containing the archived data.
2. When the storage device is recognized, click **<SEARCH>**.

3. To view the details, click <> next to the list.

✓ Click **<VERIFY INTEGRITY>** to check if the data is corrupt or incomplete.

4. Select an item to play from the lost and click **<PLAY>**.
5. To exit the Archive menu, click **<CLOSE>**.

Archive Devices Setup

Provide the FTP server information for archiving data in the HDD before testing the transfer.

1. From the < ARCHIVE > menu, select **<ARCHIVE DEVICES SETUP>**
2. Move to the FTP information box.
3. Fill in each item using a virtual keyboard.

>HOST NAME : enter the address at which you can access the server.

>PORT : enter the port number to which you can access the server.

>USER NAME : enter the user ID with which you can access the server.

>PASSWORD : enter the connection password.

>DIRECTORY : specify the archiving path.

4. When all information is filled, click **<CONNECTION TEST>** to check the connection status.
5. To apply the change, click **<APPLY>** in the bottom of the screen.
6. When done, press the **[EXIT]** button on the remote control or click **<CLOSE>** in the lower screen. The confirmation message appears and you will return to the previous menu.

What is the Web Viewer?

Web RA is a user-friendly software application that enables you to control the video data in connection with a remote DVR.

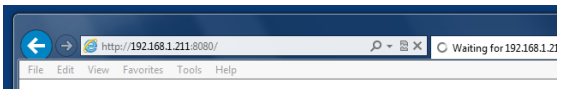
System Requirements

The following is the minimum hardware and operating system requirements to run Web RA.	
Operating System	Windows Vista Home Baisc / Premium Window 7 or later
Web browsers:	Internet Explorer 9 or later/Mozilla Firefox 3.6/Google Chrome 4.1/Opera 10 Some web browsers other than Internet Explorer may not fully function
CPU	Intel Pentium 2.0 GHz or Higer
Memory	512 MB
Display	16-bit 1024 x 768 High Color
Hard Disk Drive	50MB (space required for installing the web viewer) * Additional HDD space is required for saving your recordings. The file size of your recording may differ depending on the specified quality.

Connection

Open a browser and enter the IP address of DVR, or type the URL in the address bar.

To connect to the DVR from inside



- ✓ Check the "Network Status" and verify the **<IP ADDRESS>** and **<WEB SERVICE PORT>** of the DVR. (page 29)
- ✓ Enter the IP address and web service port in the address bar of the browser.
  Ex) http://192.168.1.116:8080/

To connect to the DVR from outside

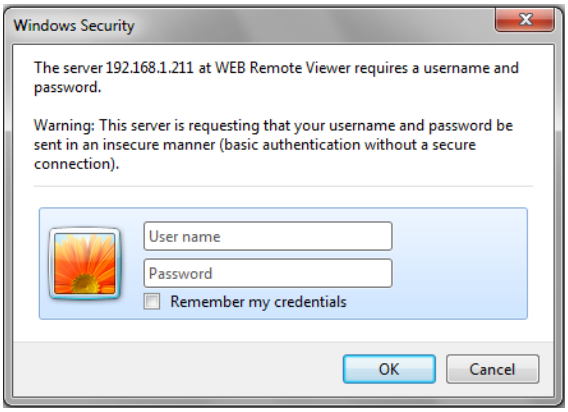
Using the IP address

- ✓ Check the "Network Status" and verify the **<EXTERNAL IP ADDRESS>** and **<WEB SERVICE PORT>** of the DVR. (page 29)
- ✓ If using a fixed (external) IP, enter the external IP that is specified in the DVR in the address bar of the web browser. Ex) If the internal IP address is set to "http://222.112.4.48:8080" (192.xxx.xxx.xxx), no access from outside is allowed.

Using the URL

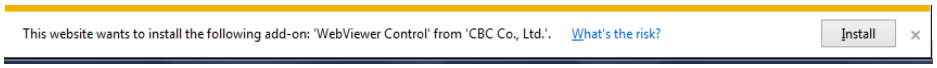
- ✓ Check the "Network Status" and verify the **<DDNS ADDRESS>** and **<WEB SERVICE PORT>** of the DVR. (page 29)
- ✓ Enter the DDNS address and web service port in the address bar of the browser.
  Ex) http://001CB8123456.DVRLINK.NET:8080
  - In a router network, you have to set the "Port Forwarding" and "DMZ Setting" to allow access from outside.
  - For the necessary settings of the router, refer to the user manual of the router or contact the manufacturer of the router.

1. Provide the user ID and password.
   - ✓ The default User name : **ADMIN**; the default password is **1234**.



2. Click the warning bar to install the ActiveX.
   - ✓ If you fail to download the ActiveX control, move to **Tools ➔ Internet Options➔Security➔ Custom Level ➔**Download unsigned ActiveX control, and change its setting from "Disable (recommended)" to "Enable", and then click OK..

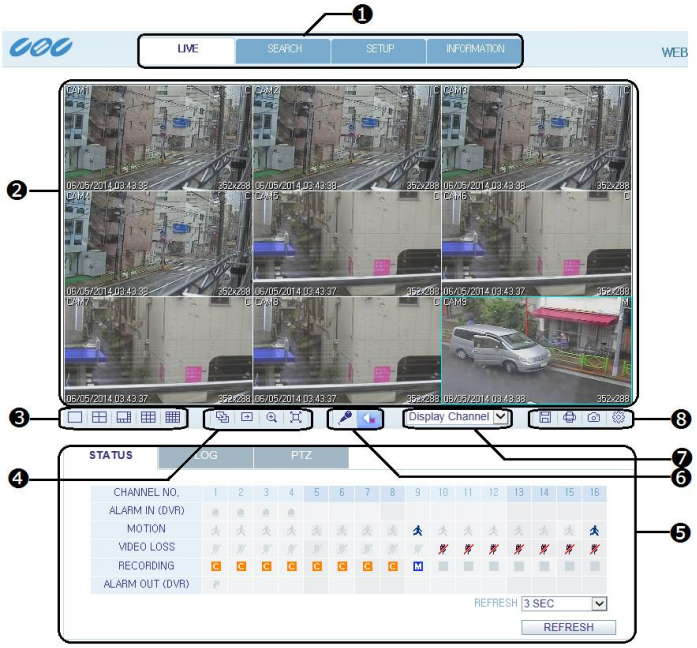
3. Click **<Install>**.



4. When the installation is complete, you will see the live screen.

Live

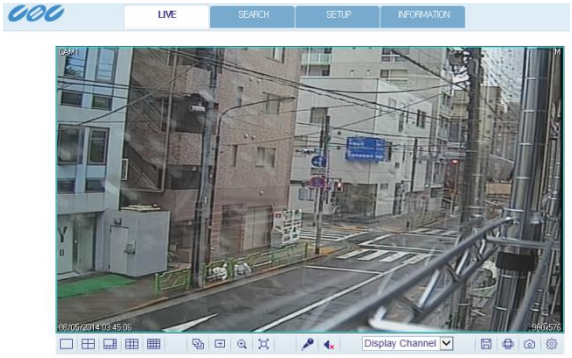
Live Screen At a Glance



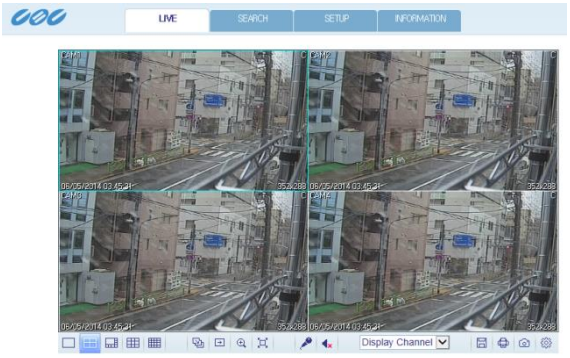
Item	Description
1.View selection tab	You can switch to the live, playback and setup screen and check the provided information.
2. Live	Display the live screen of the currently connected DVR.
3. Split Mode	Select and switch to a desired split-screen mode.
4. Sequence	Set the sequence mode, switch to the next camera or select the full screen mode.
5. Status **Log** **Refresh Time** **Reload**	Show the connection status of each channel. Show the log. Set the interval at which the DVR Status is refreshed. Load the DVR Status immediately.
6. Voice transmission	You can turn on or off the output of the voice signal to DVR.
7. Channel	Select a channel listed in the screen.
8. Save **Print** **Capture** **ActiveX Settings**	Save the live video on the screen. Print out the current screen Capture the selected image. Configure the ActiveX settings or specify the saving path of the captured image.

Switching the split mode

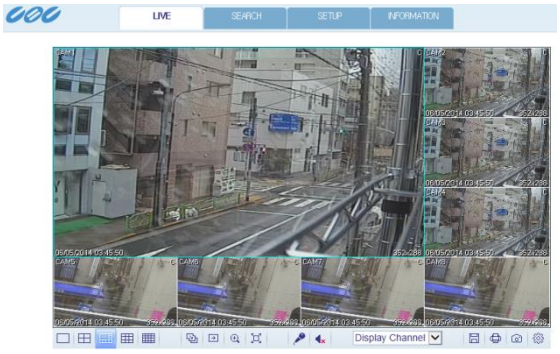
Click the Switch button to switch the mode as follows:



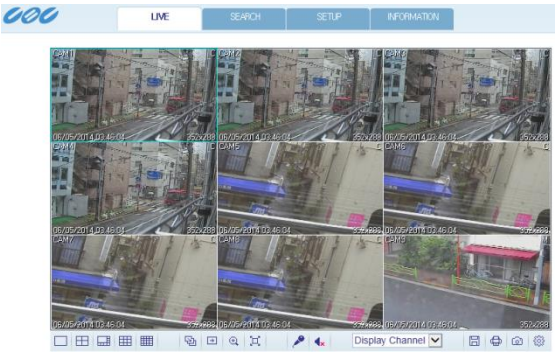
<1-split Mode>



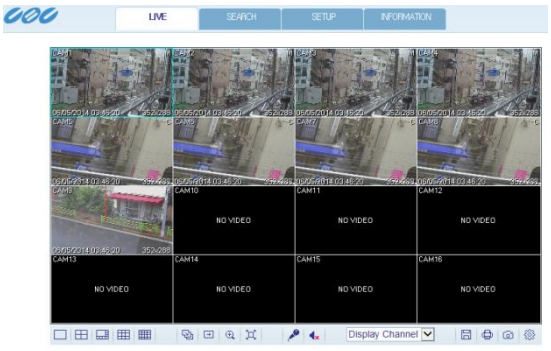
<4-split Mode>



<8-split Mode>



<9-split Mode>



<16-split Mode>

To save the video

1. Click < > to start saving.
2. The video from the selected channel will be saved to the PC in the AVI format. (Default path: C:\SaveFolder) Click < > again to stop saving. Click **<ActiveX Setting>** to display the context menu where you can change the saving path.

