



Digital Video Recorder

DSR-3016
DSR-3009

Manual for Remote Operation by Network Connection

DSR-3016








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<Symbols used in this manual>

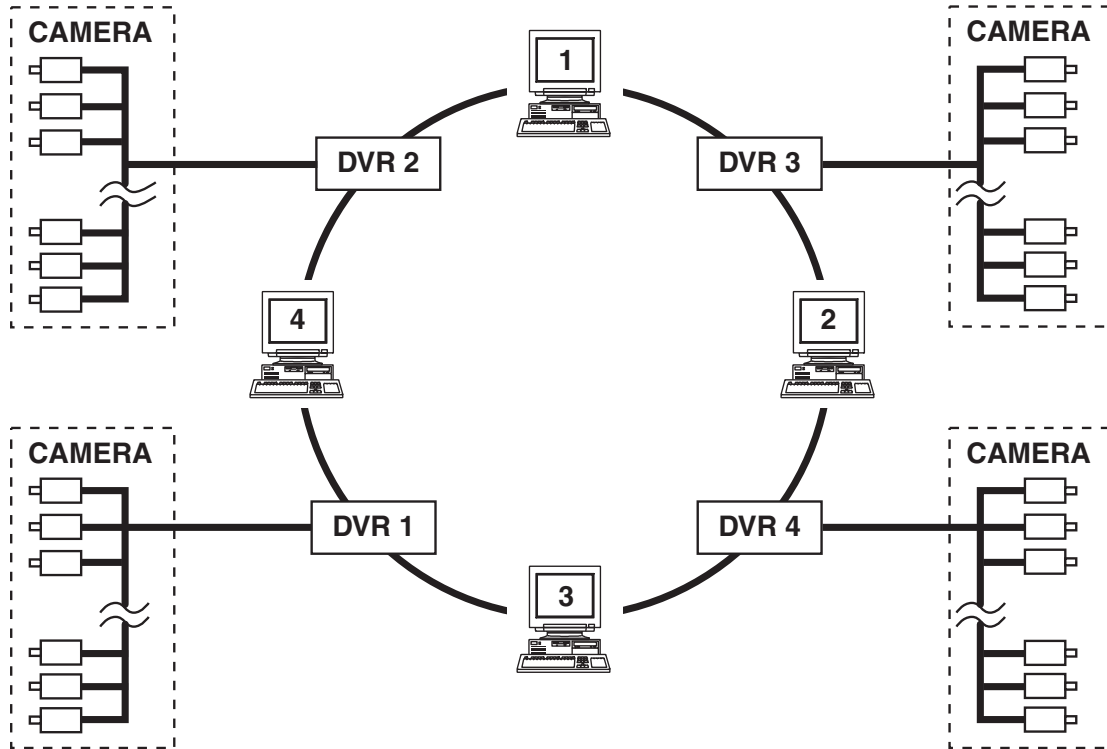
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Network Control Functions

Connecting this unit to a network will enable computer control (remote operation).



(DVR: Digital Video Recorder)

■ Basic Specifications for Network Control

1. Operations such as menu settings, recording and playback can be done on the computer screen. Furthermore, the multiplexer function allows images from multiple cameras that are connected to the main unit to be displayed in multi-screen format on the computer's screen.
2. Up to a total of four computers can be connected simultaneously to a single digital video recorder (DVR): 3 computers that are connected while logged in at a user level of ID1, and one other computer that is logged in at a user level of ID2 or ID3.
3. Control can be switched freely between main unit control and computer control as required. Simply connecting a cable will not affect the operation of the main unit.
4. For security over computer control, identity checks (passwords) can be specified for three user levels.

■ Network Settings

1. The following main unit network settings must be made beforehand if this unit is to be used when connected to a network. Refer to 'Network Set settings' in the main unit Instruction Manual for details on how to make the settings.
2. Also change the TCP/IP settings for the computers that are connected in accordance with the operating system (OS) that is being used by these computers.



If using an existing network, the IP address that you set must not be the same as an existing IP address being used on the network. Check with the network administrator for details.

Network Control

■ Switching to Control by Computer

1 Start your Web browser.

Compatible browsers are Internet Explorer Ver. 5.0 or later. Compatible operating systems are Windows 98, 98ME, 98SE, 2000 and XP.



If a Java Script run-time error appears while using Internet Explorer, change the settings for Internet Explorer as shown below.

1. Select Internet Options from the Tools menu, and click the Advanced tab.
2. Make sure that the following check boxes are set as indicated.

- Display notification about every script error
 Disable script debugging

2 Enter the URL.

Enter the URL for this unit in the address bar of the browser, and then press the [Enter] key. Enter the IP address specified in the network setting for this unit. (The URL contains the IP address that has been set for this unit in the network settings.)

Enter the default value 192.168.0.1.
(Example: "http://192.168.0.1/")



If the port is set to a value other than the default value of "80", add a ":" followed by the port number to the end of the IP address.

Example if the port is set to "81"
http://192.168.0.1:81/



If you do not have a web browser installed on your computer's hard disk, you will need to install one.

3 Enter a password (security check).

Enter your user name and password for security checking in the Network password entry box, and then click [OK]. If you enter an incorrect password, the password entry screen will reappear asking you to re-enter the password.

- (1) You should use separate passwords for different user levels in accordance with the installation environment. (See p. 20)
- (2) If you choose to save the user name and password that you enter, the security check will be cleared automatically the next time you log on. However, passwords that were entered at some time other than the time when you first connected may not be stored in some cases.

- (3) Up to a total of four computers can be connected simultaneously to a single digital video recorder. (However, only one computer can be connected at a user level of ID2 or ID3.)



If the highest-level user connects from a different computer while four computers are already connected, the last one of the lowest-level computers to connect is forcibly disconnected and the highest-level user has priority.

- (4) If you make more than one error entering the password or if you click the [Cancel] button in the password entry screen, an "AUTHENTICATION ERROR" window will be displayed.
- (5) If you click a button on the control panel that you are not authorized to use during computer control, the password entry screen will be displayed and you will be prompted for a security check for the required user level for that function.

4 Select the display language.

When the security check for the password has been cleared, the language selection screen will appear. Select a language and then click [OK]. The operating screen will be displayed in the selected language and computer control will be enabled.




- (1) Select the display language each time you switch to computer control.
- (2) To change the display language, cancel the connection temporarily and then reconnect.

IMPORTANT

- You cannot connect to the network while a menu screen is being displayed or when operations associated with playback are being carried out. Clear the menu display or stop the playback operation before reconnecting to the network.
- In some cases, you may encounter problems when connecting to the network via a proxy server. If this happens, the proxy setting should be canceled.

■ Switching to Control by Main Unit

When you click the  button on the computer operating screen, the connection will be canceled and control will switch to the main unit.



- To forcibly cancel the connection from the main unit, press the [EXIT/OSD] button for two seconds or more. No connections will be received by the computer for 10 seconds after the connection has been forcibly canceled.
- If communication with the computer is suspended for one minute or more, the connection will be automatically cancelled and control will switch to the main unit.

■ Displays That Appear While Connected

Messages appear on the screen for a short period to indicate control switching and network connection status.

Main unit display


1. When control is switched to a computer

When the web browser is started and the specified procedure is followed, operation switches to the computer and "NETWORK CONTROL" appears on the main unit on-screen display. (This appears even if on-screen display has been set to "OFF".)



If the network control has been set to "ON (DISPLAY: OFF)" using the digital video recorder menu, the "NETWORK CONTROL" message will not be displayed. (The digital video recorder will always display live images regardless of network operations.)

2. When control is switched to the main unit

When you click the  button at the computer, the connection is canceled and control is switched to the main unit, and the main unit on-screen display changes from "NETWORK CONTROL" to "DISCONNECTED". Once the switching is complete, any main unit button operation will cause the "DISCONNECTED" display to disappear.



3. When the connection is forcibly canceled from the main unit

Pressing the [EXIT/OSD] button on the main unit for two seconds or more will forcibly cancel the connection and cause the "NETWORK CONTROL" display to disappear. No connections will be received by the computer for 10 seconds after the connection has been forcibly canceled.

Computer display

1. When disconnected from the network



2. If the DVR is accessed while the connection is disabled



3. When you try to access a DVR that already has four computers connected



* The above screen display examples are those for the DSR-3009 model.

Operating Panel and Operation Permissions

Playback buttons

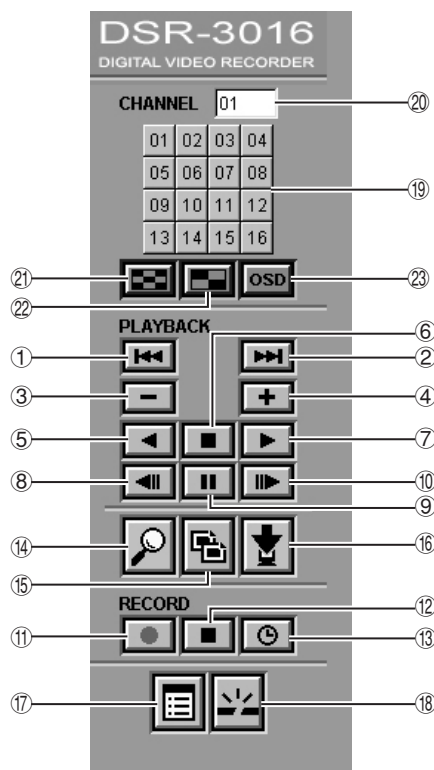
- ① **Previous event (ID2/3)**
Used to playback from immediately before an alarm event.
- ② **Next event (ID2/3)**
Used to playback from immediately after the next alarm event.
- ③ **Speed down (ID2/3)**
Used to reduce the playback speed by one step.
- ④ **Speed up (ID2/3)**
Used to increase the playback speed by one step.
- ⑤ **Reverse playback (ID2/3)**
Used to play back a recorded image in reverse.
- ⑥ **Stop (ID1/2/3)**
Used to stop playback and display live images.
- ⑦ **Playback (ID2/3)**
Used to play back recorded images.
- ⑧ **Previous image (ID2/3)**
Used to return a recorded image by one frame while playback is paused.
- ⑨ **Pause (ID2/3)**
Used to pause images during playback.
- ⑩ **Next image (ID2/3)**
Used to advance recorded images by one frame while playback is paused.

Recording buttons

- ⑪ **Record (ID3)**
Used to start normal recording.
- ⑫ **Stop recording (ID3)**
Used to stop normal recording.
- ⑬ **Timer (ID3)**
If clicked while recording is stopped, the mode changes to timer standby mode. If clicked during timer standby mode, timer recording is canceled.

