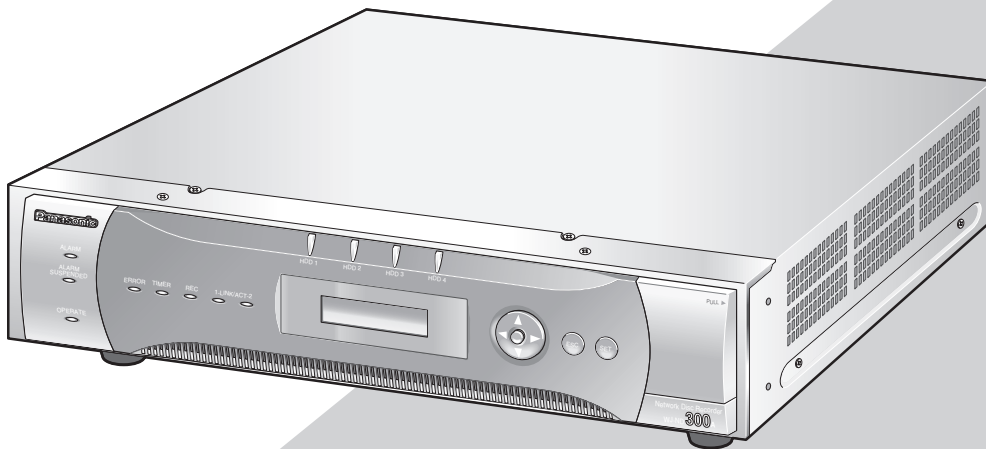


# Panasonic

## Network Disk Recorder

## Operating Instructions

Model No. **WJ-ND300A**



Before attempting to connect or operate this product,  
please read these instructions carefully and save this manual for future use.

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# Preface

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## Features

The Network Disk Recorders WJ-ND300A series are designed for use within a surveillance system, and perform recordings and playbacks pictures from network cameras in the system.

The network disk recorder is a recording device using a hard disk drive to record camera pictures instead of using video tapes so that pictures recorded by repeated overwriting will not experience deterioration of the recorded picture quality.

Up to 32 cameras can be connected via a network and it is possible to record their camera pictures. It is possible to perform the settings or operate the WJ-ND300A (this unit) using a web browser installed on a PC connected to a network. Up to 8 PCs (web browsers) can access this unit concurrently and it is possible to perform the settings and operate this unit.

"WJ-ND300A" is the generic name of the network disk recorders WJ-ND300A series.

## Various Recording Functions

- **Multi-recording**

It is possible to perform multiple recordings using a single network disk recorder even if the operating environments are different, for example, recording pictures of cameras in different places at different times.

- **Schedule recording**

It is possible to perform recording automatically at a scheduled time on a designated day of a week. It is also possible to perform recording at a different recording rate according to time range.

- **Emergency recording**

In the case of an emergency, emergency recordings will be given a higher priority than other recording modes by operating an external switch.

- **External timer recording**

It is possible to perform recording automatically using an external timer.

- **Event recording**

At an event occurrence, such as an alarm signal is supplied, the recording mode (quality and recording rate) can be changed to high quality to record pictures.

## Downloading/Transmitting Images

It is possible to download (save) the currently displayed image in the web browser window onto the hard disk of a PC. By establishing an FTP server, it is possible to transmit images to the designated FTP server periodically. When an event occurs, it is possible to transmit images from the camera installed in the place where the alarm occurred.

## Event Notification Function

When an event occurs, it is possible to send e-mails to designated addresses to notify of the event occurrence. It is also possible to send an e-mail with an image recorded when the event occurred.

## Security Function and Reliability

- User authentication function (registration of ID and password) allows users access to predetermined selection of the available functions. Up to 32 users can be registered.
- Host authentication function restricts devices from operating this unit if their IP addresses are not registered.
- If a hard disk crashes, the RAID 5 function prevents any recorded pictures loss.

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## About these Operating Instructions

There are 3 sets of operating instructions for the WJ-ND300A as follows.

- Installation Guide (book)
- Operating Instructions (PDF)
- Setup Instructions (PDF, these operating instructions)

These "Operating Instructions" contain descriptions of how to operate this unit using a PC via a network.

Refer to the "Setup Instructions (PDF)" for descriptions of how to perform the required settings to operate this unit using a PC and how to connect to other devices. (These operating instructions are for system installers.)

The settings of the unit will be different depending on the settings of the LAN or the Internet service provider to which the unit is to be connected. Refer to an administrator of each network for further information about the respective network.

Refer to the provided "Installation Guide (book)" for descriptions of how to operate this unit using the buttons on the front panel of the unit, installation and system configurations.

Adobe® Reader is required to read these operating instructions (PDF) on the provided CD-ROM. When the Adobe® Reader is not installed on the PC, download the latest Adobe® Reader from the Adobe web site and install it.

"WJ-ND300A" or "ND300A" shown in the illustrations used in these operating instructions indicate this unit or the WJ-ND300A series.

## System Requirements for a PC

It is recommended to operate this unit using a PC that meets the following system requirements. If using a PC that does not meet the following system requirements, it may cause problems such as slow imaging or the browser becomes inoperable.

OS:	Microsoft® Windows® 2000 Professional SP4*, Microsoft® Windows® XP Professional SP2, Microsoft® Windows® XP Home Edition SP2
OS Language:	English, French, Spanish, German, Italian
Computer:	IBM PC/AT Compatible
CPU:	Pentium® 4 3.0 GHz or faster
Memory:	512 MB or more
Monitor:	1024 x 768 pixels or more, 24-bit True color or better
Network Interface:	10/100Mbps Network interface card must be installed
Web Browser:	Microsoft® Internet Explorer 6.0 SP1, 6.0 SP2 Other web browsers are not compatible with this unit.

\*: Update Microsoft Direct X to 9.0C or later. The latest Direct X can be downloaded from the web site of Microsoft Corporation.

## Trademarks and Registered Trademarks

- Adobe, Adobe logos, and Acrobat are registered trademarks of Adobe Systems Incorporated in the U.S. and/or other countries.
- Microsoft, Windows and Windows XP are registered trademarks of Microsoft Corporation in the U.S. and/or other countries.
- Other names of companies and products contained in these operating instructions may be trademarks or registered trademarks of their respective owners.

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## Abbreviations

The following abbreviations are used in these operating instructions.

Microsoft® Windows® 2000 Professional Service Pack 4 is described as Windows 2000.

Microsoft® Windows® XP Professional SP2 and Microsoft® Windows® XP Home Edition SP2 are described as Windows XP.

## Terms Used in these Operating Instructions

### HDD

Refers to a hard disk drive (mass storage medium). The unit records camera pictures on a hard disk rather than on video tape.

### Recording rate (ips, I-Frame)

Refers to the unit that determines the smoothness with which the recorded images are played back. "ips" is used to express the number of frames recorded per second. The higher the number, the smoother the movement, but the available recording time becomes shorter. "I-Frame" is used to express the refresh interval set on the camera.

### Resolution

Resolution refers to the degree of fineness and quality of the camera pictures recorded by this unit. This unit displays the resolution in number of dots. For example, if the number of horizontal dots is 720 and the number of vertical dots is 480, the display reads 720 x 480.

### M-JPEG

A video codec that compresses video fields from the camera into independent JPEG images sequentially by query from the unit.

Network load will be reduced comparing with the method that obtains JPEG images independently from the camera. However, the transmission rate will fluctuate depending on the state of the camera.

Some cameras phrase this video codec as just "JPEG".

### Manual recording

Function for starting and stopping recording manually by clicking the recording button or recording stop button.

### Schedule recording

Function for starting and stopping recording automatically at a preset time.

### Event recording

Function for starting recording automatically when an event occurs.

Event recordings are divided into pre recordings (pictures before the event occurs) and post recordings (pictures after the event occurs).

### Emergency recording

Function for performing priority recording in emergency situations, etc. through an external switch connected to the unit.

### SD memory recording/SD memory data

Function featured in some Panasonic's cameras that saves images on the SD memory card on the camera when communication with the camera failed in the period set for the schedule recording of this unit. Images saved by the SD memory recording are described as "SD memory data" on these operating instructions. The recording time of SD memory data will be displayed based on the clock of the camera.

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**External recording mode**

Function for changing the programmed time schedule through an external switch connected to the unit.

**Event**

An event is a phenomenon which triggers a specific operation (event operation) in the unit. Events are divided into terminal alarm, command alarm, and site alarm.

**Event Action**

Event action refers to a specific operation performed when an event occurs. Event operations are divided into ALM (Alarm Mode), ADM (Activity Detection Mode), and are selectable. In ALM, the occurrence of an event is announced by screen display, LED, or buzzer (Alarm Operation). In ADM, the occurrence of an event is not announced, but the unit starts event recording, performs the preset operations, and enters the event into the event log. In OFF mode, the unit only enters the event into the event log.

**Sequence**

Sequence refers to automatically changing the displayed camera picture in a preset sequence. Sequence display is possible while the unit displays live pictures.

**Electronic zoom**

Function for enlarging live and playback pictures. While the camera uses the camera zoom function to enlarge pictures, the electronic zoom function enlarges the picture electronically in the unit and displays it.

**Camera control**

Camera control refers to controlling the functions of the combination cameras connected to the unit. These functions include Pan/Tilt, Zoom, Focus, Brightness, Preset Operations (moving the camera to a preset horizontal/vertical position), and Auto (for example, automatic panning).

**A-B repeat playback**

Function for playing back repeatedly between a set start point (A) and an end point (B) in playback mode.

**HDD safety mode**

Function for turning off the power supply to the HDD to prevent damage of the HDD due to vibration and shock if the unit is mounted in or dismantled from the rack with the power turned on.

**Disk config**

When an HDD is replaced, removed, or added, the HDDs need to be newly configured. Disk config refers to the menu for performing these HDD settings.

**RAID (RAID5)**

This stands for Redundant Arrays of Inexpensive Disks. It refers to a technology to implement a high-speed large-capacity and high-reliability disk unit by distributing access to multiple HDDs. If trouble occurs in one of the HDDs, the data on the faulty HDD can be recovered based on the error correction data recorded on the other HDDs. (RAID5 is used when 3 or more HDDs are connected. If trouble occurs simultaneously in 2 or more HDDs, the data of the faulty HDD cannot be recovered.)

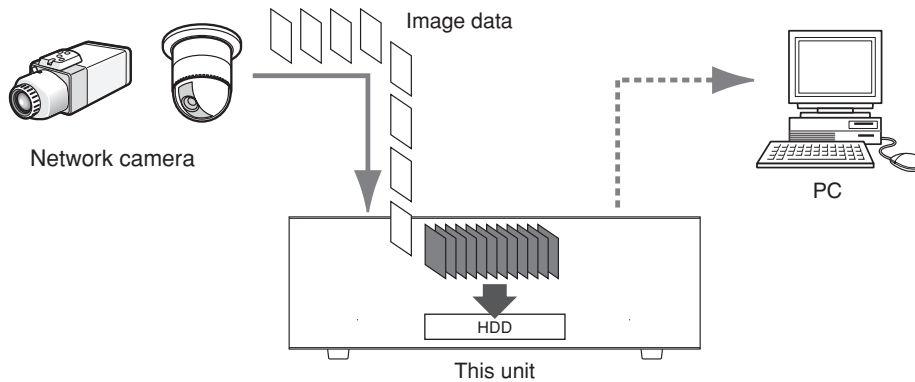
**System Administrator**

This refers to a person who has the responsibility and authority to operate the unit and perform settings.

# Recording/Playback/Live Image Transmission

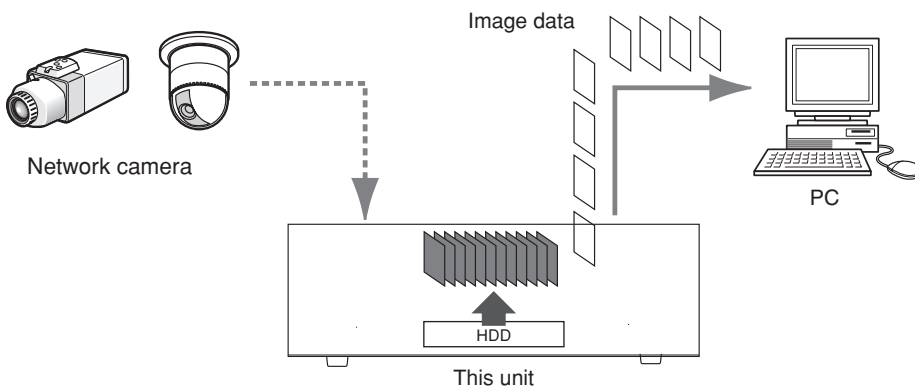
## Recording

Images will be transmitted from cameras to this unit and will be recorded. Images from up to 32 cameras can be recorded on a single network disk recorder. Recorded images are compliant with the JPEG format.



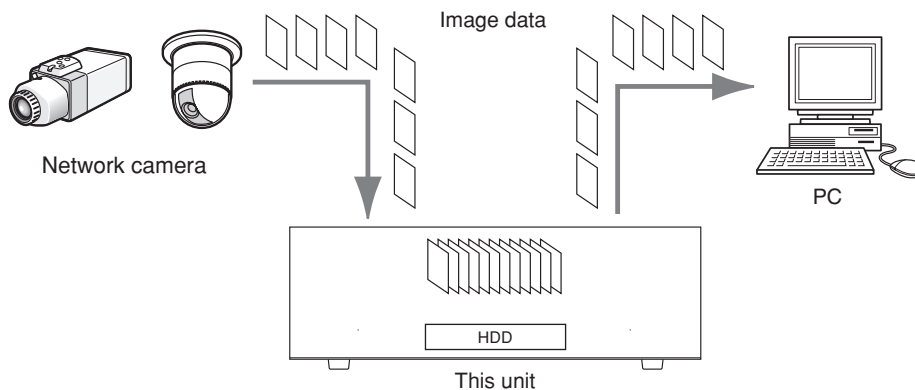
## Playback

Images recorded on the hard disk drive of this unit can be transmitted to a PC and they can be played. A single network disk recorder can transmit images to up to 8 PCs (web browsers). It is necessary to use a web browser or the optional software (WV-AS65) to display recorded images.



## Live Image Transmission

Live images from network cameras can be transmitted to PCs through this unit. Live images from up to 32 network cameras can be transmitted to up to 8 PCs concurrently.



# Restrictions when operating MPEG-4 images

There are following restrictions when "MPEG-4" is selected for the image compression method on the setup menu (advanced) ("NW camera setup" under "Camera").

## 1. When displaying live images

- ① Black screen may be displayed for the first few seconds (\*) when the following operations are performed while displaying live images.
  - When MPEG-4 live images are displayed (by switching camera channel, etc.)
  - When MPEG-4 image is enlarged (or when enlarged MPEG-4 image is resized to the original size)
- ② It may take several seconds (\*) for refresh interval of MPEG-4 image when displaying images on a 4-screen.  
Example: When "3 seconds" is selected for the refresh interval on the camera, MPEG-4 image will be refreshed in 3 seconds intervals.
- ③ When "QUICK" is selected for "REC Type" under "REC Setup" of the setup menu (QUICK), MPEG-4 live image will not be displayed. To display MPEG-4 live image, select "ADVANCED".

## 2. When displaying images sequentially

When "MPEG-4" is selected for the image compression method of the camera selected for a camera channel on the setup menu (advanced) ("Sequence Setup" under "Camera"), the respective sequence step will be skipped.