Print

1. Click < > to start printing.
2. The current screen will be printed with the printer connected to the PC

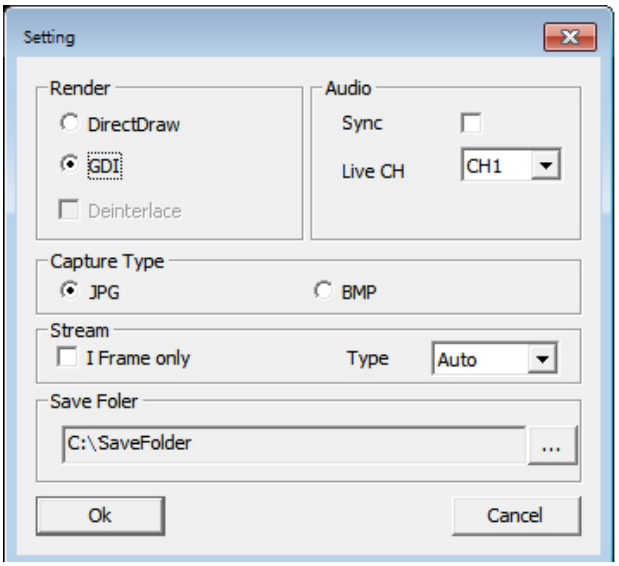
Screen capture

1. Click < >
2. The current screen of the selected channel will be saved to the path specified in the PC. (Default path: C:\SaveFolder)
   Click **<ActiveX Setting>** to display the context menu where you can change the saving path.

ActiveX Settings

1. Click < >.
2. When the setup screen appears, you can change the settings of the render type, audio, capture and saving path as well as the video streaming.

   >Render : DirectDraw is recommended in order to enable the hardware acceleration.



3. If you want to change the saving path, click < ... > (Save Folder) and specify a new path. The Windows Vista user cannot change the saving path.
4. Change the streaming settings according to the PC specification and network environment. Auto mode is recommended.

   >Sync : If this option is set, the audio signal will be synchronized with the video signal. However, you may encounter a delay due to buffering for the synchronization.

   >Live CH : Set the audio signal to use in live monitoring mode.

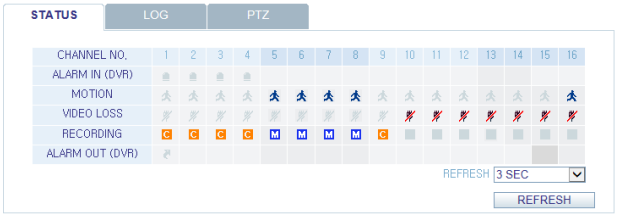
   >I Frame Only : Only the I frames (key frames) will be transferred.

   >Type :
   - Auto : The DVR will optimize the quality and FPS to the network status and specification of the connected PC before transferring the data.
   - Main : The video will be transferred in high definition (HD).
   - Second : The video will be transferred in a medium definition (SD).

5. When done, click **<OK>** to save your settings.

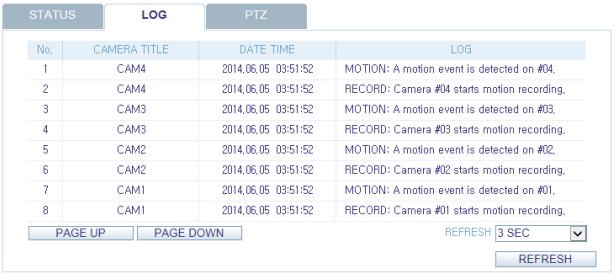
Status tab

Click **<Status>** at the bottom of the screen.
You can check the event occurrence for each channel of the connected DVR.



Log tab

Click **<Log>** at the bottom of the screen.
You can check the log of the connected DVR.



PTZ tab

Click **<PTZ>** at the bottom of the screen.
You can control the operations of a PTZ camera.
Adjust the focus, zooming and iris of the camera.
You can use the arrow buttons to control the operations of the camera.

> Pattern : You can configure various settings of the camera including the zooming and movement.(Applied to some PTZ cameras only)

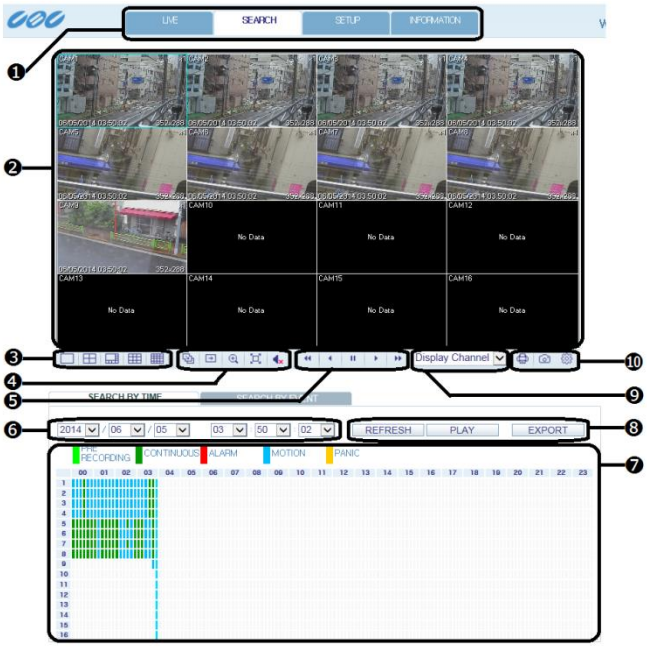
> PRESET : Move the camera in a predefined direction.

> Swing : The camera will move back and forth to a set position.

Search

Click **<Playback>** to display the remote control screen for the DVR..

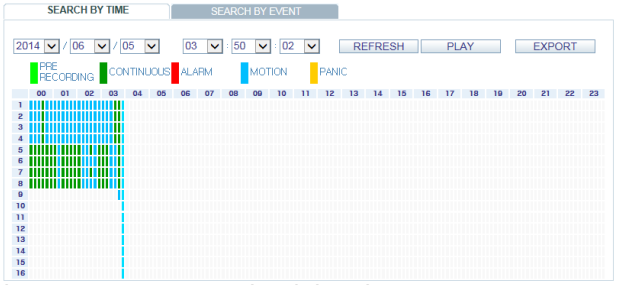
Search Viewer at a Glance



Item	Description
1.View selection tab	You can switch to the live, playback and setup screen and check the provided information.
2.Playback Screen	Play the recording data.
3.Split Mode	Select and switch to a desired split-screen mode.
4.Sequence	Set the sequence mode, switch to the next camera or select the full screen mode.You can turn on/off the voice signal.
5.Play button bar	You can control the playback screen.
6.Time Selection	Specify the start time of playback.
7.Time Line	Indicates the status of the recorded data.
8.REFRESH PLAY Backup	Reload the time line. Play the video that satisfies your search criteria. Archive the video that satisfies your search criteria.
9.Channel Selection	Select a channel listed in the screen.
10. Screen Image Capture ActiveX Settings	Print out the current screen. Capture the selected image Configure the ActiveX settings or specify the saving path of the captured image.

Search by time

Use the timeline to search for the data recorded in the DVR.



1. Select a date that you want to search.
2. Click **<REFRESH>**.
3. Check the existence of recording data in the bottom time line and specify the time range for your search.
   You can specify the start time by moving the time bar.
4. Click **<PLAY>**.

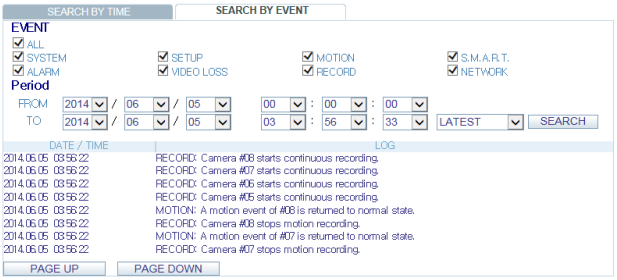
>REFRESH : If your changes are not applied to the current screen, reload the changes.

>PLAY : Play the searched video.

>Backup : Archive the recorded video.

Search by event

You can sort the recording data items by event to facilitate your search.



1. Mark the checkbox of the event that you want to search for.
2. Specify the start and end dates and times for your log search.
3. Set the display order of the items found.

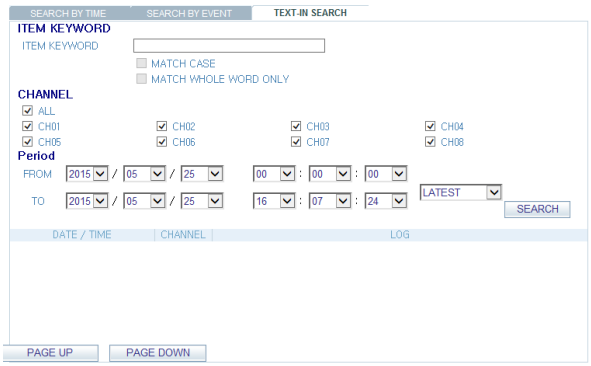
>LATEST : The most recent event will be listed on top.

>OLDEST : The earliest event will be listed on top.

4. Click **<SEARCH>**.You can check the log for your search at the bottom of the screen.
5. Select a log to play the recording data.

Text-in Search

You can search for the recorded data in DVR by text.



1. Enter your desired text to search for in ITEM KEYWORD, and then click the check boxes such as MATCH CASE, MATCH WHOLE WORD ONLY, etc.
2. Select the check box(es) of channel(s) to search for.
3. Select your desired Start/End date and time to perform the log search.
4. Specify the displaying order for the searched items.
   - ✓ Refer to the “Event Search” for displaying order of searched items (page 57)
5. Press the **<SEARCH>** button.
   You can check the log resulted from the search.
6. When selecting the log, you can watch the recorded video for corresponding event.

