



Digital Video Recorder

Operation Manual



TR-1504

Before reading this manual

This operation manual contains basic instructions on installing and using Digital Video Recorder, an IDIS product. Users who are using this product for the first time, as well as users with experience using comparable products, must read this operation manual carefully before use and heed to the warnings and precautions contained herein while using the product. Safety warnings and precautions contained in this operation manual are intended to promote proper use of the product and thereby prevent accidents and property damage and must be followed at all times. Once you have read this operation manual, keep it at an easily accessible location for future reference.

- ✓ The manufacturer will not be held responsible for any product damage resulting from the use of unauthorized parts and accessories or from the user's failure to comply with the instructions contained in this operation manual.
- It is recommended that first-time users of Digital Video Recorder and individuals who are not familiar with its use seek technical assistance from their retailer regarding product installation and use.
- If you need to disassemble the product for functionality expansion or repair purposes, you must contact your retailer and seek professional assistance.
- Both retailers and users should be aware that this product has been certified as being electromagnetically compatible for commercial use. If you have sold or purchased this product unintentionally, please replace with a consumer version.

Safety Precautions

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Important Safeguards

1. Read Instructions

All the safety and operating instructions should be read before the appliance is operated.

2. Retain Instructions

The safety and operating instructions should be retained for future reference.

3. Cleaning

Unplug this equipment from the wall outlet before cleaning it. Do not use liquid aerosol cleaners. Use a damp soft cloth for cleaning.

4. Attachments

Never add any attachments and/or equipment without the approval of the manufacturer as such additions may result in the risk of fire, electric shock or other personal injury.

5. Water and/or Moisture

Do not use this equipment near water or in contact with water.

6. Ventilation

Place this equipment only in an upright position. This equipment has an open-frame Switching Mode Power Supply (SMPS), which can cause a fire or electric shock if anything is inserted through the ventilation holes on the side of the equipment.

7. Accessories

Do not place this equipment on an unstable cart, stand or table. The equipment may fall, causing serious injury to a child or adult, and serious damage to the equipment. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.



This equipment and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the equipment and cart combination to overturn.

8. Power Sources

This equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power, please consult your equipment dealer or local power company.

You may want to install a UPS (Uninterruptible Power Supply) system for safe operation in order to prevent damage caused by an unexpected power stoppage. Any questions concerning UPS, consult your UPS retailer.

9. Power Cords

Operator or installer must remove power and TNT connections before handling the equipment.

10. Lightning

For added protection for this equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the equipment due to lightning and power-line surges.

11. Overloading

Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.

12. Objects and Liquids

Never push objects of any kind through openings of this equipment as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the equipment.

13. Servicing

Do not attempt to service this equipment yourself. Refer all servicing to qualified service personnel.

14. Damage requiring Service

Unplug this equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- A. When the power-supply cord or the plug has been damaged.
- B. If liquid is spilled, or objects have fallen into the equipment.
- C. If the equipment has been exposed to rain or water.
- D. If the equipment does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the equipment to its normal operation.
- E. If the equipment has been dropped, or the cabinet damaged.
- F. When the equipment exhibits a distinct change in performance this indicates a need for service.

15. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

16. Safety Check

Upon completion of any service or repairs to this equipment, ask the service technician to perform safety checks to determine that the equipment is in proper operating condition.

17. Field Installation

This installation should be made by a qualified service person and should conform to all local codes.

18. Correct Batteries

Warning: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

19. Tmra

A manufacturer's maximum recommended ambient temperature (Tmra) for the equipment must be specified so that the customer and installer may determine a suitable maximum operating environment for the equipment.

20. Elevated Operating Ambient Temperature

If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature (Tmra).

21. Reduced Air Flow

Installation of the equipment in the rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.

22. Mechanical Loading

Mounting of the equipment in the rack should be such that a hazardous condition is not caused by uneven mechanical loading.



23. Circuit Overloading

Consideration should be given to connection of the equipment to supply circuit and the effect that overloading of circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

24. Reliable Earthing (Grounding)

Reliable grounding of rack mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).

In-Text

Symbol	Type	Description
	Caution	Important information concerning a specific function.
	Note	Useful information concerning a specific function.

User's Caution Statement

Caution: Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC Compliance Statement

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE, IN WHICH CASE USERS WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT THEIR OWN EXPENSE.

WARNING: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS OF DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE CAUSING EQUIPMENT REGULATIONS.

WEEE (Waste Electrical & Electronic Equipment)

Correct Disposal of This Product

(Applicable in the European Union and other European countries with separate collection systems)



This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

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Other company and product names are registered trademarks of their respective owners.

The information in this manual is believed to be accurate as of the date of publication even though explanations of some functions may not be included. We are not responsible for any problems resulting from the use thereof. The information contained herein is subject to change without notice. Revisions or new editions to this publication may be issued to incorporate such changes.

The software included in this product contains some Open Sources. You may obtain the corresponding source code which we have to distribute according to the license policy. Go to System Setup - About page for more information. This product includes software developed by the University of California, Berkeley and its contributors, and software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>). Also, this product includes cryptographic software written by Eric Young (eay@cryptsoft.com), and software written by Tim Hudson (tjh@cryptsoft.com).

Covered by one or more claims of the patents listed at patentlist.accessadvance.com.

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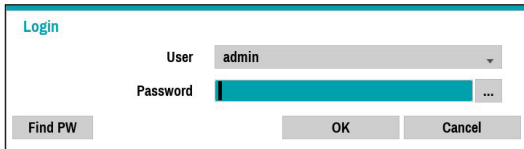
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Part 1 - Getting Started

Login

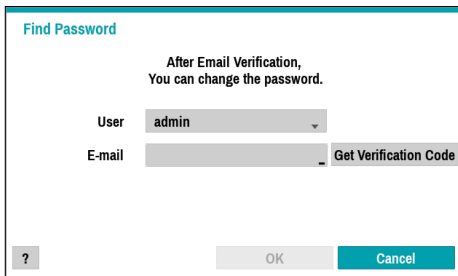
Configuring the DVR's settings and accessing its searching and other functions require an authorized user login.

- 1 Bring up the Live menu and click on  (Login) using the mouse.

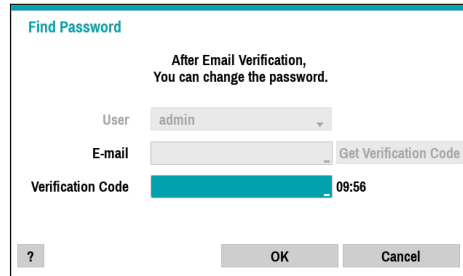



- 2 Select a user, enter the password, and then select **OK**.


- 3 Select **Find PW** from the login screen if you do not remember the password. Select a user and enter the E-mail address, and click **Get Verification Code**.

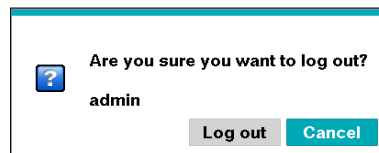


- 4 Enter the verification code you receive by e-mail and click **OK**.



- There is no default password for the admin account. Select **admin** and then **OK** without entering a password to log in.
- Leaving the admin account unassigned with a password poses a security risk. Please assign a password at your earliest convenience. A warning message will continue to be displayed until a password is assigned.
- Click on the  button next to the password field using the mouse. This will bring up a virtual keyboard you can use to assign a password. For more information on using the virtual keyboard, refer to the [Text Input via Virtual Keyboard on page 19](#).
- SMTP setup is necessary for verification. For more information on SMTP setup, refer to the [FEN on page 41](#).

- 5 To log out, bring up the Live menu and click on  (Log out) using the mouse.



Live Mode


Live Menu

Put the mouse pointer on the right side of the screen while in Live mode to bring up the Live menu on the right edge of the screen.



1	Login/Logout
2	Monitor
3	Display
4	Previous Group
5	Next Group
6	Freeze
7	Alarm
8	Panic Recording
9	Sequence
10	Camera Menu
11	Search
12	Setup
13	Status

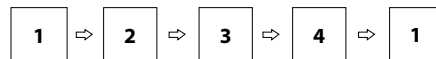
Placing the mouse pointer near the right edge of the screen also displays the Live menu.

- Login/Logout**
 Log into and out from accounts. If in the logged in state, the account ID is shown. If in the logged out state, the login icon is shown.
- Monitor**
 Selects the monitor between Main and Spot. You can select the screen format and sequence monitoring of the selected monitor.
- Display**
 Used to change the screen layout to single screen and 2x2.
 - **Camera OSD, Status OSD:** Camera OSD or Status OSD On and Off.
- Previous/Next Group**
 Loads the previous/next screen group.
- Freeze**
 Freezes the screen. Select **Freeze** again to unfreeze.
- Alarm**
 Pressing this button while the alarm has been activated resets all DVR outputs, including the built-in buzzer.
- Panic Recording**
 Activates/deactivates Panic Recording.
- Sequence**
 Initiates **Sequence** by putting the mouse pointer on the right side of the screen while in Live mode. The  icon is displayed at the bottom of the screen while Sequence is in progress.

Full Sequence

Displays all channels in sequence while in Live mode (single and 2x2 screen settings).

e.g.) Full Sequence in single screen mode



- While in the Sequence mode, the sequence icon displays in bottom-left corner if Sequence is selected in the Display setup screen.
- Pages are skipped under the following circumstances:
 - If all cameras included in the page are deactivated.
 - If there are no video signals.
 - If the page contains "covert" cameras.
 - If the user does not have permission to view feeds from the cameras.

• Camera Menu

- **PTZ:** Allows you to control the selected camera as long as it has Pan, Tilt and Zoom capabilities.
- **Zoom:** Zooms the current image of the selected camera on the screen. Right-click on the mouse and drag to change the orientation, and use the wheel with the left-click on the mouse to zoom in/out more precisely.
- **Color Control:** Allows you to control brightness, contrast, hue and saturation for each camera for the selected camera if a user who has Color Control authority logs into the system.
- **Video Position:** Allows you to control the position of video in left/right directions.
- **Menu Control:** Adjusts the camera's self-settings.



Menu Control is supported only for the cameras that use Pelco-C /H-C/ACP Protocol and support UTC (Up The Coax) function.

- **Edit Group:** Enter to the Edit Group mode in the split screen layout.
- **Information:** Displays currently connected camera information and recording status.

• Search

Exits the live monitoring mode and enters the search mode.

• Setup

Used to access the Setup menu.

• Status

Allows you to check the status of the DVR's system, event and storage.

Video Display Area

Left-click on the video display area to toggle between split screen and single screen modes.

Drag the camera screens around to rearrange them.









Camera Screen



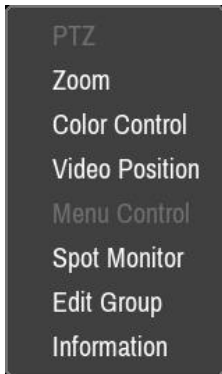
① **Camera Title:** Indicates the camera's title.

② **Status Indication:** Displays system status icons.

	Indicates connection to the DVR from a remote program.
	Indicates a zoomed in state.
	Indicates Freeze is in use.
	Indicates Sequence is in use.
1/2	Indicates the current screen's group.
	Indicates an event monitoring.
	Indicates HDD use. The icon to the left is shown if using the overwrite setting. Otherwise, remaining HDD space is shown as a percentage value.

Camera Menu

Right-click on the video display area to bring up the camera menu.



- **PTZ:** Allows you to control the selected camera as long as it has Pan, Tilt and Zoom capabilities.
- **Zoom:** Zooms the current image of the selected camera on the screen.
- **Color Control:** Adjusts the camera's color settings.
- **Video Position:** Adjusts the video position in left/right directions.
- **Menu Control:** Adjusts the camera's self-settings.

Menu Control is supported only for the cameras that use Pelco-C /H-C/ACP Protocol and support UTC (Up The Coax) function.

- **Edit Group:** Enter to the Edit Group mode in the split screen layout.
- **Information:** Displays currently connected camera information and recording status.


Edit Group

Edit Group lets you customize split screen pages in both Live and Search modes.