Setting buttons

- ⑭ **Search (ID2/3)**
Used to display the search screen (setting screen).
- ⑮ **Copy (ID2/3)**
Used to display the copy screen (setting screen).
- ⑯ **Download (ID2/3)**
Used to display the download screen (setting screen).
- ⑰ **Menu setting (ID3)**
Used to display the menu screen (setting screen).
- ⑱ **Disconnect (ID1/2/3)**
Used to disconnect from the network and switch from computer control to main unit control.



The display example is that for the DSR-3016 model.

Channel switching buttons

- ⑲ **Channel select (ID1/2/3)**
Used to select a camera channel when images are being displayed in a single screen.
 - DSR-3009 model: Maximum 9 channels
 - DSR-3016 model: Maximum 16 channels
- ⑳ **Channel display**
Used to display the channel number selected by ⑲.
- ㉑ **Multi display (ID2/3)**
Used to display images in a 9-screen or 16-screen multi-screen display.
 - DSR-3009 model: 9-screen button
 - DSR-3016 model: 16-screen button
- ㉒ **4-screen display (ID2/3)**
Used to display images in a 4-screen multi-screen display.
- ㉓ **OSD Display position change (ID2/3)**
Used to change the on-screen display position for information such as date and time.
OSD display is not available for user level ID1.



If you click on the Multi display or 4-screen display while logged on at user level ID1, a channel with a signal will be displayed at random.



* Authorized user levels are indicated in parentheses ().
(See p. 20)

Settings



To use the functions of this unit effectively, the recording conditions and installation environment must be specified beforehand. These setting items are arranged and displayed in two levels consisting of the main menu and sub-menus.

Refer to the setting procedures for each menu on the following pages for details on the various setting methods.

■ Menu Selection Method


- 1 Click the  button on the operating panel to display the [MAIN MENU] screen.
- 2 When the specified menu on the [MAIN MENU] screen is selected and clicked, the sub-menu will be displayed.
- 3 Change the required settings from the sub-menu screen.
- 4 To clear the menu screen, click the Playback mode  button on the operating panel to leave the menu screen and display the live screen.



- Because entry from playback mode is not possible, click the stop button to return temporarily to live mode and then click the  button.
- You must be connected at the ID3 user level in order to change settings.
- If the main unit is recording, the menu details can be checked but the settings cannot be changed.
- When moving from one sub-menu to another sub-menu, first click the  button to return to the main menu.

■ Menu Configuration

	Main menu	Sub-menu	Reference page
Recording conditions	1. CLOCK SET		8
	2. DAYLIGHT SAVING/EXT. CLOCK SET	• DAYLIGHT SAVING • EXT. CLOCK SET	8
	3. PROGRAM REC SET		9
	4. RECORDING AREA SET	• TOTAL CAPACITY • RECORDING AREA CAPACITY • AREA FULL RESET	10
	5. RECORDING CONDITIONS SET	• NORMAL RECORDING AREA OVERWRITE • ALARM RECORDING AREA OVERWRITE • REMAINING DISK WARNING	11
	6. NORMAL REC MODE SET	• PICTURE QUALITY • AUDIO RECORDING • REC RATE • REC PROGRAM GROUP	12 to 13
	7. TIMER SET		14
	8. HOLIDAY SET		15
	9. ALARM REC MODE SET	• PICTURE QUALITY • AUDIO RECORDING • ALARM RECORDING (REC MODE, PROGRAM GROUP, REC RATE, DURATION) • PRE-ALARM RECORDING (REC RATE, DURATION) • ALARM TRIGGER	15 to 17
	10. ALARM DURATION SET		18
Installation environment	11. DISPLAY SET	• DATE • TIME • QUALITY • REC RATE • ALARM COUNT • ALARM TYPE	18
	12. RS-232C/RS-485 SET	• CONTROL • DATE SPEED • STATUS INFO • ALARM INFO • ADDRESS	19
	13. BUZZER SET	• ALARM • DISK FULL • DISK ERROR • LOCK WARNING • KEY IN • NON REC	19
	14. NETWORK SET	• IP ADDRESS • SUBNET MASK • GATE WAY • PORT • PASSWORD SETTING • NETWORK SPEED	20
	15. HDD SET	• DISK CAPACITY • MIRRORING • PLAYBACK DRIVE	21
	16. POWER FAILURE/USED TIME	• POWER FAILURE • USED TIME • FIRMWARE	21

*  Shaded items are for information display only.

Menu Setting Procedures



1. CLOCK SET

This sets the main unit clock to the current time.

- 1 Select “Month/Day/Year Hour/Minute” from the menu.

The day of the week is selected automatically based on the date.



Click [SET] to set the time.

CLOCK SET

06 06 2002 THU 20 58

SET



2. DAYLIGHT SAVING/EXT. CLOCK SET

This sets daylight saving and adjusts the time for peripheral devices.

DAYLIGHT SAVING

This sets the start and end times for daylight saving.

When daylight saving is set, the time will be automatically advanced by one hour during the daylight saving period.

- 1 Use the menu to select “USE” or “NO USE”.
 - USE: The daylight saving function is used.
 - NO USE: The daylight saving function is not used.
- 2 Use the menu to set the start time and end time for daylight saving.

DAYLIGHT SAVING/EXT. CLOCK SET

DAYLIGHT SAVING

MODE : USE

WEEK MONTH TIME

ON : 1ST SUN 04 02 : 00

OFF : LST SUN 10 02 : 00

EXT. CLOCK SET

ADJUST TIME : 01:00

SAVE

EXT. CLOCK SET

If the times on each peripheral device are different when the devices are connected, identical operations cannot be carried out correctly. Making this setting ensures that each device connected to the CLOCK ADJUST IN/CLOCK ADJUST OUT connectors will be set to the same time.

- 1 Select the adjustment time from the menu.

When the set time is reached every day, a signal is output to adjust the time for each connected device.

DAYLIGHT SAVING/EXT. CLOCK SET

DAYLIGHT SAVING

MODE : USE

WEEK MONTH TIME

ON : 1ST SUN 04 02 : 00

OFF : LST SUN 10 02 : 00

EXT. CLOCK SET

ADJUST TIME : 01:00

SAVE



Click [SAVE] to complete the DAYLIGHT SAVING and EXT. CLOCK SET settings.



3. PROGRAM REC SET

When more than one camera is connected to the digital video recorder, the camera rate (unique rec rate for each camera) can be set separately for each camera. In addition, you can make up to four programs that include settings such as the method of combining the images from each recording camera and individual camera rates. You can specify the appropriate program when making [TIMER SET] and [RECORDING MODE SET] menu settings.

- 1 Use the menu (①) to specify a program number.
P-1 to P-4
- 2 Use the menu (②) to specify the cameras that are to be used for recording from the numbers of the connected cameras that are being displayed on the screen (DSR-3009 model: 1-9; DSR-3016 model: 1-16), and set the camera rate for each camera selected.

- If a camera is not to be recorded: Select "OFF".
- If a camera is to be recorded: Set the camera rate.

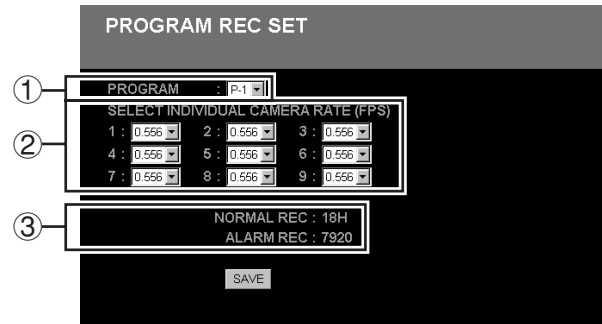
Default setting DSR-3009 model: 0.556 FPS

DSR-3016 model: 0.313 FPS

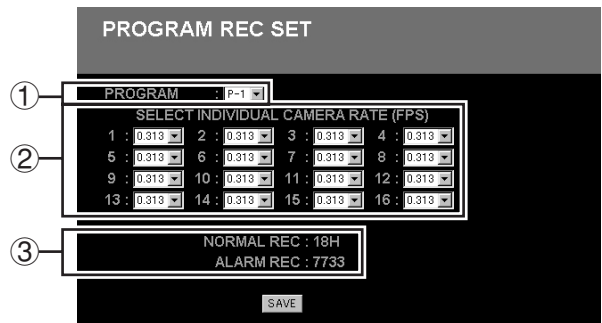


The camera rate values that appear in the menu lists will vary depending on the number of channels connected. The maximum value for REC RATE in PROGRAM REC mode is 30 fps, so the values in the table will be this maximum value divided by the number of channels, and comprises the upper limit for the setting.

- 3 Click [SAVE] to complete the setting.
When the setting is completed, the available time for normal recording and the number of alarm recordings that are possible under the conditions that have been set will be displayed for reference (③).
- 4 You can repeat the above procedure to program up to a maximum of four different patterns.



Screen example for DSR-3009 model



Screen example for DSR-3016 model



4. RECORDING AREA SET

The hard disk in this unit consists of three independent recording areas, each of which has five recording modes.

A percentage of the total recording capacity is allocated to each recording area (settings are in units of 1%).

Recording area	Recording mode		Notes
NORMAL RECORDING AREA	Normal recording	Manual	Recording is carried out manually using the button.
	Timer recording	Automatic	Recording is carried out automatically within the time range specified by the timer recording setting made using the menu screen.
ALARM RECORDING AREA	Alarm recording	Automatic	Recording is carried out automatically when an alarm is detected according to the alarm recording settings made using the menu screen.
	Pre-alarm recording	Automatic	Images that are around the time that the alarm was detected are recorded automatically according to the pre-alarm recording settings made using the menu screen. This is used as a complementary function to alarm recording.
ARCHIVE AREA	Copy	Manual	Copies and saves essential recordings from another recording area by using the button on the operating panel manually.

① Total capacity display

Displays the total capacity of the hard disk.



If two hard disks have been installed and the digital video recorder's HDD SET function has been used to set mirroring to "ON", the details for the disk with the smaller capacity will be displayed.

② Capacity display for each recording area

The recording capacity of each recording area of the digital video recorder's hard drive is displayed as a percentage of the total capacity.



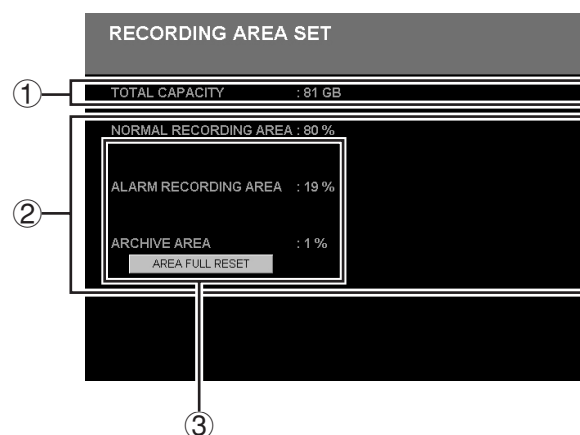
The capacities of the recording areas cannot be set and changed from a connected computer.