Setup

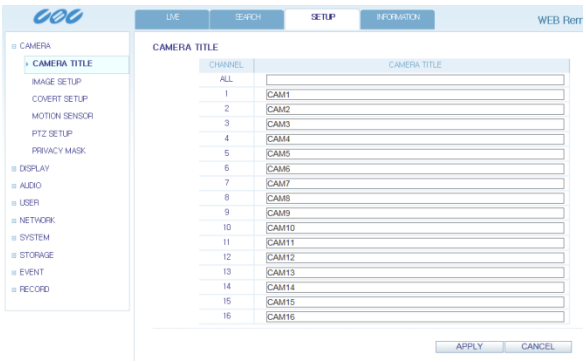
Click **<SETUP>** to display the remote control screen for the DVR.

When done, click **<APPLY>** to apply the changes to the remotely connected DVR.

- ✓ If the DVR is in process of system or record setting, the remote control will be disabled.

If you change the settings remotely at will, the major 'Record Settings' of the DVR may be changed, which is not recommended at all.

Setup Viewer at a Glance



Camera

Camera Title

You can name the camera title that is displayed on each channel screen. Select a channel to name and provide a new title. Then, click **<APPLY>** to apply it.

- ✓ You can enter up to 8 alphanumeric characters for the camera title.

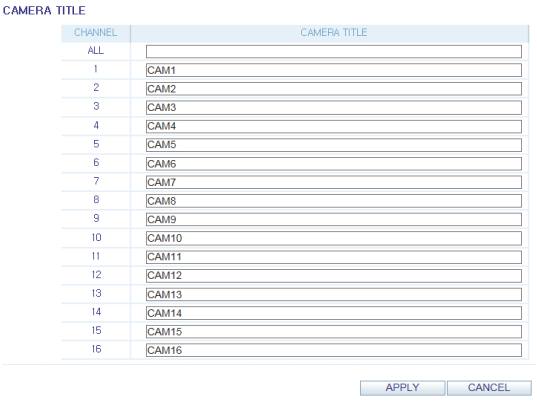
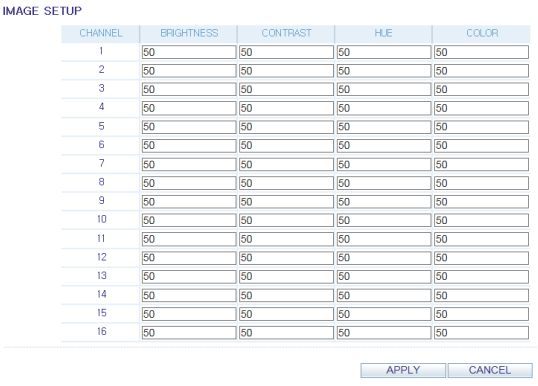


Image Setup

You can set the image of each channel.

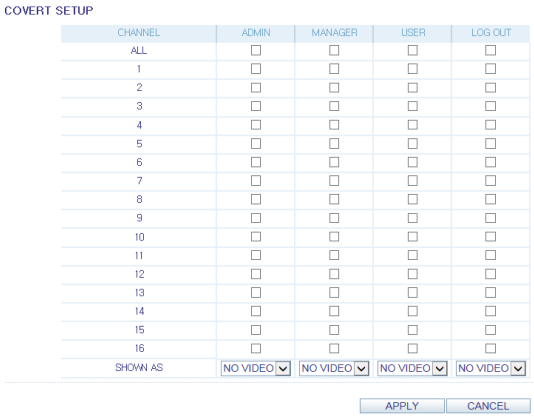
When done, click **<APPLY>** to apply the changes.

- ✓ The default color value is **<50>**. (Brightness, Contrast, Tint, Color)
- ✓ If you change the default settings, the video from the DVR or the video color may not be displayed properly.



Covert Setup

You can set to hide the video of a specific camera from a specific user. Set to hide the camera video so that a specific user or user group can not view.
To change the covert settings from user group to user, move to the **<USER>** menu and make necessary changes.
When done, click **<APPLY>** to apply the changes.



Motion Setting

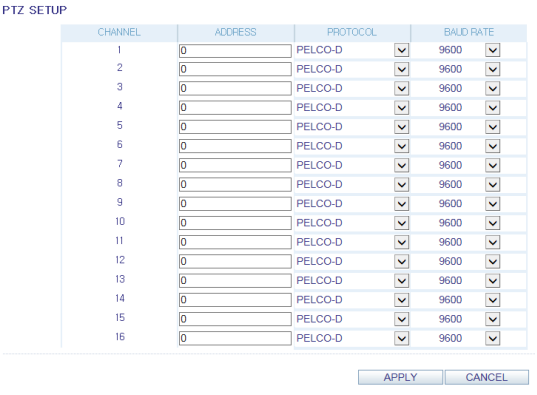
Specify the use of motion detection and reaction for each channel and set also the daytime/nighttime options.

Select a channel. Set the Motion detection zone and specify the daytime range.
When done, click **<APPLY>** to apply the changes.

✓ For information about how to set the motion area, refer to "**Motion Sensor**". (page 15)

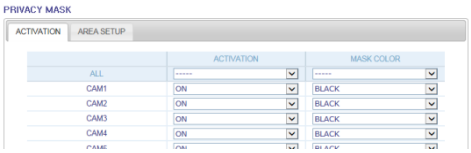
PTZ Setup

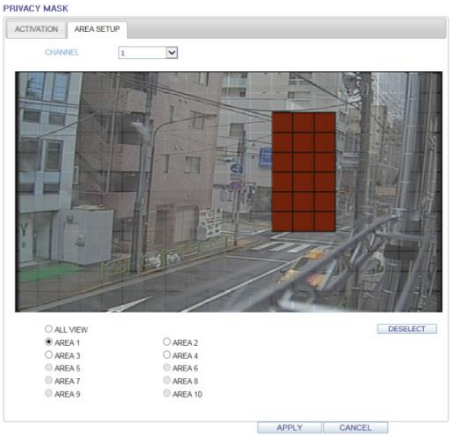
To make DVR utilize camera□s PTZ functions, match the protocol and baud rate of connected cameras and DVR.



Privacy Mask

You can enable a camera channel's privacy masking function and set masking area.

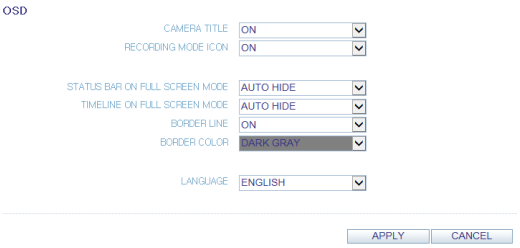




Display

OSD Setting

Configure the settings for the time, title, boundary, icon and language that will be displayed on the screen. Make changes to each item of the OSD menu and click **<APPLY>** to apply the changes.

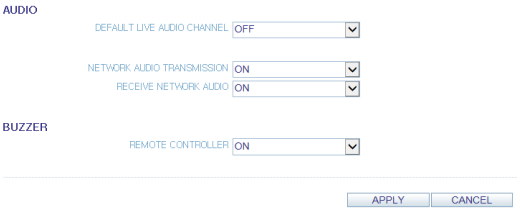


Audio

Audio / Buzzer (Onl yavailable on 2U model)

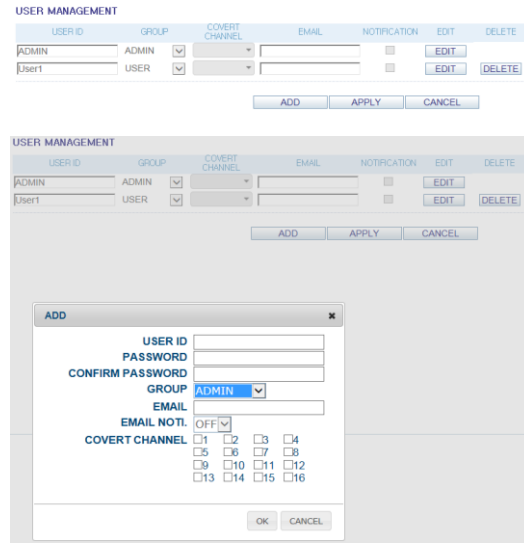
You can configure the settings of the voice and audio signal.

- ✓ For details about each displayed item, refer to "Audio Setup". (page 24)



User

User Management

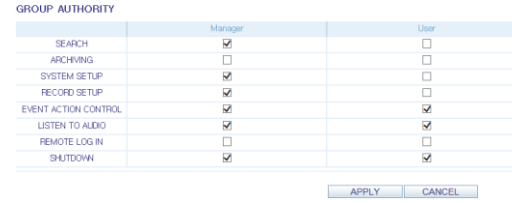


You can add a user account and change the password.

- ✓ For details about each displayed item, refer to " User Setting". (page 25)

To add a user, click **<Add>** and provide the user information.
If you want to delete the user click **<DEL>** next to it.
When done, click **<APPLY>** to apply the change.

Group Authority Setting



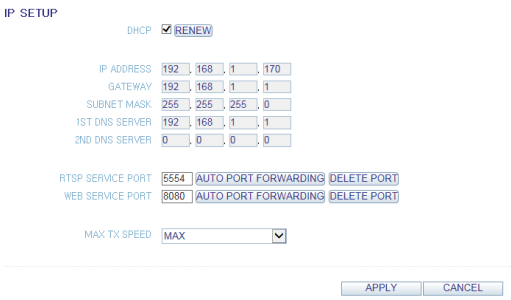
You can grant different user groups different permissions to a specific menu.
Mark the checkboxes of the menu items accessible by the user group.
When done, click **<APPLY>** to apply the changes.

- ✓ For more information about the accessible menu items,refer to " Group Authority". (page 26)

Network

IP Setup

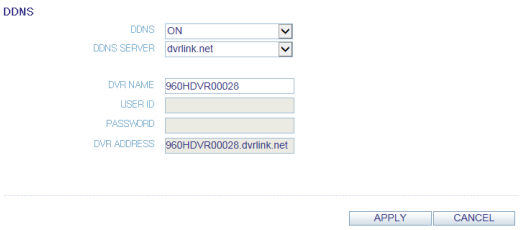
You can check the network connection status and change the baud rate.
Change the maximum transfer rate and click **<APPLY>** to apply it.