- 1 While displaying a split screen page, select the **Edit Group** option from the context menu. A yellow border is drawn around the page. Use the mouse to select a different page.
- 2 Use the mouse right button to select a camera. Selected camera is then loaded on to the selected page. Repeat to assign other channels to the page.
- 3 Select **Exit Group Edit** from the context menu to exit the Edit Group mode.

Edit Group will terminate automatically after 15 seconds of inactivity.

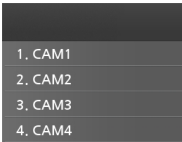
Zoom

Select Camera **Menu > Zoom** and select a channel you wish to zoom in on. A zoom frame will appear on the selected channel. Use the arrow buttons to position the frame. Press the **Play/Pause** button to cycle through various zoom factors. When Zoom is activated,  icon is on the status bar located on the bottom of the system.

- In Full Screen mode, activating Zoom automatically selects the current channel.
- To restore the channel to normal size, press the Exit icon from the Menu. The available enlargement ratio is different from camera mode.

PTZ Control

While in Live mode, right-click and select PTZ from the context menu to display the PTZ camera selection window.



Select the camera you wish to control. The **P** icon will begin to flash on the selected camera's OSD window.

Use the **Arrow** buttons to pan and tilt the camera up, down, left, and right.

Use the **+** and **-** buttons to zoom in/out.

Use the **+** and **-** buttons to shift focus from nearby to far and vice versa. You can also change the direction by dragging on the mouse.

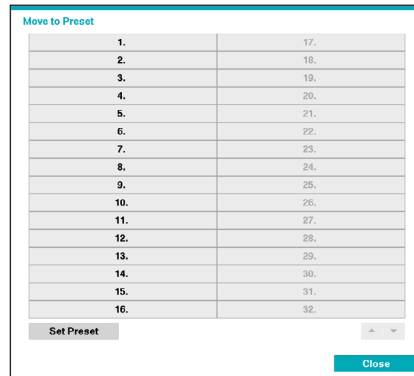
Also, it's possible to use the mouse wheel to zoom in/out.



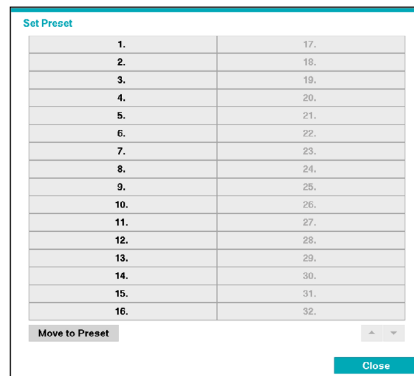
- Logging in with an account that has **PTZ Control Authority** is necessary in order to control PTZ cameras.
- A message will prompt if there is no PTZ camera displayed on the Live screen.
- To exit PTZ mode, click the Exit icon from the menu.

Setting Up a PTZ Preset

While in PTZ mode, click on the right mouse button to display the **Move to Preset** window and assign the current position as a preset.

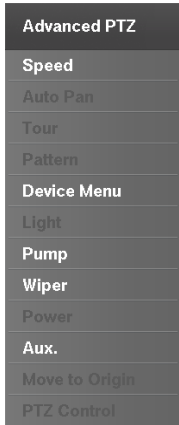


Select the **Set Preset** button from the **Move to Preset** window to display the **Set Preset** window. Select a preset to move the current PTZ camera to the selected preset's position.



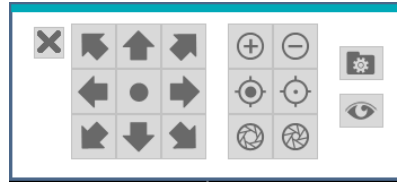
Advanced Settings

In PTZ mode, select a camera. Putting the mouse pointer on the right side of the screen and selecting **Advanced PTZ** loads the Advanced PTZ screen as shown below. You can load the Advanced PTZ screen also by pressing the **MENU** button and then **Play/Pause** button on the front panel. This menu lists **Speed**, **Auto Pan**, and other advanced PTZ camera control options available for the camera. Options that are not available for the selected PTZ camera remain inactive.



You can use the mouse to control PTZ cameras. Left-click on the mouse and drag to move the camera in the desired direction and use the mouse wheel to zoom in/out.


While in PTZ mode, place the mouse pointer close to the bottom edge of the screen to display the PTZ Tools window.



	PTZ Camera Pan and Tilt
	Zoom In/Out
	Focus Near / Far
	IRIS Open / Close
	Set / Move to Preset
	Device Menu supported by the camera

- The exact PTZ protocol supported by the camera must be specified in order to use the DVR's PTZ controls.
- Drag and drop to reposition the PTZ Tools window.
- Select the icon to hide the PTZ Tools window.

Event Monitoring

When an event occurs, the DVR automatically displays the channel linked to the event and shows the  icon on the system status area on the bottom of the screen. To use the Event Monitoring feature, navigate to **Menu > Display > Main Monitor** and enable **Event Monitoring**. Event Monitoring remains in effect throughout the entire **Linked Recording Time**. After that, the DVR will return to the previous screen if a new event does not take place. Pressing the **Layout** or a **Camera** button before the end of the **Linked Recording Time** reverts the system to Live mode.

Covert Camera

Use this feature to assign **Covert Camera View** permissions.

Navigate to **Menu > Camera** and designate cameras as **Covert 1** or **Covert 2**.

- **Covert 1:** Hides images from the camera in Live mode but does indicate the camera's title and status via icons.
- **Covert 2:** The camera is indicated as being inactive. Images from the camera are not shown. Camera title and status icons are not shown.



Users that have a cover **Covert Camera View** are able to view both images from and status icons for all **Covert 1** and **Covert 2** cameras.

Status





Refer to the **Menu Use on page 19** for basic information on using the Setup menus.

Event Status

This screen displays an overview of all events.

When an event occurs, the corresponding channel flashes for 5 seconds.

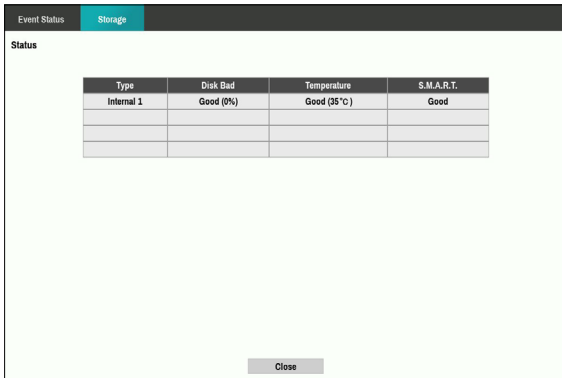


	Alarm-In
	Check Alarm-In
	Motion
	Video Loss

- **Panic Record:** Displays event status based on current Panic Record status.
- **Check Recording:** Displays event status based on **System Monitoring** settings. For more information, refer to the **System Event on page 28**.
- **No Storage Found:** It will be highlighted when no recordable storage device has been found.
- **Disk Almost Full/Disk Full:** If the storage device is not in **Recycle** status, event status is displayed when the amount of disk space specified under **System Monitoring** is reached and when the disk becomes 100% full. For more information, refer to the **System Event on page 28**.
- **Disk Config Change:** It will be highlighted when the DVR reboots after the hard disk drive has been replaced.

Storage

Indicates each disk's status.



Configure Disk Bad and Disk Temperature settings under **Setup > System > System Event**.

Disk Bad	Not Formatted	A disk that has never been used before.
	Good	<ul style="list-style-type: none"> Disk performing normally. If the HDD is partially damaged, indicates the bad sector percentage.
	Error	<ul style="list-style-type: none"> If the HDD's bad sector ratio is higher than as designated by the user. Generates a system event.
Temperature	N/A	Unable to detect the disk's temperature.
	Good	Operating within normal temperature range.
	Bad	<ul style="list-style-type: none"> Disk temperature higher than as designated by the user. Generates a system event.
S.M.A.R.T.	N/A	A disk that does not support S.M.A.R.T.
	Good	A disk with normal S.M.A.R.T. status.
	Bad	A disk with abnormal S.M.A.R.T. status. Possibility of damage within 24 hours.

Context Menu Access

You can display the ContextMenu window by pressing the **MENU** button and then **PLAY/PAUSE** button on the front panel. Alternatively, right-click on the mouse to access the Context menu.


- **PTZ:** Access PTZ controls.
- **Zoom:** Zoom in.
- **Color Control:** Select a channel to display its Color Control window. Adjust the selected camera's brightness, contrast, saturation, and hue settings.
- **Video Position:** Adjusts the video position in left/right directions.
- **Menu Control:** Adjusts the camera's self-settings.
- **Spot Monitor:** Displays the selected camera on the spot monitor.
- **Edit Group:** Enter to the Edit Group mode in the split screen layout.
- **Information:** Displays currently connected camera information and recording status.


Video Recording

Video recording will only take place if all the connections are made correctly as per information contained in Part 2 of this operation manual.

For more information on video recording settings, refer to the [Record Setup on page 30](#).

Panic Recording

Select **Live** or **Search** menu's Panic Recording  icon to commence panic recording on all registered cameras.

To stop Panic Recording, select the Panic Recording  icon again. If the **Panic Recording Duration** option under **Record Setup > General** has been configured, Panic Recording will automatically terminate after the specified duration of time has elapsed. For more information, refer to the [Record Setup on page 30](#).



- Panic Recording takes place irrespective of any recording schedule set up by the user.
- Panic Recording ips, Quality, Resolution from **Record Setup – General** applies to all Panic Recording videos.



Panic Recording will not take place if recording mode is not set to **Recycle** and the HDD has reached 100% of its capacity.

Video Recording Playback

You can play back video recordings by using a mouse.




- Login with an account that has search permission is needed to playback video recordings.
- The initial video playback point in Search mode is the recording's last playback point or the end of the recording data.
- Audio playback of the selected recording is available in full screen mode only.
- Covert protection on cameras also applies to video recording playback.

Context Menu

While in Search mode, right-click on the mouse to access the Context Menu.

- **Zoom:** Zoom in.
- **Edit Group:** Enter to the Edit Group mode in the split screen layout.

Playback

- 1 Bring up **Menu** while in Live mode.
- 2 Select the Search Mode  icon.
- 3 The selected search mode will be initiated.

For more information on data search, refer to the **Part 3 - Search on page 47.**

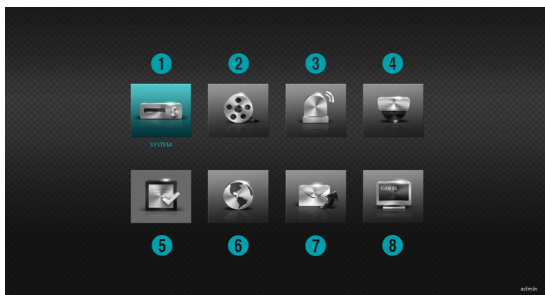
Part 2 - Configuration

Menu Use

Information contained in this section (Menu Use) applies to all other instructions found throughout Part 3 - Configuration.

Login with an ID that has permission to access the setup menu is needed to access and make changes to the Setup menu.

- 1 While in Live mode, select Live menu > Setup using the mouse.



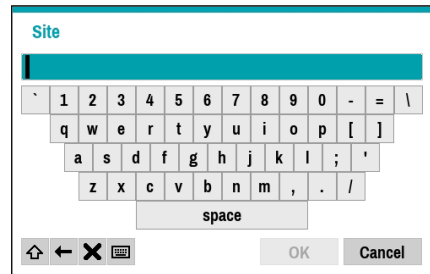
1	System Setup
2	Record Setup
3	Event Setup
4	Camera Setup
5	Status Setup
6	Network Setup
7	Notification Setup
8	Display Setup

- 2 Left-click on the option using the mouse.
- 3 Change the setting and then select **Save** to save the change.

To apply default settings, select the Default button located on the left bottom corner of the setup window.

Text Input via Virtual Keyboard

Click on the key using the mouse.



	Toggle case.
	Deletes the character to the left of the cursor.
	Deletes the character to the right of the cursor.
	Converts keyboard.