## 3. When playing recorded images

- ① Displayed playback time may be fast for several seconds (\*) when the following operations are performed while playing recorded images
  - When MPEG-4 recorded images are played (by changing camera channel, etc.)
  - When MPEG-4 image is enlarged (or when enlarged MPEG-4 image is resized to the original size)  
(When operating to zoom in/out a paused MPEG-4 recorded image, image of several seconds later than the displayed image may be enlarged.)
  - When the [PLAY] button is clicked again while playing MPEG-4 image
  - When the first frame is displayed by clicking the [NEXT IMAGE] button during pausing
- ② Playback may be performed in several seconds intervals (\*) when the following operations are performed while playing MPEG-4 image.
  - Reverse playback
  - Fast playback/fast reverse playback
  - Reverse frame playback

**Example:** When "3 seconds" is selected for the refresh interval on the camera, MPEG-4 image will be played in 3 seconds intervals.
- ③ When two records are played sequentially, the last few frames of the former record and the first few frames of the next record may be displayed overlapped.
- ④ Black screen may be displayed when the A-B repeat playback is performed.
- ⑤ When playing MPEG-4 image by designating time and date, playback may start from a point several seconds after the designated time and date or from the first frame of the next record.



#### 4. When recording images

- ① Time and date displayed on the recording event list (actual start time of recordings) may not exactly indicate the actual time of recording trigger (event occurrence time, start time of the schedule recording, etc.), and also the recording duration may be shortened for seconds worth two times of the refresh interval set on the camera.

**Example:** When the set recording duration and the set refresh interval of the camera are 10 seconds and 1 second respectively

$$10 - (1 \times 2) = 8 \text{ (sec)}$$

The minimum actual recording duration is 8 seconds.

- ② When pre-event recording is set to be performed, pre-event recording duration may be longer than the set duration.

**Example:** Depending on the size of the image data, pre-recording duration may be around 10 seconds even when setting 5 seconds for the pre-event recording duration.

- ③ When "QUICK" is selected for "REC Type" under "REC Setup" of the setup menu (QUICK), MPEG-4 images will not be recorded. To record images in MPEG-4 format, select "ADVANCED".

#### 5. When copying images

Copying may start from a point several seconds (\*) later than the designated start time when copying MPEG-4 images. To copy the desired images for sure, designate start time several seconds earlier than the time when the desired images are recorded, and set time range for copying longer than the refresh interval set on the camera.

#### 6. When downloading recorded images

Download of recorded images may start from a point several seconds (\*) earlier than the designated start time. Set time range for download longer than the refresh interval set on the camera.

#### 7. When transmitting images recorded at an event occurrence to the FTP server

Duration of images to be transmitted to the FTP server, which are recorded at an event occurrence, may not be exactly the same as the duration set for "Duration-Pre" and "Duration-Post". Set "Duration-Pre" and "Duration-Post" longer than the refresh interval set on the camera.

#### 8. Other

MPEG-4 images will not be attached to alarm mails.

Even when images are to be transmitted to the FTP server periodically, MPEG-4 images will not be transmitted.

\*: Time (seconds) differs depending on the refresh interval set on the camera (1 – 5 seconds). To shorten time lag, set the refresh interval on the camera shorter. Refer to the operating instructions of the camera for how to configure the refresh interval.

# Recording

Start/stop recording manually.

Refer to a system administrator for the required settings for manual recording.

Refer to the Setup Instructions (PDF) for descriptions of how to turn on the unit and how to display the operation window.

## Screenshot 1

Display the [HDD] tab.



## Step 1

Click the [**▲**] button of the [Recording] box.

### Note:


Hold down the [**▲**] button until the recording button and the recording stop button are displayed.

## Screenshot 2

The recording button will be displayed in the [Recording] box.




## Step 2

Start recording by clicking the recording button .

- The [REC] indicator in the status display area will be lit red when recording has started.
- When images from cameras are currently recorded with higher priority than manual recording, manual recording will be suspended until that recording finishes.

Refer to the following for further information about each recording mode.

## Step 3

Click the recording stop button  to stop recording.  
→ The [REC] indicator will go off.

### Notes:

- When stopping manual recording while another recording with a different recording mode (ex. event recording → next page) is being performed, the [REC] indicator will remain lit and the other recording will continue.
- It is impossible to record images when images are not being received from cameras.

## About the recording mode and the priority

There are 5 recording modes. Each recording mode and priority is as follows.

When two or more recordings with different recording modes started simultaneously, only recording with the highest priority will start.

<b>Recording Mode</b>	<b>Description</b>	<b>Priority</b>
Emergency recording	When an emergency event occurs, perform recording manually using an external switch, etc..	Highest
Post-event recording	Perform recording manually at any event occurrence.	2
Manual recording	Start/stop recording manually.	3
Schedule recording	It is possible to perform recording automatically at a schedule time on a designated day of a week.	4
Pre-event recording	Perform recording manually at any event occurrence.	5

# Playback

A recorded image can be played. Playback is also available during recording.

## Screenshot 1


Display the [HDD] tab.



## Step 1

Click the [PLAY] button.

→ Playback of a recorded image will be performed.


 will be displayed in the status display area. Playback will start from the finish point (time and date) of the last playback.

## Notes:

- When played for the first time after login, the latest recorded image will be played. Playback will start 30 seconds before the time of the latest recorded image with the default setting. The following are available for the playback start time.  
5 s/10 s/30 s/1 min/5 min  
Refer to a system administrator for further information.
- Playback speed may become slow when load to be processed is getting higher (such when many cameras are connected or when live/recorded images are displayed on multiple windows).
- When playing images on a 4-Screen, images will be played with frame dropping.
- When playing images recorded at a different recording rate (one at a higher rate and the other at a lower rate) simultaneously on a 4-Screen, the difference between the displayed time for each channel will be widen.
- To play SD memory data, filter data using the recording event search and select data to be played from the result list. (page 19)

## Step 2








Click the [STOP] button to stop playback.

→  displayed in the status display area will go off and a live image will be displayed.






## Notes:

- It is possible to change camera channels by clicking the desired camera channel on the [Cam Select] tab during playback.
- It is possible to switch the screen to a quad-screen by clicking the desired [Multiscreen Select] button during playback.
- Clicking the camera title during quad display will display the clicked picture on a single screen.

## Other functions for playback

<p><b>Pausing</b></p>	 <ul style="list-style-type: none"> <li>• Playback will be stopped when this button is clicked during playback.</li> <li>• Playback will be resumed when this button is clicked during pausing.</li> </ul>
<p><b>Frame play/reverse frame play</b></p>	  <ul style="list-style-type: none"> <li>• Frame play/reverse frame play is available only during pausing.</li> <li>• When the [NEXT IMAGE] button is clicked, the next frame is played and paused.</li> <li>• When the [PREV IMAGE] button is clicked, the previous frame is played and paused.</li> </ul> <hr/> <p><b>Note:</b> When the image currently being played is in MPEG-4 format, some frames of recorded images will not be displayed. Reverse frame play will be performed with the set refresh interval of the camera.</p>
<p><b>Fast playback/fast reverse playback</b></p>	  <ul style="list-style-type: none"> <li>• Playback speed will be changed in the following order each time the fast playback button is clicked: Step2 (Approx. 4x) → Step3 (Approx. 8x) → Step4 (Approx. 16x) → Step5 (Approx. 32x) → Step6 (Approx. 48x) → Step7 (Approx. 96x)</li> <li>• Reverse playback speed will be changed in the following order each time the fast reverse playback button is clicked: Step2 (Approx. 4x) → Step3 (Approx. 8x) → Step4 (Approx. 16x) → Step5 (Approx. 32x) → Step6 (Approx. 48x) → Step7 (Approx. 96x)</li> <li>• When the [PLAY] button or the [REV PLAY] button is clicked during fast playback/fast reverse playback, playback speed will return to the normal playback speed.</li> </ul> <hr/> <p><b>Note:</b> When the image currently being played is in MPEG-4 format, some frames of recorded images will not be displayed. Fast playback/fast reverse playback will be performed with the set refresh interval of the camera.</p>
<p><b>Skip/reverse skip</b></p>	  <ul style="list-style-type: none"> <li>• When the [NEXT RECORD] button is clicked, playback is skipped to the latest recorded image.</li> <li>• When the [PREV RECORD] button is clicked, playback is skipped to the oldest recorded image.</li> <li>• When there is no latest/oldest recorded image to be skipped to, the current playback will continue, but the playback may start from a point around a minute before the last playback point.</li> </ul>

<p><b>Skips to the latest recorded image.</b></p>	<div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 10px;">GO TO LAST</div> <ul style="list-style-type: none"> <li>• Skips to the latest time of the image currently playing and plays it. Skips to the point 30 seconds before the time of the latest recorded image with the default setting. The following points are available to be skipped to. 5 s/10 s/30 s/1 min/5 min Refer to a system administrator for further information.</li> <li>• When the [GO TO LAST] button is clicked while displaying live images, playback of the latest recorded images from the selected camera channel will start.</li> </ul> <hr/> <p><b>Note:</b> When the [GO TO LAST] button is clicked while recording images at a lower recording rate, playback of the latest recorded images may be paused or images may not be displayed.</p>
<p><b>Playback on a multi-screen</b></p>	<div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 15px; height: 15px; margin: 2px;"></div> <div style="border: 1px solid black; width: 15px; height: 15px; margin: 2px;"></div> <div style="border: 1px solid black; width: 15px; height: 15px; margin: 2px;"></div> <div style="border: 1px solid black; width: 15px; height: 15px; margin: 2px;"></div> </div> <ul style="list-style-type: none"> <li>• Displays playback images on a 4-Screen.</li> <li>• Up to 4 camera images can be displayed simultaneously on a 4-Screen screen. Images of the camera group (A-H) consisted from 4 camera channels in advance will be switched and displayed sequentially on a 4-Screen screen. Refer to the Setup Instructions (PDF) for descriptions of how to perform the camera group settings.</li> <li>• Click a camera title in the [Cam Select] tab or the camera title displayed on the image to return to a single screen display.</li> </ul> <hr/> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• When displaying images on a multi-screen, it may cause out-of-sync between each channel. In this case, click the [PLAY] button after clicking the [PAUSE] button to correct the synchronization between each channel.</li> <li>• When frame play is performed while displaying images on a multi-screen, displayed paused images of each channel may not simultaneously go to the next/previous frame.</li> </ul>
<p><b>Text</b> (page 34)</p>	<div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 10px;">TEXT</div> <ul style="list-style-type: none"> <li>• The attached text information will be displayed when this button is clicked during pausing. Click the [TEXT] button after pausing playback.</li> <li>• The text information display/edit is available only when a recorded image is played in a single screen.</li> </ul>
<p><b>EL-Zoom</b></p>	<div style="display: flex; gap: 5px; margin-bottom: 10px;"> <div style="border: 1px solid black; padding: 2px;">x1</div> <div style="border: 1px solid black; padding: 2px;">x2</div> <div style="border: 1px solid black; padding: 2px;">x4</div> </div> <ul style="list-style-type: none"> <li>• Displayed playback images or live images will be enlarged.</li> <li>• Click the button in the [EL-Zoom] box to zoom in on the displayed image. <b>[x1] button:</b> Returns to the original displayed size (x1 zoomed size). <b>[x2] button:</b> Displays images with x2 zoomed size. <b>[x4] button:</b> Displays images with x4 zoomed size. Clicking a point in the zoomed image moves the zoomed image by positioning the clicked point as the center point.</li> </ul>

<p><b>A-B Repeat Playback</b></p>	     	<p>Recorded images between two designated points (point A: start point, point B: end point) will be played repeatedly.</p> <ol style="list-style-type: none"> <li>① Designate a start point (A) by clicking the [Start] button during playback. → The time and date of point A will be displayed next to the [Start] button.</li> <li>② Designate an end point (B) by clicking the [End] button during playback. → The time and date of point B will be displayed next to the [End] button.</li> <li>③ Playback between point A and B will start and keep playing repeatedly when the [START] button is clicked.</li> <li>④ Click the [Cancel] button during A-B repeat playback to return to normal playback.</li> </ol> <hr/> <p><b>Note:</b> Black screen may be displayed when the A-B repeat playback is performed while playing MPEG-4 image.</p> <hr/>
<p><b>Zoom In</b></p>		<p>Enlarges the live camera image and playback picture.</p> <hr/> <p><b>Note:</b> Image of a point several seconds later than the displayed image may be enlarged when the [Zoom In] button is clicked while playing MPEG-4 image.</p> <hr/>



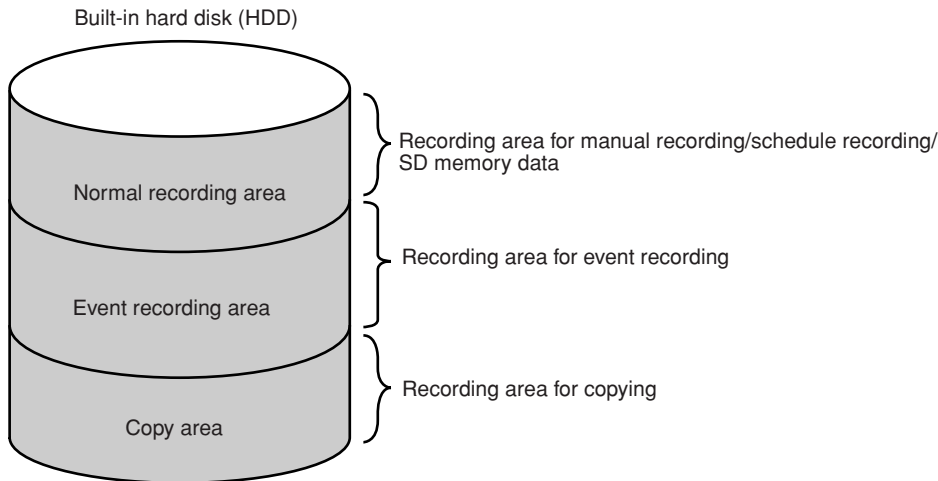
# Playback after Selecting a Disk

Images from cameras will be recorded on the built-in hard disk drive of this unit.

Select a disk and play images as follows.

The following disks can be selected.

- **HDD normal recording area/event recording area:** Recording area in the built-in hard disk of this unit. Recorded images by manual recording (page 10), event recording or SD memory data will be stored in this area.
- **HDD copy area:** Copy area in the built-in hard disk of this unit. Recorded images will be copied in this area. (page 31)

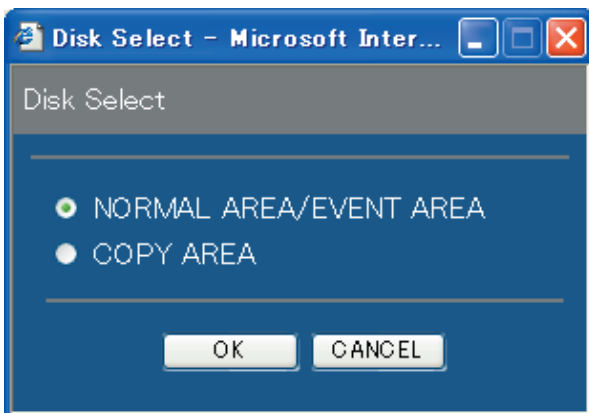


## Notes:

- The built-in hard disk or the built-in hard disk in an extension unit is described as "disk" in these operating instructions.
- Playback is also available during recording.
- The capacity of each recording area will be different depending on the settings. Refer to a system administrator for further information.

## Screenshot 1

Click the [Disk Select] button in the [Search] box of the [Control] tab. The disk select window is displayed.



## Step 1

Check the radio button of the desired disk to be played.