- ✓ For more information about each network entry, refer to "IP Setup". (page 28)

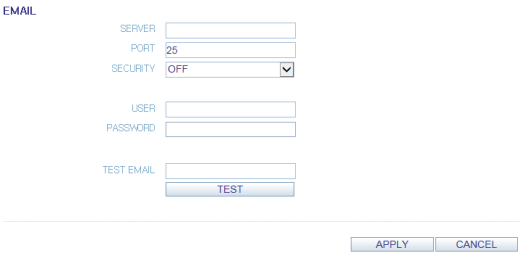
DDNS Setting

You can configure the DDNS settings so that remote users who are connected to the network can access remotely.
Change the DDNS settings and click **<APPLY>** to apply the changes.



Email Setting

You can register and test an email address so that an email notification is delivered at a specific interval or if an event occurs.
Provide the necessary information and click **<APPLY>** to apply it.



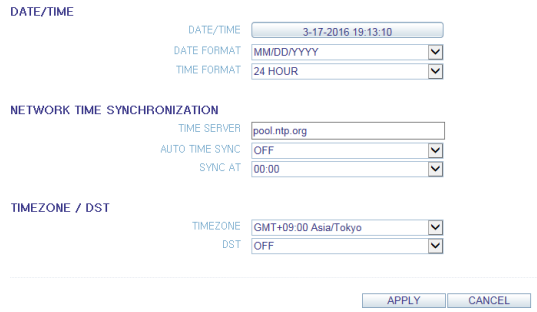
- ✓ For more information, refer to "Email". (page 28)

System

Date/Time Setting

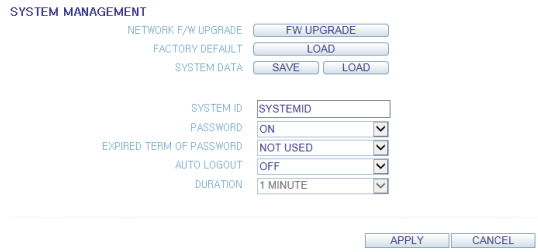
Specify the current date and time.
When done, click **<APPLY>** to apply the changes.

- ✓ For For more information about each of the time and date settings, refer to "Date/Time". (page 30)



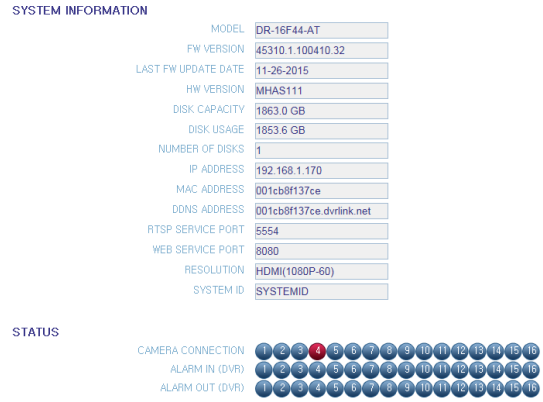
System Management

You can configure the access settings of: log in, log out, and auto logout.



System Information

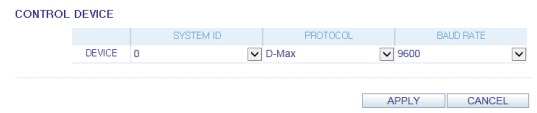
You can check information of system firmware version, disk space, and network settings, as well as the status information of network connection and alarm I/O.



Control Device Setting

Set the connection of both the remote control and the keyboard control.
Change the communication settings and click **<APPLY>** to apply the changes.

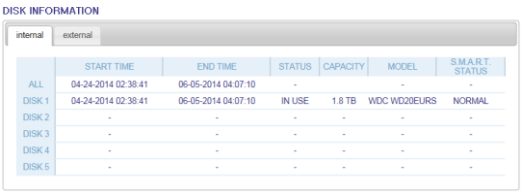
- ✓ For more information about each communication item, refer to "Control Device". (page 34)



Storage

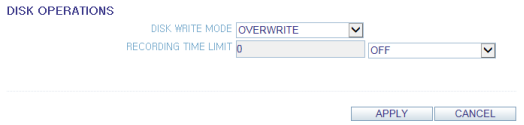
Device Information

Internal storage devices physically installed in the DVR and their recording time information are displayed.



Check Disk operation mode

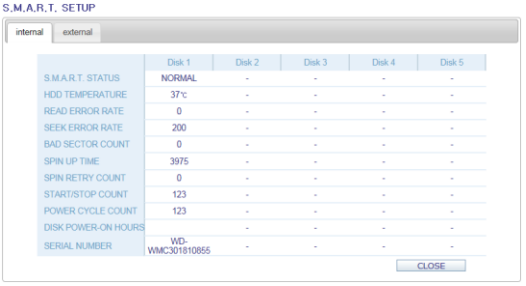
You can check disk operation mode setting.



S.M.A.R.T Status

The detailed S.M.A.R.T information of each internal storage device is displayed.

- ✓ What is S.M.A.R.T?
  This is a sort of HDD self-diagnosis tool that detects any error on the system and alerts the user if an error occurs.

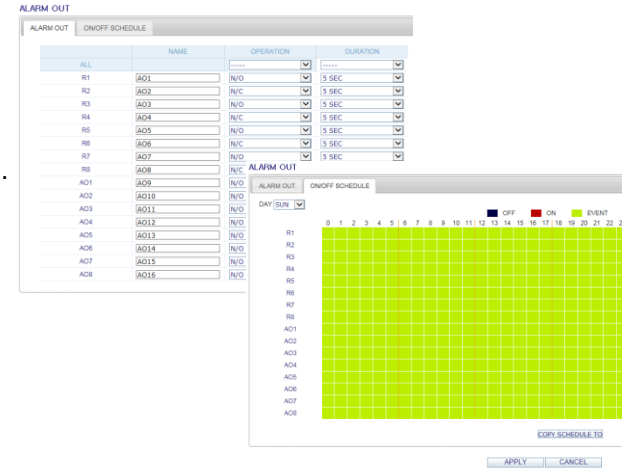


Event

Alarm Output (Only available on 16ch model)

Specify the alarm output conditions with the work schedule..
When done, click **<APPLY>** to apply the changes.

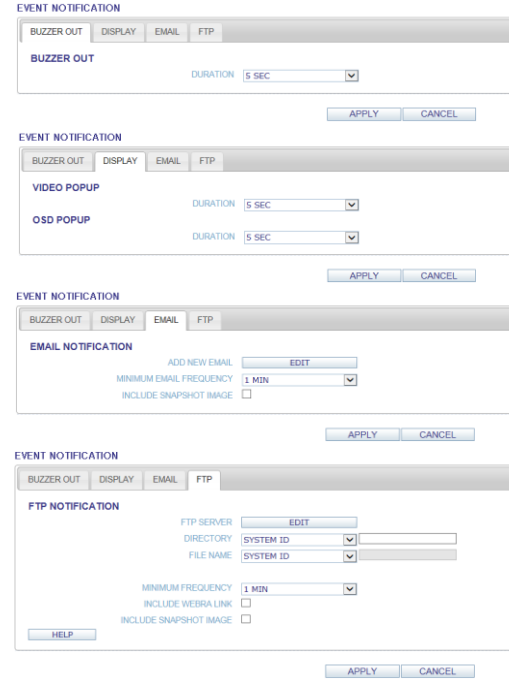
- ✓ For more information about the alarm output and ON/OFF schedule, refer to "Alarm Out". (page 40)



Event Notification

Specify the notification method using one of **<BUZZER OUT>,<DISPLAY>,<E-MAIL>**against an event alarm that occurs.
Specify the buzzer output time, display time and email notification, and click **<APPLY>** to apply the changes.

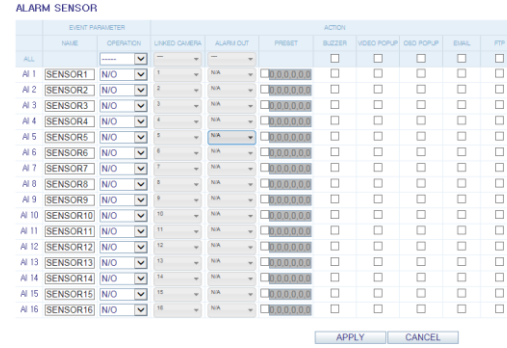
- ✓ For more information about the event notification, refer to "Event Notification". (page 41)



Alarm Sensor (Only available on 16ch model)

You can configure the settings of the alarm sensor and specify the operation of the sensor if an event occurs.
When done, click **<APPLY>** to apply the changes.

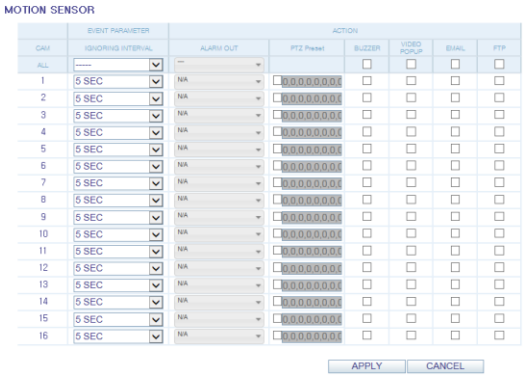
- ✓ For more information about each of the alarm sensor actions, refer to "Alarm Sensor". (page 44)



Motion Sensor

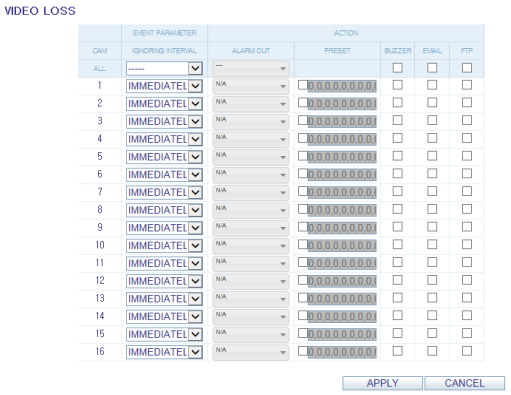
You can set an action to execute when a motion is detected.
When done, click **<APPLY>** to apply the changes.

- ✓ For more information about how to set the motion sensor, refer to "Motion Sensor". (page 45)



Video Loss

You can select an action for **<BUZZER>** and **<EMAIL>** and determine what to do on the alarm output port if no video is received from the camera.
When done, click **<APPLY>** to apply the changes.