Batch Assignment

Certain table-format menus such as the shown in the **Camera Setup on page 36** allow you to change the title value. In this case, changing the title value simultaneously changes all other entry values on the same row.

Mouse

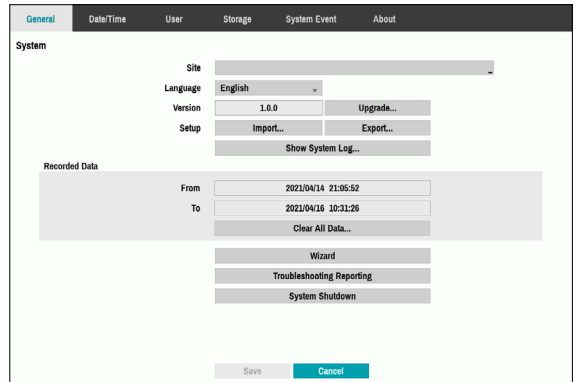
Using a mouse makes it easier to configure the settings. A mouse lets you make selections faster and use its wheel to scroll through long menus. You can also use the mouse wheel to increase/decrease numerical values.

System Setup

Refer to the **Menu Use on page 19** for basic information on using the Setup menus.

General

This Setup menu contains general system options.



- **Site:** Used to enter a description about the system's installation site (no description by default). You can edit the information using the virtual keyboard.
- **Language:** Choose a language.
- **Version:** Indicates the software version.
- **Upgrade:** Upgrade the system. Selecting the USB port displays the USB search window. You will then be able to select an upgrade package and upgrade the system. Once the upgrade is complete, the DVR will reboot automatically.



- The ".rui" indicates that the file is for software upgrades.
- If an upgrade attempt fails, an upgrade failure message will be displayed. Refer to **Error Code Types in the installation manual** for more details.





- **Setup:** Exports current DVR settings or imports existing settings.
 - **Import:** Decide whether to import network settings as well. If you do not wish to change the current network settings, do not select **Include Network Setup**.

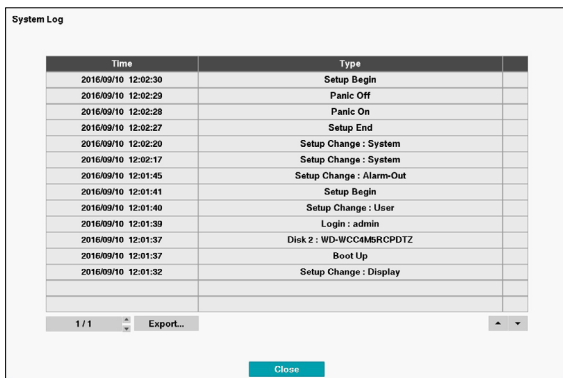
Selecting **Setup Import** does not change the settings below.

- Time-related settings (Date/Time, Time Zone, and Use Daylight Saving Time)

- **Export:** Exports the current system settings to a storage device connected to the system's USB port. You can designate a **File Name** for the export file.

 For USB flash memory devices, the DVR supports the FAT16 and FAT32 files format.

- **Show System Log:** Displays a searchable list of 5,000 most recent system log entries. For more information on types of system log entries, refer to the **System Log Types in the installation manual**. The  icon appears next to log entries originating from a remote source. To export the system log, select the **Export** at the bottom of the screen and then designate a file name.



- To export the system log information, connect the USB device to the DVR. A virtual keyboard allows you to enter the file name. Selecting **Export** will save the log information in .txt file format on the USB device.

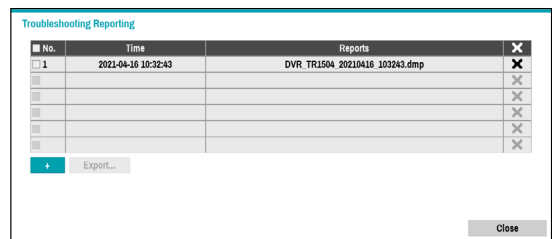


In order to display the system_log.txt file, you must use the correct character encoding settings and use a fixed-width font.

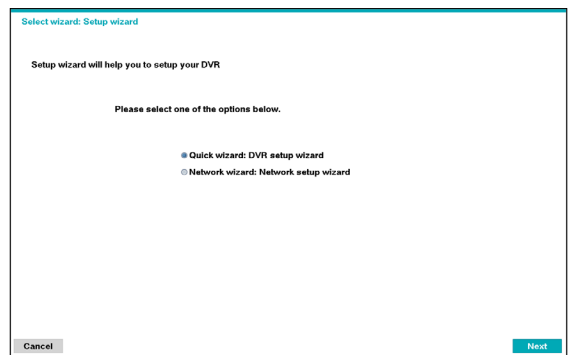
- **Clear All Data:** Erases all recording data. Selecting **Clear All Data** displays a confirmation window. Select **Clear** to proceed.

- Before you perform **Clear All Data**, make sure you are not accidentally deleting important data. Erased data cannot be recovered.
- **Clear All Data** does not affect the system log. Instead, the **Clear All Data** event will be added to the log.

- **Wizard:** Lets you configure basic settings required for operating the system.
- **Troubleshooting Reporting:** Generates a report to troubleshoot any issues, and exports the report.



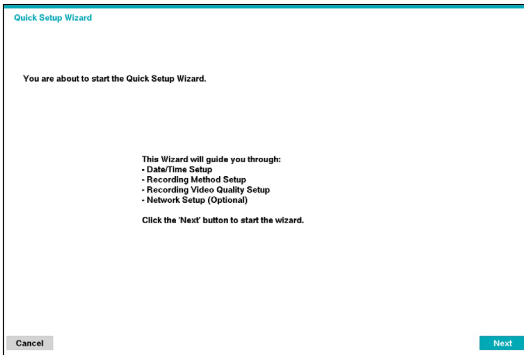
- 1 Select the desired Setup Wizard option and click **Next**.



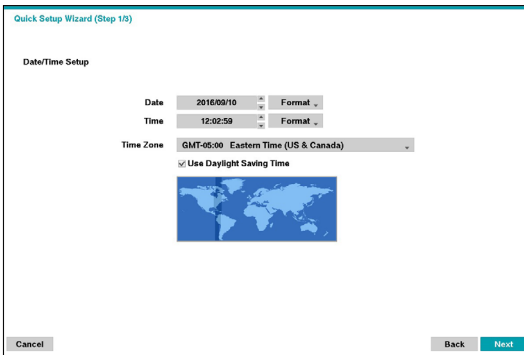
- Select **Cancel** from any of the Wizard screen to cancel the setup process and return to the main setup menu.

Quick Wizard

1 Select Quick Wizard.

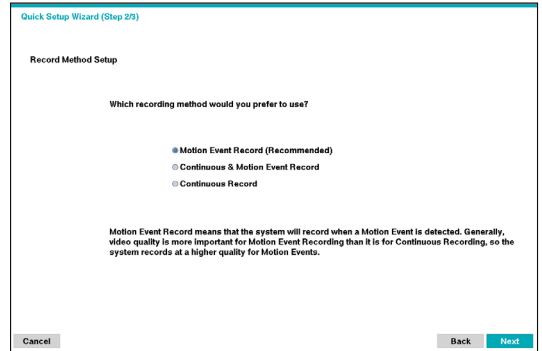


2 Specify the current date and time and then click **Next**.

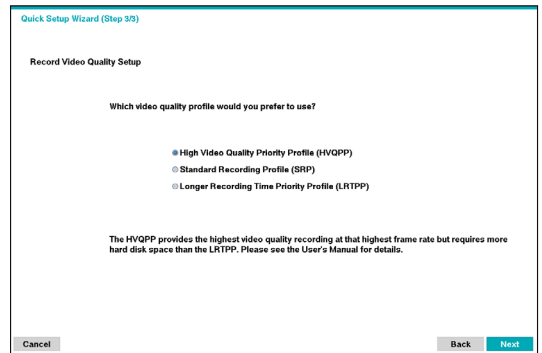


- The new date and time settings will only be applied after clicking **Next**.
- For more information on date and time settings, refer to the **Date/Time** section under **System Setup on page 20**.

3 Choose the desired **Recording Method** and click **Next**.



4 Choose the desired **Recording Quality** and click **Next**.

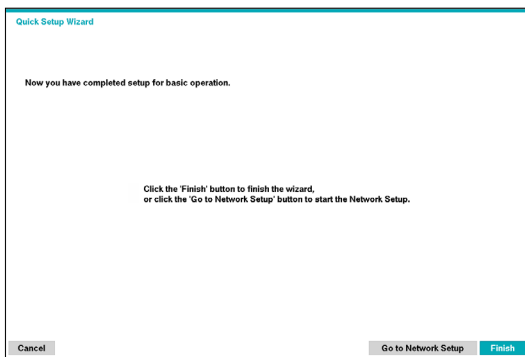


Higher recording quality uses up more disk space.

- Recording ips, quality, resolutions used under each recording method and record video quality setting are as follows:

	High Video Quality Priority Profile	Standard Recording Profile	Longer Recording Time Priority Profile
Motion Event Record	Very high, Very high, 30 ips	High, Very High, 15 ips	Standard, High, 5 ips
Continuous & Motion Event Record	Very high, Very high, 30 ips (Time/Event)	Time: High, Very High, 15 ips Event: Very High, Very High, 30 ips	Time: Standard, High, 5 ips Event: High, Very High, 15 ips
Continuous	Very high, Very high, 30 ips	High, Very High, 15 ips	Standard, High, 5 ips

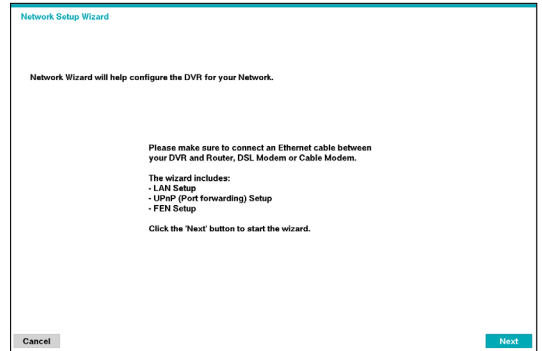
5 Click **Finish** to exit Quick Wizard.



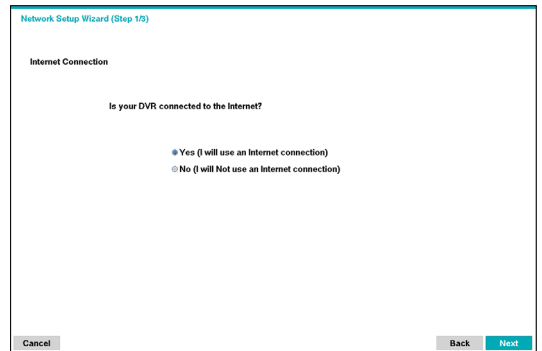
Network Wizard

- After exiting from Quick Wizard, you can click **Go to Network Setup** and set up the network with Network Wizard.

1 Select Network Wizard.

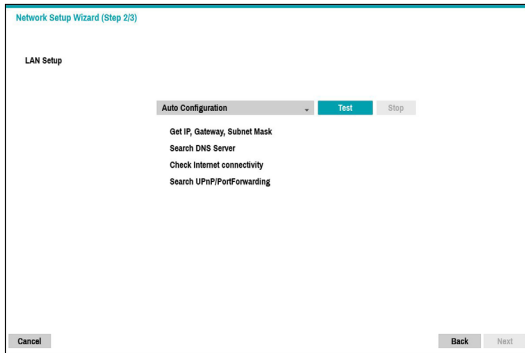


2 Specify whether the system is connected to the Internet and click **Next**.



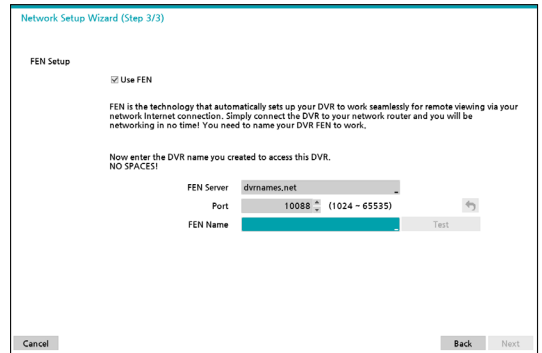
- If you have chosen **No**, wait for the test to finish and then click **Finish** to exit Network Wizard.