③ Recording area reset

If the OVERWRITE setting is "OFF", recording will stop automatically when a recording area becomes full. If when [AREA FULL RESET] has been selected, the recordings that have been made will be deleted and recording will begin again from the start of the recording area.



If the recording capacity for the normal recording area and the alarm recording area have been set to 0% and if the OVERWRITE setting is "OFF", there is no need to use the reset function, and so the AREA FULL RESET button will not appear on the screen at such times.



Menu Setting Procedures



5. RECORDING CONDITIONS SET

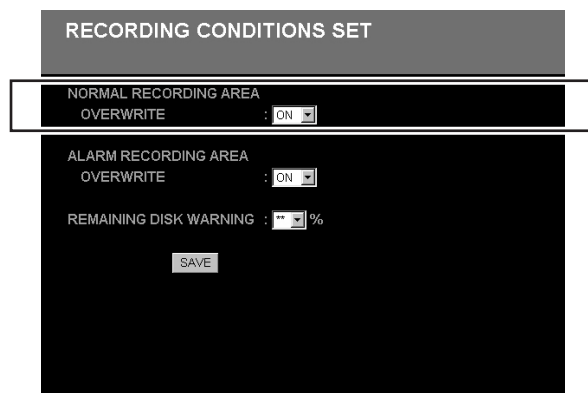
This sets the overwrite conditions and remaining disk capacity warning criteria for each recording area.

NORMAL RECORDING AREA OVERWRITE (Default setting: ON)

This specifies whether to stop recording or to continue recording by overwriting images that are currently recorded on the hard disk when the normal recording area has become full.

1 Select [ON/OFF] from the menu.

- **ON:** When the normal recording area becomes full, images will begin to be overwritten automatically from the start of the normal recording area.
- **OFF:** Recording will stop when the normal recording area becomes full.



RECORDING CONDITIONS SET

NORMAL RECORDING AREA OVERWRITE : ON

ALARM RECORDING AREA OVERWRITE : ON

REMAINING DISK WARNING : %

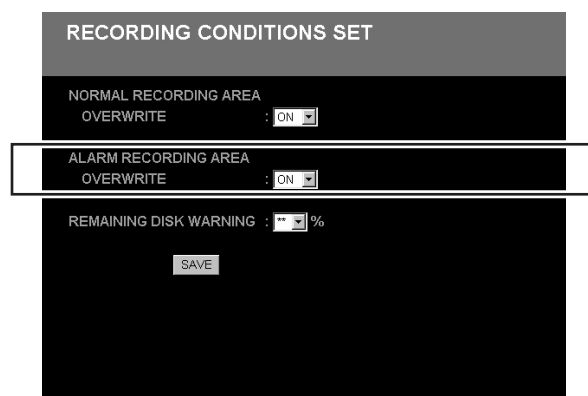
SAVE

ALARM RECORDING AREA OVERWRITE (Default setting: ON)

This specifies whether to stop recording or to continue recording by overwriting images that are currently recorded on the hard disk when the alarm recording area has become full.

1 Select [ON/OFF] from the menu.

- **ON:** When the alarm recording area becomes full, images will begin to be overwritten automatically from the start of the alarm recording area.
- **OFF:** Recording will stop when the alarm recording area becomes full.



RECORDING CONDITIONS SET

NORMAL RECORDING AREA OVERWRITE : ON

ALARM RECORDING AREA OVERWRITE : ON

REMAINING DISK WARNING : %

SAVE

REMAINING DISK WARNING

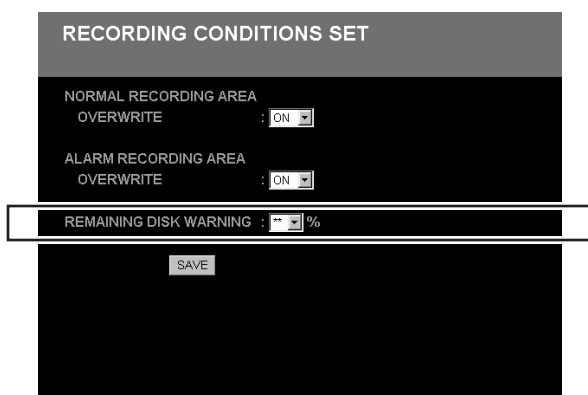
The buzzer can be set to sound a warning if the NORMAL RECORDING AREA OVERWRITE and ALARM RECORDING AREA OVERWRITE settings are "OFF" and the remaining disk capacity becomes low (see p. 25). The remaining disk area value at which a warning will be given can be specified here.

1 Set the remaining disk area value from the menu.

Setting range: 1% to 10% (1% units)



If the OVERWRITE setting is "ON" for both recording areas, no remaining area warning is necessary, and so "*" is displayed and REMAINING DISK WARNING cannot be set.



RECORDING CONDITIONS SET

NORMAL RECORDING AREA OVERWRITE : ON

ALARM RECORDING AREA OVERWRITE : ON

REMAINING DISK WARNING : *

SAVE



Click [SAVE] to complete the sub-menu settings (or changes).



6. NORMAL REC MODE SET

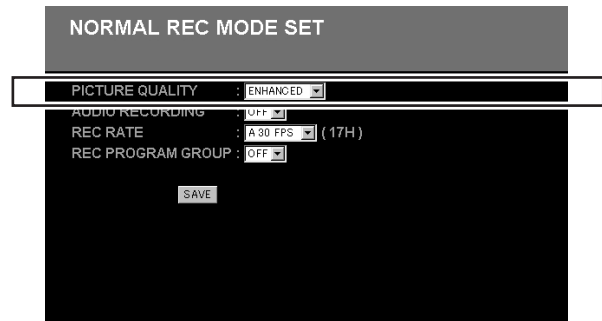
This specifies the recording conditions for normal recording and timer recording.

PICTURE QUALITY (Default setting: ENHANCED)

This sets picture quality for normal recording.

1 Select a picture quality mode from the menu.

- **BASIC** (basic quality)
- **NORMAL** (normal quality)
- **ENHANCED** (enhanced)
- **FINE** (high quality)
- **SUPER FINE** (very high quality)



AUDIO RECORDING (Default setting: OFF)

Sound can also be recorded in the normal recording area at the same time as images are recorded.

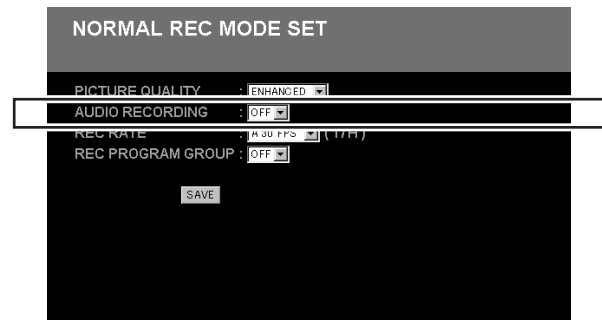
However, when sound is recorded, the recording capacity of the normal recording area will be reduced because the audio data is also recorded in the normal recording area.

1 Select [ON/OFF] from the menu.

- **ON:** Sound is recorded.
- **OFF:** Sound is not recorded.



Audio recording can be set when the REC RATE setting is between 10 and 60 FPS.



Menu Setting Procedures

REC RATE (Default setting: A 30 FPS)

This sets the recording rate for normal recording.

1 Select the recording cycle for normal recording from the menu.

A 60, A 30, A 20, A 15, A 10, 7.5, 6, 5, 4.286, 3.75, 3.333, 3, 2.727, 2.308, 2, 1.667, 1.429, 1.25, 1.111, 1, 0.5, 0.333, 0.25, 0.2, 0.1, 0.05, 0.033 (Units: FPS)



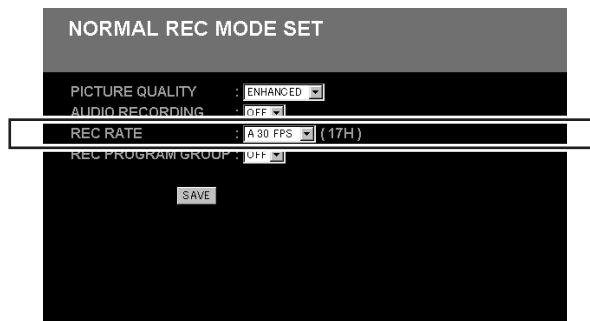
The image resolution is determined by image quality × REC RATE. The higher the image quality and the faster the REC RATE setting, the higher is the image resolution. However, higher image resolutions also consume disk space more quickly, and so the total recording time available will be reduced. You should adjust the value as required while considering these factors.



If pre-alarm recording is set to “ON”, the REC RATE will be limited to A 15 FPS.



The REC RATE during timer recording should be set separately using the [TIMER SET] menu. (See p. 14)



REC PROGRAM GROUP (Default setting: OFF)

This sets the camera images to be recorded during normal recording.

1 Select the camera images to be recorded during normal recording from the menu. (See p. 9)

OFF: No program group is specified and all camera images are recorded.

P-1: Specifies program No. 1.

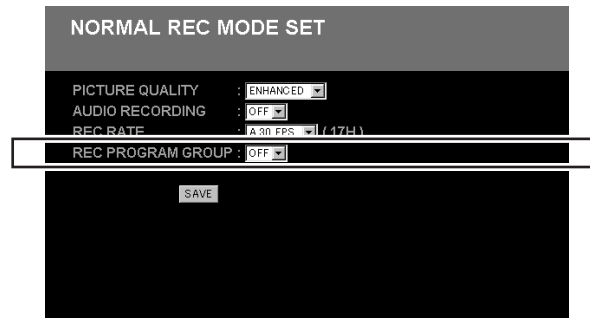
P-2: Specifies program No. 2.

P-3: Specifies program No. 3.

P-4: Specifies program No. 4.