## Step 2

Click the [OK] button.

## Note:

It is impossible to select the HDD copy area in the following cases (the pop-up window will be displayed):

- When the selected area has been selected by another user
- When copying is being performed manually
- When playing images



## Screenshot 2

The selected disk will be displayed on the status display area.

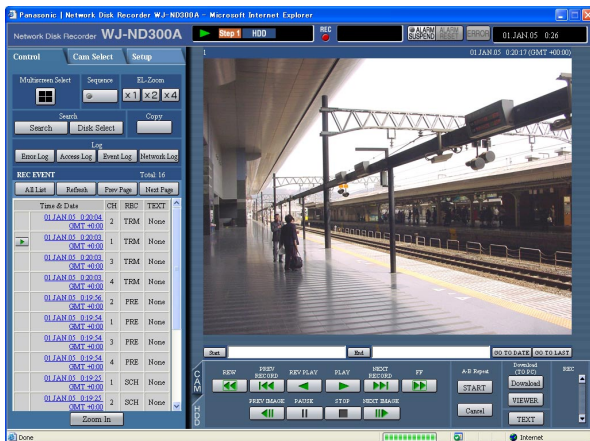


## Step 3

Click the [HDD] tab.


## Screenshot 3

The [HDD] page will be displayed.



## Step 4

Click the [PLAY] button.


→ Recorded images on the selected disk will be played.  will be displayed in the status display area.

## Note:

Playback will start from the finishing point (time and date) of the last playback by clicking the [PLAY] button after stopping playback.

## Step 5

Click the [STOP] button to stop playback.

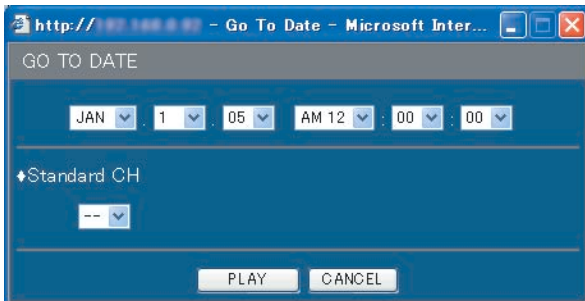
→  displayed in the status display area will go off and a live image will be displayed.

# Playback from a Designated Time and Date

Start playback by designating the desired time and date of a recorded image to be played. Playback is also available during recording.

## Screenshot 1

Click the [GO TO DATE] button in the playback point operation area after selecting the desired camera channel to display the "GO TO DATE" window.



## Step 1

Click the [✓] button and enter the desired time and date of a recorded image to be played.

### • Standard CH

Determine which camera channel is to be used as a standard time zone when searching. (It is necessary to determine the primary time and date by selecting a camera channel when cameras are installed in two or more countries.)

## Step 2

Click the [PLAY] button.

→ Play recorded images of the entered time and date.



will be displayed in the status display area.

When there is no image for the entered time and date, the following action will be taken.

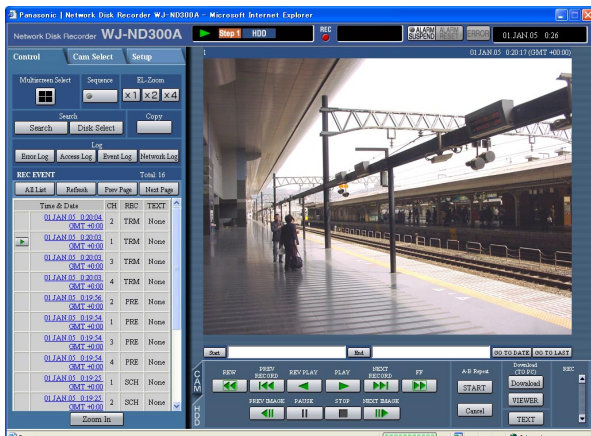
When there are images recorded after the entered time and date, the nearest recorded image after the entered time and date will be played.

## Notes:

- When playing MPEG-4 image by designating time and date, playback may start from a point several seconds after the designated time and date or from the first frame of the next record.
- SD memory data saved on this unit cannot be searched and played if filtered by time and date. Filter data using the recording event search and select data to be played from the result list. (page 19)

## Screenshot 2

The recorded images will be played in this area.



## Step 3

Click the [STOP] button on the [HDD] tab to stop playback.



displayed in the status display area will go off and a live image will be displayed.

# Search and Play Recorded Event

Search for a recording event and play it (recording event search)  
Recording events can be searched by filtering as follows.

**Note:**

Area of the hard disk drive subject to search for recording events is different depending on the disk area. To search for recording events in the HDD normal recording area and event recording are, select "NORMAL AREA" or "EVENT AREA". To search for recorded images in the copy area, select "COPY AREA". Refer to page 16 for further information about "Disk Select".

## About Filtering

Conditions for filtering	How to search
Time and date	Designate a time period and search images recorded in the designated period to play.
Event	Searches for images from the selected recording mode only. The following recording modes can be selected. <ul style="list-style-type: none"> <li>• Manual: Manual recording (page 10)</li> <li>• Schedule: Schedule recording (Setup Instructions (PDF))</li> <li>• Emergency: Emergency recording (Setup Instructions (PDF))</li> <li>• Site alarm: Recording at a site alarm occurrence (page 28)</li> <li>• Terminal alarm: Recording at a terminal alarm occurrence (page 28)</li> <li>• Command alarm: Recording at a command alarm occurrence (page 28)</li> <li>• SD memory: SD memory data (Setup Instructions (PDF))</li> </ul>
Text	Searches only images recorded with/without text information.

## About Displaying the Recording Event List Window

Number of the listed data



**Number of the listed data:** The total number of the listed data will be displayed. When the total number of the listed data is more than 10 000, the ">10000" indication will be displayed.

**[All List] button:** Cancels filtering and lists all recording events.

**[Refresh] button:** Refreshes the displayed contents to the newest one.

**[Prev Page] button:** Displays the previous page of the list.

**[Next Page] button:** Displays the next page of the list.

**DURATION:** Start time of recording will be displayed.

**CH:** A camera channel currently used for recording will be displayed. Recorded images of the displayed camera channel will be played in a single screen.

**REC:** Recording mode will be displayed.

**MAN:** Manual Recording

**SCH:** Schedule recording

**EMR:** Emergency recording

- TRM:** Recording at a terminal alarm occurrence
- COM:** Recording at a command alarm occurrence
- CAM:** Site alarm
- PRE:** Pre-event recording
- SD:** SD memory data

**TEXT:** When text information is attached to the recorded image, "Added" will be displayed. When text information is not attached to the recorded image, "None" will be displayed.

## How to Operate

### Screenshot 1

Click the [Search] button in the [Search] box of the [Control] tab. The "REC Event Search" window is displayed.



### Step 1

Select searching conditions

- **"Time & Date"**

Filter by time and date. Select a start time and an end time by clicking the [V] button.

- **"REC Events"**

Filter by recording event. Click to select the desired recording event to be displayed when filtering by recording events.

- **"Standard CH"**

Determine which camera channel is to be used as a standard time zone when searching.

(It is necessary to determine the primary time and date by selecting a camera channel when cameras are installed in two or more countries. When both this unit and the camera to be used as "Standard CH" are installed in the same time zone, select "--".)

- **"Camera"**

Filter by camera channel. Check the radio button of the desired camera channel to be searched for.

- **"TEXT"**

Filter by with/without text information. Select "Added" or "None" by clicking the [V] button.

When "--" is selected, searching will be performed without filtering by with/without text information.

### Step 2

Click the [OK] button.

→ **FILTERING** will be displayed in the status display area. The filtered result will be displayed.

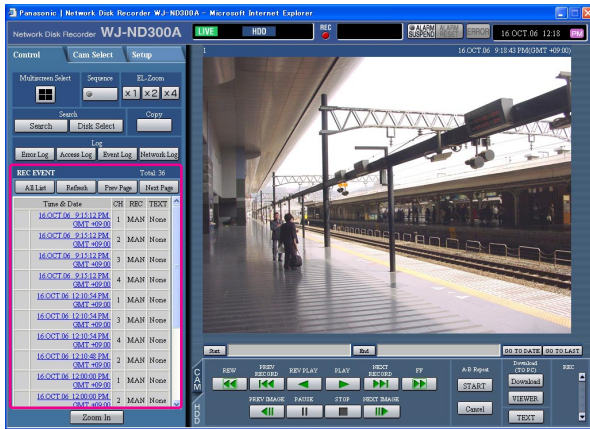
### Note:

Click the [All List] button to cancel the filtering.

**FILTERING** will go off and all recording events will be listed.

## Screenshot 2

The search results (recording event list) will be displayed below the [Control] tab.



## Step 3

Click the time of the desired recording event.

→ Play a recorded image of the recording event from the selected time.

## Step 4

Click the [STOP] button to stop playback.

## Notes:

- Playback of SD memory data  
When a recorded image of the recording event contains not many frames to play smoothly, a black screen may be displayed or it may take time to refresh images. In this case, display the image with frame playback/reverse frame playback.
- Playback of SD memory data on a 4-Screen screen  
When there is something wrong with playback images on a 4-Screen screen, play images on a single screen.



# Monitor Live Images

Live image will be displayed in the web browser window.

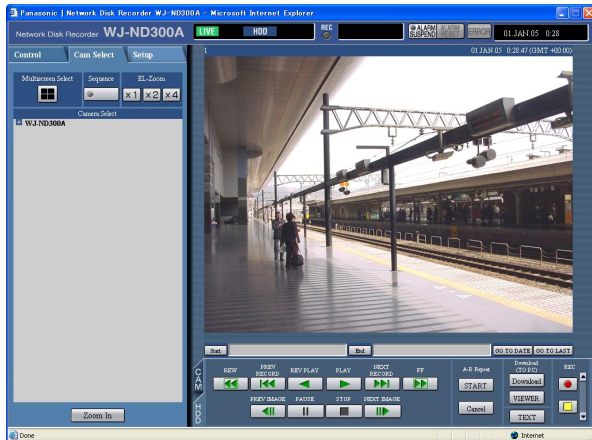
It is possible to display live images on a single screen or a multi-screen in the web browser window.

It is also possible to display live images sequentially (sequential display).

## Display Images from a Camera on a Single Screen

### Screenshot 1

Display the [Cam Select] tab.



### Step 1

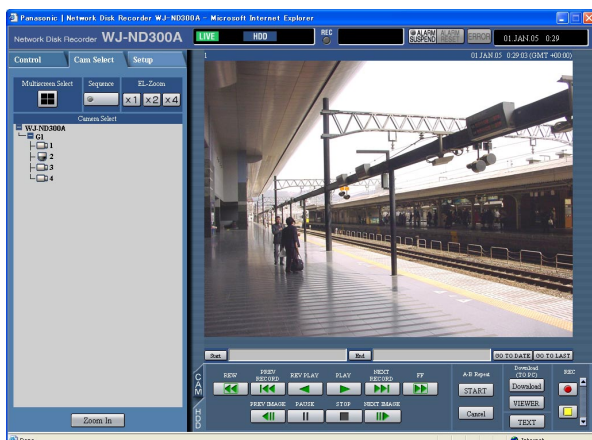
Click the desired camera title from the list displayed in the [Cam Select] box.

### Note:

- Camera selection  
When the "WJ-ND300A" icon is clicked, a group title of the cameras connected to the WJ-ND300A will be displayed. When the displayed group title is clicked, a list of the cameras belonging to the selected group will be displayed.  
Click a displayed camera title to display images from the respective camera channel.

### Screenshot 2

Live images from the selected camera channel will be displayed.



### Notes:

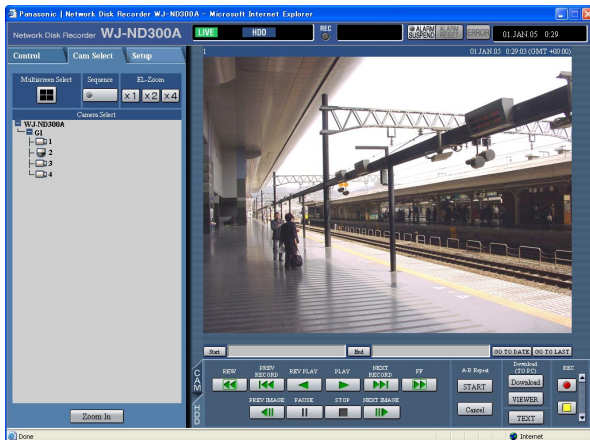
- Camera Select  
Clicking the camera title will display a list of cameras connected to the unit.  
Images from the selected camera channel will be displayed on the image display area by clicking one of camera names.
- About the electrical zoom  
When displaying an image on a single screen, zooming in on the displayed image is possible.  
Click the button in the [EL-Zoom] box to zoom in on the displayed image.  
**[x1] button:** Returns to the original displayed size (x1 zoomed size).  
**[x2] button:** Displays images with x2 zoomed size.  
**[x4] button:** Displays images with x4 zoomed size.  
Clicking a point in the zoomed image moves the zoomed image by positioning the clicked point as the center point.
- When the [GO TO LAST] button is clicked while displaying live images, playback of the latest recorded images from the selected camera channel will start.

# Display Images from Cameras on a 4-Screen

Images from cameras will be displayed on a 4-Screen screen.

## Screenshot 1

Display the [Cam Select] tab.



## Step 1

Click the button of the [Multiscreen Select] box.

## Screenshot 2

Images from cameras will be displayed on a 4-Screen screen.



## Step 2

Up to 4 camera images can be displayed simultaneously on a 4-Screen screen.

Each time the button is clicked, the camera picture is changed to quad display according to the settings made in [System] – [Basic Setup] – [Monitor Display Setup] of the setup menu (Advanced).

## Step 3

Click a camera title in the [Cam Select] tab or the camera title displayed on the image to return to a single screen display.

## Note:

When the [GO TO LAST] button is clicked while displaying live images, playback of the latest recorded images from the selected camera channel will start.

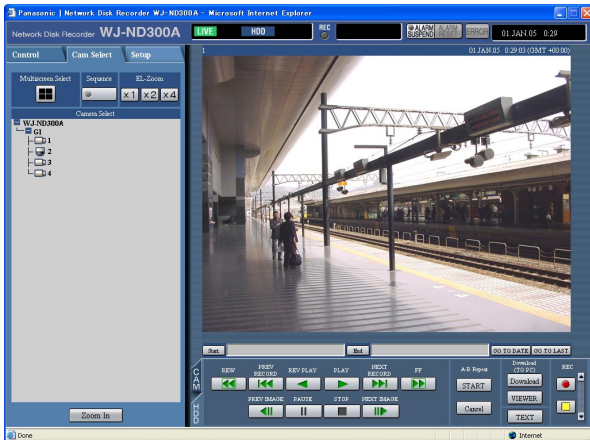
# Display Images in the Sequential Display

Displayed images from cameras will be switched automatically.

Camera images will be displayed sequentially according to the settings performed in advance.

## Screenshot 1

Display the [Cam Select] tab.



## Step 1

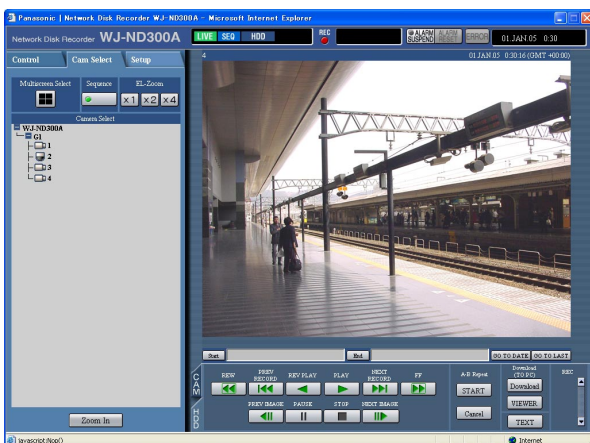
Click the button of the [Sequence] box.