- 3 Select Network Configuration and then click **Next**. Select either Auto Configuration or Manual Configuration and then click **Test** to test the system's current network configuration.



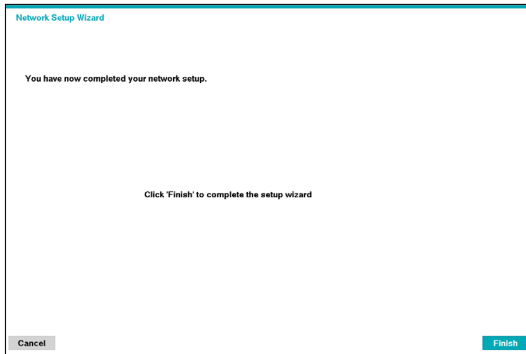
- This test must be performed before proceeding to the next step.
- If the DVR is on a network connected to a network that has a DHCP server, selecting **Auto Configuration** retrieves LAN settings such as IP and DNS addresses automatically. Selecting **Manual Configuration**, on the other hand, lets you specify the settings manually.
- **UPnP support device not found.** If this error message is displayed, check to see if the IP router (or NAT) supports UPnP and if UPnP has been enabled. For more information about the router's UPnP function, refer to the router's operation manual.

- 4 Enter in the **FEN Name** field the DVR name to be registered on the FEN server and then click **Check** to check its availability.



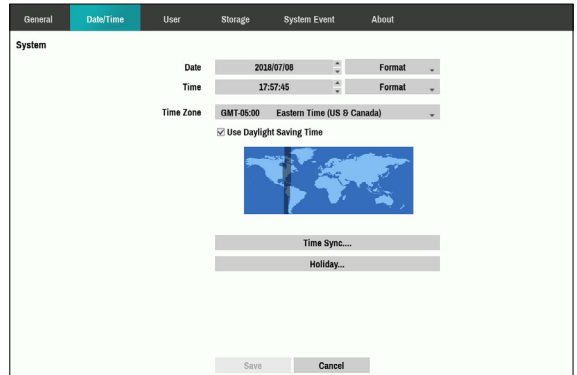
- The FEN name you register on the FEN server will be a unique name used to identify the DVR. Once registered, the name can be used to access the DVR directly from clients such as the IDIS Center. Check the name's availability to complete the registration process. The Finish button will then become activated.
- You will be prompted with an error message if you do not enter a name for the DVR or enter a name already registered on the FEN server.
- Depending on the network environment, FEN services may not be active and therefore prevent the DVR from connecting to the network. In this case, you will need to manually configure the ports. For more information on port configuration, refer to **Network Setup on page 41**.

5 Click **Finish** to exit Network Wizard.



• **System Shutdown:** Shuts down the system. When prompted, select **System Shutdown**.

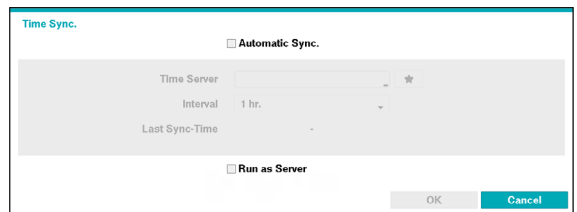
Date/Time




- **Date:** Used to change the system's date setting.
- **Time:** Used to change the system's time setting.
- **Date Format/Time Format:** Used to change the system's date and time formats.
- **Time Zone:** Used to designate the system's time zone.

Refer to the map displayed on the screen and change the time zone using the mouse or the arrow buttons.

- **Use Daylight Saving Time:** Enables DST correction.
- **Time Sync.:** Select a time server for the system to synchronize with.



1 Select **Automatic Sync.**

- 2 Enter the **Time Server's** IP address or domain name or select  and then choose a server from the list of registered time servers.

3 Specify the server synchronization **Interval**.

4 Select **OK** to apply and exit.

- If you have configured the DNS Server setting under **Network - IP Address**, you can enter the time server's domain name instead of its IP address.
- Selecting **Run as Server** sets the current DVR as a time server for other DVRs within the system.
- **Holiday**: Designate holidays. On specified holidays, recording takes place according to the holiday recording schedule specified under Record Schedule.

1 Select the + button at the bottom of the window.

2 Select a date.

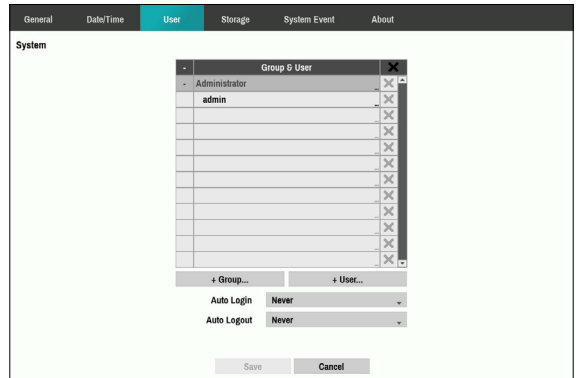
3 Select **OK** to apply and exit.



- Select the icon to delete the existing holiday date.

User

Use this option to register users and assign permissions.

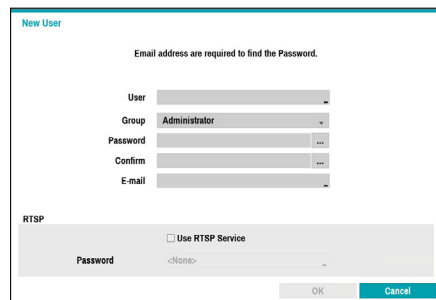


1 Select + **Group** and enter a group name. A group name can be up to 15 characters in length.

2 Specify the group's permission settings. For more information on permission settings, refer to the **Group Permissions on page 27**.



3 Select + **User** and then enter a user name.



4 Select a **User** for the user and then enter a



password. The password can be 8~16 characters in length and may include numbers.

5 Select **OK**.

6 Configure **Auto Login** and **Auto Logout** settings.

7 Select **Save** to exit.



- Group names, user names, and passwords can be entered using the virtual keyboard. For more information on using the virtual keyboard, refer to the **Text Input via Virtual Keyboard on page 19**
- To delete a registered user or group, select the  icon on the right of the corresponding user/group. **Group Administrator** and **User admin** cannot be deleted.
- Select the  icon next to **Group & User** on the top of the screen to delete all groups and users except **Group Administrator** and **User admin** simultaneously.
- A password entry is required to edit existing groups and users.
- **Group Administrator**'s permissions cannot be changed.
- With the **User admin** account, only the password can be changed.
- When the system starts up, it will automatically log into the account designated under **Auto Login**.
- The system will automatically log out of the account if the duration of inactivity specified under **Auto Logout**.

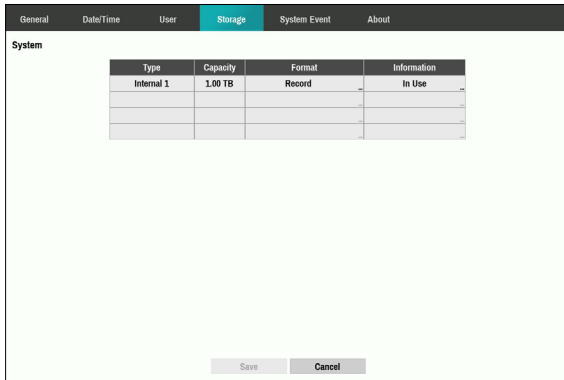
Group Permissions

System Shutdown	May shutdown the system from the system menu.
Upgrade	May upgrade the system from the system menu (System Setup).
Color Control	May adjust each camera's brightness, contrast, saturation, and hue settings.
System Check	May view System Check results.
PTZ Control (Menu Control)	May control PTZ cameras.

Alarm-Out Control		May reset in the event of an alarm-out. Alarm-outs can be reset by pressing the Alarm button on the device or selecting the Alarm-Out Control button on the remote program.
Covert Camera View		May access covert cameras in Live and Search modes.
Search	Clip Copy	The user who has permission for Clip Copy can perform Clip Copy. If the user does not have permission, Clip Copy is not allowed but only search is allowed.
Setup	System Time Change	May change the system's date and time settings.
	Data Clear	May clear data stored in the system.
	PTZ Setup	May configure PTZ settings.
	Covert Camera Setup	May configure covert camera settings.
	Privacy Masking Setup	May configure privacy masking settings.
	Record Setup	May configure recording settings.
	Setup Import	May import previously saved DVR settings.
	Setup Export	May export current DVR settings.

Storage

Use this option to configure storage settings.

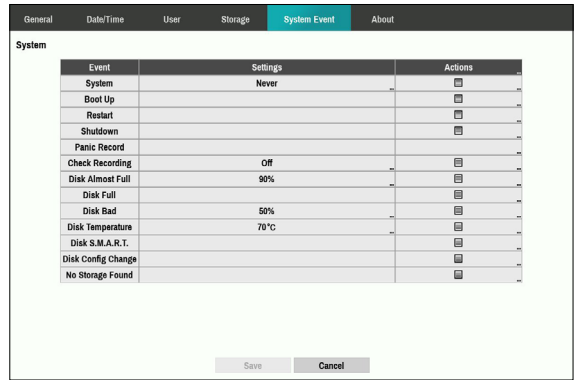


- **Type:** Indicates the type of the installed disk.
- **Capacity:** Indicates the disk's capacity.
- **Format:** If the disk has been formatted, indicates either **Record** or **Not Using**. If you have connected an unformatted storage device, the Use As value will be indicated as **Not Formatted**.
- **Information:** Indicates if the disk is being used for recording purposes. Disks that were used in different systems will show up as **Other**. Select **Information** to check the saved data's time information or select **Delete** to erase the data.

- Select **Format** to prepare the disk as a storage for data recording.
- Disks formatted with Use As set to **Not Using** will not be used for data recording.
- This DVR supports SATA2 HDDs.


System Event

Use this option to configure Monitoring settings.



- **Settings:** Configure when and what the system should monitor for.
- **Actions:** Configure notification (email, LAN1 through 5, push, alert window) settings.

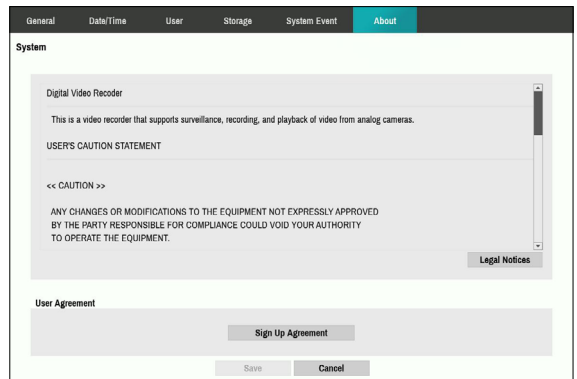
Monitoring Options

System	Define monitoring times. If self-diagnosis is not performed on a regular basis, the system will assume an error.
Bootup, Restart, Shutdown	Define bootup, restart and shutdown actions.
Panic Record	Define panic recording actions.
Check Recording	<p>The system will assume an error if the system has been scheduled to record normally but recording does not take place during scheduled intervals.</p> <p><input checked="" type="checkbox"/> Select Schedule On and then configure the days of the week, times, and monitoring interval. Select the + button on the bottom left of the screen to add a schedule. Select X icon to delete the schedule.</p> 
Disk Almost Full	Generates an event if the disk reaches the specified capacity (80% to 99%).
Disk Full	Generates an event when all disks reach their maximum capacity.
Disk Bad	Generates an event when the specified percentage of the disk becomes damaged. Set to between 10% and 90% in 10% intervals.
Disk Temperature	Specify the threshold temperature. Once any disk reaches this threshold, the system will issue an alert.