The [REC PROGRAM GROUP] for timer recording should be set separately using the [TIMER SET] menu. (See p. 14)



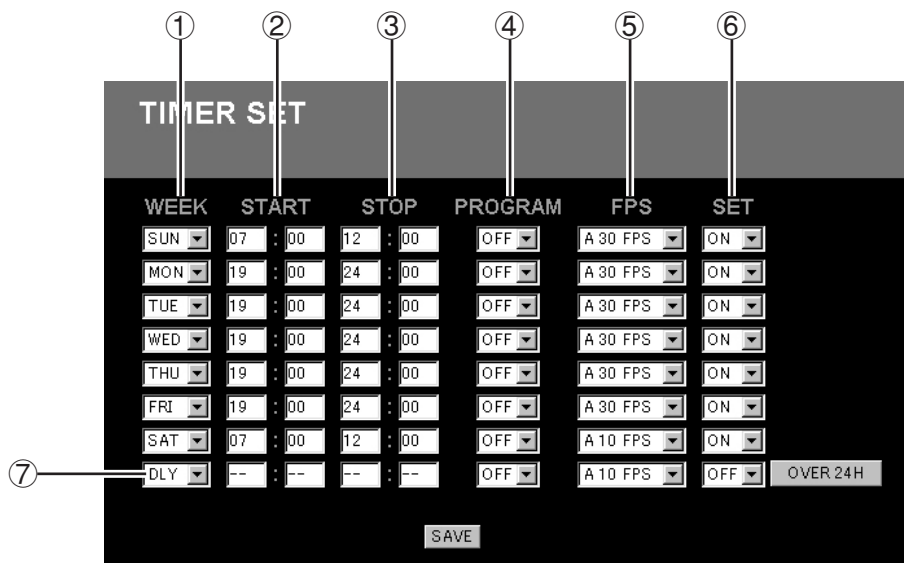
Click [SAVE] to complete the settings (or changes) for the sub-menu that is displayed on the screen. The available time for recording under the conditions that have been set will be displayed in parentheses for reference.



7. TIMER SET

This lets you set the conditions for timer recording, such as the timer operating time, separately for each day of the week.

- 1 Select the timer recording conditions for each weekday from the menu.
- 2 Click [SAVE] to complete the timer settings (or changes).



- ① **WEEK**
Specifies the weekdays for making timer recordings. Several timer recordings can also be made at different times on the same weekday by changing the setting row.
- ② **START**
Enter the time for timer recording to start.
- ③ **STOP**
Enter the time for timer recording to stop.
- ④ **PROGRAM**
Specify the program to use for recording images. (See p. 9)
- ⑤ **FPS**
Set the recording rate (See p. 13)
- ⑥ **SET**
Set this to "ON" if timer recording is to be carried out. Set this to "OFF" if timer recording is not to be carried out.
- ⑦ **DLY**
Enter the start and stop times, image recording program and the recording rate and change SET to "ON" to enable timer recording at the same time each day. The DLY setting conditions take precedence over the setting conditions that have been made separately for each day.



The [TIMER SET] menu is for setting the conditions for timer recording. To actually carry out timer recording based on these setting conditions, you will need to click the [TIMER] button on the operating panel. (See p. 6 and 22.) When the digital video recorder switches to timer recording standby mode and the setting time is reached, timer recording will start automatically. The timer recording operation is indicated by a "TIMER STANDBY" or "TIMER RECORDING" message appearing on the screen.

Points to note and applications of timer settings

- If timer reservations overlap, the earlier time setting will take precedence for recording.
- If you wish to set the timer to continue for more than 24 hours, use the bottom two lines on the setting screen to make this setting.
 1. Switch the setting format by clicking the [OVER 24H] button.
 2. Use the top line to set the start day and time.
 3. Use the bottom line to specify the stop day and the time and recording cycle.
 4. When [SET] in the bottom line is set to [ON], timer recording for more than 24 hours will be set.

Menu Setting Procedures



8. HOLIDAY SET

This menu is used to specify particular days as holidays. The timer recording operation on specified holidays will be the same as that for Sundays.

A holiday setting can be made for days such as national holidays and company holidays when the same level of security as for Sundays is required.

1 Select the day to be specified as a holiday from the menu. (Left side: month; right side: day)

Up to 20 days can be specified as holidays.

2 Click [SAVE] to complete the holiday settings (or changes).



If the 'DLY' function is specified on any line, then recording will be carried out under those conditions on Sundays also. The 'DLY' setting has priority at all times, even over Sunday settings.



9. ALARM REC MODE SET

This sets the recording conditions for alarm recording.

PICTURE QUALITY (Default setting: ENHANCED)

This sets the picture quality for alarm recording.

1 Select the picture quality from the menu.

- **BASIC** (basic quality)
- **NORMAL** (normal quality)
- **ENHANCED** (enhanced)
- **FINE** (high quality)
- **SUPER FINE** (very high quality)

AUDIO RECORDING (Default setting: OFF)

Sound can also be recorded in the alarm recording area at the same time as images are recorded. However, when sound is recorded, the recording capacity of the alarm recording area will be reduced because the audio data is also recorded in the alarm recording area.

1 Select [ON/OFF] from the menu.

- **ON:** Sound is recorded.
- **OFF:** Sound is not recorded.



Audio recording can be set when the REC RATE setting is between 10 and 60 FPS.

ALARM RECORDING

This specifies whether alarm recording will be carried out or not, and sets the recording cycle and recording conditions when alarm recording is carried out.

1 Select an alarm recording mode from the [ALARM RECORDING] menu (default setting: OFF).

- **OFF:** No alarm recording will be carried out.
- **ENABLED:**
Alarm recording is carried out at any time, without regard to timer recording (timer settings).
- **AL-REC ON TIMER:**
Alarm recording is only carried out during timer recording.
- **AL-REC OFF TIMER:**
Alarm recording is only carried out at times other than during timer recording.
- **OLY AL-RC ON TMR:**
During the time set by the timer, the only recording carried out is alarm recording, not timer recording.

2 Select the alarm recording method from the [ALARM INTERLEAVE] menu. (Default setting: ONLY)

- **ONLY:** Only the camera where the alarm was triggered is recorded.
- **SW:** The images from the camera where the alarm was triggered and the images from the cameras specified by the PROGRAM GROUP setting are recorded alternately.

3 Specify the program for recording camera images from the [PROGRAM GROUP] menu. (See p. 9)

OFF: No program group is specified and all camera images are recorded.

P-1: Specifies program No. 1.

P-2: Specifies program No. 2.

P-3: Specifies program No. 3.

P-4: Specifies program No. 4.

(Default setting: OFF)

4 Select the recording cycle from the [REC RATE] menu.

A 60, A 30, A 20, A 15, A 10, 7.5, 6, 5, 4.286, 3.75, 3.333, 3, 2.727, 2.308, 2, 1.667, 1.429, 1.25, 1.111, 1, 0.5, 0.333, 0.25, 0.2, 0.1, 0.05, 0.033 (Units: FPS)

(Default setting: A 30 FPS)

5 Set the duration for alarm recording from the [DURATION] menu.

1 SEC, 2 SEC, 5 SEC, 10 SEC, 20 SEC, 40 SEC, 1 MIN,

2 MIN, 3 MIN, 4 MIN, 5 MIN, 10 MIN, 15 MIN, CC, INDIV.

(Default setting: 5 SEC)



The alarm recording duration can be set separately for each camera. If you select [INDIV.] from the [DURATION] menu, alarm recording is then carried out for each camera for the duration of time that has been set using the [ALARM DURATION SET] menu that is described later on. (See p. 18)

Menu Setting Procedures

PRE-ALARM RECORDING

This specifies whether pre-alarm recording will be carried out or not, and sets the recording conditions when pre-alarm recording is carried out. (See p. 22)

1 Select 'ON/OFF' from the [PRE-ALARM RECORDING] menu.

- **ON:** Pre-alarm recording is carried out.
- **OFF:** Pre-alarm recording is not carried out.



When [ALARM RECORDING] is set to "OFF", "***" is displayed and pre-alarm setting cannot be carried out.

2 Select the recording cycle from the [REC RATE] menu.

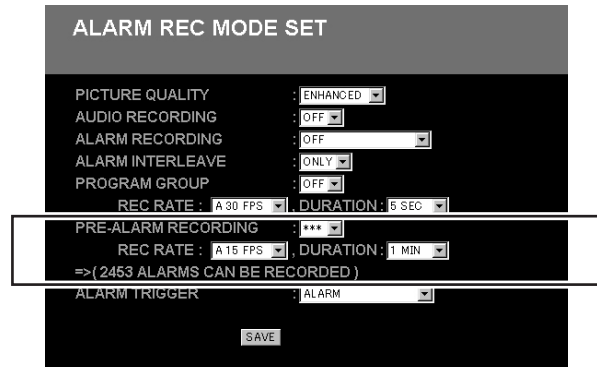
A 60, A 30, A 20, A 15, A 10, 7.5, 6, 5, 4.286, 3.75, 3.333, 3, 2.727, 2.308, 2, 1.667, 1.429, 1.25, 1.111, 1 (Units: FPS)
(Default setting: A 15 FPS)



A 60 FPS can only be selected when the NORMAL REC AREA capacity setting is 0%.

3 Select the pre-alarm recording duration from the [DURATION] menu.

2 SEC, 3 SEC, 5 SEC, 10 SEC, 20 SEC, 40 SEC, 1 MIN, 2 MIN, 3 MIN, 4 MIN, 5 MIN, 10 MIN, 15 MIN
(Default setting: 1 MIN)



ALARM TRIGGER (Default setting: ALARM)

This sets an alarm trigger (a signal for alarm recording to begin) that will become the condition for the operation of alarm recording.

1 Select an alarm recording starting signal from the menu.

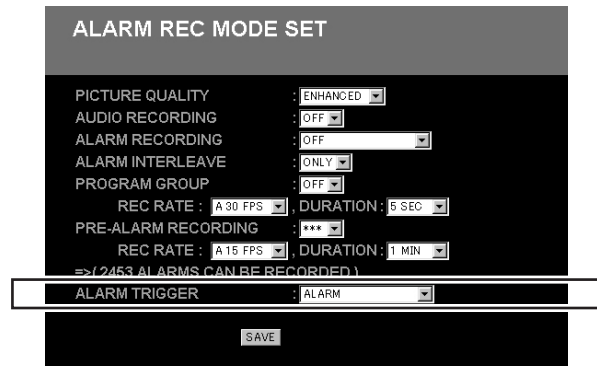
- **ALARM:** Alarm recording starts when an external alarm reacts.
- **SENSOR:** Alarm recording starts when a motion sensor reacts.
- **ALARM AND SENSOR:**
Alarm recording starts when an external alarm and motion sensor both react at the same time.
- **ALARM OR SENSOR:**
Alarm recording starts when either an external alarm or a motion sensor react.



External alarm detection: This is when external sensor information (such as the opening or closing of a door switch) is input to the digital video recorder's alarm input terminals while the digital video recorder is online.
Motion sensor detection: This is when the motion sensor settings cause movement to be detected on the monitor screen.



Click [SAVE] to complete the settings (or changes) for the sub-menu that is displayed on the screen. The number of alarm recordings available under the conditions that have been set will be displayed in parentheses for reference.