→ The lamp on the button lights (green) during sequence operation.

The sequence action will start and the lamp on the button will light (green) during sequence operation. The "SEQ" indication will also light on the status display area.

## Screenshot 2

Live images will be displayed sequentially according to the settings performed in advance.



## Step 2

To stop the sequential display, click the button once again. The lamp on the button will go off when sequence operation is stopped.

When operations to display images on a single screen (page 22) or 4-Screen (page 23) are performed during the sequential display, the sequential display will be canceled.

### Notes:

- The sequence step that is unavailable to display will be skipped. (MPEG-4 image is also unavailable to display. It will be skipped automatically.)
- When the [GO TO LAST] button is clicked while displaying live images, playback of the latest recorded images from the selected camera channel will start.



# Control Cameras

When displaying live images, the following camera controls are possible.

- Panning/tilting: Moves a camera horizontally/vertically.
- Zooming: Zooms in/out of images.
- Focus: Adjusts the focus.
- Brightness: Adjusts the brightness of the lens.
- Preset action: Moves a camera to the preset position registered in advance.
- Auto: Moves a camera with an auto function set in advance.

## Notes:

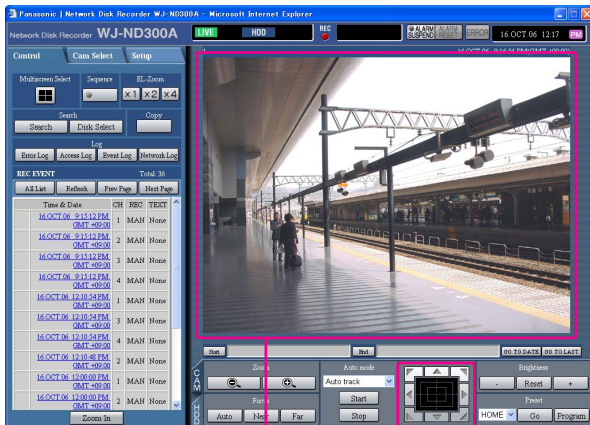
- Depending on the models of the connected cameras, it may be impossible to control the camera or some functions may be not available.
- Controlling cameras is possible only when displaying live images on a single screen.

## Panning/Tilting Operation

Moves a camera horizontally/vertically.

### Screenshot 1

Display the [CAM] tab.



Control buttons/Control pad

Image display area

### Step 1

Moves a camera horizontally/vertically in the following ways.

- **Control buttons:** Click to move the camera.
- **Control pad:** Click to move the camera. Panning/tilting speed will be faster if a clicked point gets farther from the center point of the control pad.
- **Image display area:** Click the desired point to be the center of the field angle in the displayed image. The camera moves to position the clicked point as the center point of its image.

# Zoom/Focus/Brightness Operations

**Zooming:** Zooms in/out of images. Depending on the models of the connected cameras, the image size for the respective zooming portion may be different. For further information, refer to the operating instructions of the camera.

**Focus adjustment:** Adjusts the focus. The auto focus function is available.

**Brightness adjustment:** Adjusts the brightness of the lens.

## Screenshot 1

Display the [CAM] tab.



### Step 1

#### • Zooming

Adjust zooming by clicking the [⊖] button or the [⊕] button in the [Zoom] box.

#### • Focus adjustment

Adjust the focus by clicking the [Near] button or the [Far] button in the [Focus] box.

The auto focus function is available by clicking the [Auto] button.

#### • Brightness adjustment

Adjust the brightness by clicking the [+] button or the [-] button in the [Brightness] box.

Click the [Reset] button to reset the setting for the brightness.

# Registration of a camera direction on the preset position

The current camera direction can be registered on the specified preset position. Registered preset positions can be used with a camera supporting the preset position function.

## Screenshot 1

Display the [CAM] tab.



### STEP1

Perform the pan/tilt operation to move the camera to the position to be registered.

### STEP2

Click the [✓] button in the [Preset] box to select a preset number (1 - 256) to be registered.

HOME is not available for registration.

### STEP3

Click the [SET] button.

→ The selected preset number is used for registration.

# Move a Camera to the Preset Position

Moves a camera to the preset position registered in advance. Registering preset positions is required to perform the preset function.

Refer to the operating instructions of the connected camera for the descriptions of how to register the preset position. It is impossible to register the preset positions of cameras using this unit.

## Screenshot 1

Display the [CAM] tab.



## Step 1

Click the [✓] button in the [Preset] box to select a preset number (HOME, 1 - 256) to be moved.

## Step 2

Click the [Go] button.

→ The camera moves to the registered preset position respective to the selected preset number.

# Auto mode Function (Auto Pan, etc)

Moves a camera with an auto function set in advance.

## Screenshot 1

Display the [CAM] tab.



## STEP1

Click the [✓] button in the [Auto mode] box to select a mode (Auto Pan, etc.) to be started.

## Step 2

The auto mode function can be performed by clicking the [ON] button in the [Auto mode] box.

Click the [OFF] button to stop the auto mode function.

## Note:

Refer to the operating instructions of the connected camera for further information about the auto mode function of the camera.

# About the Event Function

The event action will be performed when the following events occur.

- Terminal alarm: When a signal is supplied from an external device such as a door sensor to the ALARM terminal, this is stated as an event of a terminal alarm.
- Command alarm: A command alarm is sent from a PC via a network.
- Site alarm: An alarm using Panasonic Alarm Protocol is sent from a network camera.

## Action at an Event Occurrence

The event action will be performed according to the settings when an event occurs.

There are 3 event action modes for the alarm mode (ALM), the activity mode (ADM) and OFF for each event type.

The event action will be different according to the set event action mode.

### About the event action mode

- **Alarm Mode (ALM)**

This mode notifies of an event occurrence outside. Action taken in the alarm mode is referred to as the alarm action.

- **Activity Detection Mode (ADM)**

This mode does not notify of an event outside, but records event logs and performs recording and preset actions.

- **OFF**

Performs only recording of the event log. Other event actions will not be performed.

Alarm action	Alarm Mode	Activity mode	OFF
Start recording.	✓	✓	–
Alarm message.	✓	–	–
Blinks the alarm indicator.	✓	–	–
Sounds the buzzer.	✓	–	–
Move a camera to the preset position	✓	✓	–
Notifies of an event occurrence by sending e-mails.	✓	–	–
Supplies a signal from the ALARM connector or the ALARM/CONTROL connector on the rear panel of this unit (Alarm signal output).	✓	–	–
Record the event log.	✓	✓	✓
Transmits images onto an FTP server	✓	–	–
Notifies of an alarm occurrence according to the Panasonic alarm protocol settings.	✓	–	–

✓: Applicable –: Not applicable

**Note:**

When an event occurred and the corresponding camera's compression method is "MPEG-4", event recording may start from a point several seconds after the event occurrence and the recording duration may be shortened for several seconds.

---

## About the alarm action

- **Start recording.**

Recording will start at an event occurrence. Recording will be performed according to the settings such as recording duration, recording rate, etc. that were configured on the setup menu. (Refer to the Setup Instructions (PDF) for further information.)

Depending on the settings, it is possible to start recording images before an event occurs (Pre-event recording).

- **Displays alarm message.**

The pop-up window that notifies of an event occurrence will be displayed at an event occurrence.

- **Blinks the alarm indicator.**

The alarm indicator on the front panel of the unit will start blinking at an event occurrence.

- **Sounds the buzzer.**

The buzzer will start sounding for the set duration according to the settings configured on the setup menu. (Refer to the Setup Instructions (PDF) for further information.)

- **Move a camera to the preset position**

The camera will move to the preset position registered in advance at an event occurrence. Refer to the operating instructions of the connected camera for the descriptions of how to register the preset position.

- **Notifies of an event occurrence by sending e-mails.**

When an event occurs, this unit notifies of the event occurrence with the time and date of the event occurrence by sending e-mails (alarm mails) to the registered addresses. It is also possible to attach an image to the alarm mail.

Up to 4 addresses can be registered as recipients of the alarm mail.

To send the alarm mail at an event occurrence, it is required to perform the settings on the setup menu in advance.

- **Supplies a signal from the ALARM connector or the ALARM/CONTROL connector on the rear panel of this unit (Alarm signal output).**

It is possible to output signals from the ALARM connector on the rear panel of the unit and sound the buzzer when an event occurs. The alarm output duration can be set on the setup menu. (Refer to the Setup Instructions (PDF) for further information.)

- **Record event log.**

The event type and the occurrence time and date will be recorded when an event occurs.

- **Transmits recorded images to an FTP server at an event occurrence**

When an event occurs, recorded images will be continued transmitting to an FTP server automatically for the set duration from the recording start time. To send the alarm image to an FTP server at an event occurrence, it is required to perform the settings on the setup menu in advance. Refer to the Setup Instructions (PDF) for further information.

- **Notifies a PC of an alarm occurrence according to the Panasonic alarm protocol settings.**

Select "ON" or "OFF" to determine whether or not to notify of an alarm occurrence (or error information) to a PC according to the "Panasonic Alarm Protocol" of the setup menu ("Comm" – "Panasonic Alarm Protocol").

To receive a notification (or error information) and display the contents of the notification, the optional software (WV-AS65) is necessary.



# Cancel the Alarm Action

The alarm action will be performed when an event is detected.  
To cancel the alarm action manually, do the following.

## Screenshot 1

[ALARM RESET] will be displayed in the status display area when an alarm occurs.

## Step 1

Click the [ALARM RESET] button.  
→ The alarm action will be canceled.



# Suspend the Alarm Action

Configure the settings to not to perform the alarm action even when an event occurs. It is useful to suspend the alarm action at an event occurrence such when maintaining the unit for a certain period.  
Even though the alarm action is suspended, recording of images, event log recording and the preset action will be performed.

## Screenshot 1

The operating window will be displayed.

## Step 1

Click the [ALARM SUSPEND] button.  
→ The alarm action will be suspended.  
The "ALARM SUSPEND" indicator on the front panel of the unit will light.

## Step 2

To release the alarm suspension, click the [ALARM SUSPEND] button again.  
→ The "ALARM SUSPEND" indicator on the front panel of the unit will go off.



# Copying (Duplicate)

Images recorded on the normal area/event area can be copied manually onto the copy area of the hard disk drive. It is recommended to make back-up copies on a regular basis for unexpected situations such as malfunction of the hard disk. Manual copy is available during the following.

- While displaying live images
- While playback or pausing playback of recorded images

## Screenshot 1

Display the [Control] tab.



## Step 1

Click the button in the [Copy] box of the [Control] tab.

### Note:

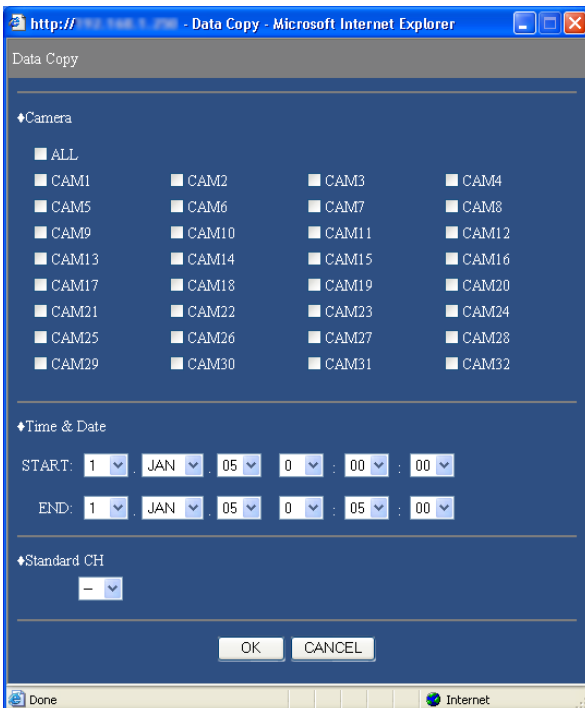
It is impossible to copy recorded images in the following cases.

(The pop-up window will be displayed when the button in the [Copy] box is clicked.)

- When copying is being performed
- When a download is being performed (page 41)
- When "COPY AREA" is selected for "Disk Select"

## Screenshot 2

The "Data Copy" window will be displayed.



### Notes:

- It is possible to cancel copying using the copy cancel window that can be displayed by clicking the button in the [Copy] box during copying.
- Copying may start from a point several seconds later than the designated start time when copying MPEG-4 images.
- SD memory data of the selected camera channel and time range will also be copied onto the copy area.

## Step 2

Click to select the desired camera channel to be copied. It is possible to select two or more camera channels.

## Step 3

Select a start time and an end time for copying by clicking the [V] button.

## Step 4

Determine which camera channel is to be used as a standard time zone when searching. (It is necessary to determine the primary time and date by selecting a camera channel when cameras are installed in two or more countries.)

---

**Step 5**

Click the [OK] button.

- **COPY** will be displayed in the status display area when copying starts. However, copying will not be performed in the following cases (the pop-up window will be displayed):
- When another user has selected the desired copy drive
  - When copying is being performed



# Deletion of Recorded Images Saved on the Hard Disk Manually

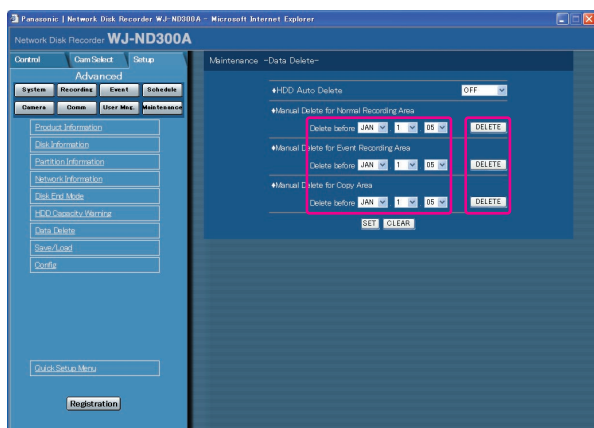
Delete recorded images saved in the normal area, the event area or the copy area of the hard disk manually. By setting a time and date, the images recorded the day before the set time and date will be subject to deletion.

## Important:

- It is impossible to recover the deleted images.
- It is possible to delete recorded images automatically when the set days have passed from the day the image was recorded (HDD auto deletion). Refer to a system administrator for further information.
- When "STOP" is selected for "Disk End Mode" of "Maintenance", the available disk space will not be increased even though deletion is performed.

## Screenshot 1

Click the [Maintenance] button in the setup menu (Advanced) and then click "Data Delete". The "Data Delete" window will be displayed.



## Step 1

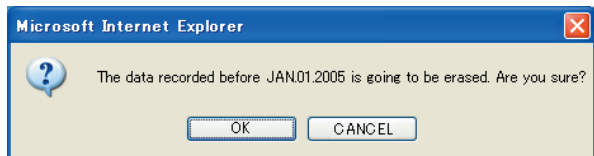
Set time and date for any of "Manual Delete for Normal Recording Area", "Manual Delete for Event Recording Area" or "Manual Delete for Copy Area" by clicking [√]. Images recorded before the set time and date will be deleted.

## Step 2

Click the [DELETE] button.

## Screenshot 2

The confirmation window will be displayed.



## Step 3

Click the [OK] button.  
→ Deletion will start.

# Display/Edit the Text Information

It is possible to attach text information to images when recording.