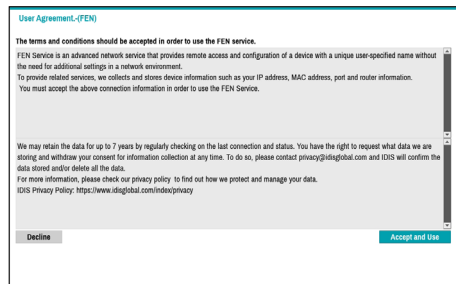
Disk S.M.A.R.T.	Monitors disks that support S.M.A.R.T. and notifies the user if a disk error is detected.
Disk Config Change	It will be highlighted when the DVR reboots after the hard disk drive has been replaced.
No Storage Found	It will be highlighted when no hard disk drive has been connected.

- For system events, only an e-mail notification of actions can be selected.
- In order to use the Notify(Callback) feature, the DVR must be registered to the remote program on the receiving PC's end.

About



- User Agreement:** Click **Accept and Use** to agree to retaining the device data, and use the service.



- The above screen pops up when booting up.

Record Setup

Refer to the **Menu Use on page 19** for basic information on using the Setup menus.

General

Configure general recording settings.



- **Recycle:** When the recording disks become full, the system overwrites existing data with new data, starting with the oldest first. If **Recycle** is disabled, recording will simply stop when the recording disks reach their maximum capacity.
- **Event Record Dwell:** If linked recording is designated as an event-triggered action, recording takes place for the duration specified under this setting.
- **Auto Deletion:** Configure this option to delete recording data automatically after the specified number of days has elapsed. Select between 1 day and 999 days.



To disable Auto Deletion, select **Never**. If enabled, recording data will be stored on the DVR for the specified number of days and then deleted automatically. Expired recording data are deleted automatically at midnight and will be deleted even if the system reboots or the **Auto Deletion** setting has been changed.

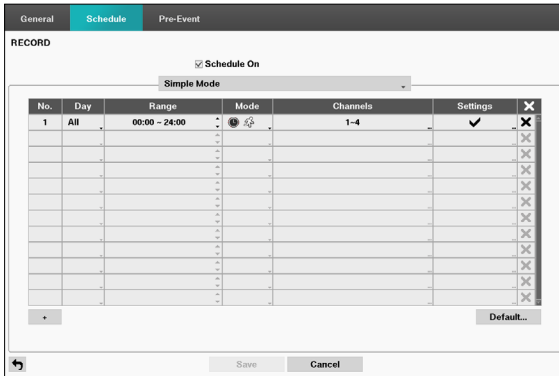
- **Limit Time-Lapse Recording:** You can store event recording data for longer. If you do not wish to use **Limit Time-Lapse Recording**, select **Never**. This function is activated when data has been stored for longer than as configured because the recording disk has sufficient capacity and saves new data by overwriting **Time Lapse Recording** data that are older than as specified under Recycle mode.



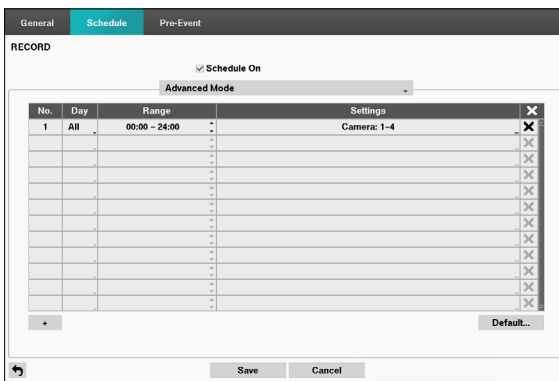
- If the recording stored on the disk is shorter than the duration specified under **Limit Time-Lapse Recording**, the older of **Event Recording** or **Time Recording** data is deleted first.
- The system's recording time may change depending on recording quality, resolution, motion, and other configurations made by the user. The duration specified under **Limit Time-Lapse Recording** may not be guaranteed in certain situations.

- **Intelligent Codec:** Automatically lowers bitrate when any motion is not detected.
- **Dual Track Recording:** Automatically records low quality sub stream in addition to the main stream. In full screen mode, the main stream is played, and in split screen mode, the sub stream is played in real-time. During dual recording, the recording icon is displayed as
- **Use H.265 Encoding:** Check to use H.265 codec, and uncheck to use H.264 codec.
- **Use Panic Recording:** Enable/disable Panic Recording.
- **Panic Recording Duration:** Disable Panic Recording automatically. Select between 5 mins and 1 hr. If you do not wish to disable the feature automatically, select **No Limit**.
- **ips:** Allow you to set the images per second for Panic recording.
- **Quality:** Allow you to set the recorded image quality for Panic recording. You can select from: Very High, High, Standard and Basic.
- **Resolution:** Allow you to set the recorded image resolution for Panic recording. You can select from: Very High, High, and Standard.

Schedule



<Simple Mode>



<Advanced Mode>

Disabling **Schedule On** suspends schedule recording regardless of the schedule and displays the on the upper left corner of each camera screen. Pressing the **Panic Record** button displays the and commences panic recording.

Set Record Schedule mode as **Simple Mode** or **Advanced Mode**. **Advanced Mode** allows you to configure a unique recording schedule for each event. Select the to delete a schedule.

- Changing the recording schedule mode suspends all active event-linked actions.
- Select the + button on the bottom left of the screen to add a schedule. Select **Day** to specify the **Day** setting or select **All**. Select **Scope** to specify the time frame.

Simple Mode Options

- Mode:** Select **No Record**, **Time**, **Event**, or **Time & Event**.

No Record	Unless the Panic Record button is pressed, no recording will take place during the scheduled time frames on the scheduled days.
Time	The appears on the upper left corner of the screen. The appears at scheduled times to indicate recording is in progress.
Event	The appears on the upper left corner of the screen. The appears when the specified event occurs to indicate recording is in progress. <input checked="" type="checkbox"/> If Pre-Event is enabled, the and icons appear when recording is not in progress, or the and icons appear when an event occurs and recording is in progress.
Time & Event	The appears on the upper left corner of the screen and recording commences as per the ips, Quality, Resolution selected for time under Setup . When an event occurs, the icon changes into icon and recording commences as per the ips, Quality, Resolution selected for events under Setup .





- Channel:** Select which cameras to apply the schedule to.
- Settings:** Select to configure default values for Time Lapse and Event Recording modes.



Advanced Mode Options

Select to configure event types.

- **Type:** Event-specific and time recording icons are as follows:

	Time Lapse (Time)		Video Loss
	Motion Detection		Alarm-In

- **ips:** Allow you to set the images per second for Time and Event recording.
- **Quality:** Allow you to set the recorded image quality for Time and Event recording. You can select from: Very High, High, Standard and Basic.
- **Resolution:** Allow you to set the recorded image resolution for Time and Event recording. You can select from: Very High, High, and Standard.
- **Dwell:** Specify how long to record for after a corresponding event occurs.



- Upper-tier schedule's settings apply to unconfigured channels.
- If multiple events take place on a specific channel and different **ips, Quality, Resolution, and Dwell Time** settings apply, highest settings apply to all event-linked recordings.
- The resolution can be set up at a time for each event or separately for each channel of an event. When setting up at a time for each event, the following options are available: **Very High, High** and **Standard**. Selecting **Very High**, the highest resolution will be applied. Selecting **Standard**, the lowest resolution, and selecting **High**, the other resolution will be applied. When setting up separately for each channel of an event, you can select any resolution supported by the camera mode (720, 960, HD, Full HD, 3M, 4M, 5M).

<div style="border: 1px solid black; padding: 5px;"> <p>✓ (Standard)</p> <p>Very High High Standard</p> </div> <p>Event</p>	<div style="border: 1px solid black; padding: 5px;"> <p>✓ ✓ (720X480)</p> <p>720X480 720X240 360X240</p> </div> <p>720 Mode</p>
<div style="border: 1px solid black; padding: 5px;"> <p>✓ ✓ (960X480)</p> <p>960X480 960X240 480X240</p> </div> <p>960 Mode</p>	<div style="border: 1px solid black; padding: 5px;"> <p>✓ ✓ (1280X720)</p> <p>1280X720 640X360 360X240</p> </div> <p>HD Mode</p>
<div style="border: 1px solid black; padding: 5px;"> <p>✓ ✓ (1920X1080)</p> <p>1920X1080 1280X720 640X360</p> </div> <p>Full HD Mode</p>	<div style="border: 1px solid black; padding: 5px;"> <p>✓ ✓ (1920X1536)</p> <p>1920X1536 1280X720 640X360</p> </div> <p>3MP Mode</p>
<div style="border: 1px solid black; padding: 5px;"> <p>✓ ✓ (2560X1440)</p> <p>2560X1440 1280X720 640X360</p> </div> <p>4MP Mode</p>	<div style="border: 1px solid black; padding: 5px;"> <p>✓ ✓ (2560X1920)</p> <p>2560X1920 1920X1080 640X360</p> </div> <p>5MP Mode</p>

Pre-Event

When an event occurs, enabling this option includes the specified duration prior to the event in the event-triggered recording.

No.	ips	Quality	Resolution	Dwell
1	5.00 ips	Standard	720X480	00 min. 05 sec.
2	5.00 ips	Standard	720X480	00 min. 05 sec.
3	5.00 ips	Standard	720X480	00 min. 05 sec.
4	5.00 ips	Standard	720X480	00 min. 05 sec.

- **No.:** Select which cameras to apply Pre-Event to.
- **ips, Quality, Resolution:** The image quality can be selectable from Very High, High, Standard and Basic, and image resolution can be selectable from Very High, High, and Standard.
- **Dwell:** Specify the duration of pre-event recording data.

- If no event mode schedule exists in the schedule, a warning message prompting you to add an event mode schedule will be displayed.
- The warning message will appear even in **Time & Event** mode.

Event Setup

Refer to the **Menu Use on page 19** for basic information on using the Setup menus.

Motion

No.	Sensitivity	Zone	Min. Blocks	Ignoring Interval	Actions
1	3/3	300	1/1	Never	☐, ☐
2	3/3	300	1/1	Never	☐, ☐
3	3/3	300	1/1	Never	☐, ☐
4	3/3	300	1/1	Never	☐, ☐

- **No.:** Select which cameras to apply Motion Detection to.
- **Sensitivity:** Set daytime and nighttime sensitivity settings between 1 (Low) and 5 (High).

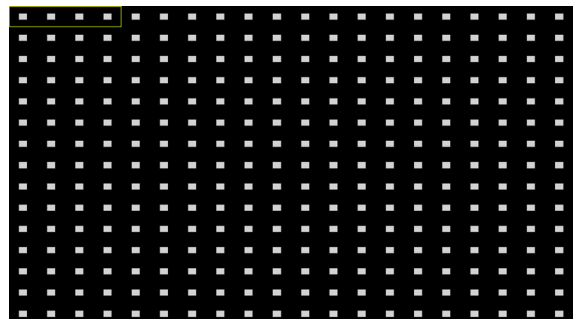
Motion Detection 1 - Sensitivity

Daytime: 3

Nighttime: 3

OK Cancel

- **Zone:** Define the motion detection block.

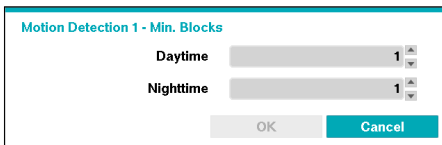


You can use the mouse to drag the zone and then select, clear, or reverse the selection.

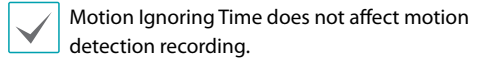
Right-click on the mouse to open up the Zone Setup menu.



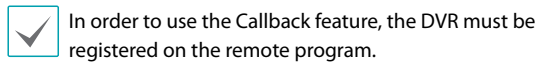
- **Select:** Confirm the block selection in the selection window.
 - **Clear:** Clear the block selection in the selection window.
 - **Reverse:** Clear the blocks selected within the selection window and select all unselected blocks within the selection window.
 - **Select All:** Select all blocks.
 - **Clear All:** Clear all block selections.
 - **Reverse All:** Clear all selected blocks within the screen and select all unselected blocks within the screen.
 - **OK:** Save the changes and exit the menu.
 - **Cancel:** Exit the menu without saving the changes.
- **Min. Blocks:** Motion needs to be detected in more than the specified number of blocks in order to trigger a Motion Detection event. You may select a value between 1 and the number of blocks selected under **Zone** for daytime and nighttime, each.