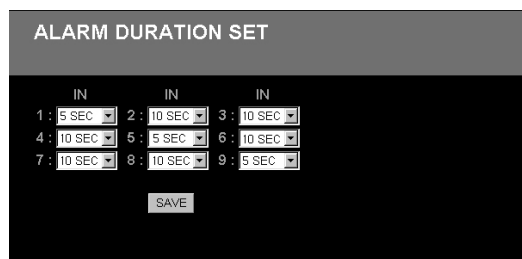




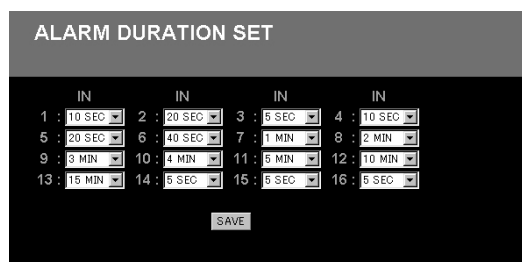
10. ALARM DURATION SET

The duration of alarm recording can be set separately for each camera. The DURATION setting for each camera that is made using the [ALARM DURATION SET] menu is effective when [DURATION] in the [ALARM RECORDING] menu is set to "INDIV." (See p. 16)

- 1 Select the alarm recording duration for each camera from the menu.
5 SEC, 10 SEC, 20 SEC, 40 SEC, 1 MIN, 2 MIN, 3 MIN, 4 MIN, 5 MIN, 10 MIN, 15 MIN, CC
(Default setting: 5 SEC)
- 2 Click [SAVE] to set (or change) the alarm recording durations for each camera.



Screen example for DSR-3009 model



Screen example for DSR-3016 model



11. DISPLAY SET

This specifies the information to be displayed on the monitor by selecting "ON" or "OFF" in the menu.




Because this setting specifies the information to be displayed on the monitor that is connected to the main unit, it will have no effect on the computer screen.

 **DATE** (Default setting: ON)


Current date or recording date

 **TIME** (Default setting: ON)

Current time or recording time

 **QUALITY** (Default setting: ON)

Quality of images being recorded or played back

 **REC RATE** (Default setting: OFF)

Recording rate for images being recorded or played back

 **ALARM COUNT** (Default setting: ON)

Cumulative number of alarms

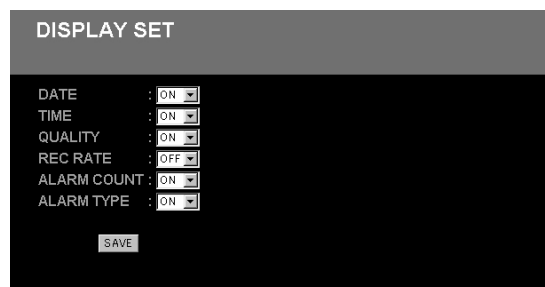
The maximum count that can be displayed is 9999. If the count exceeds this number, it will be reset to 0.

 **ALARM TYPE** (Default setting: ON)

Type of alarm recording

For alarm recording: "ALARM" is displayed.

For pre-alarm recording: "PRE" is displayed.



Click [SAVE] to complete the DISPLAY SET menu settings (or changes) that are displayed on the screen.



12. RS-232C/RS-485 SET

This displays information related to the digital video recorder's interface.



This menu only lets you check the settings; it cannot be used to change the settings.



CONTROL

This shows the type of interface being used to control the digital video recorder.

- **RS-232C:** Control by RS-232C
- **RS-485:** Control by RS-485



DATA SPEED

This shows the RS-232C or RS-485 communication speed.

- 2400/4800/9600/19200(bps)



STATUS INFO

For RS-485 communication, this specifies whether status information is to be transmitted or not.

- **ON:** Status information is to be transmitted.
- **OFF:** Status information is not to be transmitted.



ALARM INFO

For RS-485 communication, this specifies whether alarm information is to be transmitted or not.

- **ON:** Alarm information is to be transmitted.
- **OFF:** Alarm information is not to be transmitted.



ADDRESS

This shows the address when RS-485 has been selected.

- Valid settings range from 0 to 127.

RS-232C/RS-485 SET

```
CONTROL : RS-232C
DATA SPEED : 19200
STATUS INFO : ***
ALARM INFO : ***
ADDRESS : ***
```



13. BUZZER SET

This enables the warning buzzer to sound as necessary. Select "ON" or "OFF" for the menu item settings.



These settings only cause a buzzer to sound at the digital video recorder. They do not cause a buzzer to sound at the computer.



ALARM (Default setting: OFF)

This causes the buzzer to sound when there is an alarm.



DISK FULL (Default setting: ON)

This causes the buzzer to sound a warning when the free space remaining in the hard disk recording reach a preset value. (See p. 11)



DISK ERROR (Default setting: ON)

This causes the buzzer to sound a warning if a hard disk error has occurred.



LOCK WARNING (Default setting: ON)

This causes the buzzer to sound a warning if an unauthorized operating button is pressed when the security lock is on.

The buzzer sounds twice during a 0.5-second cycle.



KEY IN (Default setting: OFF)

This causes the buzzer to sound a key operation beep when an operating button is pressed.



NON REC (Default setting: OFF)

This causes the buzzer to sound a warning when recording stops.

BUZZER SET

```
ALARM : OFF
DISK FULL : ON
DISK ERROR : ON
LOCK WARNING : ON
KEY IN : OFF
NON REC : OFF
```

SAVE



Click [SAVE] to complete the BUZZER menu settings (or changes) that are displayed on the screen.



14. NETWORK SET

When the digital video recorder is connected to a network, NETWORK SET is used to make settings beforehand from the main unit, but the settings that have been specified from the main unit can also be changed from the computer.

However, when network settings are changed, the digital video recorder will be momentarily disconnected from the network and control will switch to the digital video recorder, so the network settings will need to be changed as necessary at the computer also. (See p. 3)

IP ADDRESS (①)

This enables the IP address for the digital video recorder to be reset.

SUBNET MASK (②)

This enables the subnet mask for the digital video recorder to be reset.

GATE WAY (③)

This enables the gateway for the digital video recorder to be reset.

PORT (④)

This enables the port number for the digital video recorder to be reset.

The setting range is from 1 to 65535 (Default setting: 80).



If the port is set to a value other than the default value of '80', add a ":" followed by the port number to the end of the IP address when typing in the URL.
Example of URL if the port is set to '81'
<http://192.168.0.1:81/>

The screenshot shows the NETWORK SET menu with the following fields and callouts:

- ① IP ADDRESS: 192.168.0.1
- ② SUBNET MASK: 255.255.255.0
- ③ GATEWAY: 0.0.0.0
- ④ PORT: 80
- ⑤ PASSWORD SETTING: ID1: 1111, ID2: 2222, ID3: 3333
- ⑥ NETWORK SPEED: NO LIMIT

A SAVE button is located at the bottom of the screen.

PASSWORD SETTING (⑤)

This enables the passwords for each user level to be reset. (See p. 4)

User level		1	2	3
User name		ID1	ID2	ID3
Available menus	Monitoring live images	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Monitoring and searching for recorded images	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Starting and stopping recording, timer recording, changing main unit settings, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Password (Default value)		1111	2222	3333

The password can consist of 4 to 8 alphanumeric characters.

NETWORK SPEED (⑥)

This enables the network speed to be reset.

NO LIMIT/64/128/256/512/1024 (kbps)

When reset from the main unit, the default setting (NO LIMIT) is restored.



Click [SAVE] to complete the NETWORK menu settings (or changes) that are displayed on the screen.

Menu Setting Procedures



15. HDD SET

This displays hard disk information. In addition, if another hard disk has been added and mirroring recording by the digital video recorder has been set to "ON", you can also set the drive to be given priority for the reading of data.



PLAYBACK DRIVE

If mirroring recording by the digital video recorder has been set to "ON", you can select the disk drive from which the recorded data is to be read from menu (3).



If these settings are made after an extra hard disk has been installed, the hard disks will be in the initialized condition with all recorded images erased. Any important recorded images should be stored on a computer.



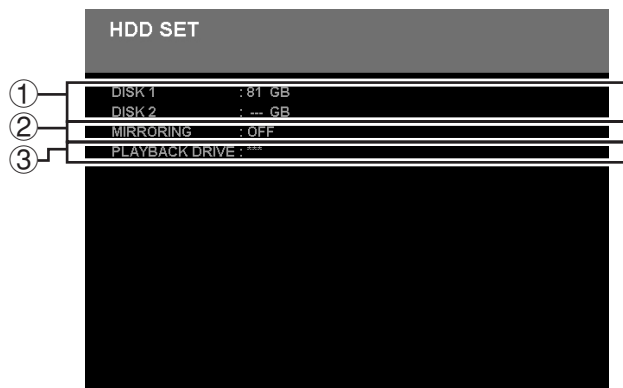
What is mirroring?

Mirroring recording is the term used to refer to recording the same images on two hard disks when an extra hard disk has been added. Turning on mirroring is a backup option so that if the data recorded on one disk becomes corrupted for some reason, the data from the other disk that was recorded correctly can be retrieved instead.

1 Select "Disk 1" or "Disk 2" from the menu.

- **DISK 1:** Data will be read from Disk 1.
- **DISK 2:** Data will be read from Disk 2.

2 Click [SAVE] to complete the PLAYBACK DRIVE menu settings.



① Hard disk capacity

Displays the total capacity of the hard disk.

If an extra hard disk has been added, the capacities of each hard disk are shown separately.

② MIRRORING

This shows the mirroring recording setting for the digital video recorder.

- **ON:** Mirroring recording is carried out.
- **OFF:** Mirroring recording is not carried out.

③ PLAYBACK DRIVE



16. POWER FAILURE/USED TIME

This displays the number of power failures and period of time that the digital video recorder has been used for recording.

① POWER FAILURE

This shows the number of power failures, the date and time of occurrence, and the date and time of recovery.

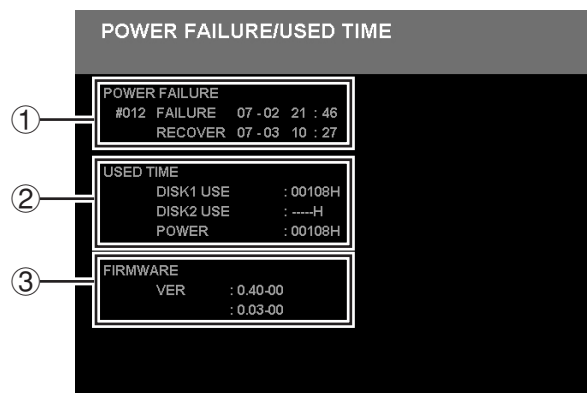
② USED TIME

This shows the period of usage of this unit.