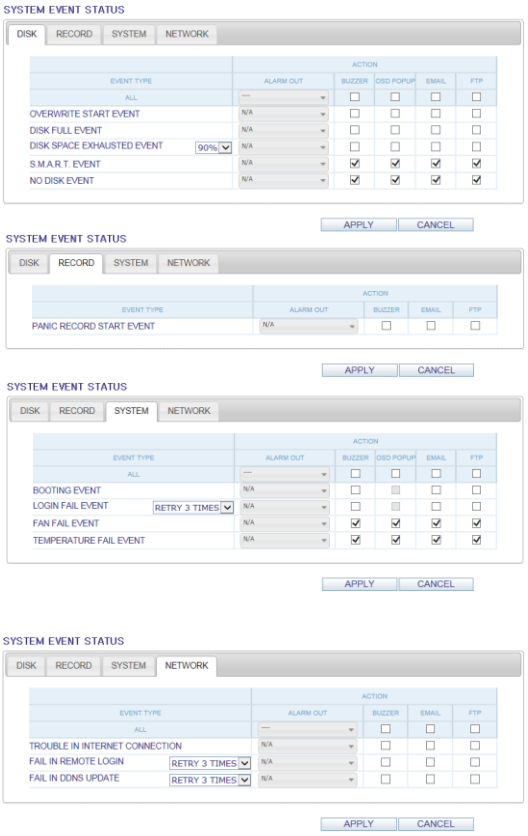


System Event

You can set which action to perform if an event related to the disk, recording, network or system happens.
You may want to notify the user of the event using the alarm output, buzzer, OSD popup and email.

When done, click **<APPLY>** to apply the changes.

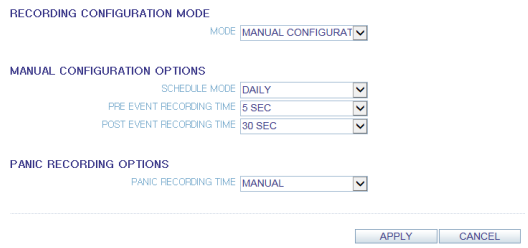
- ✓ For more information about how to set the system event, refer to "System Event". (page 46)
- ✓ FAN FAIL EVENT and TEMPERATURE FAIL EVENT are only available on 2U model.



Record Setup

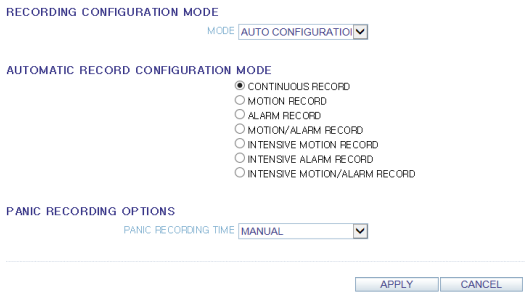
Record Setting

You can set the recording options for Auto or Manual mode



When done, click **<APPLY>** to apply the changes.

- ✓ For more information about how to set each mode, refer to "Operation Mode". (page 49)

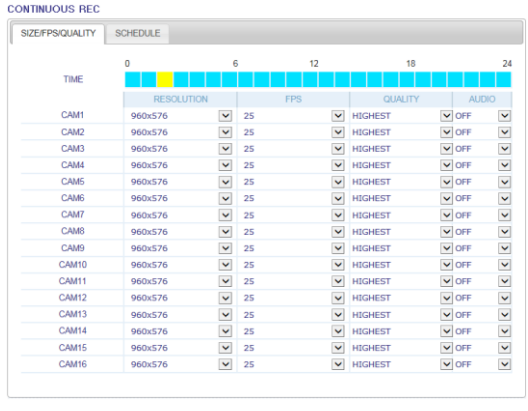


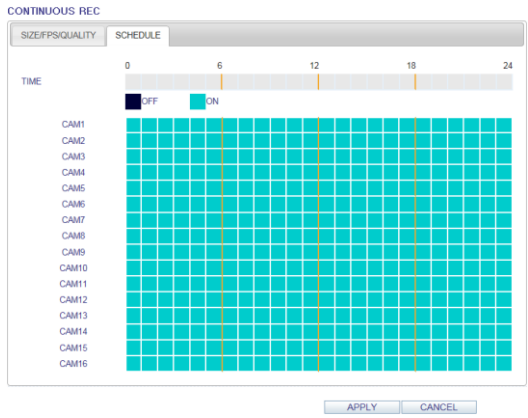
Continuous Recording

You can configure the settings of:
continuous recording time, recording size, frame rate per second and quality.
Click < > next to each item to display the list of values available.

When you complete the recording size and schedule settings, click **<APPLY>** to apply your settings.

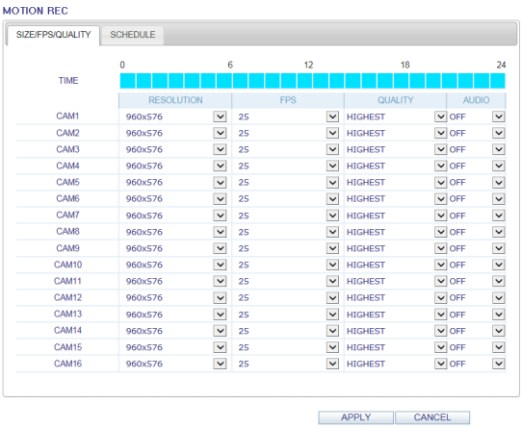
- ✓ For more information about the continuous recording size and schedule, refer to "**Continuous Recording**". (page 50)



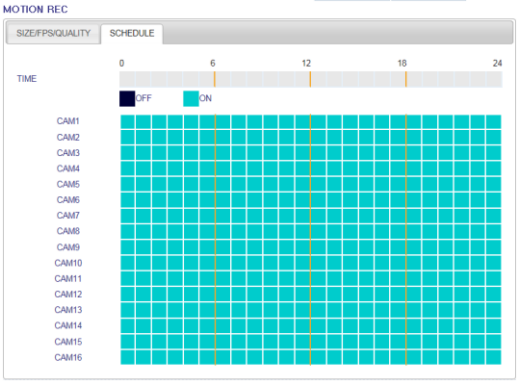


Motion Recording

Set the **<SIZE/FPS/QUALITY/AUDIO>** and the **<SCHEDULE>** to apply if a motion event occurs. Click < > next to each item to display the list of values available.



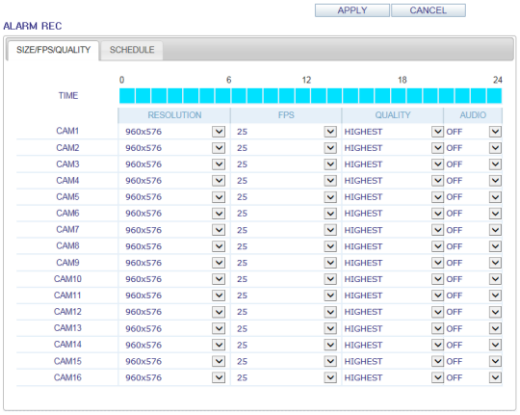
Complete setting the **<SIZE/FPS/QUALITY/AUDIO>** for the motion recording as well as the **<SCHEDULE>**, and click **<APPLY>** to apply the changes.



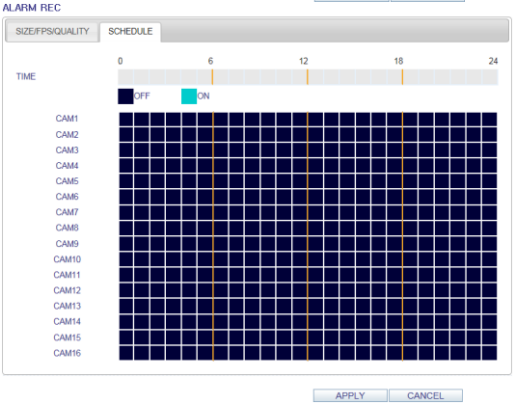
- ✓ For more information about the motion recording size and schedule, refer to "Motion Recording". (page 51)

Alarm Recording (Only available on 16ch model)

Set the **<SIZE/FPS/QUALITY/AUDIO>** and the **<SCHEDULE>** to apply if an alarm event occurs. Click < > next to each item to display the list of values available.



Complete setting the **<SIZE/FPS/QUALITY/AUDIO>** for the alarm recording as well as the **<SCHEDULE>**, and click **<APPLY>** to apply the changes.



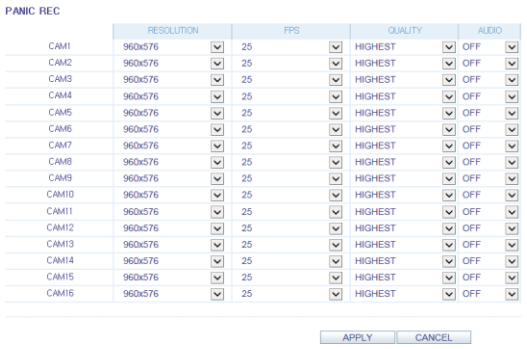
- ✓ For more information about the alarm recording size and schedule, refer to "**Alarm Recording**". (page 52)

Panic Recording

From the **<PANIC RECORD>** menu, you can set the resolution, FPS, quality and audio settings to your preference.

Click <> next to each item to display the list of values available.
When you have completed the manual record settings, click **<APPLY>** to apply the changes.

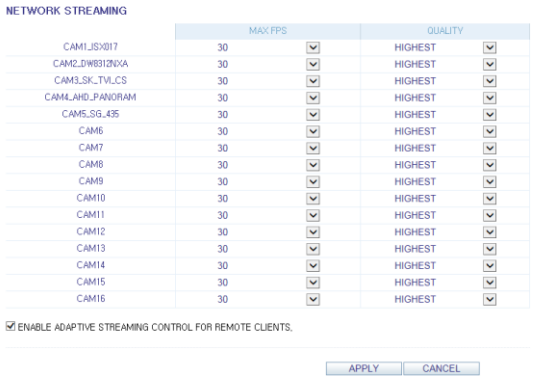
- ✓ For more information about the manual record settings, refer to "**Panic Recording**". (page 53)



Network Streaming

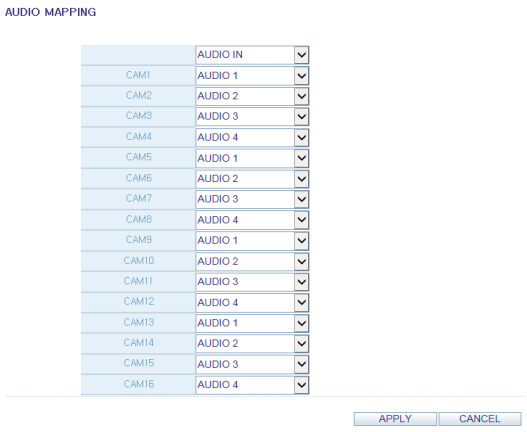
You can specify the maximum resolution and FPS of network streaming for remote users.