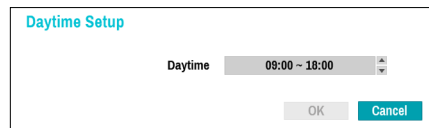
- **Motion Ignoring Time:** The system does not produce event log entries or issues remote notifications regarding motion detected during the specified time following the initial motion detection. Set a value between 1 sec and 10 secs or choose Never.



- **Actions:** Specify which actions to take when motion is detected.
 - **Record:** Specify which cameras to begin linked recording on when an event occurs. If the schedule is set to Event or Time & Event mode, the selected cameras will begin linked recording when an event occurs.
 - **Notify:** Configure to be notified of events by Mail, LAN1 through 5, Push, and/or Alert Window.
 - **PTZ:** Moves the PTZ camera to a specific preset position when an event occurs.



- **Daytime Setup:** Specify when daytime starts and ends. Adjust the time frame in 15-minute increments. Times outside the specified range will be assumed as nighttime by the system.



Alarm-In

Motion Alarm-In Video Loss			
Event			
No.	Title	Type	Actions
1	Alarm-In 1	NO	☐, ☐
2	Alarm-In 2	NC	☐, ☐
3	Alarm-In 3	NC	☐, ☐
4	Alarm-In 4	NC	☐, ☐

Save Cancel

- **No.:** Enable / disable alarm-ins.
- **Title:** Use the virtual keyboard to enter titles.
- **Type:** Change the alarm-in type.
- **Actions:** Specify which actions to take when Alarm-In is detected.
 - **Record:** Specify which cameras to begin linked recording on when an event occurs. If the schedule is set to Event or Time & Event mode, the selected cameras will begin linked recording when an event occurs.
 - **Alarm-Out:** Designate event-triggered alarm-out channels and beeps.
 - **Notify:** Configure to be notified of events by Mail, LAN1 through 5, Push, and/or Alert Window.
 - **PTZ:** Moves the PTZ camera to a specific preset position when an event occurs.

In order to use the Callback feature, the DVR must be registered on the remote program.

Video Loss

Motion Alarm-In Video Loss		
Event		
No.	Video Loss Interval	Actions
1	0.1 sec.	☐
2	0.1 sec.	☐
3	0.1 sec.	☐
4	0.1 sec.	☐

Use Ignoring Time Time Setup

Save Cancel

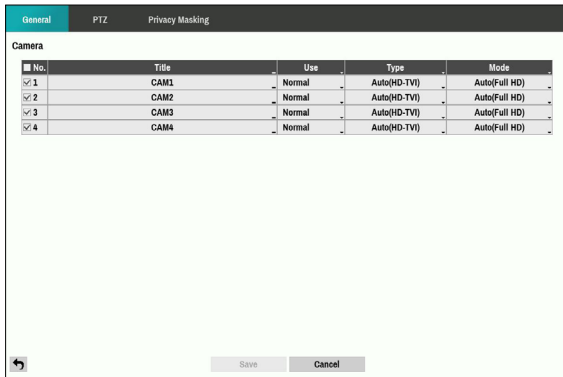
- **Video Loss Interval:** The system does not produce event log entries or issues remote notifications regarding video loss detected during the specified time following the initial video loss detection. Set a value between 0.1 sec and 15 secs or choose Never.
- **Actions:** Specify which actions to take when a Video Loss event occurs.
 - **Record:** Specify which cameras to begin linked recording on when an event occurs. If the schedule is set to **Event** or **Time & Event** mode, the selected cameras will begin linked recording when an event occurs.
 - **Notify:** Configure to be notified of events by Mail, LAN1 through 5, Push, and/or Alert Window.
 - **PTZ:** Moves the PTZ camera to a specific preset position when an event occurs.
- In order to use the Callback feature, the DVR must be registered on the remote program.
- **Use Ignoring Time:** Select **Time Setup** to specify the video loss detection ignore time. Video loss detection will be disabled during the specified time frame.

Camera Setup

Refer to the **Menu Use on page 19** for basic information on using the Setup menus.

General

Enable/disable the covert view and rename cameras.

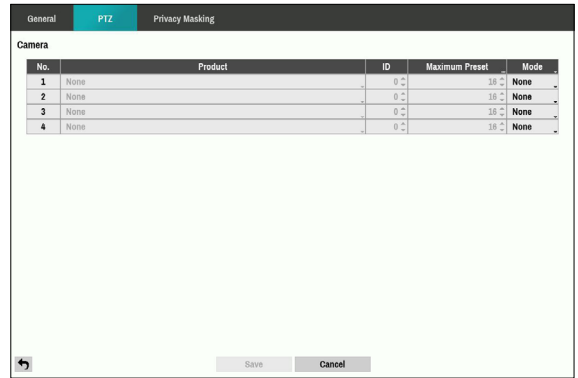


- **No.:** Turn the camera number On or Off.
- **Title:** Edit the camera's name.
- **Use:** Set the camera as **Normal**, **Covert 1**, or **Covert 2**.
Live images and video recordings from cameras that have been set as **Covert 1** or **Covert 2** will not be available to users who do not have covert camera access. Setting a camera as **Covert 1** hides its images but does display OSD information about the camera. Setting a camera as **Covert 2** hides its images as well as OSD information about the camera as if it has been deactivated completely.
- **Type:** Select the type supported by the camera among Auto, SD, HD-TVI and AHD. Selecting **Auto** allows the DVR to automatically detect the type supported by the camera.
- **Mode:** Select the width resolution supported by the camera among Auto, 720, 960, HD, Full HD, 3MP, 4MP and 5MP. Selecting **Auto** allows the DVR to automatically detect the width resolution supported by the camera.

When selecting **Auto**, the 720, HD and Full HD mode are supported. The input resolution is applied without rebooting the system. If the camera's width resolution is 960 and **Mode** is set to **Auto, 720** mode will be applied.

PTZ

You will only be able to set up PTZ devices if the PTZ port is set to RS232 or RS485.



- **Product:** You can select the PTZ camera you wish to configure.
- **ID:** You can assign IDs to each camera by highlighting the box under the ID heading. Change the number by highlighting it and using the Up and Down arrow buttons to increase and decrease the number. The PTZ ID number can be set from 0 to 256.

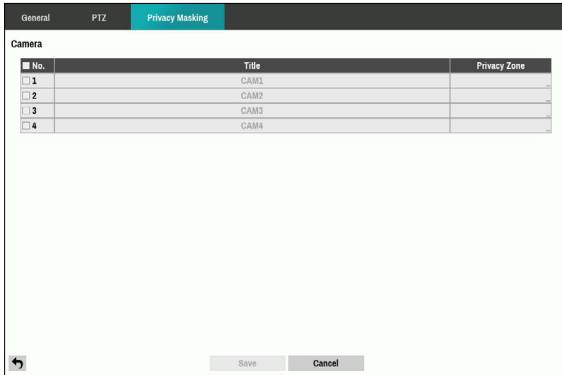


<UTC>

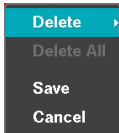
- **Mode:** Select **None** or **UTC**. UTC is only used for HD and Full HD cameras.

Privacy Masking

Configure privacy masking zone for Live and Recording screen.



- **No.:** Turn on/off the camera number.
- **Privacy Zone:** Display the full screen live mode of the channel, and you can configure the privacy zone area by dragging on the area with the mouse (The privacy masking zone can be configured up to 4 areas).



- **Delete:** Delete the selected privacy masking area.
- **Delete All:** Delete the all privacy masking area.
- **Save:** Save the changes and exit the privacy masking area options screen.
- **Cancel:** Exit the privacy masking area options without saving the changes.

Device Setup

Refer to the **Menu Use on page 19** for basic information on using the Setup menus.

Audio



The DVR can record up to four audio inputs. A list of cameras appears, and you can select which camera you want associated with that audio input.

Alarm-Out

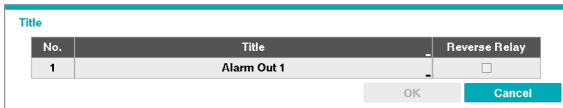


Select the + icon at the bottom left corner of the screen to add a schedule.

You can apply different schedules for different **Days** of the week.

Select **X** icon to delete the schedule.

- **Dwell Time:** Select a value between 5 secs and 15 mins as the alarm-out duration.
- **Title:** Designate a name for the alarm-out.



– **Reverse Relay:** Reverse the alarm-out type connected to the DVR rear panel (NO→NC).

- **Range:** Change the schedule time frame.
- **Mode:** Select **Event**, **On**, or **Off**.

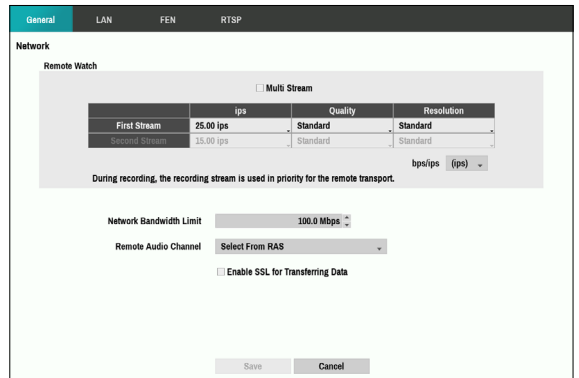
Event	Generates an alarm-out when an event occurs.
On	Alarm-out is always on.
Off	Alarm-out is always off.

- **Channels:** Configure alarm-out port and beep settings.

Network Setup

Refer to the **Menu Use on page 19** for basic information on using the Setup menus.

General



- **Multi Stream:** Supports more than one stream. Configure to use different streams in layout mode or channels in IDIS Center Client.



During playing, the transfer speed can be low.

- **First Stream:** It is transferred to as the recording schedule during local recording, otherwise, it is transferred as the first stream schedule.

- **bps/ips:** Select the Transfer Speed from 1Mbps to 100Mbps and the unit of measure for the transfer speed between: bps and ips. The available value differs depending on the quality and resolution settings.
- **Quality:** Select the Quality from: Very High, High, Standard and Basic.
- **Resolution:** Select the Resolution from: Very High, High and Standard.

✓ The higher Quality and Resolution settings require higher Transfer Speed settings. The transfer speed you set is the maximum speed. Depending on the network environment, this speed may not be achieved.

- **Network Bandwidth Limit:** Configure the bandwidth to limit.

✓ If you configured the **Network Bandwidth Limit**, the live video may not be displayed smoothly in a remote program.

- **Remote Audio Channel:** Transmits the selected channel's audio to the remote program. Select **Select From Client** to stream audio of the channel selected on the remote program.

✓ Audio skipping and sync issues can occur under poor network conditions.

- **Enable SSL for Transferring Data:** Applies SSL (Secure Sockets Layer) protection on remote viewing and recording data transmissions.

- ✓
 - If using the SSL feature, it will not be possible to connect to the DVR from a remote program or a network keyboard that does not support SSL.
 - Changing the SSL setting temporarily severs all remote connections to the DVR in order to apply the change.
 - This product contains content developed by OpenSSL Project for use in Open SSL Toolkit (<http://www.openssl.org/>).

LAN

Designate the IP address type as **Manual** or **DHCP**.

Manual

The screenshot shows the 'LAN' configuration page with the 'Manual' tab selected. The 'Type' is set to 'Manual'. The configuration fields are as follows:

Field	Value
IP Address	192.168.1.129
MAC Address	00:03:23:38:9A:ED
Gateway	192.168.1.254
Subnet Mask	255.255.255.0
DNS Server	0.0.0.0

Below these fields is the 'Port Number Setup...' section, which includes a 'Use UPnP' checkbox and a 'Status' field. A 'Test' button is located below the port setup section. At the bottom of the page are 'Save' and 'Cancel' buttons.

- Set **Type** to Manual.