- **DISK1 USE:** Total recording time for Disk 1
- **DISK2 USE:** Total recording time for Disk 2
- **POWER:** Total time the unit has been switched on

③ FIRMWARE

This shows the firmware version.





Recording Images

This digital video recorder can record images being monitored and alarm on the internal hard disk by the methods specified below.

In order to record images, the necessary menu settings should be made beforehand in accordance with the installation environment. (See p. 7)

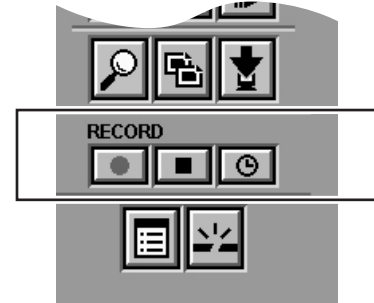
■ Normal recording

This is a manual operation for recording live images that are currently being viewed into the normal recording area.

- 1 Click the  button on the operating panel to start normal recording.
- 2 Click the  button on the operating panel to stop normal recording.




If more than one camera is connected to the digital video recorder for monitoring, the images for all cameras that have been set in the REC CAMERA GROUP specified by the NORMAL REC MODE SET setting will be recorded, regardless of the number of live image display screens. (See p. 13)




■ Timer recording


This is for automatically recording an image that is being viewed into the normal recording area at a specified time.

Timer recording is not possible during normal recording.

- 1 The conditions for timer recording (day of the week, time, recording speed, etc.) are set beforehand using the TIMER SET menu screen. (See p. 14)
- 2 Timer recording is started by clicking the  button on the operating panel and recording will start and stop automatically in accordance with the specified times. The timer recording operation is indicated by a “TIMER STANDBY” or “TIMER RECORDING” message appearing on the screen.



If “OLY AL-RC ON TMR” has been selected as the ALARM RECORDING setting (see p. 16), timer recording standby operation using the  button is not possible.

- 3 To cancel timer recording, click the  button on the operating panel again when in timer recording standby mode.

■ Alarm recording

Alarm images are recorded automatically in the alarm recording area when the alarm input terminals or motion sensor have detected an alarm.



When alarm recording is in operation, normal recording, timer recording and pre-alarm recording are automatically suspended, and they are resumed when the alarm recording is finished.

- 1 The conditions for alarm recording are set beforehand using ALARM REC MODE SET menu screen. (See p. 15)
- 2 Alarm recording begins automatically when an alarm is detected, regardless of the operating or working conditions of the digital video recorder.
- 3 Alarm recording stops automatically after the amount of time specified by the DURATION setting has elapsed.

■ Pre-alarm recording

When pre-alarm recording has been set beforehand, the same images will be recorded normally in the normal recording area and also in the alarm recording area. The normal recording images will be recorded in this way for the length of time specified by the DURATION setting, so that the images recorded before the alarm occurred can also be seen when the alarm recording is played back.

- 1 Set the pre-alarm recording conditions using the [PRE-ALARM RECORDING] menu in the ALARM REC MODE SET menu screen. (See p. 17)
- 2 The most recent images will be recorded automatically for the specified duration, and they will be updated by being overwritten.
- 3 When an alarm recording is being carried out, pre-alarm recording is automatically suspended, and it is resumed when the alarm recording is finished.

Viewing Images

Live images and recorded images can both be viewed while monitoring is in progress at any time when required.


Operations such as switching between live images and recorded images that are being played back and changing the display screen do not have any effect on other operations such as timer recording and alarm recording.

■ Viewing Live Images

Click the  button on the operating panel to pause playback. The display will then change to viewing live images.

■ Playing Back Recorded Images

You can play back images either by specifying the images to be played back or without specifying images.

Specifying images	Playback method
When not specifying images	Click the  button on the operating panel. The screen will change to the playback mode screen, and playback of images in the normal recording area and the alarm recording area will be carried out in the order that they were recorded. <ul style="list-style-type: none">• If playing back recorded images for the first time after being recorded, or if the digital video recorder has been reset, playback will start from the first image recorded.• When playing back images for the second and subsequent time, playback will start from the point where the previous playback session ended.
When specifying images	You can use the search function to search for the images that you would like to play back from all images that have been recorded in all of the different areas of the hard disk. When you search for images to be played back in search mode and then select an image, the display will change automatically to the playback mode screen and the selected images will be played back. Refer to “Search Mode” in the next section for further details.



The screen display may become momentarily unstable or playback may appear to pause when the following operations are carried out, but this is normal and is not the sign of a malfunction.

- When playback is carried out continuously between the normal recording area and the alarm recording area, the images may flicker momentarily when switching between the two areas.
- If you use normal playback or fast-forward and rewind playback during alarm recording or during continuous playback between the normal recording area and alarm recording area, the images may appear to freeze at times.

■ Specifying the Number of Display Screens (①)

If more than one camera is connected to the digital video recorder, multiple camera images can be displayed on the screen in a multi-screen format. To do this, you need to specify the channel numbers for the monitoring cameras that are to be displayed on the monitor screen.



○ Viewing images in a single-screen display

Click the [CHANNEL SELECT] button on the operating panel and select a single channel for viewing. Images from the selected channel will appear on the screen as a single-screen display.

The channel number selected will appear in the [CHANNEL] box.



- DSR-3009 model: 9 channels
- DSR-3016 model: 16 channels

○ Viewing images in a 9-screen or 16-screen multi-screen display


Click the  button on the operating panel. All camera images from the cameras that are being monitored or that have been registered will appear on the screen in a 16-screen or 9-screen multi-screen display. In the case of 16-channel screens, the display will alternate between a 9-screen display and a 16-screen display each time you click the  button.

- DSR-3009 model: 9-screen display
- DSR-3016 model: 16-screen display

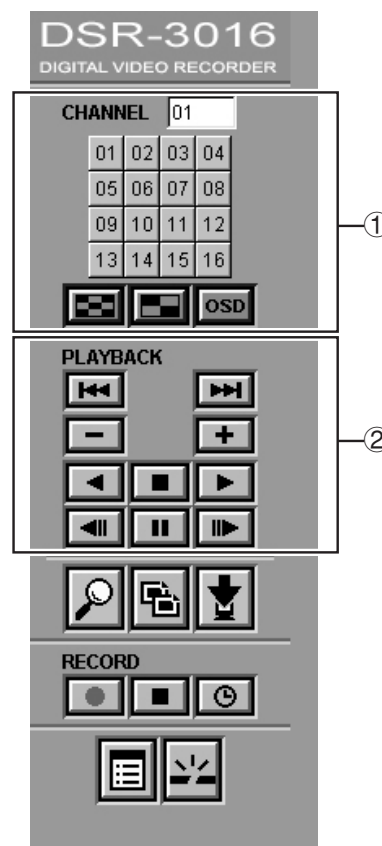
○ Viewing images in a 4-screen multi-screen display

Click the  button on the operating panel. The camera images from the cameras that are being monitored or that have been registered will appear on the screen in a 4-screen multi-screen display. Each time you click the  button, the 4-screen multi-screen changes to show channel numbers 1-4, 5-8, 9-12 and 13-16 respectively.

○ Changing the on-screen display position

Click the  button on the operating panel to change the display position on the monitor for information such as the date and time.


→ Top-right → Bottom-right → Not displayed





The display example is that for the DSR-3016 model.

■ Playback Mode Operations (②)


○ For playback

Click the  button on the operating panel.



○ To adjust the playback speed

The playback speed can be increased or decreased in steps by pressing the  or  buttons on the operating panel during playback.

○ For reverse playback


Click the  button on the operating panel.

○ To adjust the reverse playback speed



The reverse playback speed can be increased or decreased in steps by pressing the  or  buttons on the operating panel during reverse playback.

○ To pause playback



Click the  button on the operating panel during playback to pause playback.

Click the  button again while playback is paused to return to normal playback mode.

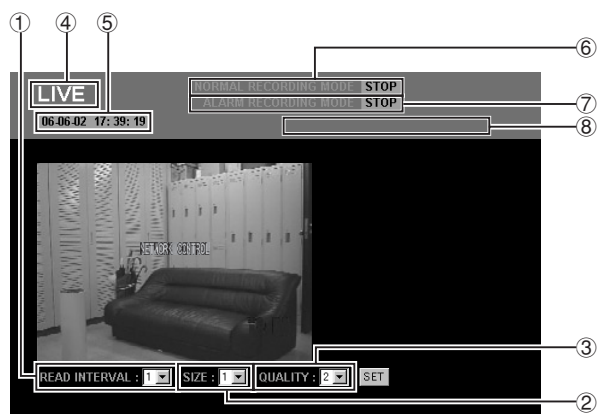
○ For frame feed (forward/reverse)

Paused playback images can be advanced (or reversed) one frame at a time by clicking the  button (or the  button) on the operating panel while playback is paused.

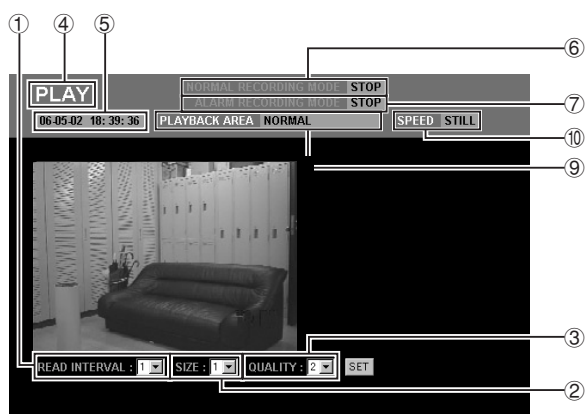
○ For alarm skip

Skip to the next (or previous) alarm event by pressing the  button (or the  button) on the operating panel during playback.

Viewing Images



Live mode screen



Playback mode screen

Image Adjustment

The display screen can be adjusted using the following adjustments.

Select the adjustment values from the menus, and then click [SET].

- ① **READ INTERVAL (Default setting: 1)**
Five stages of image display speed can be selected.
The larger the setting value, the faster is the display speed.
However, the actual refresh speed is limited by the communication speed of the network.
- ② **SIZE (Default setting: 1)**
The image size can be set to one of six sizes.
The larger the setting value, the larger is the display screen.
1: 320 × 240
2: 400 × 300
3: 640 × 480
4: 800 × 600
5: 1024 × 768
6: 1280 × 960
- ③ **QUALITY (Default setting: 2)**
The image quality can be set to one of three levels.
1: Lowest quality
2: Medium quality
3: Highest quality

On-screen Display Items

- ④ **Image mode**
LIVE: Indicates live mode.
PLAY: Indicates playback mode.
- ⑤ **Time**
LIVE MODE: Shows the current date and time.
PLAY MODE: Shows the recording date and time.