Click <> next to each item to display the list of values available.
When done, click **<APPLY>** to apply the changes.



Setting the Audio Mapping

You can activate audio of a channel to communicate remote user.
Click <> on the right side of each item to display audio channels available to select.
Click **<APPLY>** to complete and apply audio setup.



GanzView

You can use the smart viewer to monitor the network on a remote site and play the monitoring video anytime anywhere.

GanzView specification

Minimum/ recommended specification

OS	Minimum specification	Recommended specification
Android Phone	Processor :800 MHz or higher Flash : 512 MB or higher RAM : 512 MB or higher SD Card : 4 GB or higher OS : 2.0 or higher	Processor : 1 GHz or higher Flash : 512 MB RAM : 512 MB SD Card : 16 GB or higher OS : 2.1 or higher
iPhone	iPhone 3G, iPod touch 3rd Generation iPhone OS 3.1.3 or higher	iPhone 3GS or higher iPhone OS 3.2 or higher

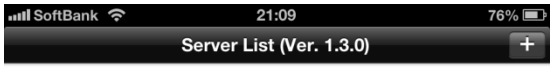
Using the GanzViewer on iPhone

How to download the iPhone-dedicated application

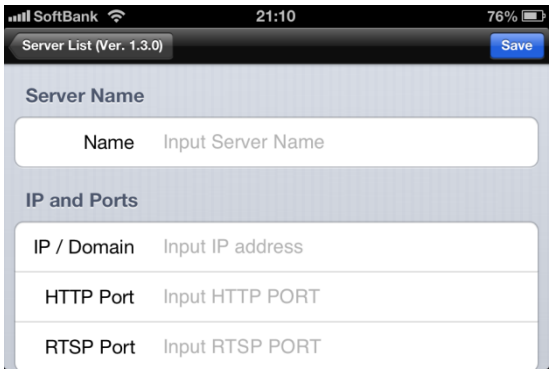
From your iPhone, access the App Store. Enter "GanzView" in the search bar to find it before downloading. Install the application on your iPhone. The GanzView supports the 1/4 split screen mode.

To connect to DVR with GanzView

1. Select and run the GanzView.
2. Click < + > in the top right corner of the DVR List to select and add a site to the list.

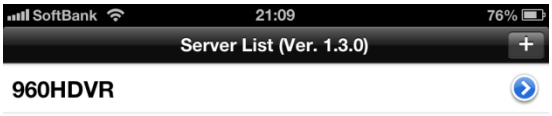


3. Enter the server name and click **<Save>**.
4. Provide the IP address, HTTP port number and RTSP port number, and click **<Save>**.



5. Provide the access ID of the DVR as well as the password.
6. Specify the use of the Auto Login.
7. Click **<Save>**.

8. Select the site that you added in the DVR List.



9. Try to access the DVR. If connected successfully, you will see the screen as shown.

Split Mode

1. Click any area on the screen.
   The main menu appears at the bottom of the screen.

2. Click < > in the top left corner to switch to 1-split mode; click < > to switch to Multi-split mode.

   ✓ Swipe to scroll the screen to the left or right to move to the next camera video screen.

To use PTZ control

1. Click < PTZ > in the top right corner.
2. Use buttons on the screen for PTZ control.

(available only for cameras supporting PTZ functions.)

: Adjust Focus

: Zoom In/Out

: Select one from the listed presets to run the selected preset action stored in the camera.

: Activates Pan / Tilt toward the selected direction.

: Captures the real-time video and saves as a still image in the handset□s image folder.

To use Digital Zoom

1. Click < ZOOM > in the middle right corner.

2. Click <+> for Zoom in, <−> for Zoom out

✓ Touch the screen with two fingers and pinch open to zoom in, or pinch close to zoom out.

To View HQ (High Quality) Video

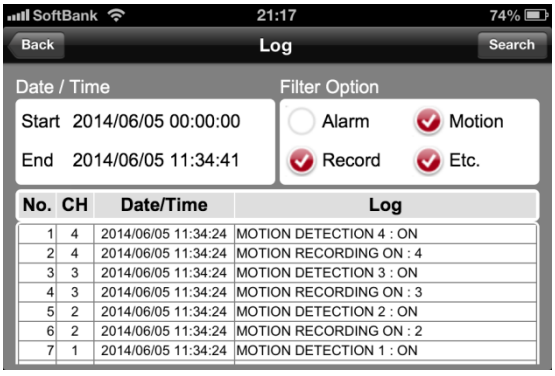
1. Click < HD/HQ > in the right corner

2. It switch to HQ video

Using the Log View

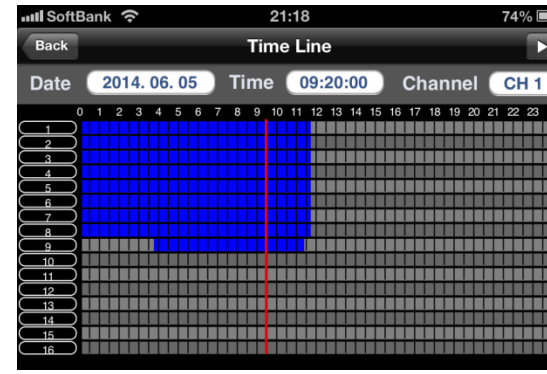
1. From the main menu, click < LogView >.
You can check the log of the data stored.

2. Select filter option from Alarm, Motion, Record, Etc. and click < Search >.
You will view the log of related items.



Using the Search function

1. From the main menu, click < Search >.
   You can view the history of the data stored.



2. Select a desired time and date.
   You can use the vertical time bar to specify the start time.

3. Click < ▶ > to play the video recorded at the specified time.

4. Click any area to display the play bar with which you can control the playing direction and speed of the video.

Using the Setup function

From the main menu, click < Setup >.
You will be connected to the web viewer site.

✓ For details about each displayed item, refer to "Setup". (page 72)

Using GanzView with Android

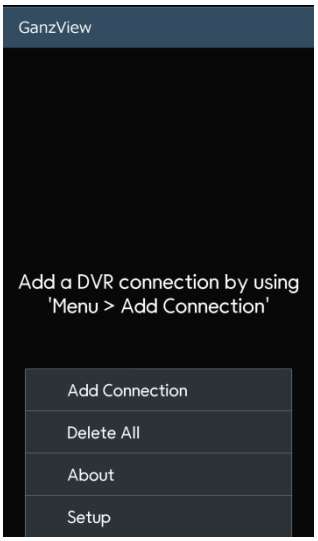
How to download the Android-dedicated application

From your smart phone, access the Play Store.
Enter "GanzView" in the search bar to find it before downloading.
Install the application on your Smart Phone.

- ✓ The GanzView supports the multi-split screen mode.

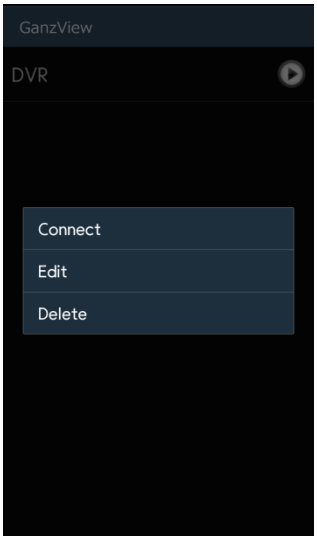
To connect to DVR with GanzView

1. Select and run the GanzView.
2. Use the Add button to select and add a site to the list.



3. Please enter a Name.
4. Provide the IP address, HTTP port number and RTSP port number, and click **<Save>**.
5. Provide the access ID of the DVR as well as the password.
6. Select whether or not to save the ID and PW.
7. Click **<Save>**.

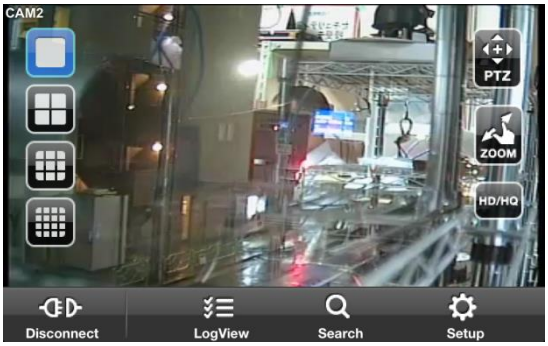
8. Select the site that you added in the DVR List.
   Press and hold the mouse button to display the pop-up window.



9. Select <Connect> and try to access.
   If connected successfully, you will see the screen as shown.

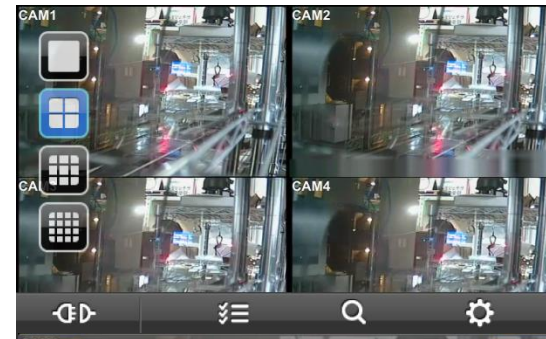
Split Mode

1. Click any area on the screen.
   The main menu appears at the bottom of the screen.



2. Click < > in the top left corner to switch to 1-split mode; click < > to switch to Multi-split mode.

✓ Swipe to scroll the screen to the left or right to move to the next camera video screen.



To use PTZ control

1. Click < > in the top right corner.
2. Use buttons on the screen for PTZ control.

(available only for cameras supporting PTZ functions.)

: Adjust Focus

: Zoom In/Out

: Select one from the listed presets to run the selected preset action stored in the camera.

: Activates Pan / Tilt toward the selected direction.

: Captures the real-time video and saves as a still image in the handset□s image folder.