It is possible to enter up to 200 characters for text information.

These are the descriptions of how to display/edit the attached text information to images.

---

## Note:

Displaying/editing text information is possible during pausing playback on a single screen.

---

## Screenshot 1

Start operation after starting playback of recorded images in a single screen.



## Step 1

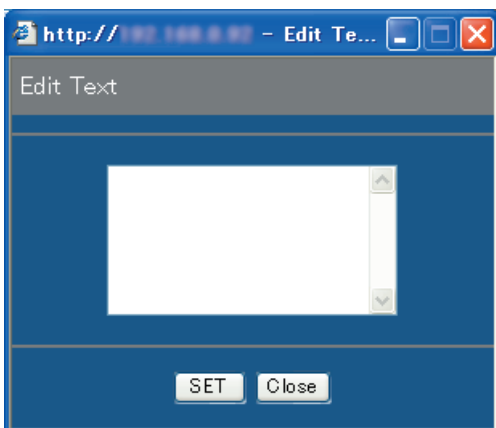
Pause playback by clicking the [PAUSE] button.

## Step 2

Click the [Text] button in the [HDD] tab.

## Screenshot 2

The "Edit Text" window will be displayed.



## Step 3

The text information attached to the recorded images will be displayed.

## Step 4

Edit text information. It is possible to enter up to 200 characters (up to 10 lines) for text information.

### • About the available characters

The following alphanumeric characters can be entered.  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5  
6 7 8 9 ! " # \$ % & ' ( ) \* + , - . / : ; < = > ? @ [ \ ] ^ \_ ` | } ~  
(space)

## Step 5

Click the [SET] button.

→ The text information will be registered.

## Step 6

Click the [Close] button.

→ The "Edit Text" window will close.

# Transmits Camera Images onto an FTP Server

---

It is possible to transmit images to an FTP server.

Image transmission can be performed at a designated time periodically (FTP SEND BY PERIODIC TIMER) or at an event occurrence (FTP ALARM SENDING).

## Transmit Images from Cameras Periodically

It is necessary to perform the settings on the setup menu in advance to transmit images from cameras to an FTP server periodically.

The settings relating to "FTP SEND BY PERIODIC TIMER" such as FTP server directory, transmission interval, source camera channel, etc. can be performed on the setup menu (Advanced) ("Comm" - "FTP Setup" - "FTP SEND BY PERIODIC TIMER").

Select "ON" or "OFF" on the setup menu (Advanced) ("Schedule" - "Time Table" - "FTP SEND PERIODIC TIMER") whether or not to transmit images periodically.

Refer to the Setup Instructions (PDF) for setup.

---

**Note:**

When the image compression method of the camera used for the camera channel selected for "Channel to Send" (of "FTP Send by Periodic Timer" on the "FTP Setup" menu) is "MPEG-4", images will not be transmitted.

---

## Transmit Images from Cameras at an Event Occurrence

It is necessary to perform the settings on the setup menu in advance to transmit images from cameras to an FTP server at an event occurrence.

The settings relating to "FTP ALARM SENDING" such as FTP server name, "Duration-Pre", "Duration-Post", etc. can be performed on the setup menu (Advanced) ("Comm" - "FTP Setup" - "FTP ALARM SENDING").

Select "ON" or "OFF" on the setup menu (Advanced) ("Schedule" - "Time Table" - "FTP ALARM SENDING") whether or not to transmit images at an event occurrence.

Refer to the Setup Instructions (PDF) for setup.

# Check Logs

The following logs can be checked.

- Error log
- Access log
- Event log (event occurrence time and details)
- Network trouble log

## Check the Error Log

The error log will be displayed in list form.

### Screenshot 1

Display the [Control] tab.

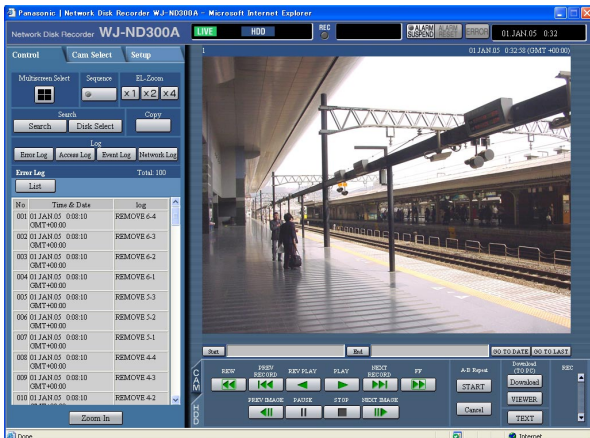


### Step 1

Click the [Error Log] button in the [Log] box of the [Control] tab.

### Screenshot 2

The error log (the error log window) will be displayed in list form below the [Control] tab. Refer to page 54 for further information about the error log.



### Step 2

Click the [List] button to close the error log window.

### Notes:

- Up to 100 error logs can be kept. When more than 100 event logs are filed, the older event logs will be overwritten by the newer event logs.
- In this case, the oldest log is the first to be overwritten.
- Live images will not be refreshed correctly while the displayed logs are being refreshed.

# Check the Access Log

The time when logged in/out for this unit, the user name, and the IP address will be displayed.

## Screenshot 1

Display the [Control] tab.

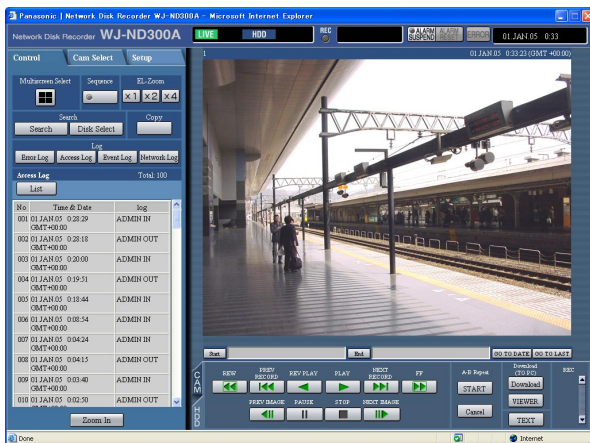


## Step 1

Click the [Access Log] button in the [Log] box of the [Control] tab.

## Screenshot 2

The access log (the access log window) will be displayed in list form below the [Control] tab.



## Indications for access log

- \*\*IN:** The user name or the IP address displayed before "IN" indicates the user/host logged in.
- \*\*OUT:** The user name or the IP address displayed before "OUT" indicates the user/host logged out. A user name or IP address will be displayed.

## Step 2

Click the [List] button to close the access log window.

## Notes:

- Up to 100 access logs can be kept. When more than 100 access logs are filed, the older access logs will be overwritten by the newer access logs.
- Live images will not be refreshed correctly while the displayed logs are being refreshed.



# Check the Event Log

The event logs (event occurrence times and their details) will be displayed.  
Refer to page 28 for further information about each event.

## Screenshot 1

Display the [Control] tab.

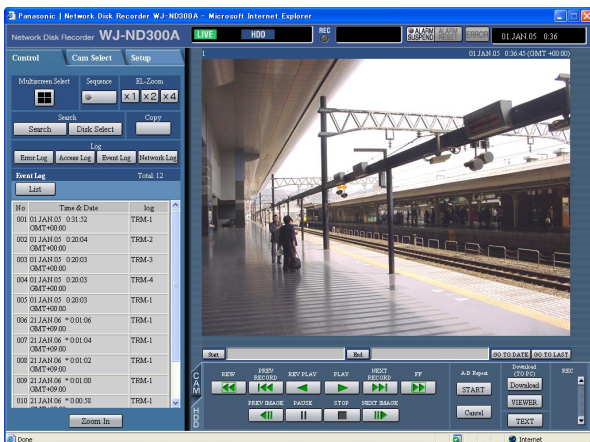


## Step 1

Click the [Event Log] button in the [Log] box of the [Control] tab.

## Screenshot 2

The event log (the event log window) will be displayed in list form below the [Control] tab.



## Indications for event log

- COM:** Command alarm
- EMR:** Emergency recording
- TRM:** Terminal alarm
- CAM:** Site alarm
- SCD:** Scene change alarm
- EXT:** External recording

## Step 2

Click the [List] button to close the event log window.

## Notes:

- Up to 750 event logs can be kept.  
When more than 750 event logs are filed, the older event logs will be overwritten by the newer event logs.
- Live images will not be refreshed correctly while the displayed logs are being refreshed.

# Check the Network Trouble Log

The network log (network event) will be displayed in list form.

## Screenshot 1

Display the [Control] tab.

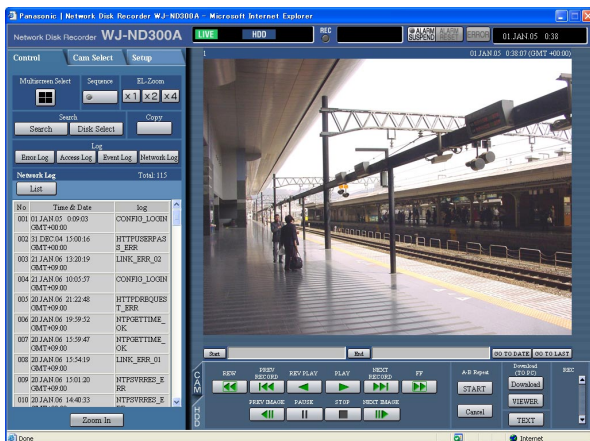


## Step 1

Click the [Network Log] button in the [Log] box of the [Control] tab.

## Screenshot 2

The network trouble log (the NW log window) will be displayed in list form below the [Control] tab. Refer to page 54 for further information about the network trouble log.



## Step 2

Click the [List] button to close the NW log window.

## Notes:

- Up to 1 000 network trouble logs can be kept. When more than 1 000 event logs are filed, the older event logs will be overwritten by the newer event logs.
- When the same trouble as the one recorded on the latest log occurred, only the latest log will be updated.
- Live images will not be refreshed correctly while the displayed logs are being refreshed.

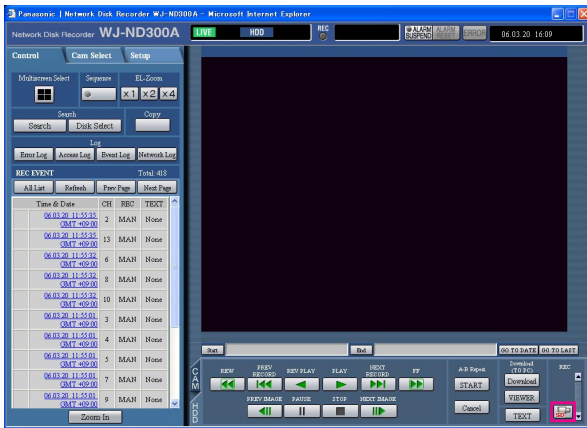
# Obtain Images on an SD memory card

Images recorded on the SD memory card on the camera can be obtained as follows.

Refer to the setup instructions (PDF) for further information about the SD memory card recording and for how to set the recording rate for the SD memory card recording.

## Screenshot 1

When the SD memory card on the connected camera contains recorded images, the SD memory data obtain button (SD in red) will be displayed in the [REC] box.



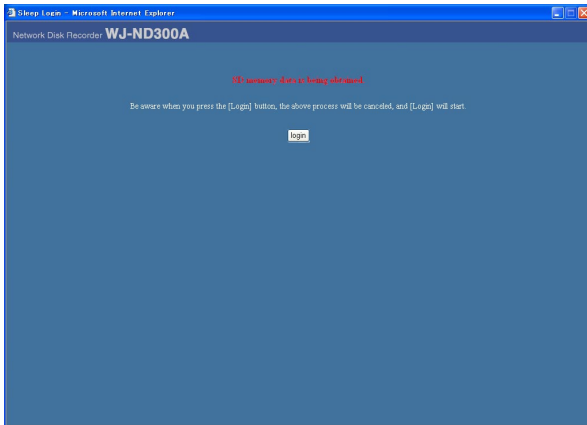
## Screenshot 2

The confirmation window will be displayed.



## Screenshot 3

The login window will be displayed while the SD memory data is being obtained.



## Step 1

Click the SD memory data obtain button.

### Important:

- The SD memory data obtain button can be clicked by only users whose user level is "LV1".
- SD memory data cannot be obtained when the emergency recording is being performed.

### Notes:

- The letters "SD" on the SD memory data obtain button will be displayed in blue when there is no recorded image on the SD memory card.
- When the SD memory data obtain button is clicked while the letters "SD" are displayed in blue, the unit will check if there is any recorded image on the SD memory card or not. When a recorded image is found, the letters "SD" on the SD memory data obtain button will turn red.

## Step 2

Click the [OK] button.

### Important:

When obtaining the SD memory data starts, all users will forcibly be logged out and all recordings currently being performed will stop.

## Step 3

To cancel to obtain the SD memory data, click the [login] button.

### Notes:

- When the emergency recording is triggered in the process of obtaining the SD memory data, obtaining of the SD memory data will be canceled and the emergency recording will start.
- When obtaining the SD memory data is completed, the top page or the authentication window will be displayed.



# Download Recorded Images

Designate the start point and the end point of played images and download images to a PC.

Recorded images will be downloaded as image data files (filename.n3r). Refer to page 43 for the descriptions of how to play the downloaded images.

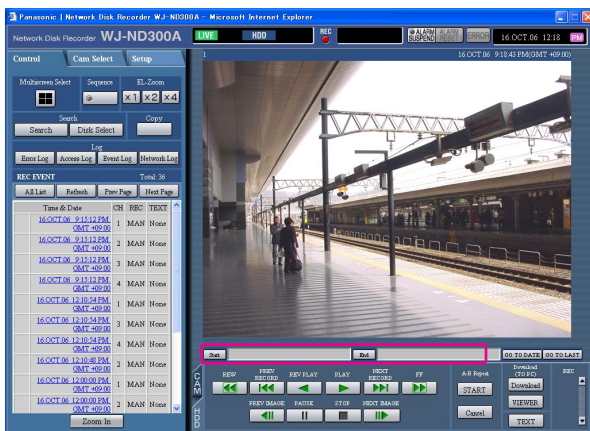
---

## Important:

- When downloading, the available disk space must be 2 or more times the size of the file to be downloaded\*.
  - \* It is a feature of Internet Explorer.
  - Otherwise, it may be impossible to properly play the downloaded file on a PC.
- 

## Screenshot 1

Display the [HDD] tab.



## Step 1

Enter the desired start time for download in the [Start] box on the playback point operation area.

It is also possible to designate the start time by clicking the [Start] button at the desired point to set as the start point of the image to be downloaded.

→ The time and date of the start point will be displayed in the playback position display area.

## Step 2

Enter the desired end time for download in the [End] box on the playback point operation area.

It is also possible to designate the end time by clicking the [End] button at the desired point to set as the end point of the image to be downloaded.

→ The time and date of the end point will be displayed in the playback position display area. It is possible to designate up to 20 minutes of the time range per download.

## Step 3

Click the [Download] button.

---

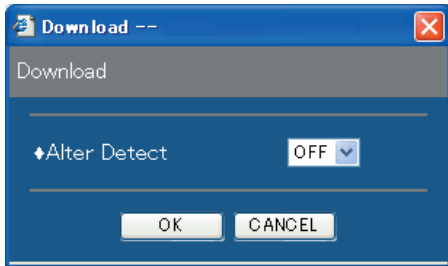
## Note:

Download may start from a point several seconds later than the designated start time and may end at a point several seconds after the designated end time when downloading MPEG-4 images.

---

### Screenshot 2

The "Download" pop-up window will be displayed.