- ⑥ **NORMAL RECORDING MODE**
The current normal recording mode is shown for reference.
 - STOP
 - RECORDING
 - TIMER STANDBY
 - TIMER RECORDING
 - AREA FULL (when there is no free space in the alarm recording area)
- ⑦ **ALARM RECORDING MODE**
This shows the current alarm recording mode.
 - STOP
 - PRE-ALARM RECORDING
 - ALARM RECORDING
 - AREA FULL (when there is no free space in the alarm recording area)
- ⑧ **Users connected**
If more than one user is connected, this shows the number of users connected for each user level.
(Display example) ID1:3 ID2:1 ID3:0
The ID for the user who is at the location where this screen is being viewed is displayed in red.
- ⑨ **PLAYBACK AREA (playback mode screen only)**
This indicates the recording area where the images currently being played back are recorded.
 - ALARM
 - PRE-ALARM
 - NORMAL
 - ARCHIVE
- ⑩ **SPEED (playback mode screen only)**
This indicates the speed and direction of playback.

Display	Playback direction	Playback speed
PLAY	Forward	Normal
STILL	Paused	Paused
R.PLAY	Reverse	Normal
CUE	Forward	Fast forward
REV	Reverse	Fast reverse
SLOW	Forward	Slow forward
R.SLOW	Reverse	Slow reverse

SEARCH

Five search modes are provided for different recording areas and image search patterns. These let you quickly search for images and play them back.

■ Basic Search Operations

- 1 Click the  button on the operating panel in live mode (when playback is stopped) to display the [SEARCH] menu.



If you click the  button during playback mode, the message “Mode Error” will be displayed.

- 2 Click to select the required search mode in the [SEARCH] menu screen.
The specified search mode screen will be displayed.
- 3 Search for images by using the search mode screen.
Refer to the following pages for details on the search procedures.
- 4 Check the search images in the preview or thumbnail screens, and then click the screen.
The mode will change to playback mode and playback will start in single-screen display.
Operations such as pausing and fast-forwarding are exactly the same as for normal playback. (See p. 24)

■ Search Menus

	Search Mode	Search target recording area	Notes
1	ALARM SEARCH	ALARM RECORDING AREA	Searches for alarm images from the alarm event list and plays them back.
2	ALARM THUMBNAIL SEARCH	ALARM RECORDING AREA	Searches for alarm images by means of thumbnails and plays them back.
3	TIME/DATE SEARCH	NORMAL RECORDING AREA ALARM RECORDING AREA	Searches for recorded images by date and time and plays them back.
4	ARCHIVE AREA SEARCH	ARCHIVE AREA	Searches for images that have been saved (copied) in the archive area from the image list and plays them back.
5	MOTION DETECTION SEARCH	NORMAL RECORDING AREA ALARM RECORDING AREA	Searches for recorded images in which a motion sensor recorded movement, and plays them back.

Search Mode Operations



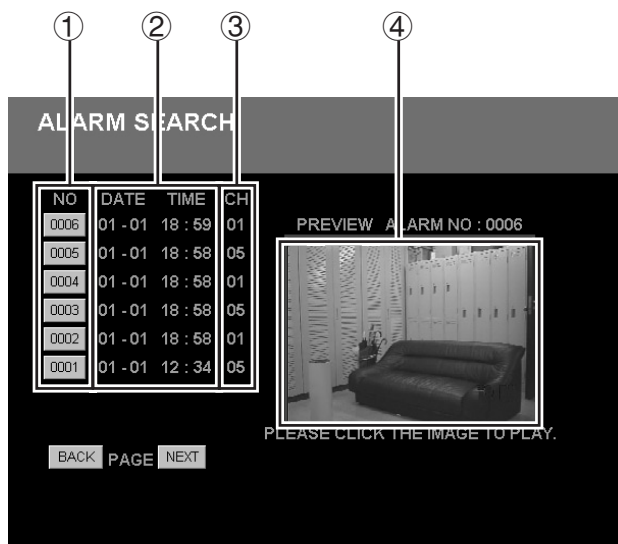
1. ALARM SEARCH

This displays a list of all alarm events recorded in the alarm recording area by alarm number. Alarm images are searched for by alarm number and played back.

- 1 Select [ALARM SEARCH] from the [SEARCH] menu.**

A list of alarm events is displayed on the ALARM SEARCH screen in order starting from the most recent recording date.
- 2 Select the number of the alarm image that you wish to play back from the alarm event list, and confirm the selection in the PREVIEW screen.**
 - When you click the alarm number in the list, the corresponding alarm image will be displayed in the PREVIEW screen.
 - Up to eight alarm events can be shown on a single screen. Click the [Back] or [Next] button to show the previous or next eight events.
- 3 Once you have confirmed that the image to be played back appears in the PREVIEW screen, click the PREVIEW screen.**

The images starting from the point that the alarm occurred will be played back in a single-screen display.



- ① **NO:** Alarm number
- ② **DATE/TIME:** Date and time of recording
- ③ **CH:** Channel (camera number)
- ④ **PREVIEW:** Preview display of alarm image



2. ALARM THUMBNAIL SEARCH

This displays thumbnails of all alarm images recorded in the alarm recording area. Alarm images are searched for and displayed from thumbnails.

- 1 Select [ALARM THUMBNAIL SEARCH] from the [SEARCH] menu.**
 - The most recent alarm images are displayed with alarm numbers on the ALARM THUMBNAIL SEARCH screen.
 - Up to nine alarm events can be displayed as thumbnails on a single screen. Click the [Back] or [Next] button to show the nine previous or next thumbnail screens.
- 2 Click the thumbnail you wish to play back.**

The images starting from the point that the alarm occurred will be played back in a single-screen display.





3. TIME/DATE SEARCH

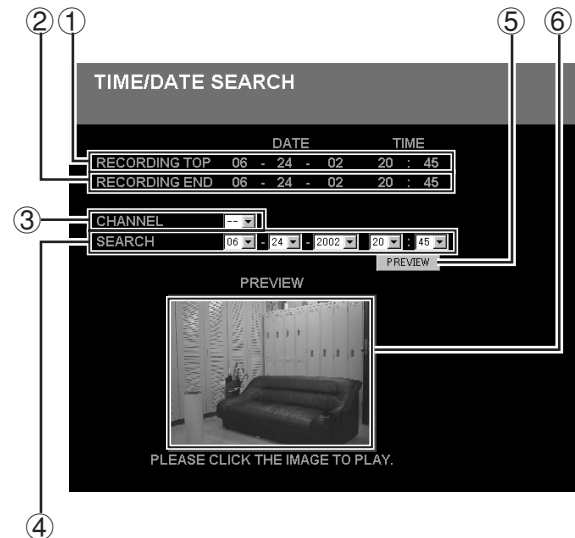
Images in the normal recording and the alarm recording area can be specified by time and date and played back.

- 1 Select [TIME/DATE SEARCH] from the [SEARCH] menu.**
The TIME/DATE SEARCH screen will appear.
- 2 Specify the channel (camera number) that you wish to play back in the [CHANNEL] menu.**
If the multiplexer function has not been used and only one channel is available, [-] will be displayed.
- 3 Specify the recording time for the images that you wish to play back in the [SEARCH] menu.**
Year / Month / Day / Hours / Minutes
- 4 Click the [PREVIEW] button and confirm the image specified in the PREVIEW screen.**
After the search is complete, the image for the specified time will be displayed.



If there is no image for the exact time and date specified, the image closest to the specified time and date will be displayed.

- 5 Once you have confirmed that the image to be played back appears in the PREVIEW screen, click the PREVIEW screen.**
The images starting from the point that the alarm occurred will be played back in a single-screen display.



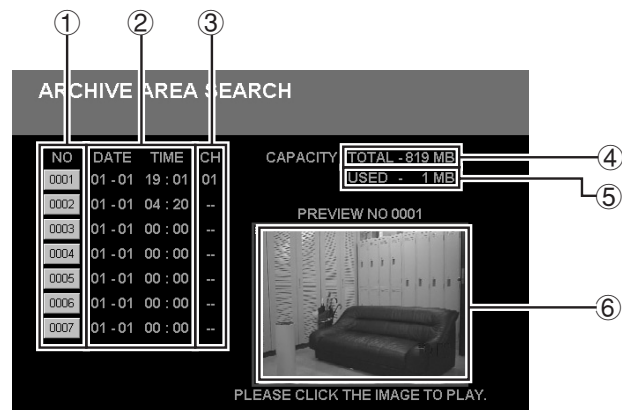
- 1 RECORDING TOP:** The oldest recorded image
- 2 RECORDING END:** The newest recorded image
- 3 CHANNEL:** Channel (camera number)
- 4 SEARCH:** Date and time of recording for the image that is to be played back
- 5 [PREVIEW]:** Button for specifying preview
- 6 PREVIEW:** Preview display of the image for the specified date and time



4. ARCHIVE AREA SEARCH

This lets you play back images that have been saved (copied) in the archive area.

- 1 Select [ARCHIVE AREA SEARCH] from the [SEARCH] menu.**
A list of saved images is displayed on the ARCHIVE AREA SEARCH screen in order starting from the earliest recording date.
- 2 Select the number of the image that you wish to play back from the list of saved images, and confirm the selection in the PREVIEW screen.**
 - When you click the image number in the list, the corresponding image will be displayed in the PREVIEW screen.
 - Up to eight saved images can be shown on a single screen. Click the [Back] or [Next] button to show the previous or next eight images.
- 3 Once you have confirmed that the image to be played back appears in the PREVIEW screen, click the PREVIEW screen.**
The images starting from the point that the alarm occurred will be played back in a single-screen display.



- 1 NO:** Image number
- 2 DATE/TIME:** Date and time of recording
- 3 CH:** Channel (camera number)
- 4 CAPACITY TOTAL:** Total capacity of the archive area
- 5 CAPACITY USED:** Used capacity of the archive area
- 6 PREVIEW:** Preview display of the archived image.



5. MOTION DETECTION SEARCH

If a motion sensor has been set to detect movement in a particular camera view, and images for that view have been saved in the normal recording area or alarm recording area, you can search for those images that have changed as a result of movement by an intruder, for example, and play back those images.

1 Select [MOTION DETECTION SEARCH] from the [SEARCH] menu.

The MOTION DETECTION SEARCH screen will be displayed.

2 Select the recording area to search for images from the [SEARCH FROM] menu.

- **ALARM:** Only alarm recording area images will be searched.
- **NORMAL:** Only normal recording area images will be searched.
- **ALARM AND NORMAL:** Images in both the alarm recording area and the normal recording area will be searched.

3 Select the channel (camera number) to search for images from the [MULTIPLEXER CHANNEL] menu.

If the multiplexer function has not been used and only one channel is available, [--] will be displayed.