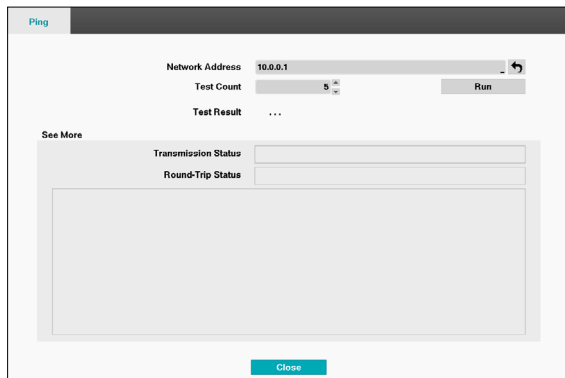
✓ **Manual** lets you configure related settings manually. Configure **IP Address**, **Gateway**, and **Subnet Mask** settings manually using the mouse wheel.

- **DNS Server:** Enter the DNS server's IP address. The IP address can also be entered using the mouse wheel.
- **Port Number Setup:** Change the numbers by highlighting them and using the Up and Down arrow buttons to increase or decrease the number. The factory default Port settings are: 8200(Remote Admin), 8201(Remote Callback), 8016(Remote Watch), and 10019(Remote Search).

✓ You will need to get the appropriate Port Numbers for each IDIS Center and IDIS Web related program (Admin, Callback, Watch and Search) from your network administrator.

To use the **UPnP** (Universal Plug and Play) feature, select **Use UPnP**. If using an IP router (or NAT), UPnP service allows the device to automatically forward the port to the DVR.

- This port is used to access a port that has a private IP address.
- In order to use the UPnP service, the IP router (or NAT) must support UPnP port forwarding and have the relevant options enabled.
- Port number cannot be changed with **Use UPnP** selected.
- **Status:** Indicates the number of the port forwarded by the IP router (or NAT) to the DVR via UPnP service.
- **Test:** Select to test the current LAN settings you made.

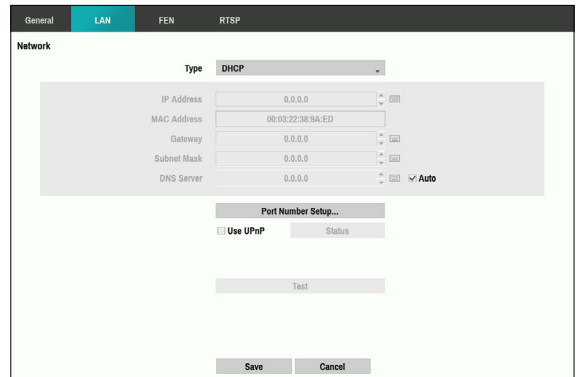


- 1 Enter the address of the DVR to test.
- 2 Adjust the frequency of the ping test.
- 3 Select **Run** to do the test. The test result is displayed.
- 4 Select **Close** to exit.

- If using a firewall, select Change Port to change the port number to one that is permitted by the firewall.
- Changing the port temporarily severs the DVR's remote connection.

Remote point IP and port settings on the remote program must also be changed in order for it to connect to the DVR.

DHCP



Select **DHCP** and then **Save** to retrieve IP address and other network settings automatically from the DHCP server. Once the network settings have been retrieved, the DVR's current IP address is displayed in the IP Address field.

- It may not be possible to retrieve the IP address if there is no DHCP server. If this is the case, contact your network administrator.
- With DHCP, the DVR's IP address might change with each startup.

There is a limit to the number of users allowed to connect remotely at the same time. Contact the service center for more information.

FEN

If using a dynamic IP address, FEN service makes it easy to connect to the DVR from a remote program without having to configure dynamic IP or router settings.

- **Use FEN:** Check if you wish to use FEN service.
- **FEN Server:** Enter the FEN server's IP address or domain name.

If you have configured the DNS Server setting under **Network - IP Address**, you can enter the FEN server's domain name instead of its IP address in the **FEN Server** field.

- **Port:** Specify the FEN server's port number.

If using an IP router (or NAT), port configuration and other network functions will depend on the usage method of the IP router (or NAT).

- **FEN Name:** After entering the DVR name you wish to register on the FEN server, check and register the entered name. This is a unique DVR name that will be registered on the FEN server.



- You will not be able to save FEN settings unless you click on the Check button next to the DVR Name field and check the entered name's availability.
- You will be prompted with an error message if you do not enter DVR name or enter a name already registered to the FEN Server.
- If the FEN name contains the #, \, and/or % symbol, it might not be able to connect to the DVR from the IDIS Web program.

- **Status:** Used to check the status of the device being registered to the FEN server.

Select **Save** after making changes to register the DVR's name to the FEN server.



If FEN has been configured correctly, the FEN server's help desk information will be displayed in the **Help Desk** field the next time you access the FEN Setup screen.

RTSP

RTSP service allows you to monitor real-time using the Real-Time Streaming Protocol.



- **RTSP Port:** Set the port number of the RTSP server obtained from your system administrator.
- **RTP Port:** Set the start/end port number of the RTP server obtained from your system administrator.



- You can access a remote DVR and monitor live video images using media players, such as VLC Player, supporting RTSP service. Start the media player on your local PC and enter "rtsp://ID:Password@IP address:RTSP port number/trackID=channel number&streamID='stream number'".
- Some media players might not play video properly depending on network conditions.
- RTSP service might not be supported, depending on the type of media player.

Key	Function
← or h	Pressing the ← or h key moves to the left in the menu. It is the same as pressing the Left arrow button on the front panel.
→ or l	Pressing the → or l key moves to the right in the menu. It is the same as pressing the Right arrow buttons on the front panel.
↑ or k	Pressing the ↑ or k key moves up in the menu. It is the same as pressing the Up arrow button on the front panel.
↓ or j	Pressing the ↓ or j key moves down in the menu. It is the same as pressing the Down arrow button on the front panel.
m or Windows	Pressing the m or Windows key displays the Live Monitoring menu or Search menu on the screen. It is the same as pressing the MENU button on the front panel.
Enter or Return	Pressing the Enter or Return key selects the highlighted item or completes an entry that you have made during system setup. It is the same as pressing the Play/Pause button on the front panel.
d or PageUP/ PageDown	Pressing the d or PageUp or PageDown key toggles between different display formats. It is the same as pressing the LAYOUT button on the front panel.
c or Home	Pressing the c or Home key allows you to copy video clips.
F5	Pressing the F5 key refreshes the current VNC screen.

Notification Setup

Callback

Configure Callback settings.

- **LAN:** Enter the IP address of the receiving server and set **Retry** to between 1 and 10 in case of connection failure.
- **Push:** Send out event-related messages to mobile phone.

- Enable to receive the event occurred in DVR on the mobile phone(Android, iOS). The DVR must be registered and set in mobile phone.


Mail

Configure Mail settings.

- **+Group:** Add a recipient group and select the image file format attached to an email.


A virtual keyboard appears allowing you to enter the Group name. You can select among JPG, and MP4. When selecting JPG, the DVR will attach the event detected image file (JPEG format) to an email. When selecting MP4, the DVR will attach the event detected video clip (MP4 format) to an email.

- **+Mail:** Add a mail recipient.

Assign the Recipient to a Group and enter the Recipient's Display Name. Enter the recipient's e-mail address and mail server provider. Select the  icon to select the mail server provider from a list of registered SMTP mail server providers.

- The recipient's mail address must be in the correct email format and contain the @ symbol.

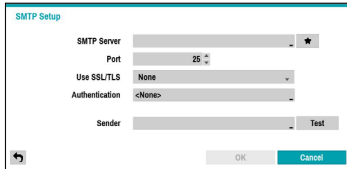
Select the **Attach Type** icon to attach event recordings to outgoing mails.

Select the  icon to remove the account.

SMTP Setup

Select **SMTP Setup** at the bottom right corner of the screen to configure an SMTP server.

1 Enter the **SMTP Server's** IP address or domain name and then configure the **Port** and **Sender** settings.



Default SMTP server port number is **25**. Select **Test** to send out a test mail using the current settings. Select **SSL/TLS** or **STARTTLS** to use an SMTP server that requires SSL connections.

- If you have configured the DNS Server setting under **Network - IP Address**, you can enter the SMTP server's domain name instead of its IP address in the **SMTP Server** field.
- Select the icon to select the mail server provider from a list of registered SMTP mail server providers.
- Address entered under **Sender** must be in the correct email format and include the @ symbol.

If user authentication is required by the SMTP server, select **Use** and then enter the **User** and **Password** information.



2 Select **OK** to apply and exit.

- This product contains content developed by OpenSSL Project for use in Open SSL Toolkit (<http://www.openssl.org/>).

Schedule

Select the + icon at the lower left corner of the screen to add a notification schedule.



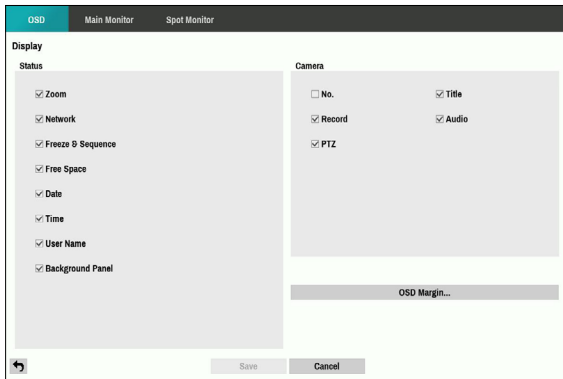
- Day:** Add different schedules for different days of the week.
- Range:** Change the event notification time frame.
- Notify:** Select which notifications to generate when an event occurs. Select **Mail, LAN 1 through 5, Push, and/or Alert Window**.
- In order to use the **Notification** (Callback) feature, the DVR must be registered on the remote program.
 - Select the icon to delete the existing schedule.
- Summary Email Interval:** Transmit event summary emails to a remote destination at specified intervals.

Display Setup








Refer to the **Menu Use on page 19** for basic information on using the Setup menus.

OSD


Show OSD (On Screen Display) information on the bottom of the screen.



Status

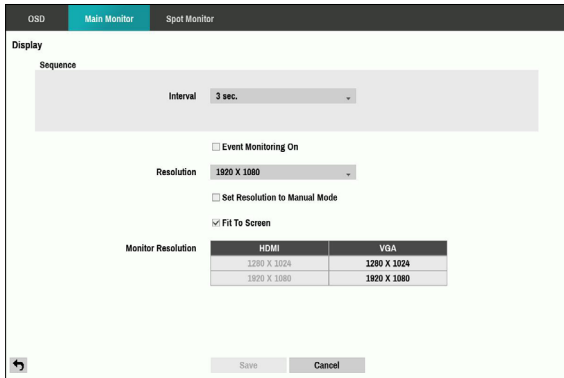
- **Zoom:** The icon  displays on the enlarged video.
- **Network:** The icon  displays when the unit is connected to a network via Ethernet. The icon  displays on each camera when audio communication is available between the DVR and a PC running IDIS Center via Ethernet. The icon  displays when VNC service is running.
- **Freeze & Sequence:** The icon  displays while in the Freeze mode, and the icon  displays while in the Sequence mode.
- **Free Space:** The icon  displays when the DVR is in the Recycle mode, and the percentage of available storage space displays when the DVR is not in the Recycle mode.
- **Date and Time:** Displays the date and time.
- **User Name:** Displays the name of the current user logged in.
- **Background Panel:** Displays the background panel at the bottom of the screen in translucent black.

Camera

- **No.:** Displays the camera number on the upper left corner of the camera screen.
- **Title:** Displays the camera name on the upper left corner of the camera screen.
- **Record:** Displays recording and schedule icons.
- **PTZ:** Displays the  icon on PTZ cameras.
- **OSD Margin:** Displays how OSD text will be displayed on the monitor. You can adjust the horizontal and vertical margins so that text and icons will not be hidden beyond the edges of the monitor.