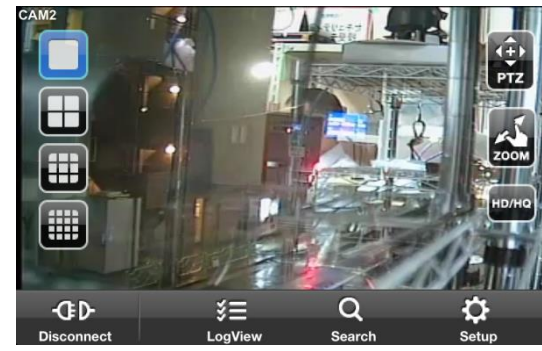
To use Digital Zoom

1. Click < > in the middle right corner.
2. Click <+> for Zoom in, <−> for Zoom out

✓ Touch the screen with two fingers and pinch open to zoom in, or pinch close to zoom out.

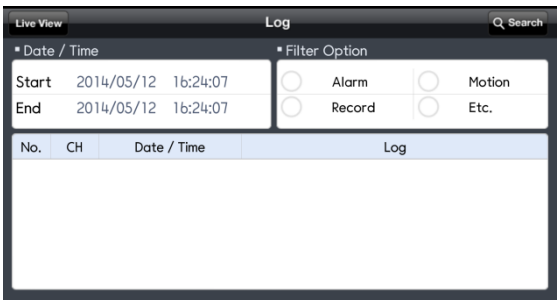
To View HQ (High Quality) Video

1. Click < > in the right corner
2. It switch to HQ video

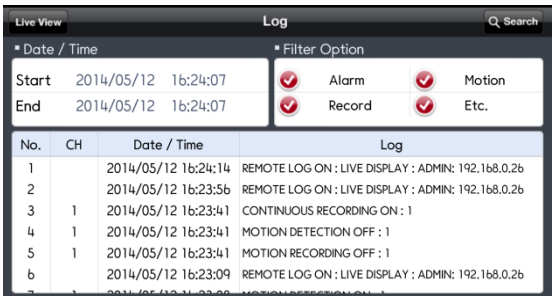


Using the Log View

1. From the main menu, click < LogView >.
   You can check the log of the data stored.

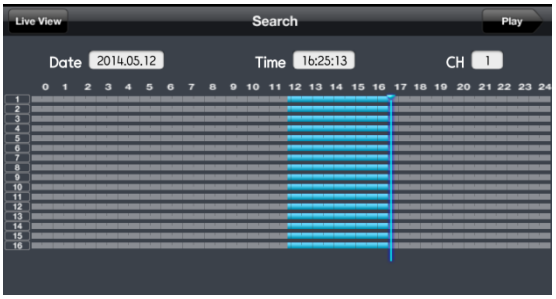


2. Select filter option from Alarm, Motion, Record, Etc. and click < Search >.
   You will view the log of related items.



Using the Search function

1. From the main menu, click < Search >.
   You can view the history of the data stored.



2. Select a desired time and date.
   You can use the vertical time bar to specify the start time.

3. Click < ▶ > to play the video recorded at the specified time.

4. Click any area to display the play bar with which you can control the playing direction and speed of the video.

Using the Setup function

From the main menu, click < Setup >.
You will be connected to the web viewer site.

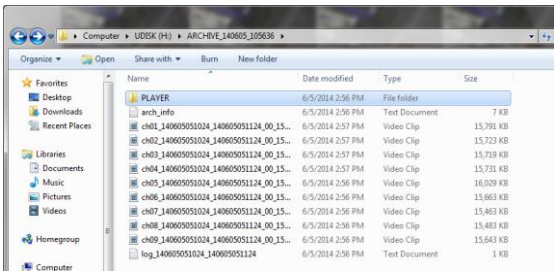
- ✓ For details about each displayed item, refer to "Setup". (page 72)

You can play the archived date w5th Backup player.

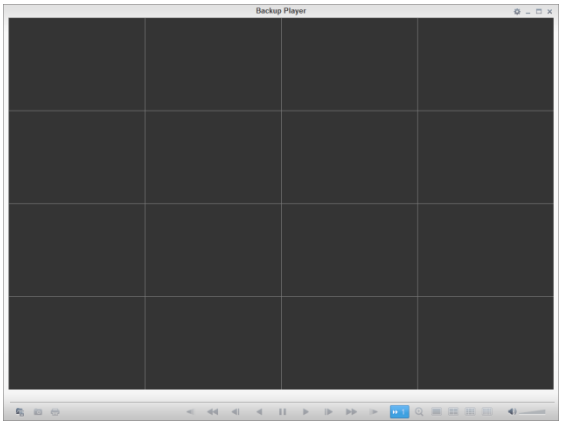
Getting started with the Backup Player

1. Connect the backup USB storage to your PC.

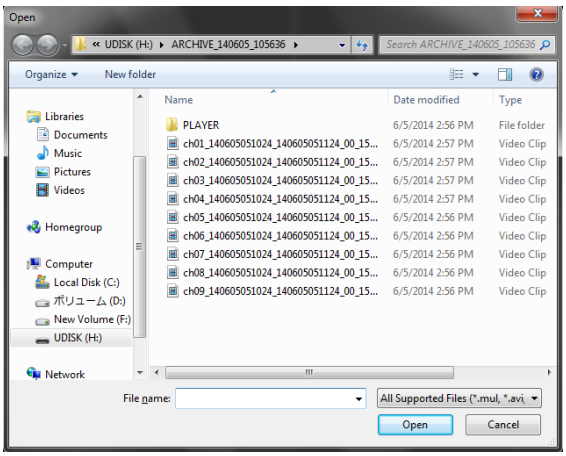
2. Open the folder saving the archived images.



3. Run the Backup Player.

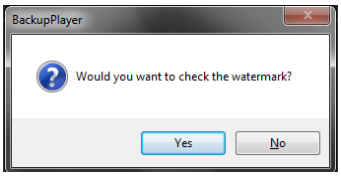


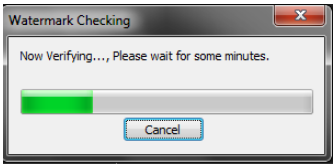
4. Click < > in the bottom left corner to display the file browser. Select the archived file to play.



5. Check the integrity of the archived file.

6. When done, the archived file will be played on the screen.





Backup Player At a Glance

Item	Description
1.Setup **Minimize, Close**	Configure the environment settings. Minimize or close the Backup Player.
2.Channel Information	Show the channel information and the video resolution.
3.Play Time	Display the time of the current video image
4.Play Time	Display the current playback time..
5.File Search **Capture** **Print**	Open the file that you backed up Capture the current screen. Print out the current screen.
6.Playback Control	Control the playback direction and speed of the current video. For more information about how to use the playback control buttons, refer bar to "If you want to play ". (page 58)
7.Digital Zoom	Zoom the video of the selected channel. (The zooming function is active only in '1'split screen.)
8.Split Mode	Switch to 1-/4-/8-/16-split screen mode..
9.Audio Setting	Show the sound signal status and volume level..
10.Play Bar	Display the current playback position in the video.

Video Capture

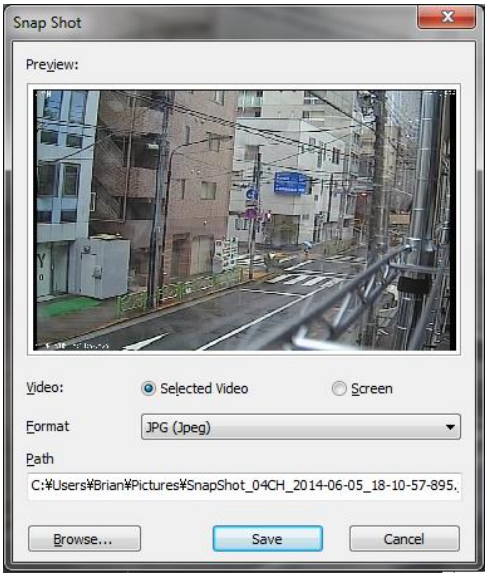
Click <> to capture the current video image.

> Selected Video : Capture the actual frame of the current video.

> Screen : Capture the visible portion of the current video.

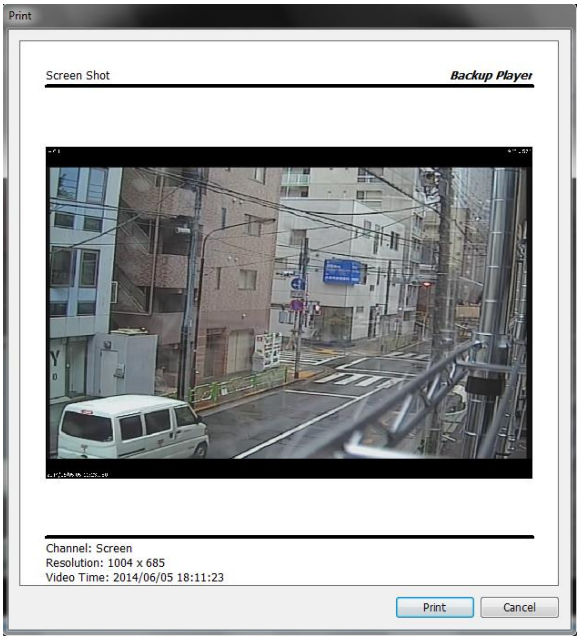
> Format : Select a saving format. (BMP, JPG, PNG)

> Path : Specify the saving path.
-Default location : My Documents\My Pictures



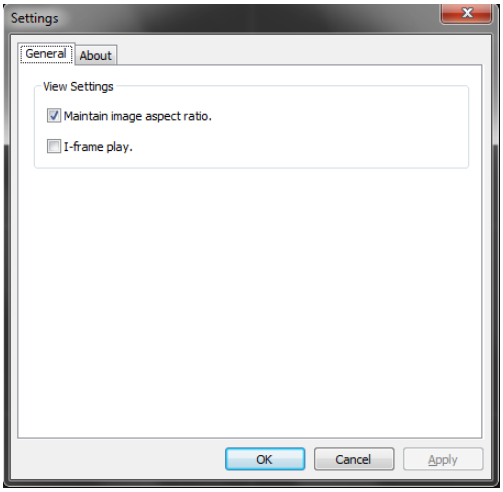
Print Out

Click <> to print out the image
When the “Print” window appears, check the preview and click <Print>

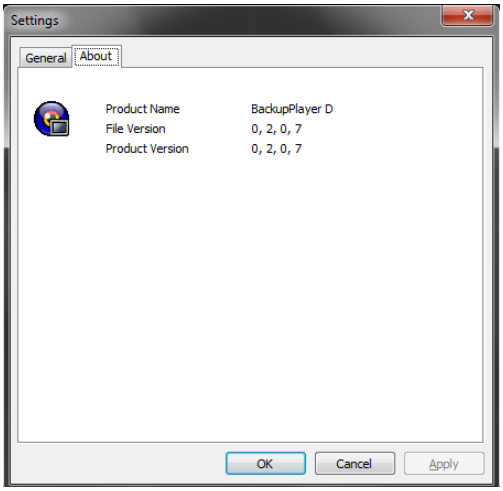


Settings

Click <> to configure the Backup Player settings.
You can check the version of the Backup Player.