4 Click the [SET] button. The recording start and recording end times for the images to be searched will be displayed in the [START] and [END] menus respectively. To refine the range over which to search, use the menu to adjust the [START] or [END] settings, and then click the [SET] button to apply the changes.

The search results will be displayed in a message box.

5 Specify the motion sensor search conditions.

• Sensor position

The MOTION SENSOR SET screen will be displayed, and it will be divided up into an 8 (H) × 10 (W) grid. Click the position where you wish to set the focus for the motion sensor. A red sensor setting mark will appear at that position. (If you click a sensor position again, the sensor setting will be canceled.)

• Sensor level

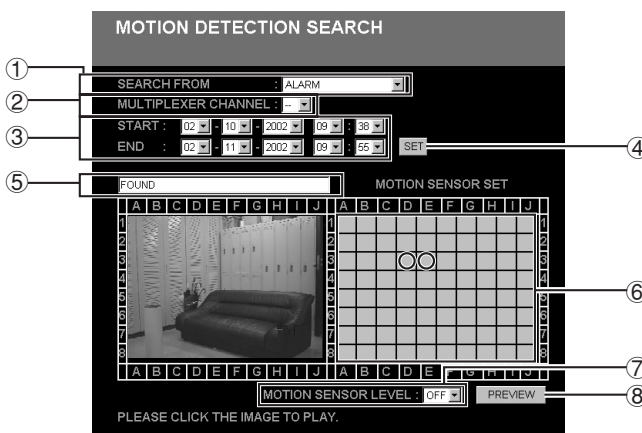
Select from the menu. The lower the number, the higher is the sensitivity.

6 Click the [PREVIEW] button to confirm the image in the PREVIEW screen.

Images in the specified time range in which the sensor has detected movement will be searched and displayed on the PREVIEW screen.

7 After confirming that the image found is the one you wish to play back, click the PREVIEW screen.

The images starting from the point that the alarm occurred will be played back in a single-screen display.



- SEARCH FROM**
This selects the recording areas to search in.
- MULTIPLEXER CHANNEL**
Channel (camera number) for images to be searched
- START/END**
This selects the recording start and end times for the images to be searched.
- SET**
This sets the search conditions.
- MESSAGE BOX**
This shows the search results for images that satisfy the search conditions.
 - **SEARCHING:** Searching for images.
 - **FOUND:** Images satisfying the search conditions have been found.
 - **IMAGES NOT FOUND:** No images that satisfy the search conditions were found.
- MOTION SENSOR SET**
Motion sensor setting screen
- MOTION SENSOR LEVEL**
Sets the sensor sensitivity.
(OFF, 1 to 10)
- PREVIEW**
Search image preview display.

Saving Recorded Images

Recorded images can be copied into the archive area of the hard disk or downloaded to a personal computer.


This function is used only for saving important images that have been recorded in the normal recording area and alarm recording area.



- Images that are copied will be saved as individual images. Moving pictures are handled by specifying the number of images that need to be copied after the start picture. The maximum number of images that can be archived in one copy operation is 10,000 when copying to the archive area and 1,000 when downloading to a computer.
- In order to protect the recording operation of the digital video recorder, the status of the network is checked, and if the network is busy, the digital video recorder may be disconnected from the network depending on the operating environment. If a command is given to transfer large volumes of data all at once (particularly when saving 1100 or more images at a time), the digital video recorder may be disconnected from the network, so you may need to restrict the number of images being copied at one time depending on the environment.
- If the archive area becomes filled with images, you can temporarily copy the images to another medium such as a CompactFlash card, and then press the [AREA FULL RESET] button on the RECORDING AREA SET main menu to reset the digital video recorder. (See p. 10)

■ COPY TO ARCHIVE AREA ON THE RECORDER

1 Play back the recorded images from the normal recording area or alarm recording area, and pause playback at the first image that is to be copied.

2 While playback is paused, click the  button on the operating panel.

The COPY screen will be displayed.

3 Enter the number of images in the [HOW MANY] box.

Enter the number of successive images to be copied after the start image.

Valid range: 1 to 10000.

A warning message will be displayed if an invalid number is entered.

4 Click the [START] button.

Copying to the archive area will begin and copying progress will be displayed in the message box.

Copying in progress: **COPYING TO ARCHIVE AREA !**

Copying finished: **COPY FINISHED !**



① **Recording date and time:** The date and time that the images were recorded.

② **PLAYBACK AREA:** The recording area where the images being played back were recorded.

- NORMAL
- ALARM

③ **HOW MANY:** The number of images being copied.

④ **MESSAGE BOX:** Shows the copying progress.

⑤ **START:** Click this button to start copying.

Saving Recorded Images

■ DOWNLOAD TO PC

Recorded images can be copied into the archive area of the hard disk or downloaded to a personal computer.

1 Pause image playback at the image that will be the starting point for downloading.

Play back recorded images and pause playback at the image that will be the starting point for downloading.



All images recorded in the normal recording area, the alarm recording area and the archive area can be downloaded. However, the actual downloading involves sending data from the archive area, so when downloading images from the normal recording area and the alarm recording area, they are automatically saved temporarily in the archive area.

2 While playback is paused, click the button on the operating panel.

The DOWNLOAD screen will be displayed.

3 Enter the number of images in the [HOW MANY] box.

Enter the number of successive images to be copied after the start image.

Valid range: 1 to 10000.

A warning message will be displayed if an invalid number is entered.

4 Click the [START] button.

Downloading will begin and [PLEASE WAIT!] will be displayed in the message box.

When downloading of all pictures is finished, the display will change to the Image Viewer screen and a data save confirmation dialog box will be displayed.

5 Click [OK] in the dialog box and then save the page.

Click [OK] then select [Save] from the Internet Explorer [File] menu and save the downloaded page.

All images are saved at the same time as the pages are saved.



Use Internet Explorer 5.0 or higher. Images cannot be saved with other browser versions.

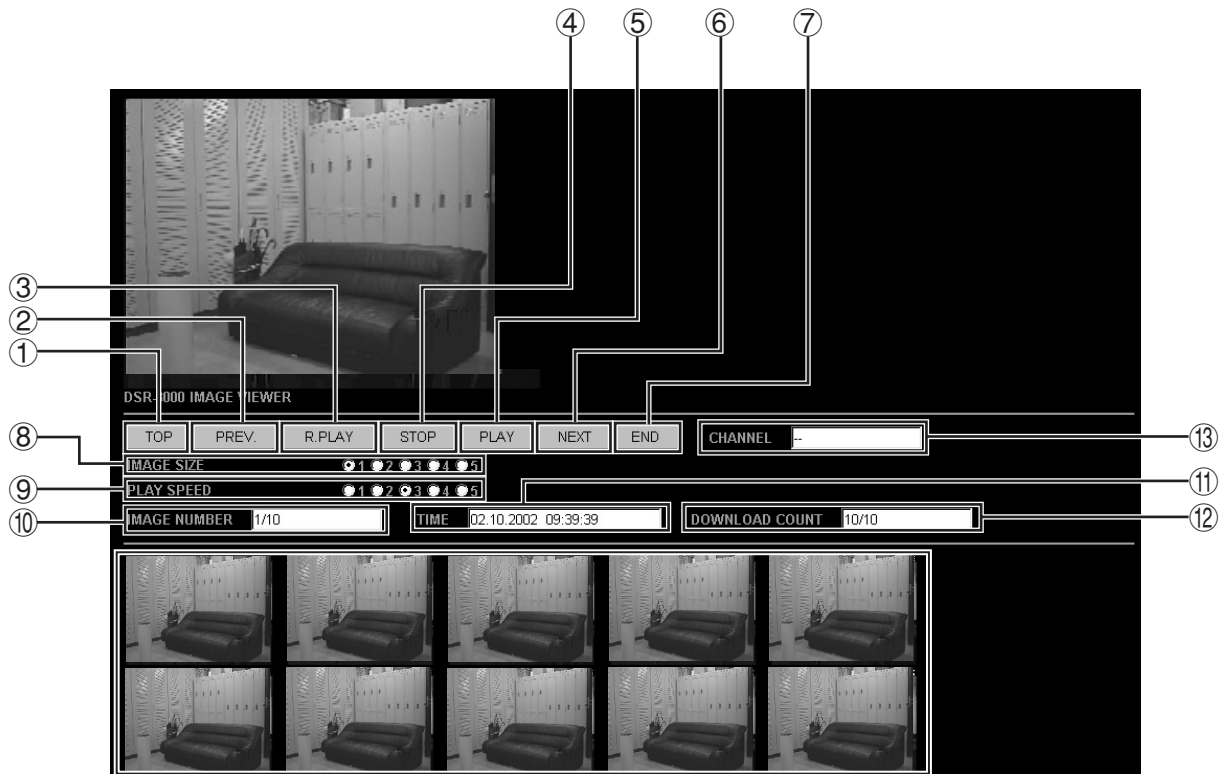


- ① **Recording date and time:** The date and time that the images were recorded
- ② **PLAYBACK AREA:** The recording area where the images being played back were recorded
 - NORMAL
 - ALARM
 - ARCHIVE
- ③ **HOW MANY:** The number of images being copied.
- ④ **MESSAGE BOX:** Shows the copying progress.
- ⑤ **START:** Click this button to start downloading.



* Image Viewer Screen

This lets you check the downloaded images.



Thumbnail images

- ① **TOP**
This displays the first image.
- ② **PREV.**
This displays the previous image.
- ③ **R.PLAY**
This plays back the images in reverse. When the first image is reached, it returns to the last image and continues reverse playback from that image.
- ④ **STOP**
This stops playback.
- ⑤ **PLAY**
This plays back the images. When the last image is reached, it returns to the first image and continues playback from that image.
- ⑥ **NEXT**
This displays the next image.
- ⑦ **END**
This displays the last image.
- ⑧ **IMAGE SIZE**
This sets the image display size.
1 400 × 300
2 640 × 480
3 800 × 600
4 1024 × 768
5 1280 × 960
- ⑨ **PLAY SPEED**
This sets the playback speed (cycle).
1 1000msec
2 500msec
3 250msec
4 100msec
5 25msec
* The above playback speed (cycle) value will vary depending on the specifications of the computer.
- ⑩ **IMAGE NUMBER**
This displays the number of the image being played back.
- ⑪ **TIME**
This displays the recording date and time for the image being played back.
- ⑫ **DOWNLOAD COUNT**
The number of images being downloaded are displayed as "Number of images downloaded / Total number of images". (If the number of images recorded does not reach the number of images entered, the total number of images will equal the number of images recorded.)
- ⑬ **CHANNEL**
This shows the channel (camera number) for the images that are being downloaded.



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