### Step 4

Click the [OK] button after selecting "ON" or OFF" for "Alter Detect" to determine whether or not to attach an alteration detection code to recorded images to be downloaded.

---

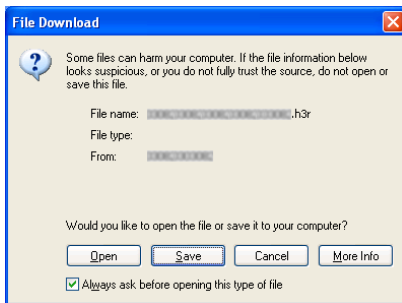
### Note:

The download time will be longer when "ON" is selected for "Alter Detect".

---

### Screenshot 3

The download window will be displayed.

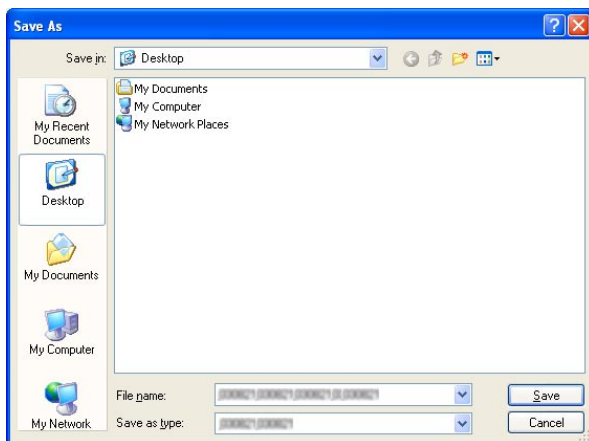


### Step 5

Click the [Save] button.

### Screenshot 4

The "Save As" window will be displayed.



### Step 6

Create a new folder in the desired directory and click the [Save] button.

→ Recorded images will be downloaded as image data files (filename.n3r).

# Play Downloaded Images

Recorded images will be downloaded as image data files (filename.h3r). It is possible to play, save and print downloaded images using the viewer software provided from this unit to PC.

## Download the Viewer Software

### Screenshot 1

Display the [HDD] tab.

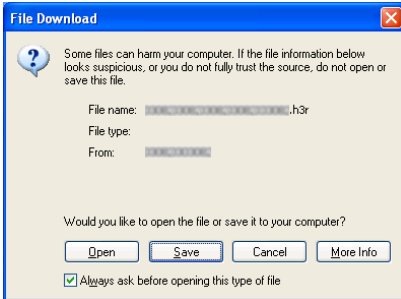


### Step 1

Click the [VIEWER] button of the [Download (TO PC)] box.

### Screenshot 2

The download window will be displayed.

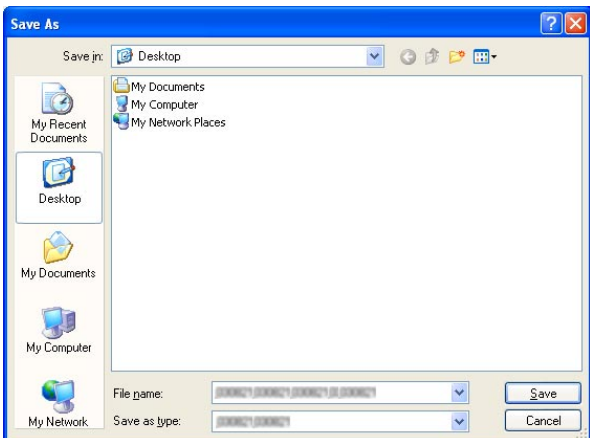


### Step 2

Click the [Save] button.

### Screenshot 3

The "Save As" window will be displayed.



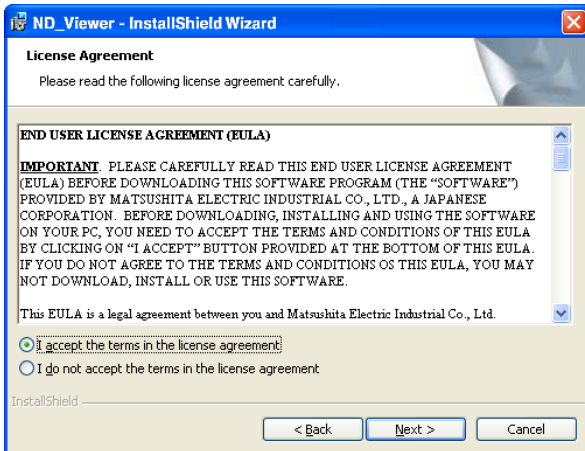
### Step 3

Create a new folder in the desired directory and click the [Save] button.  
→ The viewer software will be downloaded.

# Install the Viewer Software

## Screenshot 1

The install wizard window will be displayed.



## Step 1

Double-click the downloaded file (n3vsetup.exe).

### Note:

When the older version of the viewer software is installed, installation may not be successfully completed.

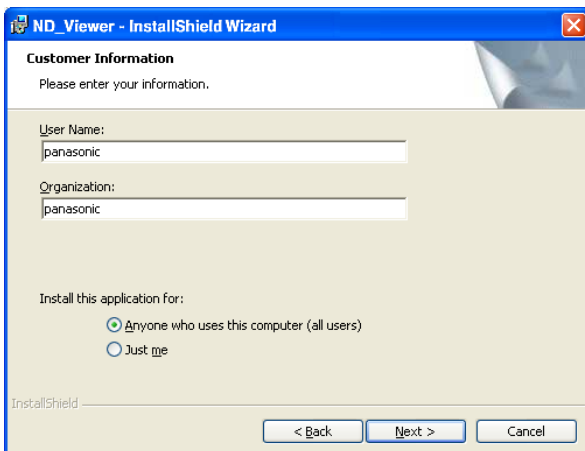
Uninstall the older version first before starting the installation.

## Step 2

When agreed to the displayed license agreement, click the check box of "I accept the terms in the license agreement" and then click the [Next] button.

## Screenshot 2

The user information entry screen will be displayed.



## Step 3

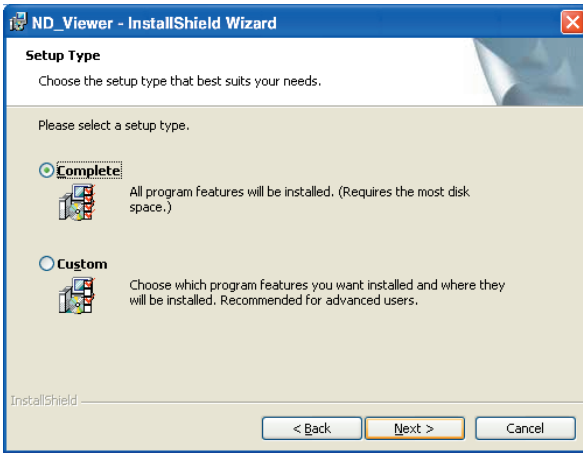
Complete the user information fields and click the [Next] button.

### Note:

User information entry is not required to proceed.

### Screenshot 3

The setup type selection screen will be displayed.

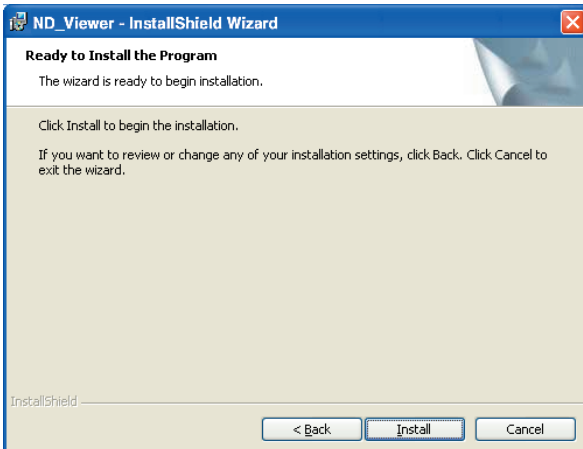


### Step 4

Select "Complete" and click the [Next] button.

### Screenshot 4

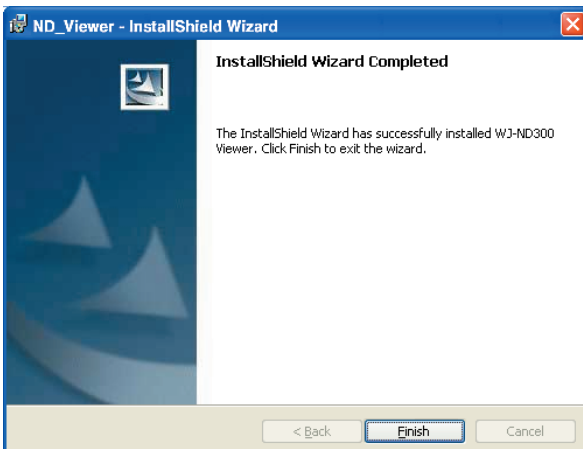
The wizard is ready to install.



### Step 5

Click the [Install] button.

### Screenshot 5



### Step 6

Click the [Finish] button.  
The installation of the viewer software is complete.

# Uninstalling the Viewer Software

## [For Windows XP]

1. Open "Add or Remove Programs" in "Control Panel".
2. Select "ND Viewer" (the program to be deleted) from presently installed programs and click the [Remove] button.  
The uninstall program will be launched and the wizard will be displayed.
3. Uninstall the program by following instructions on the monitor.

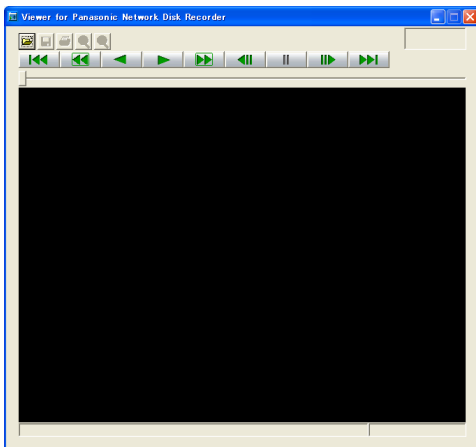
## [For Windows 2000]

1. Open "Add/Remove Programs " in "Control Panel".
2. Select "ND Viewer" (the program to be deleted) from presently installed programs and click the [Remove(R)] button.  
The uninstall program will be launched and the wizard will be displayed.
3. Uninstall the program by following instructions on the monitor.

# Playback Downloaded Images

## Screenshot 1

Start up the viewer software and display the following window.

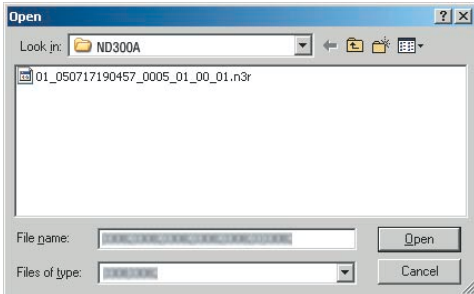


## Step 1

Click the [OPEN] button.

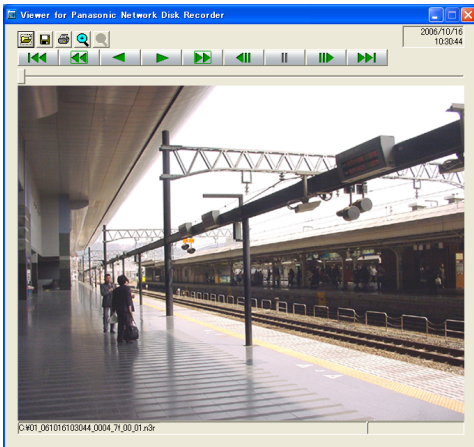
## Screenshot 2

The [Open file] window will be displayed.



## Screenshot 3

The recorded images will be played in this area.



## Step 2

Select the downloaded image data file (filename.n3r).

### Note:

It is possible to select two files or more (up to 32 files) by clicking the desired files while holding down the [Ctrl] key or the [Shift] key.

## Step 3

Click the [Open] button.

## Step 4

Click the [PLAY] button.

### Notes:

- When played image reached the end, black screen will be displayed and paused.
- When two files or more are selected, it is possible to skip to the previous/next file to play by clicking the [Previous File]/[Next File] buttons.
- When the [Zoom In] button is clicked, the displayed image will be enlarged two times.
- When performance of the PC in use is low, images may not be played smoothly.

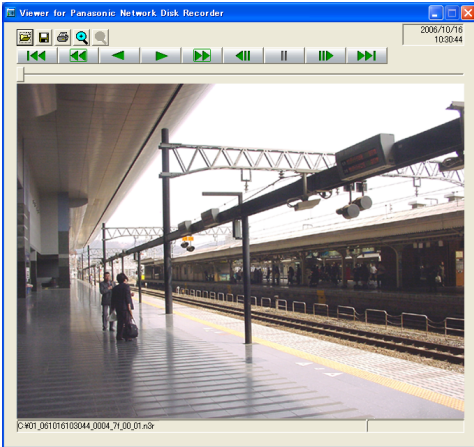


# Save Downloaded Images

It is possible to save the paused image as a jpeg file (extension: .jpg). Saving the downloaded file is available only when the image is paused.

## Screenshot 1

Start operation when playing the downloaded images using the viewer software.



### Step 1

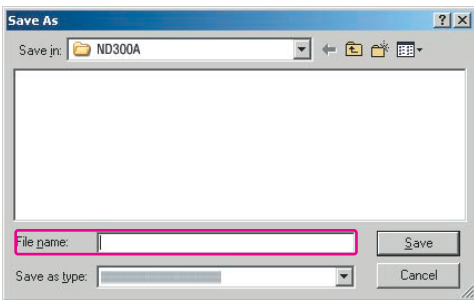
Click the [PAUSE] button.

### Step 2

Click the [SAVE] button.

## Screenshot 2

The "Save As" window will be displayed.



### Step 3

Enter the file name and select "JPG (\*.jpg)" for "Save as type".

### Step 4

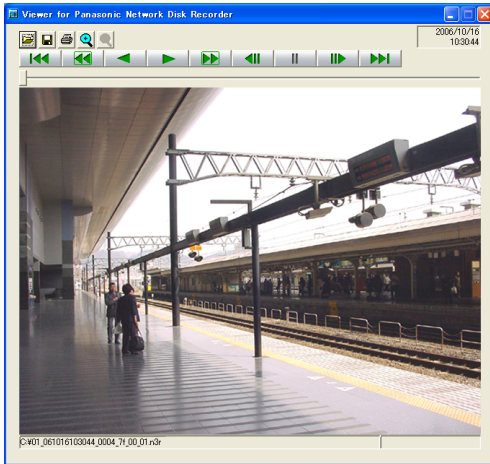
Designate the folder and click the [Save] button.  
→ The image data will be downloaded and saved.

# Print the Displayed Image

It is possible to print the paused image.

## Screenshot 1

Start operation when playing the downloaded images using the viewer software.



## Step 1

Click the [PAUSE] button.

## Step 2

Click the [PRINT] button.

---

## Note:

The time and date being displayed on the viewer when paused will also be printed.

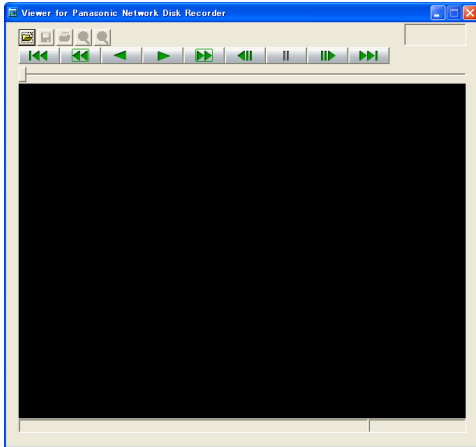
---

# Perform the Alteration Detection

It is possible to detect the alteration of the data if a code for the alteration detection has been attached to the downloaded data. Refer to page 42 for descriptions of how to attach a code for the alteration detection.