Main Monitor

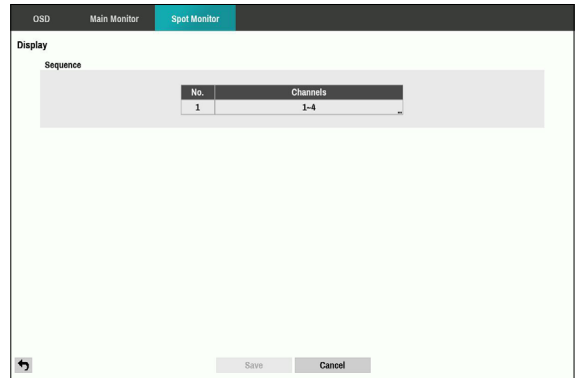
Configure monitor-related settings.



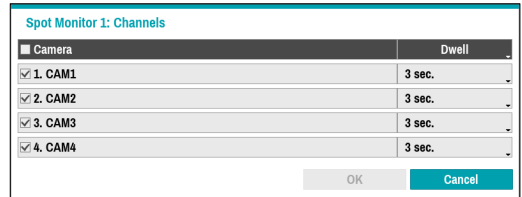
- **Interval:** Select between 1 secs and 1 mins. For more information on Sequence, refer to the **Sequence on page 10**.
 - **Event Monitoring On:** With Event Monitoring enabled, video feed from the camera configured to start recording when an event occurs is shown on the screen. For more information on Event Monitoring, refer to the **Event Monitoring on page 15**.
 - **Resolution:** Select 1920 x 1080, 1280 x 1024.
 - **Set Resolution to Manual Mode:** Set the resolution manually regardless of the resolution supported by the monitor.
- Supported resolutions may be restricted depending on the monitor.
- We recommend that you use 1920 x 1080 resolution.
- **Monitor Resolution:** Displays the resolution information of monitors currently connected to the DVR.

Spot Monitor

Configure spot monitor-related settings.



Connect the spot monitor using the BNC cable. Select the box in the **Channels** column.



You can define which cameras display sequentially on the spot monitor when in the single-screen display format. Selecting the box under **Camera** toggles between On and Off. You can adjust the display dwell time by selecting the box under **Dwell**. You can select dwell intervals ranging from 1 to 20 seconds.

Part 3 - Search

Searching Video

While in the search mode, pressing the **MENU** button displays the following Search menu on the right edge of the screen. Pressing the **MENU** button again hides the menu. You can navigate through menus and items by pressing the arrow buttons.

Search Menu



- ① **Search**
Search by changing between Event Log Search and Record Table Search.
- ② **Go to**
 - **Go to the First:** Displays the first recorded image.
 - **Go to the Last:** Displays the last recorded image.
 - **Go to the Date/Time:** Displays the Go to the Date/Time screen.
- ③ **Bookmarks**
Add the current playback point to the bookmark list.
 - The maximum number of bookmarks that can be saved is 64.
- ④ **Display**
Used to change the screen layout to single screen and 2x2.
 - **OSD On/Off:** Enables/disables the OSD feature.
- ⑤ ⑥ **Previous/Next Group**
Loads the previous/next screen group.
- ⑦ **Alarm**
Pressing this button while the alarm has been activated resets all DVR alarm outputs, including the built-in buzzer.
- ⑧ **Panic Record**
Use the Panic Record feature.

9 **Camera Menu**

- **Zoom:** Zoom and choosing the camera number zooms the current playback image of the selected camera on the screen. Right-click on the mouse and drag to change the orientation, and use the wheel with the left-click on the mouse to zoom in/out more precisely.
- **Audio:** Toggles audio playback On and Off. Recorded audio will be played when the DVR displays a camera with recorded audio in full screen mode.
- **Edit Group:** Enter to the Edit Group mode in the split screen layout.

The Camera Menu also can be displayed by clicking the right mouse button on the screen while in the search mode.

10 **Export**

- **A-B Clip Copy:** Designate a start point and an end point and copy the data in between.
- **Clip Copy:** Open up the Clip Copy Setup window for designating points A and B.

11 **Status**

- Allow you to check the status of the DVR's system, event status and storage.

Selecting Status will only be enabled for a user who has System Check authority.

12 **Data Source**

- **Record:** Search recording data contained in the main recording device.

13 **Exit**

Exit the search mode and enter the live monitoring mode.

Context Menu

Right-click on the Camera screen to access the context menu.

- **Zoom:** Zoom in.
- **Edit Group:** Enter to the Edit Group mode in the split screen layout.
- **Exit Search:** Exit the search mode and enter the live monitoring mode.

Event Log Search

Select **Event Log Search** from the Search menu to bring up the Event Log Search Setup window.

Time	Type	Title
2018/07/05 23:18:09	Panic Off	
2018/07/05 23:18:08	Panic On	
2018/07/05 17:55:41	Video Loss 2	CAM2
2018/07/05 17:55:40	Video Loss 4	CAM4
2018/07/05 17:55:39	Video Loss 3	CAM3
2018/07/05 17:55:37	Video Loss 1	CAM1
2018/07/05 17:25:45	Panic Off	
2018/07/05 17:13:38	Panic On	
2018/07/05 17:10:02	Panic On	
2018/07/05 17:10:00	Panic Off	
2018/07/05 17:08:50	Panic On	
2018/07/05 17:08:01	Panic On	
2018/07/05 17:08:00	Panic Off	
2018/07/05 17:07:58	Panic On	
2018/07/05 17:08:23	Panic On	

Option... Close

Select an event to display the recording made on the selected time and date (paused state). Select the Play button in the middle of the screen to start playing back the recording. Use the screen form to load recordings from other cameras.

You can also narrow your event search by selecting the **Option...** button and setting up the new search condition.

You can uncheck the **First** and **Last** options at the top of the Event Log Search window and specify the search time frame manually.

- Select First for From and Last for To to select the entire recording from start to end.

If designating **From** or **To** settings manually, you will be able to enable/disable the **Check Time Overlap** option.

- If the system's clock has been changed and the designated **From** or **To** point exists at more than one location, you will have to choose one. Only the events that took place between the selected **From** and **To** points will be searched. If **Check Time Overlap** has not been selected, events from the entire **From** and **To** range will be searched.

Camera Filter

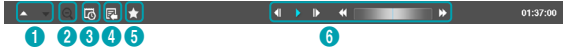
- **Alarm-In:** Select which channels to search alarm-in events in.
- **Motion:** Select which channels to search motion detection events in.
- **Video Loss:** Select which channels to search video loss events in.
- **Record Channel:** Select which record channels to search events in.

- Selected record channels are searched for events with at least one linked recording. If no camera is selected, only the events with no linked recording camera are searched.

- Use event filters to include/exclude specific system events such as **Panic Record**, **Check Recording**, **Check Alarm-In**, **Disk Almost Full**, **Disk Bad**, **Disk Temperature**, **Disk S.M.A.R.T.** and **Disk Config Change** from the search.

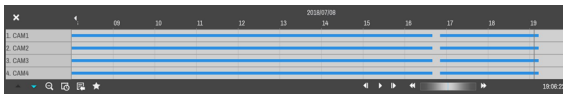
Record Table Search

Select **Record Table Search** from the Search menu to bring up the Record Table Search Setup window.



1 Record Table

Display the current channel's recording information.



Recording date and time are shown on the top of the search window. The indicator line on Record Table indicates the current playback position. Use the mouse to jump to the desired playback position.



- Farther back the data is on the record table, the more recent it is.
- If the system's clock is changed to a previous date and time, it is possible for multiple recordings with the identical time stamp to exist. Overlapped segments are highlighted in yellow.

Selecting ▲ or ▼ on the left-bottom of the search window changes the size of search window and displays Expanded view(the recording information of each camera channel), Standard view(combined recording information of all camera channels), and Compact view(only the toolbar).



Recording Data Bar Colors

Blue		Time Lapse Recording
Purple		Event Recording
Yellow		Pre-Event Recording
Red		Panic Recording

2 Zoom

Select ⊕ (zoom-in) to compose recording data in 1-minute segments and select ⊖ (zoom-out) to compose recording data in 3-minute segments. Selecting zoom-out displays more time in one screen than zoom-in screen.

If recording from points in time prior or after the time frame displayed on the screen is available, scrolls appear on both ends of the date and time information line. Scroll by dragging with the mouse to check recording data.

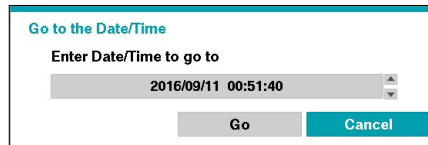
3 Calendar Search

Use the calendar to search for video recordings by specific dates.

Dates containing video recordings are highlighted in black. Selecting a date containing video recording data loads the earliest recording from that date (paused state). Selected date is highlighted in light blue.

4 Search Menu

- Go to:** Search video recordings based on date and time. Specify the date and time and then select Go to jump to the corresponding video recording.



- Clip-Copy:** Clip a video segment and saves it.
- Zoom:** Zoom the current playback image.
- Slow Play:** Search the playback screen at low speeds. Select the desired playback speed (x1/2, x1/3, x1/4, x1/6, x1/8) and then select Play.

Special characters contained in the location info (such as \, /, :, ;, ", *, ?, !, ", <, >, and |) will be replaced with _ when the information is added to the file name.

Selecting **Start** displays a calculation on the size of the data to be copied. Check the calculation and then select **Continue** to proceed. While Clip Copy is in progress, you can select **Cancel** to cancel the process or select **Close** to allow the window to run in the background. Selecting **Close** does not cancel Clip Copy. Once the process is complete, you will be prompted with a confirmation window.

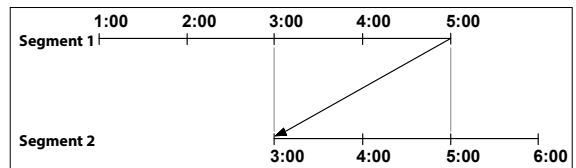
- ✔ **One-Touch Clip Copy** configures the storage range automatically based on the storage drive's capacity. If there is insufficient space available on the selected storage device, you will only be able to Clip Copy an amount of data equaling the remaining space available on the storage device.
- Clip Copying a segment that is more than 2GB in size produces multiple files that are up to 2GB in size, each.
- Clip Copy files can be played back on Windows systems. For more information, refer to the IDIS Center operation manual.
- For USB flash memory devices, the DVR supports the FAT32 file format only.

⚠ Do not disconnect the USB cable or power off the USB device while USB Clip Copy is in progress. Doing so can cause the DVR to malfunction or critically damage the external USB device's file system. You may be prompted with an error message when trying to back up on the device. If so, you will need to restart the DVR. If the USB hard disk's file system has been damaged, restarting the DVR will not solve the problem and the aforementioned error message will continue to be displayed each time you attempt a backup. If this is the case, you will need to format the HDD or use a recovery program to repair the damage to the drive's file system.

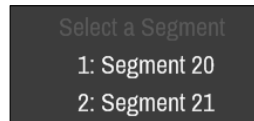
Overlapped Recording Search

If the system's clock is changed to a point in the past, overlapping recordings may be produced. Overlapped recordings have to be searched in segments.

For example, making a recording from 1 o'clock to 5 o'clock, changing the system's clock at 5 o'clock to 3 o'clock, and then continuing to record until 6 o'clock produces two recordings that overlap between 3 o'clock and 5 o'clock. This results in two segments for the period between 3 and 5.

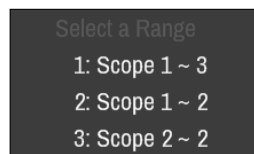


When searching overlapped video recordings, you can choose a specific point in time or a time frame. If you use the **Go to the Date/Time** option and select a point within the overlapped time period (**4 o'clock**, for example), you must specify **4 o'clock** in which of the two existing segments.



If you use the **Event Log Search** or **Motion Detection** option and select a time frame within the overlapped time period (**4 o'clock to 5 o'clock**, for example), you must choose between the two redundant sets of From and To values. Selectable search ranges are as follows:

- 4 o'clock in segment 1 to 5 o'clock in segment 1
- 4 o'clock in segment 1 to 5 o'clock in segment 2
- 4 o'clock in segment 2 to 5 o'clock in segment 2



Part 4 - Appendix

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