- ✓ Maintain image aspect ratio : Preserve the aspect ratio of the image.
  If you do not mark this option, the image will be adjusted to fit the screen.



- ✓ About : You can check the program information including the current version.

Specification

Item	DR-4M41	DR-8M41	DR-16M42
VIDEO			
INPUT SIGNAL	AHD 2.0 1080p, CVBS	AHD 2.0 1080p, CVBS	AHD 2.0 1080p, CVBS
MAIN MONITOR	HDMI / VGA	HDMI / VGA	HDMI / VGA
SPOT OUT	NO	NO	NO
LOOP THROUGH	NO	NO	NO
MOTION DETECTION	YES	YES	YES
AUDIO			
INPUT SIGNAL	4CH(10KOhm, 2.8Vpp)	4CH(10KOhm, 1Vrms)	4CH(10KOhm, 1Vrms)
OUTPUT SIGNAL	1CH(600Ohm, 2.8Vpp)	1CH(600Ohm, 1Vrms)	1CH(600Ohm, 1Vrms)
CODEC	G.711	G.711	G.711
RECORDING			
CODEC	H.264	H.264	H.264
REC.RATE	MAX. 60/50 FPS@1080P 120/100FPS@720P,960H 4CIF,2CIF,CIF	MAX. 120/100 FPS@1080P 240/200FPS@720P,960H 4CIF,2CIF,CIF	MAX. 240/200 FPS@1080P 480/400FPS@720P,960H 4CIF,2CIF,CIF
ALRM I/O			
ALARM INPUT	NO	NO	NO
ALARM OUTPUT	NO	NO	1CH RELAY (250V,30VDC)
STORAGE			
INTERNAL HDD (SATA)	1	2	2
EXTERNAL STORAGE	NO	NO	NO
ODD	NO	NO	NO
INTERFACES			
USB(USB2.0)	2 ports (Rear)	2 ports (Rear)	2 ports (Rear)
RS-485	1	1	1
RS-232	NO	NO	NO
LAN	1 x 10/100	1 x 10/100/1000	1 x 10/100/1000
REMOTE CONTROL	NO	NO	NO
ETC			
SIGNAL SWITCH	NO	NO	NO
WATCHDOG	YES	YES	YES
COOLINGFAN	NO	NO	NO
POWER			
POWER SUPPLY	12VDC, Adaptor 2A 100-240V AC, 50-60Hz	12VDC, Adaptor 2A 100-240V AC, 50-60Hz	12VDC, Adaptor 4A 100-240V AC, 50-60Hz
POWER CONSUMPTION	5W (without HDD)	5W (without HDD)	5W (without HDD)
ENVIRONMENT			
HUMIDITY	10~90% NC	10~90% NC	10~90% NC
TEMPERATURE	0 ~ 40degC (32~104degF)	0~ 40degC (32~104degF)	0~ 40degC (32~104degF)
CHASSIS			
DIMENSION	255mm x 236mm x 44mm	255mm x 236mm x 44mm	350mm x 296mm x 44mm
CERTIFICATION			
	FCC, CE, KC, C-Tick	FCC, CE, KC, C-Tick	FCC, CE, KC, C-Tick

Item	DR-16F44-AT
VIDEO	
INPUT SIGNAL	AHD 2.0 1080p, CVBS
MAIN MONITOR	HDMI / VGA
SPOT OUT	Digital 1ch/4ch (1Vpp,75Ohm) x 2
LOOP THROUGH	NO
MOTION DETECTION	YES
AUDIO	
INPUT SIGNAL	16CH(10KOhm, 2.8Vpp)
OUTPUT SIGNAL	1CH(600Ohm, 2.8Vpp)
CODEC	G.711
RECORDING	
CODEC	H.264
REC.RATE	MAX. 480/400 FPS@1080P,720P,960H,4CIF,2CIF,CIF
ALRM I/O	
ALARM INPUT	18CH (16ch+2ch), pulled up to 5V via 10KOhm
ALARM OUTPUT	8CH RELAY (125VAC,60VDC) 8CH, O.C. Pulled up to 5V via 10KOhm
STORAGE	
INTERNAL HDD (SATA)	4
EXTERNAL STORAGE	eSATA, NAS (FTP server for backup)
ODD	NO
INTERFACES	
USB(USB2.0)	3 ports (2 Front + 1 Rear)
RS-485	2
RS-232	1
LAN	1(WAN) x 10/100/1000Mbps
REMOTE CONTROL	YES
ETC	
SIGNAL SWITCH	NO
WATCHDOG	YES
COOLINGFAN	2 x 80mm
POWER	
POWER SUPPLY	DC12V Adaptor 10A, 100-240VAC, 50-60Hz
POWER CONSUMPTION	Max 42W without HDD
ENVIRONMENT	
HUMIDITY	10~90% NC
TEMPERATURE	0~ 40degC (32~104degF)
CHASSIS	
DIMENSION (mm)	2U 430(W) x 367(D) x88.4(H)
CERTIFICATION	
	FCC, CE, KC, C-tick

Français/French

Élimination de votre ancien appareil

1. Ce symbole, représentant une poubelle sur roulettes barrée d'une croix, signifie que le produit est couvert par la directive européenne 2002/96/EC.
2. Tous les produits électriques et électroniques doivent être éliminés séparément de la chaîne de collecte municipale des ordures, par l' intermédiaire des installations de collecte prescrites et désignées par le gouvernement ou les autorités locales.
3. Une élimination conforme aux instructions aidera à réduire les conséquences négatives et risques éventuels pour l'environnement et la santé humaine.
4. Pour plus d'informations concernant l'élimination de votre ancien appareil, veuillez contacter votre mairie, le service des ordures ménagères ou encore le magasin où vous avez acheté ce produit.

English

Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

Deutsch/German

Entsorgung von Altgeräten

1. Wenn dieses Symbol eines durchgestrichenen Abfalleimers auf einem Produkt angebracht ist, unterliegt dieses Produkt der europäischen Richtlinie 2002/96/EC.
2. Alle Elektro- und Elektronik-Altgeräte müssen getrennt vom Hausmüll über die dafür staatlich vorgesehenen Stellen entsorgt werden.
3. Mit der ordnungsgemäßen Entsorgung des alten Geräts vermeiden Sie Umweltschäden und eine Gefährdung der persönlichen Gesundheit.
4. Weitere Informationen zur Entsorgung des alten Geräts erhalten Sie bei der Stadtverwaltung, beim Entsorgungsamt oder in dem Geschäft, wo Sie das Produkt erworben haben.

Italiano/Italian

RAEE: SMALTIMENTO DELLE VOSTRE VECCHIE APPARECCHIATURE

1. Quando il simbolo del "Cassonetto Barrato" è apposto su un prodotto, significa che lo stesso può ricadere nei termini previsti dalla Direttiva Europea nr. 2002/96/EC in funzione dell'attuazione definita dalla Legislazione dei singoli stati membri dell'Unione Europea.
2. Tutti i prodotti elettrici ed elettronici dovrebbero essere smaltiti separatamente dai rifiuti municipali, tramite appositi contenitori, approvati dall'Amministrazione Comunale o dalle Autorità Locali.
3. Il corretto smaltimento delle vostre vecchie apparecchiature, contribuirà a prevenire possibili conseguenze di impatto negativo sull' ambiente e per la salute dell'uomo.
4. Per maggiori informazioni circa lo smaltimento delle vostre vecchie apparecchiature, siete pregati di contattare l'ufficio municipale della vostra città, il servizio di smaltimento rifiuti o il punto vendita nel quale avete acquistato il prodotto.

Polski/Polish

Utylizacja starych urządzeń

1. Kiedy do produktu dołączony jest niniejszy przekreślony symbol kołowego pojemnika na śmieci, oznacza to, że produkt jest objęty europejską dyrektywą 2002/96/EC.
2. Wszystkie elektryczne i elektroniczne produkty powinny być utylizowane niezależnie od odpadów miejskich, z wykorzystaniem przeznaczonych do tego miejsc składowania wskazanych przez rząd lub miejscowe władze.
3. Właściwy sposób utylizacji starego urządzenia pomoże zapobiec potencjalnie negatywnemu wpływowi na zdrowie i środowisko.
4. Aby uzyskać więcej informacji o sposobach utylizacji starych urządzeń, należy skontaktować się z władzami lokalnymi, przedsiębiorstwem zajmującym się utylizacją odpadów lub sklepem, w którym produkt został kupiony.

Português/Portuguese

Eliminação do seu antigo aparelho

1. Quando este símbolo de latão cruzado estiver afixado a um produto, significa que o produto é abrangido pela Directiva Europeia 2002/96/EC.
2. Todos os produtos eléctricos e electrónicos devem ser eliminados separadamente da coleta de lixo municipal através de pontos de recolha designados, facilitados pelo governo ou autoridades locais.
3. A eliminação correcta do seu aparelho antigo ajuda a evitar potenciais consequências negativas para o ambiente e para a saúde humana.
4. Para obter informaçõs mais detalhadas acerca da eliminação do seu aparelho antigo, contacte as autoridades locais, um serviço de eliminação de resíduos ou a loja onde comprou o produto.

Español/Spanish

Cómo deshacerse de aparatos eléctricos y electrónicos viejos

1. Si en un producto aparece el símbolo de un contenedor de basura tachado, significa que éste se acoge a la Directiva 2002/96/EC.
2. Todos los aparatos eléctricos o electrónicos se deben desechar de forma distinta del servicio municipal de recogida de basura, a través de puntos de recogida designados por el gobierno o las autoridades locales.
3. La correcta recogida y tratamiento de los dispositivos inservibles contribuye a evitar riesgos potenciales para el medio ambiente y la salud pública.
4. Para obtener más información sobre cómo deshacerse de sus aparatos eléctricos y electrónicos viejos, póngase en contacto con su ayuntamiento, el servicio de recogida de basuras o el establecimiento donde adquirió el producto.

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