## Screenshot 1

Start up the viewer software and display the following window.

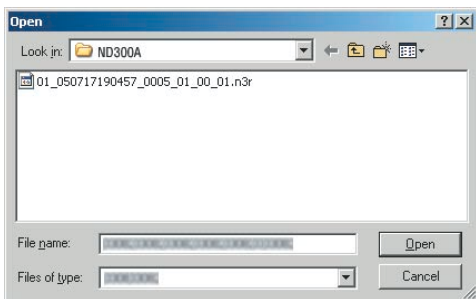


## Step 1

Click the [OPEN] button.

## Screenshot 2

The [Open file] window will be displayed.



## Step 2

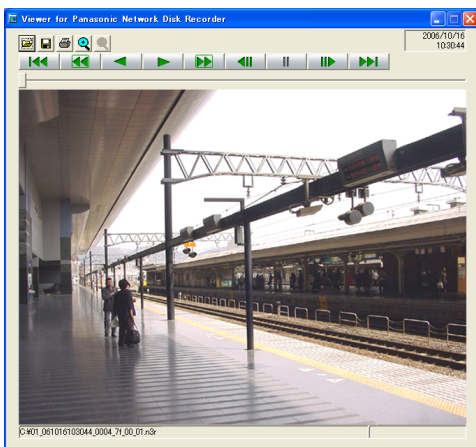
Select the downloaded image data file (filename.n3r).

## Step 3

Click the [Open] button.

## Screenshot 3

The first frame of the downloaded image will be displayed and paused.



## Step 4

Click the [ALT CHECK] button.

→ The alteration detection will start.

The following pop-up window will be displayed while/after performing the alteration detection.

**OK (Not Altered):** No alteration was detected.

**NG (Altered):** Alteration was detected.

---

## Note:

The [ALT CHECK] button will be displayed only when opening an image data file with a code for the alteration detection.

---

# Notification by E-Mail

## Alarm Mail Notification

The following mail will be sent to notify of an alarm occurrence to a registered address when an alarm occurs.

Contents of the alarm mail:

In ND300A (192.168.1.250), alarm was occurred.  
Alarm date: xx-xxx-xxxx xx:xx:xx GMT xx:xx (**Example:** 1-JAN-2005 GMT+09:00)  
Cause of alarm: Displays an event type and a camera channel or an alarm number (**Example:** COMMAND ALARM 5CH)  
File name of alarm image: The file name of the image attached to an e-mail.  
URL: http://192.168.1.250/

## Edit the Contents of the Alarm Mail

It is possible to edit the contents of the alarm mail that notifies of the event occurrence with the time and date of the event occurrence.

To edit the alarm mail, do the following.

### Step 1

Edit the contents using text editing software and save in the text format.

Depending on the item (time and date at an event occurrence, cause of alarm, host address, etc.) to be displayed, the characters to be entered will be different. Refer to the following list of characters to be replaced when editing the contents of the mail. Save the edited mail contents with the file name "almmail.tpl".

### Step 2

Start up the FTP software and enter the IP address of the unit to connect to that unit.

Enter the user name and password as follows.

User Name: User ID of the administrator (Default: ADMIN)

Password: Password respective to the user ID of the administrator (The default password is 12345.)

Refer to a system administrator for further information about the settings of user name and password.

### Step 3

Transfer the edited file (almmail\_p.tpl) in the text format.

The directory to be sent is as follows.

/data/HTML\_FILES

---

### Note:

It is required to configure the settings in advance to attach an image to a mail. Refer to the setup instructions (PDF) for further information.

---

## List of characters to be replaced

Item to be displayed	Display style of entered characters	Example
Time and date when the alarm occurred	%#05000000	4-digit display (2005 - 2035)
Month when the alarm occurred (number)	%#05000100	1 or 2-digit display (1 - 12)
Month when the alarm occurred (letters)	%#05000200	Displays first 3 letters (Jan, Feb ... Dec)
Day when the alarm occurred	%#05000300	1 or 2-digit display (1 - 31)
Time when the alarm occurred	%#05000400	24-hour display (15:00:00 GMT xx : xx)
Mail address of the sender	%#05000500	
Host name of ND300A	%#05000600	
IP Address of ND300A	%#05000700	192.168.1.250
Cause of alarm	%#05000800	Terminal: TERMINAL ALARM Command: COMMAND ALARM Emergency recording: EMERGENCY Site: SITE ALARM Scene change: SCD ALARM
Alarm number	%#05000900	1 or 2-digit (1 - 32) + CH
File name of the alarm image	%#05001000	xx_ALMyyyyymmddhhmmss.jpg Remains blank when no alarm image exists. xx: Camera channel number yyyymmdd: Date (year, month, day) when the alarm occurred hhmmss: Time (hour, minute, second) when the alarm occurred
URL	%#05001100	Host name/domain name: HTTP port number/ • When the set host name and the domain name are obtained correctly using DDNS (Only when "ON" is selected for "DDNS Setup") IP Address: HTTP port number/ • When "Host Name" and "Domain Name" are not set (Only when "OFF" is selected for "DDNS") • When the host name and the domain name failed to be obtained correctly using DDNS (Only when "ON" is selected for "DDNS Setup") The part following the IP address (:HTTP port number) will be omitted when "80" is set for "HTTP Port Number".

# Warning Mail Notification

The following mail will be sent to notify of a trouble occurrence to a registered address when the trouble occurs.

ND300A (192.168.0.250) STATUS REPORT.  
 DATE: 2005-1-1 12:00:00  
 STATUS: The description of the trouble will be displayed. (**Ex.** THERMAL ERROR)

Display	Description
DATE	Time and date when the trouble occurred will be displayed.
STATUS	<p>The description of the trouble will be displayed.</p> <p>HDD Capacity warning*1: &lt;except FULL&gt;            EVENT-HDD CAPACITY REMAINS ** %            COPY-HDD CAPACITY REMAINS ** %            ** indicates the available disk space (%)            &lt;FULL&gt;            EVENT-HDD FULL            COPY-HDD FULL</p> <p>Power outage detection: POWER LOSS            Recover from a power outage: POWER RECOVERED            NW camera trouble detection: CAM**COMMUNICATION ERROR            * indicates camera channel</p> <p>NW camera trouble recovery: CAM** COMMUNICATION RECOVERED            * indicates camera channel</p> <p>HDD smart warning *2: HDDx-y DISK WARNING            x-y indicates disk number (sequential serial number)</p> <p>HDD hour meter warning: HDDx-y HOUR METER WARNING            Remove auto links: HDDx-y LOGICALLY REMOVED            x-y indicates disk number (sequential serial number)</p> <p>RAID5 recovery failure: HDDxRAID5 RECOVERY FAILURE            (x indicates unit number)</p> <p>Fan trouble: FAN ERROR x-y            x indicates unit number, y indicates fan number</p> <p>Thermal trouble: THERMAL ERROR x-y            x indicates unit number, y indicates sensor number</p> <p>NW Link error: PORTx NETWORK LINK ERROR            x indicates network port number</p> <p>RAID1 down: HDDx-y RAID5 1DOWN            x-y indicates disk number (sequential serial number)</p> <p>RAID2 down: HDDx RAID5 2DOWN            x indicates unit number (sequential serial number)</p> <p>DHCP IP address lost: PORTx DHCP ERROR            x indicates network port number</p>

**\*1: HDD capacity warning**

A warning mail with the <except FULL> content will be sent when the available disk space becomes less than the set value for "HDD Capacity Warning" in the "Maintenance" menu. After a warning mail is sent, a warning mail with the <except FULL> content will be sent each time 1% of the available disk space is reduced, and a warning mail with the <FULL> content will be sent when there is no available disk space.

**\*2: The HDD smart warning mail is not sent in the RAID 5 mode.**



# About the Error Log

The following are the descriptions about the contents of the error log and the network error log.

Content	Error Log	Network log	Indication on the LCD	Output from the connector on the rear panel
Power outage detection	PWR LOSS	–	SYS-1 ERR POWER FAILURE	–
Recover from a power outage	PWR RECOVER	–	–	–
Fan warning	FAN u-f	–	FAN-1-u-f ERR FAN ERROR	Error output
Thermal error warning	THERMAL u-1	–	TML-1-u-1 ERR THERMAL ERROR	Error output
Extension mode settings error	–	–	SYS-2 SINGLE RAID MIX ERROR	–
HDD Write error	W-ERR u-d	–	–	–
HDD Read error	R-ERR u-d	–	–	–
RAID 1 down	HDu-d 1DOWN	–	HDD-10 ERR RAID5 1DOWN	HDD error output
RAID 2 down	HDu 2DOWN	–	–	HDD error output
Disk array change	–	–	Please Setup on DISK CONFIG MENU	–
HDD S.M.A.R.T. warning	SMART u-d	–	HDD-1-u-d ERR HDD WARNING	HDD error output
HDD hour meter warning *1	H.METER u-d	–	HDD-2-u-d ERR HDD HOUR METER	HDD error output
Volume Error	V-ERROR vvv	–	–	HDD error output
HDD SKIP warning *2	SKIP HDD u-d	–	–	HDD error output
Remove auto links	REMOVE u-d	–	HDD-3-u-d ERR HDD REMOVED	HDD error output
HDD error under HDD RAID 5 recovery	HDu-d RCVR-ERR e	–	–	–
HDD RAID5 failure	R-FAIL u	–	HDD-4-u ERR RAID5 RECOVERY	HDD error output
EVENT area available capacity warning	EVT-***%	–	–	Copy/event recording area available capacity warning output
EVENT area available capacity warning (FULL)	EVT-FULL	–	HDD-5 ERR EVENT-HDD FULL	Copy/event recording area available capacity warning output
COPY area available capacity warning	CPY-***%	–	–	Copy/event recording area available capacity warning output
COPY area available capacity warning (FULL)	CPY-FULL	–	HDD-6 ERR COPY-HDD FULL	Copy/event recording area available capacity warning output
Copy error	NO DATA CPY	–	–	–
HDD RAID board initialization failure			HDD-9 ERR RAID INITIAL ERR	

\*1: In the RAID 5 mode, only "Error Log" is displayed, but neither "Indication on the LCD" nor "Output from the connector on the rear panel" is displayed.

\*2: "HDD SKIP" is the function that continues recording even when an error occurs, such as an HDD write error, by recording images on the next HDD.

<b>Content</b>	<b>Error Log</b>	<b>Network log</b>	<b>Indication on the LCD</b>	<b>Output from the connector on the rear panel</b>
Network link error	–	LINK_ERR_0p	NET-1-p ERR NW LINK ERROR	Network error output
Network camera error detection	CAM cc ERR	–	NET-3-0 ERR CAMERA cc ERROR	Camera error output
Network camera error recovery	CAM cc RECOVER	–	–	–
E-mail transmission complete	–	SMTPMAIL_SEND	–	–
E-mail authentication error	–	SMTPATTEST_ERR	–	Network error output
Failed to resolve POP3 server address from DNS	–	SMTPPOP3ADD_ERR	–	Network error output
Failed to find POP3 server	–	SMTPPOP3SVR_ERR	–	Network error output
Failed to resolve SMTP server address from DNS	–	SMTPSVRADD_ERR	–	Network error output
Failed to find SMTP server	–	SMTPSVR_ERR	–	Network error output
MAIL FROM command error	–	SMTPMAILFROM_ERR	–	Network error output
RCPT TO command error	–	SMTPRCPTTO_ERR	–	Network error output
Failed to find SMTP server Other error	–	SMTPOTHER SMTP	–	Network error output
FTP client transmission complete	–	FTPCLIENT_OK	–	–
FTP server transfer complete	–	FTPSVRFWD_OK	–	–
Failed to resolve FTP server address from DNS	–	FTPSVRADD_ERR	–	Network error output
Failed to find FTP server	–	FTPSVR_ERR	–	Network error output
FTP uploading error	–	FTPUPLOAD_ERR	–	Network error output
FTP passive mode error	–	FTPPASSIVE_ERR	–	Network error output
FTP log-in failure	–	FTPLOGIN_FAULT	–	Network error output
FTP log-out failure	–	FTPLOGOUT_FAULT	–	Network error output
Other error for FTP	–	FTPOTHER	–	Network error output
DDNS IP address update	–	DDNSIPADDUPDATE_OK	–	–
No response from the DDNS server	–	DDNSSVRRES_ERR	–	Network error output

Content	Error Log	Network log	Indication on the LCD	Output from the connector on the rear panel
Password error for DDNS user name	–	DDNSUSERPASS_ERR	–	Network error output
DDNS IP address update error	–	DNSIPADDUPDATE_ERR	–	Network error output
Other error for DNS	–	DNSOTHER	–	Network error output
Synchronization with the NTP server succeeded	–	NTPGETTIME_OK	–	–
Failed to resolve NTP server address from DNS	–	NTPSVRADD_ERR	–	Network error output
Failed to adjust the time	–	NTPSETTIME_ERR	–	Network error output
No response from the NTP server	–	NTPSVRRES_ERR	–	Network error output
Time from the NTP server is invalid	–	NTPTIME_INVALID	–	Network error output
Other error for NTP	–	NTPOTHER	–	Network error output
SNMP transmission succeeded	–	SNMPSEND_OK	–	–
Password error for SNMP user name	–	SNMPUSERPASS_ERR	–	Network error output
SNMP object inquiry failure	–	SNMPOBJ_ERR	–	Network error output
Other error for SNMP	–	SNMPOTHER	–	Network error output
Having IP address succeeded	–	DHCP_IPADD_OK	–	–
DHCP lost	–	DHCP_IPADD_LOST	–	Network error output
DHCP IP address update failure xx%	–	DHCP_IPADDUPDATE_ERR	–	Network error output
DHCP IP address inquiry failure	–	DHCP_IPADDENT_ERR	–	Network error output
Other error for DHCP	–	DHCPOTHER	–	Network error output
HTTP login	–	HTTPLOGIN	–	–
Password error for HTTP user name	–	HTTPUSERPASS_ERR	–	Network error output
HTTP download failure	–	HTTPDOWNLOAD_ERR	–	Network error output
HTTP inquiry invalid	–	HTTPDREQUEST_ERR	–	Network error output
Other error for HTTP	–	HTTPOTHER	–	Network error output
Move to CONFIG	–	CONFIG_LOGIN	CONFIG	–

<b>Content</b>	<b>Error Log</b>	<b>Network log</b>	<b>Indication on the LCD</b>	<b>Output from the connector on the rear panel</b>
Camera SD memory card error	CAM cc SD ERR		NET_5-0 ERR CAMERA cc SD ERROR	Camera error output
Request to start writing on the camera SD denied	CAM cc SD START ERR		NET_5-0 ERR CAMERA cc SD ERROR	Camera error output
Request to finish writing on the camera SD denied	CAM cc SD END ERR		NET_5-0 ERR CAMERA cc SD ERROR	Camera error output
Request to obtain a data list on the camera SD denied	CAM cc GET LIST ERR		NET_5-0 ERR CAMERA cc SD ERROR	Camera error output
Request to obtain SD memory data on the camera SD denied	CAM cc GET IMG ERR		NET_5-0 ERR CAMERA cc SD ERROR	Camera error output
Request to delete SD memory data on the camera SD denied	CAM cc DEL IMG ERR		NET_5-0 ERR CAMERA cc SD ERROR	Camera error output

# When the Error Log is Displayed

Do the following when the error log is displayed on the LCD.

Error Log	Indication on the LCD	Description	Solution
W-ERR u-d		Failed to write/read data on the HDD. The HDD may be malfunctioning.	If this error occurs frequently, contact the dealer to replace the HDD. (*1)
R-ERR u-d			
SKIP u-d			
HDu-d 1DOWN	HDD-10 ERR RAID5 1DOWN	A HDD of RAID is failed.	Contact the dealer. After recovering/replacing the faulty disk, the error status will be canceled.
HDu 2DOWN	Please Setup on DISK CONFIG MENU	The unit is currently inoperable since the disk array is changed.	Display "DISK CONFIG MENU" and initialize or replace the hard disk.
SMART u-d	HDD-1-u-d ERR HDD WARNING	The HDD may be malfunctioning and may work incorrectly.	Contact the dealer to replace the HDD. (*1)
H.METER u-d	HDD-2-u-d ERR HDD HOUR METER	The set time for the hour meter has passed. It may be reaching the end of the HDD's lifetime.	If this error occurs frequently, contact the dealer to replace the HDD. (*1)
V-ERROR vvv		Data on each recording area is lost by the "REMOVE" error, etc.	Contact the dealer. After replacing the faulty disk, the error status will be canceled. (*1)
REMOVE u-d	HDD-3-u-d ERR HDD REMOVED	The HDD has been unmounted from the system automatically.	Contact the dealer. After replacing the faulty disk, the error status will be canceled. (*1)
EVT-**% or EVT-FULL	HDD-5ERR EVENT-HDD FULL	The HDD is almost full or completely full.	Initialize or replace the HDD. (*1)
CPY-**% or CPY-FULL	HDD-6ERR COPY-HDD FULL		
CAM cc ERR	NET-3-0ERR CAMERA cc ERROR	Communication with the network camera is unstable, or no network camera is connected.	Check the communication status between this unit and the network camera.
LINK_ERR_0p	NET-1-p ERR NW LINK ERROR	The unit is disconnected from the network.	Check the network connection.
CAM cc SD ERR	NET_5-0 ERR CAM- ERA cc SD ERROR (or no indication)	An SD card memory error occurred. The SD memory card may be not detected, or there is no available space on the SD memory card on the camera.	Check the SD memory card and the settings on the camera.

Error Log	Indication on the LCD	Description	Solution
CAM cc SD START ERR	NET_5-0 ERR CAM-ERA cc SD ERROR	An SD card memory error occurred. Communication with the network camera is unstable, or no network camera is connected.	Check the SD memory card and the settings on the camera.
CAM cc SD END ERR			Check the communication status between this unit and the network camera.
CAM cc GET LIST ERR			
CAM cc GET IMG ERR			
CAM cc DEL IMG ERR			

\*1: The HDD should be replaced by the qualified service personnel or system installers. Contact the dealer to replace the HDD.

Contact the dealer when an unlisted error occurred.

#### Parameter in the logs above

Parameter	Description	Detail
u	Unit/unit number	1-6: Extension unit, 9: RAID of this unit, 0: SINGLE of this unit
f	FAN number	1-4: FAN number (FAN1-FAN4)
d	Disk number	1-4: Disk number (HDD1-HDD4), 5: Others (Unknown HDD)
p	Network port number	1: Camera port, 2: Client PC port
cc	Camera number	01-32: Camera number
vvv	Volume number	NML: Normal recording area, EVT: Event recording area, CPY: Copy area
e	HDD error count	The number of HDD errors occurring under HDD RAID 5 recovery

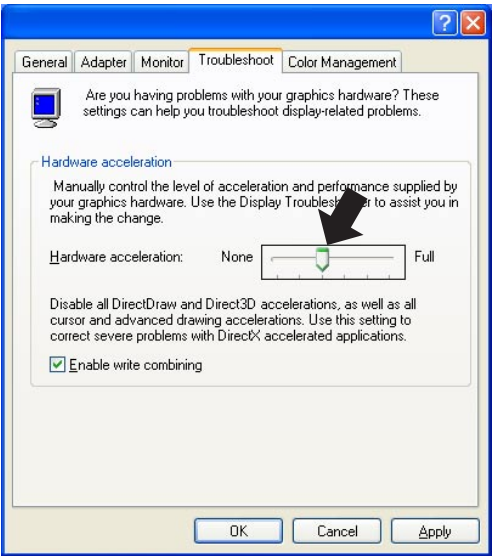


# Troubleshooting

## Before asking for repairs, check the symptoms with the following table.

Contact your dealer if a problem cannot be solved even after checking and trying the solution or a problem is not described below, and when having a problem with installations.

Symptom	Cause/solution	Reference pages
Cannot access from the browser.	<ul style="list-style-type: none"> <li>Is the Ethernet cable firmly connected to the 10BASE-T/100BASE-TX port? Confirm the cable is firmly connected.</li> </ul>	-
	<ul style="list-style-type: none"> <li>Is the connection indicator of the 10BASE-T/100BASE-TX port lit? When it is not lit, connection to a LAN is not established or a network is not working correctly. Confirm that the connection indicator of the 10BASE-T/100BASE-TX port is lit. Refer to a system administrator if it is not lit.</li> </ul>	-
	<ul style="list-style-type: none"> <li>Is the valid IP address set? Refer to a system administrator for further information.</li> </ul>	Refer to the Setup Instructions (PDF).
	<ul style="list-style-type: none"> <li>Are you accessing the wrong IP address? Check the connection as follows: &gt;ping "IP address of this unit" If there is reply from this unit, the connection is normal. If not, check the settings of the IP address and the subnet mask.</li> </ul>	-
	<ul style="list-style-type: none"> <li>Is the same IP address provided to other devices? Refer to a system administrator for further information.</li> </ul>	Refer to the Setup Instructions (PDF).
	<ul style="list-style-type: none"> <li>Are there contradictions between the address and the network subnet to be accessed? Or is "Use Proxy Server" for the settings of the browser checked? When accessing this unit in the same subnet, entering the address of this unit in the "Don't Use Proxy For These Addresses" box is recommended.</li> </ul>	Refer to the Setup Instructions (PDF).

Symptom	Cause/solution	Reference pages
<p>The buttons on the browser are displayed out of alignment.</p>	<ul style="list-style-type: none"> <li>The buttons may not be displayed orderly if the font setting of Windows has been changed from the default setting. Use with the default font setting.</li> </ul>	<p>—</p>
<p>Some contents are not displayed on the browser.</p>	<ul style="list-style-type: none"> <li>Reload the contents by pressing the [F5] key.</li> </ul>	<p>—</p>
<p>The image is not being refreshed.</p>	<ul style="list-style-type: none"> <li>Depending on the traffic of the network, there might be difficulties in displaying images. Press the [F5] button on the keyboard to request images.</li> <li>Images recorded at low recording rate (less than 1 ips) may sometimes not be refreshed.</li> </ul>	<p>—</p>
<p>When displaying MPEG-4 images on a multi-screen, images from two cameras or more are displayed in sequence on a single area.</p>	<ul style="list-style-type: none"> <li>This may occur due to the display adapter and driver combination.</li> <li>➔ When this occurred, update the driver of the display adapter to the latest version first. If updating the driver does not solve the problem, adjust the hardware acceleration as follows.             <ol style="list-style-type: none"> <li>After closing all browser windows, right-click on the desktop and select "Properties" from the displayed pop-up menu.</li> <li>Select "Settings" from "Display Properties", and then click the [Advanced] button.</li> <li>Click the [Troubleshoot] tab and disable the DirectDraw acceleration by adjusting the level of "Hardware acceleration".</li> </ol> </li> </ul>  <p>The screenshot shows the Windows 'Display Properties' dialog box with the 'Troubleshoot' tab selected. It asks if there are problems with graphics hardware. Under 'Hardware acceleration', there is a slider from 'None' to 'Full'. A black arrow points to the slider, which is currently positioned at 'Full'. Below the slider, there is a checkbox for 'Enable write combining' which is checked. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.</p>	<p>—</p>

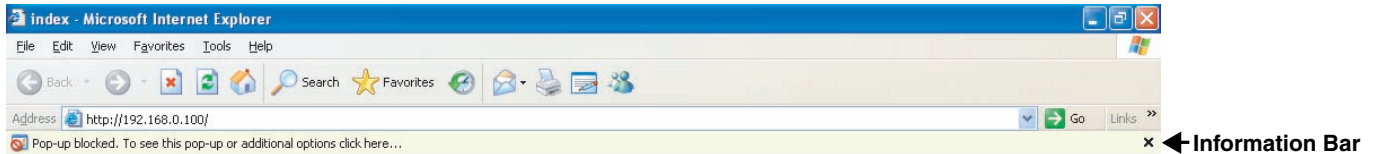
Symptom	Cause/solution	Reference pages
Live/recorded images in MPEG-4 format are not displayed in a normal manner.	<ul style="list-style-type: none"> <li>When turning on the power of this unit or when connecting the LAN cable to the camera port when the camera is active, images may not be displayed/recorded in a normal manner for around a minute (at a maximum) just after turning on the power of this unit or after connecting the LAN cable to the camera port.</li> </ul>	—
Cannot close the authentication window displayed when displaying the basic operation window.	<ul style="list-style-type: none"> <li>Are the correct user name and password entered? Confirm the correct user name and password.</li> </ul>	Refer to the Setup Instructions (PDF).
Cannot play the downloaded image file.	<ul style="list-style-type: none"> <li>When any setting of the SETUP MENU has been changed during the download, the download will be canceled automatically. In this case, the downloaded file is not a complete file and it is impossible to play it.</li> </ul>	—
The message "Please Wait." remains on the screen.	<ul style="list-style-type: none"> <li>The "ActiveX control" is not installed in the PC. Install the "ActiveX control" by referring to the following page.</li> </ul>	64
No live image is displayed.	<ul style="list-style-type: none"> <li>Are the connected network cameras configured correctly? Check the settings of the setup menu ("Camera" - "NW Camera Setup").</li> </ul>	Refer to the Setup Instructions (PDF).
	<ul style="list-style-type: none"> <li>Are the settings of the setup menu configured correctly? Check the settings of the setup menu ("Schedule" - "Program" - "LIVE VIDEO").</li> </ul>	Refer to the Setup Instructions (PDF).
	<ul style="list-style-type: none"> <li>Are the network settings of the cameras and the unit configured correctly? Check the settings of IP address, subnet mask and default gateway for them.</li> </ul>	Refer to the Setup Instructions (PDF).
	<p>When MPEG-4 is selected for the image compression method of the camera, live images may not be displayed in the image display area and black screen will be displayed for a few minutes in the following cases.</p> <ul style="list-style-type: none"> <li>When frequently checked if the appropriate values are set for the recording settings (by clicking the [Measurement] button on the "Program Setup" window (advanced setup menu: "Schedule" - "Program")).</li> <li>When the settings of the unit are saved repeatedly. Wait around 10 minutes without any operations. The unit will function normally.</li> </ul>	—

Symptom	Cause/solution	Reference pages
No live image is displayed.	<ul style="list-style-type: none"> <li>When trying to display MPEG-4 images via Internet, images may not be displayed. MPEG-4 image display via Internet is affected by the configurations of the network devices such as a router. Refer to the network administrator for further information.</li> </ul>	—
Live/recording images are not displayed.	<ul style="list-style-type: none"> <li>When logged in with "Limited" user account of Windows operating system, images will not be displayed since the active X control may not be installed correctly.</li> <li>Log in with "Computer administrator" user account.</li> </ul>	—
Refresh of live images is unstable. Browser disconnection sometimes occurs. Network performance is poor. Image file downloaded from the FTP server is faulty.	<ul style="list-style-type: none"> <li>When the image compression method of all cameras in use is not the same, performance may become lower. (Refresh of images will be unstable.)</li> </ul>	—
	<ul style="list-style-type: none"> <li>The line speed settings may be not the same between the unit and the hub, for example, 100M BASE-TX Full for the unit and 100M BASE-TX half, etc.</li> <li>Some hubs change the line speed automatically depending on the network traffic and it may cause configuration errors. Check the line speed settings of both the unit and the hub, and configure the line speed settings of both to conform them.</li> </ul>	—
	<ul style="list-style-type: none"> <li>The configured settings for transmission rate/recording rate may be beyond the maximum network performance.</li> <li>Lower the value/rate of the settings relating to the network such as the transmission rate, recording rate, etc.</li> </ul>	—
Cannot operate the camera.	<ul style="list-style-type: none"> <li>Are the settings of the network camera set correctly? Check the model of the set camera on the setup menu ("Camera" - "NW Camera Setup").</li> </ul>	Refer to the Setup Instructions (PDF).
	<ul style="list-style-type: none"> <li>Are the user ID and the password for the network camera set correctly? Check if the user ID and password are set correctly on the setup menu ("Camera" - "NW Camera Setup").</li> </ul>	Refer to the Setup Instructions (PDF).

## When using a PC on which Windows XP Service Pack2 (SP2) is installed

The following may occur during operation when using a PC on which Windows XP Service Pack2 (SP2) is installed. Follow the instructions below when the following occurred. By performing the following solutions, other applications and the security level may not be affected.

The "Information Bar" expressed in the following symptom and solutions will be displayed just below the address bar only when there is information to communicate.



Symptom	Solutions	Reference pages
<p>The following message is displayed on the information bar. "Pop-up blocked. To see this pop-up or additional options, click here..."</p>	<ul style="list-style-type: none"> <li>Click the information bar and select "Always Allow Pop-ups from This Site...". The dialog window saying "Allow pop-ups from this site?" will be displayed. Click the [Yes] button.</li> </ul>	<p>—</p>
<p>The following message is displayed on the information bar. "This site might require the following ActiveX control: 'WebVideo.cab' from 'Matsushita Electric Industrial Co., Ltd'. Click here to install..."</p>	<ul style="list-style-type: none"> <li>Click the information bar and select "Install ActiveX Control...". The "Security Warning" window will be displayed. Click the [Install] button on the displayed "Security Warning" window.</li> </ul>	<p>—</p>

Symptom	Cause/solution	Reference pages
<p>The following message is displayed on the information bar. "To help protect your security, Internet Explorer blocked this site from downloading files to your computer. Click here for options..."</p>	<ul style="list-style-type: none"> <li>Click the information bar and select "Download File...". When downloading fails even though you selected "Download File...", perform the following operation. Click "Internet Options..." on the Tools menu of Internet Explorer, and then click the "security" tab. Then, click the [Custom Level...] button. The "Security Settings" window will be displayed. Under "Downloads", select "Enable" for "Automatic prompting for file downloads". Click the [OK] button. The "Warning" window will be displayed. Click the [Yes] button.</li> </ul>	<p>—</p>
<p>The following message is displayed on the information bar when tried to execute a downloaded file. "The publisher could not be verified. Are you sure you want to run this software?"</p>	<ul style="list-style-type: none"> <li>Click the [Run] button.</li> </ul>	<p>—</p>
<p>Unnecessary status bar or scroll bar is displayed on the pop-up window.</p>	<ul style="list-style-type: none"> <li>Click "Internet Options" on the Tools menu of Internet Explorer, and then click the [Security] tab. Then, click the [Custom Level...] button to open the "Security Setting" window. Under "Miscellaneous", select "Enable" for "Allow script-initiated windows without size or position constraints". Click the [OK] button. The "Warning" window will be displayed. Click the [Yes] button.</li> </ul>	<p>—</p>



### Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)



This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority

for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

### For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

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This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

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**Southern:** 1225 Northbrook Parkway, Suwanee, GA 30024  
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